Clear-Com Encore™

Highly Intuitive and Reliable

For Group Communications and Collaborations

Clear-Com®

AN HME COMPANY

About Clear-Com®

Clear-Com, an HME company, is a trusted global provider of professional real-time communications solutions and services since 1968. We innovate market proven technologies that link people together through wired and wireless systems.

Clear-Com was first to market portable wired and wireless intercom systems for live performances. Since then, our history of technological advancements and innovations has delivered significant improvements to the way people collaborate in professional settings where real-time communication matters. For the markets we serve – broadcast, live performance, live events, sports, military, aerospace and government, our communication products have consistently met the demands for high quality audio, reliability, scalability and low latency, as well as addressed communication requirements of varying size and complexity. Our reputation in the industry is not only based on our product achievements, but also on our consistent level of customer engagement as well as continuous dedication in delivering the right solution for specialized applications and the expertise to make it work. Around the globe and across markets, Clear-Com innovations and solutions have received numerous awards and recognitions for our ingenuity and impact to customers.

Recipient of the Technology
& Engineering Emmy® Award
**The Belt Pack: Distributed Amplifier
Systems in Live Production**

NATIONAL
ACADEMY OF
TELEVISION
ARTS & SCIENCES

Clear-Com Encore™ analog partyline systems offer unsurpassed two-wire, group communication capabilities.

This platform offers an intuitive plug-and-play design, superior audio clarity with the embedded "Clear-Com Sound," and reliable communication technology for the most demanding applications. Trusted by thousands of audio experts around the world, Clear-Com Encore analog partyline systems are the communications backbone in theatres, schools, local broadcast stations, churches and other small to mid-size productions.

From main stations to remote stations, wall-mounted speaker stations to wired beltpacks, Clear-Com Encore is the most complete set of two-wire intercom systems for reliable group communications. The systems were designed to withstand rugged usage in fast-paced, demanding and high intensity applications. Clear-Com Encore is highly compatible with other Clear-Com or third-party products in order to address growing communications needs.

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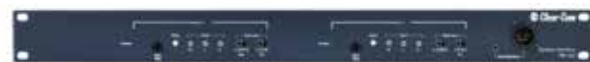## page 9 / INTERFACES

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CS-702 Portable Main Station

The CS-702 is a portable main station with a power supply and a versatile intercom monitoring system. It supports up to 40 beltpacks or 10 speaker stations on two channels. CS-702 accepts mic or line-level audio line level program input with an interrupt switch to override program.

MS-702 Rack-Mount Main Station

The compact, feature-laden, 1RU intercom main station supports up to 40 RS-701 beltpacks, 10 speaker stations or 12 headset stations on two channels. Other features include channel A-B linking, line level program input, Remote Mic Kill switch, and external relay circuit.

MS-704 Rack-Mount Main Station

The 2RU four-channel main station offers programmable front-panel buttons. High-capacity, fail-safe power supply supports up to 40 RS-701 beltpacks, 10 speaker stations or 12 headset stations. Other features include three IFB channels, line level program input, announce button/relay, channel-linking button and Remote Mic Kill switch.

SB-704 Switchboard Main Station

SB-704 includes all of the features of the MS-704, with a 4 x 10 assignment matrix in place of the internal speaker (external speaker required). The 2RU station features a 10-position slide switch matrix that allows assignment of any of the 10 intercom lines to any of the four intercom channels, an isolated separate partyline, or an off position. Line level program input.

RM-702 Remote Station

The 1RU two-channel station is powered by the intercom line. Operators can talk and/or listen on either or both channels. The station accepts line-level audio program input with both channels programmable for interrupt. Microphone limiting and speaker "dipping" circuit allow greater output before feedback.

RM-704 Remote Station

The 2RU remote station provides four independent intercom channels with programmable front-panel buttons for versatility. The station offers separate volume controls for each channel, four separate audio program inputs, and separate line level program input. Powered by the intercom line, the system also provides three IFB channels for talent cuing and announce button/relay for paging.

RS-702

RS-703

RS-701

The RS-700 Series beltpacks feature state-of-the-art performance and exceptional audio clarity for partyline communications in small- to mid-size applications. Offering a highly durable and reliable design, the beltpacks are ideal for harsh, repetitive daily use and provide a very comfortable fit. The beltpacks also feature easy-to-select audio and key options with DIP switch settings for Electret or Dynamic headset mics, headphone minimum level adjustment, call with talk operation, latch or non-latch keying, low or high headphone output and LED off modes. The beltpacks have volume controls as well as talk and call buttons that are guarded against accidental operation.

