

# MFJ-43 Real Time Clock

Congratulations on buying the MFJ-43 Real Time Clock for your TNC or Multi Mode Data Controller. The MFJ-43 is a SmartWatch/RAM 28 pin intelligent socket. It fits into the RAM socket on your MFJ TNC or Multi-Mode board under the RAM chip. The MFJ-43 is transparent to all RAM operations and does not interfere with Mailbox Memory in any way. It contains an onboard lithium energy cell that maintains the time and date, mailbox memory and all other RAM functions.

**NOTICE: If you have a memory expansion or PACTOR board installed in your TNC or Multimode you must call MFJ to have the clock module factory installed.**

## INSTALLATION

Installation of the MFJ-43 is very simple. Before attempting to install the SmartWatch have a static free area prepared to work in. While installing the MFJ-43 we will be removing power from your RAM. You might want to save your settings to a file before proceeding any further.

1. First remove the 4 retaining screws and cover to your unit.
2. Locate JMP5 and remove the shorting jumper. JMP5 is located next to the lithium battery.
3. Now locate the RAM chip labeled U25. Carefully remove the RAM chip from U25. Place the RAM to the side on a static free area..
4. With the LEDs on the TNC facing you, carefully insert the pins of the MFJ-43 with the notch oriented to the left side on the U25 socket. Be careful not to bend any of the pins. Gently press the socket into place. Follow the same procedure for reinstalling the RAM chip.
5. According to the type of MFJ TNC or Multi-Mode you have, select one of the following steps (A or B) to properly configure the jumper(s) setting.
  - A. All MFJ TNC's and Multimodes *except* 1278B /BT:  
Make sure there is no shorting jumper at JMP5. Re-install the cover.
  - B. MFJ-1278B /BT (*not* MFJ-1278, must be the "B" model):
    1. Move the shorting jumper at JMP 26 from pins 1 and 2 to pins 2 and 3.
    2. Re-install the shorting jumper at JMP 5. Re-install the cover.
6. End of installation. Reconnect your TNC and download the settings file to reconfigure it.

## OPERATION

After installing the MFJ-43 in your TNC or Multi-Mode your unit will operate the same as before. The only difference in operation is that the SmartWatch will take over all timing operations that took CPU time before. The commands DAYTIME, DAYUSA, CONSTAMP, MSTAMP work the same as before. The CLKADJ command in the older TNCs is no longer needed. For information on the above commands refer to the user manual for your TNC or Multi-Mode.

**Note:** When using Multicom, the time shown on computer screen will not necessarily be the same shown by the DAYTIME command. Multicom uses the computer system clock and not the SmartWatch intelligent socket. An ALT-D will load the TNC with the computer system time.