

CARBURETORS

REPLACEMENT CARBURETORS FROM KELLY AEROSPACE



Aircraft Spruce & Specialty, as a factory distributor, offers a carburetor exchange program covering all popular Marvel Schebler/Facet general aviation carburetors. These carburetors are overhauled to the strictest industry standards and carry a full one year warranty (from date of installation). Most carburetors are available from stock or within a week and are furnished complete with gaskets. Due to the various configurations of carburetor installations, we suggest you retain your carburetor core until receiving the exchange unit. This will enable you to transfer all external fittings and installation hardware to the new exchange unit. All cores being returned for credit shall be, as removed from the engine, complete and not disassembled. A reduction in core credit is charged for missing or damaged parts.

LYCOMING CARBURETORS

Part No.	Carb. Model	O.E.M. P/N	* Our Price	Part No.	Carb. Model	O.E.M. P/N	*Our Price
A10-2828	MA-4-5	66458	\$634.00	A10-5062	MA-4SPA	LW-11222	\$ 514.00
A10-2983	MA-3A	61383	514.00	A10-5092	HA-6	LW-12097	634.00
A10-3103-1	MA-3A	61547	514.00	A10-5126	MA-3PA	LW-13133	514.00
A10-3323	MA-4-5	66869	634.00	A10-5135	MA-4SPA	LW-13659	514.00
A10-3346-1	MA-3SPA	62289	514.00	A10-5142	MA-3PA	LW-14016	514.00
A10-3391-1	MA-4-5	67713	634.00	A10-5180	HA-6	LW-14689	634.00
A10-3634	MA-4-5	69540	634.00	A10-5189	HA-6	LW-13757	634.00
A10-3678-12	MA-4SPA	69250	514.00	A10-5193	MA-4-5	LW-15380	634.00
A10-3678-32	MA-4SPA	72394	514.00	A10-5199	MA-3A	LW-15496	514.00
A10-3729	MA-3SPA	68856	514.00	A10-5200	HA-6	LW-15504	634.00
A10-3856	MA-4-5	69633	634.00	A10-5200-1	HA-6	LW-15981	634.00
A10-3856-1	MA-4-5	71546	634.00	A10-5206	HA-6	LW-15626	634.00
A10-3856-11	MA-4-5		634.00	A10-5206-1	HA-6	LW-16062	634.00
A10-3856-12	MA-4-5	71685	634.00	A10-5206-11	HA-6	LW-16413	634.00
A10-3878	MA-4-5	71098	634.00	A10-5210	HA-6	LW-15663	634.00
A10-4025	MA-4-5AA	71139	634.00	A10-5211	HA-6	LW-15674	634.00
A10-4025-1	MA-4-5AA	71684	634.00	A10-5211-1	HA-6	LW-15985	634.00
A10-4025-11	MA-4-5AA	71684	634.00	A10-5217	MA-4SPA	LW-15986	514.00
A10-4025-12	MA-4-5AA	71684	634.00	A10-5219	HA-6	LW-15957	663.75
A10-4057 (1)	MA-4-5	71654	634.00	A10-5220-E	MA-3PA		514.00
A10-4164	MA-4-5	71710	634.00	A10-5220	MA-3PA	LW-16073	514.00
A10-4164-1	MA-4-5	71710	634.00	A10-5221	HA-6	LW-16066	634.00
A10-4218-1	MA-6AA	72407	634.00	A10-5224	HA-6	LW-15958	634.00
A10-4329	MA-4-5	72386	634.00	A10-5227	HA-6	LW-16206	634.00
A10-4401-1	MA-6AA	72920	634.00	A10-5230	HA-6	LW-15959	634.00
A10-4404	MA-4-5	72740	634.00	A10-5235	HA-6	LW-15960	634.00
A10-4404-1	MA-4-5	74121	634.00	A10-5238	HA-6	LW-15961	634.00
A10-4438	MA-4-5AA	72936-Y	634.00	A10-5243	HA-6	LW-15963	634.00
A10-4438-1	MA-6AA	73899	634.00	A10-5246	HA-6	LW-16028	634.00
A10-4495	MA-4-5AA	73257	634.00	A10-5253	HA-6	LW-16518	634.00
A10-4910	MA-4SPA	77279	514.00	A10-5255	HA-6	LW-16625	634.00
A10-4910-1	MA-4SPA	LW-16559	514.00	A10-5256	HA-6	LW-16419	634.00
A10-4953	MA-3A	77585	514.00	A10-5257	MA-3PA	LW-16677	514.00
A10-4975	MA-6AA	77888	634.00	A10-5258	HA-6	LW-16691	634.00
A10-4978-1	MA-SPA	77939	514.00	A10-5261	HA-6	LW-16721	634.00
A10-5009	MA-4SPA	78728	514.00	A10-5264	HA-6	LW-16560	634.00
A10-5034	MA-4-5	LW-10064	634.00	A10-5267	MA-3PA	LW-16097	514.00
A10-5042	MA-4-5	LW-10196	634.00	A10-5280-1	HA-6	LW-18999	634.00
A10-5045	HA-6	LW-10260	634.00	A10-5282	HA-6	LW-18662	634.00
A10-5045-1	HA-6	LW-12175	634.00	A10-5283	HA-6	LW-18663	634.00
A10-5050	MA-3PA	LW-10619	514.00	A10-5288	MA-4-5	LW-18788	634.00
A10-5054	MA-4-5	LW-10540	634.00	A10-6001	HA-6	LW-18987	634.00



CONTINENTAL CARBURETORS

Part No.	Carb. Model	O.E.M. P/N	* Our Price	Part No.	Carb. Model	O.E.M. P/N	*Our Price
A10-2848	MA-3SPA	40366	514.00	A10-4191	MA-4-5	626859	634.00
A10-2948	MA-3SPA	40796	514.00	A10-4233	MA-3SPA	627365	514.00
A10-3168	MA-4-5	520120	634.00	A10-4240	MA-3SPA	627637	514.00
A10-3237	MA-3SPA	530490	514.00	A10-4439	MA-3SPA	628945	514.00
A10-3649-1	MA-4-5	535207	634.00	A10-4457	MA-3SPA	629175	514.00
A10-3759	MA-4-5	535207	634.00	A10-4893	MA-4-5	633027	634.00
A10-3859	MA-4-5	538872	634.00	A10-4893-1	MA-4-5	641139	634.00
A10-3859-1	MA-4-5	538872	634.00	A10-4894	MA-3SPA	633028	514.00
A10-3965-1	MA-4-5	539883	634.00	A10-4895	MA-3SPA	633029	593.75
A10-3965-11	MA-4-5	539883	634.00	A10-5067	MA-3SPA		
A10-3965	MA-4-5	539883	634.00	A10-5082	MA-3SPA	637035	514.00
A10-3965-12	MA-4-5	539883	634.00	A10-5128	MA-3SPA	640416	514.00
A10-4115-1	MA-3SPA	627143	514.00	A10-5192	MA-3SPA	641860	634.00
A10-4171	MA-4-5	626789	634.00	A10-5284	MA-4-5	646232	634.00

*All prices shown are with factory acceptable exchange carburetor. Add \$400 core charge on all models (except MA-4-5, MA-4-5AA, MA-6AA, MH-A-6. These have core charge of \$500.00) to each price shown. Send exchange carburetor core to Aircraft Spruce. Upon factory approval of core, you will be refunded the core charge.

FRANKLIN ENGINE CARBURETORS ALSO AVAILABLE. ADVISE EXACT ENGINE AND CARBURETORS ALSO AVAILABLE. ADVISE ENGINE AND CARBURETOR MODEL NUMBERS AND REQUEST QUOTATION.

CARBURETOR PARTS

MARVEL-SCHEBLER FACET REPLACEMENT CARBURETOR PARTS FROM KELLY AEROSPACE

Mfg. Ref.	P/N 07-066xx	Description.	Our Price	Mfg. Ref.	P/N 07-066xx	Description.	Our Price	Mfg. Ref.	P/N 07-066xx	Description.	Our Price
CF16-A39	01	Gasket	\$2.20	CF15-483	66	Screw	\$1.22	CF778-1005	36	Throttle Shaft	\$100.00
CF16-A42	02	Gasket	\$2.15	CF15-58	67	Screw	\$1.43	CF778-1006	37	Throttle Shaft	\$100.95
CF16-A4B	03	Gasket	\$3.70	CF15-A14	68	Screw	\$1.41	CF778-1007	38	Throttle Shaft	\$88.50
CF16-A56	04	Gasket	\$9.20	CF15-A23	69	Screw	\$1.41	CF778-1008	39	Throttle Shaft	\$66.50
CF16-B44	05	Gasket	\$3.30	CF15-B108	70	Screw	\$2.10	CF778-1009	40	Throttle Shaft	\$66.50
CF16-B45	06	Gasket	\$2.15	CF15-B109	71	Screw	\$2.40	CF778-1014	41	Throttle Shaft	\$101.95
CF16-B85	08	Gasket	\$4.85	CF15-B98	72	Screw	\$3.35	CF778-1015	42	Throttle Shaft	\$100.00
CF17-372	09	Rod	\$15.10	CF16-222	73	Gasket	\$4.95	CF778-1016	43	Throttle Shaft	\$122.95
CF17-383	10	Rod	\$13.90	CF16-224	74	Gasket	\$1.99	CF778-1017	44	Throttle Shaft	\$122.95
CF194-580	11	Pump Plunger	\$65.50	CF16-625	75	Gasket Kit	\$52.00	CF778-1018	45	Throttle Shaft	\$128.95
CF194-581	12	Pump Plunger	\$48.70	CF16-632	76	Gasket Kit	\$51.50	CF778-1019	46	Throttle Shaft	\$124.50
CF194-591	13	Pump Plunger	\$66.50	CF16-646	77	Gasket Kit	\$51.50	CF78-121	47	Washer	\$1.75
CF194-593	14	Pump Plunger	\$62.25	CF16-653	78	Gasket Kit	\$26.85	CF78-388	48	Washer	\$0.85
CF194-605	15	Pump Plunger	\$73.25	CF16-676	79	Gasket Kit	\$26.85	CF78-A109	49	Washer	\$2.30
CF233-614	16	Valve & Seat	\$58.50	CF16-696	80	Gasket Kit	\$26.70	CF78-A110	50	Washer	\$2.35
CF233-615	17	Float Valve	\$48.50	CF16-713	81	Gasket Kit	\$22.50	CF78-A111	51	Washer	\$2.20
CF24-262	18	Spring	\$1.51	CF16-735	82	Gasket Kit	\$24.40	CF78-A40	52	Washer	\$1.41
CF24-A10	19	Spring	\$3.05	CF16-A107	83	Gasket	\$2.15	CF78-A97	53	Washer	\$2.20
CF24-A115	20	Spring	\$2.60	CF16-A108	84	Gasket	\$3.05	CF81-311	54	Nut	\$3.05
CF24-A30	21	Spring	\$2.60	CF16-A16	85	Gasket	\$2.15	CF13-1519	55	Throttle Shaft	\$91.75
CF24-A33	22	Spring	\$2.60	CF16-A28	86	Gasket	\$2.45	CF13-1520	56	Throttle Shaft	\$91.75
CF29-182	23	Clip	\$7.10	CF16-A30	87	Gasket	\$2.95	CF13-1521	57	Throttle Shaft	\$82.00
CF32-32	24	Shaft	\$14.20	CF16-A31	88	Gasket	\$3.60	CF13-1522	58	Throttle Shaft	\$98.75
CF32-35	25	Shaft	\$13.40	CF16-A32	89	Gasket	\$3.05	CF13-1523	59	Throttle Shaft	\$103.95
CF32-72	26	Valve	\$10.60	CF16-A36	90	Gasket	\$2.95	CF13-1531	60	Throttle Shaft	\$90.75
CF34-91	27	Valve	\$9.10	CF82-1	91	Pin	\$0.75	CF13-1533	61	Throttle Shaft	\$108.95
CF44-220	28	Packing	\$4.20	CF82-11	92	Pin-Cotter	\$0.86	CF155-226	62	Lever	\$11.00
CF44-223	29	Packing"O" Ring	\$4.90	CF82-14	93	Pin-Cotter	\$0.86	CF155-307	63	Lever	\$18.75
CF44-224	30	Packing	\$4.20	CF99-44	94	Plug	\$6.10	CF15-126	64	Screw	\$3.75
CF44-49	31	Packing	\$10.10	CF99-8	95	Plug	\$8.30	CF43-648	07-06702	Needle	\$19.40
CF60-260	32	Bushing	\$9.85	CF47-850	96	Nozzle	\$95.75	CF43-564	07-06701	Needle	\$24.30
CF60-A160	33	Bushing	\$14.70	CF47-851	97	Nozzle	\$82.50				
CF778-1003	34	Throttle Shaft	\$105.95	CF47-852	99	Nozzle	\$99.95				
CF778-1004	35	Throttle Shaft	\$101.95								

NOTE: Order Carburetor parts by 07-066xx part numbers.



SERVICE MANUAL

Marvel-Schebler aircraft carburetor parts and service manual covering detailed parts list, overhaul data, price list. Includes subscription service.

P/N 07-05400\$98.50

REPLACEMENT CARBURETOR VENTURI'S (ONE PIECE)

These one piece Venturis replace old type primary and main Venturis in Marvel-Schebler carburetors. Order by new Venturi part number.

Old Main Venturi	New 1-Piece Venturi	Our Price	Old Main Venturi	New 1-Piece Venturi	Our Price
46-462	46-F7	\$82.75	46-A2	46-F10	\$44.60
46-486	46-F8	\$76.95	46-A65	46-F11	\$77.25
46-498	46-F9	\$77.25	46-A70	46-F12	\$45.20



FLOAT NEEDLE SEAT DRIVER

This Float Needle Seat Driver is applicable to Marvel-Schebler MA3 and MA4 carburetors and is quality made of alloy steel. It facilitates the easy removal of needle valve seats, prevents damage to the main casting and the new seat during installation, and insures proper torque application. Features 7/16" hex drive fitting.

P/N 12-30190.....\$61.00



REPLACEMENT FLOAT KITS

1984 FAA Service Bulletin A1-84 recommends replacing old Marvel-Schebler floats with the following float kits which feature metal floats to replace old plastic floats:

	List Price	Our Price
Kit 666-915		
For MA3, MA3-SPA, MA4-SPA	\$140.25	\$79.50
Kit 666-916		
For MA4-5, MA5, MA6	\$144.25	\$85.50
Kit 666-917		
For HA-6	\$148.75	\$87.25
Needle and Seats for MA3-4 #233-615	P/N 07-06617	\$48.50
Needle and Seats for MA4-5 #233-614	P/N 07-06616	\$58.50

REPAIR KITS & PARTS FOR COMMON MARVEL-SCHEBLER CARBURETORS

Lycoming No.	Marvel-Schebler		Major Repair Kit Price
	Kit P/N	Carb P/N	
62289	286-1628	10-3346-1	\$561.00
69250	286-1624	10-3678-12	\$478.95
62830	286-1630	10-3565-1	\$772.00

NOTE: Many Marvel-Schebler replacement parts are no longer available from Facet. On items not priced in table above, order a minor or major repair kit. Major kits are priced above and minor kits are quoted on request.

CARBURETORS

CARBURETOR OVERHAUL QUICK KITS

Kelly Aerospace "Quick Kits" are easy to use, and are designed to save you time and money. Quick Kits include not only the recommended replacement parts used in every overhaul, but the additional parts used by all fuel professionals to insure the job is done right.

Kits include (where applicable): Throttle shaft lever, throttle shaft, throttle adjusting screw, throttle valve screws, inlet strainer screws, throttle body screws, mixture control lever screw, gasket kit, pump connection rod, throttle adjustment spring, throttle opening spring, idle adjustment spring, float lever shaft, pump stem, throttle shaft bushings, inlet strainer washer, pump stem retainer washer, mixture control lever washer, throttle body washers, throttle lever lock nut, float shaft cotter pin, throttle nut cotter pin, pump lever, pump plunger assembly and float valve seat assembly.

FRANKLIN CARBURETORS		CONTINENTAL CARBURETORS		LYCOMING CARBURETORS		LYCOMING CARBURETORS		KIT P/N	PRICE
P/N	"QUICK KIT" P/N	P/N	"QUICK KIT" P/N	P/N	"QUICK KIT" P/N	P/N	"QUICK KIT" P/N		
10-2971-P	CF286-02	10-4457	CF286-02	10-3856-1	CF286-06	10-5142	CF286-01	CF286-00	\$151.95
10-3007	CF286-06	10-4893	CF286-05	10-3856-11	CF286-06	10-5180	CF286-10	CF286-01	\$206.95
10-3063-2	CF286-06	10-4893-1	CF286-05	10-3856-12	CF286-06	10-5189	CF286-10	CF286-02	\$206.95
10-3148-1	CF286-06	10-4894	CF286-02	10-3878	CF286-08	10-5193	CF286-08	CF286-03	\$210.95
10-3479	CF286-06	10-4894-1	CF286-02	10-4057	CF286-09	10-5199	CF286-00	CF286-04	\$198.95
10-5069	CF286-02	10-4895	CF286-03	10-4057-1	CF286-09	10-5206	CF286-10	CF286-05	\$323.95
10-5093	CF286-00	10-4895-1	CF286-03	10-4164	CF286-08	10-5206-1	CF286-10	CF286-06	\$315.95
CONTINENTAL CARBURETORS		10-5067	CF286-02	10-4164-1	CF286-07	10-5206-11	CF286-10	CF286-07	\$315.95
P/N	"QUICK KIT" P/N	10-5082	CF286-02	10-4404	CF286-09	10-5210	CF286-10	CF286-08	\$315.95
10-2848	CF286-02	10-5128	CF286-02	10-4404-1	CF286-09	10-5217	CF286-04	CF286-09	\$315.95
10-2948	CF286-02	10-5192	CF286-05	10-4910	CF286-04	10-5219	CF286-11	CF286-10	\$315.95
10-3168	CF286-05	10-5284	CF286-05	10-4910-1	CF286-04	10-5220-E	CF286-01	CF286-11	\$315.95
10-3237	CF286-03	LYCOMING CARBURETORS		10-4953	CF286-00	10-5220	CF286-01	CF286-12	\$246.95
10-3649-1	CF286-05	P/N	"QUICK KIT" P/N	10-4978-1	CF286-01	10-5221	CF286-12		
10-3759	CF286-05	10-2827	CF286-07	10-5009	CF286-04	10-5224	CF286-11		
10-3859	CF286-05	10-2983	CF286-00	10-5009N	CF286-04	10-5227	CF286-12		
10-3859-1	CF286-05	10-3103-1	CF286-00	10-5034	CF286-07	10-5230	CF286-11		
10-3965	CF286-05	10-3323	CF286-07	10-5042	CF286-00	10-5235	CF286-11		
10-3965-1	CF286-05	10-3646-1	CF286-02	10-5045	CF286-10	10-5253	CF286-11		
10-4171	CF286-05	10-3391-1	CF286-06	10-5045-1	CF286-10	10-5255	CF286-11		
10-4191	CF286-05	10-3565-1	CF286-02	10-5050	CF286-01	10-5257	CF286-11		
10-4233	CF286-02	10-3634	CF286-06	10-5054	CF286-09	10-5267	CF286-01		
10-4240	CF286-02	10-3678-12	CF286-04	10-5062	CF286-04	10-5282	CF286-11		
10-4240-1	CF286-02	10-3678-32	CF286-04	10-5092	CF286-10	10-5283	CF286-11		
10-4252	CF286-02	10-3729	CF286-02	10-5126	CF286-01	10-5288	CF286-08		
10-4439	CF286-03	10-3856	CF286-06	10-5135	CF286-04	10-6014	CF286-11		



ELLISON CARBURETORS

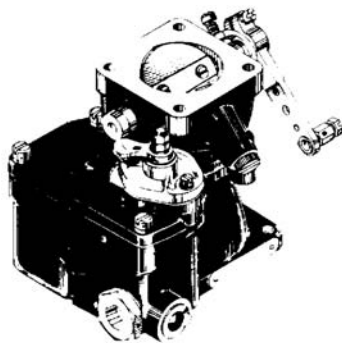
Ellison variable venturi throttle body injectors provide reliable fuel metering for a variety of homebuilt engine applications. Features include uniform fuel distribution, inverted flight operation, few moving parts, instantaneous response, easy starting, light weight, and low maintenance. When ordering, specify: Engine make, engine model/HP and displacement and RPM.

MODEL	P/N EFS-10	P/N EFS4-5	P/N EFS-4	P/N EFS-5	P/N EFS-3A
AIRFLOW CAPACITY*	700 CFM	400 CFM	350 CFM	400 CFM	
FUEL REGULATION	Dual Value Diaphragm Controlled	Dual Value Diaphragm Controlled	Single Value Diaphragm Controlled	DV Diaphragm Controlled	SV Diaphragm Controlled
APPLICATION	280-350 HP Aircraft	180-260 HP Aircraft	145-160 HP Aircraft	180-260 HP	>80 HP
FUEL PRESSURE REQUIREMENTS**	7-15 PSI	2-6 PSI	2-6 PSI	2-6 PSI	1/2 - 3 PSI
CONTROLLABLE MIXTURE	Yes	Yes	Yes	Yes	Yes
FUEL FITTING	1/2 Flared Tube	3/8 Flared Tube	3/8 Flared Tube	3/8 Flared Tube	3/8 Flared Tube
PRICE	\$1,995.00	\$1,645.00	\$1,425.00	\$1,750.00	\$1,750.00/\$825.00

Accessories: Right Angle Fuel Fitting \$25.00 Plenum Box \$315.00 Cable Clamp \$55.00

BENDIX STROMBERG NA-S3A1 CARBURETOR OVERHAUL PARTS FOR NA-S3A1 CARBURETOR

The NA-S3A1 carburetor is no longer in production. Only the parts listed are carried in stock. Others may be special ordered. Originally used on Cont. A-65, A-75, A-80, C-75, C-85 and C-90 engines.



- Gasket & Ring Set (Incl. gaskets for under seat).....P/N 07-02200\$30.18
- P-14222 Needle(Steel) & P17247 SetP/N 07-14222\$110.95
- Needle (Delrin)P/N 2523047\$99.35
- Metering Jet (C-85)P/N P7881-45\$9.85
- Metering Jet (A-65).....P/N P7881-49\$12.50

Throttle Shaft (Ref. #34 in Manual) not available.

STROMBERG NA-S3A1 CARBURETOR OVERHAUL MANUAL

P/N 07-02400\$11.95

*The P/N 390077 needle is still available but recent testing has determined that neoprene needles can expand when used with 100 LL avgas and unleaded auto fuels leading to engine damage from excessively lean operation. Recommended substitute is the P/N 2523047 Delrin needle or P14222 Steel Needle. Use P/N 390077 needle at your own discretion only.

BING CARBURETORS

COMPLETE CARBURETORS – TYPE 54



To Order, Specify:

1. Model indicated by engine number 277, 377, 447, 503, or 532.
2. With intake silencer or Without intake silencer.
3. Single Carb or Dual Carb.
4. Hand Choke or Remote Choke.

Model # 54/36/2040
P/N 07-00303\$187.95

TYPE 54 REBUILD KIT

#17 Top O Ring	#7 Air Screw O Ring
#29 Bowl Gasket	#26 Float Needle
#25 Hinge Pin	#10 Sieve Sleeve (Screen)
#21 Cable Grommet	
P/N 07-00304\$24.85	

TYPE 54 FIX-IT KIT

#12 New Spring Cup	
#56 Jet Needle O Ring	
#11 Clip	
P/N 07-00305\$10.00	

COMPLETE CARBURETORS – TYPE 84



To Order, Specify:

1. Model indicated by engine number 277, 377, 447, 503, or 532.
2. With intake silencer or Without intake silencer.
3. Single Carb or Dual Carb.
4. Hand Choke or Remote Choke.

Model # 84/32/3437
P/N 07-00306\$189.95

TYPE 84 REBUILD KIT

#17 Top O Ring	#7 Air Screw O Ring
#29 Bowl Gasket	#26 Float Needle
#25 Hinge Pin	#10 Sieve Sleeve (Screen)
#21 Cable Grommet	P/N 07-00307\$31.40

ROTAX FLOAT & BOWL KIT

This float and bowl kit replaces a single float system. Includes float needle valve, clip float needle, float pin, float bracket, float chamber, and the float.
P/N 261-010\$54.00

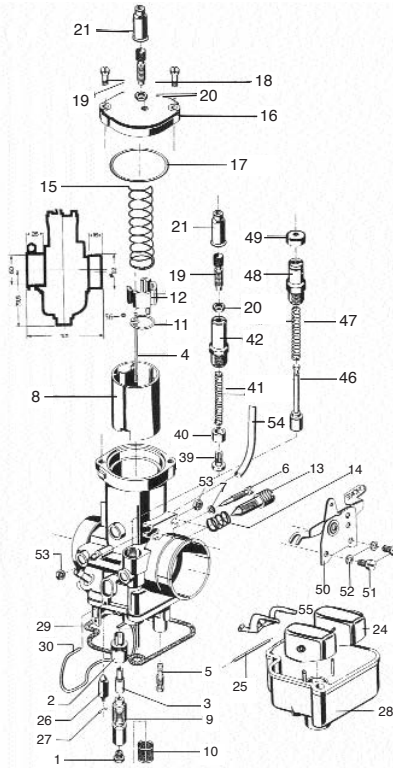
BING CARBURETOR ACCESSORIES

- Bing Remote Choke Kit (w/8' cable) P/N 07-00308 \$41.40
- Bing Remote Choke Kit (w/o cable) P/N 07-00309 \$20.70
- Bing Aircraft Parts manualP/N 07-00310 \$12.20

MERCURY CARB SYNCHRONIZER

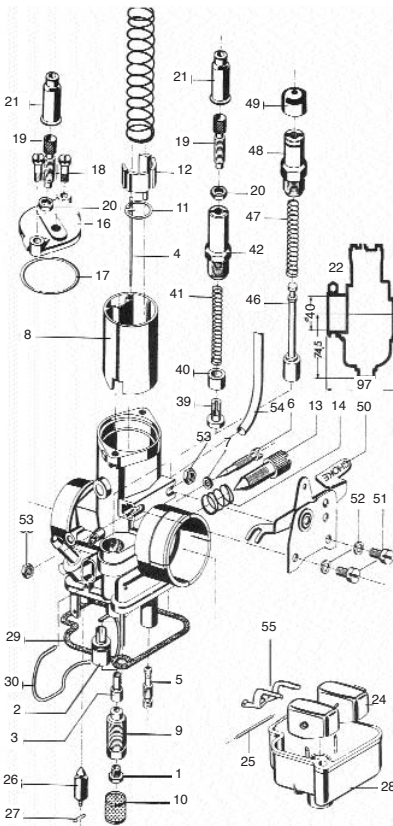
The Motion Pro is the most accurate and convenient carburetor synchronizer available. Features large, clear columns for easy viewing, two CM Indica spacing to determine when you are within factory specs laboratory grade mercury, and tough, injection molded construction. Imported.
P/N 07-00311\$48.40

REPLACEMENT PARTS – TYPE 54



No.	Part No.	Description	Price
1	268-978-998	Main Jet	\$6.70
2	251-554	Atomizer	\$14.20
3	963-691-699	Needle Jet	\$10.50
4	963-711-719	Jet Needle	\$7.50
5	963-140-147	Idler Jet	\$19.90
6	963-155	Air Screw	\$7.10
7	831-710	O Ring	\$1.92
8	963-679	Piston	\$62.00
9	963-700	Mixing Tube	\$12.70
10	261-625	Sieve Sleeve	\$5.60
11	963-500	Clip	\$5.00
12	827-345	Stock Spring Cup	\$5.50
12	827-347	New Style Spring Cup	\$4.85
13	963-160	Mix Screw	\$5.20
14	938-640	Spring	\$1.97
15	938-655	Slide Spring	\$3.85
16	963-720	Cover Plate	\$16.60
17	831-450	O Ring	\$4.45
18	241-430	Screw	\$0.97
19	241-440	Adjuster	\$3.05
20	942-541	Nut	\$0.77
21	260-370	Grommet	\$1.98
24	861-181	Indep. Float	\$21.40
25	929-700	Pivot Pin	\$1.39
26	261-705	Float Needle	\$21.40
27	261-710	Clip	\$1.13
28	261-010	Bowl Kit (bowl,24-27,55)	\$54.00
29	830-720	Gasket	\$5.60
30	963-180	Bowl Clip	\$5.90
39	963-740	Piston	\$6.30
40	268-850	Sleeve	\$2.50
41	661-050	Spring	\$1.27
42	963-750	Housing	\$9.50
46	268-847	Piston	\$14.40
47	239-730	Spring	\$2.70
48	261-770	Housing	\$7.60
49	260-490	Rubber Cap	\$3.70
50	261-755	Choke Lever	\$17.60
51	240-791	Screw	\$0.86
52	945-750	Washer	\$0.94
53	261-200	Nut	\$0.84
54	256-035	Vent Tube	\$2.45
55	861-190	Float Arm	\$11.20
56	831-715	Jet Needle O Ring	\$0.95

REPLACEMENT PARTS – TYPE 84



No.	Part No.	Description	Price
1	268-980	Main Jet 135	\$6.90
2	261-692	Atomizer	\$17.70
3	261-606	Needle Jet 262	\$10.10
4	261-643	Jet Needle 8H1	\$8.80
5	963-140	Idler Jet 50	\$19.90
6	963-155	Air Screw	\$7.10
7	831-710	O Ring	\$1.92
8	261-635	Piston	\$52.00
9	963-130	Jet Stock	\$12.80
10	261-625	Screen	\$5.60
11	261-650	Holding Plate	\$5.40
12	227-635	Spring Cup	\$4.80
13	963-160	Mix Screw	\$5.20
14	938-640	Spring	\$1.97
15	239-700	Slide Spring	\$4.25
16	261-660	Cover	\$14.60
17	261-670	O Ring	\$5.30
18	241-430	Screw	\$0.97
19	241-440	Adjust. Screw	\$3.05
20	942-541	Nut	\$0.77
21	260-370	Grommet	\$1.98
24	963-192	Float	\$36.40
25	929-700	Pin	\$1.39
26	261-705	Float Needle	\$21.40
27	261-710	Clip	\$1.13
28	963-170	Bowl	\$25.60
29	830-720	Gasket	\$5.60
30	963-180	Spring Cup	\$5.90
39	963-740	Piston	\$6.30
40	268-850	Sleeve	\$2.50
41	661-050	Spring	\$1.27
42	963-750	Housing	\$9.50
46	268-847	Piston	\$14.40
47	239-730	Spring	\$2.70
48	261-770	Housing	\$7.60
49	260-490	Rubber Cap	\$3.70
50	261-750	Lever	\$12.70
51	240-791	Screw	\$0.86
52	945-750	Washer	\$0.94
53	261-200	Nut	\$0.84
54	256-033	Vent Line	\$2.45

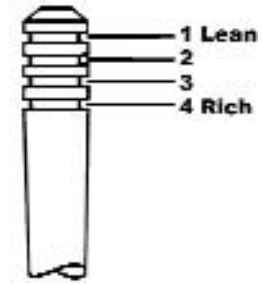
CARBURETOR PARTS



CARBURETOR JETTING CHART FOR ROTAX® UL ENGINES

Use this chart to identify part number you need, then use bottom chart to select correct part number to order.

ROTAX® ENGINE	\$6.75	\$16.95	\$9.30	\$6.80		
	MAIN JET	IDLER JET	NEEDLE JET	JET NEEDLE	CLIP POSITION	AIR SCREW
277 ¹	148	45	2.72	8L2	2	1
277 ²	140	45	2.72	8L2	2	1
377 ¹	165	45	2.70	8O2	2	.5
377 ²	155	45	2.70	8O2	2	.5
447 ¹	165	45	2.70	15K2	2	.5
447 ²	155	45	2.70	15K2	2	.5
447DC ¹	135	50	2.70	6G1	3	1
447DC ³	128	50	2.68	15K2	2	1
503SC ¹ Up to #3785371	180	45	2.74	8G2	3	.5
503SC ² Up to #3785371	158	45	2.74	6H2	3	.5
503SC ¹ From #3785372 Up	185	45	2.72	15K2	3	.5
503SC ² From #3785372 Up	165	45	2.70	15K2	3	.5
503DC ¹	158	45	2.74	8L2	1	.5
503DC ³	148	45	2.68	11K2	2	1
532SC ¹	195	55	2.74	15K2	3	1
532SC ³	170	55	2.74	15K2	3	1
532DC ¹	165	55	2.72	11G2	3	1
532DC ³	145	55	2.68	15K2	3	1
582 ¹	165	55	2.72	11G2	3	1
582 ³	145	55	2.68	15K2	3	1



1 = Without Rotax® intake silencer kit, with K&N RC1200 air filter, with or without Rotax® after muffler kit.

2 = With Rotax® intake silencer kit, with K&N CM0300 air filter, with or without Rotax® after muffler kit.

3 = With Rotax® dual intake silencer kit, with K&N RC1200 air filters, with or without Rotax® after muffler kit.

EP



MAIN JET

- 125 = Part No. R268-978
- 128 = Part No. R261-085
- 130 = Part No. R268-979
- 135 = Part No. R268-980
- 138 = Part No. R268-998
- 140 = Part No. R268-981
- 145 = Part No. R268-982
- 148 = Part No. R268-995
- 150 = Part No. R268-983
- 155 = Part No. R268-984
- 158 = Part No. R268-996
- 160 = Part No. R268-985
- 162 = Part No. R268-990
- 165 = Part No. R268-986
- 170 = Part No. R268-987
- 175 = Part No. R268-988
- 180 = Part No. R268-989
- 185 = Part No. R261-080
- 190 = Part No. R261-084
- 195 = Part No. R268-992
- 200 = Part No. R261-082
- 205 = Part No. R261-087
- 220 = Part No. R261-081



IDLER JET

- 30 = Part No. R963-141
- 35 = Part No. R963-143
- 40 = Part No. R963-142
- 45 = Part No. R963-144
- 50 = Part No. R963-140
- 55 = Part No. R963-147
- 60 = Part No. R963-145
- 65 = Part No. R963-146



NEEDLE JET

- 2.62 = Part No. R261-606
- 2.68 = Part No. R963-691
- 2.70 = Part No. R963-698
- 2.72 = Part No. R963-697
- 2.74 = Part No. R963-699
- 2.76 = Part No. R963-693
- 2.78 = Part No. R963-696
- 2.80 = Part No. R963-695
- 2.82 = Part No. R963-694
- 2.94 = Part No. R961-022

JET NEEDLE

Needle Clip

P/N 07-00693 \$5.00



Lower numbers indicate smaller jet size or opening.

Low numbers = lean.

High numbers = rich.

First needle number denotes mixture above half-throttle.

Needle letter denotes mixture below half-throttle.

JET NEEDLE

- 2H2 = Part No. R963-717
- 4E2 = Part No. R963-716
- 6G1 = Part No. R261-642
- 6H2 = Part No. R963-719
- 8G2 = Part No. R963-712
- 8H1 = Part No. R261-643
- 8L2 = Part No. R963-714
- 8O2 = Part No. R963-711
- 1O = Part No. R961-045
- 11G2 = Part No. R961-043
- 11K2 = Part No. R961-044
- 15K2 = Part No. R963-718

SILVERHAWK EX FUEL INJECTION SYSTEMS



The Silver Hawk EX, non-certified Fuel Injection System is proven technology drawn from decades of fuel metering engineering by Precision Airmotive. Manufactured as experimental, the new Silver Hawk kit provides experimental pilots with precise, dependable, and reliable fuel metering. Just what you'd expect from Precision Airmotive.

At a price that will make you soar. Manufactured using the highest quality materials and components, the Silver Hawk EX features a machined finish with clear coat anodize. Designed for these major engine manufacturer applications: Lycoming 320, 360, & 540 series; Continental 470 series; Superior and others.

- Specifically engineered and built to meet the demands of aviations growing experimental segment.
- Precision Airmotive appointed worldwide network of factory authorized product support centers
- Backed by a Precision warranty program.

Model No.	Application	Part No.	Price
EX320-1	160 HP IO-320	07-00773	\$2,389.00
EX360-1	180 HP IO-360	07-00774	\$2,843.00
EX360-2	200 HP IO-360	07-00775	\$2,389.00
EX540-1	260 HP IO-540	07-00776	\$2,211.00

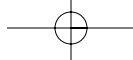
BENDIX/PRECISION RSA FUEL SERVOS

OVERHAULED FUEL SERVOS – EXCHANGE

CF Part No.	Model No.	Our Part No.	Price	Core	2529002-1	RSA-5AD1	07-00486	\$1,034.00	\$500.00
2524054-11	RSA-5AD1	07-00391	\$1,034.00	\$500.00	2529050-1	RSA-5AD1	07-00487	\$1,034.00	\$500.00
2524119-7	RSA-5AD1	07-00402	\$1,034.00	\$500.00	2524030-10	RSA-10AD1	07-00488	\$1,125.00	\$500.00
2524145-12	RSA-5AD1	07-00403	\$1,034.00	\$500.00	2529006-1	RSA-5AD1	07-00489	\$1,034.00	\$500.00
2524147-13	RSA-5AD1	07-00404	\$1,034.00	\$500.00	2524152-10	RSA-10AD1	07-00490	\$1,125.00	\$500.00
2524171-11	RSA-5AD1	07-00405	\$1,034.00	\$500.00	2524163-14	RSA-10AD1	07-00491	\$1,125.00	\$500.00
2524189-11	RSA-5AD1	07-00407	\$1,034.00	\$500.00	2524175-10	RSA-10AD1	07-00492	\$1,125.00	\$500.00
2524213-11	RSA-5AD1	07-00408	\$1,034.00	\$500.00	2524255-9	RSA-10AD1	07-00493	\$1,125.00	\$500.00
2524216-12	RSA-5AB1	07-00409	CFQ*	CFQ*	2524256-10	RSA-10AD1	07-00494	\$1,125.00	\$500.00
2524242-10	RSA-5AD1	07-00410	\$1,034.00	\$500.00	2524267-10	RSA-10DB1	07-00495	\$1,125.00	\$500.00
2524243-11	RSA-5AD1	07-00411	\$1,034.00	\$500.00	2524273-12	RSA-10ED1	07-00496	\$1,125.00	\$500.00
2524254-11	RSA-5AB1	07-00412	CFQ*	CFQ*	2524275-15	RSA-10DB1	07-00497	CFQ*	CFQ*
2524262-10	RSA-5AB1	07-00414	CFQ*	CFQ*	2524311-9	RSA-10AD1	07-00499	\$1,125.00	\$500.00
2524291-11	RSA-5AD1	07-00416	\$1,034.00	\$500.00	2524366-10	RSA-10ED1	07-00501	\$1,125.00	\$500.00
2524297-10	RSA-5AD1	07-00457	\$1,034.00	\$500.00	2524420-11	RSA-10ED1	07-00502	\$1,125.00	\$500.00
2524307-10	RSA-5AD1	07-00458	\$1,034.00	\$500.00	2524422-9	RSA-10ED1	07-00503	\$1,125.00	\$500.00
2524328-10	RSA-5AD1	07-00459	\$1,034.00	\$500.00	2524423-12	RSA-10DB1	07-00504	\$1,125.00	\$500.00
2524335-10	RSA-5AD1	07-00460	\$1,034.00	\$500.00	2524477-12	RSA-10ED1	07-00505	\$1,181.00	\$500.00
2524341-10	RSA-5AD1	07-00461	\$1,034.00	\$500.00	2524491-9	RSA-10ED1	07-00506	\$1,125.00	\$500.00
2524348-11	RSA-5AD1	07-00462	\$1,034.00	\$500.00	2524298-12	RSA-10ED1	07-00507	\$1,125.00	\$500.00
2524359-11	RSA-5AD1	07-00463	CFQ*	CFQ*	2524492-9	RSA-10ED1	07-00508	\$1,125.00	\$500.00
2524459-9	RSA-5AD1	07-00465	\$1,034.00	\$500.00	2524500-9	RSA-10ED1	07-00509	\$1,125.00	\$500.00
2524475-8	RSA-5AD1	07-00466	\$1,034.00	\$500.00	2524501-9	RSA-10DB2	07-00510	\$1,125.00	\$500.00
2524550-8	RSA-5AD1	07-00467	\$1,126.00	\$500.00	2524534-9	RSA-10ED1	07-00511	CFQ*	CFQ*
2524575-8	RSA-5AD1	07-00468	\$1,034.00	\$500.00	2524582-8	RSA-10ED1	07-00512	\$1,125.00	\$500.00
2524590-8	RSA-5AD1	07-00469	\$1,034.00	\$500.00	2524593-9	RSA-10DB1	07-00513	\$1,125.00	\$500.00
2524592-8	RSA-5AD1	07-00470	\$1,034.00	\$500.00	2524601-10	RSA-10ED1	07-00514	\$1,125.00	\$500.00
2524623-8	RSA-5AD1	07-00471	\$1,034.00	\$500.00	2524649-11	RSA-10DB1	07-00515	\$1,300.00	\$500.00
2524634-8	RSA-5AD1	07-00472	\$1,034.00	\$500.00	2524693-11	RSA-10ED1	07-00516	\$1,125.00	\$500.00
2524640-8	RSA-5AD1	07-00473	\$1,034.00	\$500.00	2524708-9	RSA-10DB2	07-00517	CFQ*	CFQ*
2524673-8	RSA-5AD1	07-00474	\$1,034.00	\$500.00	2524709-8	RSA-10ED1	07-00518	\$1,125.00	\$500.00
2524688-8	RSA-5AD1	07-00475	\$1,034.00	\$500.00	2524733-8	RSA-10ED1	07-00519	\$1,125.00	\$500.00
2524712-10	RSA-5AB1	07-00476	CFQ*	CFQ*	2524791-7	RSA-10ED2	07-00520	\$1,125.00	\$500.00
2524723-8	RSA-5AD1	07-00477	CFQ*	CFQ*	2524811-5	RSA-10ED1	07-00521	\$1,125.00	\$500.00
2524742-8	RSA-5AD1	07-00478	\$1,034.00	\$500.00	2524846-3	RSA-10ED1	07-00522	\$1,125.00	\$500.00
2524752-7	RSA-5AD1	07-00479	\$1,034.00	\$500.00	2524855-4	RSA-10DB1	07-00523	\$1,300.00	\$500.00
2524840-3	RSA-5AD1	07-00480	\$1,034.00	\$500.00	2524857-3	RSA-10ED1	07-00524	\$1,125.00	\$500.00
2524905-2	RSA-5AD1	07-00481	\$1,034.00	\$500.00	2524880-4	RSA-10ED1	07-00525	\$1,125.00	\$500.00
2524937-1	RSA-5AD1	07-00482	\$1,034.00	\$500.00	2524896-4	RSA-10DB2	07-00526	CFQ*	CFQ*
2524939-2	RSA-5AD1	07-00483	\$1,034.00	\$500.00	2529038-2	RSA-10ED1	07-00527	\$1,125.00	\$500.00
2524948-2	RSA-5AD1	07-00484	CFQ*	CFQ*					
2524979-1	RSA-5AD1	07-00485	CFQ*	CFQ*					
CF Part No.	Model No.	Our Part No.	Price	Core	<i>*CFQ = CALL FOR QUOTE</i>				

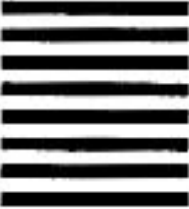
OVERHAULED FLOW DIVIDERS – EXCHANGE

Part No.	Model No.	Our Part No.	Price	Core	Part No.	Model No.	Our Part No.	Price	Core
2524057-2	Flow Divider	07-00528	\$156.25	\$150.00	2524224-2	Flow Divider	07-00545	\$156.25	\$150.00
2524088-2	Flow Divider	07-00529	\$156.25	\$150.00	2524225-2	Flow Divider	07-00546	\$156.25	\$150.00
2524115-2	Flow Divider	07-00530	\$156.25	\$150.00	2524226-2	Flow Divider	07-00547	CFQ*	CFQ*
2524120-2	Flow Divider	07-00531	\$156.25	\$150.00	2524227-2	Flow Divider	07-00548	\$156.25	\$150.00
2524148-3	Flow Divider	07-00532	\$156.25	\$150.00	2524232-2	Flow Divider	07-00549	\$156.25	\$150.00
2524158-2	Flow Divider	07-00533	\$156.25	\$150.00	2524240-2	Flow Divider	07-00550	\$156.25	\$150.00
2524164-2	Flow Divider	07-00534	\$156.25	\$150.00	2524248-2	Flow Divider	07-00551	\$156.25	\$150.00
2524166-2	Flow Divider	07-00535	CFQ*	CFQ*	2524302-2	Flow Divider	07-00553	\$156.25	\$150.00
2524172-2	Flow Divider	07-00536	\$156.25	\$150.00	2524327-2	Flow Divider	07-00554	\$156.25	\$150.00
2524177-2	Flow Divider	07-00537	\$156.25	\$150.00	2524342-2	Flow Divider	07-00555	CFQ*	CFQ*
2524188-2	Flow Divider	07-00538	CFQ*	CFQ*	2524397-2	Flow Divider	07-00556	\$156.25	\$150.00
2524218-2	Flow Divider	07-00539	CFQ*	CFQ*	2524416-2	Flow Divider	07-00557	\$156.25	\$150.00
2524219-2	Flow Divider	07-00540	\$156.25	\$150.00	2524421-2	Flow Divider	07-00558	\$220.00	\$150.00
2524220-2	Flow Divider	07-00541	\$156.25	\$150.00	2524571-2	Flow Divider	07-00559	\$156.25	\$150.00
2524221-2	Flow Divider	07-00542	\$156.25	\$150.00	2524586-2	Flow Divider	07-00560	\$156.25	\$150.00
2524222-2	Flow Divider	07-00543	\$156.25	\$150.00	2524610-2	Flow Divider	07-00561	\$156.25	\$150.00
2524223-2	Flow Divider	07-00544	\$156.25	\$150.00					

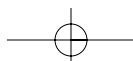


**NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES**

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 24 CORONA, CA
POSTAGE WILL BE PAID BY ADDRESSEE



AIRCRAFT SPRUCE & SPECIALTY CO.
P.O. BOX 4000
CORONA, CA 92878-4000



FUEL PUMPS



BUZZ PUMP AC2001

The Buzz Pump AC2001 is lightweight positive displacement, high volume, manual dual stroke auxiliary fuel pump for experimental aircraft. The Buzz Pump has capacity to operate aircraft engines as large as 300 HP models at full power. Eliminates the connection to a complicated electrical system and expensive high-pressure electrical fuel pump. The Buzz Pump is constructed with high quality engineered materials and components. It will bolt directly into standard Christen and D2 pump bolt patterns.

Specifications: • Weight: 2.4 lbs. • Aluminum billet housing construction • Double O-ring shaft seals • Triple precision bearing shaft support • Metal valves for long life • Pressure setting relief valve: 5-25psi • 90° stroke angle for comfortable operation • Housing dia.: 3.4" x 4.5" total length • Pump handle length: 4.5" • One input port and one output port @ 180° • 1/4-18 NPT tapped holes for fittings • Standard finish is clear anodize (light gray color) • Buzz Filter Sump AC2002, can bolt directly to the pump with an AN911-6D threaded nipple (not included)
P/N 07-00654.....\$966.00



BUZZ FILTER SUMP

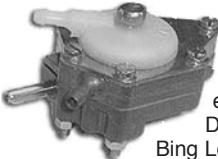
The Buzz Filter Sump, AC2002 is a fuel filter/moisture sump for high-pressure applications, 50psi ideally suited for precision fuel injection systems. The Buzz filter/sump can mount directly to the Buzz Pump AC2001 or to the fuselage or firewall. Easy to replace fuel filter. The Buzz Filter/Sump is engineered and constructed with high quality engineered materials and components and will mount directly to the Buzz Pump AC2001, with an AN911-6D threaded nipple.

Specifications: • High-pressure application to 50psi • Weight: 13 oz. • Aluminum billet housing construction • Large O-ring sump seal • 1/4-18 NPT tapped holes for fittings • CG-12 Fram filter with easy to replace insertion chamfer • Standard finish is clear anodize (light gray color) • Curtis drain fitting • *AN fittings not included.
P/N 07-00655.....\$246.95



MIKUNI FUEL PUMP

Genuine Mikuni fuel pumps. Replace original parts on Rotax®, Hirth, & many other engines.
Single PumpP/N 07-00777.....\$20.00
Dual Pump.....P/N 07-00778.....\$23.90
Single PumpP/N 07-01011.....\$6.95
Dual Pump.....P/N 07-01010.....\$13.10



BING FUEL PUMP

Bing High-capacity pump. Use when tank is more than 5' away or significantly lower than engine. P/N 07-00779.....\$124.95
Diaphragm Repair kit P/N 07-01007.....\$32.50
Bing Low Vol. fuel pump ..P/N 07-01008.....\$83.95
Repair Kit for Low Vol pump..P/N 07-01009.....\$27.95

ROMEC/CRANE FUEL PUMPS

The next time you overhaul your fuel components, don't spend time on the phone chasing parts, just order a Kelly Aerospace "Quick Kit" and take the hassle out of your overhaul. Kelly has made this task easy by developing the first "Quick Kits" that include the mandatory replacement parts, plus the parts used by fuel professionals to insure the job is done right!

Fuel Pump#	Model No.	Part No.	QuickKit#	Price
RG-9080	2,F1,F2,G1,G2,J1,J2,J3,J4,J5,J7A,J4A	07-09080-0	CFK-9080-0	\$120.95
RG-9080	H1, H2, J6, J8	07-09080-1	CFK-9080-1	\$68.00
RG-9570	All Models	07-09570	CFK-9570	\$96.00
RG-15980	A,B,B1,C,D,E,F,G,N,N1,P,P1,R,R1,S,S1	07-15980	CFK-15980	\$248.95
RG-17980	A,B,C1,D,E,G,J,J1,K,P,U	07-17980	CFK-17980	\$248.95

FUEL SERVO QUICK KITS

The next time you overhaul your fuel components, don't spend time on the phone chasing parts, just order a Kelly Aerospace "Quick Kit" and take the hassle out of your overhaul. Kelly has made this task easy by developing the first "Quick Kits" that include the mandatory replacement parts, plus the parts used by fuel professionals to insure the job is done right!

Fuel Servo#	Model No.	Our Part No.	QuickKit#	Price
RSA-5AB1	All Models	07-00562	CFK-5AB1	\$539.00
RSA-5AD1	All Models	07-00563	CFK-5AD1	\$539.00
RSA-10AD1	All Models	07-00564	CFK-10AD1	\$455.95
RSA-10DB2	All Models	07-00565	CFK-10DB2	\$498.95
RSA-10ED1	All Models	07-00566	CFK-10ED1	\$498.95
RSA-10ED2	All Models	07-00567	CFK-10ED2	\$498.95



OVERHAULLED FUEL PUMPS (EXCHANGE)

Part No.	Model No.	Our Part No.	Price	Core
RG9080F1	RG9080	07-00275	\$594.00	\$400.00
RG9080F2	RG9080	07-00331	\$594.00	\$400.00
RG9080G1	RG9080	07-00332	\$595.00	\$400.00
RG9080G2	RG9080	07-00333	\$594.00	\$400.00
RG9080H1	RG9080	07-00334	\$594.00	\$400.00
RG9080H2	RG9080	07-00335	\$594.00	\$400.00
RG9080J1	RG9080	07-00336	\$594.00	\$400.00
RG9080J2	RG9080	07-00337	\$594.00	\$400.00
RG9080J3	RG9080	07-00338	\$594.00	\$400.00
RG9080J4	RG9080	07-00339	\$594.00	\$400.00
RG9080J4A	RG9080	07-00340	\$594.00	\$400.00
RG9080J5	RG9080	07-00341	\$594.00	\$400.00
RG9080J6A	RG9080	07-00342	\$594.00	\$400.00
RG9080J7A	RG9080	07-00274	\$594.00	\$400.00
RG9080J8A	RG9080	07-00343	\$998.00	\$400.00
RG15980	RG15980	07-00344	\$613.00	\$500.00
RG15980A	RG15980	07-00345	\$613.00	\$500.00
RG15980B	RG15980	07-00346	\$613.00	\$500.00
RG15980C	RG15980	07-00347	\$613.00	\$500.00
RG15980D	RG15980	07-00348	\$613.00	\$500.00
RG15980E	RG15980	07-00349	\$613.00	\$500.00
RG15980G	RG15980	07-00350	\$ CFQ*	\$ CFQ*
RG15980N	RG15980	07-00351	\$ CFQ*	\$ CFQ*
RG15980N1	RG15980	07-00352	\$ CFQ*	\$ CFQ*
RG15980P	RG15980	07-00353	\$ CFQ*	\$ CFQ*
RG15980P1	RG15980	07-00354	\$ CFQ*	\$ CFQ*
RG15980R	RG15980	07-00355	\$ CFQ*	\$500.00
RG15980R1	RG15980	07-00356	\$ CFQ*	\$500.00
RG15980S	RG15980	07-00357	\$ CFQ*	\$500.00
RG15980S1	RG15980	07-00358	\$ CFQ*	\$500.00
RG17980	RG17980	07-00360	\$580.00	\$400.00
RG17980A	RG17980	07-00361	\$1,336.00	\$400.00
RG17980B	RG17980	07-00362	\$580.00	\$400.00
RG17980D	RG17980	07-00276	\$582.00	\$400.00
RG17980E	RG17980	07-00365	\$562.00	\$400.00
RG17980F	RG17980	07-00366	\$579.00	\$400.00
RG17980J	RG17980	07-00277	\$583.00	\$400.00
RG17980J1	RG17980	07-00367	\$562.00	\$400.00
RG17980K	RG17980	07-00370	\$562.00	\$400.00
RG17980P	RG17980	07-00372	\$579.00	\$400.00
RG17980R	RG17980	07-00374	\$996.00	\$400.00
RG17980S	RG17980	07-00375	\$579.00	\$400.00
RG17980U	RG17980	07-00376	\$579.00	\$400.00
RG9570K1	RG9570	07-00377	\$639.00	\$750.00
RG9570K2	RG9570	07-00378	\$640.00	\$750.00
RG9570K3	RG9570	07-00379	\$639.00	\$750.00
RG9570J	RG9570	07-00380	\$639.00	\$750.00
RG9570J1	RG9570	07-00381	\$639.00	\$750.00
RG9570P	RG9570	07-00382	\$640.00	\$750.00
RG9570P1	RG9570	07-00383	\$639.00	\$750.00



FUEL PUMPS



NEW LYCOMING & CONTINENTAL FUEL PUMPS

Proven to be a trouble-free mechanical pressure pump. Original equipment on numerous airframe installations and adaptable to most applications with one of 3 dual diaphragm types. Overboard vent of this design provides operating assurance throughout all flights. These quality fuel pumps are Lycoming or AC fuel pumps overhauled and certified to original specifications. Fully FAA approved and warranted. Order by overhauled pump part number.

Lycoming or AC fuel pumps overhauled and certified to original specifications. Fully FAA approved and warranted. Order by overhauled pump part number.

Engine Type	Engine Model No.	Our P/N	Lycoming Part No.	Our Price
Lycoming	O-235, O-290, O-320, O-340, O-360, HO-360, GO-480, O-540, VO-540	07-00704	LW15472	\$266.95
	IO-320, IO-360, AIO-360	4-6 PSI 07-00705	LW15473	\$254.95
	HIO-360, IVO-360, IO-540, IGO-540, IO-720	25-30 PSI		
Continental	C-75 (-12, -12F), C-90 (-8, -8F, -12, 12F)	05-19045	AF40695	\$277.95
	C-90 (-16F), O-200	05-19050	AF631391	\$388.95

\$25 Core charge applies to these new pumps.

Adapt pump thread to AN fittings using AC Fuel pump adapters:
P/N 75505 Fitting **\$29.80** or P/N 75505-1 Fitting & O-Ring **\$30.16**

TEMPEST LYCOMING & TCM FUEL PUMPS

MMO	Description	P/N	Price
Overhauled Lycoming & TCM Diaphragm Fuel Pumps			
40174	Fuel Pump - Overhauled	05-02530	\$319.00
40295	Fuel Pump - Overhauled	05-19005	\$319.00
40296	Fuel Pump - Overhauled	05-02531	\$319.00
40595	Fuel Pump - Overhauled	05-19015	\$319.00
41234	Fuel Pump - Overhauled	05-02532	\$319.00
41270	Fuel Pump - Overhauled	05-02533	\$319.00
41271	Fuel Pump - Overhauled	05-02534	\$319.00
41272	Fuel Pump - Overhauled	05-02536	\$319.00
41452	Fuel Pump - Overhauled	05-02537	\$319.00
41617	Fuel Pump - Overhauled	05-02538	\$319.00
41812	Fuel Pump - Overhauled	05-02539	\$319.00
75246	Fuel Pump - Overhauled	05-02540	\$319.00
75247	Fuel Pump - Overhauled	05-02541	\$319.00
103396-01	Fuel Pump - Overhauled	05-02542	\$319.00
103586-01	Fuel Pump - Overhauled	05-02543	\$319.00
LW14282	Fuel Pump - Overhauled	05-02544	\$319.00
LW15399	Fuel Pump - Overhauled	08-15399	\$319.00
LW15472	Fuel Pump - Overhauled	05-19000	\$319.00
LW15473	Fuel Pump - Overhauled	05-19010	\$319.00
LW16335	Fuel Pump - Overhauled	05-02545	\$319.00
LW16775	Fuel Pump - Overhauled	05-02546	\$319.00
LW16947	Fuel Pump - Overhauled	05-02547	\$319.00
RJ4033	Fuel Pump - Overhauled	05-02548	\$319.00
R00253-1	Fuel Pump - Overhauled	05-02549	\$319.00
R00253-2	Fuel Pump - Overhauled	05-02551	\$319.00
R00253-501	Fuel Pump - Overhauled	05-02552	\$319.00
R00253-502	Fuel Pump - Overhauled	05-02554	\$319.00
New Lycoming Diaphragm Fuel Pumps			
AF15472	Fuel Pump - New	05-02555	\$319.00
AF15473	Fuel Pump - New	05-02556	\$319.00
Overhauled TCM Centurion Fuel Pumps			
4036/9076	Fuel Pump - Overhauled	05-19030	\$319.00
6861	Fuel Pump - Overhauled	05-19035	\$319.00
9051/9867	Fuel Pump - Overhauled	05-19025	\$319.00
40585	Fuel Pump - Overhauled	05-02557	\$319.00
40695	Fuel Pump - Overhauled	05-02558	\$319.00
631391	Fuel Pump - Overhauled	05-02559	\$319.00
AF40585	Fuel Pump - Overhauled	05-02562	\$319.00
AF40695	Fuel Pump - Overhauled	05-19045	\$319.00
AF631391	Fuel Pump - Overhauled	05-02563	\$319.00
New TCM Centurion Fuel Pumps			
AF6561	Screen Kit	05-02560	\$319.00
AF16335	Fuel Pump - New	05-02561	\$319.00
AF40585	Fuel Pump - New	05-02564	\$319.00
AF40695	Fuel Pump - New	05-02565	\$319.00
AF631391	Fuel Pump - New	05-19050	\$319.00

LYCOMING/AC FUEL PUMP FITTINGS

These fittings are designed to fit mechanical fuel pumps used on Lycoming engines. These fittings feature 3/8" AN flare outlets for connection to aircraft hoses, and are available in straight, 45° & 90° angle versions.

Straight fitting	P/N 07-00780	\$2.75
45° fitting	P/N 07-00781	\$9.85
90° fitting	P/N 07-00782	\$15.40
Tee fitting w/ 1/8" pipe thread tapping for fuel pressure.	P/N 07-00783	\$9.50

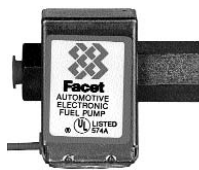
WELDON HIGH PRESSURE ELECTRIC FUEL PUMP

Weldon's 8150 series high pressure electric fuel pump is a positive displacement "cammed vane" type used primarily in airborne applications. It features a low pressure relief valve and integral bypass valve. Applications include in-line fuel transfer priming of fuel-injected engines and an emergency fuel pump. The permanent-magnet, explosion resistant motor is rated for continuous duty. These self-priming, lightweight (2.6 lbs. max.) pumps have been used for over 15 years by major aircraft manufacturers.

