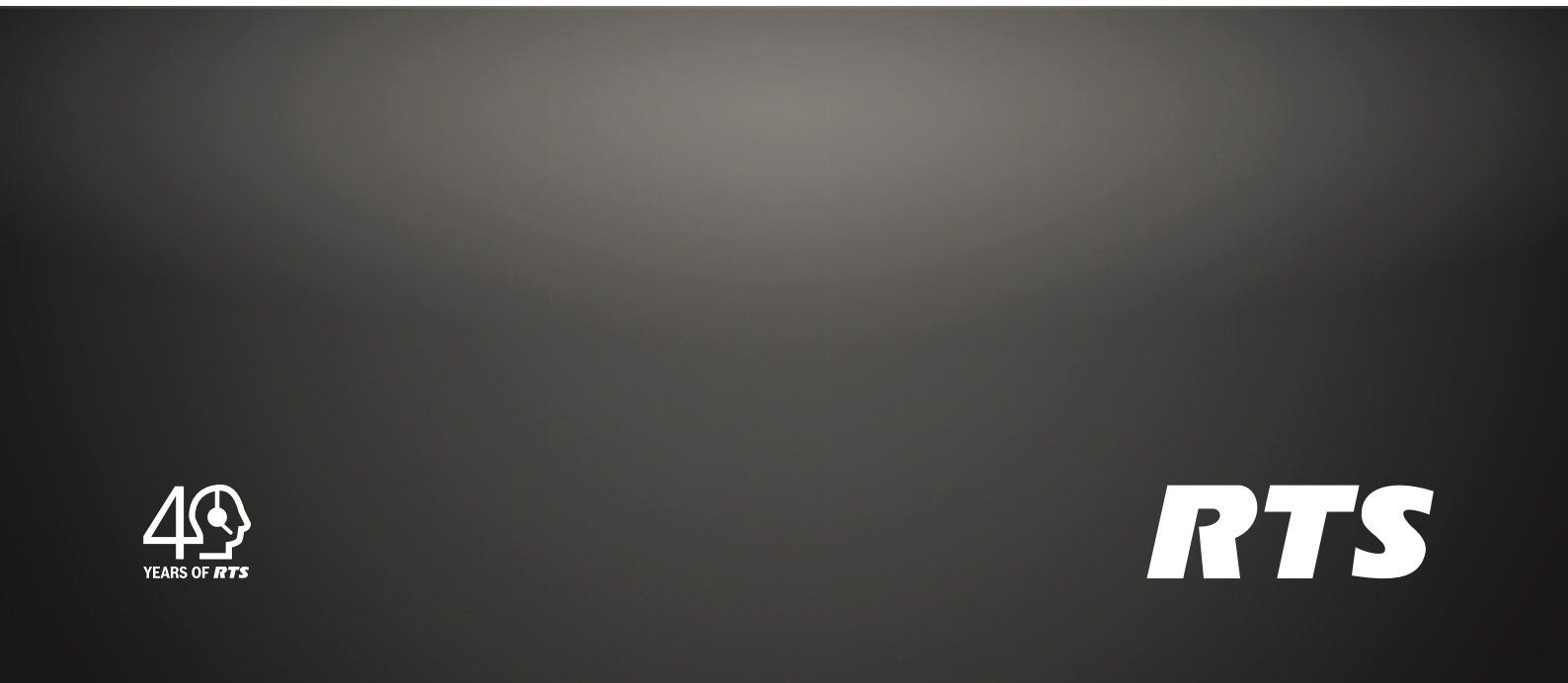
RTS INTERCOM SYSTEMS

WIRELESS & WIRED PARTYLINE

INNOVATING THE FUTURE OF GLOBAL COMMUNICATIONS



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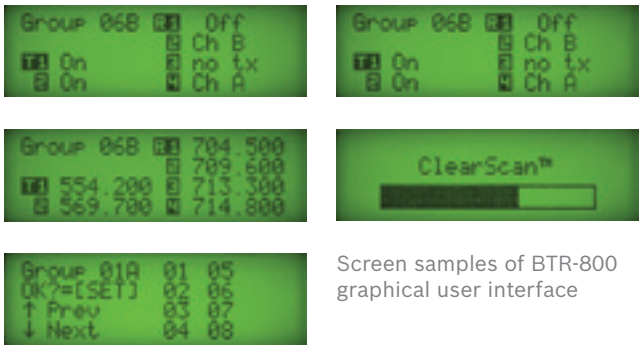
RTS IS AN INDUSTRY LEADER IN THE DESIGN AND MANUFACTURE OF INTERCOM SOLUTIONS.

From the Advanced Digital Audio Matrix (ADAM) systems used to coordinate major network broadcasts of the world's largest events to small-format systems used for in-house productions, RTS is dedicated to innovating the future of global communications.



Screen samples of BTR-800 graphical user interface

WIRELESS PARTYLINE

BASE STATIONS, BELTPACKS, ACCESSORIES

What good is technology if you can't make it work for you? So often today in our industry new products come out that are more complicated to use and are consequently a hindrance rather than a tool. RTS has the answer. The RTS BTR-80N, BTR-800 and BTR-700 wireless intercom systems are extremely powerful and flexible, yet offer a simplified user interface that lets you get started right out of the box.

Bright, clear, readable LCD displays put all of the features and information you need to access right at your fingertips. Without layer after layer of menus to deal with, the graphical user interface allows even new users to access, change and store system settings as well as frequency selections.

Basic primary screens run the entire operating system with various supplemental screens for other tasks. The status of every beltpack in the system, as well as operating frequencies and group/channel status, is readily available.

The powerful enhanced ClearScan auto frequency selection feature is easily activated and progress is easily monitored on the ClearScan progress screen. Results are then displayed and users have the option to accept, reject or modify the results. This dynamic feature allows system frequency selection and set up in just minutes in a new or unknown venue location.

BTR-80N

BTR-80N

2-Channel UHF Synthesized
Wireless Intercom System

OFFERING THE MOST COMPREHENSIVE SET OF FEATURES IN WIRELESS INTERCOM SYSTEMS

The BTR-80N narrow band wireless intercom system offers the most comprehensive, user-friendly and versatile set of features available in wireless intercom systems anywhere in the world. Providing an unprecedented 25 kHz of modulated band width, the BTR-80N narrow band system allows more users per channel in the cramped UHF spectrum. Combining the award-winning performance of the BTR-800 wireless intercom system with revolutionary narrow band technology and additional innovative features, the BTR-80N is the best-performing, most versatile wireless intercom system ever made.

While providing excellent audio performance, the narrow band system is based on the award-winning and world leading BTR-800 wireless intercom system and provides all of the standard features of the BTR-800 system, such as DSP and Intelligent Power Control, and more. The BTR-80N narrow band systems offers up to four full-duplex wireless TR-80N or TR-82N beltpacks per base station. An unlimited number of additional beltpacks can be added in half-duplex operation. Additional features include selectable transmitter power output, selectable receiver squelch control, RF meter display on base station and beltpack displays, remote battery indicators on base station display, low battery tone indicator on beltpack, AC or DC power input on base station, simultaneous 2-wire and 4-wire operation, and more.

- User-adjustable receiver squelch control
- RF meter on BTR-80N, TR-80N and TR-82N
- Beltpack battery gauge on BTR-80N display
- Ability to turn off remote beltpack transmitter from base station
- BTR-80N is easily adapted for two transmitter output
- BTR-80N is designed for AC or DC power input
- Auxiliary audio input is assignable with level control

- UHF Operation — The BTR-80N, TR-80N and TR-82N operate in the UHF band from 482 to 722 MHz and operate in specific 18 MHz frequency bands. An industry-leading 32 frequency band combinations are available to order.
- Frequency Agile — Choose from 1440 user selectable frequencies in 25 kHz increments or select frequency plans from preset intermodulation-avoiding groups. The independent 18 MHz frequency bands provide 720 TX and 720 RX selectable frequencies.
- Selectable Output Power — The BTR-80N, TR-80N and TR-82N provide a user-selectable transmit output power. The BTR-80N has a maximum output power of 249 mW down to 10 mW with an additional setting to turn off transmit power to each individual transmitter. The TR-80N and TR-82N have a maximum output power of 100 mW down to 5 mW with an additional setting to turn on the auto Intelligent Power Control feature to provide outstanding “near-far” operation.
- Engineering Defined Frequency Plans — Each narrow band system comes with 36 engineering selected, intermodulation-avoiding groups of channel plans that allows the user to get the system operational right out of the box.
- Two-Channel Intercom Access — Hardwired intercom channels that are run to the BTR-80N base station can be 2-wire (partyline) or 4-wire (digital matrix). These intercom inputs to the BTR-80N can be set up to be individual per channel or they can be mixed on a channel. Individual adjustment for in and out level control are provided in the BTR-80N front panel user interface.
- Flexible Number of Beltpack Users per Base Station — In full-duplex operation, the BTR-80N will support up to 4 TR-80N or TR-82N beltpacks. By placing TR-80N or TR-82N beltpacks in Push-to-Transmit operation (half-duplex), you can expand your system to multiple users on one BTR-80N base station. When the TR-80N or TR-82N are placed in Push-to-Transmit operation, the intelligence of the narrow band system provides a First-On-Latch-Out feature that will not allow the beltpacks to interfere with each other when operating on the same frequency. This feature provides future expansion possibilities and will allow multiple users on the same channel whose primary function is to listen all the time and talk infrequently.
- Enhanced ClearScan Frequency Scan and Auto Selection — This powerful frequency scanning and selection feature is easily activated and progress is easily monitored on the BTR-80N, TR-80N and TR-82N display screens. Results are provided and users have the option to review, accept or reject the results. This dynamic feature allows system frequency selection and set up in just minutes in a new or unknown venue.
- Battery Options — The TR-80N and TR-82N beltpacks can operate from standard alkaline AA batteries or from the optional NiMH battery packs. Operation on alkaline batteries provides up to 12 hours of continuous duty and up to 10 hours on NiMH. Drop-in chargers are available in single and four-gang configurations.

- “Fifth person” talk/listen user station at the BTR-80N base station
- Wireless talk around (broadcast ISO)
- Stage announce output with relay closure
- Intelligent power control
- TR-82N dual listen operation
- Cast magnesium beltpacks
- Beltpack low battery indicator with tone warning

BTR-800

BTR-800

2-Channel UHF Synthesized Wireless Intercom

THE MOST VERSATILE WIRELESS INTERCOM EVER

- TR-800 and TR-825 Wireless Beltpacks — Four beltpacks per base station. Each BTR-800 base station can support up to four beltpacks in full-time transmit, full-duplex operation. Multiple base station/beltpack systems can be used together to meet the needs of virtually any wireless communications application.
- Frequency Agile — Choose from 1440 user selectable frequencies using the BTR-800 graphical user interface. Frequencies can be selected from factory preset groups of intermode free choices or any frequency in 25 kHz increments. Select from 720 TX and 720 RX frequencies each from independent 18 MHz operational bands.
- UHF Operation — The BTR-800, TR-800 and TR-825 operate in the UHF band from 470 to 722 MHz. Bases and beltpacks operate in specific 18 MHz operational bands.
- Enhanced ClearScan Frequency Auto Selection and Graphical User Interface. (See page 3.)
- Intermodulation-Free Factory Selected Groups — Each BTR-800 system comes with 24 factory-selected, intermodulation-avoiding groups that allows the user to get started right out of the box.
- Two-Channel Intercom Access From Each Beltpack — Hardwired channels are run to the BTR-800 base station and can be 2-wire, 4-wire or mixed. The BTR-800 is fully compatible with AudioCom, RTS and Clear-Com hard-wired intercom systems.
- Dual Listen Operation — Each TR-825 beltpack provides two volume controls; one for each intercom channel that allows for individual level control. Listen to production in one ear and tech in the other ear. The TR-825 can operate in either stereo (split-feed) or mono mode.

