

## Intercommunication System Control

### Model A301-61B-1



**Model A301-61B-1**

**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:** Eight monitor switches provide for individual selection and mixing of 8 audio input lines. A direct input line for warning signals is also provided.

**AUXILIARY TALK:** With the talk switch in the AUX position, the microphone amplifier and voltage regulator are replaced by auxiliary units.

**AUXILIARY LISTEN:** With the LISTEN switch in the AUX position, the audio outputs of the receivers are connected directly to the headset through the monitor switches. A priority system is included so that the operator can only listen to one receiver at a time.

**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 A301-61B-1 for use as audio input line terminations.

**AUTOMATIC HOT-MIC:** Momentary operation of the two-button (Interphone) talk switch puts the A301-61B-1 into the Hot-Mic (hands free operation) on the interphone line. The control is taken out of Hot-Mic by actuating the one-button (radio) talk switch.

**OPTIONS:** Cockpit voice recorder, Night vision capability

Andrea has TSO-C50b CAT CAAAXX authorization for the A301-61B-1.

#### DESCRIPTION AND USE

The A301-61B-1 is 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 A301-61B-1 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.

The A301-61B-1 incorporates auxiliary talk and listen switches to permit emergency operation in the event of a malfunction of either the headset or microphone amplifiers.

C46-5379 Rev B

## GENERAL CHARACTERISTICS

### POWER

Input Voltage.....	21.5 to 30 VDC
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.....	1.75 lbs.
Lighting.....	2 - 6 V lamps @ .215 Amps
Connector.....	50 pin Cannon DD50P
Mating Connector.....	50 Pin Cannon DD50S

### IMPEDANCE LEVELS

Microphones.....	5 ohms Dynamic or 100 ohm Carbon
Headset.....	8 ohms or 600 ohms
Speaker.....	8 ohms
Int. Line.....	600 ohms, internally furnished
Transmitter Output.....	100 ohms
Receiver Lines.....	600 ohms

### SIGNAL LEVELS

AGC.....	Reference 2.75 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 - Output.....	250 mV
Distortion.....	10% Max.
Frequency Response.....	+/-6 dB from 300 to 6000 Hz.
Transmitter Lines.....	.1 to 1V Adjustable
Speaker Amplifier Output.....	4 Watts
Volume Control Range.....	40 dB
Isolation @ 1000 Hz.....	60 dB Min. between input lines or output lines