

# **SECTION 6**

## **CUSTOM NURSE ASSISTANCE FOR DETENTION FACILITIES**



# SECURE-TECH.com

**DETENTION ELECTRONIC SYSTEMS**  
Etech Controls Corporation - MANUFACTURER  
4051 ALVIS COURT #3, ROCKLIN, CALIFORNIA, USA 95677  
TEL (916) 630-1300 • FAX (916) 630-1100 • FREE (800) 800-2523

**DETENTION  
HEALTH-CARE  
SYSTEMS**

## CUSTOM MED-ALERT SECURITY COMMUNICATIONS & CONTROLS

### FEATURES:

- CUSTOM CONTROL PANEL
- AUDIO STAFF MONITORING WHILE IN CELL
- MULTIPLE AUDIO CHANNELS - ONE PER CELL
- 2 YEAR WARRANTY
- FACTORY TESTED ASSEMBLY
- DEDICATED INTERCOM REDUCES STAFF "TIME-IN-CELL"

### FUNCTIONAL DESCRIPTION:

Developed to significantly enhance staff safety by reducing the time and frequency of staff members' exposure to a potentially violent or contagious inmate without hindering the inmate's health care. A Call-in Station and Hall Indicator are provided using standard conduit outlet boxes for back boxes. Where Intercom is included, a TSS-2N station replaces the patient push-button call-in station, an HC-0826 Intercom Amplifier is provided for each NS control panel and will interface with an external power paging amplifier when required. Toilet/shower emergency and staff emergency stations, are common to both systems and both types of emergency calls are key controlled at the hall reset station.

SECURE-TECH's custom engineered intercom provides an audio channel per Nurse Station to select and communicate with each patient. However, primary audio contact with a patient is from an Individual Hall Reset Station installed adjacent to each cell door. Each hall station is a Submaster, allowing roaming staff to directly and immediately communicate and determine patient requirements prior to entering the cell. All hall station-patient audio channels are capable of being used simultaneously with their adjacent cell. Hall stations have priority over, and can interrupt communication between an NSCP and a patient. Each sub-master can communicate direct with a NSCP, also. (Typical, 25 cells, two NSCPs, 27 audio paths)

Factory assembled and tested - custom NURSE ASSISTANCE control electronics package is designed for use with logic and a hardwired type custom control panel or touch screen. Two methods of operation are available, **CUSTOM VISUAL** and **CUSTOM AUDIO-VISUAL**.

Electronic devices are not installed within the cell.

For existing panels or panels furnished by others, a control panel kit, CP100 series, is provided, including a 2.5" diameter speaker, electret microphone and volume control compatible with Secure-Tech's HC-0826 Audio Amplifier. See Control Panel catalog sheets, Section 1 for additional information.

# DETENTION HEALTH-CARE SYSTEMS

### STAFF SECURITY:

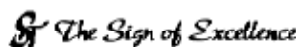
At anytime, a staff member can, while visually checking the patient, use that cell's dedicated intercom to initiate a contact or answer a call-in. Treatment requirements can be determined, directions to the patient can be given, materials, medications and an escort can be obtained before it is necessary for a staff member to enter the cell. Prior to entry staff uses the key switch to enable a **STAFF EMERGENCY PUSH-BUTTON** located in the cell, also converting all other push-button in the cell to staff emergency status - at the same time, automatically enabling audio monitoring of the staff member while in the cell. When more than one cell is entered by staff, the occupied cells are automatically scanned sequentially. Dwell times are adjustable. Shower and bath rooms operate similarly but without audio.

**At the NSCPs, Staff "In-Cell/Shower or Bath" status, is routinely indicated by an illuminated RED LED. Staff Emergencies are indicated by the RED LED fast flashing with an alternating tone at the NSC panels and a fast flashing RED hallway dome light outside the cell or shower/bath room.**

**OPTIONS -**  
Code Blue Station.

System works well for a Holding Cells application.

Secure-Tech Systems are manufactured NEC725 compliant.





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## MODEL TSS-2N MED-ALERT CALL-STATION

### MED-ALERT TAMPERPROOF PATIENT STATION, 2-GANG

#### FEATURES:

- 16 and 11GA STAINLESS STEEL FACEPLATE
- TAMPERPROOF SST CALL BUTTON
- TAMPERPROOF SPEAKER PLATE
- 2.5" (63.5mm) DIAMETER SPEAKER
- ADJUSTABLE MOUNTING
- 2 YEAR WARRANTY



#### FUNCTIONAL DESCRIPTION:

Based upon Secure-Tech's TSS-2 intercom station, the "N" Nurse Call intercom station is designed for use in the highest security areas. It is suited for both interior and exterior wall mount applications. Electronic devices are not installed in the station housing.

#### FACEPLATE:

The faceplate is 11 gauge (available in 16 gauge) brushed stainless steel with stamp-formed beveled edges. Oversized, it covers minor openings between the wall and the backbox. Tamperproof SST allen-pin head mounting screws are provided.

#### CALL BUTTON:

Patient call-in station for routine assistance. The tamperproof button actuator assembly is stainless steel, non-rotating, with a low profile beveled bezel. It is water and dustproof to IP66 specifications. The DPST miniature snap-in switch is rated 5 amps @ 250 VAC. Available with two call buttons.

#### MICROPHONE:

Electret, Omni-Directional, Frequency Range 50-15k, Sensitivity -42 dB +/-2, Signal-to-Noise Ratio >60dB.

#### SPEAKER:

2.5" (63.5mm) diameter weather resistant, speaker / microphone has a 1.1 oz. (34.2 g) barium ferrite ceramic magnet, rated 4 watts @ 45 ohm with a frequency response from 200 to 8000 hz. All ferrous material has a corrosion resistant finish. Models with (-T) provide an 8 ohm speaker and a 25 volt transformer with 0.5, 1 & 2 watt taps.

#### SPEAKER MOUNTING PLATE:

The mounting plate is zinc plated 14 gauge CRS, providing both the speaker and call button protection from liquids and vandal probes. At 4.25" (108mm) square, it is designed to fit a two-device switch ring on a 4" square deep backbox. Adjustable leveling slots correct back box mis-alignments up to fifteen degrees.

#### SIZE:

5.00" W x 5.00" L x 1.35" D  
127mm W x 127mm L x 34.3mm D

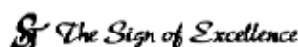
#### MODELS:

TSS-2/11	45 ohm speaker
TSS-2/11T	8 ohm speaker with 25 volt transformer
TSS2-2/11	Two call-in - 45 ohm speaker
TSS2-2/11T	Two call-in - 8 ohm speaker with 25 volt transformer
TSX-	Without push button
	16 gauge faceplate available

Install on two-device, 3/4" rise, conduit box coverplate, on 4-square deep box or a two-device concrete outlet box 3.5" deep.

