

# Air Comm Systems, Inc.

## Two (2) Passenger ICS/Transmit Expansion Unit Installation and Operations Manual

ACS 179

Revision 2.3



**AirComm**

Airborne Audio Products

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# ACS 179 Installation and Operations Manual

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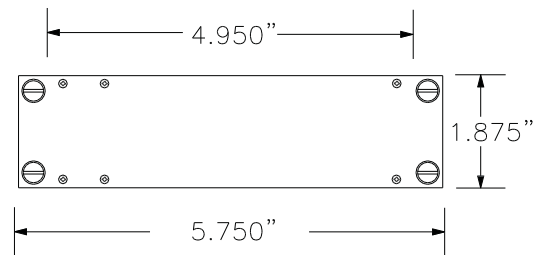


# ACS 179 Installation and Operations Manual

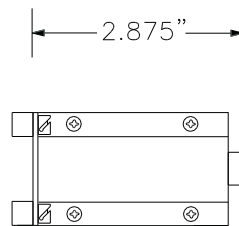
## Physical Dimensions

### ■ Physical Dimension Outline

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 179 is designed to be Dzus or remote mounted and should be installed in the aircraft using the DC25SL-F Installation kit that was included with the unit. The above outline drawing of the unit with dimensions will facilitate the installation. The DC25SL-F Installation Kit consists of the following:

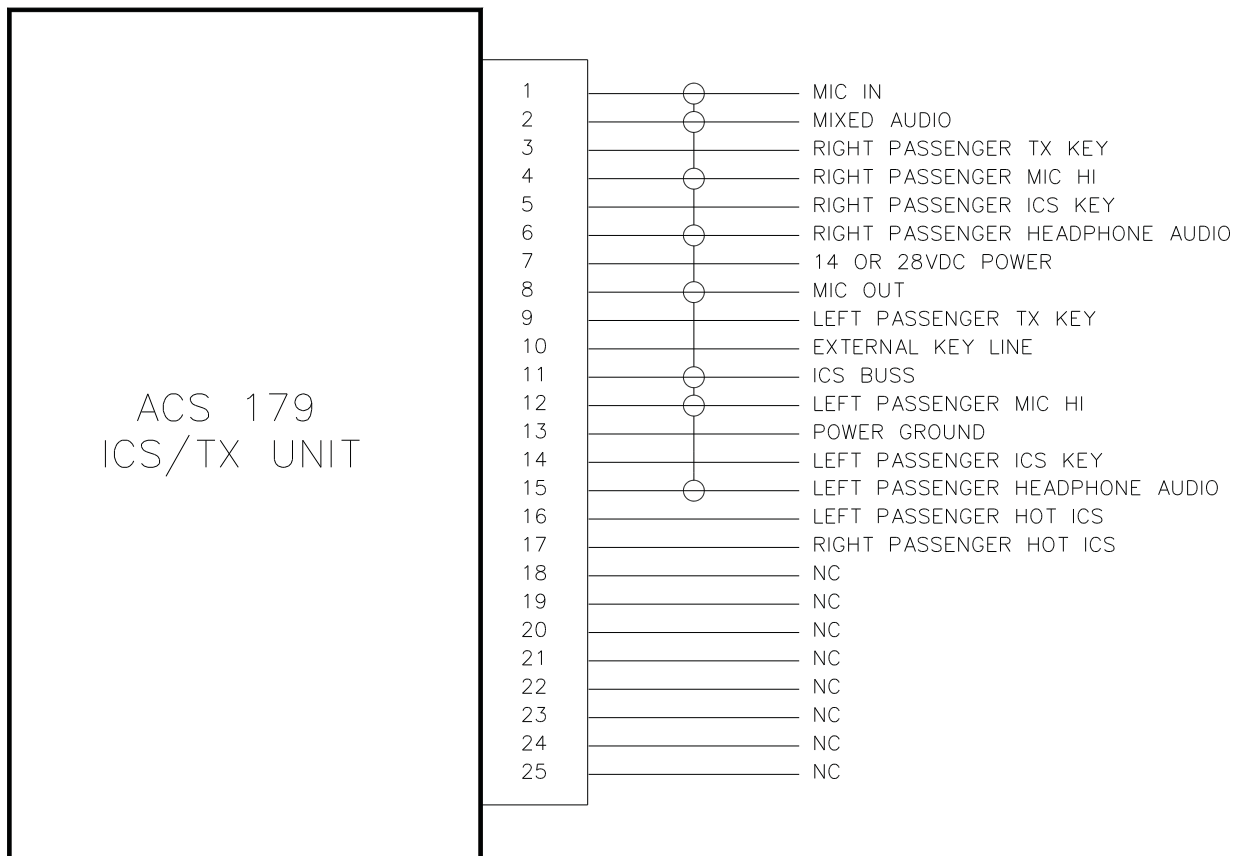
One (1) 25 pin AMP D-Subminiature female mating connector complete with crimp pins, hood, and slidelock.

