

AnyWireASLINK

Startup Guide (CC-Link Bridge Unit Initial Setting)



Introduction

This document describes basic settings for NZ2AW1C2AL (CC-Link – AnyWireASLINK bridge unit) at startup of the AnyWireASLINK system.

- Notes on the use

For detailed descriptions of engineering tools and CPU, refer to the user's manual for each product.

For detailed descriptions of the AnyWireASLINK remote units, refer to respective product guides.

- Master unit type

This document describes examples of application for NZ2AW1C2AL.

If any master units other than NZ2AW1C2AL are used, check respective manuals and pay attention to the differences.

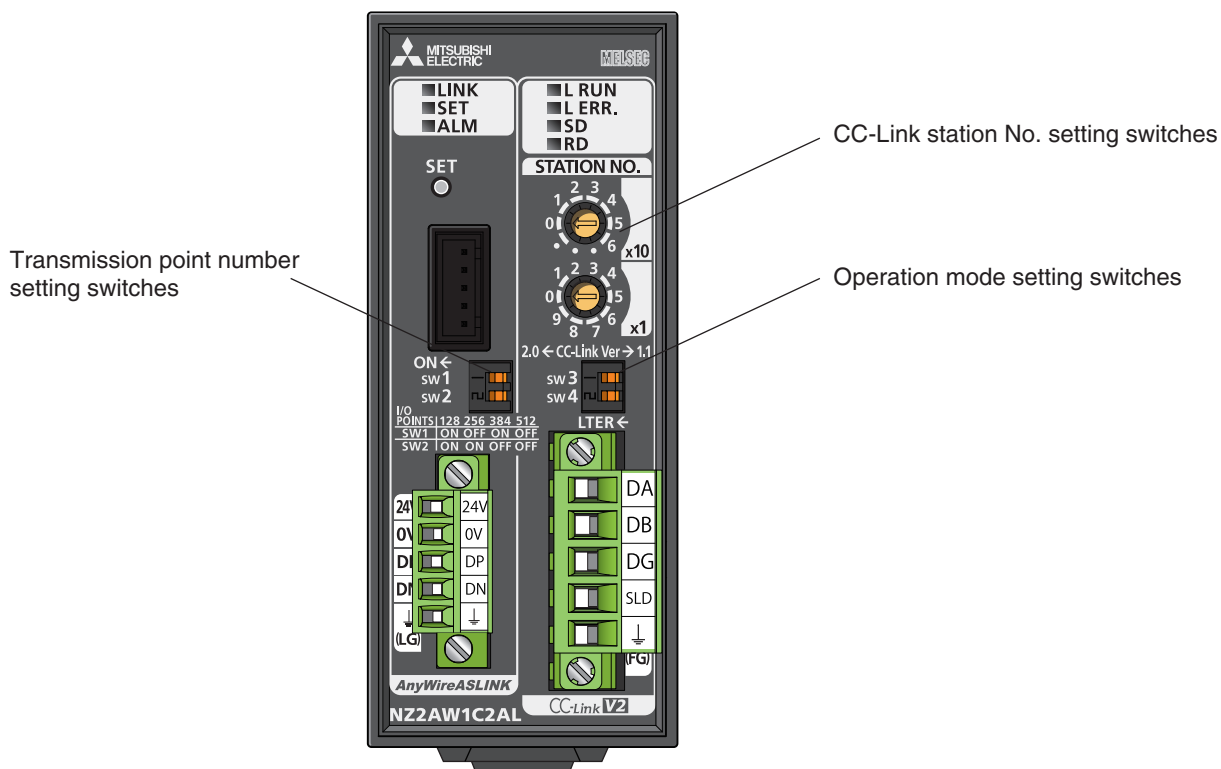
- Functional compatibility

Check relevant manuals for the manufacturing information on the master unit and differences in functional compatibility depending on the version of GX Works3.

- Revision of contents

The contents of this document are subject to change without prior notice.

NZ2AW1C2AL Setting Switches



CC-Link station No. setting switches

The rotary switches at the front of the bridge unit are used to specify a CC-Link station No.* The station No. must be specified when the power supply for the bridge unit is OFF. The setting becomes active when the power supply is turned ON.

- To specify the tens place, use the “x10” switch.
- To specify the ones place, use the “x1” switch.

* Refer to “② Network configuration” on page 10.

Operation mode setting switches

SW3 is used to specify the CC-Link operation mode of the bridge unit.

