

### BTR-1 & TR-1

### UHF-Synthesized Digitally Encrypted Wireless Intercom System



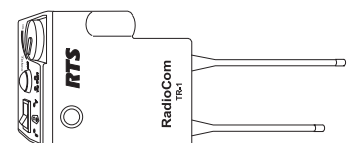
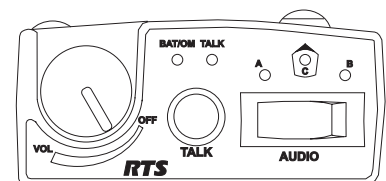
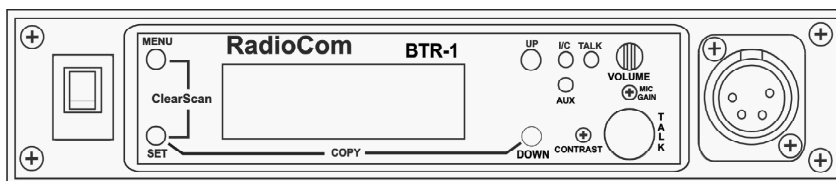
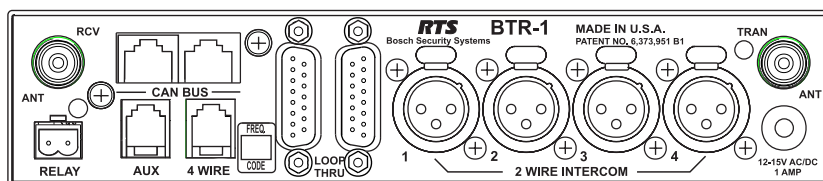
The RadioCom BTR-1 UHF wireless intercom system is the ultimate in reliable, high performance, encrypted full-duplex communications.

The BTR-1 system includes the BTR-1 frequency-agile base station and a TR-1 frequency-agile beltpack. The BTR-1 system provides full-duplex, encrypted digital communication. The base station provides the beltpack with access to a 6-intercom port matrix of 2-wire systems or communication to a 4-wire intercom system. The system can interface with Audiocom, RTS 2-Wire Intercom, Clear-Com 2-wire intercom systems as well as 4-wire communication systems. In addition to the 2-wire and 4-wire intercom systems the base station provides connections for auxiliary balanced audio input and output, as well as relay closure and a local headset connection. The system is also perfectly suited for stand-alone operation. The BTR-1 has been designed for reliable, efficient operation. Operating in the 482 to 698MHz range. The unit has expansion ability to add many base stations to create a large system. The high-efficiency TR-1 beltpack provides up to nine (9) hours of uninterrupted operation using standard alkaline batteries.

## Features

- Frequency agile base station & beltacks.
- No external computer/device required to select frequencies.
- RTS Radiocom proprietary digitally encrypted wireless communication between the base station and beltack.
- AC or DC Operation in the 12 to 15 volt range.
- The frequencies of a beltack may be changed at the beltack or from the base station. Backlit base station LCD allows the user to easily monitor the beltack's status, including battery level and signal strength.
- Six (6) channels of 2-wire Intercom.
- Compatible with Audiocom, RTS-TW, Clear-Com, RTS Matrix and other wired intercom types.
- Relay contact closure on the base station can be activated from the beltack.
- ClearScan Function.
- Base stations are table or rack mountable.
- Three (3) assignable intercom selection switches at beltack.

## Line Drawings



## Specifications

RF Frequency Range: .....	482–608MHz 614–698MHz in 18MHz TX and RX bands	TR-1 Current Draw .....	190mA (Push-to-Talk, Talk On)
BTR-1 Power Requirements:.....	12–15 volts AC/DC @ 1 Amp	Transmitter Type	
TR-1 Power Requirements:.....	6 “AA” Cells Alkaline (NiMH optional)	Synthesized Transmitter: .....	720 channels
Temperature Range:.....	-4°F to 130°F (-20°C to 55°C)	Transmit Power: .....	50mW typical (High) 5mW typical (Normal)
TX Antenna		Modulation Type: .....	GMSK
BTR-1: .....	1/2 wave (supplied), TNC Male Connector	Deviation:.....	Complies with FCC 74.861
TR-1: .....	1/4 wave (supplied), Screw type Replaceable	RF Frequency Stability: .....	0.005%
RX Antenna		Radiated Harmonics & Spurious: .....	Complies with FCC specifications
BTR-1: .....	1/2 wave (supplied), TNC Male Connector	Receiver Type:.....	Dual Conversion Superheterodyne 720 channels each
TR-1: .....	1/4 wave (supplied), Screw type Replaceable	RF Sensitivity:.....	<0.8uV for 12dB SINAD
FCC ID		IF Selectivity: .....	3dB at 230kHz
BTR-1: .....	(B5DM519), TR-1 (B5DM520)	Image Rejection:.....	70dB or better
Frequency Response .....	100Hz–4.0kHz	RF Frequency Stability: .....	0.005%
4-Wire Input and Output .....	Level Adjustable (2Vrms typical)	Distortion: .....	<1% at peak level
AudioCom Intercom:.....	Input/Output Level Adjustable (1Vrms typical), Line Impedance 300Ω	S/N Ratio out to wired	
RTS Intercom: .....	Input/Output Level Adjustable (0.775Vrms typical), Line Impedance 200Ω	Intercom Ports: .....	80dB (30kHz Low Pass Filtered)
Clear-Com Intercom: .....	Input/Output Level Adjustable (1Vrms typical) Line Impedance 200Ω		
Auxiliary Input: .....	Level Adjustable (2Vrms typical)		
Auxiliary Output: .....	Level Adjustable (2Vrms typical into 600Ω)		
Microphone Input Sensitivity			
BTR-1: .....	10mV (200Ω Source)		
TR-1: .....	7mV (200Ω Source)		
Local Headset Output.....	200mW output into 150Ω (1% Distortion)		
Mute of Wire Income Port.....	100dB (30kHz Low Pass Filtered)		

### Product Dimensions/Weight

BTR-1: .....	8.25" W x 1.72" H x 9.00" D (20.9cm x 4.4cm x 22.9cm) 3lb 3oz (1.45kg)
TR-1:.....	3.75" W x 1.65" H x 5.10" D (9.5cm x 12.9cm x 4.2cm) 1lb 2oz (511g) with alkaline batteries

### Shipping Dimensions/Weight

BTR-1: .....	12" W x 4" H x 16" D (30.48cm x 10.16cm x 40.64cm) 6lb 5oz (2.87kg)
TR-1:.....	6.5" W x 3.75" H x 13.75" D (16.5cm x 9.5cm x 34.9cm) 1lb 6oz (.625kg)

## Order Information

BTR-1 • UHF-Synthesized Digitally Encrypted Base Station Transceiver  
TR-1 • UHF-Synthesized Digitally Encrypted Beltpack

For ordering information, contact your regional sales representative at:  
<http://rtsintercoms.com/us/intercom/contact>

The specification information is preliminary and is subject to change without notification.  
Brand names mentioned are the property of their respective companies.

### CONSUMER ALERT

Most users do not need a license to operate this wireless microphone system. Nevertheless, operating this microphone system without a license is subject to certain restrictions: the system may not cause harmful interference; it must operate at a low power level (not in excess of 50 milliWatts); and it has no protection from interference received from any other device. Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change.

For more information, call the FCC at 1-888-CALL-FCC (TTY: 1-888-TELL-FCC) or visit the FCC's wireless microphone website at [www.fcc.gov/cgb/wireless-microphones](http://www.fcc.gov/cgb/wireless-microphones).