- Frequency agile
- 1440 selectable frequencies
- Two independent intercom channels
- ClearScan auto frequency selection
- Wireless talk around

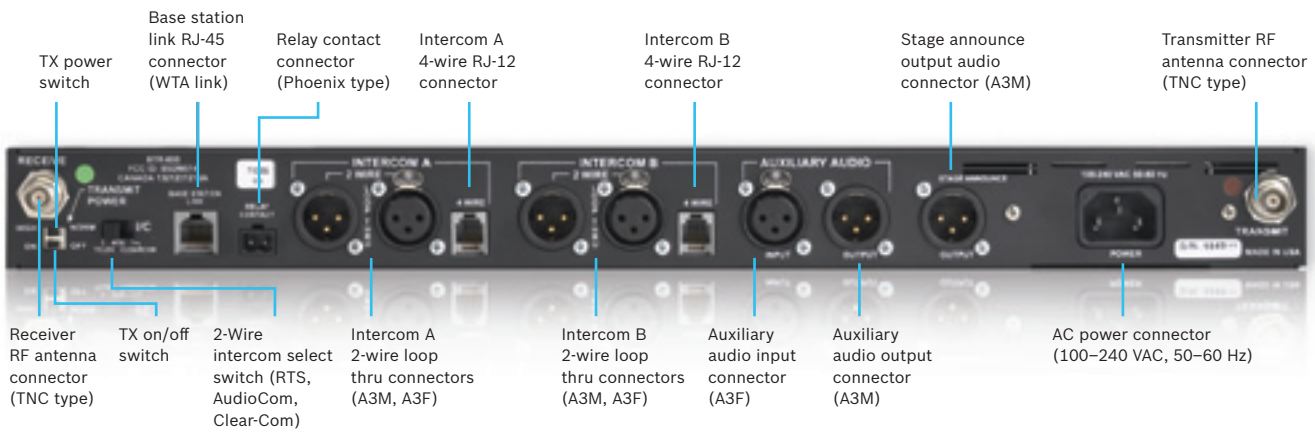
(broadcast ISO)

- Stage announce output with relay closure
- Dual Listen Operation (TR-825)
- Four beltpacks per base station
- Cast magnesium beltpacks

TR-800 beltpack

TR-825 beltpack

- Stage Announce Output With Relay Closure — Each beltpack can initiate the stage announce feature. The user's audio is routed out the back of the base station via a 3-pin XLR connector. The signal is dry, line level +8 dB and adjustable. A convenient relay closure is provided for triggering two-way radios, IFB sends, green-room speakers or any other closure activated device.
- Wireless Talk Around (Broadcast ISO) — Each beltpack can momentarily route its audio only to the other wireless beltpacks on its current channel with the push of a button. The user's audio is lifted off of the intercom bus so that only the other wireless beltpacks can hear.
- "Fifth Person" Talk/Listen Station At Base — The BTR-800 base station features a full talk/listen headset station so that an additional user can communicate on one, the other or both intercom channels at once.
- Intelligent Power Control — This breakthrough technology takes system range and performance to a whole new level. Each beltpack senses when it is close to the base station and intelligently reduces its output by 10 dB. This effectively eliminates overloading the base station receiver front end, which is the primary cause for the "near-far" desensing problem experienced in other wireless intercoms.
- Cast Magnesium Beltpacks — TR-800 and TR-825 beltpacks are constructed of extremely light, strong and durable cast magnesium. Using magnesium substantially decreases the weight of the beltpack while assuring the utmost ruggedness and durability.
- Two Great Battery Options — TR-800 and TR-825 beltpacks can be operated from standard alkaline AA batteries that provide up to 14 hours of continuous duty operation. For applications where rechargeable batteries are required, optional NiMH battery packs are available. NiMH batteries do not develop harmful memories like NiCads and offer up to 12 hours of operation. Drop-in chargers are also available in single and four-gang configurations.
- Detachable Beltpack Antennas — TR-800 and TR-825 beltpacks feature detachable antennas that utilize stud type threaded connectors that do not have a fragile center pin to break off or bend. Detachable antennas make storage or shipping easy.



BTR-700

BTR-700

Single-Channel UHF Synthesized Wireless Intercom

THE MOST VERSATILE WIRELESS INTERCOM EVER

- TR-700 Wireless Beltpacks — Four beltpacks per base station. Each BTR-700 base station can support up to four beltpacks in full-time transmit, full duplex operation. Multiple base station/beltpack systems can be used together to meet the needs of virtually any wireless communications application.
- Frequency Agile — Choose from 1440 user selectable frequencies using the BTR-700 graphical user interface. Frequencies can be selected from groups of intermode free choices, or any frequency in 25 kHz increments. Select from 720 TX and 720 RX frequencies each from independent 18 MHz operational bands.
- UHF Operation — Both the BTR-700 and the TR-700 operate in the UHF band from 518 to 722 MHz. Bases and beltpacks operate in specific 18 MHz operational bands.
- Enhanced ClearScan Frequency Auto Selection And Graphical User Interface — (See page 3.) Intermodulation-Free Factory Selected Groups — Each BTR-700 system comes with 24 factory-selected, intermodulation-avoiding groups that allows the user to get started right out of the box.
- "Fifth Person" Talk/Listen Station At Base — The BTR-700 base station features a full talk/listen headset station so that an additional user can communicate on the intercom channel.
- Intelligent Power Control — This breakthrough technology takes system range and performance to a whole new level. Each beltpack senses when it is close to the base station and intelligently reduces its output by 10 dB. This effectively eliminates overloading the base station receiver front end, which is the primary cause for the "near-far" desensing problem experienced in other wireless intercoms.

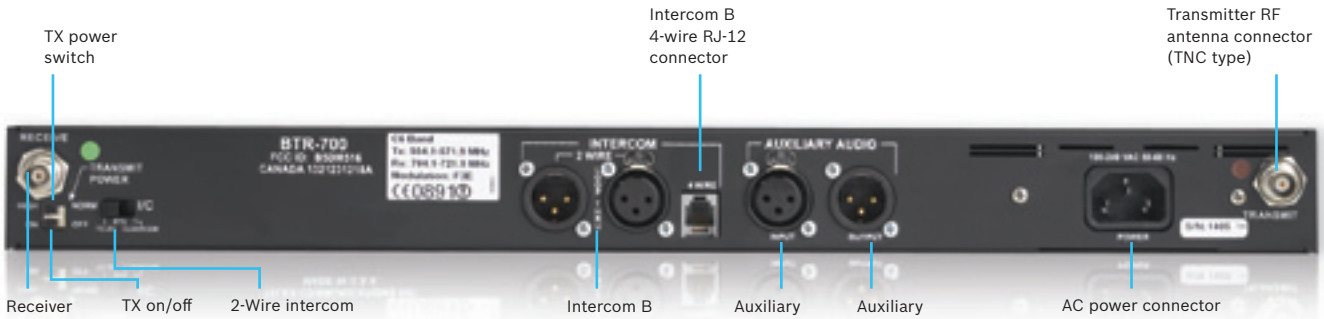
- Frequency agile
- 1440 selectable frequencies
- ClearScan auto frequency selection
- Four beltpacks per base station
- Cast magnesium beltpacks

TR-700 beltpack

NiMH Battery Charger

Available in either 1 bay or 4 bay, these chargers provide quick charging of your NiMH battery packs.

- Cast Magnesium Beltpacks — TR-700 beltpacks are constructed of extremely light, strong and durable cast magnesium. Using magnesium substantially decreases the weight of the beltpack while assuring the utmost ruggedness and durability.
- Detachable Beltpack Antennas — TR-700 beltpacks feature detachable antennas that utilize stud type threaded connectors that do not have a fragile center pin to break off or bend. Detachable antennas make storage or shipping easy.
- Two Great Battery Options — TR-700 beltpacks can be operated from standard alkaline AA batteries that provide over 14 hours of continuous duty operation. For applications where rechargeable batteries are required, optional NiMH battery packs are available. NiMH batteries do not develop harmful memories like NiCads and offer a full 12 hours of operation. Drop-in chargers are also available in single and four-gang configurations.



BTR-240

WIRELESS INTERCOM HAS NEVER BEEN EASIER

CONNECTION FLEXIBILITY:

- The BTR-240 gives you a wide range of interfacing options so you can build a system that precisely fits your needs, whether over a wired or wireless network.
- A 2- and 4-wire intercom interface and XLR in/out for connecting to general audio systems gives you the flexibility to utilize communications equipment from across a wide range of manufacturers.
- In addition to connecting to a WiFi network in a large facility, the BTR-240 can serve as a backup via an Ethernet/Cat-5 wired connection. Now facilities like schools, houses of worship, and theatres can easily extend their existing partylines into the wireless world.

- License Free 2.4 GHz, IEEE 802.11b WLAN technology
- Expand coverage using BTR-24 access points
- Multi-level security and audio encryption
- 2-wire and 4-wire intercom interface
- ClearScan channel selection
- Auto-select Electret or Dynamic microphone
- Choice of two (2) independent or simultaneous audio channels
- TR-240 beltpacks operate wired or wireless

BTR-240

2.4 GHz Wireless Base System

- Eight (8) full-duplex beltpacks with virtually unlimited number of half-duplex beltpacks
- TR-240 beltpacks can operate as an access point
- Multiple antenna options and accessories
- Durable ABS construction
- Easy-to-read LCD indicates system status
- Removable Li-Ion batteries with wide temperature range and up to eight (8) hours of operation

SPLITTER / COMBINER

ACS-101*

Broadband Antenna Combiner/ Splitter

The ACS-101 amplified broadband combiner/splitter makes it possible to operate 10 UHF wireless intercom base transceivers using only two antennas. In addition to accommodating ten transmit and 10 receiver antennas, it provides power connection for up to 10 base transceivers. It also features excellent output isolation (better than SC-600). The ACS-101 is necessary in multi-frequency systems to prevent intermodulation. The ACS-101 is an ideal complement to your BTR-700, BTR-800 or BTR-80N (BTR-800 / BTR-80N set to normal output power).

* ACS-101 available in select countries

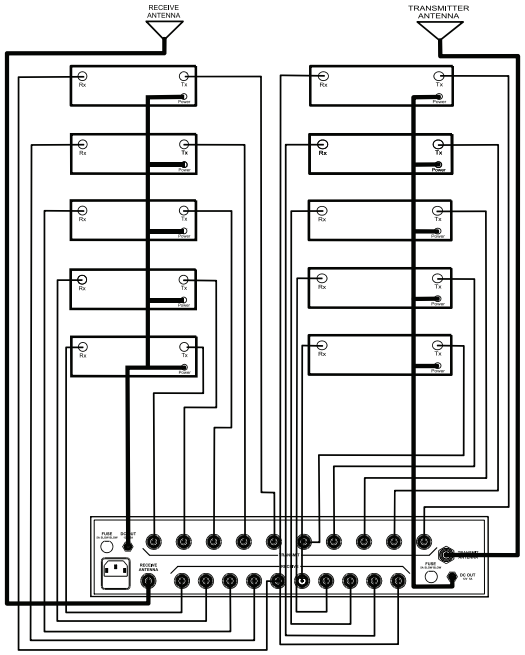
APS-1

2-Way Combiner/Splitter

The APS-1 is a passive broadband combiner/splitter that makes it possible to combine two antennas to one (receive), or split one antenna to two (transmit).

