Motion Controller A273UHCPU Production Discontinuation Notice

In the years since the above CPU module was first marketed in 1995, it has been well received, and has seen use in a wide range of production applications. Thank you for using this product.
Now, however, production of this CPU module must be discontinued because its components will no longer be available. The components in question are the same as those used for the MELSEC-A (large type) Series, and that Series is also being discontinued, making it difficult to continue producing this Motion Controller A273UHCPU Series. We appreciate your understanding in this matter.

Whereas

1. Models to be Discontinued

The following Motion Controller A-Series items are to be discontinued:
Large-type CPU module (for medium & large-scale applications), the main base unit, the motion extension base unit, the pulse generator & synchronous encoder interface module, the servo external signal module, and other related components (including special items). See Tables 1 and 2 for lists of models to be discontinued.
The small-type A171SH/A172SH/A173UH Series (for small to medium-scale applications) will not be discontinued.
Special items which are hosted by the following items will also be continued.

Table 1 Models (Devices) to be Discontinued

Item Name	Model Name	Item Name	Model Name
CPU module	A273UHCPU	Battery unit connection cable	A270BATCBL
	A273UHCPU-S3		A270BATCBLJ16
Main base unit	A272B		A270BATCBLJ32
	A275B	Battery unit	MR-JBAT4
	A278B		MR-JBAT8
Motion extension base unit	A255B	Man machine control unit	A271DVP
	A268B	FDD connection cable	A271FDDCBL-T
PLC extension cable	A370C12B		A271FDDCBL-I
	A370C25B	Bus interface module	A171MBF
Servo external signal module	A278LX		
Pulse generator & synchronous encoder interface module	A273EX	Servo power supply module	A230P
		Dynamic brake module	A240DY

Date of issue	March 2005	Title	Motion Controller A273UHCPU Production Discontinuation Notice	Mitsubishi Electric Corp., Nagoya Works 5-1-14 Yada-minami, Higashi-ku, Nagoya 461-8670 Tel.: (052) 721-2111 Main line

Table 2 Models (Software Packages) to be Discontinued

Item Name	Model Name	Item Name	Model Name
OS software package	SW2SRX-SV13K	OS software package	SW2SRX-SV51K
	SW2NX-SV13K		SW2NX-SV51K
	SW2SRX-SV13V		SW3RN-SV13X
	SW2NX-SV13V		SW3RN-SV22W
	SW2SRX-SV22J	Peripheral software package	SW2CD-GSV
	SW2NX-SV22J		SW2SRX-RMTP
	SW2SRX-SV22U	Software package for A271DVP	SW0DVP-LIBP
	SW2NX-SV22U		SW2DVP-LIBP
	SW2SRX-SV43J		SW0DVP-DOSCP
	SW2NX-SV43J		SW2DVP-DOSCP
	SW2SRX-SV43U		
	SW2NX-SV43U		

2. Discontinuation Schedule

- Order production transition date : October 1, 2005
- Ordering deadline : End of August, 2006
- Final production date : End of September, 2006

3. Reason for Discontinuation

Many of the semiconductors (microcomputer, memory, ASIC, etc.) which represent the main electrical components in the Motion Controller A-Series (large type), are the same as those used in the MELSEC-A (large type) Series. With the increasing refinement of process rules in recent years, and with environmental trends that demand lead-free components and compliance with RoHS directives, etc., it is becoming difficult to obtain those components.
Until now, production of the Motion Controller A-Series (large type) and the MELSEC-A (large type) was continued by using discontinued parts that were still in stock, etc., but that stock is now depleted, making it impossible to maintain our production and quality systems. The above products will therefore be discontinued.

4. Repair Schedule

- Repair service period: Until the end of September, 2013 (7 years from discontinuation)

5. Requests To Customers

(1) With the discontinuation of the Motion Controller A-Series (Large type), please consider replacing it with the Q-Series. A list of replacement models is given in item 7 below.
(2) Please purchase spare parts by the "ordering deadline" date shown in item 2 above.
(3) A detailed replacement guide is currently being compiled. For details concerning MELSEC-A (large type) Series PLC replacement, refer to the MELSEC-A (large type) Series PLC Replacement Guide.

6. Replacement Guidelines

The following are a few guidelines which should be observed when replacing a discontinued model with a replacement model.

