

#### **TECHNICAL BULLETIN**

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FA-A-0455-A

# Production Discontinuation of CC-Link IE Field Network Remote I/O Modules (With Safety Functions), Safety Protocol Version 1 Compliant Products

■Date of Issue

September 2025

■Relevant Models

NZ2GFSS2-32D, NZ2GFSS2-16DTE, NZ2GFSS2-8D, NZ2GFSS2-8TE

Thank you for your continued support of Mitsubishi Electric programmable controllers. This bulletin informs you that production of the following models will be discontinued.

#### 1 MODELS TO BE DISCONTINUED

Product	Model
Main safety input module	NZ2GFSS2-32D
Main safety I/O combined module	NZ2GFSS2-16DTE
Main safety input module	NZ2GFSS2-8D
Main safety output module	NZ2GFSS2-8TE

#### 2 SCHEDULE

Transition to make-to-order: September 1, 2026

Order acceptance: Until June 30, 2027

Production discontinuation: September 30, 2027

#### 3 REASONS FOR DISCONTINUATION

The safety communications used in these discontinued models comply with the IEC 61784-3 (general rules and profile definitions for industrial communication networks), but the rules have been updated from the 2010 edition to the 2021 edition. Renewal of TÜV certification is no longer possible for the safety protocol version 1 compliant products, which comply with the 2010 edition. Therefore, the production of these products will be discontinued.

The safety protocol version 2 compliant products, which comply with the 2021 edition, released on June 2023 as successor models.

For distribution to Europe or when third-party certification for equipment safety is required, replace current models embedded in your equipment or system with successor models. For other cases, there are no problems in using current models embedded in your equipment or system.

#### 4 REPAIR SUPPORT

Repair support period: Until September 30, 2034 (for seven years after the discontinuation of production)

#### 5 MODELS RECOMMENDED FOR REPLACEMENT

Product	Model to be discontinued (safety protocol version 1)	Alternative model (safety protocol version 2)
	Model	Model
Main safety input module	NZ2GFSS2-32D	NZ2GFSS2-32D-S1
Main safety I/O combined module	NZ2GFSS2-16DTE	NZ2GFSS2-16DTE-S1
Main safety input module	NZ2GFSS2-8D	NZ2GFSS2-8D-S1
Main safety output module	NZ2GFSS2-8TE	NZ2GFSS2-8TE-S1

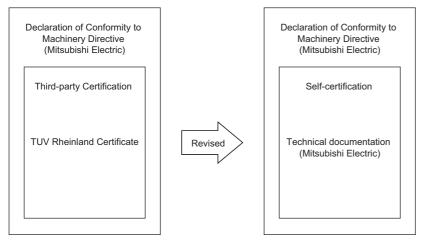
Refer to Page 4 PRECAUTIONS FOR REPLACEMENT for the precautions on replacement, and Page 6 REPLACEMENT PROCEDURES for the replacement procedures.

#### **6 RECOMMENDABLE PROPOSALS**

Please purchase another or more target models as a spare by the last day of order acceptance described in Page 1 SCHEDULE.

# 7 CORRESPONDENCE AFTER THE EXPIRATION DATE OF TÜV CERTIFICATIONS

For the CC-Link IE Field Network Remote I/O modules (with safety functions) of safety protocol version 1 compliant products, the Declaration of Conformity will be changed from the machinery directive based on the certification of the third-party organization TÜV Rheinland to the one based on self-certification of our company after September 1, 2026 (transition to make-to-order). The Declaration of Conformity is included with the product at the time of shipment.



The Declaration of Conformity is required for distribution to Europe.

Before distributing your equipment or system including discontinued models to the Europe market, check the change details in the Declaration of Conformity.



- We use the term of third-party certification in the same sense as conformity evaluation by the Notified Body, which is defined in the Machinery Directive 2006/42/EC Annex IX EC-type-examination.
- We use the terms of self-declaration in the same sense as conformity assessment by the manufacturer as
  defined in the Machinery Directive 2006/42/EC Annex VIII Assessment of conformity with internal checks on
  the manufacture of machinery.