System Configuration

for the typical system configuration using the ACS-101 to support 10 BTR-1 base stations.



- Two models to choose from
- Reduces 20 antennas to two (ACS-101) or reduces two antennas to one (APS-1)
- Extremely low intermode production
- Compatible with BTR-700 and BTR-800 systems
- One year warranty
- Handles both transmit and receive
- Rugged and durable construction
- Made in the USA

TT-16 & TR-16

The TT-16 base station transmitter and the TR-16 beltpack talent receiver is a 16-channel synthesized wireless IFB system designed to provide a convenient wireless link to on-air talent in the studio or in the field at remote locations. Operating in the low band VHF 64–68 MHz range (NTSC TV Ch 3 and 4), the units operate reliably at distances of over 225 m. In unoccupied television channels, up to five TT-16 transmitters will operate simultaneously within the same location.

TT-16*

16-Channel Broadcast Wireless IFB Transmitter

The TT-16 features 16 user-selectable frequencies controlled from front panel control buttons. A backlit LCD display allows the user to select the RF channel used, change hi/lo RF transmit power, select intercom input source and adjust the input levels. The Enhanced Dynamic Range feature greatly improves the Signal-to-Noise Ratio and works with the TR-16 talent receiver to provide clearer, more dynamic audio. The TT-16 has a 3-pin XLR connector on the back of the unit that will accept intercom signal input and is selectable between RTS two-wire intercoms, AudioCom or Clear-Com. Other types of balanced audio input can also be used. The TT-16 also has a 1/4” input jack on the back of the unit that will accept unbalanced line level signal input. Selection of the intercom type used and signal level adjustment is made from the front panel.

* TT-16 available in select countries

TR-16*

16-Channel Broadcast Wireless IFB Talent Receiver

Like the TT-16, the TR-16 features 16 user-selectable frequencies controlled from top panel control buttons. The TR-16 is designed with a 3.5 mm earphone connector to be used with standard IFB earpieces, such as the RTS Telethin announcers earpiece system or any other 8–500 Ω earphone. The TR-16 features a selectable high frequency boost control to equalize the high frequency loss associated with the use of behind the collar acoustic tubes and earphone drivers. Additionally, the TR-16 has Enhanced Dynamic Range for increased dynamic range. Operating on two AA batteries (up to 20 hours on alkaline cells), the TR-16 also features a low battery indicator on the backlit LCD display when 10% of battery life remains.

* TR-16 available in select countries

- 16 user-selectable channels
- Enhanced Dynamic Range for improved dynamic audio
- Balanced or unbalanced audio input
- Covers TV Ch 3 and TV Ch 4
- 20 hours of operation on two AA alkaline batteries

ACCESSORIES

TRH-2

Leather Holster for TR-700 & TR-800

ALP-450

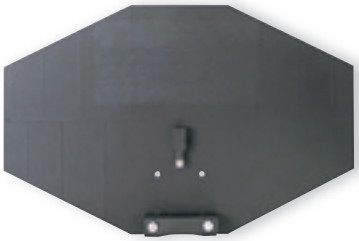
UHF Directional Antenna

ALP-600M

Telescoping Antenna Mast

ALP-600

UHF Bi-Directional Antenna



BC-800NM

1-Bay Charger with NiMH Battery Pack

BC-800NM4

4-Bay Charger with NiMH Battery Packs

AB-2

Universal Bracket for ½ Wave Antenna with 10' Coax Cable

RA-5

UHF Directional Antenna

FP-11

2.4 GHz Flat-Panel Directional Antenna

UHF Base Station Accessories

Model	Description
AB-2	Universal bracket for CLA-X ½ wave antennas with 10′ coax
ALP-450	Directional log periodic antenna. Covers 450–900 MHz. Forward coverage pattern increases signal gain up to 5 dB. Supplied with mounting hardware for wall or mic stand and 10′ coaxial cable. Measures 9½″ L x 11″ H painted matte black.
ALP-600	Bi-directional log periodic antenna. Covers 520–760 MHz. Includes mounting hardware and 10′ (3 m) coaxial cable with TNC connector.
ALP-600B	ALP-600 antenna bracket kit
ALP-600M	ALP-600 antenna mast-telescoping
ALP-700	Bi-directional log periodic antenna. Covers 470-760 MHz. Unique side-to side and front to back coverage pattern increases single gain up to 1,8dBd. Includes mounting hardware, clamp and 10’ (3 meters) coaxial cable with TNC connector. Painted black with TNC connector. Measures 274,6mm x 422mm (L x H).
APS-1	Two to one antenna combiner/splitter with TNC connectors
CXU	50 Ω low loss coaxial cable with TNC connectors (multiple lengths available)
FA	½ wave colinear antenna (multiple frequency ranges)
RM-800	Rackmount reinforcement for BTR-800/ BTR-700
TP-2	TNC 50 Ω termination plug and ACS-101 antenna combiner
TP-3	XLR-3 Intercom “dummy load” plug (AudioCom)
TP-3R	XLR-3 Intercom “dummy load” plug (RTS)

UHF Beltpack Accessories

Model	Description
BC-800NM Euro	1 bay charger w/switching power supply, Euro cord, NiMH pack
BC-800NM4 Euro	4 bay charger w/switching power supply, 4 NiMH battery packs, Euro cord
BP-700	Alkaline battery holder TR-700/TR-800/TR-825/TR-80N/TR-82N/ TR-1/RKP-4
BP-800NM	NiMH battery pack TR-700/TR-800/TR-825/TR-80N/TR-82N/ TR-1/RKP-4
BPA 1/4	Wave beltpack antenna (multiple frequency ranges)
SBC-1	Swivel beltclip for TR-700/TR-800/ TR-700/TR-800/TR-825/TR-1/RKP-4
TRH-2	Heavy duty leather swivel holster with belt loop for TR-700/TR-800/TR-80N

2.4 GHz Wireless Intercom Accessories

Model	Description
ANT-FP	Flat panel dual element directional antenna
ANT-FPM	Metal tilt & swivel antenna mounting bracket for ANT-FP
CC-24	Carry base for BTR-24 system
FP-11	2.4 GHz flat-panel directional antenna
LG-PS	US power supply for BTR-24/TR-24
RA-3	Omnidirectional antenna (3 dB) with TNC reverse polarity
RA-5	2.4 GHz omnidirectional antenna, magnetic mount with TNC reverse polarity connector
RA-7	Omnidirectional antenna (7 dB) with TNC reverse polarity connector
RPT-3	3′ coax with TNC reverse polarity connector
RPT-10	10′ coax with TNC reverse polarity connector
TNC-RP	TNC reverse polarity coupler (jack-to-jack)

UHF FREQUENCY BAND CHART

BTR-80N

The BTR-80N system operates in TV channels 16 to 36 and 38 to 55. This is the frequency range of 482 to 608 and 614 to 722 MHz. The BTR-80N frequency bands are typically 18 MHz wide.

The BTR-80N systems are offered on 32 standard frequency band splits noted as follows:

F1, F2, F3, F4, F5, F6
H1, H2, H3, H4, H5, H6
A1, A2, A3, A4, A5, A6
B2, B3, B4, B5, B6
C3, C4, C5, C6
D5, D6, D7
E5, E6

BTR-800 and BTR-700

The BTR-800 and BTR-700 systems operate in TV channels 14 to 36 and 38 to 55. This is the frequency range of 470 to 608 and 614 to 722 MHz. The BTR-800 and BTR-700 frequency bands are 18 MHz wide

Frequency bands F to C are always BTR-800/BTR-700 transmit bands (TR-800/TR-825/TR-700 receive bands) and frequency bands 1 to 6 and 88 are BTR-800/BTR-700 receive bands (TR-800/TR-825/TR-700 transmit bands).

The BTR-800 system is offered on 17 different frequency band splits noted as follows:

E88
F1, F2, F3, F4
H1, H2, H3, H4
A2, A3, A4
B3, B4, B6
C3, C4, C6

The BTR-700 system is offered on 3 standard frequency band splits noted as follows:

A2, B4, C6

RTS Intercoms UHF Frequency Band Chart

RKP-4B	TV CHANNEL	START FREQUENCY	END FREQUENCY	TV CHANNEL (NTSC)	BTR-800	BTR-700
	14	470	476	14	88	
	15	476	482	15		
	16	482	488	16		
F	17	488	494	17	F	
	18	494	500	18		
	19	500	506	19		
H	20	506	512	20	H	
	21	512	518	21		
	22	518	524	22		
A	23	524	530	23	A	A
	24	530	536	24		
	25	536	542	25		
B	26	542	548	26	B	B
	27	548	554	27		
	28	554	560	28		
C	29	560	566	29	C	C
	30	566	572	30		
	31	572	578	31		
D	32	578	584	32		
	33	584	590	33		
	34	590	596	34		
E	35	596	602	35	E	
	36	602	608	36		
NOT USED	37	608	614	37	NOT USED	NOT USED
	38	614	620	38		
1	39	620	626	39	1	
	40	626	632	40		
	41	632	638	41		
2	42	638	644	42	2	2
	43	644	650	43		
	44	650	656	44		
3	45	656	662	45	3	
	46	662	668	46		
	47	668	674	47		
4	48	674	680	48	4	4
	49	680	686	49		
	50	686	692	50		
5	51	692	698	51		
	52	698	704	52		
	53	704	710	53		
6	54	710	716	54	6	6
	55	716	722	55		
	56	722	728	56		
7	57	728	734	57		
	58	734	740	58		
	59	740	746	59		

WIRED
PARTYLINE

USER STATIONS, POWER SUPPLIES
BELTPACKS, ACCESSORIES

POWER SUPPLY

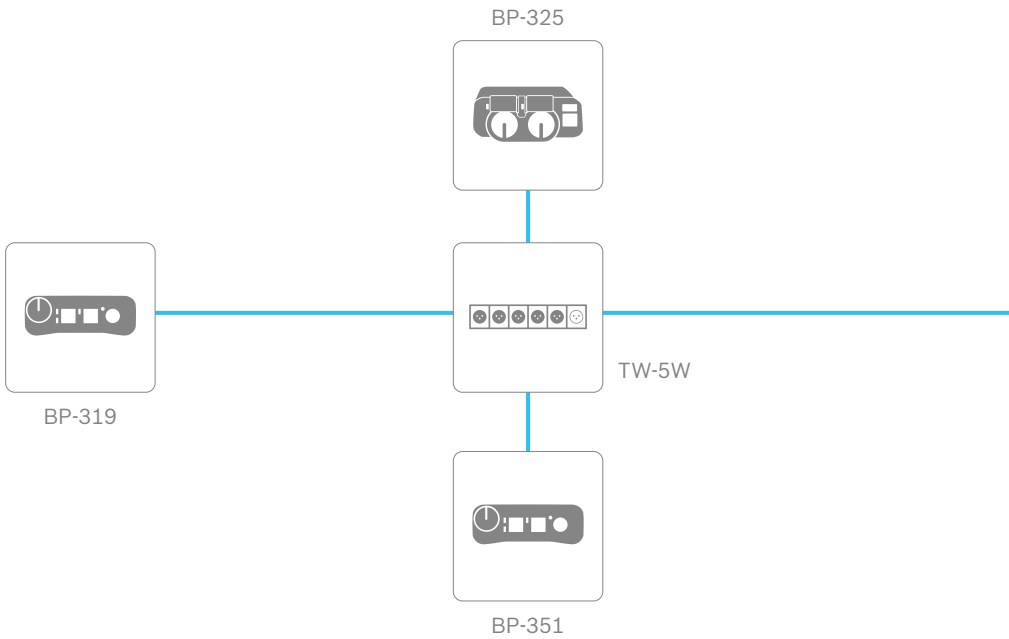
Power supplies are the heart of partyline intercom systems. They supply operating voltage to beltpacks and many user stations. Unique, short-circuit reset circuitry design and unparalleled mechanical engineering ensures reliable, trouble-free operation for years to come. With all of the things you have to worry about, power supplies should not be one of them.

