

Front Cover

This product uses one or more of the following patents:

Other patents pending.

The AMBE+2™ voice coding Technology embodied in this product is protected by intellectual property rights including patent rights, copyrights and trade secrets of Digital Voice Systems, Inc.

This voice coding Technology is licensed solely for use within this Communications Equipment.

The user of this Technology is explicitly prohibited from attempting to extract, remove, decompile, reverse engineer, or disassemble the object code, or in any other way convert the Object Code into a human-readable form.

US Patent Nos. #7,970,606, #6,912,495 B2, #6,199,037 B1, #5,870,405, #5,826,222, #5,754,974, #5,701,390, #5,715,365, #5,649,050, #5,630,011, and #5,517,511.

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Contents

Important Information.....	1
Introduction.....	5
Main Features.....	7
Included With Your Scanner.....	11
Setting up Your Scanner.....	12
Base Station.....	13
Vehicle Installation.....	14
Using Internal Batteries (BCD436HP Only).....	18
Understanding the Memory.....	19
Favorites Lists.....	19
Profiles.....	19
Sentinel Software.....	21
Turning on the Scanner.....	23
Data Naming.....	24
Set Your Location and Range.....	24
Set Up GPS.....	24
Understanding Range.....	25
Selecting Service Types.....	26
Keypad and Knob Controls.....	26
Key Operations.....	26
Navigating the Menus.....	31
Display Options.....	32
Set the Backlight/Dimmer.....	32
Adjust Contrast.....	32
Display Unit ID.....	32
Set ID Format.....	33
Set Upside-Down.....	33
A Look at the Display.....	33
Settings Menu.....	37
Adjust Key Beep.....	37
Battery Option.....	37
Band Defaults.....	37
Auto Shutoff.....	37
Set Clock.....	37
Replay Options.....	38
Restore Options.....	38
See Scanner Info.....	38

Contents

View Battery Level.....	38
Wi-Fi Setup (BCD536HP Only)	39
Planning Profiles.....	40
Quick Keys	40
Favorites List Quick Keys.....	40
System Quick Keys	40
Search Quick Keys.....	40
Startup Keys.....	41
Number Tags.....	41
Alerts	41
Managing Favorites Lists.....	41
New Favorites List.....	41
Favorites List Options.....	41
Add Current dB Channels.....	42
Startup Key	42
Location Control	42
Review Avoids	42
Stop All Avoiding	42
Understanding Location Control.....	43
Programming Systems	44
New System	44
System Settings	44
System Options	45
Programming Sites.....	48
Site Options	48
Programming Departments	52
Department Options	52
Programming Frequencies/TGIDs	54
Quickly Storing a Frequency/ID	54
Channel Options	54
Set Scan Selection	58
Select Lists to Monitor	58
Managing Quick Key Status.....	58
Set Nationwide Systems	58
Set All Lists Off/On	58
Managing the Database	58
Review Avoids.....	58
Stop All Avoiding	58
Using Startup Keys.....	59

Contents

Priority Scanning	59
Scanning Favorites Lists	61
Selecting Quick Keys	63
Display Modes.....	63
ID Scan/ID Search	64
Change Location	64
Set Scan Range.....	64
Select Service Types	64
Holding	64
Replaying Transmissions.....	64
Recording.....	64
Direct Frequency/ID Entry.....	64
Avoiding	65
Attenuation	65
Modulation.....	65
Intermediate Frequency Exchange	65
View Repeater Frequency	65
Channel Volume Offset.....	65
Using Number Tags	66
Advanced Channel Menu.....	66
Adding Systems From the Database	66
Storing a CTCSS/DCS/NAC Code/Tone	67
Storing a Displayed ID (ID Search).....	67
Close Call Modes	67
Priority Modes	67
Reviewing Avoids.....	68
P25 Adjustment Mode.....	68
Using a GPS	69
Location-Based Scanning	69
Discovery Mode.....	70
New Session	70
Session Options	71
Review Discovery.....	73
Search/Close Call Options.....	74
Frequency Avoids	74
Broadcast Screen.....	74
Repeater Find	74

Contents

Search Options	76
Edit Custom Search	76
Set Search Key	77
Search with Scan	77
Searching.....	77
Quick Search.....	77
Custom Search.....	78
Avoiding Frequencies.....	78
Close Call.....	80
Close Call Options.....	80
Using Close Call.....	82
Weather Operation	84
Weather Options	84
Program SAME	84
Weather Alert Priority	85
Weather Scan.....	85
Weather Alert	86
Review WX Alerts.....	86
Fire Tone-Out.....	87
Tone-Out Setup.....	87
Tone-Out Standby/Search	88
Appendix	90
Troubleshooting.....	90
Default Band Coverage	91
Service Types.....	92
Removing the Micro SD Card	93
Reformatting the Micro SD Card	93
Motorola Status Bits	94
Weather Channels.....	94
SAME Event Codes.....	95
CTCSS/DCS Tones/Codes	97
Reverse List	98
Repeater Frequency List.....	98
Specifications	99
Index.....	101

Important Information

The FCC Wants You to Know

IMPORTANT! This scanning radio has been manufactured so that it will not tune to the radio frequencies assigned by the FCC for cellular telephone usage. The Electronic Communications Privacy Act of 1986, as amended, makes it a federal crime to intentionally intercept cellular or cordless telephone transmissions or to market this radio when altered to receive them. The installation, possession, or use of this scanning radio in a motor vehicle may be prohibited, regulated, or require a permit in certain states, cities, and/or local jurisdictions. Your local law enforcement officials should be able to provide you with information regarding the laws in your community.

Modification Notice

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

Part 15 Information

This equipment has been tested and found to comply with the limits for a Class B digital device, 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.
- Consult the dealer or an experienced radio/TV technician for help.

Important Information

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.

This device complies with Industry Canada license-exempt RSS standard(s). 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.

General Precautions

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

Earphone Warning

You can use an optional 32Ω stereo headset or earphone with your scanner. Use of an incorrect earphone or headset might be potentially hazardous to your hearing. The output of the phone jack is monaural, but you will hear it in both headphones of a stereo headset.

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

Liquid Exposure Warning

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

Power Disconnection Caution

Important: Always turn the scanner off before disconnecting external power. Some settings are saved only as the scanner is powering down.

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 that 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), you are subject to fines and possible imprisonment for intentionally listening to, using, or divulging the contents of such a conversation unless you have the consent of a party to the conversation (unless such activity is otherwise illegal). This scanner has been designed to prevent the reception of cellular telephone transmissions and the decoding of scrambled transmissions. This is done to comply with the legal requirement that scanners be manufactured so they are not easy to modify to pick up these transmissions. Do not open your scanner's case to make any modifications that could allow it to pick up transmissions that are illegal to monitor. Modifying or tampering with your scanner's internal components or using it in a way other than as described in this manual could invalidate your warranty and void your FCC authorization to operate it. In some areas, mobile and/or portable use of this scanner is unlawful or requires a permit. Check the laws in your area. It is also illegal in many areas (and a bad idea everywhere) to interfere with the duties of public safety officials by traveling to the scene of an incident without authorization.

French

Introduction

The Uniden BCD535HP and BCD436HP are digital **TrunkTracker V** communications receivers that require no user programming. Simply turn it on, enter your location, and you will immediately begin hearing communications in your area. This functionality is made possible by combining the rich radio system database from RadioReference.com with Uniden's patented radio system selection methods to correctly identify and monitor only nearby systems.

How Does the HomePatrol Feature Work?

When you set your location, the scanner searches its databases for channels near that location. If you enter your zip code, the scanner searches within a 20 mile radius of the center of that zip code. If you use the Auto Locate feature, that range increases to 30 miles. If you manually enter your location or connect an optional GPS receiver, your scanner will select channels that apply to your precise location and you can adjust the range from 0 to 50 miles.

Your scanner uses these databases:

Radio System Database – provided by www.radioreference.com, this database contains radio system information including frequencies, trunked talk groups, and geographic locations for radio systems across most of North America.

ZIP Code Geographic Database – provides geographical coordinates for most zip and postal codes in the US and Canada.

RadioReference SysID Database – contains system ID and geographic location information for trunked radio systems across North America.

What You Hear

Your scanner has over 10,000 police, fire, ambulance, business, utility, and other agencies set for instant access. You can also listen to weather channels and weather alerts, and you can set your scanner to monitor weather alerts while it is in a standby state.

NOTE: There are some communications that the public is locked out from monitoring. Your scanner cannot receive agencies that scramble their communications; it also cannot receive agencies on private proprietary systems. Because there are so many different kinds of communications going on, you can turn on specific types of agencies you want to hear (and turn off those you don't). Tap *Service Types* to select these agencies. Service Types and a brief description of them are detailed in the appendix.

Introduction

Create Favorites Lists

As you find transmissions you like and would like to monitor again, you can save them to a Favorites List. When you opt to listen to a Favorites List, your scanner will monitor only the transmissions on that list.

You can assign a Quick Key to a Favorites List (FLQK) that allows you to quickly turn a Favorites List on or off by simply entering the quick key on the keypad while scanning.

Avoid Transmissions

You can also select transmissions for your scanner to Avoid (ignore).

Replay Transmissions

Your scanner Replay feature acts as an instant replay of the transmissions you've just heard. You can set how long a period Replay records for instant playback. This period can range from 30 seconds to 240 seconds (4 minutes). While you can replay that recording immediately and continue replaying it, you cannot save it for future listening.

Record Transmissions

With your scanner, you can record transmissions. When you begin recording, your scanner adds the Replay recording buffer to the recording. These recording sessions are saved and can be replayed on demand. Rename and delete sessions through the *Review Recordings* screen.

Create Profiles

When you entered your zip code the first time, you began creating your first profile. A profile contains settings like your location and associated transmissions from the database, Favorites Lists and Avoids, etc. You automatically develop a profile as you monitor transmissions and save some to Favorites Lists, Avoid others, and adjust how your scanner receives and plays them.

Your scanner operates on a single profile at a time, so, if you want to significantly change your current profile, save it to Sentinel first. The saved profile becomes a snapshot of your scanner's configuration at that moment. When you want to restore that specific profile later, write it back to your scanner. For example, if you are traveling to another city and you will be creating a profile for that city, write your current profile to Sentinel. You can restore that profile when you return and all your settings will be saved.

Main Features

No Programming Required - Factory programmed micro SD card for all known radio systems in the US and Canada. The database is updatable with the Sentinel software and Uniden updates the main database weekly.

Scan by Location - Allows you to set your location(s) by zip/postal code or GPS coordinates for instant reception. The **Auto-locate** feature will find local systems if you don't know where you are.

Favorites Scan - Allows you to organize your Systems into Favorites Lists. The scanner will only use channels from the chosen Favorites lists. The scanner will scan multiple Favorites Lists and full Database at the same time.

4 GB micro SD card - For storing Favorites Lists and recording sessions.

Location Based Scanning - Connect to a GPS (not included) for precise system selection and continuing reselection when you travel. The scanner can automatically Avoid and Unavoid Systems and Departments based on your current location as provided by an external GPS unit.

Range Control - Lets you set how far out from your current location the scanner will search for channels in Favorites Lists and the database. Better location precision for departments and sites that allows you to also define a location and range using up to 32 rectangles instead just of a single circle.

Wi-Fi Dongle (BCD536HP Only) - (USB port on back) and Wi-Fi to iPad/Android Tablet App.

Trunk Tracker V Operation - Scans Motorola P25 One-Freq, Motorola Type I/II 700/800/900/UHF/VHF, EDACS-W/N, LTR, and Conventional Systems.

APCO 25 Phase I and Phase II Support - Allows you to receive transmissions with these decoding protocols.

Multi-Site Trunking - Lets you program the scanner to share trunked system IDs across multiple sites without duplicating IDs.

Control Channel Only Scanning - With Motorola trunking frequencies, you do not have to program voice channel frequencies.

Instant Replay - Plays back up to 240 seconds (4 minutes) of the most recent transmissions.

Audio Recording - Capture transmissions for later playback.

Main Features

Custom Alerts - You can program your scanner to alert when you receive, a Channel or Unit ID, a Close Call hit, an ID is transmitted with an Emergency Alert, or a Tone-out hit. For each alert in the scanner, you can select from 9 different tone patterns, 15 volume settings, 7 colors, and 2 flash patterns.

Multicolor LED Alert - The alert LED with 7 colors, Blue, Red, Magenta, Green, Cyan, Yellow, or White, can be used with your Custom Alerts.

Trunking Discovery - Monitors system traffic on a trunked radio system to find unknown IDs and automatically records audio from and logs new channels for later review and identification.

Conventional Discovery - Searches a range of frequencies to find unknown frequencies and automatically records audio from and logs new channels for later review and identification.

Scan by Service Types – Scan your channels by Service Type i.e. Fire, Police, Railroad, etc.

Search Speed – 100 step/sec. in Search Mode (max) except for 5 kHz steps. 300 step/sec. in Search Mode (max) - (Turbo Search) for 5 kHz steps.

Multi-Level Display and Keypad light - Makes the display and keypad easy to see in dim light with three light levels.

Temporary or Permanent Avoid - For Systems/Departments/Channels.

System/Channel Number Tagging - Number tags allow you to quickly navigate to a specific Favorites List, System, or Channel.

Start-up Configuration - You can program each of your Favorites Lists with a Startup Key (0-9) so that when you power up the scanner and press the key number, just those Favorites Lists assigned to the key will be enabled for scan.

Close Call® RF Capture Technology - Lets you set the scanner so it detects and provides information about *nearby* radio transmissions. Close Call Do-not-Disturb checks for Close Call activity in between channel reception so active channels are not interrupted.

Broadcast Screen - Allows the scanner to ignore hits on known broadcast frequencies including pager frequencies in search and Close Call modes. You can also program up to 10 custom frequency ranges that the scanner will ignore.

Main Features

Fire Tone-Out Standby/Tone Search - Lets you set the scanner to alert you if a two-tone sequential page is transmitted. You can set up to 32 Tone-Outs. The scanner will also search and display unknown tones.

PC Programming – Use the Sentinel software to manage your scanners Profiles, Favorites Lists, Databases, and firmware updates.

Analog and Digital AGC - Helps automatically balance the volume level between different radio systems.

Priority/Priority w/DND Scan - priority channels let you keep track of activity on your most important channels while monitoring other channels for transmissions and you can scan just the priority channels.

Priority ID Scan - Allows you to set priority to talkgroup IDs.

Intermediate Frequency Exchange - Changes the IF used for a selected channel/frequency to help avoid image and other mixer-product interference on a frequency.

Individual Channel Volume Offset - Allows you to adjust the volume offset for each channel.

Configurable Band Defaults - Allows you to set the step (5, 6.25, 7.5, 8.33, 10, 12.5, 15, 20, 25, 50 or 100 kHz) and modulation (AM, FM, NFM, WFM, or FMB) for 31 different bands.

Repeater Find - Allows the scanner to try to switch to the repeater if an input frequency is found.

Adjustable Scan/Search Delay/Resume - Set a delay up to 30 seconds or a forced resume up to 10 seconds for each channel or search.

Data Naming - Allows you to name each Favorites List, System, Site, Department, Channel, ID, Location, and SAME group, using up to 64 characters.

Duplicate Input Alert - Alerts you if you try to enter a duplicate name or frequency already stored in the scanner.

100 Quick Keys - You can scan Favorites Lists and Systems by assigning them to quick keys.

Temporary Avoid - You can temporarily Avoid up to 250 frequencies and permanently Avoid up to 250 frequencies in any Search Mode or Close Call Mode.

Main Features

10 Custom Searches - Lets you program up to 10 custom search ranges.

Search with Scan Operation - Lets you include Custom Search ranges during scan operation.

3 Search Keys - You can assign 3 of the number keys to start a Custom Search or Tone-Out Search.

Quick Search - Lets you enter a frequency and start searching.

SAME Weather Alert/Priority - Lets your scanner alert you when a SAME weather alert is transmitted on a NOAA weather channel. You can also set a weather channel as a priority channel.

Built-in Battery Charger (BCD436HP only) - Allows you to charge the batteries in the scanner.

DIN-E and ISO Vehicle Mountable (BCD536HP Only) - Using the optional DIN-E sleeve or a standard ISO technique, the scanner can be easily mounted in most vehicles.

Included With Your Scanner

Accessories included in the box are:

AC Power Adapter

Lighter Power Adapter (BCD536HP Only)

USB Connection Cable

3 X AA NIMH Rechargeable Batteries (BCD436HP Only)

Antenna

Micro SD card (installed)

Wi-Fi-Dongle (BCD536HP Only)

DIN-E sleeve (optional accessory)

Swivel Belt Clip (BCD436HP Only)



Setting up Your BCD536HP

The scanner can be placed on a convenient surface in your home as a base station, and connected to a standard outlet that supplies 120VAC, 60Hz. You must use either the supplied antenna or an electrically correct outdoor antenna, properly and safely mounted at your chosen site.

The unit can also be placed above, beneath, or in the dash of your vehicle using the supplied bracket and mounting hardware.

- If your scanner receives interference or electrical noise, move the scanner or its antenna away from the source.
- Do not use the scanner in high-moisture environments such as the kitchen or bathroom. Avoid placing the scanner in direct sunlight or near heating elements or vents.

Power Related Issues

Important: To prevent memory from being corrupted, do not unplug the AC adapter during the time the memory is accessed for programming or auto store.

Notes: If when you connect the AC adapter the [VOL] /Power Switch is ON, the scanner may not power on. Should this occur, simply turn the control OFF, then ON again.

When you turn off the scanner using the power switch, the scanner remembers the last settings and mode. When you turn power back on, it resumes the previous mode.

Connecting an Optional Antenna

The scanner's BNC connector makes it easy to connect a variety of optional antennas, including an external mobile antenna or outdoor base station antenna.

Note: Always use 50-ohm, RG-58, or RG-8, BNC terminated coaxial cable to connect an outdoor antenna. If the antenna is over 50 feet from the scanner, use RG-8 low-loss dielectric coaxial cable. Cable loss increases with higher frequency.

Connecting an Extension Speaker

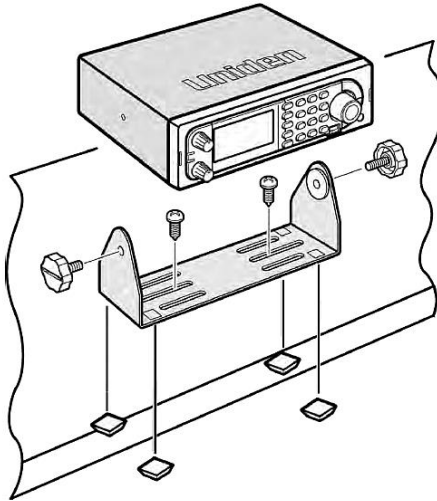
In a noisy area, an optional amplified extension speaker, positioned in the right place, might provide more comfortable listening. Plug the speaker cables 1/8-inch (3.5-mm) mini-plug into your scanners back-panel Ext. Sp. Jack.

WARNING!

Never connect any part of the headphone jack to the antenna jack or connect the radio to an installation where the antenna and audio connection are grounded. This might also damage the scanner.

Base Station

This is the simplest approach to let you get started quickly. Decide on a location that is convenient to a nearby wall outlet, has desk space to let you complete your programming worksheets, will safely allow the indoor antenna to be extended, or near a window to use an outdoor antenna.



To secure the radio to a surface, by means of the mounting bracket, follow the steps below:

1. Attach the four protective mounting feet to the mounting bracket when you casually use the scanner on a flat surface. Should you desire to permanently mount the scanner, remove the feet and use wood screws through the bracket as described in Steps 2 and 3.
2. Use the bracket as a template to mark positions for the two mounting screws.
3. At the marked positions, drill holes slightly smaller than the screws.
4. Align the bracket with the threaded holes on the sides of the radio case so the bracket is beneath the radio. Secure the bracket using the two threaded knobs. Never over tighten the knobs.

Once the radio is positioned, connect it to a source of AC power using the supplied 13.8V, 750 mA AC adapter. Insert the barrel of the AC adapter to the jack on the rear, upper right side of the radio marked. Insert the connector of the supplied indoor telescoping antenna to the BNC Antenna Connector and apply moderate pressure to secure it.

Vehicle Installation

You can mount your scanner in your vehicle, using either the supplied bracket or the optional DIN-E sleeve.

