Programmable Controller
Upgrade Tool

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Jul. 2016 Edition

Upgrade Tool

MELSEC-A Series ⇒ *MELSEC-Q Series*
MELSEC-AnS Series ⇒ *MELSEC-L Series*
MELSEC-AnS Series ⇒ *MELSEC-Q Series*
SYSMAC C Series ⇒ *MELSEC-Q Series*
Non-Mitsubishi PLC Series ⇒ *MELSEC-Q Series*
Upgrade Tool

New Release! A universal conversion adapter for replacing non-Mitsubishi PLC with the MELSEC-Q series programmable controllers! ▶ p.12

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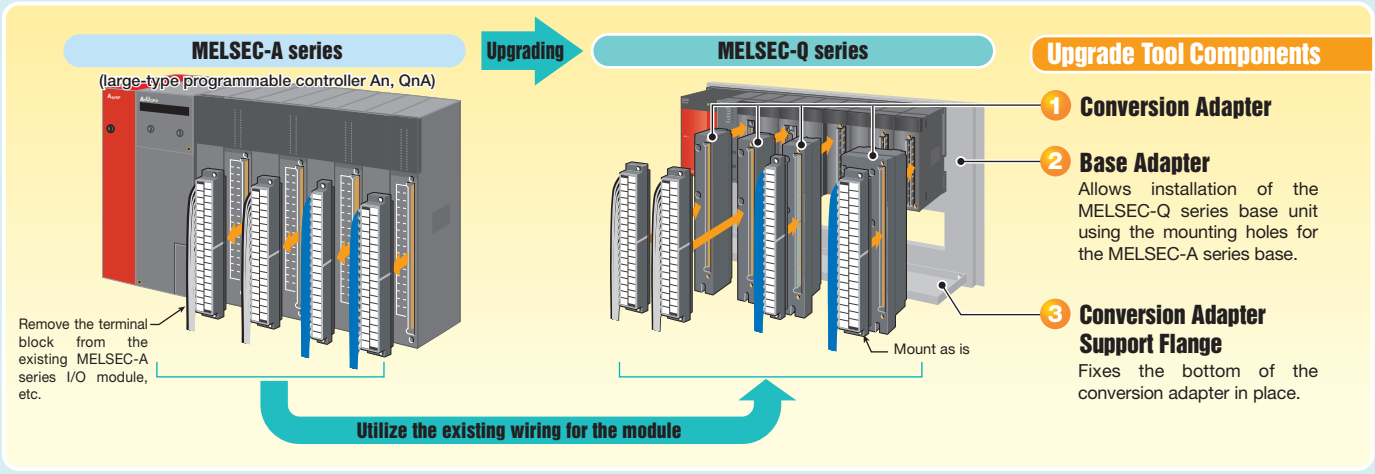
■The upgrade tool allows you to use your existing wiring (including terminal blocks/connectors) as is, achieving a significant reduction in transition work time as well as a signification decrease in wiring errors. (some connection changes required)

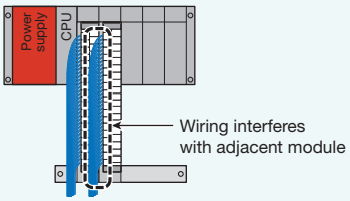
A Q series MELSEC-A Series ⇨ MELSEC-Q Series Upgrade Tool

Product Overview

This upgrade tool changes the existing wiring for the modules of the Mitsubishi Electric programmable controller MELSEC-A series to one applicable to the modules of the MELSEC-Q series.



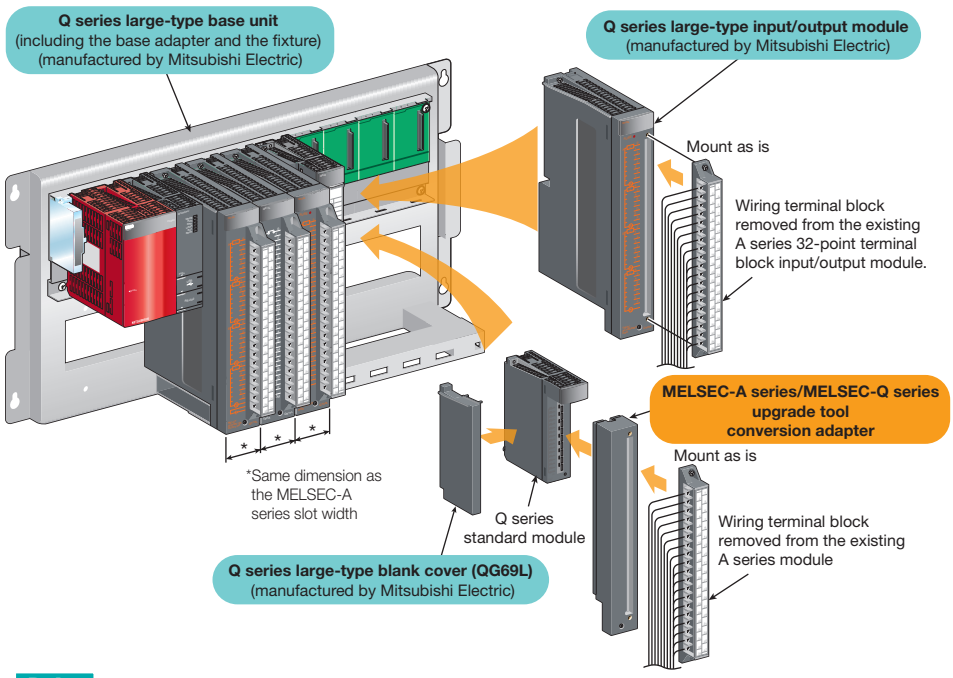
If the wiring interferes with an adjacent module, wiring space can be secured by utilizing the Q series large-type base unit.



MITSUBISHI ELECTRIC CORPORATION **For MELSEC-A Series (large-type) ⇨ MELSEC-Q Series**

Upgrading using the Q series large-type base unit

The slot width of the Q series large-type base unit is the same as the slot width of the MELSEC-A series (large-type) base unit, alleviating wiring interference with adjacent modules.



- The installation dimensions of the Q series large-type base unit are the same as those of the MELSEC-A large-type series. There is no need to drill holes for mounting.
- Can be used together with the Q series large-type input/output module.
- The 2-slot type conversion adapter is not applicable.

Point

The Q Series large-type base unit allows both the Q series standard module that uses the upgrade tool conversion adapter and the Q series large-type input/output module to be mounted together, enabling upgrades that utilize the advantages of both modules.

Q Series Large-Type Base Unit List

A series model	Q series large-type base model
A35B (-E, -UL)	Q35BL
A38B (-E, -UL)	Q38BL
A65B (-UL)	Q65BL
A68B (-UL)	Q68BL
A55B (-UL)	Q55BL

Q Series Large-Type Input/Output Module List

A series model	Q series large-type module model
AX11	QX11L
AX21	QX21L
AY10A	QY11AL
AY11A (EU)	
AY13 (E, EU)	QY13L
AY23	QY23L
AY41 (P)	QY51PL
AY51 (-S1)	

Q Series Large-Type Blank Cover

A series model	Q series large-type blank cover model
–	QG69L

Upgrade Tool List

Input/Output Module Conversion Adapter

[1 slot type] (Applicable with Mitsubishi Electric Q series large-type base units as well)

MELSEC-A series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
AX10, AX10-UL	QX10	**ERNT-AQTX10**
AX40, AX40-UL	QX40, QX70	**ERNT-AQTX40**
	QX40-S1	
AX70, AX70-UL	QX70	
AX50	QX50	
AX50-S1		
AX80, AX80-UL	QX80	**ERNT-AQTX80**
AX41, AX41-UL	QX41, QX41-S2 (*1) QX71	**ERNT-AQTX41**
AX31-S1	QX41, QX41-S2 (*1)	
AX41-S1	QX41-S1	
AX71	QX71	
AX81	QX81	**ERNT-AQTX81**
AX81-S1	QX81-S2 (*1)	
AY10	QY10	**ERNT-AQTY10**
AY11, AY11-UL		
AY11E		
AY11EEU		
AY22	QY22	**ERNT-AQTY22**
AY41, AY40-UL	QY40P	**ERNT-AQTY40**
AY40P		
AY70, AY70-UL	QY70	
AY50, AY50-UL	QY50	**ERNT-AQTY50**
AY80	QY80	**ERNT-AQTY80**
AY41, AY41-UL	QY41P	**ERNT-AQTY41**
AY41P		
AY71	QY71	
AY81	QY81P	**ERNT-AQTY81**
AY81EP		

[2 slot type] (Not applicable with Mitsubishi Electric Q series large-type base units)

MELSEC-A series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
AX11	QX10 × 2 modules	**ERNT-AQTX11**
AX11EU		
AY10A, AY10A-UL	QY18A × 2 modules	**ERNT-AQTY10A**
AY11A		
AY11AEU		
AY13	QY10 × 2 modules	**ERNT-AQTY13**
AY13E		
AY13EU		
AY23	QY22 × 2 modules	**ERNT-AQTY23**
AY51, AY51-UL	QY50 × 2 modules	**ERNT-AQTY51**
AY51-S1		
AY81	QY80 × 2 modules	**ERNT-AQTY51** (*2)
AY81EP		

The input/output modules in the table below can use the existing wiring as is. Be sure to verify that the MELSEC Q series module specifications satisfy the specifications of connected devices and equipment.

MELSEC-A series module model before replacement	MELSEC-Q series module model after replacement
AX42	QX42 (24VDC), QX72 (12VDC)
	QX41-S2 (24VDC) (*4)
AX42-S1	QX42-S1 (24VDC)
AX82	QX81-S2 (24VDC) (*4)
AY42(-S1/S3/S4) (*3)	QY42P
AY72	QY71 (*4)
AY82EP	QY81P (*4)
AH42	QH42P, QX41Y41P (24VDC input)

Analog Module Conversion Adapter

[1 slot type] (Applicable with Mitsubishi Electric Q series large-type base units as well)

MELSEC-A series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A68AD (Voltage input)	Q68ADV	**ERNT-AQT68AD**
A68AD (Current input)	Q68ADI	
A68AD-S2 (Voltage input)	Q68ADV	
A68AD-S2 (Current input)	Q68ADI	
A68ADN (Voltage input)	Q68ADV	**ERNT-AQT68ADN**
A68ADN (Current input)	Q68ADI	
A62DA	Q62DAN	**ERNT-AQT62DA**
A62DA-S1		
A68DAV	Q68DAVN	**ERNT-AQT68DA**
A68DAI	Q68DAIN	
A68DAI-S1		

[2 slot type] (Not applicable with Mitsubishi Electric Q series large-type base units)

MELSEC-A series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A68AD (Voltage/Current mixed input)	Q64AD-GH (*5) × 2 modules	**ERNT-AQT68AD-GH**
A68AD-S2 (Voltage/Current mixed input)		
A68ADN (Voltage/Current mixed input)		
A616AD (Voltage input)	Q68ADV × 2 modules	**ERNT-AQT616AD**
A616AD (Voltage input)	Q68ADI × 2 modules	
A616DAV	Q68DAVN × 2 modules	**ERNT-AQT616DA**
A616DAI	Q68DAIN × 2 modules	

High-Speed Counter Module Conversion Adapter

[1 slot type] (Applicable with Mitsubishi Electric Q-series large-type base units as well)

MELSEC-A series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
AD61	QD62-H01	**ERNT-AQTD61**
AD61-S1	QD62-H02	

