

# OMRON Corporation PLC

SYSMAC α Series Connection

# Selecting PLC Type

Start up GP-PRO /PBIII.

Select the following PLC Type when creating the project file.





## Communication Setting Sample

| GP Setup                          |             | Communicatio  | Communication Board Setup |  |
|-----------------------------------|-------------|---|---------------------------|--|
| Baud Rate                         | 19200bps    | Baud Rate   | 19200bps                  |  |
| Data Length                       | 7 Bits      | Data Bit  | 7 Bits                    |  |
| Stop Bit                          | 2 Bits      | Stop Bit  | 2 Bits                    |  |
| Parity Bit                        | Even        | Parity Bit  | Even                      |  |
| Data Flow Control                 | ER Control  |   |                           |  |
| Communication Format<br>(RS-232C) | RS-232C     |   |                           |  |
| Communication Format<br>(RS-422)  | 4-Wire Type | RS-422/485 Cable<br>(2-Wire/4-Wire Type)<br>Switching Settings<br>(Dipswitch 1) | 4                         |  |
| Unit No.                          | 0           | Station Number  | 0                         |  |

#### SYSMAC α Series <Communication Board>

### SYSMAC α Series <RS-232C Port on CPU Unit>

| GP Setup             |             | RS-232         | RS-232C Port Setup |  |
|----------------------|-------------|----------------|--------------------|--|
| Baud Rate            | 19200bps    | Baud Rate      | 19200bps           |  |
| Data Length          | 7 Bits      | Data Bit       | 7 Bits             |  |
| Stop Bit             | 2 Bits      | Stop Bit       | 2 Bits             |  |
| Parity Bit           | Even        | Parity Bit     | Even               |  |
| Data Flow Control    | ER Conrtrol | -              |                    |  |
| Communication Format | RS-232C     | Mode           | Host Link          |  |
| Unit No.             | 0           | Station Number | 0                  |  |



# Communication Settings [GP]

1 [GP-PRO/PB C-Package Setting]

Select [GP Setup] on Project Manager.

| 1) Communication Settings  | 1) Communication Settings   |
|--|---|
| CIP Statistings - Kongel prov     VO Statings     Anode Statings       CIP Statisting     Extended Statings     Conservation Statisting       P ESSENT   | Transmission Speed: 19200bps<br>Data Length: 7 Bits<br>Stop Bit: 2 Bits<br>Parity Bit: Even<br>Busy Ready Control: DTR / ER<br>RS-232C/ RS-422<br>RS-232C Connection: RS-232C<br>RS-422 Connection: 4 Line<br>* Select one in . |
| 2) Mode Settings   | 2) Mode Settings  |
| CDP Stitlings = assessing prov     Interface       Interfaces     Extended Extings       CP Settings     VD Settings       PLC Type     Interface Extings       Systems Settings     Interface       Systems Settings     Interface       Machine Extended Extings     Interface       Systems Settings     Interface       Topics Settings     Interface       Topics Settings     Interface       State     Interface | System Start Address: Arbitrary Address<br>Machine Number: 0<br>Link Protocol Type: 1:1   |
| OK. Cantal Defaults Einige   |   |



| <u> Fransfer Settings</u>  |  |  |  |
|--|--|--|--|
| <u>_</u>   |  |  |  |
| Transfer Settings  | ×  |  |  |
| Send Information   | Communications Port  |  |  |
| GP System Screen   | © COM  |  |  |
| Filing Data[CF card]   | Comm Port CDM1 Retry Count 5                                   |  |  |
| Data Trans Func CSV Data(CF card)                                | Baud Rate 115.2K 💌 (bps)                                       |  |  |
|  | C) Ethernet  |  |  |
| Transfer Method  |  |  |  |
| <ul> <li>Send All Screens</li> </ul>                             | IP Address 0. 0. 0. 0 Port 8000                                |  |  |
| Automatically Send <u>Changed Screens</u>                        |  |  |  |
| C Send User Selected Screens                                     | C Ethernet: Auto Acquistion                                    |  |  |
|  | O Memory Loader  |  |  |
| Transfer Mode  |  |  |  |
| Preparation for a transfer and a transfer are made simul         | taneous.   |  |  |
| C It is transferred after preparation for a transfer is finished | d.   |  |  |
|  |  |  |  |
| Setup     Use Exte   | ended Program :  |  |  |
| ○ Eorce System Setup   | pulation   |  |  |
| C Do NOT Perform Setup   |  |  |  |
| Syst   | tem Screen   |  |  |
| Setup CFG file :   |  |  |  |
| © English  |  |  |  |
| Japanese     Selection     C:\Program Files\pro-face\ProPBWin\   | Aprotocol Browse   |  |  |
|  | C Zelection For a regimma and race a real manufactorial Dimite |  |  |
| OK   | Cancel Help  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| <u>Cransfer Settings</u> GP System Setting                       | ngs: Checked   |  |  |
|  |  |  |  |
|  |  |  |  |

