JA35-100 Audio Summing Amplifier – Remote Mount

Installation and Operating Manual

Rev A

Jupiter Avionics Corporation
1959 Kirschner Road
Kelowna BC
Canada V1Y 4N7
Tel: +1 778 478 2232
Toll-Free: 1 855 478 2232
www.jupiteravionics.com

IMPORTANT:

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www.jupiteravionics.com

RECORD OF REVISIONS

Revision	Rev Date	Description	ECR
A	Mar 2019	Initial release, Serial number 1001 and higher.	5285

Prepared:	Checked:	Approved:
MPB	JAC 04-01-19 AH	JAC 04-01-19 KDV

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SECTION 1 - DESCRIPTION

1.1 System Overview

The JA35-100 audio summing amplifier is a six channel bulkhead mounted isolation audio amplifier with separate level controls for each channel. It provides two summed output channels with individual level controls, and two emergency bypass channels for critical audio sources.

The JA35-100 is set up on a per-installation basis using a configuration cable and a PC running the (ProCS) product configuration tool to download system configuration settings via the configuration connector.

1.2 Features Overview

All JA35-100 internal settings are quickly adjusted using the proprietary ProCS (Product Configuration Software). The configuration commands set the level of non-volatile digital control potentiometers to control audio signal levels and to non-volatile expander latches which are connected to audio gates to control the audio signal routing.

The JA35-100 audio summing amplifier provides differential receive audio inputs for high common mode noise rejection.

The JA35-100 has two modes of operation: Normal Mode and Emergency Mode

1.3 Inputs and Outputs

Refer to the JA35-100 connector maps for the mating connector designators and pin assignments for the input and output signals.

1.3.1 Inputs

Name	Qty	Type
CONFIG DATA TO JA35-100	1	Data signal
NORM MODE SELECT	1	Multi format signal
POWER INPUT	1	Power supply
INPUT HI/LO	12	Audio signal

1.3.2 Outputs

Name	Qty	Type
OUTPUT HI/LO	2	Audio signal
CONFIG DATA FROM JA35-100	1	Data signal

1.4 Specifications

1.4.1 Electrical Specifications

Power Input

Nominal input voltage	28 Vdc
Maximum voltage	30.3 Vdc
Minimum voltage	22.0 Vdc
Emergency voltage	18.0 Vdc
Maximum current	1 A max

1.4.1.1 Audio Performance

Rated Input Level	
Audio input rated level	7.75 Vrms ±10%
Rated Output Level	
Audio output rated level	7.75 Vrms ±10%
Audio output rated level in EMERG mode	7.75 Vrms ±10%
Audio Frequency Response	
Audio output level varies	≤ 3dB from 300 to 6000 Hz
Distortion Characteristics	
Audio output distortion at rated power	≤ 10%
Input Impedance	
Audio input Impedance	1000 Ω ±10%
Output Load	
Rated audio output load	600 Ω
Output Impedance	
Phone output Impedance	300 Ω ±10%
Input to Input Crosstalk Level	
Input to Input crosstalk	≤ 60 dB
Audio Noise Level without Signal	
Noise level below the rated output	≥ 60 dB

1.4.1.2 Audio Performance, Other

Input circuitry type (Normal)	differential
Input circuitry type (Emergency)	single ended
Output circuitry type	single ended

1.4.2 Mechanical Specifications

Height	1.27 in [32.3 mm] maximum
Depth	4.42 in [112.3 mm] maximum
Width	4.52 in [114.8 mm] maximum
Weight	0.55 lb [0.25 kg] max
Mounting	Four 10-32 screws
Material	brushed aluminum with conversion coating
Connectors (2):	One 4 pole 3.5mm stereo jack One 25-pin D-Sub male
Mounting	4 x 10-32 fasteners
Bonding	≤ 2.5 mΩ
Installation kit part number	INST-JA35

1.4.3 Product Configuration Software Version

Configuration of the JA35-100 requires the Product Configuration Software (ProCS) version v0.61.5 or later. Refer to the release notes from http://www.jupiteravionics.com/productsoftware.php or contact Jupiter Avionics to ensure the correct version is used.

SECTION 2 – INSTALLATION

2.1 Introduction

This section contains unpacking and inspection procedures, installation information, and post-installation checks.

2.2 Continued Airworthiness

Maintenance of the JA35-100 is on condition only. Scheduled inspection and/or periodic maintenance of this unit is not required.

2.3 Unpacking and Inspecting Equipment

Unpack the equipment carefully. Check for shipping damage and report any problems to the relevant carrier. Confirm that the Authorized Release Certificate or Certificate of Conformance is included. Complete the on-line warranty card from the Jupiter Avionics Corporation (JAC) website – www.jupiteravionics.com/warrantyregistration

2.3.1 Warranty

This product manufactured by JAC is warranted to be free of defects in workmanship or performance for 2 years from the date of installation by an approved JAC dealer or agency. This warranty covers the cost of all materials and labour to repair or replace the unit, but does not include the cost of transporting the defective unit to and from JAC or its designated warranty repair centre, or of removing and replacing the defective unit in the aircraft. This warranty does not cover failures due to abuse, misuse, accident, or unauthorized alteration or repairs.

THIS WARRANTY IS VOID IF THE PRODUCT IS NOT INSTALLED BY AN AUTHORIZED JAC DEALER. If the on-line warranty card is not completed, the product will be warranted from the date of manufacture.

Contact JAC for return authorization, and for any questions regarding this warranty and how it applies to your unit(s). JAC is the final arbiter concerning warranty issues.

2.4 Installation Procedures

WARNING: Loud noise can cause hearing damage. Set the headset volume to minimum before conducting tests, and slowly increase the volume to a comfortable listening level.

CAUTION: The power input circuitry of the unit may be damaged if the installation does not conform to the wiring instructions in this manual.

2.4.1 Installation Limitations

The JA35 may be installed only by following the applicable airworthiness requirements.

2.4.2 Cabling and Wiring

All wire shall be selected in accordance with the original aircraft manufacturer's maintenance instructions, or AC43.13-1B Change 1, Paragraphs 11-76 through 11-78. Unshielded wire types shall qualify to MIL-W-22759 as specified in AC43.13-1B Change 1, Paragraphs 11-85, 11-86, and listed in Table 11-11. For shielded wire applications, use Tefzel MIL-C-27500 shielded wire with tag ring or equivalent (for shield terminations) to make the most compact and easily terminated interconnect. Follow the Connector Map in Appendix A of this manual.