SW4 is used to enable the CC-Link termination resistor incorporated in the bridge unit.

After a change of setting, turn OFF the power supply for the bridge unit once, and then turn it ON to reset the CC-Link system.

Switch No.	Function	ON	OFF
SW3	CC-Link operation mode*	Ver. 2.00	Ver. 1.10
SW4	CC-Link termination resistor	Enabled	Disabled

* Refer to “② Mode setting” on page 10.

Transmission point number setting switches

These switches are used to specify a number of transmission points for AnyWireASLINK.

CC-Link operation mode*	SW1	SW2	Number of transmission points for AnyWireASLINK		Number of stations occupied by CC-Link*	Extended cyclic setting*
			Input	Output		
Ver. 1.10	OFF	OFF	256	256	4	×1
	ON	OFF	192	192	3	×1
	OFF	ON	128	128	2	×1
	ON	ON	64	64	1	×1
Ver. 2.00	OFF	OFF	256	256	4	×2
	ON	OFF	Setting disabled			
	OFF	ON				
	ON	ON				

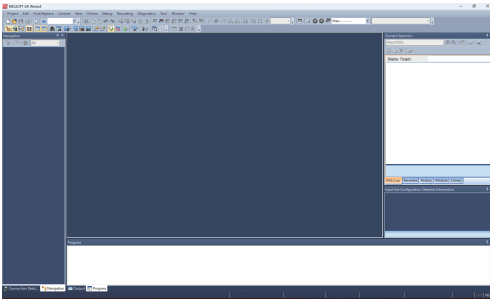
* Refer to “② Network configuration” on page 10.

Point

- When the CC-Link operation mode is Ver. 1.10, the number of points occupied by CC-Link can be automatically specified by setting a number of transmission points for AnyWireASLINK. Setting a small number of transmission points for AnyWireASLINK can shorten the transmission time for CC-Link and AnyWireASLINK each.
- When the CC-Link operation mode is Ver. 2.00, the number of stations occupied by CC-Link is fixed at 4. (Extended cyclic setting is fixed at “×2”.) In this case, SW1 and SW2 must be OFF. If these switches are not OFF, the settings will be ignored, and the number of occupied stations is set at 4.

GX Works3 Setting

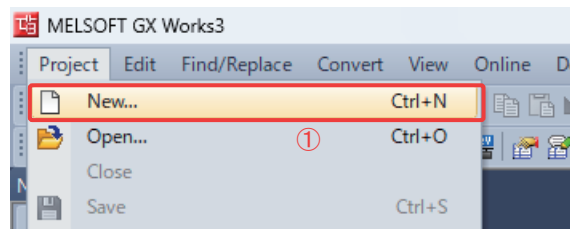
■ Start the GX Works3



Startup screen

■ Creation of a new project

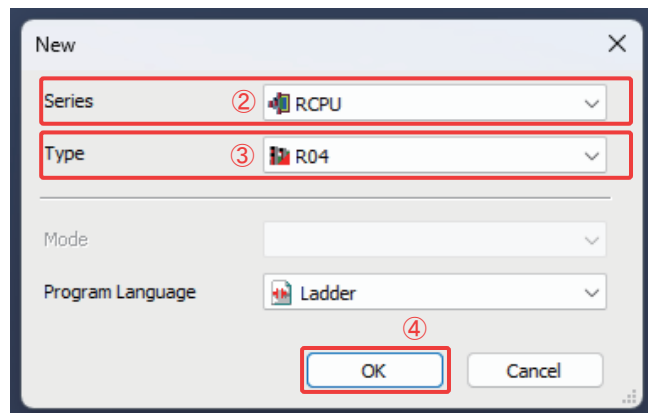
① Select Project and then New.



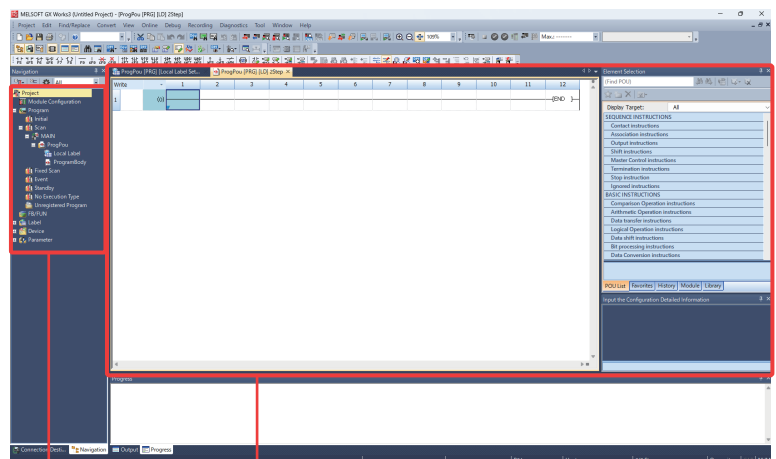
② Select the Series. (Here, RCPU is selected.)

