# uniden 

 Bearcat UBC 70 xlt

## HAND HELD PROGRAMMABLE SCANNER

- 20 CHANNELS
- 8 BAND COVERAGE
- CRYSTAL FREE
- AUTOMATIC SEARCH
- PRIORITY CHANNEL
- SELECTIVE SCAN DELAY
- DISPLAY LIGHT
- AUTOMATIC LOCKOUT
- TRACK TUNING
- DIRECT CHANNEL ACCESS


S円ПтROחíc Corp. Pty. Ltd.

## Introduction

## Welcome...

to the exciting world of hand-held radio scanners. State-of-the-art engineering and microelectronics provide programmable operation and dependability in such a small unit. The keyboard has been divided into two parts: PROGRAM, which allows you to command any frequency (VHF/UHF) on all 20 channels; and OPERATION, which controls Scan, Lockout, Delay, Priority, Search, and Direct Channel Access . Vol ume and squelch levels are controlled by precision thumb wheel adjustments. An LCD display provides frequency and oper ation information. Rechargeable NiCad batteries provide hours of monitoring and recharge quickly overnight. The case is constructed of high impact ABS plastic and metal to provide years of trouble-free use. Please read this guide thoroughly before attempting to operate the unit.

## WARNING!

Santronic does NOT represent this unit to be WATERPROOFED. To reduce the risk of fire, electrical shock or damage, do not expose this unit to rain or moisture.

## Unpacking

Carefully remove all items from the ship ping carton. If there is any visible damage or any item appears to be missing, notify your dealer immediately.
The following items are included with your UBC 70XLT:

[^0]Please keep the shipping carton and pack ing materials. This carton serves as an excellent method to transport the scanner.

## Rechargeable Batteries

The UBC 70XLT comes with a rechargeable NiCad battery pack. When fully charged this power supply will provide hours of dependable use. When the batteries become low simply plug the AC Adapter/Charger into the jack on the side of the unit and charge over night. The scanner can be operated while charging. It is important to periodically allow the batteries to discharge completely, to maintain full operating capability. See the Battery Maintenance section of this guide.

To replace the battery pack, slide the battery door down and off the back of the unit. Unplug the old battery and connect the new one. Be sure to charge the scanner overnight before operating the unit.

See the Optional Accessories section for replacement battery information.

## External Antenna

The UBC 70XLT is designed to be used with the flexible rubber antenna (included) but may also be used with an external antenna. You may find an external antenna to be helpful in fringe areas or for mobile use. Always use 50-70 ohm coaxial cable for lead-in. For lengths in excess of 50 feet, RG8AU low-loss foam dielectric coax is recommended. Your scanner is equipped with a standard BNC connector. A mating plug (optional) may be necessary for external antenna connection.

## Antenna Installation

The flexible rubber antenna provided with your unit is recommended for most moni toring. Insert the connector into the an tenna jack on the top of the unit and twist to lock. For weak reception or electrical interference, a different location may be helpful. An external antenna may also provide better reception.

## Controls and Functions

## External Power

The UBC70XLT can be powered by the Charger (included with the unit which converts standard household current into 12 VDC. Plug charger into the jack on the side of the unit. Plug the other end into any standard 220 VAC household outlet. Do not plug the scanner into an outlet controlled by a wall switch as prolonged periods of no power will cause a loss of memory.

CAUTION: Use only the Charger included with your UBC 70XLT or Cigarette Lighter Power Cord UA502 or UA502A. Recharging or operating with a higher voltage or reverse polarity may damage your unit.

The UBC 70XLT may also be used with any 12 VDC power source such as a vehicle. See the Optiona! Accessories section for more information.