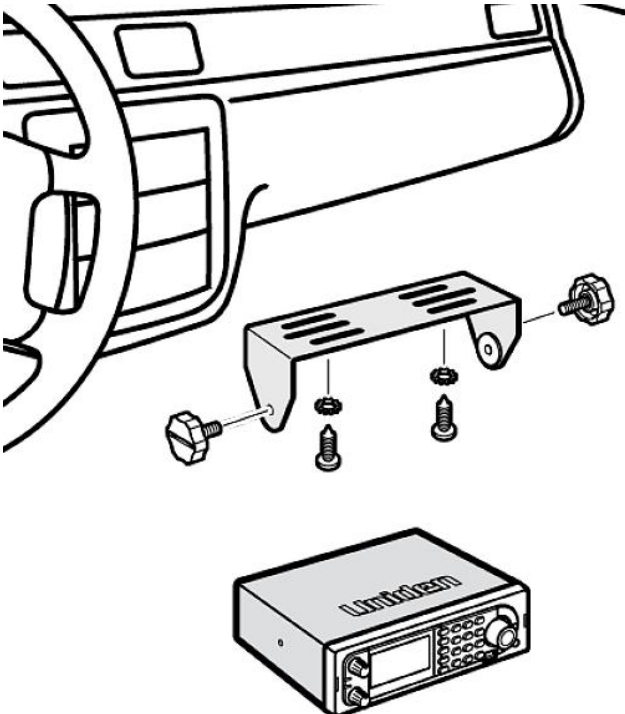
If the scanner loses power (as when you turn off your car's ignition with the scanner's power switch on), it can corrupt the micro SD card. To ensure that does not happen, turn off the scanner before turning the car's ignition off.

Important: AVOID AIRBAG DEPLOYMENT ZONES.

Ignoring this installation concern may result in bodily harm and the inability of the airbag to perform properly.

Mounting Using the Bracket

With the bracket removed from the radio, use the holes in the bracket as a template to initially mark the location you plan to use in your vehicle. Be absolutely certain of what might be behind the mounting surface before making any holes, be it above, or below, or in front of your dash, armrest console, or other location. If you drill carelessly, expensive damage can result. If in doubt, consult your vehicle dealer's service department or a qualified professional installer.



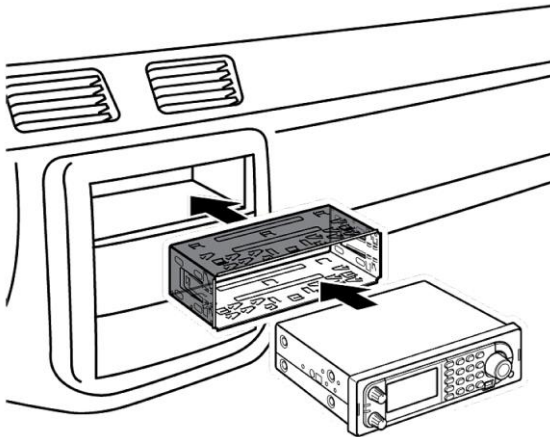
Mounting Using the Bracket

1. Using appropriate screws or other hardware, secure the bracket.
2. Insert the scanner and insert the bracket knobs to lock the scanner in position.
3. Attach the Cigarette Lighter Power Cord to the rear of the scanner and plug the adapter end into a dash mounted 12V DC socket.
4. Attach a suitable mounted mobile antenna to the antenna jack on the back of the scanner.

Mounting Using the DIN-E Sleeve

If you are unsure about how to install your scanner in your vehicle using the optional DIN-E sleeve, consult your automobile manufacturer, dealer, or a qualified installer. Before installing, confirm that your scanner fits in the desired mounting area and you have all the necessary materials to complete the task.

Your scanner requires a 2 x 7-1/8 x 5-5/16 inch (50 x 180 x 135 mm) mounting area. Allow an additional 2-3/8 inch (60mm) space behind the unit for connectors and wires.



1. Remove the bracket if it is attached.
2. Remove the four Philips screws from four small tabs on the rear of the case that secure the outer metal case and pull off the case (toward the rear) with care.
3. Install the DIN sleeve into the opening in your dashboard, lip facing out.
4. Push out the top and bottom tabs to hold the sleeve firmly in place.

Mounting Using the DIN-E Sleeve

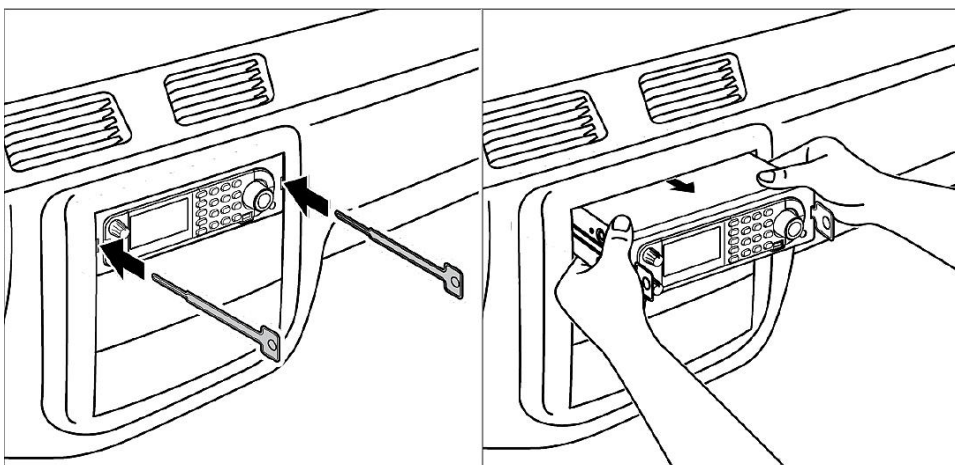
5. Before inserting the scanner in the sleeve, attach the cable from the previously mounted antenna. Attach the DC Power leads. RED goes to a positive (+) connection on your fuse block while BLACK connects to the vehicles chassis ground (-).
6. Connect the ORANGE lead to one side of the headlamp switch so that when you activate the headlights, the scanners LCD display changes intensity. Be sure all the connections are routed away from any potentially pinching or slicing sheet metal.
7. Slowly slide the scanner into the sleeve until it locks in place.
8. To remove the unit, fully insert the removal keys into each slot on the left and right edges of the front panel. Carefully slide the radio from the sleeve.

Removing the Scanner from the DIN-E Sleeve

If you plan to connect other devices or wires to the radio, such as a GPS unit, at a later time, you should plan to remove the scanner from the DIN-E sleeve. This is easily done using the provided Removal Keys that come with the optional DIN-E sleeve.

Refer to the illustration that follows, showing the Removal Keys.

Fully insert both Removal Keys into the slots on the left and the right edges of the radios dress panel. You cannot remove the radio with only one key. Press in fully, and do not twist the keys. The radio will unlock from the sleeve making withdrawal from the sleeve possible. Store the keys in a safe place for future use.



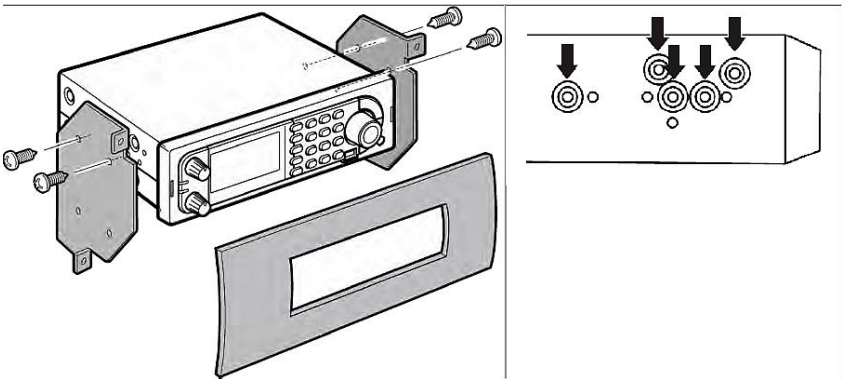
Mounting Using ISO Technique

Some vehicles can take advantage of another approach to mounting a radio in a vehicle, called the ISO technique. However, this technique requires a very detailed and thorough knowledge of the technique. Therefore, we strongly suggest that if you have any doubt about your experience and abilities, please consult with a professional installer who is familiar with the ISO approach to radio installation.

To begin the process, it is first necessary to remove the scanner's outer metal sleeve from the inner chassis. Unthread the four screws in the rear of the unit. Slide the cover toward the rear and off. Once the sleeve is removed, you will see threaded, metric machine screw holes on either side of the chassis cabinet. Uniden does not supply these screws. Their diameter, length, and screw type should be chosen by a qualified installer based on the internal vehicle bracket which will be used in securing the scanner chassis.

Once the original radio is removed from the vehicle dash and the fit of the scanner is correct, be sure to connect all the power, audio, antenna, and any other cables or wires, to the scanner before the scanner is secured.

The following illustration is a typical example of the ISO technique and the general side mounting screw holes often encountered. It does not actually represent the Uniden scanner or your vehicle's mounting bracket. Only a professional installer will be able to determine the best and correct approach.



Using Internal Batteries (BCD436HP Only)

You can power your scanner using three alkaline or rechargeable AA batteries. There is no switch. The scanner will automatically detect and not charge non-rechargeable batteries.

1. Install 3 AA batteries, matching the polarity symbols (+ -).
2. Replace the cover.

When Battery icon flashes and the scanner beeps every 15 seconds, replace or recharge the batteries.

Using Rechargeable Batteries

You can also use three rechargeable batteries to power your scanner. Before you use rechargeable batteries, you must charge them. The scanner has a built-in circuit that lets you recharge batteries while they are in the scanner.

If the USB cable is connected to the scanner, or batteries are installed in the scanner when an USB cable is connected, the scanner will check the battery condition.

When the scanner is turned on, the scanner does not charge the battery.

When the scanner is turned off, the scanner will charge the battery.

The scanner displays “**Normal Charging**” while charging the battery according to the Set Charge Time setting.



Normal Charging
[14h] 00:00:06 3396mV

If the batteries are not installed, “**No Battery**” is displayed.



No Battery

Understanding the Memory

Favorites Lists All of the information contained in the scanner is stored on a micro SD card supplied with the scanner. This includes profiles, Favorites Lists, all the radio settings, and the Radio Reference database.

Because the memory is based on the Radio Reference database we now have a different order of organization not like banks and channels in traditional scanners, but more like Dynamic Memory Architecture. You can now use Favorites Lists that follow RR database structure of Systems that contain Departments that hold the channels (conventional frequencies or IDs) and then there are Sites to hold just the trunking frequencies. If you are familiar with DMA (Dynamic Memory Architecture) scanners, think of departments as being like channel groups.

Profiles

A profile is a group of settings that includes your location information (zip code, auto-locate info, and any saved locations), scanning range, service types scanned, GPS options, your basic radio settings (backlight, contrast, weather settings, standby options, etc.), Avoid lists, recording sessions, weather event records, Analyze logs and Discovery logs.

The first time you use the scanner to set a location you will start to setup a profile. Only one profile at a time can be used in the scanner. You can create multiple profiles for different locations (although profiles can have multiple locations), Favorites List selection, or scanning preferences. The Sentinel software allows you to download your profile from the scanner, edit, save, and create new profiles to upload them back to the scanner.

Profiles also hold your Favorites Lists settings for monitoring and uploading to the scanner. If you delete a profile (in the software), your Favorites Lists will still be there. When you create a new profile, you can select which Favorites Lists will be associated with the new profile.

Understanding the Memory

Favorites Lists will allow you to store channels you find when you are scanning from the full database (the easiest way). They can contain channels from trunking systems and conventional systems. You can also manually add systems, departments (not sites), and channels into Favorites Lists from the database as well as program new systems, departments, sites, and channels.

You can save up to 256 different lists in the scanner (and software) and associate them with any or all of your profiles. You can monitor one or more lists at a time and/or the database. You can also export your lists to a file to share them.

Deleting a profile will not delete the lists associated with a profile. However, deleting a Favorites List will delete it from all profiles.

Systems

Systems will hold all of your Sites, Departments, and Channels.

Trunking Sites

Inside systems are trunked sites hold the trunking frequencies for any trunking system and any band plan information needed. You will need at least one site for each trunked system and some systems can have several sites.

Departments

Departments are also created inside systems. Departments hold frequencies (channels) for conventional systems and IDs (also called channels) for trunked systems.

Sentinel Software

Sentinel Software lets you manage your Profiles, Favorites Lists, Databases, and firmware updates.

Manage Profiles

Profiles are “snapshots” of your scanner’s set up. A profile contains all your configuration settings as well as all of your Favorites Lists, Avoids, and System settings. Sentinel can save multiple profiles so you can also restore different profiles as you need them. For example, If you regularly visit a specific location, you can create a profile for that location. You can save it to Sentinel to use whenever you visit.

Manage Favorites Lists

You can create Favorites Lists in Sentinel and then associate them with specific profiles. When those profiles are written to your scanner, only those specified Favorites Lists are written.

Manage Databases

Uniden updates the Database used in your scanner every week. You can decide how often you want to update the databases on your scanner. When you update them through Sentinel, it checks the website for the most current database and saves it in Sentinel. When you "Write to Scanner" the new database is updated in the scanner.

Create New or Edit Existing Systems

Sentinel allows you to create your own systems, or edit systems already in a Favorites list. These systems can include information not provided by the weekly database downloads.

Share Favorites Lists

Create and share Favorites lists with your friends or others in the HomePatrol Community at <http://www.HomePatrol.com> and the HomePatrol Twiki site at <http://info.uniden.com/HomePatrol> for Favorites Lists that cover common services such as Railroad, Marine Radio, Civilian and Military Air bands, and more.

Manage Firmware Updates

Your scanner updates its firmware through Sentinel. In that process, Sentinel connects to the internet and checks for the current firmware version to download.

Installing Sentinel

The SD card in your scanner will install to your PC like an additional drive. Open the drive and navigate to the *setup.exe* file in the Setup folder. Double-click *setup.exe*.

Sentinel Software

If you are unable to locate this file, download the latest version from <http://info.uniden.com/UnidenMan4/BCD536HP> or, <http://info.uniden.com/UnidenMan4/BCD436HP>.

Sentinel will automatically notify you if a more recent version is available.

How to Install Sentinel Software

If you have not already installed Sentinel software, follow these procedures.

Use the USB cable to connect your scanner to your PC.
Turn on the scanner if it is not already on. Select Mass Storage.
The screen turns white while it is connected to the PC.

Sentinel software installation should begin immediately. If it does not, open the drive folder and run *Setup.exe* in the *Setup* folder.

When installation is complete, Sentinel software and various documents are installed on your PC.

Disconnect the USB cable. Your scanner begins initial setup procedures.

Updating Firmware

From time to time, Uniden will release firmware updates to improve existing functionality, add new features, or address issues found in its operation. Updating the firmware takes just a few minutes and is easily accomplished using the Sentinel Software you installed on your PC.

Simply connect your scanner to your PC using the supplied USB cable and select “Mass Storage”. Then, in Sentinel select **UPDATE > Update Firmware** and follow the on-screen prompts.

Updating the Database



To update the scanner’s database, connect it to your PC using the supplied USB cable. Select “Mass Storage”.

Next, in Sentinel select **UPDATE > Update Master HPDB**.

Finally, write the new database to your scanner by selecting **Scanner > Write to Scanner**.

Turning on the Scanner



(BCD436HP) Press and hold  for about 2 seconds. If the screen is too dark, press  to turn on the backlight. Rotate the scroll control clockwise and set the volume to around 10 o'clock. Press the scroll control to display the volume level. Turn the scroll control (within 10 seconds) to adjust the volume. Press the scroll control again to close the volume level (or let it disappear after 10 seconds). Press **Func** then press the scroll control to display the squelch level. Turn the scroll control counter-clockwise all the way then clockwise until the noise stops, then one notch more. Press the scroll control again to close the squelch level.

(BCD536HP) Rotate **VOL** clockwise and set the volume to around 10 o'clock. Rotate the **SQ** knob counter-clockwise all the way, and then rotate the **VOL** knob to find a comfortable volume level. Rotate the **SQ** clockwise until the noise stops, then one notch more.

The first time you turn on your scanner it will prompt you to set the clock. See [Setting the Clock](#).

Welcome to BCD536HP

Please set the clock.
(Press [E])

FO:----- 9:00 ↑
SO:----- Jul 26

Scan Mode. Nothing to Scan

Full Database

To begin scanning right away, press the **Zip** button to select your country and zip/postal code (See [Data Naming](#) to enter postcode). The scanner will load channels for your area from the database and start scanning.

Data Naming

Name any Favorites List, System, Site, Department, Channel, Location, Custom Search, Recording Session, Tone-Out, or SAME group with up to 64 characters.

To Enter a Character, turn the scroll control until the character you want appears.

To move the cursor to the right, press **6>**.

To move the cursor to the left, press **<4**.

To clear a character, press **.no**.

To clear *all* characters, press **.no twice**.

Press **E/yes** when finished to exit.

Set Your Location and Range

Enter Zip/Postal Code This will set the center of a zip/postal code as your location (not your exact location) and a **default scan range of 10 miles**.

You can then set the range, edit the location name, and save the location.

Press the **Zip** button. Select your country **USA** or **Canada** and press **E/yes**.

Enter your **zip code** or see Data Naming to enter a **post code**.

Auto Locate The Auto Locate feature works by trying to monitor any Motorola or P25 system in your area that is also in the Radio Reference Database.

The scanner will then set your location based on the system(s) it receives.

This will set the center of the discovered radio tower as your location (not your exact location) and a **default scan range of 30 miles**.

You can then set the range, edit the location name, and save the location.

Press **Menu** then scroll to **Set Your Location** and press **E/yes**.

Scroll to **Auto Locate** and press **E/yes**.

Press **E/yes** or **.no** to accept the location.

Set Manual Location This will set your exact location and a **default scan range of 0 miles**. You can then edit the location name and save the location.

Press **Menu** then scroll to **Set Your Location** and press **E/yes**.

Input Latitude Enter your latitude.

Press **.no** to toggle **N** or **S**, and press **E/yes**.

Input Longitude Enter your longitude.

Press **.no** to toggle **E** or **W**, and press **E/yes**.

Set Up GPS Sets the location format, serial port baud rate, and units.

Location Format

DMS:DDD°MM'SS.ss or DEG:DDD.dddddd.

Set Serial Port

Off, 4800, 9600, 19200, 38400, 57600, or 115200.

Set Unit mile or km.

Set Your Location and Range

Set Range This setting allows you override the default range setting for your current location to increase or decrease the number of Trunking Sites and Channel Departments you can receive when you are scanning from the Full Database and when you are scanning Favorites Lists with Location Control enabled. See also Understanding Range.

(BCD536HP Only) Press the **Rang** button.

(BCD536HP and BCD436HP) Press **Menu** then scroll to **Set Your Location** and press **E/yes**. Scroll to **Set Range** and press **E/yes**.

Enter the range (**0-30**) and press **E/yes**.

Understanding Range

1. The range setting will only work with Favorites Lists that have Location Control set to **On** and with Departments/Sites that have locations programmed.

Everything in the Full Database also has locations programmed. If you manually program Departments/Sites with no location information included, the range setting will have no effect on them because the scanner doesn't know where they are.

2. You will receive Departments/Sites that have a range equal to your scan range setting *plus* the programmed range of the Departments and Sites. For example, if your scan range is set to 10 miles and a Department/Site range is set to 30 miles, and that Department/Site is less than 40 miles away from your current location setting, it will be enabled in your Favorites List according to both range settings.

3. If you use Add Current dB Channels from a list with a 10 mile range (selected location by zip/postal code) and then set the range to 20 miles, Location Control will not add the other channels included that extra 10 mile range.

Edit Location

This allows you to create a location or edit a location for rapid recall.

Press **Menu** then scroll to **Set Your Location** and press **E/yes**.

New Location or **Edit Location**

Edit Name See Data Naming.

Use Location This will set the location for scanning the Database and Favorites Lists with Location Control enabled. This will also save a *new* location and range with the default name **Location #**.

At **Confirm?** Press **E/yes** or **.no**.

Delete Location You can only delete saved locations. The last location set will be retained for use when scanning the Database.

At **Confirm Delete?** Press **E/yes** or **.no**.

Set Location Information See Set Manual Location.

Set Range See Set Range.

Set Your Location and Range

Save Location This will save the *current* location, the range, and set the location as current for scanning the Database and Favorites Lists with Location Control enabled.

See Data Naming to name the location.

Selecting Service Types

Not all service types are enabled when you create a new profile or when you set your location in the scanner. By default only **EMS Dispatch**, **Fire Dispatch**, **Law Dispatch**, and **Multi-Dispatch** are enabled.

The Appendix has a list of Service Types and their general descriptions.

(BCD536HP) Press the **Serv** button.

(BCD436HP) Press **Func** then the **Zip/Services** button.

Scroll to each Service Type and press **E/yes** to enable or disable.

Press **System** to exit.

When the scanner displays a Service Type that is not in the Favorite Lists, the scanner will display a "---" indication.

Keypad and Knob Controls



BCD536HP

Key Operations

- Power/VOL** Turns the scanner on/off and adjusts the volume.
- Light** Press to toggle backlight intensities.
- BCD536HP** Press **Func** then to lock or unlock the keypad.

Key Operations

SQ

Turn to adjust the squelch.



Press to toggle Close Call modes.

BCD536HP

Press and hold to turn on Close Call Only mode.

Press Func then SQ to start Fire Tone-Out.

Scroll

Press to enter **Function** mode for 3 seconds.

Control

Press and hold to lock **Function Mode**. Press again to unlock.



Function

Press to select a menu item or save an entry in **Menu Mode**.

BCD536HP

Turn to select a menu item in **Menu Mode**.

Turn to select characters with Data Naming.

