# WS1010

# 200 Channel VHF/Air/UHF Handheld Radio Scanner

## **OWNER'S MANUAL**





## TABLE OF CONTENTS

Package Contents	3
Scanning Legally	3
Features	4
Scanner Basics	5
Setup	6
Connecting the Antenna	6
Connecting a Speaker or Headphones	7
Powering Your Scanner	8
Turning on the Scanner	10
Turning Off the Key Tone	10
Understanding the Keypad	11
Understanding the Display	12
Configuring Your Scanner	. 14
Preprogrammed Frequencies	14
Programming Channels	14
Programming with a Computer	15
Cloning Programmed Data	15
Searching for Frequencies	. 16
Service Bank Search	16
Storing Found Frequencies	17
Birdie Frequencies	17
Scanning & Monitoring	18
Using the Priority Channel	19
Spectrum Sweeper	19
Locking Out Channels	. 20
Clearing a Stored Channel	. 21
Weather Features	. 22
Receiving All Weather Alerts	. 22
Receiving Alerts for Specific Areas	. 22
Skywarn™	. 24
Additional Information	. 25
Care	. 25
Initializing the Scanner	. 25
Preprogrammed Frequency List	. 26
Service Banks	. 28
Specifications	. 30
FCC Notice	. 31
Limited Warranty	. 32

### INTRODUCTION

# WELCOME

Thank you for choosing a Whistler product. We are dedicated to providing products that represent both quality and value. Please read the user manual carefully before using this product. If you have additional questions, please visit the FAQ page on our website at www.whistlergroup.com or call toll free 800-531-0004, 8am to 5pm CT, Monday through Friday to speak to a Customer Service Representative.

# Package Contents

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

## 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).

#### 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.

# Features

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.

#### 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.

# **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 <u>www.radioreference.com</u>.

Also, you can use your scanner's search functions to find active frequencies in your area.

Frequency Range	Types of Transmissions
29–54 MHz	10-Meter Ham, VHF Lo, 6-Meter Ham
108–136.9875 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"

#### Your WS1010 scanner can receive these bands:

Note: See "Specifications" on page 30 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.

### **CONNECTING ACCESSORIES**



## **Connecting a Speaker or Headphones**

You can plug an amplified speaker or headphones (not supplied) with ¼ 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. Nonamplified 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 highvolume 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.

## Using the 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.

# **Powering Your Scanner**

## **Using Batteries**

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.

**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.

## Using AC Power

Power the scanner using the supplied AC adapter. To disconnect, unplug the adapter first.

**Caution:** 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 the Scanner

- 1. Turn the **SQUELCH** all the way down before you turn on the scanner.
- 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.
- While the welcome message is on the screen, press
   1 to turn on the key tone or press 2 to turn it off.

#### KEYPAD

## Understanding the Keypad



Image: Image: Anticipation of the second second

**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.  $\blacktriangle$   $\nabla$  – Select the direction for searching and scanning. 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/PD – 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.

B - Batteries are low.

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

#### Row 4

▲▼ (Up/Down) – 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.

### DISPLAY

## **Display Messages**

*ALL CH Lout* – 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.

*FLo 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.

-*†*- – Tune mode.

## Sub Bank Messages

Lo VHF – Sub-bank 1 of the fire/police bank. Hi 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. 5 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.

## **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" on page 26.

#### 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 <u>www.radioreference.com</u>.

- 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.
- To program the next channel in sequence, press PGM and repeat Steps 4 and 5.
  - Your scanner automatically rounds down to the closest valid frequency. For example,



if you enter 151.473, your scanner rounds it to 151.470.

- If *Error* appears and the scanner beeps three times when you press **ENT**, start again from Step 2.
- If the frequency is already stored in another channel, the scanner beeps three times and displays -*dUPL* (duplicate) and the lowest channel number where the frequency is already stored. Press

**TUNE/CLEAR** to cancel. Press **ENT** if you still want to store the frequency.

## 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 ½-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. *CLOnE* and *UP to SEnd* appears.
- 3. Press  $\blacktriangle$  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.

