



system

AEROX HIGH-DURATION AVIATION OXYGEN SYSTEMS

Add to your flying comfort by using oxygen at altitudes as low as 5000 ft. Aerox Oxygen Systems include lightweight aluminum cylinders, regulators, all hardware, flow meter. and nasal cannulas (masks available as option). Oxysaver oxygen saving cannulas & Aerox Flow Control Regulators increase

the duration of oxygen supply about 4 times, and prevent nasal irritation and dryness. Complete brochure available on request.

500 SERIES REGULATOR -AN AIRCRAFT SPRUCE EXCLUSIVE!

- Low profile
- 1, 2, & 4 place Standard Aircraft filler for easy filling
- Convenient top mounted ON/OFF valve
- Equipped with Aerox standard plug sockets
- Over pressure safety valve
- Built in cylinder pressure gauge

COMPLETE AEROX SYSTEMS (ADJUSTABLE FLOW)

Part No.	Model	Description	Price
13-18895	1A	1 outlet, 6 Cu Ft. Cyl. w/Flow Meter & Cannula	
13-18896	1C	1 outlet, 9 Cu. Ft. Cyl. w/Flow Meter & Cannula	
13-18897	1D	1 outlet, 13 Cu Ft. Cyl. w/Flow Meter & Cannula	
13-18898	2A	2 outlet, 6 Cu. Ft. Cyl. w/Flow Meters & Cannulas	
13-18899	2C	2 outlet, 9 Cu Ft. Cyl. w/Flow Meters & Cannulas	
13-18900	2D	2 outlet, 13 Cu. Ft. Cyl. w/Flow Meters & Cannulas	
13-18901	2E	2 outlet, 22 Cu Ft. Cyl. w/Flow Meters & Cannulas	
13-18902	2M	2 outlet, 22 Cu. Ft. Cyl. w/Flow Meters & Cannulas	
13-18903	4C	4 outlet, 9 Cu Ft. Cyl. w/Flow Meters & Cannulas	
13-18904	4D	4 outlet, 13 Cu. Ft. Cyl. w/Flow Meters & Cannulas	
13-18950	4E	4 outlet, 22 Cu Ft. Cyl. w/Flow Meters & Cannulas	
13-18906	4M	4 outlet, 22 Cu. Ft. Cyl. w/Flow Meters & Cannulas	
13-18915	6M	6 outlet, 22 Cu Ft. Cyl. w/Flow Meters & Cannulas	
13-18905	6F	6 outlet, 33 Cu. Ft. Cyl. w/Flow Meters & Cannulas	

AEROX ACCESSORIES

P/N	Description	Price
13-18910	CC Oxysaver Cannula	
13-18960	MSK-C Rebreather Mask (Child)	
13-18920	CR-A Regular Cannula	
13-18970	Metal Clamp Bracket for 13 or 22Cft cyl	
13-18930	CR-C Reg. Cannula (Child)	
13-18940	MSK-A Rebreather Mask	

AEROX BASIC RETRO FIT KIT



FITTING IDENTIFICATION CHART (Not Sold Separately)

AEROX RETROFIT KITS FOR BUILT-IN SYSTEMS OR OTHER **PORTABLES**

The Aerox® Retrofit Kit consists of 3 parts:
1.) Oxysaver® Cannula—this comfort-

able device may be used in place of your mask up to 18,000 ft. MSL. It has a conserving feature which can extend your oxygen supply by up to four times. 2.) Aerox Flowmeter/indicator this combination device conveniently reads both mask and cannula flow

rates in MSL altitude. 3.) Aerox Adjustable Flow Restrictor-a thumb screw operated needle restrictor valve allows you to precisely control flow. Shown are most of the connectors for general aviation. If you want us to supply the connector, be sure to indicate which is your type.

Model	Retrofit Kits	Part No.	Price
RK-SC	Retrofit Kit plus Scott type fitting SC	13-18992	
RK-PB-1	Retrofit Kit plus Puritan-Bennett type fitting	13-18994	
RK-PB-2	Retrofit Kit plus Puritan-Bennett type fitting	13-18995	
RK-SK	Retrofit Kit plus Sky-Ox fitting (new style)SK	13-18996	
RKCPC	Kit with CPC fitting for Cirrus	13-05152	
RK-SC	RK-SC with - Flow Meter Needle Valve Option	13-05582	

AEROX GLOW IN THE DARK FLOWMETER AND GAUGE

AEROX'S PATENTED GLO-TEC FLOWMETER - Precision Adjustable, Direct inline oxygen flow indicator with photoluminescent technology for extended night-time visbility.

PN 13-05251 AEROX'S PATENTED GLO-TEC PRESSURE GAUGE - Pressure Gauge, 0-3,000 PSI, Rear Mount, with photoluminescent technology for extended night-time visibility. PN 13-05250



AEROX PRO-02 EMERGENCY HANDHELD OXYGEN SYSTEMS

In the event that the primary oxygen system fails, the Pro-O2 provides oxygen until the aircraft can reach a lower altitude. And because Pro-O2 is refillable, there is no need to purchase replacement O2 cartridges. During short flights at altitudes between 12,500ft. MSL

and 14,000ft. MSL where maneuvering over mountains or turbulent weather is necessary, the Pro-O2 emergency handheld oxygen system provides oxygen to extend these brief legs. Included with the refillable Pro-O2 is a regulator with gauge, mask and a refillable cylinder.

Pro-O2-2 (2 Cu. Ft./1 mask)......P/N 13-02735.... Pro-O2-4 (2 Cu. Ft./2 masks)P/N 13-02736



AEROX SILICON MASKS

Upgrade from a Scott mask with dynamic or carbon mic with these lightweight (4 oz.) silicon, quick donning masks. Very comfortable and includes 5 ft. of tubing and mic plug. Specify small, medium, or large. Effective up to 25,000 ft.

Description	Part No.	Price	Description	Part No/	Price
Small w/ Mic	13-01020		Small No Mic	13-04963	
Medium w/ Mic	13-00413		Medium No Mic	13-00414	
Large w/Mic	13-01010		Large No Mic	13-04964	



AEROX 4110-712 SERIES OXY-GEN MASK WITH MICROPHONE

The 4110-712 Series continuous flow oxygen mask with microphone is intended for crew and passengers in the general aviation industry at a maximum altitude of 25,000 feet. Optional equipment includes industry standard fittings for connection to portable and built-in oxygen systems.

Description	Aerox No.	Part No.	Price
Small Without Microphone	4110-711-1	13-06652	
Medium Without Microphone	4110-711-2	13-06653	
Large Without Microphone	4110-711-3	13-06654	
Small	4110-712-1	13-06655	
Medium	4110-712-2	13-06656	
Large	4110-712-3	13-06657	



AEROX SMOKE GOGGLES

Aerox has introduced Smoke Goggles with face forming elastomer seals to keep smoke out. Aerox Smoke Goggles are the choice of the U.S. Special Forces. The case features reflective tape to make goggles easy to locate as well as a velcro strip on the back for mounting.

P/N 13-06173.....



BR-M AEROX BRACKET

Bracket Assembly, SS, with Lock, or Cyl Diameter (2 needed per system) P/N: 13-04033





Whether making money or saving it, the Aerox FBO-1 Cascade Filling System makes it easy to fill all types of aviation systems, from portables to jets. The FBO-1 comes complete with 2 CGA 540 cylinder connectors, 6' high-pressure (3000 psi) braided stainless filler line, contents gauge, flow restrictor and adapters to fit Puritan-

Bennett, Scott, and CGA 540 filler ports. P/N 13-04534......

AEROX CGA-540 SINGLE CYLINDER FILLING STATION - Transfills between cylinders quickly and easily. 6' braided stainless line, gauge, restrictor, and CGA 540 filler. P/N 13-04535......

OPTIONAL BUILT-IN ADAPTERS

Image	Description	Part No.	Price	
	Aerox Scott Built-in Adapter Option (Piper, Beech, Mooney)			
	Aerox Puritan-Bennett Built-in Adapter Option (all other makes)	13-04537		
Portable System F	Filling adaptors for standard CGA 54	0 supply cyli	inders:	
	Aerox Scott Portable Filling Adaptor	13-04538		
	Aerox Puritan-Bennett Portable Adapter Option	13-04540		

OXIMETERS - FACE MASKS

AEROXIMETER

Developed at the request of one of the major aviation manufacturers, this new product protects you from the 2 major biological dangers of flight: Lack of oxygen and carbon monoxide poisoning. The system uses an electronic light to measure the oxygen saturation in your blood. It easily slides on your finger and gives continuous updates on the pilot and copilot's blood oxygen levels and heart rates. This system also constantly measures the amount of

carbon monoxide in the cockpit and displays 3 levels. Carbon Monoxide is an ordorless and tasteless gas. Without a proper electronic warning

CO/LOW OXYGN 2 PLP/N 13-02718.....



FLIGHT STAT PULSE OXIMETER

Know the symptoms of in-flight hypoxia and evaluate your pulse rate and blood oxygen saturation with the FlightStat® Pulse Oximeter. FlightStat provides an easy and accurate way to check for in-flight hypoxia instantly

- providing crucial data before it's too late. P/N 13-03248...



THE OWL AVIATION OXIMETER

Can detect blood oxygen concentration through the use of a small sensor placed on the tip of a finger or in a headband. The oximeter will determine if the oxygen concentration of the blood becomes too low and alert the pilot of potential hypoxia conditions. At an oxygen saturation of 90%, the OWL will alert the pilot through standard aviation headphones with an audible "caution" message. If the saturation should drop below 85%, the

OWL will sound a "warning" message. As an added feature, the OWL will give saturation readings on demand-- at the push of a button. Will also alert the user in the event the batteries become low by an audible "caution" and a visual indication with a red LED. Will "speak" to the user to alert for low blood oxygen saturation. This enables the pilot to concentrate on flying the aircraft instead of requiring the constant monitoring of a display. This can be important when flying IFR, where a pilot must focus on the aircraft instruments. The OWL is also the only oximeter with a sensor intended for continuous monitoring. P/N 13-04284



EDS-2IP BUILT-IN PULSE DEMAND OXYGEN SYSTEM

Complete kits that include all you need to do high flight-level cross country flying with ultimate physiological safety. Kit includes the low-profile

instrument panel or overhead-mountable EDS 2ip control head unit with a 2.25" X 2.25" form factor, two (2) remotemountable oxygen outlet distributor units, the new IPR (Intelligent Peripheral Regulator) with our light-weight carbon-fiber-wrapped cylinder with a 48 cu. ft. capacity allowing many round-trips without oxygen refills. In addtion, masks, cannulas, as well as necessary hardware and tubing are included. The pilot station comes with our, FAA-CAMI flight-level 250 tested 'Pulse-Demand' ALPS FaceMask that can be upgraded with a noise-cancelling microphone at any time. You can add the Alps face mask with or without microphone for your co-pilot as well.

EDS-4ip built-in Pulse Demand oxygen management systems are complete kits includes everything in the EDS-2IP but with the EDS 4ip control head unit with a 2.25" X 3.125" vertical form factor, and four (4) remote-mountable oxygen outlet distributor units

NOTE: The EDS ip systems automatically operate from a 12 or 24 Volt system at a mere 250 ma. of current. Therefore, if not specified, during your order the IPR will come with a 12 volt valve and the schematics will instruct that it be powered from the control head, via pin-19. The most preferred configuration. Otherwise the valve for the IPR must be specified for either 12 or 24 volt operation if you decide to power the IPR valve through system power and not from the control head.

CHECK MATE II WRISTWATCH OXIMETER



The Check Mate IITM (manufactured by SPO Medical) is an effective and affordable wearable pulse oximeter ideal for spotchecking, during mountain climbing, light jogging and speed walking. Pilots/aviators can also quickly asses their SpO2 while

flying at high altitudes. The Check Mate II wristwatch oximeter offers the features of a conventional oximeter in a compact, lightweight userfriendly wrist-based configuration. The unit accurately measures blood oxygen saturation levels and heart rate. Readings are displayed on the wristwatch unit that sits comfortably on the patient's wrist for maximum convenience and flexibility. P/N 13-05673

CHECK MATE PULSE OXIMETER

Easy Spot Check Monitoring of Your Vitals!

SPO Medical's Check Mate™ offers the features of a conventional pulse oximeter in a compact, user-friendly

Check Mate™ accurately measures blood oxygen saturation levels and heart pulse rate. Pilots love Check Mate™ because it allows them to quickly assess their SpO2 while flying at high altitudes. Hypoxia can be a pilot's worst enemy, and Check Mate™ is a low-cost product which gives pilots peace of mind. Check Mate™ answers the sports and aviation markets' demand for a lightweight, inexpensive monitor for measuring blood oxygen saturation and heart rate during physically active and high-altitude activities. It offers the user a greater ability to monitor these vital signs under motion and is less expensive than most available devices. The unit is designed to utilize very low power for extended usage, eliminating the need for frequent battery replacement.

To operate simply place the sensor on your finger and turn it on.

P/N 13-03920

FINGER PULSE OXIMETER

MD300 C201 is intended for noninvasive spot-check measurement of function oxygen saturation of arterial hemoglobin(SpO2). It can be used with adult and pediatric

and widely used in family, clinic and hospital. Features; • SpO2%, PR are displayed on screen. • Simple and convenient operation • Light, compact (the weight is 50g including batteries) Low power consumption, two AAA batteries can be continuously Operated for 30 hours • Indication of low power consumption • Two display modes P/N 13-05666

EMERGENCY OXYGEN GENERATOR EMOX



B 199

Emox is a dependable lightweight, portable, powdered emergency oxygen system which is not presurized and has no moving parts and is also non-corrosive, therefore no service or maintenance is required. Both powders are environmentally accepted, have an indefinite shelf life and have no fire hazard and are non-explosive and are supplied in hermeti-

cally pilfer proof sealed containers. Unit consists of a nylon carry bag, a specially designed plastic cylinder with operating instructions and a built-in humidifier, 3 x 15 minute white powder applications plus 3 activator catalysts, a face mask with a 1.5 meter tubing and a water measuring

Réfills w/ 4 Powder ChargesP/N 13-06618....

TAIN HIGH ALPS FACE MASK



FAA-CAMI tested with the EDS-ip system, MH ALPS FaceMask and the MH ALPS-M (for microphone) FaceMask. Outfitted with an electronic "Clear-Speak" ambient noise-canceling microphone and is compatible with most aircraft systems. Easy to put on and ex-

ceptionally comfortable as it does not require a polyvinyl bag. The ALPS or the ALPS-M FaceMask can be used with any of the MH oxygen sys-

tems. Available in small, medium and large.

Description	Part No.	Price	Description	Part No.	Price
Facemask Med.	13-04155		Facemask w/ Mic Small	13-05134	
FacemaskSmall	13-05136		Facemask w/ Mic Med.	13-05135	
Facemask Large	13-05137		Facemask w/ Mic Large	13-04156	



MOUNTAIN HIGH PORTABLE OXYGEN SYSTEMS FOR CESSNAS

"MH FDS O2D2 Pulse Demand FADOC Oxygen Delivery System" is designed for Cessna pilots. The MH

EDS O2D2 is the only single unit. portable, two-place, carry-on Pulse

Demand oxygen system currently available.
The MH EDS O2D2, with the patented digital electronic "Pulse Demand" FADOC oxygen delivery system, enables the pilot and passenger/crew to fly at pressure altitudes up to 25,000 feet with safety and comfort. The O2D2 digital pulse demand system reduces oxygen consumption dramatically. Different from "standard" constant flow systems, the O2D2 pulse demand system wastes no oxygen during the breathing cycle. Studies show that 90% of the oxygen supplied by the O2D2 is transferred to the blood. The average user will enjoy a conservative consumption drop of four times compared to constant flow systems. The system operates, with two people, for up to 50 hours on three AA alkaline batteries. Easy to use, the two-person O2D2 reduces oxygen system workload to almost nil. There are no oxygen flow indicators to watch or manually operated constant flow valves to adjust due to altitude changes. Two push buttons cycle the O2D2 through the various modes that automatically deliver the required supplemental oxygen pulses for various altitudes. The complete standard system includes an aluminum oxygen cylinder (buyer has a choice of sizes with upgrades), a cylinder carry case, primary reducing regulator, low pressure service line, connection fittings, the MH EDS O2D2 FADOC unit, breathing cannulas, face masks, and a tote bag.

XYGEN SYSTEMS

MOUNTAIN HIGH XCP SYSTEMS

The XCP is a low-cost, high-duration multi-place oxygen system. With the A3 and Oxymizer cannula each person will use at most 1.0 liter/min. at 18,000 ft. This makes it easy to calculate your cylinder life time. Example: If you have 415 liters and four persons and are to cruise at 18,000 ft., you would divide 415 by 4 which equals 103 minutes per person. The flow rate at 18.000 ft. is typically only

Aviation Oxygen Systems

(for use with the A4 flowmeter or nasal congestion), 4 ea. Nelson A3 flowmeter/regulators with 3' (three feet) of high quality tubing with CPC connectors and 4 Oxymizer® type "M" nasal cannulas, 1 ea. Oxygen cylinder (AL-415 or AL-682), 1 ea. Tuff-Pack padded fabric carry/strapping case for cylinder and equipment. The XCP system comes with the A3 flowmeter/regulator. It has an altitude/flow scale calibrated for the unique Oxymizer oxygen-conserving cannula. The scale is marked in 2,000 ft. increments for VFR flight levels up to 18,000 ft. You can operate the XCP in IFR flight levels with the optional A4 flowmeter/regulator and associated F1 face masks. This will, however, use much more oxygen. All systems are shipped empty.



XCP carry-on systems man-hour service time with the Nelson A3 flowmeter and Oxymizer cannula									
D	10,000 ft. MSL			SL 14.000 ft. MSL			18,000 ft, MSL		
Persons	XCP 180	XCP 415	XCP 682	XCP 180	XCP 415	XCP 682	XCP 180	XCP 415	XCP 682
1	10:00	23:00	37:53	05:27	12:35	22:40	03:51	08:51	14:34
2	05:00	11:30	18:56	02:43	06:17	10:20	01:55	04:25	07:16
3	03:00	07:40	12:37	01:49	04:11	06:52	01:16	02:58	04:51
4	02:30	05:45	09.28	01.22	03:08	05:10	00.57	02.12	03:38

XCP-682-4P-FP: 682 liter (24 cu.ft.) 4-pl. carry-on system w/Full-Pack padded cylinder carry/case 13-03657.....
XCP-682-2P-FP: 682 liter (24 cu.ft.) 2-pl. carry-on system w/Full-Pack padded cylinder carry/case 13-03658.....
XCP-682-1P-FP: 682 liter (24 cu.ft.) 1-pl. carry-on system w/Full-Pack padded cylinder carry/case 13-03659......



MOUNTAIN HIGH HANDHELD OXYGEN SYSTEM

The Co-Pilot is an affordable, handheld oxygen system designed for supplemental breathing at high altitudes. This system is especially useful for pilots who only occasionally fly at altitudes requiring oxygen and, therefore, do not need a full-featured oxygen system for their aircraft. Unlike similar systems, the Co-Pilot's oxygen regulator has an on/off and volume control knob that is adjustable from off to 2 L/min. The face mask is removable and can be replaced with an Oxymizer cannula for continuous "hands-off" use for more than 30 minutes of duration per cylinder, at 15,000ft. At a glance, the built-in pressure gauge will allow you to see how much oxygen is available at all times. The Co-Pilot system can be shut off and stored with a cylinder installed for more than a year without any noticeable leakage. The basic Co-Pilot kit comes with regulator & gauge, face mask, two 18-liter non-refillable replacement cylinders, and an instruction manual. Options include additional cylinders, Oxymizer cannula, & holster pack. P/N 13-01016....





The EDS (Electronic Delivery System) is the first supplemental breathing system specifically designed for aviation to employ the tested and well founded pulse-demand method of oxygen delivery. This reduces the amount of oxygen wasted by as much as ten times over constant-flow systems, while providing over 90% blood saturation levels at and well above pressure altitudes of 25,000 ft. The EDS senses and synchronizes itself with your breathing to provide a pulse of oxygen when you benefit from it the most: at the very beginning of your inhalation cycle and not while exhaling, pausing or talking. Measurements show that up to 90% of the oxygen delivered is absorbed directly into the blood stream. A built-in density altitude barometer responds to altitude changes automatically, adjusting the oxygen amount as needed for each breath. The EDS has been hailed by several flight surgeons & physiologists as the most significant development in supplemental breathing devices since the advent of high altitude flying. Mountain High's current digital version, EDS-D1, is about the size of a cigarette pack, and it offers 9 modes of operation. All systems shipped empty.

TR-95 Transfilling unit w/ variable flow transfer, fitting bleed valve and pressure/contents gauge.

P/N 13-03925..... • TR-75 Transfilling unit w/ "O" ring fittings and bleed valveP/N 13-03924.....



	Man-hour service time with cylinder @ 1,800 psig. with EDS unit(s) using cannula's or face mask(s)									
	D	10,000 ft. MSL			15,000 ft. MSL			18,000 ft. MSL		
	Persons	EDS 011	EDS 022	EDS 040	EDS 011	EDS 022	EDS 040	EDS 011	EDS 022	EDS 040
	1	31:06	62:18	113:12	19:05	38:04	69:10	14:24	28:50	52:24
	2	15:33	31:09	56:36	09:32	19:02	34:35	07:12	14:25	26:12
	3	10:37	20:45	37:44	06:21	12:41	23:03	04:48	09:36	17:28
I	4	07:45	15:34	28:18	04:46	09:31	17:15	03:36	07:12	13:05



EDS-022-FP: Kevlar fiber-wound cylinder, EDS unit, XCR regulator, cannula, face mask, Full-Pack & tote bag P/N 13-03665.....

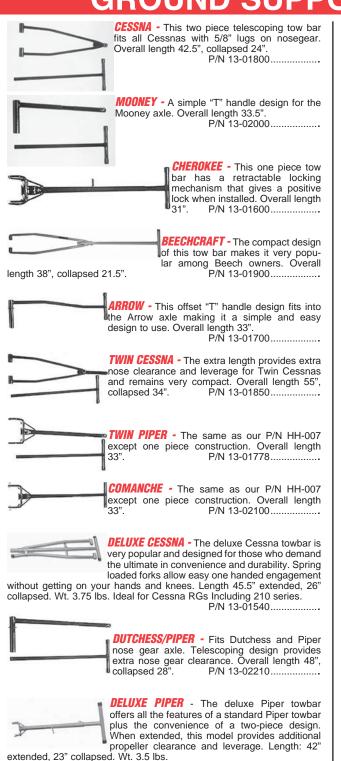
EDS-011-FP: Kevlar fiber-wound cylinder, EDS unit, XCR regulator, cannula, face mask, Full-Pack & tote bag P/N 13-03666.....

EDS-480-FP: Glass fiber-wound cylinder, EDS unit, XCR regulator, cannula, face mask, Full-Pack & tote bag P/N 13-03667.....

EDS-180-FP: Aluminum cylinder, EDS unit, XCR regulator, cannula, face mask, Full-Pack & tote bag

P/N 13-03668 EDS-480-2P-FP: Glass fiber-wound cyl., 2 EDS units, XCR regulator, cannula, face mask, Full-Pack & tote bagP/N 13-03672.....P/N 13-02390 EDS-D1: Kit with XCR gauged regulator P/N 13-02391

EDS-D1: Kit with XCR-DIN regulator P/N 13-02392



UNIVERSAL TOW BARS
CESSNA/ BEECH/ MOONEY - This universal tow bar is excellent for use with tug, tractor, or by hand. It fits most Cessna singles and twins with 5/8" lugs, Beech singles and twins with 1/4" lugs, all Mooneys, Twin Commanders, Lake and Commanche. Slide lock quickly adjusts & holds firmly.

P/N 13-02350.....

P/N 13-01550.....

PIPER - Same design as the universal tow bar above, this towbar fits Piper single fork design, Arrow, Malibu, Lance, Seneca, and Seminole. Slide lock quickly adjusts and holds firmly. P/N 13-02351.....

SCOTT TAILWHEEL - A tow bar designed for aircraft using a Scott 3000 series tailwheel. Overall plength 48", collapsed 28". P/N 13-02205..... BEECHCRAFT AXLE - This two piece tow bar is designed for use in Beechcraft axles. Overall length 48", collapsed 27 P/N 13-02215..... CHEETAH/TIGER - This tow bar is designed to fit Grumman aircraft. Its collapsible design makes it easy to fit in the baggage area. Overall length 43", P/N 13-02200..... collapsed 26". **ERCOUPE** -Specially designed for Ercoupes. This tow bar has a spring loaded lever action for ease of operation. Overall length 46.5", collapsed 28.5". P/N 13-01580...... 1-1/8" AXLE - This is a universal tow bar designed for aircraft with 1-1/8" axles such as Cessna Skymaster and Piper Seneca. Overall length 56", colapsed 33". P/N 13-02110..... COMMANDER - This model fits Rockwell 112 and 114. Spring loaded forks for ease of operation. Overall length 46.5", collapsed 28.5" P/N 13-01570. **DELUXE MOONEY** - The deluxe Mooney towbar is a longer, two piece version of a standard Mooney towbar. Attractive black caps accentuate deluxe appearance. Length: 38", collapsed 21". Wt. 3 lbs. P/N 13-01560..... **UNIVERSAL** - For the FBO this is an ideal hand held universal tow bar. Fits Cessna, Beech, Piper, Scott Tailwheel and many others. Overall length P/N 13-02250..... 57", collapsed 34". , VIKING - Designed especially for Bellanca Viking axle. Collapsible design and spring loaded fork. Overall length 46.5", collapsed 28.5". P/N 13-02220..... DELUXE BEECHCRAFT - Spring loaded forks for ease of operation. Overall length 47", collapsed P/N 13-01905 28"

FBO UNIVERSAL TOW BAR
This heavy duty universal tow bar is standard equipment for FBO's. It fits Piper, Cessna, Beech, Mooney, AeroCommander, and many others. The adjustable fork allows you to extend the fork assembly from 3" to 10". This tow bar is extra long at 7 ft. 6"

P/N 13-02355..... <u>AIRCR</u>AFT WINCH & MOUNTING KIT

AIRCRAFT WINCH - Hook cable to tail tie-down ring and press button. Easily moves aircraft up to 3,000 lbs. rolling weight. Includes wall mount. If a floor mount is desired order P/N 13-06124. Order bracket separately.

P/N 13-06124 must be ordered. Code 7

P/N 13-06125.....



AIRCRAFT WINCH MOUNTING KIT - Aircraft Winch Mounting Kit Everything you need to secure the winch to the floor. Mounting kit only. Can be used with P/N's 13-01764 and 13-06125 in a floor mount is desired. P/N 13-06124.....

TOW BARS

BOGERT TOW BARS (BOGI-BARS)



Light enough to stow Built from a combination of steel for maximum durability comfort grips on the handle and spreader bar chip resistant red bar will look great for years. Operation: extend the handle easily with high shear wick release pin apply forward pressure on the spreader bar to open the wishbone jays. Line up the Bogi-Bar attachment at the tow points or axle depending on model.

Release the tension on the spreader bar and you are locked on! The tow bar will not slip off the plane. Reverse for removal.

TAIL WHEEL AIRCRAFT							
Model	Fits	Extended Length	P/N	Price			
4-API	Aaircraft Products Tailwheel	48"	12-02097				
4-ABI	Alaskian Bushwheel	48"	13-06106				
04M-XP	Cessna XP Modification	48"	13-06107				
4-TDG	Scott 3200 & 3400	48"	13-10000				
4-F24	Fairchild 24, Beech Stagger Wing	48"	13-02410				
4-RV	Vans RV3, RV4, RV6 & RV8	48"	13-02408				
	NOSE WHEEL AIR	CRAFT					
Model	Fits	Extended Length	P/N	Price			
4-35	Beechcraft- Bonanza, Debonair, Duchess, Duke & Skipper	49"	13-10030	-			
4-19/23B	Beechcraft-Musketeer, Sport, Super, Sierra & King Air	48"	13-01808				
4-17/30	Bellanca-Viking Series	48"	13-01809				
4-172	Cessna 150, 152, 172, 175, 177, 182, 310R, RV-4	48"	13-10040				
4-206	Cessna 205, 206 & 207	48"	13-10060				
4-210	Cessna 172RG, 177RG,182RG & 210 Series	48"	13-10050				
4-SR	Cirrus SR 20 &22	48"	13-06108				
4-AA	Gulfstream American AA1 & AA5	48"	13-02407				
4-Lake	Lake Amphibian	48"	13-02411				
4-Moon	Mooney Aircraft	48"	13-01810				
4-24/30	Piper Comanche PA-24, PA-30 & PA-39 Also the Cherokee Six axle w/pants if tabs above wheel are broken	48"	13-10010				
4-22/28	Piper PA-22, & PA-28 Series (Not PA-28R)	48"	13-10020				
4-28R	Piper PA-28R Series - Hand Pull for dog-leg style	49"	13-02098				
4-34	Piper Seneca PA34 200/220/220T, and Aerostar 601P *handle extends to 78"	78"	13-01812				
4-PA46	Piper Malibu & Mirage– Vehicle Pull	72"	13-06112				
4-RVA	Vans - RV6A, RV7A, RV8A, & RV9A	48"	13-01811				
4-LANCE	Lance Towbar	48"	12-02099				
4-20	Diamond DA20		13-06111				
4-DA40	Diamond DA40		13-06110				
4-DA42	Diamond DA42		13-06109				
4-RV10	Vans - RV10	48"	13-04282				
4-Socata	Socata Style Bogi Bar	49"	13-06113				
Agusta	Agusta Helicopter.Handle extends to 70"	70"	13-01813				

BRACKETT AIRCRAFT TOW BARS



The TH-5 is a scaled down version of the TR-3 tractor towbar. Excellent for operators and tee hangar owners who need a towbar which is lightweight (14 lbs), has good large pulling handles, and is sturdy enough for towing Cessna 150's to 310's. Size: 74"L. Wt: 14 lbs.

Ring HitchP/N	13-10110
Ball HitchP/N	13-10111
Clevis HitchP/N	13-01884



MODEL TR-6

Excellent for towing aircraft such as the T-6, P-51, Stearman, Staggerwing Beech, or any aircraft with 3/4" or larger eye bolts. Length: 12' Spread: 12 ft. Weight: 62 lbs.

Ring HitchP/N	13-10131
Ball HitchP/N	13-10130

MODEL TR-34



The TR-34 has the light weight of the TR-3, and the strength of the TR-4. It has the same universal features that fit most aircraft from C-150 through aircraft up to 14,500 lbs. Wt: 35lbs. Available in 3 hitch styles. Ring Hitch (TR-34R)

P/N 13-10085

P/N 13-0085

King Hitch (TIX-34IX)	F/N 13-10003
Ball Hitch (TR-34B)	P/N 13-01886
Clevis Hitch (TR-34C)	P/N 13-01887
Optional Tail Wheel Adapters TWA-10 (
	P/N 13-10089



MODEL TR-71, 72, & 73



Lightweight aluminum designed for Waco, Stearman, & Cessna 195 type aircraft. Length: 100", Spread: 90", Wt: 22 lbs. Hook dia: TR-71 (.850), TR-72 (1.750), Taylor (1.750), Ta

TR-71B Towbar w/Ball hitch	P/N 13-01907
TR-72B Towbar w/Ball hitch	P/N 13-01908
TR-73B Towbar w/Ball hitch	P/N 13-01909
TR-71R Towbar w/Ring hitch	P/N 13-01910
TR-72R Towbar w/Ring hitch	P/N 13-01911
	P/N 13-01912

CUSTOM TOWBARS & OPTIONS FOR UNIVERSAL TOW BARS

Model	Description	Part No.	Price
TWA-10	Scott Tail Wheel Adapter (2 pcs. reg.)	13-10089	
T-MU2-10	Kit-Crank & head assembly for converting TR-34 to TR-44	13-01890	
TWA-11	Tail Wheel Adapter for DGA-Staggerwing (2 pcs. reg.)	13-01891	
T-4W	Wheel Set (Set of 2) for TR-34	13-01892	
T-375	Adapter .375" for Aerospatiale-Trinidad, Tabago (2 pcs.)	13-01893	
T-475	Adapter .475" Outer Diameter (2 pcs. reg.)	13-01894	
T-625	Adapter .625" for Augusta 109 & Others (2 pcs. reg.)	13-01895	
T-750	Adapter .750" for Commander 114, S-76 & Other	13-01896	
T-Maule	Adapter for Maule Tail Spring (1 pc. req.)	13-01897	
T-34-04	Shock Absorbing Ring Hitch (1 pc. req.)	13-01899	
TR-PC	Towbar; Pilatus PC-12, 3 pcs., 30 lbs.	13-01686	
TR-PCS	Towbar; Pilatus PC-12, 1 pc., 19 lbs.	13-01903	
TR-S2	Towbar: Avres: 3 pcs., 18 lbs.	13-01755	



THE TAIL-DRAGGER **DRAGGER**

This manual tow bar has heavy-duty solid rubber 8-inch wide tread wheels and will move most taildraggers up to 2,000 lbs. and tail wheel tires up to 10 inches in diameter. Options Available: Hitch Arms for towing, 3rd Wheel for heavier ships, and RV tail wheel lift pin.

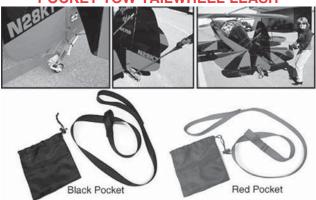
Tail-Dragger Dragger™ Features:

- Patented Design
- · No Winches
- No Hydraulics
- No Metal To Metal Contact
 No Adapters Required
- Superior Traction
- 5 Second Loading & UnloadingWill fit Almost Any Aircraft
- · Tail Wheel Stays In Trailing Position
- Lifting Pins Grip & Lift Tail Wheel
- Maneuver In Any DirectionOperator Has Good View
- Of Wingtips

Description	Part No.	Price
Standard tail Dragger	13-01510	
Tail Dragger Towbar Hand/Pin Hitch	13-01520	
Tail Dragger Towbar Hand/Ball Hitch	13-01530	
Tail Dragger Dragger Electric RV	13-01823	
24V Electric Tail Dragger Dragger	13-03736	
Tail Dragger Dragger Gas	13-01824	

ACCESSORIES		
Descriptions	Part No.	Prices
Towing Hitch Arm - 1-7/8" ball	13-04927	
Towing Hitch Arm - 2" ball	13-04928	
Towing Hitch Arm - Pin / Clevis	13-04929	
Towing Hitch Arm - Ring	13-04930	
3rd Wheel Assembly	13-04931	
RV Tail Wheel Lift Pin	13-04936	
12v Electric Gel Battery	13-06221	
Dual wheel traction assembly SA-1	13-06222	

POCKET TOW TAILWHEEL



Pocket tow makes tail wheel aircraft maneuvering easy. Made with one-inch heavy-duty nylon webbing, the lightweight tow bar alternative is small enough to fit in your pocket and works on tail wheel aircraft with a 360-degree full-swivel tail wheel assemblies. The small end loops around the tail wheel leaf spring and cinches up tightly to pull and steer Tailwheel leash - Red.....P/N 13-04682....

NOSE WHEEL DRAGGER DRAGGER



The Nose-Dragger Dragger features a swing gate front roller (for easy loading), 10 ball bearing rollers (which push and guide the nose wheel), and does not guide the inse wheely, and does not hydraulics. Effortless ground handling is accomplished by its lightweight design and slow walking speed. The Nose-Dragger Dragger accepts nose wheels up to 600 x 6 (with or without wheel fairings), and no metal-to-metal or metal-to-fiberglass contact. Available in gas or electric power models. The 12V electric powered Nose-Dragger Dragger will accept aircraft up

to 3,000 lbs. The Nose-Dragger Dragger Gas powered model accepts
aircraft up to 6,000 lbs. Please call 1-877-477-7823 for freight quote.
Gas Powered, 6.5HP (up to 12,000 lbs)P/N 13-05103

Gas Powered, 6.5HP (up to 12,000 lbs)	P/N 13-05103	
Electric Powered, 12V (up to 3,500 lbs)	P/N 13-05105	
Elevtric Powered, 24V (up to 6,000 lbs)	P/N 13-04304	
Electric Powered, 24V (up to 6,000 lbs)	P/N 13-03205	
ACCECCODI	EC	

ACCE	SSURIES
Snow Chains	P/N 13-04932
Battery Charger - 12V	P/N 13-04933
	P/N 13-04934
Man Link / Line of Lane	

Mag-Light / Head Lamp......P/N 13-04935.....P/N 13-04935..... TAIL-DRAGGER DRAGGER



This powerful gas tug has an extra heavy-duty frame, an extra center bear-ing for the axle, a longer handle for better Ing for the axie, a longer nandie for better leverage, heavy duty 12 -inch air wheels and will move most tail-draggers up to approx. 7,500 lbs. and tail wheels up to 16 inches in diameter. This is nice for aircraft like Beech-18, Most Ag planes, BT-13, SNJ, T-6, Beaver, Howard, Reliant, heavy Cessna¡Çs C-195, C-185, beat tail draggers.

450 Stearman¡Çs, and many other tail draggers.
P/N 13-04390

HEAVY DUTY TOW BUDDY CORDLESS POWERBAR

Features: No Flammable gasoline needed in hangar • Easy To Use • Infinite Speed Control Versatile Applications • Push button forward and reverse controls • Nose gear quick attach for easy nose gear hook up. • The adjustable fork height fits virtually any light aircraft • Trickle charger for battery • Large 16 x 6.50 - 8 turf tire • For aircraft weight of

3500 to 4500lbs. P/N 13-04513

BRACKETT MULTI-LINK TOW BARS



User benefits: All tow bars and heads are interchangeable with other popular tow bar systems such as tronair® warranty on all materials and workmanship money saving alternative to multiple tow bars

BRACKETT AIRCRAFT'S MULTI-LINK TOW BAR LINE CONSISTS OF TOW BARS THAT UTILIZE CHANGEABLE HEADS WHICH ALLOW YOU TO TOW A LARGE VARIETY OF TURBO PROP AND JET AIRCRAFT. THE TYGA LINE OFFERS A STANDARD MULTI-LINK SYSTEM FOR AIRCRAFT WITH MAXIMUM TOW WEIGHTS OF UP TO 125,000 POUNDS. ALL HEADS AND TOW BARS ARE INTERCHANGEABLE WITH MANY WIDELY USED MULTI-HEAD TOW BAR SYSTEMS. YOU NOW HAVE A HIGH QUALITY AND COMPETITIVE SOURCE FOR TOW BARS, CHANGEABLE HEADS, AND ACCESSORIES.

Description	Part No.	Price
TY-TB125 Multi-Link Towbar	13-04157	
TY-TB75 Multi-Link Towbar	13-04158	
TY-TB-FTD Flat Tire Dolly T/B	13-04159	_

ROBOTOW PORTABLE TOW BAR



Aircraft Spruce is pleased to offer the new all weather Millennium model Robotow. It is lightweight (under 30 lbs.) and portable, making it ideal for carrying onboard your aircraft. When the Robotow's heavy duty all weather knurled drive drum is held against the nose wheel, the aircraft is easily moved. A trigger on the handle controls the speed while a switch reverses direction on command. Powerful, portable, and dependable, Robotow is an ideal motorized towbar for the aircraft listed below. Order axle adapters separately.

5		- ·
Description	Parts #	Price
Robotow 6302 18V Towbar Cordless, with 5amp Robopak (moves plane 400ft. on a single charge)		
Robotow 6356 18V TOWBAR CORDLS	13-04222	
Robotow corded 120V, with 80ft, extension cord.	13-03897	
ACCESSORIES ACCESSORIES		
Robotow 5 Amp 18 Volt Robopak Battery	13-03898	
Robotow 18 Volt Charger	13-03899	
Robotow 18 foot Extension Cord.	13-03901	
Robotow GFI	13-03902	
AIRPLANE ADAPTERS (SOLD SEPARATELY)		
Robotow Adapter Aero Commander	13-03904	
Robotow Adapter Beech 1 / Baron / Bonanza / Debonair Duke	13-03905	
Robotow Adapter Beech 2 / Queen Air / Twin Bonanza / Trigear 18	13-03906	
Robotow Adapter Cessna 1 / 150, 172, 182, 310, 340	13-03907	
Robotow Adapter Cessna 2/ 310R, 401, 414, 421	13-03908	
Robotow Adapter Cessna 3 / 182RG (Pre-1962), 206, 210 (Pre-1962)	13-03909	
Robotow Adapter Cessna 4 / 337, 303	13-03910	
Robotow Adapter Cessna 5 / 182RG and 210 (1962-1986)	13-03911	
Robotow Adapter Piper 1 / Appache, Comanche, Aztec, Navajo, Twin Comanche, Bellanca	13-03912	
Robotow Adapter Piper 2 / Colt, Cherokee, Tri-pacer	13-03913	
Robotow Adapter T28 Trainer	13-03914	
Robotow Adapter Navion	13-03915	
Robotow Adapter Commander 114B	13-03916	
Robotow Adapter Cessna Caravan	13-03917	
Robotow Adapter Trinidad	13-03918	

CESSNA TOWBAR EXTENSION

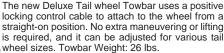


The "QUICK-FOLD COMPACT TOW-BAR" also known as the "QFC--Towbar-TM" This new to the market design was patented with you in mind...No more back breaking, bend over towing... Simply attach the QFC-TowbarTM extension to your already existent Cessna tow bar and stand up straight -away from under the propeller-for an added extension of 33". The QFC-TowbarTM has a unique

compact design allowing for secure storage. It simply folds flat and is stowed securely along side the factory tow bar in the luggage compartment.

P/N 13-06722

DELUXE TAILWHEEL TOWBAR



Note: Maximum weight to lift is 1,200 to 1,500 P/N 13-04918

ROLLING TOWBAR FOR TAIL DRAGGERS



Designed by an aircraft mechanic for easy ground handling of his Aeronca, this new tow bar is ideal for all types of tailwheel equipped aircraft. Just place the tail wheel in holding bracket, lift up, and tow bar wheels allow aircraft to be wheeled anywhere with ease. Bracket fits all standard aircraft tailwheels. P/N 13-04277

GLIDER & BANNER TOW HOOKS

GLIDER & BANNER TOW HOOK RELEASE



Bolt-on tow hook with bumper is designed to be directly bolted to a custom mounting bracket. The bumper is designed to reduce the kick-back that occurs when releasing a banner. The polyethylene bumper absorbs the force of the release and your tow hook release will last longer. P/N 13-06281.....

GLIDER & BANNER TOW HOOKS RELEASE

Bolt-on tow hook is designed to be directly bolted to a custom P/N 13-04975..... mounting bracket.

GLIDER & BANNER TOW HOOKS RELEASE

Weld-on tow hook designed to be directly welded to a custom mounting bracket. This hook is similar in design to the Schweizer manufactured hook that is no longer available.

Design improvements were made to increase emergency release capability at all towing loads and angles. A common glider towing hazard occurs when the glider becomes extremely high or low compared to the tow plane. This applies a load to the tow hook at an angle that significantly increases the force required to release the tow rope. This new hook has greater release arm leverage and a unique hardened roller release design to reduce release force at all tow angles. Additionally, the geometry of the tow hook housing was improved to keep the tow ring in the optimum position to minimize release force. The tow hook is not to be used on gliders. FAA approval can be obtained for the complete tow hook and release system by following the guidelines in FAA Advisory Circular 43.13-2B, Chapter 8, titled, "Glider and Banner Tow-Hitch Installations" and the included tow hook installation instructions. Tow hook release in not STC or PMA approved. P/N 13-04974.....

GLIDER & BANNER TOW RING



The tow rings is designed for use with the glider and tow hook release. The size of the tow ring is 2 1/4" OD. The material is forged steel, finished with cadmium plate with a proof load to 2500 lbs. Tow ring is for use with Wings Unlimited, Inc. tow hooks only. It is not STC or PMA approved.

P/N 13-06282.....

GLIDER & BANNER TOW RELEASE HANDLE



The release handle is attached to the support bracket in the cockpit of the airplane. A cable is attached to the handle and tow hook release. FAA approval can be obtained for the complete tow hook and release system by following the guidelines in FAA Advisory Circular 43.13-2B, Chapter 8, titled, "Glider and Banner Tow-Hitch Installations". The release handle is not STC or PMA approved.

PN 13-06283.....

GLIDER & BANNER TOW SUPPORT BRACKET



The support bracket is attached to the floor of the airplane in the cockpit and is the housing that holds the release handle. FAA approval can be obtained for the complete tow hook and release system by following the guidelines in FAA Advisory Circular 43.13-2B, Chapter 8, titled, "Glider and Banner Tow-Hitch Installations". The support bracket is not STC or PMA approved.

PN 13-06284.....

REDLINE TOW BA



Sidewinder attached securely to the front wheel.



Sidewinder extended.



Sidewinder collapsed.

REDLINE SIDEWINDER POWER DRIVER

Powerful and portable, the Sidewinder will forever change the way you move your aircraft. Powered by Milwaukee's top of the line 28V power unit with a long-lasting, lithium ion battery pack, Sidewinder weighs less than 22 pounds, top of the line 28V power unit with a long-lasting, lithium ion battery pack, Sidewinder weighs less than 22 pound: collapses to 27" and stows easily in your baggage compartment. Made in the USA using 4130 Chromoly material.

BEECHCRAFT BAR FITS: Bonanza, Baron, Travel Air, T-34

CESSNA SINGLE ENGINE BAR FITS: 172RG, 177RG, 182RG, 210, P210

15 inch Extension Tube is required on all models except 177RG

CESSNA TWIN ENGINE BAR FITS: C-310, C-320, C-340, C-414, C-421

PIPER BAR MODELS: Arrow, Lance, Saratoga (RG), Malibu, Matrix, Meridian, Seminole.

Lance, Saratoga (RG), Malibu, Matrix, Seminole models require use of the 15 inch Extension Tube. Meridian

requires the 30" Extension Tube.

MOONEY BAR FITS: All Mooney Models

ECLIPSE BAR FITS: All Eclipse Models

15 inch Extension Tube is required

Part No.	Price
13-06838	
13-06855	
13-06857	
13-06859	
13-06860	
13-06861	
13-06862	
13-06863	
13-06856	
13-06858	
13-06839	
13-06840	
	13-06838 13-06855 13-06857 13-06859 13-06860 13-06861 13-06862 13-06863 13-06856 13-06858

REDLINE BE-3/BE-3XL TOWBARS

BE-3: 2-piece design for hand or powered use. Extends to 43.5", collapses to 24.5" and weighs 4 pounds. For attachment to a golf cart, tractor or other powered vehicle, please use the S-3 Vehicle Adaptor. Made in the USA using 4130 Chromoly material.

BE-3XL: 2-piece design for hand or powered use. For attachment to a golf cart, tractor or other powered vehicle, please use the S-3 Vehicle Adaptor. Made in the USA using 4130 Chromoly material.

Application	Part No.	Price
BE-3 Beechcraft - Fits Bonanza, Baron, Travel Air, T-34	13-06841	
BE-3XL Cessna - Fits 172RG, 177RG, 182RG, 210, P210	13-06843	
BE-3XL Mooney - Fits All	13-06846	
BE-3 Piper - Fits Arrow, Lance, Saratoga (RG)	13-06844	
BE-3XL Piper - Fits Arrow, Lance, Saratoga (RG), Malibu, Matrix	13-06845	
S-3 Vehicle Adaptor	13-01918	

REDLINE BE-4 TOWBARS

2-piece design for hand or powered use for heavier airplanes. Extends to 61.5" and collapses to 33" and weighs 5 pounds. For attachment to a golf cart, tractor or other powered vehicle, please use the ST-1 Vehicle Adaptor. Made in the USA using 4130 Chromoly material.

Application	Part No.	Price
BE-4 Beechcraft - Fits Bonanza, Baron, Travel Air, T-34, Duchess	13-06849	
BE-4 Cessna - Fits 172RG, 177RG, 182RG, 210, P210	13-06850	
BE-4 Piper - Arrow, Lance, Saratoga (RG), Malibu, Matrix, Meridian, Seminole.	13-06851	
BE-4 Eclipse - Fits All	13-06852	
ST-1 Vehicle Adapter	13-04066	

REDLINE ST-1 TOWBARS
If you own models 33, 35 or 55, the ST-1 is the least expensive, most versatile option for hand or vehicle towing. With an overall length of 38.5" and 3 pound 8 ounce weight, it fits neatly on the floor of your baggage compartment. This is our recommended tow bar for the STIFFY. For attachment to a golf cart, tractor or other powered vehicle, please use the ST-1 Vehicle Adaptor. Length is 38.5" and weighs 3 pounds 8 ounces. Made in the USA using 4130 Chromoly material. FITS THESE BEECHCRAFT MODELS: Bonanza, Baron, Travel Air, T-34 P/N 13-06848 ST-1 Vehicle Adapter..... .P/N 13-04066 .

REDLINE PH-1 FOR ECLIPSE



P/N 13-06853.

REDLINE UL/UL-XT TOWBARS



U.L- XL: CESSNA Very light weight, 2-piece design for hand towing only. Extends to 48.5", collapses to 31.5" and weighs 3 pounds 6 ounces. Made in the USA using 4130 Chromoly material.

U.L. XL: MOONEY 2-piece design for hand or powered use for heavier airplanes. Extends to 61.5" and collapses to 33" and weighs 5 pounds. Made in the USA using 4130

Chromoty material.		
Application	Part No.	Price
UL - Beechcraft - Fits Bonanza, Bonanza, Baron, Travel Air, T-34	13-01914	
UL-XT - Cessna - Fits 172RG, 177RG, 182RG, 210, P210	13-01917	
UL-XT Mooney - Fits All	13-06847	
UL - Piper - Fits Arrow, Lance, Saratoga	13-01915	

REDLINE STIFFY

1-pound, spring-loaded, reversable-ratcheting mechanism that greatly increases the "leverage" available to help move your plane. Must be used with either the ST-1 or BE-3 Towbar, purchased separately. Made in the USA using 4130 Chromoly material.

	Application	Part No.	Price
	Beechcraft - Bonanza, Baron, Travel Air, T-34	13-04064	
	Cessna - Fits 172RG, 177RG, 182RG, 210, P210	13-04068	
)	Piper - Arrow, Lance, Saratoga (RG), Malibu, Matrix, Meridian, Seminole.	13-04067	-



Baron, Travel Air, T-34

REDLINE SLIDER FOR ECLIPSE



The Slider adapter inserts into the front axle and tightens securily. It provides a short "stub" on each side for any universal type tow bar attachment. With the Slider in place, nothing touches any exterior surface of the nose gear, avoiding scratching and other damage.

Made in the USA using 4130 Chromoly material. FITS ALL ECLIPSE

AIRCRAFT. P/N 13-06854

TOWBOTS AIRCRAFT TU

TULSA TOWBOTS REMOTE CONTROL AIRCRAFT TUG



The iTowBot's loading sequence is as easy as driving the unit directly under the nosewheel of your aircraft. The iTowbot is engineered so that when the aircraft loads, the weight of the loaded aircraft does not inhibit its zero-turn capability. This allows the operator to articulate the aircraft in a manner that places it ahead of all other towing equipment.

Releasing the aircraft is just as easy. A foot-operated release allows the operator to unlock the swivel carriage and merely back out from beneath the nosewheel. Now the operator can simply drive the unit back to its spot in the hangar....no tugging, pushing or rolling up extension cords required!

iTowBot can tow in any directionTulsa TowBots offers a precision, ruggedly built towing machine that will allow the user to position aircraft in close quarters with ease. The iTowBot has the ability to rotate the aircraft inside of its own wingspan. With its hybrid zero-turn capability and fully-articulating self-locking carriage, turn limits of the aircraft nose wheel cannot be exceeded. The powerful 24VDC motors are regulated for smooth starts and stops while delivering the power you need to put your aircraft asset out on the ramp or back in the hangar.

The iTowBot was specifically designed to provide adequate distance for the operator to tow

an aircraft while stepping back to visually clear the areas around the aircraft. The operator should exercise caution in selecting the vantage point from which to operate the iTowBot.

Damage caused by conventional tugsThis is a picture of the nosewheel strut damage caused by exceeding the turn limits with a conventional tug. This cannot happen with the iTowBot, since the front wheel remains stationery while the iTowBot is free to turn through 360°. With its hybrid zero-turn capability and fully-articulating self-locking carriage, turn limits of the aircraft nose wheel cannot be exceeded.

The DX2.0 transmitter is designed to provide bulletproof 2.4 GHz spread spectrum radio link. With the DX2.0 DSM system there are no worries of frequency clip or radio interference from noisy motors or no reason to be concerned that someone may turn on a radio on your channel. The unit is user-friendly and offers many features and functions that the operator may desire. The receiver is bound to the transmitter at our facility prior to shipment so that the receiver will only recognize its specific transmitter that comes with your iTowBot. During the binding process, the motor fail safe positions are also set to further provide another level of safety.

Specifications

- Measures 38" Wide x 46" Long x 12" High
- Rugged Steel Construction
 Virtually Zero Maintenance
- * Max Towing Speed 1.7 Feet Per Second
- * Tows Aircraft up to 15,000+ Pounds Gross Weight
- * Solid State Heavy Duty Fully Articulating Motor Control
- * Hybrid Zero Turn Capábility about Stationary Nosewheel
 * Also available with built-in 24V Auxiliary Power Plug (APU) & Power Cord
- * Powerful Reversible 24 Volt DC Motors
- * Powder-Coated Frame
- Easy Ergonomic Remote Control Handset
- Overvoltage Thermally Protected
- Trouble Free Cast Iron Rims with Non-Marking Moldon Wheels
- Equipped with Solid State Battery Charger/Maintainer

Descriptions	Part No.	Price
Standard Model (NO APU) Up to 15,000 LB	13-05252	
Standard Model (WITH APU) Up to 15,000 LB	13-05253	
Gear Reduction Options (NO APU) up to 30,000 Lbs.	13-05734	
Gear Reduction Options (WITH APU) Up to 30,000 Lbs	13-05735	



LITTLE STAR VTHRUST

Vthrust aircraft mover from Littlestar Products makes quick and easy work of moving your single-engine airplane, using an off-the-shelf 18V or 24V drill/screwdriver* as its power source. The drill's sealed mechanism means that there are no belts or chains to snag, and no adjustments to make. Most applicable drill/drivers have two or even three speed ranges for precise control of the Vthrust, and supply sufficient torque to move a 3000 lb. airplane up a 3% grade. The drill/driver chucks onto the vThrust, and attaches with a simple clamp. Just attach the driver and go! The drive system is versatile you've either already purchased the drill for other projects around the hangar and shop, or you've alway's wanted to! Operation is simple and safe. The internal worm-gear drive mechanism, coupled with the drill/driver's internal brake means the Vthrust stops and starts when you do \square smoothly and precisely. The variable speed of the drill/driver gives you complete control of the aircraft, from a standstill to moving at 40 feetper-minute. Two versions are available -- in the deluxe steerable model, a simple twist of the stabilizing handle locks and unlocks the steering mechanism for total control. Robust construction gives the Vthrust the capability to deliver up to 325 lbs of drawbar force. Dual drive wheels deliver good traction and sta-

bility on almost all surfaces, and with the optional turf tires or tire chains, you're covered for the rest. Securing Vthrust to the aircraft is a snap, using a single lever to attach or detach the towbar. Several optional adapters are available, allowing the Vthrust to mate to many light aircraft, tricycle gear or

conventional, with wheelpants or without. The steerable model is easily converted to the trailer mover with the optional coupler adapter. The Vthrust is also available

in a robust non-steerable model. Lightweight and compact, the Vthrust aircraft mover's 62-lb. weight makes it easy to use and transport. All-stainless construction gives corrosion-free good looks, and the enclosed worm-gear drive mechanism is maintenance free. The Vthrust is easy to assemble and disassemble, making it a breeze to move and store. *Drill/Driver not included.

	STANDARD	STEERABLE
MAXIMUM AIRCRAFT WEIGHT	3000 LBS	3000 LBS
MAXIMUM GRADE	10%	10%
MAXIMUM SPEED	40 FPM	40 FPM
WEIGHT WITHOUT DRIVER	65 LBS	65 LBS
HEIGHT	36"	36*
LENGTH	73"	73"
WIDTH	17-1/2"	17-1/2"
VTHRUST WARRANTY	1 YEAR PARTS & LABOR (DOES NOT INCLUDE DRIVER)	1 YEAR PARTS & LABOR (DOES NOT INCLUDE DRIVER)

Description	Part No.	Price
M-770-N - Standard Tugger, Non-Steerable	13-06097	
M-778-S - Deluxe Tugger, Steerable	13-06098	
Accessories	Part No.	Price
Hangar Ramps (Set of 3)	13-06091	
Beechcraft Adapter	13-06092	
Diamond DA-40 Adapter (Set of 2)	13-06093	
Piper Adapter (Set of 2, for fixed gear with wheel pants)	13-06094	
Diamond DA-42 Adapter (Set of 2)	13-06095	
18V Dewalt 1/2" Drill Driver (2 18V Batteries included)	13-06096	

TE-DOWNS

"THE CLAW" TIE-DOWN SYSTEM





Advanced Aircraft Anchoring System - The Claw® Aircraft Tiedown kit comes complete with three earth anchors, rope, spikes, hammer and canvas carry bag. The Harder You Pull, The More It Grips The Earth. Features: Easy installation...Easy removal. No more struggling with screw-in anchors The "Claw®" is designed exclusively for aircraft. The "Claw®" system has a 3600 lb. combined capacity. The last tie down you will ever have to buy - Lifetime Warranty, Tremendous holding strength. The harder you pull, the more The "Claw®" grips. Ideal for all aircraft, Works in hard clay, sandy soil or anything in between Large foot print spreads the load over a larger area for maximum holding power, Low profile will not puncture tires, Complete System weighs only 8 lbs (Including Hammer), Light-weight aircraft aluminum with hardened corrosion resistant die cast zinc plated steel spikes 25 ft 3/8" dia. solid braid polyester rope, Anchoring System hammer doubles as removal tool The "Claw®" includes: Bag that is easy to carry and store that contains: 3 Anchors; 9 spikes; 1 hammer; 25-ft rope Wt: 3.8 lbs.

P/N 13-02448



JEB'S REMOTE TIE-DOWN KIT Remote Release System - This new safety device will be appreciated by anyone who hand starts their plane. Release and retrieve without leaving the cockpit - get off to a safe start.
P/N 13-04787.....



THE COMPLETE TIE DOWN KIT
Includes: (9) Anchor Rods; (3) Wheel Chocks; (3) Tie-Down Straps; (1) Storage Bag

This kit includes everything needed to tie your plane down when you must park on the grass. You can tie down both wings and the tail, and the kit includes a convenient storage bag. You can use the wheel chock as a chock when parked on pavement, and the strap

can be used to secure the plane on a tarmac with built-in tie downs. When parking overnight on grass, simply drive the 3 anchor rods through the holes in the wheel chock to create a tie down and clip your tie down strap to the wheel chock & wing. P/N 13-03148.....



TIE DOWN STRAP

15 feet long, long enough for most high wing aircraft • 2'300 Lb ultimate strap strength • Snap buckle on each end · Safety yellow color Snap buckles cannot fall off of aircraft when loose or in gusty winds P/N13-03149



BAGGAGE TIE-DOWN

A very strong, light weight, and quick way to secure your baggage. The photo shows two units; One with the clamp/ring installed in the base and one with the clamp/ring removed to show more detail. The unit parts are made of anodized 6061 T-6 aluminum with a stainless ring. 2 rivnuts and 2 countersunk 10-32 cad-plated screws are furnished with each complete unit. Extra

bases can be purchased individually, and include rivnuts and screws. Note: Use rivnuts to attach to surfaces with no rear access - simply drill a .25" hole and install rivnut. By installing additional bases you can tailor your baggage tie-down options to suit your current needs.

P/N 13-01729



E-Z LOCK TIE DOWNS

EZ-Lock Tie Downs feature a braid slip lock which provides excellent tie-down security without the need to tie any knots.

P/N 13-00159......



NELSON AIRCRAFT TIE-DOWNS

- Three 15" welded (not bent) steel anchors with sharp tips for easy installation
- Three 15' nylon ropes• Cordura, Int'l. Orange, 8"x15" case
- Wt: 4 lbs. P/N 13-00663.....

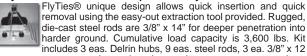
SECURIT TIE-DOWN

Super-strong and simple to use, Securit has a unique braid lock that provides holding action automatically, even when the line is slack. It releases quickly and easily, but positively will not release by itself. Adjustable to 100". Tensile strength of the polypropylene rope exceeds 4000 lbs. Hooks are cadmium plated. Rope is resistant to water, oil and gas. Wt. 19 oz...P/N 13-22750

Less 10% for 3 or more. Price shown is for one unit.

FLY TIES TIE DOWN

FlyTies Tie Downs Rated "Top Choice" by Aviation Consumer



ropes, easy-out extraction tool, and rugged compact canvas tote bag. Complete kit weighs only 6 lbs. (less than 1 gal of Avgas) and has a lifetime warranty......P/N 13-22751.....P/N



NYLON TIE-DOWN ROPE

American-made 100% duPont filament fiber nylon rope. Over twice the strength of manila. Highly resistant to sunlight, rot & mildew. Don't be fooled by foreign imitations. 3/8" Rope (4000 lb. test)P/N 13-05400 /Ft. 1/2" Rope (6250 lb. test) .. .P/N 13-05500

15% Discount on 100 ft.

Tie-down bar guaranteed for 10 years under normal use.

When making your own length of tie-downs, add at least 30" for rope reversal and

HOOK-N-PULL TIE DOWNS Hook-N-Pull Tie downs feature closed end "s'

hooks made from high quality steel with heavy plating, and tie down bards are made from high grade aluminum, hardened for strength and ball burnished and anodized. Furnished with 3/8"

diameter nylon rope.
High wingP/N 13-00448
Low wing or tail.....P/N 13-00449

AIRCRAFT TIE DOWNS

Three 17" x 3/8" plated steel cork screw stakes. Three 10' x 3/8" polypropylene ropes. Cloth draw string bag. P/N 13-06634



GENUINE VELCRO
5819 Genuine Velcro Two 4 1/2" pressure sensitive hook P/N 13-06404



TOUGHMAN TIE-DOWN

The Toughman™ Tie-Down is a new and unique multiuse rope based tie-down system. The Toughman™ Tie-Down incorporate the patent protected Toughman™ Rope Clamp which has only two moving parts and is manufactured from high performance engineered nylon resin. It is very easy to use, extremely lightweight, high strength and permanently corrosion proof. The Tough-

man™ Tie-Down product package includes one rope clamp, ten or fifteen feet of rope and one corrosion resistant steel hook. Military Tough: The Toughman™ Rope Clamp has undergone rigorous testing by the US Army Soldier Systems Center, "Natick" test labs and has been approved for use on cargo nets and rope support lines on military tents.

					13-05115
1/2"	Red 8	Yellow	15'	P/N	13-05116
3/8"	Red 8	Yellow	10'	P/N	13-06142



SECURENET AIRCRAFT TIE DOWNS

				4414			
Aircraft Type	Net Size	An- chors	Frame Ratchets	Tie Downs	Foam Pads	Part No.	Price
Low Wing Aircraft	3-5'x 12'	10	4	12		13-06781	
High Wing Aircraft	2-5'x 18' 1-5'x12'	10	4	12	15	13-06782	
Amphibian Aircraft			16	0	15	13-06783	



STUBAI CARIBINERS

Incredible strength, 1400 lb capacity, quick release. Order teal or black. 3.25 in (8 cm) x 2.5 in (6 cm) x .375 in (1 cm) (approximate) Weighs 1.5 ounce (45 gm)
TealP/N 10-03736

BlackP/N 10-03737



TIE-DOWN EYE BOLT

For non-structual applications. The 7/15" dia. threaded shaft is 7/8" long. Hole is 5/8" dia. Overall length 2-1/2". Furnished with AN365-720 elastic stop nut and wide-area AN970-7 washer

P/N 13-04303.



AIRCRAFT TIE-DOWNS

These Aircraft Tie-Downs offer strong, durable, and easy to use tie downs for any weather condition. These tie downs are rated up to 3,000lbs. and tighten up with one quick pull. A sliding cap protects the buckle from freezing during cold weather and keeps grit out during windy field conditions. Each kit comes with: * Three 9 foot long tie down straps * Choice of tie down strap colors: black, red, or royal blue * A Dupont Cordura carrying bag with choice of colors; black, for-

est green, red, royal blue or navy. Embroidery is available for an additional \$5. Choose from Silver, Royal,

Navy,	or	Black.
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Description	Part No.	Price
Black-Black	13-06324	
Black-Red	13-06325	
Black-Roval	13-06326	
Red-Black	13-06327	
Red-Red	13-06328	

Description	Part No.	Price
Red - Royal	13-06329	
Roval-Black	13-06330	
Red-Roval	13-06331	
Roval-Roval	13-06332	

THE PILOT BUDDY

The PILOT BUDDY is a pillot actuated safety and restraint system for hand propping and tail tie down.

A 100 HP piston engine with climb propeller can produce about 500-700 pounds of thrust. The Pilot buddy is therefore constructed to meet and exceed

that load for purpose of positive restraint. The Pilot Buddy has a Black Velour storage Pouch (4" x 5"), and a slighty smaller restraint loop ring. The entire device and storage package weighs less than 2 OZ, and fits in the palm of your hand. Both the restraint loop (Left side-4 Yards=12'); and the release lanyard (Right side -6 yards = 18') are constructed of MIL Specification, MIL-C-5040, 750 pound test line. The Swing Latch Shackle release is test certified to 800 pounds tensils strength for operating loads. The Swing Latch mating ring on the Restraint loop (Left Side), is a ring contructed to MIL Specification. MS27762, with a tensile strength of more than 750 pounds. Package comes with instructions, a checklist for use, and otehr increasing safety materials. P/N 13-04259 ..



AIRCRAFT TIE-DOWN STRAPS

Monogramming available (max 10 letters or numbers). Monogramed items are noncancellable and nonreturnable.

For Monograming use PN 13-06073 . Specifications * Tensile Strength: 2970 (avg) * Weight(oz/yd): 1.12 * Width: 1" * Thickness: .070 (Avg) *

FICKS. Z I	
Blue	P/N 13-04341
Orange	P/N 13-04342
	P/N 13-04343
Red	P/N 13-04344



AEROSPOILER KIT, AERO-SPOILER EXTENSION KIT A lift reduction device used for storm protection

on aircraft parked outside during adverse weather conditions. The AeroSpoiler kit contains 10 cup/

receiver assemblies and 8 30"X3" inch blade assemblies. Each kit contains 20' of wing coverage. The AeroSpoiler will reduce the lift producing capability of your aircraft wing by as much as 96% on the area of wing covered by the Spoiler. Extension kits are available for aircraft requiring more than 20' of wing coverage.

P/N 13-06505......

Extension Kit......P/N -13-06506...



ASA WHEEL CHOCKS

Mandatory equipment for all aircraft, these tire stops are for keeping aircraft securely parked. A pair of black molded plastic wheel stops are connected with 22" bright yellow and black braided nylon rope that won't rot or retain water. The bottom cleats keep

aircraft securely parked.
Lightweight; 7-3/4" x 2-1/2" x 4-1/2"; concave design fits any aircraft tire.

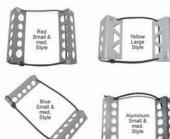
One pair is needed for each wheel. P/N 13-05752



FOLD DOWN MINI CHOCKS

These mini chocks are so small and light you can take them with you. They work perfectly on both hard and dirt surfaces. Anodized aluminum, each wheel pair folds down to 3.75"x 2"x.5" & weighs just 4 oz. A 14' lanyard is attached.

P/N 5229



TRAVEL CHOCKS

Travel chocks are a very light weight wheel chock designed for airplanes and other vehicles. Compact and easily stored, Travel Chocks are popular with pilots across the country. Powder coated in durable red, blue, or yellow finish. Available in 3 sizes.Chock set is for one wheel only.

Small - 1 1/2" angle x 6" long x 1/8" Thick Heat Treated Alum. Medium - 2" x 2" x 8" 1/8 Thick Angle Heat Treated Alum. Large - 3 1/2" x 3 1/2" x 8" Heat Treated 3/16" Thick Alum

Large - 3 1/2 x 3 1/2 x 0 Heat Heated 3/10 Hilck Alum.				
Description	Part Number	Price		
Small Bare Aluminum	13-01120-A			
Small Blue	13-01120-B			
Small Red	13-01120-R			
Small Yellow	13-01120-Y			
Mudium Bare Aluminum	13-01130-A			
Medium Blue	13-01130-B			
Medium Red	13-01130-R			
Medium Yellow	13-01130-Y			
Large Bare Aluminum	13-01140-A			
Large Red	13-01140-R			
Large Yellow	13-01140-Y			



WOOD WHEEL CHOCKS

These chocks feature heavy duty wood construction and are finished in bright safety yellow. Connected with 18" of braided nylon rope.

Std chocks.......P/N 13-01765..... Chocks w/ your N# or company name......P/N 13-01766.....



RUBBER WHEEL CHOCKS

These ribbed rubber wheel chocks measure 4"x4"x8" and have reflective tape on all three sides. Connected with nylon rope. Very popular with corporate operations & FBOs.

P/N 13-01767

AIRGIZMOS WHEEL CHOCKS

These chocks are unique because they are stackable. This feature really cuts down on the amount

of space required to carry them in the plane. The durable plastic sides are lightweight, but are made to take a lot of abuse. There is space on the sides to put your airplane's n-number (you supply

the vinyl lettering). The edges of these chocks are made of non-skid material, so they stay where you put them. They also won't damage anything else in your baggage compartment.