PS-20

Power Supply

The PS-20 is the latest power supply. The PS-20 features 2- and 4-channel operation, RTS monitoring, 2-channel program input, audio linking and 3-mode operation: RTS 2-channel, RTS 4-channel and Clear-Com mode. It also has double the power output per channel of previous RTS power supplies, which will substantially increase the number of user stations and beltpacks that can be connected. The PS-20 uses a unique current-pump circuit, which improves performance in applications with very long wires.

The PS-20 features two channels of communication where both channels are “wet,” meaning there is power on each channel (RTS 2-channel mode). In RTS 4-channel mode, the audio signals and DC exist on the same wire. The PS-20 can also be switched into Clear-Com mode. The PS-20 has a 3-pin XLR (male) connector on the front of the system, where a RTS user station can connect and monitor activity on either or both channels. A single PS-20 power supply has 1.8 amps per channel, which means the user can power up more stations. If additional user stations or beltpacks are needed, two PS-20s can be joined together to double the power capability. A pair of standard stereo plug connectors are available on the back of the power supply to connect two PS-20s through audio linking as well. The 3-pin XLR female program input connector can be used to send audio to both CH 1 and/or CH 2.



MASTER STATION

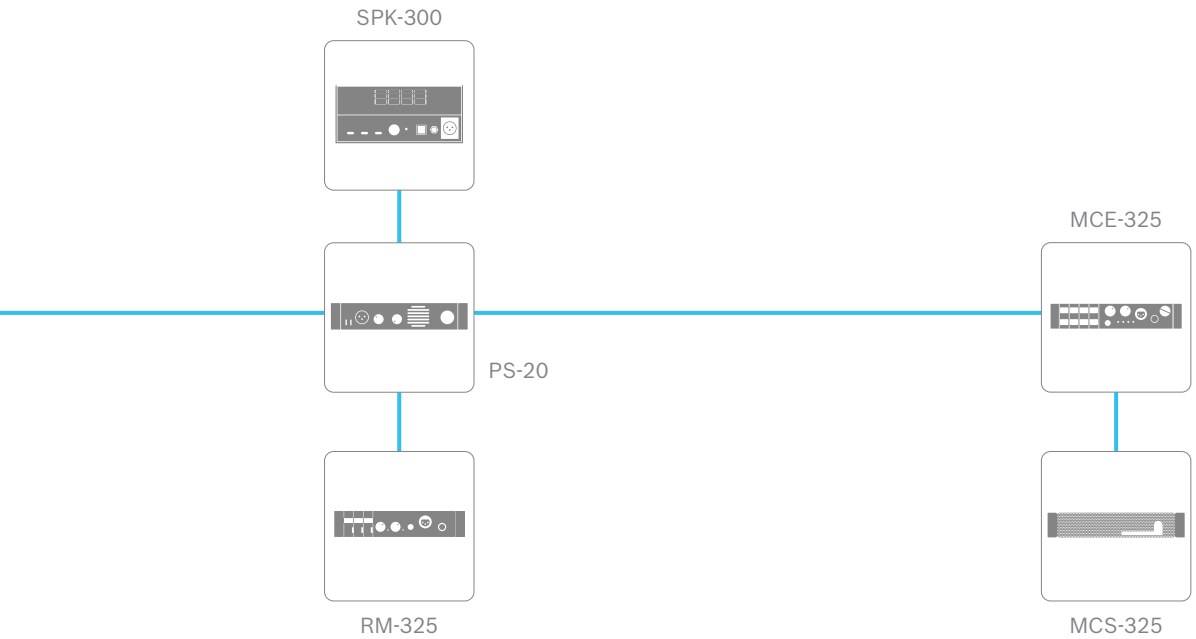
RTS two-wire intercom master stations have been the industry standard for professional partyline communication systems for more than 25 years. With their flexible configurations, ease of use and legendary reliability, they are the elite core communications control tools.

RTS two-wire intercom master stations are installed in major broadcast and industrial application venues worldwide.

MCE-325

2- or 4-Channel User-Programmable Master Station

The MCE-325 is a 4-channel, programmable intercom station. It may be used as a headset station or, with the addition of the MCS-325 modular speaker, as a speaker station. It may be mounted in a console or equipment rack via optional mounting kits. The MCE-325 can be used with either 2-wire or 4-wire intercom lines, or a combination of both. The MCE-325 can be interfaced to a variety of external devices, including external program sources, 2-way radios, paging systems and satellite circuits. The MCE-325 can be ordered for 4- or 5-pin operation.



USER STATIONS

RTS two-wire intercom user stations employ a unique modular design that enables a few station types to be configured into a multitude of communications solutions. Rugged and dependable RTS two-wire intercom user stations form the widest variety of stationary communications stations in the industry. RTS two-wire intercom user stations are the perfect choice for a wide range of applications regardless of what physical profile is required. RTS is the only two-wire protocol that allows two communication channels to be connected on a single standard microphone cable.

MRT-327

User Station

The model MRT-327 is a 2-channel intercom station for use in RTS two-wire intercom systems. It may be used as a headset station or as a speaker station (with an optional MCS-325 modular speaker listed on page 24). The MRT-327 may be installed in optional console or rackmount configurations. The MRT-327 can be ordered for 4- or 5-pin operation.

RM-325

User Station

The RM-325 is a 2-channel binaural headset station. Features stereo (split-feed) operation, microphone limiter circuit, two powerful headphone amps and simplified operational controls, including individual volume adjusts. Packaged in ½-rack by 1RU metal housing for added durability.

SPK-300L

Portable Desktop Speaker
User Station

The SPK-300L is a desktop station with built-in speaker. It can be used as a “public” listen box via built-in speaker or privately through the headset connection. Features a channel-select switch, call light, speaker on/off switch and dual-purpose portable desktop volume control. Packaged in a rugged, all-metal housing perfect for table-top operation.

CM-300L

Console-Mount User Station

Two-channel select, console-mount user station. Features a microphone limiter circuit, separate dynamic and carbon microphone inputs, and a silent channel select switch. Solid metal front and open back for console mounting.

WM-300L

Wallmount User Station

Two-channel select, wallmount headset station. Features channel select switch, call light and headset volume control. Fits in standard two-gang outlet box.

WMS-300L

Dual-Channel Wallmount User Station with Speaker

Two-channel select, wallmount speaker user station. Features channel select switch, call light and a speaker on/off switch. Fits in standard four-gang outlet box.

Which user station is right for you?

Feature	MRT-327	RM-325	SPK-300L	CM-300L	WM-300L	WMS-300L
Keys	Pushbutton	Pushbutton	Toggle Switch	Toggle Switch	Toggle Switch	Toggle Switch
Mounting	Rackmount or Desktop	Rackmount or Desktop	Desktop	Console-Mount	Wallmount	Wallmount
Speaker	MCS-325	N/A	Internal	N/A	N/A	Internal
Call Light	Yes	Yes	Yes	Yes	Yes	Yes
Power Consumption						
Quiescent	45 mA ±10%	60 mA ±10%	10–40 mA	23 mA ±10%	10–40 mA ±10%	10–40 mA
Operating 25Ω Phones	75 mA ±10%	100 mA ±10%	50 mA	37 mA ±10%	50 mA	50 mA
Operating 25Ω Phones + Call Light	90 mA ±10%	125 mA ±10%	70 mA	60 mA ±10%	75 mA	70 mA
Operating 8Ω Speaker	240 mA ±10%	300 mA ±10%	100 mA			100 mA
Operating 8Ω Speaker + Call Light	300 mA ±10%	360 mA ±10%				

BELTPACKS

Using the latest in space-age materials, RTS two-wire intercom beltpacks are mechanically engineered to be rugged and dependable. Unique audio circuitry is perfect for either high- or low-noise environments while maintaining maximum voice intelligibility.

BP-319

Single-Channel Portable
Metal Beltpack

The BP-319 is a portable beltpack for use with RTS two-wire intercom systems. The BP-319 is a microprocessor controlled one-channel intercom beltpack. The BP-319 has connections for headset/earset microphones (dynamic or electret). The beltpack has an autosensing function that automatically detects the headset mic and powers it if the mic is electret. The BP-319 consumes 45 to 70 mA of power.

BP-351

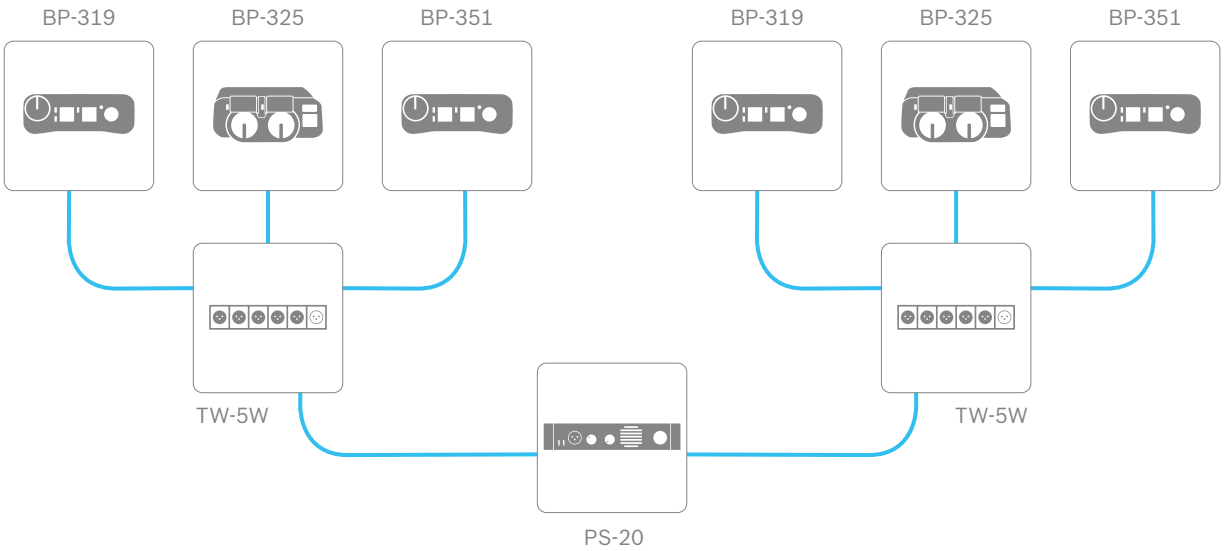
Dual-Channel Portable
Metal Beltpack

The BP-351 is a portable beltpack for use with RTS two-wire intercom systems. The BP-351 is a microprocessor controlled 2-channel select intercom beltpack. The BP-351 has connections for headset/earset microphones (dynamic or electret). The beltpack has an autosensing function that automatically detects the headset mic and powers it if the mic is electret. The BP-351 consumes 45 to 70 mA of power.