Select [Transfer] --> [Setup] --> [Transfer Settings].

Transfer to GP after settings completed.

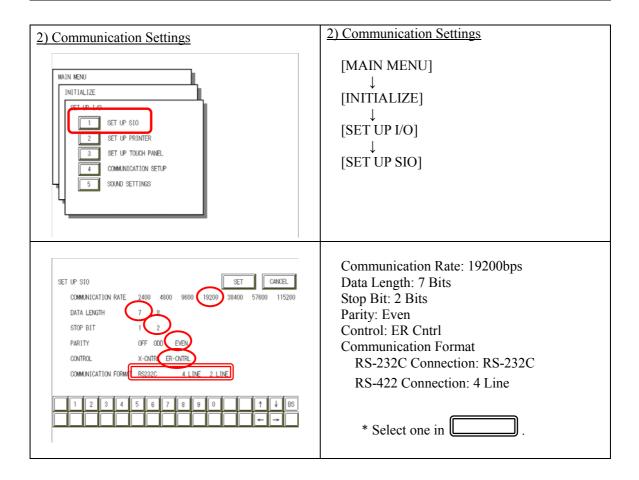


- 2. [GP Settings]
- Displaying Setting Screen -

Touch the top left of the screen within 10 second after powering on.

Or touch the top right and the bottom right of the screen at the same time. Keep 2 points touched and touch the bottom left. The menu bar will display on the bottom of the screen. Then touch [Offline].

| MAIN MENU<br>1 INITIALIZE<br>2 SCREEN DATA TRANSFER<br>3 SELF-DIAGNOSIS<br>4 RLN | *03/00/00 00:00 | If you have selected OMRON SYSMAC-<br>Series, following will be shown.<br>"SYSMAC-C" |
|--|-----------------|--|
| 2Wax2000 V4.10<br>SINATINY V2.22<br>SYSMAC-C V1.42                               |                 |  |





| 3) Setting up Operation Surroundings   | 3) Setting up Operation Surroundings   |
|--|--|
| MAIN MENU<br>INITIALIZE<br>1 SYSTEM ENVIRONMENT SETUP<br>2 SET UP 1/0<br>3 PLC SETUP<br>4 INITIALIZE MEMORY<br>5 SET UP TIME<br>8 SET UP SCREEN  | $[MAIN MENU]  \downarrow  [INITIALIZE]  \downarrow  [PLC SETUP]  ↓  [PLC SETUP]$ |
| SET UP OPERATION SURROUNDINGS MENU<br>1:1 n:1<br>1 SET UP OPERATION SURROUNDINGS   | SET UP OPERATION SURROUNDINGS MENU:<br>1:1                                       |
| SET UP OPERATION SURROUNDINGS<br>STARTING ADDRESS OF SYSTEM DATA AREA [ 000000 ]<br>UNIT NO. [0 ]<br>SYSTEM AREA READING AREA SIZE (0-256) [0 ]<br>RESET GP ON DATA HRITE EPROR ON OFF<br>MONITOR RECORD MODE SET MODE1 MODE2<br>1 2 3 4 5 6 7 8 9 0 1 4 68<br>COMPARED ON OFF | Starting Address of System Data Area:<br>Arbitrary Address<br>Unit No.: 0        |



