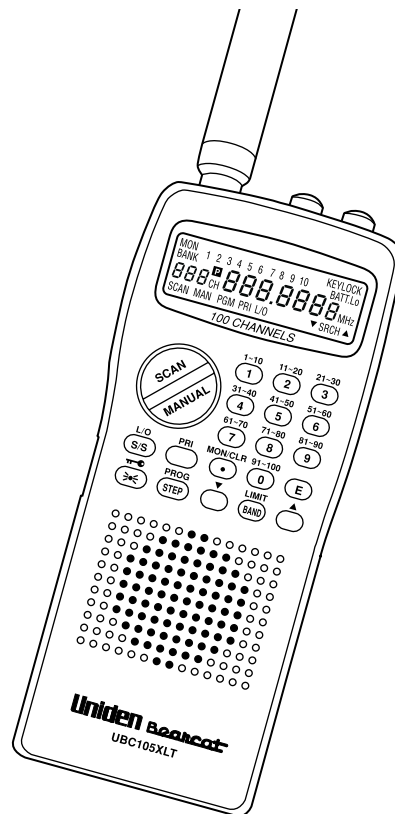


Albrecht AE 77 H

Programmable Hand-Held-Scanner



Operating Guide

**AE 77 H Programmable
Hand-Held Scanner**

Precautions

Before you use this scanner, please read and observe the following:

Earphone Warning!

The output of the Phone jack is monaural.

Set the volume to a comfortable audio level coming from the speaker before plugging in the monaural earphone. Otherwise you might experience some discomfort or possible hearing damage if the volume suddenly becomes too loud because of the volume control or squelch control setting. This may be particularly true of the type of earphone that is placed in the canal.

Warning!

Uniden **does not** represent this unit to be waterproof. To reduce the risk of fire or electrical shock, **do not** expose this unit to rain or moisture.

Important!

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.

General Battery Warning!

Do not short-circuit any battery.
Do not discard batteries in a fire, they may explode.

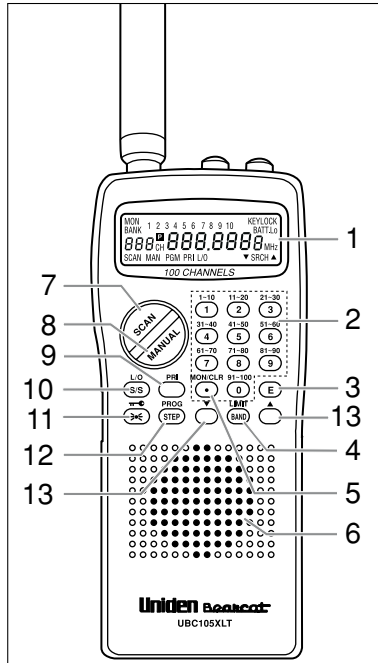
Alkaline Battery Warning!

Do not recharge alkaline batteries in the product.
Doing so may cause serious damage to the product and will void the warranty. Uniden does not recommend using rechargeable alkaline batteries in this product.

Nickel-Cadmium Battery Warning!

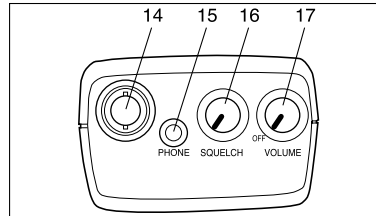
Do not charge nickel-cadmium batteries with any charger other than the one supplied by authorized dealer as an option. Using another charger may damage the batteries, or cause them to explode.

Function Keys

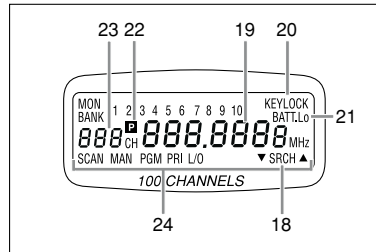


1. Display
2. Numeric keypad
3. Enter
4. Band/Limit
5. Monitor/Clear
6. Speaker
7. Scan Mode
8. Manual Mode
9. Priority
10. S/S (Search Skip), L/O (Lock Out)
11. LIGHT/Keypad Lock
12. Step/Program
13. ▲/▼

Controls and Indicators



14. Antenna Connector
15. Phone Jack
16. Squelch Control
17. On/Off Volume Control



18. Search indicator
19. Frequency Display
20. Keypad Lock Indicator
21. Low Battery Indicator
22. Priority Channel Indicator
23. Channel Indicator
24. Function Indicators

Included in Your Package

- Antenna
- Belt clip
- Screw (2)
- This Operating Guide

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Introduction

The **AE 77 H Hand** Scanner is a sophisticated information radio that allows you to monitor 6 different frequency bands. It is a state-of-the-art radio with scanning capabilities, and it can save up to 100 different frequencies in memory.

