

## Easy Replacement from JTEKT TOYOPUC-PC10G/3J Series to Mitsubishi Electric MELSEC iQ-R Series

We do not want to decrease productivity due to long production line down time.

**It is time to replace**

We do not want any trouble during replacement.

**the equipment ...**

The program itself should be replaced.



[TOYOPUC-PC10G/3J series] to [MELSEC iQ-R series]

# Easy replacement

Wiring errors

**Risk avoided!**

\* When using the existing wiring

Work time

Reduced by approx.

**60%**

\* Result of in-house testing



Target series

JTEKT



TOYOPUC-PC10G/3J series

Mitsubishi Electric

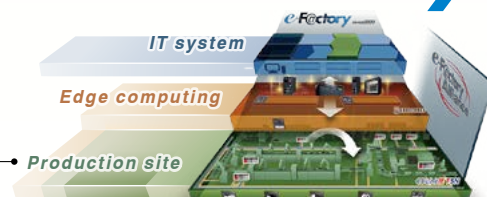


MELSEC iQ-R series

FAgoods Products **e-F@ctory**



Upgrade



Source: Mitsubishi Electric Corporation

# Increased efficiency of upgrading equipment will minimize the production line downtime.

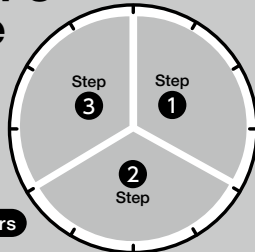


Before

We would like to upgrade our programmable controller. But...

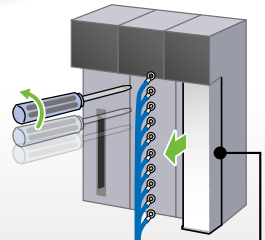
it takes time and we do not want to stop production lines for a long time.

Work hours



## Step 1 Disconnecting cables

All cables need to be disconnected.

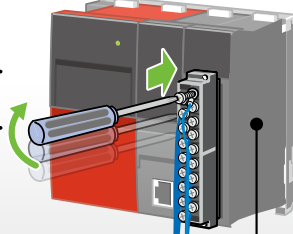


Existing programmable controller

## Step 2 Connecting cables

All cables need to be connected.

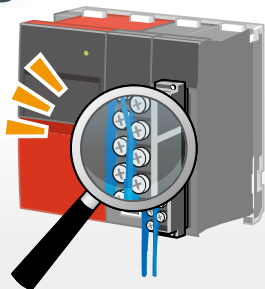
(Drilling of additional base unit installation holes is required.)



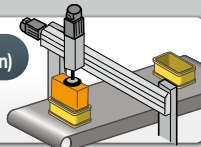
New programmable controller

## Step 3 Wiring check

All cables need to be checked.

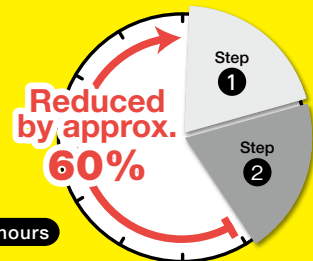


## Step 4 Operation (including test operation)



It takes much time to perform Steps 1), 2), and 3).

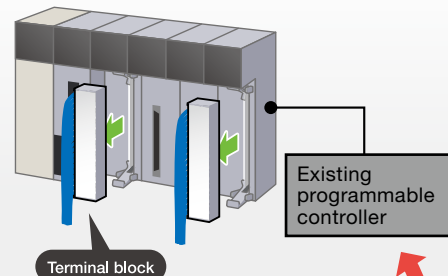
Simple replacement procedure



## Step 1 Removing terminal blocks

Only two steps to complete the replacement

The wiring work time is reduced significantly because the existing wiring (terminal blocks) can be used as it is.



Terminal block

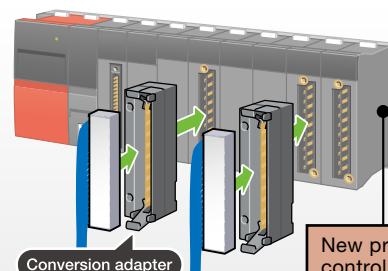
Existing programmable controller

The existing wiring can be restored easily.

## Step 2 Installing terminal blocks

No wiring check\*

The production line downtime is minimized because test operation can be performed immediately after replacement.

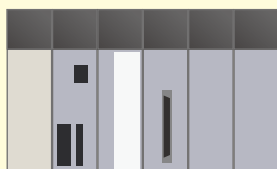


Conversion adapter

New programmable controller

\*: Power cables may need to be checked in some cases.

