

Uniden®



H O M E P A T R O L

HomePatrol-1 Owner's Manual

Version 2.02 – **Extreme** Edition



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Introduction

The HomePatrol-1 v2 Extreme Edition firmware introduces features never before found in a consumer communications receiver. Targeted to the advanced user, it turns your HomePatrol-1 into a tool suitable for discovering new channels, analyzing known systems, and complete flexibility in the field.

In order to use the Extreme Edition features, you need to apply a registration key, available for purchase at www.Uniden.com. This key unlocks the following Extreme features:

- Complete field programmability – edit existing systems or create new ones using the HomePatrol-1’s touch-screen interface. New channel settings include:
 - Per-Channel Delay
 - Channel Alerts
 - Volume Offset
 - Service Type
- Trunked System Analyzers – let you view and review trunked system status and activity. Includes separate sections for:
 - System Load / Reception Status
 - Current Activity Chart
 - LCN Activity Monitor
 - Activity Log
 - Talk Group Converter
- EDACS / LTR LCN Finder – analyzes system traffic to determine the LCN assignments for EDACS and LTR systems.
- Band Scope – Graphically indicates the received signal level across a range of frequencies to help identify RF signal sources.
- RF Power Plot – Graphically indicates the received signal level for a single frequency over time to help locate RF signal sources and to determine the effect of other factors on received signal strength.
- Trunking Discovery – monitors system traffic on a trunked radio system to find unknown channels. Automatically records audio from and logs newly discovered channels for later review and identification.
- Conventional Discovery – searches a range of frequencies to find unknown signals (signals on frequencies not already know to be in use in your area). Automatically records audio from and logs

newly discovered channels for later review and identification.

- Limit Search – searches a range of frequencies for activity.
- Raw Data Output – outputs raw binary data based on the received signal and data slicing parameters you set.
- USB Audio Output and Control – allows you to capture or stream audio and control the HomePatrol-1 using a single USB connection.

Read on to discover how to use these new features.

Activating the Extreme Features

Before using the Extreme Features:

- Install the latest version of HomePatrol Sentinel Software on your PC
- Update the firmware in your HomePatrol-1 to the latest version
- Purchase a Registration Key
- Apply the registration key to your HomePatrol-1

Installing HomePatrol Sentinel

Download the latest version of HomePatrol Sentinel from <http://info.uniden.com/HomePatrol>. Unzip the downloaded file, run Setup.exe and follow the on-screen prompts to complete installation. You do not need to remove any previous version, first.

Updating your HomePatrol-1 Firmware

Follow these steps to update your HomePatrol-1's firmware to the latest version:

1. Plug in the HomePatrol-1's AC adapter or ensure that the HomePatrol-1 has fully charged batteries installed
2. Connect your HomePatrol-1 to the PC using the supplied USB cable, then turn on the HomePatrol-1. If prompted, select "Mass Storage Mode" on the HomePatrol-1. The HomePatrol-1's screen will blank white.
3. Start Sentinel on your PC.

Note: The PC must be connected to the Internet for the following steps.

4. In Sentinel, select **UPDATE → Update Firmware...**

Sentinel checks the web for the latest firmware and writes it to your HomePatrol-1.

5. When Sentinel completes writing to your HomePatrol-1, disconnect the USB cable. The HomePatrol-1 then applies the update and reboots.

Purchase a Registration Key

A registration key can be purchased through Uniden.com. Check <http://info.uniden.com/HomePatrol> for purchase details.

Applying the Registration Key to your HomePatrol-1

When you complete the purchase, you will be provided with a 32-digit key that is specific to your HomePatrol-1. This key is only valid for the HomePatrol-1 having the serial number you specified during purchase. Follow these steps to apply the key:

1. Turn on the HomePatrol-1.
2. Select **MENU → Advanced Menu → Advanced Option → Register Advanced**
3. Key in the registration key and select **ACCEPT**. This unlocks all Extreme features.

Connecting to a PC After the Upgrade

After upgrading to the extreme features, your HomePatrol-1 will prompt you to select Mass Storage or Serial mode when you connect to a PC.

The serial mode will be used for audio streaming, raw data output, and serial control modes. Upon release, software to use these functions is not available, however the protocols have been provided to 3rd-party software authors for development.

You use Mass Storage mode for database updates, firmware updates, and general connection to the HomePatrol Sentinel software. After the update, the following display appears when you use Mass Storage mode.



Installing Serial Drivers

Before you use the Serial mode for the first time, you must install the serial drivers on your PC.

For Windows XP or Windows Vista, copy the appropriate driver from your HomePatrol's "USB Driver" directory to a folder on your hard drive (if this directory is not on your HomePatrol-1, you can download the files from <http://info.uniden.com/HomePatrol>).

When you select the serial mode, your computer will ask you for the location of the drivers.

For Windows XP, select Hp1WinXPCom.inf.

For Windows Vista, select HP1WinVista7Com.inf.

For Windows 7, copy the Hp1WinVista7Com.inf file to the *c:/windows/inf* directory. When you select serial mode for the first time, Windows will find and install the driver.

When using serial mode, your HomePatrol-1 is assigned a com port number. The assigned com port can differ, depending on which USB port you have connected the USB cable to.

Programming Radio Systems

The Extreme edition allows you to edit or create radio systems in a Favorites List. This section outlines the steps to program systems.

General Programming Steps

To program a system (or edit an existing system) you follow these basic steps:

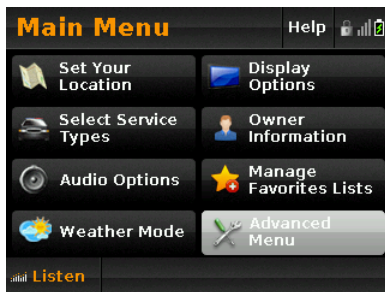
1. Create a Favorites List and add the system to edit to that Favorites List (for an existing system). We recommend you use Sentinel to perform this step.
2. Edit the Favorites List using the Advanced Options.
3. Select the system to edit, or create a new system.

Since editing an existing system is straightforward once you learn to create a new system, this manual covers only programming new systems. In the following sections, we assume you have created a Favorites List called “My Systems” and are adding the systems to that list.

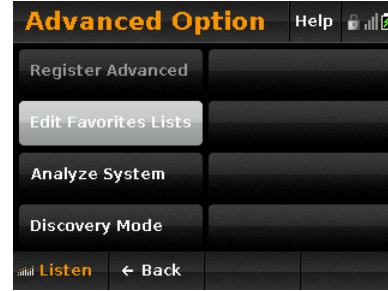
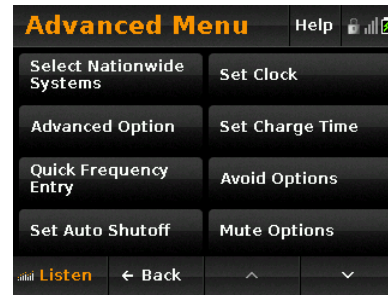
The instructions can be repeated to add additional elements to a system. For example, to create a second department on a system, or an additional channel for a department, simply repeat the steps provided in the next sections.

Programming a Conventional System

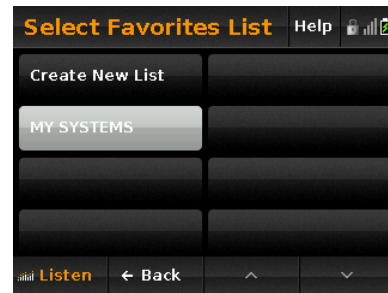
From the Main Menu, select Advanced Menu.



Then, select Advanced Option and Edit Favorites Lists.



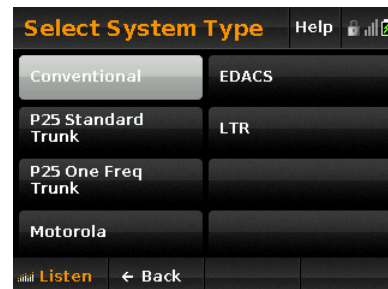
Select the Favorites List for the system you want to program (or create a new list).



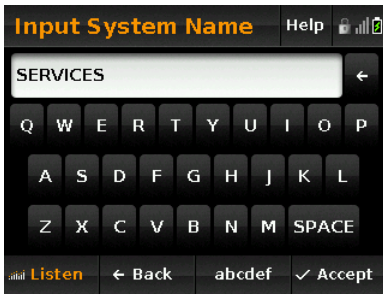
Select Create New System (or select the system you want to edit).



Select Conventional.



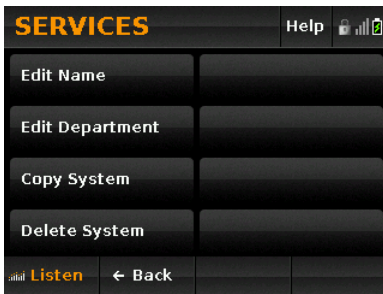
Name the system.



Confirm that you want to create the Conventional System.



The HomePatrol-1 now provides a menu for system settings.



Edit Name – Allows you to change the name of the system

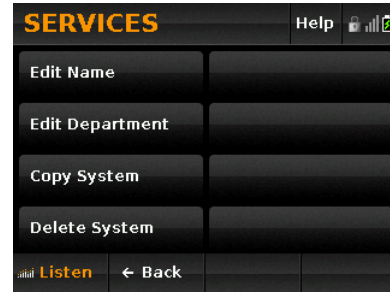
Edit Department – Lets you create or edit departments to hold channels for the system.

Copy System – Copies the entire system. This is useful if you want to make a similar system later.

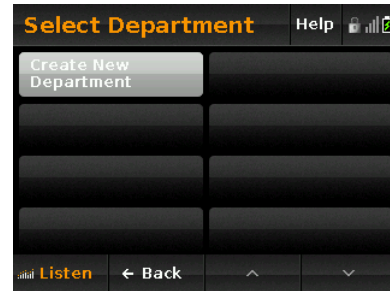
Delete System – Deletes the system from the Favorites List.

Creating a Department

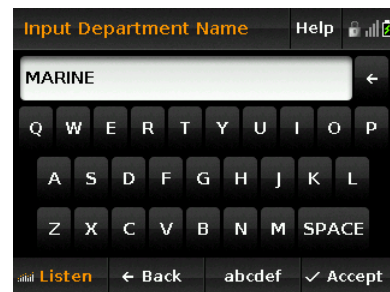
From the system menu, select Edit Department.



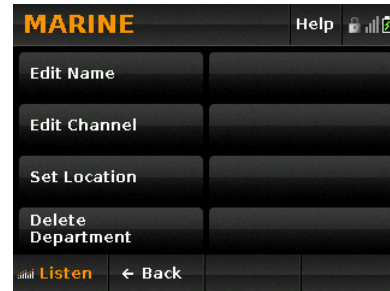
Create a Department to contain channels.



Name the Department.



The HomePatrol-1 presents a menu for Department settings.



Edit Name – Lets you change the Department's name.

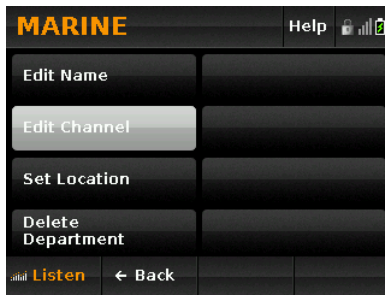
Edit Channel – Allows you to edit or add channels for the Department.

Set Location – Lets you set the geographic boundaries for the department. This is used for location-based channel selection.

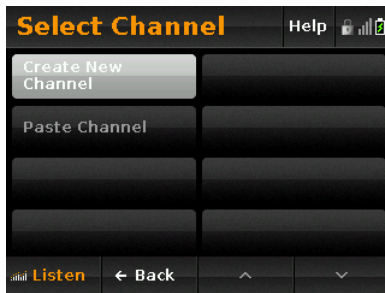
Delete Department – Lets you delete the department.

Editing Channels

Select Edit Channels from the Department menu.



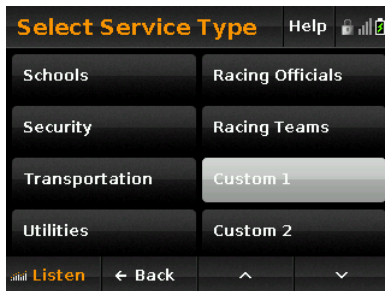
Create a new channel.



Name the Channel.



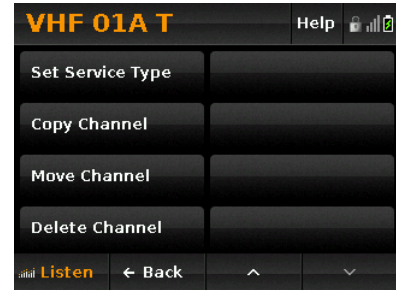
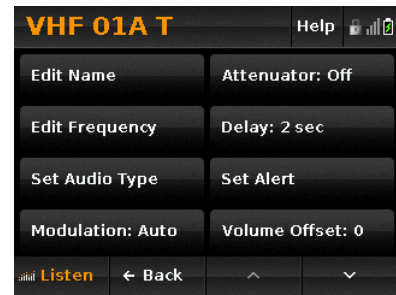
Select a Service Type for the Channel.



Set the frequency for the Channel.



You will now see the Channel menu.



Edit Name – Allows you to rename the channel.

Edit Frequency – Allows you to change the channel's frequency.

Set Audio Type – Lets you set the channel to use Analog, Digital, or both. If you know the type of transmission being used on the channel, setting a specific value can improve performance.

Modulation: AUTO – Lets you change the modulation method used for the channel. The default of AUTO will cause the HomePatrol-1 to use the modulation typically used for the frequency band. You can tap this control to set a different modulation type: NFM, FM, or AM.

Attenuator: OFF – Lets you turn on/off attenuation for the channel.

Delay: 2 sec – Lets you set the channel delay (the amount of time the HomePatrol-1 stays on a frequency after a transmission ends before continuing scanning).

- 2, 5, 10, or 30 seconds – HomePatrol-1 waits the specified amount of time.

- 0 Seconds – HomePatrol-1 resumes scanning as soon as a transmission ends.
- -10, -5 seconds – Forces scan resume after the set duration, even if the transmission continues.

Set Alert – Lets you set an alert tone that will sound whenever the channel becomes active.

Volume Offset – Allows you to set a volume offset for the channel that will either reduce (negative values) or increase the channel’s volume relative to other channels.

Set Service Type – Lets you change the service type assignment for the channel.

Copy Channel – Puts the channel information into the copy buffer. This can be used to quickly copy channel settings for an additional channel (after you Copy a channel, a menu option appears to Paste Channel at the add channel menu).

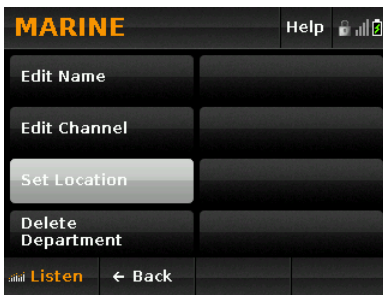
Move Channel – lets you move a channel to a different department (more than one department must exist in the system for this option to operate).

Delete Channel – deletes the current channel from the Department.

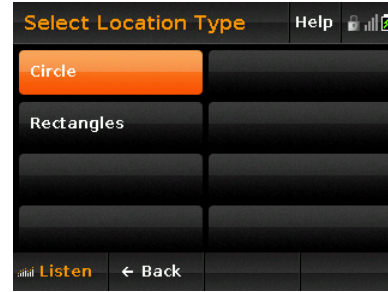
Setting a Department’s Location

You can define a departments location using either a single circle (defined by the centerpoint’s latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

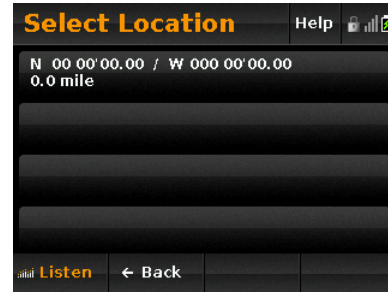
At the Department Menu, select Set Location



Then, select whether you will use a circle or rectangle(s) to define the department’s location.



If you select Circle, tap the existing coordinates.

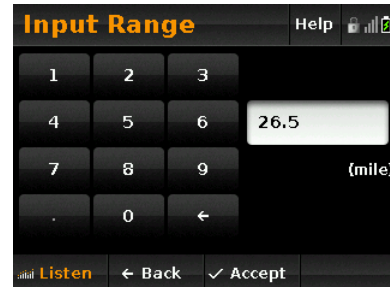


Then, use the form to enter the latitude and longitude of the circle’s center.



