

R E M O T E S T A T I O N



KB-112 PUSH-TO-TALK SPEAKER STATION

F E A T U R E S

- Built-in electret mic with adjustable sensitivity
- Wide frequency response speaker
- Tamper-resistant, screwdriver-adjustable speaker volume control
- Programmable operation allows local or remote, hands-free control of speaker and mic
- "Mic On" LED indicator
- Visual Call Signalling; also activates remote control
- External audio input allows program monitoring
- Portable or permanent installation
- Interconnects with standard mic cable



D E S C R I P T I O N

The KB-112 is a versatile single-channel Remote Station that provides two-way communicating ability. Compatible with all Clear-Com intercoms, the KB-112 is ideal in applications where a headset is inconvenient (such as Dressing Rooms, Front Lobbies, etc). It has a wide frequency response speaker and a push-to-talk electret mic.

The KB-112 features excellent speech intelligibility in all high- and low-noise environments; mic sensitivity is adjustable to ensure clarity. The speaker delivers crisp sound pressure levels high enough to be heard in the noisiest surroundings.

The KB-112 features "control logic" CMOS circuitry for programming how the station will be used. This allows remote or local control (or both) of the speaker and mic. A bank of dip switches on the electronics module are pre-set by the operator for desired operation. The remote operation of the KB-112 can be activated by all other Clear-Com Stations that have the visual signalling feature.

The KB-112 front panel contains a red LED that lights whenever the microphone is active. Especially helpful when the KB-112 is set up for remote control, the LED shows that another station operator has

turned on your mic.

Other KB-112 features are intercom volume control, Visual Call Signal button, and amber Call lamp.

The KB-112 provides an access point on its terminal strip for input from an external audio source. The station accepts an unbalanced, line-level signal from audio equipment such as mic mixers or portable amps, and mixes it with the intercom output from the speaker.

The KB-112 is a custom-mounting station; its no-glare charcoal-brown, aluminum front panel installs in a cut-out in a wall or console, or inside a 6" x 8" Nema Type 1 box.

Standard mic cable connects the KB-112 to the intercom system.

ACCESSORY

P-Box

For portable applications, you can install it in the Clear-Com "P-Box," a sturdy, lightweight aluminum enclosure with a sloped front, walnut side panels, and a carry strap. Provides 3-pin input and extension connectors.

SPECIFICATIONS

AMPLIFIER DESIGN:

Solid-state, integrated circuit amplifiers which include a mic preamp, speaker power amp, signalling circuitry, and logic control circuitry. Current-limited with short-circuit and reverse polarity protection.

MIC PREAMPLIFIER

Frequency Response: 200-12kHz, contoured to enhance speech intelligibility

Mic Preamp Gain: 25dB, low sensitivity; 31.5dB, high sensitivity

Mic Type: electret

SPEAKER AMPLIFIER

Speaker Type: 3" round, 16Ω

Power Output: 2 watts into 16Ω

Frequency Response: 100Hz-15kHz, ±3dB

Signal-to-Noise: 75dB

Equivalent Input Noise: 121dB

Line-to-Speaker Gain: 30.5dB

Distortion: 0.5% THD at 1kHz

Speaker Level: 98dB at 3 feet

GENERAL SPECS

Station Bridging Impedance: 16kΩ (200-10kHz)

Power Requirements: 17 ma quiescent, 60 ma average talk, 60 ma signalling, 200 ma short circuit

Voltage Range: 12-32 volts, 28 volts nominal

Line Level: 1dBv max

Signalling Voltage: 11 volts DC on audio line

Call Light Sensitivity: 4 volts

Program Input Impedance: 500kΩ

Program Input Level: .7v for max output

CONNECTORS

KB-112 to Line: 5-screw terminal block

KB-112 OPERATING MODES

Normal: Speaker is normally on. Mic is locally activated by momentary button on front panel.

Remote Page: Mic is activated locally. Speaker is off except when turned on by remote control in order to page the KB-112 operator.

Remote Listen: Speaker is normally on. Mic is turned on locally or by remote control, which allows the KB-112 operator to talk hands-free.

Remote Listen-Page: Mic remains on for hands-free talking. Speaker is normally off. Another Station can turn off the mic and turn on the speaker for paging the KB-112 operator.

Specifications subject to change without notice
*0 dBv is referenced to 0.775 volts rms.

ARCH/ENG SPECS

The intercom station shall be a custom-mounting, 5/32" aluminum panel painted charcoal-brown. It shall be a single-channel intercom speaker station with a built-in, push-to-talk electret microphone. It shall have the controls and terminal strip necessary to interface to the standard Clear-Com system. It shall have a 5-screw terminal strip on the PC Board to allow individual intercom signal, external audio signal, and power to be brought to the intercom. The intercom shall be able to mount inside a 6" by 8" Nema Type 1 electrical box. The intercom's speaker shall be a 3" round, 16Ω type. The intercom's controls shall include an intercom volume adjustment, momentary "mic-on" push-button, Visual Call Signal button and amber "Call" light. The intercom shall contain circuitry that enables the speaker and/or the mic to be activated by the signal circuitry generated at another intercom station in the system. The intercom electronics shall consist of a mic preamplifier, power amplifier, and signalling circuit. Contained within the electronics shall be reversible control logic circuitry. The intercom shall be current-limited and short-circuit-proof and shall have reverse polarity protection. It shall be field-serviceable and replaceable. The intercom bridging impedance shall be greater than 16kΩ over a frequency response of 200Hz to 10kHz. The intercom shall use no transformers for connecting to the intercom line. The frequency response and impedance of the intercom shall not change as other stations join or leave the system. The intercom shall have adjustable mic sensitivity of

±7dB. The mic preamplifier shall have an overall response of 20Hz-12kHz, contoured to enhance speech intelligibility. The speaker amplifier shall have a response of 100Hz to 15kHz. The power amplifier shall be capable of delivering 2 watts into 16Ω. The signal-to-noise ratio shall be 75dB with an equivalent input noise of 121dB. The intercom shall operate from a power source of 12-32 volts and shall draw no more than 17 ma quiescent. The dimensions shall not exceed 8.6" x 6.5" x 1.43" deep. The weight shall not exceed 1.6 lbs. It shall be called a Clear-Com KB-112.

The intercom station shall also be convertible to a single-channel portable type. It shall have the same specification and functions as above. It shall mount in a portable, sloped-front enclosure constructed of .050 cold-rolled steel, with a carry strap and rubber feet. It shall have two 3-pin XLR-type connectors, one male and one female, for intercom interconnection. The enclosure shall be called a Clear-Com P-Box.

KB-112 BLOCK DIAGRAM