Turn to select Scan/Search direction and to continue Scan/Search in **Scan/Search Modes**.

Turn to select Channel or Frequency in **Hold Mode**.

Turn in **Channel Hold** to scroll Channels/Frequencies.

Turn in **Department Pause** to scroll Departments in **Scan Mode**.

Turn in **System Pause** to scroll Systems.

Turn in **Department Pause** and select **Custom Searches** to enable in **Search Mode**.

Turn to select next recording in **Replay Mode**.

Turn to resume Close Call search in **Close Call Only Mode**.

Turn to start a Quick Search in **CC Hold Mode**.

Turn to select next receivable Weather Channel in **Weather Scan**.

Turn to select Tone-outs in **Tone-out Standby Mode**.

Press to return to previous mode.

Avoid

Press to toggle Channel/Frequency Avoid status

BCD536HP

in **Receive/Hold Modes**.

Press to toggle Avoid status in **Scan Receive Mode**.

Press and hold to clear all Channel Avoids in current Conventional System or Site in **Scan Hold Mode**.

Press and hold to clear all Search Avoids in **Search Hold Mode**.

Press Func then Avoid to review all Search Avoids in **Search Modes**.

Zip

BCD536HP

Press to enter country-zip/postal code.

Serv

BCD536HP

Press to select Service Types.

Key Operations

Rang
BCD536HP

Press to select Range.



Func

Menu

BCD436HP



Scroll Control

Power/Light Press and hold to turn the scanner on or off.


BCD436HP

Press to use the backlight.

Func

Press to enter **Function** mode for 3 seconds.

Function

Press and hold to lock **Function** mode. Press again to unlock.

BCD436HP

Press and hold to turn on Close Call Only mode.

Press Func then SQ to start Fire Tone-Out.

Scroll

Press Func then Vol turn to adjust the squelch.

Control

Press to select a menu item or save an entry in **Menu Mode**.

Vol,Squelch

Turn to select characters with Data Naming.

BCD436HP

Press then turn to adjust volume level in **Scan Mode**.

Press to view battery info in **Scan Mode**.

Turn to select Scan/Search direction and to continue Scan/Search in **Scan/Search Modes**.

Turn to select Channel or Frequency in **Hold Mode**.

Turn in **Channel Hold** to scroll Channels/Frequencies.


Turn to select next receivable Weather channel in **Weather Scan**.

Turn to select Tone-outs in **Tone-out Standby Mode**.

Turn in **Department Pause** to scroll Departments in **Scan Mode**.

Turn in **System Pause** to scroll Systems.

Key Operations

Scroll Control Vol,Squelch BCD436HP	Turn in Department Pause and select Custom Searches to enable in Search Mode . Turn to select next recording in Replay Mode . Turn to resume Close Call search in Close Call Only Mode . Turn to start a Quick Search at current frequency in CC Hold Mode . Turn to select next Weather channel in Weather Scan . Turn to select Tone-outs in Tone-out Standby Mode .
Avoid  BCD436HP	Press to toggle Channel/Frequency Avoid status in Receive/Hold Modes . Press to toggle Avoid status in Scan Receive Mode . <i>Press and hold</i> to clear all Channel Avoids in current Conventional System or Site in Scan Hold Mode . <i>Press and hold</i> to clear all Search Avoids in Search Hold Mode . Press <i>Func</i> then Avoid to toggle Close Call modes. Press <i>Func</i> then <i>press and hold</i> Avoid to turn on Close Call Only Mode .
Replay Record	Press to Replay the last transmissions. Press <i>Func</i> then Replay to start/stop recording.
System	Press <i>Func</i> then System to exit all menus and return to Scan Mode. Press to enter System Pause for 2 seconds then hold on a System in Scan Mode . <i>Double Press</i> for System Hold without pause. <i>Double Press</i> to release System Hold . Press to enter Search Pause mode for 2 seconds then hold on a Search in Search Mode . <i>Double Press</i> for Search Hold without pause. Press to hold/release CC hit in Close Call Receive Mode . Press to recall last CC hit in Close Call Only Mode .
Department	Press to enter Department Pause for 2 seconds then hold on a Department in Scan Mode . <i>Double Press</i> Department Hold without pause. <i>Double Press</i> to release Department Hold . Press to enter Search Pause mode for 2 seconds then hold on a Search in Search Mode .


Key Operations

Department	<p><i>Double Press</i> for Search Hold without pause in Search Mode. Press to release Search Hold. Press <i>Func</i> then Department to hold/release Site in Scan Mode.</p>
Channel	<p>Press to hold/release a Channel, Frequency, CC hit, Tone-Out. Press <i>Func</i> then Channel to toggle Modulation for Channel, Site, Search, in Hold Modes. Press to pause in Replay Mode.</p>
Zip/Services	<p>Press to enter country-zip/postal code.</p>
BCD436HP	<p>Press <i>Func</i> then Zip to select Service Types.</p>
Menu	<p>Press to return one level in menu in Menu Mode. Press to save current Database System in Scan Mode. Press <i>Func</i> then Menu for System menu in Scan Mode. Press <i>Func</i> then Menu for Search menu in Search Mode. Press <i>Func</i> then Menu for Close Call menu in Close Call Mode. Press <i>Func</i> then Menu for Weather menu in Weather Scan. Press <i>Func</i> then Menu for Tone-Out menu in Tone-Out Standby/Search Mode.</p>
Number Keys	<p>Press to select Favorites Lists in Scan Mode. Press 0-9 to use direct entry in Hold Mode. Press 0-9 to toggle custom searches on or off in Search Mode. Press 0-6 to toggle Close Call bands on or off in Close Call Only Mode. Press Func then 1, 2, or 3 to enable search keys in Hold Mode. Press <4 to move the cursor to the left when editing text. Press Func then 4(ATT) to toggle Channel attenuation on/off in Hold Mode. Press Func then 4(ATT) to toggle Search/CC attenuation. Press Func then <i>press and hold</i> 4(ATT) to toggle Global Attenuation on/off in Hold Mode. Press Func then 5(📶) to enter Wi-Fi menu. Press 6> to move the cursor to the right when editing text. Press Func then 6(wx) to toggle Weather Alert Priority in Hold Mode. Press Func then <i>press and hold</i> 6(wx) to enter Weather Scan.</p>

Key Operations

Number	Press Func then 7(IFX) to toggle intermediate frequency exchange for a channel/frequency in Hold Modes .
Keys	Press Func then <i>press and hold</i> 8(REV) to view the repeater frequency in Hold Modes .
	Press Func then 9(DISP) to toggle 3 line display on/off in Scan Hold Mode .
	Press Func then 0(LVL) to toggle the volume offset for a channel in Scan Hold Mode .
.no	Press to enter a decimal point for a frequency.
PRI	Press to enter a decimal point after a system number tag.
	Press to delete current character with Data Naming/Direct Entry.
	Press <i>twice</i> to delete all characters with Data Naming/Direct Entry.
	Press <i>twice</i> to enter a hyphen when entering an ID.
	Press to enter an 'i' when entering an I-Call ID.
	Press Func then .no to toggle Priority Modes.
E/yes	Press to select a menu item or save an entry in Menu Mode .
Q. SRCH	Press to store a blinking CTCSS/DCS/NAC tone in Scan Mode .
	Press to store an ID in ID Search mode in Scan Mode .
	Press for Channel Menu in Hold/Receive Mode .
	Press to 'quick store' a frequency in Search Modes .
	Press Func then E/yes to start Quick Search in Search Mode .
	Press to store found tones in Tone-out Search Mode .
	Press to for the current Tone-Out menu in Tone-out Mode .

Navigating the Menus

The **Menu** key lets you select options to set up and use the scanner. To select a menu item, rotate the scroll control. Rotate right for down and left for up. The currently-selected menu item is highlighted with a bar in the display. When the menu item you want to select is highlighted, press **E(yes)** or  (the scroll control) to select it. To back up a level, press **Menu**. To exit all menus and return to the previous mode press **Avoid**.

The message "**Press Any Key**" in Menu Mode means press any key except the **Avoid** key.

Display Options

Set Backlight

Adjust Contrast

Disp. Unit ID

Set ID Format (MOT/P25)

Set ID Format (EDCS)

Set Upside-Down (BCD536HP Only)

Setting the Backlight The scanner will turn on/off the LCD and the Keypad backlight automatically according to backlight setting.

Set Mode Note: (BCD536HP Only) These settings will work *only* when the backlight is set to **Off** with the **VOL** button and then only at the High intensity.

Squelch

Off - The backlight stays off when the squelch opens.

5 sec - The backlight stays on 5 seconds after the squelch opens.

10 sec - The backlight stays on 10 seconds after the squelch opens.

Open Squelch - The backlight stays on only when the squelch is open.


Keypress


Off - The backlight stays off when any key is pressed.

5 sec - The backlight stays on for 5 seconds when any key is pressed.

10 sec - The backlight stays on for 10 seconds when any key is pressed.

Timeout (BCD436HP Only)

10 sec - Turns the backlight on for 10 seconds when you press .

30 sec - Turns the backlight on for 30 seconds when you press .

Infinite - The backlight always stays on.

Set Dimmer (BCD536HP Only)

Manual (For non-vehicle use)

High, Middle, Low, or Off.

Auto (For vehicle use)

+ **Polarity** - If the orange wire gets 12V when you turn on the headlights.

- **Polarity** - If the orange wire is switched to chassis ground when you turn on the headlights.

Adjust Contrast This setting controls the displays contrast.

Contrast 1-15

Display Unit ID Allows you view the unit ID of the radio currently transmitting on Motorola, EDACS, and APCO P25 systems.

On or **Off**.

Display Options

Set ID Format sets the ID format for the System.

Set ID Format (Mot/P25)

Decimal Format or Hex Format. The default setting is **Decimal**.

Set ID Format (EDACS)

AFS Format or Decimal Format. The default setting is **AFS**.

Set Upside-Down (BCD536HP Only) This allows you to reverse the display so you can mount the scanner upside-down and hear the speaker from the top. The default setting is **Off**.

On or Off.

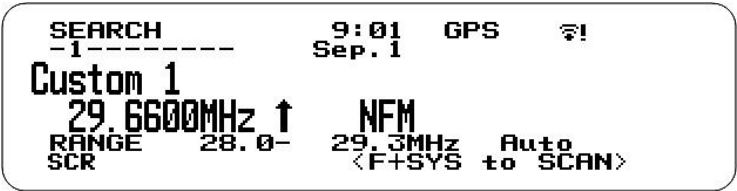
A Look at the Display



Channel Hold



Channel Avoid











Searching

The display has indicators that show the scanners current operating status. The display information helps you understand how your scanner operates.

A Look at the Display

Top Line

 appears to show <i>Function Mode</i> .
 appears and <i>blinks</i> to show Function Mode is <i>locked</i> .
F0-9: indicates the first digit of the <i>Favorites List</i> quick key on the left with the <i>blinking</i> second digit on the right in <i>Scan Mode</i> . a non-blinking number on the right indicates the quick key is enabled waiting to be scanned. a - (dash) means nothing is assign to the quick key. an * (asterisk) means the quick key is disabled.
SITE HOLD appears in <i>Site Hold</i> .
SEARCH appears in <i>Search Mode</i> .
The Time appears.
↑ or ↓ appears to show the Scan or Search Direction.
GPS appears when connected to a GPS unit.
REC appears when recording.
 appears to show Wi-Fi Status in <i>Infrastructure Mode</i> . ! indicates Wi-Fi Mode is off.
AP appears when connected in <i>Access Point Mode</i> .
 appears to show the signal strength.
PRI appears in <i>Priority Mode</i> and is reversed-  in <i>Priority DND Mode</i> .
 appears and blinks if the battery is low. (BCD436HP Only)
 appears if the <i>Close Call Priority</i> feature is on.  is <i>reversed</i> in <i>Close Call DND Mode</i> .
S=NN shows the squelch level for three seconds when you turn SQ .
Battery Level when you press VOL . (BCD436HP Only)

A Look at the Display

2nd Line

S0-9: shows the first digit of the <i>System</i> quick key on the left with the <i>blinking</i> second digit on the right.
a non-blinking number on the right indicates the quick key is enabled waiting to be scanned.
a - (dash) means nothing is assign to the quick key.
an * (asterisk) means the quick key is disabled.
0-9: shows the Custom Search key status.
The Date is shown.
Receive Mode in <i>Function Mode</i> .
Volume Offset for the channel in <i>Function Mode</i> .
IFX appears if Intermediate Exchange is enabled for the channel.
ATT appears to show channel attenuation in <i>Receiving or Hold Modes</i> and in <i>Search Mode</i> to show search attenuation.
P25 appears if the channel is receiving digitalized voice in Receiving or Hold Modes .
LNK appears when data is received on a voice channel in Receiving or Hold Modes .
DAT appears when data is received on a control channel in Receiving or Hold Modes .
ENC appears if the channel is receiving encrypted voice and is muted in Receiving or Hold Modes .
wx appears if the <i>Weather Alert Priority</i> feature is on.
V=NN shows the volume level for three seconds when you turn VOL .

3rd Line – 3 Line Display Off

System Name and Avoid/Hold status in <i>Receiving or Hold Modes</i> . Temporary Avoids appear reversed in the display- AVOID .
Search with Scan appears to show a Custom Search in <i>Scan Mode</i> .
Custom Search Name in <i>Search Mode</i> .

A Look at the Display

4th Line – 3 Line Display Off

Department Name and Avoid/Hold status in <i>Receiving or Hold Modes</i> . Temporary Avoids appear reversed in the display- AVOID .
Custom Search Name appears in Search with Scan.
Site Name for a trunked system or Department Name for a conventional system in <i>Scan Mode</i> .
Department Name for a system in <i>Receiving or Hold Modes</i> .
Search Frequency and Modulation in <i>Search Mode</i> .

5th Line – 3 Line Display Off

Scanning for a conventional system, ID Scanning/Searching for a trunked system in <i>Scan Mode</i> .
Channel Name in <i>Receiving or Hold Modes</i> .

6th Line – 3 Line Display Off

P appears when receiving a priority channel in <i>Receiving or Hold Modes</i> .
Channel Service Type in <i>Receiving or Hold Modes</i> .
TGID in <i>Receiving or Hold Modes</i> for a trunked site.
Tone/Code for a conventional channel in <i>Receiving or Hold Modes</i> .
Blinking Tone/Code indicates <i>Tone/Code Search</i> .
HOLD shows channel Avoid/Hold status. Temporary Avoids appear reversed in the display- AVOID .

7th Line – 3 Line Display Off

Unit ID for a trunked system in <i>Receiving or Hold Modes</i> .
Frequency and Modulation for a conventional channel in <i>Receiving or Hold Modes</i> .
Favorites List Name or Full Database in <i>Scan Mode</i> .
SCR appears if one or more broadcast/custom screen bands are turned on in <i>Receiving or Search Modes</i> .
REP appears if Repeater Find is enabled in <i>Receiving or Search Modes</i> .
Number Tag Information in <i>Function Mode</i> for a Favorites List.

Settings Menu

Adjust Key Beep
Battery Option
Band Defaults

Auto Shutoff
Set Clock
Replay Options
Restore Options

See Scanner Info
View Battery Level
Keypad Lock

Adjust Key Beep

Allows you to turn the key beep on or off and adjust the volume level.
Auto sets the alert beep to the master volume level.

Off, Level 1-15, or Auto

Battery Option

Set Battery Save - On or Off.

Set Charge Time - 1-14 (hours). See also [Using Rechargeable Batteries](#).

Set Battery Low

Set Alert

Set Alert Tone -

Set Alert Interval -

Set Alert Volume - 1-15 or Auto (the master volume level).

Set Voltage - 3400-3600.

Band Defaults This allows you change the 'Auto' values you can select while programming frequencies, searches, etc. to whatever you feel Auto should be for each band (vs. the radio defaults). Since all of the step and modulation settings default to Auto, this allows you to skip those settings when programming.

Scroll to each band you wish to edit and press **E/yes**. See also [Default Bands](#).

Set Modulation

Auto, AM, NFM, FM, WFM, or FMB (Broadcast).

Set Step

Auto, 5, 6.25, 7.5, 8.33, 10, 12.5, 15, 20, 25, 50, or 100 kHz.

Auto Shutoff Allows you to set the scanner to shut off after a set time.

Off, 5, 10, 15, 30, 45 min, 1, 2, 3, hours.

Set Clock Sets the clock for the display and the default tag for recordings.

Set Date

Set Year Enter the year (2013-2099).

Set Month Enter the month.

Set Day Enter the day.

Settings Menu

Set Time

Set Hour Enter the Hour (0-23).

Set Minute Enter the minute.

Set Time Zone

Scroll to your time zone.

Daylight Saving

On or Off.

Replay Options This allows you to set the recording duration and delete or rename recording sessions.

Set Replay Duration

30, 60, 90, 120, 150, 180, 210, or 240 sec.

Review Recordings

Recording Session

Play Session. See Replaying Transmissions.

Delete Session

At **Confirm Delete?** Press **E/yes** or **.no**.

Rename Session See Data Naming.

Restore Options Allows you to clear all user data (full reset) or reset just profile settings to default.

Clear User Data

(Full Reset) will delete all Favorites Lists, locations, reset all profile options to default, clear all Avoids, delete all recording sessions, all discovery logs, and all weather event records.

Note: Pressing and holding **2**, **9**, and **Dept** when you power on the scanner will also clear all user data.

Reset User Settings

Will only reset all profile settings and Favorites List will be saved.

See Scanner Info This will show you how much memory is in use, the firmware version, and scanner serial number.

Keypad Lock (BCD436HP Only) The only keys/knobs that work are **Channel**, **Dept**, **System** for hold mode, **Func**, and the **Scroll Control** for volume.

Press **Channel** to hold and press **Func** then  to toggle the keypad lock.

View the Battery Level (BCD436HP Only)

To view the battery level (in volts) press the scroll control and look at the small numbers in the upper right of the display. Press the scroll control again to close the volume level or let it disappear after 10 seconds.

Wi-Fi Setup (BCD536HP Only)

The Wi-Fi dongle allows you to connect to the scanner wirelessly and control your scanner with the Remote software.

The scanner has two different Wi-Fi connection modes, Infrastructure Mode and Access Point Mode.

Infrastructure Mode is able to connect to an Access Point device.

With this mode, all you need to do is set a password. In a few cases, there is no password needed with the Access Point unit.

Access Point Mode is able to connect with up to 5 clients.

Setting parameters are as follows: SSID, Security type, and Password.

Wi-Fi Options

Make sure the Wi-Fi dongle is connected to the USB port behind the scanner.

Press **Menu** then scroll to **Wi-Fi Setup** and press **E/yes**.

Scroll to the **Favorites List** and press **E/yes**.

Scroll to **Edit Favorite** and press **E/yes**.

Show Wi-Fi Information

Shows the IP address, MAC number, and version *when connected*.

Shows '**Wi-Fi not connected**'.

Set Connection

Off Not connected.

Infrastructure Mode – Routers etc.

Select AP Select the access point with the encryption type.

Password See Data Naming.

Access Point Mode – Laptops, Smart devices etc.

Input SSID

Enter (or use default) name of connection. See Data Naming.

Select Security

Open, WEP, or WPA/WPA2

Input Password See Data Naming.

Reset to Factory

At **Confirm Delete?** Press **E/yes** or **.no**.

Planning Profiles

A Profile contains all your configuration settings as well as your Favorites Lists and settings, Systems, Avoids, etc., and is a complete image of what is in your scanner. Other settings such as range, service types selected, enabled Favorites Lists, weather settings, display and audio settings also define a profile.

Remember that all Favorites Lists are common to all profiles. Enabling and disabling Favorites Lists within a profile is part of defining a profile. Deleting a profile will not delete the lists associated with a profile. However, deleting a Favorites List will delete it from all profiles.

You automatically start to create a profile once you enter your location. If you create a new profile in the software, your Favorites Lists will be included (but not enabled) with the new profile. The scanner only holds one profile at a time. Others can be created and uploaded to the scanner with the Sentinel Software.

Quick Keys

Organizing your Quick Keys will be part of the planning. You will have to figure out which quick keys to assign to your Favorites Lists and Systems so you can scan them without a table of contents and with some sort of logic you can remember. Remember, enabling/disabling quick keys is not the same thing as Avoiding or Unavoiding Favorites Lists and Systems.

Favorites List Quick Keys

Favorites Lists Quick Keys are used to enable or disable Favorites Lists for scanning. They are just the number keys on the scanner but once assigned to a Favorites List they become the Quick Keys. Your Favorites Lists hold your Systems that also may have System quick keys assigned to those Systems. You cannot assign a System in one Favorites List to another Favorites List. Selecting a Favorites List will enable all (Unavoided) Systems in that list for scanning. There are 100 Quick Keys (0-99) to use for your Favorites Lists.

System Quick Keys

System Quick Keys are used to enable or disable conventional and trunking systems for scanning. You can assign any quick key to one or more Systems or, program one or more systems with no quick key assigned that will *always* be scanned unless you Avoid it. There are also 100 Quick Keys (0-99) to use for your Systems.

