TABLE OF COTENTS

PROCLAMATION.....II

ATTENTIONS.....III

CHAPTER 1 PRODUCT INTRODUCTION.....1

1.1. PRODUCT APPEARANCE.....1
1.2. MODEL DESCRIPTION.....3
1.3. PRODUCT SPECIFICATIONS.....4

CHAPTER 2 COMMUNICATION PORTS.....7

2.1. CONFIGURATIONS.....7
2.1.1. Functions.....*7*
2.1.2. Pin Definition.....*8*
2.1.3. Communications Support.....*9*
2.2. HMI COMMUNICATIONS SETUP.....34
2.3. MANY TO ONE.....35

CHAPTER 3 SYSTEM CONFIGURATIONS.....38

3.1. SETTING DESCRIPTION.....38
3.2. SYSTEM SETTINGS.....39
3.4. COMMUNICATION SETUP.....41
3.5. LANGUAGE.....44
3.6. PASSWORD EDITING.....45
3.7. INTERFACE TEST.....46
3.8. DATA TRANSFER METHOD.....48
3.9. SPECIAL FUNCTIONS.....49
3.10. EXECUTION.....51
3.11. SYSTEM INFORMATION.....51
3.12. OPERATION HISTORY.....52

Proclamation

Thank you for purchasing Shihlin Electric's Human Machine Interface (HMI). Please follow the order of the chapters to read the instructions and operate the device.

A. If users apply the HMI to a non-industrial controlled product, Shihlin Electric shall bear no responsibility on any damage whatsoever.

B. The software will be updated irregularly to add in new features. If users find the functions are somewhat different from the manual contents, please go to Shihlin Electric's website to download the latest information.

C. Even if the information or the HMI implies intangible or intellectual property rights of Shihlin Electric or third parties, Shihlin Electric does not guarantee or grant any user and/or third parties the use of the HMI.

D. Although this manual has been proofread many times, imperfection is inevitable. We look forward to your opinions. If you have any questions or suggestions, please contact us and we'll very appreciate it.

Attentions

To properly and safely operate this device, please read this manual and relevant guide carefully to fully understand the features of the device and correct way of using it.

A. Touch panel switch should not be used under ON / OFF wire abnormalities that may result in personnel injury or equipment damage, even lead to serious incidents.

B. Output signal may lead to serious incidents, thus must be equipped with monitoring circuits, such as limiters; and the system must be designed to have reset mechanism, so that conduction can be controlled by means other than the HMI, to prevent incidents resulting from malfunctions or failure of the touch panel switch.

C. The control switch of the HMI should not be used as an emergency stop switch for a device. To the health and safety conerns, the labor requires all industrial machinery system must be equipped with a mechanical, manually operated emergency stop switch; and for other types of systems, similar mechanical switches must also be provided to ensure safe operations.

D. Please do not shut down you computer, close the editor software or switch off the HMI, when a program is being edited or a HMI project is being transmitted. Doing so may crash the project program.

E. Do not use a document editing software or any other types of editing software to modify the project structure of this product. Doing so may crash the project program and result in disabled execution.

F. Do not remove the external memory module when the HMI is running. Doing so may corrupt the files inside the external memory device.

This manual is divided into three sections. Screen layout illustrations are provided, allowing you to quickly learn the functions of the editing screens after reading the manual.

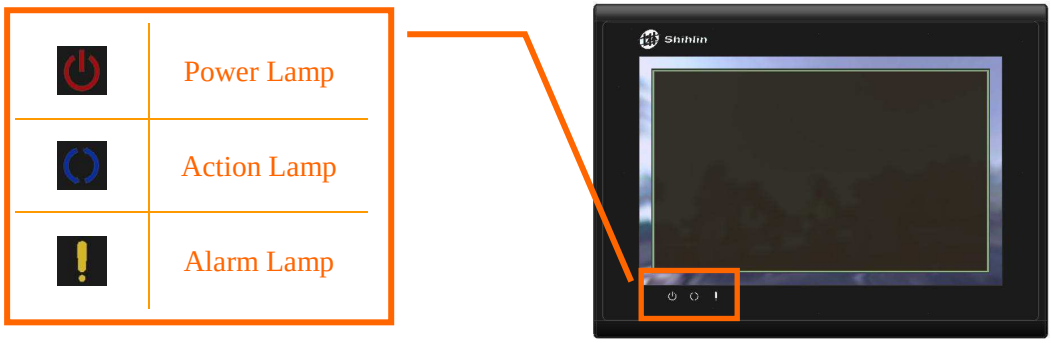
Chapter 1 Product Introduction

1.1. Product Appearance

The following Figure 1-1-1 shows the control panel of Shihlin Electric's HMI EC207.

(a)

(b)



(c)

Fig.1-1-1 Product Appearance (a) 3D Diagram (b) Side View (c) Front View

The following Figure 1-1-2 shows the schematic diagram of the hardware structure of Shihlin Electric EC207, including USB port,

Ethernet port, COM port as well as USB Host, audio output port, memory slot and a 24V power connector.

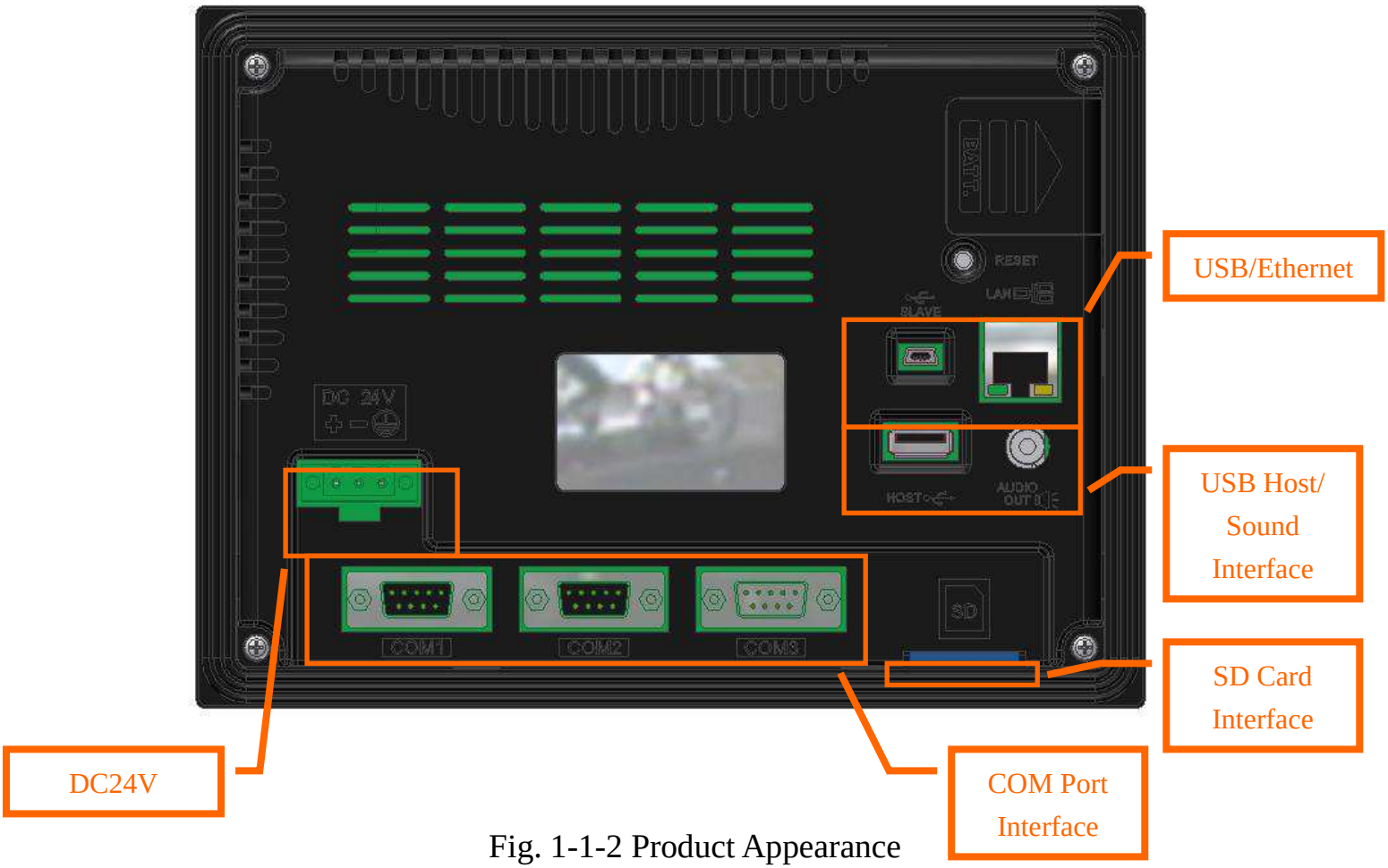


Fig. 1-1-2 Product Appearance

1.2. Model Description

The models and corresponding features of Shihlin Electric's HMI are listed in the following Table 1-2-1.

Table 1-2-1 Mode Codes (a) Model Description (b) Corresponding Types

EC2 XX - CT - XX
(1) (2) (3) (4)

Name	Description
(1)Model Name	**EC2**：EC200 Series
(2)Panel Size	**07**：7 inches **10**：10.2 inches
(3)Monitor Type	**C**：Color **T**：TFT LCD
(4)Model Type	**00**：Basic Type **11**：Multi-functional Network

(a)

Model / Support	00 Basic Model	11 Multi-functional Network
COM1	○	○
COM2	○	○
COM3	○	○
USB	○	○
Ethernet	╳	○
Memory Card	○	○

(b)

1.3. Product Specifications

Table 1-3-1 Hardware Specifications

Parameter \ Model			EC207-CT-00	EC207-CT-11	EC210-CT-00	EC210-CT-11
Processor			32Bit RISC 400MHz			
Display Specifications	Color Display		over 65,000 colors			
	Monitor		TFT LCD			
	Screen Size(inches)		7		10.2	
	Resolution(DPI)		800×480		800×480	
	Brightness(cd/m2)		300		350	
	Contrast		500:1		300:1	
	Viewing Angel Range		50/70/70/70 (T/B/R/L)		45/65/65/65 (T/B/R/L)	
	Backlight		LED			
	Backlight Life		Under room temperature of 25℃, the half-life is greater than 30,000 hours.			
Touch Panel Specifications	Touch Panel		4-wire resistive			
	Touch Resolution		Over 2mm			
	Life		Over a million times			
	Hardness of Surface		4H			
Battery Life			Two years from manufacturing date			
Communication Ports	Serial Ports	COM1	RS-232/422/485			
		COM2	RS-232/422/485			
		COM3	RS-232			
	Ethernet		None	10/100MB	None	10/100MB
	USB	Host	USB1.1 x 1			
		Client	USB2.0 x 1			
Memory	Internal	ROM	Nand flash 64MB			
		SDRAM	64MB DDR2			
		Backup SRAM	128KB			
	External Interface		SD Card (support up to 16G)			

Table 1-3-1 Hardware Specifications (continued)

Parameters \ Model		EC207-CT-00	EC207-CT-11	EC210-CT-00	EC210-CT-11
Environment Specifications	Operating Ambient Temp.	0～45℃（avoid freezing）			
	Storage Ambient Temp.	-20～60℃（avoid freezing）			
	Operating Ambient Humidity	10%～85%RH（non-condensing environment）			
	Environmental Tolerance	Non-corrosive, non-conductive environment			
	Vibration Resistance	IEC61131-2 Compliant，Vibration Frequency：10~150Hz，Acceleration：9.8m/s2(1.0G)，X，Y，Z directions, each 12 times			
	Noise Resistance	In compliance with IEC 61000-6-2：2001			
Rated Voltage		DC 24V±15%			
Installation Conditions	Water Resistance	Front Cover IP65（dust and drip-proof design）			
	Cooling Method	Natural Air Cooling			
	Exterior Dimensions W×H×D(mm)	200x146x42.5		271x213x50	
	Hole-cutting Size (mm)	192x138		259 x 201	
	Weight (kg)	0.85		1.4	
Certification Specification		CE、FCC、BSMI			

NOTE

- This is a Class-A information product, which can cause radio frequency interference when used in a living environment. Under such a circumstance, take appropriate measures.

1.4. Wiring Description

Use the included power supply terminal. Loosen the screws of the power supply terminal, and then plug the power cord into the power supply terminal in accordance with the instructions shown on the power input on the back of the HMI. Use a straight screwdriver to tighten the screws of the power terminal, and finally plug the power supply terminal into the power input of the HMI. This is shown in Figure 1-5-1.

(a) (b)

Fig. 1-5-1 Power Supply Wiring (a) Rear View (b) Power Supply Terminal

NOTE

- Before plugging or un-plugging the power supply terminal, be sure to cut off the power source first to avoid possible damage to the communication electronics of the HMI.
- Users are advised to add Core on the input end of the power cord.

Chapter 2 Communication Ports

2.1. Configurations

2.1.1. Functions

Shihlin Electric's HMI series provides multiple communication ports, whose mechanisms are described in the following Table 2-1-1.

Table 2-1-1 Functions of Communication Ports

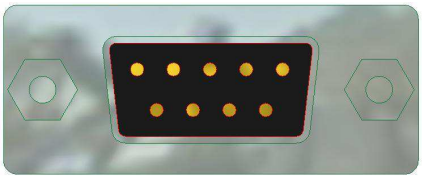
Mechanism	Description
Data Transmission	Able to transmit screen data via Ethernet and USB, and provide By Pass functions to transmit programs to PLC via the HMI's COM port.
Multiple Communication Ports	COM1/COM2/COM3、USB and Ethernet
Multi-brands Support	Support multiple brands of PLC models, Shihlin inverter, thermostat, and provide MODBUZS communication.