# **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  $\blacktriangle$  or  $\blacktriangledown$  .

# 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 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.
- MAN
   ALERT
   1-20
   21-40
   41-60

   CLEAR
   1
   2
   3

   LORNW
   4
   2
   6

   UO
   7
   8
   9

   HI-00
   151-200
   DELVY
   13/23

   LORNW
   V
   7
   8
   9

   HI-100
   DELVY
   13/230
   DELVY
   1/33
- 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" on page 21).
- If the scanner displays -dUPL- or CH-FULL, you can store another channel location by pressing PGM. The channel number flashes and DDD.DDDD (or previous frequency) appears. Press the desired channel number then press ENT. Repeat if needed. Press ENT again when an empty channel is found.

## **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  $\blacktriangle$  or  $\blacktriangledown$  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 *DDD.DDD*<sup>®</sup> (or the previously stored frequency) appear.
- 3. Enter the frequency you want stored in the priority channel, then press **ENT**.
- 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.

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  $\mathbb{N}$  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. LO 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-D Fr-FULL* appears.

## **Managing Lock-outs**

- 1. Set the scanner to manual by pressing SCAN/ MAN until MAN appears
- 2. Hold down L/O/L/O RVW for about two seconds. The scanner pulls up a locked out channels.
- 3. 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
   disappears.

## Managing Service Bank Lock-outs

- 1. Hold down L/O/L/O RVW for about two seconds during a Service Bank search.
- Press ▲ or ▼ repeatedly to scroll through the list of locked-out frequencies. L·r and <sup>™</sup> 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.
- While holding down TUNE/CLEAR, press L/O/L/O RVW. FLo ALL-EL appears for about two seconds. Then the display alternates with YES ---Ent and No --ELEAr.
- 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 (a) 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  $\blacktriangle$  or  $\blacktriangledown$ .

## **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"** on page 19.

If the scanner detects a 1050 Hz weather alert tone on the programmed channel, the scanner sounds the alert tone and *ALErt* 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.
- 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.



- Repeat steps 3-4 for all the FIPS codes that you wish to store.
- 6. Press (a) 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]<sup>CH</sup> StAndby.

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;
   appears in the display. Press L/O again to enable FIPS entries;
   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

 To test the weather alert, press and hold ENT for more than 2 seconds while F [1-7] CH StAndby 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**<sup>™</sup>

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 <u>www.radioreference.com</u> 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 Prob* 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, *1CH 000.000* 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	40 5000
1	.40.5000
2	. 52.5250
3	121.5000
4	122.0000
5	122.2000
6	122.7000
7	122.7500
8	122.8000
9	122,9000
10	122,9500
11	123 0000
12	123 1000
12	123.1000
1 <i>J</i>	121.4500
14	121 4750
17	14/ 5200
17	140.5200
17	146.7600
18	146.8800
19	146.9400
20	1/10 1500
20	140.1500
Bank 2	140.1500
Bank 2 21	151.6250
Bank 2 21 22	151.6250 151.8200
Bank 2 21 22 23	151.6250 151.8200 151.8800
Bank 2 21. 22. 23	151.6250 151.8200 151.8800 151.9400
Bank 2 21 22 23 24 25	151.6250 151.8200 151.8800 151.9400 151.9550
26	151.6250 151.8200 151.8800 151.9400 151.9550 154.0100
Bank 2 21 23 24 25 26 27	151.6250 151.8200 151.8800 151.9400 151.9550 154.0100 154.0700
Bank 2 21	151.6250 151.8200 151.8800 151.9400 151.9550 154.0100 154.0700 154.1300
Bank 2 21	151.6250 151.8200 151.8800 151.9400 151.9550 154.0100 154.0700 154.1300 154.1300
Bank 2         21         22         23         24         25         26         27         28         29         30	151.6250 151.8200 151.8800 151.9400 151.9550 154.0100 154.0700 154.1300 154.1450 154.1450
Bank 2 21	151.6250 151.8200 151.8800 151.9400 151.9550 154.0100 154.0700 154.1300 154.1450 154.1600 154.1600
Bank 2 21	151.6250 151.8200 151.8800 151.9400 151.9450 154.0100 154.0100 154.1300 154.1450 154.1450 154.1450
Bank 2 21	151.6250 151.8200 151.8800 151.9500 154.9400 154.0100 154.0700 154.1300 154.1450 154.1450 154.1750 154.1750
Bank 2 21	151.6250 151.8200 151.8800 151.9550 154.0100 154.0700 154.1300 154.1450 154.1600 154.1750 154.2050
Bank 2         21         22         23         24         25         26         27         28         29         30         31         32         34         25	151.6250 151.8200 151.8400 151.9400 154.0700 154.0700 154.1300 154.1450 154.1450 154.1450 154.1450 154.2050 154.2050
Bank 2         21	151.6250 151.8200 151.8800 151.9400 154.9550 154.0700 154.1300 154.1450 154.1450 154.1450 154.1750 154.2050 154.2200 154.2200
Bank 2         21	151.6250 151.8200 151.8800 151.9400 154.9550 154.0100 154.1300 154.1450 154.1450 154.1450 154.1750 154.2200 154.2200 154.2200 154.2350
Bank 2 21	151.6250 151.8200 151.8800 151.9400 151.9550 154.0100 154.0700 154.1300 154.1450 154.1450 154.1750 154.2050 154.2200 154.2250 154.2500
Bank 2         21         22         23         24         25         26         27         28         29         30         31         32         33         34         35         36         37         38         20	151.6250 151.8200 151.8400 151.9400 154.0700 154.0700 154.1300 154.1450 154.1450 154.1450 154.2050 154.2050 154.2250 154.2500 154.2500
Bank 2         21	151.6250 151.8200 151.8400 151.9400 154.9550 154.0100 154.1300 154.1450 154.1450 154.1450 154.2050 154.2050 154.2200 154.2500 154.2500 154.2650

