Clear-Com ®

intercom systems

Closed circuit Intercom Systems
for high noise environments

Simplicity, reliability and performance combined in an application-oriented design

Overall System

Clear-Com is a distributed amplifier intercom system. Each station contains its own mic preamp and power amplifier. The stations are connected together with two-conductor shielded microphone cables. Connectors are XLR-3 type. One wire carries the audio information, and the other wire carries the dc power to all stations, with the shield acting as a common ground. This arrangement allows stations to be switched IN and OUT of the system without disconnecting power to the station. The Main Stations provide the dc power (30 volts) and the line termination (200 ohms) for the system.

Remote Stations

A wide dynamic range, combined with a contoured frequency response, gives Clear-Com its high intelligibility under the most difficult conditions. This wide dynamic range also eliminates the need for limiting in the mic preamplifier. Noise attenuating headsets and noise cancelling microphones, combined with anti side tone circuitry, reduce acoustical noise pickup and minimize feedback. The microphone preamp applies the signal to the line at a nominal −15dB level (0dB* maximum). This level is high enough to minimize noise pick-up, yet low enough to prevent crosstalk with microphone signals when using multi-pair cable. The headphone amplifier can supply 10 volts RMS (+20dB) to the headset while drawing only 20 milliamperes from the supply. This translates into 110dB SPL with any of our specified headsets. The side tone adjustment will allow up to 25dB reduction of acoustical pickup in the headset.

All stations have reverse polarity protection to prevent damage in the event of an improper hookup. Although the stations are designed to work at a nominal

*0dB is referenced to 0.775 volts RMS throughout this catalog.

28 volts, satisfactory operation can be obtained with dc voltage as low as 18 volts, allowing for long cable runs. Several different speaker stations are available in either wall mount, rack mount or portable versions. These have four watt amplifiers and can be used for paging or as a complete intercom station. The "R" series of speaker stations are ideal for paging since their speakers can be turned ON from the Main Station or from other Remote Stations by activating their call button. A wall mounted microphone (WP-200) is also available for permanent installations.

Main Stations

Clear-Com systems are available in single channel, two channel or multi-channel configurations. The single channel system can be powered from our PS-3000 Power Supply or from our CS-100 Main Station, which has all the provisions of a Clear-Com remote station in addition to a power supply, an auxiliary program input, and a master gain control. The two channel system requires our CS-200 Main Station, which has all the features of the CS-100 plus a selector switch to access either or both channels (while keeping the channels separate). Signaling is also provided to and from both channels. Our multi-channel Switchboard (8 channels standard), when powered by our PS-3000 Power Supply or the equivalent, can power up to 50 remote stations. With the addition of our 20-station or 40-station Slide Matrix, an almost infinite combination of intercom systems can be created and controlled from one central location.

Signaling

Eleven volts dc is added to the audio line when the call button is pressed. The lamp drive amplifier then senses the dc voltage and subsequently turns ON the call light. The call light driver sensitivity is 1 to 4 volts, and it draws only 100 microamperes, thus leaving a large safety margin for line losses.

System Specifications

AUDIO LINE

Main Station Impedance
200 ohms nominal; 570 ohms maximum with two (2) stations; 90 ohms maximum with 30 stations (6dB drop in level)

Signal Level
−15dB* nominal; 0dB before clipping

Remote Station Impedance
2.7 k ohms, bridging

POWER SUPPLY

Voltage Range
18 to 32 volts dc (28 volts nominal)

Hum and Noise
32 millivolts

PS-3000 Output Current
0 to 2.5 amps @ 32 volts; current foldback at 2.5 amps

CS-100 or CS-200 Output Current
2 amps, unregulated

SYSTEM DC CURRENT (Per Station)

	RS-100 or MR-102	KB-100 or KB-111
Quiescent	7 ma	20 ma
Average Talk	10 ma	60 ma
Signaling	40 ma	40 ma

OPERATING CONDITIONS

Maximum Distance
5,000 feet, #22 wire, max. 30 pf/foot

Maximum Cable Resistance
100 ohms (maximum for remote station stability)

Frequency Response (Worst Case)
150 to 10kHz, ± 3dB, with 5,000 feet of cable @ 15mfd

AUXILIARY INPUT

Input Level
−20dB nominal, unbalanced

Frequency Response
150 to 10kHz, ± 3dB

Load Impedance
10k ohms, bridging

Signaling Voltage
11 volts dc (nominal); 4 volts dc minimum to activate Call light

Call Light Turn-On Current
100 microamperes

INPUT & OUTPUT CHARACTERISTICS

Type of Headset
High Impedance (200 to 1,000 ohms) headphone and 200 ohm dynamic mic

Headphone Output
150 milliwatts into 600 ohms

Speaker Output
2 watts into 8 ohms

Line Connection
XLR-3 male and female, wired in parallel for "loop through" connections.

CS-100 Single Channel Main Station

The CS-100 is a single channel portable or fixed MAIN STATION. It includes:

POWER SUPPLY for up to 40 REMOTE STATIONS.

INTERCOM STATION with two **HEADSET CONNECTORS.**

HEADSET VOLUME CONTROL affects the Headset earpiece only, not the mic.

AUXILIARY INPUT for a line-level program or music source.

AUXILIARY VOLUME CONTROL affects the level of the Aux input only.

CALL Button activates Call lights on all intercom stations connected to the same channel.

CALL Light turns on when your station is being signaled.

REMOTE CONNECTORS (6 in parallel) are for incoming Remote Station cables.

MASTER GAIN CONTROL sets the overall system volume.