#### ACCESSORY:

TBB-2/14 Weatherproof surface mount backbox, no knockouts, 14 gauge CRS, painted flat black, 5.25" (133.3mm) square x 3.0" (72.4mm) D.





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**MODEL  
TSS-1N**

**MED-ALERT TAMPERPROOF STAFF STATION, "1-GANG\*", JAM MOUNT**

**FEATURES:**

- 11GA STAINLESS STEEL FACEPLATE
- TAMPERPROOF SST CALL BUTTON
- TAMPERPROOF SPEAKER PLATE
- 2.5" (63.5mm) DIAMETER SPEAKER
- 2 YEAR WARRANTY



\*REQUIRES CUSTOM BACK BOX

**FUNCTIONAL DESCRIPTION:**

Based upon Secure-Tech's TSS-1 intercom station, the "N" MED-ALERT intercom call station is designed for use in the highest security areas. Its reduced width makes it suited for installation in security hollow metal door frames and / or window frames. Electronic devices are not installed in the station housing.

**FACEPLATE:**

The faceplate is 11 gauge brushed stainless steel with stamp-formed beveled edges. Tamperproof SST allen-pin head mounting screws are provided.

**CALL BUTTON:**

Patient call-in station for routine assistance. The tamper-proof button actuator assembly is stainless steel, non-rotating, with a low profile beveled bezel. It is water and dustproof to IP86 specifications. The DPST miniature snap-in switch, is rated 5 amps @ 250 VAC.

**SPEAKER:**

The 2.5" (63.5mm) diameter weather resistant speaker / microphone, has a 1.1 oz. (34.2 g) barium ferrite ceramic magnet and is rated 4 watts @ 45 ohm with a frequency response from 200 to 8000 hz. All ferrous material has a corrosion resistant finish. Models with (-T) provide an 8 ohm speaker and a 25 volt transformer with 0.5, 1 & 2 watt taps.

**SPEAKER MOUNTING PLATE:**

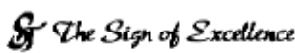
The mounting plate is zinc plated 14 gauge CRS, providing both the speaker and call button protection from liquids and vandal probes. The plate is 3" (76.2mm) wide by 4.5" (114.3mm) high and is designed for installation into a security door frame prepared cutout with a suitable conduit / grout box provided. A cutout template is provided.

**SIZE:**

3.50" W x 5.00" L x 1.35" D  
88.9mm W x 127mm L x 34.3mm D

**MODELS:**

TSS-1	45 ohm speaker
TSS-1T	8 ohm speaker with 25 volt transformer





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**MODEL**  
**TPB, TPH, TPK**  
**Series**

**STAINLESS STEEL PUSH BUTTON - KEY SWITCH**



**DETENTION PLATES WITH STAINLESS STEEL SWITCHES:**

**TPB - 1 / 11 - 19 A**

Plate Type
<b>TPB</b> SS Button
<b>TPH</b> Hole Only
<b>TPK</b> Keyswitch

Plate Size
<b>1</b> 1-Gang
<b>2</b> 2-Gang
<b>C</b> Custom

Plate Gauge
<b>11</b> 11-awg
<b>14</b> 14-awg
<b>16</b> 16-awg
<b>20</b> 20-awg

Switch Size MM
<b>Switch/Hole</b> 19 22 25
<b>Keyswitch</b> 19

Switch Action
<b>Pushbutton</b> <b>A</b> Alternate Action
<b>M</b> Momentary
<b>Keyswitch</b> <b>A</b> Maint-Maint
<b>M</b> Maint-Mom
<b>Plate &amp; Hole Only</b> <b>H</b>
<b>Custom</b> <b>C</b>

**GENERAL OPTIONS:**

Etech Stainless Steel Plates and Switches are available with custom engraving, 3-position keyswitches (many models), key removal options, rounded plate corners and additional switches and/or LED's - Please call to discuss your project's needs.

**PUSHBUTTON FEATURES:**

- Stainless Steel Button and Bushing
- IP-65 Minimum Rating
- Pigtail or Screw Terminals
- Silver Plated Contacts
- 3A @ 250vac N.O. Contacts
- N.C. Contacts Available

**KEYSWITCH FEATURES:**

- NKK brand CKL-Series 19mm High Security Key-Switches
- Rugged Die-Cast Zinc Alloy Housing - Chrome Plated
- Silver Plated Contacts 3A@250vac
- Self-cleaning sliding contacts for high reliability and long operating life
- Flat key standard, Tubular key available.



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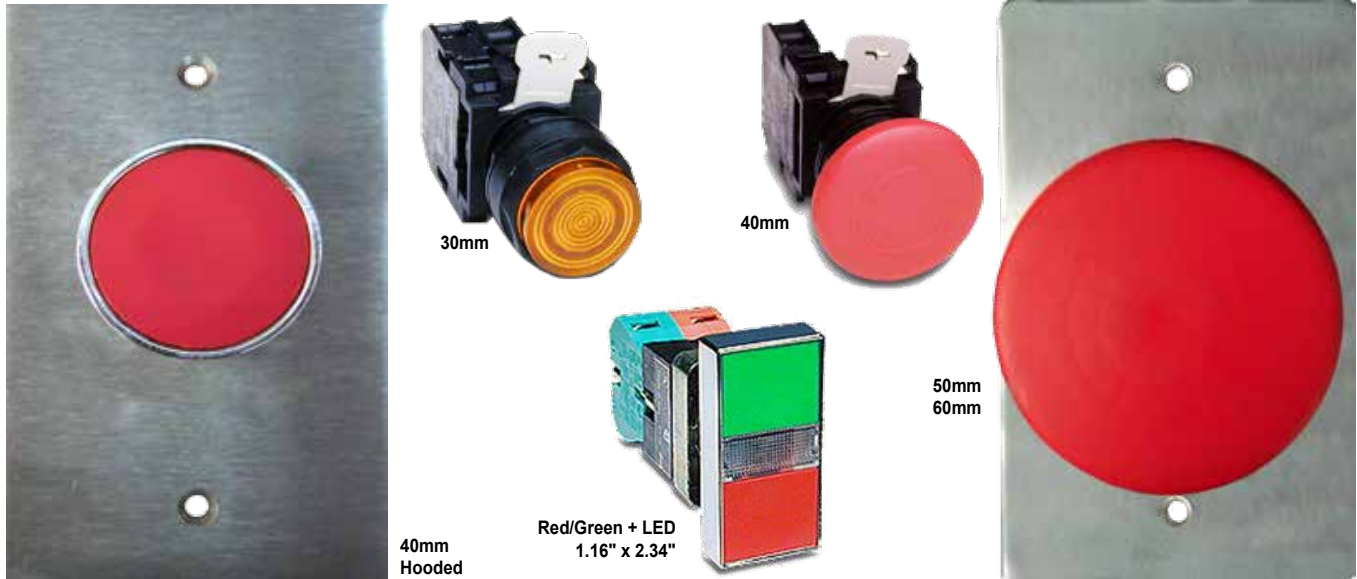


