PMU Kezdő lépések

PMU Kezdő lépések

PMU Kezdő lépések

7-0 Csatlakozás más PLC-khez

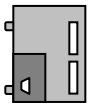
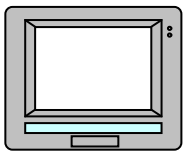
7-1 Kommunikáció LG PMU és Allen-Bradley PLC között

7-1-1 SLC500 PLC CPU Connection

- Allen-Bradley :SLC500 PLC – PMU RS-232C interface using Loader port

7-1-1-1 System configuration

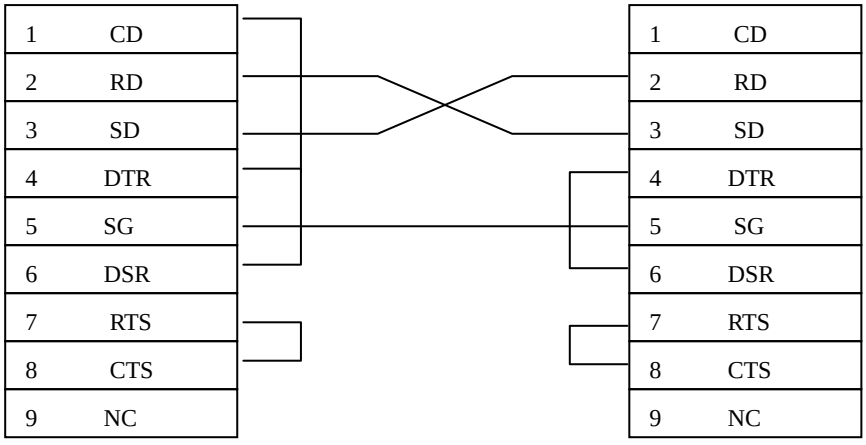
SLC500 PLC – PMU hardware

PLC	Interface module	Cable	Option unit	PMU
				
SLC5/03 SLC5/04	None	Below drawing (RS-232C)	PMO-600S PMO-300S PMO-200S	PMU-600 PMU-300 PMU-200

7-1-1-2 Cable connection

(1) RS-232C connection(SLC500 series ↔ PMU series)

PLC part(9Pin) PMU part(9Pin)



PMU Kezdő lépések

7-1-1-3 SLC500 PLC setup

recommend: 19200 bps, data: 8 bit, stop bit:1 bit, parity: Even

Setup of PLC part	
Baud rate	19200 bps
Data length	8 bit
Stop bit	1 bit
Parity bit	EVEN
Communication Driver	DF1 Half Duplex Slave
Duplicate Packet Detection	Disable
Error Detection	BCC
Control Line	No Handshaking
Station Address	0

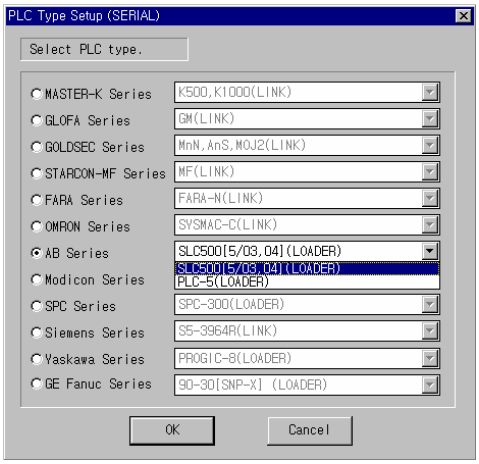
Please remember station Address of PLC and the station number of PMU should be identified.

PMU Kezdő lépések

7-1-1-4 PMU setup

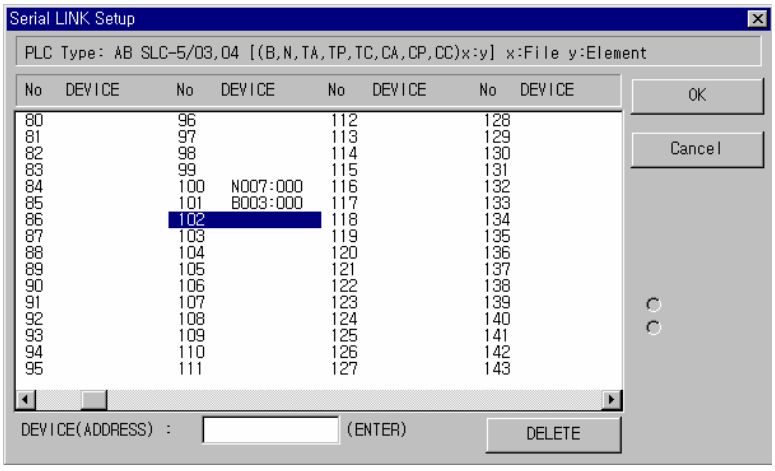
(1) Link setup

①select serial link in link editor and select “SLC500[5/03,04](LOADER)” in AB series.



② setup the buffer no. of PMU with device of PLC

(PLC address : please refer to the address table)



③Transfer the link file to PMU with other files.

(2)Serial setup

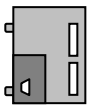
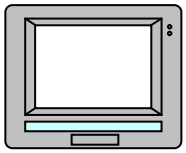
It should be identified with PLC data.

PMU Kezdő lépések

7-1-2 PLC-5 PLC CPU connection

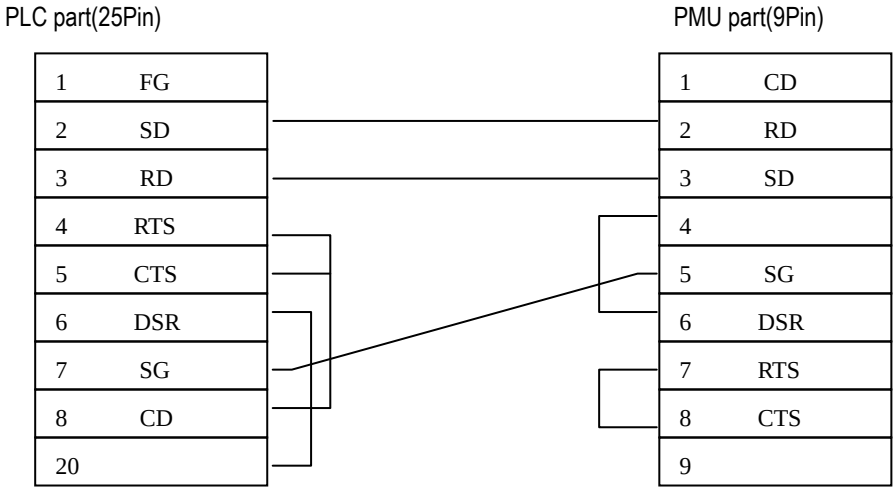
Allen-Bradley :SLC5 PLC - RS-232C interface using Loader port

7-1-2-1 System configuration

PLC	Interface module	Cable	Option card	PMU
				
PLC-5/11 PLC-5/20 PLC-5/30 PLC-5/40 PLC-5/40L PLC-5/60 PLC-5/60L	None	Below drawing (RS-232C, RS-422)	PMO-600S PMO-300S PMO-200S	PMU-600 PMU-300 PMU-200

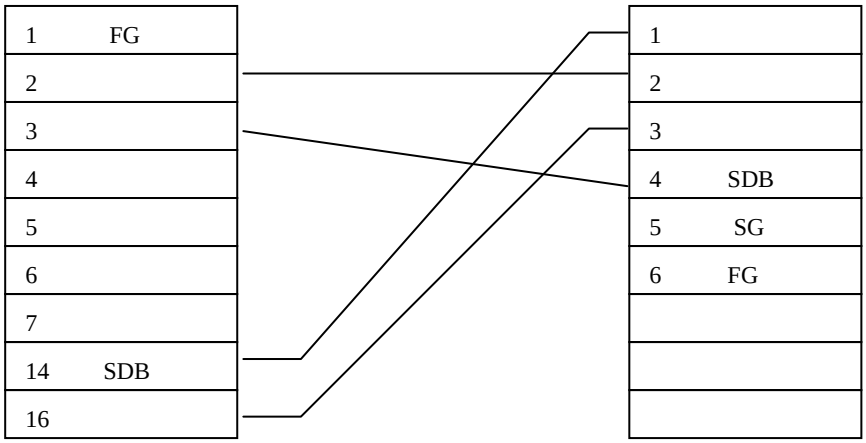
7-1-2-2 Cable connection

(1)RS-232C connection (PLC-5 series ↔ PMU series)



(2)RS-422 connection (PLC-5 series ↔ PMU series)

PLC part(25Pin) PMU part(6Pin or 5Pin Terminal Block)



7-1-2-3 PLC-5 PLC setup

recommend: 19200 bps, data: 8 bit, stop bit:1 bit, parity bit: Even.

PLC part	
Baud rate	19200 bps
Data length	8 bit
Stop bit	1 bit
Parity bit	EVEN
Communication Driver	DF1 Half Duplex Slave
Duplicate Packet Detection	Disable
Error Detection	BCC
Control Line	No Handshaking
Station Address	0

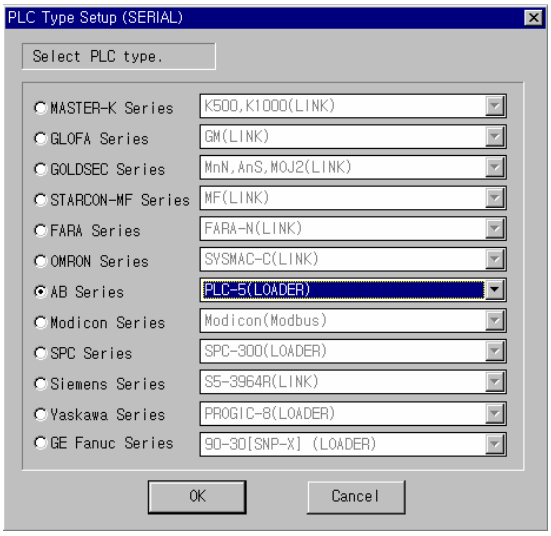
Please remember station address of PLC and the station number of PMU should be identified.

