

USER GUIDE

200 CHANNEL VH/AIR/UHF HANDHELD RADIO SCANNER WS1010



WHISTLER

CONTENTS

Introduction	4
Scanning Legally.....	5
Features.....	6-7
Package Contents	8
Swivel Belt Clip.....	8
Scanner Basics	9
Setup	10-11
Powering Your Scanner.....	12-14
Turning On Scanner.....	15
Understanding the Keypad	16-17
Understanding the Display	18-19
Configuring Scanner.....	20
Programming.....	21
Service Search	22-23
Storing Frequencies	24-25
Scanning and Monitoring	25

CONTENTS

Setting Delay	26
Using the Priority Channel.....	27
Spectrum Sweeper	28
Locking Out Channels	29
Managing Services Bank Lock-Outs	30
Unlocking All Service Bank Frequencies	30
Clearing a Stored Channel	31
Weather Features	32
Same Standby Mode	33-34
Skywarn™	35
Additional Information	36
Preprogrammed Frequency List.....	37-40
Service Banks	41-43
Specifications	44-45
FCC Notice.....	46-47
Warranty	48-50

INTRODUCTION

Scanning technology has changed dramatically over the years. A scanner with Object Oriented User Interface is designed to help the hobbyist build a collection of channels to scan:

- Start small and expand
- Organize channels and talkgroups
- Remove unwanted channels and talkgroups

What is Object Oriented Scanning?

Programming scanning receivers can be challenging, but object-oriented programming simplifies the process by using common conventions for scanning concepts that have common characteristics.

A **Scannable Object** is any defined item that can be scanned or monitored, including:

- Conventional, non-trunked radio frequencies
- Talkgroups used on a trunked radio system
- Radio services
- Defined searches

Because scannable objects are defined by the same basic elements, the **Object Oriented User Interface (OOUI)** is designed to simplify scanning by managing all scannable objects similarly. When you learn how to program one type of object, you can program other types of scannable objects as well.

SCANNING LEGALLY

Your scanner covers frequencies used by many different groups including police and fire departments, ambulance services, government agencies, private companies, amateur radio services, military operations, pager services, and wireline (telephone and telegraph) service providers. It is legal to listen to almost every transmission your scanner can receive. However, there are some transmissions you should never intentionally listen to. These include:

- Telephone conversations (cellular, cordless, or other private means of telephone signal transmission)
- Pager transmissions
- Any scrambled or encrypted transmissions
- According to the Electronic Communications Privacy Act (ECPA), as amended, you are subject to fines and possible imprisonment for intentionally listening to, using, or divulging the contents of such a transmission unless you have the consent of a party to the communication (unless such activity is otherwise illegal).

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FEATURES

This scanner is designed to prevent reception of illegal transmissions, in compliance with the law which requires that scanners be manufactured in such a way as to not be easily modifiable to pick up those transmissions. Do not open your scanner's case to make any modifications that could allow it to pick up transmissions that are not legal to listen to. Doing so could subject you to legal penalties.

In some areas, mobile use of this scanner is unlawful or requires a permit. Check the laws in your area. We encourage responsible, legal scanner use.

Your new WS1010 Handheld Scanner lets you scan conventional transmissions, and is preprogrammed with search banks for convenience. By pressing a one touch search key, you can quickly search those frequencies most commonly used by public service and other agencies without tedious and complicated programming.

This scanner gives you direct access to over 25,000 exciting frequencies, including those used by ambulance services, aircraft, and amateur radio services, marine, civil air patrol, VHF and UHF business bands, government frequencies and some police and fire departments.

FEATURES

Your scanner also has these special features:

Spectrum Sweeper – a powerful new tool for you to rapidly detect, monitor and store frequencies for nearby radio transmissions.

One-Touch Service Search Banks –

Search preset frequencies in separate marine, fire/police, aircraft, ham and weather bands.

Display Backlight – Easy to read in low-light situations.

Lockout Function – Lets you skip specified channels or frequencies when scanning or searching.

Ten Channel-Storage Banks – You can store 20 channels in each bank (200 total channels), letting you group channels so you can more easily identify calls.

SAME/FIPS Weather Alert – Displays weather events for the county or counties that you choose.

Memory Backup – Keeps the frequencies stored in memory for an extended time.

Scan Delay – Delays scanning for about 2 seconds, so that you can hear replies on the same channel.

Priority Channel – Lets you set the scanner to check one channel every 2 seconds so that you do not miss transmissions on that channel.

Data Cloning – Lets you transfer the programmed data to another WS1010 scanner.

PACKAGE CONTENTS

- Scanner
- Belt Clip
- Antenna
- AC Adapter
- User's Guide
- Quick Start Guide
- Alkaline Battery Holder
- Rechargeable Battery Holdert

SWIVEL BELT CLIP

You can use the belt clip attached to the back of the scanner for hands-free carrying when you are on the go. Slide the belt clip over your belt or waistband. To remove the belt clip, gently lift up the retaining catch at the top of the belt clip from the back of radio and slide the clip upward.

SCANNER BASICS

After you familiarize yourself with your scanner's features you can then set up your scanner.

Frequencies

A frequency is the waveband of the transmitting signal (expressed in kHz or MHz). Your WS1010 receives a range of analog frequencies; the best resource for your local frequencies is www.radioreference.com. Also, you can use your scanner's search functions to find active frequencies in your area.

Your WS1010 scanner can receive these bands:

Frequency Range	Types of Transmissions
29–54 MHz	10-Meter Ham, VHF Lo, 6-Meter Ham
108–136.99166 MHz	Aircraft
137–174 MHz	Military Land Mobile, 2-Meter Ham, VHF Hi
380–512 MHz	UHF Aircraft, Federal Government, 70-cm Ham, UHF Standard, UHF "T"

NOTE: See "Specifications" section for more information about frequency steps.

