MFJ-45 A/B/C RAM Expansion Kit

The standard RAM configuration for the MFJ-56 (for MFJ-1278/1278T) an MFJ-47 (for MFJ-1270, 1270B, or 1274) mailbox memory expansion boards 32K. The memory on the MFJ-56 or MFJ-47 mailbox memory expansion board is expandable to 128K or even 512K. The mailbox memory is expandable simply by replacing the memory RAM chip. The mailbox RAM is easily change by the user to any size as specified by this instruction

This instruction will reflect all MFJ TNCs from the MFJ-1270 to the MFJ1278 Multi-Mode Data Controller. Please follow these instructions carefully to ensu proper installation. A proper installation will ensure good operation.

MFJ-1270/1270B/1274 with the MFJ-47

Install the RAM IC on the MFJ-47 expansion board as follows. Please refer to the Figure 1 for IC location.

1. Remove all power and cables from the MFJ TNC.

- 2. Remove the top cover from the MFJ TNC. Remove the jumper from JMF
- 3. Remove the U424 RAM IC on the memory board and reinstall the new RAM IC at U424.

4. Re-locate the shorting jumper at J401 header as follows:

Item No.	RAM Type	J401/JMP19 Position
MFJ-45A	43256LP-10 (32K)	The 2 inside most pins (32K)
MFJ-45B	431000LP-10 (128K)	The 2 middle pins (128K)
MFJ-45C	8512LP-10 (512K)	The 2 outside most pins (512K)
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Table 1

NOTE: If installing a 512K RAM, then install a jumper on the rear two pins J402. This enables the high address line when using a 512K RA

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- 5. Inspect the newly installed RAM IC. Make sure that no IC pins are bent under the IC or not properly inserted in the socket. Replace the jumper removed in step #2, back at JMP5.
- 6. Install the cover on the MFJ TNC.





- 7. Connect all power and cabling to the MFJ TNC.
- 8. Turn the computer ON, and load your terminal program.
- 9. Set the power switch on the MFJ TNC to ON. The MFJ TNC should sign on to the terminal. If not, then find out why the sign on message was not received.
- 10. Once the MFJ-TNC has signed-on to the terminal, then type the command, RESET followed by a <CR>. This will enable the firmware to automatically detect the RAM size change.

If the proper results were not obtained, then take the appropriate steps to correct the problem. If the proper results were obtained, then congrats, you have successfully completed the RAM Expansion Kit installation.

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MFJ-1278 with MFJ-56 Installed

Install the RAM IC on the MFJ-56 expansion board as follows. Please refer to the Figure 2 for IC location.

I. Remove all power and cables from the MFJ-1278.

- 2. Remove the top cover from the MFJ-1278. Remove the jumper from JMP5.
- 3. Remove the U424 RAM IC on the memory board and reinstall the new RAM IC at U424.
- 4. Re-locate the shorting jumper at J401 header. Please refer to Table I on Page 1 for J401 positioning.
- 5. Inspect the newly installed RAM IC. Make sure that no IC pins are bent under the IC or not properly inserted in the socket.
- 6. Re-install the jumper removed in step #2, at JMP5.
- **NOTE:** If installing a 512K RAM, then install a jumper on the rear two pins of J402. This enables the high address line when using a 512K RAM.



Figure 2

7. Install the cover on the MFJ-1278.

8. Connect all power and cabling to the MFJ-1278.

- 9. Turn the computer ON, and load your terminal program.
- 10. Set the power switch on the MFJ-1278 to ON. The MFJ-1278 should signon to the terminal. If not. then find out why the sign-on message was not received.
- 11. Once the MFJ-1278 has signed-on to the terminal, then type the command, RESET followed by a <CR>. This will enable the firmware to automatically detect the RAM size change.

If the proper results were not obtained, then take the appropriate steps to correct the problem. If the proper results were obtained, then congrats, you have successfully completed the RAM Expansion Kit installation.

MFJ-1278B/1274C/1270C

Install the RAM IC on the MFJ-1278B/1274C/1270C as follows. Please refer to the Figure 3 for IC location.

- 1. Remove all power and cables from the TNC that the new RAM is to be installed in.
- 2. Remove the top cover from the TNC. Remove the jumper from JMP5.
- 3. Remove the U24 RAM IC on the memory board and reinstall the new RAM IC at U24.
- 4. Re-locate the shorting jumper at JMP19 header. Please refer to Table 1 on Page 1 for JMP19 positioning.
- 5. Inspect the newly installed RAM IC. Make sure that no IC pins are bent under the IC or not properly inserted in the socket.
- 6. Replace the jumper at removed in step #2, back at JMP5. 7.

Install the cover on the TNC.

Connect all power and cabling to the TNC. 9. Turn the computer ON, and load

your terminal program.

- 10. Set the power switch on the TNC to ON. The TNC should sign-on to the terminal. If not. then find out why the sign-on message was not received
- 11. Once the TNC has signed-on to the terminal, then type the command. RESET followed by a <CR>. This will enable the firm-are to automatically detect the RAM size change.



Figure 3

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If the proper results were not obtained, then take the appropriate steps to correct the problem. If the proper results were obtained, then congrats. you have successfully completed the RAM Expansion Kit installation.

If you had difficulties with any parts of the procedure. please feel free to contact our friendly technical staff at 1-800-647-8324.

MFJ-45 A/B/C RAM Expansion IC

The memory on the MFJ-46 (for MFJ-1278/1278T) or MFJ-47 (MFJ TNCs) mailbox memory board can be expanded to 128K or 512K. If your current board has 32K memory you can increase to 128K or 512K. If your current board has 128K you can increase to 512K.

Install the RAM IC on the MFJ-46 or MFJ-47 expansion board as follows (refer to the figure below):

- 1. Remove power from the controller.
- 2. Remove the cover from the controller.
- 3. Remove U424 RAM IC on the memory board and reinstall the new RAM IC at U424. 4.

Relocate the shorting jumper at J401 header as follows:

Item No.	RAM Type	J401 Position
MFJ-45A	43256LP-10 (32K)	The 2 inside most pins
MFJ-45B	431000LP-10 (128K)	The 2 middle pins
MFJ-45C	8512LP-10 (512K)	The 2 outside most pins

5. Inspect the RAM IC. Make sure that no IC pins are bent under the IC or not properly inserted in the socket.

6. Install the cover on the controller.