③ Select the Model. (Here, R04 is selected.)

④ Click on the OK button.



Project tree, circuit window, and parts selection field will appear.
(The creation of a new project is complete.)

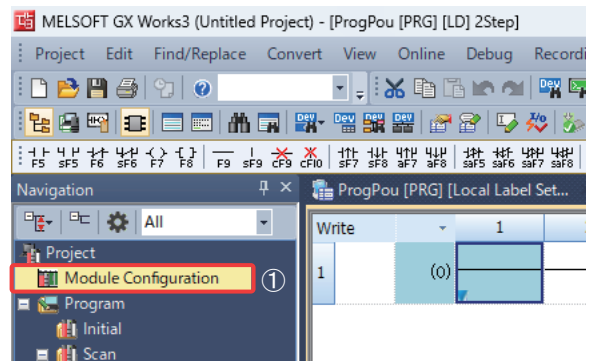


Project tree

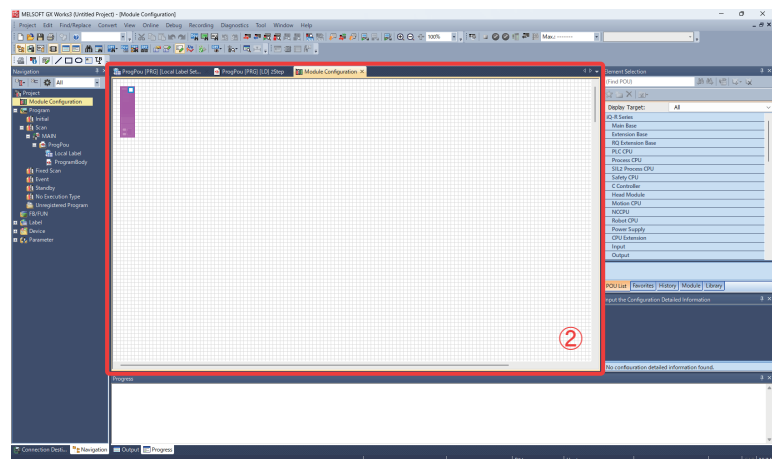
Circuit window and parts selection field

■ Creation of unit configuration -----

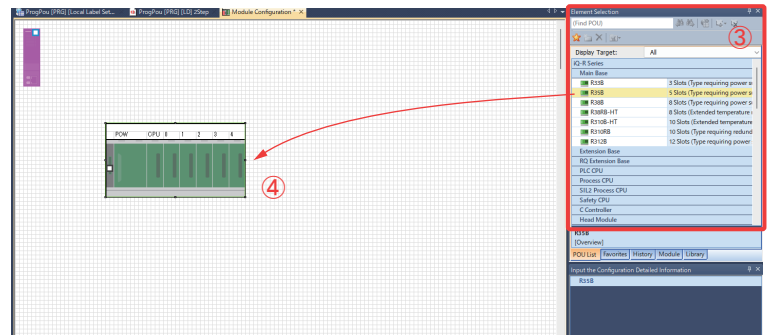
- ① Double-click on "Unit Configuration" in the project tree.



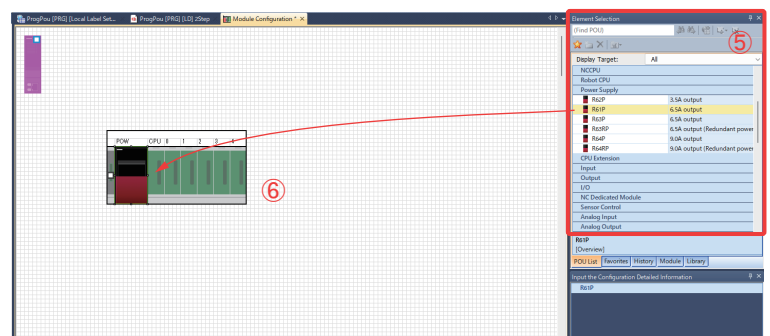
- ② The "Unit Configuration" setting window will open.