(1) CPU module

1) Select a Q-Series motion CPU module.
2) The appropriate replacement Q-Series PLC CPU module should be selected based on the currently used sequence program capacity, the sequence program memory capacity, the number of input/output points, and the number of device points.
   Note the following when performing the replacement:
   - The sequence programs and motion programs musts be changed.

(2) Base unit

Select a base unit that is appropriate for the number of slots used by the motion CPU and the PLC CPU.
Note the following when performing the replacement:

- Q-Series base units can serve as both a motion base unit and a PLC base unit, allowing mixing of motion base units and PLC base units.
- Due to different mounting hole dimensions, new holes must be drilled when mounting the base unit in a control cabinet, etc.

(3) Pulse generator & synchronous encoder interface module

1) If using a serial synchronous encoder, select the Q172EX model.
   Note the following when performing the replacement:
   - Q172EX has a built-in battery (A6BAT) for backing up the serial synchronous encoder's absolute value data. There is no externally-mounted battery for backing up the serial synchronous encoder's absolute value data.
2) If using a manual pulse generator and synchronous encoder, select the Q173PX model.
   Note the following when performing the replacement:
   - The specifications for input voltage/current, etc., are different.
   - The connector shape and the signal arrangement are different.

(4) Servo external signal module

Select the Q172LX model.
Note the following when performing the replacement:

- Due to differences in the input voltage/current specifications, etc., select external devices such as switches, etc., that satisfy the required specifications.
- The terminal block/connector shape, and the signal arrangement are different.
- As there are no electromagnetic brake command and dynamic brake command outputs, use the electromagnetic brake command and dynamic brake command outputs provided at the servo amplifier.

7. List of Replacement Models

Table 3 For Replacement With Q-Series (Part 1)

		For Replacement with Q-Series		
Item Name	**Model name**	**Model name**		**Remarks (Restrictions)**
CPU module	A273UHCPU A273UHCPU-S3	Motion CPU	Q173CPUN	(1) Number of servo control axes : 32 axes (2) Motion program change : Yes (3) Teaching unit support : No (4) I/F to Servo amp : SSCNET
			Q173CPUN-T	(1) Number of servo control axes : 32 axes (2) Motion program change : Yes (3) Teaching unit support : Yes (4) I/F to Servo amp : SSCNET
			Q173HCPU	(1) Number of servo control axes : 32 axes (2) Motion program change : Yes (3) Teaching unit support : No (4) I/F to Servo amp : SSCNET III
			Q173HCPU-T	(1) Number of servo control axes : 32 axes (2) Motion program change : Yes (3) Teaching unit support : Yes (4) I/F to Servo amp : SSCNET III
		PLC CPU	Q00CPU	(1) Program capacity : 8k step (2) Program memory capacity : 94k byte (3) Sequence program change : Yes
			Q01CPU	(1) Program capacity : 14k step (2) Program memory capacity : 94k byte (3) Sequence program change : Yes
			Q02CPU	(1) Program capacity : 28k step (2) Program memory capacity : 112k byte (3) Sequence program change : Yes
			Q06HCPU	(1) Program capacity : 60k step (2) Program memory capacity : 240k byte (3) Sequence program change : Yes
Main base unit	A272B	Q33B		(1) Number of I/O slots: 2 slots → 3 slots (2) Motion dedicated → motion/PLC shared
	A275B	Q35B		Motion dedicated → motion/PLC shared
	A278B	Q38B		Motion dedicated → motion/PLC shared
Control power supply module	A61P	Q61P-A1/A2		(1) External wiring change: Yes (2) Specs. change : Reduced current capacity
	A61P-UL			
	A61PEU			
	A62P	Q62P		
	A62PEU			
	A63P	Q63P		
Motion extension base unit	A255B	Q55B		(1) Motion dedicated → motion/PLC shared (2) Number of connection stages: 4 motion stages → 7 motion/PLC shared stages
	A268B	Q68B		
PLC extension base unit	A62B	Q63B		(1) Number of I/O slots: 2 slots → 3 slots (2) PLC dedicated → motion/PLC shared (3) Number of connection stages: 4 motion stages → 7 motion/PLC shared stages
	A65B	Q65B		(1) PLC dedicated → motion/PLC shared (2) Number of connection stages: 4 motion stages → 7 motion/PLC shared stages
	A68B	Q68B		
Motion extension base unit connection cable	AC06B	QC06B		No restrictions
	AC12B	QC12B		No restrictions
	AC30B	QC30B		No restrictions
PLC extension base unit connection cable	A370C12B	QC12B		No restrictions
	A370C25B	QC30B		Length: 2500mm→3000mm
Pulse generator & synchronous encoder interface module	A273EX	Synchronous encoder	Q172EX Q172EX-S2	(1) External wiring change: Yes (2) Change in number of connectable synchronous encoders: 3 units → 2 units
		Manual pulse generator	Q173PX	(1) External wiring change: Yes (2) Change in number of connectable manual pulse generators: No change

