User's Manual

Model NC210
RS485/CC-Link Converter
Profile 061 Procedure

IM 77P01C01-06E

This user's manual describes the explanation for Profile 061.
Before reading this Profile 061 Procedure, please read Profile Common Manual (IM 77P01C01-02E).
Then check the instrument connection conditions, and check Mode or set Mode if necessary.
This user's manual should be kept in safety place.

YOKOGAWA ◆
Yokogawa Electric Corporation

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1. DATA MONITORING MODE

✋ IMPORTANT

When word accessing to Write request flag (RY n4), pay attention to the other bits in (RY n0 to RY nF).

● Read-out data from controller (PV, CSP, OUT)

The measured input value(PV) , set point value (CSP), and control output value (OUT)etc can be read-out.

[PROCEDURE]
(1) Read out Normal connection of slave flag [RX (n+5)0] and Receive data valid flag (RX n3). And check that those are both [1].
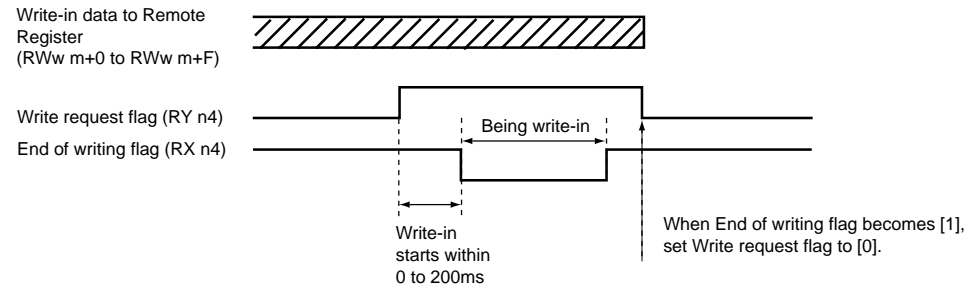(2) Read out the required data from Remote Register (RWr n+0 to RWr n+F).

● Write in data to controller (SP, MOUT)

The set point value (SP) and manual output value (MOUT) etc can be written-in.

[PROCEDURE]
(1) Check that End of writing flag (RX n4) is [1].
(2) Write-in data to the relative address (RWw m+0 to RWw m+F).
(3) Set Write request flag (RY n4) from [0] to [1].
(4) Wait until End of writing flag (RX n4) becomes from [0] to [1].
(5) Write-in [0] to Write request flag (RY n4).
  (Note) When write-in MOUT, it is necessary that A/M flag should be manual.

Write-in data to Remote Register (RWw m+0 to RWw m+F)

Write request flag (RY n4)

End of writing flag (RX n4)

Being write-in

Write-in starts within 0 to 200ms

When End of writing flag becomes [1], set Write request flag to [0].

After power on or after changing mode to Data Monitoring Mode, all parameters of (RWw m+0 to RWw m+F) are written in to controllers at first write request. But at second write request and after, the only changed parameter is written in.

● Read out condition of controller and it's change (A/M, R/L, Alarm)

Read out and Write in AUTO/MAN (A/M) condition, and read out operating condition (R/P/L) and Alarm (AL1 to AL3) condition etc can be executed.

[READ OUT PROCEDURE]
(1) Read out Normal connection of slave flag [RX (n+5)0] and Receive data valid flag (RX n3). And check that those are both [1].
(2) Read out the required data from Remote Input among [RX n8 to RX (n+2)F].

[WRITE IN PROCEDURE]
(1) Write [0] or [1] to the relative Remote Output among [RY (n+1)0 or RY (n+1)1].

■ Content of SIGNAL NAME used within Profile

About the signal name used in Data monitoring mode, Parameter setting mode and Program setting mode, refer to the communication reference in CDROM (IM05D01A02-01E) which is attached to the product (UP750/550).

• Data monitoring mode, Parameter setting mode : Chapter 4 Functions and Usage of D register (UP750/550)
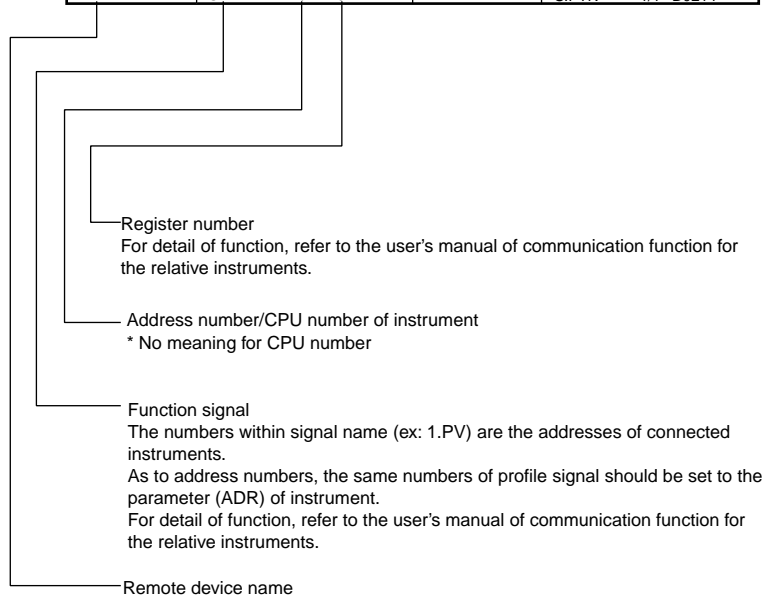• Program setting mode : Chapter 7 Functions and Usage of B register (UP750/550)