What is Scanning?


Unlike standard AM or FM radio stations, most two-way communications do not transmit continuously. The **AE 77H** scans programmed channels 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.

Frequency Bands	Transmission
66 - 88 MHz	VHF low band
108 - 137 MHz	Aircraft
137 - 144 MHz	Military land mobile
144 - 146 MHz	2 meter amateur band
146 - 174 MHz	VHF high band
406 - 512 MHz	UHF band 70 cm amateur band

Feature Highlights

- **100 Channels** – Program one frequency into each channel. You must have at least one channel programmed to use the scan mode.
- **66 MHz-512 MHz** – Search these frequency ranges with your scanner. (The frequency coverage is not totally continuous from 66 MHz to 512 MHz.)
- **Preprogrammed Band Search** – (See last page annex for Frequency Bands)

- **Priority Channel Scanning** – Allows you to designate a priority channel which is monitored every two seconds when Priority Scanning is selected.
- **Manual Channel Access** – Go directly to any channel.
- **Memory Backup** – Frequencies programmed in channels are retained in memory. If power is completely disconnected, the frequencies are retained for one hour.
- **Preset Two-second Delay** – Scanner waits two seconds after transmission stops before resuming scanning.
- **LCD Back-Light** – An orange LCD light remains on for 15 seconds when  is pressed.
- **Air Band Step** - You can select the AIR Band step from 12.5 kHz to 8.33 kHz. There are two AIR BAND STEPs in the AIRCRAFT Range. Press and hold STEP/PROG to switch the AIR BAND STEPs to find the appropriate range in your area.

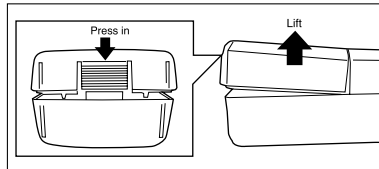
Setup

These are helpful guidelines when using your new scanner:

- If your scanner receives interference or electrical noise, move the scanner or its antenna away from the source.
- If you 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.)

Installing the Batteries

1. Open the cover.

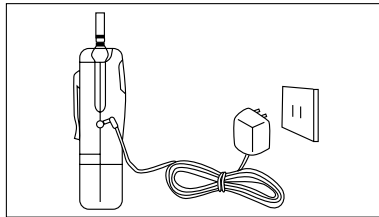


2. Insert batteries according to the polarity symbols inside the battery compartment.
3. Replace cover and press down until it clicks into place.

Warning:

Do not mix alkaline batteries with Ni-Cd batteries. Be sure to install four batteries of the same type.

AC Adapter/Charger (not supplied)
Using an adapter/charger to power the **UBC105XLT** from a wall socket.



There are two external power jacks- POWER Jack and CHARGE Jack.

The POWER Jack powers only the scanner and it is not connected to the batteries.

The CHARGE Jack supplies power to scanner and batteries. Use this Jack only when you have installed rechargeable batteries.

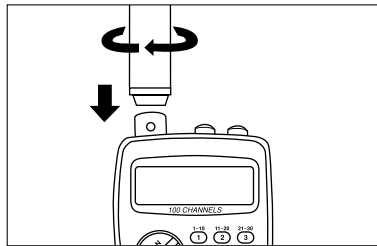
Warning: Do not use the CHARGE Jack if you have installed non-rechargeable batteries.

Charging Warning

Do not charge alkaline batteries in this scanner. Doing so may cause serious damage to the product and void the warranty. Before attempting to recharge batteries, make sure you have installed four rechargeable nickel-cadmium batteries.

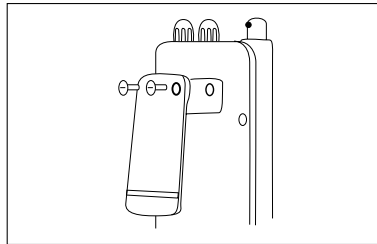
Flexible Antenna

Attach the flexible antenna to the BNC connector.



Belt Clip

Do not tighten the screws too tight. You can damage the case or clip.



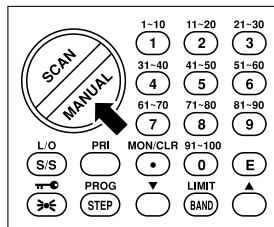
Basic Operation

Note: See page 4 for function keys, controls and indicators while reading this guide.