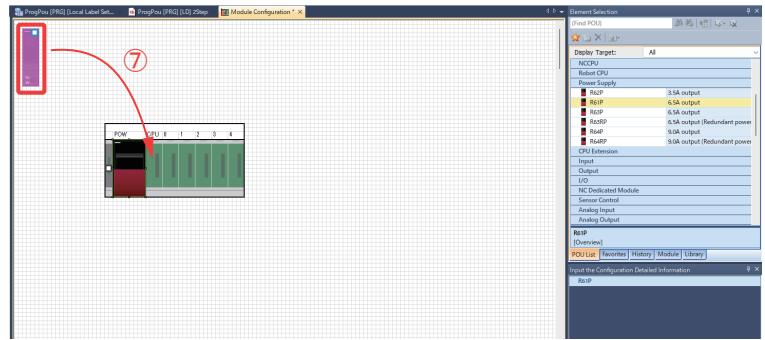
- ③ Select a model to be used from the "Parts Selection" field, and drag and drop the relevant unit into the configuration field.
- ④ Select a target model from the "Base Unit" field, and place it in the configuration field in the same manner as mounting actual equipment.



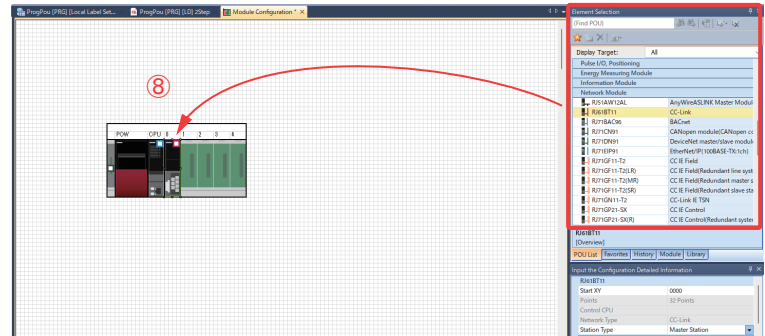
- ⑤ Select a target model from the "Power Supply" field, and place it in the configuration field.
- ⑥ Arrangement of base unit and power supply unit is completed.



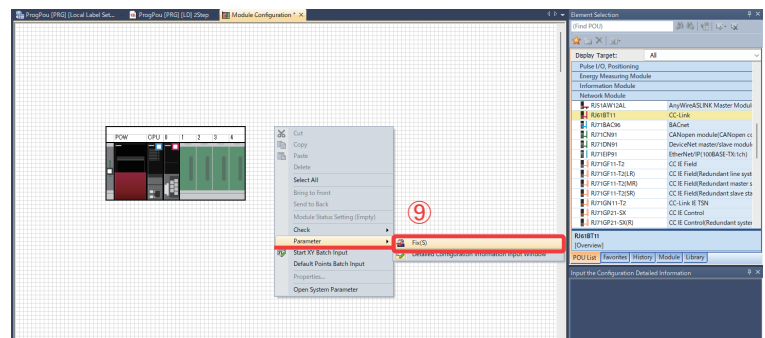
- ⑦ Drag and drop the CPU displayed at the left top of the unit configuration window into the base unit.



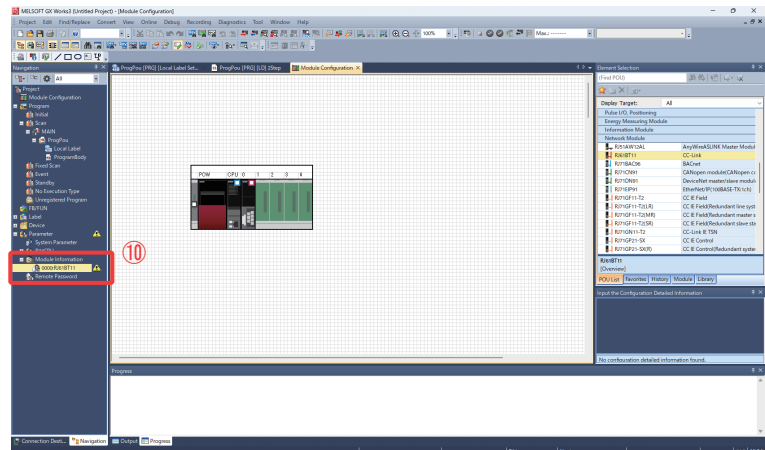
- ⑧ Drag and drop the “RJ61BT11 (CC-Link)” unit from the “Network Unit” field into the configuration field.