RS-701

The RS-701 is a single-channel standard beltpack. Four-pin male headset connector and three-pin female/male loop through intercom line connectors.

RS-703

The RS-703 is a two-channel/three-pin dual listen monaural beltpack with four-pin male headset connector. Three-pin female/male loop through intercom line connectors. Requires a TWC-701 TW adaptor module.

RS-702

The RS-702 is a two-channel standard dual listen monaural beltpack with four-pin male headset connector. Six-pin female/male loop through intercom line connectors. Requires YC-36 adapter to connect with standard three-pin cabling.

SPEAKER STATIONS

KB-701 Single-Channel Station

The KB-701 remote speaker station connects to a single channel of partyline intercom and operates in half-duplex mode. It features both an integral speaker and a flushmount electret microphone with mic limiter and a push-to-talk button.

KB-702/KB-702GM Two-Channel Station

The KB-702 remote speaker station permits the user to select between two channels of partyline communications, with the ability to talk and/or listen on the selected channel. The user can listen via the integral speaker, a headset or telephone-style handset and can talk via a headset mic, a telephone handset, or a push-to-talk microphone on the KB-702GM version.

V-Box Portable Enclosure for KB Stations

The V-Box permits either angled or vertical portable/desktop mounting of the KB-701, KB-702, and KB-702GM speaker stations. Both male and female 3-pin XLR connectors are on the side panel. The rugged metal and wood construction provides an attractive, durable enclosure.

HEADSET STATIONS

HB-702 Two-Channel Station

The HB-702 is a selectable two-channel wall or console-mounted headset station. The station includes microprocessor-controlled logic and switching, with a momentary/latching talk button and visual call signaling.

HB-704 Four-Channel Station

The HB-704 provides the same features as the HB-702, but can access four intercom channels.

ANNOUNCER CONSOLE

AB-120 Announcer Console

The AB-120 On-Air Announcer Console is the ultimate broadcast-quality tool for announcers and commentators. The AB-120 integrates all of the inputs, outputs, and controls necessary at the announce position, including intercom "Talkback," IFB receiver, and a silent "Mute" button that provides noise-free cough and "mic on/off" switching. Extremely flexible, the console can be easily configured for practically any combination of audio sources, microphones, headsets, or intercom systems to ensure quality audio and powerful communications.

CC-300

Single-ear headset features high ambient-noise attenuation headphones and a hyper-cardioid dynamic microphone that provide high quality audio. The headset has a flexible design and a soft-ear pad to offer superior comfort. Able to rotate 300-degrees, the microphone boom acts as an on/off switch for quick microphone muting.

Impedance mic/earpiece: 200/400 Ohms
Mic type: Dynamic

CC-400

Double-ear headset features high ambient-noise attenuation headphones and a hyper-cardioid dyanamic microphone that provide high quality audio. The headset has a flexible design and soft-ear pads to offer superior comfort. Able to rotate 300-degrees, the microphone boom acts as an on/off switch for quick microphone muting.

Impedance mic/earpiece: 200/200 Ohms
Mic type: Dynamic

CC-40 and CC-60

The single- or double-ear general-purpose intercom headsets with excellent noise attenuation include a straight 5.5 foot cord (1.67 meter) with 4-pin female XLR connector.

Impedance mic/earpiece: 200/400 Ohms
Mic type: Dynamic

CC-010A IFB Ear Set

The IFB ear set includes audio driver, coiled acoustic eartube with clothing clip, 5ft (1.5m) cable with 1/8" (3.5mm) straight mini-jack connector.

CC-26K-X4

The CC-26K is a single-ear, ultra-lightweight (1.3oz) headset with a dynamic, noise-cancelling mic element on a flexible boom. It includes a straight 5.5 foot (1.67 meter) cord with 4-pin female XLR connector.

Impedance mic/earpiece: 200/400 Ohms
Mic type: Dynamic

CC-27

The CC-27 is a single-ear wrap around headset with a noise cancellation microphone. 4-pin XLR female 150Hz to 10kHz frequency response.

