

# User Manual

DRAFT COPY OF THE INSTRUCTION MANUAL

## Introduction

### About Scanning

#### Scanning Options

Scanning is easy and fun with the BC278CLT 100-Channel Base Scanner. You can scan in 2 ways:

- Scan channels you have programmed

- Scan pre-programmed weather channels.

Unlike standard AM or FM radio stations, most 2-way communications (see Types of Communication below) do not transmit continuously. The BC278CLT scans programmed channels at the rate of about 100 channels per second until it locates an active frequency. When the scanning stops on an active frequency, it remains on that channel as long as the transmission continues. When the transmission ends, the scanning cycle resumes until another transmission is received. You can set a 2 second delay (refer to 2 Second Delay, page XX.)

### Types of Communication

You can monitor communications such as:

- Police and fire department (including rescue and paramedics)

- Aircraft Bands

- NOAA weather broadcasts (7pre-programmed channels)

- Business/industrial radio

- Public Service "800MHz" Band, except cellular band

### Utility

Land transportation frequencies such as trucking firms, buses, taxis, tow trucks, and railroads Marine and amateur (ham radio) bands And many more in the 29-54MHz, 108-137MHz, 137-174MHz, 406-512MHz, 806-956MHz ranges You must program a frequency into each channel you want to use. If you do not have any known local frequencies to program, call the 800number on the yellow sheet enclosed in this package. A Uniden representative should be able to provide you with a few sample frequencies. Or, use the enclosed order form to purchase a local frequency list.

### Where to Obtain More Information

The Bearcat Radio Club and other similar hobby clubs have publications, information on computer bulletin boards, and contests for the radio enthusiast. See the enclosed printed material for more information. Additional information is also available through your local library.

### Taking Proper Care of Your Scanner

Do not use the scanner in high-moisture environments such as the kitchen or bathroom. Avoid placing the unit in direct sunlight or near heating elements or vents. Do not plug the scanner into an outlet controlled by a wall switch as prolonged periods without power causes scanner memory loss.

#### Unpacking

Carefully check the contents against this list:

BC278CLT Base Scanner

Telescoping Antenna

AM Radio Loop ANT

AC Adapter (Model AC-144U)

This Operating Guide

Registration Form (in this Operating Guide)

Frequency Directories Order Form and other printed information If any items are missing or damaged, contact your place of purchase immediately. Complete and mail your Registration Form immediately. Read this Operating Guide thoroughly before operating the scanner.

#### NOTES:

The possession, or use of this scanning radio in a motor vehicle may be prohibited, regulation, or require a permit in certain states, cities, and/or local jurisdiction. Your local law enforcement officials should be able to provide you with information regarding the law in your community.

Change or modifications to this product not expressly approved by Uniden, or operation of this product in any way other than as detailed by this operation guide, could void your authority to operate this product.

#### Installation

##### Installing the BC278CLT

1. Insert small plug at the end of the AC Adapter cord into the AC10V jack on the scanner.
2. Plug the AC Adapter into any standard 120VAC wall outlet. Do not plug into an outlet controlled by a wall switch; it could cause scanner memory loss.
3. Plug the Telescoping Antenna into the ANT. jack. Extend the antenna to its full height. For UHF frequencies, shortening the antenna may improve the reception.
4. Plug the AM Radio Loop ANT into AM ANT Jack
5. Plug an optional external speaker (8-ohm) into the EXT.SP. jack.

## Note

If your scanner receives strong interference or electrical noise, relocate the scanner or its antenna away from the source. If you are operating the scanner in the fringe area or need to improve reception, use an optional antenna designed for multi-band coverage. (You can purchase this type of antenna at a local electronics store.) If the optional antenna has no cable, use 50-70 ohm coaxial cable for lead-in. A mating plug may be necessary for the optional antennas.

## Operation

### Controls and Functions

#### 1. LCD Display

Displays channel frequency and functions.