Bank 3	
41	154.3250
42	154.3400
43	154.3550
44	154 3700
45	154 3850
16	154 4000
40	154.4000
47	154.4130
40	154.4300
47	154.4450
50	154.5700
51	154.6000
52	155.1600
53	155.1750
54	155.2050
55	155.2200
56	155.2350
57	155.2650
58	155.2800
59	155.2950
60	455 2050
	155.3250
Bank 4	155.3250
Bank 4 61	155.3250
Bank 4 61 62	155.3250 155.3400 155.3550
Bank 4 61 62 63	155.3250 155.3400 155.3550 155.3700
Bank 4 61 62 63 64	155.3250 155.3400 155.3550 155.3700 155.3850
Bank 4 61	155.3250 155.3400 155.3550 155.3700 155.3850 155.4000
Bank 4 61 62 63 64 65 66	155.3250 155.3400 155.3550 155.3700 155.3850 155.4000 155.4750
Bank 4 61 62 63 64 65 66 67	155.3250 155.350 155.3550 155.3700 155.3850 155.4000 155.4750 156.4250
Bank 4 61	155.3250 155.35400 155.3550 155.3700 155.3850 155.4750 155.4750 156.4250
Bank 4 61	155.3250 155.3550 155.3700 155.3850 155.4000 155.4750 156.4250 156.4500 156.4500 156.4750
Bank 4 61	155.3250 155.3550 155.3550 155.3700 155.3850 155.4750 156.4250 156.4500 156.4500 156.5750
Bank 4 61	155.3250 155.3550 155.3550 155.3700 155.3850 155.4000 155.4750 156.4250 156.45750 156.6250
Bank 4 61	155.3250 155.3500 155.3550 155.3850 155.4000 155.4750 156.4250 156.4500 156.4500 156.5750 156.6250 156.8000
Bank 4 61	155.3250 155.3400 155.3550 155.3850 155.4000 155.4750 156.4250 156.4250 156.4750 156.5750 156.8000 156.8200
Bank 4 61	155.3250 155.3400 155.3550 155.3700 155.3850 155.4750 156.4250 156.4250 156.4750 156.5750 156.6250 156.8000 156.9250 157.0500
Bank 4 61	155.3250 155.3500 155.3550 155.3700 155.3850 155.4700 156.4250 156.4250 156.4500 156.5750 156.6250 156.9250 157.0500 157.1000
Bank 4 61	155.3250 155.3500 155.3550 155.3700 155.3850 155.4750 156.42500 156.4500 156.4500 156.5750 156.6250 156.8000 156.9250 157.0500 157.1000 157.1000
Bank 4 61	155.3250 155.3400 155.3550 155.3850 155.4000 155.4750 156.4500 156.4500 156.4500 156.5750 156.6250 156.6250 156.9250 157.0500 157.1250 157.4250
Bank 4 61	155.3250 155.3400 155.3550 155.3700 155.3850 155.4700 155.4750 156.4750 156.4750 156.4750 156.6250 156.6250 156.6250 157.0500 157.1250 157.1250 157.1250
Bank 4 61	155.3250 155.3400 155.3550 155.3700 155.3850 155.4700 155.4750 156.4250 156.4750 156.4750 156.6250 156.8000 156.8000 157.0500 157.1050 157.1250 157.1250 157.4250 162.3000
Bank 4 61	155.3250 155.3400 155.3550 155.3700 155.3850 155.4750 156.4250 156.4250 156.4250 156.6250 156.6250 156.8000 157.0500 157.1250 157.1250 157.4250 162.3000 162.3000