## Communication Settings [PLC]

### 1. RS-232C Port on CPU Unit

| Word Address | Value      | Setting Contents   |
|--------------|------------|--|
| DM6645       | 0001 (HEX) | Depending on the settings of DM6646<br>Mode Setup: Host Link                       |
| DM6646       | 0304 (HEX) | Baud Rate: 19200bps<br>Data Length: 7 Bits<br>Stop Bit: 2 Bits<br>Parity Bit: Even |
| DM6648       | 0000 (HEX) | Host Link Station No. Settings: Station No. 0                                      |

\* Please make sure to turn OFF the mode setup switch SW5 on the CPU unit.

#### 2-1 Communication Board C200HW-COM06 (RS-232C Connection)

| Word Address | Value      | Setting Contents   |
|--------------|------------|--|
| DM6550       | 0001 (HEX) | Depending on the settings of DM6551<br>Mode Setup: Host Link                       |
| DM6551       | 0304 (HEX) | Baud Rate: 19200bps<br>Data Length: 7 Bits<br>Stop Bit: 2 Bits<br>Parity Bit: Even |

\* Please make sure to turn OFF the mode setup switch SW5 on the CPU unit.

### 2-2 Connection Board C200HW-COM06 (RS-422 Connection)

[Port A]

[Port B]

| Word Address | Value      | Setting Contents   |
|--------------|------------|--|
| DM6555       | 0001 (HEX) | Depending on the settings of DM6556<br>Mode Setup: Host Link                       |
| DM6556       | 0304 (HEX) | Baud Rate: 19200bps<br>Data Length: 7 Bits<br>Stop Bit: 2 Bits<br>Parity Bit: Even |

\* Please make sure to turn OFF the mode setup switch SW5 on the CPU unit.

\* Set the dipswitch on the communication board as below.

SW1 : 4

SW2 : ON



3. Host Link Unit C200H-LK201-V1

| 1) Front Switch Settings  | 1) Front Switch Settings   |
|---|--|
| $\frac{SW1}{SW2}$ $\frac{\begin{array}{c} & & F \\ & & \\$ | 0: Station No. Settings (× 10)<br>0: Station No. Settings (× 1)                                |
| SW3   | 6: Baud Rate Settings (19200bps)   |
| SW4   | 2: (Parity/Data/Stop Bit Settings)<br>Parity Bit: Even<br>Data Bit: 7 Bits<br>Stop Bit: 2 Bits |
| 2) Back Dipswitch Settings  | 2) Back Dipswitch Settings   |
| Set the switches to the black.  |  |
| ON ←<br>01<br>02<br>03<br>04  | SW1: Unused<br>SW2: Unused<br>SW3 (Relation): 1 to n<br>SW4 (5V Power Supply): No              |
| 3) CTS Switch Settings  | 3) CTS Switch Settings   |
|   | ON (Turning CTS ON)  |



### 4. Host Link Unit C200H-LK202-V1

| 1) Front Switch Settings  | 1) Front Switch Settings   |
|---|--|
| $ \begin{array}{c} \text{SW1} \\ \text{SW2} \\ \text{SW2} \\ \begin{array}{c}  & \epsilon \\  & \epsilon \\  & 6 \\  & 8 \\  & 6 \\  & 8 \\  & 6 \\  & 8 \\  & 6 \\  & 8 \\  & 6$ | 0: Station No. Settings (× 10)<br>0: Station No. Settings (× 1)                                |
| SW3   | 6: Baud Rate Settings (19200bps)   |
| SW4   | 2: (Parity/Data/Stop Bit Settings)<br>Parity Bit: Even<br>Data Bit: 7 Bits<br>Stop Bit: 2 Bits |
| 2) Relation Switch Settings   | 2) Relation Switch Settings  |
| ON ←<br>01<br>02<br>03<br>04  | OFF (1 to n Relation)  |
| 3) Termination Resistance Connection Switch Settings  | 3) Termination Resistance Connection Switch Settings   |
| ON<br>D<br>OFF  | ON (With Termination Resistance)   |