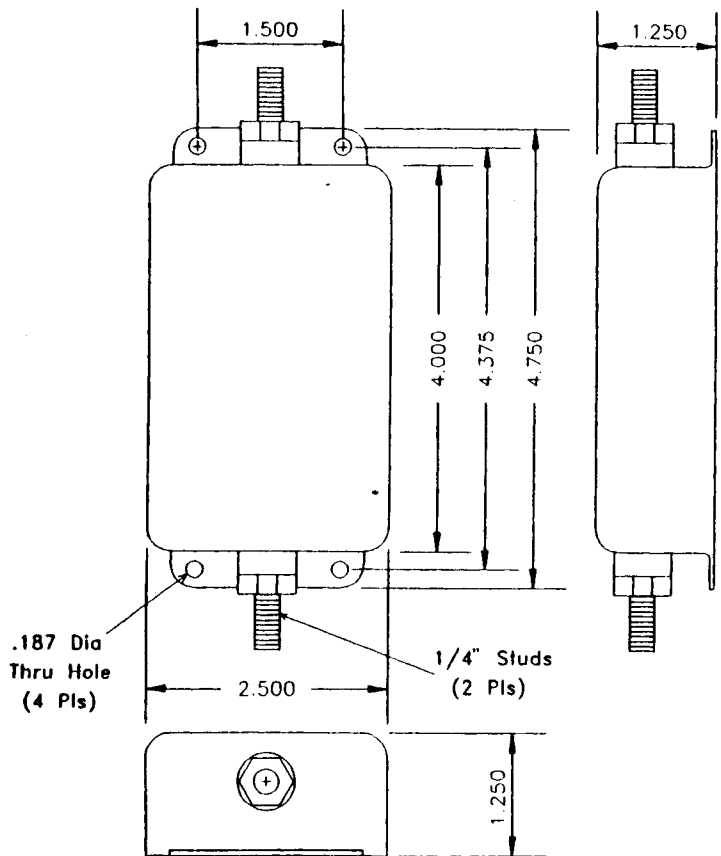


RFI DC LINE FILTER
P/N AK-950-FTR

NOTE: " The conditions and tests required for TSO approval of this article are minimum performance standards. It is the responsibility of those desiring to install this article on or within a specific type or class of aircraft to determine that the aircraft operating conditions are within TSO standards. The article may be installed only if further evaluation by the applicant documents an acceptable installation and is approved by the Administrator." Source: FAA TSO-C129a.

The RFI DC Line Filter, AK-950-FTR, is a GPS Accessory item. It is designed to reduce conducted RFI produced on the aircraft Generator/DC Line. The Filter has Cutoff frequency of 60 KHz, rejects in excess of 50 db minimum at frequencies of 350 KHz to 2000 Mhz, including GPS 1575 Mhz Range.



NOTES: All dimensions are in inches.

1. FAA APPROVED: PMA / STC / TSO

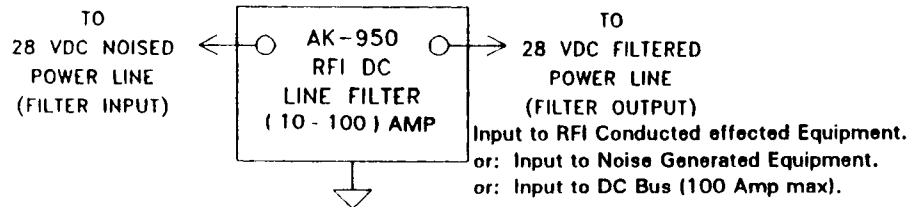
ENVIRONMENTAL TEST CAT's: A2D1/CA/MN/XXXXXXABBBATAXXX
OPERATING TEMPERATURE: -20 deg C to +70 deg C

2. INSTALLATION INSTRUCTIONS:

CAUTION: DO NOT REMOVE NUT WHICH IS NEXT TO PHENOLIC / FIBRE INSULATOR.

- * Place Aircraft Wiring Terminal Lug on Stud.
- * Place Lock Washer on Stud.
- * Install 1/4"-20 Brass Nut on Stud and Torque Nut 20 to 25 lb-in.

