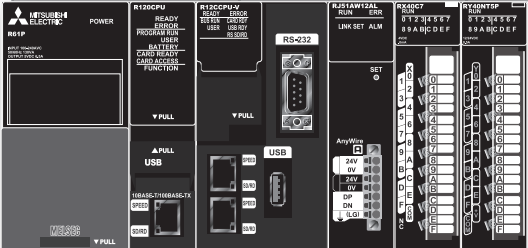


AnyWireASLINK

Startup Guide (R-Series Master Unit Parameter Access)

Buffer memory address		Item	Allowable operation (Read/write)
Decimal	Hexadecimal		
0 to 15	0H to FH	Bit input information area	Read only
16 to 511	10H to 1FFH	System reserved	—
512 to 1023	200H to 3FFH	Word input information area ^{*1}	Read only
1024 to 4095	400H to FFFH	System reserved	—
4096 to 4111	1000H to 100FH	Bit output information area	Read and write
4112 to 4607	1010H to 11FFH	System reserved	—
4608 to 5119	1200H to 13FFH	Word output information area ^{*1}	Read and write
5120 to 8191	1400H to 1FFFH	System reserved	—
8192	2000H	Number of the error IDs	Read only
		Error ID information storage area	Read only
		System reserved	—
		Error ID information bit area (bit output)	Read only
		System reserved	—
		Error ID information bit area (bit input)	Read only
		System reserved	—
		Error ID information bit area (word output) ^{*1}	Read only
		Error ID information bit area (word input) ^{*1}	Read only
		System reserved	—
		Number of the connected units	Read only
8800 to 8831	2260H to 227FH	System reserved	—
8832 to 8959	2280H to 22FFH	System reserved	—
8960	2300H	Number of the IDs of the connected units	Read only
8961 to 9215	2301H to 23FFH	Connected unit ID information storage area	Read only
9216	2400H	System reserved	—
9217 to 9344	2401H to 2480H	Number of the IDs	Read only
9345 to 9983	2481H to 26FFH	System reserved	—
9984	2700H	Latest error code storage area	Read only
9985 to 10112	2701H to 2780H	Latest error ID storage area	Read only
10113 to 10255	2781H to 280FH	System reserved	—
10256	2810H	Parameter access target ID specification	Read and write
10257	2811H	Parameter access target ID specification	Read and write
10258 to 10319	2812H to 284FH	Designation of ID subject to change	Read and write
10320	2850H	System reserved	—
10321	2851H	Parameter storage location memory number (bit output)	Read only
10322	2852H	Parameter storage location memory number (bit input)	Read only
10323	2853H	System reserved	—
10324 to 10495	2854H to 28FFH	System reserved	—
10496 to 10751	2900H to 29FFH	System reserved	—
10752 to 11007	2A00H to 2AFFH	System reserved	—
11008 to 11263	2B00H to 2BFFH	System reserved	—
11264 to 12095	2C00H to 2F3FH	System reserved	—
12096	2F40H	Event code for auxiliary information area ^{*1}	Read only
12097 to 12224	2F41H to 2FC0H	Auxiliary information area ^{*1}	Read only



Introduction

■ Key point of “visualization”

Parameter access

A difference between AnyWireASLINK and other wire-saving systems is that the AnyWireASLINK system provides the “visualization” function.

The visualization information is stored in individual remote units. During edition of the information with a program, it is loaded into the memory of the master unit, and processed with the programmable controller.

This document describes parameter information storing places and flow of read/write operations by showing concrete examples.

■ Contents

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Case 3 Checking sensing level of remote unit [Parameter read] · · · · ·	07
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Description of terms

Address

"Address" serves as a reference to a memory area used for a remote unit.
 It is necessary that addresses should be set for all remote units.
 For both input and output remote units, address setting range is 0 to 255 (decimal numbers).
 * Address 255 is a number to indicate the status at shipment.

Input remote unit address: 0 to 255
 Output remote unit address: 0 to 255

Because the address setting range of 0 to 255 is applied to both input and output remote units, for example, it is not clear whether "address 16" indicates address 16 of input remote unit or output remote unit.



Does "address 16" mean an address of input or output remote unit?

ID

"ID" is intended to provide a meaning of input or output to each address.
 Relation between addresses and IDs is as follows:

Input remote unit address: 0 to 255
 Output remote unit address: 0 to 255

Input remote unit ID: 200H to 2FFH
 Output remote unit ID: 000H to 0FFH

* In this document, ID is expressed as hexadecimal number.

"ID210H" means address 16 of input remote unit.
 "ID010H" means address 16 of output remote unit.



I see



Hint

- For ID of an I/O combined remote unit, the same concept as that for input remote unit is applied.
 The master unit enables differentiation between two types of remote units:
 "Input or I/O combined remote unit" and "output remote unit".

Automatic address detection

During execution of automatic address detection, the master unit stores I/O configuration and address settings of normally operating remote units.
 Through this operation, the master unit confirms that registered remote unit IDs exist, and enables parameter communication.
 This operation is always executed during system startup, and when there is a change in system configuration.



Hint

- After storing configuration of the remote units being connected, the master unit automatically executes parameter batch read processing.



Parameter communication

Apart from 256 inputs and 256 outputs (maximum) used for control, the master unit handles variety of information (remote unit existence confirmation signals, sensors' sensing level information and set values and status of individual remote units, etc.). These operations are called "parameter communication", for differentiation from handling of I/O signals.
 "Parameter communication" comprises the following four types of operations: "Automatic update", "Parameter batch read", "Parameter batch write" and "Parameter access".

- ① Automatic update
: Updates all remote unit status and sensing level information periodically.
- ② Parameter batch read
: Reads all the parameter values of all remote units into the buffer memory of the master unit.
- ③ Parameter batch write
: Writes all the parameter values that have been stored in the buffer memory of the master unit into all remote units.
- ④ Parameter access
: Reads or writes all the parameter values of the specified remote unit individually by specifying the access method (read or write) and target remote unit ID.

Case 1

Identification of remote unit subject to DP, DN disconnection error

Basic

Program flow:

- ① Turning ON I/O signal Xn4 (DP, DN disconnection error)
↓
- ② Checking information on the number of error IDs of buffer memory address 8192 (2000H)
↓
- ③ Checking the error ID information storage area of buffer memory address 8193 (2001H) and subsequent address Nos.

Detailed description page

“DP, DN disconnection error flag”
Page 15

“Number of the error IDs”
Page 20

“Error ID information storage
areas”
Page 20

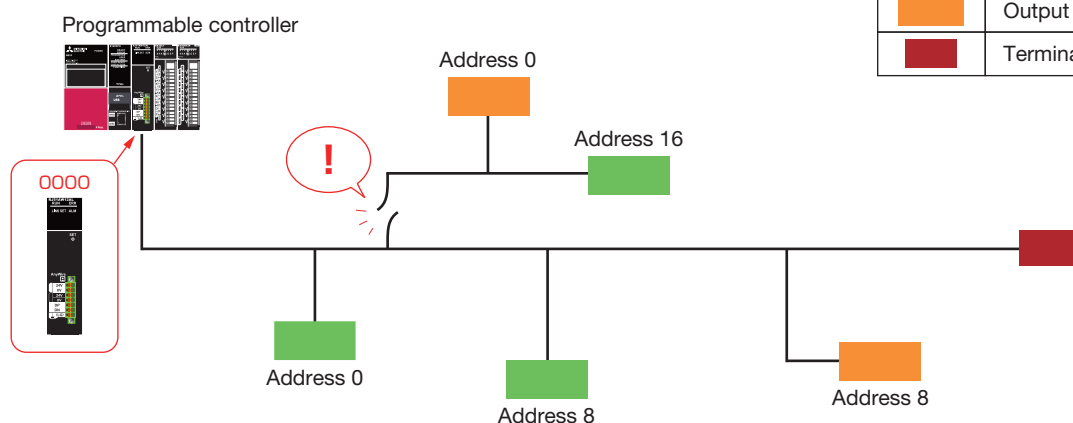
Concrete example

[System configuration]

Head XY address of master unit: 0000

Input remote unit 3 units

Output remote unit 2 units



Symbol	Meaning
	Input remote unit
	Output remote unit
	Terminating unit

Task

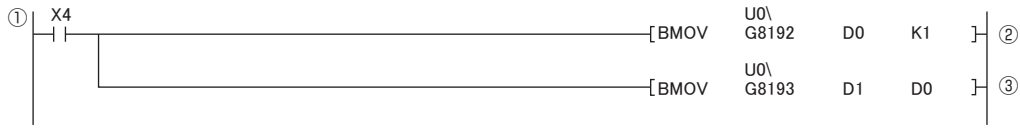
For example, consider a case that the transmission cable is disconnected at the place indicated with !.

➡ For an example of reference, see the next page.





Reference program:



Description

- ① Turning ON X4 (DP, DN disconnection error)



- ② Transferring a value of the number of error IDs at buffer memory address 8192 (2000H) to D0.



* In this example, “2” is stored in D0, since the response from two remote units is interrupted.

- ③ Transferring a value of error ID information storage area of buffer memory address 8193 (2001H) and subsequent address numbers, as many times as the number of error IDs (number of D0), starting from D1.

* For the purpose of differentiation, “0” (indicating output remote unit) or “2” (indicating input remote unit) is added to the left digit of the ID number. Thus, “0H” is stored in D1, and “210H” is stored in D2.

- Device monitor screen

[illegible]

Judging from this value, the remote unit subject to disconnection error detection is identified as follows:

Output address 0

Input address 16

Point

Be careful that because the output remote unit ID of address 0 is "0H", D1 is "0".



Case 2

Checking alarm details when alarm is activated with remote unit [Status details read]

Basic

Program flow:

- ① Checking a parameter storage location memory number of the target ID
↓
- ② Checking contents of the buffer memory address corresponding to the 40th word (status details) in the 48-word structure, starting from the parameter storage location memory number that has been checked

Detailed description page

“Remote unit alarm signal”
Page 16

“Number of the alarm IDs”
Page 20

“Alarm ID information storage areas”
Page 20

“Parameter storage location memory number”
Page 25

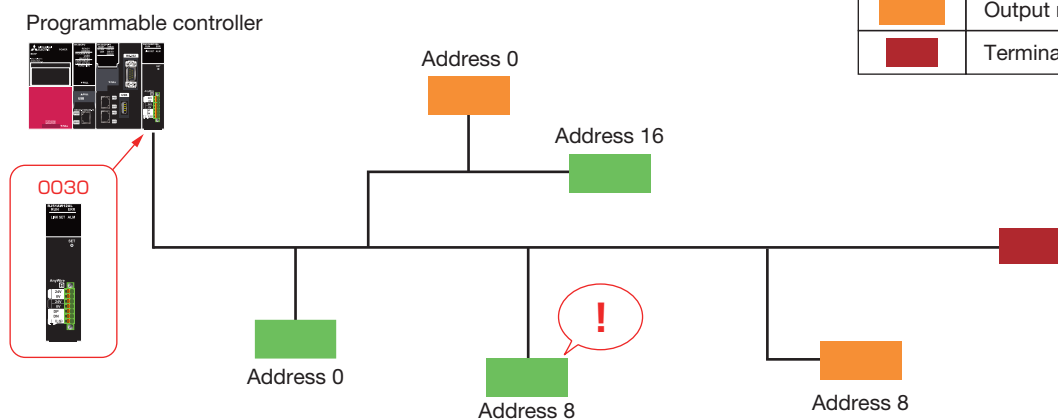
“Parameter storage areas”
Page 27

“Status details”
Page 31

Concrete example

[System configuration]

Head XY address of master unit: 0030
Input remote unit 3 units
Output remote unit 2 units



Task

For example, consider a case that sensing level reduction is detected with the remote unit indicated with !.

