Revision History

Version	Date	Revision History	Revised Page
V 1.0	'07. 4	1st edition published	-

Chapter 1 Introduction

1.1 Guide to Use This Manual

This manual includes system configuration, wiring diagram, available device and setting between controllers such as PLC, inverter and the XGT Panel.

It is divided into chapters as follows.

No.	Title	Contents
Chapter1	Introduction	Describes configuration of this manual, unit's features and terminology.
Chapter2	Communication Introduction and Configuration	Describes communication, port provided by XGT Panel.
Chapter3	LSIS: MASTER-K PLC	Describes communication connection with LSIS MASTER-K PLC.
Chapter4	LSIS: GLOFA-GM PLC	Describes communication connection with LSIS GLOFA-GM PLC.
Chapter5	LSIS: XGK PLC	Describes communication connection with LSIS XGK PLC.
Chapter6	LSIS: XGB PLC	Describes communication connection with LSIS XGB PLC.
Chapter7	LSIS: XGI PLC	Describes communication connection with LSIS XGI PLC.
Chapter8	MITSUBISHI MELSEC-Q PLC	Describes communication connection with MITSUBISHI MELSEC-Q PLC.
Chapter9	SYMBOL: Bar Code Scanner	Describes communication connection with SYMBOL's Bar Code Scanner.
Appendix1	Warranty and Environmental Policy	-

NOTE

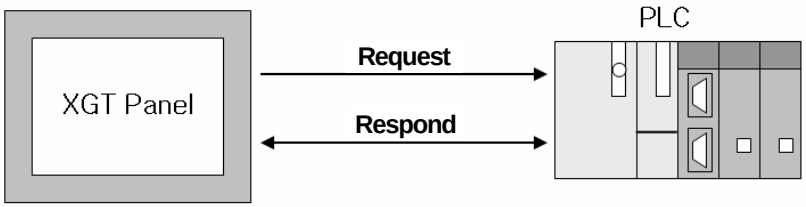
(1) This manual does not describe each item's using method, XP-Builder.
For their description, refer to related instruction manuals.
(2) Modification and addition can be made to this manual without prior notice.
(3) In case contents in the manual differ from actual usage, please check updated information or controller's instruction manual.

Chapter 2 Communication Introduction and Configuration

XGT Panel provides RS-232C, RS-422/485 and Ethernet communication. This chapter introduces each communication and describes the system configuration.

2.1 Communication Introduction

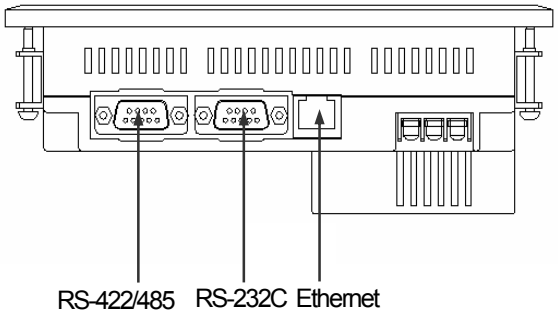
The basic communication method between the XGT Panel and controller is by requesting device information that's on the XGT Panel screen and the controller responding to that request.



Communication uses protocol that the controller provides and it provides fast communication and picture switch.

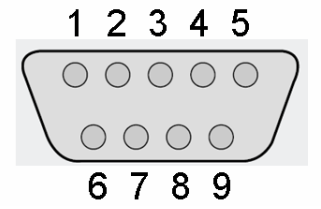
2.2 Communication Connector Configuration

XGT Panel basically provides RS-232C, RS-422/485 and Ethernet communication. The figure below is the configuration of each communication connector and pin.



2.2.1 RS-232C connector configuration

RS-232C connector is configured as follows.



※ Connector type: D-SUB 9P, Male

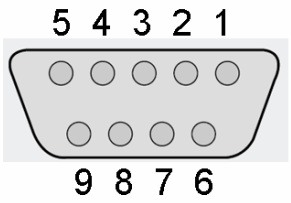
Pin No.	Name	Function
1	N.C	No connection
2	RD	Receive data
3	SD	Send data
4	N.C	No connection
5	SG	Signal Ground
6	N.C	No connection
7	N.C	No connection
8	N.C	No connection
9	N.C	No connection

NOTE

(1) Notice
► XGT Panel does not provide flow control.

2.2.2 RS-422/485 connector configuration

RS-422/485 connector is configured as follows.

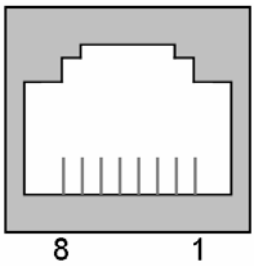


※ Connector type: D-Sub 9P, Female

Pin No.	Name	Function
1	N.C	No connection
2	N.C	No connection
3	SG	Signal Ground
4	TX+	Transmit+
5	TX-	Transmit-
6	SG	Signal Ground
7	N.C	No connection
8	RX+	Receive+
9	RX-	Receive-

2.2.3 Ethernet connector configuration

Ethernet connector is configured as follows.



Pin No.	Name	Function
1	TX+	Transmit+
2	TX-	Transmit-
3	RX+	Receive+
4	N.C	No connection
5	N.C	No connection
6	RX-	Receive-
7	N.C	No connection
8	N.C	No connection

NOTE

(1) Notice
► Do not use N.C pin indiscreetly, for it is used at XGT Panel.

2.3 Communication Specification

2.3.1 RS-232C specification

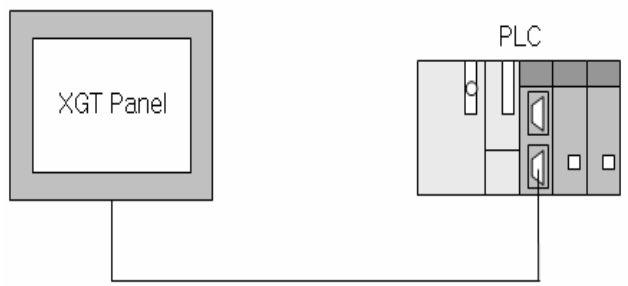
XGT Panel meets the RS-232C standard specification (EIA-232-C).

Item	Contents	
Communication method	Half-duplex method	
Synchronous method	Asynchronous method	
Max transmission distance	Up to 15[m]	
Connection mode	1:1 connection method	
Transmission speed	9600, 19200, 38400, 57600, 115200 [bps]	
Data type	Data length	7, 8[bit]
	Parity Setting	None, Odd, Even
	Stop bit	1, 2[bit]
Channel setting	Up to 32 channels (0-31)	

NOTE

(1) Communication method
► Long distance communication available by connecting to the external modem, through public telephone lines.

RS-232C only gets connected 1:1 as below figure.



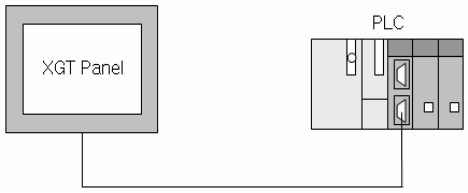
< 1:1 Configuration >

2.3.2 RS-422/485 specification

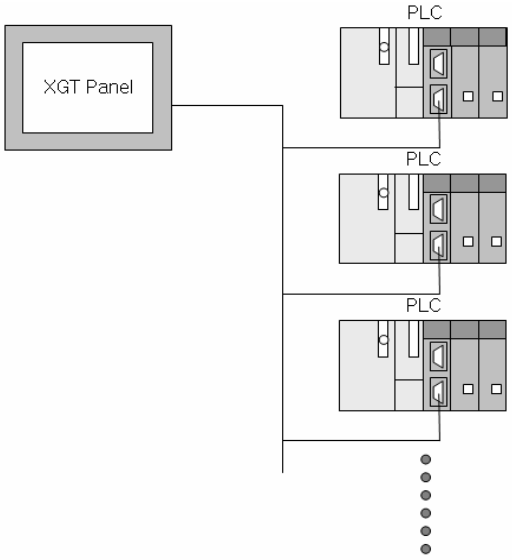
XGT Panel meets the RS-422/485 standard specification (EIA-422/485).

Item	Contents	
Communication method	Half-duplex method	
Synchronous method	Asynchronous method	
Max transmission distance	Up to 500[m]	
Connection mode	1:1, 1:N connection method	
Transmission speed	9600, 19200, 38400, 57600, 115200 [bps]	
Data type	Data length	7, 8[bit]
	Parity Setting	None, Odd, Even
	Stop bit	1, 2[bit]
Channel setting	Up to 32 channels (0-31)	

RS-422 communication method can be 1:1 or 1:N configured as below figure.



< 1:1 Configuration >



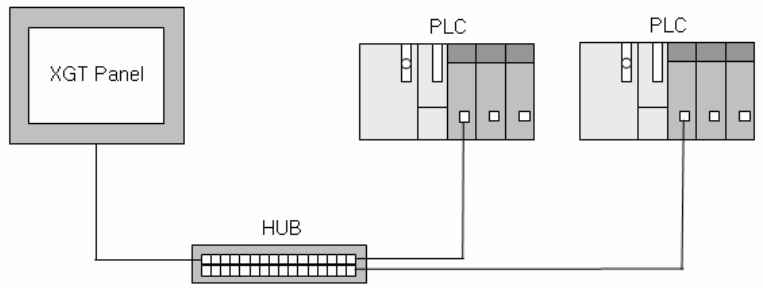
<1:N Configuration >

2.3.3 Ethernet specification

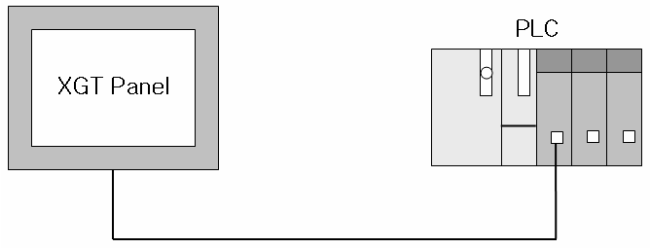
XGT Panel meets the Ethernet IEEE 802.3 standard specification.

Item	Contents
Transmission speed	10/100[Mbps]
Transmission method	Base band
Max extension length between nodes	100[m] (node-hub)
Max protocol size	1,500[Byte]
Token-passing access method	CSMA/CD

Ethernet can be connected in 2 ways as below figure.



< Hub-node connection >



< 1:1 connection >

NOTE

(1) Ethernet connection method
► When connecting hub-node, direct cable has to be used and cross cable has to be used when connecting 1:1.

2.4 Communication Cable

It is advised to follow the below cable specifications for stable communication between the XGT Panel and controller.

2.4.1 RS-232C cable

Advised cable specification is as follows.

Item	Contents
Cable type	(UL) Style 2464
Specification	AWG24
Shield	advisory

2.4.2 RS-422/485 cable

Considering the communication distance and speed, it is advised to use RS-422 twisted pair cable.

Item	Contents
Cable type	(UL) Style 2464
Specification	AWG22
No. of core wire	pair
Shield	advisory

2.4.3 Ethernet cable

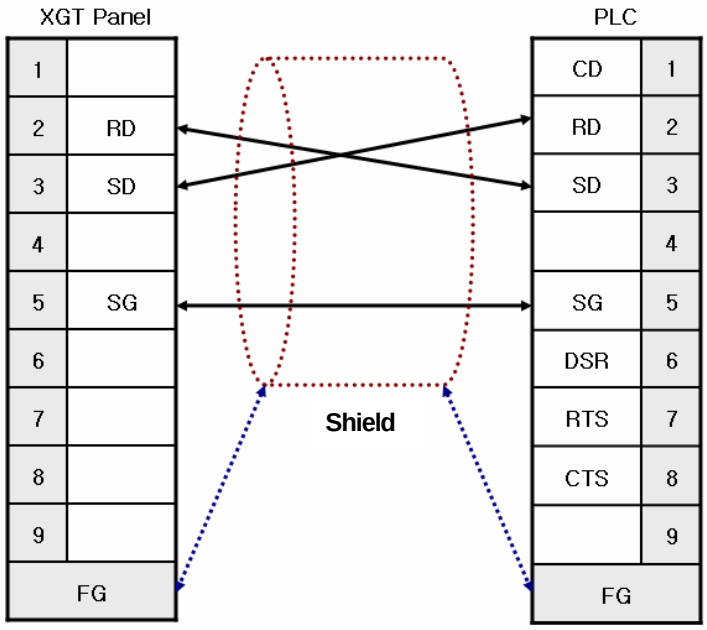
Advisory cable specification is as follows.

Item	Contents
Cable type	Select from UTP / FTP / STP
specification	Select from CAT.5 / Enhanced CAT.5 / CAT.6

2.5 Wiring Method

2.5.1 RS-232C cable

Wire the RS-232C cable as follows.



The above wiring diagram is a figure of common wiring and wiring diagrams may differ according to the controller. Refer to each chapter for specific information. Connect the FG of the shield cable to the controller or XGT Panel according to the installing environment.

NOTE

(1) Notice

► Please perform 3 class grounding to FG terminals of XGT Panel and controllers. Performance of communication cannot be guaranteed when connecting the FG terminal to the shield cable with poor grounding.

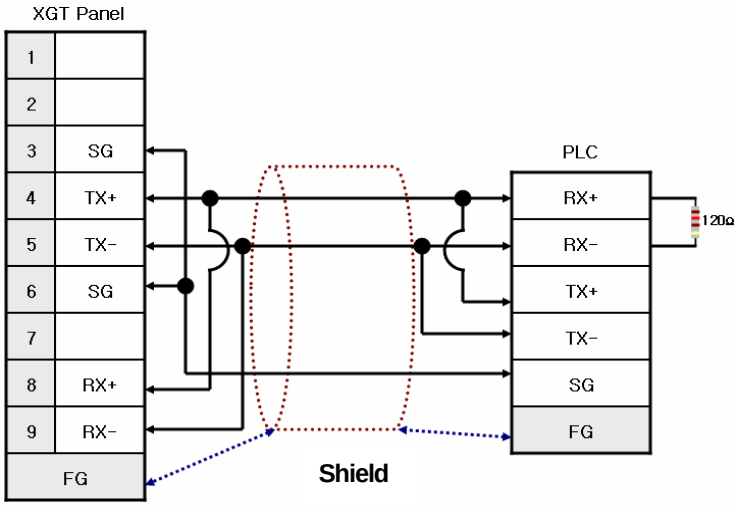
► Keep the length of cable within 15[m]. Performance of communication cannot be guaranteed with a longer cable than specified.

► Please use D-SUB 9P, Female for the connector.

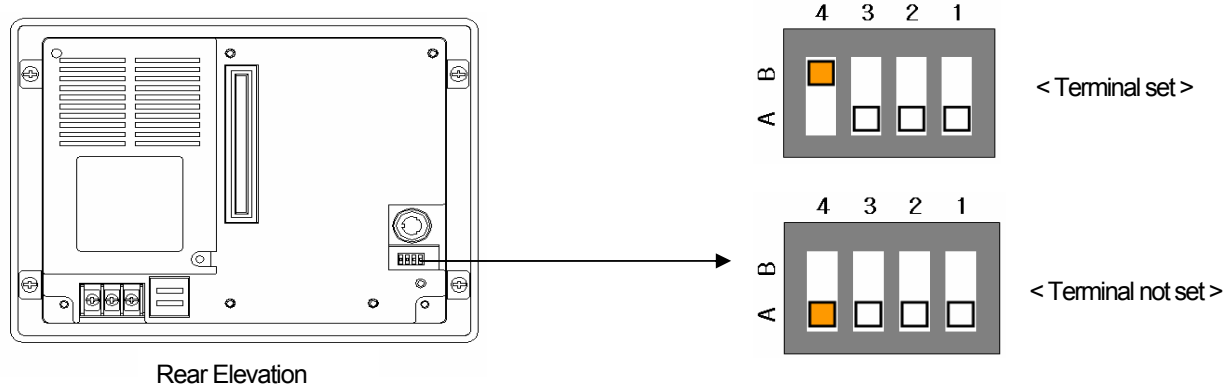
► Please be careful not to get burned when soldering the connector and cable.

