RTS

Innovating the Future of Global Communications

Wireless Intercom

WIRELESS INTERCOM

RTS has been the leading manufacturer of wireless intercom systems and hardwired intercom for over 25 years. With mission critical installations in every corner of the world, RTS intercom systems provide the widest range of rugged and reliable intercommunications solutions for virtually any application.

RTS intercom systems lead the industry with a complete suite of full duplex, highly configurable and expandable wireless intercom system platforms. With multiple award-winning innovations such as the BTR-800 two-channel frequency agile wireless intercom, the TR-825 two-channel „stereo" beltpack transceiver and proprietary digital encryption, RTS has led the way with innovative technology that allows users to move around freely while maintaining „wired-like" quality and reliability.

RTS intercom systems are utilized in virtually every kind of application and venue throughout the world. Whatever your requirements may be, RTS has the intercom system that's right for you. RTS intercoms are the systems of choice among communications professionals everywhere. Why not make it yours?

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-700, BTR-800 and BTR-80N 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 Clear Scan 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 setup in just minutes in a new or unknown venue location.
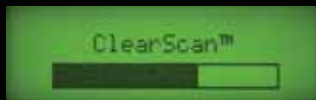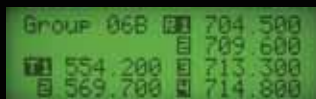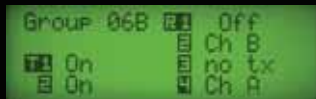
Screen samples of BTR-800 graphical user interface
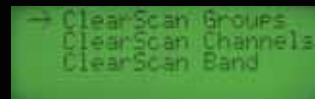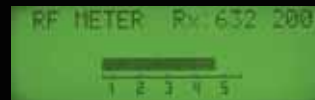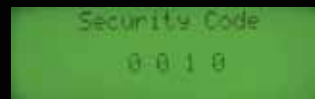
Screen samples of BTR-1 graphical user interface

BTR-80N
2-Channel UHF Synthesized Wireless Intercom System

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 will allow 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 digital processing and Intelligent Power Control, plus many 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 many, many more.

- **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 allow even the most uninitiated user to get the system operational right out of the box. Telex has done all of the work for you!

- **Two-Channel Intercom Access** — Hardwired intercom channels that are run to the BTR-80N base station can be 2-wire (Party-Line) 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 TR-80N, TR-82N and BTR-80N 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 setup 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.

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

BTR-800
2-channel UHF Synthesized Wireless Intercom

TR-800

TR-825

- **TR-800 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 800's 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. Contact RTS customer service for complete frequency band details.

- **Enhanced ClearScan™ Frequency Auto Selection and Graphical User Interface.** (See page 2)

- **Intermodulation-Free Factory Selected Groups** — Each 800 system comes with 24 factory selected, intermode avoiding groups that allow even the most uninitiated user to get started right out of the box. RTS has done all of the work for you!

- **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® hardwired intercom systems.

- **Dual Listen Operation** — Each TR-825 beltpack provides two volume controls; one for each intercom channel that allow 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.

The most versatile wireless intercom ever

Frequency agile

1440 selectable frequencies

2 independent intercom channels

ClearScan™ auto frequency selection

Stage Announce output with relay closure

Wireless talk around (broadcast ISO)

Dual Listen Operation (TR-825)

