DEPARTMENT OPTIONS

Edit Name	**Set Location Information**	**Delete Department**
Set Department Quick Key	**Set Avoid**	**New Department**
Edit Channel		

Edit Name

See Data Naming.

Set Department Quick Key

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

0-99 or **.** (for no quick key)

Note: Pressing the first number of a 2-digit quick key will get you closer. For example, press 1 for 10, 2 for 20, etc., then scroll to the second digit.

Edit Channel

See Channel 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 - Bottom Right

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

Longitude - Bottom Right

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

Stored 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 Avoids cancel when you cycle power.

The default setting is **Stop Avoiding**.

> **Stop Avoiding, Temporary Avoid**, or **Permanent 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/TGID

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

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

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

> **Store a Frequency/TGID into a "Quick Save" Favorites List**
>> At **Quick Freq/TGID Save?**, press **E/yes**.
>>
>> The scanner will save the Frequency/ TGID 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.

> **Store a Frequency/TGID into a Current Favorites List**
>> At **Quick Freq/TGID Save?**, press **./no**.
>>
>> At inquiry Press **E/yes**.
>>
>> At **Select Favorites List,** scroll to the Favorites List where you want to store the Frequecy/TGID and press **E/yes**.
>>
>> At **Select System,** scroll to the System where you want to store the Frequency/TGID and press **E/yes**.
>>
>> At **Select Department**, scroll to the Department where you want to store the Frequency/ TGID and press **E/yes**.

> After storing the Frequency/TGID, 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 TGID 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	**Set 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 TGID and press **E/yes** to save. See also Entering IDs for Partial IDs.

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

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

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

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**.

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

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

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.

Note: 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.

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 (Conventional Only)

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 Lockout. 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, Blank (No number tag)**

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 20 dB.

The default setting is **Off**.

> **On** or **Off**
>
> See also Scan Attenuation.

Set 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**, **0**, **1**, **2**, **3**, **4**, **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.

48

Set Pattern

On, Slow Blink, or Fast Blink.

Set Avoid – This determines whether a channel will be scanned or not. Temporary Avoids cancel you cycle power. The default setting is **Stop Avoiding**.

Stop Avoiding, Temporary Avoid, or **Permanent 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

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.

Select Lists to Monitor – This setting enables or disables your Favorites Lists and the database 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 enable the database.

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

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

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

Select **Set All Lists Off/On** then press **E/yes** to toggle each setting.

MANAGING FULL DATABASE

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

Scroll to the options below 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. Favorites whose Startup Key matches the one the user pressed are changed to Monitor Status **ON**.
2. Favorites whose Startup Key **DOES NOT** match the one the user pressed are changed to Monitor Status **OFF**.

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.

The highest priority is for channels in System and Department Quick Key 0. The lowest priority is for channels in System and Department Quick Key 99. 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(Pri)**.

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.

> > **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 BY ASSIGNING QUICK KEYS

With previous scanners, you selected banks to scan. With this scanner, you select Favorites List, ~~and~~ Systems, and Departments to scan by assigning Quick Keys to them.

See also Understanding Quick Keys.

Scanning is performed with a mixture of FLQK, SQK, and DQK order. The scanner will not scan all Systems in one Favorites List and then move to the next List.

For each Favorites List, starting with 0, the scanner will scan each 0 SQK in FLQK order and then move to the next set of SQKs for each list.

> Example:

FLQK 0, SQK 0; FLQK 1, SQK 0…. FLQK 98, SQK 99; FLQK 99, SQK, 99.

Systems with the same quick key are scanned in order of creation.

The Database is scanned next, in order of creation. Then, Systems with no quick key (including created Quick Save Systems) are scanned and in order of creation.

Departments within Systems are also scanned the same as Systems.

Conventional Channels within Systems are also scanned in order of creation.

IDs are not really scanned. The scanner checks for any activity in the trunking system and:

- Will display all IDs when ID Search mode is set to On.
- Will display only programmed IDs when ID Search mode is set to Off.

Next, any Custom Searches (enabled for Search with Scan) are scanned in order.

Then, the scanner scans the Close Call 'Hits with Scan' system (if Unavoided). This is a system that automatically stores the frequencies found by Close Call. If the 'Hits with Scan' system has no frequencies, the scanner will 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.

Scanning Checklist:

1. You must enable at least one Favorites List or the Full Database in Select Lists to Monitor.
2. Favorites Lists, ~~or~~ Systems, or Departments with Quick Keys assigned to them, must be enabled with quick keys or through Manage Quick Key Status for Favorite Lists or Systems.
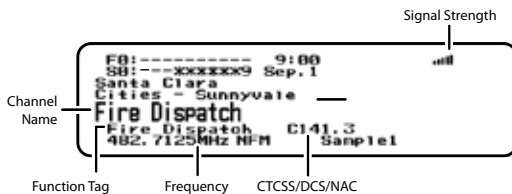3. Service Types required for channels must be set to On.