Model No.	Flow GPH	Output	Fluid	Power	Price Ea
8150-B	35 Min.	4.5 PSI	Av Gas	24V DC @ 2A	\$828.50
8163-A	35 Min.	21 PSI	Av Gas	14V DC @ 5A	\$632.00
8170-A	35 Min.	4.5 PSI	MIL-G-5572 Gasoline	12V DC @ 4A	\$1,303.00

AIRCRAFT SPRUCE WEST
CORONA, CA • (877) 4-SPRUCE

FACET ELECTRIC FUEL PUMPS



SOLID-STATE TYPE PUMPS - These pumps measure less than 3" in any direction and weigh only 18 oz. Fuel is supplied as soon as the ignition is turned on so the engine will start faster at colder temperatures. Built-in pressure relief prevents flooding and assures fast re-starts on hottest days. The all-steel plated case is water tight. Mounts with two bolts. For best results, mount the pump close to the fuel tank and below the liquid level. The tank is self-priming to 18" fuel lift. Standard 12 V models require only 1 amp

at max. delivery. Many models are available, but these are the ones recommended by Rutan Aircraft Factory, Stoddard Hamilton and many other aircraft designers. All of the pumps shown feature the all nylon valve and plunger as specified by Rutan Aircraft in the Canard Pusher newsletter.

FACET NO. 40105 - 12V Negative Ground, 2-1/2-4-1/2 PSI Max., 30 GPH. 1/8 x 27 internal pipe ports.....P/N 40105.....**\$28.60**

FACET NO. 40106 - 12V Negative Ground, 4-6 PSI Max., 30 GPH. 1/8 x 27 internal pipe ports.....P/N 40106.....**\$28.60**

FACET NO. 40164 - 24V Negative Ground, 4-C PSI Max, 30 GPH, 1/8 x 27 internal pipe portsP/N 40164.....**\$49.30**

FACET NO. 40108/40154 - Aircraft Spruce now carries 12V and 24V electric fuel pumps which have AN-style 37° male "dash 6" fittings built into the fuel pump to provide a simpler fuel line hookup than with the internal pipe threads on the older Facet fuel pumps.

4-6 PsiP/N 40108 (12V).....**\$35.60**
15 GPH.P/N 40154 (24V).....**\$43.65**



Facet filter for solid-state pumps P/N 479735 ea. **\$3.00**

The pumps above do not feature an anti-siphoning valve and fuel will flow through them in event of pump failure.

MOUNTING BRACKET FOR WELDON FUEL PUMPS



This T-bolt quick release band clamp with mounting bracket fits all Weldon fuel pumps with 2-1/2" diameter motors. Made from certified aerospace quality stainless steel, this bracket offers secure holding power under extreme vibration. The band clamp rotates within the mounting foot to offer easy access to the quick release latch for a variety of mounting positions.

P/N 05-00021**\$23.65 ea.**

AEROQUIP FITTING FOR FACET PUMPS



On the recommendation of Rutan Aircraft Factory, we now stock Aeroquip #2071-6-6S fitting which is a steel elbow with a swivel nut which fits the 37 flares on the Facet 40108 and 40154 fuel pumps. This Aeroquip fitting makes installation of the pumps easy & economical. Aeroquip #2071-6-6S.

P/N 04-05800**\$4.95**

INTERRUPTER TYPE PUMPS

These pumps are used on many production aircraft as booster pumps, but do not carry blanket FAA approval. Standard 12 V models require only 3/4 amps at max. delivery. A few applications are:

FACET NO. 480545 - 12V Negative Ground, 4-5 PSI, 30gph. Includes anti-siphoning valve. Used on Maule aircraft. P/N 480545**\$65.50**



FACET NO. 480564E - 24V Negative Ground, 4-5 PSI, 32gph. Includes anti-siphoning valve. 1/4-18 fitting. P/N 05-01003**\$89.50**

Interrupter Type

FACET NO. 478360 - 12V Negative Ground, 4-5 PSI, 30 GPH. Without anti-siphoning valve. Used on some Piper aircraft. P/N 478360**\$61.25**

FACET NO. 476088 - 24V Negative Ground, 4-5 PSI, 30 GPH. Used on some Piper and Grumman models. P/N 476088**\$64.95**



FACET NO. 480543 - 12V Negative Ground, 6-1/2-7-1/2 PSI, 45 GPH. Used by some engine rebuilders and aircraft modification shops. P/N 480543**\$78.00**

Facet filter for interrupter pumps P/N 479729**\$2.45**

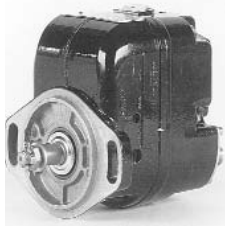
FACET NO. 476410 - 12V Negative Ground, 4-5 PSI, 20 GPH. P/N 476410**\$101.95**

DISCOUNTS: LESS 10% ON 6 UNITS, 15% ON 12 UNITS

UNLISTED PUROLATOR/FACET FUEL PUMPS CALL US!

As a master distributor for the Purolator/Facet factory, Aircraft Spruce carries the full line of fuel pumps and parts. If the Purolator/ Facet pump or part you require is not listed above, please contact us at 1-877-4-SPRUCE (1-877-477-7823) or by email or fax for pricing and availability on the parts you require.

BENDIX-SCINTILLA MAGNETOS



NEW BENDIX MAGNETOS (Outright Purchase)

S4LN-20 (RH)P/N 10-600644-1**\$1,195.00** S4LN-21 (LH)P/N 10-500514-1**\$1,838.00**
 All above magnetos have impulse coupling.

REMANUFACTURED BENDIX MAGNETOS

S4LN-20(RH) 10-51360-29R ..**\$355.95** S4LN-21 ..10-51360-26R**\$399.95** D3000 ..10-682555-11R ..**\$595.90**
 S4LN-21(LH) ..10-51360-37R ..**\$516.00** S4LN-21 ..10-51360-37R**\$516.00** 120010-682555-14R ..**\$595.90**
 200 Series10-163050-9R ..**\$369.95** 120010-349370-4R**\$513.00** 10-349310-1R**\$341.95**
 10-51365-47R ..**\$511.00** D300010-682560-11R ..**\$717.00** 10-51360-27R**\$355.95**
 10-51360-28R ..**\$341.95** 10-51365-39R**\$516.00** 10-79020-10R**\$399.95**

Exchange Price. Add \$180.00 core charge to price above. Refundable with return of rebuildable exchange magneto.
ALL MODEL NUMBERS AVAILABLE

BENDIX MAGNETO ENGINE APPLICATIONS

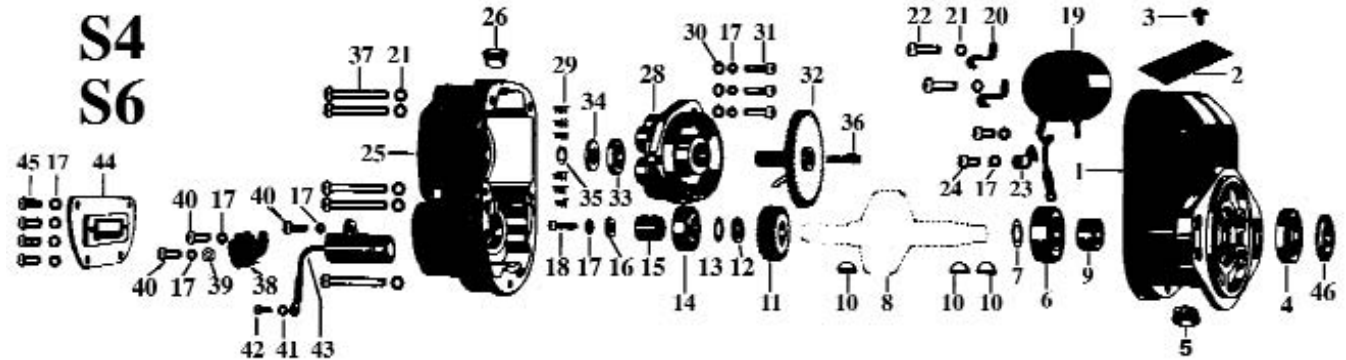
Engine		Magneto	Magneto Replacement	Units per Engine	Engine		Magneto	Magneto Replacement	Units per Engine
Make	Model	Type			Make	Model	Type		
Continental	A-65-8, A-75-8, C-75-8, C-85-8 with original crankcase	S4RN-20 S4RN-21	10-51360-27 (Rt. Side) 10-51360-28 (Lt. Side)	1 1	Franklin	6V4-200-C32, -C33, O-335-2, -3, -5, -6	S6RN-23	10-52350-19	2
	A65-8, A-75-8, C-75-8, C-85-8 with current crankcase castings No. 6794 & No. 6795	S4RN-21	10-51360-28	2		Lycoming	6A4-200-C6	S6RN-23	10-52350-21
	C-75-12F, C-85-8F, C-85-12F, C-90-12,	S4LN-21	10-51360-26	2	††O-145-B2, -B3, -C2, -C3, ††O-235-C, O-235-C1, -C1A, O-320-A1A, -A2A, -B1A, -B2A, O-340-A, -A1A, -A2A, -B1A, B2A, O-360-A, -A1A, -A1B, -B1A, -B2A		S4LN-20 S4LN-21 S4LN-21	10-51360-29 10-51360-30 10-51360-30 (25° Lag) or 10-51360-25 (35° Lag)	1 1 2 2
	C-115, C-125-2, C-145-2, C-145-4	S6LN-21	10-51365-39	2	O-290-G (single ignition)		S4LN-21	10-51360-25	1
	E-165-2, E-185-2 (above S/N 10111) E-185-3, E-185-9 (above S/N 5937) (above S/N 20922), E-225-4, E-225-8 (all), O-470-7 (above S/N 5937)	S6LN-20	10-51365-43	2	GO-435-C2, -C2A, -C2B, -C2B2, -C2C, -C2E, GO-480, -B, -B1A6, -B1C, -B1D, -C1A, -C1D6, -C2E6, -F1A6, -F2A6, -F3A6, -F4A6		S6LN-20 S6LN-21	10-51365-31 10-51360-32	1 1
	GO-300A, GO-300B	S6RN-21	10-51365-35	2	O-435-19, -20, VO-435A, -A1A, -A1B, -A1C, -A1D, GO-480-C1B6, -D1A, -G1B6, GSO-480-A1A6, -A1C6, -B 1A6, -B1B6, -B1C6		S6LN-20 S6LN-21	10-51365-33 10-51365-34	1 1
	O-470-2, -4, -13, -A, -B, -E, -G, -J, -K, -L, -M, BGSO-526-A	S6RN-25	10-79020-8	2	O-435-6, -6A, -23, -23A, -23B, -A1C (optional), O-480-1		S6LN-22 S6LN-23	10-52350-22 10-52350-23	1 1
	O-470-13A	S6LN-23	10-52350-20	2	O-435-17, GO-435-C2, -C2A, -C2B, -C2D, GO-480-B1, -B1B, -C2C6, -F3B6, -F4B6		S6LN-20 S6LN-21	10-51365-44 10-51365-45	1 1
	PE-150-2, -6 Packette	S6LN-23	10-52350-20	1	O-540		S6LN-20 S6LN-21	10-51365-46 10-51365-47	1 1
	FSO-526-A	S6RN-26	10-85290-2	2					
	Franklin	6A4-150-B3, 6A4-165-B3	S6RN-21		2				
		6V4-178-B3, -B33, O-335-2, -3	S6RN-21	10-51365-48	2				



*See Listing Below.

PARTS COMMON TO S4N & S6N MAGNETOS

New P/N 10-357584. *New P/N 10-357586.



Ref. No.	Part No.	Description	Price Ea.	Ref. No.	Part No.	Description	Price Ea.	Ref. No.	Part No.	Description	Price Ea.
1	10-50727Y	Housing - Magneto	\$312.95	13	2-199-3	Shim Washer - .005"	\$1.22	30	—	Washer - Plain	\$0.96
2	10-400012	Plate - Mag Ident	\$13.90		2-199-4	Shim Washer - .008"	\$1.44	31	—	Screw - Distributor Block	
3	10-22067	Drive Screw - Ident Plate	—		2-199-5	Shim Washer - .010"	\$0.94	32	10-357584	Gear-Distrib., Large (S4)**	\$42.30
4	10-357592	Oil Seal - Drive Shaft	\$12.00		2-199-6	Shim Washer - .012"	\$1.10	32A	10-357586	Gear-Distrib., Large (S6)***	\$103.95
5	10-157134	Vent - Mag Housing	\$2.50			(Breaker End Bearing)		33	10-50752	Washer - Felt	\$0.59
6	10-81806	Bearing - Mag, Drive End	\$16.20	14	2-202	Bearing-Magnet, Brkr End	\$21.60	35	10-92815-37	Ring-Retain. (Distrib.,Gear)	\$0.52
7	2-161-1	Shim Washer - .0025"	\$1.99	15	10-88543-1	Cam - Breaker	\$19.90	36	10-9595	Brush - Carbon	\$6.60
	2-161-2	Shim Washer - .004"	\$4.45	16	10-51354	Washer-Plain (Cam Screw)	\$1.17	37	10-157158	Screw	\$2.10
	2-161-3	Shim Washer - .005"	\$1.85	18	10-35936-10	Screw - Cam	\$1.62	38	—	Breaker Assembly*	—
	2-161-4	Shim Washer - .008"	\$1.78	19	10-357164	Coil	\$99.00	39	10-14268	Washer - Plain	\$1.17
	2-161-5	Shim Washer - .010"	\$2.15	20	10-50765	Clamp - Coil Core	\$3.55	40	10-35936-6	Screw	\$1.66
	2-161-6	Shim Washer - .012"	\$1.91	21		Washer - Lock		41	—	Washer - Lock	—
		(Drive End Bearing)		22	10-35937-8	Screw - Coil Core Clamp	\$1.27	42	—	Screw - Lead to Breaker	2.20
8	—	Magnet - Rotating	—	23	10-5752	Clip - Primary Lead	\$2.80	43	10-51676	Condenser	\$10.90
9	10-25788	Bushing - Drive Shaft	\$18.20	24	10-16479	Screw	—	44	—	Cover - Breaker	—
10	10-90788-5	Key - Woodruff	\$1.24	25	—	Housing - Distributor	—	45	10-157161	Screw - Breaker Cover	\$1.76
11	10-157123Y	Gear-Distrib., Small (S4)	\$35.80	26	10-157135	Plug - Distributor Housing	\$2.55	46	10-51678	Oil Slinger - Drive Shaft	\$6.90
11A	10-157120Y	Gear-Distrib., Small (S6)	\$23.10	27	—	Bushing - Ground Terminal	—				
12	10-3503	Spacer-Brkr End Bearing	\$1.02	28	10-52949	Block - Distributor (S4)	\$71.00				
13	2-199-1	Shim Washer - .002"	\$1.35	28A	10-52958	Block - Distributor (S6)	\$68.50				
	2-199-2	Shim Washer - .004"	\$1.46	29	10-50737	Spring-H.T. Cable Contact	\$0.52				

BENDIX-SCINTILLA MAGNETOS

BENDIX BREAKER ASSEMBLIES

Early S4, S6 Mags

P/N 07-06305 (10-357173) with spring (current production)**\$19.50 Ea.**
 P/N 07-06306 (10-357174) without spring (current production)**\$19.30 Ea.**

All above breaker assemblies used on either Right or Left Magnetos. Late S4/S6 Mags, S200 Mags*

P/N 10-382584 (LH).....**\$19.90 Ea.**
 P/N 10-382585 (RH)**\$31.50 Ea.**
Special Offer\$64.00 for 2

Used on many late Lyc. engines.
 Note: Specify Bendix mag
 P/N e.g., 10-51369-29

REPLACEMENT COIL FOR BENDIX S4, S6 MAGS

Airborne FAA-PMA approved coil replaces both Bendix 10-357164 & 10-357165. Retrofits virtually the complete range of Bendix S20 & S200 series mags. Furnished with long & short "coil to points" leads. P/N ES-652**\$78.85**

NOTE: Part Nos. 10-357164-1, 10-357165-1, 07-06303, 07-06304 are all equivalents for ES-652

REPLACEMENT COIL FOR BENDIX 1200 SERIES MAGS

Aero Accessories, Inc. FAA-PMA approved coil is a direct replacement for Bendix 10-391088 coil as used on Bendix 1200 series mags at tremendous savings. P/N 07-05600.....**\$105.95**

MAGNETO P-LEAD TEST ADAPTER



The P-Lead Adapter allows connection of magneto timer leads to Bendix aircraft magnetos with immediate and positive connection. Eliminates fooling with old P-leads that are stripped back & dangling. The unique design insures proper spring pressure against the internal contact, provides secure and stable alignment and has a post that prevents the timer leads from falling off. Sold in pairs.

For Bendix S4 & S6 mags

P/N 07-05650 ..**\$29.95**

REPLACEMENT COILS FOR CONTINENTAL ENGINES PER SERVICE BULLETIN NO. 637

TCM Ignition Systems has issued Service Bulletin No. 637 to retire from service certain older coils and rotating magnets. The Bulletin applies to many S-20, S-200, S-600, and S-1200 series magnetos as identified in this chart. Compliance with this Bulletin is required at the next 100 inspection, annual inspection, or progressive maintenance inspection, whichever comes first. Order by new coil part number.

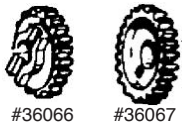
Magneto Series	Old Coil P/N	Color	New Coil P/N	Color	Our Price
S-20	10-51303	Opaque amber to Dark Purple	10-357164	Bright Red to Dark Red	\$99.00
	10-76384 10-160886				
S-20 S-200	10-163172	Opaque Amber to Dark Purple	10-357165-1	Bright Red to Dark Red	\$91.75
	10-163209 10-160887				
S-1200	10-349271	Opaque Amber	10-391088-1	Blue to Olive Green to Black	\$114.95

HIGH TENSION CABLE OUTLET ASSEMBLIES



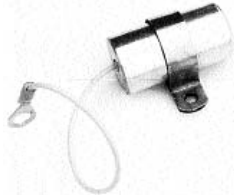
Ref. #	Description	Modified Kit No. 10-52935 (For All S4N Mags)			Modified Kit No. 10-52936 (For All S6N Mags, except 1200 series)		
		Part No.	No. Req.	Price	Part No.	No. Req.	Price
2	Screw & Washer	10-157159	4	\$0.66	10-157159	4	\$0.66
3	Plate - Cable Outlet	10-50766	1	---	10-50777	1	\$17.10
4	Cable Outlet Grommet	10-50739	1	---	10-50771	1	---
5	Washer	10-8785	4	---	10-8785	6	---

CONTINENTAL MAGNETO DRIVE GEARS



#36066 GearOur Price **\$491.95**
 #36067 GearOur Price **\$148.00**

ALTERNATOR FILTER



This alternator filter exceeds the capacitance of existing filters. provides superior performance in minimizing or eliminating noise or whine caused by aircraft alternator systems. Eliminate alternator noise in your intercom system, audio panels, nav/coms etc. Operating voltage: 50 VDC. Made in the USA. 1 year warranty. **FAA approved.**
 P/N 11-08060.....**\$37.75**

MAGNETO FILTER



Eliminates ignition noise. Install in primary lead of magneto. Hooks up parallel to primary lead. **Not FAA approved.**
 P/N 07-03200**\$41.90 ea**

MAGNETO FILTER FAA APPROVED



These FAA approved ignition filters easily connect to the primary lead and grounds at the magneto and eliminate magneto noise. Size: 1"x1.8". 1yr warranty.

Specifications: • Heavy duty mounting clamp •Advanced feed-through design • Temp. range: -35°C to +80°C
 • Maximum current: 20 amps
 • Capacitance: .05 uf-self healing technology • Braided cable is shielded, silver plate over copper supplied in 8' lengths. • 1000 Vdc working voltage, 5000Vdc break down voltage
 P/N 07-00713**\$44.95**

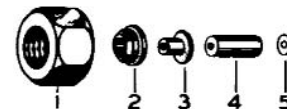
Magneto filters not for use on slick mags.

GROUND TERMINAL KITS



For 200 series mags.
 Kit No. 10-52306 (AN3105)**\$26.95**

Reg. No.	Part No.	No. Req.	Description
1	10-30299	1	NUT - Coupling (Ground Terminal)
2	10-56507	1	CROMMET Assy.(Ground Terminal)
3	10-3383	1	FERRULE - Inner (Ground Wire)
4	10-25725	1	SLEEVE - Insulating (Ground Wire)



For 20 series mags.
 Kit No. 10-52305**\$49.40**

Reg. No.	Part No.	No. Req.	Description
1	10-37669	1	NUT - Coupling (Ground Terminal)
2	10-7030	1	FERRULE - Outer (Ground Wire)
3	10-7029	1	FERRULE - Inner (Ground Wire)
4	10-37668	1	SLEEVE - Insulating (Ground Wire)
5	2-155	1	WASHER - Ground Wire Contact

TCM/BENDIX IMPULSE COUPLINGS

Part No.
 10-40307\$214.95
 10-40309\$239.95
 10-40310\$198.95
 10-40314\$226.95
 10-40315\$243.95
 10-40322\$198.95
 10-40325\$187.95

\$50 core charge applies

TCM/BENDIX CAM ASSEMBLIES

Part No.
 10-40166-4\$154.95
 10-40167-4\$154.95
 10-40167-6\$154.95
 10-40167-10\$154.95

\$25 core charge applies

BENDIX MAGNETO REPAIR KITS FROM TEMPEST

REPAIR KIT

- 1 - Contact Assy. Kit (3)
- 1 - Capacitor
- 2 - Bearings
- 1 - Oil Seal
- 1 - Oil Slinger
- 3 - Woodruff Keys
- 1 - Cotter Pin
- 1 - Cam Screw
- 1 - Felt Washer
- 1 - Felt Strip
- 1 - Snap Ring
- 1 - Carbon Brush

These magneto repair kits are designed to simplify the Bendix magneto overhaul process by providing all of the commonly needed overhaul parts in one convenient kit. The Repair Kits contain the parts needed for minor repair such as a 500 hour inspection, and the Deluxe Repair Kits contain the parts needed for major repair such as a magneto overhaul. These parts are highest quality direct replacement parts and are approved for installation and use on certificated aircraft. The Repair Kit and Deluxe Repair Kit for the Bendix -200, -201, and -202 series magnetos contain two sets of contact assembly kits. Some parts that may be need replacing during magneto overhaul are not included in these kits.

DELUXE REPAIR KIT

- 1 - Contact Assy. Kit (3)
- 1 - Coil Kit
- 1 - dist. Block Kit
- 1 - Gear Kit
- 1 - Capacitor
- 2 - Bearings
- 1 - Oil Seal
- 1 - Oil Slinger
- 3 - Woodruff Keys
- 1 - Cotter Pin
- 1 - Cam Screw

BENDIX SERIES	MAGNETO P/N	MAGNETO TYPE	REPAIR KIT P/N	KIT PRICE	DELUXE REPAIR KIT P/N	KIT PRICE
S-20 & S21	10-51360-1 10-51360-3 10-51360-4 10-51360-6 10-51360-8	S4R(L)N -20,21	07-00855	\$76.50	07-00854	\$237.95
	10-51360-10 10-51360-11 10-51360-12 10-51360-25	S4R(L)N -20,21	07-00825	\$76.50	07-00856	\$236.95
	10-51360-26 10-51360-27 10-51360-28	S4R(L)N -20,21	07-00855	\$76.50	07-00854	\$237.95
	10-51360-29 10-51360-30	S4R(L)N -20,21	07-00825	\$76.50	07-00856	\$236.95
	10-51360-31	S4R(L)N -20,21	07-00855	\$76.50	07-00854	\$237.95
	10-51360-33 10-51360-37 10-51360-40 10-51360-41	S4R(L)N -20,21	07-00825	\$76.50	07-00856	\$236.95
	10-51360-45	S4LN-21	07-00860	\$99.75	07-00859	\$259.95
	10-51360-46	S4R(L)N -20,21	07-00825	\$76.50	07-00856	\$236.95
	10-51360-47	S4LN-21	07-00860	\$99.75	07-00859	\$259.95
	10-51360-48	S4LN-21	07-00858	\$104.95	07-00857	\$260.95
	10-51360-54	S4R(L)N -20,21	07-00825	\$76.50	07-00856	\$236.95
	10-51360-55 10-51360-58	S4LN-21	07-00860	\$99.75	07-00859	\$259.95
	10-51360-1 up to S.N.238468	S6R(L)N	07-00862	\$73.25	07-00861	\$262.95
	10-51365-1 up to S.N.238469	S6R(L)N	07-00864	\$76.25	07-00863	\$266.95
	10-51365-2 10-51365-5 10-51365-7	S4R(L)N -20,21	07-00862	\$73.25	07-00861	\$262.95
	10-51365-9	S6R(L)N -20,21	07-00864	\$76.25	07-00863	\$266.95
	10-51365-13	S6R(L)N -20,21	07-00862	\$73.25	07-00861	\$262.95
	10-51365-14 10-51365-15 10-51365-16 10-51365-17 10-51365-20 10-51365-25 10-51365-26 10-51365-27 10-51365-28 10-51365-29 10-51365-30 10-51365-31 10-51365-32 10-51365-33 10-51365-34 10-51365-35 10-51365-39	S6R(L)N -20,21	07-00864	\$76.25	07-00863	\$266.95
	10-51365-40 10-51365-41	S6R(L)N -20,21	07-00862	\$73.25	07-00861	\$262.95
	10-51365-42 10-51365-43 10-51365-44 10-51365-45 10-51365-46 10-51365-47	S6R(L)N -20,21	07-00864	\$76.25	07-00863	\$266.95
	10-51365-48	S6R(L)N -20,21	07-00862	\$73.25	07-00861	\$262.95
	10-51365-53 10-51365-54	S6R(L)N -20,21	07-00864	\$76.25	07-00863	\$266.95
	10-51365-57	S6LN -20,21	07-00868	\$117.95	07-00867	\$302.95



BENDIX MAGNETO REPAIR KITS FROM TEMPEST

BENDIX SERIES	MAGNETO P/N	MAGNETO TYPE	REPAIR KIT P/N	KIT PRICE	DELUXE REPAIR KIT P/N	KIT PRICE
S-24 & S25	10-79020-5 10-79020-6 10-79020-8 10-79020-10	S6R(L)N -24,25	07-00864	\$76.25	07-00863	\$266.95
	10-79020-11	S6LN -25	07-00868	\$117.95	07-00867	\$302.95
	10-79020-13 10-79020-14 10-79020-16	S6R(L)N -24, -25	07-00864	\$76.25	07-00863	\$266.95
	10-79020-17 10-79020-18 10-79020-118	S6LN -25	07-00868	\$117.95	07-00867	\$302.95
	10-79020-19 10-79020-119	S6LN -25	07-00866	\$103.95	07-00865	\$298.95
S-200	10-163005-1 10-163005-2 10-163005-3 10-163005-4 10-163005-5 10-163005-7 10-163005-10 10-163005-11	S4R(L)N-200*	07-00844	\$116.95	07-00843	\$267.95
	10-163015-1 10-163015-2 10-163015-3 10-163015-4	S4R(L)N-201*	07-00844	\$116.95	07-00843	\$267.95
	10-163045-1	S4LN -204	07-00757	\$102.95	07-00847	\$254.95
	10-163045-2	S4RN -204	07-00846	\$116.95	07-00845	\$256.95
	10-163045-3	S4LN -204	07-00757	\$102.95	07-00847	\$254.95
	10-163045-4	S4RN -204	07-00846	\$116.95	07-00845	\$256.95
	10-163045-6	S4LN -204	07-00757	\$102.95	07-00847	\$254.95
	10-163045-7	S4RN -204	07-00846	\$116.95	07-00845	\$256.95
	10-163045-4	S4RN -205	07-00846	\$116.95	07-00845	\$256.95
	10-163045-6	S4LN -205	07-00757	\$102.95	07-00847	\$254.95
	10-163010-1 10-163010-2 10-163010-3 10-163010-4 10-163010-5 10-163010-6 10-163010-7 10-163010-8 10-163010-9 10-163010-10 10-163010-11 10-163010-15 10-163010-17	S6R(L)N -200*	07-00849	\$126.95	07-00848	\$314.95
	10-163020-1 10-163020-2 10-163020-3 10-163020-4	S6R(L)N-201*	07-00849	\$126.95	07-00848	\$314.95
	10-163030-1 10-163030-4	S6R(L)N-202*	07-00849	\$126.95	07-00848	\$314.95
	10-163050-1 10-163050-2 10-163050-3 10-163050-5	S6R(L)N-204	07-00853	\$99.75	07-00852	\$292.95
	10-163050-6 10-163050-7 10-163050-8	S6RN -204	07-00851	\$103.95	07-00850	\$292.95
	10-163050-9	S6LN -204	07-00853	\$99.75	07-00852	\$292.95
	10-163060-1	S6RN -205	07-00851	\$103.95	07-00850	\$292.95
	10-163060-2	S6RN -205	07-00853	\$99.75	07-00852	\$292.95
	10-163060-1 10-163060-3	S6RN -206	07-00853	\$99.75	07-00852	\$292.95

EP

**The Repair Kit and Deluxe Repair Kit for the Bendix -200, -201, and -202 Series Magnetos contain tow sets of Contact Assembly Kits.*

REPLACEMENT PARTS FOR BENDIX MAGNETOS FROM KELLY AEROSPACE

P/N	Description	Price	P/N	Description	Price	P/N	Description	Price	P/N	Description	Price
10-353060	Bearing	\$7.60	10-382642	Breaker Points	\$50.00	10-50737	Spring	\$0.52	10-125996	Bushing	\$2.85
10-357078	Bushing	\$17.20	10-382681	Capacitor	\$58.00	10-50752	Felt Washer	\$0.59	10-160844	Brush	\$3.10
10-357164	Coil	\$99.00	10-382788	Washer	\$2.15	10-51391	Plug	\$4.75	10-163048	Bushing	\$29.30
10-357165-1	Coil	\$91.75	10-382790-1	Coil	\$124.95	10-51676	Capacitor	\$10.90	10-163049	Bushing	\$30.90
10-357173	Breaker Points	\$32.20	10-382807	Capacitor	\$69.85	10-53397	Washer	\$0.33	10-163374	Felt Strip	\$0.52
10-357174	Breaker Points	\$31.90	10-382811	Gasket	\$15.00	10-55501	Washer	\$1.01	10-349263	Packing	\$0.63
10-357193	Bushing	---	10-382815	Bushing	\$16.70	10-68205	Distributor Block	\$126.95	10-349276	Capacitor	\$42.50
10-357281	Capacitor	\$43.60	10-391088-1	Coil	\$114.95	10-68205-6	Distributor Block	\$145.95	10-349511	Washer	\$2.90
10-357424	Distributor Block	\$71.00	10-391389	Gasket	\$15.90	10-81806	Bearing	\$16.20	10-349970	Breaker Points	\$25.90
10-361631	Breaker Points	\$49.40	10-391401	Gasket	\$10.10	10-92815-37	Ring	\$0.52	10-349971	Breaker Points	\$25.20
10-382584	Breaker Points	\$19.90	10-391584	Distributor Block	\$40.80	10-92815-62	Ring	\$0.82	10-353056	Bearing	\$14.20
10-382588-1	Coil	\$103.95	10-391586	Distributor Block	\$43.60	2-202	Bearing	\$21.60			
10-382622	Breaker Points	\$43.60	10-50732	Vent	\$12.60	ES-652	Coil	\$78.85			

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CORONA, CA • (877) 4-SPRUCE

258
Prices Subject to Change Without Notice

AIRCRAFT SPRUCE EAST
PEACHTREE CITY, GA • (877) 477-7823

KELLY AEROSPACE IGNITION HARNESSSES



Kelly Aerospace ignition harness incorporate a negative-pitch spring design (the tip of the coil spring extends inward) allowing the coil spring tip to lie flat against the spark plug electrode, providing 360 degree contact. Kelly Aerospace ignition harnesses are FAA/PMA approved for Lycoming, Continental and Franklin engines. Using a tinned-copper, nickel plated braid shielding substantially reduces IML and combined with a very flexible 19 strand conductor of stainless steel wire provides the ultimate in wire conductivity and ease of installation. Steel nuts offer superior strength compared to aluminum nuts and reduce the potential for galling during installation. The abrasion resistant red polymer cover has been engineered specifically for the high-temp environment of reciprocating engines. Kelly's unique clockable steel elbow allows you to "point" the lead end in any direction (360°) without putting a strain or twist in the lead wire. Excellent for those tight installations and closely cowled engines where heat and accessibility are a problem. Eliminates wire damage due to tight bends at the plug. Just add an "E" to the end of the part number when ordering

Part Numbering System and Cross Reference: The Kelly Aerospace part numbering system is "user-friendly" for quickly cross-referencing to both Champion and Unison harnesses. Our "KA1" prefix is equivalent to the Champion "CH1" or the Unison "M" with the balance of the part number remaining the same. Add the suffix "E" to the part number to designate the 90° steel elbow terminations whenever ordering an "elbow" harness (Example: KA12121E). Complete application chart for selecting correct Kelly Harness to order for your engine is available on our website: www.aircraftspruce.com

P/N	Bendix	Slick	4 cyl	6 cyl	Elbow	Straight	Our P/N	Price	P/N	Bendix	Slick	4 cyl	6 cyl	Elbow	Straight	Our P/N	Price
KA11480				X		X	08-01095	\$218.75	KA12447	X			X		X	08-01165	\$218.75
KA11480E				X	X		08-01096	\$281.25	KA12447E	X			X	X		08-01166	\$281.25
KA1730	X			X		X	08-01098	\$218.75	KA12474	X			X		X	08-01167	\$218.75
KA11730E	X			X	X		08-01099	\$281.25	KA12474E	X			X	X		08-01168	\$281.25
KA11740	X			X		X	08-01101	\$218.25	KA12508		X	X			X	08-01145	\$156.25
KA11740E	X			X	X		08-01102	\$281.25	KA12508E		X	X		X		08-01169	\$218.75
KA11780		X	X			X	08-01103	\$156.25	KA12616	X		X			X	08-01170	\$156.25
KA11780E		X	X			X	08-01104	\$218.75	KA12616E	X		X		X		08-01171	\$218.75
KA11878		X		X		X	08-01105	\$218.75	KA12628	X			X		X	08-01172	\$218.75
KA11878E		X		X	X		08-01106	\$281.25	KA12628E	X			X	X		08-01173	\$281.25
KA11884		X		X		X	08-01107	\$218.75	KA12709	X			X		X	08-01174	\$218.75
KA11884E		X		X	X		08-01108	\$281.25	KA12709E	X			X	X		08-01175	\$281.25
KA11950	X			X		X	08-01109	\$218.75	KA12712	X			X		X	08-01176	\$218.75
KA11950E	X			X	X		08-01110	\$281.25	KA12712E	X			X	X		08-01177	\$281.25
KA11978	X			X		X	08-01111	\$218.75	KA12742	X			X		X	08-01178	\$218.75
KA11978E	X			X	X		08-01112	\$281.25	KA12742E	X			X	X		08-01179	\$281.25
KA12007	X		X			X	08-01113	\$156.25	KA12745	X			X		X	08-01180	\$218.75
KA12007E	X		X			X	08-01114	\$218.75	KA12745E	X			X	X		08-01181	\$281.25
KA12015	X			X		X	08-01115	\$218.75	KA12778		X		X		X	08-01146	\$218.75
KA12015E	X			X	X		08-01116	\$281.25	KA12778E		X		X	X		08-01182	\$281.25
KA12037	X			X		X	08-01117	\$218.75	KA12790	X			X		X	08-01183	\$218.75
KA12037E	X			X	X		08-01118	\$281.25	KA12790E	X			X	X		08-01184	\$281.25
KA12112	X			X		X	08-01119	\$156.25	KA12828		X		X		X	08-01185	\$218.75
KA12112E	X			X	X		08-01120	\$218.75	KA12828E		X		X	X		08-01186	\$281.25
KA12120	X			X		X	08-01121	\$218.75	KA12851	X			X		X	08-01188	\$218.75
KA12120E	X			X	X		08-01122	\$281.25	KA12851E	X			X	X		08-01189	\$281.25
KA12121	X			X		X	08-01123	\$218.75	KA12854	X			X		X	08-01190	\$218.75
KA12121E	X			X	X		08-01124	\$281.25	KA12854E	X			X	X		08-01191	\$281.25
KA12130	X			X		X	08-01125	\$218.75	KA12865	X			X		X	08-01192	\$218.75
KA12130E	X			X	X		08-01126	\$281.25	KA12865E	X			X	X		08-01193	\$281.25
KA12154	X			X		X	08-01127	\$218.75	KA12890	X			X		X	08-01194	\$218.75
KA12154E	X			X	X		08-01128	\$281.25	KA12890E	X			X	X		08-01195	\$281.25
KA12157	X			X		X	08-01129	\$218.75	KA12932		X		X		X	08-01147	\$218.75
KA12157E	X			X	X		08-01130	\$281.25	KA12932E		X		X	X		08-01196	\$281.25
KA12176	X			X		X	08-01131	\$218.75	KA14001		X	X			X	08-01148	\$156.25
KA12176E	X			X	X		08-01132	\$281.25	KA14002		X	X			X	08-01150	\$156.25
KA12216	X			X		X	08-01133	\$218.75	KA14002E		X	X		X		08-01151	\$218.75
KA12216E	X			X	X		08-01153	\$281.25	KA14004		X	X		X		08-01152	\$156.25
KA12235	X		X			X	08-01134	\$156.25	KA14004E		X	X		X		08-01197	\$218.75
KA12235E	X		X			X	08-01135	\$218.75	KA14033	X		X			X	08-01198	\$156.25
KA12244	X			X		X	08-01155	\$218.75	KA14033E	X		X		X		08-01199	\$218.75
KA12244E	X			X	X		08-01156	\$281.25	KA17001	X			X		X	08-01202	\$218.95
KA12247	X			X		X	08-01157	\$218.75	KA17001E	X			X	X		08-01203	\$281.25
KA12247E	X			X	X		08-01158	\$281.25	KA17002	X			X		X	08-01204	\$218.75
KA12259	X			X		X	08-01159	\$218.75	KA17002E	X			X	X		08-01205	\$281.25
KA12259E	X			X	X		08-01160	\$281.25	KA17005	X		X			X	08-01206	\$156.25
KA12318		X		X		X	08-01161	\$218.75	KA17005E	X		X		X		08-01207	\$218.75
KA12318E		X		X	X		08-01162	\$281.25	KA17006	X		X			X	08-01208	\$156.25
KA12339	X			X		X	08-01163	\$218.75	KA17006E	X		X		X		08-01209	\$218.75
KA12339E	X			X	X		08-01154	\$281.25	KA17007	X		X		X		08-01210	\$156.25
KA12360	X		X			X	08-01136	\$156.25	KA17007E	X		X		X		08-01211	\$218.75
KA12360E	X		X			X	08-01137	\$218.75	KA17008	X		X		X		08-01212	\$156.25
KA12364	X		X			X	08-01138	\$156.25	KA17008E	X		X		X		08-01213	\$218.75
KA12364E	X		X			X	08-01139	\$218.75	KA17011		X	X		X		08-01214	\$156.25
KA12365E	X		X			X	08-01141	\$218.75	KA17011E		X	X		X		08-01215	\$218.75
KA12381		X		X		X	08-01142	\$218.75									
KA12381E		X		X	X		08-01143	\$281.25	P/N	Bendix	Slick	8 cyl.		Elbow	Straight	Our P/N	
KA12423	X		X			X	08-01144	\$156.25	Price								
KA12423E	X		X			X	08-01164	\$218.75	KA17012	X		X		X		08-01216	\$281.25
									KA17012E	X		X		X		08-01217	\$343.75



SLICK MAGNETOS



4300 AND 6300 SERIES SLICK MAGNETOS

These new lightweight aircraft magnetos are being used by many new equipment manufacturers. Weigh only 3-3/4 lbs. compared to 6-1/4 lbs. for typical old style magnetos. All units carry a six-month warranty after delivery to the user. These new model magnetos are completely rebuildable. The old 4000/4100 magnetos may not be returned as an exchange unit for a new magneto of the same model. Most other Magnetos may be returned for core credit. Drive gears are not included.

IF NO CORE IS RETURNED, ADD \$150 TO THE PRICE OF A NEW MAGNETO.

ALL SLICK MAGNETO AND HARNESS PRICES SHOWN ARE WELL BELOW SLICK FACTORY LIST PRICE. WE WILL BEAT ANY COMPETITOR'S ADVERTISED PRICE!

Slick Harnesses in Custom Colors
Slick harnesses come standard in silver. Harnesses are now available with blue, yellow or red wire on a special order basis at additional cost. Request quote by giving harness P/N and color of wire desired.

4300 SERIES (4-CYLINDER) MAGNETOS

Application (See Note)	Magneto*	Rotation & Impulse	New Magneto (Exchange)	Complete Harness (2 Mags)		
				Sparkplug Connector		
Continental A65-8, A75-8, C75-8, C85-8, C90-8	4330	R.H. with Impulse	\$571.00	M2045	5/8-24	\$210.95
Continental C75-12,-15, C85-12,-14,-15, C85-12F,-14F,-15F***, C90-12,-14,-16***, 0-200A,B,C	4301	L.H. with Impulse	\$571.00	M1780	5/8-24	\$210.95
Lycoming 0-235, 0-290***, 0-320, 0-360, IO-320E1B, E2B, AEIO-320E1B, E2B, AEIO-360B1C6, H1A	4370	L.H., no Impulse	\$495.00	M4001/M4004	5/8-24	\$208.95
	4371	L.H. with Impulse	\$559.00	M2508	3/4-20	\$208.95
VW Conversion Single Ignition	4316	R.H. with Impulse	\$571.00	M2266 (1Mag)	5/8-24	\$210.95

*4300 series replaces 4200 and feature improved cases and new bearings.

Drive Gear No. **36066** applicable to Cont. A65-8, A75-8, C75-8, C85-8, C90-8, C85-12-14-15, C90-12-14-16 and 0-200A,B,C w/ light accessory case..... **\$491.95**

Drive Gear No. **36067** applicable to Cont. C75-12, C85-12, C90-12 and 0-200 with heavy accessory case. **\$148.00**

*** The magnetos shown will fit the engine but installation is not FAA approved. Form 337 required. Note 2: Specify adapter thickness. M2638-1 (.560"), M2638-2 (.660"), M2638-3 (.760"), M2637 (.810"), measured from mounting pad to front of engine gear.

Starts determined by engine manufacturer. Lag angles: 4350 - no lag, 4351 - 20° lag, 4281 - 5° lag. Magneto Flange Gaskets not included. Order Lic. #62224 or Cont. #535324.

PLEASE REMOVE DRIVE GEARS BEFORE RETURNING MAGNETO CORES FOR CORE CREDIT.

6300 SERIES (6-CYLINDER) MAGNETOS

Application	Magneto*	Rotation & Impulse	New Magneto (Exchange)	Complete Harness (2 Mags)		
				Sparkplug Connector		
Continental 0-300, C125***, C145	6364	L.H. with Impulse	\$571.00	M2932 M2935	5/8-24 3/4-20	\$305.95 \$305.95
Continental GO-300	6367	R.H. with Impulse	\$571.00	M2938 ---	5/8-24 3/4-20	\$305.95 ---
Continental 0-470 (All)	6362 or 6382	R.H. with Impulse	\$571.00	M1878	5/8-24	\$305.95
				M1480	3/4-20	\$305.95
Continental TSIO-470, IO-520	6362 or 6382	R.H. with Impulse	\$571.00	M1878	5/8-24	\$305.95
				M1480	3/4-20	\$305.95
Continental IO-470 (All)	6362 or 6382 680 Series	R.H. with Impulse	\$571.00	M1878	5/8-24	\$305.95
				M1480	3/4-20	\$305.95
				M1990	3/4-20	\$305.95

6300 Series Replaces 6210 & 6262 magnetos. Includes new improved case and bearings.

SLICK REBATE PROGRAM

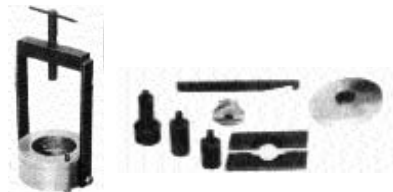
Unison Industries offers the following cash values for upgrading piston aircraft engines to Slick Ignition products under their popular "REBATE PROGRAM":

Complete Engine Upgrade (2 mags+harness) \$150.00

One Magneto..... **\$30.00**
One Ignition Harness..... **\$35.00**

Rebate does not apply to Slick Magneto cores. Factory rebates subject to change by factory. Slick requires a **minimum** of 90-120 days to process rebates. Rebates are sent direct from Slick to the purchaser, not through Aircraft Spruce.

Slick Magneto upgrade kits available for most Continental & Lycoming Engines. Provide engine make & model and spark plug size and request quotation on applicable upgrade kit.



SLICK MAGNETO ASSEMBLY & TIMING KIT

T-100 Assembly and Timing Kit for field-repairable Slick 4300/6300 Series Magnetos.

P/N T-100 **\$345.95**

SLICK MAGNETOS – IGNITION HARNESSSES



SLICK MAGNETO UPGRADE KITS

We offer complete Slick factory upgrade/conversion kits for virtually all general aviation aircraft. These kits include two factory new Slick magnetos, a complete Slick ignition harness, and conversion information. A \$150.00 factory rebate is available for these kits. Add \$300 core charge to the kit prices which is refundable upon return of the two old magnetos to Aircraft Spruce. Specify aircraft and engine make and model when ordering.

As of 2001 most Slick Upgrade Kits now incl. 2 mags., complete harness and 8 Unison spark plugs. Prices of kits vary depending on whether or not kits incl. spark plugs.

Slick Kit Part No.	Spark Plug Size	Engine Application 4 Cyl. Single Impulse 2 Mags & 1 set Ignition Harness	Price Add \$300 Core Charge to all kits
K4516	5/8" Autolite Plugs included	Lycoming: 0-235-C1A, C1C, C2C, E1, E2B, F1, G2B, H2C, J2B 0-320-A1A, A2D, C1A, D1D, D2G, D2H, D3G, E1J, E2D, E2E, E2G, E3D 10-320-B1B, E1B, E2B, A2B, AE10-320-E1B, E2B 0-360-A1NG, A2H, A4K, A4M, B1A, C1E, C1F, C2B, C2E, D1A 10-360-B1FG A10-360-A2B AE10-360-A2B, B1F6, B2F6, H1A	\$1,242.00 + Core
K4315	3/4" Autolite Plugs included	Lycoming: 0-235-C1C, C2C, E2B, F1, G2B, J2B, N2C, 0-320-A1A, B1A, B2A, C1A, C2A, C2B, C2C, C3A, C3B, C3C, D1D, D2G, D2H, D3G, E1J, E2D, E2E, E2G, E3D, 0-320-B1B, E1B, A10-320-A2B, AE10-320-E1B, E2B 0-360-A1NG, A2H, A4K, B1A, C1E, C1F, C2B, C2E, D1A 10-360-B1F6 A10-360-A2B AE10-360-A2B, B1F6, B2F6, H1A	\$1,182.00 + Core
Slick Kit Part No.	Spark Plug Size	Engine Application 4 Cyl. Single Impulse	
K4517-40	5/8" *	Lycoming: 0-235-C1, C2A, E2A, F2A; G1, G2A, J2A 0-290-D 0-320-A1B, A2A, A2B, A3A, A3B B1A, B1B, B2A, B2B, B3A, B3B, C2A, C2B, C2C, C3A, C3B, C3C, D1A, E1A, E2A, E2H 10-320-B1C, B2A, E1A, E2A, AE10-320-E1A, E2A 0-360-A1AWD, A2A, A1H, A3A, A4A, A4J, B2A, C1A, C1G, C2A, D2A 10-360-A1B, B4A, AE10-360-A1D, B4A	\$1,182.00 + Core
K4317	3/4" * *Autolite plugs included	Lycoming: 0-235-C1, C2A, C2B, E2A, F2A, F2B; G1, G2A, J2A 0-290-D 0-320-A1B, A2A, A2B, A3A, A3B, B2B, B3A, B3B, D1A, D1C, D1F, D2A, D2C, E1A, E2A, E2H, E3H 10-320-B1C, B2A, D1A, D1B, E1A, E2A A10-320-A1B, B1B, C1B AE10-320-D1B, D2B, E1A, E2A 0-360-A1A, A1AWD, A1FG, A1G, A1G6, A1H, A2A, A2F A2G, A3A, A4A, AHG, A4J, B2A, C1A, C2A, D2A 10-360-A1B, B4A, C1D6, F1A AE10-360-B4A	\$1,182.00 + Core
K4520-40	5/8" *	Continental: C-75-12, 15 C-85-14, 15 C-90-12, 14, 16, 16F 0-200-A, B, C	\$1,243.00 + Core
K4335	NA	Consists of 4333 AMAG + One Drive Gear	\$605.00 + \$150.00 Core
K4334-40	5/8" *	A-65 All, A-75 All (Except -12, -15) C-85 All (Except-12, 14, & 15) Includes Drive Gears	\$1,243.00 + Core
Slick Kit Part No.	Spark Plug Size	Engine Application 6 Cyl. Dual Impulse	
K6520-38	5/8" *	Continental: 0-470, B-C1, C, E, G,	\$1,322.00+Core
K6320	3/4" * Autolite plugs incl.	Continental: G-C1, H, J, K, K-C1, L, L-C1, M, M-C1, N, P, R, S, U 10-470-A, C, D, E, F, G, H, J, K, L, LO, M, N, P, R, S, T, U, V, VO 10-520-A, B, BA, BB, C, CB, D, E, F, G, H, J, K, L, M, MB, N, NB	\$1,323.00 + Core

Add \$300.00 core charge to all kit prices (refundable with return of old Magnetos) Request quotation for kits for unlisted engines.

* Autolite Plugs included.

Slick Ignition Harnesses

Engine	Magneto	Plug	Model	Price	Engine	Magneto	Plug	Model	Price
Cont A65, A75, C85, C90	SLK 4300 series	5/8-24	M2045	\$210.95	LYC O-235, O-320	SLK 4250/4251	5/8-24	M2363	\$210.95
Cont C75, C85, C90, O200	BDX S4-20/S-200	5/8-24	M2007	\$210.95	LYC O-235 L2C	SLK 4300 series	5/8-24	M2363	\$210.95
Cont O-200	BDX S4-20/S-200	5/8-24	M2007	\$210.95	LYC O-320	BDX S4-20/S-200	5/8-24	M2364	\$208.95
Cont O-200	SLK 4301	5/8-24	M1780	\$210.95	LYC O-360	BDX S4-1200	5/8-24	M2365	\$208.95
Cont O-300	BDX S6-20/S-200	5/8-24	M2130	\$305.95	LYC O-320, O-360	BDX S4-20/S-200	3/4-20	M2360	\$208.95
Cont O-300	SLK 6300 series	5/8-24	M2932	\$305.95	LYC O-235, O-320, O-360	SLK 4300 series	5/8-24	M4004	\$208.95
Cont C-125/145, O-300	SLK 664	5/8-24	M1884	\$305.95	LYC O-235, O-320, O-360	SLK 4300 series	3/4-20	M2508	\$208.95
Cont O/O-470	SLK 662	3/4-20	M1480	\$305.95	LYC O-540	BDX S6-20/S-200	5/8-24	M2121	\$305.95
Cont O/O-470	SLK 662	5/8-24	M1878	\$305.95	LYC O-540	BDX S6-20/S-200	3/4-20	M2120	\$305.95
Cont O/O-470, 10-520	BDX S-1200	3/4-20	M1740	\$305.95	LYC O-540	SLK 6300 series	5/8-24	M6000	\$305.95
Cont O/O-470, 10-520	SLK 6300 series	5/8-24	M2828	\$301.95	LYC O-540	SLK 6300 series	3/4-20	M6003	\$305.95
Cont O/O-470, 10-520	SLK 6300 series	3/4-20	M2381	\$298.95	LYC O-540	SLK 6300 series	3/4-20	M2896	\$305.95
Cont O/O-520	BDX S6-20/S6-200	5/8-24	M1978	\$305.95					
Cont TSIO-520	BDX S6-20/S-200	3/4-20	M1730	\$302.95					

Give us a call with your engine type, magneto model no., and spark plug type for specific application. Shipping Weight (3 Lbs.)

The following information will aid you in selecting the correct magneto, upgrade kit, or ignition harness:

1. Engine Manufacturer: _____
 2. Engine Model Number: _____
 3. Engine Type (4 or 6 Cylinder): _____
 4. Current Ignition System Manufacturer: _____
- a) Number of impulse coupled magnetos (1 or 2): _____
- Magneto Shaft Rotation (Right or Left) - See data-plate on current magneto _____
Lag Angle _____
- b) Number of Direct Drive (Non-Impulse) Magnetos _____
- c) Number of Retard Breaker Magnetos _____
- d) Are the magnetos pressurized? _____
- e) Spark plug size (5/8" or 3/4") _____

5. Do you want to upgrade from a single impulse to a dual impulse system? _____
If yes, an additional drive gear and/or adapter purchase may be required.

6. Are you upgrading from a 600 Series to a 6200 Series magneto? _____

If yes, you will need to purchase an M3154 Adapter or a magneto equipped with an M3154 Adapter to be able to reuse the existing harness. Alternately, purchase a new harness configured for 6200 Series magnetos.

7. Are you upgrading a complete engine form a TCM/ Bendix to a Slick system? _____

If yes, purchase a complete Engine Upgrade Kit.



SHIELDED IGNITION HARNESSSES

AERO-LITE FAA APPROVED SHIELDED IGNITION HARNESSSES



Aero-Lite harnesses are manufactured to rigid FAA-PMA and MIL-3702 specifications and are warranted to T.B.O. They are available for Lycoming, Continental and Franklin engines and come complete with all tiedowns and clamps. Stock Aerolite harnesses are furnished with blue wire and straight fittings. For 90° right angle fittings substitute "R" in place of "S" in Aerolite P/N and add \$50 for 4 cyl. and \$70 for 6 cyl. engines. Black, red or yellow wires are special order.

Continental Engines			Lycoming Engines		
Aero-Lite Part No.	replaces Slick	replaces Champion	Aero-Lite Part No.	replaces Slick	replaces Champion
C16-2BS-II	M1730	CH11730	A20-2BS-II	M2120	CH12120
C16-4BS-II	M1740	CH11740	A20-2AS-II	M2121	CH12121
C31-5AS-II	M1780	CH11780	A20-4AS-II	M2154	CH12154
C16-2AS-II	M1978	CH11978	A20-4BS-II	M2157	CH12157
C31-1AS-II	M2007	CH12007	A30-1BS-II	M2360	CH12360
C9-2BS-II	M2015	CH12015	A30-1AS-II	M2364	CH12364
C1-5AS-II	M2045	CH12045	A30-3AS-II	M2365	CH12365
C3-2AS-II	M2130	CH12130	A30-5AS-II	M4001	CH14001
C1-1AS-II	M2351	CH12351	DUALS*		
C16-11BS-II	M2381	CH12381	A42-10BS	M2918	10-821625-4
C19-11AS-II	M2932	CH12932	A45-10AS	M2917	10-821414-4

- Stock 4 Cylinder Harnesses\$127.00
- Stock 6 Cylinder Harnesses\$186.00
- Stock 4 Cyl Dual Harnesses\$127.00
- Stock 6 Cyl Dual Harnesses\$186.00

*Core deposit of \$125 required unless dual magneto cover accompanies order.
 **Call us for prices on 8-cylinder harnesses or individual leads.

Prices for Special Order Aero-Lite Harnesses		
Aero-Lite Original harnesses Machined lead fittings screw into threaded magneto plate ports for easy replacement of worn out leads	4-cyl. Engines \$151.00	6-cyl. Engines \$219.00
Aero-Lite II** Built with new swaged (PMA) magneto plates, similar to those on original factory harnesses	4-cyl. Engines From \$127.00	6-cyl. Engines From \$186.00
Aero-Lite Custom harnesses Rebuilt to customer specifications using original swaged magneto plate.** An example of the Aero-Lite Custom harness is the dual Bendix harness.	4-cyl. Bendix CALL FOR QUOTE	6-cyl. Bendix CALL FOR QUOTE

Note: For 90° brass spark plug elbow fittings, add \$50 to 4-cylinder prices, and \$70 to 6-cylinder prices.

Ordering is simple! Just specify:

Harness Leads: Threaded or Swaged

Lead Termination: 90° Elbows or Straight fittings

Spark Plug Size: REM (5/8") or RHM (3/4")

Complete Engine Make and Model: _____

Complete Magneto Type: _____

Wire Color; Blue, Black, Red or Yellow: _____

... and we'll do the rest!

LIGHTWEIGHT HIGH TEMPERATURE SHIELDED IGNITION HARNESSSES

MFG. BY ACS PRODUCTS CO.



New production ignition harnesses at remarkably low prices. Late type 5MM wire constructed of 16 strands of tightly braided copper wire impregnated with scuff resistant white silicone. All strands must fracture before a complete open circuit type failure occurs thus extending lead life. Lead flexibility is retained from -65° to 400° F. Moisture and cleaning solvent penetration is eliminated by the impregnated silicone coating. This extremely flexible wire lends itself to sharp bends thereby eliminating the need for old style harness elbows. No soldered joints in the grounding circuit. Custom made for most 4 cylinder and 6 cylinder engines using Bendix or Eisemann magnetos and 4 cylinder engines using Slick magnetos. Cable outlet plates are not furnished for Bendix and Eisemann mags as these are already installed on the magnetos in service. They must be purchased separately for new magneto installations. Harnesses for Slick magnetos are furnished with the backplates installed. Standard harnesses for the Bendix S4/S6 mags are fitted with a male nut which screws into the threaded outlet plate on the back of the mag. On some installations, the wires run through an unthreaded plate and attach directly to the mag terminals eliminating the use of the nut. If such a harness is required, send the old harness to us and it will be duplicated. Add \$60.00 to price of harness for custom work required. Harnesses for old style Bendix SF4 and SF6 magnetos are fitted with female nuts.