4 beltpacks per base station
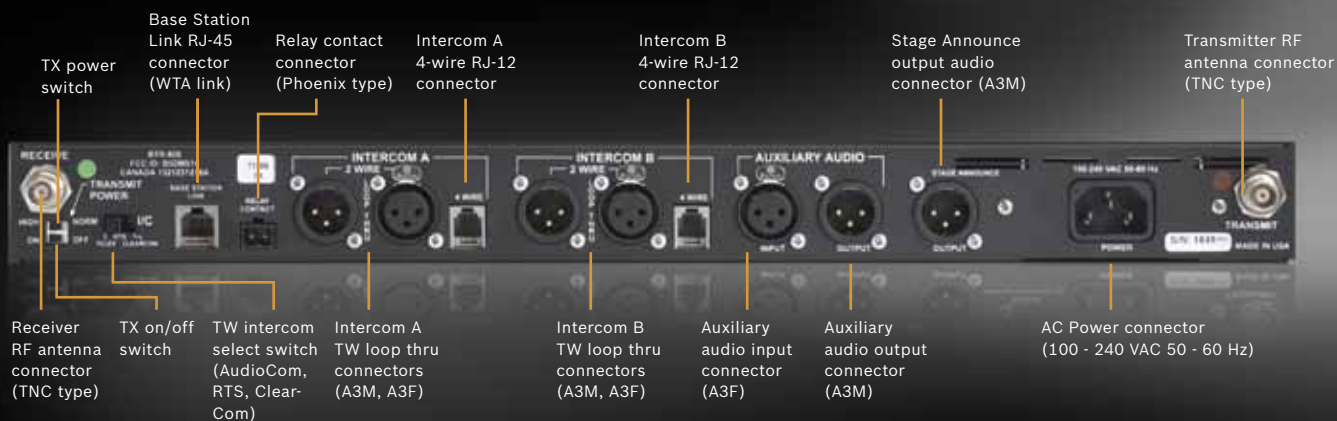
Cast magnesium beltpacks

And so much more

• **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. This is great for private conversations in the heat of battle.

• **"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 new 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 a breeze. operation. Drop-in chargers are also available in single and four-gang configurations.

TR-825 beltpack

TR-800 beltpack

TX power switch

Base Station Link RJ-45 connector (WTA link)

Relay contact connector (Phoenix type)

Intercom A 4-wire RJ-12 connector

Intercom B 4-wire RJ-12 connector

Stage Announce output audio connector (A3M)

Transmitter RF antenna connector (TNC type)

Receiver RF antenna connector (TNC type)

TX on/off switch

TW intercom select switch (AudioCom, RTS, Clear-Com)

Intercom A TW loop thru connectors (A3M, A3F)

Intercom B TW loop thru connectors (A3M, A3F)

Auxiliary audio input connector (A3F)

Auxiliary audio output connector (A3M)

AC Power connector (100 - 240 VAC 50 - 60 Hz)

RTS

BTR-700
Single Channel UHF Synthesized Wireless Intercom

- **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 700's 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-700s operate in the UHF band from 518 to 722 MHz. Bases and beltpacks operate in specific 18 MHz operational bands. Contact RTS customer service for complete frequency band details.

- **Enhanced ClearScan™ Frequency Auto Selection And Graphical User Interface** — (See page 2)

- **Intermodulation-Free Factory Selected Groups** — Each 700 system comes with 24 factory selected, intermode avoiding groups that allow even the most uninitiated user to get started right out of the box. RTS has done all of the work for you!

- **"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 new 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.

The most versatile wireless intercom ever

Frequency agile

1440 selectable frequencies

ClearScan™ auto frequency selection

4 beltpacks per base station

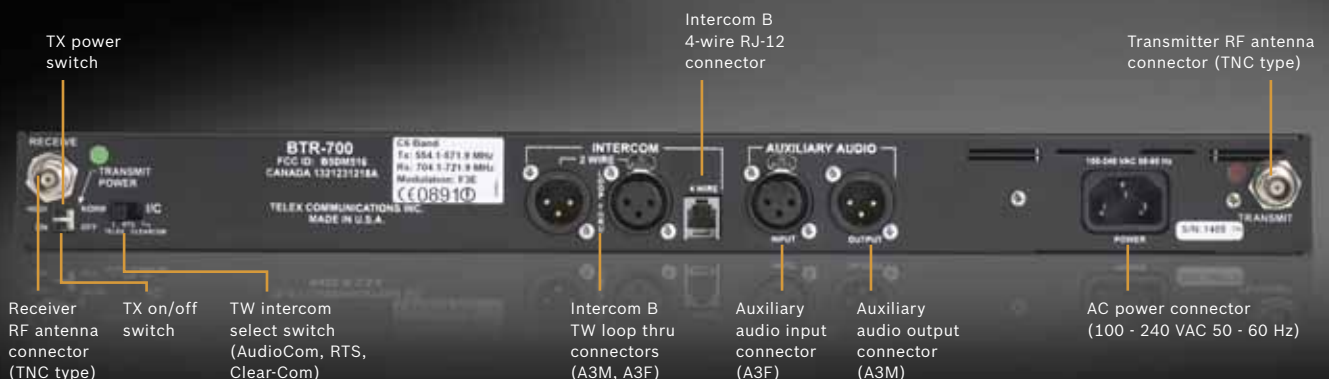Cast magnesium beltpacks

And so much more

TR-700 beltpack

- **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 a breeze.