PMU Kezdő lépések

7-1-2-4 PMU setup

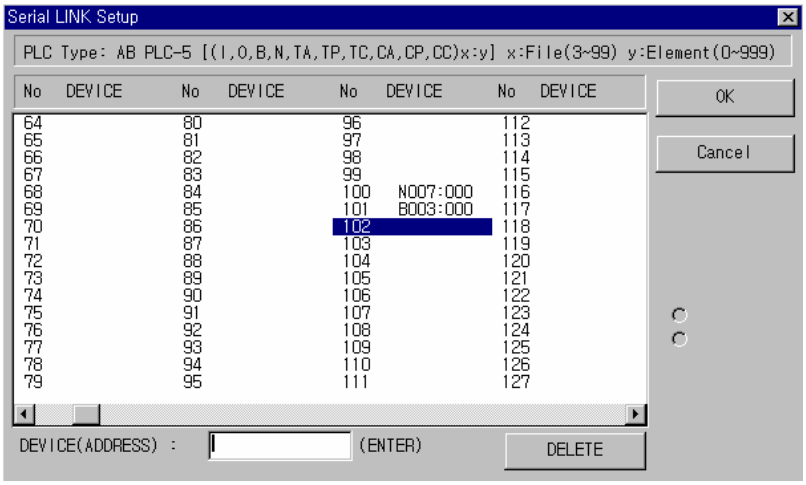
(1)Link setup

①select serial link in link editor and select “SLC5(LOADER)” in AB series.



② setup the buffer no. of PMU with device of PLC

(PLC address : please refer to the address table)



③Transfer the link file to PMU with other files.

(2) Serial Setup

It should be identified with PLC data.

7-1-3 PLC Address

(1)SLC500 series

Device	Address
Bit	B003000 ~ B003255 , B010000 ~ B255255
Timer (Timing bit) *1	TC004000 ~ TC004255 , TC010000 ~ TC255255
Timer (complete bit) *1	TC004000 ~ TC004255 , TC010000 ~ TC255255
Timer (setting value)	TP004000 ~ TP004255 , TP010000 ~ TP255255
Timer (current value)	TA004000 ~ TA004255 , TA010000 ~ TA255255
Counter (Up counter) *2	CC005000 ~ CC005255 , CC010000 ~ CC255255
Counter (down counter) *2	CC005000 ~ CC005255 , CC010000 ~ CC255255
Counter (complete bit) *2	CC005000 ~ CC005255 , CC010000 ~ CC255255
Counter (setting value)	CP005000 ~ CP005255 , CP010000 ~ CP255255
Counter(current value)	CA005000 ~ CA005255 , CA010000 ~ CA255255
Integer	N007000 ~ N007255 , N010000 ~ N255255

Note

*1 : Timing bit : bit 14

complete bit : bit 13

*2 : Up counter Enable bit : bit 15

Down counter timing bit : bit 14

Complete bit : bit 13

(2)PLC-5 series

Device	Address
Input relay	I001000 ~ I001999
Output relay	O000000 ~ O000999
Internal relay	B003000 ~ B099999
Timer(Timing bit) *1	TC003000 ~ TC099999
Timer(Complete bit) *1	TC003000 ~ TC099999
Timer(Setting value)	TP003000 ~ TP099999
Timer(current value)	TA003000 ~ TA099999
Counter (Up counter) *2	CC003000 ~ CC099999
Counter (down counter) *2	CC003000 ~ CC099999
Counter (complete bit) *2	CC003000 ~ CC099999
Counter (setting value)	CP003000 ~ CP099999
Counter (current value)	CA003000 ~ CA099999
Integer	N003000 ~ N099999

Note

*1 : Timing bit : bit 14

Complete bit : bit 13

*2 : Up counter Enable bit : bit 15

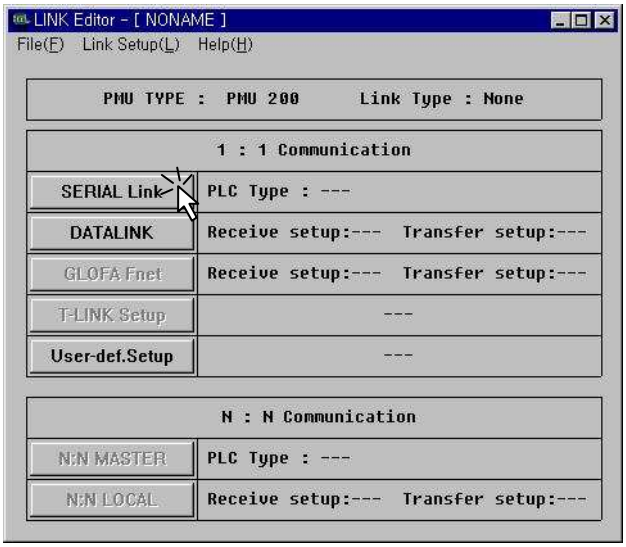
complete bit : bit 13

7-2 GE-Fanuc 90-30[SNP-X] series

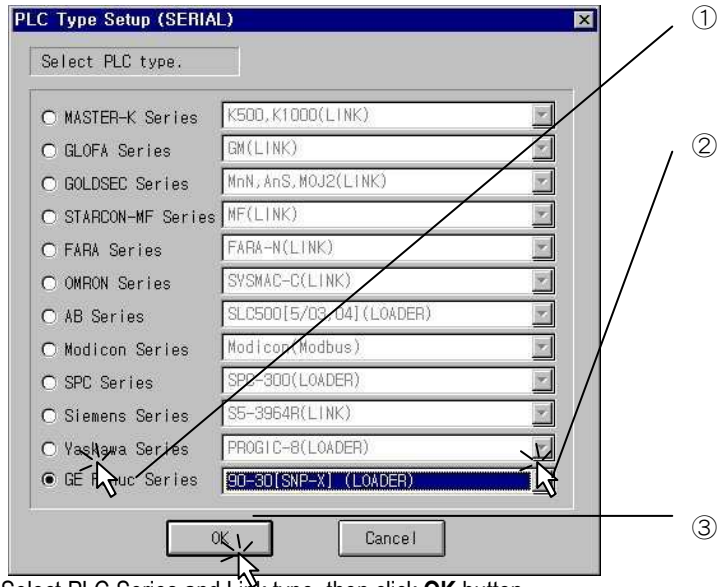
7-2-1 Edit a Link Editor

For the communication with PLC when operating the main machine (PMU), the Link Editor allows you to enter and select the communication method, PLC Type, Device, Address and others in the Link Table.
To use the selected Link File, Send a Link File from PC to the main machine (PMU) using Project Manager.
The extension name for the Link Select File is ".LNK".

◆ Select ***Others-Link Editor*** in the Screen Editor or ***Editor-Link Editor*** in the Project Manager.



◆ Select **SERIAL Link** button to setup the serial communication.



◆ Select PLC Series and Link type, then click **OK** button.

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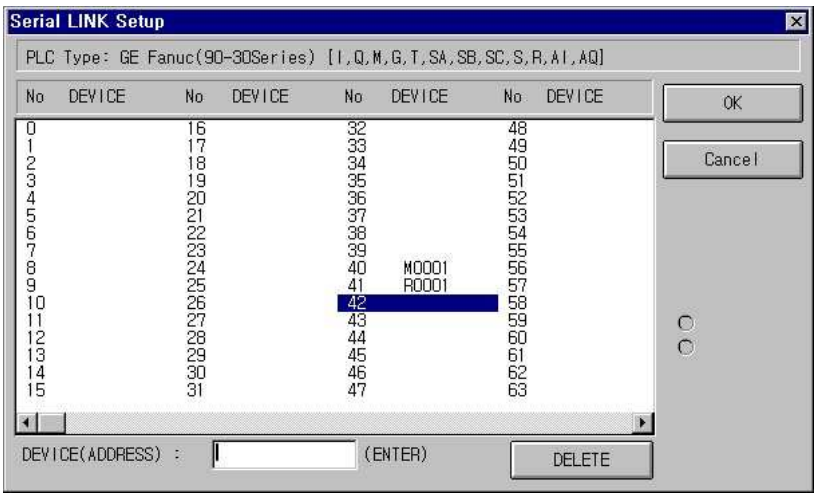
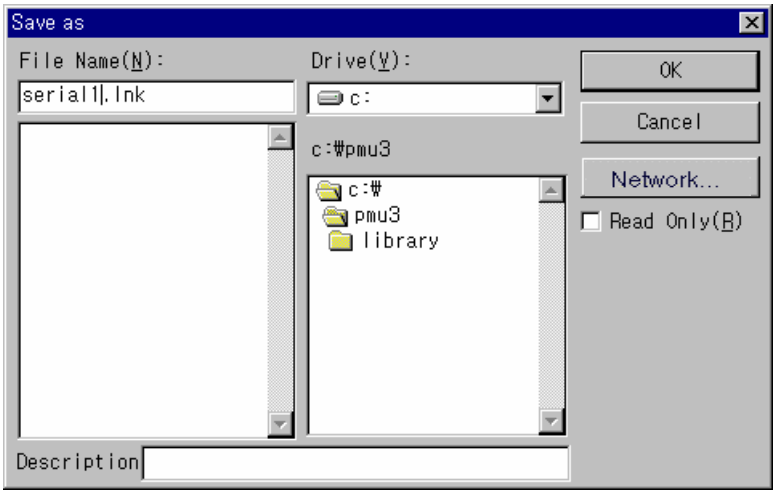
◆ Enter the PLC address for the communication.