## Controls and Functions

1. Power On/Off - Select "ON" to operate scanner. Be sure to turn the unit off when not in use.
2. Volume Control - Side mounted thumb wheel to adjust the desired volume.
3. Squelch Control - Eliminates the annoying "rushing" sound heard between transmissions when no signal is being received. Proper adjustment of this control keeps the receiver quiet and allows scan ning until a signal is received.
4. Keypad - Locks the numeric keypad to avoid accidental mis-programming. Select "ON" to unlock and "OFF" to lock.
5. Light - Press to illuminate the LCD display for night time use. The display light requires a minimum amount of battery power; consequently, it should be used sparingly. The light will automatically turn off after 15 seconds.
6. Numeric Keypad ("0-9" and ".") - Used to program all frequencies into memory and for direct channel access.
7. Enter - The " $E$ " is used to enter frequen cies into the scanning memory.
8. Scan - Press to start scanning all frequencies programmed in memory.
9. Manual - Press to stop scanning. Press to step to the next channel. Dial the chan nel number and then press the manual key to go directly to that channel.
10. Lockout - Press to lock out the reception of frequencies on selected channels during scanning. Lockout is retained in memory. Press again to delete the Lockout function.
11. Delay - Press to add a 2 second delay to the end of a transmission to avoid missing call-backs.
12. Priority - Press to sample the activity on channel 1 every 2 seconds regardless of other operational settings. If a transmis sion is found the scanner will monitor channel 1 until no signal is present.
13. Search - Press to search for new active frequencies within preset ranges of any band.
14. Limit - Enter the low and high limits of the search range. Press to manually step the search frequency down.
15. Hold - Press to stop and hold the search function on the current frequency. Press again to manually step up to the preceeding frequency.

## Operation



The UBC 70XLT has 20 memory channels, each of which can be programmed to store one frequency. When "SCAN" is pressed, each of the programmed frequencies will be sampled for a transmission (locked channels will be skipped) at a rate of about 15 channels per second. If an active frequency is found the unit will stop and monitor that frequency until there is no longer any activity. A 2 second delay can be added to each channel and will allow the unit to monitor the frequency for a return or continued transmission. If, after 2 seconds, the frequency remains inactive, the scanning cycle will resume.
When the unit is first turned on, each chan nel will contain a test frequency or " 000.000 ". When new frequencies are programmed the old will be erased. If an invalid frequency is entered, "Error" will be displayed and the old frequency will return.

To operate the scanner make sure that the batteries are fully charged or power is supplied to the unit. Turn the Volume control on and adjust the desired level. Adjust the Squelch by turning the knob counter-clockwise until a "rushing" sound is heard. Turn the knob back until the receiver is silent. After the channels have been programmed, operation is simple. Press the Scan key to scan all the channels. Press the Manual key to stop scanning.

## LCD Display

The UBC 70XLT has an LCD display which shows the current channel and frequency as well as other operational modes. When the unit is scanning, the channel number will rapidly advance while the frequency display will go blank. When the scanner is stopped the current channel and frequency will again be displayed.

When frequencies are programmed the dis play will show the digits as they are entered. The display will also show "PRI" when the Priority mode is on, "L/O" when ever a channel appears that has been locked out, and "DLY" whenever a channel has been programmed for delay. "BATT" will flash when the batteries need to be recharged.

## Programming

To program a frequency into a channel, press the digits of that frequency including the decimal point and then, press the Enter key. If an invalid frequency is entered, the display will show "Error" and then, return to the original frequency. To change a frequency enter the new one and the old one will be erased.

## Operation

To program 162.550 into channel 2 :


To program 471.237 into channel 7 :


## Features

The following is a brief description of the features on the UBC 70XLT.

Manual Channel Selection - To manually select a channel press the Manual key re peatedly until the desired channel number appears in the display.

## or

Press the channel number then, press the Manual key. The scanner will automatically advance to the desired channel.

Lockout - Select the channel to be skipped. Press the Lockout key. The Lockout in dicator will appear in the display whenever that channel also appears. To take Lockout off press the lockout key on that channel.