- **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 fourgang configurations.

NMH Battery Charger

Available in either 1 bay or 4 bay, these chargers provide quick charging of your Nickel Metal Hydride (NMH) battery packs.

TX power switch

Intercom B 4-wire RJ-12 connector

Transmitter RF antenna connector (TNC type)

Receiver RF antenna connector (TNC type)

TX on/off switch

TW intercom select switch (AudioCom, RTS, Clear-Com)

Intercom B TW loop thru connectors (A3M, A3F)

Auxiliary audio input connector (A3F)

Auxiliary audio output connector (A3M)

AC power connector (100 - 240 VAC 50 - 60 Hz)

BTR-240
2.4 GHz Wireless Base Station

The BTR-240 from RTS: with best-in-class audio performance and latency, license-free operation, and an array of user-friendly features, 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 fi ts your needs, whether over a wired or wireless network.

- A two- and four-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 Wi-Fi 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 party lines into wireless world.

License Free 2.4GHz, 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

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
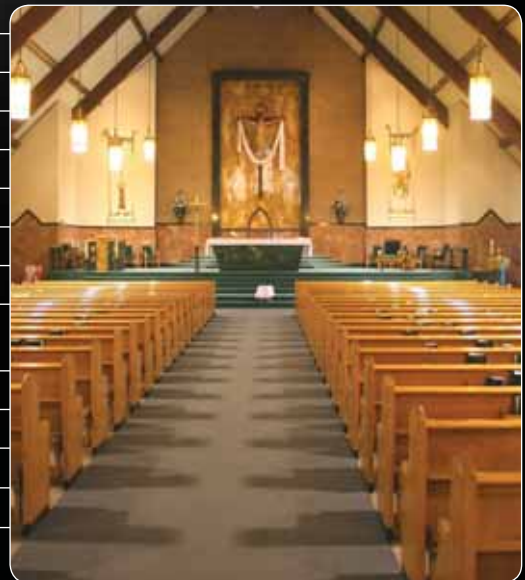
ACS-101/APS-1
Broadband Antenna Combiners - Splitters

ACS-101

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 or BTR-800 (BTR-800 set to normal output power).

APS-1 2-Way Splitter/Combiner

The APS-1 is a passive broadband combiner-splitter that makes it possible to combine 2 antennas to one (Receive), or split 1 antenna to 2 (Transmit).

APS-1

System Configuration

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

RECEIVE ANTENNA
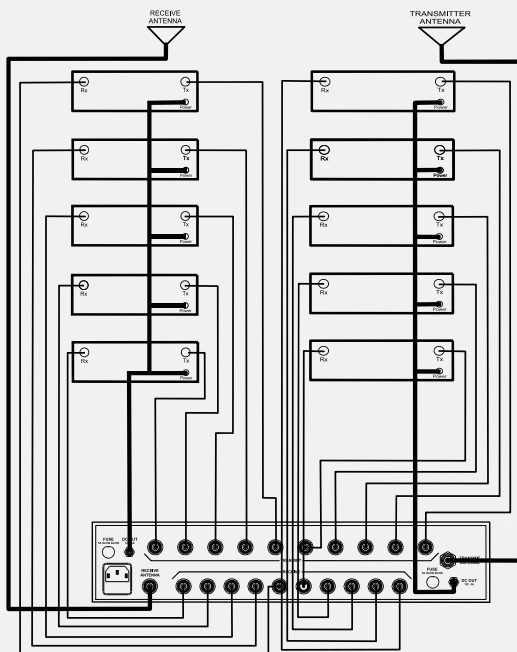
TRANSMITTER ANTENNA

Two models to choose from

Reduces 20 antennas to 2 (ACS-101) or Reduces 2 antennas to 1 (APS-1)

Extremely low intermode production

Compatible with BTR-700, BTR-800 and BTR-80N Systems

Handles both transmit and receive

Rugged and durable construction

One year warranty

Made in the USA

TT-16/TR-16
16 Channel Broadcast Wireless IFB Transmitter and Talent Receiver

The RTS 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 750 ft (250 m). In unoccupied television channels, up to five TT-16 transmitters will operate simultaneously within the same location.