* Wiring Diagram:



NOTES: THE FILTER MUST BE PLACED ON AIRCRAFT FRAME WITH BOTH GOOD ELECTRICAL BONDING (FOR DC GROUND) AND GOOD THERMAL CONTACT (FOR HEAT SINK).

The RFI DC Line Filter, P/N AK-950-FTR, may be placed, electrically, on either:

- a. If the Noise Generated Source is not known:
 - Connect the Filter at Input to the Equipment, which is suscepected to the RFI Interference. Examples include Power Input Lines into ADF, Various Avionic Tranceivers, GPS Receiver.
- b. If the Noise Generated Source is known, i.e. Strobe Power Supply, Ignition, Fuel Pump, etc:
 - Connect the Filter at Input to the Noise Generated Equipment. This will filter all the Conducted EMI kicked back from the Noise Generated Equipment into the Aircraft DC Line.
- c. If the Noise Source is Aircraft Generator:
 - Connect the Filter, in Series, at Generator Output Line. This is Upstream of the DC Bus (100 Amp maximum). This will filter all the Equipments after the Filter. In addition, a Capacitor Filter (AK-950-FTR1), may be added, in parallel, at the Generator Output Positive Terminals. This Capacitor Filter will smoothe all the Low Freq Ripples at Generator Output.

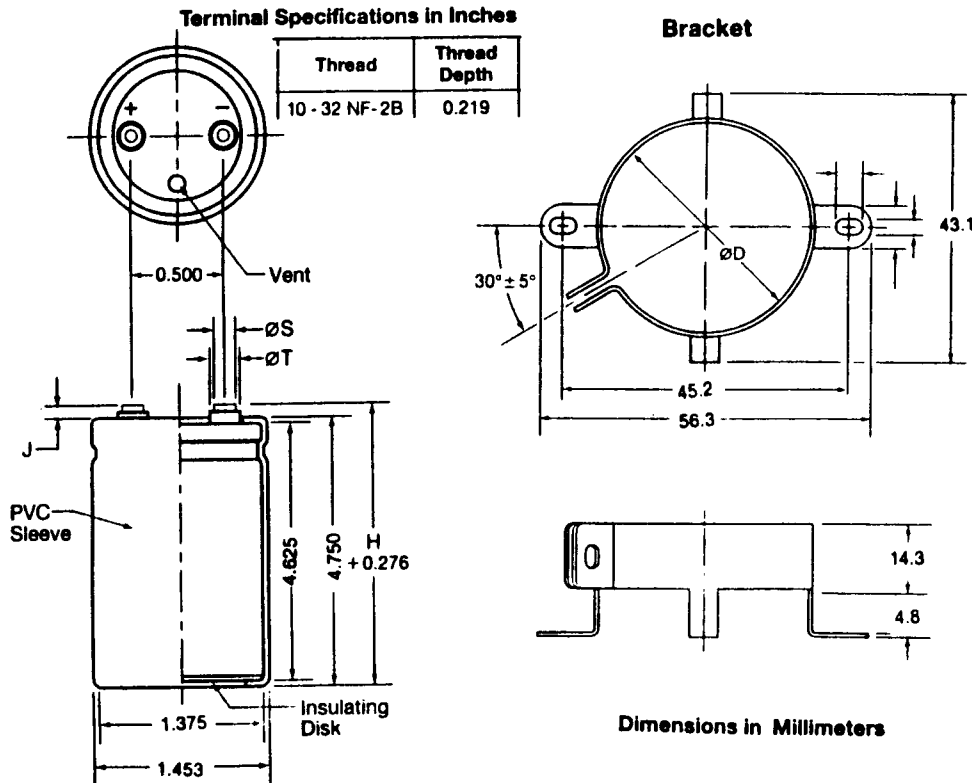
3. ELECTRICAL SPECIFICATIONS:

- a. INSERTION LOSS: Less than .2 dB.
- b. WORKING VOLTAGE: 30 Volts DC nom.
- c. DIRECT CURRENT: 100 Amps max.
- d. FREQUENCY RESPONSE: Cutoff frequency 60 KHz, 50 dB min. rejection at 350 KHz and above.

RFI DC LINE FILTER
P/N AK-950-FTR1

NOTE: " The conditions and tests required for TSO approval of this article are minimum performance standards. It is the responsibility of those desiring to install this article on or within a specific type or class of aircraft to determine that the aircraft operating conditions are within TSO standards. The article may be installed only if further evaluation by the applicant documents an acceptable installation and is approved by the Administrator." Source: FAA TSO-C129a.