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**MODEL  
 TPM Series**

**STAFF EMERGENCY "MUSHROOM" PUSHBUTTONS**



**DETENTION PLATES WITH MUSHROOM BUTTONS:**

**TPM - 1 / 11 - 40 A**

Plate Type	Plate Size	Plate Gauge	Switch Size MM	Switch Action
TPM Mushroom	1 1-Gang	11 11-awg	30 40 50 60	A Maint. - Pull Reset
	2 2-Gang	14 14-awg	60	K Key Reset
	C Custom	16 16-awg	60 Red/Green w/LED	M Momentary
		20 20-awg		H Momentary Hooded
				R Red/Green + LED
				C Custom

**MUSHROOM SWITCH FEATURES:**

**Specifications:**

Listings: UL508; CE; UL File E131568. CSA certified class 3211 03, LR 68551.  
 NEMA ICS5-2000: A600, Q600 . IEC 60947-5-1: AC15, DC13.  
 Environmental: IP65, IP66 ratings to IEC 529 Silver Contacts for high reliability.  
 1 N.O. and 1 N.C. contacts standard.  
 Some switch/action combinations may not be available.

**Mechanical Life:** Momentary: 5 million operations • Maintained: 300,000 operations

**Electrical Life:**

- AC15 (Control of AC electromagnetic loads) durability: 120V, 6A, 1 million operations.
- DC13 (Control of DC electromagnetic loads) durability: 24V, 8A, 1 million operations.

**Options:** "Mushroom" type pushbutton switches are available with a number of different options and styles. Please order from one of our more popular models listed above, or give us a call to discuss the many Custom switch options available in this line, including Key-Reset, Twist-Reset, Illuminated-any color, protective bezels and shrouds, additional N.O. or N.C. Switch Contacts, rotary switches and other options.

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## CUSTOM STAFF MED-ALERT STATIONS

### MED-ALERT STAFF RESET AND CONTROL STATIONS

#### FEATURES:

- 16 AND 11 GA STAINLESS STEEL FACEPLATE
- TAMPERPROOF SST CALL BUTTON
- AVAILABLE IN ONE OR TWO DEVICE PLATES
- 2 YEAR WARRANTY

#### FUNCTIONAL DESCRIPTION:

The tamperproof reset stations are designed for use in the highest security areas. Suited for both interior and exterior wall mount applications, annunciation, including nurse call (patient call-in and toilet/shower) staff duress, etc. Electronic devices may be installed in the station housing.

#### FACEPLATE:

The faceplate is 11 gauge (16 gauge is available) brushed stainless steel. Tamperproof SS allen-pin head mounting screws are provided. Single device plate is standard, 2 device plates are available.

#### TYPICAL KEYSWITCH CONTROL:

**KR-1S STAFF DURESS** - One MAINTAINED key switch, SPST. KEY REMOVABLE in either location IN (armed) or OUT (disarmed - standby).

**KR-1T PATIENT EMERGENCY** - Typical - RESET the Toilet/ Shower Emergency system. One MOMENTARY key switch, SPST. KEY REMOVABLE in standby/armed position (on) only.

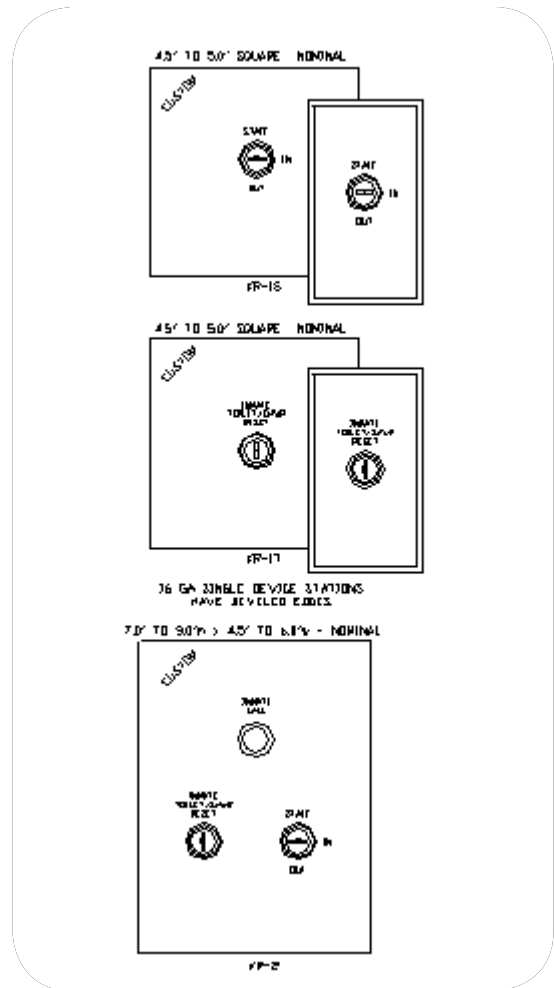
**KR-2** Any combination of two FUNCTIONS - Typical - Combine STAFF DURESS, PATIENT EMERGENCY or PATIENT RESET

**KR-3** Any combination of three FUNCTIONS - Typical - Combine STAFF DURESS, PATIENT EMERGENCY stations and a PATIENT Non-Emergency "call-in" RESET push button.

**KR-5** Intercom sub-master with any combination of two FUNCTIONS - Typical - Combine STAFF DURESS, PATIENT EMERGENCY or PATIENT RESET

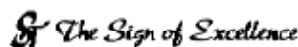
**KR-6** Intercom sub-master with any combination of three FUNCTIONS - Typical - Combine STAFF DURESS, PATIENT EMERGENCY or PATIENT RESET

#### VISUAL AND AUDIO-VISUAL SYSTEMS



VISUAL MODELS -

### DETAILED MANUFACTURER'S DRAWING WILL BE FURNISHED





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## DETENTION HEALTH-CARE SYSTEMS

### MED-ALERT CUSTOM MASTER INTERCOM STATIONS

#### FEATURES:

- 16 and 11 GA STAINLESS STEEL FACEPLATE
- TAMPERPROOF SST CALL BUTTON
- 2 YEAR WARRANTY

#### AUDIO VISUAL SYSTEMS

#### FUNCTIONAL DESCRIPTION:

The audio, tamper resistant, control reset station is designed for use in the highest security areas. Suited for both interior and exterior wall mount applications, annunciation, including nurse call (patient call-in and toilet/shower emergency) and staff duress, etc. Electronic devices may be installed in the station housing.