Allow 3” from the end of the shielded wiring to the shield termination to allow the connector hood to be easily installed. Refer to the Interconnect drawing in Appendix A of this manual for shield termination details. Note that this unit has a ‘clamshell’ hood that is installed after the wiring is complete.

Maintain wire segregation and route wiring in accordance with the original aircraft manufacturer’s maintenance instructions.

Unless otherwise noted, all wiring shall be a minimum of 24 AWG, except power and ground lines, which shall be a minimum of 22 AWG. Refer to the Interconnect drawing for additional specifications. Check that the ground connection is clean and well secured, and that it shares no path with any electrically noisy aircraft accessories such as blowers, turn-and-bank instruments, or similar loads.

2.4.3 Mechanical Installation

The JA35-100 can be mounted in any attitude and location with adequate space for the front panel and sufficient clearance for the connector and wiring harness. It requires no direct cooling.

2.4.4 Post Installation Checks

2.4.4.1 Voltage/Resistance checks.

Do not attach this unit until the following conditions are met:

a) Check P1 pin **1** for +28 Vdc relative to ground.
b) Check P1 pins **14** and **15** for continuity to ground (less than 0.5 Ω).
c) Check all pins for shorts to ground or adjacent pins.

2.4.4.2 Configuration

Ensure that the JA35-100 contains the correct configuration settings. This may be done at the factory, on the maintenance bench or in the aircraft before the power on checks are performed. Refer to section 2.5.1.

2.4.4.3 Power on Checks.

Power up the aircraft’s systems and confirm normal operation of all functions of the JA35-100. Refer to Section 3 (Operation) for specific operational details.

a) Unusual buzzes, hums or other background audio are symptomatic of multiple grounds, or noisy external systems such as blowers or pumps sharing wiring with the audio system.

b) Check Emergency operation.

When all performance checks are satisfied, complete the necessary regulatory documentation before releasing the aircraft for service. Refer to Appendix B.

2.5 Adjustments and Configuration using ProCS™

All the JA35-100 internal adjustments are set from the Product Configuration Software ProCS™. Configuration data is sent to the JA35-100 via the configuration connector J2, using the Configuration Cables and a computer running the ProCS™ software. For configuration requirements, see section 2.5.1.

For full information on the configuration process, and for installation of ProCS™ on your computer, refer to the ProCS™ manual on the Jupiter Avionics website - www.jupiteravionics.com/productsoftware.

2.5.1 Configuration Cabling Requirements

To configure the JA35-100, it is necessary to load the Product Configuration Software ProCS™ onto a Windows-based computer as described in the ProCS™ manual.

The cables required to configure the JA35-100 are not included with the unit.

Cabling option 1:

Quantity	Description	JAC Part #
1	USB A to RS232 9-Pin Cable	CAB-USB-0002
1	Configuration Cable	JA99-001

Cabling option 2:

Quantity	Description	JAC Part #
1	USB A Male to RS232 3.5mm Plug	CAB-USB-0006

2.5.2 ProCS™ Setup

The JA35 menu items 'ProCS Setup' provide Setup drawings showing the cabling arrangements for connecting the JA35 to a computer to allow configuration using ProCS™.