- ⑨ After the unit configuration is completed, click the right button, and select “Parameter” → “Set” to confirm the setting.

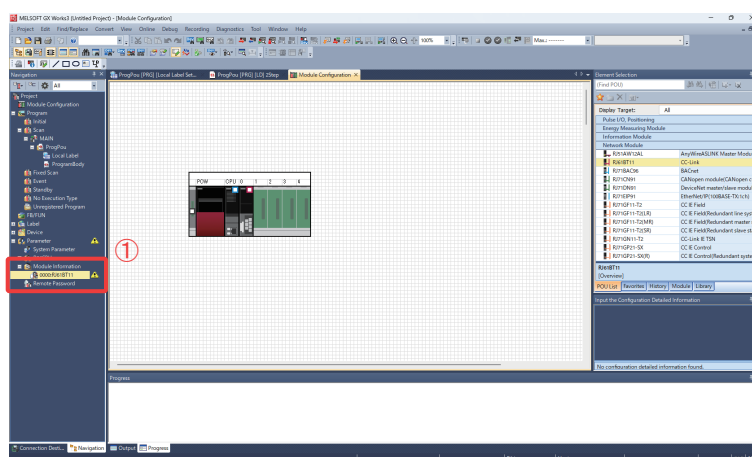


- ⑩ “RJ61BT11” will be added to the project tree. (Unit configuration is completed.)

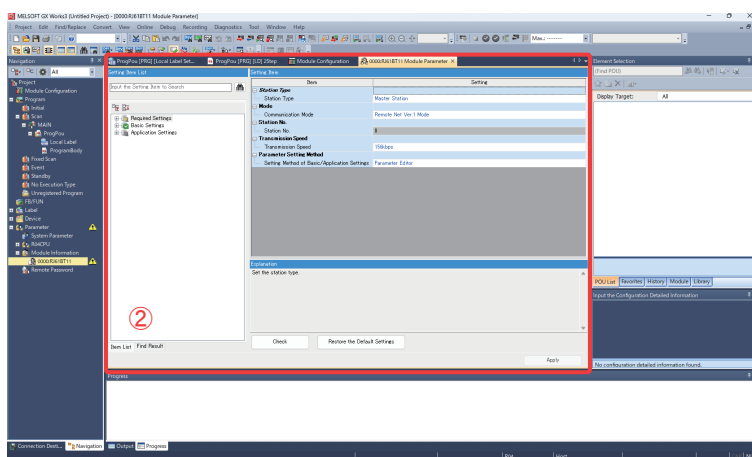


Setting of unit parameters

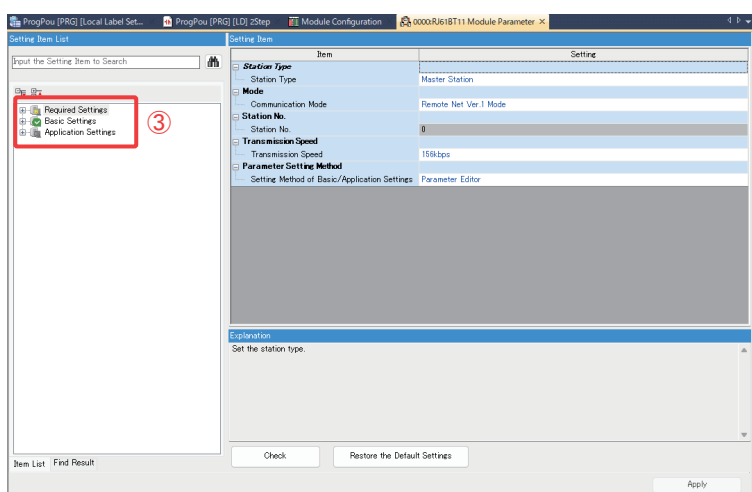
- ① Double-click on "RJ61BT11" → "Unit Parameter" in the project tree.



- ② The "Unit Parameter" setting window will open.



- ③ "Required Settings", "Basic Settings" and "Application Settings" are displayed.



◆ Required settings

① Station type setting

Set the station type for the own station.

To use this unit as a standby master station, select “Master Station (with Duplex Function)” or “Standby Master Station”.

