

# BTR 700

W I R E L E S S I N T E R C O M S Y S T E M



*At last a wireless intercom with the features you need. UHF operation, frequency agile, all metal belt pack, an easy to use user interface and much, much more! The BTR-700 wireless intercom system utilizes cutting edge technology to ensure the utmost in range, interference resistance and high audio quality. Combine all of that with new Enhanced ClearScan™ technology that enables you to select intermod and interference free frequencies with the touch of a button, and you've got the wireless intercom to get you through virtually any challenge you face.*

- **Four belt packs per base station.** Each BTR-700 base station can support up to four TR-700 wireless belt packs in fulltime transmit, full duplex operation. Multiple base station/belt packs systems can be used together to meet the needs of virtually any wireless communications application.
- **Frequency agile.** Choose from 1440 user selectable frequencies using the 700's new revolutionary graphical user interface. Frequencies can be selected from groups of intermod free choices, or any frequency in 25 KHz increments. Select from 720 TX and 720 RX frequencies each from independent 18 MHz operational windows.
- **UHF operation.** Both the BTR-700 and the TR-700s operate in the UHF band from 518 to 740 MHz. Bases and belt packs operate in specific 18 MHz operational bands. Contact Telex customer service for complete operational band details.
- **Enhanced ClearScan™ frequency auto selection.** Frequency selection has never been easier! This is an advanced form of our existing ClearScan technology. It actually looks at all of the available frequencies in the factory and user-defined groups and ranks them so that the user knows the best frequencies to use. Now you can walk into a new venue in a new city and have a clear set of frequencies in less than a minute with the push of a couple of buttons!
- **Intermodulation-free factory selected groups.** Each 700 system comes with 24 factory selected, intermod avoiding groups that allow even the most uninitiated user to get started right out of the box. Telex has done all of the work for you!
- **"Fifth Person" Talk/Listen station at base.** The BTR-700 base station features a full talk/listen headset station so that an additional user can communicate on the intercom channel.
- **Intelligent Power Control™.** This new breakthrough technology takes system range and performance to a whole new level. Each belt pack senses when it is close to the base station and intelligently reduces its output by 10 dB. This effectively eliminates overloading the base station receiver front end which is the primary cause for the "near - far" desensing problem experienced in other wireless intercoms.
- **Cast magnesium belt packs.** TR-700 belt packs are constructed of extremely light, strong and durable cast magnesium. That's the metal "mag" wheels are made from! Using magnesium substantially decreases the weight of the belt pack while assuring the utmost ruggedness and durability.
- **Graphical user interface.** Both the BTR-700 and the TR-700 have easy to use user interfaces utilizing state of the art LCD displays. Custom graphical menus on the BTR-700 allow access to all of the powerful features and system operational parameters. The menu structure has been specifically designed to be intuitive and easy to use right out of the box.
- **Detachable belt pack antennas.** TR-700 belt packs feature detachable antennas that utilize stud type threaded connectors that do not have a fragile center pin to break off or bend. Detachable antennas make storage or shipping a breeze.
- **Two great battery options.** TR-700 belt packs can be operated from standard Alkaline AA batteries that provide over 14 hours of continuous duty operation. For applications where rechargeable batteries are required optional NiMH battery packs are available. NiMH batteries do not develop harmful memories like NiCads and offer a full 11 hours of operation. Drop-in chargers are also available in single and four-gang configurations.





BTR-700 Base Station Back

### TR-700 Metal Beltpack Transceiver

#### Overall

<b>RF Frequency Range:</b>	518 – 608 MHz, 614 – 740 MHz in 18 MHz TX and RX bands
<b>Power Requirements:</b>	6 "AA" Cells Alkaline (NiMH optional)
<b>Typical Battery Life:</b>	
Alkaline:	14 Hours (Continuous Duty)
NiMH (1500 mAh):	11 Hours (Continuous Duty)
<b>Current Draw:</b>	140 mA (Push-to-Talk, Talk On)
<b>Temperature Range:</b>	-4°F to 130°F (-20°C to 55°C)
<b>Dimensions:</b>	3.75" W × 5.05" H × 1.65" D (9.5 cm × 12.8 cm × 4.2 cm)
<b>Weight:</b>	15 oz. (425 g) with alkaline batteries
<b>Transmit Antenna:</b>	1/4 Wave (supplied), Screw type
<b>Receive Antenna:</b>	1/4 Wave (supplied), Screw type
<b>FCC ID:</b>	B5DM515
<b>Frequency Response:</b>	300 Hz-8 KHz
<b>Microphone Input Sensitivity:</b>	7 mV
<b>Local Headset Output:</b>	40 mV output into 600 Ω (1% distortion)