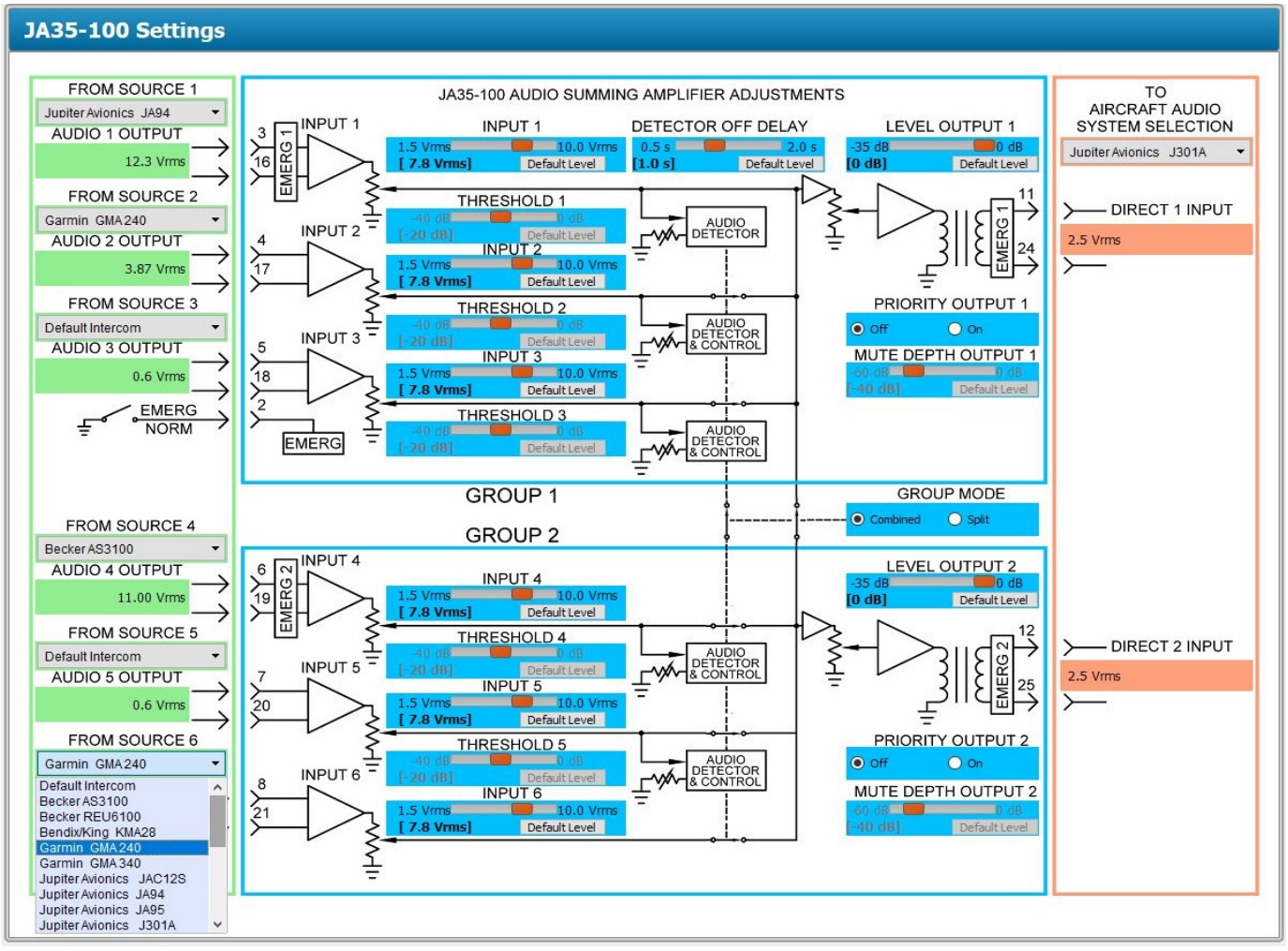
2.5.3 Configurable Settings

A standard unit is shipped from the factory with all internal adjustments configured to the default levels. At installation, it may be desirable to change some of these settings to suit the local operating environment.

Note: To configure the JA35-100, power must be applied.

Within ProCS™, the configurable settings are grouped into the following sections:

2.5.4 JA35-100 Settings



The diagram above shows a typical **JA35-100 Settings** screen, showing GROUP MODE selected as *Combined*, and PRIORITY OUTPUT 1 and PRIORITY OUTPUT 2 both selected *Off*. Group Modes (section 2.5.4.4) and Priority settings (section 2.5.4.5) will be described below.

The **Settings** window is divided into three sections: the Source Selection; the Audio Summing Amplifier; and the Aircraft Audio System.

- Source Selection
- JA35-100 Audio Summing Amplifier Adjustments
- Aircraft Audio System

Each section is colour-coded to keep the relevant information together.

2.5.4.1 Source Selection (Green block)

The appropriate audio sources (Source 1 thru Source 6) are selected from drop-down lists in this block, and all relevant configuration information is added automatically. Other sources can be added to the list (see section 2.5.5).

2.5.4.2 JA35-100 Audio Summing Amplifier Adjustments (Blue block)

The blue blocks (labelled GROUP1 and GROUP 2) refer to the adjustments and settings for the JA35-100 Audio Summing Amplifier. Defaults can be restored by clicking on the 'Default Level' buttons.

Input
The level of each INPUT may be adjusted from 1.5 to 10.0 Vrms. (Default **7.8 Vrms**)

Threshold
The input THRESHOLD for Inputs 1-5 may be adjusted from -40 to 0 dB (Default **-20 dB**) when PRIORITY OUTPUTS are *On*.

The input THRESHOLDS cannot be adjusted when PRIORITY OUTPUTS are *Off*,

Detector Off Delay
The DETECTOR OFF DELAY may be adjusted from 0.5 to 2.0 s. (Default **1.0 s**)

Output Level
The level for OUTPUTS 1 and 2 may be adjusted from -35 to 0 dB. (Default **0 dB**)

Group 1 and 2 Priority (See 2.5.4.4)
The priority for GROUP 1 and 2 PRIORITY may be selected as **On** or **Off**.

Group Mode (See 2.5.4.5)
The groups may be either *Split* or *Combined* (Default **Combined**).

Mute Depth (See 2.5.4.6)
In PRIORITY OUTPUT *On* mode, the mute depth Output for each Group may be adjusted from -60 to 0 dB. (Default **-40 dB**)

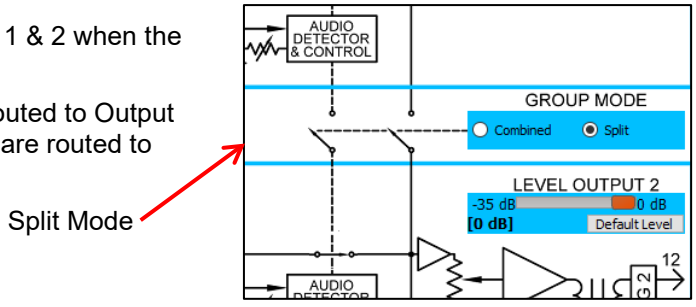
2.5.4.3 Aircraft Audio System Selection (Orange block)

The Aircraft Audio System is selected from a drop-down list at the top of the block, and all relevant configuration information is added automatically. Other Audio Systems can be added to the list (see section 2.5.5).

2.5.4.4 Group Modes

The audio inputs 1, 2, 3, 4, 5 and 6 are routed to the Output 1 & 2 when the GROUP MODE is set to *Combined*.

The audio inputs 1, 2 and 3 (referred to as GROUP 1) are routed to Output 1 and the audio inputs 4, 5 and 6 (referred to as GROUP 2) are routed to Output 2 when the GROUP MODE is set to *Split*.



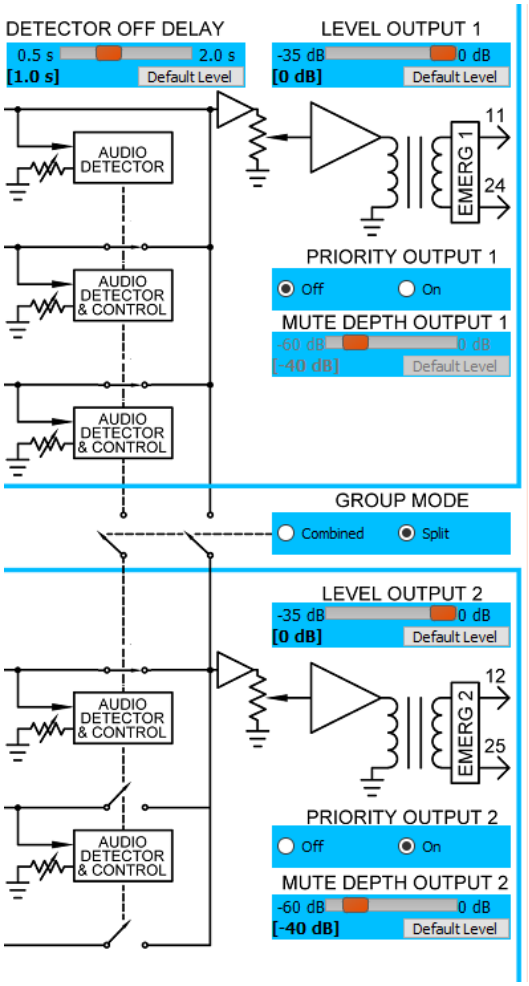
Split Mode

2.5.4.5 Priority Settings

The audio inputs are summed and routed to the output when PRIORITY is set to *Off*.