Channels

Channels are storage areas for frequencies saved in your scanner's memory. Each saved frequency is assigned a channel.

Banks

A bank is a storage area for a group of channels. Your scanner provides 10 banks (1 to 10) that can each store up to 20 channels, for a total of 200 channels. You can use the banks to group and organize frequencies. For example, you could program the frequencies used by your local police department starting with Channel 1 (the first channel in bank 1) and program the fire department frequencies starting with Channel 21 (the first channel in bank 2).

SETUP

Connecting the Antenna

To attach the supplied flexible antenna to the antenna jack on top of your scanner, align the slots around the antenna's connector with the tabs on the antenna jack. Press the antenna down over the jack and turn the antenna's base clockwise until it locks into place.

Connecting an Outdoor Antenna

To connect an external antenna, follow the installation instructions supplied with the antenna. Use 50 Ohm coaxial cable, such as RG-58 or RG-8. For lengths over 50 feet, use RG-8 low-loss dielectric coaxial cable. If the antenna cable's connector does not have a BNC connector, you will also need a BNC adapter.

WARNING: Use extreme caution when installing or removing an outdoor antenna. If the antenna starts to fall, let it go! It could contact overhead power lines. If the antenna touches a power line, touching the antenna, mast, cable, or guy wires can cause electrocution and death. Call the power company to remove the antenna. **DO NOT** attempt to do so yourself.

SETUP



Connecting a Speaker or Headphones

You can plug an amplified speaker or headphones (not supplied) with $\frac{1}{8}$ inch (3.5 mm) mini-plug into the HEADPHONE jack on the top of the scanner. This automatically disconnects the internal speaker.

NOTE: Use an amplified speaker with this scanner. Non-amplified speakers do not provide sufficient volume for comfortable listening.

Listening Safely

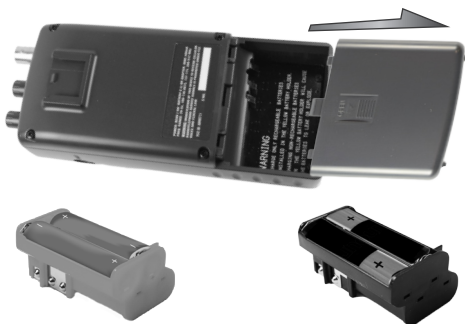
To protect your hearing, follow these guidelines:

- Do not listen at high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Set the volume to the lowest setting. Then turn on your audio device and adjust the volume to a comfortable level.
- Avoid increasing the volume. Your ears will adapt to the volume level, so a level that does not cause discomfort could still damage your hearing.

POWERING YOUR SCANNER

Your scanner has a built-in charging circuit to maintain peak performance of your Nickel-Metal Hydride (Ni-MH) or Nickel Cadmium (Ni-CD) rechargeable batteries (not supplied) while they are in the scanner.

For the best performance, use alkaline batteries. For rechargeable battery holder, we recommend nickel-metal hydride (Ni-MH) batteries. You must charge rechargeable batteries before you use them the first time.



**RECHARGEABLE
BATTERY HOLDER**

**ALKALINE
BATTERY HOLDER**

When battery power is low **B** appears and the scanner beeps continuously.

1. Open the battery compartment.
2. Place four AA batteries (not supplied) into one of the battery holders as indicated by the polarity symbols (+ and -). For non-rechargeable batteries, use the black holder; for rechargeable batteries, use the yellow holder.

POWERING YOUR SCANNER

3. Place the battery holder into the battery compartment and replace the cover.

WARNING: Never install non-rechargeable batteries in the rechargeable yellow battery holder. Non-rechargeable batteries can get hot or explode if you try to recharge them.

CAUTIONS:

- The battery holders fit only one way. Do not force them.
- Use only fresh batteries of the required size and recommended type.
- Remove old or weak batteries. Batteries can leak chemicals that destroy electronic circuits.
- Dispose of old batteries promptly and properly. Do not burn or bury them.
- Do not mix old and new batteries, different types of batteries (alkaline, or rechargeable), or rechargeable batteries of different capacities.
- If you do not plan to use the scanner with batteries for a month or longer, remove the batteries. Batteries can leak chemicals that can destroy electronic parts.

POWERING YOUR SCANNER

Power the scanner using the supplied AC adapter.

To disconnect, unplug the adapter first.

CAUTIONS: Only use the supplied AC adapter. You must use a Class 2 power source that supplies **9V DC** and delivers at least 400mA. Its center tip must be set to positive and its plug must fit the scanner's DC 9V jack. Using an adapter that does not meet these specifications could damage the scanner or the adapter.

NOTE: If you use a cigarette-lighter power cable and your vehicle's engine is running, you might hear electrical noise from the engine while scanning. This is normal.

TURNING ON SCANNER

1. Turn the SQUELCH all the way down before you turn on the scanner.
2. Turn the VOLUME knob to turn ON the radio. A welcome message appears. After about 3 seconds, adjust VOLUME to a comfortable level.
3. Turn SQUELCH clockwise, just until the hissing sound stops. If you always hear a hissing sound, the scanner will not scan or search properly.
 - To listen to a weak or distant station, turn SQUELCH counterclockwise.
 - If reception is poor, turn SQUELCH clockwise to cut out weak transmissions.

Turning Off the Key Tone

The scanner is preset to sound a tone each time you press one of its keys.

To turn the key tone on and off:

1. Turn on the scanner. *WELCOME SCANNING RECEIVER* appears.
2. While the welcome message is on the screen, press **1** to turn on the key tone or press **2** to turn it off.

UNDERSTANDING THE KEYPAD



 – Spectrum Sweeper.

PSE (Pause) – Stop and restart a search or tune.