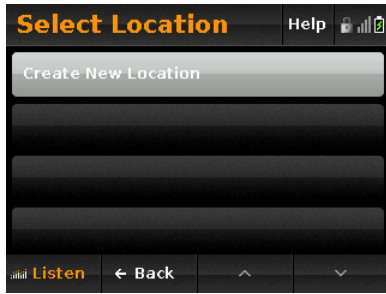
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the department.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

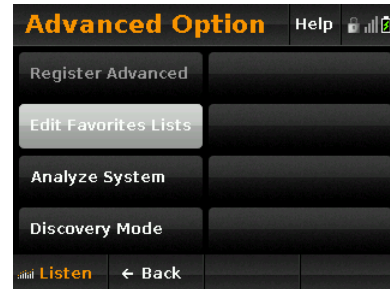
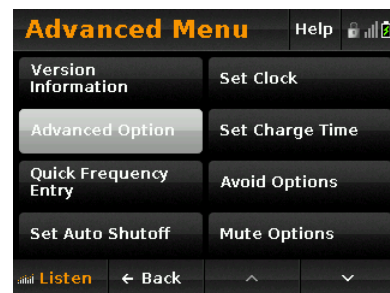
Programming P25 Standard Trunked

Note: You would also use this system type for P25 X2 TDMA systems. However, you will not be able to monitor channels operating using TDMA.

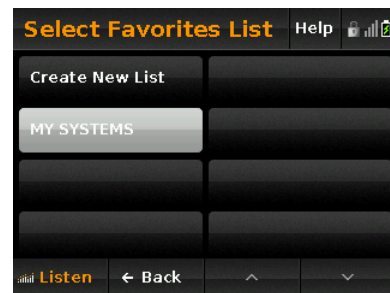
From the Main Menu, select Advanced Menu.



Then, select Advanced Option and Edit Favorites Lists.



Select the Favorites List for the system you want to program (or create a new list).



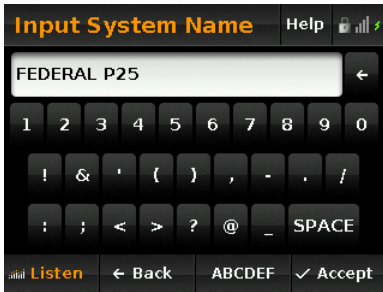
Select Create New System (or select the system you want to edit).



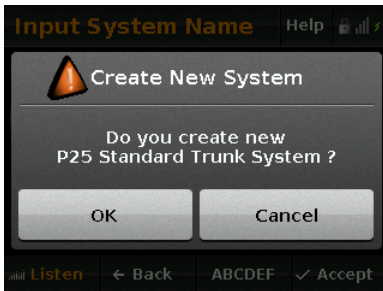
Select P25 Standard Trunk.



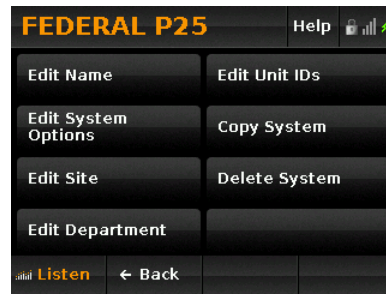
Name the system.



Confirm that you want to create the P25 Trunk System.



The HomePatrol-1 now provides a menu for system settings.



Edit Name – Allows you to change the name of the system

Edit System Options – Lets you set the system level option(s).

Edit Site – Lets you add/edit sites.

Edit Department – Lets you create or edit departments to hold system channels.

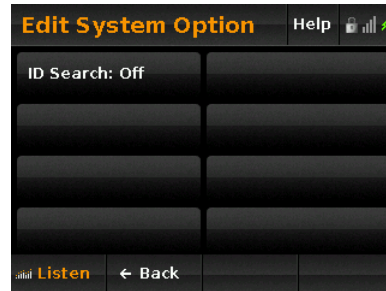
Edit Unit IDs – Allows you to enter and edit Unit IDs so that individual radios are identified on the system.

Copy System – Copies the entire system. This is useful if you want to make a similar system later.

Delete System – Deletes the system from the Favorites List.

Editing System Options

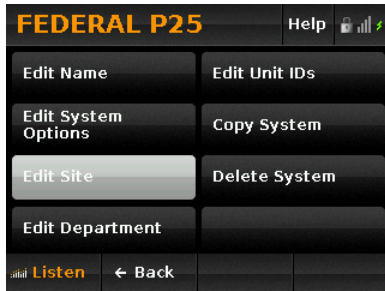
For P25 Trunked systems, the only system-level option is the ID Search option.



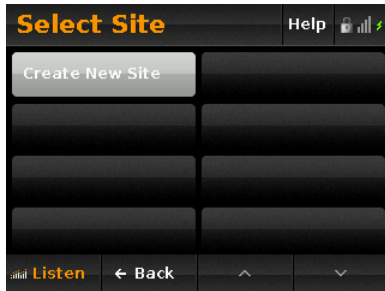
Tap the selection to toggle between ID Search On (HomePatrol-1 will stop on all unavaoided channels, even if not in its database) and ID Search Off (HomePatrol-1 ignores all channels not in its database).

Creating Sites

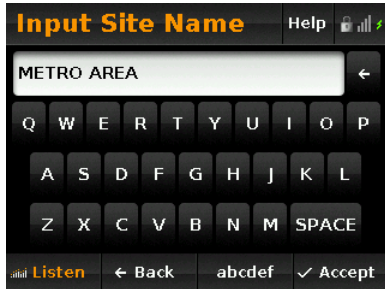
Sites contain the radio frequency information used by trunked radio systems. To create a site for the system, select Edit Site from the system's menu.



Then, select Create New Site.



Enter a name for the site.



You will then see the site menu.



Edit Name – Lets you change the Site's name.

Edit Band Plan – Lets you enter or edit the site's band plan.

Edit Frequency – Lets you add or change the frequencies used by the site.

Attenuator: Off – Allows you to attenuate signals when receiving the site, if set to On.

Set Location – Lets you enter the site's geographic location.

Delete Site – Allows you to delete the site from the database.

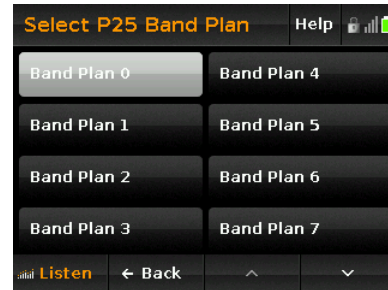
Editing the Band Plan

Note: Most P25 trunked systems automatically receive the band plan from the control channel. On these systems, you do not need to enter a band plan. If you do enter a band plan for such a system, it will be overwritten by the band plan information provided on the control channel.

To set the band plan, select Edit Band Plan from the Site menu.



Then, select the table entry to edit.



Enter the upper frequency for the table entry. Then click next.



Enter the frequency spacing for the band plan entry.
Then click Accept.



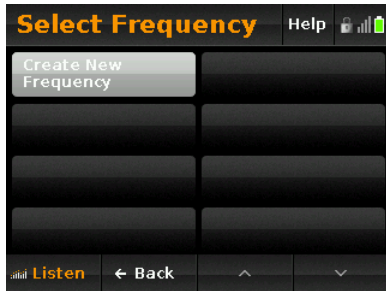
Repeat this for additional table entries.

Entering Site Frequencies

To enter frequencies for the site, select Edit Frequency from the Site menu.



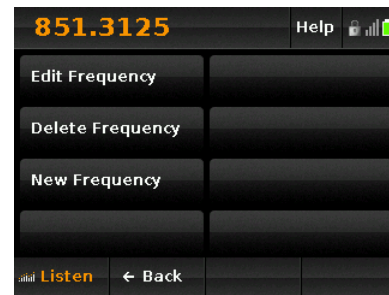
Then, select Create New Frequency.



Enter the frequency and tap Accept.



The Frequency menu appears.



Edit Frequency – allows you to change the frequency.

Delete Frequency – deletes the frequency from the site.

New Frequency – tap to add additional frequencies, then repeat the above steps.

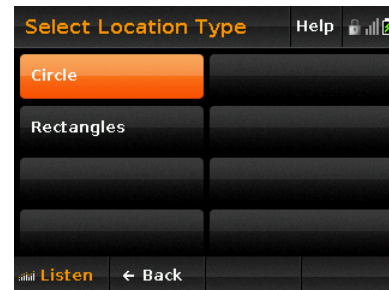
Setting a Site's Location

You can define a site's location using either a single circle (defined by the centerpoint's latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

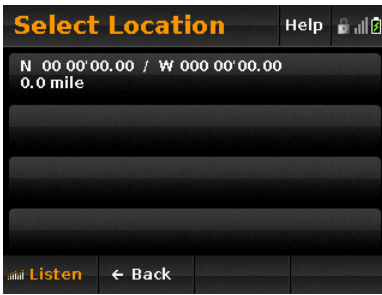
At the Site Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the site's location.



If you select Circle, tap the existing coordinates.

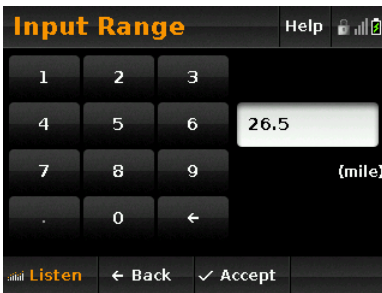


Then, use the form to enter the latitude and longitude of the circle's center.



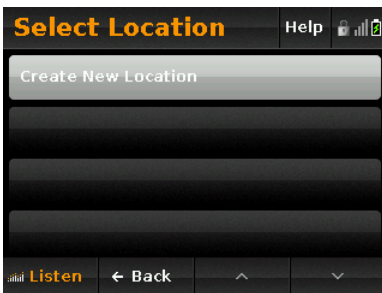
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).

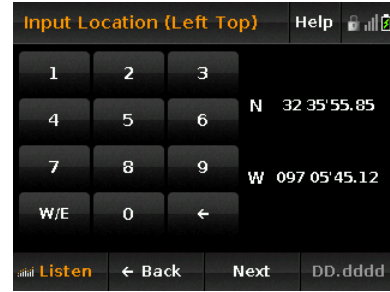


ACCEPT the range to store the setting.

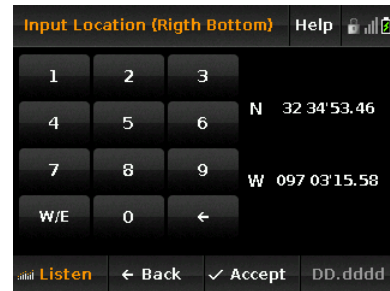
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.

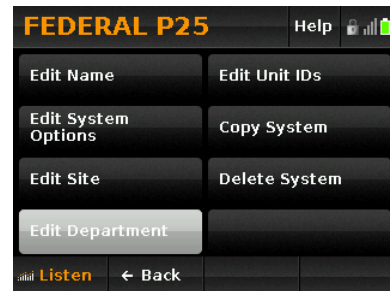


Repeat this to define rectangles for the site.

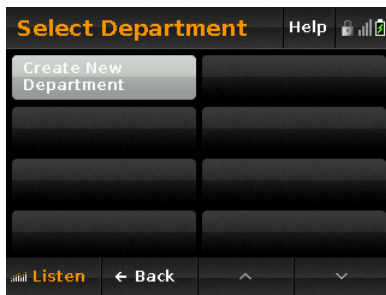
The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Creating a Department

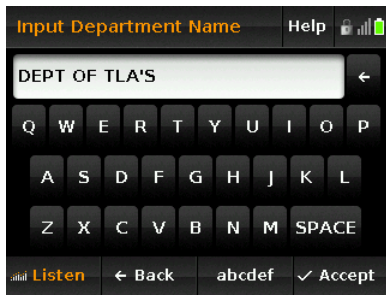
From the system menu, select Edit Department.



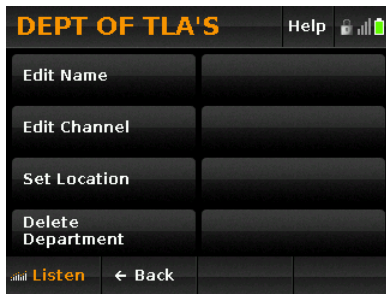
Create a Department to contain channels.



Name the Department.



The HomePatrol-1 presents a menu for Department settings.



Edit Name – Lets you change the Department's name.

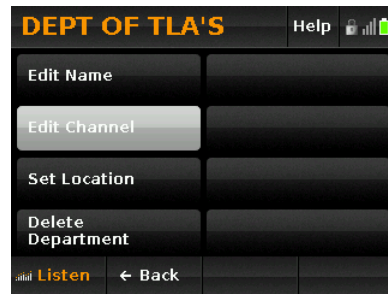
Edit Channel – Allows you to edit or add channels for the Department.

Set Location – Lets you set the geographic boundaries for the department. This is used for location-based channel selection.

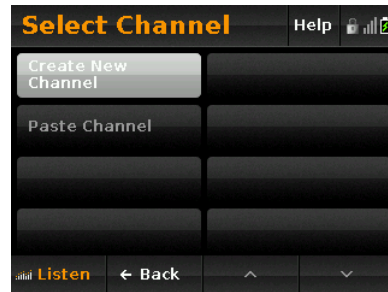
Delete Department – Lets you delete the department.

Editing Channels

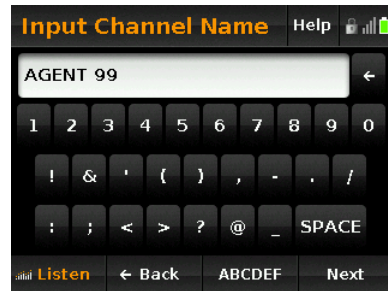
Select Edit Channels from the Department menu.



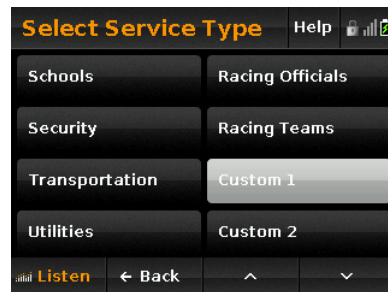
Create a new channel.



Name the Channel.



Select a Service Type for the Channel.



Set the Talk Group ID for the Channel.



Note: To enter the I-Call Wildcard, enter i0 as the Talk Group ID.

You will now see the Channel menu.



Edit Name – Allows you to rename the channel.

Edit Talk Group ID – Allows you to change the channel's Talk Group ID.

Delay: 2 sec – Lets you set the channel delay (the amount of time the HomePatrol-1 stays on a frequency after a transmission ends before continuing scanning.

- 2, 5, 10, or 30 seconds – HomePatrol-1 waits the specified amount of time.
- 0 Seconds – HomePatrol-1 resumes scanning as soon as a transmission ends.
- -10, -5 seconds – Forces scan resume after the set duration, even if the transmission continues.

Set Alert – Lets you set an alert tone that will sound whenever the channel becomes active.

Volume Offset – Allows you to set a volume offset for the channel that will either reduce (negative values) or increase the channel's volume relative to other channels.

Set Service Type – Lets you change the service type assignment for the channel.

Copy Channel – Puts the channel information into the copy buffer. This can be used to quickly copy channel settings for an additional channel (after you Copy a channel, a menu option appears to Paste Channel at the add channel menu).

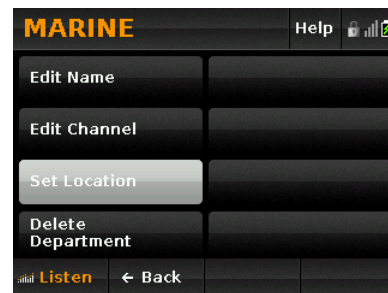
Move Channel – lets you move a channel to a different department (more than one department must exist in the system for this option to operate).

Delete Channel – deletes the current channel from the Department.

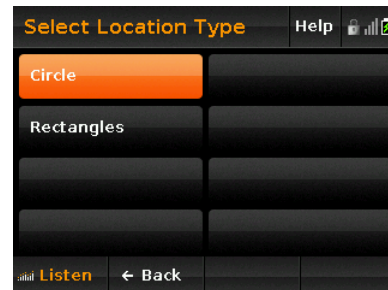
Setting a Department's Location

You can define a departments location using either a single circle (defined by the centerpoint's latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

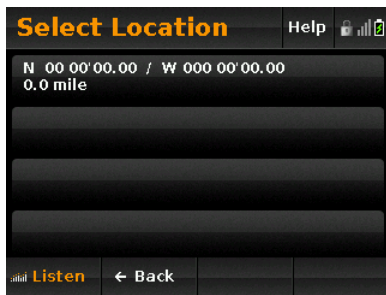
At the Department Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the department's location.



If you select Circle, tap the existing coordinates.



Then, use the form to enter the latitude and longitude of the circle's center.



