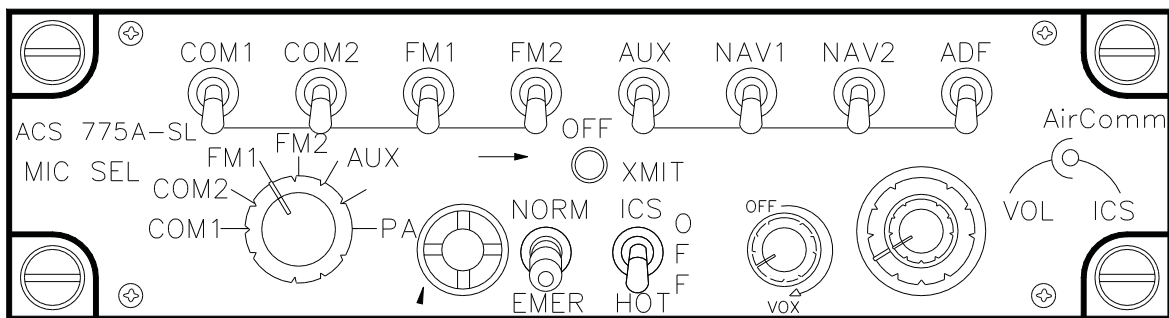


Air Comm Systems, Inc.

Single Audio Mixer Panel Installation and Operations Manual

ACS 775A-SL-100



AirComm

Airborne Audio Products

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ACS 775A-SL-100 Installation and Operations Manual

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ACS 775A-SL-100 Installation and Operations Manual

Physical and Operating Specifications

■ Physical Specifications

SIZE: 5.75 in. (14.61cm) W
1.50 in. (3.81 cm) H
5.03 in.(12.77cm) D

WEIGHT: 1.25 lb. (.56kg)

MOUNTING: Dzus rail mount

CONTROLS: Panel mounted - transmit = rotary switch, audio inputs = toggle switch,
volume control = dual potentiometer

ILLUMINATION: Edge lit front panel per MIL-P-7738E, type 3. Capable of connection to
in dimmer bus for adjustment. Amber transmit light indicates when unit is
transmit mode.

■ Operating Specifications

INPUTS: 8 selectable receive audio inputs and up to 7 transmit selections.

DUTY CYCLE: Continuous

POWER REQUIREMENTS: 28V DC +/- 10%

MAXIMUM OPERATING ALTITUDE: 16,500 ft.(5029 m)

OPERATING TEMPERATURE RANGE: -40 C to +85 C (operating)
-65 C to +125 C (storage)

CURRENT DRAIN: 70 mA at 28V (standby) - 500mA at 28V (max. signal)

AUDIO OUTPUT: Minimum 250 mW into 600 ohms

FREQUENCY RESPONSE: Within 6 db - 300-3000Hz

ICS INPUT IMPEDANCE: 600 ohms

RECEIVER INPUT IMPEDANCE: 600 ohms - matched to receiver

INPUT ISOLATION: Not less than 50 db between inputs

AUDIO MUTING: Not less than 40 db during transmit/ICS (optional)

MIKE SENSITIVITY: 300 mV for rated output

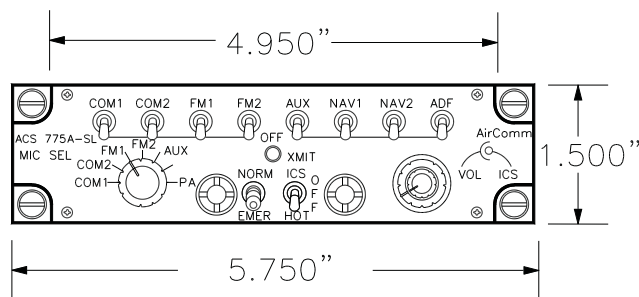
DISTORTION: Less than 10% at 1000 Hz for maximum output