Base Adapter

MELSEC-A series module model before replacement	MELSEC-Q series module model after replacement	Base adapter model	Mountable conversion adapter support flange
A38B, A38HB, A38HBEU	Q312B, Q312DB	**ERNT-AQB38**	Conversion adapter support flanges ERNT-AQF12 and ERNT-AQF8
A38B-UL, A38B-E	Q38B, Q38DB	**ERNT-AQB38**	Conversion adapter support flange ERNT-AQF8
A68B, A68B-UL	Q612B	**ERNT-AQB68**	Conversion adapter support flanges ERNT-AQF12 and ERNT-AQF8
	Q68B	**ERNT-AQB68**	Conversion adapter support flange ERNT-AQF8
A58B, A58B-UL	Q68B	**ERNT-AQB58**	Conversion adapter support flange ERNT-AQF8
A35B, A35B-UL	Q38B, Q38DB	**ERNT-AQB35**	Conversion adapter support flanges ERNT-AQF8 and ERNT-AQF5
A35B-E	Q35B	**ERNT-AQB35**	Conversion adapter support flange ERNT-AQF5
A65B, A65B-UL	Q68B	**ERNT-AQB65**	Conversion adapter support flanges ERNT-AQF8 and ERNT-AQF5
	Q65B, Q55B	**ERNT-AQB65**	Conversion adapter support flange ERNT-AQF5
A55B, A55B-UL	Q65B, Q55B	**ERNT-AQB55**	Conversion adapter support flange ERNT-AQF5
A32B, A32B-UL, A32B-E	Q33B	**ERNT-AQB32**	Conversion adapter support flange ERNT-AQF3
A62B	Q63B, Q52B	**ERNT-AQB62**	Conversion adapter support flange ERNT-AQF3
A52B	Q52B	**ERNT-AQB52**	Conversion adapter support flange ERNT-AQF3

Conversion Adapter Support Flange

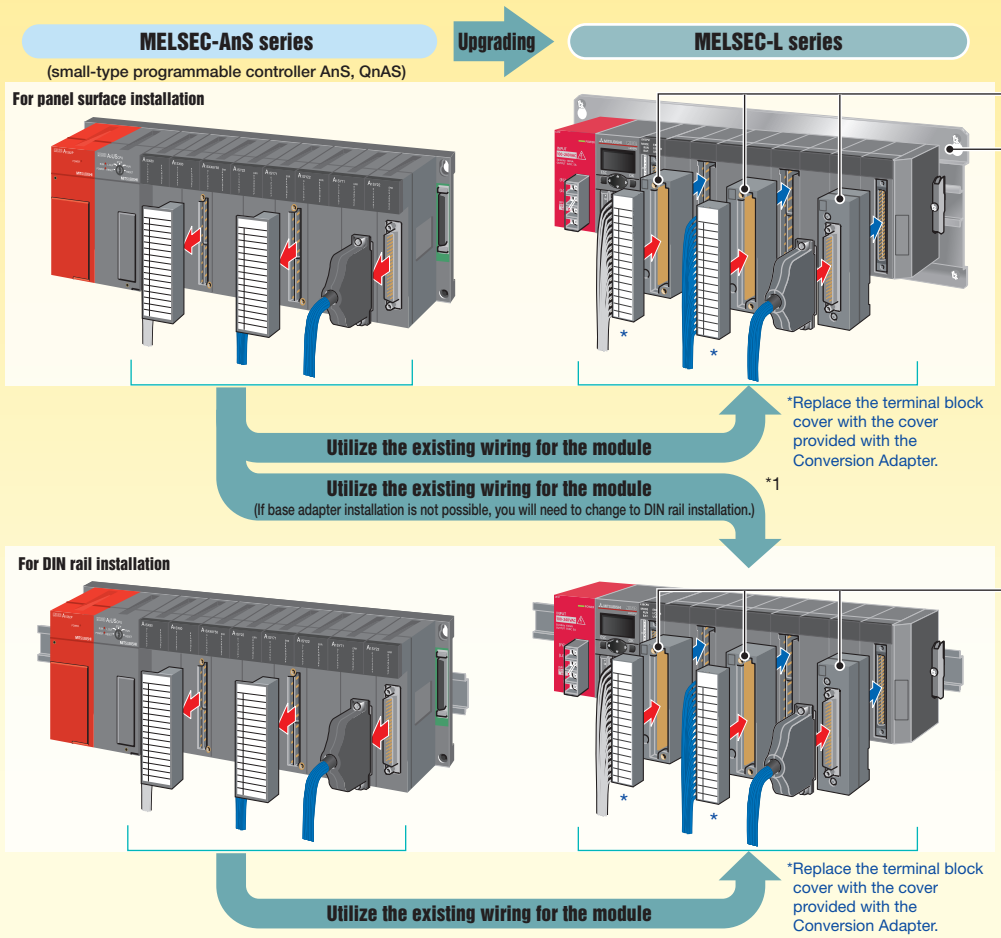
Conversion adapter support flange model	Description	Remarks
ERNT-AQF12	12-slot conversion adapter support flange	A conversion adapter support flange is always required with conversion adapter use.
ERNT-AQF8	8-slot conversion adapter support flange	
ERNT-AQF5	5-slot conversion adapter support flange	
ERNT-AQF3	3-slot conversion adapter support flange	

*1: The input specifications (such as input derating) may differ from those of the existing product. Be sure to verify the specifications prior to use.
*2: The replacement model for AY81/AY81EP is QY81P. However, depending on the rated load current, two QY80 modules can be also used with this base adapter to replace AY81/AY81EP.
*3: AY42-S4 requires a partial wiring change.
*4: At the time of replacement, two modules are required.
*5: In a case where A68AD, A68AD-S2 or A68ADN are connected to both voltage input and current input, replace the module with two Q64AD-GH modules capable of switching the voltage input and current input of each channel.

MELSEC-AnS Series ⇨ MELSEC-L Series Upgrade Tool

Product Overview

This upgrade tool changes the existing wiring for the modules of the Mitsubishi Electric programmable controller MELSEC-AnS series to one applicable to the modules of the MELSEC-L series.



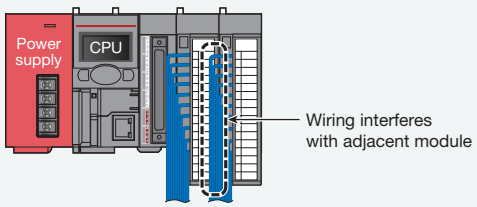
Upgrade Tool Components

1. **Conversion Adapter**
2. **Base Adapter**
   Features a DIN rail integrated structure, allowing installation of the MELSEC-L series base unit using the mounting holes for the MELSEC-AnS series base unit.

1. **Conversion Adapter**

*1: If the MELSEC-L series system does not fit in the base adapter horizontal width dimension after replacement. Verify the installation method following "Selecting the installation method during replacement" on the following page.

If you replace a terminal block type module, the wiring may interfere with an adjacent module. Use of the Mitsubishi Electric LG69 space module is recommended.



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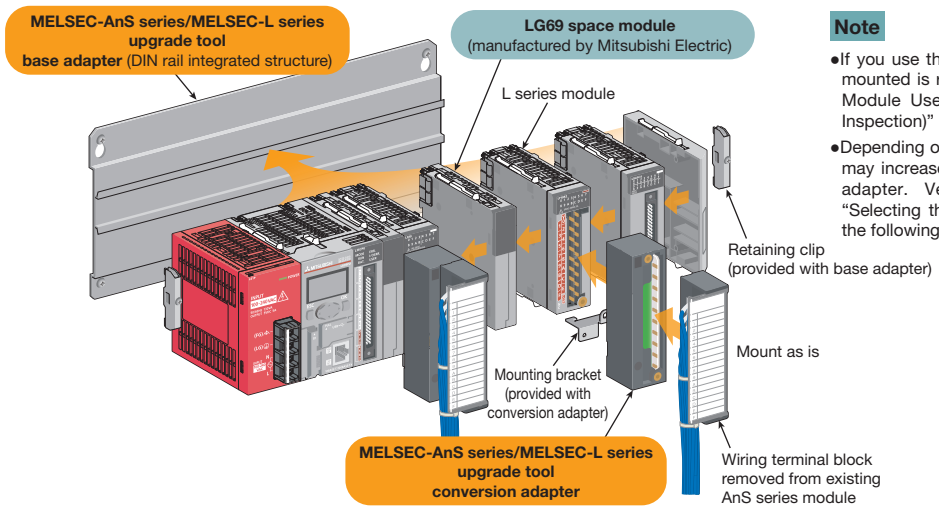
LG69 space module

Ensures wiring space, making it possible to alleviate wiring interface with adjacent modules.



Note

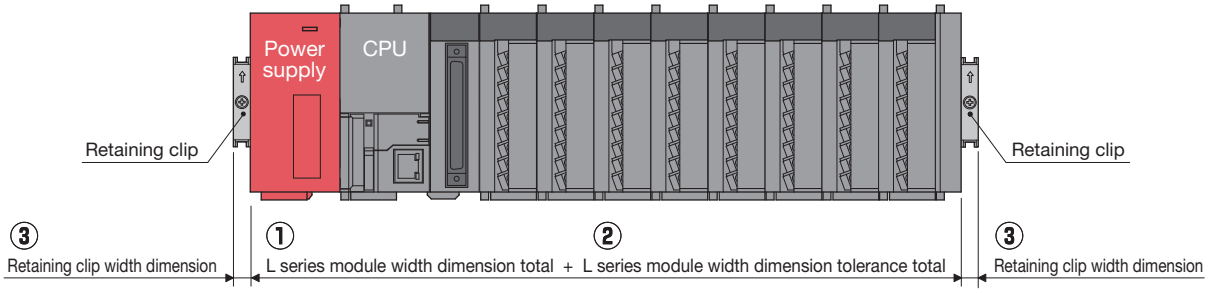
- If you use the LG69 space module, the number of modules mounted is restricted. For details, see the "MELSEC-L CPU Module User's Manual (Hardware Design & Maintenance Inspection)" published by Mitsubishi Electric.
- Depending on the system configuration, the width dimension may increase, making it no longer possible to use the base adapter. Verify the installation method by following "Selecting the Installation Method During Replacement" on the following page.

Selecting the Installation Method During Replacement

The MELSEC-L series features a structure that connects the modules together without a base. As a result, you need to calculate the width dimension of the system after replacement, taking into consideration the width dimension tolerance of each module. The installation method (base adapter or DIN rail) is then determined by the calculation result of the width dimension.

◎Calculating the width dimension of the system after replacement

Calculate the width dimension of the system using the following formula.

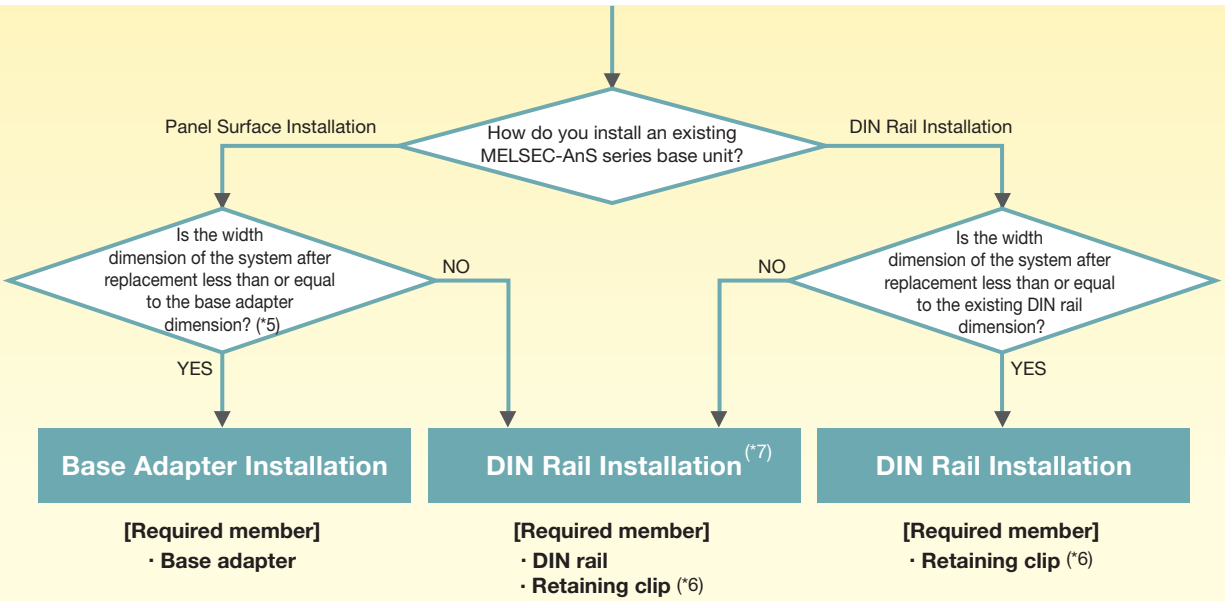


① (*2) ② (*3) ③ (*4)

L series module width dimension total + L series module width dimension tolerance total + Retaining clip width dimension

Automatic calculation of width dimension

The "Upgrade Device Selection Tool" provided by the Web information service MEEFAN automatically calculates the width dimension when you simply select the model.