#### 8 PRECAUTIONS FOR REPLACEMENT

To replace the models to be discontinued, depending on the module used, check the following items.

# 8.1 Combination with the Master Station Compatible with the Safety Protocol Version 1 or 2

Available safety protocol versions differ depending on products and firmware versions. For details, refer to the following.

O: System construction available, \(\triangle:\) System construction available with restrictions, \(-\): System construction not available

Connecting device (master	Safety remote I/O module		
station)	Safety protocol version 2 compliant product	Safety protocol version 2 compliant product + Safety protocol version 1 compliant product	Safety protocol version 1 compliant product
Safety protocol version 1 and 2 compliant product	0	Δ*1	△*1
Safety protocol version 1 compliant product	_	_	△*1

<sup>\*1</sup> System construction is available, but a new third-party certification cannot be obtained. To obtain a new third-party certification, the latest regulations need to be met. It is recommended that only the safety protocol version 2 compliant products are used.

## 8.2 Change of Cyclic Transmission Points

Product	Model to be discontinu	ued (safety protocol	Alternative model (safe	ety protocol version 2)
	Model	RWr/RWw points	Model	RWr/RWw points
Main safety input module	NZ2GFSS2-32D	16	NZ2GFSS2-32D-S1	32
Main safety I/O combined module	NZ2GFSS2-16DTE	20	NZ2GFSS2-16DTE-S1	
Main safety input module	NZ2GFSS2-8D		NZ2GFSS2-8D-S1	
Main safety output module	NZ2GFSS2-8TE		NZ2GFSS2-8TE-S1	

The cyclic transmission points differ. Follow the steps below to change settings in the GX Works3 [Network Configuration Settings].

- **1.** Register the profile of the safety protocol version 2 compliant product (last part of the model name: S1) to the GX Works3.
- 2. In the network configuration settings window, change the current model name to the safety protocol version 2 compliant product name (last part of the model name: S1).
- Change the RWr/RWw settings.
- 4. If RWr/RWw are used in your programs, change the settings in accordance with the setting assignment.

### 8.3 Restrictions on Connection with Simple Motion Modules

Simple motion modules do not support the safety protocol version 2. On the CC-Link IE Field Network system with a simple motion module connected to a safety remote I/O module, there is no available alternative model.

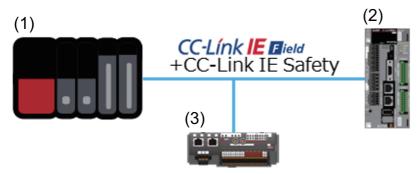
Consider replacing the entire system with the CC-Link IE TSN system.

Replacing the entire system with the CC-Link IE TSN system makes it possible to use a servo amplifier without an option module, which lowers equipment costs and saves space. The alternative models also have improved functionality and performance.

For more information, please consult your local Mitsubishi Electric sales office or representative.

#### Before replacement

#### **■CC-Link IE Field Network system with a simple motion module connected to a safety remote I/O module**



- (1) Safety CPU + Simple motion module (RD77GF4, RD77GF8, RD77GF16, RD77GF32)
- (2) MR-J4-GF-RJ + D30
- (3) Safety remote I/O module (NZ2GFSS2-□□)

#### After replacement

#### **■CC-Link IE TSN system**



- (1) Safety CPU + Motion module (RD78G)
- (2) MR-J5-G-HS/MR-J5-G-RJ
- (3) Safety remote I/O module (NZ2GNSS2-UU)



- Using the motion module in the simple motion mode facilitates program transition.
- The safety level is the same as before replacement. (IEC61508 (SIL3), ISO13849-1 (Category 4, PLe))

#### 9 REPLACEMENT PROCEDURES

This chapter describes the procedures for replacing discontinued models with alternative models.

# 9.1 Comparison of Specifications

The safety protocol version is different and the RWw/RWr points are increased.