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

Any Departments not assigned to a quick key and not Avoided will be scanned.

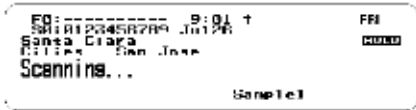Any System not assigned to a quick key and not Avoided, will be scanned.
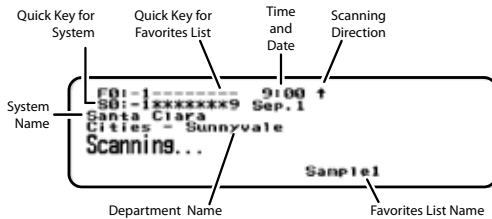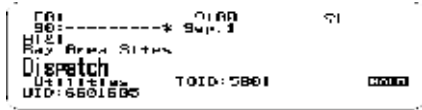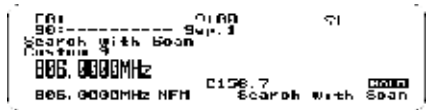

Scan Mode

Scan Receive

System Hold

Site Hold
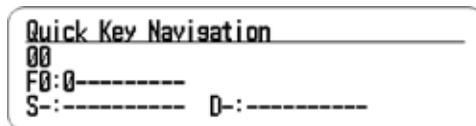

Unit ID Display - Channel Hold

Search with Scan - Frequency Hold

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: 00, **E/yes** to enable or disable List 0.

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 or disable System 3.
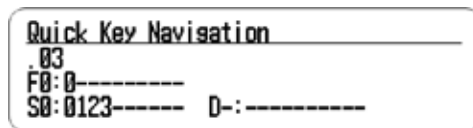
Select a Department Quick Key in the current List – Press **./no** twice, then the number key (2 digits) assigned to the Department.
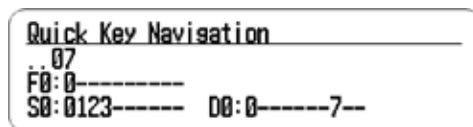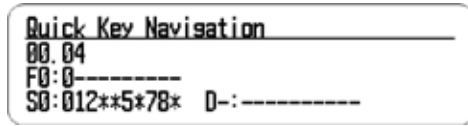
Example: **./no** twice, **07, E/yes** to enable or disable Department 7.

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: 00, **./no**, 04, **E/yes** to enable or disable List 0, System 4.

```
Quick Key Navigation
00. 04
F0:0---------
S0:012**5*78*  D-:----------
```

TOGGLE DISPLAY MODES

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

In BCD536HP, you can turn 3-Line Display on and off.

In BCD436HP, you can turn on Disp. Unit ID on and off.

```
F0:--------- 9:00
S0:0          Jul20
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

TOGGLE ID SCAN OR ID SEARCH

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

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 Hold mode.

Department Hold

Press **Dept** to pause then hold on any Department.

Double press **Dept** to hold without a pause.

Press **Dept** then quickly scroll to the **Department** in pause mode.

Double press **Dept** to release Department hold.

Site Hold

Press **Func** then **Dept** to hold on any Site.

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

Press **Dept** then rotate the scroll control to select a Site.

System Hold

Press **System** to pause then hold on any System.

Double press **System** to hold without a pause.

Press **System** then quickly scroll to the **System** in pause mode.

Double press **System** to release **System** 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**.

Note: Resets to Off when you turn off the scanner.

ADVANCED CHANNEL MENU

While the channel is in the display, press **E/yes**.

Edit Current Channel - See Channel Options.

Add to Favorites List - Press **E/yes** or **./no**.

At **Select Favorites List,** scroll to the Favorites List and press **E/yes**.

Save Sub Audio/P25 NAC - CTCSS Tone or DCS/NAC Code (blinking)

At **Are you sure?,** press **E/yes**.

Save Talk Group ID - Unknown Talk Group ID with ID Search

At **Are you sure?,** press **E/yes** or **.No.**

At **Select Department**, scroll to the Department and press **E/yes**.

Save Unit ID - Unknown Unit ID

At **Are you sure?,** press **E/yes** or **.No.**

STORE A SEARCH FREQUENCY (SEARCH WITH SCAN)

Press **E/yes**.

Then see Storing Frequencies.

Adding Systems From the Database

Press **E/yes** to store a frequency.

ATTENUATION

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

Global Attenuation - Press **Channel** to hold on any channel then press **Func** then press and hold **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 the 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.

AVOIDING CHANNELS, DEPARTMENTS, SITES, AND SYSTEMS

Avoids are common to every System in the Favorites List.

Temporary Avoids cancel when you cycle power. See also Review Avoids.

Channel Avoid When the Channel is in the display or in Channel Hold mode:

To **Temporary Avoid,** press **Avoid** once.

To **Permanent Avoid,** press twice when the channel is in the display or in Channel Hold mode.

Department Avoid

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

Press **Avoid** twice to **Permanent Avoid**.

Site Avoid When the Site is in the display or in Site Hold mode (Func then Dept):

To **Temporary Avoid,** press **Dept** then quickly press **Avoid.**

To **Permanent Avoid,** press **Dept** then quickly press **Avoid** twice**.**

To **Stop Avoiding,** press **Dept** then **Avoid** once**.**

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

System Avoid

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

Press **Avoid** twice to **Permanent Avoid**.

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 **Rang** button.

Enter new range using the numeric keys and press **E/yes** to save.

(BCD436HP) See Set Range.

See also Understanding Range and Understanding Location Control.

DIRECT FREQUENCY/TGID ENTRY

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

Enter the Frequency/TGID and press **E/yes**. Press **Channel** to release hold.

USING NUMBER TAGS

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.

View Number Tags

BCD436HP - Number Tag is always displayed in Scan Hold mode.

BCD536HP - Press **Func** in Scan Hold mode..
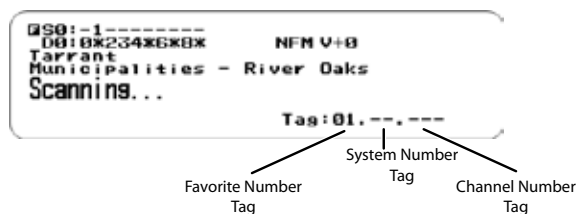
Go To Number Tag

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 **Channel**.

Examples:

1.01.36 to go to Channel 36 in System 01 in Favorites List 1.