<<PROFILE 061 for Data Monitoring Mode>>

Remote Register

Read out area			Write in area		
Remote→Master			Master→Remote		
Address	Signal name	Contents	Address	Signal name	Contents
RWr n+0	PV1	1/1 D0003	RWw m+0		
RWr n+1	PV2	1/1 D0019	RWw m+1		
RWr n+2	CSP1	1/1 D0004	RWw m+2	LSP1	1/1 D0101
RWr n+3	CSP2	1/1 D0020	RWw m+3	LSP2	1/1 D0102
RWr n+4	OUT1	1/1 D0005	RWw m+4	MOUT1	1/1 D0217
RWr n+5	OUT2	1/1 D0021	RWw m+5	MOUT2	1/1 D0219
RWr n+6	PTN	1/1 D0015	RWw m+6		
RWr n+7	SEGNO	1/1 D0016	RWw m+7		
RWr n+8	TIME	1/1 D0017	RWw m+8		
RWr n+9	HOLDSP1	1/1 D0221	RWw m+9	HOLDSP1	1/1 D0221
RWr n+A	HOLDSP2	1/1 D0222	RWw m+A	HOLDSP2	1/1 D0222
RWr n+B	HOLDTM	1/1 D0223	RWw m+B	HOLDTM	1/1 D0223
RWr n+C	HOLD	1/1 D0209	RWw m+C	HOLD	1/1 D0209
RWr n+D			RWw m+D	ADV	1/1 D0210
RWr n+E	R/P/L	1/1 D0208	RWw m+E	R/P/L	1/1 D0208
RWr n+F	S.PTN	1/1 D0214	RWw m+F	S.PTN	1/1 D0214

Register number
For detail of function, refer to the user's manual of communication function for the relative instruments.

Address number/CPU number of instrument
* No meaning for CPU number

Function signal
The numbers within signal name (ex: 1.PV) are the addresses of connected instruments.
As to address numbers, the same numbers of profile signal should be set to the parameter (ADR) of instrument.
For detail of function, refer to the user's manual of communication function for the relative instruments.

Remote device name

Remote Input/Output

Read out area			Write in area		
Remote→Master			Master→Remote		
Address	Signal name	Contents	Address	Signal name	Contents
RX n0	Data monitoring mode		RY n0	Request for data monitoring mode	
RX n1	Parameter setting mode		RY n1	Request for parameter setting mode	
RX n2	program setting mode		RY n2	Request for program setting mode	
RX n3	Receive data valid flag		RY n3		
RX n4	End of writing		RY n4	Write request	
RX n5			RY n5		
RX n6			RY n6		
RX n7			RY n7		
RX n8			RY n8		
RX n9			RY n9		
RX nA			RY nA		
RX nB	RESET	1/1 I0073	RY nB		
RX nC	PROG	1/1 I0074	RY nC		
RX nD	LOCAL	1/1 I0075	RY nD		
RX nE	HOLD	1/1 I0077	RY nE		
RX nF	WAIT	1/1 I0078	RY nF		
RX (n+1)0	A/M1	1/1 I0065	RY (n+1)0	A/M1	1/1 D0211
RX (n+1)1	A/M2	1/1 I0081	RY (n+1)1	A/M2	1/1 D0212
RX (n+1)2			RY (n+1)2		
RX (n+1)3			RY (n+1)3		
RX (n+1)4	ALM1	1/1 I0097	RY (n+1)4		
RX (n+1)5	ALM2	1/1 I0098	RY (n+1)5		
RX (n+1)6	ALM3	1/1 I0099	RY (n+1)6		
RX (n+1)7	ALM4	1/1 I0101	RY (n+1)7		
RX (n+1)8	PVE1	1/1 I0113	RY (n+1)8		
RX (n+1)9	PVE2	1/1 I0114	RY (n+1)9		
RX (n+1)A	PVE3	1/1 I0115	RY (n+1)A		
RX (n+1)B	PVE4	1/1 I0117	RY (n+1)B		
RX (n+1)C	PVE5	1/1 I0118	RY (n+1)C		
RX (n+1)D	PVE6	1/1 I0119	RY (n+1)D		
RX (n+1)E	PVE7	1/1 I0121	RY (n+1)E		
RX (n+1)F	PVE8	1/1 I0122	RY (n+1)F		
RX (n+2)0	TME1	1/1 I0129	RY (n+2)0		
RX (n+2)1	TME2	1/1 I0130	RY (n+2)1		
RX (n+2)2	TME3	1/1 I0131	RY (n+2)2		
RX (n+2)3	TME4	1/1 I0133	RY (n+2)3		
RX (n+2)4	TME5	1/1 I0134	RY (n+2)4		
RX (n+2)5	TME6	1/1 I0135	RY (n+2)5		
RX (n+2)6	TME7	1/1 I0137	RY (n+2)6		
RX (n+2)7	TME8	1/1 I0138	RY (n+2)7		
RX (n+2)8	TME9	1/1 I0145	RY (n+2)8		
RX (n+2)9	TME10	1/1 I0146	RY (n+2)9		
RX (n+2)A	TME11	1/1 I0147	RY (n+2)A		
RX (n+2)B	TME12	1/1 I0149	RY (n+2)B		
RX (n+2)C	TME13	1/1 I0150	RY (n+2)C		
RX (n+2)D	TME14	1/1 I0151	RY (n+2)D		
RX (n+2)E	TME15	1/1 I0153	RY (n+2)E		
RX (n+2)F	TME16	1/1 I0154	RY (n+2)F		
RX (n+5)0	Normal connection of slave 01		RY (n+5)0		
RX (n+5)1			RY (n+5)1		
RX (n+5)2			RY (n+5)2		
RX (n+5)3			RY (n+5)3		
RX (n+5)4			RY (n+5)4		
RX (n+5)5			RY (n+5)5		
RX (n+5)6			RY (n+5)6		
RX (n+5)7			RY (n+5)7		
RX (n+5)8			RY (n+5)8		
RX (n+5)9			RY (n+5)9		
RX (n+5)A			RY (n+5)A		
RX (n+5)B			RY (n+5)B		
RX (n+5)C			RY (n+5)C		
RX (n+5)D			RY (n+5)D		
RX (n+5)E			RY (n+5)E		
RX (n+5)F			RY (n+5)F	Request for re-scanning	
RX (n+6)0	(Reserved)		RY (n+6)0	(Reserved)	
:	(Reserved)		:	(Reserved)	
:	(Reserved)		:	(Reserved)	
:	(Reserved)		:	(Reserved)	
RX (n+7)A	(Reserved)		RY (n+7)A	(Reserved)	
RX (n+7)B	Remote READY flag		RY (n+7)B	(Reserved)	
RX (n+7)C	(Reserved)		RY (n+7)C	(Reserved)	
RX (n+7)D	(Reserved)		RY (n+7)D	(Reserved)	
RX (n+7)E	(Reserved)		RY (n+7)E	(Reserved)	
RX (n+7)F	(Reserved)		RY (n+7)F	(Reserved)	

