Telex Model XO-AP Access Point

General Description:

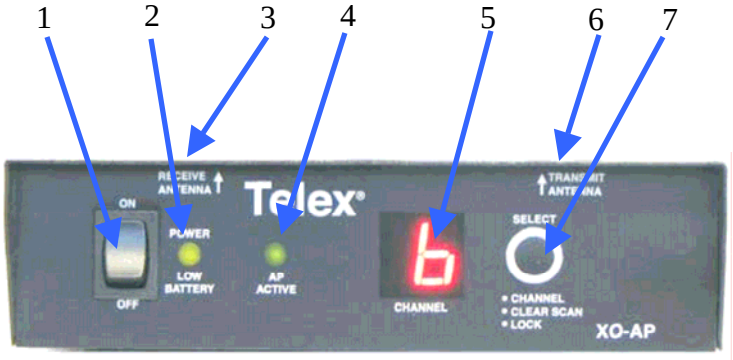
The Telex model XO-AP transceiver is intended for use as an access point between multiple XO-1 beltpacks clients. This enables the beltpacks to communicate with each other over-the-air.

The XO-AP uses 802.11 technology to receive / transmit within one channel of the 1 – 11 (2.412 to 2.462 GHz) channels of the 2.4 GHz ISM band. Its operation is license free.

The transmit and receive antennas are connected via reverse TNC connectors on the top of the unit.

The XO-AP is powered via an internal Li-Ion battery that will provide up to 14 hours of run time at room temperature. It may also be run off the AC charger unit supplied with the system.

The front panel provides an on/off switch, a power light, an AP active light, an RF channel display and a pushbutton for changing RF channels.



Front Panel

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

2. **Battery Light –**
   a. GREEN - Battery OK
   b. RED - Battery Low (needs charged)

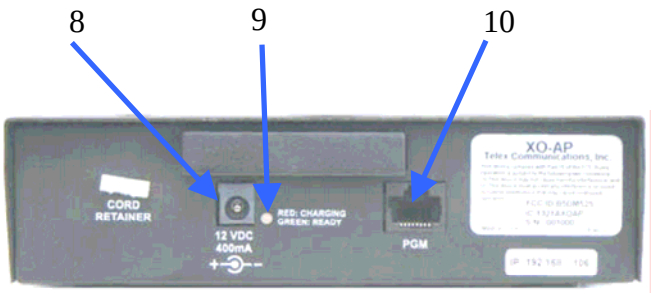
3. **Receive Antenna Jack (Not Pictured)** – This reverse TNC jack is where the receive antenna coaxial cable should be connected.

4. **AP Active Light** – This light flashing indicates that the AP has successfully booted.

5. **RF Channel Display** – The display indicates the 802.11 channel for which the unit is set.

6. **Transmit Antenna Jack (Not Pictured)** – This reverse TNC jack is where the transmit antenna coaxial cable should be connected.

7. **RF Channel Button** –
   a. **Channel –** Hit the button to select the desired RF channel for the AP.
   b. **ClearScan –** Press and hold the button until the decimal point starts to flash (about 4 seconds) then release. The unit will examine the eleven RF channels and then pick the one with the least activity and set the AP on that channel.
   c. **Lock –** Press and hold the button until the decimal point is on solid (about 10 seconds) then release. The AP will be lock on the channel displayed. To unlock, press and hold the button again until the decimal point is off. Lock only makes the currently displayed channel hard for a user to accidentally change the RF channel.



8. **Charge 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.

9. **Charge Light.**
    a. RED =Beltpack battery is charging.
    b. GREEN = Beltpack battery is charged.

10. **Programming Jack** – This RJ-45 jack is used to update programming in the unit if ever needed.

Operation

When the XO-AP is turned on the power light will turn green immediately indicating power. After 20 seconds, the unit will do a ClearScan of the 802.11 RF channels. It will then select the clearest channel. After this is done, the AP active light will start flashing. The AP is now ready to act as an access point for XO-1 beltpacks.

Specifications

Technology……	2.4 GHz, IEEE 802.11b
Power…….	Internal Li-Ion 7.2V, 4000mAhr, Battery. Typical battery life of 14 hours.
Current Draw…….	285mA typical with radio card active
RF Frequency Range…….	802.11 Channels 1 – 11 (2.412 to 2.462GHz)
Modulation Technology……	DBPSK, DQPSK, CCK
Antenna Connectors……..	Reverse TNC Jacks
RF Output Power (Terminated)……	200mW (Maximum)
Data rates……..	2 and 5.5 Mbps
Sensitivity (Worst case)……	5.5Mbps, <-91dBm
Access Point Size…….	6.00L x 6.40W x 2.00H inches
Access Point Weight……..…	1 lb 2oz
FCC License……..	No License Required

Regulatory Information

This device complies with Part 15 of FCC rules and Canada RSS-210. Operation is subject to the following conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.
3. Use only the manufacturer or dealer supplied antenna.
4. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The antennas used with this equipment should be installed and operated with a minimum distance of 20cm between the antenna and your body.
5. This device must not be co-located or operated in conjunction with any other antenna or transmitter.

To assure continued compliance with FCC regulations, any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.