

REVISION		DATE	APPROVAL
REV	DESCRIPTION		
A	Corrected Part Number Error	3/26/14	SJC

G13120 AUDIO MIXER
 WEIGHT : 0.5 LBS Max.
 SIZE: 1.05 X 3.04 X 5.75

Supply Voltage: 28V DC Nominal.
 12-32 VDC Relay Hold.

Supply Current: 300mA Max.

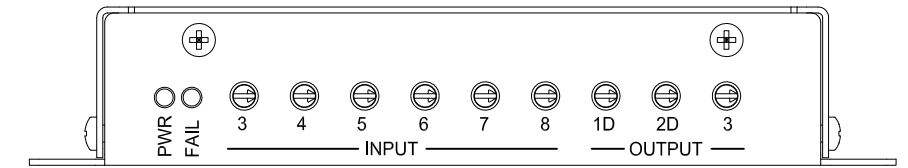
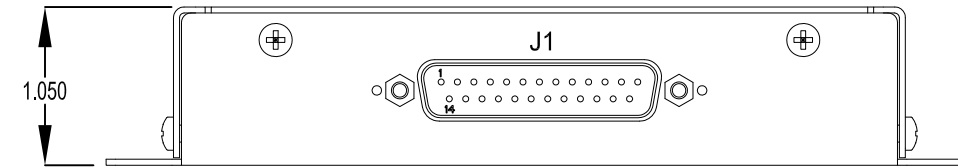
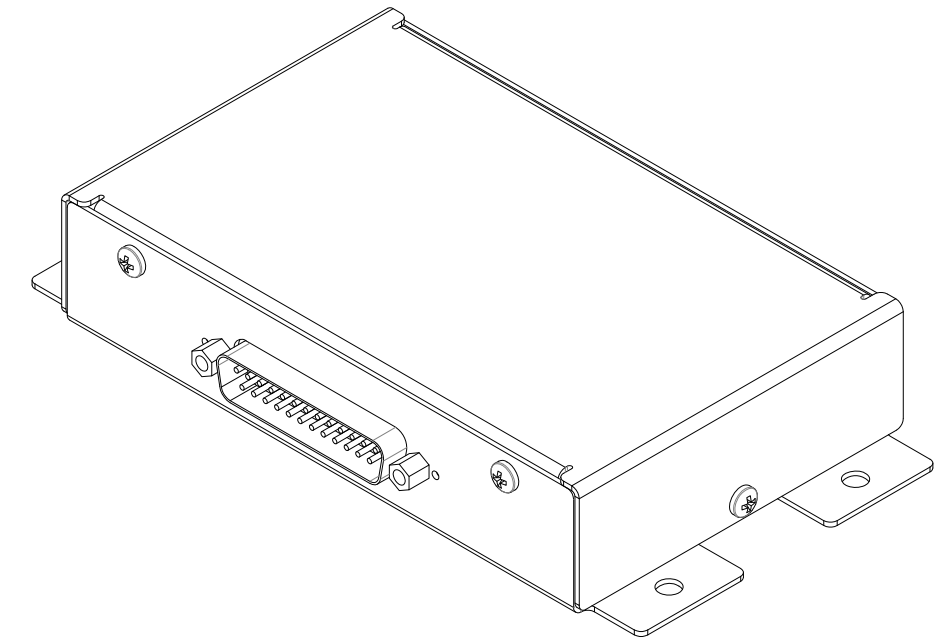
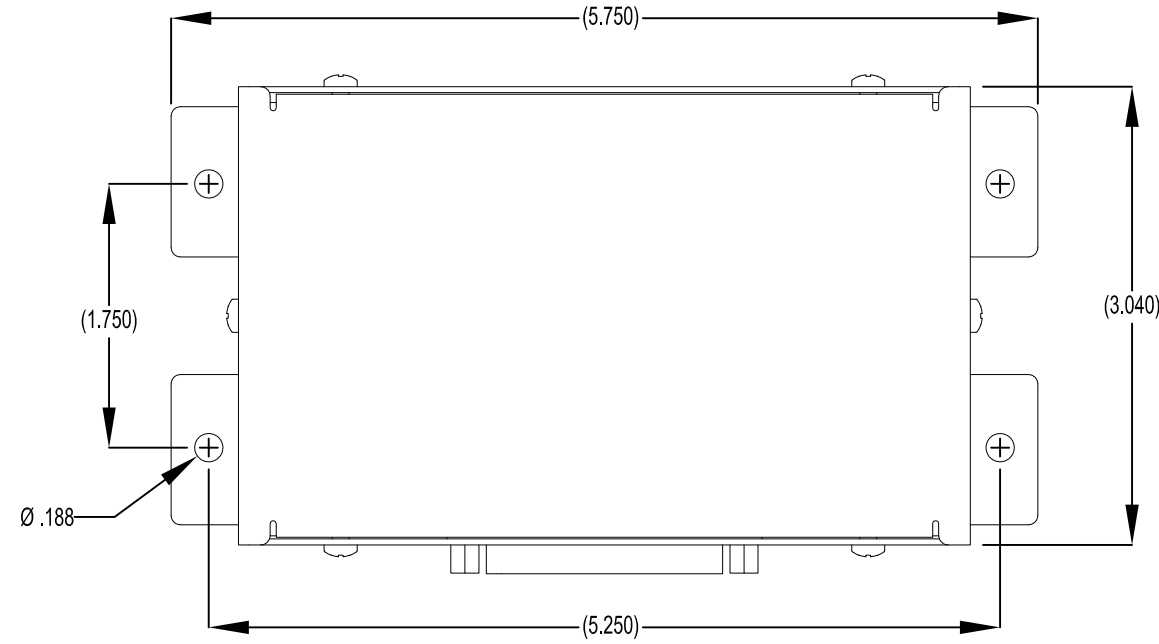
Input Impedance: 600Ω.