2. PARAMETER SETTING MODE

Parameter Setting Data of controller are all stored to D register of controller. Accessing to D register, write in and read out of parameter can be executed.

✋ IMPORTANT

When word accessing to Read request flag (RY n5) and Write request flag (RY n4), pay attention to the other bits in (RY n0 to RY nF).

● Read-out a lump of controller parameter data

Maximum 14 of D registers can be read out at once by designating address (1 to 99) of D register in controller. The address of controller is the value that is designated in ADR of Set up Parameter. Take care that the addresses of controllers do not duplicate each other.

[PROCEDURE]

(1) Check that End of writing flag (RX n4) and End of reading flag (RX n5) are both [1].
(2) Set the first address of the read required sequential parameters to First parameter address (RWw m+E).
(3) Write the controller address (ADR) in the upper bite of (ADR and number of parameter) (RWw m+F) and the parameter number to be read out in the lower bite.
(4) Set Read request flag (RY n5) from [0] to [1].
(5) During read out data from controller, the End of reading flag (RX n5) is [0]. Wait until End of reading flag (RX n5) becomes from [0] to [1].
(6) Write-in [0] to Read request flag (RY n5).
(7) The required number's data are stored in (RWr n+0 to RWr n+D).
  (Note) When the flags of Read request flag (RY n5) and Write request flag (RY n4) are set [1] at the same time, the Read request flag has priority.

Write address of controller, number of read-out parameter and read-out first parameter address in D register, to Remote Register (RWw m+E, RWw m+F).

Read request flag (RY n5)

End of reading flag (RX n5)

Being read-out from controller

Read-out starts within 0 to 200ms

When End of reading flag becomes [1], set Read request flag to [0].

Read out data are stored to Remote Register (RWr n+0 to RWr n+D)

Read out data are stored in remote register.

Success flag of write-in/read-out (Receive data valid flag) (RX n3)

(1) Success
(0) Failure

● Write-in a lump of parameter data to controller

Maximum 14 of D registers can be written in at once by designating address (1 to 99) of D register in controller. The address of controller is the value that is designated in ADR of Set up parameter. Take care that the addresses of controllers do not duplicate each other.

[PROCEDURE]

(1) Check that End of writing flag (RX n4) and End of reading flag (RX n5) are both [1].
(2) Set the first address of the write required sequential parameters to First parameter address (RWw m+E).
(3) Write the controller address in the upper bite of (ADR and number of parameter) (RWw m+F) and the parameter number to be written-in in the lower bite.
(4) Write in the designed number of data in (RWw m+0 to RWw m+D).
(5) Set Write request flag (RY n4) from [0] to [1].
(6) During write in date to controller, the End of writing flag (RX n4) is [0]. Wait until End of writing flag (RX n4) becomes from [0] to [1].
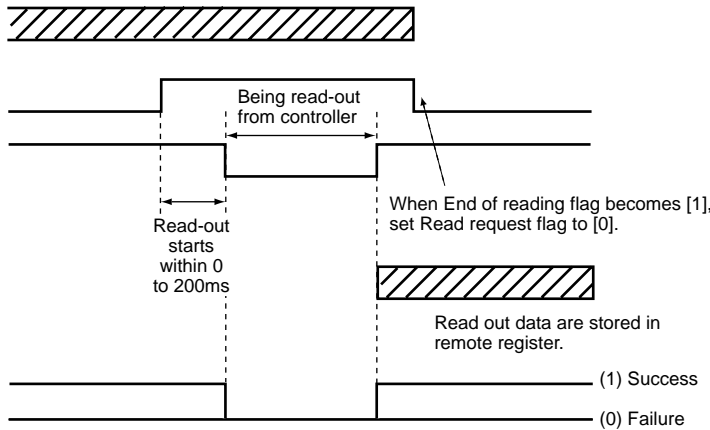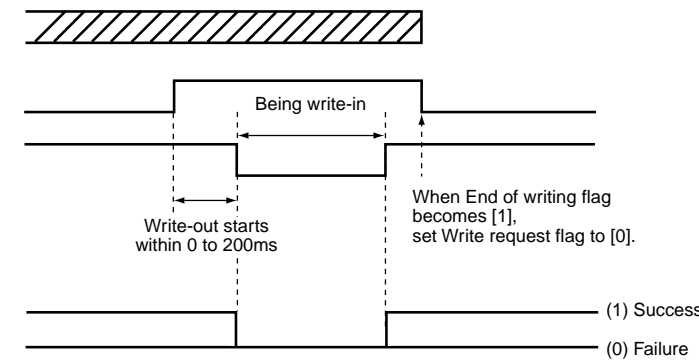(7) Write-in [0] to Read request flag (RY n4).
  (Note) When the flags of Read request flag (RY n5) and Write request flag (RY n4) are set [1] at the same time, the Read request flag has priority.

Write address of controller, number of write-in parameter, write-in first parameter address and setting data in D register, to Remote Register (RWw m+0 to RWw m+F).

Write request flag (RY n4)

End of writing flag (RX n4)

Being write-in

Write-out starts within 0 to 200ms

When End of writing flag becomes [1], set Write request flag to [0].