The connector pin configuration of the ACS 179 rear connector and the recommended wire size for the aircraft cable harness is shown on the following page.

# ACS 179 Installation and Operations Manual

## Interface Schematic

### ■ Connector Schematic



The ACS 179 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.

# ACS 179 Installation and Operations Manual

## Operations of the ACS 179

### ■ Description

The ACS 179 is a compact, remote slave unit which provides intercom, receive, and transmit capability for up to two aircraft passengers.

### ■ Method of Operation

The ACS 179 is slaved to a master Audio Mixer Panel for receiving and transmitting. The master Audio Mixer is normally a co-pilot or rear-crew member unit. The audio inputs selected by the master panel will be heard by the ACS 179.

The ACS 179's transmit and intercom functions are activated using a switch and cord assembly (such as the Carter Engineering or Comm Innovations models). The switch cord assembly also provides a volume control for the adjustment of both the intercom and receive audio. This allows for the independent control of volumes between the passengers and the Audio Mixer they are slaved to.

Transmitting from the ACS 179 is a two-step process:

- 1) the desired radio must be selected on the master Audio Mixer's mic selector.
- 2) the switch cord must be placed in the transmit position.

NOTE: When either passenger transmits, the master Audio Mixer's microphone is automatically disconnected. This feature prevents the possibility of there being two microphones activated simultaneously during the transmit function.

During intercom or transmit operation, the receive audio is muted on the ACS 179. During Hot ICS operation the receive audio is unmuted (each passenger has a separate Hot ICS switch).

### ■ Adjustments

The volume control on the switch cord assembly adjusts both the intercom and the receive audio. It should be set at a comfortable level on intercom first. Then, if the receive audio volume is too high or low, it can be adjusted at the radio itself (i.e. Com, FM, Nav, etc.)

### ■ Unit Compatibility

The ACS 179 is compatible with all Air Comm Audio Mixer Panels.

**ACS 179 Installation and Operations Manual  
Typical System Layout**

## **ACS 179 Installation and Operations Manual Instruction for Continued Airworthiness**

Instruction for continued airworthiness for Intercom Expansion Unit Model ACS-179, Drawing No. 3000-000, PMA Approval No. PQ2074NM and Intercom Expansion Unit Model ACS-700-3

### ■ **GENERAL DESCRIPTION:**

The ACS-179 Expansion Unit is a remote Dzus mounted unit which is slaved to a variety of audio mixer panels to provide intercom and transmit capability to cabin passengers.

### ■ **PURPOSE:**

To provide instructions for the maintenance and inspection of the Air Comm Systems, Inc. Model ACS-179 Intercom Expansion Unit.

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

### ■ **OPERATIONAL CHECK:**

The ACS 179 Intercom Expansion Unit 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).

### ■ **On Condition:**

Send ACS 179 Intercom Expansion Unit to a qualified repair facility for any repairs. Contact Air Comm Systems, Inc. Phone 909-0824-8860 or FAX 909-824-8862 for nearest factory authorized repair facility.

## **ACS 179 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  
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Phone (928) 854-5402  
FAX (928) 854-8919  
E-Mail [aircomminc@aol.com](mailto: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.