CS-100K Rack Mount Single Channel Main Station

The CS-100K is a single channel MAIN STATION with a black anodized front panel made for 19" rack mounting. The CS-100K's functions and features are identical to the CS-100.

CS-200 Dual Channel Main Station

The CS-200 is a dual-channel fixed or portable MAIN STATION. It is ideal for a theatre setup since a director or producer can talk to a sound crew on Channel A or a lighting crew on Channel B or to both crews (Channel A + B) at the same time. Yet the two channels remain separate so that the sound crew and lighting crew cannot talk to each other. The CS-200 includes:

POWER SUPPLY for up to 40 REMOTE STATIONS. (REMOTE STATIONS can be distributed as needed between the two channels.)

INTERCOM STATION with two **HEADSET CONNECTORS.**

HEADSET VOLUME CONTROL controls HEADSET only, not mic.

CHANNEL SELECT SWITCH allows HEADSET access to either or both intercom channels.

AUXILIARY INPUT

AUXILIARY VOLUME CONTROL

Single **CALL Button** individual **CALL Light** for each intercom channel — CALL Button activates CALL Light on all intercom stations on the channel selected by the CHANNEL SELECT SWITCH.

6 REMOTE CONNECTORS - three for intercom Channel A, three for intercom Channel B.

2 MASTER GAIN CONTROLS - one for intercom Channel A, one for intercom Channel B.

CS-200K Rack Mount Dual Channel Main Station

The CS-200K is a dual channel MAIN STATION with a black anodized front panel made to mount in a standard 19" electronic equipment rack. The CS-200K's functions and features are identical to the CS-200.

PS-3000 Power Supply

The PS-3000 is a single channel rack mount power supply designed to function in place of a standard MAIN STATION when there is no need for an intercom (HEADSET) station at the central location. The PS-3000 is fully regulated and short circuit protected and includes:

ILLUMINATED POWER SWITCH

LED SHORT CIRCUIT INDICATOR

PROGRAM LEVEL CONTROL

MASTER GAIN CONTROL

AUXILIARY INPUT

4 REMOTE CONNECTORS for up to 40 REMOTE STATIONS.

INTERNAL CROWBAR CIRCUIT to protect REMOTE STATIONS.

Main Stations Specifications

Model & Description
CS-100: single channel, portable or fixed installation.
CS-100K: single channel, rack mount.
CS-200: dual channel, portable or fixed installation.
CS-200K: dual channel, rack mount.

Amplifiers
All Main Station amplifiers are current limited, short-circuit protected and have a specially shaped frequency response from 250Hz to 12kHz.

Headset Connectors
All Main Stations have an internal intercom station with two D4M headset connectors (4-pin male).

Output Connectors
Single channel models have six D3M output connectors (3-pin male); dual channel models have three D3M output connectors per channel (6 total).

Cable
2-conductor shielded microphone cable, 22 ga. minimum; up to 5000 ft.

Remote Station Capacity
Main Stations will support up to 40 RS-100A or MR-102 Remote Stations, or up to 15 KB-100 or KB-111 Remote Stations.

Auxiliary Input
D3F connector (3-pin female) on front panel. −20dBm nominal.

Headset Output Level
+20dBm

Dimensions & Weight
CS-100: 9.5 x 4 x 8.5 inches
(23.4 x 10.2 x 21.6 cm);
6 lbs. 15 oz. (3.15 kg).

CS-100K: 3.5 x 19 x 9 inches
(8.9 x 48.3 x 22.3 cm);
6 lbs. 15 oz. (3.15 kg).

CS-200: 9.5 x 4 x 8.5 inches
(23.4 x 10.2 x 21.6 cm);
6 lbs. 15 oz. (3.15 kg).

CS-200K: 3.5 x 19 x 9 inches
(8.9 x 48.3 x 22.3 cm);
6 lbs. 15 oz. (3.15 kg).

Power Requirements
115-230V AC, 80 Watts (all Main Stations).

Power Supply Specifications

Model & Description
PS-3000: single channel, rack mount power supply only.

Protection Circuitry
Short circuit protected (current foldback), and internal crowbar circuit to protect remote stations.

Output Connectors
Four D3M connectors (3-pin male).

Auxiliary Input
D3F connector (3-pin female) on front panel. −20dBm nominal.

Remote Station Capacity
Will support up to 40 RS-100A or MR-102 Remote Stations, or up to 15 KB-100 or KB-111 Remote Stations.

Dimensions & Weight
9.5 x 4 x 8.5 inches
(23.4 x 10.2 x 21.6 cm);
6 lbs. (2.72 kg).

Power Requirements
115-230VAC, 60 Watts

Remote Stations Specifications

Model & Description
RS-100A: Brushed stainless steel "Belt-Pack."
MR-102: 4" conduit-box mounting.
KB-100: "King Biscuit", wooden case, attached hand-held mic, internal 4" speaker.
KB-111: Permanent mounting, 4-pin Headset connector and internal 4" speaker.
KB-111P: Similar to KB-111 but built into its own carrying case of white enameled 16 ga. steel.

Amplifier Type
Remote Station amplifiers are solid-state, plug-in modules. Current limited and short circuit protected, they have a specially shaped frequency response from 250Hz to 12kHz.

Headset Output Level
RS-100A & MR-102, +20dBm; KB-100, KB-111 and KB-111P, 2 watts @ 8 ohms.

Side Tone
RS-100A, KB-100 & KB-111 have adjustable side tone.

Headset Connectors
All Remote Stations have a D4M Headset connector (4-pin male); KB-100 has hard-wired, hand-held mic.

Input/Output Connectors
RS-100A, KB-100 & KB-111P have a D3F input and a D3M output connector (3-pin female and male); MR-102 & KB-111 have screw terminals. The input can come from a Main Station or another Remote Station; the output can feed another Remote Station.