Success flag of write-in/red-out (Receive data valid flag) (RX n3)

(1) Success
(0) Failure

Remote Register

	Read out area			Write in area	
	Remote→Master			Master→Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RWr n+0	First parameter +0	Read out data	RWw m+0	First parameter +0	Setting data
RWr n+1	First parameter +1	Read out data	RWw m+1	First parameter +1	Setting data
RWr n+2	First parameter +2	Read out data	RWw m+2	First parameter +2	Setting data
RWr n+3	First parameter +3	Read out data	RWw m+3	First parameter +3	Setting data
RWr n+4	First parameter +4	Read out data	RWw m+4	First parameter +4	Setting data
RWr n+5	First parameter +5	Read out data	RWw m+5	First parameter +5	Setting data
RWr n+6	First parameter +6	Read out data	RWw m+6	First parameter +6	Setting data
RWr n+7	First parameter +7	Read out data	RWw m+7	First parameter +7	Setting data
RWr n+8	First parameter +8	Read out data	RWw m+8	First parameter +8	Setting data
RWr n+9	First parameter +9	Read out data	RWw m+9	First parameter +9	Setting data
RWr n+A	First parameter +10	Read out data	RWw m+A	First parameter +10	Setting data
RWr n+B	First parameter +11	Read out data	RWw m+B	First parameter +11	Setting data
RWr n+C	First parameter +12	Read out data	RWw m+C	First parameter +12	Setting data
RWr n+D	First parameter +13	Read out data	RWw m+D	First parameter +13	Setting data
RWr n+E	First parameter address		RWw m+E	First parameter address	
RWr n+F	ADR and number of parameters		RWw m+F	ADR and number of parameters	

[Example]
In case of write in data to five registers of D register (from D0301 to D0305) of address2 instrument:
• First parameter address: Write in [012D](HEX).
• ADR and number of parameters: Write in [0205](HEX).
  (Upper one byte: Address number, Lower one byte: number of parameter)

Remote Input/Output

	Read out area			Write in area	
	Remote→Master			Master→Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RX n0	Data monitoring mode		RY n0	Request for data monitoring mode	
RX n1	Parameter setting mode		RY n1	Request for parameter setting mode	
RX n2	Program setting mode		RY n2	Request for program setting mode	
RX n3	Read/Write data valid flag		RY n3		
RX n4	End of writing		RY n4	Write request	
RX n5	End of Reading		RY n5	Read request	
RX n6			RY n6		
RX n7			RY n7		
RX n8			RY n8		
RX n9			RY n9		
RX nA			RY nA		
RX nB			RY nB		
RX nC			RY nC		
RX nD			RY nD		
RX nE			RY nE		
RX nF			RY nF		
RX (n+1)0			RY (n+1)0		
:			:		
RX (n+1)F			RY (n+1)F		
RX (n+2)0			RY (n+2)0		
:			:		
RX (n+2)F			RY (n+2)F		
RX (n+3)0			RY (n+3)0		
:			:		
RX (n+3)F			RY (n+3)F		
RX (n+4)0			RY (n+4)0		
:			:		
RX (n+4)F			RY (n+4)F		
RX (n+5)0	Normal connection of slave 01		RY (n+5)0		
RX (n+5)1			RY (n+5)1		
RX (n+5)2			RY (n+5)2		
RX (n+5)3			RY (n+5)3		
RX (n+5)4			RY (n+5)4		
RX (n+5)5			RY (n+5)5		
RX (n+5)6			RY (n+5)6		
RX (n+5)7			RY (n+5)7		
RX (n+5)8			RY (n+5)8		
RX (n+5)9			RY (n+5)9		
RX (n+5)A			RY (n+5)A		
RX (n+5)B			RY (n+5)B		
RX (n+5)C			RY (n+5)C		
RX (n+5)D			RY (n+5)D		
RX (n+5)E			RY (n+5)E		
RX (n+5)F			RY (n+5)F		
RX (n+6)0	Reserved		RY (n+6)0	Reserved	
:			:		
RX (n+6)F	Reserved		RY (n+6)F	Reserved	
RX (n+7)0	Reserved		RY (n+7)0	Reserved	
:			:		
RX (n+7)8	Reserved		RY (n+7)8	Reserved	
RX (n+7)9	Reserved		RY (n+7)9	Reserved	
RX (n+7)A	Reserved		RY (n+7)A	Reserved	
RX (n+7)B	Remote ready flag		RY (n+7)B	Reserved	
RX (n+7)C	Reserved		RY (n+7)C	Reserved	
RX (n+7)D	Reserved		RY (n+7)D	Reserved	
RX (n+7)E	Reserved		RY (n+7)E	Reserved	
RX (n+7)F	Reserved		RY (n+7)F	Reserved	

3. PROGRAM PATTERN SETTING MODE

In Program Pattern Setting Mode, it is executed that the start conditions of program pattern and the setting data of each segments can be read out and written in, by designating pattern number and segment number.

Program pattern setting mode has start condition setting page and segment setting page which are distinguished if the data of designated segment number is (0) or (other than 0). And the both page have MAIN page and SUB page further.

It is too many setting parameters for one segment that number of page becomes plural.

The main contents of MAIN page are target set values of segment and segment time, and the content of SUB page is setting of events.

The SUB page is not used if not necessary.

The changing-over between MAIN page and SUB page is executed by SUB request flag (RY n3).

✋ IMPORTANT

When word accessing to each request flag (RY n3), pay attention to the other bits in (RY n0 to RY nF).

