

# **Enhanced Parameter Specifications**

## **Why Is This Feature Important**

Often you access a channel and you find you make a mistake in one of the key parameters. As an example, you just made a code plug for a certain repeater and you accidentally reversed the Tx and Rx frequencies. In most radios, your only choice would be to redo your code plug and send it again. This is a good solution if you happen to have a computer nearby by impractical if you do not. Within a few seconds with this feature you can change both the Rx and Tx frequencies.

You go to a Ham Convention and they tell you they have a channel to use for convention business. With this feature you can set up a completely new channel in just a few seconds. For most radios, even if you could do it, requires you to go to multiple screens to complete the process. Unless you do it often, it is unlikely you will remember the key sequence to finish the process. This program walks you through all the key parameters.

## **Introduction**

The enhanced parameter mode is used for modifying a channel or entering a new channel without the use of a computer or even a manual. The P5 and P6 are used for selecting the parameters you want to change, and the numeric keys or P3 is used for selecting the value of the parameter. When this program is first called, the parameters in the current channel is used for default values.

## **Aborting from this program**

From any spot in this program, pressing P7 will abort from the

Enhanced Parameter Mode. You will lose all the new parameters you selected.

## **Error Beeps**

Any time you press a key that does not do anything, you will generate an error beep.

## **Voice Annunciation**

Most of the parameters have full voice annunciation. However, there are a few parameters where full voice annunciation is not feasible. In those cases, you press P1 to determine what is on line 1 and line 2 of the display.

## **Saving the results of editing**

After you changed or skipped over all the parameters, you will get instructions on saving the results.

## Mode Screen



When the Enhanced Parameter mode is first selected, the screen above will appear. Depending on the value of the current channel selected in the radio, the second line is going to show “Analog” or “Digital”.

If the voice was enabled, then the radio will announce “Mode” followed by either “Analog” or “Digital”.

Use P3 to select the following choices:

Analog

Digital

After you select the value of mode, you now have two choices:

1. Press P5 to select the previous screen. However, because this is the first screen and there are no previous screens, an error beep will be generated.
2. Press P6 to select the next screen. This will take you to the Power screen.

## Power Screen



If the voice was enabled, then the radio will announce “Power Low”, “Power Medium”, or “Power High”

Use P3 to select the following choices:

Low

Medium

High

After you select the value of power, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Mode screen.
2. Press P6 to select the next screen. This will take you to the Rx Frequency screen.

## Rx Frequency Screen



If the voice was enabled, then the radio will announce “Rx Frequency” followed by the value of the frequency followed by MHz

Use numeric keys to enter the frequency. The radio will assume there is a decimal point after the first three digits. If the user enters less than 9 digits, the radio will add zeros to the end.

After you enter the frequency, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Power screen.
2. Press P6 to select the next screen. This will take you to the Tx Frequency screen.

## Tx Frequency Screen



If the voice was enabled, then the radio will announce “Tx Frequency” followed by the value of the frequency followed by MHz.

Use numeric keys to enter the frequency. The radio will assume there is a decimal point after the first three digits. If the user enters less than 9 digits, the radio will add zeros to the end.

After you enter the frequency, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Rx Frequency screen.
2. Press P6 to select the next screen. This will take you to the CTCSS or DCS Decode screen if Mode is Analog or to the Color Code screen if Mode is digital.

## Decode Screen



If the voice was enabled, then the radio will announce “Decode” followed by the value of the CTCSS or DCS.

Use P3 to select the following choices as shown in the table below:

Pressing the number keys 0 - 9 will act as a shortcut to select an entry into the table as shown below.

- 0 key 63.0 Hz
- 1 key 110.9 Hz
- 2 key 173.8 Hz
- 3 key 241.8 Hz
- 4 key 050
- 5 key 134
- 6 key 226
- 7 key 315
- 8 key 432
- 9 key 546

After you select the Code or Tone, you now have three choices:

1. Press P3 to get the exact CTCSS tone or DCS code you want.

2. Press P5 to select the previous screen. This will take you to the Tx Frequency Screen.
3. Press P6 to select the next screen. This will take you to the Encode Screen.