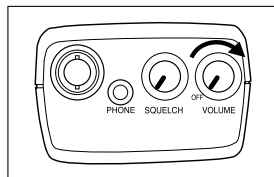
Setting the Squelch

To set the squelch, you must be in the manual mode. No signal should be present when adjusting squelch.

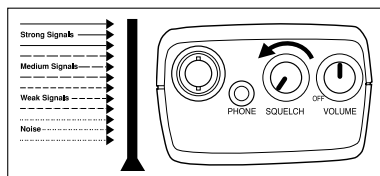
1. Press **(MANUAL)** until you do not hear a signal.



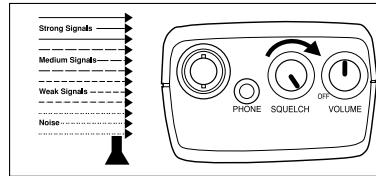
2. Adjust **VOLUME** to a comfortable listening level.



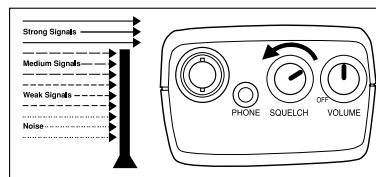
3. Think of the Squelch Control as a gate. Turn **SQUELCH** fully counter-clockwise. This raises the "Squelch-Gate" so high that no signals can get through.



4. Turn **SQUELCH** fully clockwise until you hear a hiss. This lowers the "Squelch-Gate" so that everything gets through - noise, weak, medium and strong signals.



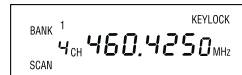
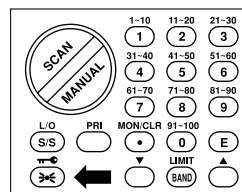
5. Turn **SQUELCH** back counter-clockwise just until the hiss stops. Now the "Squelch Gate" allows only strong signals through.



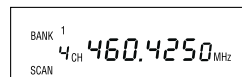
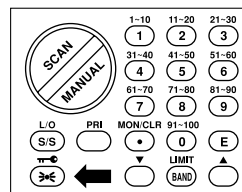
Keylock

Keylock prevents accidental key entries during scanning.

1. To lock the keypad, press **(KEYLOCK)** until KEYLOCK appears.



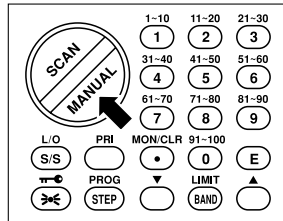
2. To unlock the keypad, press **(KEYLOCK)** until KEYLOCK disappears.



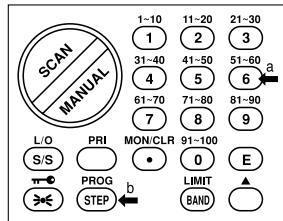
Programming

Before the **AE 77 H** can receive radio broadcasts, you must program a frequency into at least one channel. Before scanning, repeat this procedure for each channel you program.

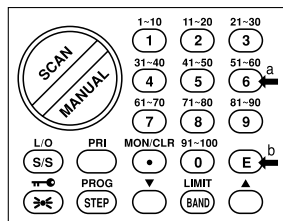
1. Press **MANUAL**.



2. Select a channel.
 a) Enter the channel number.
 b) Then press **STEP** / **PROG**.



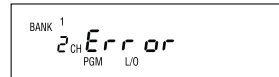
3. Enter the frequency.
 a) Enter the frequency number.
 b) Then press **E**.



Note: To clear a mistake while entering the frequency, press **MON/CLR** twice, and start over.

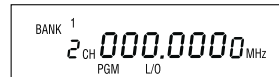
If the frequency entered is outside the frequency range of the scanner, a distinctive beep sounds. (See the table on page 6 or the band list on page 19.)

Press **MON/CLR** and go back to Step 3.



Programming Tips

- Group similar frequencies into adjacent channels. For example, program Marine frequencies in channels 1 through 10 and public services into channels 11 through 20 and so on.
- Put the frequency that you listen to the most or the most important frequency into a priority channel.
- 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 finish programming a channel, press **STEP** / **PROG** to go to the next higher channel.
- To erase the channel, press **0**, and then press **E**. Channels with no frequencies are automatically locked out.



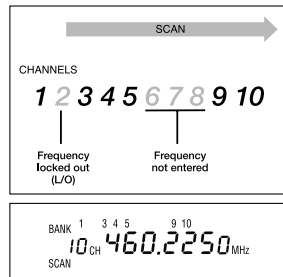
- Record channels and frequencies in some convenient place in case the scanner memory is lost.

