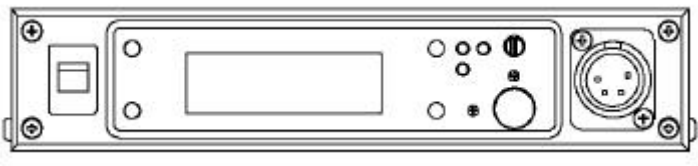


Telex Model BTR-1 Base Station



Owners / Users Manual (Preliminary Information)

General Description:

The Telex model BTR-1 base station transceiver is a component of the BTR-1 wireless intercom system. The BTR-1 is intended for use as a rack mountable wireless full duplex intercom radio for use in a professional installation such as television or cinema production.

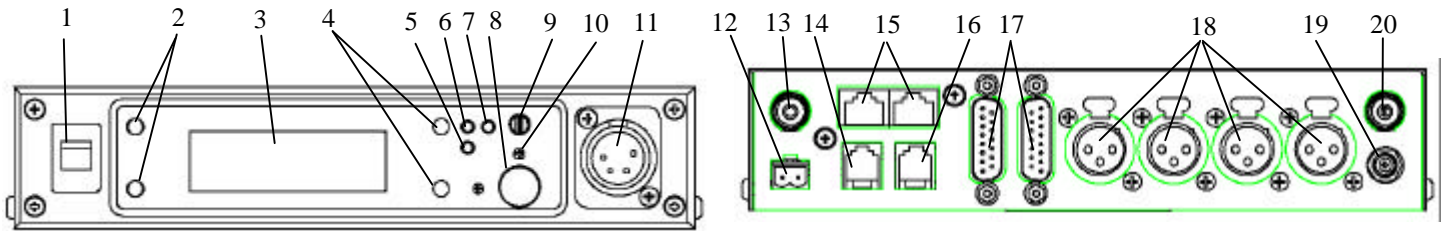
Each BTR-1 base station can be used with one TR-1. The BTR-1 transmits within the 482 to 607.9 MHz range (TV Channels 16-36). It receives in the 614.1 to 746 MHz range (TV Channels 38-59). The BTR-1 transmitter operates on a single frequency within an 18 MHz wide section of the transmit frequency range. The receiver also operates on a single frequency within an 18 MHz wide section of the receiver frequency range.

Typical transmitter conducted output power is 50 mW.

Operating frequencies can be selected from pre-set groups or the user can select special operating frequencies within the 18 MHz wide allotments.

The transmit and receive antennas may be screwed onto the BTR-1 via the TNC Female connectors on the back of the unit. Always make sure the color dot on the back of the base near the antenna jack matches the color of the antenna.

Controls and Connections



1. **On/Off Switch** – Turns the base station on/off.
2. **[MENU] and [SET] buttons** – Used to select menus and set options on the LCD.
3. **Backlit LCD.**
4. **[UP] and [DOWN] buttons** - Used to select menus and set options on the LCD.
5. **Peak Aux Level Light** – Will flash red when the auxiliary input level into the base station is too high.
6. **Peak Intercom Level Light** – Will flash red when the intercom input levels into the base station are too high.
7. **Talk Light** – Green when the talk button is active. Will turn red when the microphone level into local headset is too high.
8. **Talk Button** – Press to enable the audio path from the headset.
9. **Headphone Volume** – Used to adjust the volume level out to a headphone.
10. **Microphone Gain** – Adjusts the audio gain from the local headset microphone.
11. **Local Headset Jack**
 Pin 1 = Ground
 Pin 2 = Microphone (Hot)
 Pin 3 = Audio Out +
 Pin 4 = Audio Out -
12. **Relay Contacts** – Normally Open. When activated they close.
13. **Receive Antenna Connector** – TNC Female connector. The color dot near the connector must match the color of the antenna.
14. **Auxiliary Connector** – RJ-11 connector used to connect auxiliary audio into and out of a base station.
15. **CAN bus** – RJ-45 connectors used to connect a base station to a CAN type of bus.
16. **Matrix Connector** – RJ-11 connector used to connect balance 4-W audio into and out of the base station.
17. **Intercom Loop Thru** – Two DB15 connectors used to loop intercom audio thru a base station.
18. **Intercom Jack** – XLR intercom jack to allow audio into the base via XLR connectors instead of DB15 connectors.
19. **Power Connector** – Input power jack which requires 12 to 15 Volts AC or DC at 1000 mA.
20. **Transmit Antenna Connector** – TNC Female connector. The color dot near the connector must match the color of the antenna.

Specifications:

General:

Input Power.....12 – 15 VDC/VAC @ 1000 mA
Antennas.....1/2 wave, TNC male connectors
TX / RX.....One transmitter, one receiver,
Frequency agile, 25 KHz steps,
within 18MHz wide allotments.
Frequency Range
RX.....614.1 – 746 MHz
TX.....482 – 607.9 MHz
(within 18MHz wide allotments)
TX / RX Data Rate.....150 kbps
Aux In.....2 Vrms typical
Aux Out.....2 Vrms typical
4-wire In.....2 Vrms typical
4-wire Out.....2 Vrms typical

Transmitter:

RF Power Output.....50 mW typical
(terminated)
Modulation type.....GMSK
Audio Frequency Response.....100 Hz to 7 kHz
Microphone Sensitivity10 mV

Receiver:

Sensitivity.....<0.8uV for 12 dB SINAD Typical
Audio Frequency Response....100 Hz to 7 KHz
Audio Output (headset).....40 mW, 600 Ohms
(1% Distortion)