It is best to assign Quick Keys to everything so you don't have to remember what to enable/disable or what to Avoid/Unavoid. There are no indicators in the display showing Favorites List/Systems with *no* quick key so you won't know if they are being scanned or not unless you see (or don't see) them scroll by in the display.

Search Quick Keys

You can assign any Search Quick Keys (1, 2, or 3) to any (1) Custom Search, Tone-Out Search, or Close Call Only Search for quick access to your favorite searches.

Planning Profiles

Startup Keys

You can program each of your Favorites Lists with a Startup Key (0-9) so that when you power up the scanner and press the key number, just those Favorites List(s) assigned to the key will be enabled for scan. Systems are not affected.

Number Tags

Numbers tags will allow you to tag each Favorites List, System, and Channel to locate easier. Number tags can range from 0 to 99 for Favorites Lists and Systems and 0-999 for Channels. You can assign number tags to channels even if the Favorites List does not have a number tag but, without a Favorites List number tag, you can only navigate to these channels while holding or scanning in that Favorites List. If two Favorites Lists have the same number tag, they will be selected in sequence. The first time you select the number tag, the scanner will go to the first Favorites List assigned to that number tag; if you select the same number tag again, it will go to the 2nd Favorites List assigned to that number tag, and so on. The same rule applies to System and Channel number tags. See also Using Number Tags.

Alerts

You can program your scanner to alert you when, a Channel or Unit ID is received, you receive a Close Call hit, an ID is transmitted with an Emergency Alert or you receive a Tone-out hit. For each alert in the scanner, you can select from 9 different tone patterns, 15 volume settings, 7 colors, and 2 color patterns.

Managing Favorites Lists

Favorites Lists hold all your Systems, Sites, Departments, and Channels. You should assign a Quick Key to every Favorites List to quickly enable or disable the list. You can assign as many Favorites Lists you want to a Favorites List quick key.

New Favorites List/List Options

Press **Menu** then scroll to **Manage Favorites** and press **E/yes**.

To Create a New Favorites List scroll to **New Favorites List** and press **E/yes**.

To Edit a Favorites List scroll to the **Favorites List** and press **E/yes**.

Add Current dB Channels

Set FL Quick Key

Set FL Number Tag

Set FL Startup Key

Use Location Control

Review Avoids

Stop All Avoiding

Rename

Delete

Information

Understanding Location Control

Understanding Range

Managing Favorites Lists

Add Current dB Channels This allows you to add *all* (Unavoided) channels you are currently scanning to the Favorites List.

At **Confirm?** Press **E/yes** or **.no**.

Notes: Any Avoided System/Site/Department/Channel will not be added.

When adding channels from the Full Database, only channels that are inside the set range, and from the selected Service Types are added to the new list.

When adding channels from a Favorites List that has 'Use Location Control' is set to **Yes**, only channels that are inside the set range, and from the selected service types are added to the new list.

When adding channels from a Favorites List that has Use Location Control is set to **No**, only channels that are from the selected service types are added to the new list.

Set FL Quick Key This assigns a quick key to the Favorites List and will scan the list when the key is enabled. The default setting is **.(no quick key)**. If you don't assign a Favorite Lists to a quick key, it will always be scanned unless you turn it off in Select Lists to Monitor.

Scroll to the quick key number (**0-99** or **.** for no quick key) and press **E/yes** to save. **Note:** Pressing the first number of a 2-digit quick key will get you closer, 1 for 10, 2 for 20, etc., then scroll to second digit.

Set FL Number Tag This allows you to number a Favorites List so you can access it quickly from scan hold mode.

The default setting is **no number tag**. See also Using Number Tags.

Enter the number tag (**0-99**) and press **E/yes** to save.

Set FL Startup Key This allows you to turn on the scanner with the Favorites List enabled for scan. The default settings are all keys **Off**.

See also Using Startup Keys.

Scroll to each key (**0-9**) and press **E/yes** to enable then press **Menu** to save.

Use Location Control This enables Location Control for the Favorites List. The default setting is **Off**. See also Understanding Location Control.

On or Off.

Review Avoids This allows you to review Avoided Channels for the Favorites List. Temporary Avoids appear reversed in the display-**AVOID**.

Scroll to each Channel and press **E/yes** to **Stop Avoiding**.

Stop All Avoiding This will Stop Avoiding all Channels in the Favorites List.

At **Confirm Delete?** Press **E/yes** or **.no**.

Managing Favorites Lists

Rename This allows you to rename the Favorites List.

See Data Naming.

Delete This will delete the Favorites List.

At **Confirm Delete?** Press **E/yes** or **.no**.

Information This will show you the file size and number of Systems in the list.

Understanding Location Control

Location Control allows you to enable or disable channels scanned in a Favorites List based on your location. Actually, it enables/disables Sites and Departments in Favorites Lists (as long as they have locations programmed) based on your current location and scan range settings. Location Control is always enabled when scanning from the Full Database.

To use Location Control, you have to enable it for each Favorites List (default is **No**). You also need to have locations programmed for Sites and Departments in each list (you can't program a location for a system). With Location Control set to **Yes**, the scanner only sees Departments/Sites with programmed locations. Any Department/Site with no location information programmed will not be scanned. If you append (add) a System/Department to a list from the database, the locations will be brought in with each System/Department you append. With Location Control set to **No**, the scanner will enable all Sites and Departments in your Favorites List no matter what the scan range or Site/Department range is set to.

You don't need a GPS to scan by location if *all* of the following apply:

1. You have Location Control set to **Yes** for each Favorites List you want to use with Location Control.
2. You set (by zip/post code, Auto Locate, or manually), or select a location.
3. Your Departments and Sites have locations programmed.

The scanner then compares your location data with Site and Department data to determine which channels to scan.

Conceivably, you could program everything you want to hear into one Favorites List and scan just by selecting locations rather than enabling/disabling lists. If you are traveling long distances a GPS device would be a better way to go.

Programming Systems

Note for Motorola/P25 systems: If you are not sure if the system is Motorola or P25, look at the system type in the RR database for your system. Only those systems tagged as "Project 25 Phase I or Project 25 Phase 2" are Project 25 systems. Any system type that includes the word "Motorola" should be programmed as a Motorola system, even if it uses some or all digital channels.

New System/System Settings

Press **Menu** then scroll to **Manage Favorites** and press **E/yes**.

Scroll to the **Favorites List** and press **E/yes**.

Scroll to **Review/Edit System** and press **E/yes**.

To Create a New System scroll to **New System** and press **E/yes**.

Scroll to **P25 Standard**, **P25 One Frequency**, **Motorola**, **EDACS**, **LTR**, or **Conventional** and press **E/yes**.

At **Confirm?** press **E/yes** or **.no**.

To Edit System Settings scroll to the **System** and press **E/yes**.

System Settings

Edit Name

Edit Name press **E/yes**. See Data Naming.

Edit Unit IDs Disp. Unit ID must be set to **On** in the Display Options menu to view Unit IDs.

New Unit ID/Edit Unit ID

To enter a Unit ID, press **.no** *once* then enter the ID and press **E/yes**.

Edit Name See Data Naming.

Set Alert Tone

Alert 1-9 or Off.

Set Level

Level 1-15 or Auto (the master volume level).

Set Alert Light

Set Color

Off, Blue, Red, Magenta, Green, Cyan, Yellow, or White.

Set Pattern

On, Slow Blink, or Fast Blink.

Delete Unit ID

At **Confirm Delete?** press **E/yes** or **.no**.

System Settings

Copy System Copying a system will copy all Sites, Departments, Channels, and settings including quick key assignments into the current Favorites List.

See Data Naming to name the new system.

Delete System

At **Confirm Delete?** press **E/yes** or **.no**.

System Options

Press **Menu** then scroll to **Manage Favorites** and press **E/yes**.

Scroll to the **Favorites List** and press **E/yes**.

Scroll to **Review/Edit System** and press **E/yes**.

Scroll to the **System** you want to edit and press **E/yes**.

Scroll to **Edit Sys Options** and press **E/yes**.

Note: Not all options will appear for all types of systems.

Set Quick Key	Priority ID Scan	Clear All ID Avoids
Set Number Tag	Set Status Bit	Set Audio AGC
Set Avoid	Set End Code	P25 NAC Option
Set Hold Time	Emergency Alert	P25 Waiting Time
ID Search	Review ID Avoids	P25 Threshold Mode
Edit Fleet Map		P25 Threshold Level

Set Quick Key This assigns a quick key to the System and will scan the System when the key is enabled. The default setting is . (no quick key). If you don't assign a System to a quick key, it will always be scanned unless **Set Avoid** (below) is set to **Avoid** or **Temporary Avoid**.

0-99 or . for no quick key. **Note:** Pressing the first number of a 2-digit quick key will get you closer, 1 for 10, 2 for 20, etc., then scroll to second digit.

Set Number Tag This allows you to number a System so you can access it quickly from scan hold mode.

The default setting is **no number tag**. See also Using Number Tags.

0-99

Set Avoid This determines whether a System will be scanned or not (even if the system is enabled). Temporary Avoid cancels when you cycle power. The default setting is **Stop Avoiding**.

Temporary Avoid, Stop Avoiding, or Avoid

See also Scan Avoids.

System Options

Set Hold Time This sets (in seconds) the amount of time the scanner will scan the System before moving on to the next system. All (Unavoided) channels will be scanned at least once regardless of this setting. The scanner moves to the next system after the hold time expires, any current transmission ends, and the channel delay time expires. The default setting is **2** seconds.

Tip: Set your systems to **0** for fastest overall scan speed.

0-255

ID Search This sets whether the scanner searches for all IDs in a trunking system (**On**), or scans only programmed IDs (**Off**). The default setting is **Off**. See also ID Scan/Search.

On or Off

Edit Fleet Map (Motorola Type I/II systems Only) This allows you to program a fleet map for Motorola Type I Systems. You must program a system fleet map in order for the scanner to properly track and display talk group IDs.

Block 0 Scroll to the size code (**0-14**) and press **E/yes**.

The next *available* block is prompted to select the next size code (**0-14**).

Repeat for each block as needed (**0-7**).

Note: If you select size code 12, 13, or 14, these restrictions apply:

12 can only be assigned to Blocks 0, 2, 4 or 6.

13 can only be assigned to Blocks 0 and 4.

14 can only be assigned to Block 0.

Since these size codes require multiple blocks, you will be prompted for the next *available* block. Example: If you assign Block 0 as 12, the scanner prompts you for block 2, the next block available, instead of block 1.

Priority ID Scan (no P25-1Tr) This allows you to use Priority Scan with IDs in the System. The default setting is **Off**.

On or Off.

Set Status Bit (Motorola Only) This sets how your scanner works with Status Bits (also called S-bits), letting you control how the scanner interprets and displays Motorola talk group IDs. The default setting is **Ignore**.

Yes - the scanner treats all received IDs as unique IDs.

Ignore - the scanner rounds all received IDs down to the next interval of 16.

Set End Code (Motorola Only) This sets how the scanner handles the transmission end code sent by most Motorola Systems. The default setting is **Ignore**.

Analog - The scanner recognizes only analog end transmission codes.

Analog+Digital - The scanner recognizes both analog and digital end codes.

Ignore - The scanner waits for the carrier to drop before leaving a channel.

System Options

Emergency Alert (Motorola/EDACS Only) This sets how your scanner alerts you to IDs that have the emergency flag set. The default setting is **Off**.

Set Alert Tone

Alert 1-9 or Off.

Set Level

Level 1-15 or Auto (the master volume level).

Set Alert Light

Set Color

Off, Blue, Red, Magenta, Green, Cyan, Yellow, or White.

Set Pattern

On, Slow Blink, or Fast Blink.

Review ID Avoids This allows you to review Avoided IDs in the System. Temporary Avoids appear reversed in the display-**AVOID**.

Stop Avoiding? Scroll to ID and press **E/yes** to Stop Avoiding.

Nothing Avoided appears if nothing is Avoided.

Clear All ID Avoids This allows you to Stop Avoiding all Avoided IDs in the System.

At **Confirm?** press **E/yes** or **.no**.

Nothing Avoided appears if nothing is Avoided.

Set Audio AGC This allows you to turn AGC (Automatic Gain Control) on or off for the System. The default settings are **Off**.

Analog - Press **E/yes** to toggle **On** or **Off**.

Digital - Press **E/yes** to toggle **On** or **Off**.

P25 NAC Option (P25-1Tr Only) This allows you to have the scanner search for NAC codes or you can program a specific code for the System. The default setting is **Off**.

Search - The scanner opens squelch for any digital signal and displays the NAC being used.

Set P25 NAC - The scanner opens squelch only for signals that include the programmed NAC.

At **Input P25 NAC** see Data Naming.

System Options

P25 Waiting Time (Conventional Only) This setting gives the scanner time to determine if channels on Conventional Systems have digital or analog transmissions. During this time, the scanner will evaluate the received signal and, if it detects digital data, will open squelch immediately. If digital is not detected before the delay expires, the scanner will open squelch at the end of this delay. This is to prevent "false decode" problems. This setting only affects conventional channels with an Audio Type set to **All**. The default setting is **400** ms.

0 to 1000

Note: Any analog transmissions will lose the first part of the transmission, up to the wait time you set here.

P25 Threshold Mode (Conventional Only) The default setting is **Auto**.

*Auto -
Manual -
Default -*

P25 Threshold Level (Conventional Only) The default setting is **8**.

1 to 20

Programming Sites

New Site/Site Options

Press **Menu** then scroll to **Manage Favorites** and press **E/yes**.
Scroll to the **Favorites List** and press **E/yes**.
Scroll to **Review/Edit System** and press **E/yes**.
Scroll to the **System** and press **E/yes**.
Scroll to **Edit Site** and press **E/yes**.
Scroll to **New Site** and press **E/yes**

To Create a New Site scroll to **New Site** and press **E/yes**.

To Edit an Existing Site scroll to the **Site** and press **E/yes**.

Note: Not all options will appear for all sites.

Edit Name	Set Modulation	P25 Threshold Mode
Set Site Type	Set Attenuator	P25 Threshold Level
Edit Band Plan	Set Avoid	Delete Site
Set Frequencies	Set Location Information	New Site
	P25 Waiting Time	

Site Options

Edit Name

See [Data Naming](#).

Set Site Type (EDACS Only) EDACS Wide is the same as EDACS Standard and use a 9600 baud control channel.

EDACS Narrow-band sites use a 4800 baud control channel.

Wide (Standard) or Narrow. The default setting is **Wide**.

Edit Band Plan (Motorola/P25 Only) Band plans are required so the scanner can correctly determine the voice channel frequencies.

For P25 Systems *Explicit* mode systems (which comprise most systems in use) include all information needed to determine voice frequencies on the control channel, leave all entries blank. The system will automatically detect the band plan and fill in the entries. *Implicit* systems need you to supply the systems band plan with the **Custom** option for the scanner to correctly determine voice frequencies.

Select Plan - Scroll to each **Band Plan 0-9, A-F**, and press **E/yes**.

Input Base Freq - Enter the base frequency press **E/yes**.

Input Spacing - Enter the step size and press **E/yes**.

Press **Menu** to return and repeat for each band plan as needed.

For Standard Motorola 800/900/Splinter Systems

800/900 Standard or 800Splinter

The scanner will use the regular Motorola band plan and return to the menu.

For Custom (rebanded) Motorola/VHF/UHF Systems Custom band plans require that you enter both a lower and an upper base frequency value. The *lower base frequency* (or base) is always the base frequency as provided in the [Radio Reference Database](#).

Use this [Excel spreadsheet](#) to calculate the *upper base frequency* value located at: <http://info.uniden.com/twiki/pub/UnidenMan4/CalculatingUpperBaseFrequencies/CustomBandPlanCalculator.xls>

If you don't have Excel you can download and install a viewer [here](#), or do a simple Google search.

The upper base frequency can also be found using the [Band Plan Calculator](#) located at: <http://info.uniden.com/twiki/bin/view/UnidenMan4/CalculatingUpperBaseFrequencies>.

Also, look at [Determining Base/Step/Offset for VHF/UHF Motorola Systems](#) at [Radio Reference.com](#).

Site Options

For Standard 800 MHz Rebanding Systems, you need to set Band Plan 1 and Band Plan 2 as follows:

Band Plan	Lower Base Freq	Upper Base Freq	Offset	Polarity	Spacing
1	851.025	854.000	440	+	25 kHz
2	851.0125	868.9875	0	+	25 kHz

Select Plan 1-6 Select for each Band Plan.

Set Base Freq

Input Lower - Enter the lower base frequency and press **E/yes**.

Input Upper - Enter the upper base frequency and press **E/yes**.

Set Offset

Input Offset - Enter the offset and press **E/yes**.

Select Polarity - Scroll to **+** (default) or **-** and press **E/yes**.

Set Spacing - Scroll to the step size and press **E/yes**.

Press **Menu** to return and repeat for each band plan as needed.

Set Frequencies This is where you program trunking frequencies for the Site.

New Frequency/Edit Frequency. Enter the frequency and press **E/yes**.

For EDACS and LTR sites only:

Input LCN enter the LCN number and press **E/yes**.

Delete Frequency

At **Confirm Delete?** press **E/yes** or **.no**.

Set Modulation (no P25/1TR) This setting selects the modulation used for the Site. The default setting is **Auto** (NFM for FM frequencies).

Auto, NFM, or FM

See also [Scan Modulation](#).

Set Attenuator This setting controls whether the scanner attenuates signals on this Site by about 20dBs The default setting is **Off**.

On or Off

See also [Scan Attenuation](#).

Set Avoid This determines whether a Site will be scanned or not. Temporary Avoid cancels when you cycle power. The default setting is **Stop Avoiding**.

Temporary Avoid, Stop Avoiding, or Avoid

See also [Scan Avoids](#).

Site Options

Set Location Information This allows you program a location for the Site to use with Location Control enabled or with a GPS. You can program a circle with a radial range or multiple rectangles as a location.

See Set Up GPS first to set your units, time zone, etc.

Circle

Set Latitude

Enter the latitude. Press **.no** to toggle **N** or **S**, and press **E/yes**.

Set Longitude

Enter the longitude. Press **.no** to toggle **E** or **W**, and press **E/yes**.

Set Range

 See also Understanding Range.

0-6000

Rectangles

New Rectangle

Latitude -Top Left

Enter the latitude. Press **.no** to toggle **N** or **S**, and press **E/yes**.

Longitude -Top Left

Enter the longitude. Press **.no** to toggle **E** or **W**, and press **E/yes**.

Latitude - Right Bottom

Enter the latitude. Press **.no** to toggle **N** or **S**, and press **E/yes**.

Longitude - Right Bottom

Enter the longitude. Press **.no** to toggle **E** or **W**, and press **E/yes**.

Rectangle

Edit Rectangle See Rectangles above.

Delete Rectangle

At **Confirm Delete?** press **E/yes** or **.no**.

P25 Waiting Time (Motorola Only) This setting gives the scanner time to determine if channels on mixed Motorola Systems have digital or analog transmissions. During this time, the scanner will evaluate the received signal and, if it detects digital data, will open squelch immediately. If digital is not detected before the delay expires, the scanner will open squelch at the end of this delay. This is to prevent "false decode" problems. This setting only affects channels with an Audio Type set to **All**. The default setting is **400** ms.

0 to 1000

Note: Any analog transmissions will lose the first part of the transmission, up to the wait time you set here.

Site Options

P25 Threshold Mode (P25s Only) The default setting is **Auto**.

Auto -

Manual -

Default -

P25 Threshold Level (P25s Only) The default setting is **8**.

1 to 20

Delete Site Deletes the Site.

At **Confirm Delete?** press **E/yes** or **.no**.

New Site See New Site.

Programming Departments

New Department/Department Options

Press **Menu** then scroll to **Manage Favorites** and press **E/yes**.

Scroll to the **Favorites List** and press **E/yes**.

Scroll to **Review/Edit System** and press **E/yes**.

Scroll to the **System** and press **E/yes**.

Scroll to **Edit Department** and press **E/yes**.

Scroll to **New Department** and press **E/yes**.

To Create a New Department scroll to **New Department** and press **E/yes**.

To Edit an Existing Department scroll to the **Department** and press **E/yes**.

Edit Name

Set Location Information

Delete Department

Edit Channel

Set Avoid

New Department

Edit Name

See Data Naming.

Edit Channel

See Channel Options.

Department Options

Set Location Information This allows you program a location for the Department to use with Location Control enabled or with a GPS. You can program a circle with a radial range or multiple rectangles as a location. See Set Up GPS first.

Circle

Set Latitude

Enter the latitude. Press **.no** to toggle **N** or **S**, and press **E/yes**.

Set Longitude

Enter the longitude. Press **.no** to toggle **E** or **W**, and press **E/yes**.

Set Range

 See also Understanding Range.

0-6000

Rectangles

New Rectangle

Latitude -Top Left

Enter the latitude. Press **.no** to toggle **N** or **S**, and press **E/yes**.

Longitude -Top Left

Enter the longitude. Press **.no** to toggle **E** or **W**, and press **E/yes**.