```
Direct Entry
1.01.36
```

Favorite Number Tag — (points to 1)

System Number Tag — Channel Number Tag

.01.36 to go to Channel 36 in System 01 in current Favorites List.
..36 to go to Channel 36 in current System.

CLOSE CALL MODES

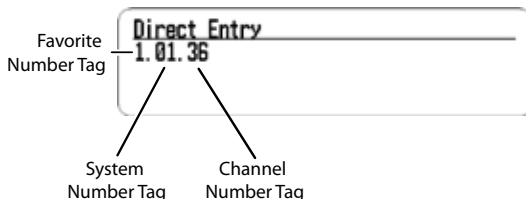To toggle **CC Off**, **CC DND**, or **CC Pri**:

(BCD536HP) Press **SQ** (📶).

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

Close Call Hit

See Using Close Call.

PRIORITY MODES

Press **Func** then **./no(PRI)** to toggle Priority mode Off, DND, or On.

Weather Alert Priority

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

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

CUSTOM SEARCH BY SEARCH KEY

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 **Func** then **SQ**. (Push **F+FTO**)

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

REVIEW 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 **Stop Avoiding**. **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 **Stop Avoiding**. 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 – Press **Channel** to hold on any System. Press and hold **Avoid**.
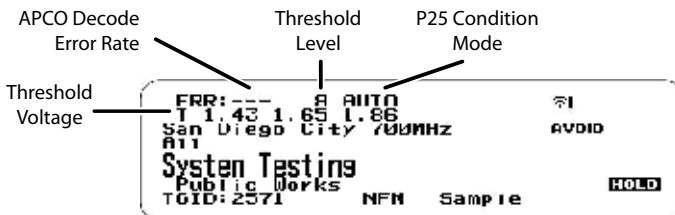
QUICK SEARCH

Press **Func** then **E/yes** to start Quick Search at the current frequency.

P25 ADJUSTMENT MODE

(BCD536HP) Press **Func** then Scroll Control knob. Press **Func** then Scroll Control knob to exit.

(BCD436HP) Press Scroll Control knob then **Func** then Scroll Control knob. Press Scroll Control knob 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 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 FCCs 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.

Note: 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	**Set Compare to database**
Edit Session Name	**Set Record Duration**
Set Limit Frequencies	**Set Time-Out Timer**
Set Modulation	**System Information**
Set Step	**Set Auto Store**
Set Delay	**Delete Session**
Set Logging	**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**

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 Information (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.

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 each **Run**.
>
>> **Review Run Results**
>>
>>> Summary List by each frequency.
>>>
>>> Detail - List by each hit.
>>
>> **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?** 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 0-9 Select for each Close Call Band and other searches.

Set Lower Limit - Input the lower frequency limit.

Set Upper Limit - Input the upper frequency limit.

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**

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, 0, 1, 2, 3, 4, 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.** Automatically sets the decode threshold based on the received signal.

> **Manual.** Allows you to manually set the threshold in threshold setting mode or using the P25 Threshold Level setting.

> **Default.** Sets the scanner to the default threshold of **8**, **Auto**.

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

> **0** to **20**

SEARCH OPTIONS

Press **Menu**. Scroll to Search for... and press **E/yes**.

Scroll to the options below and press **E/yes**.

<table>
<tr><td>**Custom Search**</td><td>**Set Search Key**</td></tr>
<tr><td>**Edit Custom**</td><td>**Search with Scan**</td></tr>
</table>

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

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

> **Custom 0-9.** 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, 0, 1, 2, 3, 4, 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

0 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.

Enter the hold time (0-255 sec.) and press **E/yes** to save.

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 a search for each Search Key.

. (nothing assigned), Custom Search 0-9, 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

Stop Avoiding, Temporary, or Permenant Avoid.

QUICK SEARCH

Allows you to start searching at the displayed frequency, or enter a frequency and start searching from that frequency in hold modes.

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

To Start a Quick Search from the Displayed Frequency:

Press **Channel** to hold on the channel or frequency.

Press **Func** then **E/yes**. At Quick Search? Press **E/yes**.

Press **Channel** again to release hold mode and start searching.

To Start a Quick Search from a New Frequency:

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

Enter the new frequency then press **Channel** to set the new starting frequency. Press **Channel** again to release hold mode and start searching.

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.