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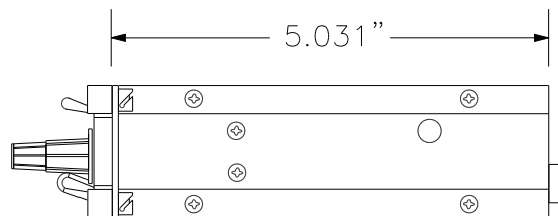
Physical Dimensions

■ Physical Dimension Outline for mounting

UNIT WIDTH BEHIND FACE PLATE



FRONT PANEL WIDTH – STANDARD DZUS MOUNT



ALLOW UP TO 2.500" FOR REAR
CONNECTOR AND CABLE CLEARANCE

Physical Installation

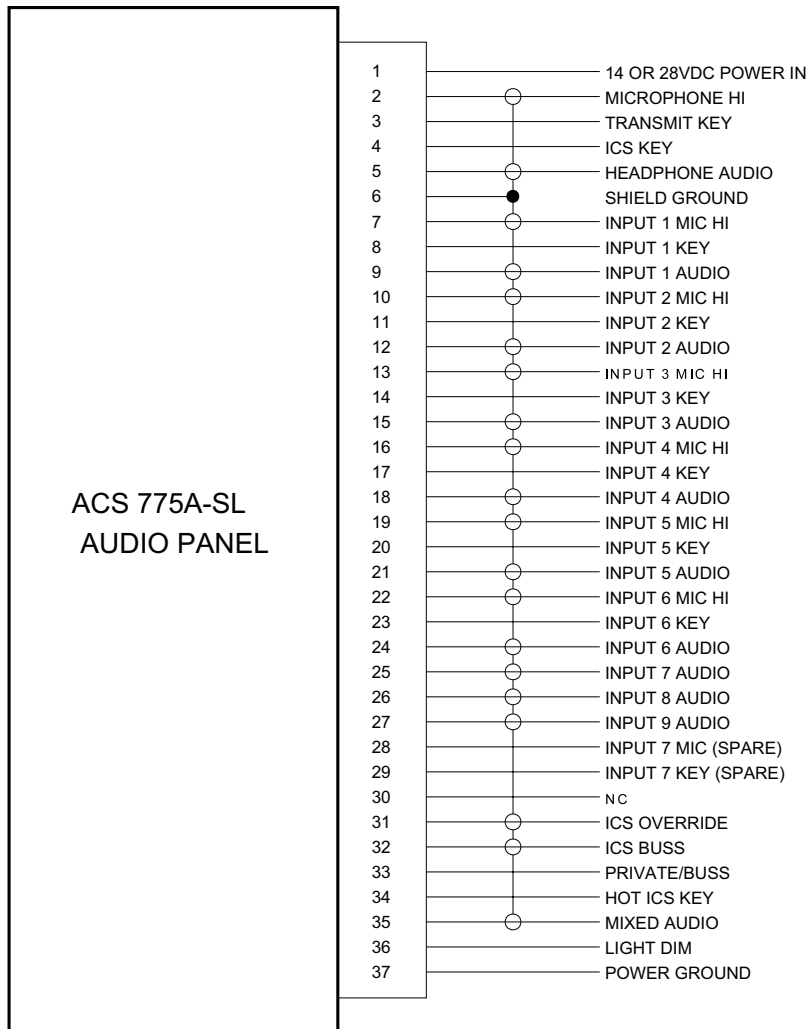
The ACS 775A-SL-100 is designed to be Dzus mounted and should be installed in the aircraft using the DC37SL-F Installation kit that is included. The above outline drawing of the unit with dimensions will facilitate the installation.

The connector pin configuration of the ACS 775A-SL-100 rear connector and the recommended wire size for the aircraft cable harness is shown on the following page. Be sure that adequate clearance is allowed for the rear connector and cable harness.

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Interface Schematic

■ Connector Pin-out



The ACS 775A-SL-100 wiring harness should be constructed of Tefzel aircraft wire (M22759/16 grade). Power and ground wires should be 18 or 20 AWG, and all other wires may be 22 AWG. Shielded wires should be used where noted. Adequate protection against wear and chafing should be taken by using a braided cable sleeving or jacket. Before completing installation, verify that all cable connector pins are seated properly and that the connector is securely mounted to the unit mating connector. **Important — please note the power of the unit before installing; it will be either 14VDC or 28VDC and clearly marked as such on the unit's data tag.**

Pre-fabricated cable harnesses are available from Air Comm to expedite installation — consult our sales department for details.