Latitude - Right Bottom

Enter the latitude. Press **.no** to toggle **N** or **S**, and press **E/yes**.

Longitude - Right Bottom

Enter the longitude. Press **.no** to toggle **E** or **W**, and press **E/yes**.

Rectangle

Edit Rectangle See Rectangles above.

Delete Rectangle

At **Confirm Delete?** press **E/yes** or **.no**.

Set Avoid This determines whether a Department will be scanned or not. Temporary Avoid cancels when you cycle power. The default setting is **Stop Avoiding**.

Temporary Avoid, Stop Avoiding, or Avoid

See also Scan Avoids.

Delete Department Deletes the Department.

At **Confirm Delete?** press **E/yes** or **.no**.

New Department See New Department.

Programming Frequencies/TGIDs

Quickly Storing a Frequency/ID

In scan mode press **Channel** to hold on any channel.

Enter the Frequency or ID and press **E/yes**. See also Edit Frequency/ID.

Note: You have to enter an ID/frequency in the proper format for the system you are holding on. Example: You can't enter a Motorola Type II ID when holding on an LTR system.

Program a Frequency/ID into a "Quick Save" Favorites List

At **Quick Freq/TGID Save?** Press **E/yes**.

The scanner will save the Frequency/ID in a Favorites List called **Quick**

Save Favorites List, in a System called **Quick Save System**, (with no quick keys assigned), in a Department called **Quick Save Department**.

Program a Frequency/ID into a Current Favorites List

At **Quick Freq/TGID Save?** Press **.no**.

At **Select System** Scroll to the System where you want to store the Frequency/ID and press **E/yes**.

At **Select Department** Scroll to the Department where you want to store the Frequency/ID and press **E/yes**.

After storing the Frequency/ID, you will be at the Channel Options menu to complete the settings for the new channel. If you don't want to edit the channel settings press **Avoid** to return.

New Channel/Channel Options

Press **Menu** then scroll to **Manage Favorites** and press **E/yes**.

Scroll to the **Favorites List** and press **E/yes**.

Scroll to **Review/Edit System** and press **E/yes**.

Scroll to the **System** and press **E/yes**.

Scroll to **Edit Department** and press **E/yes**.

Scroll to the **Department** and press **E/yes**.

Scroll to **Edit Channel** and press **E/yes**.

To Create a New Channel scroll to **New Channel** and press **E/yes**.

At Input **Frequency/TGID** enter the frequency or ID and press **E/yes**.

To Edit an Existing Channel scroll to the **Channel** and press **E/yes**.

Channel Options

Note: Not all options will appear for all channels.

Edit Name	Set Attenuator	Set Alert
Edit Frequency or TGID	Select Service Type	Set Avoid
Set Audio Type	Set Delay Time	Volume Offset
Set Number Tag	Set Priority	Delete Channel
Set Modulation		New Channel

Edit Name

See [Data Naming](#).

Edit Frequency or TGID

Enter the frequency or ID and press **E/yes** to save.

*To enter a Conventional Frequency, enter the **Frequency** and press **E/yes**.*

*To enter a Motorola Type II ID, enter the **ID** and press **E/yes**.*

*To enter a Motorola Type I ID, enter the **Fleet Number**, press **.no** twice for a hyphen, then enter the **Subfleet** and press **E/yes**.*

Formats: **FFF-SS**, **F-**, **FFF-**, **NNNN-N**, **NNNN-**, **NNN-N**, **NNNNN**, **iNNNNN**.

*To enter an EDACS ID in AFS format, enter the **Agency Number**, press **.no** twice for a hyphen, then the **Fleet** and **Subfleet** and press **E/yes**.*

Formats: **AA-FFS**, **AA-**, **AA -FF-**, **iNNNNN**.

*To enter an EDACS ID in Decimal format, enter the **ID** and press **E/yes**.*

*To enter a LTR ID, enter the **Area Code** (**0** or **1**) and press **.no** twice, then enter the **Home Repeater Number** (**01-20**) and press **.no** once, then the **User ID** (**1-254**) and press **E/yes**.*

Formats: **AA-HH-UUU**, **A-HH-**.

*To enter an I-Call ID, press **.no** once then enter the **ID** and press **E/yes**.*

*To enter a Wildcard I-Call ID, press **.no** once then enter **0** and press **E/yes**.*

To enter Hexadecimal IDs, see [Data Naming](#).

To enter a Unit ID, see [Edit Unit IDs](#).

Notes: If the channel is already stored in the group **TGID** or **Frequency Exists Accept?** (**Y/N**) appears. Press **.no** to return. You can also Avoid wildcard IDs.

Channel Options

Set Audio Type (Conventional/Motorola Only) Select **All** if this channel might contain both digital and analog signals. If you are *sure* the channel is analog set the channel to **Analog Only**. This will prevent the P25 Waiting Time for the conventional system from losing the first part of the transmission up to the wait time you set there.

All - The scanner determines whether the audio is analog or digital.

Digital Only - The scanner will receive the channel *only* if it is carrying APCO 25 digital audio.

P25 NAC Option

Search - the scanner searches and displays any NAC tone received.

Set P25 NAC - allows you to program a NAC code. See [Data Naming](#).

Note: You can also store a (blinking) NAC code when receiving the frequency in scan mode by pressing **E/yes**.

Analog Only - The scanner will *only* receive analog audio.

Set CTCSS/DCS

Search - The scanner searches and displays any CTCSS *or* DCS tone.

Note: You can also store a (blinking) CTCSS/DCS tone when receiving a frequency in scan mode by pressing **E/yes**.

CTCSS - Scroll to the desired CTCSS tone. Press **E/yes** to save.

DCS - Scroll to the desired DCS tone. Press **E/yes** to save.

Set Avoid - Scroll to **CTCSS** or **DCS** and press **E/yes**.

Scroll to the desired tone you want avoided and press **E/yes** to save.

Set Number Tag This allows you to number a Channel so you can access it quickly from scan hold mode.

The default setting is **no number tag**. See also [Using Number Tags](#).

0-999

Set Modulation (Conventional Only) This setting selects the modulation used for the channel. The default setting is **Auto**.

Auto, AM, FM, NFM, WFM, or FMB (FM Broadcast)

See also [Scan Modulation](#).

Set Attenuator (Conventional Only) This setting controls whether the scanner attenuates signals on the Channel by about 20dB.

The default setting is **Off**.

On or Off

See also [Scan Attenuation](#).

Channel Options

Select Service Type This sets the Service Type for The Channel. The Appendix has a list of Service Types and their general descriptions. Default is **Custom 1**.

Scroll to the Service Type and press **E/yes**.

Set Delay Time This sets (in seconds) the amount of time the scanner stays on a channel after the transmission has ended before moving to the next channel. A negative delay will force a resume after that number of seconds. The default setting is **2** seconds.

-10, -5, -2, 0, 1, 2, 5, 10, or 30 sec.

Set Priority This sets the channel as a priority channel while scanning. The default setting is **Off**. **Note:** To use Priority ID Scan you must also enable Priority ID Scan for *each* System. See also Priority Scanning.

On or Off

Set Alert This setting controls when and how the scanner alerts you if the channel becomes active. The default setting is **Off**.

Set Alert Tone

Alert 1-9 or Off.

Set Level

Level 1-15 or Auto (the master volume level).

Set Alert Light

Set Color

Off, Blue, Red, Magenta, Green, Cyan, Yellow, or White.

Set Pattern

On, Slow Blink, or Fast Blink.

Set Avoid This determines whether a channel will be scanned or not. Temporary L/O means until you cycle power. The default setting is **Unlocked**.

Temporary Avoid, Stop Avoiding, or Avoid

See also Scan Avoids.

Volume Offset This sets the Volume Offset for the Channel.

-3, -2, -1, 0, +1, +2, or +3

Note: You can also toggle volume offset for a channel in scan *hold* mode by pressing **Func** then **0(LVL)**.

Delete Channel Deletes the Channel.

At **Confirm Delete?** press **E/yes** or **.no**.

New Channel See New Channel.

Set Scan Selection

Select Lists to Monitor This setting enables or disables your Favorites Lists for scanning. You *must first* enable each list here, *before* you can enable the quick key for the list or you will see **Nothing to Scan**.

Note: You will need to set a location to scan the database.

Scroll to each **Favorites List**, the **Full Database**, or **Search with Scan** and press **E/yes** to enable or disable.

For Search with Scan, see also Search with Scan and Edit Custom Search.

Manage Quick Key Status This is one way to enable or disable your System quick keys and Favorites Lists quick keys. The other way is using the number keys on the keypad. See Selecting Quick Keys.

Favorites Quick Key

Scroll to each Favorites List quick key and press **E/yes** to enable or disable.

System Quick Key

Scroll to each Favorites List and press **E/yes**.

Favorites List

Scroll to each System quick key and press **E/yes** to enable or disable.

Set Nationwide Systems (Database Only) This setting enables or disables Nationwide systems in the Database, *only* when the Database is being scanned.

Scroll to each **Nationwide System** and press **E/yes** to enable or disable.

Set All Lists Off/On These settings turn all Favorites Lists on or off.

Select All Lists Off/On

Press **E/yes** to toggle each setting.

Managing Full Database

Press **Menu** then scroll to **Manage Full Database** and press **E/yes**.

Review Avoids You can review all Systems, Departments, and Channels that are avoided and stop avoiding each one.

Note: The Database must be enabled for scan to review Avoids.

Scroll to each System, Department, or Channel and press **E/yes** to stop avoiding. Temporary Avoids appear reversed in the display-**AVOID**.

Stop All Avoiding This will stop avoiding all Systems, Departments, and Channels in the Database.

At **Confirm Delete?** press **E/yes** or **.no**.

Information This will show the database version in the scanner.

Using Startup Keys

To Use a Startup Key:

1. Turn the scanner off.
2. *Press and hold* the number key that corresponds to the startup key when you turn the scanner on.
3. Continue holding the number key until the scanner display shows the number of the startup key configuration.

When you use Startup Configuration, the scanner checks all Favorites Lists and:

1. All Favorites Lists that *do not have a startup key assigned* will be scanned the way they were when you last turned off the scanner.
2. All Favorites Lists that *have a startup key assigned* to the one you pressed will be Unavoided.
3. All Favorites Lists that *have a different startup key assigned* will be Avoided.
4. The scanner will remember the *last* startup configuration you used when you power up the scanner the *next* time using *just* the power key.

Caution: If you press the wrong key when you press the power key to set your startup configuration, and that wrong key doesn't have any Favorites Lists assigned to that key, you will start up your scanner with all systems Avoided-**Nothing to Scan**.

Priority Scanning

Priority Scan When the scanner is scanning a *Conventional* System, it interrupts scanning, based on the Priority Interval and Max Channels settings, to check priority channels for activity. The more channels you have set to priority, the longer the interruption will be. The Favorites List(s) and System(s) containing the priority channel(s) have to be enabled (and not Avoided) or the scanner will display **Priority Scan No Channel**.

Priority ID Scan This function is similar to conventional priority although there is no interruption during the transmission. Priority is checked in between transmissions, when the scanner is receiving the control channel, and during the channel delay period. The scanner can only look for priority IDs in the trunked system it is *currently* scanning.

Priority DND The scanner checks priority channels, based on the Priority Interval and Max Channels settings, only when *not* receiving other conventional channels so there is no interruption in scanning with conventional systems.

Priority Scanning

The highest priority is for channels in Favorites List Quick Key 1 and System Quick Key 1. The lowest priority is for channels in Favorites List Quick Key 90 and System Quick Key 90. Priority for priority channels in the same channel Department follows the order in which the channels were created.

To use Priority Scan you must first set your Priority Channels.

To use Priority ID Scan you must also enable Priority ID Scan for *each* system.

*To Toggle Priority Modes Press **Func** then **.no**.*

Priority Scan Options

Press **Menu** then scroll to **Priority Scan** and press **E/yes**.

Set Priority

Set Interval

MaxChannels/Pri-Scan

Set Priority Sets the Priority Mode. You can also toggle these modes by holding on any channel in scan mode and pressing **Func** then **.no(Pri)**.

Off - The Priority feature is off.

Priority DND - The scanner checks Priority channels only when *not* receiving other conventional channels.

PRI appears in the display *reversed*-**PRI**.

Priority Scan - The scanner checks conventional priority channels, and priority IDs within systems that have priority ID enabled.

PRI appears in the display-**PRI**.

Set Interval This sets (in seconds) how often the scanner will check the priority channels.

1-10 sec.

MaxChannels/Pri-Scan This sets the maximum number of priority channels that are scanned during one priority scan interrupt. If there are more priority channels than the value you select, the channels are divided into more than one group and the scanner scans each group in turn. Example: If you set the maximum channels to 20 and there are 100 priority channels, the scanner checks those 100 channels in groups of 20 and takes a total of 5 intervals to complete the priority scan.

1-100

Scanning

With previous scanners, you selected banks to scan that had channels stored in them. With this scanner, you select Favorites List Quick Keys to scan that have Systems assigned to them. So, now you turn Favorites Lists Quick Keys on and off *and* System Quick Keys on and off (within each Favorites List). See also Understanding Quick Keys.

First, all (Unavoided) Favorites Lists belonging to Quick Key 1 are scanned. Then Favorites Lists that belong to Quick Key 2,...,9,0,11,...19,10,21,... ... 80,91,...,99,90 are scanned in order. Favorites Lists with the same quick key are scanned in order of creation. Favorites Lists with no quick key are scanned last and in order of creation (including created Quick Save Favorites Lists).

Systems within the Favorites Lists are scanned with the same rules. Conventional channels within the Departments are scanned in order of creation. IDs are not really scanned. The scanner checks for any activity in the trunking system and if any ID becomes active, the scanner will display it in ID Search mode. In ID Scan mode, the scanner will only display IDs programmed in to Departments.

Then, any (Unavoided/enabled) custom searches from 1 to 10 in turn.

Then, the scanner scans the Close Call 'Hits with Scan' system. This is a system that automatically stores the frequencies found by Close Call. If the 'Hits with Scan' system has no frequencies, the scanner does not scan the system.

The scanner scans a system for the duration you set using the System Hold Time option. For trunked systems, the scanner moves to the next system after the hold time expires, the current transmission ends, and the channel delay expires. Conventional systems operate similarly, but all (Unavoided) channels are scanned at least one time regardless of the hold time setting.

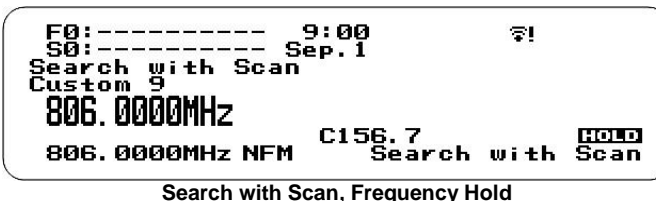
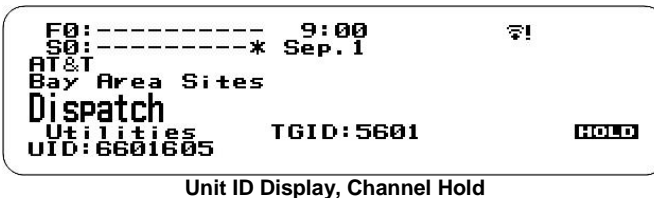
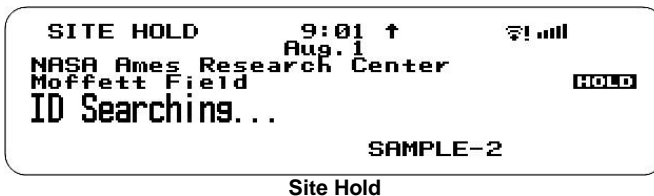
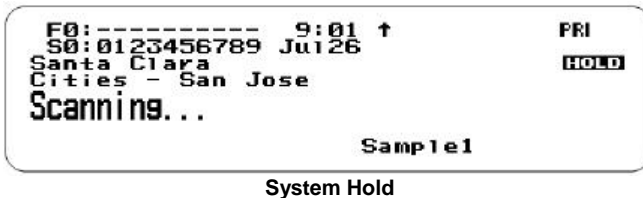
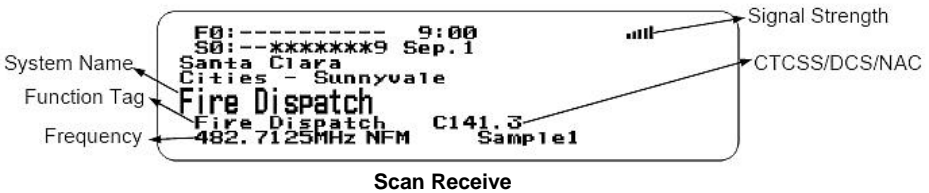
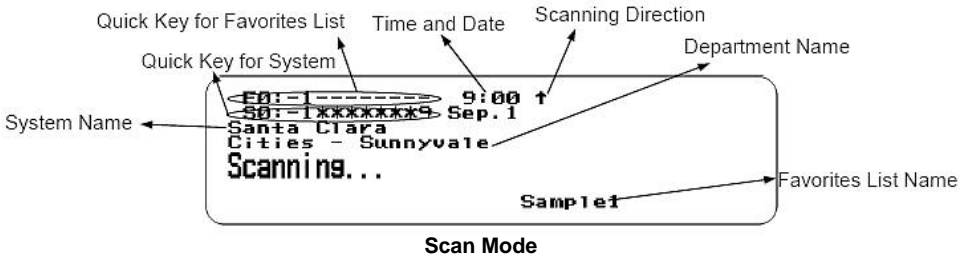
To Scan Channels:

1. You must enable at least one Favorites List or the Full Database in Select Lists to Monitor.
2. Favorites Lists or Systems must be enabled with quick keys *if* one is assigned.
3. Systems, Departments, or Channels must *not* be Avoided.
4. Service Types for the channels must be set to *On*.

Any Favorites List *not* assigned to a quick key, not Avoided, *and* set to *On* in Select Lists to Monitor *will* be scanned.

Any System (or Quick Save System) *not* assigned to a quick key *and* not Avoided, *will* be scanned.

Scanning



Scanning

Change Direction or Resume Scan Turn the **Scroll Control**.

Selecting Quick Keys

Select a Favorites List Quick Key Press the number key(s) assigned to the Favorites List then press **E/Yes**. Example: **4, E/yes** to enable List 4.

Quick Key Navigation

0

F0:0-----

S:-:-----

Select a System Quick Key in the Current List Press **.no**, then the number key (2 digits) assigned to the System.
Example: **.no, 03, E/yes** to enable System 3.

Quick Key Navigation

F0:0-----

S:-:-----

Select a System Quick Key in a Different List Press the number key(s) assigned to the Favorites List then **.no**, then the number key (2 digits) assigned to the System then **E/yes**.
Example: **2, .no, 04, E/yes** to enable List 2, System 4.

Quick Key Navigation

0.01

F0:0-----

S0:012**5*78*

Toggle Display Modes

Hold on any channel and press **Func** then **9(DISP)**. Press **Channel** to resume.

F0:----- 9:00

S0:0----- Jul26

Santa Clara

Cities - Campbell

Police Tac 10

Law Tac

482.2750MHz FM

Sample1

HOLD

3 Line Display Off

F0:----- 9:00

S0:0----- Sample1

Santa Clara

Cities - Campbell

Police Tac 10

HOLD

3 Line Display On

Scanning

Toggle ID Scan or ID Search

While scanning *each* Trunked System, press **Func** then **E/yes**.

Change your Location

(BCD536HP) Press the **Zip** button.

(BCD436HP) Press **Zip/Services**.

Select your Country, and enter a zip/postal code. See also Set Your Location.

Set the Range

(BCD536HP) Press the **Range** button.

Enter **new range** and press **E/yes** to save.

(BCD436HP) See Set Range.

See also Understanding Range and Understanding Location Control.

Select Service Types (BCD536HP) Press **Serv**.

(BCD436HP) Press **Func** then **Zip/Services**.

Scroll to each Service Type and press **E/Yes** to enable or disable.

Holding

Channel Hold - Press **Channel** to hold on a Channel. Scroll to channels.
Press **Channel** to release.

Department Hold - Press **Dept** to pause then hold on *any* Department.
Double press Dept to hold now.
Press **Dept** then *quickly* scroll to the **Department** in pause mode.
Double press Dept to release hold.

Site Hold - Press **Func** then **Dept** to hold on a Site.
Press **Func** then **Dept** to release hold.

System Hold - Press **System** to pause then hold on *any* System.
Double press System to hold now.
Press **System** then *quickly* scroll to the **System** in pause mode.
Double press System to release hold.

Replay the Last Transmissions While scanning, press **Replay**.

Press **Channel** to pause/resume replay.

Turn the **Scroll Control** to select recordings.

Start/Stop Recording While scanning, press **Func** then **Replay**.

Direct Frequency/ID Entry

Press **Channel** to hold on any Channel.

Enter the Frequency/ID and press **Menu**.

Scanning

Avoiding Channels, Departments, and Systems.

Temporary Avoid cancels when you cycle power. See also Reviewing Avoids.

Channel Avoid - Press **Avoid** *once* to **Temporary Avoid**.