#### FACEPLATE:

The faceplate is 16 gauge (11 gauge is available) brushed stainless steel. Tamperproof SS allen-pin head mounting screws are provided.

#### TYPICAL KEYSWITCH: CONTROL

KR6 Combines full intercom with all other nurse call and duress functions.

Controls STAFF EMERGENCY stations. Includes a Patient Non-Emergency "Call-In" reset push button. Provides two way voice communication from patient to hall reset station, patient to nurse's station, hall reset station to nurse's station.

#### FUNCTIONAL DESCRIPTION:

An HC-0682 System Controller master can communicate via two RS-485 channels with up to fourteen HC-0682 slave modules and / or HC-0701 Remote Panel Controllers, and a host PC.

One yellow LED and one green LED is provided to indicate multiple operational status conditions. A flashing green LED and an off yellow LED indicates normal operation. All other indication combinations identify various possible errors.

See the foldout example HC-0682 and HC-0701 system hook-up diagram for a visual concept of configuration possibilities.

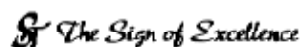
**SIZE:** 3.25" W x 6.50" L x 0.55" D / 82.6mm W x 165.1mm L x 14mm D

**POWER:** 5 VDC, 500ma, 1 amp PCB fuse, 2 amp buss fuse



CONFIGURATION MAY VARY FROM THAT SHOWN

SIZE SHOWN 10.5" x 5.0"  
REQUIRES 5-GANG 3.5" DEEP  
CONCRETE OUTLET BOX







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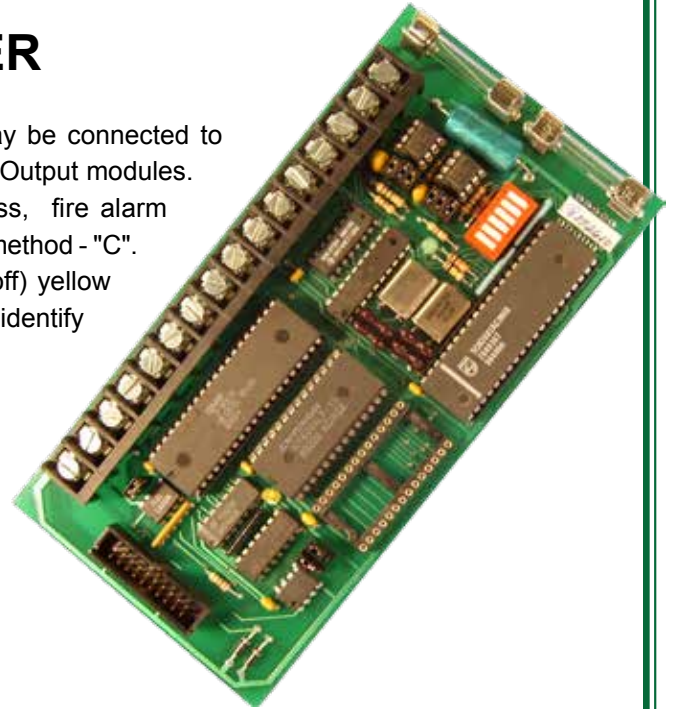
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**MED-ALERT  
CPU CONTROLLER  
MODEL #HC-0682**

**DETENTION HEALTH-CARE, MED-ALERT SYSTEM CONTROLLER**

## HC-0682 SYSTEM CONTROLLER

As a Nurse-Call Controller - 512 inputs and 512 outputs may be connected to each HC-0682 module by HC-0851-48 Input and HC-0850-48 Output modules. Additional typical usage - control of intercoms, doors, duress, fire alarm annunciation, etc.. Communication method - RS-485, program method - "C". Partial self-diagnostic, a flashing green LED and a standby (off) yellow LED indicates normal operation. Other indication combinations identify various possible errors.



### FUNCTIONAL DESCRIPTION:

An HC-0682 System Controller master can communicate via two RS-485 channels with up to fourteen HC-0682 slave modules and a host PLC/PC. Recommend not exceeding 500 I/O but will operate at slower speeds at 1000 I/O per module.

One yellow LED and one green LED is provided to indicate multiple operational status conditions. A flashing green LED indicates normal operation, a flashing yellow LED indicates a problem operation. Combinations identify various possible errors.

### BAUD RATE:

19.2, NO 81

### SIZE:

3.25" W x 6.50" L x 0.55" D

82.6mm W x 165.1mm L x 14mm D

### POWER:

5 VDC, 500ma, 1 amp PCB fuse, 2 amp buss fuse

**INTERFACES WITH THE HC-0851 INPUT AND THE HC-0850 OUTPUT MODULES**

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**MED-ALERT  
I/O CONTROLLERS  
HC-0850, HC-0851**

## MED-ALERT 48 INPUT AND 48 OUTPUT CONTROL MODULES

### FEATURES:

- 48 OPTO-ISOLATED (7500V) INPUTS
- BOTH MODULES ARE INTERPOSING DEVICES
- INTERFACES WITH HC-0682 SYSTEM CONTROLLER
- 3.25" SNAP TRACK MOUNT
- 2 YEAR WARRANTY

### FUNCTIONAL DESCRIPTION:

The HC-0851 provides a communications interface for FORTY-EIGHT OPTO-ISOLATED inputs into the HC-0682 System Controller.

The HC-0850 provides a communications interface for FORTY-EIGHT single FUSED outputs from the HC-0682 System Controller.

Both modules provide access for field devices controlled by the Nurse Call Control panels; door control, fire alarm annunciation, duress, etc.

### INPUTS / OUTPUTS:

FORTY-EIGHT inputs or FORTY-EIGHT outputs are connected through a 50 pin ribbon header. Commands between the HC-0682 System Controller and these module are passed via on-board RS-485 data port. Inputs are 5 - 24 VDC @ 5ma.