1. Read-out program pattern

[PROCEDURE]
(1) Check that each End flag (RX n4 to RX n6) are all [1].
(2) Check that SUB reception flag (RX n3) is (0) (=MAIN page).
(3) Write in the pattern number to (RWw m+E) and the segment number to (RWw m+F).
(4) Set Read request flag (RY n5) from [0] to [1].
(5) Wait until End of reading flag (RX n5) becomes from [0] to [1].
(6) Check the pattern setting error flag (RX n7). The flag is 0 in success, and 1 in failure.
(7) If the bit (RX n7) is 0, the read out data are stored in the readout area in Remote Register. If the bit (RX n3) is 0, data are stored in main page, and if it is 1, the data is stored in SUB page. When the data of SUB page should be referred, set bit (RY n3) from [0] to [1].
(8) Write-in [0] to Write request flag (RY n5).
   In SUB page, there is no area to be confirmed the pattern number and the segment number. When main page appears by setting SUB request flag (RY n3) from [0] to [1], the page and the segment number are confirmed by the data of (RWr n+E, RWr n+F).

*

RWw m+E	Read out Pattern number
RWw m+F	Read out Segment number

Write in the required read out pattern number
Write in the required read out segment number
[0]: Program pattern start condition setting page
[Other than 0]: The page number of Segment setting page

If the Normal connection of slave 01 [RX (n+5)0] is 0, the read out is not executed.
Don't designate no existing pattern number and segment number.

2. Write-in program pattern

When setting of SUB page is not used, (2) to (4) items may be omitted.

[PROCEDURE]
(1) Check that each End flag (RX n4 to RX n6) are all [1].
(2) Setting SUB request flag (RY n3) from [0] to [1], check that SUB reception flag (RX n3) becomes (1) (=SUB page).
(3) Set the write data for SUB page to the relative address (RWw m+0 to RWw m+F).
(4) Setting SUB request flag (RY n3) from [1] to [0], check that SUB reception flag (RX n3) becomes (0) (=MAIN page).

   <Setting of pattern number, segment number and MAIN page>
(5) Set to Remote Register (RWw m+0 to RWw m+F) the data to be written in MAIN page that are also included pattern number and segment number.

   <Write in to controller>
(6) Set Write request flag (RY n4) from [0] to [1].
(7) Wait until End of writing flag (RX n4) becomes from [0] to [1].
(8) Check the pattern setting error flag (RX n7). The flag is 0 in success, and 1 in failure.
(9) Set Write request flag (RY n4) from [1] to [0].

*

RWw m+E	Write in Pattern number
RWw m+F	Write in Segment number

Write in the required write in pattern number
Write in the required write in segment number
[0]: Program pattern start condition setting page
[Other than 0]: The page number of Segment setting page

If the Normal connection of slave 01 [RX (n+5)0] is 0, the write in is not executed.
Don't designate no existing pattern number and segment number.

Write data to be written in to (RWw m+0 to RWw m+F)

Write request flag, Read request flag (RY n4, RY n5)

End of writing flag, End of reading flag (RX n4, RX n5)

Being write-in (read-out) to controller

Write-in (read-out) starts within 0 to 200ms

When End of writing/reading flag becomes [1], set Write/Read request flag to [0].

In case of read out, the read out data are stored in (RWr n+0 to RWr n+F)

Pattern setting error flag (RX n7)

(1) Success
(0) Failure
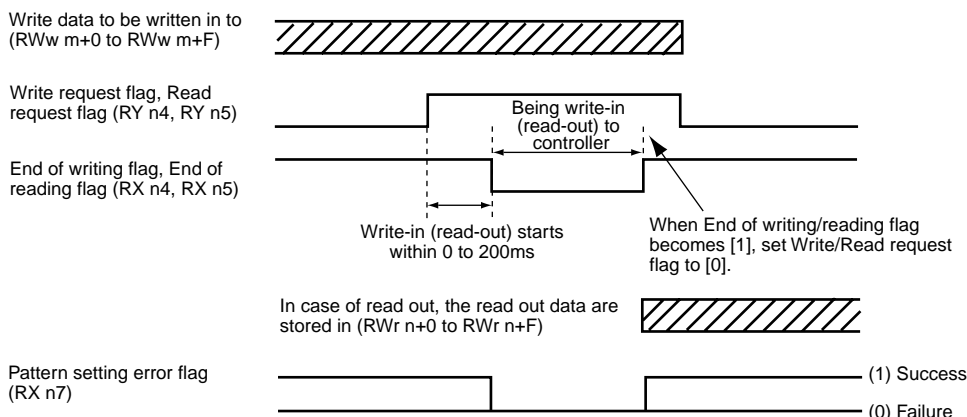
3. Erase program pattern

[PROCEDURE]
(1) Check that each End flag (RX n4 to RX n6) are all [1].
(2) Check that SUB request flag (RX n3) is [0] (=MAIN page).
(3) Set to (RWw m+E) the pattern number to be erased.
(4) Set Pattern erasure request flag (RY n6) from [0] to [1].
(5) Wait until End of pattern erasure flag (RX n6) becomes from [0] to [1].
(6) Check the pattern setting error flag (RX n7). The flag is 0 in success, and 1 in failure.
(7) Set Pattern erasure request flag (RY n6) from [1] to [0].

*

(RWw m+E)	Erase pattern number

Write in the required program pattern number to be erased

Pattern number to be erased (RWw m+E)

Pattern erasure request flag (RY n6)

Being erase pattern

End of erasing flag (RX n6)

Erasing starts within 0 to 200ms

When End of erasing flag becomes [1], set Pattern erasing request flag to [0].