Press *quickly* to toggle **Permanent Avoid** and **Stop Avoiding** when the channel is in the display or in Channel Hold mode.

Department Avoid - Press **Dept** then **Avoid** *once* to **Temporary Avoid**.

Press **Avoid** *quickly* to toggle **Permanent Avoid** and **Stop Avoiding**.

Site Avoid –

System Avoid - Press **System** then **Avoid** *once* to **Temporary Avoid**.

Press **Avoid** *quickly* to toggle **Permanent Avoid** and **Stop Avoiding**.

Attenuation

Channel Attenuation - Press **Channel** to hold on the channel and press **Func** then **4(ATT)** to toggle attenuation.

Site Attenuation -

Global Attenuation - Press **Channel** to hold on any channel then *press and hold* **Func** then **4(ATT)** to toggle global attenuation.

Modulation

Conventional Channel Modulation - Press **Channel** to hold on the channel.

Press **Func** then **Channel(MOD)** to toggle modulation.

Press **Channel** to release hold mode.

Site Modulation - Press **Func** then **Dept** to hold on a Site.

Press **Channel** to hold on any channel.

Press **Func** then **Channel(MOD)** to toggle modulation.

Press **Channel** to release hold mode.

Press **Func** then **Dept** to release Site hold mode.

Intermediate Frequency Exchange - Press **Channel** to hold on the channel. Press **Func** then **7(IFX)** to toggle on or off.

Repeater Frequency Conventional Channel - Press **Channel** to hold on the channel. Press **Func** then *press and hold* **8(REV)**.

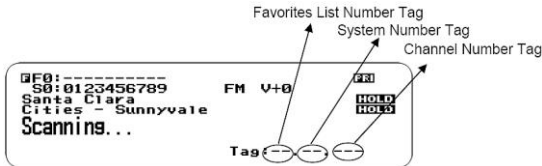
Channel Volume Offset - Press **Channel** to hold on the channel.

Press **Func** then press **0(LVL)** to toggle.

Scanning

Using Number Tags You can assign number tags to channels even if the Favorites List does not have a number tag but, without a Favorites List number tag, you can only navigate to these channels while holding or scanning in that Favorites List.

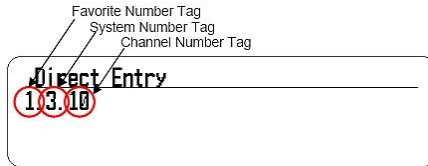
View Number Tags Press Func.



Go To Number Tag Press Channel to hold on any channel. Enter the Favorites number tag, **.no**, then the System number tag, **.no**, then the Channel number tag and press **Menu**.

Examples:

- 1.10.36** to go to Channel 36 in System 10 in Favorites List 1.
- .10.36** to go to Channel 36 in System 10 in *current* Favorites List.
- ..36** to go to Channel 36 in *current* System.



Advanced Channel Menu While the channel is in the display, press **E/yes**.
Edit Current Channel - See [Channel Options](#).
Add to Favorites List -

Store a Search Frequency (Search with Scan) press **E/yes**.
Then see [Storing Frequencies](#).

Adding Systems From the Database

Scanning

Storing

CTCSS Tone or DCS/NAC Code (blinking)

Press **E/yes** when the Channel is in the display.

Scroll to **Save Sub Audio** and press **E/yes**. At **Confirm?** press **E/yes** or **.no**.

Displayed ID into an Existing Department

Press **E/yes** when the Channel is in the display.

You will see **Saving to Quick Dept** in the display then press **.no**.

At **Select Department** Scroll to the department where you want to store the ID and press **E/yes**.

Displayed ID into a Quick Save Department

Press **E/yes** when the Channel is in the display.

You will see **Saving to Quick Dept** in the display then press **E/yes**.

The scanner stores the ID into the **Quick Save Department**.

After storing the ID, you will be at the Edit Channel menu to complete the settings for the new channel.

If you don't want to edit the channel settings or are done editing the channel, press **Avoid** to return to scanning.

Close Call Modes To toggle **CC Off**, **CC Pri**, or **CC DND**.

(BCD536HP) Press **SQ**(☎).

(BCD436HP) **Hold on any channel and press Func then Avoid**(☎).

Priority Modes Press **Func** then **.no(PRI)** to toggle

Priority Mode Off, Pri, or DND.

Weather Alert Priority Press **Channel** to hold on any channel.

Press **Func** then **6(wx)** to toggle on or off.

Custom Search Press **Channel** to hold on any channel.

Press **Func** then **1(SRCH1)**, **2(SRCH2)**, or **3(SRCH3)**, to start a Custom Search assigned to a Search Key.

Close Call Only (BCD536HP) *Press and hold SQ.*

(BCD436HP) Press **Func** then *press and hold Avoid*.

Weather Scan Press **Channel** to hold on any channel.

Press **Func** then *press and hold 6(wx)*.

Tone-Out Standby/Search

(BCD536HP Only) Press **Channel** to hold on any channel.

Press **Func** then **SQ**.

(BCD436HP) Assign Tone-Out Standby/Search to a Search Key.

Scanning

Reviewing Avoids

Database Avoids - Press **Menu** and scroll to **Manage Full Database**.

Scroll to the following:

Review Avoids - Scroll to each channel, department, site, or system and press **E/yes** to toggle **Stop Avoiding**, **Temporary Avoid**, or **Permanent Avoid**. Temporary Avoids appear reversed in the display-**AVOID**.

Stop All Avoiding - At **Confirm?** press **E/yes** or **.no**.

Favorites List Avoids - Press **Menu** and scroll to **Manage Favorites**.

Scroll to the **Favorites List** and press **E/yes**.

Scroll to the following:

Review Avoids - Scroll to each channel, department, site, or system and press **E/yes** to toggle **Stop Avoiding**, **Temporary Avoid**, or **Permanent Avoid**. Temporary Avoids appear reversed in the display-**AVOID**.

Stop All Avoiding - At **Confirm?** press **E/yes** or **.no**.

ID Avoids - Press **Menu** and scroll to **Manage Favorites**.

Scroll to the **Favorites List** and press **E/yes**.

Scroll to **Review/Edit System** and press **E/yes**.

Scroll to the **System** and press **E/yes**.

Scroll to **Edit Sys Options** and press **E/yes**.

Scroll to the following:

Review ID Avoids - Scroll to each ID and press **E/yes** to **Stop Avoiding**.

Clear All ID Avoids - At **Confirm?** press **E/yes** or **.no**.

Clear All Avoids for Site or Department - **Hold** on any System.

Press and hold Avoid.

P25 Adjustment Mode

(BCD536HP) Press **⏏** then **Vol**. Press **⏏** then **Vol** to exit.

(BCD436HP) Press **Vol** then **Func** then **Vol**. Press **Vol** to exit.

Set the P25 Threshold Mode to **Manual** in Site Options or System Options for a Conventional channel.

Press **Func** then **Dept** to hold on a Site or **Channel** to hold on a *digital* Channel.

The first line on the display now shows the digital error rate and the decode threshold setting (0-20). The second line on the display shows the decode threshold levels for the site.

Allow the scanner to monitor the site or channel for several minutes. The error rate should drop for each transmission and the threshold levels should automatically adjust to a more optimal setting. Then, once the threshold level settles to a stable setting, make a note of the value. This is the site's or channel's optimum decode threshold.

Press **Func** and rotate the **Scroll Control** to set the **MAN** decode threshold start level to a setting that most closely matches the system's optimum decode threshold. Whatever you set at this point will be remembered for this site as the starting point for the auto-tuning function for subsequent transmission on that site. See also [P25 Threshold Level](#).

Using a GPS

Location-Based Scanning

You can connect the scanner to a compatible GPS device and set the scanner to automatically Avoid and Unavoid Departments and Sites based on your current location. This frees you from having to manually enable and disable Departments and Sites as you change locations.

For the BCD436HP, use the 4-pin mini plug to connect to the scanner using a NMEA compatible GPS device. The BCD536HP has a 9-pin RS232 male serial connector and you should select a baud rate of (4800 bps) for the serial port.

A good application of this feature would be to set the longitude and latitude for each multi-site system transmitter as usually you can receive at least a handful in any given location. Set the range to around 30 miles and the scanner will automatically Avoid or Unavoid Sites when in and out of range. It may also be relevant to set different locations/ranges for the *Departments* within the site.

You can find the physical location of antennas using the databases available at [Radio Reference](#) or the FCC's Antenna Structure Registration site. Both sites list the latitude, longitude, and height of the antenna and both sites can map the exact location for you.

Once the scanner completes the initial GPS review, if you move into or out of an area covered by a Site/Department, the scanner will Avoid and Unavoid Sites and Departments according to Range settings for the scanner and Sites/Departments.

If you cycle power, all Sites/Departments are Unavoided until the scanner reacquires the GPS signal and completes the initial GPS review.

Notes: If you unplug your GPS device or it loses reception to satellites, the scanner will use the last known location as the *current* location.

See also [Set Location](#) to set your Location, Range, and relevant GPS options.

See also [Understanding Location Control](#) and [Understanding Range](#).

All Sites/Departments with locations set and not within range of your current location will be *temporarily* Avoided.

Discovery Mode

Trunking Discovery mode allows you to monitor a trunked radio system, logging system channel activity and recording the audio for channels.

Conventional Discovery mode lets you monitor a range of frequencies, logging frequencies with activity and recording the audio for frequencies that are not already known to be in use in your area so that you can more easily identify the users. This includes frequencies used conventionally as well as in trunked radio systems.

In both modes you also have the option to compare hits to the Database and log all hits or just new hits.

If you use the **Auto Store** option, Discovery will create a new Trunking System for IDs found for each Session or will create a new Conventional System for frequencies found for each Session.

You can create and save several sessions with different settings. Every time you start a session you create a Run that can later be reviewed in the scanner or the Sentinel software.

New Session

Press **Menu** then scroll to **Discovery** and press **E/yes**.

Scroll to **Trunking Discovery** or **Conventional Discovery** and press **E/yes**.

Scroll to **New Session** and press **E/yes**.

Conventional Discovery

Input Session Name - Enter the **Name** and press **E/yes**. See [Data Naming](#).

Trunking Discovery

Input System Name - Enter the first few relevant letters of the system and press **E/yes**. See [Data Naming](#).

Note: The System must be enabled for scan to input system name.

Select System - Scroll to the **System** and press **E/yes**.

Select Site - Scroll to the **Site** and press **E/yes**.

Input Session Name - Enter the **Name** and press **E/yes**. See [Data Naming](#).

Session Options

Press **Menu** then scroll to **Discovery** and press **E/yes**.

Scroll to **Trunking/Conventional Discovery** and press **E/yes**.

Scroll to the **Discovery Session** and press **E/yes**.

Start Discovery

Edit Session Name

Set Limit Frequencies

Set Modulation

Set Step

Set Delay

Set Logging

Set Compare to Database

Set Record Duration

Set Time-Out Timer

System Info

Set Auto Store

Delete Session

Change System

Start Discovery This starts the Discovery Session.

Press **Menu** to stop and review the Run information. See Review Discovery.

Press **Avoid** to Avoid a hit.

Press **Func** then **System** to exit.

Edit Session Name This allows you to name a Session.

See Data Naming.

Set Limit Frequencies (Conventional Only)

This sets the lower and upper frequencies for conventional discovery session.

Set Lower Limit Enter the lower limit.

Set Upper Limit Enter the upper limit.

Set Modulation (Conventional Only) This sets the modulation for conventional discovery session.

Auto, AM, FM, NFM, WFM, or FMB (FM Broadcast)

Set Step (Conventional Only) This sets the step size for conventional discovery session.

Auto, 5, 6.25, 7.5, 8.33, 10, 12.5, 15, 20, 25, 50, or 100 kHz.

Set Delay This sets the Delay when monitoring a site or frequencies.

0, 1, 2, 3, 4, or 5 sec.

Set Logging This will log all hits or just new hits.

All or New Only

Session Options

Set Compare to Database Select **On** to compare hits against the channels already in the Database. Only *new* channels will have audio recorded (if enabled). Select **Off** to treat *all* hits as new channels.

On or Off

Set Record Duration This sets how much audio will be recorded for each new channel.

None, 30, 60, 90, 120, 150, 180, 300, or 600 sec.

Set Time-Out Timer This is used to keep a stuck channel from stealing the whole Run in a session.

Off, 10, 30, or 60 sec.

System Info (Trunking Only) This will give you where it came from, (Full Database or Favorites List), the System Type, (Motorola, P25, etc.), and the System used for the Discovery Session.

Set Auto Store This turns Auto Store on and will create a System called **Conventional** or **Trunking Discovery**.

On or Off

Delete Session This deletes the session.

At **Confirm Delete?** Press **E/yes** or **.no**.

Change System (Trunking Only) This allows you to create or change the System used and change the Site used for the session.

Input System Name – Press **E/yes** to **Skip** if System is saved.

See Data Naming.

Select System

Select the **System** to use for the session.

Select Site

Select the **Site** to use for the session.



The screenshot shows a handheld radio screen with the following text:
Discovery 9:00
Conventional Sep. 1
Lower: 150.0000MHz
Upper: 300.0000MHz
160.5800MHz NFM
00:00:10 0day(s)
Hits: 1 <F+SYS to SCAN>

Conventional Discovery

Review Discovery

In Review Discovery Mode, you can review the results of discovery mode runs, resume runs, or restart saved discovery sessions.

Press **Menu** then scroll to **Discovery** and press **E/yes**.

Scroll to **Review Discovery** and press **E/yes**.

Scroll to **Trunking/Conventional Discovery Results** and press **E/yes**.

Scroll to select the **Run**.

Review Run Results

Summary

Detail

Restart this Run Delete all log files.

Restart? Press **E/yes** or **.no**.

Resume this Run Continue without deleting log files.

Resume? Press **E/yes** or **.no**.

Delete this Run

At **Confirm Delete?** Press **E/yes** or **.no**.

Rename this Run

See Data Naming.

Run Information

Shows the Session settings.

Search/Close Call Options

These are the settings you should look at before you perform a Quick Search, or Close Call Search.

Press **Menu**. Scroll to **Srch/CloCall Opt** and press **E/yes**.
Scroll to the options below and press **E/yes**.

Freq Avoids

Set Delay Time

P25 Waiting Time

Broadcast Screen

Set Attenuator

P25 Threshold Mode

Repeater Find

Set Audio AGC

P25 Threshold Level

Freq Avoids This allows you to review Avoided Frequencies or Stop Avoiding all Frequencies for Searching and Close Call search.

Temporary Avoids appear reversed in the display-**AVOID**.

Stop All Avoiding See also Search Avoids.

At **Confirm Delete?** Press **E/yes** or **.no**.

Rvw Search Avoid

Scroll to Frequency and press **E/yes** to **Stop Avoiding**.

Broadcast Screen Automatically ignores transmissions that are on common broadcasts, paging systems, and other annoyance radio sources during Custom Search, Quick Search, or Close Call Search. The default setting is **Pager On**.

Set All Band On/Off Turns Broadcast Screen **On** or **Off** for All Bands.

Set Each Band

Scroll to each **Band** and press **E/yes** to enable or disable.

Program Band

Band 1-10 Select for each Close Call Band.

Set Lower/Upper Limit

0-1000 MHz

Press **Menu** to return and repeat for each band as needed.

Repeater Find Sets whether the scanner tries to tune to a repeater output frequency when it detects a transmission on a repeater input frequency, in Search and Close Call modes. Turning this feature on can let you hear both sides of the conversation on the output frequency. The default setting is **Off**.

On or Off

Search/Close Call Options

Set Delay Time Determines how long the scanner waits after a transmission ends before resuming Quick Search and Close Call Search operations. A negative delay will force a resume after that number of seconds. The default setting is **2** seconds.

-10, -5, -2, 0, 1, 2, 5, 10, or 30 sec.

Set Attenuator This controls the attenuator for Quick Search, and Close Call operations by about 20dB. The default setting is **Off**.

On or Off

See also Search Attenuation.

Set Audio AGC This allows you to turn AGC (Automatic Gain Control) on or off for Quick Search and Close Call modes. The default settings are **Off**.

Analog - Press **E/yes** to toggle **On** or **Off**.

Digital - Press **E/yes** to toggle **On** or **Off**.

P25 Waiting Time This setting gives the scanner time to determine if frequencies have digital or analog transmissions. During this time, the scanner will evaluate the received signal and, if it detects digital data, will open squelch immediately. If digital is not detected before the delay expires, the scanner will open squelch at the end of this delay. This is to prevent "false decode" problems. The default setting is **400** ms.

0 to 1000 ms

Note: Any analog transmissions will lose the first part of the transmission, up to the wait time you set here.

P25 Threshold Mode The default setting is **Auto**.

Auto -

Manual -

Default -

P25 Threshold Level The default setting is **8**.

1 to 20

Search Options

Edit Custom Search

Set Search Key

Search with Scan

Important! There are many options and setting in Search/Close Call Options that affect and compliment the settings for searching. Please review those first.

Edit Custom Search

You can edit the 10 Custom Search ranges. The default custom search range names appear as **Custom 1**, **Custom 2**, and so on.

Custom 1-10 Select for each Custom Search.

Edit Name See Data Naming.

Edit Srch Limit

Set Lower Limit Enter the lower limit.

Set Upper Limit Enter the upper limit.

Set Delay Time

-10, -5, -2, 0, 1, 2, 5, 10, or 30 sec.

Set Modulation

Auto, AM, NFM, FM, WFM, or FMB (Broadcast)

Set Attenuator

On or Off

Set Step

Auto, 5, 6.25, 7.5, 8.33, 10, 12.5, 15, 20, 25, 50, or 100 kHz

Set Audio AGC

Analog - Press **E/yes** to toggle **On** or **Off**.

Digital - Press **E/yes** to toggle **On** or **Off**.

P25 Waiting Time

0 to 1000 ms

P25 Threshold Mode

Auto, Manual, Default

P25 Threshold Level

1 to 20

Search with Scan See also Select Lists to Monitor and Search with Scan.

Set Avoid

Stop Avoiding, Temporary Avoid, or Permanent Avoid

Set Hold Time Sets how long to search when scanning.

0-255 sec.

Search Options

Set Search Key The scanner has three search keys that you can assign to a search range. The search keys are number keys **1**, **2**, and **3**. This allows you to start a Custom, Tone-Out, or Close Call Search without having to go into the menus.

Search Key 1-3 Select for each Search Key.

Custom Search 1-10, Tone-Out, or Close Call.

Search with Scan This enables Custom Searches in Scan Mode.

See also Select Lists to Monitor and Edit Custom Search.

Set System Avoid

Temporary Avoid, Stop Avoiding, or Avoid.

Searching



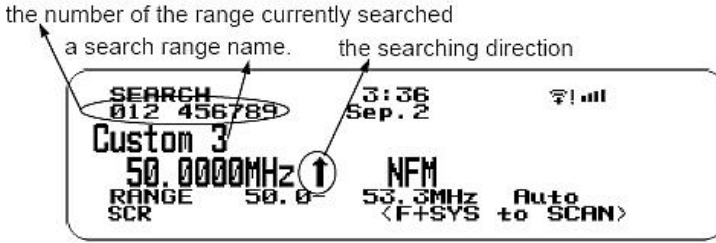
Quick Search

Allows you to enter a frequency and start searching.

Quick Search will search all the way up to 1300 MHz or all the way down to 25 MHz then start over.

Press **Channel** to hold on any channel or frequency. Enter the new frequency you wish to start at then press **Channel** to set the new starting frequency. Press **Channel** again to release hold mode and start searching.

Searching



Custom Search

Allows you to search the scanners 10 programmed frequency ranges.
See also [Edit Custom Search](#).

Press **Menu**. Scroll to **Search for...** and press **E/yes**.
Scroll to **Custom Search** and press **E/yes**
See also [Set Search Key](#).

Change Direction or Resume Search Turn the **Scroll Control**.

Select Bands Press the number keys to enable or disable each Custom Search band.

Holding

Frequency Hold - Press **Channel** to hold on a Frequency.
Scroll to frequencies. Press **Channel** to release hold.

Avoiding Frequencies Temporary Avoid cancels when you cycle power.

Frequency Avoid - Press **Avoid** *once* to **Temporary Avoid**.
Press *quickly* to toggle **Permanent Avoid** and **Stop Avoiding** when the frequency is in the display or in Search Hold mode.

Review Avoids - Press **Channel** to hold on any Frequency.
Press **Func** then **Avoid**. Scroll to each frequency and press **E/yes** to **Stop Avoiding**. Temporary Avoids appear reversed in the display-**AVOID**.

Stop All Avoiding - Press **Channel** to hold on any Frequency.
Press and hold **Avoid**. At **Confirm Delete?** Press **E/yes** or **.no**.
See also [Freq Avoids](#).

Attenuation

Band Attenuation - Press **Func** then **4(ATT)** for each band.

Global Attenuation - Press **Channel** to hold on any frequency then *press and hold* **Func** then **4(ATT)** to toggle global attenuation.

Searching

Modulation Press **Func** then **Channel(MOD)** for each band.

