
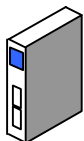
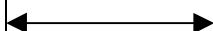
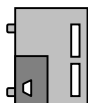
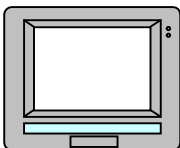


## E. OMRON SYSMAC Series

### 1-1 OMRON SYSMAC-C Serial Interface

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

#### 1-1-1 System Configuration

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	Below Drawing (RS-232C/422)		
	C500-LK203			
C50/C120/C500 /C1000H/C2000 H/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))

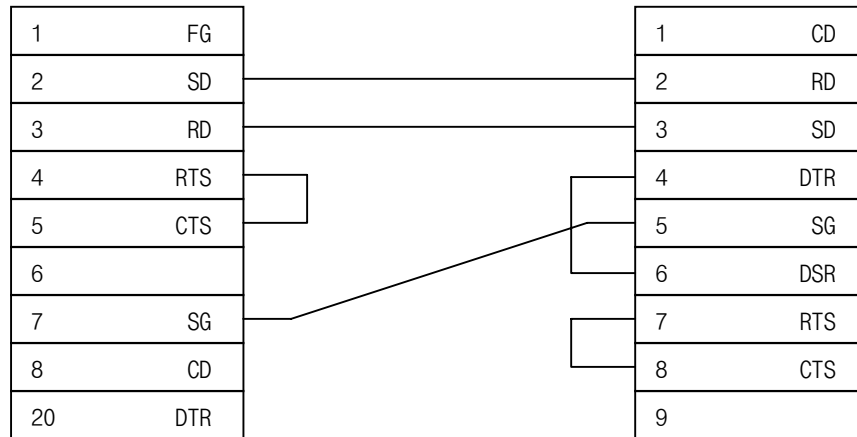
## 1-1-2 Cable connection

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

All SYSMAC Series except C200.

PLC part(25Pin)

PMU part(9Pin)

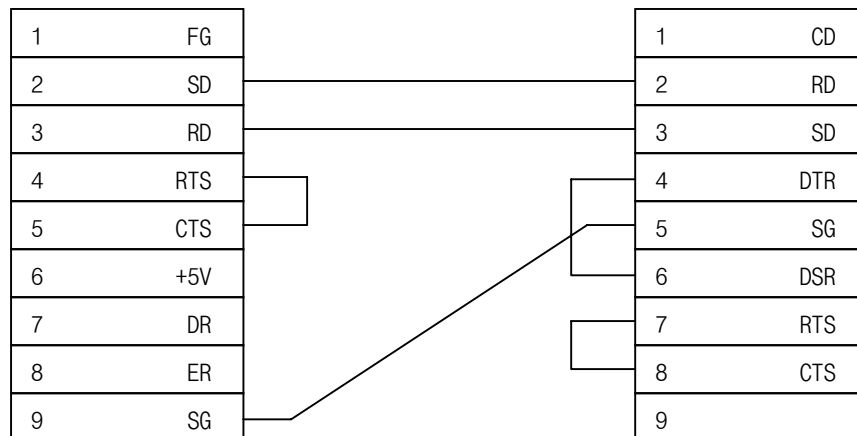


(2) RS-232C connection(SYSMAC-C200 series ↔ PMU series)

For C-200 series.

PLC part(9Pin)

PMU part(9Pin)

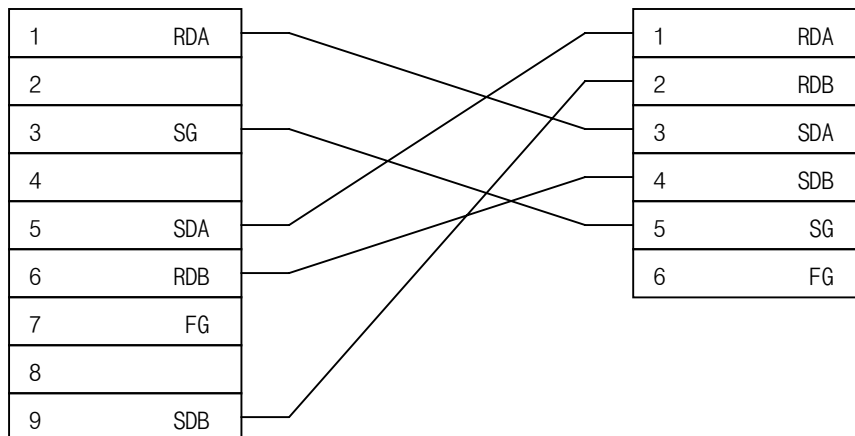


(3) RS-422 connection(SYSMAC-C Series ↔ PMU Series)