```
                    5:01
                    Sep.2          ₹!
Quick Search
   30.5200MHz ↑    NFM
RANGE    25.0-1300.0MHz  Auto
SCR              <F+SYS to SCAN>
```

CUSTOM SEARCH

Search range name

Range number currently being searched

```
                    5:05
                    Sep.5          ₹!
Custom 3
   50.0000MHz ↑    NFN
RANGE    50.0-   53.3MHz  Auto
SCR              <F+SYS to SCHN>
```
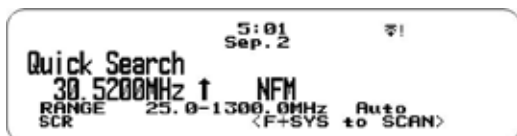
Searching Direction
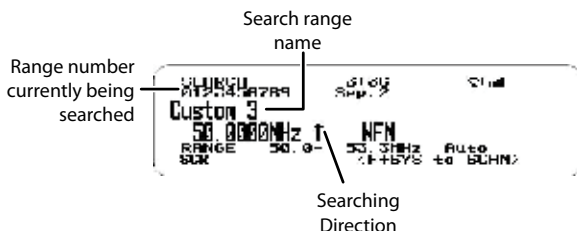
Allows you to search the scanners 10 programmed frequency ranges.

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 Custom Search 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 Avoids cancel when you cycle power.

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

Press quickly to toggle **Permanent Avoid** and **Stop Avoiding** when the the scanner stays in a frequency 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 - **T** .

Stop All Avoiding - Press **Channel** to hold on any Frequency.

Press and hold **Avoid**. The scanner displays Search Frequencies All Unavoided.

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.

Modulation

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

Direct Frequency Entry

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

Note: Resets to Off when you turn off the scanner.

Storing Frequencies

Displayed Frequency into a Quick Save Department – Press **E/yes**.

You will see **Quick Frequency Save** in the display then press **E/yes**.

The scanner stores the frequency into the Quick Save Department in the Quick Save System.

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

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

At **Saving Channel to** scroll to the Favorites List and press **E/yes**.

At **Select System** scroll to the System and press **E/yes**.

At **Select Department** scroll to the 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.

Note: Close Call does not operate in Weather Scan or Tone-Out Standby/Search.

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

Scroll to the options below and press **E/yes**.

Close Call Only	**Set CC Bands**
Hits with Scan	**Set CC Alert**

Close Call Only

This setting puts the scanner in Close Call Only mode.

> See also Using Close Call.

> You can also toggle these modes by:

>> BCD436HP: Holding on any channel and pressing **Func** then **Avoid** ( ).
>> BCD536HP: Pressing **SQ** ( ).

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 Permanent Avoid). The scanner will delete the frequencies in this system when you turn the power off.

> **Set Avoid**

>> Stop Avoiding, Temporary, or Permanent Avoid

> **Set Hold Time.** Sets how long to search when scanning.

>> Enter the hold time (0-255 sec.) and press **E/yes** to save.

Set CC 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 when the scanner is not receiving a transmission.

> **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 - 25-54 MHz	**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	(Cellular frequencies not scanned)

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.

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.

You will see activity on the 7 bands in the display. Bands with an * (asterisk) under them are turned off.

When the scanner detects a Close Call signal, **CC Found!** and **Press Any Key** display for the length of time set in Close Call Pause.
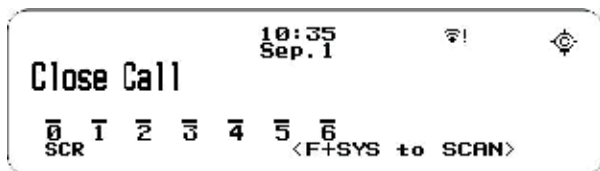
Close Call Only Mode

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 **System**, **Department**, or **Channel** to hold on the Close Call Hit.

Press **Channel** to cancel hold. Turn the **Scroll Control** to start **Quick Search**.

View Last Hit

Press **System**, **Department**, or **Channel** to recall the last hit.

Press **Channel** to cancel hold.

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 - ▇T▇ .

Clear All Avoids - Press **Channel** to hold on any Frequency.

Press and hold **Avoid**. The scanner displays Search Frequencies All Unavoided.