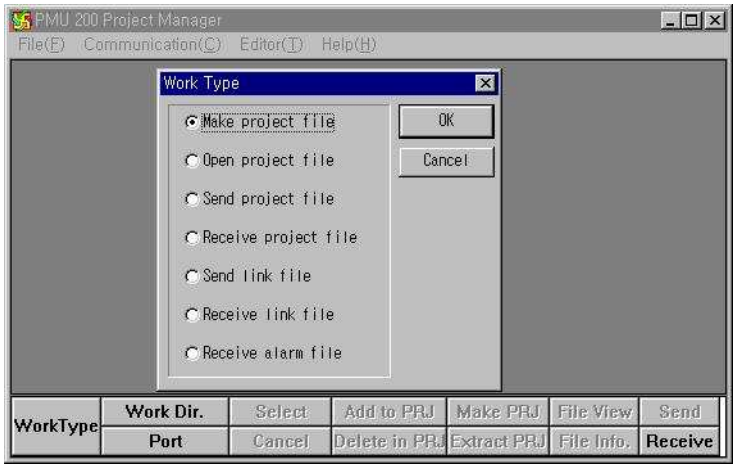
When you set a PLC address on the buffer memory area, be sure that the buffer memory is a word data.
So, M0001, R0001 are word data.
Buffer no. 40 : Function Key Tag and Lamp Tag(Writing data to PLC) – Bit data(ex. M0001 card)
Buffer no. 41 : Numeric Tag(Reading from PLC) - Word data(ex. R001 card)

◆ Click **OK** button.
◆ Select ***File – Save*** menu
◆ Select folder to be saved and enter file name, then click **OK** button.

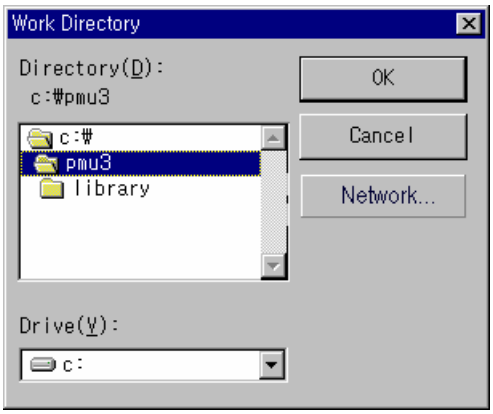


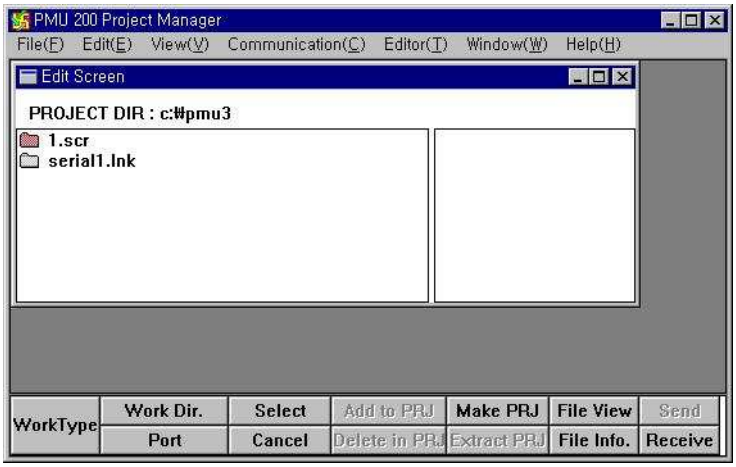
7-2-2 Edit a Project Manager

◆ Select ***Others-Project Manager*** in the Screen Editor or Open the ***Project Manager*** in PMU-MASTER.



◆ Select **Make project file** button and click **OK** button.
◆ Click **OK** button after setting up the directory.

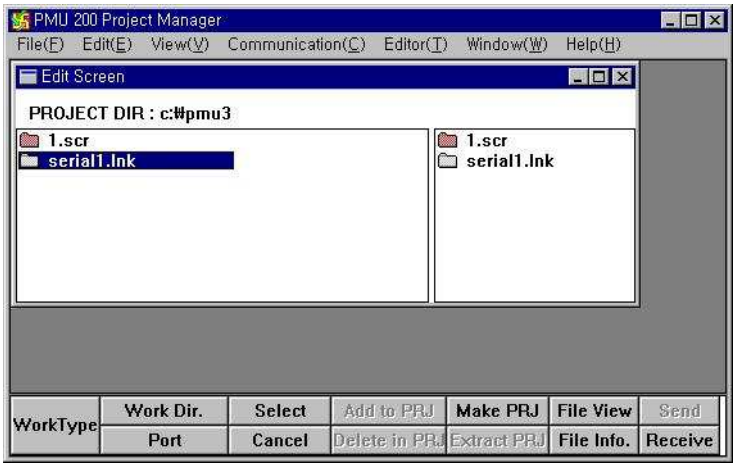




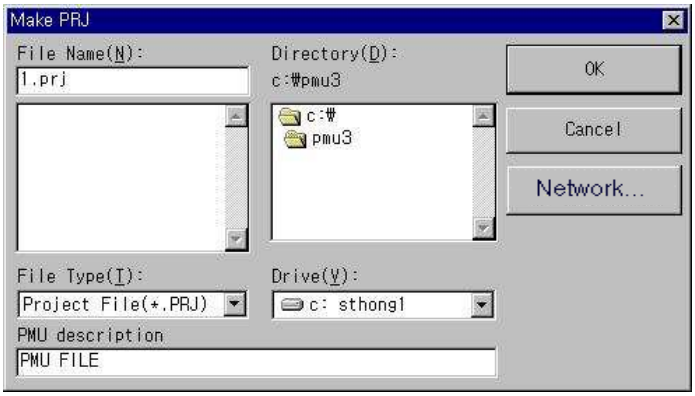
◆ Double click on the file to insert the file into a project file to be created.

PMU Kezdő lépések

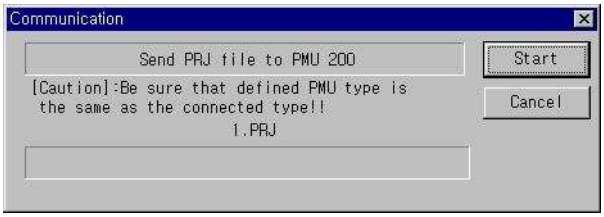
◆ Then the selected file will be moved to the right box as the above.



◆ Select **Make PRJ** button.
◆ Enter file name of the project file, then click **OK** button.



◆ Select ***Communication-Send Project File*** in the Project Manager.



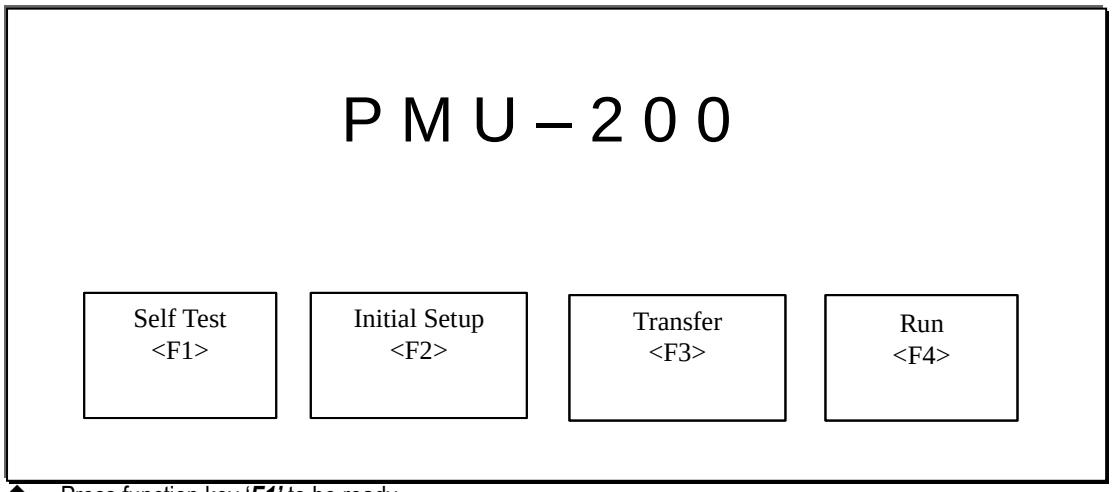
◆ Press **Start** button to send PRJ file to PMU hardware after setting up the PMU hardware for the communication.

PMU Kezdő lépések

7-2-3 Setup a PMU hardware

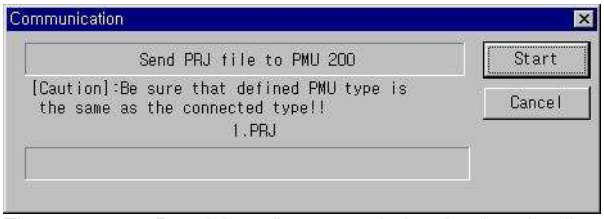
To communicate with PLC, you should download the Project file[*.scr, *.sub, *.alm, *.lnk, *.msg and etc.] created in the PMU-MASTER to the PMU hardware.
To setup the PMU hardware(main unit),

- Turn the power On[the power supply for the PMU-200 is DC24V].
- Press a function key '***F3***" in the Main Menu of the main unit.

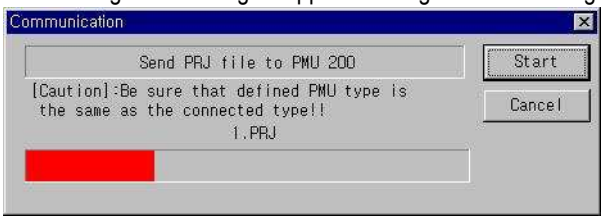


- Press function key '***F1'*** to be ready.

- Transfer the files from the Project Manager of the PMU-MASTER. to the Main Unit.
- Press **Start** button.