MAR – Search the preprogrammed marine bank.

FD/PD – Search the preprogrammed fire/police bank.

AIR – Search the preprogrammed aircraft bank.

HAM – Search the preprogrammed amateur radio bank.

WX/ – Search the preprogrammed weather bank, or hold to jump to the Skywarn channel. (First, program your local Skywarn frequency into channel 200).

SCAN / MAN (Manual) – Press to scan programmed channels. Press again to monitor a single channel.

▲▼ – Select the direction for searching and scanning.

UNDERSTANDING THE KEYPAD

PRI / ALERT – Set the priority feature, or set SAME standby mode when monitoring a weather channel.

0–9 – Input numbers or select banks (0 selects bank 10). The number range above the keys (1–20, 21–40, 41–60, etc.) indicates the channels stored in that bank.

• / DELAY – Input a decimal point or set a channel delay.

ENT (Enter) – Complete the entry of a frequency.

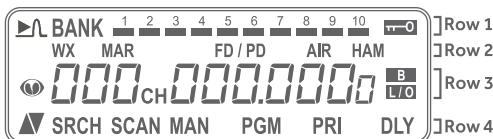
L/O / L/O RVW – Lock-out selected channels or frequencies. Review locked-out frequencies.

TUNE / CLEAR – Enter Tune search. Clear an incorrect entry.

PGM – Program frequencies into channels.

 /  – Locks (and unlocks) the keypad to prevent accidental entries; turns the backlight on and off.

UNDERSTANDING THE DISPLAY



Row 1

– Spectrum Sweeper search is active.

BANK – Appears with numbers (1-10) to indicate the scan bank. The bar under the bank number shows banks that are turned on for scanning.

– Keypad locked.

Row 2

WX – Searching weather channels.

MAR – Searching the marine bank.

FD/PA – Searching the fire/police bank.

AIR – Searching the aircraft bank.

HAM – Searching the amateur radio bank.

Row 3

– Skywarn channel active.

000 – Channel number the scanner is tuned to.

CH – Appears with channel number (1-200) or P (priority channel).

000.0000 – Frequency the scanner is tuned to.

– Batteries are low.

– A locked out channel/frequency is manually selected or reviewed.

Row 4

– Search or scan direction.

SRCH – Searching a service bank.

SCAN – Scan mode.

MAN – Manual mode.

PGM – Program mode.

PRI – Priority feature is active.

DLY – Two-second delay is active.

UNDERSTANDING THE DISPLAY

Display Messages

ALL CH L-out – All channels locked out during scan or marine band search.

b X Ch-FULL – All displayed bank channels are full.

b X StorE – Frequency programmed into displayed bank's channel.

CLONE – Clone mode.

-dUPL – Frequency is already stored in another channel.

Error – Entry error.

FLD ALL- CL – All the locked-out frequencies removed during a FD/PD, AIRCRAFT, or HAM bank search.

L-r – Review the locked-out frequencies.

L-D Fr-FULL – Maximum of 50 frequencies already locked out.

OFF tone – Key tone deactivated.

On tone – Key tone activated.

P – Scanner is tuned to the priority channel.

-t- – Tune mode.

Sub Bank Messages

L0 VHF – Sub-bank 1 of the fire/police bank.

H1 VHF – Sub-bank 2 of the fire/police bank.

UHF – Sub-bank 3 of the fire/police bank.

10 M – Sub-bank 1 of the HAM bank.

b M – Sub-bank 2 of the HAM bank.

2 M – Sub-bank 3 of the HAM bank.

70CM – Sub-bank 4 of the HAM bank.

CONFIGURING SCANNER

Preprogrammed Frequencies

Your scanner includes 153 preprogrammed frequencies, which you can load into Channels 1 to 153. For a list of these frequencies, see "Preprogrammed Frequency List" section.

To load the preprogrammed frequencies:

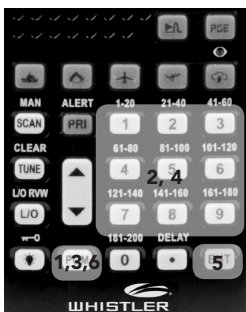
1. Turn off the scanner and then turn it on again.
2. While *WELCOME* message appears, press **PGM**.
3. *Load Fr* appears, then *YES--Ent* and *No--CLEAR* appear alternately.
4. Press **ENT** to load frequencies or **CLEAR** to cancel.

Programming Channels

If you do not have a list of frequencies in your area, refer to

www.radioreference.com.

1. Press **PGM**. *PGM* appears.
2. Enter the channel number (1–200) where you want to store a frequency,
3. Press **PGM** again.
4. Use the number keys to enter the frequency,
5. Press **ENT**.



PROGRAMMING

Programming with a Computer

You can upload or download programmed data to or from a PC using a PC/IF cable.

The application software is available at **www.PSRedit.com** or **www.Starrsoft.com**. Find the model WS1010 and follow instructions in the software package to upload and download data.

Cloning Programmed Data

You can transfer the programmed data to and from a WS1010 scanner using an optional connecting cable with 1/8 inch (3.5mm) stereo phone plugs on both ends.

1. Turn on both scanners.
2. Connect the connecting cable to each scanner's **PC/IF** jack. *CLON* and *UP* to *SEnd* appears.
3. Press ▲ on the host scanner.
4. *SEndING* appears at the host scanner.

To exit clone mode after the data transfer is complete, remove the cable.

No ConnEct appears if you try to connect to another model scanner.

The WS1010 does not clone with other scanner models.

SERVICE SEARCH

Searching for Frequencies

During a tune search, the scanner tunes up or down starting from a frequency you specify.

