

Intercommunication System Control

Model A301-61



Model A301-61

**THIS UNIT IS USED ON THE
FOLLOWING AIRCRAFT:**

- S-76 Helicopter

FACILITIES AND OPERATING CONTROLS

All operating controls are mounted on the front panel.

TALK OPERATION: A seven-position rotary selector switch provides for selection, control, and voice modulation of six transmitters. The extreme CCW position of the selector provides intercommunication on the Interphone line.

NOTE: Intercommunication can be obtained for any selector position when the control is wired for two-button operation.

PUBLIC ADDRESS OPERATION: A momentary push-button switch provides for the operators voice signals to be applied through a 4 watt amplifier to a speaker in the cabin.

MONITORING: Ten monitor switches provide for individual selection and mixing of 10 audio input lines. A direct input line for warning signals is also provided.

LEVEL ADJUSTMENT: A master volume control permits adjustment of the headset level.

TRANSMITTER AUDIO LEVEL ADJUSTMENT: Six internal controls permit individual adjustment of the voice modulation level to each of the six associated transmitters.

LINE TERMINATIONS: Six resistors are included in the A301-61 for use as audio input line terminations.

OPTIONS: Cockpit voice recorder, Night vision capability

Andrea has TSO-C50b CAT CAAAXX authorization for the A301-61.

DESCRIPTION AND USE

The A301-61 is a versatile, miniature solid state Intercommunication system control. It is designed to be the basic control unit for a multi-position (up to 12) intercommunication system of advanced design. It is a high reliability unit employing solid-state relay circuits and modular microphone, headset, and speaker amplifiers.

The A301-61 has great flexibility. It will provide specified performance from a 5 ohm Dynamic Microphone or a 100-ohm carbon microphone and an 8 ohm or 600 ohm headset.

C46-5377 Rev B

GENERAL CHARACTERISTICS

Connector.....	50 pin Cannon DD50P (Male)
Mating Connector.....	50 Pin M24308/2-5 or equal (Female)
Input Voltage.....	24 to 29 VDC
INPUT POWER at 28 VDC INPUT	
No. Signal.....	3 Watts Max.
250 mW Headset Output.....	4.5 Watts Max.
4 Watt, Speaker, Output.....	17 Watts Max.
SIZE:.....	5 3/4" W x 2 5/8" H x 4" D
WEIGHT:.....	2.5 lbs. Max.
LIGHTING:.....	2 - 27.5 V lamps with white filters (Red filters optional)
IMPEDANCE LEVELS	
Microphones.....	5 ohms Dynamic or 100 ohm Carbon
Headsets.....	8 ohms or 600 ohms
Speaker.....	8 ohms
Int. Line.....	600 ohms, internally furnished
Transmitter Output.....	100 ohms (supplied by aircraft installation)
Receiver Lines.....	600 ohms, Rec. 1-4 internally furnished
FACILITIES	
Intercommunication.....	On Int. Line
Transmitters.....	6
Receivers.....	9 - Controlled by switches
Receiver.....	1 - Direct input
Volume Control.....	40 dB Range from Max. Audio Output
MICROPHONE AMPLIFIER PERFORMANCE	
AGC.....	Reference 2.8 V output for input variation of 10 to 1
AGC ATTACK TIME.....	.2 Sec Max.
AGC SLOPE.....	3 dB Max output change for 20 dB input change
DISTORTION:.....	3% Max.
HEADSET AMPLIFIER PERFORMANCE	
Distortion.....	10% Max.
Frequency Response.....	+/-6 dB from 300 to 6000 Hz.
ISOLATION AT 1000 Hz	
Between Input Lines or Output Lines.....	60 dB Min.
POWER OR VOLTAGE LEVELS	
5 ohm Microphone.....	.1 to 1 mV
100 ohm Carbon Microphone.....	.1 to 1 Volt
Int. Line.....	2.8 V
Transmitter Lines.....	Adjustable .1 to 1 Volt
Receiver Lines.....	4.5 Volts
Handset Out.....	250 mW Max.
Speaker.....	4 Watts Max.