BP-325

Dual-Channel Binaural
Programmable Beltpack

The BP-325 is a portable beltpack for use with RTS two-wire intercom systems. The BP-325 is a binaural (stereo), programmable 2-channel beltpack with program-input capability. For use with a dynamic microphone only. The BP-325 consumes 65 to 85 mA of power.



IFB SYSTEM PERIPHERALS

Interrupt Fold Back (IFB) is a broadcast term used to describe the process of cueing on-air talent. RTS IFB equipment is designed with a modular approach that meets the needs of not only large television networks, but can also be configured for any one-way communication needs. With multiple program audio sources and individual or simultaneous interrupts, the RTS series of IFB and ISO products is perfect for any talent-cueing need.

The 4010 is a central IFB electronics station. It contains all necessary control functions and electronics, including line power, to provide an active link between the 4001, 4002 and 4003 control stations and the 4030 and IFB-325 user stations.

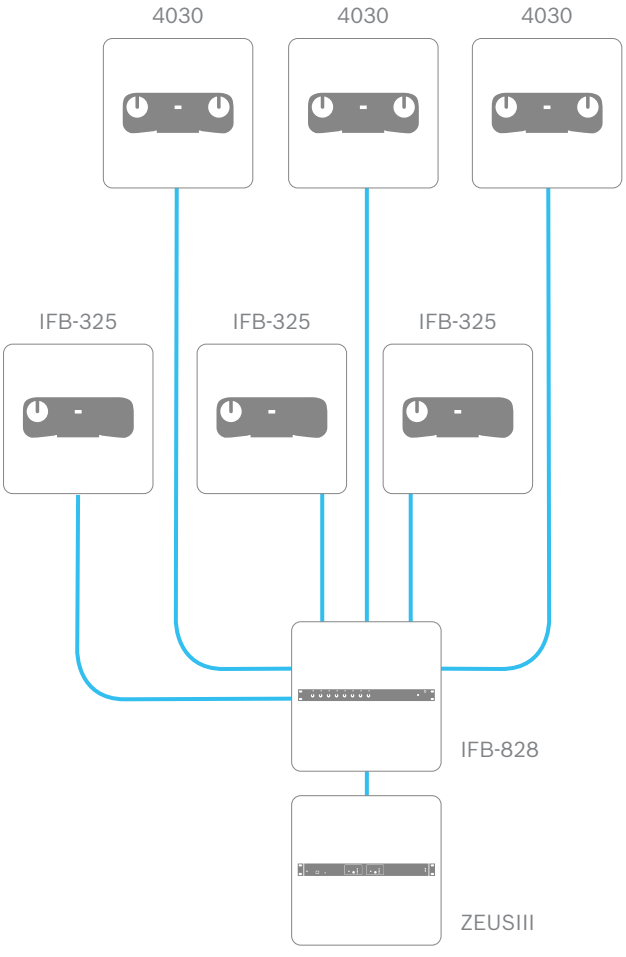
The IFB-828 interfaces up to eight 4030 or IFB-325 beltpacks to any RTS digital matrix intercom system and provides power to the beltpacks. The IFB-828 may also be used as a simple program interface to feed two separate program sources to each of eight 4030 beltpacks (16 program sources to eight beltpacks total).

The 4030 and IFB-325 are listen-only beltpacks with two and one channels, respectively. The 4030 contains electronics to provide a stereo audio signal to the user. The IFB-325 provides a mono (either interrupt/non-interrupt selected via 4010) audio signal to the user. The 4030 and IFB-325 feature volume controls in extruded aluminum cases.

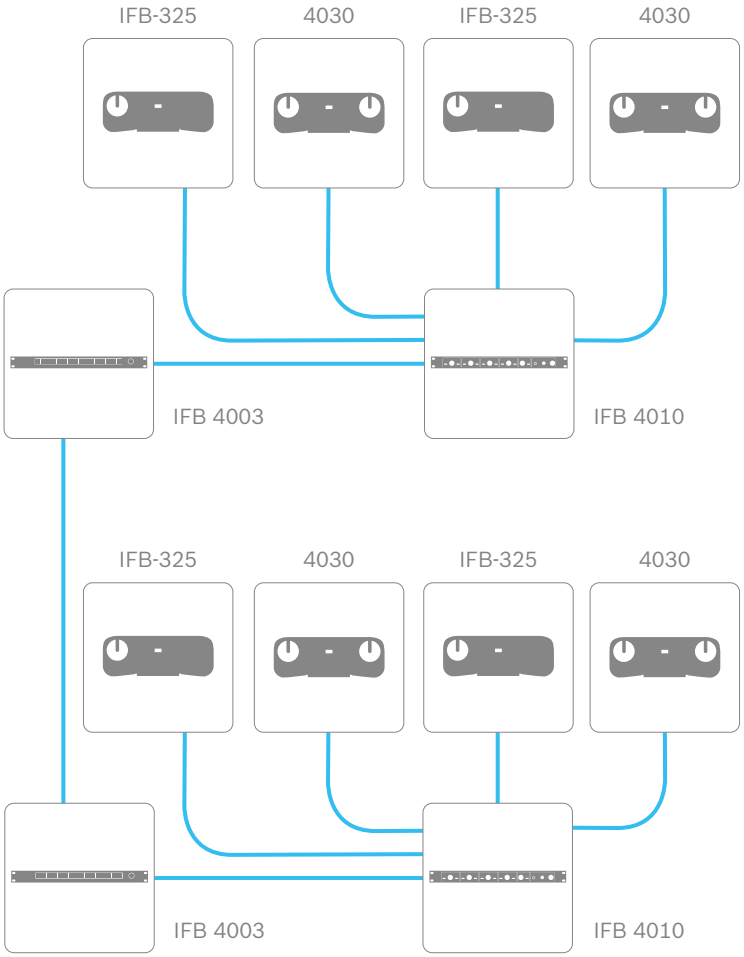
For earset options see page 34.

The 4001 and 4003 are IFB control stations with four and 12 channels, respectively, thus the control stations separate talent feeds per channel plus one Stage Announce send. The control stations feature two distinct audio sends per IFB channel for interrupt/non-interrupt or multiple program feeds. Each unit has illuminated switches, supports four priority levels and a gooseneck mic connector. An optional rack kit is also available. Requires one 4010 central IFB. 4001 is not displayed.

Digital Matrix IFB System



Partyline IFB System



ACCESSORIES

RTS offers a full line of products to complete your communications system, including interfaces to partyline intercoms, cables, telephone lines and relays. Accessories also include control panels for IFB levels and assignments, panels for adjusting system audio levels, microphones and 4-wire beltpacks.

RTS two-wire intercom source assignment panel accessories are a key element in large, high-end RTS two-wire intercom partyline systems. With the ability to turn a standard 2-bus communications system into a 12 or more bus configuration, source assignment panels are vital to system expansion. Increasing the number of usable communication busses allows the system to be tailored to individual user needs.

SAP-1626

2RU Source Assignment Panel

It assigns any one of 12 intercom channels and/or three program audio channels to 26 separate 2-channel user stations via convenient thumb-wheel switches. I/O provided via two 50-pin connectors. Normally used in conjunction with a BOP-220.

SAP-612

Source Assignment Panel

It transforms a basic 2-bus intercom system into a 6-bus system via convenient slide switches. Provides six input channels and 12 2-channel 2-wire user station strings. I/O provided via two ¼", three 3-pin XLR female and twelve 3-pin XLR male connectors. Contains XLR jacks for RTS power supply.

BOP-220

3RU Breakout Panel,
I/O Connector Transition Assembly

It provides a convenient interface between a SAP-1626 (25 pair 50-pin) and up to 20 user stations or strings of stations (3-pin XLR male).

MCS-325

Passive Modular Speaker

It can be combined with MCE-325 and MRT-327 to provide speaker station operation. Packaged in ½ rack by 1RU metal housing for added durability.

LMS-325*

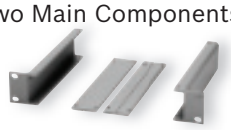
(Active) Line-Monitor
Speaker Station

Part of RTS's unique modular packaging system. Features a full-range, 5 W speaker and power amp, dual-channel inputs from 2-wire or separate program inputs, and volume control. Packaged in ½ rack by 1RU metal housing for added durability and magnetically shielded for use near video monitors.

* LMS-325 available in select countries

MCP-1

Mounting Bracket for
Two Main Components



MCP-2

Single Rackmount Kit

MCP-3

Mounting Kit for One
Main Component

MCP-4

Tandem Mount Kit for
Two Main Components

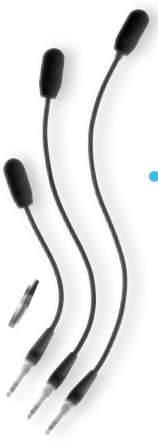
CIA-1000*

Call Light Indicator Assembly

*CIA-1000 available in select countries

TW-5W

1 x 5 Dual-Channel 3-Pin
XLR-Type Passive Splitter



MCP-90-x

MCP-90	Electret Gooseneck Microphone
MCP-90-0	0" Gooseneck Microphone
MCP-90-8	8" Gooseneck Microphone
MCP-90-12	12" Gooseneck Microphone
MCP-90-18	18" Gooseneck Microphone

TW-7W

One XLR-3F
into Seven
XLR-3M Out

4022

1 x 2 25 pair,
50-pin passive
splitter

4025A

1 x 4 50-pin
passive splitter

AUDIOCOM

MS-2002

Dual-Channel Master Station

MS-4002*

Four-Channel Master Station

The master stations provide unique balanced audio design that allows users to utilize the longest 2-wire partyline cable runs in the industry. The master stations offer users the ultimate in performance and flexibility. Operators can utilize headset or speaker/mic operation and have full access to all intercom channels—both individually and as “all talk”. The master station users can also utilize innovative features such as the “remote mic kill” function to silence any open mic on the intercom channel so that extraneous noise can be eliminated, backlit lettered buttons for darkened environments and the ability to operate in an unbalanced mode to be completely Clear-Com compatible.

* MS-4002 available in select countries

BP-1002

Single-Channel Beltpack

Portable 1-channel beltpack headset station for mobile users. High-quality audio system with mic limiter circuit. Rugged, low-profile metal case with sturdy beltclip. Recessed volume control. Talk on/off switch with momentary/latching operation. Call send button with receive indicator light. Call receive beep tone with on/off selection. Mic kill receive with on/off selection. Sidetone trimmer. 3-pin male and female XLR loop-through connectors for partyline connection. 4-pin male XLR headset connector. Powered from partyline. Clear-Com compatible.

BP-2002

Dual-Channel Beltpack

Portable 2-channel beltpack headset station for mobile users. Identical to BP-1002 with the following differences: Includes partyline select switch with partyline one and two indicator lights. 6-pin male and female XLR loop-through connectors for 2-channel connection. Powered from partyline. Clear-Com compatible.

SS1002

Single-Channel Speaker Station

The single-channel can be used as speaker station and/or headset station. Features include headset operation for noise reduction and privacy; dual-purpose level control, which adjusts both the speaker volume and the headset listen volume; “remote mic kill” receive enabled so an open mic can be silenced from any user or master station; and backlit buttons for darkened environments. Clear-Com compatible.