NOTE

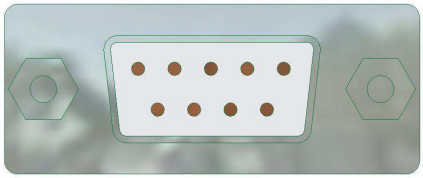
- When the MODBUS communication is selected, it can connect up to 31 units, and the station numbers are set to 1~31.

2.1.2. Pin Definition

COM port diagram is shown in the following Figure 4-1-2. COM1/COM2 ports are 9-Pin female connectors, and COM3 port is a 9-Pin male connector. The pin definitions are listed in the following Table in 2-1-3.



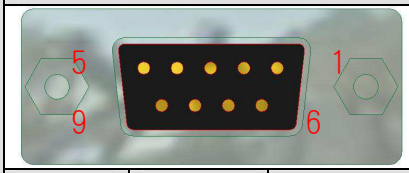
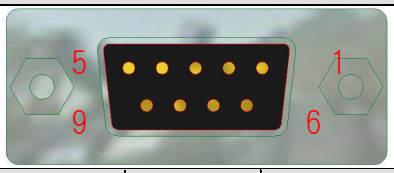
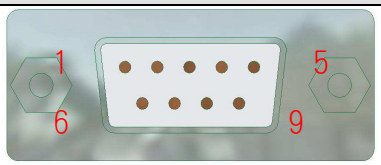
Female Connector



Male Connector

Fig. 2-1-2 Communication Port Diagram

Table 2-1-3 Pin Definitions

PIN	COM1			COM2			COM3
							
	RS-232	**RS-422**	**RS-485**	**RS-232**	**RS-422**	**RS-485**	**RS-232**
1	-	TX+	A	-	TX+	A	-
2	TX	-	-	TX	-	-	TX
3	RX			RX			RX
4	-	RX+		-	RX+		-
5	GND			GND			GND
6	-	RX-	-	-	RX-	-	-
7	RTS	-		-	-		RTS
8	CTS			-			CTS
9	-	TX-	B	-	TX-	B	-

2.1.3. Communications Support

The following Table 2-1-4 lists the brands of products supported by the ports.

Table 2-1-4 List of Supported Devices

COM	Brands	Interface
COM1 COM2 COM3	BARCODE	RS-232
	DELTA-DVP	RS-232/RS-422
	FACON-FB	RS-232/RS-422
	INVERTER	RS-422/RS-485
	MELSEC-A	RS-232(COM1)(COM3)
	MELSEC-FX	RS-422
	MELSEC-Q	RS-232/RS-422
	MELSEC-QnA	RS-422
	MODBUS	RS-485
	OMRON	RS-232
	Panasonic-FP	RS-232
	THERMO_CTRL	RS-485
	VIGOR-V	RS-232/RS-422
	SIEMENS	RS-232/RS-422
Ethernet	MELSEC	FX3U-ENET
		QJ71E71-100

The following Table 2-1-5 lists the brands of PLC models supported by the HMI.

Table 2-1-5 Lists of Supported Models

Brands	Models		
Mitsubishi	FX2	Q01	A1SH
	FX-0N	Q02	A2SH
	FX-1N	Q06H	A2US
	FX-2N	Q2AS	
	FX-3U	Q01-NET	
	FX-3G	Q02-NET	
	FX-3U-NET	QJ71E71-100	
Delta-DVP	SS	ES	EH
Facon-FB	FBs		
OMRON	CP1H	CPM2AH	
	CPM1A	CPM2C	CJ1M
VIGOR-V	VB0	VB1	VB2
	VH		
Panasonic-FP	FP-X	FP0	FP2
	FP-e	FPE	
SIEMENS	S7-200	S7-300	

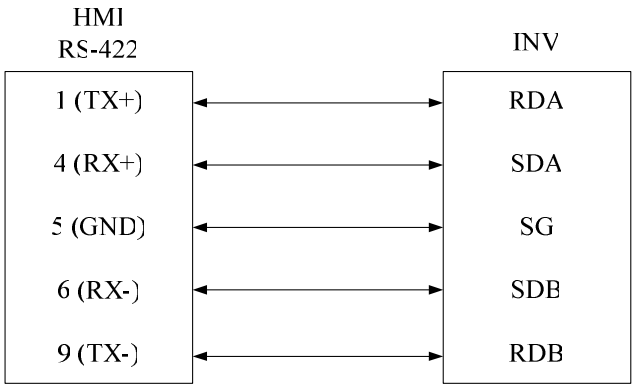
NOTE

- The HMI provides simultaneous uses of the 4 communication ports.

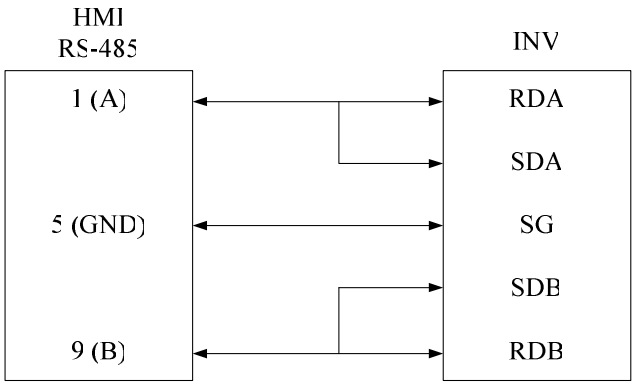
2.1.4. PLC Connections

a. Shihlin Inverter (SE/SH/SL/SS)

Configuration of the RS-422/RS-485 connection is shown in the following Figure 2-1-6.



(a)



(b)

Fig. 2-1-6 Invert Connection (a) RS-422 (b) RS-485

NOTE

- When the INVERTER connection is selected, it can connect up to 16 units, and the station numbers are set to 1~16.
- For connection to the SH inverter, SG terminal needs shielded grounding.
- The devices IIW and IDW of inverter are write only, IIR and IDR are read only. The invalid actions such as reading value from the write only device or writing value to read only device will not be taken on HMI.

b. Shihlin Temperature Controller

Configuration of the RS-485 connection is shown in the following Figure 2-1-7.

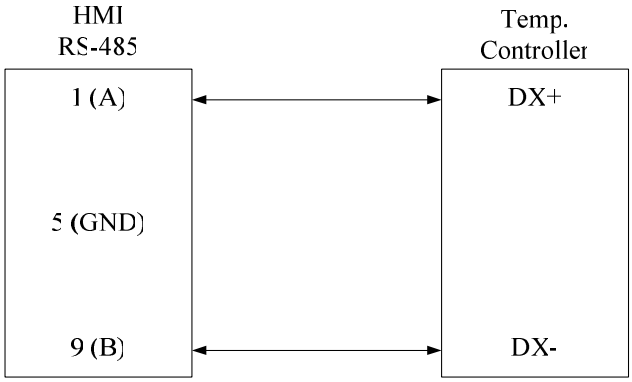


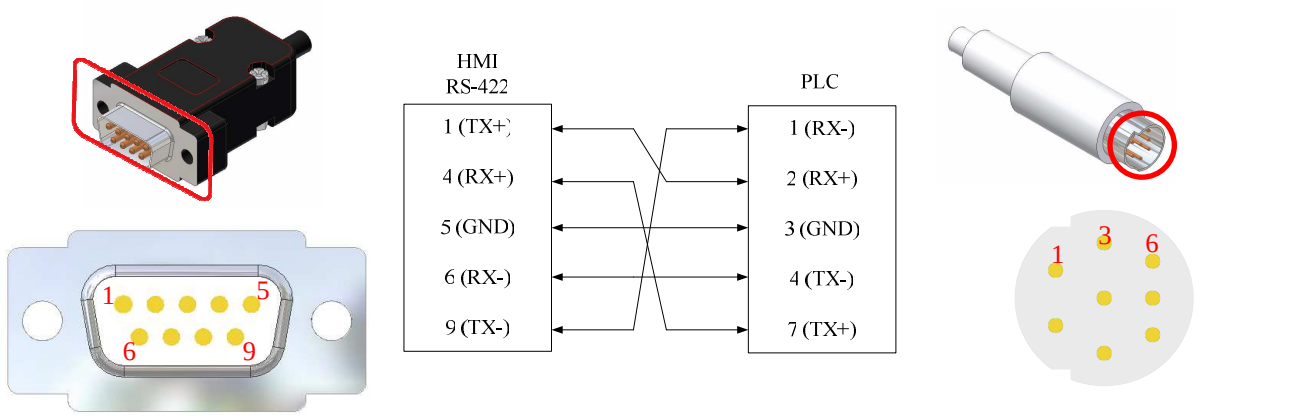
Fig. 2-1-7 Temperature Connection

NOTE

- When the THERMO_CTRL connection is selected, it can connect up to 31 units, and the station numbers are set to 1~31.

c. Mitsubishi FX Series

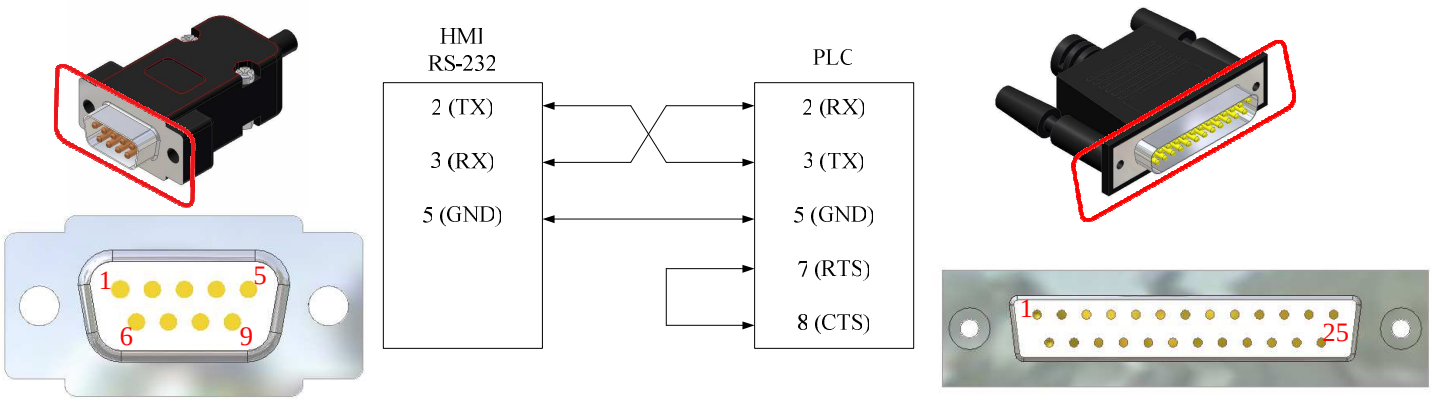
Configuration of the RS-422 connection is shown in the following Figure 2-1-8.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-8 RS-422 Communications Wiring

Configuration of the RS-232 and FX2 connection is shown in the following Figure 2-1-9.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

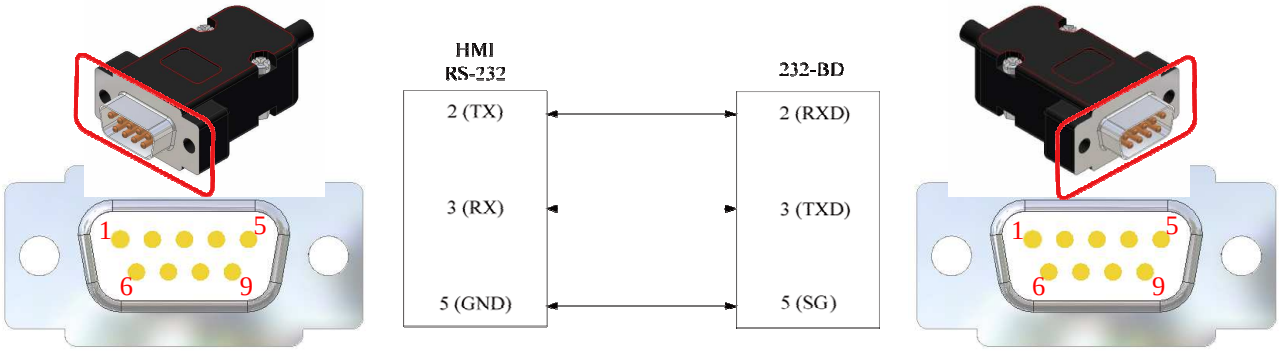
Fig. 2-1-9 FX2 Connection

NOTE

- Use the AX-232AW-S data transfer cable for the connection.

d. Mitsubishi FX Series – Computer Link

When the Mitsubishi FX Series is connected with an external 232-BD module, wire the RS-232 connection as shown in Figure 2-1-10.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-10 RS-232 Communications Wiring

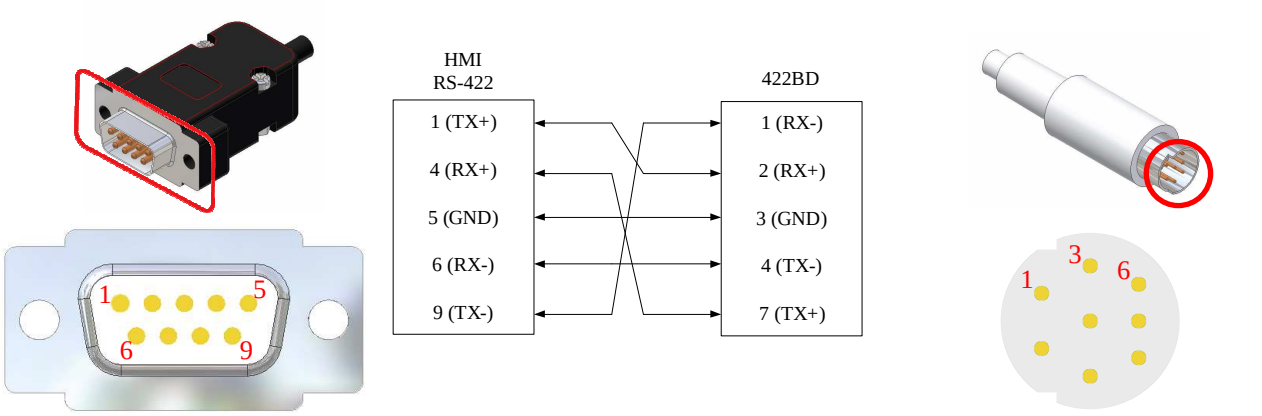
EX

The following table 2-1-11 lists the FX series external 232-BD module serial setting example, the actual set still mainly user needs.

