
Machine Model: 16/18/21 CONTROL

Title: PROCEDURE TO USE A FLASH MEMORY CARD ON 16/18/21 CONTROL

Objective:

PROCEDURE TO USE A FLASH MEMORY CARD (S16/18/21)

Procedure to upgrade NC System data using an ATA card

1. Confirm the version of the BOOT SYSTEM to ensure it is later than 60M3-0010. If the version is too old, you must update the BOOT SYSTEM in order to use the ATA card.
(NOTE) Have the new version BOOT SYSTEM software available when going to do the NC upgrade.
2. Procedure to upgrade the BOOT SYSTEM software.
 - a. Power up the NC while holding the [F10] and [RETURN] keys. Keep them pressed until the BOOT SYSTEM screen appears.

MAIN MENU SCREEN

SYSTEM MONITOR MAIN MENU 60M1-10

1. SYSTEM DATA LOADING
2. SYSTEM DATA CHECK
3. SYSTEM DATA DELETE
4. SYSTEM DATA SAVE
5. SRAM DATA BACKUP
6. MEMORY CARD FILE DELETE
7. MEMORY CARD FORMAT

10. END

MESSAGE

SELECT MENU AND HIT SELECT KEY

[SELECT] [YES] [NO] [UP] [DOWN]

SYSTEM DATA LOADING SCREEN

SYSTEM DATA LOADING

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[BOARD:MAIN]

FILE DIRECTORY
60M3-0010
END

MESSAGE

SELECT MENU AND HIT SELECT KEY

[SELECT] [YES] [NO] [UP] [DOWN]

- b. Insert S-RAM into the card slot.
- c. Move the cursor to "1. SYSTEM DATA LOADING" position using the [DOWN] key.
- d. Depress the [SELECT] key to go to the "SYSTEM DATA LOADING" screen.
- e. Verify the file name is 60M3-0010 on the screen.
- f. Select the file by pressing the [SELECT] key.
- g. Press the [YES] key to start reading the file.
- h. When loading is completed, the message LOADING COMPLETE. HIT SELECT KEY will be displayed.
- i. Press the [SELECT] key.
- j. Move the cursor to [10 END] using the [DOWN] key.
- k. Press the [SELECT] key. The screen returns to the SYSTEM MONITOR MAIN MENU screen.
- l. Remove the SRAM card from the slot.
- m. Power the NC down

S-RAM DATA BACKUP PROCEDURE

1. Turn NC power off and insert the SRAM card in the NC unit.
2. Press the [F10] and [RETURN] keys and power on the NC. Hold them until SYSTEM MONITOR MAIN MENU screen is displayed.
3. Select [5. SRAM DATA BACKUP] using the [DOWN] key, then press [SELECT]. The SRAM DATA BACKUP screen is displayed.
4. Select [1. SRAM BACKUP (CNC→MEMORY CARD)], and press [SELECT]. “BACKUP SRAM DATA OK? HIT YES OR NO” will be displayed.
5. Press [F5 YES] to begin backup.
6. When completed “SRAM BACKUP COMPLETE” is displayed. Press the [F6 SELECT] key.
7. Go to [END] using the [DOWN] key and press [SELECT]. The SYSTEM MONITOR MAIN MENU screen is displayed.
8. Select [END] using the [DOWN] key and press [SELECT] again. “ARE YOU SURE? YES OR NO” will be displayed.
9. Press [YES] and the NC will start.
10. Power down and remove the SRAM card.

SRAM DATA RESTORE PROCEDURE

1. Turn the NC power off and insert the SRAM card into the slot.
2. Power up pressing the [F10] and [RETURN] keys.
3. Select [5. SRAM DATA BACKUP] using the [DOWN] key and press [SELECT]. The SRAM DATA BACKUP screen is displayed.
4. Select [2. RESTORE SRAM (MEMORY CARD → CNC)] using the [DOWN] key and press [SELECT]. “RESTORE SRAM DATA OK? HIT YES OR NO” will be displayed.
5. Press [F7 YES] to begin restoring.
6. When completed, “RESTORE COMPLETE” will be displayed. Press [SELECT].
7. Go to [END] using the [DOWN] key and press [SELECT]. The SYSTEM MONITOR MAIN MENU screen will be displayed.
8. Select [10. END] using the [DOWN] key, and press [SELECT]. “ARE YOU SURE? HIT YES OR NO” will be displayed.
9. Press [F7 YES] to start the NC.
10. Power down and remove the SRAM card.

SRAM DATA INITIALIZE

(Symptom: Can not reset “PARITY” error)

It is necessary to initialize and set data to the SRAM area.

1. Power the NC off. Power on the NC holding the [DEL] and [RESET] buttons. The SRAM area is initialized.
2. Power the NC back off, the power on while pressing the [.] (period) button. The FANUC Handy Screen is displayed.
3. Select “PARAMETER”, and enter the 9900 series parameters from the FANUC parameter list.

4. Power of the NC, then power it back on.
5. Select [25. SYSTEM TABLE] on the PC SYSTEM MENU. Enter the "System Table" data.
6. Select [24.SLBUS] on the PC SYSTEMS MENU. Enter the SLBUS data.
7. Select [F30. MENU], then [3. F-SETTINGS]. The FANUC HANDY SCREEN will be displayed. Change PARAMETER WRITE to a "1".
8. Press the [ALTER] key, then select [30. FMENU], then [1. F-PMC], then [F4 DATA]. The PMC data table is displayed. Enter the PMC data table parameters. To set the item area (we know as GROUP COUNT), enter a 2 and press [G.CONT]. This will set up the data tables.
9. Press [F1 G.DATA]. Enter data table settings to this area.
10. Return to the PMC parameter menu screen. Press [F1 TIMER] and set timer data.
11. Return to the PMC parameter menu screen. Press [F2 COUNTER] and set counter data.
12. Return to the PMC parameter menu screen. Press [F3 KEEPRL] and enter keep relay data.
13. Turn the NC power off, then back on. Select [1. PARAMETER] from the system menu. Set all NC parameters from the NC parameter list (including the 9000 prms.)

The password for entering these are [L] [S] [E] [I] [K] [I] on the PARAMETER MENU SCREEN.

14. Select [30. FMENU], then [3. F-SETTING]. The FANUC HANDY screen will be displayed. Turn PARAMETER ENABLE off.
15. Power the NC down.
16. If you have an SRAM card, you can now back up all SRAM data (including NC parameters, NC programs, NC offsets and PMC parameters). Power on while holding [F10] and [RETURN] softkeys until the BOOT SYSTEM is displayed.
17. Select [5. SRAM DATA BACKUP]. Back up the data of the SRAM area to the card, and preserve the information on a floppy disk.
18. If no SRAM card, download the conventional way from the [F8 I/O] selection through RS-232.