PS4001

Four-Channel Power Supply

The PS4001 power supply supplies four isolated channels of intercom system phantom power to down line components. The PS4001 may be combined with an ES4000A expansion station to create additional intercom channels when using a US2002/PS2001L or US2000A/SPS2001 master station configuration. The PS4001 can also be used as a standalone power supply to provide power to four independent partyline channels. Rack mountable in a variety of modular configurations with one of several optional rack mount kits. Clear-Com compatible.

HEADSETS

HEADSETS, HEADPHONES, EARSETS & ACCESSORIES

LIGHTWEIGHT HEADSETS | PH LIGHTWEIGHT SERIES

The RTS lightweight headsets provide users with an ideal combination of functionality and comfort. The PH-44 and PH-88 models offer users an efficient and durable standard headset while the MH models accommodate the needs of those who are looking for the added features of a premium headset.

PH-88

Single-sided Headset with
Flexible Dynamic Boom Mic

The PH-88 headset is a super lightweight, single-sided headset for the ultimate in daylong comfort. The PH-88 features high quality dynamic earphones with a dynamic-noise cancelling microphone with a semi-rigid, fully adjustable boom for precise positioning. The high-quality wide band dynamic earphones offer a better fit, isolation and frequency response. Additional versions are available including 4- or 5-pin male or female XLR connectors.

PH-44

Dual-sided Headset with
Flexible Dynamic Boom Mic

The PH-44 headset is a super lightweight, dual-sided headset for the ultimate in daylong comfort. The PH-44 features high quality dynamic earphones with a dynamic noise-cancelling microphone with a semi-rigid, fully adjustable boom for precise positioning. The high-quality wide band dynamic earphones offer a better fit, isolation and frequency response. Additional versions are available including 4- or 5-pin male or female XLR connectors.

PREMIUM LIGHTWEIGHT HEADSETS | MH SERIES

MH-300

Single-sided Headset/Headphone

The MH-300 single-sided headset provides the newest design from RTS. It features a rugged, modular design, lightweight construction, installation options and multiple functions beyond the live studio or theater venue. The modular design allows you to interchange modules to allow for the best headset configuration for any environment. The noise-cancelling microphone, combined with the headphone transducers, provide clear and precise communication in noisy environments. Finally, by installing the appropriate module, you can connect to any audio device. Expanded frequency response ensures clear communications and enhanced audio performance.

MH-302

Dual-sided Headset/Headphone

The MH-302 is designed with you, the user, in mind. The headset features a durable modular design, lightweight construction, installation options and multi-functional use. The modular design allows you to interchange modules for any environment. The noise-cancelling microphone, combined with the headphone transducers, provide clear communication in noisy environments. Finally, this headset is not limited to live studio or venue communications. By installing the appropriate module, you can connect to an MP3 player or many other types of audio devices. The MH Series headsets provide clear communications for professional applications including live remote or studio broadcasting, film, TV or theater intercom communications. Expanded frequency response ensures clear communications and enhanced audio performance.

MEDIUM WEIGHT HEADSETS | PH SERIES

The PH Series of medium-weight intercom headsets is considered the industry standard by many users in all different applications. The PH Series features both durability and functionality. With weights between 11–13 oz, these headsets offers the ultimate in daylong comfort.

PH-1

Single-sided Headset with Flexible Dynamic Boom Mic

The PH-1 is a medium weight, single-sided headset with foam-filled cushions that offer a light feel with moderate isolation from ambient noise. The dynamic noise-cancelling microphone is easily positioned with a unique ball joint for continuous adjustability. Available with 4- or 5-pin male or female XLR connectors.

PH-2

Dual-sided Headset with Flexible Dynamic Boom Mic

The PH-2 headset is a medium weight, full cushion, dual-sided headset for the ultimate in daylong comfort. The headset has foam-filled cushions that offer a light feel with moderate isolation from ambient noise. The PH-2 features a high quality monaural dynamic earphone with a dynamic noise-cancelling microphone on an adjustable ball joint boom that can be positioned on either side of the head. Versions are available with 4-pin male or female connectors.

PH-3

Dual-sided Headset with Flexible Dynamic Boom Mic

The PH-3 is a medium weight, dual-sided stereo headset with foam-filled cushions that offer a light feel with moderate isolation from ambient noise. The dynamic noise-cancelling microphone is easily positioned with a unique ball joint for continuous adjustability. Versions are available with 5-pin male or female connectors.

MEDIUM WEIGHT HEADSETS | HR SERIES

The HR Series of medium-weight intercom headsets features a unique design that is both comfortable and functional. The HR Series provides users with a premium headset option loaded with features. The earcup and ergonomically designed headband provide added comfort through 3 unique pressure settings. This design also provides 21 dB of passive hearing protection. The cord comes terminated in either 4- or 5-pin XLR, male or female and can also be purchased unterminated for custom applications.

HR-1

Single-sided Headset with
Flexible Dynamic Boom Mic

The HR-1 is a single muff, medium-weight passive noise reduction headset with a dynamic noise-cancelling microphone. The ergonomic headband design distributes the ear cushion pressure evenly over the entire ear with no pressure points, ensuring hours of comfortable wear. An added advantage of this headset design is that it folds into compact form for ease of transport and storage. Additional versions are available including 4- or 5-pin male or female XLR connectors.

HR-2

Dual-sided Headset with
Flexible Dynamic Boom Mic

The HR-2 is a dual-sided, medium-weight passive noise reduction headset with a dynamic noise-cancelling microphone. The headset has a noise reduction rating of 21 dB; suitable for use in a moderately noisy environment. The HR-2 features our unique, soft padded headband for daylong comfort. Our ergonomic headset design distributes ear cushion pressure evenly over the entire ear with no pressure points, unlike conventional headsets. An added advantage of this headset design is that it folds into compact form for ease of transport and storage. Additional versions are available including 4- or 5-pin male or female XLR connectors.

MONITOR HEADPHONES | LISTEN-ONLY HEADPHONES

HFY-91

Under-the-chin Style Headphone with 2,000 Ω Impedance

The HFY-91 is an under-the-chin style headphone terminated with a ¼" phone plug.

HR-1L & HR-2L

Medium-Weight, Listen-only Headphones

The HR-1L & HR-2L are medium-weight, noise reduction headphones with a noise reduction rating of 21 dB. The HR-1L is a single-sided headset while the HR-2L is a dual-sided headset. The headsets effectively reduce noise and are suitable for use in moderately noisy environments. All models feature a unique, soft padded headband design that distributes ear cushion pressure evenly over the entire ear with no pressure points, unlike conventional designs which apply more pressure on the bottom of the ear than the top. An added advantage of this design is that the headset folds into an extremely compact shape.

UNDER HELMET

PH-16

Dual-sided Headset with 24 dB, Flexible Dynamic Boom Mic

The PH-16 is a monaural headset with a noise-cancelling dynamic microphone. The PH-16 is designed to fit under a helmet with an environmental protection agency noise reduction rating (NRR) of 24 dB. The headset cord is terminated with a 4-pin XLR female connector. The dynamic receivers have special mounting which resist shock, vibration and acoustic feedback. The PH-16 ear cups are foam lined for added noise attenuation. The vented, foam-filled ear cushions combine comfort with good acoustic seal. For convenience and economy, the receivers and ear cushions are field repairable.

ACCESSORIES

HS-6A

Telephone-style PTT Handset with Metal Hanger Bracket

The HS-6A is a telephone-style handset that offers a push-to-talk switch, dynamic earphone and dynamic microphone. It is supplied with a metal hanger bracket for vertical storage and is compatible with most user stations. The HS-6A is terminated with an A4F plug. Available in white or black.

Headsets Accessories

Model	Description
CC-1	Cover Cushion
C3	Ear Cushion, Black for PH-1, -2, -3
C-8	Ear Cushion for PH-44, -88
C-9	Ear Cushion for HR-1, -2
WS-2B	Windscreen for PH-44, -88
PT-400	PTT Kit Locking
AEF-3B	Nylon Earloop, Clear
ET-1B	Eartip, Clear
HE-15	Extension Cable
HE-30	Extension Cable

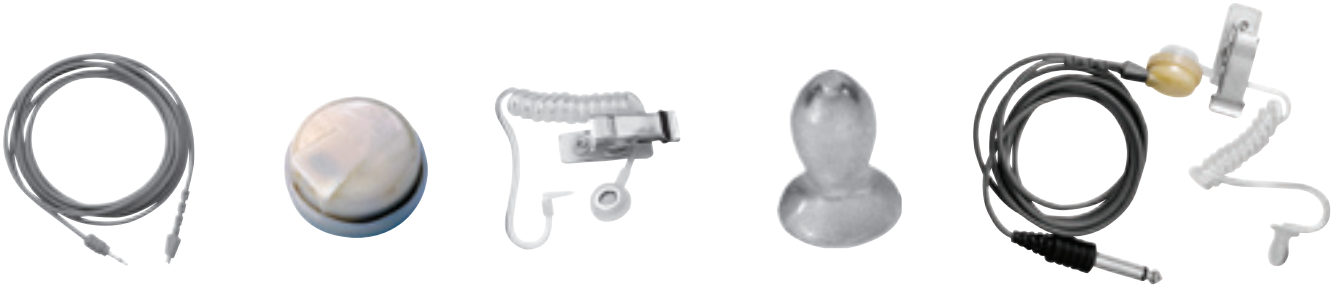
MH Headsets Accessories

Model	Description
MH-EC	MH ACC Ear Cushion
MH-WC	MH ACC Dyn Mic Windscreen
MH-HBP+	MH ACC Headband and Side Pads
MH-AAM	MH ACC Aux Audio Module
MH-FM	MH ACC Filler Module
MH-TP	MH ACC Temple Pad
MH-CC	MH ACC Carry Case
MH-DM-A4M	MH ACC Dyn Module – A4M
MH-DM-A4F	MH ACC Dyn Module – A4F
MH-DM-A5M	MH ACC Dyn Module – A5M
MH-DM-A5F	MH ACC Dyn Module – A5F

EARSETS

The popular RTS earsets are precisely designed for inconspicuous listening while on camera. Used by nearly all major television networks and stations, we have surpassed industry standards. The extremely efficient miniature driver element requires only nominal operating power and enables the announcer to hear program cues while working with a live microphone. The units are also suitable for many other applications such as live theater script prompting.

TYPICAL SET-UP



Cable + Receiver + Eartube + Earcone = Complete Set

To provide optimum versatility, the announcer's earset is made up of interchangeable components that simply snap together. Users can construct a version of the announcer's earset that best suits their particular needs. Some popular combinations are available as a standard configuration; these are listed below.

Complete Earsets

EMV-2 includes:
RTV-04, CMT-2, AEF-3B

CES-1 includes:
RTV-04, CMT-2, ET-4

CES-2 includes:
RTV-04, CMT-98, ET-4

Telethin Magnetic Receivers

RTR-04 15 Ω
RTV-04 125 Ω
RTW-04 500 Ω
RTX-04 1000 Ω
RTY-04 2000 Ω

Telethin Magnetic Receivers, available in 5 different impedances, permits choice of impedance for any application. For inconspicuous use, the receiver is extremely small and lightweight.

Standard Telethin® Cord Sets

The standard earset system comes equipped with a 5', low luster gray or beige cord with a 1/4" connector. A variety of other cords with or without volume controls are available as components.