Table 2-1-11 Lists of 232-BD module serial setting

BD module serial setting	Baud Rate(Bps)	Parity	Data Length	Stop Bit	CR/LF Select	PLC D8120 Device
232-BD(Type1)	9600	Even	7	1	None	E886(HEX)
232-BD(Type4)					CR&LF	6886(HEX)

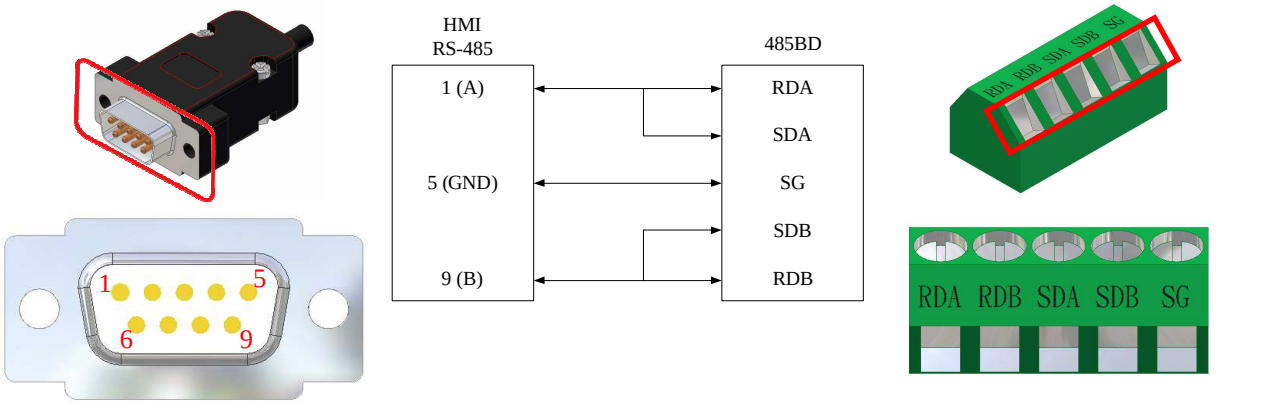
When the Mitsubishi FX Series is connected with an external 422-BD module, wire the RS-422 connection as shown in Figure 2-1-12.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-12 RS-422 Communications Wiring

When the Mitsubishi FX Series is connected with an external 485-BD module, wire the RS-485 connection as shown in Figure 2-1-13.

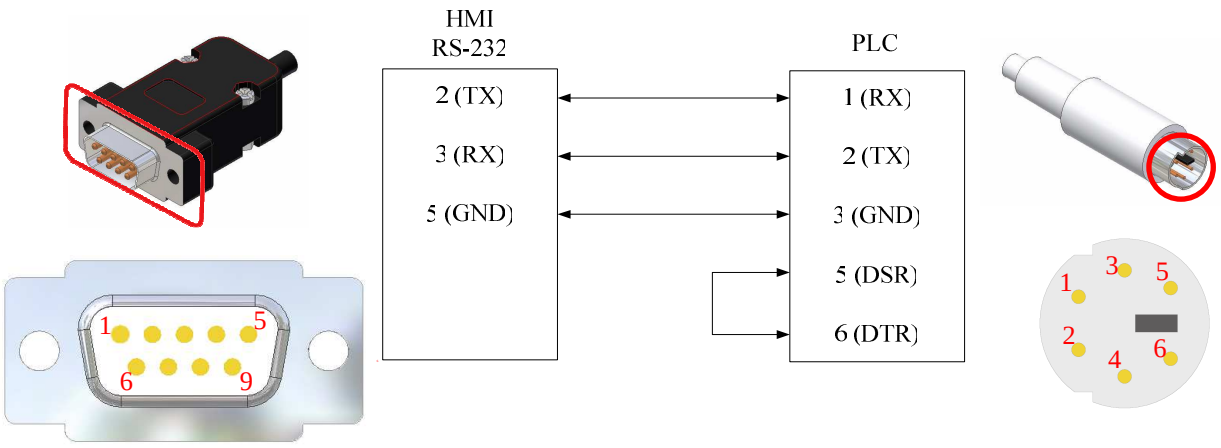


HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-13 RS-485 Communications Wiring

e. Mitsubishi Q Series

Configuration for the RS-232 connection is shown in the following Figure 2-1-14.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-14 Q Series Connection

NOTE

- Setting of the PLC software serial parameters: configure to use serial communication, select the transmission speed, and set RUN to write mode, as shown in Figure 2-1-15.

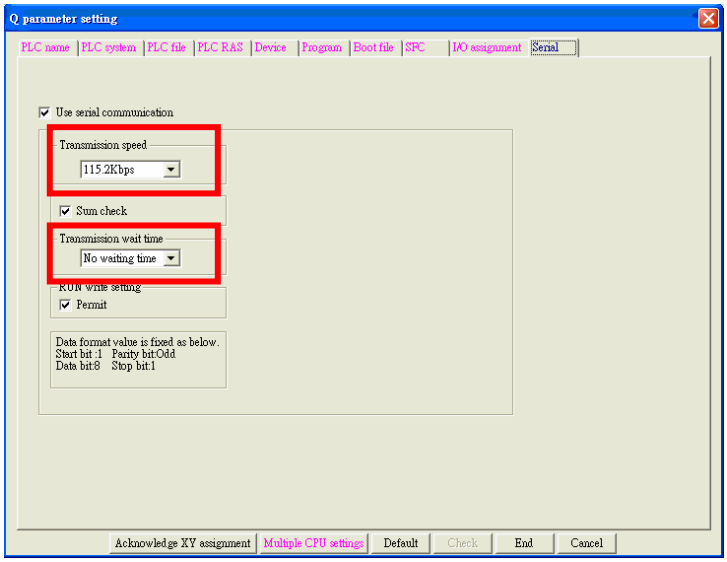


Fig. 2-1-15 Setting Parameters

f. Mitsubishi Q Series – Computer Link

When the Mitsubishi Q Series is connected with an external QJ71C24 expansion module, wire the RS-232 connection as shown in Figure 2-1-16.

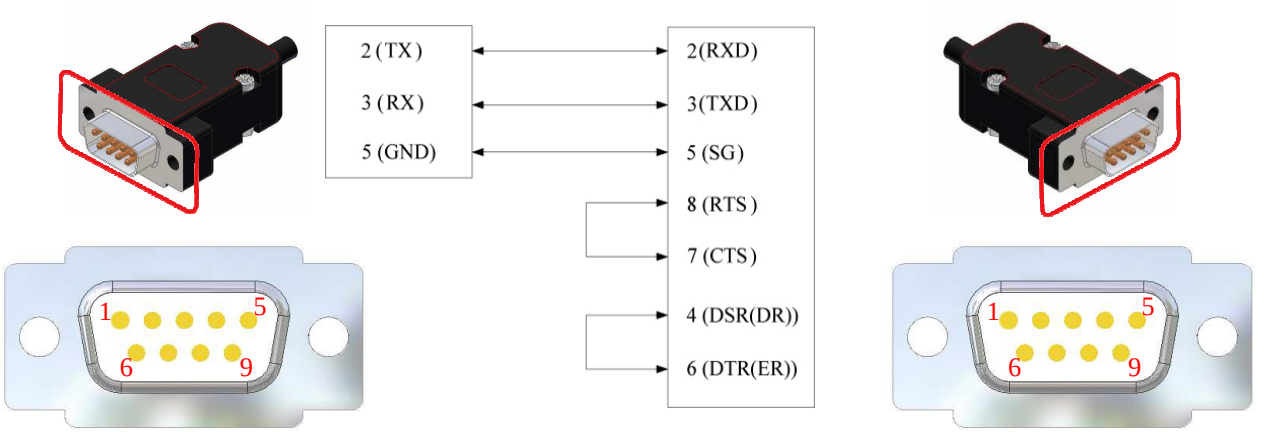


Fig. 2-1-16 RS-232 Communications Wiring

Configuration of the RS-422 connection is shown in Figure 2-1-17.

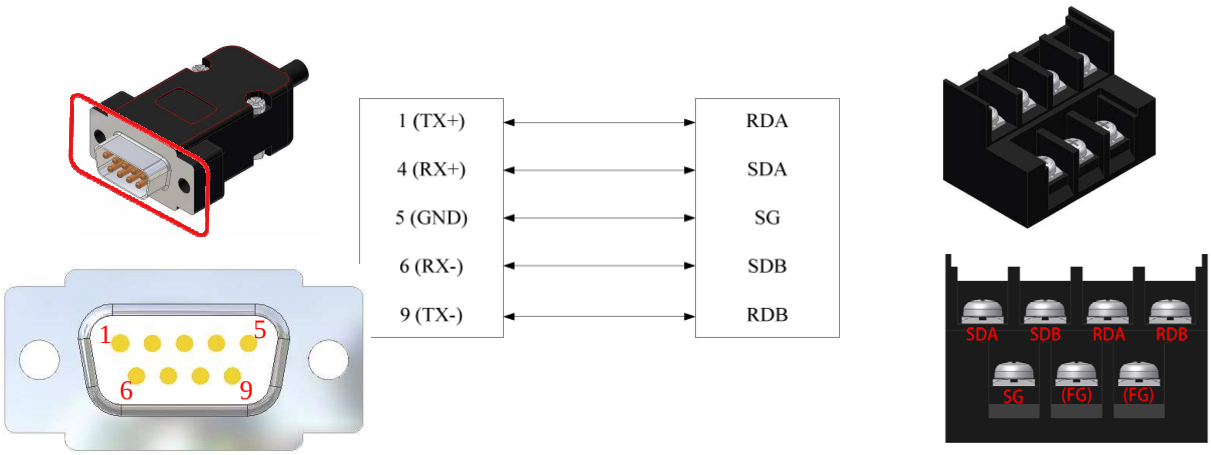
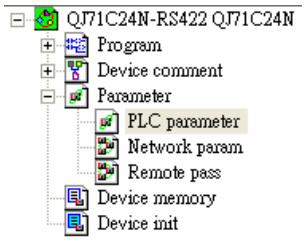
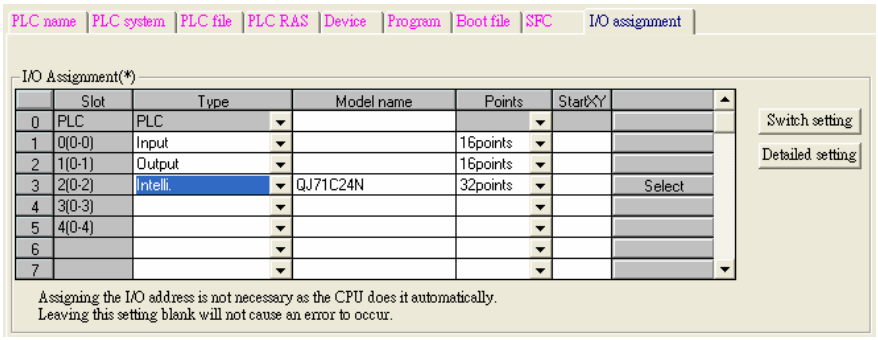


Fig. 2-1-17 RS-422 Communications Wiring

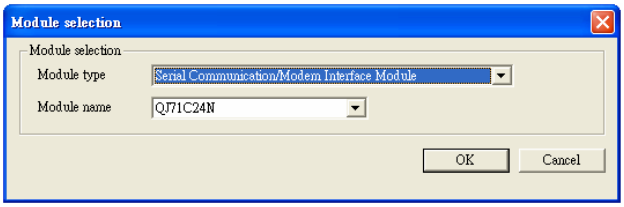
To configure the communication settings for the Mitsubishi Q serie to be connected with an external QJ71C24 expansion module, execute the GX Developer software, and follow the steps shown below.

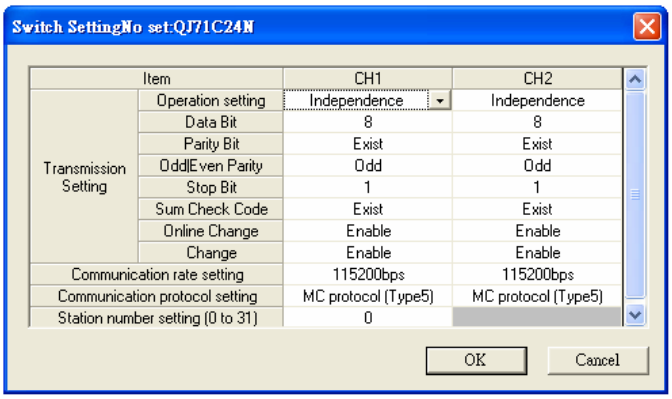
Step 1：Select the PLC parameters, and set the expansion model in the configuration column, then click the “Select” button to start the communication setting.





