

TECHNICAL BULLETIN

[Issue No.] FA-A-0154-A

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[Title] Production discontinuation of the MELSEC-Q series Flash card, Q2MEM-4MBF

[Date of Issue] April 2013 (Ver. A: August 2014)

[Relevant Models] Q2MEM-4MBF

Thank you for your continued support of Mitsubishi programmable controllers, MELSEC-Q series.

Production of the MELSEC-Q series Flash card, Q2MEM-4MBF, will be discontinued.

Production of the Q2MEM-2MBF will also be discontinued on December 15, 2014. (Refer to the technical bulletin, FA-A-0161.)

1. Model to be discontinued

Product	Model	Remarks
Flash card	Q2MEM-4MBF	Capacity: 4M bytes

The following lists the CPU modules used in this technical bulletin.

CPU module	Model
High Performance model QCPU	Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU
Process CPU	Q02PHCPU, Q06PHCPU, Q12PHCPU, Q25PHCPU
Redundant CPU	Q12PRHCPU, Q25PRHCPU
Universal model QCPU	Q02UCPU, Q03UDCPU, Q03UDVCPU, Q03UDECPU, Q04UDHCPU, Q04UDVCPU, Q04UDEHCPU, Q06UDHCPU, Q06UDVCPU, Q06UDEHCPU, Q10UDHCPU, Q10UDEHCPU, Q13UDHCPU, Q13UDVCPU, Q13UDEHCPU, Q20UDHCPU, Q20UDEHCPU, Q26UDHCPU, Q26UDVCPU, Q26UDEHCPU, Q50UDEHCPU, Q100UDEHCPU
High-speed Universal model QCPU	Q03UDVCPU, Q04UDVCPU, Q06UDVCPU, Q13UDVCPU, Q26UDVCPU

2. Schedule

Transition to made-to-order: January 15, 2014

Order acceptance: Through February 15, 2014

Production discontinuation: March 15, 2014

3. Reasons for discontinuing production

Some parts of the memory card are now obsolete, and we will have difficulty to maintain our production system.

4. Repair acceptance

Repair acceptance: Through March 15, 2021 (for 7 years after production discontinuation)

5. Alternative models

It is difficult to develop interchangeable products for the above Flash card because some parts of the card are obsolete and the needs of the card in the market are now declining. Please use an SRAM card (Q2MEM-1MBS, Q2MEM-2MBS, Q3MEM-4MBS, or Q3MEM-8MBS) or the built-in memory of a CPU module (program memory, standard RAM, or standard ROM) as an alternative memory device (refer to Chapter 7).

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6. Recommendable proposals

We recommend the following solutions for the production discontinuation of the Q2MEM-4MBF.

- (1) Purchase another or more Q2MEM-4MBF as a spare before the order acceptance date described in Chapter 2.
- (2) Consider replacing a memory device from the Q2MEM-4MBF to an SRAM card or the built-in memory of a CPU module.
- (3) If purchasing a new CPU module, purchase a High-speed Universal model QCPU.

7. Alternative products

7.1 Alternative products for each CPU module type

- (1) When a High Performance model QCPU, Process CPU, or Redundant CPU^{*3} is used

The following memory devices are available as alternatives.

Alternative product		Capacity	Battery backup
Q2MEM-4MBF		4M bytes	Not required
Built-in memory of a CPU module	Program memory	112K to 1008K bytes ^{*1}	Required
	Standard RAM	64K to 256K bytes ^{*1}	Required
	Standard ROM	112K to 1008K bytes ^{*1}	Not required
SRAM card	Q2MEM-1MBS	1M bytes	Required
	Q2MEM-2MBS	2M bytes	Required
	Q3MEM-4MBS ^{*2}	4M bytes	Required

*1: Capacity differs depending on the CPU module used.

*2: This card will be used with a CPU module with a serial number (first five digits) of "16021" or later, which was shipped in February 2014 or later. The serial number can be checked on the rating plate located on the side of the module.

*3: In a redundant CPU system, an error occurs if different memory devices are used in a control system and a standby system. Please use the same alternative memory device when performing the replacement.

- (2) When a Universal model QCPU (except a High-speed Universal model QCPU) is used

The following memory devices are available as alternatives.