#### 2. Numeric Keys

Use to program a frequency into each channel for scanning. Also, use for direct channel access with M.

#### 3. Enter Key E

Press E to complete the programming of a frequency to the selected channel.

#### 4. PRIORITY Key P

Press P to turn Priority mode on or off. In Priority mode, the scanner samples Channel1 every 2 seconds, regardless of any other mode the scanner is in, except Weather Alert. If a transmission on Channel1 is detected, the scanner monitors Channel1 until no signal is present. Priority mode cancel when you turn off your scanner.

#### 5. LOCKOUT Key L

Use the LOCKOUT mode to prevent scanning of a selected channel. The L/O indicator appears when the current channel is locked out. Lockout is retained in memory. Press L again to unlock the channel. The LOCKOUT indicator disappears.

#### 6. SCAN Key S

Press S to start scanning.

#### 7. WX/ALART Key W

Press W to find the local weather channel.

Set ALART Mode hold for 2 second.

You can activate the Weather Alert only while you are listening to a local weather channel in the Weather mode. Weather Alert mutes the normal weather broadcast audio. A siren sounds when a severe weather emergency tone signal is received.

#### 8. HOLD/▲ key H

hold the frequency search; searches up through a selected frequency range during a frequency search; select options during program operation.

#### 9. ▼/LIMIT key LMT

searches down through a selected frequency range during a frequency search; select options during program operation; starts a limit search.

10. ALARM SET/DATA key D

start ALARM SET mode; turns on or off the data signal skip feature.

11. AM/PM/TIME key T

select AM/PM with TIME SET and ALARM SET mode; select TIME SET mode.

12. ALARM key ALM

turns on or off the alarm clock feature.

13. TIME SET/SERVICE key SVC

start TIME SET mode; start a service bank search.

14. RADIO key R

power on Radio function.

15. SCANNER

power on SCANNER function.

16. OFF key

turns off the RADIO or SCANNER function and on the CLOCK function.

17. SQUELCH Control

Adjust SQUELCH to set the scan threshold or use AUTO for the factory setting.

18. Volume Control

Turn VOLUME clockwise to turn the scanner on and increase the volume. Turn counterclockwise to decrease the volume or turn the scanner off.

19. DELAY Key D

Press D for a switchable 2 second delay at the end of transmissions.

20. MANUAL Key M

Press M to stop scanning. Press M again to step to the next channel. Also, use for direct channel access by first entering the channel number and then pressing M to go directly to that channel.

21. Channel Display

2-digit display that shows 01 through 20.

22. Frequency Display

Seven-digit display that shows the current frequency.

23. Alert Indicator

ALERT appears on the LCD display when the scanner is in the Weather Alert mode. The broadcast audio is mute.

24. Weather Indicator

WX shows when in Weather Search mode.

25. Delay Indicator

DLY appears when Delay function is active

26. Priority Indicator

PRI displays when Priority function is active

27. Lockout Indicator

L/O shows when the current channel is locked out.

#### 28. Priority indicator

P shows when a priority channel is selected.

#### 29. data skip indicator

DATA appears when the data skip function is active, but disappears on AIR band; appears Disconnect tone Detect is off, and flashes is on,

#### 30. bank select indicator

BANK displays with numbers (1-5) The numbers show which channel-storage banks are turned on for scanning.

#### 31. scanning indicator

SCAN displays when you scan channels.

### Scanning Overview

The BC278CLT has 100 memory channels; each can be programmed to store 1 frequency within the band of frequency coverage. (For a listing of frequency ranges and bands, see Technical Specifications on page.)

When you press S, the BC278CLT scans each programmed frequency for activity (skipping channels that are locked out) at the rate of about 100 channels per second. As the unit scans, the word SCAN moves across the LCD display.

When the scanning stops on an active frequency, it remains on that channel as long as the transmission continues. What happens at the end of the transmission depends on whether or not the Delay function is active. If the Delay function is active, the scanner pauses on the same channel for 2 seconds, waiting for a responding transmission. If there is no responding transmission within 2 seconds, the scanning cycle resumes. If the Delay function is inactive, the scanner immediately resumes scanning.