Direct Frequency Entry

Press **Channel** Hold on any frequency. Enter the frequency and press **Menu**.
Press **Channel** to release hold.

Frequency Intermediate Exchange - Press **Channel** to hold on any frequency. Press **Func** then **7(IFX)** to toggle on or off.

Repeater Frequency - Press **Channel** to hold on any frequency.
Press **Func** then *press and hold* **8(REV)**.

Replay the Last Transmissions While searching, press **Replay**.
Press **Channel** to pause/resume replay.
Turn the **Scroll Control** to select recordings.

Start/Stop Recording While searching, press **Func** then **Replay**.

Storing Frequencies

Displayed Frequency into a Quick Save Department Press **E/yes**.
You will see **Saving to Quick Dept** in the display then press **E/yes**.
The scanner stores the ID into the **Quick Save Department**.

Displayed Frequency into an Existing Department Press **E/yes**.

You will see **Saving to Quick Dept** in the display then press **.no**.

At **Select Department** Scroll to the department where you want to store the frequency and press **E/yes**.

After storing the frequency, you will be at the Edit Channel menu to complete the settings for the new channel.

If you don't want to edit the channel settings or are done editing the channel, press **Avoid** to return to searching.

Search Menu - Press **Func** then **Menu**.

Close Call Modes To toggle **CC Off**, **CC Pri**, or **CC DND**.

(BCD536HP) Press **SQ**(☎).

(BCD436HP) Press **Func** then **Avoid**(☎).

Weather Alert Priority Mode Press **Channel** to hold on any channel.

Press **Func** then **6(wx)** to toggle on or off.

Close Call

Your scanner's Close Call feature lets you set the scanner so it detects, alerts you to, and displays the frequency of a nearby strong radio transmission. You can set the scanner so the Close Call feature checks for a Close Call hit every 2 seconds in the background while you are scanning, searching, listening to the weather frequency, etc. or use Close Call Only mode. Close Call 'Do-Not-Disturb' will only check for close call signals when you are not receiving transmissions. You can also select the frequency band(s) to look for transmissions. When the scanner detects a Close Call hit, it alerts you according to the alert settings.

'Hits with Scan' is a special system that automatically stores the last 10 Close Call hits until you cycle power.

The Close Call feature works well for locating the source of strong local transmissions such as mobile and handheld two-way radios in areas with no other strong transmission sources. Performance is increased with higher transmit power, a receive antenna tuned to the target band, and a low background RF level.

The Close Call feature works better with some types of transmissions than others. It might not correctly display frequency information for transmitters using a highly directional antenna (such as an amateur radio beam antenna) or if there are many transmitters operating at the same time in the same area.

Close Call Options

Important! There are many options and settings in Search/Close Call Options that affect and compliment the settings for Close Call. Please review those first.

Press **Menu**. Scroll to **Close Call** and press **E/yes**.

Close Call Only

Hits with Scan

Set CC Mode

Set CC Bands

Set CC Alert

Set Alert Tone


Set Alert Light


Set CC Pause

Close Call Only this setting puts the scanner in Close Call Only mode. You will see activity on the 7 bands in the display. Bands with a * (asterisk) under them are turned off.

Use the numbers on the keypad to toggle bands **On** or **Off**.

You can also start Close Call Only mode by:

(BCD536HP) *Press and hold* **SQ**(.

(BCD436HP) **Hold** on any channel and press **Func** then *press and hold* **Avoid**/.

Close Call Options

Hits with Scan This is a special system that automatically stores the last 10 close call hits and allows you to scan them. Accessible only in the Close Call menu, the system has to be Unavoided to view while scanning (default is Avoided). The scanner will delete the frequencies in this system when you turn the power off.

Set Avoid

Temporary Avoid, Stop Avoiding, or Avoid

Set Hold Time Sets how long to search when scanning.


0-255 sec.

Set Close Call Mode selects the Close Call mode when scanning or searching.

Off- Close Call is turned off.

CC DND- Close Call checks for frequencies every two seconds between transmissions.

CC Priority- Close Call checks for frequencies every two seconds.

You can also toggle these modes by: (BCD536HP) Pressing **SQ**(.

(BCD436HP) **Holding on any channel and pressing Func then Avoid**(.

Set CC Bands lets you select the Close Call bands to be searched.

Scroll to each **Band** and press **E/yes** to toggle **On** or **Off**.

Press **Menu** to return.

VHF Low 1 - 25-54MHz

VHF High2 - 225-320 MHz

VHF Low 2 - 54-108 MHz

UHF - 320-512 MHz

Air Band - 108-137 MHz

800MHz+ - 758-960, 1240-1300 MHz

VHF High1 - 137-225 MHz

Set CC Alert This allows you to set an Alert Tone, Alert Light, and sets the Pause time for Close Call when you receive a hit.

Set Alert Tone

Alert 1-9 or Off.

Set Level

Level 1-15 or Auto (the master volume level).

Set Alert Light

Set Color

Off, Blue, Red, Magenta, Green, Cyan, Yellow, or White.

Set Pattern


On, Slow Blink, or Fast Blink.

Set CC Pause

3, 5, 10, 15, 30, 45, 60, sec. or Infinite.

Using Close Call

Close Call Only Mode

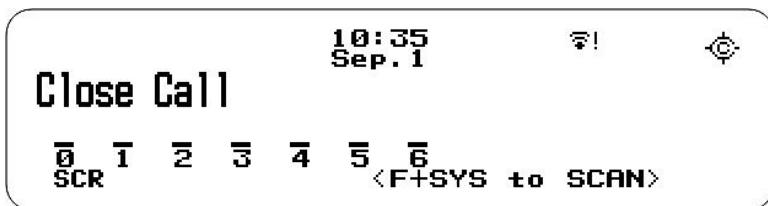
(BCD536HP) Press and hold **SQ**().

(BCD436HP) Press **Channel** to hold on any channel/frequency.

Press **Func** then press and hold **Avoid**(). See also Set Search Key.

When the scanner detects a Close Call signal, **CC Found!** and **Press Any Key** appear for the length of time set in Close Call Pause.

The band number will blink under the band that the hit was found in.



Close Call Only Mode

Toggle Close Call Bands

Press the number keys to enable or disable each Close Call band.

Cancel a Hit

Turn the **Scroll Control**.

Holding on a Hit

Press **Channel** to hold on the Close Call Hit. Press **Channel** to cancel hold.

View Last Hit

Press **Channel** to recall the last hit.

Avoiding Hits Temporary Avoids cancel when you cycle power.

Press **Avoid** *once* to **Temporary Avoid**.

Press *quickly* to toggle **Permanent Avoid** and **Stop Avoiding** when the frequency is in the display or in Search Hold mode.

Review Avoids - Press **Channel** to hold on any Frequency.

Press **Func** then **Avoid**. Scroll to each frequency and press **E/yes** to **Stop Avoiding**. Temporary Avoids appear reversed in the display-**AVOID**.

Clear All Avoids - Press **Channel** to hold on any Frequency.

Press and hold **Avoid**. At **Confirm Delete?** Press **E/yes** or **.no**.

Using Close Call



Close Call Hit

Attenuation Press **Func** then **4(ATT)** for *all* bands.

Modulation Press **Func** then **Channel(MOD)** for *all* bands.

Quick Search

Press **Channel** Hold on any frequency. Turn the **Scroll Control**.
Press **Channel** to release hold.

Intermediate Frequency Exchange - Press **Channel** to hold on any frequency. Press **Func** then **7(IFX)** to toggle on or off.

Repeater Frequency - Press **Channel** to hold on any frequency.
Press **Func** then *press and hold* **8(REV)**.

Replay the Last Transmissions Press **Replay**.
Press **Channel** to pause/resume replay.
Turn the **Scroll Control** to select recordings.

Start/Stop Recording Press **Func** then **Replay**.

Storing

Displayed Frequency into a Quick Save Department Press **E/yes**.
You will see **Saving to Quick Dept** in the display then press **E/yes**.
The scanner stores the ID into the **Quick Save Department**.

Displayed Frequency into an Existing Department Press **E/yes**.

You will see **Saving to Quick Dept** in the display then press **.no**.
At **Select Department** Scroll to the department where you want to store the frequency and press **E/yes**.

After storing the frequency, you will be at the Edit Channel menu to complete the settings for the new channel.

If you don't want to edit the channel settings or are done editing the channel, press **Avoid** to return to searching.

Close Call Menu - Press **Func** then **Menu**.

Weather Operation

Weather Options

Set Delay Time

Set Attenuator

Set Audio AGC

Program SAME

WX Alt Priority

Weather Scan

Weather Alert

Review WX Alerts

Set Delay Time Sets the number of seconds the scanner should wait after a transmission stops before moving on to the next channel during weather scan. A negative delay will force a resume after that number of seconds. The default setting is **2** seconds.

-10, -5, -2, 0, 1, 2, 5, 10, or 30 sec.

Set Attenuator Sets the attenuator (20 dB) for weather operation. The default setting is **Off**.

On or Off

Note: You can also toggle attenuation for weather scan by pressing **Func** then **4(ATT)**.

Set Audio AGC This allows you to turn AGC (Automatic Gain Control) on or off for Weather operations. The default setting is **Off**.

Analog - Press **E/yes** to toggle **On** or **Off**.

Program SAME SAME (Specific Area Messaging System) is a system developed by the National Weather Service to reduce the number of alerts received by consumers by allowing them to hear alerts only for the county(ies) they are interested in. Each alert contains information about the type and severity of the alert, as well as the specific geographic locations affected by the alert.

To receive SAME alerts, you can program up to **5 groups of 8 FIPS codes** (40 codes) into the scanners memory.

To find the FIPS codes for your scanner call the NWS toll free at 1-888-697-7263 (follow the instructions you hear) or see [FIP codes for the United States and its Possessions](#).

SAME 1-5 Select for each SAME group.

Edit Name See [Data Naming](#).

Edit County

Code 1-8 Select for each FIP code.

Enter the FIPS code and press **E/yes** to save.

-10, -5, -2, 0, 1, 2, 5, 10, or 30 sec.

Weather Options

Weather Alert Priority Turning the weather alert priority feature on allows the scanner to check the weather channels every 5 seconds for a 1050 Hz weather alert signal and still scan or search. If you should receive an alert, you will hear a loud warbling then the weather channel audio.

On or Off

Note: You can also toggle weather alert priority in scan or search modes by holding on any channel and pressing **Func** then **6(wx)**.

Weather Scan



Press **Channel** to hold on any channel/frequency. *Press and hold 6(wx).*

The scanner starts scanning the preprogrammed weather frequencies and stops on the first good signal. If the signal is lost, the scanner resumes searching for another weather transmission.

Change Channel

Turn the **Scroll Control**.

Attenuation Press **Func** then **4(ATT)**.

Modulation Press **Func** then **Channel(MOD)**.

Intermediate Frequency Exchange - Press **Channel** to hold on any frequency. Press **Func** then **7(IFX)** to toggle on or off.

Replay the Last Transmissions Press **Replay**.

Press **Channel** to pause/resume replay.

Turn the **Scroll Control** to select recordings.

Start/Stop Recording Press **Func** then **Replay**.

Weather Menu - Press **Func** then **Menu**.

Weather Options

Weather Alert This setting turns on weather alert and determines which types of signals will trigger an alert. See also Program SAME.

Press **Channel** to hold on any channel/frequency.

Press and hold **6(wx)**. Press **Func** then Menu.

Scroll to **Weather Alert** and press **E/yes**.

Alert Only - The scanner will scan all the weather channels and immediately sound a weather alert siren when it detects the 1050 Hz weather alert tone, then opens the squelch and remains on the weather channel.

SAME 1-5 - The scanner sounds a weather alert siren for any *programmed county(ies)*, then opens the squelch and remains on the weather channel.

All FIPS - The scanner sounds a weather alert siren for *any programmed county*, then opens the squelch and remains on the weather channel.

The scanner will mute and scan *only* the weather channels.

Warning! If you receive an alert it will be at **FULL** volume.



Weather Alert



Weather Warning

Review WX Alerts

SAME 1-5 Select for each SAME group.

Fire Tone-Out

Fire-Tone-Out will monitor up to 32 different channels for paging tones (two-tone sequential, single tone, and group tone).

Tone-Out Standby Mode is used if you know and use programmed tones.

Tone-Out Search Mode is used if you don't know the tones.

All tone-outs (channels) that have the same frequency (and modulation and attenuation) as the one you select will also (and only) be monitored so you can monitor up to 32 tone-out channels for one frequency.

In this case, the scanner displays each tone-out channel for two seconds. It does not scan them; tone-out *monitors the frequency* for all tone-out channels with the same frequency.

Regardless of the current display, the scanner will alert on any received tone out that matches a stored setting (channel) for the frequency.

Tone-Out Setup

Press **Menu**. Scroll to **Tone-Out for...** and press **E/yes**.

Scroll to **Tone-Out Setup** and press **E/yes**.

Scroll to **Tone-Out (0-31)** and press **E/yes**.

Edit Name

Set Frequency

Set Tone

Set Delay Time

Set Alert

Set Audio AGC

Edit Name See Data Naming.

Set Frequency

Edit Frequency Enter the frequency and press **E/Yes**.

Set Modulation

Auto, NFM, FM

Set Attenuator

On or Off

Tone-Out Setup

Set Tone

Edit Tone A and press **E/yes**. Enter the tone and press **E/yes** to save.

Edit Tone B and press **E/yes**. Enter the tone and press **E/yes** to save.

Press **Menu** to return.

For two-tone pages, enter the tones (in Hz) for tone A and tone B.

For one-tone pages using short tones between 1.25 and 3.75 seconds, enter **tone** for tone A, and **0** for tone B.

For long-tone pages, such as group pages of more than 3.75 seconds, enter **0** for tone A, and the **tone** for B.

To search for tones, leave the tones for A and B at **0**.

Set Delay Time

Off - the scanner resumes standby as soon as the carrier drops after a page.

1-30 - (seconds): the scanner resumes standby mode after the carrier drops and the selected time expires.

Infinite - you must press **Hold** after a page to resume standby mode.

Set Alert

Set Alert Tone

Alert 1-9 or Off.

Set Level

Level 1-15 or Auto (the master volume level).

Set Alert Light

Set Color

Off, Blue, Red, Magenta, Green, Cyan, Yellow, or White.

Set Pattern

On, Slow Blink, or Fast Blink.

Fire Tone-Out Standby/Search

Press **Menu**. Scroll to **Tone-Out for...** and press **E/yes**.

Scroll to **Tone-Out Standby** and press **E/yes**.

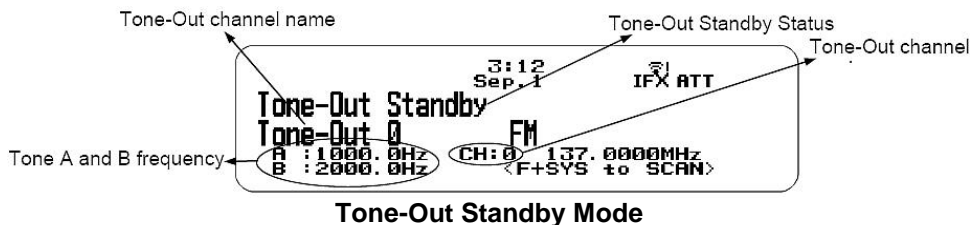
(BCD536HP Only) press **FUNC** then **SQ**.

See also Set Search Key.

Scroll to monitor a Tone-Out channel (**0-31**).

Press **Func** then **System** to exit.

Fire Tone-Out Standby/Search



Any transmission received on the frequency will not be heard but you will still see the signal strength bars.

To monitor a different *frequency*, scroll to a tone-out (channel) with a different frequency.

If you press **HOLD** while in Standby/Search mode, the scanner temporarily exits and you will be able to hear any transmissions on that frequency. No alerts sound, even if a tone-out matches one you have programmed in hold mode. Press **HOLD** again to return to Standby/Search mode.

If the scanner finds tones in Tone-Out Search mode, you will see **Set Found Tone A and B?** Press **E/yes** to save.



Select a different Tone-Out Turn the **Scroll Control**.

Listen to Tone-Out Frequency Press **Hold**.

Attenuation Press **Func** then **4(ATT)**.

Modulation Press **Func** then **Channel(mod)**.

Intermediate Frequency Exchange Press **Channel** to hold on any frequency. Press **Func** then **7(IFX)** to toggle on or off.

Start/Stop Recording Press **Func** then **Replay**.

Store Found Tones Press **E/yes** at **Save Found Tones?**.

Tone-Out Menu Press **Func** then **Menu**.

Appendix

Troubleshooting

Scan Mode, Nothing to Scan:

1. Make sure you Set Your Location to scan only the Database.
2. All Channels are out of range.
3. Make sure Favorites Lists are enabled in Set Scan Selection.
4. Make sure Service Types are enabled for the Channels you want to hear.
5. Make sure you have locations programed if Use Location Control is On.
6. Make sure longitude and latitude are N and W (for N America).
7. Make sure Systems/Departments/Channels are not Avoided.
8. Make sure Favorites List/System quick key is enabled.
9. (Search with Scan) Make sure Search with Scan is enabled in Select Lists to Monitor and the Search for Menu and for the Custom Search.

Scanning Interrupted:

1. Turn off Priority Scan.
2. Turn off Close Call Priority.
3. Turn off Weather Priority.
4. Set Channel Delay longer.
5. Set positive Channel Delay.

Default Band Coverage

Frequency Range		Mode	Step (kHz)	Band
Lower	Upper			
25.0000	26.9600	AM	5	Petroleum Products & Broadcast Pickup
26.9650	27.4050	AM	5	CB Class D Channel
27.4100	27.9950	AM	5	Business & Forest Products
28.0000	29.6800	NFM	20	10 Meter Amateur Band
29.7000	49.9900	NFM	10	VHF Low Band
54.0000	71.9500	WFM	50	VHF TV Broadcast 2 – 4
72.0000	75.9500	FM	5	Intersystem & Astronomy
76.0000	87.9500	WFM	50	VHF TV Broadcast 5 – 6
88.0000	107.900	FMB	100	FM Broadcast
108.0000	136.9916	AM	8.33	Commercial Aircraft
137.0000	143.9875	NFM	12.5	Military Land Mobile
144.0000	147.9950	NFM	5	2 Meter Amateur Band
148.0000	150.7875	NFM	12.5	Military Land Mobile
150.8000	161.9950	NFM	5	VHF High Band
162.0000	173.9875	NFM	12.5	Federal Government
174.0000	215.9950	FM	5	TV Broadcast 7 – 13
216.0000	224.9800	NFM	20	1.25 Meter Amateur Band
225.0000	379.9750	AM	25	UHF Aircraft Band
380.0000	399.9875	NFM	12.5	Trunked Military Band
400.0000	405.9875	NFM	12.5	Miscellaneous
406.0000	419.9875	NFM	12.5	Trunked Federal Government Band
420.0000	449.9875	NFM	12.5	70 cm Amateur Band
450.0000	469.9875	NFM	12.5	UHF Standard Band
470.0000	512.0000	NFM	12.5	UHF TV Band
758.0000	787.99375	NFM	6.25	Public Service Band
788.0000	805.99375	NFM	6.25	Public Service Band
806.0000	823.9875	NFM	12.5	Public Service Band
849.0125	868.9875	NFM	12.5	Public Service Band
894.0125	960.0000	NFM	12.5	Public Service Band
1240.0000	1300.0000	NFM	25	25 cm Amateur Band

When you select **AUTO** for a channel or modes modulation or step, the above values are used unless you've edited the [Band Defaults](#)

Steps can be selected from 5/6.25/7.5/8.33/10/12.5/15/20/25/50/100/AUTO (kHz).

Although TV bands are listed, the scanner cannot decode digital TV audio.

Service Types

Service Type	Description
Aircraft	For civilian aircraft and air traffic control operations most typically in the 118-136 MHz and 225-380 MHz bands in AM mode.
Business	Most business related entities not covered by other tags.
Corrections	Jail/prison operations, corrections activities, federal prisons.
Emergency Ops	Emergency Operation Centers and similar emergency management or disaster related operations.
EMS Dispatch	Ambulance dispatch, including rescue squads.
EMS-Tac	Ambulance on-scene communications, tactical operations and secondary channels.
EMS-Talk	Ambulance talk-around, car-to-car and supervisor operations.
Federal	All federal government operations (except corrections, traditional law enforcement patrol and fire/EMS operations).
Fire Dispatch	Fire dispatch, including combined fire/ambulance dispatch.
Fire-Tac	Fireground, tactical and on-scene communications, including combined fire/ambulance operations.
Fire-Talk	Fire talk-around and car-to-car operations, chiefs, supervisors, etc., including combined fire/ambulance operations.
Ham	Any amateur radio assignment.
Hospital	Ambulance-to-Hospital communications and patient reports.
Interop	Interoperability communications, cross-agency communications, mutual aid, etc.
Law Dispatch	Law enforcement dispatch.
Law-Tac	Law enforcement tactical, SWAT, on-scene, surveillance and specific sub-agency communications.
Law Talk	Law enforcement talk-around, car-to-car and supervisor operations.
Media	Newspapers, television and broadcast radio operations.
Military	Military operations, e.g., range control, air-to-air combat, etc.
Multi-Dispatch	Combined law enforcement and fire/ambulance dispatch.
Multi-Tac	Combined law enforcement and fire/ambulance tactical and on-scene communications.