Scanning

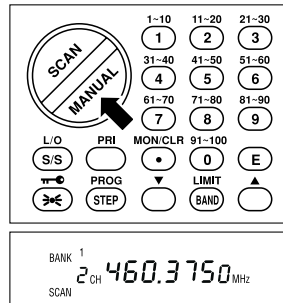
When you turn on the power, the **AE 77 H** automatically starts in the scan mode.

During normal scanning the scanner skips unprogrammed or locked out channels.

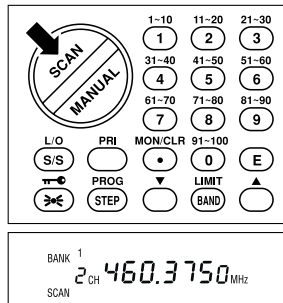
When a transmission is received, the scanner stops on that channel. When the transmission ends, scanning resumes automatically after two seconds.



To stop on a channel during scanning, press **(MANUAL)**.



To resume scanning, press **(SCAN)**.

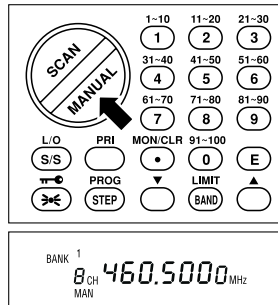


Channel Lockout

You can lockout any channel so it is not reviewed during normal scanning. You can restore the channel to scanning whenever you wish.

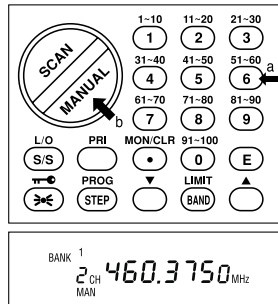
Lockout in Manual Mode

1. Press **(MANUAL)**.

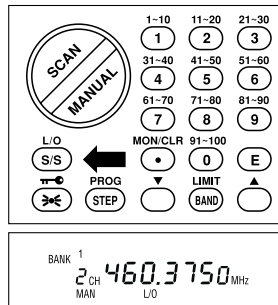


2. Select a channel.

- a) Enter the channel number.
- b) Then press **(MANUAL)** again.



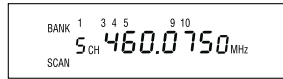
3. Press **(S/S) /L/O** to lockout the channel.



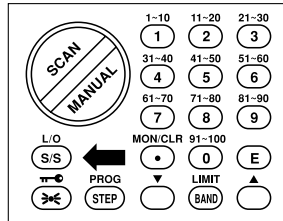
Locking a Channel While Scanning

If the scanner keeps stopping on a particular channel due to noise or too frequent transmissions, you may want to keep that channel from scanning.

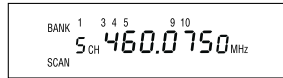
1. Wait until the scanner stops at the channel.



2. Then press **(S/S) /L/O**.



3. The scanner immediately resumes scanning because the locked out channel is no longer in the scanning sequence.

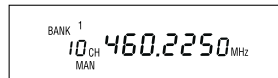
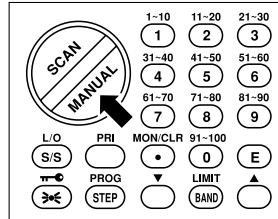


Lockout Tips

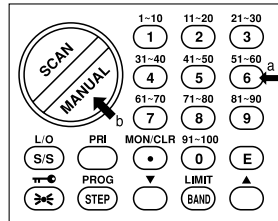
- To quickly lockout a series of channels, start with the lowest number channel. For example, if you are locking out channels 4, 7, 8, 12, and 15, start with channel 4. After selecting channel 4, press **(S/S) /L/O**. Then press **(MANUAL)** one or more times to step up to the next channel to be locked out.
- Record the locked-out channels in some convenient place so you can restore them.

Restore a Locked Out Channel

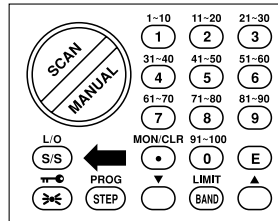
1. Press **(MANUAL)**.