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Front Panel Controls

1- NORM - EMER SWITCH

This switch controls the operation of the audio panel in the event of an audio amplifier failure. In the "up" position (NORM) the audio panel is in normal operating mode. In the "down" position (EMER) all audios are summed and then fed directly to the headphones. This enables the use of the transmitters and other equipment during audio amplifier failure.

2 - RECEIVE AUDIO SELECT-MUTE SWITCHES

Normal operation - In the "up" position the audio selected is channelled to its proper headphone. In the "down" position the audio selected is muted.

Emergency operation - In the "up" position the audio selected is muted. In the "down" position the audio selected is summed with any other audios selected and then sent to the headphone.

3 - VOLUME CONTROLS

These concentric knobs adjust headphone volume. The larger one adjusts the radio volume while the smaller one adjusts the intercom volume. Clockwise rotation increases the volume - counter clockwise rotation decreases the volume. In the event of excessive or inadequate receiver volume the pots located on the rear of the unit may be adjusted for the proper level. (see FIGURE 2)

4 - LIGHTING

The audio panel is lit by two 28V lamps which provide night time visibility for all panel legends.

ACS 775A-SL-100 Installation and Operations Manual Front Panel Controls (cont'd)

5 - MIC SELECTOR

This rotary switch performs three functions simultaneously. It (a) connects the mic to the selected transmitter (b) selects the associated keyline, and (c) selects the associated audio (if not already selected using the audio select-mute switch).

6 - TRANSMIT INDICATOR

When the transmit key is activated this indicator lights up show that the audio panel is in the transmit mode.

7 - ICS SWITCH

This switch selects the ICS mode. In the “ up ” position the audio panel is connected to the common ICS buss. This enables the audio panel to communicate with any other audio panels also connected to the common ICS buss. In the “center” position (OFF) the audio panel is disconnected from all other panels.

In the “down” position (HOT ICS) the headphone mic becomes active and its signal is fed into the ICS buss without having to depress the ICS key switch. This provides for “ hands-off ” ICS operation.

8- VOX (VOICE ACTIVATED INTERCOM) CONTROL

VOX technology ensures clean, crisp intercom regardless of cockpit noise conditions and results in better communications and reduced pilot noise fatigue. The intercom can be set to the off position when not desired.

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Front Panel Controls (cont'd)