Item	Model to be discontin	ued	Alternative models	
	NZ2GFSS2-32D + NZ2EXSS2-8TE	NZ2GFSS2-16DTE, NZ2GFSS2-8D, NZ2GFSS2-8TE	NZ2GFSS2-32D-S1 + NZ2EXSS2-8TE	NZ2GFSS2-16DTE- S1, NZ2GFSS2-8D- S1, NZ2GFSS2-8TE- S1
Number of input/output points (double	Input: 16	Input: 4	Input: 16	Input: 4
wiring)	Output: 4	Output: 4	Output: 4	Output: 4
RX/RY points	80		80	
RWr/RWw points	16	20 <sup>*1</sup>	32	32 <sup>*1</sup>
SA\X/SA\Y points	48	32	48	32
Safety protocol version	1		2	<u> </u>

<sup>\*1</sup> With the increase in the RWw/RWr points, device numbers assigned to a remote register for each function are changed. For details, refer to the following list.

Item	Model to be discontinued	Alternative models
	NZ2GFSS2-16DTE, NZ2GFSS2-8D, NZ2GFSS2-8TE	NZ2GFSS2-16DTE-S1, NZ2GFSS2-8D-S1, NZ2GFSS2-8TE-S1
Output Y ON information (extension output 1st level)	RWr10	RWr1C
Output Y ON information clear request (1st level)	RWw10	RWw1C
Output Y OFF information (extension output 1st level)	RWr13	RWr1F
Output Y OFF information clear request (1st level)	RWw13	RWw1F

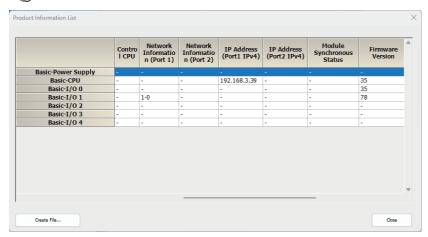
## 9.2 Advance Preparation

Prepare a module and software that complies with the safety protocol version 2.

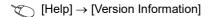
Module			Software
R08SFCPU, R16SFCPU, R32SFCPU, R120SFCPU	R6SFM	RJ71GF11-T2	GX Works3
Ver. 29 or later	Ver. 29 or later	Ver. 70 or later	1.095Z or later

The firmware version can be checked on the [Product Information List] in the GX Works3.

[Diagnostics] → [System Monitor] → [Product Information List]



The GX Works3 version can be checked on the [Version Information] in the GX Works3.





When the GX Works3 version is Ver.1.095Z to 1.101F, profile registration is required.

Page 8 Profile registration

When the GX Works3 version is Ver.1.105K or later, go to Page 9 Replacement of the Actual Safety Remote I/O Module profile because registration has been completed.

### **Profile registration**

#### Getting profiles of the alternative model

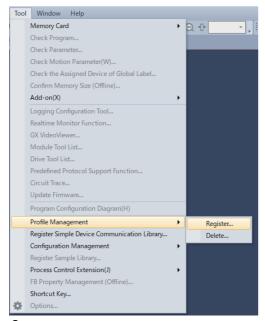
Please contact your local Mitsubishi Electric sales office or representative.

The target profiles are listed below.

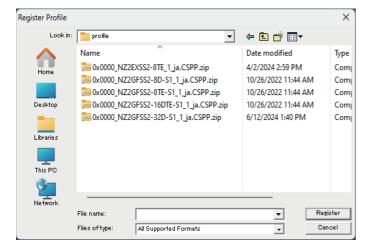
- · Profile for the NZ2GFSS2-32D-S1
- Profile for the NZ2GFSS2-16DTE-S1
- · Profile for the NZ2GFSS2-8D-S1
- Profile for the NZ2GFSS2-8TE-S1

#### **Profile registration**

- 1. Start the GX Works3 anew. (If there are any other GX Works3 programs running, close them all.)
- 2. Select Profile Management to open the profile registration window.
- $\texttt{[Tool]} \rightarrow \texttt{[Profile Management]} \rightarrow \texttt{[Register...]}$



On the profile registration window, select the downloaded profile of the alternative model to register.