```
                      9:16        ＃! ıll    ◈
                      Sep.1
Close Call
   462.7125MHz        NFM
SCR                   <F+SYS to SCAN>
```
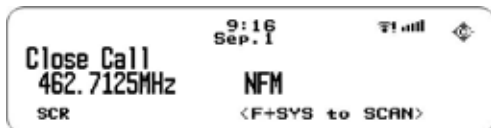
Close Call Hit

Attenuation

Press **Func** then **4(ATT)** for all bands.

Modulation

Press **Func** then **Channel(MOD)** for all bands.

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**.

Note: Resets to Off when you turn off the scanner.

Storing

Displayed Frequency into a Quick Save Department. Press **E/yes**.

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

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

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

You will see **Saving to Quick Save Department** 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

Press **Menu**. Scroll to WX Operation and press **E/yes**.

Scroll to the options below and press **E/yes**.

Set Delay Time	**WX Alt Priority**
Set Attenuator	**Weather Scan**
Set Audio AGC	**Weather Alert**
Program SAME	**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, 0, 1, 2, 3, 4, 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 0-4 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.

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
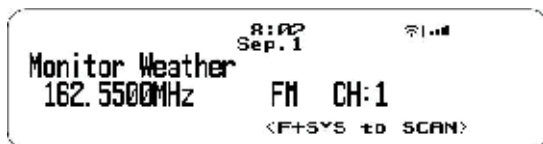
Press **Channel** to hold on any channel/frequency. Press **Func** then press and hold **6(WX)**.

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)**.

Intermediate Frequency Exchange

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

Replay the Last Transmissions

Recording starts when the scanner receives an Alert in Weather Alert.

    Press **Replay**.

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

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

Quick Search

    Press **Func** then **E/yes** to start Quick Search at the current frequency.

Weather Menu

    Press **Func** then **Menu**.

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 **Func** and then 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. Press any key to stop the siren which opens the squelch and the scanner remains on the weather channel.

> **SAME 0-4** - The scanner sounds a weather alert siren for any programmed county(ies). The scanner displays warning level as "**Warning WX**", "**Watch WX**" or "**Advisory WX**" and it displays decoded Event Code.

> When an alert is received, press any key to listen to the alert.

> **All FIPS** - The scanner sounds a weather alert siren for any county.

> The scanner displays warning level as "**Warning WX,**" "**Watch WX**" or "**Advisory WX**" and it displays decoded Event Code.

> When an alert is received, press any key to listen to the alert.

The scanner will mute and scan only the weather channels.

WARNING! *If you receive an alert it will be at FULL volume.*
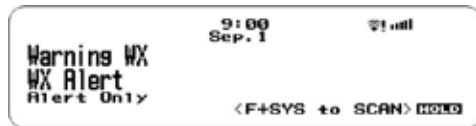
Weather Alert
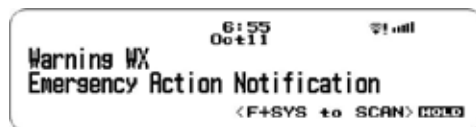
Weather Warning

Review WX Alerts

> Replay and review WX/SAME alert event results. The scanner drops these alert events after the alert time expires.

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 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.

Note: Tone-Out Search Mode will not display each Tone-Out channel for two seconds, even when multiple channels have the same frequency, modulation and attenuator settings with other channels.

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**.

Note: Close Call DND/Pri and Weather Alert Priority do not operate in this mode.

Edit Name	**Start Delay Time**
Set Frequency	**Set Alert**
Set Tone	**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

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

0 - the scanner resumes standby as soon as the carrier drops after a page.