Pattern setting error flag (RX n7)

(1) Success
(0) Failure
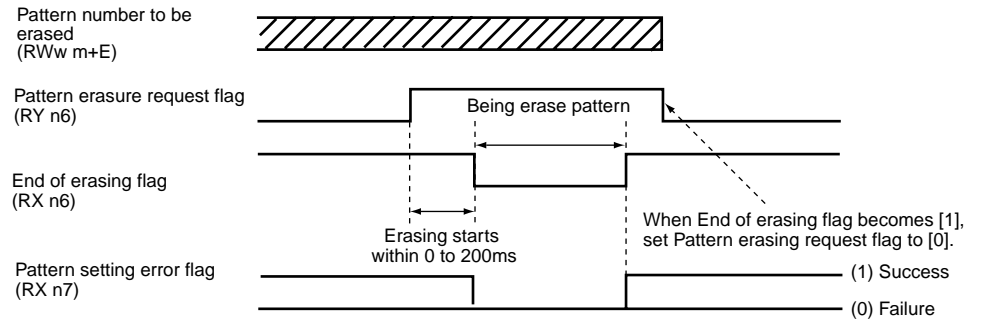
■ Setting of start condition: MAIN page

Remote Register

	(Read out area)			(Write in area)	
	Remote → Master			Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RWr n+0	SSP1	1/1 B0011	RWw m+0	SSP1	1/1 B0011
RWr n+1	SSP2	1/1 B0012	RWw m+1	SSP2	1/1 B0012
RWr n+2	STC	1/1 B0013	RWw m+2	STC	1/1 B0013
RWr n+3	RCY	1/1 B0029	RWw m+3	RCY	1/1 B0029
RWr n+4	RST	1/1 B0030	RWw m+4	RST	1/1 B0030
RWr n+5	REN	1/1 B0031	RWw m+5	REN	1/1 B0031
RWr n+6	1.WZ1	1/1 B0014	RWw m+6	1.WZ1	1/1 B0014
RWr n+7	1.WZ2	1/1 B0015	RWw m+7	1.WZ2	1/1 B0015
RWr n+8	1.WTM	1/1 B0016	RWw m+8	1.WTM	1/1 B0016
RWr n+9	2.WZ1	1/1 B0017	RWw m+9	2.WZ1	1/1 B0017
RWr n+A	2.WZ2	1/1 B0018	RWw m+A	2.WZ2	1/1 B0018
RWr n+B	2.WTM	1/1 B0019	RWw m+B	2.WTM	1/1 B0019
RWr n+C	Remaining number of SEG	1/1 B0008	RWw m+C		
RWr n+D	Remaining number of EVNT	1/1 B0009	RWw m+D		
RWr n+E	PTN.NO	1/1 B0001	RWw m+E	PTN.NO	1/1 B0001
RWr n+F	SEG.NO	1/1 B0002	RWw m+F	SEG.NO	1/1 B0002

Remote Input/Output

	(Read out area)		(Write in area)	
	Remote → Master		Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RX n0	Data monitoring mode		RY n0	Request for data monitoring mode
RX n1	Parameter setting mode		RY n1	Request for parameter setting mode
RX n2	Program setting mode		RY n2	Request for program setting mode
RX n3	SUB reception =0		RY n3	Request for SUB
RX n4	End of writing		RY n4	Write request
RX n5	End of reading		RY n5	Read request
RX n6	End of pattern erasure		RY n6	Pattern erase request
RX n7	Pattern Setting error		RY n7	
RX n8			RY n8	
RX n9			RY n9	
RX nA			RY nA	
RX nB			RY nB	
RX nC			RY nC	
RX nD			RY nD	
RX nE			RY nE	
RX nF			RY nF	
RX (n+1)0			RY (n+1)0	
:			:	
RX (n+1)F			RY (n+1)F	
RX (n+2)0			RY (n+2)0	
:			:	
RX (n+2)F			RY (n+2)F	
RX (n+3)0			RY (n+3)0	
:			:	
RX (n+3)F			RY (n+3)F	
RX (n+4)0			RY (n+4)0	
:			:	
RX (n+4)F			RY (n+4)F	
RX (n+5)0	Normal connection of slave 01		RY (n+5)0	
RX (n+5)1			RY (n+5)1	
RX (n+5)2			RY (n+5)2	
RX (n+5)3			RY (n+5)3	
RX (n+5)4			RY (n+5)4	
RX (n+5)5			RY (n+5)5	
RX (n+5)6			RY (n+5)6	
RX (n+5)7			RY (n+5)7	
RX (n+5)8			RY (n+5)8	
RX (n+5)9			RY (n+5)9	
RX (n+5)A			RY (n+5)A	
RX (n+5)B			RY (n+5)B	
RX (n+5)C			RY (n+5)C	
RX (n+5)D			RY (n+5)D	
RX (n+5)E			RY (n+5)E	
RX (n+5)F			RY (n+5)F	
RX (n+6)0	(Reserved)		RY (n+6)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+6)F	(Reserved)		RY (n+6)F	(Reserved)
RX (n+7)0	(Reserved)		RY (n+7)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+7)A	(Reserved)		RY (n+7)A	(Reserved)
RX (n+7)B	Remote READY flag		RY (n+7)B	(Reserved)
RX (n+7)C	(Reserved)		RY (n+7)C	(Reserved)
RX (n+7)D	(Reserved)		RY (n+7)D	(Reserved)
RX (n+7)E	(Reserved)		RY (n+7)E	(Reserved)
RX (n+7)F	(Reserved)		RY (n+7)F	(Reserved)

■ Setting of segment: MAIN page

Remote Register

	(Read out area)			(Write in area)	
	Remote → Master			Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RWr n+0	TSP1	1/1 B0111	RWw m+0	TSP1	1/1 B0111
RWr n+1	TSP2	1/1 B0112	RWw m+1	TSP2	1/1 B0112
RWr n+2	TIME	1/1 B0113	RWw m+2	TIME	1/1 B0113
RWr n+3	TM. RT	1/1 B0114	RWw m+3	TM. RT	1/1 B0114
RWr n+4	PID. NO	1/1 B0115	RWw m+4	PID. NO	1/1 B0115
RWr n+5	JC	1/1 B0140	RWw m+5	JC	1/1 B0140
RWr n+6	EVNO1	1/1 B0116	RWw m+6	EVNO1	1/1 B0116
RWr n+7	EVA1	1/1 B0117	RWw m+7	EVA1	1/1 B0117
RWr n+8	EVB1	1/1 B0118	RWw m+8	EVB1	1/1 B0118
RWr n+9	EVNO2	1/1 B0119	RWw m+9	EVNO2	1/1 B0119
RWr n+A	EVA2	1/1 B0120	RWw m+A	EVA2	1/1 B0120
RWr n+B	EVB2	1/1 B0121	RWw m+B	EVB2	1/1 B0121
RWr n+C	EVNO3	1/1 B0122	RWw m+C	EVNO3	1/1 B0122
RWr n+D	EVA3	1/1 B0123	RWw m+D	EVA3	1/1 B0123
RWr n+E	PTN.NO	1/1 B0001	RWw m+E	PTN.NO	1/1 B0001
RWr n+F	SEG.NO	1/1 B0002	RWw m+F	SEG.NO	1/1 B0002

