

# MAGNUM M-257 in Expanded Mode

Instructions for use of Magnum M-257 in expanded mode.

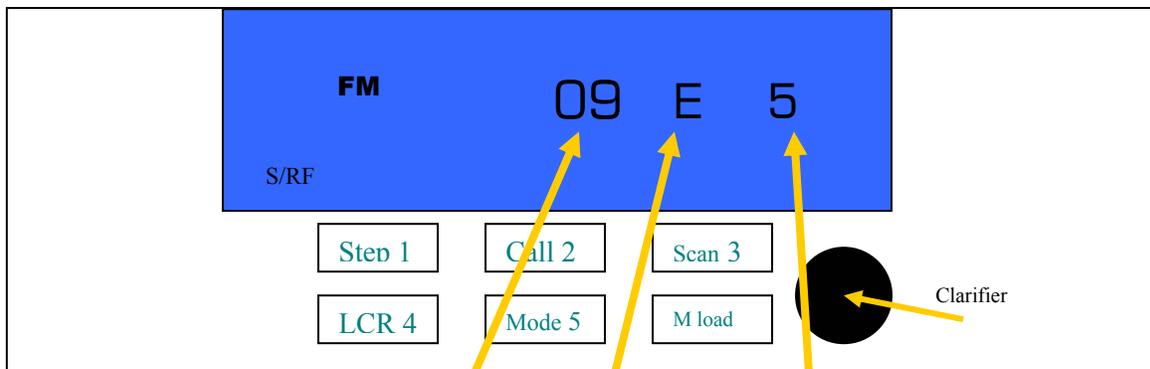
By 91DD018 Dave

Frequency coverage 25.165mhz – 29.695 mhz

Frequency coverage (includes all alpha channels)

|        |                |
|--------|----------------|
| Band A | 25.165 -25.605 |
| Band B | 25.615-26.055  |
| Band C | 26.065-26.505  |
| Band D | 26.515-26.955  |
| Band E | 26.965-27.405  |
| Band F | 27.415-27.855  |
| Band G | 27.865-28.305  |
| Band H | 28.315-28.755  |
| Band I | 28.765-29.205  |
| Band J | 29.215-29.695  |

If the radio has been left for more than two days with no voltage on the power leads, or the reset button on the programming board has been pushed, the memories will be lost and the radio will default to the following on the LCD display:



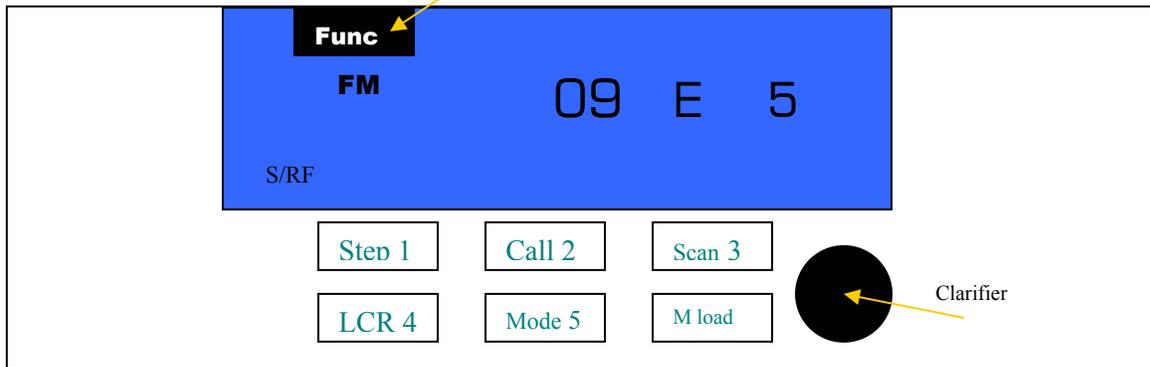
This is the default screen for the expanded mode.

The radio has defaulted to channel 9 on the 'E' Band and the fifth number in the display ends in a 5.

If you have not yet screwed the microphone in please do it now because there will be no sound from the speaker until you do!