The lower numbered audio inputs will mute higher numbered audio inputs when the lower numbered audio input level is above the associated threshold level and PRIORITY is set to On. The unmuted audio input is routed to the audio output.

2.5.4.6 Priority and Group Operation



The lower numbered audio inputs 1 to 5 will mute higher numbered audio inputs 2 to 6 when the lower numbered audio input level is above the associated threshold level, PRIORITY is set to *On* and the GROUP MODE is set to *Combined*.

The lower numbered audio inputs 1 and 2 will mute higher numbered audio inputs 2 and 3 when the lower numbered audio input level is above the associated threshold level, PRIORITY is set to *On* and the GROUP MODE is set to *Split*.

Also, the lower numbered audio inputs 4 and 5 will mute higher numbered audio inputs 5 and 6 when the lower numbered audio input level is above the associated threshold level, PRIORITY is set to On and the GROUP MODE is set to *Split*.

This diagram shows *Split* GROUP MODE, with GROUP 1 in PRIORITY *Off* mode and GROUP 2 in PRIORITY *On* mode.

2.5.4.7 Mute Depth Operation

The MUTE DEPTH OUTPUT 1 adjusts the reduction in level of audio input 2 and 3 when PRIORITY is *On* and a lower numbered audio input level is above the associated threshold level.

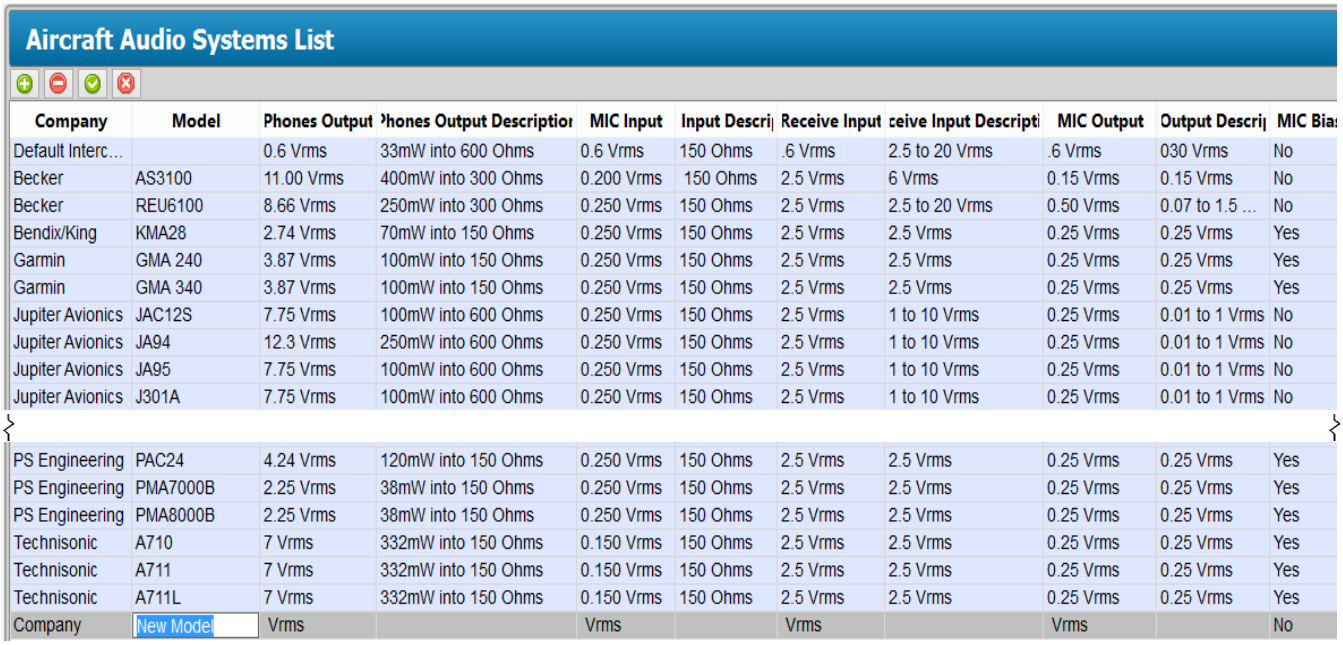
The MUTE DEPTH OUTPUT 2 adjusts the reduction in level of audio input 4, 5 and 6 when PRIORITY is *On* and a lower numbered audio input level is above the associated threshold level.

The extent to which the higher number audio inputs are muted is controlled by the mute depth level and is applicable only when PRIORITY is set to *On*.

Note: No reduction in level is perceived when an audio input is muted and the muting depth is set to 0 dB.

2.5.5 Aircraft Audio System List

This is a list of Aircraft Audio Systems and sources, and shows the configuration information that will be added to the **JA35-100 Settings** page. It is used with both the Source Selection and Aircraft Audio System Selection drop-down menus.



