Visit our Website at www.bc780xlt.com

BC780XLT

TRUNK TRACKER III

500-Channel Trunk Tracking Scanner

Uniden®

Operating Guide

Introduction

The BC780XLT is a state-of-the-art radio with TrunkTracking™ and automatic scanning capabilities. It can store frequencies such as police, fire/emergency, marine, railroad, air, amateur, and other communications into 10 banks of 50 channels each.

With the new SmartScanner™ feature, you can also automatically program your scanner by downloading directly from our Uniden/Bearcat national frequency database via a PC or external modem.

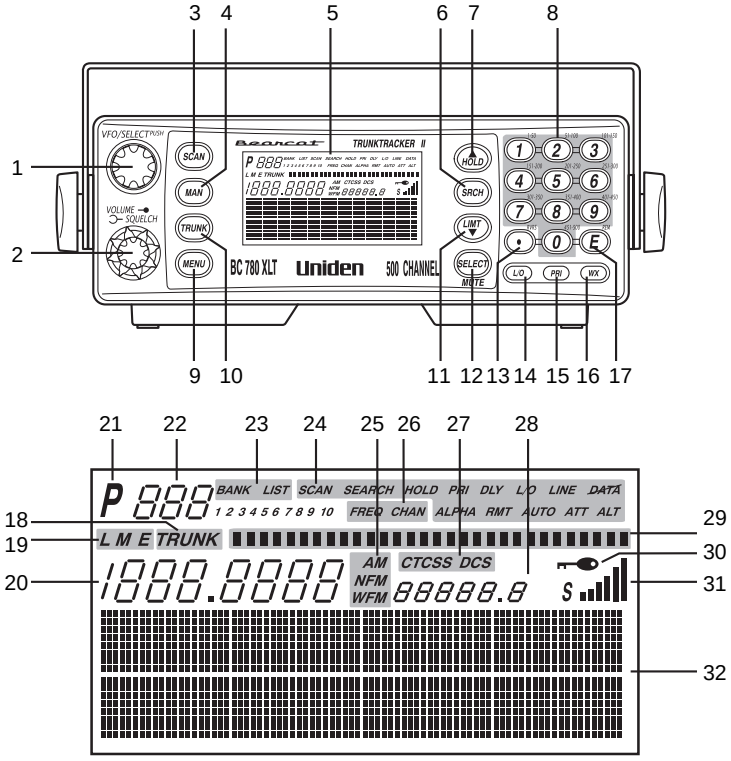
Use your new scanner to monitor:

- Police and Fire Departments (including rescue and paramedics)
- VHF High Band, UHF, 800/900MHz Trunked Public Safety Systems
- Trunking for Motorola, EDACS and LTR Systems
- NOAA Weather Broadcasts
- Business/Industrial Radio
- Utilities
- Marine and Amateur (ham radio) Bands
- Air Band
- And much more...

The chart below identifies the scanner band numbers, the frequency range, the modulation mode and the default step size settings.