1.Press TUNE. The display alternates between PSE and -t-.
2.If you want to change the starting frequency, enter a new frequency and press ENT.
3.Press PSE to start tune search. -t- appears on the display.
4. To change the tuning direction, press or .

Service Bank Search

Your scanner contains groups of preset frequencies called Service Banks. You can search for marine, fire/police, aircraft, ham, and weather transmissions even if you do not know the specific frequencies that are used in your area.

Then you can store the frequencies you find into the scanner's channels (except for weather and marine banks, which are already stored as channels).

To start the search, press the button for the Service Bank you would like to search (Marine, Fire/Police, Air, Ham, or Weather).

SERVICE SEARCH

Searching for Frequencies

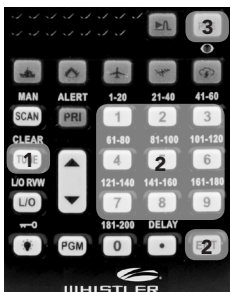
During a tune search, the scanner tunes up or down starting from a frequency you specify.

Press **TUNE**. The display alternates between *PSE* and *-t-*.

If you want to change the starting frequency, enter a new frequency and press **ENT**.

Press **PSE** to start tune search. *-t-* appears on the display.

To change the tuning direction, press ▲ or ▼.



Service Bank Search

Your scanner contains groups of preset frequencies called Service Banks. You can search for marine, fire/police, aircraft, ham, and weather transmissions even if you do not know the specific frequencies that are used in your area.

Then you can store the frequencies you find into the scanner's channels (except for weather and marine banks, which are already stored as channels).

To start the search, press the button for the Service Bank you would like to search (Marine, Fire/Police, Air, Ham, or Weather).

Search Commands

Press **PSE** to pause searching. Press **PSE** again to resume.

Press **•/Delay** to turn the two-second delay feature on and off.

Press **L/O** to lock-out a frequency (except Weather band).

To reverse the search direction at any time, press ▲ or ▼.

If necessary, you can select search groups using the number keys.

STORING FREQUENCIES

Storing Found Frequencies

You can save frequencies in channel-storage banks.

1. Press **ENT** when you find a frequency.

The bank number and *Store appear*.

2. To change banks, enter the new bank number.

3. Press **ENT**. The channel and frequency flash twice. To cancel the operation, press **TUNE/CLEAR**.

- The frequency is automatically stored in the first empty channel of the selected bank.
- If the scanner displays *-DUPL-*, the frequency is already stored in another channel. Press **ENT** to continue. Press **TUNE/CLEAR** to cancel.
- If there are no empty channels in the bank, *CH-FULL* appears. Clear a channel or select another bank (see "**Clearing a Stored Channel**" section).
- If the scanner displays *-DUPL-* or *CH-FULL*, you can store another channel location by pressing **PGM**. The channel number flashes and *000.0000* (or previous frequency) appears. Press the desired channel number then press **ENT**. Repeat if needed. Press **ENT** again when an empty channel is found.



STORING FREQUENCIES

Birdie Frequencies

All scanners have birdie frequencies, which are signals created inside a scanner that can cause interference.

To find the birdies in your scanner:

1. Disconnect the antenna, and make sure that no other nearby radio or TV sets are turned on near the scanner.
2. Search every frequency range from its lowest frequency to the highest. Occasionally, the searching will stop as if it has found a signal, often without any sound. This is a birdie.
3. Make a list of all the birdies in your scanner for future reference.

SCANNING AND MONITORING

Press **SCAN/MAN** until *SCAN* appears to continuously scan through all channels with stored frequencies. If the scanner finds an active frequency, it pauses until the transmission ends. Press ▲ or ▼ to change the scanning direction. To monitor a channel, press **SCAN/MAN** so that *MAN* appears.

The scanner does not scan channels in banks that are turned off. To turn a channel-storage bank on or off, press the bank's number key (**1–0**, using **0** for bank 10) during scanning. The channel-storage banks that are ON have a bar underneath them.

- You cannot turn off all banks; there must be at least one active bank.
- You can manually select any channel in a bank, even if the bank is turned off.

SETTING DELAY

To avoid missing a reply in conversations, a two-second delay is automatically set for each channel. The scanner stops for two seconds after a transmission ends before it resumes scanning or searching. DLY appears on the display when the delay function is active.

To turn delay on:

If the scanner is scanning and stops on an active channel, quickly press

•/DELAY before it resumes.

If the desired channel is not selected, manually select the channel, then press

•/DELAY.

If the scanner is searching, press

•/DELAY. DLY appears and the scanner adds a two-second delay to every transmission it stops on in that bank.

To turn delay off:

Press **•/DELAY** while the scanner is monitoring a channel or frequency. DLY disappears.

USING THE PRIORITY CHANNEL

The priority feature sets the scanner to check one channel every two seconds while scanning. You can program one frequency into the priority channel.

1. Press **PGM**.
2. Press **PRI/ALERT**.
PCH and *000.0000* (or the previously stored frequency) appear.
3. Enter the frequency you want stored in the priority channel, then press **ENT**.
4. To turn on the priority feature, press **PRI/ALERT** during scanning or searching. *PRI* appears. The scanner checks the priority channel every two seconds and stays on the channel if there is activity.
5. To turn off the priority feature, press **PRI/ALERT**. *PRI* disappears.



SPECTRUM SWEEPER

Spectrum Sweeper allows you to sweep a range of frequencies to detect, monitor and store frequencies for nearby radio transmissions.

The Spectrum Sweeper feature is more sensitive than portable frequency counters and detects transmissions at greater distances.

The Spectrum Sweeper can be set to watch for activity on all bands, or on Police/Fire, Aircraft, or Ham frequencies exclusively.

When the scanner is in manual, scan or tune mode, press  to watch for activity on all bands.

To watch for activity on Police/Fire, Aircraft, or Ham frequencies exclusively, press the button for the desired service bank and then press .