P/N 13-04298



Yellow......P/N 13-06406.....



QUICK CHOCK

Design - Unique but simple one-piece design consists of two chocking surfaces connected by a telescoping, tensioning mem-ber. Construction - Weather resistant PVC plastic exterior combined with heavy duty PVC (schedule 80) for interior support, along with military specification bungee assures years of service. The gripping surface is tire belt rubber to provide good friction and wear properties. P/N 13-06619..... ea.

WINDSOCKS

SCOTT'S WINDSOCKS







Scott's windsocks are manufactured of long-life polyester fabric that is treated to resist the effects of wind and weather. All seams are double stitched with polyester thread for strength. The windsock throat is reinforced and has solid brass grommets for easy attachment and corrosion resistance. Nylon ties are included with each windsock to attach it to the frame. Windsocks are available in high visibility orange, white or alternate orange and white stripes. Fully extended at 20 MPH or 15 Knots.

BRIGHT ORANGE			
Throat Dia.	Length	Part No.	Price
8"	30 inches	13-04147	
10"	36 inches	13-02026	
13"	55 inches	13-04145	
18"	5 feet	13-20200	
18"	8 feet	13-20202	
24"	8 feet	13-20204	
28"	7 feet	13-20205	
36"	10 feet	13-20206	
36"	12 feet	13-20208	
	INTENS	E WHITE	
Throat Dia.	Length	Part No.	Price
18"	5 feet	13-20210	
18"	8 feet	13-20212	
24"	8 feet	13-20214	
	WHITE/OR/	<i>NGE STRIPE</i>	
Throat Dia.	Length	Part No.	Price
18"	5 feet	13-20220	
18"	8 feet	13-20222	
24"	8 feet	13-20224	
28"	7 feet	13-20225	
36"	10 feet	13-20226	
36"	12 feet	13-20228	



SCOTT'S STANDARD WINDSOCK FRAMES

These very popular frames are constructed of welded steel for strength & durability. They have 2 ball bearings for easy swiveling and are painted for corrosion resistance. The frame is mounted to a 1-inch diameter support pipe threaded to fit a 3/4" size pipe or conduit. Order windsocks separately.

8"	P/N 13-20229
24"	P/N 13-20232
10"	P/N 13-20005
28"	P/N 13-20234
13"	P/N 13-20231
36"	P/N 13-20235
18"	P/N 13-20230

SCOTT'S EXTENDED WINDSOCK FRAMES

The extended frame turns much easier and keeps the windsock headed into the wind like a weathervane. The frame holds the windsock open fully so it will "fly" in lighter winds. Constructed of all welded steel with 2 ball bearings. The frame is mounted to a 1-inch diameter support pipe threaded to fit a 3/4-inch size pipe or conduit. **ORDER WINDSOCKS** SEPARATELY

18" P/N 13-20244	36"P/N 13-20248
24" P/N 13-20245	

INTERNALLY LIGHTED EXTENDED FRAMES



An internally lighted windsock with extended frame makes the windsock "glow in the dark" for maximum visibility. The lamp operates on regular 120VAC current. The 18-inch diameter frame has a GE 8,000 hour lamp that lasts about 2 years. The 24-inch and 36-inch frames have reflector flood lamps. Designed to swivel without twisting the wires. The frame is constructed of all welded steel for strength and is painted to resist corrosion. The electri-

cal connection for the lamps may be wired permanently or temporarily connected with an extension cord. The frame is mounted to a 1-inch diameter support pipe threaded to fit a 3/4-inch size pipe or conduit. ORDER WINDSOCKS SEPARATELY.

13"P/N	13-02029
18"P/N	13-20236
24"P/N	13-20238
	13-20242

MINIATURE 15" WIND SOCK

For home, office, hangar or workshop. The 15" long wind cone of Flame-Orange sailcloth material swivels on 23" high steel shaft. Wind directionals are cast aluminum with flat black finish. Furnished with mounting hardware and Complete KitP/N 13-03747

instructions. Replacement Sock....P/N 13-03748.....



7" VINYL WINDSOCKFeatures 27" long x 6-1/2" diameter fluorescent orange vinyl sock. Aluminum mast adjusts from 33" to 54" and up to 12 ft. with extension kit. Perfect for private strip, helicopters, or runway threshold.

Complete Windsock w/frame......P/N 13-20015.....P/N 13-20025..... Replacement Sock.....

8 FOOT VINYL WINDSOCK



18" diameter sock is double stitched, durable, fluorescent orange vinyl coated nylon. Ball bearings let sock turn easily even in light winds. Aluminum frame holds mouth open. Mount on appropriate pipe. Order frame and sock separately

8 Foot sock only....P/N 13-20035

NYLON WINDSOCKS



These socks are windtunnel tested and designed for conditions in which safety and wind direction are of greatest importance. They are constructed of nylon oxford cloth for strength and flyability and dyed a bright orange for higher visibility. The throat and

tail bands are stitched with multiple rows of tough synthetic thread. The throat band is finished with #1 brass grommets and nylon ties are included. Unlike canvas or vinvl. these Socks fly in the slightest breeze.

Part No.	Throat Diameter	Length	Price Each
13-20040	10"	36"	
13-20045	18"	48"	
13-20050	18"	60"	
13-20055	18"	96"	
13-20060	36"	144"	

AVIATION WINDSOCKS



All Aviation Windsocks are made of heavy-weight cross-woven Aviation blend mate-rial having special Rip-Stop characterisreal naving special rip-stop characteristics, flexible, chemically resistant treated, Polyurethane Coated for bonding strength and water repellancy, Ultra-violet dyed, with Nylon Web support and brass grommets.

Color: Colorfast International Orange. Estimated 50% longer life and color retention. Aviation sized windsocks. FAA approved sizes per FAA Advisory Circular #AC 150/5345-27C dated 07/85. Estimated wind speeds: Fully extended shape for all sizes listed below, (wind tunnel tested) to be special cut Specification of 15 knots = 16.5 mph. 18" - 28" diameter windsocks 96" in length. 36" diameter 144" in length.

18" dia P/N 13-02038	20" diaP/N 13-02039
24" dia P/N 13-02040	28" diaP/N 13-02041
36" dia P/N 13-02042	

EXTRA LONG LIFE WINDSOCKS



"Extra Long Life" is a heavy-duty cross-woven Aviation blend Poly./Nylon mate-rial with special Rip-Stop characteristics, Medium-weight for more flexibility, chemically resistant treated, and Polyurethane coated for bonding strength and water repellency. Ultra-violet dyed for best retention. Nylon support webbing on intake opening with brass grommets. Colorfast International Bright Orange in color. "Extra

Long Life" windsocks have an estimate 50% longer life and color reten-

Size	Part No.	Price
6"X18	13-20110	
9X30	13-20111	
10X36	13-20112	
13X48	13-20113	
18X60	13-20114	
20X60	13-20115	
12"X48"	13-04316	

Ш	Size	Part No.	Price
	15"X55"	13-04317	
	20"X96"	13-02039	
Ш	18"X96"	13-02038	
Ш	24"X96"	13-02040	
	28"X96"	13-02041	
Ш	36"X144"	13-02042	

WINDSOCKS

AIRPORT WINDSOCKS



What makes these aviation windsocks different?

Two major things make a windsock, its material and its construction. Starting off with a premium nylon fabric that is made right here in the USA to exact standards. Nylon offers unparalleled windsock durability to the elements and will not become rigid

in cold weather, keeping these windsocks extremely responsive in even the slightest of wind. From there it gets urethane coated and UV protected, giving the windsock superior fade resistance and color retention. The material is subjected to a variety of tests by an independent lab to verify its structural integrity and UV resistance. This superior material is then cut and sewn. Our reinforced double stitched hems and heavy duty brass grommets, assures these windsocks long life reliability.

The added expense of a superior material and manufacturing process meets the needs of even the most demanding windsock customers. Such as: US Military, US Coast Guard, US Embassies, State Airports, Offshore Oil Rigs, Nuclear Power Plants, Medical Heliports, Government

Bio Hazard Units.					
ORANGE WINDSOCKS					
Description	Size	Part No.	Price		
Orange Windsock	4" x 15"	13-06386			
Orange Windsock	6" x 24"	13-06387			
Orange Windsock	8" x 36"	13-06388			
Orange Windsock	10" x 36"	13-06389			
Orange Windsock	13" x 54"	13-06465			
Orange Windsock	18" x 60"	13-06466			
Orange Windsock	18" x 72"	13-06467			
Orange Windsock	18" x 96"	13-06468			
Orange Windsock	20" x 96"	13-06469			
Orange Windsock	24" x 96"	13-06470			
Orange Windsock	36" x 144"	13-06471			
ORANGE AND	WHITE WIND	<i>ISOCKS</i>			
Description	Size	Part Number	Price		
Orange & White Windsock	4" x 15"	13-06472			
Orange & White Windsock	8" x 36"	13-06473			
Orange & White Windsock	10" x 36"	13-06474			
Orange & White Windsock	13" x 54"	13-06475			
Orange & White Windsock	18" x 60"	13-06476			
Orange & White Windsock	18" x 72"	13-06477			
Orange & White Windsock	18" x 96"	13-06478			
Orange & White Windsock	24" x 96"	13-06479			
Orange & White Windsock	36" x 144"	13-06480			

BALL BEARING FRAMES



The ball bearing windsock frames are a rugged design constructed of a welded steel construction and then a powder coated finish for corrosion protection. They incorporate a two bearing pivoting design for effortless pivoting. These frames are ready to be mounted on a ¾" female pipe thread for the 8", 13", 18" and 24" and a 1" pipe thread for the 36".

Description	Size	Part No.	Price
Ball Bearing Frames	8"	13-06481	
Ball Bearing Frames	13"	13-06482	
Ball Bearing Frames	18"	13-06483	
Ball Bearing Frames	24"	13-06484	
Ball Bearing Frames	36" Non Collapsible	13-06485	
Ball Bearing Frames	36" Collapsible	13-06486	



EXTENDED BALL BEARING FRAMES

These windsock ball bearing extended frames are a rugged design constructed of a welded steel construction and then a powder coated finish for corrosion protection. They incorporate the same high quality construction as our standard ball bearing frames with the added performance of an extened frame. They incorporate a two

bearing pivoting design for effortless pivoting. These frames are ready to be mounted on a ¾" female pipe thread for the 13"and 18" frames. Use 1" female pipe thread for mounting the and 36" frames

Description	Size	Part No.	Price
Extended Ball Bearing Frames	13"	13-06487	
Extended Ball Bearing Frames	18"	13-06488	
Extended Ball Bearing Frames	24"	13-06489	
Extended Ball Bearing Frames	36"	13-06490	

VERTICAL SOCK KITS



These complete kits include our standard frame, windsock, windsock ties, pole, and brackets. They are a stand alone unit for mounting on a flat vertical surface or they can be installed right onto an existing 3/4" pipe thread pole.

Description	Size	Part No.	Price
Vertical Mount Windsock Kit	8" x 36"	13-06491	
Vertical Mount Windsock Kit	13 " x 54"	13-06494	
Vertical Mount Windsock Kit	18" x 60"	13-06495	
Vertical Mount Windsock Kit	18" x 96"	13-06496	



TRIPOD MOUNT WINDSOCK KIT

These complete kits include our standard frame, windsock, windsock ties, pole, and tripod. They are a stand alone unit for mounting on a flat horizontal or peaked roof surface or they can be installed right onto an existing 3/4" pipe thread pole.

Description	Size	Part No.	Price
Tripod Mount Windsock Kit	8" x 36"	13-06497	
Tripod Mount Windsock Kit	13" x 54"	13-06498	
Tripod Mount Windsock Kit	18 x 60"	13-06499	
Tripod Mount Windsock Kit	18" x 96"	13-06501	

PORTABLE WINDSOCK KIT



Our portable windsock kit is a popular choice for remote locations where knowing the wind speed and direction is vital. This rugged, stand alone unit comes complete with the pole, frame, windsock and windsock ties. These units are manufactured right here in our facility reassuring only the best in quality and performance. This free standing system measures over

7' tall in its assembled configuration.

* It features an extremely rugged design that incorporates a pole with a foot lug and handle for easy installation and removal. The two part pole disassembles for easy transportation.

The frame conveniently screws onto the top of the pole. Its aluminum hoop and bail pivot on a stainless steel shaft for years of reliable and responsive action.

The portable unit incorporates the same high quality windsocks we manufacture for commercial airfield use. These high quality socks are constructed from U.S. made nylon fabric that is urethane coated and UV protected. This material is made to our very strict and exacting standards and then sewn right here in our facility, producing a windsock of uncompromising quality. They are offered in (3) sizes for the portable unit. UPS only on this product due to size of package.

Description	Size	Part No.	Price
Portable Windsock Kit	6 " x 24"	13-06502	
Portable Windsock Kit	8 " x 36"	13-06503	
Portable Windsock Kit	13" x 54"	13-06504	

AVIATION LIGHTED WINDSOCK FRAMES



Internally lighted, heavy duty ball-bearing frame, with 1-75 to 300W lamp, extended to 30" double hoop frameworks. (3/8" round metal frameworks) FAA approved sizes per FAA Advisory Circular #AC150/5345-27C dated 07/19/85. Furnished complete with windsocks

18"	diaP/N	13-02043
20"	diaP/N	13-05729
24"	diaP/N	13-05730
36"	diaP/N	13-05731



WINDSOCK FRAMES

Totally enclosed housing prevents heavy duty ball-bearing from lock-ups, corrosion, and excessive premature wear. Bearings are grease packed, metal shielded. Self contained unit easily attaches with 3/4" standard

6" diaP/N	13-20120
9" diaP/N	13-20121
10" diaP/N	13-20122

MONTAGUE FOLDING

MONTAGUE CX COMFORT BIKE



The Montague CX features 26" standard wheels, 21-speed Shimano gearing and a brushed blue aluminum / chromoly frame. Folds to 36"x 28"x 12" in under 30 seconds without use of tools, and fits easily into light aircraft, car trunk, or boats. Extra cushioned saddle and wide tires offer a smooth ride on paved road and a good grip on light off-road terrain. Excellent for cruising city

16" Frame	P/N	13-02468	
18" Frame	P/N	13-00386	
20" Frame	P/N	13-01050	

MONTAGUE - DX GRAND CANYON BIKE The DX Grand Canyon®



Crossover Bike is a great all-around bike for anyone looking for a comfortable ride at unbeatable price. Perfect for cruising through the city or countryside, this 18-speed bike comes equipped with Shimano gears, Gripshift shifters, slightly raised handle bars, and a super

soft gel saddle for your ultimate comfort. At the end of your ride, just fold up the lightweight DX and stow it in your car trunk, city apartment or anywhere in-between. Think of it as an all-around bike for the all-around rider. The DX Crossover Bike uses all standard Mountain Bike wheels and components serviceable at any bike shop.

16" DX Crossover Bik	eP/N	13-01945	
18" DXCrossover Bike	eP/N	13-03272	
20" Crossover Bike	P/N	13-02458	

MONTAGUE PARATROOPER™



A 24-speed mountain bike which folds simply, without the use of tools. By turning one quick release lever, Paratrooper™ compacts in less than 30 seconds into a 3'x3' pack for easy portability & storage.

18" P/N	13-01068
	13-01069

VATAVIO FOLDING BIKE



Vatavio Up to 18 Miles per Charge and 20 MPH the Vatavio is the BEST FOLDING BIKE in its class! The EcoBike Vatavio Folding Electric Bike is the most advanced folding electric bike on the market. Its lightweight aluminum frame design (48lbs) and folding capability makes it a very versatile to store when space is an issue, car trunk(no rack req.), train commuting, RV or Camper, Boat, or even the closet! The Vatavio is the ONLY folding electric bike with standard 8ah Lithium Ion Manganese battery, SHIMANO 6-speed w/Revoshift, 290 watt motor with Zero Start Feature and adjustable speed controller. Additionally, it sports Ksheild puncture resistant 20" tires, giving it maximum power and torque to get you up almost any hill with ease! Features: • Frame Style: Folding (35"x17"x29" folded) • Frame Size: Fits 4'11-6'4" • Color: Raw Aluminum Frame: 6061 Hi-Strength Aluminum • Rim: 20" Double Wall Aluminum • Tire: Kenda K-Sheild 1.75" Thorn-Resistant Tubes/Puncture-Resist Liners · Charger: AC 110V P/N 13-05709.....

MONTAGUE FOLDING PEDALS

These pedals reduce the width of the folded bike by 4 inches. While not ideal for high performance riding, they do serve a purpose for those with tight space con-P/N 13-03745

MONTAGUE MX MOUNTAIN BIKE



The Montague MX is a full size, high performance mountain bike with 26" standard wheels. Excellent for off-road use, it features a brushed aluminum color or an aluminum/ chromoly frame, and 24 speed Shimano gearing. Folds to 36"x 28"x 12" in less than 30 seconds without

in light aircraft, car trunk, o	r boat.	
18" F	rameP/N	13-00384
20" F	rameP/N	13-02936
MONTAGUE ACCESSORIE	S - Carrying Case	P/N 13-08406

SWISS LX 24 SPEED MOUNTAIN BIKE



SwissBike® The LX Mountain Bike is tough, rugged, and ready for anything. Experienced riders will enjoy this mountain bike whether dealing with mountain terrain or city pot holes, the SwissBike® LX is prepared for action. The speed of unfolding this bike for riding will blow

you away. No tools required to fold and stash away. The SwissBike® LX comes equipped with front suspension, 24-speed EZ Fire Plus® shifters. and a front disc brake to tackle the roughest terrain. The SwissBike® LX Mountain Bike uses all standard mountain bike wheels and components serviceable at any bike shop.

18" LX	24	P/N	13-04702	
20" LX	24	P/N	13-04703	

SWISS XO 27 SPEED MOUNTAIN BIKE



The SwissBike® XO Mountain Bike is an aggresive hard tail that can be ridden anywhere. This bike is designed for urban assaults of big hit riding and is ideal for anyone who likes to take their bike with them where ever they go. This 27 speed bike comes equipped with a hand welded custom drawn

aluminium frame, Sram® X-0 Trigger Shifters, hydraulic front disc brake and Rockshox® Recon front fork. Mountains, desert, single track, city streets - bring it on! The SwissBike XO Bike uses all standard Mountain Bike wheels and components serviceable at any bike shop

18" XO 27	P/N	13-04704	
20" XO 27	P/N	13-04705	

SWISS TX 21 SPEED MOUNTAIN BIKE



SwissBike® The TX Mountain Bike is a great all-around bike for anyone looking for a great ride at an unbeatable price. Perfect for cruising through the city or countryside, this 21-speed bike comes equipped with Shimano gears, Gripshift shifters for your ultimate ride. At the end of your ride, just fold

up the lightweight SwissBike TX and stow it in your car trunk, city apartment or anywhere in-between. Think of it as an all-around bike for the all-around rider. The SwissBike TX Bike uses all standard Mountain Bike wheels and components serviceable at any bike shop

	21		13-04699
20" TX	21	P/N	13-04701

DAHON FOLDING **BICYCLES**

20" DAHON SPEED FOLDING BICYCLE



The Speed folding bicycle from Dahon features the latest in frame design with gearing provided by a 8-speed Shimano SIS derailleur. Frame is custom drawn 4130 lite-chromoly steel and the wheels are 20"x1-3/8" with stainless steel spokes and lite-alloy rims. The folded size of the bike is 10"x 22"x 32", Wt: 26.5 lbs., and folding time is only 10 seconds. Color: Blue P/N 13-00043

DAHON MATRIX FOLDING BIKE



Featured in AOPA Pilot and Flying magazines, the new Matrix 26" folding bicy cle features 24-speed central gears with grip shift, all aluminum lightweight frame with suspension fork, Pro-Max brakes, alloy rims, and an all aluminum finish. Folded size: 13" x 28" x 38". Wt.: 28.5 lbs. A very lightweight high performance bike for the serious rider in a folded size

that stows easily in an aircraft baggage compartment or a car trunk. Color: Black P/N 13-00040

OTHER DAHON FOLDING BIKES



Model	Color	Wheels	Speed	Fold Size	Wt	P/N	Price
Boardwlk-1	Burgundy	20"	1	10"x20"x32"	32	13-00042	
Mariner	Ocean Blue	20"	6	12"x22"x32"	30	13-00037	
Helios P8	Aluminum	20"	8	11"x23"x33"	-	13-00789	
Mariner	Ocean Blue	20"	6	11"x23"x33"	-	13-00037	
Speed P8	Steel Blue	20"	8	14"x23"x33"	-	13-00043	
Espresso	Dk. Cherry	26"	21	14"x27"x36"	-	13-00791	
Curve D3	Fire Red	16"	3	-	-	13-05780	
Speed 8	Fire Red	20"	8	-	-	13-00043	
Ciao! P8	Charcoal	20"	8	-	-	13-05781	
Glide P8	Carmel	24"	8	-	-	13-05782	

DAHON ACCESSORIES

Description	P/N	Price	Description	P/N	Price
Kickstand	13-08310		Rear Rack	13-08340	
			Carry Bag 20"	13-08360	

DAHON SPEED D7 FOLDING BICYCLE



Riding a bike has never been this fun. The Speed combines sporty performance with unbelievable value. The frame is hand-welded from custom-drawn 4130 chromoly Sonus tubing and incorporates six different patented technologies, resulting in what is probably Dahon's stiffest frame. It features the Dahon Neos rear derailleur, a revolutionary new design that has

an ultra short cage for improved ground clearance and super fast shifting. Dahon paired the Neos with an 11-30T cassette, which, when compared with the previous 14-28T freewheel, represents a 37% increase in gear range. Sleek, simple and excellent value - just what most people want in a folding bike. MoroccanP/N 13-04094..... Blue 27 1lbs

DAHON CADENZA FOLDING BICYCLE



The Cadenza is a full-size 16 SPEED road bike which is ideal for long range riding on asphalt. With its skinny tires and lightweight aluminum frame and components, the Cadenza is a fast road bike which affords the rider an upright posture. Features include carbon-wrapped aluminum handle bar and ergonomic bar ends, quick release folding stem, and alloy rims with stainless spokes. P/N 13-04062

RIVIERA FOLDING ELECTRIC BICYCLE



Riviera folding electric bicycle is a one of kind folding electric bicycle that anyone can have fun with. You can ride this electric bike three different ways: 1. Like a regular bike in the "OFF" mode. 2. Pedal normally in the "ON" position and the pedal assist kicks in and helps you out! 3. Use the thumb throttle and NO pedaling

is required! The Riviera is popular with RVers as well as private pilots. With gas prices high and with more people concerned about the environment, the electric bike is a wonderful P/N 13-04070.....

UN CRUZ'N PORTABLE SCOOTER Built with highest quality parts • Subaru Robin



4-stroke engine • Quiet, smooth, and "Subaru" long life • Meets California & Federal emissions • No mixing fuel/enclosed tank for 85 mi. • Foldable handlebars & adjustable seat · Compact and light for stowing • Rear "cruising" suspension • Front & back disk brakes • Quiet long-life belt drive • Many "cruising accessories.

P/N 13-03273.....



TRAVEL SCOOT

Incredibly small folding size 33" x 12" x 10". Fits where no mobility scooter has fit before. Made of aircraft-grade aluminum. Weighs only 47 lbs. including the 24V 12Alt battery, basket, and carrying bag. Set up time less than one minute. Heaviest part is only 20 lbs. Supports 260 lbs plus some

luggage. Speed 7 mph & 8 miles percharge. Battery approved for airline transport. P/N 13-03635

PATMONT GSR CRUISER



After 22 years of building high quality motorized scooters for a wide variety of customers, PMW has now developed what it believes is the perfect machine for a vary large segment of motorized scooter enthusiasts. * Suggested Usage: City / Cruising * Engine: 29cc two-stroke 40:1 oil ratio * Max Speed: 24mph * Transmission: chain drive w/ centrifugal clutch * Weight: (lb) 32lbs * Est. Fuel Econ. (* California Air Resource Board Legal * W.13" H.14") * Additional

Dimensions: L-34" W-13" H-42 (Folded L-34" W-13" H-14") * Additional Features Frame: 4130 chromoly – lifetime warranty on the frame * Forks: 4130 chromoly - lifetime warranty on the fork * Handlebars: 6061 T6 aircraft grade aluminum with slightly wider than standard cross bar for better handling * Suspension: No suspension but the frame is designed to flex to absorb shock " Flexdynamic " * Carburator : Non adjustable/ P/N 13-06077..... maintenance free * Capacity: 400lbs

PARACHUTES

SOFTIE EMERGENCY PARACHUTES



An extremely comfortable State-of-the-art lightweight emergency parachute system designed to fit into the restricted cockpits of today's aircraft. The steerable conical canopy is designed for a 240# maximum suspended weight. System size and weight 2"x15" w. x 24" long. 14 lbs.

P/N 13-03505-X.....

MICRO-SOFTIE

A narrower version of the Mini-Softie with a 13" wide harness designed to stay secure over the shoulders of slightly built people. The steerable conical canopy is designed for 180# maximum suspended weight. System size and weight 2"x13" w. x 23" long. 13 lbs.

P/N 13-03510-X....

Specifically designed for today's high-tech soaring machines and aerobatic aircraft which have little if any cockpit room. The Long-Softie comes complete with

a steerable conical canopy designed for 240# maximum suspended weight. System size and weight 2"x15" w. x 35" long. 15 lbs.

P/N 13-03515-X.

Container and harness only. Order a parachute separately or specify type of parachute you have to make sure container is suitable size. P/N 13-03520-X...

WEDGE-SOFTIE

A wedged shaped version of the popular MINI-SOFTIE and MICRO-SOFTIES. The WEDGE-SOFTIE is designed specifically to add lumbar and sacral support during high positive "G" maneuvers. Ideal for the upright scatting found in Pitts style seating. Specifications: 3" thick at bottom, 1/2" thick at top x 14" wide x 24" long. Canopy Type: Slecrable Conical*. Total weight: 14 lbs. P/N 13-03524

NOTE: Complete the Part Number with Color (-1) Red, (-2) Black (-3) Royal Blue, (-4) Navy Blue, (-5) Grey, (-6) Sage Green or (-7) Olive Drab. Also complete P/N with "C" for Conventional or "A" for Aerobatic. Example: P/N 13-00000-5A



PREMIUM TRIM PARACHUTE

360/425/490" Premium Trim Emergency Back Parachutes. Includes: Snaps on legs, Snaps on thread thru adapter on the chest, free carrying bag. Features: * Color Choices: Black or Red or Navy Blue (Black Trim & Harness). * Hardware: B-12 Snaps on Leg Straps, Thread-thru on Chest. * Logic: Mass produce in "standard configuration" with limited colors. * Free Carry Bag

Included * Same quality parachute system that performs equally as the pre-existing "Signature Series" without frills or options.

Description	Part No.	Price
Premium National Flat Red	13-06263	
Premium National Flat Black	13-06264	
Premium National Flat Navv	13-06265	

NATIONAL EMERGENCY PARACHUTES

National parachutes are built with the finest U.S. materials in accordance with TSO C23b in the Standard Category. Constructed with 1.1 oz. ripstop nylon. High stressed areas are reinforced with Kevlar. The pack design allows greater movement in and around the aircraft. Highly recommended by Aerobatic Champions Leo Loudenslager and Patty

NATIONAL'S BACKPACK - developed with the pilot in mind and the most popular model. The teardrop shape provides flex-ibility and maximum comfort even in the tightest cockpits. Standard design includes a tapered width and teardrop shape

that hugs the back and also provides comfortable lower lumbar support

Thickness w Thickness L Part No. Top Bottom Upper Back Lower Lumbar 360* 13-03300 22" 13" 15" 1-3/4" 1-3/4" 22" 13" 15 13-03200 425* 1-3/4

4426* | 22" | 13" | 15" | 1-3/4" | 2" | 13-03200 | ... |
490° | 22" | 13" | 15" | 1-3/4" | 2-1/4" | 13-03400 | ... |
*360 = Recommended Pilot Weight is up to 177 lbs.
*425 = Recommended Pilot Weight is up to 208 lbs.
*425 = Recommended Pilot Weight is up to 208 lbs.
*490 = Recommended Pilot Weight is up to 241 lbs.

**NATIONAL'S SEAT PACK - Especially desirable when the cockpit has more vertical space than horizontal. For added comfort, the seat pad has 1 inch of "Astronaut Foam" above the parachute (accessible to remove or add foam/padding as required).Comes with TT adapters or two B12 snaps. Quick ejector snaps available (special order).

Size	L	W qoT	W Btm.	Thickness Upper Back	Thickness Lower Lumbar	Part No.	Price
360*	22"	13"	15"	1/4"	2-3/4"	13-03411	
425*	22"	13"	15"	1/4"	3-1/4"	13-03412	
490*	22"	13"	15"	1/4"	3-1/4"	13-03413	



NATIONAL'S CHAIR - Designed for pilots whose aircraft has little cockpit space and to accommodate pilots who prefer a wrap around pack. The parachute is packed through the entire container length to maintain full flexibility and the slimmest profile throughout the container.

Size	L	W qoT	W Bottom	Thickness Upper Back	Thickness Lower Lumbar	Part No.	Price
360*	40"	13"	15"	1-3/4"	2"	13-03421	
425*	40"	13"	15"	1-3/4"	2-1/4"	13-03422	
490*	40"	13"	15"	1-3/4"	2-1/2"	13-03423	

NATIONAL FLAT PARACHUTE

The flat pack is slightly wider and more rectangular but much flatter than our original back parachute's "teardrop" The National FLAT is thinner and even more supple than before. The "Flat-Pack" parachute container provides two choices in packing configuration: 1. More

canopy in the upper container for the absolute thinnest beltline thickness (Taper Pack). 2.Canopy spread evenly to be one thickness (thinness!) op to bottom (Fully Flat Pack)

Description Part No. Price National Flat 13-06270 National Flat Bag 13-06266 National B-12 Snaps 13-01959 National Quick Eject Snaps

PARA-CUSHION EMERGENCY PARACHUTES Each Para-Cushion system PARA-CUSHION CHAIR™ - The



system features the patented Pop-Top type container with the externally mounted pilot chute which provides a flat profile while worn and gives a quick and positive send off when released. The canopy risers are neatly hidden in built-

in channels contoured into the container. Each container is padded with a luxurious 1/2" (1cm) layer of Confor™ foam, covered with rich silver grey velour fabric. The harness utilizes a light weight fixed-dimension main lift web with individual leg strap design for ease of walking and maximum cockpit movement while saving weight and space. Fully adjustable. Deployment is ripcord actuated with the handle located at the front left side of the harness. Each system is assembled with the popular 26 ft diameter MID-LITE canopy freshly packed by an FAA licensed parachute rigger. Every system is delivered in a matching carrying bag with the complete service manual,

PARA-CUSHION BACKTM - The Model 303 parachute assembly is the most popular model and used by warbird, sailplane & aerobatic pilots. The back-mounted container conforms to the curve of your shoulders, and is only 24" (60 cm) tall by 16" (40 cm) wide and less than 3" (7 cm) thick. The Model 303 weighs approximately 15 lbs. (6.5 kg.). It is recommended when head space is at a minimum, such as Christen Eagle & P/N 13-03440

PARA-CUSHION CHAIR™ - The Model 305 is truly a chair-parachute, covering the back of the body from shoulders to just above the knees. The patented chair-type container conforms to the curve of your back. It is especially popular among sailplanes pilots flying for hours in the supine position, it is literally a "parachute-cushion" beneath the pilot. It is 42" (105 cm) long by 16" (40 cm) wide and varies from 2.5" to less than 1" (6.5 to 2.5 cm) thick, designed specifically for use where space is minimal. The complete system weighs approximately 16.5 lbs. (7.5 kg.). P/N 13-03442.....

PARA-CUSHION SEAT™ - The Model 304 parachute assembly is designed specifically for emergency use by sport aviators flying aircraft utilizing a seat pan. The parachute container is a seat cushion 12"x16" (30cmx40 cm) and less than 3" (7 cm) thick. Because the backpad is only a half inch (1 cm) thick, the system is also especially suited to aircraft with restricted stick or rudder travel, or when head room is not restricted, such as Stearman, Great Lakes and Citabria. The complete system weighs approximately 15 lbs. (6.5 lbs. (6.5 kg.) A zip-on 3" (7 cm) Confor-foam™ padded Travel Cushion is an optional accessory

P/N13-03441. OXYGEN POCKET - Zipper pocket that your oxygen tank can fit in. Available for the 303 & 305. P/N 13-04921.....

Available for the 303 & 305 Aerobatic Harness Option Quick ejector snaps N/C Capewell riser releases Quick ejector snaps Oxygen pocket (Aerobátic) Sheepskin backpad Monogram personalization

RECHECK CHECKLISTS - MUT



SURECHECK CHECKLISTS

These versatile checklists cover all aspects of preflight, standard operation procedures, emergency procedures, V-speeds, ATC light signals, and include a TCA and sectional scale. Easy to read large, black on white type.

Madal	Dout #	Dries	Model	Part #	Price
Model	Part #	Price	Model	rart#	Frice
PIPER			CESSNA		
Tomahawk	13-09708		C-177	13-09731	
Cher 140	13-09709		C-182	13-09732	
Cadet	13-09710		C-206	13-09733	
Warrior II	13-09711		C-210	13-09734	
Archer II	13-09712		C-172RG	13-09735	
Arrow II	13-09713		C-182RG	13-09736	
Arrow III	13-09714		C-177RG	13-09737	
Arrow IV	13-09715		BEECH		
Cher "six" 260	13-09716		Debonair A33	13-09738	
Cher "six" 300	13-09717		Debonair B33	13-09739	
Saratoga	13-09718		Debonair C33	13-09740	
Lance	13-09719		Bonanza F33A	13-09741	
Seminole	13-09720		Bonanza V35	13-09742	
Seneca I	13-09721		Bonanza A36	13-09743	
Seneca II	13-09722		Duchess 76	13-09744	
Seneca III	13-09723		Baron 55	13-09745	
Seneca IV	13-09724		Baron 58	13-09746	
Aztec E	13-09725		OTHER		
Aztec F	13-09726		Katana DA 20	13-09747	
CESSNA			Commander 114		
C-150	13-09727		Mooney M20C		
C-152	13-09728			13-09750	
C-172	13-09729		AA-5B Tiger	13-09751	•
C-172XP II	13-09730		Tabago	13-09752	-:-



SURECHECK ACCESSORIES

ATISPAD - Sticky posting pads for obtaining ATIS, ASOS, AWOS. Shrink wrapped in pads of (50) 3-3/4" x 4" P/N 13-09753

CLEARANCE PAD - Posting pads for obtaining IFR Clearances by pilots. Provides in-flight writing for Altitude, Heading, Frequency. Shrink wrapped in pads of 50 "CRAFT" style 5-1/2" x 6-1/4"

P/N 13-09754

FSSPAD - Bonded legal pad for obtaining weather briefings from FSS Shrink wrapped in pads of 50 sheet 5-1/2 x 6-1/4. P/N 13-09755



APPROACHPAD - Spiral Bound IFR approach chart holder. Holds up to 10 approach charts in transparent plastic. Easy Access with visible chart name in right corner. Fits on yoke clips or kneeboards for easy in-flight use.
P/N 13-09756



V BOOK - Small notebook with V-Speeds and approach Speeds. Perfect for Flight Schools, and Renters.

P/N 13-09757



PREFLITEPAD - All the information you need for weight and balance and V-speeds. Calculate center of gravity and keep other vital information at your fingertips. You'll wonder how you got through preflight without it! 4.25" x 7". Pad of 40 P/N 13-09854



CHECKRIDE CHECKLISTS - Unique to the SureCheck brand. Incorporates FAA PTS standards for new ratings. Also serves as a handy reference during all phases of training. Packed with a wealth of information not found anywhere else in such a complete configuration. Perfect for students and seasoned pilots to renew rating certs. Include the updates from the FAA (effective August 2002). New redesigned format with increased size to make them

even easier to read.	
Private pilot	P/N 13-00051
	P/N 13-00052
Commercial	P/N 13-00053



SIZE CHART - The overall circumference measurement of your dog's noggin at the larg-est point is the best determination of size, because if you choose a size too large, the muffs won't seal well against his head, and you lose all the

MUTT MUFFS

- Over-the-Head Hearing Protector for Animals.
- Specially Designed Wide Foam Filled Ear Seals for Maximum Comfort.
- Engineered specifically to properly meet the contour of a dog's head
- Comfortable and Lightweight
- · Adjustable Straps for Optimum Fit. Inner sound-deadening foam is the same density found in pilot's high-end headsets
- Made entirely in the United States of America
- Patent Pending

Muff Size	Typical Dog	Head Circum-	Maximum Inner Shell		
Size	Weight	ference	Width	Height	
X-Small	5-10 lbs	7-9"	1.5"	1.625"	
Small	9-25 lbs	9-13"	1.75"	1.75"	
Medium	20-50 lbs	13-18"	2.5"	2.5"	
Large	50-95 lbs	18-23"	3.25"	3.25"	
	05⊥ lbc	23T	4"	4"	

sound-reducing properties you were shooting for. Your dog's weight is also a good indicator of which size to choose.

Size	Weiaht	Part No.	Price	П	Size	Weight	Part No.	Price
X-Small	1.5 oz	13-05536		Ш	Large	4.0 oz	13-05539	
Small	1.7 oz	13-05537		Ш	ΧĽ	5.8 oz.	13-05540	
Med	3.0 oz	13-05538		Ш				

CUSTOM COLORS - David Clark® has their signature "Green" and there's the ever-classic "Mutt Muff® Gray". But now, Mutt Muffs® are available in three additional colors! *Red! Blue! and Pink!*

P/N 13-05541



CO-PILOT - TRIANGLE BANDANA FOR DOGS

The proper uniform for the distinguished canine aviator. Sewn on all three sides. Finished Sizes: Large:21.5" x 21.5" x 29",

Small: 14" x 14" x 20" Large P/N 13-05547 Small P/N 13-05548



HYDRO-BOWL FOR DOGS

Next time your pooch is pantin' for a drink, pull out the convenient, collapsible Hydro Bowl. Water-proof and made of a high-tech, durable plastic canvas, the Hydro Bowl folds up and snaps closed into a compact triangle for storage. Attach it to a leash, backpack, bicycle, or a variety of other places for backpack, bicyolo, с. _ easy storage. Hold 5 cups P/N 13-05546

DOG IS MY CO-PILOT - BUMPERSTICKER



"Dog Is My Co-Pilot" is the trademarked motto of Bark magazine - accept no substitute. As seen on dog-friendly cars from coast to coast!.... P/N 13-05545



E.S.P. CHECKMATE™

E.S.P. CheckMate™ is a 1st for Aviation, and the only product of its kind available. Our new "Emergency Substitute Pilot "™ could save the lives of you and your passengers by providing the most basic and simplest of terms and procedures to the NON-PILOT, in the unfortunate event the real pilot becomes incapacitated. E.S.P. CheckMate™ assists the NON-PILOT in controlling the aircraft, reaching help on the radio, and if necessary, landing the aircraft. The graphical format makes it easy and comfortable to follow. E.S.P. CheckMate™ can easily be the difference in the outcome of this

most serious type of emergency. For safety and readability, we are publishing only in 7.5" x 10" size.

P/N 13-01834

CHECKMATE CHECKLISTS



CHECKMATE CHECKLISTS

Checkmate is the only checklist that contains virtually all data desired by pilots to fly the airplane while excluding the extraneous information which leads to inefficiency, confusion and even refusal to use. They eliminate the tedious and cluttered 15-page flip-book that pilots quickly become discouraged from using. Checkmate contains the most comprehensive

Checkmate contains the most comprehensive V-speed section in the industry. V-speeds are listed in Knots and MPH. Checkmate not only makes a dramatic difference in everyday use, but also in critical situations. Emergency pro-

cedures are right there! Every time! With most of the emergencies there is no time to flip pages looking for the correct procedures.

Available for over 300 single and twin engine aircraft. All follow a standard format. Used by some of the best flight schools in the country. Checkmate checklists come in standard 6.5"x9" size.

Description	Part No.
Alarus/Zenith CH2000	13-04627
Aviat Husky A1-B	13-05490
Aviat Husky A1-B Amphibian	13-05491
Beechcraft Baron B55	13-04649
64'-76'	13-04049
Beechcraft Baron B55	12 04650
77'-82'	13-04650
Beechcraft Baron 58 285 HP	13-04651
Beechcraft Baron 58 300 HP	13-04652
Beechcraft Baron 58P 310 HP	13-04653
Beechcraft Baron 58P 325 HP	13-04654
Beechcraft G58 G100	13-04655
Beechcraft Bonanza A36	13-08699
'84 & On	13-00099
Beechcraft Bonanza F33A	13-04601
Beechcraft Bonanza G36	13-04608
G1000	
Beechcraft Bonanza JKM35	13-04602
Beechcraft Bonanza NP35	13-04604
Beechcraft Bonanza V35	13-04605
Beechcraft Bonanza V35TC	13-04606
Beechcraft Bonanza A36	13-04607
thru '83	
Beechcraft Debonair CEF33	13-08697
Beechcraft Duchess 76	13-04648
Beechcraft Bonanza S35	13-08698
Beechcraft Sundowner	13-08696
Cessna 150 '59-'63	13-08605
Cessna 150L	13-08606
Cessna 150M	13-08607
Cessna 152	13-08610
Cessna 172 F, G, H	13-08612
Cessna 172 I, K, L	13-08613
Cessna 172 M	13-08615
Cessna 172 N	13-08620
Cessna 172 P	13-08625
Cessna 172 R G1000	13-04575
Cessna 172 RG	13-08635
Cessna 172 S	13-04576
Cessna 172 S G1000	13-04577
Cessna 177	13-08636
Cessna 177 RG	13-08637
Cessna 182 E-M	13-08638
Cessna 182 P	13-08639
Cessna 182 Q	13-08640
Cessna 182 R	13-08641
Cessna 182 RG	13-08645
Cessna 182 S	13-04578
Cessna 182 T	13-04579
Cessna 182 T G1000	13-04580
Cessna T182T	13-04581
Cessna T182T G1000	13-04582
Cessna 206H	13-04583
Cessna 206H G1000	13-04584
Cessna T206H G1000	13-04585
Cessna T206H	13-05637
G1000,GFC700 S	10-00007
Cessna T206H	13-05638
G1000,GFC700 C	10 00000
Cessna T206H G1000	13-05394
Amphibian	
Cessna 210M	13-05476
Cessna T210M	13-05483
Cessna 210N	13-05482
Cessna T210N	13-05484
Cessna 303 Turbo	13-05635
Crusader S	
Cessna 303 Turbo	13-05636
Crusader C	
Cessna 310Q	13-04629
Cessna 310R	13-04630
Cessna 340A	13-04631

Description Part No. Cessna 421B 13-04634 Cessna 421C 13-04634 Cirrus SR20-Electric 13-04614 Cirrus SR22 13-04614 Cirrus SR22 13-04610 Citabria 7KCAA 13-04610 Citabria 7KCAB 13-04612 Diamond DA20-C1 13-04621 Diamond DA20-100 13-04622 Diamond DA40-180 13-04623 Diamond DA40-180 13-04623 Diamond DA40-180 FP G1000 13-04625 Diamond DA40-180 FP G1000 13-04625 Diamond DA40-180 FP G1000 13-04626 Diamond DA40-180 FP G1000 13-04625 Diamond DA40-180 FP G1000 13-04626 Diamond PA40-180 FP G1000 13-04625 Diamond PA40-180 FP G1000 13-04565 Mooney M20K-Z31 13-04613 <th>rd 6.5"X9" size.</th> <th></th>	rd 6.5"X9" size.	
Cessna 421C 13-04631 Cirrus SR20-Electric 13-04614 Cirrus SR22 13-04615 Citabria TECA 13-04615 Citabria TKCAA 13-04610 Citabria TKCAB 13-04611 Citabria TKCAB 13-04611 Citabria TKCAB 13-04612 Diamond DA20-100 13-04622 Diamond DA40-180 13-04623 Diamond DA40-180 13-04623 Diamond DA40-180 FP 13-04623 Diamond DA40-180 FP 13-04625 Diamond DA40-180 FP G1000 13-04626 Maule MT 7-235 13-04618 Mooney M20 (M20) 13-04656 Maule MT 7-235 13-04618 Mooney M20K-251 13-04618 Mooney M20K-252 13-04618 Mooney M20K-251 13-04618 Mooney M20R/Ovation 13-04518 Mooney M20R/Ovation 13-04518 Mooney M20TN/Acclaim <th></th> <th></th>		
Cirrus SR20-Electric 13-04615 Cirrus SR22 13-04609 Citabria TECA 13-04609 Citabria TKCAA 13-04610 Citabria TKCAB 13-04611 Citabria TGCBC 13-04612 Diamond DA20-100 13-04621 Diamond DA20-100 13-04622 Diamond DA40-180 13-04623 Diamond DA40-180 FP 13-04623 Diamond DA40-180 FP G1000 13-04625 Diamond DA40-180 FP G1000 13-04625 Diamond A42 G1000 13-04625 Diamond A42 G1000 13-04626 Maule MT 7-235 13-04613 Mooney Z01 (M20J) 13-08700 Mooney M20K-231 13-04618 Mooney M20K-252 13-04616 Mooney M20K-252 13-04616 Mooney M20WOrbaro 13-04618 Mooney M20R/Ovation 13-04619 Mooney M20R/Ovation 13-04619 Mooney M20S/Eagle 13-04619 Mooney M20TW/Acclaim 13-04594 Mooney M20TW/Acclaim 13-04594 Mooney M20TW/Acclaim <td></td> <td></td>		
Cirrus SR22 13-04619 Citabria 7FCA 13-04609 Citabria 7KCAB 13-04610 Citabria 7KCAB 13-04611 Citabria 7KCAB 13-04611 Diamond DA20 C1 13-04621 Diamond DA20-100 13-04622 Diamond DA40-180 13-04623 Diamond DA40-180 13-04623 Diamond DA40-180 FP 13-04625 Diamond DA40-180 FP G1000 13-04626 Mooney M20	Cessna 421C	
Citabria TECA 13-04609 Citabria TKCAA 13-04611 Citabria TKCAB 13-04611 Citabria TKCAB 13-04611 Citabria TKCAB 13-04612 Diamond DA20-100 13-04622 Diamond DA40-180 13-04623 Diamond DA40-180 13-04623 Diamond DA40-180 FP 13-04623 Diamond DA40-180 FP G1000 13-04625 Diamond DA40-180 FP G1000 13-04626 Diamond A2 G1000 13-04626 Diamond A42 G1000 13-04626 Diamond A42 G1000 13-04626 Mooney 201 (M20J) 13-04626 Mooney M20 (M20J) 13-04636 Mooney M20K-252 13-04618 Mooney M20K-252 13-04618 Mooney M20M/Cvation 13-04618 Mooney M20M/Cvation 13-04518 Mooney M20R/Ovation 13-04593 Mooney M20R/Ovation 13-04593 Mooney M20TN/Acclaim 13-04714 Compact 13-04594 Mooney M20TN/Acclaim 13-04714 Compact		
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Mooney M20K-252 13-04618	Mooney Encore M20K	13-05492
Mooney M20M/Bravo	Mooney M20K-231	13-04616
Mooney M20M/Ovation 13-04619		
Mooney M20M/Ovation 13-04619	Mooney M20M/Bravo	13-04618
Mooney M20R/Ovation		
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Mooney M20S/Eagle	Mooney M20R/Ovation	13-04620
Mooney M20TN/Acclaim		
Standard 13-04715		13-05494
Nooney M20TN/Acclaim	Mooney M20 I N/Acclaim	13-04714
Compact Compact Compact 13-04588 Piper 6XT 13-04587 Piper Archer III 13-04587 Piper Archer III 13-08570 Piper Archer III 13-05487 Piper Archer III 13-08675 Piper Arrow II 13-08680 Piper Arrow 180 13-04592 Piper Arrow 200 13-04593 Piper Arrow 200 13-04643 Piper Arrow 200 13-04643 Piper Archer E 13-04643 Piper Archer E 13-04643 Piper Archer L 13-04643 Piper Archer L 13-04643 Piper Cherokee 140 13-08655 Piper Cherokee 180 13-08656 Piper Cherokee 235 13-08656 Piper Cherokee Six/26 13-05488 Piper Lance 13-04598 Piper Lance 13-04598 Piper Marajo 310 13-04598 Piper Mavajo 350 13-04598 Piper Navajo 350 13-04598 Piper Saratoga FG 13-04596 Piper S	Standard	
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Piper Archer II	Pinor 6Y	12.04596
Piper Archer II		
Piper Archer III	Piner Archer II	
Piper Archer III with		
Avidyne Entgra 13-05487 Piper Arrow II 13-08680 Piper Arrow III 13-08680 Piper Arrow III 13-08680 Piper Arrow III 13-08680 Piper Arrow III 13-04592 Piper Arrow 200 13-04592 Piper Arrow 200 13-04593 Piper Aztec E 13-04643 Piper Aztec E 13-04644 Piper Cherokee 140 13-08656 Piper Cherokee 180 13-08656 Piper Cherokee 235 13-08685 Piper Cherokee Six/26 13-05486 Piper Lance 13-04594 Piper Lance 13-04594 Piper Lance II Turbo 13-05486 Piper Mirage 350 13-04598 Piper Mirage 350 13-04598 Piper Navajo 310 Chieftan 13-04647 Piper Saratoga FG 13-04596 Piper Saratoga FG 13-04596 Piper Saratoga II TC 13-04596 Piper Seminole 13-04699 Piper Semeca II 13-04699 Piper Seneca II 13-04699 Piper Seneca II 13-04641 Piper Seneca II 13-04649 Piper Seneca II 13-04699 Piper Seneca II 13-04649 Piper Seneca II 13-04640 Piper Seneca II 13-04699 Piper Seneca II 13-04649 Piper Seneca II 13-04649 Piper Seneca II 13-04649 Piper Seneca II 13-04649 Piper Warrior III 13-04596 Piper Warrior III 13-04590 Piper Warrior III 13-04590 Piper Warrior III 13-04590 Piper Warrior III 13-04590 Piper Warrior III 13-05640 Piper Warrior III 13-05639		
Piper Arrow II		13-05487
Piper Arrow III		13-08675
Piper Arrow 180 13-04592 Piper Arrow 200 13-04593 Piper Artec E 13-04643 Piper Aztec E 13-04644 Piper Cherokee 140 13-08655 Piper Cherokee 180 13-08656 Piper Cherokee 235 13-08658 Piper Cherokee Six/26 13-05485 Piper Cherokee Six/30 13-05486 Piper Lance 13-04598 Piper Lance II Turbo 13-04598 Piper Mirage 350 13-04598 Piper Mirage 350 13-04598 Piper Navajo 310 13-04645 Piper Navajo 350 Chieftan 13-04647 Piper Saratoga FG 13-04596 Piper Saratoga II TC 13-04596 Piper Saratoga II TC 13-04596 Piper Seneca II 13-04690 Piper Seneca II 13-04642 Piper Seneca II 13-04642 Piper Seneca IV 13-04642 Piper Tomahawk 13-04638 Piper Warrior II 13-04590 Piper Warrior III 13-04590 Piper Warrior III		
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Piper Aztec F 13-04644 Piper Cherokee 140 13-08655 Piper Cherokee 180 13-08656 Piper Cherokee 235 13-08685 Piper Cherokee 235 13-05485 Piper Cherokee Six/26 13-05486 Piper Lance 13-04594 Piper Lance 13-04594 Piper Lance 13-04598 Piper Mirage 350 13-04598 Piper Mirage 350 13-04598 Piper Mavajo 310 13-04645 Piper Saratoga FG 13-04596 Piper Saratoga FG 13-04596 Piper Saratoga II TC 13-04596 Piper Saratoga II TC 13-04596 Piper Seminole 13-04639 Piper Seneca II 13-04639 Piper Seneca II 13-04642 Piper Seneca II 13-04642 Piper Seneca II 13-04639 Piper Seneca II 13-04642 Piper Seneca IV 13-04641 Piper Seneca IV 13-04641 Piper Seneca IV 13-04642 Piper Tomahawk 13-04638 Piper Warrior II 13-04596 Piper Warrior II 13-04590 Piper Warrior III 13-04590 Piper Warrior III 13-04503 Piper Warrior III 13-05640 Piper Warrior III 13-05630	Piper Arrow 200	13-04593
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Piper Warrior III Standard 13-05639	Piper Seneca V	
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Piper Warrior III Standard 13-05639	Piper Twin Comanche	
Piper Warrior III Standard 13-05639	Piper Warrior	
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ous checklists for your aircraft are stacked and color tabs allow you to locate the checklist you need.

Part No.	Description (Checkbook Checklist for:)	Price		Part No.	Description (Checkbook Checklist for:)	Price ea.
13-03091	Cessna150 D-K			13-01275	Cessna 182Q	
13-01262	Cessna 150M			13-01276	Cessna 182R	
13-01263	Cessna 152		П	13-01277	Cessna 182S	
13-01264	Cessna 172FGH		П	13-01278	Cessna 182RG	
13-01268	Cessna 172R			13-01280	Cherokee160	
13-01270	Cessna 172P		П	13-01281	Cherokee180	
13-03102	Cessna 172RG		П	13-01282	Piper Warrior	
13-01272	Cessna 182E-M			13-01283	Piper Warrior II	
13-01273	Cessna 182N		П	13-01284	Piper Archer II	
13-01288	Piper Seminole			13-01286	Piper Arrow II	
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CHECKLISTS

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ProPilot Checklist Piper PA28-161 Warrior II	13-04944	
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THE PRECIFLIGHT CHECKLIST



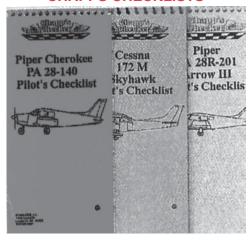
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The checklists are presented in order of use during a normal flight. Emergency procedure checklists are boldly marked for quick access. In addition, there is a page on which you can write your local radio frequencies.

The POH checklists comprise just 85 percent of each Chapp's Checker. The remaining 15 percent is composed of good piloting procedures, such as when to contact ground control or the tower. A separate page lists all of the aircraft's V-speeds. The back cover provides general information about the aircraft in question, such as gross takeoff/landing weight, engine type, fuel capacity, and true airspeed, power settings, and fuel consumption (in gallons per hour) at different altitudes.

Cessna Checklists	Part No.	Price
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C-152 (1978-1985)	13-03391	
C-172H (1967)	13-03392	
C-172M (1973-1976)	13-03393	
C-172N (1977-1980)	13-03394	
C-172P (1981-1986)	13-03395	
C-172Q (1983-1985)	13-03396	
C-172R New (1996-)	13-03397	
C-172S New (1997-)	13-03398	
C-172RG (1980-1985)	13-03431	
C-177B (1970-1978)	13-03399	
C-182Q (1980-1986)	13-03401	
C-182S New (1997-)	13-03402	
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Cherokee 140 (1964-1977)	13-03405	
Cherokee 180 (1963-1975)	13-03406	
Warrior 151 (1974-1977)	13-03407	
Warrior 161 (1997-1990)	13-03408	
Archer II 180 (1976-1990)	13-03409	
Arrow 180 (1967-1971)	13-03415	
Arrow II (1973-1978)	13-03410	
Arrow III 201(1977-1990)	13-03414	

FLIGHT COMPUTERS



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TRI-FOLD KNEEBOARD



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FIXED PLOTTER - Constructed of sturdy clear plastic with easy-to-read numbers and scales. It includes WAC, Sectional, and Terminal Area scales, and is checked and approved by the Weights and Measures Department.

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ROTATING PLOTTER - Made from the same material and having the same features as the Fixed Plotter, but with the addition of a nonslip rotating azimuth to ease flight planning.

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NACO......P/N 13-01066..... 7-Ring......P/N 13-02316....

FLIP BINDER



Perfect for Instrument Pilots who carry a smaller number of approach charts. One-inch rings are attached to a sturdy poly backing, with a loose poly cover. Scoring on front and back covers allows you to flip charts completely around the rings and display the one you want on top. Compact, convenient, and practical. P/N 13-02321

BINDER KIT



Contains 1 binder, 10 sheet protectors, 5 color side dividers and a sheet of area stickers. NOS kit also contains 3 color dividers which hang from the bottom.

NACO......P/N 13-01065.... 7-RingP/N 13-02322

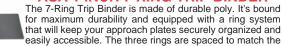
ASA DELUXE RING BINDER



The Deluxe 2" 7-Ring Binder is is made of richly-grained simulated leather with edge stitching. It's bound for maximum durability and equipped with a ring system that will keep your approach plates securely organized and easily accessible. Convenient 8.5" x 9" size makes it easy to fit in

almost any flight bag.	
ASA Deluxe 1" 7-Ring Binder	P/N 13-05759
ASA Deluxe 2" 7-Ring Binder	P/N 13-05760

ASA 1 INCH 7 RING TRIP BINDER



easily accessible. The three rings are spaced to match the 7-hole approach plate drill pattern. Convenient 7" x 9" size makes it easy P/N 13-05825.... to fit in almost any flight bag.

SHEET PROTECTORS



Made of durable, translucent plastic to protect the most frequently used approach plates. Sold in packs of 10.

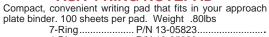
5 COLOR DIVIDERS



For quick reference of various sections of both types of approach plate charts, these five distinctly-colored dividers extend out beyond the side of the charts. Set of 5.

7-ŘingP/N 13-02323..... 4-RingP/N 13-05826.....

ASA 4 RING NOTEPAD



4-Ring......P/N 13-05822.....



CHART WALLETS

These chart wallets organize, hold, carry, and display standard FAA charts conveniently. All styles feature black covers, silver wings logo, and clear vinyl organizer pockets so you can easily find the correct chart in a busy or turbulent cockpit environment.

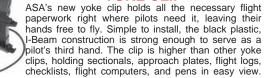
Accordion-Fold Chart Wallet - 10 map pockets plus front & back covers P/N 13-02324

Book-style Chart Wallet - 6 double-sided pockets holds up to 12 maps between the covers.

P/N 13-02324 up 12 maps between the covers.

Large Book-style Chart Wallet - Pockets hold up to 22 charts between the covers. Riveted spine. P/N 13-00412

YOKE CLIP



The unique, over-centering cam easily adjusts to fit all general aviation aircraft yokes without modification. P/N 13-01043

QUICK CHECK CARDS



A great reference tool for student pilots, pilots who fly more than one aircraft, or pilots flying at a new airport. Convenient shirt-pocket size provides quick access to aircraft V-speeds, weight and balance limitations, airport information, radio frequencies, and light gun signals. The durable plastic cards have room for pilots to write in their own data. Sold in packs of 5. P/N 13-02332......

FLIGHT PLANNER SHEETS

Cross-country planning sheets contain a flight plan section, weight & balance calculation chart, special equipment suffix chart, fuel management, space for radio frequencies, & more. Sold in pads P/N 13-02331

STUDENT FLIGHT RECORDS



ASA Flight Record Folders provide areas to record pertinent student information, stage checks passed, lesson content, lesson performance, flight hours, instructor notes & endorsements, solo endorsements or aircraft checkout records, and are current to both Part 61 & Part 141 program requirements. Sturdy

& durable, these flight records are available

separately, as part of ASA's pre-packaged training kits, or as part of an ASA PACK - Personalized Aviation Custom Kit.

SFR Private	P/N 13-01548
SFR Commercial	P/N 13-01549
SFR Instrument	P/N 13-01551
SFR Helicopter	P/N 13-01547

CERTIFICATES AVIATION ACHIEVEMENT AWARDS

Authentic, full-color certificates are perfect for framing yet sturdy enough to slip into the student's flight record as a pleasant surprise to be discovered on their next visit to the airport. Mark progress with style, while further motivating students. 9"x12". Sold in packs of 10.

This useful tool shows a pilot which entry is appropriate given the assigned holding radial, making it a superb learning tool.

P/N 13-06940.



LANDING PATTERN COMPUTER

Easily helps determine appropriate headings for each Easily helps determine appropriate headings for each leg when landing or departing the airport - great teaching aid! P/Ň 13-06935

HEADSET BAGS / FLIGHT BAGS



FLIGHT ATTACHE' - Holds all the materials a student pilot needs. 15" long x 11" deep. P/N 13-02335.....

FLIGHT BAG - 23.5" long x 7.5" deep

x 7.5" wide with expandable pockets.

P/N 13-02336.



SINGLE HEADSET BAG - For those who like to fly with minimum baggage, this holds one headset, has extra pockets, and all-around padding.
P/N 13-02333

DOUBLE HEADSET BAG - Doube-sided,

1/4" padding everywhere; can hold two headsets. P/N 13-02334



ASA PILOT CAP

Pilot cap featuring comfort headband and classic wings logo. Stylish baseball cap. Black with classic grey trim neatly embroidered with white ASA wings. Adjustable headband for maximum comfort. No button

to interfere with headset band. Long bill for sun protection. Perfect for cross-country flying, lounging with friends or on the tarmac hangar flying.

Wear it proudly!

P/N 13-05841.....

IGHT COMPUTERS - LOG SHEETS - PLACAR



AERO PRODUCTS RESEARCH CR COMPUTERS

CR computers are very popular with pleasure and professional pilots. They solve T/8/D and wind triangle problems for light aircraft as well as those which approach Mach 2 speeds. Corrections for errors of compressibility and temperature rise are computed with ease. The wind solution is displayed

graphically using the small back-side discs. Each computer comes with handsome vinyl case and fully illustrated manual. CR-3 - 3-3/4" dia. shirt-pocket size (same as Jepp CR-5); vinyl P/N 13-03499

CR-4 - 4-1/4" dia. (same as Jepp CR-2); vinyl. Standard model used by

the military. P/N 13-03501 CR-6 - 6" dia. Used by navigators for maximum readability (Same as Jepp CR-3); vinyl. P/N 13-03502...



AERO PRODUCTS RESEARCH FLIGHT DESKFolded size 8" x 9" Extends to 16" x 9" Anodized aluminum.

Versatile space-saver lap desk locks in open position; folds in half for drop-in storage in your flight case. Heavy-duty clips hold charts and flight plans. Important VFR and IFR information always visible when open. Foam strips on back keep lap desk from slipping.......P/N13-03517....

AERO PRODUCTS RESEARCH TIME/ SPEED/ DISTANCE COMPUTER



Time/Speed/Distance computers. "How-to-use" instructions printed right on the unit. Text printed in straight, easy-to-read lines; desired scales and windows located at a glance. Perfectly calibrated 2-color dials eliminate parallax errors. Fully illustrated instruction manual with each model. APR-303 3-3/4" dia. T/S/D computer with traffic pattern orientator; anodized alum. P/N 13-01133......



THE ATIS WHEEL

Atis Wheel - Pilots and air crew now have the ability to reduce their pre-landing and pre-takeoff workload through the use of the amazing new Atis Wheel™.
The Atis Wheel™ is a mechanical device

designed to help the airplane pilot in recording all ATIS information while presenting the data as a graphic depiction. The Atis Wheel $^{\rm TM}$ is presented on a 5.5 "x 8.5" rectangular durable format with seven individual 1.5" wheels positioned about the perimeter of the device along with two, 3" concentric wheels positioned in the center. Each wheel's topic coincides with

the sequential information reported in the airport terminal broadcast. Once the information is entered onto the Atis Wheel™, this displayed information is now available to the pilot for continued reference without the possibility of transcription error or forgetting the pertinent ATIS data. (It is recommended that the pilot listen to the pre-recorded ATIS information twice to verify that the correct information has been entered on the Atis Wheel™.) The Atis Wheel™ information coincides with the on the Atis Wheel In the Atis Wheel information coincides with the sequential layout of the Atis Wheel providing the pilot with all of the broadcast Atis information data. Additionally offered on the Atis Wheel ... (though not offered in the ATIS broadcast) is an input on a wheel to display the airport Field Elevation, critical for instrument approaches. The Atis Wheel™ also displays clearly the visual relationship between the wind direction and the active runway, informing the pilot as to the pending cross wind takeoff and landing situation. The ATIS Wheel is 5-1/2" x 8-1/2" and fits nicely into a Jeppesen binder. This is a large format preferred by flight instructors and students. *Atis Wheel Pro* - Like the ATIS Wheel, but smaller (approximately 3.5" x 5.5") for the professional pilot to conveniently fit in a shirt pocket for quick and easy reference. Note, the ATIS Wheel Pro does not contain the "Wind Velocity", Visibility" or RWY/ Approach" wheels like its big brother ATIS Wheel Pro - Like the ATIS Wheel, but smaller (approximately 3.5" x

5.5") for the professional pilot to conveniently fit in a shirt pocket for quick and easy reference. Note, the ATIS Wheel Pro does not contain the

EZ ATIS REMINDER PILOT TOOL

The EZ ATIS Reminder makes it easy to communicate the ATIS identifier. No more fumbling through papers for the ATIS identifier - or worse yet, having to recall the prefix from memory! The 1-5/8" diameter knob with 1/2" pointer has a peel and stick adhesive tape on the back that can

be easily mounted on your instrument panel, knee board, or anywhere you need a quick ATIS recall. P/N 13-04920



AERO PRODUCTS RESEARCH T/S/D COMPUTER KEYCHAIN

1-1/2" diameter. Identical to the real thing, this traditional usable Time/Speed/Distance keychain has a beautiful compass star with flight plan on the back side.

The computer keychain is calibrated meaning the ability to relate the key chain to the functions of the E6-B type Time/ Speed/Distance computers. P/N 13-03505...



VERSEO D

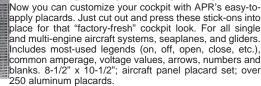
AERO PRODUCTS RESEARCH CR

COMPUTERSSimplify VFR or IFR navigation with these handy logs which provide for listing of intersections, radials, frequencies, clearances and complete flight plan. EFL-100 Pad of 5-1/2" x 8-1/2" sheets; P/N 13-03526

VFR Flight Logs EFL-200 Pad of 5-1/2" x 8-1/2" sheets;IFR Flight Logs

P/N 13-03527 EFL-100 Pad of 11 " x 8-1/2" sheets; organized detailed pre-planning and navigation on cross-country flights. Includes pre-flight checklists and sample instruction sheet. P/N 13-03528

AERO PRODUCTS RESEARCH PLACARDS



APR Instrument Panel Placard Set.....P/N 13-03522.....

EXPERIMENTAL AIRCRAFT CERTIFICATION KIT



A new amateur-built aircraft certification kit created by the Experimental Aircraft Association (EAA) gives builders a simplified way to complete the required FAA paperwork for their new projects. The Amateur-Built Aircraft Certification Kit includes everything you need to register and certify a new experimental amateur-built aircraft in the United States. The 15-page, step-by-step guide walks you through the entire process from

getting an N-number to the aircraft inspection, and provides samples to help complete each required form. The kit includes all FAA forms, Experimental sticker (in black), data plate, and a convenient placard decal sheet. P/N 13-04244



The Instructors Endorsement Pack contains 14 sheets of labels. Each sheet of labels contains 10 copies of a specific endorsement. 2" x 4" endorsement label is identified by title and FAR number, has the exact wording as required by the regulations, and has data-prompted blanks for the students' name, your name, CFI cert.#, Biennial

light Reivew Certification 61.56(a).

Description	Part No.	Price
INSTRUCTOR ENDORSMENT PK ENPAK	09-01310	
PRE-SOLO AERONATICAL KNL 6187B	09-01311	
PRE-SOLO FLIGHT TRAINING 6187C	09-01312	
PRE-SOLO TRNG & 90 DAY RENL	09-01313	
SOLO AT ANOTHER AIRPORT 6193B	09-01314	
1ST SOLO X-C 61.93(C)(1) 6193C	09-01315	
SOLO X-C 61.93 (C)(2) 6193C2	09-01316	
REPEATED SOLO X-C <=50NM6193B2	09-01317	
SOLO IN CLASS B.C &D 6194A	09-01318	
SOLO TO/FROM CLASS B,C OR D	09-01319	
TAKING KNOWLEDGE TEST 6135A	09-01320	
PROFICIENCY CHECK 61321	09-01321	
PASSING FLIGHT TEST 61309	09-01322	
TAKING SPORT PILOT PRACT 61313	09-01323	

CX-2 PATHFINDER ELECTRONIC FLIGHT COMPUTER

ASA's new electronic flight computer is a price/per-formance breakthrough, resulting from advances in display and microcomputer technologies. Aviators can calculate true airspeed, ground speed, mach number, altitudes, fuel headings and courses, time/speed/distance, winds, headwind/crosswind components, gliding info and weight & balance.

P/N 13-01040.....



JEPPESEN CIRCULAR **COMPUTERS**

Dial up the answers to your navigation problems, including polar grid navigation, pressure pattern flying, crosswind components, and wind solutions. These computers automatically compensate for the temperature and compressibility factors found at high speeds. Tough laminated plastic, with carrying CR-3 (6" diam.)P/N 8434.....

case.

PN-1 NAVIGATION PLOTTER



Allows easy identification of WAC and Sectional chart scales. Calibrated in statute & nautical miles.(Size: 12.25"

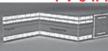
P/N 13-21724.....