The available choices for Decode or Encode is:

None	//0
63.0	//1
67.0	//2
69.4	//3
71.9	//4
74.4	//5
77.0	//6
79.7	//7
82.5	//8
85.4	//9
88.5	//10
91.5	//11
94.8	//12
97.4	//13
100.0	//14
103.5	//15
107.2	//16
110.9	//17
114.8	//18
118.8	//19
123.0	//20
127.3	//21
131.8	//22
136.5	//23
141.3	//24
146.2	//25
151.4	//26
156.7	//27
159.8	//28

162.2	//29
165.5	//30
167.9	//31
171.3	//32
173.8	//33
177.3	//34
179.9	//35
183.5	//36
186.2	//37
189.9	//38
192.8	//39
196.6	//40
199.5	//41
203.5	//42
206.5	//43
210.7	//44
218.1	//45
225.7	//46
229.1	//47
233.6	//48
241.8	//49
250.3	//50
254.1	//51
006	//52
007	//53
015	//54
017	//55
021	//56
023	//57
025	//58

026 //59  
031 //60  
032 //61  
036 //62  
043 //63  
047 //64  
050 //65  
051 //66  
053 //67  
054 //68  
065 //69  
071 //70  
072 //71  
073 //72  
074 //73  
114 //74  
115 //75  
116 //76  
122 //77  
125 //78  
131 //79  
132 //80  
134 //81  
141 //82  
143 //83  
145 //84  
152 //85  
155 //86  
156 //87  
162 //88

165	//89
172	//90
174	//91
205	//92
212	//93
214	//94
223	//95
225	//96
226	//97
243	//98
244	//99
245	//100
246	//101
251	//102
252	//103
255	//104
261	//105
263	//106
265	//107
266	//108
271	//109
274	//110
306	//111
311	//112
315	//113
325	//114
331	//115
332	//116
343	//117
346	//118

351 //119  
356 //120  
364 //121  
365 //122  
371 //123  
411 //124  
412 //125  
413 //126  
423 //127  
431 //128  
432 //129  
445 //130  
446 //131  
452 //132  
454 //133  
455 //134  
462 //135  
464 //136  
465 //137  
466 //138  
503 //139  
506 //140  
516 //141  
523 //142  
526 //143  
532 //144  
546 //145  
565 //146  
606 //147  
612 //148

624	//149
627	//150
631	//151
632	//152
654	//153
662	//154
664	//155
703	//156
712	//157
723	//158
731	//159
732	//160
734	//161
743	//162
754	//163

## Encode Screen



If the voice was enabled, then the radio will announce “Encode” followed by the value of the CTCSS or DCS.

Use P3 to select the following choices as shown in the table below:

Pressing the number keys 0 - 9 will act as a shortcut to select an entry into the table as shown below.

- 0 key 63.0 Hz
- 1 key 110.9 Hz
- 2 key 173.8 Hz
- 3 key 241.8 Hz
- 4 key 050
- 5 key 134
- 6 key 226
- 7 key 315
- 8 key 432
- 9 key 546

After you select the Code or Tone, you now have two choices:

1. Press P3 to get the exact CTCSS tone or DCS code you want.

2. Press P5 to select the previous screen. This will take you to the Decode Screen.
3. Press P6 to select the next screen. This will take you to the Bandwidth Screen.



## Bandwidth Screen



If the voice was enabled, then the radio will announce “Bandwidth” followed by “12.5 Kilohertz” or “25 Kilohertz”

Use P3 to select the following choices as shown in the table below:

12.5 KHz

25 KHz

After you select the Code or Tone, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Encode Screen.
2. Press P6 to select the next screen. This will take you to the Save or Exit Screen.

## Color Code Screen



If the voice was enabled, then the radio will announce “Color Code” followed by the value of the Color Code

Use P3 to select the following choices:

0	4	8	12
1	5	9	13
2	6	10	14
3	7	11	15

After you select the Color Code, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Tx Frequency Screen.
2. Press P6 to select the next screen. This will take you to Slot Screen.

## Slot Screen



If the voice was enabled, then the radio will announce “Slot” followed by the value of the Slot

Use P3 to select the following choices:

- 1
- 2

After you select the Slot Number, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Color Code screen.
2. Press P6 to select the next screen. This will take you to Contact Type screen

## Tx Contact Type



If the voice was enabled, then the radio will announce “Tx Contact Type” followed by “Unique”, “File” or “Local”

Use P3 to select the following choices:

Unique

File

Local

After you select Tx Contact Type, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Slot screen.
2. Press P6 to select the next screen. This will take you to one of the contact screens as explained below.

If the Tx Contact Type is Unique, and you press P6, then the next screen is Tx Contact. This allows the selection of up to 1000 different preprogrammed contacts.

If the Tx Contact Type is File, and you press P6, then the next screen is File. This allows the selection of up to 250 file types.