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# 9.3 Replacement of the Actual Safety Remote I/O Module

Follow the steps below to replace the discontinued model with the alternative model.

- **1.** Turn off the 24VDC power supply of the safety control system (safety CPU and safety remote I/O module). Turn off the module power supply and external power supply.
- **2.** Remove the terminal block (actually wired parts) of the discontinued model.
- **3.** Replace the discontinued model with the alternative model complied with the safety protocol version 2.
- **4.** Mount the removed terminal block to the alternative model.

Be careful not to misplace the terminal block.



Pay special attention to the NZ2GFSS2-32D because the model has three terminal blocks.

**5.** For the number of models to be replaced, perform steps 2 through 4.

# 9.4 Change of Parameter Settings

Open the target projects and change settings.

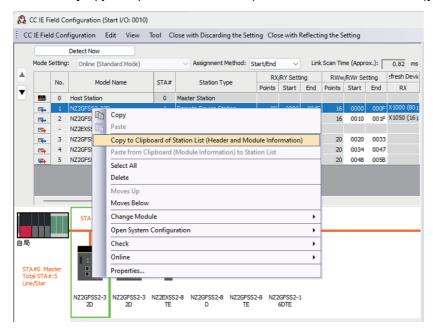
The following items should be changed for parameter settings.

Module		Item	Change details
Master station	Safety CPU	General parameters	No change required
		Device configuration settings	No change required
		Safety parameters	No change required
	Master module	Network configuration setting	Model name, RWw/RWr assignment
		Refresh settings	Device assignment with RWw/RWr assignment
		Safety communication settings	Safety protocol version settings
Safety remote I/O modu	le	Parameter processing	Writing parameters for each alternative model

#### **Network configuration setting**

This section describes how to change the network configuration (model name and RWw/RWr assignment) all at once using spreadsheet software.

- **1.** Open the network configuration setting window.
- [0010: RJ71GF11-T2] → [Basic Setting] → [Network Configuration Setting]
- 2. Select [Copy to Clipboard of Station list (Header and Module Information)].



- **3.** Open spreadsheet software and select all the cells. Then, change the cell format to string.
- 4. Paste the data.

				RX/RY Se	tting			RWw/RWr	Setting			Refresh De	vice										
No.	Model Nam 9	STA#	Station Typ	Points	Start		End	Points	Start	End		RX	RY	RWw	RWr	Reserved	/Pairing	Network S	Alias	Comment	Station-spe	cific mode	setting
	0 Host Static		0 Master Sta	tion																			
	1 NZ2GFSS2		1 Remote De	80	)	0 (	004F	16	ì	0 000F		X1 000 (80	Y1 000 (80	W0 (16 po	i W1 000 (1	No Settin	g	Asynchron	ious				
	2 NZ2GFSS2		2 Remote De	80	)	50 (	009F	16	i	10 001 F		X1050 (16	Y1050 (16	W10 (16 p	c W1 01 0 (1	No Settin	g	Asynchron	io us				
-	NZ2EXSS2 -	-	-															Asynchron	io us				
	3 NZ2GFSS2		3 Remote De	80	0A00		00EF	20	)	20	33				x W1 020 (2			Asynchron	io us				
	4 NZ2GFSS2		4 Remote De	80	00F0		013F	20	)	34	47				xW1034 (2			Asynchron	io us				
	5 NZ2GFSS2		5 Remote De	80	)	140	018F	20	)	48 005B				W48 (20 p	W1048 (2)	No Settin	g	Asynchron	io us				

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**5.** Change the model names to the alternative model names, and change the assignment of the RWw/RWr setting so that the number of points is 32.