*2: Dimension stated in the L series module manual

*3: Dimension tolerance (value per module) for L series module width dimension

L series module width dimension	Dimension tolerance
28.5 mm (1.12 inch) or less	+0.5 mm (+0.02 inch) (per module)
Greater than 28.5 mm (1.12 inch)	+1.0 mm (+0.04 inch) (per module)

*4: Width dimension of the retaining clip used (9mm (0.35 inch) per clip and 18 mm (0.70 inch) per two clips if using the retaining clip that comes with the base adapter)

*5: For the width dimension of each base adapter, see dimension A of the External Drawing found in the Upgrade Tool General Catalog.
Example) 430 mm (16.93 inch) for **ERNT-ASLB38.**

*6: Use a retaining clip (user provided clip) that can be mounted to the DIN rail.

*7: If the system after replacement does not fit in the installation space (width), consider the way of connection to divide some parts of the system into extension blocks.

Upgrade Tool List

Input/Output Module Conversion Adapter

[1 module type]

MELSEC-AnS series module model before replacement	MELSEC-L series module model after replacement	Conversion adapter
A1SX10	LX10	**ERNT-ASLTXY10**
A1SX10EU		
A1SY10	LY10R2	
A1SY10EU		
A1SX40	LX40C6	**ERNT-ASLTX40**
A1SX40-S1		
A1SX40-S2		
A1SX80	LX40C6	**ERNT-ASLTX80**
A1SX80-S1		
A1SX80-S2		
A1SY22	LY20S6	**ERNT-ASLTY22**
A1SY40	LY40NT5P	**ERNT-ASLTY40**
A1SY40P		
A1SY50	LY40NT5P	**ERNT-ASLTY50**
A1SY80	LY40PT5P	**ERNT-ASLTY80**
A1SX81	LX41C4	**ERNT-ASLCXY81**
A1SX81-S2		
A1SY81	LY41PT1P	
A1SY81EP		

The input/output and intelligent function modules (positioning module, information system module, distribution model, etc.) in the table below are not conversion adapter compatible and therefore require rewiring. Be sure to verify that the MELSEC-L series module specifications satisfy the specifications of connected devices and equipment.

MELSEC-AnS series module model before replacement	MELSEC-L series module model after replacement
A1SX20	LX28 × 2 modules
A1SX20EU	
A1SX30	LX40C6 (24VDC)
A1SY14EU	LY10R2
A1SX48Y18	LX40C6 + LY10R2
A1SX48Y58	LX40C6 + LY40NT5P
A1SY18A	LY18R2A
A1SY18AEU	
A1SY28A	LY28S1A
A1SY28EU	
A1SY60	There no applicable MELSEC-L series module.
A1SY60E	
A1SY68A	
A1SY71	
A1S42X	
A1S42Y	

The input/output modules in the table below can use the existing wiring as is.
Be sure to verify that the MELSEC-L series module specifications satisfy the specifications of connected devices and equipment.

Input/Output	MELSEC-AnS series module model before replacement	MELSEC-L series module model after replacement
Input	A1SX41	LX41C4 (24VDC)
	A1SX41-S1	LX41C4
	A1SX41-S2	
	A1SX42	LX42C4 (24VDC)
	A1SX42-S1	LX42C4
	A1SX42-S2	
	A1SX71	LX41C4 (24VDC)
	A1SX82-S1	LX42C4
Output	A1SY41	LY41NT1P
	A1SY41P	
	A1SY42	LY42NT1P
	A1SY42P	
	A1SY82	LY42PT1P
Combined input/output	A1SH42	LH42C4NT1P (24VDC)
	A1SH42P	
	A1SH42-S1	LH42C4NT1P
	A1SH42P-S1	

Analog Module Conversion Adapter

[1 module type]

MELSEC-AnS series module model before replacement	MELSEC-L series module model after replacement	Conversion adapter
A1S64AD	L60AD4	**ERNT-ASLT64AD**
A1S62DA	L60DA4	**ERNT-ASLT62DA**

High-Speed Counter Module Conversion Adapter

[1 module type]

MELSEC-AnS series module model before replacement	MELSEC-L series module model after replacement	Conversion adapter
A1SD61	LD62	**ERNT-ASLTD61**
A1SD62	LD62	**ERNT-ASLTD62**

Base Adapter

MELSEC-AnS series module model before replacement	Conversion adapter	Replacement precautions
A1S38B	**ERNT-ASLB38**	–
A1S38HB		
A1S35B	**ERNT-ASLB35**	–
A1S33B	**ERNT-ASLB33**	If extension blocks are connected, the number of modules that can be mounted is two (*8).
A1S32B	**ERNT-ASLB32**	If extension blocks are connected, the number of modules that can be mounted is one (*8).
A1SJCPU	**ERNT-ASLBJ**	–
A1SJCPU-S3		
A1SJHCPU		
A1S68B	**ERNT-ASLB68**	–
A1S65B	**ERNT-ASLB65**	–
A1S58B	**ERNT-ASLB58**	–
A1S55B	**ERNT-ASLB55**	–
A1S52B	**ERNT-ASLB52**	The number of modules that can be mounted is one (*8).

*8: Module with a width dimension of 28.5mm.

AnS Q series MELSEC-AnS Series ⇨ MELSEC-Q Series Upgrade Tool

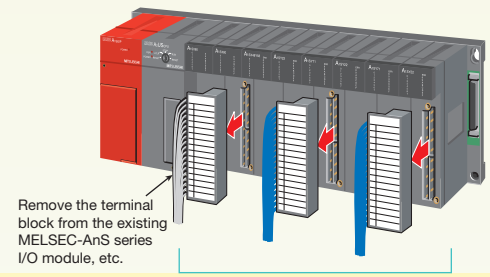
Product Overview

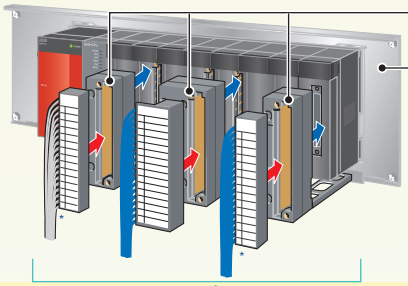
This upgrade tool changes the existing wiring for the modules of the Mitsubishi Electric programmable controller MELSEC-AnS series to one applicable to the modules of the MELSEC-Q series.

MELSEC-AnS series (small-type programmable controller AnS, QnAS) **Upgrading** **MELSEC-Q series**

Upgrade Tool Components

For panel surface installation





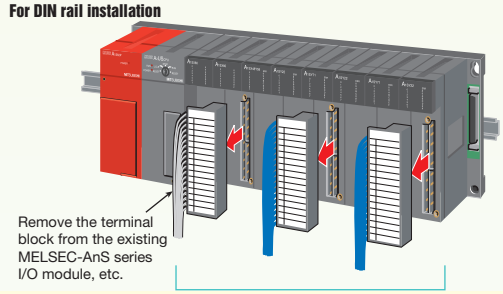
1 **Conversion Adapter**

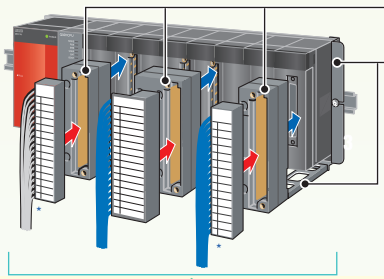
2 **Base Adapter**
Allows installation of the MELSEC-Q series base unit using the mounting holes for the MELSEC-AnS series base.

Utilize the existing wiring for the module

*Replace the terminal block cover with the cover provided with the Conversion Adapter. (Excluding the two-slot type)

For DIN rail installation





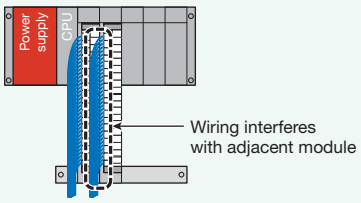
1 **Conversion Adapter**

3 **Conversion adapter DIN rail mounting bracket**
Required when using a conversion adapter with a support flange and a disconnection detection connector conversion cable for a temperature control module with DIN rail installation.
(A DIN rail mounting adapter manufactured by Mitsubishi Electric is separately required.)

Utilize the existing wiring for the module

*Replace the terminal block cover with the cover provided with the Conversion Adapter. (Excluding the two-slot type)

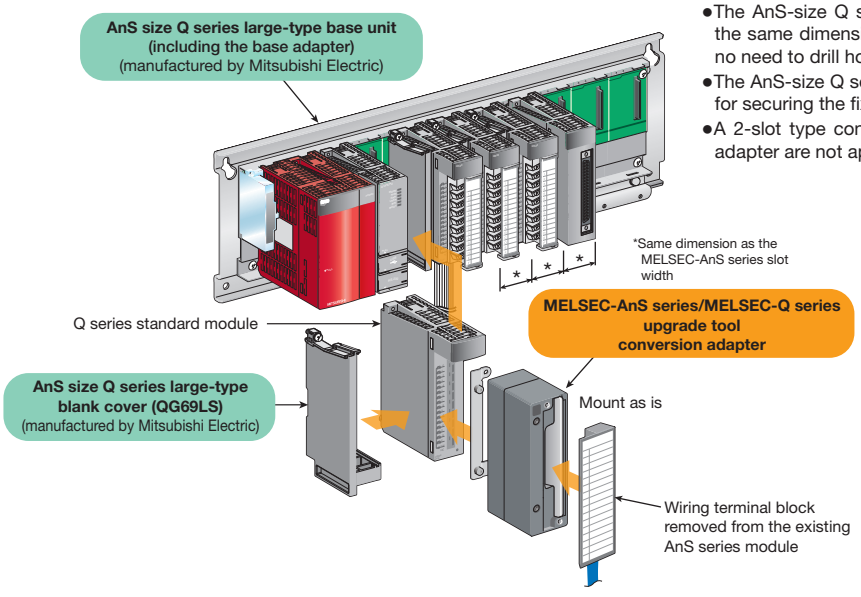
If the wiring interferes with an adjacent module, wiring space can be secured by utilizing the AnS-size Q series large-type base unit.



MITSUBISHI ELECTRIC CORPORATION **For MELSEC-AnS Series (small-type) ⇨ MELSEC-Q Series**

AnS-size Upgrading using the Q series large-type base unit

The slot width of the AnS-size Q series large-type base unit is the same as the slot width of the MELSEC-AnS series (small-type) base unit, alleviating wiring interference with adjacent modules.



- The AnS-size Q series large-type base unit (panel mounting type) has the same dimensions as the MELSEC-AnS (small-type) series. There is no need to drill holes for mounting during installation.
- The AnS-size Q series large-type base unit is provided with screw holes for securing the fixture that comes with the conversion adapter.
- A 2-slot type conversion adapter and a partial 1-slot type conversion adapter are not applicable.