1, 2, 3, 4, 5, 10, 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.

Set Audio AGC

This allows you to turn AGC (Automatic Gain Control) on or off for Tone-Out operations. The default setting is **Off**.

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

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.

Tone-Out Standby Mode
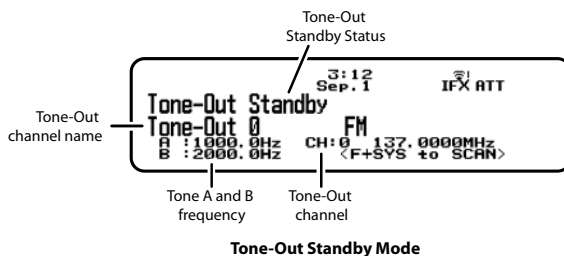
Any transmission received on the frequency will not be heard but you will still see the signal strength bars.

To monitor a different frequency, scroll to a tone-out (channel) with a different frequency.

If you press **Channel** 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 **Channel** 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?** after you press **E/yes** to save.
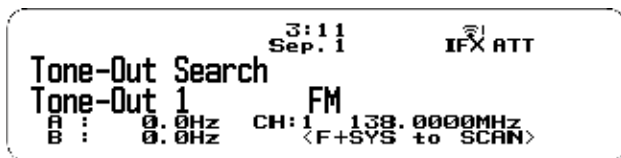
Tone-Out Search Mode

Select a Different Tone-Out

Turn the **Scroll Control**.

Listen to Tone-Out Frequency

Press **Channel**.

Attenuation

Press **Func** then **4(ATT)**.

Modulation

Press **Func** then **Channel(MOD).**

Intermediate Frequency Exchange

Press **Func** then **7(IFX)** to toggle on or off.

Start/Stop Recording

Press **Func** then **Replay**.

Note: Resets to Off when you turn off the scanner.

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 the Database.
2. Make sure Favorites Lists are enabled in Set Scan Selection.
3. Make sure Service Types are enabled for the Channels you want to hear.
4. Make sure you have locations programed if Use Location Control is On.
5. Make sure longitude and latitude are N and W (for N America).

6. Make sure Systems/Departments/Channels are not Avoided.

7. Make sure Favorites List/System/Department quick key is enabled.

8. (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. Change Priority Interval.

2. Turn off Close Call Priority.

3. Turn off Weather Priority.

4. Set Channel Delay longer.

5. Set positive Channel Delay.

All Channels Out of Range

1. Increase your range.

2. Turn Location Control off for the Favorites List..

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
50.0000	53.9800	NFM	60	6 Meter Amateur Band
54.0000	71.9500	WFM	50	VHF TV Broadcast 2 – 4
72.0000	75.9950	FM	5	Intersystem & Astronomy
76.0000	87.9950	WFM	50	VHF TV Broadcast 5 – 6
88.0000	107.9000	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	215.9500	WFM	50	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

Frequency Range		Mode	Step (kHz)	Band
Lower	Upper			
400.0000	405.9875	NFM	12.5	Miscellaneous
406.0000	419.9875	NFM	12.5	Trunked Federal Government
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, 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.

Service Type	Description
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.
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.
Racing Officials	Available for use to identify officials' frequencies for racing events.
Racing 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.
Other	Miscellaneous channels that do not fall into another service type.
Custom 1-8	User-defined service types. These can be used for custom groups of channels, systems, sites, etc.

REMOVING THE microSD CARD

Turn your scanner off. Carefully remove the microSD 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 microSD card the same way it was removed and to push the card in so it will spring back into place.

Reformatting the microSD Card

Reformat microSD cards using a 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.

ENTERING IDS

These are the acceptable ID entry formats.

Partial IDs can be used to receive all IDs in a Fleet, Sub-Fleet, Agency, etc.

Partial IDs can also be Avoided.

System Type		TGID Format