#### Before change

				RX/RY Se	etting		RWw/RWr	Setting		Refresh D	evice										
No.	Model Name	STA#	Station Ty	Points	Start	End	Points	Start	End	RX	RY	RWw	RWr	Reserved/	Pairing	Network S	Alias	Comment	Station-sp	ecific mode:	setting
	0 Host Station		0 MasterSt	ation																	
	1 NZ2GFSS2-32D	1	1 Remote D	e 80	)	0 004F	16	6 (	000F	K1 000 (80	Y1 000 (80	W0 (16 po	W1000 (16	No Setting		Asynchror	nous				
	2 NZ2GFSS2-32D		2 Remote D	e 80	)	50 009F	16	10	001 F	K1 050 (16	Y1050 (16	W10 (16 p	WI 010 (16	No Setting		Asynchror	nous				
-	NZ2EXSS2-8TE	-	-													Asynchror	nous				
	3 NZ2GFSS2-8D		3 Remote D	e 80	0A00	00EF	20	20	3:	3		W20 (20 p	WI 020 (20	No Setting		Asynchror	nous				
	4 NZ2GFSS2-8TE		4 Remote D	e 80	00F0	013F	20	34	4	7		W34 (20 p	WI 034 (20	No Setting		Asynchror	nous				
	5 NZ2GFSS2-16DTE		Remote D	e 80	)	140 018F	20	) 48	005B			W48 (20 p	WI 048 (20	No Setting		Asynchror	nous				
										T											

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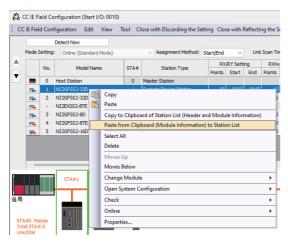
#### After change

			R	₹X/RY Set	ting		RWw/RWr	Setting		Refresh D	evice										
No.	Model Name	STA#	Station TyrP	oints	Start	End	Points	Start	End	RX	RY	RWw	RWr	Reserved/	Pairing	Network S	Alias	Comment	Station-sp	cific mode	setting
	0 Host Station		O Master Statio	on																	
	1 NZ2GFSS2-32D-S1		1 Remote De	80		0 004F	32		1f			WO (16 po				Asynchron	ous				
	2 NZ2GFSS2-32D-S1		2 Remote De	80		50 009F	32	20	3f	K1 050 (16	Y1050 (16	W10 (16 p	WI 010 (16	No Setting		Asynchron	ous				
-	NZ2EXSS2-8TE	-	-													Asynchron	ous				
	3 NZ2GFSS2-8D-S1		3 Remote De	80	00A0	00EF	32	40	5f			W20 (20 p				Asynchron	ous				
	4 NZ2GFSS2-8TE-S1		4 Remote De	80	00F0	013F	32	60	7f			W34 (20 p				Asynchron	ous				
	5 NZ2GFSS2-16DTE-S1		5 Remote De	80	1	40 018F	32	80	9f			W48 (20 p	WI 048 (20	No Setting		Asynchron	ous				

**6.** Select the data for the own station through the data for the last station and copy the data.



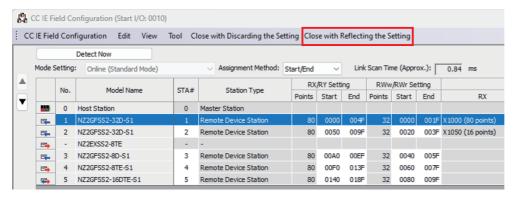
7. Click on [Paste from Clipboard (Module Information) to Station List] in the network configuration window.



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**8.** Confirm that the alternative models are displayed on the network configuration window, and then click on [Close with Reflecting the Setting].





For the replacement procedure without clipboards, refer to the following.