HARNESSES FOR BENDIX AND EISEMANN MAGNETOS

- All 4-Cylinder Harnesses (8 wires)\$109.95
- All 6-Cylinder Harnesses (12 wires)\$173.95
- (Not Available for Bendix S1200 Magnetos)
- Replacement Leads to 48" (Specify Length)\$14.50
- (Bendix & Eisemann only)

HARNESSES FOR SLICK MAGNETOS

- For 4000, 4200 & 4300 Series Mags (4 Cyl.) Only\$119.95

All Harnesses Furnished with Cable Ties and Clamps
 FOR PLUGS WITH 5/8-24 BARREL SIZE ONLY

BENDIX MAGNETOS		SLICK MAGNETOS	
Engine/Magneto	Part No.	Engine/Magneto	Part No.
Cont. A-65/S4	12301-02	VW (M2266)	12304-32
C-85/S4	12301-05	Lyc 0-235 (M2363)	12304-33
C-90/S4	12301-06	0-290 (M2363)	12304-33
0-200/S4	12301-05	0-320,0-360 (M2363)	12304-33
LYC. 0-100/S4	12301-21	Cont. 0-200 (1780)	12304-31
0-235/S4	12301-21	C-75 (1780)	12304-31
0-290/S4	12301-21	C-85 (1780)	12304-31
0-320/S4	12301-22	C-90 (1780)	12304-31
0-360/S4	12301-22		
Cont. A-65/SF4	12302-02	EISEMANN MAGNETOS	
A-75/SF4	12302-03	Engine/Magneto	Part No.
Lyc. 0-100/SF4	12302-20	Cont A65/LA-4	12303-04
0-235/SF4	12302-20	A75/LA-4	12303-04
0-290/SF4	12302-20	C-85/LA-4	12303-07
Cont. E-185/S6	12305-10	E-185/LA-6	12306-12
E-225/S6	12305-11	Franklin 150/LA-6	12306-40
O-470/S6	12305-13		
C-145/S6	12305-09	ACS Products ignition harnesses can be used on experimental aircraft or on certified aircraft with field approval (FAA Form 337). If FAA/PMA harness is mandatory or if for use with 3/4" spark plugs, use Slick Bendix, Aero-Lite or Champion harnesses.	
O-300/S6	12305-09		
Lyc. 0-540/S6	12305-22		
IO-540/S6	12305-22		
Franklin165/S6	12305-41		
Cont.C-125-SF6	12307-08		
Lyc.0-435/SF6	12307-23		



CHAMPION IGNITION HARNESSSES

AIRCRAFT ENGINE APPLICATION CHART

Engine Model	5/8"-24 Spark Plugs (REM)	Magneto Type	3/4"-20 Spark Plugs (RHM)	Magneto Type	Engine Model	5/8"-24 Spark Plugs (REM)	Magneto Type	3/4"-20 Spark Plugs (RHM)	Magneto Type
TEXTRON LYCOMING					TEXTRON LYCOMING				
O - 235 C1, C1A, C1B, C1C, C2A, C2C, E1, E1B, E2A, F1, F1B, F2A, G1, G1B, G2A, H2C, J2A, K2A, K2C, L2A, L2C, M1, M2C, M3C, N2A, N2C, P1, P2A, P2C, P3C	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	IO - 540 -C4B5	CH12154, CH12154E	BX S6-1200	CH12157, CH12157E	BX S6-1200
O - 235 C2B, E2B, F2B, G2B, J2B, K2B	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	IO - 540 -C1B5, -N1A5, -C2C, -C4C5, -D4A5			CH12037, CH12037E	BX S6-1200
O - 235 C1, C1A, C1B, C1C, C2A, C2C, E1, E1B, E2A, F1, F1B, F2A, G1, G1B, G2A, H2C, J2A, K2A, K2C, L2A, L2C, M1, M2C, M3C, N2A, N2C, P1, P2A, P2C, P3C	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	O - 540 -A1A, -A1A5, -A1B5, -A1C5, -A1D, -A1D5, -A2B, -A2D, -A3D5, -A4A5, -A4B5, -A4C5, -A4D5, -B1A5, -B1B5, -B2A5, -B2B5, -B4A5, -B4B5, -D1A5, -E4A5, -E4B5, -F1A5, -F1B5, -H1A5, -H2A5	CH12121, CH12121E	BX S6-20, -200	CH12120, CH12120E	BX S6-20, -200
O - 235 C1, C1B, C2A, C2B, L2C	*CH14004, CH14004E	SL 4000			TIO - 540 -C1A	CH12154, CH12154E	BX S6-1200		
O - 280 D1, D2, D2A, D2B, D2C	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	TIO - 540 -A1A, -A1B, -A2A, -A2B			CH12037, CH12037E	BX S6-1200
O - 280 D2, D2B	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	TELEDYNE CONTINENTAL				
O - 280 D1, D2, D2A, D2B, D2C	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	C - 75 -12, -15	CH11780, CH11780E	SL 4000		
O - 280 D2, D2B, D2C	*CH14004, CH14004E	SL 4000			C - 75 -12, -15	CH12007, CH12007E	BX S4-20, -200		
AEIO-320 E1A, E1B, E2A, E2B	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	C - 85 -12, -12FJ, -14, -15	CH11780, CH11780E	SL 4000		
AEIO-320 D1B, D2B	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	C - 85 -12, -12FJ, -14, -15	CH12007, CH12007E	BX S4-20, -200		
AEIO-320 E1A, E1B, E2A, E2B	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	C - 90 -12, -14, -16, -16F	CH11780, CH11780E	SL 4000		
AIO-320 -A1A, -A1B, -A2A, -A2B, -B1B, -C1B	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	C - 90 -12, -14, -16, -16F	CH12007, CH12007E	BX S4-20, -200		
IO - 320 -A1A, -A2A, -B1A, -B1B, -B1C, -B2A, -C1A, -C1B, -E1A, -E1B, E2A, E2B, F1A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	C - 125 -ALL	CH11884, CH11884E	SL 600		
IO - 320 -B1D, -B1E, -D1A, D1B, -D1C	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	C - 125 -2, -2H	CH12130, CH12130E	BX S6-20, -200		
IO - 320 -A1A, -A2A, -B1A, -B1B, -B1C, -B2A, -C1A, -C1B, -E1A, -E1B, E2A, E2B, F1A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	C - 125 -ALL	CH12932, CH12932E	SL 6000		
IO - 320 -E2A	*CH14004, CH14004E	SL 4000			C - 145 -ALL	CH11884, CH11884E	SL 600		
LIO - 320 -B1A, -C1A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	C - 145 -2, -2H	CH12130, CH12130E	BX S6-20, -200		
LIO - 320 -B1A, -C1A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	C - 145 -ALL	CH12932, CH12932E	SL 6000		
O - 320 -A1A, -A1B, -A2A, -A2B, -A2C, -A2D, -A3A, -A3B, -A3C, -B1A, -B1B, -B2A, -B2B, -B2C, -B3A, -B3B, -B3C, -C1A, C1B, -C2A, -C2B, -C2C, -C3A, -C3B, -C3C, -D1A, -D1B, -D1D, -D2A, -D2B, -D2C, -D2H, -D2J, -D9G, E1A, E1B, E2A, E2B, E2D, E2G, E2H, E3D, E3H	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	E - 165 -11, -3, -8, -9, -11	CH12932, CH12932E	SL 6000		
O - 320 -D1C, -D1F, -D2C, -D2F, -E1C, E1F, E1A, E2A, E2F	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	O - 200 -A, -B, -C	CH11780, CH11780E	SL 4000		
O - 320 -A1A, -A1B, -A2A, -A2B, -A2C, -A2D, -A3A, -A3B, -A3C, -B1A, -B1B, -B2A, -B2B, -B2C, -B3A, -B3B, -B3C, -C1A, C1B, -C2A, -C2B, -C2C, -C3A, -C3B, -C3C, -D1A, -D1B, -D1D, -D2A, -D2B, -D2C, -D2H, -D2J, -D9G, E1A, E1B, E2A, E2B, E2D, E2G, E2H, E3D, E3H	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	O - 200 -A, -B, -C	CH12007, CH12007E	BX S4-20, -200		
O - 340 -A1A, -A2A, -B1A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	E - 225 -4, -8	CH12176, CH12176E	BX S6-20, -200	CH12339, CH12339E	BX S6-20, -200
O - 340 -A1A, -A2A, -B1A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	O - 300 -A, -B, -C, -D, -E	CH11884, CH11884E	SL 600		
O - 340 -A1A, -A2A, -B1A	*CH14004, CH14004E	SL 4000			O - 300 -A, -B, -C, -D, -E	CH12130, CH12130E	BX S6-20, -200		
AEIO-360 -A1A, -A1D, -A1E, -A2A, -B1B, -B4A, -H1A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	O - 300 -A, -B, -C, -D, -E	CH12932, CH12932E	SL 6000		
AEIO-360 -A1B, -A1B6, -A2B, -B1F, -B1F6, -B1G6, -B2F	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	IO - 360 -A, -C, -CB, -D, -DB, -G, -GB, -H, -HB, -J, -JB, -K, -KB	CH12932, CH12932E	SL 6000		
AEIO-360 -A1A, -A1D, -A1E, -A2A, -B1B, -B4A, -H1A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	IO - 360 -E, -EB, -KB			CH12318, CH12318E	SL 600
AIO-360 -A1A, -A1B, -A2A, -A2B, -B1B	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
HIO-360 -A1A, -B1A, -B1B, -C1A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
HIO-360 -C1B, -D1A	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
HIO-360 -A1A, -B1A, -B1B, -C1A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
HIO-360 -B1A	*CH14004, CH14004E	SL 4000			TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
HO - 360 -A1A, -B1A, -B1B	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
HO - 360 -A1A, -B1A, -B1B	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
HO - 360 -A1A	*CH14004, CH14004E	SL 4000			TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IO - 360 -A1A, -A1D, -A2A, -B1A, -B1B, -B1C, -B1D, -B4A, -C1A, -K2A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IO - 360 -A1B, -A1B6, -A1C, -A1D6, -A2B, -A2C, -B1E, -B1F, -B2E, -B2F, -B2F6, -C1B, -C1C, -C1C6, -D1A, -E1A, -F1A	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IO - 360 -C1E5	CH12423, CH12423E	BX S4-1200	CH12616, CH12616E	BX S4-1200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IO - 360 -A1A, -A1D, -A2A, -B1A, -B1B, -B1C, -B1D, -B4A, -C1A, -K2A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IO - 360 -A1C, -A2B, -A2C, -B2E, -C1B, -C1C, -D1A	*CH14002, CH14002E	SL 4000			TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IO - 360 -B1A, -B1B, -B1D, -B4A	*CH14004, CH14004E	SL 4000			TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IYO - 360 -A1A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IYO - 360 -A1A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
LIO - 360 -A1H6, -C1E6	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
LIO - 360 -C1E5	CH12423, CH12423E	BX S4-1200	CH12616, CH12616E	BX S4-1200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
O - 360 -A1A, -A1C, -A1D, -A1H, -A1NG, -A2A, -A2D, -A2E, -A2H, -A3A, -A3D, -A4A, -A4D, -A4J, -A4K, -A4M, -A4N, -B1A, -B1B, -B2A, -B2B, -C1A, -C1C, -C1E, -C1G, -C2A, -C2B, -C2C, -C2D, -C2E, -D1A, -D2A, -D2B, -F1A6, -G1A6	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
O - 360 -A1F, -A1F6, -A1G, -A1G6, -A2F, -A2G, -A4G, -C1F	CH12365, CH12365E	BX S4-1200	CH12235, CH12235E	BX S4-1200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
O - 360 -A1A, -A1C, -A1D, -A1H, -A1NG, -A2A, -A2D, -A2E, -A2H, -A3A, -A3D, -A4A, -A4D, -A4J, -A4K, -A4M, -A4N, -B1A, -B1B, -B2A, -B2B, -C1A, -C1C, -C1E, -C1G, -C2A, -C2B, -C2C, -C2D, -C2E, -D1A, -D2A, -D2B, -F1A6, -G1A6	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
O - 360 -A1A, -A1D, -A2A, -A2D, -D2A, -D2B	*CH14004, CH14004E	SL 4000			TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
VO - 360 -A1A, -A1B, -B1A	CH12364, CH12364E	BX S4-20, -200	CH12360, CH12360E	BX S4-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
VO - 360 -A1A, -A1B, -B1A	*CH14001, CH14001E	SL 4000	CH12508, CH12508E	SL 4000	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
AEIO-540 -D4A5	CH12121, CH12121E	BX S6-20, -200	CH12120, CH12120E	BX S6-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600
IO - 540 -A1A5, -B1A5, -B1B5, -B1C5, -C1B5, -C1C5, -C2C, -C4B5, -D4A5, -E1A5, -G1A5, -K1C5, -K1D5, -N1A5	CH12121, CH12121E	BX S6-20, -200	CH12120, CH12120E	BX S6-20, -200	TSIO-360 -A, -AB, -B, -C, -CB, -D, -DB, -E, -EB, -F, -FB, -GB, -H, -HB, -JB, -KB, -LB, -MB			CH12318, CH12318E	SL 600

E = Elbow Connector *FAA-PMA Pending BX = TCM / Bendix SL = Slick

E = Elbow Connector *FAA-PMA Pending BX = TCM / Bendix SL = Slick
 * CH14001 & CH14002 - Standard Harness Assemblies - Left Magneto Firing Top #1 Spark Plug
 * CH14004 - Non-Standard Assembly - Alternate Firing Sequence With Right Magneto Firing Top #1 Spark Plug

CHAMPION IGNITION HARNESSSES



- Heat resistant polymer coating has been specially engineered for high temperature engine environments.
- 5 mm conductor contains 19 strand of stainless steel wire.
- Flexible, copper-tin, nickel plated braid reduces EMI. Performance-proven leads offered in straight or elbowed configurations.
- Plated-steel nut offers greater strength than aluminum nuts.
- Replaceable spring saves you time and money.

Complete Harness Assemblies Straight Spark Plug Connector

CH11480.....A.....	\$326.95	CH12216B.....	\$339.95
CH11730.....A.....	\$323.95	CH12235B.....	\$194.95
CH11740.....A.....	\$301.95	CH12318B.....	-----
CH11780.....A.....	\$219.95	CH12339B.....	-----
CH11878.....B.....	\$332.95	CH12360B.....	\$193.95
CH11884.....B.....	\$394.95	CH12364A.....	\$209.95
CH11950.....A.....	\$311.95	CH12365A.....	\$232.95
CH11978.....B.....	\$310.95	CH12381A.....	\$312.95
CH12007A.....	\$204.95	CH12423B.....	\$277.95
CH12015A.....	\$333.95	CH12508B.....	\$265.95
CH12037B.....	\$399.95	CH12616B.....	-----
CH12120B.....	\$387.95	CH12778B.....	\$351.95
CH12121A.....	\$334.95	CH12779B.....	\$319.95
CH12130B.....	\$357.95	CH12932B.....	\$310.95
CH12154A.....	\$347.95	CH14001A.....	\$203.95
CH12157B.....	\$392.95	CH14002B.....	\$199.95
CH12176B.....	\$313.95	CH14004B.....	\$232.95

Complete Harness Assemblies Elbow Spark Plug Connector

CH11730E	\$335.95
CH11740E	\$319.95
CH11780E	\$298.95
CH12007E	\$269.95
CH12015E	\$446.95
CH12121E	\$465.95
CH12154E	\$438.95
CH12364E	\$335.95
CH12365E	\$335.95
CH12381E	\$425.95
CH14001E	\$272.95

Ignition Harness Assemblies

CH11978E	\$335.95
CH12037E	\$552.00
CH12120	\$387.95
CH12120E	\$335.95
CH12130E	\$518.00
CH12157E	\$452.95
CH12176E	\$405.95
CH12235E	\$335.95
CH12360E	\$304.95
CH14002E	\$303.95



SLICK START

The FAA-PMA approved SlickStart™ magneto booster system integrates solid state electronics with conventional ignition hardware to deliver optimum spark energy for improved engine starting under all operating conditions. SlickStart™ delivers over 400% more spark energy during start than conventional impulse coupled or retard breaker systems. This added energy enables the magnetos to fire partially fouled spark plugs, ignite less than optimum fuel mixtures, improve hot engine restarts and improve starting performance during extreme cold weather operations.

SlickStart™ is designed to replace all TCM/Bendix starting vibrators used in conjunction with Slick Aircraft Products magnetos. SlickStart™ is also approved for use with Slick impulse coupled magnetos to enhance engine starting performance. SlickStart™ is not approved for installation on any airframe equipped with TCM/Bendix 20, 200, 1200, D-2000, or D-3000 series impulse coupled or retard breaker magnetos.

SlickStart™ can be installed with either impulse coupled or retard breaker magnetos and can be used with either 12V or 24V electrical systems. Fits all Slick impulse coupled and retard breaker 4200/6200 Series and 4300/6300 Series magnetos.

Slick Start for Slick Magnetos	P/N 08-01000	\$349.95
Slick Start for Bendix Magnetos.....	P/N 08-01005	\$349.95

LASAR ELECTRONIC IGNITION SYSTEM BY UNISON



LASAR®, which stands for Limited Authority Spark Advance Regulator, is the first microprocessor based engine control system approved by the FAA for general aviation piston aircraft. With the system operating in its automatic mode, cylinder head temperature, manifold pressure, and engine speed (RPM) are monitored by the LASAR controller to establish and command the optimum ignition timing and spark energy to produce maximum torque from the engine.

LASAR has an inherent mechanical magneto backup system that automatically assumes control if electrical power is interrupted or if the microprocessor detects a system fault. STC approval has been granted for most 320, 360 and 540 engines. Installation requires replacement of standard magnetos with Lasar magnetos, a LASAR Control Box, which is mounted to the firewall, a low-voltage control harness that carries the electronic signals between the system components. Specify exact aircraft and Engine Models for quotation or Lasar systems.

Benefits from LASAR include:

- * Better engine starting with 3 times more spark energy and higher output voltage.
- * Smoother transition in ignition timing from engine start to idle
- * Increased spark plug life
- * Up to 12% Reduced Fuel Consumption
- * Faster Rate of Climb
- * EGT reduced by 150°F on average
- * Up to 8% Increased Horsepower.

CALL AIRCRAFT SPRUCE FOR THE BEST PRICE ON LASAR SYSTEMS!

SPARK PLUGS

CHAMPION SPARK PLUG APPLICATION CHART

Engine Model	Standard Massive Electrode			Fine Wire Electrode	
	Shielded		Unshielded	Shielded	
	5/8"-24	3/4"-20		5/8"-24	3/4"-20
TELEDYNE CONTINENTAL MOTORS					
A-65, A-75	REM40E	RHM40E	M41E	REM38S	RHM38S
C-75, C-85, C-90, C-115, C-125	REM40E	RHM40E	M41E	REM38S	RHM38S
E-165, E-185, E-225	REM40E	RHM40E	M41E	REM38S	RHM38S
E-165, E-185, E-225 (14mm Bushing)	REJ38				
0-200-A, -B, -C	REM40E	RHM40E	M41E	REM38S	RHM38S
GO-300-A, -B, -C, -D, -E, -F	REM40E	RHM40E			
O-300-A, -B, -C, -D, -E, C-145	REM38E	RHM38E	M41E	REM38S	RHM38S
IO-346-A, -B	REM40E	RHM40E			
IO-360-A, -C, -D, -E, -G, -H, -J, -K	REM38E	RHM38E			
IO-360-B	REM40E	RHM40E			
TSIO-360-A, -B, -C, -DB, -D, -EB, -F, -FB, -G, -GB, -H, -HB, -K, -KB, -LB, -MB, -LSIO-360-E, -EB, -K, -KB	REM38E	RHM38E			
0-470-2	REM38E	RHM38E			
0-470-4, -11, -13, -13A, -15	REM40E	RHM40E			
0-470-A, -E, -J, -K, -L, -R, -S	REM40E	RHM40E			
0-470-B, -G, -H, -M, -N, -P	REM38E	RHM38E	REM38S	REM38S	
0-470-T, -U		RHB32E			RHB36S
IO-470-C, -G, -P, -R, -T	REM40E	RHM40E			
IO-470-J, -K	REM38E	RHM38E			
IO-470-D, -E, -F, -H, -L, -M, -N, -S, -U, -V, -VO, -LO		RHB32E			RHB36S
GIO-470-A	REM40E	RHM40E			
LIO-470-A	REM38E	RHM38E			
TSIO-470-B, -C, -D		RHB32E			
IO-520-A, -B, -BA, -BB, -C, -CB, -D, -E, -F, -J, -K, -L, -M, -NB, -N, -NB		RHB32E			
TSIO-520-A, -B, -BB, -BE, -CE, -D, -DB, -E, -EB, -F, -G, -H, -JB, -K, -KB, -L, -M, -N, -NB, -P, -R, -T, -U, -UB, -V, -VB, -WB, -AE, -AF, -LSIO-520-AE		RHB32E			
GTSIO-520-C, -D, -E, -F, -G, -H, -K, -L, -M, -N		RHB32E			
TSIO-550-A, -B, -C		RHB32E			
IO-550-B, -C		RHB32E			
TSIO-550-A, -B		RHU27E			
6-285-B, -BA, -C, -CA, 6-320-A, -B		RHU27E			
W-670	REM40E	RHM40E	M41E	REM38S	RHM38S
RBA	REB37E	RHB37E			
TEXTRON LYCOMING					
O-145, GO-145	REM40E	RHM40E	M41E	REM38S	RHM38S
O-235-C, -E, -H	REM38E	RHM38E			
O-235-F, -G, -J	REM37BY*				
O-235-K, -L, -M, -N, -P	REM40E	RHM40E			
O-290 Series	REM40E	RHM40E	M41E	REM38S	RHM38S
O-320-A, -C, -E	REM37BY*	RHM40E	M41E	REM38S	RHM38S
O-320-B, -D, -H	REM40E	RHM40E			
AIO-320, LIO-320-B	REM38E	RHM38E			
IO-320-B, -C, -D, AEIO-320-A, -B, -C, -D	REM37BY*	RHM38E			
IO-320-A, -D, -E	REM40E	RHM40E			
AEIO-320-E	REM37BY*	RHM40E			
IO-320-C, -F, LIO-320-C (Long Reach)	REB37E	RHB37E			
O-340-A	REM40E	RHM40E			
O-340-B	REM40E	RHM40E			
O-360-A, -C, -E, -F	REM38E	RHM38E			
IO-360-B, -E, -F, -H	REM38E	RHM40E			
AEIO-360-B, -C, -H, HO-360-A	REM37BY*	RHM38E			
O-360-B, -D	REM40E	RHM40E			
IO-360-A, -C, -D, -J, LIO-360-E	REM37BY*	RHM38E			
LO-360-A1A6D, O-360-E1A6D, LO-360-E1A6D	REM40E	RHM40E			
LO-360-C	REM38E	RHM38E			
IO-360-A, IO-360-C1F, IO-360-F (Long Reach)	REB37E	RHB37E			
I/O-360	REM38E	RHM38E			
AIO-360-A	REM37BY*	RHM38E			
LIO-360-C, AEIO-360-A	REM37BY*	RHM38E			
HIO-360-A, -D	REM38E	RHM38E			
HO-360-B, HIO-360-A, -B	REM38E	RHM38E			
TIO-360-A, -B, AEIO-360-A (Long Reach)	REB37E	RHB37E			
HIO-360-E1AD, E1BD, -F1AD, L/HIO-360-F1AD, I/O-360-A	REB32E	RHB32E			
TO-360-A1A6D, TO-360-C1A6D					
TO-360-E, TO-360-F1A6D, LTO-360-A1A6D, LTO-360-E	REB37E	RHB37E			
VO-360-A, B	REM40E	RHM40E			
O-435-A, -C	REM38E	RHM40E			
O-435-K, K1	REM40E	RHM40E			
GO-435-C, -D Series	REM38E	RHM38E			
VO-435-A, TVO-435-A (Short Reach)	REM38E	RHM38E			
VO-435-A, -B (Long Reach)	REB37E	RHB37E			
TVO-435-A, -B, -C, -D, -E, -F, -G (Lg Reach)	REB32E	RHB32E			
O-435-23-25					
LYCOMING					
GO-480-B, -D, -F	REM40E	RHM40E			
GO-480-C, -G (Short Reach)	REM38E	RHM38E			
GO-480-G1, G2 (Long Reach)	RHB37E	RHB32E			
GSO-480-A, -B (Short Reach)	REM38E	RHM38E			
GSO-480-A, -B (Long Reach)	REB37E	RHB37E			
IGSO-480-A (Short Reach)	REM38E	RHM38E			
IGSO-480-A (Long Reach)	REB37E	RHB37E			
IGO-480-A	REB32E	RHB32E			
O-480-1-3	REM40E	RHM40E			
0-540-A, -D, -E, -F, -G, -H, -J	REM38E	RHM38E			
0-540-B	REM40E	RHM40E	M41E	REM38S	RHM38S
IO-540-A, -B, -E, -G, -K, -L, -M, -P, -S, -U (Short Reach)	REM38E	RHM38E			
IO-540-C, -D, -J, -N, -T, -V	REM40E	RHM40E			
AEIO-540-D, -L	REM38E	RHM38E			
IO-540-AA, -E, -G, -J, -K, -M, -P, -R, -S, -U	REB37E	RHB37E			
O-540-L3C5D, M1B5D (Long Reach)	REB32E	RHB32E			
VO-540-A, -B, -C (Short Reach)	REM38E	RHM38E			
O-540-9					
I/O-540 Series					
IVO-540 Series (Long Reach)	REB37E	RHB37E			
IGO-540-A, -B (Short Reach)	REM38E	RHM38E			
IGO-540-A, -B (Long Reach)	REB37E	RHB37E			
TIO-540-A, -C, -E, -F, -G, -H, -J, -K, -N, -R, -S, -T	REB37E	RHB37E			
TIVO-540-A	REB32E	RHB32E			
IGSO-540-B (Short Reach)	REM38E	RHM38E			
IGO-540-A, -B	REB37E	RHB37E			
IGSO-540-A, -B (Long Reach)	REB32E	RHB32E			
IO-540-A, -B	REB37E	RHB37E			
LTIO-540-F, -J, -N, -R	REB32E	RHB32E			
TIO-541-A, -E	REB37E	RHB37E			
TIGSO-541-A, -E	REB32E	RHB32E			
R-680	REM40E	RHM40E			
IO-720-A, -B, -C, -D (Short Reach)	REM38E	RHM38E			
IO-720-A, -B, -C, -D (Long Reach)	REB37E	RHB37E			
PRATT & WHITNEY					
R-985 (Wasp Jr.) R-1340 (Wasp)	REM37BY*	RHM40E	M41E	REM38S	RHM38S
R-1830 (Twin Wasp C)	REB37E	RHB37E			
+For Severe Service	REB32E+	RHB32E+			
R-2000 (Twin Wasp D)	REB37E	RHB37E			
R-2800 (Double Wasp)	REB37E	RHB37E			
++Rear position front row only	REB32E	RHB32E			
R-4360 (Wasp Major)	REB37E	RHB37E			
FRANKLIN ENGINE CO.					
2A4 Series	REJ38				
2A-120-A, B		RHB32E			
4A4 Series	REJ38				
4AC Series	REJ38				
4A-235-B		RHB32E			
Sport 4, 4A, 4A1, 4B, 4R		RHB32E			
6AC, 6AL, 6AG, 6AA, 6V4 Series	REJ38				
6A4-200, 6V4-200	REL37B				
6V6-245	REL37B				
6A8-215	REJ38				
6A-335-A, 6V335-A, -B	REL37B				
6V335-B, 6AS-335-A					
6V335-A1A, A1B	REB37E	RHB37E			
REB37E	RHB37E				
6VS-335-A, -B	REB32E	RHB32E			
6A-350-CT, -C2, -D, -D1	RHB32E				
6V-350-A, -B	RHB32E				
GROB					
2500 D1/E1					REN30S
JACOBS AIRCRAFT ENGINE CO.					
L-4, L-5 & L-6 Series R-755	REM40E	RHM40E			
R-755S, R-755SM	REM38E				
KENROYCE-REARWIN All models	REM40E	RHM40E	M41E		

Not A Complete List

*Use REM37BY when encountering lead fouling.

HOW TO INSTALL SPARK PLUGS

Clean threaded spark plug holes in cylinder heads. Add new gasket and thread plug into cylinder by hand until seated against gasket. Spark plug threads may be coated very sparingly with anti-seize compound - start application at least one full thread away from the electrodes, otherwise the compound may run off and short out the plug. If plug will not turn all the way by hand, clean out threaded hole with a 14 or 18mm thread cleaning tool. Place a 7/8" deep socket over the plug hex and tighten carefully with a torque wrench.

Plug/Engine Type	Foot Lbs.	Inch Lbs.
All 14mm spark plugs	19-22	220-260
<i>18mm spark plugs:</i>		
Avco Lycoming	30-35	360-420
Teledyne Continental	25-30	300-360
Franklin Engine Co	25-30	300-360
Pratt & Whitney Aircraft	25-30	300-360
Wright Aeronautical	35-40	420-480

AVIATION SPARK PLUGS



AUTOLITE SPARK PLUGS

OEMs and overhaul facilities around the world are choosing Unison's Autolite Aviation Spark Plugs for superior heat transfer and leakage protection, advanced reliability, long life, and cost-effectiveness. Minimized plug length allows for greater clearance between the plug and aircraft cowling. Completely FAA-PMA approved, these plugs are trusted for use in some of aviation's most demanding applications, including the Extra 300 aircraft flown by the Northern Lights Aerobatic Team and the Exxon Flyin' Tiger climb machine.

Unison Part No.	Mounting Thrd. Size	Reach	Shielding Thread	Equiv. Champion P/N	Price Each
UREM38E	18mm	1/2"	5/8"-24	REM38E	\$15.95
URHM38E	18mm	1/2"	3/4"-20	RHM38E	\$15.95
UREM40E	18mm	1/2"	5/8"-24	REM40E	\$15.95
URHM40E	18mm	1/2"	3/4"-20	RHM40E	\$15.95
URHB32E	18mm	13/16"	3/4"-20	RHB32E	\$13.40
UREB37E	18mm	13/16"	5/8"-24	REB37E	\$19.85
URHB37E	18mm	13/16"	3/4"-20	RHB37E	\$15.95
UREM37BY	18mm	1/2"	5/8"-24	REM37BY	\$15.95

AUTOLITE XL FINE WIRE SPARK PLUGS

Unison's Autolite® Fine Wire Aviation Spark Plugs have longer life and more premium design features: • Resistant to lead attack • Improved scavenging • Pedestal mount for the welded side wire electrode • Projected gap design for improved combustion • Iridium side wire electrode tip • Proprietary glass seal and integral resistor • High temp. black paint for additional corrosion protection

Unison Part No.	Mounting Thrd. Size	Reach	Shielding Thread	Equiv. Champion P/N	Price Each
URHB36S	18mm	13/16"	3/4"-20	RHB36S	\$45.90
URHB32S	18mm	13/16"	3/4"-20	RHB32S	\$43.40
URHM38S	18mm	1/2"	3/4"-20	RHM38S	\$42.40
UREB36S	18mm	13/16"	5/18"-18	REB36S	\$44.95
UREM38S	18mm	1/2"	5/18"-18	REM38S	\$44.95

DCPR7E



NGK SPARK PLUGS

DCPR7E (for Rotax 912)	P/N 08-00504	\$3.55
DCPR8E (for Rotax 912S)	P/N 08-01228	\$3.55
CR7HSA	P/N 08-00649	\$2.55
BR8EIX	P/N 08-00650	\$8.60
BR8EG	P/N 08-00687	\$5.60
DR8EA	P/N 08-00693	\$2.70
B8ES	P/N 08-00730	\$2.45
BR8ES	P/N 08-00736	\$2.45

BR8EIX



CHAMPION SPARK PLUG ANTI-SEIZE

Apply sparingly to second and third threads. Do not contact electrodes as it could short out the plug. Do not apply to shielding barrel threads. Unbreakable 4oz. bottle with applicator brush top. P/N 2612\$5.25



COPPER SPARK PLUG GASKETS

Made of solid copper to current aircraft standards. Available in 14 MM and 18 MM sizes.

AN4027-2, 14MM	P/N M673	\$0.59 ea
AN4027-1, 18MM	P/N 07-00877	\$0.20 ea

FOLDED STEEL SPARK PLUG GASKETS

The new type folded steel sparkplug gaskets provide better sparkplug retention with no adverse effect on heat transfer. Endorsed by FAA. These gaskets are **not** to be reused.

18mm Gaskets	P/N M677	\$0.77 ea
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AN4062-1 DEHYDRATOR PLUGS 18MM



These plugs are used to prevent rust and corrosion in engines while in storage. Contain silica gel which turns from blue to pink when moisture is absorbed. Reusable & refillable. The pink silica gel may be reactivated (after removing from reservoir) by heating for 16 hours at 250°F. AN4062-1 (18MM)\$3.75 ea

SILICA GEL

1/4 Lb. Bag	P/N 07-00731	\$3.70
1 Lb. Can	P/N 07-03400	\$14.80



CHAMPION SPARK PLUG TYPE DESIGNATION SYSTEM

All Champion Aviation Spark Plugs are identified by type designations selected by virtue of the plug design as applied to the following Spark Plug Number and Symbol Chart. The symbol is composed of a rating position number together with prefix & suffix numbers to indicate major plug design characteristics.

A TYPICAL SPARK PLUG NUMBER WITH SYMBOL EXPLANATION

R H B 37 E
 ↑ ↑ ↑ ↑ ↑
 ① ② ③ ④ ⑤
 R — Push-wire—90° to Center

1. RESISTOR

None — No Resistor

R — Mil-Spec. Resistor - Erosion protection

2. BARREL STYLE

None — Unshielded

E — Shielded 5/8"-24 Thread

H — Shielded 3/4"-20 Thread (All Weather Plug)

3. MOUNTING THREAD—REACH—HEX SIZE

B — 18mm 13/16"/2.06cm 7/8"/2.22cm M — 18mm 1/2"/1.27cm 7/8"/2.22cm

J — 14mm 3/8"/0.95cm 13/16"/2.06cm L — 14mm 1/2"/1.27cm

13/16"/2.06cm U — 18mm 1-1/8"/2.85cm 13/16"/2.06cm

4. HEAT RATING POSITION

Low number—cold

High number—hot

5. ELECTRODE DESIGN

None—Conventional single

E — Two prong massive N — Four prong massive

P—Fine wire (Platinum)

W — Fine wire (Iridium)

B —2 prong massive, Tangent to Center

CHAMPION SPARK PLUGS

SHIELDED — MASSIVE ELECTRODES

5/8-24*	Price	3/4-20*	Price
REJ38 (14MM)	\$35.95	RHM38E	\$19.95
REL37B (14MM)	\$32.95	RHM40E	\$19.95
REB37E	\$19.95	RHU27E	\$47.80
REM37BY	\$19.95	RHB29E	\$18.75
REM38E	\$19.95	RHB32E	\$19.95
REM40E	\$19.95		
REB32E	\$19.95		

SHIELDED — IRIIDIUM ELECTRODES**

5/8-24*	Price	3/4-20*	Price
REM38S	\$65.75	RHB32S	\$65.75
REB-36S	\$64.25	RHB36S	\$65.75
		RHM38S	\$65.75

UNSHIELDED

5/8-24*	Price	3/4-20*	Price
M41E (18MM)	\$22.95		

* Shielded barrel thread size. Check barrel size - 5/8x24 or 3/4x20 threads before ordering and select proper plug number. See page 236 for Sparkplug Application Table.

** The "Iridium S" sparkplugs replace the Platinum and "W" Iridium types. Increased bore diameter improves scavenging action. Greater clearance volume can accept more combustion deposits. Single Iridium electrode offers greater resistance to lead attack. Easy to clean Easy to gap

NOTE: Spark plugs are shipped in factory sealed plastic cases. Opened spark plug cases make the spark plugs non-returnable. Please do not open any spark plug until you are sure you have received the correct spark plugs for your application.

SURPLUS SPARK PLUG BARGAINS



New surplus 18MM longreach, shielded, 3/4-20 barrel. FAA approved for Continental IO-470, GIO-470, TSIO-470, IO-520 & GTSIO-520. Not for 0-470, which uses short reach plugs. P/N 08-03699\$9.35 ea

See Tool Section in Back of Catalog For Full Line of UNISON and Champion Spark Plug Tools

LIGHTSPEED IGNITION

LIGHT SPEED ENGINEERING PLASMA IGNITION SYSTEM

Light Speed Engineering (LSE) is a pioneer in the design and production of ignition systems for experimental aircraft. 16 years of research and development have been invested in producing the PLASMA CDI (Capacitive Discharge Ignition) system product line. LSE's Plasma CD systems are the ideal replacement for yesterday's magneto technology. You can replace one mag with a Plasma CDI or, for maximum performance, replace both magnetos with these state of the art systems.

Features: · No Moving Parts · Hotter Spark · Reduced Maintenance Downtime & Costs · Instant Start · Designed Specifically For Aircraft · Easy To Install · Saves Fuel

Standard Plasma CDI kits include: direct crank sensor assembly, high tension leads, harness, spark plugs, spark plug adapters, and ignition coils with mounting bracket. 1 or 2 systems can be used.

PLASMA II CDI



The Plasma II is Light Speed Engineering's basic electronic ignition system for aircraft. It is a lightweight, high-energy capacitor discharge system containing all of the essential Plasma CDI features. Its smaller size and lighter weight sets it apart from any other ignition source.

Like all LSE ignition systems it features automatic ignition advance based on engine load and RPM, auto retard for starting and a standard pulse tachometer output. The Plasma II was designed to provide a high tech ignition source at the cost of magnetos.

- Plasma II - 6 cylinder systems (Lyc.)P/N 08-00347**\$910.00**
- Plasma II Plus - 6 cylinder sys. (Lyc.)P/N 08-00348**\$1,115.00**
- Plasma II Plus - 4 cyl. sys. (Cont./Franklin) P/N 08-00820**\$1,195.00**
- Plasma II Plus - 6 cyl. sys. (Cont./Franklin) P/N 08-00821**\$1,240.00**

PLASMA III CDI



The Plasma III is Light Speed Engineering's high performance continuous spark capacitor ignition system. This system has a long duration spark, which improves horsepower and smoothness, especially with poor mixture distribution and extra-lean engine operation. Racers choice! This system has the following additional capabilities:

- Key start option Allows the use of aircraft key switch
- Timing Advance Output
- Manifold Pressure Output
- RPM
- (+)5V Power for the optional LCD Display
- Cockpit adjustable timing advance
- Interconnect for Dual Plasma CDI provides automatic timing optimization if only one system is functioning.

- Plasma III -Direct Crank Sensor (4 cyl.) ..P/N 08-00675 ..**\$1,245.00**
- Plasma III -Hall Effect Module (4 cyl.).....P/N 08-00676 ..**\$1,365.00**
- Plasma III -Direct Crank Sensor (6 cyl.) ..P/N 08-00677 ..**\$1,365.00**
- Plasma III - Continental/Franklin (6 cyl) ..P/N 08-00822 ..**\$1,495.00**
- Plasma III - Continental/Franklin (6 cyl) ..P/N 08-00823 ..**\$1,495.00**

STARTER DRIVES



Designed to fit prestolite starters. Ship wt: all units, 2 Lbs.

- **EBB75A** – MZ series 4205–4207, 4217– 4219. MHB series 4001–4007 & 4010–4013.....P/N 07-06515**\$65.35**
- **EBB124A**– MHJ series-All, MMU series-All, M24204, MHB4015 P/N 07-06510**\$60.50**
- **EBB131A**– MZ series 4221 to 4223, MHB 4016 to 4019 P/N 07-06511**\$62.50**
- **EBB142A** –P/N 07-06512**\$76.50**

S.5 SPARK PLUG ADAPTER FOR 14mm SPARK PLUGS - Recommended by Klaus Savier of LSE



The high performance, electronic ignition, has demonstrated it's reliability, easy starts, greater power at altitude, and leaner, more efficient combustion.

Yet your expensive aircraft Spark Plugs, can prevent the pilot from taking full advantage of this electronic powerhouse. The S.5 is a precision CNC adapter, that installs easily in aircraft engines, that use 18mm "short reach" spark plugs, transforming the 18mm threaded hole down to 14mm.

The Spark Plug Adapter allows you to use:

- High performance 14mm automotive/ motorcycle spark plugs, that offer an almost unlimited variety of heat ranges, & electrode styles, designed specifically to take advantage of electronic ignitions.
- Shorter plugs with 90° silicon boots, give greater clearance for sleeker cowls and less drag, meaning higher speed, using lesspower.
- Precious and semi precious metal racing spark plugs (the ultimate in reliability and long life) for less than you'd pay for ordinary aircraft plugs. More speed, power, efficiency, as well as a cost savings each time you change spark plugs.
- New & improved corrosion resistant design substantially extends the operational life of the S.5 Spark Plug Adapter.

Set of 4P/N 08-06753**\$57.75**

CERAMIC CIGARETTES



Used on spark plug ends or ignition leads.

P/N 08-00369**\$1.69 ea.**

WIRE TERMINAL CLIP



For 7 MM unshielded harnesses.

P/N 07-03500**\$0.57**

HIGH TENSION UNSHIELDED IGNITION CABLE



Unshielded 7MM ignition cable consists of tinned copper conductor, rubber insulation, reinforced glass braid and Hypalon jacket that resists sun, weather, heat, chemicals and oxidation by ozone. Temperature range -65° to 250°F.

Conforms to MIL-C-3702, Type I, Grade C, Class I.

P/N 07-03700**\$0.61 Ft.**

ENGINE Baffle Ignition WIRE SEALS



P/N 526, 375, 376



P/N M2375

Seal Type	Seals for 5MM Wire P/N	Each
One-Wire	526	\$3.95
Two-Wire	375	\$3.95
Three-Wire	376	\$4.00

BUZZ AERO ROCKER COVERS



The Buzz Aero Model AC2003 cover is made to fit Lycoming straight valve cylinders. Available in red, white, blue or black anodizing.

Specs: Wt: 9oz; Machined from billet aluminum; Nickel chrome plated stainless steel socket head cap screws supplied with kit; Set of gaskets supplied with each kit.

AC2003 Applications: Lyc. 0-235, 0-290, 0, 10, LI0-320, 0-340, 0-360-A, B, C, D; I0-360-B; H0-360-A, B; H10-360-B, V0, IV0-360; 0-540-A, B, E, F, G, I0-540-C, D, J, N, R.

AC2003 4 Cyl. KitP/N 08-00806-**\$417.95**

AC2003 6 Cyl. KitP/N 08-00807-**\$419.95**

Complete the Part Number with the color by adding: -1 (Red), -2 (White), -3 (Blue), -4 (Black) to basic P/N above.

Also Available by Special Order:

AC2004 for Engines: I0-360-A, C, D; A10-360-A, B; H0-360-A, C, D, T10-360-A; LI0-360-C1E6; V0, G0-435; G0-480; I0, V0, TV10-540; I0-720, TV0-435.

Call for Pricing!

EP

ZEFTRONICS VOLTAGE REGULATORS

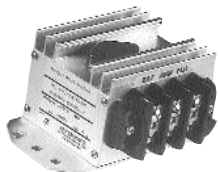


As a factory authorized Zeftronics distributor, Aircraft Spruce can assure you the fastest delivery and best prices on all of your Zeftronics engine accessory requirements. We carry the complete Zeftronics product line. If you do not see the product you need listed, please call us for price and availability. We have complete information on file cross referencing Zeftronics part numbers to all OEM part numbers. If you are not sure what part number you need for your aircraft, please call us for immediate assistance.

VOLTAGE REGULATORS, ALTERNATOR/GENERATOR CONTROLLERS, ALT. SYS. MONITORS, PARALLEL RELAYS, OVER-VOLTAGE RELAYS, TEMP. CONTROLLERS, TIMERS, CURRENT & VOLTAGE SENSORS

Spruce P/N	Price	Zeftronics P/N	Part Numbers Reference Aircraft & Other Manufacturers	Sys. Voltage	Aircraft Eligibility
07-00628 07-00622	\$124.95 \$97.95	R15V00A R15100A	Cessna: C611001-0101, -0102, -0201. Beech: 33-380010 Electrodelta: VR600 FORD: D4FF-10316-BA, D4FF-10316-CA R15V00 = R15100 with OV Protection R15V00 Rev A is self protected R15100 Rev A is self protected	VR: 14V VR: 14V OV: 16V	CESSNA: 150,A,B,C,D,E,F,G,H,I,K,L,M; A150,K,L,M; FA150,K,L,M. 172,B,D,E,F,G,H,I,K,L,M,N,P,Q; F172,D,E,F,G,H,I,K,L,M,N;FR172E, R172E, P172, R172K. 177, A,B,RG,F172RG. 180,F,G,H,J,K. 185,C,D,E; A185E,F. 182,E,G,H,J,K,L,M,N,P,Q; F182P,Q; T182 188,A188,T188. 205A. 206;U206,A,B,C,D,E,F,G; P206,A,B,C,D,E; T206; TP206A,B,C,D,E; TU206,A,B,C,D,E,F,G. 207.A. T207A, 210,B,C,D,E,F,G,H,J,K,L; 210,F,G,H,J,K. Beech: 35A33, 35B33,35C33,E33,E33B,F33,H35,K35,M35,N35,P35. Gulfstream (Grumman): AA-5,A,B.
07-00637	\$62.95	V11100	Cessna: C593001-0101 Other No: 0800002. OS60. 0337. EM235	OV: 16V	Applicable For All Cessna Aircraft Models Listed For R151.00
07-00624	\$198.95	R1510N	Prestolite: VSF7201,2,3,4 VSF7202S,3A,3S. Electrodelta: VSF7203A TCM: 649684-1 Piper: 550-383.	VR: 14V	Citabria: 7GCAA,7ECA,7GCBC,7KCAB,8GCBC. Lake: LA-4,A,P. Grumman: AA-1,A. Commander: 112,B,TC, TCA. Varga: 2150A Beech: 19A,B,19,M19A,23,23A,A23A,A23-19, A23-24,B23,C23,24,24R,B24R,C24R. Piper: 23,-160,235,250;PA24-260,PA30,39; Cessna: 175,185,188. Maule: M-5-180C,235C; M-6-180,235;M-7235,MX-7-180,235. Schweizer: 269C. Bellanca: 14-19,-19-2,19-3,19-3A; 17-30,31,31TC; 17-30A,31A,31ATC.
07-00630 07-00638	\$278.95 \$98.95	R15V0N V1510A	R15V0N = R1510N + OV Relay + L/OV Pin Piper: 450-397, 484-183, 550-380, 450-393 Beech: 138-1 Wico: X-17621. Lamar: B00289-2, B00339-1. Electrodelta: OS75-14. Delco-Remy: 1115831. Prestolite: FOC-4002B.	14V/16V OV: 16V	Citabria: 7GCAA,7ECA,7GCBC,7KCAB,8GCBC. Lake: LA-4,A,P. Grumman: AA-1,A. Commander: 112,B,TC, TCA. Varga: 2150A. Beech: 19A,B,19,M19A,23,23A,A23A,A23-19 A23-24,B23,C23,24,24R,B24R,C24R,S35,V35,V35TC. Piper: 23,-160,235,250;PA24-260,400; PA30,39. Cessna: 175,185,188. Maule: M-5-180C,235C; M-6-180,235;M-7-235/MX-7-180,235. Bellanca: 14-19,19-2,19-3,19-3A; 17-30,31,31TC; 17-30A,31A,31ATC. Schweizer: 269C. Piper: PA28-140,150,151,160,161,180,235,236,201T. PA28R-180,200,201T. PA28S-160,180. PA28RT-201,201T. PA32-260,300. PA32S-300. PA32RT-300,300T. PA32R-301,301T. PA32-301,310T. PA34-200. PA38-112.
07-00623	\$97.95	R1510L	Piper: 450-392, 484-121,66804-03,756-055 Beech: 169-380063 Other mfr P/N: X16300B, X17990. 9000590 B00267-1,2 B00331-1,2. 1816110. VR200, A. FVR4004,4224; RBM: 87-87102-21		Bellanca: 7GCAA,7ECA,7GCBC,7KCAB,8KCAB. Commander: 112,B,TC, TCA. Beech: 19, 19A,B,19,M19A,23,23A,A23A,A23-19, A23-24,B23,C23,A24,A24R,C24R,S35,V35,V35TC. Piper: PA24-260,400. PA28-140,150,151,160,161,180,235,236,201T. PA28R-180,200,201,201T. PA28S-160, 180. PA28RT-201,201T. PA32-260,300. PA32S-300, PA32RT-300,300T. PA32R-301,301T. PA32-301,310T. PA38-112. Grumman: AA-1B, AA-1C
07-00629	\$141.95	R15V0L	Piper: 557-337. Lamar: B00371-1, -8, -14 Electrodelta: VR371	VR: 14V OV: 16V	Bellanca: 8GCB,8KCAB. Maule: M-5-180C,235C; M-6-180C,235; M-7-235;MT-7-235;MT-8-235; MX-7-160, 180, 235; MXT-7-160,180. Piper: PA24-260,400; PA28-140,150,151,160,161, 180,235, 236, 201T. PA28R-180,200,201,201T; PA28S-160,180. PA28RT-201,201T. PA32-260,300. PA32S-300. PA32RT-300,300T. PA32R-301,301T. PA32-301,310T. PA38-112.
07-00631 07-00631	\$86.95 \$86.95	R25101A R25101A	Cessna: C611004-0101,C611002-0102,-0105 Ford: C8FF/C6FF-10316-A, TCM:636147 Electrodelta: VR500-0101.	VR: 27.7 VR: 27.7	Cessna: 152,A152,F152,FA152. 172,H,N;F172;FR172K;R172,K; 177,A,B,RG; 180,K; 182,P,Q, F182,P,Q; R182, FR182; T182,TR 182. 185,A185F. 188, A188, A,B; T188,C; 206, P206,TU206A, 180,235, 236, 201T. PA28R-180,200,201,201T; T210,K,L,M,N; P210N; P210R; T210,K,L,M,N, 337,A,B,C,D,E,F,G,H; F337,A,B,C,D,E,F,G,H; P337H: T337B; T337B,C,D,E,F,G,H,SP: FT337E,F,GP,HP M337B. <i>Applicable for CESSNA models listed for R25101 except 337A (USAF 02B), M337B (USAF 02A).</i>
07-00632	\$86.95	R25102A	Cessna: C611004-0102	VR: 28.8	<i>Applicable for CESSNA models listed for R25101 except 337A (USAF 02B), M337B (USAF 02A).</i>
07-00568 07-00569	\$184.95 \$184.95	R25S01 R25S02	C611004-0101 & OV Sensor C611004-0102 & OV Sensor	VR: 27.7 OV: 32V	Cessna: 210 Cessna: 210
07-00615 07-00616	\$151.95 \$134.95	EQ1500 EQ2500	Delco-Remy 1116887; PAC: 450-386 DELCO-REMY 1116902	EQ: 12V EQ: 24V	Piper: PA23-150, -160, -238, 250;PA30; PA39 Cessna: 310,A,B,C,D,E,F,G,H,I,J,K; E310H,I,J. 320,A,B,C,D,E,320-1. Beech: 95,B95,B95A,D95A,E95,E95-55,-A55,-B55,-B55A;58.A. Twin Commander: 500,-A,B.
07-00635	\$127.95	R25400	Cessna: C611005-0103, 0103, -0101, -0102 Electrodelta: VR515F,G. Pft: DGR3	VR: 28V OV: 2V	Cessna: 152,A152,F152,FA152; 172,N,P,RG;FR172,K;R172,K; F172N,P; 180,K; 182,Q,R; R182, FR182,TR182,F182R,T182R; 185,A185F; 206, U206; 207, T207; 210,N,R; P210N,R;T210N,R.
07-00639	\$83.95	V25101	Cessna: C593003-0101, -0102 Other P/N: OS100-0101. EM233	OV: 32V	Cessna: 152,A152,F152,FA152: 172; 172N, F172, R172K; R172K; 177,A,B,RG; 180,K; 182,Q,F182Q; R182; FR182; 185,A185F; 188,A188B,T188C; 206,U206; 207,T207; 210,K,L,M,N; P210,N; T210,K,L,M,N.
07-00633 07-00636 07-00640	\$198.95 \$299.95 \$111.95	R2510N R25V0N V2510A	Prestolite:VSF7403A,4,3S. PAC: 550-381 R2510N with OV Protection & LV/OV warning PAC: 484182. Others: FOC4003A. OS75-28	VR: 28V 28V/32V 32V	Piper: PA31,31-300,-31-310,-31-325,-31-350,PA36-285,-300,-375,PA60-600,601,601P,602P,700P Cessna: 310,310P,310Q, 320. 401A,401B,402A, 402B,414,421,421A,421B. Schweitzer: 269C. Twin Commander: 500S. Beech: E55, 58, F33A, F33C, A36, A36TC.
07-00634	\$183.95	R251DR	Delco-Remy, Beech, Piper: 9000591	27.7V	Cessna: 310N, 310L,320D,320E; Beech: B95A,D95A,95-B55,-C55; Piper: PA-31,-300,-310,-325
07-00625	\$184.95	R15300	Mooney: 800270-505, 880016-503 Electrodelta: VR415F. Pft: DGR1-1	VR: 14V OV: 16V	Mooney: M20C, M20D, M20E, M20F, M20G, M20J, M20K, Homebuilts.
07-00626	\$228.95	R1530B	Mooney: 880016-501 Other P/N: 20082. VR414 Beech: 35-380093-1,2,3. Other P/N: 20053, 20065, 20137, 20437 B00403-1, EM2073-1,2	VR: 14V OV: 16V	Mooney: M20C.M20D,M20E,M20F Beech: H35, J35, K35, M35, N35, P35, S35, V35. V35TC, V35A, V35A-TC, V35B, 36, A36 Beech: 33, A33, B33, C33, E33, C33A, E33A, E33C, F33A, F33C.

PART NUMBERS WITH PREFIX: R=VOLTAGE REGULATOR EQ=PARALELLING RELAY V=OVERVOLTAGE RELAY G=GENERATOR CONTROLLER



GENERATOR CONTROL UNITS

PART NO.	PRICE	SYSTEM VOLTAGE	PART NO. REFERENCE	NOTES
07-00617	\$134.95	14V/20A	1118736,1118904,111926,VR300-14-20	Requires FAA Form 337
07-00618	\$134.95	14V/35A	1118704,1118892,1119220,VR300-14-35	Requires FAA Form 337
07-00619	\$134.95	14V/50A	1118713,1118884,1119224,VR300-14-50	Requires FAA Form 337
07-00620	\$203.75	28V/25A	1118799,1111218C,1118976B,C, VR300-28-25	Requires FAA Form 337



PLANE POWER LIGHTWEIGHT ALTERNATORS



PLANE POWER LIGHTWEIGHT ALTERNATORS

Finally, you have an alternative to high-priced, marginally-performing, rebuilt used replacement aircraft alternators. Plane-Power alternators are the product of years of research, development and intensive testing. Each component has been engineered, developed, tested and re-tested exclusively for use in general aviation aircraft. As a result of these efforts, Plane Power alternators offer significant improvements over legacy aircraft alternator offerings including:

- Generate substantially higher power at lower engine RPMs
- Generate significantly less heat while producing rated power
- Generate rated power at typical aircraft cruise RPM
- Vastly improved balancing drastically reduces bracket failure
- Greater reliability for significantly increased service life
- Weigh up to four pounds less

Plane-Power alternators are FAA PMA certified to replace the vast majority of popular general aviation alternators. Plane-Power also manufactures an alternator kit for experimental aircraft applications that comes complete with required brackets, spacers, internal cooling, voltage regulation (choice of internal or external), and over-voltage protection. Plane-Power alternators are warranted for 2-years against component failures.

PMA CERTIFIED NEW REPLACEMENT ALTERNATORS

Output	Voltage	Model	Replaces:	Part No.	Price
70	12	AL12-F60	Ford 12V, 60 amp alternators on Lycomings engines in Cessna & Grumman aircraft	07-00998	\$389.00
70	24	AL24-F60	Ford 24V, 60 amp alternators on Lycomings engines in Cessna aircraft	07-00999	\$399.00
70	12	AL12-C60	Chrysler 12V, 60 amp alternators on Lycomings engines in Piper aircraft	07-00997	\$410.00
70	12	AL12-50	InterAv Alternator Conversions (all) on Lycoming Engines	07-00995	\$429.00
70	12	AL12-50C	InterAv Alternator Conversions (all) on Continental Engines	07-00996	\$489.00
70	12	AL12-P70	Most Prestolite 12V, 70 amp & smaller alternators on Lycomings engines found in many Grumman, Commander, Mooney & Piper aircraft	07-01001	\$489.00
70	24	AL24-P70	Most Prestolite 24V, 70 amp & smaller alternators on Lycoming engines found in many Beechcraft, Gruman & Mooney aircraft	07-01002	\$499.00



EXPERIMENTAL AIRCRAFT ALTERNATORS

Output	Voltage	Model	Replaces:	Part No.	Price
60	12	AL12-EI60/b	Ultra compact size, Internally regulated 12 volt alternator kit for use in EXPERIMENTAL aircraft - Boss mount	07-01003	\$426.95
60	12	AL12-EI60/c	Ultra compact size, Internally regulated 12 volt alternator kit for use in EXPERIMENTAL aircraft - Case mount	07-01003-1	\$424.95
70	12	AL12-EI70/b	Internally regulated 12V alternator kit for use in EXPERIMENTAL aircraft -Boss mount	07-01004	\$454.95
70	12	AL12-EI70/c	Internally regulated 12V alternator kit for use in EXPERIMENTAL aircraft - Case mount	07-01004-1	\$452.95
70	12	AL12-EE70/b	Externally regulated 12V alternator kit for use in EXPERIMENTAL aircraft - Boss mount	07-01005	\$509.00
70	12	AL12-EE70/c	Externally regulated 12V alternator kit for use in EXPERIMENTAL aircraft - Case mount	07-01005-1	\$452.95
70	24	AL24-EE70/b	Externally regulated 24V alternator kit for use in EXPERIMENTAL aircraft - Boss mount	07-01006	\$454.95
70	24	AL24-EE70/c	Externally regulated 24V alternator kit for use in EXPERIMENTAL aircraft - Case Mount	07-01006-1	\$454.95

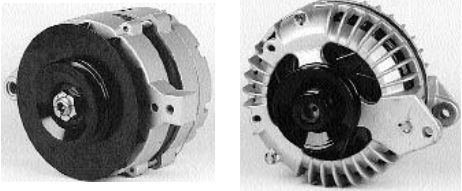
SEE PLANE POWER LIGHTWEIGHT ALTERNATORS ON
www.aircraftspruce.com
 WEBSITE PROVIDES APPLICATION GUIDE BY AIRCRAFT & ENGINE MANUFACTURER

ALTERNATORS – REGULATORS – STARTERS

KELLY AEROSPACE ALTERNATORS

The most popular alternators in use on Cessna and Beech aircraft are of Ford manufacture. Chrysler alternators are usually found on Piper aircraft. These units are manufactured to aircraft specifications and are not available through automotive parts stores.

Note: Core charge is billed on all exchange units & credited upon receipt of acceptable core.



ELECTROSYSTEMS ALTERNATORS

Mfg. Ref.	P/N	Core	Price
3656624	07-06401	80.00	\$176.95
4111810	07-06402	80.00	\$195.95
646491	07-06404	150.00	\$280.95
ALT8520	07-06404	150.00	\$280.95
ALT9522	07-06405	165.00	\$294.95
ALU8521R	07-06406	180.00	\$292.95
ALU8521RS	07-06407	160.00	\$288.95
ALV9507S	07-06409	425.00	\$653.00
ALV9510R	07-06409	425.00	\$653.00
ALX9525B	07-06410	200.00	\$299.95
ALY6421	07-06411	110.00	\$292.95
ALY8520R	07-06412	100.00	\$264.95
DOFF10300B	07-06413	100.00	\$224.95
DOFF10300E	07-06414	160.00	\$309.95
DOFF10300F	07-06415	160.00	\$278.95
DOFF10300J	07-06416	100.00	\$224.95
E3FF10300AA	07-06417	175.00	\$309.95

FORD ALTERNATORS

Airframe or Engine P/N	Drive Type	Volts	Amps	Part No.	Exchange	Core
(C) 611501-0102 (B) 33-380009	Pulley Driven & Furnished	15V	60A	07-06416	\$224.95	\$100.00
(C) 611501-0201 (C) 611501-0202 (C) 611501-0204 (CMC) 633661 (CMC) 635723	Gear Driven Gear not furn.	15V	60A	07-06415	\$278.95	\$160.00
(C) 611503-0102 (B) 96-380037	Pulley Driven & Furnished	28V	60A	07-06413	\$224.95	\$100.00
(CMC) 634442 (CMC) 634443	Gear Driven Gear not Furn.	28V	60A	07-06418	\$322.95	\$100.00
(B) 60-389014	Gear Driven & Furnished	28V	60A	07-06419	\$248.95	\$100.00

(C) Cessna Part No. (B) Beech Part No. (CMC) Continental Motors Part No.

**Alternator regulators for these alternators are new solid state units which replace the original blue colored Ford regulators. These are no longer available. Proper regulator for use with these alternators is Cessna Part No. C611001-0201, manufactured by Electro Delta. P/N VR600 ..Net Price \$119.95

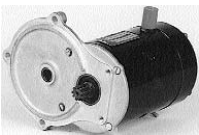
CHRYSLER ALTERNATORS

Chrysler P/N	Piper P/N	Drive Type	Volts	Amps	Part No.	Exchange	Core
3656624	69670-00	Pulley Driven & Furnished	12V	60A	07-06401	\$176.95	\$80.00



ELECTROSYSTEMS VOLTAGE REGULATORS

Part No.	Description	Airframe Reference	Price	Part No.	Description	Airframe Reference	Price
07-00887	28V Overvoltage Sensor	Cessna C593003-0101	\$77.25	07-00909	14V Voltage Regulator	Lamar B-00392-1	\$230.95
07-00888	28V Overvoltage Sensor	Cessna C593003-0102	\$77.25	07-00910	14V Voltage Regulator	Zeftronic R15300	\$176.95
07-00889	28V Overvoltage Sensor	Cessna C593004-0101	\$127.95	07-00893	Adapter Cable	For use w/ VR415-F ONLY	\$73.50
07-00890	14V Overvoltage Sensor	Cessna C5930001-0101	\$76.25	07-00911	14V Voltage Regulator	Christen 61235	\$154.95
07-00887	28V Overvoltage Sensor	Cessna C593003-0101	\$77.25	07-00912	27.7V Voltage Regulator	Cessna C11004-0101, C611002-0102, -0105	\$95.00
07-00891	14V Overvoltage Sensor	Zeftronic V1510A	\$103.95	07-00913	28.8V Voltage Regulator	Cessna C611004-0102	\$95.00
07-00892	28V Overvoltage Sensor	Zeftronic V2510A	\$117.95	07-00914	28V Voltage Regulator	Cessna C611501-0102, C611005-0101	\$135.95
07-00896	14V Voltage Regulator	Zeftronic R1510L	\$94.75	07-00915	28V Voltage Regulator	Cessna C611005-0103,-0102	\$148.95
07-00899	14V Voltage Regulator	Delco-Remy 1118736, E, 1118904, 1119226	\$123.95	VR515G-2-28	28V Voltage Regulator	Schweitzer Aircraft Corp 269A4985	\$133.95
07-00900	14V Voltage Regulator	Delco 1118384	\$123.95	07-00916	28V Voltage Regulator	Cessna C611008-0101	\$120.95
07-00901	14V Voltage Regulator	Delco-Remy 1118704	\$123.95	07-00884	14V Voltage Regulator	Cessna C611001-0101, -0102, -0201	\$119.95
07-00903	14V Voltage Regulator	Cessna 0413205-10	\$203.95	07-00918	14V Voltage Regulator	Lamar B-00288-1	\$165.95
07-00902	14V Voltage Regulator	Delco-Remy 1118713, 1118884, 1119224C	\$123.95	07-00919	28V Alternator Control	Cessna C611007-0101	\$223.95
07-00904	14V Voltage Regulator	Cessna 0413205-11	\$203.95	07-00920	28V Voltage Regulator	Cessna 9910126-1,-2,-3	\$146.95
07-00905	28V Voltage Regulator	Delco-Remy 1118951, 1118975, 1119218C	\$207.95	07-00921	12V Voltage Regulator	Zeftronic R1510N	\$208.95
07-00906	28V Voltage Regulator	Delco-Remy 1119237,1119656	\$206.95	07-00922	24V Voltage Regulator	Zeftronic R2510N	\$205.95
07-00718	14V Voltage Regulator	Zeftronic R15V0L	\$139.95				
07-00908	28V Voltage Regulator	Lamar B-00382-2	\$217.95				



KELLY AEROSPACE STARTERS

IF NO CORES ARE AVAILABLE AT FACTORY, WE WILL REQUIRE YOUR CORE FOR OVERHAUL.