PJ-1 ROTATING AZIMUTH

Measure the true course or to determine the magnetic course. Includes scales for sectional terminal area & WAC charts in statute & nautical miles. Size: 3.25 x 13"; 3-3/8 " Dia. P/N 13-21726

PV-5 IFR ENROUTE PLOTTER



Folding Navigational Plotter(Size: 3-3/16 x 8-1/2 inches) Pocket sized, fold out to full size (15"). The course line extends the entire length to measure true course from line of latitude or longitude. Scales for WAC, Sectional

and TCA charts are calibrated in nautical miles, statute miles and kilometers. Folded Size: 2-3/4"x5-3/16" P/N 13-21722

AERO PRODUCTS RESEARCH E6-B UNIVERSAL FLIGHT COMPUTERS



The very latest in air navigation computers include not only T/S/D and Dead Reckoning calculations, they now incorporate "Universal" features for world-wide use. Most E6-B computations. ers include the following:

Improved Instructions - The back side of the wind slide features scales for Sectional and WAC charts and new graphic instructions on how to work the computer

· Formula Boxes - Designed to assist in solving problems. Enter the indicated details using a pen or pencil - then

Fully Graduated Scales

Wind Slides with speed ring lines representing values of one. This eliminates the need for interpolating between "every other" speed ring and reduces possibility of error.

E6-B2U - Deluxe, top-of-the-line quality, 5" x 9-5/8", all aluminum construction. Includes: • "Universal conversions: feet to meters, pounds to kilograms, liters to US gallons, US gallons to IMP. gallons or fuel weight or oil weight. Patented micro-set (aligns scales to perfect accuracy). Flush dials to eliminate parallax; answers are read with absolute accuracy. • Scales with contrasting colors for easy computation. • "Universal" conversions color-coded for quick and easy use. . Heavy gage anodized aluminum for added rigidity and non-glare surface. • 2-color fully illustrated instruction manual plus supplement on Dead Reckoning, Wind Effect Theory and Calculations P/N 13-03492...... cket-size deluxe, all anodized aluminum; high/low wind slide.

P/N E6-B4.....

E6-B8 - Budget student computer, plastic body, plasticized wind slide.......P/N 13-03495......P/N

E6-B8P - Budget student computer, plastic body, plasticized wind slide; includes an 8"Navigation Plotter. P/N 13-03496......

Runway Dire

PILOT'S WIND VISUALIZER

The Wind Visualizer takes the guesswork out of crosswind takeoffs and landings. Simply put the Wind pointer on the wind direction, the Landing Pointer on the Runway heading, and "see" the wind in relation to your direction of flight. Then read your crosswind component from the table on the back, Simple, and fast to use. Durable non-warping 3.75" diameter plastic. Includes full instructions.

P/N 13-19520..



RADIALMATE COMPASS ROSE

RadialMate™, a 3.5" clear 20 mil plastic compass rose allows you to instantly read a desired course by placing the product over any sectional, chart, or graphic. There are no reciprocals to calculate. RadialMate™ comes with a hole in the middle, allowing additional use as a string compass. It is conveniently sized to fit

in your pocket. RadialMateTM also contains Safe Flight's vertical scale which measures mileage for WAC, SEC, TAC, NOS, JEPP and ELA charts eliminating the need for that ruler you can never find.

P/N 13-08799.......



PDQ COMPUTER

The PDQ Computer is a quick visual presentation of the traffic pattern at your airport of arrival. Easy to operate with one hand, the PDQ shows you the 45° entry, downwind, base and final approach to the active runway. Durable plastic construction. Instructions included. P/N 8313



JEPPESEN STUDENT CSG **COMPUTERS**

This computer made of composite materials works just like an aluminum computer with all the same functions and features, but at a lower cost. Ideal for new students or as an extra to keep in your desk at home. Printed numbers are sharp, clear, and easy to read. Like all Jeppesen products, the quality is superior.

PlasticP/N 3866 Metal.



etal......P/N 3867 EZ-VOR (A VOR TRAINING TOOL FOR STUDENT PILOTS)

Ever wish you could quickly determine where you are in relation to a VOR? I thought I was the only one! There are too many pilots that simply dial in a "TO" reading and fly to the VOR. Now you don't have to! EZ-VOR is designed to allow anyone, pilot or not, to quickly and easily determine the relative direction to the VOR.

Simply dial in your heading, your OBS setting and with a quick glance "TO - FROM" indicator and "Left & Right" needle deflection, your position relative to the VOR is amazingly apparent. Best of all, the directions are printed right on the back, no ten page manual to read! Small enough to fit on most kneeboards (5-1/2" in diameter) yet large enough to see clearly and accurately. P/N 13-04305 to see clearly and accurately. P/N 13-04305 ASA E6B METAL FLIGHT COMPUTER



The best slide-rule-style flight computer on the market, with solid aluminum construction and easy-to-read lettering. ASA's E6-B features a wind component grid and comprehensive crosswind correction chart, and on the other side the slide computes time, speed, distance, altitude, true airspeed, and density altitude problems as well as conversions. Nautical and statute scales are included. Standard.......P/N 13-00813.....



VOR FLASH CARDS

Designed to show any pilot how to look at a VOR receiver and read it at a glance. There's no time in the cockpit to spend slowly analyzing the CDI needle and To/From indicator! VOR-At-A-Glance flash cards will teach you: • The difference between VOR courses and VOR radials • What the VOR does not

show you • The best way to think about the course deviation indicator Inbound vs. outbound course indications • How to instantly know your position relative to the VOR • Tricks for reading interception courses right off the VOR • Pilots need to be able to look at a VOR and read the information off immediately. It's just like when you first learned how to read. There is a big difference between the ability to sound the words out and the ability to look at a work and just read it. Pilots need to be P/N 13-05773 able to "read" the VOR!

PLOT-RITE ALL METAL NAVIGATION **PLOTTER**

The new Plot-Rite is an all metal navigational plotter for use with

VFR sectional, terminal and WAC charts. The front has both sectional and terminal area scales and the rear has WAC and sectional scales. The top edge has the familiar 180° compass rose and the open center enables you to find longitude lines easily. Outside edges have full east and west routes, inside edges have north and south. Plot-Rite is all metal and will never break, warp, crack, shrink or distort in any way if left in the sun. Measures 2.5" x 12". Plot-Rite (Nautical Scale)

P/N 13-30300



THE AIRMILER TAPE MEASURE FOR CHARTS An essential tool for every flight planning kit. A durable

metal tape measure for measuring mileages on aeronautical charts. Sectional Scale (1:500,000) on one side, and WAC scale (1:1,000,000) on the other side. Kilometers, statute and nautical miles are shown on both sides.

P/N 8036



APS POWER WHEEL HORSEPOWER COMPUTER

Only device that we know of which can calculate your aircraft engine's power based on so many important factors. Using the RPM, manifold pressure, altitude and outside air temp, the pilot can use the Power wheel to calculate horsepower (as a % of max rated hp) very quickly and easily. Its calculations are based

on years of work done by the engine experts at Advanced Pilot Seminars and GAMI. Their calculations have proven their accuracy and worth to the pilot over years of use. Beyond the immediate answer to the question "How much power is my engine producing?" the information is useful in another way. Knowing how much power is being produced allows the pilot to operate the engine in a way that will reduce the stresses it sees, offering longer life and reduced operating expenses. Once the pilot uses the Power Wheel to find their % hp, they can take the next step to find the Power Writer to find their % rip, they can take the fiext step to find the mixture setting that will be best for their engine. Built on the Red Box concept (and as seen in AOPA Pilot, Feb 2004, p 120) the mixture settings suggested by the computer will keep the engine's internal combustion pressures low, out of the Red Box region of operation.

PMC-NA-2625P/N	13-03131
PMC-NA-2700P/N	13-03132
PMC-NA-2600P/N	13-04213
PMC-NA-2600cP/N	13-04214
PMC-NA-2600 P/N	13-04215

Visit www. aircraftspruce.com to specify aircraft and engine make & model and we will provide correct APS Computer.



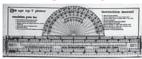
APR PLOTTERS

Scales on white background for easy readability set on see-through "clear vision" vinyl. Statute and nautical scales are parallel, making conversion easy. One side scaled for WAC

"How-to-Use" instructions printed on charts, one for Sectional charts. plotter. Includes illustrated practice problems.

Description	Part No.	Price
8" Plotter NP-7 Standard for WAC and Sectional Charts	13-19908	
13" Plotter NP-13 S tandard for WAC and Sectional Charts	13-19913	
13" Plotter WSNP-13 WAC and Sectional Charts (Lexan) Lifetime Guarantee	13-03509	
13" Plotter NPR-13 Rotatable Azimuth WAC and Sectional Charts	13-03511	
13" Plotter WSNPR-13 Lifetime Guarantee Rotatable AzimuthWAC and Sectional Charts (Lexan)	13-03512	
Universal IFR Plotter UIP-V (Same as Jeppesen PV-5) Jepp/NOS Charts Holding Pattern Entry (Vinyl)	13-03514	
Description	Part No.	Price
Universal IFR Plotter RFC-1 Jepp/NOS Holding Pattern 3-1/2" x 8"	13-03513	
13" Plotter FAA-170 Military WAC and Sectional Charts	13-03516	
INTERNATIONAL NAVIGATION PLOT	TERS	
Description	Part No.	Price
Plotter/Protractor CPP-5 Douglas International Combination Plotter/Protractor	13-03506	
13" ICAO Plotter IP-13 Fixed Azimuth, Nautical/Kilometer Scales	13-03507	
13" ICAO Plotter IPR-13 Rotatable Azimuth, Nautical/ Kilometer Scales	13-03508	

PLOTTERS AND SLIDE COMPUTERS



These are specially-designed for easy use. The APR plotter has parallel statute and nautical scales, with one side scales for WAC charts and the other for sectional. Made of clean white heatresistant hi-flex vinyl. Operating instruc-

tions are included. The slide computer is printed with speed ring lines representing values of one speed unit. Includes formula boxes added to the plate below the azimuth ring.

8" APR Plotter	P/N 13-19908
13" APR Plotter	P/N 13-19913
E6-B4 Aluminum	P/N 13-03960

E6-B HIGH SPEED SLIDE

Picks up where the ASA-E6B metal flight computer leaves off, providing calculations for the high-speed realm of flight (in the range of 220-700 knots or mph). Pilots simply replace their current slide with this one, which then continues to use the circular computer from traditional E6-Bs. The slide also includes a compressibility correction chart, ICAO Standard Atmosphere reference table, a worldwide

time conversion table, speed limits for the U.S., and the most frequently used weight and balance formulas; all of the pertinent formulas and information required for high-altitude, high-speed operations. Comes with easy-to-follow instructions.

E6-B High Speed Slide.....P/N 13-02301 E6-B Flight Computer......P/N 13-00813

WHIZ WHEEL HOLDING PATTERN **COMPUTER**

For instrument pilots, entering a holding pattern can sometimes be a challenge. The Instrument Pilots Whiz Wheel can alleviate this challenge by presenting pilots

with pictorial views of both right- and left-hand hold-ing patterns, and entry arcs for direct, parallel, and teardrop holding pattern entries. Made of sturdy plastic, the Whiz Wheel works for VOR, NDB (non-directional beacon), and localized facilities. Intercept angles are at the pilot's fingertips, and procedure turn information can readily be obtained by following the "prompts" on the device and aligning these prompts with the Whiz Wheel's compass marking. Intersection holding patterns can be pictured and coordinated using both VOR radials and cardinal headings. P/N 13-30210.....



DIRECTIONAL GYRO HOLDING PATTERN PROMPTER DECAL

Install this decal upon the face of your directional gyro and instantly determine entry procedures for both left-hand and right-hand holding patterns. Also includes prompts for headings used in teardrop procedures and procedure turns. Totally transparent. Includes instructional text. P/N 13-30215.....



PILOT'S "TIME MACHINE"

Convert the 12 hour clock to the twenty-four hour clock and to Universal Coordinated Time (UTC). Time zone chart is included. Fuel duration calculation can be determined with this new instrument. Use it to file accurate flight plans and to give position reports.
P/N 13-30225....



TRAFFIC PATTERN ORIENTER & SPEED COMPUTER

Graphically displays the headings required for standard or non-standard traffic patterns. Time, speed, distance computations, fuel consumption, true airspeed, mach and true altitude conversions

P/N 13-01133.....



JEPPESEN PV-5 IFR **ENROUTE PLOTTER**

Size 3-3/16" x 8-1/2" P/N 13-21718.....



APR FCL-12 & 24 FLIGHT CHECKLIST HOLDER

Used by private, corporate, and military pilots. Adjustable

lighting and viewing angle, color band isolates each item being checked. Mounts for right or left hand use. 84" pachment scroll lets you customize your specific checklists for review in flight. Designed to U.S. Military Pilots specification. 5" x 4" x 1-1/2" NSN 1680-00-489-1313

APR FCL-12 Flight Checklist Holder.....P/N 13-06714..... APR FCL-24 Flight Checklist Holder.....P/N 13-06715

ERO PRODUCTS RESEARCH PRODUCTS

APR PLOTTERS & KNEEBOARDS



PROTRACTOR PLOTTER PCP-202 T/S/D - APR has designed the first combination T/S/D pocket computer combined with rotatable plotter cursors. Align the airplane cursor along any appropriate meridian. PVC plastic discs, 3-3/4" dia. Plastic cursor 4-3/4"

P/N 13-06681.



TRAFFIC PATTERN ORIENTATOR TPP-203 - The TTP-203 Traffic Pattern Orientator graphically displays all headings for left (standard) and right (non-standard) traffic patterns when the runway heading is aligned with the compass rose. Light signal "acknowledging" instructions are also shown. PVC Plastic discs, 3-3/4" dia. Cursor 4-1/4 P/N 13-06682.....

DENSITY ALTITUDE PERFORMANCE COMPUTER DAP-204 - The



Density Altitude Performance computer shows the aircraft's rate of climb and minimum - required takeoff distance. PVC plastic discs. 3-3/4" dia. Important: Always consult your pilot's operating handbook as their computer does not supplement or replace the manufacturer's performance data. Not applicable to turbocharged aircraft.P/N 13-06683.....



T/S/D PROTRACTOR PLOTTER PCA-302 - APR has designed the first combination T/S/D pocket computer combined with rotatable plotter cursor. Align the airplane cursor with the true or magnetic course. Align the arrow cursor along any appropriate meridian. Anodized aluminum discs, 3-3/4" dia. Plastic cursor 4-3/4"

P/N 13-06684.....

TRAFFIC PATTERN ORIENTATOR TPA-303 - The TPA-303 Traffic



Pattern Orientator graphically displays all headings for left (standard) and right (non-standard) traffic patterns when the runway heading is aligned with the compass rose. Light signals and "acknowledging" instructions are also shown. Anodized aluminum discs, 3-3/4" dia. Cursor 4-1/4" P/N 13-06687.....

DENSITY ALTITUDE PERFORMANCE COMPUTER DAA-304 - The



Density Altitude Performance computer shows the aircraft's rate of climb and minimum-required takeoff

distance. Anodized aluminum discs. 3-3/4" dia. Important: Always consult your pilot's operating handbook as their computer does not supplement or replace the manufacturer's performance data. Not applicable to turbocharged aircraft.

P/N 13-06688.....

DNP-13 - 13" Deluxe Navigation Plotter with nautical and statute



scales, sawtooth graduated color-coded scales for Sectional, WAC, and Terminal Charts. PVC plastic 13-5/16" x 4"

P/N 13-06696.



DNP-8 - 8 " Deluxe Pocket Navigation Plotter with sawtooth graduated colorcoded, nautical, statute, and terminal area scales for Sectional, WAC, and Terminal Charts. PVC plastic 8-1/8" x 2-7/8"

P/N 11-07723.....



DNPR-13 - 13 " Deluxe Plotter with Rotatable Azimuth Compass Rose, nautical & statute sawtooth graduated color-coded scales for Sectional, WAC, and Terminal Charts. PVC plastic 12-5/16" x 4-1/2"

P/N 11-07724.....



HPC-206 - Holding Pattern Computer. Pocket size. Visually displays entry headings from all directions for both standard and non-standard holding patterns. Shows holding speeds and inbound time to fix. Colorful segments for easy learning and use. 4" x 5" HOLDING PATTERN COMPUTER displays entry to standard and non-standard holding patterns, maximum indicated holding speeds, and time of inbound leg to fix. Complete instructions. "Best on the market" designed by Capt. P/N 11-07722..... Barry Schiff



E6-B2- H/S - E6-B2 D with High Speed Wind Slide of 100 to 800 ks or miles. Compressibility "F" factor scale shows the "F" correction factors for TAS. Gives calibrated airspeed from 200 to 550 knots at pressure altitudes of 10,000 to 50,000 feet. Crosswind grid shows method to calculate crosswind and headwind components. Anodized aluminum computer, 4-7/8" x 11-1/8" P/N 13-06673.....



E6-B4- H/S - Pocket size wind triangle & T/S/D deluxe anodized aluminum computer with low speed slide (10 to 270 kts or miles) and high speed slide (100 to 700 kts or miles) with compressibility "F" factors scale. Calculates all necessary flight planning and enroute navigation requirements. 3-1/4" x 6-3/8"

P/N 13-06674......

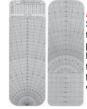


E6-B8D - Deluxe all plastic student Pilot Wind Triangle & T/S/D navigation computer. Features the new exclusive windspeed cursor which shows the speed and drift without pencil marks. Color-Coded sawtooth scales. Calculates all necessary flight planning & enroute navigation requirements. Easy to learn and use with the instructions printed on the computer. 4-1/2" x 8-3/4"

P/N 13-06675.....



E6-B9 - Universal Standard Wind Triangle & T/S/D Large anodized aluminum computer. calculates all necessary flight planning & enroute navigation requirements. 4-7/8" x 9-5/8"
P/N 13-03497.....



LOW & HIGH SPEED SLIDES - Low & High Speed Slide for E6-B9 or E6-B2 models. Low wind speeds 10 to 270, high wind speeds 100 to 800 kts or miles, compressibility "F" factors scale shows the "F" correction factors for TAS. Gives calibrated airspeed from 200 to 550 knots at pressure altitudes of 10,000 to 50,000 feet. Crosswind grid shows method to calculate crosswind and headwind components. 3-7/8" x 11-1/8" P/N 13-06680.....



JNP - Enroute IFR Radio Facility Chart Plotter for NACO and Jeppesen Radio Facility Charts, 12 high visibility scales, displays entry diagrams of standard and non-standard holding pattern, compass rose plotter, km to nm and nm to km conversion scales. PVC plastic 8-3/4" x 3-1/4"
P/N 13-06704......



DJNP - Deluxe Enroute IFR Radio Facility Chart Plotter for NACO and Jeppesen Radio Facility Charts, 12 high visibility scales, displays entry diagrams of standard and non-standard holding pattern, compass rose plotter, km to nm and nm to km conversion scales. Lifetime guarantee, LEXAN® 8-3/4" x 3-/1/4"

P/N 13-06706.....



P-IFR - Professional Pilot's Deluxe IFR Flight Kneeboard. Essential IFR flight information printed on top of kneeboard, large clip opens to 1" for approach book, adjustable strap. Board will manually rotate to best writing angle. Anodized aluminum, 9-1/2" x 6-3/8"

P/N 13-06712.....



P-VFR - Professional Pilot's Deluxe VFR Flight Kneeboard. Essential VFR flight information printed on top of kneeboard, large clip opens to 1" for approach book, adjustable strap. Board will manually rotate to best writing angle. Anodized aluminum, 9-1/2" x 6-3/8"
P/N 13-06711.....

- PL IGHT ACCESSORI



ON COURSE AVIATION PRODUCTS CHART MARKS

Customize your charts with these highly visible, self sticking, removable accents, outlines, & notes. Add a compass rose to any airport or airway inter-section, outline VOR information, accent airport or communication information. 20x20nm see through

notes accept pencil or pen for your special information. All are easily removable after your flight.

Note (11/package)	P/N 13-30110 /ea.	
	P/N 13-30111/ea.	
	P/N 13-30112/ea.	
Accents (16/package)	P/N 13-30113/ea.	



COURSE LINE

End the confusion of multiple pen or pencil lines on your sectional chart. This transparent

tape, brightly printed in a highly visible color, is graduated in nautical miles with distinctive 5 & 10 mile "Tick" marks. No need to pick up a plotter or scale to determine distance along your course line. Removable after flight or repositionable in flight for diversion to an alternate airport. 1/2"x 2050 nautical miles (sectional scale) w/P/N 13-30114......**/ea.**



MAGNIFYING SCALE

At last, an accurate nautical mile scale with a built in magnifying lens to clearly enlarge the fine print on sectional charts. Made of

heavy duty, extra strong, cast acrylic, printed in two colors with easy to read sectional scale graduations (1:500,000). Available in 2 sizes, 100 NM (16") for flight planning, 60 NM (10") for cockpit use. Order both.

60 NM......P/N 13-30120 100 NM.....P/N 13-30121



JEPPESEN VOR/ADF MAGNETIC TRAINER

A great tool for demonstrating VOR and ADF navigation, the Magnetic Trainer includes an Instrument Board and a Wind Correction and Position Board, as well as an Accessory Kit with movable instrument indicators, rotating compass cards, a TO/FROM indicator,

RMI designator sign, wind direction indicators, and miniature airplanes. This replacement accessory kit for the VOR/ADF Magnetic Trainer includes movable instrument indicators, rotating compass cards, a TO/FROM Indicator, RMI designator sign, wind direction indicators, and miniature airplanes in various colors. P/N 13-05789.....



UNBREAKABLE SUPER PLOTTER

Here's a special flight planning tool we real-Ily like. A colorful little plotter with a rotating azimuth that makes it much easier to plot a

courseline. Place the compass rose over your departure point and rotate the straight edge towards destination. Presto.. an instant readout of your course! Reads distance in statute miles or nautical miles for both sectional and WAC charts. Made of bullet proof Lexan. Won't crack, break, or warp in extreme heat or cold.

P/N 13-03473

FLIGHT FORMS



Pilot designed for pilot use - convenient kneeboard size (5.5"x8.5"). Color coded for instant recognition. Easy to read! Easy to use! Every flight-form comes with an FAA Flight Plan form. Each COMM-AID form also includes a three leg

En-Route NAV-Log.

VFR CROSS COUNTRY FLIGHT PLANNING FORM — With step-by-step instructions. Folds to kneeboard size (5.5"x8.5" yet leaves all En-Route and destination information exposed for orderly display of in-flight information. Includes sections for weight and balance, fuel management com frequencies

out of talking to briefers or controllers. Logical arrangement in correct briefer and controller sequence eliminates confusion. The WX-Brief form is arranged in briefing format to

bound Comm-Aids organize your communications before takeoff. Know what to say and when to say it sections for ATIS, Clearance, Ground, Tower, Departure, & Approach.

For use in class B, C, & D airspace.(25/pad)P/N 13-30117 In-Bound...

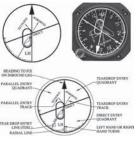
DUP HOLDING SITUATION INDICATOR



The Holdup is so easy to use that directions are provided on the device only because rust can develop on a pilot's holding techniques, especially for issued, nonpublished holds. They remind you how to set up intersection holds and station holds, If you forget. (There's also a built-in way to set up station holds in a single step.) Then, in both cases, you just find your heading to the fix on the compass dial, and read the entry in the zone next to it. At a

typical intersection, there are 8 (eight) possible holds that can be assigned. "Hold south of OR-VIL intersection on the 340° radial, left turns?" You won't believe how easy this is with The Holdup until you try it. P/N 13-03365

HOLDING PATTERN AID



How would you like to increase the chances of passing your instrument rating? Did you know that the number one area that instrument applicants fail their check ride is Holding Patterns? It is not the hold itself, but the ENTRY procedure! Help yourself pass your test with this simple to use static clink overlay. Simply place the arrow on the radial that you are instructed to hold on and the holding pattern is overlaid on top of your heading indicator. The HPA helps you visualize the pattern quickly and easily while increasing necessary situational

awareness. No need to shuffle in your bag for a piece of cardboard or draw a picture on your knee board, the HPA will stick to your aircraft window and easily peels off when you need it. One package includes four HPA's, two left hand holding patterns and two right hand holding patterns. Developed by a Certified Insturment Flight Instructor with the intent to decrease the failure rate of instrument students and increase the level of safety that pilots are entrusted with. Get some First Aid for your holding patterns, get the Holding Pattern Aid. Measures 3" in diameter. White lines and text on a clear background.
P/N 13-04166.....

FLITE-TAPE

FLITE-TAPE

NAVPRO specifically designed the Flite-Tape for aeronautical use. It is available for either Sectional (1:500,000) or WAC (1:1,000,000) charts and is graduated in nautical miles. The Sectional Flite-Tape measures up to 500 n.m. and the WAC Flite-Tape measures up to 1,000 n.m. This practical product offers you many advantages, for instance: • Measure the distance between any two points

on a typical chart with out "stepping off" (a typical Sectional Chart measures 375 n.m., corner to corner). • Establishes an accurate straight line course between distance points in an instant. • Flexible tape is ideal for cockpit use and on pilots lap. The Flite-Tape is pocket size (2" x 1-3/4" x 1/2"). Steel tape is housed in a high impact plastic case. The locking mechanism means you extend only as much of the Flite-Tape you need The Flite-Tape's unique end-piece is easy to position over a check point.

Flite-Tape is a quality product and comes in a vinyl storage pouch.

Flite-Tape Sectional Charts......P/N 13-01038......\$8.50

FLITE-TRAC

Flite-Trac is specifically designed for aero-nautical use. It simplifies measuring headings from aeronautical charts by reading naturally. Flite-Trac uses a complete 360 compass rose, and avoids any confusion in determining heading. Its square shape, aided by parallel grid lines, aligns easily with the lines of latitude and longitude on the chart. This logical protractor offers you

several advantages in the cockpit: • It is less awkward than a typical plotter, yet shows the complete compass rose on a larger scale. •Measures short distances in flight. Its grid is to a 5 n.m. scale on a Sectional chart and has a short distance scale for quick in cockpit use. •The magnetic variation formula is printed directly on a Flite-Trac to give you confidence in calculating a magnetic heading. Flite-Trac avoids the necessity to slip a plotter to a map grid line or the need to use parallel rules. Flite-Trac is a quality product made of lexan in the USA. It will not warp in a hot P/N 13-01039 ea aircraft.

KNEEBOARD



VFR/IFR NAVBOARD & CHARTSAVER

Hold charts between two clear plexiglass surfaces for inflight reference. Visible from both sides, so you can use two charts. One facing in each direction. Mark plexiglass with grease pencil without defacing chart. Pilot course lines, destinations, checkpoints, headings, vectors, etc., directory on surface. Revisions can be made during flight,

easy to erase after flight. Charts stay fresh and reusable many times.

Measures 12" x 10". P/N 8154

SOFT-G PLUS KNEEBOARD



This kneeboard is originally designed for high performance fighter & attack aircraft. Standard features include: reversible clip board which allows pocket and document loops to be reversed right or left side, 1-1/2" wide adjustable plastic strap, clear plastic information pocket, removable doc-

ument loops, 4 elastic pen/pencil slots, side release buckle, durable wire clip, and NEG-G strap. P/N 13-12655

The performance package includes: information cards, clear document protectors, removable document protectors, and releasable cable ties (holds document protectors securely to kneeboard).

P/N 13-12656......

TRIFOLD KNEEBOARD



The standard features include: right and left light pockets that double as pen/pencil pockets, 1.5" wide adjustable plastic strap, clear plastic information pocket, right & left document loops, side release buckle, durable wire clip, and padded backing P/N 13-12660

The performance package includes: information cards, clear document protectors, flex light with fixed or adjustable beam, and releasable cable ties (holds document protectors securely to kneeboard) optional.

P/N 13-12661

9-G PLUS KNEEBOARD



This kneeboard is originally designed for high performance fighter and attack aircraft. The standard features include: right and left light pockets that double as pen/pencil pockets, 1.5" wide adjustable plastic strap, 3 clear plastic information pocket, right and left

removable document loops, side release buckle, easy access pocket,

ties (holds document protectors securely to kneeboard). P/N 13-12651.

MINI TRIFOLD KNEEBOARD



This mini trifold kneeboard measures 8" x 16.5". The standard features include: reversible clip board which allows pocket and document loops to be reversed right or left side, 1-1/2" wide adjustable plastic strap, clear plastic information pocket,

ment protectors, removable document protectors, and releasable cable ties (holds document protectors securely to kneeboard).

P/N 13-12666

JEPPESEN IFR THREE-RING TRIFOLD



The Jeppesen three ring trifold is great for holding approach charts and features three approach chart pockets, collapsible rings, elastic pen / pencil / penlight holders, and valuable IFR flight information the clip board. Includes free U.S. Low altitude planning chart. Size: 10"x 20" open.

.....P/N 13-06956. Kneeboard/Clipboard IFR Clipboard only with leg strap......P/N 13-06956-1....



VFR KNEEBOARD

This kneeboard places information at your fingertips. It holds charts, flight computers and much more. An elastic leg strap holds this unit comfortably in place with a velcro closure. The metal clipboard (also available separately) contains valuable information for your VFR

flight needs. An additional strap is included allowing you to use your clip board independent of the kneeboard. You are really getting two products in one



AERO PRODUCTS

RESEARCH KNEEBOARDS 5-3/4" X 10" X 2-1/2" Deluxe kneeboard. Official Air Force and Navy models with quick-release buckles and non-slip foam strips to keep the unit in place. Each model includes 2 heavy-duty paper clamps, pencil holder This is the unlighted version of MXU-163/C. Anodized aluminum. Meets all military specs.

MK-2A/C.....P/N 13-03521.....

5-3/4" X 10" X 2-1/2" Contoured base, non-slip kneeboard. 3" positive ext. clip for approach plates, etc. Pencil holder, comfortable leg strap, sturdy, lightweight. Black, non-glare aluminum.

.....P/N 13-03520..... MK-9

6" x 8-3/4" VFR kneeboard lists flight plan sequence, tower light signals, time zones, visibility and distance-from-cloud requirements plus much more. Anodized aluminum. Includes flight logs. 0-100......P/N 13-03518.....

6" x 8-3/4" IFR kneeboard lists flight plan sequence, alternate flight plan-



NAV-DATA VFR KNEEBOARD

NAV-DATA Featherweight Kneeboard. This weighs approximately 10 ounces. This board is similar to a clipboard but is much sturdier than a standard clipboard and much less cumbersome in the cockpit (dimensions are 7"x10"). It includes A VFR reminder table that includes conversions, light gun signals, flight plan info, etc.
Both boards are outfitted with our comfort-

able form-fitting knee saddle and velcro strap assembly to ensure the board stays securely in place.

P/N 13-06086.....

NAV-DATA IFR KNEEBOARD



Once you own a Nav-Data IFR kneeboard, you can customize it's contents with your personalized data by simply filling in the blank 5 1/2 x 8 1/2 forms which include:

- aircraft checklist local area NAV and Com frequencies
- navigation logs flight plan forms
- clearance copying pad

By placing these pre-recorded forms, approach plates, charts, etc.,into our 3-ring transparent vinyl pocket page system (8 vinyl pockets included), you will have quick access to all of your important data. Note the retractable slider tab supporting the cover (Chart board) when open. P/N 13-06085.....

KNEEBOARDS

FLIGHT DESK TRI-FOLD KNEEBOARD



Our Flight Desk Kneeboard greatly improves cockpit organization of charts and accessories. Unlike some other kneeboards with limited utility, our Flight Desk Kneeboard will hold sectional charts, a large E6B type computer, and has 2 elastic loops on either side of the clipboard to hold a goose-neck

type flashlight. If the middle loop is not used for a computer, it can be used to hold a handheld transceiver. Made of durable black cordura. Size:19.25"x9.5" unfolded. Clipboard size: 6" x 9.5". P/N 13-03474

NAV-DATA KNEEBOARD



The Nav-Data Kneeboard is the most well-organized kneeboard you'll ever own. It's like having a flight desk strapped to your leg. The Nav-Data Kneeboard is a unique cockpit tool which combines all the function and features of a lap board, clipboard and VFR/IFR chart holder giving it a solid reputation as the 'CHAIRMAN OF BOARDS'. The Nav-Data Kneeboard was designed, hand-made and then flight tested by experi-enced pilots for more than ten years. It is

manufactured using durable high-tech composite laminate and anodized P/N 13-06005.

ORGA-KNEE-ZER™ KNEEBOARDS ORGA-KNEE-ZER™ Kneeboard



Kneeboards extremely versatile, organizer/kneeboards providing a standard 7-ring binder on a very stable platform with built-in pencil sharpener, combo maglite/ pencil holder and many other unique features. Compact stowage, rugged materials and powder coat finish, add even more to their rich feature set. Use for VFR or IFR flight, using NOS or Jepp charts and see how their versatility can adapt to your demanding and varied needs as pilot. The patented design of Model A1-MC allows you to flip through your charts, checklists or other reference materials, with unobstructed access to the writing surface for jottingATC instructions or holding flight plans. It's excellent for most general aviation aircraft and is very popular with Cessna and Piper pilots. It's 9" long x 8" wide and up to 16" wide when fully open. It can also be used as a simple clipboard for preflight checks when

closed (includes 3 chart pockets). P/N 13-03326.

THE HEADS UP FLIGHT DESK



The Heads Up Flight Desk was developed by a certified flight instructor and honors student at Embry-Riddle Aeronautical University. While studying human factors in aviation safety, he noted that on every airline flight deck you would find a yoke mounted chart desk. The reason for the board being mounted there is to keep important information in the normal field of view for the pilot. Having to look down

and away from this normal field of view is recognized as being a hazard to flight, because it takes the pilot's eyes away from scanning either the instruments or outside the aircraft for conflicting traffic. This innovative product is a great safety enhancer. Convenient for keeping important documents in view, such as instrument approach plates, airport diagrams and flight logs. As an additional safety enhancer, we imprinted important safety briefing items on the surface of the desk. Included are a passenger briefing, crew briefing, engine failure during takeoff briefing, engine failure in flight memory items, and a pre-landing checklist. FEATURES: Aircraft quality aluminum clipboard for durability · Low-profile spring steel clip holds documents in place · Velcro® included for attachment to yoke · Heavy-duty steel spacer and spring steel clamp Perfect size for approach plates and airport diagrams - Easy fit in flight bags due to low profile hardware - Yoke tube clip fits 3/4 to 1-1/8" tubes (other sizes available) · Guaranteed against breakage for the life of the product* Lighted Version: · LED light illuminates entire surface for ease of reading at night · Flex neck on light easily stores out of the way for day use. · LED lasts 100,000 hours / included batteries last 100 hours.

Standard......P/N 13-04216..... Lighted.....P/N 13-04217

SINGLE PANEL FL-100 KNEEBOARD



The Aeroboard FL100 has a large pocket behind the clipboard to keep these items handy. The detachable clipboard can be removed and placed inside the pocket creating a platform for a GPS. 7.5" x 11". 1 large chart pocket behind the clipboard. Detachable 6"x9" aluminum clipboard. 1-1/2" wide nylon/ elastic leg strap with Velcro® fastener.

FL100 Black......P/N 13-03703.... FL100 NavyP/N 13-03704

BI-FOLD FL-200 KNEEBOARD



Aeroboard FL200 has many outstanding features which makes it one of the most tuseful organizational tools a pilot can have. The FL200 has a bifold design with 3-ring center binder, available in both Right & Left-hand, 10 clear page protectors(great for organizing checklists, emergency proce-

dures, reminders, etc.), and 2 handy large storage pockets (for charts & other items of similar size). The Aeroboard FL200 has what you've been looking for. 15" x 11" open, 7.5" x 11" closed. Features: • Bifold design available in both right- & left-hand models • 3-ring binder (includes (10) avaliable iii oburnighte k leithalid hiddes (16)
8-1/2" x 5-1/2" clear page protectors) • 2 large chart pockets • 1 small computer pocket • Detachable 6" x 9" aluminum clipboard • 1-1/2" wide nylon/elastic straps(holds charts open) • 2 elastic pen/pencil holders SureCheck FlightPad™ included • Cover made of durable Cordura® FL200R (RIGHT) Black......P/N 13-03698......

FL200L (LEFT) Black..........P/N 13-03701..... FL200R (RIGHT) Navy P/N 13-03699..... FL200L (LEFT) NAVY......P/N 13-03702.....

TRI-FOLD FL-300 KNEEBOARD



With its unique convertible tri-fold design and handy 3 large storage pockets(for charts, flight computers, Aerolight, etc.) the Aeroboard FL300 has what you've been looking for. Includes a 3-ring center binder, complete with 10 clear page protectors (great for organizing checklists, emergency procedures, etc.) 20" x 11" open, 7.5" x 11" closed. Detachable third

section for more expanded in-flight use. It includes additional pockets for pen/pencil, electronic flight computer, flashlight, and more! Features: Unique design allows the versatility of converting between a bi-fold and tri-fold · 3-ring binder (includes (10) 8-1/2" x 5-1/2" clear page protectors) · 3 large chart pockets · 2 pen/pencil pockets · 1 flashlight pocket · Detachable 6" x 9" aluminum clipboard · 1-1/2" wide nylon/elastic leg strap with Velcro® fastener · 2 elastic pen/pencil holders · SureCheck FlightPad™ included · Cover made of durable Cordura®.

FL300 BLACK......13-03696.....

NELSON KNEEBOARDS



MILITARY TRI-FOLD - • Size: 19.5"x11.5" (open), 11.5"x7" (closed) • Holds sm E6-B, stopwatch, pencils • Supplied w/pad of 50 flight logs • Aluminum board holds approach plates • Available in black, blue, red, gray.

Black P/N 13-02885 Blue P/N 13-06905 Gray P/N 13-06910 Red..... P/N 13-02884 Olive......P/N 13-02903 Replacement Flight Logs......P/N 13-02888

ARMBOARD



The ArmBoard provides agronomical, space saving writing surface as natural to wear as a wrist watch. Regardless of how large or small the cockpit is, the Arm-Board truly frees up much needed space. The product was also tested by CFIs and proved extremely useful in taking notes during flight lessons and jotting down student performance comments for follow up

during ground school. A writing pad is included with a flight planer version sold separately along with various flight reference cards to be used on the inside flap of the ArmBoard.......P/N 13-06021

Set of 3 blank pads for the armboardP/N 13-06025 Set of 3 mixed pads (Blank, Flight Planner & Ruled) for the armboard. P/N 13-06024



FLY BOYS PUBS BAG

Ideal for keeping things "co-located" while you're flying and mission planning. Integrates perfectly with Fly Boys kneeboards. Top opening flap gives access to the main pockets. Additional smaller external pockets are located in the front, rear as well. Handy for smaller

items or for sliding enroute charts and maps for quick access. Top, front and back are secured with sturdy Velcro™. Pocket on one side for a water bottle or sunglass case. Slots on the opposite side for 2 pens or pencils. The most popular choice of most fighter and trainer pilots no matter what the airframe. Also, an excellent option for civilians looking for a no frills - priced right bag. Measures 8 1/2" x 11" x 1" empty. Fully loaded it will expand out to 8 1/2" wide!

Blue FB1020	P/N 13-05565
Black FB1020	P/N 13-05566
Green FB1020	P/N 13-05567

FLYBOYS MISSION PUBS - BAG



Longer and wider than the FB1020 Regular PubsBag, but not as tall. Fits everything you will ever need for your mission plus some! Three main compartments comprise this model. Two large compartments and the third is di-vided in the middle. No external pockets on this model, however the internal capacity is awesome. Favored by F-15E, B-1, B-2, and C-130 aircrew. It's also popular in the USAF/USN pilot training environmentOutside dimensions are 9" x 11" x 1" empty, and fully loaded it will

expand to 6 1/2" wide.	Black	P/N 13-05622
	Blue	P/N 13-05623
	Green	P/N 13-05624



FLY BOYS CREW BAG
Slightly smaller than Fly Boys Large Crew Bag
but with all of the features you will need to get the mission accomplished, and lots of value. Double stitching and heavy duty zippers will make this bag last a long time. Removeable shoulder strap with a rubberized pad which keeps this bag from slipping off of military flight jackets. Exterior Dimensions: 17" x 11" x 11" Interior Compartment Dimensions: P/N 13-05564

FLYBOYS LARGE CREW BAG



der pad unique only to Fly Boys. This keeps the bag from slipping off of slick nylon shell flight jackets. All new gray interior which provides high visibility for finding items inside the bag in low light conditions. Sturdy the moveable/ removeable interior dividers are built. New retention sleeve for flashlights has been incorporated. Super tough PVC armoring incorporated into the bottom of the bag. Virtually waterproof along the bottom and provides additional protection and structure to the unit. Exterior Dimensions: 22" x 14" x 12" Main Compartment Dimensions: 16" x 11" x P/N 13-05563

FLY BOYS HELMET BAG



420 Denier Cordura Nylon with 1/2" cloth poly-fill to cushion your helmet. Heavy duty nylon zipper resists snags. Two interior pockets WITH VELCRO CLOSURE that fit your DTC, VTR tapes, sunglasses or water bottle without having them fall into the main compartment when you put it down! This super tight knit nylon shell is extremely water resistant and provides superior protection for YOUR

expensive equipment - and the interior lining is extremely soft. It will not scratch your visor. Oversized from standard issue versions, it is superior for helmets with with NVG or HMS mounts! Two NEW pockets for smaller items. Comes with an exact color matched, adjustable shoulder strap fitted with a gripping contouring rubber shoulder pad for hands off carrying if necessary - It won't slip off of your shoulder. Inside Dimensions (FLAT): 19 1/2" Wide 20" Tall.

Blue	P/N 13-05571	
Black	P/N 13-05572	
Green	P/N 13-05573	

FLY BOYS IFR/VFR KNEEBOARD



Features seven eyelets for securing checklists, plastic checklist pages or your in-flight guide - (every base has different spacing.Includes the new flexible plastic clipboard (FB1060).Eyelets also correspond to JEPPESEN approach plates and chart protector

'S!!	Blue	P/N	13-05568	
	Black	P/N	13-05569	
	Green	P/N	13-05570	

FLYBOYS CHECKLIST PAGES



Heavy duty plastic FlightCrew checklist pages. Sturdy construction equals long life. Easy to use, with thickness that resists getting brittle or tearing in cold environments. Pages are top loading and are excellent for protecting your local approaches or condensed aircraft

Sheet Size: 8" X 5"	.PN 13-05627
Bulk back (25 Pk.)	.PN 13-05629

OVERSIZED CHECKLIST PAGES

These are great if you are ready to start putting originals in the pages instead of shrunken copies! As you can see, a full size Jeppesen chart slides right in! Now your mission data cards fit, your target photos can get more detail in them, and your attack cards slide right in without making a trip to the copier to shrink or the paper cutter to

trim! These are the same construction as the regular, just bigger. Great in extreme temperatures and long lasting. Spacing on the holes matches up with the FlyBoys KneeBoard with Eyelets and Jeppesen charts.Size is 5 1/2" X 8 1/2" - really makes a difference.

Sheet Size: 8-1/2" X 5-1/2"......PN 13-05628.....

EXTRA TALL PAGES FOR BIG CHECKLIST Heavy duty plastic FlightCrew checklist pages. Sturdy



construction leads to a long life. Easy to use but heavy enough to not get brittle or tear in extremely cold environments. Pages are top loading and are excellent for protecting your local approaches or condensed aircraft checklist. USABLE interior dimensions: 5"x11", overall width including checklist ring holes 5 7/8"

Sheet Size: 5" X 11" PN 13-05630 Bulk Pack (25 Pk.) PN 13-05631

FLYBOYS HARD PLASTIC COVER **SET FOR EXTRA PAGES**

The new Cover Set for the FB2203 pages are great.

FLYBOYS



OVER SIZED FLIP CHART PAGES Over sized top loading pages with three ring holes in the top for those checklists and situations that flow better than the normal book format." Dimensions: 9.25" x 6".
Sheet Size: 8" X 5".......PN 13-05633.....

Bulk Pack (25 Pk.)......PN 13-05634.....



FLYBOYS CHECKLIST RINGS
Durable. Unbreakable. Multi-Purpose. Safe. Opaque
nylon ring to hold your checklists and in-flight guides. Or use them for outdoor use where metal rings would rust or wear out. Patented ball-lock design to prevent FOD out on the flight line. The nylon ring is very low resistance as well. Once they are closed, they stay

closed. When closed, they are a 2.5" diameter ring. Opened, they stretch to 5.25". For most applications 4 rings is plenty for keeping your checklists or inflight guides secure. Pack includes 10pieces. Color is clear/opaque.

FLYBOYS PILOT LOGBOOK



Represents a comprehensive look at your military fly ing career. Special considerations were made for this book that no other logbook will provide. If you are serious about keeping track of your flight time, and operate Army or USAF rotary aircraft - this is the book you need with no question. Record your own flying history

of missions, upgrades, checkrides and awards right in this beautiful and durable logbook. This book will hold at least 10 years worth of flight history.Dimensions: 9" tall x 7 7/8" wide x 1" thick

Airforce Pilots Fly Logbook.......P/N 13-05625..... Army Pilots fly Logbook.......P/N 13-06410.....

TLYBOYS

FLYBOYS REMOVE BEFORE FLIGHT KEY CHAIN This nylon strap streamer with the REMOVE BEFORE

FLIGHT rubber patch is an instant reminder of the real warning flags that hang off of airplanes on the flight line. They're supposed to be visible and easy to find during the walk-around inspection. Well, now you won't have to "walk around" your house or fish through your gym bag trying to find it! P/N 13-05626

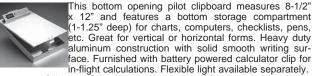
KNEEBOARDS - HOODS



PILOTS LAP DESK

This top opening aluminum lap desk provides a solid smooth writing surface with a 3/8" bottom storage compartment for charts, computers, checklists, pens, etc. Can be used vertically or horizontally designed forms and is great for left or right handed use. Size: 9.5"x12"

FLY INFORMED KNEEBOARD/CALCULATOR



Clipboard/Calculator	P/N 13-00809
Detachable Light (clear)	
Detachable Light (red)	

D & C AERO'S ADJUSTABLE IFR YOKE DESK (ID25, ID18, VF25)

Just fit on your control column and adjust the height for perfect placement. Now you can clip and hold your approach plates, enroute charts and sectionals right in front of you. Also, you can attach a timer to it with Velcro®. Made from

aircraft quality anodized aluminum. Includes an important IFR placard with radio communications failure procedure, position report items, radar / non-radar reports and more. ID18 - Clip size .75" x 1.13" ID25 - Clip size

7	ASA IFR	TRI-FOLD KNEEBOARD
		P/N 13-04387
	ID25	P/N 13-04386
	ID18	P/N 13-04385



Strong aluminum tooled clipboard silkscreened with important IFR information fits into black 3-panel jacket. Has room for charts, books, flight computers, etc. P/N 13-05840

ASA VFR TRI-FOLD KNEEBOARD

This kneeboard uses the VFR Kneeboard in a three-panel jacket. The left panel has ample room for small books, papers and oddly-shaped items. The center panel holds the kneeboard under clear plastic with a pen/pencil holder and buttonholes on either side.. The right-hand panel contains a clear pocket for easy map viewing, and the elastic leg band's Velcro closures fit any leg size comfortably. Black nylon with embroidered silver wings logo. Kneeboard is 6-1/2" wide x 9-1/2" high.

P/N 13-02712.....

BLOCKALLS TRAINING GLASSES



Designed by pilots for pilots. Blockalls™ resolve problems with existing view limiting devices. Weighing in at just under 1oz, it's easy to forget you are wearing them. Engineered to easily penetrate the seal of your headset eliminating the hassle of having to remove it first and

can be worn for extended periods of time without discomfort, thanks to the soft rubber nose piece and streamlined temple tips. Tailored off center viewing also keeps more of your time inside the flight deck rather than

outside. Recommended	DV AOPAV FIIUITI ITAIIIII	u.
Color	Part Number	Price
Black	13-06240	
Aluminum	13-06241	
Dink	12 06242	

OLD FOGGIES™ IFR TRAINING GLASSES



IFR Glasses' Old Foggies™ brand view limiting device was developed in order to balance the training value of a view limiting device without further limiting the pilot from being able to read his/her charts. Old Foggies™blend of precision fogging and custom pow-

ered corrective lenses allows for the precise amount of the instrument panel viewing without any view of the horizon. Old Foggies™ are available in customizable powers with no need for a prescription. Available in Clear and Light Mirrored Tint (a reflective coating that eliminates glare without further limiting visibility). Available Powers: 1.5, 2.0, 2.5

Description	Part No.	Price
Clear Lens Fog 1.0	13-05004	
Clear Lens Fog 1.5	13-05005	
Clear Lens Fog 2.0	13-05006	
Clear Lens Fog 2.5	13-05007	
Clear Lens Fog 3.0	13-05008	
Tint Lens MFog 1.5	13-05009	
Tint Lens MFog 2.0	13-05010	
Tint Lens MFog 2.5	13-05011	
Tint Lens SFog 1.5	13-05012	
Tint Lens SFog 2.0	13-05013	
Tint Lens SFog 2.5	13-05014	



JIFFYHOOD

A lightweight plastic hood that does the job inexpensively, Jiffyhood stows rolled up in a flight case, or even in your pocket. Has an adjustable elastic headband for comfortable fit. P/N 13-03457......



FRANCIS IFR HOOD

The Francis hood restricts your vision totally to your instruments and because it's so small, it wont block any part of an instructor's vision. It's made of lightweight but shockresistant plastic, and has a cushioned face

pad for comfort, Adjustable elastic headband. P/N 3362.....



JEPP SHADES

Replaces bulky, hard-to-use instrument training hoods. The improved design allows better student/instructor interaction. The Cockpit proven design works conveniently under headsets and the universal

adjusting strap reduces pressure on the ears and temple. The Velcro™ strap fits comfortably and flip-up lens allows convenient IFR/VFR flight transition. The high quality polycarbonate lens is impact resistant.

P/N 13-404311



A creative solution to the problems caused by wearing a large hood on your head. Foggles fit and feel like glasses, but the opaque frosting on the top and sides let you see only the instrument panel. Your out the window view

is always foggy. Wear them with headsets and microphone with no interference or discomfort. They come with a protective carrying case and weigh only two ounces.

P/N 13-06500

SUPER HOOD



This Super Hood is one of the safest, most comfortable and best made instrument training hoods we've found anywhere. Ideal with eye glasses or headsets it slides in under the headset without relinquishing control of the aircraft and it can be instantly removed at any time for a safe approach or landing. Blocks outside reference but provides a full panel view to

reduce vertigo. Light weight (3 oz.) and comfortable.

P/N 13-30200 ...



VIBAN IFR TRAINING HOOD Pilots prefer ViBAN over other view-limiting devices because it weighs only 2 oz., making it easy to put on and take off during flight. Its eye-catching design is skillfully engineered to

provide a perfect view of the instrument panel while providing complete occlusion forward and to the side. Even more, ViBAN folds compactly to fit in its own durable case and is easily stored in your flight bag.

Without Nosepiece.....P/N 13-02022 With Nosepiece......P/N 13-02023

OVERCASTERS

Overcasters is a unique IFR training tool which clips to glasses (sunglasses or RX) in seconds. Flip-up in one easy motion for easy transition. Feather light with no straps, helmets, or hoods. Accepted by IFR examiners P/N 13-33799. for checkriders.

ASA HOODWINK IFR TRAINING HOOD



Unique design easily and automatically springs open when removed from its pouch and packs away for storage with just a simple twist. Lightweight, yet durable enough to withstand the rigors of daily use. 4"x4" slim pouch is small enough to fit in a shirt pocket or in almost any flight bag compartment. Can be used with or without neadsets. One size fits all. P/N 13-05620.

CLOUD-EEZE™ IFR TRAINING GLASSES



IFR Glasses' Old Foggies™ brand view limiting device was developed in order to balance the training value of a view limiting device without further limiting the pilot from being able to read his/her charts. Old Foggies™blend of precision fogging and custom powered corrective

lenses allows for the precise amount of the instrument panel viewing without any view of the horizon. Old Foggies™ are available in customizable powers with no need for a prescription. Available in Clear and Light Mirrored Tint (a reflective coating that eliminates glare without further limiting visibility). Available Powers: 1.5, 2.0, 2.5

Cloud-eeze Clear LensP/N 13-05015 Cloud-eeze Tint Lens.....P/N 13-05016

BOOKS

AERO PRODUCTS AIRCRAFT LOGS



Permanent, hard cover, logs with leatherette cover printed in gold. Pages are updated to current FAA requirements. Generous line spacing. Size: 5.75"x7.75"; 74 pgs; Green cover. Comprised of 9 sections: Aircraft Description, Installed Equipment, Major Alterations, Life Limited Parts or Overhaul

Requirements, AD or Factory Bulletin Compliance Record, Altimeter and Static System Checks, Radio and Electronic Checks, Maintenance Record (FAR 43.9), Inspection Record (FAR 43.11-91.217).

AF-5 Hard Cover......P/N 13-32385 AL-12P Soft Cover......P/N 13-04670.....



CUSTOM-BUILT AIRCRAFT **OWNERS & OPERATORS MANUAL**

Contains spaces for listing of aircraft description, specifications, construction data, weight and balance calculations, operating limitations, operating instructions and servicing information. (L. Pazmany) P/N 13-20100



ASA AIRCRAFT LOG BOOKS

Designed to keep records of the entire aircraft in order: inspections, tests, repairs, alterations, ADs, service bulletins, and equipment additions, remov-

SA-1 soft cover-hunter green; 7.25"x 4"; 64 pgs
P/N 13-32375

SA-2 Hard cover-Hunter Green; 7.75"x 5-5/8"; 96 pgs. P/N 13-32384.....



ASA AIRCRAFT FLIGHT LOG/ LOGBOOK (SP-FLT)

Spiral-bound and perfectly sized to fit in an aircraft glove box or chart pocket, this logbook is a quick reference to the recent history of the airplane so pilots have immediate access to the airplane's re-

cords without needing to dig through logbooks usually kept in the maintenance hangar. The Aircraft Flight Log fills a gap in aircraft records for pilots, and instantly allows them to know the status of the aircraft they are about to fly. P/N 13-03163.....

PLANEVIEW AIRCRAFT FLIGHT LOGS



There are several things that make this flight log useful to so many owners and operators. Its size is compact and can be easily stored in a glove box or side pocket. You only have to use the categories that are important to you. The owner of a Piper Cub would not use the logbook to the extent that a Piper Mirage owner/operator would, but it can eas-

ily accommodate the needs of both aircraft. Multiple pilots can use the book, so it can be used in an aircraft that is used in partnerships, fight schools, charter and many other operations where there are a number of different pilots flying the aircraft. A flight school or aircraft rental company could track how their aircraft is being utilized.

INTERNATIONAL PILOT LOGBOOK



In addition to complying with all the FAA regulations, the international logbooks follow all ICAO and JAA recordkeeping requirements pertaining to pilots. These are the two governing bodies regulatng the aviation industry outside the US.

The International Pilot Master Log is perfect for professional aviators, or those who fly frequently. Hardcover: 11"x6.5", 278 pgs. Includes green P/N 13-02554 summary pages.

The International Pilot Log is a slightly smaller version of the Master Log. Hardcover: 7.75"x4", 68 pgs. P/N 13-02553

AIRCRAFT EXPENSE & USAGE JOURNAL



This product is a compact 32 page journal, measures 4 ¼" tall by 2 ¾" wide, is assembled with 2 staples, and can easily fit into aircraft glove box or shirt pocket. Weight is approximately 1/2 oz. Printing is black on cover of white 67 lb cover stock paper and on pages of white 20 lb paper. Journal covers a full one year period, contains spaces for 20 transactions per month, and includes

a monthly/yearly summary

Expense Journal	P/N 13-05056
Usage Journal	P/N 13-05057

AERO PRODUCTS ENGINE LOGS



Permanent, hard cover, logs with leatherette cover printed in gold. Pages are updated to current FAA requirements. Generous line spacing. Overall dimensions: 5.75"x 7.75"; 74 pages; Red cover. Comprised of 8 sections: Engine Description, Installed Record, Life Limited Parts or Overhaul Requirements, AD or Factory Bulletin Compliance Record (propeller or rotor only), Repair and

Inspection Record (propeller or rotor only).

EF-5 Hard Cover......P/N 13-32390..... EL-13P Soft CoverP/N 13-03811



ASA ENGINE LOG BOOKS

Keep track of engine inspections, tests, repairs and alterations, airworthiness directives, manufacturers' mandatory service bulletins & equipment removal or exchange. Color: Burgundy

Hard Cover (7.75" x 5-5/8") 96 pagesP/N 13-32382 Soft Cover (7.25" x 4"). 64 pages......P/N 13-32380.



EAA LOGBOOKS

Ē	Aircraft LogP/N	
	Engine LogP/N	
	Propeller LogP/N	

ASA AIRCRAFT FLIGHT LOG



The ASA Flight Log is the perfect tool for aircraft owners and aircraft flown by multiple pilots to keep track of the care and use of an individual aircraft. Spiral bound and perfectly sized to fit in an aircraft glove box or chart pocket. Logbook pilots will have quick reference to the recent history of the airpance without digging through those usually kept in the

P/N 13-03163 maintanance hangar.



ASA PROPELLER LOGBOOK

Record data for hub & blade inspections, repairs and alterations, airworthiness directives, & factory bulletins. Soft cover, Black, tives, & ractory 55.... 7-1/4" x 4", 20 pages. P/N 13-32370



ASA AVIONICS LOG BOOK

Includes entries for avionics equipment, VOR accuracy, transponder & ELT checks, AD & SB compliance, maintenance records. Soft cover, blue/gray, 7.25"x4", 64 pgs.
P/N 13-02315



ASA AMT LOG BOOK
Designed for Maintenance Technicians, IA-qualified mechanics, and students to log training and educational requirements, work performed, and experience for the purpose of tracking for future certification, recurrence, employment applications, school records, or

insurance applications. Plastic coil binding stays open on current page. Soft cover, 6 1/2" X 11", 192 pages. P/N 13-02313......

FLIGHT SCHEDULE LOG



Essential to smooth dispatching, features include: a replaceable perpetual aircraft/ instructor entry panel; standby request section; and time in 15-minute blocks. Charcoal Gray binder is 17-1/4" x 13-5/8" with 15" x 12" pages for easy viewing. 60 pages included, refill packs available.

P/N 13-02308

FLIGHT SCHEDULE REFILL PACK - Can be used over and over with this 60-day refill. P/N 13-02309

GLEIM PILOT LOGBOOK



The Gleim Pilot Logbook provides detailed entries for all inflight information, sections for certificates, ratings, and operating privilege endorsement section, table of contents, room for up to 450 entries, and much more. High quality paper and hard cover bind-P/N 13-01822

ing. 112 pgs. 5"x9.

BOO

JEPPESEN PROFESSIONAL LOGBOOK



This professional log book from Jeppesen, measuring 6-1/2" x 11" is constructed of sturdy, easy-to-read ledger paper & includes an elegant cover with a gold sticker in which you can write your name on.
P/N 13-21728.....

JEPPESEN PROFESSIONAL

EUROPEAN LOGBOOK

Complies with JAR 1.080 regulations for logging flight time in Europe. handles 10 years of data. Size: 17.1 x P/N 13-02212

IEPPESEN PILOT LOGBOOK

Our 96-page permanent record offers large flight time category spaces, arranged according to FAA regulations. Printed on "easy-eye" green pages that resist "bleed through". Size: 8-5/16" x 5-5/16" P/N 13-21732

LEATHER LOGBOOKS

Inside the cover is an inserted loose-leaf book that will allow replacement pages when required. The 6-ring binder is designed so it can be replaced if damaged. All metal parts of the book are 24K gold plated for endurance and lasting looks. The pages are made of special hand picked quality paper

with follow through lines. Has memorandum pages, annual flight totals, flight summary pages, notes, endorsement pages, vinyl document savers, and vinyl picture savers. The Old World Leather Logbook has naturally embossed lettering. The Premier Leather Logbook has gold lettering. Size: 10" x 7"

Old World Logbook (brown).....P/N 13-21955...

POWDER PUFF PINK LOGBOOK



The Powder Puff Pilot standard logbook has a pink, protective hard cover with the Powder Puff Pilot logo on the front. It's standard size (81/4 by 61/4 inches) with 52 pages of all the record keeping, endorse

ments, and flight log information that every pilot needs. Inspirational quotes from the famous pioneers of women aviation sprinkled throughout to keep you motivated, inspired, and flying high.

P/N 13-06342

CLASSIC BLUE AERLOG®

TRIP & EXPENSE RECORD

The Classic Blue Aerlog® is the original pocket sized, permanently sewn-bound book, much like a traditional Master Log book, only smaller. The Aerlog® Classic makes transcribing to another Master log book unnecessary. The Classic Blue Aerlog® has a separate "pay section" that is preferred by pilots who like to keep their pay time right next to their flying time. P/N 13-20155......

THE LITTLE MAROON AERLOG®

Designed for all pilots who record only their flying time and expenses. The Little Maroon Aerlog® has 224 loose pages that have a semi-concealed black wire binding. Water resistant vinyl cover. Has the same proportional spacing and the convenient difference as the Classic Aerlog. P/N 13-04431.....

look and feel as the Classic Aerlog.

LIGHTER LOG

Plugs into your aircraft's lighter receptacle and tracks each flight effortlessly. Monitors the system voltage and warns of possible generator or electrical problems. Plug it in to any

12 or 24-volt system and forget it. Up to 500 flights may be recorded and stored in the internal memory for 10 years. Attach the LighterLog to any Windows 95/98/2000/Me personal computer using the included serial cable and download the flight records to the included Lighter Logbook software. Optionally attach the LighterLog to any industry compatible GPS or LORAN digital port and the LighterLog will record departure and destination information. If no GPS/LORAN is available, the Lighter Logbook software will list all airports within cruising range of the recorded flight time. Just point and click on the destination airport. Print familiar style logbooks from the computer whenever you like.

P/N 13-03299.

STANDARD PILOT MASTER LOG BLACK

ARD PILO1 WISS. Hard cover, 6.5"x 11", 278 pages. P/N 13-32392

PILOT LOGBOOK (ASA-SP-10)

This new introductory logbook is perfect for flight instructors and flight schools to start students out with an inexpensive logbook. With space for 16 separate flight entries, a ground instruction log,

several solo endorsements, and a separate log for each type of aircraft flown, this logbook is great for introductory flights, first flight lessons, promotional give-aways and more. P/N 13-05670.....

PROFESSIONAL PILOT LEATHER **LOGBOOKS**

These Professional Pilot Logbooks are the highest quality logbooks we have seen, and we are proud to make them available to Aircraft Spruce customers. They are designed and made to last a lifetime. Available in Aviation leather and brown leather which are styled to look like a log book dating back to the early days of aviation, as well as black

leather which is standard in modern log books. Most are bound from cloth over cardboard or from patent or genuine patent leather. Both are substitutes for what we're looking for. In fact, the genuine patent leathers are simply 'paper' leather glued onto cardboard. This logbook is bound from true leather. The log pages are designed to keep traditional logging info but to provide more flexibility. It has customary Date, Aircraft, Pilots, Route & Remarks sections. Each page is 8.5"x 9"; 20 entries per page; 288 pages which allows for 2600 entries. ...Aviation -

.....P/N 13-02139 Brown leather.. Antique - Brown leatherP/N 13-02141 Black leatherP/N 13-02140

STANDARD PILOT LOG BLACK

Hard cover, 7.5" x 4", 100 pages.

P/N 13-32365



STANDARD PILOT LOG BURGUNDY STANDARD 1120. Hard cover, 8" x 4-1/2", 100 pages. P/N 13-32360.....



STANDARD PILOT LOG **NAVY BLUE**

Created with the input of airline pilots & instructors,



these shirt-pocket size logs are designed for long lasting and comprehensive recordkeeping on the road. Options are provided for tracking flight time, currency requirements, expenses, duty times, layovers, and

much more. Soft cover, 108 pgs. P/N 13-04432

CREW FLIGHT LOG TIME & EXPENSE RECORD



With a durable high quality vinyl cover, this book is the world's most usable flight crew log. Including an upgraded calendar and unique guide to aviation info sources, Crew Flight Log meets both FAA & IRS record-keeping requirements. P/N 13-04573

MASTER LOGBOOK CASE

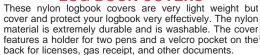
Durable nylon logbook cover sized to hold master logbook, charts, and other aviation essentials. Loop forpen or pencil, hook and loop closure, clear pockets for license and medical certificate. 7.5"x12"; hold log-books up to 6.5"x11". P/N 13-02311

LOGBOOK ENDORSEMENT STICKERS

Can be used for Flight Reviews and Instrument Proficiency Checks, and comply with FAR 61.56 and FAR 61.57 on PIC recent flight experience and flight reviews. Each sticker mea-

sures 2" H x 4"L. 10 stickers per sheet on white paper. P/N 13-06585

LOG BOOK COVERS





Color	Size	Description	PN	Price
Black	Medium	JEPP	13-04402	
Black	Medium	ASA	13-04403	
Black	Medium	Sporty's/Stafford	13-04404	
Blue	Medium	, JEPP	13-04405	
Blue	Medium	ASA	13-04406	
Blue	Medium	Sporty's/Stafford	13-04407	
Red	Medium	JEPP	13-04408	
Red	Medium	ASA	13-04409	
Red	Medium	Sporty's/Stafford	13-04410	
Black	Large	JEPP	13-04411	
Black	Large	ASA	13-04411	
Black	Large	Sporty's/Stafford	13-04412	
Blue	Large	JEPP	13-04413	
Blue	Large	ASA	13-04413	
Blue	Large	Sporty's/Stafford	13-04414	
Red	Large	JEPP	13-04415	
Red	Large	ASA	13-04415	
Red	Large	Sporty's/Stafford	13-04416	



It all started back in California in 1957 when Bob Scott ("Scotty") began making saddles. Many of his saddles are on display at the Cowboy Hall of Fame and many more are still being ridden by world champion cowboys. Then in 1967, Scotty became a pilot with Northwest Airlines. He retired from Northwest after 30 years, but Scotty still enjoys flying his Cessna 310. He

made his first flight bag in 1977. The next year saw Scotty selling 2 or 3 flight bags a month to fellow pilots. Scott Leather has continually grown since those early times, but the workmanship, quality and guarantee of each bag remains the best in the business.

> EMBOSS ANY SCOTT FLIGHT BAG WITH 3 INITIALS (SPECIFY).....\$9.95



JUMBO FLIGHT BAG

The newest kit bag and now the #1 seller! Designed to be carried on your roller suitcase, Scott has incorporated the BEST of both style bags into one. Sturdy straps support the entire case from the bottom. Brass combination locks and feet, 2 inside panel pockets. Grade A saddle leather, features Scott's famous 1-piece construction.

8"-Black	.P/N	13-02510
8"-Brown	.P/N	13-02511
7"-Black	.P/N	13-02512
7"-Brown	P/N	13-02513



SQUARE TOP FLIGHT BAG

Made of the same fine heavy Grade A saddle leather, this case also has 1-piece body construction. All stress points are riveted. A handsome briefcase style with brass combination locks and feet, 2 inside pockets. size:

8"-BlackP/N	13-02514
8"-BrownP/N	13-02515
7"-BlackP/N	13-02516
7"-BrownP/N	13-02517

WHEELED SQUARE TOP FLIGHT BAG



The Square Top Bag is now available with an Inline Skate Wheel System and a Three Position Telescopic Handle. The wheel and handle systems are attached to the outside of the bag so you do not loose any capacity on the inside. The lid stays open with simple snap closure. Optional accessories can be added at additional cost. size: 18"Lx10"W x16"H

Black	P/N	13-02522	
Brown	.P/N	13-02526	•



ROUND TOP FLIGHT BAG Hand crafted from the finest Grade A saddle

leather. Famous 1-piece body construction. Leather straps wrap around the entire bag for extra heavy support. All stress points are riveted. 2 inside pockets. Brass feet & hardware. 18"l x 8"w x 12"h

8"-Black P/N	13-02518
8"-BrownP/N	13-02519
7"-Black P/N	13-02520
7"-BrownP/N	13-02521



DELUXE PILOT CADDY

Handmade from the finest Grade A saddle leather. Keep charts, pens, pencils, computers, sunglasses, etc. right where you need them. Divided into 3 sections. 2 large sections measure 8.5"l x 4.25"w x 6.5"d inside - big enough for the largest Jeppesen binders oreven a headset. Black

P/N 13-02528.....



CERTIFICATE HOLDER

Handmade from the same Grade A saddle leather as Scott's flight bags. Guaranteed to last a lifetime.

BlackP/N	13-02530
BrownP/N	13-02531



OUTSIDE POCKET

Optional 6"x9" end pocket w/ snap closure can be added to either or both ends of any kit bag. Designed to hold enroute charts, etc.

BlackP/N	13-02524
BrownP/N	13-02525



LEATHER HEADSET CASE

2-sided and center divided pouch helps organize your bag. Headsets on one side, pencils and glasses on the other. Keep them separated & protected. Approximate size: 13"L x 6.5"T. 2 Zippers. Available in black P/N 13-02529 only.



LEATHER AIRWAY MANUALS

Handmade from the same Grade A saddle leather as Scott's flight bags. Guaranteed to last a lifetime. High quality 4 ring push tab mechanisim. Handy pocket on inside front cover. Rings measure 1.5" dia. You can add Quick Tabs, see below

Gaion Tabo, oco b	010 11.
1" ring-Black	13-02533
	13-02535
	13-02534
	13-02536



INSIDE POUCH

Optional 5" X 12" zippered pouch attaches with velcro to top inside flap. Large enough for sunglasses, mini maglite, screwdriver, gum, etc. Stitched on the outside of pouch are 2 pen loops plus a larger highlighter loop. Black.
P/N 13-02523





QUICK TABS

Before a trip, insert 1 of 5 different colored tabs to mark airports most used. Eliminates time spent looking for pages. Package of 5.
P/N 13-02532



NOS BINDERS

Handmade from the same Grade A saddle leather as Scott's flight bags. Guaranteed to last a lifetime. High Quality 7 ring push tab mechanism. Available in 2" ring size and hard to find 1" ring size. Handy pockets on inside of both covers. Personalized with your name & airline at no extra charge.