2.5.2 RS-422/485 cable

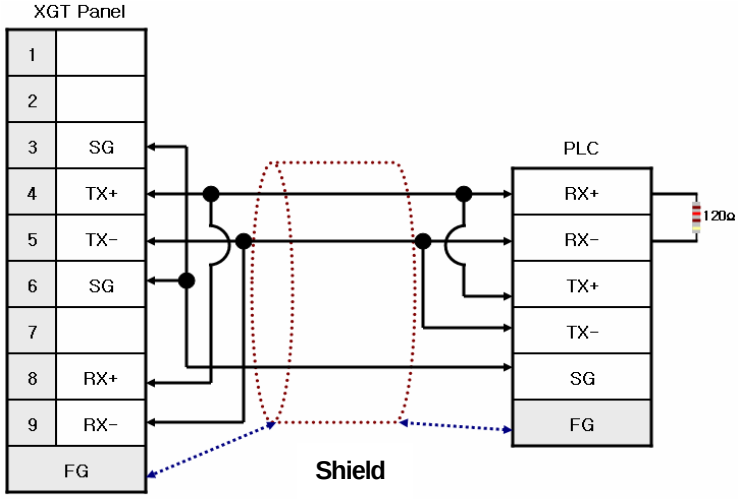
Wire the RS-422 cable as follows.



Please connect the FG of the shield cable to the controller or XGT Panel according to the installing environment.
Please insert a 120Ω resistor to both ends of the receiver (RX+, RX-) of the controller.
For the terminal setting of the XGT Panel, please use the setting switch as below figure.



Wire the RS-485 cable as follows.

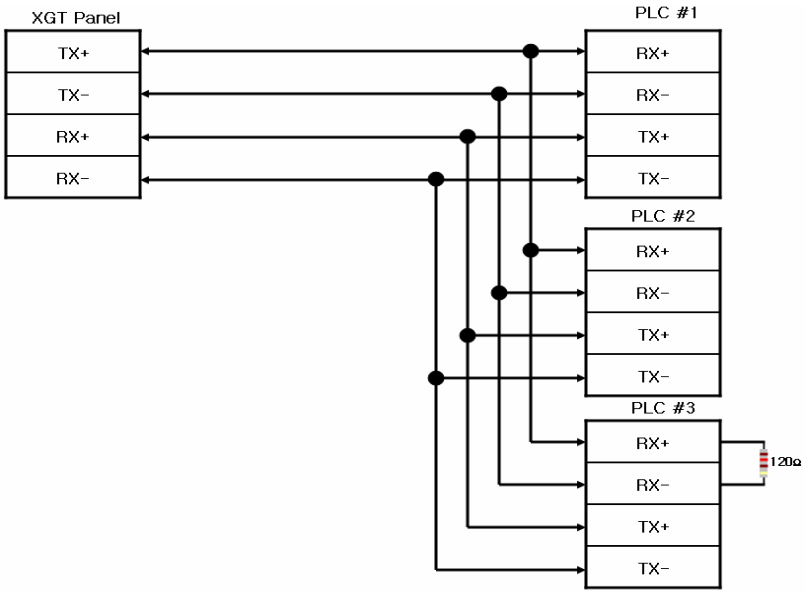


As the RS-422 wiring, please insert a 120Ω resistor to both ends of the receiver (RX+, RX-) of the controller.
For the terminal setting of the XGT Panel, please set with the setting switch as above.

NOTE

(1) Notice
- ► Please perform 3 class grounding to FG terminals of XGT Panel and controllers. Performance of communication cannot be guaranteed when connecting the FG terminal to the shield cable with poor grounding.
- ► Keep the length of cable within 500[m]. Performance of communication cannot be guaranteed with a longer cable than specified.
- ► Please use D-SUB 9P, Male for the connector.
- ► Please be careful not to get burned when soldering the connector and cable.
- ► Performance of communication cannot be guaranteed, if terminal is not set.

RS-422/485 supports 1:N communication. When connecting, wire as follows.



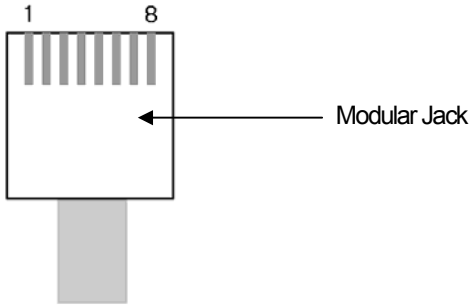
Please insert the terminal resistor in the last connected controller.

2.5.3 Ethernet cable

Ethernet cable gets specified into 2 cables according to its type.
When communicating through LAN, connected to network equipment like a hub, direct cable is used. (in case of hub-node connection)
Direct connection is available among equipments and in this case, cross cable is used.

Method for wiring a direct cable is as follows.

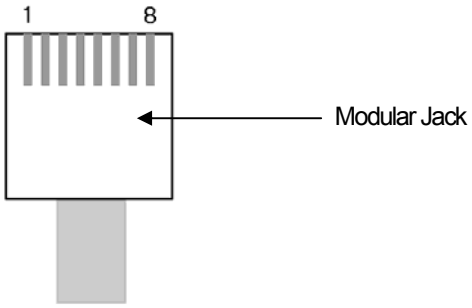
1	White-oragne	White-oragne	1
2	Orange	Orange	2
3	White-green	White-green	3
4	Blue	Blue	4
5	White-blue	White-blue	5
6	Green	Green	6
7	White-brown	White-brown	7
8	Brown	Brown	8



'White-yellow', 'White-green', 'White-blue', 'White-brown' from above figure is indicated on the coating of the cable.
For example, 'white-blue' has blue stripes on white coating.

Method for wiring of cross cable is as follows.

1	White-orange	White-green	1
2	Orange	Green	2
3	White-green	White-orange	3
4	Blue	Blue	4
5	White-blue	White-blue	5
6	Green	Orange	6
7	White-brown	White-brown	7
8	Brown	Brown	8



NOTE

(1) Notice
- ► Use according to the connection method.
- ► Wire the cable by using a modular tool. Bad connection may occur.
- ► If the lock part of the modular jack gets damaged, it may not get fixed to the RJ45 connector (Ethernet connector) and bad connection may occur.
- ► The UTP cable is made out of solid wire material. Therefore, it may break when heavily bent or shaken.
- ► It is advisory to use a plug cover when wiring cables.

Chapter 3 LSIS: MASTER-K PLC

3.1 PLC List

XGT Panel is available to connect to MASTER-K PLC as follows.

PLC	CPU module	Connection method	Comm. method	Connection module	Remarks
MASTER-K	1000S	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	G3L-CUEA	Cnet
		Link	RS-422/485	G3L-CUEA	Cnet
		Link	Ethernet	G3L-EUTB	Open type FEnet
	300S	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	G4L-CUEA	Cnet
		Link	RS-422/485	G4L-CUEA	Cnet
		Link	Ethernet	G4L-EUTB	Open type FEnet
	200S	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	CPU module	Built-in Cnet
		Link	RS-232C	G6L-CUEB	Cnet
		Link	RS-422/485	G6L-CUEC	Cnet
		Link	Ethernet	G6L-EUTB	Open type FEnet
	120S	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	CPU module	Built-in Cnet
		Link	RS-485	CPU module	Built-in Cnet
		Link	RS-232C	G7L-CUEB	Cnet
		Link	RS-422/485	G7L-CUEC	Cnet
	80S	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	CPU module	Built-in Cnet
		Link	RS-485	CPU module	Built-in Cnet
		Link	RS-232C	G7L-CUEB	Cnet
		Link	RS-422/485	G7L-CUEC	Cnet

NOTE

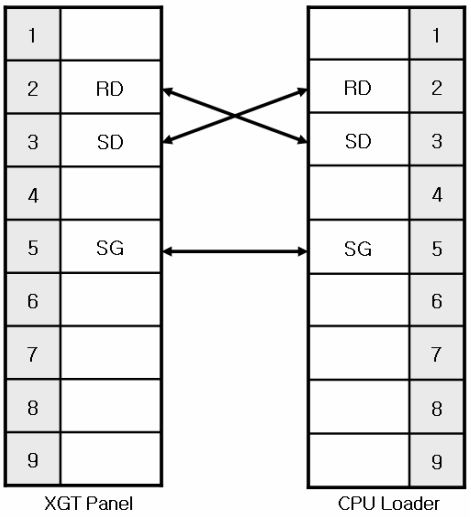
(1) PLC
- ► K10S1 not supported.
- ► Ethernet (GxL-EUTC, ERTC) module not supported.

(2) Terminology
- ► CPU module direct connection: executes serial communication through the loader port of the CPU module.
- ► Link: executing serial communication with the communication module of the PLC.

3.2 Wiring Diagram

3.2.1 CPU module direct connection method

Connecting XGT Panel and MASTER-K PLC with CPU module direct connection method (RS-232C) is as follows.

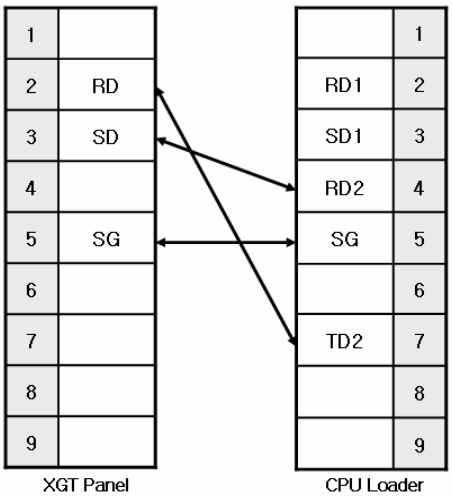


NOTE

(1) Cautions when wiring cable
- ► In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
- ► CPU module loader port is D-SUB 9P, Female. Use a Male connector when wiring the cable.

3.2.2 Link method: Built-in Cnet

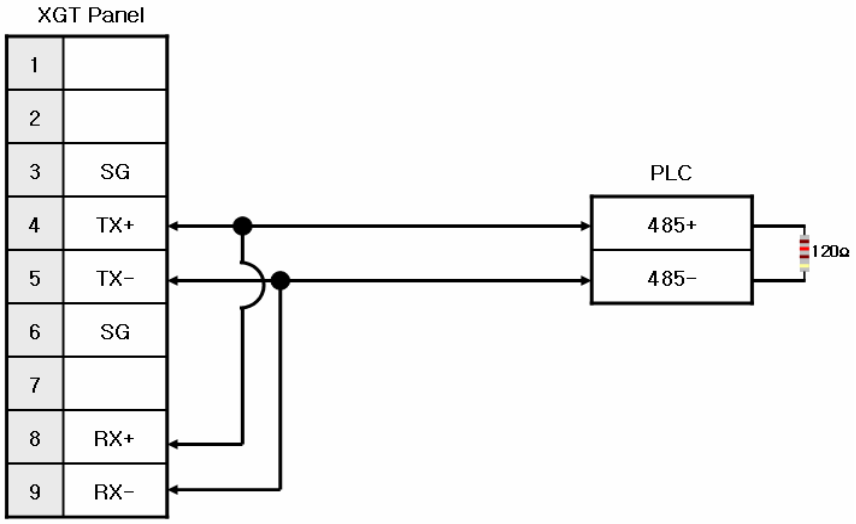
Among the MASTER-K PLC series, K80S, K120S, K200S (RS-232C only) provide built-in Cnet.
Below is the wiring of RS-232C built-in Cnet.



NOTE

(1) Notice
- ► In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
- ► CPU module loader port is D-SUB 9P, Female. Use a Male connector when wiring the cable.
- ► Refer to chapter 2 for shield wiring.

Below is the wiring diagram of built-in RS-485 Cnet. (K80S, K120S only)

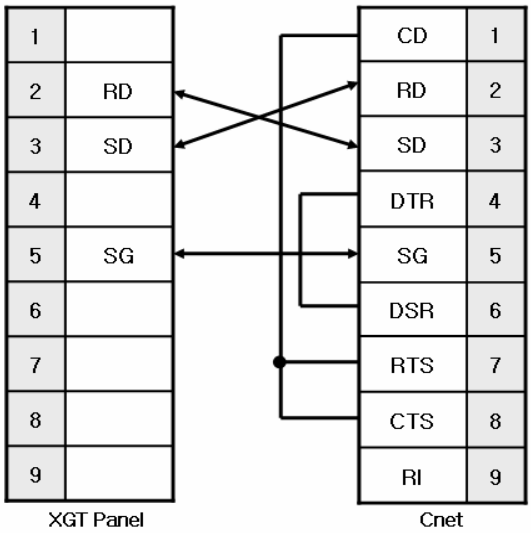


NOTE

(1) Notice
- ► Set terminal switch of the XGT Panel.
- ► RS-485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
- ► Refer to chapter 2 for shield wiring.

3.2.3 Link method: Cnet

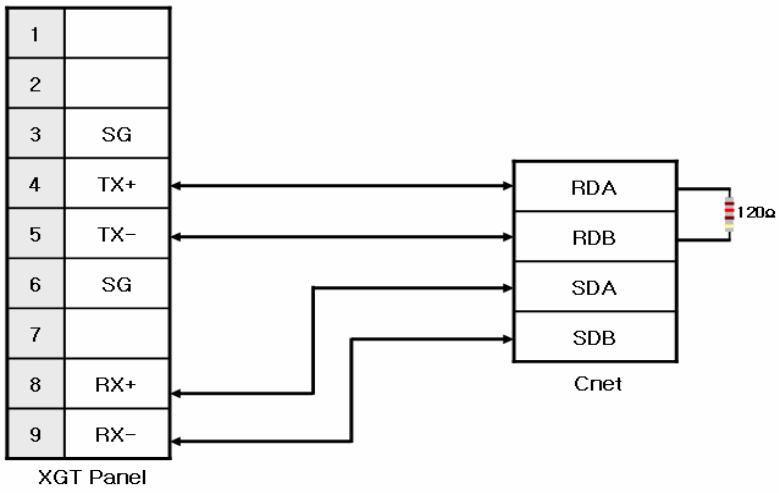
Cnet is specified into RS-232C and RS-422/485 type.
Below is the wiring of RS-232C Cnet.



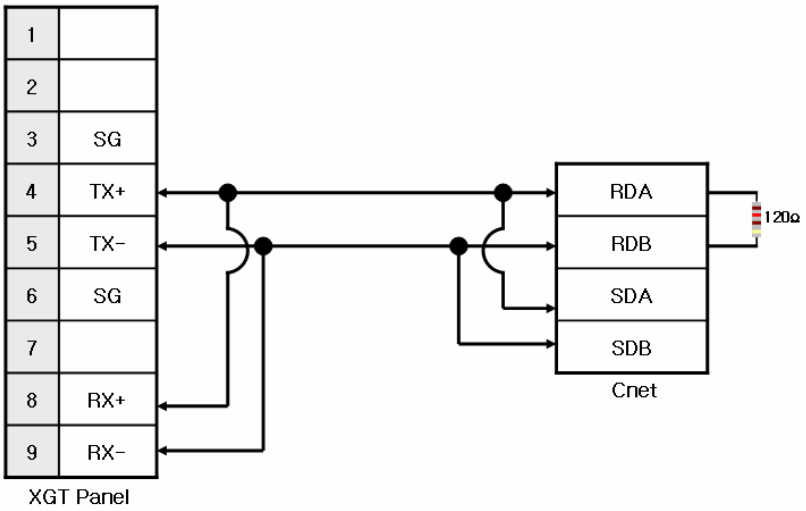
NOTE

(1) Notice
- ► Since MASTER-K Cnet (RS-232C) uses flow control, it will not communicate if it is not wired as above.
- ► Refer to chapter 2 for shield wiring.

RS-422 wiring is as below.



RS-485 wiring is as below.



NOTE

(1) Notice
- ► Set terminal switch of the XGT Panel.
- ► RS-422/485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
- ► Refer to chapter 2 for shield wiring.

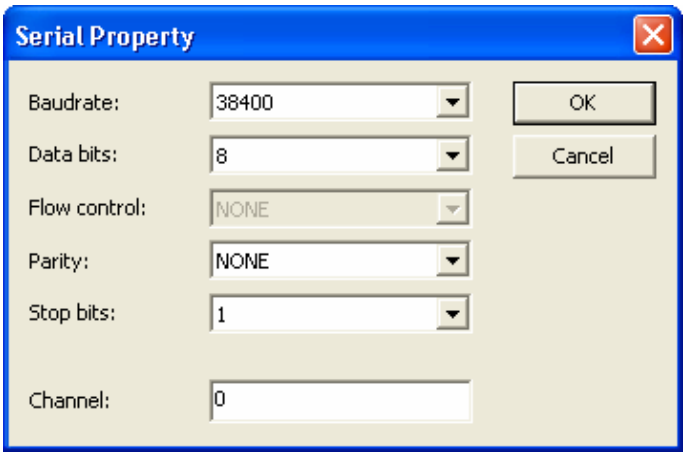
3.2.4 Link method: FEnet

When connecting MASTER-K and Ethernet, the wiring differs according to its configuration. Refer to chapter 2 for configuration and wiring method.

