U S E R   I N S T R U C T I O N S

NOTE: Prior to use, the TR-24 Beltpacks and BTR-24 Base Station need to have their battery packs fully charged. Refer to battery charge instructions.

Wireless Mode

A base station is providing wireless coverage over the area in which the beltpacks will be used.

1. Rack mount or place the BTR-24 base station near the area of wireless coverage.

2. Plug the base station's external power supply into an AC outlet if available. If external power is not available, then the base station can run off internal battery (if already charged).

3. Connect the antenna(s) to the base station. The antenna(s) must have good line-of-sight over the area of use.

4. Turn-on the base station. After a 20 second boot time the base will scan the area and select the best RF channel.

5. After the base station has selected a channel, turn on the TR-24 beltpacks.

6. To place the beltpack in "wireless mode", if not already set, press and hold the <TALK> button as the beltpack boots. Release the <TALK> button once boot finishes. The beltpack will always boot in the last mode it was set to until the user sets a different boot mode.

7. After a 20 second boot time the voice prompt "wireless" will be heard in the headphone and the channel light will activate indicating the unit is up.

8. Wear the beltpacks on the hip. Place them in a position that allows for greatest visibility to the base station's antenna.
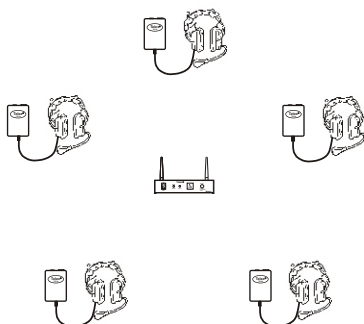

Figure 1.
BTR-24 with omni antennas

Wired Mode

Beltpacks are directly connected to each other via an Ethernet cable or through a building's Ethernet infrastructure.

1. Place the beltpack(s) near the Ethernet connection.

2. The beltpacks may be powered with their internal battery (if already charged) or external AC. If external AC is desired, use the charging power supplies that come with the beltpacks for this purpose.

3. Connect the beltpack to the an Ethernet cable via the RJ-45 connector at the beltpack's "EXT" jack. The Ethernet cable may be T-568A or T-568B cables. A normal or crossover cable may be used. The beltpacks automatically detect and use whichever type is connected.

4. To place the beltpack in "wired mode", if not already set, press and hold the <TWO> button as the beltpack boots. Release the button once boot finishes. The beltpack will always boot in the last mode it was set to until the user sets a different boot mode.

Master Wireless Mode

The base station is eliminated by having a beltpack act as a base station. This "master" beltpack may still be used for audio just as a normal beltpack.

1. The "master wireless mode" is normally a mobile application and as such power is usually supplied by the internal battery (if already charged). However, any beltpack may also run off the charging power supply via an AC outlet if desired.

2. Place a beltpack in "master wireless mode" by pressing and holding the <ONE> button as the beltpack boots. The beltpack always boots in the last mode it was set to until the user sets a different boot mode.

3. After a 20 second boot time the voice prompt "master wireless" will be heard in the headphone and the channel light will activate indicating the unit is up. The button may now be released.

4. After the master beltpack is operating, turn on the other TR-24 beltpack(s). These beltpacks should be booted as in the "wireless mode" instructions since the master beltpack is acting as the base station for the system.

Charging Instructions

1. Plug the external charger into the charge / power jack on the bottom of the beltpack or on the rear of the base station.

2. The LED near the jack indicates the charge status.
   - RED   = Charging
   - GREEN   = Charging Done
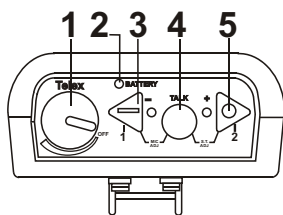
Typical Battery Life (from a fully charged battery)
  TR-24   = Up to 8 hours
  BTR-24   = Up to 10 hours
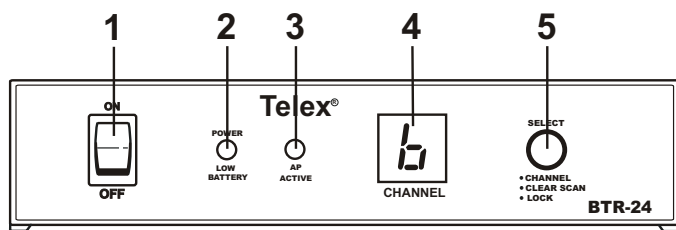
Typical Charge Time (from a depleted battery)
  TR-24   = 6 –8 hours
  BTR-24   = 10 – 14 hours
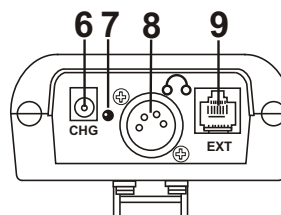
TR-24 Control and Connection – Top Panel

1 2 3 4 5

1. **Volume Control and Power Switch** – Turns the power on/off and controls headset volume.