Compatibility
All Remote Stations are compatible with all Main Stations.

Dimensions & Weight
RS-100A: 2.75 x 4.9 x 1.6 inches
(6.9 x 12.4 x 4.1 cm);
1 lb. (0.45 kg).

MR-102: 4.5 x 4.5 x 2.5 inches
(11.3 x 11.3 x 6.4 cm);
9 oz. (0.26 kg).

KB-100: 6.5 x 6 x 4.75 inches
(16.5 x 15.2 x 12.1 cm);
3 lbs. (1.36 kg).

KB-111: 5.25 x 7.5 x 2.5 inches
(13.3 x 19.1 x 6.4 cm);
2 lbs. 12 oz. (1.25 kg).

KB-111P: 6 x 3 x 7-3/4 inches
(15.2 x 7.6 x 19.7 cm);
3 lbs. 12 oz. (1.7 kg).

Power Requirements
All Remote Stations are powered by the system Main Station through the same connecting cable that carries the audio.

RS-100A Portable Remote Station

The RS-100A is a, portable REMOTE STATION housed in a lightweight, brushed stainless steel case for strength and long term appearance. It can be attached to the user's belt with its sturdy, stainless steel clip. Compatible with any Clear-Com Headset, the RS-100A will drive two headsets with the use of a suitable Y-cord. The unit has a call light, and has adjustable side tone, which enables the user to vary the amount of his or her own voice in the headset earpiece.

HEADSET CONNECTOR 4-pin (D4M) for any Clear-Com headset or handset.

OFF-MIC-CALL SWITCH that turns the Headset mic ON and OFF or activates the Call lights of all intercoms connected to the same channel.

HEADSET VOLUME CONTROL affects the Headset earpiece only, not the mic.

INPUT CONNECTOR for a cable from a MAIN STATION, a POWER SUPPLY or another REMOTE STATION.

EXTENSION CONNECTOR for a cable to the next REMOTE STATION.

MR-102 Remote Station

The MR-102 REMOTE STATION is mounted on a brushed stainless steel panel designed to fit in a standard 4" square conduit box for fixed installations. Two headsets may be driven with the use of a suitable Y-cord.

HEADSET CONNECTOR 4-pin (D4M) for any Clear-Com headset or handset.

HEADSET VOLUME CONTROL affects the Headset earpiece only, not the mic.

COMBINATION MIC OFF-ON/CALL SWITCH & CALL LIGHT turns the mic ON and OFF or activates the Call lights of all intercom stations assigned to the same channel.

TERMINAL STRIP for intercom cables leading from the MAIN STATION, from other REMOTE STATIONS and/or to the next REMOTE STATION.

KB-111 Remote Station

The KB-111 REMOTE STATION is a self-contained enclosure with a brushed stainless steel front panel, designed for fixed mounting in a wall or other permanent location. It has provisions for a handset or headset plus a built-in speaker. A combination CALL light and CALL/PRIVATE/SPEAKER switch allows for paging or, by muting the speaker, for private communication. A side tone adjustment avoids feedback by setting the amount of microphone signal fed to the speaker. Two headsets may be driven with the use of a suitable Y-cord.

AMPLIFIER module. 4-watt solid-state, with adjustable side tone.

HEADSET CONNECTOR for any Clear-Com headset or handset.

COMBINATION CALL/PRIVATE/SPEAKER SWITCH & CALL LIGHT turns the Speaker ON & OFF or activates the Call lights of all intercom stations connected to the same channel.

VOLUME CONTROL affects the Speaker volume and the Headset or Handset earpiece volume.

TERMINAL STRIP for intercom cables leading from the Main Station, from other Remote Stations and/or to the next Remote Station.

KB-111P Remote Station

The KB-111P REMOTE STATION is identical to the KB-111 except that the wall mount box is replaced with a portable, white-enameled steel box having feet, a handle, input/output connectors, and an external side tone adjustment.

KB-100 King Biscuit Remote Station

The KB-100 KING BISCUIT REMOTE STATION has a permanently attached hand-held mic and a weatherproof speaker. The enclosure is all-wood and walnut-veneered enclosure for appearance and maximum sound fidelity. The KB-100 has a side tone adjustment that prevents the microphone signal from appearing in the speaker. This avoids feedback, even if the microphone Push-to-Talk switch is locked in the Talk position.

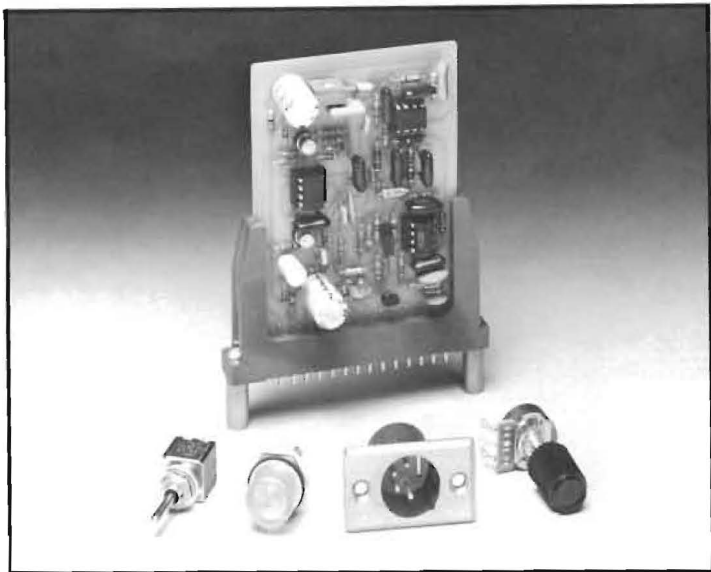**AMPLIFIER** module, 4-watt solid-state, with adjustable side tone.