### PREPROGRAMMED FREQUENCY LIST

#### Bank 5

01	. 415./000
82	446.0000
83	.450.8000
84	454.0000
85	.460.0250
86	.460.0500
87	.460.0750
88	.460.1000
89	460.1250
90	.460.1500
91	460 1750
92	460.2000
93	460 2250
94	.460.2500
95	460 2750
96	460.3000
97	460.3250
98	460 3500
99	460 3750
100	460 4000
Rank 6	100.1000
101	160 1250
101	.460.4250
101 102 103	.460.4250 .460.4500
101 102 103	.460.4250 .460.4500 .460.4750
101 102 103 104 105	.460.4250 .460.4500 .460.4750 460.5000
101 102 103 104 105 106	.460.4250 .460.4500 .460.4750 460.5000 .460.5250
101 102 103 104 105 106 107	.460.4250 .460.4500 .460.4750 460.5000 .460.5250 .460.5500
101 102 103 104 105 106 107 108	.460.4250 .460.4500 .460.4750 460.5000 .460.5250 .460.5500 .460.5750
101 102 103 104 105 106 107 108 108 109	.460.4250 .460.4500 .460.4750 460.5000 .460.5250 .460.5500 .460.5750 460.6000
101 102 103 104 105 106 107 108 109 109 110.	.460.4250 .460.4500 .460.4750 460.5250 .460.5250 .460.5550 .460.5750 460.6000 .460.6250
101	.460.4250 .460.4500 .460.4750 .460.5250 .460.5250 .460.5500 .460.5750 .460.6000 .460.6250 .460.6250
101         102         103         104         105         106         107         108         109         110         111	.460.4250 .460.4500 .460.5000 .460.5250 .460.5500 .460.5750 .460.6250 .460.6250 .460.6250 .460.6250 .460.7000
101         102         103         104         105         106         107         108         109         110         111         112	.460.4250 .460.4500 .460.5500 .460.5250 .460.5550 .460.5750 .460.6000 .460.6250 .460.6500 .460.7500 .460.7500 .460.7500
101 102	.460.4250 .460.4500 .460.5250 .460.5250 .460.5520 .460.5750 .460.6250 .460.6250 .460.6250 .460.7500 .460.7500 .460.7500
101         102         103         104         105         106         107         108         109         110         111         112         113         114	.460.4250 .460.4500 .460.5250 .460.5250 .460.5550 .460.5750 .460.6250 .460.6250 .460.6250 .460.7500 .460.7500 .460.8500 .460.8500
101         102         103         104         105         106         107         108         109         110         111         112         113         114         115         114	.460.4250 .460.4500 .460.5000 .460.5250 .460.5500 .460.5750 .460.6250 .460.6250 .460.6250 .460.7000 .460.7500 .460.8500 .460.8500 .460.8500 .460.9000
101         102         103         104         105         106         107         108         109         110         111         112         113         114         115         116         117	.460.4250 .460.4500 .460.5500 .460.5500 .460.5500 .460.6250 .460.6250 .460.6250 .460.6250 .460.7500 .460.7500 .460.8000 .460.8500 .460.9250
101         102         103         104         105         106         107         108         109         110         111         112         113         114         115         116         117	.460.4250 .460.4500 .460.5500 .460.5500 .460.5500 .460.5750 .460.6250 .460.6250 .460.6250 .460.6250 .460.7500 .460.7500 .460.8000 .460.8500 .460.9000 .460.9250 .460.9500
101         102         103         104         105         106         107         108         109         110         111         112         113         114         115         116         117         118         119	.460.4250 .460.4500 .460.5250 .460.5250 .460.5550 .460.65750 .460.6250 .460.6250 .460.6500 .460.7500 .460.7500 .460.7500 .460.9250 .460.9250 .460.9250 .460.9750
101         102         103         104         105         106         107         108         109         110         111         112         113         114         115         116         117         118         119         120	.460.4250 .460.4500 .460.5250 .460.5500 .460.5500 .460.6550 .460.6250 .460.6250 .460.6250 .460.7000 .460.7000 .460.8500 .460.9250 .460.9250 .460.9500 .460.9750 .460.9750