CMT-95
Straight cord with sub-miniature straight connector

CMT-98
Straight cord with straight miniature connector

CMT-2
Straight cord with sub-miniature straight connector

CMT-92
Straight cord with right angle miniature connector

CCX-2
Coiled cord with right angle miniature connector

CCT-2
Coiled extended cord with 1/4" connector

Earmolds/Earcones/ Eartips

For maximum comfort and convenience, three pliable earmolds (S, M & L) are available for either the left or right ear. The Telethin receiver easily attaches into the earpiece directing sound into the ear canal and limiting ambient noise.

Earmolds

EML-1R
Large, right ear
EML-2L
Large, left ear

EMM-1R
Medium, right ear
EMM-2L
Medium, left ear

EMS-1R
Small, right ear
EMS-2L
Small, left ear

Eartips

ET-1B
Eartip, soft silicone tip, clear colored, with metal plug

Earcones

BT-4
Bag of 5 large earcones for use with ET-4

BT-3
Bag of 5 medium earcones for use with ET-4

BT-2
Bag of 5 small earcones for use with ET-4

BT-1
Bag of 25 replacement eartips, clear colored, for use with ET-1B

Eartubes

These inconspicuous clear plastic tubes carry the sound effectively from a RTS Telethin receiver to the talent's ear without revealing the cord to the camera. The clear tubes are available in 3 versions. All connect easily to a RTS eartip, earcone or any size earmold and have a handy clothing clip to secure the system in place.

ET2
Coiled acoustic eartube with clothing clip for use with earmolds or eartip

ET4
Coiled acoustic eartube with clothing clip for use with earcones — comes with one each — S, M & L earcones

ET3
Straight acoustic eartube with clothing clip for use with earmolds or eartip

Cords

The cords with in-line volume control are equipped with clothing clips for out of sight, waist-level positioning. To avoid loss of cues, the volume control will not shut off completely.

VXT-3
500 Ω volume control with 1/4" connector

VYT-3
2000 Ω volume control with 1/4" connector

Earloops

The nylon or plastic covered metal earloop holds the eartip or receiver in place on the ear.

AEF-3B
Nylon earloop

AEF-2
Plastic covered metal earloop

AFC-1 Under-chin tube and foam cushion

Overall	BTR-80N	BTR-800	BTR-700	BTR-240
RF Frequency Range	482–722 MHz (TV 16 to TV 36 and TV 38 to TV 52)	470–608 MHz, 614–722 MHz in 18 MHz TX and RX bands	470–608 MHz, 614–722 MHz in 18 MHz TX and RX bands	North America: 2.412 to 2.462 GHz Europe: 2.412 to 2.472 GHz
Power Requirement	(AC and DC) 100–240 VAC, 50–60 Hz, 12–15 Volts DC	100-240 VAC, 50–60 Hz, IEC receptacle	100-240 VAC, 50–60 Hz, IEC receptacle	12–15 VDC, 1.5 Amps
Product Dimensions (W x H x D)	19.0″x 1.72″x 14.0″ (48.3 x 4.4 x 35.6 cm)	19.0″x 1.72″x 14.0″ (48.3 x 4.4 x 35.6 cm)	19.0″x 1.72″x 14.0″ (48.3 x 4.4 x 35.6 cm)	1RU, 7.5″L x 19″W x 1.75″H (19.1 x 48.3 x 4.5 cm)
Product Weight	7.28 lb (3.3 kg)	7.14 lb (3.24 kg) / 6.97 lb (3.16 kg)	7.14 lb (3.24 kg) / 6.97 lb (3.16 kg)	3.48 lb (1.58 kg)
Shipping Dimensions (W x H x D)	22.0″x 5.0″x 16.5″ (55.9 x 12.7 x 41.9 cm)	17.0″x 5.0″x 23.0″ (43.2 x 12.7 x 58.4 cm)	17.0″x 5.0″x 23.0″ (43.2 x 12.7 x 58.4 cm)	23.6″x 13.3″x 5.53″ (59.9 x 33.8 x 14.0 cm)
Shipping Weight	11 lb (4.9 kg)	11.68 lb (5.3 kg)/ 10.58 lb (4.8 kg)	11.68 lb (5.3 kg)/ 10.58 lb (4.8 kg)	7.7 lb (3.5 kg)
FCC ID	B5DM528	B5DM514/ B5DM516	B5DM514/ B5DM516	B5DM532
EC Declaration of Conformity: Eligible to bear CE mark	BTR-80N	BTR-700 BTR-800	BTR-700 BTR-800	BTR-240
Frequency response	300 Hz – 5 kHz	300 Hz – 8 kHz	300 Hz – 8 kHz	350 Hz – 3 kHz
Four Wire Input	Level adjustable (2 Vrms typical)	Level adjustable (2 Vrms typical)	Level adjustable (2 Vrms typical)	Level adjustable (2 Vrms typical)
Four Wire Output	Level adjustable (2 Vrms typical)	Level adjustable (2 Vrms typical)	Level adjustable (2 Vrms typical)	Level adjustable (2 Vrms typical)
Audiocom Intercom	Level adjustable (1 Vrms typical) Line impedance 300 Ω	Input/output level adjustable (1 Vrms typical) Line impedance 300 V	Input/output level adjustable (1 Vrms typical) Line impedance 300 V	Level adjustable (0.775 Vrms typical)
RTS Intercom	Level adjustable (0.775 Vrms typical) Line impedance 200 Ω	Input/output level adjustable (0.775 Vrms typical) Line impedance 200 V	Input/output level adjustable (0.775 Vrms typical) Line impedance 200 V	Level adjustable (1 Vrms typical)
Clear-Com Intercom	Level adjustable (1 Vrms typical) Line impedance 200 Ω	Input/output level adjustable (1 Vrms typical) Line impedance 200 V	Input/output level adjustable (1 Vrms typical) Line impedance 200 V	Level adjustable (1 Vrms typical)
Auxiliary Input	Adjustable (2 Vrms typical)	Adjustable (2 Vrms typical)	Adjustable (2 Vrms typical)	Level adjustable (2 Vrms typical)
Auxiliary Output	Adjustable (2 Vrms into 600 Ω)	Adjustable (2 Vrms typical into 600 V) (at rated deviation)	Adjustable (2 Vrms typical into 600 V) (at rated deviation)	Level adjustable (2 Vrms typical into 600 Ω)
Stage Announce Output	Adjustable (2 Vrms typical at rated deviation into 600 Ω)	Internally adjustable (1 Vrms typical at rated deviation into 100 KV) / N/A	Internally adjustable (1 Vrms typical at rated deviation into 100 KV) / N/A	N/A
Stage Announce Relay	Dry contact, rated at 1 Amp, 24 V Max	Dry contact, rated at 1 Amp, 24 V Max / N/A	Dry contact, rated at 1 Amp, 24 V Max / N/A	N/A
Transmitter				
Type	Two synthesized transmitters, 712 channels each	Synthesized, 720 channels	Synthesized, 720 channels	802.11b, up to 13 channels depending on location
Transmit Power	249 mW – 10 mW	100 mW Max (High), 10 mW (Normal) / 50 mW Max (High) 5 mW (Normal)	100 mW Max (High), 10 mW (Normal) / 50 mW Max (High) 5 mW (Normal)	North America: 200 mW Europe: 70 mW
Microphone Audio Input	30–3500 Ω	30–3500 Ω	30–3500 Ω	30–3500 Ω
Receiver				
Type	Triple conversion superheterodyne, four independent IF's, 712 channels each	Dual conversion superheterodyne, synthesized, FM, 720 channels	Dual conversion superheterodyne, synthesized, FM, 720 channels	802.11b, up to 13 channels depending on location
RF Sensitivity	<0.8 µV for 12 dB SINAD	<0.8 µV for 12 dB SINAD	<0.8 µV for 12 dB SINAD	N/A
IF Selectivity	3 dB at 230 kHz	3 dB at 230 kHz	3 dB at 230 kHz	N/A
Squelch Quieting	90 dB	95 dB	95 dB	N/A
Distortion	1% at full deviation	<1% at full deviation	<1% at full deviation	N/A
Local Headset Output	40 mW output into 600 Ω	40 mW output into 600 Ω (1% Distortion)	40 mW output into 600 Ω (1% Distortion)	100 mWrms into 300 Ω

Overall	TR-80N/TR-82N	TR-825/TR-800	TR-700	TR-240
RF Frequency Range	482–722 MHz (TV 16 to TV 36 and TV 38 to TV 52)	470–608 MHz, 614–722 MHz in 18 MHz TX and RX bands	470–608 MHz, 614–722 MHz in 18 MHz TX and RX bands	North America: 2.412 to 2.462 GHz Europe: 2.412 to 2.472 GHz
Power Requirement	6 AA cells, alkaline (NiMH optional)	6 AA cells, alkaline (NiMH optional)	6 AA cells, alkaline (NiMH optional)	Lithium Ion Rechargable Battery, 7.5 VDC
Typical Battery Life Alkaline	14 hours (continuous duty)/ 11 hours (continuous duty)	11 hours (continuous duty)/ 14 hours (continuous duty)/ 14 hours (continuous duty)	11 hours (continuous duty)/ 14 hours (continuous duty)/ 14 hours (continuous duty)	N/A
Typical Battery Life Nickel Metal Hydride (1500 mAh)	14 hours (continuous duty)/ 11 hours (continuous duty)	11 hours (continuous duty)/ 14 hours (continuous duty)/ 14 hours (continuous duty)	11 hours (continuous duty)/ 14 hours (continuous duty)/ 14 hours (continuous duty)	N/A
Product Dimensions (W x H x D)	3.75″x 5.05″x 1.65″ (9.5 x 12.8 x 4.2 cm)/ 3.75″x 5.35″x 2.02″ (9.5 x 13.5 x 5.1 cm)	3.75″x 5.35″x 2.02″ (9.5 x 13.5 x 5.1 cm)/ 3.75″x 5.05″x 1.65″ (9.5 x 12.8 x 4.2 cm)/ 3.75″x 5.05″x 1.65″ (9.5 x 12.8 x 4.2 cm)	3.75″x 5.35″x 2.02″ (9.5 x 13.5 x 5.1 cm)/ 3.75″x 5.05″x 1.65″ (9.5 x 12.8 x 4.2 cm)/ 3.75″x 5.05″x 1.65″ (9.5 x 12.8 x 4.2 cm)	1.75″L x 3.75″W x 5.25″H (4.5 x 9.5 x 13.3 cm)
Product Weight	1.81 lb (0.82 kg)/ 1.94 lb (0.88 kg)	21 oz (0.60 kg) with alkaline batteries/ 15 oz (0.43 kg) with alkaline batteries/ 16 oz (0.45 kg) with alkaline batteries	21 oz (0.60 kg) with alkaline batteries/ 15 oz (0.43 kg) with alkaline batteries/ 16 oz (0.45 kg) with alkaline batteries	12.9 oz (0.37 kg)
Shipping Dimensions (W x H x D)	13.75″x 3.75″x 6.5″ (34.9 x 9.5 x 16.5 cm)	7.0″x 4.0″x 14.0″ (17.8 x 10.2 x 35.6 cm)	7.0″x 4.0″x 14.0″ (17.8 x 10.2 x 35.6 cm)	7.0″x 4.0″x 14.0″ (17.8 x 10.2 x 35.6 cm)
Shipping Weight	3.31 lb (1.5 kg)/ 3.52 lb (1.6 kg)	1.37 lb (0.62 kg)/ 1.32 lb (0.60 kg)/ 1.26 lb (0.57 kg)	1.37 lb (0.62 kg)/ 1.32 lb (0.60 kg)/ 1.26 lb (0.57 kg)	1.37 lb (0.62 kg)
FCC ID	B5DM530/ B5DM531	B5DM517/ B5DM515/ B5DM515	B5DM517/ B5DM515/ B5DM515	None Required
EC Declaration of Conformity: Eligible to bear CE mark	TR-80N TR-82N	TR-700 TR-800 TR-825	TR-700 TR-800 TR-825	TR-240