Input Gain Adjustment Range: -17dB to +10 dB.

Output Impedance: 600Ω Transformer Coupled.

Output Signal: 150mW into 600Ω nominal.
 Current limit: 20mA.

Powered Output Gain Adjustment Range: -6dB to +6dB.



INSTALLATION:


MOUNT TO AVIONICS SHELF OR OTHER
 LOAD RATED STRUCTURE USING:

- (4) #8-32 SCREWS (AN525-832R7)
- (4) WASHERS (NAS1149FN832P)
- (4) LOCKNUTS (MS21042L08)

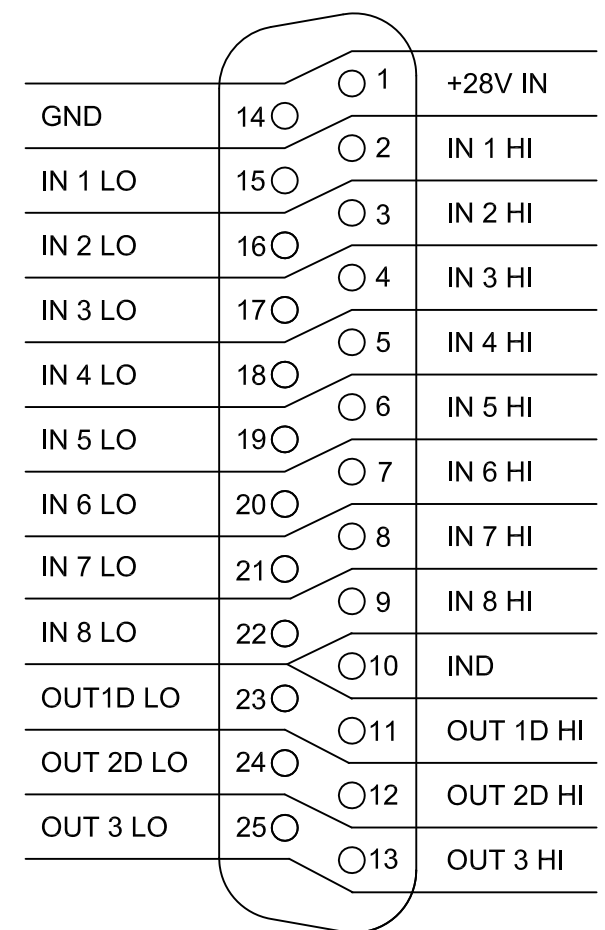
UNIT IS NOT ENVIRONMENTALLY SEALED
 DO NOT MOUNT IN AREA EXPOSED TO
 WEATHER.

