



ICS-92

ICS-102

ICS-52

ICS-62

ICS-1502

FEATURES

- **ICS-52 and ICS-92 stations feature 5-character electronic labels for each key, showing talk and listen assignments**
- **ICS-62, ICS-102, and ICS-1502 stations provide write-in strips to identify talks and listens**
- **Individually variable listen levels when used with the Matrix Plus 3 system**
- **Full-bandwidth audio with shaping circuitry for enhanced intelligibility**
- **Dual-action, momentary/latching talk and listen keys, with talk and listen LED's**
- **Keys are programmable for momentary-only operation**
- **Answer-back key with display of received calls (ICS-52 and ICS-92)**
- **Direct DTMF dialing can be programmed to station keys**
- **Ability to add up to 60 additional selector keys using XP and XPL expansion panels**
- **High-output speaker with on/off switch**
- **Inputs for headset or optional gooseneck mic, with auto-select feature**
- **Auxiliary connector offers program input, binaural headphone capability, and logic inputs to control various station functions**

DESCRIPTION

Matrix Plus intercom key stations are advanced, low-profile units, offered in a variety of configurations. Individually adjustable listen levels are available from all stations when used with Matrix Plus 3 systems, enabled with a front-panel function key. All stations are microprocessor controlled and are fully programmable. When a station is connected to the matrix, it is “hot-patchable” and “self-initiating” – instantly programmed by the matrix system with its correct configuration.

The ICS-92 has nine talk/listen keys and an answer-back key, plus four function pushbuttons. The ICS-52 is identical except that it has five talk/listen keys. Above each key, including the answer-back, a 5-character LED display shows the talk and listen assigned to each key. Both stations are one rack-space high.

The ICS-102 has ten talk/listen keys and an answer-back key, plus two dual-function toggle switches. The ICS-62 is identical except that it has six talk/listen keys. Write-on strips are provided above each key for talks and listens. Both are one rack-space high. The ICS-1502 offers 24 talk/listen keys in a two-rack-space chassis, plus six function pushbuttons and an answer-back key. Write-on strips are also provided above each key.

Front panels have both a headset connector and a jack for an optional gooseneck microphone, as well as a full-range speaker. Headsets are detected automatically when connected. The stations feature a low-noise, broadcast-quality adjustable microphone preamp with a limiter circuit to keep voice levels constant, high-power earphone and speaker amplifiers, and specially contoured audio response for clear, articulate communications in all environments. Special digital circuitry lowers the speaker's output level when the microphone is activated, eliminating feedback. The exclusive “nearby station” feature reduces feedback between adjacent stations, even when operating at high volumes.

SELECTOR KEYS

The selector keys on Matrix Plus stations have a very broad, powerful range of functions. Dual-action, momentary/latching toggle keys are activated by pushing up for listen and down for talk. Associated red and green LED's light when a par-

Matrix Plus

DIGITAL INTERCOM

by Clear-Com

SPECIFICATIONS**LINE INPUT/OUTPUT**

Type: Transformer Balanced
 Input Impedance: 8K Ohms Bridging
 Output Impedance: 150 Ohms
 Level: 0 dBv nominal
 Freq. Resp.: 100 Hz to 15 kHz, +/- 2dB

PANEL MICROPHONE INPUT

Type: Electret with proprietary phone jack
 Input Level: -40 dBv
 Impedance: 200 Ohms

HEADSET MICROPHONE INPUT

Type: Dynamic
 Input Level: -55 dBv
 Gain Adjustment Range: +/-5 dB (internal)
 Impedance: 200 Ohms

HEADPHONE OUTPUTS

Impedance: 50 - 600 Ohms
 Power: 1/2 Watt into 50 Ohms

LOGIC INPUT #1

Type: Requires closure to ground

LOGIC INPUT #2

Type: 4-30 volts DC or closure to ground
 (selectable)

MUTE RELAY/STATION RELAY

Contact Type: SPDT
 Voltage Rating: 24 Volts DC @ 1 Amp.