NOTE: Priority mode is not available while using the Spectrum Sweeper.

LOCKING OUT CHANNELS

You can increase the scanning or search speed by locking out channels or frequencies that have a continuous transmission, such as control channels, weather channels, or birdie frequencies. Press **L/O** when the scanner stops on a channel or frequency while scanning or searching. The scanner locks out the channel/frequency then continues scanning/searching.

To manually lock-out a channel, select the channel then press **L/O**. **L/O** appears in the display.

- Your scanner automatically locks out empty channels.
- You can still manually select locked-out channels.
- You can lock-out a maximum of 50 frequencies during a search. If you try to lock-out more, **L - 0 Fr - FULL** appears.

Managing Lock-outs

Set the scanner to manual by pressing **SCAN/MAN** until **MAN** appears

Hold down **L/O/L/O RVW** for about two seconds. The scanner pulls up a locked out channels.

Press and hold **L/O/L/O RVW** to show the next locked out channel. If an error beep sounds, there are no locked out channels.

To remove the lock-out, press **L/O/L/O RVW** until **L/O** disappears.

MANAGING SERVICES BANK LOCK-OUTS

Managing Service Bank Lock-Outs

1. Hold down **L/O/L/O RVW** for about two seconds during a Service Bank search.
2. Press **porq** repeatedly to scroll through the list of locked-out frequencies. *L - r* and **L/O** appear in the display.
3. Press **L/O/L/O RVW** to remove the lock-out. The list scrolls to the next locked-out frequency.
 - When you reach the highest locked-out frequency, the scanner beeps twice and rolls to the lowest locked-out frequency.
 - If the Service Bank has no locked-out frequencies, *EMPTY* appears.

UNLOCKING ALL SERVICE BANK FREQUENCIES

1. Hold down **L/O/L/O RVW** for about two seconds during a Service Bank search. *L - r* appears.
2. While holding down **TUNE/CLEAR**, press **L/O/L/O RVW**. *FLD ALL-CL* appears for about two seconds. Then the display alternates with *YES --- Ent* and *No --CLEAR*.
3. Press **ENT**. *L - r EMPTY* appears. The scanner clears lock-outs from all frequencies in the Service Bank.

CLEARING A STORED CHANNEL

To remove a frequency stored in a channel.

1. Press **SCAN/MAN** to stop scanning.
2. Press the number keys to enter the channel number (1–200).
3. Press **PGM**. *PGM* appears.
4. Press **0** then **ENT**. The frequency number changes to *000.0000* to indicate the channel is cleared.
5. To clear another channel, use the number keys to enter that channel number then press **PGM** again.
Or, repeatedly press **PGM** until the desired channel number appears.
Repeat Step 4.



WEATHER FEATURES

The NOAA and your local weather reporting agency broadcast local forecast and regional weather information on one or more channels allocated for use by weather reporting agencies.

Your scanner is an extremely sensitive high-quality receiver on the weather frequencies. However, the included antenna is optimized for general purpose scanning. To receive weather alerts, please make sure you are receiving a clear signal or switch to an external antenna.

Press  to hear your local forecast and regional weather information. *WEATHER* appears for about two seconds, then the scanner starts searching the weather bank. Press **PSE** to stop searching the channels. *SRCH* disappears and *MAN* appears. To change the channel manually, press **▲** or **▼**.

Receiving All Weather Alerts

To program the scanner to search for weather alerts every two seconds, set a weather channel as the priority channel. See **"Using the Priority Channel"** section.

If the scanner detects a 1050 Hz weather alert tone on the programmed channel, the scanner sounds the alert tone and *ALER* flashes. Press any key to turn off the alarm.

Receiving Alerts for Specific Areas

The National Weather Service precedes each weather alert with a digitally encoded SAME (Specific Area Message Encoding) signal, then a 1050 Hz tone. The SAME signal includes a FIPS (Federal Information Processing Standard) code and an event code.

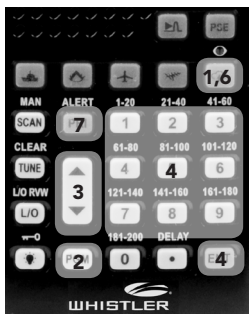
A current list of FIPS codes is located at www.NWS.NOAA.gov/NWR.

SAME STANDBY MODE

In SAME Standby mode, your scanner monitors weather channels for SAME alerts for up to seven areas you specify by entering the FIPS codes.

To program your scanner for SAME Standby mode:

1. Press .
2. Press **PGM** to access the FIPS code entry mode.
3. Use  or  to select the desired FIPS code storage location.
4. Use the number keys to enter the FIPS code, then press **ENT** to store the code.
5. Repeat steps 3-4 for all the FIPS codes that you wish to store.
6. Press  to exit FIPS code entry mode. The scanner displays *F* showing that FIPS codes are enabled.
7. Press **PRI/ALERT** to initiate SAME Standby mode. The scanner displays *F [1-7] CH StAndby*.



SAME STANDBY MODE

The scanner will monitor weather channels for alerts with matching FIPS codes. To exit SAME Standby mode, press **PRI/ALERT** again.

- Press L/O during step 4 to lock-out FIPS entries; **L/O** appears in the display. Press **L/O** again to enable FIPS entries; **L/O** disappears.
- If you do not enter any FIPS codes, or if your FIPS codes are locked out, when you enter SAME Standby mode the scanner receives alerts and warning messages for all receivable areas.
- The scanner sounds an alert when it receives the SAME code. To stop the alert and ready the scanner to receive a new alert signal, press any key.
- If you do not stop the alert within five minutes, the alert stops and the scanner beeps every ten seconds. If the scanner receives a new weather alert after five minutes, it sounds the new alert.