Step 2：After the model is selected, set up the communication configuration.





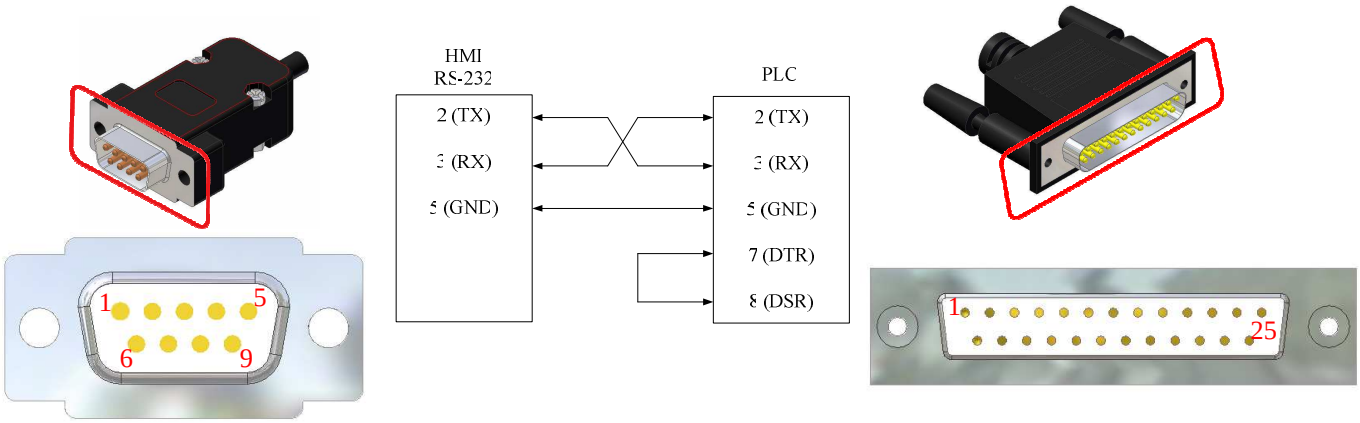
Communication Setting	Baud rate (Bps)	Parity	Data bits	Stop bit	Protocol
CH1(RS-232)	115200	Odd	8	1	MC protocol (Type5)
CH2(RS-422)					

NOTE

- For configuration details of the Mitsubishi Q Series expansion module, please refer to Mitsubishi PLC manual.

g. Mitsubishi QnA Series

Configuration for the RS-232 connection is shown in Figure 2-1-18.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

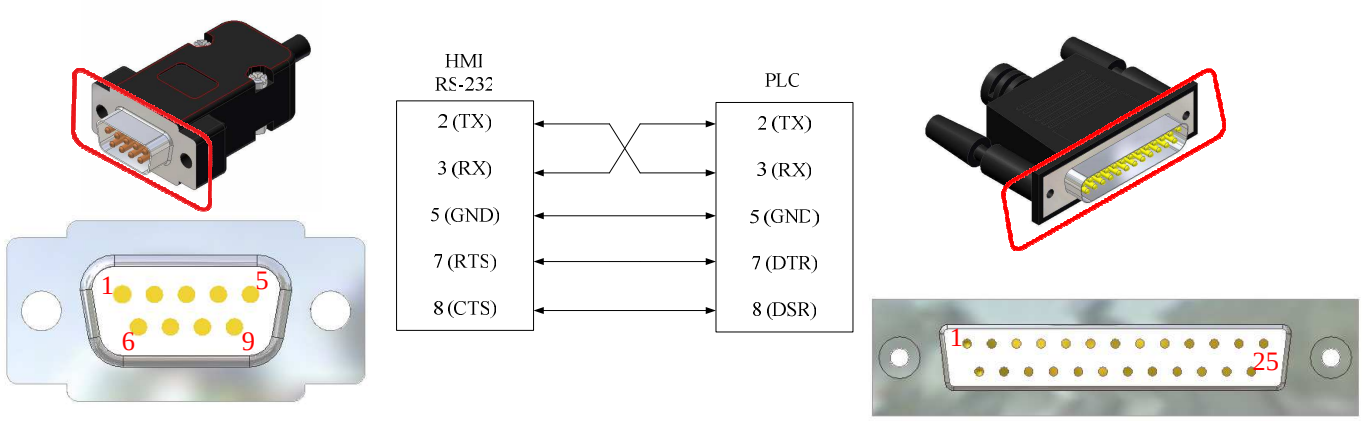
Fig. 2-1-18 QnA Series Connection

NOTE

- Use AX-232AW-S data transmission cable to connect.

h. Mitsubishi A Series

Configuration for the RS-232 connection is shown in Figure 2-1-19.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

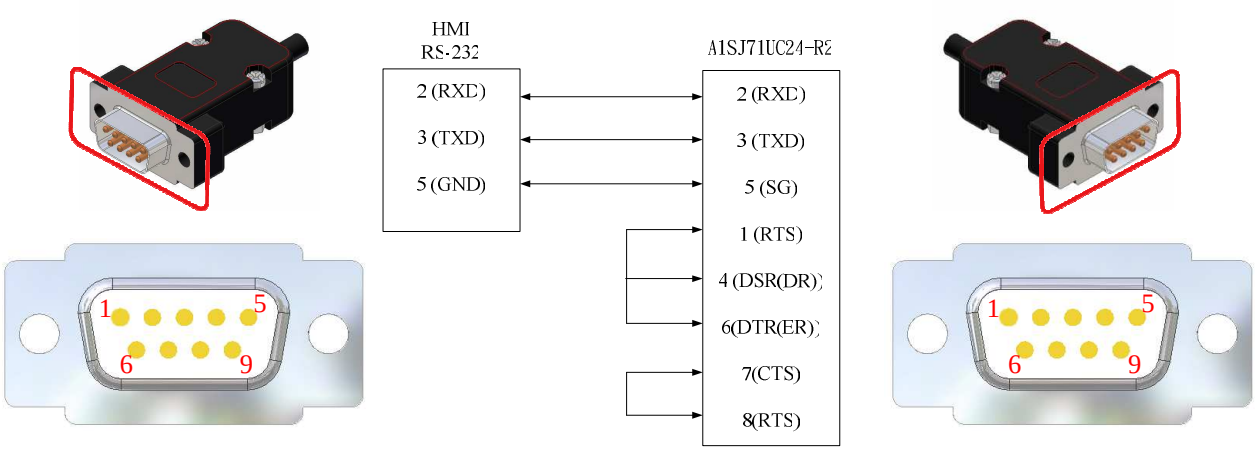
Fig. 2-1-19 A Series Connection

NOTE

- Use AX-232AW-S data transmission cable for the connection.

i. Mitsubishi A Series – Computer Link

When the Mitsubishi A Series is connected with an A1SJ71UC24-R2 expansion module, wire the RS-232 connection as shown in Figure 2-1-20.

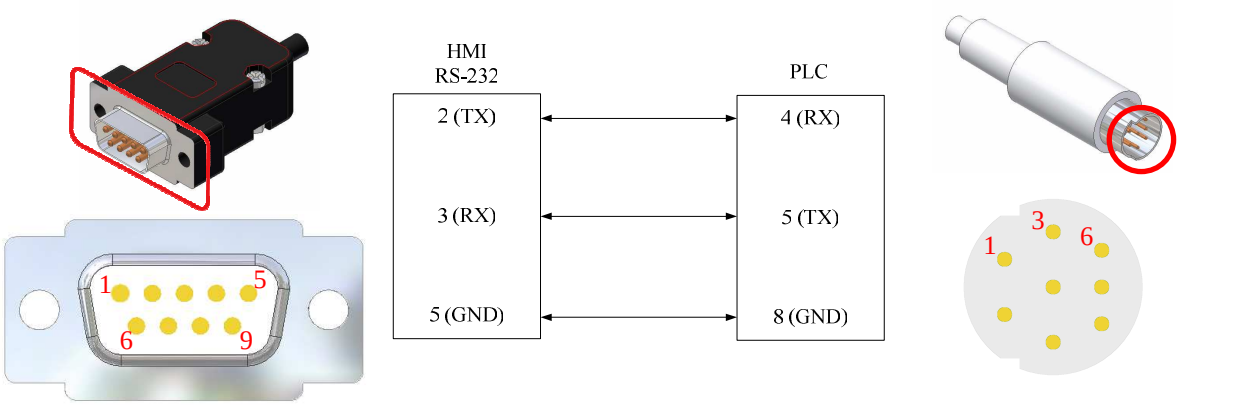


HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-20 Connection with A1SJ71UC24-R2 expansion module

j. Delta DVP Series

Configuration for the RS-232 connection is shown in Figure 2-1-21.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-21 Delta DVP Connection

NOTE

- The PLC station internal number is 1 by default, so the component of the edit screen should have the station number set to 1 before the communication can begin. This is shown in Figure 2-1-22.

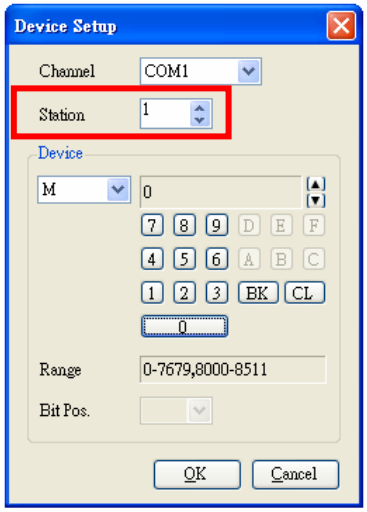
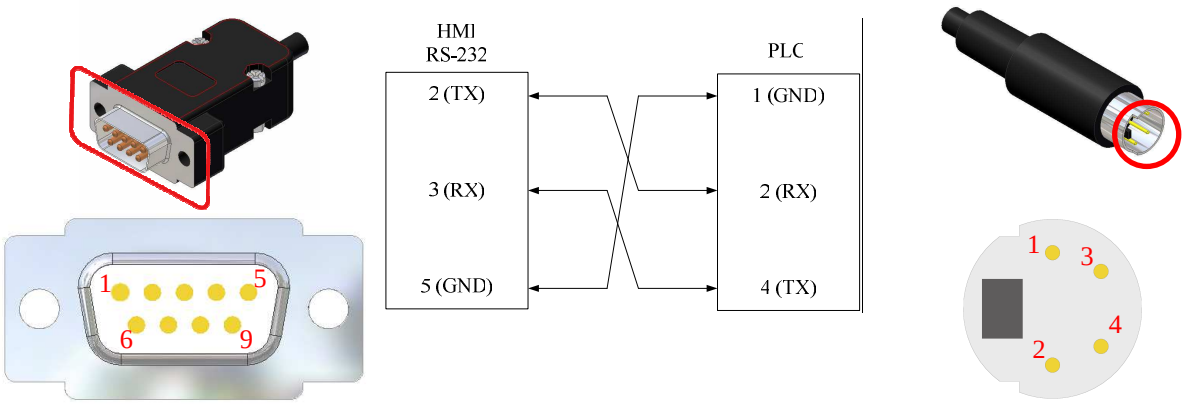


Fig. 2-1-22 Station Number Setup

- Use DVPACAB2A30 data transmission cable for the connection.

k. Fatek FB Series

Configuration for the RS-232 connection is shown in Figure 2-1-23.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-23 Fatek FB Connection

NOTE

- The PLC station internal number is 1 by default, so the component of the edit screen should have the station number set to 1 before the communication can begin. This is shown in Figure 2-1-24.

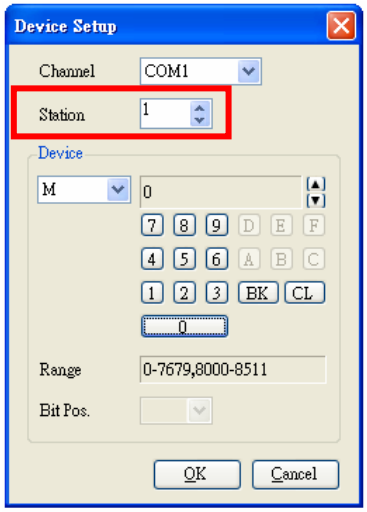


Fig. 2-1-24 Station Number Setup

- Use FBs-232P0-9M data transmission cable for the connection.

l. OMRON Series

Configuration for the RS-232 connection with CP1H and CP1L is shown in Figure 2-1-25.

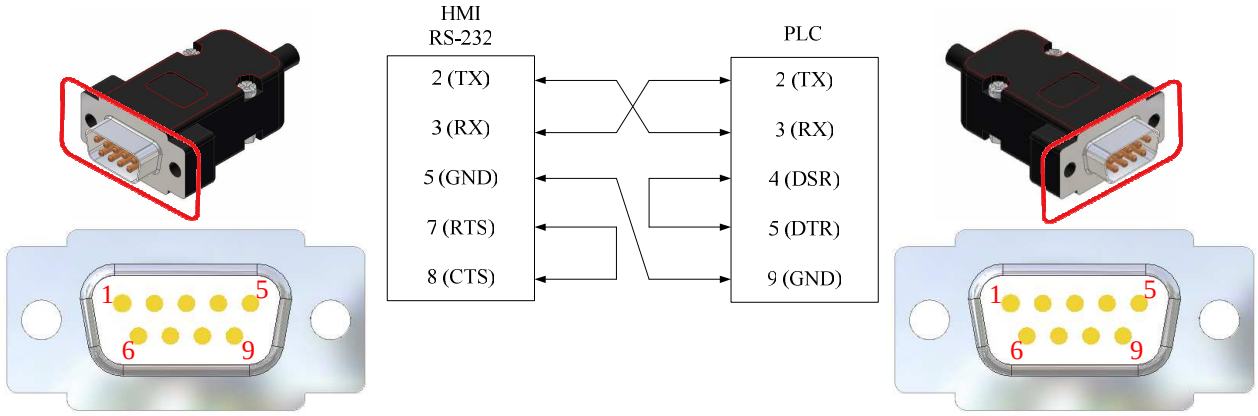


Fig. 2-1-25 OMRON Series Connection

Configuration for the RS-232 connection with CJ1M、CQM1H and CPM2AH is shown in Figure 2-1-26.

