Innovating the Future of Global Communications
Technical Data Sheet

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 beltpacks. The BTR-800 base station provides full-duplex communications with the beltpacks.

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

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 beltpacks provide up to 12 hours of uninterrupted operation using standard alkaline batteries.

Features

- Frequency-agile base station & beltpacks.
- 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) beltpack control.
- SA (Stage Announce) beltpack 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.
- Beltpack 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
(614–722MHz, Europe)
in 18MHz TX and RX bands

Power Requirements: ......................... 100–240VAC, 50–60Hz

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

TX Antenna: ......................... ½ Wave (supplied), TNC Male Connector

RX Antenna: ......................... ½ Wave (supplied), TNC Male Connector

Frequency Response: ......................... 300Hz–8kHz

4-Wire Input and Output: Level Adjustable (2VRMS typical)

AudioCom/Telex 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)

Stage Announce Output: Internally Adjustable
(2VRMS typical at rated deviation into 600Ω)

Stage Announce Relay: Dry contact, rated at 1Amp, 24VMax

Microphone Input Sensitivity: 4mV

Local Headset Output: 40mW output into 600Ω
(1% Distortion)

Transmitter Type: 2 Synthesized Transmitters
712 channels each

Transmit Power (each transmitter): 100mW Max. (High)
10mW (Normal)

Modulation Type: FM

Deviation: 40kHz (35kHz Europe)

RF Frequency Stability: 0.005%

Modulation Limiter: Peak-Responding compressor

Radiated Harmonics
Spurious: Complies with FCC specifications

Receiver Type: Dual Conversion Superheterodyne
four (4) Independent Synthesized IFs

RF Sensitivity: <0.8μV for 12dB SINAD

Squelch Threshold: 20dB SINAD

IF Selectivity: 3dB at 230kHz

Image Rejection: 70dB or better

Squelch Quieting: 90dB

RF Frequency Stability: 0.005%

Distortion: <1% at full deviation

Product Dimensions/Weight

BTR-800: 19” W x 1.72” H x 14” D
(48.3cm x 4.4cm x 35.6cm)
7lb 2oz (3.24kg)

Shipping Dimensions/Weight

BTR-800: 17” W x 5” H x 23” D
(43.2cm x 12.7cm x 58.4cm)
12lb (5.43kg)

NOTICE:
This wireless microphone system can be configured for both FCC Part 15 (unlicensed) and FCC
Part74 (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

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.