	P/N		
Brown	P/N	13-02538	

RAVEL BAGS - FLIGHT BAGS

SCHEYDEN TRAVEL BAGS

The bags can be custom embroidered and are available in Navy. Red. Hunter Green, Khaki, Grey, Black and Metallic Mocha for a additional

Add the appropriate dash number after the part number for the color of your choice: Navy (-1), Red (-2), Hunter Green (-3), Khaki (-4), Grey, (-5), Black (-6), Mocha (-7)



PIGGYBACK2

The most functional carry-on bag ever made. One section converts to a day/backpack and features a patented high-impact wheel base and telescoping retractable handle. Slip the Club Glove Shoulder Bag over the handle for the ultimate airline carry-on set. Weight: 10lbs. P/N 13-04278



SHOULDER BAG

Designed with access on both sides, this Shoulder Bag maintains the strength and features of the Club Glove line. Carries a laptop, documents, or use as an overnight bag. Included is a dual shoulder strap (patents pending) that distributes the weight evenly and comfortably. (makes a great flight bag) Weight: 2.2lbs P/N 13-04280...



ENSEMBLE

The Piggy Back II, Shoulder Bag and Travel Kit! Weight: 12.7lbs P/N 13-04279

FLIGHTLINE FLIGHT BAGS

LARGE DELUXE FLIGHT BAG



The top of the line Flight Bag by Flightline boasts an incredible array of features for the price. This heavy-duty bag is double stitched and ideal for large loads. 12"H x 7-1/4"W x 14-1/2" L P/N 13-04255

MEDIUM DELUXE FLIGHT BAG

This Flight Bag is ideal for pilots who have a lot to carry but not a lot of space to put the bag. It is currently any pilot's favorite flight gear! 10"H x 6-3/4"W x 12-1/2" L P/N 13-04256.....



DELUXE HEADSET BAG

It is the perfect bag to protect and organize any fragile and expensive equipment. Not only will this bag hold a headset, but other necessary items as well! 10"H x 4-1/4"W x 10 " L P/N 13-01416.....

TOP GRAIN LEATHER FLIGHT BAG



- · Dimension: 18" length x 10" wide x16" height
- · Designed to carry six binders
- · Padded compartment for lap top computers or GPS
- 3 position telescopic handles
- 3 brass combination locks

P/N 13-04229.....

BISON MOUNTAIN RV FLIGHT BAG



A practical solution to organizing the cargo area of your RV-6, RV-7 or RV-9. Also makes a great overnight bag! Our RV Flight Bag was designed to fit behind the pilots and co-pilots seat of the RV-6/7/9. It fits over the flap actuator bar and makes maximum use of the area behind your seat. This keeps the CG as far forward as possible and maximizes remaining cargo space. The RV Flight Bag is 18 inches high and 12.5 inches wide. It has a very large main cargo area easily

accessible with a large zipper flap. There are two side pockets, one 10" x 4 " and a 7" x 5.5" map pocket. The rear side of the bag has a pencil / flashlight/fuel tester pocket, a 10 inch x 7 inch headset pocket, and a 6"x 5 1/4" pocket for small tools. The material and zippers are heavy duty and will last a long time. The bag is made of durable Curdura and is resistant to liquids. It has a nice carrying handle and comes with two straps that can be attached to your seat back to clip the bag to your seat to minimize movement. It also comes with a removable shoulder strap

Part No. Description Color Price BLACK CURDURA GREY CURDURA RV FLIGHT BAG 13-05321 **RV FLIGHT BAG** 13-05323 **RV FLIGHT BAG BLACK LEATHER** 13-05324 **RV FLIGHT BAG GREY LEATHER** 13-05326 **RV FLIGHT BAG BROWN LEATHER** 13-05328

BISON MOUNTAIN ULTIMATE FLIGHT BAG



This is the Ultimate Flight Bag for all your flying needs. Taller than most bags, it makes more use of the vertical room in your narrow baggage compartment or cockpit. At 19.5 inches long, 9 inches wide, and 14 inches tall you can pack everything you need to fly with and there is enough room left over for a couple days worth of clothes. The interior compartment is 14 inches long, 7.5 inches wide, and 14 inches tall. A removable interior divider velcros in place to increase storage options. There are nine exterior pockets. Exterior pockets include a padded headset pocket, padded pocket specifically for Garmin 496 or simi-

pocket specifically for Garrilli 490 of similar GPS's (or handheld radios), cellphone pocket, pocket for magazines or newspapers, water bottle pocket, chart pocket, 8.5 inch by 7 inch pocket for logbooks or aircraft manuals and pen, pencil, flashlight holder. Large padded laptop compartment that measures 14 inches long, 12 inches high, and 1.5 inches wide. A clear plastic identification card holder. There is a place for military or civilian wings that attach with velcro. It comes with sturdy carrying handles that velcro together and a removable carrying strap.

Color	Part No.	Price
Black Curdura	13-05329	
Grev Curdura	13-05331	
Black Leather	13-05333	

Color	Part No.	Price
Grey Leather	13-05334	
Brown Leather		

Sky High Gear Flight Bag Systems are integrated with cutting edge STYLE for today's pilots. Each bag is loaded with patent pending design work to maximize packing UTILITY for all activities. Designed by Pilots for Pilots

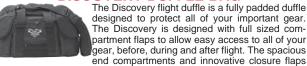
APOLLO FLIGHT ATTACHE

The Apollo messenger bag was designed for the business pilot who does not want to carry multiple bags as they visit on and off field customers. Their integrated file dividers will hold file folders, note pads, brochures, catalogs, forms, and more. They have also integrated our CoPilot feature which allows the document and map section of the bag to lay open on the seat next to you

for easy access to your important nav charts, approach plates, markers, flashlight, batteries, etc.

P/N 13-03279

DISCOVERY DUFFLE BAG



make putting away or getting out your ANR headsets and other gear a breeze. The center compartment has a double zipper opening with a padded divider to segment the compartment for easy access and storage.

P/N 13-03280

FREEDOM VII DAY DUFFLE BAG

Freedom VII is the flight bag for those who want to pack light for a short day flight or a CFI who needs just the minimum requirements for a lesson. This flight bag comes with their patent pending CoPilot feature. This allows you to organize 4 sectionals, extra batteries and other miscellaneous equipment. The main compartment has plenty of room for a headset or two 2" Jepp Chart binders with a pocket on the back for your kneeboard, A/FD or other materials. If you need a small flight bag this is the bag for you.



BlueP/N	13-03277
Green P/N	13-03350
Red P/N	13-03351

SKY HIGH GEMINI
The Gemini flight bag is a fully padded duffle designed to protect the pilot's important gear. It is made with full sized compartment flaps, allowing easy organization of flight materials and access during flight - there is even a special stow-a-way pocket designed to hold

most kneeboards. Everything is right where it should be - especially important during IFR flights. The center compartment has a double zipper opening with a padded quad-modular divider to segment a double zipper opening with a padded quad-model across the compartment for custom organization and easy access.

P/N 13-04254.....

VOYAGER FLIGHT ATTACHE

The Voyager Attaché flight bag gives you the ability and convenience of being able to carry charts, sectionals and all the necessities with-out carrying around a larger flight bag. The CoPilot feature allows you to organize up to 6 sectionals and essential equipment. The main compartment can hold a single headset, Jepp chart binders and/or Air Charts. A kneeboard pocket is on the back for added convenience.

The Voyager is made of ballistic nylon for extra durability

Blue	P/N 13-03278	
Red	P/N 13-03348	

EXPLORER PRE FLIGHT POUCH

Our preflight pouch is made of durable 600D Polyester. It is designed to organize and hold your basic items for your preflight – Mini Mag size flashlight, fuel tester, pen/ pencil, tire pressure gauge, and pliers or wrench. We have also included a grommet on the corner so you can attach a towel for wiping your hands clean. The Explorer will fit easily into any bag and has a Velcro strap to attach to your waist belt for convenience during the preflight.

P/N 13-03276......



NORAL AIRCRAFT DOCUMENT HOLDER



This durable document holder is made of strong fabric with two clear pockets to hold your aircraft document secure and visible. It comes with two inches of velcro to be placed anywhere that velcro can be applied to......P/N 13-01134......

NORAL SINGLE HEADSET BAG



This bag is ideal for the pilot that wants to carry a passenger headset or his own, separate from his flying bag. It is constructed with genuine DuPont® Cordura® 1000 Deniers, water resistant, fully padded with a 1/4" foam and backed with a layer of tricot. Features separate zippered compartment along with an extra side pocket.

Red P/N 13-00281	Navy Blue P/N 13-00282
Grey P/N 13-00286	Black P/N 13-00288



NORAL STUDENT PILOT BAG

The Student Pilot Bag has plenty of room for everything a student pilot needs to carry and more at a price unmatched by any other brand. It has 2 extra large zippered headset pouches plus another zippered section to store pens, flashlight, fuel tester, E6B com-

pens, nasniight, fuel tester, E6B computer and more! Access to the main compartment is through a double zipper flap with a pull cord. In addition to the carrying handles, a detachable padded shoulder strap is included. Size: 11"H x 10.5"W x 12"L.

3126. 11 11 x 10.3 W x 12 L.	
Navy Blue P/N 13-00291	GreyP/N 13-00294
BlackP/N 13-00297	

NORAL PRIVATE PILOT BAG



Fits all the goodies and gadgets a pilot needs and wants to carry. It has two extra large zippered headset pouches plus another zippered section to store pens, flashlight, fuel tester, E6B com-puter and more! Access to the main ompartment is through a double zipper flap with a pull cord. In addition to the carrying handles, a detachable padded shoulder strap is included. Size: 11"H x 10.5"W x 15.5"L.

Navy BlueP/N	13-00299	
BlackP/N	I 13-00313	

NORAL MACH 1 FLIGHT BAG



The Mach 1 flight bag is compact yet roomy. The bag features a wide 5" double zippered access flap with a pen and pencil holder. There are two end compartments 6"X10". On the front, a zippered 11"X 6" compartment. On the back is a 4"X 8"X 8" headset compartment which will accomo-

date the largest of headsets. The Mach 1 is made of US Made Nylon with 1/4" Foam Padded, 1000 Denier and is water resistant. It comes equipped with a GPS/Transceiver Pouch that can be worn on your Also included is a shoulder strap and carry handle. Dimensions: 15"LX11"WX10 1/2H

BlackP/N 13-04088	Navy Blue P/N 13-04091
GreyP/N 13-04092	Red P/N 13-04093

NORAL ADVANCED PILOT BAG



The Advanced Pilot Bag has extra large access (5-3/4" wide) and is very comfortable! Featuring two huge headset bags, one on each end, it can hold more than just a headset. It has a detachable shoulder strap and carrying handles and are padded for extra comfort. It also has a zippered compartment for pens, flashlight, fuel tester and more! The main compartment's loose semi-rigid divider is made of

a very strong, but extremely light weight hollow polypropylene. Covered with black fabric, it can be adjusted to your needs. It also contains a GPS or transceiver pouch to help protect equipment from damage due to accidental banging on hard surfaces while also keeping it out of sight to protect from theft. Size: 11"H x 10.5"W x 18.5"L

Black..... .. P/N 13-00172

SMART CHART ORGANIZER



Made of US Made Nylon 1000 Denier with 1/4" Foam Padded. And it features 6 card holders in the bottom and a compartment for chart. It secures the document by a Zipper closer. Available in Black, Navy Blue, Red & Gray. Dimensions 6"W X 14"L. The 6" Wide will be 12" in open position. Embroidery is available for \$11.95 (16 Char. Max)

	. ,	
Description	Part No.	Price
Noral Smart Chart Organizer Black	13-04456-B	
Noral Smart Chart Organizer Navy	13-04456-N	
Noral Smart Chart Organizer Blue	13-04456-BLU	
Noral Smart Chart Organizer Red	13-04456-R	
Noral Smart Chart Organizer Grey	13-04456-G	
Noral Smart Chart Organizer Camo	13-04456-C	

IGHT BAGS

ASA AIRCLASSICS FLIGHT BAG

ASA has brought pilot gear to a new level with the AirClassics series of pilot bags. Focusing on a clean, sophisticated and professional look, they have been designed and engineered to be supremely functional.



Padded 600D nylon for superior durability. Comfort Grip connectable handles. Non-slip detachable carry strap. Reinforcing straps around bag for strength. #10 zippers for easy handling. Headsetn pockets on both ends. Large single-pull, zippered & dividable main compartment.

P/N 13-02336

ASA AVIATOR FLIGHT BAGS



The Pilot Flight Bag and the Trip Bag, are made of fully padded nylon for extreme durability. They feature wraparound carry straps for strength, a non-slip detachable shoulder strap, and high-quality zippers on the main compartments.

Pilot BagP/N 13-04057

Trip Flight BagP/N 13-04058

ASA TECH FLIGHT BAG
ASA pilot gear bags are well known for their supreme functionality, rugged construction and professional style. The Tech Bag is ideal for the computer-toting pilot. It includes a padded laptop sleeve for safe storage of your computer or favorite EFB (up to 15" x 11") and has plenty of pockets for carrying everything

from headsets to sticky notes. It's a mobile office/flight planning room in a bag! Count on your ASA Tech Bag to bring you many years of utility and pride.

- Dimensions: 19" wide x 8" tall x 12 1/2 " deep

 * Made of 600D polyester with PVC backing for extreme durability

 - Non-slip removable shoulder strap
 Molded carry handle for strength and comfort
 - Rugged zippers
 - Outside ID pocket
 - Padded interior divider panels with numerous compartments
 - Padded interior laptop/EFB sleeve

P/N 13-06260.....



ASA CRM FLIGHT BAG

This "copilot in a bag" not only keeps your gear organized on the go, but in the cockpit as well. Its functional design serves double duty as a great storage apparatus and ultimate cockpit organizer. Numerous compartments and pockets keep everything secure and easily accessible in the Theorems and the control of the con sible in flight. There are even "hideaway" stretch mesh side pockets for water bottles. It's large enough to hold everything you need yet compact enough to easily bring along on shorter excursions. Count on your ASA CRM Bag to bring

you many years of utility and pride.

- you many years or unity and pride.

 Dimensions: 14" wide x 12 1/2" tall x 9" deep

 * Made of 600D polyester with PVC backing for extreme durability

 * Non-slip removable shoulder strap

 * Padded carry handle

 - Rugged zippers
 - Interior organizer with multiple pockets
 - Large interior mesh pocket with toggle closure
 - Side zippered pocket with stretch mesh for water bottle P/N 13-06258......



AEROCOAST FLIGHT CASES

PRO I FLIGHT CASE - This professional grade flight case includes many added features not present on today's flight cases. Features such as multi access folders, flashlight holder, multiple pockets, business card sleeve, and a protective base plate.

- Waterproof ballistic material
- Metal piano hinge for added strength
- * Protective plastic plate
- Multi access folder compartments
- Multiple storage compartments Flashlight holder
- Leather wrapped handle
- Side pocket compartment
- Name card holder with clear cover
- Embroidered gold logo Added Velcro to both inside flaps
- Added Velcro to both iriside riaps
 Outside dimensions 18 x 13 x 8 inches.
 P/N 13-06041.....



PRO II FLIGHT CASE - The Pro II flight case offers the same features as the Pro I. However the primary differences you will notice with the Pro II is the sturdy Saddle style handle belts and the absence of the front pocket access.

- Sturdy saddle style handle wrap
 Waterproof ballistic material
 Metal piano hinge for added strength
- Protective plastic plate
- Inside access folder compartments
- Multiple storage compartments
- * Flashlight holder

- Leather wrapped handle Side pocket compartment Name card holder with clear cover
- Embroidered gold logo
- Added Velcro to both inside flaps
- Added Velcro to both make maps
 Outside dimensions 18 x 13 x 8 inches.
 P/N 13-06042.....



PRO III FLIGHT CASE - This professional grade flight case includes many added features not present on today's flight cases. The visible difference between the Pro I and the Pro III is the absence of the front compartment lock. Features such as:

* Waterproof ballistic material

- Matched Stitching for added strength * Metal piano hinge for added strength
- Protective plastic plate

- Added Velcro on both inside flaps Riveted pressure points Multi access folder compartments
- Multiple storage compartments
- Flashlight and pen holster
- Leather wrapped handle
- Side pocket compartment
- Name card holder with clear cover Embroidered gold logo
- Outside dimensions
- 8 x 13 x 8 inches

P/N 13-06105.....



ASA CARGO FLIGHT BAG
ASA pilot gear bags are well known for their supreme
functionality, rugged construction and professional
style. The Cargo Bag is a true hauler.

ASA pilot gear bags are well known for their supreme

functionality, rugged construction and professional style. The Cargo Bag is a true hauler. Its widemouth opening provides unrestricted access to a large interior suited to carrying just about anything and everything you need, and then some. The widemouth opening has a built-in metal rod frame for strength and rigidity where it's needed most. Includes a padded headset pocket accompanied by an abundance of compartments and an adjustable hook and loop divider which allows for customization of the main inside pocket. Count on your ASA Cargo Bag to bring you many years of utility and pride.

Dimensions: 16 ½" wide x 8" tall x 12" deep

- Made of 600D polyester with PVC backing for extreme durability
- Widemouth opening for unrestricted interior access
- Non-slip removable shoulder strap Padded carry handle
- Rugged zippers
- Exterior ID pocket
- Padded interior divider panels with many compartments
- Padded exterior pockets and side pocket for smaller items

P/N 13-06259.....

FLIGHT BAG EPPESEN CASES



AIRWAY MANUAL CARRYING BAG

Developed at the request of corporate flight departments. Carries up to eight 2" binders for these extended trips. High quality cordura fabric. (Size: 24" x 11" x P/N 13-621200



FLIGHT CASES

Top Grain leather flight cases rugged Samsonite brown or black, top-grain flight cases offer the ultimate in convenience and utility. Matched stitching and leather covered handle enhance the looks and carrying comfort. Includes removable binder dividers. Available in 3 sizes:

FC-106 holds 6 binders (12"x9"x18")13-01198 Black. FC-104 Holds 4 Binders (12"x8"x18") Black13-00116

BRIGHTLINE PILOT FLIGHT BAG







Organized Two main compartments and 25 specialized pockets to hold each of your items perfectly. Optimized Better storage than any big bag...in a small bag. It's only 12" X 10" X 9". Innovative Many unique features, including swappable handle and shoulder strap, color coded zippers, interior key clip, and much more. Features * Heavy-Duty Nylon construction.

Nylon construction.
Compact size (12" x 10" x
9"). * 25 specialized pockets. * Zips apart into two separate bags. * Color coded zipper pulls. *
Proper height for navigation charts. * SwitchSnap™ Handle for superb External chart pocket. * Isolated storage for fuel tester. * Holds tests with ease. P/N 13-06040.....



NAV-DATA FLIGHT BAG
Finally, an affordable flight bag with compartments Finally, an antordable flight bag with compartments for all yor flight gear and then some. Made of durable 600D nylon canvas for years of use. Overall dimensions: * 20"x10"x13". Low profile prevents tipping * Two heaset pockets * Front expandable VHF and electronics pockets * Large main compartment for kneeboard, charts, facility directory, etc * Adjustable shoulder strap

P/N 13-06090......



SINGLE HEADSET BAG

For those who like to fly with minimum baggage, this holds one headset, has extra pockets, and allaround paddingP/N 13-02333



FLIGHT ATTACHE

Holds all the materials a student pilot needs. 15" long x 11" deep......P/N 13-02335

JEPPESEN STYLE FLIGHT BAG



Student/Book Bag: Same great bag Jeppesen uses for its training kits. The bag is made from heavy-duty 6000 denier Cordura for superior strength and with a PVC coating on one side for added water resistance. Includes outside pockets, removeable shoulder strap, reinforced bottom. Size 10" x 5.5" x 17"

P/N 13-06280.....

THE CAPTAIN FLIGHT BAG



The most versatile bag available. Headset bags can be removed and attached together to form a dual headset bag. Removable transceiver/GPS bag can be worn on your belt. 4-way interior custom divider can hold four Jeppesen binders. One large multi-use exterior zippered pocket. Two zip-pered storage pockets for glasses, charts, pilot operating handbooks and other mis-



THE AVIATOR BAG

Slightly smaller than the Navigator Bag, but still spacious enough for all your flight materials. Includes 1 exterior front pocket as well as detachable headset & transceiver cases. Constructed with durable PVC backed with 600 denier poly. 15"x 6.5" x 12" (black only)
P/N 13-00998.....

THE NAVIGATOR BAG



The ultimate choice for convenience and flexibility. Each Navigator Bag includes all of the features and benefits of the Captain Bag, except the removable transceiver/ GPS bag and the two zippered exterior storage pockets. Instead it includes two exterior storage pockets for easy access to Section

Charts. 12" x 22 1/2" x 8" BlackP/N 13-00995 BlueP/N 13-00996



THE STUDENT PILOT

A great first bag for the student pilot.

Numerous outside pockets organize charts, flight computer, fuel tester, plotter, pens and pencils, flashlight and much more.

Comfortable, wide removable shoulder strap; double zipper opening for easy access. Reinforced bottom. Constructed with durable PVC backed 600 denier poly. 10"x 5.5"x17" (black only) P/N 13-00997......



THE PROTECTOR **HEADSET BAGS**

Each Jeppesen Headset Bag is fully padded and made from Dupont's" heavy duty 600D-Denier Cordura® polymer with a PVC coating on one side for added water resistance, designed for superior strength, abrasion resistance, and durability. Each includes a leather snap-on handle grip. Size: 12"H x 8"W x 2.75"D

Single Headset Bag P/N 13-00999..... Dual Headset Bag..... .P/N 13-01004



TUFF NUFF HEADSET CASE
A rugged built case with "clamshell" design for easy access. Your headset is well protected by a soft foam lining and tough Cordura outer shell. Fits all popular makes and models, with extra room for small accessories. Measures 9-1/2" x 10-1/2" x 3", and weighs 7 oz. P/N 4002

PUT-IT SUCTION CLIP

This clip is strong enough to hold an approach plate, chart, or checklist. Attaches by a suction cup to the instrument panel, yoke or any other nonporous sur-.....P/N 8197.....



1 Large Clip per Package......P/N 13-06409.....

ATCH-IT ACCESSORY HOLDER

"World's most versatile holding device". Lets you mount time pieces and calculators exactly where you want-on the wheel, the yoke tube of clipboard. An ingenious bracket, an adjustable holding loop, and a little Velcro is all it takes. Once positioned, can be mounted & removed repeatedly. Non-reflecting, black materials, weighs less than 1oz.

P/N 8265.....



YOKE CHART CLIP

When you want the chart or approach plate right in front of you - this clip will hold it on the yoke. Adjustable band wraps around the yoke and holds the clip firmly. Fits all general aviation aircraft controls. Non-reflective black finish.

P/N 8135.....

IFR CHART CLIP

Make IFR flying simpler by keeping vital instrument approach plates and charts in place. Attached to the yoke rather than in your lap or on the floor, this chart clip comes in various models designed to install easily on the yoke of your aircraft. Insures that your navigational charts stay in front of your eyes when you need them most. Handy for VFR charts as well. We'll be happy to assist you in determining what model chart clip will best

fit your aircraft.	
1.5" Post Standard Clamp	P/N 8131
1.5" Post Wide Clamp	P/N 8487
2" Post Standard Clamp	
2" Post Wide Clamp	
3" Post Standard Clamp	
3" Post Wide Clamp	

HOLD-IT CHART HOLDER

Simple and effective, this handy stainless steel clip holds charts right where you need them. Elastic strap attaches securely to leg, aircraft yoke, or visor.

P/N 13-01759



CARRY-IT CORDURA TOTE CASE

This multi-functional tote case is made from black Cordura fabric and features 8 pockets and velcro closures. Holds radios, flashlights, pens, pocket PC, maps, charts & more. P/N 13-01757.....



AVIATOR'S NYLON HELMET BAG

U.S. Military issue.

Size: 19"x 20". Color: Sage green

P/N 13-03476



NELSON FLIGHT SEAT POUCH

· End cockpit clutter · Made or durable Cordura Stores flashlight, fuel tester, flight guides, approach plates, charts, plotter, E6-B, sunglasses and more.

Available in black, AF blue, red, gray & olive drab Black......P/N 13-31871.....

Blue.....P/N 13-03005.... GrayP/N 13-31872 Olive drabP/N 13-03006P/N 13-31870



NELSON AIRCRAFT DOCUMENT CASE

Made of Cordura



23 POCKET BIGMOUTH BAG

17 Multi-use pockets inside and 6 outside organize tools and accessories. Opens wide for easy access to bag's contents. Padded reinforced web carrying handles. 12"L x 8 1/2"W x 8"H

P/N 12-00329

12 POCKET TRAYTOTE BAG - This bag has 2 pockets inside and 10 pockets outside with a 11"x 6" multi-compartment tray which slides securely into bottom of bag. Opens wide for easy access to contents and has reinforced web carrying handles. 12"L x 8"W x 12"H

P/N 12-00163.....



14 POCKET TRAYTOTE BAG - This bag features 2 pockets inside, 12 pockets outside, with a 13.5" x 6" multi-compartment plastic tray slides securely into bottom of bag. Opens wide for easy access. 16"L x 9"W x 12"H

P/N 12-00164

MILITARY STYLE TOOL BAGS



These tool bags are made of heavy-duty military-type tough 18oz./sq.yd. cotton duck with a water repellent mildew-resistant treatment. The mechanics Tool Bags have compartmentalized side pockets with flaps. Hardboard bottoms are completely sewn into each bag and are unexposed. All stitching is of heavy duty nylon thread

and the handles are made from heavy military spec. webbing. All inside seams are bound to eliminate raveling of the fabric.Long-tab, self-locking slider. Color: O.D. Green. Available in 2 sizes:



TOOL WRAP

These tool wraps allow the builder or pilot to carry an assortment of small hand tools in a convenient roll-up tool bag. Available in small 9-pocket or large 15-pocket size. Color is nor-

mally dark blue or off-white depending on available material, but colors can vary. Small Tool WrapP/N 13-01746 Large Tool WrapP/N 13-01747



UNIVERSAL **BEVERAGE HOLDER**

This Universal Beverage Holder made of billet aluminum installs easily in any thickness dash or instrument panel. Available in two styles, with square or oval face-polished surfaces, its compact design permits vast installation possibilities.

Oval Face P/N 13-03792 Square Face P/N 13-03793



SINGLE HEADSET BAG

Safe and convenient way to protect a single headset. Features foam padded single zipper compartment with convenient webbing handle. Made in USA. Size: 7"L x 4"W x 9"H. Color: Black.

P/N 13-55010



AIRCRAFT DOCUMENT CASE

This durable, flexible blue cordura pouch is an ideal way to keep aircraft registration, insurance, log books, operating manuals, and other important documents all in one safe location. Measures 18"W x 12"H. Features top quality zipper



LICENSE HOLDERS

Black leatherette with clear plastic window to display ownership certificates. P/N 13-07900 only includes eyelet holes for mounting and metal plates to keep corners from fraying.

4-7/8" X 6-7/8"	.P/N 13-07900
7-1/2" X 8"	.P/N 13-17904
5" X 7"	.P/N 13-17905
5" X 14" Double Pocket	.P/N 13-17906



NELSON FIRST AID KITS
International Orange Case. Velcro hold-downs
10 FA Unit. Kit Contents:

- Blistex Burn Cream
- 1"x3" adhesive bandages
- First Aid Instruction Book
- 1/2" adhesive tape (2 rls) 24"x72" gauze compress
- Scissors
- Thermometer & compass
- Wire Splints
- 4" Bandage CompressPVP iodine wipes2 Triangular Bandages

- · Ammonia inhalants

First Aid Kit #1P/N 13-02944 First Aid Kit #2P/N 13-02945

CONVENIENCE BAG

Disposable urine & vomit bag. • Wide mouth. • No spill, cleanup, or odors • One-hand use P/N13-02821.....





REACH FOR A CONVENIENCE BAG



P/N 13-02836

KEY CHAINS

Choice of: "Remove Before Flight" ...P/N 13-02836 "I ♥ Flying"......P/N 13-02949 "I'd Rather Be Flying"......P/N 13-02950



is silk screened in white on red nylon.



Designed specifically for aircraft use, these banners slip right over your prop blades, moving in the breeze to attract attention-but will not rub against painted surfaces. Each banner is 9" x 23", made of heavyweight rubberized Nylon that is weather-repellent and resists P/N 5412.....

tearing. Sold as a set of 2.

PROPELLER MOUNTED BANNERS



Two 28" x 8", white printing on red reinforced vinyl with business card pouch. Yellow, blue and white pennants, slides over prop, fastens with velcro.
For SaleP/N 13-06402

For Rent......P/N 13-06635....



FOR SALE PROP BANNER
Consists of three pieces. Each prop banner is 11" high
X 22" long when mounted. Made of RED vinylized
polyester with BOLD WHITE lettering. Unlike prop banners that are a sleeve which must be slipped over

the prop blade only, these banners are split at the bottom and are held together with velcro. This allows the banner to be opened up and then wrapped around virtually ANY structural member of the aircraft

P/N 13-06014 ...



PILOTS FREQUENCY REMINDERS

This little prompter is designed to allow the pilot (especially students) to pre-plan which frequencies will be used during a flight and hang this handy item close at hand in the cockpit. this is ideal when operating in a high density airport area. Helps eliminate cockpit clutter and searching for often used frequencies. P/N 13-04391.....



YOKE CLIPS

Clip this yoke on your aircraft so it does not interfere with movement of controls. Spring may be adjusted for smaller diameter shafts by pinching with pliers.

LARGE P/N 13-04392

SMALL P/N 13-04393



• Meets or exceeds ANSI requirements • Provides 99.9% protection against harmful UV radiation • High impact scratch resistant polycarbonate lens Adjustable temples for greater fit & comfort Replacement lenses

GrayP/N 13-02823 AmberP/N 13-02825

NELSON AILER-LOCKS



 2 Sizes • 13" RBF streamer

Locks flaps, allerons, elevators, or rudder Ailer-Lock standard (4.25")

Ailer-Lock Large (10")

P/N 13-02829 P/N 13-22705

NELSON "CESSNA" STYLE TAIL SKID



This easy-to-install tail (3 minutes) skid is designed to save the tail feathers on most single engine Cessnas. Made from 4130 aircraft steel, this tail skid fits Cessna 150, 152, 172, 177, and 182.

P/N 13-17010



COCKPIT EMERGENCY LIGHT

• Uses super power LED • 20,000 hrs "always on"

200 hrs low power or strobe
20 hrs high beam
Uses standard

Green	P/N 13-02751
Red	P/N 13-02928
	P/N 13-02929



APPROACH PLATE HOLDER

10 leaf • Flip-over (not accordion) • Size: 6"x 9" • Vinyl ... P/N 13-02772





FUEL VENT COVER

The fuel vent cover is designed to fit most fuel vents, and will not

pressurize the fuel system. The ribbon is nylon with a vinyl coating and P/N 13-02817..... silkscreened letters.



REMOVE BEFORE FLIGHT STREAMER

Red "REMOVE BEFORE FLIGHT" Streamer with white lettering. Measures 3" wide and 30" long.

P/N 13-06238.....

ELECTRONIC AIRCRAFT PARKING WANDS



• Fluorescent coated diffuser enhances red light output • Used by US Air force • Up to 400 hours operation • 17" long • Uses (2) D batteries (not incl.) • Waterproof

P/N 13-08959



EMERGENCY STROBE• Waterproof • USCG approved • Operates up to 60 hours • Uses D battery • Red lens availableP/N 13-02811 Mounting Tri-pod......P/N 13-14016.....



STROBE / FLASHLIGHT

1 mile visibility • Waterproof to 100m • Flashes more than 45 times per min. for up to 10 hours • Powered by (2) AA batteries (not incl.) • Xenon bulb • Red lens included for flashlight end • International orange case • ABS plastic body. P/N 13-02809

T FOAM - FLIGHT SEA

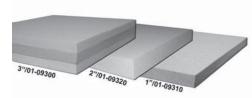
BACKSAVER FOAM



Backsaver foam is temperature sensitive, softening when it comes in contact with a warm surface; thus, in a seat cushion, the foam softens and conforms to the persons body. This provides even pressure distribution and unconstricted blood circulation, significantly reducing discomfort, even over long periods. In addition, Backsaver foam has excellent energy absorption properties, which have made it excellent for use in the U. S. space shuttle program and in military aircraft and helicopters. Pilots find that Backsaver cushions reduce their discomfort and fatigue, even on missions of 8 hours or more. Aircraft Spruce now makes Backsaver foam available to

ι	ne nomebulit	and gener	ai aviation mark	cet.		
E	BACKSAVER	FOAM 16	" X 18"	P/N	01-09325	
E	BACKSAVER	36" X 80"	FOAM	P/N	01-09330.	

CONFOR FOAM SEAT CUSHION



Temperfoam is the conforming foam cushion that was developed for the "Astronaut's Couch" back in the Apollo space program. Seat foam has the capability of

absorbing a tremendous amount of impact shock compared to common polyfoam and it is flame resistant. It is an excellent product that will give your seats enduring comfort that you never thought possible. It is not a soft seat, but it adapts to you for pressure-point-free comfort that is really incredible. The best universal cushion for aircraft use is a 3" T/38/ T41/T47 laminate. Temperfoam is not currently FAA approved for certificated aircraft but is excellent for homebuilts. Some special sizes in 1", 2" or 3" thicknesses are available on special request.

ea.	P/N 01-09310	18″	16" x	1″ X
ea.	P/N 01-09320	18"	16" x	2" x
ea.	P/N 01-09300	18"	16" x	3" x

INFLATABLE LUMBAR SUPPORT



This inflatable air pillow can be installed just under the seat material and will give you the customized support just where you need it. A convenient palmsize pump and a release valve control the firmness of the lumbar support. The In-Flight Back Support is made of a heavy duty self-extinguishing neoprene rubber, specially designed to pass FAR 23.853 flame-test requirements.

One inflatable lumbar support
P/N 13-01501.....

Two Inflatable lumbar supports
P/N 13-01821.....

SKWOOSH PILOT SEAT Fly with SKWOOSH™ and say



goodbye to numbness in your legs and rear. TekPad® gel technology delivers pressure relief for long flight comfort. The compacť SKWOOSH™ Pilots's seat is designed specifically for flight personnel. It folds to fit in a chart case, carry on or just hang it from a roll-on. It has a durable 300 denier top fabric for comfort and convenient attached cord loops for hanging. The non-skid bottom makes SKWOOSH™ stay put, insuring no movement during

use, while it's low profile allows you to maintain normal seat position. So when you have to sit for a long time, in the cockpit or passenger cabin, count on SKWOOSH™ for comfort.

Specifications: • Model# P5544 • Weight: 8 oz. • Open Dimensions: 15" x 10½" x ½" • Folded Dimensions: 7½" x 10½" x 1" • Color: Black •Non-Skid bottom • Convenient cord loops for hanging • Made in USA -Guaranteed Performance and Guaranteed Workmanship.

P/N 13-05827.....

NELSON BOOSTER SEAT



Sit higher, and sit softer on 2 or 3 inches of highdensity foam covered with durable, "breathable' Cordura. Made of USAF specifications, with segmented backrest. Really makes a difference on a long flight. Also available: 3 or 4-inch thick child's cushion that finally lets kids see outside, keeps them interested as well as comfortable during long trips. Both seat and cushion are available in either Air Force blue or red. Add B (blue), or R (red) after

Dimensions for all Nelson Seats: Back: Width - 16" Height - 17" Seat: Width -15" Depth - 12"

Description	Part No.	Price
Blue 2" Booster seat w/ 1-1/2" back	13-02916	
Red 2" Booster seat w/ 1-1/2" back	13-02917	
Blue 3" Booster seat w/ 1-1/2" back	13-02918	
Red 3" Booster seat w/ 1-1/2" back	13-02919	
Blue 3" Booster seat w/ 3" back	13-02920	
Red 3" Booster seat w/ 3" back	13-02922	
Child's Blue 3" Booster cushion	13-02923	
Child's Red 3" Booster cushion	13-02924	
Child's Blue 4" Booster cushion	13-02925	
Child's Red 4" Booster cushion	13-31861	
Blue - 4" Seat x 3" back	13-31845	
Red - 4" Seat x 3" back	13-31850	
Blue - 4" Seat x 1-1/2" back	13-31855	
Red - 4" x 1-1/2" back	13-31860	
Gray - 3" Seat x 3" back	5204G	
Red - 2" Seat x 4" back	13-02863	
Red - 3" Seat x 4" back	13-02864	
Green - 4" Seat x 1-1/2" back	13-02866	
Blue - 4" Seat x 1" back	13-02867	
Green - 2" Seat x 1-1/2" back	13-02868	
Green - 3" Seat x 1" back	13-02869	
Blue - 3" Seat x 1" back	13-02870	
Green - 3" Seat	13-02871	

NORAL SEATS



This cushion is made with the finest materials available. It features a high back with a Lumbar Support for added comfort. The foam inside meets FAA FAR regarding fire materials. A strap is present for easy carrying and securing the cushion to the back of the seat when installed. Available in 2 sizes marked Type 'A' & Type 'B'. Label 'A' fits Cessnas 172/182/172 Cutlas /210 and other

larger seats Label 'B' fits Cessnas 150/152, Piper, Archer, Warrior, Cherokee, and

similar seats

Avai	ilable only ii	n Black, i	Na	avy Blue, &	Smoke Grey	
Color	Part No.	Price		Color	Part No.	Price
2" Seat Cushion - Type B			2" Seat Cushion - Type A			
Black	13-00323		Ш	Black	13-00327	
Blue	13-00324			Blue	13-00328	
Grey	13-00326			Grey	13-00329	
3" Seat Cushion - Type B				3" Seat C	ushion - Typ	pe A
Black	13-00331		Ш	Black	13-00334	
Blue	13-00332			Blue	13-00336	
Grev	13-00333		П	Grey	13-00337	
4" Seat Cushion - Type B				4" Seat C	ushion - Tyr	pe A
Black	13-00338			Black	13-00342	
Blue	13-00339			Blue	13-00343	
Grey	13-00341			Grey	13-00344	

,					
Color	Part No.	Price	Color	Part No.	Price
2" Seat	Cushion o	nly	3" Sea	t Cushion o	nly
Black	13-00346		Black	13-00221	
Blue	13-00347		Blue	13-00221	
Grev	13-00348			13-00222	-
4" Seat	Cushion o	nlv	Grey	13-00223	
Black	13-00224	· .			
Blue	13-00226				
Grev	13-00227				

BLACK MAX COMFORTLITE SEAT



- 18" Wide X 19" Deep x 26" High 6061-T6 Aluminum Base and tubing. Assembled with AN Hardware.
- Material made from durable cordura nylon
- Includes a large storage pocket in the back
- Additional storage between pan and seat
- Pivots down to make it easier to get in behind the seat on a tandem

P/N 13-05554.....

COVERS - AIRCRAFT SPRUCE APPAREI



AEROSHEEP AUSTRALIAN SHEEPSKIN SEAT COVERS

Aerosheep seat covers are manufactured from genuine Australian Merino sheepskins. Each cover is hand tailored to fit the particular aircraft seat and comes with a 5 yr warranty. The dense 1" fleece will not shed on clothing, and the snug fit allows for no slippage. Aerosheep seat covers are cool in the summer and warm in the winter, and protect seats from sun and wear. Fully lined, they are attractive, durable, and very comfortable. Easy to install without

removing the seat. Available in tan, pearl, regal, silver, bone, smoke, navy, and burgundy; free color swatches available on request. Furnished with FAA form 8110-3 (flammability compliance certification) and shipped Fed-Ex 3-day service from the factory within one week (Add \$15.00 for shipping). To order, specify aircraft year, make, model, and color choice. For reupholstered or non-standard seats, request special order form to measure seats. P/N 13-01005/pr.
Aerosheep Sample - Order a sample then return it for a full credit after

you have selected a color and ordered your seat cover.
P/N 13-06584



AEROSHEEP SEAT CUSHION COVER ONLY

The new sheepskin product designed to appeal to pilots who may not be ready to invest in the fully fitted sheepskin seat covers. It is a sheepskin pad designed to fit on the seat cushion surface only. Available in tan, pearl, regal, silver, bone, smoke, navy, and burgundy; free color swatches avail-

P/N 13-05604 able on request.



WARMSEATS SEATS HEATERS
This do-it-yourself seat heater kit features dual zone heating (back and seat) with a built-in thermostat and high/low settings. Made by an OEM auto supplier, the kit uses carbon fiber (not wire) to provide quick and even flow heat. Universal fit and éasy installation. Instructions included. Not FAA approved. P/N 13-03195.....ea



SPRUCE POLO SHIRT
SPRUCE POLO SHIRT - These are the same high quality polo shirts worn by the Aircraft Spruce Staff at Oshkosh, Sun 'N Fun and other airshows. Made from Dry-Excel™ close-hole Micromesh, polyestér knit, with a fine gauge rib-trim collar. Three button front, open hem sleeves, and split side welts make these polos great for everyone. These polos feature the Aircraft Spruce logo on the left chest. Machine washable

	MEN'S BLAC	CK	WOMEN'S BLACK				
Size	Part No.	Price	Size	Part No.	Price		
Small	13-04729		Small	13-06507			
Med.	13-04731		Med.	13-06508			
Large.	13-04732		Large.	13-06509			
X-LRG	13-04733						
2XLG	13-04734						
	MEN'S WHIT	ΓE	wo	OMEN'S WHI	TΕ		
Size	PN	Price	Size	Part No.	Price		
Small	13-04730		Small	13-06513			
Med.	13-01985		Med.	13-06514			
Large.	13-01982		Large.	13-06515			
XLRG	13-01979						
2XLG	13-01976						
MI	MEN'S LIGHT BLUE			WOMEN'S NAVY BLUE			
Size	PN	Price	Size	Part No.	Price		
Small	13-04728		Small	13-06516			
Med.	13-01986		Med.	13-06517			
Large.	13-01983		Large.	13-06518			
XLRG	13-01980						
2XLG	13-01977						

AIRCRAFT SPRUCE PATCH



This is an embroidered patch, oval in shape, and approximately 3-1/2", colors are Red/White/Blue. P/N 13-02709

BLUE RIBBON SHEEPSKIN SEAT COVERS: NATURES OWN THERMOSTAT



The magic of 100% genuine sheepskin is quite simply that it will keep you cool in summer and warm in winter. No other natural or man-made fiber possesses the qualities of sheepskin. Whatever the temperature in your cockpit, sheepskin covers remain almost the identical temperature. Additionally, each hollow fiber absorbs up to 30% of its own weight in moisture. It keeps you dry, yet never feels wet itself. You avoid the heat and clamminess of

vinyl, or even leather, because there's free flow of air between you and seat. Every cover is hand-made by master craftsmen from the finest chrome-tanned pelts, in colors to match or coordinate with any interior. Sold in pairs only, in 11 colors (request color samples when ordering). FAA Approved.

Available for the following planes: Beechcraft: Baron B-55, E-55, B-58, Bonanza V-35 (A or B), A-33, A-36, F-33A, A36TC. Cessna: 150, 152, 172, 177, 180, 182, 185, 210, 310, 340, 402, 414, 421. Aero Commander: 500, 600, 900, Piper: Archer, Cherokee, Warrior Tomahawk.

Specify year, make model and color choice when ordering. Car

seat covers also available in same colors. Call for a price.

Blue Ribbon Sheepskin Seat Covers (pair) P/N 7736. Sheepskin Samples - Order a sample then return it for a full credit after you have selected a color and ordered your seat cover.

COLORS AVAILABLE

Charcoal

Bamboo

Mushroom

Navy

Oak

Natural

Mid Grev

P/N 13-05553

Beige

Creme

Metallic Blue

	100	1		
A	7		A	T
M	H)		M	T b th

Black

Oyster

Honey Tan

AIRCRAFT SPRUCE WINDBREAKER

These high quality, golf style pullover wind-preakers are perfect for those chilly days on ne course or at the airport. Color: Navy blue v/khaki trim and "Aircraft Spruce & Specialty

OU OILICIT OI	icot.	
Medium	P/N	13-01987
Large	P/N	13-01988
		13-01989
		13-01990

AIRCRAFT SPRUCE T-SHIRT



Top quality 100% cotton shirt available in white or navy blue. These shirts feature Aircraft Spruce logo on the back and a small Aircraft Spruce Logo on the front left chest. A great looking shirt that will last for years. Order size by part no.:

	Price	
Small		
Med.	P/N 13-02910	
Large	P/N 13-03010	
XL	P/N 13-03110	
XXL	P/N 13-03120	



AIRCRAFT SPRUCE CAP

Our heavyweight 100% brushed cotton hat is perfect for aviators. Unlike other caps, ours features a no-button construction for comfort while wearing your headset. Low profile cap has aircraft design on front panel and Aircraft Spruce logo on back. A great looking top quality cap Stretch fit, one size fits all.

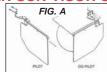
P/N 13-03895.....ea.

JN VISORS - PITOT TUBE COVER

3

ROSEN SUN VISOR SYSTEM







Don't fly blind! Give yourself and your passengers that extra margin of safety. These transparent sun visors rotate and extend to offer complete cockpit protection form the sun. The oversize, tinted lens filters out 95% of the ultraviolet rays, reduces glare by 94% and heat by 86%. Distortion free. Fully STC'd and PMA'd. The system, which includes pilot and co-pilot visors, installs in minutes. (Exceptions: C-210 non-pressurized requires 1.5 hrs, C-152 requires rivnut installation by an A&P, C-177 req. 6-8 hrs.). Available for these aircraft. Visit or website for specs., installation, and application data

P/N 7568
P/N 7311
P/N 7738
P/N 13-01926
P/N 13-01927
al visors mounted on right or left side
P/N 7762
P/N 7809
P/N 7924
P/N 13-01315

Cherokee, swivel studP/N 13-01316P/N 13-01317 Seneca ...

CESSNA		
1980 and later - 170's to 206's (except 177's)	Cente	r Mount
		7629
All 150's and 152's. Prior to 1980 - 170's - 206		
	P/N	7006
Cessna 180 3rd axis (1980 & earlier)	P/N	13-03173
Cessna 180 3rd axis (1981 & later)	P/N	13-03174
210's w/o air cond. (Older 210's, see above)		
P210's and 210's wair conditioning		
177's		
T303	P/N	13-01928
310s & 340s, special order to replace units with		
visor only (shown)		
337		
320	P/N	13-01311
350/400		
400	P/N	13-01312
412B	P/N	13-05180
GRUMMAN - Cheetah		
RV-10		
Rosen Sun Visor Set - RV-10	P/N	13-05695
Rosen Sun Visor - Pilot Side	P/N	13-05696
Rosen Sun Visor Set - Copilot Side	P/N	13-05697
MAULE		
Rockwell Commander 114	P/N	13-03328
OTHERS*		
Cirrus SR20 / SR22	P/N	13-03258
Lancair IV	P/N	13-01934
Pilatus P12		
Homebuilders Universal surface mount	P/N	13-03175
Homebuilders Universal tube mount		
Homehuilders Universal systems are specific		

Homebuilders Universal systems are specific order & built to your specs ROSEN THIRD AXIS UPDATE KIT: This update kit will fit any Rosen system that does not come standard with third axis option

ROSEN CREW SUNSHADES

A highly effective solution to excessive heat build-up in the cockpit. CrewShade is easily fixed to the side windows with (2) attached suction cups. Suction release tabs

make repositioning quick and simple. The CrewShade folds and stores in the included 6" diameter carrying pouch when not in use. Shade dimensions: 14 ½" x 17 ½" P/N 13-06271......



TINTED VISORS FOR CESSNA, **BEECH. & PIPER**

These tinted visors shade the sun and enable easier scan for traffic. They replace the stock visor

DIM-IT MOVEABLE VISOR

You can keep moving your head to stay in the shade of your visor, or you can get a DIM-IT visor and move it to where you want it. It's a 6"x12" sheet of tinted

Lexan that can be positioned on any window in the cockpit by means of the attached vinyl suction cup. (An optional self-adhesive adapter plate lets you attach it to porous surfaces as well.) Completely transparent and distortion-free.

DIM-IT Moveable Visor......P/N 7172....

Diminishes the intensity of direct sunlight, glare, and reflections. This little visor is made of high strength tinted Lexan and is distortion-free. Place the suction cup on window/wind-P/N 13-01758..... shield and press.

ADJUSTAVISOR

The Adjustavisor, a clip-on unit that virtually doubles the effective range of stock visors, adds contrast, and

reduces glare and fatigue. Available with yellow or smoke polycarbonate lens with UV protection. There's also a suction cup model for aircraft with canopies. The cups are strong enough and the visor assemblies light enough that they stay attached to any window through most any maneuver. Size:3.5"x 12". Clip-on (yellow).... P/N 13-03264

Clip-on (smoke) ... P/N 13-03263 Suction (yellow) ... P/N 13-03262 Suction (smoke)... P/N 13-03261

PITOT TUBE COVERS

Spruce's own pitot covers feature an authentic, soft, bright red vinyl - will not fade, mildew resistant, made to Mil-C-20696. Remove Before Flight streamer. The durable leather-like bootie attaches simply with a Velcro strap and offers optimum protec-

SLIP ON PITOT COVER - This high quality pitot tube cover also features the "Remove Before Flight" bright red streamer, but slip-fits over 1/4" or 1/2" dia. pitot tubes. Great looks & great protection!

P/N 15220......

REMOVE BEFORE FLIGHT ROUND CESSNA PITOT COVER - This

yellow urethane pitot cover fits round, high-

wing Cessna pitot tubes. Grooved fitting releases air pressure as P/N 5139..... the barometer changes.

REMOVE BEFORE FLIGHT **PIPER PITOT COVER** - This pitot cover is designed to fit the blade style pitot commonly found on piper aircraft.

REMOVE BEFORE FLIGHT RIBBON

This 3"x24" bright orange streamer with black letters features a grommet for a C ring to attach to anywhere on the aircraft. High visibility, fire resistant material.

DO NOT TOW STREAMER

P/N15200....

17" Streamer, attach with Velcro, Color international orange.

EFORE FLIGHT!

P/N 13-02004.....ASA PITOT TUBE COVERS

Fit snugly over standard aircraft pitot tubes, and are vented to avoid pressurizing the pitot static system. Critical to safe operations, the cover keeps dirt, contamination, and insects from entering the pitot tube. A "remove before flight"

streamer hangs off the cover as a prominent preflight reminder to pilots. Molded in the United States, the cover uses a heavy duty plastic mate-

Pitot Tube Cover 3/4" (large)..... P/N 13-02377

(Fits: Cessna 150,152,172,177,182, 200 series, Skymaster & the Falcon Jet)

The STAY SEALED cap is a patented fuel cap cover that locks onto the existing factory cap and seals to the surface of the wing. Designed and tested against

heavy rains, strong winds, high temperatures, and extreme cold. It sealed out melring snow and ice, blowing rain and water from aircraft washing. To be used anytime the aircraft is stored outside. The device MUST be REMOVED BEFORE FLIGHT.

Model SSCC fits the following: Cessna Series: 152, 172, 182, 206, 207,

160,PA-28-180, PA-28-200, PA-32-260, PA-32-300 fitted with the raised P/N 05-03669 metal fuel cap

N SHIELDS - CANOPY COVER



KENNON SUPER SUN SHIELDS

The most durable sun shield on the market has a clear polyester coating to protect the plexiglass windows. Heat can permanently damage the interior and avionics in your aircraft. The secret is a mate-

rial with two surfaces of aluminum separated by trapped air. This combination reflects 97% of radiant heat, an insulation value of R-9 equivalent to two inches of fiberglass. Kennon Extra Firm shields fit snugly, and maintain their shape for a tight fit. They install in no time, and roll up for storage in compact, water-repellent bags. Weight is 1Lb. Available for most aircraft, specify year, make and model. For custom shields, specify exact size of windshield & windows. Also available for cars. Fabric edging insures snug fit & durability.

P/N 7672.....



BONANZA/BARON ADJUSTABLE SUN VISORS

Aerospace construction means they work flawlessly, plus they are very adjustable. Rotate them up and

down, turn to cover the side windows and slide them in and out for coverage where you want. P/N 05-03434.

KENNON COWL PLUGS

Kennon cowl plugs are constructed from red Aqualon over 2" thick foam and feature a binding around the outer edge of each plug so there is a tight seal which fits snugly in the cowl. This lip prevents the plugs from

slipping inside the opening. A safety strap goes around the prop so if by chance you forget to remove the plugs, the prop will remove them for you. These cowl plugs install easily and comes with their own storage bag. Specify aircraft make, model & year when ordering. Include aircraft registration number to be printed on plugs at no extra charge.

Single engine plugs......P/N 13-14111......P/N Twin engines plugs.......P/N 13-06212.......

KENNON HEATED COWL PLUGS

Kennon builds an electric heater attachment into its engine cowl plugs to provide the heat you need on those cold winter nights. Simply install the cowl plugs and plug in the heaters then bundle up your cowling with a Kennon insulated Engine Blanket and your

engine will stay toasty until you are ready to fly again. The 50W heaters are energy efficient. Plus, you can remove the heater(s) and use the cowl plugs year-round to keep your air intakes clean and bird free. Keeps the air intakes clean and preheated. As with any preheat system, an insulated engine cover is recommended.

Single heater (Temps. down to 15°F)P/N 13-03171.....

Double heater (Temps. below 15°F)P/N 13-03172.....



CUSTOM FIT COWL PLUGS

These cowl plugs are tailored to fit popular Cessna and Beech single engine aircraft. High visibility yellow closed cell foam will not retain moisture.

Printed on one side is "Remove Before Starting Engine", and the other is blank for the N#. They are joined by a nylon

strap with a fluorescent orange Remove Before Flight flag. Please use following part no's. to specify aircraft.

C-150 (2 Hole Only)......P/N 13-02620...... C-172 (1965+).......P/N 13-02625....... C-182 (1972.5 - 1989)...P/N 13-02630....P/N 13-02637..... B33-35

Universal kit w/square inlets (Sqr blocks you cut to fit)

P/N 13-02645/pr

KENNON WIND SPOILERS Kennon Wind Spoilers are a strip of soft

fiber filled tubes that attach to the wing to slow airflow over the top and to prevent lift. An airplane was built to fly, given a strong wind, the plane will fly without you and no tie down will restrain a flying airplane for long. During the stormy winter of 1998, over 200 airplanes were picked up and destroyed by strong winds. Kennon Wind Spoilers could have saved many of these aircraft. The wind spoilers cover the leading edge of the wings but not the tips, and most are about 14.5 ft long (per wing). Specify aircraft make, model, year when ordering. P/N 13-14180 .

NCAIR & ZENAIR CANOPY COVERS

These custom designed covers for the Lancair 235/320 and the Zenair Zodiac canopy are made of acrylic "Sunbrella" fabric and are available in blue, grey, or white. The 100% acrylic fabric won't shrink, fade, or rot. Nylon webbing straps assure secure fit while snap together buckles permit fast adjustment, fastening, and release. Side adjust-

ments provide tight fit. These covers will protect your avionics and interior from sunlight and heat damage.

Lancair Blue Canopy Cover.......P/N 13-14110 Kennon ZenairBlue Canopy Cover.....P/N 13-14140

ENGINE INTAKE COVER



Kennon's Low Wing Cabin Cover covers the top of the cabin, the antennae and the entire window area. Kennon Cabin Covers are made from Sunbrella which is designed to withstand

the sun's ultra violet rays. Sunbrella is the award winning UV resistant outdoor fabric. It is very soft and breathable so it is safe to use as a year round cover on any aircraft. It is a must for fabric covered wings and tails. Each cover is custom built for the specific year, make and model of aircraft. You will be asked for aircraft year, make, model, and registration number when ordering this item. There is an additional cost for the microfiber linig, and the cost varies based on aircraft.

Engine Intake Cover P/N 13-04047

KENNON DUST COVERS



The Kennon Dust Covers keeps dust, birds, and bird droppings off aircraft stored in hangars. Made from 210 Denier Nylon, the cover is soft, lightweight, and machine washable. Will not scratch the aircraft. It is easy to put on, with the elastic hem fitting around the nose, wing, and tail. Stores in its own storage bag and weighs only 10lbs. Available in sizes to fit any aircraft from homebuilt to military. Specify year, make & model of aircraft when ordering. Color: Black or Blue. Stock Color is Black. For Special order color (blue or red) add.

Small for aircraft up to 21 ft long, wingspan to 31 ft. P/N 13-14145.. Med. for aircraft up to 30 ft long, wingspan to 37 ft. P/N 13-14146..... Light Twin up to 35 ft long w/wingspan to 40 ft. P/N 13-14147

Red or blue color coversP/N 13-06411 Other aircraft - Custom Made - Call for price



and ADF wires at no additional charge. Kennon's deluxe canopy cover is constructed from Sunbrella in your choice of colors and adds a satin lining to prevent sand and dirt from adhering to the fabric, which could later scratch your windows. Satin is superior to fleece and flannel liners because the satin is slippery and nothing sticks to it. Constructed from a woven acrylic canvas, Kennon Sun Blocker Aircraft Covers are guaranteed not to become unserviceable due to loss of color, strength from normal conditions, including sunlight, mildew, rot, or atmospheric chemicals. These covers repel water yet breathe so that they don't trap moisture. Specify aircraft make, model, and year, and number of side windows. Include aircraft registration number to be printed on cover at no extra charge.

HIGH WING WRAP-AROUND COVER - Cessna120-210. Cessna 337; L-19; PA10, PA22 including Pacer, Tripacer, Cub, Super Cub, Colt, Luscombe, Stinson 108, Aeronca, Citabria, Maule, Rockwell 685/690/980, Aviat, Christian Husky, Lake Renegade

Deluxe......P/N 13-14146-D..... LOW WING WITH 3 SIDE WINDOWS — Earlier than 1971 Piper

Cherokee VI,Piper, PA28 181, 200, 235 incl. Arrow, Archer & Warrior, Dakota, Aerospatiale, Trinidad, Tobbago, Piper Commanche (Some but not all...ASK), Aztec, Apache, Cessna 310 (exception to 2 window rule) StandardP/N 13-14148-B....

Saratoga, Malibu, Seneca, Aerostar, Beech Baron 58, Beech 33, 36, Beech King , Air (Cockpit), Lear 2500, 3500 (Cockpit)
StandardP/N 13-14149-B....

Deluxe.....P/N 13-14149-D

LOW WING WITH 4 TO 5 SIDE WINDOWS — Piper Navajo Chiefton, Cheyenne, Cessna 340, 402, 414, 425, 441, Citation, Beech Duke StandardP/N 13-14150-B....

Deluxe.....P/N 13-14150-D



*Front & Side Windows, Passenger side Windows. Also place onto Existing Transparent Sun Visors for extended coverage & darker shade "D" * Two 5-1/2" dia. disks, easy handling & storage * Suction cup attachment, lightweight, 4 mills thick * Disk rotate 306° "B", for total of a 10" diameter * 2 disks overlap for double shade strength "A" * Separate disks for single shade strength "B" * Split disks for half & half shade strength "C" shade strength "C

P/N 13-06774.....

PLUGS - AIRCRAFT COVER



COWL PLUGS

Cowl Plugs with attached "remove before flight" streamer for general aviation aircraft. Prevents bird and foreign objects from entering through the cowl. Comes complete with linking lanyard and remove before flight streamer. Heavy duty cross linked construc-tion and durable nylon hand sewn stitching

complete the set. Please specify aircraft make, model, & serial number when ordering. Single engine plugs are furnished with free embroidery and pitot tube cover. Twin cowl plugs include only the cowl plug and embroidery is available for an additional \$10.00

Single engine......P/N 13-01742.....

Twin engineP/N 13-01743

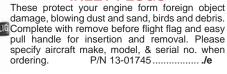
ER SLINGS EXHAUST COVERS



Propeller Slings & Exhaust Covers keep your propeller secure and in place, eliminating any bearing damage caused by a free-spinning propeller with no lubrication. The integral exhaust covers protect the costly turbine wheel from debris & birds. Simple, quick one man operation. Please specify aircraft make, model, serial no. when ordering.

P/N 13-01744 ...

INLET PLUGS



JET ENGINE COVERS

Made of extremely durable, water-proof and fire resistant Herculite, our covers are guaranteed for 10 yrs. Each set is hand crafted and sewn to order. Complete with storage bag and remove before flight flags. Please specify

aircraft make, model, & serial no. when ordering.
P/N 05-04077.....CALL FOR QUOTE

ENGINE INTAKE COVER



Protect your engine from natural hazards which could cause serious in-flight problems. This economical design fits practically every single

or twin, even homebuilts. The lightweight, fireretardant mesh fabric will not blister or melt.

After simple one-time installation of mounting hardware, cover snaps into place and secured with Velcro. Folds for easy storage. Complete with mounting hardware & "Remove Before Cathica". Starting Engine" streamers. Also available: Bib that allows you to cover additional intakes.

Engine Intake Cover P/N 7148..... Intake Cover Bib P/N 7133.....

KUVRIT WHEEL COVERS**



The KUVR**IT II Wheel Cover is designed to cover that precious investment, "your tires", on your airplane. The fabric is a vinyl-coated polyester that is fade resistant and California State Fire Marshall approved (#F-2310). The weave breathes and yet provides 85% shade factor

from the suns damaging ultra violet rays. It is easy to care for. Simply machine wash and just hang it to dry. The KUVR*IT II Wheel Cover is easy to use. Simply place the cover over your tires and adjust the strap to the desired tightness and lock into place. There are 3 sizes for your

Small fits tire size: 5.00 – 5/15 x 00-6......P/N 13-03158..... Medium fits tire size: 6.00 - 6/7.00-6......P/N 13-03159..... Large fits tire size: 6.50 - 8/8.50-10P/N 13-03160



REDWING TRAILING EDGE PROTECTIVE FOAM

RedWing helps prevent aircraft damage and head injuries. Just slide the foam onto the trailling edges of ailerons, elevators, rudders or flaps to protect these surfaces while tied down or in the hangar.. RedWing is also ideal

for proecting landing gear doors, aviionics antennas, and winglets. The bright red color reminds the pilot to remove RedWing before flight, and RedWing is reuseable and unaffected by UV, water, or oils. Furnished in 3ft. sections which can by easily cut to smaller sections. P/N 13-02566.....

BRUCE S CUSTOM COVERS



Canopy Covers protect the glass, upholstery and avionics from the elements, stop leaky seals and keep the cabin cool. Canopy Covers also prevent vandalism and theft.

Bruce's Custom Covers makes canopy/cabin, engine, empen-

nage, propeller, wing and pitot covers as well as engine inlet plugs for virtually every model jet, airplane and helicopter. Covers generally cost \$350 - \$425, are 100% lined, and can be imprinted with your aircraft tail number. Each cover is custom made to order and lead time is generally three weeks

For a complete technical sheet including prices, photos and information about covers for your aircraft, please call us at 1-877-477-7823.

Bruce's Custom Covers ordering Package P/N 13-04693FREE KOGER SUNSHADES



The Koger Sunshade was developed to provide protection from the sun while flying an airplane that has a large bubble plastic canopy like the RV-6, RV-7, RV-8, RV-9 and many other types of aircraft.

Kev Benefits

· Retractable to front or rear.

Koger Sunshade · Lightweight (9oz. for side by side RV models)

 Install in 1/2 to 1-1/2 hours depending on the model.

Makes instruments more visible, and the cockpit more comfortable.

Fi	De cri i	Par N .	Price
RV-8	Size of shade: 15" wide by 46" long	13-05657	
RV-6, 6A, 7, 7A, 9. 9A	Standard TIP-UP model Size of shade: 30" wide by 25" long	13-05658	
RV-6, 6A, 7, 7A, 9, 9A	Standard SLIDER model Size of shade: 30" wide by 25" long	13-05650	
Zodic 600XL, Legacy, Cirrus SRS, Falco, Sport Crusier, EuroStar, Sting, Europa, etc.	LARGE TIP-UP model for larger bubble canopies	13-05660	
Built to Order	LARGE SLIDER model with top center structure canopies are built to order. Size of shade: 34" wide by 35" long	13-05661	

TRISOFT WINGTIP/PROP TIP COVERS



* Avoid Accidents * Protect Employees and Aircraft * Reduce Insurance Claims * Remain In Compliance Trisoft Aircraft Covers Can Be Used As a Safety and Warning Device on Prop Tips The prop tips of an aircraft have proven to be a very dangerous area for aircraft personnel. Just place the aircraft covers on the prop tips to warn and protect personnel working or walking around an aircraft. Trisoft is a simple foam triangular cover that slips onto the corners of the prop tips, gear doors, wing flaps (in the lowered position), wing tips, and dorsal antennas, protecting aircraft personnel and aircraft during maintenance, pre-flight checks, cleaning, etc. Trisoft can be used on personal aircraft, corporate aircraft, commercial aircraft, military aircraft and helicopters. P/N 13-06003

SAFETY PROP TIPS

Reduce the risk of injury from a stationary aircraft prop by covering the tips with the Safe Prop Tip. This new safety device is made of thick form covered in a bright red fabric. While the bright color calls attention to the prop to help prevent an accident bump, the thick padding adds protection in case someone does walk into

the prop. Reflective tape on the front of the guard improves awareness at night, and an elastic ribbon, which holds the unit together, is a perfect place to hang the "Remove Before Starting Engine" streamer.

	Blade		13-03594
3	Blade	P/N	13-03595

ANE SIGHTS REMOVE BEFORE FL

PLANE SIGHTS PITOT TUBE COVERS

Extremely obvious, very durable, and weather resistant pitot tube covers for every aircraft.

TUBE COVER - Aircaft Type: Piston Powered Plane This durable, weather-resistant orange and yellow reflective cover fits virtually any size pitot tube. It stands out in daylight or darkness under all weather conditions, so it can't be missed. Large sewn-on Velcro tabs keep it securely in place under all conditions. Weight: 0.14 kg If length of the tube exceeds 6.75" and the diameter exceeds 7/8", then the

Universal Pitot tube cover would be a better choice. As seen on the 2009 AOPA 'Let's Go Flying' Cirrus SR22 P/N 13-05611

UNIVERSAL PITOT TUBE COVER - Aircaft Type: Piston Powered Plane. This durable, weather-resistant orange and yellow reflective cover fits virtually any size pitot tube. It stands out in daylight or darkness under all weather conditions, so it can't be missed. Universal covers fit any length of tube from the smallest home built 1/4" tubes up to 7/8" jet probes. The versatile

hook/loop Velcro strap with sewn-in rubberized trim allows the cover to be quickly and securely fastened to the pitot tube. Weight: 0.00 kg The inside diameter of the cover is 7/8". Guaranteed to work on any Cessna, Beechcraft, Cirrus, Diamond, Grumman or Mooney aircraft, as well as most Pipers and many light sport aircraft.

P/N 13-05610.....

BLADE PITOT COVER - Aircaft Type: Piston Powered Plane Forgetting to remove a faded, dull and worn-out pitot tube cover can jeopardize the safety of you and your passengers. And when cold weather prevents you from installing your pinchand-insert style blade pitot cover, ice and snow can contaminate your pitot system. Some blade pitot covers also cause damage to paint when the sleve is being forced on and off. The highly

conspicuous and very durable Plane Sights Blade Pitot Cover is a perfect to the control of the (As seen on the 2008 AOPA "Get Your Glass" sweepstakes aircraft) Weight: 0.15 kg Fits Piper, Katana, some Rockwell, late Grumman, Lake 250, and most other aircraft with a blade type of pitot tube.
P/N 13-06016......

PITOT TUBE PLUG (5/8") - Aircaft Type: Piston Powered Plane 5/8" inside diameter vented pitot plug with its unmistakably conspicuous Remove-before-Flight Streamer.

ANSI-compliant and weather-resistant reflective streamer stands out equally well in daylight or darkness under all weather conditions. The plug is attached to the streamer's rugged black oxide coated zinc grommet with a galvanized steel ring, and is vented to prevent pressurization damage. This 5/8" Plug Fits Aero Commander, Twin Beach, Bonanza, Cessna 300/400/500, Conquest Series, Grumman, Lear, Mooney, Piper Cheyenne and Navajo aircraft. Weight: 0.04 kg 5/8"/ 0.625" (15.875mm) ID x 1.85" (38.10mm) P/N 13-06019

PITOT TUBE PLUG (3/4") - Aircaft Type: Piston Powered Plane. 3/4" inside diameter vented plug with its unmistakable Remove-before-Flight Stream-

er provides a perfect easy-on, easy-off solution. ANSI-compliant and weather-resistant reflective streamer stands out equally well in daylight or darkness under all weather conditions. The poly plug is attached to the streamer's rugged black oxide coated zinc eyelet with a stainless steel ring. This $\frac{3}{4}$ "plug Fits Cessna 150, 152, 172, 177, 182, 200 series, and 337 models. Weight: 0.04 kg $\frac{3}{4}$ "[0.75" (19.05mm) ID x 2" (50.80mm) P/N 13-06018. useable length

LIGHT SPORT PITOT PLUG KIT - Aircaft Type: Piston Powered Plane. Light Sport/Homebuilt Pitot Plug Kit provides a perfect fit for many homebuilt pitot tubes, light sport pitot tubes, and aircraft fuel vents. The kit includes several

vented plugs so it even works with double-tube systems and is guaranteed not to pressurize your pitot static system. ANSI-compliant and weather-resistant reflective remove-before-flight streamer stands out equally well in daylight or darkness under all weather conditions. The kit comes complete with three different-sized pitot tube plugs, a unique streamer, and two rust-resistant coated triangle rings. WARNING: CHECK WITH YOUR AME AND CONSULT YOUR OWNER'S MANUAL BEFORE USING P/N 13-06020.... A FUEL VENT PLUG.