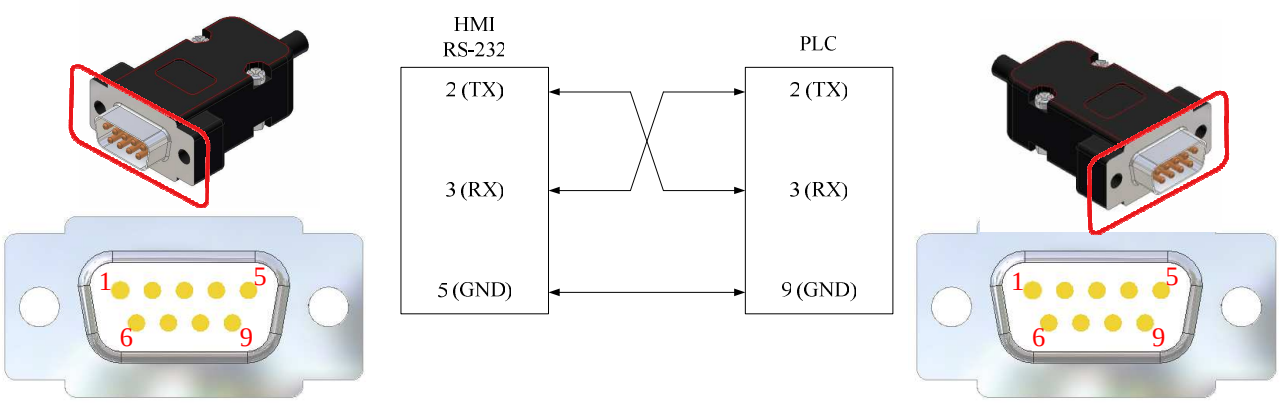
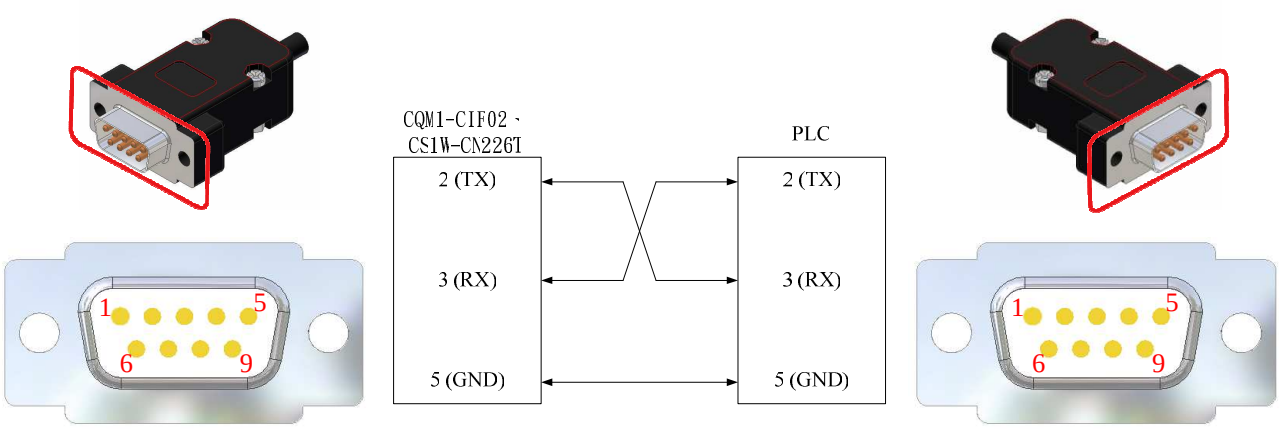


Fig. 2-1-26 OMRON Series Connection

The CPM1A and CPM2C models have no RS-232 connectors, so they need adaptor cables. The applicable adaptor cables are shown in the following Table 2-1-27. The communications wiring is shown in Figure 2-1-28.

Table 2-1-27

PLC Model	Adaptor Cable Model
CPM1A	CQM1-CIF02
CPM2C	CS1W-CN226T

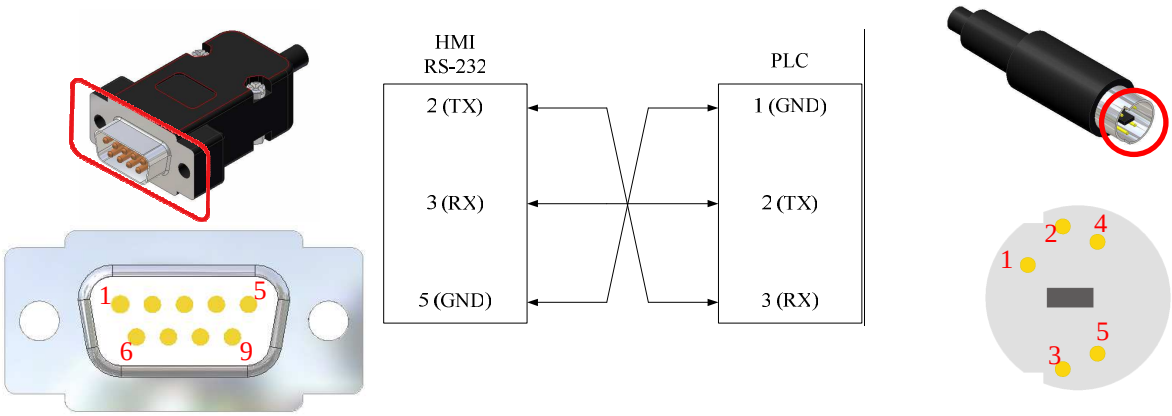


HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-28 OMRON Series Connection

m. Panasonic Series

Configuration for the RS-232 connection is shown in Figure 2-1-29.

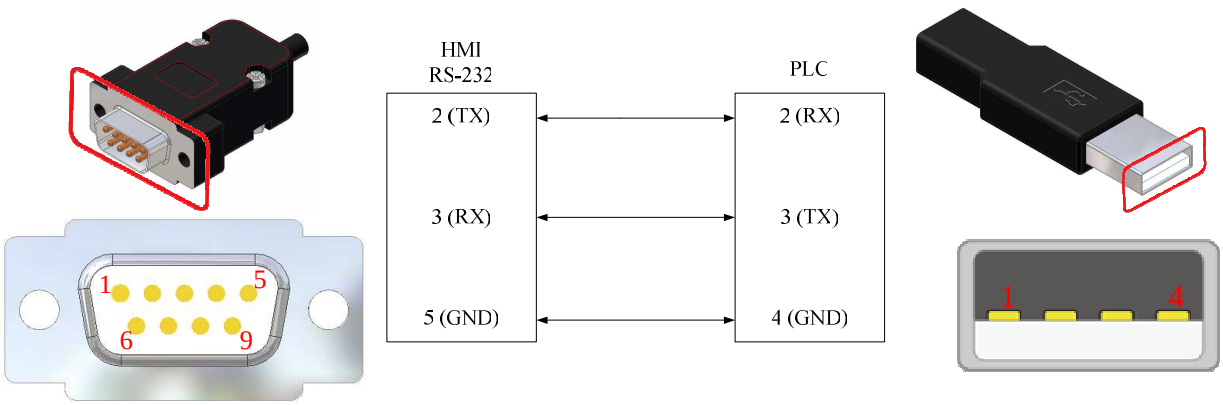


HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-29 Panasonic Series Connection

n. Vigor V Series

Configuration for the RS-232 connection is shown in Figure 2-1-30.



HMI terminal cable connector Wiring Diagram PLC terminal cable connector

Fig. 2-1-30 Vigor V Series Connection

o. SIEMENS Series

Configuration for the RS-485 connection with S7-200 series is shown in Figure 2-1-31.

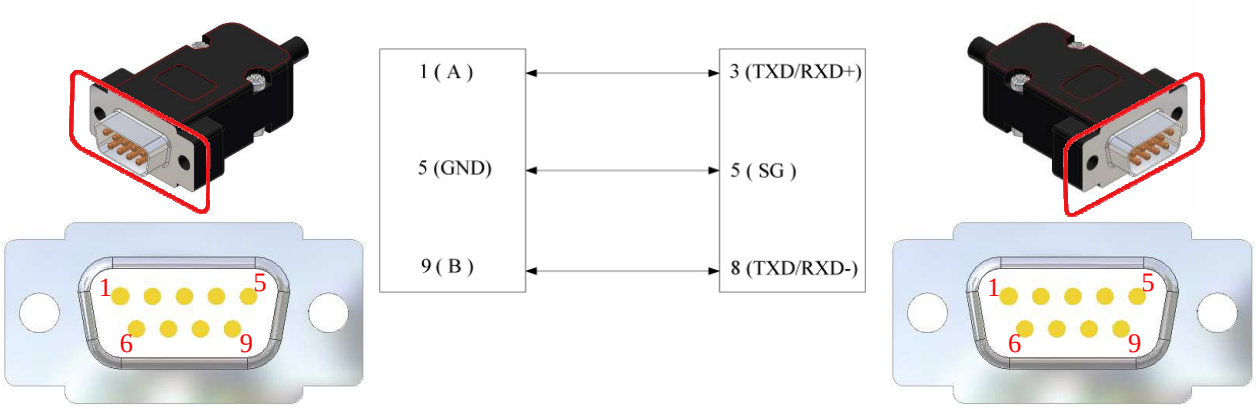


Fig. 2-1-31 RS-485 Communications Wiring

The S7-300 series needs a PC adapter to connect HMI. Configuration for the RS-232 communications wiring is shown in Figure 2-1-32.

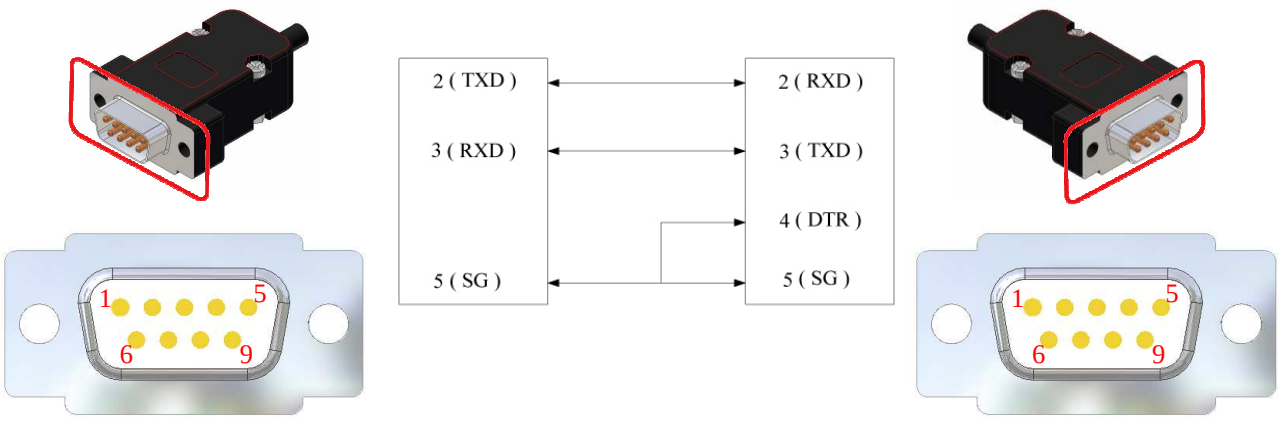


Fig. 2-1-32 RS-232 Communications Wiring

p. ModBus

Configuration for the RS-485 connection is shown in Figure 2-1-33.

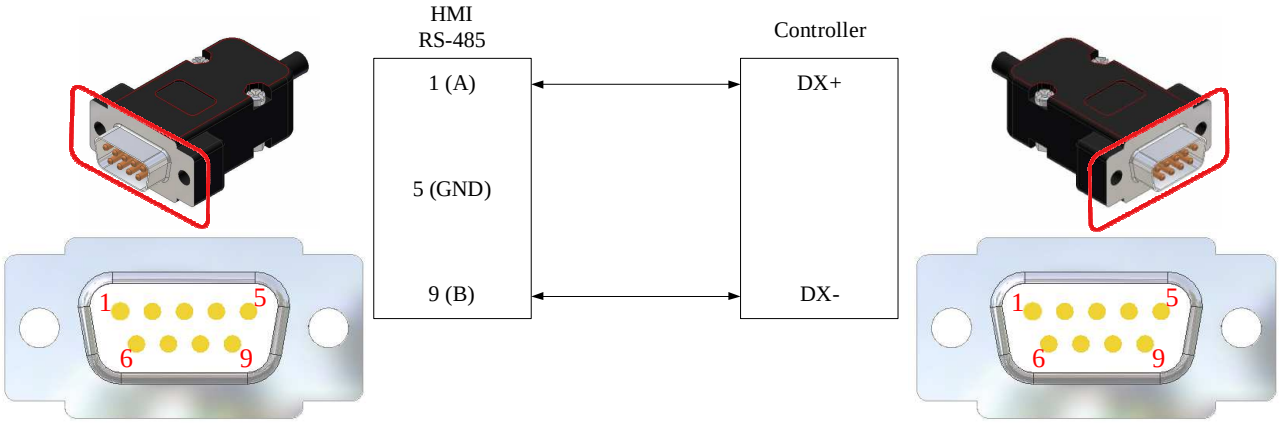


Fig. 2-1-33 RS-485 Communications Wiring

When the the RS-485 connection contains the ground is shown in Figure 2-1-34.