Aircraft Audio Systems List

Company	Model	Phones Output	hones Output Descriptio	MIC Input	Input Descri	Receive Input	ceive Input Descripti	MIC Output	Output Descri	MIC Bia
Default Interc...		0.6 Vrms	33mW into 600 Ohms	0.6 Vrms	150 Ohms	.6 Vrms	2.5 to 20 Vrms	.6 Vrms	030 Vrms	No
Becker	AS3100	11.00 Vrms	400mW into 300 Ohms	0.200 Vrms	150 Ohms	2.5 Vrms	6 Vrms	0.15 Vrms	0.15 Vrms	No
Becker	REU6100	8.66 Vrms	250mW into 300 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	2.5 to 20 Vrms	0.50 Vrms	0.07 to 1.5 ...	No
Bendix/King	KMA28	2.74 Vrms	70mW into 150 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
Garmin	GMA 240	3.87 Vrms	100mW into 150 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
Garmin	GMA 340	3.87 Vrms	100mW into 150 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
Jupiter Avionics	JAC12S	7.75 Vrms	100mW into 600 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	1 to 10 Vrms	0.25 Vrms	0.01 to 1 Vrms	No
Jupiter Avionics	JA94	12.3 Vrms	250mW into 600 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	1 to 10 Vrms	0.25 Vrms	0.01 to 1 Vrms	No
Jupiter Avionics	JA95	7.75 Vrms	100mW into 600 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	1 to 10 Vrms	0.25 Vrms	0.01 to 1 Vrms	No
Jupiter Avionics	J301A	7.75 Vrms	100mW into 600 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	1 to 10 Vrms	0.25 Vrms	0.01 to 1 Vrms	No
PS Engineering	PAC24	4.24 Vrms	120mW into 150 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
PS Engineering	PMA7000B	2.25 Vrms	38mW into 150 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
PS Engineering	PMA8000B	2.25 Vrms	38mW into 150 Ohms	0.250 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
Technisonic	A710	7 Vrms	332mW into 150 Ohms	0.150 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
Technisonic	A711	7 Vrms	332mW into 150 Ohms	0.150 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
Technisonic	A711L	7 Vrms	332mW into 150 Ohms	0.150 Vrms	150 Ohms	2.5 Vrms	2.5 Vrms	0.25 Vrms	0.25 Vrms	Yes
Company	New Model	Vrms		Vrms		Vrms		Vrms		No

To add other Audio Sources, click on the **Audio Source List**. A new audio source and its parameters can be added by clicking on (the **'New Audio Sources** ' button). A new line will be added to the bottom of the list, and double clicking on each part of the line will highlight it to allow changes. When the relevant details have been added, use the ('**Save Changes**') or ('**Cancel All Changes**') button as required. The added source will then appear on the appropriate drop-down menu list.

2.6 Installation Kit

The kit required to install this unit is not included with the unit.

The installation kit (Part # INST-JA35) consists of the following:

Quantity	Description	JAC Part #
1	TAG ring	CON-5500-0375
1	D-Sub 25-pin connector, hood and 25 crimp pins	CON-3420-0025
1	Heat Shrink Tubing	WIR-HTSK-750

2.6.1 Recommended Crimp tools

Standard D-Sub Crimp Tool Chart			
Tool Type	**Hand crimping tool**	**Positioner**	**Insertion/extractor tool**
POSITRONIC	9507-0-0-0	9502-5-0-0	4711-2-0-0
DANIELS	AFM 8	K13-1	91067-2
MIL-SPEC	M22520/2-01	M22520/2-08	M81969/1-02

2.7 Installation Drawings

The drawings and documents required for Installation can be found in Appendix A of this manual.

SECTION 3 – OPERATION

3.1 Introduction

This section contains the operating instructions for the JA35-100.

3.2 Emergency/Normal Mode Operation

Note: The JA35-100 has no integrated operator controls. However, a remote-mounted NORM/EMER switch or button may be installed, which affects the operation of the unit.

3.3 System Operation

All operation is described for normal operating and emergency operating mode with aircraft electrical power supplied, unless stated otherwise.

CAUTION: The JA35-100 is configurable for several different operational modes. Check the configuration of your unit with the installing agency

3.3.1 Normal Mode of Operation

The JA35-100 is in Normal mode when the aircraft electrical power is applied to the +28VDC POWER INPUT and any external Normal/Emergency (NORM/EMER) switch is set to NORM.

3.3.2 Emergency Mode Operation

The JA35-001 is in Emergency Mode when the electrical power is not applied to the +28VDC POWER INPUT or any external Normal/Emergency (NORM/EMER) switch is set to EMER.

In Emergency Mode, the JA35-100 Input 1 and Input 4 are routed directly through mechanical relay contacts to the Output 1 and Output 2 respectively.

3.3.3 Audio Input Combined Operation

When the JA35-100 is configured for Audio Input COMBINED Operation, all six audio inputs are summed into both the outputs.

3.3.4 Audio Input Split Operation

When the JA35-100 is configured for Audio Input Split Operation, the first three audio inputs are summed into Output 1 and the second three audio inputs are summed into Output 2.

3.3.5 Audio Input Combined Priority Operation

When the JA35-100 is configured for Audio Input Combined Priority, it mutes all audio from inputs with a higher input number, i.e. Input 1 will mute all inputs greater than 1.

3.3.6 Audio Input Split Priority Operation

When the JA35-100 is configured for Audio Input Split Priority, all audio from inputs with a higher input number but less than 4 is muted for the first three inputs and all audio from inputs with a higher number than 4 is muted for the second three inputs.

Installation and Operating Manual

Appendix A - Installation Drawings

A1 Introduction

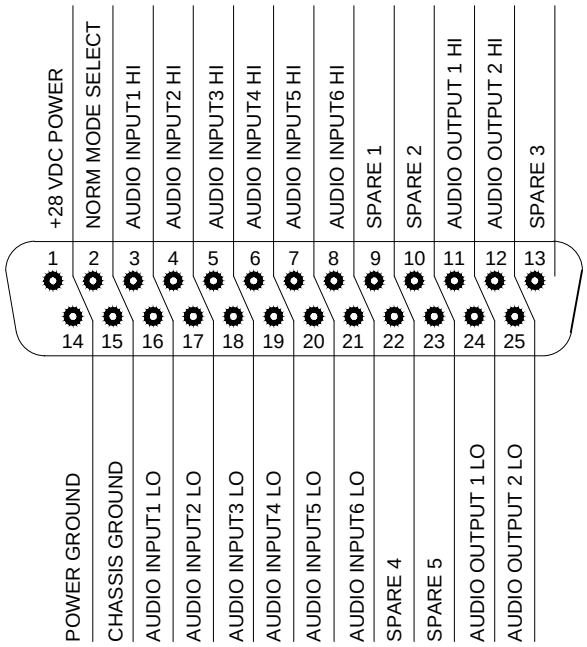
The drawings necessary for installation and troubleshooting of the JA35-100 Audio Summing Amplifier - Remote Mount are in this Appendix, as listed below.