Prestolite P/N	Application	Volts	Part No.	Exchange	Core
MZ4214	Cessna 150 uses starter motor & engine drive gear, Continental P/N 641500	12V	07-06513	\$190.95	\$100.00
MMU4001R	Cessna 152 uses direct drive starter	24V	07-06506	\$330.95	200.00

KELLY AEROSPACE STARTERS

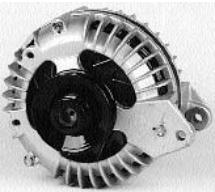
Mfg. Ref.	P/N	Core	Price
646238-3	07-06501	125.00	\$203.95
646275-1	07-06502	175.00	\$203.95
MCL6501	07-06503	150.00	\$199.95
MHB4016R	07-06504	230.00	\$343.95
MHJ4003S	07-06505	190.00	\$233.95
MMU4001R	07-06506	200.00	\$330.95
MZ4218R	07-06509	200.00	\$316.95
MZ4222R	07-06509	200.00	\$316.95

OVERHAULED EXCHANGE UNITS AVAILABLE FOR ALMOST ALL ELECTRICAL ACCESSORIES

Call for quote on unlisted requirements. We stock all accessories at competitive prices.

ALTERNATORS – GENERATORS – STARTERS

ELECTROSYSTEMS OVERHAULED COMPONENTS



Aircraft Spruce carries the full line of alternators, generators, and starters which are remanufactured by Electrosystems for installation in general aviation aircraft. **Fully FAA approved.**

All prices shown are exchange prices. Core charges are billed when unit is shipped. Core credit is issued upon return of acceptable like model core to Aircraft Spruce West in Corona, CA.

NOTE: If core is not in stock at factory, customer must send core to Aircraft Spruce at time of order to have the core overhauled.

CHRYSLER ALTERNATORS			PRESTOLITE ALTERNATOR CONT.			DELCO STARTERS			PRESTOLITE STARTER CONT.								
Part No.	Volt/Amp	Price	Part No.	Volt/Amp	Price	Part No.	Volt/Amp	Price	Part No.	Volt/Amp	Price						
2642995R	12V37A	\$175.00	ALY-8520R	12V60A	\$255.95	DEL1108234	24V	\$198.95	MHJ-4005R	24V	Call for Quote						
2642996R	12V37A	\$175.00	ALY-8520RS	12V60A	Call for Quote	1108249R	12V	Call for Quote	MMU-4001R	24V	\$320.00						
2642997R	12V60A	\$175.00				DEL1109471	12V	\$197.95	MZ-4204R	12V	Call for Quote						
4111810R	12V60A	\$175.00				1109511R	12V	Call for Quote	MZ-4222R	12V	\$301.95						
DELCO ALTERNATORS			TCM ALTERNATORS			Minimum Core Charge on Delco Alt. and Starters \$200.00 *Drive not included (DEL 1971890). For price see listing for drives. **Drive not included (DEL 1940969). For price see listing for drives.			ALTERNATOR DRIVE COUPLINGS KellyAerospace (Electrosystems) overhauls these alternator drive couplings for the gear driven TCM alternators. Add \$500 core charge (refundable) to prices shown below. Part No. 646655R Applicable to engine models: IO-520, TSIO-520, IO-550, GTSIO-520 P/N 07-00641\$617.00 Part No. 635796R Applicable to engine models: C-75, C-85, C-90, C-115, C-125, C-145, E-165, E-185, E-225, O-200, O-300, GO-300, GIO-300, IO-240, IO-360, TSIO-360, & LTSIO-360 P/N 07-00642\$617.00								
1100715R	12V70A	Call for Quote	646843R	24V60A	Call for Quote							1109517R	24V	Call for Quote	MZ-4219R	12V	Call for Quote
1100716R	12V52A	Call for Quote	649304R	24V60A	Call for Quote							1109511R	12V	Call for Quote	MZ-4208R	12V	Call for Quote
1100717R	12V70A	Call for Quote	DELCO GENERATORS									1109518R	24V	Call for Quote	MZ-4220R	12V	Call for Quote
1100718R	24V50A	Call for Quote	DEL1101876	12V12A	\$196.95							1109511R	12V	Call for Quote	MZ-4217R	12V	Call for Quote
1100723R	24V50A	Call for Quote	DEL1101877	12V26A	\$196.95							1109514R	12V	Call for Quote	MZ-4222R	12V	\$301.95
1100747R	24V50A	Call for Quote	DEL1101878	12V13A	\$196.95							1109518R	12V	Call for Quote	MZ-4219R	12V	Call for Quote
1100753R	24V65A	Call for Quote	DEL1101879	12V25A	\$196.95							1109651R	12V	Call for Quote	MZ-4220R	12V	Call for Quote
1100792R	24V65A	Call for Quote	DEL1101880	12V26A	\$196.95							1109651R	12V	Call for Quote	MZ-4217R	12V	Call for Quote
FORD ALTERNATORS			DEL1101881	12V13A	\$196.95							1109660R	12V	Call for Quote	MZ-4222R	12V	\$301.95
E0FF10300BAR	28V60A	\$312.50	DEL1101882	12V26A	\$196.95	1109662R	24V	Call for Quote	MZ-4219R	12V	Call for Quote						
D0FF10300FR	15V60	\$269.95	DEL1101887	12V35A	\$196.95	1109678R	12V	Call for Quote	MZ-4224R	12V	Call for Quote						
PRESTOLITE ALTERNATORS			DEL1101888	12V50A	\$196.95	1109687R	12V	Call for Quote	MZ-4225R	12V	Call for Quote						
ALT-8520R	24V50A	\$271.95	DEL1101890	12V20A	\$196.95	1109687R	24V	Call for Quote	MZ-4226R	12V	Call for Quote						
ALT-8521R	24V50A	Call for Quote	DEL1101891	12V20A	\$196.95	1109677R	12V	Call for Quote									
ALT-8520R	24V50A	\$271.95	DEL1101892	12V35A	\$196.95	1109678R	12V	Call for Quote									
ALT-8520R	24V50A	\$271.95	DEL1101895	12V50A	\$196.95	1109519R	12V	Call for Quote									
ALT-8521R	24V50A	Call for Quote	DEL1101897	12V35A	\$196.95	1109518R	24V	Call for Quote									
ALT-9522R	24V50A	\$285.95	DEL1101898	12V35A	\$196.95	1109678R	12V	Call for Quote									
ALT-9522R	24V50A	\$285.95	DEL1101899	12V20A	\$196.95	1109677R	12V	Call for Quote									
ALU-8521R	24V70A	\$283.95	DEL1101900	12V35A	\$196.95	1109678R	12V	Call for Quote									
ALU-8521R	24V70A	\$283.95	DEL1101901	24V26A	\$196.95	1109689R	12V	Call for Quote									
ALU-9522R	24V70A	Call for Quote	DEL1101904	24V25A	\$177.95	1109687R	24V	Call for Quote									
ALV-8511R	24V100A	Call for Quote	DEL1101905	24V25A	\$196.95	1109677R	12V	Call for Quote									
ALV-8511R	24V100A	Call for Quote	DEL1101906	24V25A	\$196.95	1109678R	12V	Call for Quote									
ALV-8512R	24V100A	Call for Quote	DEL1101908	12V50A	Call for Quote	1109677R	12V	Call for Quote									
ALV-9510R	24V100A	Call for Quote	DEL1101909	12V50A	\$196.95	1109678R	12V	Call for Quote									
ALV-9510R	24V100A	\$633.00	DEL1101910	12V20A	\$196.95	1109519R	12V	Call for Quote									
ALV-9510R	24V100A	\$633.00	DEL1101911	24V25A	\$196.95	1109518R	24V	Call for Quote									
ALX-8521R	12V70A	Call for Quote	DEL1101912	12V50A	\$196.95	1109678R	12V	Call for Quote									
ALX-9525B	12V70A	Call for Quote	DEL1101913	12V35A	\$196.95	1109677R	12V	Call for Quote									
ALX-9524R	12V70A	Call for Quote	DEL1101914	12V35A	\$196.95	1109678R	12V	Call for Quote									
ALX-9524R	12V70A	Call for Quote	DEL1101915	12V35A	\$196.95	1109519R	12V	Call for Quote									
ALX-9524R	12V70A	Call for Quote	DEL1101917	12V35A	\$196.95	1109518R	24V	Call for Quote									
ALX-9522R	12V70A	Call for Quote	DEL1101918	12V35A	\$196.95	1109678R	12V	Call for Quote									
ALX-9524R	12V70A	Call for Quote	DEL1101923	12V50A	\$196.95	1109677R	12V	Call for Quote									
ALX-9425BR	12V70A	\$290.95	DEL1105052	24V40A	\$208.00	1109678R	12V	Call for Quote									
ALY-6520R	12V60A	Call for Quote	DEL1105053	24V40A	Call for Quote	1109689R	12V	Call for Quote									
ALY-6520R	12V60A	Call for Quote	DEL1105054	24V50A	\$231.95	1109687R	12V	Call for Quote									
ALY-6521R	12V60A	\$283.95	DEL1105055	24V50A	\$231.95	1109678R	12V	Call for Quote									
ALY-6522R	12V60A	Call for Quote	DEL1105056	24V40A	\$231.95	1109677R	12V	Call for Quote									
ALY-6425	12V60A	\$192.95	DEL1105057	24V50A	\$231.95	1109678R	12V	Call for Quote									
ALY-6520R	12V60A	Call for Quote				1109677R	12V	Call for Quote									
ALY-6521R	12V60A	\$283.95				1109678R	12V	Call for Quote									
ALY-6522R	12V60A	Call for Quote				1109519R	12V	Call for Quote									
ALY-6425	12V60A	\$192.95				1109518R	24V	Call for Quote									
ALY-6527R	12V60A	Call for Quote				1109678R	12V	Call for Quote									



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On-Line Shopping!*
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ALTERNATORS

B & C LIGHTWEIGHT ALTERNATORS



MODEL L40 ALTERNATOR

The model L40 is a belt driven 40 amp 14 volt alternator system for Lycoming engines including alternator assembly, mounting hardware, and belt, ready to install. The alternator weighs 6.1 lbs. and measures 3.9" in diameter and 5.6" long. The model L40 alternator was specifically designed to meet the rigorous demands of today's weight sensitive homebuilt designs and has undergone extensive in-flight service testing. This system incorporates the latest state-of-the-art advances in solid state electronic power management as well as incorporating a factory new, modern lightweight alternator. Applicable to Lycoming 118 H.P. through the 300 H.P. engines. L40 Boss Mount P/N 07-06815.....**\$429.95**

NOTE – On Models L40 & L60 Alternators, order as follows:
L40 Case Mount (Narrow Deck Bracket) P/N 07-06810.....**\$518.00**

L40 REQUIRES VOLTAGE REGULATOR – SEE BELOW

Model L40 and L60 alternators require external regulators – use:
P/N 07-06742 (LR3) for 14V, P/N 07-06786 (LS1) for 28V
LS1 converts alternator to 28V



MODEL L60 ALTERNATOR

Model L60 is a belt-driven, 14 or 28 volt alternator system for wide deck (boss mount) 118HP through 300HP Lycoming engines. The kit includes a NEW alternator, steel mounting bracket, belt tensioning arm, belt and mounting hardware, ready to install. Alternator with pulley installed weighs 8.5 Lbs. With 60 amps of output, the L6. Will provide sufficient power to operate electric heaters in the Eze type airplanes. **Warning!** It is unwise to use this (or any other high output alternator) unless true over voltage protection is also installed. The LR-3 linear regulator and alternator control system is recommended.

L60 Case Mount P/N 07-06820 **\$688.00**
L60 Boss Mount P/N 07-06785 **\$599.95**

L60 REQUIRES VOLTAGE REGULATOR – SEE ABOVE

MODEL LR3C LINEAR REGULATOR

More than a voltage regulator, LR3C is an alternator control system. Features (1) solid-state over-voltage protection, (2) a low-voltage warning system, (3) output short circuit protection and (4) a linear voltage regulator, all housed in a single unit. This combination of features is normally available only as separately purchased and installed items. Originally designed for the Voyager, around-the-world aircraft, the LR3C represents the best that technology can offer in a single, cost effective package.

Virtually all regulators offered in automotive and aircraft markets are the "switching" variety. They control an alternator with short pulses of full battery voltage. These pulses occur several hundred times per second. The rapid switching action does generate some electrical noise. Output from an LR3C is a smoothly adjusted voltage generating no noise whatsoever. A switching regulator may perform well in your airplane, especially if the ship is all metal and does not carry LORAN. However, no alternator system should be operated without true over-voltage protection. In addition, a means for timely notification of alternator failure is recommended. LR3C provides all these features in a proven product with minimal installation and wiring requirements. LR3Cs track record began with a 216-hour flight around the world. The record goes on to list hundreds of units in service, thousands of flight hours and over 6 years of production. The LR3C is all solid-state and compatible with 14 or 28V, aircraft or automotive alternators. Will not work if alternator has a built-in regulator. Size: 5.7"l x 3.1"w x 2.7"h; weight: 10oz. Supplied with low-voltage warning lamp assembly & complete installation instructions. Specify 14 or 28V. Alternators with built-in voltage regulators must be modified before installation with the LR3C.

The optional LR3C temperature sensor adjusts bus voltage by sensing battery temperature. This feature is especially useful in areas of extreme climate temperature changes.

LR3C (14V) P/N 07-06742 **\$228.00**
LR3C (28V) P/N 07-06748 **\$228.00**
LR3C Battery Temp Sensor P/N 07-06744 **\$105.95**



MODEL SD-8 ALTERNATOR & REGULATOR

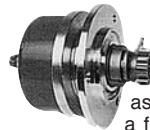
The model SD-8 is a spline-driven, 14V alternator system for aircraft with an open vacuum pump drive pad. Features an ultra-reliable, brushless construction. A permanent magnet assembly supported on sealed ball bearings is spun around a fixed coil. With 8 amps of output, the model SD-8 is adequate for many VFR-day applications. The model SD-8 will power a solid state nav/com and transponder in addition to charging a battery for engine starting. In production for over 10 years, hundreds of model SD-8 systems are flying. The model SD-8 is used by top aerobatic pilots around the world. Also used as backup power source on more sophisticated homebuilts. Wt.:3.7lbs. Pricing includes adjustable, solid state voltage regulator. P/N 07-06770 **\$493.95**
Over Voltage Kit 14V (required) P/N 08-00658 **\$68.95**
Over Voltage Kit 28V (required) P/N 07-00708 **\$65.00**



MODEL SD-20 ALTERNATOR

The SD-20 is a high-performance spline-driven alternator that mounts on a standard vacuum pump accessory pad. May be used either as a primary or a stand-by alternator for a rated output 20 amps @ 2500 alternator RPM. Constructed of all NEW materials (with absolutely NO "re-manufactured" content), the SD-20 is designed for durable service, with heavy-duty sealed ball-bearings, 2 cooling fans, a dynamically balanced rotor, and a special "shear section" designed into the drive coupling. The SD-20 is available for both 14 and 28 volt applications. and is externally-regulated. It may be appropriately matched with our LR3C, LS-1A, or SB1B Controllers (depending on your application and electrical system configurations). Measuring 4.6" wide and 6" deep, and weighing only 5.75lbs., SD-20 will clear the tachometer cable and oil filter on stock Lycoming engines.

P/N 07-06771 **\$695.00**



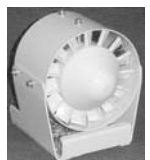
MODEL 200G ALTERNATOR

Gear-driven, 14V alternator system for aircraft powered with Continental C85-12 engines. Features ultra-reliable, brushless construction. Permanent magnet assembly supported on sealed ball bearings is spun around a fixed coil. Use in the prototype Vari-Eze. Has also seen service on many Cassuts, Vari-Ezes, Q-200s. etc. In production for over 10 years, hundreds of 200G systems are in service. With 12 amps of output the 200G will support a modest VFR-night system load. Wt 4.25 Lbs. Pricing includes an adjustable solid state voltage regulator. You supply a Continental generator drive gear assembly. Gear must be shipped by the factory to Aircraft Spruce for installation. P/N 07-06575..... **\$409.00**
New Drive gear P/N 07-06500 **\$593.65**
Over Voltage Kit 14V (required) P/N 08-00658 **\$68.95**
Over Voltage Kit 28V (required) P/N 07-00708 **\$65.00**



MODEL BC433-H ALTERNATOR

A 30amp gear-drive alternator for the Continental Engines (C-75 through O-300). After many customer requests for a gear-drive alternator with higher output, B&C Specialty Products introduces the latest product, model BC433-H. Wt: 4lbs.; size: 4"dia. X 3.7" installed length. Features a billet aluminum mounting flange and creates 30 amps at cruise RPM. Ships with matching regulator. Sold without the Continental drive gear assembly (customer supplied), and requires the latest revision of the Hub (P/N 530406) and Retainer (P/N 352030) B&C has a limited supply of used drive gear assemblies, available at additional cost. NOTE: BC433-H requires purchase of PM/OV Kit 505-1 which provides crucial over voltage protection. Alternator P/N 07-00771 **\$525.00**
505-1 Kit only..... P/N 07-00772 **\$64.95**



TURBO STAND-BY ALTERNATOR

The BPE-14 Turbo Alternator was designed to be installed on most classic, antique and homebuilt aircraft without an electrical system. This is a new design of the old Wind Generator, using the newest in technology techniques and materials. Particular effort was made to optimize the power output (6amp @ 85mph) with size (5" dia.) and weight (5 lbs). STC'd for several aircraft, the unit contains the Turbo Alternator with a built-in regulator and installation kit. A battery is not needed but the Turbo will only produce current while flying. The basic BAE-14/28 Power Supply is a manually deployed, ram air driven, emergency supply for small aircraft. This unit is a true emergency back up unit and is capable of supplying electric power to drive a basic compliment of flight-critical instruments. The Turbo Alternator remains stowed inside the airframe or wing until needed. By tugging on the single t-handle activator cable, a small gas cylinder spring pushes the storage door open and deploys the ram air turbine alternator into the slipstream. For the BPE-14, please specify aircraft model, paint color and voltage. For the BAE-14/28, please specify aircraft model, voltage, registration number and serial number. STC'd for C182, C210, C206, Bonanza, Piper PA-32 & Mooney. BPE-14 Turbo Alternator P/N 10-00747 **\$753.00**
BAE-14/28 Auxillary Power Supply P/N 10-00748 **\$1,948.00**



STARTERS – ALTERNATORS

B & C LIGHTWEIGHT STARTERS FOR LYCOMINGS



This extraordinarily light weight starter was specifically designed to meet rigorous demands of today's weight sensitive aircraft designs. Weighing only 10.2 pounds, B & C starters develop more torque than standard starters. The first lightweight starter to be developed, the B & C starter has been in production for over 6 years. It is manufactured

from 100% new components and features total ball-bearing construction. The pinion gear is mechanically engaged with the ring gear before power is applied to the motor. Cantilevered pinion gear mounting requires no forward shaft support bearing thus eliminating cowl interference. If battery failure precedes engine starting, a positive spring retraction system insures pinion gear disengagement. STC'd and PMA'd versions for installation on certificated aircraft are available. STC'd for aircraft powered by any of the following series of Lycoming engines:

- O-235 • O-290 • O-320 • IO-320 • AIO-320
- AEIO-320 • O-360 • IO-360 • AIO-360 • AEIO-360
- HO-360 • HIO-360 • O-540 • IO-540 • AEIO-540
- HIO-540 • TIO-540

B & C LIGHTWEIGHT STARTERS FOR CONTINENTALS



This new starter for the Continental 0-200 or 0-240 engine solves all the problems that other starters have had — worn out clutches, cracked pinion gears, hard to find parts. In addition, the BC320 is 4.3 to 5.2 lbs. lighter depending on whether you are replacing a key-type starter or a pull-cable type starter. The BC320 starter is STC'd for use in certificated aircraft and is available with, or without, the STC. Also available are two installation

kits — one for replacing a key-type starter, the other for replacing a pull-cable type starter.

If you are replacing a key-type starter, you will need installation kit 501-1. Before installing the BC320, a needle bearing will need to be removed from your engine. To aid in removing this needle bearing, you may purchase Bearing removal kit, 501-2, for \$119.00. If you do not care to keep this tool, you may return it and be refunded \$80.00. If you are replacing a pull-cable starter, you will need installation kit 501-3. Before installing the BC320, you will need to cut off a steel shaft that is installed in your engine case.

The new BC320 starter is a complete starter, ready to install, that will replace the existing motor, clutch, and pinion-gear. Tested by Continental with over 5000 start cycles without a problem. Recommended by Rutan Aircraft Factory. Except for paperwork, there are no differences between STC'd starters and starters for homebuilts. A starter must be ordered to match your battery voltage and starter ring gear configuration.

FOR CERTIFICATED AIRCRAFT APPLICATIONS					
Part No.	Model No.	Pinion Gear Pitch	Teeth on Ring Gear	Battery Voltage	Price
LYCOMING					
07-06700	BC315-100-1	10/12	122	12	\$580.00
07-06705	BC315-100-2	12/14	149	12	\$580.00
07-06710	BC315-100-3	10/12	122	24	\$605.00
07-06715	BC315-100-4	12/14	149	24	\$610.00
CONTINENTAL					
07-06716	BC320-1			12	\$798.00

FOR EXPERIMENTAL AIRCRAFT APPLICATIONS					
Part No.	Model No.	Pinion Gear Pitch	Teeth on Ring Gear	Battery Voltage	Price
LYCOMING					
07-06720	BCS206-122-12	10/12	122	12	\$550.00
07-06725	BCS206-149-12	12/14	149	12	\$580.00
07-06730	BCS206-122-24	10/12	122	24	\$575.00
07-06735	BCS206-149-24	12/14	149	24	\$571.00
CONTINENTAL					
07-06737	BC320-H			12	\$750.00

B & C ACCESSORIES

- 501-1Installation Kit (key type)P/N 07-06752**\$23.60**
- 501-2Bearing Removal KitP/N 07-06753**\$117.95**
- 501-3Installation Kit (pull cable)P/N 07-06754**\$70.75**

INTERAV BELT DRIVEN ALTERNATOR KITS FAA APPROVED ALTERNATOR CONVERSION KITS



This high quality alternator kit is STC'd for most 14 volt aircraft and enables you to replace your belt driven generator with a current day alternator system. The superior features of this system include quick installation, voltage spike guard, built-in radio noise suppression, transistorized voltage regulator, and overvoltage relay protection. Kit includes alternator, mount, regulator, and overvoltage control.

- Single Engine KitP/N 07-06800**\$694.00**
- Twin Engine KitP/N 07-06850**\$1,388.00**
- Requires 60 AMP Circuit BreakerP/N 295-29694**\$32.20**

INTERAV KITS INCLUDE		
Part No.	Ref. No.	Description
015-01237	A-152A	Alternator
625-61623	A-153C	Voltage Regulator
635-62448	OVR-128	Overvoltage Relay
015-01240	A-187D	Mounting Bar Assembly
245-23709	A-178	Spike Guard (Capacitor)
245-23810	A-178A	Spike Guard Assembly
345-23893	A-177-1	Capacitor
055-84109	A-152-A1	Resistor
015-01247	A-152-4	Standard Rotation Fan
115-09964	A-152-2	Brush/Holder Assembly

SKYTRONICS JASCO GEAR DRIVEN ALTERNATOR KITS



This Jasco alternator kit is STC'd for many aircraft including the early Cessna 150, 172, and 175 series as well as Beech Model 35's with early E series Continental engines. Applicable to Continental C-90, 0-200 and 0-300 engines. This kit includes 50 amp alternator, voltage regulator, over-voltage control, and STC documents. Available for 14V systems only. Well-proven over many years of use in a variety of aircraft. In stock for immediate shipment. STC'd for Cessna 150-170, 172, 175, Beech 35 Series, Navion A. Skytronics Kit #6560-1.

Available for 14V systems only. Well-proven over many years of use in a variety of aircraft. In stock for immediate shipment. STC'd for Cessna 150-170, 172, 175, Beech 35 Series, Navion A. Skytronics Kit #6560-1. P/N 07-06900**\$933.00**

Volts	Amps	Drive	Alt. P/N	Kit P/N	Price
12	50	4 stud, 6 spline sqr pad	6555T	6555-1	\$757.00
12	50	Round pad like Delco config.	6560T	07-06900	\$933.00
12	50	6 stud, 16 spline rnd. pad	6565T	6565-1	\$803.00
24	50	4 stud, 6 spline sqr. pad	7555T	7555-1	\$774.00
24	50	6 stud, 16 spline rnd pad	7565T	07-75651	\$803.00
24	70	Hiller UH12E round pad	7555H-72B	07-07555	\$1,157.00
24	70	4 stud, 6 spline sqr. pad	7655T	07-00703	\$1,004.00
7555H-72B Kit					
24	70	Alternator	7555H-72B	07-00702	\$1,322.00
		J12M24SPH Reg. Controller	J12M24SPH	07-07555	\$1,157.00
		17-10 Resistor 150 Ω	17-10	07-00314	\$168.95
				07-01710	\$11.70
7655T Kit					
24	70	Alternator	7655T	07-00703	\$1,004.00
		J12M24SPH Reg. Controller	J12M24SP	07-00696	\$168.95
		17-10 Resistor 150 Ω	17-10	07-01710	\$11.70
12		Voltage Controler	J12M20SP	07-00697	\$168.95
24		Voltage Controler	J12M24SP	07-00696	\$168.95
24		Voltage Controler	J12M24SPH	07-00314	\$168.95
24		Voltage Controler	J24-100SP	07-00698	\$169.95
24		150Ω Resistor	17-10	07-01710	\$11.70
24		75Ω Resistor	17-1	07-00699	\$11.50
24		Terminal Conversion kit	ESC-2	07-00701	\$80.00

STARTERS



Flyweight™ Starters

FAA/PMA approved replacement for all Kelly (Magnaflyte), ElectroSystems and Prestolite Lycoming Starters.

STARTERS FOR TELEDYNE CONTINENTAL ENGINES (FAA/PMA)

CONTINENTAL ST2



For C-85-12, C90, O-200, O-300-A, -B, -C engines. If aircraft was manufactured with key start, order C12ST2. If aircraft has been previously converted from a pull-start, order C12ST2/S (/Sdenotes short nose.) If aircraft is a pull start, order KCST2 (conversion kit that includes a C12ST2/S starter, push button, wiring harness, STC's and instructions for converting from pull start). Weight: 9.2 lbs.

Model C12ST2P/N 07-00614**\$512.00**
 Model C12ST2/SP/N 07-00719**\$514.00**
 Model KCST2.....P/N 07-00721**\$564.00**

CONTINENTAL ST3



All new design fits the entire line of TCM engines with rear mounted, right angle starter adapters. Spins the prop approximately 30% faster than OEM starters while drawing less current. The ST3 is designed to spin freely while at rest to maximize starter adapter life. For O-300-D, -E, IO/TSIO-360, IO-346, O/IO-470, IO/TSIO-520, IO/TSIO-550 engines.

Model C12STP/N 07-00766**\$514.00**
 Model C24ST3P/N 07-00767**\$528.00**

STARTERS FOR FRANKLIN ENGINES (FAA/PMA)

FRANKLIN ST1

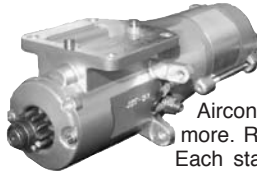


Lightweight, high-torque, low-current draw. The only lightweight, high-torque starter available for Franklin engines. Fits Franklin 4A-235, 6A4-150, & 165, 6A-335, 6A & 6V-350 engines. Weight: 8 lbs.

Model F12ST1P/N 07-06262**\$519.00**
 Model F24ST1P/N 07-06263**\$572.00**

STARTERS FOR TEXTRON LYCOMING ENGINES (FAA/PMA)

HIGH-TORQUE INLINE



All new design. Recommended for all flat Lycoming engine applications incl. Retractable Cessnas, Mooney M20 J, Airconditioned Piper singles, shortwing pipers & more. Requires no aircraft modification to install. Each starter is jumper-switchable between 12 & 24V. 50% faster spin over OEM starters. Internal kickback protection via shear pin. Count ring gear teeth and order corresponding model number. NLR is reverse-turning for counter-rotating right engines on twins.(will not fit C206H(order 149-24PM), Beech A-60/B-60 Duke(order 149-24HT) or G-Series engines (such as G0-360,etc.).

Model 122-NL07-00761**\$514.00**
 Model 149-NL07-00762**\$514.00**

ORIGINAL HI-TORQUE



Features a wound field motor, dual ball-bearing design, light weight (8.4 lbs.) and a sealed, rugged design for harsh environments, helicopters, bush planes & IO-720-powered aircraft such as Twin Commanders. Recommended for Super Cubs and experimental aircraft with tight front cowling clearance.

Model 122-12HTP/N 07-06250**\$424.00**
 Model 122-24HTP/N 07-06251**\$424.00**
 Model 149-12HTP/N 07-06254**\$424.00**
 Model 149-24HTP/N 07-06255**\$424.00**

FLY-WEIGHT™ LS & PM



Fly-Weight™ LS



Fly-Weight™ PM

The industry standard. More than 40,000 in service today. At 7.8 lbs., it's the lightest, best-selling, best-value starter on the market. Sold as original equipment by Lycoming & aircraft manufacturers world-wide. Features include Bendix-free electromechanical actuation, lightweight, hightorque permanent magnet motors, gearreduction & compact design. Ideal for weekend flyers and air operators on a tight budget. The LS model's solenoid is on the aircraft's left side (2:30 position as viewed from the front) and the PM model's solenoid is on the aircraft's right side (7:30 position as viewed from the front). Call to confirm a recommended starter for an aircraft. For 24V LS applications, consider the 24HT (above). Count ring gear teeth and confirm voltage before ordering.

Model 122-12LS*P/N 07-06245**\$364.00**
 Model 149-12LS*P/N 07-06246**\$364.00**
 Model 149-24LSP/N 07-06248**\$453.00**
 Model 122-12PMP/N 07-06252**\$364.00**
 Model 149-12PMP/N 07-06253**\$364.00**
 Model 122-24PMP/N 07-06249**\$453.00**
 Model 149-24PMP/N 07-06257**\$453.00**

PM INSTALLATION ACCESSORIES

Generally not required for LS, HTI, or HT installations. Cable Extension (BCE-6) - Required for installations when no slack is available in starter power cable.P/N 07-00923**\$11.85**

RECOMMENDED STARTER BY AIRCRAFT

For complete listing of recommended Sky-Tec™ Starters by Aircraft make & model, please see the Aircraft Spruce website for a link to the Sky-Tec™ website at:

www.aircraftspruce.com



STARTERS

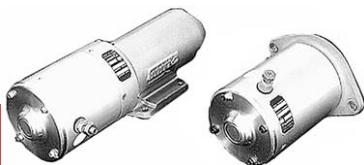
MAGNAFLITE STARTERS FROM KELLY AEROSPACE



MagnaFlite is the lightest starter on the market. Weighting in at 60% less than conventional starters, our Lycoming models are the easiest to install with no modifications required. An FAA/PMA approved unit, MagnaFlite carries the same installation eligibility as Electrosystems' OE Prestolite-style starters. The MagnaFlite starter is user friendly in many ways. No STC approvals or 337 forms are needed for installation. The MagnaFlite fits all original Prestolite configurations, using identical airframe baffle and component attachment points. It meets all requirements for voltage, gear reduction, direct drive, and counter rotation. MagnaFlite, the most powerful starter available, provides 65% greater horsepower than conventional starters, resulting in higher cranking speeds, and faster start times. In addition, it is designed to last the TBO of the engine and provides optimum reliability and cranking power throughout its service life. MagnaFlite is designed specifically for aviation, using only the highest quality certified parts. MagnaFlite is also backed by a 2 year, unlimited hours, "No Hassle" warranty and Kelly's long standing reputation for unmatched technical support and customer service. **All prices plus \$200 core charge.**

Our P/N	Equivalent Alternate P/N	Equivalent Lycoming P/N	Installation Eligibility	Our Price
MHB-6014	MHB-4014, MHB-4009	LW14214	Lycoming Engine - 28V; LTIO-540 Series; 149 Tooth Ring Gear	\$366.95
MHB-6016	MHB-4016, MHB-4001, MHB-4010	LW15572	Lycoming Engine - 28V; O-320, O-340, O-360, O-540, IO-540 Series; 149 Tooth Ring Gear	\$380.95
MHB-6018	MHB-4018, MHB-4013, MHB-4017	LW15577	Lycoming Engine - 28V; LTIO-540 Series; 149 Tooth Ring Gear	\$366.95
MZ-6220	MZ-4220, MZ-4216	LW14215	Lycoming Engine - 12V; LIO-320, LO-360, LIO-360 Series; 149 Tooth Ring Gear	\$332.95
07-00824	MZ-4222, MZ-4218, MZ-4206	LW15571	Lycoming Engine - 12V; O-235, O-290, O-320, O-340, O-360, O-540 Series; 149 tooth ring gear	\$388.95
MZ-6224	MZ-4224	LW16460	Lycoming Engine - 12V; O-320 Series; 149 Tooth Ring Gear	\$332.95
MZ-6226	MZ-4226	LW18989	Lycoming Engine - 12V; O-360 Series; 149 Tooth Ring Gear	\$332.95

LAMAR STARTERS (NEW)

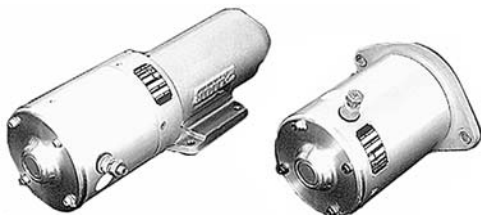


Lamar Permanent Magnet Starters represent the next generation in starter technology, setting new standards in performance and reliability. These new lightweight starters deliver exceptional torque to start virtually any general aviation piston engine in nearly any environment, yet weigh about 40 percent less than conventional starters. The key is Presicion's patented permanent magnet design. It replaces the bulky windings of a conventional starter motor with lightweight permanent magnets. This revolutionary design not only eliminates considerable weight, but results in more efficient starter operation and improved performance under all conditions. During extensive performance testing, Lamar starters consistently provided quicker engine starts than conventional starters under a variety of operating conditions. These TBO starters are built to go the distance between engine overhauls. Conventional starters generally don't last. They usually have to be pulled off for repair or replacement at least once during the life of the engine.

All Prices plus a \$200 core charge.

P/N 12V	PRESTOLITE	LYCOMING	PRICE	P/N 24V	PRESTOLITE	LYCOMING	PRICE
PM1203	MZ-4204	76210	\$419.00	PM2401	MHB-4001	76212	\$411.95
PM1201	MZ-4205	76213	\$419.00	PM2401	MHB-4002	75700	\$411.95
PM1201	MZ-4206	76211	\$419.00	PM2401	MHB-4003	76214	\$411.95
PM1201	MZ-4207	75699	\$419.00	N/A	MHB-4004	77879	---
N/A	MZ-4208	75787	---	PM2401	MHB-4005	78791	\$411.95
PM1204	MZ-4216	LW-10556	---	PM2401	MHB-4007	LW-11936	\$411.95
PM1201	MZ-4217	LW-14209	\$419.00	PM2401	MHB-4008	LW-12023	\$411.95
PM1201	MZ-4218	LW-14207	\$419.00	PM2401	MHB-4009	LW-12159	\$411.95
N/A	MZ-4219	LW-14211	---	PM2401	MHB-4010	LW-14208	\$411.95
PM1204	MZ-4220	LW-14215	---	N/A	MHB-4011	LW-14212	---
PM1201	MZ-4221	LW-15573	\$419.00	PM2401	MHB-4012	LW-14210	\$411.95
PM1201	MZ-4222	LW-17771	\$419.00	PM2402	MHB-4013	LW-14213	---
N/A	MZ-4223	LW-15576	---	PM2401	MHB-4014	LW-14214	\$411.95
PM1202	MZ-4224	LW-16460	---	PM2403	MHB-4015	LW-15483	\$423.95
PM1201	MZ-4225	LW-18047	\$419.00	PM2401	MHB-4016	LW-15572	\$411.95
PM1201	MZ-4226	LW-18989	\$419.00	N/A	MHB-4017	LW-15571	---
CONTINENTAL				PM2402	MHB-4018	LW-15577	---
XT1207	---	646238	\$356.95	PM2401	MHB-4019	LW-15574	\$411.95
				PM2401	MHB-4020	LW-18990	\$411.95
				N/A	MHB-4004	77879	---
				N/A	MHB-4005	LW-12787	---
				PM2403	MHB-4001	LW-16207	\$423.95
CONTINENTAL							
				XT2407	---	642275	\$346.95

LAMAR OVERHAULED STARTERS



In addition to the factory new Lamar starters listed above, Aircraft Spruce also stocks overhauled Lamar starters. The PM1201 starter is ideal for the Lycoming O-320 & O-360 series engines and the PM2401 is applicable to the Lycoming O-540 series engines. Like the new Lamar starters, these overhauled starters are FAA/PMA approved, fully bench tested, provide superior cold weather performance, utilize a patented permanent magnet design, use a planetary gear reduction for optimum speed and torque (110 RPM), and draw less amperage than lightweights to help lengthen battery life.

Overhauled PM1201 starter ..P/N 08-01201**\$262.95**
Add \$100 core charge Overhauled PM2401 starter ..P/N 08-02401**\$276.95**

ENGINE PARTS



INTAKE HOSES

Lycoming 1-3/4" I.D.
#69603\$5.50 ea
Lycoming 1-1/2"ID (SSRSTD-1186)....\$3.60 ea
Cont.#22800 Outer (8), & Cont.#21185 Inner
(8) for A-65 thru 0-300.
P/N 08-03700\$3.24 Pr



INTAKE GASKETS

Cont. #21327 (4) for a-65 only. \$0.95 ea
Cont. #22250 (4) for C-85 — 0-300 \$1.15 ea



EXHAUST GASKETS

Cont. #21493 (08-05237) for A-65 thru 0-300 (4) List \$4.30 \$1.25 ea
Cont. #632837 Stainless Steel \$1.90 ea
Lyc. #65321 for 0-235 — 0-540 (4) \$3.50 ea



EXHAUST NUTS

Cont. #22022 (5/16-24) for A-65 thru 0-300 (8)\$0.86 ea
Cont. #21247 (1/4-28) for 0-470 (12) \$3.85 ea
Lyc. #STD1410 (5/16-18)\$1.64 ea



ROCKER BOX GASKETS

Cont. #530162 for A-65 thru 0-300 (4).....\$3.90 ea
Lyc. #75906 for 0-235 thru 0-320 (4)\$1.95 ea



ROCKER BOX COVER SCREWS

Cont. #535091 (24) ..\$0.38 Ea
Lyc. #STD1925 (24) \$0.77 Ea



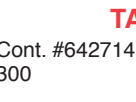
CYLINDER BASE SEALS

Cont. #21477 for A-65 thru 0-200 (4).....\$0.65 Ea



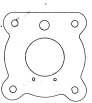
MAGNETO FLANGE GASKET

Cont. #535324 All Cont. engines.....\$6.70 Ea
Lycoming #62224\$1.41 Ea



TACH OIL SEAL

Cont. #642714 (was #640087) for A-65 thru 0-300 \$6.20
Lyc. #LW14260 for 0-235, 0-290\$5.20



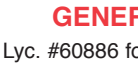
OIL PRESSURE HOUSING GASKETS

Lyc. #61173 for 0-235, 0-290 (1) (2 with oil cooler)\$1.05 Ea



CARBURETOR GASKETS

For A-65 thru 0-200 Cont. #21051 (Top)\$1.86 Ea
Cont. #21323 (Bottom) \$1.40 Ea



GENERATOR DRIVE BELT

Lyc. #60886 for 0-235, 0-290.....\$33.90



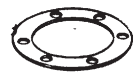
MAGNETO DRIVE GEAR

Continental #36066\$491.95
Continental #36067\$148.00



PUSH ROD SEALS

Continental #539840 for A-65 thru 0-200 (8)\$1.28 Ea.



OIL SUMP GASKET & PLUG

Cont. #3577 Gasket\$0.95
Cont. #532432 Plug\$8.90



CRANKSHAFT OIL SEALS

Cont. #530019 for A-65 thru 0-200, Flanged Shaft\$29.90
Cont. #24321 for A-65 and C-85, Taper Shaft\$44.80
Lyc. #76940 for 0-235, 0-290\$24.20



AN900 COPPER GASKETS

Cont. Engine Applications, A-65 thru 0-200 (1) each:
-10: Oil sump drain plug thermometer hole in oil screen, suction tube ass'y ..\$0.46 Ea
-14: Oil relief valve.....\$0.86 Ea
-22: Tach drive housing\$0.70 Ea
-28: Oil pressure screen\$0.40 Ea



AERO-SEAL HOSE CLAMPS

Aero-Seal Clamps for Cont. Intake Hoses.
P/N QS100-M32W\$1.49 Ea



PROP GOVERNOR GASKET

P/N 07-00878\$15.50



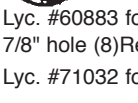
RING HOSE CLAMPS

Cont. #536388 (16) Required \$1.43 Ea



ENGINE MOUNT BUSHINGS

Cont. #22387 for A-65, C-85, C-90 except C-90-14F (8) Req'd\$1.72 Ea



Lyc. #60883 for 0-235 and 0-290, 7/8" hole (8)Req'd\$9.70 Ea

Lyc. #71032 for 0-320 with 1" hole (8) Req'd \$7.00 Ea.



ENGINE MOUNT WASHERS

Cont. #21530 for A-65, C-85, C-90 except C-90-14F (8) Req'd.....\$8.40 Ea
Lyc #STD619 for 0-235 thru 0-320 (8) Req'd \$6.90 Ea.

LYCOMING PARTS TO CONVERT 0-235 WITH SPIN-ON OIL FILTER TO OIL SCREEN

Oil Pressure Screen Housing P/N 68974\$252.95
Oil ScreenP/N 62817.....\$77.75
Oil Screen Housing Gasket P/N 61173\$1.05

FOR OIL COOLER INSTALLATION ADD:

SpringP/N 69436.....\$25.00
PlungerP/N 62415.....\$24.70
Gasket.....P/N AN900-10.....\$0.46
Cont. Oil Screen..P/N 08-01544.....\$176.95

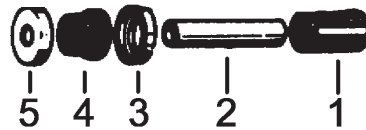
OIL COOLER PARTS SHOWN ABOVE NOT USED WITH THERMAL VALVE ASS'Y

GENERATOR ATTACHING PARTS FOR CONT. C85, C90 & 0-200



REF.	P/N	ITEM	PRICE
#2	352068	Oil Seal	\$6.60
#3	530406	Hub Coupling	\$198.95
#4	352030	Retainer	\$16.80
#5	626543	Bushing	\$4.45 ea
#6	530407	Sleeve	\$65.75
#7	531325	Gear	\$289.95
#8	530412	Slotted Nut	\$22.20
#9	35019	Gen. Gasket	\$5.20
#10	352179	Starter Gskt	\$4.95

ENGINE MOUNTING PARTS FOR CONT. C-90-14F & 0-200 ONLY



REF.	P/N	ITEM	QTY.	PRICE EACH
#1	628555-16	Hose	(4)	\$6.20
#2	530627	Spacer	(4)	\$19.50
#3	530626	Seat	(8)	\$12.95
#4	530740	Bushing	(8)	\$12.40
#5	530741	Washer	(8)	\$4.50
	AN6-55	Bolt	(4)	\$8.00
	AN310-6	Nut	(4)	\$0.77
	MS24665-283	Pin	(4)	\$0.04

ALTERNATOR & GENERATOR BELTS

Lycoming 37A19773-376 (Alt.)\$34.90
Lycoming 37B19774-374 (Gen.)\$39.30
Lycoming 37B19774-325 (Gen.)\$33.90
Continental 539547-31.19\$19.90

J3 CUB ENGINE EYEBROWS

J3 Cub engine eyebrows are made of 3003H14 aluminum and finished complete with steel mounting brackets & mounting bolts. Each set of engine eyebrows is made by hand and are highest quality. Available for Continental engines A-65 through O-200. Finished as a set of 2.
A-65 engine eyebrows P/N 08-01307 . . . \$414.95
C-85 to O-200 engine eyebrows P/N 08-01308 . . . \$391.95



ENGINE PARTS

CONTINENTAL ENGINE PARTS

C-85	Price Each	Price Each	
639640 Bearing set, rod (2 req.)	\$12.50	643967 Ex. nut	\$1.89
21477 Cyl base seal	\$0.65	SA643873 Exhaust Valve	\$133.95
530917 Crankshaft seal taper	\$33.90	653191 Gasket, rocker, angle	\$6.80
SA402151 Ex. stud	\$3.50	SSR628260 Gasket, no-blow	\$6.50
22022 Ex. nut	\$0.86	SSR536413 Gasket, intake	\$0.44
646612 Exhaust Valve	\$140.95	646546-A1 Gasket set, moh	\$117.95
653728 Gasket, rocker	\$3.90	642917-1 Intake hose	\$18.80
632837 Gasket, no-blow	\$1.90	646263 Piston	\$87.00
22250 Gasket, intake	\$1.15	539467 Piston pin	\$47.70
646539-A1 Gasket set, moh	\$83.75	SA534610 Push rod packing	\$0.77
21185 Intake hose	\$1.29	649226 Ring set, steel barrel	\$104.95
641792 Intake Valve (30 degree)	\$47.10	649226CP Ring set, chrm barrel	\$64.50
530019 Nose seal, flange sft	\$29.90	SSR539740 Rocker shaft	\$14.20
530830 Piston pin	\$48.70	637837 Spring, valve, outer	\$4.85
539840 Push rod packing	\$1.28	631521 Springs, valve, inner	\$3.20
649632-A1 Ring set, steel barrel	\$27.30		
		IO-470 ANGLE HEAD	
O-200		SSR532200 Cyl base seal	\$2.90
627246-A1 Bearing set, main		PA641250 Crankshaft seal	\$33.50
639640 Bearing set, rod (2 req.)	\$12.50	SA402151 Ex. stud	\$3.50
653851 Camshaft followr,tappet	\$139.45	21247 Ex. nut	\$3.85
21477 Cyl base seal	\$0.65	643967 Ex. nut	\$1.89
530019 Crankshaft seal	\$29.90	SA643873 Exhaust Valve	\$133.95
SA402151 Ex. stud	\$3.50	653191 Gasket, rocker, angle head	\$6.80
22022 Ex. nut	\$0.86	628260 Gasket, no-blow	\$6.50
646612 Exhaust Valve	\$140.95	SSR536413 Gasket, intake	\$0.44
530162 Gasket, rocker	\$3.90	646546-A1 Gasket set, moh	\$117.95
627429 Gasket, no-blow	\$8.95	642917-1 Intake hose	\$18.80
22250 Gasket, intake	\$1.15	646283 Intake Valve	\$72.50
646539-A1 Gasket set, moh	\$83.75	539467 Piston pin	\$47.70
22800 Intake hose	\$1.95	SA534610 Push rod packing	\$0.77
641792 Intake Valve (30°)	\$47.10	SSR539740 Rocker shaft	\$14.20
530019 Nose seal, flange sft	\$29.90		
646255 Piston	\$69.50	IO-520 TSIO-520	
530830 Piston pin	\$48.70	630826 Bearing set, rod	\$9.95
539840 Push rod packing	\$1.28	653888 Camshaft follower tappet	\$90.75
649632-A1 Ring set, steel barrel	\$27.30	SSR641066 Cyl base seal	\$5.70
653394 Ring set, chrm barrel	\$17.70	PA641250 Crankshaft seal	\$33.50
		SSR401893 Ex. stud	\$2.95
O-300		SSR638125 Ex. stud, rosan	\$6.20
639640 Bearing set, rod (2 req.)	\$12.50	21247 Ex. nut	\$3.85
653851 Camshaft follower tappet	\$139.45	643967 Ex. nut	\$1.89
21477 Cyl base seal	\$0.65	SA643873 Exhaust Valve	\$133.95
530917 Crankshaft seal	\$33.90	653191 Gasket, rocker	\$6.80
SA402151 Ex. stud	\$3.50	SSR628260 Gasket, no-blow	\$6.50
22022 Ex. nut	\$0.86	SSR536413 Gasket, intake	\$0.44
646612 Exhaust Valve	\$140.95	642917-1 Intake hose	\$18.80
530162 Gasket, rocker	\$3.90	646283 Intake Valve	\$72.50
627429 Gasket, no-blow	\$8.95	654850 Piston IO-520	\$164.95
22250 Gasket, intake	\$1.15	630046 Piston pin	\$41.40
6465417-A1 Gasket set, moh	\$116.95	SA534610 Push rod packing	\$0.77
21185 Intake hose	\$1.29	652148 Ring set, steel cyl IO-520	\$109.70
641792 Intake Valve (30°)	\$47.10		
530019 Nose seal, flange sft	\$29.90	CONTINENTAL ENGINE BELTS	
646255 Piston	\$69.50	539547-30.00	\$19.30
530830 Piston pin	\$48.70	539547-31.19	\$19.90
539840 Push rod packing	\$1.28	539547-32.00	\$25.90
649632-A1 Ring set, steel barrel	\$27.30	539547-35.00	\$31.20
24051 Valve Springs inner	\$6.40	642759	\$29.85
625958 Springs outer	\$5.30	37A19973-376 (76026)	\$34.90
		37A19973-382 (74519)	\$32.20
O-470 ANGLE HEAD		37B19774-325 (60886)	\$33.90
653888 Camshaft follower tappet	\$90.75	37B19774-341 (71579)	\$36.60
SSR532200 Cyl base seal	\$2.90		
PA641250 Crankshaft seal	\$33.50	CONTINENTAL CYLINDERS	
SSR401893 Ex. stud	\$2.95	O200 new assy 654377A10	\$949.00
21247 Ex. nut	\$3.85		

LYCOMING ENGINE PARTS

O-235 L,N SERIES	Price Each	O-320	Price Each
69373 Bearing, rod, 8 req.	\$16.20	71973 Gasket, intake	\$0.81
71105 Camshaft follower tappet	\$86.75	SSRSTD-1196 Intake hose 1-1/2	\$3.60
SSR62869 Cyl base seal	\$4.45	69603 Intake hose 1-3/4	\$5.50
STD-2180 Cyl drain hose	\$3.40	73938 Intake Valve	\$74.75
LW-11997 Crankshaft seal	\$32.40	75089 Piston, high compression	\$101.95
SSR31C-12 Ex. stud	\$3.10	75413 Piston, low compression	\$127.50
STD-1410 Ex. nut	\$1.64	SSRLW-13444 Piston pin	\$59.25
41271 Fuel pump, mechanical	\$177.50	SSRLW-18661 Push rod packing	\$2.50
75906 Gasket, rocker	\$1.95	74241 Ring, compression steel cyl	\$31.20
77611 Gasket, no-blow	\$5.95	SSR73857 Ring, oil ctk steel cyl	\$18.30
71973 Gasket, intake	\$0.81		
SSR61499-1 Gasket set, moh	\$180.95	O,IO-360	
SSRSTD-1196 Intake hose 1-1/2	\$3.60	SSA72877 Camshaft follower	\$97.00
LW11901 Intake Valve	\$74.75	SSR71481 Cyl base seal	\$2.65
SSRLW-13445 Piston pin	\$58.00	LW-11997 Crankshaft seal	\$32.40
68028 Piston pin plug	\$8.60	SSR31C-12 Ex. stud	\$3.10
SSRLW-18661 Push rod packing	\$2.50	STD-1410 Ex. nut	\$1.64
LW-11800 Spring, valve outer	\$21.00	LW-19001 Exhaust Valve	\$230.95
		LW15473 Fuel pump, mech.	\$254.95
O-290		75906 Gasket, rocker	\$1.95
69373 Bearing set, rod	\$16.20	77611 Gasket, no-blow	\$5.95
SSR72877 Camshaft follower	\$69.95	71973 Gasket, intake	\$0.81
SSR71481 Cyl base seal	\$2.65	SSR75439-1 Gasket set, moh	\$198.95
SSR31C-12 Ex. stud	\$3.10	69603 Intake hose 1-3/4	\$5.50
STD-1410 Ex. nut	\$1.64	75089 Piston, high compression	\$101.95
41271 Fuel pump, mechanical	\$177.50	SSRLW-18661 Push rod packing	\$2.50
75906 Gasket, rocker	\$1.95	74241 Ring, comp steel cyl	\$31.20
77611 Gasket, no-blow	\$5.95	SSR73857 Ring, oil ctk steel cyl	\$18.30
71973 Gasket, intake	\$0.81	LW11795 Springs, Valve, Inner	\$13.30
SSR69371-1 Gasket set, moh	\$205.95	LW-11800 Springs, Valve, Outer	\$21.00
SSRSTD-1196 Intake hose 1-1/2	\$3.60		
Intake Valve 73938	\$74.75	O,IO-540	
69841 Piston	\$243.95	SSR72877 Camshaft follower	\$69.95
SSRLW-18661 Push rod packing	\$2.50	SSR71481 Cyl base seal	\$2.65
62916 Ring, compression steel cyl	\$91.25	13792 Crankshaft seal	\$11.80
69401 Ring, oil control steel cyl	\$76.50	SSR31C-12 Ex. stud	\$3.10
LW11795 Spring, Valve, inner	\$13.30	STD-1410 Ex. nut	\$1.64
LW-11800 Springs, Valve, outer	\$21.00	LW15473 Fuel pump, mech.	\$254.95
69373 Bearing, rod	\$16.20	75906 Gasket, rocker, most	\$1.99
SSR72877 Camshaft follower	\$69.95	77611 Gasket, no-blow	\$5.95
SSR71481 Cyl base seal	\$2.65	71973 Gasket, intake	\$0.81
LW-11997 Crankshaft seal	\$32.40	SSR71569-1 Gasket set, moh	\$283.95
SSR31C-12 Ex. stud	\$3.10	69603 Intake hose 1-3/4	\$5.50
STD-1410 Ex. nut	\$1.64	73938 Intake Valve	\$74.75
LW-19001 Exhaust Valve	\$230.95	75089 Piston	\$101.95
		60828 Piston pin plugs	\$7.60
LYCOMING CYLINDERS		SSR70310 Push rod packing	\$0.72
O-235C,E,H chrome stud	\$1,522.00	74241 Ring, comp steel cyl	\$31.20
LW15318 O320H new ass'y	\$1,522.00	SSR73857 Ring, oil ctk, steel cyl	\$18.30
LW12427 O-360 new ass'y	\$1,267.00	LW11795 Spring, Valve, inner	\$13.30
LW12988 O540/HIO360 new ass'y	\$1,683.00	LW-11800 Springs Valve, outer	\$21.00

OIL COOLER GASKET SETS

Our P/N	Continental P/N	Price	Our P/N	Continental P/N	Price	Our P/N	Continental P/N	Price
08-00951	631059/630849	\$13.35	08-00956	626342	\$13.35	08-00961	632372	\$16.95
08-00952	537282	\$16.95	08-00957	654554	\$27.15	08-00962	632372	\$16.95
08-00953	654555	\$18.59	08-00958	626342	\$13.35	08-00963	629116	\$34.29
08-00954	626342	\$13.35	08-00959	654554	\$27.15	08-00964	629116	\$28.59
08-00955	654554	\$27.15	08-00960	631059/630849	\$15.95			

CHALLENGER AIR FILTERS



CHALLENGER AVIATION HIGH-FLOW AIR FILTER w/ K&N FILTER MEDIA

Features & Benefits of Prime air filters: • 40% - 50% better airflow • Can be washed and serviced up to 25 times • Increase horse power 2%-4% • Save money and improve engine efficiency • FAA-PMA approved • Properly serviced, can be used to TBO of an engine • Ecologically sound • Better takeoff and climb-out performance • Fire retardant • Faster airspeed and/or better fuel consumption • Have been used on high performance vehicles for 40yrs • Accordion fold design provides up to 5 times the filtering surface of non-pleated designs.