Alternative product		Capacity	Battery backup
Q2MEM-4MBF		4M bytes	Not required
Built-in memory of a CPU module	Program memory	80K to 4000K bytes ^{*1}	Not required
	Standard RAM	128K to 1792K bytes ^{*1}	Required
	Standard ROM	512K to 16384K bytes ^{*1}	Not required
SRAM card	Q2MEM-1MBS	1M bytes	Required
	Q2MEM-2MBS	2M bytes	Required
	Q3MEM-4MBS	4M bytes	Required
	Q3MEM-8MBS	8M bytes	Required

*1: Capacity differs depending on the CPU module used.

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(3) When a High-speed Universal model QCPU is used

If the CPU module currently-used is replaced with a High-speed Universal model QCPU, the following memory devices will be available as alternatives.

Alternative product		Capacity	Battery backup
Built-in memory of a CPU module	Program memory	120K to 1040K bytes ^{*1}	Not required
	Standard RAM	192K to 1280K bytes ^{*1*2}	Required
	Standard ROM	1025.5K to 4102K bytes ^{*1}	Not required
SD memory card	L1MEM-2GBSD	2G bytes	Not required
	L1MEM-4GBSD	4G bytes	Not required

*1: Capacity differs depending on the CPU module used.

*2: The use of an extended SRAM cassette increases the standard RAM capacity (up to 8M bytes).

7.2 Files that can be stored in alternative memory devices

(1) When a High Performance model QCPU, Process CPU, or Redundant CPU is used

Files in the Q2MEM-4MBF can be stored in the following alternative memory devices.

○: Storable, ×: Not storable, △: Storable (only 1 file)

File	File name and extension	Program memory	Standard RAM	Standard ROM	SRAM card
Parameter	PARAM.QPA	○	×	○	○
Intelligent function module parameter	IPARAM.QPA	○	×	○	○
Program	***.QPG	○	×	○	○
Device comment	***.QCD	○	×	○	○
Initial device value	***.QDI	○	×	○	○
File register	***.QDR	×	△	×	○
Boot setting file	AUTOEXEC.QBT	○	×	○	○
Remote password	00000000.QTM	○	×	○	○

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(2) When a Universal model QCPU (except a High-speed Universal model QCPU) is used

Files in the Q2MEM-4MBF can be stored in the following alternative memory devices.

○: Storable, ×: Not storable, △: Storable (only 1 file)

File	File name and extension	Program memory	Standard RAM	Standard ROM	SRAM card
Parameter	PARAM.QPA	○	×	○	○
Intelligent function module parameter	IPARAM.QPA	○	×	○	○
Program	***.QPG	○	×	○	○
Device comment	***.QCD	○	×	○	○
Initial device value	***.QDI	○	×	○	○
File register	***.QDR	×	△	×	○
Boot file setting	AUTOEXEC.QBT	○	×	○	○
Remote password	00000000.QTM	○	×	○	○
Backup data file	MEMBKUP0.QBP	×	×	×	○
Drive heading	QN.DAT	○	△	○	○

(3) When a High-speed Universal model QCPU is used

Files in the Q2MEM-4MBF can be stored in the following alternative memory devices.

○: Storable, ×: Not storable

File	File name and extension	Program memory	Standard RAM	Standard ROM	SD memory card
Parameter	PARAM.QPA	○	○	○	○
Intelligent function module parameter	IPARAM.QPA	○	○	○	○
Program	***.QPG	○	○	○	○
Device comment	***.QCD	○	○	○	○
Initial device value	***.QDI	○	○	○	○
File register	***.QDR	×	○	×	×
Boot file setting	AUTOEXEC.QBT	○	○	○	×
Remote password	00000000.QTM	○	○	○	○
Backup data file	MEMBKUP0.QBP	×	×	×	○
Drive heading	QN.DAT	○	○	○	○

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8. Alternative methods

8.1 To use the memory device for boot operation

Please consider either of the following alternative methods.

- Replace the Q2MEM-4MBF with an SRAM card (or an SD memory card when a High-speed Universal model QCPU is used).
- Move the file used for boot operation to the program memory or standard ROM of the CPU module.