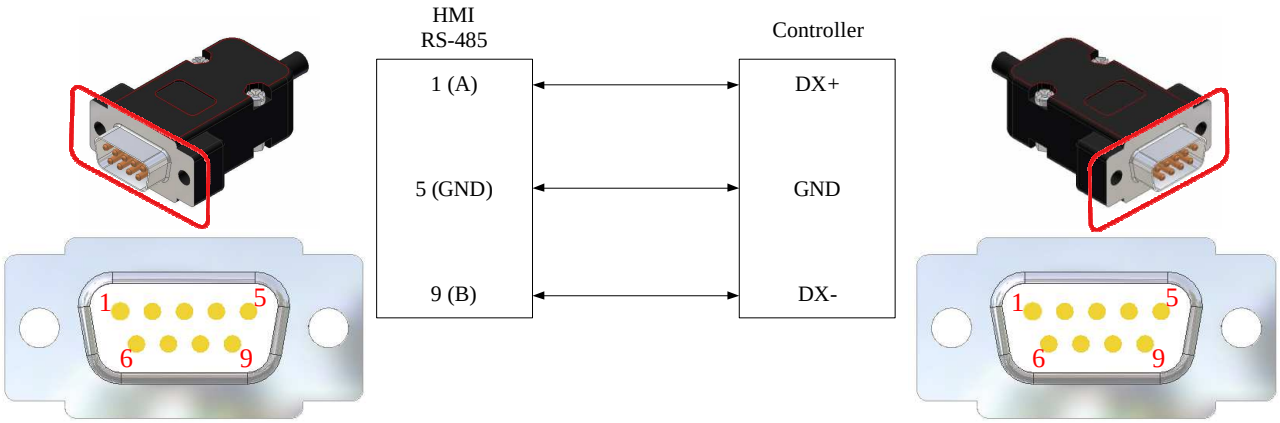


Fig. 2-1-34 RS-485 Communications Wiring

NOTE

- System default read mode is Mode1 and write mode is Auto in ModBus communication device setting. The HMI will use the fitted command when reading or writing. The users can customize the setting for special needs. The setting items are shown in Figure 2-1-35 below.

ModBus communication device setup		
Read	Mode1	Support the group read.
	Mode2	Not support the group read.
Write	Auto	Support 0x06 and 0x10 command
	0x06	Only support 0x06 command
	0x10	Only support 0x10 command

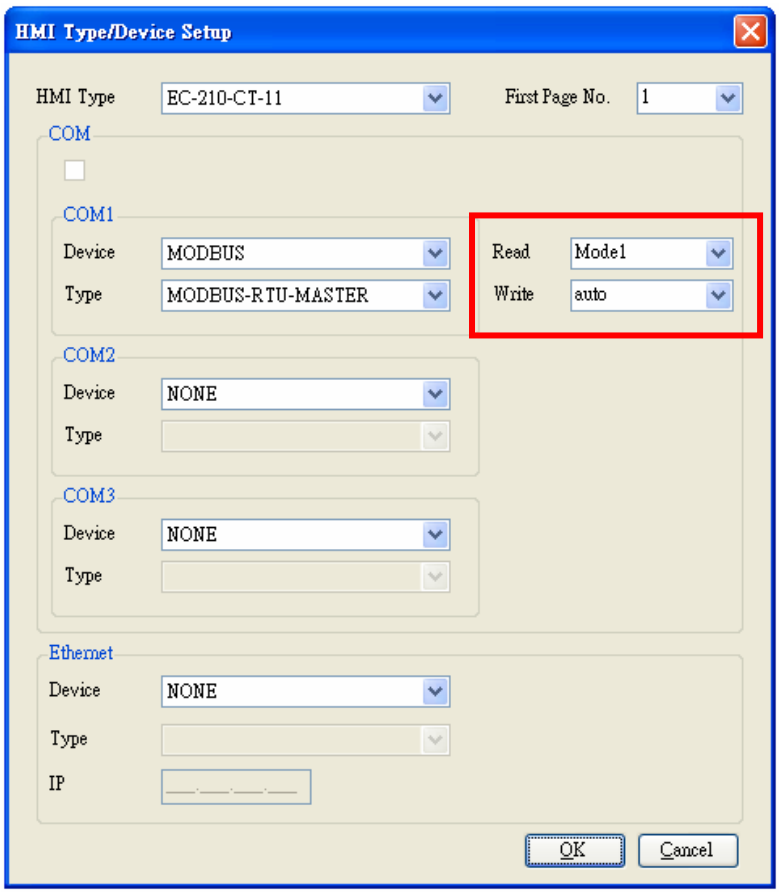


Fig. 2-1-35 ModBus communication device setup

q. Ethernet

To set up the communication protocol, click the System manual, and select HMI Type/Device Setup... to change HMI/Device/Model, and then selectFX3U-ENET or QJ71E71-100, and set the IP address to 192.168.1.XXX, as shown in Figure 2-1-36.

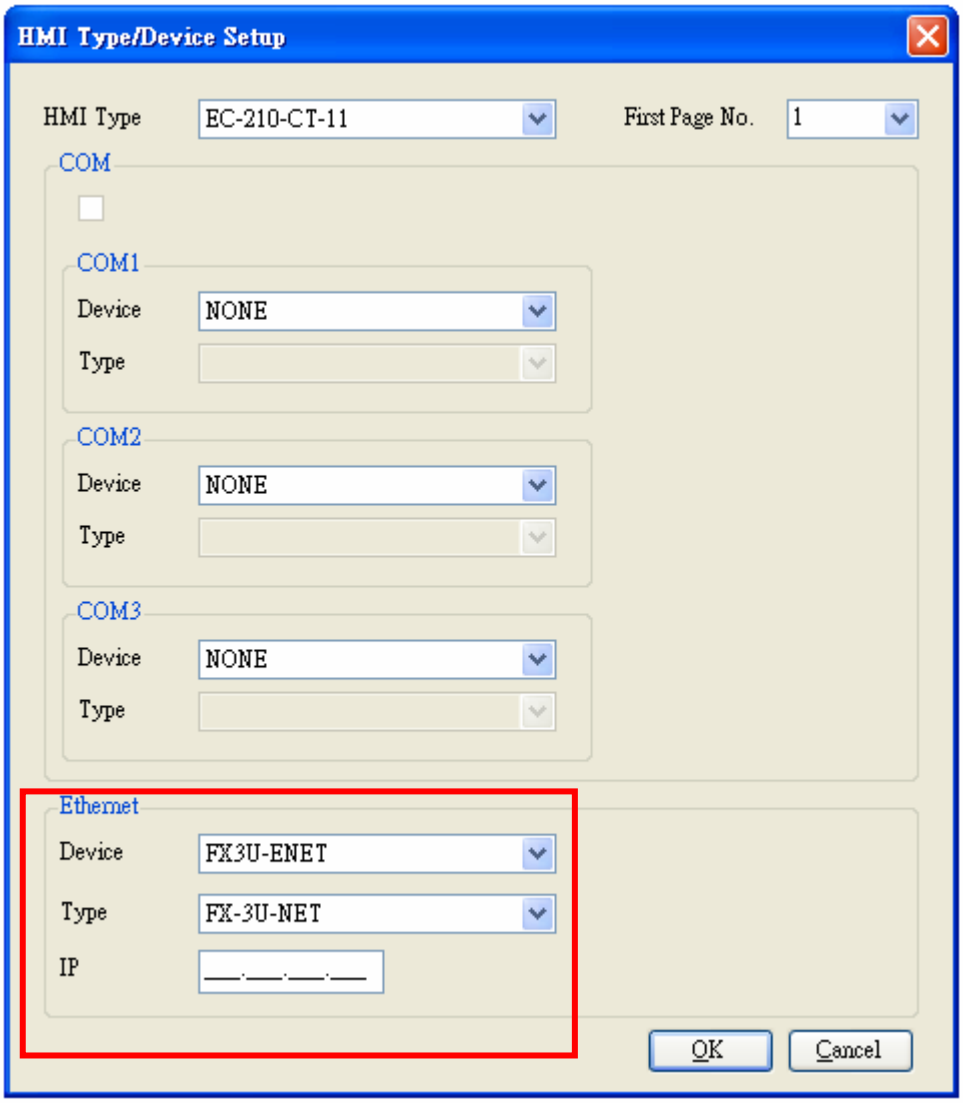


Fig. 2-1-36 Netowrk Setup

To configure the network settings of the Mitsubishi PLC, execute the GX Developer software, select your desired model device, and do the configuration on the left side of the window, as shown in Figure 2-1-37.

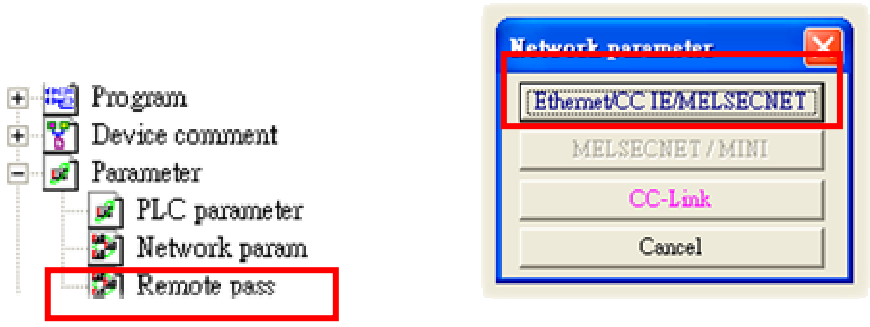


Fig. 2-1-37 Network Parameters Setup

The network configuration requires the setup of network type, starting I/O number, network number, group number and station number. Detailed parameters setting is shown in Figure 2-1-38.

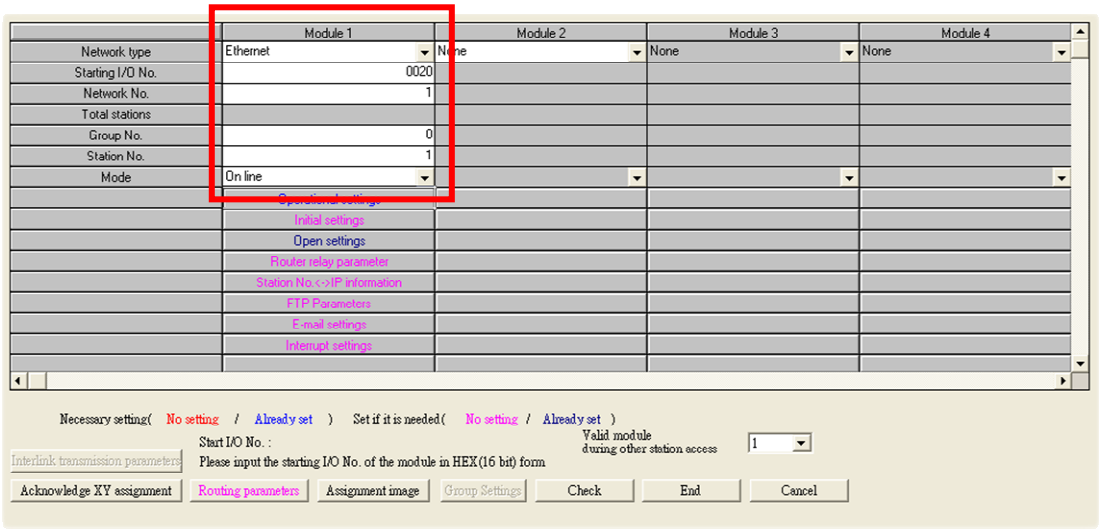
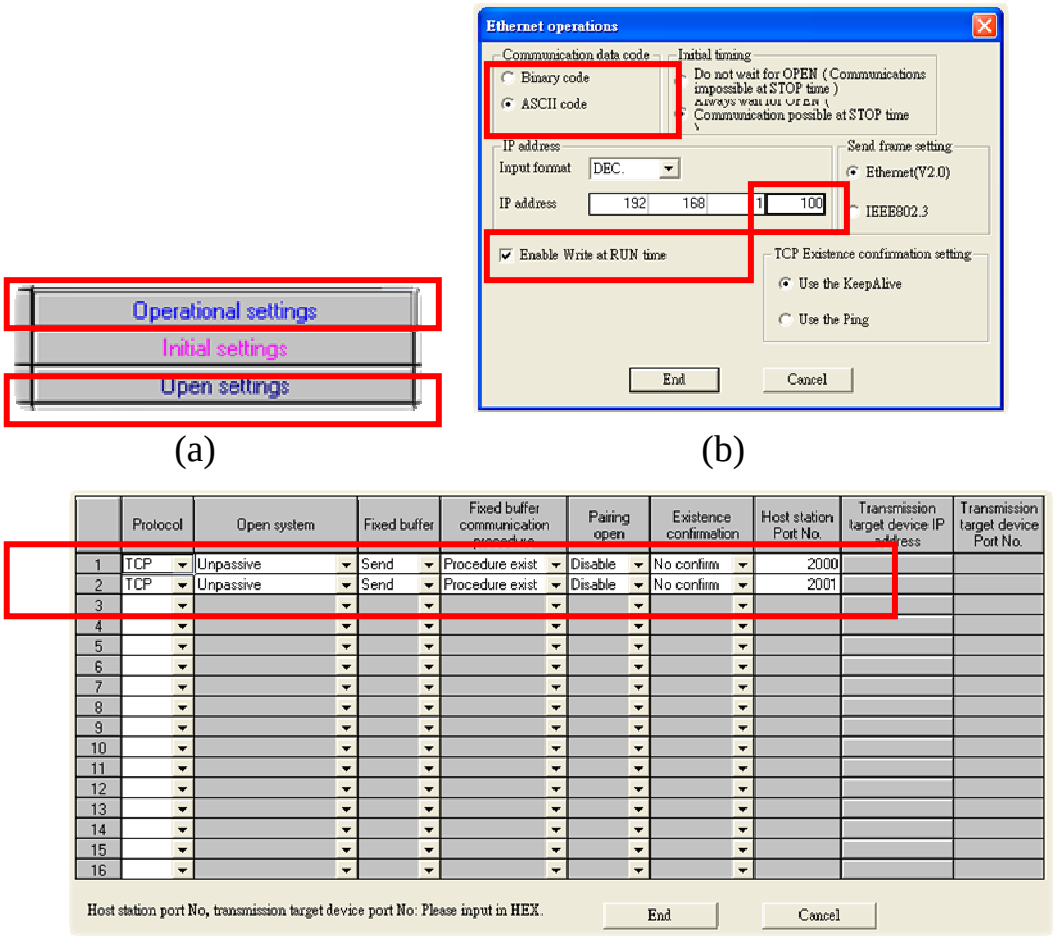


Fig. 2-1-38 Detailed Network Setup

Finally, it is the operational setting and open setting. Detailed parameter settings are shown in Figure 2-1-39.