3.3 Communication Setting

3.3.1 CPU module direct connection method

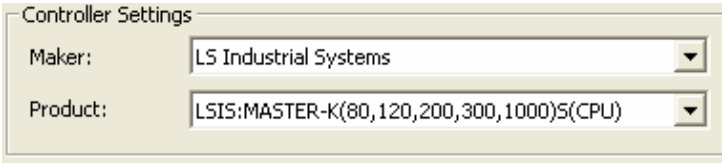
Communication parameter of the XGT Panel gets set through XP-Builder. (Refer to XP-Builder instruction manual)
XP-Builder provides communication parameter for the CPU module loader as basics.



NOTE

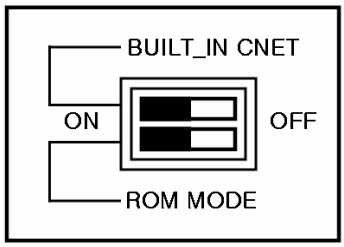
(1) Communication state check
► When it is unable to check the communication state with the MASTER-K CPU module, check it by using the XGT Panel Diagnostics and PLC Information function. (Refer to XGT Panel instruction manual)

(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.

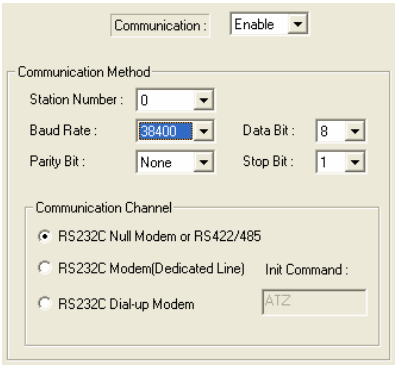


3.3.2 Link method: Built-in Cnet

To use built-in Cnet (RS-232C, RS-422/485), set the 'BUILT_IN_CNET' switch to 'ON' from K80S/K120S. (except K200S)



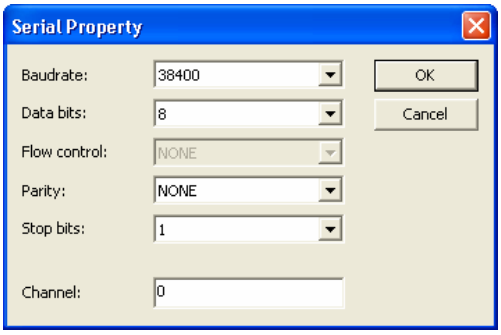
Set PLC's built-in Cnet (RS-232C) communication parameter from KGL-WIN. (Refer to KGL-WIN instruction manual)



K80S/K120S parameter setting

K200S parameter setting

From the XGT Panel's communication parameter, set Baudrate, Data bits, Parity, Stop bit s and Channel as below.



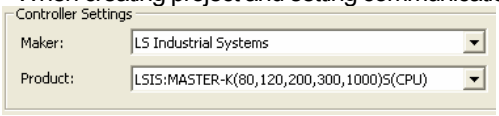
NOTE

(1) Communication state check

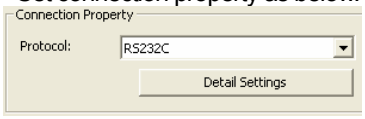
► It will not communicate when MASTER-K PLC's communication parameter and XGT Panel communication parameter differ.

(2) Cautions when setting XP-Builder

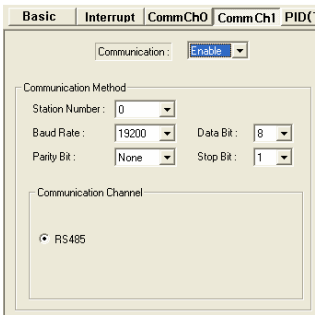
► When creating project and setting communication, set as below.



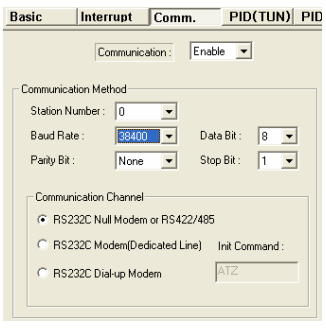
► Set connection property as below.



Set parameter (RS-485) at KGL-WIN as below.



K120S parameter setting



K80S parameter setting

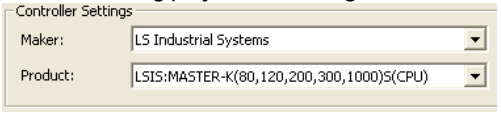
NOTE

(1) Communication state check

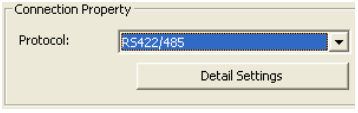
► It will not communicate when MASTER-K PLC's communication parameter and XGT Panel communication parameter differ.

(2) Cautions when setting XP-Builder

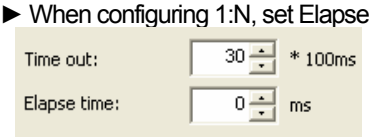
► When creating project and setting communication, set as below.



► Set Connection Property as below.

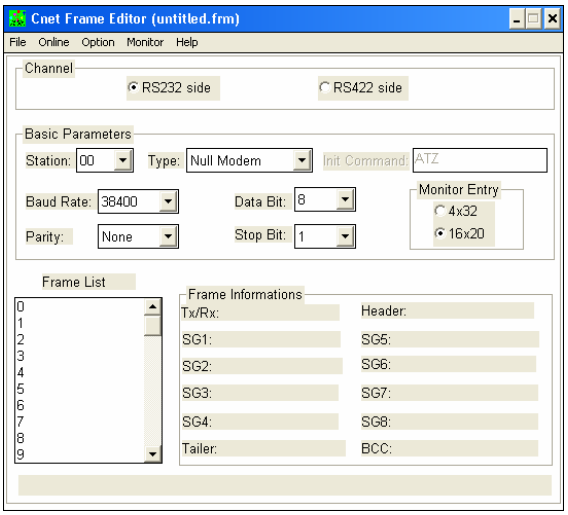


► When configuring 1:N, set Elapse time.



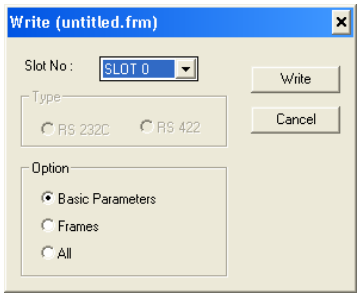
3.3.3 Link method: Cnet

Set Cnet communication parameter of the PLC (except K80S/K120S) through frame editor. (Refer to Cnet I/F Module instruction manual) Set Cnet as below.



Set communication channel to 'RS232 side' and set communication parameter. When setting RS-422/485, set 'RS422 side'. Be sure to select '16 x 20' for monitor registration size.

In order to set parameter value to the PLC, select slot number in which the Cnet module is installed as below.



When write is done, start operation as below.

Set XGT Panel's communication parameter as shown in 3.3.2.

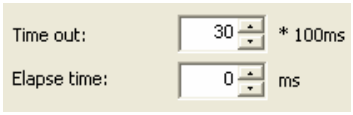
Be sure to set operation mode from the Cnet module.
Because operation mode setting differs according to each Cnet, refer to Cnet I/F Module instruction manual.

NOTE

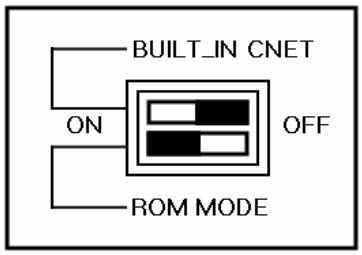
(1) Communication state check
- ► Frame editor has a monitoring function. Communication data may be checked using this function.
- ► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.

(2) Cautions when setting PLC
- ► Be sure to reset the PLC after setting the communication parameter of the frame editor. (Refer to instruction manual for specific details)
- ► This manual only explains briefly. Be sure to refer to the Cnet I/F Module instruction manual when setting.

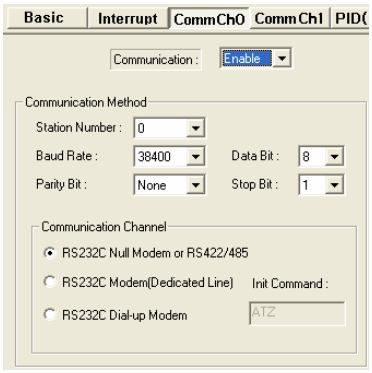
(3) Cautions when setting XP-Builder
- ► When configuring RS-422/485 1:N, set transmission stand-by time.



To use Cnet to K80S/K120S, set the 'BUILT_IN CNET' switch to 'OFF" as below.



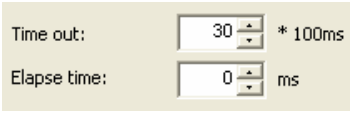
Set communication parameter from KGL-WIN.



K80S/K120S parameter setting

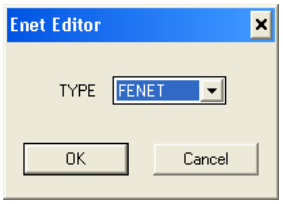
NOTE

(1) Cautions when setting PLC
► This manual only explains briefly. Be sure to refer to the KGL-WIN instruction manual when setting.
(2) Cautions when setting XP-Builder
► When configuring RS-422/485 1:N, set transmission stand-by time.

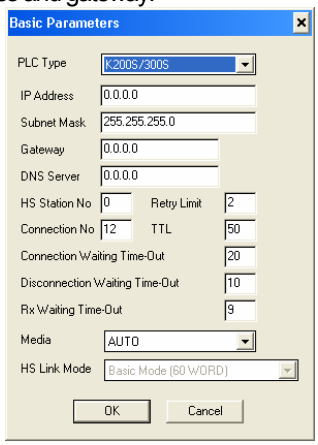


3.3.4 Link method: FEnet

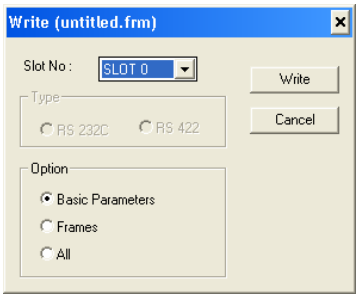
XGT Panel only supports open type FEnet. (Exclusive FEnet module not supported)
Set FEnet communication parameter from high-speed Ethernet frame editor. (Refer to FEnet I/F Module instruction manual)
After running the software, select 'FENET' as below.



Set communication parameter such as IP address and gateway.

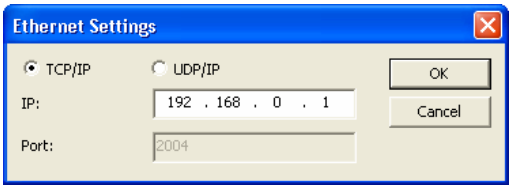


In order to set parameter value to the PLC, select slot number in which the Cnet module is installed as below.



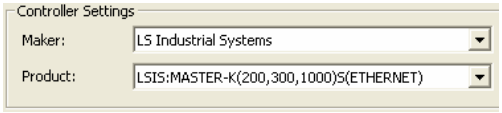
When write is done and PLC is reset, setting is done.

XGT Panel's communication parameter is as below. Select target IP and protocol type.



NOTE

(1) Communication state check
► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



3.4 Available Device

Available devices of the XGT Panel are as follows.

Device Type	Size	Bit Contact point	Word Data	Remarks
P	1024 point	P0000 ~ P063F	P000 ~ P063	
M	3072 point	M0000 ~ M191F	M000 ~ M191	
L	1024 point	L0000 ~ L063F	L000 ~ L063	
K	512 point	K0000 ~ K031F	K000 ~ K031	
F	512 point	F0000 ~ F031F	F000 ~ F031	
T	256 point	T000 ~ T255	T000 ~ T255	
C	256 point	C000 ~ C255	C000 ~ C255	
S	100*100	S00.00 ~ S99.99	WORD N/A	
D	10000 word	Contact point N/A	D0000 ~ D9999	

NOTE

(1) Notice
► For instructions on using devices and specific information, please refer to the XP-Builder instruction manual.
► Please make sure to use the device within the range.
► Device range may differ according to the CPU module. Refer to each CPU module's instruction manual.

Chapter 4 LSIS: GLOFA-GM PLC

4.1 PLC List

XGT Panel is able to connect to GLOFA-GM PLC.

PLC	CPU module	Connection method	Comm. method	Connection Module	Remarks
GLOFA-GM	GMR/GM1/2/3	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	G3L-CUEA	Cnet
		Link	RS-422/485	G3L-CUEA	Cnet
		Link	Ethernet	G3L-EUTB	Open type FEnet
	GM4	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	G4L-CUEA	Cnet
		Link	RS-422/485	G4L-CUEA	Cnet
		Link	Ethernet	G4L-EUTB	Open type FEnet
	GM6	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	CPU module	Built-in Cnet
		Link	RS-232C	G6L-CUEB	Cnet
		Link	RS-422/485	G6L-CUEC	Cnet
		Link	Ethernet	G6L-EUTB	Open type FEnet
	GM7U	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	CPU module	Built-in Cnet
		Link	RS-485	CPU module	Built-in Cnet
		Link	RS-232C	G7L-CUEB	Cnet
		Link	RS-422/485	G7L-CUEC	Cnet
	GM7	CPU module direct connection method	RS-232C	CPU module	-
		Link	RS-232C	CPU module	Built-in Cnet
		Link	RS-485	CPU module	Built-in Cnet
		Link	RS-232C	G7L-CUEB	Cnet
		Link	RS-422/485	G7L-CUEC	Cnet

NOTE

(1) Notice

► Dedicated Ethernet module (GxL-EUTC, ERTC) is not supported.

(2) Terminology

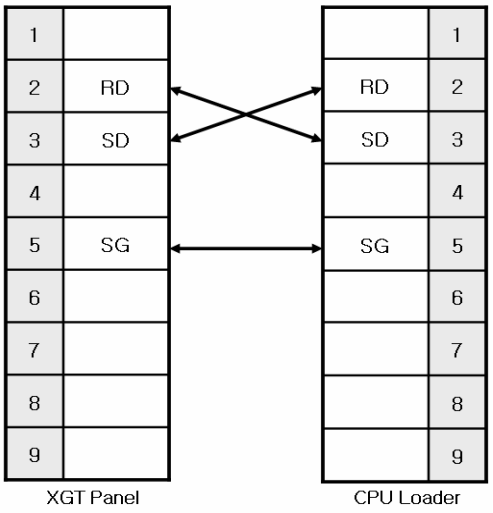
► CPU module direct connection: executes serial communication through the loader port of the CPU module.

► Link: executing serial communication with the communication module of the PLC.

4.2 Wiring Diagram

4.2.1 CPU module direct connection method

Connecting XGT Panel and GLOFA-GM PLC with CPU module direct connection method (RS-232C) is as follows.

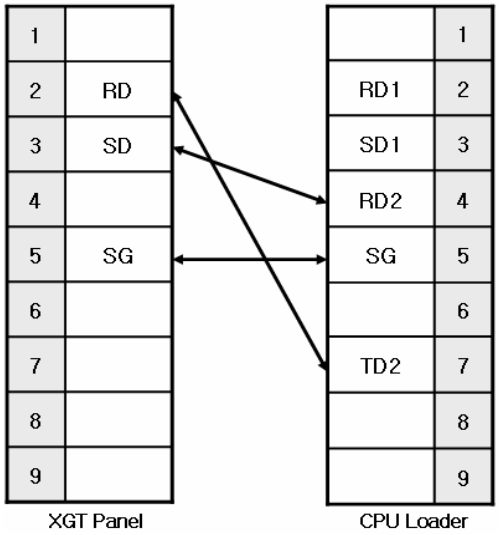


NOTE

(1) Cautions when wiring cable
- ► In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
- ► CPU module loader port is D-SUB 9P, Female. Use a Male connector when wiring the cable.