Challenger P/N	Our P/N	Application	Installation	Price
CPE-1957	08-00719	Aero Commander: A-9, A9A, A9B	Brackett BA-104, FRAM CA-161PL	\$134.95
CP-1150	08-00843	Aeronca: S65,S65CA,7AC,7ACA,7BCM(L-16A)ARMY, 7CCM (6-16B) ARMY, 7DC,7EC,7FC,7JC,7ECA,7GCAA 7GCBC,7KC,7KCAB,S7AC,S7CCM,S7DC,S7EC	Brackett BA-4106	\$142.95
CPE-1957	08-00719	Aeronca: 7GC, 7GCA, 7HC, 7GCB, 7GCB, 7KC	Donaldson P10-4145,FramCA161PL	\$134.95
CP-2004	08-01024	Beech Baron: 95-C55,95-C55A,S/N TE-1 thru TE-451, Except TE-50,D55,D55A,S/N TE-452 thru TE-492, E55, E55A,S/N TE-768 thru TE-1079, 58 S/N TH1-TH740	Donaldson P12-7996 Brackett BA-6210-1 Air Maze 121128-2	\$139.95
CP-2003	08-00816	Beech Bonanza/Debonaire: 35,35A,B35 S/N D2606 & up, CBG35,35-33,35A-33,35-B33,35-C33,H35,J35,K35,M35,N35,P35, V35,V35A,V35B,S35,after S/N D7672, E33 all 225HP,E33A,F33 F33A,F33C,G33,36,A36,A36TC,B36TC,T-34 w/STC SA1450SW	Beech 35-380035-3-5-7 Donaldson P10-5304, P10-137627 Brackett BA-7110, BA-7210, BA-7410	\$135.95
CPE-1957	08-00719	Beech Musketeer: A23A, A23, A23-24, B23, 23	Brackett BA-104, Beech 169-3	\$134.95
CPE-1957	08-00719	Britten Norman (Islander): BN-2,BN-2A-21,BN-2A,BN-2A-6 BN-2A-27, BN-2B-20, BN-2A, 8BN-2A-20, BN-2B-21, BN-2A-2, BN-2A-3, BN-2A-9, BN-2B-26, BN-2B-27	Fram CA161PL Brackett BA-104	\$134.95
CP-1150	08-00843	Cessna: 120,140,150,150A-H,J,K,L,M, A150L, A150K A150M, 152, A152	Brackett BA-4106, Donaldson P10-7150 Cessna C294510-0201	\$142.95
CP-1172	08-00902	Cessna: 170,170A, 170B,172,172A-G, I, K, L, M, N, P, Q	Cessna C294510-0301,Donaldson P10-7172, Brackett BA-5110	\$139.95
CPE-1173	08-00894	Cessna: 172R, S	Donaldson P198281, Fram 3559	\$134.55
CP-1177	08-01220	Cessna: 177, 177A, 177B, 177RG	Brackett BA-5710, Donaldson P11-0172	\$192.95
CP-1182	08-00870	Cessna: 180 (exception 1953-1955 models),180A-H,182J-N, 182P-R, 182S S/N 18280945 & up, T182 S/N18208001 & up, 185, 185A-E, A185E, A185F	Brackett BA-8110 Cessna 0750038-1-4 Donaldson P10-6150	\$136.95
CPE-1202	08-00903	Cessna: 182S, S/N's 1828001 thru 18280944	Donaldson P19-8290, Fram CA3717	\$99.95
CPE-1178	08-01221	Cirrus: SR-20, SR-22	Brackett BA-111	\$188.95
CPE-1957	08-00719	Lavia S.A.: PA25,PA25-235,PA25-260 (prior to S/N1477)	Brackett BA-104, Fram CA161PL	\$134.95
CP-1150	08-00843	Luscombe: 8, 8A thru F, T-8F	Brackett BA-4106	\$142.95
CP-1172	08-00902	Maule:M-4,M-4C,M-4S,M-4-220,M-4-220C,M-4-220S,M-5-180C, MX-7-180,M-5-210C,M-5-235C,M-5-210TC,M-6-180,M-6-235,M-7-235	Brackett BA-6110, P12-6491	\$139.95
CP-1150	08-00843	Mooney: M10	Brackett BA-4106, P12-0494	\$142.95
CP-1172	08-00902	Mooney: M20, M20A, M20B, M20C, M20D, M20G	Brackett BA-6110, P12-6491,Fram13219	\$139.95
CP-1176	08-01031	Mooney: M20E, F	Brackett BA-6310, P10-4065	\$147.95
CP-1174	08-00896	Mooney: M20J (201)	Brackett BA-6210	\$188.95
CP-1175	08-01020	Mooney: M20K, S/N 25-1000 & up	Donaldson P13-6287	\$198.95
CPE-1179	08-01263	Mooney: M20M, M20R, M20S	Mooney 600417-503,AM Edd4028, P524257	\$183.50
CPE-1151	08-01032	Piper: PA-18 S/N18-6964 & up O-230	Piper454-118,FramCA122PL,BrackettBA-112	\$178.95
CPE-1040	08-00717	Piper: PA28R-180,PA28R-200,PA28R-200T,PA28R-201 PA28RT-201,PA30,PA-34-200,PA39,PA44-180,PA44-180T	Brackett BA-105, Fram CA-144PL Piper 460-630	\$185.50
CPE-1957	08-00719	Piper: PA23-235A,PA-23-235B,PA23-250B,PA-24 S/N1479 & up,PA24-180 S/N1477&up,PA24-250 S/N1477&up,PA24-260 prior to S/N 4177, PA25-150,PA25-235,PA25-260 prior to S/N1477,PA28-140,PA28-150, PA28-160,PA28-180,PA28-181,PA28-235,*PA32-260, *PA32-300 S/N 32-7640001 & up,*PA32R-300,*PA32RT-300,*PA32RT-300T, *PA32R-301,*PA34-200T,*PA34-220T,*PA36 w/Cont. (*Cover Plate CPE-0528 is required when replacing Brackett Filter.)	Brackett BA-104 Fram CA-161PL Piper 460-632 Puro AFP-2 AC-6485710	\$134.95
CP-1150	08-00843	Piper:J3,J3C-65,J3C-65S,J5A,J5A-80,PA-11,PA-11S,PA-12,PA-12S PA-16,17,18, PA-18A, PA-18S, PA-18-105, PA-20-115, PA-20-135, PA-22-108, PA-22-135, PA-22-150, PA-22-160, PA-38-112	Brackett BA-104 Piper 460-638	\$142.95
CPE-1956	08-01033	Piper: PA28-151, 161	Brackett BA-104	\$183.70
CP-1150	08-00843	Reims/(Cessna): F150G ,F150H, F150J, F150K, F150L, F150M, FA150K, FA150L, F152, FA15	Brackett BA-4106, C294510-0201 Donaldson P10-7150	\$142.95
CP-1172	08-00902	Reims/(Cessna): F172D,E, F172G,H, F172K,L,M, F172S	BrackettBA-5110,C294510-0301,P10-7150	\$139.95
CPE-1220	08-00720	Robinson: R-44	Robinson C771-1	\$130.95
CPE-1104	08-01021	Robinson: R-22	Robinson A771-1,Brackett BA-110	\$185.55
CP-1150	08-00843	Socata, S.A. (Grumman): Cougar GA-7	Brackett B-120,FramCA146PL,A-134C	\$142.95
CP-1150	08-00843	Taylorcraft: BF65, BF12-65, BFS65	Brackett BA-4106	\$142.95
CP-1150	08-00843	Tiger Aircraft/Gulfstream American: AA-1,AA-1A,AA-1B,C	Brackett BA-4210, AMS13202	\$142.95
CP-1958	08-01022	Tiger Aircraft/Gulfstream Amer.: TIGER AA-5B	Brackett BA-12, Fram CA-146PL	\$184.90
CP-1150	08-00843	Univair: A-2, A2A (Forney) F-1, F-1A	Brackett BA-4106	\$142.95
CP-1150	08-00843	Globe/Swift: Swift GC-1A, GC-1B	Brackett BA-4106	\$142.95

NOTE: P/N CPE-1957, CPE-1040, CPE-1104, CPE-1151, CPE-1173, CPE-1202, CPE-1220, CPE-1956, CP-1175, CP-1958, CPE-1179, Require P/N CP-99-0704 sealing grease at install and must be purchased with filter. P/N 08-00723\$8.75 Recharge KitP/N 08-00722\$13.60



BRACKETT AIR FILTERS

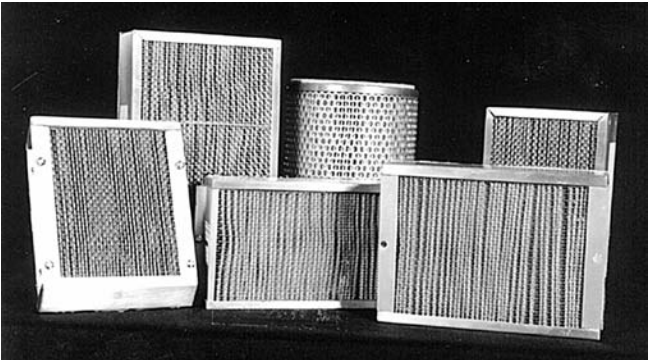


The specially treated polyurethane element in the Brackett filter assures near total protection from any foreign material entering the system. Repels water, fire retardant and has good air flow for proper fuel/air ratio. Has no pleats to collect dirt. Low-cost maintenance with increased engine life. FAA approved. Replace original air filter unit with a Brackett assembly. Thereafter, throw away element and replace with new one at minimal cost.

Aircraft Model	Air Filter Assy P/N	Assy Price	Element Part No.	Element Price	Aircraft Model	Air Filter Assy P/N	Assy Price	Element Part No.	Element Price
Aero Commander: A9, A9A, A9B	BA-104	\$23.10	BA-3	\$11.95	Champion cont.				
100-100A	N/A	N/A	BA-8905	\$8.50	7ECAw/Cont.0-200-A,7ACA,7ECA,7FC,65CA	BA-4106	\$46.60	BA-4108	\$6.95
100-180,112,112A,112B	BA-3910	\$57.75	BA-3905	\$11.35	DeHavilland: DHC-2 (L-20)	BA-8210-	\$78.50	BA-8205	\$23.50
112TC,112TC-A,114,114A	BA-4010	\$56.00	BA-4005	\$7.95	Great Lakes: 2T1A-2	BA-101	\$66.50	BA-8	\$9.40
500A-B,560F,680F,FL,FLP,500U	N/A	N/A	BA-151E	\$14.60	Helio: H295	N/A	N/A	BA-21	\$20.75
560, 560A, 560E, 680	N/A	N/A	BA-2605L&R	\$17.60	Hiller: UH-12, UH-12-E	BA-102	\$23.80	BA-2	\$14.60
Aircoupe: 415C, CD, D, E, G	N/A	N/A	BA-8805	\$7.35	Grumman American				
F-1, A-1, A2-2	BA-4106	\$46.60	BA-4108	\$6.95	AA-1,AA-1A,AA-1B,AA-5,AA-1C,AA-5	BA-4210	\$44.80	BA-4108	\$6.95
Beech: 23, A23, A23A, A23-19	BA-104	\$23.10	BA-3	\$11.95	AA-5B-Tiger, GA-7, G164B	BA-120	\$21.00	BA-20	\$13.65
A23-19A, A-23-24, B23	BA-104	\$23.10	BA-3	\$11.95	AgCat, G164, G164A	BA-8210	\$83.25	BA-8205	\$23.50
C-23, C24R, A24R, B24R, B19	BA-7510	\$59.75	BA-7305	\$8.95	AA5A	N/A	N/A	BA-19	\$10.65
33, A33, B33, C33, E33, F33	BA-7110	\$58.50	BA-7112	\$11.50	Hughes: 269A,269A-1,269B-C	BA-102	\$23.80	BA-2	\$14.60
C33A,E33A,E33,F33A,F33C,G33	BA-7210	\$58.00	BA-7112	\$11.50	Lake: LA4, LA4-200	BA-3110	\$51.55	BA-7305	\$8.95
35, A35, B35 thru S/N2605	BA-7310	\$49.95	BA-7305	\$8.95	Luscombe: 8, 8A thru 8F, T8F	BA-4106	\$46.60	BA-4108	\$6.95
B35,C35,D35,E35,F35,G35,H35,J35	BA-7110	\$58.50	BA-7112	\$11.50	Maule: M-4-210T, M-5-210C	BA-111	\$62.00	BA-24	\$14.25
K35, M35, N35, P35, 35R	BA-7110	\$58.50	BA-7112	\$11.50	M-4-210,M-4-210C,M-4-210-S	BA-111	\$62.00	BA-24	\$14.25
S35 thru S/N D7671	BA-7410	\$59.25	BA-7112	\$11.50	MA-4, M-4C, M-4S, M-4T	BA-6110	\$58.00	BA-6108	\$7.65
S35, V35, V35A, V35B,36,A36	BA-7210	\$58.00	BA-7112	\$11.50	M-4-220, M-4-220C, M-4-220S	BA-6110	\$58.00	BA-6108	\$7.65
A36TC, B36TC, A45(T-34)	BA-7210	\$58.00	BA-7112	\$11.50	M-4-220T, M-4-180C, M-4-180S	BA-6110	\$58.00	BA-6108	\$7.65
B45(T-34A), D45(T-34B)	BA-7210	\$58.00	BA-7112	\$11.50	M-4-180T, M-5-220C, M-5-235C	BA-6110	\$58.00	BA-6108	\$7.65
W/STC SA1450 SW Cont.IO-520	BA-7210	\$58.00	BA-7112	\$11.50	M-5-180C, M-5-210C, M-6-180	BA-6110	\$58.00	BA-6108	\$7.65
50,B50,C50,D50,D50A,D50B,D50C,D50E	N/A	N/A	BA-4805	\$14.65	M-6-235, MX7-180, M-7-235	BA-6110	\$58.00	BA-6108	\$7.65
E50 (L-23D, RL-23D),F50	BA-100	\$78.00	BA-7	\$15.70	Mooney: M-10	BA-4106	\$46.60	BA-4108	\$6.95
55, A55, B55	BA-7610	\$56.50	BA-7605	\$11.95	M-18C	BA-5110	\$39.95	BA-4108	\$6.95
G50, H50, J50	BA-100	\$78.00	BA-7	\$15.70	M20, M20A, B, C, D, G	BA-6110	\$58.00	BA-6108	\$7.65
C55, D55, E55, 355	BA-6210-1	\$49.95	BA-6205	\$10.90	M20E, F	BA-6310	\$48.50	BA-6305	\$14.65
S/N TE768-1078 58 thru S/N TH 740	BA-6210-1	\$49.95	BA-6205	\$10.90	M20J	BA-6210	\$54.50	BA-6205	\$10.90
E55, 355A, SN TE-1079 & up	BA-7710	\$54.50	BA-7705	\$13.95	Navion A	BA-113	\$32.20	BA-25	\$12.95
58, 58A, SN TH741 & up	BA-7710	\$54.50	BA-7705	\$13.95	B, G, H	N/A	N/A	BA-4305	\$8.95
A65, 70, 65-B80, B88	BA-100	\$78.00	BA-7	\$15.70	Piper: 600, 601	N/A	N/A	BA-4	\$26.95
76	BA-7010	\$49.95	BA-7005	\$10.10	J-3,J-4,J5,PA-11,11S,12,12S,16,17	BA-4106	\$46.60	BA-4108	\$6.95
77	N/A	N/A	BA-6108	\$7.65	PA-18,19,20,115,135,PA-22-ALL	BA-4106	\$46.60	BA-4108	\$6.95
95, B95, B95A, D95A	BA-7810	\$54.95	BA-7805	\$13.75	PA-18-"150",18A-"150",18S-"150",18S-"150"	BA-112	\$47.50	BA-13	\$19.35
Bell:					SN18-6964 & up w/TCDS Item 110 Installed	BA-112	\$47.50	BA-13	\$19.35
47G-2,47G2A,47G2A-1,47G-3,47G-3B	BA-102	\$23.80	BA-2	\$14.60	PA-23,160,24-180 up to SN1476	BA-3110A	\$48.50	BA-7305	\$8.95
47G-3B-1,47G-3B-2,47G-3B-2A,47J,47J-2	BA-102	\$23.80	BA-2	\$14.60	M-4-220 up to SN 1476	BA-3210	\$55.95	BA-3205	\$11.90
47J-2A,47G-3B,47G-3B,47G-3B-1	BA-102	\$23.80	BA-2	\$14.60	PA-23-235, 250, PA-25-235, 260	BA-104	\$23.10	BA-3	\$11.95
47G-3B-2,47G-4,47G-4A,47G-5,47J-2,47J-2A	BA-103	\$39.50	BA-9	\$16.95	PA-28-140, 150, 160, 180, 235	BA-104	\$23.10	BA-3	\$11.95
Bellanca: 14-19-3A, 17-30	BA-8110	\$63.75	BA-8103-1	\$13.95	PA-28-181, 201T, PA-28R-201T	BA-104	\$23.10	BA-3	\$11.95
17-30A	BA-104	\$23.10	BA-3	\$9.95	PA-28RT-201T, PA-32-260,	BA-104	\$23.10	BA-3	\$11.95
Brantly: B-2, B-2B	BA-104	\$23.10	BA-3	\$11.95	PA-23-250,E23-250,SN27 2505 &up	BA-115	\$33.10	BA-15	\$13.65
Cessna: 340,340A,402C,414,414A	BA-109	\$49.70	BA-22	\$17.85	PA-23-250, E23-250, w/Turbo Lyc.	N/A	N/A	BA-3505	\$16.95
402B,SN0801 & after,421,T310R	BA-108	\$52.25	BA-13	\$19.35	PA-23-250 w/Air Research Turbo	N/A	N/A	BA-8605	\$12.00
421A, 421B, 421C, T310R	BA-108	\$52.25	BA-13	\$19.35	PA-24-180 & PA-24-250 SN1477 &up	BA-104	\$23.10	BA-3	\$11.95
337,337A-H,R172K,F337E-H,336,T41B-D	BA-111	\$62.00	BA-24	\$14.25	PA-24-25 SN103-1476 w/Piper Kit 754-285 Install	BA-104	\$23.10	BA-3	\$11.95
P337, T337 Rear Engine,172RG	BA-5810	\$62.43	BA-5805	\$12.40	PA-24-260 SN4000-4802 except 24-4783	BA-104	\$23.10	BA-3	\$11.95
R182, TR182, T-182, FR182	BA-2510	\$59.85	BA-2505	\$15.95	PA-32-300 SN76-40001&up	BA-104	\$23.10	BA-3	\$11.95
190, 195, 195A, 195B	BA-8410	\$75.00	BA-8405	\$22.10	PA-32R-300,PA-32RT-300,PA-32R-301	BA-104	\$23.10	BA-3	\$11.95
120,140,140A,150,150A-M,152,152A	BA-4106	\$46.60	BA-4108	\$6.95	PA-34-200T, 220T	BA-104	\$23.10	BA-3	\$11.95
170, 170A-M,172, 172A-M	BA-5110	\$52.50	BA-6108	\$7.65	PA-28R,201,PA-28RT-201,PA-28R	BA-105	\$27.50	BA-10	\$14.95
172N, 172P, F172N, F172P	BA-5110A	\$51.00	BA-6108	\$7.65	PA-28R-180,PA-28R-200,PA-44-180	BA-105	\$27.50	BA-10	\$14.95
175, 175A-C, L-19	BA-101	\$66.50	BA-8	\$9.40	PA-38	BA-4106	\$46.60	BA-4108	\$6.95
177, 177A, B, RG, F177RG	BA-5710	\$66.00	BA-5705	\$8.95	PA-28-151,161	N/A	N/A	BA-16	\$7.90
180 ('53-'55)	BA-8010	\$49.95	BA-8005	\$8.40	PA-28-236 SN 28-7911283 & up	N/A	N/A	BA-2905	\$11.30
180A-K,182,182A-R,F182P,F182Q	BA-8110	\$63.75	BA-8103-1	\$13.95	PA30, with Ray Jay Turbo	N/A	N/A	BA-27	\$11.70
185,185A-E,A185E,A185F	BA-8110	\$63.75	BA-8103-1	\$13.95	PA31, PA-31-300, -310, -325,-350	BA-100	\$78.00	BA-7	\$15.70
188, 188A	BA-114	--	BA-14	\$14.95	PA-31P, 31P-350	N/A	N/A	BA-3305	\$13.30
205,205A,210,210A,B,C,310A,B,C,D	BA-2110	\$67.25	A-2305	-----	PA-32-300 w/I0-540-K1A5	BA-115	\$33.10	BA-15	\$13.65
P206A-E, U206A-G, 207, 207A	BA-2210L	\$68.50	BA-2205-L	\$15.95	PA-32RT-300T	BA-100	\$78.00	BA-7	\$15.70
210D-N (to SN 64535 w/o air)	BA-2210L	\$68.50	BA-2205-L	\$15.95	PA-32-301T, 32R-301T	N/A	N/A	BA-7	\$15.70
210D-N (to SN 64535 w/o air)	BA-2210R	\$62.60	BA-2205-R	\$15.60	PA-34-200w/LYCI0360C01ES or LI0-360-C1E6	BA-105	\$27.50	BA-10	\$14.95
210N(SN645436 & up w/air),210R,T210F-N	BA-2410	\$59.95	BA-2405	\$25.40	PA-44-180T	N/A	N/A	BA-23	\$16.95
310F thru L	BA-2310	\$76.75	BA-2305	\$13.95	Robinson: R22	BA-110	\$24.90	BA-23	\$15.95
F150GthruM,FA150K-L,F152,FA152	BA-4106	\$46.60	BA-4108	\$6.95	Stearman: All Series 75	BA-118	\$54.25	BA-18	\$24.95
R172K, FR172E-K	BA-111	\$62.00	BA-24	\$14.25	Stinson: 108, 108-1, -2, -3	N/A	N/A	BA-9105	\$8.80
TP206,TP206A-E,TU206A-G,T207,T207A	BA-2410	\$59.95	BA-2405	\$25.40	Swift: GC-1A, GC-1B	BA-4106	\$46.60	BA-4108	\$6.95
Champion: 7GC,7GCA,7GCBC,7HC	BA-104	\$23.10	BA-3	\$11.95	Taylorcraft	BA-4106	\$46.60	BA-4108	\$6.95
8KCAB,8GCBC,7KCAB,7GCBC,7GCAA	BA-8110	\$63.75	BA-8103-1	\$13.95	Varga: 2150A	BA-4106	\$46.60	BA-4108	\$6.95
7GCAA,7GCBC,7KCAB,8KCAB,7ECA	BA-106	\$25.40	BA-11	\$9.70					



AIR FILTERS



BEECH AIR FILTERS

Item	Our P/N	Beech Equivalent P/N	Aircraft Type	Our Price
1	08-00017	35-534470-19 P13-0374	Beech 33, 35	\$67.50
2	08-00018	P10-5304 35-534470-19	Beech 33, 35, 36	\$67.50
3	08-00019	P12-7996 (121128-2) TE946 thru TE1078 TH1 thru TH740	Beech 58	\$54.25
4	08-00020	P12-8219 (122601)	Beech 55	\$51.25
5	08-00021	P10-8700	Duke B60	\$54.25
5A	08-00022	P12-4439 (50-389070-23)	P Baron (58P)	\$54.25
6	08-00023	P12-8167 (96-389005-1) TE1079 & after TE741 & after	Beech E55 & 58 Late Model	\$61.75
7	08-00024	169-380035-7		\$56.25

CESSNA AIR FILTERS

Item	Our P/N	Cessna Equivalent P/N	Aircraft Type	Our Price
2	08-00000	C294510-0201	Cessna 150	\$51.50
3	08-00001	C294510-0301	Cessna 172	\$52.50
4	08-00002	C294510-0401	Cessna 172	\$57.95
4A	08-00003	C294510-0501	Cessna 172 RG Cutlass	\$57.00
5	08-00004	C294510-0601	Cessna 177	\$67.50
6	08-00005	C294510-0801	Cessna P210	\$72.25
7	08-00006	C294510-0901	Cessna 182RG	\$65.50
8	08-00007	0750038-4	Cessna 182	\$73.00
9	08-00008	1250704-3 (Port)	Cessna 206	\$107.95
	08-00009	1250704-4 (Stb)	& 207	
10	08-00010	1250846-1	Cessna T206 & T210	\$81.50
11	08-00011	C294510-0501	Cessna 337	\$61.25
12	08-00012	9910018-1	Cessna 300 Series	\$67.50
13	08-00013	9910018-2	Cessna 400	\$68.75
14	08-00014	9910200-1	Cessna 310-340	\$67.50
15	08-00015	9910141-1	Cessna 414 Series	\$77.50
16	08-00016	9913001-1 (108)	Cessna 402 Late Model	\$75.25

SPORT CLASS AVIATION — HIGH FLOW OIL FILTER BY CHALLENGER AVIATION

These new high flow model HF-CX Sport Class Aviation oil filters have been designed to meet the special demands placed for engines used on non-certified sporting aviation aircraft, power gliders, and kit models. Challenger's HF-CX flows up to 25% more oil than current oil filters. Challenger's sport class filter's incorporate the lasted oil filter glass enhanced filter media to trap dirt from 4 to 22 microns. Microglass enhanced media also provides the added benefit of higher levels of dirt holding without increase flow restriction.

CURRENT APPLICATION: HD-CXS oil filters, part number CP-9124, replaces Rotax part number 825701. Engine models 912 UL, 912A, 912F, 912ULS, 914UL, 914F. P/N 08-09124\$15.10

PLEATED PAPER AIR FILTERS

These pleated paper aircraft induction air filters are manufactured in South Africa and are fully approved by the South African Dept. of Transport, Division of Civil Aviation. Strict quality control standards are enforced at all stages of manufacture. The filters feature aluminum frames and cured EA131 pleated elements with 96% micron rating. Rubber gaskets are waterproof, oil solvent, and chemical resistant. Mesh overlays are of stainless steel for enhanced strength, durability, and appearance. Not FAA approved at this time.

MOONEY AIR FILTERS

Item	Our P/N	Mooney Equivalent P/N	Aircraft Type	Our Price
1	08-00025	125997-010	M20J	\$64.75
2	08-00026	125685-004	M20K	\$72.25

PIPER AIR FILTERS

Item	Our P/N	Piper Equivalent P/N	Aircraft Type	Our Price
1	08-00027	560-854 (P13-8602) 28-7911001 thru 28-7911282	Dakota PA28-236	\$65.95
2	08-00028	560-772	Tomahawk (PA38)	\$52.50
3	08-00029	124997-005	Navajo/Chieftain (PA31)	\$49.85
4	08-00030	13681-02	Tri-Pacer (PA22)	\$56.95
5	08-00031	560-947	Saratoga (PA32-301T)	\$102.95
6	08-00032	125196	Piper Turbo Aztec (PA23)	\$72.25
7	08-00033	CA161	PA28 & 32 Series (PA 36 Pawnee) (PA 34 Seneca)	\$61.75
8	08-00034	CA162	PA32 & PA23	\$61.75
9	08-00035	35477-00	PA28-161	\$52.25
10	08-00036	CA122	Super Cub (PA18)	\$55.00

EP

AIR FILTERS

ROTAX AIR FILTERS

Part No.	Engine/Carburetor	MFC P/N	Throat	Length	Dia.	Shape	Price
08-01273	Mikuni 32mm	RU0600	2-1/4"	3-1/2"	4"	Straight	\$25.95
07-00730	Mikuni 34mm	RU0800	2-7/16"	3-1/2"	4"	Straight	\$36.50
08-01274	Bing Single Carb. 36mm	RC1350	2-1/16"	3-1/4"	4"	Straight	\$41.70
08-01275	Bing Single or Dual Carb. 36mm	RC1200	2-1/16"	3-9/16"	4"	Tapered	\$29.95
05-01963	Rotax®447/ Bing Dual Carb. 32mm (2 req.)	RU2690	1-3/4"	3"	2-1/2"	Tapered	\$36.00
08-01276	Rotax® 503/Bing Dual carb. 36mm (1 filter covers both)	RU2790	3-1/2"	4-5/8"	4-1/2"	Tapered	\$26.50
08-01277	Rotax® 532/582 Bing Dual carb. 36mm (1 filter covers both)	RU2790	3-1/2"	4-5/8"	4-1/2"	Tapered	\$26.50
08-01278	Rotax® 503/532 Aerobatic carb.	RU2790	3-1/2"	4-5/8"	4-1/2"	Tapered	\$26.50
08-01279	Rotax® 912 Offset	RA045V	2"	5-7/8"	2"	Round Offset	\$34.40
08-01280	Rotax® 914 RD. Center	RU0810	2-7/16"	3-1/2"	5"	Round Centered	\$26.60



AIR-MAZE AIR FILTERS

Filter for Continental for A-65 thru C-125*P/N A40599\$67.25
 Filter for Lycoming O-235, O-290, some O-320 (advise aircraft application)P/N A40599\$67.25
 Aeronca 7AC, 11AC.....P/N 2-849\$68.75

*FOR NEW INSTALLATION - P/N 24306 & P/N 24308 ARE REQUIRED

K&N AIR FILTERS

Our K&N Filters are the industry standard in excellence. All filters are constructed with ultra-strong molded pliable rubber flanges which absorb vibration and provide secure attachment. These flanges can be stretched up to 1/8" (3mm) to fit in-between sizes. K&N Universal air filters are available in round, tapered, and oval designs, to fit just about any application. Use the dimensioned sketch and the selection chart to find the filter best suited to your application.

Part No.	Application	Throat	Length	Dia.	Style	Price
08-01053	Rotax®/Bing 36mm	2"	2"	5-3/8"	Round Straight	\$32.70
08-01273	Mikuni 32mm	2-1/4"	4"	3-1/2"	Round Straight	\$25.95
07-00730	Mikuni 34mm	2-1/2"	3-1/2"	4"	Round Straight	\$36.50
05-01953	Kawasaki/Mikuni 32mm	2-3/4"	3"	5"	Round Straight	\$36.70
05-01963	Rotax®/Bing 32mm	1-3/4"	3"	2-1/2"	Tapered	\$36.00
08-01274	Rotax®/Bing 36mm	2-1/16"	4"	3-1/4"	Round Straight	\$41.70
08-01275	Rotax®/Bing 36mm	2-1/16"	4"	3-1/2"	Tapered	\$29.95
05-04981	Mikuni 32mm	2-1/4"	4"	3-1/2"	Tapered	\$41.30
05-01961	Rotax® 532/582 Dual Carbs	2-1/16"	8-1/2"	3"	Dual Oval	\$48.00
08-04976	Rotax® 503 Dual Carbs	2-1/16"	8-1/2"	3"	Dual Oval	\$48.00
05-01958	Rotax®/Bing 36mm	2-1/16"	2-1/2"	3"	Round Straight	-----
05-01959	Rotax®/Bing 36mm	2-1/16"	3"	3"	Round Straight	\$44.80
05-01954	Rotax®/Bing 36mm	2-1/16"	3"	3-1/2"	Round Straight	\$45.60

K&N AIR FILTER CLEANER & DEGREASER



This is the only cleaner formulated to clean K&N Filtercharger elements. The use of any other cleaning solution will void the filter's warranty, and quite possibly could damage the cotton material. K&N Cleaner works to dissolve the dirt build-up and old filter oil, and can be washed away with water. It is biodegradable and safe on paint, chrome, cast aluminum, plastic, rubber, and vinyl when used as directed. Complete instructions on the bottle.

NOTE: Do not use on polished or anodized aluminum.
 12-fluid oz. squirt bottle.....P/N F99-0606.....\$8.50

VARIEZE / LONG EZ AIR INTAKE FILTER



NAPA #2904 air intake filter (equivalent to Purolator #AFP-177 & AC #44-8C)

P/N 2904\$12.40

K&N FILTERCHARGER OIL



K&N Air Filter Oil is the only oil specially formulated to work in combination with the cotton fabric in K&N Filtercharger elements, providing a superior air filtration system. When used as directed, it quickly penetrates the filter pleats, where it remains suspended in the cotton fabric. Saturation is maintained until the element is cleaned with K&N Air Filter Cleaner.

6.5 oz. aerosol can - red..P/N F99-0504.....\$7.60
 8 oz. squeeze bottle - red P/N F99-0533.....\$6.60

K&N SEALING GREASE



K&N Sealing Grease provides an airtight fit around sealing surfaces on all types of air filter elements. It resists heat and will not melt or run off. Not to be used on clamp-on filter elements.

8 oz. squeeze tube - black.....P/N F99-702.....\$7.60

EP

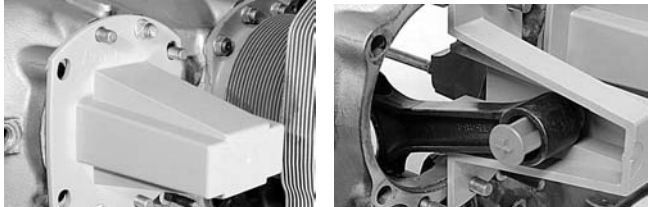
JANITROL HEATERS

RAJAY TURBOCHARGER UNITS



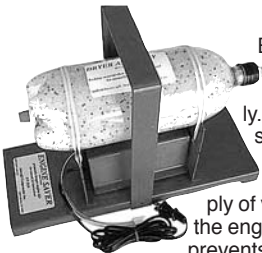
Call Aircraft Spruce for quotation on all Rayjay turbocharger units, controllers, scavenge pumps, and valves. STC's Rayjay Turbocharging kits are available for certified and experimental aircraft such as Mooney, Piper, Cessna, Beech, Lancair, and Vans. Kits include new exhaust system, turbocharger, scavenge pump, fuel pump, induction air box, and the hoses, valves, and fittings needed for installation.

TOPCAP ENGINE PROTECTOR



Install TopCap in place of a removed cylinder to protect the engine from dirt, debris, and stray parts. Made from fuel and solvent resistant polymer, TopCap allows for full crankshaft rotation. One size fits Lycoming wide deck 320, 360, 540, 720 and Continental 470, 520, and 550. P/N 08-00373 \$24.50 /pr.

ENGINE SAVER



Every aircraft owner knows that his engine is subject to moisture build up and internal rust formation when not flown regularly. Oil companies spend millions developing special additives to minimize rust. Now there is a better way to fight this rust! The Engine Saver produces a continuous supply of very low humidity air that is introduced into the engine through the breather. Low humidity air prevents water formation in the engine. The slight pressure built up keeps the moist outside air from entering, allowing the dry air to flow past the piston rings into the upper cylinder area protecting it as well. The Engine Saver is 110vac powered, requires no installation or FAA approval, and works with all piston engines. Pilots are flying less and the Engine Saver will save them money by reducing maintenance costs. P/N 08-00724.....\$279.95

HEATER KART HOSE KIT



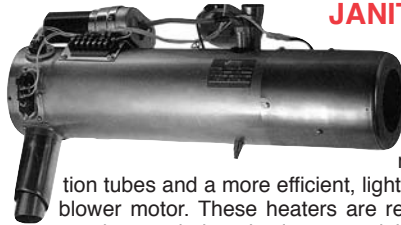
Great for maintenance, avionics and interior shops. Simply put the hose in the cabin and you have a heated workspace. Work on avionics in the winter without your fingers going numb. Work with interior upholstery and plastic trim without it getting cold & stiff. Features: • Pre-heat your engine • De-Ice your aircraft • Heat the cabin & cockpit P/N 13-03151\$119.95

AIRCRAFT HEATER KART



A powerful blower draws in the hot air from your kerosene heater and blasts it out at high pressure and velocity. The adjustable discharge nozzle allows you to aim the hot air up into your engine cowl from below. The hot air naturally flows up and around the engine. The blower moves so much air that a tight seal with the cowl is not needed. Just roll the heater into position, turn it on and do your pre-flight. Features: • Use your kerosene shop heater (55,000 max. recommended BTU) • Preheat your engine before starting • No need to bring your aircraft into a heated hangar to pre-heat • Quick & Easy to use • Does not touch your aircraft: no special fitting required, no bumps & scratches • Adjustable discharge nozzle to aim the hot air where you need it • Kart has 2 large pneumatic tires • FBOs can offer engine pre-heat and cabin pre-heat services • Use the blower alone in the summer for a cooling blast of air. P/N 13-03150\$307.95

JANITROL HEATERS



Our Janitrol heaters, rebuilt right at the factory by Janitrol Heater Products, a division of Kelly Aerospace feature new CermaKote combustion tubes and a more efficient, lightweight permanent magnet blower motor. These heaters are rebuilt to factory new tolerances and upgraded to the latest model configuration with a new serial number. These heaters are not affected by FAA AD Note 96-20-07. Three year, 1000 hour limited warranty, 1500 hour TBO.

JANITROL HEATER CERMAKOTE COMBUSTION TUBES

Janitrol Heater Products, division of Kelly Aerospace produces extended life "CermaKote" combustion tubes for individual sale. The "CermaKote" combustion tubes incorporate a special process to coat the areas susceptible to flame erosion. The FAA/TSO approved OEM combustion tube is engineered to provide years of safe operation through improved materials designed to better withstand the high temperatures and corrosive environment inside your heater. This product improvement will greatly decrease your routine heater maintenance cost and give you the added assurance that your heater is being maintained with the highest quality parts on the market today!

FACTORY NEW LYCOMING ENGINES FOR STARDUSTERS

Engine Model	Application	Weight	Part No.	Price*
O235-N2C	SA500	218	01-00491	\$18,864.00
O320-D1A	SA900,SA100	244	01-00494	\$21,874.00
O320-D1A	SA300,SA900,SA100	255	01-00495	\$27,163.00
O360-A1A	SA300, SA100	265	01-00496	\$23,154.00
O360-A1B6	SA300,SA101,SA750	265	01-00497	\$37,595.00
IO360-A1B6	SA300,SA101,SA750	265	01-00498	\$36,107.00
IO540-C4B5	SA300, SA750	375	01-00499	\$42,569.00
IO540-D4B5	SA300, SA750	381	01-00501	\$43,995.00

NEW LYCOMING ENGINES FOR ONE DESIGN/DR-109



As the exclusive distributor for One Design aerobatic aircraft kits, Aircraft Spruce is an authorized Lycoming factory distributor for the One Design/DR-109 engine. This engine is configured to exact specifications provided by Rihn Aircraft and is the only Lycoming model specifically recommended for use on the One Design/DR109 for optimum performance.

AEIO-360B1H Engine (for DR-107)	P/N 01-00165 ..	\$28,609.00
AEIO-360-A1E6 (for DR108/109)	P/N 01-02334 ..	\$32,278.00
AEIO-540-D4A5 (for DR108/109)	P/N 01-02400 ..	\$44,048.00
AEIO-540-L1B5 (for DR108/109)	P/N 01-02405 ..	\$51,038.00

NIGHTHAWK™ NH100-AIR



The NH1-Air allows you to activate and deactivate the power to your aircraft engine preheating system utilizing a proprietary technology that combines the convenience of paging with the reliability of microprocessor control. The 15 amp/120V AC power output located on the NH1-Air is remotely activated to turn aircraft engine blocks "on" or "off", from the convenience of home or office. This allows for the ultimate means of off-site control for preheating functions in advance of flight times. Valuable time is saved in the day prior to take-off for other priorities. The NH1-Air uses paging services to reliably activate virtually worldwide. No telephone line installation or cellular phone activation is required. Simply dial a preassigned "pager" number, type in a pre-assigned 4-digit access code and the NH1-Air remotely activates or deactivates the power to your engine block preheating system. The NH1-Air is the simple, reliable, and cost effective alternative for activating or deactivating remotely located aircraft engine pre-heaters. P/N 11-03304\$450.00



LUBRICANTS – GASKETS – DEGREASERS

REAL GASKET PUSHROD TUBE SEALS

These seals from Real Gasket Tennessee provide 37% more sealing area at the point of contact with the pushrod tube, and vector spring pressure by its beveled top and companion washer. FAA Approved for the Continental engines shown below.

Part No.	Application	Kit Price
RG-360PR	IO/TIO-360 complete engine*	\$62.50
RG-360PR-1	IO/TIO-360 single cylinder**	\$10.95
RG-520PR	O/IO-470, IO-520, IO-550A,B,C***	\$108.95
RG-520PR-1	As above except single cylinder	\$20.10
RG-550GPR	IO-550-G complete engine	\$68.75

*6 cylinder kit **1 cylinder kit ***3 cylinder kit

REAL GASKET PUSHROD TUBE CONVERSION KITS FOR CONTINENTALS

These kits from Real Gasket Tennessee replace problematic pushrod tubes of continental engine models: A-65, A-75, C-75/85/90/125/145, O-200, O-300 and GO-300. The installation does not require loosening or removal of the cylinder and converts it to an "independently serviceable" spring loaded pushrod tube system, similar to IO-470, IO-520, and IO-550 continental engines. It also allows access and service to the lifters. The kit is designed for easy installation and uses real gasket's FAA-PMA pushrod tube seals as used in the continental IO-470, IO-520 and IO-550 engines. For certified aircraft engines, form 337 is required.

1-cylinder kitP/N 08-00802\$78.75
 4-cylinder kitP/N 08-04444\$289.95
 6-cylinder kitP/N 08-44444\$435.95

REAL GASKET FRANKLIN ENG. PARTS

RG-17794-S/12.....Pushrod Tube Seal08-00779\$3.80
 RG-17864-S/12.....Pushrod Tube Seal08-00780\$41.20
 RG-10366Oil Pan Gasket08-00781\$31.20
 RG-17794-S/12.....Valve Cover Gasket08-00782\$10.75
 RG-17794-S/12.....Crankcase Cover Gasket 08-00783\$38.95
FAA Approved

PERMATEX HI-TEMPERATURE SEALANT

This quality sealant increases reliability of seals at high temperatures, cuts repair time, and reduces breakdowns. It seals flanges, threaded connections and fasteners in high temperature applications up to 600°F. Also seals steam lines and exhaust manifolds on industrial engines. Applies easily. 7 oz. tubeP/N 09-28425\$15.80



PERMATEX FORM-A-GASKET NO. 1

Seals and repairs a wide range of gaskets. Fills in uneven flanges surfaces. Seals pipe fittings, air ducts, boilers, plumbing connections and threaded assemblies. Dries fast, sets hard for sealing permanent or rigid assemblies. Easy to apply. Improves gasket sealing power, adds reliability to rigid or permanent assemblies. Eliminates delays.



3 oz., Tube, #1B.....P/N 09-28415\$3.25
 11 oz, Tube, #1C ..P/N 09-28430\$8.40

PERMATEX FORM-A-GASKET NO. 2

A non-hardening, heavy-bodied, pliable sealant for semi-permanent assemblies. Use on threaded assemblies, over plates and hose connections, metal-to-metal applications. Temperature range -65° to 400° F., pressures up to 5000 PSI. Apply with putty knife or stiff bristle brush. Conforms to MIL-S-45180B Type II.



3 Oz. Tube #2BP/N 09-28420\$3.75
 11Oz. Tube #2CP/N 09-28400\$8.40

AVIATION FORM-A-GASKET NO. 3

A non-hardening sealant. Recommended for heating hose connections, close fitting metal parts and threaded connections. Resists water, gasoline, acids and alkalis. Temperature range -65° to 400°F., pressures to 5000 PSI. Conforms to MIL-S-45180B, Type III.



4 Oz. Can #3HP/N 09-28500\$6.80
 1 Pint Can #3D.....P/N 09-28600\$9.70

BENDIX MAGNETO GREASE



#10-27165 - Factory recommended lubricant for bearings in Bendix magnetos.

1 Lb. Can ..P/N 10-27165.....\$39.20

#10-391200 - Grease for AD Note on 1200 Series magnetos.

1 Lb. Can ..P/N 10-391200.....\$38.70

1 oz. tube ..P/N 07-02500.....\$3.95

#10-39140-0 - Distributor block bushing coating

P/N 10-39140-0 \$101.65

#10-86527 - High temperature breaker/cam lubricant

P/N 10-86527.....\$25.20

GUNK SUPER CONCENTRATE DEGREASER

A concentrated self-emulsifying degreasing solvent for engine and parts. Dilute one part concentrate with nine parts of kerosine or light Diesel fuel oil for very effective cleaning. Spray or brush on. Does not harm electrical system, strip paint or cause rust. Water rinse.

SC-2A, Qt. (2 Lbs.)P/N 09-29400\$4.75

SC-3, Gal. (8 Lbs.)P/N 09-29500\$15.30

SC-5, 5 Gal. Pail (41Lbs.) ..P/N 09-29600\$73.50



GUNK "ENGINE BRITE" ENGINE CLEANER

Ready-to-use engine cleaner in convenient aerosol or squirt can.

EB-1, 16 Oz. AerosolP/N 09-29700\$3.25



GUNK HYDRO-SEAL

Two-layer room temperature carbon digester and paint stripper. Cleans clean. No flash point. Safe on all metals. Simply soak and pressure rinse or solvent rinse. 5 gal. pail contains parts soaking basket.

HS-3, 1 Gal. Can (11 Lbs.).....P/N 09-29900\$23.30

HS-5K, 5 Gal. Pail w/ parts basket (Wt. 56 lbs., truck shipment req'd) P/N 09-30000\$99.50

Factory-direct shipment on 50 gal. drums of Gunk and Hydro-seal. F.O.B. Charlotte, N.C.



TITSEAL

Prevents corrosion and seizing of metal parts. Assures leakproof, pressure tight connections. Unaffected by water, oil, gasoline.

Light Wt., #T20-66, 1 Lb. Can.....P/N T20-66\$10.95

Medium Wt., #T25-66, 1 Lb. Can ..P/N T25-66\$10.50



MARVEL MYSTERY OIL

Standard for break-in on new or overhauled engines and for carbon removal from cylinder heads, piston rings, valves, etc. Mix with regular oil for perfect engine operation to -20°F. Lubricates tight nuts, control hinges and landing gear. Dust repellent.

4 oz. #012P/N 09-27515\$2.20

Qt. #013P/N 09-27500\$5.95

Gal. #014P/N 09-27600\$28.30



MOUSE MILK OIL

For speedy help in removal of rusted or frozen studs, nut and bolts; frees up cables, slides and linkage; unequalled wherever a lubricant and penetrant are required. Lasting lubricating qualities.

8 Oz.P/N 09-39608\$5.25

32 Oz.P/N 09-39632\$17.70



EP

ENGINE PREHEATERS

RED DRAGON ENGINE PREHEATERS



For quick engine starts in cold weather. Propane heated air is blown directly into engine compartment by a 12V fan (can be used to heat cabin, thaw ice or warm hanger). 12V comes from either plane or car battery with no appreciable electrical drain. Easy-to-operate

electric igniter allows you to ignite heater with a push of a button. Entire unit weighs only 14 lbs. 100% safety control stops fuel flow should flame go out. Complete with 5ft. of pressure propane hose, excess flow valve, regulator, safety control and 10ft. power cord with alligator clips to attach to battery. All UL approved. Now includes high limit safety control package - provides total protection from over-heat situations and will effectively shut down fuel upon an over-heat situation. Use standard propane bottles.

MODEL MH300P/N 08-04300**\$313.95**

MODEL MH310 - This model is the same as MH-300 except it uses 115 VAC to power the fan. Wt: 17lbs.P/N 08-04305**\$323.95**

MODEL H175 - This Red Dragon preheater is a cart style self contained preheater. Includes preheater, cart, battery box, fuel cylinder, and ducting. Excellent for FBO's. Wt: 58lbs.....P/N 08-04315**\$463.95**

RED DRAGON ACCESSORIES

Heat Ducting - 12' long x 4" diameter; Heavy-Duty Flexible Ducting. P/N 08-04310**\$83.00**

6'Lx4" Dia. Heavy-Duty Flexible Ducting.....P/N 08-04325**\$46.40**

Carrying Case - Strong Plastic Case w/lock, for model MH300. size: 20.25" x 9.5" x 9.5"P/N 08-04320**\$42.85**

12V Cigarette Lighter Adapter PlugP/N 08-04330**\$16.95**

Propane Quick Disconnect set - For Rapid Connect & Disconnect of Fuel Line from Propane Bottle w/o Tools (even under pressure) P/N 08-04340**\$17.20**

Propane Bottle - Std. Refillable Bottle (5 Gal. Cap. or 20 Lbs.) Supplies Minimum of 2 Hours of Heating. (Empty)....P/N 08-04351**\$41.80**

DESIGN LOGIC ENGINE PREHEATERS



Constructed of solid aluminum, DESIGN LOGIC, Inc. preheaters are known for their dependability, performance, and overall value. An improved design saves time and money by allowing easy transfer to other engines or reinstallation after overhaul. Ea. 08-04425 kit includes 2 adapter plates, 1 flat and 1 curved (curve fits Continental sumps). The applicable adapter plate is simply screwed to the heater plate. This assembly is then adhered to the engine sump with thermally conductive adhesive (included). When necessary to remove the preheater, simply remove 4 screws!

Specifications: 330W (08-00425) or 220W (08-00372). Thermostatically controlled 170°-200°F. Thermal fuse to prevent overheating should thermostat fail and heater become dislodged. FAA/PMA approved for over 600 engines. 2-yr. no hassle warranty.

Application: Lycoming (except as below), Continental (except kidney shaped), Franklin, Garrett, & Marathon. 2-yr. warranty. Size: 4-3/8" x 5" x 5/8" (7/8" w/curved plate) P/N 08-04425**\$219.00**

Application: Lycoming IOs w/air intake on bottom (IO 360A1A, for example); for engines where a smaller footprint required; typically mounts on side of sump. 2-yr warranty. Size: 4-3/8" x 2-3/4" x 5/8" P/N 08-00372**\$199.00**

KENNON INSULATED ENGINE BLANKETS



Kennon's insulated engine covers are custom made from the specific year, make and model of aircraft for a snug fit. Kennon makes its own engine blanket material using a bonded fiberfill that doesn't need to be quilted to stay in place, which can destroy the loft and put thousands of needle holes in the cover where heat can escape. The outer shell is made from red, blue, or black polyester rather than nylon, increasing the useful life of the cover and the inner layer is fluorescent orange which can be used as a signaling device in the event of an emergency. Flaps for oil doors to check or fill the oil and cowling inlet flaps for preheating purposes can be added for \$10 each. Insulated prop and spinner covers are also available.

2-Seat A/C (sml) ..07-00983 ..**\$289.95** 4-6 seat A/C (reg.) 07-00984 **\$319.95**
 Twin Eng. A/C.....07-00985 ..**\$684.95** Spinner Cover07-00987 ..**\$49.00**
 Prop Cover07-00988**\$29.00** Cessna 20707-00990 **\$484.00**
 Cessna 20807-00991 ..**\$484.00** Piper Malibu07-00992 **\$484.00**
 Dehavilland Beaver..07-00993 ..**\$484.00** Beech B1807-00994 **\$898.00**

E-Z HEAT AIRCRAFT ENGINE PREHEATER



Preheating engines for winter operations is at best a miserable chore and at worst can be a disaster for the plane, the pilot & flight operations. E-Z Heat Preheaters feature easy peel & stick application. 7 models are available. Efficient engine heating for virtually all propeller driven aircraft. The heaters consist of a flexible synthetic pad that easily conforms to the contours of the oil pan. Heat 12 qts of oil from -40° to +60°F in an hour while using

approximately 300 watts of electricity. The heater is 1/32" thick. enable immediate heat transfer from heater to engine. The heaters are thermostatically controlled, so leaving them plugged in overnight means the plane will be ready to go in the morning. Pre-heating normally takes 3-5 hours for the entire engine to be nice and warm. The Lite Brite power cord is included on all 110V E-Z Heat pre-heaters. Molded into the male plug end is a newly designed light emitting diode (LED). This LED allows the operator to visually recognize if there is electrical power to the preheat system even from a distance. **FAA Approved** for certificated aircraft. 2 year "No hassle" warranty. Model 441 and 540 also available in 220 volt.

P/N	Application	Factory P/N	Price
07-05315	Cont. A-65 to 0-200	360	\$139.95
07-05100	Cont. C-125 to 0-300, E-165 to E-225, IO-360 to TIO-360 Lyc. 0-235, 0-290, 0-320*	440	\$139.95
07-05200	Cont. 0-470, IO-470, 0-520, IO-520 IO-550 Lyc. 0-320*, 0-360, IO-360, 0-540, TIO-540C, D	441	\$139.95
07-05210	Lyc. IO-360A & C Series	442	\$139.95
07-05345	Cont. 0-470, IO-470, 0-520, IO-520 IO-550 Lyc. 0-540, TIO-540 (except C), IO-720	540	\$164.95
07-05200-2	Model 441 - 220Volt	441-2	\$139.95

* Except H and Rear Carbs

REIFF HOTPADD ENGINE PREHEATERS



Easy to install. Simply bond it to the oil sump. Has thermostat and is externally grounded for safety. No STC is required. Heats 12 qts of oil in 1 hour, and heats entire engine in 3-4 hrs. 125-300W, 110VAC. 2yr warranty. **FAA/PMA Approved** for Cont. A-65, A-75, A-80, C-90, 0-200, IO-240. P/N 08-04410**\$169.00**

REIFF HOTSTRIP OIL SUMP HEATERS



HotStrip is thin and lightweight like a silicone pad, but made of steel for maximum durability. Works either as a stand-alone sump heater or integrated with the Hot Band Cylinder Heating Systems. Bonds to the bottom or side of oil sump and electrically heats the oil. Features dual heating elements for redundancy. System includes two 100W elements thermostat, and power cord. **FAA Approved for:** Lycoming 0-235; All 290, 320, 360 series; All 435, 480, 540, 541 series; Continental IO-346; All 300, 600 series; E-165, E-185, E-225, All 470, 520, 550 series. P/N 08-00688**\$169.00**

EP

OIL FILTERS – OIL SYSTEMS

CHAMPION SPIN-ON OIL FILTERS

	AIRCRAFT MODEL	FILTER P/N
Beech	E33, F33, A35 thru S35	CH48109-1
Cessna	120, 140, 170, 172, 180, 182, 185, 205, 210, 310	CH48110-1
Mooney	M20, M22	CH48110-1
Piper	PA-18, PA-22, PA-23, PA-24, PA-25, PA-28, PA-30, PA-31, PA-34, PA-60	CH48110-1



Filter P/N	Our Price	Filter P/N	Our Price
CH48103	\$17.25	CH48109	\$17.25
CH48104	\$17.25	CH48110	\$17.25
CH48108	\$17.25	CH48111	\$17.25



KELLY AEROSPACE OIL FILTERS

• FAA/PMA approved for Lycoming & Continental Engines • Hex Nut and Safety wire tabs for ease of installation & removal • Heavy duty corrosion resistant aviation grade shell • Pleated resin-impregnated filtering media providing maximum filtering surface and removes harmful contaminants • Double roll seam provides leak proof assy of lid and shell

Kelly P/N	Part P/N	Engine Model	Price
ES48103	08-00968	O-320, IO-320, O-360, IO-360, LO-360, TO-360, HIO-360, LTO-360, LHIO-360 Series	\$12.65
ES48104	08-00969	O-320, IO-320, O-360, IO-360, LO-360, TO-360, HIO-360, LTO-360, LHIO-360 Series	\$12.65
ES48108	08-00970	6-285, IO-346, IO-360, TSIO-360, LTSIO-360, O-470, IO-470, LIO-470, TSIO-470, IO-520, TSIO-520, GTSIO-520, LTSIO-520, IO-550 Series	\$12.65
ES48108	08-00970	6-285, IO-346, IO-360, TSIO-360, LTSIO-360, O-470, IO-470, LIO-470, TSIO-470, IO-520, TSIO-520, GTSIO-520, LTSIO-520, IO-550 Series	\$12.65
ES48110	08-00972	O-235, IO-320 Series LIO-320, AIO-320, AEIO-320, O-360, IO-360, AIO-360, HIO-360, LIO-360, TIO-360, LHIO-360, AEIO-360, O-540, IO-540, HIO-540, TIO-540, AEIO-540, LTIO-540, TIO-541, IO-580, IO-720 Series	\$12.65
ES48111	08-00973	O-235, IO-320 Series LIO-320, AIO-320, AEIO-320, O-360, IO-360, AIO-360, HIO-360, LIO-360, TIO-360, LHIO-360, AEIO-360, O-540, IO-540, HIO-540, TIO-540, AEIO-540, LTIO-540, TIO-541 IO-720 Series	\$12.65



FM ENGINE MOUNTED OIL FILTER ADAPTER

FM engine mounted oil filter adapters eliminate the need for oil screens and provide increased filtering capabilities for longer engine life. Being engine mounted with no external lines, they reduce mess during oil changes and increase the time between oil changes. Includes adapter, filter, gaskets and STC.

FM Model	Aircraft Application	Engine Application	Part No.	Price
T.A.F.-L	Cont. C-75-12, C-85-12, O-200, O-200A	Cessna 120, 140, 150, Aerocoupe, Luscombe 8E, Piper PA-11, J3, J5	08-00631	\$207.95
CO-300	Cont. C-125, C-145, CO-300	Cessna 170, 172, Globe Swift, Maule	08-00632	\$295.95
C6LC-S	Cont. O-470, IO-470, IO-520	Bellanca Viking, Cessna 180, 182, 185, 188 and 55 series, Beech Baron	08-00633	\$383.95
C6LC-L	Cont. O-470, IO-470, IO-520	Cessna 205, 206, 207, 210, 310, Beech Bonanza & Debonair, Navion, Meyers, Twin Commander, Widgeon	08-00634	\$383.95

AIRWOLF REMOTE MOUNTED OIL FILTERS FOR LYCOMING ENGINES



The remote mount oil filter kit by Airwolf Filter Corp. replaces the Lycoming oil screen and housing allowing every aircraft to have an oil filter and to locate it on the firewall where it's easy to get to. The adapter takes up no more space on the engine than the original part, so even the tightest installations can benefit from it. Your Vernatherm & oil temp bulb are reused and transfer directly to our adapter. Hoses not included.

NOW AVAILABLE... STC'D KITS FOR PRODUCTION AIRCRAFT.

Universal STC'd kit fits any Lycoming powered Single/Multi engine airplane less than 450hp. All other STC'd for specific aircraft. **Perfect for Tight Installations in:** Beech • Cessna • Cozy MK-IV • Glasair • Grumman • Lancair • Long EZ • RV • Skybolt • T-18 • Vari-EZ • Velocity • Mooney • Piper • Maule • Avion • Aeronca • Bellanca • Pitts **Fits Lycoming Series:** O-235, 290, 320, 340, 360, & 540 series engines • Full Flow • Easy To Install • Extends Engine Cooling • Total Weight under 4 Lbs • FAA/PMA Approved • Change oil in minutes not hours.

P/N	APPLICATION	PRICE
08-00038	Lycoming filter relocation kit (Requires existing Lyc p/n77852 Spin-on adpt)	\$464.95
08-00039	STC'd Pratt & Whitney R985 Kit	\$795.00
08-05605	Lycoming Homebuilt kit (less hoses)	\$473.95
08-05635	STC'D Husky kit	\$778.00
08-05630	STC'D Super Cub kit	\$678.95
08-05660	STC'D Universal Lycoming kit (fits all Lycoming engines using the 4 bolt oil screen housing on rear of accessory case.)	\$476.95
08-05665	STC'D Lycoming kit (fits all w/Single Drive, Dual Magneto Engines)	\$450.00
08-05670	STC'D Lycoming kit Fits All IO-720 Engines	\$575.00
08-05675	STC'D Universal Continental kit (fits A50, A65, A75, A80, C75, C85, C90, C125, O-200, & IO240 Engines)	\$464.95
08-05680	STC'D Cont. kit (fits C145, O300, GO300, & IO360A,C,D,G,H,J,K)	\$476.95
08-05685	STC'D Continental kit (fits all O470, IO470, IO520, TSIO520, GTSIO520, & IO550 Engines (except below)	\$474.00
08-05690	STC'D Continental kit (Fits O470-11 & -15 Military Engines Used on T34 & Cessna 305 Birddogs.)	\$618.75
08-05700	STC'D Continental kit (Fits E-165, E-185, E-205, E-225)	\$476.95
08-05800	STC'D Continental kit (Fits TIO360, IO520BA, C, M, TSIO520 B, D, E, J, K, L, N, U, BE, VB, WB & IO550B, C Engines)	\$476.95
08-05805	STC'D Continental kit (Fits W-670 Radials (Stearman)	\$476.95
08-05810	STC'D Continental kit Fits W-670 Radials (Waco)	\$476.95
08-05815	STC'D Franklin Oil Filter Kit	\$795.00
CH48108	Replacement filter standard length	\$17.25
CH48109	Replacement filter long	\$17.25

REMOTE MOUNT OIL FILTER KITS FOR RADIAL ENGINES



Twin-filter system for larger multi-bank radial engines of 2,000 cubic inches displacement and above. The "Super Gorilla" filter system, the first STC'd for piston powered airplanes with engines of as much as 3,000 horsepower, has a measured flow capacity of 40 gal. per min. The gorilla kits attach to the tubular engine mounts or the firewall.

Model	Description	Part No.	Price
AFC-K015-A	P&W R985 Kit, Stearman	08-00995	\$695.00
AFC-K015-B	P&W R985 Kit, Beaver	08-00039	\$795.00
AFC-K015-C	P&W R1340 Kit, T-6/Harvard	08-00996	\$795.00
AFC-K015-D	P&W R1830 Kit, DC-3/C-47	08-00997	\$995.00
AFC-K015-E	R985 Kit, Beach-18, Staggerwing, DGA-15	08-00998	\$695.00
AFC-K015-F	P&W R1340 Kit, Otter	08-00999	\$795.00
AFC-K015-G	P&W R985/1340 Kit, Ag-Cat	08-01001	\$795.00
AFC-K015-H	P&W R1340 Kit, AT301/401/501	08-01002	\$795.00
AFC-K015-J	R1340 Kit, Thrush/S2D (Snow)	08-01003	\$795.00
AFC-K015-L	P&W R985 Kit, Grumman Goose	08-01004	\$695.00

TEMPEST OIL FILTERS



This full size filter design incorporates several features, including thickest can and base plate with full weld integrity, highest burst pressure rating, and magnetic secondary filtration system that attracts steel particles too small to be filtered in the media. FAA approved.

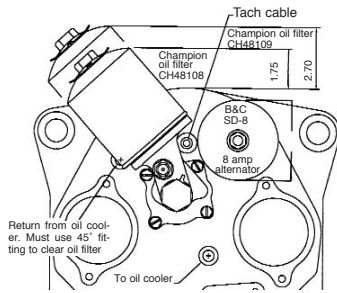
Filter No.	Our Part No.	Price	Filter No.	Our Part No.	Price
AA48103	08-01266	\$14.95	AA48109	08-01269	\$14.95
AA48104	08-01267	\$14.95	AA48110	08-01270	\$14.95
AA48108	08-01268	\$14.95	AA48111	08-01271	\$14.95

SPIN-ON OIL FILTER - SIX PACK

Part No.	Tempest	Price	Part No.	Tempest	Price
08-04969	AA48103-6PK	\$79.00	08-04972	AA48109-6PK	\$79.00
08-04970	AA48104-6PK	\$79.00	08-04973	AA48110-6PK	\$79.00
08-04971	AA48108-6PK	\$79.00	08-04974	AA48111-6PK	\$79.00

OIL FILTERS ADAPTERS — OIL DRAIN VALVES

B&C MODEL BC700 LYCOMING OIL FILTER ADAPTER



This 90°, spin on oil filter adapter is FAA approved for replacement of existing oil pressure oil screens or spin-on filter adapters on Lycoming O-235; O, IO, LIO, AIO, AEIO-320; O, IO, LIO, HO, HIO, TIO, AEIO-360; O, IO, HIO, TIO, LTI, AEIO-540 & IO-720 series engines. It is CNC milled from solid aluminum billet and fits perfectly without interference with the magnetos, vacuum pump, or the mechanical tach drive. Adapter kit comes complete with new gasket, new aluminum washer for the vernatherm, new copper gasket for the oil temperature sensor, sealant for the gaskets, & new Lycoming bolts for mounting the adapter. Wt: 4lbs. Uses CH48108 or CH48109 filters.