2. Select a locked out channel.
 - a) Enter the channel number.
 - b) Then press **(MANUAL)** again.

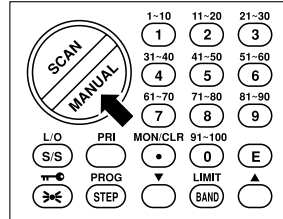


3. Press **(S/S) /L/O** to unlock the channel.



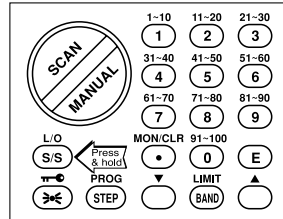
Restore All Locked-out Channels

1. Press **(MANUAL)**.

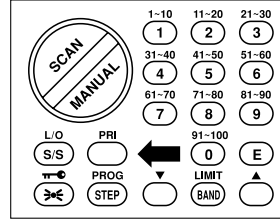


2. Press and hold **(S/S) /L/O** for about two seconds.

You will hear two beeps when all the channels have been restored.



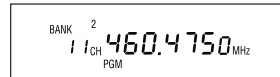
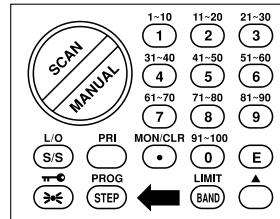
2. Press **PRI** again at anytime to deactivate priority scan.



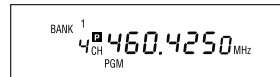
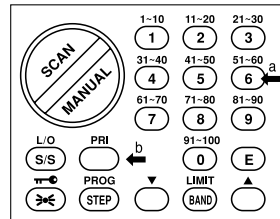
Changing the Priority Channel

You cannot eliminate the priority channel, but you can change it to any other of the 100 available channels.

1. Press **(STEP) /PROG**.



2. Select a new priority channel.
a) Enter the channel number.
b) Then press **PRI** again.

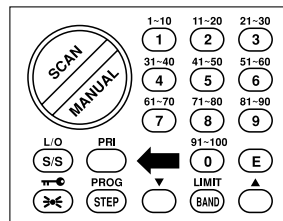


Priority Scan

When priority scan is turned on, your scanner checks the priority channel every two seconds for activity. If a signal is present on the priority channel, your scanner monitors the channel until the transmission ends, then resumes normal scanning. You can designate any of the 100 available channels as your priority channel.

To activate priority scan (in either manual or scan mode):

1. Press **PRI**.

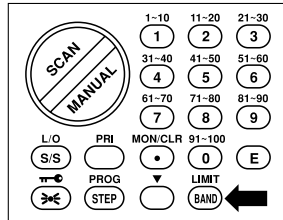


Searching

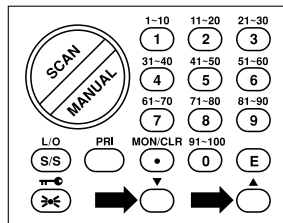
Band Search

The AE 77H has 6 factory-Preprogrammed Search Bands. You can search any of these Bands to find desired frequencies if you do not have a Frequency Directory handy, or if new stations have been added since the Directory was published.

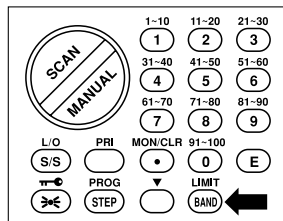
1. Press and hold **(BAND)/LIMIT** to enter the Band Search Mode. Then the upper and lower limits of the band currently selected are displayed.



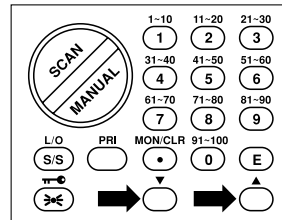
2. Press **▲** or **▼** to select the band you wish to search.



3. Wait for about 2 seconds and the UBC105XLT will begin searching that Band. Or, press **(BAND)/LIMIT** again to begin.
4. Press **(BAND)/LIMIT** at any time to stop the search on a frequency. Press **(BAND)/LIMIT** to resume searching.



5. When Search is stopped, you can press **▲** or **▼** to move up or down 1 frequency step. (See the table on page 19 for the step size for each Band.)



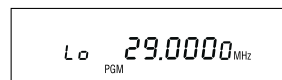
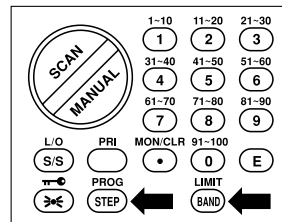
Limit Search

In Limit Search mode, you can search within the frequency range you have set.

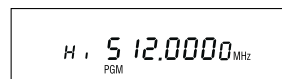
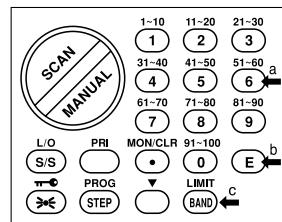
To use this function, you must set the lower/higher frequency of your search range list.