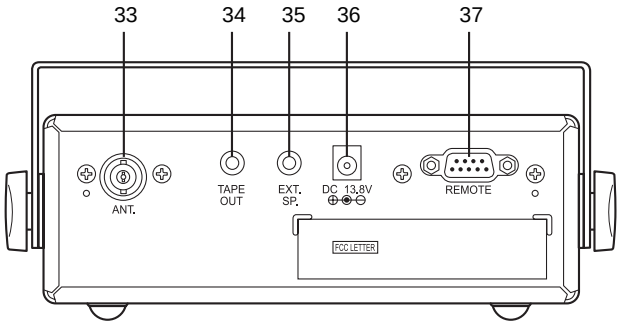
Band No.	Frequency Range (MHz)	Mode	Step (kHz)	Band No.	Frequency Range (MHz)	Mode	Step (kHz)
1	25.0000–26.9600	AM	5	22	470.0000–472.9875	NFM	12.5
2	26.9650–27.4050	AM	5		473.0000–475.9875	NFM	12.5
3	27.4100–27.9950	AM	5		476.0000–478.9875	NFM	12.5
4	28.0000–29.6900	FM	10		479.0000–481.9875	NFM	12.5
5	29.7000–49.9900	FM	10		482.0000–484.9875	NFM	12.5
6	50.0000–53.9900	FM	10		485.0000–487.9875	NFM	12.5
7	54.0000–71.9500	WFM	50		488.0000–490.9875	NFM	12.5
8	72.0000–75.9950	FM	5		491.0000–493.9875	NFM	12.5
9	76.0000–87.9500	WFM	50		494.0000–496.9875	NFM	12.5
10	88.0000–107.9000	WFM	100		497.0000–499.9875	NFM	12.5
11	108.0000–136.9750	AM	25		500.0000–502.9875	NFM	12.5
12	137.0000–143.9950	FM	5		503.0000–505.9875	NFM	12.5
13	144.0000–147.9950	FM	5		506.0000–508.9875	NFM	12.5
14	148.0000–161.9950	FM	5		509.0000–511.9875	NFM	12.5
	162.0000–173.9875	FM	12.5		(470.0000)–512.0000	NFM	12.5
15	174.0000–215.9500	WFM	50	23	806.0000–823.9875	NFM	12.5
16	216.0000–224.9950	FM	5		849.0125–850.9875	NFM	12.5
17	225.0000–399.9500	AM	50		851.0000–868.9875	NFM	12.5
18	400.0000–405.9875	NFM	12.5		894.0125–895.9875	NFM	12.5
19	406.0000–419.9875	NFM	12.5		896.0000–901.0000	NFM	12.5
20	420.0000–424.9875	NFM	12.5		901.0125–934.9875	NFM	12.5
	425.0000–429.9875	NFM	12.5		935.0000–940.0000	NFM	12.5
	430.0000–449.9875	NFM	12.5		940.0125–956.0000	NFM	12.5
21	450.0000–454.9875	NFM	12.5	24	1240.0000–1300.0000	NFM	12.5
	455.0000–459.9875	NFM	12.5				
	460.0000–464.9875	NFM	12.5				
	465.0000–469.9875	NFM	12.5				

Front View and Display



1. VFO/SELECT Control
2. VOLUME/SQUELCH Control
3. Scan Key (***SCAN***)
4. Manual Key (***MAN***)
5. Display
6. Search Key (***SRCH***)
7. Hold/Up Key (***HOLD/▲***)
8. Numeric Keypad (each banks channel numbers)
9. Menu Key (***MENU***)
10. Trunk Key (***TRUNK***)
11. Limit/Down Key (***LIMIT/▼***)
12. Select/Mute Key (***SELECT/MUTE***)
13. Decimal/Reverse Key (⬭ ***/RVRS***)
14. Lockout Key (***L/O***)
15. Priority Key (***PRI***)
16. Weather Key (***WX***)
17. Enter/Remote Key (***E/REM)***
18. Trunk Mode Indicator
19. Trunk Type Indicators
20. Frequency Display
21. Priority Channel Indicator
22. Channel Number Display
23. Bank/Trunk Scan List Indicator
24. Scanner/Channel Mode Indicators
25. Receiving Mode Indicators
26. Frequency/Channel Indicators
27. CTCSS/DCS Indicators
28. ID/Code/Frequency Display
29. Trunk Repeater Activity Indicators
30. Enter Lock Indicator
31. Signal Meter
32. Character Display

Rear View



33. Antenna Connector
34. Tape Recorder Output Jack
35. External Speaker Jack
36. DC Power Jack
37. Remote Control Terminal

BC780XLT SHORTCUTS

To reduce the amount of information that is shown on the display, set up "Screen Mask".
Press MENU + 1 + 2 + 1.

Restore by pressing **VFO** control.

To silence the keypad from sounding acknowledgement tones after each press, turn off the "Key Beep".

Press MENU + 1 + 3 + 2.

To increase the backlight of the display, set "Dimmer" to HIGH.

Press MENU + 1 + 1 + 1.

To turn off the backlight of the display, set "Dimmer" to OFF.

Press MENU + 1 + 1 + 3.

To prevent accidental reprogramming of frequencies or talkgroups, lock out the keypad.

Press MENU + 1 + 4 + 1.

To silence the scanner's audio output, set the scanner to "Mute On".

Press and hold SELECT/MUTE.

To replace frequencies on a channel that had been already set;

(for example; replace the frequency on channel 5 to 155.000)
Press MAN + 5 + MAN + 1 +
5 + 5 + . + E.

To assign an alphanumeric text tag to a bank, choose the bank number;

(for example; bank number 1)
Press MENU + 1 + 0 + 1
then using VFO control, enter the text.
After the text is entered, press SELECT.

To receive an alert for activity on specific channel, turn on "Beep Alert" for that channel.

Press MENU + 2 + select channel +
E + 4 + 1.