## Target



**JTEKT**  
**TOYOPUC-PC10G/3J series**



**MELSEC iQ-R series**

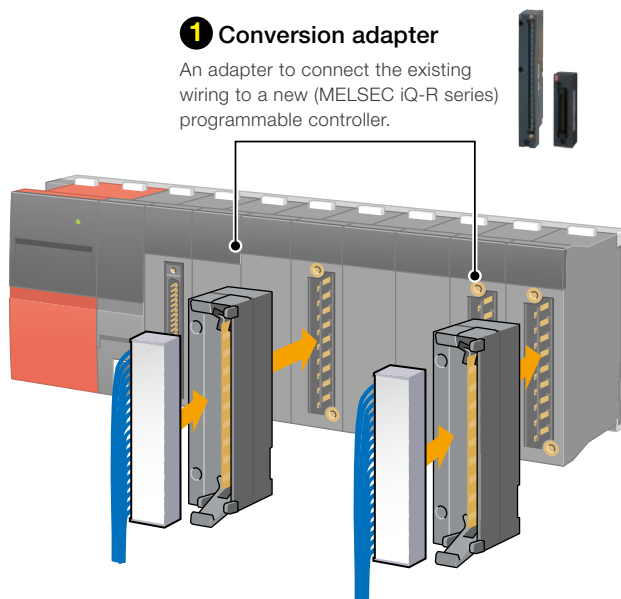
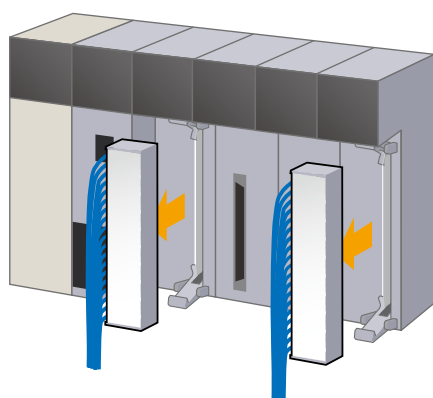
## Before

**TOYOPUC-PC10G/3J series**

Install the terminal blocks as they are.

## After

**MELSEC iQ-R series**



### 1 Conversion adapter

An adapter to connect the existing wiring to a new (MELSEC iQ-R series) programmable controller.

## Examples of replacing the TOYOPUC-PC10G/3J series with the MELSEC iQ-R series

Before			After		
TOYOPUC-PC10G/3J series			MELSEC iQ-R series		Upgrade tool product (conversion adapter)
Type	Model	Shape	Model	Shape	Model
Input	THK-2749	19-point screw terminal block	RX10	18-point screw terminal block	ERNT-2TR27X27Y
	THK-2750		RX40C7		
Output	THK-2751		RY20S6		
	THK-2795		RY10R2		
	THK-5040		RY40PT5P		
	THK-2752				
	THK-2754 (*1)				
Output	THK-2791 (*1,2)	19-point screw terminal block	RY40NT5P	18-point screw terminal block	ERNT-2TR27Y29Y
	THK-2753 (*1)		RY18R2A		
	THK-2790 (*1,2)				
	THK-2931				

\*1: Power needs to be supplied from the same power supply as the load voltage.

\*2: When 5VDC is used, change the voltage to 12VDC or 24VDC.

## Website

Manuals can be downloaded from the webpage for each model.

### ▼ Product overview



### ▼ ERNT-2TR27X27Y



### ▼ ERNT-2TR27Y29Y



## ■ Replacement of other products

From the  
**MELSEC-A series** →



From the  
**MELSEC-AnS series** →



From the  
**SYSMAC C series**  
**New Satellite JW series**  
**MEMOCON-SC GL series** →



From the  
**servo system**  
**MR-H/MR-J2 (S/M) to J4**  
(gradual product replacement) →



## ■ Related catalogs

### Upgrade Tool Products

MITSUBISHI ELECTRIC ENGINEERING

FAgoods

Upgrade Tool Products

General Catalog

Time and Wire Saving Devices

Network Devices

Products for Monitoring and Troubleshooting

Products for System Maintenance

Upgrading the existing production equipment

MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED

### Time and Wire Saving Devices

MITSUBISHI ELECTRIC ENGINEERING

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Time and Wire Saving Devices

General Catalog

Network Devices

Products for Monitoring and Troubleshooting

Upgrade Tool Products

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Creating a safe and secure control panel

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### From the SHARP PLC

MITSUBISHI ELECTRIC ENGINEERING

Easy Replacement from SHARP PLC to Mitsubishi Electric MELSEC Series

It is time to replace the equipment ...

[SHARP PLC] to [MELSEC series]

**Easy replacement**

Wiring errors Risk avoided

Work time Reduced to approx. 60%


Advantages of replacement

Enabling not-driven connection

Increasing efficiency of equipment

MITSUBISHI ELECTRIC ENGINEERING COMPANY LIMITED

## ■ Contribution to sustainability



Our upgrade tool products require only a minimum of changes. The existing wiring and terminal blocks can be reused instead of being discarded, reducing the amount of plastic used.

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## Precautions for Choosing the Products

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## For safe use

- To use the products given in this publication properly, always read the relevant manuals before beginning operation.
- The products have been manufactured as general-purpose parts for general industries, and are not designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the products for special purposes such as nuclear power, electric power, aerospace, medicine or passenger-carrying vehicles, consult with Mitsubishi Electric Engineering.
- The products have been manufactured under strict quality control. However, when installing the products where major accidents or losses could occur if the products fail, install appropriate backup or fail-safe functions in the system.