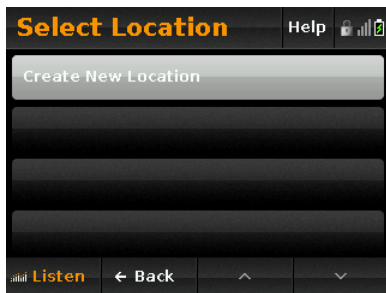
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

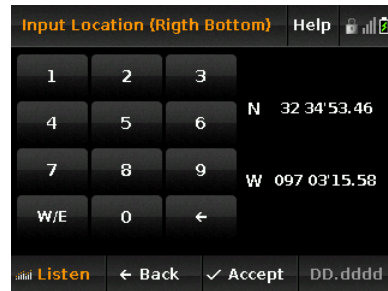
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



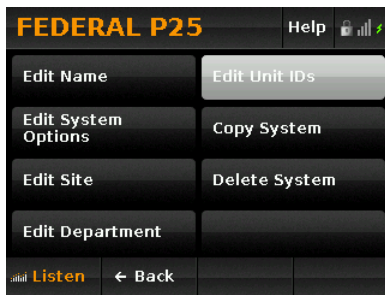
Repeat this to define rectangles for the department.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Editing Unit IDs

Unit IDs identify the specific radio currently transmitting on the channel. You can program Unit IDs into the HomePatrol-1 so that it will display user information during scanning. You will also need to turn on the Unit ID Display option (MENU→Display Options).

From the System menu, select Edit Unit IDs.



Select Create a New Unit ID.



Assign an alpha tag to the ID, then tap Next.



Input the Unit ID, then tap Accept.



You will now see the Unit ID menu.



Edit Name – lets you change the alpha tag assigned to the ID.

Edit Unit ID – lets you change the Unit ID.

Set Alert – lets you set an alert tone that sounds whenever the user transmits.

Copy ID – lets you copy the ID information so that you can Paste it into another location.

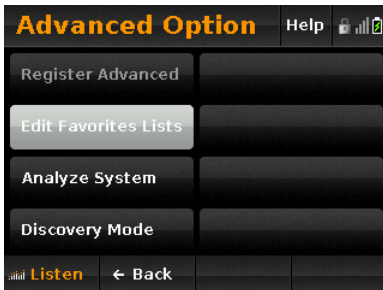
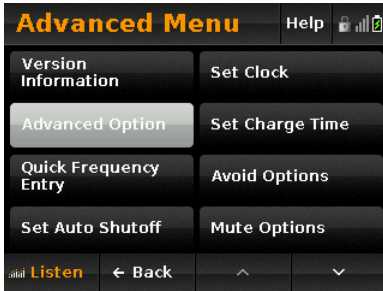
Delete ID – lets you delete the ID information from the HomePatrol-1.

Programming P25 One-Frequency Trunked

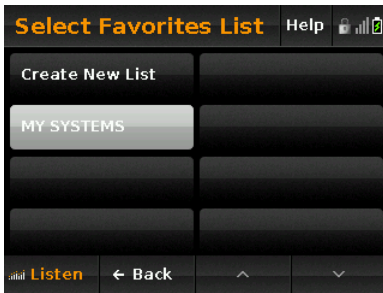
From the Main Menu, select Advanced Menu.



Then, select Advanced Option and Edit Favorites Lists.



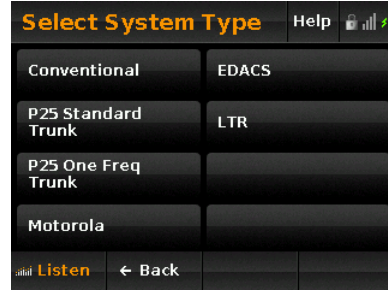
Select the Favorites List for the system you want to program (or create a new list).



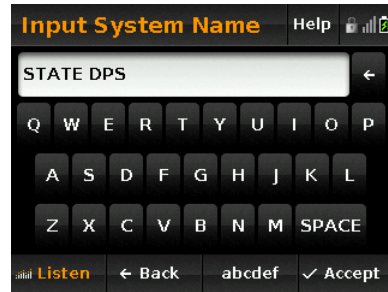
Select Create New System (or select the system you want to edit).



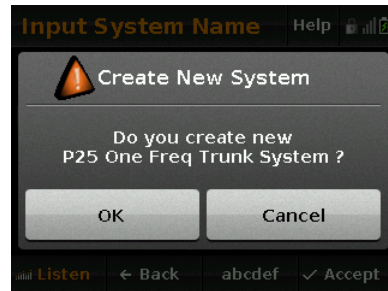
Select P25 One Freq Trunk.



Name the system.



Confirm that you want to create the P25 Trunk System.



The HomePatrol-1 now provides a menu for system settings.



Edit Name – Allows you to change the name of the system

Edit System Options – Lets you set the system level option(s).

Edit Site – Lets you add/edit sites.

Edit Department – Lets you create or edit departments to hold system channels.

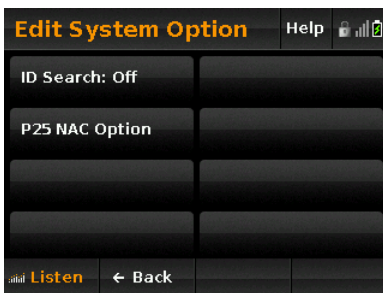
Edit Unit IDs – Allows you to enter and edit Unit IDs so that individual radios are identified on the system.

Copy System – Copies the entire system. This is useful if you want to make a similar system later.

Delete System – Deletes the system from the Favorites List.

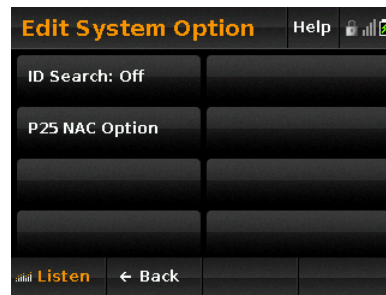
Editing System Options

For P25 One Freq Trunk systems, You can turn on/off ID Search and set the P25 NAC option.



Tap the ID Search to toggle between ID Search On (HomePatrol-1 will stop on all unavaoided channels, even if not in its database) and ID Search Off (HomePatrol-1 ignores all channels not in its database).

Tap P25 NAC Option for the P25 NAC menu.



Tap NAC Search to have the HomePatrol-1 automatically determine and display the NAC for transmission.

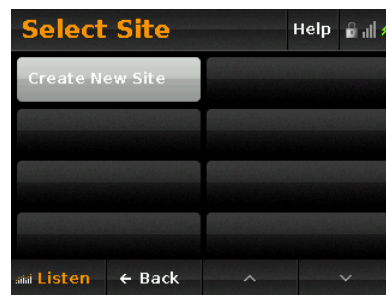
Or, tap Set P25 NAC to set a specific NAC that must be present for the HomePatrol-1 to stop on transmissions on the system frequency.

Creating Sites

Sites contain the radio frequency information used by trunked radio systems. To create a site for the system, select Edit Site from the system’s menu.



Then, select Create New Site.



Enter a name for the site.



You will then see the site menu.



Edit Name – Lets you change the Site’s name.

Edit Frequency – Lets you add or change the frequency used by the site.

Attenuator: Off – Allows you to attenuate signals when receiving the site, if set to On.

Set Location – Lets you enter the site’s geographic location.

Delete Site – Allows you to delete the site from the database.

Entering the Site Frequencies

To enter frequencies for the site, select Edit Frequency from the Site menu.



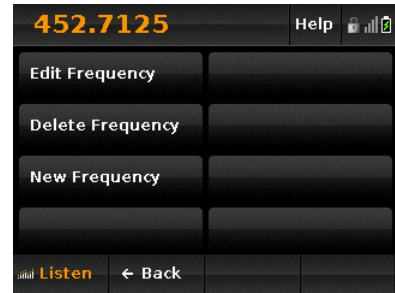
Then, select Create New Frequency.



Enter the frequency and tap Accept.



The Frequency menu appears.



Edit Frequency – allows you to change the frequency.

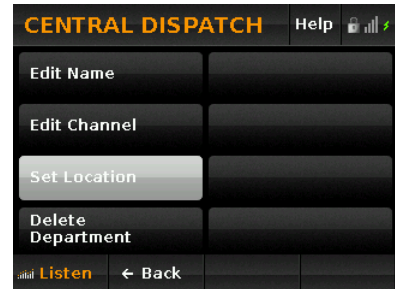
Delete Frequency – deletes the frequency from the site.

New Frequency – tap to add additional frequencies, then repeat the above steps.

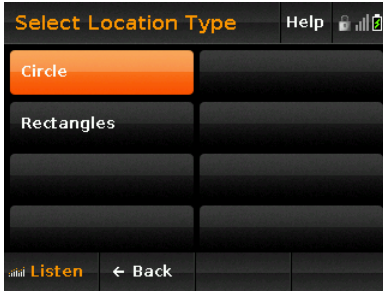
Setting a Site’s Location

You can define a site’s location using either a single circle (defined by the centerpoint’s latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

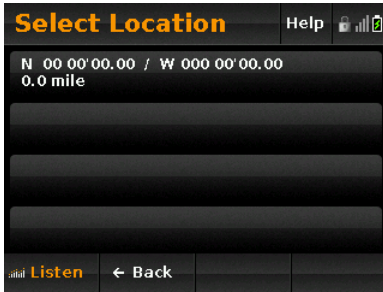
At the Site Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the site's location.



If you select Circle, tap the existing coordinates.

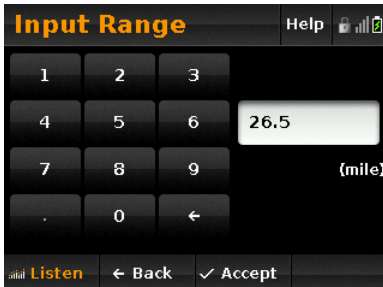


Then, use the form to enter the latitude and longitude of the circle's center.



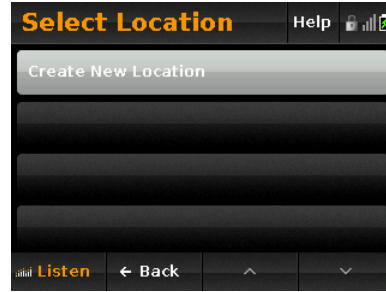
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

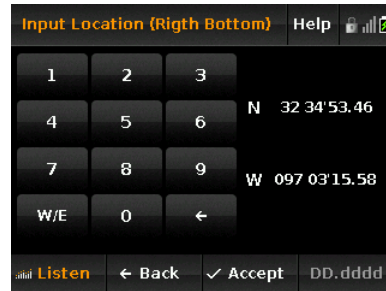
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



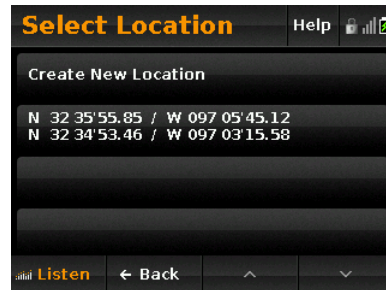
Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the site.

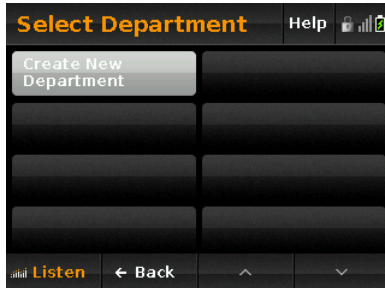
The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Creating a Department

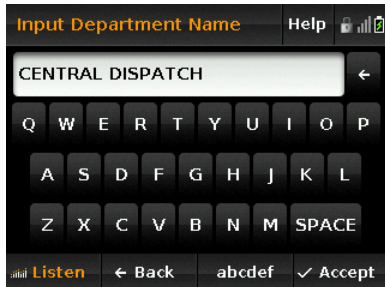
From the system menu, select Edit Department.



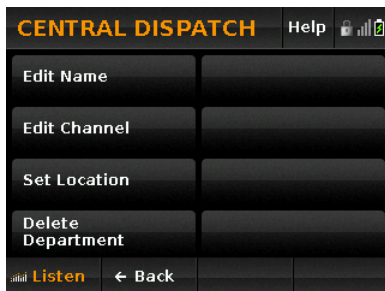
Create a Department to contain channels.



Name the Department.



The HomePatrol-1 presents a menu for Department settings.



Edit Name – Lets you change the Department’s name.

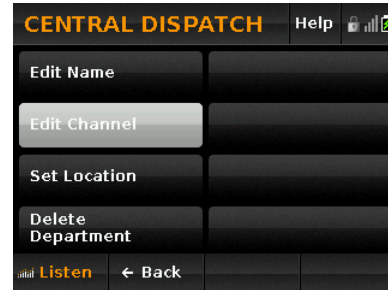
Edit Channel – Allows you to edit or add channels for the Department.

Set Location – Lets you set the geographic boundaries for the department. This is used for location-based channel selection.

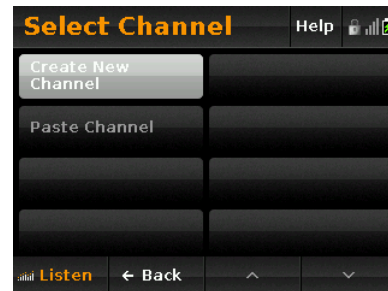
Delete Department – Lets you delete the department.

Editing Channels

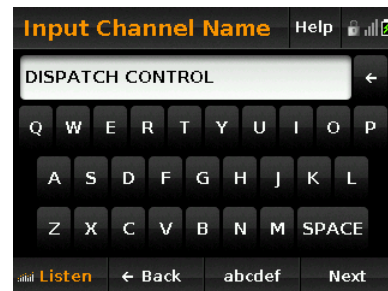
Select Edit Channels from the Department menu.



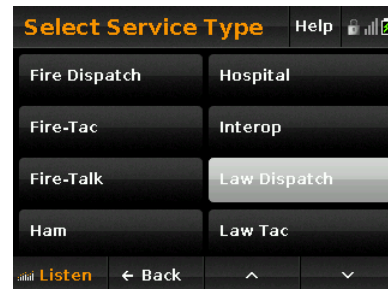
Create a new channel.



Name the Channel.



Select a Service Type for the Channel.

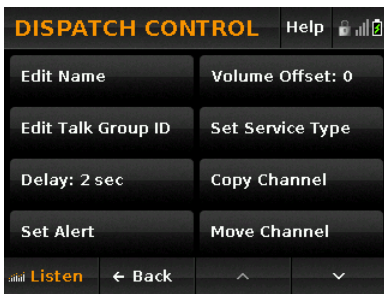


Set the Talk Group ID for the Channel.



Note: To enter the I-Call Wildcard, enter i0 as the Talk Group ID.

You will now see the Channel menu.



Edit Name – Allows you to rename the channel.

Edit Talk Group ID – Allows you to change the channel's Talk Group ID.

Delay: 2 sec – Lets you set the channel delay (the amount of time the HomePatrol-1 stays on a frequency after a transmission ends before continuing scanning).

- 2, 5, 10, or 30 seconds – HomePatrol-1 waits the specified amount of time.
- 0 Seconds – HomePatrol-1 resumes scanning as soon as a transmission ends.
- -10, -5 seconds – Forces scan resume after the set duration, even if the transmission continues.

Set Alert – Lets you set an alert tone that will sound whenever the channel becomes active.

Volume Offset – Allows you to set a volume offset for the channel that will either reduce (negative values) or increase the channel's volume relative to other channels.

Set Service Type – Lets you change the service type assignment for the channel.

Copy Channel – Puts the channel information into the copy buffer. This can be used to quickly copy channel settings for an additional channel (after you Copy a channel, a menu option appears to Paste Channel at the add channel menu).

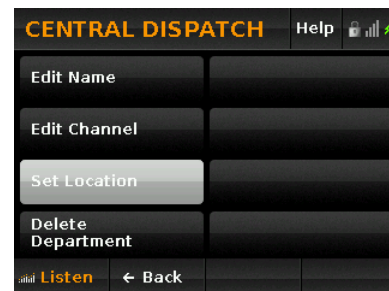
Move Channel – lets you move a channel to a different department (more than one department must exist in the system for this option to operate).

Delete Channel – deletes the current channel from the Department.

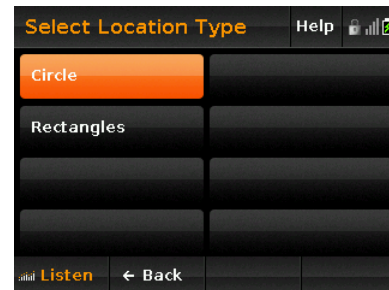
Setting a Department's Location

You can define a departments location using either a single circle (defined by the centerpoint's latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

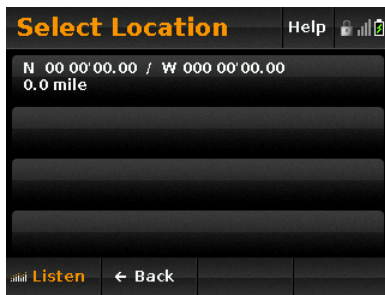
At the Department Menu, select Set Location



Then, select whether you will use a circle or rectangle(s) to define the department's location.