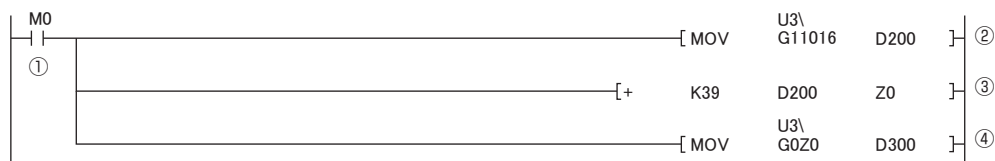
➔ For an example of reference, see the next page.





Example of reference

Reference program:



Description

① Turning ON M0 (status detail read trigger)

↓

② Transferring U3\G11016 (head address of buffer memory of ID208H parameter storage area) to D200

↓

* In this example, "12432" is stored in D200.

③ Transferring a value of D200 plus 39 (status details) to the offset device Z0

↓

* In the 48-word structure of parameter storage area, the 40th word from the head word indicates detailed status.

↓

* In this example, "12471" is stored in Z0.

④ Transferring a value offset by Z0 (12471) from the head address of buffer memory to D300

↓

* In this example, "2" is stored in D300.

Check alarm details by the value of D300.

↓

* In this example, the value of D300 is "2", indicating that the cause of the alarm is sensing level reduction.

	Bit No.																
Device	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0	Data
D300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2

Case 3

Checking sensing level of remote unit [Parameter read]

Basic

Program flow:

- ① Checking a parameter storage location memory number of the target ID
↓
- ② Checking contents of the buffer memory address corresponding to the 41st word (sensing level) in the 48-word structure, starting from the parameter storage location memory number that has been checked

Detailed description page

“Parameter storage location
memory number” Page 25

“Parameter storage areas”
Page 27

“48-word structure” Page 30

“Sensing level” Page 31

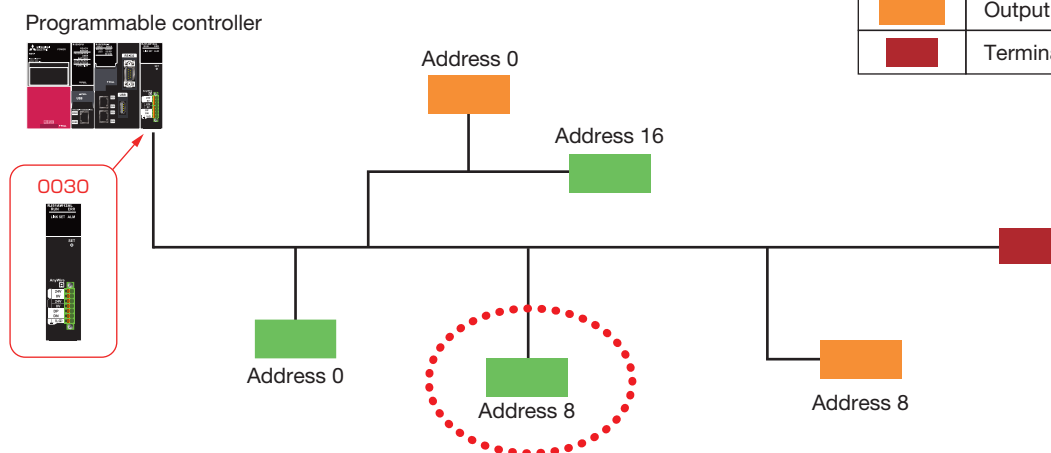
Concrete example

[System configuration]

Head XY address of master unit: 0030

Input remote unit 3 units

Output remote unit 2 units



Task

For example, consider a case to check the sensing level of the remote unit of “address 8”.

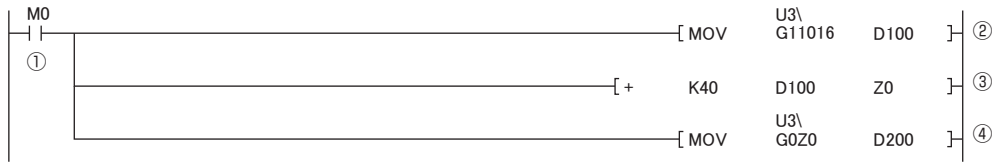
➔ For an example of reference, see the next page.





Example of reference

Reference program:



Description

- ① Turning ON M0 (sensing level read trigger)

↓

- ② Transferring U3\G11016 (head address of buffer memory of ID208H parameter storage area) to D100

↓

* In this example, "12480" is stored in D100.

- ③ Transferring a value of D100 plus 40 to the offset device Z0

↓

* In the 48-word structure of parameter storage area, the 41st word from the head word indicates a sensing level.

↓

* In this example, "12520" is stored in Z0.

- ④ Transferring a value offset by Z0 (12520) from the head address of buffer memory to D200

↓

The sensing level can be checked with the value of D200.

5th ID in ascending order



ID in ascending order	Parameter storage area
000H	Un\G12288 to Un\G12335
008H	Un\G12336 to Un\G12383
200H	Un\G12384 to Un\G12431
208H	Un\G12432 to Un\G12479
210H	Un\G12480 to Un\G12527

Example: When the sensing level is "98"

Decimal number converted from binary

	Bit No.																
Device	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0	Data
D200	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	98

Weight of digit for conversion
from binary number to decimal

→

... 128 64 32 16 8 4 2 1

To convert binary number "0000000001100010" to a decimal number, a weight (decimal number) shall be added to each digit of "1".

In the above example, bit Nos. 6, 5 and 1 is "1".

Weights of these digits are 64, 32 and 2. (64 + 32 + 2 = 98)



0	0	0	0	Add "1" zero times.
0	0	0	1	Add "1" once.
0	0	1	0	Add "1" twice. (= 2)
0	0	1	1	Add "1" three times.
0	1	0	0	Add "1" four times. (= 4)
0	1	0	1	Add "1" five times.
0	1	1	0	Add "1" six times.
0	1	1	1	Add "1" seven times.
1	0	0	0	Add "1" eight times. (= 8)

Case 4

Checking device parameter of remote unit individually

- ASLINK sensor's threshold check
- SmartLINKER disconnection information check, etc.

Basic

Program flow:

- ① Specifying the read command in parameter access setting (Un\G10320)
- ② Specifying an ID in parameter access target unit ID specification (Un\G10321)
- ③ Turning the parameter access request command Y(n+1)0 from OFF to ON
- ④ After confirming that the parameter access completion flag turns ON, checking the parameter storage location memory number of the target ID
- ⑤ Checking contents of the buffer memory address corresponding to a device parameter to be checked in the 48-word structure, starting from the parameter storage location memory number that has been checked.
- ⑥ Turning the parameter access request command Y(n+1)0 from ON to OFF

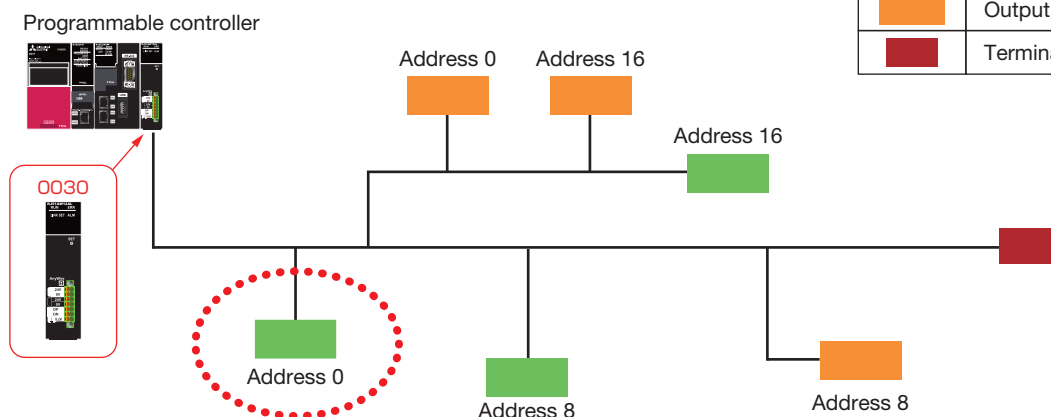
Detailed description page

"Parameter access setting"	Page 24
"Parameter access target unit ID specification"	Page 24
"Parameter access request command"	Page 17
"Parameter access completion flag"	Page 16
"Parameter storage location memory number"	Page 25
"Parameter storage areas"	Page 27
"48-word structure"	Page 30

Concrete example

[System configuration]

Head XY address of master unit: 0030
 Input remote unit 3 units
 Output remote unit 3 units



Task

For example, consider a case to check the sensing level of the input remote unit of "Address 0".

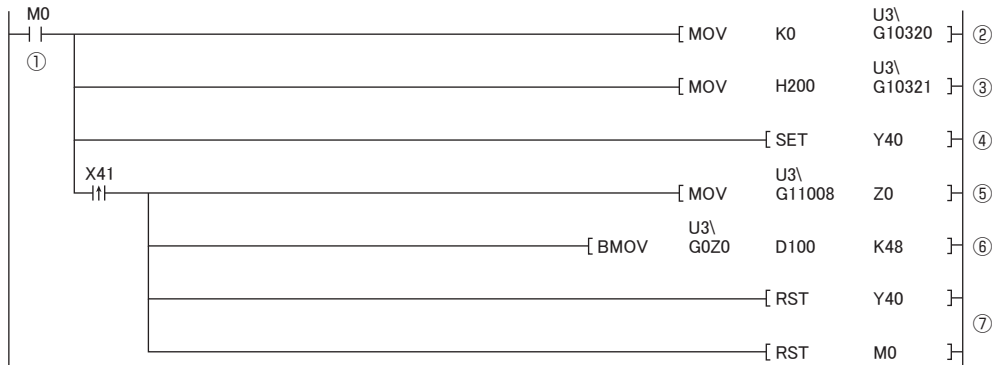
➔ For an example of reference, see the next page.





