



# ICA-202D

## TWO CHANNEL AUDIO INTERCOM AMPLIFIER

The ICA-202D is the most versatile Audio Intercom available; yet it is also the easiest to integrate into your design. With 20 watts of clean audio power at 25-Volts it can do both the Intercom and the Paging functions in most facilities. The audio quality of the ICA-202D is superb. Noise and distortion are very low. Selectable equalization optimizes voice communications.

There are separate controls for Audio Level, and Reach. Once set, Automatic Level Control (ALC) assures the speaker level remains constant over a wide dynamic input range. The Remote user may wander throughout the room and still be heard at a nearly constant level without any operator adjustments.

All configuration settings are factory presets; only the speaker levels are set in the field. The microphone sensitivity (Reach) is preset with 16 position (3dB/Step) switches; the Speaker Levels are adjusted with Back Panel Controls.

External Control allows the Operator to listen to very low sounds or soft speech from the remote station. The Remote Microphone Sensitivity (Reach) is fully controllable; set by a Front Panel Control, and/or Console Push Buttons, or PLC Touch Screen. ALC keeps the Speaker and Recording levels from exceeding preset levels.

A Privacy Tone, to alert the remote party that someone is listening, is a control option. If selected the privacy tone will sound every 20 seconds unless the PTT is pressed.

The logic interface is PLC compatible including stepped external "Level Control". Input control options include Privacy Tone, Page, PTT, Mute, Activate, Shut Off, and Call Tone, which is automatically routed to the operator speaker. A Line level output for recording is included. A separate Page line level output provides audio to paging amplifiers if required. A Page Pre-Announce Tone (jumper option) is available.

### BENEFITS

- Fully Configurable
- Easily Repeatable Settings
- Digital Microphone Sensitivity
- High Quality Audio
- Automatic Level Control
- External Reach Digital Stepper
- Solid State Switch <3mS
- Integral Privacy Tone
- Selectable Call Tones
- Line Level Recording Output
- Page Output
- 20 Watts Audio Power

### Associated Equipment

- DODC-1** Detention Operator Desk Console w/Gooseneck Mic
- DODC-2** Detention Operator Desk Console w/Hidden Mic
- ICR-116** Intercom Relay Panel - 1 Voice path, 16 Stations

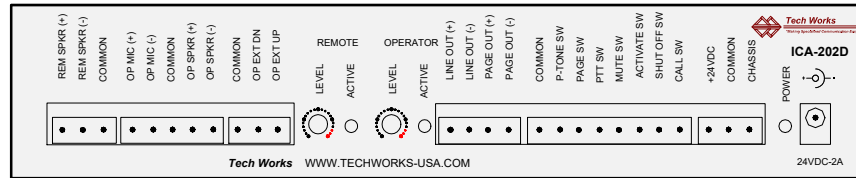
### Design Information

- Power** 24V DC (PS-2437B Sold Separately)  
Phantom – 23V
- Color** Light Gray metal enclosure
- Mounting** DM - Desk Mount  
RM - Rack Mount  
RM2 - Dual Rack Mount  
WM - Wall Mount
- Dimensions** 8.6" W x 6" D x 1.75" H
- Weight** 3 lbs.
- Freq. Resp.** 250 – 10k Hz
- Output** Short Protected  
Operator Speaker 3W  
Remote Speaker 20W RMS
- Distortion** < 1% THD
- Mic Input** 1 K/ohms Balanced
- Equalization** Selectable



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"Making Specialized Communication Easy"



## REAR CONNECTIONS

### Audio Connections

Remote Speaker (+ & -)  
 Microphone Power  
 Operator Microphone (+ & -)  
 Shield (Common)  
 Operator Speaker (+ & -)

Line Output (Recording)  
 Page Output (to External Paging Amplifier)

### Logic Control Inputs

Ground sensing for Buttons, or PLC  
 Operator External Reach Down  
 Operator External Reach Up  
 P-Tone Enable  
 Page Switch  
 Push-to-Talk (PTT)

Mute  
 Activate  
 Shut Off (Lowest Priority)  
 Call Tone (to Operator Speaker)

A wide variety of mounting options are available as standard configurations.



Wall Mount (WM) (Under Counter)  
 ICA-202D-WM



Rack Mount (RM)  
 ICA-202D-RM



ICA-202D-RM2 Dual Rack Mount



ICA-202D-RM-Rear Rack Mount

### Architects' and Engineers' Specifications

The Dual Channel Audio Intercom Amplifier shall have two completely separate and discrete audio processing channels. The unit shall include all switching and logic control for push to talk (PTT) operation. An integral privacy tone shall be available and jumper selectable to alert the remote party that they are being monitored. All logic controls including Privacy Tone, Page, PTT, Mute, Activate, Shut Off, and Call Tone shall be available on the rear panel screw terminals. All logic and control connections shall be fully PLC compatible ground sensing. Microphone inputs shall be 1000 ohms balanced, -80dBm, with phantom power. The Remote Speaker Power Amplifier shall deliver 20 watts continuous power into 25 Volt loads at less than 1% total harmonic distortion. The Amplifier shall include a line output for recording all communication without custom assemblies. A separate Page line level output shall provide audio to external paging amplifiers if required. A Page Pre-Announce Tone option shall be available. The Dual Channel Audio Intercom Amplifier shall be Tech Works Model ICA-202D.

For further system set up and adjustment please see the  
 System Planning Guide.