4.2.2 Link method: Built-in Cnet

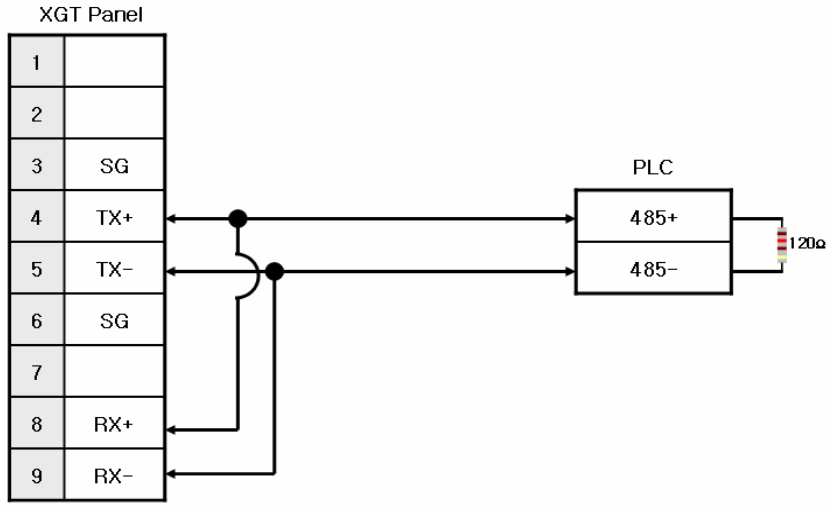
Among the GLOFA-GM PLC series, GM7, GM7U, and GM6 (only RS-232C) provide built-in Cnet.
Below is the wiring of RS-232C built-in Cnet.



NOTE

(1) Notice
- ► In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
- ► CPU module loader port is D-SUB 9P, Female. Use a Male connector when wiring the cable.
- ► Refer to chapter 2 for shield wiring.

Below is the wiring diagram of built-in RS-485 Cnet. (GM7, GM7U only)

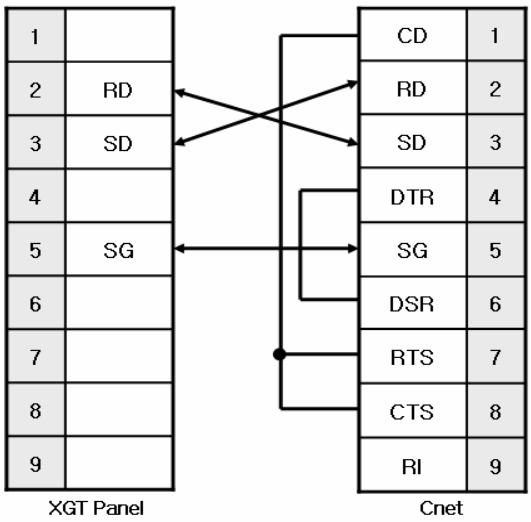


NOTE

(1) Notice
- ► Set terminal switch of the XGT Panel.
- ► RS-485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
- ► Refer to chapter 2 for shield wiring.

4.2.3 Link method: Cnet

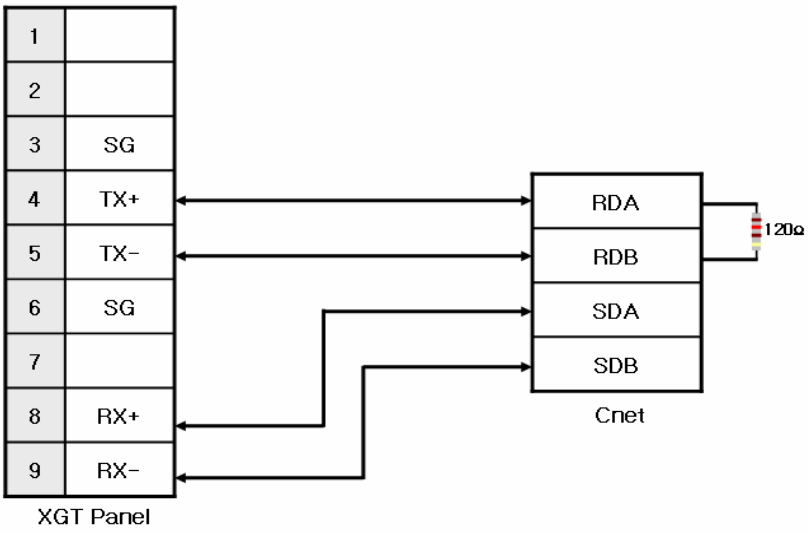
Cnet is specified into RS-232C and RS-422/485 type.
Below is the wiring of RS-232C Cnet.



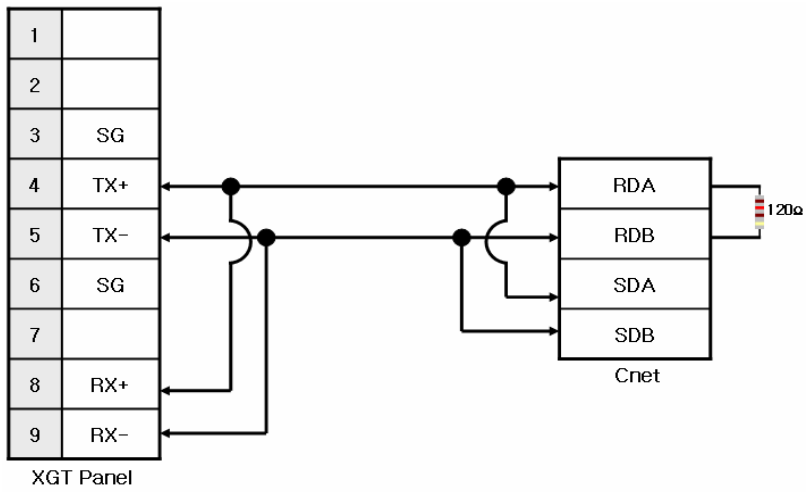
NOTE

(1) Notice
► Since GLOFA-GM Cnet(RS-232C) uses flow control, it will not communicate if it is not wired as above.
► Refer to chapter 2 for shield wiring.

RS-422 wiring is as below.



RS-485 wiring is as below.



NOTE

(1) Notice
► Set terminal switch of the XGT Panel.
► RS-422/485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
► Refer to chapter 2 for shield wiring.

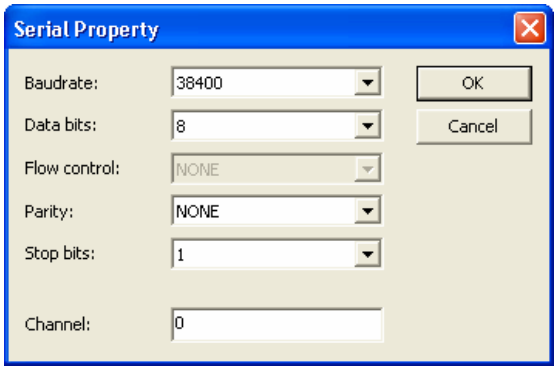
4.2.4 Link method: FEnet

When connecting GLOFA-GM and Ethernet, the wiring differs according to its configuration. Refer to chapter 2 for configuration and wiring method.

4.3 Communication Setting

4.3.1 CPU module direct connection method

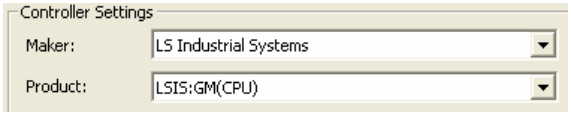
Communication parameter of the XGT Panel gets set through XP-Builder. (Refer to XP-Builder instruction manual)
XP-Builder provides communication parameter for the CPU module loader as basics.



NOTE

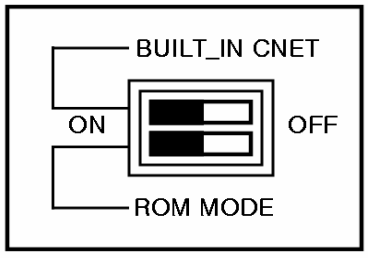
(1) Communication state check
► When it is unable to check the communication state with the GLOFA-GM CPU module, check it by using the XGT Panel Diagnostics and PLC Information function. (Refer to XGT Panel instruction manual)

(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.

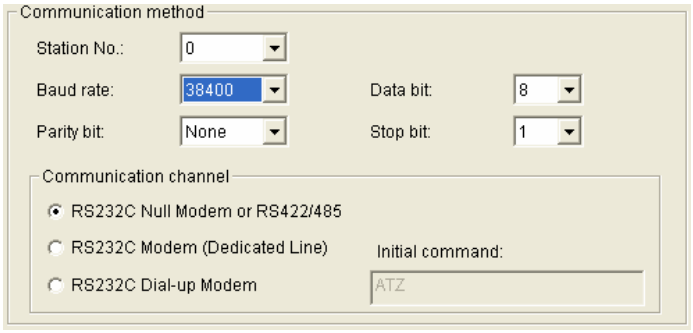


4.3.2 Link method: Built-in Cnet

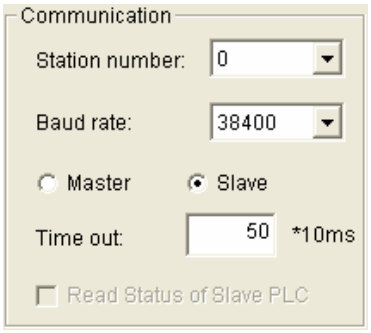
To use built-in Cnet(RS-232C, RS-422/485), set the 'BUILT_IN_CNET' switch to 'ON' from GM7/GM7U. (except GM6)



Set PLC's built-in Cnet (RS-232C) communication parameter from GMWIN. (Refer to GMWIN instruction manual)

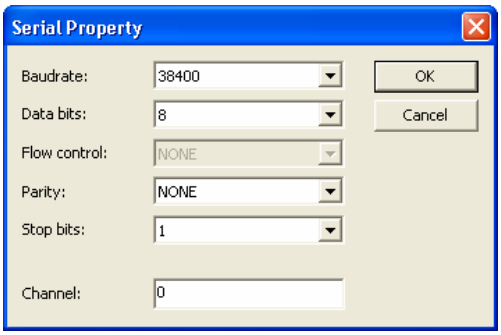


GM7/GM7U parameter setting



GM6 parameter setting

From the XGT Panel's communication parameter, set transmitting speed, data bit, parity, stop bit and channel as below.



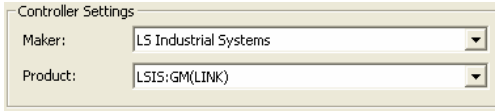
NOTE

(1) Communication state check

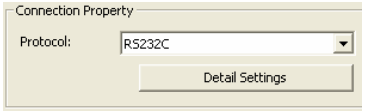
► It will not communicate when GLOFA-GM PLC's communication parameter and XGT Panel communication parameter differ.

(2) Cautions when setting XP-Builder

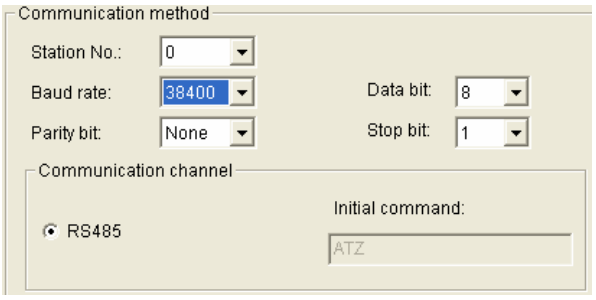
► When creating project and setting communication, set as below.



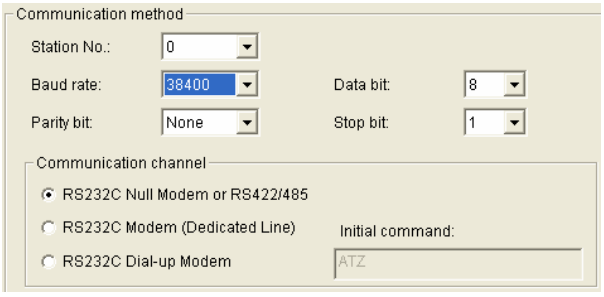
► Set connection property as below.



Set parameter (RS-485) at GMWIN as below.



GM7U parameter setting



GM7 parameter setting

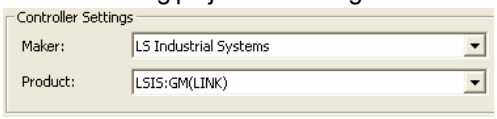
NOTE

(1) Communication state check

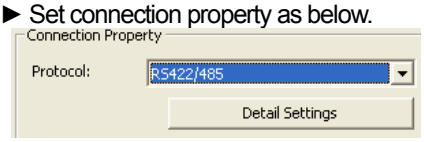
► It will not communicate when GLOFA-GM PLC's communication parameter and XGT Panel communication parameter differ.

(2) Cautions when setting XP-Builder

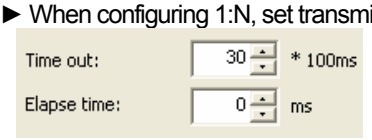
► When creating project and setting communication, set as below.



► Set connection property as below.

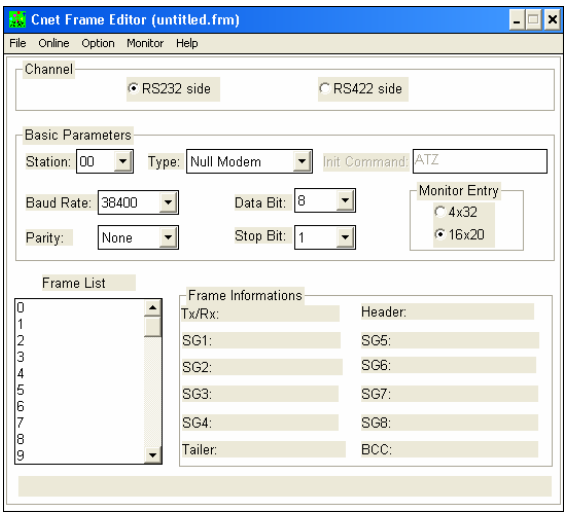


► When configuring 1:N, set transmission stand-by time.



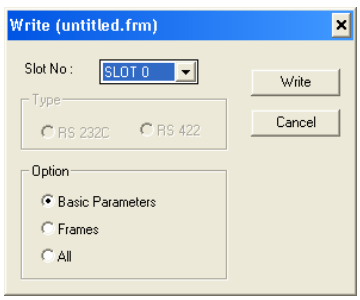
4.3.3 Link method: Cnet

Set Cnet communication parameter of the PLC(except GM7/GM7U) through frame editor. (Refer to Cnet I/F Module instruction manual)
Set Cnet as below.



Set communication channel to 'RS232 side' and set communication parameter. When setting RS-422/485, set 'RS422 side'.
Be sure to select '16 x 20' for monitor registration size.

In order to set parameter value to the PLC, select slot number in which the Cnet module is installed as below.



When write is done, start operation as below.

Set XGT Panel's communication parameter as shown in 4.3.2.

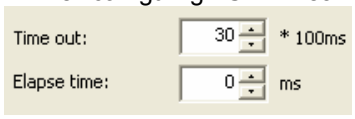
Be sure to set operation mode from the Cnet module.
Because operation mode setting differs according to each Cnet, refer to Cnet I/F Module instruction manual.

NOTE

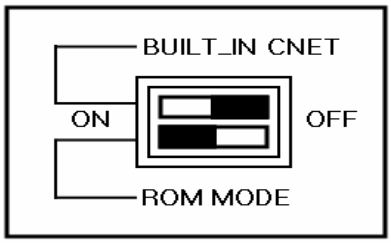
(1) Communication state check
- ► Frame editor has a monitoring function. Communication data may be checked using this function.
- ► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.

(2) Cautions when setting PLC
- ► Be sure to reset the PLC after setting the communication parameter of the frame editor. (Refer to instruction manual for specific details)
- ► This manual only explains briefly. Be sure to refer to the Cnet I/F Module instruction manual when setting.

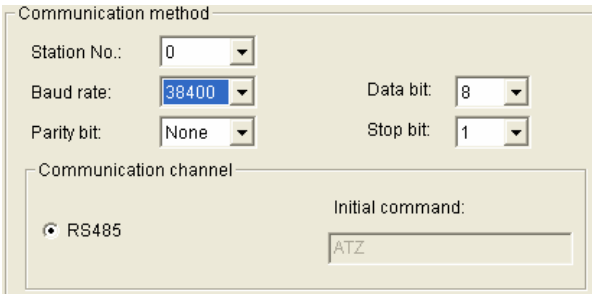
(3) Cautions when setting XP-Builder
- ► When configuring RS-422/485 1:N, set transmission stand-by time.



To use built-in Cnet, set the 'BUILT_IN_CNET' switch to 'ON' from GM7/GM7U.



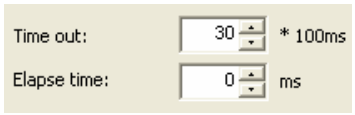
Set communication parameter from GMWIN.