Testing the Weather Alert and Beep Tone

1. To test the weather alert, press and hold **ENT** for more than 2 seconds while *F [1-7] CH 5tRndbY* appears on the display. The display indicates the type of message, and the scanner sounds an alert or series of beeps. The beeps automatically change every 3 seconds.
2. Press any key to stop testing.

Skywarn™

Many areas of the country have amateur radio repeaters that have been designated as "Skywarn" repeaters. During times of severe weather, these repeaters relay reports of severe weather directly to the local National Weather Service forecast office. Your scanner can easily jump to your local Skywarn frequency and monitor these reports. Before using this feature, you must program the Skywarn frequency into channel 200. Refer to www.radioreference.com to find Skywarn frequencies in your area.

To activate Skywarn, press and hold  for about two seconds. The scanner jumps to channel 200 to monitor the Skywarn frequency. If no frequency is programmed in the Skywarn channel, *No PRG* appears.

ADDITIONAL INFORMATION

Care

Your scanner is not waterproof. Do not expose it to rain, moisture, or extremely high humidity. If the scanner gets wet, wipe it dry immediately. Use and store the scanner only in normal temperature environments. Handle the scanner carefully; do not drop it. Keep the scanner away from dust and dirt, and wipe it with a damp cloth occasionally to keep it looking new.

Initializing the Scanner

If the scanner's display locks up or does not work properly after you connect a power source, you might need to initialize the scanner.

IMPORTANT: This procedure clears all information you stored in the scanner's memory. Only initialize the scanner when you are sure the scanner is not working properly.

IMPORTANT: Do not turn off the scanner until the initialization is complete. When the initialization is complete, *ICH 000.0000* appears on the display.

1. Turn off the scanner, then turn it on again. *WELCOME SCANNING RECEIVER* appears.
2. Press **0**, then press **1** while the welcome message is on the screen. *INITIAL* appears for about two seconds, then *YES —ENT* and *NO —CLEAR* appear alternately.
3. Press **ENT**. *WAIT* appears for about two seconds.

PREPROGRAMMED FREQUENCY LIST

Channel Frequency(MHz)

Bank 1

1.....	151.2350
2.....	151.4000
3.....	151.4150
4.....	151.4300
5.....	151.4600
6.....	153.7700
7.....	153.8300
8.....	153.8900
9.....	153.9500
10.....	154.0100
11.....	154.0250
12.....	154.0400
13.....	154.0550
14.....	154.0700
15.....	154.0850
16.....	154.1000
17.....	154.1150
18.....	154.1300
19.....	154.1450
20.....	154.1600

Bank 2

21.....	154.1750
22.....	154.1900
23.....	154.2050
24.....	151.2200
25.....	154.2350
26.....	154.2500
27.....	154.2650
28.....	154.2800
29.....	154.2950
30.....	154.3100
31.....	154.3250
32.....	154.3400
33.....	154.3550
34.....	154.3700
35.....	154.3850
36.....	154.4000
37.....	154.4150
38.....	154.4300
39.....	154.4450
40.....	154.7250

PREPROGRAMMED FREQUENCY LIST

Bank 3

41.....	154.7400
42.....	154.7550
43.....	154.7700
44.....	154.7850
45.....	154.8000
46.....	154.8150
47.....	154.8450
48.....	154.8600
49.....	154.8750
50.....	154.9500
51.....	154.9650
52.....	154.9800
53.....	154.9950
54.....	155.0100
55.....	155.0250
56.....	155.0400
57.....	155.0550
58.....	155.0700
59.....	155.0850
60.....	155.1000

Bank 4

61.....	155.1150
62.....	155.1300
63.....	155.1450
64.....	155.1600
65.....	155.1750
66.....	155.1900
67.....	155.2050
68.....	155.2200
69.....	155.2350
70.....	155.2500
71.....	155.2650
72.....	155.2800
73.....	155.2950
74.....	155.3100
75.....	155.3250
76.....	155.3400
77.....	155.3550
78.....	155.3700
79.....	155.3850
80.....	155.4000

PREPROGRAMMED FREQUENCY LIST

Bank 5

81.....	155.4150
82.....	155.4300
83.....	155.4750
84.....	155.4900
85.....	155.5200
86.....	155.5350
87.....	155.5500
88.....	155.5650
89.....	155.5800
90.....	155.5950
91.....	155.6100
92.....	155.6250
93.....	155.6400
94.....	155.6550
95.....	155.6700
96.....	155.6850
97.....	155.7000
98.....	155.7150
99.....	155.3750
100.....	155.7300

Bank 6

101.....	155.7450
102.....	155.7600
103.....	155.7750
104.....	155.7900
105.....	155.8050
106.....	155.8200
107.....	155.8350
108.....	155.8500
109.....	155.8650
110.....	155.8800
111.....	155.8950
112.....	155.9100
113.....	155.9250
114.....	155.9400
115.....	155.9700
116.....	156.1500
117.....	156.2100
118.....	158.7300
119.....	158.7450
120.....	158.7600

PREPROGRAMMED FREQUENCY LIST

Bank 7

121.....	158.7750
122.....	158.7900
123.....	158.8050
124.....	158.8200
125.....	158.8350
126.....	158.8500
127.....	159.0900
128.....	159.1500
129.....	159.2100
130.....	453.0750
131.....	453.1000
132.....	453.1250
133.....	460.0250
134.....	460.0500
135.....	460.1750
136.....	460.2750
137.....	460.4000
138.....	460.5000
139.....	460.5250
140.....	467.5500

Bank 8

141.....	460.5750
142.....	460.6000
143.....	460.6250
144.....	462.9500
145.....	462.9750
146.....	463.0000
147.....	463.0250
148.....	463.0500
149.....	463.0750
150.....	463.1000
151.....	463.1250
152.....	463.1500
153.....	463.1750

SERVICE BANKS

The scanner is preprogrammed with the frequencies allocated to marine, fire/police, aircraft, ham radio broadcast and weather services. This is handy for quickly finding active frequencies instead of searching through an entire bank (see "Service Bank Search" section).

