



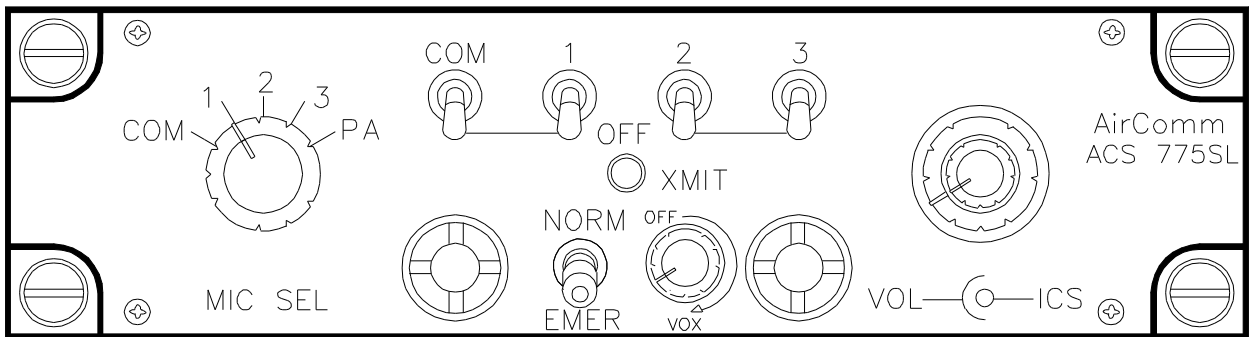
**AIR COMM SYSTEMS, INC**

**AIRBORNE-AUDIO**

Single Audio Mixer Panel  
Installation and Operations Manual

ACS 775SL-100

Revision 3.0



**Air Comm Systems, Inc**

37610 Sky Canyon Dr., Hangar 51

Murrieta, CA 92563

Ph: 951-677-0101 ~ Fx: 951-677-0701

Info@AirCommSystems.com ~ www.AirCommSystems.com

# ACS 775SL-100 Operations and Installation Manual

## Table of Contents

<b>Installation</b> .....	<b>3</b>
▪ Physical Specifications.....	3
▪ Operating Specifications:.....	3
▪ Physical Dimension Outline for Mounting.....	4
▪ Physical Installation.....	4
▪ Interface Schematic.....	5
<b>Operation</b> .....	<b>6</b>
▪ Front Panels Controls.....	6
▪ Figure 1 - Front Panel Controls.....	7
▪ Figure 2 - Rear Panel Controls.....	7
<b>Warranty Information</b> .....	<b>8</b>
▪ Limited Warranty Information.....	8

# ACS 775SL-100 Operations and Installation Manual

## Physical and Operating Specifications

### Physical Specifications

**Size:** 5.75 in. (14.61cm) Width  
1.50 in.( 3.81 cm) Height  
6.78 in.(17.22cm) Depth

**Weight:** 1.25lb. (.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 dimmer bus for adjustment. Amber transmit light indicates when unit is in transmit mode.

### Operating Specifications:

**Inputs:** 4 Selectable receive audio inputs and 5 transmit selections

**Duty Cycle:** Continuous

**Power Requirements:** 14V 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 14V (standby) - 500ma at 14V (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)

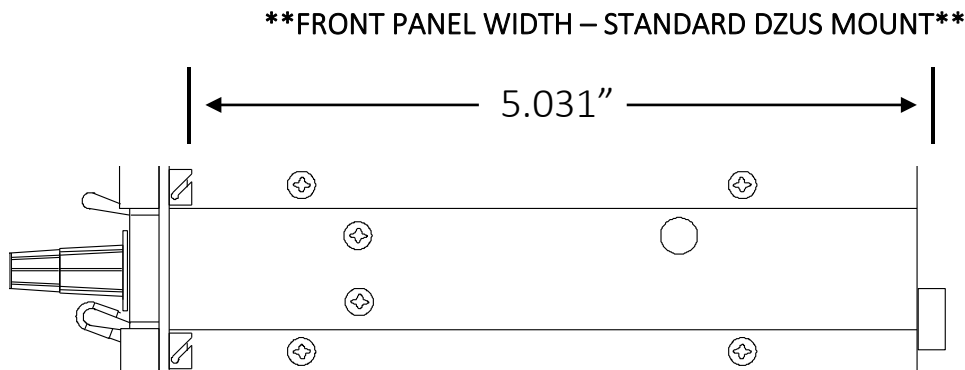
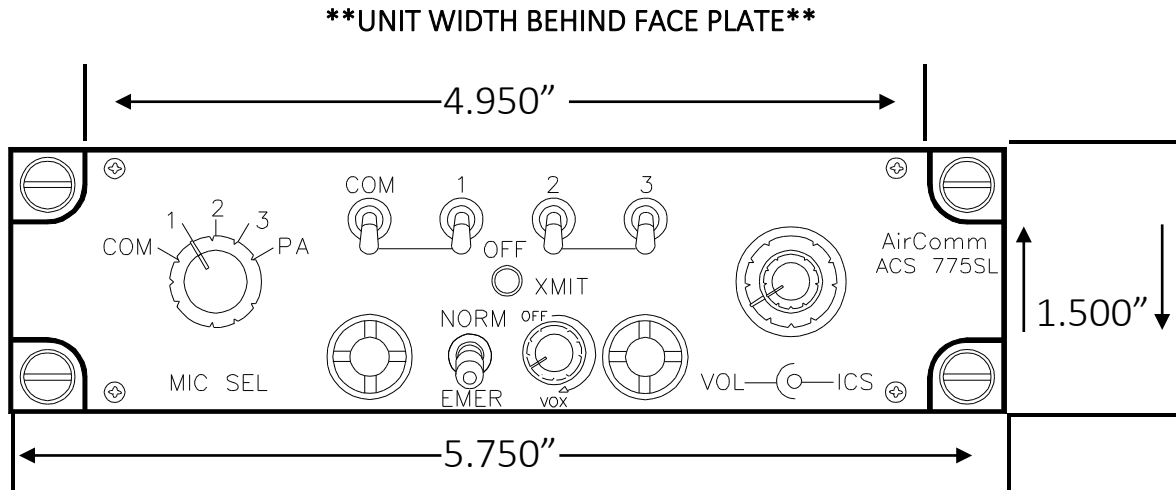
**Mic Sensitivity:** 300 mv for rated output