If you select Circle, tap the existing coordinates.



Then, use the form to enter the latitude and longitude of the circle's center.



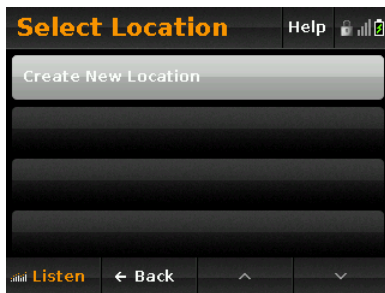
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

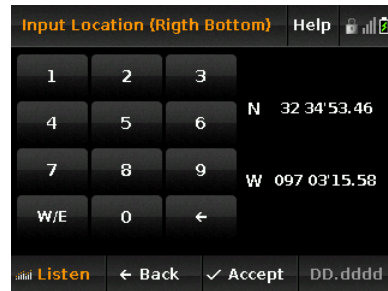
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the department.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Editing Unit IDs

Unit IDs identify the specific radio currently transmitting on the channel. You can program Unit IDs into the HomePatrol-1 so that it will display user information during scanning. You will also need to turn on the Unit ID Display option (MENU→Display Options).

From the System menu, select Edit Unit IDs.



Edit Name – lets you change the alpha tag assigned to the ID.

Edit Unit ID – lets you change the Unit ID.

Set Alert – lets you set an alert tone that sounds whenever the user transmits.

Copy ID – lets you copy the ID information so that you can Paste it into another location.

Delete ID – lets you delete the ID information from the HomePatrol-1.

Select Create a New Unit ID.



Assign an alpha tag to the ID, then tap Next.



Input the Unit ID, then tap Accept.



You will now see the Unit ID menu.

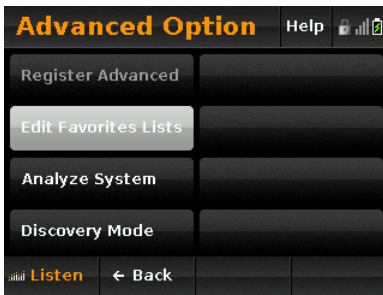
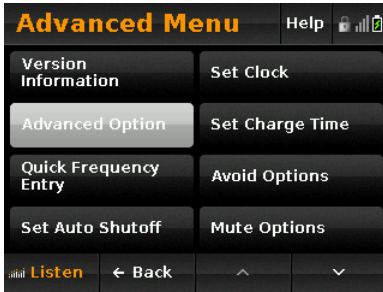


Programming Motorola Trunked

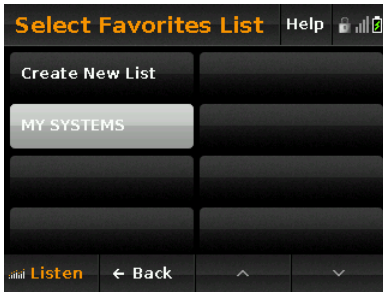
From the Main Menu, select Advanced Menu.



Then, select Advanced Option and Edit Favorites Lists.



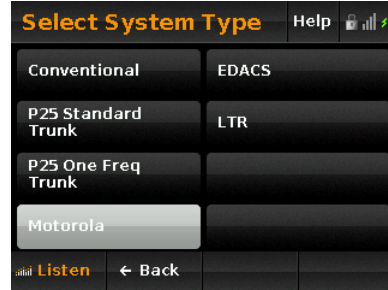
Select the Favorites List for the system you want to program (or create a new list).



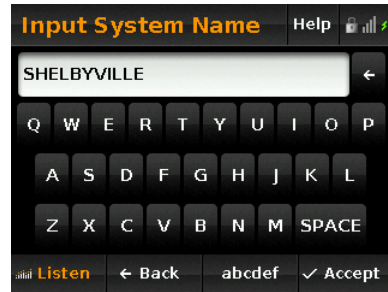
Select Create New System (or select the system you want to edit).



Select Motorola.



Name the system.



Confirm that you want to create the Motorola Trunk System.



The HomePatrol-1 now provides a system settings menu.



Edit Name – Allows you to change the name of the system.

Edit System Options – Lets you set the system level option(s).

Edit Site – Lets you add/edit sites.

Edit Department – Lets you create or edit departments to hold system channels.

Edit Unit IDs – Allows you to enter and edit Unit IDs so that individual radios are identified on the system.

Copy System – Copies the entire system. This is useful if you want to make a similar system later.

Delete System – Deletes the system from the Favorites List.

Editing System Options

Select Edit System Options. The following menu appears:



ID Search: Tap the selection to toggle between ID Search On (HomePatrol-1 will stop on all unavaoided channels, even if not in its database) and ID Search Off (HomePatrol-1 ignores all channels not in its database).

Set Emergency Alert: Allows you to set a tone to sound when a radio's emergency status is activated.

Set Fleet Map: Lets you set a fleet map for Motorola systems that include Type I channels. To set the fleet map, after selecting this option repeatedly tap each block to set the correct value for that block.

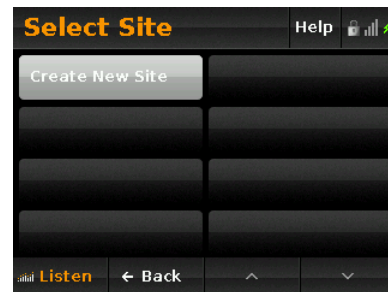
Status Bit: This should normally be set to Ignore unless you are checking on system ID status bit flags.

Creating Sites

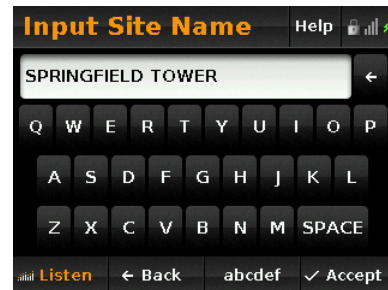
Sites contain the radio frequency information used by trunked radio systems. To create a site for the system, select Edit Site from the system's menu.



Then, select Create New Site.



Enter a name for the site.



You will then see the site menu.



Edit Name – Lets you change the Site's name.

Edit Band Plan – Lets you enter or edit the site's band plan.

Edit Frequency – Lets you add or change the frequencies used by the site.

Modulation – toggles the modulation used for the site.

Attenuator: Off – Allows you to attenuate signals when receiving the site, if set to On.

Set Location – Lets you enter the site’s geographic location.

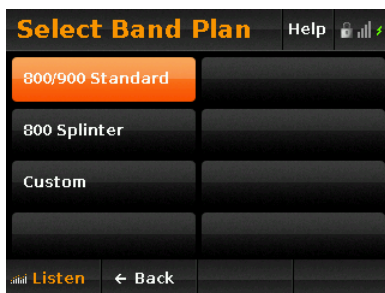
Delete Site – Allows you to delete the site from the database.

Editing the Band Plan

To set the band plan, select Edit Band Plan from the Site menu.



You will see the Select Band Plan menu.

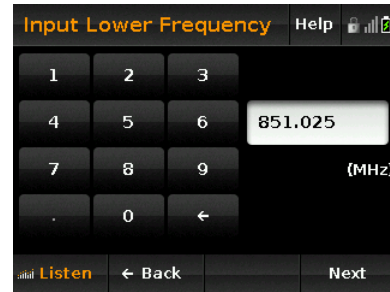


Select to use the 800/900 Standard band plan, the 800 Splinter band plan, or a custom band plan. If you select Custom, you will see the following menu.

Select the table entry to edit.



Enter the lower frequency for the table entry. Then click next.



Enter the upper frequency for the table entry. Then click next.



Select the frequency spacing for the band plan entry.



Input the offset for the band plan entry. Then tap Accept.



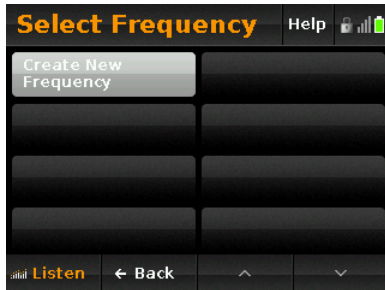
Repeat this for additional table entries.

Entering Site Frequencies

To enter frequencies for the site, select Edit Frequency from the Site menu.



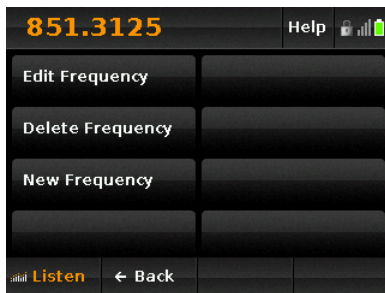
Then, select Create New Frequency.



Enter the frequency and tap Accept.



The Frequency menu appears.



Edit Frequency – allows you to change the frequency.

Delete Frequency – deletes the frequency from the site.

New Frequency – tap to add additional frequencies, then repeat the above steps.

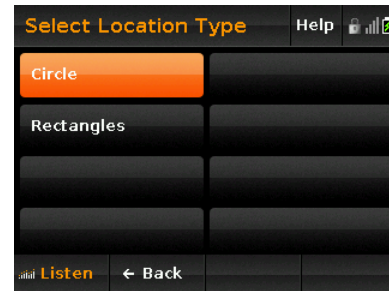
Setting a Site's Location

You can define a site's location using either a single circle (defined by the centerpoint's latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

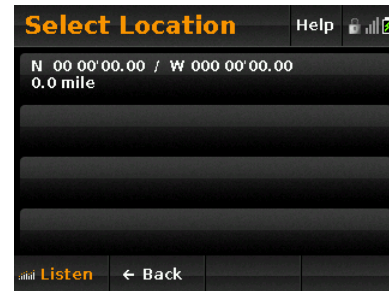
At the Site Menu, select Set Location.



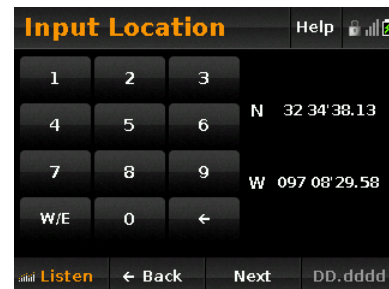
Then, select whether you will use a circle or rectangle(s) to define the site's location.



If you select Circle, tap the existing coordinates.

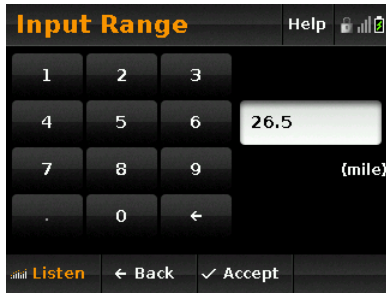


Then, use the form to enter the latitude and longitude of the circle's center.



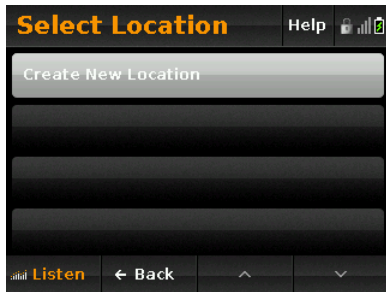
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

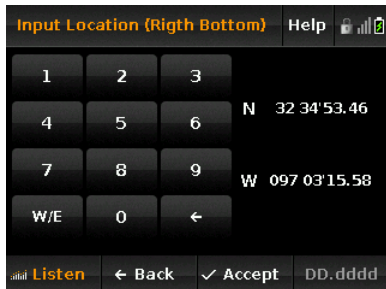
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the site.

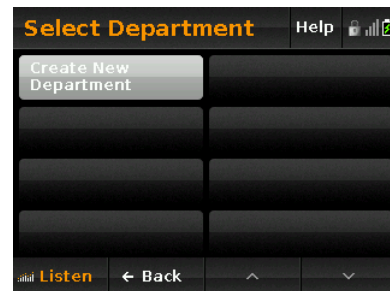
The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Creating a Department

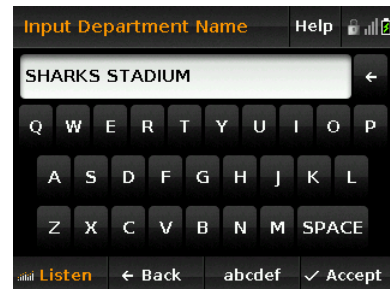
From the system menu, select Edit Department.



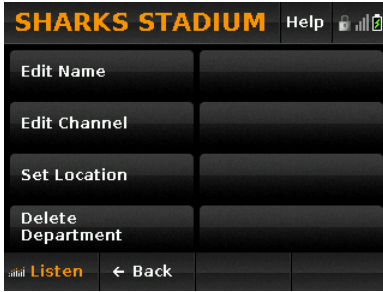
Create a Department to contain channels.



Name the Department.



The HomePatrol-1 presents a menu for Department settings.



Edit Name – Lets you change the Department’s name.

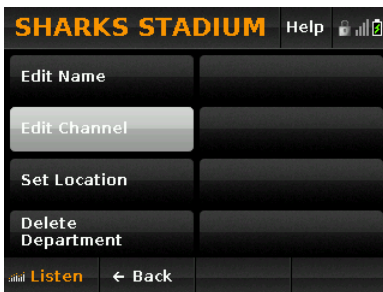
Edit Channel – Allows you to edit or add channels for the Department.

Set Location – Lets you set the geographic boundaries for the department. This is used for location-based channel selection.

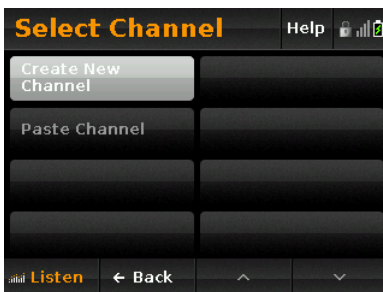
Delete Department – Lets you delete the department.

Editing Channels

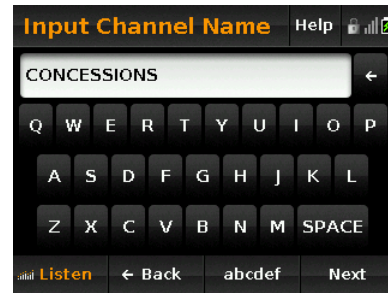
Select Edit Channel from the Department menu.



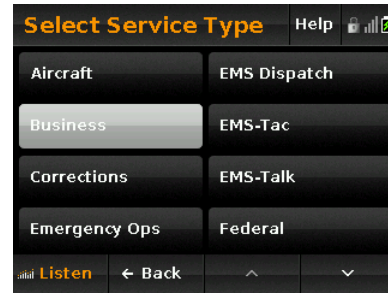
Create a new channel.



Name the Channel.



Select a Service Type for the Channel.

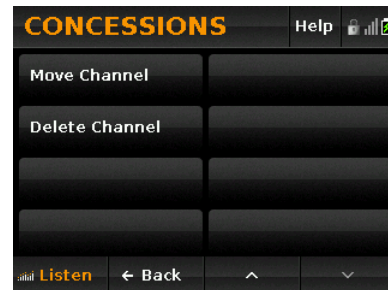
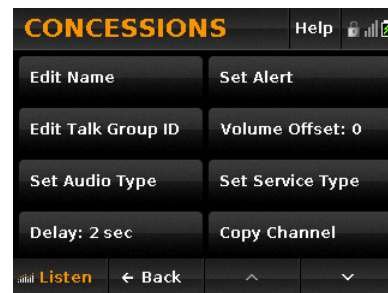


Set the Talk Group ID for the Channel.



Note: To enter the I-Call Wildcard, enter i0 as the Talk Group ID.

You will now see the Channel menu.



Edit Name – Allows you to rename the channel.

Edit Talk Group ID – Allows you to change the channel’s Talk Group ID.

Set Audio Type: Lets you set the channel to Analog, Digital, or All.

Delay: 2 sec – Lets you set the channel delay (the amount of time the HomePatrol-1 stays on a frequency after a transmission ends before continuing scanning).

- 2, 5, 10, or 30 seconds – HomePatrol-1 waits the specified amount of time.
- 0 Seconds – HomePatrol-1 resumes scanning as soon as a transmission ends.
- -10, -5 seconds – Forces scan resume after the set duration, even if the transmission continues.

Set Alert – Lets you set an alert tone that will sound whenever the channel becomes active.

Volume Offset – Allows you to set a volume offset for the channel that will either reduce (negative values) or increase the channel’s volume relative to other channels.

Set Service Type – Lets you change the service type assignment for the channel.