SPEAKER VOLUME CONTROL

CALL Button activates the Call lights of all intercom stations connected to the same channel.

CALL Light

INPUT CONNECTOR for cables from the MAIN STATION, or from other REMOTE STATIONS.

EXTENSION CONNECTOR for cables to other REMOTE STATIONS.

PC-101 Remote Station Module Kit

The PC-101 consists of a remote station electronic module and all of the necessary controls. It is designed for customized installation, such as mounting in mixing consoles, video control rooms, or theatre stations. The PC-101 has all the functions of a standard Clear-Com remote station, plus one more; it allows a line level program signal to be separately mixed into the remote station output. All connectors appear at the terminals of a combination 15-pin edge connector and card holder (supplied).

KIT CONSISTS OF:
- PC Board
- Card Guide & Edge Connector
- Volume Control & Knob
- Combination Microphone ON/OFF Switch
- Signal Lamp Holder & Bulk
- D4M Headset Connector

SPECIFICATIONS: Same As Clear-Com Model RS-100A

KB-111R Paging Remote Stations

The KB-111R series is designed for paging; the units have a speaker which is activated by pushing the call button of another intercom station. At all other times, the speaker is OFF, facilitating private conversation. Provisions are available for two-way communication with other stations via a plug-in microphone, headset or handset; an optional wall mount microphone (WP-200) is also available. Headset operation is not affected by the paging function. All units include a microphone ON/OFF switch, call light, headset volume control, and side tone adjustment.

SPECIFICATIONS

KB-111R: Same as KB-111, except speaker ON/OFF switch is defeated.

KB-111PR: As above, but portable version.

KB-111KR: Same as KB-111K, except there is no speaker volume control or switch.


KB-111K Remote Speaker Station *IN RACK. One in JEFF. LAB*

The KB-111K is a two-channel intercom station having a speaker incorporated into its black-anodized front panel. The 3-1/2" high unit is designed for mounting in a standard 19" equipment rack. It features separate volume controls for the built-in speaker and for the headset output. Provisions are available for two-way communication with other stations via a plug-in microphone, headset or handset. An optional wall-mount microphone (WP-200) is also available. A convenient side tone control on the front panel prevents feedback and unwanted pickup when a microphone or headset is used.

SPECIFICATIONS

Amplifier Design
Solid-state integrated circuit amplifier with plug-in module. Current limited with short-circuit and reverse-polarity protection.

Speaker
3" x 5", weatherproof

Speaker Output Power
4 watts (continuous average sine wave)

Line Connectors
One each, Switchcraft D3M & D3F

Headset Connector
Switchcraft D4M

Type of Headset
High Impedance (200 to 600 ohm) headphone; Low Impedance (200 ohm) dynamic microphone.

Dimensions
3-1/2" (8.9cm) x 19" (48.3cm) x 5" (12.7cm)

Weight
3 pounds, 4 ounces (1.48kg)
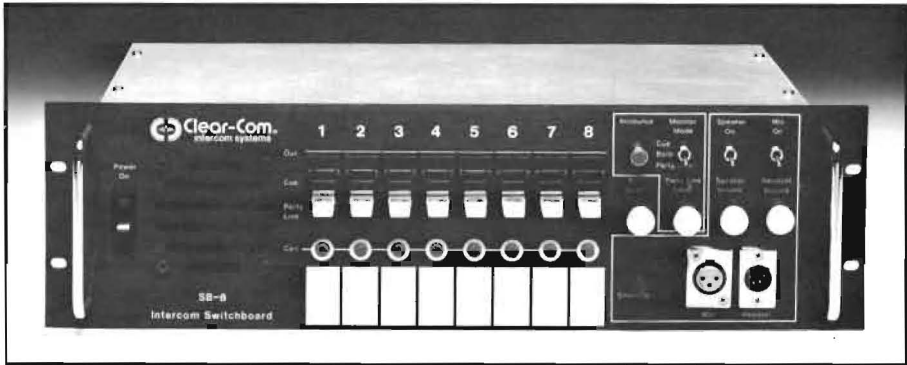
SB-8 Switchboard Monitor

The SB-8 Switchboard Monitor creates 8-channel intercom capability, allowing for private or group communications between the switchboard and remote stations. There are three modes of operation, plus an announce feature that provides for paging and over-rides all preset conditions. A built-in speaker allows monitoring with or without a headset. Our exclusive Clear-Com signaling circuit flashes lights on the remote stations for attracting the operator's attention.

Mode switching is accomplished with 3-way, 3-color illuminated lever switches that provide fast, visual confirmation of the selected mode. The SB-8 makes it impossible to miss a call when a channel is set to the OUT mode; if a call signal is received, the channel's light continues to flash until the stage manager/operator acknowledges the call. The SB-8X 8-Channel Extender is available to add more channels as required (8 per Extender). Modular construction with plug-in circuit boards and a 14 ga. aluminum chassis make the SB-8 and SB-8X rugged and field serviceable. Connections to remote stations are made through standard XLR-3 mic cables. The SB-8 takes its power for driving the intercom system from a CS-100 or CS-200 Main Station or from a PS-300 Power Supply; the SB-8 powers call lights from its own supply.