#### Transmitter

<b>Type:</b>	Synthesized, 720 channels
<b>Transmit Power:</b>	50 mW Max. (Auto-power reduction when close to base)
<b>Modulation Type:</b>	FM
<b>Deviation:</b>	40 KHz
<b>RF Frequency Stability:</b>	0.005%
<b>Modulation Limiter:</b>	Peak-Responding Compressor
<b>Radiated Harmonics &amp; Spurious:</b>	Exceeds FCC specifications

#### Receiver

<b>Type:</b>	Dual Conversion Superheterodyne, Synthesized, FM, 720 channels
<b>RF Sensitivity:</b>	<0.7 uV for 12 dB SINAD
<b>Squelch Threshold:</b>	20 dB SINAD (About 1.0 uV)
<b>IF Selectivity:</b>	3 dB at 230 KHz
<b>Image Rejection:</b>	70 dB or better
<b>Squelch Quieting:</b>	90 dB
<b>RF Frequency Stability:</b>	0.005%
<b>Distortion:</b>	<1% at full deviation

#### BTR-700 Channel Groups

Channel Group	Base Transmit	Beltpack Receive	Base Receive	Beltpack Transmit
A2	518-536		632-650	
	TV 22, 23, 24		TV 41, 42, 43	
B4	536-554		668-686	
	TV 25, 26, 27		TV 47, 48, 49	
C6	554-572		704-722	
	TV 28, 29, 30		TV 53, 54, 55	

BTR-700/TR-700 are available with AudioCom; A4M or RTS; A4F and A5F headset connector.

### BTR-700 Base Station Transceiver

#### Overall

<b>RF Frequency Range:</b>	518 – 608 MHz, 614 – 740 MHz in 18 MHz TX and RX bands
<b>Power Requirement:</b>	100-240 VAC, 50 - 60 Hz, IEC receptacle
<b>Temp Range:</b>	-4°F to 130°F (-20°C to 55°C)
<b>Dimensions:</b>	19.00" W × 1.72" H × 14.00" D (48.3 cm × 4.4 cm × 35.6 cm)
<b>Weight:</b>	6 lbs. 15 oz. (3.15 kg)
<b>Transmit Antenna:</b>	1/2 Wave (supplied) TNC Male Connector
<b>Receive Antenna:</b>	1/2 Wave (supplied) TNC Male Connector
<b>FCC ID:</b>	B5DM516
<b>Frequency Response:</b>	300 Hz-8 KHz
<b>Four Wire Input:</b>	Level Adjustable (2 Vrms typical)
<b>Four Wire Output:</b>	Level Adjustable (2 Vrms typical)
<b>Telex® Intercom:</b>	Input/Output Level Adjustable (1 Vrms typical), Line impedance 300 Ω
<b>RTS® Intercom:</b>	Input/Output Level Adjustable (0.775 Vrms typical), Line Impedance 200 Ω
<b>ClearCom® Intercom:</b>	Input/Output Level Adjustable (1 Vrms typical), Line Impedance 200 Ω
<b>Auxiliary Input:</b>	Adjustable (2 Vrms typical)
<b>Auxiliary Output:</b>	Adjustable (2 Vrms typical into 600 Ω)
<b>Microphone Input Sensitivity:</b>	9 mV
<b>Local Headset Output:</b>	40 mW output into 600 Ω (1% Distortion)

#### Transmitter

<b>Type:</b>	Synthesized, 720 channels
<b>Transmit Power:</b>	50 mW Max. (High), 5 mW (Normal)
<b>Modulation Type:</b>	FM
<b>Deviation:</b>	40 KHz
<b>RF Frequency Stability:</b>	0.005%
<b>Modulation Limiter:</b>	Peak-Responding Compressor
<b>Radiated Harmonics &amp; Spurious:</b>	Exceeds FCC specifications

#### Receiver

<b>Type:</b>	Dual Conversion Superheterodyne, Synthesized, FM, 720 channels
<b>RF Sensitivity:</b>	<0.8 uV for 12 dB SINAD
<b>Squelch Threshold:</b>	20dB SINAD (About 1.0uV)
<b>IF Selectivity:</b>	3 dB at 230 KHz
<b>Image Rejection:</b>	70 dB or better
<b>Squelch Quieting:</b>	90 dB
<b>RF Frequency Stability:</b>	0.005%
<b>Distortion:</b>	<1% at full deviation

#### Distributed by:

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