

## BTR-800

### UHF 2-Audio Channel Wireless Synthesized Base Station



The RTS RadioCom BTR-800 UHF-synthesized wireless intercom systems offer the ultimate in reliable, high performance, high fidelity full-duplex communications. The BTR-800 system includes the BTR-800 frequency-agile base station, working with up to four (4) TR-800 or TR-825 frequency-agile beltacks. The BTR-800 base station provides full-duplex communications with the beltacks.

The BTR system incorporates two (2) audio channel operation, permitting the beltack operator to choose between two (2) separate audio channels of communications, with the base station tracking the beltack selection. This allows the user the flexibility to create a party line and a private line within the same beltack.

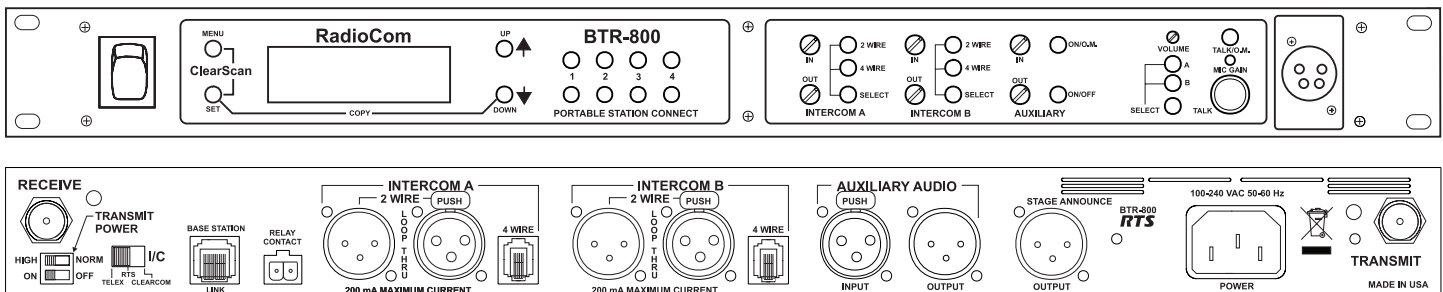
The BTR-800 system is perfectly suited for standalone operation and can interface with Audiocom, RTS Two-Wire Intercom, Clear-Com as well as RTS Digital Matrix Intercom systems and other 4-wire communications systems. In addition to the external intercom systems interfaces listed above, the system provides connections for auxiliary balanced audio input and output, as well as WTA (Wireless Talk-Around) and SA (Stage Announce) features.

The RTS RadioCom BTR series has been designed for reliable, efficient operation. Operating in the UHF range, the units operate reliably at line-of-sight distances of 1,000 feet. With available antenna systems, from RTS RadioCom, the effective operating range can be extended. The high-efficiency beltacks provide up to 12 hours of uninterrupted operation using standard alkaline batteries.

## Features

- Frequency-agile base station & beltacks.
- Backlit base station LCD.
- ClearScan function.
- Full-duplex operation.
- Compatible with Audiocom, RTS TW, Matrix, Clear-Com, and other wired intercom types.
- Two (2) channels of intercom audio.
- WTA (Wireless Talk Around) beltack control.
- SA (Stage Announce) beltack control. Relay contact closure on the base when the SA button is pressed.
- TR-825 features a two (2) audio channel binaural operation in either stereo or mono mode.
- Beltack units contained in a weather and shock resistant diecast magnesium case.
- Convenient IEC power connector on the base station.
- Base station comes with rack ears for easy rack mounting.

