

## MPU32 Basic Programming 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. (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.) It is located
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 MP-series 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 1 is the first digit of the receive frequency.
3. Enter all six digits of the desired receive frequency. {Ex: 462675 (for 462.675Mhz)}
4. Enter the two-digit tone code, for receive, from Table 1. {Ex: 12 (for 100hz)}
5. Press zero four times. {Ex: 0000 (for no four-digit DTMF decode)}
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 ENT or Enter key, then a two digit channel number. {Ex: 01 (for channel 1)}) Start over at step 2 to program the next channel. If a transmit frequency is desired enter all six digits of the transmit frequency. {Ex: 462675 (for 462.675Mhz)}
7. Enter the two digit tone code, for transmit, from Table 1. {Ex: 12 (for 100hz)}
8. Press zero four times. {Ex: 0000 (for no four digit DTMF encode)}
9. Press the key, then a two-digit channel number. {Ex: 01 (for channel 1)}
10. To program the next channel, start over at step 2.

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. The radio will display receive frequency, receive tone, receive DTMF decode, transmit frequency, transmit tone, then transmit DTMF encode.

To Delete a channel from memory:

1. Press the "A/D" key.
2. Press the two-digit channel number.
3. Press the "ENT" or "Enter" Key

**Radio Configuration Data**

**Options:**

Code	"0	1	2	3	4	5	6	7	8	9
Option										
RCC	Disable	Enable								
Scan Delay (Seconds)	"0	0.5	1	2	4	5	6	7	8	9
TX Time Out Timer(Seconds)	Disable	15	30	60						
Busy Channel Lock-out	Disable	Enable								
DTMF Encode	First PTT	Every PTT								

The stock radio configuration is 02001.

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 "ENT" key, and then press"00".

Note: A four-digit ANI decode and encode function can be programmed in 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 approximately 350 milliseconds. 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".

Rarely used functions:

1. Most systems or communications operations do not require the use of DTMF ANI.
2. BCL or Busy-Channel-Lock-out is usually not used unless the radio is utilizing a repeater or base station that is equipped with a telephone interconnect, and has a few to several users on the same channel.
3. RCC mode = Radio Common Carrier - It is not available in most areas. It was owned and operated by AT&T, and possibly other companies, as the first type of mobile phone system. It was popular in the early to mid 1980s.

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

**Master Clear:**

The MP-series radio is shipped with several channels programmed. The programmed frequencies are for test purposes only. All of the transmit and receive frequencies are intentionally offset to keep the user from utilizing these programmed channels for communicating. If the end-user is not utilizing all 32 channels it might be easier to erase the 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. Also hold down the \* or star key.
3. Turn the radio on while holding down these keys.
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.