The G13120 AUDIO MIXER is designed to mix audio from up to 8 sources into 3 outputs. The first two inputs and outputs (1D and 2D) are considered Essential, and will remain functional even when the mixer is not powered or detects an internal fault due to the failsafe relays and detection internal to the mixer.

If the mixer is not powered or is in fault mode (Essential), Input 1 will be connected directly via relay closure to Output 1D, and Input 2 will be connected directly to Output 2D. The direct inputs in essential mode are non-adjustable. The level that is present at Inputs 1 and 2 will be present at 1D and 2D respectively. Output 3 is not relay direct protected and will therefore drop off line in unpowered or fail mode. This output is designed to be a monitor port to a non-critical device. It is important to follow the setup instructions exactly in order for the mixer to work properly in the Essential Mode.

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	CHECKED	GA	DATE	1/27/14	INSTALLATION INSTRUCTIONS			
	APPROVAL	SJC	DATE	1/27/14	PRO NO.	GA182	SHT.	1 OF 3
	DWG NO.		G13121		REV.	A		

EXTERNAL CONNECTOR PIN ASSIGNMENT



P1
D25F

Connector: TE p/n 205165-1
Contacts: TE p/n 205090-1
Backshell: CONEC p/n 165X10159XE

Optional Connector Kit:
Mil: M24308/2-8F Kit

NOTE: QUICK CONNECT / RELEASE
STYLE BACKSHELLS ARE NOT TO BE
USED IN THIS INSTALLATION.

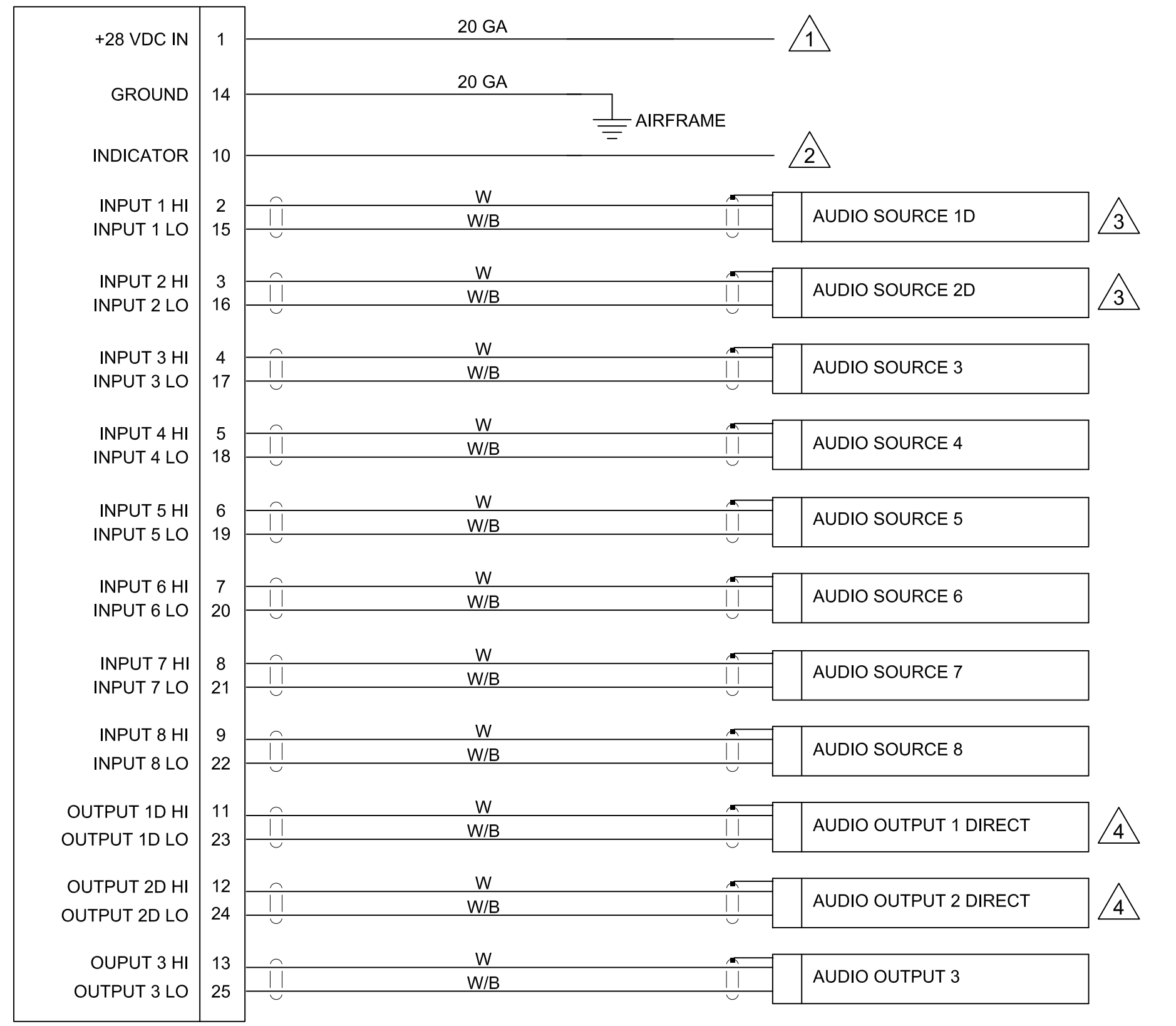
NOTE:
Unless otherwise noted, all shielded wire is M27500-(ga)TG(n)T14 and all unshielded wire is M22759/16-(ga)-9, where (ga) is the wire gauge and (n) is the number of wires inside the shield.