Copy Channel – Puts the channel information into the copy buffer. This can be used to quickly copy channel settings for an additional channel (after you Copy a channel, a menu option appears to Paste Channel at the add channel menu).

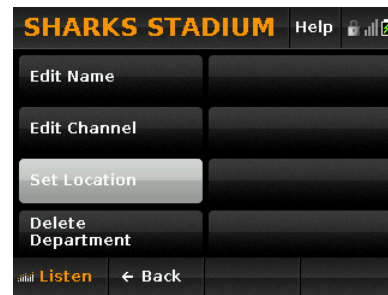
Move Channel – lets you move a channel to a different department (more than one department must exist in the system for this option to operate).

Delete Channel – deletes the current channel from the Department.

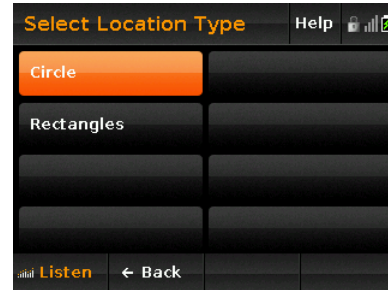
Setting a Department’s Location

You can define a departments location using either a single circle (defined by the centerpoint’s latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

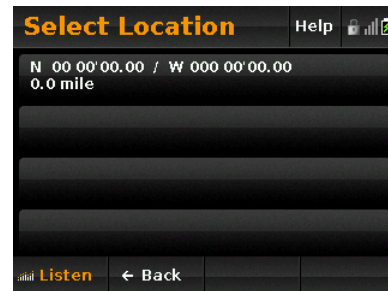
At the Department Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the department’s location.



If you select Circle, tap the existing coordinates.

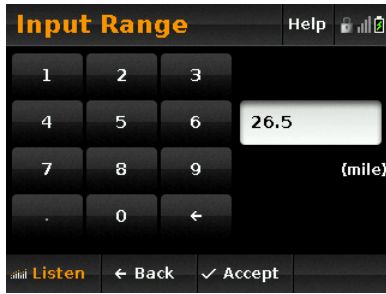


Then, use the form to enter the latitude and longitude of the circle’s center.



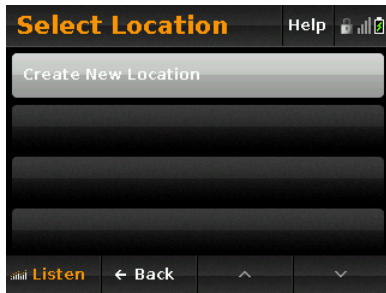
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).

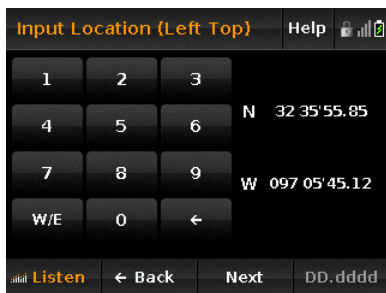


ACCEPT the range to store the setting.

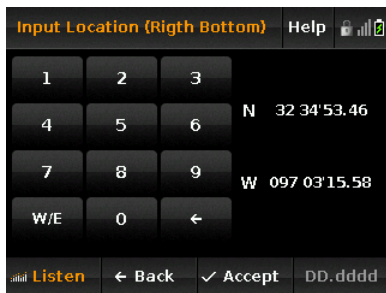
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the department.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Editing Unit IDs

Unit IDs identify the specific radio currently transmitting on the channel. You can program Unit IDs into the HomePatrol-1 so that it will display user information during scanning. You will also need to turn on the Unit ID Display option (MENU→Display Options).

From the System menu, select Edit Unit IDs.



Select Create a New Unit ID.



Assign an alpha tag to the ID, then tap Next.



Input the Unit ID, then tap Accept.



You will now see the Unit ID menu.



Edit Name – lets you change the alpha tag assigned to the ID.

Edit Unit ID – lets you change the Unit ID.

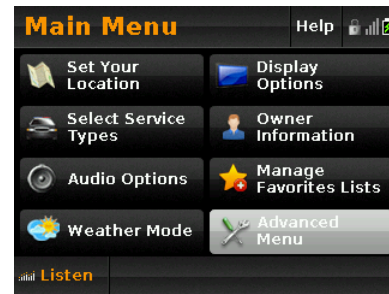
Set Alert – lets you set an alert tone that sounds whenever the user transmits.

Copy ID – lets you copy the ID information so that you can Paste it into another location.

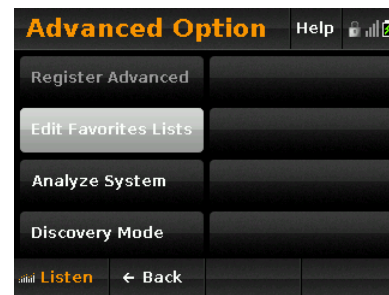
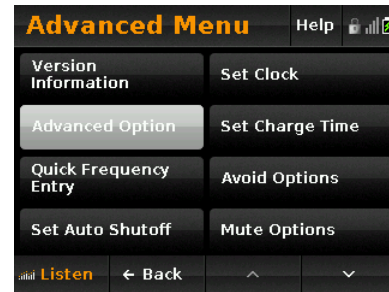
Delete ID – lets you delete the ID information from the HomePatrol-1.

Programming EDACS Trunked

From the Main Menu, select Advanced Menu.



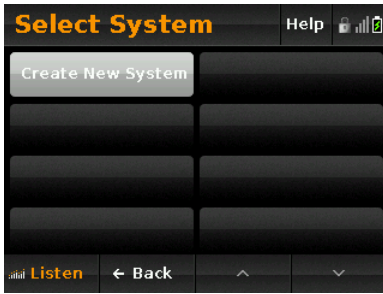
Then, select Advanced Option and Edit Favorites Lists.



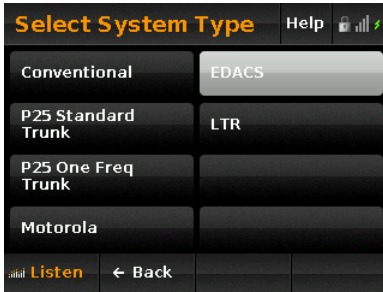
Select the Favorites List for the system you want to program (or create a new list).



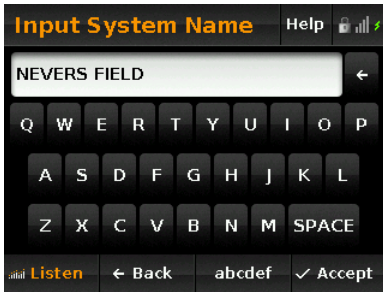
Select Create New System (or select the system you want to edit).



Select EDACS.



Name the system.



Confirm that you want to create the EDACS Trunk System.



The HomePatrol-1 now provides a menu for system settings.



Edit Name – Allows you to change the name of the system.

Edit System Options – Lets you set the system level option(s).

Edit Site – Lets you add/edit sites.

Edit Department – Lets you create or edit departments to hold system channels.

Edit Unit IDs – Allows you to enter and edit Unit IDs so that individual radios are identified on the system.

Copy System – Copies the entire system. This is useful if you want to make a similar system later.

Delete System – Deletes the system from the Favorites List.

Editing System Options

Select Edit System Options. The following menu appears:



ID Search: Tap the selection to toggle between ID Search On (HomePatrol-1 will stop on all unavaoided channels, even if not in its database) and ID Search Off (HomePatrol-1 ignores all channels not in its database).

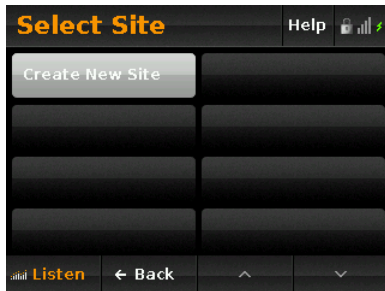
Set Emergency Alert: Allows you to set a tone to sound when a radio's emergency status is activated.

Creating Sites

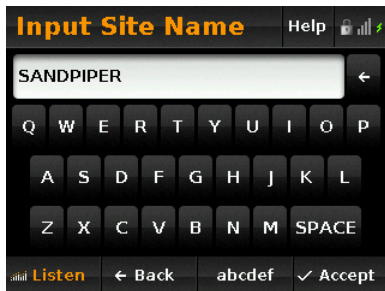
Sites contain the radio frequency information used by trunked radio systems. To create a site for the system, select Edit Site from the system's menu.



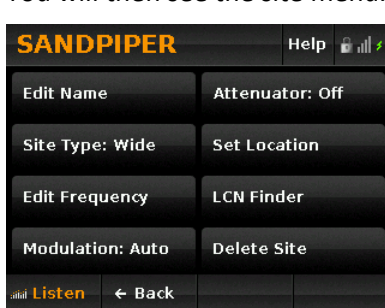
Then, select Create New Site.



Enter a name for the site.



You will then see the site menu.



Edit Name – Lets you change the Site's name.

Site Type – Tap to switch between WIDE and NARROW.

Edit Frequency – Lets you add or change the frequencies used by the site.

Modulation – toggles the modulation used for the site.

Attenuator: Off – Allows you to attenuate signals when receiving the site, if set to On.

Set Location – Lets you enter the site's geographic location.

LCN Finder – automatically determines the correct LCN for the entered frequencies.

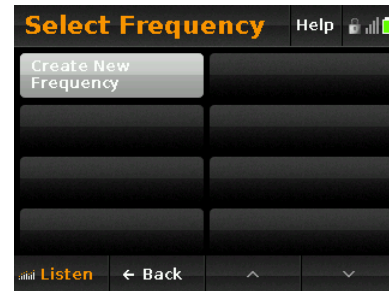
Delete Site – Allows you to delete the site from the database.

Entering Site Frequencies

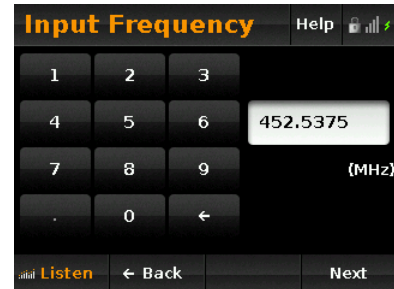
To enter frequencies for the site, select Edit Frequency from the Site menu.



Then, select Create New Frequency.



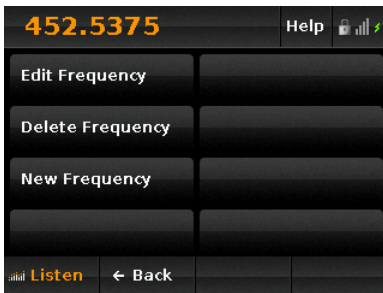
Enter the frequency and tap Accept.



Enter the LCN for the frequency and tap Accept. If you do not know the LCN assignment, enter any LCN not used for another frequency, then later use the LCN Finder function to adjust the assignments.



The Frequency menu appears.



Edit Frequency – allows you to change the frequency.

Delete Frequency – deletes the frequency from the site.

New Frequency – tap to add additional frequencies, then repeat the above steps.

Setting a Site's Location

You can define a site's location using either a single circle (defined by the centerpoint's latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

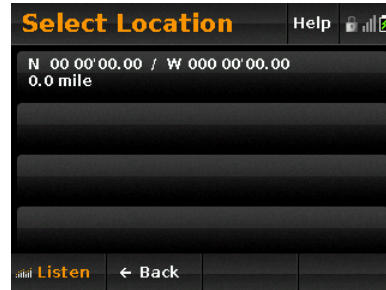
At the Site Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the site's location.



If you select Circle, tap the existing coordinates.



Then, use the form to enter the latitude and longitude of the circle's center.



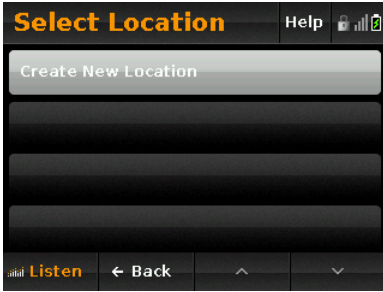
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

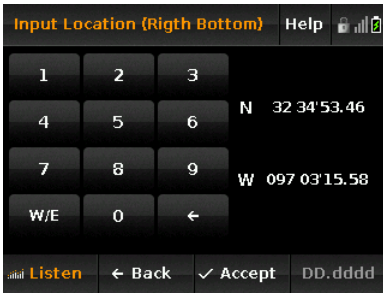
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the site.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Using the LCN Finder

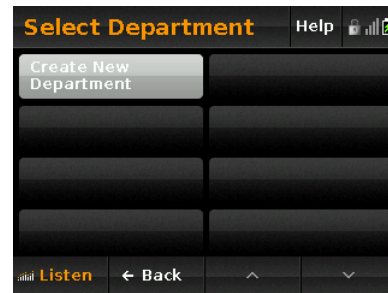
See the separate section later in this user's guide.

Creating a Department

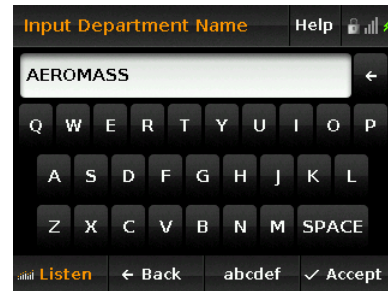
From the system menu, select Edit Department.



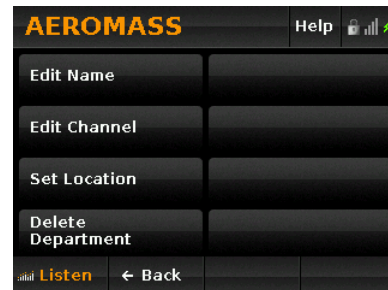
Create a Department to contain channels.



Name the Department.



The HomePatrol-1 presents a menu for Department settings.



Edit Name – Lets you change the Department's name.

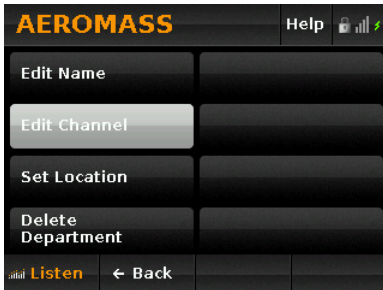
Edit Channel – Allows you to edit or add channels for the Department.

Set Location – Lets you set the geographic boundaries for the department. This is used for location-based channel selection.

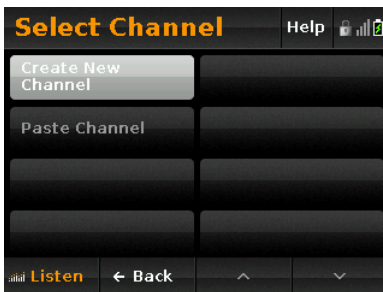
Delete Department – Lets you delete the department.

Editing Channels

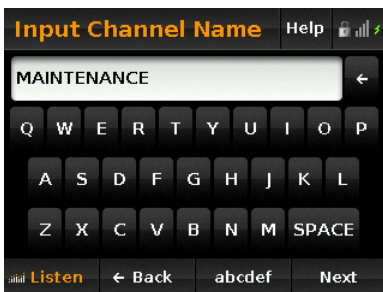
Select Edit Channel from the Department menu.



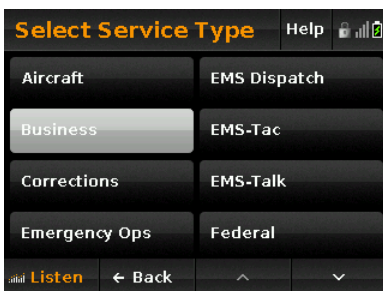
Create a new channel.



Name the Channel.



Select a Service Type for the Channel.

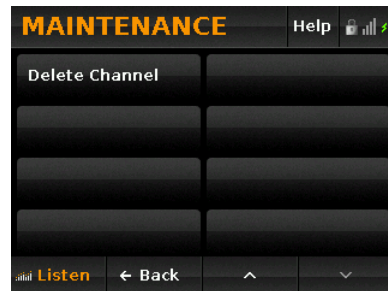
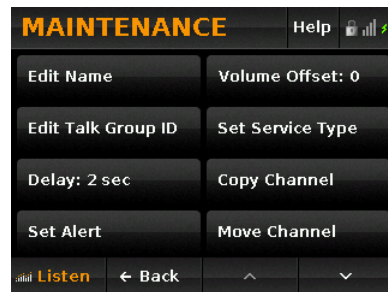


Set the Talk Group ID for the Channel.



Note: To enter the I-Call Wildcard, enter i0 as the Talk Group ID.

You will now see the Channel menu.



Edit Name – Allows you to rename the channel.

Edit Talk Group ID – Allows you to change the channel's Talk Group ID.