K80S/K120S parameter setting

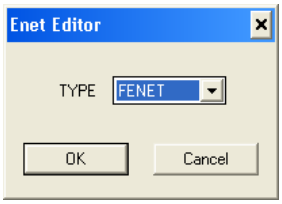
NOTE

(1) Cautions when setting PLC
► This manual only explains briefly. Be sure to refer to the GMWIN instruction manual when setting.
(2) Cautions when setting XP-Builder
► When configuring RS-422/485 1:N, set transmission stand-by time.

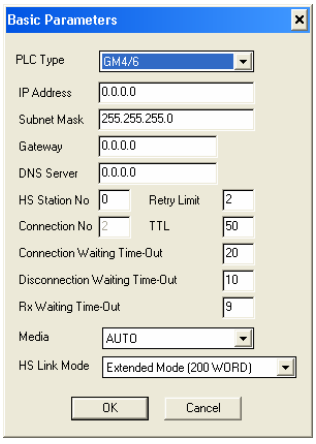


4.3.4 Link method: FEnet

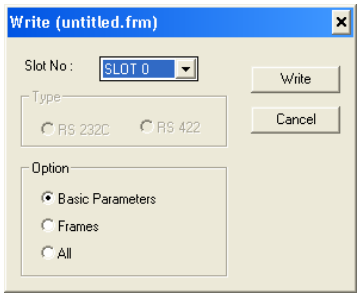
XGT Panel only supports open type FEnet. (Exclusive FEnet module not supported)
Set FEnet communication parameter from high-speed Ethernet frame editor. (Refer to FEnet I/F Module instruction manual)
After running the software, select 'FENET' as below.



Set communication parameter such as IP address and gateway.

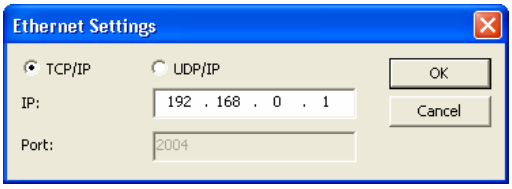


In order to set parameter value to the PLC, select slot number in which the Cnet module is installed as below.



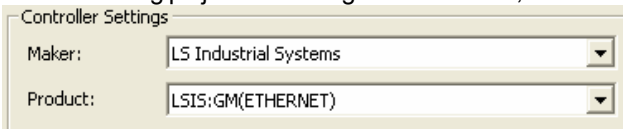
When write is done and PLC is reset, setting is done.

XGT Panel's communication parameter is as below. Select target IP and protocol type.



NOTE

(1) Communication state check
► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



4.4 Available Device

Available devices of the XGT Panel are as follows.

Device Type	Size	Bit Contact point	Word Data	Remarks
%IX	32768 point	%IX0.0.0 ~ %IX63.7.63	WORD N/A	
%QX	32768 point	%QX0.0.0 ~ %QX63.7.63	WORD N/A	
%MX	959984 point	%MX00000 ~ %MX95983	WORD N/A	
%IW	2047 word	Contact point N/A	%IW0.0.0 ~ %IW63.7.3	
%QW	2047 word	Contact point N/A	%QW0.0.0 ~ %QW63.7.3	
%MW	59999 word	%MW00000.0 ~ %MW59999.15	%MW0000 ~ %MW59999	

NOTE

(1) Notice
► For instructions on using devices and specific information, please refer to the XP-Builder instruction manual.
► Please make sure to use the device within the range.
► Device range may differ according to the CPU module. Refer to each CPU module's instruction manual.

Chapter 5 LSIS: XGK PLC

5.1 PLC List

XGT Panel is able to connect to XGK PLC.

PLC	CPU module	Connection method	Comm. method	Connection Module	Remarks
XGK	CPUH / CPUA / CPUS /CPUE	CPU direct connection	RS-232C	CPU Module	-
		Link	RS-232C	XGL-C22A XGL-CH2A	Cnet
		Link	RS-422/485	XGL-C42A XGL-CH2A	Cnet
		Link	Ethernet	XGL-EFMT	-

NOTE

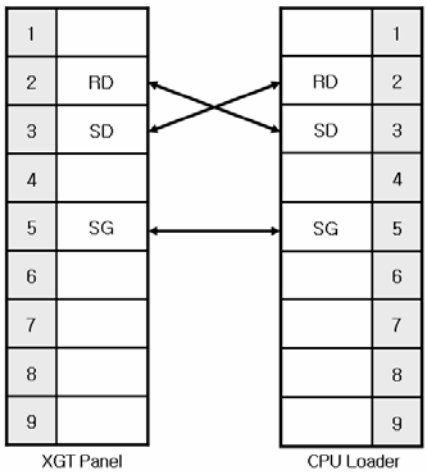
(1) Notice
► Fiber-optic Ethernet module (XGL-EFMF) is not supported.

(2) Terminology
► CPU module direct connection: executes serial communication through the loader port of the CPU module.
► Link: executing serial communication with the communication module of the PLC.

5.2 Wiring Diagram

5.2.1 CPU module direct connection method

Connecting XGT Panel and XGK PLC with CPU module direct connection method (RS-232C) is as follows.

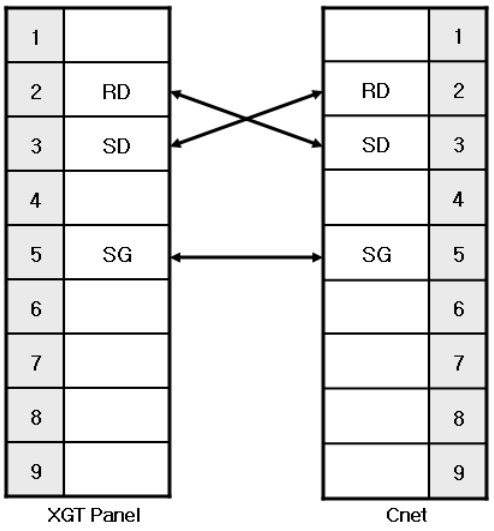


NOTE

(1) Cautions when wiring cable
► In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
► CPU module loader port is D-SUB 9P, Female. Use a Male connector when wiring the cable.

5.2.2 Link method: Cnet

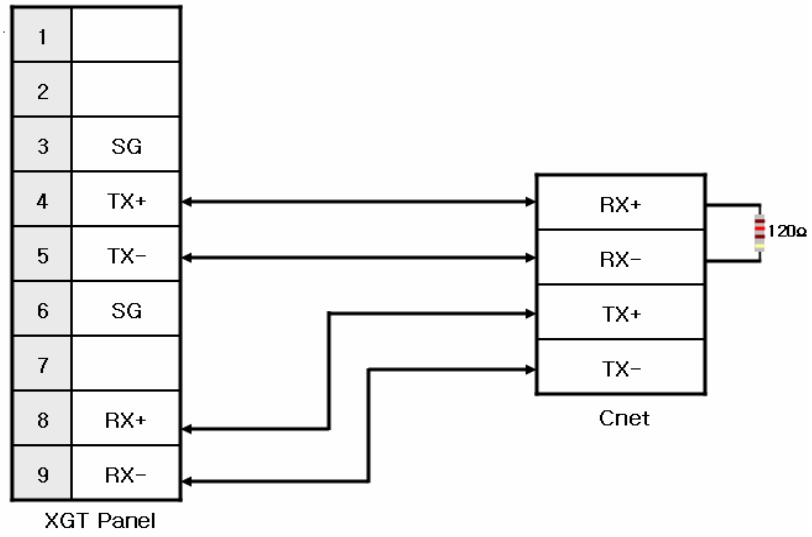
Cnet is specified into RS-232C and RS-422/485 type.
Below is the wiring of RS-232C Cnet.



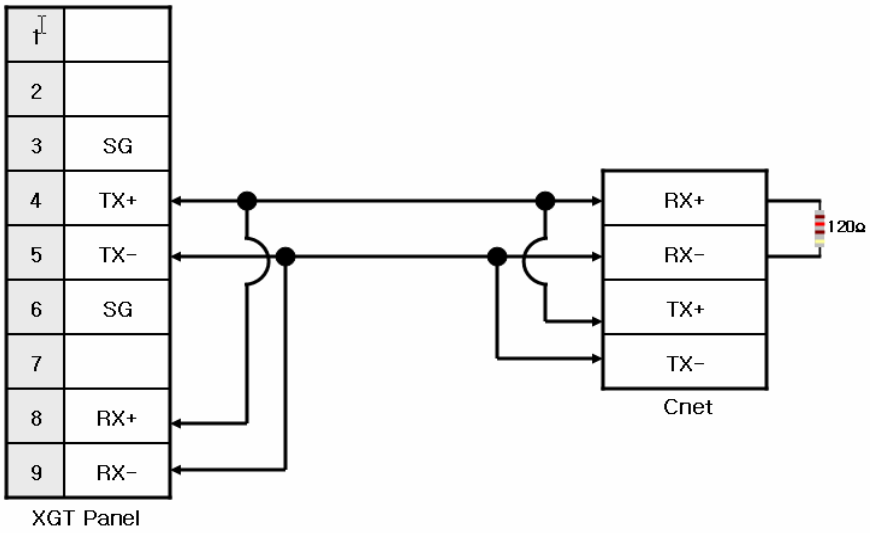
NOTE

(1) Notice
► Refer to chapter 2 for shield wiring.

RS-422 wiring is as below.



RS-485 wiring is as below.



NOTE

(1) Notice
- ► Set terminal switch of the XGT Panel.
- ► RS-422/485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
- ► Refer to chapter 2 for shield wiring.

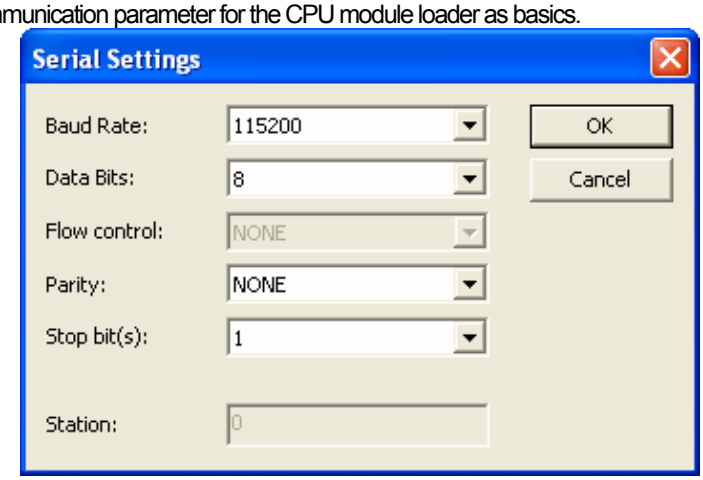
5.2.3 Link method: FEnet

When connecting XGK and Ethernet, the wiring differs according to its configuration. Refer to chapter 2 for configuration and wiring method.

5.3 Communication Setting

5.3.1 CPU module direct connection method

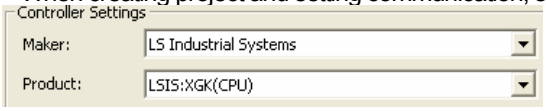
Communication parameter of the XGT Panel gets set through XP-Builder. (Refer to XP-Builder instruction manual)
XP-Builder provides communication parameter for the CPU module loader as basics.



NOTE

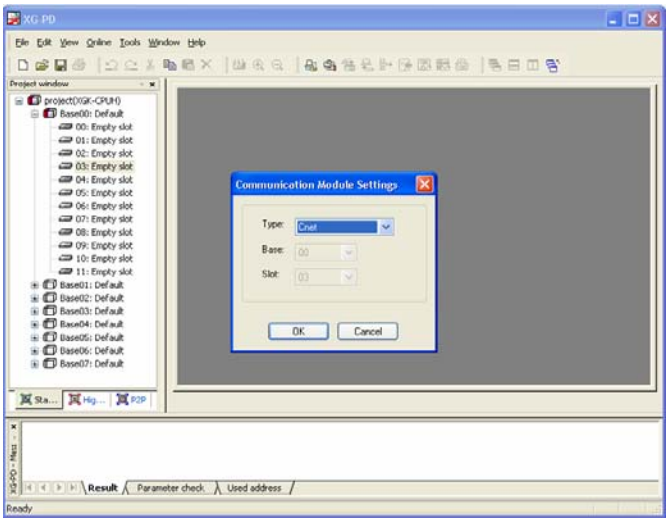
(1) Communication state check
► When it is unable to check the communication state with the XGK CPU module, check it by using the XGT Panel Diagnostics and PLC Information function. (Refer to XGT Panel instruction manual)

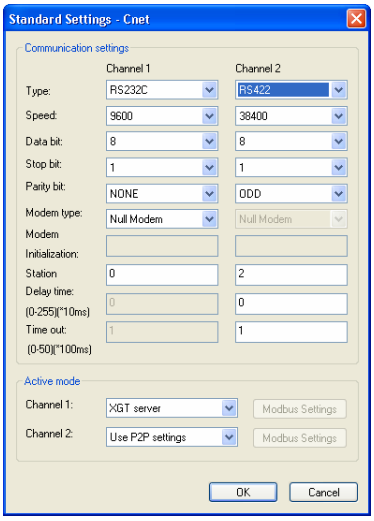
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



5.3.2 Link method: Cnet

Set Cnet communication parameter of the PLC through XG-PD. (Refer to XGT Cnet instruction manual)
Set Cnet as below.





Set up communication parameters to the channel for the use of the communication. Select XGT server at the operation mode.

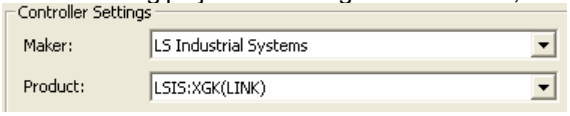
When write is done and PLC is reset, setting is done.

NOTE

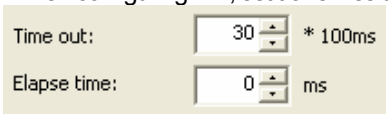
(1) Communication state check
► XG-PD has a monitoring function. Communication data may be checked using this function.
► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.

(2) Cautions when setting PLC
► Be sure to reset the PLC after setting the communication parameter.
► This manual explains in brief. Please refer to XGT Cnet operating manual.
► Even if you use only one channel, you should set up parameters of the other channel.

(3) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.

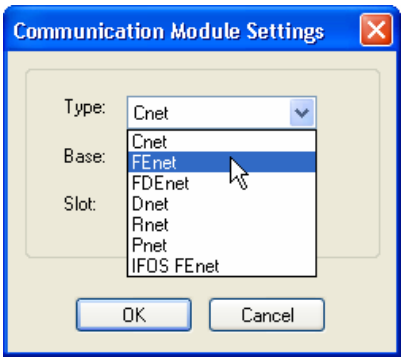


► When configuring 1:N, set transmission stand-by time.



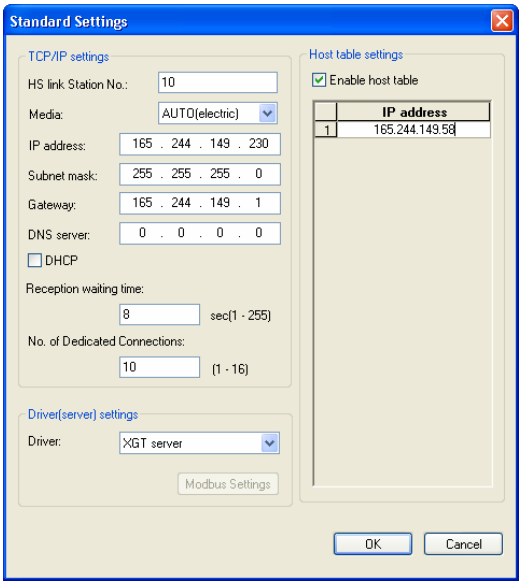
5.3.3 Link method: FEnet

Set up FEnet communication parameters on the XG-PD. (Refer to XGT FEnet operating manual.)



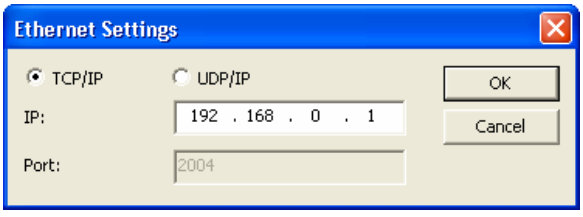
Set up as FEnet for the communication module.

Write communication parameters such as an IP address and a gateway. Select XGT server at the driver setting.



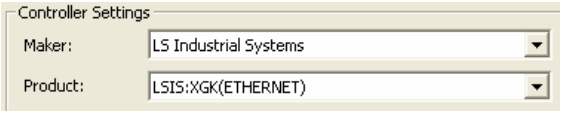
When write is done and PLC is reset, setting is done.

