Telex Model TR-800 Beltpack

Users/Owners Manual   (Preliminary Information)

General Description:

The Telex Model TR-800 Beltpack Transmitter/Receiver is a component
of the BTR-800 Wireless Intercom System. The TR-800 is intended for use
as a belt worn wireless mobile intercom radio for use in a professional installation such as
television or cinema production.

Each BTR-800 base station can be used with one to four TR-800 units per base station.
The TR-800 operates within the 470 to 608 and 614 to 746 MHz range. (TV Channels
14-36 and 38-59).

The TR-800 transmitter operates on a single frequency within the above range and the
receivers operate on a single frequency contained within an 18 MHz wide section of the
above frequency range.

Typical transmitter conducted output Power is 50 mW. The TR-800 transmit power is
automatically reduced when the unit is close-in to the base station to aid in
intermodulation reduction and unnecessary transmit power.

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

The talk button on the top panel can be switch selected to operate in the
Push-to-Talk mode or the Push-to-Transmit mode. Push-to-Transmit allows multiple
TR-800 units to function as simplex units on one of the BTR-800 channels.

The microphone gain control, along with the LCD Display, talk function
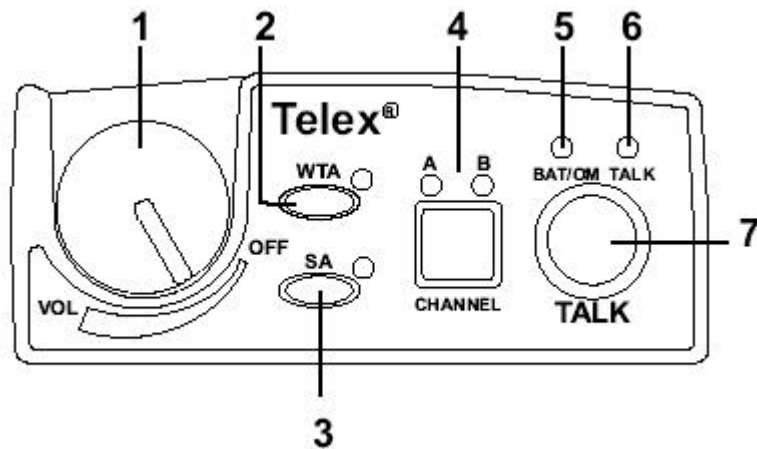switch and frequency/group controls are located on the back panel.

The ON/OFF/Volume Control, Talk Button, Low Battery,
Modulation Indicator and the Talk Light are located on the top panel.

The Channel Select, Wireless Talk Around (WTA) and Stage Announce (SA) buttons
with their indicators are also on the top panel.

Transmit and Receive antennas are attached to the TR-800. Either or both antennas can
be unscrewed for field replacement but are not coaxial connectors.

The TR-800 beltpack can be powered by AA Alkaline or a Nickel-Metal Hydride Battery
pack.

TR-800 Controls / Operation

1. **I/C On/Off Volume Knob**
   Operation: Knob turns beltpack on and controls volume of unit.

2. **WTA (Wireless Talk Around) Button**
   Operation: Press to send audio to transmitter. Sends audio to currently selected I/C channel.
   Nearby LED activates when WTA button pressed.

3. **SA (Stage Announce) Button**
   Operation: Press to send audio to transmitter. Nearby LED activates when SA button pressed.

4. **I/C Channel Button**
   Operation: Press to select the I/C channel in which to send and receive audio.

5. **BAT/OM**
   Operation: Activated when battery voltage drops below 6.5V or audio limiter is activated.

6. **Talk LED**
   Operation: Activated when talk button pressed. Also activated if WTA or SA button pressed.

7. **Talk Button**
   Operation: Press to send audio to transmitter.

Specifications:

Input Power…………………………………9.0 VDC Alkaline or NiMH.

Antennas…………………………………Attached.

Channels…………………Two, one receive, one transmit, frequency agile, 25 KHz steps, within 18MHz wide allotments.

Frequency Range…………………………..470-608 and 614-746 MHz.
(within 18MHz wide allotments).

Transmitter:

RF Power Output……………………………………….50 mW typical.

Frequency Deviation…………………………………+/- 40 KHz Peak.

Audio Frequency Response…………………………..300 Hz to 8 KHz.

Microphone input level……………………..8 mV for 40 KHz Deviation.

Receiver:

Sensitivity……….0.8 uV typical, 1.0 uV maximum for 12 dB SINAD.

Squelch……………………………………Opens at 20 dB SINAD.

Modulation Acceptance…………………………..40 KHz Nominal.

Audio Frequency Response…………………………..300 Hz to 8 KHz.

Audio Output (headset)…………………………40 mW, 600 Ohms (1% Distortion).

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