FEATURES:
- Compatible with all existing Clear-Com systems.
- 8-channels standard; SB-8X Expander for 16, 24 or more.
- 200 station capability using the appropriate power supply.
- Illuminated, 3-position switches select operating mode:
    - OUT — Disconnects channel from switchboard.
    - CUE — Stage manager/operator can communicate to channels in CUE, but channels cannot communicate with each other.
    - PARTY LINE — Enables communication between all channels switch to PL mode and with stage manager/ operator.
- External program feeds to all channels.
- Announce function mutes all stations for priority calls.

SPECIFICATIONS
Power Requirements
115/230 volts AC, 50-60Hz, 11 VA
Dimensions
19" wide (48.3cm) x 5-1/4" high (13.3cm) x 9" deep (22.9cm)
Weight
12 pounds (5.5kg)
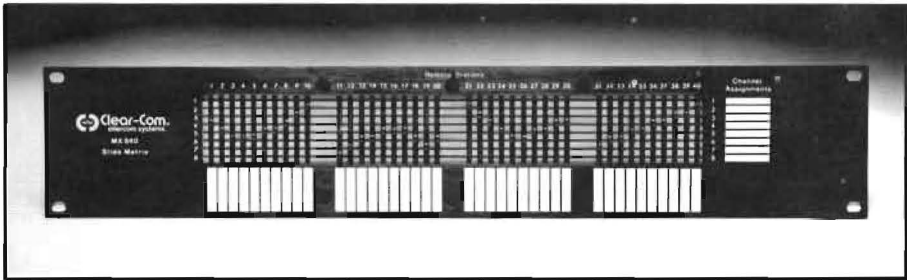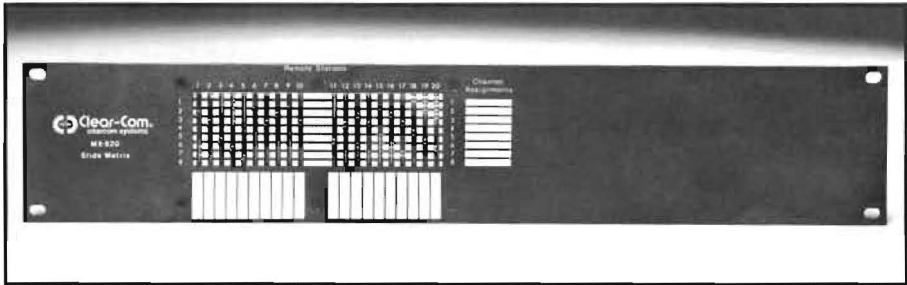
MX-820 & MX-840 Slide Matrix

The MX-820 and MX-840, respectively, are 20 and 40 station by 8 channel Slide Matrixes. They enable you to pre-assign up to 20 (or 40) intercom stations to any one of 8 channels when used in conjunction with the SB-8 Switchboard Monitor. The Matrix eliminates tedious job of patching and un-patching microphone cables when your intercom requirements change. The MX-820 and MX-840 are passive devices which require no external power or amplifiers, and are therefore easy to install. The units are ideal for threatres, colliseums, TV studios, etc. — anywhere that extensive intercom requirements must be changed instantly.

Either Matrix, MX-820 or MX-840, also can be used with the CS-200 Main Station to pre-assign stations to either one of two channels. The MX-820/840 measures 19" x 3-1/2" x 2-1/4" deep (48.3 x 8.9 x 5.7cm).


BA-1 In-Line Audio Isolator & Remote Powering Unit

The BA-1 is a unique accessory that will block the audio coming down the interconnect cable in which it is inserted while it still allows dc power to flow. Any REMOTE STATIONS past the BA-1 will then become an isolated intercom system. Thus, with the BA-1, any Clear-Com MAIN STATION will power two or more simultaneous and independent conversations.

SPECIFICATIONS
Voltage Range 18V to 30V dc
Dimensions 3" (7.6cm) diameter Switchcraft barrel connector
Connectors Isolated line, A3M; Input, A3F
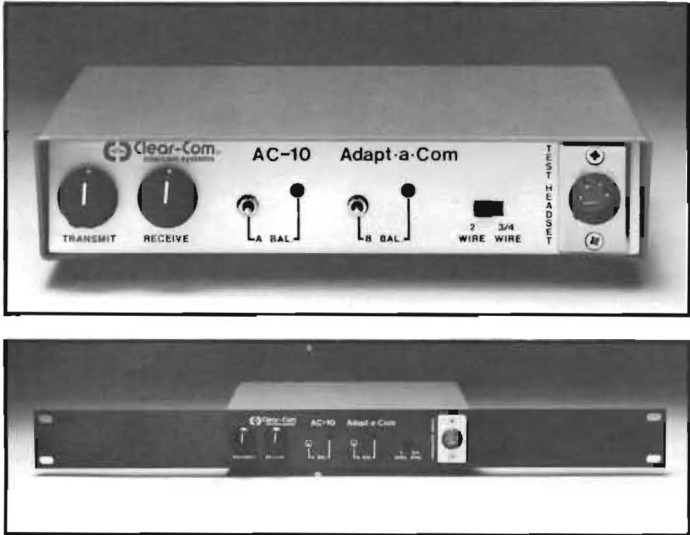
AC-10 ADAPT-a-COM

The AC-10 Adapt-a-Com is a universal adapter which enables Clear-Com to be interfaced with any other intercom or communications link. Installation and setup are simplified with the use of built-in test tone and balancing circuits.

When existing non-Clear-Com installations are being upgraded to Clear-Com equipment, portions of the older system can be retained. Since Adapt-a-Com works in 2-, 3- and 4-wire systems, it virtually guarantees compatibility with any house intercom equipment; the unit is a must for TV, film or sound reinforcement intercom systems.