XGT Panel's communication parameter is as below. Select target IP and protocol type.



NOTE

(1) Communication state check
► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



5.4 Available Device

Available devices of the XGT Panel are as below:

Area	Size	Bit points	Word data	Remark
P	32768 point	P00000 ~ P2047F	P0000 ~ P2047	
M	32768 point	M00000 ~ M2047F	M0000 ~ M2047	
K	32768 point	K00000 ~ K2047F	K0000 ~ K2047	
F	32768 point	F00000 ~ F2047F	F0000 ~ F2047	
T	2048 point	T0000 ~ T2047	T0000 ~ T2047	
C	2048 point	C0000 ~ C2047	C0000 ~ C2047	
U	3072 word	U00.00.0 ~ U7F.31.F	U00.00 ~ U7F.31	
S	128 word	S00.00 ~ S127.99	WORD N/A	
L	180224 point	L000000 ~ L11263F	L00000 ~ L11263	
N	21K word	Contact point N/A	N00000 ~ N21503	
D	32K word	D00000.0 ~ D32767.F	D00000 ~ D32767	
ZR	32K word	Contact point N/A	ZR00000 ~ ZR65535	

NOTE

(1) Notice
► For instructions on using devices and specific information, please refer to the XP-Builder instruction manual.
► Please make sure to use the device within the range.
► Device range may differ according to the CPU module. Refer to each CPU module's instruction manual.

Chapter 6 LSIS: XGB PLC

6.1 PLC List

XGT Panel is able to connect to XGB PLC.

PLC	CPU module	Connection method	Comm. method	Connection Module	Remarks
XGB	XBM-DR16S XBM-DN16S XBM-DN32S	CPU direct connection	RS-232C	CPU Module	-
		Link	RS-232C	CPU Module	Internal Cnet
		Link	RS-485	CPU Module	Internal Cnet
		Link	RS-422/485	XBL-C41A	Cnet

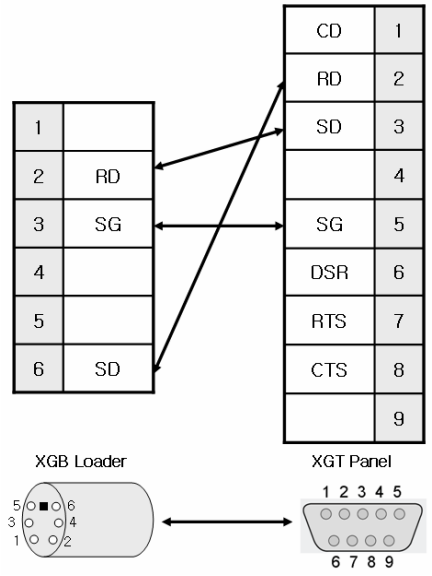
NOTE

(1) Terminology
- ► CPU module direct connection: executes serial communication through the loader port of the CPU module.
- ► Link: executing serial communication with the communication module of the PLC.

6.2 Wiring Diagram

6.2.1 CPU module direct connection method

This figure is a way to connect XGT Panel to XGK PLC with the CPU module direct connection method.



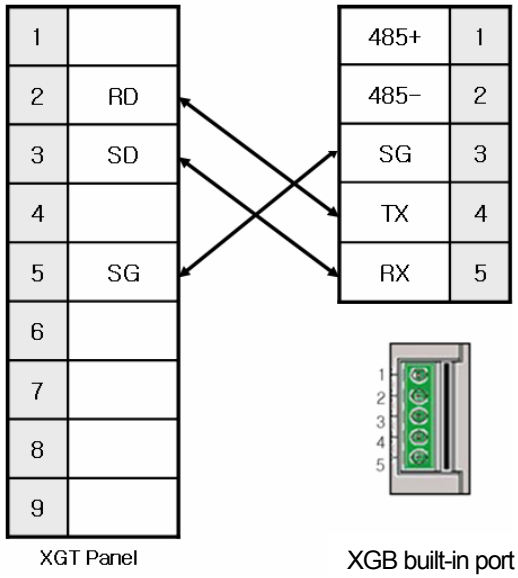
NOTE

(1) Cautions when wiring cable
- ► In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
- ► For your convenience, purchase a loader cable of the CPU module.

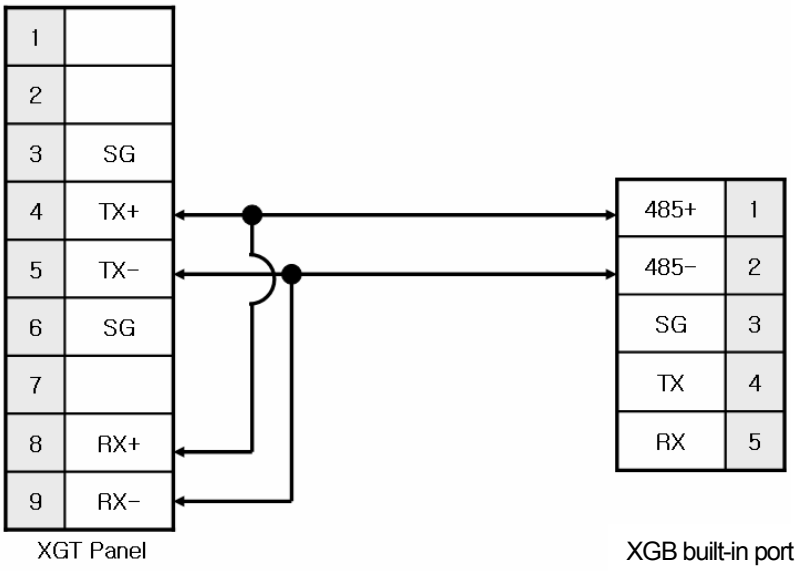
6.2.2 Link method: Built-in Cnet

Cnet is specified into RS-232C and RS-422/485 type.

Below is the wiring of RS-232C Cnet.



RS-485 wiring is as below.



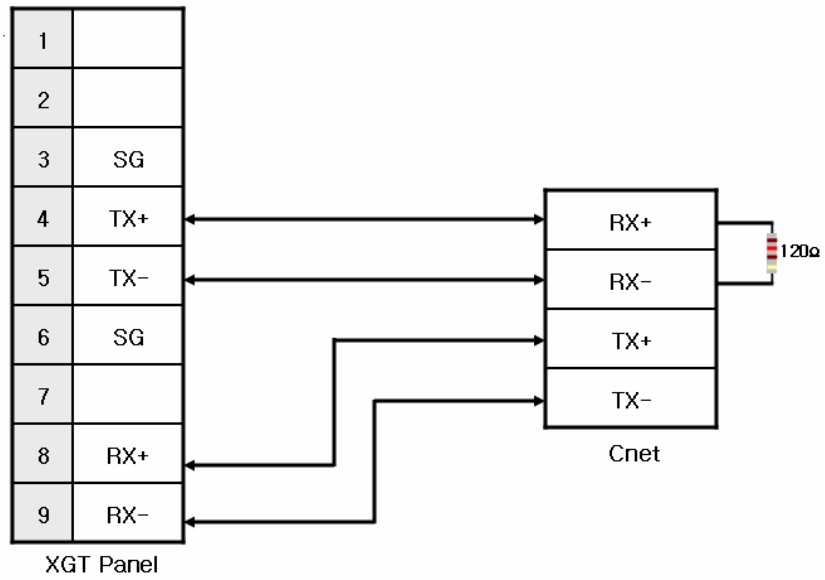
NOTE

(1) Notice
- ► Refer to chapter 2 for shield wiring.
- ► Set terminal switch of the XGT Panel to wire as RS-485.
- ► RS-422/485 port of the PLC does not need an extra connector since it's consisted as a terminal block.

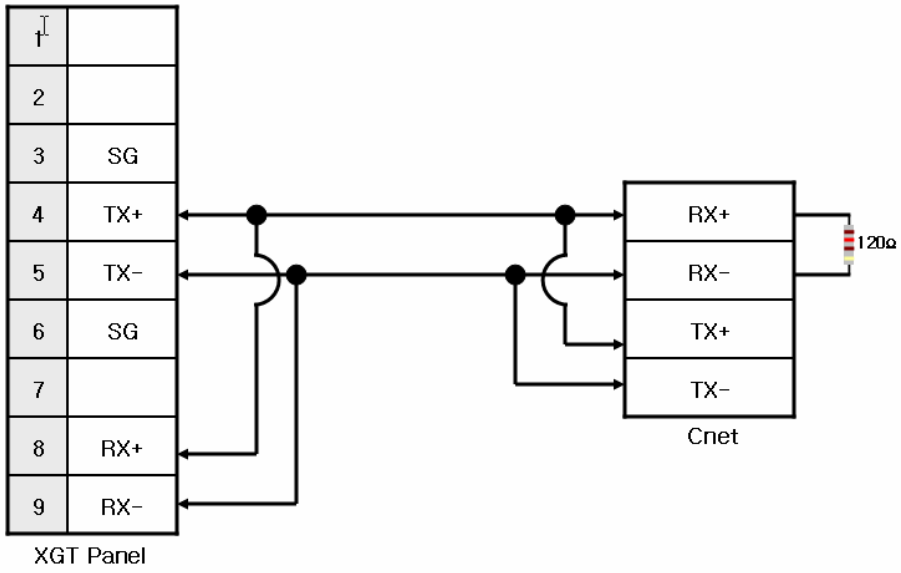
6.2.3 Link method: Cnet

Now XGB provides Cnet only for RS-422/485.

RS-422 wiring is as below.



RS-485 wiring is as below.



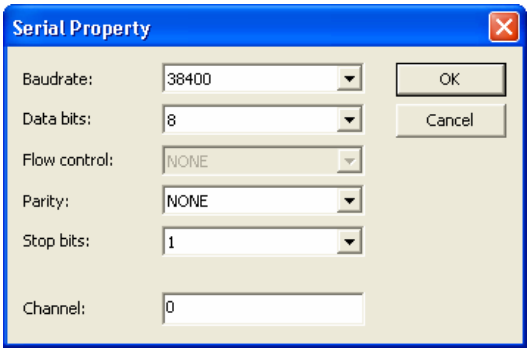
NOTE

(1) Notice
- ► Set terminal switch of the XGT Panel.
- ► RS-422/485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
- ► Refer to chapter 2 for shield wiring.

6.3 Communication Setting

6.3.1 CPU module direct connection method

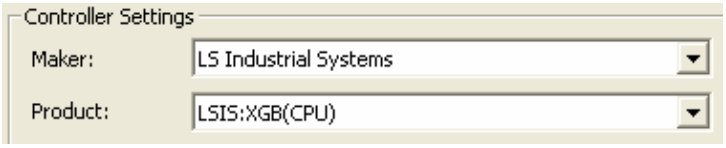
Communication parameter of the XGT Panel gets set through XP-Builder. (Refer to XP-Builder instruction manual)
XP-Builder provides communication parameter for the CPU module loader as basics.



NOTE

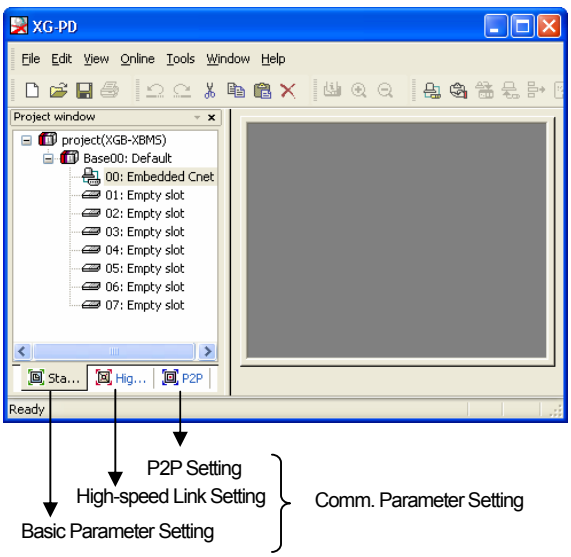
(1) Communication state check
► When it is unable to check the communication state with the XGK CPU module, check it by using the XGT Panel Diagnostics and PLC Information function. (Refer to XGT Panel instruction manual)

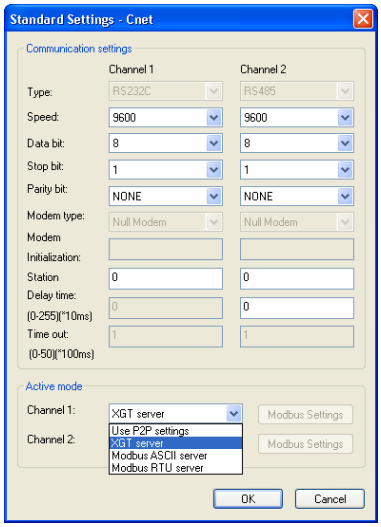
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



6.3.2 Link method: Built-in Cnet

Set Cnet communication parameter of the PLC through XG-PD. (Refer to XGB Cnet instruction manual)
This is the figure of Cnet configuration. Select an internal Cnet in the basic parameter setting.



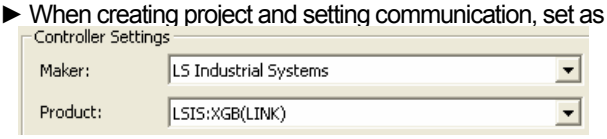


Channel 1 is for RS-232C and channel 2 is for RS-485. Set up communication parameters in each channel.
Select XGT server at the operation mode.

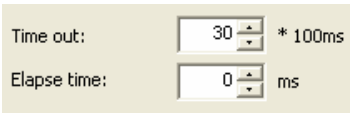
When write is done and PLC is reset, setting is done.

NOTE

(1) Communication state check
► XG-PD has a monitoring function. Communication data may be checked using this function.
(2) Cautions when setting PLC
► Be sure to reset the PLC after setting the communication parameter.
► This manual explains in brief. Please refer to XGB Cnet operating manual.
(3) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.

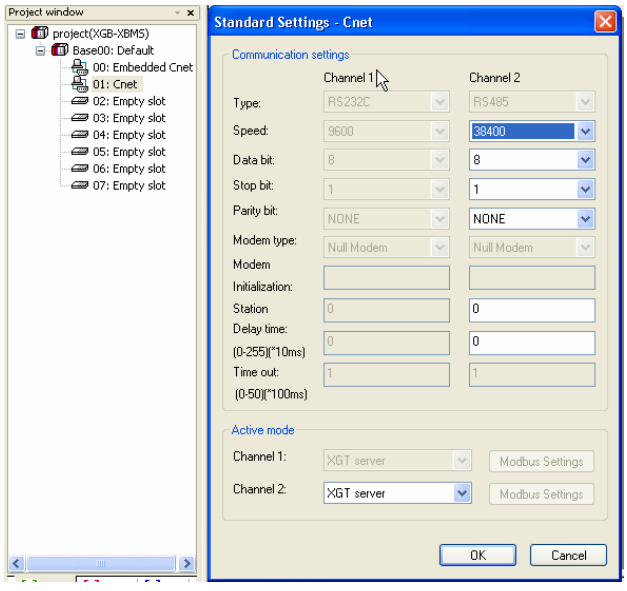


► When configuring 1:N, set transmission Elapse time.



6.3.3 Link method: Cnet

Set up Cnet communication parameters on the XG-PD. (Refer to XGT Cnet operating manual.)
This figure is about Cnet setting.

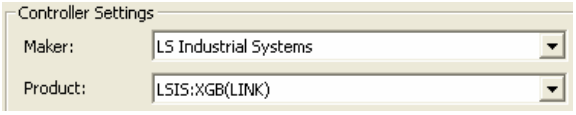


When write is done and PLC is reset, setting is done.

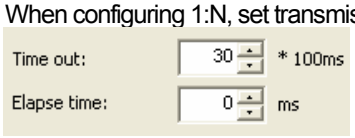
After completion of "Write," then reset the PLC.

NOTE

(1) Communication state check
► XG-PD has a monitoring function. Communication data may be checked using this function.
► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.
(2) Cautions when setting PLC
► Be sure to reset the PLC after setting the communication parameter.
(3) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



► When configuring 1:N, set transmission Elapse time.