The RFI DC Line Filter, AK-950FTR1, is a GPS Accessory item. It is designed to reduce conducted RFI produced on the aircraft Generator/DC Line.

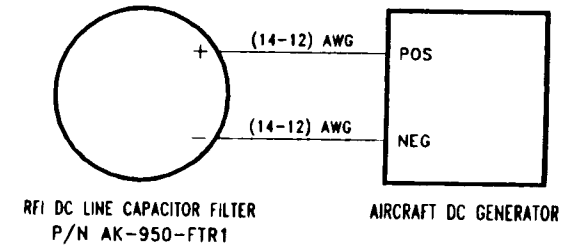


1. FAA APPROVED: PMA / STC / TSO

ENVIRONMENTAL TEST CAT's: A2D1/CA/MN/XXXXXXABBATAXXX
OPERATING TEMPERATURE: -20 deg C to +70 deg C

2. **INSTALLATION INSTRUCTION:**

- * Install the Mounting Clamp onto Air Frame, using Hardwares attached.
- * Connect Wiring as shown:



* The RFI DC Line Capacitor Filter (P/N AK-950-FTR1), may be placed, electrically, in parallel, at the Generator Output Terminals. This Capacitor Filter will smooth all the Low Frequency Ripples, at the Generator Output.

In addition, a RFI DC Filter (P/N AK-950-FTR), may be added, in series, between the Generator Output Terminals and Aircraft DC Bus (100 Amp maximum). Both Filters, (AK-950-FTR and AK-950-FTR1), will reduce all Ripples and its related subsequent Harmonics, conducted RFI produced on the Aircraft Generator Line.

3. **ELECTRICAL SPECIFICATION:**

- * Rated Voltage (WVDC): 100 Volts (125 Volts Surge).
- * Capacitance: 6,800 Micro Farad.
- * Ripple Current:
 - 9.43 Amp rms @ +85 deg C, 120 Hz
 - 9.90 Amp rms @ +85 deg C, 400 Hz
 - 10.37 Amp rms @ +85 deg C, >1 Khz

FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURING APPROVAL

Ameri-King Corporation
17881 Sampson Lane
Huntington Beach, California 92648

PMA NO. PQ2350NM
SUPPLEMENT NO. 1
DATE March 29, 2001

<u>PART NAME</u>	<u>PART NUMBER</u>	<u>APPROVED REPLACEMENT FOR PART NUMBER</u>	<u>APPROVAL BASIS AND APPROVED DESIGN DATA</u>	<u>MAKE ELEGIBILITY</u>	<u>MODEL ELEGIBILITY</u>
GPS Navigation Switching / Annunciator Panel	AK-950		STC No.SA00279LA DWG No: AK-950 REV: A Date: March 15, 2001 or later FAA approved revisions	See Attached FAA Approved Model List	See Attached FAA approved Model List
GPS Cooling Fans	AK-950-F1 AK-950-F2 AK-950-F3 AK-950-F4 AK-950-F5		" "	See Attached FAA Approved Model List	See Attached FAA approved Model List
RFI DC Filters	AK-950-FTR AK-950-FTR1		" "	See Attached FAA Approved Model List	See Attached FAA approved Model List

End of Listing

Note: Minor design changes (reference 14 CFR part 21 §§ 21.93 and 21.95) must be submitted in a manner as determined by the ACO. Major Design changes (reference 14 CFR part 21 §§ 21.93 and 21.97) to drawings and specifications are to be handled in the same manner as that for an original FAA-PMA.