PLANE SIGHTS AIRCRAFT MARKERS &

STATIC WICK COVERS
Prevent hangar rash and broken static wicks

STATIC WICK COVER SET (TUBE STYLE 7") - Aircaft Type: Jet. A lower priced alternative to Static Wick Markers. They protect static wicks from damage on the ground and make wing/elevator tips more obvious, preventing han-

gar rash. Slide these round style covers on for a tight weather resistant fit on Citations and other jets. Weight: 0.04 kg Round, tubular poly cover, 0.310" x 0.450" x 7.000"Long. *Shock cord lanyard not included P/N 13-06775.....



STATIC WICK COVERS (SMALL ID X7") - Aircaft Type: Jet. Installed and removed in seconds, Static Wick Covers help prevent delays and inconvenience due to hangar rash. Extremely obvious and very durable Static Wick Covers make these vulnerable parts highly visible by day or night. Slide these round style

covers on for a tight weather resistant fit on your Bombardier (Challenger & Global Express) or Hawker/Beechcraft and many other jets. If necessary cut with scissors to desired length. Weight: 0.20 kg Fit's over static wick part #'s: Chelton 2-17SC-1,Chelton 2-11SC-1, MIL-9129D, DG17770. Fits Bombardier, Hawker/Beachcraft and others

P/N 13-06777.

STATIC WICK COVER (SQUARE STYLE) - Aircaft
Type: Jet These Square Style Static Wick Covers protect, usually yellow pronged static wicks from dam-

age on the ground and make wing/elevator tips more obvious, thereby preventing hangar/ramp rash. Slide these rectangle covers on for a tight weather resistant fit on Falcon, Hawker, Beechjet, older Lear Jet and many other static wicks. Weight: 0.21 kg Includes three (3) Static Wick Covers per package Square Poly, 0.75"x0.25"ID x 3.50" Long, (in stock) (also available by special request, 5.25" length sleves) Standard two year warranty applies. *Shock cord lanyard not included P/N 13-06775.....

UNIVERSAL AIRCRAFT MARKER - Aircaft Type: Piston Powered Plane. Highly reflective markers make vulnerable wing and elevator tips clearly visible under all conditions, and their projecting "proximity fuses" warn that something is too close before damage occurs. Fit all aircraft from Airliners to light sport aircraft, including models with static wicks and strobe lights. For aircraft with tip tanks, the wing marker opening fits

over one end of the tank. A full set stows easily under most aircraft seats. Once initial fitting is done, the markers can be installed and removed in seconds during routine pre- and post-flight walk-arounds. Weight: 0.08 kg Package Contents: Two (2) corner marker pieces, two (2) harness pieces, two (2) marker fuses, four (4) 54" lengths of shock cord with cord hook ends, and four shock cord hook ends for assembly.

P/N 13-05603......



PROP MARKER, 3 BLADE - Aircaft Type: Piston Powered Plane. Featuring light reactive trims and tapes, these highly reflective Prop Markers are made to improve the visibility of your prop and aircraft day or night, helping you prevent the unexpected depreciation of your plane. Easily installed and removed in just seconds, adding virtually no additional time to your walk around. This prop marker fits aircraft such as a Cirrus SR22,

Cessna 206, Cessna 182, Piper Malibu, Beech Bonanza, Beech Barron or similar three blade aircraft with medium size nose cone. 2.60 kg

Medium Cone P/N 13-05607.... Large Cone.



P/N 13-05608...

PROP MARKER 2 BLADE - Aircaft Type: Piston Powered Plane. Made to improve the visibility of your prop and aircraft day or night. Prop Markers are easily installed and removed in just seconds, adding virtually no additional time to your walk around. Made from UV resistant Sunbrella, custom bonded with a soft, non-abrasive inner fabric.

Quick and easy storage without tangling. Weight: 0.30 kg
Small.......P/N 13-05605.....

P/N 13-05681..... Large

TURBO PROP TIE - Aircaft Type: Turboprop. Fits most Turbo Props including Caravans, Beech 1900s, King Airs and others. An adjustable heavy duty ½" shock cord and metal hook allows the versatile design to work on so many turbo prop aircraft. Also allows our Prop Tie to Integrate with existing cowl plugs and exhaust covers. For any Turbo-Prop up with to 10" wide blade. Comes with 36" of HD 1/2" size adjustable shock cord and two

. P/N 13-06778. stainless clips.



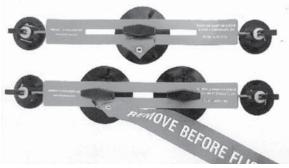
REMOVE BEFORE FLIGHT STREAMER - Aircaft Type: Piston Powered Plane. ANSI-compliant and weather-resistant reflective streamer stands out equally well in daylight or darkness under

ered Plane Diamond recommends that operators of their DA40 and DA20 aircraft plug the stall warning air inlet holes on these aircraft while they're parked on the ground. Fits any Diamond DA40 or DA20, one way or the other. ANSI-compliant and weather-resistant reflective remove-before-flight streamer stands out equally well in daylight or darkness under all weather condiions. P/N 13-06830.....

REMOVE BEFORE FLIGHT STREAMER

2-1/4" wide, 17" long red polyester fabric with white writing: "Remove Before Flight" P/N 13-01458.....

UNIVERSAL STATIC PORT COVERS



The SPC101 and SPC102 are essentially the same product, built on the same platform. The SPC102 has two protective covers in line rather than one, for applications where redundant static ports are installed in line. Features: * An inexpensive, yet very effective alternative to other covers and plugs * Universal design to fit most aircraft * Lightweight entire assembly weighs less than ½ pound * Attaches with heavy duty lever cups designed to lift 40 lbs. each * No fuselage modification required * Prevents the possibility of any damage to static ports by being an externally mounted cover * Malleable light gauge aluminum easily conforms to virtually any surface contour * Adjustable to allow for attaching lever cups on or around decals and pin striping * Installed at temperatures from -20°F to 110°F * TESTED AND APPROVED!

 SPC-101
 P/N 13-06723

 SPC-102
 P/N 13-06724

PITOT COVERS

Avoid costly damage to your pitot-static system. Protects from dust, insects, wind and other foreign matter. Will not pressurize pitot-static

MODEL 4602 - Fits Piper. Katana, some Rockwell, and late Grumman REMOVE BEFORE FLIGHT aircraft. P/N 13-06395.....

MODEL 4935 - Bootie Type, all Naugahyde, white boot, red with white printing, 2" x 16"......P/N 13-06397......

LJR STREAMERS

5811 "OUT OF SERVICE" - 3" x 24", yellow printing on red reinforced vinyl with grommet and ring. 2" securing strap with grommet and velcro.

P/N 13-06399

5813 "DO NOT TOW" - 3" x 16", yellow printing on red reinforced vinyl with grommet and ring. 2" securing strap with grommet and velcro.
P/N 13-06401.....

4604 "REMOVE BEFORE FLIGHT" - 2" x 16", white printing on red reinforced vinyl with grommet and ring. P/N 13-06396.....



PITOT TUBE INSTALL TOOL
This tool was developed, in response to fleet owner and FBO requests. They were having experienced difficulty installing Covers onto high wing Pitot Probe locations, e.g., Cessna Caravans, Bush aircraft with Tundra tires, float planes and amphibians. In field triple it was found that this tool is also very useful to trials it was found that this tool is also very useful to install-remove the same Covers onto over-the-nose Pitot Probes, of Very Lite and commercial jet aircraft! Features: * View-Through cover grippers for easy install * Low mass for control in windy conditions * Ergonomic shape to reach high wing, and most over-the-nose mounted probes * All weather non-slip handle gripP/N 13-06672.....

AIRCRAFT WINDLOCK

The Wind-Lock is designed to attach to an aircraft's controls inside the cockpit. The noneridged mechanism keeps tension on the Elevators, holding them in the full down position. This position also allows moisture to drain from inside the control surface. It also holds the Allerons in a streamlined position. As the wind gusts, resistance is applied. The harder the wind blows, the more resistance is applied to the controls. When the wind dies down, the

Wind-Lock allows the Ailerons to return to their normal position. As the load is reduced, the tensioning mechanism reduces pressure on the control yoke. P/N 05-04044.....

AMC AIRPLANE CONTROL LOCK





Rather than tying your seat belt to your controls, try AMC's new Airplane Control Lock. This lightweight control lock will stop your control surfaces from moving with the winds and will also prevent damage to your controls such as bending. This new Control Lock is lightweight and easily stored

Small Cessna	P/N 13-02851	
Cessna 206	P/N 13-03166	
Cessna 210	P/N 13-03165	
Cessna 337	P/N 13-03167	



KENNON GUST LOCKS

Locks flaps, ailerons, elevator or rudder securely. Made from special weather resistant, high density, closed cell foam with a nylon eyebolt! Won't scratch. P/N 07-01329.....

PAD-LOK CONTROL SURFACE LOCK



Like it says, a padded lock. Effectively locks control surfaces while the padding compresses to the proper configuration and protects the surface finish. Padding won't absorb water. Hard-to-miss Dayglo color, plus yarn streamers. Wt. 10 oz. P/N 13-22700.....

SAF-T-STOP



Saf-T-Stop is an auxiliary seat stop mechanism approved by the FAA for use with Cessna seat track A.D. #87-20-03. Installs easily, sliding over seat track. Approved for: Cessna 150, 152, 172, R172, 175, 180, 182, 185, 190, 205, 206, 207, 210, 303, 337. Not a seat lock, Saf-T-Stop is

designed to restrict rearward motion if the seat lock fails. P/N 13-18510...../pr

SAFETY FOOT STOP SEAT RESTRAINT FOR CESSNAS



Safety Foot Stop provides extra insurance against loss of aircraft control due to a sudden aft movement of the seat due to excessive wear of the seatrail holes. Should the pin not engage in the rail hole, Safety Foot Stop will still prevent the seat from moving aft. Can be owner installed without a form 337 or STC in single engine Cessnas. Comes complete with all hardware and detailed instructions, and installation time is one hour per seat. One seat......P/N 05-03390.....

AIRCRAFT LOCKS

PROP LOCK CHAIN

The THEX50 is a "T-HEX" maximum security chain 5 ft in length with hardened 10mm hexagon shaped links. Hexagon shaped case hardened trip heat treated super chain. This heavy duty Prop Lock Chain is the perfect way to insure the security of your aircraft, particularly at remote or foreign airports. The hexagon shaped, heat treated heavy duty chain can endure over 10 tons of cutting force, insuring your aircraft against theft. A black nylon cover over the chain protects your aircraft from the chain when in place. The Prop Lock Chain is 5 feet long and weighs 121lbs. P/N 13-05182......



This innovative aircraft security device clamps to the wheel which prevents theft of the aircraft, while the built-in chock prevents the wheel from rolling forward when parked. The lock and chock are yellow, while the red rubber coated arms protect the finish of the wheel. Fits any type of wheel up to 12" wide. Lifetime warranty. P/N 13-06141.....



YORK GUST-LOK™

The York Gust Loks the ultimate protection for your plane from wind and theft. It locks the control surfaces in a neutral position and prevents damage to control surfaces and tail caused by wind gust loads. It is welded steel, fully adjustable, is lightweight, and features a powder coat finish. The York Gust Lok is compact for easy storage and is quick and easy to use. Wt: 2.2 lbs.

CONTROL WHEEL AIRCRAFT

Aircraft	Part No.	Price
PA-28, PA-32, PA-24, PA-30 & PA-39, PA-32R, PA-34 & PA-44	13-00855	
Commander 112 / 114	13-32730	
Mooney, Grumman Goose, Maule (Tricycle gear & Seaplane) PA-23, & Grumman American, Myers 200 & Commander200	13-00863	
Cessna Single engine 150'&172's, Helio Courier, 295/395	13-00864	
Cessna Single engine 180, 206 & 210's fixed & retract gear & Cessna 337	13-00865	
Aerostar, Commander 500, Beech Baron, Bonanza, Duke & 18/C-45, Lake L-A-4 (except Renegade)	13-32790	
Cessna Tailwheel, Stinson, Beech Staggerwing	13-32800	
Lake Amphibian	13-32820	
Beech King Air	13-32830	
Cessna 310's	13-32840	
Aeronca Chief 508, Taylorcraft BC 12-D, Stinson 108 & 108-1	13-32850	
PA-38	13-32860	
Maule (Tailwheel)	13-32871	
Piper PA-31, Chieftain, Navajo, Chyenne	13-32880	
Socata (Trinidad), Grumman Widgeon	13-32890	
Seawind	13-32885	
Dehaviland Beaver	13-00866	
Cessna Twins (except 337 & 310)	13-00867	
Piper Malibu	13-00868	

STICK CONTROL AIRCRAFT

Aircraft	Part No.	Price	Aircraft	Part No.	Price
J3 w/Shin	40 00074		Husky, Pitts	13-00880	
J3 w/Shin Knocker Tubes	13-008/1	•	Micco	13-00881	
Piper PA-12	13-00872		Piper J-4	13-00882	
Piper PA-16	13-00873		Swift	13-00883	
Piper PA-11	13-00874		RV-6	13-00884	
Piper PA-14	13-00875		Luscombe	13-00885	
Piper PA-15/17	13-00876		Kit Fox	13-00886	
Piper PA-18 & J3	40.00077		Waco	13-00887	
Piper PA-18 & J3 Shin knockers	13-00877	•	Lancair IV	13-00888	
Piper PA-20	13-00878		Bellanca	13-06114	
Champ &	40 00070		Glastar	13-06123	
Citabria	13-00879	•	YAK	13-00891	

YORK ACCESSORIES

Do not throw away warning flag (included with each Gust-Lok™, but alsoP/N 13-00869 sold separately).



AIRGIZMO UNIVERSAL GUST LOCK

If you fly for very long you will quickly realize the importance of locking your control surfaces when leaving the plane outdoors. Finally we have a solution. The AirGizmos Gust Locks are designed to quickly lock virtually any control surface securely. Its bright color and integrated flag

reminds you to remove before flight. The rubber cushions ensure that your finish will be protected. They are lightweight and portable. Perfect for carrying in the plane wherever you go.

P/N 13-06139.....

AVIATION PROP LOCK

The Prop Club® inhibits flight by creating an out-of-balance condition. Made of tempered steel, The Prop Club® is an anti-theft device that locks securely onto the propeller at the hub via a four-digit combination.

The small Prop Club® has a compressed opening range of 4-1/4" to 5-1/2"(wt. 2.4 lbs) and the large Prop Club® has a compressed opening range of 6" to 8"(wt. 2.8 lbs). As long as the Prop Club® can attach to the base of the prop within this range, and the closed dimensions are smaller than the widest part of the prop, The Prop Club® will remain securely attached to the propeller hub. It will

THE ALPHA WHEEL LOCK 2000
The Alpha Lock 2000 adjusts to virtually any wheel size in seconds and completely immobilizes the aircraft or vehicle wheel from rotating or turning. The lock is pick and drill resistant and cannot be frozen with freon. Soft, coated arms will not mar or scratch wheels and rims. Furnished in

bright red color to warn thieves, weather resistant, and carries a 2-year warranty. Excellent for locking aircraft, autos, trucks, trailers, boat trailers, motorcycles, RV's, etc. Locks anything on wheels! Wt: 8 lbs.

P/N 13-00436......

THE PLANE LOCK

For Cessna C-172-210s, except for the C-177. Prevents the wind from popping your doors open and provides an added

measure of security against break-ins.No tools or STC required. From outside the aircraft, the pilots door is locked by reaching through the window (prior to closing it) and pushing down the door safety handle. Then, slip the Plane Lock over the window sill and lock the window shut. P/N 13-03386......

AIRCRAFT THROTTLE LOCK



Protect your aircraft from theft! This throttle lock is recommended by the International Aviation Theft Bureau, Avemco Insurance Co., AOPA and other insurance companies. Available for vernier or non-vernier throt-Vernier Lock......P/N 13-08000 ...

Non-Vernier Lock......P/N 13-08100.....

SKYLOK



Skylock is an inexpensive throttle lock for aircraft with Cessna type push-pull throttles. The device will accept shafts up to .375" diameter, and is made of heavy-gauge cadmium plated steel. Skylock affords great peace of mind to aircraft owners at very little cost. Just put in place

after every flight, secure with your own favorite padlock, and your throttle cannot be moved! Simple, but it works. P/N 13-18500

ANTI-THEFT LOCK FOR BONANZAS

Built for those incomparable Beechcraft. All have FAA STC/PMA as applicable. The rugged, locksmith quality key lock combines forces with hardened steel pins embedded in the lock body that roll to defeat cutting. Bright

red color, easy to use, installs in just seconds. Patent Pending. P/N 05-03435.....

PIPER THROTTLE LOCKS



Don't damage your aircraft by using a propeller lock. It happens more often than you think. Someone accidentally turns the key with a propeller lock installed. Usually it something innocent like taxiing the plane to the maintenance hangar or to the wash down area. The owner or lineman jumps in the plane without doing

a pre-flight, after all you're not planning on flying, you just want to move the plane...but all it takes is a turn of the key to damage a propeller, cowling or bent the crankshaft on the engine.FEATURES: •Prevents unauthorized use of your aircraft •Locks the throttle, mixture & propeller unauthorized use of your aircraft *Locks the throttle, mixture & propeller controls *You cannot start or operate the engine & propeller with the lock installed *Key lock, includes two keys *Installs and removes in seconds *No holes to drill, no modifications to aircraft *Strong steel construction *Safety yellow color *Available in three sizes for Piper aircraft *Fits aircraft having a throttle quadrant with a tubular horizontal throttle knob (does not fit aircraft having a round throttle knob).

Description	Part No.	Price
Model #7700 Fits four seat, single engine Piper aircraft with a throttle quadrant	13-04240	
Model #7710 Fits six seat, single engine Piper aircraft with a throttle quadrant. Does not fit all Malibu aircraft.		
Model #7720 Fits Piper Seneca & Seminole twin engine aircraft	13-04242	

IMPORTANT: The #7720 does not fit: Apache, Aztec, Twin Comanche, Navaio Aerostar. The lock fits aircraft having a throttle quadrant with a tubular horizontal throttle knob. The lock does NOT fit aircraft having a round throttle knob or ball.

EXTINGUISHER ESCUE EQUIPM



H3R AVIATION FIRE EXTINGUISHERS

The FAA recommends and/or requires Halon fire extinguishers on aircraft. H3Rs Halon fire extinguishers are the extinguishers of choice in the aviation industry. They cause no mess or damage, and do not require taking a plane out of service for clean-up; a costly process for both the aircraft owner and insurance carrier. The heat-seeking

quality of the Halon gas makes it a superior fire fighting agent. **DISPOSABLE, LOW-MAINTENANCE HALON 1211-1301 BLEND** - Contain a proprietary blend of the "liquid streaming agent," Halon 1211, and the gaseous "total flooding agent," Halon 1301. The blend's power lies in the Halon 1301, which is both a firefighting agent and a propellant. Low maintenance and non-rechargeable. Lightweight aluminum canister Disposable. Tested to ANSI/UL 711 and UL 1093. Meets DOT requirements Meets the requirements in Advisory Circular 20-42C, "Hand Held Extinguishers for Aircraft" and/or NFPA 408, "Standard for Aircraft Hand Portable Fire Extinguishers" 12-year shelf life

RECHARGEABLE, STURDY INDUSTRY-STANDARD HALON 1211 Required on commercial transport aircraft. Although classified a "liquid streaming agent," Halon 1211 also performs remarkably well as a "total flooding agent," seeking out and extinguishing fires in inaccessible places. A 6-year maintenance and 12-year hydrostatic test are required. Rugged steel cylinder. Pressure gauge enables easy confirmation of charge. Tested to ANSI/UL 711 and UL 1093. Meets DOT requirements. Meets the requirements in Advisory Circular 20-42C, "Hand Held Extinguishers for Aircraft" and/or NFPA 408, "Standard for Aircraft Hand Portable Fire Extinguishers'

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HALON 1211-1301 BLEND UNITS	Part No.	Range	Price
RT A400 - 14 oz. (UL Rating 2B:C)	13-07650	4-6 ft	
RT A600 - 1.2 lb. (UL Rating 2B:C)	13-07655	6-8 ft	
RT A1200 - 2.5 lb. (UL Rating 5B:C)	13-07660	7-9 ft	
HALON 1211 UNITS	Part No.	Range	Price
A344T - 1.3 lb. (UL Rating 2B:C)	13-01993	9-12 ft	
A344TC - 1.3 lb. (UL Rating 2B:Ć)	13-02546	9-12 ft	
C352TS - 2.5 lb. (UL Rating 5B:C)	13-01966	9-15 ft	
C352TSL - 2.5 lb. (UL Rating 5B:C)	13-02547	9-15 ft	
C354TS - 3.0 lb. (UL Rating 5B:C)	13-02548	9-15 ft	
A1600 - 3.5 lb. (UL Rating 1A:5B:C)	13-07665	8-10 ft	
B355T - 5.0 lb. (UL Rating 10B:C)	13-02545	9-15 ft	
B369 - 15.7 lb.(UL rating 1A:10B:C)	13-02557	12-18 ft.	
B371 - 19.9 lb. (UL rating 2A:40B:C)	13-02558	12-18 ft.	

FIRE EXTINGUISHER BRACKETS

BKT400 - Brackett for the RT-A400 Fire Extinguisher P/N 13-06166...

BKT600 - Brackett for the RT-A600 Fire Extinguisher P/N 13-06167.....

BKT1200 - Brafkett for the RT-A1200 fire Extinguisher

P/N 13-06168....

845 - Brackett for the A344T Fire Extinguisher

P/N 13-06170.....

845 - Brackett for the A344TC Fire Extinguisher

P/N 13-06171.....

8175 - Brackett for the C352TS, C352TSC, C354TS Fire Extinguisher P/N 13-06172.....

BKT1600 - Brackett for the A1600 Fire Extinguisher P/N 13-06169.

H3R BILLET MOUNTS

H3R Performance hand held 1 lb. and 2.5 lb. fire extinguishers come standard with aviation style mounting brackets. Stylish and versatile billet mounting accessories are also available. Band clamps fit 2.6" or

3.0" diameter fire extinguishers, and can be combined with the flat surface mount or either of the two roll bar mounts. Available in polished and brushed finishes. One year limited warranty.

Polished - Band clamp for 1.0/1.4 lb. fire extinguishers

P/N13-06062.

Brushed - Band clamp for 1.0/1.4 lb. fire extinguishers P/N 13-06065.

Polished - Band clamp for 2.5 lb. fire extinguishers P/N 13-06066. Brushed - Band clamp for 2.5 lb. fire extinguishers

P/N 13-06067.

Polished -Flat surface mountP/N 13-06068....

PROVED HALOTRON 1™

While it is less powerful pound for pound than Halon 1211, Halotron 1 offers all of Halon 1211's clean agent benefits, and Halotron 1 is less damaging to the ozone layer. H3R Aviation offers two Halotron 1 fire extinguishers: one FAA-approved unit

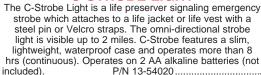
for aircraft use and one wheeled unit for the flight line/ramp. These rechargeable extinguishers have pressure gauges and require a 6-year maintenance and a 12-year hydrostatic test.P/N 13-02562

FIREFLY PLUS FLASHLIGHT/STROBE



The Firefly Plus is a flashlight/emergency locator strobe which is visible for over one mile. The operating life of the strobe is 10 hours, and 2 hours for the flashlight (continuous). Firefly Plus operates on 2 AA batteries (not included) and made of durable ABS plastic. Waterproof & weighs 4 oz. Size: 2" dia. x 5-3/8"h. Excellent addition to any aircraft or home P/N 13-54050 emergency kit.

C-STROBE LIGHT





C LIGHT



The C Light is a life preserver signaling emergency light which attaches easily to a life vest or jacket with a stainless steel pin or Velcro strap. The intense incandescent light is visible for up to 2 miles depending on conditions. The lens intensifies light 20 times brighter than comparable products. Operates on 2 AA alkaline batteries (not included). Operates more than 8 hours (continuous). P/N13-54030.



RAPIDFIRE VEST LIGHT
RapidFire Vest Light is a self-contained emergency rescue lamp. It's small, compact, rugged, and waterproof and attaches to a standard life vest. It automatically lights when vest is inflated or on manual pull-pin activation. Provides 8 hours continuous light output once activated. Single use light.
P/N 13-54040......

MINI B 300 PERSONAL RESCUE TRANSMITTER



In-line speaker emits audio warble to confirm activation and transmission of distress signal or to notify of accidental activation • Exclusive ACR audio indication of transmission allows effective self-test · User-replaceable battery; unit uses inexpensive, easy-to-obtain common ithium camera battery, Duracell DL223A (or equivalent)
-Frequency stability exceeds ETS 300 152 standard; meets rules for satellite detection · Perfect for use as Crew-Overboard system when combined with Vecta2™ Direction Finder • Floats if dropped overboard • 121.5

MHz (SAR frequency) provides rescue forces with pinpoint hom-Antenna maximizes peak effective radiating power when fully extended. Compact size with antenna folded; durable double-braided antenna resists distortion when packed for extended periods · LED indicator confirms transmission • Battery installation instructions included Operating life: 24 hours @ -20°C (-4°F) P/N 13-02416.....



RESCUE LASER FLARE MAGNUMTM
Ahand-held nighttime laser signaling device that provides a convenient, effective way to signal a rescue party up to 20 miles (32 km) away, depending on atmospheric conditions. It's ease of operation, long life and waterproof design makes it the perfect survival signaling device. Unlike conventional pyrotechnic flares, the Rescue Laser Flare™ is non-flammable, non-hazardous and can operate continuously for 72 hours on two replaceable AA batteries. 72 Hour......P/N 13-01924.....

15 Hour......P/N 13-01923....

ACTIVE EXTINGUISHING LINE



Active Extinguishing Line is totally independent, 1kg, fire extinguishing system from any power source. Its main secret lies in the heat detector in a form of a line made out of special laser predriller polymer, shich will react instantly to any source of heat or fire. This line (heat detector) is connected to reservoir containing fire-extinguishing agent: hexafluoropropane FE-36. Inside of the protected device (equipment) a loop

made out of the heat detector breaks, creating a mini sprinkler, directly over source of fire or heat, extinguishing it instantly. In a moment of activation the system closed circuit switch collapsses sending a signal informing of fire. For experimental aircraft only. Ask for status of pending STCs......P/N 13-03266.....

SMOKE HOODS



PARAT C EMERGENCY SMOKE HOOD

The PARAT C is a lightweight, portable easy to don smoke escape hood designed for selfrescue in the event of a fire. The PARAT C protects the wearer for a minimum of 15 minutes from smoke, carbon monoxide and toxic gases normally present during a fire. It is ideal as a personal escape device which can be used in emergency situations occurring in homes, office or apartment buildings, schools, hospitals, plant facilities and hotels.

FEATURES:Hood made from flame-retardant, selfextinguishing PVC material. Bright orange hood with high visibility and excellent reflective properties. One universal size. Can be worn with glasses, long hair and beards. Large visor treated with anti-misting agent provides wide range of vision for quick escape. Elastic collar makes hood easy to don and adjust. Comfortable, soft, inner mask allows wearer to breath normally through nose or mouth, Perfect for frequent travelers.

Parat C Smoke HoodP/N 13-04232.... Parat C Wall HolderP/N 13-06642...



PEACE OF MIND SMOKE HOODS

Peace of Mind hoods are emergency respiratory aids that give you the necessary protection to evacuate any area where toxic fumes or smoke could indispose a victim. Also provides protection for eyes, hair, & free against flames, toxic fumes, and sparks. In their vacuum-sealed package, the Peace of Mind hoods are lightweight (3.5 oz) and compact (7.5" x 4.5" x 0.75"). In a few, fast, easy steps, you can slip on the hood and evacuate. Assures peripheral vision, hands free usage & unimpeded communication. You can hear, see,

and talk while wearing the Peace of Mind hood. Its use of filters instead of a mouthpiece and/or breathing apparatus makes Peace of Mind much easier to use than other devices; Just pull it over your head and evacuate. Excellent for use in general aviation aircraft as well as for travel on commercial airlines. The transparent wall case holds two hoods and two light sticks for use in home or office. The 6-inch light stick diffuses 30 minutes of intense light without heat or flame. Non-toxic and easy to P/N 13-02731

COMFORT MAX INFLATABLE LIFE-VES





Features: •USCG approved for persons at least 16 years of age weighing 80 lbs. and above with a chest size between 30" and 52" •Dual waist belt stainless steel adjusters. Provides for easy adjustment with both hands and a more custom fit •Exterior inflation system access flap. Allows for clear, direct access to the CO2 cylinder for rearming. CO2 cylinder

can be replaced without opening and unfolding the entire PFD ·Waist strap and back strap attachment points fully connected and reinforced from inside for added strength *Heavy duty 420 denier nylon packcloth outer cover . Twin 2" wide back straps for comfort and security *Comfortable neck. The neck area has no Velcro or edge binding to cause chafing or abrasion for all-day comfort

SMILEVIEW MIRROR™



With the introduction of the SmileView Mirrortm, a major drawback of high wing tandem seat aircraft has been solved! Even with an intercom, in flight communication has been lacking. Facial expressions can say so much more than just words over an intercom.

Instructors, Young Eagle Pilots or anyone flying with a friend need to see the face of their

passenger to gauge what they are feeling.
The SmileView Mirrortm has a 4" x 4" acrylic mirror that mounts securely to avoid vibration, giving a great view. Total weight is 7 oz. and it clamps onto the overhead structural tubing with a socket wrench. It's easily removed, if necessary.

Which of the two versions you use depends on whether your aircraft has a short tube running from the V structure in the windscreen to the wing root or not. The American Champion family of aircraft has this short tube and uses the Rear Mount version. Cubs and many LSA use the End Mount as they have the V structure, alone.

.....P/N 13-05707 Rear Mount.. Universal End Mount P/N 13-05708

SURVIVAL PRODUCTS LIFE RAFTS



Perfect for general aviation. Small and compact it fits in a lightweight valise 4" x 12" x 14" and weighs only 12 lbs. But don't be fooled by its size, price or weight. This raft will do the job for you under the most adverse condition. It provides a fresh water buoyancy of 190 lbs. per person and a deck area of 3.6' per person which exceeds all Govt. standards. Inflated, the raft is 46' inside and 68'

outside and every square inch has been meticulously made from raw materials and components tested for their durability and life expectancy. Every raft is pressure tested and all seams and adhesive bonds rigorously checked prior to release. Raft includes sea anchor, bailing bucket, hand inflation pump, and CO inflation system. Optional survival equipment shown below. 6-13 person raft is 5' x 12' x 14' and weighs 18 lbs. Available in non-TSO'd and TSO'd versions

Non-TSO'd 4-6 Person Life RaftP/N 13-31610	
Non-TSO'd 6-13 Person Life RaftP/N 13-31660	
Non-TSO'd 4-6 Person Basic Raft w/o canopy P/N 13-31670	
TSO'd 4-6 Person Raft w/canopy only P/N 13-31680	
TSO'd 4-6 Person Raft w/91 equipP/N 13-31690	
TSO'd 4-6 Person Raft w/121 equipP/N 13-31700	
TSO'd 4-6 Person Raft w/135 equipP/N 13-31710	
Non-TSO'd 8-12 Person Basic Raft w/o canopy P/N 13-31715	
TSO'd 8-12 Person Raft w/canopy only P/N 13-31725	
TSO'd 8-12 Person Raft w/91 equipP/N 13-31735	
TSO'd 8-12 Person Raft w/121 equipP/N 13-31745	
TSO'd 8-12 Person Raft w/135 equipP/N 13-31755	
TSO raft with FAR91 kit 6MP/N 13-05861	
CUDULUAL DAFT ACCECCODY FOLLOWERT WITC	

SURVIVAL RAFT ACCESSORY EQUIPMENT KITS

Far 91 Kits includes: canopy with inflatable mast, equipment container, signal flag, 3 signal flares, two cell flashlight with alkaline batteries, first aid kit, raft repair kit, sea dye marker, signal mirror, food rations, water rations, and signal whistle. Far 121 Kits includes: All of above plus: utility knife, survival manual and sponge. Far 135 Kits included: all of above plus: magnetic compass, eight pint desalter, fishing kit, 75 ft. retaining line, two paddles and radar reflector.

Far 91 Emergency Kit	P/N 13-31620
	P/N 13-31630
	P/N 13-31650

REVERE COASTAL COMPACT RAFT



Double 200 lb. SuperRev™ ballast pockets, it enhances stability in rough sea conditions. Its light weight allows for easy deployment and the compact size makes stowage easy in the smallest of spaces. Operation is easy. Just open the red flap on the valise and extend the painterline. Give a hard pull and the raft inflates automatically in less than 30 seconds. Coastal Compact Raft is not recommended for offshore use.

Raft	Part No.	Price	With Canopy	Price
2	11-07471			
4	11-07472		11-07473	
6	11-07474		11-07475	

AIRLINE TYPE LIFE VEST

This self inflating airline type life vest is inflated by a tug on the cord which releases carbon dioxide from a recharge-able cylinder, designed to keep the wearer upright even unconscious or incapacitated. Can be reinflated by blowing into a special mouth tube. Folds to 2.5"x 6.5" and weighs

only 1.4 lbs. Flame resistant Urethane coated nylon for added durability. Meets TSO C13e for flights within 50 miles of land. Bright international yellow for easy identification. It fits adults & children. New surplus, overhauled, & certified. HAZMAT. Shelf P/N 13-31640 Life: 2 Years.

MUSTANG SURVIVAL PRODUCTS

MUSTANG INFLATABLE LIFE PRESERVERS



CLASSIC INFLATABLE PFD (MANUAL ACTIVATION)

A perfect choice for any boater interested in a lightweight design with high mobility, the Mustang Survival MD3003 Classic Inflatable PFD can be easily worn over a t-shirt in warm weather or over a jacket in colder conditions. The simple construction makes it is easy to wear and maintain, the durable nylon shell makes it suitable for a variety of activities and the inflated cell features a safety



INFLATABLE BELT PACK PFD - A perfect choice for any boater interested in a lightweight design with high mobility, the Mustang Survival MD3003 Classic Inflatable PFD can be easily worn over a t-shirt in warm weather or over a jacket in colder conditions. The simple construction makes it is easy to wear and maintain,

the durable nylon shell makes it suitable for a variety of activities and the inflated cell features a safety whistle and SOLAS reflective tape for high P/N 13-06372..... visihility

DELUXE INFLATABLE PFD (MANUAL ACTIVATION)

The Deluxe Inflatable PFDs combine the advanced safety of inflatable technology with product enhancements such as comfort-improvement features and a safety inspection window to easily tell users if the inflator is ready for use. The Velcro(TM) closure makes it easy to wear and maintain while closing to the outside to reduce chafing around the neck and chest; the neoprene Comfort Collar(TM) eliminates neck irritation. Made for

recreational enthusiasts and professionals alike, the MD3085 sports a manual inflation system and is lightweight and close-fitting to ensure it doesn't interfere with daily activities.
P/N 13-06373 (BLUE).....

P/N 13-06381 (RED).....

TWIN CHAMBER AVIATION PASSENGER LIFE PRESERVER - The



MD1127 Twin Chamber Inflatable is a constant wear life jacket that provides flotation protection for aircrew flying over water in the event of emergency landings. The MD1127 features an inflatable cell that is comprised of two independent chambers, separated by a fully integrated floating baffle system. This provides for an orally inflated reserve chamber in the event that the

primary chamber becomes damaged. Federal Aviation Administration (FAA) approved, the MD1127 is lightweight and designed for constant wear and comfort. The unit is manually inflated and delivers 37lbs of buoyancy and is made with a fire-resistant cover.
P/N 13-06379.....



MD3085/MD3087 RE-ARM KIT - The Manual Inflatable Re-Arm Kit contains everything necessary to rearm your Mustang Survival Manual Inflatable PFDs after deployment.

Contains: one 33gram CO2 cylinder, one re-arming instruction manual.

For model numbers: MD3085 - Deluxe PFDs 3F Manual USA, MD3087 - Deluxe PFDs 3F Manual with Harness - USA

MD3051 - Deluxe PFDs 3F Manual - Canada MD3052 - Deluxe PFDs 3F Manual with Harness - Canada Use only Mustang Survival re-arm kits. Use of other re-arm kits may result in improper operation or failure to operate and will void the product's P/N 13-06374.....



MANUAL INFLATABLE RE-ARM KIT: MA7170 - The Manual Inflatable Re-Arm Kit contains everything necessary to re-arm your Mustang Manual Inflatables after deployment. Contains: one 33gram CO2 cylinder, one green inflator pin, one re-arming instruction manual.

For model numbers: MD1166, MD3000, MD3003, MD3004, MD3020, MD3025, MD3091 Use only Mustang Survival re-arm kits. Use of other re-arm kits may result in improper operation or failure to operate and will void the product's warranty.

P/N 13-06375.....

CLOSED CELL NEOPRENE HOOD BREATHABLE CONSTANT WEAR AVIATION COVERALL



The MA7348 Closed Cell Neoprene Hood offers increased protection against the elements when worn with Mustang Survival anti-exposure gear. Designed for easy integration with the MSD900, MSD901, MSD585 MAC200 and MAC300, the hood provides exceptional head and neck insulation and includes a lanyard to tether hood to suit, an adjustable mouth guard for protection from spray and a velcro attachment point for an

emergency light. Sizes: N/A or Universal Colors: RED

P/N 13-06380 ..

WORK SUITS

CONSTANT WEAR AVIATION COVERALL - The MAC10 is a close fitting, anti-exposure suit for pilots and passengers flying over marine environments. Designed to replace multiple garments used to protect aircrew from individual operational hazards, the integrated three layer suit offers protection from fire and its radiant heat, cold exposure, cold water immersion and drowning. A durable, flame resistant Nomex® anti-static outer layer provides protection for the inherently buoyant, thermal protective wetsuit. An inner layer of Nomex® provides further fire protection and comfort. Even after being significantly marred by fire or puncture, the suit maintains its flotation and hypothermia

protection. Rugged leather abrasion panels are integrated into the knees and seat offering protection from petroleum, fuel oils and soiling. Multiple pockets provide storage for notepads, pens and survival equipment. An insulated thermal protective hood, stored in the right leg pocket, minimizes heat loss and provides additional fire protection for the head

The MSF300 comes ready to wear with included universally sized dry socks, trim to fit wrist seals and CCS™ adjustable neck seal.

Sizes: 13, 10, 7, 4, 1, 15, 12, 9, 6, 3, 14, 11, 8, 5, 2, 12A, 9A

Colors: ORANGE, ROYAL BLUE, SAGE GREEN

P/N 13-06378



BREATHABLE CONSTANT WEAR AVIATION COVERALL - The

MAC100 is a breathable flight coverall that provides anti-ex-posure protection without sacrificing comfort during prolonged missions. Engineered for maximum mobility during marine aircraft operations, this three layer integrated suit provides protection against fire, radiant hear, cold weather, cold-water immersion and drowning. The breathable foam liner features a moisture permeable membrane that allows excess moisture to escape while providing a thermal barrier against the dangers of outside elements. Durable, flame-resistant Nomex aramid,

anti-static fabric provides external protection for the inherently buoyant, flame resistant, thermally protective, integral wetsuit. Even after being significantly marred by fire or puncture, the suit maintains its flotation and hypothermia protection. Rugged leather abrasion panels are integrated into the knees and seat offering protection from petroleum, fuel oils and soiling. Multiple pockets provide storage for notepads, pens and survival equipment. An insulated thermal protective hood and inflatable mitts are stored in the ankle pockets. Sizes: 7, 6, 5, 4, 15, 14, 13, 12A, 12, 11, 10, 9A, 9, 8, 3, 2, 1 Colors: ORANGE, ROYAL BLUE, SAGE GREEN P/N 13-06377



AVIATION DRY SUIT CONSTANT WEAR AVIATION DRY SUIT SYSTEM (2

The MSF300 is a two-layer Aircrew Dry Suit that combines the performance of the 3 layer MAC300 into two layers allowing greater mobility with reduced bulk and lower thermal burden. The outer shell uses a blended GORE-TEX ®/NOMEX® fabric that is waterproof, breathable, flame-retardant and anti-static. High-wear areas are strategically reinforced to enhance the suit's durability and prevent abrasion damage that could com-promise the suit's integrity. The breathable thermal liner provides both insulation and emergency flotation and

features Mustang's aerated closed-cell foam quilted with a wicking fabric that pulls excess moisture away from the body. An adjustable neck seal using Mustang's patented Closed Comfort System (CCS™) can be worn loose to provide comfort out of the water and can quickly be drawn tight to keep the water out and trim to fit neoprene wrist seals provide watertight integrity. The thermal liner can be easily removed from the outer shell to reduce thermal protection where not operationally required. An ergonomically designed rear entry allows for self donning and doffing. Integral pockets are designed for a variety of uses and facilitate access even when wearing a survival vest over the suit. The MSF300 comes ready to wear with included universally sized dry socks, trim to fit wrist seals and CCS™ adjustable neck seal. Sizes: XXL, XXXL, M, S, SX, L, XL Colors: ORANGE, SAGE GREEN

P/N 13-06376

SURVIVAL KITS - FIRST AID KITS

TWO-MAN V.I.P. SURVIVAL PACK



It's staggering just how much useful equipment comes out of this 10"h x 11"w x 4"d backpack. Everything arranged logically and available the way you'd want it. Organized into 6 major divisions: medical/first aid, food & water, shelter & protection, fire & cooking, signals & lights, & "emergency devices," Wt; P/N 9217 20 lbs

NYLON CASE FIRST AID KITS



Be sure to carry a first aid kit on all flights, particularly over desolate terrain.

Model A: First Aid Kit - Packed in a nylon case for easy storage. The same type used on commercial air carries with contents in smaller quantities. Ideal for general aviation. Includes all basic necessities in a compact P/N 13-02944 lightweight package.

MODEL B: FIRST AID KIT - In addition to all of the first aid products in the Model A kit, Model B also includes

a strobe light to aid searches in locating downed aircraft and survival P/N 13-02945 blanket. (Battery not included).

MOTION EAZE



Motion Eaze is the most effective motion sickness treatment on the market today. Whether you want to prevent occasional motion sickness or relieve its symptoms, after the fact, Motion Eaze does the job. No matter, if it's sea sickness, car sickness, air sickness or any activity where motion sickness poses a problem, Motion Eaze really works. Contains no drugs, artificial additives, or stimulants of any kind. Only the freshest, highest quality, natural oils are used in its production. Motion Eaze is an oil that is applied to, and absorbed through, the skin, just behind the ear. Relief arrives in minutes and lasts for hours. It's perfect

for children that have trouble taking pills. Motion Eaze is safe, having no known side effects.

P/N 13-02732.....

ACUPRESSURE WRIST BAND



Fast, effective motion sickness control without drugs, drowsiness, or other side effects. Can be used by adults or children. Exerts a carefullycontrolled pressure on acupressure point of both wrists. Takes 2 to 5 minutes to become effective. Used successfully by physicians & the military
P/N 9411



MOTION SICKNESS RELIEF BAND
Take the ReliefBand® Medical Device along to help relieve that awful feeling of nausea caused by motion sickness. It's drug-free, non-invasive, comfortable to Worn similar to a sports wear and east-to-use. watch, but placed on the underside of your wrist, the ReliefBand® Medical Device works using gentle electronic signals to stimulate nerves in the wrist. A tingling sensation lets you know the ReliefBand® Medical

Device is working. This helps normalize stomach rhythm, helping to P/N 13-05700....

SIC-SAC™



Use these for air sickness emergencies. Moisture proof and tear resistant even under extreme temperature changes. 10 sacks, individually packaged, each with attached tie band. Pack of 10 P/N 9296...

PUMA METHOD FOR PREVENTION OF **MOTION SICKNESS**



The Puma Method is a series of simple conditioning exercises, taught on VHS or interactive DVD, that effectively prevents the nausea, vomiting, lightheadedness and other unpleasant symptoms experienced by over 50% of the population while traveling. Sam C. Puma MD, president of Puma Applied Science and former Air Force Flight Surgeon Imagine the Possibilities at NASA, developed these revolutionary new exercises to totally eliminate carsickness,

seasickness, airsickness, and even spacesickness. The Puma Method is unique in that it uses the body's own mechanism to actually master motion sickness, so there is never a need for drugs, devices or herbs. This means no unexpected or unpleasant side effects. The mild head, neck and upper body exercises take only about 15 minutes a day to do.

DVDP/N 13-03675......

VHS......P/N 13-03676.....

ACR SIGNAL MIRROR



Sighted signaling mirror with float and whistle. Designed to provide optimum sighting "spot" with holographic red dot viewing window. When target image, mirror & sun are in proper alignment, red dot on target ensures mirror reflection is on target. Telescope quality second surface reflective mirror is bright, provides focused image. Buoyant

float for easy recovery if dropped overboard. Patented whistle (meets USCG) for audible alerting in low visibility conditions. Signal Mirror has lanyard for securing to person or liferaft. Size: 4.25x2.75x0.19 in. (10.8x7x0.5cm); Wt: 1.8 oz (51 g) P/N 13-03177



SURVIVAL BLANKET

Often called the "space blanket." NASA thought of everything when they came up with this metal-coated nylon design. Waterproof and windproof, it retains 80% of body heat, it's colored to be seen from more than 4 miles away

(although it measures just 4' x 7'), it's radar-reflective, and it folds down into a water-proof pouch 8.5"x0"; wt:10 oz. P/N 9145......



LAND/SHARK INSTANT **SURVIVAL SHELTER LS-1300**

Stored in its water, vapor and grease-proof vacuum sealed pouch, it measures only 6" x 8" x 1" and weighs a mere 18 oz. (0.5 kg.). When needed, it opens to a windproof, water-proof, heat-retaining roomy 36" x 84" (91.4 cm x 213.4 cm) thermal cocoon that provides full

body coverage, even over heavy outerwear and boots. It then protects you from exposure and helps you maintain a life-sustaining core body temperature until help arrives. In the open water, the waterproof bag serves to slow the drain of vital body heat and provides protection from chilling sea spray and breaking waves. The aluminized (International Orange) material is radar reflective for search aircraft and high speed vessels moving at night. In warmer waters where the sun is a danger to exposed skin above the water, the bag can be configured to provide for shade and ventilation. P/N 13-05691

LIGHTED LINEMAN WANDS



Used by US Air force • Up to 400 hours operation • 21" long • Waterproof •Uses 2 D batteries (not incl.) • Fluorescent coated diffuser enhances red light output.

P/N 13-08959.......

PELTOR FIRST AID KIT

This 90 piece first aid kit from Peltor was designed for aviation use and includes bandages, iodine pads, butterfly wound closures, alcohol prep pads, adhesive pads, sting relief pads, latex gloves, eye pads, tape, splint, eyewash, tweezers, scissors, cold pack, first aid handbook, and more. In plastic case with gasket. P/N 13-94535.....

AIRCRAFT EMERGENCY SURVIVAL KIT



This is an ideal emergency support kit for plane, boat, home, office or school. This kit will sustain a person for 3 days. Includes: 2400 calories of ready-to-eat US Coast Guard approved food, sterile Coast Guard approved water, a lightweight (54' x 48") durable, waterproof blanket, & assorted first aid supplies, matches etc.

P/N 9641

3M™ ULTRATHON INSECT REPELLANT

Unique, time-release technology allows you to enjoy the outdoors longer. Provides lasting protection — up to eight hours against mosquitoes, gnats, chiggers, biting flies and ticks. Helps reduce the risk of contracting West Nile Virus and Lyme

ï	2 oz. Lotion	P/N 09-01723
	6 oz. Aerosol	P/N 09-01724

SURVIVAL KITS -FIRST AID KI

CANADIAN-ALASKAN SURVIVOR PAK



Originally designed for pilots flying within Alaskan and Canadian airspace, the CA-20 offers protection against harsh climates in the event of an emergency. It contains over 150 nedical and general supply items to help sustain two people for up to 14 days. The space saving design combined with its ample supply of food and water makes the CA-20 a popular

choice on board fixed wing, rotor craft, and corporate jets. It's also used extensively by Search & Rescue units! P/N 13-03596.....

EMERGENCY SURVIVAL KIT



Specially designed by a focus group, the ESK-02 makes it easy to be prepared for life's little surprises. Each kit contains over 40 medical and general supply items ncluding a guidebook that offers survival tips and basic information. Designed to support one person for up to three days. the ESK-02 carries a five-year shelf life on food and water. Its affordable price makes it a great choice as a premium/incentive

item, corporate gift, or employee award.

P/N 13-03606.....



ready to go anywhere

TRAVELER KIT
The Traveler Kit - Personal Care Package is appreciated by everyone from busy executives to sports enthusiasts. It's the perfect addition to any car as the "other spare" to have on hand for life's unexpected moments. Designed to support one person for up to three days, it contains over 50 support items in a custom nylon carrying bag with reinforced straps. "The Traveler" is P/N 13-03607......

2-PERSON EMERGENCY SURVIVAL KIT



This deluxe 2 PERSON EMERGENCY SURVIVOR KIT could mean the difference between disaster and survival in an emer-gency situation. It contains a complete 3-day supply of food, water, medical & other emergency supplies for 2 people.

Over 60 Emergency Items! • Emergency Drinking Water Metallic Sachets • 2400 Calorie Emergency Food Rations • Instant Cold Pack • Medical Kit • Disposable Flashlights • Thermal Blankets • AM/FM Portable Radio w/ Batteries • The Wallace Emergency P/N 13-03608.....



EMERGENCY BLANKET
This Emergency Blanket (52" x 82.5", 1.5 oz.) provides personal protection from rain, wind, heat, and cold. It's manufactured from extremely lightweight, flexible, space-age material, and retains up to 90% body heat in cold weather. It even deflects heat in hot climates and can be used to offset hypothermic reactions. The

Emergency Blanket is waterproof, reusable, and portable. It's perfect for camping trips and sporting events in addition to emergencies. Keep several on hand for the unexpected!

SNOW BROOM

P/N 13-03604.....



The SNO BRuM offers pilots a way to quickly sweep snow off aircraft wings and away from the user. Great for high wing aircraft. The durable molded polyethylene foam head has been lab-tested for non-abrasiveness, freeze resistance, center load stress and durability to achieve the highest ratings in all tests. The

oversized head (6" x 17") is the largest snow remover available. The high-impact plastic face plate is recessed into the foam to prevent contact with the aircraft. The aluminum telescoping handle has special cold resistant nylon threads and extends from 27" to 46". Also great for cars, trucks, SUV's, and awnings. P/N13-04055......

FIRST AID 'N TRAVEL KIT



Finally—a compact, complete travel unit for the person on the go! This kit fits perfectly in a purse, briefcase, or glove compartment, and is ready when you need it in first aid situations. This kit is very special because it's the only one of its kind to include a 4 oz. sterile water packet with a five-year shelf life. Ask us about using this kit for fundraisers or corporate promotions! We can customize the kit to include your company's logo.

P/N 13-03605.....

COCOON SLEEPING BAG



The All Weather Pocket Size Sleeping Bag The Cocoon Sleeping Bag (84" x 36") provides personal protection from rain, wind, heat, and cold. It's manufactured from extremely lightweight, flexible, spaceage material, and retains up to 90% body heat in cold weather. It even deflects heat in hot climates and can be used to offset hypothermic reactions. The Cocoon is waterproof,reusable, and portable. Keep several on hand for the unexpected!. P/N 13-03603......



EMERGENCY FOOD RATIONS

MAINSTAY™ FOOD PACKAGE - Mainstay™ has emerged as a food product unlike any other. Before it came into the picture, emergency food bars were only being made for short-term use. Survivor Industries changed all that when it created a great-tasting, non-

Mainstay™ 2400..........P/N 13-03601...... Mainstay™ 1200........P/N 13-03602.....

EMERGENCY WATER PACKETS



Mainstay™ Water Packets - All water is not created equal! Here at Survivor Industries we have spent years perfecting our MainstayTM Water Packets. The final result is a portable product with a 5-year shelf life. Other Key Benefits: • U.S. Coast Guard approved • No Oxygen Transfer (In other words, no chance of bacterial contamination) • Pre-Measured Packets make the water easy to dispense, and potential for loss is minimized. If

a packet is destroyed, only 4.224 ounces (125 ml) would be lost. • Easy to Transport - just 18 lbs. (8.17 kg) per case of 60 packets. • No special storage required - it can withstand temperatures from (-40°F to 210°F) (-40°C to 99°C) • Very Low Cost. • No Cups Needed!

P/N 13-03598.....

THE WALLACE GUIDEBOOK

For Emergency Care & Survival - When you're faced with a disaster, you can often face physical and psychological strain. It's often hard to remember what to do in an emergency situation, and this is exactly why we've written the Wallace Guidebook. This book is specifically designed to present the basics of survival

in an extremely easy-to-understand manner. This book discusses the following topics, plus many more: Choking, Heart Attack, CPR, Shock, Burns, Emotional Trauma, Bleeding, Fainting, Wounds, Broken Bones, Fractured Bones, Back Injury, Childbirth, Auto Breakdown, Temperature Extremes, and the 1st and 2nd Rules of Survival. It's not fun to be in one of these situations, but having a book like this nearby gives you a better chance of a happy ending.

P/N 13-03597...... chance of a happy ending.

CANOPY BREAKER TOOL



The Piranha Canopy Breaker Tool is a robust device with a sharp edge on one end. The tool is secured inside the aircraft cockpit to a frame member or seat frame, within easy reach of the pilot. A plastic cover is over the blade end for tactile and visual identification and protects the pilot from the blade end. In an emergency situation the pilot locates the Canopy Breaker Tool,

removes the safety pin / lanyard which secures the tool to the aircraft and the red cap. The pilot firmly grasps the tool with one hand and places the other hand underneath the tool, then positions the blade parallel to the canopy side frame, near the frame and uses very strong upward thrusts aiming one of the blade points at the Plexiglas. The unit is made from industrial strength aluminum, weights 10 oz and the lanyard has a 35# break strength.

P/N 12-02269......

JRVIVAL KITS

Crashkit Personal and Professional Flight Line Series aviation survival kits are quickly becoming an industry leader in top quality aviation survival kits. Numerous kits are available to suit you piloting and survival needs.



The "Alpha" personal aviation survival kit is designed for the pilot with general knowledge of survival techniques. This kit should only be purchased by experienced and skilled individuals. This kit includes 24 of the most essential items packed into the smallest kit practical. Weighing in at only 1.54lbs, the general kit is small enough to fit in any flight bag, purse, glove compartment, map pouch or cargo pocket.

Every item included in this kit has been thoroughly tested and approved to insure it performs flawlessly when needed (we've even sharpened the knife!) and meets or exceeds

Transport Canada's Canadian Aviation Regulations to facilitate survival and rescue. Dimensions: 6.37" x 4.75" x 2.12"(16.9 x 12.06 x 5.4 cm) Weight: 1.54 lbs Contents: 24 items covering food, fire, water, shelter, and first aid Case: Pelican 1020 case - yellow - tough, watertight, polycarbonate case Optional Acc's:
Parachute deployment system; Aircraft Mounting Bracket Warranty:
Lifetime P/N 13-04684

CRASHKIT BRAVO SURVIVAL KIT



The 'Bravo' personal aviation survival kit is designed for the pilot with some basic knowledge of survival techniques. Containing 51 of the most essential items, this kit remains small and lightweight. At only 2.20lbs, it is compact enough to fit in any flight bag, purse, glove compartment, map pouch or cargo pocket.

Each item in this kit has been thoroughly tested and approved to ensure flawless performance when needed, and meets or exceeds Transport Canada's Canadian Aviation Regulations to facilitate survival and rescue. Dimensions : 7.50' x 5.06" x 3.13""(19.05 x 12.86 x 7.94 cm) Weight 2.20 lbs Contents: 51 items covering food, fire water, shelter, and first aid Case : Pelican 1050

case - tough, watertight, polycarbonate case Optional Acc's : Parachute deployment system; Aircraft Mounting Bracket. Warranty : Lifetime P/N 13-04685

CRASHKIT CHARLIE SURVIVAL KIT



The 'Charlie' personal aviation survival kit is designed for the pilot with minimal knowledge of survival techniques. Including 71 of the most essential items, this kit is extensive in its coverage of necessary tools and supplies. Packaged in a Pelican 1120 case, 'Charlie' is still compact and lightweight enough for easy

transport and storage.

Every item in this kit has been thoroughly tested and approved to ensure it performs flawlessly when needed, as well as to ensure the ease of use for each individual piece. This kit meets or exceeds Transport Canada's

Canadian Aviation Regulations to facilitate survival and rescue. Dimensions: 8.12"" x 6.56"" x 3.56"" (20.9 x 16.6 x 9.0 cm) Weight: 2.81 lbs Contents: 71 items covering food, fire, water, shelter, and first aid Case: Pelican 1120 case - tough, watertight, poly carbonate case Optional Acc's: Parachute deployment system; Aircraft Mounting Bracket Warranty : Lifetime.
P/N 13-04686

CRASHKIT 2-7 SURVIVAL KIT Designed for use in typical GA light aircraft, specifi-



cally those used in flight schools or clubs, this crashkit has the materials necessary to sustain two people for seven days in the event of a crash. Redundancy in the items within the kit allows for multiple options for food, fire, water and shelter; for example, the kit contains four items capable of starting a fire. Containing 165 of the most essential items needed in a survival situa-tion, this kit is packaged in a Pelican 1200 case, and remains lightweight and compact for easy transport and storage on a craft. Every item included in this kit has been thoroughly tested and approved to ensure it performs flawlessly when needed, and meets or

exceeds Transport Canada's Canadian Aviation Regulations to facilitate survival and rescue. Dimensions: 10.63' x 9.69''' x 4.88''' (20.9 x 16.6 x 9.0 cm) Weight: 7.15 lbs Contents: 165 items covering food, fire, water, shelter, and first aid Case: Pelican 1200 case - tough, watertight, polycarbonate case Kit Coverage: 2 people for 7 days (or longer dependent on situation) Optional Acc's: Parachute deployment system; Aircraft Mounting Bracket Warranty : Lifetime.
P/N 13-04690



CRASHKIT 4-7 SURVIVAL KIT

The Crashkit 4-7, designed for use in typical GA light aircraft and commercial aircraft, contains the materials necessary to sustain four people for seven days in the event of a crash. The variation of items within the kit allows for multiple options for food, fire, water and shelter; for example, in addition to the Mainstay packaged food, a fishing kit and snare are also included. This kit contains 232 of the most essential items needed in a survival situation, packaged within an indestructible Pelican 1400 case. Every item included in this kit has been thoroughly

tested and approved to ensure it performs flawlessly when needed, and meets or exceeds Transport

Canada's Canadian Aviation Regulations to facilitate survival and rescue. Dimensions: 13.37" x 11.62" x 6.00 " (34 x 29.5 x 15.2 cm) Weight: 17.55lbs Contents: 232 items covering food, fire, water, shelter, and first aid Case: Pelican 1400 case - tough, watertight, polycarbonate case Kit Coverage : 4 people for 7 days (or longer dependent on situa-tion) Optional Acc's : Parachute deployment system; aircraft mounting bracket Warranty: Lifetime. P/N 13-04691



CRASHKIT 6-7 SURVIVAL KIT

Intended for commercial aircrafts, our Crashkit
6-7 has enough materials to sustain six people
for seven days in the event of a crash. Various means of food, fire, water and shelter allow for multiple options; for example, this kit includes not only Mainstay water, but the means for purification, as well as hot chocolate or tea. Within this indestructible, crushproof and waterproof Pelican 1450 case, 261 of the most essential items needed in a survival situation are pack-

aged and ready for easy use. Every item included in this kit has been thoroughly tested and approved to ensure it performs flawlessly when needed, and meets or exceeds Transport Canada's Canadian Aviation Regulations to facilitate survival and rescue. Dimensions: 16" x 13" x 6.88 " (40.6 x 33 x 17.5 cm) Weight: 22.80lbs Contents: 261 items covering food, fire, water, shelter, and first aid Case: Pelican 1450 case - tough, watertight, polycarbonate case Kit Coverage: 6 people for 7 days (or longer dependent on situation) Optional Acc's: Parachute deployment system; aircraft mounting bracket Warranty: Lifetime.

P/N 13-04692

MILITARY PILOT SURVIVAL KITS



SURVIVAL TOOL KIT - Total weight is 3 lbs. Custom designed, adjustable carrier pouch holds equipment. Can be worn around waist, used as tourniquet or with wooden dowels as splint. Dowels help with fire-starting. Blunt-tipped Meyerco Rescue One knife prevents injury, cuts seat belts and harnesses. Handle includes carbide

glass breaker. Two emergency blankets. Emergency signaling mirror. Victorinox SwissTool includes: pliers, screwdrivers, wire cutter, cap lifter, blades, metal file and saw, wood saw, reamer and punch, chisel/scraper, crate opener, wire bender, stripper and scraper, can opener, ruler, elec-Whistle. MINI MAG-LIGHT® flashlight. Knipex adjustable plier wrench. Magnesium fire-starting tool from Doan Machinery and Equipment.

PN 13-05676



MILITARY PILOT SURVIVAL KIT - Designed by Oregon Aero for the U.S. Navy. The durable carrier pouch is hand sewn by Oregon Aero with pockets for each item. Knife, fire starter and flashlight lanyards attached to carrier. Special zipper permits access to folding knife without opening the carrier. 6.5" high, 5.5" wide, 2" thick. Kit includes: • Gerber® Multi-Tool

created especially for this kit by Gerber and Oregon Aero • Gerber® Harsey Air Ranger II Folding Knife • Nexus™ 26DNL Compass • LED Task Light™ Flashlight • Sunscreen Packets • Vacuum sealed Balaclava Strike Force™ Fire Starting System. Custom designed Multi-Tool includes pliers, wire cutter, file, awl, serrated sheep's foot blade, knife/fish hook sharpener, assorted screwdrivers

PN 13-05675.....

EAR PLUGS - PORTABLE RESTROO

PILOT RELIEF TUBES



HORN - Black molded plastic horn fits into horizontal or vertical brackets. Measures 2-3/8" diameter and weighs 1.3 oz .

P/N 13-04168

HORIZONTAL BRACKET - Black molded plastic bracket for underseat installation. P/N 13-04169



VERTICAL BRACKET - Black molded plastic bracket for vertical installation.

P/N 13-04170



VENTURI - Black molded plastic venturi mounts on fuselage bottom and produces required suction to horn and outlet tubes for fluid ejection.

P/N 13-04171

Horn and Valve Assembly......P/N 13-04167 **Tee**.....P/N 13-04172



AIRSOFT REUSABLE

EARPLUGS

AIRSoft earplugs feature a shell of soft attenuating material around a pocket of air that is the highest rated reusable earplug available with a noise reduction rating NRR 27......P/N 13-02194



ULTRA FIT E-A-R PLUGS

You get the best noise protection possible with a premolded ear plug. Triple flange design gives you a perfect fit and a noise reduction rating of 27 db. Conversations can still be heard while harmful nois-



E-A-R NOISE FILTERS

Soft polymer foam fits inside ear canal and expands to block sound and filter out damaging noises. Provides up to 35 db noise reduction. Washable and reusable

P/N 9134/pair





PELTOR 30 CALIBER EAR PLUGS
(CASE OF 10)

The unique shape of the Peltor 30 Caliber Plugs is concave at the base to help wearers achieve easy, deep insertions for optimum protective in the Propular in Handles on each protection. The Easy-Grip Handles on each plug allows for quick and easy removal. The Peltor 30 Caliber plugs are packaged in a 10 pair ammo case like actual bullets. P/N 13-04287.....

LITTLE JOHN

Positively the least expensive accessory you can buy to extend your range. One authenticated case reports a Piper Malibu's range extended by 500 miles. Durable plastic, won't crack under any normal handling and temperature conditions. A tight screw-on cap makes it spill

proof. Standard issue in hospitals for years.

P/N 9741



LADY J ADAPTER

The anatomically designed funnel snaps in and out of the little John. It can be used sitting or even standing. Clean white plastic.
P/N 9745

G FUNNEL ADAPTER

The G-Funnel is a portable urinal adapter which simply screws on to any plastic pop or water bottle that will be uses as a container for those situations where a washroom facility is not available. The appeal to this adapter is that it can be attached and used together with any sized plastic pop or water bottle that most people have on hand. The plastic pop or water bottle is to be used as liquid container and then can later be emptied for reuse or just thrown in the trash when available. We think you'll agree that this is a very useful relief device for those emergency situations. P/N 13-01974



RESTOP DISPOSABLE URINAL

The anatomically designed Restop is the disposable urine bag that combines a unique blend of polymers, enzymes, & deodorizer to turn urine into an odorless gel on contact. The funnel design prevents accidental spills. Restop is sanitary, non-toxic, spillproof & odorless, safe and convenient, trash container safe, and small enough to fit in pocket. Easy to use by men & women. 2 pack.

P/N 13-00794



TRAVEL JOHN
Absorbent pouch turns urine into gel instantly while destroying bacteria and odor. Specially designed collar works for men women and children; spill guard prevents back guard during use. Convenient, sanitary and compact, TravelJohn is easy to use while sitting or standing. Will not leak or spill, even if punctured. Holds 28 fl. oz. Includes antiseptic hand wipe.
3-packP/N 13-00894 ...



IPEE - DISPOSABLE URINE COLLECTION DEVICE

The SuperSlab 100® device is biodegrade and disposable urine collection device designed for men & women. Every SuperSlab 100 device includes a female adapter which enables women to urinate easily while standing. The SuperSlab 100® converts the liquid urine into a solid in less than one minute with an absorbent. The absorbent ITBX5®, is a biodegradable, 100% organic compound. After the SuperSlab 100® transforms the liquid into a solid, the device is easily stored for proper disposal at a later time.
P/N 13-05578.....

6 Pack......P/N 13-05577.....

RESCUE STREAMER™ DISTRESS SIGNAL



This bright orange streamer, visible from 1.3 miles away at 1,500 ft. altitude, leads Search & Rescue teams right to you. The patented high-strength polyethylene Streamer design, tested and used by the U.S. Military and Coast Guard, is marked with the international distress symbol. Features sealed air-filled struts that keep it afloat on water and open on land to pinpoint your exact location to rescuers. RescueStreamers™ start at the size of a cell phone when stored and unroll in seconds. Always ready for use anywhere; land, water, and snow. Does not require chemicals, batteries, or electronics to signal continuously. Patented design approved for US Military & Coast Guard use. Furnished in a mesh bag

for storage in a 1-2 person raft. Weight: 6.7 oz. Display size: 6" x 40 ft; Stored size: 3.5" x 7.5" P/N 13-03767......lea.

CO GUARDIAN CARBON MONOXIDE DETECTORS

CO Guardian uses a patent-pending technology to compensate for changes in an airplane due to temperature and humidity. The detector has three (3) warning systems: audio, digital, and numeric warnings for escalating or dangerous levels of carbon monoxide in the cabin. CO Guardian can also be used in vehicles, motor homes, emergency vehicles, etc., as it plugs into any 12/24V adapter. All models have 3 ear Limited Warranty.



MODEL AERO-152A - Features: • Max power consumption = Less than 1W • Weight: approx. 2.5 oz
• Works from 10V to 30V sys. • Product shielded
to prevent RMI (Radio Magnetic Interference) with
Aircraft systems • Audible alarm with varying pitch at 85DB • Digital CO
Level Readout • Front panel lighting (Green, Amber & Red) • CO Sensor

tested to 13,500ft • Built in Temperature compensating circuit • Built in Humidity compensating circuit. P/N 13-01639



MODEL AERO-152WD - Features: • Max power consumption = Less than 1W • Wt: approx. 2.5 oz • Works from 10V to 30V sys. • Product shielded to prevent RMI (Radio Magnetic Interference) with Aircraft systems • Audible alarm with varying pitch

depending at 85DB • Front panel lighting (Green, Amber and Red) • CO Sensor tested to 13,500 ft • Built in temperature compensating circuit • Built in Humidity compensating circuit. P/N 13-01640



MODEL AERO-353 - CO Guardian upgrades its best selling model 352 to the 353. Model 353 has a brand new sensor that can detect CO as low as 1 Part Per Million (PPM) to 999 PPM. This unit now comes

standard for interfacing CO levels display on the G1000, GNS480 and other Multi- function displays. The 353 now has a built in pressure sensor that compensates for altitude. These units can be mounted on the panel or remotely. The 353P now has a built in pressure sensor which compensates for altitude up to 25,000 feet. Similar to hypoxia, this becomes more critical as altitude increases and the body's tolerance to 353P/N 13-01642



353PP/N 13-05733 MODEL AERO 552 - This unit is a replacement for the 2.25" clock and provides the latest CO protection that displays 30 to 999 ppm in the cockpit, as well as aircraft high and low voltage alarms, pressure density altitude readout for takeoff. Cabin altitude alerts to remind you to go on oxygen. An RS232 output

that allows the parameters for CO level, cabin pressure and temperature to be displayed on the UPS AT CNX80. P/N 13-02569P/N 13-06165. Aero 553 OAT Probe..