Priority - When it is important to keep track of the activity on one frequency while listening to others, the priority function should be used. Program the important fre quency into channel 1. Press the Priority key to activate the priority function. Every 2 seconds the unit will check channel 1 for activity (the priority indicator will appear in the display). If a transmission is found the unit will monitor that channel. If no signal is found, the unit will return to the previous channel and function. Press the Priority key again to turn off the priority function.

Search - Use the Search mode to look for new active frequencies within the bands of your scanner.

Enter the lower limit frequency on the keypad and press the Limit key:

Enter the higher limit frequency and press the Limit key again:

These two frequencies set the range that the unit will search. Press the Search key to start searching. If an active frequency is found the scanner will stop to monitor the signal. Press the Hold key to hold the search on this frequency. Press the Hold key again to step back to the previous frequency or press the Limit key to step up to the next frequency. When the signal stops the unit will continue to search. If the search is on hold, press the Search key again to continue searching. Press the Manual key to leave the search mode.

## Earphone Jack

For private monitoring the UBC 70XLT comes with an earphone. Plug the earphone into the jack on the top of the unit. When the earphone is connected the internal speaker will be disconnected.

## Helpful Hints

The UBC 70XLT is a high quality electronic radio receiver. The following hints should help you understand and enjoy your unit.

1. Make sure the unit is turned off before disconnecting the power. You may want to record the programmed frequencies before power is interrupted in case memory is lost.
2. If memory is lost, simply reprogram each channel. Memory loss will be in dicated by unfamiliar frequencies in each channel.
3. If strong interference or electrical noise is received, you may need to relocate your scanner. A higher elevation such as the se cond floor may provide better reception.
4. Whenever the keypad is used it is impor tant to press firmly on the center of each key.
5. Do not use the scanner in high moisture environments such as the bathroom or kit chen. Avoid placing the unit in direct sun light or near heating elements or heating vents.
6. Clean outside cabinet with mild deter gent. Do not use abrasive cleansers or sol vents. Be careful not to rub LCD window area.
7. There are no user serviceable parts inside with the exception of the battery pack. Do not attempt any repairs except replacing batteries.

Battery Maintenance - NiCad batteries can develop a condition known as memory. The battery memory can limit the useable amount of battery power. To avoid battery memory, the following battery maintenance steps should be practiced:

1. Every 2-3 months the scanner should be left on to drain all battery power. Be sure to write down the programmed frequencies for reprogramming when batteries are recharged.
2. Recharge the batteries overnight to insure a full charge.
3. Do not leave the charger plugged in for long periods of time. Do not recharge the unit unless needed.

## Birdies

All radios are subject to receiving undesired signals. If the UBC 70XLT stops during scan mode and no sound is heard, it may be receiving a "Birdie". Birdies are internally generated signals inherent in the electro nics of the receiver. Press the Scan key to continue scanning.

## One Year Limited Warranty

WARRANTOR: SANTRONIC CORP. PTY. LTD. 345 Princes Highway, Rockdale, N.S.W. 2216 ("SANTRONIC").
ELEMENTS OF WARRANTY: SANTRONIC warrants, for the duration of this warranty, its UNIDEN Product to be free from defects in materials and craftsmanship with only the limitation or exclusions set out below.
WARRANTY DURATION: This Warranty shall terminate and be of no further effect one (1) year after the date of original purchase of the Product or at the time the product is (a) damaged or not maintained as reasonable and necessary, (b) modified, (c) improperly installed, (d) is repaired by someone other Warrantor for a defect or malfunction covered by this Warranty, or (e) used in a manner or purpose for which the Product was not intended. PARTS COVERED: This Warranty covers all components of the Products.
STATEMENT OF REMEDY: In the event that the Product does not conform to this Warranty at any time while this Warranty is effective, Warrantor will repair the defect and return it to you prepaid, without charge for parts, service, or any other costs incurred by Warrantor or its representatives in connection with the performance of this Warranty. In addition, if the Product contains a defect or malfunction which is not repaired after a reasonable number of attempts by Warrantor to repair the Product, the Product or defective component will at our discretion, be replaced without charge, when the defective product is delivered to the warrantor at 345 Princes Highway, Rockdale, N.S.W. 2216 free and clear of all liens and encumbrances. Please note that while the Product will be remedied under this Warranty without charge. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES.
PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: In the event that the Product does not conform to this Warranty, the Product should be shipped prepaid, to Warrantor at 345 Princes Highway, Rockdale, N.S.W. 2216. THE ORIGINAL OR COPY OF THE SALES RECEIPT OR OTHER VALID EVIDENCE OF THE DATE OF THE ORIGINAL PURCHASE MUST ACCOMPANY THIS PRODUCT.