- The message " Receiving…" appears during the downloading in the Main Unit.



- 'Completed! <KEY>' message is shown to the main unit after execution.
- To interrupt transfer, press ESC key. (Function key 'MENU' in the machine)
- Before the communication, you should set the Initial Setup in the Main Menu.
- Press **Initial Setup** key and select **Serial Setup** key.
- Setup value is :
  Baud rate : 19200bps
  Data bits : 8bits
  Stop bit : 1bit
  Parity bit : odd
  Interface : RS-422(4line)
  Station number : 0

PMU Kezdő lépések

Baud rate	:	[19200]
Data bits	:	7bits 8bits
Stop bits	:	1bit 2bits
Parity bit	:	None Even Odd
Station Number	:	[0]
Interface	:	RS232 RS422

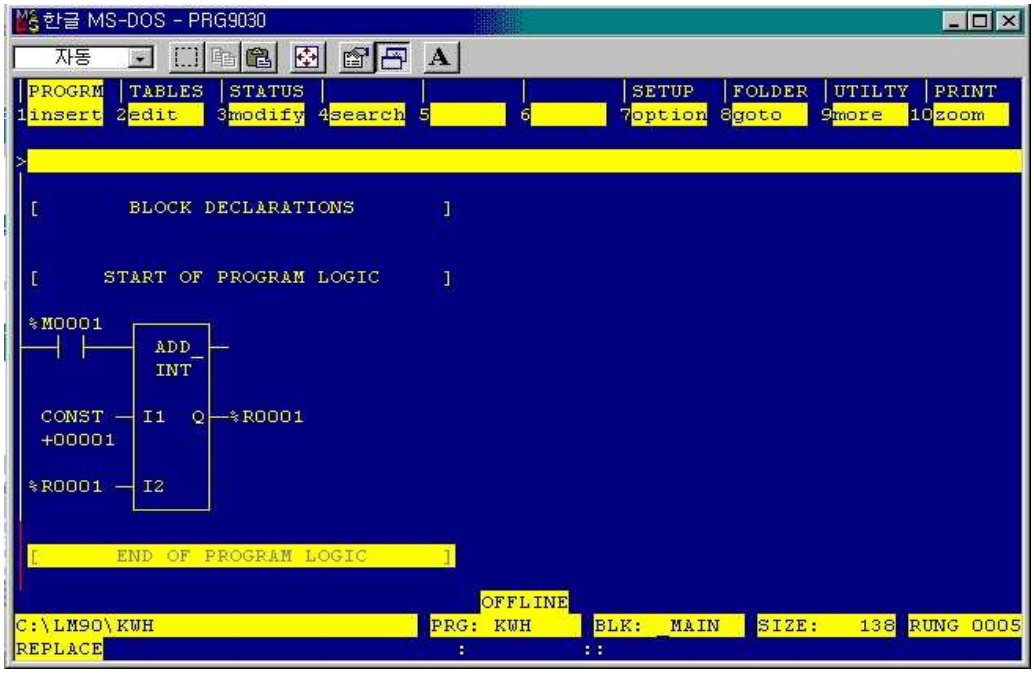
Save<ENTER> Cancel<MENU>

- To select the left menu bar(Items) : Use Function key '∧' and '∨'.
- To select the parameter : Use Function key '<' and '>'.
- To escape the current screen, press **Cancel** button.
- Press **Enter** button.

7-2-4 Edit a Program in PLC

To communicate with PMU and PLC, you should download a program to PLC using Programming Tool(LOGICMASTER 90 Software)

◆ Create a Program for the communication.

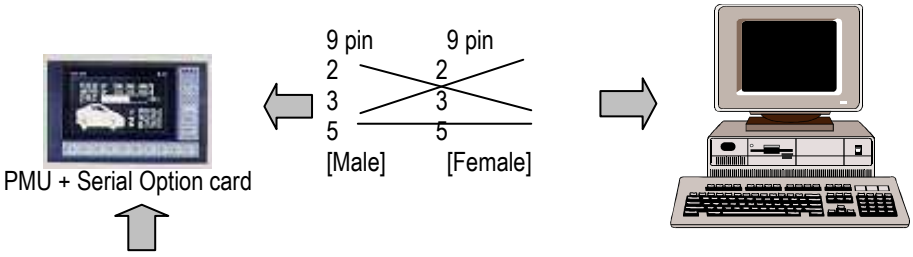


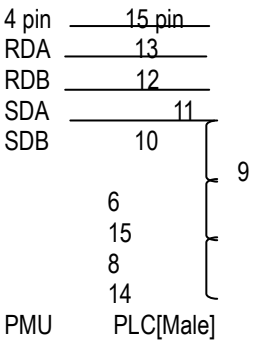
M0001 : Bit address for Touch Tag and Lamp Tag(Buffer : 40, Bit number : 0)
R0001 : Word address for Numeric Tag(Buffer : 41. Word data)

◆ For the detail information of editing a program in the programming tool, please refer to the User's Manual.

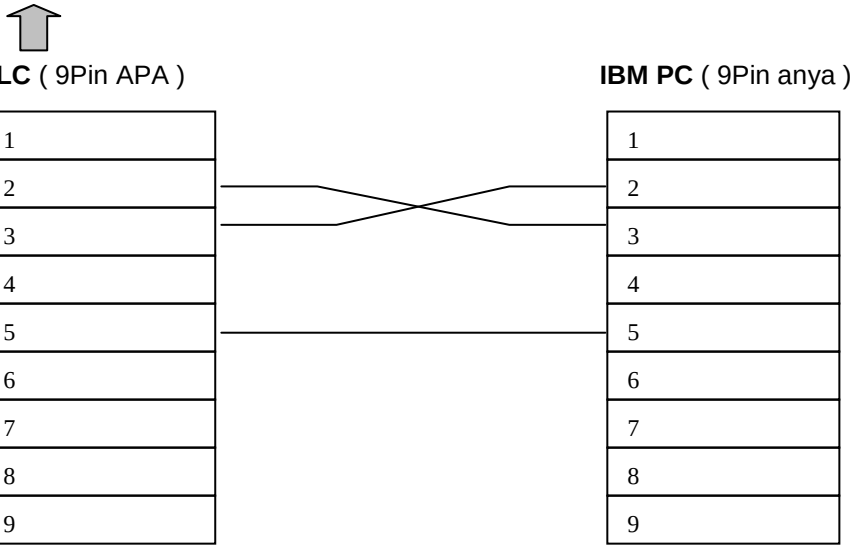
PMU Kezdő lépések

7-2-5 Cable Connection for serial Interface

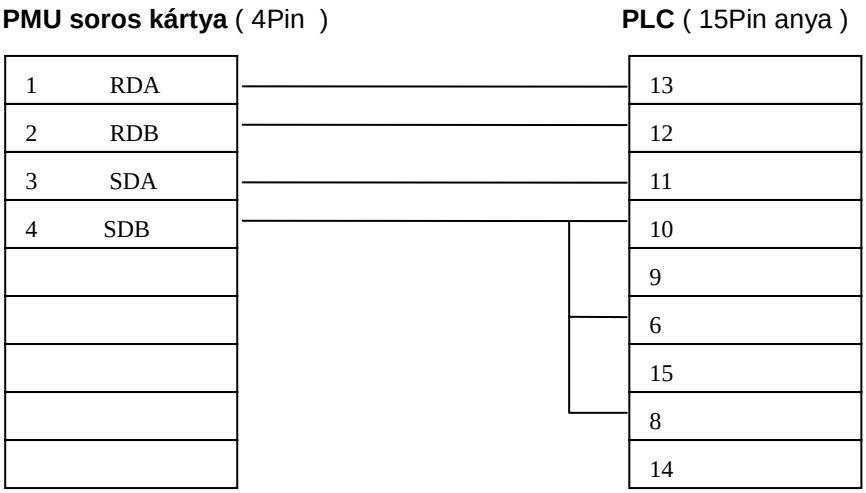




GE Fanuc(90-30)series- Loader Port



PMU Kezdő lépések

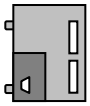
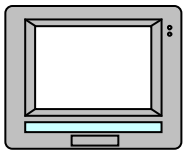


7-3 PMU Communication With Mitsubishi PLC CPU

(Loader Port)

This is for communicating between PMU _ Mitsubishi PLC Loader Port

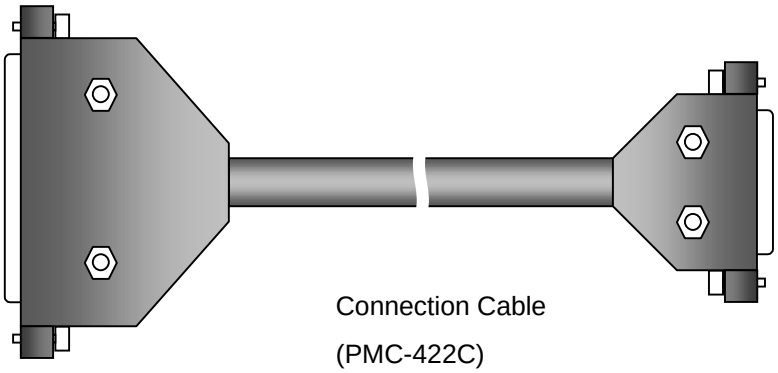
7-3-1 System Configuration

PLC	Communication Unit	Cable	Communication Module for PMU	PMU
				
M2N,M3N M2A,M3A M2U,M3U A1S,A2S M0J2,AOJ2H QnA FX	None	PMC-422C	PMO-600S PMO-300S PMO-200S	PMU-600 PMU-300 PMU-200

7-3-2 Cable Connection

7-3-2-1 RS-232C Connection (Melsec Series ↔ PMU)

PLC CPU(25Pin) PMU SERIAL CARD(RS-232,9Pin)



Connection Cable

(PMC-422C)