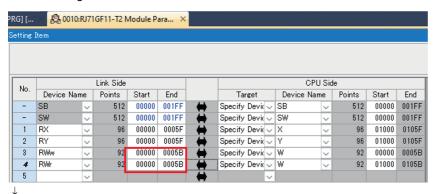
Page 21 Replacement Procedure Without Clipboards

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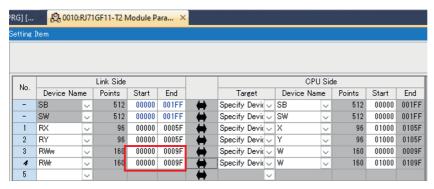
#### Refresh settings

Follow the steps below to assign the increased number of RWw/RWr points on the network configuration setting to the CPU device.

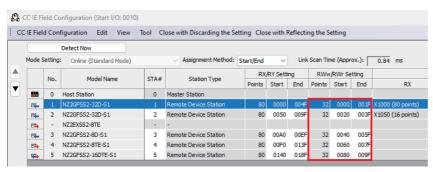
- 1. Open the refresh setting window.
- [0010: RJ71GF11-T2] → [Basic Setting] → [Refresh Settings]
- **2.** Perform the link side assignment to meet the number of RWw/RWr points. Before change



After change



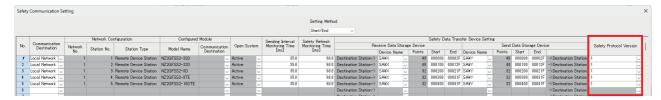
In the network configuration window, check if the number of points is appropriate for the RWw/RWr point range.



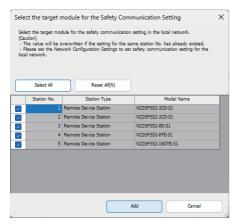
### Safety communication settings

Follow the steps below to change the safety protocol version of the safety communication setting of the alternative model to 2.

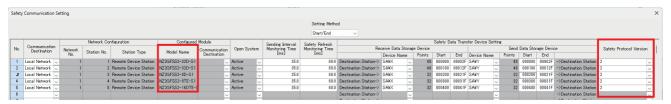
- 1. Change the safety communication setting of the master module.
- [0010: RJ71GF11-T2] → [Application Setting] → [Safety Communication Setting < Detailed Setting>]
- **2.** To change the network configuration modules, select [Own network] from the pull-down menu of the [Communication Destination] blank field.



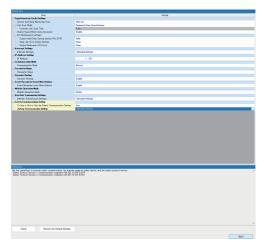
**3.** Once the [Select the target module for the Safety Communication Setting] window is displayed, select the alternative model name to add.



4. Confirm that the correct model name is displayed, and then change the safety protocol version to 2.



**5.** Click on [Apply] to apply the module parameter settings of the master station.

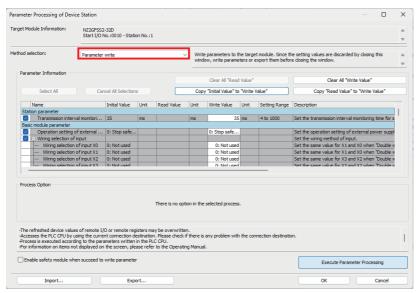


**6.** Perform writing to PLC to make the safety remote I/O module recognized by the safety CPU.

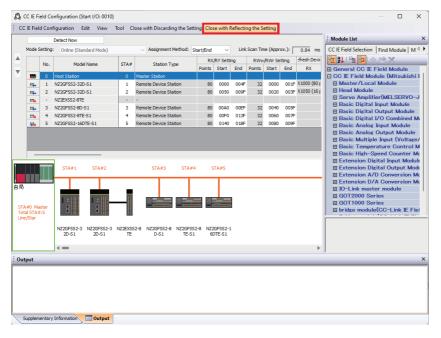
#### Module parameter setting

Follow the steps below to write the module parameters of the safety remote I/O module.

