



BTR-1 & TR-1

UHF-Synthesized Digitally Encrypted Wireless Intercom System

The Telex 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 six-intercom port matrix of two-wire systems or communication to a four-wire intercom system. The system can interface with Telex Audiocom, RTS Two-Wire Intercom, Clear-Com two-wire intercom systems as well as four-wire communication systems. In addition to the two- and four-wire intercom systems the base station provides connections for auxiliary balanced audio input and output, as well as relay closure and the ability to use one of the six intercom lines as a wireless only communication intercom. 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 746 MHz range. The unit has expansion ability to add dozens of base stations to create a system. The high-efficiency TR-1 beltpack provides up to 9 hours of uninterrupted operation using standard alkaline batteries.

Features

Frequency Agile Base Station & Beltpacks

No external computer/device required to select frequencies

Telex Communications proprietary digitally encrypted wireless communication between the base station & beltpack.

AC or DC Operation in the 12 to 15 Volt Range Backlit Base Station LCD

The frequencies of a beltpack may be changed at the beltpack or from the base station.

Six channels of Two-Wire Intercom

Compatible with Audiocom (Telex), RTS-TW, Clear-Com, RTS Matrix and other wired intercom types.

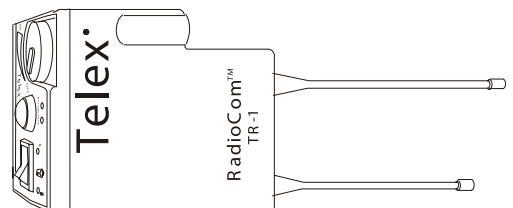
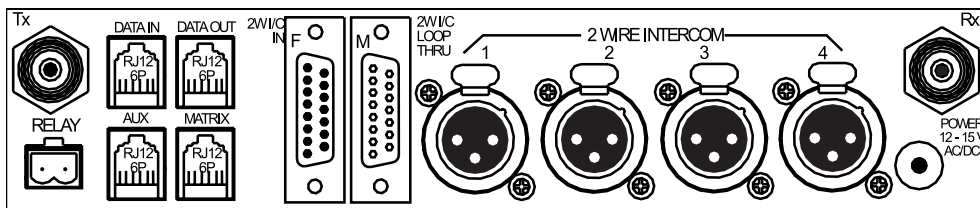
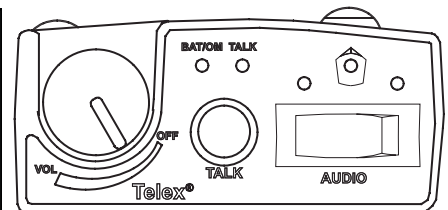
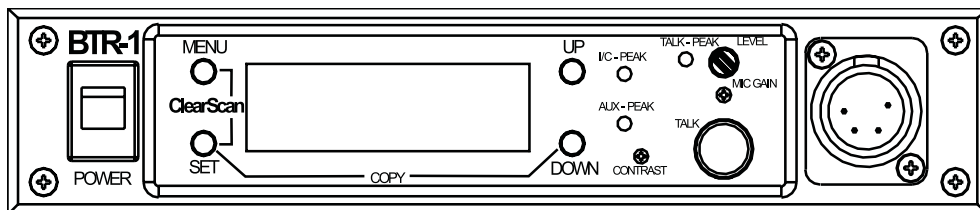
Relay contact closure on the base station that can be activated from the beltpack.

ClearScan Function

Base stations are table or rack mountable.

Three-channel intercom access from beltpack

Line Drawing



BTR-1 & TR-1 Specifications

Overall

RF Frequency Range

482 - 608 MHz, 614 - 746 MHz in 18 MHz 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: ½ wave (supplied), TNC Male Connector

TR-1: ¼ wave (supplied), Screw type Replaceable

RX Antenna

BTR-1: ½ wave (supplied), TNC Male Connector

TR-1: ¼ wave (supplied), Screw type Replaceable

FCC ID

BTR-1 (B5DM519), TR-1 (B5DM520)

Frequency Response

100 Hz - 4.0 kHz

4-Wire Input and Output

Level Adjustable (2 Vrms typical)

Telex Intercom

Input/Output Level Adjustable (1 Vrms typical), Line Impedance 300W

RTS Intercom

Input/Output Level Adjustable (0.775 Vrms typical), Line Impedance 200W

Clear-Com Intercom

Input/Output Level Adjustable (1 Vrms typical), Line Impedance 200W

Auxiliary Input

Level Adjustable (2 Vrms typical)

Auxiliary Output

Level Adjustable (2 Vrms typical into 600W)

Microphone Input Sensitivity

BTR-1: 10 mV (200W Source)

TR-1: 7 mV (200W Source)

Local Headset Output

200 mW output into 150W (1% Distortion)

Mute of Wire Income Port

100 dB (30 kHz Low Pass Filtered)

TR-1 Current Draw

190 mA (Push-to-Talk, Talk On)

Transmitter

Type

Synthesized Transmitter, 720 channels

Transmit Power

50 mW typical (High), 5 mW typical (Normal)

Modulation Type

GMSK

Deviation

Complies with FCC 74.861

RF Frequency Stability

0.005%

Radiated Harmonics & Spurious

Exceeds FCC specifications

Receiver

Type

Dual Conversion Superheterodyne, 720 channels each

RF Sensitivity

<0.8 µV for 12 dB SINAD

IF Selectivity

3 dB at 230 kHz

Image Rejection

70 dB or better

RF Frequency Stability

0.005%

Distortion

<1% at peak level

S/N Ratio out to wired Intercom Ports

80 dB (30 kHz 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),
3 lbs 8 oz (1.59 kg)

TR-1

3.75"W x 1.65"H x 5.10"D (9.5cm x 12.9cm x 4.2cm),
15 oz (425g) with alkaline batteries

Shipping Dimensions/Weight

BTR-1

12"W x 4"H x 16"D (30.48cm x 10.16cm x 40.64cm),
6 lbs 3 oz (2.86 kg)

TR-1

7"W x 4"H x 14"D (17.78cm x 10.16cm x 35.56cm),
1 lb 4 oz (.635 kg)

Contact Information

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Form Number: LIT000267000 Rev A

Date: August 2008

Ordering Information

BTR-1

UHF-Synthesized Digitally Encrypted Base Station
Transceiver
Catalog Number: 71897XX

TR-1

UHF-Synthesized Digitally Encrypted Beltpack
Transceiver
Catalog Number: 71898XX

This specifications information is preliminary and is subject to change without notification.

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