Unless otherwise noted, all wire is 22 GA.

All Bonding and Grounding will be I/A/W AC 43.13-1B, Chapter 11, Section 15.

P1

READ ALL NOTES ON SHEET 3



Ground Audio Shields at ONE end only.

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See Sheet 1 for Revision History.

NOTES:

1

Power to be supplied by either Avionics or Essential Bus 1 if equipped. Circuit Breaker to be 1 Amp with the appropriate part number for the bus the mixer is being connected to.

2

This pin may optionally be used as a pull low for a remote fail indicator for the mixer. Power would be supplied to the desired indicator and this pin would supply a ground to the indicator if a fault occurred. This is optional and not a requirement for installation.

3


Audio Source 1D and 2D are the relay protected inputs. When connected to a Master Caution System with a single Output the two Inputs may be connected in parallel. If two Outputs are available from the Device use both independently for redundancy. The Setup Instructions on this document must be followed exactly to ensure proper operation.

4

Audio Output 1 Direct and 2 Direct are Relay Protected Outputs from Audio Sources 1D and 2D. Connect these Outputs to the Pilot's and Co-Pilot's Unswitched or Alert Tone Inputs of the installed audio system. Do Not connect Outputs 1 and 2 Direct in parallel. The Setup Instructions on this document must be followed exactly to ensure proper operation.

SETUP: Failure to follow these instructions will result in improper operation.

1. With the circuit breaker to the mixer pulled (Off) and the audio system on, Adjust the source to Audio Source 1D and 2D so that proper level is heard at both the Pilot and Co-Pilots Headsets when the source is triggered, i.e. Master Caution. DO NOT adjust the 1D or 2D outputs of the mixer. Adjust the source to the mixer.
2. With all other avionics off. Push the mixer's circuit breaker In (On). Verify visually that the Power Indicator on the mixer is on, and the Fail Indicator is off. The mixer is now in powered mode. Trigger the source for Inputs 1D and 2D. Adjust the mixer Output Adjustments 1D and 2D so that the proper level is heard in the Pilot and Co-Pilot Headsets. It should be the same as in the unpowered mode. Pull the circuit breaker to the mixer in order to verify this operation.
3. Once steps 1 and 2 are completed, turn on all avionics or other sources connected to Audio Sources 3 through 8. Adjust the levels as required at Output 3 through 8 on the mixer. DO NOT change the adjustments on Outputs 1D, 2D or 3.
4. After Completion of Steps 1 through 3, adjust Output 3 to the desired level required by the device connected to Output 3.
5. There are no internal adjustments, jumpers or user servicable parts. Return mixer to Geneva Aviation for repair or replacment.

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