■ **Figure 1 - Front Panel Controls**

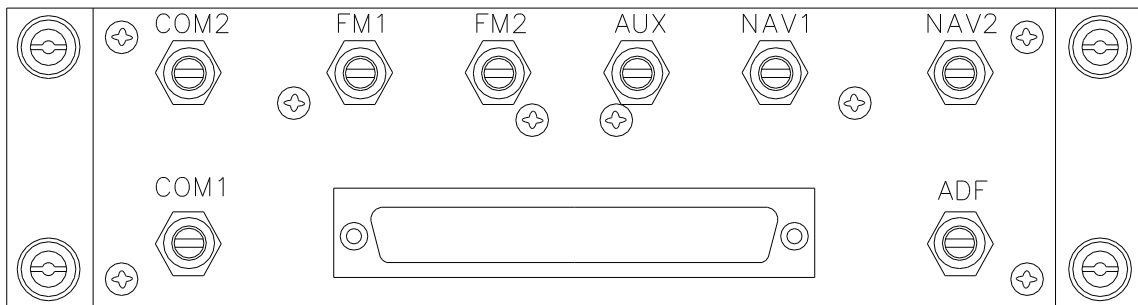
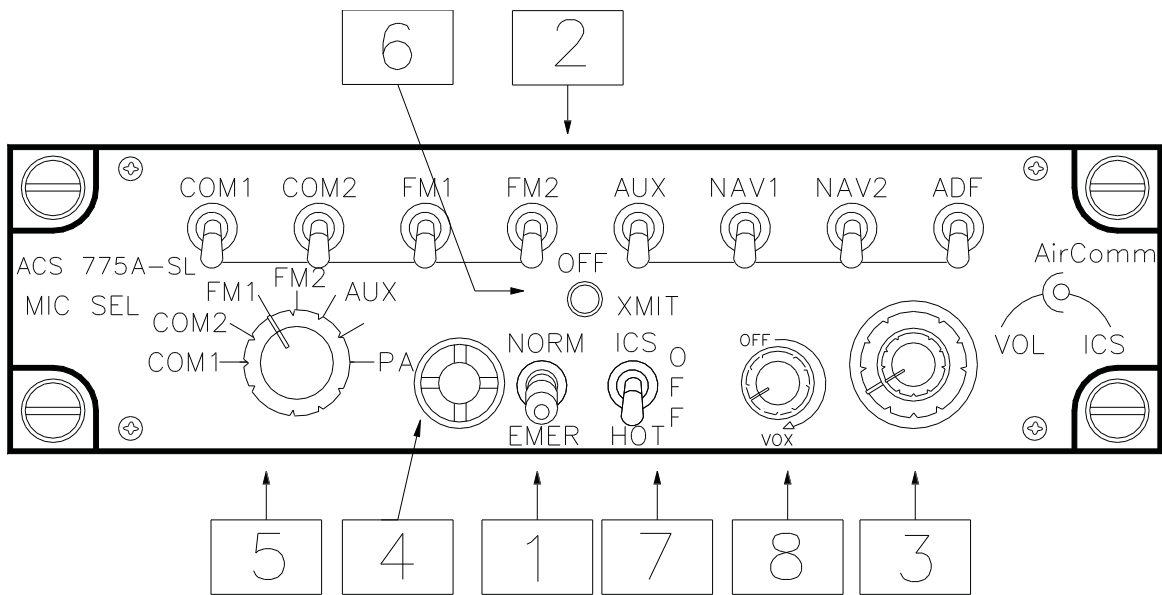


Figure 2 - Rear Panel Controls

ACS 775A-SL-100 Installation and Operations Manual Instructions for Continued Airworthiness

Instruction for continued airworthiness for Audio Mixer Panel Model ACS-775ASL Series, Part Number 1002-400.

■ **GENERAL DESCRIPTION:**

■ **PURPOSE:**

To provide instructions for the maintenance and inspection of the Air Comm Systems, Inc. Model ACS-775ASL Series Audio Mixer Panels.

This Manual provides instructions supplementing the aircraft maintenance manual. These instructions only supersede the aircraft manual in the indicated areas.

■ **OPERATIONAL CHECK:**

The Audio Mixer Panel should be checked prior to first flight each day per current operations manual.

■ **MAINTENANCE:**

Check security and condition of Dzus mounted panel(s), check associated wiring harness at periodic inspections such as annual/100 hour IAW FAR43 Appendix D(i).

ACS 775A-SL-100 Installation and Operations Manual Warranty Information

■ Warranty Information

Air Comm Systems, Inc. warrants each new product to be free from defective material and workmanship and agrees to remedy any defect or to furnish a new part in exchange for any defective unit provided an examination discloses such defect occurred under normal use and service, and provided the defective unit is delivered to us, with transportation charges prepaid, within 1 year from the date of acceptance of equipment by the owner. Each unit required and claimed defective must be returned to:

Air Comm Systems, Inc.

1640 W. Acoma Blvd., Suite A-118
Lake Havasu City, AZ 86403
Attn: Service Dept.

Phone 928-854-5402
FAX 928-854-8919
Email Aircomminc@aol.com

This warranty does not extend to any products which have been subjected to misuse, neglect, accident, or in violation of instructions furnished, nor does it extend to units which have been repaired or altered outside of our factory except where such repairs are specifically authorized in writing by us.

This warranty is in lieu of all other warranties expressed or implied, and no representative or person is authorized to assume for us any other liability in connection with the sale of our products.