Table 4 For Replacement With Q-Series (Part 2)

		For Replacement with Q-Series	
Item Name	**Model name**	**Model name**	**Remarks (Restrictions)**
Servo external signal module	A278LX	Q172LX	(1) External wiring change : Yes (2) Change in number of DOG/CHANGE input points : Yes (shared) (3) DB/BREAK command output : Yes → No (4) Program change. Change in number of occupied input/output points : None (5) Specs. change Rated input voltage change : Yes (DC5V not possible) Rated input current change : Yes ON voltage/ON current change : Yes OFF voltage/OFF current change : Yes Input resistance change : Yes
Limit output module	AY42	QY42P	(1) External wiring change : None (2) Slot number change : None (3) Program change. Change in number of occupied input/output points : None (4) Specs. change Rated output voltage change : None Rated output current change : None
Memory card	A3NMCA-0	No	Built-in RAM / built-in flash ROM
	A3NMCA-2	No	Built-in RAM / built-in flash ROM
	A3NMCA-4	No	Built-in RAM / built-in flash ROM
	A3NMCA-8	No	Built-in RAM / built-in flash ROM
	A3NMCA-16	No	Built-in RAM / built-in flash ROM
	A3NMCA-24	No	Built-in RAM / built-in flash ROM
	A3NMCA-40	No	Built-in RAM / built-in flash ROM
	A3NMCA-56	No	Built-in RAM / built-in flash ROM
	A3NMCA-96	No	Built-in RAM / built-in flash ROM
IC-RAM memory	4KRAM	No	Built-in RAM
EP-ROM memory	4KROM	No	Built-in flash ROM
	8KROM	No	Built-in flash ROM
	16KROM	No	Built-in flash ROM
Teaching unit	A30TU	A31TU-DNK13	Requires Q170TUDNCBL03M-A
	A30TU-SV51	A31TU-DNK54	Requires Q170TUDNCBL03M-A
	A31TU	A31TU-D3K13	Requires Q170TUD3CBL3M
	A31TU-R	A31TU-D3K54	Requires Q170TUD3CBL3M
Teaching unit connection cable	A31TUCBL03M	Q170TUD3CBL3M	No restrictions
	A31SHORTCON	A31TUD3TM	No restrictions
Manual pulse generator	MR-HDP01	Same as at left	No restrictions
Serial ABS synchronous encoder	MR-HENC	MR-HENC	No restrictions
		Q170ENC	(1) Resolution: 16384PLS/rev → 262144PLS/rev (2) Protective construction: IP52 → IP65 (excluding axis through area) (3) Permissible thrust load: 49N → 9.8N (4) Permissible radial load: 98N → 19.6N (5) Permissible rotation speed: 4300r/min → 3600r/min (6) Outer shape/dimension change: Yes
Serial ABS synchronous encoder cable	MR-HSCBL□M	MR-HSCBL□M	For MR-HENC. No restrictions.
		Q170ENCCBL□M	For Q170ENC.
Battery unit	MR-JBAT4	No	A6BAT is inside the Q172EX.
	MR-JBAT8	No	
Battery unit connection cable	A270BATCBL	No	
	A270BATCBLJ16		
	A270BATCBLJ32		

Table 5 For Replacement With Q-Series (Part 3)