**Distortion:** Less than 10% at 1000 Hz for maximum output

# ACS 775SL-100 Operations and Installation Manual

## Physical Dimensions

- Physical Dimension Outline for Mounting



- Physical Installation

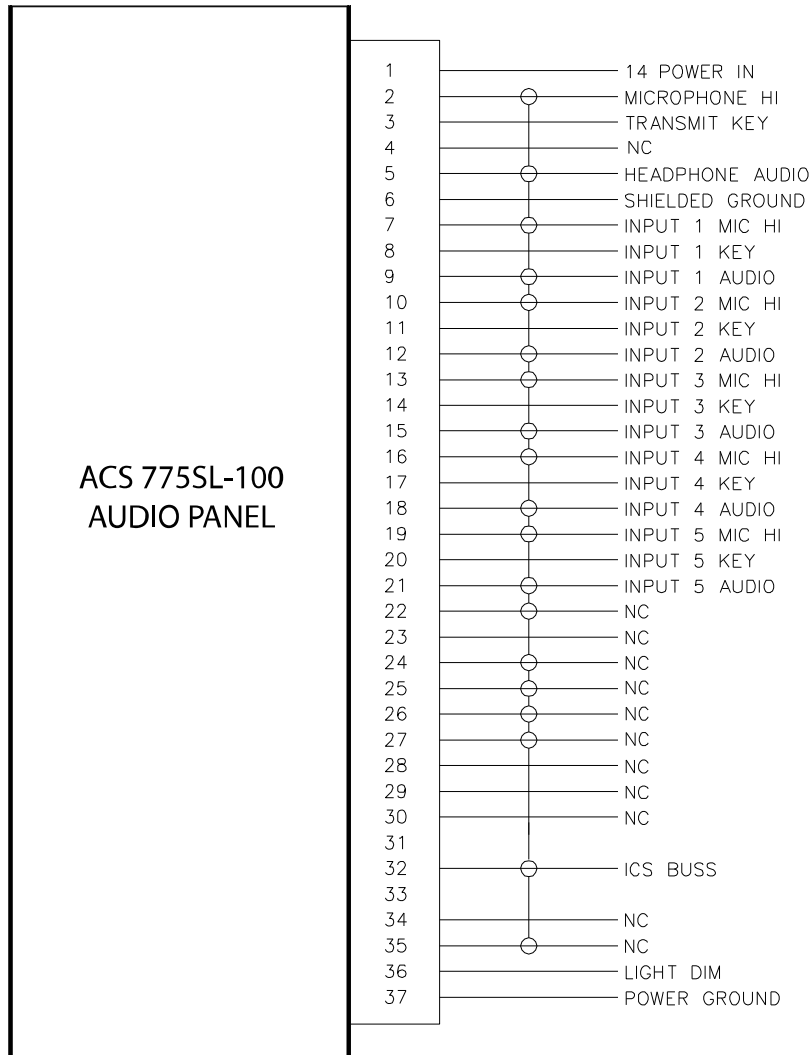
The ACS 775SL-100 is designed to be Dzus mounted and should be installed in the aircraft using the DC37SL-F Installation kit that is included. The above outline drawing of the unit with dimensions will facilitate the installation. Be sure that adequate clearance is allowed for the rear connector and cable harness.

The connector pin configuration of the ACS 775SL-100 rear connector and the recommended wire size for the aircraft cable harness is shown on the following page.

# ACS 775SL-100 Operations and Installation Manual

## Interface Schematic

- Connector Pin-out



The ACS 775SL-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 14VDC and clearly marked as such on the unit's data tag.

Pre-fabricated cable harnesses are available from Air Comm to expedite installations. Consult our sales department for details.

# ACS 775SL-100 Operations and Installation Manual

## Front Panel Controls See Figure 1

### ▪ Description

The ACS 775SL-100 Single Audio Mixer Panel is a compact, lightweight unit which provides full audio control for a single position in the aircraft. It has the capability to provide its user with 4 receive audio selections, 5 transmitter selections, and full headphone audio and ICS volume control.