Example of reference

Reference program:



Description

① Turning ON M0 (parameter read trigger)



② Storing "0" in U3\G10320 (parameter access setting)



* Store "0", and specify the "read" command.

③ Storing "200H" in U3\G10321 (parameter access target unit ID specification)



* Specify the ID of the remote unit to read.

④ Turning Y(n+1)0 (parameter access request command) from OFF to ON



⑤ At the rising edge of X(n+1)1 (parameter access completion flag), U3\G11008 (head address of buffer memory of ID200H parameter storage area) is transferred to the offset device Z0.



* In this example, "12432" is stored in Z0. (4th ID in ascending order that has been registered in the master unit)

⑥ Transferring data of 48 words (D100 to D147) from a position offset by Z0 (12432) relative to the head address of buffer memory.



* Read all data of 48 words from the parameter storage area corresponding to ID200H

⑦ Turning Y(n+1)0 and M0 from ON to OFF



Contents of each parameter in ID200H can be checked with D100 to D147.

4th ID in ascending order



ID in ascending order	Parameter storage area
000H	Un\G12288 to Un\G12335
008H	Un\G12336 to Un\G12383
010H	Un\G12384 to Un\G12431
200H	Un\G12432 to Un\G12479
208H	Un\G12480 to Un\G12527
210H	Un\G12528 to Un\G12575

	Bit No.																
Device	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0	Data
D100	Unit ID															200H	
D101	Device parameter 1																
D102	Device parameter 2																
D103	Device parameter 3																
D104	Device parameter 4																
D105	Device parameter 5																
...	...																

Case 5

Changing device parameter of remote unit individually

- ASLINKSENSOR's Light ON/Dark ON mode setting changeover
- SmartLINKER disconnection error clear command, etc.

Basic

Program flow:

- ① Specifying the read command in parameter access setting (Un\G10320)
- ↓
- ② Specifying an ID in parameter access target unit ID specification (Un\G10321)
- ↓
- ③ Turning the parameter access request command Y(n+1)0 from OFF to ON
- ↓
- ④ After confirming that parameter access completion flag Y(n+1)1 turns ON, turning Y(n+1)0 from ON to OFF
- ↓
- ⑤ Checking the parameter storage location memory number of the ID subject to change
- ↓
- ⑥ Storing a value to change in the buffer memory address for the device parameter to be changed, starting from the parameter storage location memory number that has been checked
- ↓
- ⑦ Specifying the write command in parameter access setting (Un\G10320)
- ↓
- ⑧ Specifying an ID in parameter access target unit ID specification (Un\G10321)
- ↓
- ⑨ Turning the parameter access request command Y(n+1)0 from OFF to ON
- ↓
- ⑩ After confirming that the parameter access completion flag X(n+1)1 turns ON, turning Y(n+1)0 from ON to OFF

Detailed description page

"Parameter access setting" Page 24

"Parameter access target unit ID specification" Page 24

"Parameter access request command" Page 17

"Parameter access completion flag" Page 16

"Parameter storage location memory number" Page 25

"Parameter storage areas" Page 27

"48-word structure" Page 30

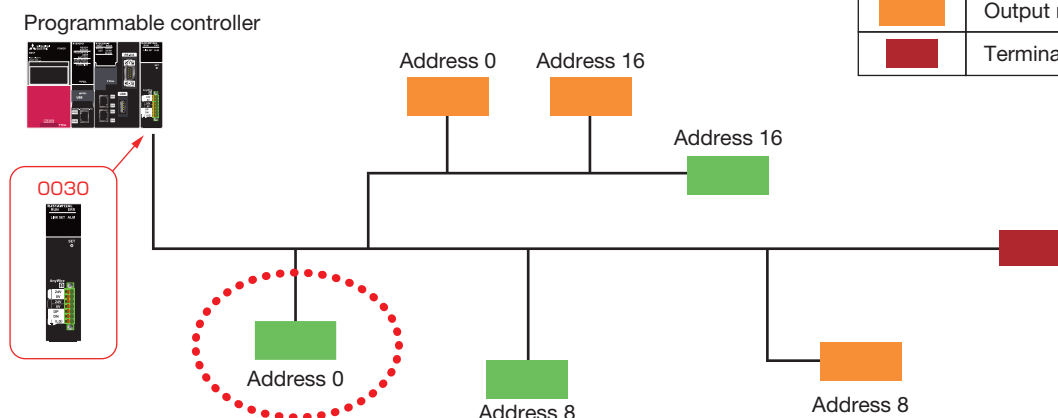
Wait! To execute write processing, is it necessary to specify a read command in advance?



Concrete example

[System configuration]

Head XY address of master unit: 0030
Input remote unit 3 units
Output remote unit 3 units



Symbol	Meaning
	Input remote unit
	Output remote unit
	Terminating unit

Task

For example, consider a case to change the setting of the input remote unit (ASLINKSENSOR) of "address 0", from the Dark ON mode to the Light ON mode.

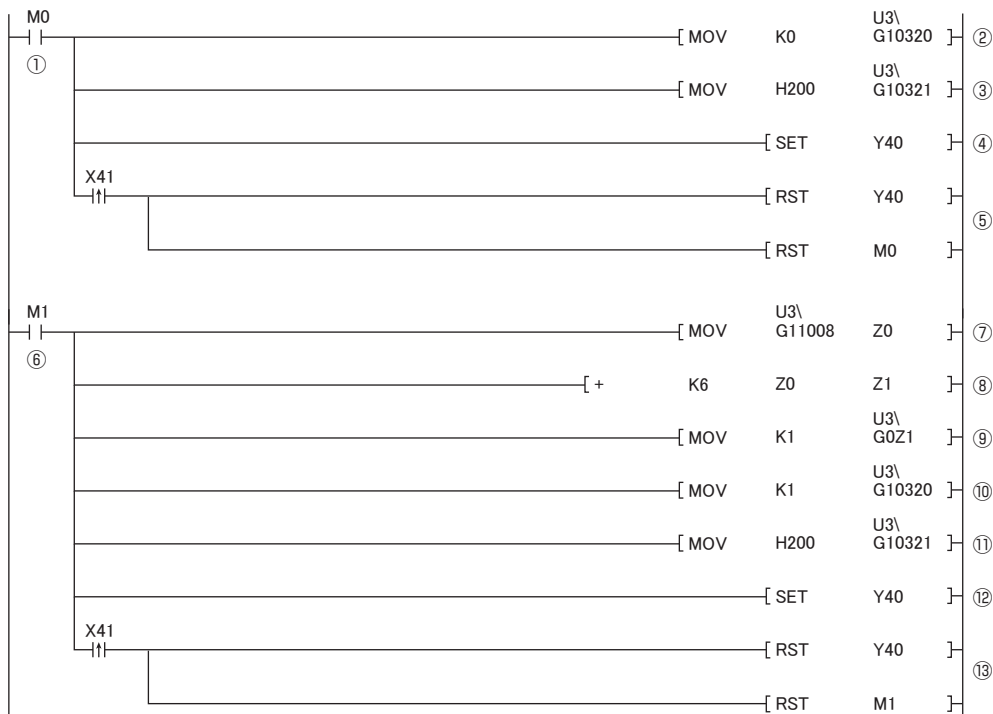


➔ For an example of reference, see the next page.



Example of reference

Reference program:



Description

- ① Turning ON M0 (parameter read trigger)
↓
- ② Storing "0" in U3\G10320 (parameter access setting)
↓
* Store "0", and specify the "read" command.
- ③ Storing "200H" in U3\G10321 (parameter access target unit ID specification)
↓
* Specify a remote unit ID to read.
- ④ Turning Y(n+1)0 (parameter access command) from OFF to ON
↓
- ⑤ At the rising edge of X(n+1)1 (parameter access completion flag), turning Y(n+1)0 and M0 from ON to OFF
↓
- ⑥ Turning ON M1 (parameter write trigger)
↓
- ⑦ Transferring the parameter storage location memory address of ID200H to the offset device Z0
↓
* In this example, "12432" is stored in Z0.
- ⑧ Storing a value of Z0 plus 6 in Z1 to specify a buffer memory address of the device parameter 06 to write.
↓
- ⑨ Storing "1" as a value to change, in a place offset by Z1 from the head address of the buffer memory (the device parameter 06 of the relevant ID)
↓
- ⑩ Storing "1" in U3\G10320 (parameter access setting)
↓
* Store "1", and specify the "write" command.
- ⑪ Storing "200H" in U3\G10321 (parameter access target unit ID specification)
↓
* Specify a remote unit ID to write.
- ⑫ Turning Y(n+1)0 (parameter access command) from OFF to ON
↓
- ⑬ At the rising edge of X(n+1)1 (parameter access completion flag), turning Y(n+1)0 and M0 from ON to OFF

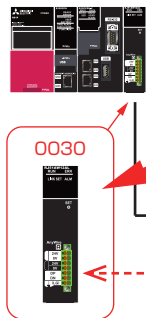


Example of reference



Description

Programmable controller



Reading parameter information from the sensor



Immediately before writing, read the relevant parameter once to make the device parameters in the buffer memory in the latest status.

U3\G12433	Device parameter 1 (Threshold value)	*
U3\G12434	Device parameter 2 (Hysteresis)	*
U3\G12435	Device parameter 3 (Alarm Hi)	*
U3\G12436	Device parameter 4 (Alarm Lo)	*
U3\G12437	Device parameter 5 (Alarm monitoring time)	*
U3\G12438	Device parameter 6 (Dark ON/Light ON setting)	*
to	to	to
U3\G12451	Device parameter 19 (System reserved)	*

The read parameter information is stored in the buffer memory of the master unit.

Read

U3\G12433	Device parameter 1 (Threshold value)	50
U3\G12434	Device parameter 2 (Hysteresis)	5
U3\G12435	Device parameter 3 (Alarm Hi)	80
U3\G12436	Device parameter 4 (Alarm Lo)	20
U3\G12437	Device parameter 5 (Alarm monitoring time)	50
U3\G12438	Device parameter 6 (Dark ON/Light ON setting)	0
to	to	to
U3\G12451	Device parameter 19 (System reserved)	0

These parameters are currently stored in this unit. The Dark ON mode is specified.

Change the value(s) of desired device parameter(s), and write the parameters.

U3\G12433	Device parameter 1 (Threshold value)	50
U3\G12434	Device parameter 2 (Hysteresis)	5
U3\G12435	Device parameter 3 (Alarm Hi)	80
U3\G12436	Device parameter 4 (Alarm Lo)	20
U3\G12437	Device parameter 5 (Alarm monitoring time)	50
U3\G12438	Device parameter 6 (Dark ON/Light ON setting)	1
to	to	to
U3\G12451	Device parameter 19 (System reserved)	0

Write all contents of device parameters 1 to 19.