TT-16

The TT-16 Base Station Transmitter 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/Low RF transmit power, select intercom input source and to adjust the input levels. A new feature, Enhanced Dynamic Range (E.D.R.), greatly improves the Signal to Noise Ratio and works with the TR-16 talent receiver to provide clearer, more dynamic audio. The Base Station Transmitter has a 3 pin XLR connector on the back of the unit that will accept intercom signal input and is selectable between RTS® TW, RTS AudioCom® or ClearCom®. 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.

TR-16

Like the TT-16, the TR-16 Talent Receiver features 16 user selectable frequencies controlled from top panel control buttons. The TR-16 is designed with a 3.5mm Earphone connector to be used with standard IFB earpieces such as the RTS Telethin® announcers earpiece systems or any other 8-500 ohm earphone. The TR-16 receiver 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 E.D.R. 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.

16 user selectable channels

Enhanced Dynamic Range (E.D.R.) for improved dynamic audio

Balanced or unbalanced audio input

Covers TV Ch3 and TV Ch4

20 hours of operation on 2 AA alkaline batteries

Accessories

TRH-2 Leather Holster
for TR-700 and TR-800

ALP-450
UHF Directional Antenna

ALP-600
Mast and Bracket Kit

ALP-600
UHF Bi-Directional Antenna

BC-800NM 1 Bay Charger
with NMH Battery Pack

BC-800NM4 4 Bay Charger
with NMH Battery Packs

AB-24 Antenna Mounting
Bracket with 6ft Coax

ANT-FPM Metal Tilt and Swivel
Antenna Mounting Bracket for
ANT-FP Antenna

FP-11 2.4GHz Flat Panel
Directional Antenna

RA-5 2.4 GHz Omni Antenna,
Magnetic Mount with TNC Reverse
Polarity Connector

UHF Beltpack Accessories

Model	Description
BP-700	Alkaline battery holder, TR700/TR800/TR1/RKP-4
BP-700NM	NMH battery pack, TR700/TR800/TR1/RKP-4
BC-800NM	1 bay charger w/linear US power supply and NMH pack
BC-800NM Euro	1 bay charger w/switching power supply, Euro cord, NMH pack
BC-800NM4	4 bay charger w/switching power supply, 4NMH battery packs, US cord
BC-800NM4 Euro	4 bay charger w/switching power supply, 4NMH battery packs, Euro cord
TRH-2	Heavy duty leather swivel holster with belt lop for TR700/TR800
SBC-1	Swivel beltclip for TR700/TR800/TR1/RKP-4
BPA 1/4	Wave beltpack antenna (multiple frequency ranges)

UHF Base Station Accessories

Model	Description
ALP-600	Bi-directional log periodic antenna. Covers 520-760 MHz. - Includes mounting hardware and 10' (3 meters) coaxial cable with TNC connector
ALP-600B	ALP-600 antenna bracket kit
ALP-600M	ALP-600 antenna mast-telescoping
ALP-450	Directional log periodic ant. covers 450-900 MHz forward coverage pattern increases signal gain up to 5 dB. Supplied with mounting hardware for wall or mic stand, & 10' coaxial cable. Measures 9-1/2" L x 11" H painted matte black.
FA	1/2 Wave collinear antenna (multiple frequency ranges)
AB-2	Universal bracket for model CLA-X 1/2 wave antennas w/10' coax
CXU	50 ohm low loss coaxial cable with TNC connectors (multiple lengths available)
APS-1	Two to One antenna combiner/splitter with TNC connectors
TP-2	TNC 50 ohm 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)
15DS	15 pin D-Sub cable assembly for BTR-1
QSBK	QSB-1 Memory card reader with USB cable and 2MB DataFlash® memory card
2DF	2MB DataFlash® memory card
RM800	Rackmount reinforcement for BRT-800/BTR-700