Because it will simulate a carbon mic, Adapt-a-Com can be plugged into the headset jack on a TV camera, control unit, or other 2-wire system. Adapt-a-Com operates with telephone company and competitive model 3-wire intercoms, facilitates on-line intercom via standard telephone systems, and aids in direct communication between the studio and remote locations via 2 or 4 wire dedicated TEL. CO. pairs.

TRANSMIT & RECEIVE GAIN CONTROLS adjust level going from Clear-Com to the other system, and coming from the other system to Clear-Com.

TRANSFORMER ISOLATED INTERFACE for full protection.

NO POWER SUPPLY NEEDED; powered by a standard interconnect cable from the Clear-Com system.

SPECIFICATIONS

Frequency Response
±3dB, 100Hz — 15kHz

Load to Clear-Com
High Impedance (bridging)

Interface Impedance
In 2-WIRE mode, external unit "sees" 1100 ohms across AC-10. In 3/4-WIRE mode, transmit output impedance is 200 ohms, and receive input impedance is 500 ohms (actual).

Test Headset Output
D4M drives 300-ohm or higher-A phones.

Maximum Loop Gain
10dB Overall

Transmit Output
+8dBm maximum into 600 ohms (2-wire mode)
+4dBm maximum into 600 ohms (3/4-wire mode)

Input/Output Connectors
Terminal strip for interface to other systems; D3F (3-pin female) for interface to Clear-Com.

Dimensions & Weight
1.75" (4.5cm) x 7.5" (19.1cm) x 4.75" (12.1cm); 2 lbs. (0.91kg)

Option
1.75" x 19" black anodized rack mount enclosure; specify Model AC-10K.

WP-1 & WP-2 Wall Plates

The WP-1 is a single-channel, brushed stainless steel wall plate that provides an alternate means to interconnect Clear-Com MAIN & REMOTE STATIONS. The unit has a D3M 3-pin male audio connector, and is designed to be installed in a standard electric conduit box. Because it enables 2-conductor shielded cable to be routed inside walls, conduit, etc., and brought out to its convenient connector, the WP-1 is ideal for permanent installations in theatres, coliseums, convention centers, etc. . . wherever multiple outlets would be convenient.

The WP-2 allows any Clear-Com REMOTE STATION to function as a 2-channel intercom. Two different intercom lines (such as Channel A and Channel B from a CS-200) may be wired to the WP-2 inputs. A flip of the A-B selector switch, and the Remote Station user can talk and listen over either channel.

SPECIFICATIONS

Dimensions
4.5" high (11.4cm) x 2.75" wide (6.9cm) (both units)

WP-200 Wall Mount Microphone

The Clear-Com WP-200 Wall Mount Microphone is a dynamic omnidirectional microphone mounted in a brushed stainless steel wall plate. It is an ideal companion for the KB-111 series speaker remote stations. The Wall Mount allows communication when a headset is not necessary such as control rooms, dressing rooms, etc.

SPECIFICATIONS

Microphone Omnidirectional dynamic
Impedance 200 ohms
Output Level —56dB
Frequency Response 200 to 5,000Hz

CC-240 ("Double Muff") and CC-75 ("Single Muff")

The CC-240 and CC-75 Headsets include:

EARPHONES, Wide-Range dynamic, with an adjustable headband.

SOUND-SEAL cushions for comfort and improved intelligibility.

DYNAMIC, NOISE-CANCELLING MICROPHONE on an adjustable boom.

BOOM-ACTIVATED MIC SWITCH turns the mic OFF when the boom is in the upright position.

5' CORD with A4F Connector. Extensions up to 15' acceptable.

PH-7

High fidelity, double muff headset with improved isolation of outside noise. This is an ultra-high quality headset for critical applications.

NOTE: Another usable headset for special applications is the Shure SM-12, lightweight, miniature unit.

HS-6 IN RACK

The HS-6 is a telephone-style handset with high-output earphone, denamic mic, push-to-talk switch and A4F connector on a 6' coil cord. The HS-6 includes a Handset Wall Hanger, and is compatible with all Clear-Com intercom stations.

CC-240, CC-75, PH-7 & HS-6 Specifications

Model & Description
CC-240: dual muff with boom mic.
CC-75: single muff with boom mic.
PH-7: double muff with boom mic, ultra wide range response, high noise isolation.
HS-6: telephone-style handset with push-to-talk switch and handset hanger.

Earphones
CC-240 & CC-75 have wide-range dynamic earphones with sound seal cushions.
PH-7 has ultra wide-range dynamic earphones, and attenuate external noise by 30dB @ 1kHz.
HS-6 has a dynamic earpiece with integral water barrier.

Frequency Response (±3dB)
CC-240 & CC-75: 250Hz to 12kHz
PH-7: 30Hz to 15kHz
HS-6: 100Hz to 6kHz

Maximum Output
CC-240 & CC-75: 102dB SPL
PH-7: 118dB SPL
HS-6: 113dB SPL

Microphones
CC-240 & CC-75: noise-cancelling dynamic boom mic with boom-activated ON-OFF switch.
PH-7: noise-cancelling dynamic boom mic.
HS-6: dynamic cartridge with integral water barrier.

Connectors
D4F 4-pin female connector.

Cables
CC-240 & CC-75: 5' straight cord
PH-7: 6' coil cord
HS-6: 6' coil cord

Remote/Main Station Compatibility
All Headsets and Handsets are compatible with all Main Stations and all Remote Stations (except for the KB-100, which does not interface for headset or handset use).