Once parameter writing is executed, all device parameters will be updated, not only the target device parameters. Therefore, it is necessary to read the device parameters immediately before writing, to make sure that the parameter settings in the buffer memory conform to those of the remote unit.

0030



Writing parameter information to the sensor



The sensor changes to the Light ON mode.





Supplementary reference (List of I/O signals)

Signal direction: Master unit to CPU module		Signal direction: CPU module to master unit	
Device number	Signal name	Device number	Signal name
Xn0	Unit READY	Yn0	Error flag clear command
Xn1	DP-DN short error	Yn1	Automatic address detection command
Xn2	24V-DP short error	Yn2	Address duplication check command
Xn3	Transmission cable voltage drop error	Yn3 to YnC	Use prohibited
Xn4	DP, DN disconnection error		
Xn5 to Xn7	Use prohibited		
Xn8	AnyWireASLINK version compatibility check error ^{*1}		
Xn9	Backup/restore incompatibility error ^{*1}		
XnA	Parameter access compatibility flag (with handshake) ^{*1}		
XnB	Parameter access in-progress flag (with handshake) ^{*1}		
XnC	Use prohibited		
XnD	AnyWireASLINK version compatibility check execution in-progress flag ^{*1}	YnD	AnyWireASLINK version compatibility check command ^{*1}
XnE	Use prohibited	YnE to YnF	Use prohibited
XnF	Adjustment mode execution in-progress flag ^{*1}		
X(n+1)0	Remote unit alarm signal	Y(n+1)0	Remote unit parameter access request command
X(n+1)1	Parameter access completion flag	Y(n+1)1	Remote unit parameter batch read command
X(n+1)2	Parameter access error	Y(n+1)2	Remote unit parameter batch write command
X(n+1)3	Use prohibited	Y(n+1)3 to Y(n+1)F	Use prohibited
X(n+1)4	Automatic address detection flag		
X(n+1)5	Address duplication check flag		
X(n+1)6	Remote unit replacement in-progress flag ^{*1}		
X(n+1)7	Remote unit replacement completion flag ^{*1}		
X(n+1)8 to X(n+1)F	Use prohibited		

*1 This signal is available with the master unit identified as "03" or later model in the first two digits of manufacturing information.

"n" is the head I/O number of the ASLINK master unit.

Example) When the head I/O number of the ASLINK master unit is "0030":

Xn0 to X(n+1)F → X30 to X4F

Yn0 to Y(n+1)F → Y30 to Y4F

The above contents apply when the programmable controller has 32 inputs and 32 outputs.





Supplementary reference (Description of I/O signals)

■ Unit READY (Xn0)

This signal turns ON when the master unit becomes ready after reset of the CPU, or after the power supply is turned from OFF to ON.

■ DP-DN short error (Xn1) [Hold type]

This signal turns ON when a short occurs in the transmission cables (DP-DN) or the maximum supply current is exceeded.

■ 24V-DP short error (Xn2) [Hold type]

This signal turns ON when a short occurs in the transmission cables (24V, DP).

■ Transmission cable voltage drop error (Xn3) [Hold type]

This signal turns ON when the 24VDC external power supply voltage drops.

■ DP, DN disconnection error (Xn4) [Hold type]

This signal turns ON when the master unit cannot confirm response from a remote unit in the case of transmission cable (DP, DN) disconnection, fault of the remote unit, etc.



Hint

- The DP, DN disconnection error signal remains ON until automatic address detection is executed after the master unit power supply is turned ON first.
- The DP, DN disconnection error signal is turned ON, if a remote unit address is changed after execution of automatic address detection.

■ AnyWireASLINK version compatibility check error (Xn8) [Hold type]

This signal turns ON when an error occurs during execution of AnyWireASLINK version compatibility check.

■ Backup/restore incompatibility error (Xn9) [Hold type]

This signal turns ON when the backup/restore function is executed for a CPU that does not support the backup/restore function.

■ Parameter access compatibility flag (with handshake) (XnA)

This signal remains ON for a master unit that supports "Parameter access in-progress flag (with handshake)" (XB).

■ Parameter access in-progress flag (with handshake) (XnB)

This signal turns ON at the start of parameter access processing after any one of the following output signals turns ON.

- "Remote unit parameter access request command" (Y10)
- "Remote unit parameter batch read command" (Y11)
- "Remote unit parameter batch write command" (Y12)

■ AnyWireASLINK version compatibility check execution in-progress flag (XnD)

This signal turns ON at the start of AnyWireASLINK version compatibility check.

■ Adjustment mode execution in-progress flag (XnF)

This signal turns ON during execution of the adjustment mode using an ASLINKMONITOR.

In the adjustment mode, parameter access and remote unit disconnection detection are disabled.

■ Remote unit alarm signal (X(n+1)0) [Hold type]

This signal turns ON when any of the following errors occur.

- When the remote unit status error occurs (including I/O disconnection, short-circuit, etc.)
- When the remote unit address setting error occurs.
- When the remote unit model No. is different between before and after replacement during use of the single unit simplified replacement function.

■ Parameter access completion flag (X(n+1)1)

During any one of the following processing operations, this signal turns from ON to OFF. At completion of the processing, the signal turns from OFF to ON.

- During execution of parameter access
- During execution of the single unit simplified replacement function
- During execution of AnyWireASLINK version compatibility check

■ Parameter access error (X(n+1)2) [Hold type]

This signal turns ON when an error occurs in the parameter access.

■ Automatic address detection flag (X(n+1)4)

The signal remains ON after the start of automatic address detection operation until the end of the operation.

■ Address duplication check flag (X(n+1)5)

The signal remains ON after the start of address duplication check operation until the end of the operation.

■ Remote unit replacement in-progress flag (X(n+1)6)

This signal turns ON during execution of replacement processing for the replacement of a remote unit by using the single unit simplified replacement function.

■ Remote unit replacement completion flag (X(n+1)7)

This signal turns ON when "Remote unit replacement in-progress flag" (X16) turns OFF for the replacement of a remote unit by using the single unit simplified replacement function.



Hint

To turn OFF the [Hold type] error signal after resetting the error status:

- Reset the CPU, or turn the power supply from OFF to ON.
- Turn the error flag clear command (Yn0) from OFF to ON, and then turn it OFF again.

■ Error flag clear command (Yn0)

Turning “Error flag clear command” (Y0) from OFF to ON clears the following input signals and the buffer memory.

- DP-DN short error (Xn1)
- 24V-DP short error (Xn2)
- Transmission cable voltage drop error (Xn3)
- DP, DN disconnection error (Xn4)
- AnyWireASLINK version compatibility check error (Xn8)
- Backup/restore incompatibility error (Xn9)
- Remote unit alarm signal (X(n+1)0)
- Parameter access error (X(n+1)2)
- Number of the error IDs (Un\G8192)
- Error ID information storage area (Un\G8193 to Un\G8320)
- Error ID information bit area (bit output) (Un\G8704 to Un\G8719)
- Error ID information bit area (bit input) (Un\G8736 to Un\G8751)
- Error ID information bit area (word output) (Un\G8768 to Un\G8799)
- Error ID information bit area (word input) (Un\G8800 to Un\G8831)
- Number of the alarm IDs (Un\G9984)
- Alarm ID information storage area (Un\G9985 to Un\G10112)
- Latest error code storage area (Un\G10256)
- Latest error ID storage area (Un\G10257)
- Event code for auxiliary information area (Un\G12096)
- Auxiliary information area (Un\G12097 to Un\G12224)

■ Automatic address detection command (Yn1)

This signal turns ON when the automatic address detection is executed.

■ Address duplication check command (Yn2)

This signal turns ON when the address duplication check is executed.

■ AnyWireASLINK version compatibility check command (YnD)

This signal turns ON when the AnyWireASLINK version compatibility check is executed.

■ Remote unit parameter access request command (Y(n+1)0)

This signal turns ON when one of the following processing operations is executed from the master unit to a remote unit.

- Execution of parameter reading from a remote unit, or parameter writing into a remote unit
- Execution of remote address change function



Hint

- The DP, DN disconnection error signal remains ON until automatic address detection is executed after the master unit power supply is turned ON first.
- The DP, DN disconnection error signal is turned ON, if a remote unit address is changed after the execution of automatic address detection.

■ Remote unit parameter batch read command (Y(n+1)1)

This signal turns ON when batch parameter reading is executed from all remote units recognized by the master unit.

■ Remote unit parameter batch write command (Y(n+1)2)

This signal turns ON when batch parameter writing is executed into all remote units recognized by the master unit.



Supplementary reference (List of buffer memory addresses)

Buffer memory address		Item	Allowable operation (Read/write)
Decimal	Hexadecimal		
0 to 15	0H to FH	Bit input information area	Read only
16 to 511	10H to 1FFH	System reserved	—
512 to 1023	200H to 3FFH	Word input information area ^{*1}	Read only
1024 to 4095	400H to FFFH	System reserved	—
4096 to 4111	1000H to 100FH	Bit output information area	Read and write
4112 to 4607	1010H to 11FFH	System reserved	—
4608 to 5119	1200H to 13FFH	Word output information area ^{*1}	Read and write
5120 to 8191	1400H to 1FFFH	System reserved	—
8192	2000H	Number of the error IDs	Read only
8193 to 8320	2001H to 2080H	Error ID information storage area	Read only
8321 to 8703	2081H to 21FFH	System reserved	—
8704 to 8719	2200H to 220FH	Error ID information bit area (bit output)	Read only
8720 to 8735	2210H to 221FH	System reserved	—
8736 to 8751	2220H to 222FH	Error ID information bit area (bit input)	Read only
8752 to 8767	2230H to 223FH	System reserved	—
8768 to 8799	2240H to 225FH	Error ID information bit area (word output) ^{*1}	Read only
8800 to 8831	2260H to 227FH	Error ID information bit area (word input) ^{*1}	Read only
8832 to 8959	2280H to 22FFH	System reserved	—
8960	2300H	Number of the connected units	Read only
8961 to 9215	2301H to 23FFH	System reserved	—
9216	2400H	Number of the IDs of the connected units	Read only
9217 to 9344	2401H to 2480H	Connected unit ID information storage area	Read only
9345 to 9983	2481H to 26FFH	System reserved	—
9984	2700H	Number of the alarm IDs	Read only
9985 to 10112	2701H to 2780H	Alarm ID information storage area	Read only
10113 to 10255	2781H to 280FH	System reserved	—
10256	2810H	Latest error code storage area	Read only
10257	2811H	Latest error ID storage area	Read only
10258 to 10319	2812H to 284FH	System reserved	—
10320	2850H	Parameter access setting	Read and write
10321	2851H	Parameter access target unit ID specification	Read and write
10322	2852H	System reserved	—
10323	2853H	Designation of ID subject to change	Read and write
10324 to 10495	2854H to 28FFH	System reserved	—
10496 to 10751	2900H to 29FFH	Parameter storage location memory number (bit output)	Read only
10752 to 11007	2A00H to 2AFFH	System reserved	—
11008 to 11263	2B00H to 2BFFH	Parameter storage location memory number (bit input)	Read only
11264 to 12095	2C00H to 2F3FH	System reserved	—
12096	2F40H	Event code for auxiliary information area ^{*1}	Read only
12097 to 12224	2F41H to 2FC0H	Auxiliary information area ^{*1}	Read only
12225 to 12287	2FC1H to 2FFFH	System reserved	—
12288 to 18431	3000H to 47FFH	Parameter storage area	Read and write
18432 to 19455	4800H to 4BFFH	System reserved	—
19456 to 19967	4C00H to 4DFFH	Parameter storage location memory number (word output) ^{*1}	Read only
19968 to 20479	4E00H to 4FFFH	Parameter storage location memory number (word input) ^{*1}	Read only