		For Replacement with Q-Series		
Item Name	**Model name**	**Model name**		**Remarks (Restrictions)**
SSC I/F board	A30BD-PCF	Same as at left		No restrictions.
SSC I/F card	A30CD-PCF	Same as at left		No restrictions.
Cable for SSC I/F board	A270BDCBL03M	Same as at left		No restrictions.
	A270BDCBL05M	Same as at left		No restrictions.
	A270BDCBL10M	Same as at left		No restrictions.
Cable for SSC I/F card	A270CDCBL03M	Same as at left		No restrictions.
	A270CDCBL05M	Same as at left		No restrictions.
	A270CDCBL10M	Same as at left		No restrictions.
Man machine control unit	A271DVP	No		Personal computer SSC substitution possible by SSCNET.
FDD connection cable	A271FDDCBL-T	No		
	A271FDDCBL-I	No		
Bus interface module	A171MBF	No		
Servo power supply module	A230P	No		
Dynamic brake module	A240DY	No		
OS software package	SW2SRX-SV13K	Q172	SW6RN-SV13QD	8-axis type is supported by Q172CPUN/Q172HCPU.
		Q172H	SW6RN-SV13QM	
	SW2NX-SV13K	No		Does not support NEC PC9801 Series.
	SW2SRX-SV13V	Q173	SW6RN-SV13QB	32-axis type is supported by Q173CPUN/Q173HCPU.
		Q173H	SW6RN-SV13QK	
	SW2NX-SV13V	No		Does not support NEC PC9801 Series.
	SW2SRX-SV22J	Q172	SW6RN-SV22QC	8-axis type is supported by Q172CPUN/Q172HCPU.
		Q172H	SW6RN-SV22QL	
	SW2NX-SV22J	No		Does not support NEC PC9801 Series.
	SW2SRX-SV22U	Q173	SW6RN-SV22QA	32-axis type is supported by Q173CPUN/Q173HCPU.
		Q173H	SW6RN-SV22QJ	
	SW2NX-SV22U	No		Does not support NEC PC9801 Series.
	SW2SRX-SV43J	Q172	SW5RN-SV43QC	8-axis type is supported by Q172CPUN.
	SW2NX-SV43J	No		Does not support NEC PC9801 Series.
	SW2SRX-SV43U	Q173	SW5RN-SV43QA	32-axis type is supported by Q173CPUN.
	SW2NX-SV43U	No		Does not support NEC PC9801 Series.
	SW2SRX-SV51K	Q172	SW5RN-SV54QD	8-axis type is supported by Q172CPUN.
	SW2NX-SV51K	No		Does not support NEC PC9801 Series.
	SW3RN-SV13X	Q173	SW6RN-SV13QB	32-axis type is supported by Q173CPUN/Q173HCPU.
		Q173H	SW6RN-SV13QK	
	SW3RN-SV22W	Q173	SW6RN-SV22QA	32-axis type is supported by Q173CPUN/Q173HCPU.
		Q173H	SW6RN-SV22QJ	

Table 6 For Replacement With Q-Series (Part 4)

		For Replacement with Q-Series	
Item Name	**Model name**	**Model name**	**Remarks (Restrictions)**
Peripheral software package	SW2SRX-GSV13P	SW6RNC-GSVPRO	Use SW6RN-GSV13P which is shipped together with SW6RNC-GSVPRO.
	SW2NX-GSV13P	No	Does not support NEC PC9801 Series.
	SW2SRX-GSV22P	SW6RNC-GSVPRO	Use SW6RN-GSV22P which is shipped together with SW6RNC-GSVPRO.
	SW2NX-GSV22P	No	Does not support NEC PC9801 Series.
	SW0SRX-CAMP	SW6RNC-GSVPRO	Use SW3RN-CAMP which is shipped together with SW6RNC-GSVPRO.
	SW0NX-CAMP	No	Does not support NEC PC9801 Series.
	SW2SRX-GSV43P	SW6RNC-GSVPRO	Use SW6RN-GSV43P which is shipped together with SW6RNC-GSVPRO.
	SW2NX-GSV43P	No	Does not support NEC PC9801 Series.
	SW2SRX-GSV51P	SW6RNC-GSVPRO	Use SW6RN-GSV54P which is shipped together with SW6RNC-GSVPRO.
	SW2NX-GSV51P	No	Does not support NEC PC9801 Series.
	SW2CD-GSV	No	Does not support OS/2 Warp.
	SW2SRX-RMTP	No	
	SW2SRX-SV51K	SW5RN-SV54QD	8-axis type is supported by Q172CPUN.
	SW2NX-SV51K	No	Does not support NEC PC9801 Series.
	SW3RNC-GSVPRO	SW6RNC-GSVPRO	
	SW3RNC-GSVSET	SW6RNC-GSVSET	
Software package for A271DVP	SW0DVP-LIBP	No	Personal computer SSC substitution possible by SSCNET.
	SW2DVP-LIBP	No	
	SW0DVP-DOSCP	No	
	SW2DVP-DOSCP	No	