Impedance mic/earpiece: 200/90 Ohms
Mic type: Dynamic

Que-Com Partyline System

Que-Com is a high-performance, economical partyline communications system. This system features a wide frequency response and high audio output. The intercom provides an individual volume control and mic on/off switch for each station with a permanently attached, rugged, noise-isolating headset. The headset is connected to a rugged, all-metal diecast beltpack with belt clip. System interconnects with a standard mic cable. Que-Com is compatible with all Clear-Com systems. The PK-7 is a suitable power supply option.

TW-47 Two-Way Radio/Walkie-Talkie Interface

Compatible with both Clear-Com and RTS,® the TW-47 connects virtually any set of walkie-talkies to anyone on the wired partyline intercom; simply use one walkie-talkie as a base station. The base station radio is keyed from the intercom call signal. Extensive RF and EMI isolation prevent interference from entering the intercom system. Separate transmit and receive level controls are provided, along with audio level and transmitter keying indicators. The stand-alone interface is powered by the intercom line.

TWC-701 Cable Adaptor

The TWC-701 two-channel cable adapter combines two intercom channels onto a single 3-pin XLR cable. All two-wire (TW) beltpack models require this adapter to support a two channel connection to a multi-channel Clear-Com system. The TWC-701 module can drive up to 15 RS-703 beltpacks.

IF4W4 Four-Wire Interface

The IF4W4 four-channel interface connects Clear-Com to TV cameras, two-way radios, satellite links, and other communications devices through either headset jacks or four-wire circuits. The IF4W4 has selective partyline capability, and features individual transmit, receive, and null controls as well as transmit level indicators. Switchable mic or line-level output for compatibility. The built-in test jack and test tone provide quick nulling.

EF-701M Interface

The EF-701M interface converts a single channel of standard or TW partyline intercom to four-wire audio, while also converting call signals to RS-422 data (and back). The resulting four-wire audio plus RS-422 data can then be sent to a Clear-Com matrix port, fiber optic converter (modem) or connected to another EF-701M over a twisted-pair cable such as CAT-5E.

TW-12C System Interface

The TW-12C connects one intercom system to another. Optoisolation eliminates hums and buzzes. The interface will compensate for level and impedance differences between systems. TW-12C allows Clear-Com-to-Clear-Com, Clear-Com-to-RTS, and RTS-to-RTS system configurations. The interface is powered by the connected intercom system and translates "call" signals in both directions.

RCS-2700 Programmable Source Assignment Panel

The 2RU RCS-2700 is ideal for medium to large installations where channel assignments to remote stations frequently change. Eight master channel sources can be assigned to any 24 remote station destinations, and additional RCS-2700 units can be connected for up to 15 sources and 72 destinations. It can store 14 presets.

PIC-4704 Program Interrupt Controller

Each IFB controller handles up to four talent receivers. For use with MA-704 and AX-704 IFB Control Panels or intercom stations. This unit contains the circuitry for selecting one of two program sources, sending the program to the IFB channels, and interrupting it via the talent control station. The controller has variable audio program dip-level, monaural or stereo/split-feed outputs, and improved and intuitive user interface. It requires a 6-pin XLR cable for connection to MA-704/AX-704 control panels.

MA-704/AX-704 IFB Control Panel

These console-mount or rack-mount units control "program interrupt" (IFB) to the talent. The MA-704 includes a gooseneck microphone connector, illuminated "All Talent", and four individual talent push buttons. The AX-704 permits expansion in multiples of four. Both accept the "hot mic out" from a Clear-Com station. An optional CEP-RK rack mount fixture is available for the MA-704 and AX-704 panels.

TR-50 Talent Receiver

The TR-50 is an amplified single-channel talent beltpack with volume control. It connects to the program interrupt controller with a standard microphone cable. It has a mini earphone jack output and includes a talent earset. It should be paired with the CC-010A IFB ear set.

PRC-2 UHF Wireless IFB Receiver

The IFB receiver has default UHF frequencies that can be set without power or a transmitter signal. Up to five additional frequencies can be stored in scan mode. The design uses +/-20 kHz FM deviation for efficient use of the bandwidth with compandor noise reduction circuitry for an excellent signal to noise ratio. The receiver will drive a wide variety of earbuds, headphones and induction neck loops at substantial levels, with loads from 16 Ohms to 600 Ohms. It should be paired with the CC-010A IFB ear set. Not available for CE countries.

