

# Mitsubishi 500 Series Memory



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## Installation Instructions for Mitsubishi 500 series memory.

Hard keys are shown in angle brackets eg **<ENTER>**  
Soft keys are shown between curly brackets eg *{PLC I/F}*.  
These instructions are for a control with a 9 inch monochrome monitor.

To set memory size.

## Installation Instructions for Mitsubishi 500 series memory.

Back up all data. Make sure you check the "01" memory area to see if any machine programs are there. Save Fixed Cycles into EEPROM (see steps 28 up)

Hard keys are shown in angle brackets eg **<ENTER>**  
Soft keys are shown between curly brackets eg *{PLC I/F}*.  
These instructions are for a control with a 9 inch monochrome monitor.

The procedure for Re-initializing memory is as follows: To set memory size

1. Turn control ON
2. Press **<DIAGN>** then the *PLC I/F* soft key.
3. Key in 758, cursor right twice and key in S then **<INPUT>**.
4. Press **<TOOL/PARAM>** then *{MENU}* to get *OPTION*.
5. Change #41 (PROSIZ) to 5000. This is the number of meters for 2MB.
6. Power OFF
7. Remove the QX521(mono) or QX524(color) board.
8. Install the TULIP board in the top of the QX521(mono) or QX521(color) board.  
Use the provided spacers if needed. If a QX523 board is already installed, mount the TULIP board in its place.
9. Erase the new board by setting dip switch 1&3 on the QX141 board to the right.
10. Turn control ON
11. After~ 20 secs, turn control OFF.
12. Flip the two dipswitches back.
13. Turn control ON

## Saving Fixed Cycles to EEPROM.

14. Press **<DIAGN>** then press *{PLC I/F}*. Key in 1001 under DEVICE , cursor right twice to MODE and key in M then press **<INPUT>**.
15. Press **<TOOL/PARAM>**
16. If *{BASE}* is not in view, press *{MENU}* until *{BASE}* appears, then press *{BASE}*. Press the right arrow soft key until item 38 (fix\_P) appears (screen 4 out of 7 on our control).

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17. Key in 38 at # , key in 1 at *DATA* then press **<INPUT>**
18. Press **<DATA/IO>** then press {*ERASE*}, cursor right and key in "FORMAT" then press **<INPUT>**.
19. Answer the question ERASE Y/N? by keying in Y and then **<INPUT>**.
20. After a few second the screen will display "ERASE COMPLETE"
21. Power OFF then ON again for the change to take effect.
22. Press **<DIAGN>** then press {*PLC I/F*}. Key in 1001 under DEVICE , cursor right twice to MODE and key in M then press **<INPUT>**.
23. Press **<TOOL/PARAM>**
24. If {*BASE*} is not in view, press {*MENU*} until {*BASE*} appears, then press {*BASE*}. Press the right arrow soft key until item 38 (fix\_P) appears (screen 4 out of 7 on our control).
25. Key in 38 at # , key in 1 at *DATA* then press **<INPUT>**
26. Press **<DATA/IO>** then press {*ERASE*}, cursor right and key in "FORMAT", then press **<INPUT>**.
27. Answer the question ERASE Y/N? by keying in Y and then **<INPUT>**.
28. After a few second the screen will display "ERASE COMPLETE"
29. Power OFF then ON again for the change to take effect.
30. Press **<TOOL/PARAM>**
31. If {*BASE*} is not in view, press {*MENU*} until {*BASE*} appears, then press {*BASE*}
32. Press the right arrow soft key until item 38 (fix\_P) appears (screen 4 out of 7 on our control).
33. Key in 38 at # , key in 1 at *DATA* then press **<INPUT>**
34. Go to DATA INPUT screen and key in 4 next to the # sign, then press **<INPUT>**.  
When all of the fixed cycles finish loading, power OFF then ON again.  
Press **<DATA/IO>** to display the remaining character spaces. This should be approx. 1.9 million.  
Reload all parameters, tool data and programs.

## To set up I/O parameters.

Press <Data In/Out>

Press {PARAM soft key}.

Press right arrow soft key to page 2 of 5.

Enter Device = 1, Baud = 1, Stop = 1, Parity = 1, Even = 1, Character length = 2, Handshake = 3 (Xon/Xoff)

**MELDAS 500 Series**  
**USA-E99061-016\***  
**MITSUBISHI ELECTRIC AUTOMATION**  
**USA**  
**M500 Re-initialization & Format Procedure**

### **M500 CPU BOARD (QX141-1)**

Dip Switch Settings

RAM Clear

Format Procedure

EEPROM Read/Write

Clearing of the RAM memory should only be done when the data stored in the RAM memory becomes contaminated. Contamination is not a common occurrence, but sometimes it might happen maybe due to file transfers of corrupt data via a communications link, or even if the battery drops to an unsafe level. But if it does happen for whatever reason, caution should be taken to be sure all parameters, tooling data, programs, and etc, are restored to their original settings. The EEPROM (Electrically Erasable Programmable Read Only Memory) located on the QX141-1 card stores viable information about the NC, and is transferred to RAM at power on.

After the data is cleared in the RAM (Random Access Memory), the EEPROM data will then load itself back into the RAM area. Previous to clearing the RAM, all data of importance should be backed up to Floppy Disk i.e. parameters, tool data, programs. If the RAM is already contaminated, it is too late to back up the data. So it is best to periodically save your important data. After completing the RAM clear, and data is restored, it is always recommended to verify parameters with the hard copy that was supplied by the OEM at the time the machine was installed. Normally, all the switches are set to the left hand side, or the off position. Moving them to the right will have the following effects.

SW1-MTOS Debugger

SW2-PLC Stop

SW3-Stop EEPROM Transfer at power on

SW4-Watchdog Alarm disable

SW1 & SW3-RAM Clear

SW1

~

SW8

-

1. Turn the NC Power Off
2. SW1 & SW3 On (to the right)
3. NC Power On

4. Wait for the two green LED's on the QX141-1 to turn on
5. Power Off
6. Go to the formatting procedure

Note: If the green light fails to come on some other problem has occurred. Possibly the system software has been damaged.

1. Access the machine parameters
  - a. Go to the Alarm/ Diagn Screen
  - b. Press the PLC-I/F menu
  - c. Key in 1001 for the device, cursor right 2 times and key in M under mode
  - d. Press the input key, and the (1001) ( ) ( M), will disappear
  - e. Go to the Tool/ Param Screen
2. The BASE parameter screen will already be selected
3. Press the green right hand menu to change the BASE parameters to page 6/8
4. Set #6 (fix\_P) to a 1
5. Go to the Data I/O screen
6. Select the menu for ERASE
7. Move the cursor to the right once, and input the word 'FORMAT'
8. Press input, and after a second it should say Format Completed
9. Go to the Data INPUT screen and type in a 4 next to #, press input
10. All the fixed cycles should be loaded in now, power OFF and ON again
11. Re-load all parameters, tool data, programs

1. Access the machine parameters
  - a. Go to the Alarm/ Diagn Screen
  - b. Press the PLC-I/F menu
  - c. Key in 1001 for the device, cursor right 2 times and key in M under mode
  - d. Press the input key, and the (1001) ( ) ( M), will disappear
  - e. Go to the Tool/ Param Screen
2. The BASE parameter screen will already be selected
3. Press the green right menu to turn to page 7/8
4. Set #32 (e2rom) to a 0 (zero), writing is done when EEROM WRITING goes off