Delay: 2 sec – Lets you set the channel delay (the amount of time the HomePatrol-1 stays on a frequency after a transmission ends before continuing scanning).

- 2, 5, 10, or 30 seconds – HomePatrol-1 waits the specified amount of time.
- 0 Seconds – HomePatrol-1 resumes scanning as soon as a transmission ends.
- -10, -5 seconds – Forces scan resume after the set duration, even if the transmission continues.

Set Alert – Lets you set an alert tone that will sound whenever the channel becomes active.

Volume Offset – Allows you to set a volume offset for the channel that will either reduce (negative values) or increase the channel’s volume relative to other channels.

Set Service Type – Lets you change the service type assignment for the channel.

Copy Channel – Puts the channel information into the copy buffer. This can be used to quickly copy channel settings for an additional channel (after you Copy a channel, a menu option appears to Paste Channel at the add channel menu).

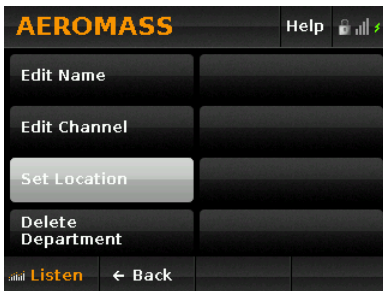
Move Channel – lets you move a channel to a different department (more than one department must exist in the system for this option to operate).

Delete Channel – deletes the current channel from the Department.

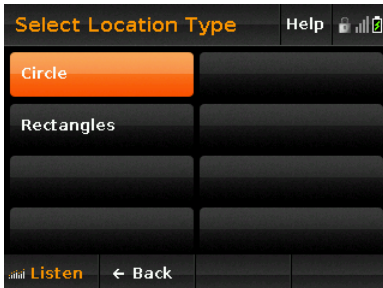
Setting a Department’s Location

You can define a departments location using either a single circle (defined by the centerpoint’s latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

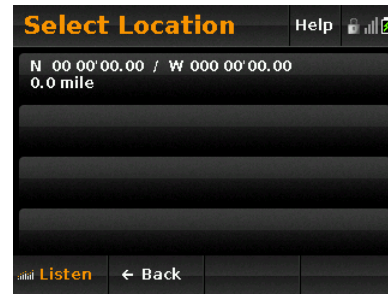
At the Department Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the department’s location.



If you select Circle, tap the existing coordinates.

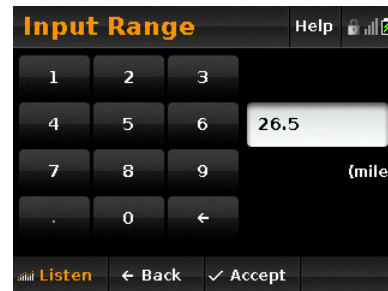


Then, use the form to enter the latitude and longitude of the circle’s center.



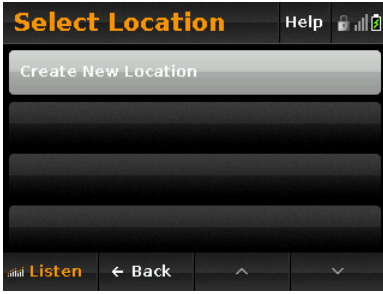
Note: the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the department.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Editing Unit IDs

Unit IDs identify the specific radio currently transmitting on the channel. You can program Unit IDs into the HomePatrol-1 so that it will display user information during scanning. You will also need to turn on the Unit ID Display option (MENU→Display Options).

From the System menu, select Edit Unit IDs.



Select Create a New Unit ID.



Assign an alpha tag to the ID, then tap Next.



Input the Unit ID, then tap Accept.



You will now see the Unit ID menu.



Edit Name – lets you change the alpha tag assigned to the ID.

Edit Unit ID – lets you change the Unit ID.

Set Alert – lets you set an alert tone that sounds whenever the user transmits.

Copy ID – lets you copy the ID information so that you can Paste it into another location.

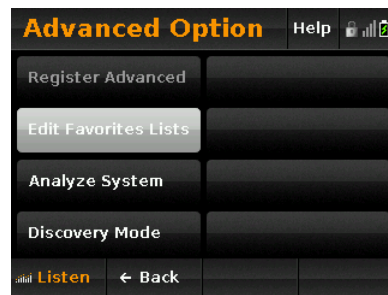
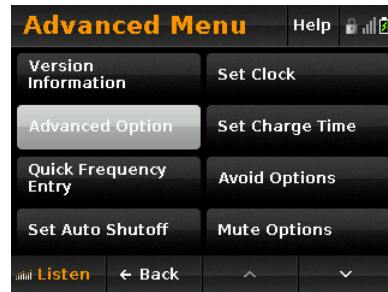
Delete ID – lets you delete the ID information from the HomePatrol-1.

Programming LTR Trunked

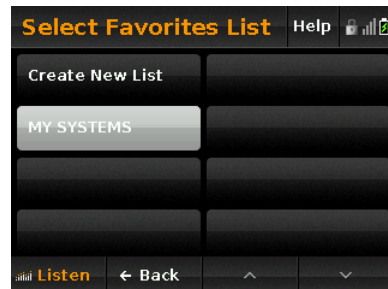
From the Main Menu, select Advanced Menu.



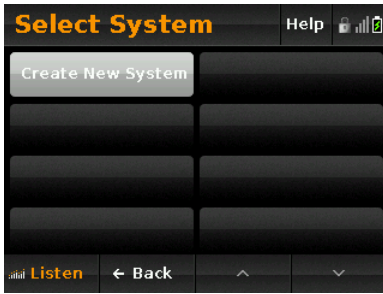
Then, select Advanced Option and Edit Favorites Lists.



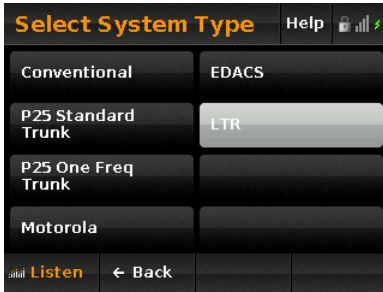
Select the Favorites List for the system you want to program (or create a new list).



Select Create New System (or select the system you want to edit).



Select LTR.



Name the system.



Confirm that you want to create the LTR Trunk System.



The HomePatrol-1 now provides a menu for system settings.



Edit Name – Allows you to change the name of the system.

Edit System Options – Lets you set the system level option(s).

Edit Site – Lets you add/edit sites.

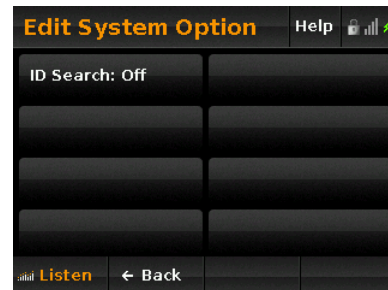
Edit Department – Lets you create or edit departments to hold system channels.

Copy System – Copies the entire system. This is useful if you want to make a similar system later.

Delete System – Deletes the system from the Favorites List.

Editing System Options

Select Edit System Options. The following menu appears:



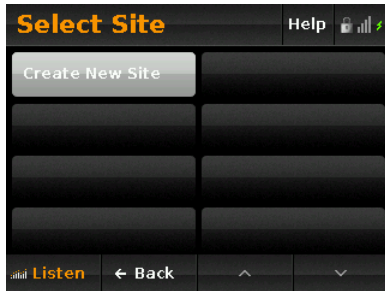
ID Search: Tap the selection to toggle between ID Search On (HomePatrol-1 will stop on all unavaoided channels, even if not in its database) and ID Search Off (HomePatrol-1 ignores all channels not in its database).

Creating Sites

Sites contain the radio frequency information used by trunked radio systems. To create a site for the system, select Edit Site from the system's menu.



Then, select Create New Site.



Enter a name for the site.



You will then see the site menu.



Edit Name – Lets you change the Site's name.

Edit Frequency – Lets you add or change the frequencies used by the site.

Modulation – toggles the modulation used for the site.

Attenuator: Off – Allows you to attenuate signals when receiving the site, if set to On.

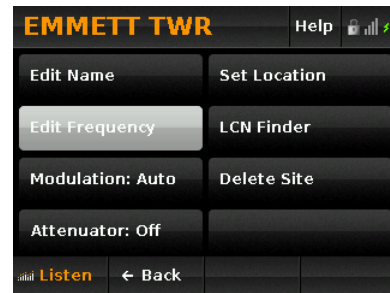
Set Location – Lets you enter the site's geographic location.

LCN Finder – automatically determines the correct LCN for the entered frequencies.

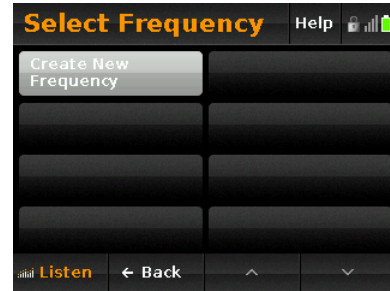
Delete Site – Allows you to delete the site from the database.

Entering Site Frequencies

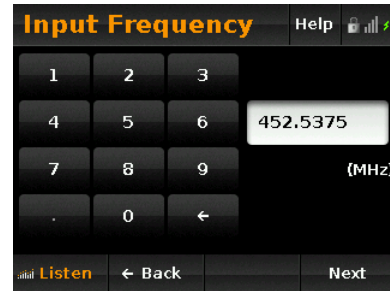
To enter frequencies for the site, select Edit Frequency from the Site menu.



Then, select Create New Frequency.



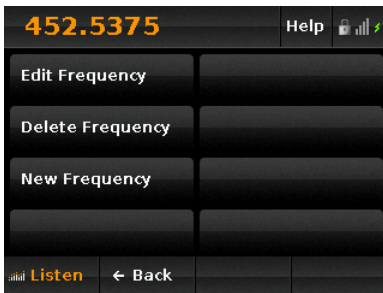
Enter the frequency and tap Accept.



Enter the LCN for the frequency and tap Accept. If you do not know the LCN assignment, enter any LCN not used for another frequency, then later use the LCN Finder function to adjust the assignments.



The Frequency menu appears.



Edit Frequency – allows you to change the frequency.

Delete Frequency – deletes the frequency from the site.

New Frequency – tap to add additional frequencies, then repeat the above steps.

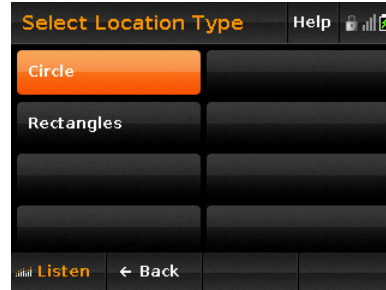
Setting a Site's Location

You can define a site's location using either a single circle (defined by the centerpoint's latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

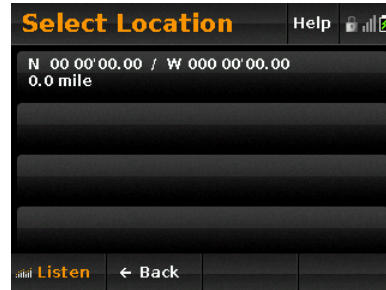
At the Site Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the site's location.



If you select Circle, tap the existing coordinates.



Then, use the form to enter the latitude and longitude of the circle's center.



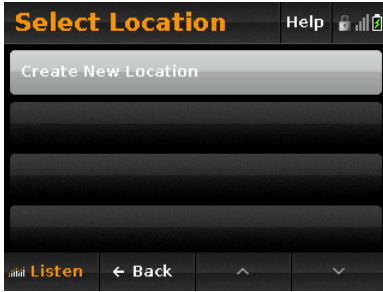
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).

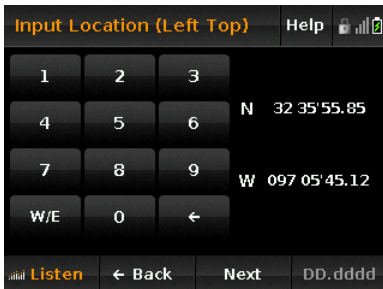


ACCEPT the range to store the setting.

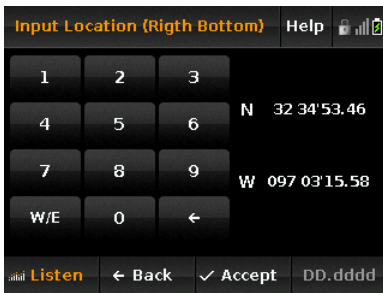
If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the site.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Using the LCN Finder

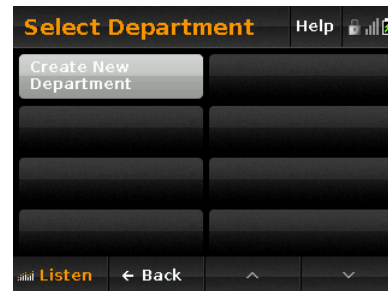
See the separate section later in this user's guide.

Creating a Department

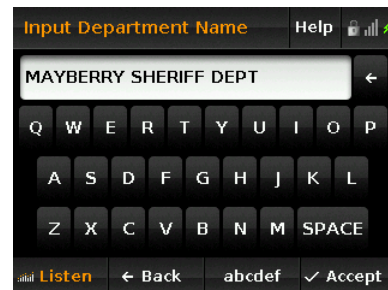
From the system menu, select Edit Department.



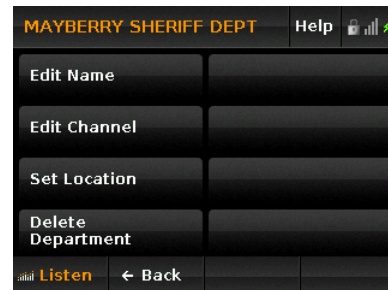
Create a Department to contain channels.



Name the Department.



The HomePatrol-1 presents a menu for Department settings.



Edit Name – Lets you change the Department's name.

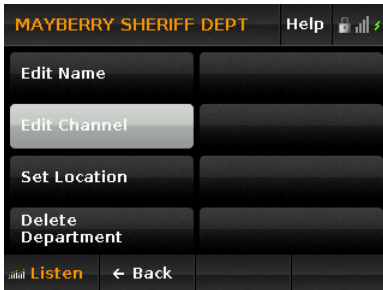
Edit Channel – Allows you to edit or add channels for the Department.

Set Location – Lets you set the geographic boundaries for the department. This is used for location-based channel selection.

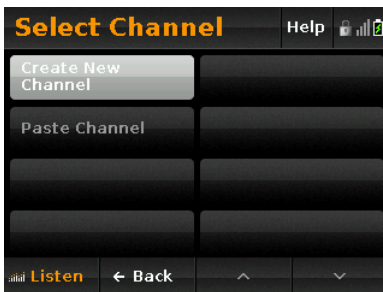
Delete Department – Lets you delete the department.

Editing Channels

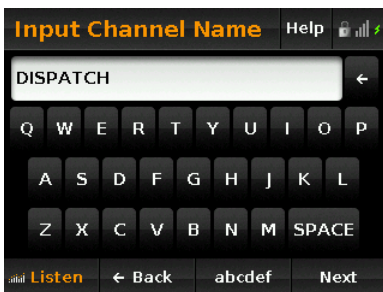
Select Edit Channel from the Department menu.



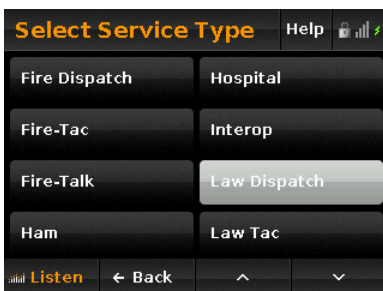
Create a new channel.



Name the Channel.



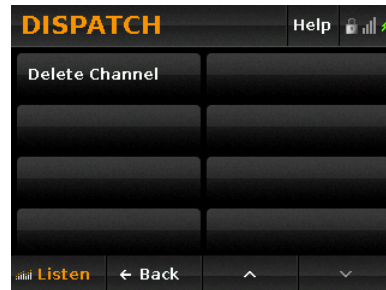
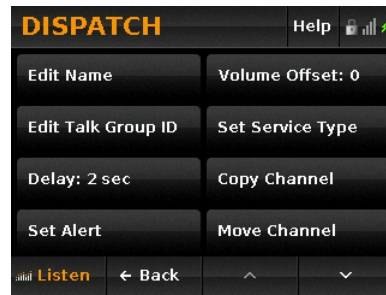
Select a Service Type for the Channel.



Set the Talk Group ID for the Channel.



You will now see the Channel menu.



Edit Name – Allows you to rename the channel.

Edit Talk Group ID – Allows you to change the channel's Talk Group ID.

Delay: 2 sec – Lets you set the channel delay (the amount of time the HomePatrol-1 stays on a frequency after a transmission ends before continuing scanning).