PTX-3 UHF Wireless IFB Transmitter

The wireless IFB transmitter base station has 256 selectable UHF frequencies at 100 kHz increments. Microprocessor control enables easy operation and eliminates transients at turn-on and turn-off. Transmitter can be used as a standalone device or rack mounted with the PRK-2 kit. Not available for CE countries.

PS-702 Two-Channel Power Supply

The 1RU PS-702 can deliver 1.2 amps at 30 volts DC to two channels. This is sufficient to power up to 40 beltpacks, 10 speaker stations, or 12 headset stations even under the most demanding conditions. Either channel is capable of supplying up to 1.2 amps. The full current capacity may be divided between the two channels.

PS-704 Four-Channel Power Supply

The 1RU PS-704 is a four-channel power supply that features Clear-Com's "fail-safe" design for maximum reliability. The power supply delivers 1.2 amps at 30 volts, supplying power for one to four channels of intercom. It will support up to 40 beltpacks, 10 speaker stations or 12 headset stations.

PK-7 Lightweight Power Supply

The PK-7 power supply will support up to 30 Que-Com headset stations or five standard RS-700 series beltpacks. It is line and load regulated and short-circuit protected. Power supply fits into a single rack space.

ACCESSORIES

FL-7 Call Signal Flasher
The FL-7 call signal flasher has a new LED design with dimmer. It provides both a visual and audible indication of a call signal on the intercom channel. The front panel mode switch selects flasher, ring or both.

WP-2 Intercom Outlet Wall Plate
The selectable two-channel WP-2 wall plate connects to single-channel beltpacks such as the RS-701. The 3-pin male XLR connector with two-position channel-selector switch allows user to talk on either of two intercom channels.

WP-6 Intercom Outlet Wall Plate
The WP-6 wall plate is used with two-channel beltpacks such as the RS-702. 6-pin male XLR connector connects user with two intercom channels.

HS-6 Telephone-Style Handset
Telephone-style handset with wall/console mount hanger, push-to-talk switch includes a 6-foot coil cord with 4-pin female XLR connector.

SP-3 Line Splitter
The SP-3 line splitter is a one-female-input to three-male-output cable assembly for intercom line splitting.

YC-36 "Y" Adapter
The YC-36 "Y" adapter plugs into the 6-pin male XLR intercom connector on a RS-702 or beltpack. The other end provides two 3-pin female XLR connectors, for separate line connection to channels A and B.

YC-66 6-Pin Line Splitter
The YC-66 is a one 6-pin male XLR connector that splits into two 6-pin female connectors.

PT-7 Hand-Held Mic
The rugged, push-to-talk, hand-held PT-7 microphone with mounting clip includes a 5-foot coil cord with 4-pin female XLR connector.

GM-9/GM-18 Gooseneck Mics
The GM-9 (9" length) and GM-18 (18" length) gooseneck microphones feature a gold-plated, threaded, and locking three-conductor quarter-inch phone plug connector. A fitted windscreen is included. The uni-directional electret condenser mic element has a side and rear rejection of greater than 6dB between 100Hz and 10kHz.

