



BTR-300 & TR-300

Single Channel VHF Fixed Crystal Wireless Intercom

The Telex RadioCom models BTR-300 and TR-300 were specifically designed to provide the user with a highly flexible wireless two-way communication system with the capability to interface with a wired intercom system and other auxiliary audio. At the BTR-300 operator's command, the remotes may communicate with each other, with a wired intercom system or with an auxiliary system. The BTR-300 base station with its one transmit and four receive channels is designed to operate in full-duplex (simultaneous two-way communications) with up to four TR-300 beltpack transceivers. The system operates on selected frequencies within the 150-216 MHz band. The BTR-300 system is fully compatible with a number of other wired intercom manufacturers units. As many as four TR-300 beltpack transceivers can operate in a fully duplex network with one Telex RadioCom model BTR-300 base station.

Features

Unique audio shaping and circuitry and superior RF design.

Front End Filtering

Band Allocation

Beltpacks can operate at ranges of up to 2000 feet line of sight.

Extended Battery Life

In Pack Charging

Allows optional NiMH batteries to be recharged without removing them from the beltpack.

Full Duplex Operation

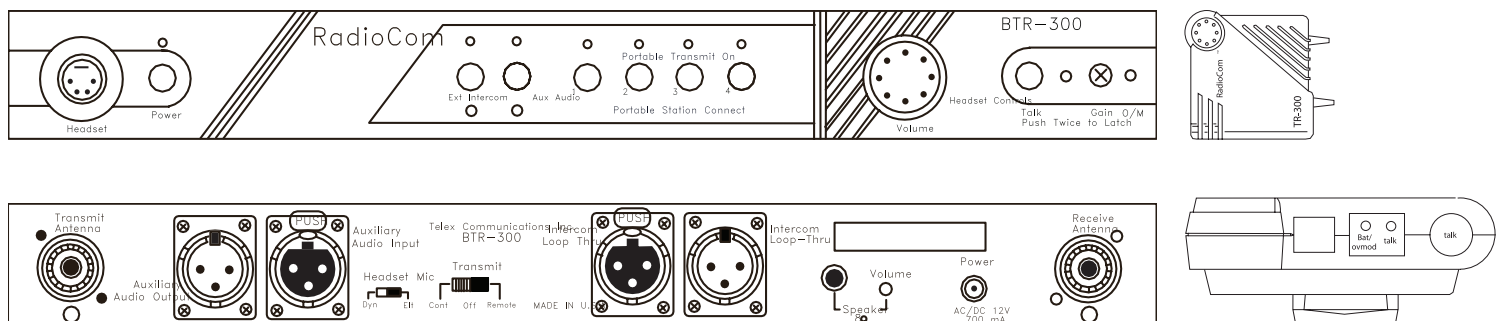
Allows users to talk and listen simultaneously for more natural communications.

All metal case for superior shielding

Simultaneous operation and support of up to four base stations and 16 beltpacks.

Push-to-Talk with Lock-to-Talk feature switch on beltpack.

Line Drawing



BTR-300 & TR-300 Specifications

Overall

RF Frequency Range

150-216 MHz

RF Frequency Stability

Crystal Controlled, 0.005%

TR-300 Power Requirements

6 "AA" Cells (Alkaline, NEDA, MN 1500) Nickel-metal hydride optional

TR-300 Current Drain

typical 82 mA

Transmit Antenna

¼ wave wire (attached)

Receive Antenna

¼ wave wire (attached)

Input Power (minimum)

12V AC/DC at 360 mA

Intercom Output

330 mV (Low) or 1V (Hi) RMS into 300 Ω load typical (at rated deviation)

Intercom Input (Gain Minimum)

300 mVrms typical (for rated deviation)

Auxiliary Output

2 Vrms into 600 Ω load typical (for rated deviation)

Auxiliary Input (Gain Maximum)

60 mVrms typical (for rated deviation)

Local Headset Input

2 mVrms input nominal

1.5 mVrms input at compression (Dynamic)

Local Headset Output

32 mV maximum output into 600 Ω

Speaker/Local Monitor Output (into 8 Ω)

2 Watts (at rated deviation)

Temperature Range

-4°F to 130°F (-20°C to 55°C)

Transmit

RF Power Output

50 mW Typical

Modulation

FM, 3 kHz deviation

115 micro-seconds Pre-emphasis

Transmit Antenna

⅝ wave (supplied)

Modulation Limiter

Internal Compressor

Modulation Frequency Range

300 to 5000 Hz ±2 dB

Radiated Harmonics and Spurious Emissions

-45 dBC, exceeds FCC Specifications

FCC

Type Accepted Under Parts 90 & 74

Contact Information

Telex Communications, Inc.
12000 Portland Avenue South
Burnsville, Minnesota 55337
Telephone: 877-863-4169
Fax: (800) 323-0498

Form Number: LIT000268000 Rev A

Date: August 2008

Receiver

Type

Dual Conversion Superheterodyne, FM

RF Sensitivity

Less than 0.5 μV for 12 dB SINAD

IF Selectivity

3 dB at 30 kHz (Ceramic Filter)

Image Rejection

70 dB or better

Squelch Quieting

90 dB

Squelch Threshold

3.0 μV (Internal)

Signal-to-Noise Ratio

90 dB

Audio Output

32 mW into 600 Ω (Headset)

Distortion

Less than 1% at Rated Output

Product Dimensions/Weight

BTR-300

15.75"W x 1.75"H x 10.5"D (40cm x 4.5cm x 26cm),
4.5 lbs (2 kg)

TR-300

4.25"W x 4.125"H x 2.0"D (10.79cm x 10.49cm x
5.08cm), 13 oz (369 g) with batteries

Shipping Dimensions/Weight

BTR-300

17"W x 5.50"H x 20"D (43.2cm x 14cm x 50.8cm),
10 lbs 6 oz (4.7 kg)

TR-300

7"W x 3"H x 10"D (17.8cm x 7.6cm x 25.4cm),
1 lb (454 g)

Ordering Information

BTR-300 • VHF Wireless Base Station with A4M headset jack • Catalog Number: 71276-XXXX

BTR-300-RTS • VHF Wireless Base Station with A4F headset jack • Catalog Number: 71280-XXXX

TR-300 • VHF Wireless Transceiver with A4M headset jack • Catalog Number: 7127-XXXXX

TR-300-SP • VHF Wireless Transceiver with A4M headset jack and special order frequencies • Catalog Number: 7129SP

TR-300M • VHF Wireless Transceiver in mirror image frequency with A4M headset connector • Catalog Number: 7127M-XXX

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

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