DIGITAL CO2 DETECTOR Super large 3-1/2 digital LCD display with backlight

Pocket-sized and easy to use • Fast sampling time • Max hold and data hold • Audible beep from 35 to 200 ppm • Continuous beep after 200 ppm • Auto power off • 15 min. inactive • Protective rubber boot Specifications: Range: 0 to 1,000 ppm • Resolution: 1 ppm • Accuracy:

5% or 10 ppm • Power source: (1) 9 volt battery • Dimensions: 6.3" x 2.2" P/N 12-01896.....



DIGITAL CO2 DETECTOR

The extremely affordable DCO 1001 has a measuring range of 0-1000 ppm and comes complete with a soft case, a wrist strap, 3 "AAA" batteries and an instruction manual. Features: • Adjustable co warning level • LCD dual digital display · Bright backlight · self test · Low battery indication °F/°C selectable • Auto power off • Auto zero • Co range: 0~999ppm • Resolution: 1ppm • Battery life is 250 hours when the backlight is off and 35 hours with the backlight P/N 12-01895.....



MODEL 300 POCKET CO

The Model 300, with LOUD buzzer, vibrator, and LED alarms, the most versatile one-ounce full feature carbon monoxide dosimeter on the market today is now the only aviation carbon monoxide detector a pilot can attach to their key chain for travel, home, and a multitude of other life saving uses. Pocket CO Model

300 features nanotechnology enabled low-level carbon monoxide readings displayed every 5 seconds from 0 to 500ppm. Weighing less than one ounce, the wearable key-fob sized dosimeter calculates TWA, TE, MAX ppm, and time of max reading. Complete with replaceable battery, two-year instrument and sensor warranty, Pocket CO 300 provides maintenance-free protection in a durable, weather-resistant, single button package.

300 Pocket CO	P/N	13-06639
Replacement/Spare Battery	P/N	13-06640

HONEYWELL LUMIDOR XT, XP



THE LUMIDOR MINIMAX XT - Personal detector is able to monitor a single as from a choice of oxygen, carbon monoxide and hydrogen sulfide gases. Utilizing patented Surecell™ and Reflex technology, the Minimax XT achieves 24 months

continuous, maintenance free operation. Audible, visual and vibrating alarms are standard. New Real-Time display versions available. All Lumidor Minimax XT instruments are supplied with a case clip, test adaptor and manual. An optional interactive product guide CD is available. Shelf life is 12 months on CO and H2S versions. IP67 water

Model	Description	PN	Price		
Minimax- XTO2	UL/cUL Certified Minimax XT O2 Kit with vibrating alarm - Oxygen	11-05750			
Minimax- XTCO	UL/cUL Certified Minimax XT CO Kit with vibrating alarm	11-05751			
Minimax- XTCO25	UL/cUL Certified Minimax XT CO Kit with vibrating alarm; set to Alarm1 25ppm and Alarm2 100ppm for California	11-05752			
Minimax- XTH2S	UL/cUL Certified Minimax XT H2S Kit with vibrating alarm	11-05753			
Minimax- XTRT02	UL/cUL, ATEX/CENELEC Certified MiniMAX XT O2 Kit with vibrating alarm and Real Time Display	11-05754			
Minimax- XTRTCO	UL/cUL, ATEX/CENELEC Certified MiniMAX XT CO Kit with vibrating alarm and Real Time Display	11-05755			
Minimax- XTRTCO25	UL/cUL, ATEX/CENELEC Certified MiniMAX XT CO Kit with vibrating alarm and Real Time Display; set to Alarm1 25ppm and Alarm2	11-05756			
Minimax- XTRTH2S	UL/cUL, ATEX/CENELEC Certified Mini- MAX XT H2S Kit with vibrating alarm and Real Time Display	11-05757			
ACCESSORIES & SPARES FOR XT					
Model	Description	PN	Price		
Minimax- XT-01	Minimax XT Test Adaptor	11-05758			
2566-0122	Minimax XT Printed Manual (English language only)*	11-05759			
2567-0016 Minimax XT Hand Aspirator		11-05760			
2302B0846	Ball Float	11-05761			
2302B0847	1m (3') 4 Part Sampling Probe	11-05762			
2566K0130	Minimax XT Crocodile Clip Kit	11-05763			
Minimax- XT-03	Minimax XT Interactive Product Guide	11-05764			

LUMIDOR MINIMAX XP - The Lumidor Minimax XP personal detector is able to monitor a single gas from a range of oxygen and toxic gases. Utilizing cell output delay compensation, in conjunction with patented sensor technology the Minimax XP ensure accuracy and reliability while providing a cost effective instrument.

User flexibility is achieved with built-in menus, and the on/off operation of the instrument provides up to 3 years of battery life under typical use. All Lumidor Minimax XP instruments provide 2 levels of instantaneous alarm, STEL and TWA alarms, and have audible, visual and vibrating as standard

All Lumidor Minimax XP instruments are supplied with a case clip, test adaptor, manual and an optional interactive product guide CD is available. Designed to meet IP54 water ingress protection.

M e	PN	Price
Minimax- XP-O2	11-05766	
Minimax- XP-CO	11-05767	

LONG LIFE CARBON MONOXIDE DETECTOR



No longer do you have to replace that Carbon Monoxide Detector every 28 days, the new Quantum Eye Carbon monoxide detector offers a minimum 18 months of sensor life. P/N 09-35601

STANDARD CARBON MONO IDE DETECTOR



Carbon monoxide is odorless and colorless, but this economical little stick-up pad gives you a visible warning it it's present in the cockpit (or car or garage). A little graying of the color spot means a little gas: if it turns black, the concentration is dangerous. Adhesive backed. Spot returns to normal color

after being exposed to fresh air.

P/N 09-35600 5 or more....

ASA CARBON MONOXIDE DETECTOR



Carbon Monoxide (CO) is a toxic, odorless, and tasteless gas produced by the incomplete combustion of gasoline, kerosene, natural gas, butane, propane, fuel oil, wood, coal, and other fossil fuels. Dangerous levels of CO can be produced by internal combustion engines or from any poorly vented or improperly adjusted fuel-burning appliance. Exposure to CO may cause sickness, headaches, or even death.

P/N 13-05755

WINDMETERS - WEATHER STATIONS

(SNIHAWAYA)

WINDSCRIBE HANDHELD WIND METER



WindScribe is a precise, handheld wind meter (anemometer). In addition to registering the current wind speed, the WindScribe also measures maximum headwind, maximum tailwind, a five-second average wind, and a running average wind. Speeds can be displayed in both U.S. and metric units and the unit also records temperature - useful for figuring out whether fog may form soon - and wind chill. The WindScribe

weighs 3.5 ounces and comes with a lanvard. A velcro strap and mount-P/N 13-04019 ing bracket are included.

WIND WI ARD WIND SPEED INDICATOR ECONOMY MODEL - ACCURATE & COMPACT



Safety wrist strap gives added security in stronger winds, and stores out of the way in the folding handle. Constructed of high impact plastic and corrosion resistant metals. It comes with leather-like carrying case. No P/N 13-18520. Batteries needed.

SKYWATCH GEOS 11 HANDHELD WEATHER STATION

With features never before found on a handheld weather instrument, the GEOS 11 was designed specifically for the demanding needs of many markets: Aviation; reading of the Flight Level, height, finesse, pressure, altitude, altitude variation, etc... Electronic Compass: • analogical and digital Three Data Recording Modes: •manual recording by pressing two buttons •automatic recording at selected intervals, when unit is off or on •automatic recording at selected intervals, when unit is on only. Bright LED Light: • operates on separate battery. Replaceable Ball Impeller: • rotates to protect impeller blades. Exposed Sensors for instant readingsP/N 13-04757

WATCH HANDHELD WIND METERS



Designed for consumer and professional use, the Xplorer does not include complicated and seldomused features such as downloading and storing. Press one button, and instant readings are at your fingertips.

Dimension: 3.5 x 1.5 x 0.75 in, 2 oz. (41 x 93 x 17 mm, 50 g) One button operation, EL Backlight Completely sealed; internal sensors, Weatherproof (can be submerged 6 feet), Replaceable Lithium battery (included and installed), Stainless steel back, Auto-off after one minute (can be disabled to remain on), Included lanyard One year war-Handheld Weather 1 P/N 13-04760 Handheld Weather 4 P/N 13-04762 rantv.

WINDLINQ WIND METER



Most compact electronic anemometer available. Features: **Nost compact electronic ariemometer available. Features. **
Displays wind speed in MPH, Km/Hr, Knots, Met/Sec, and Ft/Sec * Displays Current Wind Speed * Displays Maximum Wind Speed * Features back light * Includes Replaceable Lithium Battery (CR2032) * Water Resistant to 3 feet (1 m) * Great gift item Specifications * Size:3.6"H x 1.6"W x 0.6"D, 1.8 or ear girt term Specifications Size: 3.6 H X 1.6 W X 0.6 D, 1.8 oz * Lithium battery * 4 year warranty on battery * Measuring range: 0 to 99.99 * Resolution: 0.1 units * Case: Rugged polycarbonate, waterproof to 10 feet * Precision: ±4% from 16° F to 122° F (10° to 50° C) P/N SKWWIND.....

WEATHER WIZARD III WEATHER STATIONS

Includes all of the most requested features of a professional-quality weather station: inside and outside temperature, wind direction, wind speed, and wind chill. Highs and lows are maintained for most functions, and may be quickly viewed along with the time and date they occurred. Programmable alarms alert you to changes in weather conditions. Information may be displayed in U.S. or metric units of measure. Wind speed displayed either mph, kph, kts, or meters/sec. Comes with mounting base Autoscan routine reviews all weather conditions, or enter your own scan selections. Compact size: 5.25"x5-7/8"x3"...P/N 13-14010Optional Rain Collector (0.1 mm)P/N 13-14035

.....P/N 13-04569 Mounting Tripod.

Call for special pricing

SM-19 SKYMATE PLUS WIND METER

* Current, maximum windspeed * Average windspeed over 5, 10, or 13 seconds * Current temp & windchill * Relative Humidity & Dewpoint * Choose any measurement unit * Reads in tenths * Replaceable 400 hour lithium battery * Data Hold to freeze most recent display * Replaceable plastic impeller won't corrode * Comes with lanyard * Threaded for tripod mounting * Unique pocket-knife design to protect unit when not in use * Auto shutoff 20 minutes after last key is pressed * Water receivant bousing High visibility case Floats | P. N. 12, 0.146. resistant housing High visibility case Floats. P/N 13-01960..... Carring CaseP/N 13-02202.....



use, pocket-size weather station features complete wind speed functions and includes a severe weather audio alarm. The relative humidity, barometer, and altimeter functions can be recalibrated, if required. Skymaster is water resistant, floats, threaded for tripod mounting

and comes with a lanyard. One year warranty. Features: Windspeed Relative Humidity & Dew Point • Altitude • Current barometric Pressure 16-HR Pressure Graph • Severe Weather Audio Alarm • Temperature/ Windchill/Heat Index. P/N 13-02957

SKYMATE WINDMETER - Convenient pocket-knife design, accuracy, features, and price make this the best value in handheld wind meters! It is water resistant, it floats, and it has a high visibility case. Average wind speed over 5, 10, or 13 seconds. Current temp & wind chill. Choose any mea-

surement unit. Reads in tenths. Replaceable 400 hour lithium battery. Data lock feature. Replaceable plastic impeller won't corrode. Easy to read LCD. Threaded for tripod mounting. Unique pocket-knife design to protect unit when not in use. Water resistant to 3 ft. High visibility case. One year warranty. Features: • Windspeed • Temperature • Widchill • Water Resistant to 3 Feet. • Floats • Safety Yellow case

P/N 13-00086....

WM-100 WINDMATE 100 - Current, Average (5,10,13 secs) Maximum wind speed all use a wind vane to ensure most accurate measurements. For long-range shooting, use the tripod fitting and add the optional wind tunnel accessory.

All wind functions in user selected units * Reads in tenths * Backlight * Tripod fitting * Rugged water-resistant case * Comes with adjustable lanyard. Features: Current wind speed • Average wind speed(5, 10, 13 seconds) • Maximum wind speed Mph, Kt, Kp/h, BF, FPM, M/Sec. Wind vane assures you are on the wind's axis • Tripod fitting • Fits wind tunnel accessory • Rugged water-resistnat case meets U.S. military specifications · Auto shutoff · Comes with adjustable lan-P/N 13-04292... vard



WM-200 WINDMATE 200 - Offers the most popular features in a handheld device, wind speed and temperature, with wind chill calculation. Single button operation, easy measurements, and the display has a backlight; handy for

lowlight conditions. Each unit is water resistant, and has a tripod fitting. Features: * Digital wind direction in degree & compass points * Cross and head/tail wind readings * Temperature * Windshill * Backlight Specifications: * Windspeed accuracy +/- 3% from .8-89Mph * Wind speed range to 135Mph * Digital compass/wind direction accu-

WM-300 WINDMATE 300 - Wind speed and digital wind direction, relative humidity, dewpoint, wet bulb & Delta T make this a comprehensive tool for forestry, agriculture and

emergency management professionals. Humidity sensor does NOT require adjustment; it is self-calibrating. This unit is equipped with a backlight. Accuweather.com® patented Comfort unit is equipped with a backlight. Accuweather.com® patented Comfort Index™ gives the effect of temp, relative humidity, wind speed, & sun intensity on the human body. Unit can be tripod mounted. Features: * Relative Humidity (self-calibrating sensor) * Dewpoint * Delta T * Accuweather.com patended * Jackknife case allows most accurate temp & RH readings * Wind speed range to 135Mph * Optional Units: Mph,km/h,ft/min,m/x,BF (Beaufort) * F or C * Avg wind speed over 10 secs * Max wind speed 2 sec gust since power on * Auto shutdown * POWER: CR2032 (400-Hr) replaceable Lithium battery (included) * Measures: 5.57 x 1.75" x .75" closed * Weighs 3.2 oz with battery * Comes with breakaway lanyard * 2-yr warranty.

P/N 13-04294.....

WM-350 WINDMATE 350 - . Time . Date . Alarm . 48-HR history for all functions Digital Hr-By-Hr & Bar Graph • Current, Avg.,
Max wind speed in Mph, Kt, Kp/h, FPM, M/Sec, Beaufort • Digital wind direction in degrees & compass points . Cross and head/tail wind readings • Wind vane improves accuracy • Relative humidity • Wet Bulb (°F/°C) • Dewpoint (°F/°C) • Delta T • Barometric pressure (inHg/hPa) • Density Altitude (Ft/m) • Weather forecast • Audio storm alarm • Temperature (°F/°C) • Windchill • Altimeter to 29,000 Ft/9000m • AccuWeather.com® patented Comfort IndexTM •

Backlight • Tripod fitting • Fits wind tunnel accessory • Case meets military specifications • Comes with adjustable lanyard.Replaceable Lithium battery (included) MEASURES: 5.5) x 1.75) x .75) closed 9) x 1.75) x .75) open WEIGHS: 3.2 ounces with battery. P/N 13-05763

SKYMATE ACCESSORIES

Adjustable nylon case (fits all models)P/N 1	3-02202
Wind tunnel (maximize wind meter accuracy) P/N 1	3-02201
Speedtech Rail Mount(AP-15) P/N 1	3-02204
Speedtech Back Stay Mount (AP-16) P/N 1	3-02203

.ASHLIGH EATHER STATIONS - FL



WIRELESS VANTAGE PRO2 WEATHER STATION

Uses frequency hopping spread spectrum radio technology to transmit data wirelessly up to 1000' (300 m).
Console/receiver, integrated sensor suite, and mounting hardware. Integrated sensor suite includes rain collector, temperature

and humidity sensors, anemometer, 40' (12 m) anemometer cable, and solar panel. Sensor suite is solar powered. AC-power adapter included for console, or use with three C batteries (not included). Wireless range is up to 1000' outdoors, line of sight. Typical range through walls 200' to 400'. Add wireless repeaters for distances up to 1.7 miles.

Vantage Pro2 (U.S.)......P/N 13-05532..... Vantage Pro2 Plus with UV & Solar Radiation . P/N 13-05586 Mounting TripodP/N 13-04569



MAGLITE LED FLASHLIGHTS

MAG-LED™ Technology known for their obsession with precision engineering, craftsmanship and commitment to perfection, was not satisfied with the performance of a "regular" LED as a usable light source. They set their sights on producing a light source that would not only incorporate longer battery life, but would also have the

	P/N 13-04917
LED Mini Maglight 3-cell AA - Black	P/N 13-04723
LED Mini Maglight 3-cell AA - Grey Pewter	P/N 13-04879
LED Maglight 2 Cell D hang pack- Black	P/N 13-04724
LED Maglight 2 Cell D hang pack- Grey Pewter	
LED Maglight 3 Cell D hang pack- Black	P/N 13-04725
LED Maglight 3 Cell D hang pack- Grey Pewter	P/N 13-04881
LED Maglight 4 Cell D hang pack- Black	P/N 13-04726
LED Maglight 4 Cell D hang pack- Grey Pewter	P/N 13-04882
ACCECCODIEC DACV - Includes - Declet alia I	onward write stron with

ACCESSORIES PACK - Includes: Pocket clip, lanyard wrist strap with key ring, anti-roll device, red, clear, and blue lenses.

P/N 13-04727



MAGLITE D CELL ACCESSORY PACK

Mounting Brackets (Fit D-Cell Only) Mount your Mag-Lite® flashlight on a wall, in a vehicle, boat, airplane or home. Lens Holder / Anti-Roll Device This item both retains a colored lens and helps prevent the flashlight from rolling off irregular surfaces. Note: The Lens Holder and Lenses may also be used on "C" cell Mag-Lite® flashlights



P/N 13-04886. MAGLITE FLASHLIGHTS

Mini Maglight AA - Black.....P/N 13-04913..... Maglight 2 Cell D - Black....P/N 13-04915.... Maglight 3 Cell D - Black P/N 13-04916



ASA LED FLIGHTLIGHT
This AirClassics™ LED Flightlight is durable, compact, and bright -- ideal for the flight bag where space and convenience are priority. The flashlight has both white and green bulbs, making this an effective tool for preflight, night flying and chart reading. ASA wings logo imprinted in silver. . Typical battery life is a solid 10 hours. P/N 13-06426......



THE ASHLIGHT





13-04348 13-04347

The ASHLIGHT has been designed and tested by pilots. The super-The ASHLIGHT has been designed and tested by pilots. Ine superbright red LED light provides the ultimate in hands-free cockpit lighting with a flip of the switch. The ASHLIGHT is designed with a stainless steel spring that duplicates the original ashtray clip for easy snap-in installationThe majority of aircraft manufacturers (Cessna, Beech, Bellanca, Grumman, Mooney, Piper, etc.) all used a standard ashtray opening of 1.5h x 2.125w or 1.6h x 4.7h side panel mounted ashtray. Smaller planes used the Standard Size while larger planes such as KingAir, Chieftian, later model Barons and Bonanzas, etc. use the Large size if your aircraft does not have an ashtray the Visor Clip Model is an

size. If your aircraft does not have an ashtray, the Visor Clip Model is an excellent alternative! Standard AshlightP/N 13-04347 Large 5" AshlightP/N 13-04348

Visor Ashlight.....P/N 13-04349.....

FLIGHTLIGHT™ - PILOT FLASHLIGHT



This AirClassics™ flashlight has both white and red lenses for preflight and night flying, extra Krypton bulb stored within, is water-tight, corrosion resistant, and features a clicking ON/OFF for maximum battery life. Focuses from spot to flood light. Black machined aluminum with ASA wings logo. Two AA batteries and PR-1 bulb included.
Flashlight:P/N 13-01067.....

.....P/N 13-02320..... Bulb: ..

FLIGHT LIGHT PENSee what you write — even at night! Saves pilots from using an overhead light when writing in a low-light situation, and the green LED light will

maintain a pilot's night vision — LED lasts a lifetime! The flashlight cap enables pilots to look for items nearby, serving as a temporary illuminant. The clip on the cap allows for easy storage. Includes 2 LED lights, and 2 button cell batteries. 5 1/4" x 3/4".

P/N 13-01099......



BEND-A-LIGHT

Bend to any configuration and illuminate hard-to-reach areas where conventional lighting cannot go. The incredibly brilliant light beam penetrates anywhere! A must for electronics, automotive, maintenance, repairs, locksmiths, industrial, hobbies, around the house and more The only complete line of professional quality high intensity flexible light tools. Available in 3 lengths and 3 different lamps to choose from. Made in USA and come with batteries installed.

Part No.	Description	Length Flex Shaft		ength verall	E	Batt.	Bulb	Price
12-15005	Mini Pro	6"	1	11.5"	2.	-AAA	12100	
12-15150	Pro	15.75"		24"	_3	B-AA	12110	
12-10250	Removable Shaft	9.5"	1	5.75"	2	2-AA	12100	
Part No.	Description			Dia		Bu	lb Life	Price
12-15020	12100 - Replacement Lamp			5/32"		4	Hours	
12-12110	12110- Krypton Lamp			5/32"		20	hours	



AVIATOR'S QUIQLITE
Extra Bright LED, available with Red, Green, White or Blue Light. Handy pocket clip and rotating arm. Rotating "light arm" allows you to place the light where you need it. Push-button On-Off switch with convenient 7 minute Auto-Off feature. Over 40 hours of light

using replaceable lithium watch batteries (included). Fits easily into shirt or uniform pocket

٠.	pocket.	
	Blue LED QuiqLite	.P/N 13-02719
	Green LED QuiqLite	.P/N 13-02728
	Red LED QuiqLite	.P/N 13-02729
	White LED QuiqLite	.P/N 13-02730



MASTERVISION CAP LIGHT

The best hands free flashlights available! Bright light-weight LED flashlight that clips to a regular cap. Water resistant!, Great for night flying! Weighs only 1.24 ounces! 3 LED bulbs with 10,000 hour burn time! 4 lithium coin cell bat-

teries for approximately 24 hours of life!

G1 Original Caplight	13-03723
	13-03724
	13-03726



SURE CHECK FUEL LIGHT

Will assist in ensuring your safety every time you strain test your fuel prior to flight. At night, it's safe & easy to use. The Sure Check Fuel Light, when used with your fuel test tube, will light up all the water and debris that might be present. The case is made of durable aluminum, comes in a variety

of colors, weighs only 2.2 ounces, is 3" long, and uses a 12 volt battery to power a high intensity white LED light build. The casing is sealed with a strong neoprene rubber seal to keep any fuel from leaking into the case. Made in USA

	escription	Part No.	Price	Description	Part No.	Price
	BLACK	13-04210		BLUE	13-04208	
	GOLD	13-04206		PINK	13-04211	
Г	GREEN	13-04209		RED	13-04207	

SAFE-LIGHT SUPER BRIGHT FLASHLIGHTS

Lightweight and palm-size yet powerful, with ultra-long bat-tery life(9v battery included). Emergency Strobe plus other essential safety modes: Constant Glow, Power-Save, High Beam, L.E.D., Power-Save mode . Also available with blue, green or red LED.

White LED ...P/N 13-04151 Blue LED .. P/N 13-04152..... Green LED ..P/N 13-04153 Red LED .. P/N 13-04154.....

FLASHLIGHTS

SUREFIRE AVIATION FLASHLIGHTS



Long known as a major supplier of quality flash-lights to law enforcement and the military, Surefire has just made available a new flashlight built for aviators that combines two widely different light sources in a single compact illumination tool providing dual power and variable output. Surefire

flashlights feature the finest beams, reflectors, switches and powerful tungsten lamps available on the market today. They are not inexpensive but for the pilot looking for a truly unique, high quality, reliable flashlight, Surefire is the answer. Surefire flashlights carry a lifetime warranty (excluding batteries and lamps).

The A2 Aviator features a high-output incandescent lamp producing 50 lumens surrounded by 35mm LED's set in a specially designed parabolic reflector. The Aviator's digitally controlled two-stage switch allows the pilot to choose LED's for soft light illumination in the cockpit or high output lamp for bright illumination during preflight inspection of your aircraft.
The high beam on the A2 Aviator can illuminate the tail of a 747 from the ground. That's over 63 ft high! Not bad for a flashlight that measures only 5.6" in length and weighs only 4 oz. The A2 Aviator comes standard with a gray-green super-tough Type III hard anodized finish

to military specifications, because it is the best and the toughest. It is powered by 2 lithium batteries, is shock-proof, water-resistant and comes with a lifetime guarantee (excluding batteries and lamps). Length: 5.9"

The L1 Lumamax features a 1W Luxeon LED which produces 15 lumens from one Surefire 3V lithium battery, which is three times brighter than a conventional mini light running on two AA alkaline. For the pilot needing only the soft light of LED lighting for cockpit illumination, the L1 Lumimax is an excellent choice. Length: 4.6"

The G2 Nitrolon is Surefire's most economical flashlight, and uses 2 lithium batteries to produce 65 lumens of diamond bright light for 60 minutes. The G2 is constructed of Black Nitrolon, a polymer compound that is lightweight, corrosion-proof, and non-conductive. Depress the tailcap on the G2 for momentary illumination or rotate fully inward for constant-on illumination. Length: 4.9"

The E2d Defender is constructed from aerospace-grade aluminum coated in a super rugged military-specification finish, the pocket-size E2D Defender also features an optically-coated Pyrex® lens; high-energy, ten-year shelf-life lithium batteries; a stainless steel pocket clip, and law enforcement-style click-on/off momentary switching for blinding flashes

SUREFIRE ULTRA U2 FLASHLIGHT



Compact (palm size) high-intensity variable-output LED flashlight for tactical, duty, and general use. Uses a virtually indestructible light-emitting diode (LED) to provide six output levels, from a long-running low beam to a brilliant white tactical-level high

beam almost seven times the light of a big two D-cell flashlight. Ring selector provides instant output control. Electronic current regulation maintains a more consistent level of light output for the useable life of the batteries. Variable output, compact size, extended-runtime low beam and high-output beam capability, and 10-year battery shelf life also make it perfect for backpacking or camping and for disaster preparedness P/N 13-04710





SUREFIRE REPLACEMENT BULB MA02 The MA02 lamp assembly fits A2 Aviator flashlights and produces 50 lumens of light for 1 hour.P/N 13-04438.....

STREAMLIGHT FLEXIBLE

FLASHLIGHTThe Streamlight has a 6.21" flexible, insulated cable exten-

sion allows 14 inches for hard-to-reach areas. Made of silver aircraft aluminum casing and a tough PVC shieled cable Unbreakable, 100,000-hour white LED that never needs replacing. It has a runtime of up to 60 hours. (4) AAA batteries included. Wt: 1.1 oz. P/N 13-03142



PELICAN AVIATION LIGHTS

VERSABRITE
This is the world's brightest swivel head pocket flashlight. The adjustable head swivels 180 degrees, enabling the pilot to direct the beam where he needs it. It is water resistant and mounts directly on the adhesive pad of yoke chart holders. Provides 6000 candlepower Xenon laser beam spot beam, and comes standard with clear, red, and blue-green lenses. Clips easily on shirts, belts, and caps for hands free use. Comes with multi-use velcro fasteners and 2 AA batteries.

P/N 13-00561.....

Versabrite mounting clips (1 top, 1 side mount)

MICRO ONE WATT **LED FLASHLIGHT**



The new Micro FlashLED is more powerful than most LED flashlights on the market today. It has a 1-Watt, 80-Lumen LED chip that emits over 4,300 End-foot candles (4300cd) of bright, cool white (8000 Kelvin) light that's powerful enough and lasts long enough to

light your way — all the way home. Features: *One Year Warranty * One Watt, 80 Lumen LED Chip * Focusable Lens: Narrow and Wide Beam * Puts out over 4,300 End-Foot Candles of light * Retains 50% of its light output after 1 hour of continuous use * Visibility approx. 2 miles, depending on atmospheric conditions and line of sight *Lights for 4 days (96 hours) at a diminishing light output rate * Micro FlashLED High Brightness Light can induce dizziness in criminals' eyes in a few seconds. * Uses 3 standard AAA batteries * Rugged Anodized Aluminum Body Finish * Push button on/off switch * Weight: 3.5 oz. without batteries, 4.8 oz. with batteries P/N 13-06456.



SUPER MITYLITE WITH PELIKNIFEThis handy light features a 6000 candlepower pocket lite with a laser sharp pre-focused beam. Only 4.5" long, this light is virtually unbreakable and is submersible to 600 ft. Includes a lock back pocket knife which is 3" long when

folded and features a 2" long stainless steel blade. Incl. 2 AA batteries, key chain ring, pocket clip. P/N 13-00567.

PILOT'S HANDY LANYARD LIGHT



This emergency light with a break-away neck lan-yard is great for use around any aircraft. Ideal for pre-flight inspections after dark, providing you with a small, powerful flashlight which you can simply hang around your neck as you preflight the aircraft. Also makes the perfect cockpit light in an emergency. Furnished with blue-green and red lenses for night flying as well as a standard clear lens. Includes lanyard & 1 AAA battery.
P/N 13-00571

MINI LED FLASHLIGHTS



Our original astro flashlights, much imitated but never duplicated, are back! More compact at only 3.5 inches long, 2 inches shorter than water resistant version, and for a tiny price! NOT water resistant (sorry there's only so much we could

squeeze in), but all the other great features in a smaller, lighter case. Features:•DUAL Ultra-bright LEDs -- The best and the brightest with lifetimes of 100,000+ hours, never break, and provide smooth illumination. •Thumbwheel Brightness Control -- Dial up just the right amount of light and extend battery life. •Energy Efficient -- Up to 320+ hours at the dimmest setting, 12+ hours at the brightest, from one 9V Alkaline. •Exclusive brightness regulation circuitry -- keeps the LEDs shining bright as batteries age, unlike competitors LED flashlights which start bright but quickly fade. •9 Volt Battery & 20 inch neck strap included White & Red.............P/N 13-04696...... Red & Green......P/N 13-04697.....

MYGRIPLIGHT (LED)



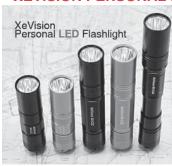
Multi purpose product that performs as an organizational tool as well as a multi purpose light. The organizational tool organizes writing instruments, cell phones, eyeglasses, flight charts and other documents by means of a patented polyester snap-in-lock structure to secure these items. The patented multi purpose light is connected to the organizational tool by

means of a flex-arm. The light has 360 degree rotation and can be removed from the organizer to act as an independednt lighting instrument. The light offers both white and red light illumination on demand. MyGrip-Light mounts to most any surface by use of Velcro® fasteners that is supplied with the product. It can be mounted permanently by the use of screws through the mounting slots built into the organizational tool.

P/N 11-07540.

LASHLIGHTS

XEVISION PERSONAL LED FLASHLIGHTS



The compact LED flashlights are so small that they fit in the palm of a hand comfortably. They are so bright, even diehard HID Xenon lighting technology purists can not resist.

Super-bright white light from one small but powerful LED

Our LED flashlights feature the latest commercial Cree LED 7090 XR-E, which delivers unprecedented levels of bright white light. The legend-

ary 7090 XR-E is tested to the highest standards in the LED industry. The white light generated is as cool as HID with around 4000°K to 5000°K. The current draw is quite small while the LED is very efficient with a luminous flux of up to 100 lm min. @ 350 mA, and a luminous efficacy up to 75 lumens/watt.

XeVision personal LED flashlight models The compact LED flashlights are so small that they fit in the palm of a hand comfortably. They are so bright, even die-hard HID Xenon lighting technology purists can not resist.

XV-C1C - Is their most compact LED flashlight using one long-lasting 3 VDC Lithium CR123A battery. The XV-C1C features six settings, 4 of them being output levels. This flexibility not only allows the user to select the best compromise between brightness and runtime for any given task but also has the ability to aid in an emergency. The XV-C1C offers a remarkably compact size and is extremely solid and reliable with its digitally regulated brightness. One 3 VDC CR123A Lithium battery

XV-C1C	(Black).	PN	13-05144
XV-C1C	(Iridium))PN	13-05147

XV-C2C- Features six settings, 4 of them being output levels. This flexibility not only allows the user to select the best compromise between brightness and runtime for any given task but also has the ability to aid in an emergency. The XV-C2C offers a remarkably compact size and is extremely solid and reliable with its digitally regulated brightness. Two 3 VDC CR123A batteries (Lithium), not rechargeable.

XV-C2C (Black)PN 13-05145 XV-C2C (Iridium)PN 13-05148

XV-C2A - Features six settings, 4 of them being output levels. This flexibility not only allows the user to select the best compromise between brightness and runtime for any given task but also has the ability to aid in an emergency. The XV-C2A offers a compact size and is extremely solid and reliable with its digitally regulated brightness. Two 1.5 VDC AA (Alkaline, Lithium) or 1.2 V NiMH batteries.

XV-C2A ((Black) .	PN	13-05146
XV-C2A ((Iridium)	PN	13-05149

ACCESSORIES

Model	Description	Part No.	Price
WF-138C Charger for XeVision XV- C2C	Charger for a single or pair of over- discharge protected R-CR123A rechargeable Li-lon cells. Comes with 2 R-CR123A cells.	13-05141	·
WF-138 Charger only	Just the charger - for the WF-123 combo package	13-05140	
ICR123 Recharge- able Lithium Batteries	These ICR123 rechargeable 3 V batteries used for the XV-C2V LED flashlight. Note that the stan- dard CR123A batteries must not be recharged!	13-05139	
CR123A Single Cell Lithium Technology	1 Titanium 3 V CR123A battery. For the XV-C1C LED flashlight. Prevents excessive discharge that can damage lithium cells and may lead to catastrophic incidents.	13-05142	·
CR123AX2 Twin Cell Lithium Batteries	2 Titanium CR123A batteries are carefully matched and form one single sealed unit, 3 V but double capacity). Used for the XV-C2C LED flashlight. Prevent excessive discharge that can damage lithium cells and may lead to catastrophic incidents.	13-05143	·



ASA PILOT'S FLASHLIGHT

This AirClassics Aviation flashlight has both white and red lenses for preflight and night flying, and MIL spec blue-green lens for map reading. This Pilot Flightlight is water-tight, corrosion resistant, has an extra Krypton bulb stored within, and features a clicking ON/OFF for

maximum battery life. Focuses from spot to flood light. This aviation flashlight is black machined aluminum with ASA wings logo. Two AA batteries and PR-1 bulb included.

P/N 13-01067.....



PILOTS 2 COLOR FLASHLIGHT

20 Bright White LEDs and 6 Red LEDs in an inexpensive aluminum flashlight - Ideal for pilots and flight crews

- Anodized aluminum housing with 26 LEDs · 20 Super-bright White color LEDs for
- normal use 6 Bright Red color LEDs for use when pre serving night vision
- · Water resistant push-button switch selects
- White-Off-Red-Off

 Uses 3 common AAA cells (included) for
- over 20 hours of use
- · LEDs rated over 100,000 hours

P/N 13-05664....

AEROCOAST LED FLASHLIGHT

Led Flashlight with 12 high intensity white LED bulbs. *
Single color 12 led flashlight * 80 Lumens 100 hr battery
life * Light weight aluminum casting * Battery type: 3 x AAA
* Size: 42 x 147 mm P/N 13-06043......



- LED CAP LIGHT
 5 Bright White LED Cap Light Perfect for hand-free illumination during maintenance or trouble-shooting
- · Lightweight, compact 5 LED hat light
- clips onto baseball caps
 Great for hands-free light during
 maintenace or troubleshooting
- Uses two (2) lithium coin cells for up to 96 hours of illumination
- Blister packaged with batteries
 Five extra-bright White LEDs with a life of over 100,000 hours P/N 13-05662...



THE LIGHTED PILOT PEN
Professional LED Writing Instrument for Pilots,
Flight Crews, Law Enforcement and Military Use. Features: Aircraft aluminum housing with on/off LED lighting and rotating top cap ink cartridge retraction. • Works as either a standard pen or for writing in low light or dark conditions. • Uses one common AAA cell for up to 20 hours of illumination • Gift box packaged

with an extra ink cartridge and extra AAA cell • Two extra-bright White LEDs with a life of over 100,000 hours P/N 13-05278.



PILOT'S COCKPIT UTILITY & EMERGENCY LIGHT

See all your panel control settings, maps, charts, compass, and log books. Choose red light for night vision, or bright white light. Designed to travel anywhere, the Navigabesigned to travel anywhere, the Navigation Light can be clipped to most surfaces or used free-standing. Uses: * Aviation * Marine * Automotive * Trucking * RV * Emergency Response Vehicles Features: * Four different light level options * Two red LEDs in one head and two white LEDs in a second allow for lighting versatility * Dual flexible arms provide infinite maneuver-

allow for lighting versatility * Dual flexible arms provide infinite maneuverability * Sensor switches on each lighting head require just a tap to turn on one or both LEDs * Optical grade lens provides evenly distributed light with no hot spots * Easily bends to compact position for storage * Offers 20 hours of continuous use on 3 AAA batteries * Extra strong clip grips almost anything * Uses 3 AAA batteries (included) or available AC Adapter (110-240 Volts) (not included) P/N 11-05821......



ASA TRI-LITE NAVIGATOR

The Tri-Lite flashlight is equipped with red, green, and white LEDs providing maximum flexibility and everything the pilot needs to maintain night vision while also providing the true-color options neces-

sary for accurate chart, fuel, and oil color interpretation. Hands-free operation is made possible by 3 Velcro®-like (3M Dual Lock) mounting strips. The light can be snapped onto headsets, kneeboards or other flat surfaces, and can be quickly removed and re-attached. When attached to a headset, a focused beam of light is directed wherever the pilot P/N 13-05753

_ HEADLAMPS

PETZL HEADLAMPS

In 1972, when Petzl invented the first headlamp, the idea of attaching a light and its battery case to a headband was quite innovative. A hands free light source that can be directed where needed, allows the user to perform almost any activity. Headlamps have now become an important factor in safety and efficiency. Thought innovative use of technology (LED's and current regulators), impact-resistant of headlamps that can be used in many situations...from the simplest tasks to the most demanding work and rescue applications. All headlamps include batteries.

TIKKA PLUS HEAD LAMP/TILT/MOD



4 LED headlamp with 3 lighting levels Lighting level can be adjusted to help conserve battery life

* 4 LED produce flood beam lighting with a long burn time,
* 3 lighting levels (maximum, optimum)

economic).

Single compartment contains LED and **batteries**

78 g including batteries.

Beam can be easily aimed where need-

Comfortable and adjustable elastic headband

Certification - CE

P/N 11-06774

P/N 11-06772

E47PM Yellow and Black Camo	P/N 11-06771
E47PS blue and Black Splatter	
E47PT Green and Black Splatter	P/N 11-06773
E47PBY Black and Grey Stripe	P/N 11-06774

TACTIKKA PLUS/FLIP FILTER RED (E49P)



TacTikka Plus 4 LED Headlamp with Red or White Light, 3 Power Settings & Flash, Alternates easily between white and red light simply by moving the pivot-

ing filter over the reflector. Features: •3
Power Settings & Flash •Tilt Focus •Long battery life up to 110 hours Lightweight and comfortable to wear: ergonomically designed elastic ·Water-resistant for all-weather use ·Operates with three AAA-LR03 batteries (supplied) •Weighs 78g •Includes Batteries.
P/N 11-05096

TIKKA LED TILT HEAD LAMP
46P2- LED headlamp with red flip down filter, and tilting head. 3 LED array produces longlasting and even light. Features: *Produces diffuse, proximity lighting. *Red filter for discrete light and preservation of user's night vision. *Flip-down filter makes it easy to switch between red and white light *Light heam can

between red and white light. •Light beam can be easily aimed where desired. •Adjustable and comfortable elastic •Water resistant for all-weather use. •Black lamp and head-P/N 11-04990 headband.



TACTIKKA CAMO BAND **RED FLIP UP E46PC**

TacTikka LED Alternates easily between white and red light simply by moving the pivoting filter over the reflector. Long bat-

tery life up to 110 hours. Lightweight and comfortable to wear: ergonomically designed elastic headband. Waterresistant for all-weather use. Also available in CAMOUFLAGE version: resistant for all-weather use. Also available in 67,111-63. Le elastic headband and lamp head in camouflage color.

P/N 11-04988.



TIKKA LED TILTING HEAD LIGHT (E43P2)

Ultralight 3 LED headlamp with elastic head-The Tikka is the most compact and lightest headlamp of our range. With a 150 hour burn time, it is ideal for long term close-

up work, as it gives a very white light. The reliability and long life of the LED makes it very safe. It has an on/off switch.

P/N 11-05094



MYO HEADLAMP 3 BLACK 3 LED 1 HALOGEN E27PN

Features: •4 hour burn time Xenon bulb - 180 hour burn time for the 3 LEDs •Lightweight, compact, and extremely versatile this one light

can do it all. •Switch lock mechanism prevents the light from draining your batteries when stored •Tilting head mechanism allows you aim the light where it is needed most •Spare Xenon Halogen bulb included with headlamp. Water resistant - won't short out even if submerged P/N 11-05099

MYO 5 HEADLAMP LED/HALOGEN E28P



Features: •4 hour burn time Xenon bulb - up to160 hour burn time for the 5 LEDs which also have three brightness settings Lightweight, compact, and extremely versatile this one light can do it all. •Switch lock mechanism prevents the light from draining your batteries when stored .Tilting head mechanism allows you aim the light where it is needed most •Spare Xenon Halogen bulb included with headlamp. Water resistant - won't short out even if

submerged

P/N 11-04994

MYO HEADLAMP XENON HALOGEN E32P



The Myo is Petzl's simplest headlamp, featuring a super bright Xenon halogen bulb. Its compact design has a tilt features as well as focusable beam. An ideal light for times when you need a bright light with your hands free. Features: •Maximum range 100 m •Supplied with spare 6 V standard bulb •Operates with 4 AA alkaline batter-

ies (included) ·LEDs available, providing brilliant white light for over 100,000 hours of continuous burn time - they will never need to be replaced. P/N 11-04992 replaced

DUO 5 HEADLAMP PETZL LIGHTS E69



The DUO lamps are ideal for use in wet environments, but are not designed for prolonged submersion (i.e. diving). Features: • Waterproof with dual light source: focusable halogen bulb and an LED module. • Switching on & off, brightness selection, zooming . The DUO lamps allow the light to be optimized (distance, duration) according to your needs.

Simultaneous use of both bulbs is not possible. • Unlocking/locking the

P/N 11-04996



ZIPKA PLUS/PUSH BUTTON SWITCH E48P

Ultralight 4-LED headlamp with 3 lighting levoltrailgnt 4-LED neadlamp with 3 lighting levels and retractable cord. Retractable cord can be used to attach lamp to the head, the wrist, wrapped around a pipe, etc. Features; •Very lightweight. •Three lighting levels (maximum, optimum, economy) and a blinking mode. •Long light duration up to 150 hours. •Water-resistant for all weather use. resistant for all-weather use

P/N 11-04989



PILOT LED HEADLAMP

The Pilot LED Headlamp is designed specifically for pilots operating in nighttime conditions, and offers reliable, convenient, hands-free illumination. The triple 10,000+ hr LED bulbs and 50 to 160+ hr battery life (vs. approx. 6 hours for a Mini Mag-Lite) promise reliability far in excess of normal flashlights, and practically eliminate burned-out bulbs and dead batteries. The Pilot is a compact, ultralightweight, waterproof, hands-free lighting system thats comfortable to wear (even with headphones), is furnished with a hard clamshell case, and comes P/N 12-00719

with a 3yr warranty



BELT BATTERY PACK MYO 5 E33P

Belt Mounted Battery Pack for MYOSB5. Features: ·Maximum level: ideal for climbing or moving quickly on technical ground •Economy level: ideal for reading maps, setting up a tent.

P/N 11-04991

ASHLIGHT HOLDERS - ARM



ASTRO ARM FLASHLIGHT **HOLDERS MERCURY MODEL**

Astro Arm is the perfect device when you need your flashlight directed precisely while having both hands available to perform a task. These holders are great for aviation, marine, automative, racing, and emergency lifesaving applications. Available in Mercury models for smaller flashlights and Gemini models for largers flashlights. P/N 13-04005



ASTRO ARM FLASHLIGHT HOLDERS - MERCURY-MAGNETIC

Astro Arm is the perfect device when you need your flashlight directed precisely while having both hands available to perform a task. These holders are great for aviation, marine, automative, racing, and emergency lifesaving applica-P/N 13-04006



ASTRO ARM FLASHLIGHT HOLDERS GEMINI

Astro Arm is the perfect device when you need your flashlight directed precisely while having both hands available to perform a task. These holders are great for aviation, marine, automative, racing, and emergency lifesaving applications. Available in Mercury models for smaller flashlights and Gemini models for largers flashlights.

P/N 13-04007



ASTRO ARM FLASHLIGHT HOLDERS GEMINI

Astro Arm is the perfect device when you need your flashlight directed precisely while having both hands available to perform a task. These holders are great for aviation, marine, automative, racing, and emergency lifesaving applications. Available in Mercury models for smaller flashlights and Gemini models for largers flashlights. P/N T13-04008.....



CLIPSTICK
The Clipstick features a flexible Loc-line that provides sturdy support, allowing a product to be positioned in numerous angles while maintaining it's shape. With 3" oversized spring-loaded clips fastened to each end of the connectors, the Clipstick firmly holds many of the standard items a pilot will utilize during a flight.

P/N 13-03430.....



THE SNAKE CLIP
Introducing the SnakeClip™, a unique aviation cradle which holds a variety of personal electronic items such as cell phones, PDA's and iPods. Attaching and detaching in seconds, the portable SnakeClip™ can be transferred between planes and automobiles for maximum utility. Like its predecessor, the ClipStick, it can be attached to

multiple surfaces in the cockpit and won't sag or lose its surface grip over time. No installation necessary - simply clamp the SnakeClip™ onto a suitable surface and it's ready to "bite". The padded adjustable arm on the cradle expands to hold items up to 2.5" wide, and features a quickrelease button for easy device removal. Clip under cradle can hold numerous items such as pens, notepads and most GPS units. Mounting arm is composed of industrial-grade flexible connectors which provide affile Scoriposed of industrial-grade flexible conflictors which provide rigid support, yet allows the unit to swivel & bend in hundreds of angles maintaining its shape. The versatile clips contain rubber pads for surface protection & have 3.25″ clamping area. The SnakeClip™ measures 12″ fully extended. One-year warranty. P/N 13-05549......

THE PORTABLE ARMREST FOR PILOTS



Introducing the 100% portable center armrest for airplanes that makes flying comfortable. An ongoing problem for general aviation aircraft has been the absence of a center armrest for the pilot and co-pilot which leads to fatigue. Instant Armrest has finally solved this problem. Other armrest products are airplane specific and require drilling, bolting, and mounting hardware. Professional pilots, renters, and student pilots

can now own an affordable armrest that they can take with them on every flight, even when they change planes. * Fits any aircraft * Fits flat or bucket seats * Fits right and left seats * Ready to use in 1 second * Adjustable *Fits in flight bag * Ready to Lightweight aluminum

P/N 13-03154......



SIDESTICK CONTROL ARM RESTS



The side stick control arm rests will steady the hand, wich improves flying and reduces wrist and arm fatigue. The arm rests were designed by an orthopedic specialist to reduce wrist and hand carpel tunnel syndrome. They can also be used for throttle rests. Color: Black. ABS ht/left set. P/N 13-03265

plastic. Furnished as right/left set.

COCKPIT COMPANION ORGANIZERS

The Cockpit Companion provides a convenient organizer for the loose items pilots shuffle in the cockpit. It is easily installed with Velcro between the front seats and features clean out windows at bottom of the storage areas. Holds fire extinguisher, charts, books, transceiver, headsets, glasses, wallet, fuel strainer, flashlight, pens, highlighters, and more. Attractive and durable, the Cockpit Companion is built from top-grade smoked acrylic. Made in USA.



STYLE #172 - Fits most Cessna 172's plus any other aircraft with this available space. Top portion dimensions: 22" Long (plus 4" headset post) 8" Tall (12" total w/bottom), 3" Wide Bottom extinguisher dimension: 22" Long 4" Tall (12" total w/top), 4-1/4" Wide. Features removable pencil "divider" for easy cleaning. All are outside dimensions!

P/N 13-02710



STYLE #182 - Fits most 182's, 206's, 210's & other aircraft with this available space. Dimensions: 18" long plus (4" headset post) 12" Tall 4-1/4" Wide All are outside dimensions! Be sure to measure your available space prior to ordering! P/N 13-02715......



MAP CHECKLIST & LOG **BOOK HOLDERS**

These holders come in three sizes to store your maps, checklists and log books. They are ther-moformed from ABS plastic, and come in either black or gray

Description	Si e	Color	Part No.	Price
Map/Checklist	9"x10"x 5/8"	Black	13-03085	
Aircraft Log	4-1/2"x7"x1/4"	Black	13-03086	
Engine Log	6-1/2"x7"x1/2"	Black	13-03087	
Map/Checklist	9"x10"x 5/8"	Grav	13-03088	
Aircraft Log	4-1/2"x7"x1/4"	Grav	13-03089	
Engine Log	6-1/2"x7"x1/2"	Grav	13-03090	



UNCLE MIKES **SEAT ORGANIZER**

Designed to keep paperwork, clipboards, books, note-pads, radios, phones, water bottles, thermos bottles, pens and pencils in reach and in place and not sliding around the cabin or rolling around on the floor, the sturdy, water repellent 1200 Denier nylon fabric Seat Organizer is loaded with compartments and pouches

and secures to the passenger seat headrest with a dual purpose strap designed to be used as a shoulder strap when outside of the aircraft or P/N 13-04034... vehicle



PLANE POCKETS

Nine pockets protect and organize your cockpit and keep your equipment like new. Three large pockets with drawstrings hold POH Charts, Approach Plates, Sectionals. An additional three more pockets are designed to hold your handheld radio, batteries owegen mask and many other items.

cameras, manuals, batteries, oxygen mask, and many other items.

W/O Headrest ... P/N 13-04161

EATHERMAN POCKET TOO



SQUIRT® P4

Features: • Needlenose Pliers • Straight Knife • Wire Cutters • Extra Small Screwdriver • Medium Screwdriver • Small Flat Phillips Screwdriver • Single-Cut File Cross-Cut File · Opener · Lanyard Attachment Awl Specifications: Length: 2.25"/ 5.5cm closed, Weight: 2 ounces / 57 grams, Materials: Stainless steel with anodized aluminum scales

Available Colors: Storm (gray), Glacier (blue), Inferno (red), Powder PN 13-05556...... (pink)



SQUIRT® S4

Features: Scissors Straight Knife Tweezers Extra-Small Screwdriver • Medium Screwdriver • Small Flat Phillips Screwdriver • Nail File/Cleaner • Opener

• Lanyard Attachment • Ruler Specifications; Length: 2.25"/ 5.5cm closed, Weight: 2 ounces / 57 grams, Materials: Stainless steel with anodized aluminum scales

Available Colors: Storm (gray), Glacier (blue), Inferno (red), Powder (pink) PN 13-05557.....



SQUIRT® E4

Features: • Wire Strippers (20GA, 18GA, 16GA, 14GA, & 12GA) • Electric Wire Cutters • Spring-Action Needlenose Pliers • Extra Small Screwdriver · Small Screwdriver · Phillips Screwdriver Straight Knife · Wood/Metal File · Tweezers ·

Bottle Opener • Key Ring Attachment
Specifications: Length: 2.25"/ 5.5cm closed, Weight: 1.9 ounces / 54
grams, Materials: Stainless steel with anodized aluminum scales
Available Colors: Storm (gray), Glacier (blue), Inferno (red) PN 13-05558.....



JUICE® S2

Features: • Needlenose Pliers • Straight Knife • Wire Cutters • Hard-Wire Cutters • Extra-Small Screwdriver Small Screwdriver • Med/Lrg Screwdriver • Phillips Screwdriver • Lanyard Attachment • Can/Bottle Opener Specifications: Length: 3.25"/ 8.25cm closed, Weight: 4.3 ounces / 122 grams, Materials: Stainless steel with

anodized aluminum scales Available Colors: Storm (gray) Inferno (red) PN 13-05559.....



JUICE® C2

Features: • Needlenose Pliers • Straight Knife • Wire Cutters • Hard-Wire Cutters • Extra-Small Screwdriver • Small Screwdriver • Med/Lrg Screwdriver • Phillips Screwdriver • Lanyard Attachment • Can/Bottle Opener • Scissors
Specifications: Length: 3.25"/ 8.5cm closed,

Weight: 4.3 ounces / 122 grams, Materials: Stainless steel with anodized aluminum scales Available Colors: Storm (gray), Inferno (red) PN 13-05560.....



JUICE® CS4

Features: • Needlenose Pliers • Straight Knife • Wire Cutters • Hard-Wire Cutters • Extra-Small Screwdriver • Small Screwdriver • Med/Lrg Screwdriver • Phillips Screwdriver • Lanyard Attachment • Can/Bottle Opener • Corkscrew with

Assist • Scissors • Saw • Awl Specifications: Length: 3.25"/ 8.25cm closed, Weight: 5.5 ounces / 156 grams, Materials: Stainless steel with anodized aluminum scales Available Colors: Storm (gray), Glacier (blue)



PN 13-05561.. JUICE

Features: • Needlenose Pliers • Straight Knife • Wire Cutters • Hard-Wire Cutters • Extra-Small Screwdriver • Small Screwdriver • Med/Lrg Screwdriver · Phillips Screwdriver · Lanyard At-

Assist • Scissors • Saw • Awl • Serrated Knife • Diamond File
Specifications: Length: 3.2" / 8.25cm closed, Weight: 6.8 ounces / 190
grams, Materials: Stainless steel with anodized aluminum scales
Available Colors: Storm (gray), Thunder (purple)
PNI 13.05562 PN 13-05562.



TOOL ADAPTERS

3 Locking Positions, Lanyard Hole Tool Adapters make your favorite Leatherman tool even more versatile by quickly converting it to a /* hex drive. Standard Tool Adapter fits PST, PST II, Super Tool 200, Sideclip, Flair and Pulse. Wave Tool Adapter fits Wave only. Sold as a kit with six hex hits and case. Also available in a combination sheath with PST, PST II, Super Tool 200 and Wave.

CRUNCH TOOL



Screwdriver (#1/#2), Hex Bit Driver, Wire Stripper, Lanyard Attachmen

P/N 13-02727.....

WAVE TOOL



Wood/Metal File, Diamond-Coated File, Large Bit Driver, Small Bit Driver, Large Screwdriver, Ruler (8 inch/19 cm), Bottle/Can Opener, Wire Stripper, Lanyard Attachment, Two Double-Ended Bit P/N 13-03289.....



BLAST

Needlenose Pliers, Regular Pliers, Wire Cutters, Hard-Cutters. Wire Clip-Point Knife, Wood/Metal File

Saw, Scissors, Large Screwdriver Small Screwdriver, Phillips Screwdriver Small Bit Driver, Ruler (8 inch/19 cm) Bottle/Can Opener, Wire Stripper Lanyard Attachment One Double-Ended

P/N 13-03286.....



FUSE Needlenose Pliers, Regular Pliers Wire

Cutters, Hard-Wire Cutters, Clip-Point Knife, Scissors, Screwdriver,

Screwdriver, Phillips Screwdriver, Ruler (8 inch/19 cm), Bottle/Can Opener, Wire Stripper, Lanyard Attachment

P/N 13-03287.....

CHARGE TTI



The Charge TTi features a cutting hook, scissors, outside-accessible blades, bit drivcrimpers and more But we had to give

the TTi its own claim to fame. That's where the comfort-sculpted titanium handles and the S30V® stainless steel clip-point knife come in. Grab a hold of one today and you'll quickly see why the Charge models are the pinnacle of our multi-tool collection.

PN 13-04514



KICK

Needlenose Pliers, Regular Pliers Wire Cutters, Hard-Wire Cutters, Clip-Point Knife, Large Screwdriver, Small

Screwdriver, Phillips Screwdriver Ruler (8 inch/19 cm), Bottle/Can Opener, Wire Stripper, Lanyard Attachment P/N 13-03288



Knife, Serrated Knife, Cutting Hook, Saw, Wood/ Metal File, Diamond-Coated File, Two Large Bit Drivers, Small Bit Driver, Large Screwdriver, Ruler (8 inch/19 cm), Bottle/Can Opener, Wire Stripper, Fixed Lanyard Ring, Quick-Release Lanyard Ring, Removable Pocket Clip, Nine Double-Ended Bits

P/N 13-03290....



CORE

Crimper

Stainless Steel Body, AII-Blades, Locking Needlenose Pliers, Regular Pliers, Wire Cutters, Hard-Wire

Cutters, Stranded - Wire Cutters, Electrical Crimper, Clip-Point Knife, Serrated Knife, Wood/Metal File, Saw,5/16" Screwdriver, 7/32" Screwdriver, 1/8" Screwdriver, Phillips Screwdriver, Awl w/Thread Loop, Ruler (9 inches/22 cm), Bottle/Can Opener, Wire Stripper, Lanyard Ring
P/N 13-04045......



CHARGE AL

Charge® AL includes scissors that slice through just about anything with bev-eled edges that allow them to get close

to whatever your cutting, for a clean trim every time. Bit drivers for versatility, diamond-coated files for fine-point work and a 154CM clip-point knife are all housed in 6061-T6, hard-anodized aluminum alloy handles. Rounded edges for grip comfort and a stainless steel badge make this a Leatherman that's really earned its name.

PN 13-04515

CHARGE ALX



Take the Charge AL and replace the scissors with an aggressive cutting hook on the back of the serrat-ed blade and you've got the Charge® ALX. Rip through tough materials

like seatbelts, linoleum and leather with no problem. Get your hands around the same unbeatable ergonomic grip, outside-accessible blades and premium materials like 154CM and 6061-T6, heat-treated, alloy aluminum

PN 13-04523

T1 TORGOEN TITANIUM BLACK

The Flight Computer Watches can be used to calculate time, distance and speed equations. It also can perform a variety of calculations from currency conversions to multiplication and division problems. With the watch you can calculate any conversion of linear nature with a constant ratio such as ounces to grams, kilograms to pounds, miles to kilometers etc. P/N 13-05053



T2 TORGOEN WATCHES - T2 watches offer Flight Computer capacity with a moveable external, crenate ring. Capacity to perform E6B functions or even quickly perform currency conversions while shopping in a foreign country. Handsome. Comfortable. Available in dressy 2-tone finish. Swiss-made chronograph movement, stainless steel case. Water resistant to 50 meters. Model shown: Silver dial/black P/N 13-02489 leather band.



T5 TORGOEN WATCHES - T4 Zulu Time watches provide Dual-time zone function using a 24-hour hand - it makes 1 revolution every 24 hours, instead of 12. The 24-hour hand can be positioned to show the time in a second time zone.Large numbers and superior luminescence make these watches easily readable at a glance, day or night. Swiss-made movement, stainless steel case. Water resistant to 100 meters. Leather or stainless steel band models available. Model shown: Black dial/black leather band.

P/N 13-02502



T7 TORGOEN FLIGHT

COMPUTER WATCHESTorgoen's line of Flight Computer
Watches can be used to calculate time, distance and speed equations. It also can perform a variety of calculations from currency conversions to multiplication and division problems. With the watch you can calculate any conversion of linear nature with a constant ratio such as ounces to grams, kilograms to P/N 13-05045 pounds, miles to kilometers etc.



P/N 13-05048

P/N 13-05050

Description	Part No.	Price
Stainless Steel Black Dial, Band is Black PU, Water Resistance100 meters	13-05044	
Stainless Steel Black Dial, Stainless Steel Band, Water Resistance100 meters	13-05047	
Stainless Steel Yellow Dial, Band is Black PU, Water Resistance100 meters	13-05045	
Stainless Steel Yellow Dial, Stainless Steel Band, Water Resistance100 meters	13-05048	
Stainless Steel Green Dial, Band is Black PU, Water Resistance100 meters	13-05046	
Stainless Steel Green Dial, Stainless Steel Band, Water Resistance100 meters	13-05049	



P/N 13-05051

T8 TORGOEN ZULU TIME WATCHES

- 3 time zones 12 hour format
- High Grade Stainless Steel case
- Screwed Down Stainless Steel Back
 Mineral K1 hardened crystal
- Solid Links Stainless Steel Bracelet or PU Strap
- Swiss Quartz with 12 hours Dual Time hand Movement by Ronda.
- Water Resistant for 10 ÅTM (330 feet).
- · Non Radioactive long lasting Luminescence Dial
- Weight 7.4 oz. (210 gm)

- 11 oign		
Description	Part No.	Price
Stainless Steel Black Dial, Band is Black PU, Water Resistance100 meters	13-05028	
Stainless Steel Black Dial, Stainless Steel Band, Water Resistance100 meters	13-05027	
Stainless Steel Yellow Dial, Band is Black PU, Water Resistance100 meters	13-05051	
Stainless Steel Yellow Dial, Stainless Steel Band, Water Resistance100 meters	13-05050	



Great for Private and Confidential Reminders! Has autoreset countdown timer. The vibration on your wrist from VibraLITE3 will remind you to do any important thing without annoying others. What's really great is that you don't have to hear the alarm to know that it's signalling

This watch is especially nice for pilots, students (taking exams), and of course the deaf and hard of hearing. Since the watch also features an Auto Reload

Countdown Timer, it can be the ideal answer for those who need reminding of times to take medicine, scheduled daily activities and more. With stainless steel bandP/N 13-02541P/N

With leather bandP/N 13-02542

VIBRALITE 8 VIBRATION WATCHES

8 MODEL VL8A-8K - Black Polyurethane Band

EIGHT VIBRATION ALARMS for variable reminders up to 8 alarms can be preset
COUNTDOWN TIMER with Auto Repeat Feature for

interval reminders. set when wanting the same alarm time to repeat automatically each time the countdown

timer reaches zero.
USER ALARM OPTIONS: Vibration, Sound, and Hourly
Alert ON or OFF choices are set and Secure in separate Option Mode.

EL LIGHT: turns on by a twist of the wrist or the push of a button. Light stays on while any button is pushed, for settings in the dark...

3 TIME ZONES can be set for reference STOPWATCH counts up to 23 hours, 59 minutes, and 59.99 seconds 12 OR 24 Hour CLOCK SELECTION

.....P/N 13-04892

MO 10-22

11:240

One Year Warranty P/N 13-04892 EIGHT VIBRATION ALARMS for variable reminders up to 8 alarms can be preset

COUNTDOWN TIMER with Auto Repeat Feature for interval reminders. set when wanting the same alarm time to repeat automatically each time the countdown timer reaches zero.

USER ALARM OPTIONS: Vibration, Sound, and Hourly Alert ON or OFF choices are set and Secure in separate Option Mode

EL LIGHT: turns on by a twist of the wrist or the push of a button. Light stays on while any button is pushed, for settings in the dark...

3 TIME ZONES can be set for reference

STOPWATCH counts up to 23 hours, 59 minutes, and 59.99 seconds

12 OR 24 Hour CLOCK SELECTIONP/N 13-04947

MODEL VL8SS-GT - Stainless Steel Band with genuine

gold trim. EIGHT VIBRATION ALARMS for variable reminders up to 8 alarms can be preset

COUNTDOWN TIMER with Auto Repeat Feature for interval reminders, set when wanting the same alarm time to repeat automatically each time the countdown timer reaches zero.

USER ALARM OPTIONS: Vibration, Sound, and Hourly Alert ON or OFF choices are set and Secure in separate

EL LIGHT: turns on by a twist of the wrist or the push of a button. Light stays on while any button is pushed, for settings in the dark... LARGE DIGITS ON THE DISPLAY for easy viewing.

3 TIME ZONES can be set for reference

STOPWATCH counts up to 23 hours, 59 minutes, and 59.99 seconds

12 OR 24 Hour CLOCK SELECTION

P/N 13-04948.....

AIRCRAFT SPRUCE WALL CLOCK



Aircraft Spruce wall clock with a black frame. The quality quartz move-



OT WATCHES

SUUNTO WATCHES

Suunto watches are world-renowned for their high quality construction and design. The Suuno brand name means precision and durability - so whatever you use your Suunto watch for, you'll have the peace of mind that comes with wearing an accurate instrument that you can trust under any circumstances. The timeless design of Suunto's watches make them wearable in any casual situation, and because of their moderate size, they are perfectly suitable for both men and woman.

SUUNTO VECTOR WATCHES

An instrument that you cannot leave home when planning any kind of outdoor activity. Features: * Altimeter: Altitude, vertical speed, altitude alarm, logbook, vertical difference measurement, automatic 24h altitude memory, temperature compensation. Logbook capacity 8 kB, recording intervals 20s, 1min, 10min and 60min, with respective times 10h, 12h, 7 days and 10 days * Barometer: Sea level pressure, absolute pressure, pressure difference, pressure

ressure, absolute pressure, pressure difference, pressure trend indicator, 4-day barometric memory, temperature * Compass: Cardinal bearing, North-South arrow, bearing tracking, declination setting * Chronograph: Stopwatch, countdown timer, calendar, three daily alarms * Water resistant to 30 m (100 ft) * Temperature resolution 1°C/1°F * Weather memory 4 days * Temperature range -20°C - +60°C/-5°F - +140°F * Weight 54 g * Operating temperature -20°C - +60°C/-5°F - +140°F * Water resistance 30m/100ft * Storage temperature -30°C - +60°C/-23°E - +140°F

temperature -30°C - +60°C/-22°F - +1	
Black/BlackF	P/N 10-19325
X-Black/Black with Negative Face F	P/N 13-04420
Yellow/Black with Negative Face F	P/N SUN8K08Y
KhakiF	P/N SUN8K07R
Foliage GreenF	P/N SUN8K03R



SUUNTO X-LANDER WATCHES

An accurate altimeter, a complete barometer, a precise electronic compass and a multi-functional sports watch in a one elegant package. Extremely user-friendly and has easy-to-use logic, a large display with big numerals and an electro-luminescent backlight for dimly lit conditions. Non-allergenic aluminum casing, carbon fiber back, a durable mineral crystal glass, and a water resistant fabrik strap

Stainless Case and Negati	ve Face	P/N	13-06558
Stainless Case and Military	Black Face	P/N	13-06559



BLUE ANGELS SKYHAWK AT

P/N 13-06461 Titanium bandP/N 13-06461

CITIZEN SKYHAWK FLIGHT CHRONOGRAPH



* Time & Calendar - 22 Time Zones (30 Cities) * Three World Time Alarms * 99 Min. Countdown Timer *1-Touch Interchangeable Analog/ Digital Times *Rotating slide rule bezel * Screw back case

Stainless Steel bandP/N 13-01418 P/N 13-03587 Titanium bandP/N 13-03587

CITIZEN NIGHTHAWK WATCHES

Pilot's Slide Rule Dial Ring Operated by Crown at 8





CITIZEN SKYHAWK A-T WATCHES

Atomic Timekeeping with Radio-Controlled Accuracy World Time in 43 Cities * 99 Minute Countdown Timer *
Perpetual Calendar * Digital Display Light * Greenwich
Mean Time Display * Rotating Slide Rule Bezel * Power Reserve Indicator

P/N 13-05587

Stainless Steel Bar	dP/N 13-05581
SS Black Ion Platin	gP/N 13-06458
Polyurethane Band	P/N 13-05587
Titanium Band	P/N 13-05588



BLUE ANGELS SKYHAWK

The Blue Angels Skyhawk Flight Chronograph commemorates the highly skilled flying team. • Time and Calendar in 22 Time Zones (30 Cities) • Three World Time Alarms • 1/100 Second Chronograph Measures up to 24 Hours

A CONTRACTOR OF THE PARTY OF TH	Stainless Steel Band	P/N	13-05591
P/N 13-05591	Titanium Band	P/N	13-05592



BLACK EAGLE SKYHAWK

Designed to soar with unbridled stealth and precision. Polyurethane Band......P/N 13-05595..... SSÍ Black Ion Plating......P/N 13-05596.....

P/N 13-05596



SUUNTO OBSERVER WATCHES

Features: •Altimeter: Altitude, vertical speed, logbook function with quick-access button, memory capacity 99 function with quick-access button, memory capacity 99 logs, history memory, alti/baro lock, temperature compensation •Barometer: Sea level pressure, absolute pressure, weather trend indicator, temperature, automatic 4-day barometric memory, alti/baro lock •Compass: Bearing, cardinal bearing, bearing tracking, •North-South arrow, declination setting •Chronograph: Calendar, 3 alarms, dual time, stopwatch with 99 split/lap times Material options: Suunto Observer Sr - stainless steel housing with elastic strap (80 g), Suunto Observer St - stainless steel housing with stainless steel elastomer strap (100 g), Suunto Observer Tt - top-of the-line model - titanium

mer strap (100 g), Suunto Observer T1 - top-of the-line model - titanium housing with titanium elastomer strap (75 g), Suunto Observer Black stainless steel case with stainless steel strap, and Suunto Observer St - stainless steel case with elastomer strans

Didok Stairiioss stoci casc	With Clasionici Straps	
Observer SR Black	P/N 13-06555	
Observer ST Black	P/N 13-06556	
Observer TT	P/N 13-06552	
Observer ST	P/N 13-04418	
Observer SR	P/N 13-06554	



SUUNTO CORE WATCHES

Suunto Core keeps you informed with an accurate altimeter, barometer, digital thermometer, Weather Trend Indicator and digital compass. The pressure gauge operates in four distinct modes, including an automatic setting that senses your movement or lack thereof, switching between altimeter and barometer

accordingly. The compass features a rotating bezel for traditional use, or a one-touch function that allows you to sight, lock and follow a bearing. Daily functions include dual time, date, alarm, sports chronograph and predicted times for sunrise and sunset. * Standard strap style is pictured.