### SIZE:

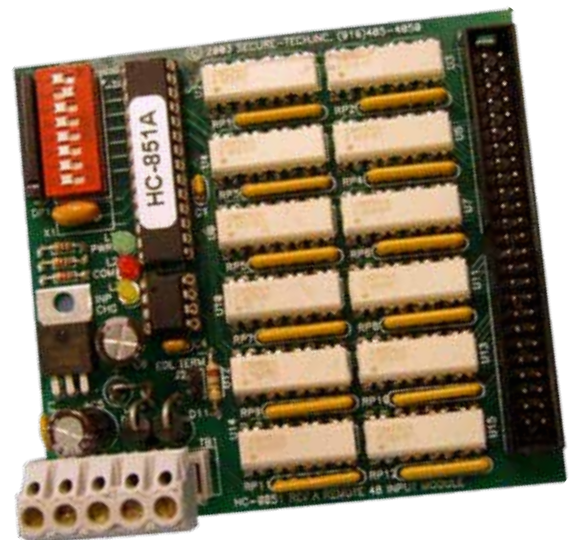
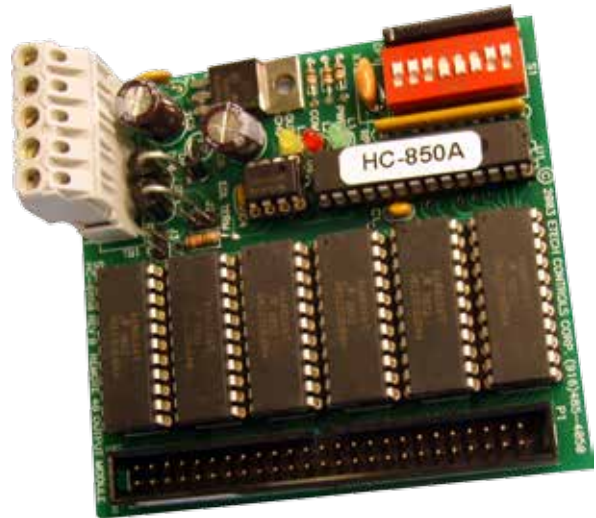
HC-0850	3.25" W x 3.25" L x 0.61" D
HC-0851	3.25" W x 2.75" L x 0.61" D

### POWER:

12 or 24 VDC, 160ma (do not combine)

### UNIVERSAL CAPABILITIES:

Protocols can be provided for custom applications with your controller.



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## MODEL HC-0826

### MASTER INTERCOM AMPLIFIER & CONTROLLER

#### FEATURES:

- 14 WATTS RMS OUTPUT
- ULTRA LOW NOISE LEVEL
- "SOAR" PROTECT TECHNOLOGY
- THERMAL AND OVER VOLTAGE PROTECTION WITH AUTO RESET
- 4 STATUS LEDS
- ADJUSTABLE NOTCH FILTERS
- ALL PLUG CONNECTION
- 3.25" SNAP TRACK MOUNT
- 2 YEAR WARRANTY



#### FUNCTIONAL DESCRIPTION:

The HC-0826 is a high quality, reliable, long life intercom amplifier, for use with the HC-0644, HC-0845, and HC-0846 intercom selectors. The amplifier is suitable for the high frequency use typically found in detention facility applications.

Switching between Talk, Listen and Mute is virtually noise free. Two adjustable notch filters allow a wide range of speakers to be used by adjusting out the inherent feedback resonances. LEDs are provided to indicate Push-to-talk, In-use, AGC and Power.

For selected loads requiring additional output power, an external amplifier connection is provided. In the external amplifier mode, the unit acts as a controller and the external amplifier serves the load.

The XSEL input may be connected to a Nighttime Transfer switch to extend a Central Control room masters' ICBUSS to include a remote housing areas' master ICBUSS as well during nighttime hours. The XSEL input enables / disables the EXTAMP input points. Connect the remote masters' EXTAMP input points to the central masters' ICBUSS by using an HC-0644 audio channel relay, also selected by the Nighttime Transfer switch.

Do not use with external amplifiers that are sized above sixty watts nominal. An external amplifier is recommended for selected loads over eight watts.

The OWNLINE input points connect to the CSPKR output points **whenever the HC-0826 Intercom Amplifier is not INUSE**. OWNLINE may be used as a substation of a remote intercom master to provide master to master communication. Multiple remote masters may be connected.

Safe Operating Area Region, thermal and over-voltage protection circuits are provided. Talk volume level, low frequency roll-off and overall gain adjustments are provided. Audio power output is 14 watts RMS at 2 ohms. Audio range is 400 hz - 10 khz  $\pm$  3 db. Signal to noise ratio is 75 db minimum.

When in standby, the HC-0826 effectively "shuts" down reducing the possibility of noise or hum. If a Secure-Tech station selector module is not used a sinking output must be applied to the INUSE terminal each time a station is selected.

#### INPUTS / OUTPUTS:

The inputs and outputs are connected to Phoenix type compression screw terminal plugs sized for 28 to 16 AWG stranded conductors.

#### SIZE:

3.25" W x 6.00" L x 1.60" D  
82.6mm W x 152.4mm L x 41.0mm D

#### POWER:

12 - 14 VDC, 200ma idle, 3 amps max

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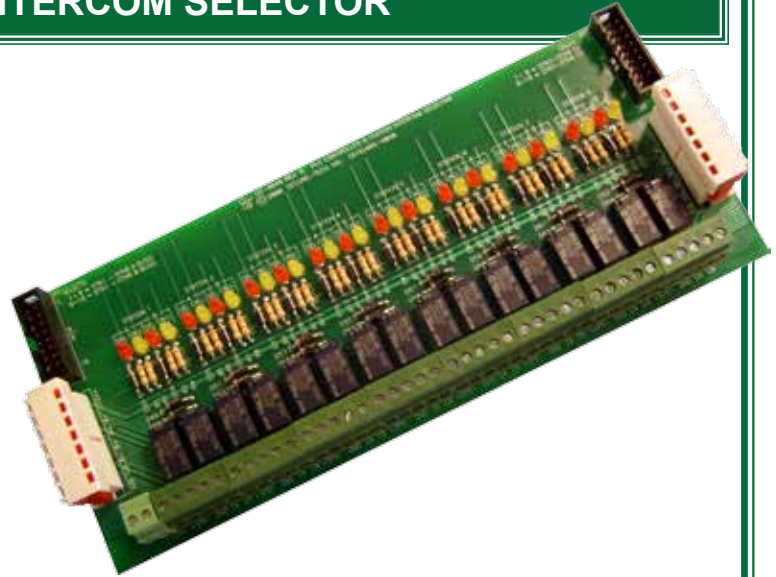
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**MODEL  
HC-0846  
(HC-0845)**

## PLC 8 STATION INTERCOM SELECTOR

### FEATURES:

- 8 PLC CONTROLLED STATIONS
- 16 SELECT STATUS RED LEDs
- 16 CALL-IN STATUS YELLOW LEDs
- 2 AUDIO BUSSES
- ACCEPTS HC-0654 SOUND ALARM
- SINGLE OR DUAL MASTERS
- 12 OR 24 VDC OPERATION
- 2 IN-USE BUSSES
- ALL PLUG CONNECTIONS
- 3.25" SNAP TRACK MOUNT
- 2 YEAR WARRANTY



### FUNCTIONAL DESCRIPTION:

The HC-0846 provides the inputs and outputs for up eight intercom stations or paging zones, for operation by a programmable logic controller, with access to two different audio busses. It interfaces with all major manufacturers' PLCs and the HC-0682 System Controller.