Service Types

Service Type	Description
Multi-Talk	Combined law enforcement and fire/ambulance tactical talk-around and car-to-car operations.
Public Works	Public agency non-public safety communications. This includes any non-public safety government services, such as trash, streets, roads, sewer, zoos, administration, maintenance, animal control, community initiatives, code compliance, etc.
Race Officials	Available for use to identify officials' frequencies for racing events.
Race Teams	Available for use to identify team frequencies for racing events.
Railroad	All common carrier railroad communications.
Schools	School-related communications (schools, school buses, football games, etc.).
Security	Non-law enforcement security operations, including private security companies, noncommissioned government agency security, school security, etc.
Transportation	Public and private bus, taxi, and public passenger rail communications.
Utilities	Private electric, water, natural gas, phone, cable TV, etc. operations.
Custom 1-8	User-defined service types.

Removing the Micro SD Card

Carefully remove the SD Card by using a thumbnail or pencil eraser to push the card in so it will spring out. Handle with care if you are going to use it in a card reader. Gently install the SD Card the same way it was removed and to push the card in so it will spring back into place.

Reformatting the Micro SD Card

SD cards should only be formatted using the special SD Card Formatter (https://www.sdcard.org/downloads/formatter_4/). Then, you need to "Clear User Data" using Sentinel to restore all HP files and directories to the card. After formatting, the HP won't be automatically detected (since it is wiped clean), so you may need to uncheck "Hide empty drives" in windows "Tools>Folder Options>View before doing the "Clear User Data" step.

Type II Special Status Bits

Type II Motorola Smartnet systems use these status bits for special transmissions such as emergency, patches, DES/DVP scrambled transmissions, and multiselects. Motorola trunking radios directly interpret them for their special functions, thus no difference is noticed by the person with the radio. The scanner however interprets these special talk group status bits as different talk groups entirely. Below is the conversion chart for these special status bits.

TT ID + # Usage

ID+0 Normal Talk group
ID+1 All Talk group
ID+2 Emergency
ID+3 Talk group patch to another
ID+4 Emergency Patch
ID+5 Emergency multi-group
ID+6 unassigned
ID+7 Multi-select (initiated by dispatcher)

TT ID + # Usage

ID+8 DES/DVP Encryption talk group
ID+9 DES All Talk group
ID+10 DES Emergency
ID+11 DES Talk group patch
ID+12 DES Emergency Patch
ID+13 DES Emergency multi-group
ID+14 unassigned
ID+15 Multi-select DES TG

Therefore, if a user was transmitting a multi-select call on talk group 1808, the scanner would actually receive those transmissions on 1815.

Some common uses of these status bits are as follows:

When a user hits their emergency button, all conversations on the talk group revert to the emergency status talk group (ID+2) until the dispatch clears the emergency status. Therefore, if someone hit their emergency button and their radio was on talk group 16, all communications would switch to talk group 18.

A lot of Fire and EMS departments dispatch tone-outs and alarms as Multi-select communications (ID+7). Therefore, if your fire department dispatch talk group is 1616, and they do dispatch tone-outs and alarms as Multi-selects, then those communications will be on talk group 1623.

Weather Channels

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

SAME Event Codes

Standard	Event Code	Warning Watch	
			Advisory
ADR	Administrative Message		O Admin Message
AVA	Avalanche Watch		O Avalanche
AVW	Avalanche Warning	O	Avalanche
BHW	Biological Hazard Warning	O	Biological
BWW	Boil Water Warning	O	Boil Water
BZW	Blizzard Warning	O	Blizzard
CAE	Child Abduction Emergency		O Child Emergency
CDW	Civil Danger Warning	O	Civil Danger
CEM	Civil Emergency Message	O	Civil EMG
CFA	Coastal Flood Watch		O Coastal Flood
CFW	Coastal Flood Warning	O	Coastal Flood
CHW	Chemical Hazard Warning	O	Chemical
CWW	Contaminated Water Warning	O	Contam. Water
DBA	Dam Watch		O Dam Break
DBW	Dam Break Warning	O	Dam Break
DEW	Contagious Disease Warning	O	Contagious
DMO	Practice/Demo		O System Demo
DSW	Dust Storm Warning	O	Dust Storm
EAN	Emergency Action Notification	O	EMG Notify
EAT	Emergency Action Termination		O EMG Terminate
EQW	Earthquake Warning	O	Earthquake
EVA	Evacuation Watch		O Evacuate Note
EVI	Immediate Evacuation	O	Evacuate Note
FCW	Food Contamination Warning	O	Food
FFA	Flash Flood Watch		O Flash Flood
FFS	Flash Flood Statement		O Flash Flood
FFW	Flash Flood Warning	O	Flash Flood
FLA	Flood Watch		O Flood
FLS	Flood Statement		O Flood
FLW	Flood Warning	O	Flood
FRW	Fire Warning	O	Fire
FSW	Flash Freeze Warning	O	Flash Freeze
FZW	Freeze Warning	O	Freeze
HLS	Hurricane Statement		O Hurricane
HMW	Hazardous Material Warning	O	Hazardous
HUA	Hurricane Watch		O Hurricane
HUW	Hurricane Warning	O	Hurricane
HWA	High Wind Watch		O High Wind
HWW	High Wind Warning	O	High Wind

Standard	Event Code	Warning		
			Watch	
			Advisory	
IBW	Iceberg Warning	O		Iceberg
IFW	Industrial Fire Warning	O		Industrial Fire
LAE	Local Area Emergency		O	Local EMG
LEW	Law Enforcement Warning	O		Law Enforcement
LSW	Land Slide Warning	O		Land Slide
NAT	National Audible Test		O	National Audible
NIC	National Information Center		O	National Info
NMN	Network Notification Message		O	Network Message
NPT	National Periodic Test		O	Nation Period
NST	National Silent Test		O	Nation Silent
NUW	Nuclear Power Plant Warning	O		Nuclear Plant
POS	Power Outage Advisory		O	Power Outage
RHW	Radiological Hazard Warning	O		Radiological
RMT	Required Monthly Test		O	Monthly
RWT	Required Weekly Test		O	Weekly
SMW	Special Marine Warning	O		Special Marine
SPS	Special Weather Statement		O	Special WX
SPW	Shelter In-Place Warning	O		Shelter
SVA	Severe Thunderstorm Watch		O	Thunderstorm
SVR	Severe Thunderstorm Warning	O		Thunderstorm
SVS	Severe Weather Statement		O	Severe WX
TOA	Tornado Watch		O	Tornado
TOE	911 Telephone Outage Emergency		O	911 Phone Outage
TOR	Tornado Warning	O		Tornado
TRA	Tropical Strom Watch		O	Tropical Storm
TRW	Tropical Storm Warning	O		Tropical Storm
TSA	Tsunami Watch		O	Tsunami
TSW	Tsunami Warning	O		Tsunami
TXB	Transmitter Backup On		O	TX Backup On
TXF	Transmitter Carrier Off		O	TX Carrier Off
TXO	Transmitter Carrier On		O	TX Carrier On
TXP	Transmitter Primary On		O	TX Primary On
VOW	Volcano Warning	O		Volcano
WFA	Wild Fire Watch		O	Wild Fire
WFW	Wild Fire Warning	O		Wild Fire
WSA	Winter Storm Watch		O	Winter Storm
WSW	Winter Storm Warning	O		Winter Storm
**A	Unrecognized Watch		O	Unrecognized
**E	Unrecognized Emergency		O	Unrecognized
**S	Unrecognized Statement		O	Unrecognized
**W	Unrecognized Warning	O		Unrecognized

Continuous Tone Coded Squelch System (CTCSS) and Digital Coded Squelch (DCS) are two methods used to prevent interference by other radio communications. Your scanner can receive transmissions that use these codes.

CTCSS and DCS systems all use some form of coded squelch. Coded squelch involves the transmission of a special code signal along with the audio of a radio transmission. A receiver with coded squelch only activates when the received signal has the correct code. This lets many users share a single frequency, and decreases interference caused by distant transmitters on the same channel. In all major metropolitan areas of the United States, every available radio channel is assigned to more than one user.

CTCSS Frequencies

The scanner can detect the following 50 CTCSS frequencies.

67.0Hz	94.8Hz	131.8Hz	171.3Hz	203.5Hz
69.3Hz	97.4Hz	136.5Hz	173.8Hz	206.5Hz
71.9Hz	100.0Hz	141.3Hz	177.3Hz	210.7Hz
74.4Hz	103.5Hz	146.2Hz	179.9Hz	218.1Hz
77.0Hz	107.2Hz	151.4Hz	183.5Hz	225.7Hz
79.7Hz	110.9Hz	156.7Hz	186.2Hz	229.1Hz
82.5Hz	114.8Hz	159.8Hz	189.9Hz	233.6Hz
85.4Hz	118.8Hz	162.2Hz	192.8Hz	241.8Hz
88.5Hz	123.0Hz	165.5Hz	196.6Hz	250.3Hz
91.5Hz	127.3Hz	167.9Hz	199.5Hz	254.1Hz

DCS Codes

The scanner can detect the following 104 hexadecimal DCS codes.

006	031	054	116	145	205	245	266	332	411	452	506	612	703
007	032	065	122	152	212	246	271	343	412	454	516	624	712
015	036	071	125	155	214	251	274	346	413	455	523	627	723
017	043	072	131	156	223	252	306	351	423	462	526	631	731
021	047	073	132	162	225	255	311	356	431	464	532	632	732
023	050	074	134	165	226	261	315	364	432	465	546	654	734
025	051	114	141	172	243	263	325	365	445	466	565	662	743
026	053	115	143	174	244	265	331	371	446	503	606	664	754

Reverse List

Range (MHz)	Offset (MHz)	Range (MHz)	Offset (MHz)
29.5200 - 29.5800	+ 0.1	450.0000 - 454.9875	+ 5
29.6200 - 29.6800	- 0.1	455.0000 - 459.9875	- 5
52.0100 - 52.9900	+ 1	460.0000 - 464.9875	+ 5
53.0100 - 53.9900	- 1	465.0000 - 469.9875	- 5
143.7500	+ 4.375	470.0000 - 472.9875	+ 3
143.9000	+ 4.25	473.0000 - 475.9875	- 3
144.5100 - 144.8900	+ 0.6	476.0000 - 478.9875	+ 3
145.1100 - 145.4900	- 0.6	479.0000 - 481.9875	- 3
146.0100 - 146.3850	+ 0.6	482.0000 - 484.9875	+ 3
146.4150 - 146.5050	+ 1	485.0000 - 487.9875	- 3
146.5950	+ 1	488.0000 - 490.9875	+ 3
146.6100 - 146.9850	- 0.6	491.0000 - 493.9875	- 3
147.0000 - 147.3900	+ 0.6	494.0000 - 496.9875	+ 3
147.4150 - 147.5050	- 1	497.0000 - 499.9875	- 3
147.5950	- 1	500.0000 - 502.9875	+ 3
147.6000 - 147.9900	- 0.6	503.0000 - 505.9875	- 3
148.1250	- 4.375	506.0000 - 508.9875	+ 3
148.1500	- 4.25	509.0000 - 511.9875	- 3
222.1200 - 223.3800	+ 1.6	758.0000 - 775.9937	+30
223.7200 - 224.9800	- 1.6	788.0000 - 805.9937	-30
420.0000 - 424.9875	+ 5	806.0000 - 823.9875	+ 45
425.0000 - 429.9875	- 5	851.0000 - 868.9875	- 45
440.0000 - 444.9875	+ 5	896.0000 - 901.0000	+ 39
445.0000 - 449.9875	- 5	935.0000 - 940.0000	- 39

Repeater Frequency List

Base Frequency (MHz)	Offset (MHz)	Base Frequency (MHz)	Offset (MHz)
455.0151 - 459.9950	- 5	497.0001 - 500.0000	- 3
465.0101 - 469.9950	- 5	503.0001 - 506.0000	- 3
473.0001 - 476.0000	- 3	509.0001 - 512.0000	- 3
479.0001 - 482.0000	- 3	758.0000 - 775.9937	+30
485.0001 - 488.0000	- 3	806.0051 - 823.9875	+45
491.0001 - 494.0000	- 3	894.0125 - 921.0000	+39

Specifications

Index

Access Point Mode	39	Department Hold	64
Add Current dB Channels	42	Department Options	52
Adding Systems From the Database	66	Departments.....	20
Adjust Contrast.....	32	Direct Frequency/ID Entry.....	64
Adjust Key Beep.....	37	Discovery Mode	70
Advanced Channel Menu	66	Display	33
Alerts	41	Display Modes	
Appendix	90	toggling	63
Attenuation		Display Options	32
close call	83	Display Unit ID	32
conventional channel	65	Edit Band Plan	49
conventional site	65	Edit Channel	
search	78	department.....	52
tone-out.....	89	Edit Fleetmap	46
weather	85	Edit Frequency	
Auto Locate	24	channel	55
Auto Shutoff.....	37	tone-out.....	87
Avoiding		trunking site	50
channels.....	65	Edit ID	
frequencies	78	channel	55
Band Defaults.....	37	Edit Location	25
Battery Option	37	Edit Name	
Broadcast Screen.....	74	channel	55
Change System		custom search	76
discovery	72	department.....	52
Channel Hold.....	64	location.....	25
Channel Options	54	site	49
Clear User Data.....	38	system.....	44
Close Call	80	tone-out.....	87
toggle modes	67	Edit Session Name.....	71
Close Call Only.....	80	Edit Srch Limit	
Close Call Only Mode	82	custom search	76
Close Call Options	80	Edit Unit IDs	44
Copy System	45	Emergency Alert.....	47
Custom Search.....	78	Enter Zip/Postal Code	24
Data Naming	24	Entering IDs	55
Default Bands.....	91	Favorites Lists	19
Delete		Information	43
channel	57	Fire Tone-Out.....	87
department.....	53	Freq Avoids	74
location.....	25	Hits with Scan	81
session.....	72	Holding	64
site	52	ID Scan/Search	
system.....	45	toggle	64
		ID Search	46

Included With Your Scanner.....	11	P25 Threshold Mode	
Information		conventional system	48
Database	58	custom search.....	76
Infrastructure Mode	39	search/close call	75
Input SSID	39	site.....	52
Intermediate Frequency Exchange	9	P25 Waiting Time	
scan mode.....	65	conventional system	48
Introduction	5	custom search.....	76
Key Operations	26	search/close call	75
Keypad and Knob Controls	26	site.....	51
Keypress		Planning Profiles	40
backlight	32	Priority	59
Location Format.....	24	priority ID scan	59
Location-Based Scanning	69	priority scan.....	59
Main Features.....	7	toggle modes	67
Managing Favorites Lists	41	Priority ID Scan	
Managing Quick Key Status	58	system.....	46
MaxCHs/Pri-Scan	60	Priority Scan Options.....	60
Modulation		Profiles	19
close call	83	Program SAME	84
conventional channel	65	Programming Departments	52
search	79	Programming Frequencies/TGIDs	54
site.....	65	Programming Sites.....	48
tone-out.....	89	Programming Systems	44
weather	85	Quick Keys	40
Navigating the Menus.....	31	Quick Search	77
New		Quick Store Frequency/ID	54
channel.....	54	Reformatting the Micro SD Card ..	93
department	52	Removing the Micro SD Card	93
favorites List	41	Repeater Find.....	74
session	70	Repeater Frequency	
site.....	48	conventional channel	65
system.....	44	Repeater Frequency List.....	98
Number Tags.....	41	Replay Options	38
using.....	66	Replaying Transmissions	64
P25 Adjustment Mode	68	Reset User Settings	38
P25 NAC Option		Restore Options	38
channel.....	56	Reverse List	98
system	47	Review Avoids	
P25 Threshold Level		database	58
conventional system.....	48	favorites list	42
custom search.....	76	frequencies	78
search/close call.....	75	Review Discovery.....	73
site.....	52	Review WX Alerts.....	86
		Reviewing Avoids	68
		SAME Event Codes.....	95
		Save Location.....	26

Scanning Favorites Lists	61	Set Backlight	32
Search For... Menu	76	Set CC Alert	81
Search Keys	40	Set CC Bands	81
Search with Scan		Set Clock	37
custom search	76	Set Close Call Mode	81
search for menu	77	Set Compare to Database	
select lists to monitor	58	discovery	72
Search/Close Call Options	74	Set Connection	39
Searching	77	Set CTCSS/DCS	56
See Scanner Info	38	Set Delay	
Select Lists to Monitor	58	discovery	71
Select Security	39	Set Delay Time	
Select Service Type		channel	57
channel	57	custom search	76
Selecting Quick Keys	63	search/close call	75
Selecting Service Types	26	tone-out	88
Sentinel Software	21	weather scan	84
Service Types	92	Set Dimmer	32
Session Options	71	Set End Code	46
Set Alert		Set Frequencies	
channel	57	site	50
close call	81	Set Frequency	
emergency alert	47	tone-out	87
tone-out	88	Set Hold Time	
unit id	44	hits with scan	81
Set All Lists Off/On	58	search with scan	76
Set Attenuator		system	46
conventional channel	56	Set ID Format	33
custom search	76	Set Interval	
search/close call	75	priority	60
site	50	Set Limit Frequencies	71
tone-out	87	Set Location Info	
weather scan	84	department	53
Set Audio AGC		site	51
custom search	76	Set Logging	
search/close call	75	discovery	71
system	47	Set Manual Location	24
weather scan	84	Set Modulation	
Set Audio Type		conventional channel	56
channel	56	custom search	76
Set Auto Store		discovery	71
discovery	72	site	50, 65
Set Avoid		tone-out	87
channel	57	Set Nationwide Systems	58
department	53		
site	50		
system	45		

Set Number Tag		Status Bits	94
channel.....	56	Stop All Avoiding	
favorites list	42	database	58
system	45	favorites list	42
Set Priority		frequencies	78
channel.....	57	Store Tones	
mode	60	Tone-Out Search	89
Set Quick Key		Storing	
favorites list	42	CTCSS/DCS/NAC.....	67
system	45	Displayed ID.....	67
Set Range.....	25	search frequency	79
Set Record Duration		System Hold	64
discovery	72	System Info	
Set Scan Range	64	discovery	72
Set Scan Selection	58	System Options	45
Set Search Key.....	77	System Quick Keys	40
Set Serial Port	24	System Settings	44
Set Site Type	49	Systems.....	20
Set Status Bit.....	46	Timeout	32
Set Step		Tone-Out	
conventional`` discovery	71	scan mode	67
custom search.....	76	setup	87
Set Time-Out Timer		standby/search.....	88
discovery	72	Troubleshooting.....	90
Set Tone		Trunking Sites	20
tone-out	88	Turning on the Scanner.....	23
Set Unit.....	24	Understanding Location Control...	43
Set Up GPS	24	Understanding Range	25
Set Upside-Down.....	33	Use Location Control.....	42
Set Your Location	24	Using a GPS.....	69
Settings Menu.....	37	Using Close Call	82
Setting up Your Scanner	12	View Battery Level.....	38
Show Wi-Fi Information	39	Volume Offset.....	9
Site Hold	64	channel.....	57, 65
Site Options	48	Weather Alert	86
Specifications	99	Weather Alert Priority	85
Start Discovery	71	scan mode	67
Start Recording.....	64	toggle	85
Startup Configuration	41	Weather Channels.....	94
Startup Key		Weather Operation	84
favorites list	42	Weather Options	84
Startup Keys		Weather Scan.....	85
using.....	59	Wi-Fi Setup.....	39

Warranty Information

WARRANTOR: UNIDEN AMERICA CORPORATION (Uniden)

ELEMENTS OF WARRANTY: Uniden warrants, for one year, to the original retail owner, this Uniden Product to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user shall terminate and be of no further effect 12 months after the date of original retail sale.

The warranty is invalid if the Product is

- (A) damaged or not maintained as reasonable or necessary,
- (B) modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden,
- (C) improperly installed,
- (D) serviced or repaired by someone other than an authorized Uniden service center for a defect or malfunction covered by this warranty,
- (E) used in any conjunction with equipment or parts or as part of any system not manufactured by Uniden, or
- (F) installed or programmed by anyone other than as detailed by the Operating Guide for this product.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will repair the defect and return it to you without charge for parts, service, or any other cost (except shipping and handling) incurred by warrantor or its representatives in connection with the performance of this warranty. THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO THE PRODUCT AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion might not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you might also have other rights which vary from state to state.

This warranty is void outside the United States of America.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in this Operating Guide you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). Include evidence of original purchase and a note describing the defect that has caused you to return it. The Product should be shipped freight prepaid, by traceable means, or delivered, to warrantor at:

Uniden America Corporation

Parts and Service Division

C/O Saddle Creek

743 Henrietta Creek Rd. Suite 100, Roanoke, Texas 76262.

Back Cover