To receive an alert for activity on specific IDs while trunk tracking, turn on "Beep Alert" for that ID.
Press MENU + 3 + select bank + 5
+ select ID list + E + 4 + 1.

This shortcut card is designed to assist you in getting through the menu screens using the direct entry mode for commonly used features. Please read the manual thoroughly before using this card. Be sure to back out of the menu screen after each shortcut by repeatedly pressing MENU.

BC780XLT SHORTCUTS

To automatically store frequencies while searching, turn on "Auto Store" after setting up search range.

Press MENU + 4 + 6 + 1.
Then enter the bank number and press SRCH.

To set up a system for trunk tracking, choose a bank, then enter system type. (for example; bank number 6).

Press MENU + 3 + 6 + 1.

Then enter the system you want to track.
Press E.

To search a specific range of frequencies, set up the "Edit Range" of a specific bank.
(for example; bank number 10)
Press MENU + 4 + 1 + 0 + 1. Then enter the lower and upper ranges and press SRCH.

To change the alpha tag on the specific range of frequencies that you set, do the following:
(for example; bank number 10)
Press MENU + 4 + 1 + 0 + 4. Using the VFO control, enter the tag and then press E.

To record the specific range of frequencies that you set, turn on the LINE output.

Press MENU + 4 + 5 + 1.

The ***LINE*** icon appears.

To change the alpha tag on a specific channel, do the following:
(for example; channel number 5)
Press MENU + 2 + 5 + E + 1. Using the VFO control, enter the tag and then press E.

To attenuate a specific channel that you set, do the following:
(for example; channel number 5)
Press MENU + 2 + 5 + E + 5 + 1.

The ***ATT*** icon appears.

To record a specific channel that you set, turn on the LINE output.
(for example; channel number 5)
Press MENU + 2 + 5 + E + 8 + 1.

The ***LINE*** icon appears.

*If you need any assistance with this product, please call our Customer Service Hotline at **1-800-297-1023**. A Uniden representative will be happy to help you with any matters regarding the operation of this unit, available accessories, or any other related matters. Hours: M-F 7:00 a.m. to 7:00 p.m., Central time.*

*Also please check out our website at **www.uniden.com***

Contents

Important Notice

- This scanning radio has been manufactured so that it will not tune radio frequencies assigned by the FCC for cellular telephone usage. The Electronic Communications Privacy Act of 1986, as amended, makes it a federal crime to intentionally intercept cellular or cordless telephone transmissions or to market this radio when altered to receive them.
- The installation, possession, or use of this scanning radio in a motor vehicle may be prohibited, regulated, or require a permit in certain states, cities, and/or local jurisdictions. Your local law enforcement officials should be able to provide you with information regarding the laws in your community.
- Changes or modifications to this product not expressly approved by Uniden, or operation of this product in any way other than as detailed by this Operating Guide. These violations could void your authority to operate this product.
- The screen displays used in this manual are representations of what might appear when you use your scanner.

Terminology

What is Scanning?

Unlike standard AM or FM radio stations, most two-way communications do not transmit continuously. The BC780XLT scans the channels you program until it finds an active frequency.

Scanning stops on an active frequency and remains on that channel as long as the transmission continues. When the transmission ends, the scanning cycle resumes until another transmission is received.

What is Searching?

The BC780XLT can search each of its 24 bands to find active frequencies. This is different from scanning because you are searching for frequencies that have not been programmed into your scanner. The scanner automatically chooses between two speeds while searching. Turbo Search, can search the VHF FM bands at up to 300 channels per second.

What is Trunk Tracking?

Conventional scanning is a simple concept. You enter a radio frequency in your scanner's memory which is used by someone you want to monitor. For example, the police in your area may broadcast on 460.500 MHz, the fire department on 154.445 MHz, the highway department on 37.900 MHz, etc. So when your scanner stops on a frequency, you usually know who it is, and more importantly, you can stop on a channel and listen to an entire conversation. This type of scanning is easy and fun.

As the demand for public communications has increased, many public radio users don't have enough frequencies to meet their needs, and this has created a serious problem. Trunking radio systems solve this problem.

In a trunked radio system, which contains up to 28 different frequencies, radio users are divided into groups, often called talkgroups, and these talkgroups are assigned specific IDs. When someone in a talkgroup uses their radio, a brief burst of data is broadcasted before each transmission. The trunking system computer uses this data to temporarily assign each radio in a talkgroup to an available frequency. If the group using a frequency stops broadcasting or pauses between replies for a few seconds, they are removed from the frequency so another talkgroup can use it.