All SYSMAC-C Series except C200 Series

PLC Part(9Pin)

PMU Part(6Pin or 5Pin Terminal Block)

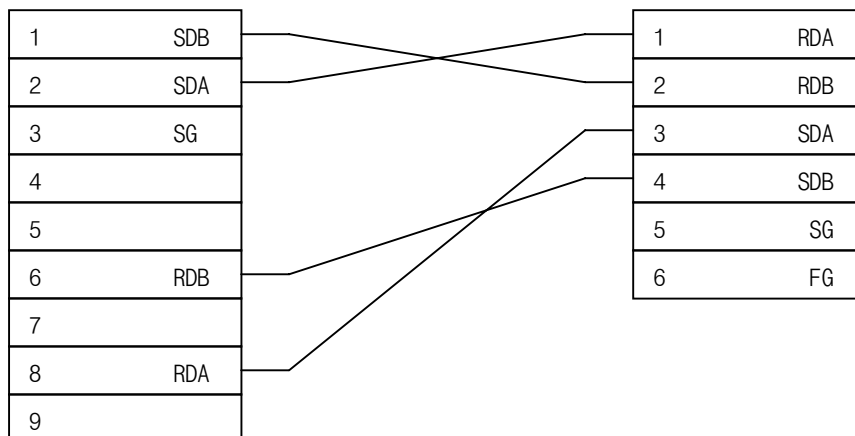


(4)RS-422 Connection(SYSMAC-C200 Series ↔ PMU Series)

For C200 Series

PLC Part(9Pin)

PMU Part(6Pin or 5Pin Terminal Block)



### 1-1-3 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.

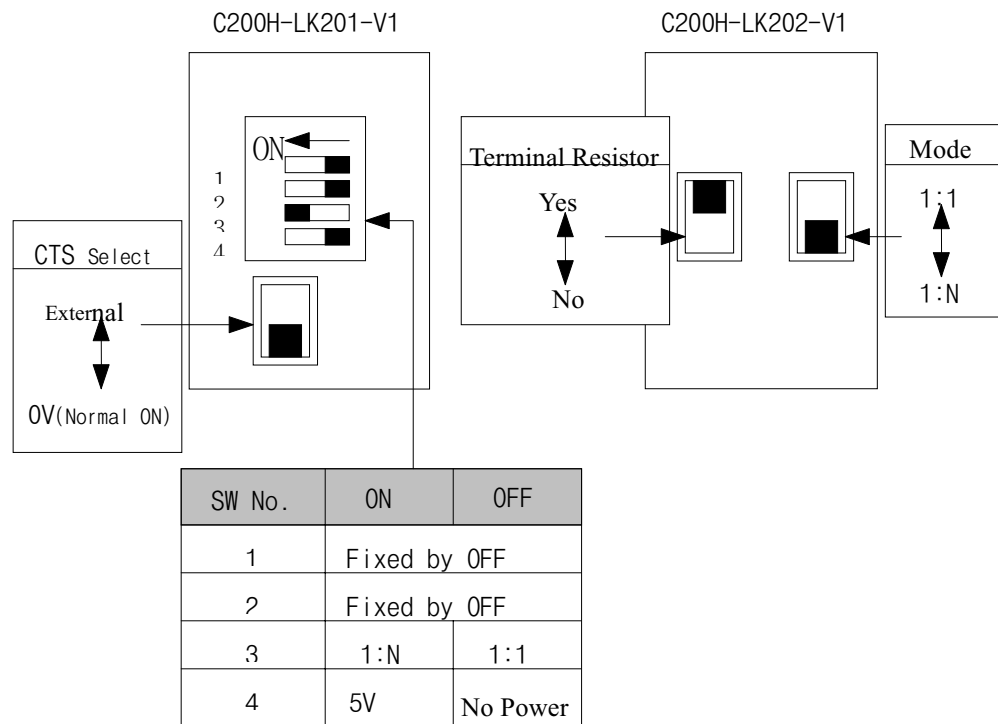
Switch	Baud rate(bps)
0	300
1	600
2	1200
3	2400
4	4800
5	9600
6	19200