Motorola Type 1 Systems	B = Block F = Fleet S = Sub-Fleet N = Decimal Number i = I-Call ID	BFF-SS = Normal ID BFFF-S = Normal ID (Fleet is 100 - 127) BFF- = Partial Fleet ID BFFF- = Partial Fleet ID (Fleet is 100 - 127) B- = Partial Block IDS
		NNNNN (Size code 0) iNNNNN (Size code 0)
Motorola Type 2 Systems	N = Decimal Number H = Hexadecimal Number i = I-Call ID	*Decimal Format* NNNNN iNNNNN *Hexadecimal Format* HHHH iHHHH
P25 Systems	N = Decimal Number H = Hexadecimal Number i = I-Call ID	*Decimal Format* NNNNN iNNNNNNNN *Hexadecimal Format* HHHH iHHHHHH
EDACS Systems	A = Agency F = Fleet S = Sub-Fleet N = Decimal Number i = I-Call ID Only AFS Format is allowed for direct entry except for I-Call ID.	*AFS Format* AA-FFS (Normal ID) AA-FF- (Partial Fleet ID) AA- (Partial Agency ID) *Decimal Format* NNNN iNNNNN
LTR Systems	A = Area number RR = Home Repeater Number U = Decimal Number	A-RR-UUU (Normal ID) A-RR (Partial Repeater ID)

Note: A-RR (Partial Repeater ID) cannot be used with decimal formats.

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	TT ID + # Usage
ID+0 Normal Talk group	ID+8 DES/DVP Encryption talk group
ID+1 All Talk group	ID+9 DES All Talk group
ID+2 Emergency	ID+10 DES Emergency
ID+3 Talk group patch to another	ID+11 DES Talk group patch
ID+4 Emergency Patch	ID+12 DES Emergency Patch
ID+5 Emergency multi-group	ID+13 DES Emergency multi-group
ID+6 unassigned	ID+14 unassigned
ID+7 Multi-select (initiated by dispatcher)	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		

ST	Event Code	Warning	Watch	Advisory	Definition?
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

ST	Event Code	Warning	Watch	Advisory	Definition?
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
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

ST	Event Code	Warning	Watch	Advisory	Definition?
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			Sheleter
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 Storm 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

ST	Event Code	Warning	Watch	Advisory	Definition?
**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 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

Base Frequency (MHz)	Offset (MHz)	Base Frequency (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
158.1500	-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	851.000 - 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

TECHNICAL SPECIFICATIONS - BCD436HP

Band Coverage   : 31 Bands

Size: 2.8 in (W) x 1.5 in (D) x 6.3 in (H) (without antenna)

71.1 mm (W) x 36.9 mm (D) x 160.9 mm (H) (without antenna)

Weight: 12.3 oz. (with antenna and battery)

Operating Temperature: + 14º F (– 10º C) to + 140º F (+ 60º C)

Storage Temperature: – 22º F (– 30º C) to + 158º F (+ 70º C)

Power Requirements: 3 X AA Rechargeable Ni-MH Batteries (2300mAh) (included)
3 X AA Alkaline Batteries (not included)
DC 5.0V ±5%. Connect to PC with USB cable (included)

LCD Display: 192 X 160 Full Dot Matrix LCD with white-color backlight.

Internal Speaker: 24ohm, 0.8W Max.

Certified in accordance with FCC Rules and Regulations Part 15 Sub-part C as of date of manufacture.

Weather Channels: 7 Channels

Scan Rate: 85 channels/second

Search Rate: 80 steps/second (12.5kHz step)
250 steps/second (5kHz step)

Scan Delay: 2 seconds

Audio Output Power: Internal Speaker - 360mW nominal
(24ohm)

Headphone (L-ch) 4mW nominal
(32 ohm)

Antenna: 50 ohms (Impedance)

Sensitivity (12dB SINAD) Nominal		
VHF Low 1 Band		
(AM)	25.005 MHz	0.4 µV
(NFM)	40.840 MHz	0.3 µV
(NFM)	53.980 MHz	0.3 µV
VHF Low 2 Band		
(WFM)	54.050 MHz	0.7 µV
(FM)	72.515 MHz	0.3 µV
(FMB)	107.100 MHz	0.6 µV
Aircraft Band		
(AM)	118.800 MHz	0.4 µV
(AM)	127.175 MHz	0.4 µV
(AM)	135.500 MHz	0.4 µV

VHF High 1 Band

(NFM)	138.150 MHz	0.4 µV
(NFM)	161.985 MHz	0.3 µV
(NFM)	173.225 MHz	0.3 µV
