

MICROMONITOR QUESTIONS

- Q. What does the Micromonitor really do?
- A. Within any PLL radio there is a miniature computer that programs the radio to operate on certain frequencies or channels. The Micromonitor replaces the stock PLL circuitry with a computer of its own to add new functions which weren't available to you before.
- Q. Can the Micromonitor control any PLL radio?
- A. Generally, yes. With the Micromonitor's own PLL and electronic switching, you have the choice of normal radio operation when the MM-1 is removed or turned off.
- Q. Can the clarifier in a SSB radio be adjusted with the Micromonitor?
- A. No. The clarifier is manually adjusted, and must be modified for additional slide. The extra slide will not appear on the Micromonitor control.
- Q. What frequency steps can be resolved?
- A. In general, 5 KHz steps may usually be achieved.
- Q. What is involved in the installation?
- A. The best way to describe the integration of the Micromonitor is to describe basically how to install one. The Micromonitor comes in two parts: the hand-held control unit and the interface board. The interface board mounts within the radio, or when space does not permit, on the outer case of the radio. A series of connections are required: +12V, Ground, Push-to-talk, Squelch, VCO Output, Phase detector output, and VCO input. And, for those wanting the tone encoder, an additional wire connecting to the audio (microphone) is also required. In each case except one, the connection simply involves paralleling a connection within the radio. One internal connection, the phase detector to VCO input, must be separated and each of these signals are brought to the interface board for connection. Finally, a socket assembly is installed at the rear of the radio so that the Micromonitor may be connected. When the Micromonitor is plugged in and turned on, the electronic switching within the interface board automatically interrupts the radio's control signal to the VCO and, instead substitutes a control voltage of its own. In this way, the Micromonitor assumes control of the radio's frequency selection circuits. When the Micromonitor is turned off or unplugged, the radio is returned to normal operation.

MICROMONITOR QUESTION CONTINUED:

- Q. On what radios will the Micromonitor work?
- A. If the radio is a PLL type, the Micromonitor can be made to work. This includes CB radios, converted 10 meter radios, 2 meter types, 220 MHz and 450 MHz types. Fortunately, the rules governing PLL synthesis are all basically the same. As such, the Micromonitor can generally be made to work.
- Q. What are the power requirements?
- A. The Micromonitor only needs 12 - 15 VDC for operation. Included with the system is a voltage regulator used to supply all necessary power to the added circuitry.
- Q. Is 10 meter operation possible on a converted 11 meter radio?
- A. If the converted radio is a PLL type, then the Micromonitor can be used for control, including the correct frequency or channel readout. Provision exists within the Micromonitor for identifying the correct frequency desired. The only requirement is to identify to the factory the amount of shift of the output frequency (usually 2MHz) so that the readout will read correctly.
- Q. Can the Micromonitor be used as a remote control?
- A. The Micromonitor is designed to replace or augment the channel selector switch. Its purpose is not to assume all of the front panel functions of the radio. However, if the other controls of the radio could be preset, then the only function that needs to be used is that of power control, which may be done with a simple switch or relay assembly. In this case, the Micromonitor could be used as a remote control.
- Q. How do you know where you are operating?
- A. The Micromonitor displays the particular channel or frequency that is currently in operation.
- Q. Can the same Micromonitor be used on different radios?
- A. The only way the same Micromonitor can be used on different radios is if the same radio chassis type is used on both radios. Each radio has its own set of operating constants; within the Micromonitor is a memory device designed to identify the particular constants to the master chip within the Micromonitor. If the user has set up his radio for use with the Micromonitor and then replaces his radio, he can adapt the Micromonitor to the new radio by returning the unit to the factory. The factory will adapt the Micromonitor for use within the new radio at nominal cost.

MICROMONITOR QUESTIONS CONTINUED:

Q. Can the Micromonitor be used on crystal controlled radios?

A. No, the Micromonitor is designed for use only with PLL radios. It is planned, however, to provide an adaptor for crystal type radios at a later date.

Q. How many memory channels are provided?

A. There are five user loadable memories in addition to a fixed "HELP" frequency all of which may be recalled at a keystroke.

Q. How many scanners are provided?

A. There are three scanners, two automatic and one manual. The automatic scanners will scan the memory channels or will scan the entire band. The scanners may be programmed to look for either busy or clear frequencies as indicated by the squelch control. The manual scanner will scan as long as the "STEP" button is depressed. The scan direction is controlled by the "UP/DN" button.

Q. Is the Micromonitor easy to install?

A. The Micromonitor installation is fairly easy to install. However, great attention to detail must be observed. In normal applications, the installation time will be about one hour. The Micromonitor should be installed by experienced service technicians.

Q. Do the memories retain their information if the Micromonitor is switched off?

A. Unfortunately, the memories are lost if power is lost or the Micromonitor is switched off. When power is reapplied, the memories must be reprogrammed manually.