Return from oil cooler. Must use 45° fitting to clear oil filter.
To oil cooler.

new aluminum washer for the vernatherm, new copper gasket for the oil temperature sensor, sealant for the gaskets, & new Lycoming bolts for mounting the adapter. Wt: 4lbs. Uses CH48108 or CH48109 filters.
Adapter Kit w/ STC (for certified A/C).....P/N 08-00195**\$440.00**
Adapter Kit w/o STC (for homebuilt A/C)P/N 08-00196**\$385.00**

CESSNA / CONTINENTAL OIL FILTER ADAPTER KITS

Part No.	Aircraft Application	Price
0450404-202	C150, A150, F150, FA150, FRA150	\$598.75
0556010-200	C172, F172	\$972.00
1250922-201	C180, C185, C188, T188	\$579.95
1250922-200	C205, C206, U206, P206, 207	\$483.70

All the Continental spin on adapter kits above require the following items in addition to the adapter: Oil FilterP/N CH48110**\$17.25**
NutP/N 1250405-1**\$139.95**
AN123883 O-Ring ..P/N 08-04930**\$3.80**

LYCOMING SPIN-ON FILTER ADAPTER KITS

Part No.	Aircraft Application	Price
LW-13743	All Applicable Engines Except Models Shown In Table Below	\$476.95
LW-13744	O-235 Series	\$503.00
LW-13745	IO-720 with 1200 Series Series Magnetos	\$598.00
08-00513	O-320-H (LW-14969)	\$1,431.00
LW-13904	All Engines with Dual Dual Magnetos	\$451.95

All Lycoming spin on oil filter adapter kits above include adapter, oil filter assembly, adapter plate, gaskets, & attaching hardware. LW-14969 kit also contains oil cooler bypass valve assembly, 2 elbows, & 2 oil seals for oil cooler installations.

LYCOMING 90° OIL FILTER HOUSING



- Fits every model Lycoming engine from O-235 thru IO-720 (except 76 series O-320 with single magne to drive.) Over 300,000 potential applications. • Allows oil filter installation on engines(close coupled to firewall) previously limited to oil screens. • No interference w/existing engine components/accessories and fits virtually any airframe. • No hoses, fittings, or brackets to contend with. Average installation time 1.5 hours. • "No Spill" oil filter changes • Uses certified Champion CH48108-1 or CH48109-1 filters. • Robust A356-T6 investment casting and ISO9002/AS9100 quality assure a perfect product every time. • Complete kit (gasket, seals (2), and detailed instructions with each unit). No additional trips to the parts counter. This unit fits all models (RV-3, RV-4, RV-6, RV-7, RV-8, as well as the IO- 540 powered Rocker.) Also an excellent fit for Velocity, Long-EZ, Vari-Eze, & Cozy, as well as many others.

Experimental Adapter plus CH48109-1 filterP/N 08-00977**\$273.20**
Experimental Adapter plus CH48108-1 filterP/N 08-00976**\$273.20**
Experimental Adapter onlyP/N 08-00975**\$255.95**
STC'd Adapter plus CH4809-1 filterP/N 08-01237**\$292.25**
STC'd Adapter plus CH4808-1 filterP/N 08-01236**\$292.25**
STC'd Adapter onlyP/N 08-01094**\$275.00**

AEROQUIP E-Z OIL DRAIN SUMP VALVES



Makes aircraft oil changes easy. The hand actuated valve when attached to the oil drain port permits engine oil changes from the ground without removing the engine cowling. The spring loaded E-Z Drain valve cannot be accidentally opened. Actuation of the valve requires a combination push/twist motion. It also contains a dual seal arrangement which combines both an O-ring & metal-to-metal seal to prevent accidental leakage of oil through the valve. **FAA Approved** for use on the engines listed. Incorporates fine Aeroquip quality hose. Installation eligibility listing furnished with each unit.

Part No.	Engine Application	Thread	Price
AE99950G	Cont. C-90, O-200, GO-300, IO-360 TSIO-360, O-470, IO-470	5/8-18	\$125.50
AE80666H	Cont. O-300, late C-145	1-18	\$356.95
AE80664H	Lycoming Engines	1/2NPT	\$127.50

Valve O-Ring, All Models.....MS28775-011**\$0.23 Ea.**
Interface O-RingAE99950G MS28775-113**\$0.23 Ea.**
AE805555H MS28775-118**\$0.23 Ea.**

Not to be used on Piper Models PA-28R-200, PA-28R-201, PA-28RT-200.



SAF-AIR OIL DRAIN SUMP VALVES

Changing engine oil has never been easier. With the Saf-Air oil Drain Valve, no wrench is needed to remove the drain plug. A simple push and turn of the Saf-Air valve locks it in the open position. The valves are made completely from aluminum & stainless steel parts. **FAA & PMA APPROVED**

S6250

Part No.	Engine Application	Thread	Price
S6250	Cont. (same as Aeroquip AE99950G)	5/8-18	\$57.95
S1000	Cont. (same as Aeroquip AE80666H)	1-18	\$57.95
P5000	LYC (same as Aeroquip AE80664H)	1/2NPT	\$57.95
M12175	ROTAX 912, 914	12mm x 1.75	\$34.95
S7516	Cont IO-520-E	3/4"-16	\$64.50
P7500	Franklin Engines	3/4" NPT	\$64.50
S5020J	Jabiru 2200 / 3300	1/2"-20	\$28.65
M20150	Subaru 2.2L / 2.5L	20-1.50mm	\$34.95

F62



SAF-AIR LOW PROFILE 2-PIECE OIL DRAIN SUMP VALVES

Perfect for a close clearance engine oil drain application such as on the Piper Arrow. These low profile oil drain valves are designed to clear retractable landing gears & other restrictions. The valve is very affordable and can be rebuilt. It is a simple procedure to sample or drain hot oil. The valve is made from 360 brass & 302 stainless steel. **FAA & PMA APPROVED.**

Mfg. No.	Part No.	Engine Application	Thread	Price
F62	05-00891	Continental	5/8-18	\$86.00
F10	05-00892	Pratt & Whitney	1-18	\$85.50
F50	05-00893	Lycoming	1/2-18 NPT	\$84.95



LOW PROFILE OIL DRAIN VALVE

This is exactly what Lancair IV owners have needed for their continental engine! Forget the huge mess when changing oil! Engineered to fit and will not interfere with the retracted nose strut! Finally, makes oil changing simple and easy in your Lancair IV! Fits any 5/8"-18 thread drain plug. Brass and steel construction; yellow zinc plated dust cover provides protection between changes. Drains via hose directly into container. P/N 08-01298**\$97.50**

OIL QUICK DRAIN PROBE

This machined nylon probe is fitted with a steel insert. Replaces the expensive probe from AVI (BJ107) and Piper (492-283). Add a drain hose and change oil in the wind with very little clean-up. Similar to probe on Seneca, Bonanza, and some Cessna aircraft. Not FAA approved. P/N 12-00697**\$69.00**

VERNI-THERM VALVE - Lycoming thermostatic oil cooler bypass valve wt. 4 oz. P/N 53E19600**\$231.50**



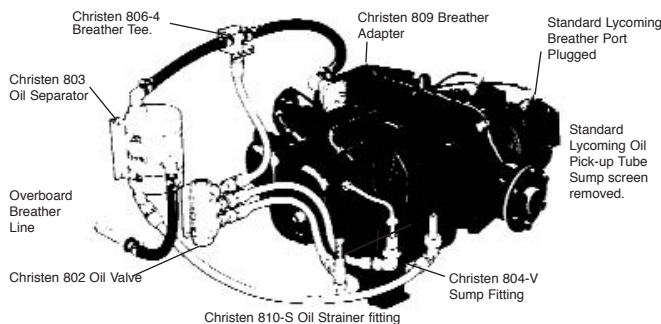
AEROMAG

AeroMag is a powerful high-tech magnet assembly that fits around your oil filter to trap and hold steel particles against the inner wall of the filter canister. These are the particles that are missed by the standard aircraft filter. This results in fewer damaging wear particles circulating in your oil, and prolonged engine life. Install is simple, and there are no moving parts. AeroMag fits all Lycoming & Continental engine filters. For experimental aircraft only (FAA approval pending). AeroMag AssemblyP/N 08-01088.....**\$95.75**
AeroMag for 3" Dia. Filters (Rotax)P/N 08-01235.....**\$69.50**

Features: •AeroMag helps reach TBO. AeroMag will not affect instruments • AeroMag traps and holds wear-inducing metal particles smaller than one micron that have escaped through the filter • Money-back guarantee & lifetime warranty. • Easy installation • Strong neodymium magnets secure it to the filter & trap harmful particles with the same powerful bond • Constructed from the highest quality components & completely reusable • No moving parts to wear out.

OIL SYSTEMS

CHRISTEN 801 INVERTED OIL SYSTEM



This accessory kit for Lycoming engines provides normal engine lubrication with minimal oil loss during aerobatic flight. It functions as a self-contained extension of the normal engine oil and breather systems. Can be installed in a few hours without engine disassembly.

Model No.	Item	Stock P/N	Price
801-4*	Basic System for 4-Cyl. Engines	801-4	\$795.00
801-6	Inverted Sys. Kit for 6-Cyl. Lyc. Eng.	801-6	\$835.00
809-K	Breather Adapter Kit	809-K	\$198.95
811-V	Sump Kit for Vert. Screen Sump Eng.	811-V	\$368.95
811-A	Sump Kit for Horiz. Screen Sump Eng.	811-A	\$399.95
811-S	Sump Kit for Horizontal Screen Sump Eng.	811-S	\$312.95
812-1	Weld Boss Kit (for addition of 1 sump port)	812-1	\$53.75
812-2	Weld Boss Kit (for addition of 2 sump ports)	812-2	\$85.50
807-4**	Hose & Fittings Kit for 4-Cyl. Engines	807-4	\$1,118.00
808-4***	Basic System Fittings Kit	808-4	\$835.00

* 801-4 Basic system includes: 801 system manual, 802 oil valve, 803 oil separator, and 806-4 breather tee.

** 807-4 Deluxe Hose & Fittings kit includes: Hoses, plugs, clamps, straps, 808-4 basic fittings, and cut-off grinding wheel.

*** 808-4 Fittings Kit includes: Nippler, elbows, and protective caps.

10-page detailed manual - describes system operation & procedure for selecting proper components for each engine model.

P/N 05-20600\$11.80 ea.



CHRISTEN OIL SEPARATOR

Features welded aluminum construction with a textured white epoxy enamel finish. All internal parts are cadmium plated, and unit includes stainless steel positioning clamps. Normally installed on firewall or on engine mount. Requires 2 AN842-12D or -16D hose elbows and one AN823-10D hose fitting. Wt. 2.8 lbs. installed. Applicable to all Lycoming engine applications. Used to replace a worn out or broken oil separator on Christen 801-4 systems only. P/N 08-06740\$384.95



CHRISTEN OIL VALVE

Multiple port gravity operated ball valve. It is cast aluminum with textured white epoxy enamel finish and all internal steel parts are cadmium plated. Normally installed on firewall or on engine mount. Designed for fittings to be installed either at side or front or both. Requires 3 AN816-10D nipples for hose connection. Wt. 1.75 lbs. installed. P/N 08-06745\$346.95

RAVEN WELD BOSS KITS

These kits for sump mods come with fittings and welding rod.

Aluminum Sumps (most 4 cyl)	One boss ..P/N 08-00789.....	\$35.00
	Two boss ..P/N 08-00790.....	\$65.00
Magnesium Sumps (most 6 cyl.)	One boss ..P/N 08-00791.....	\$60.00
	Two boss ..P/N 08-00792.....	\$95.00

RAVEN KNIFE EDGE MODIFICATION KITS

Horizontally mounted valve and fittings to reduce or eliminate knife edge oil pressure problems. Includes valve, specialized fittings, and one weld boss kit to add on to a regular inverted system (requires sump modification)

4cyl. kit	P/N 08-00793	\$330.00
6 cyl. kit	P/N 08-00794	\$360.00

ADC OIL FILTER SYSTEM



ADC Oil Filter System



ADC Remote Spin-On Kit

The ADC Oil Filter System has a cleanable element which provides remarkable filtering ability, additional oil cooling (15-20 degrees), visual bypass indicator light, outstanding engine diagnostic ability, and longer engine life. STC's and PMA's for all Lycoming and Continental engines, and most all aircraft. The Remote Spin-On Adapter Kit uses standard Champion CH48108 and CH48109 spin-on filters with the benefit of firewall or engine mount mounting for easy access for filter changes. This kit has a provision for the ADC optional chip detector, comes with lines and fittings, and is machined, rather than cast or welded. Anti-torque feature prevents firewall damage. STC's and PMA's for all Lycoming and Continental engines, and most all aircraft.

ADC Oil Filter System - Includes everything to install, including STC, installation instructions, filter element, all hardware, hoses, fittings, electrical components and engine adapter:

Lycoming Engines

O-235&O-290 engines w/standard screen housing ..P/N 07-06930 ..\$585.00
 All engines w/factory installed spin-on filterP/N 07-00225 ..\$620.00
 320 series & up w/ standard screen housingP/N 07-06925 ..\$645.00

Continental Engines

All engines w/spin-ons or screen housing.....P/N 07-00226 ..\$676.00

ADC Remote Spin-On Filter Kit - Includes STC, installation instructions, all hardware, hoses, fittings and engine adapter.

Lycoming Engines

O-235 & O-290 engines w/standard screen housing P/N 07-06933 ..\$531.00
 All engines w/factory installed spin-on filterP/N 07-00227 ..\$459.95
 320 series & up w/ standard screen housingP/N 07-06935 ..\$469.00

Continental Engines

All engines w/spin-ons or screen housing.....P/N 07-00228 ..\$469.00

We stock ADC engine adapters for Lycoming & Continental engines. CALL FOR INFORMATION AND PRICING.

RAVEN BASIC INVERTED OIL SYSTEM



Raven systems consist of the valve with three pipe plugs, tank, mount, and clamps. The tank is constructed from aluminum and is tig welded using stainless steel internal parts prevent corrosion. Valve is machined from solid aluminum, and all parts are power coated black or white. Valve is 5-1/2" h x 1-1/2" x 1-1/2" & weighs 1.85 lbs, 6" tank is for 4 or 6 cylinder applications, & 4" tank is for 4 cyl. applications only.

6" tank-black	P/N 08-00796	\$455.00
6" tank-white	P/N 08-00800	\$455.00
4" tank-black	P/N 08-00797	\$455.00
4" tank-white	P/N 08-00801	\$455.00

RAVEN INVERTED SYSTEM VAC ADAPTERS



These vac adapters are machined from solid aluminum with anodized finish. Furnished with a seal installed, and complete with AN fitting and gaskets.

Vac-6 for 6 cyl LycomingsP/N 08-00784\$165.00
 Vac-4 for 4 cyl LycomingsP/N 08-00785\$165.00
 Non-Acc'y Vac Pad Oil P/U ..P/N 08-00786\$75.00

RAVEN SUMP FITTING KITS



These sump fitting kits come with specialized fittings, washers, O rings needed to install the kit.

Sump kit for Horizontal screen 4 or 6 cyl. Lyc.	P/N 08-00787	\$195.00
Sump kit for Vertical screen 4 or 6 cyl. Lyc.	P/N 08-00788	\$225.00

SLIME FIGHTER



For engines that have horizontal oil filters, this system will eliminate the problem of oil dripping down into the engine and on the firewall while the filter is being removed. A tray is supplied that catches the oil coming from the engine flange and filter while it is being unscrewed. The oil in the tray pours down a hose connected to the bottom of the tray. The filter can now be removed and thrown away. Includes the welded aluminum tray, oil filter wrench and hose. Full set of instructions included.P/N 08-00974.....\$88.50

EP

AIR OIL SEPARATORS

SLIME FIGHTER AIR-OIL SEPARATOR



Universal air-oil separator ideal for virtually any experimental aircraft. They are machined from aluminum stock and welded by a certified welder. Oil separation is provided by baffles attached on the inside. This

is a one pipe system with no extra drain lines or hoses required. Oil drains back immediately to the engine and warm air without oil goes out. No back pressure. The unit is the size of a salt shaker and weighs only ounces. Installation instructions and fittings included. Easy to install. Currently in use on over 100 RV aircraft. P/N 08-00661\$157.00

Slime Fighter II with increased cap. for eng. of 200hp or greater P/N 08-00856\$194.00

Slime Burner - Stainless vapor hose tip for exhaust pipes. Ltwt. P/N 08-00857\$84.50

HOMEBUILDER'S OIL BREATHER/SEPARATOR



These 4 inch diameter reservoirs have beaded outlets for 5/8" I.D. hoses and a mounting flange for easy firewall attachment. These units are of a new, improved design and the reservoir body is now a spun aluminum bowl for optimum performance. The oil separators minimize oil loss and allow free breathing of the engine. They are recommended for experimental aircraft use only and are not STC'd for any certificated aircraft. Size: 4" dia. x 3-3/8" h P/N 10570\$42.60



RMJ-AERO OIL SEPARATOR

Designed to remove oil from the engine crankcase breather line providing the builder with a cleaner plane, less oil consumption, and prolonged engine life from maximum cooking, cleaning, & lubrication. Fashioned after Tony Bingelis's proven design, these separators incorporate several enhancements, including O-ring seals for the lid. Fabricated from aircraft quality materials, TIG welded, and alodined for corrosion control.

They can be firewall or cooling baffle mounted with the cushion clamp provided. The design allows for easy installation in the breather line by the use of hose clamps. Oil from the separator is returned thru tubing to a port in your engine's housing. Should your engine not have an available oil return port, RMJ-Aero can provide a Self Sealing Clamp-On Adapter utilizing your engine's oil filler neck. Installation of this adapter is easy for both flying and aircraft under construction. When clamped in place around the filler neck, the adapter provides a return port for separated oil and an integral seal, which prevents leakage. Installation & maintenance guide-

Description	Part No.	Price
Oil Separator for Lycoming (3/4" inlet/outlet)	08-00571	\$224.95
Oil Separator for Cont. (5/8" inlet/outlet)	08-00572	\$224.95
Adapter for Lycomings	08-00577	\$25.70
Adapter for Continentals	08-00578	\$25.70



HOMEBUILDER'S ENGINE CRANK CASE OIL BREATHER

This is a 3-1/4" dia. can reservoir with a 3/4 inch hose barb outlet, 1/8npt curtis drain valve on bottom of can, and fire wall mounting bracket. It keeps oil in can and off belly of airplane and can be drained later with petcock. Helps to keep crank case condensation to a minimum. Recommended for experimental aircraft use only not STC'd for certificated aircraft. P/N 08-00765\$93.75

ORDER ONLINE!

www.aircraftspruce.com

- 45,000 Parts!
- 24 Hour Access!
- Fast, Easy Navigation!



M-20 AIR-OIL SEPARATOR

M-20 Air/Oil separators are STC'd for certified aircraft. The air/oil separator is small in size at 2" in dia. x 5" high. Models 300 and 400 are for use with dry vacuum pumps only.

Models 300A and 300B are identical except for the direction of the oil return tube. On the 300A the tube faces opposite from the breather inlet and is preferred for Lyc. Franklin and radial engines. Designed to be mounted inline. On the Model 300B the oil tube faces the same general direction as the breather inlet and is preferred for Cont. engines and all C-170/172 aircraft regardless of engine. The 300B can be mounted on firewall or inline.

Model 300A P/N 08-00182\$360.00
Model 300B P/N 08-00409\$360.00

Model 300H - Inline mount for helicopters with engines to 315hp. P/N 08-00411\$396.00

Model 300HB - Firewall mount for helicopters with engines to 315hp P/N 08-00412\$420.00



Model 400XL - High capacity separator for engines from 320hp to 925hp. A and B configurations are like the 300 models.

Model 400XL-A P/N 08-00413\$420.00
Model 400XL-B P/N 08-00861\$419.95



Model 600WP - Exclusively for wet vacuum pumps. Separates liquid engine oil from the high pressure air expelled as a by-product from the vacuum pump. The oil returns to the lubrication system. Cleans air is vented. Oil can be returned to the engine either through its own port or combined with the crankcase oil return with the Model 605Y.

Model 600WP P/N 08-00414\$360.00
Model 605Y P/N 08-00862\$22.00



RAVEN AIR/OIL SEPERATOR

This oil/air separator, used in non aerobatic applications uses female threaded inserts so you can use any size of straight or angled fittings to custom fit your application. P/N 08-00798 \$185.00

ENGINE OIL CHIP DETECTION SYSTEM



The Chip Detector gives advance warning of possible excessive engine wear, which could prevent an impending failure. This early warning can also greatly reduce the cost of engine overhaul. Inexpensive and easy to install. It simply replaces the drain plug, and includes a warning light on the instrument panel which illuminates when metal chips bridge the gap in the magnetic probe, or when the press to test switch is activated. FAA approved (STC's) for all opposed Continental and Lycoming aircraft engines. Specify aircraft and engine make and model. Plus 14V or 28V. Available for installation in the oil filter or oil sump.

Single Engine Lyc. (Oil Filter) P/N 08-06762\$228.00
Single Engine Lyc. (Oil Sump) P/N 08-06766\$289.95
Single Engine Cont. (Oil Filter) P/N 08-06763\$284.00
Single Engine Cont. (Oil Sump) P/N 08-06765\$284.00



ANDAIR OIL/AIR SEPARATOR

Manufactured from aircraft grade materials and anodized for corrosion protection, this unit is extremely light weight and rugged. The OS8850 has been designed to remove the oil from the crankcase breather on Lycoming and Continental Engines. This gives the gain of reduced oil consumption, cleaner aircft, and cleaner environment.

The CS850 has some unique features that make it the best on the market. Upper outlet can rotate through 360° allowing easy installation. The unit can be dismantled for inspection/cleaning. Vortex swirl separation. O-Ring seals. Light weight: 6.4 oz. 4 off 10-32 mounting lugs on the base of the separator for easy fire wall mounting. P/N 08-01034\$252.85

ANDAIR CONDENSATION TRAP

This new device is a small and very light weight condensation trap. It is used to extract water from the oil when used in conjunction with the Andair Oil/Air Separator. P/N 08-01035\$89.00



OIL COOLERS

STEWART WARNER OIL COOLERS

Stewart Warner 8406R



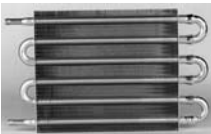
Stewart Warner South Wind 8406R (formerly Harrison P/N 8526250). Applicable to all Lycoming installations from 4-cylinder O-235 through 6-cylinder IO-540 engines. Inlet & outlet ports accept 3/8" pipe fittings. Fits Beech B-19 Sport (0-320-E2C), C-23 Sundowner (0-360-A4G), Muskateer (0-360-A2G), Cessna 172 Skyhawk (0-320-E2D), 177 Cardinal (IO-360-AFGD), 177 Cardinal (0-0-360-A1FG), 177 Cardinal RG (0-360-AFGD), Mooney Ranger (0-360-A2D). Size: 7.75"l x 3.5"d x 4.75"h. Wt.: 4 lbs. Model 8406RP/N 8406R**\$456.95**

Model 8432R--Fits BeechA24R Sierra (IO-360-A2B), Mooney Chaparral (IO-360-A1A), Mooney Mark 22 (TIO-541-A1A). Weight 4 lbs. size: 5-3/4"Hx8"Wx3-5/8"LP/N 8432R**\$574.95**

- Model 10611R - Fits Piper Single Engines.....P/N 10611R ..**\$567.95**
- Model 10599R - Fits Cessna and StoddardP/N 10599R ..**\$507.95**
- Model 10578R - Fits Gulfstream AA-1P/N 10578R ..**\$417.95**
- Model 10610R - Fits CessnasP/N 10610R ..**\$544.95**
- Model 10614R - Fits Piper, Cessna, Mooney....P/N 10614R ..**\$597.00**
- Model 10568R - Fits Gulfstream AA5B, GA-7 ..P/N 10568R ..**\$412.25**

Note: The oil coolers manufactured by Stewart Warner will fit the aircraft listed but in most cases are not furnished with the FAA/PMA certification for those aircraft. The exceptions are P/N 8406R and P/N 8432R are furnished with FAA/PMA approval for certain Mooney aircraft. For all other applications, Form 337 field approvals are required for installation on certificated aircraft. Call for further information.

LIGHTWEIGHT OIL COOLER FOR HOMEBUILTS



Lightweight, compact oil cooler improves cooling in closely cowled homebuilts. Mounts in any position. Furnished with 4 ft. of 5/16" I.D. hose and 4 clamps. Size 7-1/2H x 12-3/4L x 3/4D. P/N 403**\$54.85**

POSITECH OIL COOLERS



PosiTech factory new oil coolers are designed for use on experimental aircraft such as RV-4, 6, & 8, Glastar, Lancair, & Europa. Offered at exceptional savings compared to equivalent coolers. 2-yr/2000-hour warranty.

PosiTech Part No.	No. of Oil Tubes	Overall (WxHxD)	PC Number	Applications	Our P/N	Price
P10578C	4	8"x 3.68"x 3.62"	4213MN	O-200	08-01285	\$164.25
P10568C	5	8"x 4.17"x 3.62"	4212MN	O-300	4212	\$164.25
P20002C	6	8"x 4.66"x 3.62"	4211MN	O-360	4211	\$164.25
P20003C	7	8"x 5.15"x 3.62"	4220MN	O-360	08-01286	\$164.25
P20004C	8	8"x 5.64"x 3.62"	4215MN	IO-360	4215	\$188.85
P20005C	10	8"x 6.62"x 3.62"	4216MN	IO-360	4216	\$188.85
P20006C	11	8"x 7.11"x 3.62"	4219MN	IO-540	4219	\$188.85
P20008C	14	8"x 8.63"x 3.62"	4221MN	IO-540, Heli.	08-01287	\$250.00
P10634C	12	8"x 7.60"x 3.62"	4222MN	IO-540	08-01288	\$250.00
P20104C	8Two Pass	8"x 5.64"x 3.62"	4214MN	Various	4214	\$186.95
P10641C	9Two Pass	8"x 6.13"x 3.62"	4217MN	Various	08-01289	\$250.00
P10631C	11Two Pass	8"x 7.11"x 3.62"	4218MN	Various	08-01290	\$188.85
P010904	9	11.25"x5.35"x1.25"	4228MN	Rotax	08-01291	\$168.95

COOL COLLARS



The Cool Collar is all aluminum extrusion configured as a heat sink. As your oil heats up your oil filter becomes as red hot on the outside as the oil on the inside. The aluminum Cool Collar works by conducting that heat through the filter and dissipating it out its fins. Tests indicate a 12% reduction in temperature of the oil. Installation takes about a minute. Simply slip the Cool Collar over the stock oil filter and secure it with the included clamp. Use on several RVs & other homebuilt aircraft. Not FAA approved.

Not FAA approved.

For Filter No.	Bore	Length	Part No.	Price
CH48109	3-5/8"	4-5/8"	08-00681	\$32.75
CH48110	3-5/8"	3-5/8"	08-00682	\$32.75
Rotax	3"	2-1/4"	08-00683	\$24.75

OIL COOLER APPLICATION CHART

Aircraft Model	Aero-Classic Part No.	Positech Part No.	Stewart Warner Part No.
Beech 10, C23, A24R, C24R	8000075	4211	8406R
Cessna 150, 152, A152, 170, 170, 172, 175, 177	8000075	4211	8406R
Experimental	8000081	4215	10599
Piper PA23-150, PA28-140	8000075	4211	8406R
PA23-160 (SN 23-163 up)	8000328		
PA28-150, -151			
PA28-160, -161			
PA28-180, -181			
PA18, PA18A, PA22-135, -150, -160			
Pitts S2B	8000215	4219	10611
Stinson 108, 108-1, -2, -3	8000075	4211	8406R
Taylorcraft F22B, F22C, F22R	8000075	4211	8406R

AERO CLASSIC OIL COOLERS

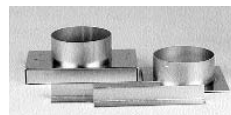


Aero-Classic oil coolers are ideal for experimental aircraft and offer superior performance, lighter weight, and lower cost. In side by side tests, these aluminum plate and fin engine oil coolers out performed competitive models. Pressure tested at 400 PSIG and corrosion protected per MIL-C-5541 Class 1A. AERO-Classics oil cooler P/N 8000307 is FAA-PMA for installation on TCM IO-520-A, D, E, F, J, K, and L series engines. P/N 8000307 is also an FAA-PMA replacement for Niagara P/N 20618A and TCM P/N 654593 oil coolers. AERO-Classics oil cooler P/N 8000319 is FAA-PMA for installation on TCM 0-470-F, K, L, R and IO-520-A, D, E, F, J, K, and R series engines. P/N 8000319 is also an FAA-PMA replacement for Niagara 20446A and TCM P/N 639151 oil coolers.

Model No.	No. Plates	Dimensions (WxHxD)	Wt. (Lbs)	Part No.	Price Each
8000075	7	8.14"x 4.52"x 3.62"	1.74	08-00640	\$219.95
8000074	9	8.14"x 5.33"x 3.62"	2.08	08-00641	\$219.95
8000081*	10	8.14"x 5.74"x 3.62"	2.25	08-00642	\$227.95
8000215	13	8.14"x 6.96"x 3.62"	2.79	08-00643	\$236.95
8000216	17	8.14"x 8.59"x 3.62"	3.46	08-00644	\$306.95
8000353	18	8.14"x 9.00"x 3.62"	3.82	08-00808	\$323.95
8000328	bar&plate	7.02"x 3.00"x 3.62"	2.80	08-00809	\$426.95
8000343	9x2	8.14"x 5.75"x 3.62"	2.23	08-00810	\$429.95
8000356	bar&plate	11.38"x7.25"x 3.50"	4.48	08-00811	\$605.00
8000357	bar&plate	11.38"x7.25"x 3.50"	4.48	08-00812	\$605.00
8000307	11	7"x 4"x 12"	7.00	11-03590	\$474.00
8000319	11	7"x 4"x 12"	7.00	11-03591	\$474.00

* Model 8000081 is NOT FAA/PMA approved.

OIL COOLER DUCT SYSTEM

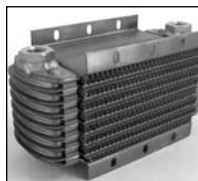


This economical duct system provides the aircraft builder with a simple way to route cooling air to Stewart Warner style oil coolers. Manufactured from .040 aluminum, this kit was designed for use on RV series aircraft but is ideal for virtually any homebuilt using a firewall mounted oil cooler. Kit includes baffle duct, oil cooler duct, hardware, & installation instructions.

P/N 08-05000**\$38.90 ea**

NDM OIL COOLERS

NDM is one of the world's largest volume manufacturers of FAA approved oil coolers. An approved supplier to both Lycoming and Continental, as well as many airframe manufacturers, NDM holds FAA/PMA's for most of these oil coolers. NDM oil coolers are manufactured utilizing the vacuum oven brazing process rather than the less costly Controlled Atmosphere Brazing (CAB) method used by others to save costs. Utilizing the vacuum oven process guarantees a high quality product and lower warranty returns. If you are not sure which NDM oil cooler is **FAA Approved** for your aircraft, please provide the aircraft model & serial number and we will determine the correct oil cooler for your application.



Part No.	NDM P/N	Stew.t Warner P/N	Price
08-00739	20001A	N/A	\$297.95
08-00740	20002A	8406R	\$283.95
08-00741	20003A	N/A	\$291.95
08-00742	20004A	10599R	\$323.95
08-00743	20005A	N/A	\$368.95
08-00744	20006A	10611R	\$367.95
08-00745	20007A	N/A	\$392.95
08-00746	20008A	10614R	\$427.95

OIL COOLERS



AOA OIL ANALYSIS KIT

Why not take the extra worry out of flying: Examine the interior condition of your aircraft engine with Aviation Oil Analysis. How would oil analysis help you? Safety is the main factor for oil analysis. Preventive maintenance that can be done on the basis of reports can save you money by:

1. Replacement of worn parts prior to total engine failure.
2. Ability to schedule maintenance at your local FBO, rather than emergency repairs away from home.
3. Minimum down time for equipment.
4. Possible longer time between overhauls.

Small vial, mailing bag, shipping form and instructions are furnished with order. Upon receipt at the laboratory in Phoenix, Az., the oil sample is analyzed and a full report is forwarded in 24 hrs. AOA, unlike others, specialize in aviation analysis only so are most perspective in their findings.

Kit for reciprocating enginesP/N 08-00436.....**\$12.95**
 Kit for turbine enginesP/N 08-00435.....**\$13.50**



LAB ONE AVIATION (LOA) OIL ANALYSIS KIT

Oil is the life blood of your engine. An aviation oil analysis can forecast future engine problems and save you money. This kit includes a sample bottle, shipping container and the paperwork. Upon receipt, your sample will be processed within 24

hours with the results emailed or mailed from Lab One in Phoenix, AZ. Kits can be used on any reciprocating or turbine engine and helicopter transmissions and tail rotors. P/N 08-01222**\$13.50**

CHAMPION CH48200 OIL FILTER ANALYSIS KIT



Champion Oil Filter Analysis Kit can help you detect abnormal engine wear and even predict impending engine trouble, because it provides a comprehensive analysis of both the larger wear particles in the oil filter and the finer wear particles in the engines oil. With this Kit you will get a detailed report on the filter element and the oil

that is based on the state of the art analytical techniques and lab results interpretation. The report will be generated within 24 hrs of the receipt of the sample, and cost less than 1 hour of lab maintenance in the shop!

Each Kit Contains the following items:

- Customer Information Form (CIF)
- Plastic Oil Filter Bottle
- Oil Sample Bottle
- Oil Sample Hose
- User label for Oil Filter Bottle
- User label for Oil Sample Bottle
- Shipping label address to Aviation Laboratories

*The laboratory analysis of the oil filter debris and oil sample included in the price of the kit (if sent with the oil filter). The filter can be returned; however, the cost of this is not included in the price.

P/N 08-01051**\$71.25**

ADC OIL COOLER ADAPTER KIT



The ADC Oil Cooler adapter is a direct replacement for Lycoming adapter LW14959 which is no longer produced. The ACD adapter allows installation of an oil cooler on Lycoming 0-235 and 0-290 series engines providing much needed oil cooling and enhanced performance. The ADC adapter is machined from solid bar

stock, rather than cast like the Lycoming adapter, thus producing a stronger and leak resistant product. The ADC kit is STC'd for all 0-235 (E-223) & 0-290 (E-229) and is ideal for certificated and homebuilt aircraft using these engines. Adapts to virtually any oil cooler and attaches to the engine underneath the oil screen housing.

P/N 07-06950**\$373.95**

OIL DIPSTICKS



New manufacture oil tank dipsticks stamped with proper calibration markings.

Dipstick Long NeckP/N 08-00037**\$36.40**
 Dipstick Short NeckP/N 08-04612**\$36.30**
 Dipstick Shrt NK 0-200&C-90 ..P/N 08-04613**\$36.40**
 Dipstick Ercoupe Long NeckP/N 08-04614**\$59.95**

MICROLON AIRCRAFT ENGINE TREATMENT



MicroLON is a revolutionary, one-time metal treatment that virtually eliminates friction in all internal combustion engines which improves performance (horsepower), reduces wear, and extends engine life. Also decreases fuel consumption, reduces oil consumption, and lowers operating temperatures. MicroLON impregnates the engines bearing surfaces, forming a dry film lubricant that lasts no matter how many times the oil is changed. Continental A-65, C-85, and C-90 engines take the Half Kit shown below. Most Lycoming and Continental engines used in light aircraft take the Single Kit. Turbocharged and Radial engines take from 2 to 6 Single Kits. Call for details if you have any questions on the quantity of MicroLON needed for your application. MicroLON kits also available for cars, buses, trucks, motorcycles, boats, and industrial equipment.

MicroLON CL-100 Aircraft Kit (Single)P/N 09-35805.....**\$119.95**
 MicroLON CL-100 Aircraft Kit (Half)P/N 09-35810**\$68.25**

PROLUBER ENGINE PRE-OILER



ProLuber is a device that is added on to your oil system to give you pre-start oil pressure. You just turn on the ProLuber for a couple of seconds, watch your oil pressure gauge rise, and then start the engine when the pressure reaches the desired level. The ProLuber is able to generate 40-60 lbs. of oil pressure in your engine before you hit the ignition switch. Simple to install and requires no drilling through your oil pan or the block. Comes with a complete kit for installation, including fittings, hoses and the on-off switch. You simply mount it, pressurize it with your air hose and begin enjoying the benefits. P/N 08-00197**\$465.00**



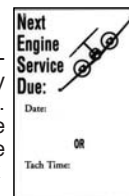
POLY-FIBER ESO ENGINE STORAGE OIL

A fine lubricating and preservative oil used to prevent corrosion in internal combustion engines during extended storage. MIL-1-21260.

QuartP/N 09-42450**\$15.25**
 GallonP/N 09-42455**\$49.05**

AVIATION SERVICE REMINDERS

These reminder cards provide an excellent maintenance reminder for aircraft owners. They attach by static cling, leaving no residue on the windshield. Cold weather or hot, they stick in the corner of the windshield to remind the pilot of oil status every time they fly. P/N 08-42305**\$6.95 10/pk**



EVANS NPG+ COOLANT FOR ROTAX ENGINES



NPG+ is new coolant providing dramatic improvements in heat transfer and viscosity that make the new fluid a "pour-in," not requiring changes to cooling system components. Conversion to NPG+ waterless coolant from the use of conventional antifreeze and water coolant mixes, to take advantage of the benefits of non-aqueous engine cooling, is now simple to accomplish. NPG+ waterless coolant virtually eliminates boil over in gasoline or diesels - the waterless coolant allows engines to tolerate running hotter, without boiling over, and allows the cooling system to run at very low or no pressure. Because there is no water in the system engines operating with NPG+ will be free from corrosion and electrolysis, and the engines will run well no matter how hard they are driven or how hot or cold the environment is. Evans Blended Waterless Coolant is recommended, for street use and racing where ethylene glycol use is permitted, long life Coolant. 300 or more HP recommend use: aluminum radiator and 7 psi cap. Specified coolant for Rotax Aircraft Engines, Type 912 and 914 (series). P/N 08-04535**\$27.75**

EVANS PREP FLUID



Evans Waterless Flush is used when systems cannot be drained properly of all the conventional water and antifreeze. Suggested to be used with experimental aircraft conversion and all motorcycle, ATV and import cars. Not intended to be used as a coolant. P/N 08-04534**\$23.75**

AVIATION OIL



AEROSHELL AVIATION OILS

Aeroshell W100 is an ashless, SAE 50 dispersant oil that provides excellent service in all four cycle aircraft piston engines. Aeroshell W Multigrade 15W-50 is an antiwear, ashless, dispersant, semi-synthetic oil. It is fully approved in all Lycoming, Continental, and Pratt & Whitney aircraft piston engines. Reduces engine wear, fuel consumption, and oil consumption. Helps engines start faster and eliminates the need for seasonal oil changes. Aeroshell W100 plus contains additive LW16702 which reduces engine wear and corrosion. Ideal for operations in mild to warm temperatures. Aeroshell W100 & SAE 50 oils meet MIL-L-22851C specification. Aeroshell Turbine Oil 500 provides superior high temperature corrosion protection & excellent anti-wear protection. Approved for a wide range of turbine engines including the Pratt & Whitney PT6A.

Description	Qt. P/N	Price/Qt.	Case P/N	Price/Case
W100 SAE 50	08-05400	\$3.50	08-05401	\$42.00
15W-50 Multigrade	08-05450	\$5.50	08-05451	\$62.25
W100 Plus	08-05485	\$4.90	08-05486	\$53.50
Mineral Oil	08-05410	\$4.25	08-05411	\$42.90
Turbine Oil 500	08-00581	\$26.10	08-00582	\$249.95



PHILLIPS 66 X/C AVIATION OIL

X/C oils provide easy starting and quick lubrication under low temperature conditions. Provides film strength and low wear under high temperature conditions. Provides excellent protection against engine deposits, ring groove carbon, piston lacquer, crankcase sludge and oil oxidation. Contains ashless dispersant which keeps engine clean. With more than 10 years of outstanding field performance, X/C oil meets Avco-Lycoming & Teledyne Continental engine specifications.

Description	Qt. P/N	Price/Qt.	Case P/N	Price/Case
X/C 20W-50 Av. Oil	08-05300	\$3.95	08-05301	\$39.95
20W-50 Mineral oil	08-05310	\$3.20	08-05311	\$41.20



EXXON ELITE AVIATION OIL

Exxon Elite™ 20W-50 is a multigrade oil with the flexibility to lubricate effectively over a wider range of temperatures than monograde oils. Compared to a monograde oil, a multigrade oil provides better cold-start protection and a stronger lubricant film at typical operating temperatures. Other benefits include lower oil consumption and better fuel economy as a multigrade oil, Exxon Elite™ 20W-50 has all these intrinsic advantages. • Meets SAE J1899 • Meets MIL-L-22851D (obsolete) • U.S. military approved • Contains anti-wear/anti-scuffing additive required by some Lycoming engines • FAA approved fluid for Alternative Method of compliance w/AD-80-04-03-R2, paragraph b.1 • Compatible with all commercial aviation piston-engine oils.

QuartP/N 08-00392**\$5.85**
CaseP/N 08-00432**\$55.75**

EXXON AVIATION OIL 20W-50

Exxon Aviation Oil 20W-50 is a non-dispersant lubricant for the break-in of new or newly overhauled aircraft piston engines. The multi-grade oil can be used year-round, in high and low temp climates, and was designed for use before switching to Exxon Aviation Oil Elite 20W-50. Manufactured from high thermal/oxidation stability base oils and is approved by the US Military & leading engine manufacturers worldwide, including Teledyne Continental Motors & Textron Lycoming. The product is compatible with all commercial non-dispersant and ashless dispersant piston engine oils and can be mixed in any proportion with any other certified aviation piston engine oil.

QuartP/N 08-01292**\$3.95**
Case (12qts) ..P/N 08-01293**\$38.40**



EXXON OIL BOTTLE ADAPTER

This adapter allows easier pouring from the large mouth Elite oil bottles in certain aircraft and includes a built-in valve to allow the flow of oil to be regulated.

P/N 08-01042**\$3.95**



CASTROL AVIATOR OILS

Castrol® Aviator AD piston oils are formulated from selected, highlyrefined mineral basestocks blended with an advanced additive system designed to enhance low temperature fluidity, high temp. stability, corrosion inhibition and anti-wear protection. The additive system is ashless and of a dispersant nature offering greater engine cleanliness and maximum protection.

Oil	Liter	P/N Price	Case P/N	Price
Aviator S65	08-00923	\$3.95	08-00915	\$37.30
Aviator S80	08-00924	\$3.95	08-00916	\$37.30
Aviator S100	08-00925	\$3.95	08-00917	\$37.30
Aviator S120	08-00926	\$3.95	08-00918	\$37.30
Aviator AD65	08-00927	\$4.50	08-00919	\$46.30
Aviator AD80	08-00928	\$4.50	08-00920	\$46.30
Aviator AD100	08-00929	\$6.10	08-00921	\$68.25
Aviator AD120	08-00930	\$5.50	08-00922	\$56.50



LYCOMING OIL ADDITIVE

Avco Lycoming has approved oil additive LW-16702 that contains an anti-scuffing agent and can dramatically reduce engine wear. This additive is applicable to all Avco Lycoming piston aircraft engines, and factory recommends use at every oil change or every 50 hours, whichever occurs first. For 6-8 qt. sump, use one 6 oz. can, for 12-15 qt. sump, use (2) 6 oz. cans, for 17-19 qt. sump, use (3) 6 oz. cans, for 23 qt. sump, use (4) 6 oz. cans.

6 oz. canP/N 08-05600**\$21.85**



LINKITE AVBLEND LUBRICANT

An oil supplement for aircraft, is now available for the first time to all piston engine-powered aircraft owners and operators worldwide. AvBlend produces a wetting action that allows lubrication to penetrate the pores of an engine's metal surfaces. Providing critical lubrication at start-up, AvBlend helps prevent accumulation of combustion chamber areas. Wear is reduced, engines stay cleaner and combustion chambers stay properly sealed. Keeping exhaust valves clean, well lubricated and stem-to-guide clearance at specified levels as well as valves moving straight up and down in their guides are the biggest battles in an air-cooled aircraft engine. Proper cylinder sealing is essential for achieving optimum peak pressure and design-level output. FAA approved. 4-cylinder engines require 1 can at each oil change, and 6 cylinder engines require 2 cans.

12oz. canP/N 08-05470**\$18.95**
1Case (24 cans)P/N 08-05470-1**\$454.80**



PENNZOIL OIL

Two-cycle oil for air-cooled engines. Recommended by engine manufacturers for air- and water-cooled engines. Packaged 24 individual 16-oz. bottles to a case.

CaseP/N PZ001**\$48.50**
16 oz BottleP/N PZ002**\$2.55**

AVIATION GAS TURBINE OILS

Case quantities are 24 quarts.

Oil	Qt. P/N	Price	Case P/N	Price
Aeroshell Turbine 500	08-00581	\$26.10	08-00582	\$249.95
Aeroshell Turbine 555	08-00757	\$17.90	08-00758	\$188.95
Aeroshell Turbine 560	08-00759	\$26.70	08-00760	\$293.50
British Petroleum 2380	08-00761	\$23.50	08-00762	\$257.95
Mobil Jet II	08-00763	\$23.00	08-00764	\$221.95

AEROSHELL GREASES

Aeroshell Cartridge #5 (hi-temp.).....P/N 08-05455**\$7.45**
Aeroshell Cartridge #6 (gen. purpose)....P/N 08-05460**\$10.60**
Aeroshell Cartridge #7 (prop gear)P/N 08-05475**\$8.35**
Aeroshell Cartridge #14 (helicopter)P/N 08-05480**\$6.75**
Aeroshell Cartridge #17P/N 08-00824**\$9.65**
Aeroshell Cartridge #22 (MIL-G-81322)..P/N 08-05490**\$14.65**
Aeroshell Cartridge #33 (MIL-G-81322)..P/N 08-00825**\$19.40**

EP

FUNNELS — OIL DRAIN SYS — CABIN HEATERS



model 112



model 415



model 428

CLEAN FUNNEL™

Clean Funnel™ is the funnel that keeps itself clean. Replacing the caps on each end after each use prevents left over fluid from dripping out, and keeps your work area or baggage compartment clean. No need to wipe your funnel out with a rag before reusing. Clean Funnel™ is ideal for use with fuel or oil as well as windshield washer fluid, detergents, antifreeze, hydraulic fluid, and more. Great for aircraft, automobiles, motorcycles, tractors, boats, ATV's snowmobiles, and more.

- Model 112 (turquoise) has a 1 pint fluid capacity and a 12" vinyl tube attached to its spout, making it very handy to reach into small or tight spaces.
- Model 415 (red) has a 1-1/2 quart capacity, 17" long with flexible spout, and spout I.D. is 9/16".
- Model 428 (black) has 1-1/2 quart & 13-1/4" long with a flexible spout and 1-1/8" O.D. spout.

Model #	Color	Part No.	Price
112	Turquoise	12-00374	\$5.90
415	Red	12-00375	\$6.95
428	Black	12-00376	\$7.80



DISPOSABLE FOLDING OIL FUNNELS

These disposable funnels are very popular among aircraft owners and pilots for adding engine oil. They store flat, clean and dry in a recloseable bag, and eliminate the messy cleaning when using a regular funnel. Also ideal for brake fluid, resins, and paints. Furnished in pack of 10 funnels.

Pack of 10 ..P/N 08-00040\$2.65



LYCOMING OIL SCREEN ADAPTER

This oil screen adapter replaces the standard Lycoming oil screen housing on Lycoming O-320 series engines and up. It retains the thermostat valve and the oil temperature sender but eliminates the oil screen, eliminating the need for constant service.

P/N 08-06752.....\$189.00



OIL DRIP PAN

The drip pan is 54-1/2" x 32-1/2" x 2" and is manufactured out of an extremely durable and chemical resistant plastic (high density polyethylene). White in color, our drip pan is neat and clean in appearance and allows for easy visual inspection and monitoring of any engine leaks. The size and design of the drip pan will collect virtually any leaking fluids and eliminate the need for five quart pails and other messy collection containers. It is also a convenient place to pour fuel samples. Specifically designed for general aviation.

P/N 08-06700\$59.65



DRAIN MATE

The patented Drain Mate is a handy new pilot tool that works like a second pair of hands. Great for complete draining of motor oil bottles and other fluid containers, Drain Mate saves time, money, and frustration. Simple to use. The spring clamp attaches to the funnel, bucket or bowl. Bend or flex it to near vertical drain position, then insert bottle for final draining (after conventional bulk removal). Depress finger tabs to clamp/unclamp bottle. The Drain Mate can also be used for other draining chores around the hangar, home, garage, marina, and shop.

P/N 08-00570.....\$9.95

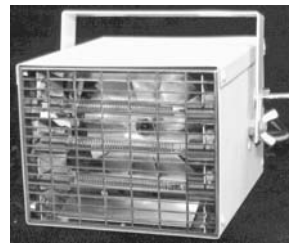
RANS AIRCRAFT CABIN HEATER



The RANS aircraft heater is the answer to the winter flying "chills". It is very lightweight, inexpensive and installs easily in just two hours. This heater utilizes ram air & the heat off the engine muffler. Operation is simple. Slipstream air is forced through the heater inlet, passing over the muffler, picking up the heat and delivering it to the cabin or pod via an Aeroduct hose. Contains no moving parts. Fits Rotax mufflers and adaptable to other engines.

P/N 05-17400\$75.00

INFRA-RED CABIN HEATERS



These small, lightweight units are forced air infra-red D.C. quartz heaters that warm you almost instantly. Each model is thermally protected by a safety valve heat limiter and fuse protection is another safety feature. Select the heater you require according to the size of your alternator and your other electrical needs. All models weigh 2 lbs. and are 4" h x 5" w x 6" d. For use in homebuilt aircraft, boats, RVs, vans & heavy equipment.

Model	Volts	Amps	Watts	List Price	Our Price
K12-2500	12	25	300	\$215.00	\$161.95
K12-3500	12	35	420	\$230.00	\$180.95
K24-2500	24	25	600	\$235.00	\$186.95
K24-3500	24	35	840	\$250.00	\$218.95



ENGINE OIL TUBE EXTENDERS

By simply adding one of these Oil Tube Extenders to your Continental engine, you can service your aircraft with oil without using a funnel and without a mess. Installation of the FAA approved STC'd kit takes only minutes. The filler opening will then be near the cowling within the reach of your oil can.

The kits will fit these Continental models:

0-470-A, -B, -E, -G, -J, -K, -L, -M, -P, -R, -S, -U, 10-470-C, -D, -E, -F, -G, -H, -J, -K, -M, -N, -P, -R, -S, -U, -V, TS10-470-B, -C, -D 10-520-A, -D, -E, -F, -J, -K, -L, TS10-520-C, -G, -H, -M, -P, -R, -T, -AF

Select the kit that will extend your oil filler the correct amount.

Extends 2 inches P/N 08-04365.....\$7.70



OIL COOLER AIR DUCTS

These reminder cards provide an excellent maintenance reminder for aircraft owners. They attach by static cling, leaving no residue on the windshield. Cold weather or hot, they stick in the corner of the windshield to remind the pilot of oil status every time they fly.

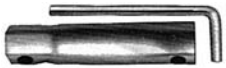
Part No.	Application	Price
08-01281	20002A Niagara, 800075 Aero Classics 8406R Stewart Warner, P20002C PosiTech	\$63.90
08-01282	20004A Niagara, 800081 Aero Classics 10599R Stewart Warner, P20004C PosiTech	\$75.60
08-01283	20006A Niagara, 800215 Aero Classics 10611R Stewart Warner, P20006C PosiTech	\$87.75

ULTRALIGHT ENGINE ACCESSORIES



SPARK PLUG CADDY
Handy case holds (2) 14mm spark plugs. Small enough to fit into your pocket.

P/N SPC01\$2.90



SPARK PLUG WRENCH
Loosen or tighten your spark plugs with this handy tool.

P/N SPWR01\$3.35



PLASTIC STARTER HANDLE
Black flexible plastic heavy duty handle. Tested to -40°F

P/N SH001\$4.95



SPARK PLUG JACK
Rivets or screws to any flat surface and holds two spare 14mm plugs. Tough polycarbonate plastic with spring-loaded plug anchors keeps plugs dry and protects gaps.

P/N SPJ01\$3.95



NYLON STARTER ROPE
The perfect replacement rope for worn-out manual starters.

P/N SRP01\$0.45 per ft.



SPARK PLUG CAPS
Original NGK. Black. 5000 ohm resistance. P/N 08-00737 is used on threaded type plugs. P/N 08-04960 is used on solid top plugs.

P/N 08-00737\$3.35

P/N 08-04960\$3.35



SPARK PLUG WIRE
High-quality multi-strand copper core unshielded wire. 7mm diameter. For all Rotax® and most other engines. Replaces Rotax® Part No. 965-158.

P/N SPW01\$0.65 per ft.



FLEXDRIVE
PosiFlex coupler for Quicksilver®

For 377/477 w/o high-thrust modP/N QFD002\$149.95

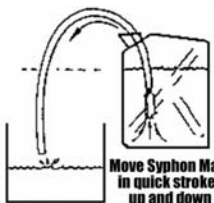
For all high-thrust modsP/N QFD003\$209.95



RATIO-RITE CUP
Getting the right oil-to-gas ratio is no problem with this tough polypropylene cup. Just fill the cup with oil to the ratio level desired, and mix with gasoline. Ratios from 16:1 to 50:1. Graduated in ounces and CCs for filling chain cases, etc. 18 oz. capacity.

CupP/N RRT01\$4.05

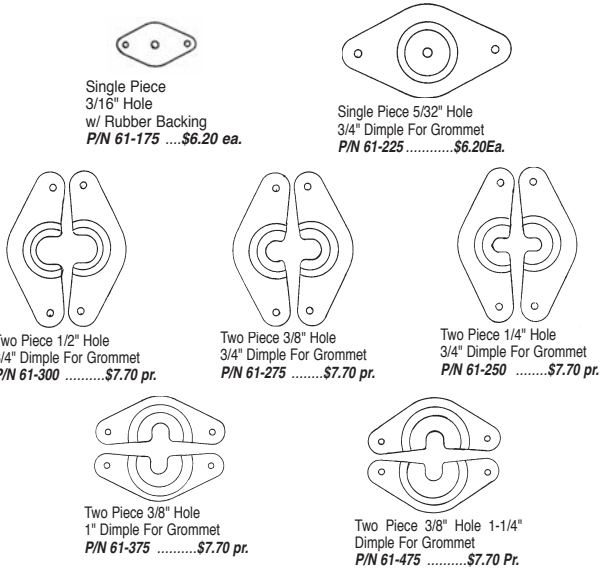
LidP/N RRT02\$1.38



SYPHON MATE
Here's a safe and easy method of fuel transfer. A simple jiggle of the Syphon Mate establishes the flow, and then air pressure maintains it. Never wears out, and it's guaranteed for three years. The outlet end is 1/2" standard pipe thread for easy attachment to a garden hose, if needed.

P/N SPM01\$6.95

STAINLESS STEEL FIREWALL SHIELDS



Single Piece
3/16" Hole
w/ Rubber Backing
P/N 61-175\$6.20 ea.

Single Piece 5/32" Hole
3/4" Dimple For Grommet
P/N 61-225\$6.20Ea.

Two Piece 1/2" Hole
3/4" Dimple For Grommet
P/N 61-300\$7.70 pr.

Two Piece 3/8" Hole
3/4" Dimple For Grommet
P/N 61-275\$7.70 pr.

Two Piece 1/4" Hole
3/4" Dimple For Grommet
P/N 61-250\$7.70 pr.

Two Piece 3/8" Hole
1" Dimple For Grommet
P/N 61-375\$7.70 pr.

Two Piece 3/8" Hole 1-1/4"
Dimple For Grommet
P/N 61-475\$7.70 Pr.

Two piece shields for use over cables or wires with large end-fittings or existing installations. Single piece for use where the cable or wire may pass through the hole. Flat shields designed for use on wooden or composite firewalls using a fire resistant sealant to prevent leaks. Both types of shield available in flat or with dimple to accommodate rubber grommets up to outside diameter.

Actual hole size in 2 piece shields is slightly larger than indicated to prevent chafing cable. Ream pilot hole in single piece shields oversize for the size grommet used. Use grommets that fit tightly around the cable or wire to insure a good seal.

Shields may be installed with screws, bolts and plate nuts or rivnuts. Install cable and grommet in firewall. Locate the shield to insure that it is centered on the cable - then drill attach holes in firewall. Shields predrilled with 5/32" mounting holes. If more than one cable passes through grommet fire resistant sealant must be applied to grommet.

CAUTION: Any holes drilled in the firewall are potential source of carbon monoxide in the cockpit. Extreme caution must be exercised when installing firewall shields in your aircraft. They do not provide the necessary seal around cables or wires to prevent carbon monoxide, smoke or fire from entering the cockpit. The shields are designed only to protect the sealing material (grommets/gaskets) from excessive heat.

HOMEBUILDERS CONICAL LYCOMING ENGINE MOUNT BUSHINGS



These new bushings offer superior damping qualities and do not harden over time as original mounts can do. They are molded from hi-tech silicone rubber which offering a much lower compression set which reduces engine sagging over time. Silicone also withstands a very wide temperature range and is compatible with grease and oil. These mounts are not PMA'd or FAA approved and are for use on experimental aircraft only. Not an approved replacement for Lycoming 71032 bushings. Sold in set of 8 bushings.

P/N 08-00662 ..\$39.50 /Set

LORD ENGINE MOUNTS FOR ULTRALIGHTS



All altitude mounts for vibration isolation and shock prevention in all directions. Available in soft, medium, or hard rubber.

SoftP/N BM001\$9.30

MediumP/N BM002\$14.30

HardP/N BM003\$14.20

Snubbing WasherP/N 9810145-01804\$1.27



RUBBER ENGINE MOUNTS

Used to isolate vibration from engine/exhaust system to airframe. P/N LM001 \$5.70



RUBBER ENGINE MOUNTS

Natural Rubber and steel. P/N LMT02 \$17.80

LORD SQUARE MOUNT

Natural Rubber and steel. P/N LMT01 \$10.70



LORD ENGINE MOUNTS

LORD ELASTOMERIC ENGINE MOUNTS



These compression type couplings consist of bonded rubber joints pressed into the sockets of metal hubs. These dynafocal engine suspensions provide proper flexible support to isolate engine vibrations and reduce noise transmission to airframe structure in all aircraft applications. Careful design assures maximum strength to hold the engine under ultimate load and emergency conditions. Suspensions also distribute loads in most desirable patterns, control engine motions, accommodate thermal expansion and manufacturers' tolerances. Vibration Isolation Products (VIP) equivalent mounts are available as listed in table below.

PROMPT SHIPPING GUARANTEED! IF YOU REQUIRE UNLISTED LORD MOUNTS, PLEASE CALL US FOR YOUR BEST PRICE. WE BEAT ALL COMPETITOR'S PRICES! LET US KNOW OF ANY LOWER PRICE AND WE WILL BEAT IT!