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 Case 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	Omin Antenna (3dB), with TNC Reverse Polarity
RA-5	2.4 GHz Omni Antenna, Magnetic Mount with TNC Reverse Polarity Connector
RA-7	Omni Antenna (7dB), with TNC Reverse Polarity Connector
RPT-10	10' Coax with TNC Reverse Polarity Connector
RPT-3	3' Coax with TNC Reverse Polarity Connector
TNC-RP	RNC Reverse Polarity Coupler (Jack-to-Jack)
TR-240	2.4 GHz Wireless Intercom Beltpack

Headsets

PH-88 • PH-44

Super light-weight headsets with dynamic noise canceling microphone. Adjustable mic boom for precise positioning. High quality wide band earphones. PH-88R is single muff mono; PH-44 is dual muff mono. Available in 4- or 5- pin XLR connectors (male or female) and pigtail.

MH300 • MH302 • MH402

MH single- and dual-sided headsets combine a unique, multi-funtional modular design with low-profile, lightweight construction. Three models are available.

PH-1 • PH-2 • PH-3

Medium-weight headset with foam filled cushions offers a light feel with moderate isolation from ambient noise. Dynamic noise canceling mic is easily positioned with unique continuously adjustable ball joint. Available with 4- or 5-pin XLR connectors. PH-1 is single muff mono; PH-2 is dual muff mono, and PH-3 is dual muff stereo. Available in 4- or 5-pin XLR connectors (male or female) and pigtail.

HR-1 • HR-2

Medium-weight passive noise reduction headsets with dynamic noise canceling microphone. The headset has a noise reduction rating of 21 dB; suitable for moderately noisy environments. The ergonomic headband design distributes the ear cushion pressure evenly over the entire ear, insuring hours of comfortable wearing. The headset folds into compact form for ease of storage. HR-1Ris single muff, HR-2 is dual muff.

PH-88

PH-44

MH-300 - single-sided headset

MH-302 - dual-sided headset
MH-402 dual-sided headset with ANR (Active Noise Reduction

PH-1

PH-2

HR-1

HR-2

BTR-80N

The BTR-80N system operates in TV channels 16 to 36 and 38 to 59. This is the frequency range of 482 to 608 and 614 to 746 MHz. The BTR-80N frequency bands are typically 18 MHz wide.

The BTR-80N systems are offered on 34 standard frequency band splits noted as follows:

F1, F2, F3, F4, F5, F6
H1, H2, H3, H4, H5, H6
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 18 different frequency band splits noted as follows:

A2, B4, C6, F1, F3, H1, H3

The BTR-700 systems is offered on 4 standard frequency band splits noted as follows:

A2, B4, C6

RTS Intercoms — UHF Frequency Band Chart

BTR-80N	TV CHANNEL	START FREQUENCY	END FREQUENCY	TV CHANNEL	BTR-800	BTR-700
	14	470	476	14	88	
	15	476	482	15		
F	16	482	488	16		
	17	488	494	17	F	
	18	494	500	18		
H	19	500	506	19	H	
	20	506	512	20		
	21	512	518	21		
A	22	518	524	22	A	A
	23	524	530	23		
	24	530	536	24		
B	25	536	542	25	B	B
	26	542	548	26		
	27	548	554	27		
C	28	554	560	28	C	C
	29	560	566	29		
	30	566	572	30		
D	31	572	578	31		
	32	578	584	32		
	33	584	590	33		
E	34	590	596	34	E	
	35	596	602	35		
	36	602	608	36		
NOT USED	37	608	614	37	NOT USED	NOT USED
1	38	614	620	38	1	
	39	620	626	39		
	40	626	632	40		
2	41	632	638	41	2	2
	42	638	644	42		
	43	644	650	43		
3	44	650	656	44	3	
	45	656	662	45		
	46	662	668	46		
4	47	668	674	47	4	4
	48	674	680	48		
	49	680	686	49		
5	50	686	692	50		
	51	692	698	51		
	52	698	704	52		
6	53	704	710	53	6	6
	54	710	716	54		
	55	716	722	55		
7	56	722	728	56		
	57	728	734	57		
	58	734	740	58		
	59	740	746	59		