When “Master Station (with Duplex Function)” is selected, the master station is restored to serve as standby master station while the standby master station is executing data link.

In this example, “Master Station” is selected.

Item	Setting
Station Type	
Station Type	Master Station
Mode	
Communication Mode	Master Station
Master Station (Duplex Function)	
Standby Master Station	
Local Station	
Station No.	
Station No.	
Transmission Speed	
Transmission Speed	156kbps
Parameter Setting Method	
Setting Method of Basic/Application Settings	Parameter Editor

② Mode setting

Set the mode for the own station.

“Remote Net Ver. 2 Mode”

This mode is used to configure a system comprising a master station and Ver. 2-compatible sub station, or used in a case where addition of Ver. 2-compatible sub stations is assumed in the future. The Remote Net Ver. 2 mode enables use of a larger number of points than the Ver. 1 mode.

In this example, “Remote Net Ver. 2 Mode” is selected.

* The mode setting must conform to the SW3 switch setting.

Item	Setting
Station Type	
Station Type	Master Station
Mode	
Communication Mode	Remote Net Ver.1 Mode
Remote Net Ver.1 Mode	
Remote Net Ver.2 Mode	
Remote Device Net Ver.1 Mode	
Remote Device Net Ver.2 Mode	
Remote I/O Net Mode	
Offline	
Line Test	
Hardware Test	

③ Station No. setting

Set a station No.

The station No. setting must not be duplicated with that for any other station being connected.

Particularly, use caution when the system is connected with sub stations for which the number of occupied stations is 2 or more.

In this example, the station No. is “0” because the station type is “Master Station”.

Item	Setting
Station Type	
Station Type	Master Station
Mode	
Communication Mode	Remote Net Ver.2 Mode
Station No.	
Station No.	0
Transmission Speed	
Transmission Speed	156kbps
Parameter Setting Method	
Setting Method of Basic/Application Settings	Parameter Editor

④ Transmission speed setting

Set a CC-Link transmission speed.

Transmission speed setting must be the same for all stations being connected.

If “Auto-Tracking” is selected, the unit operates at the transmission speed that has been specified for the master station.

* “Auto-Tracking” can be selected when the station type is “Standby Master Station” or “Local Station”.

In this example, “156 kbps” is selected.

Item	Setting
Station Type	
Station Type	Master Station
Mode	
Communication Mode	Remote Net Ver.2 Mode
Station No.	
Station No.	0
Transmission Speed	
Transmission Speed	156kbps
Parameter Setting Method	
Setting Method of Basic/Application Settings	625kbps
	2.5Mbps
	5Mbps
	10Mbps

⑤ Parameter setting method

Set the method of basic setting/application setting for the own station.

“Setting with parameter” can be selected when the number of units is up to 8 per CPU.

To mount more than 8 units, select “Setting with program”. When “Setting with program” is selected, set the parameter with the RLPASET command. Even when “Setting with program” is selected, the “Station Type”, “Mode” and “Station No.” settings are required.

In this example, “Setting with parameter” is selected.

Item	Setting
Station Type	
Station Type	Master Station
Mode	
Communication Mode	Remote Net Ver.2 Mode
Station No.	
Station No.	0
Transmission Speed	
Transmission Speed	156kbps
Parameter Setting Method	
Setting Method of Basic/Application Settings	Parameter Editor
	Parameter Editor
	Program

* For terminology and detailed descriptions of functions, refer to User's Manual for CC-Link – AnyWireASLINK bridge unit.

◇ Basic settings

① Settings for the own station

Set the number of occupied stations and the number of extended cyclic points for the own station.

In this example, these settings are not required because the station type is “Master Station”.

Item	Setting
Own Station Setting	
Number of Occupied Stations ①	-
Extended Cyclic Setting	-
Network Configuration Settings	
CC-Link Configuration	<Detailed Setting>
Link Refresh Settings	
Link Refresh Settings	<Detailed Setting>
Initial Settings	
Remote Device Station Initial Settings	<Detailed Setting>

② Network configuration settings

Set information on the sub stations connected to the master station. Double-click on “Detailed Setting”.

Item	Setting
Own Station Setting	
Number of Occupied Stations	-
Extended Cyclic Setting	-
Network Configuration Settings	
CC-Link Configuration ②	<Detailed Setting>
Link Refresh Settings	
Link Refresh Settings	<Detailed Setting>
Initial Settings	
Remote Device Station Initial Settings	<Detailed Setting>

- Drag and drop the bridge unit (CC-Link – AnyWireASLINK) “N22AW1C2AL CC-Link – AnyWireASLINK bridge unit” from the “Unit List” into the configuration field.
- Select “Version”. (In this example, “Ver. 2” is selected.)
- Confirm the station No., number of occupied stations, extended cyclic setting, and click on “Reflect the settings and close”.