6.4 Available Device

Available devices of the XGT Panel are as below:

Area	Size	Bit points	Word data
P	2048 point	P0000 ~ P127F	P000 ~ P127
M	4096 point	M0000 ~ M255F	M000 ~ M255
K	40960 point	K00000 ~ K2559F	K0000 ~ K2559
F	4096 point	F0000 ~ F255F	F000 ~ F255
T	256 point	T000 ~ T255	T000 ~ T255
C	256 point	C000 ~ C255	C000 ~ C255
U	256 word	U00.00.0 ~ U7F.31.F	U00.00 ~ U7F.31
S	128 word	S00.00 ~ S127.99	WORD N/A
L	20480 point	L00000 ~ L1279F	L0000 ~ L1279
N	3936 word	Contact point N/A	N0000 ~ N3935
D	5120 word	D0000.0 ~ D5119.F	D0000 ~ D5119
Z	128 word	Contact point N/A	Z000 ~ Z127

NOTE

(1) Notice
► For instructions on using devices and specific information, please refer to the XP-Builder instruction manual.
► Please make sure to use the device within the range.
► Device range may differ according to the CPU module. Refer to each CPU module's instruction manual.

Chapter 7 LSIS: XGI PLC

7.1 PLC List

XGT Panel is able to connect to XGI PLC.

PLC	CPU module	Connection method	Comm. method	Connection Module	Remarks
XGI	CPUU	CPU direct connection	RS-232C	CPU Module	-
		Link	RS-232C	XGL-C22A XGL-CH2A	Cnet
		Link	RS-422/485	XGL-C42A XGL-CH2A	Cnet
		Link	Ethernet	XGL-EFMT	-

NOTE

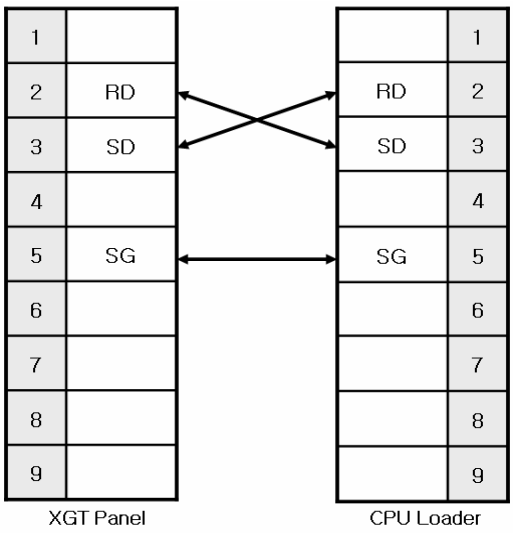
(1) Notice
► Fiber-optic Ethernet module (XGL-EFMF) is not supported.

(2) Terminology
► CPU module direct connection: executes serial communication through the loader port of the CPU module.
► Link: executing serial communication with the communication module of the PLC.

7.2 Wiring Diagram

7.2.1 CPU module direct connection method

Connecting XGT Panel and XGI PLC with CPU module direct connection method (RS-232C) is as follows.

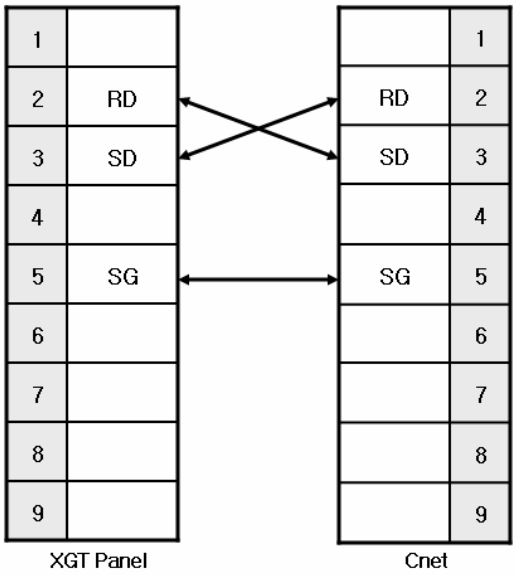


NOTE

(1) Cautions when wiring cable
- ► In the CPU module loader port is a CPU module that provides built-in Cnet. Be careful not to connect to other pins when wiring.
- ► CPU module loader port is D-SUB 9P, Female. Use a Male connector when wiring the cable.

7.2.2 Link method: Cnet

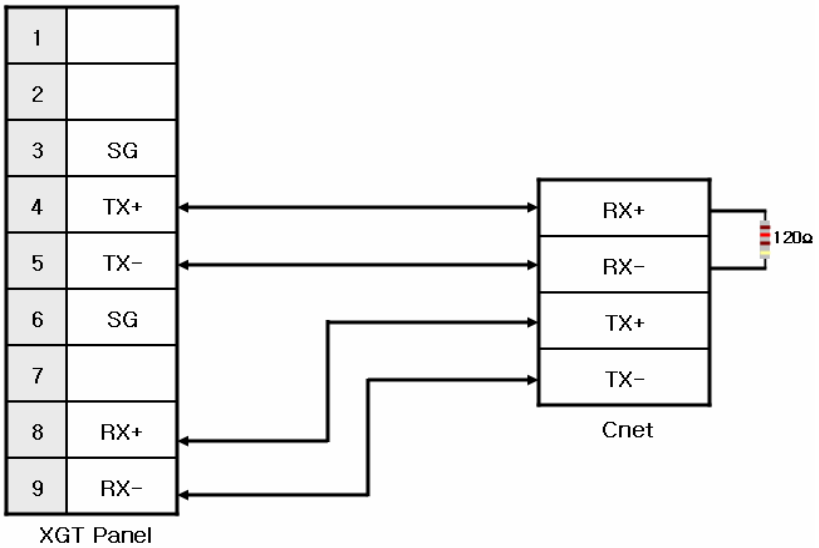
Cnet is specified into RS-232C and RS-422/485 type.
Below is the wiring of RS-232C Cnet.



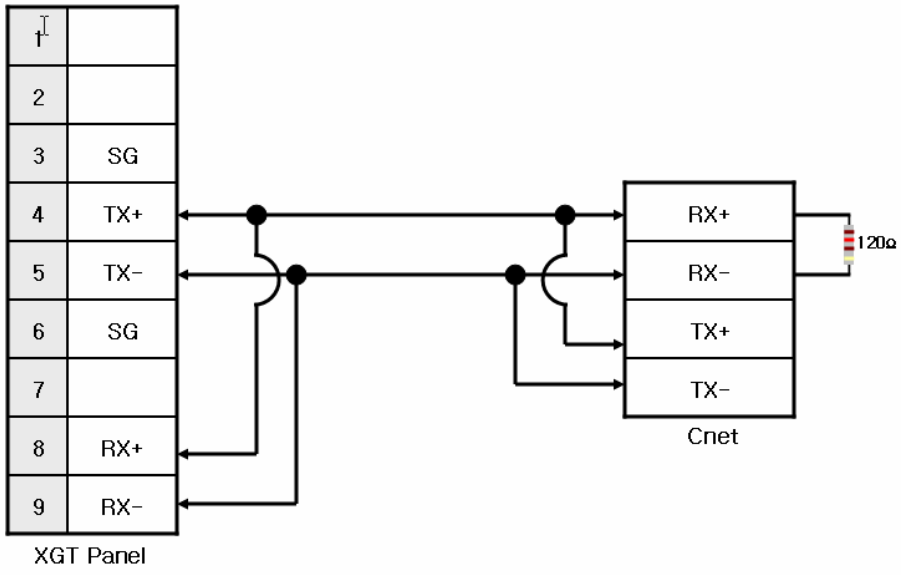
NOTE

(1) Notice
- ► Refer to chapter 2 for shield wiring.

RS-422 Cnet wiring is as below.



RS-485 Cnet wiring is as below.



NOTE

(1) Notice
- ► Set terminal switch of the XGT Panel.
- ► RS-422/485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
- ► Refer to chapter 2 for shield wiring.

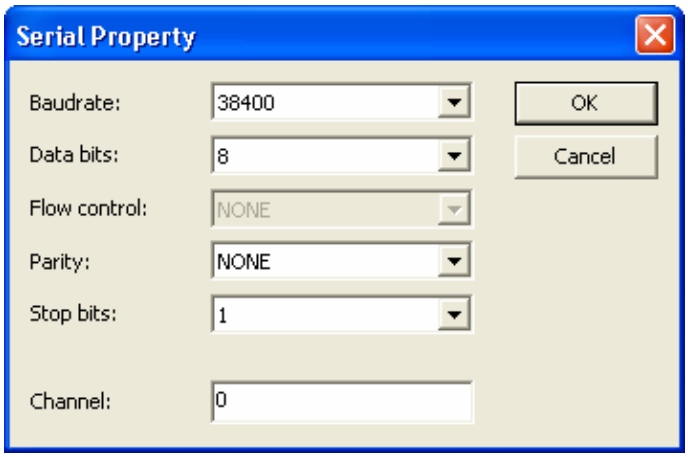
7.2.3 Link method: FEnet

When connecting XGI and Ethernet, the wiring differs according to its configuration. Refer to chapter 2 for configuration and wiring method.

7.3 Communication Setting

7.3.1 CPU module direct connection method

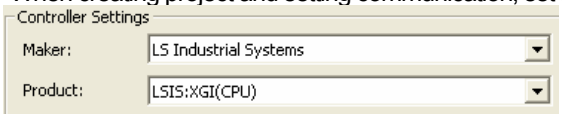
Communication parameter of the XGT Panel gets set through XP-Builder. (Refer to XP-Builder instruction manual)
XP-Builder provides communication parameter for the CPU module loader as basics.



NOTE

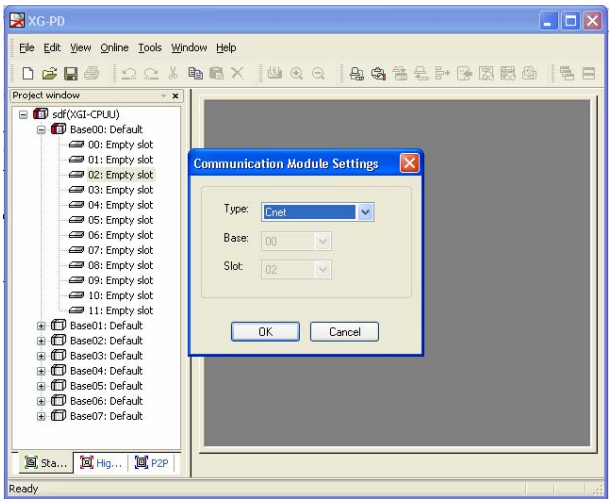
(1) Communication state check
► When it is unable to check the communication state with the XGK CPU module, check it by using the XGT Panel Diagnostics and PLC Information function. (Refer to XGT Panel instruction manual)

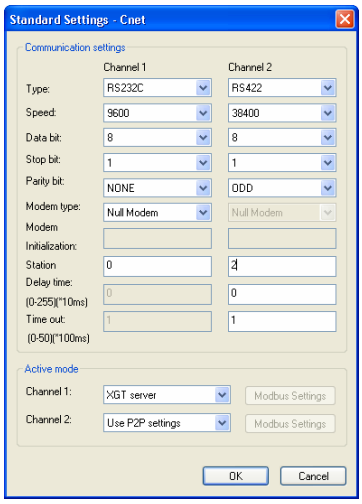
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



7.3.2 Link method: Cnet

Set Cnet communication parameter of the PLC through XG-PD. (Refer to XGT Cnet instruction manual)
Set Cnet as below.





Set up communication parameters to the channel for the use of the communication. Select XGT server at the operation mode.

When write is done and PLC is reset, setting is done.

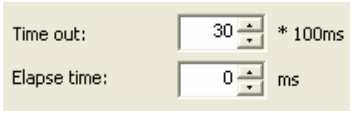
NOTE

(1) Communication state check
► XG-PD has a monitoring function. Communication data may be checked using this function.
► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.

(2) Cautions when setting PLC
► Be sure to reset the PLC after setting the communication parameter.
► This manual explains in brief. Please refer to XGT Cnet operating manual.
► Even if you use only one channel, you should set up parameters of the other channel.

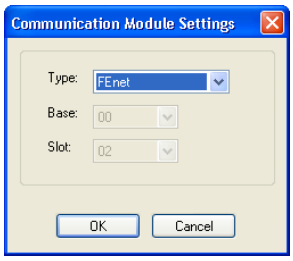
(3) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.

► When configuring 1:N, set transmission Elapse time.



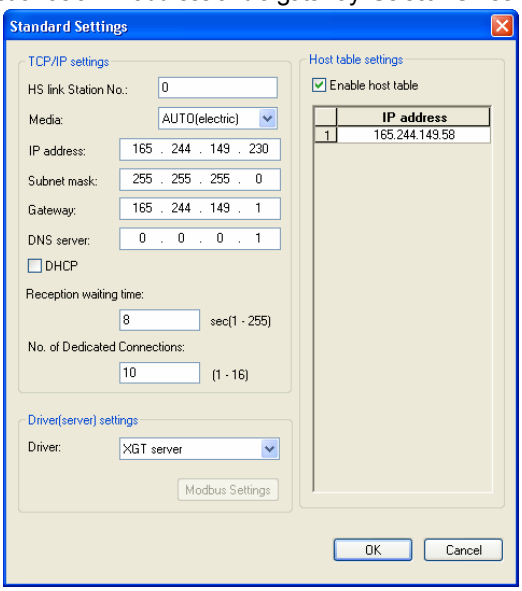
7.3.3 Link method: FEnet

Set up FEnet communication parameters on the XG-PD. (Refer to XGT FEnet operating manual.)



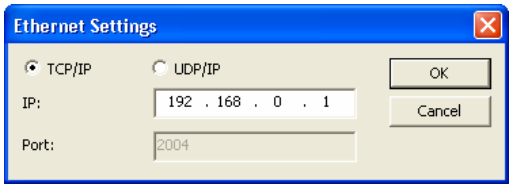
Set up as FEnet for the communication module.

Write communication parameters such as an IP address and a gateway. Select XGT server at the driver setting.



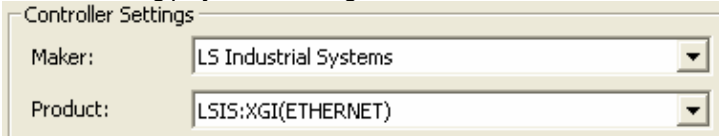
When write is done and PLC is reset, setting is done.

XGT Panel's communication parameter is as below. Select target IP and protocol type.



NOTE

(1) Communication state check
► There are RX, TX LEDs on the Cnet module. These LEDs blink rapidly when communicating normally.
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



7.4 Available Device

Available devices of the XGT Panel are as below:

Area	Size	Bit points	Word data
%IX	32768 point	%IX0.0.0 ~ %IX63.7.63	WORD N/A
%QX	32768 point	%QX0.0.0 ~ %QX63.7.63	WORD N/A
%MX	131072 point	%MX000000 ~ %MX131071	WORD N/A
%WX	65536 point	%WX00000 ~ %WX65535	WORD N/A
%IW	2047 word	Contact point N/A	%IW0.0.0 ~ %IW63.7.3
%QW	2047 word	Contact point N/A	%QW0.0.0 ~ %QW63.7.3
%MW	59999 word	%MW00000.0 ~ %MW131071.15	%MW00000 ~ %MW65535
%WW	65536 word	%WW00000.0 ~ %WW65535.15	%WW00000 ~ %WW65535

NOTE

(1) Notice

► For instructions on using devices and specific information, please refer to the XP-Builder instruction manual.
► Please make sure to use the device within the range.
► Device range may differ according to the CPU module. Refer to each CPU module's instruction manual.

Chapter 8 MITSUBISHI: MELSEC-Q PLC

8.1 PLC List

XGT Panel is able to connect to MELSEC-Q PLC.

PLC	CPU Module	Connection method	Comm. method	Connection Module	Remarks
MELSEC-Q	Q00J, Q00, Q01, Q02, Q02H, Q06H, Q12H, Q25H, Q12PH, 25PH	Link	RS-232C	QJ71C24N QJ71C24N-R2	Cnet
		Link	RS-422/485	QJ71C24N QJ71C24N-R4	Cnet
		Link	Ethernet	QJ71E71-100	FEnet

NOTE

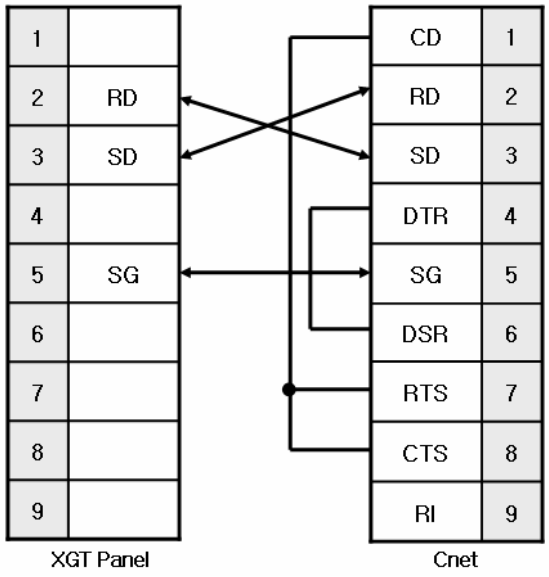
(1) Notice
► CPU module direct connection (loader) is not supported.