Bank 7		
121	. 462	.5750
122	. 462	.5875
123	.462	6000
124	462	6125
125	462	6250
126	462	6375
127	462	6500
128	.462	.6625
129	. 462	.6750
130	.462	.6875
131	.462	.7000
132	. 462	.7125
133	.462	.7250
134	.462	.9500
135	. 462	.9750
136	464	5000
137	.464	.5500
138	.464	.8750
139	. 467	.0625
140	. 467	.5625
Bank 8		
141	467	.5875
142	467	7.6125
143	467	.6375
144	. 467	.6625
145	467	.6875
146	467	7.7125
147	467	.7625
148	467	.8125
149	. 467	.8500
150	467	.8750
151	. 467	.9000
152	. 469	.5000
153	. 469	.5500

### SERVICE BANKS

## 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" on page 16).

#### Fire/Police

Group 1	
Frequency Range (MHz)	Step (kHz)
33.420-33.980	
37.020-37.420	
39.020-39.980	
42.020-42.940	
44.620-45.860	
45.880	
45.900-46.060	
46.080-46.500	
Group 2	
153.770-154.130	60
154.145-154.445	
154.650-154.950	
155.010-155.370	60
155.415-155.700	
155.730-156.210	60
158.730-159.210	60
166.250	
170.150	
Group 3	
453.0375-453.9625	
458.0375-458.9625	
460.0125-460.6375	
465.0125-465.6375	
Aircraft	
	10 5
Group 1 – 108.000-118.000	
Group 2 – 118.0125-136.9875	12.5
Amateur Radio	
Group 1 – 29.000-29.700	5

# 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	
2	
3	
4	
5	
6	
7	

#### SERVICE BANKS

## Marine

Channel	Frequency (MH	z)
01		)0
02		)0
06		)0
07		)0
08		)0
09		)0
10		)0
11		)0
12		)0
13		)0
14		)0
15		)0
16		)0
17		)0
18		)0
19		)0
20		)0
21		)0
22		)0
23		)0
24		)0
25		)0
26		)0
27		)0
28		)0
63		50
64		50
65		50
66		50
67		50
68		50
69		50
70		50
71		50
72		50
73		50
74		50
77		50
78		50
79		50
80		50
81		50
82		50
83		50
84		50
85		50
86		50
87		50
88		50

**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

# Specifications

Frequency Coverage	
29-54 MHz	(5 kHz steps)/FM
108-136.9875 MHz	(12.5 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 uV
108-136.9875 MHz	1.0 uV
137-174 MHz	0.5 uV
380-512 MHz	0.7 uV
Spurious Rejection (FM @154	1 MHz) 50 dB
Selectivity	
±8 kHz/±17kHz (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	
IF Interference Ratio (10.7 M	Hz) 70 dB at 154 MHz
Squelch Sensitivity	
Threshold (FM/AM)	Less than 0.5 uV
Tight (FM)	(S + N)/N 25 dB
Tight (AM)	(S+N)/N 20 dB
Antenna Impedance	
Audio Output Power (10% Th	HD)180mW Nominal
Built-In Speaker	1.37 Inches (36 mm), 8 Ohms
Operating Temperature	14° to 140°F (-10° to 60°C)
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 ln
	(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

## **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.

#### 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.

**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 F.A.Q.'s at www.**whistlergroup**.com.

#### **CORPORATE HEADQUARTERS**

1716 SW Commerce Dr. Ste. 8 PO Box 1760 Bentonville, AR 72712 Toll Free (800) 531-0004 TEL (479) 273-6012 FX (479) 273-2927

www.whistlergroup.com

#### **CUSTOMER RETURN CENTER**

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

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