

WHS-450 Basic Program Instructions

1. Remove the three black screws on the back of the radio.
2. Remove the battery.
3. Remove only one chrome-plated screw from the bottom of the radio, which is closest to the battery release button.
4. Very carefully separate the front and rear halves just enough to locate the program switch on the left side of the rear board. (With the bottom of the radio facing you, the radio will open on the left side. The right side will have a flex circuit attaching the front and rear portions.)
5. Reassemble the radio installing only one back screw into the back of the radio. This will hold the radio together while you are programming the radio.
6. Attach the charged battery to the radio.

To Program Frequencies:

* Note: The following information is a modified version of the WHS450B Programming manual.

1. Turn the radio on. A "P" should appear on the display.
2. Press the M/S button. A "P4" should be in the display. The 4 is the first digit of the receive frequency.
3. Enter only the remaining five digits of the desired receive frequency.
4. Enter the two-digit tone code, for receive, from Table 1.
5. Press zero four times.
6. A "P4" should be in the display. (If you are programming a Receive only channel, such as a weather frequency, stop at the "P4" and press the T/M key, then a two-digit channel number. Start over at step 2 to program the next channel.) If a transmit frequency is desired, enter the five remaining digits of the frequency.
7. Enter the two-digit tone code, for transmit, from Table 1.
8. Press zero four times.
9. Press the T/M key, then a two-digit channel number.
10. Continue at step 2 to program the next channel.

Table 1

Tone Code	Tone(Hz)	Tone Code	Tone(Hz)	Tone Code	Tone(Hz)	Tone Code	Tone(Hz)
"00	No tone	13	103.5	26	162.2	39	69.4
"01	67	14	107.2	27	167.9		
"02	71.9	15	110.9	28	173.8		
"03	74.4	16	114.8	29	179.9		
"04	77	17	118.8	30	186.2		
"05	79.7	18	123	31	192.8		
"06	82.5	19	127.3	32	203.5		
"07	85.4	20	131.8	33	210.7		
"08	88.5	21	136.5	34	218.1		
"09	91.5	22	141.3	35	225.7		
10	94.8	23	146.2	36	233.6		
11	97.4	24	151.4	37	241.8		
12	100	25	156.7	38	250.3		

To Review programming while in the program mode:

1. When the "P" is in the display press the "PRI" key.
2. Press the two-digit channel number. Each section of the program of that channel will be displayed for a brief period of time.

To delete a channel from memory:

1. Press the A/D key.
2. Press the T/M key.
3. Press the two-digit channel number.

Radio Configuration Data Options:

Code	"0	1	2	3	4	5	6
Option							
TX Time Out Timer(Seconds)	Disable	15	30	60	120		
Scan Delay (Seconds)	"0	0.5	1	2	4		
Busy Channel Lock-out	Disable	Enable					
DTMF Encode	First PTT	Every PTT					
Power Save Timer(Seconds)	Disable	0.1	0.2	0.3	0.4	0.5	0.6

The stock radio configuration is 03012.

To change the configuration the radio must be in the program mode and the "P" in the display. Enter the five digits, one number for each option must be selected, then press the "T/M" key, and then press "00".

Note: A four-digit ANI decode and encode function can programmed on each channel. Only a four-digit number can be sent upon PTT or received. When programmed for transmit, and the PTT button is depressed, the four-digit number is sent in a one second burst. The four digit number can be used, in place of zeros, at steps 5(for receive) and 8(for transmit) in the aforementioned programming procedure. The Radio Configuration should be programmed to transmit on "Every PTT". While in the "Pag" or "Page" mode the receiving radio will open up only when the correct DTMF signal is sent. The receiver automatically returns to the DTMF decode mode once the encoded signal goes away and the receiving radio squelches for more than 3 seconds. The keypad on the front of the radio is active to send DTMF any time the radio is in the transmit mode and any number on the front is depressed. The four-digit ANI does not effect the keypad. It will send one digit at a time and does not require any programming. If used in the decode mode, radio to radio, the Radio Configuration should be changed to "Every PTT".

When programming is completed relocate the program switch to the up position and carefully reassemble the radio.

Master Clear:

The WHS-series radio is shipped with several channels programmed. If the end-user is not utilizing all sixteen channels it might be easier to erase the entire test programming from memory by performing a Master Clear.

1. This is done with the radio in the programming mode.
2. When the radio is "Off", hold down the function key. The Function key is located on the left side of the radio, just above the PTT switch.
3. Turn the radio on while holding down the function key.
4. Release the function key and wait for the "P" in the display.
5. Program the customer's required frequencies.
6. It might be necessary to reprogram the Radio Configuration Data as all of the options are set to 0 as a result of the Master Clear.