### Getting Started

Turn SQUELCH fully clockwise to the highest number setting (9) .

Turn on the power by pressing SCAN KEY. Adjust the volume to where you can hear a steady noise.

Set the squelch at the scanning threshold by turning SQUELCH counterclockwise just until the noise disappears or set on AUTO for the factory setting. The scanner automatically starts scanning. If you have not programmed any channels yet, press W to hear your local weather broadcast. Adjust VOLUME to a comfortable listening level. Adjusting the Squelch Set the SQUELCH control to AUTO for the factory setting or manually set squelch.

To manually set squelch, open the squelch by turning SQUELCH control clockwise

to position 8 or 9. You should hear a steady sound (scanning stops). Now turn SQUELCH control counterclockwise slowly until the sound disappears. This is the threshold point at which scanning starts. At the squelch threshold, an incoming signal just slightly stronger than the noise will open the squelch.

When squelch is open, you can hear the broadcast (scanning is stopped). If squelch is set too tight (that is, too far counterclockwise from the threshold point), a stronger signal is required to open the squelch.

If squelch is set on a point clockwise from the threshold, you hear a constant sound (noise, if no signal is present); the scanner does not scan.

#### Programming Tips

Program 1 frequency per channel.

The fixed priority channel is Channel 1. Program the most important frequency, or the one of major interest, into Channel 1. To quickly program a series of channels, start with the lowest number channel. For example, when you are programming five new frequencies into Channels 4 through 8, start with Channel 4. After you complete the programming in 1 channel (by pressing E), press M to step up to the next channel.

If you make an error during programming, or the frequency is out of range, Error appears on the channel display. During numeric entry, if you know that you pressed the wrong number, press twice. This cancels the entire numeric entry, and displays the current channel number.

Above 406 MHz, the frequency steps are in 12.5 kHz increments. To enter a frequency such as 450.4875, press each of the seven digits in sequence.

Once you have programmed a channel, you cannot erase the frequency in that channel. However, you can change the frequency in a specific channel by programming a new frequency over the existing one. If you want to manually erase all the memory, first turn off the scanner. Then, press and hold M, 2, and 9 simultaneously while you turn the scanner back on. MEMORY LOSS appears in the LCD Display, indicating that all memory is erased.

#### Programming Frequencies

Before you can use your BC278CLT, you must program the channels except weather frequencies. Follow these steps:

Example: Program 420.150 MHz into Channel 12. Press M to stop scanning.

To select the channel (12), press 1, then 2 on the numeric keypad. Then press M again.

Type in the frequency numbers, including the decimal point, using the numeric keypad: 420.150

Press E to complete the entry.

### Scanning

Turn on the power, or press S to start scanning. (When the scanner is turned on, it is automatically in Scan mode.) Scanning automatically stops on any active channel, except those channels programmed with L. If the Delay function is active, scanning automatically resumes 2 seconds after the channel becomes inactive. If the Delay function is inactive, scanning resumes immediately at the end of a transmission.

Press M anytime to stop scanning. When you press M, you are out of Scan mode, and the scanner remains on the displayed channel. Press S to start scanning again, or press M to step up to the next channel. If desired, you can press M repeatedly to manually scan all 20 channels, 1 press per channel, including the channels that are locked out.

### 2-Second Delay

You can program your BC278CLT to pause for 2 seconds after a transmission ends. This allows time for a slight pause between transmissions. Without the 2 second delay, the scanner immediately resumes scanning, missing the rest of the transmission.

To activate the Delay function, press M. You cannot enable the Delay function while scanning.

Press D. DLY appears in the LCD Display. To disable, press the DELAY key again.

### Direct Channel Access

This feature allows you to instantly access a specific channel you want to monitor.

Example: Select Channel 4. Press 4.