FRONT PANEL CONTROLS AND CONNECTORS

Selector Keys: (ICS-52 = 5) (ICS-62 = 6)
 (ICS-92 = 9) (ICS-102 = 10) (ICS-1502 = 24)
 Keypad Keys: (ICS-52, 92 = 4) (ICS-62, 102 = 2)
 (ICS-1502 = 6)

Answer Back Selector Key: 1

Volume Controls:

ICS-52, 62, 92, 102: intercom only

ICS-1502: intercom and program

Headset Connector: XLR-4M

Panel Mic Connector: Locking 1/4" phone jack

REAR PANEL CONNECTORS

Miscellaneous: DB-15F

Accessory/XP Panels: DB-9F

Analog Module to Frame: RJ-45

Digital Module to Frame: BNC and RJ-45

OPT-100 Option: DB-9F

POWER SUPPLY CONNECTORS

ICS-1502: IEC 3-pin connector to AC mains

ICS-52, 62, 92, 102: Barrel-type connector with
 strain relief for external power supply

MAINS AC POWER

ICS-1502: 90 – 130 VAC or 200 – 240 VAC,
 25 watts, 50 – 60 Hz

ICS-52, 62, 92, 102: External power supply
 module provides 14 VAC to stations

TEMPERATURE

Operating: 0° to 50° C (32°-125° F)

Humidity: 20% to 90%, non-condensing

DIMENSIONS

ICS-1502:

3.5" H x 19" W x 6.75" D
 (89 x 483 x 172 mm)

ICS-52, 62, 92, 102:

1.75" H x 19" W x 6.75" D
 (44 x 483 x 171mm)

particular talk or listen is active. As well, a particular key's function may be "split," for communicating to one station while monitoring another audio source. With the ICS-52 and ICS-92 stations, the 5-character display LED above each key provides the identity of current Talk assignments, and changes to display the Listen assignments with a push of the Listen Label button.

Any and all keys may be programmed for momentary-only Talk operation, or for one-touch direct telephone dialing. Keys may also be programmed for IFB interrupt, call signaling, relay control, and other functions, as necessary. Up to four labels – representing four different stations or interfaces – may be assigned to any and all keys, creating a group.

ANSWER-BACK KEY

The answer-back key is used to answer calls to the station from other stations or interfaces that are not assigned to the station's keys. It functions as a momentary-only key. The answer-back key is supported by the answer-back "stack", which holds up to eight incoming calls in the order in which they were received. The ICS-92 and ICS-52 stations also have an LED display above this key, allowing the user to identify the caller prior to answering.

CONNECTIONS

When used with the MTX-A8 analog transmission cards in the matrix card frame, station-to-frame wiring uses four-pair CAT-3 cable with RJ-45 connectors. The four-pair connection routes talk and listen audio signals, and provides data input and output paths. With the MTX-D8 digital transmission cards, connection between frame and stations is accomplished with single-twisted-pair or coax cable. Audio and data travel along the same wire and are decoded at the station. The key stations may be ordered from the factory in either an analog- or digital-transmission format, with the proper modules and connectors installed.

Accessory Panels allow up to an additional 60 keys to be connected to a station. Program interrupt (IFB) assignment panels may also be connected, allowing up to 79 sources and destinations to be routed for talent cueing, sending audio sources, assignment to telephone interfaces, or intercom communications.

The "Miscellaneous" connector links local devices to the intercom stations. A balanced monaural program-feed input may be routed through this connector. Two logic inputs are available to activate selected station functions. Both normally-closed and normally-open relay contacts are provided. A second audio signal can be fed to the headset for binaural operation.

The optional OPT-100 Auxiliary Audio board adds Studio Announce audio and relay outputs, a Hot Mic output, and two additional normally-open and normally-closed relay contacts.

WEIGHT

ICS-1502: 7.5 lbs. (3.4 Kg)

ICS-52, 62, 92, 102: 4.27 lbs. (2.0 Kg)

OPT-100 AUXILIARY AUDIO OPTION

Audio
 Output Signal Levels: 0 dBv nominal
 Impedance: 600 Ohms, transformer balanced
 Frequency Response: 100 Hz to 10 kHz, +/-2 dB

SA Relay

Contact Type: SPDT

Voltage Rating: 24 Volts DC @ 1 Amp.

All specifications are subject to change without notice.