Buffer memory address		Item	Allowable operation (Read/write)
Decimal	Hexadecimal		
20480 to 31487	5000H to 7AFFH	System reserved	—
31488	7B00H	Number of words setting ^{*1}	Read and write
31489	7B01H	System reserved	—
31490	7B02H	Word data start address setting ^{*1}	Read and write
31491	7B03H	System reserved	—
31492	7B04H	Number of words per frame setting ^{*1}	Read and write
31493	7B05H	Number of word data cycles setting ^{*1}	Read and write
31494 to 32767	7B06H to 7FFFH	System reserved	—

*1 This setting is available with the master unit identified as “03” or later model in the first two digits of manufacturing information.

In this document, buffer memory addresses are indicated as Un\G_ (decimal number).

Example: Un\G8192 (Number of the error IDs)

“n” is the head I/O number of the ASLINK master unit.

When the head I/O number of the ASLINK master unit is “0030”,
it is indicated as “U3\G8192”.



Supplementary reference (Details of buffer memory)

■ Number of the error IDs (Un\G8192)

Used to store the number of error IDs, in the case where the master unit cannot confirm response from a remote unit due to transmission cable (DP, DN) disconnection, fault of the remote unit, etc.



Hint

- Parameter access error is also subject to the number of error IDs.
- After execution of automatic address detection, data will be updated when an error is detected.

■ Error ID information storage areas (Un\G8193 to 8320)

Used to store remote unit IDs subject to transmission cable (DP, DN) disconnection error and parameter access error in ascending order.



Hint

- Parameter access error is also subject to the number of error IDs.
- After execution of automatic address detection, data will be updated when an error is detected.

■ Error ID information bit area (bit output) (Un\G8704 to Un\G8719)

The error ID bit corresponding to the bit output remote unit turns ON.

Address*1	b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
Un\G8704	FH	EH	DH	CH	BH	AH	9H	8H	7H	6H	5H	4H	3H	2H	1H	0H
Un\G8705	1FH	1EH	1DH	1CH	1BH	1AH	19H	18H	17H	16H	15H	14H	13H	12H	11H	10H
Un\G8706	2FH	2EH	2DH	2CH	2BH	2AH	29H	28H	27H	26H	25H	24H	23H	22H	21H	20H
Un\G8707	3FH	3EH	3DH	3CH	3BH	3AH	39H	38H	37H	36H	35H	34H	33H	32H	31H	30H
Un\G8708	4FH	4EH	4DH	4CH	4BH	4AH	49H	48H	47H	46H	45H	44H	43H	42H	41H	40H
Un\G8709	5FH	5EH	5DH	5CH	5BH	5AH	59H	58H	57H	56H	55H	54H	53H	52H	51H	50H
Un\G8710	6FH	6EH	6DH	6CH	6BH	6AH	69H	68H	67H	66H	65H	64H	63H	62H	61H	60H
Un\G8711	7FH	7EH	7DH	7CH	7BH	7AH	79H	78H	77H	76H	75H	74H	73H	72H	71H	70H
Un\G8712	8FH	8EH	8DH	8CH	8BH	8AH	89H	88H	87H	86H	85H	84H	83H	82H	81H	80H
Un\G8713	9FH	9EH	9DH	9CH	9BH	9AH	99H	98H	97H	96H	95H	94H	93H	92H	91H	90H
Un\G8714	AFH	AEH	ADH	ACH	ABH	AAH	A9H	A8H	A7H	A6H	A5H	A4H	A3H	A2H	A1H	A0H
Un\G8715	BFH	BEH	BDH	BCH	BBH	BAH	B9H	B8H	B7H	B6H	B5H	B4H	B3H	B2H	B1H	B0H
Un\G8716	CFH	CEH	CDH	CCH	CBH	CAH	C9H	C8H	C7H	C6H	C5H	C4H	C3H	C2H	C1H	C0H
Un\G8717	DFH	DEH	DDH	DCH	DBH	DAH	D9H	D8H	D7H	D6H	D5H	D4H	D3H	D2H	D1H	D0H
Un\G8718	EFH	EEH	EDH	ECH	EBH	EAH	E9H	E8H	E7H	E6H	E5H	E4H	E3H	E2H	E1H	E0H
Un\G8719	FFH	FEH	FDH	FCH	FBH	FAH	F9H	F8H	F7H	F6H	F5H	F4H	F3H	F2H	F1H	F0H

*1 The values in the table indicate remote unit IDs.

Example) When an error occurs with the bit output remote unit of address 32 (ID0020H), b0 of Un\G8706 turns ON.

■ Error ID information bit area (bit input) (Un\G8736 to Un\G8751)

The error ID bit corresponding to the bit input remote unit or the bit input/output combination remote unit turns ON.

Address*1	b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
Un\G8736	20FH	20EH	20DH	20CH	20BH	20AH	209H	208H	207H	206H	205H	204H	203H	202H	201H	200H
Un\G8737	21FH	21EH	21DH	21CH	21BH	21AH	219H	218H	217H	216H	215H	214H	213H	212H	211H	210H
Un\G8738	22FH	22EH	22DH	22CH	22BH	22AH	229H	228H	227H	226H	225H	224H	223H	222H	221H	220H
Un\G8739	23FH	23EH	23DH	23CH	23BH	23AH	239H	238H	237H	236H	235H	234H	233H	232H	231H	230H
Un\G8740	24FH	24EH	24DH	24CH	24BH	24AH	249H	248H	247H	246H	245H	244H	243H	242H	241H	240H
Un\G8741	25FH	25EH	25DH	25CH	25BH	25AH	259H	258H	257H	256H	255H	254H	253H	252H	251H	250H
Un\G8742	26FH	26EH	26DH	26CH	26BH	26AH	269H	268H	267H	266H	265H	264H	263H	262H	261H	260H
Un\G8743	27FH	27EH	27DH	27CH	27BH	27AH	279H	278H	277H	276H	275H	274H	273H	272H	271H	270H
Un\G8744	28FH	28EH	28DH	28CH	28BH	28AH	289H	288H	287H	286H	285H	284H	283H	282H	281H	280H
Un\G8745	29FH	29EH	29DH	29CH	29BH	29AH	299H	298H	297H	296H	295H	294H	293H	292H	291H	290H
Un\G8746	2AFH	2AEH	2ADH	2ACH	2ABH	2AAH	2A9H	2A8H	2A7H	2A6H	2A5H	2A4H	2A3H	2A2H	2A1H	2A0H
Un\G8747	2BFH	2BEH	2BDH	2BCH	2BBH	2BAH	2B9H	2B8H	2B7H	2B6H	2B5H	2B4H	2B3H	2B2H	2B1H	2B0H
Un\G8748	2CFH	2CEH	2CDH	2CCH	2CBH	2CAH	2C9H	2C8H	2C7H	2C6H	2C5H	2C4H	2C3H	2C2H	2C1H	2C0H
Un\G8749	2DFH	2DEH	2DDH	2DCH	2DBH	2DAH	2D9H	2D8H	2D7H	2D6H	2D5H	2D4H	2D3H	2D2H	2D1H	2D0H
Un\G8750	2EFH	2EEH	2EDH	2ECH	2EBH	2EAH	2E9H	2E8H	2E7H	2E6H	2E5H	2E4H	2E3H	2E2H	2E1H	2E0H
Un\G8751	2FFH	2FEH	2FDH	2FCH	2FBH	2FAH	2F9H	2F8H	2F7H	2F6H	2F5H	2F4H	2F3H	2F2H	2F1H	2F0H

*1 The values in the table indicate remote unit IDs.

Example) When an error occurs with the bit input remote unit of address 32 (ID0220H), b0 of Un\G8738 turns ON.

■ Error ID information bit area (word output) (Un\G8768 to Un\G8799)

The error ID bit corresponding to the word output remote unit turns ON.