A2 Installation Drawings

DOCUMENT	Rev
JA35-100 Connector Map	A
JA35-100 Interconnect	A
JA35-100 Mechanical Installation	B

P1

25 PIN FEMALE DMIN
MATING CONNECTOR

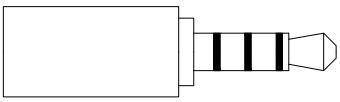


VIEW IS FROM REAR OF MATING CONNECTOR

CONFIGURATION CONNECTOR

P2 ACCEPTS THE FOLLOWING PLUG FORMATS

CAB-USB-0006 or
JA99-001 CONFIGURATION CABLE
4 POLE MALE 3.5MM PLUG



MATING PLUG NAMES	JA35 SIGNAL NAMES
TIP: TX DATA	CONFIG DATA TO JA35
1ST RING: RX DATA	CONFIG DATA FROM JA35
2ND RING: GROUND	GROUND
3RD RING: MODE SELECT	MODE SELECT

PREPARED	TAT	JUPITER AVIONICS CORPORATION	
CHECKED	JAC 03-08-19 SRM	TITLE: Audio Summing Amplifier - Remote Mount	
APPROVED	JAC 03-08-19 KDV	NCAGE CODE: L00N3	PART NO.: JA35-100 / SHEET: 1/1
CONFIDENTIAL & PROPRIETARY TO JUPITER AVIONICS CORP.		DOC NO.: JA35-100 Connector Map Rev A.dwg	

JA35-100 INTERCONNECT WIRING NOTES

NOTES

1. All wire size should be 24 AWG min unless otherwise specified. Unshielded wire should be selected per FAA AC43.13-1B change 1 para 11-76 TO 11-78. Wire types should be in accordance with MIL-W-22759 as described in FAA AC43.13-1B change 1 para 11-85 and 11-86 and listed in table 11-11 or 11-12. All shielded cable should be in accordance with MIL-DTL-27500 (Revision H or later).

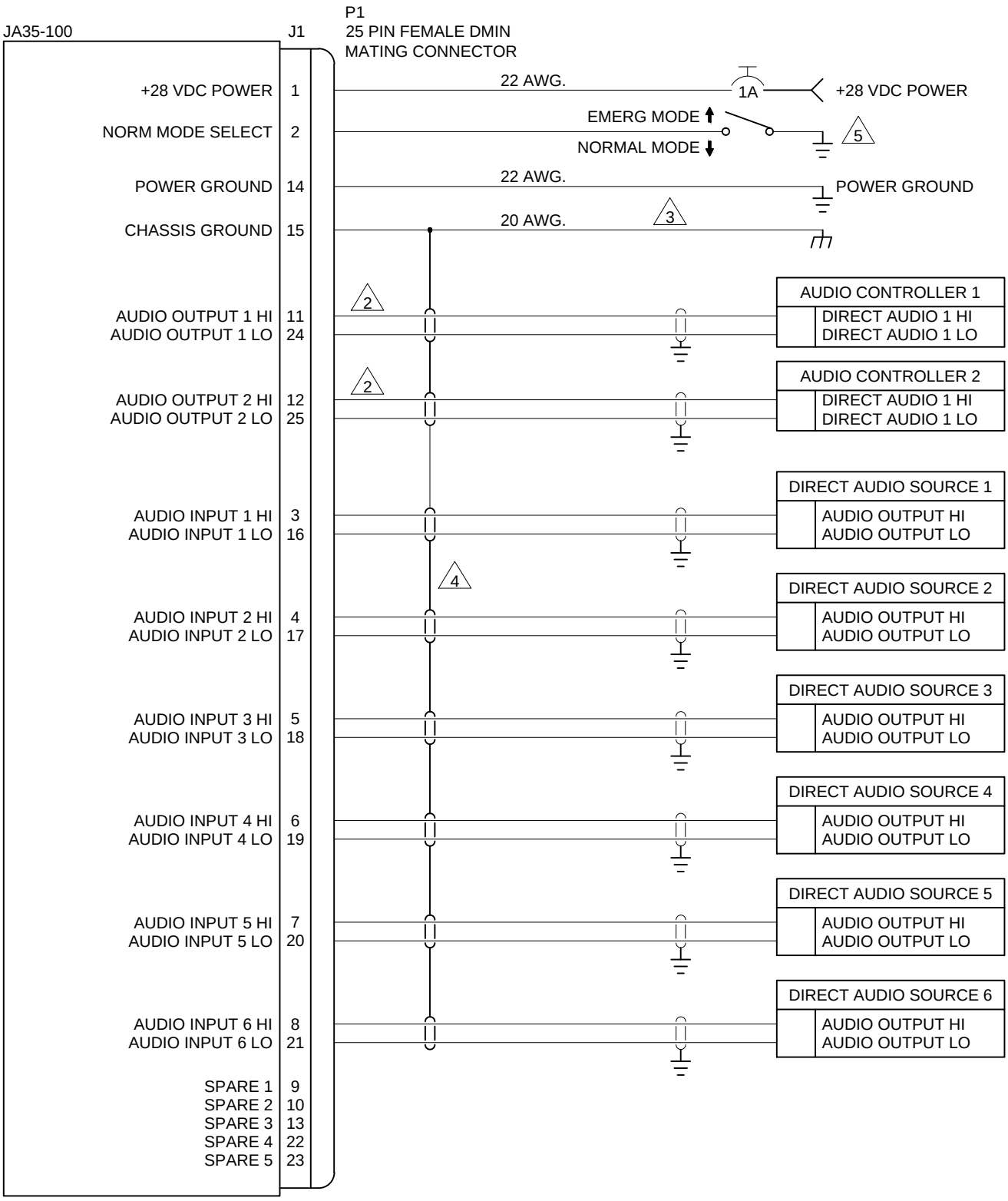
△2 Outputs are transformer coupled (Balanced), Connect AUDIO OUTPUT LO to destination equipment audio input lo. If destination equipment does not have an audio lo contact, connect AUDIO OUTPUT LO to ground near destination power ground.

△3 Connection to airframe ground should be made with 20 AWG wire. Length not to exceed 3 FT (0.9 M).

△4 Cable shields at connector pins should be terminated to airframe ground using a tag ring P/N: MS27741-3 or equivalent.