Specifications

Overall	TR-80N/TR-82N	TR825/TR800/TR700	TR-240
RF Frequency Range:	482-698 MHz (TV 16 to TV 36 and TV 38 to TV 52)	470 - 608 MHz, 614 - 740 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)	Lithium Ion Rechargable Battery, 7.5 VDC
Typical Battery Life Alkaline:	TR-82N: 11 Hours Continuous Duty/ TR-80N: 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):	TR-82N: 11 Hours Continuous Duty/ TR-80N: 14 Hours Continuous Duty	11 Hours (Continuous duty)/ 14 Hours (Continuous duty)/ 14 Hours (Continuous duty)	N/A
Product Dimensions:	TR-80N: 3.75" W x 5.05" H x 1.65" D (95mm x 128mm x 42mm)/ TR-82N: 3.75" W x 5.35" H x 2.02" D (95mm x 135mm x 51mm)	3.75" W x 5.35" H x 2.02" D (9.5 cm x 15.5 cm x 5.1 cm) / 3.75" W x 5.05" H x 1.65" D (9.5 cm x 12.8 cm x 4.2 cm)	TR-240 Dimensions: 1.75" L x 3.75" W x 5.25" H (45mm x 95mm x 133mm)
Product Weight:	TR-80N: 1 lbs 13 oz (822g)/ TR-82N: 1 lbs 15 oz (879g)	21 oz. (595 g) with alkaline batteries/ 15 oz (425 g) with alkaline batteries/ 16 oz. (454 g) with alkaline batteries	TR-240 Weight: 12.9oz (0.37kg)
Shipping Dimensions:	TR-80N: 13.75" W x 3.75" H x 6.5" D (349mm x 95mm x 165mm)/ TR-82N: 13.75" W x 3.75" H x 6.5" D (349mm x 95mm x 165mm)	7.00"W x 4.00"H x 14.00"D (17.8cm x 10.2 cm x 35.6cm)	7.00" W x 4.00" H x 14.00" D (178mm x 102mm x 356mm)
Shipping Weight:	TR-80N: 3 lbs 6 oz (1.5kg)/ TR-82N: 3 lbs 8 oz (1.6kg)	1 lb 6 oz (624 g)/ 1 lb 5 oz (595 g)/ 1 lb 4 oz (567 g)	1 lb 6 oz (624 g)
FCC ID:	TR-80N: B5DM530/ TR-82N: B5DM531	B5DM517/ B5DM515/ B5DM515	None Required
Transmitter			
Type:	Two Synthesized Transmitters, 712 Channels Each	Synthesized, 720 channels	
Transmit Power:	TR-80N/TR-82N: 100 mW - 5mW	50 mW Max. (Auto-power reduction when close to base)	TR-240 - 50mW
Microphone Audio Input:	30 ohms - 3500 ohms	30 ohms - 3500 ohms	30 ohms - 3500 ohms
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	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	N/A
IF Selectivity:	3 dB at 230 kHz	3 dB at 230 KH	N/A
Squelch Quieting:	90 dB	95 dB	N/A
Distortion:	1% at full deviation	<1% at peak level	N/A
Local Headset Output:	40 mW output into 600 ohms	40 mW output into 600 V (1% Distortion)	TR-240: 70mWrms into 300 Ohms

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.