### ▪ 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 channeled 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 - Headphone Volume Controls

Clockwise rotation increases the volume - counter clockwise rotation decreases the headphone 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 14V (P/N 330) lamps which provide night time visibility for all panel legends. These lamps may be replaced in the event of a failure by unscrewing the front panel mounted filter cap, inserting a new lamp, and reinserting the filter into the front panel.

### ▪ 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 showing that the audio panel is in the transmit mode.

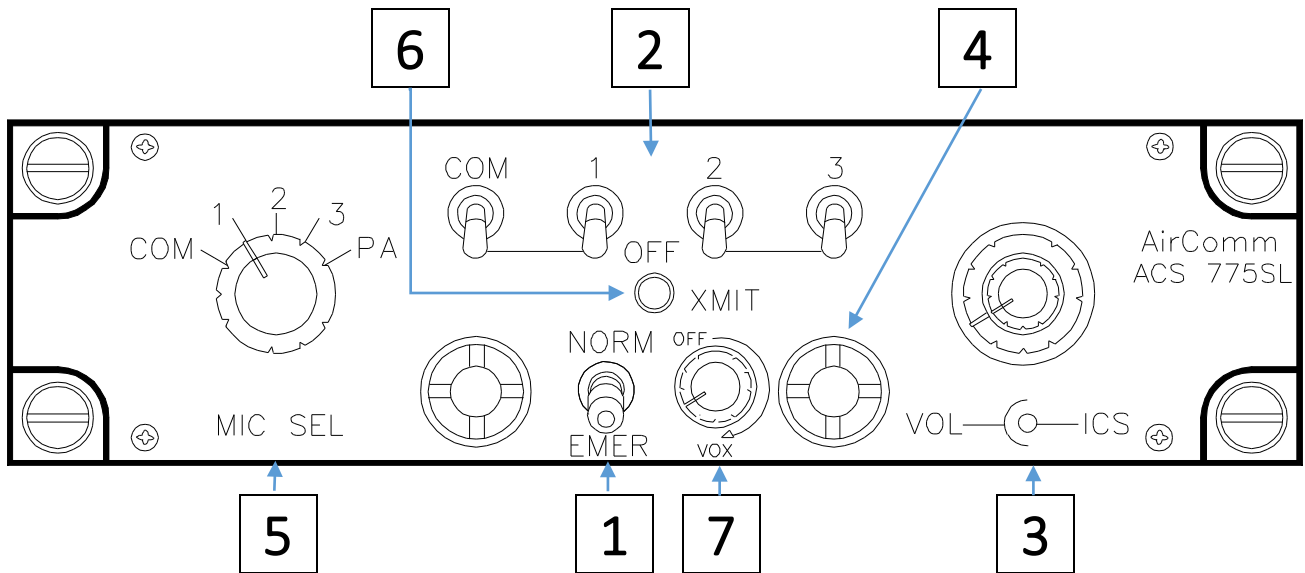
# ACS 775SL-100 Operations and Installation Manual

## Front Panel Controls Cont. See Figure 1

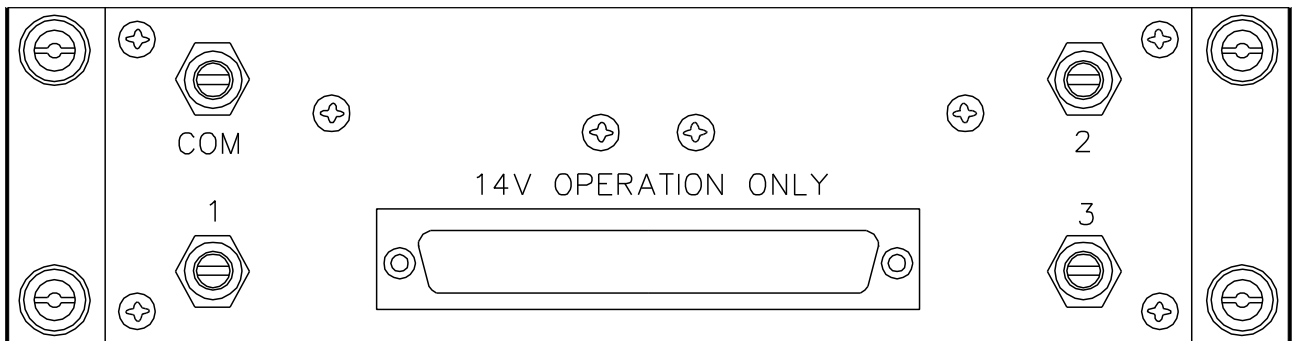
- 7- VOX (Voice Activated Intercom) Control

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.

- Figure 1 -Front Panel Controls



- Figure 2 - Rear Panel Controls



# ACS 775SL-100 Operations and Installation Manual

## Warranty Information

### ▪ Limited 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.**

37610 Sky Canyon Dr., Hangar 51 Murrieta, CA 92563

Ph: 951-677-0101

Fx: 951-677-0701

Info@AirCommSystems.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.