

# Enhanced Monitor Mode

## Why Is This Feature Important

This feature has uses for both commercial users and amateur users. For commercial users who owns a repeater, they often want to know how much their repeater is being used and how much each of the multiple users are using it. This feature keeps track of the time used by each of the different CTCSS, DCS and Digital Groups used by this repeater.

For Amateur users, you often would like to know the CTCSS or DCS required to activate the repeater. If you are doing digital, it is important to know the different groups being used by the repeater, so you know how to contact the people using it. It is also important to know how active this repeater is so you can then decide if your want to monitor this repeater.

## General Description

In this mode, you are looking at a single channel and collecting various information depending if the incoming signal is digital or analog. If the channel is analog, then you are collecting CTCSS Tones and DCS Codes. If the channel is digital, you are collecting Group Type, Group number or Private Call number, Color Code and Slot.

For each CTCSS Tone and DCS Code and Digital Group, you also collect the total time it was active and the number of hits. Hits is defined as the number of times the user accessed that Tone, Code or Group.

If an Analog Channel, the radio will store up to 51 different CTCSS Tones or 112 DCS Codes. If a Digital Channel, the radio will store up to 64 different Groups. The same group code in Slot 1 is considered a different group code if also in Slot 2.

When the user presses a predefined button, the information currently stored in RAM will be transferred to Flash memory. A second button will be used to restore that information in Flash memory back to RAM. A third button will be used to exit from this mode.

The frequency that you are using is from the channel that you were last in from one of the other modes.

## **User Interface**

Once in this mode, the following keys are active:

P7 exits from this module

P4 Saves the monitor mode in flash memory

P1 Restores the monitor mode from flash memory

P2 clears the monitor mode database in flash memory

## **Details of using this mode**

When first getting into the Enhanced Monitor Mode, the display will look like the following.



If the voice is enabled, the radio will annunciate Enhanced Monitor Mode.

The display will stay there for 2 seconds before going to the next screen as shown on the next page.



If the voice is enabled, the radio will announce:

Total number of CTCSS followed by the number

Total number of DCS followed by the number

Total number of DMR followed by the number.

If a CTCSS tone comes in, the display will show:



If the voice is enabled, the radio will announce CTCSS followed by the tone number.

This screen will stay here for about two seconds after the voice prompt has finished before it goes back to the status screen to show the number of CTCSS Tones, DCS code, or DMR groups and private contacts unless it received another CTCSS tone during that two second interval.

If a DCS code comes in, the display will show:



If the voice is enabled, the radio will announce DCS followed by the DCS code.

This screen will stay here for about two seconds after the voice prompt has finished before it goes back to the status screen to show the number of CTCSS Tones, DCS code, or DMR groups and private contacts unless it received another DCS code during that two second interval.

If a DMR Group or Private Call comes in, the display will show:



If the voice is enabled, the radio will announce DMR followed by the DMR Group Call Number or Private Call Number.

This screen will stay here for about two seconds after the voice prompt has finished before it goes back to the status screen to show the number of CTCSS Tones, DCS code, or DMR groups and private contacts unless it received another DMR code during that two second interval.

If the user presses P2 at any time, the display will show:



The database in local memory will be cleared and after two seconds the display will go back to status screen to show the total number of CTCSS tones, DCS codes and DMR groups and private calls.

If the voice is enabled, the radio will annunciate Clear Database

This screen will stay here for about two seconds after the voice prompt has finished before it goes back to the status screen to show the number of CTCSS Tones, DCS code, or DMR groups and private contacts.



If the user presses P1 at any time, the display will show:



The data in Flash Memory generated from the Save Database function, will be transferred to local RAM memory. This allows you to save the results of what you were doing, turn off the radio or used it for something else, and later continue the searching for more contacts.

If the voice is enabled, the radio will announce Restore Database.

This screen will stay here for about two seconds after the voice prompt has finished before it goes back to the status screen to show the number of CTCSS Tones, DCS code, or DMR groups and private contacts.

If the user pressed P4 at any time, the display will show:



Data in local memory will be saved in FLASH memory to be read and displayed by the CPS. If you want to clear the memory in FLASH, perform a Clear Database before you perform a Save Database.

If the voice is enabled, the radio will annunciate Save Database.

This screen will stay here for about two seconds after the voice prompt has finished before it goes back to the status screen to show the number of CTCSS Tones, DCS code, or DMR groups and private contacts.