AnS-size Q Series Large-Type Base Unit List

[Panel mounting type]

AnS series model	Q series large-type base model
A1S35B	Q35BLS
A1S38B	Q38BLS
A1S65B	Q65BLS
A1S68B	Q68BLS
A1S55B	Q55BLS

[DIN rail mounting type]

AnS series model	Q series large-type module model
A1S35B	Q35BLS-D
A1S38B	Q38BLS-D
A1S65B	Q65BLS-D
A1S68B	Q68BLS-D
A1S55B	Q55BLS-D

AnS-size Q Series Large-Type Blank Cover

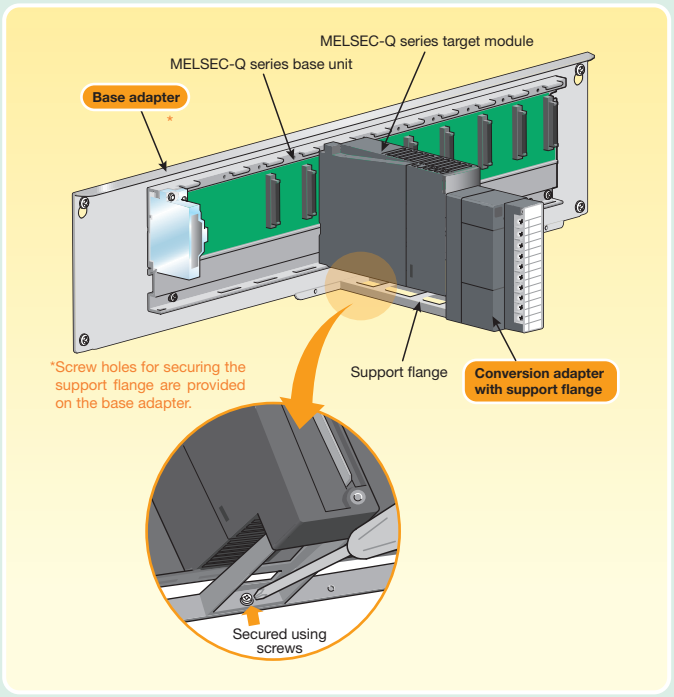
AnS series model	Q series large-type blank cover model
-	QG69LS

Installing the conversion adapter with support flange

When using the conversion adapter with a support flange, reliably secure the support flange to the base adapter (with panel surface mounting) or conversion adapter DIN rail mounting bracket (with DIN rail mounting) using screws.

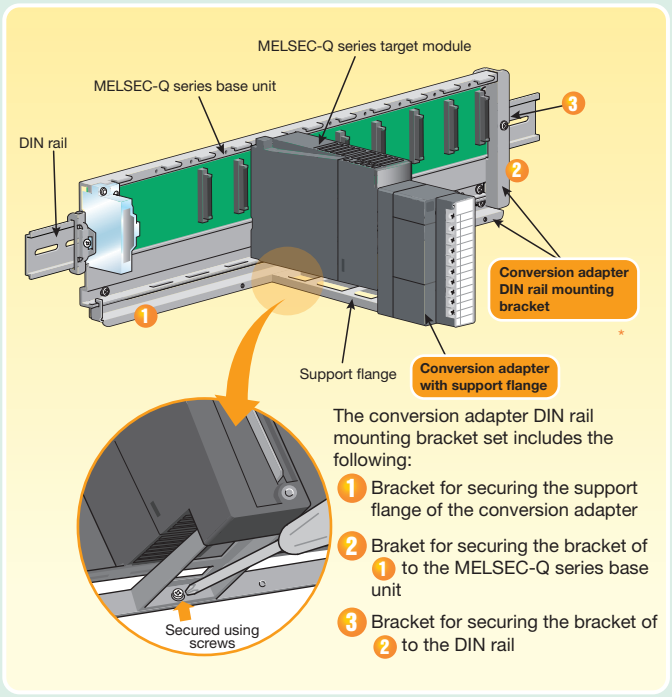
Panel surface installation

Install the base adapter using the mounting holes for the MELSEC-AnS series base unit. Then, install the MELSEC-Q series base unit to the base adapter.
Some conversion adapters for MELSEC-Q series modules have a support flange (refer to *2 for the tables on the page 9). When installing a conversion adapter with a support flange, make sure to secure the support flange to the base adapter using a screw.



DIN rail installation

Use the DIN rail for the MELSEC-AnS series base unit to install the MELSEC-Q series base unit. In this case, a DIN adapter manufactured by Mitsubishi Electric is separately required.
Some conversion adapters for MELSEC-Q series modules have a support flange (refer to *2 for the tables on the page 9). When installing a conversion adapter with a support flange, prepare a conversion adapter DIN rail mounting bracket set separately. Make sure to secure the support flange of the conversion adapter to the conversion adapter DIN rail mounting bracket 1 using a screw.



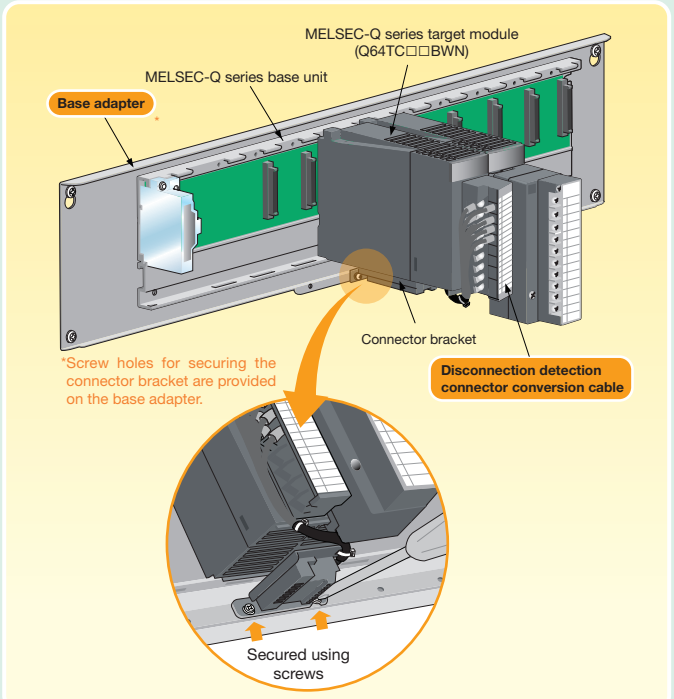
The conversion adapter DIN rail mounting bracket set includes the following:

1. Bracket for securing the support flange of the conversion adapter
2. Braket for securing the bracket of 1 to the MELSEC-Q series base unit
3. Bracket for securing the bracket of 2 to the DIN rail

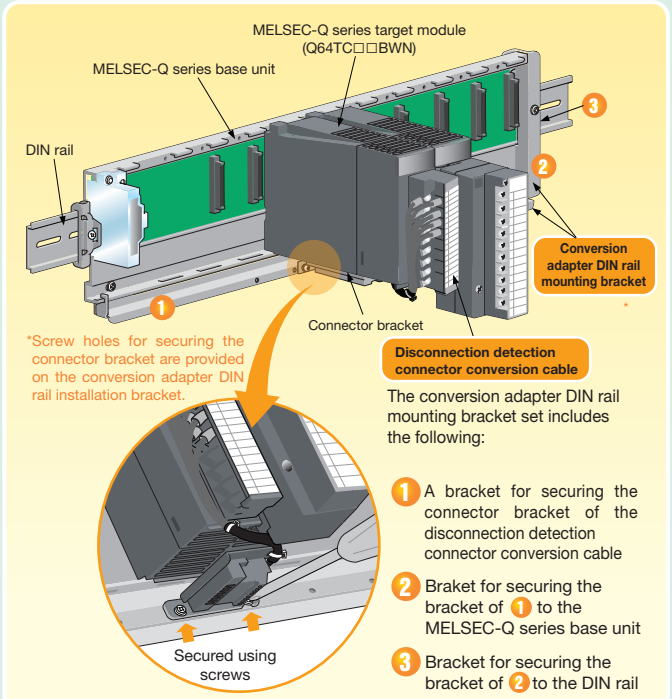
Installing the disconnection detection connector conversion cable

The disconnection detection connector conversion cable requires a connector bracket to be secured to the base adapter (with panel surface mounting) or the conversion adapter DIN rail mounting bracket (with DIN rail mounting) using screws.

Panel surface installation



DIN rail installation



The conversion adapter DIN rail mounting bracket set includes the following:

1. A bracket for securing the connector bracket of the disconnection detection connector conversion cable
2. Braket for securing the bracket of 1 to the MELSEC-Q series base unit
3. Bracket for securing the bracket of 2 to the DIN rail

Upgrade Tool List

Input/Output Module Conversion Adapter

[1 slot type] (Applicable with Mitsubishi Electric Q series large-type base units as well)

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A1SX10	QX10	**ERNT-ASQTXY10**
A1SX10EU		
A1SX40	QX40, QX70	**ERNT-ASQTX40**
A1SX40-S2	QX40	
A1SX40-S1	QX40-S1	
A1SX80	QX80	**ERNT-ASQTX80**
A1SX80-S1		
A1SX80-S2		
A1SY10	QY10	**ERNT-ASQTXY10**
A1SY10EU		
A1SY22	QY22	**ERNT-ASQTY22**
A1SY40(P)	QY40P	**ERNT-ASQTY40**
A1SY50	QY50	**ERNT-ASQTY50**
A1SY80	QY80	**ERNT-ASQTY80**

[2 slot type] (Not applicable with Mitsubishi Electric Q series large-type base units)

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A1SX20	QX28 × 2 modules	**ERNT-ASQTX20**
A1SX20EU		
A1SY60	QY68A × 2 modules	**ERNT-ASQTY60**
A1SY60E		**ERNT-ASQTY60E**

The input/output modules in the table below can use the existing wiring as is. Be sure to verify that the MELSEC-Q series module specifications satisfy the specifications of connected devices and equipment.

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement
A1SX41	QX41 (24VDC), QX41-S2 (24VDC), QX71 (12VDC)
A1SX41-S2	QX41, QX41-S2
A1SX41-S1	QX41-S1
A1SX71	QX71 (5VDC, 12VDC), QX41-S1 (24VDC positive common)
A1SX81	QX81 (24VDC negative common), QX81-S2 (24VDC negative common)
A1SX81-S2	QX81, QX81-S2
A1SX42	QX42 (24VDC), QX41-S2 (2 modules are required, 24VDC), QX72 (12VDC)

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement
A1SX42-S2	QX42, QX41-S2 (2 modules are required)
A1SX42-S1	QX42-S1
A1SX82-S1	QX82-S1 (negative common)
A1SY41	QY41P
A1SY41P	
A1SY81	QY81P
A1SY81EP	
A1SY71	QY71
A1SY42	QY42P
A1SY42P	
A1SY82	QY82P
A1SH42	QH42P (24VDC input)
A1SH42P	
A1SH42-S1	QH42P
A1SH42P-S1	

Analog Module Conversion Adapter

[1 slot type]

(Applicable with Mitsubishi Electric Q series large-type base units as well, *1: Product not mountable.)

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A1S64AD	Q64AD	ERNT-ASQT64AD
A1S68AD (Voltage input)	Q68ADV	ERNT-ASQT68AD
A1S68AD (Current input)	Q68ADI	
A1S68AD	Q68AD-G	ERNT-ASQT68AD-G (*1,2)
A1S62DA	Q62DAN	ERNT-ASQT62DA
A1S68DAV	Q68DAVN	ERNT-ASQT68DA
A1S68DAI	Q68DAIN	
A1S63ADA	Q64AD2DA	ERNT-ASQT63ADA (*1)

High-Speed Counter Module Conversion Adapter

[1 slot type] (Applicable with Mitsubishi Electric Q series large-type base units as well)

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A1SD61	QD62	ERNT-ASQTD61 (*2)
	QD62-H01	
	QD62-H02	
A1SD62	QD62	ERNT-ASQTD62 (*2)
A1SD62E	QD62E	
A1SD62D	QD62D	ERNT-ASQTD62D (*2)

For Temperature Input Modules

[1 slot type]

(Applicable with Mitsubishi Electric Q series large-type base units as well, *1: Product not mountable.)

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A1S68TD	Q68TD-G-H01	ERNT-ASQT68TD-H01 (*2)
	Q68TD-G-H02	ERNT-ASQT68TD-H02 (*1,2)
A1S62RD3(N)	Q64RD	ERNT-ASQT62RD
A1S62RD4(N)		

Temperature Control Module Conversion Adapter

[1 slot type] (Applicable with Mitsubishi Electric Q series large-type base units as well)

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
A1S64TCTT-S1	Q64TCTTN	**ERNT-ASQT64TCTT**
A1S64TCTRT (*3)		
A1S64TCRT-S1	Q64TCRTN	**ERNT-ASQT64TCRT**
A1S64TCTRT (*4)		
A1S62TCTT-S2	Q64TCTTN	**ERNT-ASQT62TCTT**
A1S64TCTRT (*5)		
A1S62TCRT-S2	Q64TCRTN	**ERNT-ASQT62TCRT**
A1S64TCTRT (*6)		

Temperature Control Modules with Disconnection Detection Function Conversion Adapter

[1 slot type + Disconnection detection connector conversion cable (*7) **]**

(Not applicable to MELSEC-Q series large type base unit)

The conversion adapter with the disconnection detection connector conversion cable. Use the set model name to order.