To program a frequency range follow these steps:

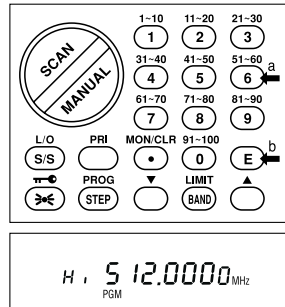
1. Press **(STEP)/PROG** until the search channel you want appears in the display, and press **(BAND)/LIMIT**.



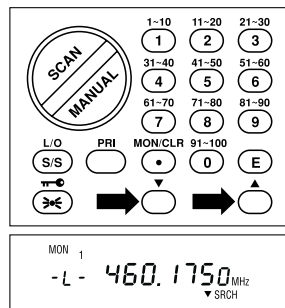
2. Enter lower limit of the search band.
 - a) Enter the frequency number.
 - b) Then press **(E)**.
 - c) Then press **(BAND)/LIMIT**.



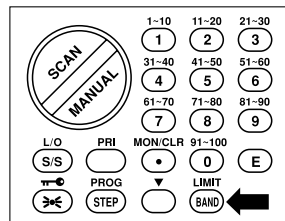
3. Enter upper limit of the search band.
 a) Enter the frequency number.
 b) Then press **(E)**.



4. Either press **▲** or **▼** to begin your search.



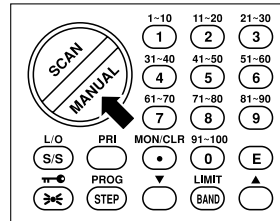
5. Press **(BAND)/LIMIT** at any time to stop the search on a frequency. Press **(BAND)/LIMIT** to resume searching.



Direct Search

You can search by using **▲** or **▼** when you listen to a channel.

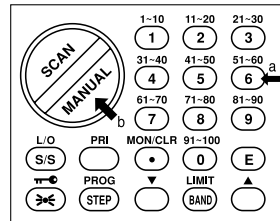
1. Press **(MANUAL)**.



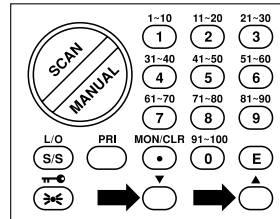
2. Select a channel
 a) Enter the channel number.
 b) Then press **(MANUAL)**.

—OR—

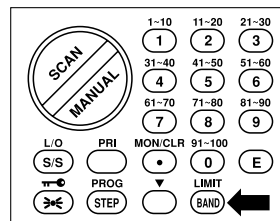
Enter the frequency.



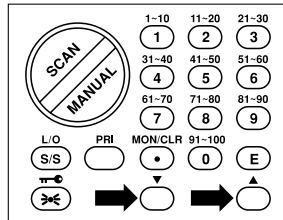
3. Press **▲** or **▼** to start searching.



4. Press **(BAND)/LIMIT** at any time to stop the search on a frequency. Press **(BAND)/LIMIT** to resume searching.

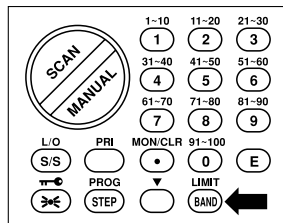


5. When search is stopped, you can press ▲ or ▼ to move up or down 1 frequency step.

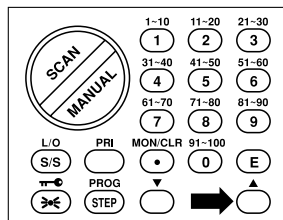


Search Hold Feature

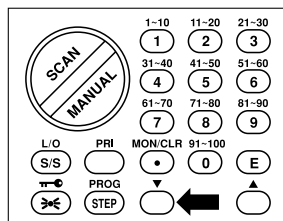
1. Press (BAND)/LIMIT at anytime to stop the search.



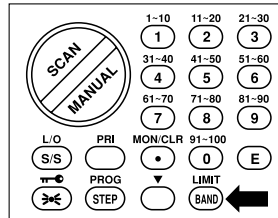
2. Press ▲ to move to the next higher frequency



3. Press ▼ to move down to the previous frequency.



4. Press (BAND)/LIMIT to resume searching.

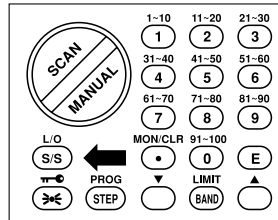


Note: The search continues toward either the upper or lower search limit, depending on which direction key (▲ or ▼) was pressed last.