The ability to configure this product to be used in many different applications makes it very versatile. A single master can control eight audio channels, and select them individually to two different audio busses, i.e. intercom or music background. Or, two separate masters can share eight channels. Molex type insertion tool terminating plugs are more cost effective and Phoenix type compression screw terminal plugs accept a range of conductor sizes. The HC-0654 Sound Alarm daughterboard can be plugged directly onto the HC-0846 when the field connectors are Molex type.

Each audio channel provides a red Select status LED and a yellow Call-in status LED. Two In-use busses are provided. Call-in "B" is the normal field input point. Use call-in "A" when the HC-0654 Sound Alarm daughterboard is used. The Sound Alarm uses the call-in "B" input point. Or, two separate call-in buttons may be used per audio channel.

### INPUTS / OUTPUTS:

Sixteen Call-in inputs and sixteen relay outputs are provided. Relay DPDT contacts are UL/CSA rated for 125 VAC @ 0.5 amp and 30 VDC @ 2 amps. The control I/O is connected via two 16-pin male ribbon headers. The mating female ribbon plugs are provided.

### SIZE:

3.25" W x 7.75" L x 0.93" D  
82.6mm W x 196.9mm L x 23.5mm D

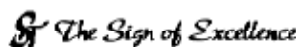
### POWER:

12 VDC or 24 VDC, 500ma

### MODELS:

HC-0846-12-M	12 VDC, Molex (motherboard)
HC-0846-24-M	24 VDC, Molex (motherboard)
HC-0846-12-P	12 VDC, Phoenix (no sound alarm)
HC-0846-24-P	24 VDC, Phoenix (no sound alarm)

Note: There are other variations of this product available, with 90° angle Molex connectors, that plug onto an HC-0723 Intercom Exchange motherboard (not in catalog) to accommodate special applications like separate day and night sound alarms; additional masters; and duress alarm auto-selection to listen mode with CCTV picture call-up, all with high density space savings. Call the factory for special applications assistance.







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**DETENTION ELECTRONIC SYSTEMS**  
ETECH CONTROLS CORPORATION - MANUFACTURER  
4051 ALVIS COURT #3, ROCKLIN, CALIFORNIA, USA 95677  
TEL (916) 630-1300 • FAX (916) 630-1100 • FREE (800) 800-2523

## MODEL JUSTTALK

### DUPLEX TALK THROUGH COMMUNICATOR

#### FEATURES:

- FULL DUPLEX COMMUNICATION
- HANDS FREE OPERATION
- STYLISH APPEARANCE
- MUTE AND PRIVACY OPTION
- MONITOR AND RECORD
- TAMPER RESISTANT DESIGN
- 2 YEAR WARRANTY



#### FUNCTIONAL DESCRIPTION:

The "JUSTTALK" Duplex Talk Through Communicator is designed for staff or attorney/client interview rooms, visitation booths, control room to corridor, and other applications requiring communication through a security glass partition or wall. Full duplex two-way communication is provided. The talk through communicator frequency range is 400 to 4000 Hz  $\pm$  3 db. . Each pair of units is tuned to the installed location environment to maximize sound levels. The result is very natural hands free communication.

**JUSTTALK** The base system consists of a pair of identical units, typically one on each side of a viewing window or wall. Usually used for visitation. Order model **JUSTTALK**.

**JUSTTALK-M** Two switches allow an attorney or staff to silence (off) the voice output from the inmate side; or to mute (off) the staff/attorney's side output for privacy. Provided with audio lineout function to allow monitoring and recording. Order model **JUSTTALK-M**.

**JUSTTALK-V2** Two volume controls allow an attorney or staff to adjust the inmate and staff talk volume from an inmate conversation level to a monitor minimum and a staff/attorney conversation level to mute (off) unit for privacy. Provided with audio lineout function to allow monitoring and recording. Order model **JUSTTALK-V2**.

**SIZE:**  
2.52" H x 4.44" D x 17.0" L  
64.0mm H x 112.8mm D x 431.8mm L

**POWER:**  
12 - 14 VDC, 1.4 AMPS per pair.

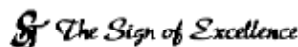
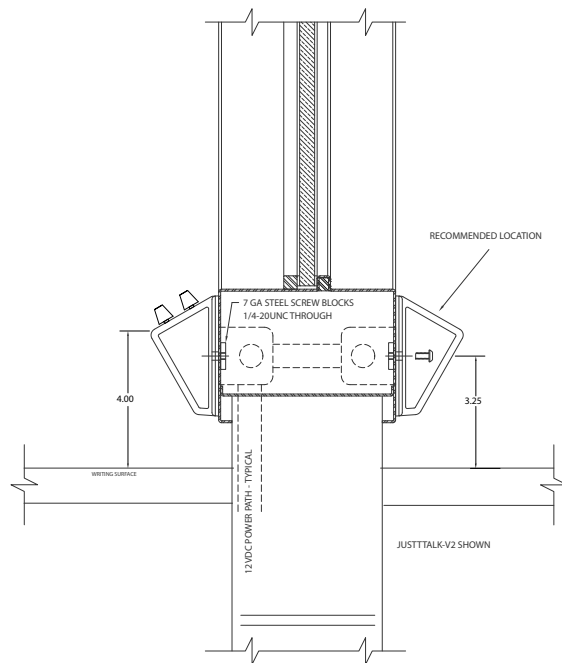
.35 INCH (NOMINAL) CAST ALUMINUM, SEMI-GLOSS BLACK

(JUSTTALK-V2 SHOWN)