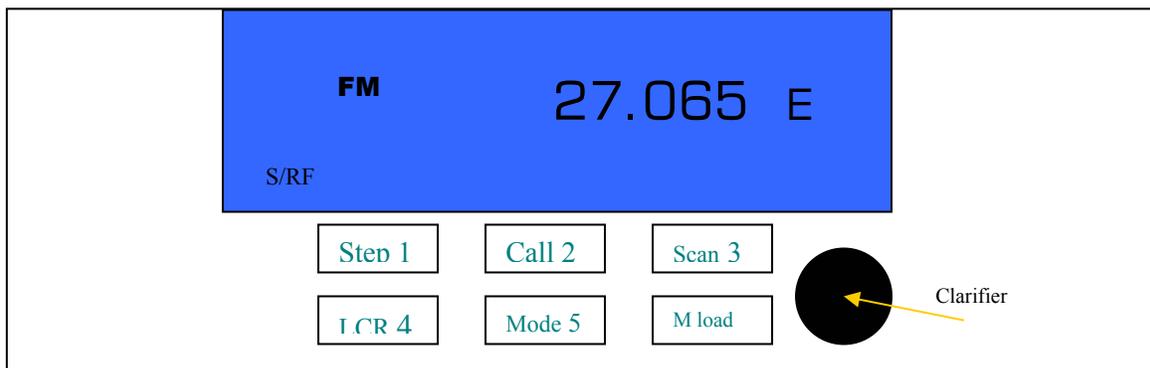
In the expanded mode we lose the split and repeater functions that are present when the radio is jumpered for 10 meters.

To move into frequency mode depress the clarifier button and release. The func sign should appear in the top left corner like below.



With the **Func** showing momentarily press the call button...just once, don't hold it.

The display should change to the frequency for that particular channel and band.



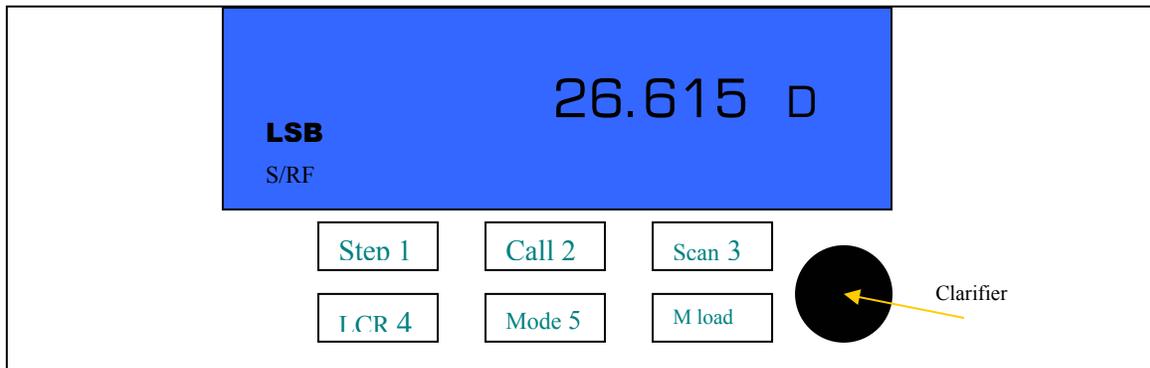
### MODE Button

To get out of FM mode hit the Mode button repeatedly to bring up USB. This button only works in one direction so from FM to LSB you have to hit it once for AM, again for USB and yet again for LSB. Hit it 4 times and you are back to FM