- **1.** Open the network configuration setting window.
- [0010: RJ71GF11-T2] → [Basic Setting] → [Network Configuration Setting]
- 2. Perform the parameter input and parameter write.
- [Network Configuration] window  $\rightarrow$  [Parameter Processing of Device Station]  $\rightarrow$  [Method selection: Parameter write]



- 3. Perform the step 2 for all replaced modules.
- 4. Click on [Close with Reflecting the Setting] in the network configuration window.



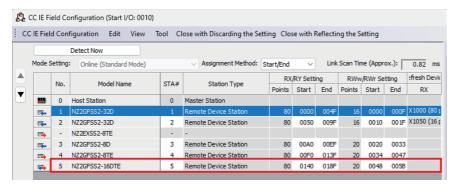
## 9.5 Device Change in Programs

Devices used in programs should be changed.

The device change procedure is described below using the case of the NZ2GFSS2-16DTE + NZ2EX-16(D0) as an example. In the settings before module replacement, output Y ON information (RWr58) is assigned to W58 and output Y OFF information (RWr5B) is assigned to W5B.

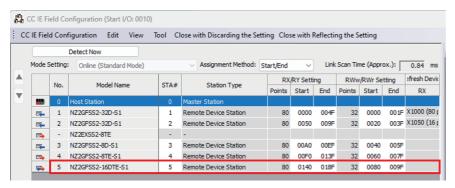
After module replacement, however, W58 and W5B will be used for another refresh device. Thus, the information assigned to W58 and W5B needs to be assigned to the numbers of a new device.

Before module replacement

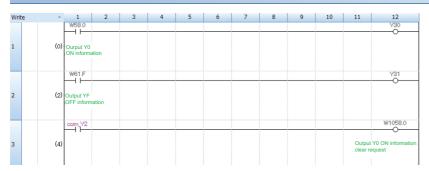


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#### After module replacement



#### Program example using output Y ON information



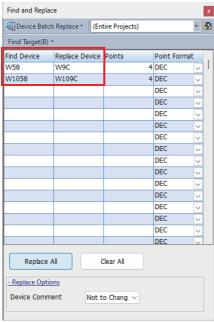
When the NZ2GFSS2-16DTE + NZ2EX-16(DO) are replaced to the NZ2GFSS2-16DTE-S1 + NZ2EX-16(DO), the remote register device numbers to which each function is assigned are changed as follows.

Item	NZ2GFSS2-16DTE	NZ2GFSS2-16DTE-S1
Start number of RWr	RWr48	RWr80
Output Y ON information	RWr58 (RWr48 + 10)	RWr9C (RWr80 + 1C)
Output Y OFF information	RWr5B (RWr48 + 13)	RWr9F (RWr80 + 1F)

## When using the device batch replacement function

This section describes how to change device numbers in programs using the device batch replacement function.

 $\five [Find and Replace] 
ightarrow [Device Batch Replace]$ 



- **1.** Input the device number before replacement to the Find Device column and the device number after replacement to the Replace Device column.
- **2.** Enter the number of points to be changed to the Points field.
- 3. Select "Move" for the device comment.
- **4.** Click on [Replace All]. Then, confirm that the replacement is completed in the program. Before replacement

Write	-	1	2	3	4	5	6	7	8	9	10	11	12
1	(0)	W58.0 Output Y0 ON informat	ion										V30
2	(2)	com Y2										Outpi clear	w1058.0  ut Y0 ON information request

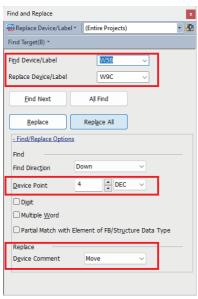
After replacement

Write	-	1	2	3	4	5	6	7	8	9	10	11	12
1	(0)	W9C.0 Output Y0 ON informa	tion										Y30 O
2	(2)	com Y2										Outp clear	w109C.0

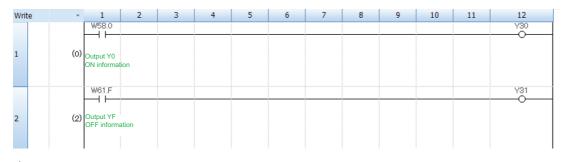
## When using the device/label replacement function.