Christopher B. Bergen
 Manager, Los Angeles Manufacturing
 Inspection District Office

FAA Approved Model List (AML)

Number SA00279LA

Ameri-King Corporation

For

Installation of Ameri-King AK-950 Global Positioning System Navigation
Switching / Annunciator and Associated Equipment

Issued Date: November 13, 1996

Amended Date: March 19, 2001

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Item	Aircraft Make	Aircraft Model	Type Certificate Number	Certification Basis for Alteration	FAA Approved Master Drawing List		FAA Approved Rotorcraft Manual Supplement		AML Approval Date
					Number	Revision/Date	Number	Revision/Date	
1	Aeronca Inc.	KCA, 50-C, S-50-C, S-65-C, 65-CA, S65-CA	A-675	Aero Bulletin 7A	MDL-950	NC/11-13-1996	FMS-950	NC/11-13-1996	11-13-1996
2	Aeronca Inc.	50L, 50-LA, 65-LA, 65-LB	A-702	CAR Part 4a	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
3	Aeronca Inc.	15AC, S15AC	A-802	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
4	American Champion Aircraft Corp.	7 Series	A-759	CAR Part 4a	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
5	American Champion Aircraft Corp.	8KCAB, 8GCBC	A21CE	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
6	American Champion Aircraft Corp.	11AC, S11AC, 11BC, S11BC	A-761	CAR Part 4a	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
7	American Champion Aircraft Corp.	11CC, S11CC	A-796	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
8	American Champion Aircraft Corp.	402	A3CE	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001

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9	Bellanca	17-30A, 17-31A, 17-31ATC	A18CE	FAR Par 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
8	Cessna Aircraft Company	120, 140	A-768	CAR Part 4a	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
9	Cessna Aircraft Company	150	3A17	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
10	Cessna Aircraft Company	172()	3A12	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
11	Cessna Aircraft Company	182()	3A13	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
12	Cessna Aircraft Company	206()	A4CE	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
13	Cessna Aircraft Company	207()	A16CE	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
14	Cessna Aircraft Company	208()	A37CE	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
15	Cessna Aircraft Company	525	A1WI	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
16	Cessna Aircraft Company	500, 550, S550, 552, 560, 560XL	A22CE	FAR Part 25	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
17	Cessna Aircraft Company	650	A9NM	FAR Part 25	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001

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18	Cessna Aircraft Company	750	T00007WI	FAR Part 25	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
19	Cirrus Design Corp.	SR20	A00009CH	FAR part 25	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
20	Commander Aircraft Company	112, 112TC, 112B, 112TCA, 114, 114A, 114B, 114TC	A12SO	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
21	Commonwealth Aircraft Inc.	Rearwin 175, 180, 180F, 185, 190F	A-729	CAR Part 4a	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
22	Maule Aerospace Technology Corp.	M4, M5, M6-265, MX-7-180(), MXT7-180() MT-7-235() MT-7-260() M-7-235 () M-7-260	3A23	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001

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23	Mooney Aircraft Company	M20, M20A, M20B, M20C, M20D, M20E, M20F, M20G, M20J, M20K, M20L, M20M, M20R	2A3	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
24	Mooney Aircraft Company	M22	A6SW	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
25	Raytheon Aircraft Company	19A, B19, M19A 23, A23, A23A, A23-19, A23-24, B23, C23, A24, A24R, B24R, C24R	A1CE	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001

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26	Raytheon Aircraft Company	35, A35, B35, C35, D35, E35, F35, G35, 35R 35-33, 35-A33, 35-B33, 35-C33, 35-C33A, E33, E33A, E33C, F33, F33A, F33C, G33, H35, J35, K35, M35, N35, P35, S35, V35, V35A, V35B, 36, A36, A36TC, B36TC	3A15	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
27	Raytheon Aircraft Company	99, A99, A100 Series,	A14CE	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
28	Raytheon Aircraft Company	B200, B300 Series	A24CE	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
32	Piper Aircraft Inc.	PA34-200, -200T, -220T (III), -220T (IV)	A7SO	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001

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33	Piper Aircraft Inc.	PA-36-285, -36-300, -36-375	A9SO	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
34	Piper Aircraft Inc.	PA-32-260, -32-300, -32S-300, -32R-300, -32RT-300, -32RT-300T, -32R-301(SP), 32R-301(HP), -32R-301T, -32-301, -32-301T	A3SO	CAR Part 3	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
35	Piper Aircraft Inc.	PA-46-310P, -46-350P	A25SO	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	03-19-2001
36	Piper Aircraft Inc.	PA-44-180, -44-180T	A19SO	FAR Part 23	MDL-950	A/03-19-2001	FMS-950	NC/11-13-1996	

FAA Approved: 
Project Manager, Systems and Equipment Branch
Los Angeles Aircraft Certification Office