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Set model	Conversion adapter
A1S64TCTTBW-S1	Q64TCTTBWN	**ERNT-ASQT64TCTTBW**	ERNT-ASQT64TCTT
A1S64TCTRTBW (*3)			
A1S64TCRTBW-S1	Q64TCRTBWN	**ERNT-ASQT64TCRTBW**	ERNT-ASQT64TCRT
A1S64TCTRTBW (*4)			
A1S62TCTTBW-S2	Q64TCTTBWN	**ERNT-ASQT62TCTTBW**	ERNT-ASQT62TCTT
A1S64TCTRTBW (*5)			
A1S62TCRTBW-S2	Q64TCRTBWN	**ERNT-ASQT62TCRTBW**	ERNT-ASQT62TCRT
A1S64TCTRTBW (*6)			

Base Adapter

Main/ Extension	MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Base adapter model
Main	A1S38B/A1S38HB/A1S38HBEU	Q38B	**ERNT-ASQB38N**
	A1S35B	Q35B	**ERNT-ASQB35N**
	A1S33B	Q33B	**ERNT-ASQB33N**
	A1S32B		**ERNT-ASQB32N**
	A1SJCPU	Q00JCPU Q00UJCPU	**ERNT-ASQB00JN**
	A1SJCPU-S3		
	A1SJHCPU		
Extension	A1S68B	Q68B	**ERNT-ASQB68N**
	A1S65B	Q65B	**ERNT-ASQB65N**
	A1S58B	Q68B	**ERNT-ASQB58N**
	A1S55B	Q55B	**ERNT-ASQB55N**
	A1S52B	Q52B	**ERNT-ASQB52N**

With the following model base adapters, the main base unit and the QA extension base unit QA1S51B can be both installed.

MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement		Base adapter model
	Main	Extension	
A1S38B/A1S38HB/A1S38HBEU	Q38B/Q35B/Q33B	QA1S51B	**ERNT-ASQB38N-S1**
A1S35B	Q35B/Q33B		**ERNT-ASQB35N-S1**
A1S33B	Q33B		**ERNT-ASQB33N-S1**

Conversion Adapter DIN Rail Mounting Bracket

When mounting the MELSEC-Q series base unit to a DIN rail and using a conversion adapter with a support flange, the conversion adapter DIN rail mounting bracket is required. If a conversion adapter with a support flange is not used, this mounting bracket is not required.

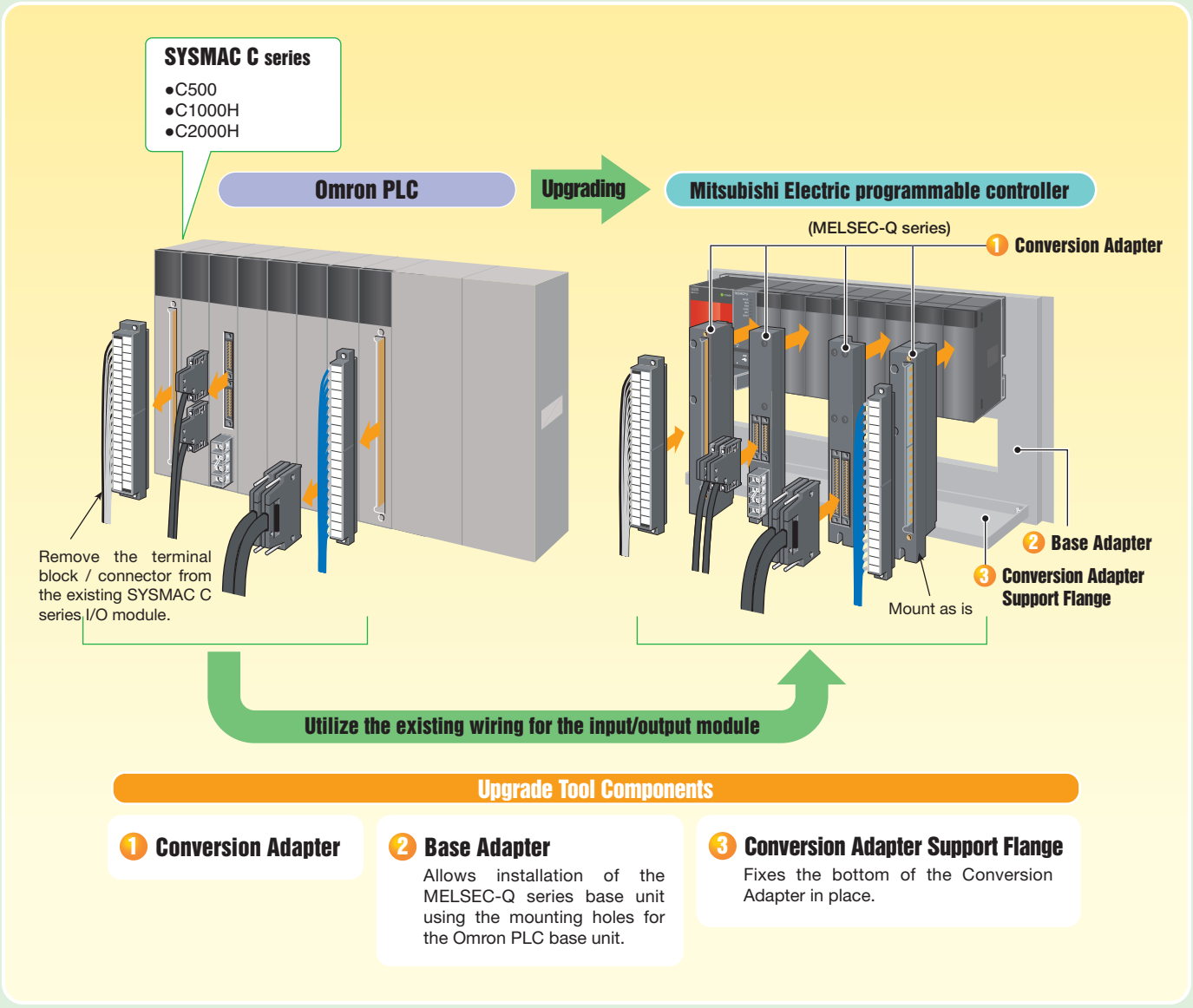
Main/ Extension	MELSEC-AnS series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter (*8) DIN rail mounting bracket model
Main	A1S38B/A1S38HB/A1S38HBEU	Q38B	**ERNT-ASQDIN3868**
Extension	A1S68B	Q68B	
	A1S58B		
Main	A1S35B	Q35B	**ERNT-ASQDIN356500J**
Extension	A1S65B	Q65B	
Main	A1SJCPU	Q00JCPU Q00UJCPU	
	A1SJCPU-S3		
	A1SJHCPU		
	A1S33B	Q33B	**ERNT-ASQDIN3355**
	A1S32B		
Extension	A1S55B	Q55B	
	A1S52B	Q52B	**ERNT-ASQDIN52**

*1: Reason: The Q series large type blank cover QG69LS cannot be mounted to MELSEC-Q series modules.
*2: A conversion adapter with a support flange. When using a conversion adapter with a support flange, be sure to secure the support flange to the base adapter or the conversion adapter DIN rail mounting bracket with a screw.
*3: For thermocouple input under standard control.
*4: For platinum RTD input under standard control.
*5: For thermocouple input under heating and cooling control.
*6: For platinum RTD input under heating and cooling control.
*7: Secure the connector bracket of the disconnection detection connector conversion cable securely to the base adapter or conversion adapter DIN rail mounting bracket with a screw, as illustrated on the right.
*8: A DIN rail mounting adapter manufactured by Mitsubishi Electric is separately required.

SYSMAC C Series ⇨ MELSEC-Q Series Upgrade Tool

Product Overview

This upgrade tool consists of a Conversion Adapter and Program Converter. The Conversion Adapter changes the existing wiring for Omron PLC SYSMAC C series input/output modules to one applicable to the MELSEC-Q series. The Program Converter converts the sequence program.



Upgrade Tool Components

1 Conversion Adapter

2 Base Adapter

Allows installation of the MELSEC-Q series base unit using the mounting holes for the Omron PLC base unit.

3 Conversion Adapter Support Flange

Fixes the bottom of the Conversion Adapter in place.

Upgrade Tool List

Input/Output Module Conversion Adapter

[1 slot type]

MELSEC-C series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
C500-IA121	QX10	**ERNT-CQTX121**
C500-ID112	QX70	**ERNT-CQTX112213**
C500-ID213	QX40, QX40-S1	
C500-ID215	QX41	**ERNT-CQTX215218**
C500-ID218	QX41, QX41-S1	
C500-ID218CN	QX41, QX41-S1	**ERNT-CQCX218501**
C500-ID501CN	QX71	
C500-ID114	QX72	**ERNT-CQCX114219**
C500-ID219	QX42, QX42-S1, QX82	
C500-OC221	QY10	**ERNT-CQTY221**
C500-OA121	QY22	**ERNT-CQTY226**
C500-OA222	QY22	
C500-OA226	QY22	
C500-OD219	QY40P, QY50	**ERNT-CQTY219217**
C500-OD217	QY40P, QY50	
C500-OD411	QY40P, QY50	**ERNT-CQTY411**
C500-OD412	QY41P	**ERNT-CQTY412**
C500-OD414	QY41P	**ERNT-CQTY414218** (*1)
C500-OD218	QY41P	
C500-OD415CN	QY41P	**ERNT-CQCY415**
C500-OD501CN	QY71	**ERNT-CQCY501**
C500-OD213	QY42P	**ERNT-CQCY213**

[2 slot type]

MELSEC-C series module model before replacement	MELSEC-Q series module model after replacement	Conversion adapter
C500-IA122	QX10 × 2 module	**ERNT-CQTX122**
C500-OC224	QY10 × 2 module	**ERNT-CQTY224**
C500-OA225	QY22 × 2 module	**ERNT-CQTY225**
C500-OD218	QY50 × 2 module	**ERNT-CQTY218** (*1)
C500-OD414		

*1: In a case where the switching capacity (load current) cannot be satisfied with a 1-slot type (QY41P), satisfaction can be achieved using a 2-slot type (QY50 × 2 modules).