If the Tx Contact Type is Local, and you press P6, then the next screen allows you to directly enter a Tx Contact.

## File Screen



If the voice was enabled, then the radio will announce “File” followed by the announcement of line 2 on a character by character basis.

Use P3 to select one of the files. There are up to 250 files in the system.

After you select the File, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Tx Contact Type screen.
2. Press P6 to select the next screen. This will take you to Contact File Contact screen

As a shortcut, pressing the following keys will set the parameter as shown to allow to get to the desired file quicker.

- 0 key File 0
- 1 key File 25
- 2 key File 50
- 3 key File 75
- 4 key File 100
- 5 key File 125
- 6 key File 150

7 key File 175

8 key File 200

9 key File 225

## Contact File Contact Screen



If the voice was enabled, then the radio will announce “Contact File Contact” followed by the announcement of line 2 on a character by character basis.

Notice that line 1 is from the previous screen and is the file that was selected.

After you select the File, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Tx Contact Type screen.
2. Press P6 to select the next screen. This will take you to the Save or Exit screen



## Tx Contact



If the voice was enabled, then the radio will annunciate “Tx Contact” followed by the annunciation of Line 2 on a character by character basis.

Use P3 to select one of the contacts. There are up to 1000 contacts in the system.

As a shortcut, pressing the following keys will set the parameter as shown to allow to get to the desired value quicker.

- 0 key Contact 0
- 1 key Contact 100
- 2 key Contact 200
- 3 key Contact 300
- 4 key Contact 400
- 5 key Contact 500
- 6 key Contact 600
- 7 key Contact 700
- 8 key Contact 800
- 9 key Contact 900

If the number of contacts currently in the system is less than the number selected, then an error beep will be generated, and nothing will happen.

After you select the File, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Tx Contact Type screen.
2. Press P6 to select the next screen. This will take you to the Save or Exit screen

## Local Contact



If the voice was enabled, then the radio will announce “Local Contact” followed by the value of the contact.

Use numeric keys to enter the contact number.

After you select the File, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Tx Contact Type screen.
2. Press P6 to select the next screen. This will take you to Type screen

## Type Screen



If the voice was enabled, then the radio will announce “Type” followed by “Private”, “Group” or “All”

Use P3 to select the following choices:

Private

Group

All

After you select the File, you now have two choices:

1. Press P5 to select the previous screen. This will take you to the Local Contact screen.
2. Press P6 to select the next screen. This will take you to Save or Exit screen

## Saving The Results

If you got to this screen, you know have to make a choice of saving the results or exiting the program and loosing everything you have done up to this point.

If the voice was enabled, then the radio will annunciate “Save or Exit”

Pressing P7 will abort and you will loose everything. P5 will save the results and go to the “Current or Free” screen.



If you pressed the P1 key, then you will want to permanently save the updated channel in the current channel. You will replace the original channel and exit from this routine. Turning off the radio or changing channels will not erase this channel.

Pressing the P4 key will get you to the “Channel Name” screen where you then have to give it a name before you save it in a free channel in the current zone. If there are no more free channels in the current zone, then the radio will generate an error beep. Remember, the CPS generates room for eight free channels in each zone.



Pressing P7 at this time will exit from this feature but will save it temporarily as described earlier.



Pressing P7 at this time will exit from this feature but will save it temporarily as described earlier.

When it gets to this screen, the cursor will be in position 1. P8 can move the cursor to any position that is legal. To enter in a character at the cursor, use the numeric keys to generate characters. When you are happy with the name, press P4 to save the channel at its free location in the current zone. It will then exit the routine. On exit, the radio will be on this new channel.

The following charts show the sequence of the up and down keys.

**When Mode = Analog**

Mode

Power

Rx Frequency

Tx Frequency

Decode

Encode

Bandwidth

Save or Exit

Current or Free

Channel Name

**(When Mode = Digital) and (Tx Contact Type = File)**

Mode

Power

Rx Frequency

Tx Frequency

Color Code

Slot

Tx Contact Type

File

Contact File Contact

Save or Exit

Current or Free

Channel Name



**(When Mode = Digital) and (Tx Contact Type = Unique)**

Mode

Power

Rx Frequency

Tx Frequency

Color Code

Slot

Tx Contact Type

Tx Contact

Save or Exit

Current or Free

Channel Name

**(When Mode = Digital) and (Tx Contact Type = Local)**

Mode

Power

Rx Frequency

Tx Frequency

Color Code

Slot

Tx Contact Type

Local Contact

Type

Save or Exit

Current or Free

Channel Name