Weight
CC-240: 1 lb. (0.45 kg)
CC-75: 14 oz. (0.39 kg)
PH-7: 1 lb. 9 oz. (0.71 kg)
HS-6: 13.5 oz. (0.38 kg)

DT-108 Single-Muff Headset

The DT-108 is a single-muff headset incorporating a broadcast quality, noise cancelling boom microphone and a wide frequency response headphone. The unit is for use in high noise and recording applications. The headset is extremely comfortable to wear, thanks to its foam padded headband.

SPECIFICATIONS

Microphone
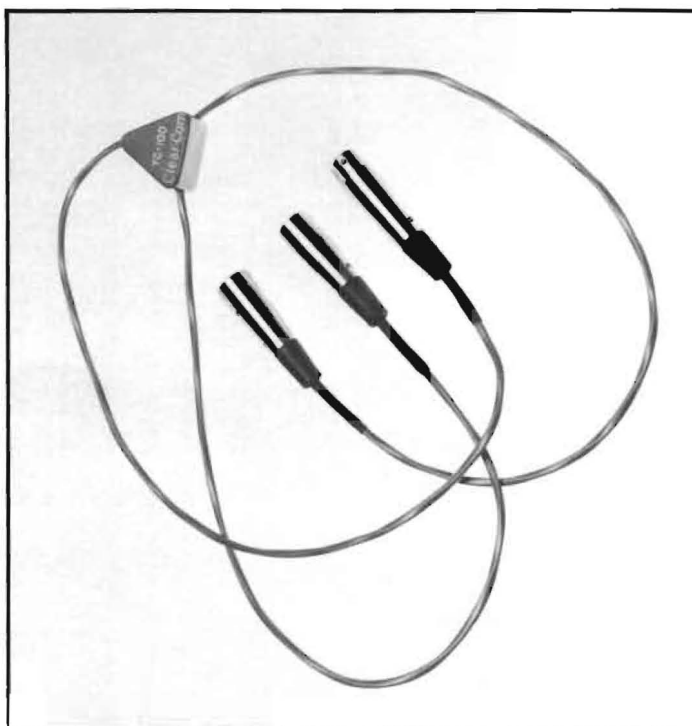Impedance, 200 ohms; Noise Cancellation, 30dB; Frequency Response, 40—20,000Hz

Headphone
Impedance, 400 ohms; Frequency Response, 30—20,000Hz; Sensitivity, 122dB SPL @ 8mW input; Cord Length, 5 feet
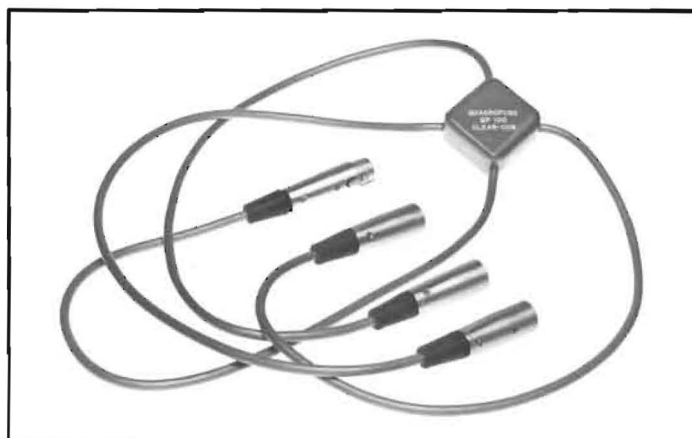

DT-109 Double-Muff Headset

The DT-109 is identical to the DT-108, except that it has a double-muff headset.

YC-100 Headset Splitter

The YC-100 Y-cord allows two headsets to be connected to one intercom station. A molded epoxy junction assures years of trouble-free service. The overall cord length is 3 feet.

QP-100 Quadropuss Line Splitter

The Quadropuss™ is a 3-way line splitter with 1 input and 3 outputs for convenient routing of cables to remote stations. Utilizing only the highest quality, rubber-insulated cable, and an epoxy junction box, the Quadropuss will give years of trouble-free service.

Interconnect Cables

Clear-Com interconnect cables are made of the finest quality, miniature, PVC covered mic cable. This premium 2-conductor shielded cable has stranded center conductors and a polyvinyl chloride sheath to ensure flexibility and long life. The connectors are all-metal Switchcraft A3M and A3F types. These handsome blue cables are available in 25, 40 and 100 foot lengths.
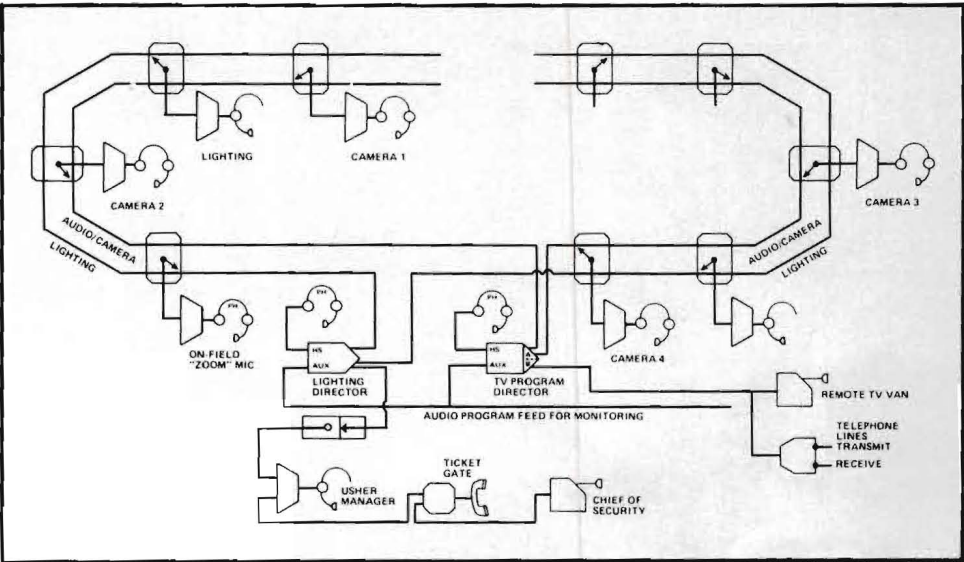
Clear-Com is specifically designed for clear, two-way communication through the high noise levels often encountered in entertainment and industrial environments.