Aircraft Model	Application/Engine	No. per A/C	Part No.	Price	Aircraft Model	Application/Engine	No. per A/C	Part No.	Price
AVIAT					BELLANCA				
A-1	Lyc. O-360-C1G/A1P	8	J-1552	\$34.95	17-31, 17-31A	Lyc. IO-540-K	4	J-9868-5	\$179.95
S-1	Lyc. O-320	8	J-7401-2	\$34.40	17-31A	Lyc. IO-540-KIE5	4	J-9868-5	\$179.95
S-1S, -2A	Lyc. O-360-B4A, A1P	8	J-7401-2	\$34.40	17-31TC, 17-31ATC	Lyc. IO540-G, K	4	J-9868-5	\$179.95
BEECHCRAFT					CESSNA				
19	Lyc. O-320-E2C	4	J-7402-16	\$55.50	7ACA	Franklin 2A-120A, B	8	J-3608-1	\$11.85
B19, M19A	Lyc. O-320-E2D	4	J-7402-16	\$55.50	7ECA	Cont. O-200-A	8	J-3608-1	\$11.85
23	Lyc. O-360-A4G	4	J-7402-16	\$55.50	7ECA	Lyc. O-235-C1	4	J-6230-1	\$79.95
23	Cont. IO-346-A	4	J-10778-4	\$173.95	7GCAA, 7GCBC	Lyc. O-320-A2B	4	J-6230-1	\$79.95
A23-24	Lyc. IO-360-A2B	4	J-10778-4	\$173.95	7GCAA, 7GCBC	Lyc. O-320-A2D	4	J-6230-1	\$79.95
C-23	Lyc. O-360-A4K	4	J-7402-16	\$55.50	7KCAB	Lyc. O-320-E2A	4	J-6230-1	\$79.95
24, A24, A24R, B24R	Lyc. IO-360-A2B	2 ea.*	J-10778-14	\$338.95	7KCA	Franklin 2A-120A, B	8	J-3608-1	\$11.85
C-24R	Lyc. IO-360-A1B6	2 ea.*	J-10778-16	\$192.95	8GCBC-CS	Lyc. O-360-C1E	4	J-6230-1	\$79.95
B33, C33	Cont. IO-470-K	4	J-7518-2	\$103.95	8GCBC-FP	Lyc. O-360-C2E	4	J-6230-1	\$79.95
C33A	Cont. IO-520-B	4	J-10520-1	\$105.95	8GCBC	Lyc. O-360-C2E	4	J-6230-1	\$79.95
E33, F33	Cont. IO-470-K	4	J-7518-2	\$103.95	8KCAB	Lyc. IO-320-E1A	4	J-6230-1	\$79.95
E33A/C, F33A/C	Cont. IO-520-BB	4	J-10520-1	\$105.95	8KCAB-CS	Lyc. AEIO-320-E1B	4	J-6230-1	\$79.95
G33	Cont. IO-470-N	4	J-10520-1	\$105.95	8KCAB-FP	Lyc. AEIO-320-E2B	4	J-6230-1	\$79.95
35, A35, B35	Cont. E185-8	8	J-2245-1	\$82.00	8KCAB-180	Lyc. AEIO-360-H1A	4	J-6230-1	\$79.95
C35, D35, E35, F35	Cont. E185-11	4	J-3804-26	\$106.95	CESSNA				
E35, F35, G35	Cont. E225-8	4	J-3804-26	\$106.95	120-140	Cont. C-85	8	J-3608-1	\$11.85
H35	Cont. O-470-G	4	J-7518-2	\$103.95	140A	Cont. C-90	8	J-3608-1	\$11.85
J35, K35, M35	Cont. IO470-C	4	J-7518-2	\$103.95	150, 150A-L	Cont. O-200-A	8	J-3608-1	\$11.85
N35, P35	Cont. IO-470-N or-C	4	J-7518-2	\$103.95	152, 152 Aerobat	Lyc. O-235-L2C	4	J-7402-1	\$58.75
S35, T35, V35, V35A, B	Cont. IO-520-BB	4	J-10520-1	\$105.95	170, 170A, B	Cont. C-145	4	H-3006-1	\$16.50
36, A-36	Cont. IO-520-BB	4	J-10520-1	\$105.95	170B	Cont. O-300-A	4	H-3006-1	\$16.50
A36TC	Cont. TSIO-520-UB	4	J-10520-1	\$105.95	172	Cont. O-300-A	4	H-3006-1	\$16.50
V35A-TC	Cont. TSIO-520-D	4	J-10520-1	\$105.95	172A	Cont. O-300-C	4	H-3006-1	\$16.50
B50	Lyc. GO-435-C2/C2E	8	J-3804-10	\$129.95	172 B-H	Cont. O-300-C, D	4	H-3006-1	\$16.50
C50	Lyc. GO-480-F1A6	8	J-3804-10	\$129.95	172 I-P	Lyc. O-320-E2D	4	J-9613-49	\$101.95
D50, D50B/C/E	Lyc. GO-480-G2F6	4	J-3804-10	\$129.95	172P	Cowl Mount	--	J-7444-14	\$9.80
E50, F50, G50, H50	Lyc. GSO-480-B1B6	4	Use		F172P	Cowl Mount	--	J-7444-14	\$9.80
G50, G50, J50	Lyc. IGSO-480-A1B6	4	J-7525-1	\$93.95	F172P	Cowl Mount	--	J-7444-24	\$18.90
55, A55, B55	Cont. IO-470-L	8	J-7518-2	\$103.95	F172	Cowl Mount	--	J-7444-36	\$38.50
55, A55, B55, B55A	Cont. IO-470-L	8	J-9613-5	\$247.95	172	Lyc. O-320-D2J	4	J-9613-49	\$101.95
C55(1967), D55, D55A, E55, E55A	Cont. IO-520-CB	8	J-10778-16	\$192.95	172N	Lyc. O-320-H2AD	4	J-9613-49	\$101.95
56TC, A56TC	Lyc. TIO-541-E1B4	8	J-9613-9	\$122.95	172	Cont. IO-360-K	4	J-9613-42	\$108.95
58	Cont. IO-520-CB	8	J-10778-16	\$192.95	172RG	Lyc. O-360-A1F6	2 ea.*	J-9613-49	\$101.95
58 (1984-on)	Cont. IO-550-C	8	J-10778-16	\$192.95	172Q	Lyc. O-360-AL/N	2 ea.*	J-9613-72	\$189.95
58P	Cont. TSIO-520-L/-LB	8	J-12453-12	\$118.95	172P,Q	Cowl Mount	--	J-9613-49	\$101.95
58P	Cont. TSIO-520-WB	8	J-12453-12	\$118.95	172	Cowl Mount	--	J-7444-36	\$38.50
58TC	Cont. TSIO-520-L/-LB	8	J-12453-12	\$118.95	P172	Cont. GO-300-E	4	J-6545-1	\$62.95
58TC	Cont. TSIO-520-WB	8	J-12453-12	\$118.95	R172E,K	Cont. IO-360-D	4	J-9613-42	\$108.95
60, B60	Lyc. TIO-541-E1C4	8	J-9613-9	\$122.95	175	Cont. GO-300-A	4	J-6545-1	\$62.95
65, A65, 70	Lyc. IGSO-480-A1E6	4	J-7525-1	\$93.95	175A, B	Cont. GO-300-C, D	4	J-6545-1	\$62.95
76TC	Lyc. TO-360-C1A6D	2 ea.*	J-9613-49	\$101.95	175C	Cont. GO-300-E	4	J-6545-1	\$62.95
76	Lyc. O-360-A1G6D	2 ea.*	J-9613-50	\$86.25	177	Lyc. O-320-E2D	4	J-9613-49	\$101.95
77	Lyc. O-235-L2C	4	J-7402-1	\$58.75	177A	Lyc. O-360-A2F	4	J-9613-49	\$101.95
80, A80, B80, 88	Lyc. IGSO-540-AID	4	J-7525-1 & J-6545-1	\$93.95	177B	Lyc. O-360-A1F6D	4	J-9613-49	\$101.95
C90, C90A	PWC PT6A-21	6	LM427SA7	\$1,070.95	177RG	Lyc. IO-360-A1B6	4	J-9613-59	\$167.95
E90, F90	PWC PT6A-28, -135, -135A	6	LM427SA7	\$1,070.95	180	Cont. O-470-A, J	2 ea.*	J-3804-14	\$116.95
H90	PWC PT6A-34B	6	LM427SA7	\$1,070.95	180	Cont. O-470-K	4	J-6545-1	\$62.95
95, 95A, 95B	Lyc. IO-360-B1B	8	J-7402-1	\$58.75	180A-H	Cont. O-470-K, R	4	J-6545-1	\$62.95
D95A, E95	Lyc. IO-360-B1B	8	J-7402-1	\$58.75	180H, J	Cont. O-470-R, U	4	J-6545-1	\$62.95
A100	PWC PT6A-28	6	LM427SA7	\$1,070.95	182, 182A-R	Cont. O-470-R, U	4	J-6545-1	\$62.95
B100	GA TPE331-6-252B	4&2*	LM821SA49	\$3,263.85	182, 182A-N	Accessory Mount	--	J14290-4	\$24.60
200, 200C, 200CT	PWC PT6A-41	8	LM427SA7	\$1,070.95	182H-N	Panel Mount	--	J-6984-64	\$12.90
A200/C/CT	PWC PT6A-41	8	LM427SA7	\$1,070.95	T182	Lyc. O-540-L3C5D	4	J-9613-12	\$98.75
B200	PWC PT6A-42	8	LM427SA7	\$1,070.95	TR182	Lyc. O-540-L3C5D	4	J-9613-12	\$98.75
C90, E90, C99, 200/C /CT, A200/C/CT, B200/C/CT/T	Overhaul kit for Barry Controls P/N5906-2SA5	8	08-00402	\$225.00	185, 185A-E	Cont. IO-470-F	4	J-6545-1	\$62.95
					185	Cont. IO-520-D	4	J-6545-1	\$62.95
					A185F	Cont. IO-520-D	4	J-6545-1	\$62.95
					188	Cont. O-470-R	4	J-6545-1	\$62.95
					188	Cont. IO-520-D	4	J-6545-1	\$62.95

NOTE: * indicates more than one Lord Part No. needed

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LORD ENGINE MOUNTS

Aircraft Model	Application / Engine	No. per A/C	Part No.	Price	Aircraft Model	Application / Engine	No. per A/C	Part No.	Price							
CESSNA cont.					M20E (1969-75)	Lyc. O-360-A1A	4	J-9613-12	\$98.75							
188	Cont. IO-520-D	2 ea.*	J15198-1	\$296.95	M20F (1966-77)	Lyc. O-360-A1A	4	J-9613-12	\$98.75							
188A, 188B	Cont. IO-520-D	2 ea.*	J15198-2	\$344.95	M20G (1968-70)	Lyc. O-360-A1D	4	J-7402-1	\$58.75							
205, 205A	Cont. O-360-B4A	4	J-6545-1	\$62.95	M22 (1966-70)	Lyc. TIO-541-A1A	4	J-10520-1	\$105.95							
206, 206A IO-520A	Cont.	2 ea.*	J12453-1	\$118.95	M20J (1976-up)	Lyc. IO-360-A3B6D	4	J-9613-40	\$99.50							
206B IO-520F	Cont.	2 ea.*			J12453-2	\$111.95	M20K (1979-85)	Cont. TSIO-360-GB1	4	J-9613-58	\$157.95					
U206T TSIO-520C	Cont.	2 ea.*					08-00403	\$12.90	M20K (1979-85)	Cont. TSIO-360-GB3	1/3*	J-9613-75 and J-9613-76	\$286.95			
U206 IO-520F	Cont.	2 ea.*			M20K (1979-85)	Cont. TSIO-360-GB4			1/3*	M20K (1986-up)	Cont. TSIO-360-LB1B			1/3*	\$265.95	
U206A,E	Panel Mount	--	M20K (1986-up)	Cont. TSIO-360-MB1	1/3*	NAVION AIRCRAFT										
U206G	Cont. IO-520-F	2 ea.*	G, H							Cont. IO-470-H or IO-520-B	4	J-7518-4	\$288.95			
TU206A-F	Cont. TSIO-520-C	2 ea.*	PIPER													
T206G	Cont. TSIO-520-M	2 ea.*	PA-23										Lyc. O-320-D2	8	J-6230-1	\$79.95
P206, P206A-E	Cont. IO-520-A	2 ea.*	J12453-1	\$118.95	PA-23-160	Lyc. O-320-B	8	J-6230-1	\$79.95							
P206T, P206T A-E	Cont. TSIO-520-C	2 ea.*	J12453-2	\$111.95	PA-23-235	Lyc. OI-540-B1A5	8	J-3804-20	\$93.25							
207, 207A	Cont. IO-520-F	2 ea.*			PA-23-250	Lyc. O-540-A1B5, A1D5	8	J-3804-20	\$93.25							
207A II	Cont. IO-520-F	2 ea.*			PA-23-250 (6)	Lyc. IO-540-C1B5, A1D5	8	J-3804-20	\$93.25							
207T	Cont. TSIO-520-G	2 ea.*			PA-23-250 (6)	Lyc. IO-540-C4B5	8	J-9613-12	\$98.75							
T207A, T20A II	Cont. TSIO-520-M	2 ea.*			PA-23-250 (6)	Lyc. IO-540-J4A5	8	J-9613-12	\$98.75							
210, 210A-C	Cont. IO-470-E, S	4	J-6545-1	\$62.95	PA-23-250T	Lyc. IO-540-C4B5	8	J-9613-12	\$98.75							
210 D-J	Cont. IO-520-A, J	2 ea.*	J-12453-1	\$118.95	PA-24-180	Lyc. TIO-540-C1A	8	J-9613-12	\$98.75							
210 K-R	Cont. IO-520-L	2 ea.*	J-12453-2	\$111.95	PA-24-250	Lyc. O-360-A1A	4	J-7402-5	\$78.75							
210 K, L	Panel Mount	--	J-6984-64	\$12.90	PA-24-250	Lyc. O-540-C1B5, A1A	4	J-3804-20	\$93.25							
T210M, N	Cont. TSIO-520-R	2/1/1*			PA-24-260	Lyc. IO-540-E4A5, D4A5	4	J-3804-20	\$93.25							
T210 F-L	Cont. TSIO-520-C, H	2 ea.*	J-12453-1	\$118.95	PA-24-260	Lyc. IO-540-N1A5	4	J-3804-30	\$151.95							
P210M, N	Cont. TSIO-520-AF, P	2/1/1*	J-12453-2	\$111.95	PA-24-400	Lyc. IO-720-A1A, A1B	4	J-9613-9	\$122.95							
T210R (1985-86)	Cont. TSIO-520-CE	4/2*			PA-25-235	Lyc. O-540-B2C5, B2B5	4	J-3804-20	\$93.25							
P210 R (1985-86)	Cont. TSIO-520-CE	4/2*			PA-25-260	Lyc. O-540-E4	4	J-3804-20	\$93.25							
310B	Cont. O-470-M	8	J-6545-1	\$62.95	PA-28-140	Lyc. O-320-E2A	4	J-7402-16	\$55.50							
310C-H	Cont. IO-470-D	8	J-12390-1	\$128.95	PA-28-140	Lyc. O-320-E2A	2	J-9613-40	\$99.50							
310JQ	Cont. IO-470-U, V, VO	8	J-12390-1	\$128.95	PA-28-140	Lyc. O-320-E3D	2 ea.*	J-9613-40	\$99.50							
310R	Cont. IO-520-M, MB	8	J-9613-58	\$157.95	PA-28-150	Lyc. O-320-A2B	4	J-7402-16	\$55.50							
T310 P, Q, R	Cont. TSIO-520-B, BB	8	J-9613-58	\$157.95	PA-28-150	Lyc. O-320-A2B*	4	J-7402-24	\$76.95							
320, 320A-C	Cont. TSIO-470-B, D	8	J-7764-4	\$172.95	PA-28-150	Lyc. O-320-E2A	4	J-7402-16	\$55.50							
320 D-F	Cont. TSIO-520-B, BB	8	J-9613-58	\$157.95	PA-28-151	Lyc. O-320-E3D	2 ea.*	J-9613-40	\$99.50							
337, 337A-H	Cont. IO-360-C, D, G	8	J-9613-31	\$158.95	PA-28-160	Lyc. O-320-B2B	4	J-7402-16	\$55.50							
T337B-G	Cont. TSIO-360-A, H	8	J-9613-31	\$158.95	PA-28-160	Lyc. O-320-D2A**	4	J-7402-16	\$55.50							
P337H	Cont. TSIO-360-C, CB	8	J-9613-31	\$158.95	PA-28-160	Lyc. O-320-D2A	4	J-7402-24	\$76.95							
340	Cont. TSIO-520-K, KB	8	J-9613-58	\$157.95	PA-28-161	Lyc. O-320-D3G	2 ea.*	J-9613-40	\$99.50							
340A	Cont. TSIO-520-NB	8	J-9613-58	\$157.95	PA-28-180	Lyc. O-360-A3A	4	J-7402-24	\$76.95							
401, 401A,B	Cont. TSIO-520-E, EB	8	J-9613-58	\$157.95	PA-28-180	Lyc. O-360-A4A	4	J-7402-24	\$76.95							
402, 402A,B	Cont. TSIO-520-E, EB	8	J-9613-58	\$157.95	PA-28-180	Lyc. O-360-A4A, M***	4	J-9613-40	\$99.50							
402C	Cont. TSIO-520-VB	8	J-9613-58	\$157.95	PA-28R-180	Lyc. O-360-B1E	4	J-9613-40	\$99.50							
404	Cont. GTSIO-520-M	8	J-9613-54	\$151.95	PA-28-181	Lyc. O-360-A4M	4	J-9613-40	\$99.50							
411, 411A	Cont. GTSIO-520-C	8	J-9613-54	\$151.95	PA-28R-200	Lyc. IO-360-C1C	4	J-9613-40	\$99.50							
414, 414A	Cont. TSIO-520-J, NB	8	J-9613-58	\$157.95	PA-28R-201	Lyc. IO-360-C1C, C1C6	4	J-9613-40	\$99.50							
421, A, B	Cont. GTSIO-520-D, H	8	J-9613-54	\$151.95	PA-28R-201T	Cont. TSIO-360-F, FB	4	J-9613-58	\$157.95							
421C	Cont. GTSIO-520-L, N	8	J-9613-54	\$151.95	PA-28-235	Lyc. O-540-B2B5	4	J-3804-20	\$93.25							
COMMANDER AIRCRAFT CO.					PA-28-235	Lyc. O-540-B1B5	4	J-7402-20	\$88.25							
112, 112B	Lyc. O-360-C1D6	2 ea.*	J-9613-40	\$99.50	PA-28-235	Lyc. O-540-B4B5	4	J-7402-20	\$88.25							
112T, TCA	Lyc. IO-360-C1A6D	2 ea.*	J-9613-53	\$99.25	PA-28-235	Lyc. O-540-B4B5****	4	J-3804-27	\$108.95							
114	Lyc. IO-540-T4A5D	4	J-3804-28	\$83.50	PA-28-236	Lyc. O-540-J3A5D	4	J-9613-12	\$98.75							
GRUMMAN AMERICAN					PA-30	Lyc. IO-320-B1A1C1A	8	J-9613-19	\$106.95							
AA-1	Lyc. O-235-C2C	8	J-6113-5	\$41.90	PA-31-300	Lyc. IO-540-M1A5	8	J-9613-30	\$162.95							
AA-1A, B	Lyc. O-235-C2C	8	J-6113-5	\$41.90	PA-31	Lyc. TIO-540-A1A, or A1B, A2C, A2B	8	J-9613-12	\$98.75							
AA-1C (Tomcat)	Lyc. O-235-L2C	4	J-7402-24	\$76.95	PA-31-310	Lyc. TIO-540-A2C	8	J-9613-12	\$98.75							
AA-1C (Lynx)	Lyc. O-235-L2C	4	J-7402-24	\$76.95	PA-31-325	Lyc. L/ TIO-540-F2BD	8	J-9613-12	\$98.75							
AA-5	Lyc. O-320-32G	4	J-7402-24	\$76.95	PA-31-350	Lyc. L/ TIO-540-J2BD	8	J-9613-29	\$133.95							
AA-5A	Lyc. O-320-32G	4	J-7402-24	\$76.95	PA-31P-350	Lyc. TIO-540-V2AD	--	J-9613-53	\$99.25							
AA-5B (S/N 1-399)	Lyc. O-360-A4K	4	J-9613-49	\$101.95	PA-31P	Lyc. TIGO-541-E1A	8	J-9613-30	\$162.95							
AA-5B, AG-5B	Lyc. O-360-A4K	4	J-9613-59	\$167.95	PA-31T-1, -500	PWC PT6A-11	6	LM423SA2	\$889.00							
EXTRAFLUGZEUGBAN					PA-31T-620	PWC PT6A-28, 135	4	LM423SA2	\$889.00							
260	Lyc. AEIO-540-D4A5	4	J-7764-20	\$130.95	PA-31T-620XL,-31T2		2	LM423SA22	\$806.50							
LAKE AIRCRAFT					PA-32-260	Lyc. O-540-E4B5	4	J-7402-20	\$88.25							
LA-4A	Lyc. O-360-A1A	4	J-7402-6	\$112.95	PA-32-260 (s/n 570-up)	Lyc. O-540-E4B5	4	J-3804-27	\$108.95							
LA-4-200	Lyc. O-360-A1B	4	J-7402-6	\$112.95	PA-32-300	Lyc. IO-540-K1A5	4	J-3804-27	\$108.95							
MAULE AIRCRAFT					PA-32-300	Lyc. IO-540-K1G5, K1A5	4	J-3804-40	\$97.75							
M-4 (Jetasen)	Cont. O-300-A, B	4	H-3006-1	\$16.50	PA-32R-300	Lyc. IO-540-K1G5D	4	J-3804-31	\$147.95							
M-4 (Rocket)	Cont. IO-360-A	4	J-7764-10	\$161.95	PA-32R-300 (s/n 141-up)	Lyc. IO-540-K1G5D	4	J-3804-40	\$97.75							
M-4 (Explorer)	Cont. O-300-A, B	4	H-3006-1	\$16.50	PA-32RT-300	Lyc. IO-540-K1G5	2 ea.	J-3804-40	\$97.75							
M-5-180	Lyc. O-360-C1F	4	J-6230-1	\$79.95	PA-32RT-300T	Lyc. TIO-540-51AD	2 ea.	J-3804-37& J-3804-39	\$142.95 \$263.95							
M-5-210C	Cont. IO-360-D	4	J-7764-10	\$161.95	PA-32-301	Lyc. IO-540-K1G5D	2 ea.	J-9613-19 & J-9613-12	\$106.95 \$98.75							
M-5-235C	Lyc. O-540-J1A5D	4	J-7764-20	\$130.95	PA-32-301T	Lyc. IO-540-K1G5D	2 ea.	J-9613-19 & J-9613-55	\$106.95 \$139.95							
M-7-235	Lyc. O-540-J1A5D	4	J-7764-20	\$130.95	PA-32R-301T	Lyc. TIO-540-S1AD	2 ea.	J-9613-19 & J-9613-55	\$106.95 \$139.95							
MOONEY AIRCRAFT					PA-34-200	Lyc. L/ IO-360-C1E6	8	J-9613-40	\$99.50							
M20	Lyc. O-320	4	J-6230-1	\$79.95	PA-34-200, 200T	Cont. TSIO-360-E, EB	8	J-9613-58	\$157.95							
M20A (1958-1960)	Lyc. O-360	4	J-7402-16	\$55.50	PA-34-220T	Cont. L/ TSIO-360-KB	4	J-9613-58	\$157.95							
M20B (S/N1701-1939)	Lyc. O-360-A1D	4	J-7402-1	\$58.75	PA-36-285	Cont. 6-285	4	J14090-7	\$499.50							
M20C(S/N1940-20-1258)	Lyc. O-360-A1D	4	J-7402-1	\$58.75	PA-36-300	Lyc. IO-540-K1G5	4	J-3804-31	\$147.95							
M20D (S/N101-260)	Lyc. O-360-A2D	4	J-7402-1	\$58.75												
M20E (S/N101-470)	Lyc. O-360-A1A	4	J-7402-16	\$55.50												

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ENGINE MOUNTS

LORD ENGINE MOUNTS (continued from p.266)

Aircraft Model	Application / Engine	# per A/C	Part No.	Price
PIPER cont.				
PA-38-112	Lyc. O-235L2C	4	J-7402-16	\$55.50
PA39	Lyc. IO-320-B1AC1A	8	J-9613-19	\$106.95
PA-44-180	Lyc. O-360-E1A6D	8	J-9613-40	\$99.50
PA-44-180T	Lyc. T0-360-E1A6D	8	J-9613-40	\$99.50
PA-46-310P	Cont. TSIO-520-BE	4	J-9613-55	\$139.95
PA-46-350P	Lyc. TIO-540-AE2A	8	J-9613-55	\$139.95
PA-60-360	Lyc. IO-360-E1A	8	J-9613-19	\$106.95
PA-60-600A	Lyc. IO-540-K1F5	8	J-9613-9	\$122.95
PA-60-600B	Lyc. IO-540S1A5	8	J-9613-9	\$122.95
PA-60-601P	Lyc. IO-540S1A5	8	J-9613-9	\$122.95
SIAMARCHETTI - ITALY				
S-205-18F, R	Lyc. O-360-A1A	4	J-10778-4	\$173.95
S-205 / 20F, R	Lyc. IO-360-A1B6D	4	J-10778-4	\$173.95
S-208	Lyc. O-540-EA45	4	J-3804-20	\$93.25
S-210, 210H	Lyc. TIO-360-A1A	8	J-9613-45	\$206.95
TAYLORCRAFT				
20	Cont. O-470-A	2 ea.*	J-3804-14& J-3804-15	\$116.95 \$142.95
F-21	Lyc. O-235	4	J-7402-24	\$76.95
VARGA				
2150A	Lyc. O320-A2C	4	J-7402-1	\$58.75
2180	Lyc. O360-A4D	4	J-7402-1	\$58.75

NOTE: * indicates more than one Lord Part No. needed

LOCKING TAB WASHER - Used to lock mounting bolts to Lord Mounts. This Continental P/N 50186 is similar to Cessna P/N 08-51559-1. P/N 08-50186-7\$0.98 ea.

COWL MOUNTS

Cessna150,172,177.....P/N J-7444-14\$9.80
Cessna 182P/N J-7444-24\$18.90

VIP (Vibration Isolation Products) ENGINE MOUNTS STC'd FOR CERTIFIED AIRCRAFT

VIP P/N	Lord Equiv.	Barry Equiv	Price ea.
50545-1	J6545-1	94110-40	\$59.00
50525-1	J7525-1	94110-40	\$74.00
50804-10	J3804-10	---	\$55.00
50804-20	J3804-20	94110-01	\$76.00
101-78	For Dehavilland/Sikorsky		\$49.70
101-79	For Dehavilland/Sikorsky		\$49.70

VIP ENGINE MOUNTS FOR EXPERIMENTAL AIRCRAFT

Spruce P/N	Lord Equiv.	Barry Equiv	Price ea.
08-00774	J9613-49	94110-20	\$57.00
08-00775	---	94016-08	\$56.80
08-00776	J15198-1	---	\$63.90
08-00777	J15198-2	---	\$63.90



DYNAFOCAL SANDWICH MOUNTS FOR HOMEBUILT AIRCRAFT

Sandwich assemblies of natural rubber and specially blended synthetic compounds bonded to 2 metal plates. Normal installation requires 4 assemblies, each consisting of 2 sandwich mountings and 1 spacer. Satisfactory performance requires that the spacer be designed to the correct length to precompress each mounting to guarantee proper positioning of the mountings. Set consists of eight bonded sandwich mountings equivalent to Lord Mount No. J-7402-5 and four 4130 steel spacers with mounted rubber shoulder. Use with dynafocal engine mount rings using 2-3/4" I.D. retainer cups. Used on many homebuilts including the Defiant and Long-EZ 50402-5 w/4 spacersP/N 08-03500\$239.80



SPECIAL HEAVY DUTY DYNAFOCAL MOUNT SETS

Designed for use on aerobatic aircraft such as Pitts Special, Christen Eagle and Acro. Same style as homebuilt type but inner core has been "beefed up" and elastomers added to encapsulate the spacer. Set of 8 Mountings 50401-300 w/4 Spacers.....P/N 08-03600\$266.00

DISCOUNT: LESS 10% ON 6 SETS, 15% ON 10 SETS, 20% ON 20 SETS

BARRY ENGINE MOUNTS

Barry Controls has actively supported the general aviation market since 1981 and holds PMA approvals on a wide range of engine mounts. Barry mounts are warranted for 500 hours or 12 months and feature outstanding quality & value. **Call for unlisted part numbers.**

Aircraft Model	Barry P/N	S/N Engine	Price Ea.
Beech 77			
19A, B19, 23, C23	94150-01	-----	\$55.95
S35, V35, A, B	7351231-3	IO-520B, BB, BA	\$59.95
C33A, E33A, C, F33A, C	7351231-3	IO-520	\$75.95
36, A36, V35A-TC	7351231-3	IO-520	\$75.95
56TC, A56TC, 60, A60, B60	94011-04	IO-520, TSIO-5200	\$95.95
Cessna			
152, 152A	94150-40		\$55.95
172, I, J, K, L, M, N	94011-20		\$75.95
175A, B, C, 182A, B, E, J, M-R	94110-40		\$55.95
R182, TR182, T182, 182R	94011-02		\$77.95
185, A, E, F, 188	94110-40		\$55.95
206, U206, P206A-P206E	94030-01(2)		\$87.00
207, A, T207, A	94030-01(2)		\$87.00
210D, A thru C	94110-40		\$55.95
210D thru H, J	94030-01(2)		\$87.00
310A, B, C	94110-40		\$55.95
310R, T310P, T310Q	94006-01		\$113.95
337A-F, P337H, T337B-F	94017-01		\$123.95
340, A, 401A, B, 414A	94006-01		\$113.95
404, 411, A, 421A-C	94001-01		\$135.95
Maule			
M-4-210C, S-T, M-5-210C	94016-01		\$116.95
Maule M-5-235C, M-6-235	94016-02		\$112.95
Mooney			
M20F	94011-02	IO-360-AIA	\$77.95
M20J	94011-20		\$75.95
M20K	94006-01	TSIO-360	\$113.95
M20A, D, B, C, G	94150-40	0-360-AIA, -D, (-AID)	\$55.95
Neico			
Lancair 235	94150-41	0-235	\$104.95
Lancair 320	94150-41	0-320	\$104.95
Lancair 360	94150-41	0-360	\$104.95
Lancair IV	94011-01(2)	TIO-550, TIO-520	\$104.95
Lancair ES	94011-20(2)		\$75.95
Piper			
PA28-140	94150-01	20002-24999	\$59.95
PA28-140	94011-02 (2)	25000-7125641	\$77.95
PA28-140	94011-20 (2)	7225001+UP	\$75.95
PA28-140	94011-02 (2)	-----	\$77.95
PA28-140	94011-20	5150-UP Archer	\$75.95
PA28-150	94150-01		\$59.95
PA28-160	94150-01	-----	\$59.95
PA28-151	94011-02 (2)	0-320 E3D	\$77.95
PA28-151	94011-20 (2)	-----	\$75.95
PA28-161	94011-02 (2)	1791-4377,0-360A4M	\$77.95
PA28-161	94011-20 (2)	4378-5149, 0-360	\$75.95
PA28-180	94150-01	4378-5149, 0-365	\$59.95
PA28-180	94150-01	4378-5149, 0-360	\$59.95
PA28-180	94011-20	5150-UP Archer	\$75.95
PA28-181	94011-20	-----	\$75.95
PA28R-180	94011-20	30001 - UP	\$75.95
PA28R-200	94011-20	35001-7135329, 1103 10360 CIC	\$75.95
PA28R-200	94011-20	7235001-UP	\$75.95
28R-201T	94006-01	TSIO-360-F	\$113.95
28R-201	94011-20	7737002-UP	\$75.95
PA28R-201T	94016-01	-----	\$116.95
PA28-236	94011-02	0540J3A5D	\$77.95
PA24-250	94110-01	0-540-A1A	\$77.95
PA24-260	94110-01	IO-540E or D4A5	\$77.95
PA24-400	94011-04	IO-720	\$95.95
PA32-300	94110-02	IO-540 KIG5	\$84.00
PA32R-300	94110-02	IO-540 KIGS	\$84.00
PA32RT-300	94110-02	IO-540 KIGS	\$84.00
PA32-301	94011-02 (2)	-----	\$77.95
PA32-301	94011-03 (2)	-----	\$83.95
PA32R-301	94011-02 (2)	-----	\$77.95
PA32R-301	94011-03 (2)	-----	\$83.95
PA38-112	94150-01	0-235	\$59.95
36-300	94110-02	-----	\$84.00
PA25-235	94110-01	-----	\$77.95
PA25-260	94110-01	-----	\$77.95
PA46-310P	94011-01	-----	\$104.95
PA46-350P	94011-01	-----	\$104.95
Vans RV-3, RV-4, RV-6			
	94011-20 (Std)	0-290,0-320,0-360	\$75.95
	94016-08(Aerobatic)		\$135.00



HEAT BOXES – EXHAUST COMPONENTS

WARM/COOL AIR SELECTOR/MIXER



This unit has not only the capability of providing warm air to the cockpit, but also cool air, or both. There are two parts to the unit. The "T" section (engine side of firewall) has a flapper to direct cool air from one side and/or warm from the other side. This section is designed to be riveted or bolted to the firewall. The short expanded section slips over the protruding tube and is clamped with a stainless steel hose clamp. The flap in this section closes off all air from the unit. The hose clamp, a gasket and 4 stainless steel blind rivets are furnished. The shafts, arms, and flapper valves are all stainless steel. The bushings are brass and the tubing is 2" O.D. 6061-T4. Weight: 5.2 oz. P/N 08-00629\$98.75 ea.

DELUXE HOMEBUILDER'S CABIN HEAT BOX



This cabin box is a modification of our popular standard heat box. Re-engineered as a one-piece unit with two tube-end outlets, rather than one tube-end outlet and one flush outlet; it is smooth, efficient and very light. Originally designed for use on the popular RV series of aircraft, it is applicable to most homebuilts. They are constructed of aircraft grade aluminum and weigh only 5.5 oz. The new design enables the cabin box to be more easily mounted to the forward face of the firewall with the 2" outside diameter outlet tube extending through the firewall; and is useful in ducting hot exhaust air out of the plenum area. (Both the inlet and outlet tubes are 2" outside diameter.) The outlet tubes are designed to accept a 2" inside diameter "Y" tube for leak-free ducting of warm air to more than one location. Cabin boxes are furnished with a gasket and four LP4-3 pop rivets for installation on the firewall. Superior craftsmanship and quality. P/N 08-04005.....\$146.95

Also available: Identical to the regular deluxe cabin heat box P/N 08-04005 with these exceptions: •Stainless steel mounting surface, box to firewall •Steel shaft and stainless flapper.

Extra protection in case of high temperatures, no smoke or flame could reach the cabin area through the cabin heat box.

Box with 2" outlets.....P/N 08-04010\$88.50
Box with 2.5" inlet & outlet w/ 2" dump tube.....P/N 08-04015\$97.50

DELUXE HOMEBUILDER'S CABIN HEAT BOX – ALL STAINLESS

This cabin heat box is identical to the Deluxe Homebuilder's Cabin Heat Box except that the tubing that goes through the firewall and the mounting flange are also stainless steel for extra protection from fire. Features one inlet (2"O.D.) & two outlets (2"O.D.). All stainless except bushings. P/N 08-04025.....\$105.95 ea.

CARBURETOR HEAT BOX FOR ELLISON TBI



The carburetor heat box and air grid are designed specifically for the Ellison TBI to eliminate carburetor icing problems. There must always be a constant flow of air through a heat muff. The carburetor heat box has an automatic dump of hot air when carb heat is not being used, thereby eliminating the chance of heat muff burnout. The box has a 2.5" inlet for ram air and a 2" inlet for carb heat. The box is made of 5052 aluminum, stainless steel and 6061-T4 tube. The mounting surfaces, shaft, flapper, arm and rivets are stainless. In addition, the box is strengthened in the mounting hole area to eliminate the possibility of metal fatigue. A 4" inspection/ mounting hole with a cover plate secured by nut plates and screws is located on the bottom of the box (not visible in the photo.) The purpose of the air grid is to eliminate air flow turbulence. The 1/2" stainless steel vanes straighten the air before it reaches the throat of the carburetor and achieves better air/fuel distribution. This is a proven performance enhancement technique.

Carburetor Heat BoxP/N 08-00813\$145.95
Air Grid (w/one gasket)P/N 08-00814\$67.50
Extra Gaskets.....P/N 08-00815\$2.80

HOMEBUILDERS CABIN HEAT SHUTTLE KIT

Easily assembled and designed so that it can be modified for custom applications. Kit includes construction plans and directions along with installation hints for the popular Vans RV series of homebuilt aircraft. Controlled by ratchet type control cable such as ACS model A740 (P/N 05-12500). Order control cable separately.

P/N 08-04460\$42.90

HOMEBUILDER'S CABIN HEAT BOX



This cabin box has been engineered to be the smoothest, most efficient and lightest heat box built. Fabricated from aircraft-grade aluminum with stainless steel shaft, arm and flapper. Originally designed for use on the popular RV-4 homebuilt, but is applicable to most other designs. Total weight is only 5.2 oz. Furnished with a gasket flange for the forward side of the firewall for leak-free ducting of warm air to anywhere the builder wants it. Inlet and outlet are 2" OD 6061-T4 seamless aluminum. The body of the box is constructed of 5052-032 aluminum. Can be either riveted or bolted to the firewall of aircraft. The mounting flanges have holes for both bolts and rivets. The outlet tube extends through the firewall so that scat tubing can be attached to route the warm air. 4 stainless steel blind rivets and a mounting gasket are furnished. Superior craftsmanship and quality.

P/N 08-04000\$79.00 ea.

TUBING CONNECTORS



2" ALUMINUM FLANGE - Accepts 2" scat tube. Flange allows riveting to firewall, baffles, etc. Wt: 0.2 oz.

P/N 08-04135..... \$7.90



CARB HEAT CONNECTOR - Mounts on FAB airbox or similar airbox. Flange accepts 2" scat tube from muff. Standoff design allows hot air to escape when carb heat is not selected. Weight: 0.9 oz.

P/N 08-04145..... \$13.50



FLANGED DUCT - Accepts 2" ducting on both ends. Helps route ducting through bulkheads, firewalls, etc. Especially useful for getting heat to the back seat of the aircraft. 3" square plate with 2" tubing projecting 1" from each side. Wt:0.7 oz.

P/N 08-04140 \$11.35

CABIN HEAT BOX



Custom built aluminum box mounts to firewall. Lever on butterfly may be attached to push-pull control for close adjustment of cabin air flow. Two 2" intake ports, one 2" outlet. Wt. 1 lb. 7-1/2" long. Fine quality construction. P/N 08-01500\$99.00

HOMEBUILDER'S HEAT MUFFS



P/N 08-03900



P/N 08-00473

These superior quality heat muffs are made entirely of 6061 and 5052 aircraft grade aluminum, offset from the center to clear the close cowling of most homebuilts. The muff can be installed anywhere on the exhaust system where there is 12" of straight pipe, baffle, or even on an aft vertical baffle. The reason for using forced air through the muffs rather than just taking warm air from the low pressure plenum is that in order to have cabin heat you have to have forced air. The muff is constructed so that it can be used for either cabin heat or carb heat, or both, as there is 1 outlet & 1 inlet. The muff is split and piano-hinged to "clam-shell" over the exhaust pipe. This is necessary if you have downturns on your exhaust pipes and do not want to cut off the downturns should you later want to remove the muff. Stainless steel clamps are furnished with the muff. Inlet and outlets are 2" dia. and will fit 1.75" dia. pipes. The standard 9" body has 1 inlet & 1 outlet and generally used for cabin heat (wt:10.4 oz.). The shorter 6.5" body 1 inlet & 1 outlet and generally used on the front crossover section of the exhaust to duct heat to the carburetor box (wt: 8.9oz.).

Standard 9" bodyP/N 08-03900\$111.50
Standard 6.5" body.....P/N 08-00473\$111.50

HEAT MUFF ENDS



These heat muff ends clamp around the exhaust pipes in a crossover exhaust system in homebuilt aircraft. After the heat muff ends are clamped in place, the aircraft builder simply wraps a piece of aluminum over them and attaches an air inlet and outlet to complete the heat muff. The heat muff ends can be assembled with #6 nuts and bolts or 1/8" pop rivets. Fabricated from Type 304 stainless steel and designed to fit 1.75" exhaust pipe tubing. Available as double ends (pictured) or single stack ends. Sold in sets of two ends (four halves).

Double stack setP/N 08-06750\$35.00
Single stack setP/N 08-06755\$25.00

EP

EXHAUST SYSTEMS



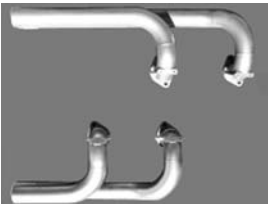
LONG-EZ EXHAUST SYSTEM

Long-EZ exhaust system fits all Lycoming 4 cylinder engines.
P/N 33804\$616.00



LONG-EZ EXHAUST SYSTEM INSIDE THE COWL

With this configuration the exhaust tips are located where the cooling air exits. This design eliminates cutting the cowling for exhaust exit and improves propeller efficiency by moving the exhaust pulses inboard, closer to the center of the prop hub. Fits Lycoming O-320 & O-360 parallel valve engines.
P/N 33804-1\$806.00



BERKUT 4 PIPE EXHAUST SYSTEM

Fits all Lycoming 4 cylinder engines.
P/N 33803\$616.00



BERKUT 6 PIPE EXHAUST SYSTEM

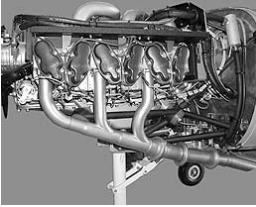
..Fits 6 cylinder Berkut only.
P/N 33803-6\$943.00



VELOCITY EXHAUST SYSTEM

Velocity exhaust system fits 6 cylinder Lycoming parallel valve and angle valve engines.

Parallel.....P/N 33912\$725.00
AngledP/N 33912-A.....\$725.00



LANCAIR LEGACY EXHAUST SYSTEM

Lancair legacy exhaust system, left & right hand manifolds with tailpipes and cabin heat shroud. Fits IO-550 Continental. P/N 33805-1\$1,500.00



GLASAIR I & II CROSSOVER EXHAUST SYSTEMS

Fits Lyc. O-320 to O-360 with vertical induction.

P/N 33911\$1,405.00
Fits Lyc. engines w/ horizontal induction up to 180HP
P/N 33911-1\$1,295.00
Fits Lyc. IO-360 w/ horizontal induction - 200 HP
P/N 33911-2\$1,295.00



GLASTAR CROSSOVER EXHAUST SYSTEM

Includes exhaust system with (1) heater muffler, (1) non-heater muffler and tailpipes. Fits Lycoming O-235 and O-360 with vertical induction. P/N 33274-1\$1,327.00

EP



2" DIAMETER 90° TUBE

This unit is designed to slide over the end of the 2" O.D. tube protruding from a cabin heat box that extends through the firewall. The short end of this unit is expanded to 2" I.D. Two stainless steel clamps are furnished with the unit. If you use scat tube, the 90° angle allows you to run the scat tube parallel to the firewall and away from undesirable areas (brake pedals, etc.) Constructed of seamless 6061T4 .028 wall tube. Weight: 1.4 oz. P/N 08-00863\$18.50

2 1/2" INLET and 2" OUTLET HOMEBUILDERS CABIN HEAT BOX



This box is identical to the deluxe stainless steel cabin heat box, except that the inlet is 2 1/2" OD so that it can be used on larger heat muff applications where the builder is using 2-1/2" scat tubing. This box is currently being used on the MICCO certified aircraft. Weight is 7.2 oz. P/N 08-04013\$93.50



STAINLESS STEEL FIREWALL PENETRATION SEAL KITS

The goal is to offer several extra minutes of protection in the unfortunate event of an engine fire. The fire protection time period is ultimately determined by the quality of the seal formed by the homebuilder. The manufacturer has spent many hours designing and testing materials and procedures to make the assembly process straight forward and as fool proof as possible. The Firewall Penetration Seal Kit is a complete kit including all required components for installation. **FEATURES:** • Stainless Steel light weight fitting. Maintains integrity in excess of 2000° • Firesleeve tubing • All Stainless Steel hose clamps to secure firesleeve • Biotherm 100 silicone fireblock sealant • Complete instructions in the kit.
S/S Firewall Penetration Seal kit - 1/2" ..P/N 09-00977\$65.50
S/S Firewall Penetration Seal kit - 3/4" ..P/N 09-00978\$62.80
S/S Firewall Penetration Seal kit - 1"P/N 09-00979\$81.00



2" DIAMETER "Y" TUBE

"Y" tube is designed to be used with the Homebuilders cabin heat box to make warm air available to 2 or more locations in the aircraft. Constructed of seamless 2024T6 tube, it weighs only 2 oz. These tubes are expanded to 2" I.D. on the inlet end to slip over and clamp to the 2" O.D. tube of the cabin heat box. Due to the very light weight, "Y" tubes can be installed in scat tubing as well as attaching directly to cabin heat boxes. One stainless steel clamp is included with "Y" tube. Due to the light weight of only 1.7 oz., the non-expanded Y-tube can be placed anywhere in a run of tubing to give more options for heating additional areas of the aircraft. Furnished w/2 stainless steel hose clamps

Standard "Y" tube.....P/N 08-04100\$20.80
Non-expanded "Y" tubeP/N 08-04130\$21.35

IN-LINE HEATER/DEFROSTER VALVE



This in-line valve connects to 2" SCAT ducting. It comes complete with cable end and can be hooked up in any combination to direct air to either heater outlets or defrost outlets. Actuating lever is adjustable to any position. Very popular on RV's & other homebuilt aircraft. P/N 08-00053\$95.50

ALL STAINLESS STEEL FIREWALL MOUNTED HEATER VALVES



STAINLESS STEEL FIREWALL MOUNTED HEATER VALVE - This unit is designed for engine side control cable allowing the use of a ceramic felt gasket & backing plate on the cabin side of the firewall. This offers the opportunity to attach scat tubing in the cabin & direct hot air as desired through a "Y" or other means.
P/N 08-01311\$94.00



ALUMINUM FIREWALL MOUNTED HEATER VALVE - This unit has cabin side control cable reducing the required firewall penetration of control cable.
P/N 08-01312\$94.00

ENGINE ACCESSORIES



VHT FLAMEPROOF COATINGS

Originally designed for NASA's reentry spacecraft, VHT FlameProof is a scientifically formulated compound designed to withstand temps. up to 1500°F (816°C) VHT FlameProof coatings are capable of withstanding extreme environments of spacecraft, satellites, military aircraft, and motor sports. It survives where other paints can't, shields & protects, maintains the finish, prevents rust & corrosion, and resists oils & solvents. For aircraft applications the typical use is on high temperature steel components such as exhaust & turbocharging systems. Excellent for use as a heat resistant and anti-corrosion coating on exhaust manifolds and turbine casings. Both the Flat Aluminum and Flat Black are non-facing colors.

- Flat Aluminum 16 oz. aerosol sprayP/N 08-00713**\$9.50**
- Flat Black 16 oz. aerosol sprayP/N 08-00714**\$9.50**
- Flat Black Quart CanP/N 08-00716**\$49.65**

EXHAUST COATINGS

Don't confuse our high-tech coating materials with paint! These materials actually bond to the metal to provide a thermal barrier and give permanent protection against corrosion. These are unique blends of high-temperature resins & ceramic powder. Provide extreme temperature stability and the most effective thermal barrier qualities of any coating on the market.



BLACK SATIN COATING

The easiest to apply, Black Satin also requires bead or sand-blasting of all parts. It does not, however, require oven curing or burnishing. One 4oz bottle will cover one average exhaust system and will provide a long-lasting flat black finish. 4 oz.P/N 13-01024**\$19.95**

EXHAUST HEAT SHIELD



This heat shield is placed on exhaust where fuel lines, cable, etc. are close to exhaust and where heat may be a

problem. Mounts with stainless radiator type clamp (not included). Fits exhaust pipes up to 2.5" diameter. Very popular on RV's and other homebuilt aircraft.

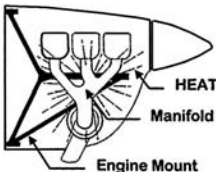
- Single UnitP/N 08-00050**\$13.40**
- Double UnitP/N 08-00051**\$19.85**

ENGINE MOUNT HEAT SHIELDS



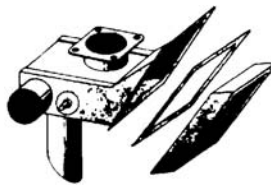
Heat damaged O-470 & O-520 engine mounts are a definite problem area. You can easily protect these engine mounts from further damage with these heat shields. The aircraft manufacturers overlook providing heat protection in these areas when they designed and produced the aircraft. **INSPECT ENGINE MOUNTS.** Flaking paint, deterioration or pitting leads to

cracking, and breakage – in other words, an **UNSAFE CONDITION**. If you want long-lasting protection from corrosion damage, the solution is install custom engine mount heat shields that are FAA & STC/PMA approved.



Avoid downtime and save money on airplane maintenance with this practical new device. The heat shields are built from an extremely durable 6061-T6 aluminum alloy and install in minutes. The complete kit includes installation hardware, instructions & copy of the Supplemental Type Certificate.

- For Cessnas:** Heat shield kit for 180, 180A-H, 180J, 180K, 182, 182A-R
P/N 08-01660**\$186.95**
- Heat shield kit 185A-E, A185F. Fits Standard and 3 bladed mounts.
P/N 08-00767**\$187.95**
- Replace. Intake Shields (heavy duty) PMA'd ..P/N 08-00769**\$27.00**
- Cowling Off Ground Run Filter for 1960-1986 carbureted Cessna 180/182
P/N 08-01665**\$56.00**
- For Pipers:** Heat shield kit for PA-30, PA-39 (4 shields prevent surging in hot weather)
P/N 08-00768**\$169.95**



CARBURETOR INTAKE ASSEMBLIES (HEAT BOXES)

Continental Heat Box Ass'y P/N A40522 for Cont. A-65 through C-125. Also fits Lyc. 0-235, 0-290, 0-320 engines with MA3SPA, MA4SPA carburetors. Complete Ass'y includes heat box, filter, gaskets, studs and Pins.

COMPONENT	PART NO.	LIST PRICE	OUR PRICE
Heat Box	50256	\$388.60	\$138.95
Filter	A40599	81.00	\$67.25
Gasket	35923	6.75	\$5.20
Studs (4)	24306	2.90	\$2.70
Pins (4)	24308	15.70	\$15.60
Bottom Carb. Gasket	21323	2.30	\$1.40
A40522 Assembly	08-01300	522.38	\$265.35



CONT. 0-200 HEAT BOX CESSNA 170 STYLE HEAT BOX

(628122) for Cont. 0-200 engine as used on Cessna 150. Also fits Cessna 120, 140, and PA-22 Tripacer. Order filter, gaskets, studs & pins separately. (Same as above for Intake Ass'y A40522).P/N 641534**\$136.95**

Cable 'B' NutP/N 05-16245**\$7.80**

Heat box Cessna 170 - Similar to Cessna 150 box above except larger.
P/N 08-01625**\$176.95**

Heat box for MA4-5 carburetors – similar to Cessna 170 box above. Fits Lyc. 0-360, 0-470, etc. Uses standard A40599 filter or brackets BA-5110. P/N 08-01630**\$228.95**

CARB HEAT BOXES FOR PUSHER AIRCRAFT

Designed for airplanes and rotorwing aircraft with engines in pusher configuration using MA3/MA4 carburetors (not MA4-5). Uses same baskets as J-3 & C-150 boxes.P/N 08-00855**\$132.95**

USHER CARBURETOR HEAT BOXES

These high quality carburetor heat boxes are available for most common Lycoming & Continental engines. Not FAA approved. (Shown here with tube)

- For Cont C-65 thru 0-200, J3 (w/o tube).....P/N 08-01601 ..**\$161.95**
- For J-3 type aircraft, A-65-0-200 (w/tube).....P/N 08-01602 ..**\$177.95**
- For Lyc. 0-320 series (w/o tube)P/N 08-01603**\$161.95**
- For Lyc. 0-360 series (w/o tube)P/N 08-01604**\$161.95**



CARBURETOR INTAKE BOX BRACKET FOR CESSNAS

This carburetor intake box bracket mounts on top of the heat box and attaches to the engine to provide support for the heat box. Fits Cessna 150.
P/N 08-01305**\$35.20**



CARBURETOR HEAT BOX REPAIR KITS

Prevent carburetor heat box cracking - a common problem on Cessna 150 aircraft and Cont. 0-200 engine. Kit consists of actuating shaft, 2 bearing assemblies and arm. Kit no. FG100 fits Cont. 0-200-A, B, C Engines. Kit No. FG105 fits Cont. 0-300-A, B, C, D, E engines.

- Kit No. FG100**\$52.25**
- Kit No. FG105**\$54.50**



ECONOMY CARB HEAT BOX REPAIR KITS

These kits include new shaft & bearings.
Kit for Cont. C-85, C-90, 0-200 Engine
P/N 07-00110**\$34.70**
Kit for Cont. C-145, 0-300 Engine
P/N 07-00120**\$34.70**
Requires FAA form 337 for installation on certified aircraft



CARB HEAT BOX ARM HOLE REPAIR KIT

Use this kit to repair an elongated hole in the carburetor heat box actuating arm. Kit comes complete with new bolt and attaching hardware made of stainless steel.
P/N 07-00130**\$9.70**



CARBURETOR INDUCTION MANIFOLD (INTAKE SPIDER)

For O-200 engine.....P/N 35145A-1**\$252.95**
For A-65, C-75, C-85 & C-90 engines.
P/N 35145**\$245.95**

EXHAUST GASKETS – HEAT MUFFS



AERONCA HEAT MUFF

Aluminum muffers for models 7AC and 11AC exhaust stacks. Fit either left or right side.
P/N 08-02300\$171.95



CESSNA TYPE HEAT MUFF

Heli-arc welded aluminum muff with rust-proof stainless steel fins for clamping to stack. Similar in design to the new Cessna type. Furnished with attaching clamps.

Muff w/2" OutletP/N 08-02400 ..\$64.48
Muff w/ 2.5" Outlet P/N 08-02500 ..\$42.39



VARIEZE / LONG EZ CARBURETOR HEAT BOX

This box is an improved redesign of the original heat box. It eliminates the possibility of engine stoppage caused by worn parts plugging the carburetor intake.

Without FilterP/N 08-01600 ..\$151.95
VE/LE Heat Box Repair KitP/N 08-01610\$17.75
VE/LE Filter OnlyP/N 08-01615\$39.95
VE/LE Filter Cleaner Kit (cleaner & oil) P/N 08-01620\$13.60

DYNAFOCAL ENGINE MOUNT RINGS & KITS



Standard rings furnished with 2-3/4" I.D. retainers, completely welded, ready for mount assembly. The Dynafocal ring kits contain all tubing cut and bent, with 2-3/4" I.D. retainers, ready to weld.

Dynafoocal Ring for Lyc. 0-235 to IO-360 (200 HP)P/N 33521\$136.95
Dynafoocal Ring for Lycoming 0-320B.....P/N 33521-B.....\$136.95
Dynafoocal Ring Kit for Lyc. 0-235 to IO-360 (200 HP) P/N 33522\$135.95
Retainer Cups & Rings KitP/N 33253\$94.50
(includes 8 cups & 4 rings - everything in #33522 kit above except the tubing)
Engine mount ring for most Lyc. IO-540's.....P/N 08-00795 ..\$185.00

EXHAUST MANIFOLD NUTS



Part No.	Thread Size	Type	Engine Application	Price Each
21247	1/4-28	Brass	Cont. O-470	\$3.85
22022	5/16-24	Brass	Cont. A-65, C-75 thru C-90, O-200, O-300	\$0.86
STD1410	5/16-18	Steel	Lycoming	\$1.64

Retainer Cups for Engine Mount Bushings. P/N 33510.....\$9.60 Ea.

BLO-PROOF EXHAUST GASKETS



These gaskets are manufactured in a 1-piece design in 7/64" thick steel. They have a split metal inner ring which provides an absolute seal and

they are guaranteed not to blow off. Engine manufacturer's parts.

Continental P/N 627429 for all A, C and E Series.....\$8.95 Ea
Continental P/N 628260 for O-470-R\$6.50 Ea
Lycoming P/N 77611 for 4 & 6 Cylinder Engines\$5.95 Ea

COPPER EXHAUST GASKETS



Continental P/N 21493 (now P/N 632837 stainless steel)
Cont.#21493 for A-65 to O-300 (4) P/N 08-05237.....\$1.25 Ea
Cont. #632837 Stainless Steel\$1.90 Ea
Lycoming O-235 to O-540P/N 65321\$3.50 Ea

STAINLESS STEEL EXHAUST STUDS FOR LYCOMING ENGINES



These high quality exhaust studs are produced from corrosion resistant 321 stainless steel in 5/16 x 18 standard thread size (oversize available soon) and are a direct replacement for the Lycoming part number 31C12 stud. These studs stop stud corrosion and rust out problems, stop expensive cylinder repair costs cause by broken studs, allow easy removal of exhaust systems for gasket replacement or inspection, and feature a safety wire hole to insure security of the exhaust stack on each cylinder. FAA approved for all Lycoming engines from 0-235 thru 0-540.

P/N 08-06780\$9.90

EXHAUST INSULATING WRAP



The original Exhaust Insulating Wrap was developed over 14 years ago by Thermo-Tec. Exhaust Insulating Wrap is an innovative way to create more horsepower and reduce underhood temperatures. Wrapping headers maintains hotter exhaust gases that exit the system faster through decreased density. Increased exhaust scavenging is produced, along with lower intake temperatures. Exhaust Insulating Wrap withstands continuous heat up to 2000°F, and contains no asbestos. Thermo-Tec exhaust wrap will not over-insulate a system when properly installed due to a proprietary coating developed by Thermo-Tec -- Thermal Conduction Technology (TCT) -- that conducts heat across the wrap's surface. This coating controls heat build-up and dissipation. The Header Wrap is sold in 2" wide, 50'rolls with a low profile 1/6" thickness.

P/N 09-41600\$42.95

HI-HEAT COATING



To finish off a clean and well-protected Exhaust Insulating Wrap application we recommended the use of Hi-Heat Coating. The coating will protect the wrap from abrasion and harmful liquid spills. Extra resins and binders toughen the surface, extend the life of wrap by protecting it from friction, and seal the pores to minimize the penetration of harmful liquids. The 11 oz. coating comes in black and aluminum colors.

BlackP/N 08-06725\$8.80
AluminumP/N 08-06730\$9.30

SNAP STRAPS



The multi-purpose stainless steel Snap Straps are used to secure the Exhaust Insulating Wrap -- and more. The high-temperature stainless steel straps have a narrow profile to fit tight spots. Snap Straps secure with easy-to-use slide-through fasteners.

9" 12 pack P/N 08-13150.....\$22.50



ALUMINIZED HEAT BARRIER STOPS UNWANTED HEAT TRANSFER

Keep heat where you want it with this hi-tech aluminized heat blanket. Thickness, 0.060". Furnished in 36"x40". Sheets (10 Sq. Ft.)

P/N 08-06735.....\$73.50 ea.

STEEL EXHAUST STACK FLANGES



MILD STEEL

Cont. A&C Series, O-200, O-300.....P/N 33011\$6.95 Ea
Lycoming 0-235 to 0-540.....P/N 33021\$7.90 Ea

STAINLESS STEEL

Continental A & C Series.....P/N 33101\$11.60 Ea
Continental IO-470 thru IO-520P/N 33103\$11.60 Ea
Lycoming 0-235 thru IO-360P/N 33102\$11.60 Ea
Lycoming IO-540.....P/N 33104.....\$11.60 Ea

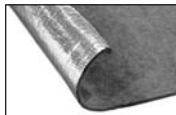
AIRBORNE SOLID COPPER BLO-PROOF GASKETS



2 gaskets used per cylinder, with raised beads interlocked facing the exhaust stack flange. Eight required for 4 cyl. engine, 12 for 6 cyl. engine.

Engine Model Number	Airborne P/N (Use 2/Cyl.)	Price Each
All Lycoming Engines except IO-540-B, -E, -M, -WD, IGO-540-B, IGSO-540-B, TIO-540 series, TIO-541 series, TIGO-541 series, IO-540-B, -E, -M, -WD, IGO-540-B, IGSO-540-B	160	\$10.40
TIO-540 Series, TIO-541 Series, TIGO-541 Series	161	\$10.80
A-65 Series, C-85 Series, C-90 Series, J-200 Series, O-300 Series, GO-300 Series, E-185 Series, E-225 Series, O-470-A, -E, -J, IO-470-J, -K	157	\$7.95

THERMO-GUARD FR

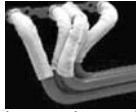


Thermo-Guard FR offers the best in head and sound insulation. This lightweight, durable shield does everything: reduces sound, absorbs vibration, protects from radiant heat and provides an extra layer of insulating padding. The product features 100% synthetic fiber felt that provides sound and comfort control and high-tech foil heat barrier that blocks more than 90% of radiant heat.