Press M. When you press 4, the display changes to 4, but the scanner still monitors the previous channel displayed. You must press M to successfully complete the direct access to Channel 4.

### Weather Channel Scan

The BC278CLT allows you to search for your local NOAA weather channel.

Press W to find the active weather channel in your area from 7 pre-programmed NOAA channels. It is possible that your area is covered by more than 1 weather station.

When you press W, the BC278CLT immediately finds an active broadcast. If the broadcast sounds weak and distant, press W again to look for a closer station.

#### Note

All weather channels transmit continuous broadcasts. Once the Weather Scan stops on a transmission, it remains on that channel. Weather Scan does not resume automatically. You must press W again to resume weather scanning.

In some parts of the country, you may not be able to monitor weather broadcasts, such as in low-lying areas. Normally a higher location improves the reception.

To exit Weather mode, press S, M, or turn off the scanner.

#### Note

Do not program a weather frequency into 1 of the 20 channels. Because weather channels transmit continuously, the scanner remains on that channel, disrupting the scanning cycle. The Weather Scan feature is provided specifically to avoid this occurrence.

#### Weather Alert

With this unique feature, the BC278CLT can function as a severe weather warning radio. This is especially useful when your area is expecting severe weather conditions late at night. Just set the scanner to Weather Alert mode and sleep peacefully! The BC278CLT will awaken you with a loud siren whenever your local NOAA weather station broadcasts a severe weather emergency tone.

To use Weather Alert:

First, press W a few times to find your best local weather broadcast. The Weather mode must be selected to activate the Weather Alert mode.

Press A. The LCD displays ALERT, and the BC278CLT is silent. The BC278CLT now functions as a Weather Alert radio, waiting to receive a severe weather emergency tone.

When the scanner receives an emergency tone from your local NOAA weather station, it responds with a loud siren at maximum volume (regardless of the volume control

setting). The siren continues until the emergency tone stops transmitting. When the siren stops, you can hear the emergency message being broadcast. The ALERT blinks to indicate that the scanner has received an emergency tone at least once. The BC278CLT remains in Weather Alert mode and responds with a siren if another emergency tone is broadcast.

To stop the siren manually and exit Weather Alert mode, press any of these keys: W, M, or S.

#### Testing the Weather Siren

You can test the siren in any mode to hear how it sounds and to ensure that the circuitry is working.

Press and hold W, then press A to start the siren.

To stop the siren, press any key.

#### Priority Scanning

Your BC278CLT has a fixed Priority Channel, Channel1. Priority Scan works like a dual watch function. When you activate Priority Scan mode, the scanner starts sampling, or keeping track of the activity on Channel1 while listening to other channels. A constant PRI appears on the LCD display

#### Note

Priority Scan mode does not work when the scanner is in Weather Alert mode. Every 2 seconds, the scanner checks Channel1 for activity. If a signal is present, Channel1 is monitored until the transmission ends. When the signal stops for more than 2seconds, normal operation resumes.

First, program the frequency most important to you into Channel1. Press P to set the scanner in Priority Scan mode. PRI appears on the display. To exit Priority Scan, press P again. The PRI disappears from the LCD display.

#### Channel Lockout

You can lock out a channel so it is not scanned. Locked out does not erase the frequency from the channel. You can lock out up to 19 channels, including the Priority channel, but not all 20 channels. Lockout information is retained in memory when the scanner is turned off.

Example: Suppose you want to lock out Channel2 because it stops on transmissions you don't want to hear.

Press L when the scanner stops on Channel 2. The scanner locks out Channel 2, immediately advances to the next channel that is not locked out, and resumes scanning. In the Manual mode, press L to lock out the displayed channel. Pressing L does not advance to the next channel in Manual mode.

L/O appears in the LCD display to indicate the displayed channel is locked out. Whenever you want to search for channels that are locked out, press M repeatedly to go through all 20 channels. If a channel is locked out, the L/O indicator shows.