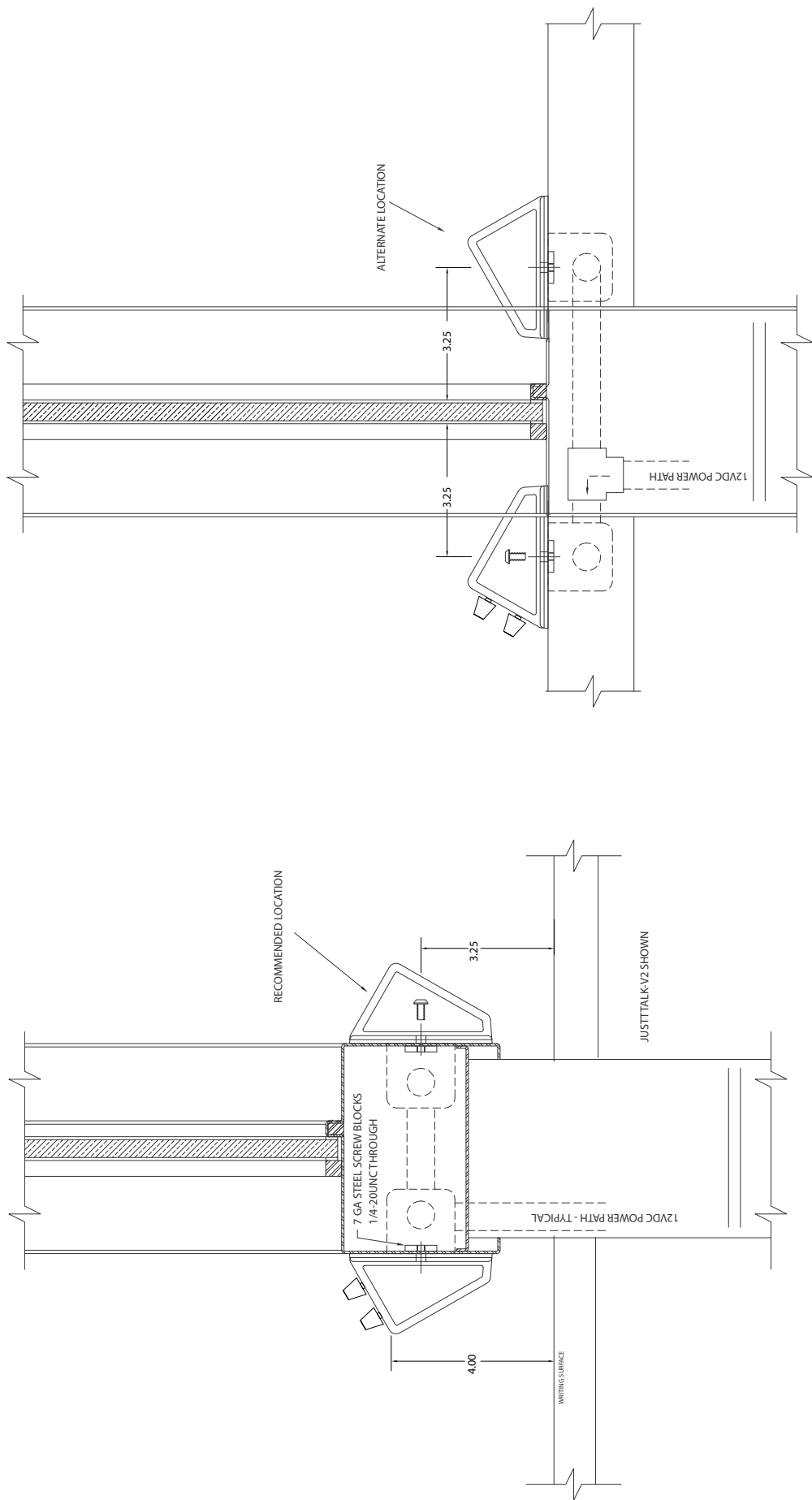
#### INSTALLATION:

The recommended mounting location is on a 4" high hollow metal window frame sill, centered between sidewall partitions, with the speakers and microphones side pointing down towards the countertop reflective surface.

An alternate mounting location is upon the countertop, centered between sidewall partitions, with the speakers and microphones side facing towards the viewing window.



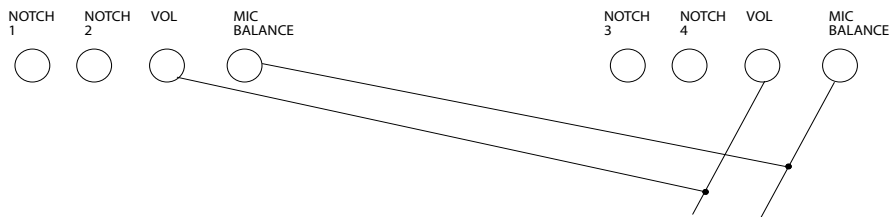
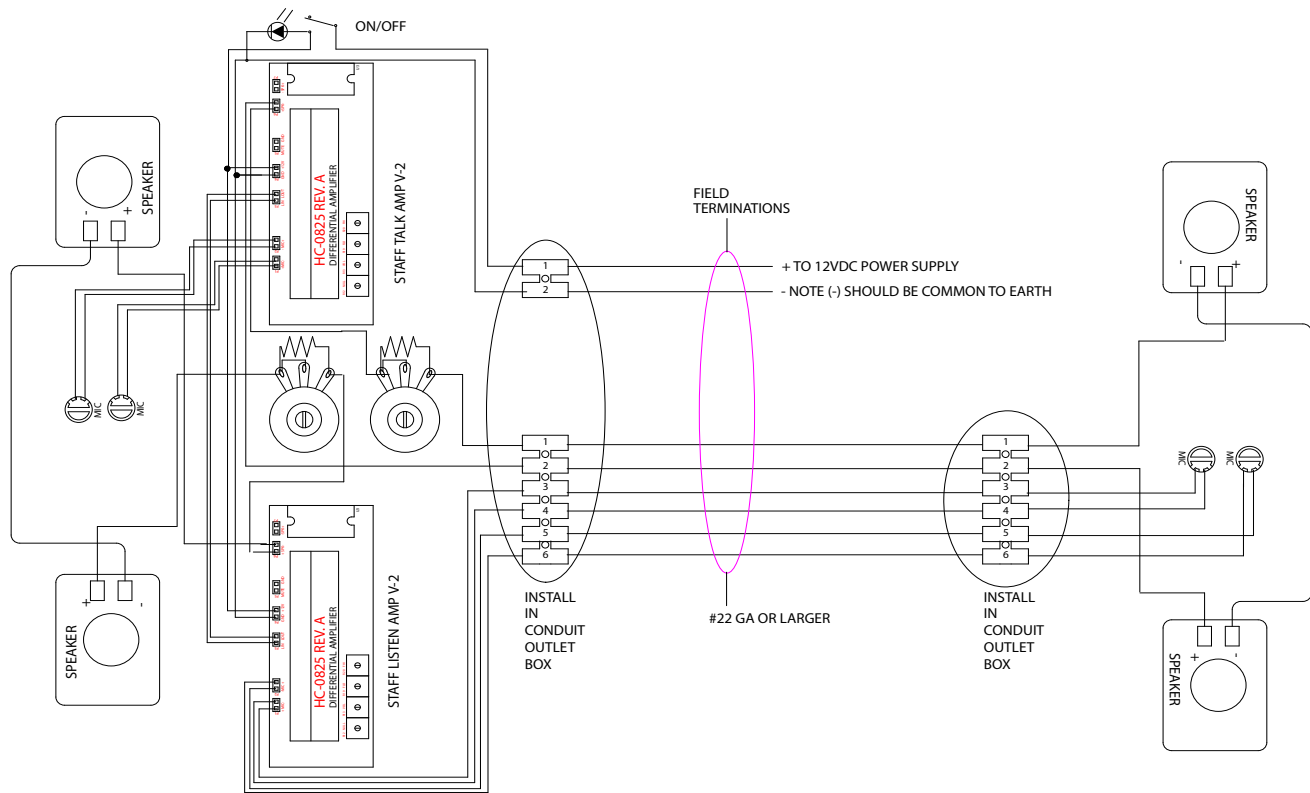
**MODEL**  
**JUSTTALK**  
**DUPLEX TALK THROUGH COMMUNICATION**  
**TYPICAL INSTALLATION**