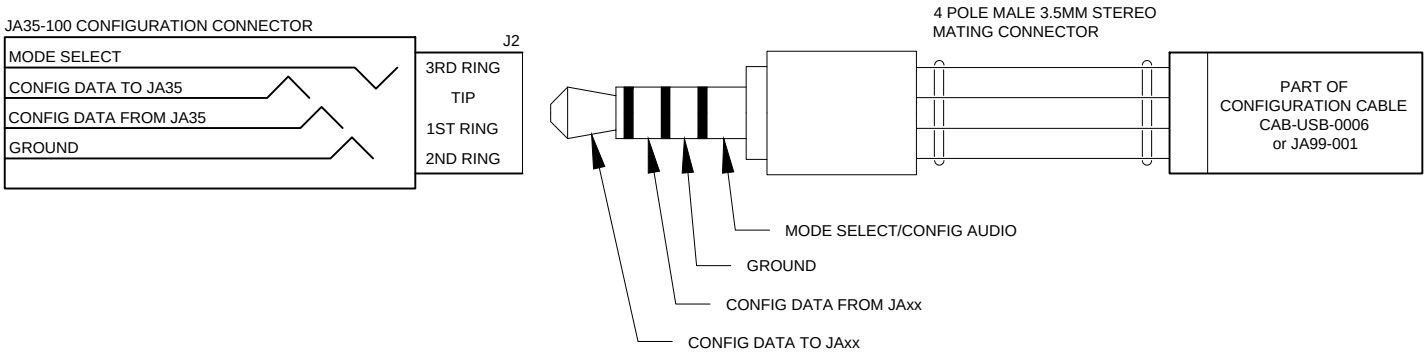
△5 Ground pin for Norm Mode operation or leave pin open for Emerg Mode operation. Normal / Emergency Switch is optional.

PREPARED	TAT	JUPITER AVIONICS CORPORATION		
CHECKED	JAC 03-08-19 SRM	TITLE: Audio Summing Amplifier - Remote Mount		
APPROVED	JAC 03-08-19 KDV	NCAGE CODE: L00N3	PART NO.: JA35-100	SHEET: 1/3
CONFIDENTIAL & PROPRIETARY TO JUPITER AVIONICS CORP.		DOC NO.: JA35-100 Interconnect Rev A.dwg		



PREPARED	TAT	JUPITER AVIONICS CORPORATION	
CHECKED	JAC 03-08-19 SRM	TITLE: Audio Summing Amplifier - Remote Mount	
APPROVED	JAC 03-08-19 KDV	NCAGE CODE: L00N3	PART NO.: JA35-100 / SHEET: 2/3
CONFIDENTIAL & PROPRIETARY TO JUPITER AVIONICS CORP.		DOC NO.: JA35-100 Interconnect Rev A.dwg	

CONFIGURATION CONNECTOR



PREPARED	TAT	JUPITER AVIONICS CORPORATION	
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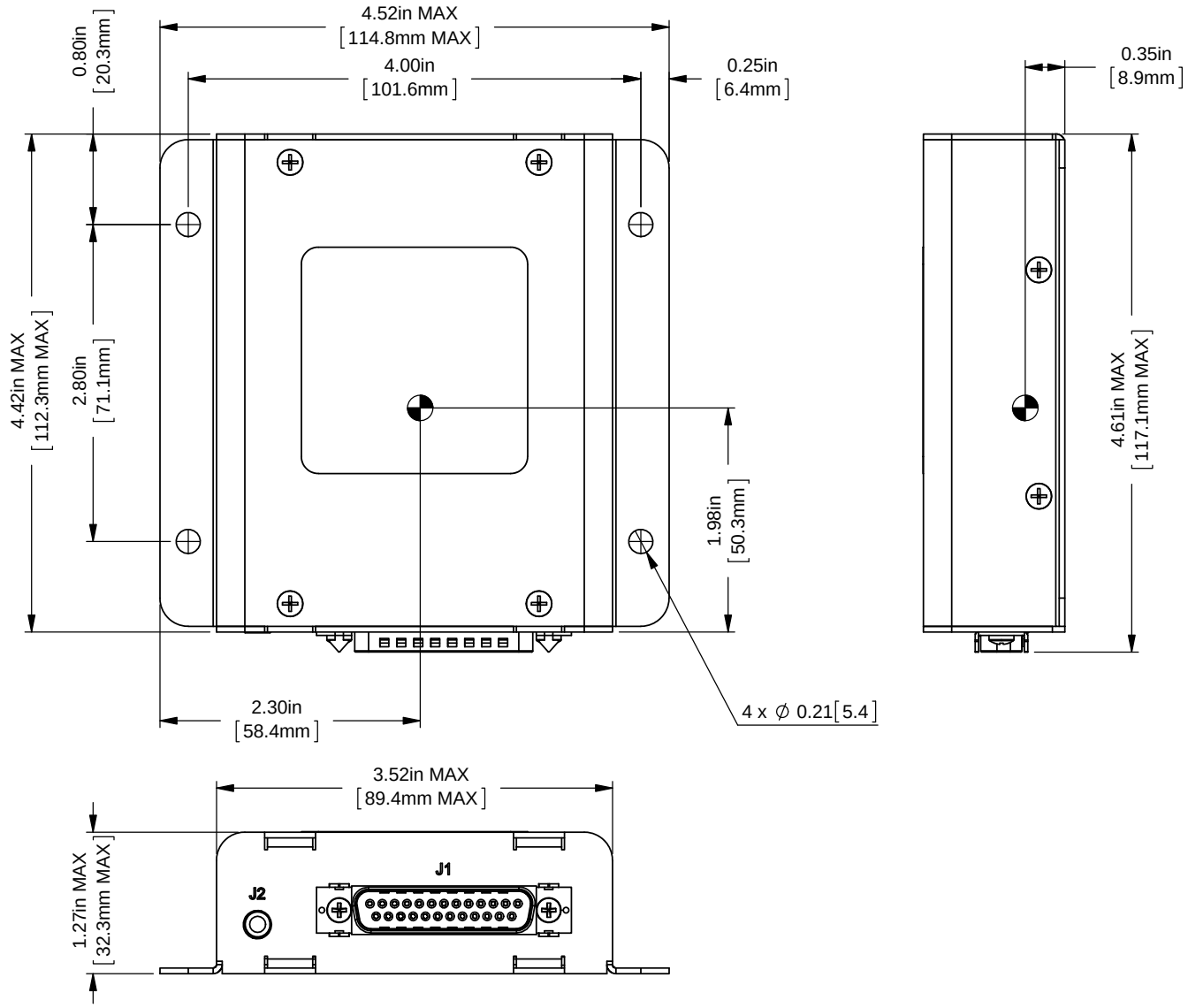
APPROVED	JAC 03-08-19 KDV	NCAGE CODE: L00N3	PART NO.: JA35-100 / SHEET: 3/3
CONFIDENTIAL & PROPRIETARY TO JUPITER AVIONICS CORP.		DOC NO.: JA35-100 Interconnect Rev A.dwg	