PMU Kezdő lépések

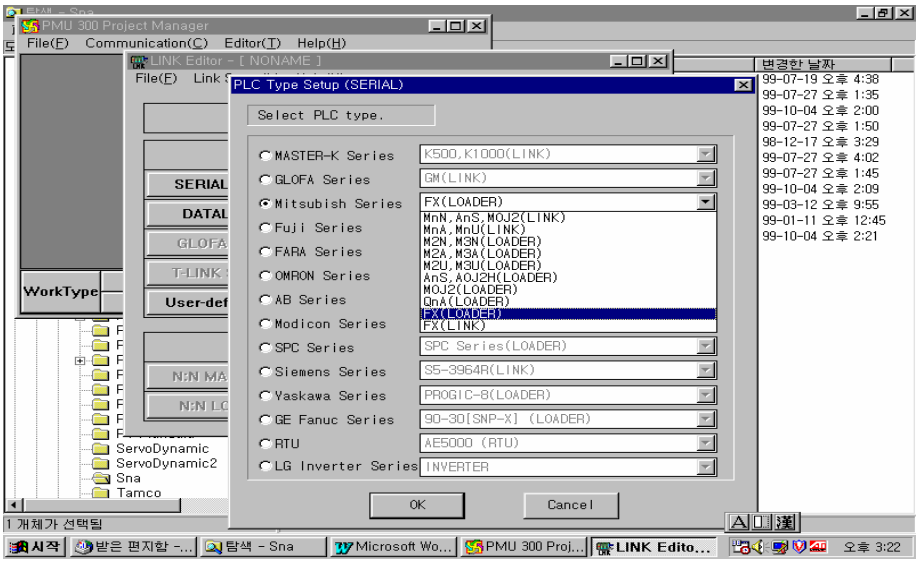
7-3-3 Melsec PLC Set up

You don't need to set any data for Melsec PLC.

7-3-4 PMU Set up

(1) Link Set up

① Please select Interface Type("Serial") first and then select PLC Type as follows;("A2N,A3N(LOADER)", "A2A,A3A(LOADER)", "A2U,A3U(LOADER)", "AnS,AOJ2H(LOADER)", "A0J2(LOADER)", "QnA(LOADER)","FX")



① Please set up buffer memory which will be linked with PLC address.

Please refer to Table for Available PLC Address.

② Transfer Information(Link) to PMU.

(2) serial Set up

You don't need to set up anything, Data will be set up automatically as follows.

Baud Rate : 9600 bps
Data Length : 8bit
Stop Bit Length : 1bit
Parity Bit : Even
Signal Level : RS-232C
Station No. : 0

PMU Kezdő lépések

7-3-5 Available PLC Address Table

(1) AnU CPU (Loader Port Communication)

Contents	Dev.No	Data	Registerd Bit Address	Registered Word Address
Input (X)	0	Bit	X0000 – X1FFF	
Output (Y)	1	Bit	Y0000 – Y1FFF	
LINK Relay (B)	2	Bit	B0000 – B1FFF	
LINK Register (W)	3	Word		W0000 – W1FFF
STEP Relay (S)	4	Bit	S0000 – S8191	
Special Relay (F)	5	Bit	F0000 – F2047	
LATCH Relay (L)	6	Bit	L0000 – L8191	
Internal Relay (M)	7	Bit	M0000 – M8191	
Special Relay (M)	7	Bit	M9000 – M9255	
Data Register (D)	8	Word		D0000 - D8191
Special Register (D)	8	Word		D9000 - D9255
Timer-Coli (TC)	9	Bit	TC000 – TC2047	
Timer-Current (TN)	10	Word		TN000 – TN2047
Timer-Contact (TS)	11	Bit	TS000 – TS2047	
Counter-Coil (CC)	12	Bit	CC000 – CC1023	
Counter-Current (CN)	13	Word		CN000 – CN1023
Counter-Contact (CS)	14	Bit	CS000 – CS1023	

(2) QnA CPU (Loader Port Communication)

Contents	Dev.No	Data	Registerd Bit Address	Registered Word Address
Input (X)	0	Bit	X0000 – X1FFF	
Output (Y)	1	Bit	Y0000 – Y1FFF	
Link Relay (B)	2	Bit	B0000 – B7FFF	
Link Register (W)	3	Word		W0000 – W63FF
Special Link Register (SW)	3	Word		SW000 – SW7FF
Step Relay (S)	4	Bit	S00000 - S32767	
Special Relay (F)	5	Bit	F00000 – F32767	
Latch Relay (L)	6	Bit	L00000 – L32767	
Edge Relay (V)	-	Bit	V00000 - V32767	
Internal Relay (M)	7	Bit	M00000 – M32767	
Special Relay (SM)	7	Bit	SM0000 – SM2047	
Data Register (D)	8	Word		D00000 – D25599
Special Register (SD)	8	Word		SD0000 – SD2047
Timer-Coil (TC)	9	Bit	TC0000 – TC23551	
Timer-Current (TN)	10	Word		TN0000 – TN23551
Timer-Contact (TS)	11	Bit	TS0000 – TS23551	
Acummulating Timer-Coil (SC)	-	Bit	SC0000 – SC23551	
Acummulating Timer-Current (SN)	-	Word		SN0000 – SN23551
Acummulating Timer-Contact (SS)	-	Bit	SS0000 – SS23551	
Counter-Coil (CC)	12	Bit	CC0000 – CC23551	
Counter-Current (CN)	13	Word		CN0000 – CN23551
Counter-Contact (CS)	14	Bit	CS0000 – CS23551	

PMU Kezdő lépések

(3) MELSEC-FX Series CPU (Loader Port Communication)

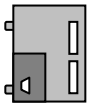
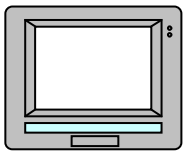
Contents	Dev.No	Data	Registerd Bit Address	Registered Word Address
Input (X)	0	Bit	X000 – X337	X000 – X320
Output (Y)	1	Bit	Y000 – Y337	Y000 – Y320
Step Relay (S)	2	Bit	S000 – S999	S000 – S984
Internal Relay (M)	3	Bit	M0000 – M1535	M0000 – M1520
Data Register (D)	4	Word		D000 – D999
Timer-현재치 (TN)	5	Word		TN000 – TN255
Counter-Current (CN)	6	Word		CN000 - CN255

7-4 Modicon PLC series – Modbus Protocol (RTU or ASCII Mode)

1. Modicon Modbus –Serial Interface

- Communication with Modicon (Modbus) PLC and PMU hardware using RS-232C interface.

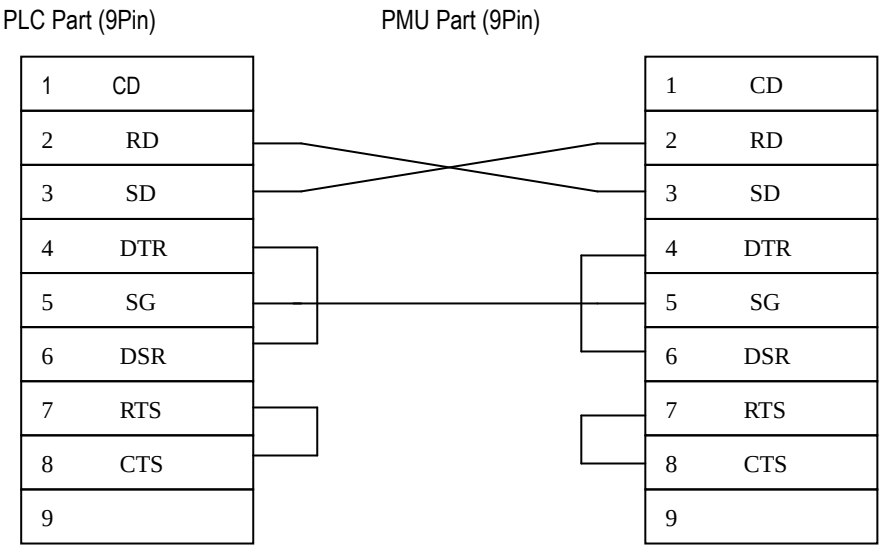
7-4-1 System Configuration

PLC	Interface module	Cable	Option Card	PMU
				
884 984A 984B 984X Slot Mount- 984	None	Below drawing (RS-232C)	PMO-600S PMO-300S PMO-200S	PMU-600 PMU-300 PMU-200

- Modbus : You can use Link interface port in Modicon PLC- CPU module

7-4-2 Cable connection

(1)RS-232C connection(Modicon PLC ↔ PMU series)



7-4-3 Modicon PLC setup

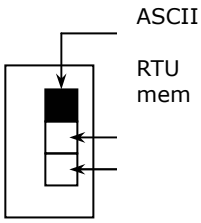
1-3-1 RTU Mode

PLC Interface mode : select RTU Mode

PLC part setup	
Baud rate	9600 bps
Data length	8 bit
Stop bit	1 bit
Parity bit	Even
Station No.	By rotary switch

- Station address of PLC is set by the rotary switch behind CPU module.

- This station number should be same as the one of PMU station.



1-3-2 ASCII Mode

PLC Interface mode : select ASCII Mode

PLC part setup	
Baud rate	2400 bps
Data length	7 bit
Stop bit	1 bit
Parity bit	Even
Station No.	By rotary switch

1-3-3 Memory(mem) Mode

You can setup the parameter in the programming software of Modicon PLC.