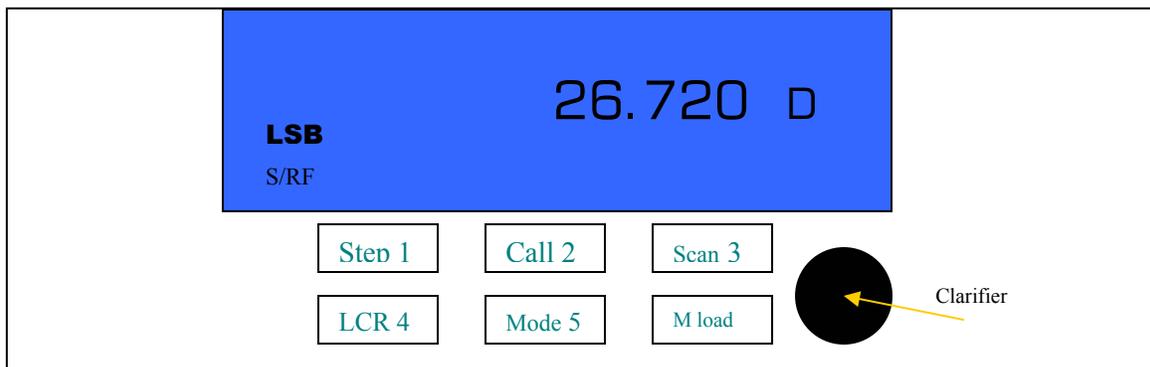
### Changing Bands

The present position will enable you to scroll through the E band from 26.965mhz (Channel 1) to 27.405 mhz (Channel 40) in 10khz steps.

To change bands hit the call button. The frequency will change and the letter E will also change to F then G and so on. Like the mode button this only works in one direction so to program the NZ CB call Channel frequency of 26.720mhz LSB we will have to press the call button 9 times to bring up band D



The display should show as above. Rotate the channel change switch (Or press the up/down buttons on the microphone) so the channel readout shows 27.625  
 Then press the step button once. The '5' will blink. While it is blinking rotate the channel switch up or down till the last digit reads zero. Press the step button and the frequency display will revert to 26.720.



Now when you rotate the channel switch you will scroll through the NZ CB frequencies in 10khz steps. If you live in NZ the best thing to do now is to put the call frequency into a memory so you can recall it with 2 clicks instead of 15.

### Memory Usage

To place a frequency into memory follow the following steps:

1. Press the clarifier so the func sign appears.
2. Press M load
3. Quickly press the button (1-5) that you wish to store the frequency in.

Be quick after you press the 'm load' key. You only have a couple of seconds before it defaults back.

To recall a memory just hit M-load and the button the memory is stored in and it will appear. You can scroll up or down from the memory frequency in 10khz steps.

### **Hot Tip**

Store the Kiwi call of 26.720 LSB in memory.

Store the Aussi call of 27.355 LSB in memory.

Store the International DX call frequency of 27.555 USB in memory

Store a frequency around 27.555 ending in 0 ie 27.540 USB in memory. This will enable you to check out the freeband frequencies ending in zero easily without having to use the step function.

If you are active on 10 meters store a 10meter frequency as well so you can move around the bands easily and effectively. This is where this radio shines. You can quickly monitor up to 5 frequencies and start scrolling from any of them as required.

### **Programing Tone**

This tone sounds each time the CPU is being programmed. It is helpful, in the beginning so you can be sure the command has been entered. You may eliminate the tone by simply pressing the PTT switch on the microphone and turning on the ON/OFF POWER switch at the same time.

### **Microphones**

The supplied microphone is an electret type and the radio supplies +8 volts to the mic similar to ICOM radios.

There is a trim pot in the microphone but adjust it at your peril.

There are no off the shelf microphones that will fit this radio without reconfiguring the wires.

## **.....Warning Warning Warning.....**

The Magnum 257 is a twin final radio and easily puts out 35 watts PEP on sideband. The output of this radio will fry most if not all transistorized CB amplifiers. The minimum amplifier to use with this radio is one with 4 transistors like a Texas Star TS500 or something with valves rated for 50-60w input. Do not use an amplifier with a driver stage like the TS667 because it will fry it also. The out put from this radio will drive an 8 (2SC2879) transistor amplifier to over 500W and a 4 transistor Amp to almost the same.

If you are buying a linear specify high drive.

This radio has fried a TS350HDV and a TS667V to date.

Even if we turn down the mic gain to acceptable levels in SSB the radio transmits a full power spike on key down and key release that will get the amplifier transistors eventually. The power can be better controlled in AM and FM to allow use of CB amps in these modes but the risk is there regardless.

It is better to get a bigger amp and drive it gently because it runs cooler and sounds sooo much better. Over driving is what causes 95% of all amplifier failures.

\*\*\*\*\*Everything else is covered in the manual\*\*\*\*\*