GN-250/GN-450 Gooseneck Mics
GN-250-25cm/10in Plug-in gooseneck microphone

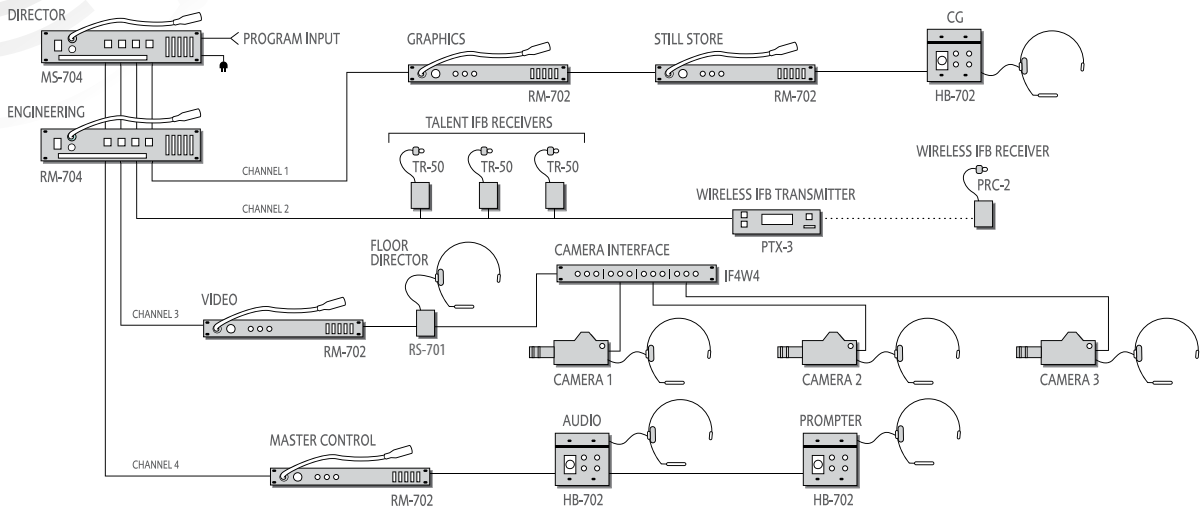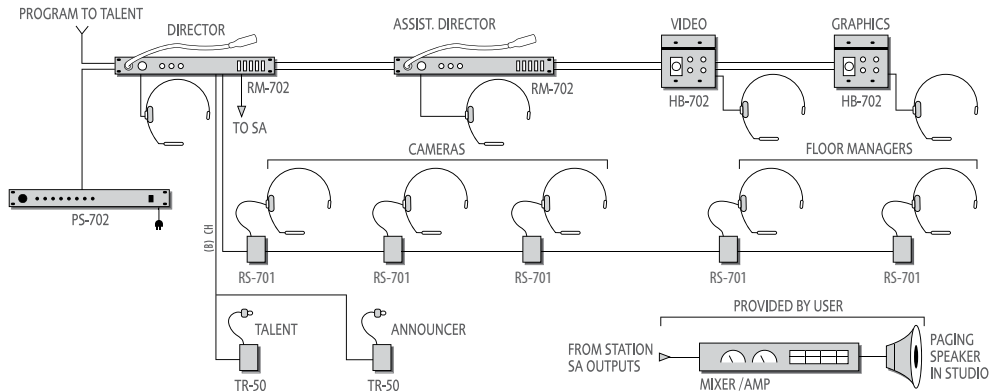GN-450-45cm/18" Plug-in gooseneck microphone

MT-1 Isolator Circuit Card
The MT-1 electrically isolates the ground, power, and signaling lines when connecting between two partyline intercom systems. Use one card per channel.
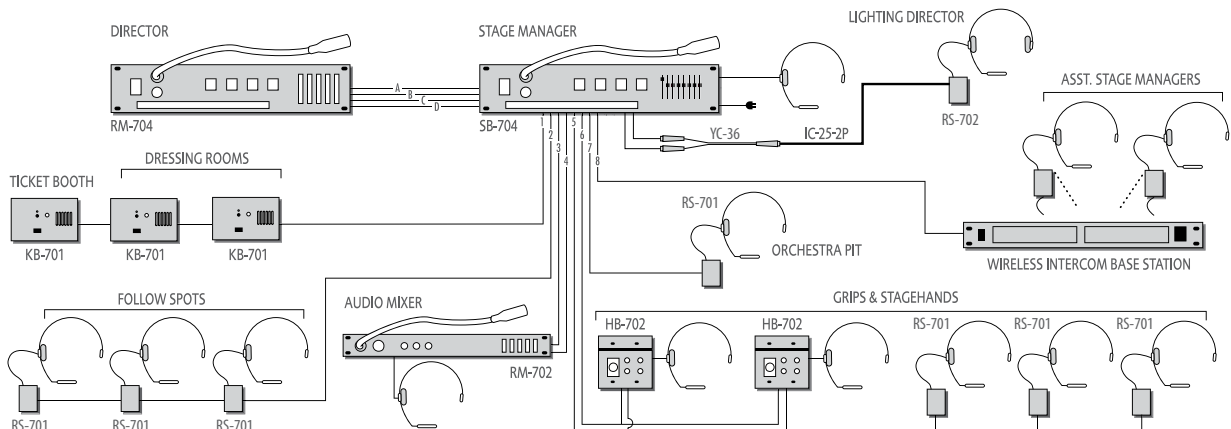
TV BROADCAST STATION