Address*1	b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
Un\G8768	40FH	40EH	40DH	40CH	40BH	40AH	409H	408H	407H	406H	405H	404H	403H	402H	401H	400H
Un\G8769	41FH	41EH	41DH	41CH	41BH	41AH	419H	418H	417H	416H	415H	414H	413H	412H	411H	410H
Un\G8770	42FH	42EH	42DH	42CH	42BH	42AH	429H	428H	427H	426H	425H	424H	423H	422H	421H	420H
Un\G8771	43FH	43EH	43DH	43CH	43BH	43AH	439H	438H	437H	436H	435H	434H	433H	432H	431H	430H
Un\G8772	44FH	44EH	44DH	44CH	44BH	44AH	449H	448H	447H	446H	445H	444H	443H	442H	441H	440H
Un\G8773	45FH	45EH	45DH	45CH	45BH	45AH	459H	458H	457H	456H	455H	454H	453H	452H	451H	450H
Un\G8774	46FH	46EH	46DH	46CH	46BH	46AH	469H	468H	467H	466H	465H	464H	463H	462H	461H	460H
Un\G8775	47FH	47EH	47DH	47CH	47BH	47AH	479H	478H	477H	476H	475H	474H	473H	472H	471H	470H
Un\G8776	48FH	48EH	48DH	48CH	48BH	48AH	489H	488H	487H	486H	485H	484H	483H	482H	481H	480H
Un\G8777	49FH	49EH	49DH	49CH	49BH	49AH	499H	498H	497H	496H	495H	494H	493H	492H	491H	490H
Un\G8778	4AFH	4AEH	4ADH	4ACH	4ABH	4AAH	4A9H	4A8H	4A7H	4A6H	4A5H	4A4H	4A3H	4A2H	4A1H	4A0H
Un\G8779	4BFH	4BEH	4BDH	4BCH	4BBH	4BAH	4B9H	4B8H	4B7H	4B6H	4B5H	4B4H	4B3H	4B2H	4B1H	4B0H
Un\G8780	4CFH	4CEH	4CDH	4CCH	4CBH	4CAH	4C9H	4C8H	4C7H	4C6H	4C5H	4C4H	4C3H	4C2H	4C1H	4C0H
Un\G8781	4DFH	4DEH	4DDH	4DCH	4DBH	4DAH	4D9H	4D8H	4D7H	4D6H	4D5H	4D4H	4D3H	4D2H	4D1H	4D0H
Un\G8782	4EFH	4EEH	4EDH	4ECH	4EBH	4EAH	4E9H	4E8H	4E7H	4E6H	4E5H	4E4H	4E3H	4E2H	4E1H	4E0H
Un\G8783	4FFH	4FEH	4FDH	4FCH	4FBH	4FAH	4F9H	4F8H	4F7H	4F6H	4F5H	4F4H	4F3H	4F2H	4F1H	4F0H
Un\G8784	50FH	50EH	50DH	50CH	50BH	50AH	509H	508H	507H	506H	505H	504H	503H	502H	501H	500H
Un\G8785	51FH	51EH	51DH	51CH	51BH	51AH	519H	518H	517H	516H	515H	514H	513H	512H	511H	510H
Un\G8786	52FH	52EH	52DH	52CH	52BH	52AH	529H	528H	527H	526H	525H	524H	523H	522H	521H	520H
Un\G8787	53FH	53EH	53DH	53CH	53BH	53AH	539H	538H	537H	536H	535H	534H	533H	532H	531H	530H
Un\G8788	54FH	54EH	54DH	54CH	54BH	54AH	549H	548H	547H	546H	545H	544H	543H	542H	541H	540H
Un\G8789	55FH	55EH	55DH	55CH	55BH	55AH	559H	558H	557H	556H	555H	554H	553H	552H	551H	550H
Un\G8790	56FH	56EH	56DH	56CH	56BH	56AH	569H	568H	567H	566H	565H	564H	563H	562H	561H	560H
Un\G8791	57FH	57EH	57DH	57CH	57BH	57AH	579H	578H	577H	576H	575H	574H	573H	572H	571H	570H
Un\G8792	58FH	58EH	58DH	58CH	58BH	58AH	589H	588H	587H	586H	585H	584H	583H	582H	581H	580H
Un\G8793	59FH	59EH	59DH	59CH	59BH	59AH	599H	598H	597H	596H	595H	594H	593H	592H	591H	590H
Un\G8794	5AFH	5AEH	5ADH	5ACH	5ABH	5AAH	5A9H	5A8H	5A7H	5A6H	5A5H	5A4H	5A3H	5A2H	5A1H	5A0H
Un\G8795	5BFH	5BEH	5BDH	5BCH	5BBH	5BAH	5B9H	5B8H	5B7H	5B6H	5B5H	5B4H	5B3H	5B2H	5B1H	5B0H
Un\G8796	5CFH	5CEH	5CDH	5CCH	5CBH	5CAH	5C9H	5C8H	5C7H	5C6H	5C5H	5C4H	5C3H	5C2H	5C1H	5C0H
Un\G8797	5DFH	5DEH	5DDH	5DCH	5DBH	5DAH	5D9H	5D8H	5D7H	5D6H	5D5H	5D4H	5D3H	5D2H	5D1H	5D0H
Un\G8798	5EFH	5EEH	5EDH	5ECH	5EBH	5EAH	5E9H	5E8H	5E7H	5E6H	5E5H	5E4H	5E3H	5E2H	5E1H	5E0H
Un\G8799	5FFH	5FEH	5FDH	5FCH	5FBH	5FAH	5F9H	5F8H	5F7H	5F6H	5F5H	5F4H	5F3H	5F2H	5F1H	5F0H

*1 The values in the table indicate remote unit IDs.

Example) When an error occurs with the word output remote unit of address 32 (ID0420H), b0 of Un\G8770 turns ON.

■ Error ID information bit area (word input) (Un\G8800 to Un\G8831)

The error ID bit corresponding to the word input remote unit turns ON.

Address*1	b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
Un\G8800	60FH	60EH	60DH	60CH	60BH	60AH	609H	608H	607H	606H	605H	604H	603H	602H	601H	600H
Un\G8801	61FH	61EH	61DH	61CH	61BH	61AH	619H	618H	617H	616H	615H	614H	613H	612H	611H	610H
Un\G8802	62FH	62EH	62DH	62CH	62BH	62AH	629H	628H	627H	626H	625H	624H	623H	622H	621H	620H
Un\G8803	63FH	63EH	63DH	63CH	63BH	63AH	639H	638H	637H	636H	635H	634H	633H	632H	631H	630H
Un\G8804	64FH	64EH	64DH	64CH	64BH	64AH	649H	648H	647H	646H	645H	644H	643H	642H	641H	640H
Un\G8805	65FH	65EH	65DH	65CH	65BH	65AH	659H	658H	657H	656H	655H	654H	653H	652H	651H	650H
Un\G8806	66FH	66EH	66DH	66CH	66BH	66AH	669H	668H	667H	666H	665H	664H	663H	662H	661H	660H
Un\G8807	67FH	67EH	67DH	67CH	67BH	67AH	679H	678H	677H	676H	675H	674H	673H	672H	671H	670H
Un\G8808	68FH	68EH	68DH	68CH	68BH	68AH	689H	688H	687H	686H	685H	684H	683H	682H	681H	680H
Un\G8809	69FH	69EH	69DH	69CH	69BH	69AH	699H	698H	697H	696H	695H	694H	693H	692H	691H	690H
Un\G8810	6AFH	6AEH	6ADH	6ACH	6ABH	6AAH	6A9H	6A8H	6A7H	6A6H	6A5H	6A4H	6A3H	6A2H	6A1H	6A0H
Un\G8811	6BFH	6BEH	6BDH	6BCH	6BBH	6BAH	6B9H	6B8H	6B7H	6B6H	6B5H	6B4H	6B3H	6B2H	6B1H	6B0H
Un\G8812	6CFH	6CEH	6CDH	6CCH	6CBH	6CAH	6C9H	6C8H	6C7H	6C6H	6C5H	6C4H	6C3H	6C2H	6C1H	6C0H
Un\G8813	6DFH	6DEH	6DDH	6DCH	6DBH	6DAH	6D9H	6D8H	6D7H	6D6H	6D5H	6D4H	6D3H	6D2H	6D1H	6D0H
Un\G8814	6EFH	6EEH	6EDH	6ECH	6EBH	6EAH	6E9H	6E8H	6E7H	6E6H	6E5H	6E4H	6E3H	6E2H	6E1H	6E0H
Un\G8815	6FFH	6FEH	6FDH	6FCH	6FBH	6FAH	6F9H	6F8H	6F7H	6F6H	6F5H	6F4H	6F3H	6F2H	6F1H	6F0H
Un\G8816	70FH	70EH	70DH	70CH	70BH	70AH	709H	708H	707H	706H	705H	704H	703H	702H	701H	700H
Un\G8817	71FH	71EH	71DH	71CH	71BH	71AH	719H	718H	717H	716H	715H	714H	713H	712H	711H	710H
Un\G8818	72FH	72EH	72DH	72CH	72BH	72AH	729H	728H	727H	726H	725H	724H	723H	722H	721H	720H
Un\G8819	73FH	73EH	73DH	73CH	73BH	73AH	739H	738H	737H	736H	735H	734H	733H	732H	731H	730H
Un\G8820	74FH	74EH	74DH	74CH	74BH	74AH	749H	748H	747H	746H	745H	744H	743H	742H	741H	740H
Un\G8821	75FH	75EH	75DH	75CH	75BH	75AH	759H	758H	757H	756H	755H	754H	753H	752H	751H	750H
Un\G8822	76FH	76EH	76DH	76CH	76BH	76AH	769H	768H	767H	766H	765H	764H	763H	762H	761H	760H
Un\G8823	77FH	77EH	77DH	77CH	77BH	77AH	779H	778H	777H	776H	775H	774H	773H	772H	771H	770H
Un\G8824	78FH	78EH	78DH	78CH	78BH	78AH	789H	788H	787H	786H	785H	784H	783H	782H	781H	780H
Un\G8825	79FH	79EH	79DH	79CH	79BH	79AH	799H	798H	797H	796H	795H	794H	793H	792H	791H	790H
Un\G8826	7AFH	7AEH	7ADH	7ACH	7ABH	7AAH	7A9H	7A8H	7A7H	7A6H	7A5H	7A4H	7A3H	7A2H	7A1H	7A0H
Un\G8827	7BFH	7BEH	7BDH	7BCH	7BBH	7BAH	7B9H	7B8H	7B7H	7B6H	7B5H	7B4H	7B3H	7B2H	7B1H	7B0H
Un\G8828	7CFH	7CEH	7CDH	7CCH	7CBH	7CAH	7C9H	7C8H	7C7H	7C6H	7C5H	7C4H	7C3H	7C2H	7C1H	7C0H
Un\G8829	7DFH	7DEH	7DDH	7DCH	7DBH	7DAH	7D9H	7D8H	7D7H	7D6H	7D5H	7D4H	7D3H	7D2H	7D1H	7D0H
Un\G8830	7EFH	7EEH	7EDH	7ECH	7EBH	7EAH	7E9H	7E8H	7E7H	7E6H	7E5H	7E4H	7E3H	7E2H	7E1H	7E0H
Un\G8831	7FFH	7FEH	7FDH	7FCH	7FBH	7FAH	7F9H	7F8H	7F7H	7F6H	7F5H	7F4H	7F3H	7F2H	7F1H	7F0H

*1 The values in the table indicate remote unit IDs.

Example) When an error occurs with the word input remote unit of address 32 (ID0620H), b0 of Un\G8802 turns ON.

■ Number of the connected units (Un\G8960)

Used to store the number of remote units confirmed by automatic address detection. (128 units max.)

■ Number of the IDs of the connected units (Un\G9216)

Used to store the number of connected unit IDs confirmed by automatic address detection. (128 IDs max.)
The stored number of IDs will be retained even after the power supply is turned OFF.

■ Connected unit ID information storage area (Un\G9217 to 9344)

Used to store IDs of all remote units connected to the master unit in ascending order.

■ Number of the alarm IDs (Un\G9984) [Hold type]

Used to store the number of IDs relevant to alarm occurrence when a status error occurs on a remote unit, or when an ID or parameter setting error regarding a remote unit occurs. (128 IDs max.)



Hint

- Parameter access error is also subject to the number of error IDs.
- After execution of automatic address detection, data will be updated when an error is detected.

■ Alarm ID information storage areas (Un\G9985 to 10112) [Hold type]

Used to store remote unit IDs subject to transmission cable (DP, DN) disconnection error and parameter access error in ascending order.



Hint

- Parameter access error is also subject to the number of error IDs.
- After execution of automatic address detection, data will be updated when an error is detected.