Core Standard Strap Steel /Steel	P/N 13-06610
Core Standard Strap Alum./Brown Lea	therP/N 13-06599
Core Standard Strap Black/Orange	P/N 13-06611
Core Light strap Black /Yellow	P/N 13-06607
Core Light strap Black /Green	P/N 13-06608
Core Light strap Black/Black	P/N 13-06609

SUNNTO ACCESSORIES

Suunto Battery Kit SS0S4700000 P/N	SUNBATT
Sunnto Bike MountP/N	SUN51BIKE
Sunnto Core Aluminum Strap P/N	13-06613
Sunnto Core Leather Black Strap P/N	13-06614
Sunnto Core Flat Black StrapP/N	13-06615
Sunnto Core Flat Orange Strap P/N	

REVUE THOMMEN WATCHES

At the beginning of the 1920s, the company Revue Thommen started manufacturing aircraft instruments. It is for this reason that it has more familiar with special needs of pilots than any other watch manufacturer. The Airspeed Classic self-winding wrist-watches and chronographs were inspired by the instrument panels of commercial and military aircraft that are equipped with Revue Thommen precision instruments. These instruments are characterized by clear, easy-to-read numerals, hands and displays and are fitted with a self-winding mechanical movement or with a quartz movement. The casing is made from stainless steel or titanium, a



material favoured by the aerospace industry.

REVUE THOMMEN SWISS A/S WATCH - Airspeed Line Classic. Calibre ETA 2836-2 (automatic watch with date hand). All stainless steel case, scerw-in steel case back, anti-reflective double-faced sapphire crystal, water-resistant to 100 m / 330 feet. Assorted dials. Diameter 37.5 mm



nium case, screw-in steel case back, anti-reflective doublefaced sapphire crystal, water-resistant to 100 m / 330 feet. Assorted dials Diameter 37.5 mm.

PN 13-05159



REVUE THOMMEN SWISS WATCH X-L - Airspeed Line Xlarge. CalibDD 2824-A2 Chronograph (automatic watch with date indication). All stainless steel case, screw-in steel case back, anti-reflective double-faced sapphire crystal, water-resistant to 50m/160 feet. Assorted dials. Diameter PN 13-05160

SUNGLASSES

RAY-BAN AVIATION SUNGLASSES



Ray-Ban is the leading brand in the high quality sunwear market segment and by far the best-selling sunwear brand in the world. It is an all American Brand created 1937 with the Aviator style, developed fpr use by the pilots of the U.S Air Force.



Style	Frame Color	Lens Color	PN	Price	
RB 3025	ARISTA	G-15 XLT 62mm	13-04984		
RB 3025	ARISTA	Light Polarized Natural Green 1.8mm	13-04985		
RB 3025	BLACK	G-15 XLT 62mm	13-04986		
RB 3025	BLACK	Light Polarized Natural Green 1.8mm	13-04987		
RB 3025	GUNMETAL	G-15 XLT 62mm	13-04988		
RB 3025	GUNMETAL	Light Polarized Natural Green 1,8mm	13-04989		
RB 3025	ARISTA	G-15 XLT 58mm	13-04990		
RB 3025	BLACK	G-15 XLT 58mm	13-04991		
_					

G-15XLT is a Grey Color RB3221



ı	Style	Frame Color	Lens Color	PN	Price
ı	RB 3221	GUNMETAL	G-15 XLT	13-04978	
l	RB 3221	MATTE BLACK	G-15 XLT	13-04996	



Style	Frame Color	Lens Color	PN	Price
RB 3309	ARISTA	G-15 XLT 55mm	13-04998	

G-15XLT is a Grey Color



- 1					
	Style	Frame Color	Lens Color	PN	Price
	RB 3026	BLACK	G-15 XLT	13-04992	
	RB 3026	ARISTA	G-15 XLT	13-04993	

G-15XLT is a Grey Color



Style	Frame Color	Lens Color	PN	Price
RB 3310	ARISTA	G-15XLT 55mm	13-04999	

G-15XLT is a Grey Color



Style	Frame Color	Lens Color	PN	Price
RB 3030	ARISTA	G-15 XLT	13-04994	
RB 3030	BLACK	G-15 XLT	13-04995	



Style	Frame Color	Lens Color	PN	Price
RB 3339	MATTE BLACK	G-15 XLT 59mm	13-05001	

G-15XLT is a Grey Color

VEDALOHD™ PERFORMANCE SUNGLASSES



High-Definition Lens Technology (HDL- $3C^{TM}$), built into new sunglasses offer improved sight definition for pilots, using color, clarity and comfort. These lenses filter the visible spectrum to improve color contrasts; decentered lenses increase visibility and eliminate distortion; visual health is improved and eye fatigue is reduced thanks to lightweight frames. Visibility is said to be increased through tristimulus color contrast enhancing techniques; other color tinting techniques improve color simulation but only improves one basic color type in the color spectrum.

These non-polarized (important for pilots!) lenses come in two lens types: rose (for low light conditions), and smoke (for bright light conditions). The sunglasses are very lightweight and comfortable. We offer a 30-day money back guarantee if you're not satisfied. Several choices for frames are available.

Description	Part No.	Price
ROSSO ULTRA LITE FRAMES SMOKE	13-04022	
ROSSO ULTRA LITE BETA FRAMES ROSE	13-04023	
ROSSO2 ULTRA LITE FRAMES SMOKE	13-06099	
ROSSO2 ULTRA LITE FRAMES ROSE	13-06102	
AZZURRO ULTRA LITE FRAMES SMOKE	13-04026	
AZZURRO ULTRA LITE FRAMES ROSE	13-04027	
ARGENTO ULTRA LITE FRAMES ROSE	13-04028	
ARGENTO ULTRA LITE FRAMES SMOKE	13-04029	
VERDE ULTRA LITE FRAMES ROSE	13-04031	

FRAME STYLES TITANIO ARGENTO ROSSO Hinged Square Ultra Light Aviator Small Square RAME VERDE AZZURRO Classic Yet Fashionable Large Oval Fashion Rectangle MARRONE NERO GIALLO Faded Brown Wrap Sport Fashion Wrap Hot new look from Italy!



Astonishing light Weight

Description	Part No.	Price
RAME FRAMES ROSE	13-04678	
RAME FRAMES SMOKE	13-04677	
RAME FRAMES 2R	13-04679	
GIALLO FRAMES ROSE	13-04676	
GIALLO FRAMES SMOKE	13-04675	
NERO FRAMES ROSE	13-04673	
NERO FRAMES ROSE	13-04672	
MARRONE FRAMES ROSE	13-06119	

AIRCRAFT SPRUCE WEST

AIRCRAFT SPRUCE EAST CORONA, CA · (877) 4-SPRUCE PEACHTREE CITY, GA · (877) 477-7823 Prices Subject to Change Without Notice

PS



RANDOLPH Randolph Engineering has been a leading supplier of military sunglasses to the U.S.Armed Forces since 1982. These suncertail the sand NASA astro-

glasses are the choice of America's Top Gun pilots and NASA astro-nauts. They meet demanding U.S. military specifications, provide superior glare protection and UV absorption and can be converted to prescription lenses. All of the sunglasses below feature 23K gold plated,

AVIATOR – Standard issue for military pilots worldwide. (MIL.SPEC. 25948). These lenses sharpen detail and show colors evenly, making them ideal for flying. Bayonet temples provide optimum fit for use with a headset or helmet

hand polished frames and come with a crush resistant case



Si e	Lens	Part No.	Price
52mm	52mm Tan		
52mm	Gray	13-00679	
52mm	Grey/Green	13-00680	
55mm	Gray	13-00681	
55mm	Tan	13-00682	
55mm	Gray/Green	13-00683	
58mm	Gray	13-00684	
58mm	Tan	13-00685	

CONCORDE – The Concorde features the world famous tear drop aviator lens design, monoblock hinge design, skull temple bars, and non-slip silicone nose pads. A very popular sunglass style with lenses that are convertible for prescription lenses



Size	Lens	Part No.	Price
57mm	Gray	13-00687	
57mm	Tan	13-00688	
57mm	Gray/Green	13-00689	
61mm	Ğrav	13-00690	
61mm	Grav/Green	13-00691	



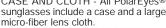
CREW CHIEF – An updated version of tra-ditional Randolph sunglasses. Crew Chief sunglasses has all the features of the American Pilot above in a slightly more tear



POLAR EYES PREMIUM POLARI ED SUNWEAR

PolarEyes® Sport Collection - PolarEyes sport sunwear provides Advanced UV
Protection™. The patented designs utilize
flexible hypoallergenic nylon Weightless
(average weight 21 grams) paired with PolarPC polarized

lenses to give the wearer not only maximum protection from glare and damaging ultra-violet light, but also an unsurpassed fit that is both comfortable and secure. Developed from 25 years of polarized sunglass manufacturing experience, PolarEyes offer protection like no other sunglass. Thermal ports eliminate moisture build up on the lens surface . CASE AND CLOTH - All PolarEyes®







PolarPC® Lens System - All Frames feature polarized UV400 PolarPC lenses that completely protect the eyes from damaging UV light and eliminate harsh surface glare. Made

from impact-resistant polycarbonate with a bonded hard-coat to resist scratching. Lenses are available in gray or copper tints.

Fra e	Fra e	Fra e		s Col		Part No.	Price
Model	Si e	Color	Copper	Gray	Both		
ISLAY	Small	Russet			•	13-03180	
ISLAY	Small	Silver				13-03181	
ISLAY	Large	Black Silver		•		13-03184	
PISMO	Small	Black				13-03185	
PISMO	Small	Tortoise				13-03186	
PISMO	Large	Black			•	13-03187	
PISMO	Large	Tortoise			•	13-03188	
OBISPO	Small	Black			•	13-03189	
OBISPO	Small	Tortoise				13-03190	
ORISPO	Large	Russet				13-03194	

SCHEYDEN FLIP-UP SUNGLASSES



Avalon

Scheyden Precision Eyewear is simply Aviation's Finest Eyewear. With the Scheyden patented flip system & locking mechanism, pilots can instantly adapt to constantly changing light conditions with the flip of a finger. This unique function puts an end to fumbling around with glasses and headsets forever. Effortlessly FlipUp in lowlight conditions and FlipDown when the sun is bright.

The frames are fabricated in Titanium for incredible strength while weighing mere ounces. The manufacturing tolerances are extremely strict, rivaling those of the aerospace industry. Most importantly, all Scheyden Precision Eyewear offers 100% UVA and UVB protection for your most valuable resource - your eyes. Lenses are available in High Contrast Bronze and Neutral Gray.

Dual Rx options enable pilots to lighten their load to one eyeglass frame for all cockpit vision requirements.

All Scheyden Eyewear comes packaged in a luxurious Bubinga Rosewood case which

can be custom engraved with your name, tail number and/or company

Scheyden Precision Eyewear offers a Lifetime Warranty on their frames and has the best lens replacement warranty in the eyewear industry. Demand Precision. Demand Scheyden.

Scheyden Style	Frame Color	Part No.	Price
Avalon	Titanium	13-01524	
Avalon	Neutral	13-04268	
El Capitan	Titanium	13-01574	
El Capitan	Neutral	13-04266	
Sonoma	Gun Metal	13-01521	
Sonoma	Titanium	13-01558	
Sonoma	Neutral	13-04270	

SCHEYDEN Fixed Gear Sunglasses (non flip up). Titanium Frame sunglasses with classic, timeless styling and incredibly crisp Mineral Glass lenses are available in the same styles at \$199.00 ea. Call for part numbers

CHEYDEN DUAL RX FLIP-UPS



Scheyden Dual Rx frames combine the ability to instantly adapt to changing light conditions while always keeping your prescription lenses in place. These frames are supplied with a lens template which is all your local optician needs to fabricate your prescription lenses. All frames

R	EL Captain Bronze	P/N	13-04271
R	EL Captain Neutral Gray	P/N	13-04272
	Avalon Bronze		
R	Avalon Neutral Gray	P/N	13-04274
	Sonoma Bronze		
R	Sonoma Neutral Gray	P/N	13-04276

SUNGLASSES

SERENGETI AVIATOR SUNGLASSES

Serengeti Aviators protect your vision while eliminating glare and sharp-ening details better than other sunglasses. Cloud boundaries are more easily delineated and oncoming traffic is more visible. Unique photochromic spectral controls improve your ability to see in marginal VFR and IFR conditions. In bright sunlight, you'll see the instruments better and ghost images will be eliminated from the cockpit. Wear them late in the day or at sunset to preserve your night vision.



LARGE AVIATOR - Base Curve: 6; Temple Length: 140mm Lens Size: 61.75 x 55.5 x 68mm, Dbl

10.5mm Black

MEDIUM AVIATOR - Base Curve: 6 Temple Length: 140mm/Spring Hinges Lens Size: 59.3 x 51.57 x 67.02mm, Dbl 4 12.5mm; Matte Black

P/N 13-03136



P/N 2121.....

MEDIUM AVIATOR - Base Curve: 6 Temple Length: 140mm/Spring Hinges Lens Size: 59.3 x 51.57 x 67.02mm, Dbl



Lens Color: 555nm Size Information: Base Curve: 8 Rx Temple Length: 130mm/
Spring Hinges Lens Size: 60 x 39 x 62mm DBL 16mm P/N 13-03139.....





AMERICAN OPTICAL SUNGLASSES

Performance-tested sunglasses with classic aviator styling. The Original Pilot Sunglass® has been a favorite of US military pilots for more than 40 years.

Engineered to rigid military specifications and issued to millions of US soldiers, sailors, marines and airmen since 1958.

The rugged and sturdy structure and high quality finishing of the steel alloy frame coupled with distortion free, toughened and polished True Color® glass lens have made the AO Flight Gear® Collection the standard by the stand dard bearer of all fine military sunglasses.

ORIGINAL PILOT



52MM.....P/N 13-03212..... 54MM.....P/N 13-03213.....



52MM..... P/N 13-03214... 58MM....P/N 13-03215.....

LOOP EYE GLASS CASE



Safe and secure way to make sure your glasses cell phones and other items are always available. The case has a pen pocket and accessory strap to attach a pager, a small flashlight or clip item. 1000 dernier cordura exterior, soft padded durable lining. Black color.

P/N 13-00699

OPTX 20/20 HYDROTAC STICK-ON READING LENSES

These stick-on lenses instantly turn any brand of sunglasses into sharp, clear reading glasses! They can be cut to the shape of any sunglass lens, and are removable

& reusable; they adhere to the sunglass lenses by molecular attraction. Excellent for pilots using Ray Ban, Serengeti, Randolph and other aviation sun glasses, as well as outdoorsmen and anyone needing inexpensive corrected sunglasses. Available from 1.25 to 3.0 diopters in .25 diopter increments. Please specify magnification at time of order

Description	P/N	Price
Optx 20/20 1.25	13-06301	
Optx 20/20 1.50	13-06302	
Optx 20/20 1.75	13-06303	
Optx 20/20 2.00	13-06304	
Optx 20/20 2.50	13-06306	
Ontx 20/20 3 00	13-06308	

LIVE EYEWEAR COCOONS SUNGLASSES

Cocoons were designed to fit over glasses; however our smaller styles make them extremely popular as solo sunglasses. Cocoons feature PolarTx® polarized lenses to eliminate harsh glare, allowing your eyes to remain focused on the task at hand. The optical grade lenses and side shields precisely regulate light transmission, reducing eye fatigue and strain. They block 100% of damaging UV A&B light, providing 40% more protection than conventional sunglasses. Cocoons offer a virtually unbreakable frame with soft touch finish, adjustable temples, lifetime warranty, 3 contemporary shapes and sizes, and are accessorized with floating neoprene case and lens cloth. Color: Black

Sizing Guide: Measure the width (w) and height (h) of your prescription eyewear to determine which Cocoons sunglasses will fit best.



SLIMLINE (MEDIUM)

RX frame sizes: up to 5-3/8"w X 1-5/8" P/N 13-02967



RX frame sizes: up to 5-3/8"w X 1-5/8" P/N 13-02968.





AVIATOR (EXTRA LARGE)

RX frame sizes: up to 5-3/8"w X 1-5/8" P/N 13-02969



WIDELINE(MEDIUM LARGE)

RX frame sizes: up to 5-5/8"w X 1-3/8" P/N 13-04719

MINI SLIM(MEDIUM SMALL)

RX frame sizes: up to 4-7/8"w X 1-3/8" P/N 13-04720.....





STREAM LINE(SMALL)

RX frame sizes: up to 4-7/8"w X 1-3/8" P/N 13-04721



COCOONS OVER X - Cocoons are the only sunglasses in the world that will completely isolate your eyes from the elements. The collection features patented designs that deliver 360° of Advanced UV Protection and are available in a range of styles and sizes that can be worn over prescription

eyewear or as conventional sunglasses.

After wearing Cocoons for a short period of time, your eyes will begin to relax. The polarized UV400 front and side lenses treat incoming light, eliminating distracting glare and allowing you to focus on the task at hand. The patented frames protect your eyes from all angles, blocking

sunlight, UV, glare, wind, rain and airborne debris. C427C
Features: • Polarized UV400 • Scratch Resistant • Flex2fit® Temples • Soft Touch Finish • 360° of UV Protection • Ultra Lightweight • Case and Cloth • Lifetime Warranty P/N 13-05550



VISTANA OVER X - Vistana's proprietary lens system delivers a distortion-free, panoramic line of sight not available in any other over prescription sunglass. With traditional designs, the wearer will experience a gap in peripheral vision when scanning from the front to the sides due to a

section of frame that separates the front and side lenses. Vistana's patented designs use continuous full wrap lenses that eliminate the section frame between the front and side lenses, creating a more open and uninterrupted view. Encourage your customer a traditional over prescription

sunglass to the evolutionary Vistana design and they will immediately notice the difference in both performance and style. W412G Features: • Polarized UV400 • Scratch Resistant • Flex2fit® Temples • Dynamic Base Technology • Ultra Lightweight • Case and Cloth • Lifetime Warranty

P/N 13-05551



COCOONS QUALITY IN A FLIP-UP

World renowned Cocoons quality is now available in the Cocoons Flip-Up sunwear collection. The Polaré lens system delivers enhanced visual acuity with a choice of polarized gray, amber or copper. Each clip includes a protective case and is backed by the Live Eyewear limited lifetime warranty. LF40 P/N 13-05552.....

Classic. Authentic. Quality. Established in 1959 as a defense contractor for the US Government, Alpha Industries remains one of the largest manufacturers of cold weather outerwear. For over 35 years, Alpha Industries has continuously supplied the US Government and military forces throughout the world. Alpha is now recognized as the original and leading manufacturer of authentic military-inspired outerwear. Some jackets are made in the USA and some are imported.

> TO ORDER FLIGHT JACKETS: Choose jacket style and color desired and order by basic part number shown Complete the part number with size by adding -1 (Small), -2 (Medium), -3(Large), -4 (X Large), or -5 (XX Large)

MA-1 INTERMEDIATE FLIGHT JACKET

The most popular flying jacket in the world, supplied by Alpha Industries to the U.S. Military for over 40 100% nylon flight satin outer shell with nylon flight lining and polyester batting interlining for warmth. Front closure storm flap. Knit collar, waistband and cuffs. Combination utility pocket on sleeve. Pilot's MA-1 reverses to high visibility Indian Orange for use in emergencies. Colors:

Black, Navy, Sage Replica Gray, Titanium, Stratos.

Black I	P/N	13-00544
NavyI	P/N	13-00546
SageI	P/N	13-00547
Silvar	D/N	13-005/0

LEATHER MA-1 FLIGHT JACKET

Premium cowhide leather winter-weight flying jacket styled as the classic MA-1. Quilted lining with polyester interlining. Snap closure front flap pockets and inside pocket. Antiquated brass zippers and snaps. Leather zip pull, embossed logo. Wool ribbed waistband, cuffs and collar. Colors: Black and Brown

Black P/N 13-00552.....

Brown P/N 13-00553.....

MA-1 FLIGHT JACKET

Only a company with over 40 years of manufacturing mil spec clothing for the most demanding of clients can claim to reproduce the originals with absolute authenticity. Each Alpha Replica Series product is exact the last detail, using original

or accurately reproduced components and fabrications to replicate the LargeP/N 13-05579-1......XX-LargeP/N 13-05579 real thing.

LEATHER B-3 SHERPA FLYING JACKET

Traditionally the right stuff for pilots from the very first days of military aviation, the sheepskin flyer jacket remains a rugged supremely warm item of appar-el. Made from the finest sheepskin hides with full sherpa lining throughout, this classic style is popular with both men and women. Genuine cowhide leather

accents and re-inforcements on seams. Dual collar adjusters and side buckle straps. Front slash pockets. Antiquated brass front zipper. Color: Brown P/N 13-00554-3

AIR FORCE WHITE SCARF W/USAF EMBLEM -

POLY COPY OF OLD ISSUE AF SCARF

P/N 13-03611.....

G.I. OD WOOL SCARF ISSUE - 100% WOOL ISSUE 52" LONG WOVEN IN TUBE SHAPE. ISSUE FOR AMRY AND MARINES. P/N 13-03610.

NYLON FLYER KIT BAG

Carries almost as much as a duffle bag. Made of cordura waterproof nylon, with zipper and snap closure. Storm flap cover over zipper. size 21.5" x 21" x 10" wgt 2.0# Has double nylon web handle. P/N 13-03612..

BARMITTS FOR YOUR TRIKE



Extend your flying season and enjoy it more with these barmitts. The sides zip open to fit around the bar. The cozy insulation and wind-proof exterior keep your hands comfortable in the coldest wind. Sized to fit over your

Bar Mitts Pair - Red	P/N NW002R
Bar Mitts Pair - White	P/N NW002W
Bar Mitts Pair - Reflective (GreenP/N NW002G

CWU - 45/P FLIGHT JACKET

A nylon version of the U.S. Air Force current issue flight jacket. 100% nylon flight satin outer shell. Fully lined with quilted flight nylon and polyester fill. Water repellent. Knit cuffs and wristband. Storm flap. Two fully-lined cargo pockets and combination utility pocket on sleeve. Removable Velcro logo patch. . Colors:Black, Navy, Sage Replica Gray, Titanium,



atos.	
Black	P/N 13-00559
Navy Blue	P/N 13-00569
Ink Blue	P/N 13-05585
Airforce Green	P/N 13-00572
Cup Motal Cray	D/N 12 00574

Metal Grey......P/N 13-00576 _EATHER CWU-45/P FLIGHT JACKET



Premium cowhide leather winter-weight flying jacket styled as the classic U.S. Air Force 45/P. Quilted lining with polyester interlining. Velcro closure front flap cargo pockets and inside pocket with snap fastener. Antiquated brass front zipper. Leather zip pull. Wool ribbed waistband and cuffs. Colors: Black . and Brown

BlackP/N	13-00555
BrownP/N	13-00556



MARK 4 SILVER CROSS GOGGLES

All leather face mask, colour matched head bands, Split lenses, bright polished and chrome plated frames, Slid-

ing Nose Bridge Adjustment.	P/N 13-06000
Replacement Lenses for Silver	Cross Goggles
Clear, set of 2	P/N 13-06100
Smoke, Set of 2	P/N 13-06200

WORLD WAR II RAF FLYING GOGGLES



A faithful Replica incorporating dark brown soft leather face mask stitched to the RAF blue painted solid brass frames. The traditional Split Lenses P/N 13-05860

VINTAGE AVIATOR GOGGLES Soft Brown or Black Leather face Mask, Hand Stitched to silver or black painted solid brass frames. Screw ad-

P/N 13-06310 justment on nose bridge

HAND SEWN EPAULETS

These tapered, hand sewn epaulets are produced by the finest tailors using the highest quality material. Available with Gold or Silver Stripes

Chuinn	Color	GOLD	Stripe	Silver Stripe	
Stripe		Part No.	Price	Part No.	Price
1	Navy Blue	13-06568		13-06576	
1	Black	13-06569		13-06577	
2	Navy Blue	13-06570		13-06578	
2	Black	13-06571		13-06579	
3	Navy Blue	13-06572		13-06580	
3	Black	13-06573		13-06581	
4	Navy Blue	13-06574		13-06582	
4	Black	13-06575		13-06583	



NOMEX AVIATOR'S SUMMER FLYING GLOVES

Si	е	Part No.	Price	Si e	Part No.	Price
Sage Green		Desert Tan				
8		13-02055		7	13-03621	
9		13-02056		8	13-03622	
10)	13-02057		9	13-03623	
11		13-02058		10	13-03624	
				11	13-03625	

Si e	Part No.	Price	Si e	Part No.	Price	
Black			Olive Drab			
7	13-03615		7	13-03627		
8	13-03616		8	13-03628		
9	13-03617		9	13-03629		
10	13-03618		10	13-03630		
11	13-03619		11	13-03631		
12	13-03620		12	13-03632		

Aircraft Spruce is pleased to be an official distributor for EAA merchandise. Order these EAA caps, shirts, and jackets direct from Aircraft Spruce and support the Experimental Aircraft Assosiation.



EAA TWILL CAPS

This unstructured cap is made of 100% cotton twill with an adjustable self-fabric tuck in back

7	Off White/Navy	P/N	13-04749	
	Navy/Off White	P/N	13-04750	



EAA POCKET T-SHIRTS

EAA logo above pocket. 100% Cotton. Limited quantities and sizes.

Color	Color Si e		Price
Gray	Grav Med.		
Navy	Med.	13-04752	
Grav	Large.	13-04758	
Grav	X-LRG	13-04759	
Gray	2XLG	13-04761	
Navy	Large	13-04763	
Navý	ХĽ	13-04789	
Navý	2XLG	13-04764	



EAA GOLF SHIRTS

Port Authority, 100% cotton pique, knit golf shirt in

vory and havy.					
Color	Si e	PN	Price		
Ivory	Small	13-04753			
Navý	Small	13-04754			
Ivorý	Medium	13-04765			
Ivory	Large	13-04766			
Ivory	X-LĞ	13-04767			
Ivorý	2XLG	13-04768			
Navý	Medium	13-04769			
Navý	2XLG	13-04764			
Navý	Large	13-04770			
Navý	XLĞ	13-04771			
Navv	2XLG	13-04772			



EAA CREWNECK SWEATSHIRTS

Sueded finish, crewneck sweatshirt in navy.

Color	Si e	PN	Price
Navv	Small	13-04755	
Navý	Medium	13-04773	
Navv	Large	13-04774	
Navý	XLĞ	13-04775	
Navv	2XL	13-04776	
	Navy Navy Navy Navy	Navy Small Navy Medium Navy Large Navy XLG	Navy Small 13-04755 Navy Medium 13-04773 Navy Large 13-04774 Navy XLG 13-04775



EAA MICROFIBER JACKET

Water repellent, two tone, micro fiber jacket in navy/

Color	Si e	PN	Price
Navy	Small	13-04756	
Navý	Medium	13-04777	
Navv	Large	13-04778	
Navv	XLĞ	13-04779	
Navý	2XL	13-04780	



EAA NYLON JACKETSWater repellent, fleece lined, two tone nylon jacket in navy/putty.

Color	Si e	PN	Price
Navv/Off White	Small	13-04781	
Navy/Off White	Medium	13-04782	
Navv/Off White	Large	13-04783	
Navy/Off White	XLĞ	13-04784	
Navy/Off White	281	13-04785	

WHY WOMEN PREFER AIRPLANES T-SHIRT



You may have seen the "Why Men Prefer Airplanes" T-shirt; well turnabout is fair play! From the front, this 100% preshrunk cotton T looks like just another mild-mannered Powder Puff Pilot product. But from the back, it tells the world ten reasons why airplanes are better than men. It's available in white with fuchsia trim, in M (4-6), L (8-10), XL (12-14), and XXL (16-18)

Description	Part Number	Price
Med. T-Shirt	13-06345	
Large T-Shirt	13-06462	
X-Large T-Shirt	13-06463	
XX-Large T-Shirt	13-06464	

CHILDREN'S JACKETS



CHILDRENS MA-1 JACKETS WITH PATCH-

ES - This is a well made reproduction of the famous MA-1 green nylon quilted. Same natches as our childrens bomber jacket.

<u>Datches as our</u>	ket.		
Description	Si e	Part No.	Price
MA1 Toddler	2	13-06443	
MA1 Toddler	3	13-06442	
MA1 Toddler		13-06444	
MA1 Youth	8	13-06437	
MA1 Youth	1012	13-06436	
MA1 Youth	1416	13-06440	
MA1 Boys	4/5	13-06439	
MA1 Boys	6	13-06438	L
MA1 Boys	7	13-06441	



YOUTH BOMBER JACKETS - These are a Flightline original. They're a reproduction of a classic bomber, complete with simulated fleece collar. They are sturdily made with many special touches that make it unique, such as an airplane zipper pull, authentic aviation patches & colorful graphic map liner.

Description	Si e	Part Number	Price
Bomber Toddler	2	13-06432	
Bomber Toddler	3	13-06428	
Bomber Toddler	4	13-06433	
Bomber Youth	1012	13-06431	
Bomber Youth	1416	13-06434	
Bomber Youth	08	13-06427	
Bomber Boys	4/5	13-06429	
Bomber Boys	6	13-06430	
Bomber Boys	7	13-06435	



CHILDRENS MA-1 JACKETS WITH PATCH- ES AND A HOOD - This is a well made re-

production of the famous MA-1 green nylon quilted childrens jackets with patches and a hood. Same as our childrens bomber jacket but with faux fur trimmed hood and a velcro closure at top.

Description	Si e	Part Number	Price
MA1 Toddler	Small	13-06447	
MA1 Toddler	Medium	13-06446	
MA1 Toddler	Large	13-06445	
MA1 Youth	Small	13-06448	
MA1 Youth	Medium	13-06453	
MA1 Youth	Large	13-06452	
MA1 Boy	Small	13-06454	
MA1 Boy	Medium	13-06451	
MA1 Boy	Large	13-06449	

CANOF APPARI

RED CANOE CAPS

The classic and unparalleled fit is the cornerstone of every Red Canoe cap. Perfect vintage colours and appliqué techniques make each design a potential heirloom (as long as one of your friends doesn't 'borrow it in-definitely' - we recommend buying two!). 100% brushed cotton with fully adjustable velcro closuré.



AMERICAN AIRLINES 50 CAP - From a melting pot of fledging carriers in the early 1930's American Airlines has become a global leader in Air Transportaion. Our AA Vintage Reissue Licensed Products feature the historic icons, colours and logo application techniques like layered cut felt. SIZE: One Size COLOUR: Navy PN 13-05343.....



BELL HELICOPTER - Larry Bell jump-started his company's foray into helicopters when he hired Arthur M. Young, a talented inventor, to provide expertise for helicopter research and development. It was the foundation for what Bell hoped would be a broader economic base for his company that wasn't dependent on government contracts. Bell Aircraft Corporation had originally only produced airplanes, including the famous Bell X-1. The Bell Model 47 became the first helicopter rated by a civil

aviation authority in the world and would become a civilian and military success. SIZE: One Size COLOUR: Burnt Yellow

PN 13-05344.....



CESSNA CHEVRON CAP - When Clyde Cessna taught himself to fly in 1911 it was the start of a unique relationship between man and machine. To thousands of air men and women today the name "Cessna" has come to symbolize flying itself. Our CESSNA Vintage Reissue Licensed Products are a salute to this legendary icon of aviation. SIZE: One Size COLOUR: Stone

PN 13-05345...



CESSNA PLANE CAP - When Clyde Cessna taught himself to fly in 1911 it was the start of a unique relationship between man and machine. To thousands of air men and women today the name "Cessna" has come to symbolize flying itself. Our CESSNA Vintage Reissue Licensed Products are a salute to this legendary icon of aviation. SIZE: One Size COLOUR: Heritage Red

PN 13-05346.....



STEARMAN C CAP - The Boeing Stearman model 75 series aircraft were built between 1936 and 1945 as military trainers. 8500 of these classic, lusty biplane warriors were produced with around 2000 still flying today. After WWII hundreds of Stearmans were sold as surplus for between \$200 and \$500 each. The stearman remains an enduring icon of US aviation heritage.SIZE: One Size COLOUR: Navy PN 13-05347......



US AIR SERVICE - As a pilot you have joined the ranks of those less bound by conventional limits on time, distance and personal freedom. The US Air Service logo signifies this and reminds us that with this 'gift of flight' comes a responsibility to serve others should an emergency we can help with call us to duty.SIZE: One Size COLOUR: Tan PN 13-05348....

UNITED STATES ROUNDEL - As a pilot you have joined the ranks of those less bound by conventional limits on time, distance and personal freedom. The US Air Service logo signifies this and reminds us that with this 'gift of flight' comes a responsibility to serve others should an emergency we can help with call us to duty.SIZE: One Size COLOUR: PN 13-05349.....

Burnt YellowPN 13-05350



CESSNA FULL IP JACKET CESSNA Vintage Reissue Licensed Products are a salute to this legendary icon of aviation. COLOR: Washed Blue

Si e	Part No.	Price
Small	13-05338	
Medium	13-05339	
Large	13-05340	
X-Large	13-05341	
XX-Large	13-05342	

RED CANOE T-SHIRTS

These 100% "Ungeneric" Cotton T-shirts are specially made to your fit, colour and quality specifications. All shirts are washed after printing - eliminating shrink-age and adding vintage appeal. Some customers save the shirts for special occasions so they'll last a lifetime! We recommend acquiring spares!





IMERICAN AIRLINES 50 - AA Vintage Reissue Licensed Products feature the historic icons, colours and logo application techniques like layered cut felt. Color: Washed Blue.

Si e	Part No.	Price	Si e	Part No.	Price
Small	13-05281		X-Large	13-05284	
Medium	13-05282		XX-Large	13-05285	
Large	13-05283		J		



BELL HELICOPTER - Bell Aircraft Corporation had originally only produced airplanes, including the fa-mous Bell X-1. The Bell Model 47 became the first helicopter rated by a civil aviation authority in the world and would become a civilian and military success. Color: Washed Blue

		J. COIOI. VV			
Si e	Part No.	Price	Si e	Part No.	Price
Small	13-05286		X-Large	13-05289	
Medium	13-05287		XX-Large	13-05290	
Large	13-05288				

CESSNA CHEVRON - CESSNA Vintage Reissue Li-CEXXNA censed Products are a salute to this legendary icon of

Si e	Part No.	Price	Si e	Part No.	Price
Small	13-05296		X-Large	13-05299	
Medium	13-05297		XX-Large	13-05301	
Large	13-05298				

viation Color: Washed Blue

CESSNA PLANE - CESSNA Vintage Reissue Licensed Products are a salute to this legendary icon of aviation.

	COIOI: H	entage R	ea.		
Si e	Part No.	Price	Si e	Part No.	Price
Small	13-05302		X-Large	13-05305	
Medium	13-05303		XX-Large	13-05306	
Large	13-05304				

Stearman

STEARMAN C - After WWII hundreds of Stearmans were sold as surplus for between \$200 and \$500 each. The stearman remains an enduring icon of US aviation heritage, Color Washed Blue

Si e	Part No.	 Si e	Part No.	Price
Small	13-05307	X-Large	13-05310	
Medium	13-05308	XX-Large	13-05311	
Large	13-05309	9		

US AIR SERVICE - The US Air Service logo signifies this and reminds us that with this 'gift of flight' comes a responsibility to serve others should an emergency we can help with call us to duty.Color: Washed Blue

Si e Part N	lo. Price	Si e	Part No.	Price
Small 13-053	317 .	X-Large	13-05320	
Medium 13-053	318 .	XX-Large	13-05322	
Large 13-053	319 .			



US ROUNDEL - Our USR caps and T shirts feature a version of a US Roundel circa pre WWII. Color: Burnt Yellow.

Si e	Part No.	Price	Si e	Part No.	Price
Small	13-05325		X-Large	13-05335	
Medium	13-05330		XX-Large	13-05337	
Large	13-05332				

FOR MORE RED CANOE APPAREL AND ACCESSORIES PLEASE VISIT OUR **WEBSITE AT:** www.aircraftspruce.com

AVIATION

TRINTEC WALL CLOCKS & THERMOMETERS



These 6.5"x 6.5" aviator wall clocks and thermometers are accurate oversized reproductions of typical aircraft instruments. The final touch to your office or study decor. The clocks feature an accurate quartz movement and the thermometer reads air temp. in both Fahrenheit and Centigrade. All operate on AA batteries (not included).

Directional Gyro Wall Clock (pictured)P/N 13-00529	
Artificial Horizon Wall ClockP/N 13-00531	
VOR Wall ClockP/N 13-09064	
Airspeed Indicator ThermometerP/N 13-32130	
Altimeter/Airspeed Thermometer P/N 13-02198	





These Desk model alarm clocks measure 3.5°x 3.5" and are a unique addition to any office or den. They feature an accurate quartz movement and are excellent reproductions of typical aircraft instruments. A great gift for any pilot of aviation enthusiast.

Altimeter Desk Model Alarm Clock	P/N 13-09070
Directional Gyro Desk Alarm Clock	P/N 13-09075
Horizon Desk Model Alarm Clock	P/N 13-09085
VOD Dock Model Alarm Clock	D/N 13 00090

TRINTEC ALARM CLOCK/DESK PEN SETS

Alarm clock: 3.5"x3.5" - Pen set base: 2-1/8" x 7.25"









DISPATCH WALL CLOCKS

Two separate hour hands can be set independently. The 12 hour hand indicates local time. The (red) 24 hour hand can be set to indicate local 24 hour time, Zulu, GMT or UTC time.



Dual Time 12/24 Black P/N 13-02098



Dual Time 12/24 White P/N 13-02099



Dual Time 12/24 Wht Inner P/N 13-02101



Dual Time 12/24 Black Inner P/N 13-02102

TRINTEC AVIATOR KEY CHAINS

Plastic frame: 1.5" x 1.5"



Altimeter P/N 13-02103



Airspeed P/N 13-02104



Directional Gyro P/N 13-02105



VOR P/N 13-02107



P/N 13-02108



P/N 13-02109



Horizon P/N 13-02106



Horizon P/N 13-02111



Rnd Altimeter P/N 13-04804 P/N 13-04805



Airspeed Indicator



Directional P/N 13-04806 13-04807



P/N

TRINTEC AVIATOR FRIDGE MAGNETS



Altimeter 13-02112



13-02113



Dir. Gyro 13-02114



Horizon 13-02115



VOR 13-02116



HSI 13-02117



Altimeter 13-04798



Airspeed 13-04799



Dir. Gyro 13-04801



Horizon 13-04802



DELTA AIR LINES BOEING 777 JIGSAW PUZZLE

Both puzzle and box use textured linen paper. There are 513 pieces (bagged) and it measures 21.25" X 15" assembled. Superior quality with images that will make them highly collectible. The puzzles are manufactured with a low-dust process and from some of the thick-

est puzzle board in the industry.

P/N 13-04056.....

RINTEC AVIATION GIF

100TH ANNIVERSARY OF FLIGHT

COLLECTION
On December 17, 1903, Orville Wright flew for only twelve seconds. But in those brief moments, he and his brother Wilbur accomplished what man had dreamed of for centuries.

CLOCKS - These 10" diameter wall Clocks and Thermometers feature images capturing the First Flight in History and are equipped with a durable plastic frame and lens. The Accurate US made quartz clock movement requires one (1) AA size battery (not included).







P/N 13-02143 P/N 13-02144

P/N 13-02145





P/N 13-02146

P/N 13-02147



COASTER SET - This Coaster Set features four vibrant images depicting scenes of the First Flight in history. The coasters are made of tough and scratch resistant acrylic and have non-slip rubber feet that will help to protect the surface of your furniture.

P/N 13-02148.....



MOUSE PADS - These 9"x7.5" Mouse Pads feature high resolution images capturing the First Flight in History and are equipped with a black no-slip base. P/N 13-02149.....

P/N 13-02151..... P/N 13-02149 P/N 13-02151



TRINTEC 10"AIRCRAFT WALL CLOCKS

10" diameter wall clock Popular aircraft designs by Labusch Skywear Designs. Quartz Clock Movement. Requires one AA size battery. ALL CLOCKS.....

Model	Part No.	Model	Part No.
Vulcan	13-02154	FW190 Focke-Wulf/ BF109 Messer.	13-02152
F-16 Thunderbird	13-02155	P-51 Mustang	13-02169
Halifax	13-02158	SR71 Blackbird	13-02157
deHavilland Beaver	13-02159	Douglas DC-3	13-02170
F-4 Phantom	13-02160	F-14 Tomcat	13-02171
F4U Corsair	13-02161	F6F Hellcat	13-02172
F-16 Falcon	13-02164	CF105 Arrow	13-02173
BF109 Messerschmitt	13-02165	P-40 Warhawk	13-02174
B-17 Flying Fortress	13-02166	Mosquito	13-02176
A-10 Thunderbolt	13-02167	Corsair	13-02177
J-3 Piper Club	13-02168	Blue Angels	13-02178
Lancaster	13-02153	Strike Eagle	13-02179
F15E Strike Eagle	13-04850	Spitfire	13-02180
B29/X10	13-04852	English Electric Lightning	13-04851
N. Amer. Harvard	13-04854	F18 Hornet	13-04853
deHavilland Otter	13-04856	Norseman	13-04855
B-25 Mitchell	13-04858	B-24 Liberator	13-04857
		Spitfire	13-04859

TRINTEC COASTER SETS







P/N 13-02134



P/N 13-04871

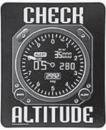
TRINTEC MOUSE PADS



P/N 13-02127



P/N 13-02129



P/N 13-02131



P/N 13-02132



P/N 13-02128



P/N 13-02130

FIRST IN FLIGHT (LICENSE PLATES)



These plates were issued by the state of North Carolina and are no longer available. "First in Flight" license plates illustrate the Wright Brothers first flight in North Carolina. P/N 13-03203.....

11 ½ 1 9 5 15 4

TRINTEC 14" AIRCRAFT

WALL CLOCKS

14" diameter Wall Clock popular aircraft designs. Quartz Clock Movement.
Requires one AA size battery. These 14" clocks are .

Model	Part No.	Model	Part No.
J-3 Piper Cub	13-04819	deHaviland Beaver	13-04820
Lancaster	13-04821	Norseman	13-04822
Stearman	13-04823	otter	13-04824
Spitfire	13-04825	First Flight(shown)	13-04826



TRINTEC ULU TIME CLOCKS

Zulu Time Clock allow you to independently set a 12 hour time scale as well as a 24 hour time scale.

Description	Part No.	Price
Zulu Time 24 Hour wall clock 14" frame, white face	13-04860	
Zulu Time wall clock, 14" frame, black face	13-04861	
Zulu Time wall clock, 14" frame, white face	13-04862	
Zulu Time wall clock, 14" frame, white face, black trim	13-04863	
Zulu Time wall clock, 14" frame, black face, white trim	13-04864	
Zulu Time wall clock, 10" plastic frame, black face	13-04865	
Zulu Time wall clock, 10" plastic frame, white face	13-04866	
Zulu Time wall clock, 10" frame, white face, black trim	13-04867	
Zulu Time wall clock, 10" frame, black face, white trim	13-04868	

WORLD TIME CLOCK



P/N 13-05706

14" Diameter Metal Frame with Antique Brass Finish. Whether you need to know the time on the other side of the country or the other side of the World, this is the clock for you. This unique wall clock features a map of the world with the 24 major time zones that rotates all day along with the Earth. The clock's hour and minute hands point to the outer time scale providing your local time while the inner time scale lets you know the time almost anywhere in the World.

14" World Clock......P/N 13-05706



P/N 13-04870

10" Diameter Black Plastic Frame with Clear Plastic Lens. Its like having 24 clocks in one. Whether you need to know the time on the other side of the country or the other side of the World, this is the clock for you. This unique wall clock features a map of the world with the 24 major time zones that rotates all day along with the Earth. The Inner Time Scale also shows Night & Day 10" Diameter Frame with Lens cover, Depth: 2"

TRINTEC AVIATOR WALL CONSOLE



Two of our popular Wall Clocks mounted together on a display panel. Panel is made of High Impact Polystyrene | 7.5" x 15" |. Displays time and indoor temperature |.

Directional Gyro Wall Clock/Airspeed Thermometer P/N 13-04816

Horizon Wall Clock/Airspeed Thermometer P/N 13-04817

VOR Wall Clock/Airspeed Thermometer P/N 13-04818



TRINTEC ULU TIME CLOCKS

Zulu Time Clock allow you to independently set a 12 hour time scale as well as a 24 hour time scale.

P/N 13-04872

TRINTEC CESSNA PRODUCTS







Description	Part No.	Price
Cessna Altimeter Wall Clock	13-04827	
Cessna Altimter Alarm Clock	13-04828	
Cessna Altimeter Desk Pen Set	13-04829	
Cessna Classic Instrument Coaster Set	13-04830	
Cessna Round Acrylic Coaster Set	13-04831	
Skyhawk 172 Mousepad	13-04832	
Skylane TC 182 Mousepad	13-04833	
Cessna Citation CJ3 Mousepad	13-04834	
Cessna Citation X Mousepad	13-04835	
Cessna Citation Sovereign Mousepad	13-04836	
Cessna 26" Propeller Clock	13-04837	
Citation Sovereign T-Shirt - Black (L)	13-04839	
Citation Sovereign T-Shirt - Black (XL)	13-04838	
Citation X T-Shirt - Black (L)	13-04840	
Citation X T-Shirt - Black (XL)	13-04841	
Citation CJ3 T-Shirt - Black (L)	13-04842	
Citation CJ3 T-Shirt - Black (XL)	13-04843	
Cessna Skyhawk T-Shirt - Black (L)	13-04844	
Cessna Skyhawk T-Shirt - Black (XL)	13-04845	
Cessna Skylane TC T-Shirt - Black (L)	13-04846	
Cessna T-Shirt Raised Logo - Black (L)	13-04848	
Cessna T-Shirt Raised Logo - Black (XL)	13-04849	

CUSTOM AIRCRAFT MODELS





Recreate your airplane into a beautifully detailed desktop replica. Our premium custom made models are built to your exact specifications – no detail will be spared. You can have ANY aircraft recreated into a museum quality desktop model with your paint scheme, logos, registration number or any other details and markings. Complete your model with a fully customized stand including your choice of logo and a personalized inscription plaque. We offer over 3,000 different models – both military and civilian. Our desktop models are a maximum of 17" in either wingspan or length. Please allow approximately 6-8 weeks for delivery. 100% satisfaction guaranteed. When ordering please provide: aircraft specifications, propeller description, aircraft colors, and registration information. You will also need to specify the logo and inscription plate text.

P/N 13-06837 TRINTEC **BEER MUGS**





Part No.	Price
13-04815	
13-02124	
13-02125	
13-02126	
	13-04815 13-02124 13-02125

WARBIRD WALL CLOCKS

These large 14" all metal collector wall clocks are produced using a revolutionary new technology that permanently imbeds the image right onto the surface of the metal dial. A perfect blend of that nostalgic 40's style look with today's high quality graphic standards. For added authenticity, the clock face is set into an aluminum rivited case with dome polished crystal. 1yr warranty. (Requires 1 AA battery, not included.) ALL CLOCKS

MYTRAIN









MUSTANG























P/N 13-02586 P-40 Warhawk

P/N 13-02587 Ready To Ride



P/N 13-02590







































Stearman

Black Widow P/N 13-02618





























F-86 Sabre Jet P/N 13-02628



U.S. Army





U.S. Marines P/N 13-02634

Zero A6M

Spitfire MK P/N 13-02636



Junkers Ju 88A-4 P/N 13-02641

Me 262A-2a P/N 13-02642

Me 109 P/N 13-02643

P/N 13-02644

Fokker Dr1 P/N 13-02646

Bristol F2B P/N 13-02639

73

PILOT LICENSE PLAQUES

PILOT PLAQUES

Looking for truly unique awards that document and display your noteworthy aviation accomplishments – or those of someone you know? Whether it is a gift for a pilot to proudly display his/her achievements or a service award to recognize an air traffic controller, these plaques are the perfect choice. To place your order, simply select your plaque below and provide us the pertinent customizing data. We'll process your request with care and contact you with any questions. In approximately two weeks your order will arrive.



Model: ME-W8-2 Size: 8" x 10" P/N 13-06143



Model: ME-W8-3 Size: 8" x 10" P/N 13-06144



Model: CRM8-2 Size: 8" x 10" P/N 13-06146



Model: CRM8-3 Size: 8" x 10" P/N 13-06147



Model: NEVL-2 Size: 8" x 10" P/N 13-06148



Model: NEVL-3 Size: 8" x 10" P/N 13-06149



Model: CH810-2 Size: 8" x 10" P/N 13-06150



Model: CH810-3 Size: 8" x 10" P/N 13-06151



Model: DPLT028L-2 Size: 8" x 10" P/N 13-06152



Model: DPLT028L-3 Size: 8" x 10" P/N 13-06153



Model: FT4860M-2 Size: 8" x 10" P/N 13-06154



Model: FT4860M-3 Size: .. 8" x 10" P/N 13-06155



Model: FP810 Size: 8" x 10" P/N 13-06156



Model: ML912-3 Size: 9" x 12" P/N 13-06157



Model: AV-B07 Size: 7" x 9" P/N 13-06158

PILOT LICENSE WALL PLAQUES

5 x 7 Standard



7 x 9 Standard



New Format





7 x 10 Floating

These are custom Pilot License Wall Plaques made out of fine wood and can be hung on your home or office wall. Show others that you are a proud licensed pilot.

To order: Make a clear photo copy of front and back of license. Sign a blank sheet of paper. After selecting the size of your wall plaque, please select what type of metal: silver or gold.

Description	Part Number	Price
5 X 7 SOLID WALNUT - LICENSE WALL PLAQUE	13-06046	
5 X 7 DELUXE ELLIPTICAL SOLID WALNUT LICENSE WALL PLAQUE	13-06047	
7 X 9 SOLID WALNUT - LICENSE WALL PLAQUE	13-06048	
7 X 9 DELUXE FLOATING - LICENSE WALL PLAQUE	13-06049	

CENSE PLATE FRAMES

COCKPIT COOLERS

Heat getting you down? Have you been wishing there were a way to efficiently and quickly cool your airplane's cabin? If you answered "yes" to either of those questions, then you need the Cockpit Cooler to make your trips comfortable!



MODEL AP - 100 14V/28V

For the cooling process, the unit creates ice-chilled air, followed by evaporated water, drawn through a saturated media filter. The high-volume, high-velocity air is drawn in through and around the ice. As the ice melts, it absorbs heat and creates chilled water. The chilled water evaporates and absorbs heat further. The cool air is circulated in the cabin by the high-volume blower at 250 cfm.

- The model is small. It cools with a high-volume
- blower at 250 cfm.

 * 7.5" by 16.5" by 18.5" and is a mere 9.5lbs

 * Provides plenty of cool time for most general aviation aircraft at taxi, takeoff and landing.
- * In arid climates, there was a measured drop of nearly 18 degrees inside the cabin.
- * Being so small, there is still plenty of cargo space and useful load.

MODEL AP - 200 14V/28V

The model AP 200 utilizes the same ice chilled refrigerated air conditioning system as used in many commercial buildings, only on a micro Stored coolant pumps through a high efficiency heat exchanger. A high-volume blower moves air throughout the cabin. Condensation of moisture from cain air on the exchanger coils is retained in the unit reservoir. This unit reduces moisture levels since it relies on refrigerated air conditioning instead of evaporative cooling.

- The model cools with a high-volume blower at 250 cfm for a comfortable dry chilled flow.

 * 7.5" by 16.5" by 18.5" and is a mere 10.2lbs

 * Provides even more cool air time than Model 100
- due to its more efficient use of air conditioning
- A larger reservoir may be purchased to increase cooling time by several hours.
 Being so small, there is still plenty of cargo
- space and useful load.

Description	Part No.	Price
COCKPIT COOLER AP-100 14V	13-05784	
COCKPIT COOLER AP-100 28V	13-05784-1	
COCKPIT COOLER AP-200 14V	13-05785	
COCKPIT COOLER AP-200 28V	13-05785-1	

POL-AIR B310 PORTABLE AIR CHILLER SYSTEM

Four years of research by Pol-Air has resulted in the patented proprietary turbine pump for the B310 and is the heart of the new technology. This pump is powered by an ultra-efficient high speed DC brushless motor and can produce up to 3.5 inches of water pressure at 14.3 CFM in the 12vDC units, and 4.5 inches of water pressure at 20.5

CFM in the 24vDC units. This pressure delivers cool dry airflow through 1.25" diameter featherweight EPE hoses to the front edge of passenger seats or directly under your shirt, making

microenvironmental cooling possible for up to four people. Why you get 70° F (or cooler) dry air with half the humidity of outside air? We draw air through ice alone (no water). When you draw air through ice you lower humidity. When you blow air through water, like a swamp cooler, you increase humidity. This is not a swamp cooler. Water is

LICENSE PLATE FRAMES AND LICENSE PLATES



High quality metal frame. Chrome with blue & white enamel. P/N 13-06227



High quality metal frame. Chrome with blue & white enamel. P/N 13-06228



High quality metal frame. Chrome with blue & white enamel. P/N 13-06229.



High quality metal frame. Chrome with blue & white enamel. P/N 13-06231



High quality metal frame. Chrome with white & blue enamel. P/N 13-06232



High quality molded on Black plastic frame with white lettering. P/N 13-06233



High quality stamped aluminum plate white and blue enamel P/N 13-06235



FLY design. High quality stamped aluminum plate white and black enam-



DIRECT FUEL LEVEL INDICATORS

These Direct Fuel Level Indicators are quality made of acrylic PVC tube with an aluminum scale. They are available calibrated to individual tanks or uncalibrated for custom calibration to home built tanks. These Indicators allow an accurate check of on board fuel level indicators and eliminate the guess work.

Description	Part No.	Price
Fuel Level Indicator C-150/C-152 +	12-21200	
Fuel Level Indicator C-150 LONG 19	12-21205	
Fuel Level Indicator C-170 / C-172	12-21210	
Fuel Level Indicator C-172 34G	12-21215	
Fuel Level Indicator 1958+ C182 32 GAL	12-21225	
Fuel Level Indicator C-182 42G	12-21230	
Fuel Level Indicator C-210 45G	12-21240	
Fuel Level Indicator PA-24 30G	12-21245	
Fuel Level Indicator 7KCAB	12-21250	
Fuel Level Indicator PA-28	12-21255	
Home Built Universal Fuel Level Indicator CK Rod	12-21260	

FUEL HAWK FUEL GAUGES



The Fuelhawk is just 11" long, clear lightweight and unbreakable. It's easy to use and gives an instant readout in gallons usable. No more guessing. These handy devices offer the answers to these very important questions: 1. How many gallons of

usable fuel are remaining in the tank? 2. How much fuel can be added without going over gross weight? 3. Are the aircraft fuel gauges working

Part No.	Application	Price
13-00443	Cessna 152 (standard 12 gal. tanks)	
13-00442	Cessna 172 (standard 19 gal. tanks)	
13-01468	New Cessna 172 Skyhawk (26.5 gal.)	
13-01469	New Cessna 182 Skylane (43.5 gal.)	
13-00441	Cessna 182LR (42 gal. Long range tanks)	
13-00439	Universal for any aircraft, w/graph & calibration chart	
13-00949		



TANA WIRE MARKERS

Tana Wire Markers are large fiberglass balls which can be attached to power lines to warn aircraft of the location of the wires. They meet FAA specifications, feature easy installation and universal attachment, withstand the

elements for over 10 years, require no maintenance, do not slip, chafe, oscillate, or cause electrolysis or vibration. Stocked in 9", 12", and 24" sizes. Larger sizes available on request. Color: international orange. Stocked in Tana marker style JX.

12" diameter with Tape	P/N 13-00057
20" diameter with Tape	P/N 13-00058
24" diameter with Tape	P/N 13-00059
12" diameter w/o Tape	P/N 13-00054
20" diameter w/o Tape	P/N 13-00055
24" diameter w/o Tape	P/N 13-00056



WIRE MARKERS

CPS-S STANDARD MOUNTING MARKER - The Standard power line Marker is made of ABS plastic & fits wires up to " using two neoprene bushings



SP-EZS RECESSED MOUNTING AREA & CSP-EZC RE-CESSED MOUNTING AREA W/ CLAMP - The EZ line of Markers is made of ABS plastic & is new & improved with a larger recessed area around the four bolts making it

easier to install with linemen gloves. The EZ-S still uses two neoprene bushings & fits wires up to 1". The CSP-EZC comes with an aluminum clamp with stainless steel bolts & fits wires up to 1". Both of these styles use 1" nuts.



SP-SAR STANDARD MARKER WITH ARMOR ROD -This marker is equipped with two sets of armor rod set into a bracket & can be bolted to the inside or outside of the marker All Markers can be made to fit larger diameter

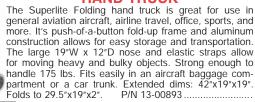
wires.								
Dia .	CSF	-s	CSP-	EZS	CSP-	EZC	CSP-	SAR
ыа .	Part No.	Price						
9 inch	-	-	13-06725		13-06741		13-06748	
12 inch	-	-	13-06727		13-06742		13-06749	
20 inch	13-06731		13-06728		13-06743		13-06750	
24 inch	13-06737		13-06729		13-06744		13-06751	
30 inch	13-06738		-	-	13-06745		13-06752	
36 inch	13-06739		-	-	13-06746		13-06753	

FOLDING AIRCRAFT STEP STOOL

This sturdy step stool is made of oak veneer over hardwood and provides a spacious 11"x11" square standing area. The stool is 16" high and features nonskid strips on the standing area. The precision crafted stool opens and closes easily and measures only 2"D

x 12"W x 19"L when folded for storage in baggage compartment or under the seat of your aircraft. Weighs only 4lbs. Lightweight, compact, and very strong, this stool is idea for use around general aviation aircraft. P/N -13-04281.

SUPERLITE FOLDING HAND TRUCK





BIRD DETERRENT

BIRD PELLER PRO VOL.
The BirdXPeller Pro uses actual species-specific distress cries and can be set for any or all of a variety of birds including pigeons, sparrows, starlings and gulls. Volume, time-off periods, and random calls can be varied to keep the birds away. The unit measures 10" x 3" x 10" and weighs 4 lbs. The directional speakers cover up to an acre in an oval pattern. The unit comes

with an AC adapter cord but can run off a 12 volt DC battery if needed. NOTE:Vol.1 is only for pigeons, starlings, sparrows and gulls P/N 13-00091.....

ARROWPROP DECORATOR PROP CLOCKS

Choose from: Quartz Clock (Q) Weather Station (W)



Weather Station

Weather station contains a thermometer, hygrometer, & barometer in 1 instrument

PIPER CUB PROPELLERS



Laminated hardwood reproduction of the propeller used on the Piper Cub airplane. With a high gloss finish, red tips, and cub decals. Quartz

Clo	ck (Q) or Weather Sta	ation (W).			
ITE	M P/N	PRICE	ITEM	P/N	PRICE
52"	Prop w/Q 13-32170-0	2	65" Prop w/Q	. 13-32171-Q.	
52"	Prop w/W13-32170-\	N	65" Prop w/W	13-32171-W	

AIRCRAFT PROPELLER



Beautiful reproduction of an early day aircraft propeller like those used on the Piper Cub, Aeronca, Taylorcraft and others. Constructed of laminated hardwood with clear finish, red tips and simulated brass tipping on the propeller blades. Quartz Clock (Q) or Weather Station (W)

LINDBERG PROPELLER



This 50° propeller is a scaled reproduction of the propeller used by Colonel Lindbergh on his Sperry Messenger airplane. With Quartz Clock (Q) or Weather Station (W). Available in clear(C) or beautifully stained (S) finish.

50" Prop w/W...... 13-32180-CW..... 50" Prop w/W...... 13-32180-SW.

REPLICA PROPELLER LETTER OPENER



Own a bit of aviation history with our unique letter opener. A mini replica of the Hamilton Standard steel pro-peller used on Charles Lindbergs

"Spirit of St. Louis". 9" long, it has a chromed hand polished handle, is cast to highest quality metal standards with authentic Hamilton Standard decals on the blade. Shipped in elegant gift box
P/N 9925.....

PEDAL PLANES

R V SPORT

PEDAL PLANE KIT



The RV-Sport is a miniature homebuilt airplane which is a great learning experience for parents and children and when completed is a unique pedal powered toy for kids. It was engineered with the builder and the youngster in mind. The simple construction will exercise your

skills in basic woodworking, sheet metal, fitting and gluing plastic, finish painting, and detailing. Your completed RV-Sport will be a rugged, realistic toy that is sure to be a hit with every kid on the block. The RV-Sport is built using basic shop tools, and is the ideal "mini-homebuilt" for homebuilders and pilots of all ages! Purchase just the plan set with assembly manual and information updates or the complete kit which includes these items plus hardware, plastic items, & finish decal set.

Complete Plans SetP/N 13-30715



F4U-1 CORSAIR JR. PEDAL PLANE KIT FOR **KIDS**

The F4U-1 Corsair Jr. is a miniature homebuilt airplane which is a great learning experience for parents and children

and when completed is a unique pedal powered toy for kids. The Corsair Jr. is built using basic shop tools and is sure to be the hit with every kid on the block. The simple construction will exercise your skills in basic woodworking, sheet metal, fitting & gluing plastic, finish painting, & detailing. The F4U-1 Corsair Jr. is available in following kits:

Plans and Patterns only.	P/N 13-30730
Plastic Kit only	P/N 13-30735
	steering, folding with hinges, fasteners
	P/N 13-30740
Complete Construction K	itP/N 13-30745

Note: The plastic Kit Only is highly recommended when you order the plans due to the great amount of detail required to achieve the real F4U look. The plane can be built without the Plastic Kit but it will take longer



HITCH COVERS



Description	Part No.	Price
Remove Before Flight Cover	13-03545	
AJO Black Oval 2" Hitch Cover	13-04004	
B25 Black Oval 2" Hitch Cover	13-03530	
T6 Black Oval 2" Hitch Cover	13-03531	
P17Black Oval 2" Hitch Cover	13-03532	
B17 Black Oval 2" Hitch Cover	13-03533	
PA-18 Black Oval 2" Hitch Cover	13-03534	
L19 Black Oval 2" Hitch Cover	13-03535	
B24 Black Oval 2" Hitch Cover	13-03536	
P25 Black Oval 2" Hitch Cover	13-03537	
T28 Black Oval 2" Hitch Cover	13-03538	
L29 Black Oval 2" Hitch Cover	13-03539	
T34 Black Oval 2" Hitch Cover	13-03540	
L39 Black Oval 2" Hitch Cover	13-03541	
P51 Black Oval 2" Hitch Cover	13-03542	
OH-6A Black Oval 2" Hitch Cover	13-03543	
Remove for River Hitch Cover	13-03544	
Mohawk 2" Hitch Cover Black	13-03546	



YOUR (N) NUMBER -TRAILER HITCH COVER

Call for Quote and provide us with your "N" number. 2" Oval Hitch Cover P/N 13-04737 CALL FOR QUOTE



T-3 2 INCH RECEIVER LOCK

Receiver locks prevent your hitch cover, or step hitch from being stolen.

P/N 13-03529.....



GO-PED LIGHTWEIGHT MOTORI ED SCOOTER

The patented Go-Ped design combines a strong chromoly frame with a lightweight folding handle system to achieve maximum strength along with portability. The sturdy frame has an electrostatic powder coat finish. Go-Ped weighs only 20lbs but can support up to 400lbs. Powered by a pre-cision 2-stroke engine that quietly propels itself at speeds of up to 20 mph, the Go-Ped has the ability to conquer steep hills. Its tires are fabricated of a very resilient natural rubber which will never go flat. The Go-Ped averages well over 100 mills are the control of the con

MIPG on pre-mixed unleaded gas. Due to a very low center of gravity, riding the Go-Ped is easier than riding bicycle. To start your Go-Ped just step on and push or pull forward. The Liquidmatic Go-Ped is ideal for the crowd that appreciates or needs a unique ultra-smooth hydraulic automatic transmission. The Liquidmatic is available in Yellow with Purple accents. The Go-Ped folds as quickly and as easily an umbrella for stor-

Go-Ped BagP/N 13-08390.....

PRO PILOT LANYARD KIT * Lanyard: The all black heavy duty detach-



able nylon lanyard is 20 inches in length from the top of the lanyard to the bottom of the J-hook. The detachable portion is short in length (approximately 2 ½ inches)

* Flashlight: The black and silver Garrity Lithium L.E.D. is the brightest, whitest

single light available. It features an L.E.D. light. It provides years of intermittent light or more than 23 hours of continuous light. The Diode lasts 100,000 hours. It has an

on-off switch or simply press down on the center of the "on-off switch"

for intermittent lighting. 2 lithium button-cell batteries are included. The flashlight attaches to the J-hook.

* Badge clip/ universal grabber: The alligator-type badge clip has a black strap (snaps open and closed) permanently fixed to it that swivels. Connected to the strap is an optional black universal grabber (included) for badges without a slot hole, withstanding up to 5 pounds of vertical force and more than 5 pounds of horizontal force.

* Earplugs: The Howard Leights NRR (Noise Reduction Rate) is 33 deci-

bels. Highest rated disposable ear plugs on the market Tie it to the top portion of the lanyard to always have instant access to the earplugs.

P/N 13-06336.....

PROPELLER CEILING FANS



This propeller ceiling fan is fitted with a custom made propeller especially crafted to work as a nostalgic and functional unit...they sound great too. The three speed fan with a light, will run in both forward and reverse and comes in gloss white with a white glass globe. The propeller is available in two shapes, the simple standard as well as in a scimitar shape (my favorite), both are dark stained and finished in a gloss urethane. The fan motor unit is a complete package inclusive of the typical four paddle blades. Includes simple instructions on how to mount and balance the custom hand made propeller in place of the four paddle blades.

Standard	P/N	13-04048
Round Tip	. P/N	13-04049

CD-ROMS - SO



"121.5" EMERGENCY DVD/VHS

Real life emergencies, actual ATC recordings! Hosted by TV personality and flight instructor MayCay Beeler, this unforgettable DVD features the actual ATC recordings of pilot and ground communications in real emergencies, brought to life with stunning animation and graphics. Listen, learn, and live

"121.5" DVDP/N 13-02854....... "121.5" VHSP/N 13-02855....... 2009 PRO-FLIGHT LIBRARY CD

ASA provides the aviation community with the most accurate and reliable publications available. The 2009 Pro-Flight Library CD-ROM makes it even easier to access the world of aviation information with just the click of a mouse. This is the most comprehensive electronic aviation

reference library available—all on a single CD-ROM—at a huge savings over the purchase of the individual books. The Pro-Flight Library CD lets aviators: * View the full text of all publications * Print text and graphics—from a single phrase to an entire publication * Find all newly-revised passages and view both the old and new text * Simultaneously search multiple publications * Instantly find any combination of words Place electronic bookmarks for instant reference * Mark and save personalized notes—just as you would in a paper book System Requirements: Windows 2000, NT, XP, Vista (Home Premium 32bit).

P/N 13-01077



2008 PREPWARE v.10

FAA Knowledge Exam prep software. Version 10 includes the new FAA Knowledge Exams released June 25, 2007 although the automatic update feature will keep customers current as new tests are released.

Private Pilot	P/N 13-01078
Instrument Rating	P/N 13-01079
	P/N 13-01080
Certified Flight Instructor.	P/N 13-01081
	P/N 13-01082
	P/N 13-02565
	P/N 13-01084



CD-POCKET

Durable vinyl pocket holds 2 CD-ROMs, 7 hole punched for binder. Set of 10.

P/N 13-62800

TRAINING SOFTWARE FROM ASA

GPS Trainer Version 2 is a tutorial to help pilots master GPS from their desktop. For the renter confronted with one brand of GPS one day and another the next; for the instructor who teaches in multiple aircraft; for the aircraft owner who is try-ing to master the nuances of a favorite navigational tool; for the consumer wanting to search the options before making the buying decision; for fleet and Part 135 & 121 of operators who are required to provide GPS instruction to their pilots. GPS Trainer

makes time spent in the Aircraft more effective by providing the appropriate tools to learn the GPS receiver on the ground. The most popular GPS units are included, pilot scan learn the Bendix/King KLN 89B by AlliedSignal, Garmin GNS530, GPSMap 430, 295 or Apollo GX50/60 all on a single CD · Manufacturers' simulators and operating manuals included • FAA GPS reference materials included • Tutorial runs on both P/N 13-01074 . PC & Macintosh systems.

ASA Interactive Demo CD (includes OnTop, IP Trainer, PrepWare, GPS Trainer, Flight Library, & CX-2 P/N 13-01631..

MY KIT AIRPLANE SOFTWARE CD Written for XP and VISTA

This is a complete new program written with Microsoft Visual Studio. A Real Windows Program! Fully tested in XP and VISTA! Does require XP to have SP2 installed

Consists of several modules for individual functions. These modules include the Main Menu, Project Entry, Primary Project Selection, Construction Information Entry, Expense Entry, Flight Information Entry, Maintenance Information Entry, and Weight & Balance Tool. Also included are forms for entering Advisor and Category Information. The unique Suppliers Information form contains fields for just about any information you wish to keep track of. There is also a very complete FAA page that contains all the FAA information necessary for you to build, certify, and get your FAA Airworthiness Certificate for your Experimental or Light Sport Aircraft. In addition there is a very comprehensive file of information on Light Sport Aircraft and their construction and operation. P/N 13-04694



MECHANIC'S TOOLBOX CD

Software for the mechanic to help make youre job easier! Also includes the Engineering Manual Companion, Part number cross-references Torque Wrench Extension Calculator Continental and Lycoming engine trouble-shooting, Battery Tester, Slick magneto, Aircraft bolts, screws and rivets.