- 2, 5, 10, or 30 seconds – HomePatrol-1 waits the specified amount of time.
- 0 Seconds – HomePatrol-1 resumes scanning as soon as a transmission ends.
- -10, -5 seconds – Forces scan resume after the set duration, even if the transmission continues.

Set Alert – Lets you set an alert tone that will sound whenever the channel becomes active.

Volume Offset – Allows you to set a volume offset for the channel that will either reduce (negative values) or increase the channel's volume relative to other channels.

Set Service Type – Lets you change the service type assignment for the channel.

Copy Channel – Puts the channel information into the copy buffer. This can be used to quickly copy channel settings for an additional channel (after you Copy a channel, a menu option appears to Paste Channel at the add channel menu).

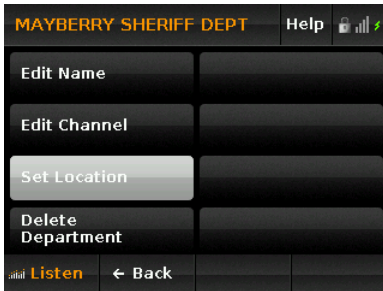
Move Channel – lets you move a channel to a different department (more than one department must exist in the system for this option to operate).

Delete Channel – deletes the current channel from the Department.

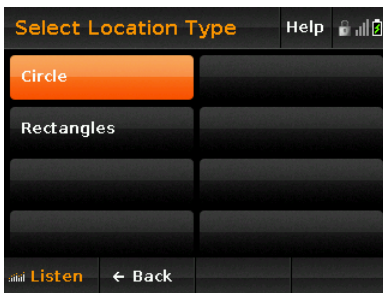
Setting a Department's Location

You can define a departments location using either a single circle (defined by the centerpoint's latitude and longitude and the distance from the center, or range) or by using rectangles (each rectangle defined by the latitude and longitude of opposing corners).

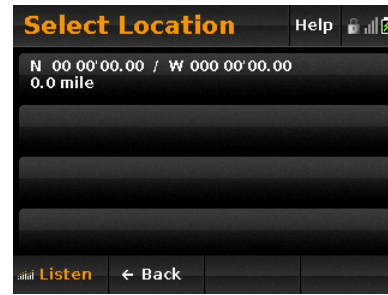
At the Department Menu, select Set Location.



Then, select whether you will use a circle or rectangle(s) to define the department's location.



If you select Circle, tap the existing coordinates.

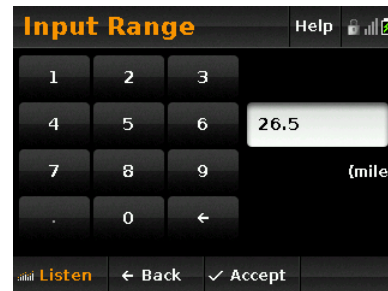


Then, use the form to enter the latitude and longitude of the circle's center.



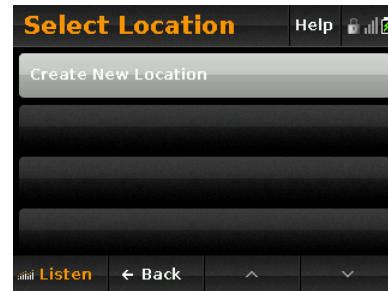
Note, the format used to enter the location is set by the button in the lower right corner of the screen. In this example, we show coordinates using DMS format.

Select NEXT, then enter the range for the department (the distance from the center of the circle to an edge).



ACCEPT the range to store the setting.

If you select Rectangles, tap Create New Location to add a rectangle, or an existing rectangle to edit it.



Enter the latitude and longitude for one corner of the rectangle.



Next, enter the latitude and longitude for an opposing corner of the rectangle.



When you accept the setting, you are returned to the location selection screen with the new settings added.



Repeat this to define rectangles for the department.

The HomePatrol-1 will use either the Circle or Rectangles, depending on which one you last selected.

Save Found TGIDs

After the upgrade, if a new TGID is found during ID Search mode, you can press the right-side channel menu and select SAVE to add it to your Favorites List.

Advanced System Features

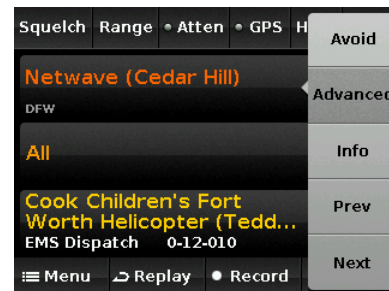
This section covers the advanced features of the HomePatrol-1 Extreme. This includes

- Analysis Features
- Discovery Features

Analysis Features

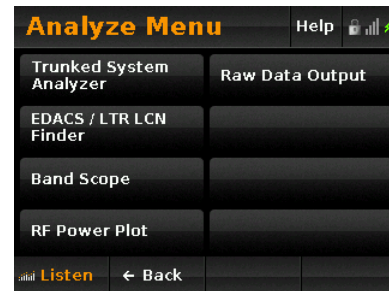
The analysis features allow you to get a deeper look at trunked and conventional channel activity. See the following sections for details on each feature.

To get to the Analyze Menu, either select Advanced from the main screen's System sidebar menu.



Or, navigate to the menu by: Menu → Advanced Menu → Advanced Option.

Then, select Analyze System from the menu. You will see the following menu.



Trunked System Analyzer

Select Trunked System Analyzer to access the trunked system analysis tools. These tools are available for P25, Motorola, and EDACS, and LTR systems.

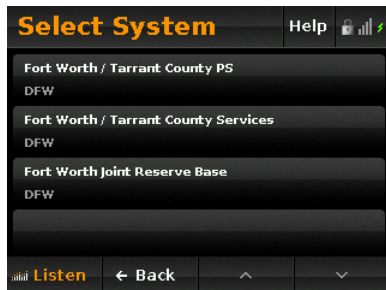


Select the system you want to analyze. If you accessed the menu using the main screen sidebar menu, you will have the option to use the current system.

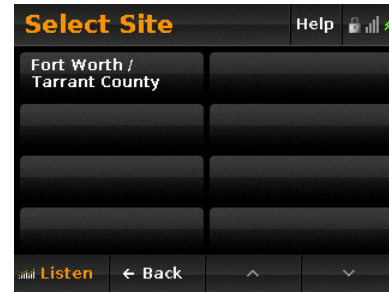


If you did not select to use the current system, enter the first part of the name of the system you want to analyze. The system must be in the systems currently selected for scanning.

When you tap Accept, all systems that match what you entered appear. Tap the one you want to analyze.



Select the site on the system you want to use for system analysis. (If the system has more than one site, they will all appear.)

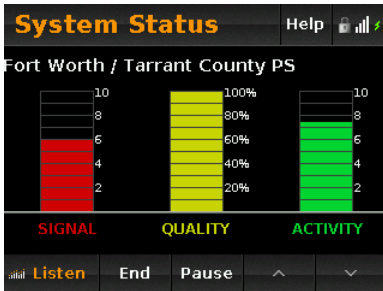


The system analysis tools appear.



System Load / Reception Status

Tap System Load / Reception Status. After a few seconds, the display will show the signal strength, the control channel decode quality, and the level of system activity.



To see additional system information, press the down arrow in the bottom right corner of the screen.



Current Activity

Tap Current Activity. As channel grants are issued on new frequencies, the table will populate with the frequencies in use on the system. The currently active Talk Group ID and Unit IDs on each frequency will also update.

No	LCN	Frequency	TGID	Unit ID	MOD
1	8	851.2125			
2	11	851.2875			
3	14	851.3625			
4	33	851.8375			
5	35	851.8875			
6	48	852.2125	2448	14090	A
7	50	852.2625	5992		
8	68	852.7125	3248	48914	A
9	70	852.7625	9552	21294	A
10	75	852.8875	SYS:3632h	SITE:1	
11					
12					
13					
14					

Channels are color coded as follows:

Light Blue: Control Channel

Red: Encrypted (cannot be determined for some system types)

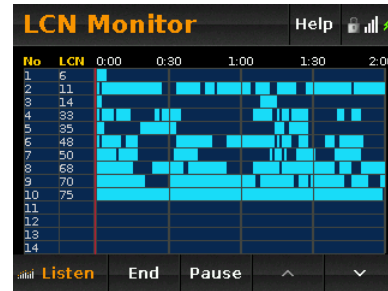
Orange: Patch

Green: Unknown TGID

Yellow: I-Call

LCN Monitor

Tap LCN Monitor. The display shows a scrolling chart over time indicating which channels have been active or idle over a 2-minute period.



Activity Log

The activity log shows details of every channel grant and certain other system activity. The HomePatrol-1 also saves a complete log of all commands that have been received from the control channel. You can review that log using the tools in Sentinel.

Time	Message	Description
13:25:04	TG Update	Tid:8592, Lcn:15, Sts:N
13:25:04	TG Update	Tid:2160, Lcn:50, Sts:N
13:25:04	TG Update	Tid:2768, Lcn:6, Sts:N
13:25:04	TG Update	Tid:2512, Lcn:14, Sts:N
13:25:05	TG Grant	Tid:16816, Uid:20992, Lcn:33, Sts:N, Mod:A
13:25:06	TG Grant	Tid:17136, Uid:21126, Lcn:11, Sts:N, Mod:A
13:25:07	I-Call	Uid:8178, Lcn:75
13:25:07	TG Update	Tid:8592, Lcn:15, Sts:N
13:25:07	TG Update	Tid:2160, Lcn:50, Sts:N
13:25:07	TG Update	Tid:16816, Lcn:33, Sts:N
13:25:07	TG Update	Tid:2512, Lcn:14, Sts:N
13:25:08	TG Grant	Tid:3248, Uid:48914, Lcn:68, Sts:N, Mod:A
13:25:08	TG Grant	Tid:22832, Uid:48039, Lcn:48, Sts:N, Mod:A
13:25:08	TG Grant	Tid:7376, Uid:54529, Lcn:35, Sts:N, Mod:A

Talk Group Converter

The Talk Group converter converts talk group IDs between Decimal and Hexadecimal representation (for Motorola or P25 systems) between AFS and Decimal representation (for EDACS systems). Tap DEC or HEX to enter the value you want to convert.



EDACS / LTR LCN Finder

The EDACS/LTR LCN finder lets you determine the correct LCN assignments for frequencies on an EDACS or LTR system. You need to have previously programmed the system with all frequencies.

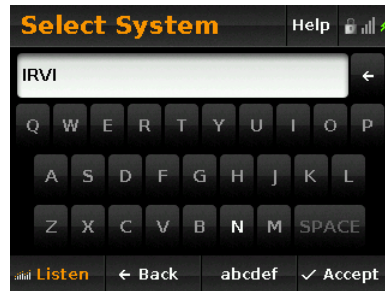
Then, from the Advanced Menu, select EDACS/LTR LCN Finder.



If you were last scanning an EDACS or LTR system, you have the option of using the current system, or selecting a system to analyze.



If you select a system, enter the first few letters of the system name, then press ACCEPT.



The list of matching EDACS and LTR systems appears. Select the system you want to analyze.



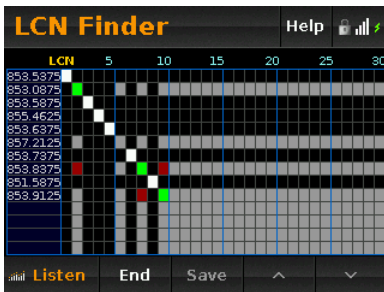
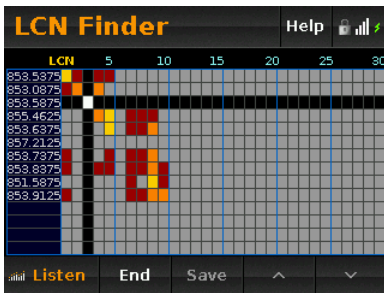
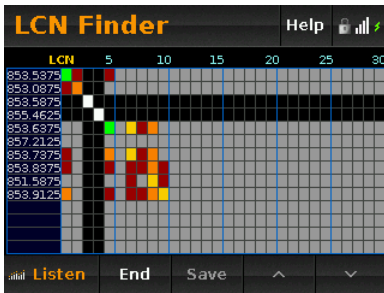
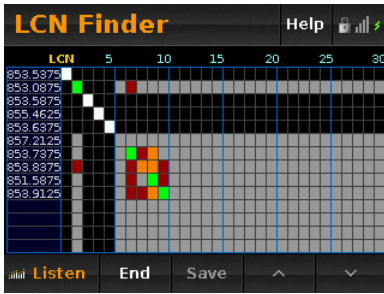
If the system has more than one site, select the site to analyze.



The LCN finder starts. For LTR systems, each LCN is determined immediately when it becomes active.

For EDACS systems, the system is monitored over time. The HomePatrol-1 evaluates the correlation between channel grants and frequency activity. Over a period of time (depending on how busy the system is), each LCN is determined.

The next pictures show how this process might look over several minutes' time.



White cells are cells with high LCN to frequency activity and are likely LCN matches.

The HomePatrol-1 will notify you when all LCNs have been correlated.



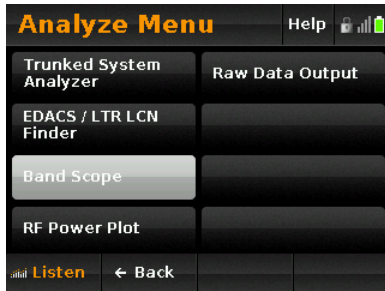
You can press SAVE to save the LCN association for each frequency to the system.



Note that because this process uses statistical correlation, it can result in *false finds*, especially on a busy system. It is a good idea to run this process several times and compare results before saving an LCN map for a system. Best results are achieved when the system is not extremely busy.

Band Scope

The band scope gives you a visual representation of the radio activity in a frequency range. From the Analyze Menu, select Band Scope.



The Band Scope Menu appears.



Set Center Frequency – set the frequency at the center of the frequency range you want to analyze.

Set Span – set the width of the frequency range to analyze. For example, if you set the center frequency to 146.0000 MHz and the span to 2 MHz, the Band Scope will analyze from 145.0000 MHz to 147.0000 MHz.

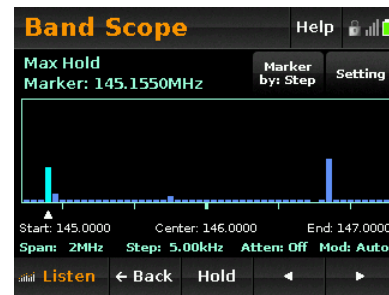
Set Step – set the size of the frequency step to use when analyzing the frequency range.

Attenuator – tap to turn the attenuator on or off.

Modulation – tap to set the modulation method to use. AUTO uses the default setting for the frequencies being checked.

Max Hold – set to ON to have the maximum RSSI value for a frequency held during analyze. Otherwise, all values are reset on every sweep.

Tap Start to start the band scope.

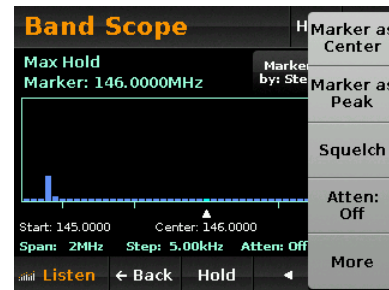
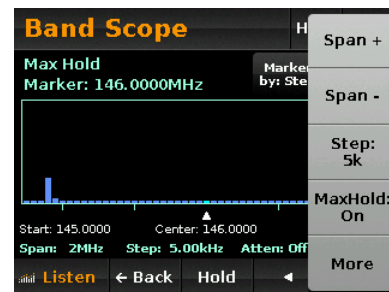


Tap the left and right arrows at the bottom of the screen to adjust the position of the marker at the bottom of the analyze window. Tap Marker by: above the display to change how the marker moves:

Marker by:Step – the marker moves left and right in increments of the step setting.

Marker by:Bar – the marker moves left and right in single-bar increments (typically each bar represents multiple step values).

You can adjust all of the settings set in the Band Scope menu. Tap Setting to access these settings. You will see several additional options available.

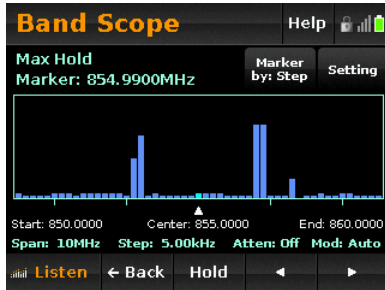


Marker as Center – rescales the frequency range to set the position of the marker as the center frequency.

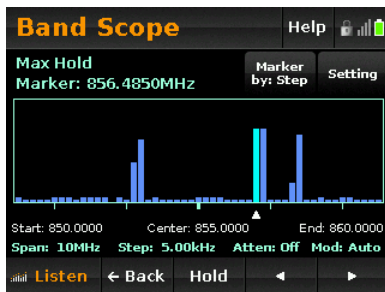
Marker as Peak – moves the marker to the position of the strongest signal.