Transmitter				
Type	Two synthesized transmitters, 712 Channels Each	Synthesized, 720 channels	Synthesized, 720 channels	
Transmit Power	100 mW – 5 mW	50 mW Max (Auto-power reduction when close to base)	50 mW Max (Auto-power reduction when close to base)	50 mW
Microphone Audio Input	30–3500 Ω	30–3500 Ω	30–3500 Ω	30–3500 Ω

Receiver				
Type	Triple conversion superheterodyne, four independent IF's, 712 channels each	Two, dual conversion superheterodyne, synthesized, FM, 720 channels/ dual conversion superheterodyne, synthesized, FM, 720 channels/ dual conversion superheterodyne, synthesized, FM, 720 channels	Two, dual conversion superheterodyne, synthesized, FM, 720 channels/ dual conversion superheterodyne, synthesized, FM, 720 channels/ dual conversion superheterodyne, synthesized, FM, 720 channels	802.11 B, up to 13 channels depending on location
RF Sensitivity	<0.8 µV for 12 dB SINAD	<0.8 µV for 12 dB SINAD/ <0.7 µV for 12 dB SINAD/ <0.7 µV for 12 dB SINAD	<0.8 µV for 12 dB SINAD/ <0.7 µV for 12 dB SINAD/ <0.7 µV for 12 dB SINAD	N/A
IF Selectivity	3 dB at 230 kHz	3 dB at 230 kHz	3 dB at 230 kHz	N/A
Squelch Quieting	90 dB	95 dB	95 dB	N/A
Distortion	1% at full deviation	<1% at peak level	<1% at peak level	N/A
Local Headset Output	40 mW output into 600 Ω	40 mW output into 600 V (1% Distortion)	40 mW output into 600 V (1% Distortion)	70 mWrms into 300 Ω

Licensing of this equipment is the User's responsibility and ability to license depends on the User's classification, User's application and frequency selected.

19" Rackmount Products

Product	Height	Depth	Weight	Color
4010	1RU	15″ (38.1 cm)	10.74 lb (4.87 kg)	Grey
4012	3RU	5.06″ (12.86 cm)	3.72 lb (1.69 kg)	Silver
BOP-220	3RU	5″ (12.7 cm)	2.43 lb (1.1 kg)	Silver
DSI-2008	1RU	8.25″ (20.96 cm)	2.9 lb (1.32 kg)	Grey
IFB-828	1RU	7″ (17.78 cm)	8.84 lb (4.01 kg)	Grey
LMS-325	1RU	8″ (20.32 cm)	2.76 lb (1.25 kg)	Grey
MCE-325	1RU	8″ (20.32 cm)	4.5 lb (2.04 kg)	Grey
MCS-325	1RU	8.25″ (21 cm)	2.52 lb (1.14 kg)	Grey
MRT-327	1RU	9″ (22.86 cm)	2.75 lb (1.25 kg)	Grey
PS-20	1RU	8.56″ (21.75 cm)	5 lb (2.27 kg)	Grey
RM-325	1RU	8″ (20.32 cm)	2.75 lb (1.25 kg)	Grey
SAP-1626	2RU	9.8″ (24.89 cm)	10 lb (4.54 kg)	Grey
SAP-612	1RU	8″ (20.32 cm)	4.52 lb (2.05 kg)	Grey
SSA-324	1RU	8.25″ (20.96 cm)	2.7 lb (1.22 kg)	Grey

Non-Rackmount Products

Product	Form Factor	Height	Width	Depth	Weight	Color
4030	Beltpack	1.5″ (3.8 cm)	3.75″ (9.53 cm)	1.8″ (4.57 cm)	0.67 lb (0.3 kg)	Grey
BP-319	Beltpack	5″ (12.7 cm)	3.5″ (8.89 cm)	1.8″ (4.57 cm)	0.75 lb (0.34 kg)	Black or Grey
BP-325	Beltpack	5″ (12.7 cm)	3.75″ (9.53 cm)	2.05″ (5.21 cm)	0.5 lb (0.23 kg)	Black or Grey
BP-351	Beltpack	5″ (12.7 cm)	3.5″ (8.89 cm)	1.8″ (4.57 cm)	0.75 lb (0.34 kg)	Black or Grey
CIA-1000 Front	Rackmount or Desktop	1RU	8.19″ (20.8 cm)	5.56″ (14.13 cm)	0.94 lb (0.43 kg)	Grey
CIA-1000 Top	Desktop	2″ (5.08 cm)	8.19″ (20.8 cm)	5.25″ (13.34 cm)	0.94 lb (0.43 kg)	Grey
CM-300L	Console Mount	2.75″ (6.99 cm)	6.25″ (15.88 cm)	6.4″ (16.26 cm)	1.2 lb (0.54 kg)	Grey
IFB-325	Beltpack	1.5″ (3.8 cm)	3.75″ (9.53 cm)	1″ (2.54 cm)	1 lb (0.45 kg)	Grey
SPK-300L	Desktop	4″ (10.16 cm)	8″ (20.32 cm)	8″ (20.32 cm)	3.5 lb (1.59 kg)	Grey
WM-300L	Wallmount	4.5″ (11.43 cm)	4.5″ (11.43 cm)	1.81″ (4.6 cm)	0.56 lb (0.25 kg)	Grey
WMS-300L	Wallmount	4.5″ (11.43 cm)	8″ (20.32 cm)	1.75″ (4.45 cm)	1 lb (0.45 kg)	Grey

Headsets

Model Name	Type	Mic Sensitivity	Mic Frequency Range	Mic Impea-dance	Speaker Sensitivity SPL @1kHz, 1mW	Speaker Frequency Range	Speaker Impea-dance	Connector Termination	Cord Length	Weight (not includ-ing cord)
PH-88	Single-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω	XLR 4-pin Female	5.5′/1.6m	2.5oz/70.8g
PH-88R	Single-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω	XLR 4-pin Male	5.5′/1.6m	2.5oz/70.8g
PH-88R5	Single-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω	XLR 5-pin Male	5.5′/1.6m	2.5oz/70.8g
PH-88E	Single-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω	XLR 4-pin Female coiled cord	2′/0.6m 12′/3.6 extended	2.5oz/70.8g
PH-8S	Single-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω	3.5mm 4-conductor	9′/2.7m	2.5oz/70.8g
PH-44	Dual-sided Mono	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	150 Ω	XLR 4-pin Female	5.5′/1.6m	3oz/85g
PH-44R	Dual-sided Mono	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	150 Ω	XLR 4-pin Male	5.5′/1.6m	3oz/85g
PH-44A5	Dual-sided Stereo	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω per side	XLR 5-pin Female	5.5′/1.6m	3oz/85g
PH-44R5	Dual-sided Stereo	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω per side	XLR 5-pin Male	5.5′/1.6m	3oz/85g
PH-44R6	Dual-sided Stereo	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω per side	XLR 6-pin Male	5.5′/1.6m	3oz/85g
PH-44PT	Dual-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω per side	Stripped wire	5.5′/1.6m	3oz/85g
PH-88-IC3	Single-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	300 Ω	Dual 3.5mm	9′/2.7m	2.5oz/70.8g
PH-44-IC3	Dual-sided Mono	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	109 dB	100 Hz–7 kHz	150 Ω	Dual 3.5mm	9′/2.7m	3oz/85g
MH-300	Single-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	100 dB	100 Hz–10 kHz	150 Ω	MH Series headsets are available in 4 or 5 pin, male or female	5.9′/1.7m	8oz/226.7g
MH-302	Dual-sided	-65dBV/Pa @1cm	200 Hz–10 kHz	200 Ω	100 dB	100 Hz–10 kHz	150 Ω	MH Series headsets are available in 4 or 5 pin, male or female	5.9′/1.7m	10oz/283.5g
PH-1	Single-sided	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	300 Ω	XLR 4-pin Female	5.5′/1.6m	11oz/311.8g
PH-1R	Single-sided	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	300 Ω	XLR 4-pin Male	5.5′/1.6m	11oz/311.8g
PH1-R5	Single Sided	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	300 Ω	XLR 5-pin Male	5.5′/1.6m	11oz/311.8g
PH1-1PT	Single Sided	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	300 Ω	Stripped wire	5.5′/1.6m	11oz/311.8g
PH-2	Dual-sided Mono	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	150 Ω	XLR 4-pin Female	5.5′/1.6m	13oz/368.5g
PH-2R	Dual-sided Mono	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	150 Ω	XLR 4-pin Male	5.5′/1.6m	13oz/368.5g
PH-2PT	Dual-sided	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	300 Ω per side	Stripped wire	5.5′/1.6m	13oz/368.5g
PH-3	Dual-sided Stereo	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	300 Ω per side	XLR 5-pin Female	5.5′/1.6m	13oz/368.5g
PH-3R5	Dual-sided Stereo	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	95 dB	100 Hz–10 kHz	300 Ω per side	XLR 5-pin Male	5.5′/1.6m	13oz/368.5g
HR-1	Single-sided	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	300 Ω	XLR 4-pin Female	5′/1.5m	11oz/311.8g
HR-1R	Single-sided	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	300 Ω	XLR 4-pin Male	5′/1.5m	11oz/311.8g
HR-1R5	Single-sided	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	300 Ω	XLR 5-pin Male	5′/1.5m	11oz/311.8g
HR-1PT	Single-sided	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	300 Ω	Stripped wire	5′/1.5m	11oz/311.8g
HR-2	Dual-sided Mono	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	150 Ω	XLR 4-pin Female	5′/1.5m	15oz/425.2g
HR-2R	Dual-sided Mono	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	150 Ω	XLR 4-pin Male	5′/1.5m	15oz/425.2g
HR-2R5	Dual-sided Stereo	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	300 Ω per side	XLR 5-pin Male	5′/1.5m	15oz/425.2g
HR-2A5	Dual-sided Stereo	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	300 Ω per side	XLR 5-pin Female	5′/1.5m	15oz/425.2g
HR-2PT	Dual-sided	-65dBV/Pa @1cm	150 Hz–8 kHz	200 Ω	95 dB	100 Hz–3 kHz	300 Ω per side	Stripped wire	5′/1.5m	15oz/425.2g
HR-1L	Single-sided	N/A	N/A	N/A	95 dB	100 Hz–3 kHz	300 Ω	Stripped wire	5′/1.5m	15oz/425.2g
HR-2L	Dual-sided	N/A	N/A	N/A	95 dB	100 Hz–3 kHz	300 Ω per side	Stripped wire	5′/1.5m	15oz/425.2g
PH-16	Dual-sided Mono	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	93 dB	100 Hz–3 kHz	150 Ω	XLR 4-pin Female	5.5′/1.6m	15oz/425.2g
PH-16R	Dual-sided Mono	-65dBV/Pa @1cm	200 Hz–6 kHz	150 Ω	93 dB	100 Hz–3 kHz	150 Ω	XLR 4-pin Male	5.5′/1.6m	15oz/425.2g

All products except Monitor Headphones feature a dynamic noise-cancelling microphone.

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