P/N 13-03463



AIRCRAFT LOGS ONLINE PILOT LOGBOOK

AircraftLogs allows you to safeguard, organize, and simplify your maintenance logs, expense records and flight records. You will have secure and instant access to your records anywhere you have an Internet connection. You can also provide secure access to other

pilots, your employees, your maintenance providers and others you authorize. A revolutionary solution for managing flight logs, maintenance records and financial information is just a few clicks away. You have secure and instant access to other records from any Internet connection. Provide secure access to "other pilots,employees or maintenance providers. Finally, there's a solution to managing aircraft that fits the needs of private aircraft owners. Note: Annual subscriptions include 2 years of logbook transcription

Description	Part No.	Price
Logbook only - Monthly	13-06133	
Logbook only - Annual	13-06134	
Piston Single Managment pkg - Monthly	13-06135	
Piston Single Managment pkg - Annual	13-06136	
Piston Twin Managment pkg - Monthly	13-06137	
Piston Twin Managment pkg - Annual	13-06138	



THE NAVIGATION CD-ROM
The Navigation CD ROM teaches you VOR
Navigation, NDB Navigation, HSI &RMI, GPS Navigation, & Airspace. You'll be prepared for action in the cockpit. Animation, sounds, quizzes and interactivity allow you to visualize navigation concepts while using simulations of actual aircraft equipment.

To make learning easy, each tutorial features an easy-to-use, point-and-click environment. If you can click a mouse, you can use these tutorials. No computer experience necessary. During each tutorial, your prompted where to click, when to proceed and what information to provide during quizzes. If you need more time learning a concept, it is easy as reviewing the section at hand. This CD-ROM features clearly written lessons, logical progression, quizzes, interactive equipment simulation, colorful graphics and animation. Navigation CD-ROM includes: • 5 interactive Multimedia Tutorials •10 Hours of Narrated Instruction • 37 Instructional sections • 250 Original Graphics & P/N 13-00892 Animations • 12 quizzes



OR/NDB SIMULATOR

Enables you to practice real time VOR & NDB navigation on your computer! You don't have to worry about altitude control, radio communication, airspace, traffic or other major task as you would in real flight. Aircraft are expensive to operate and they make poor classrooms. With VOR/NDB Simulator, you're able to

learn navigation techniques on your computer, in an inexpensive non distracting environment. The screen consists of several components: An airplane flying across the screen, VOR and NDBs, navigation and flight instruments and controls that enable you to specify aircraft direction, airspeed, wind component and other options. Your objective is to set the navigation instruments accordingly, and then turn the aircraft as needed to intercept and track VOR radials and NDB bearings. You can practice position finding, interception and tracking skills such as DME arcs & holding. Best of all you can create custom navigation scenarios by dragging the VORs, NDBs & airplane around the screen wherever you wish. Its all point & click! P/N 13-01437

NG AROUND ON THE GROU GETTI

Teaches types of airport markings, signage and lighting. Goes beyond simple technical knowledge by outlining hazards, safely tips & procedures that will help keep you aware, knowledgeable & safe on the ground. Features:
• Full sound narration to make learning easy. Graphics that show the airport environment from ground view • Skills for prevent-

ing runway incursions • Complete descriptions and visuals of airport markings, signs, and lighting • Methods of incorporating knowledge of markings, signs, and lighting in your flight operations • Ground procedures • Safety "Quick Tips" that you can use immediately • Case Studies of real-world runway incursion incidents and accidents • Printable documents from NASA and the FAA. Contains: • 3 hrs of narrated instruction • 15 instructional sections • 125 original 3D graphics & animations • 40 quiz questions • 17 "Quick Tips" P/N 13-01438

LIGHT OF VOYAGER CD (DICK RUTAN)



This is a recount of the horrific, horrendous, heroic & numorous moments of the Voyager project through the eyes of the pilot Dick Rutan. On Dec. 14, 1986 Voyager took off from Edwards AFB in California and 9 days later landed at the Edwards, completing the first ever non-stop, unrefueled world flight. This 3-CD set (3.5 hrs) includes a mini journal map of the flight, a facts, & more.

P/N 13-01163.....

historic photos, fun facts, & more.

746

COMPUTER SOFTWARE



PANEL PLANNER INSTRUMENT PANEL DESIGN SOFTWARE

Panel Planner software gives you the power to design and build instrument panels in record time. Simply drag full-color, photo-realistic instruments, avionics, and cockpit controls into place on an aircraft panel template or photograph. Panel Planner tracks total cost, total weight, and peak current, generates and equipment list, and even prints actual-size hole-cut-ting templates and color mock-ups. Panel Planner is easy to install and use with its continuous context-sensitive help to guide

you every step of the way. The updatable database includes equipment from King, Narco, Sigma-Tek, David Clark, P.S. Engineering, Insight, Garmin, IFR, II Morrow, UMA, Mitchell, Trimble, Arnav, S-Tek, Century, Vision Microsystems, Avidyne, Digifly, Skyforce, and many more; PLUS switches, lights, control cables, vents, circuit breakers, trim indicators, etc. Create labels, color-coded annunciators, or placards.

PANEL PLANNER PRO (2.9 VERSION)

Our largest update yet! Over 120 megabytes of updated instruments and panels. Panel Planner Pro is designed for the aircraft owner and the homebuilder. Panel Planner gives you the power to design and build instrument panels in record time. Simply drag full-color, photo-realistic instruments, avionics, and cockpit controls into place on an aircraft panel template or scanned photograph. Panel Planner tracks total cost, total weight, and peak current, generates an equipment list, and even prints actual-size hole-cutting templates and color mock ups with your desktop Panel Planner Pro for Windows......P/N 13-44415....

Panel Planner Pro for Macintosh P/N 13-06210



JEPPESEN FLITESTAR FLIGHT

PLANNING SOFTWARE
The current version of FliteStar calculates the optimum altitude based on total distance, winds aloft and your aircrafts performance. Experiment with different temperatures, power settings & altitudes and see their effects on performance. Comes with many popular aircraft already installed, including light piston, turbo-prop and jet aircraft. Do "what if"

simulations, calculate weight & balance with graphic feedback. The only flight planner with the accuracy of a Jeppesen NavData database. You get every navigational chart at your fingertips. Zoom from continent-wide overviews down to half mile details. Roam across charts with a mouse, select way points by pointing and clicking. View victor airways mouse, select way points by pointing and clicking. View victor airways, VORs, NDBs, intersections, airports, and frequencies. Enter winds for each flight leg, or retrieve them over your modem from Jeppesen. Do weight and balance, speeds, performance, and fuel burn with graphic feedback. Exclusive flight engineer module lets you do "what if" aircraft performance analysis. Optional subscriptions database updates from Jeppesen Sanderson. Change your route by "stretching" it to any other waypoints on the chart. Create user waypoints on the fly by just pointing at the area of the chart and holding Atl key. Find distance and radial from any point on chart to another point by simply pointing at each point on chart. Compute airway and MEAs between VORs for any route manually or automatically. Find common airways between any VOR and/or ally or automatically. Find common airways between any VOR and/or intersection. Enter winds for each flight leg, or retrieve them over your modem from Jeppesen.

JEPP	FLISTAR VE	RNAWW	NDOWS	P/N	682/3.	
JEPP	FLITESTAR I	FR N AME	RICA	P/N	6120	
JEPP	FLITSTAR VE	R EUR WI	ND CD	P/N	69383.	
JEPP	FLTSTR IFR/	VFR EUR V	VINDOW	P/N	6006	
JEPP	FLTSTAR IFF	R/VFR WOF	RLDWIDE.	P/N	65703.	
JEPP	FLTSTR IFT/	VFR AMER	. WIND	P/N	65704.	

VFR/IFR RADIO SIMULATOR



The closest thing to talking on the radio in the cockpit.
Comm1 has over 6 linear hours of interactive communication training - but you can practice for days & weeks. Learn where to locate frequencies quickly. By mastering radio management skills with Comm1, you'll always be one step ahead of the next radio call. Comm1's instructionally-sound curriculum takes you through progressively more complex airspace so that you can feel confident in any environment. Being pre-

pared with what to say, when, and in what order, is half the battle when mastering radio communication skills. Practice selecting and saying the correct radio announcements & responses in all types of flight settings. With Audio pilot adapter, pilots can link their computer to an aviation headset to create a virtual cockpit. (9V battery)

Comm1 - VFR Radio Simulator	P/N 13-32221
Comm1 - IFR Radio Simulator	P/N 13-00093
Comm1 - Clearances on request	P/N 13-00741
Headset with Boom M/C	P/N 13-33331
Plug & Play Combo VFR (Comm1 & Headset))P/N 13-34441
Audio Pilot Adapter	P/N 13-03249

MAX TRESCOTTS G1000 CD-ROM COURSE

There is a revolution sweeping through general aviation. All new aircraft ship with advanced glass cockpits and pilots are faced with the challenge of transitioning to these new systems. The most popular system is the Garmin G1000, and now you can master the system yourself with this new CD-ROM set produced by the author of the popular Max

Trescott's G1000 Glass Cockpit Handbook This course includes: More than six hours on two CD-ROM's, Large, full screen views of displays, Movie screen captures of operating knobs, Printable G1000 front panel displays, Tips from factory and Master CFI's, Narration by two CFI's for easy listening, Keyword searchable slides and transcripts, Optional quiz-

zes to reinforce key points, Files that run on Windows, Macintosh and Linux.

GARMIN G1000 GLASS COCKPIT BOOK - Learn about all Garmin G1000 features & differences Get the single source of information that educates pilots about all of the features and benefits of flying the Garmin G1000, and how features vary among aircraft manufacturers. Whether you fly a Beechcraft, Cessna, Columbia, Diamond, or Mooney, you'll learn which Garmin G1000 features apply to your particular aircraft. Or, if you're planning to buy a new Very Light Jet (VLJ) like the Cessna Mustang or Diamond D-Jet, this book will help you prepare while you wait for delivery. PN 13-05533 ..

MAX TRESCOTT CD-ROM COURSE

Makes it easy to learn all of the details of flying with WAAS. Designed for the Garmin 430W, 530W, 480, G900X and G1000, the course leads you step-by-step through flying these approaches. Videos demonstrate the flying of actual approaches, and software simulators let you practice loading and flying these approaches. The course is taught by Master CFIs Max Trescott and

Susan Parson, who say it covers the "gotchas" that can trick even experienced GPS pilots.

P/N 13-05067......



KITLOG PRO SOFTWARE

KitLog Pro is an organizational tool that allows the builder of any type of aircraft to create, archive, maintain, and display the entire building process. Whether your experimental aircraft is a plans-built EAA bi-plane, a Van's RV, a Glastar, or even a Lancair IV-P, KitLog Pro is the most efficient way

to ensure that you meet the requirements of a builder's log for the certification of your homebuilt aircraft.

Features: • Complete Builder's log to satisfy FAA requirements

Detailed Expense Log • Test Flight Log • Maintenance Log • Weight & P/N 13-03705

MULTIMEDIA SOFTWARE FLITESCHOOL



In terms of speed, graphics, clarity, and learning value, FliteSchool from Jeppesen Software is unequaled in its class. Much more than a series of "flash cards" that help you memorize the answers to FAA exams, FliteSchool provides programmed learning modules and Hypertext referencing that leads through a series of associated references to learn more, faster! Flite School's Dynamic Cybernetic Learning enhances your training by analyzing

your responses and leading you to new subject areas. You'll find studying with FliteSchool to be more interesting and more effective than other software programs and many video tapes. Material is organized into 20 categories and monitored by topic. The software takes you step-by step through each subject area and returns to areas where you need more work. When you've mastered enough material to pass the FAA exam,

you receive a graduation certificate for your instructor to sign off.
Private Pilot.....P/N 13-100507P/N 13-100519

CHARTCASE ELECTRONIC SOFTWARE



When connected to the internet, Chartcase provides access to FlightPrep, the multifunction graphical flight planningengine with approach charts and on-course overlays of TFRUs, SUAUs, and Nexrad weather shown in a single pass high speed web image. Chart Case brings new functionality and complete paperless cockpit data to general aviation pilots at a fraction of the cost of various products that would be needed to match Chart Case. Off-line, Chart Case has complete FAA instrument approach charts in PDF (printable) format for the entire United States.

They are accessed using Chartscase's graphical search engine. The charts are updated every 56 days via CD-ROM. ChartCase W/ Subscription.......P/N 13-04351...... ChartCase W/ Subscription

Minimum Sys. Requirements: •486/66 MHz PC processor • 4x speed CD-ROM drive •16MB RAM •Sound Blaster-compatible sound card •6MB hard drive space • Mic & speakers (or headset) • 800x600 resolution display w/ 256 colors • Windows 95™

AVIATION SOFTWARE

VFLITE WEIGHT & BALANCE VISUAL



With our easy to use system, pilots can learn to quickly calculate the weight and balance of their favorite aircraft and save configurations for later use. The system allows pilots to visualize the loading condition from a unique profile view, arm, and moment charts. The intuitive software uses easy input boxes to select exact weights, and includes weight and balance references and training tutorial. Perfect for all pilots from student to sea-

soned professional. The unique "My Presets" feature allows you to store weights for passengers, baggage, and favorite fuel levels. Once they're stored, simply drag them from the list and drop them on the seats or fuel slider. Will a spreadsheet do that?

ExpandablePurchase additional aircraft modules for all of the aircraft that you fly! Contact us if you do not see your aircraft. This is it! The easiest to use weight and balance application available. The program comes with a free weight and balance tutorial to help you master the fundamentals. This tutorial makes it easy to use the program. Simply enter the aircraft data using intuitive input buttons or typed text, and the program provides: Total Weight, Moment View, Arm View, and Aircraft Profile View. If the aircraft is out of limits simply click on the fields to change the weights. Unlike other programs, there are no complicated instructions or data points to build. The chart of aircraft arm or moment is graphically displayed.

SEE www.aircraftspruce.com for a list of supported aircraft.

P/N 11-04767.....

GARMIN G1000 TRAINING: IFR PROCEDURES

The Jeppesen Garmin G1000 - IFR Procedures training is a new and advanced, extensive computer-based training program developed with input from Garmin that teaches the skills required to master the operation and confidently fly the G1000 in IFR conditions. Learn how to pull up and fly instrument procedures, load and activate approaches including RNAV and GPS approaches, new WAAS-

enabled approaches such as LNAV, LNAV/VNAV, and LPV approaches, departures and arrivals, as well as performing course reversals, holding patterns, and executing missed approaches. The Jeppesen scenario-based, guided simulation system provides complete and comprehensive training allowing the pilot to become proficient in all advanced functions and tasks required for IFR flight and greatly facilitates the transition to flying the Technically Advance Aircraft and the Garmin glass cockpit.

Garmin G1000 Training IFR Procedures......P/N 13-06279 Garmin G1000 PDF & MFD Basics.....P/N 13-05787 Garmin G1000 PFD & MFD Advanced......P/N 13-05788



A PRIVATE PILOT'S DIGITAL VIATION LIBRARY

The 'Private Pilot's Digital Aviation Library' is a CD-ROM with all the FAA publications related to the Private Pilot certificate. Great for Students and Pilots of all experience level. The CD includes the following FAA publications: Pilot's Handbook of Aeronautical Knowledge, · Airplane Flying Handbook, • Aviation Weather & Weather Services,

 Private Pilot Knowledge Test Guide,
 Private Practical Test Standards, Private Question Test Bank, • Rotorcraft Flying Handbook, • Plus Float, Skiplane supplements.

P/N 13-05018...... Skiplane supplements.



WEATHER STATEMENT GROUNDSCHOOL

Weather Statement Groundschool is a CD-ROM-based course on METAR's and TAF's. Nearly 2 hours of stunning, interactive training is provided.

This tutorial on METAR's and TAF's is unlike any other such training. It not only teaches the most basic aspects of METAR's and TAF's, but also provides training on components that most pilots are unaware of. Still,

learning is made easy and fun, through full voice narration and easy to-use controls. Where this tutorial truly shines Weather Statement Groundschool promotes learning through human interaction—not just rote memorization. A remarkable feature is the interactive weather controls, which enable the user to "control the weather." For example, the user can specify wind speed, gust factor, direction, and other variables, and can then view how the weather statement displays this information Since weather codes are confusing to interpret, the user can click the "Speak-It" button to hear a verbal translation. This allows the user to correlate codes with a true, visual picture and understanding of the weather. This tutorial CD is perfect for all pilots, from students to rated pilots who wish to remain sharp and proficient. It's also ideal for airport personmel, dispatchers, and anyone else who needs to view aviation weather information. Specifications: Windows Vista, Windows XP, Windows 98, or Windows 95 32MB recommended CD-ROM drive 10MB hard drive space Video supporting 256-color mode (minimum) Sound card (not required, but recommended) P/N 13-05575.....



WINN BALANCE

This software was originally designed for the Ultraligh / Experimental aircraft builder/ designer to assist in weight and balance calculations, it also works well on conventional aircraft. It is Great everyday flight

planning as well. It will run on Win95/98/ Me/2000/XP. The program interface is designed so that the CG and weight of your aircraft is automatically calculated with a minimum of

SCREEN - This main screen contains all calculation input and dynamically displays real-time results. Hint screens are also of valuable assistance on this screen.

HELP SCREEN - Help is never far away, This help screen gives you all the information you will need to perform an initial weight and balance. It describes the entire process of how to weigh your qaircraft and some of

the formulas to help you along the way.

SECONDARY INFORMATION SCREEN - This screen stores all your aircraft's installed equipment which forms a portion of your empty weight. This information is retained until you remove each item. It serves as a reminder as to what exactly was installed in the aircraft at the time of P/N 13-05599....



JEPPESEN AVIONICS KNOWLEDGE LIBRARY

Master you GPS unit with Jeppesen's interactive e-learning for Garmin® GPS systems and Lowrance® Handheld GPS Systems. Jeppesen's advanced,

self-paced digital learning programs provide training on all operational aspects of you GPS unit. It's the easy, proven way to get confident with all that you GPS has to offer. Key Features include: • Scenario-based, guided simulation • Realistic Emulator • Detailed, narrated demonstrations. • O-screen help and feedback systems. Discover te best way to use the full power of your avionics system compared to heads-down, in cock-pit training

Description	Part No.	Price
Garmin® 430/530 VFR & Core IFR Procedures	13-05644	
Garmin® 430/530 Advanced IFR Procedures	13-05645	
Garmin® 430/530 WAAS Procedures	13-05646	
Lowrance® AIRMAP 2000C	13-05647	
Lowrance® AIRMAP 500/1000C	13-05648	



ASA INSPECTION **AUTHORIZATION PREPWARE**

This software incorporates the material from the Inspection Authorization Test Prep by Dale Crane, and also includes a PDF of the Inspection Authorization Computer Testing Supplement (CT-8080-8D).

All Inspection Authorization candidates must take and pass the FAA's IA Knowledge Exam. This IA Prep-

ware provides all the information needed to pass the IA Knowledge test, and helps candidates become familiar with the privileges and limitations of this highest level of maintenance certification. Includes an overview of the Inspection Authorization certificate, insights into the function of an IA (the inspections, authorizations, and paperwork that accompany the privileges), and excerpts of the FAA documents IAs rely on in their work. Inspection Authorization Prepware has the same great features found in all Prepware titles. Numerous study, preparation, practice and evaluation tools are available to help applicants obtain a confident edge before taking the FAA Knowledge Exam. Prepware brings the accuracy and reliability of ASA's industry-leading Test Prep books to your PC or Macintosh computer.

The software includes more than 400 example FAA questions and answer choices, supported with comprehensive explanations. The same swell choices, supported with comprehensive explanations. The same reference material applicants will have access to during the actual test is included as a PDF (the "CT-8080-8D"). This way applicants can become familiar with these documents and learn how to glean the information they need to answer the questions, from such FAA publications as the Airworthiness Directives, Advisory Circulars, Type Certificate Data Sheets, FAA Order 8130.21D, and FAA Form 8130-3.

System Requirements: Internet connection is required for product regis-

IBM compatible PC with Pentium-class processor, Windows 2000, XP with Service Pack 2, or Vista. 128 MB RAM minimum for Windows 2000 and XP (512 MB for Vista). 150 MB available hard drive space, 1024 X 768 SVĜA compatible display, CD-ROM drive, mouse or other compatible pointing device.

Macintosh computer with PowerPC G3, G4, G5, or Intel-Mac processor, OS X Tiger (10.4 or higher), 128 MB Ram minimum, 150 MB available hard drive space, 1024 x 768 SVGA compatible display, CD-ROM drive, mouse or other compatible pointing device.

For both Windows and Macintosh, Adobe Acrobat Reader is required. P/N 13-06663...

ASA IFR SIMULATORS



IP TRAINER VERSION 7.0

IFR Procedures Course
IP Trainer is the only IFR simulator with a foundation of artificial intelligence in the form of a virtual instrument flight instructor (CFII), the only interactive courseware designed exclusively for instrument students, and the only program that can compare its knowledge of the Instrument Practical Test Standards

against a student's real-time flight simulation performance. Most importantly, while you're using IP Trainer to build a solid foundation of instrument skills, you'll also be saving money. IP Trainer users consistently attain their Instrument Rating with less dual time and with less expense than students who rely on traditional methods alone, saving an average of \$1,000 in their total training costs for the rating. With a built-in CFII, spoken ATC guidance, the comprehensive Instrument Flying textbook by Trevor Thom, and a full complement of IFR lessons, IP Trainer is the single best way to bring instrument training home.

IP Trainer version 7.0	P/N 13-50100
IP Trainer V7.0 bundled w/ On Top™	⁴ P/N 13-00656
ASA Interactive Demo CD	P/N 13-01631
Demo On top/IP Trainer, prepware, GP	S Trainer, Flight Library & CX-2

ON TOP™ IFR PROFICIENCY SIMULAT



Inside On Top you'll find five of the most popular aircraft ever built. There's a Cessna C172, C182 and C182RG, and Piper's Warrior and Arrow. Also included are the Lancair Columbia 300, the Mooney MSE, and Beechcraft's Bonanza V-35, Beechcraft Baron 58, and Beech's 1900D twin-turboprop. Each model utilizes precise flight dynamics algorithms, right down to the deadly assymetrical thrust you'll experience should you lose an engine in the Baron. Now, you can test your skills

against the reality of single-engine IMC in a light twin, or a twin-engine turboprop. This and other aircraft setup parameters are available for all aircraft. Each aircraft panel is rendered with a next-generation graphics technology that makes every gauge, pointer, tick-mark and knob on your panel as true-to-life as a computer can create. Couple the "Photorealistic" graphics effect with On Top's precise mimicry of real aircraft instrumentation and you're as immersed in your simulated flights as you are in your actual flights. There's realistic sound effects, like radio idents, marker beacons, gear and flap extension, and tire sounds. You'll find panoramic out-the-window views, accurate runway lighting and haze layering. You'll even see the rivets across your wings as you look right releft on a circling approach, all with enough realism to make you sweat. Full instrumentation, like programmable GPS, HSI, RMI, Moving Map and auto pilot is just half of it. In On Top, you decide what instruments you fly with, and you decide where they'll go. Some IFR sim makers decide years before you ever get your copy what kind of equipment you'll fly with and where it will go in your panel, but in On Top you can change it every time. On Top's Real-World Weather is as variable as tomorrow's weather. Define winds aloft and then surface winds, then dial in degree of swing and speed of gusts. Create turbulence, cloud bases and visibility with as much variability as you can handle, so you'll never know if you'll have to fly the missed approach until you get to the bottom of the funnel. And best of all, make your virtual conditions stable, deteriorating, improving or randomly changing, over any given time frame. In the real world, getting your procedures down pat with a methodical and practiced scan is just the beginning, and there's always more to learn.

THE COMPLETE G1000 COURSE FROM ASA

The Complete G1000 Course will help you transition from steam-gauge "round dials" to the Technically Advanced Aircraft (TAA) glass cockpit environment. This interactive software allows you to practice becoming proficient in operating the G1000 from the safety and privacy of your home or office computer.

The intuitive software interface makes this as easy to use as reading a book. Computer learning tools in the form of cockpit representations and demonstrations of the tasks combine with a Part 141 and and FITS-compliant G1000 course, which is given by Skyline Aeronautics and in forums around the country. In this way the software teaches you how to safely and efficiently use the G1000 without running up the Hobbs!

P/N 13-04346

ASA INSTRUMENT REFRESHER SIMULATOR



Instrument Refresher is specifically designed for instrumentrated pilots to get some dual on the maneuvers required to maintain currency. Everything necessary to be fully prepared for your next Instrument Proficiency Check (IPC) is here. Build confidence in your instrument skills and get over the refresher hurdle with the guidance of our qualified and knowledgeable virtual CFII. Intercept / track NAVAIDS,

holding procedures and approaches are all supported with interactive lessons. Use Instrument Refresher to stay fresh on the 6-month instrument currency requirements! PN 13-04264

HARDWARE OPTIONS FOR

ON TOP AND IP TRAINER



FLIGHT SIM YOKE USB - Top of the line yoke features 15 button functions, throttle, prop, mix-ture controls, X&Y trims, gear and flap switches. Requires USB computer connection and Windows 98®. Prop and mixture controls work only with Fly and FlightSim 2000 software.



backward slide motion for real simulation flying. Also works well as gas and brake controls for racing simulators. These 3 axes pedals are ideal with the 5 axes USB Flight Sim yoke. P/N 13-00738

and featuring six physical dent axis' and up to 350 buttons. Throttle Quandrant USB takes you from the computer to the cockpit. Features: 6 Axis 12 Buttons (24 Button functions w/Control Manager Software (included), 6 Physical Detents, Fully Programmable with CH Control manager, Compatible with Windows 98, Windows ME, Windows 2000 & Windows XP. Compatible with all Windows based Games. P/N 13-03377

VRTR400 CONSOLE SIMULATOR
The VR Aircraft VRTR400 Console Simulator offers
the ultimate in realism, flexibility, mobility, reliability,
and cost effective flight training! This high quality

instrument panel simulation system represents what you would find in a real single engine aircraft. The VRTR700 is as real as it gets! With today's rapidly escalating operating costs, you can keep flying without burning a drop of fuel, or worrying about the weather. With a small 42" x 18" footprint, the VRTR400 Console simulator will fit in very compact areas, on a desk or small table. Built to rugged specifications, VR simulators will give years of trouble free service. VR simulators are built tough enough to let big kids and non-pilots fly it HARD! Not supplied: PC Computer system capable of operating Microsoft flight simulator 2004 or FSX. Suggest 2.2ghz or higher 2Mb ram Video card(s) capable of having three video outputs. Microsoft flight simulator program Rudder pedals (USB)

MICROSOFT FLIGHT

flight SIMULATOR AS A TRAINING AID

Microsoft® Flight Simulator has inspired many thousands of young "gamers" to pursue flight training in real life and has provided certificated pilots with countless hours of entertainment. And even though there is an awareness that PC-based simulations—

and Microsoft Flight Simulator in particular—are helpful as aids in flight training and pilot proficiency, for many it is still unclear how best to benefit from the experience of virtual flying. P/N 13-04937.....



MICROSOFT FLIGHT

SIMULATOR DELU E EDITION

"Flight Simulator X" is the culmination of nearly 25 years of the landmark "Flight Simulator" franchise and the most significant addition to date. The 10th addition to the highly successful "Flight Simulator" franchise, this newest addition

will immerse players in a beautifully rich and realistic world, offering a completely new and innovative gaming experience with dozens of new aircrafts to choose from, including the AirCreations Kiss Ultralight and Maule M7-260C Orion with wheels and skis. Gamers of all ages, types and skills levels will experience firsthand what it's like to be an aviator traveling the globe either alone or online with others. Immersive World., Mission-based Gameplay, New Aircraft, Connected World, Interactive Airports. DVD-ROM for the Microsoft® Windows © 98, Windows 2000, Windows Millennium Edition (Windows Me), WindowsXP and Windows Vista™ operating systems P/N 13-04958......

VTS MULTIMEDIA TRAINING SOFTWARE



VTS training tools are priced affordably to allow each student to own a personal copy of the software.Each aircrafts systems are covered in detail far surpassing th general information provided in Pilots Information Manual. For example, the electrical schematic is presented on-screen just as it appears in the information manual. But instead

of just sitting there looking mysterilous and intimidating, this virtual schematic comes to life with a click of the mouse. Controls and indicators from the cockpit are also available on-screen, creating an animated simulation of the entire system.

drilling constitution of the critic system.	
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Aircraft Systems - WarriorP/N	13-03388
Aircraft Systems SeminoleP/N	13-03389

.**IGHT** SIMI

CH VIDEO GAME JOYSTICKS

Your pulse quickens, your muscles tighten, adrenaline surges through your veins as you engage enemy aircraft in gut wrenching aerial combat. With CH Products simulation controllers, the realism of your next combat mission ascends to new heights.

FLIGHTSTICK PRO - Windows 98, ME, 2000, XP, XP



64bit, Vista • 3 axes and 12 buttons – X, Y, and Z axes for Aileron, Elevator, and Throttle control – 4 traditional push buttons – 1 eight direction POV HAT switch • Total of 80 programmable functions with Control Manager software (included) · Simple ambidextrous handle · Dual rotary trim wheels for precise adjustment of ailerons and eleva-

tors • Side Throttle wheel • Large sturdy base with 7 foot USB cable • Plug and Play driverless USB installation • Quality industrial components



switch • Total of 128 programmable functions with Control Manager software (included) • Stylized F-16 handle • Dual rotary trim wheels for precise adjustment of allerons and elevators • Side Throttle wheel • Large sturdy base with

7 foot USB cable • Plug and Play driverless USB installation • Quality industrial components and construction . Two year limited warranty P/N 13-05614.....



FLIGHTSTICK - • Windows 98, ME, 2000, XP, XP 64bit, Vista • 3 axes and 24 buttons – X, Y, and Z axes for Aileron, Elevator, and Throttle control – 3 traditional push buttons – 1 mode switch button – 3 four direction HAT switches – 1 eight direction POV HAT switch • Total of 176 programmable functions with Control Manager software (included) Three color mode indicator LEDs on base • Realistic F-16

handle • Dual rotary trim wheels for precise adjustment of ailerons and elevators • Side Throttle wheel • Large sturdy base with 7 foot USB cable • Plug and Play driverless USB installation • Quality industrial components and construction • Two year limited warranty. P/N 13-05615.



PRO THROTTLE - · Windows 98, ME, 2000, XP, XP 64bit, Vista • 3 axes and 24 buttons - X and Y axes on miniature joystick – Z axis on accurate throttle sliding motion – 3 traditional push buttons – 1 mode switch button – 3 four direction HAT switches – 1 eight direction POV HAT switch • Total of 176 programmable functions with Control Manager software (included) •

Three color mode indicator LEDs on base • Ergonomic left hand HOTAS design • Large sturdy base with 7 foot USB cable • Plug and Play driverless USB installation • Quality industrial components and construction •



Two year limited warranty

P/N 13-05616.....

MULTI-FUNCTION PANEL - Fully Programmable Keyboard for Gamers Regain domination with the first revolutionary, fully programmable keyboard designed specifically for gamers! Expanding on the role of the traditional keyboard, the MFP allows the gamer to program individual keys to emulate any combination of the following: • Keystrokes • Joystick buttons • Mouse buttons • Joystick axis • Mouse axis Each wireless, programmable key

is re-usable, inexhaustible and can be removed and re-positioned any where on the MFP tray enabling a completely new customizable layout for each of your gaming needs. System requirements: • Windows 98, ME, 2000, XP, XP 64bit • Control Manager 4.2 installed (included) • USB

port		
CH 400-602 Multi-Function Panel P	N 13-05617	
CH 400-603 MFP key Sets 26-50 P	N 13-05618	
CH 400-604 MFP Key Tray P	N 13-05619	



HOT COMBAT SIM WITH DUAL SCREEN DIS-PLAYS - Includes freight anywhere in the 48 Contiguous United States. **Chassis**: HotSeat Flight SIM - a powder coated, steel tubular frame **Monitor**: 22" and 28" HD LCD Monitors **Gaming Sys**tem: Intel Quad Core Processor with 2.4 Mgs each, NVIDIA 512mb graphics card, 4 gigs ram, DVD Drive. **Sound System**: 6 Speaker -Hot Seat Dolby 5.1 surround sound with subwoofer under the seat. Gaming Controllers: Logitech wireless keyboard and mouse. Included Software: Microsoft FS X,

Deluxe Edition pre-installed P/N 13-06394.....

ALCO AVAILABLE

ALJU AVAILADLE.	
HotSeat Heli Sim	. P/N 13-06393
HotSeat Pilot Pro	. P/N 13-06392

Visit our website or call for complete details on these additional models

CH ECLIPSE YOKE



The new CH Eclipse !! Built with the same high end components you find in our industrial products, the CH Eclipse brings value added functions to compliment all your favorite sims.

Features

* Fully programmable fingertip paddles, ideal for flight and racing sims

- * Programmable trim / scroll wheels with center push function
- Two backlit push buttons and a third traditional push button

- Two 8-way hat with rocker switch and trigger on both sides of handle Configurable POV hat for either left or right hand use Colored handles for throttle / prop / fuel mixture
 Three color LED selector dial giving you a total of 240 programmable functions with CH Control Manager software
- Six analog 10 bit axes for aileron, elevator, throttle, propeller pitch, fuel and rudder
- New and improved industrial grade material / components; indestructible robust plastic, free floating shaft and clamp extenders for the thinnest of desks P/N 13-06127

AUDIOPILOT HEADSET ADAPTER



Wouldn't it be great to eliminate ambient room noises when you flight-sim?With AudioPilot you can! AudioPilot links your computer sound card to your aviation head-set—and puts you in the virtual cockpit. It's easy to use-just plug AudioPilot between your headset and the computer and take off! Immerse yourself in the experience and enjoy flight-simming the way it's meant to be. • Feeds computer sound into headset

with high fidelity · Connects mic for high-quality verbal communication • Compact, sturdy and convenient • Plug & play—no software to install AudioPilot is the perfect companion to your flight-sim setup— and the perfect gift for any armchair pilot. Order yours today!

VCT HEADSET ADPT BATTERY ONLY	P/N 13-04177
VCT HEADSET ADPT W/9V PLUG	P/N 13-04178
VCT HELI AUDIO PILOT	P/N 13-04179

HOTSEAT FLIGHT SIM®

Practice Makes Perfect. The very latest, HotSeat FLIGHT SIM® where you'll fly in a way you've never experienced. Flying on our available PC, you are as close to the real cockpit as possible. With it's 6-speaker Dolby Digital® 5.1 Surround Sound, the sound moves with your view. Fully capable for pilot training and upgrade training. Includes our custom LCD stand. You supply the flight controls, monitor and PC, or we can supply it for you. **Available colors:** Red, Blue, Yellow, Black. Custom colors



FLIGHT SIM ENTRY LEVEL - Includes freight anywhere in the 48 Contiguous United States. Chassis: HotSeat Flight SIM Monitor: Not included. Gaming System: Not included. Sound System: Hot Seat Dolby 5.1 surround sound with subwoofer under the seat. **Gaming Controllers:** Not included. **Included Accessories:** Flight Sim extended gaming console for flight controls and flight stacks, pedal mounts, cup



holder, integrated power strip. Included Software:
Not included. P/N 13-05279

FLIGHT SIM, EXTREME PC BUNDLE FLIGHT
READY W/27" HD READY MONITOR - Includes **KEADY W/2/** HD HEADY MUNITUR** - Includes freight anywhere in the 48 Contiguous United States. **Chassis**: HotSeat Flight SIM **Monitor**: 27" Widescreen HD LCD display and stand. **Gaming System**: NEW! Intel Quad Core 2.2 ghz , Nvidia 512mb, 4 gigs DDR2 RAM. HotSeat Extreme PC **Sound System**: Dolby 5.1 surround sound with subverted the cost. **Gaming Controllers**.

subwoofer under the seat. Gaming Controllers: C&H Yoke & Pedals, Logitech Wireless Keyboard and Mouse. Included Accessories: Flight Sim extended gaming console for flight controls and flight stacks, pedal mounts, cup holder, integrated power strip. Included Software: Microsoft Flight Sim X P/N 13-05280.....



HOTSEAT FLIGHT SIM EXTREME - Includes freight anywhere in the 48 Contiguous United States. HotSeat Flight SIM - a powder coated, steel tubular frame **Chassis**: HotSeat Flight SIM - a powder coated, steel tubular frame **Monitor**: 28" Widescreen HD LCD display and stand. **Gaming** System: Intel Quad Core Processor with 2.4 Mgs each, NVIDIA 512mb graphics card, 4 gigs ram, DVD Drive. Sound System: 6 Speaker -Dolby 5.1 surround sound with subwoofer under the seat. Gaming Controllers: Logitech wireless keyboard and mouse. Included

Software: Microsoft FS X, Deluxe Edition pre-installed

P/N 13-06391....

PS

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Geographic Coverage	Part No.	First Year Total	# of 2"Binders Required Order Separately
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East & Central	USC05		6
	S, NC, ND,		S, KY, LA, MA,,MD, ME, OH, OK, PA, RI, SC, SD, WV
Central	USD05		3
AR, IA, IL, II	N, KS, LA, I	MI, MN, MO, ND	, NE, OK, SD, TX, WI
Central & West	USE05		4
		_, IN, KS, LA, MI DR, SD, TX, UT,	, MN, MO, MT, ND, NE, WA, WI, WY
West	USF05		2
AZ, C	A, CO, ID,	MT, NM, NV, OF	R, UT, WA, WY
Southwest	USK05		1
	AZ, C	A, CO, NM, NV,	UT
Northwest	USL05		1
	ID,	MT, OR, WA, W	Υ
North Central	USN05		2
CO	, IA, KS, MI	N, MO, MT, ND,	NE, SD, WY
Great Lakes	USP05 IL, I	N, KY, MI, OH, V	NI 2
Northeast	USR05		2
CT, DE, DC	, MA, MD,	ME, NH, NJ, NY	, PA, RI, VA, VT, WV
Southeast	USS05		2
	AL, FL,	GA, MS, NC, S	C, TN
South Central	UST05 AR	, LA, NM, OK, T	1 X
N. Cntl. & Gt. La	ikesUSU05		3
CO, IA, IL, IN,	KS, KY, MI,	MN, MO, MT, N	ID, NE, OH, SD, WI, WY
S. & S. Central	USW05		2
AL, AR	, FL, GA, L	A, MS, NC, NM,	OK, SC, TN, TX
California	CAL05	CA	1
Florida	FLA05	FL.	1
Texas	TEX05	TX.	1
Gulf of Mexico	USY05		1
Gulf of Mexico (Helicopter Service), Instrument approaches within 200nm of the coast at airports with weather reporting capability. Also includes Gulf of Mexico Area chart.			

JEPPESEN AIRWAY MANUAL EXPRESS

WESTERN AREA

Northwest, J-NW:	Washington, Oregon, Idaho
West Central, J-WC:Montana, Wyoming	g, North Dakota, South Dakota
Southwest, J-SW: Nevada, Utah, A	rizona, New Mexico, Colorado
California, J-CA:	California
Alaska, J-AK:	Alaska

CENTRAL AREA

Central, J-CN:	Colorado, Nebraska, Kansas, Missouri
North Central, J-NC:	Minnesota, Iowa, Wisconsin
Great Lakes, J-GL:	Wisconsin, Illinois
East Central, J-EC:	Indiana, Ohio
South Central, J-SC:	Oklahoma, Arkansas, Louisiana
Texas, J-TX:	Texas
Michigan, J-MI:	Michigan

EASTERN AREA

Northeast, J-NE:	Maine, Massachusetts, Connecticut,
	New Hampshire,Rhode Island, Vermont
East, J-EA:	New York, Pennsylvania, New Jersey
Mid-Atlantic, J-MA: Virginia	Maryland, Delaware, West Virginia, D.C.
Southeast, J-SE:	Georgia, North Carolina, South Carolina
Mid-South, J-MS:Ke	ntucky, Tennessee, Mississippi, Alabama
Florida, J-FL:	Florida

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PS

EPPESEN AIRWAY ACCESSORI

JOG-15/JOG-30 CHART ORGANIZER



Transparent Pockets are ideal for holding trip charts, flight plans, aircraft checklists, etc. Index tabs & spiral binding make it easy



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Transparent durable vinyl pocket holds two enroute charts. 7-hole punched for binder.

P/N 8063



APPROACH CHART PROTECTOR

Protection plus. Transparent plastic envelopes protect your most frequently used approach charts, while accepting marks from almost any writing instrument. Easy Erase. Set of 10.

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PB-1.5 Denlon wrapped, 1.5" Rings, N	No Stay-Open Bar.
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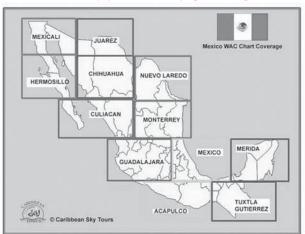
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Conforms to ICAO standards and recommendations. Standard Jeppesen format. Fits neatly into the Airway Manual Binder.

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AIR MAPS REFERENCE MAPS

ME ICO VFR WAC CHARTS



Published by INEGI - Mexico's National Institute of Statistics, Information & Geography. These World Aeronautical Charts (WAC) were released in 2008 and contain topographical, airport and navaid information. Mexico total of 6 individual charts. Updated every 4 years. SCALE 1:1,000,000. Note that aircraft landing in Mexico that departed from Central America, South America or the Caribbean are subject to special AOE requirements and can only use the Cozumel and Tapachula airports as AOE's. Detailed airport information and fuel availablilty can be found in the Pilot's Guide.

Description	Part No.	Price
Monterey-N.Laredo	13-06079	
Acapulco-Mexico	13-06080	
Tuxtla Gutierz-Mer	13-06081	
Chihuahua-Juarez	13-06082	
Hermosillo-Mexicali	13-06083	
Guadalaiara-Culiac	13-06084	



AVIATOR'S QUICK REFERENCE MAPS
Flight Case Map - US 5th Edition
This is the map that actually started it all and launched our business in 1988. The Aviators' Quick Reference Map has become standard equipment in the flight bags of thousands of professional pilots all over the world and is standard issue to the pilots of several major airlines

Colorful and accurate, these maps clearly depict state boundaries, time zones, major

cities and towns, rivers, lakes, mountain ranges, national parks and points of interest. Also listed are major airports and VOR's (with frequencies for easy identification). Hundreds of interesting state by state facts and figures are listed on the back side. Two finishes: laminated or tearproof. The laminated version has a writeon/wipe-off surface. Either is durable enough to with stand years of use. A great aid for making more interesting PA's. When folded, laminated map measures 10.5" x 16" and tearproof is 8" x 10.75". Both fit perfectly in a flight case. Scale 1"= 90 miles.

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U.S. QUICK REFERENCE WALL MAP Due to popular demand, we have come



up with an extra large version of our popular Aviators' Quick Reference Map and made it wall-size. Perfect for use at home, office, hangar, briefing room, etc. This map depicts state boundaries, time zones, major cities and towns, rivers, lakes, mountain ranges, national parks

and other points of interest. Also listed are major airports and VOR's (with frequencies for easy identification).

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As a passenger, did you ever hear another pilot make an exceptionally interesting PA and wonder where he or she picked up such interesting trivia? Well here's their secret.....the Skyclopedia of the USA.

A perfect companion to our Aviator's Quick Reference Maps is the Skyclopedia, written by veteran airline pilot Milt

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The same map as the US Flight Case Map, without the folds and a 1 inch border added with lattitudes and longitudes. Heavy map paper and laminate. Full map

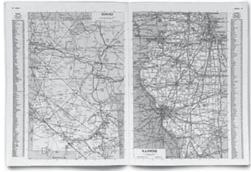
PN 13-05690.....

AVIATORS QUICK REFERENCE FLIGHT **CASE MAP - EUROPE**



Designed exactly with the same detail and colors as our U.S. Map, this Aviator's Quick Reference Map of Europe clearly depicts national boundaries, time zones, major cities and towns, rivers, lakes, mountain ranges, national parks as well as other points of interest. Listed are major airports as well as VOR's with names, frequencies and identifier codes. The tear-proof flight case-size maps measure 32.5" x 25" when unfolded and only 8" x 11" when folded. For mounting on a wall, we have a wall-sized laminated version that has a write-on/wipe-off surface and measures 35" x 27.5". Scale: 1" = 80 miles.
PN 13-05679.....

CAPTAIN'S ATLAS OF U.S.



Intended for the airline or business jet passenger, this flight reference map is designed primarily for trip planning and referencing landmarks of the USA while in flight.

Two versions of the map are offered: folded and a wall map. They are both packed with useful information on cities, parks, highways, and other points of interest from California to Maine.

The folded flight map is printed on durable tear-proof paper and fits perfectly in a seat pocket or briefcase, making it a great gift for the "Frequent Flyer"! The wall map is shipped to you rolled, has no folds and has a write-on/wipe-off surface. Flight Map measures write-on/wipe-от ѕитгасе. Filgrit iviap measures 8 1/2" x 11" when folded and the Wall Map is 34"wide x 23" high. PN 13-05691.....

CHARTS

WEATHERCYCLER WEATHER KIT



This slide chart gives pilots easy-to-understand explanations of weather systems including highs, lows, cold fronts, & warm fronts. The chart shows various weather symbols and provides a guide to become very familiar with aviation weather maps. Laminated for long life. Includes instruction booklet & study guide. Size: 8.5" x 11".
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ICE ADVICE™ provides the pilot a handy reference for avoiding, detecting and escaping icing conditions...one of the top concerns of general aviation instruments pilots. This chart, when employed with the icing risk chart on the front side, can help the pilot decide an altitude change that will lower the icing risk. ICE ADVICE™ is laminated in a durable 10 mil, satin matte finish, and is 8.0" x 5.5" P/N 13-04220.....

SCENIC FLIGHT MAPS



The Scenic Flight Maps give you many different routes for sightseeing to the major landmarks, famous places in Los Angeles and Orange County or San Diego area. The multiple color graphs and route pointers are really easy to read and follow. The map is laminated to keep from daily tears and protects from liquid spill. On the back side, it shows

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QUICK REFRESHER CHARTS



These Quick Refresher Charts provide a wealth of useful information that every pilot seems to forget over time. Available to "refresh" the pilot on IFR procedures & regulations, Weather info, VFR procedures & regulations, mountain flying, passenger info (the right seat), flying to Canada, and flying to the Bahamas. These charts are laminated for long life & fit right in your flight bag.

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Quick Refresher Weather	P/N 13-40416
Quick Refresher IFR	P/N 13-40516
Quick Refresher Mtn. Flying	P/N 13-00422
Quick Refresher The Right Seat	P/N 13-00423
Quick Refresher Flying to the Baha	mas P/N 13-00426

CANADA FLIGHT SUPPLEMENT IFR CHART



The Canada Flight Supplement is a joint civil/military publication. It contains information on Canadian and North Atlantic aerodromes and is used as a reference Features: "General: Tables, legends and associated information pertinent to interpretation of the supplement. "Aerodrome Directory: Data and sketches for Canadian aerodromes and heliports and selected aerodromes in the North Atlantic Planning Information for flight in the North Atlantic. Planning: Information for flight

planning, characteristics of airspace, chart updating, flight restrictions, IFR routes, airway intersections and chart distributors.

•Radio Navigation and Communications: Data for radio navigation aids and communication facilities.

•Military: Flight procedures and data, including sections on procedures for flight in the USA, North Atlantic and Alaska, air/ground communications and military training routes/areas. Emergency: Emergency procedures. •The Canada Flight Supplement, measuring 5 1/4 by 8 1/4 inches, is available in English or a bilingual format. Data for the province of Quebec and the National Capital Region are presented in French in the bilingual edition.

P/N 13-04424.....

AIR CHARTS: IFR ENROUTE CHARTS IN A BOUND VOLUME



IFR charts for the 48 contiguous states presented in one 11"x 11" spiral-bound volume. Charts are easier to locate when you need them, and easier to read in their large presentation. Meets FAA/IFR requirements. Included all 13 NOS are charts shown in full size, every frequency servicing every IFR airport, all VORs plotted in position on flight plan chart, Military training routes, planning charts showing major airways, airports, and topographical

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Full-scale, Full-color reproductions of FAA/ NACO Sectional Charts. No more hassle of finding charts or worrying about FAA ramp checks. Atlas format with convenient page numbering system eliminates the aggravation of folding and unfolding charts in the cockpit. With Air Chart's exclusive update service, you'll always have current, updated VFR Charts. (see

E-Z Updater on reverse) Aeronautical data on Sectional Charts includes all NAV/Comm frequencies, controlled airspace, airport identifiers and restricted areas. Only \$99 per year including update service! Eastern U.S. Atlas covers area east of the 97th meridian. Coverage extends westward to include area around Dallas, TX. Eastern VFR atlas

7. Edotoiii VIII dilao		
EASTERN	P/N	13-02478
WESTERN	P/N	13-03170
EAST/WEST	P/N	13-04382

AVIATION TOPOGRAPHIC ATLAS



Aviations first full-color chart atlas contains WAC scale charts for the 48 contiguous US states. In addition, all 30 class B Airspace and 130 Class C Airspace are reproduced from Sectional Scale charts. With Air Chart's exclusive NOTAM update service, you'll have current and legal VFR charts for the whole country. Easy to use key chart and page numbering makes navigation within the Atlas simple. You'd have to spend over \$400 to get all the charts contained in the

Aviation Topographic Atlas. Comes with coupon for 1-yr of 56 day updates from the publisher at no extra cost. P/N 13-01144............

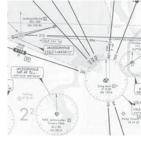
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P/N 13-00463...



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IFR AREA CHARTS - U.S.

United States Government Flight Information Publication IFR Area Charts - U.S. Area consisting part of: * A-1 Minneapolis/St. Paul * Detroit * St. Louis * Atlanta * Jacksonville * Miami * Washington * A-2 San Francisco * Los Angeles * Phoenix * Denver * Kansas City * Dallas/Fort Worth * Chicago/Milwaukee Chicago/Milwaukee
P/N 13-00773.....

NAVIGATION CHARTS



Sectional & VFR Terminal Charts for conterminous United States, Hawaii, Puerto Rico and Virgin Islands

Seattle Great Falls Billings Twin Cities Green Bay Lake Huron Montreal Halifax

Klamath Falls Cheyenne Omaha Chicago Detroit New York San Francisco Las Vegas

Denver Wichita St. Louis Cincinnati Washington Los Angeles Phoenix Albuquerque

Dallas/Fort Worth Memphis Atlanta El Paso San Antonio Houston New Orleans Jacksonville

Brownsville Miami Hawaii Kodiak **Dutch Harbor** Aleutian Islands Western Whitehorse

annually.

Sectional Charts...

Juneau Ketchikan Cape Lisburn Point Barrow Fairbanks Dawson Bethel

Seward

FAA SECTIONAL CHARTS Sectional aeronautical charts are designed for visual navigation of slow to medium speed aircraft. The topographic information featured consists of the relief and a judicious selection of visual checkpoints used for flight under visual flight rules. The checkpoints include populated places, drainage patterns, roads, railroads, and other distinctive landmarks. The aeronautical info on Sectional Charts includes visual and radio aids to navigation, airports, controlled airspace, restricted

areas, obstructions, & related data. (Scale 1"=6.86 nm/ 1:500,000.60"x20" folded to 5"x10") Revised semi-annually, except most Alaskan charts are revised

NOTE: When ordering charts, complete part no. with first 3 letters of chart title. Ex.: Seattle sectional is P/N 8403SEA. For Subscription service: Add -SUB (example: 8403SEA-SUB) and a new chart will be shipped & billed to you automatically at every revision until you cancel the subscription

Subscription chart orders require credit card no. on file

McGrath Anchorage Salt Lake City Kansas City Charlotte Cold Bay



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Chart Master is Aircraft Spruce's online chart selection program designed to tell you exactly which aviation charts you will need for the route you intend to fly. Just plug in the 3 letter airport identifiers for your departure and destination airports, and Chart Master will provide you with a list of all of the charts needed for your route. Select VFR (sectional, terminal, WAC, AFD, or IFR (Low altitude enroute) or both and order any or all of the charts listed by Chart Master. This program is available on line at www.aircraftspruce.com.

FAA VFR TERMINAL AREA CHARTS

Terminal Area Charts depict the airspace designated as Class B Airspace. The information found on these charts, while similar to that found on Sectional Charts, is shown in much more detail because of the larger scale. These charts should be used by pilots intending to operate from airfield within or near a Terminal Control Area or an Airport Radar Service Area. Locations of Terminal Area Charts are indicated by a on the Sectional Chart indexes. (Scale 1 inch = 3.43nm/1:250,000. 25 x 20 inches folded to 5 x 10 inches.) Revised semi-annually, except Puerto Rico/Virgin Islands is revised annually.

NOTE: When ordering charts, complete part number with first 3 letters of chart title. Ex: Los Angeles terminal chart is P/N 8064LOS.

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CINCINNATI VFR TERMINAL AREA & FLYWAY CHART

P/N 13-21000

Atlanta	Detroit	Minneapolis	San Francisco
Boston	Honolulu	New Orleans	Seattle
Charlotte	Houston	New York	St. Louis
Chicago	Kansas City	Philadelphia	Orlando/Tampa
Cincinnati	Las Vegas	Phoenix	'
Cleveland	Los Angeles	Pittsburgh	Washington
Dallas	Memphis	Salt Lake City	Anchorage/
Denver	Miami	San Diego	Fairbanks

AIRPORT / FACILITY DIRECTORY



The Airport/Facility directory is a pilot's manual which contains data on public and joint use airports, seaplane bases, heliports, VFR airport sketches, NAVAIDs, communications data, weather data sources, airspace, special notices, VFR waypoints and operational procedures. The seven volumes cover the conterminous United States, Puerto Rico, and the Virgin Islands. Includes data that cannot be readily depicted in graphic form; e.g., airport hours of operation, types of fuel available, runway data, lighting codes, etc

Area	Part No.
Southwest U.S.	AFD-SW
Northwest U.S.	AFD-NW
So. Central U.S.	AFD-SC
No. Central U.S.	AFD-NC

Area	Part No.
East Central U.S	AFD-EC
Southeast U.S.	AFD-SE
Northeast U.S.	AFD-NE

LARGE–FORMAT CHART WALLET
This chart wallet helps pilots organize, hold, carry, and display 22 standard NOS charts conveniently. The black padded cover features the silver wings

World Aeronautical Charts for the conterminous U.S., Mexico, & Caribbean Areas

WORLD AERONAUTICAL CHARTS

World Aeronautical Charts by NOS are designed to provide standard for the land areas of the world in a size and scale convenient for navigation by moderate-speed aircraft. Topographic information includes cities and towns, principle roads, railroads, distinctive landmarks, drainage, and relief. Aeronautical information includes visual and radio aids to navigation, airports, airways,restricted areas, obstructions, and other data considered pertinent. Scale 1:1,000,000 or 1" to 13.7 nautical miles, less detailed than Sectional & Terminal Area Charts, but useful for longer distance planning. Revised annually. 12 charts cover the US

P/N 8567 ea WAC Charts Set of 12 U.S. WAC charts...... P/N 8805...... NOTE: When ordering charts, complete part no. with chart

Example: WAC chart CF-17 is P/N 8567CF-17.

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World Aeronautical Charts for Alaska

OTHER VFR CHARTS:		
VFR-IFR Wall Planning Chart (U.S.)	P/N 13-30703	
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Baltimore-Washington Helicopter Route Chart	P/N 13-30707	
Chicago Helicopter Route Chart	P/N 13-30709	
Houston Helicopter Route Chart	P/N 13-30711	
Los Angeles Helicopter Route Chart	P/N 13-30712	
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CHART MASTER

Chart Master is Aircraft Spruce's new online chart selection program designed to tell you exactly which aviation charts you will need for the route you intend to fly. Just plug in the 3 letter airport identifiers for your departure and destination airports, and Chart Master will provide you with a list of all of the charts needed for your route. Select VFR (sectional, terminal, WAC, AFD, or IFR (Low altitude enroute) or both and order any or all of the charts listed by Chart Master. This program is available on line at www.aircraftspruce.com

NW-1 NC-1 NE-EC-1 EC-3 NE-2 SW-2 NC-3 NF-4 EC-2 NC-2 NE-3 SW-3 SW-1 SC-1 SE-4 SC SC-3

TERMINAL PROCEDURES COVERAGE OF THE CONTERMINOUS U.S

Includes: • Instrument Approach Procedure (IAP) Charts • Departure Procedure (DP) Charts • Standard Terminal Arrival (STAR) Charts • Charted Visual Flight Procedures (CVFP) • Airport Diagrams IAP Charts are designed to provide an IFR descent from the enroute environment to a point where a safe landing can be made. DP charts are Air Traffic Control (ATC)-coded departure procedures which have been established at certain airports to simplify clearance delivery procedures. STAR charts are ATC-coded IFR arrival routes established for certain airports to simplify clearance delivery procedures. CVFPs are an operational technique designed to move air traffic safely and expeditiously. In addition to conventional visual approach procedures, it has been necessary to specify routes/altitudes to enhance noise abatement at some locations. CVFPs have been developed to provide a pictorial display of these visual arrival routes. Airport Diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating geodetic position navigational systems aboard aircraft.

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North Central Vol. 1	13-01344	13-01357
North Central Vol. 2	13-01345	13-01358
North Central Vol. 3	13-01346	13-01359
Northeast Vol. 1	13-01347	13-01360
Northeast Vol. 2	13-01348	13-01361
Northeast Vol. 3	13-01349	13-01362
Northeast Vol. 4	13-02062	13-02063
Northwest Vol. 1	13-01350	13-01363

CALIFORNIA AERONAUTICAL CHART

If you are planning a flight within the state of California, check out the 2002-2003 California Aeronautical Chart, which covers the entire state on one page and also include 5 sectional charts (Klamath Falls, San Francisco, Los Angeles, Phoenix and Las Vegas) The chart is designed for planning purposes, not for navigation. P/N 13-30800.....

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most trusted names in aviation.

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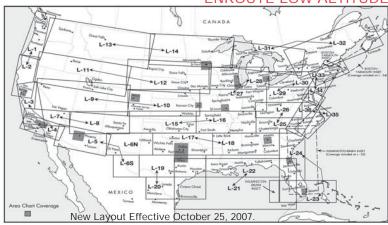


Туре	Description	Part No.	Price
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Enroute	NC-14, Denver - Cheyene (DEN)	13-06521	
Enroute	SC-1, Dallas - Houston (DAL)	13-06522	
Enroute	SC-2, Houston - New Orleans (HOU)	13-06523	
Enroute	SE-4, Georgia	13-06524	
Enroute	SE-7, Northern Florida	13-06525	
Enroute	SE-8, Southern Florida	13-06526	
Enroute	NW-1, Northern California	13-06527	
Enroute	W-2, Southern California	13-06528	
Area	Atlanta (ALT)	13-06536	
Area	Chicago (CHI)	13-06537	
Area	Dallas - Ft. Worth (DAL)	13-06538	
Area	Denver	13-06539	
Area	Houston (HOU)	13-06540	
Area	Los Angeles - San Diego (LA)	13-06541	

Туре	Description	Part No.	Price
Area	Miami (MIA)	13-06542	
Area	New Orleans (NO)	13-06543	
Area	San Francisco (SF)	13-06544	
Area	Tampa - Orlando (TAM)	13-06545	
Enroute	SE-1, South Carolina	13-06529	
Enroute	SE-2, Charlotte (CHA)	13-06530	
Area	Charlotte (CHA)	13-06546	
Enroute	W-3, Phoenix	13-06532	
Area	Phoenix (PHO)	13-06547	
Enroute	NE-1, BOSTON (BOS)	13-06533	
Enroute	NE-2, New York - Philadelphia	13-06534	
Enroute	SE-3, Memphis (MEM)	13-06535	
Area	Boston (BOS)	13-06548	
Area	Memphis (MEM)	13-06549	
Area	New York - Philadelphia (NY PHI)	13-06550	

INSTRUMENT NAVIGATION CHARTS

ENROUTE LOW ALTITUDE CHARTS



Enroute low altitude charts for conterminous U.S. (includes area charts)

Enroute Low Altitude charts (Conterminous U.S. and Alaska) provide aeronautical information for navigation under instrument flight rules below 18,000 feet MSL. Information includes: airways: limits of controlled airspace; position, identification, and frequencies of radio aids to navigation (Alaska 4-color series includes geographic coordinates); airports with terminal air/ground communications; minimum enroute and obstruction clearance altitudes; airway distances; reporting points; special use airspace areas; military training routes. Scales vary from 1 inch = 5nm to 1 inch = 20nm. 50 x 20 inches folded to 5 x 10 inches. Revised every 8 weeks. Area charts, which show congested terminal areas at a large scale, are included with subscriptions to any conterminous U.S. Set Low (Full set, East or West sets). Chart L-28 covers the Washington-Boston corridor at a scale similar to an Area Chart. Charts are revised every 8 weeks.

Enroute Low Altitude Charts P/N 8070L/ea
Full Set (L1/2-L27/28 & Area Chart)
P/N 13-30714

rea charts) Western U.S. Set (L1/2-L15/16 & Area Chart)
P/N 13-30716
Eastern U.S. Set (L11/12, L13/14, L17/18-L27/28 & Area Chart)
P/N 13-30717

IFR GULF OF MEXICO VERTICAL FLIGHT REFERENCE CHART (HELICOPTERS) THIS Chart features: IFR GPS wavpoint grid system for direct routing to

until you cancel the subscription. Subscription chart orders require a credit card number on file.

THIS Chart features: IFR GPS waypoint grid system for direct routing to and from offshore platforms; Oil lease block information; NAVAID data, Airport data; Chart scale of 1:500,000; Two-sided printing; Available folded (5" x 9") or flat (45" x 36").

Area of coverage: From latitude 26° 20′ north to the U.S. Gulf Coast.From approximately longitude 87° 30′ west to the Texas Coast.

P/N 13-30721.....

When ordering individual charts, complete part number with the chart number. Example: Enroute Low Altitude Chart L-10 is P/N 8070L-10. For SUBSCRIPTION service, add -SUB (example: 8070L-10-SUB) and a new chart will be shipped and billed to you automatically at every



revision

CHART MASTER

Chart Master is Aircraft Spruce's online chart selection program designed to tell you exactly which aviation charts you will need for the route you intend to fly. Just plug in the 3 letter airport identifiers for your departure and destination airports, and Chart Master will provide you with a list of all of the charts needed for your route. Select VFR (sectional, terminal, WAC, AFD, or IFR (Low altitude enroute) or both and order any or all of the charts listed by Chart Master. This program is available on line at www.aircraftspruce.com.

IFR ENROUTE HIGH ALTITUDE CHARTS

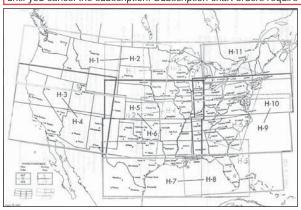
IFR Enroute High Altitude Charts (Conterminous U.S. and Alaska) are designed for navigation at or above 18,000 feel MSL. This four color chart series includes: Jet route structure; VHF radio aid to navigation (frequency, ID, channel, geographic coordinates); selected airports; reporting points. (Scales vary from 1" = 78nm to 1" = 30nm. 55 x 20" folded to 5 x 10".) Revised every 8 weeks.

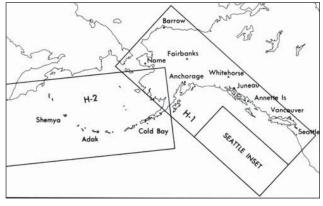
NOTE: When ordering individual charts, complete part no. with the chart no. Ex: Enroute High Altitude Chart H1/2 is P/N 8075-H1/2.

Enroute low altitude charts for Alaska

Full Set (H1/H2, H3/H4, H5/6, H9/H10, H11),(H3/H4, H5/H6, H7/H8-very small area, H9/H10), (H3/H4-very small area, H5/H6, H7/H8, H9/H10, H11) P/N 8075-1

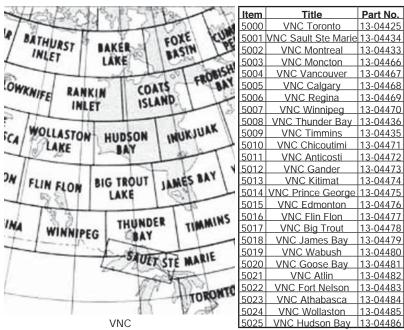
For SUBSCRIPTION service: Add -SUB (example: 8075-H1/2-SUB) and a new chart will be shipped and billed to you automatically at every revision until you cancel the subscription. Subscription chart orders require a credit card number on file.





CANADIAN VNC (VFR) CHARTS

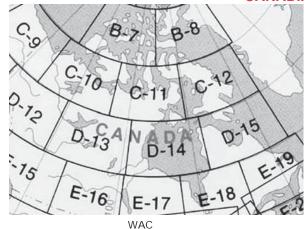
The VNC is used by VFR pilots on short to extended cross-country flight at medium altitudes and at low to medium airspeeds. These charts show aerodrome data, airspace information, radio aids to navigation, air/ground communications, and elevation with contour lines, tints and shaded relief.



Item	Title	Part No.	Price
5000	VNC Toronto	13-04425	
5001	VNC Sault Ste Marie	13-04434	
5002	VNC Montreal	13-04433	
5003	VNC Moncton	13-04466	
5004	VNC Vancouver	13-04467	
5005	VNC Calgary	13-04468	
5006	VNC Regina	13-04469	
5007	VNC Winnipeg	13-04470	
5008	VNC Thunder Bay	13-04436	
5009	VNC Timmins	13-04435	
5010	VNC Chicoutimi	13-04471	
5011	VNC Anticosti	13-04472	
5012	VNC Gander	13-04473	
5013	VNC Kitimat	13-04474	
5014	VNC Prince George	13-04475	
5015	VNC Edmonton	13-04476	
5016	VNC Flin Flon	13-04477	
5017	VNC Big Trout	13-04478	
5018	VNC James Bay	13-04479	
5019	VNC Wabush	13-04480	
5020	VNC Goose Bay	13-04481	
5021	VNC Atlin	13-04482	
5022	VNC Fort Nelson	13-04483	
5023	VNC Athabasca	13-04484	
5024	VNC Wollaston	13-04485	

Item	Title	Part No.	Price
5026	VNC Inukjuak	13-04487	
5027	VNC Ungava	13-04488	
5028	VNC Whitehorse	13-04489	
5029	VNC Ft Simpson	13-04490	
5030	VNC Yellowknife	13-04491	
5031	VNC Rankin	13-04492	
5032	VNC Coats Isl.	13-04493	
5033	VNC Frobisher	13-04494	
5034	VNC Klondike	13-04495	
5035	VNC Great Bear Lake	13-04496	
5036	VNC Bathurst Inlet	13-04497	
5037	VNC Baker Lake	13-04498	
5038	VNC Foxe Basin	13-04499	
5039	VNC Cumberland	13-04501	
5040	VNC MacKenzie	13-04502	
5041	VNC Amundsen	13-04503	
5042	VNC Cambridge	13-04504	
5043	VNC Boothia	13-04505	
5044	VNC Baffin Bay	13-04506	
5045	VNC Banks Island	13-04507	
5046	VNC Resolute	13-04508	
5047	VNC Devon Island	13-04509	
5048	VNC Hazen Strait	13-04510	
5049	VNC Ellesmere	13-04511	
5050	VNC Alert	13-04512	
5099	VNC Alaska Highway	13-04516	

CANADIAN WAC CHARTS



Item	Title	Spruce PN	Price
WACA5	C-WAC A5	13-04517	
WACB7	C-WAC B-7	13-04518	
WACB8	C-WAC B-8	13-04519	
WACC9	C-WAC C-9	13-04520	
WACC10	C-WAC C-10	13-04521	
WACC11	C-WAC C-11	13-04522	
WACD12	C-WAC D-12	13-04524	
WACD14	C-WAC D-14	13-04526	
WACD15	C-WAC D-15	13-04527	
WACE17	C-WAC E-17	13-04530	
WACE18	C-WAC E-18	13-04531	
WACE19	C-WAC E-19	13-04532	



Enroute Low and High Altitude charts provide aeronautical information for instrument navigation in the low and high airway structure of the Canadian Domestic Airspace. The airspace over foreign territory and international waters in which Canada accepts responsibility for the provision of air traffic services, and other areas required for mili-tary use. The primary purpose of Enroute charts is to depict radio navigation data to provide rapid and precise location and identification of

information requisite to radio instrument navigation.

Item	Title	Spruce PN	Price
LE12	LE12 Low Enroute Chart 1-2	13-04539	
LE34	LE34 Low Enroute Chart 3-4	13-04541	
LE56	LE56 Low Enroute Chart 5-6	13-04542	
LE78	LE78 Low Enroute Chart 7-8	13-04543	
LF910	LE910 Low Enroute Chart 9-10	13-04544	



CANADA AIR PILOT

The Canada Air Pilot contains aeronautical information related to the conduct of the arrival or departure portion of flight instrument approach procedures, standard instrument departure procedures and noise abatement procedures.

Item	Title	Spruce PN	Price
CAP1	NWT Canada Air Pilot	13-04553	
CAP2	British Columbia Canada Air Pilot	13-04554	
CAP3	Prairies Canada Air Pilot	13-04555	
CAP4	Ontario Canada Air Pilot	13-04556	
CAP5	Quebec (English) Canada Air Pilot	13-04557	
CAP6	Quebec (French) Canada Air Pilot	13-04558	
CAP7	Atlantic Canada Air Pilot	13-04559	