Remote Input/Output

	(Read out area)		(Write in area)	
	Remote → Master		Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RX n0	Data monitoring mode		RY n0	Request for data monitoring mode
RX n1	Parameter setting mode		RY n1	Request for parameter setting mode
RX n2	Program setting mode		RY n2	Request for program setting mode
RX n3	SUB reception =0		RY n3	Request for SUB
RX n4	End of writing		RY n4	Write request
RX n5	End of reading		RY n5	Read request
RX n6	End of pattern erasure		RY n6	Pattern erase request
RX n7	Pattern Setting error		RY n7	
RX n8			RY n8	
RX n9			RY n9	
RX nA			RY nA	
RX nB			RY nB	
RX nC			RY nC	
RX nD			RY nD	
RX nE			RY nE	
RX nF			RY nF	
RX (n+1)0			RY (n+1)0	
:			:	
RX (n+1)F			RY (n+1)F	
RX (n+2)0			RY (n+2)0	
:			:	
RX (n+2)F			RY (n+2)F	
RX (n+3)0			RY (n+3)0	
:			:	
RX (n+3)F			RY (n+3)F	
RX (n+4)0			RY (n+4)0	
:			:	
RX (n+4)F			RY (n+4)F	
RX (n+5)0	Normal connection of slave 01		RY (n+5)0	
RX (n+5)1			RY (n+5)1	
RX (n+5)2			RY (n+5)2	
RX (n+5)3			RY (n+5)3	
RX (n+5)4			RY (n+5)4	
RX (n+5)5			RY (n+5)5	
RX (n+5)6			RY (n+5)6	
RX (n+5)7			RY (n+5)7	
RX (n+5)8			RY (n+5)8	
RX (n+5)9			RY (n+5)9	
RX (n+5)A			RY (n+5)A	
RX (n+5)B			RY (n+5)B	
RX (n+5)C			RY (n+5)C	
RX (n+5)D			RY (n+5)D	
RX (n+5)E			RY (n+5)E	
RX (n+5)F			RY (n+5)F	
RX (n+6)0	(Reserved)		RY (n+6)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+6)F	(Reserved)		RY (n+6)F	(Reserved)
RX (n+7)0	(Reserved)		RY (n+7)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+7)A	(Reserved)		RY (n+7)A	(Reserved)
RX (n+7)B	Remote READY flag		RY (n+7)B	(Reserved)
RX (n+7)C	(Reserved)		RY (n+7)C	(Reserved)
RX (n+7)D	(Reserved)		RY (n+7)D	(Reserved)
RX (n+7)E	(Reserved)		RY (n+7)E	(Reserved)
RX (n+7)F	(Reserved)		RY (n+7)F	(Reserved)

■ Setting of start condition: SUB page

Remote Register

	(Read out area)			(Write in area)	
	Remote → Master			Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RWr n+0	3.WZ1	1/1 B0020	RWw m+0	3.WZ1	1/1 B0020
RWr n+1	3.WZ2	1/1 B0021	RWw m+1	3.WZ2	1/1 B0021
RWr n+2	3.WTM	1/1 B0022	RWw m+2	3.WTM	1/1 B0022
RWr n+3	4.WZ1	1/1 B0023	RWw m+3	4.WZ1	1/1 B0023
RWr n+4	4.WZ2	1/1 B0024	RWw m+4	4.WZ2	1/1 B0024
RWr n+5	4.WTM	1/1 B0025	RWw m+5	4.WTM	1/1 B0025
RWr n+6	5.WZ1	1/1 B0026	RWw m+6	5.WZ1	1/1 B0026
RWr n+7	5.WZ2	1/1 B0027	RWw m+7	5.WZ2	1/1 B0027
RWr n+8	5.WTM	1/1 B0028	RWw m+8	5.WTM	1/1 B0028
RWr n+9			RWw m+9		
RWr n+A			RWw m+A		
RWr n+B			RWw m+B		
RWr n+C			RWw m+C		
RWr n+D			RWw m+D		
RWr n+E			RWw m+E		
RWr n+F			RWw m+F		