Sharing of the available public service frequencies, or trunking, allows cities, counties, or other agencies to accommodate hundreds of users with relatively few frequencies. Following a conversation on a trunked system using a scanner is difficult, if not impossible. Because when there's a short break during the conversation you're monitoring, it's possible that the talkgroup will be assigned to a completely different frequency in the trunked system. This type of scanning is difficult and frustrating.

TrunkTrack™ changes this! Not only does your new BC780XLT scan channels like a conventional scanner, it actually follows the users of a trunked radio system. Once you know a talkgroups ID, you won’t miss any of the action.

If you're a new scanner enthusiast, you may want to read the first part of this manual and use your scanner in conventional mode before you begin trunk tracking. Understanding scanning fundamentals and its terminology will make trunk tracking much easier. A glossary of other commonly used terms is provided in the back. (Refer to the “Glossary of Terms” section.) But if you're already an experienced scanner operator, you may want to skip to Trunked System on page 36.

Feature Highlights

- **Trunk Tracking** – Follows VHF High Band, UHF, 800/900MHz trunked public safety and public service systems just as if conventional two-way communications were used.
- **Multi-Track** – Track more than one trunking system at a time. Scan conventional and trunked systems at the same time.
- **500 Channels** – Program one frequency into each channel. You must have at least one channel programmed to use the Scan mode.
- **24 Bands, 10 Banks** – Includes 24 bands, with Aircraft and 800 MHz.10 banks with 50 channels each are useful for storing similar frequencies to maintain faster scanning cycles or for storing all the frequencies of a trunked system.
- **25 MHz-1300 MHz** – Indicates the range of frequencies that can be searched within the bands of your scanner.

  Note: The frequency coverage is not continuous and excludes the cellular band, 512-806MHz.
- **10 Priority Channels** – You can assign one priority channel in each bank. Assigning a priority channel allows you to keep track of activity on your most important channel(s) while monitoring other channels for transmissions. You can also assign trunking priority talkgroups.
- **Preprogrammed Service (SVC) Search** – Allows you to toggle through preprogrammed public safety, news media, TV broadcast audio, Ham, CB, FRS, special low power, railroad, aircraft, marine, and weather frequencies.
- **Unique Data Skip** – Allows your scanner to skip unwanted data transmissions and reduces birdies.
- **Memory Backup** – If the battery completely discharges or if power is disconnected, the frequencies programmed in your scanner are retained in memory.
- **Manual Channel Access** – Go directly to any channel.
- **Attenuator** – Reduces the signal strength on a per frequency basis.
- **SmartScanner™** – Automatically program your BC780XLT with all the frequencies and trunking talkgroups for your local area by accessing our national database with your personal computer (PC) or just an external modem. (No PC required)
- **Turbo Search** – Increases the search speed to 300 steps per second. This applies only to transmission bands with 5 kHz steps.
- **Text Tags** – You can customize your scanner by storing text tags (up to 16 characters).
- **Auto Store** – The scanner automatically arranges a memory store for searched frequencies.
- **CTCSS/DCS** – The scanner can receive and search for subaudible tones.
- **NWR-SAME Alert** – The scanner is compatible with warning tone and message transmissions.
- **FIPS Code** – Six digit FIPS Code (emergency and geographic area code) programmable.

Where to Obtain More Information

Before using your scanner, you must program frequencies into available channels. The Betty Bearcat Frequency Guide lists typical frequencies used around the U.S.A. and Canada that you may program into your new scanner.

To obtain another copy of the frequency guide, contact one of the following:

- Uniden Parts Department
  (800) 554-3988 (Hours are from 7:00 a.m. to 5:00 p.m. Central Time Monday through Friday.)
- Local Dealer

To obtain additional frequency information for your area, contact one of the following:

- Scanner Master
  (800) 722-6701 (Hours are from 10:00 a.m. to 5:00 p.m. Eastern Time Monday through Friday.)
- Bearcat Frequency Hotline
  (937) 299-0414 (Hours are from 9:00 a.m. to 5:00 p.m. Eastern Time Monday through Friday.)

Information on the Internet

If you have access to the Internet, you may want to visit **www.trunktracker.com** or **www.bearcat1.com/free.htm**

A special website has been specifically setup for this scanner with helpful information on using this scanner and other user comments. Visit www.bc780xlt.com.

For more information about Uniden and our other products, visit **www.uniden.com**