The following is the procedure to change device numbers in program using device/label replacement function.

 $\bigcirc$  [Find and Replace]  $\rightarrow$  [Replace device/Label]



- 1. Select the device number before replacement in the Find Device/Label field, and select the device number after replacement in the Replace Device/Label field.
- **2.** Enter the number of points to be changed to the Device Point field.
- 3. Select "Move" for the device comment.
- **4.** Click on [Replace All]. Then, confirm that the replacement is completed in the program. Before replacement



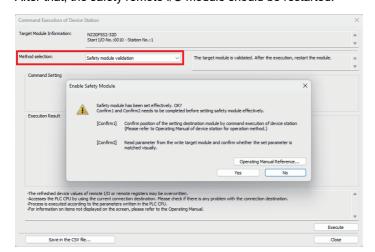
After replacement

Write	-	1	2	3	4	5	6	7	8	9	10	11	12
1	(0)	W9C.0 Output Y0 ON informat	ion										Y30
2	(2)	W61.F  Output YF OFF informs	ation										Y31 O

# 9.6 Safety Module Validation

The following shows the procedure to valid the module parameters of the safety remote I/O module.

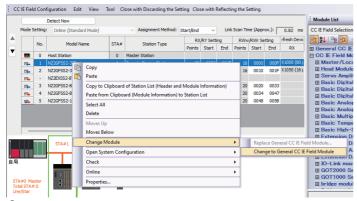
- 1. Click on [Apply] to apply the module parameter settings of the master station.
- **2.** Perform writing to PLC.
- $\bigcirc$  [Online]  $\rightarrow$  [Write to PLC]
- **3.** Reset the safety control system (safety CPU and safety remote I/O module).
- **4.** Perform validation of the safety module in the network configuration setting window. After that, the safety remote I/O module should be restarted.



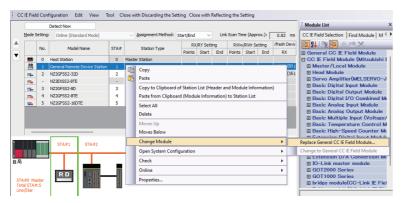
#### 10 APPENDIX

# 10.1 Replacement Procedure Without Clipboards

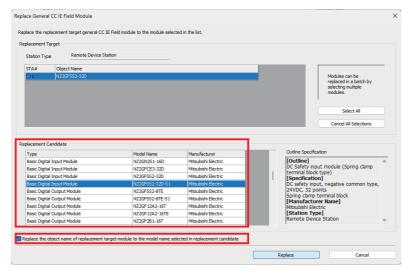
**1.** Right click on the target model name. Click on [Change Module]  $\rightarrow$  [Change to General CC IE Field Module].



2. Right click on the CC IE Field module and select [Replace General CC IE Field Module...].

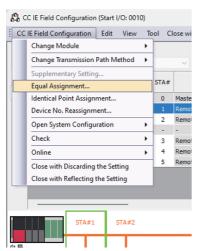


- **3.** Click on the target model name from the replacement candidate list.
- **4.** Select "Replace the object name of replacement target module to the model name selected in replacement candidate", and click on [Replace].

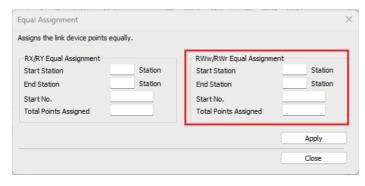


## RWw/RWr automatic assignment setting

1. Click on [CC IE Field Configuration] in the Network Configuration window, and then click on [Equal Assignment...].



**2.** Change the safety remote I/O points to 32 points in the RWw/RWr Equal Assignment field. Enter 32 points multiplied by the number of stations, and then click on [Apply].



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#### **REVISIONS**

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A	September 2025	First edition

#### **TRADEMARKS**

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