48"x72" 1-SidedP/N 08-01028\$35.65
48"x72" 2-SidedP/N 08-01029.....\$49.90

EXHAUST INSULATING PRODUCTS

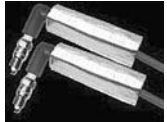
Ultra-high temperatures produced by today's engines have a dramatic effect on performance. Solution? Thermo-Tec's full line of high performance heat control products that focus on utilizing heat as a performance tool. For over 15yrs Thermo-Tec has been developing & manufacturing products for the Automotive Performance, Aerospace & OEM industries.



HIGH VELOCITY EXHAUST JACKET

The quick-wrap high-velocity Exhaust Jackets are an innovative way to insulate and block radiant heat. The jackets cover the tubes vertically allowing for a consistent fit. The fit allows the exhaust system to expand as it comes up to operating temperatures without restrictions and provides air space for added insulation. This product uses Thermal Conduction Technology (TCT), developed by Thermo-Tec, and can be applied with the headers in the vehicle.

4-6 cyl. kitP/N 08-00597\$67.95 8 cyl. kit....P/N 08-00598\$88.95



SPARK PLUG WIRE HEAT SHIELD

The ultimate protection for spark plug wires and boots from conductive and radiant heat. The dual-purpose sleeve has a surface that reflects over 90% of radiant heat, while the inside silica-based fabric prevents conductive heat from penetrating.

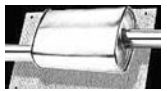
P/N 08-00612\$15.50



TURBO KIT

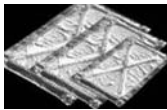
The Turbo Kit was designed to protect, improve performance, and eliminate turbo lag of a turbo charger. This complete kit, to contain the heat produced by a turbo, fits a wide variety of turbines. The custom cut-to-fit kit comes with an excessive amount of material to cover turbos from the smallest automotive application to heavy-duty truck applications. 2 Turbo Kits are available: a 4 cyl. kit & a 6-8 cyl. kit.

4 cyl. kitP/N 08-00613.....\$89.95 6-8 cyl. kit....P/N 08-00614 ..\$104.95



MUFFLER/CAT HEAT SHIELD KIT

The 40"x 24" mylar Heat Shield is made up of woven silica with a flexible mylar finish. The highly-reflective heat shield can be installed between the catalytic converter, muffler, or any other component to reflect radiant heat away from the undercarriage of the car. The kit includes all necessary fasteners. P/N 08-00616\$55.50



HEAT TERMINATOR ULTRA-LITE

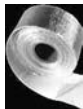
Designed with the racer in mind, Heat Terminator is made of the highest-quality insulating materials available today. The material is made of a highly-textured aluminum composite surface on one side, with a high-temperature silica felt center and a durable mylar composite facing. The Heat Terminator uses Thermal Conduction Technology (TCT), developed by Thermo-Tec.

8"x 12".....P/N 08-00617\$54.50 10"x 18"P/N 08-00618\$78.50
18"x 18".....P/N 08-00619\$94.95 18"x 24"P/N 08-00620\$99.95
24"x 24".....P/N 08-00621\$107.50 24"x 36"P/N 08-00622\$114.50



STARTER HEAT SHIELD

In today's high-heat environment, starters take in a lot of damaging heat that destroys the windings of the starter & solenoid. To combat this problem, Thermo-Tec created a non-conductive strap-on heat shield with a highly-reflective mylar surface. The Starter Heat Shield will reflect over 90% of radiant heat, adding life to the starter and assuring reliable starts. The Starter Heat Shield is a universal kit that fits all starters. P/N 08-00611\$24.50



THERMO SHIELD

Thermo-Shield protects hoses & wires from radiant heat. Used in applications where it is difficult or not practical to disconnect one end of the hose or wire. The adhesive-backed composite construction tape can easily be wrapped around the hose or wire to make a clean, professional appearance. 15"x 1.5" roll. P/N 08-00602\$14.60



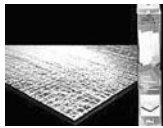
THERMO-FLEX

Thermo-Flex Aluminum is a composite heat shield material with unlimited uses. The material is manufactured with a combination of materials to provide abrasion-resistance, thermal insulation, and physical containment of hoses and wiring. The combination of aluminum, silica, and stainless steel is combined to produce a sleeving that is flexible, lightweight, and strong. The aluminum-silica combination can be slit for applications such as wire looms or hose covering without disconnecting the ends of the wire or hoses. Thermo-Flex Aluminum can withstand extreme temperatures of up to 750°F. Packaged in 10 ft. lengths.

5/8"P/N 08-00623\$39.95 1.25"P/N 08-00626.....\$59.00
0.75"P/N 08-00624\$45.20 1.5"P/N 08-00627.....\$66.25
1"P/N 08-00625\$52.50 3"P/N 08-00628.....\$108.95

FIREPROOF SHIFTER BOOT

The Fireproof Shifter Boot is made up of woven silica with a flexible Mylar finish. The shifter boot was developed as a fire barrier for high speed engine fires, which can burn away rubber boots in seconds. P/N 08-00615\$25.50



COOL-IT MAT

Use the Cool-It Mat to battle excessive heat and noise that penetrate the driver compartment through the firewalls and floorboards. It is also perfect in doors, under hoods, and above transmission housings. Cool-It Mat is composed of resin-bonded silica blanketing insulation sandwiched between a mylar facing on one side and a foil facing on the other. The highly-reflective mylar reflects heat away from surfaces, while the foil side is orientated away from the heat source to conduct any penetrating heat across its surface thus providing the ultimate in heat protection. The silica blanketing is a dual-density composite and is the main sound insulator. It is easy to trim and can be applied with the push-in fasteners provided or any weather strip adhesive. P/N 08-00610\$31.20



THERMO-SLEEVE

Lamination of a high-temperature fabric to a highly-reflective foil is the makeup of Thermo-Sleeve, which provides protection from radiant heat for hoses and wires. Thermo-Sleeve's ultra light-weight construction provides more insulating than traditional bulky rubber-coated fiberglass. The aluminized sleeving reflects over 90% of radiant heat, and is fireproof & oil resistant. Comes packaged in 12-ft lengths, and sold in 5 different inside diameter sizes.

12" 1/2" IDP/N 08-00605 ..\$44.90 12" 1" ID.....P/N 08-00606 ..\$59.50
12" 1-1/2" ID....P/N 08-00607 ..\$72.50 12" 2" ID.....P/N 08-00608 ..\$86.75
12" 2-1/2" ID ..P/N 08-00609 \$103.95



HEAT BARRIER - ADHESIVE BACKED

Aluminized Heat Barrier is made up of woven silica with a flexible aluminized finish. The highly reflective surface of the material is capable of withstanding radiant temperatures in excess of 2000°F. The adhesive backed composite construction material can easily be applied to any surface or wrapped around a hose or wire to make a clean professional appearance.

12" x 12"....P/N 08-00630\$9.95 12" x 24".....P/N 08-00600\$17.40



HEADER MANIFOLD BLANKET

The Header Manifold Blanket provides excellent heat-retention for exhaust headers and manifolds. This flexible heat shield simply clips into place on the upper portion of the header. The fabric side of the material should be facing the heat source, and the aluminized side facing away, offering protection from abrasion and harmful liquid spills. Available in two sizes: (2) 20" by 24" blankets for V6 & V8 applications, and (1) 36" x 40" blanket for straight 6 & 4 cylinder engines.

20"x24".....P/N 08-00603\$79.95 36"x40".....P/N 08-00604\$75.50



COOL-IT PLUG WIRE SLEEVES

This unique spark plug & ignition wire protector comes in five sporty colors; red, orange, blue, black & natural. These dual-purpose sleeves enhance performance, reduce misfires, extend plug wire life and will not react with petroleum products. The double-wall construction keeps the wire and boot cooler in a high-temperature engine. Its universal size fits most boots, is easy to install & non-flammable.

4-PackP/N 08-01027.....\$24.80 6-PackP/N 08-01030\$37.20



GRAPHITE BLACK WRAP

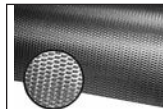
Graphite Black Wrap offers the same unrivaled performance and insulating properties as our original exhaust wrap and more. Traditionally, high-heat coating spray had to be applied to the exhaust wrap to color it black. Now new Graphite Black Wrap eliminates the process of coating the wrap with its patented Thermal Conduction Technology (TCT) high-heat color pigment. Graphite Black Wrap is available in 2" widths, in 50-ft rolls. P/N 08-00596\$44.50



GENERATION II COPPER HEADER WRAP

Generation II Copper Header Wrap improves heat resistance up to 30% more than current technology, by utilizing a new proprietary coating developed by Thermo-Tec; improved Thermal-Conduction-Technology (T-C-T). Creates more horsepower & reduces underhood temps, increases exhaust scavenging, withstands continuous heat up to 2000°F, contains no asbestos. Sold in 1" or 2" wide, 50 ft rolls with low profile

1/16" thickness.
1"X50.....P/N 08-11031\$25.60
2"X50.....P/N 08-11032\$42.70



MICRO LOUVER AIR SHIELD

Lightweight yet durable, the aluminum Micro Louver Air Shield features micro air louvers, which allow air to flow through the metal shield. The movement of the vehicle creates dynamic air flow, cooling by natural convection. The textured surface created by the micro air louvers creates more area for heat dissipation. The Micro Louver Air Shield is flexible yet durable; it bends and flexes easily by hand, making a custom fit trouble-free.

12"X24"P/N 08-11710\$27.90
24"X24"P/N 08-11720\$43.80
48"X24"P/N 08-11740\$79.50

EP

POWER FLOW EXHAUST SYSTEMS

TUNED EXHAUST THEORY OF OPERATION



- This system is a true tuned exhaust, not a crossover system - proven to deliver over 23 additional HP.
- Engines have an optimum length and diameter for each cylinder's exhaust - primary length over 40" per cylinder.
- Power Flow designed a way to fit over 3 feet of tubing per cylinder in the same space as a traditional exhaust muffler.
- Maintaining a separation of the exhaust gas pulses dramatically reduces exhaust pressurization from one cylinder to another - this creates a suction at the exhaust port improving the air mixture flow.
- Scavenging more exhaust gases from the cylinder increases the volumetric efficiency of that cylinder - this provides for more efficient combustion and the production of optimum horse power.
- Improved volumetric efficiency reduces Cylinder Heat Temperatures (CHT) by removing more of the hot gases in each cylinder. Lower CHTs helps increase engine life.
- This same technology and engineering has proven itself on racetracks around the world both in motor cycles and Formula 1 racers.



POWER FLOW EXHAUST ADVANTAGES

- Takeoff roll reduced by 4-6 seconds.
- Quieter and smoother running engine.
- 50% more heating area in cabin heat section.
- Average fuel savings of 2.2 gallons per hour.
- Rate of climb increases reported between 150-300 feet/min.
- Manufactured from aircraft quality 321 Stainless Steel .049 wall thickness; 40% thicker than OEM.
- FAA/PMA manufactured.
- Easy to install. - Remove exhaust, install our Power Flow System, & fly the same day. Approx. 3 man-hour installation.
- Easy to inspect-No welds or seams in the cabin heat area; Practically eliminates the chance of Carbon Monoxide entering cabin from the cabin heat section.

DYNAMOMETER TESTING POINTS TO BIG POWER GAINS

- An independent dynamometer test was conducted at LYCON engine overhaul in Visalia, California.
- A stock OEM C172 exhaust on a 160HP Lycoming O-320 engine developed 133.25HP
- The PFS exhaust mounted on the same engine produced 157HP, 23HP more than Cessna's - only 2HP below the max. possible.
- The same engine fitted with small (4") or "neutral" stacks (just like Lycoming does at the factory) produced maximum of 159HP.

INNOVATIVE IDEAS + QUALITY CONSTRUCTION = A SUPERIOR PRODUCT

- Our tuned exhaust is a bolt-on system that immediately provides 23 plus HP directly to the propeller.
- In each kit, we include all the installation hardware needed; No-Blow gaskets, Nuts, Lock washers, Flat washers, Cotter pins, etc.
- Prior to shipping, we pressure test and fit each exhaust on our jig for perfect installation fit. You can literally remove the cowling and install our exhaust without wasting time searching for hardware or fitting the exhaust to the engine.
- The Power Flow exhaust is manufactured from durable 321 Stainless Steel tubing that is up to 40% thicker than OEM. This tubing is mandrel bent to maintain a consistent interior dimension for optimal tuning. all welding is aircraft quality, TIG welds.
- All manufacturing is in accordance with our FAA/PMA approved facility.
- The heat exchanger is vacuum annealed to 1850° after assembly to relieve stresses that may be introduced during welding or tube forming. Annealing is normally only done on aerobatic or pusher prop style exhausts.
- The Cabin Heat Shroud is manufactured from 6061 aluminum sheet. This shroud includes a separate section for carburetor heat; thereby eliminating that inefficient OEM carburetor heat box attached to only one header. Ours takes air from 2 headers and the side of the heat exchanger.
- This heat shroud is designed for easy access to aid during inspection of heat exchanger section. The cabin heat section is designed to contain no interior welds, so the possibility of carbon monoxide entering the cabin is greatly reduced, while providing 50% more surface area for heating. Inspection on our system is the same as on the original exhaust.
- Power Flow exhaust systems are covered by a 60-day, 100% money back factory guarantee and a 1-year or 500 hour warranty.



System FAA approved for:	Part No.	Estimated install time (hours)	System Price	Estimated UPS Grnd. Shipping Charges
Cessna 172 w/ O-320 engines	08-00358	4 to 6	\$3,625.00	\$75.00
Cessna 172 w/ O-360 Conversions (Airplanes, Penn Yann conversions)	08-00359	4 to 6	\$3,605.00	\$75.00
Cessna 177 w/ O-320	08-00360	4 to 7	\$3,425.00	\$75.00
Cessna 177A w/ O-360 (fixed gear)	08-00361	4 to 7	\$3,605.00	\$75.00
Cessna 177B w/ O-360 (fixed gear)	08-00880	4 to 7	\$3,605.00	\$75.00
Piper Cherokee 140 (PA128-40)	08-00362	4 to 6	\$3,675.00	\$95.00
Piper Cherokee 150 & 160 (PA128-150 7 PA28-160)	08-00872	4 to 6	\$3,675.00	\$95.00
Piper PA28-150 & 160 w/ O-320 A2B/B2B Engines(s/n below 1761) & Conical Engine Mounts	08-04985	5 to 7	\$3,575.00	\$75.00
Grumman AA-5 (S/N 0-640)	08-00635	4 to 7	\$3,540.00	\$75.00
Grumman Cheetah AA-5A	08-00636	7 to 9	\$3,740.00	\$75.00
Grumman Tiger AA5B	08-00637	4 to 7	\$3,740.00	\$75.00
Mooney M20C&G	08-00694	4 to 7	\$4,190.00	\$75.00
Glastar & Sportman with Lyc. 0-32010-360 w/ Standard Configuration	08-04986	3 to 5	\$2,695.00	\$75.00

Short Stack Option is available on many models. Request price quote if short stacks are required.

ROTAX 912/912S EXHAUST SYSTEM



This exhaust system was developed after practical experience with the original exhaust. The experts helped to make a new reliable system which has been tested on different types of ultralights. Our system is optimized and tested for 80 to 100hp engines. The tests have proven trouble-free, power output and noise have remained the same as the original Rotax exhaust. The muffler is TIG welded from heat-resistant 321 stainless steel and it is 1.5 lbs lighter. The exhaust system kit includes all the parts you need for installation (tubes, elbows, springs and so on).

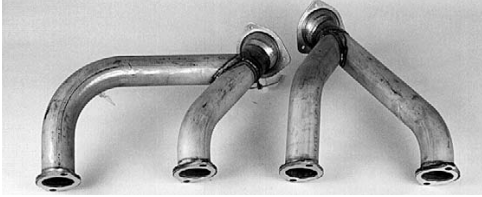
Exhaust System without Heat ShroudP/N 08-00803\$518.00
 Exhaust System with Heat ShroudP/N 08-00804\$633.00

EXHAUST SYSTEMS

All exhaust stacks are heli-arc welded using Type 321 stainless steel tubing for light weight and long service life. Stainless steel stacks weight 50% less than a set in mild steel. All stacks are custom made and the workmanship is consistently of exceptional quality.

WHEN ORDERING, SPECIFY COMPLETE MODEL NUMBER AND HP OF ENGINE AND AIRCRAFT TYPE.

STRAIGHT STAINLESS STEEL EXHAUST STACKS



Basic exhaust pipes for Pitts Special, Smith Miniplane, Acro Sport, Starduster and many other homebuilts with Lycoming engines O-235 through O-360. This exhaust system fits under the intake tubes, starting at the rear cylinders, around the front intake tube, then points aft. Two mufflers (P/N 33205) or two tail pipes (P/N 33204) can be used with this system. With stainless swivel joints for vibration dampening and for positioning of tail pipes through 25° range. Wt. 7-1/4 lbs.

SYSTEM FOR LYCOMING ENGINES THRU 180 HP

Set of two basic stacks only, consisting of:
 Right Hand, P/N 33202 & Left Hand, P/N 33203
 Set of Two P/N 33202/33203 **\$587.00**
(Tail Pipes not included.)

SYSTEM FOR LYC. O-320B (FUEL-INJECTED)

Tightest system for this engine.P/N 33270-1 **\$754.00**
(Tail Pipes not included.)

ADD OPTIONS:

STRAIGHT TAILPIPES



P/N 33204 (14")\$118.95 Pr.	P/N 33204-24 (24")	..\$155.95 Pr.
P/N 33204-18 (18")\$140.95 Pr.	P/N 33204-28 (28")	..\$183.00 Pr.
P/N 33204-20 (20")\$159.95 Pr.	P/N 33204-36 (36")	..\$175.95 Pr.

MUFFLER WITH 8" TAILPIPE (NO HEAT EXCHANGER)



P/N 33205 **\$225.95 Ea.**

MUFFLER WITH 8" TAILPIPE & HEAT EXCHANGER



2" Dia. Inlet & OutletP/N 33206-1 **\$340.95 Ea.**
 2-1/2" Dia. Inlet & OutletP/N 33206-2 **\$340.95 Ea.**

When ordering muffler with heat exchanger, advise if inlet & outlet pipe diameter other than 2" or 2-1/2" is preferred.

When ordering muffler with heat exchanger, advise diameter of inlet and outlet pipe preferred (2", 2-1/2" or other).



HOMEBUILDERS SPECIAL STACKS

Designed to fit Lycoming engines O-235 to O-360. Mild steel. These stacks do not fit Pitts Special. Applicable to many home builds. Wt. 7.25 lbs.
 P/N 08-01900 .. **\$510.95**

STAINLESS STEEL CROSSOVER EXHAUST SYSTEMS



A exhaust system allows your engine to breathe properly by reducing back pressure and by picking up the correct firing order of the cylinders. This results in increased HP compared to an untuned exhaust. The added HP will be evident as higher takeoff RPM, higher cruise speed and lower fuel consumption.

This crossover system fits all Lycoming engines from O-235 to IO-360 (180 HP) with bottom or aft mounted carburetors or fuel injection controllers. It is designed for tight cowling and in most cases no cowling modification will be necessary. If fit is the problem, custom tighter crossover systems are available by special order (Additional charges may apply). The system has slip joints between cylinders and ball joints where tail pipes or mufflers connect to collector tubes to prevent cracking due to expansion and vibration and to allow for positioning of the tail pipes. The exhaust system can be ordered in the following combinations:

1. With straight tail pipes
2. With two mufflers (no heat exchangers)
3. With two mufflers (one heat exchanger)
4. With two mufflers, both with heat exchangers.

All mufflers include removable 8" tail pipes. Heat shrouds have one inlet and one outlet for 2" or 2-1/2" flex tubing

Compression Springs - used on Exhaust System Ball Joints. 6 required per system. P/N 33703 **\$5.20**

STANDARD CROSSOVER SYSTEM

Basic system with all Collector Tubes *(Without Tail Pipes)*
 P/N 33251 **\$757.00**

ADD OPTIONS:

Straight Tailpipes (14"). P/N 33204 **\$118.95 Pr.**
 Muffler w/8" Tailpipe (no heat exchanger) P/N 33205 **\$225.95 ea**
 Muffler w/8" Tailpipe & Heat Exchanger. P/N 33206-1 .. **\$340.95 ea**

COMPLETE STANDARD CROSSOVER SYSTEM PRICES

Basic System with Two Straight 14" Tailpipes.
 Ass'y # 33270 **\$718.00**

Basic System for 0-320B w/o Tailpipes. Ass'y # 33270-1 .. **\$754.00**

System with 2 Mufflers, Removable 8" Tailpipes & No Heat Shrouds.
 Ass'y # 33272 .. **\$1,182.00**

System w/2 Mufflers, 1 Heat Shroud for either Cabin heat or Carb. heat.
 Ass'y # 33274. .. **\$1,262.00**

System w/2 Mufflers, Both w/ Heat Shrouds for Cabin heat & Carb. heat.
 Ass'y # 33276 .. **\$1,357.00**

Stainless Crossover Systems for IO-360 (200HP)
 Please specify front (35), bottom (40), or rear injector (45)
 P/N 08-057-- **\$756.00**

(Does not include tailpipes or heat muffs)

SPECIAL CROSSOVER SYSTEM FOR VERY TIGHTLY COWLED AIRCRAFT

Designed for the Thorpe T-18, RV-6, 7 7 8, Mustang II, and others using Lyc 0-320 to 0-360 engines

Basic System with all Collector Tubes — Please furnish exact engine designation to insure proper fit. P/N 33250 **\$715.00**

Special Mufflers for the T-18 with Heat Shrouds for Cabin Heat and Carb. Heat. P/N 33250-1 **\$357.95 Ea.**

Special Tailpipes for the T-18 (to be used when mufflers are not used). Comes with same ball joint as the mufflers and an attaching bracket. P/N 33250-2 .. **\$192.95 Pr.**

NOTE: PRODUCTS ON THIS PAGE ARE FOR EXPERIMENTAL AIRCRAFT AND ARE NOT FAA APPROVED. ALL EXHAUST SYSTEMS ARE SPECIAL ORDER AND ARE NON RETURNABLE



EXHAUST SYSTEMS



EXHAUST SYSTEM FOR OSPREY AIRCRAFT

This stainless steel exhaust system will fit any very tightly cowled pusher type aircraft using the following engines: 0-235, 0-290 and 0-320. Applicable to VariEze, Osprey, Long-EZ, etc. Uses 1-3/4" O.D. tubing.

Basic Pusher System : RH & LH
Stacks Only ..P/N 33420\$555.00
ADD OPTIONS:

Muffler OnlyP/N 33422\$195.95
Muffler with Heat ExchangerP/N 33424\$326.95

EXHAUST SYSTEM FOR CONTINENTAL 0-200



Universal exhaust system. Designed for experimental aircraft using Continental 65 thru 0-200 engines. Consists of 2 manifolds, left hand manifold has heat shroud with 2 1/2" outlet pipe for carb heat ducting attachment. Tailpipes 3" long. If longer pipes required, extensions can be furnished with slip joint, clamp and pin.

Complete SetP/N 33401\$630.00
Tailpipe ExtensionsP/N 33402\$100.00

THIS SYSTEM IS PATTERNED AFTER A CESSNA 150 SYSTEM, BUT WILL NOT FIT A CESSNA 150 OR 152.

WHEN ORDERING EXHAUST SYSTEMS, PLEASE SPECIFY COMPLETE MODEL NUMBER & HP OF ENGINE AND AIRCRAFT TYPE

STAINLESS STEEL STACKS FOR PUSHER TYPE AIRCRAFT



Designed especially for tightly cowled engines. Fit inside of intake tubes. Ideal for amphibians. Applicable to Continental C-85 to 0-200 or Lycoming engines 0-235 through 0-360 (180 HP only). Advise engine model.

For Cont. Engines.....P/N 33601\$595.00
For Lyc. Engines.....P/N 33602\$595.00
These stacks do not accomodate mufflers.

COZY MARK IV PUSHER EXHAUST SYSTEM



This custom exhaust system was designed specifically for the Cozy Mark III and IV aircraft using Lycoming 0-235 to 0-360 series engines and the IO-360 200 HP engine. Will fit all pusher applications including the Long-EZ. Specify if you are ordering to fit the IO-360 200 HP engine.

Standard System (180 HP or less)
P/N 33702\$652.00
200 HP System (IO-360)
P/N 33702-1\$616.00
Cozy Ball Joint Springs
P/N 33704\$7.00 ea

NOTE: PRODUCTS ON THIS PAGE ARE FOR EXPERIMENTAL AIRCRAFT AND ARE NOT FAA APPROVED. ALL EXHAUST SYSTEMS ARE SPECIAL ORDER AND ARE NON RETURNABLE

EXHAUST SYSTEM COMPONENTS

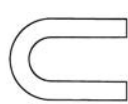
Fabricate your own exhaust system with these precision-formed type 321 stainless steel components.

STAINLESS STEEL 45° & 90° BENDS



TUBING SIZE	P/N	RADIUS	ANGLE	PRICE
1-1/2" X .035	33241	2-1/2"	90°	\$35.95
1-1/2" X .035	33242	2-1/2"	45°	\$31.90
1-3/4" X .049	33236	1-3/4"	90°	\$55.75
1-3/4" X .035	33243	2-7/8"	90°	\$43.00
1-3/4" X .035	33245	4"	90°	\$44.30
1-3/4" X .035	33237	5-1/2"	90°	\$45.00
1-3/4" X .035	33244	2-7/8"	45°	\$35.60
2" X .049	33238	2-1/2"	90°	\$51.75
2" X .035	33246	4"	90°	\$42.40
2-1/8" X .049	33239	2-3/4"	90°	\$59.85
2-1/4" X .049	33240	2-3/4"	90°	\$63.00
2-1/2" X .049	33247	4"	90°	\$65.25
3" X .049	33248	4-1/2"	90°	\$80.00

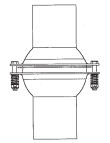
STAINLESS STEEL 180° "U" BENDS



180° "U" Bends w/ odd or even leg lengths.

TUBING SIZE	P/N	RADIUS	ANGLE	LEG LENGTH	PRICE EACH
1-1/2" X .035	33260	2-1/2"	180	6"6"	\$57.50
1-1/2" X .035	33262	2-1/2"	180	10"10"	\$62.75
1-1/2" X .035	33261	2-1/2"	180	11"14"	\$65.75
1-3/4" X .035	33265	2-7/8"	180	6"6"	\$59.75
1-3/4" X .035	33264	2-7/8"	180	10"10"	\$65.25
1-3/4" X .035	33263	2-7/8"	180	11"14"	\$73.00

STAINLESS SWIVEL BALL JOINTS - CLAMP TYPE



Tubing I.D.	P/N	Male Sz	Female Sz	Price
1-3/4" X 1-3/4"	33231	1-3/4"	1-3/4"	\$69.25
1-3/4" X 2"	33232	1-3/4"	2"	\$69.25
2" X 2"	33233	2"	2"	\$71.50
2-1/2" X 2-1/2"	33234	2-1/2"	2-1/2"	\$78.35
2-3/4" X 2-3/4"	33235	2-3/4"	2-3/4"	\$78.25



HYDRO-FORMED SLIP JOINTS - Two Piece Unit 4" Long



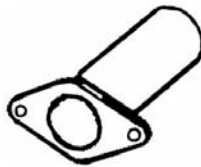
Slip Joint Size	P/N	Expanded Length	Price
1-1/2"	33221	2-3/4"	\$31.40
1-5/8"	33226	2-5/8"	\$32.95
1-3/4"	33222	2-5/8"	\$32.90
2"	33223	2"	\$36.00
2-1/4"	33227	2"	\$31.70
2-1/2"	33224	2-3/8"	\$37.50
3"	33225	2-1/4"	\$41.30



LAP-OVER DESIGN

Both ends 1-3/4" dia. x .035. Length 1-1/2". Four used on Long-EZ exhaust system.

P/N 33701\$22.85 ea



STUB EXHAUST STACKS

Stainless tubing 6"L welded onto stainless exhaust flange.

1-1/2"x .035 for Continental (doesn't fit 0-240)
P/N 13352\$38.10

1-3/4"x .035 for Lyc.
P/N 13354\$39.85

STAINLESS TUBING FOR EXHAUST STACKS

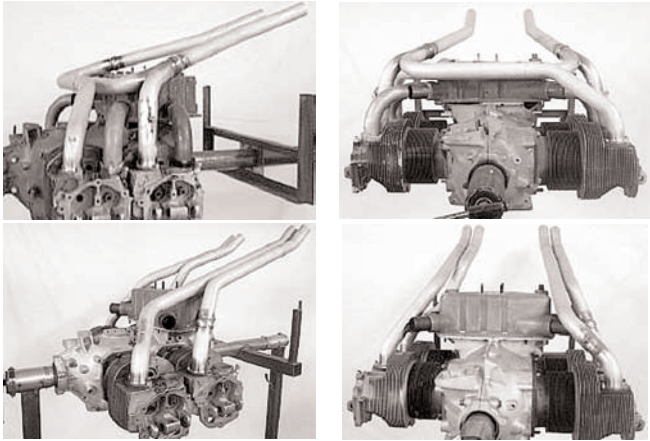
Stainless type 321 welded tubing for exhaust stacks.

Tubing Size (O.D. x Wall)	P/N	Price per Ft.	Tubing Size (O.D. x Wall)	P/N	Price per Ft.
1-1/4" x .028	03-16200	\$13.30	1-3/4" x .035	03-16400	\$8.45
1-1/2" x .035	03-16300	\$14.90	2" x .035	03-16500	\$22.40

EXHAUST SYSTEMS

VETTERMAN RV EXHAUST SYSTEM

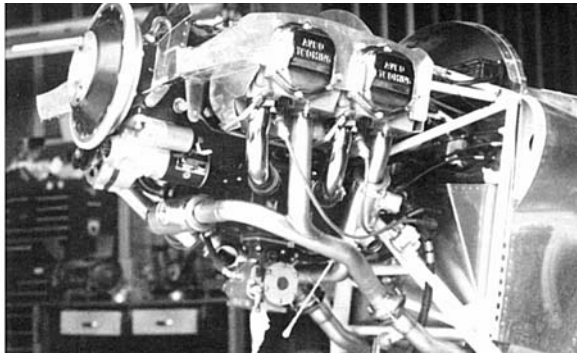
Vetterman Exhaust has been manufacturing exhaust



systems for the Van's Aircraft RV series since 1990. Exhaust systems for all RV models & Van's approved engine models are available. All systems are manufactured from MIL Spec 321 stainless steel, which is mandrel bent, trimmed to length and tack welded on a Lycoming engine. This method assures the best fit possible. All systems incorporate ample slip & ball joints which greatly reduces breaking potential. All systems include blow proof gaskets, stainless exhaust nuts & washers for installation. Also include tail pipe mounting kits or pipe support brackets. Some systems also include a cabin heat muff.

EP

SNOWLINE RV-4 CROSSOVER EXHAUST SYSTEM



The material used on this System is 1-3/4" O.D. x .035 wall 321 stainless steel. This system is designed for use with Lycoming engines up to 180 H.P. Bending is performed using an inside mandrel which the tube is drawn over during bending to maintain the inside diameter. Flanges are made from 1/4" Stainless Steel. This heavy material greatly reduces warping and cracking. Tail pipes are fitted with a stainless steel spring-type swivel ball joint. This flexible joint not only allows for easy alignment of the tail pipes through the opening in the bottom cowling; but most important, this joint allows the engine and tail pipes to move independently, and greatly reduces the chance of cracking. One heat muff has been provided on the front cross-tube. This muff is intended for carburetor heat. If an injection system is being used, this muff can be used for cabin heat. An optional cabin heat muff can be ordered when carburetor heat requires the use of the standard heat muff. All hardware is provided to install the system. Stainless steel nuts, bolts, washers, blow-proof exhaust gaskets, two stainless clamps for attaching tail pipes to the firewall or engine mount. Building brackets and positioning mixture and throttle cables is always a hassle. A bracket which simply bolts to the engine case and positions the cables in front of the mixture and throttle arms for easy attachment is available as an option. A U-type clamp attaches cable housing securely in place

RV-4 Crossover Exhaust System P/N 08-05785 ..\$595.00

NOTE: THIS SYSTEM WILL NOT FIT LYCOMING, O-320-H2AD OR H3AD ENGINES

Aircraft	Description	Part No.	Price
RV-3	O-320 Conical Mount 4 pipe sys.	08-00583	\$675.00
RV-3	O-320 Dynofocal Mnt. 4 pipe sys.	08-00584	\$675.00
RV-3	O-360 Dynofocal Mnt. 4 pipe sys.	08-00585	\$675.00
RV-4	O-320 Conical Mount 4 pipe sys.	08-00586	\$675.00
RV-4	O-320 Dynofocal Mnt. 4 pipe sys.	08-00587	\$675.00
RV-4	O-360 Dynofocal Mnt. 4 pipe sys.	08-00588	\$675.00
RV-4	O-320 Dynofocal Mnt. X-over sys.	08-00589	\$762.00
RV-4	O-360 Dynofocal Mnt. X-over sys.	08-00590	\$761.00
RV-6-6A, 7-7A,8-8A, 9-9A	O-320/O-360 Crossover system *Includes cabin heat muff - complete tail pipe mounting kit	08-00591	\$794.00
RV-6,7,8,9A	O-320 H2AD Crossover system *Includes cabin heat muff - complete tail pipe mounting kit	08-00592	\$794.00
RV 7-7A	IO-360 *Includes cabin heat muff - complete tail pipe mounting kit	08-00593	\$740.00
RV8	IO-360 *Includes cabin heat muff - complete tail pipe mounting kit	08-00594	\$774.00
RV 8A	IO-360 *Includes tail pipe mounting kit	08-00595	\$758.00

Note: Each of these systems will not interchange between aircraft and engine models. These systems are designed and intended for use on RV Aircraft ONLY. Prices DO NOT include shipping charges.

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www.aircraftspruce.com

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- 24 Hour Access!
- Fast, Easy Navigation!

LOW PRICE GUARANTEE

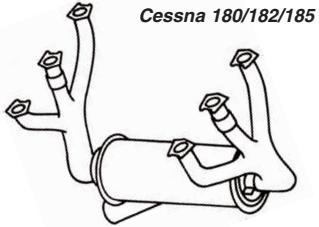
WE WILL MATCH ANY COMPETITOR'S CURRENT PRICE. IF YOU FIND A LOWER PRICE, PLEASE TELL US.

NICROCRAFT EXHAUST PARTS

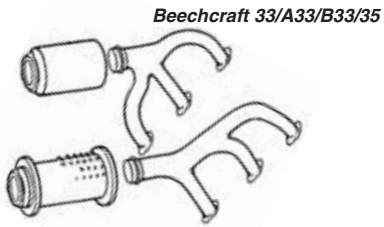
NICROCRAFT EXHAUST PARTS BUILT TO TAKE THE HEAT

Aircraft Spruce & Specialty Co. offers fully overhauled and factory new exhaust components for use in most general aviation aircraft. Manufactured by Wall Colmonoy Corp. Nicrocraft exhaust parts are built to the latest original equipment specifications. Heat-resistant 321 stainless steel is used in the construction of all new parts. Bellows are made of Inconel alloy for superior heat resistance. Individual exhaust components and complete systems are available for virtually all single and twin engine Cessna, Piper, Beech, Bellanca, Grumman, Mooney, and Rockwell aircraft. (Please provide your complete aircraft and engine model and serial numbers, year of aircraft, and exact components required.) Most components are available for immediate shipment.

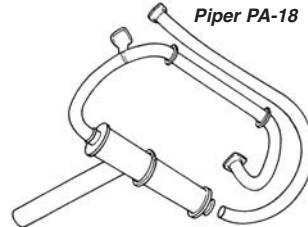
FACTORY NEW EXHAUST PARTS



Cessna 180/182/185



Beechcraft 33/A33/B33/35



Piper PA-18

CESSNA 150 (Models G-L)

Aircraft	Description / OEM #	Part No.	Price
Cessna 150	Muffler RH / #0450400-26	8300-4	\$259.95
Cessna 150	Muffler LH / #0450400-3	8300-3	\$259.95

CESSNA 152/A152

Aircraft	Description/OEM #	Part No.	Price
Cessna 152 (S/N 735-975)	Muffler/#454009-5	CEM0025	\$265.95
& A152 (S/N 978 & up)	Muffler/#454009-6	CEM0024	\$271.95

CESSNA 170/172

Aircraft	Description / OEM #	Part No.	Price
C170,172, A	Muffler LH / #0550157-9	221-9	\$392.95
Cont 0-300/C145	MufflerRH / #0550157-32	221-32	\$392.95

CESSNA 172B-H/175

Aircraft	Description / OEM #	Part No.	Price
Cessna C172B-H & 175 B-D	Muffler LH&RH / #	568-110	\$268.95
Cessna R172	Muffler / #1455009-3	CEM0023	\$319.00

CESSNA 172

Aircraft	Description/OEM #	Part No.	Price
C172 (w/Lyc) O-320	Muffler/#1754001-25	SO-00127B3	\$318.95
C172 O-320	Stack/#1754007-1	08-00844	\$136.00
C172 O-320	Stack/#1754008-1	08-00846	\$115.00
C172 O-320	Stack/#1754009-1	08-00847	\$136.00
C172 O-320	Stack/#1754010-1	08-00848	\$125.95

CESSNA 180/182/185

Aircraft	Description / OEM #	Part No.	Price
Cessna C180,C182, & 185 late model	Muffler/#0750161-28/89	CEM0002	\$281.95
180B,C,D,E,F	Heat Muffler 0750130-44	CEM0001	\$276.95
182B,C,D,E,F	Heat Muffler 0750130-9	CEM0006	\$353.95
	Heat Muffler 0750130-12	CEM0009	\$343.00
210B s/n58086&up to M	Heat Muffler LH/#1250250-5	650-43	\$405.95
C210B	Muffler RH 1250251-16	08-00849	\$246.95
C210B	Collector LH 1250263-2	08-00850	\$352.95
C210B	Collector RH 1250264-2	08-00851	\$352.95

BEECHCRAFT 33/A33/B33/35

Aircraft	Description / OEM #	Part No.	Price
Beechcraft 33, A33, B33, 35	Heat Muffler RH/#186-30	186-30	\$395.00
	Muffler RH / #189	189	\$194.00
	Stack Assy RH/#35-950116	BES-0001	\$385.95
	Stack Assy LH/#35-950118	BES-0002	\$424.95

BEECHCRAFT C33A/36/A36

Aircraft	Description / OEM #	Part No.	Price
C33A,E33A,F33A	Muffler LH/#701-20	701-20	\$192.90
C, S35, 36, A36	Heat Muffler RH/#701-19	701-19	\$316.95
C33A, 36, A56	Collector LH / #35-9016-1S	08-00853	\$356.00
C33A, 36, A36	Collector RH / #35-9016-3/5S	08-00854	\$372.00

BEECHCRAFT H35/P35 thru S/N D-7108

Aircraft	Description / OEM #	Part No.	Price
Beechcraft H35, J, K, M, N, P35	Heat Muffler LH/492-43	492-43	\$364.00
	Muffler RH/#492-27	492-27	\$247.00

PIPER PA-12, 14, 16, 20, 22, 25

Aircraft	Description / OEM #	Part No.	Price
PA-12, 14,16, 20, 22, 25	Muffler / #10308-03	PIM0003	\$367.95

PIPER PA-18

Aircraft	Description / OEM #	Part No.	Price
Piper PA18	Muffler / #12433-15	PIM0006-100	\$367.95

PIPER PA-28

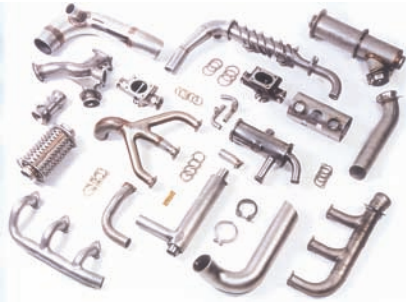
Aircraft	Description / OEM #	Part No.	Price
PA-28-140, 150, 160	-140 Muffler w/o shroud / #99482-00	PIM0001	\$296.95
PA-28-151,161,180,181	Muffler (2 req.)/#66894-03	PIM0007	\$226.95
PA-28R,180, 200, 201, 236	Muffler (2 req.)/#67517-00 3 req. for 236	PIM0004	\$246.95
PA32-300,32-760001 & up, PA32-R300	Muffler (3 req.) 67517-00	PIM0004	\$246.95

OVERHAULED EXHAUST PARTS

Aircraft	Description / OEM#	Part No.	Price
Cessna C172 (w/Lyc.)	Muffler / #1254001-25	SO-00127B3	\$318.95
Beechcraft C33A, E33A, F33A, C, S35, 36, A36	Heater Muffler RH w/o shroud / #701-19	701-19R	\$238.95
Cessna 210B	Heater Muffler LH / #1250250-15	1250250-5R	\$239.00
Piper PA-18	Muffler / #12433-15	12433-15R	\$268.95



EXHAUST SYSTEMS



EXHAUST SYSTEMS BY AEROSPACE WELDING INC.

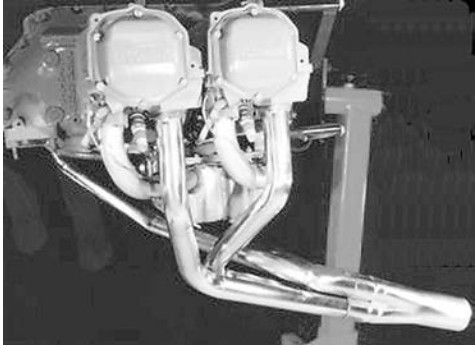
Aerospace Welding, Inc. has earned a reputation for its uncompromising commitment to quality exhaust systems and components. Aircraft Spruce is an authorized distributor of AWI products, and as such can assure our customers of minimal down time and fast shipment through the Priority Service Program at AWI. All exhaust systems are built in fixtures for precise fit and are FAA Approved for the listed aircraft. Available in factory new (N) and overhauled (OH) condition as noted.

Aircraft	OEM Part No.	Description	Our Part No.	Price	Aircraft	OEM Part No.	Description	Our Part No.	Price
C-150	0450400-3	LH Muffler (N)	08-00061	\$276.95	PA28-151/161/180/191	66894-03	Muffler (N)	08-00135	\$211.95
	0450400-26	RH Muffler (N)	08-00062	\$263.95	PA28R-180/200	67517-00	Muffler (N)	08-00136	\$211.95
	0450338-70	RH Riser (N)	08-00063	\$47.00		PA28-235	65012-00	Muffler (OH)	08-00137
	0450338-69	LH Riser (N)	08-00064	\$62.50	65813-00		Muffler (OH)	08-00138	\$313.00
	0450338-66	RH Tailpipe (N)	08-00065	\$83.00	68718-03		Muffler (OH)	08-00139	\$313.00
	0450338-67	LH Tailpipe (N)	08-00066	\$95.75	65038-00	LH Stack (OH)	08-00140	\$335.00	
					65039-00	RH Stack (OH)	08-00141	\$335.00	
C-152	0454009-5	Muffler (OH)	08-00067	\$265.95	PA28-236	67517-00	Muffler (N)	08-00142	\$223.88
	0454009-6	Muffler (OH)	08-00068	\$280.95	PA31-325/350	LW16825	RH Stack Assy. (OH)	08-00143	\$366.00
EL0099001-716	Muffler (OH)	08-00069	\$155.00	LW16826		LH Stack (OH)	08-00144	\$366.00	
C-170B/172	0550157-9	LH Muffler (OH)	08-00070	\$344.95		LW12127	Transition (N)	08-00145	\$1,080.00
	0550157-32	RH Muffler (OH)	08-00071	\$344.95		LW12437	Transition (N)	08-00146	\$1,046.00
	0550157-7	Riser (N)	08-00072	\$47.80	40310-09	Lower Tailpipe (OH)	08-00147	\$271.00	
	0550157-8	Curved Riser(OH)	08-00073	\$92.50	40310-08	Upper Tailpipe (OH)	08-00148	\$271.00	
C-172 Cont.	0550176-59	Muffler (N)	08-00074	\$325.00	40310-10	Upper Tailpipe (OH)	08-00149	\$271.00	
	0550157-7	Riser (N)	08-00075	\$47.70	PA32-260	68718-00	Muffler (OH)	08-00150	\$313.00
	0550176-13	Riser (N)	08-00076	\$58.50		65038-00	LH Stack (OH)	08-00151	\$340.00
C-172	1754001-25	Muffler (N)	08-00077	\$371.95		65039-00	RH Stack (OH)	08-00152	\$333.95
	1754001-15	Muffler (N)	08-00078	\$133.95	PA32-300	68796-00	Muffler (OH)	08-00153	\$313.00
	1754007-1	Riser (OH)	08-00079	\$132.95		68793-00	Stack (OH)	08-00154	\$365.95
	1754008-1	Riser (OH)	08-00080	\$132.95	67517-00	Muffler (N)	08-00155	\$248.95	
	1754009-1	Riser (OH)	08-00081	\$132.95	PA32R-301-T	W15859	Westgate (OH)	08-00156	\$664.00
1754010-1	Riser (OH)	08-00082	\$132.95	W16759		Westgate (OH)	08-00157	\$664.00	
C-177	1754001-25	Muffler (N)	08-00083	\$337.95	PA34-200-I	78463-10	LH Tailpipe (OH)	08-00158	\$313.00
	1754001-9	Muffler (N)	08-00084	\$320.00		78463-10	RH Tailpipe (OH)	08-00159	\$313.00
C-177RG	2054000-42	LH Muffler (OH)	08-00085	\$324.00	PA38-112	77669-02	Muffler (OH)	08-00160	\$195.95
	2054000-40	LH Muffler (OH)	08-00086	\$324.00	PA44-180	86299-07	Muffler (OH)	08-00161	\$191.00
	2054000-31	LH Muffler (OH)	08-00087	\$324.00		B-33 & 35A-G	186	LH Muffler (OH)	08-00162
	2054000-39	RH Muffler (OH)	08-00088	\$324.00	189	RH Muffler (OH)	08-00163	\$291.95	
C-180	0750290-3	Muffler (OH)	08-00089	\$292.00	B-V35/A36	35-950005-1	LH Stack (OH)	08-00164	\$387.95
C-180/182	0750130-9	Muffler (OH)	08-00090	\$275.95		35-950005-3	RH Stack (OH)	08-00165	\$292.00
	0750130-12	Muffler (OH)	08-00091	\$343.00		701-4	LH Muffler (OH)	08-00166	\$138.00
	0750130-44	Muffler (OH)	08-00092	\$276.95		701-20	LH Muffler (OH)	08-00167	\$173.50
C-182/185	0750161-89	Muffler (N)	08-00094	\$320.63		701-5	RH Muffler (OH)	08-00168	\$291.00
	0750238-20	Stack (N)	08-00095	\$493.95		701-19	RH Muffler (OH)	08-00169	\$291.00
C-182RG	1250251-12	LH Muffler (OH)	08-00096	\$210.00		35-950004-7	LH Tailpipe (OH)	08-00170	\$101.95
	1250250-5	RH Muffler (OH)	08-00097	\$317.00	35-950004-9	RH Tailpipe (OH)	08-00171	\$141.95	
C-188	1650005-4	Muffler (N)	08-00098	\$329.00	35-950005-61	LH Tailpipe (N)	08-00172	\$142.95	
	1650033-11	Tailpipe (N)	08-00099	\$170.00	35-950005-57	RH Tailpipe (N)	08-00173	\$161.95	
	1650033-36	Tailpipe (N)	08-00100	\$171.95	B-35H-P	492-27	RH Muffler (OH)	08-00174	\$247.00
	0750238-28	Stack (N)	08-00102	\$507.00		492-7	LH Muffler (OH)	08-00175	\$291.00
C-206/210	1250263-2	LH Collector (OH)	08-00103	\$388.95		35-950004-7	LH Tailpipe (OH)	08-00176	\$141.95
	1250264-2	RH Collector (OH)	08-00104	\$291.95	35-950004-9	RH Tailpipe (OH)	08-00177	\$141.95	
	1250250-5	LH Muffler (OH)	08-00105	\$317.00	35-950005-61	LH Tailpipe (N)	08-00178	\$113.00	
	650-43	LH Muffler (OH)	08-00106	\$317.00	35-950005-57	RH Tailpipe (N)	08-00179	\$136.00	
	1250251-13	RH Muffler (OH)	08-00107	\$210.00	B-55/58	96-950002-55	LE OTNBD Tailpipe (OH)	08-00180	\$303.00
	1250251-16	RH Muffler (OH)	08-00108	\$209.95		96-950002-57	RE INBD Tailpipe (OH)	08-00181	\$303.00
	1250256-7	LH Tailpipe (N)	08-00109	\$100.00		96-950002-59	LE INBD Tailpipe (OH)	08-00200	\$303.00
	1250257-7	RH Tailpipe (N)	08-00110	\$100.00		96-950002-61	RE OTNBD Tailpipe (OH)	08-00201	\$303.00
	12502646-6	RH Tailpipe (N)	08-00111	\$100.00		96-950002-31	Riser Cyl. #3 (OH)	08-00202	\$175.95
						96-950002-7	Riser Cyl. #4 (OH)	08-00203	\$122.00
C-T206/T210	1250860-110	Tailpipe (OH)	08-00112	\$280.95	96-950002-33	Riser Cyl. #5 (OH)	08-00204	\$90.00	
	1250860-104	RF Stack (OH)	08-00113	\$386.95	96-950002-9	Riser Cyl. #6 (OH)	08-00205	\$90.00	
	1250860-105	Turbo Inlet (OH)	08-00114	\$388.00	B-Sundowner	099001-127	Muffler (OH)	08-00206	\$516.00
	1250860-203	Heat Exchanger (OH)	08-00115	\$920.00		B-Sport	099001-126	Muffler (OH)	08-00207
	1250860-90	Crossover (OH)	08-00116	\$174.95	B-Sierra	099001-131	Muffler (OH)	08-00208	\$730.00
1250860-100	Riser (N)	08-00117	\$73.50	Bellanca Citabria	3-1493R	Muffler (OH)	08-00209	\$207.95	
C-T206/T210	1250860-07	Tailpipe Adapter(OH)	08-00119		\$73.00	3-1493L	Muffler (OH)	08-00210	\$207.95
	C-337	1250250-5	Muffler (OH)		08-00120	\$317.00	4-1104	Muffler (OH)	08-00211
1555001-1		Muffler (OH)	08-00121		\$1,245.00	4-1105	Muffler (OH)	08-00212	\$207.00
Piper J-3	71053-02	Muffler (OH)	08-00122	\$265.00	Bellanca 8KCAB	099001-046	Muffler (OH)	08-00213	\$545.65
	PA18	12433-014	Muffler (OH)	08-00123		\$265.00	Bellanca 8GCBC	099001-046	Muffler (OH)
		12457-002	Stack (OH)	08-00124	\$320.00	Bellanca 7GCAA	099001-050	Muffler (OH)	08-00215
PA22	10308-003	Muffler (OH)	08-00126	\$265.00	Bellanca 7GCBC	099001-050	Muffler (OH)	08-00216	\$516.00
	12043-22	Stack (OH)	08-00127	\$320.65	Bellanca 7ECA	099001-049	Muffler (OH)	08-00217	\$451.95
	12043-23	Stack (OH)	08-00128	\$320.65	Grumann AA1 Yankee	099001-113	Muffler (OH)	08-00218	\$494.95
PA28-140/-180	99482-00	Muffler (OH)	08-00129	\$265.00	Grumann AA1 A&B	099001-137	Muffler (OH)	08-00219	\$559.00
	99482-02	Muffler (OH)	08-00130	\$265.00	Grumann AA5 Traveler	099005-148	Muffler (OH)	08-00220	\$451.95
	99044-02	Stack (OH)	08-00131	\$112.00	Grumann AA5A Cheetah	099005-195	Muffler (OH)	08-00221	\$516.00
	99044-04	Stack (OH)	08-00132	\$202.00	Grumann AA5B Tiger	099001-191	Muffler (OH)	08-00222	\$545.63
	99044-05	Stack (OH)	08-00133	\$185.95	Mooney M20	630060-501	180 Muffler (OH)	08-00223	\$451.00
	99044-03	Stack (OH)	08-00134	\$146.95		630060-503	200 Muffler (OH)	08-00224	\$493.95

Note: (N) or (OH) after description indicates New (N) or Overhauled (OH) condition. All overhauled parts carry a care charge. Please Order according to "Our Part No."

EXHAUST SYSTEMS

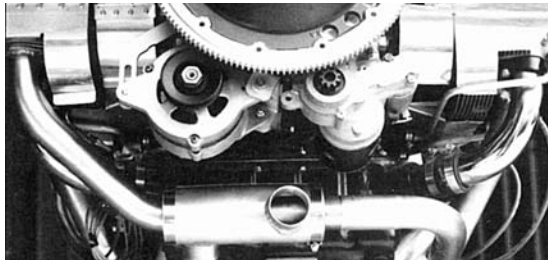
CUSTOM HOMEBUILT EXHAUST SYSTEM



Now there is an easy and exacting way to custom fit an exhaust system to any engine-airframe combination. Using our Fixturing Kit, you fabricate the basic exhaust configuration mock-up that fits your aircraft perfectly. We take it from there. Your PVC System is put into one of our adjustable fixtures and from that temporary fixture our craftsmen produce a 321 stainless steel system. These systems are built on a blanchard ground, perfectly true plate with a Lycoming or Continental bolt pattern taken from factory drawings. This process works exceptionally well for any exhaust system configuration such as crossovers, collector type or straight stacks. Systems may incorporate ball joints, slip joints, mufflers or heat muffers.

When you order your 4-into-1 or 6-into-1 exhaust system, you will receive from Aircraft Spruce a small box containing 4 stub stacks, a collector, and instructions. When your exhaust system mock-up is complete you will ship it directly to our fabricator who will use it to fabricate your custom 321 stainless steel system and ship the system directly to you. 6-into-1
P/N 08-00674\$1,454.00

SNOWLINE RV-6 & RV-6A CROSSOVER EXHAUST SYSTEM



The material used on these systems is 1-3/4" O.D. x .035 wall 321 stainless steel tubing. 2 models are available; one for Lycoming engines up to 180 H.P. and the other for the Lycoming IO-360 (200 H.P. engine). Bending is performed using an inside mandrel which the tube is drawn over during bending to maintain the inside diameter. Flanges are made from 1/4" stainless steel. This heavy material greatly reduces warping & cracking. Tail pipes are attached to the header with a slip joint. Simply slide the tail pipes onto the header, position the end of the pipe as desired in the bottom opening, and attach with the stainless steel retaining clamp. One heat muff has been provided on the front cross-tube. This muff is intended for carburetor heat. If an injection system is being used, this muff can be used for cabin heat. An optional cabin heat muff can be ordered when carburetor heat requires the use of the standard heat muff. All hardware is provided to install the system. Stainless Steel nuts, bolts, washers, blow-proof gaskets, 2 stainless clamps for attaching tail pipes to the firewall or engine mount. Building brackets and positioning mixture and throttle cables is always a hassle. A bracket which simply bolts to the engine case and positions the cables in front of the mixture & throttle arms for easy attachment is available as an option. U-type clamp attaches the cable housing securely in place.

RV-6/RV-6A Crossover Exhaust Sys. (To 180 H.P.) ..P/N 08-05790.... \$595.00
RV-6/RV-6A Crossover Exhaust Sys.* (To 200 H.P.) P/N 08-05795.... \$629.59
Optional Cabin Heat MuffP/N 08-00679\$68.85
*Will not work with front mounted injectors

The RV-6/RV-6A exhaust systems are recommended for these aircraft only. For other experimentals, the RV-4 system may fit better under cowls as it is built tighter to the engine.

EP

REAL PREMIUM SILICONE VALVE COVER GASKETS

REAL are twice as thick as typical gaskets and have been hot oil and dry heat tested at 300°F. Only REAL gaskets seal uneven surfaces, eliminate corrosion, and reduce maintenance costs. They may be reused, are installed dry, and maintain screw torque. Indefinite shelf life. Highly recommended by Rutan Aircraft Factory.














P/N	APPLICATION	PRICE EACH	P/N	APPLICATION	PRICE EACH	P/N	APPLICATION	PRICE EACH
RG-75906	O-235; O-290; O, IO, LIO-320; O-340; O-360-A,B,C,D; IO-360-B; HO-360-A,B; HIO-360-B; VO, IVO-360; O-540-A,B,E,F,G; IO-540-C,D,J,N,R.	\$6.95	RG-71450	IO-540-B,E,M; TIO-540-A; IGO, IGSO-540-B.	\$9.75	RG-534857	O-470; IO, TSIO-470; IO, TSIO-520	\$9.85
			RG-530162	A-65; C-75,85,90,145,175; O-200; O-300.	\$7.50	RG-632310	IO, TIO, TSIO-360.	\$4.95
			RG-532451	E-185; E-225; IO-346; O-470-A,E,J; IO-470-J,K	\$8.45	RG-632459	GTSIO-520; TSIO-520-BE.	\$5.50
RG-67193	IO-360-A,C,D; AIO-360-A,B; HO-360-A,C,D; TIO-360-A; LIO-360-C1E6; VO, GO-435; GO-480; IO, VO, TVIO-540; IO-720; TVO-435;	\$6.95				RG-17727	4A-235, 6A-335, 6A4-150, 6A4-165, 6A4-200, 6A5-335, 6A5-350.	\$6.60

EXHAUST GASKETS

RAPCO REPLACEMENT EXHAUST GASKETS

RAPCO manufactures FAA-PMA approved exhaust gasket replacements for Continental and Lycoming engines. As an authorized RAPCO distributor, Aircraft Spruce offers these gaskets at great savings to you. Select either the economical solid metal beaded gaskets or the extra thick, rugged spiral wound style. High quality for long life. These prices reflect a substantial discount off RAPCO list prices.

STYLE	RAPCO P/N	Use As Replacement For:			Use on These Engine Models	Our P/N	Our Price Each
		OEM P/N	Airborne P/N	Superior P/N			
CONTINENTAL	<i>Solid</i> 	RA-630365	630365	N/A	SA630365	IO-360-A, C, D, G, H, J, K	08-05215 \$1.70
	<i>Spiral Wound</i> 	RA-970	N/A	N/A	N/A	IO-360-A, C, D, G, H, J, K TSIO-360-A, B	08-05270 \$6.40
	<i>Solid</i> 	RA-632837	632837 21493	157	SA632837	A-65, A-75, C-85-12F, C-90-8F, 12F, 14F, 16F	08-05237 \$1.25
	<i>Spiral Wound</i> 	RA-627429	627429	999	SA627429	E-165, E-185, E-225 O-200-A, B, O-300-A, C, D O-470-A, E, J	08-05229 \$6.10
	<i>Solid</i> 	RA-631544	631544 537379	158	SA631544	O-470-B, G, K, L, M, P, R, S, U	08-05244 \$1.25
	<i>Spiral Wound</i> 	RA-628260	628260	972	SA628260	O-470-B, G, K, L, M, P, R, S, U IO-470-D, U, V, TSIO-470-B TSIO-520-B, C, D GTSIO-520-C, D	08-05260 \$4.75
LYCOMING	<i>Solid</i> 	RA-75118	75118 73720 67196 65321	160	N/A	All engines using two (2) hole exhaust flanges	08-05218 \$1.67
	<i>Spiral Wound</i> 	RA-77611	77611	1000	SL77611		08-05211 \$4.85
	<i>Solid</i> 	RA-LW15619	LW15619 74756	161	SL15619	All engines using three (3) hole exhaust flanges	08-05219 \$1.67
	<i>Spiral Wound</i> 	RA-LW15486	LW15486	971	N/A		08-05286 \$8.40
	<i>Solid Metal Beaded</i> 	RA985	3503			P & W R985	08-64452 \$9.90

LOW PRICE GUARANTEE

WE WILL MATCH ANY COMPETITOR'S CURRENT PRICE.
IF YOU FIND A LOWER PRICE, PLEASE TELL US.