Fire/Police

Group 1

Frequency Range (MHz)Step (kHz)

33.42-33.98	20
37.02-37.42	20
39.02-39.98	20
42.02-42.94	20
44.62-45.86	40
45.880	
45.9-46.06	40
46.08-46.5	20

Group 2

153.770-154.130	60
154.145-154.445	15
154.650-154.950	15
155.010-155.370	60
155.415-155.700	15
155.730-156.210	60
158.730-159.450	60
166.5	
166.8	

Group 3

453.0000-453.9875	12.5
458.0250-458.9875	12.5
460.0125-460.6375	12.5
465.0125-465.6375	12.5

Aircraft

Group 1 – 108-118.000..... 8.33

Group 2 – 118.00833-136.99166..... 8.33

SERVICE BANKS

Amateur Radio

Group 1	– 29.000-29.700.....	5
Group 2	– 50.000-54.000.....	5
Group 3	– 144.000-148.000.....	5
Group 4	– 420.000-450.000.....	12.5

Weather

Channel.....	Frequency (MHz)
1.....	162.400
2.....	162.425
3.....	162.450
4.....	162.475
5.....	162.500
6.....	162.525
7.....	162.550

Marine

Channel	Frequency (MHz)
01.....	156.0500
05.....	156.2500
06.....	156.3000
07.....	156.3500
08.....	156.4000
09.....	156.4500
10.....	156.5000
11.....	156.5500
12.....	156.6000
13.....	156.6500
14.....	156.7000
15.....	156.7500
16.....	156.8000
17.....	156.8500
18.....	156.9000
19.....	156.9500
20.....	157.0000/161.6000
21.....	157.0500
22.....	157.1000

SERVICE BANKS

23.....	157.1500
24.....	157.2000/161.8000
25.....	157.2500/161.8500
26.....	157.3000/161.9000
27.....	157.3500/161.9500
28.....	157.4000/162.0000
63.....	156.1750
64.....	156.2250/160.8250
65.....	156.2750
66.....	156.3250
67.....	156.3750
68.....	156.4250
69.....	156.4750
70.....	156.5250
71.....	156.5750
72.....	156.6250
73.....	156.6750
74.....	156.7250
77.....	156.8750
78.....	156.9250
79.....	156.9750
80.....	157.0250
81.....	157.0750
82.....	157.1250
83.....	157.1750
84.....	157.2250/161.8250
85.....	157.2750/161.8750
86.....	157.3250/161.9250
87.....	157.3750/161.9750
88.....	157.4250

NOTE: Both frequencies (transmission and reception) are shown for marine channels used for duplex transmission.

NOTE: The frequencies in the scanner's one-touch service bands are preset. You cannot change them.

SPECIFICATIONS

Frequency Coverage

29-54 MHz.....	(5 kHz steps)/FM
108-136.99166 MHz	(8.33 kHz steps)/AM
137-144 MHz.....	(12.5 kHz steps)/FM
144-148 MHz.....	(5 kHz steps)/FM
148-150.8 MHz.....	(12.5 kHz steps)/FM
150.8-162 MHz.....	(5 kHz steps)/FM
162-174 MHz.....	(12.5 kHz steps)/FM
380-512 MHz.....	(12.5 kHz steps)/FM

Sensitivity (S+N)/N 20 dB

29-54 MHz.....	0.5 μ V
108-136.99166 MHz.....	1.0 μ V
137-174 MHz.....	0.5 μ V
380-512 MHz.....	0.7 μ V
Spurious Rejection (FM @154 MHz)	50 dB

Selectivity

± 8 kHz/ ± 17 kHz (FM/AM).....	-6dB/-50dB
Search Speed	Up to 80 Steps/Sec
Scan Speed.....	Up to 40 Channels/Sec
Delay Time	2 Seconds

IF Frequencies

1st IF.....	10.7 MHz
2nd IF	455 kHz
IF Interference Ratio (10.7 MHz).	70 dB at 154 MHz

Squelch Sensitivity

Threshold (FM/AM).....	Less than 0.5 μ V
Tight (FM)	(S + N)/N 25 dB
Tight (AM).....	(S+N)/N 20 dB
Antenna Impedance	50 Ohms
Audio Output Power (10% THD) .	180mW Nominal
Built-In Speaker ...	1.37 Inches (36 mm), 8 Ohms
Operating Temperature.....	14° to 140°F (-10° to 60°C)

SPECIFICATIONS

Power Requirements 9V AC Adapter
..... 9V DC Adapter (not supplied)
..... 4 AA Batteries (not included)
Dimensions (HWD) .. 5.68 x 2.37 x 1.56 In
..... (145 x 63 x 40 mm)
Weight (without antenna) ... 7.8 oz (220 g)

Specifications and depictions are subject to change and improvement without notice. Actual product may vary from the images found in this document.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a scanning receiver, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC NOTICE

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause interference; and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.

FCC ID: HSXSC01 IC: 1698A-SC01

WARRANTY

Consumer Warranty

This Whistler product is warranted to the original purchaser for a period of one (1) year from the date of original purchase against all defects in materials and workmanship, when purchased from an authorized Whistler retailer. **This limited warranty is void if the unit is abused, misused, modified, installed improperly, or if the housing and/or serial numbers have been removed.**

There are no express warranties covering this product other than those set forth in this warranty. All express or implied warranties for this product are limited to one (1) year. Whistler is not liable for damages arising from the use, misuse, or operation of this product including but not limited to loss of time, inconvenience, loss of use of your product or property damage caused by your product or its failure to work, or any other incidental or consequential damages including personal injury.