8.2 To store a file register file

Create a file register file in an SRAM card or the standard RAM. (With a Universal model QCPU or a High-speed Universal model QCPU, a file register file can be created only in the standard RAM.) To hold data in the SRAM card or the standard RAM when power is turned off, perform battery backup. If not performed, initialize the file register file with initial device values.

8.3 To use the CPU module change function with memory card

When a Universal model QCPU (except a High-speed Universal model QCPU) is used, replace the Q2MEM-4MBF with an SRAM card. To hold data in the SRAM card when it is removed from the CPU module, perform battery backup of the card. If the battery-backed-up files are to be stored for a long time, copy and store the files in a personal computer so that the data will not be erased due to running out of battery.

When a High-speed Universal model QCPU is used, replace the Q2MEM-4MBF with an SD memory card.

8.4 To move files, such as setting files and program files, from one CPU module to another

(1) When a High Performance model QCPU, Process CPU, Redundant CPU, or Universal model QCPU (except a High-speed Universal model QCPU) is used

Please consider either of the following alternative methods.

- Replace the Q2MEM-4MBF with an SRAM card.
To hold the data in files, perform battery backup of the SRAM card.
- Read files from a source CPU module to the personal computer using a programming tool, and store the files in a medium such as an SD memory card to move them.
Write the files from the personal computer to the destination CPU module using a programming tool.

(2) When a High-speed Universal model QCPU is used

Replace the Q2MEM-4MBF with an SD memory card.

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9. Precautions

To store and use the files in the Q2MEM-4MBF in an alternative memory device, the following setting changes are required because the memory type (drive number) where the files are will change.

9.1 When the storage location of the file register file is changed

Check the "File Register" setting of the "PLC File" tab in PLC parameter. If the memory device in the "Corresponding Memory" field differs from the actual storage location of the file, change the setting.

9.2 When the storage location of the initial device value file is changed

Check the "Device Initial Value" setting of the "PLC File" tab in PLC parameter. If the memory device in the "Corresponding Memory" field differs from the actual storage location of the file, change the setting.

9.3 When the storage location of the device comment file is changed

Check the "Comment File Used in a Command" setting of the "PLC File" tab in PLC parameter. If the memory device in the "Corresponding Memory" field differs from the actual storage location of the file, change the setting.

9.4 When the storage location of the boot setting file is changed

Check the settings of the "Boot File" tab in PLC parameter. If the memory device in the "Transfer from" field differs from the actual storage location of the file, change the setting.

9.5 When the storage location of the parameter file is changed

When a High Performance model QCPU, Process CPU, or Redundant CPU is used, the storage location (parameter-valid drive) of the parameter file is set by the DIP switches. Set the DIP switches, SW2 and SW3, to the correct storage location of the parameter file.

SW2	SW3	Parameter-valid drive
Off	Off	Program memory
On	Off	SRAM card
Off	On	Flash card/ATA card
On	On	Standard ROM

When a Universal model QCPU or High-speed Universal model QCPU is used, the parameter-valid drive is automatically detected. Therefore, no switch setting change is required.

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9.6 When the file storage location is specified in the instruction used in the program

If any of the following instructions is used in the program, check if the storage location of the file specified in the instruction has not been changed. If changed, change the storage location (drive number) in the instruction as well.

- QDRSET, QDRSETP: Setting file register file
- QCDSET, QCDSETP: Setting comment file
- PLOADP: Loading program from memory card
- PSWAPP: Loading and unloading

For details, refer to the MELSEC-Q/L Programming Manual (Common Instructions).

9.7 For data backup when the power is turned off

To use the standard RAM as an alternative memory device, perform battery backup of the CPU module to hold data when the power is turned off.

Battery backup of the CPU module is also required to use the program memory as an alternative device when a High Performance model QCPU, Process CPU, or Redundant CPU is used.

To use the standard RAM as an alternative memory device, perform battery backup of the SRAM card to hold data when the power is turned off.

For details, refer to the QCPU User's Manual (Hardware Design, Maintenance and Inspection).

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REVISIONS

Version	Print Date	Revision
-	April 2013	First edition
A	August 2014	<ul style="list-style-type: none">• Description on the production discontinuation of the Q2MEM-2MBF is added at the beginning of this bulletin.• Descriptions are added and corrected in Section 7.1, 7.2, and 9.5.