CENTER OF GRAVITY
±0.03in [0.8mm]

WEIGHT: 0.55 lbs [0.25 kg] MAX.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES ANGLES ARE IN DEGREES TOLERANCES: 1 DEC PLACE: ± 0.1 2 DEC PLACE: ± 0.01 3 DEC PLACE: ± 0.005 ANGLES: ± 0.5 DEG	PREPARED	TAT
	CHECKED	JAC 03-08-19 SRM
	APPROVED	JAC 03-08-19 KDV
MATERIAL: N/A	CONFIDENTIAL & PROPRIETARY TO JUPITER AVIONICS CORP.	
FINISH: N/A	DRAWING NOT TO SCALE	

JUPITER AVIONICS CORPORATION

TITLE: Audio Summing Amplifier - Remote Mount

NCAGE CODE	PART NO.	SHEET
L00N3	JA35-100	1/1

DOC. NO.
JA35-100 Mechanical Installation Rev B.SLDDRW

Installation and Operating Manual

Appendix B - Installation Documents

B1 Airworthiness Approval

Airworthiness approval of the JA35-100 may require completion of a TCCA Major Modification Report per CAR STD (AWM) 571 Appendix L, or a FAA Form 337. The sample wording for a description of the work is provided to assist the Installing Agency in preparing Instructions for Continued Airworthiness (ICA) when replacing existing equipment with a Jupiter Avionics JA35-100 Audio Summing Amplifier - Remote Mount. This sample may be modified appropriately for new installations. It is the installer's responsibility to determine the applicability of the method used. Installations performed outside Canada must follow the applicable aviation authority's regulations.

Sample Wording:

Removed the existing [model] equipment and replaced with a Jupiter Avionics JA35-100 Audio Summing Amplifier - Remote Mount in [aircraft location].

Installed in accordance with the JA35-100 Installation Manual, Revision [ ], and AC 43.13-2, Chapters 2, and 3.

The JA35-100 interfaces with existing aircraft systems per the Installation Manual instructions.

The JA35-100 Installation Manual provides detailed installation instructions and wiring diagrams (Section 2, and Appendices A and B).

Power is supplied to the JA35-100 through an existing [ ]-Amp circuit breaker that was previously used by the original equipment. The net electrical load is unchanged.

Aircraft equipment list, weights and balance amended. Compass compensation checked and found to conform to applicable regulations.

B2 Instructions for Continued Airworthiness

Maintenance of the JA35-100 Audio Summing Amplifier - Remote Mount is "on condition" only. Refer to the JA35-100 Maintenance Manual. Periodic maintenance of the JA35-100 is not required.

The following sample Instructions for Continued Airworthiness (ICA) provides assistance in preparing ICA for the Jupiter Avionics JA35-100 unit installation as part of a Type Certificate (TC) or Supplemental Type Certificate (STC) project to comply with CAR STD (AWM) 523/527/525/529.1529 or FAR 23/25/27/29.1529 "Instructions for Continued Airworthiness".

Items that may vary by aircraft make and model are shown in brackets ("[ ]") and should be filled in as appropriate. Some of the checklist items do not apply, in which case they should be marked "N/A" (Not Applicable).

Instructions for Continued Airworthiness, Jupiter Avionics JA35-100 Audio Summing Amplifier - Remote Mount in an [Aircraft Make and Model]

1. Introduction

[Aircraft that has been altered: Registration number, Make, Model and Serial Number]

Content, Scope, Purpose and Arrangement: This document identifies the Instructions for Continued Airworthiness for a Jupiter Avionics JA35-100 installed in an [aircraft make and model].

Applicability: Applies to a Jupiter Avionics JA35-100 installed in an [aircraft make and model].

Definitions/Abbreviations: None, N/A.

Precautions: None, N/A.

Units of Measurement: None, N/A.

Referenced Publications: JA35-100 Installation and Operating Manual
JA35-100 Maintenance Manual
JA35-100 Operating Manual
STC/TC # [applicable STC/TC number for the specific aircraft installation]

Distribution: This document should be a permanent aircraft record.

2. Description of the System/Alteration

Jupiter Avionics JA35-100 Audio Summing Amplifier - Remote Mount with interface to external transceivers and [include other equipment/systems as appropriate]. Refer to Appendix A of this manual for interconnect information. Refer to aircraft manufacturer approved interconnect for actual installation.

3. Control, Operation Information

N/A

4. Servicing Information

N/A

5. Maintenance Instructions

Maintenance of the JA35-100 is 'on condition' only. Periodic maintenance is not required. Refer to the JA35-100 Maintenance Manual.

6. Troubleshooting Information

Refer to the JA35-100 Maintenance Manual.

7. Removal and Replacement Information

Refer to Section 2 of this manual - the JA35-100 Installation and Operating Manual. If the unit is removed and reinstalled, a functional check of the equipment should be conducted.

8. Diagrams

Refer to Appendix A of this manual - the JA35-100 Installation and Operating Manual - for installation drawings and interconnect examples.

9. Special Inspection Requirements

N/A

10. Application of Protective Treatments

N/A

11. Data: Relative to Structural Fasteners

JA35-100 and appropriate mounting hardware installation, removal and replacement should be in accordance with applicable provisions of AC 43.13-1B and AC 43.13-2A.

12. Special Tools

N/A

13. This Section is for Commuter Category Aircraft Only

A. **Electrical loads**: Refer to Section 1 of the JA35-100 Installation and Operating Manual.
B. **Methods of balancing flight controls**: N/A.
C. **Identification of primary and secondary structures**: N/A.
D. **Special repair methods applicable to the airplane**: N/A.

14. Overhaul Period

No additional overhaul time limitations.

15. Airworthiness Limitation Section

N/A