(a) (b)

(c)

Fig. 2-1-39 Other Parameters (a) Module Settings (b) Operational Settings (c) Open Settings

NOTE

- The HMI default network address is 192.168.1.45. Users can define their own address; the Ethernet host IP address is also user-definable, if only it is different from HMI's default IP address.
- For network related settings, please refer to the manuals of the devices.

2.2. HMI Communications Setup

To make connection to various brands of PLC, please refer to the following Table 2-2-1 for the settings and set up the connection in HMI.

Table 2-2-1 HMI Communications Setup

Items / Brands		Baud Rates (bps)	Data Length (Bits)	Parity	Stop Bit (Bit)	PLC Station Number
Mitsubish FX Series		9600	7	Even	1	N/A
Delta DVP Series						1 (Initial Settings)
Fatek FB Series						
OMRON					2	N/A
Mitsubishi	A Series		8	Odd	1	
	Q Series	19200 38400 57600 115200				
	QnA Series	9600 19200 38400				
Panasonic	FP0	9600				
	FP-e					
	FPE					
	FP-X	19200				
	FP2	115200				
Vigor V Series		19200	7	Even		
SIEMENS	S7-200	9600	8			
	S7-300	38400		Odd		

2.3. Many to One

Multiple HMIs, up to 8 units, can be used to simultaneously monitor a single unit of the FA equipment. For the connection, network cable of cross-over twisted pair is required, as shown in Figure 2-3-1.

Connector	Twisted pair	Wire	Color
1	3	1	Green & White
2	3	2	Green
3	2	1	Oranage & White
4	1	2	Blue
5	1	1	Blue & White
6	2	2	Oranage
7	4	1	Brown & White
8	4	2	Brown

(a)

Connector	Twisted pair	Wire	Color
1	2	1	Oranage & White
2	2	2	Oranage
3	3	1	Green & White
4	1	2	Blue
5	1	1	Blue & White
6	3	2	Green
7	4	1	Brown & White
8	4	2	Brown

(b)

Fig. 2-3-1 Network Cable (a) T568A (b) T568B

To set 8-to-1 monitoring, return to the system screen and click the  icon. Set the station number of the first HMI to 1, the system will then automatically establish the first HMI as sever, and orderly set the station numbers of the rest HMIs to 2~8 as clients. When the setup is done, click the save button.

Confirm the setup and send the file to the first HMI, which will then relay the file to the rest HMIs numbered 1~8, as shown in the following Figure 2-3-2.

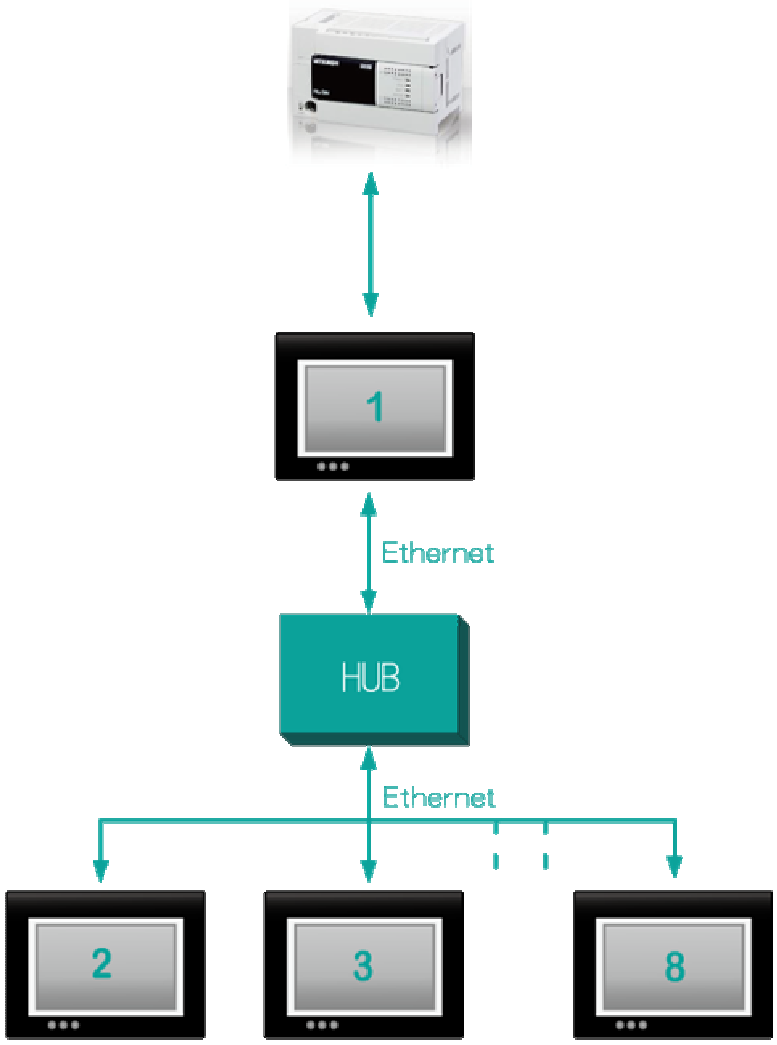


Fig. 2-3-2 8-to-1 Wiring Diagram

NOTE

- After the server and clients are established, get the HMIs numbered 1~8 back to the system screen, then click the  icon. Click the  button as indicated in a red frame below, the button will then switch to  to indicate the connection is succefully established. This is shown in the following Figure 2-3-3.

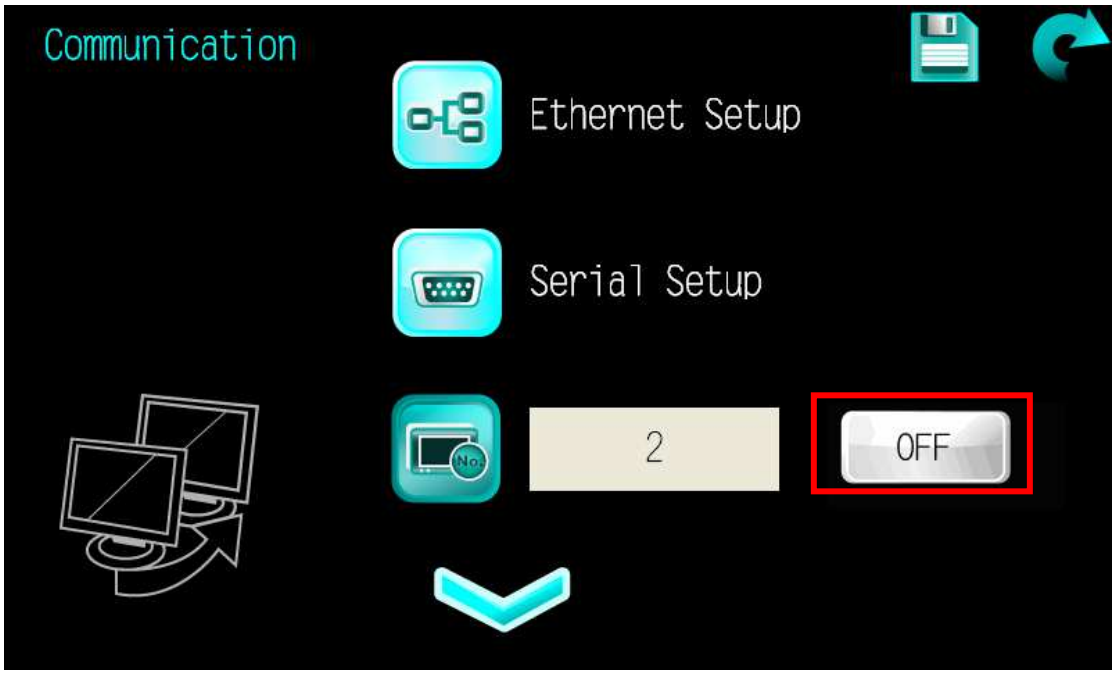


Fig. 2-3-3 Network Connection

Chapter 3 System Configurations

3.1. Setting Description

Please plug the power connector into a 24V power source to start the Shihlin HMI. The following Figure 3-1-1 shows the system screen after boot.

Fig. 3-1-1 System Screen

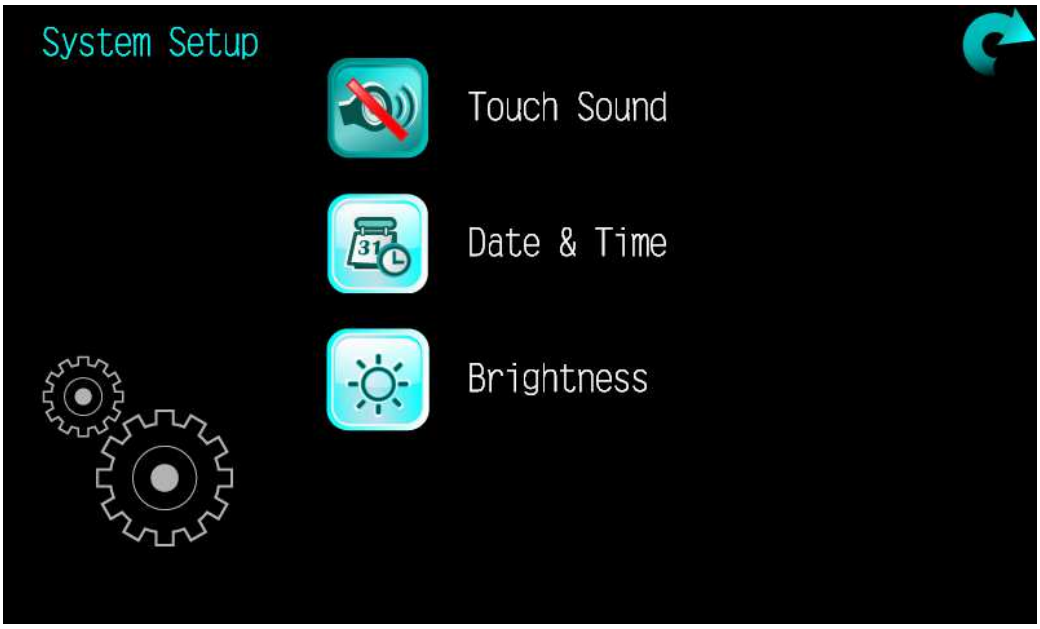
NOTE

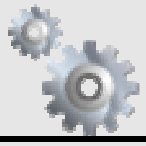
- After the screen data is sent to the HMI, the system in subsequent boots will directly go to the execution screen.
- On the upper left corner of the execution screen, touch 5 times consecutively to get back to the system screen (If the time interval between two touches is more than five seconds, HMI will void the count.)

3.2. System Setup

Click the system setup icon, the following items will be available, as shown in Figure 3-2-1.