A typical Clear-Com system is made up of one Main Station, and up to 40 Remote Stations with Headsets. Stations may be separated by up to 5000 feet with standard microphone cable. The Main Station acts as both a power supply for the system and as an intercom station. One or two HEADSETS can be plugged directly into the Main Station. Alternately, when an intercom station is not needed at the central location, a Model PS-3000 Power Supply can be substituted for the Main Station. Several types of Remote Stations are available for fixed or portable operation. Any of these Remote Stations can be used with any of the Main Stations to custom create a single or multiple-channel system for your specific application; some typical systems are shown.
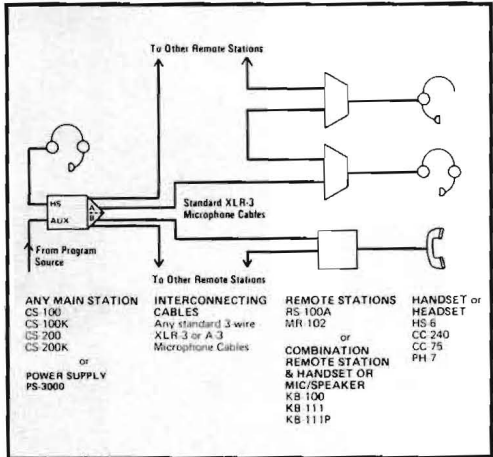
Applications include theatres, auditoriums, performing arts centers, factories, etc. . . anywhere a clear, reliable intercom is needed. In entertainment, for example, Clear-Com is ideal for coordinating lighting, sound and camera crews. In industrial applications, Clear-Com makes possible hands-free, private communication between management, test, production and shipping departments.

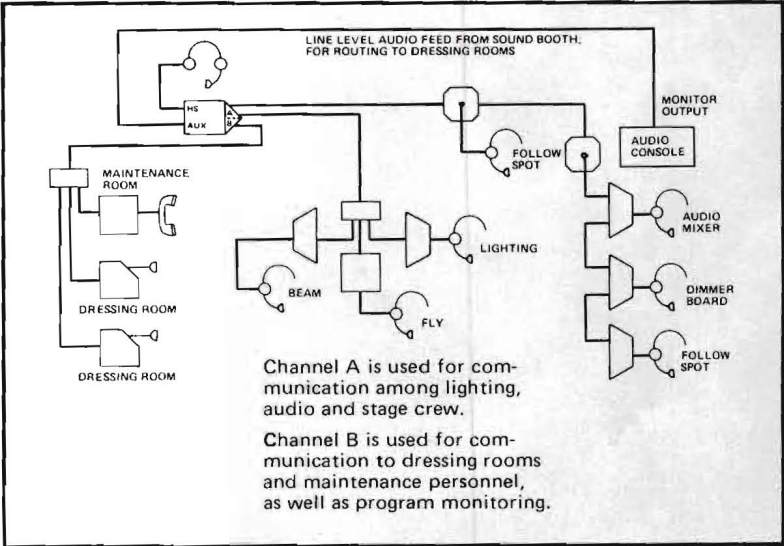Because Clear-Com utilizes headsets with noise-cancelling dynamic mics, sound attenuating earphones, and a specially contoured wide frequency response amplifier, messages can be heard at a comfortable listening level, even when the ambient noise is in excess of 120dB SPL. Where additional freedom of motion is desirable, and privacy is not critical, remote units with speakers and mics may be used.
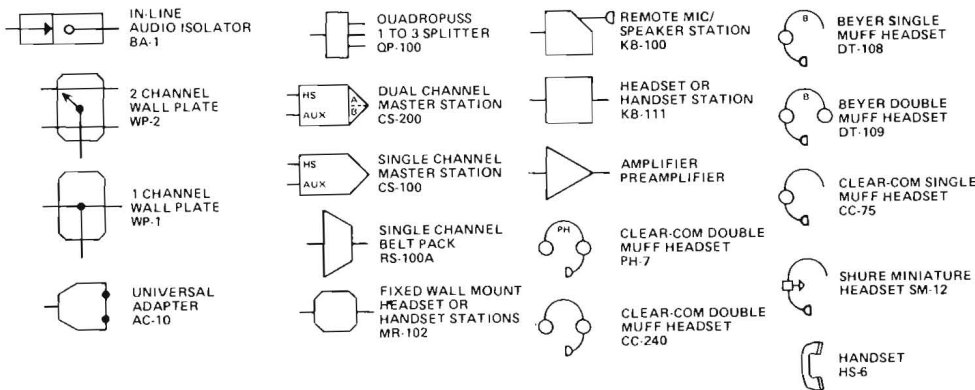

Typical Coliseum Intercom System

**Clear-Com Equipment Applications
General System Design**

Channel A is used for communication among lighting, audio and stage crew.

Channel B is used for communication to dressing rooms and maintenance personnel, as well as program monitoring.

Typical Theatre Intercom System

We offer these symbols for assistance in designing your own system.

Symbols courtesy of Filmways Audio Services.

Clear-Com ®
intercom systems

759 Harrison Street · San Francisco, California 94107 · (415) 989-1130

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Specifications subject to change without notice or obligation.