Base Adapter

CYCMAC C series module model before replacement	MELSEC-Q series module model after replacement	Base adapter model	Mountable conversion adapter support flange
C500-BC081/082 C500-BC091 C2000-BC061 C500-BI081 C2000-BI083	Q312B Q38B Q612B, Q68B	**ERNT-CQB081**	Conversion adapter support flanges ERNT-AQF12 and ERNT-AQF8
C500-BC051/052 C500-BC061 C500-BI051	Q38B, Q35B Q68B, Q65B, Q55B	**ERNT-CQB051**	Conversion adapter support flanges ERNT-AQF12 and ERNT-AQF8
C500-BC031	Q35B, Q33B	**ERNT-CQB031**	Conversion adapter support flange ERNT-AQF5

Conversion Adapter Support Flange

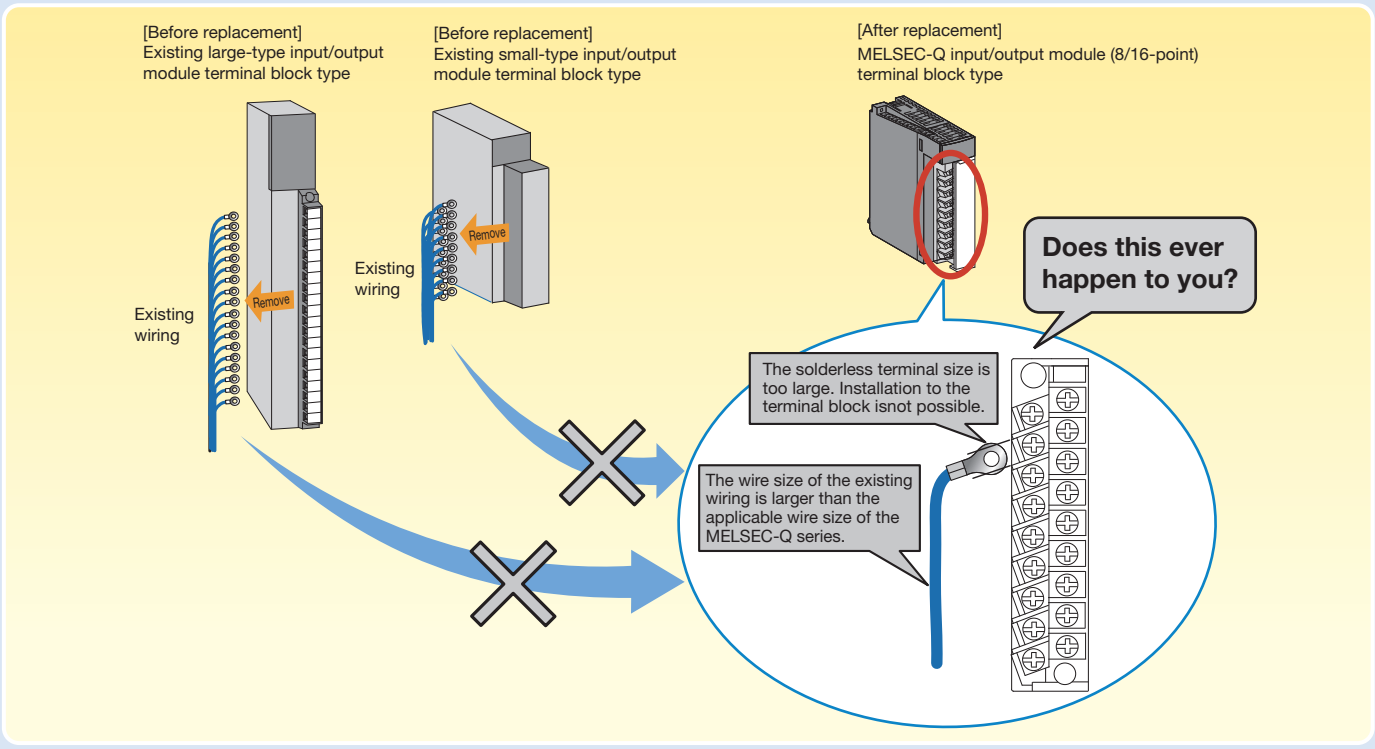
Conversion adapter support flange model	Description	Remarks
ERNT-QF12	12-slot conversion adapter support flange	A conversion adapter support flange is always required with conversion adapter use.
ERNT-QF8	8-slot conversion adapter support flange	
ERNT-QF5	5-slot conversion adapter support flange	

Non-Mitsubishi Q series

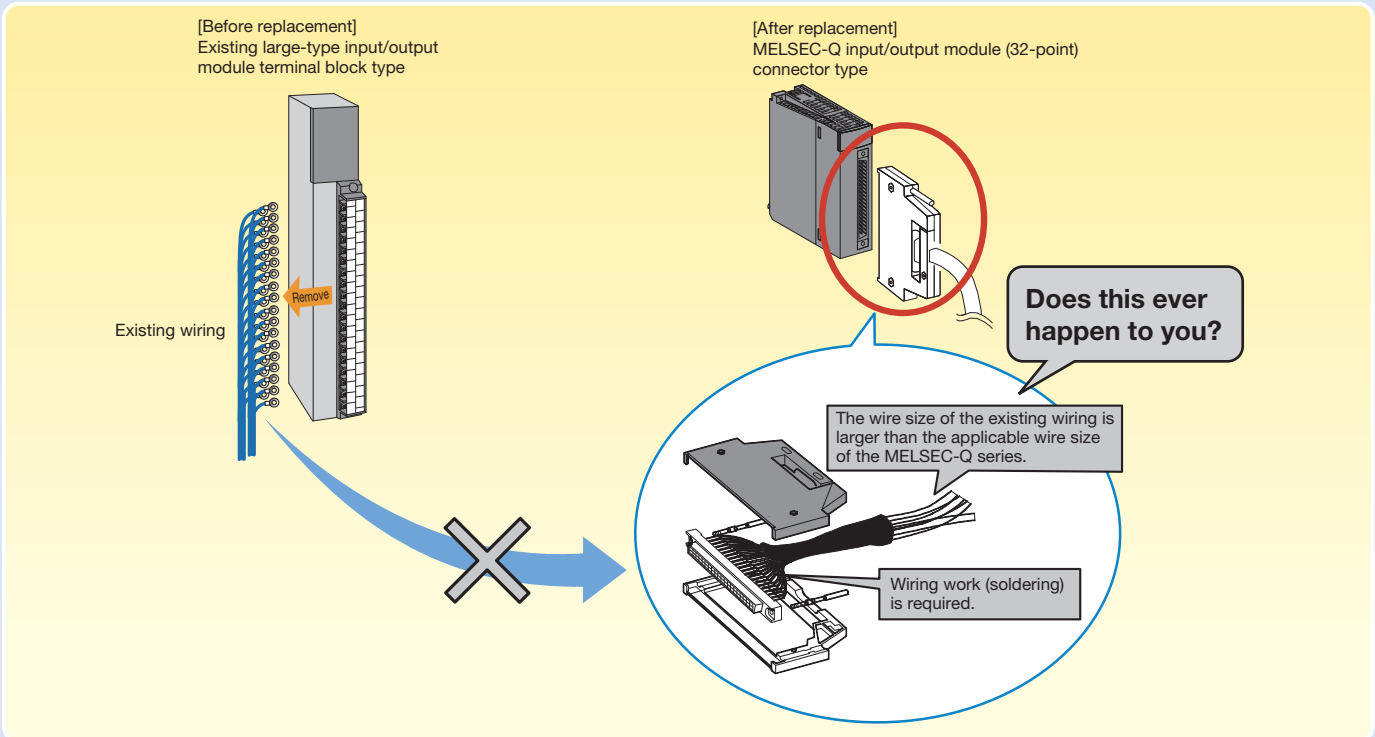
Non-Mitsubishi PLC ⇨ MELSEC-Q Series Upgrade Tool "Universal Conversion Adapter"

Product Overview

•When you want to replace a non-Mitsubishi PLC (terminal block type) with the MELSEC-Q series (terminal block type), but there is a problem



•When you want to replace a non-Mitsubishi PLC (terminal block type) with the MELSEC-Q series (connector type), but there is a problem



Consider the use of the "universal conversion adapter" as a solution.

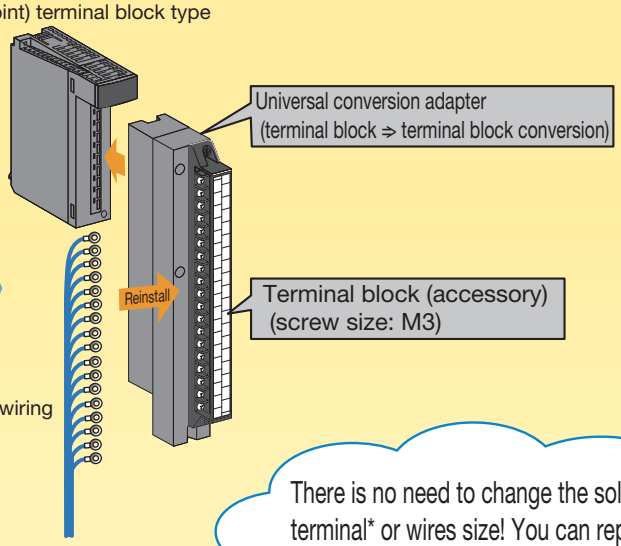
If the specifications of your existing connected devices satisfy MELSEC-Q series input/output module specifications, you can use the universal conversion adapter for replacement, regardless of the manufacturer of the existing programmable controller!

Note that this product (universal conversion adapter) is designed under the premises that rewiring (reinstallation of existing wiring to the terminal block) will be performed by the user.

No more frustrations when replacing your non-Mitsubishi PLC with the Mitsubishi MELSEC-Q series!

When replacing a non-Mitsubishi PLC (large type) with the MELSEC-Q series

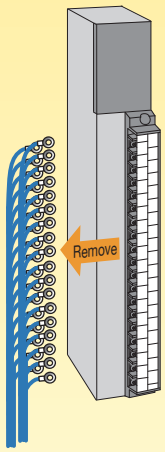
[After replacement]
MELSEC-Q input/output module
(8/16-point) terminal block type



[Before replacement]
Existing large-type input/output
module terminal block type

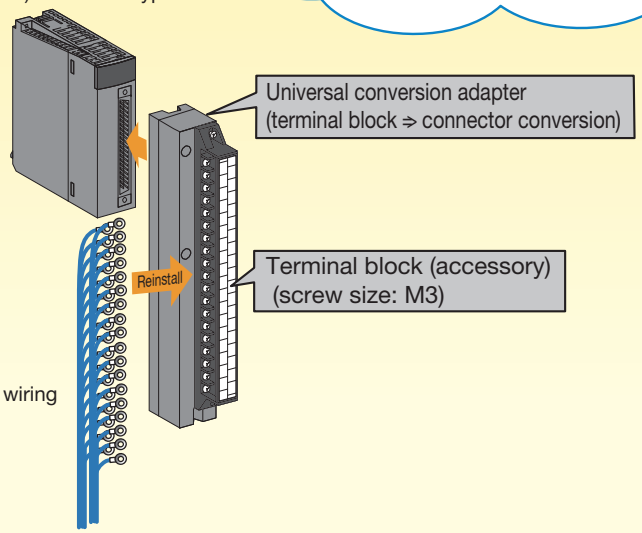
Sharp	JW50H/JW70H/JW100H
Yaskawa Electric	GL40S/GL60S/GL60H/GL70H
Fuji Electric	F120S/F140S/F150S
	etc.

Rewiring using the existing wiring



There is no need to change the solderless terminal* or wires size! You can replace the controller using the existing wiring.
(*If the solderless terminal size is not compatible, the terminals need to be replaced.)

[After replacement]
MELSEC-Q input/output module
(32-point) connector type

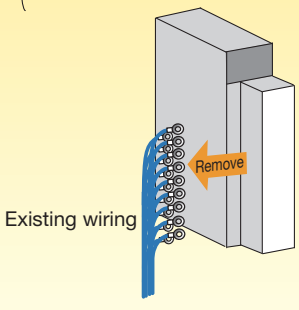


Rewiring using the existing wiring

When replacing a non-Mitsubishi PLC (small type) with the MELSEC-Q series

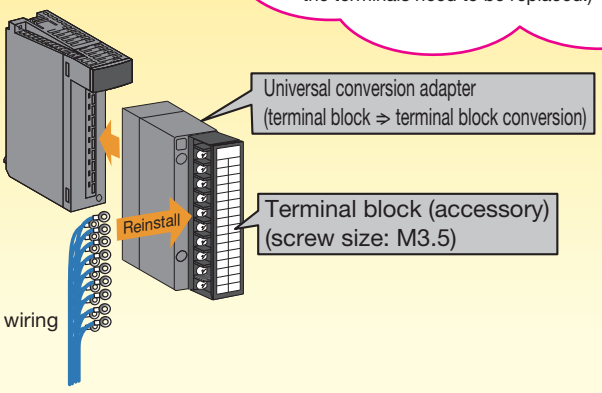
[Before replacement]
Existing small-type input/output
module terminal block type

OMRON	C200H/C200HS/C200HX/C200HE/C200HG
Sharp	JW20H/JW30H/JW300
Fuji Electric	F55/F70
	etc.



