RadioCom™

Wireless that Works™

BTR-800

UHF Two-Channel Wireless Synthesized Base Station

The Telex® 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 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 audio channel operation, permitting the beltpack operator to choose between two 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 stand-alone operation and can interface with Telex® Audiocom®, RTS® Two-Wire Intercom, Clear-Com® as well as RTS® Digital Matrix Intercom systems and other four-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 wireless talk-around (WTA) and stage announce (SA) features.

The Telex® RadioCom™ BTR series has been designed for reliable, efficient operation. Operating in the 470 to 740 MHz range, the units operate reliably at line-of-sight distances of 1,000 feet. With available antenna systems, from Telex® 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 Channels of Intercom Audio

WTA (Wireless Talk About) Beltpack Control

SA (Stage Announce) Beltpack Control

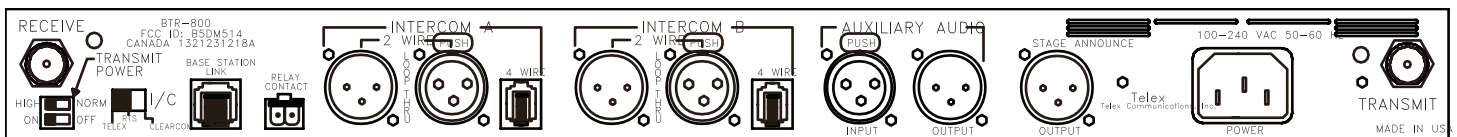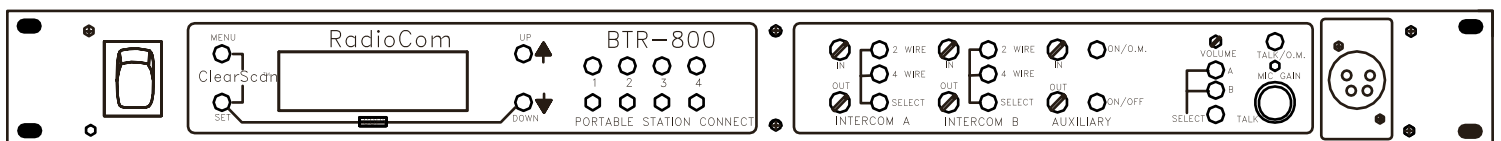Relay contract closure on the base when the SA button is pressed

TR-825 features two audio channel binaural operation in either stereo or mono mode

Beltpack units contained in a weather and shock resistant die cast magnesium case

Convenient IEC power connector on the base station.

Base station comes with rack ears for easy rack mounting.

Line Drawing

BTR-800 Specifications

Overall

RF Frequency Range
470 - 608 MHz, 614 - 740 MHz in 18 MHz TX and RX bands

Power Requirements
100-240 VAC, 50-60 Hz, IEC receptacle

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

FCC ID
B5DM514

Frequency Response
300 Hz-8 kHz

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

Telex® RadioCom™ Intercom
Input/Output Level Adjustable (1 Vrms typical), Line Impedance 300Ω

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

Clear-Com® Intercom
Input/Output Level Adjustable (1 Vrms typical), Line Impedance 200Ω

Auxiliary Input
Adjustable (2 Vrms typical)

Auxiliary Output
Adjustable (2 Vrms typical into 600Ω)

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

Stage Announce Relay
Dry contact, rated at 1 Amp, 24V Max

Microphone Input Sensitivity
9 mV

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

Transmitter

Type
Two Synthesized Transmitters, 712 channels each

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

Modulation Type
FM

Deviation
40 kHz (35 kHz Europe)

RF Frequency Stability
0.005%

Modulation Limiter
Peak-Responding Compressor

Radiated Harmonics & Spurious
Exceeds FCC specifications

Receiver

Type
Dual Conversion Superheterodyne, four Independent Synthesized IFs, FM, 712 channels each

RF Sensitivity
<0.8 µV for 12 dB SINAD

Squelch Threshold
20 dB SINAD

IF Selectivity
3 dB at 230 kHz

Image Rejection
70 dB or better

Squelch Quieting
90 dB

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),
7 lbs 2 oz (3.24 kg)

Shipping Dimensions/Weight

BTR- 800
17"W x 5"H x 23"D (43.2cm x 12.7cm x 58.4cm),
12 lbs (5.43 kg)

Ordering Information

BTR-800 • UHF Two-Channel Wireless Synthesized Base Station with A4M headset jack • Catalog Number: 71305XX

BTR-800-RTS • UHF Two-Channel Wireless Synthesized Base Station with A4F headset jack • Catalog Number: 71305XXR

