BTR-1 & TR-1
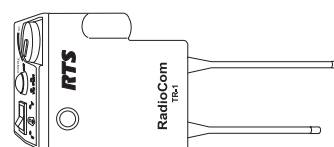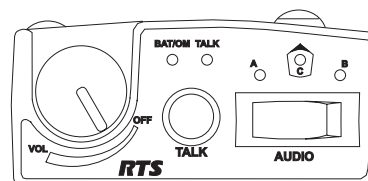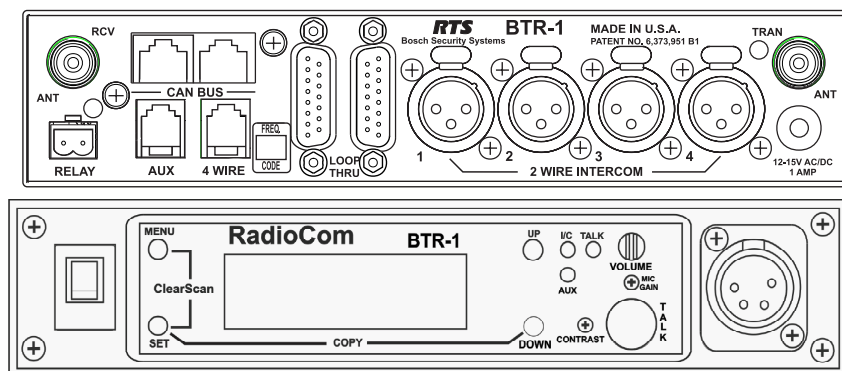## UHF-Synthesized Digitally Encrypted Wireless Intercom System

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 & beltpacks.
- No external computer/device required to select frequencies.
- RTS Radiocom proprietary digitally encrypted wireless communication between the base station and beltpack.
- AC or DC Operation in the 12 to 15 volt range.
- The frequencies of a beltpack may be changed at the beltpack or from the base station. Backlit base station LCD allows the user to easily monitor the beltpack'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 beltpack.
- ClearScan Function.
- Base stations are table or rack mountable.
- Three (3) assignable intercom selection switches at beltpack.

Line Drawings

Specifications

RF Frequency Range: ....482–608MHz 614–698MHz in 18MHz TX and RX bands

BTR-1 Power Requirements:.................. 12–15 volts AC/DC @ 1 Amp

TR-1 Power Requirements: ....6 "AA" Cells Alkaline (NiMH optional)

Temperature Range:.............. -4°F to 130°F (-20°C to 55°C)

TX Antenna
BTR-1: ....1/2 wave (supplied), TNC Male Connector

TR-1: ....1/4 wave (supplied), Screw type Replaceable

RX Antenna
BTR-1: ....1/2 wave (supplied), TNC Male Connector

TR-1: ....1/4 wave (supplied), Screw type Replaceable

FCC ID
BTR-1: .... (B5DM519), TR-1 (B5DM520)

Frequency Response 100Hz–4.0kHz

4-Wire Input and Output .... Level Adjustable (2Vrms typical)

AudioCom Intercom:...............Input/Output Level Adjustable (1Vrms typical), Line Impedance 300Ω

RTS Intercom: ....Input/Output Level Adjustable (0.775Vrms typical), Line Impedance 200Ω

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)

TR-1 Current Draw ....190mA (Push-to-Talk, Talk On)

Transmitter Type
Synthesized Transmitter: .... 720 channels

Transmit Power: ....50mW typical (High) 5mW typical (Normal)

Modulation Type: ....GMSK

Deviation:...................................Complies with FCC 74.861

RF Frequency Stability: 0.005%

Radiated Harmonics & Spurious: ....Complies with FCC specifications

Receiver Type:............... Dual Conversion Superheterodyne 720 channels each

RF Sensitivity:................................. <0.8uV for 12dB SINAD

IF Selectivity: ....3dB at 230kHz

Image Rejection:..70dB or better

RF Frequency Stability: 0.005%

Distortion: ....<1% at peak level

S/N Ratio out to wired
Intercom Ports: .... 80dB (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.