Finding a Local Interference Source

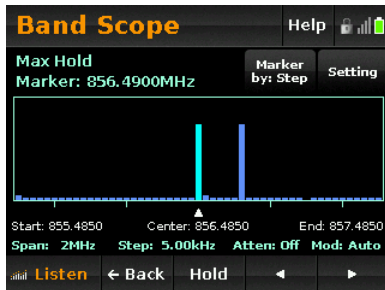
One use for this function could be to locate the transmit frequency of a strong interference source. For this example, we'll look for strong signal sources in the 850-860 MHz range. Start with a wide span with max hold on and allow the function to run for several minutes.



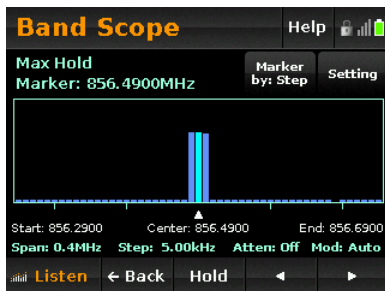
Next, set Marker as Peak to put the marker under the strongest signal.



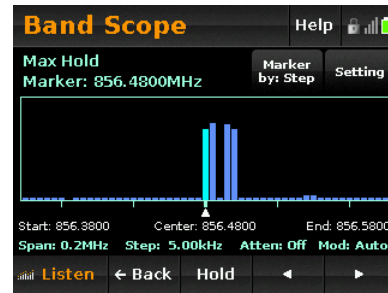
Now, set Marker as Center to center the range on the peak signal and narrow the span. In this case, the span is narrowed to 2 MHz.



Repeat this, narrowing the range again.



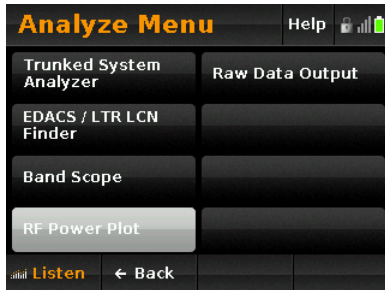
Finally, we've determined that the signal is at about 856.485 MHz. The signal is about 20 kHz wide (the bar in the middle of the signal is at a minimum level because it falls off the 5 kHz step being used).



RF Power Plot

RF Power Plot allows you to analyze the signal strength over time on a single frequency. This could be useful for radio direction finding (using a highly directional antenna, you can determine when you are facing toward or directly away from a signal source) or to compare the performance of different antennas.

From the Analyze Menu, select RF Power Plot.



The RF Power Plot Menu appears.



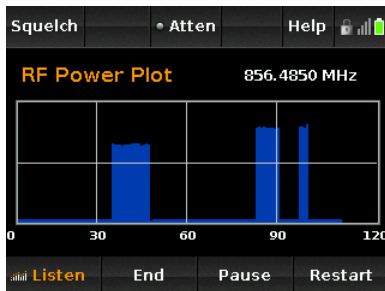
Set Frequency – sets the frequency to analyze.

Modulation – tap to set the modulation.

Attenuator – tap to turn attenuation on or off.

Sample Rate – tap to set how long each vertical bar in the power plot represents.

Tap Start to start the power plot.



You will hear received signals.

In the above example, the antenna was changed from an external (poorly grounded) mag mount antenna for the transmission starting at about 35 seconds to the included

on-unit antenna for the transmission starting at about 80 seconds.

Raw Data Output

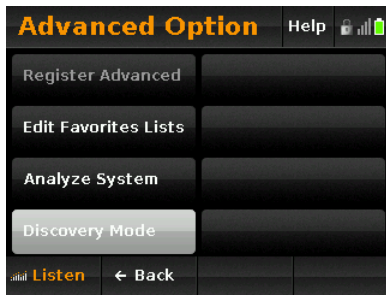
This function is used to analyze raw decoded data using external software. Uniden does not yet support this output, but will provide the output format to software authors for inclusion in their programs.

Discovery Features

The discovery features make it easier than ever to find new channels using your HomePatrol-1. This section includes:

- Trunking Discovery Mode
- Conventional Discovery Mode
- Review Discovery Mode
- Limit Search

To access the discover features, select Discovery Mode from the Advanced Options menu.



Trunking Discovery Mode

Trunking Discovery Mode allows you to monitor a trunked radio system, logging system channel activity and recording the audio for channels not currently in the database.

Before using this mode, set your location and range, and choose the database(s) to use for scanning.

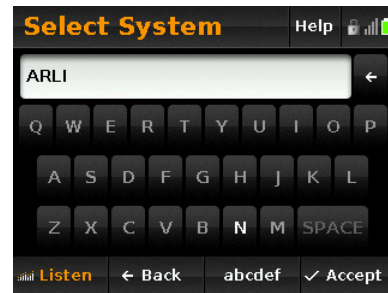
To access the Trunking Discover Mode, select Trunking Discovery Mode from the Discovery Menu.



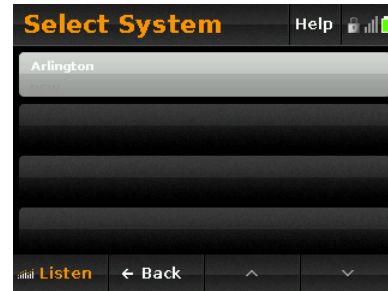
Next, select to create a new discovery mode settings by selecting Create New Settings, or open a previously created settings.



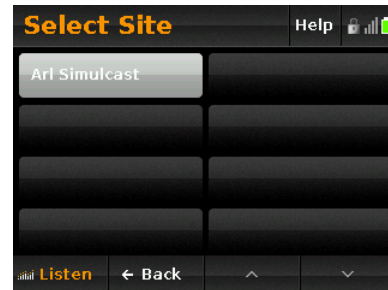
Tap Select System to select the trunked system to use, then enter the first few letters of the system.



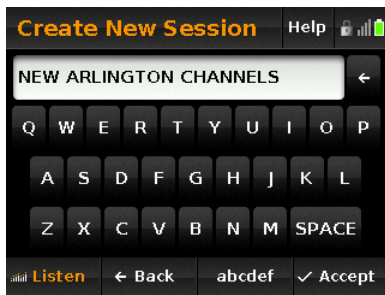
Tap the system to use for the session.



Select the site to use for the session. For multisite systems, more than one site will appear.



Enter a name for the session.



When you tap Accept, the discover session menu appears.



Set Discovery Name – allows you to change the name of the discovery session.

Delay: -- tap to change how long the HomePatrol-1 will pause after a transmission ends to wait for a reply for this session.

Logging – select one of the following:

All: All channels are logged, even if they are not new channels.

New Only: Only new channels are logged.

Compare to Database – select On to compare channel grants against the channels already in the database; only new channels will have audio recorded. Select Off to treat all channel grants as new channels.

Record Duration – set how much audio will be recorded for each new channel.

Time-Out Timer – set the maximum duration of any single transmission before the HP-1 resumes to check for other channel activity.

System Info – tap to see information about the selected trunked radio system.

Delete Session – tap to delete the session.

Change System – tap to use a different trunked radio system for discovery.

Tap Start to start the discovery session.



To stop the discovery session, press END. The HomePatrol-1 then goes to the Review Discovery Mode menu (see separate section, later in this manual).

Conventional Discovery Mode

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.

Before using this mode, set your location and range, and choose the database(s) to use for scanning.

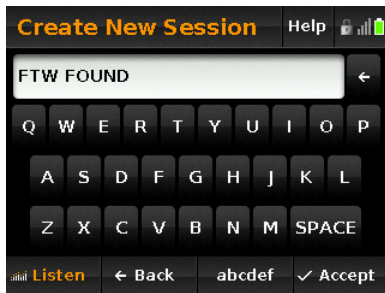
To access the Conventional Discover Mode, select Conventional Discovery Mode from the Discovery Menu.



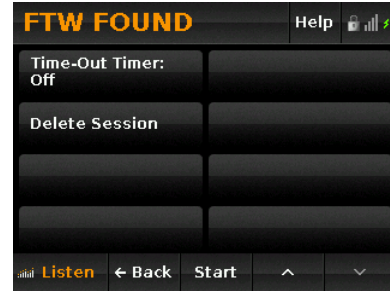
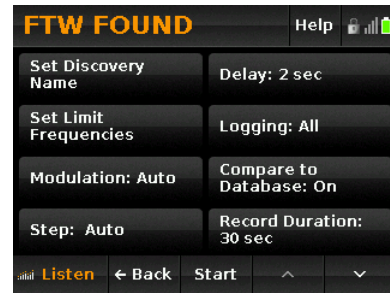
Next, create discovery mode settings by selecting Create New Settings, or open a previously created settings.



Enter the name for the discovery session.



When you tap Accept, the discover session menu appears.



Set Discovery Name – allows you to change the name of the discovery session.

Set Limit Frequencies – tap to enter the upper and lower limit of the frequency range to use.

Modulation – tap to set the modulation method used for reception. If set to AUTO, the HomePatrol-1 will use the default modulation method for each band.

Step – tap to set the channel step to use for the session. If set to AUTO, the HomePatrol-1 uses the each band’s default channel step.

Delay – tap to change how long the HomePatrol-1 pauses after a transmission ends to wait for a reply for this session.

Logging – select one of the following:

All: All channels are logged, even if they are not new channels.

New Only: Only new channels are logged.

Compare to Database – select On to compare frequency activity against channels already in the database; only new channels will have audio recorded. Select Off to treat all hits as new channels.

Record Duration – set how much audio will be recorded for each new channel.

Time-Out Timer – set the maximum duration of any single transmission before the HP-1 resumes to check for other channel activity.

Delete Session – tap to delete the session.

Change System – tap to use a different trunked radio system for discovery.

Tap Start to start the discovery session.



To stop the discovery session, press END. The HomePatrol-1 then goes to the Review Discovery Mode menu (see separate section, later in this manual).

Review Discovery Mode

In the review discovery mode, you can review the results of discover mode runs, resume runs, or rerun saved discovery sessions.

From the Discover menu, select Review Discovery Mode.

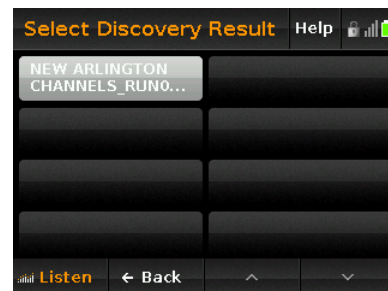


Reviewing a Trunking Discovery Session

After selecting the Review Discovery Mode, select Trunking Discovery Results.

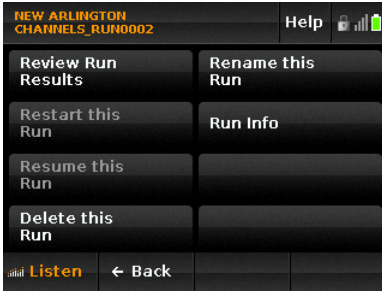


A screen appears with a list of all previous trunking discovery sessions. Tap the session name to review it.



The Review menu appears for this session.

Note that if the current database selection does not include the system used for the discovery session, some options are not available.



Review Run Results – lets you review all the channel hits logged during the session. See Review Run Results (Trunking) below.

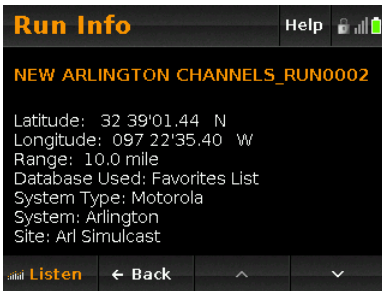
Restart this Run – erases all logged hits for the session and starts the discovery session over.

Resume this Run – resumes the discovery session, keeping all logged hits and found or avoided channels.

Delete this Run – deletes the session and all logs from the HomePatrol-1's memory.

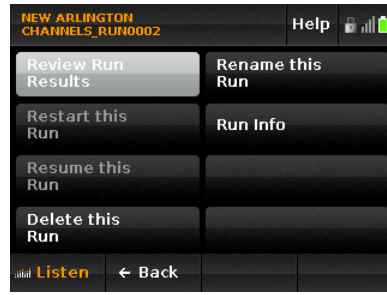
Rename this Run – lets you change the name of the run for easier identification.

Run Info – displays a screen similar to the following with summary information about the run.



Review Run Results (Trunking)

Tap Review Run Results.



A summary view of all hits appears on the screen. In this view mode, all hits for the same channel are grouped together to make it easier to review all recorded audio for that channel.



Hits for found channels include a recording of the audio during that hit. Tap the row to play back the audio.

Rows that are in grey print are records of known channels. No audio is recorded for these hits.

Tap Detail to switch to the detail view.



In this view, all hits are shown in chronological order.

Reviewing a Conventional Discovery Session

After selecting the Review Discovery Mode, select Conventional Discovery Results.

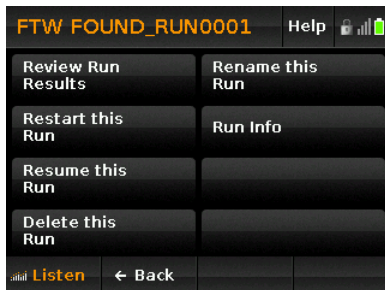


A screen appears with a list of all previous trunking discovery sessions. Tap the session name to review it.



The Review menu appears for this session.

Note that if the current database selection does not include the system used for the discovery session, some options are not available.



Review Run Results – lets you review all the channel hits logged during the session. See Review Run Results (Conventional) below.

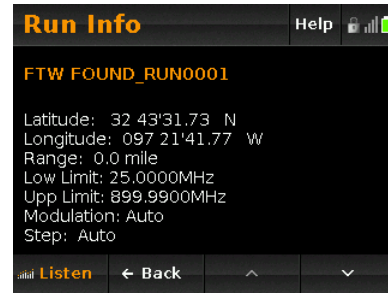
Restart this Run – erases all logged hits for the session and starts the discovery session over.

Resume this Run – resumes the discovery session, keeping all logged hits and found or avoided channels.

Delete this Run – deletes the session and all logs from the HomePatrol-1's memory.

Rename this Run – lets you change the name of the run for easier identification.

Run Info – displays a screen similar to the following with summary information about the run.



Review Run Results (Conventional)

Tap Review Run Results.

A summary view of all hits appears on the screen. In this view mode, all hits for the same frequency are grouped together to make it easier to review all recorded audio for that channel.



Hits for found channels include a recording of the audio during that hit. Tap the row to play back the audio.

Rows that are in grey print are records of known channels. No audio is recorded for these hits.

Tap Detail to switch to the detail view.



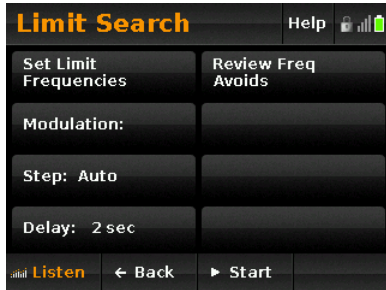
In this view, all hits are shown in chronological order.

Limit Search

A limit search provides a simple function to continuously search between two frequencies. To access the Limit Search feature, select Limit Search from the Discovery Menu.



The Limit Search Menu appears.



Set Limit Frequencies – select to set the upper and lower limit frequencies.

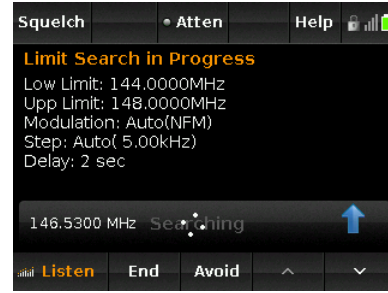
Modulation – tap to set the modulation method to use for frequencies with activity. If set to Auto the default modulation mode for the band is used.

Step – tap to set the channel step to use. If set to Auto, the default channel step for the band is used.

Delay – tap to set how long the HomePatrol-1 will pause after a transmission ends before resuming the limit search.

Review Freq Avoids – tap to see the list of frequencies that have been avoided during limit search. This screen also allows you to remove frequencies from the avoid list.

Tap Start to start the limit search.



To add a frequency to the avoid list, tap Avoid when the HomePatrol-1 stops on the frequency.

Keeping things Updated

We recommend you update the main database in your HomePatrol-1 every few weeks. As RadioReference.com (the source database) is updated with improved data, this data is released for the HomePatrol-1. Additionally, we are constantly striving to improve the features and performance of the HomePatrol-1 through the release of firmware updates.

Both updating the database and firmware are managed using the HomePatrol Sentinel software included with your HomePatrol-1. See the documentation included with HomePatrol Sentinel for more information about these functions.