Channel Skip

If a particular channel continues to interrupt search scanning, it is possible to set your scanner to skip the frequency.

If your scanner stops while searching, press (S/S)/L/O to lockout the frequency from the search range.

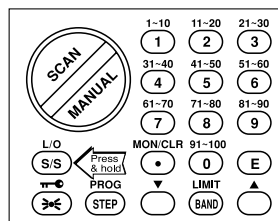


Note: You can program 20 skip frequencies. The 21st skip frequency entered causes the 1st skip frequency to unlock.

To unlock all skip frequencies at once, follow this step:

Press and hold (S/S)/L/O for about three seconds.

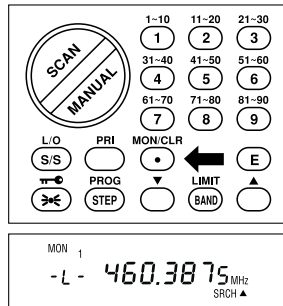
You will hear two beeps when all the frequencies have been restored.



Storing Search Frequencies

You can quickly store any frequency you find during search.

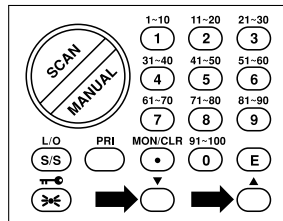
1. Press **[MON/CLR]** to store the displayed frequency in the MONITOR MEMORY.



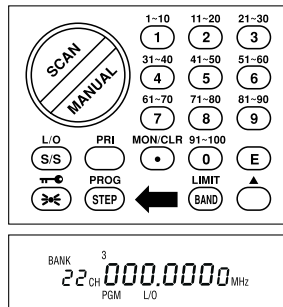
Note:

You can program 10 MONITOR MEMORIES.

2. Either press **[▲]** or **[▼]** to begin your search.



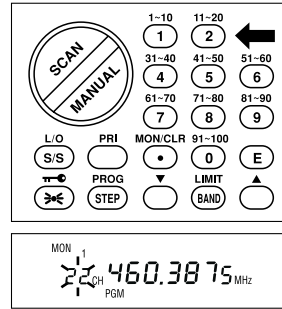
3. Press **[STEP/PROG]** and enter the channel number, then press **[STEP/PROG]** again.



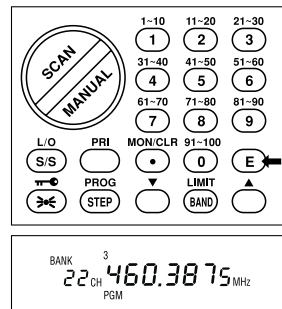
4. Press **[MON/CLR]** and number key to select the MONITOR MEMORY.

—OR—

- Press **[MON/CLR]** repeatedly.



5. Press **[E]** to store the frequency in the channel you selected.



Repeat steps 2 through 5 for all the search frequencies you want to store.

Care and Maintenance

General Use

- Turn the scanner off before disconnecting the power or replacing the batteries.
- Always write down the programmed frequencies in the event of memory loss.
- If memory is lost, simply reprogram each channel.
The display shows 000.0000 in all channels when there has been a memory loss.
- Always press each button firmly until you hear the entry tone for that key entry.

Location

- 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.
- If the scanner receives strong interference or electrical noise, move it 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 plug the scanner into an outlet controlled by a wall switch because long power interruptions may cause memory loss.

Cleaning


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

Repairs

- Do not attempt any repair. The scanner contains no serviceable parts. Contact the dealer from whom you purchased the radio or take it to a qualified repair technician.

Birdies


- All radios can receive "birdies" (undesired signals). 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  /L/O to lockout the channel.

- Narrow band responses (start scanning without reason) occur in the VHF low band in case of strong signals around 367 MHz.

Troubleshooting

If your **AE 77 H** is not performing properly, try the following steps.

Problem	Suggestion
Scanner won't work.	<ol style="list-style-type: none"> 1. Check the connections at both ends of the AC Adapter. 2. Turn on the wall switch of your room. You could be using an outlet controlled by the wall switch. 3. Check to see the batteries are installed followed by the + and – symbols.
Improper reception.	<ol style="list-style-type: none"> 1. Check the antenna connection or move and reposition the antenna. 2. Move the scanner. 3. You may be in a remote area which could require an optional multi-band antenna. Check with your dealer or local electronics store.
Scan won't stop.	<ol style="list-style-type: none"> 1. Adjust squelch threshold - refer to page 8, Setting the Squelch. 2. Check the antenna connection. 3. Check to see if many of the channels are locked out. If so, the scanner has less chance of finding an active channel. 4. Review each channel's frequency to see if it is still stored in memory and is correct. 5. It's possible that none of the programmed frequencies are currently active.
Scan won't start.	<ol style="list-style-type: none"> 1. Press the  key again. 2. Adjust squelch threshold - refer to page 8, Setting the Squelch. 3. Check to see if all channels are locked out.