■ Latest error code storage area (Un\G10256)

Used to store the latest error code detected by the master unit. For details of the error code, see the following description.

■ Latest error ID storage area (Un\G10257)

Used to store the ID for the error code stored in the “latest error code storage area” (Un\G10256).

■ Parameter access setting (Un\G10320)

Specify the parameter access method.

000H: Read (Remote unit → Master unit)

001H: Write (Master unit → Remote unit)

002H: Remote address change (Master unit → Remote unit)



Hint

- If any value other than the above is stored, it is regarded as “read”.
- When the parameter access request command for the remote unit is turned from OFF to ON, read or write processing is executed.
- If parameter batch read or parameter batch write processing is executed, this value is ignored.

■ Parameter access target unit ID specification (Un\G10321)

Specify a target remote unit ID when the master unit accesses parameters in an individual remote unit.



Hint

- The parameter access target ID shall be specified for one remote unit. Several remote unit IDs cannot be specified.
- If parameter batch read or parameter batch write processing is executed, this value is ignored.

■ Designation of ID subject to change (Un\G10323)

Specify the ID (address) of the remote unit to be changed by the remote address change function.



Hint

- The ID subject to change shall be specified for one remote unit. Several remote unit IDs cannot be specified.
- If parameter batch read or parameter batch write processing is executed, this value is ignored.

■ Parameter storage location memory number (bit output) (Un\G10496 to 10751)

Used to store the head address of buffer memory of the parameter storage area corresponding to each output remote unit ID.

Buffer memory address	Details	Remote unit address
Un\G10496	Head address of buffer memory of parameter storage area corresponding to ID 000H	0
Un\G10497	Head address of buffer memory of parameter storage area corresponding to ID 001H	1
Un\G10498	Head address of buffer memory of parameter storage area corresponding to ID 002H	2
to	to	to
Un\G10750	Head address of buffer memory of parameter storage area corresponding to ID 0FEH	254
Un\G10751	System reserved	255

Example)

To identify a parameter storage location corresponding to output remote unit address 10 (ID 00AH), check “Un\G10506”.



Hint

- Each value is stored in the parameter storage location memory number for an ID that has been registered in the master unit through automatic address detection.
- For a parameter storage location memory number whose ID has not been registered (does not exist) in the master unit, “0” is stored.

■ Parameter storage location memory number (bit input) (Un\G11008 to 11263)

Used to store the head address of buffer memory of the parameter storage area corresponding to each input or I/O combined remote unit ID.

Buffer memory address	Details	Remote unit address
Un\G11008	Head address of buffer memory of parameter storage area corresponding to ID 200H	0
Un\G11009	Head address of buffer memory of parameter storage area corresponding to ID 201H	1
Un\G11010	Head address of buffer memory of parameter storage area corresponding to ID 202H	2
to	to	to
Un\G11262	Head address of buffer memory of parameter storage area corresponding to ID 2FEH	254
Un\G11263	System reserved	255

Example)

To identify a parameter storage location corresponding to input remote unit address 10 (ID 20AH), check “Un\G110018”.



Hint

- Each value is stored in the parameter storage location memory number for an ID that has been registered in the master unit through automatic address detection.
- For a parameter storage location memory number whose ID has not been registered (does not exist) in the master unit, “0” is stored.

Parameter storage location memory number (word output) (Un\G19456 to 19967)

Used to store the head address of buffer memory of the parameter storage area corresponding to each output remote unit ID.

Buffer memory address	Details	Remote unit address
Un\G19456	Head address of buffer memory of parameter storage area corresponding to ID 400H	0
Un\G19457	Head address of buffer memory of parameter storage area corresponding to ID 401H	1
Un\G19458	Head address of buffer memory of parameter storage area corresponding to ID 402H	2
to	to	to
Un\G19966	Head address of buffer memory of parameter storage area corresponding to ID 5FEH	510
Un\G19967	System reserved	511

Example)

To identify a parameter storage location corresponding to output remote unit address 10 (ID 40AH), check “Un\G19466”.



Hint

- Each value is stored in the parameter storage location memory number for an ID that has been registered in the master unit through automatic address detection.
- For a parameter storage location memory number whose ID has not been registered (does not exist) in the master unit, “0” is stored.

Parameter storage location memory number (word input) (Un\G19968 to 20479)

Used to store the head address of buffer memory of the parameter storage area corresponding to each input or I/O combined remote unit ID.

Buffer memory address	Details	Remote unit address
Un\G19968	Head address of buffer memory of parameter storage area corresponding to ID 600H	0
Un\G19969	Head address of buffer memory of parameter storage area corresponding to ID 601H	1
Un\G19970	Head address of buffer memory of parameter storage area corresponding to ID 602H	2
to	to	to
Un\G20478	Head address of buffer memory of parameter storage area corresponding to ID 7FEH	510
Un\G20479	System reserved	511

Example)

To identify a parameter storage location corresponding to input remote unit address 10 (ID 60AH), check “Un\G19978”.



Hint

- Each value is stored in the parameter storage location memory number for an ID that has been registered in the master unit through automatic address detection.
- For a parameter storage location memory number whose ID has not been registered (does not exist) in the master unit, “0” is stored.

Event code for auxiliary information area (Un\G12096)

Used to store the latest event code detected by the master unit. For details of the event code, see the following description.

Auxiliary information area (Un\G12097 to Un\G12224)

The ID bit for the event code stored in the “event code for auxiliary information area” (Un\G12096) turns ON.

Address*1	b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
Un\G12097	FH	EH	DH	CH	BH	AH	9H	8H	7H	6H	5H	4H	3H	2H	1H	0H
Un\G12098	1FH	1EH	1DH	1CH	1BH	1AH	19H	18H	17H	16H	15H	14H	13H	12H	11H	10H
to	to															
Un\G12223	7EFH	7EEH	7EDH	7ECH	7EBH	7EAH	7E9H	7E8H	7E7H	7E6H	7E5H	7E4H	7E3H	7E2H	7E1H	7E0H
Un\G12224	7FFH	7FEH	7FDH	7FCH	7FBH	7FAH	7F9H	7F8H	7F7H	7F6H	7F5H	7F4H	7F3H	7F2H	7F1H	7F0H

*1 The values in the table indicate remote unit IDs.

Parameter storage areas (Un\G12288 to 18431)

Used to exchange parameter information on the AnyWireASLINK system.



Hint

- It is common to all remote units that 48 words are occupied per remote unit.
* For details of 48 words, refer to p. 29.
- Only the remote units (IDs) that have been registered in the master unit through automatic address detection enable parameter information exchange via these areas.
At startup of the system, and after a remote unit is added or a remote unit address is changed, be sure to execute automatic address detection.
- A single storage area has 48 words and the data are sorted in ascending order of IDs.

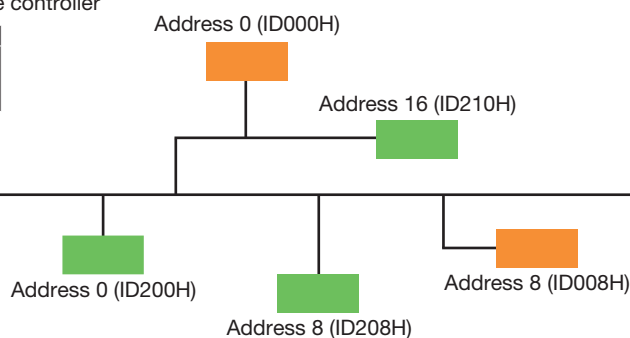
Buffer memory address	Ascending order of IDs registered in the master unit
Un\G12288 to Un\G12335	1st remote unit (48 words)
Un\G12336 to Un\G12383	2nd remote unit (48 words)
to	to
Un\G18336 to Un\G18383	127th remote unit (48 words)
Un\G18384 to Un\G18431	128th remote unit (48 words)

Because the data are sorted in ascending order of IDs that have been registered in the master unit, their storing position varies depending on the system configuration even with the same ID. Thoroughly understand this point.



Example

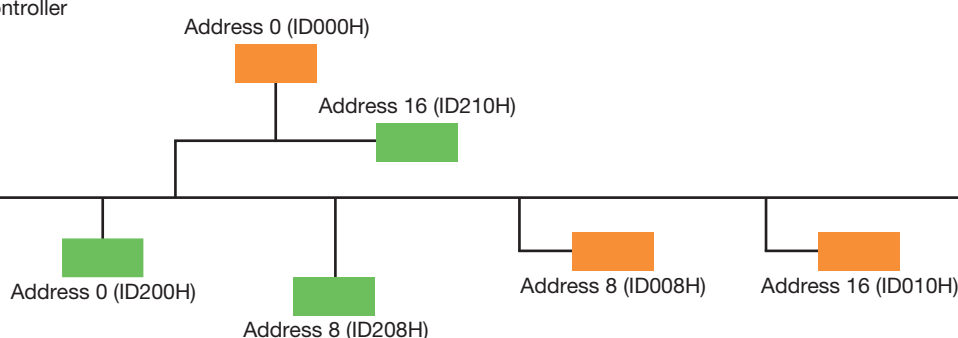
Programmable controller



Symbol	Meaning
	Input remote unit
	Output remote unit
	Terminating unit

ID in ascending order	Parameter storage area
000H	Un\G12288 to Un\G12335
008H	Un\G12336 to Un\G12383
200H	Un\G12384 to Un\G12431
208H	Un\G12432 to Un\G12479
210H	Un\G12480 to Un\G12527

Programmable controller



ID in ascending order	Parameter storage area
000H	Un\G12288 to Un\G12335
008H	Un\G12336 to Un\G12383
010H	Un\G12384 to Un\G12431
200H	Un\G12432 to Un\G12479
208H	Un\G12480 to Un\G12527
210H	Un\G12528 to Un\G12575

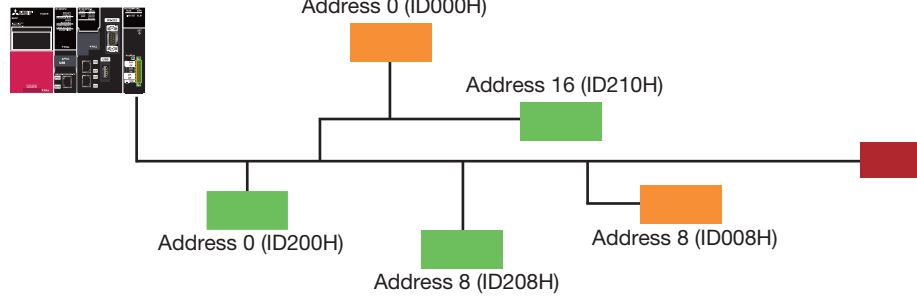


Buffer memory addresses can be determined according to system configuration at startup. However, assuming possibility of modification, it is better to create a program that enables parameter storage location memory number check before parameter read/write processing.