Four-Channel TV News System

Cable/School Television Studio

Four-Channel System Using SwitchBoard Main Station

Stand-Alone System, 1 Location, 4 Talent

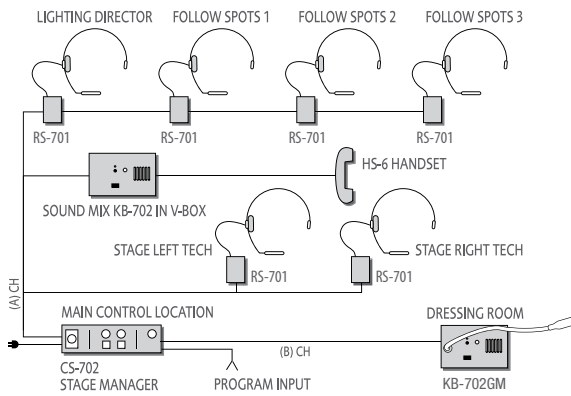**TV BROADCAST STATION**

DIRECTOR
CEP-RK RACKMOUNT
MA-704/AX-704
4 Pr./Sh.

PGM A
PGM B
PIC-4704
1 Pr./Sh.
PS-702

1 Pr./Sh.
1 Pr./Sh.
1 Pr./Sh.
1 Pr./Sh.

TR-50   TR-50   TR-50   TR-50
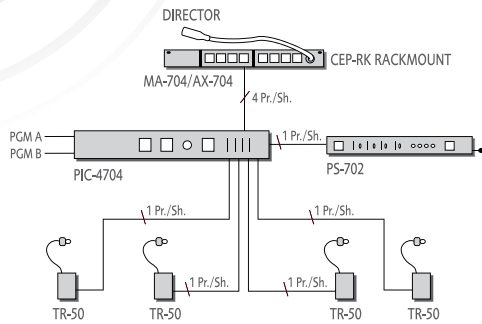
Coach to Spotter System-Portable

SPORTS PRODUCTION

FIELD SIDELINES

DEFENSIVE COACH   HEAD COACH   OFFENSIVE COACH
(A) CH/DEFENSE   RS-702   (B) CH/OFFENSE
RS-701   RS-701

PRESS BOX

DEFENSIVE SPOTTER   SP-3   OFFENSIVE SPOTTER
(A) CH/DEFENSE   (B) CH/OFFENSE
RS-701   PS-702   RS-701
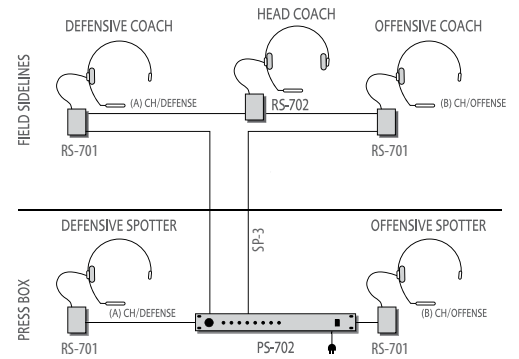
Typical Portable System

STAGE PRODUCTION

LIGHTING DIRECTOR   FOLLOW SPOTS 1   FOLLOW SPOTS 2   FOLLOW SPOTS 3
RS-701   RS-701   RS-701   RS-701

HS-6 HANDSET

SOUND MIX KB-702 IN V-BOX

STAGE LEFT TECH   STAGE RIGHT TECH
RS-701   RS-701

(A) CH

MAIN CONTROL LOCATION   DRESSING ROOM

CS-702
STAGE MANAGER   (B) CH
PROGRAM INPUT   KB-702GM

Theater

CURTAIN OPERATOR   SPOT OPERATORS
RS-701   RS-701   RS-701   RS-701

STAGE
PICK-UP
MIC

PATCH PANEL   LIGHT BOARD   DRESSING ROOMS

PROGRAM INPUT
(A) CH
(B) CH
RS-701   RS-701   KB-701   KB-701   GREEN ROOM
(C) CH
STAGE MANAGER   (D) CH

MS-704   KB-701

ENG/EFP Truck

OB TRUCK

CAMERA OPERATOR   ASST. DIRECTOR/ FLOOR MANAGER   TALENT ANNOUNCER

RS-701   RS-701   (B) CH   TR-50   TELCO LINE

(A) CH   (A) CH
(B) CH   STANDARD TELEPHONE INTERFACE OR VoIP CLIENT e.g. CONCERT SERVER

DIRECTOR   ENGINEER

MS-702   RM-702

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