# MODEL: JUSTTALK-V2

## DUPLIX TALK THROUGH COMMUNICATOR

### INSTALLATION DETAILS / HOOK-UP DIAGRAM



#### ADJUSTING JUSTTALK UNITS – CLOSE DOORS AND WINDOWS -

Units are shipped with factory operating settings and should require only minor adjustments. If feedback does occur, go to steps #1 and #5, use small increment steps of tuning volume and notch filters.

The adjustments require a small "flat blade" screwdriver –

Remove 8 set screws for access to internal adjustment pots – the right side 4 adjustments are for client side station.

Note: tapping housing near mike with a finger will aid in adjusting by providing a reference level. If adjustment steps #3 and #5 does not clear the feedback, the following is the full re-calibration procedure.

#### Be consistent - be patient.

Set external volume knobs - fully clockwise (max volume setting) upper knob is client listen

Set internal volume pots - mid-way

Set notch filter pots -mid-way

Initially retain factory internal mike pot settings (see step #2)

#### Power up (ring LED illuminates)

If feedback occurs -

1. Reduce volume – adjust volume pots clockwise until feedback is eliminated – alternate between the two amplifiers so both are approximately at the same volume level –
  - a. Adjust to highest volume -
2. Adjust mike pot balance on each unit – alternate between the two amplifiers so both are approximately at the same volume level –
  - a. Adjust to highest volume –

#### Alternate adjustments between steps #3 and #4 -

3. Increase volume – adjust internal volume pots counterclockwise until feedback re-occurs. Try to keep both amplifiers at same volume level. When feedback is just starting, go the step #4.
4. Adjust notch filter pots until the feedback frequency is muted – begin with notch pot #4 to match the lowest frequency (where possible).

#### Continue with step #5.

5. Repeat steps #3 and #4 for each feedback frequency
 

There are four notch filters (two on each amplifier) – each one will mute a different feedback frequency.

Making small adjustments between testing will be to your benefit –

Units are calibrated for maximum volume. Adjust external volume knobs for desired operating volume.

Replace 8 set screws –







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## MODEL CP100 SERIES

### CONTROL PANEL KITS

#### FEATURES:

- 2.5" (63.5mm) SPEAKER
- MICROPHONE
- VOLUME CONTROL
- 25 VOLT TRANSFORMER AVAILABLE
- HC-0826 AMPLIFIER COMPATIBLE
- 2 YEAR WARRANTY

#### FUNCTIONAL DESCRIPTION:

The control panel kits compliment the HC-0826 Intercom Amplifier and may also be used with other manufacturers amplifiers.

#### SPEAKER:

The 2.5" (63.5mm) diameter weather resistant, speaker / microphone has a 1.1 oz (34.2 g) barium ferrite ceramic magnet and is rated 4 watts @ 45 ohm with a frequency response from 200 to 8000 hz. All ferrous material has a corrosion resistant finish. A black finished perforated steel speaker grill is provided.

The speaker footprint is 2.53" (64.26mm) square. The four mounting holes are located at the corners of a 2.06" (52.32mm) square.

#### MICROPHONE:

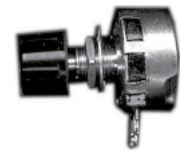
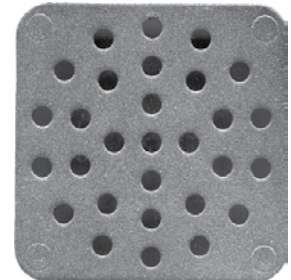
The electret microphone is omni directional and has a frequency response of 20Hz to 16Khz. Sensitivity is -42dB ± 3dB. Signal to noise ratio is greater than 60dB. Operating voltage is 4.5 to 10 maximum. Current draw is 0.8ma. A rubber slip-mount with two mounting hole ears is provided.

#### STAINLESS STEEL PUSHBUTTON:

##### OPTIONAL

Low profile, marine grade stainless steel, 22 mm diameter, 1A 50 volt, screw terminals, front panel sealed to Specification IP66, SPST, available with imbedded LEDs. Mounting hole 19mm, when used as a PTT retrofit, will fit .75" square, hole, use washer if necessary.

##### OPTIONAL



#### VOLUME CONTROL:

The volume control potentiometer is 500 ohms and includes an operating knob.

#### GRILLE:

##### OPTIONAL

The speaker grille is black powder-coated aluminum sheet, with twenty-nine 3/16" (4.76mm) diameter sound transmission holes, measuring 2.5" (63.5mm) square by 0.08" (2.05mm) thick, and includes four 6-32UNC by 1" long studs.

The grille mounts on the face side of a control panel, with the studs extending through the panel, and the speaker mounting onto the studs from the backside. Provide a 2 1/4" (57.15mm) diameter speaker hole and four 3/16" (4.76mm) diameter stud clearance holes in the facepanel.

#### MODELS - CP Series - Typical:

CP105	45 ohm speaker, electret microphone, 500 ohm volume potentiometer with Knob
CP106	8 ohm speaker, electret microphone, 100 ohm volume potentiometer Knob
with	
GRILLE-PNL	Grille for 2.5" diameter speaker Optional
TPB-037	Stainless Steel Pushbutton Optional