Rewiring using the existing wiring

[After replacement]
MELSEC-Q input/output module
(8/16-point) terminal block type

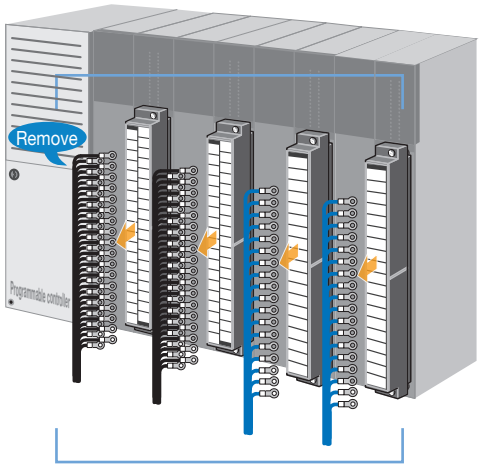


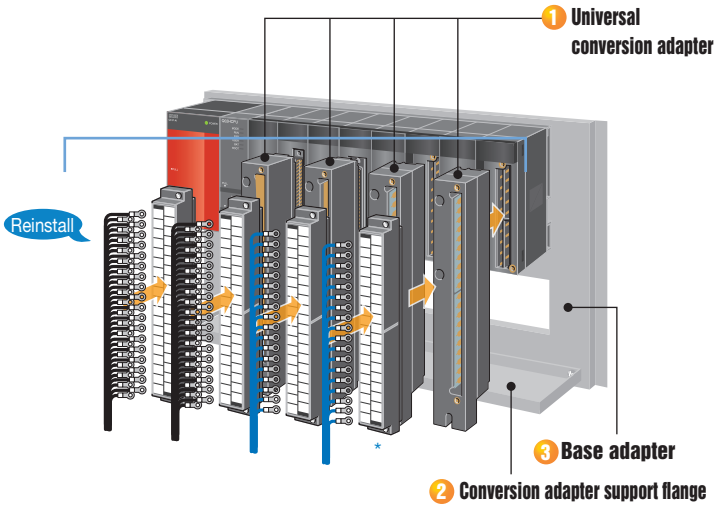
There is no need to change the solderless terminal* or wires size! You can replace the controller using the existing wiring.
(*If the solderless terminal size is not compatible, the terminals need to be replaced.)

Schematic Diagram for Replacing a Non-Mitsubishi PLC (Large Type) with the MELSEC-Q Series

Non-Mitsubishi PLC(large type) → **Replace** → **MELSEC-Q series**

Sharp	JW50H/JW70H/JW100H
Yaskawa Electric	GL40S/GL60S/GL60H/GL70H
Fuji Electric	F120S/F140S/F150S
	etc.





Rewiring using the existing wiring of the terminal block type input/output module

* Use the terminal block provided as an accessory with the universal conversion adapter (38-point terminal block).

1 Universal conversion adapter (large type)

Signals of the MELSEC-Q series module are directly indicated on the terminal block.

2 Conversion adapter support flange

Secure the bottom of the conversion adapter. For panel surface installation, however, drilling screw holes (M4 screw, 2 locations) is required. Note that drilling screw holes is not required when a base adapter is used.

3 Base adapter

The MELSEC-Q series base unit and conversion adapter support flange can be installed simultaneously without drilling screw holes (six locations). However, the user has to drill screw holes (M5 screws) and obtain four M5 screws for panel surface installation.

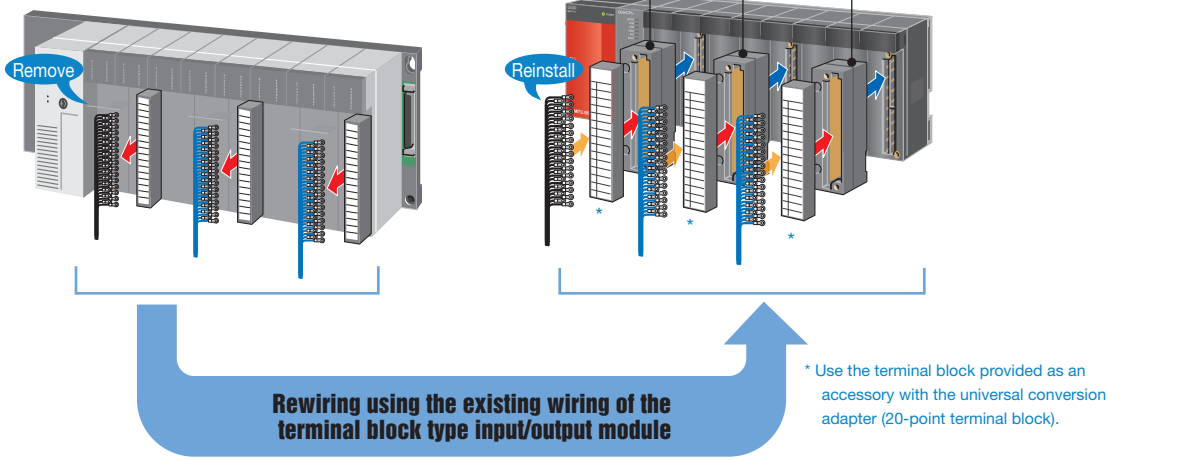
Point

The universal conversion adapter (large type) can be used in the system after replacing the MELSEC-A series or SYSMAC C series with the MELSEC-Q series using the upgrade tool. The universal conversion adapter can be also used with Mitsubishi Electric Q series large type base units (Q□□BL).

Schematic Diagram for Replacing a Non-Mitsubishi PLC (Small Type) with the MELSEC-Q Series

Non-Mitsubishi PLC(small type) → **Replace** → **MELSEC-Q series**

Omron	C200H/C200HS/C200HX/ C200HE/C200HG
Sharp	JW20H/JW30H/JW300
Fuji Electric	F55/F70
	etc.



Rewiring using the existing wiring of the terminal block type input/output module

* Use the terminal block provided as an accessory with the universal conversion adapter (20-point terminal block).

1 Universal conversion adapter (small type)

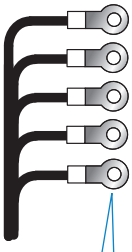
Signals of the MELSEC-Q series module are directly indicated on the terminal block.

Point

The universal conversion adapter (small type) can be used in the system after replacing the MELSEC-AnS series with the MELSEC-Q series using the upgrade tool. The universal conversion adapter can be also used with the Mitsubishi Electric AnS-size Q series large-type base units (Q□□BLS, Q□□BLS-D).

Replacement flow

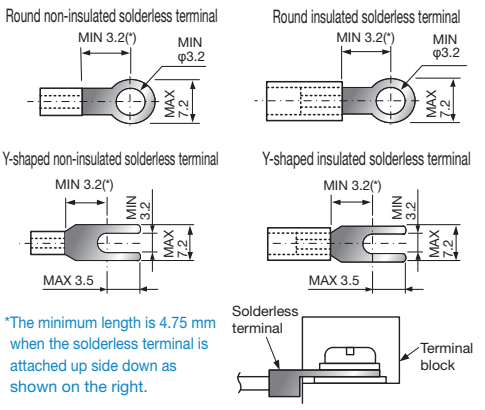
(1) Remove the existing wiring from the terminal block of the existing module.
(2) Check the solderless terminal.



- Check the dimensions of the solderless terminal.
- If the solderless terminal is not compatible, the terminal needs to be changed.

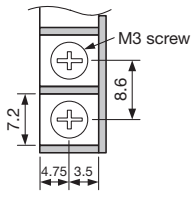
Universal conversion adapter for the large type

• Applicable solderless terminal — Unit: mm



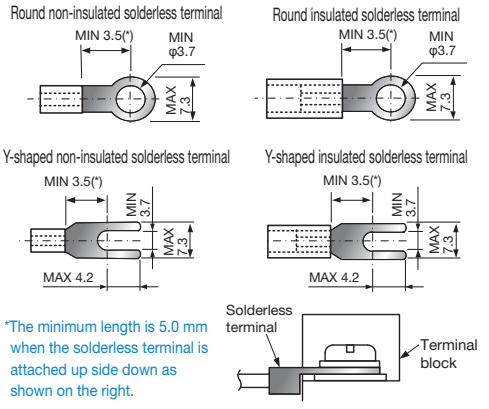
*The minimum length is 4.75 mm when the solderless terminal is attached up side down as shown on the right.

• Terminal block shape — Unit: mm



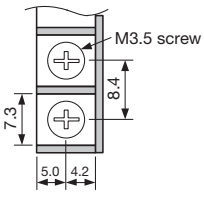
Universal conversion adapter for the small type

• Applicable solderless terminal — Unit: mm



*The minimum length is 5.0 mm when the solderless terminal is attached up side down as shown on the right.

• Terminal block shape — Unit: mm

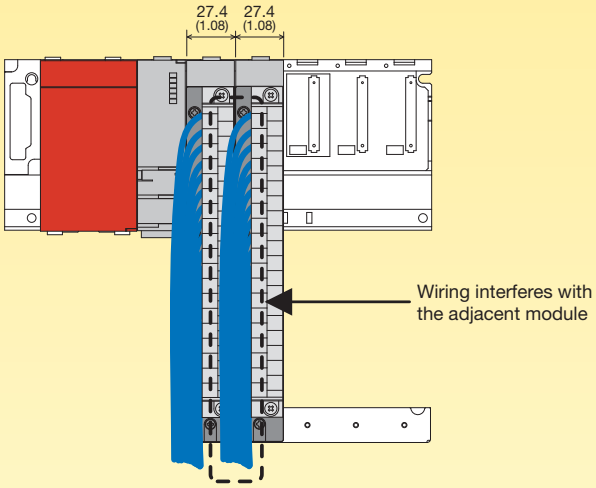


Utilizing the Mitsubishi Electric Q series / AnS-size Q series large-type base unit

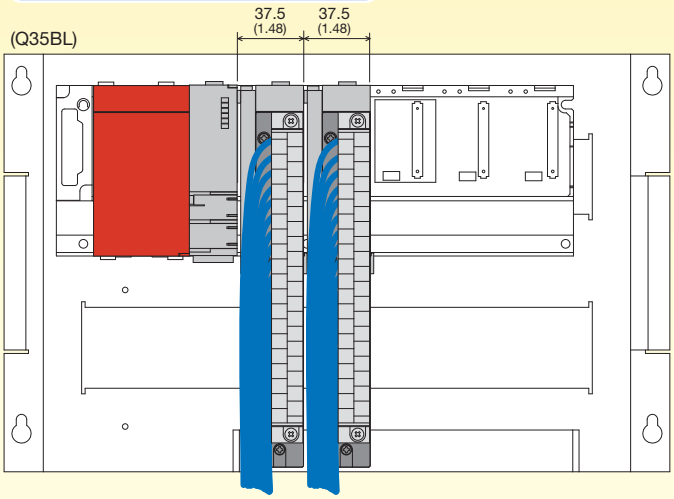
If this is smaller than the width of the existing module, a wiring interference may occur with adjacent modules due to a narrow wiring space. The Mitsubishi Electric Q series large-type base unit (Q□□BL) or AnS-size Q series large-type base unit (Q□□BLS, Q□□BLS-D) can be used to secure a wider space and alleviate the interference.

