TEMPORARY REVISION

IM-TR-ODC-E4-011

Alternator noise filter

This Temporary Revision IM-TR-ODC-E4-011 is approved in conjunction with the Design Change Advisory ODC-E4-011 and is valid in conjunction with the latest revision of the Installation Manual (IM) until this Temporary Revision has been incorporated into the IM.
The limitations and information contained herein either supplement or, in the case of conflict, override those in the IM.
The technical information contained in this document has been approved under the authority of DOA ref. EASA.21J.0399.

Doc. Nr.	Affected Section(s)	Affected Page(s)s
E4.02.01	14	33a-33b

Instruction:

- Print this document on yellow paper (single-sided)
- Insert this cover page as the first page of the IM
- Insert the other pages of this Temporary Revision adjacent to or in front of the corresponding IM pages

14 Electrical Engine Control System Installation

14.6 Technical Data of the Electrical System Components

14.6.2 Alternator

Following chapter is added:

14.6.2.8 Alternator Noise Filter (Optional)

If avionics equipment sensitive to interference on the B+ line in a frequency range of 10 Hz to 1 MHz is used, optional installation of the below described noise filter is recommended. For attenuation see Fig.14.18a "Frequency response chart".

Manufacturer: Lonestar Aviation Corp.
Part number: LS03-01022
Type: 100A Feed thru

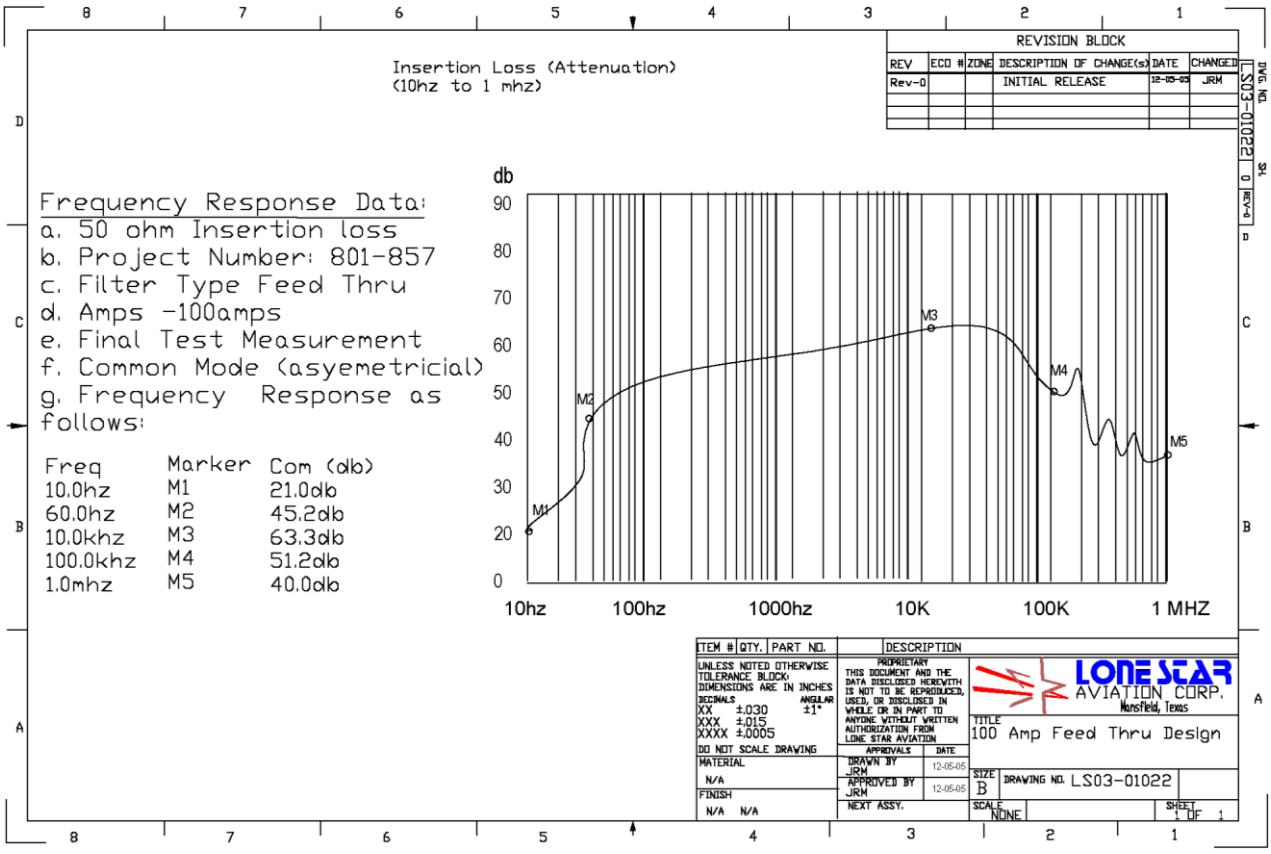

Fig. 14. 18a Frequency response chart

This filter can be mounted within the engine compartment, but must not be mounted directly on the engine. The power wire from the alternator B+ terminal to the filter input should be as short as possible. For detailed installation instructions see the latest revision of Lone Star Aviation drawing #LS03-01022-05.

14.6.2.8.1 Environmental Qualification

For environmental qualification refer to Fig.14.18b DO60E "Environmental Test Identification".

ENVIRONMENTAL TEST IDENTIFICATION

100 AMP. DC ALTERNATOR/ GENERATOR NOISE FILTER

LONESTAR AVIATION PART NO. LS03-01022

LONESTAR AVIATION, MANSFIELD, TEXAS

DO160E TEST COMPLETED 10 MARCH 2007

Test Conditions	Section	Description of Test Conducted
Temperature and Altitude	4	Equipment tested to Categories B2 and 25,000 Ft
Low Temperature	4.5.1	-55c
High Temperature	4.5.2	+85c
In-Flight Loss of Cooling	4.5.4	X not tested
Altitude	4.6.1	25,000 Ft
Decompression	4.6.2	X Not tested
Overpressure	4.6.3	X Not tested
Temperature Variation	5.0	Category A
Humidity	6.0	Category C 144 hours
Operational Shock and Crash Safety	7.0	Category E (7.3.2 Sustained at 18G all axis.)
Vibration	8.0	Category S, Test Curve M
Explosive Atmosphere	9.0	X Not tested
Waterproofness	10.0	Category R, Shower Test
Fluids susceptibility	11.0	Category F. Immersion test, mineral engine oil
Sand and Dust	12.0	X Not tested
Fungus	13.0	X Not tested
Salt Fog Test	14.0	Category S 24 hours salt fog, 24 hours dry, 24 hours salt fog.
Magnetic Effect	15.0	Category B >1 meter
Power Input	16.0	Category B (DC power)
Voltage Spike	17.0	Category B (50 volt spikes)
Audio Frequency Susceptibility	18.0	X Not tested
Induced Signal Susceptibility	19.0	X Not tested
Radio Frequency Susceptibility	20.0	X Not tested
Radio Frequency Emission	21.0	X Not tested
Lightning Induced Transient	22.0	X Not tested
Lightning Direct	23.0	X Not tested
Icing	24.0	X Not tested
Electrostatic Discharge	25.0	X Not tested
Fire, Flammability	26.0	X Not tested
Other Test		Two hour test at 150% current, 150 amp. Tested for overheat.

Test were conducted at Stark's Aviation Laboratory, Olney, Texas
This equipment was not tested in section 16 as digital equipment.
DO 160E Env. Cat. [B2]ACE[SM]XRFXXSB[BDC]BXXXXXXXXX

Fig. 14.18b DO60E Environmental Test Identification