(2) Terminology
► Link: executing serial communication with the communication module of the PLC.

8.2 Wiring Diagram

8.2.1 Link method: Cnet

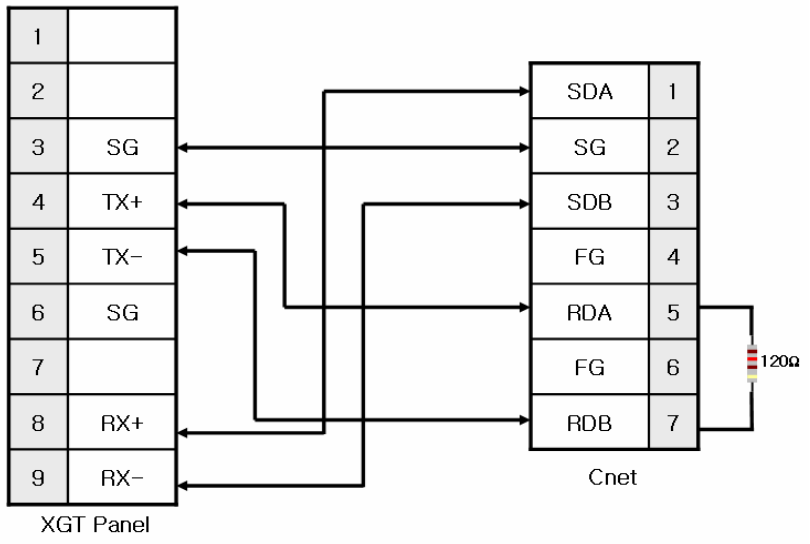
Cnet is specified into RS-232C and RS-422/485 type.
Below is the wiring of RS-232C.



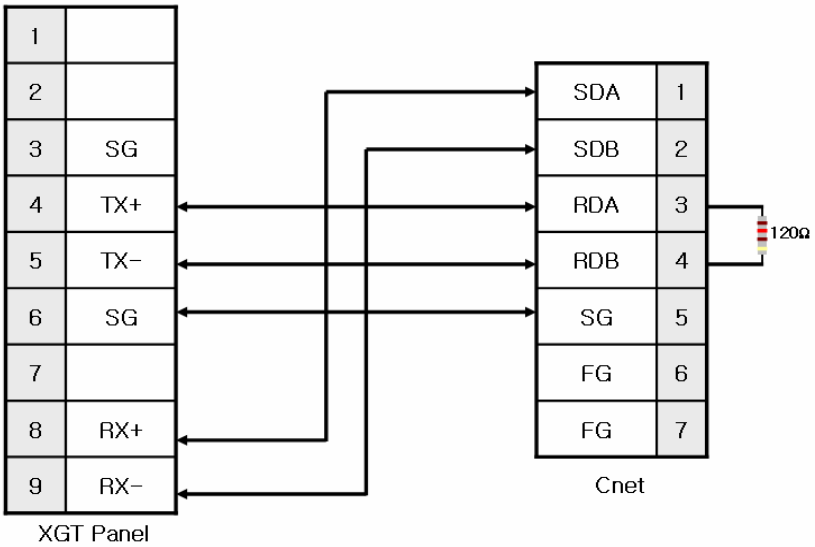
NOTE

1) Notice
► MELSEC-Q Cnet (RS-232C) uses flow control, so it communicates only with the wiring as above.
► Refer to chapter 2 for shield wiring.

QJ71C24N(RS-422) wiring is as below.



QJ71C24N-4R(RS-422) wiring is as below.



NOTE

(1) Notice
► Set terminal switch of the XGT Panel.
► RS-422/485 port of the PLC does not need an extra connector since it's consisted as a terminal block.
► Refer to chapter 2 for shield wiring.

8.2.2 Link method: FEnet

When connecting XGI and Ethernet, the wiring differs according to its configuration. Refer to chapter 2 for configuration and wiring method.

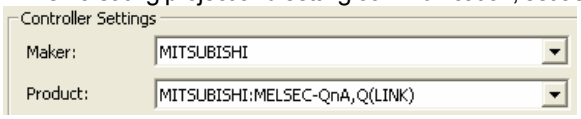
8.3 Communication Setting

8.3.1 Link method: Cnet

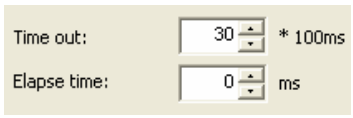
Set Cnet communication parameters of the PLC through GX Developer. Please refer to operating manual of MITSUBISHI.

NOTE

(1) Communication state check
► There are RX, TX LEDs on the Cnet module. These LEDs are blink rapidly when communicating normally.
(2) Cautions when setting PLC
► Refer to operating manual of MITSUBISHI when setting up a PLC.
(3) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



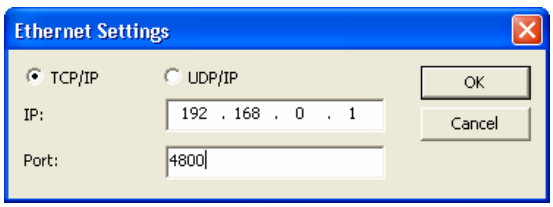
► When configuring RS-422/485 1:N, set transmission stand-by time.

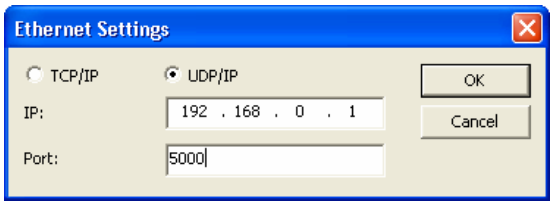


8.3.2 Link method: FEnet

Set up FEnet communication parameters of PLC on the GX Developer. Please refer to operating manual of MITSUBISHI.

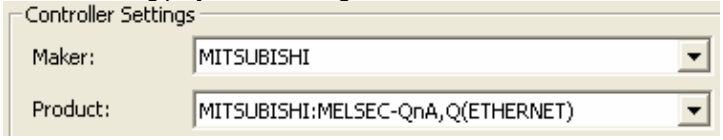
Next figure is communication parameters of XGT Panel. Set up target IP, protocol, and port number on the XP-Builder. A port number differs according to UDP/IP or TCP/IP. Please set up as below.





NOTE

(1) Communication state check
► There are RX, TX LEDs on the FEnet module. These LEDs are blink rapidly when communicating normally.
(2) Cautions when setting XP-Builder
► When creating project and setting communication, set as below.



8.4 Available Device

Available devices of the XGT Panel are as below:

Area	Size	Bit points	Word data	Remark
X	8192 point	X0000 ~ X1FFF	X0000 ~ X1FF0	Hexadecimal
Y	8192 point	Y0000 ~ Y1FFF	Y0000 ~ Y1FF0	Hexadecimal
M	32768 point	M00000 ~ M32767	M00000 ~ M32752	Decimal
L	32768 point	L00000 ~ L32767	L00000 ~ L32752	Decimal
F	32768 point	F00000 ~ F32767	F00000 ~ F32752	Decimal
B	32768 point	B0000 ~ B7FFF	B0000 ~ B7FF0	Hexadecimal
TS(TT)	32768 point	TS00000 ~ TS32767	WORD N/A	Decimal
TC	32768 point	TC00000 ~ TC32767	WORD N/A	Decimal
CT	32768 point	CT00000 ~ CT32767	WORD N/A	Decimal
CC	32768 point	CC00000 ~ CC32767	WORD N/A	Decimal
SM	2048 point	SM0000 ~ SM2047	SM0000 ~ SM2032	Decimal
SS	32768 point	SS00000 ~ SS32767	WORD N/A	Decimal
SC	32768 point	SC00000 ~ SC32767	WORD N/A	Decimal
SD	2047 word	SD0000.0 ~ SD2047.F	SD0000 ~ SD2047	Decimal
SB	2048 point	SB000 ~ SB7FF	SB000 ~ SB7F0	Hexadecimal
V	2048 point	V0000 ~ V2047	V0000 ~ V2032	Decimal
D	32768 word	D00000.0 ~ D32767.F	D00000 ~ D32767	Decimal
SN	32768 word	SN00000.0 ~ SN32767.F	SN00000 ~ SN32767	Decimal
W	32768 word	W0000.0 ~ W7FFF.F	W0000 ~ W7FFF	Hexadecimal
TN	32768 word	TN00000.0 ~ TN32767.F	TN00000 ~ TN32767	Decimal
CN	2048 word	CN00000.0 ~ CN32767.F	CN00000 ~ CN32767	Decimal
SW	2048 word	SW000.0 ~ SW7FF.F	SW000 ~ SW7FF	Hexadecimal
S	32768 point	S00000 ~ S32767	S00000 ~ S32752	Decimal
R	32768 word	D00000.0 ~ D32767.F	D00000 ~ D32767	Decimal
ZR	1042432 word	-	-	-

NOTE

(1) Notice

► For instructions on using devices and specific information, please refer to the XP-Builder instruction manual.

► Please make sure to use the device within the range.

► Device range may differ according to the CPU module. Refer to each CPU module's instruction manual.

Chapter 9 SYMBOL: Bar Code Scanner

9.1 Bar Code Scanner List

XGT Panel is able to connect to bar code scanner of SYMBOL as below:

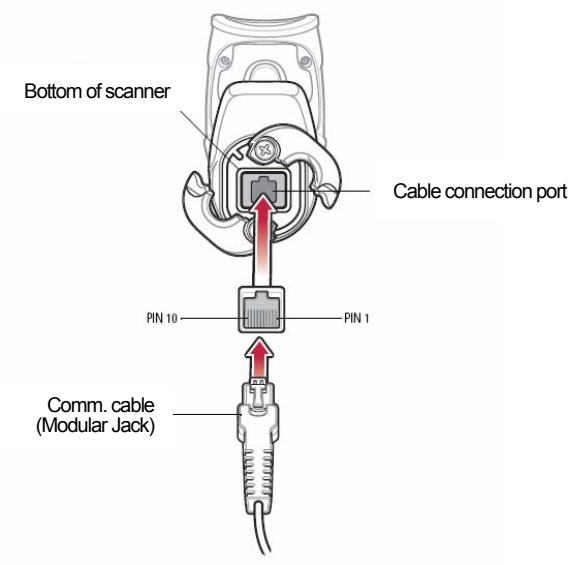
Bar code series	Communication method
LS 2208AP	RS-232C

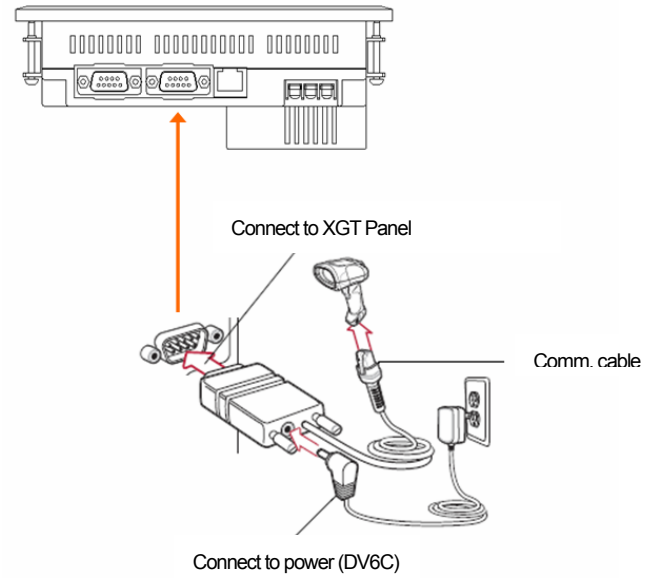
NOTE

(1) Notice
► XGT Panel supports RS-232C interface excluding USB interface.

9.2 Wiring Diagram

Bar code scanner of SYMBOL offers a RS-232C cable.
Connect the cable to RS-232C port of the XGT Panel.





NOTE

(1) Notice
► You should connect power for the bar code.
► Refer to manual of scanner for matters that require attention.

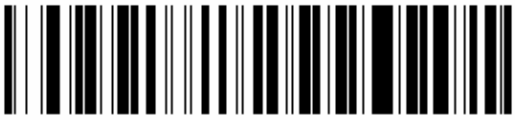
9.3 Communication Setting

Set up communication setting of the scanner as shown below.
Scan below bar codes to set up.

Set up as Standard RS-232 type.

*Standard RS-232

Set up a baud rate.



*Baud Rate 9600

Baud Rate 19,200

Baud Rate 38,400

Set up a parity bit.

*None

Odd

Even

Set up a stop bit.

*1 Stop Bit

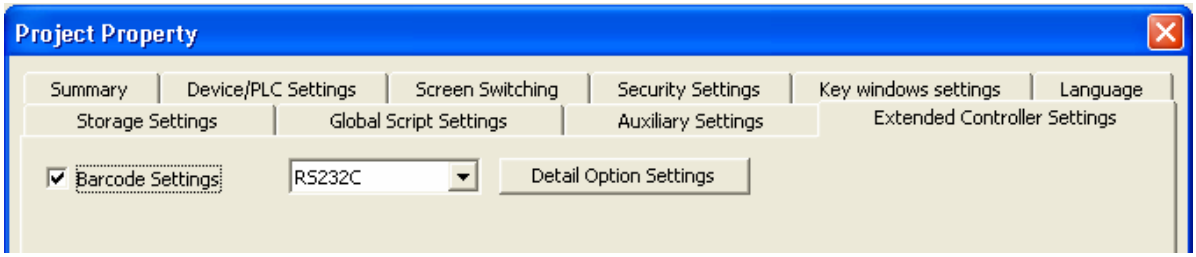
2 Stop Bits

Set up a data bit.

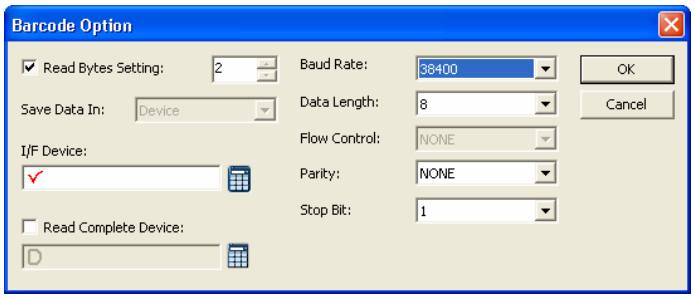
7-Bit

*8-Bit

Set up the communication of XGT Panel through XP-Builder. (Refer to operating manual of XP-Builder)
Select 'Use bar code' at the project property of the XP-Builder.



You can set up communication parameters as below through the Barcode Option setting of detail connection.
Set up communication parameters as like as the scanner.



You can communicate with the bar code scanner by transmitting an image file which is drawn with this setting to the XGT Panel.

NOTE

(1) Notice
- ► There is no need to set up a communication setting every time. Set up once and operate it.
- ► Details are written in the operating manual of the scanner.
- ► If communication parameters of scanner and XGT Panel are different, it can't operate normally.

Warranty

1. Warranty Period
The product you purchased will be guaranteed for 18 months from the date of manufacturing.

2. Scope of Warranty
Any trouble or defect occurring for the above-mentioned period will be partially replaced or repaired. However, please note the following cases will be excluded from the scope of warranty.

Any trouble attributable to unreasonable condition, environment or handling otherwise specified in the manual,
Any trouble attributable to others' products,
If the product is modified or repaired in any other place not designated by the company,
Due to unintended purposes
Owing to the reasons unexpected at the level of the contemporary science and technology when delivered.
Not attributable to the company; for instance, natural disasters or fire

3. Since the above warranty is limited to HMI unit only, make sure to use the product considering the safety for system configuration or applications.

Environmental Policy

LS Industrial Systems Co.,Ltd supports and observes the environmental policy as below.

Environmental Management

LS Industrial Systems considers the environmental preservation as the preferential management subject and every staff of LS Industrial Systems use the reasonable endeavors for the pleasurably environmental preservation of the earth.

About Disposal

LS Industrial Systems' PLC unit is designed to protect the environment. For the disposal, separate aluminum, iron and synthetic resin (cover) from the product as they are reusable.