DO NOT RETURN ITEM TO STORE WHERE
PURCHASED.

FOR WARRANTY INFORMATION, CONTACT
WHISTLER CUSTOMER SERVICE AT 1-866-923-
8719.

Representatives are available to answer your
questions
Monday – Friday
from 8:00 a.m. to 5:00 p.m. CT

Service Under Warranty

During the warranty period, defective units will be repaired or replaced (with the same or a comparable model), at Whistler's option, without charge to the purchaser when returned prepaid, with dated proof of purchase to the address below. Units returned without dated proof of purchase will be considered out of warranty and therefore are not covered by the described Limited Warranty. (Refer to Service Out of Warranty section.) Due to the specialized equipment necessary for testing Whistler products, there are no authorized service centers other than Whistler. When returning a unit for service under warranty, please follow these instructions:

1. Ship the unit in the original carton or in a suitable sturdy equivalent, fully insured, with return receipt requested to:

Whistler Repair Dept.
1412 South 1st St.
Rogers, AR. 72756

Please allow 3 weeks turnaround time.

WARRANTY

IMPORTANT: Whistler will not assume responsibility for loss or damage incurred in shipping. Therefore, please ship your unit insured with return receipt requested.

CODs will not be accepted!

2. Include with your unit the following information, clearly printed:
 - Your name and physical street address for shipping (no PO Boxes), a daytime telephone number, and an email address (if applicable).
 - A detailed description of the problem (e.g., "device will not Power ON").
 - A copy of your dated proof of purchase or bill of sale.
3. Be certain your unit is returned with its serial number. Units without serial numbers are not covered under warranty.

IMPORTANT: To validate that your unit is within the warranty period, make sure you keep a copy of your dated proof of purchase. For warranty verification purposes, a copy of your dated store receipt must accompany any Whistler product sent in for warranty work.

Service Out Of Warranty

Units will be repaired at "out of warranty" service rates when:

- The unit's original warranty has expired.
- A dated proof of purchase is not supplied.
- The unit has been returned without its serial number.
- The unit has been misused, abused, modified, installed improperly, or had its housing removed.

The minimum out of warranty service fee for your Whistler

Scanner is \$50.00 (U.S.). If you require out of warranty service, please return your unit as outlined in the section "Service Under Warranty" along with a cashier's check or money order in the amount of \$50.00. Payment may also be made by MasterCard, VISA or American Express.

Personal checks are not accepted.

WARRANTY

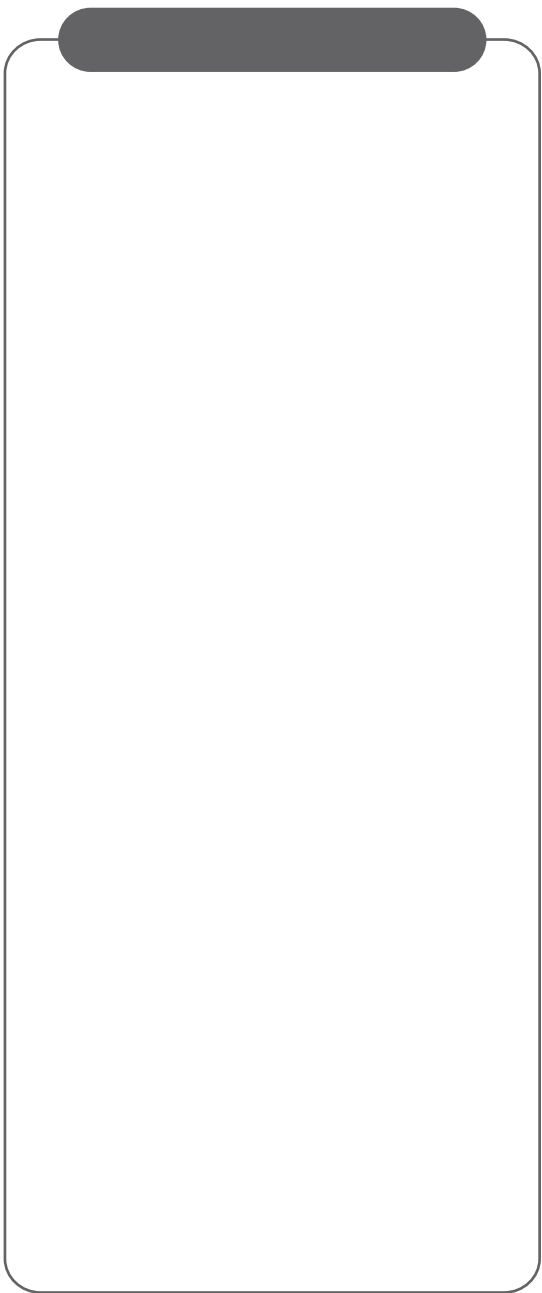
In the event repairs cannot be covered by the minimum service fee, you will be contacted by a Whistler technical service specialist who will outline options available to you.

IMPORTANT: When returning your unit for service, be certain to include a daytime telephone number and an email address (if applicable).

Customer Service

If you have questions concerning the operation of your Whistler product, or require service during or after the warranty period, please call Customer Service at **1-866-923-8719**.

Representatives are available to answer your questions
Monday - Friday from 8:00 a.m. to 5:00 p.m. (CT)
or visit the FAQs at **www.whistlergroup.com**.



CORPORATE HEADQUARTERS

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www.whistlergroup.com

CUSTOMER RETURN CENTER

1412 South 1st St.
Rogers, AR 72756
Customer Service Tel (866) 923-8719
Email: info@whistlergroup.com

P/N 581000a
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