Universal conversion adapter (large type)

Q series large-type base unit

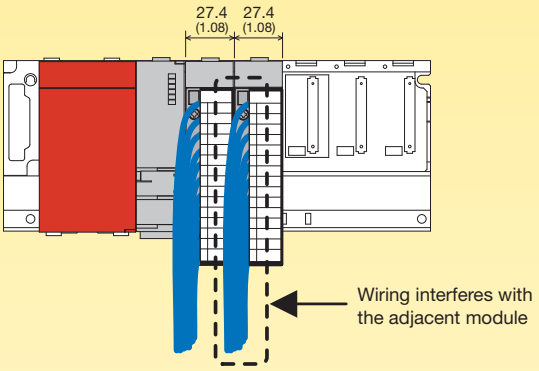


Q series large-type base unit (Q□□BL)

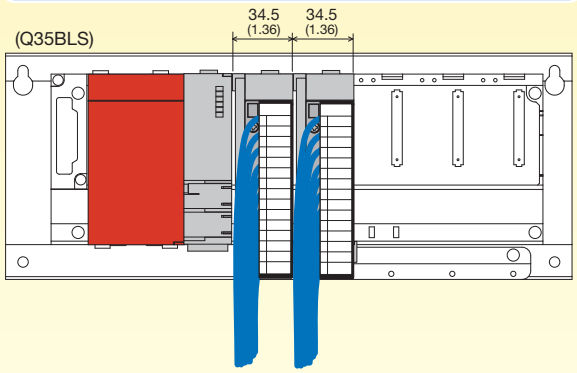


Universal conversion adapter (small type)

Q series large-type base unit



AnS-size Q series large-type base unit (Q□□BLS, Q□□BLS-D)



List of the Q series large-type base units

Main/Extension	Q series large-type base unit model
Main	Q35BL
	Q38BL
Extension	Q65BL
	Q68BL
	Q55BL

List of the AnS-size Q series large-type base units

Main/Extension	Q series large-type base unit model	
	Panel surface installation type	DIN rail installation type
Main	Q35BLS	Q35BLS-D
	Q38BLS	Q38BLS-D
Extension	Q65BLS	Q65BLS-D
	Q68BLS	Q68BLS-D
	Q55BLS	Q55BLS-D

Replacing a Non-Mitsubishi PLC (Large Type) with the MELSEC-Q Series

Model List

Universal Conversion Adapter (Large Type)

Verify that the MELSEC-Q series module electrical specifications satisfy the specifications of existing connected devices.

For input/output module

<1-slot type> (Attachable to the Mitsubishi Electric Q series large-type base unit (Q☐☐BL) as well)

MELSEC-Q series module model after replacement	Conversion adapter
QX10	**ERNT-AQTB20**
QX28	
QX40	
QX40-S1	
QX40H	
QX50	
QX70	
QX70H	
QX80	
QX80H	
QX90H	
QY10	
QY18A	
QY40P	
QY50	
QY68A	
QY70	
QY80	
QX48Y57	
QY22	**ERNT-AQTB20-S1**
QX41	**ERNT-AQTB38**
QX41-S1	
QX41-S2	
QX71	
QY41P	
QY41H	
QY71	
QX81	**ERNT-AQTB38-E**
QX81-S2	
QY81P	

*The terminal block provided as an accessory is a 38-point terminal block.

Point The universal conversion adapter (large type) can be used in the system after replacing the MELSEC-A series or SYSMAC C series with the MELSEC-Q series using the upgrade tool.

Conversion Adapter Support Flange

The product used is the same as the upgrade tool for the MELSEC-A/MELSEC-Q series. The support flange secures the bottom of the conversion adapter. One support flange is required per base unit.

Note

- For panel surface installation, drilling screw holes (M4 screw, 2 locations) is required.
- Drilling screw holes is not required when a base adapter is used.

Conversion adapter support flange model	Specifications
ERNT-AQF12	12-slot conversion adapter support flange
ERNT-AQF8	8-slot conversion adapter support flange
ERNT-AQF5	5-slot conversion adapter support flange
ERNT-AQF3	3-slot conversion adapter support flange

Base Adapter

The product used is the same as the upgrade tool for the MELSEC-A/MELSEC-Q series. Both the MELSEC-Q series base unit and the conversion adapter support flange can be installed on the base adapter without drilling screw holes. For the base unit models marked with *1 to *5, two or more base adapter models are applicable. Select the most suitable base adapter according to the product dimensions.

Note

- The user has to drill screw holes (M5 screw, 4 locations) and obtain four M5 screws for panel surface installation.

Base adapter model	Mountable						Product dimensions
	MELSEC-Q series base unit					Conversion adapter support flange	Width x Height (mm)
	12 slots	8 slots	5 slots	3 slots	2 slots		
ERNT-AQB38	Q312B					**ERNT-AQF12,ERNT-AQF8**	480×240
		Q38B(*1)				**ERNT-AQF8**	
ERNT-AQB35		Q38B(*1)				**ERNT-AQF8,ERNT-AQF5**	382×240
			Q35B			**ERNT-AQF5**	
ERNT-AQB32				Q33B		**ERNT-AQF3**	247×240
ERNT-AQB68	Q612B					**ERNT-AQF12,ERNT-AQF8**	466×240
		Q68B(*2)				**ERNT-AQF8**	
ERNT-AQB65		Q68B(*2)				**ERNT-AQF8,ERNT-AQF5**	352×240
			Q65B(*3)			**ERNT-AQF5**	
			Q55B(*4)				
ERNT-AQB62				Q63B	Q52B(*5)	**ERNT-AQF3**	238×240
ERNT-AQB58		Q68B(*2)				**ERNT-AQF8**	411×240
ERNT-AQB55			Q65B(*3)			**ERNT-AQF5**	297×240
			Q55B(*4)				
ERNT-AQB52					Q52B(*5)	**ERNT-AQF3**	183×240

Replacing a Non-Mitsubishi PLC (Small Type) with the MELSEC-Q Series

Model List

Universal Conversion Adapter (Small Type)

Verify that the MELSEC-Q series module electrical specifications satisfy the specifications of existing connected devices.

For input/output module

<1-slot type> (Attachable to the Mitsubishi Electric AnS-size Q series large-type base units (Q□□BLS, Q□□BLS-D) as well.)

MELSEC-Q series module model before replacement	Conversion adapter
QX10	ERNT-ASQTB20
QX28	
QX40	
QX40-S1	
QX40H	
QX50	
QX70	
QX70H	
QX80	
QX80H	
QX90H	
QY10	
QY18A	
QY22	
QY40P	
QY50	
QY68A	
QY70	
QY80	
QX48Y57	

Point The universal conversion adapter (small type) can be used in the system after replacing the MELSEC-AnS series with the MELSEC-Q series using the upgrade tool.

The universal conversion adapter can be also used to...

- Replace the MELSEC-A series, MELSEC-AnS series, or SYSMAC C series modules, for which conventional conversion adapters are incompatible, with the MELSEC-Q series.
- When the existing connected devices are used with a module with the specification of 8 points/common, a common separation module "QX40H/QX70H/QX80H/QX90H" can be used as replacement.

MELSEC-A series / MELSEC-Q series

<Modules for which conventional conversion adapters are incompatible>

Input/Output	MELSEC-A series module before replacement			MELSEC-Q series module after replacement			
	Model	Specifications*	No. of points	Model	Specifications*	No. of points	No. of required modules
Input	AX20(-UL)	200-240VAC	16 points	QX28	100-240VAC	8 points	2 modules
	AX21(EU)		32 points	QX28			4 modules
	AX80	12/24VDC source	16 points	QX70	5/12VDC positive/negative common	16 points	1 module
	AX80E		16 points	QX70			1 module
	AX81	12/24VDC source	32 points	QX71	5/12VDC positive/negative common	32 points	1 module
	AX81-S1	12/24VDC sink/source	32 points	QX71			1 module
	AX31	12/24VDC 12/24VAC	32 points	QX41	24VDC	32 points	1 module
				QX71	12VDC	32 points	1 module
Output	AY20EU	100-240VAC	16 points	QY22	100-240VAC	16 points	1 module
	AY40A	12/24VDC 0.3A independent	16 points	QY68A	5-24VDC 2A independent	8 points	2 modules
	AY60	24VDC/(12/48VDC) 2A	16 points	QY68A			2 modules
	AY60E		16 points	QY68A			2 modules
	AY60EP	12/24VDC 2A	16 points	QY68A			2 modules
	AY60S(-UL)	24/48VDC/(12VDC) 2A	16 points	QY68A			2 modules
	AY15EU	240VAC 2A	24 points	QY10	240VAC 2A	16 points	2 modules

*Input specifications: Sink = Positive common, Source = Negative common

<Modules for which each common terminal is shared by 8 points>

Input/Output	MELSEC-A series module before replacement			MELSEC-Q series module after replacement			
	Model	Specifications*	No. of points	Model	Specifications*	No. of points	No. of required modules
Input	AX40(-UL)	12/24VDC sink, 8 points/common	16 points	QX40H	24VDC positive common, 8 points/common	16 points	1 module
	AX70(-UL)	5/12/24VDC sink/source, 8 points/common	16 points	QX70H	5VDC positive common, 8 points/common	16 points	1 module
				QX90H	5VDC negative common, 8 points/common	16 points	1 module
	AX80(-UL)	12/24VDC source, 8 points/common	16 points	QX80H	24VDC negative common, 8 points/common	16 points	1 module
	AX80E						

*Input specifications: Sink = Positive common, Source = Negative common

MELSEC-AnS series / MELSEC-Q series

<Modules for which conventional conversion adapters are incompatible>

Input/Output	MELSEC-AnS series module before replacement			MELSEC-Q series module after replacement			
	Model	Specifications*	No. of points	Model	Specifications*	No. of points	No. of required modules
Input	A1SX30	12/24VDC 12/24VAC	16 points	QX40	24VDC positive common	16 points	1 module
Output	A1SY14EU	24VDC/240VAC	12 points	QY10	24VDC/240VAC	16 points	1 module
	A1SY18A(EU)	24VDC/240VAC	8 points	QY18A	24VDC/240VAC	8 points	1 module
	A1SY68A	5/12/24/48VDC sink/source	8 points	QY68A	5-24VDC sink/source	8 points	1 module
Combined input/output	A1SX48Y58	Input 24VDC sink Output 12/24VDC sink	Input 8 points Output 8 points	QX48Y57	Input 24VDC positive common Output 12-24VDC sink	Input 8 points Output 7 points	1 module
	A1SX48Y18	Input 24VDC sink Output 24VDC/240VAC	Input 8 points Output 8 points	QX40+QY10	Input 24VDC positive common Output 24VDC/240VAC	Input 16 points Output 16 points	1 module + 1 module

*Input specifications: Sink = Positive common

SYSMAC C series / MELSEC-Q series

<Modules for which conventional conversion adapters are incompatible>

Input/Output	SYSMAC C series module before replacement			MELSEC-Q series module after replacement			
	Model	Specifications*	No. of points	Model	Specifications*	No. of points	No. of required modules
Input	C500-IA222	200-240VAC	16 points	QX28	100-240VAC	8 points	2 modules
	C500-IA223	200-240VAC	32 points	QX28	100-240VAC	8 points	4 modules
Output	C500-OC223	24VDC/250VAC independent	16 points	QY18A	24VDC/240VAC independent	8 points	2 modules
	C500-OD215	24VDC sink independent	16 points	QY68A	5-24VDC sink/source independent	8 points	2 modules
	C500-OD212	12-24VDC source	32 points	QY81P	12-24VDC source	32 points	1 module
	C500-OA223	250VAC	24 points	QY22	100-240VAC	16 points	2 modules

*Input specifications: Sink = Positive common, Source = Negative common

<Modules for which each common terminal is shared by 8 points>

Input/Output	SYSMAC C series module before replacement			MELSEC-Q series module after replacement			
	Model	Specifications*	No. of points	Model	Specifications*	No. of points	No. of required modules
Input	C500-ID112	5-12VDC sink, 8 points/common	16 points	QX70H	5VDC positive common, 8 points/common	16 points	1 module
	C500-ID213	12-24VDC sink, 8 points/common	16 points	QX40H	24VDC positive common, 8 points/common	16 points	1 module

*Input specifications: Sink = Positive common

Point Verify that the MELSEC-Q series module specifications satisfy the specifications of the connected devices and equipment.

Precautions for Choosing the Products

This catalog explains the typical features and functions of the Mitsubishi Programmable Controller Upgrade Tool and does not provide restrictions and other information on usage and module combinations. When using the products, always read the user's manuals and operaing manuals of the products. Mitsubishi Electric Engineering will not be held liable for damage caused by factors found not to be the cause of Electric Engineering; machine damage or lost profits caused by faults in the Mitsubishi Electric Engineering products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi Electric Engineering; damages to products other than Mitsubishi Electric Engineering products; and to other duties.

⚠ For safe operations

- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mutsubushi Electric Engineering.
- This product has been manufactured under strict quality control. However, when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.

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⚠ Before using this product, ensure the safety in case of failure. We shall not bear any responsibility for consequential damages caused by failure of the product.

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