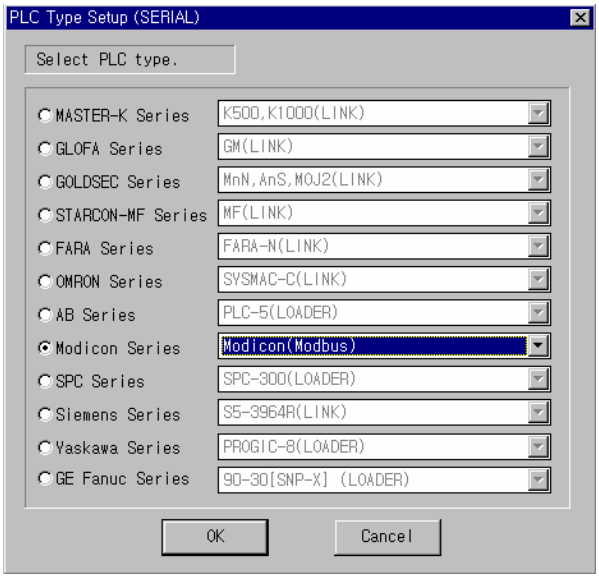
PLC part setup	
Baud rate	50~19200 bps
Data length	7/8 bit
Stop bit	1/2 bit
Parity bit	Even/Odd
Station No.	By rotary switch

PMU Kezdő lépések

7-4-4 PMU Setup

(1)Link setup

① select serial link in link editor and select “Modicon(Modbus)” in Modicon series.



② setup the buffer no. of PMU with device of PLC

(PLC address : please refer to the address table)

③Transfer the link file to PMU with other files.

(2) Serial parameter Setup

It should be identified with PLC data.

7-4-5 PLC address

Device	Address
Input bit	10001 ~ 18192
Output bit	00001 ~ 08192
Input register (Word)	30001 ~ 39999
Output register (Word)	40001 ~ 49999

Note

- Input bit and Input register can not be permitted to write data.

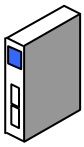
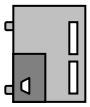
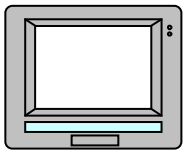
7-5 OMRON SYSMAC Series

7-5-1 OMRON SYSMAC-C Serial Interface

- Communication with OMRON SYSMAC-C PLC and PMU hardware using RS-232C/422 Serial Interface

7-5-2 System Cinfiguration

.

PLC	Interface Module	Cable	Option Module	PMU
				
C200H/C200HS	C200H-LK202-V1	Below Drawing (RS-422)	PMO-500/600S PMO-300S PMO-200S	PMU-500/600 PMU-300 PMU-200
	C200H-LK201-V1	Below Drawing (RS-232C)		
C500/C1000H/C2000H/C500	C500-LK201-V1 C500-LK203	Below Drawing (RS-232C/422)		
C50/C120/C500/C1000H/C2000H/C120F/C500F	C120-LK201-V1	Below Drawing (RS-232C)		
	C120-LK202-V1	Below Drawing (RS-422)		

Note

Please be careful of Pin connection of Communication Unit for C200H/C200HS.(Refer to Cable Connection (2),(4))

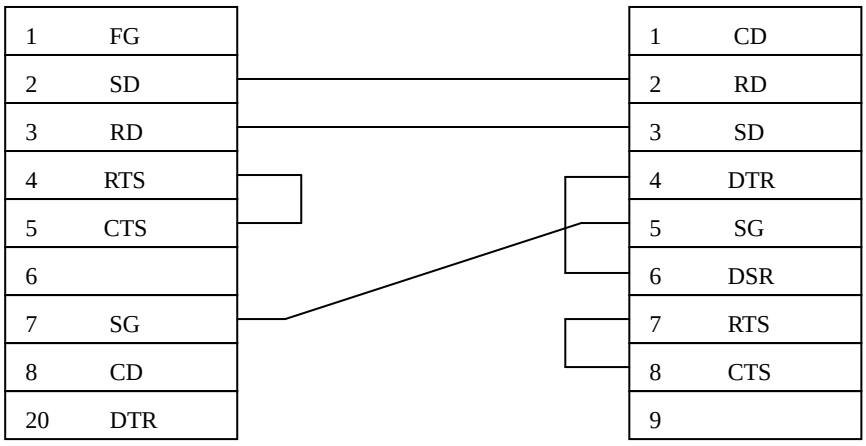
PMU Kezdő lépések

7-5-3 Cable connection

(1) RS-232C connection(SYSMAC-C series ↔ PMU series)

All SYSMAC Series except C200.

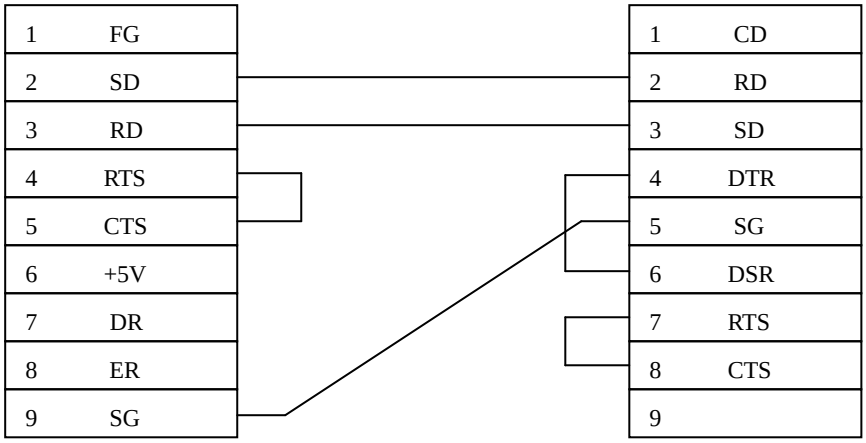
PLC part(25Pin) PMU part(9Pin)



(2) RS-232C connection(SYSMAC-C200 series ↔ PMU series)

For C-200 series.

PLC part(9Pin) PMU part(9Pin)

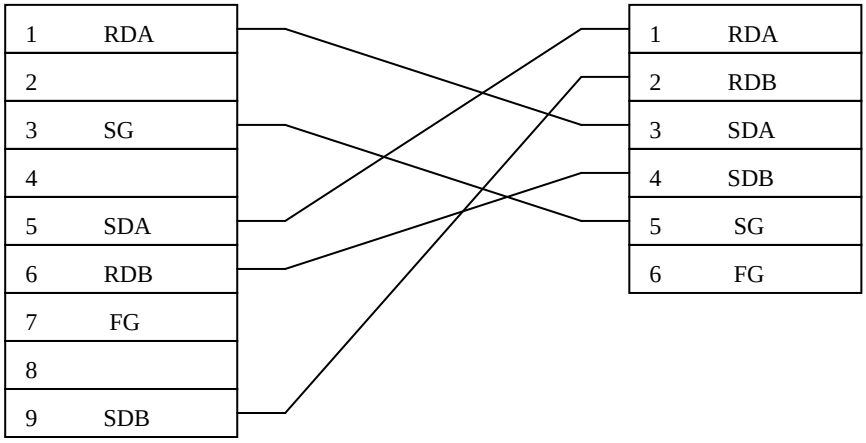


PMU Kezdő lépések

(3) RS-422 connection(SYSMAC-C Series ↔ PMU Series)

All SYSMAC-C Series except C200 Series

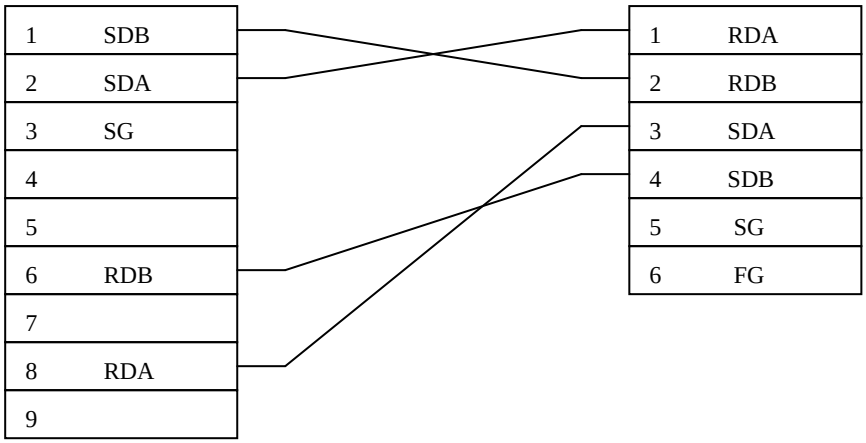
PLC Part(9Pin) PMU Part(6Pin or 5Pin Terminal Block)



(4)RS-422 Connection(SYSMAC-C200 Series ↔ PMU Series)

For C200 Series

PLC Part(9Pin) PMU Part(6Pin or 5Pin Terminal Block)



7-5-3 SYSMAC-C PLC Setup

(1)C200H-LK201-V1/LK-202-V1 Setup

1) Station No. Setup

Station No. can be set by SW1 and SW2, SW1 means 10's Digit, SW2 means 1's digit value.

2) Baud rate Setup

Baud rate is setup by SW3. Set values of position of Switch are as follows.

Switch	Baud rate(bps)
0	300
1	600
2	1200
3	2400
4	4800
5	9600
6	19200

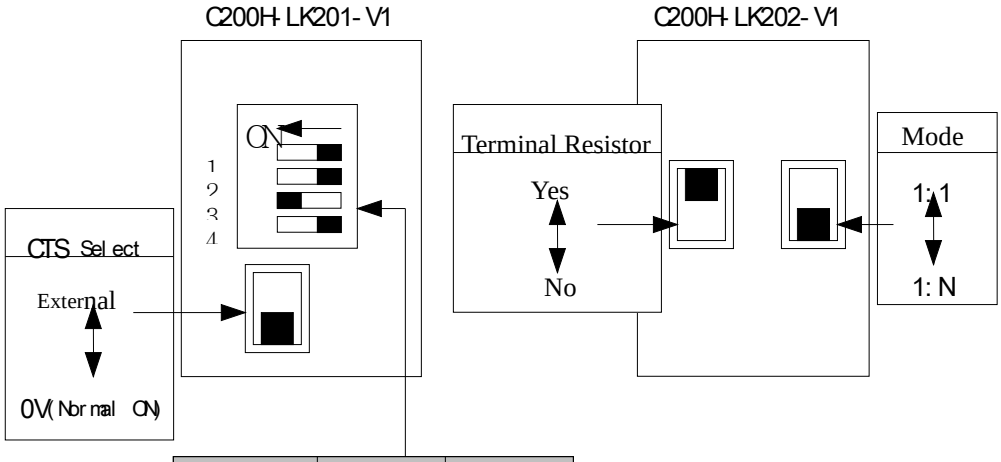
3) commend level Setup

Commend level can be set by SW4. Position of recommended switch is SW2.

