

HB-702-704 Wall-Mount Remote Intercom Stations

Analog Partyline Systems



Linking
People
Together



HB-702



HB-704

Key Features and Benefits

- Selectable two- or four-channel, full-duplex communication
- Microprocessor controlled logic and switching
- Momentary/latching talk switch with LED
- Visual call signaling with bright LED indicator
- Headset connector with volume control and sidetone adjust
- Use with optional TW or 4-wire circuit boards
- Easy installation and connection

Clear-Com Encore® is a 2-wire analog partyline system with intuitive plug-and-play design and superior “Clear-Com Sound.”

Description

The HB-702 is a two-channel-selectable, full-duplex headset station, able to be mounted into a wall or other surface. The HB-704 is identical, but can access four channels of intercom. These headset stations are ideal for installation in theatrical, performance, broadcast, and industrial facilities - wherever a multi-channel, full-duplex headset communications panel is desired.

Both units mount in a standard U.S. two-gang outlet box. The stations cover excellent speech intelligibility even in high noise environments. Microprocessor-controlled logic plus a set of internal and external controls allow the features of these stations to be tailored to the needs of the user. Electronic switching for the talk button, blue-color LED (on) or amber-color (o), permits momentary or latching operation. A Remote Mic Kill (RMK) signal on the intercom line will turn off the talk function if it is accidentally left on. A red-color LED tracks the incoming call signal, so it can be used for visual cueing.

An associated call button allows the user to place a call signal on the selected intercom line. The standard 4-pin XLR headset jack accommodates Clear-Com and compatible dynamic headsets. A sidetone level control adjusts the amount of the user's voice heard in the headset. An automatic limiter circuit adjusts and limits the microphone output to the intercom line. A two-position switch on the HB-702, and a four-position switch on the HB-704, allow the user to select from the attached intercom channels. Connections to the intercom lines are made via a screw-terminal block, using standard two-wire shielded mic cable.

Either of the stations may be used with the optional TW (two channels on a single mic cable) daughter board. With the TW board, the stations become plug-in compatible with a Clear-Com TW system. The HB-702 may be used with the optional 4-wire board, which creates separate send and receive circuits so that the station may be attached to fiber-optic lines or other audio routing systems with 4-wire connections. The HB-702 and HB-704 are housed in a durable package with a steel front panel.

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Technical Specifications

dBu is an absolute measurement. 0dBu is referenced to 0.775 volts RMS

Headset Microphone Input

Input Type : Dynamic

Input Impedance: $\geq 1K$

Mic Limiter Threshold: $-2dBu \pm 3dB$

Mic Limiter Range: $\geq 15dB$

Program Line Input

Input Impedance: $\geq 5K$

Headset Output

Load Impedance: ≥ 8

Output Impedance: ≤ 25

Output Limiter Threshold: $+5dBu \pm 3dB$

Maximum Output Level before Distortion:
 $\geq 17dBu$

Partyline Output

Off Noise: $< -74dBu$

Output Impedance: $> 10K$

Partyline Input

Crosstalk: $< -60dB$

Max level before Clipping: $\geq 12dBu$

Frequency Response

Headset Mic - Partyline: $300 - 15kHz \pm 3dB$

Partyline - Headset Out: $300 - 15kHz \pm 3dB$

Max Distortion

Headset Mic - Partyline: $\leq 0.5\%$

Partyline - Headset Out: $\leq 0.2\%$

Noise

Headset Mic - Partyline: $< -70dBu$

Max Gain

Headset Mic - Partyline: $41dB \pm 2dB$

Partyline - Headset Out: $\geq 34dB$

Power

Input Voltage Range: 20-30V DC

Input Current (Idle): $\leq 50mA$

Input Current (Max): $\leq 100mA$

Internal Adjustments and Connections

Intercom Line

(HB-702/HB-704): Seven terminal connector

Option Switches: Two DIP switches

Option Board Jumper: Two sets of options jumpers

Front Panel Connectors

Headset: (1) XLR-4M

Front Panel Controls & Indicators

(1) Sidetone control

(1) Talk button

(1) Call button

(1) Channel select switch

(1) Volume control

Environmental

$32^{\circ} - 122^{\circ}F$ ($0 - 50^{\circ}C$)

Dimensions

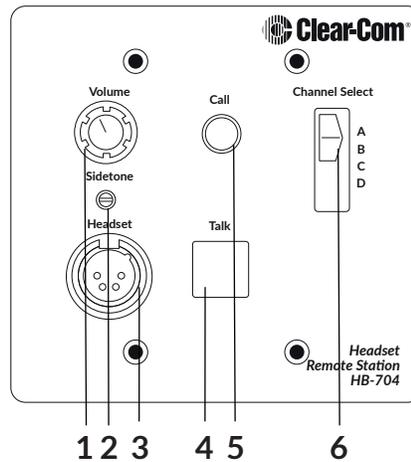
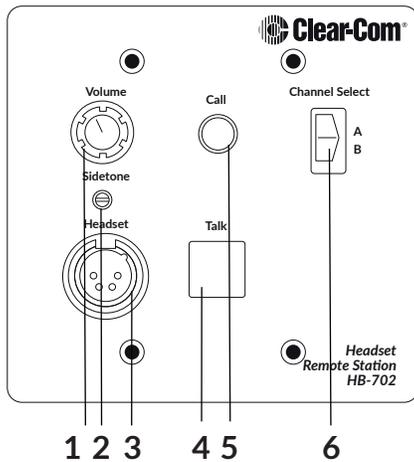
$4.625 \times 4.5 \times 1.75$ in (WxHxD)

($117 \times 114 \times 44$ mm)

Weight

0.46lbs (0.21kg)

Line Drawings



Legend

HB-702

1. Volume control
2. Sidetone control
3. Headset connector
4. Talk button and light
5. Call button and light
6. Channel switch

HB-704

1. Volume control
2. Sidetone control
3. Headset connector
4. Talk button and light
5. Call button and light
6. Channel switch



[www.clearcom.com/
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Order Code

HB-702

HB-704