2. **Battery / Power Light** – Indicates the beltpack has power, either from the internal battery or AC power connected to the unit.
   - GREEN = Beltpack battery OK
   - RED = Battery Low (>15 minutes left)
   - NO Light = Battery Depleted

3. **Button One and Light** – Selects audio channel one. The channel light has two modes depending on the <TALK> button's state.
   - Light Solid = Talk and Listen enabled.
   - Light Flashing = Listen only enabled (Push-to-TX).

4. **Talk Button** – Enables the headset microphone. The button has two modes:
   - Momentary = Press and hold for over ½ second
   - Latch on/off = Tap button and microphone is enabled, tap again to turn off.

5. **Button Two and Light** – Selects audio channel two. The channel light has two modes depending on the <TALK> button's state.
   - Light Solid = Talk and Listen enabled.
   - Light Flashing = Listen only enabled (Push-to-TX).

6. **Charge / Power Jack** – Used to charge the internal battery or power the unit directly off a wall outlet. Accepts a 5.5mm x 2.5mm plug with the center positive. Must be supplied with a 12VDC regulated power supply with at least a 400mA current capacity.

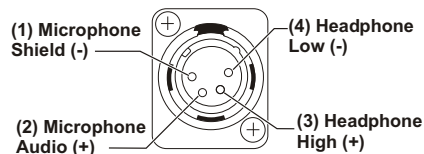## BTR-24 Control and Connection – Front Panel

1 2 3 4 5

1. **On/Off Switch** – Turns the power on/off to the base station.

2. **Power / Low Battery Light** – Indicates the base station has power, either from the internal battery or AC power connected to the unit.
   - GREEN = Battery OK
   - RED = Battery Low (>30 minutes left)
   - NO Light = Battery Depleted

3. **AP Active Light** – This green light flashing indicates that the BTR has successfully booted and is operating.

4. **RF Channel Display** – The display indicates the RF channel for which the unit is set.

5. **Select Button** – Hit the button to select the desired RF channel for the base station. The button has two other functions as follows:
   - Clear Scan – Press and hold the button until the decimal point starts to flash (about 3 seconds) then release. The unit will scan all the RF channels, then set the unit on the one with the least WiFi activity.
   - Lock – Press and hold the button until the decimal point is on solid (about 10 seconds) then release. The base will be locked on the displayed channel until rebooted or the decimal point is turned off by the same procedure.

TR-24 Control and Connection – Bottom Panel

6 7 8 9

7. **Charge Light.**
   - RED = Beltpack battery is charging.
   - GREEN = Beltpack battery is charged.

8. **Headset Connector** – Standard 4-pin XLR connector.

(1) Microphone Shield (-)
(4) Headphone Low (-)
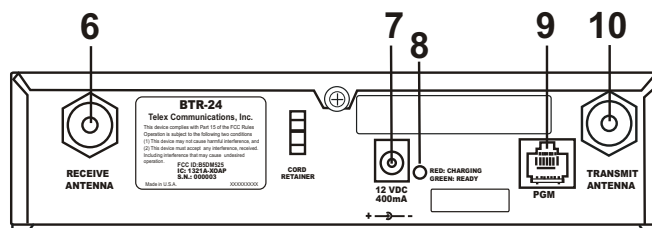(2) Microphone Audio (+)
(3) Headphone High (+)

9. **Configuration Jack** – RJ-45 jack used to interface the beltpack to an Ethernet cable. Jack may be used for wired mode and configuring the beltpack.

Beltpack Button Combinations (All have voice prompts):

Wireless Mode . . . . Press <TALK> until unit is done booting.
Wired Mode . . . . Press <TWO> until unit is done booting.
Master Wireless Mode . . . . Press <ONE> until unit is done booting.
Momentary Mode . . . . . . Press <ONE> +<TALK>+<TWO> for 3
(Push-to-TX full time) seconds. Press the three buttons again to go back to the default "Push-to-Latch" mode.
Microphone Gain . . . . . . Press <ONE> + <TALK> for 3 seconds. Keep <TALK> held down and use <ONE> to decrease the gain, <TWO> to increase it. Release all buttons for at least 1 second to set.
Sidetone Level . . . . Press <TALK> + <TWO> for 3 seconds. Keep <TALK> held down and use <ONE> to decrease the level, <TWO> to increase it. Release all buttons for at least 1 second to set.

BTR-24 Control and Connection – Rear Panel

6 7 8 9 10

6. **Receive Antenna Jack** – Reverse TNC receive jack.

7. **Charge / Power Jack** – Used to charge the internal battery or power the unit directly off a wall outlet. Accepts a 5.5mm x 2.5mm plug with the center positive. Must be supplied with a 12VDC regulated power supply with at least a 400mA current capacity.

8. **Charge Light.**
   - RED = Battery is charging.
   - GREEN = Battery is charged.

9. **Configuration Jack** – RJ-45 jack used to interface the base station to an Ethernet cable. Jack may be used for configuring the base station or connecting multiple base stations.

10. **Transmit Antenna Jack** – Reverse TNC transmit jack.

Made in U.S.A.   02/2007