The screenshot shows the 'CC-Link Configuration' window. At the top, there are tabs for 'CC-Link Configuration', 'Edit', 'View', and 'Close with Discarding the Setting'. A red box labeled (3) highlights the 'Close with Reflecting the Setting' button. The main configuration area has a table with columns: Station No., Model Name, Station Type, Version, STA Occupied, and Expanded Cyclic Setting. The table shows two stations: Station 0/0 (Host Station, Master Station) and Station 1/1 (N22AW1C2AL, Remote Device Station). The 'Version' for Station 1/1 is set to 'Ver. 2', which is highlighted with a red box and labeled (2). Below the table, there is a 'Host Station' section showing a diagram of the station configuration. A red arrow labeled (1) points from the 'N22AW1C2AL' module in the 'Module List' on the right to the 'Host Station' diagram. The 'Module List' on the right contains a list of modules, including 'N22AW1C2AL CC-Link-AnyWireASLINK bridge module', which is highlighted with a red box.

③ Link refresh settings

Set a transmission range between the link special relay/register or link device of the own station and the device of the CPU.
Double-click on "Detailed Setting".

Item	Setting
Own Station Setting	
Number of Occupied Stations	-
Extended Cyclic Setting	-
Network Configuration Settings	
CC-Link Configuration	<Detailed Setting>
Link Refresh Settings ③	
Link Refresh Settings	<Detailed Setting>
Initial Settings	
Remote Device Station Initial Settings	<Detailed Setting>

Set a transmission range between the link special relay/register or link device of the own station and the device of the CPU.

No.	Link Side					CPU Side				
	Device Name	Points	Start	End		Target	Device Name	Points	Start	End
-	SB									
-	SW									
1	RX	224	00000	000DF		Specify Device	D	14	1000	1013
2	RY	224	00000	000DF		Specify Device	D	14	2000	2013
3	RWr	32	00000	0001F		Specify Device	W	32	00000	0001F
4	RWw	32	00000	0001F		Specify Device	W	32	00100	0011F
5										

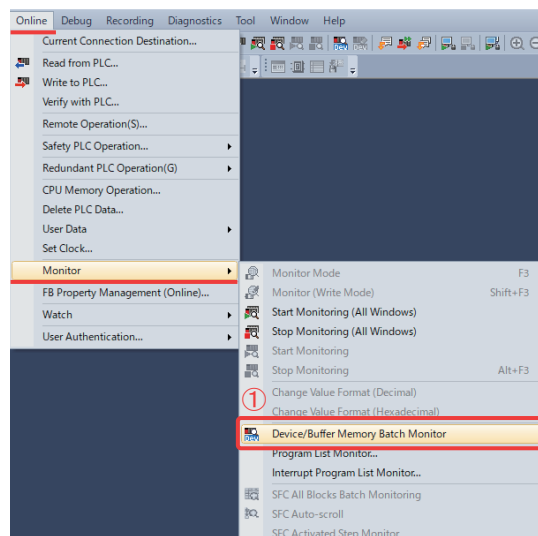
In this example, the contents of settings are as follows:

- | | | |
|-------|------|---|
| No. 1 | Link | Device name "RX"; Start address "0"; End address "000DF" (224 points) |
| | CPU | Refresh target "Specified device"; Device name "D"; Start address "1000" |
| No. 2 | Link | Device name "RY"; Start address "0"; End address "000DF" (224 points) |
| | CPU | Refresh target "Specified device"; Device name "D"; Start address "2000" |
| No. 3 | Link | Device name "RWr"; Start address "0"; End address "0001F" (32 points) |
| | CPU | Refresh target "Specified device"; Device name "W"; Start address "00000" |
| No. 4 | Link | Device name "RWw"; Start address "0"; End address "0001F" (32 points) |
| | CPU | Refresh target "Specified device"; Device name "W"; Start address "00100" |

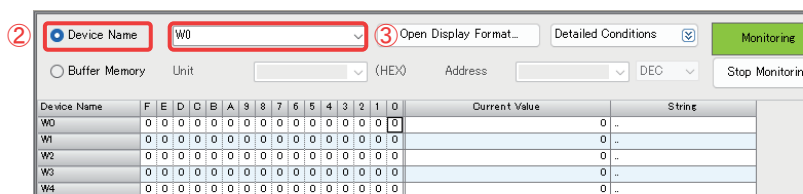
I/O Check with GX Works3

■ Device/buffer memory joint monitor

- ① Select “Online”, “Monitor” and then “Device/buffer memory joint monitor”.