(WFM)	197.450 MHz	0.6 uV
(NFM)	216.020 MHz	0.3 uV

VHF High 2 Band

(AM)	225.050 MHz	0.3 µV
(AM)	272.950 MHz	0.4 µV
(AM)	315.050 MHz	0.4 µV

UHF Band

(AM)	325.050 MHz	0.4 µV
(NFM)	406.875 MHz	0.3 µV
(NFM)	511.9125 MHz	0.3 µV

Public Service Band

(NFM)	758.0125 MHz	0.3 µV
(NFM)	806.000 MHz	0.3 µV
(NFM)	857.150 MHz	0.3 µV
(NFM)	954.9125 MHz	0.3 µV

1200MHz Band

(NFM)	1299.925 MHz	0.4 µV

Close Call Sensitivity (No Modulation)

(NFM)	40.8400 MHz	-58 dBm
(FM)	72.5150 MHz	-65 dBm
(AM)	127.1750 MHz	-69 dBm
(NFM)	161.9850 MHz	-71 dBm
(AM)	272.9500 MHz	-71 dBm
(NFM)	406.8750 MHz	-66 dBm
(NFM)	857.1500 MHz	-64 dBm
(NFM)	1299.9250 MHz	-58 dBm

Signal Noise Ratio (nominal)

VHF Low 1 Band

(AM)	25.0050 MHz	49 dB
(NFM)	40.8400 MHz	43 dB

VHF Low 2 Band

(WFM)	54.0500 MHz	53 dB

(FM)	72.5150 MHz	47 dB
(FMB)	107.100 MHz	60 dB
Aircraft Band		
(AM)	127.1750 MHz	50 dB
VHF High 1 Band		
(NFM)	161.9850 MHz	41 dB
(NFM)	173.2250 MHz	42 dB
(WFM)	197.4500 MHz	52 dB
VHF High 2 Band		
(AM)	272.9500MHz	50 dB
UHF Band		
(AM)	325.0500 MHz	50 dB
(NFM)	406.8750 MHz	41 dB
Public Service Band		
(NFM)	758.0125 MHz	42 dB
(NFM)	857.1500 MHz	42 dB
1200 MHz Band		
(NFM)	1299.9250 MHz	41 dB

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

TECHNICAL SPECIFICATIONS - BCD536HP

Size: 7.2 in W (184 mm) x 5.9 in D (151) x 2.2 in H (56 mm)

Weight: 54.3 oz. (without accessories)

Operating Temperature: $+ 14°$ F (– 10° C) to $+ 140°$ F (+ 60° C)

Storage Temperature: $– 22°$ F (– 30° C) to $+ 158°$ F (+ 70° C)

Power Requirements: DC 11.0 V - 16.6 V (Ext. DC Power Jack or DC Power Jack)

Orange Wire Operation: DC 3 V - 16.6 V (Less than 10mA)

LCD Display: 64 X 288 Full Dot Matrix LCD

Internal Speaker: 8 ohm, 5W Max.

Certified in accordance with FCC Rules and Regulations Part 15 Sub-part C as of date of manufacture.

Weather Channels: 7 Channels

Scan Rate: 85 channels/second (nominal)

Search Rate: 80 steps/second (nominal)
250 steps/second (5kHz step - nominal)

Scan Delay:	2 seconds
Audio Output Power:	5W Max., 8 ohm Load
Antenna:	50 ohms (Impedance)

Sensitivity (12dB SINAD) Nominal		
VHF Low Band		
(AM)	25.005 MHz	0.4 µV
(NFM)	40.840 MHz	0.2 µV
(NFM)	53.980 MHz	0.2 µV
VHF Low 2 Band		
(WFM)	54.050 MHz	0.6 µV
(FM)	72.515 MHz	0.2 µV
(FMB)	107.100 MHz	0.6 µV
Aircraft Band		
(AM)	118.800 MHz	0.3 µV
(AM)	127.175 MHz	0.3 µV
(AM)	135.500 MHz	0.3 µV
VHF High 1 Band		
(NFM)	138.150 MHz	0.2 µV
(NFM)	161.985 MHz	0.2 µV
(NFM)	173.225 MHz	0.3 uV
(WFM)	197.450 MHz	0.6 uV
(NFM)	216.020 MHz	0.3 uV
VHF High 2 Band		
(AM)	225.050 MHz	0.3 µV
(AM)	272.950 MHz	0.3 µV
(AM)	315.050 MHz	0.4 µV
UHF Band		
(AM)	325.050 MHz	0.4 µV
(NFM)	406.8750 MHz	0.3 µV
(NFM)	511.9125 MHz	0.3 µV
Public Service Band		
(NFM)	758.0125 MHz	0.3 µV
(NFM)	806.000 MHz	0.3 µV
(NFM)	857.150 MHz	0.2 µV
(NFM)	954.9125 MHz	0.2 µV
1200MHz Band		
(NFM)	1299.9250MHz	0.3 µV

Close Call Sensitivity (No Modulation)		
(NFM)	40.8400 MHz	-60dBm
(FM)	72.5150 MHz	-62dBm
(AM)	127.1750 MHz	-67dBm
(NFM)	161.9850 MHz	-66dBm
(AM)	272.9500 MHz	-67dBm
(NFM)	406.8750 MHz	-63dBm
(NFM)	857.1500 MHz	-63dBm
(NFM)	1299.9250 MHz	-56dBm
Signal Noise Ratio (nominal)		
VHF Low 1 Band		
(AM)	25.0050 MHz	48dB
(NFM)	40.8400 MHz	42dB
VHF Low 2 Band		
(WFM)	54.0500 MHz	52dB
(FM)	72.5150 MHz	47dB
(FMB)	107.1000 MHz	58dB
Aircraft Band		
(AM)	127.1750 MHz	49dB
VHF High 1 Band		
(NFM)	161.9850 MHz	40dB
(NFM)	173.2250 MHz	41dB
(WFM)	197.4500 MHz	53dB
VHF High 2 Band		
(AM)	272.9500 MHz	49dB
UHF Band		
(AM)	325.0500 MHz	49dB
(NFM)	406.8750 MHz	40dB
Public Service Band		
(NFM)	758.0125 MHz	41dB
(NFM)	857.1500 MHz	41dB
1200 MHz Band		
(NFM)	1299.9250 MHz	42dB

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

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

743 Henrietta Creek Rd.

Roanoke, Texas 76262.