## Line Drawings



# Specifications

|                                     |                                                                              |                                          |                                                                                                  |
|-------------------------------------|------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------|
| RF Frequency Range: .....           | 470–608MHz, 614–698MHz<br>(614–722MHz, Europe)<br>in 18MHz TX and RX bands   | Transmitter Type: .....                  | 2 Synthesized Transmitters<br>712 channels each                                                  |
| Power Requirements: .....           | 100–240VAC, 50–60Hz<br>IEC receptacle                                        | Transmit Power (each transmitter): ..... | 100mW Max. (High)<br>10mW (Normal)                                                               |
| Temperature Range: .....            | -4°F to 130°F (-20°C to 55°C)                                                | Modulation Type: .....                   | FM                                                                                               |
| TX Antenna: .....                   | ½ Wave (supplied), TNC Male Connector                                        | Deviation: .....                         | 40kHz (35kHz Europe)                                                                             |
| RX Antenna: .....                   | ½ Wave (supplied), TNC Male Connector                                        | RF Frequency Stability: .....            | 0.005%                                                                                           |
| Frequency Response: .....           | 300Hz–8kHz                                                                   | Modulation Limiter: .....                | Peak-Responding compressor                                                                       |
| 4-Wire Input and Output: .....      | Level Adjustable (2VRMS typical)                                             | Radiated Harmonics<br>& Spurious: .....  | Complies with FCC specifications                                                                 |
| AudioCom/Telex Intercom: .....      | Input/Output Level Adjustable<br>(1VRMS typical), Line<br>Impedance 300Ω     | Receiver Type: .....                     | Dual Conversion Superheterodyne<br>four (4) Independent Synthesized IFs<br>FM, 712 channels each |
| RTS Intercom: .....                 | Input/Output Level Adjustable<br>(0.775VRMS typical), Line<br>Impedance 200Ω | RF Sensitivity: .....                    | <0.8µV for 12dB SINAD                                                                            |
| Clear-Com Intercom: .....           | Input/Output Level Adjustable<br>(1VRMS typical)<br>Line Impedance 200Ω      | Squelch Threshold: .....                 | 20dB SINAD                                                                                       |
| Auxiliary Input .....               | Adjustable (2VRMS typical)                                                   | IF Selectivity: .....                    | 3dB at 230kHz                                                                                    |
| Auxiliary Output .....              | Adjustable (2VRMS typical into 600Ω)                                         | Image Rejection: .....                   | 70dB or better                                                                                   |
| Stage Announce Output .....         | Internally Adjustable<br>(2VRMS typical at rated<br>deviation into 600Ω)     | Squelch Quieting: .....                  | 90dB                                                                                             |
| Stage Announce Relay: .....         | Dry contact, rated at 1Amp, 24VMax                                           | RF Frequency Stability: .....            | 0.005%                                                                                           |
| Microphone Input Sensitivity: ..... | 9mV                                                                          | Distortion: .....                        | <1% at full deviation                                                                            |
| Local Headset Output: .....         | 40mW output into 600Ω<br>(1% Distortion)                                     | <b>Product Dimensions/Weight</b>         |                                                                                                  |
|                                     |                                                                              | BTR- 800: .....                          | 19" W x 1.72" H x 14" D<br>(48.3cm x 4.4cm x 35.6cm)<br>7lb 2oz (3.24kg)                         |
|                                     |                                                                              | <b>Shipping Dimensions/Weight</b>        |                                                                                                  |
|                                     |                                                                              | BTR- 800: .....                          | 17" W x 5" H x 23" D<br>(43.2cm x 12.7cm x 58.4cm)<br>12lb (5.43kg)                              |

## NOTICE:

This wireless microphone system can be configured for both FCC Part 15 (unlicensed) and FCC Part 74 (licensed) operation. When shipped from the factory, this wireless microphone system is configured for unlicensed operation, and will operate at a power level not to exceed 50 milliWatts, which meets FCC Part 15 requirements. If unlicensed users operate this device in excess of 50 milliWatts, harmful interference may result and the unlicensed user will be subject to substantial monetary forfeitures and other FCC sanctions. The wireless microphone system may be operated by holders of a valid FCC license in the Low Power Auxiliary Radio Service under Part 74 of FCC Rules, at power levels between 50 milliWatts and 250 milliWatts.

## 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).

# Order Information

BTR-800 • UHF 2-Channel Wireless Synthesized Base Station with A4M headset jack  
BTR-800-RTS • UHF 2-Channel Wireless Synthesized Base Station with A4F headset jack  
BTR-800-RTS 5-Pin • UHF 2-Channel Wireless Synthesized Base Station with A5F headset jack

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.