Switch	Commend level	Parity	Others
0	Level 1 available	even	ASCII 7bit 2 Stop bit
1	Level 1, 2 available		
2	Level 1,2,3 available		
3	No setup level		
4	Level 1 available	odd	
5	Level 1,2 available		
6	Level 1,2,3 available		
7	No setup level		
8	Level 1 available	even	JIS 8bit 1 Stop bit
9	Level 1,2 available		
A	Level 1,2,3 available		
B	No setup level		
C	Level 1 available	odd	
D	Level 1,2 available		
E	Level 1,2,3 available		
F	No setup level		

PMU Kezdő lépések

4) DIP Switch Setup



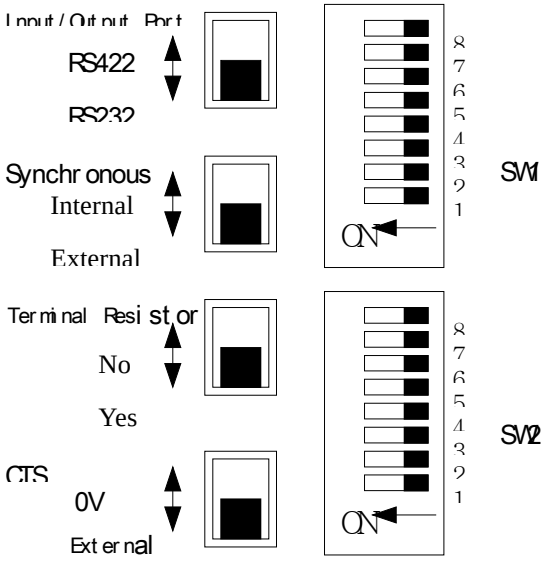
SW No.	ON	OFF
1	Fixed by OFF	
2	Fixed by OFF	
3	1:N	1:1
4	5V	No Power

Note

Recommended Setup : CTS 0V(On), 1:N, Terminal Resistor “ Yes”.

PMU Kezdő lépések

(2)C500-LK201-V1 Dip Switch Setup



	Switch	Contents	Position of Set Switch					
			ON			OFF		
SW1	1~5	Station No. Select	0	1	2	…	30	31
	1	Station No. Select	OFF	ON	OFF	…	OFF	ON
	2		OFF	OFF	ON	…	ON	ON
	3		OFF	OFF	OFF	…	ON	ON
	4		OFF	OFF	OFF	…	ON	ON
	5		OFF	OFF	OFF	…	ON	ON
	6	Not used						
	7	Not used						
	8	PLC status when power"on"	Run			Stop		

	Switch	Contents							
SW2	1~4	Baud rate select	300	600	1200	2400	4800	9600	19200
	1	Switch select of Baud rate	OFF	ON	OFF	ON	OFF	ON	OFF
	2		ON	OFF	OFF	ON	ON	OFF	OFF
	3		OFF	OFF	OFF	ON	ON	ON	ON
	4		ON	ON	ON	OFF	OFF	OFF	OFF
	5	Not used							

PMU Kezdő lépések

	6	Communication Method	1:1		1:N	
	7~8	Available level setup	1	1	1,2	1,2,3
	7	Command level setup	OFF	ON	OFF	ON
	8		OFF	OFF	ON	ON

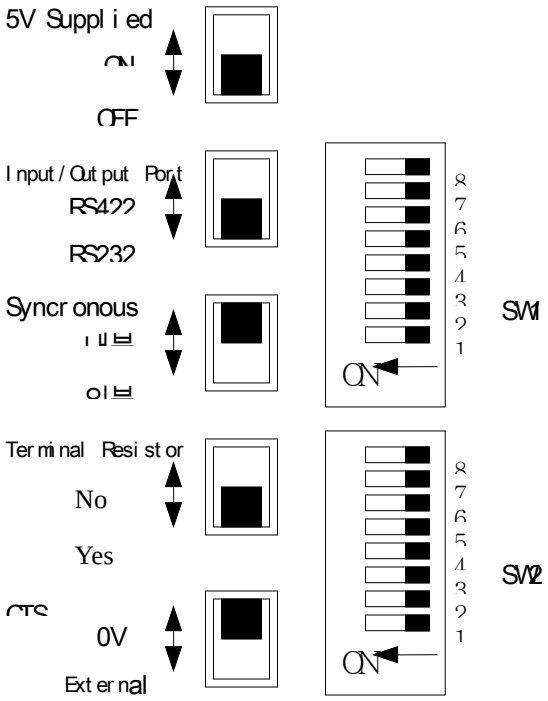
Note

Recommended Setup : Internal Synchronous, Terminal Resistor “Yes”, CTS(OV).

Note

Parity : Even, Data bit : 7bit, Stop bit : 2bit is fixed

3)C500-LK203 Dip Switch Setup



	Switch	Contents	Position of Setup Switch					
			ON			OFF		
S W 1	1~5	Station No. Select	0	1	2	…	30	31
	1	Station No. Select	OFF	ON	OFF	…	OFF	ON
	2		OFF	OFF	ON	…	ON	ON
	3		OFF	OFF	OFF	…	ON	ON
	4		OFF	OFF	OFF	…	ON	ON

PMU Kezdő lépések

	5		OFF	OFF	OFF	…	ON	ON
	6~7	Parity & Transfer Code						
	6	Transfer Code	ASCII 7bt, 2 Stop bit			JIS 8bit, 1 Stop bit		
	7	Parity Setup	Even			Odd		
	8	PLC status when power “on”	Monitor					

PMU Kezdő lépések

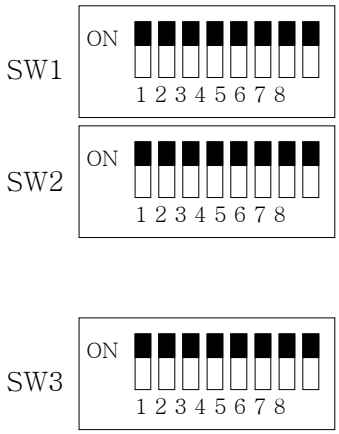
	Switch	Contents	Position of Setup Switch						
			ON			OFF			
SW2	1~4	Baud rate Select	300	600	1200	2400	4800	9600	19200
	1	Baud rate Select	OFF	ON	OFF	ON	OFF	ON	OFF
	2		ON	OFF	OFF	ON	ON	OFF	OFF
	3		OFF	OFF	OFF	ON	ON	ON	ON
	4		ON	ON	ON	OFF	OFF	OFF	OFF
	5	System Select	System #0			System #1			
	6	Communication Method	1:1			1:N			
	7~8	Available command Level	1		1		1,2		1,2,3
	7	Command level Select	OFF		ON		OFF		ON
	8		OFF		OFF		ON		ON

Note

Recommend setup : Internal Synchronous, Terminal Resistor “Yes”, CTS(OV).

PMU Kezdő lépések

(4)C120-LK201-V1/LK-202-V1 Setup



	Switch	Contents	Position of Setup Switch					
			ON			OFF		
SW1	1~5	Station No. Select	0	1	2	…	30	31
	1	Station No. Select	OFF	ON	OFF	…	OFF	ON
	2		OFF	OFF	ON	…	ON	ON
	3		OFF	OFF	OFF	…	ON	ON
	4		OFF	OFF	OFF	…	ON	ON
	5		OFF	OFF	OFF	…	ON	ON
	6	Not used						
	7	Not used						
	8	PLC status when power “on”	Run			Stop		

	Switch	Contents							
SW2	1~4	Baud rate Select	300	600	1200	2400	4800	9600	19200
	1	Baud rate Select	OFF	ON	OFF	ON	OFF	ON	OFF
	2		ON	OFF	OFF	ON	ON	OFF	OFF
	3		OFF	OFF	OFF	ON	ON	ON	ON

PMU Kezdő lépések

	4		ON	ON	ON	OFF	OFF	OFF	OFF
	5	Not used							
	6	Communication Method	1:1				1:N		
	7~8	Available command level	1		1		1,2		1,2,3
	7	Command level Select	OFF		ON		OFF		ON
	8		OFF		OFF		ON		ON

①C120-LK201-V1

	Switch	Contents	Position of Setup Switch	
	1~2	CTS Select	CTS Nomal ON	Using External CTS
	1		ON	OFF
	2		OFF	ON
	3~6	Select of Synchronous	Internal Synchronous	External Synchronous
	3		ON	OFF
	4		OFF	ON
	5		ON	OFF
	6		OFF	ON
	7	Not used		
	8	Not used		

②C120-LK202-V1

	Switch	Contents	설정 스위치 상태	
	1~2	Select of Terminal Resistor	Yes	No
	1		ON	ON
	2		OFF	OFF
	3		ON	OFF
	4		OFF	OFF
	5		ON	OFF
	6		OFF	OFF
	7	Not used		
	8	Not used		

Note

PMU Kezdő lépések

Recommended Setup : Internal Synchronous, Terminal Resistor “ Yes”, CTS (O).

Caustion

In communication, PLC mode should be “Monitor” Mode. If not, Writing in PLC is not allowed.