## Trouble Shooting

If your UBC 70XLT is not performing up to your expectations, try the steps listed below.

1. Scanner is not working properly.
A. Check the batteries or other power.
B. Check the Volume and Squelch.
C. Make sure programmimg is correct.
2. Signal is weak or distorted.
A. Check antenna connection.
B. Check proper frequencies.
C. Make sure frequency is active.
3. Improper Reception.
A. Check proper frequencies.
B. Reposition radio.
C. Check antenna connection.
4. Scan won't stop.
A. Check Squelch adjustment.
B. Check proper frequencies.
C. Check antenna connection.
D. Check Lockout.
5. Incomplete reception.
A. Fringe area of signal.
B. Check Squelch Adjustment.
6. Keypad won't work.
A. Check Keypad Lock.
7. Priority won't work.
A. Check Squelch adjustment.
B. Improper frequency in Ch. 1.

## Optional Accessories

The following optional accessories are available for your UBC 70XLT.

UA 502 Vehicle Power Cord* - This power cord is designed for use with the UBC 70 XLT in a vehicle. The heavy duty cord comes complete cigarette lighter connector and fuse.

UA 502A Coiled Power Cord* - The coiled power cord keeps your vehicle interior neat and elliminates tangled wires. The coiled cord comes complete cigarette lighter connector and fuse.

BP 70 Replacement Battery pack - The UBC 70XLT battery pack is designed to give years of trouble-free use. If it should ever need to be replaced, simply order the BP 70.

Flexible Rubber Antenna - Replacement antenna for the UBC 70XLT.
*Use of a scanner in a vehicle may be regulated or prohibited in some countries.
Check with your local authorities before operating a mobile scanner.

## Specifications

Size: $\quad 70 \mathrm{~mm}(\mathrm{~W}) \times 155 \mathrm{~mm}(\mathrm{H}) \times 25 \mathrm{~mm}(\mathrm{D})$
Weight 300 g
Power 4.8 VDC, 4 - AA size NiCad battery pack
Antenna Flexible rubber with BNC connector
RF Sensitivity
$0.4 \mu \mathrm{~V} 66-88 \mathrm{MHz}$
$0.5 \mu \mathrm{~V} 136-174 \mathrm{MHz}$
$0.7 \mu \mathrm{~V} 406-512 \mathrm{MHz}$
$+/-3 \mathrm{KHz}$ deviation 12 dB SINAD
IF Selectivity
-55 dB @ +/- 25 KHz
Frequency Coverage
66 - 88 MHz
$136-144 \mathrm{MHz}$
$144-148 \mathrm{MHz}$
$148-174 \mathrm{MHz}$
406-420 MHz
$420-450 \mathrm{MHz}$
$450-470 \mathrm{MHz}$
$470-512 \mathrm{MHz}$
Audio 140 milliwatts, 8 ohms, $10 \%$ THD
Specifications are typical and subject to change without notice.

## PT TTFD <br> Corp. Pty. Ltd. <br> HEAD OFFICE:

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PERTH
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## ADELAIDE

72-74 Halifax Street, Adelaide
S.A. 5000

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Fax (08) 2231471


[^0]:    * Uniden Bearcat Scanner
    * Carrying Case
    * Flexible Rubber Antenna
    * Earphone
    * Operating Instructions (read carefully and save)