#### Restoring a Locked Out Channel

To unlock a channel so that it can be monitored during scanning:

Use M to find the locked out channel.

Press L again to unlock the displayed channel. The L/O indicator disappears.

#### About the Unit

##### Helpful Hints

##### General Use

Turn the scanner off before disconnecting the power. Always write down the programmed frequencies in the event of memory loss. If memory is lost, simply reprogram each channel. The display shows MEMORY LOSS indicator when there has been a memory loss. Always press each keypad button firmly until you hear the entry tone for that key entry.

##### Location

If strong interference or electrical noise is received, relocate the scanner or its antenna away from the source of the noise. If possible, a higher elevation, may provide better reception. Also try changing the height or angle of the antenna.

Do not use the scanner in high-moisture environments such as the kitchen or bathroom. Avoid placing the unit in direct sunlight or near heating elements or vents. Do not plug the scanner into an outlet controlled by a wall switch as prolonged periods without power will cause scanner memory loss.

##### Cleaning

Disconnect the power to the unit before cleaning. Clean the outside of the scanner with a mild detergent. To prevent scratches, don't use abrasive cleaners or solvents. Be careful not to rub the LCD Display window. Do not use excessive amounts

of water.

### Repairs

Do not attempt any repair. The scanner contains no serviceable parts. Contact the Uniden Customer Service Center or take it to a qualified repair technician.

### Birdies

All radios are subject to receiving undesired signals or birdies. If your scanner stops during Scan mode and no sound is heard, it may be receiving a birdie. Birdies are internally-generated signals inherent in the electronics of the receiver. Press S to resume scanning.

Press the Weather key again to find the active channel. Then press the Alert key again.

If you still cannot get satisfactory results and want additional information, or to return the unit for service, please call or write the Uniden Parts and Service Division. The address and phone number are listed in the Warranty at the end of this manual.

### Technical Specifications

Certified in accordance with FCC Rules and Regulations Part15 Sub-Part C as of date of manufacture.

Band Coverage: 14 bands

#### Frequency Coverage:

|      |    |         |                                                |
|------|----|---------|------------------------------------------------|
| 29   | to | 29.7    | MHz (10 Meter Amateur Band)                    |
| 29.7 | to | 50      | MHz (VHF Low Band)                             |
| 50   | to | 54      | MHz (6 Meter Amateur Band)                     |
| 108  | to | 136.975 | MHz (Air Craft Band)                           |
| 137  | to | 144     | MHz (Military Land Mobile)                     |
| 144  | to | 148     | MHz (2 Meter Amateur Band)                     |
| 148  | to | 174     | MHz (VHF High Band)                            |
| 406  | to | 420     | MHz (Federal Government Land Mobile)           |
| 420  | to | 450     | MHz (70-cm Amateur Band)                       |
| 450  | to | 470     | MHz (UHF Standard Band)                        |
| 470  | to | 512     | MHz (UHF "T" Band)                             |
| 806  | to | 956     | MHz (Public Service Band Except Cellular Band) |
| 520  | to | 1720    | kHz (AM Radio Band)                            |
| 88   | to | 108     | MHz (FM Radio Band)                            |

Sensitivity (nominal) 12dB SINAD:

0.3uV 29-54MHz 0.4 uV 137-174 MHz 0.6 uV 406-512 MHz.

Selectivity (nominal):

-6 dB at 8 kHz (162.4MHz 20dBQS) -50 dB at 15 kHz (162.4MHz 20dBQS)

Channels: 100

Scan Rate: Up to 100 channels per second

Scan Delay: 2seconds

Audio Output (nominal): 0.7W 10%TDH

Power Requirements: 10 VAC using AC-144U AC Adapter

Antenna: Telescoping (included) AM Radio Loop ANT

External Jacks:

Antenna jack External speaker AC10V power jack

Size: 205 (W) x 139 (D) x 73 (H)

Weight: 600g

Features, specifications, and availability of optional accessories are all subject to change without notice.