Specifications

Channels: 100

Frequency Bands (European version see annex on last page):

No.	RANGE (MHz)	MODE	STEP (kHz)
(1)	66.0000 - 88.0000	FM	5
(2)	108.0000 - 136.9750	AM	12.5
or			
(2)	108.0000 - 136.9916	AM	8.33
(3)	137.0000 - 143.9950	FM	5
(4)	144.0000 - 145.9875	FM	12.5
(5)	146.0000 - 174.0000	FM	5
(6)	406.0000 - 512.0000	FM	12.5

Operating temperature : -20°C to +60°C

Scan rate: 17 channels per second

Search rate: 20 steps per second

Scan delay: 2 seconds

Audio output: 230 mW nominal into
8Ω internal speaker
40 mW nominal into
64Ω earphone

Power requirements: 9VDC using optional adapter or 4 AA alkaline or
rechargeable nickel-cadmium batteries

Antenna: Rubber antenna (included)

External jacks: Earphone jack, DC Charge jack
DC power jack

Size: 64.5 (W) x 42.5 (D) x 147 (H) mm

Weight: approx 216 g (without batteries)

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

Importer for Germany: ALAN Electronics GmbH, Dovenkamp 11, D 22952 Lütjensee

Declaration of Conformity

We: Uniden Corporation

2-12-7 Hatchobori, Chuo-Ku, Tokyo 104-8512 Japan

declare, under our sole responsibility, that this equipment : Uniden Bearcat model

UBC105XLT is in compliance with the essential requirements and other relevant provisions of
the Council Directive 1999/5/EC. See next page for Albrecht OEM CE declaration valid for Germany





CE Konformitätserklärung/ Declaration of Conformity

Hiermit wird erklärt, daß unser Produkt / herewith we declare that our product

Empfangsgerät für Funkdienste (Scanner) AE 77 H

den folgenden europäischen Normen entspricht: / is in conformity to following
European Standards

EU-Richtlinien / EU directives 73/23/EEC (LVD); 89/336 EEC (EMC) and 99/5/EEC (R&TTE)
EN 301 489-1, EN 301 489-5, EN 301 489-15 (EMC)
EN 300 086-2 (PMR Radio)
EN 301 783-2 (Amateur Radio)
EN 60 950 (Electrical Safety)

Lütjensee, 01. 07. 2004

A handwritten signature in black ink, appearing to read 'W. Schnorrenberg', written over a light green rectangular background.

.....
(Unterschrift/signature)

Wolfgang Schnorrenberg

.....
ALAN Electronics GmbH

Frequency Ranges AE 77 H

Frequency Range (MHz)	Steps (kHz)	Mode	Application
66– 88	5	FM	4 m Band, VHF-low range for public utilities
108.0000-136.9916	12.5 / 8.33	AM	International Air Band
137.0000-143.9950	5	FM	Weather satellites and military mobile radio
144-145.9875	12.5	FM	2 m Amateur Radio
146.000-174 MHz	5	FM	VHF Hi Band, Commercial Land Mobile Radio, Taxis, Marine Radio, Public Utilities
406.0000-512 MHz	12.5	FM	UHF PMR Band for Commercial Mobile Radio, 70 cm Amateur Radio, Police and Public Utilities

Factory Programmed Search Ranges

Display	MHz	Application
b1	84.0150 -87.2550	Police, Rescue and Fire Brigade (Germany only)
b2	108.0000-137.9916	Air band
b3	137.0000-143.9950	Weather satellites and military mobile radio
b4	144.0125-145.9875	2 m Amateur Radio
b5	146.0100-155.9900	VHF Hi Band, Commercial Land Mobile Radio, Taxis, Marine Radio, Public Utilities
b6	156.0250- 157.4250	Marine Radio, Ship- and Coastal Stations Simplex Band
b7	160.6250-162.0250	Marine Radio, Harbour Radio Traffic, Coastal Stations, Locks and Weather Forecasts (upper duplex channels)
b8	162.0300- 173.9900	upper part of VHF Land Mobile Radio
b9	430.0125-439.9875	70 cm Amateur Radio
b10	450.0000-469.9875	UHF Commercial PMR, Railways