BTR-800-RTS 5-Pin • UHF Two-Channel Wireless Synthesized Base Station with A5F headset jack • Catalog Number: 71305XXR5

TELEX BTR-700/800/825 -vs- BTR-80N

Feature	Telex 700	Telex 800/825		Telex 80N	
	BASE STATION AND SYSTEM FEATURES				
RF FREQUENCY RANGE	518-608, 614-740 MHz	470-608, 614-746 MHz		482-608, 614-722 MHz	
FREQUENCY BANDS	**5** (A2, B4, C3, C6, G9)	**18** F1, F2, F3, F4 H1, H2, H3, H4 A2, A3, A4 B3, B4, B6 C3, C4, C6 E88		**32** F1, F2, F3, F4, F5, F6 H1, H2, H3, H4, F5, F6 A1, A2, A3, A4, A5, A6 B2, B3, B4, B5, B6 C3, C4, C5, C6 D4, D5, D6 E5, E6	"6" & "G9" BANDS ARE INTENDED FOR SALE AND USE OUTSIDE OF THE USA
TRANSMITTER OCCUPIED BANDWIDTH	100 KHz	100 KHz		25 KHz	
Simultaneous 2 Wire & 4 Wire Operation	NO	YES - Either Channel		YES - Each Channel	
BASE STATION ANTENNA (Supplied)	1/2 Wave	1/2 Wave		1/2 Wave	
FREQUENCY SCANNING	YES ClearScan®	YES ClearScan®		YES ClearScan®	
BASE STATION TRANSMIT POWER	50 & 5mW	100 & 10mW		249, 100, 50 & 10mW	
BASE STATION DUAL TRANSMIT ANTENNA OUTPUT	N/A	OPTIONAL		OPTIONAL	
WARRANTY	3 YRS	3 YRS		3 YRS	
USER ADJUSTABLE SQUELCH CONTROL	NO	NO		YES	
RF METER (Rx SIGNAL STRENGTH)	NO	NO		YES	
BELTPACK BATTERY GAUGE ON BTR DISPLAY	NO	NO		YES	
ABILITY TO TURN OFF TR Tx FROM BTR	NO	NO		YES	
AC or DC POWER OPERATION	YES - KIT	YES - KIT		YES	
AUXILIARY AUDIO ASSIGNABLE	NO	NO		YES	
WIRELESS TALK AROUND - WTA	YES	YES		YES	
STAGE ANNOUNCE - SA	YES	YES		YES	
INTELLIGENT POWER CONTROL (TR Tx POWER)	YES	YES		YES	
FIRST ON - LATCH OUT OPERATION WITH TONE WARNING	NO	NO		YES Tone Defeatable	
SELECTABLE DC POWER FEED ON Rx LINE	NO	NO		YES 9 volts DC	

	BELTPACK FEATURES				
	TR-700	**TR-800**	**TR-825**	**TR-80N**	**TR-82N**
BELTPACK CONSTRUCTION	METAL DIE CAST MAGNESIUM	METAL DIE CAST MAGNESIUM	METAL DIE CAST MAGNESIUM	METAL DIE CAST MAGNESIUM	METAL DIE CAST MAGNESIUM
BELTPACK BATTERY LIFE (6 AA Alkaline)	14 Hrs	14Hrs	11Hrs	10 Hrs	9 Hrs
BELTPACK BATTERY LIFE (BP-800NM)	11 Hrs	11 Hrs	9.5 Hrs	10 Hrs	8 Hrs
PROGRAMMABLE BUTTONS ON BELTPACK	YES	YES	YES	YES	YES
PROGRAMMING AT BELTPACK	YES	YES	YES	YES	YES
BELTPACK TRANSMIT POWER SELECTABLE-	AUTO; 5 - 50mW NO	AUTO; 5 - 50mW NO	AUTO; 5 - 50mW NO	AUTO; 5 - 50mW YES - AUTO, 100, 50, 5mW	AUTO; 5 - 50mW YES - AUTO, 100, 50, 5mW
BELTPACK LOW BATTERY INDICATOR	YES	YES	YES	YES	YES
BELTPACK LOW BATTERY TONE WARNING	NO	NO	NO	YES	YES Tone Defeatable
ABILITY TO DISPLAY FREQUENCY AT BELTPACK	YES	YES	YES	YES	YES
EXTRA PDA DEVICE REQUIRED FOR PROGRAMMING	NO	NO	NO	NO	NO
BELTPACK TETHERED PROGRAMMING TO BASE STATION	NO	NO	NO	NO	NO
USER ADJUSTABLE SQUELCH CONTROL	NO	NO	NO	YES	YES
RF METER (Rx SIGNAL STRENGTH)	NO	NO	NO	YES	YES