(5)C200HW-COM06 Setup

Setup for OMRON C200 PLC

Setup is don by internal memory of PLC. (Please refer to PLC Manual)

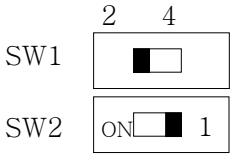
If do not set, Basic setup is RS232C, 9600, 7bit, 2bit, even.

Caution

In communication, PLC mode should be “Monitor” Mode. If not, Writing in PLC is not allowed.

RS-422 communication when using communication module

The following switch is installed on C200HW-COM06.



RS422/RS485 2 Wire system

SW1 : 2 Setting SW2 : 1 Setting

RS422/RS485 4 Wire system

SW1 : 4 Setting SW2 : ON Setting

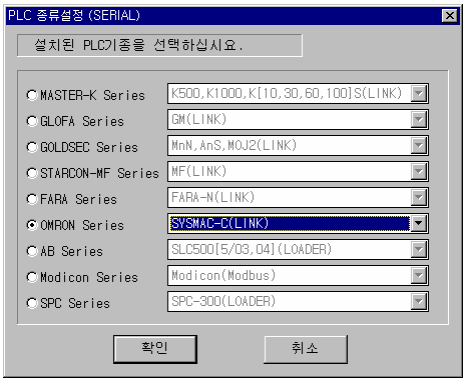
When communication with PMU and RS-422 module, please use set 4 Wire system.

(Set ofRS-422, please refer to PLC Manual)

7-5-4 PMU Setup

7-5-4-1 Link Setup

① Select “Serial Link” in the Link Editor, set “SYSMAC-C(Link)” in OMRON PLC.



② Set buffer which is related with PLC address in Link Editor. Please refer to Chapter 5-3 for available PLC address.

③ Download the Link information to PMU.

(2) Serial Setup

Serial setup should ne don as follows;

Baud rate : The same as PLC sets.

Data lentgth : The same as PLC sets.

Stop bit length : The same as PLC sets.

Parity bit : The same as PLC sets.

Signal level : The same as PLC sets.

PMU station No. : The same as PLC sets.

7-5-5 Available Address Table

(1)공통

Dev	In writing	50,120(F),500(F)	2000H, 200H(S), 1000H(F)
LR	LR	0~31	0~63
HR	HR	0~31	0~99
TIM	TIM	0~127	0~511
CNT	CNT	0~127	0~511
DM	DM	Please refer to below DM(Data Memory)table.	
AR	AR	None	0~27
I/O	CH	0~63	0~255 (0~511:200HS)

(2)DM Area

C50,120,500	0~511
C200H	0~1999
C200HS	0~9999
1000H	0~4096
2000H	0~6655
120F	0~511
500F	0~4095
1000HF	0~4095

* Bit ON/OFF can be done in only LR,HR,AR,CH.

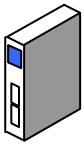
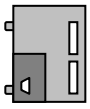
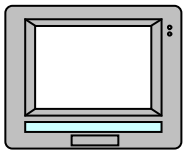
7-6 Siemens S5/S7 Series

7-6-1 S5/S7 Serial Interface

- Communication with Siemens S5/S7 Link Unit and PMU hardware using serial interface.

7-6-1-1 System Configuration

(Using 3964R protocol)

PLC	Interface Unit	Cable	Option Card	PMU
				
S5 90U S5 95U S5 100U S5 115U S5 135U S5 155U S7-300	CP525 CP340	Refer to Cable Connection (RS-232C)	PMO-500/600S PMO-300S PMO-200S	PMU-500/600 PMU-300 PMU-200

7-6-1-2 Cable Connection

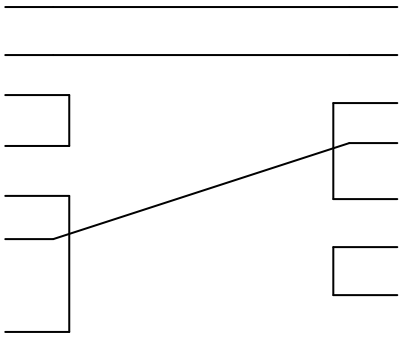
(1)RS-232C connection(CP525 ↔ PMU series)

PLC part(25Pin) PMU part(9Pin)

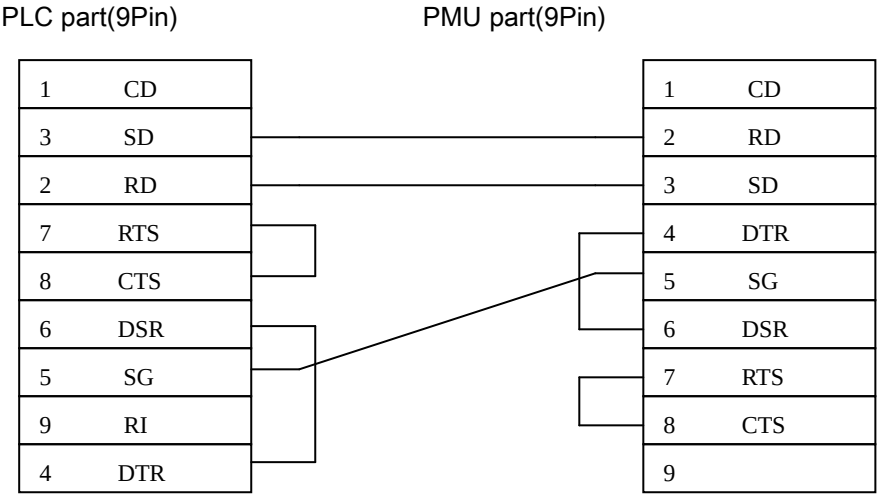
1	FG
2	SD
3	RD
4	RTS
5	CTS

1	CD
2	RD
3	SD
4	DTR
5	SG

PMU Kezdő lépések



(2) RS-232C connection(CP340 ↔ PMU series)



7-6-1-3 CP525/CP340 Setup

PLC part setup	
Baud rate	110 bps ~ 19200 bps
Data length	8 bit
Stop bit	1 bit
Parity bit	EVEN
Error Detection	BCC(SUM)

7-6-1-4 PMU Setup

(1) Link Setup

PMU Kezdő lépések

① Select “Serial Link” in Link Editor and select “S5-3964R(Link)” in “Siemens Series

② Setup the buffer No. of PMU with device of PLC

(Usable PLC address : Please refer to Chapter 10-2 address table

③ Transfer the link file to PMU with other files.

(2) Serial setup

Recommended setup as follows;

Baud rate : 19200 bps

Data length : 8bit

Stop bit length : 1bit

Parity bit: EVEN

Signal level : RS-232C

Station No. : None

7-6-1-5 PLC Address table

Device	Word address
Input relay	IW000 ~ IW126
Output relay	QW000 ~ QW126
Internal relay	FW000 ~ FW254
Timer	T000 ~ T255
Counter	C000 ~ C255
Data register *1	D002:000 ~ D255:255
Expanded Data register *1	X002:000 ~ X255:255

Note

*1 : Data register and expanded Data register is described as follows

D002:000

Data Word(DW) No. 000~255

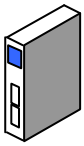
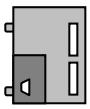
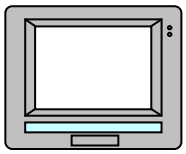
Data Block(DB) No. 000~255

Expanded Data register is available for only S5 135U/155U.

7-6-2 S7-300 (Using MPI Port of CPU)

- Commincation with Siemens S7-300 through PC adapter and PMU hardware using serial interface

7-6-2-1 System Configuration

PLC	Interface Unit	Cable	Option Card	PMU
				
CPU312IFM CPU313 CPU314 CPU315 CPU315-2DP	PC Adapter	Refer to cable connection (RS-232C)	PMO-500/600S PMO-300S PMO-200S	PMU-500/600 PMU-300 PMU-200

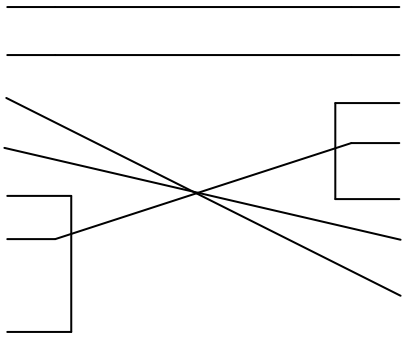
7-6-2-2 Cable connection

(1)RS-232C connection(PC Adapter ↔ PMU series)

PLC part(9Pin) PMU part(9Pin)

1	CD
3	SD
2	RD
7	RTS
8	CTS

1	CD
2	RD
3	SD
4	DTR
5	SG



7-6-2-3 S7-300 CPU Setup

PLC part setup	
Baud rate	19200 ~ 38400 bps
Data length	8 bit
Stop bit	1 bit
Parity bit	ODD
Error Detection	BCC(SUM)

7-6-2-4 PMU Setup

(1) Link setup

① Select “Serial link” in Link Editor and select “S7-MPI(Loader)” in Siemens PLC

③ Setup the buffer No. of PMU with device of PLC

(Usable PLC address : Please refer to Chapter 10-4 address table

③ Transfer the link file to PMU with other files.

(2) Serial Setup

Recommended setup as follows;

Baud rate : 38400 bps

Data length : 8bit

Stop bit length : 1bit

Parity bit : ODD

Signal level : RS-232C

Station No. : None

7-6-2-5 PLC Address Table

Device	Word address
Input relay	EW000 ~ EW126
Output relay	AW000 ~ AW126
Internal relay	MW000 ~ MW254
Timer	T000 ~ T127
Counter	Z000 ~ Z63
Data register *1	DB01.000 ~ DB60.65534

*1 : Data register and expanded Data register is described as follows

DB002.000

~~Data Word~~(DW) No. 000~65534

~~Data Block~~(DB) No. 01~60

PMU Kezdő lépések