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 - 740 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	12-15 VDC, 1.5 Amps
Product Dimensions:	19" W x 1.72" H x 14" D (483mm x 44mm x 356mm)	19.0" W x 1.72"H x 14.0"D (48.3 cm x 4.4 cm x 35.6 cm)	1RU, 7.5" L x 19" W x 1.75" H (191mm x 483mm x 45mm)
Product Weight:	7 lbs 5 oz (3.3 kg)	7 lbs. 2 oz. (3.24 kg) / 6 lbs. 15 oz. (3.15 kg)	3 lbs 7.5 oz (1.58 kg)
Shipping Dimensions:	22.0" W x 5" H x 16.5" D (572mm x 127mm x 419mm)	17.00"W x 5.00"H x 23.00"D (43.2 cm x 12.7 cm x 58.4 cm)	23.6" W x 13.3" H x 5.53" D (600mm x 340mm x 140mm)
Shipping Weight:	11 lbs (4.9 kg)	11 lb 7 oz (5.3 kg)/ 10lb 9oz (4.8kg)	7.7 lbs (3.50 kg)
FCC ID:	B5DM528	B5DM514/ B5DM516	B5DM532
Frequency response:	300 Hz to 5000 Hz	300 Hz - 8KHz	350Hz to 3. kHz
Four Wire Input:	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)
RTS Intercom:	Level Adjustable (1 Vrms typical)/ Line Impedence 300 Ohms	Input/Output Level Adjustable (1 Vrms typical) Line impedance 300 V	Level Adjustable (.775 Vrms typical)
RTS® Intercom:	Level Adjustable (.775 Vrms typical)/ Line Impedence 200 Ohms	Input/Output Level Adjustable (0.774 Vrms typical), Line impedance 200 V	Level Adjustable (1 Vrms typical)
ClearCom® Intercom:	Level Adjustable (1 Vrms typical)/ Line Impedence 200 Ohms	Input/Output Level Adjustable (1 Vrms typical), Line Impedance 200V	Level Adjustable (1 Vrms typical)
Auxiliary Input:	Adjustable (2 Vrms typical)	Adjustable (2 Vrms typical)	Level Adjustable (2 Vrms typical)
Auxiliary Output:	Adjustable (2 Vrms into 600 Ohms)	Adjsutable (2 Vrms typical into 600 V) (at rated deviation)	Level Adjustable (2 Vrms typical into 600 Ohms)
Stage Announce Output:	Adjustable (2 Vrms typical at rated deviation into 600 Ohms)	Internally Adjustable (1 Vrms tpical at rated deviation into 100KV) / N/A	N/A
Stage Announce Relay:	Dry contact, rated at 1 Amp, 24V Max	Dry contact, rated at 1Amp, 24 V Max. / N/A	N/A
Transmitter			
Type:	Two Synthesized Transmitters, 712 Channels Each	Synthesized, 720 channels	802.11 B, 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)	North America: 200 mW/ Europe: 70 mW
Microphone Audio Input:	30 ohms - 3500 ohms	30 ohms - 3500 ohms	30 ohms - 3500 ohms
Receiver			
Type:	Triple Conversion Superheterodyne, Four Independent IF's, 712 Channels Each	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	N/A
IF Selectivity:	3 dB at 230 kHz	3 dB at 230 KHz	N/A
Squelch Quieting:	90 dB	95 dB	N/A
Distortion:	1% at full deviation	<1% at full deviation	N/A
Local Headset Output:	40 mW output into 600 ohms	40 mW output into 600 ohms (1% Distortion)	100mWrms into 300 Ohms

For information on any of the products shown in this catalog please visit our web site at www.rtsintercoms.com or contact us at:

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AudioCom™

The AudioCom™ MS4002 and MS2002 Master Stations provide unique balanced audio design that allow users to utilize the longest TW party line cable runs in the industry. AudioCom™ 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". AudioCom™ Master Station users can also utilize innovative features like 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. Whatever your requirements may be, AudioCom™ is the one TW intercom that sounds great! If your application requires the highest performance and flexibility, you need the AudioCom™ balanced audio intercom system.

Zeus III

Zeus III is the next generation of compact intercom system units, giving compact systems more options for their intercom configurations. With 32 channels in/out and two confi gurable party-line interface channels, Zeus III is ideal for environments with limited space. With the addition of Ethernet, the Zeus III can be confi gured from virtually anywhere on a network using AZedit intercom software. Alternatively, the Zeus III can be directly connected to AZedit via the USB connector on the front panel or the serial connector on the back of the unit. The system has 32 standard RJ45 connectors, making it easier to connect your intercom system with audio lines and keypanels by keeping the RTS wiring scheme. Equipped with built-in redundant power supply for extra safety.

RTS