



CS-222 Front Panel

## FEATURES

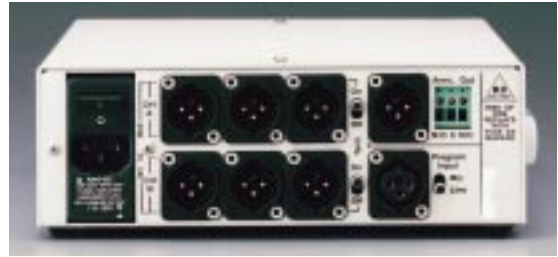
- **Portable, heavy-duty enclosure with carry handle**
- **Supports up to 30 beltpacks or 10 speaker stations on 2 channels**
- **Automatic short-circuit protection and reset with LED indicators**
- **Dual-action electronic momentary/latching “Talk” buttons**
- **Mic- or line-level program with selectable “Program Interrupt”**
- **“Remote Mic Kill”**
- **Stage announce with relay**
- **Individual volume controls for each channel**
- **Front-panel headphone connector**
- **Channel A & B “Link” switch to operate as a one-channel system**
- **Front-panel speaker output**
- **U.L. approved**

## DESCRIPTION

The CS-222 is a portable main station with carrying handle, power supply, and a versatile intercom monitoring system. It supports two channels of intercom with up to 30 headset stations or 10 speaker stations. It features Clear-Com’s excellent speech intelligibility in both high and low noise environments.

## MONITORING SYSTEM

The station can monitor intercom activity on one or both channels with individual Listen Level controls. Monitoring intercom activity is possible through a headset, or external earphone or speaker. The 4-watt output amplifier can drive a standard Clear-Com headset to levels greater than 110 dB SPL – more than enough volume for the noisiest environment.



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## TALK SELECTION

The station contains a mic preamp with limiter and proprietary speech-shaping circuits for enhanced intelligibility. An individual electronic momentary/latching talk button is provided for each channel. These buttons light dimly when latched. The channels may be accessed separately simultaneously without being tied together. To combine both channels in a single party line, a “Link” switch is provided on the front panel.

## STAGE ANNOUNCE

For paging applications, the station provides a balanced, line-level output signal to a connector on the rear panel. The front panel Stage Announce button activates the output and the Stage Announce relay.

## SIGNALING

Visual “call” signaling attracts the attention of operators who have removed their headsets or turned off their speakers. The station provides individual Call buttons for each channel to signal all stations on the channel(s).

When a remote station operator sends a Call signal, the CS-222’s associated Talk button lights brightly. The Visual Signal circuit is also used to activate the optional remote page feature at other stations.

**SPECIFICATIONS****MICROPHONE PRE-AMP**

(Dynamic Headset Input)

Impedance: 1 k $\Omega$ 

Level: -55 dBv nominal, -10 dBv max.

Frequency Response: 250 Hz - 12 kHz,  
contoured for intelligibility

Limiter Range: 20 dB

Gain from Headset to Intercom Line: +41 dB

**HEADPHONE AMPLIFIER**Load Impedance: 50 - 2,000  $\Omega$ Output Level: > +20 dBv across 600  $\Omega$ 

Distortion: &lt; 0.2% THD @ 1 kHz

Frequency Response: 200 Hz - 18 kHz,  $\pm$  2 dB**INTERCOM LINE DRIVE/RECEIVE  
CIRCUITS**Impedance, Output Load: > 10 k $\Omega$ ,

200 Hz - 10 kHz

Level,

Line: 200  $\Omega$  load

Nominal: -9 dBv

Maximum: +5 dBv before clip

Sidetone Null Capability:

&gt;25 dB, 200 Hz - 10 kHz

Crosstalk, Station-Induced Channel-to Channel:

&gt;60 dB

Noise, S/N Ratio in Listen Channels: &gt;60 dB

**SYSTEM SPECIFICATIONS**

Intercom Line Length: 5,000 ft. maximum

Intercom Line Length for Crosstalk &lt;-52 dB:

500 ft. maximum

Maximum No. of Stations Per Intercom Line: 100

Frequency Response: 150 Hz - 18 kHz,  $\pm$  2 dB**POWER SUPPLY**Output Power: +30 volts DC,  $\pm$  1 V

Output Current: 1 Amp

Reset Current: 1 Amp

Hum &amp; Noise: &lt; -1 mV AC RMS

Station Capacity: 30 headset stations or

10 speaker stations

**REAR-PANEL CONNECTORS**

Intercom: (6) XLR-3M (3 per channel)

Program: (1) XLR-3F

Stage Announce: (1) XLR-3M

Announce Out: SPST terminal block

**REAR-PANEL SWITCHES**

Power On/Off: 1

Termination On/Off: 2

Mic/Line Select For Program Input: 1

**AC POWER REQUIREMENTS**

105 - 125/210 - 250 Volts, 50 - 60 Hz, 60 VA

**DIMENSIONS**

3" H x 8.125" W x 10" D (76 x 206 x 254 mm)

**WEIGHT**

5.2 lbs (2.3 kg)

*All specifications are subject to change without notice.**\* 0 dBv is referenced to 0.775 volts RMS***REMOTE MIC KILL (RMK)**

Pressing the RMK button will turn off the microphone talk circuits of all Clear-Com beltpacks eliminating annoying noise from the open headset microphones.

**SIDETONE**

Sidetone control allows the operator to vary the level of his or her own voice as heard in the headset. The CS-222 provides individual sidetone adjustment for each channel.

**PROGRAM INPUT**

The station accepts a balanced, mic- or line-level program signal for monitoring in the headset and/or mixing the intercom audio on either or both channels. The front panel provides a local Program Monitor volume control and individual Program Send level controls. It also provides a Program Send on/off/interrupt switch for each channel. When interrupt is selected, program is interrupted when the Talk button is pressed.

**POWER SUPPLY AND SUPPLY SYSTEM PROTECTION**

The CS-222 provides visual indication of power supply conditions. In the event of a DC short circuit or current overload, the station's electronic overload protection circuit will shut down the DC output to avoid damage. As soon as the fault condition is removed, the auto-reset circuitry will automatically restore system power – even under full load conditions. There is no need to disconnect stations to allow the power supply to reset.

To increase system capacity, one or more power supplies can be connected in parallel with the CS-222. In such configurations, the main station's "intelligent" power-sensing capability lets the system automatically reset all power supplies after a DC short or AC power loss in the system, no matter how large the system is.

**SIMPLE SET-UP**

The CS-222 connects to remote stations with standard, two-conductor shielded mic cable. With the optional rackmount kit, the main station can mount in a standard 19" equipment rack, requiring only two rack spaces. The CS-222 conforms to the highest standards of reliability and performance, providing trouble-free service over a wide-range of environmental conditions.

**CS-222 BLOCK DIAGRAM**