Remote Input/Output

	(Read out area)		(Write in area)	
	Remote → Master		Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RX n0	Data monitoring mode		RY n0	Request for data monitoring mode
RX n1	Parameter setting mode		RY n1	Request for parameter setting mode
RX n2	Program setting mode		RY n2	Request for program setting mode
RX n3	SUB reception = 1		RY n3	Request for SUB
RX n4			RY n4	
RX n5			RY n5	
RX n6			RY n6	
RX n7			RY n7	
RX n8			RY n8	
RX n9			RY n9	
RX nA			RY nA	
RX nB			RY nB	
RX nC			RY nC	
RX nD			RY nD	
RX nE			RY nE	
RX nF			RY nF	
RX (n+1)0			RY (n+1)0	
:			:	
RX (n+1)F			RY (n+1)F	
RX (n+2)0			RY (n+2)0	
:			:	
RX (n+2)F			RY (n+2)F	
RX (n+3)0			RY (n+3)0	
:			:	
RX (n+3)F			RY (n+3)F	
RX (n+4)0			RY (n+4)0	
:			:	
RX (n+4)F			RY (n+4)F	
RX (n+5)0	Normal connection of slave 01		RY (n+5)0	
RX (n+5)1			RY (n+5)1	
RX (n+5)2			RY (n+5)2	
RX (n+5)3			RY (n+5)3	
RX (n+5)4			RY (n+5)4	
RX (n+5)5			RY (n+5)5	
RX (n+5)6			RY (n+5)6	
RX (n+5)7			RY (n+5)7	
RX (n+5)8			RY (n+5)8	
RX (n+5)9			RY (n+5)9	
RX (n+5)A			RY (n+5)A	
RX (n+5)B			RY (n+5)B	
RX (n+5)C			RY (n+5)C	
RX (n+5)D			RY (n+5)D	
RX (n+5)E			RY (n+5)E	
RX (n+5)F			RY (n+5)F	
RX (n+6)0	(Reserved)		RY (n+6)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+6)F	(Reserved)		RY (n+6)F	(Reserved)
RX (n+7)0	(Reserved)		RY (n+7)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+7)A	(Reserved)		RY (n+7)A	(Reserved)
RX (n+7)B	Remote READY flag		RY (n+7)B	(Reserved)
RX (n+7)C	(Reserved)		RY (n+7)C	(Reserved)
RX (n+7)D	(Reserved)		RY (n+7)D	(Reserved)
RX (n+7)E	(Reserved)		RY (n+7)E	(Reserved)
RX (n+7)F	(Reserved)		RY (n+7)F	(Reserved)

■ Setting of segment: SUB page

Remote Register

	(Read out area)			(Write in area)	
	Remote → Master			Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RWr n+0	EVB3	1/1 B0124	RWw m+0	EVB3	1/1 B0124
RWr n+1	EVNO4	1/1 B0125	RWw m+1	EVNO4	1/1 B0125
RWr n+2	EVA4	1/1 B0126	RWw m+2	EVA4	1/1 B0126
RWr n+3	EVB4	1/1 B0127	RWw m+3	EVB4	1/1 B0127
RWr n+4	EVNO5	1/1 B0128	RWw m+4	EVNO5	1/1 B0128
RWr n+5	EVA5	1/1 B0129	RWw m+5	EVA5	1/1 B0129
RWr n+6	EVB5	1/1 B0130	RWw m+6	EVB5	1/1 B0130
RWr n+7	EVNO6	1/1 B0131	RWw m+7	EVNO6	1/1 B0131
RWr n+8	EVA6	1/1 B0132	RWw m+8	EVA6	1/1 B0132
RWr n+9	EVB6	1/1 B0133	RWw m+9	EVB6	1/1 B0133
RWr n+A	EVNO7	1/1 B0134	RWw m+A	EVNO7	1/1 B0134
RWr n+B	EVA7	1/1 B0135	RWw m+B	EVA7	1/1 B0135
RWr n+C	EVB7	1/1 B0136	RWw m+C	EVB7	1/1 B0136
RWr n+D	EVNO8	1/1 B0137	RWw m+D	EVNO8	1/1 B0137
RWr n+E	EVA8	1/1 B0138	RWw m+E	EVA8	1/1 B0138
RWr n+F	EVB8	1/1 B0139	RWw m+F	EVB8	1/1 B0139

Remote Input/Output

	(Read out area)		(Write in area)	
	Remote → Master		Master → Remote	
Address	Signal name	Contents	Address	Signal name	Contents
RX n0	Data monitoring mode		RY n0	Request for data monitoring mode
RX n1	Parameter setting mode		RY n1	Request for parameter setting mode
RX n2	Program setting mode		RY n2	Request for program setting mode
RX n3	SUB reception = 1		RY n3	Request for SUB
RX n4			RY n4	
RX n5			RY n5	
RX n6			RY n6	
RX n7			RY n7	
RX n8			RY n8	
RX n9			RY n9	
RX nA			RY nA	
RX nB			RY nB	
RX nC			RY nC	
RX nD			RY nD	
RX nE			RY nE	
RX nF			RY nF	
RX (n+1)0			RY (n+1)0	
:			:	
RX (n+1)F			RY (n+1)F	
RX (n+2)0			RY (n+2)0	
:			:	
RX (n+2)F			RY (n+2)F	
RX (n+3)0			RY (n+3)0	
:			:	
RX (n+3)F			RY (n+3)F	
RX (n+4)0			RY (n+4)0	
:			:	
RX (n+4)F			RY (n+4)F	
RX (n+5)0	Normal connection of slave 01		RY (n+5)0	
RX (n+5)1			RY (n+5)1	
RX (n+5)2			RY (n+5)2	
RX (n+5)3			RY (n+5)3	
RX (n+5)4			RY (n+5)4	
RX (n+5)5			RY (n+5)5	
RX (n+5)6			RY (n+5)6	
RX (n+5)7			RY (n+5)7	
RX (n+5)8			RY (n+5)8	
RX (n+5)9			RY (n+5)9	
RX (n+5)A			RY (n+5)A	
RX (n+5)B			RY (n+5)B	
RX (n+5)C			RY (n+5)C	
RX (n+5)D			RY (n+5)D	
RX (n+5)E			RY (n+5)E	
RX (n+5)F			RY (n+5)F	
RX (n+6)0	(Reserved)		RY (n+6)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+6)F	(Reserved)		RY (n+6)F	(Reserved)
RX (n+7)0	(Reserved)		RY (n+7)0	(Reserved)
:	(Reserved)		:	(Reserved)
RX (n+7)A	(Reserved)		RY (n+7)A	(Reserved)
RX (n+7)B	Remote READY flag		RY (n+7)B	(Reserved)
RX (n+7)C	(Reserved)		RY (n+7)C	(Reserved)
RX (n+7)D	(Reserved)		RY (n+7)D	(Reserved)
RX (n+7)E	(Reserved)		RY (n+7)E	(Reserved)
RX (n+7)F	(Reserved)		RY (n+7)F	(Reserved)