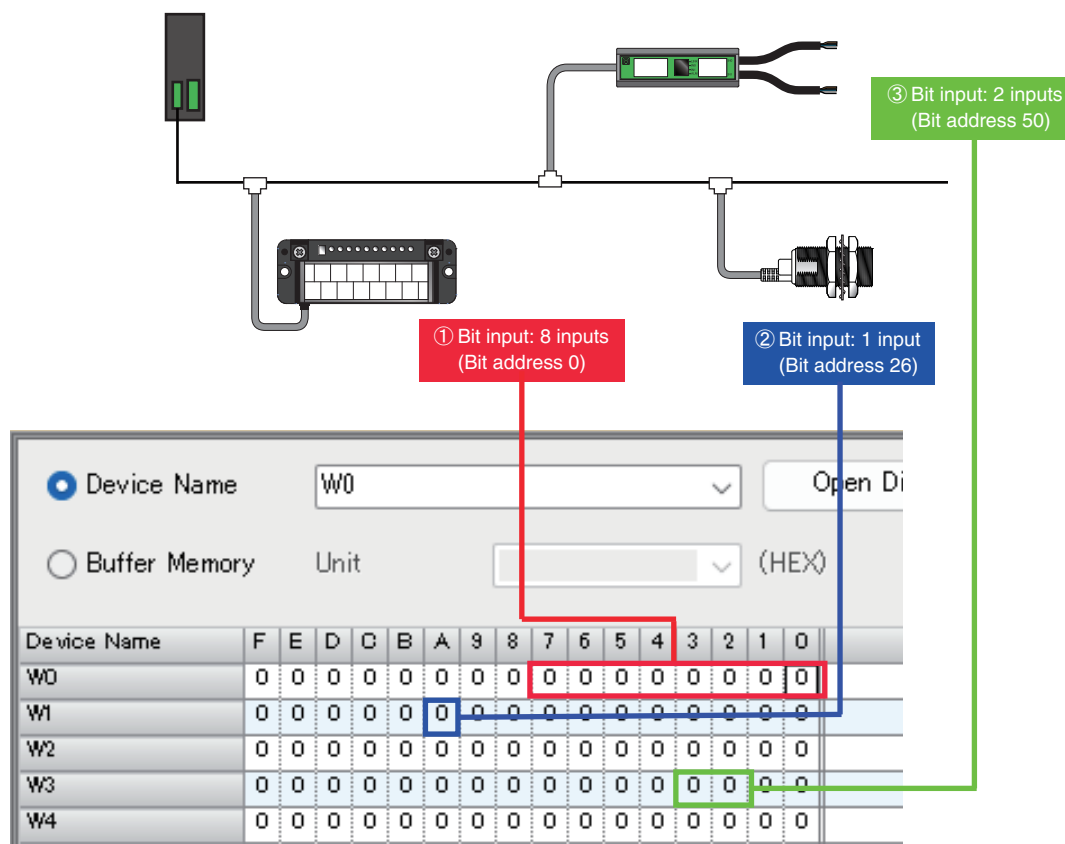
- ② Select “Device Name (N)”.
- ③ Specify a device to be monitored, and press “Enter”.



■ Checking bit input information

Specify a device that has been set for "Transfer to CPU (bit)" in the "Refresh Settings" of unit parameter to monitor the device.
The following example is intended for a case where "W0" is specified for start address of bit input information area.

[System configuration]



◆ Correspondence with the AnyWireASLINK address numbers ◆

W0	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
W1	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16
W2	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32
W3	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48
W4	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64

Checking bit output information and changing current value

Specify a device that has been set for "RWw" in "Link Refresh Settings" of unit parameter, and confirm and output the setting.

Device Name	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0
W1 00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W1 01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W1 02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[Address]

Anywire Anywire Corporation

Headquarters :1 Babazusho, Nagaokakyo-shi, Kyoto 617-8550 JAPAN

Contact :Contact by mail info_e@anywire.jp
:Contact by website http://www.anywire.jp