Now, see the parameter storage location memory numbers.



Programmable controller



Symbol	Meaning
	Input remote unit
	Output remote unit
	Terminating unit

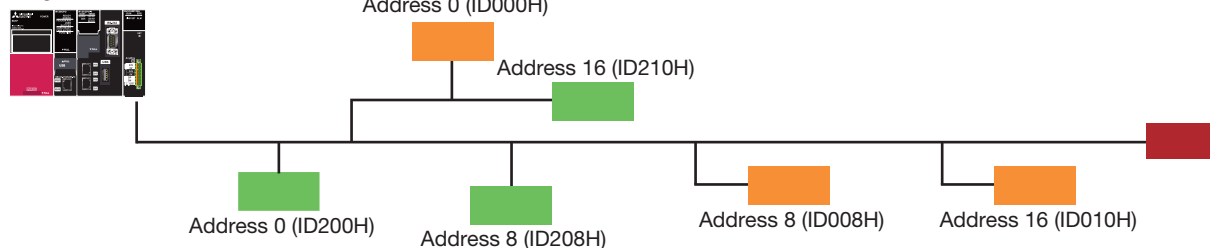
Parameter storage location memory number (output)	Description	Stored value
Un\G10496	Head address of buffer memory of parameter storage area corresponding to ID000H	12288
to	to	to
Un\G10504	Head address of buffer memory of parameter storage area corresponding to ID008H	12336
...	...	...

Parameter storage area
Un\G12288 to Un\G12335
to
Un\G12336 to Un\G12383
...

Parameter storage location memory number (input)	Description	Stored value
Un\G11008	Head address of buffer memory of parameter storage area corresponding to ID200H	12384
to	to	to
Un\G11016	Head address of buffer memory of parameter storage area corresponding to ID208H	12432
to	to	to
Un\G11024	Head address of buffer memory of parameter storage area corresponding to ID210H	12480
...	...	...

Parameter storage area
Un\G12384 to Un\G12431
to
Un\G12432 to Un\G12479
to
Un\G12480 to Un\G12527
...

Programmable controller



Parameter storage location memory number (output)	Description	Stored value
Un\G10496	Head address of buffer memory of parameter storage area corresponding to ID000H	12288
to	to	to
Un\G10504	Head address of buffer memory of parameter storage area corresponding to ID008H	12336
to	to	to
Un\G10512	Head address of buffer memory of parameter storage area corresponding to ID010H	12384
...	...	...

Parameter storage area
Un\G12288 to Un\G12335
to
Un\G12336 to Un\G12383
to
Un\G12384 to Un\G12431
...

Parameter storage location memory number (input)	Description	Stored value
Un\G11008	Head address of buffer memory of parameter storage area corresponding to ID200H	12432
to	to	to
Un\G11016	Head address of buffer memory of parameter storage area corresponding to ID208H	12480
to	to	to
Un\G11024	Head address of buffer memory of parameter storage area corresponding to ID210H	12528
...	...	...

Parameter storage area
Un\G12432 to Un\G12479
to
Un\G12480 to Un\G12527
to
Un\G12528 to Un\G12575
...

48-word structure

Buffer memory address	Bit number																Read/write	Parameter name
	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0		
Un\G12288	Unit ID																Read (Remote unit to master unit)	AnyWireASLINK parameter
Un\G12289	Device parameter 1																Read/write (Master unit to remote unit)	Device parameter
Un\G12290	Device parameter 2																	
Un\G12291	Device parameter 3																	
Un\G12292	Device parameter 4																	
Un\G12293	Device parameter 5																	
Un\G12294	Device parameter 6																	
Un\G12295	Device parameter 7																	
Un\G12296	Device parameter 8																	
Un\G12297	Device parameter 9																	
Un\G12298	Device parameter 10																	
Un\G12299	Device parameter 11																	
Un\G12300	Device parameter 12																	
Un\G12301	Device parameter 13																	
Un\G12302	Device parameter 14																	
Un\G12303	Device parameter 15																	
Un\G12304	Device parameter 16																	
Un\G12305	Device parameter 17																	
Un\G12306	Device parameter 18																	
Un\G12307	Device parameter 19																	
Un\G12308	Device parameter 1																Read (Remote unit to master unit)	
Un\G12309	Device parameter 2																	
Un\G12310	Device parameter 3																	
Un\G12311	Device parameter 4																	
Un\G12312	Device parameter 5																	
Un\G12313	Device parameter 6																	
Un\G12314	Device parameter 7																	
Un\G12315	Device parameter 8																	
Un\G12316	Device parameter 9																	
Un\G12317	Device parameter 10																	
Un\G12318	Device parameter 11																	
Un\G12319	Device parameter 12																	
Un\G12320	Device parameter 13																	
Un\G12321	Device parameter 14																	
Un\G12322	Device parameter 15																	
Un\G12323	Device parameter 16																	
Un\G12324	Device parameter 17																	
Un\G12325	Device parameter 18																	
Un\G12326	Device parameter 19																	
Un\G12327	Status details																Read (Remote unit to master unit)	AnyWireASLINK parameter
Un\G12328	Sensing level																	
Un\G12329	System reserved																	
Un\G12330	Number of words pattern																Read (Remote unit to master unit)	AnyWireASLINK parameter
Un\G12331	Number of bits pattern																	
Un\G12332	Unit model number																	
Un\G12333	Device version																	
Un\G12334 to Un\G12335	System reserved																—	—

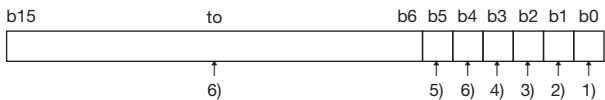
Each remote unit has two types of parameters as follows:

- Device parameter (19 types)

These parameters are unique to each remote unit. The contents of the parameters vary depending on the type of remote unit. For details, refer to the specifications of the remote unit.

- AnyWireASLINK parameter (7 types)

These parameters are common to all the remote units connected to the AnyWireASLINK.

Name	Read/write	Corresponding buffer memory area	Detailed description
Unit ID	Read	Un\G12288+n×30H (n: 0 to 127) 1st of 48 words	Indicates the remote unit ID. • 000H to 0FEH: ID of bit output remote unit • 200H to 2FEH: ID of bit input remote unit or bit input/output combination remote unit • 400H to 5FEH: ID of word output remote unit • 600H to 7FEH: ID of word input remote unit or word input/output combination remote unit • 0FFH: Unspecified ID of bit output remote unit and word output remote unit • 2FFH: Unspecified ID of bit input remote unit, bit input/output combination remote unit, word input remote unit and word input/output combination remote unit
Status details	Read	Un\G12327+n×30H (n: 0 to 127) 40th of 48 words	Indicates the status of the remote unit. The status 1) to 6) of the remote unit are indicated depending on ON or OFF of each bit as below.  1) Unit power supply status ON: Remote unit voltage drop OFF: No fault 2) Sensing level status ON: Sensing level drop OFF: No fault 3) I/O disconnection ON: I/O disconnection OFF: No fault 4) I/O short-circuit ON: I/O short-circuit OFF: No fault 5) I/O power supply voltage drop ON: I/O power supply voltage drop OFF: No fault 6) Varies depending on the type of remote unit.
Sensing level	Read	Un\G12328+n×30H (n: 0 to 127) 41st of 48 words	Displays a value of a sensor being connected. The displayed value varies depending on the remote unit being connected. (Example: When an ON/OFF sensor is connected, an analog value of 0 to 100% is displayed.)
Number of words pattern	Read	Un\G12330+n×30H (n: 0 to 127) 43rd of 48 words	Used to confirm the number of words occupied by the remote unit and the type of the remote unit (input or output). ■ b0 to b5: Number of occupied words (0 to 63 (0H to 3FH)) Indicates the number of words occupied by the remote unit. When the remote unit is an input/output combination type, the read value indicates the total of the number of input points and the number of output points. The number of occupied words is defined as “Read value + 1”. (Example: When the read value is “0”, the number of occupied words is “1”. When the read value is “7”, the number of occupied words is “8”.) ■ b6, b7: Classification of input or output (0 to 2 (0H to 2H)) • 0: Input remote unit • 1: Output remote unit • 2: Input/output remote unit ■ b8 to b15: System reserved

Name	Read/write	Corresponding buffer memory area	Detailed description
Number of bits pattern	Read	Un\G12331+n×30H (n: 0 to 127) 44th of 48 words	Used to confirm the number of bits occupied by the remote unit and the type of the remote unit (input or output). ■ b0 to b5: Number of occupied bits (0 to 63 (0H to 3FH)) Indicates the number of bits occupied by the remote unit. When the remote unit is an input/output combination type, the read value indicates the total of the number of input points and the number of output points. The number of occupied bits is defined as “Read value + 1”. (Example: When the read value is “0”, the number of occupied bits is “1”. When the read value is “7”, the number of occupied bits is “8”.) ■ b6, b7: Classification of input or output (0 to 2 (0H to 2H)) • 0: Input remote unit • 1: Output remote unit • 2: Input/output remote unit ■ b8 to b13: System reserved ■ b14, b15: Classification of bit or word (0 to 2 (0H to 2H)) • 0: Remote unit handling bit data • 1: Remote unit handling word data • 2: Remote unit handling word and bit data
Unit model number	Read	Un\G12332+n×30H (n: 0 to 127) 45th of 48 words	Indicates the model number of the remote unit. The read value varies depending on the remote unit being connected. For details of model numbers, refer to our website (www.anywire.jp).
Device version	Read	Un\G12333+n×30H (n: 0 to 127) 46th of 48 words	Indicates the version of the remote unit.

■ Number of words setting (Un\G31488)

Used to store the number of words for word data.

When word data is specified with an engineering tool, the set value will be reflected at reset of the CPU.

Set value	Description
0	0 words (Word data is not used.)
1	2 words (Input: 1 word, Output: 1 word)
2	4 words (Input: 2 words, Output: 2 words)
to	to
512	1024 words (Input: 512 words, Output: 512 words)

■ Word data start address setting (Un\G31490)

Used to store the address to start word data specified by the word data start address setting function.

Set value	Description
0	Word address 0
1	Word address 1
2	Word address 2
to	to
511	Word address 511

■ Number of words per frame setting (Un\G31492)

Used to store the number of words per frame for word transmission.

When word data is specified with an engineering tool, the set value will be reflected at reset of the CPU.

Set value	Description
0	0 words (Word data is not used.)
1	2 words (Input: 1 word, Output: 1 word)
2	4 words (Input: 2 words, Output: 2 words)
to	to
5	32 words (Input: 16 words, Output: 16 words)

■ Number of word data cycles setting (Un\G31493)

Used to store the number of word transmission cycles.

Set value	Description
0	0 cycles
1	1 cycle
2	2 cycles
to	to
512	512 cycles

[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