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	JIS 8bit 1 Stop bit	
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	JIS 8bit 1 Stop bit	
D	Level 1,2 available			
E	Level 1,2,3 available			
F	No setup level			

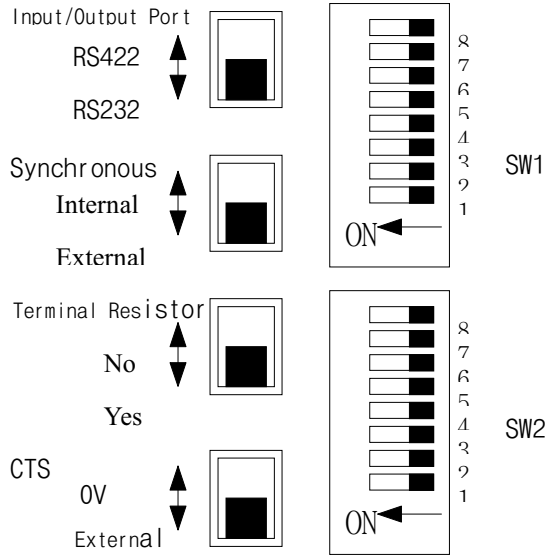
4) DIP Switch Setup



**Note**

Recommended Setup : CTS OV(On), 1:N, Terminal Resistor " Yes".

(2)C500-LK201-V1 Dip Switch Setup



	Switch	Contents	Position of Set 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	
	5		OFF	OFF	OFF	...	ON	ON	
	6	Not used							
	7	Not used							
8	PLC status when power"on"	Run			Stop				
S W 2	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							
	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**

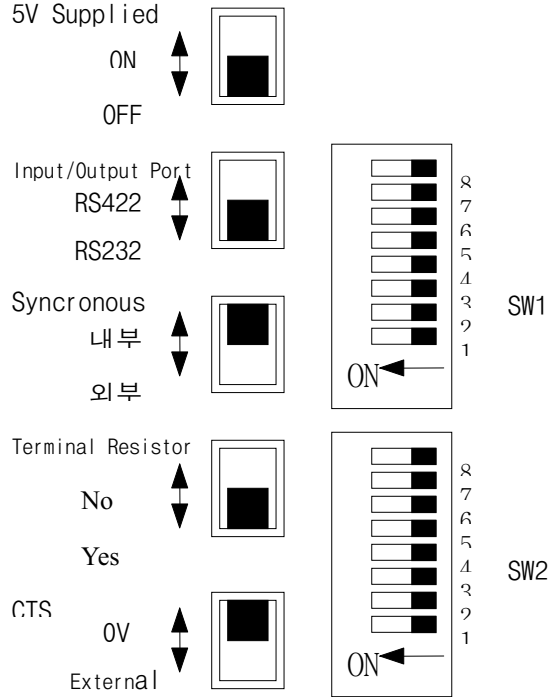
Recommended Setup : Internal Synchronous, Terminal Resistor “Yes”, CTS(OV).



**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
	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						

	Switch	Contents	Position of Setup Switch						
			ON				OFF		
S W 2	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).



(4)C120-LK201-V1/LK-202-V1 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	
	5		OFF	OFF	OFF	...	ON	ON	
	6	Not used							
	7	Not used							
	8	PLC status when power "on"	Run			Stop			
S W 2	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	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**

Recommended Setup : Internal Synchronous, Terminal Resistor “ Yes”, CTS (0).



**Caution**

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)

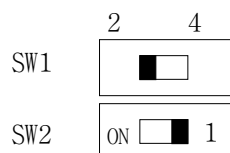
If do not set, Basic setup is RS232C, 9600, 7bit, 2bit, even.

**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 of RS-422, please refer to PLC Manual)

## 1-1-4 PMU Setup

### (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 be done as follows;

- Baud rate : The same as PLC sets.
- Data length : 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.

## 1-2 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.