Fig. 3-2-1 System Setup



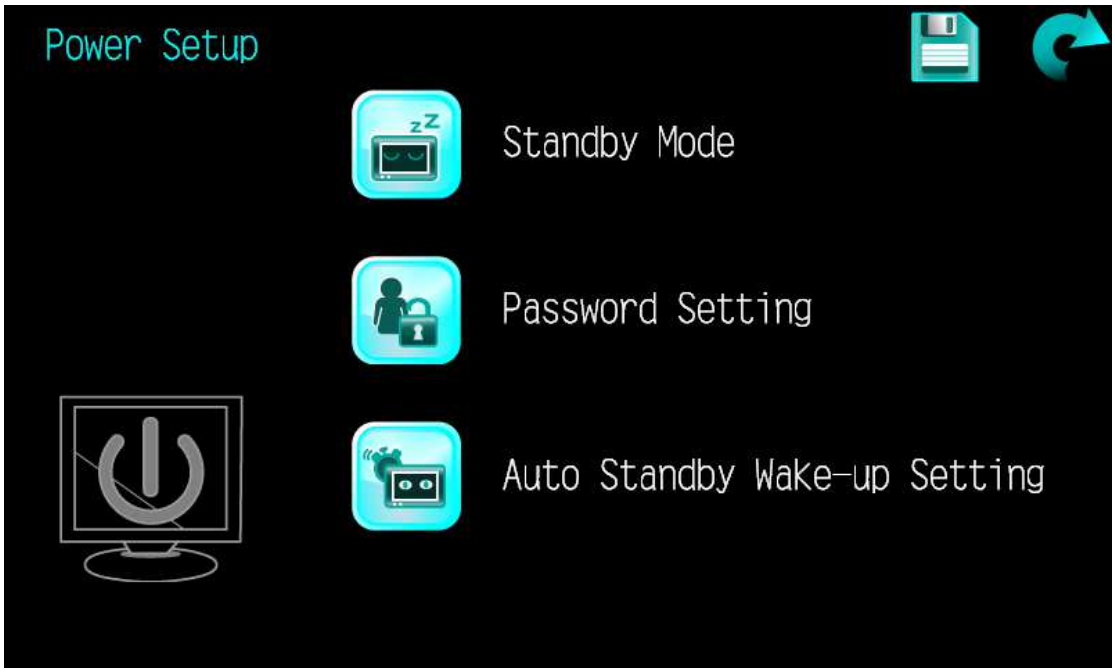
	**Description**	**Remark**
Touch Sound	Open/close touch sound	N/A
Date & Time	Adjust date & time	
Brightness	Brightness setting	

- After the setup is done, be sure to click the  icon to save the settings in the system.

3.3. Power Setup

Click the power setup icon, the following items will be available, as shown in Figure 3-3-1.

Table 3-3-1 Power Setup Items

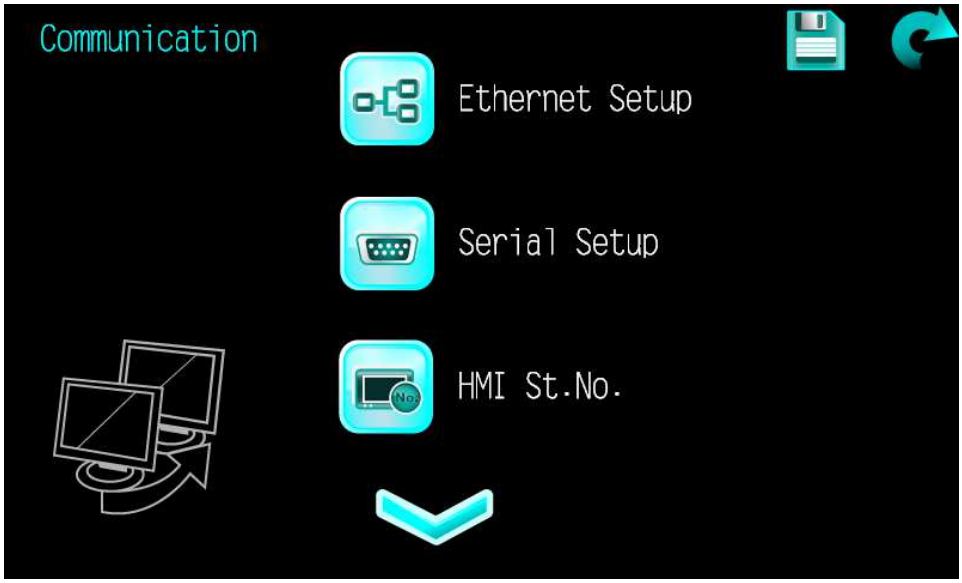


	**Description**	**Remark**
Standby Mode	Go to Sleep mode after the standby time has elapsed (min)	0~999
Password Setting	Set user password	It needs to match up with the password set in the project. Password setting steps：set the password→click the  icon.
Auto Standby Wake-up Setting	Set system start time	N/A

3.4. Communication Setup

Click the Communication Setup icon, the following items will be available, as shown in Table 3-4-1.

Table 3-4-1 Communication Setup Items



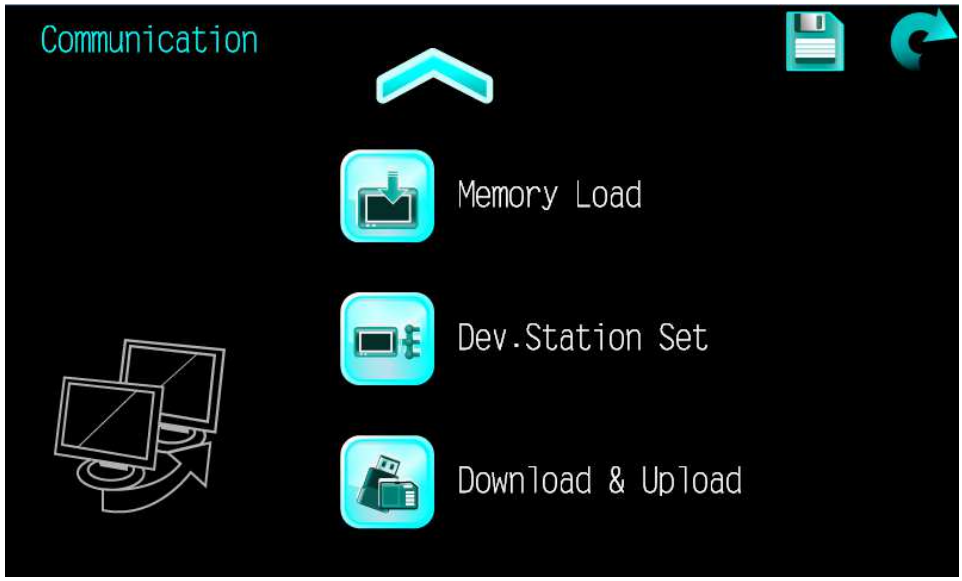


Table 3-4-1 Communication Setup Items (continued)

	**Description**	**Remark**
Ethernet Setup	Change the IP address and the gateway.	IP address：192.168.1.45 gateway：255.255.255.0
Serial Setup	Change the parameters of the COM1/COM2/COM3 serial ports.	N/A
HMI St. No.	Set the HMI station number.	0~8
Memory Load	Switch to memory/SD card/USB and download the data.	 ：Only read the project from the external memory.  ：Read and download the project from the external memory. Steps of NO Copy & Auto Copy: choose the external memory→click the No copy /Auto copy button→click the  icon→click the delete button (the  button under the directory of download & upload).
Dev. Station Set	Control the device switch of specific station number	 : Set up the device station number.
Download & Upload	Set up the source device for data download, upload and OS update.	mount：Read from USB or SD card library/CSV data. Project download：Sent the file in USB or SD card to HMI. Download steps: Project download button→delete button(delete storage device)→reload(load new project to HMI)。 Project upload：Send the project in HMI to USB or SD card. Upload steps: Project upload button→delete button (delete storage device). O.S. upgrade：Read data from USB or SD card to update the OS.

NOTE

- After the setup is done, be sure to click the icon to save the settings in the system.
- The network settings are user-definable.
- To delete external memory, be sure to first click the Remove icon to remove the device. Doing so can ensure subsequent data transfers between external memory and HMI.
- Before using Ethernet to transfer data, set up the TCP/IP address first, as shown in the following Figure 3-4-2.

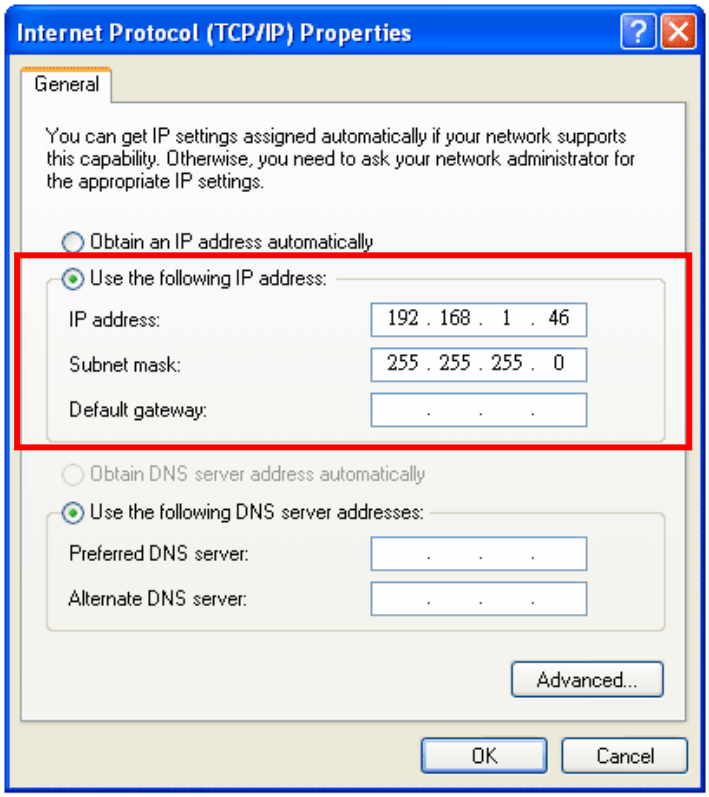


Fig. 3-4-2 IP Address Setup

3.5. Language

Click the  icon, users can change the display language. The system provides four languages including Traditional Chinese, Simplified Chinese, English and Japanese, allowing users to switch, as shown in Figure 3-5-1.

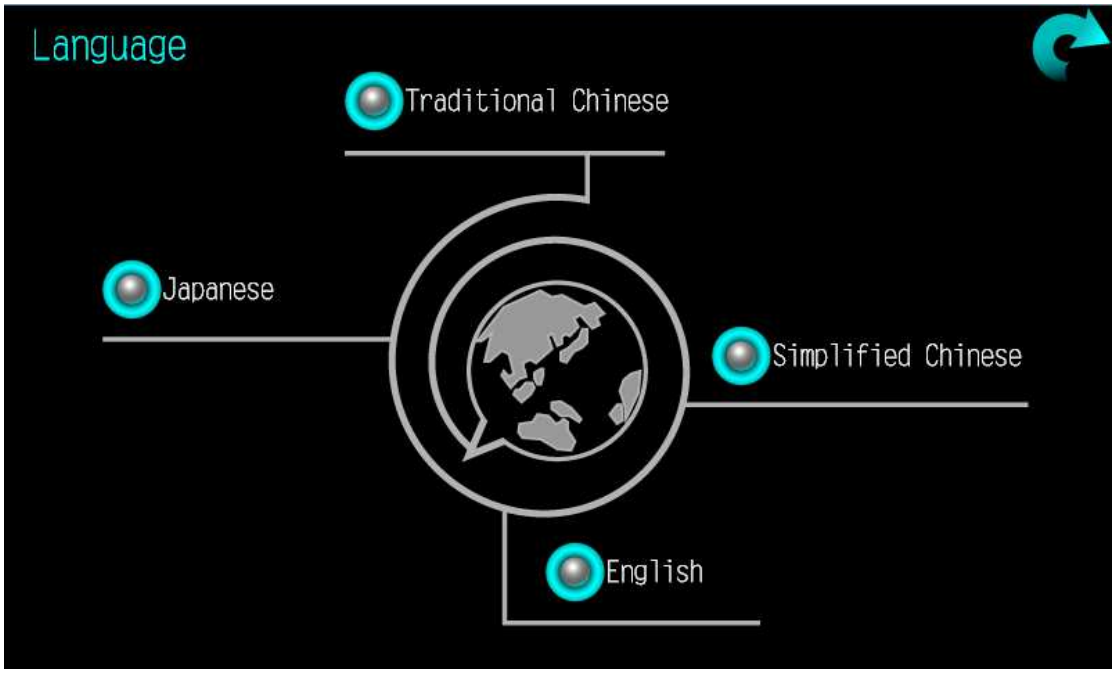
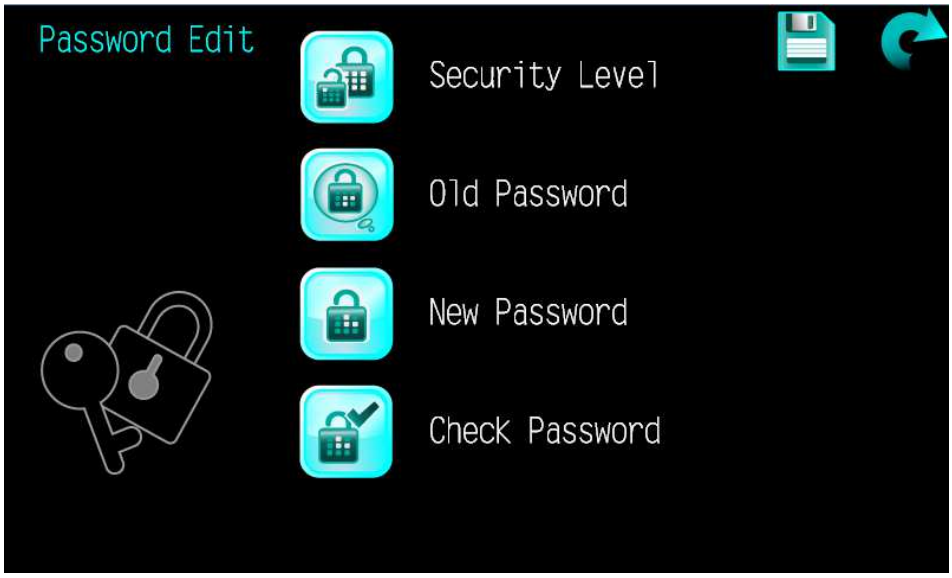


Fig. 3-5-1 Language Setup

3.6. Password Edit

Click the Password Editing icon, the following items will be available, as shown in Table 3-6-1.

Table 3-6-1 Password Editing Items



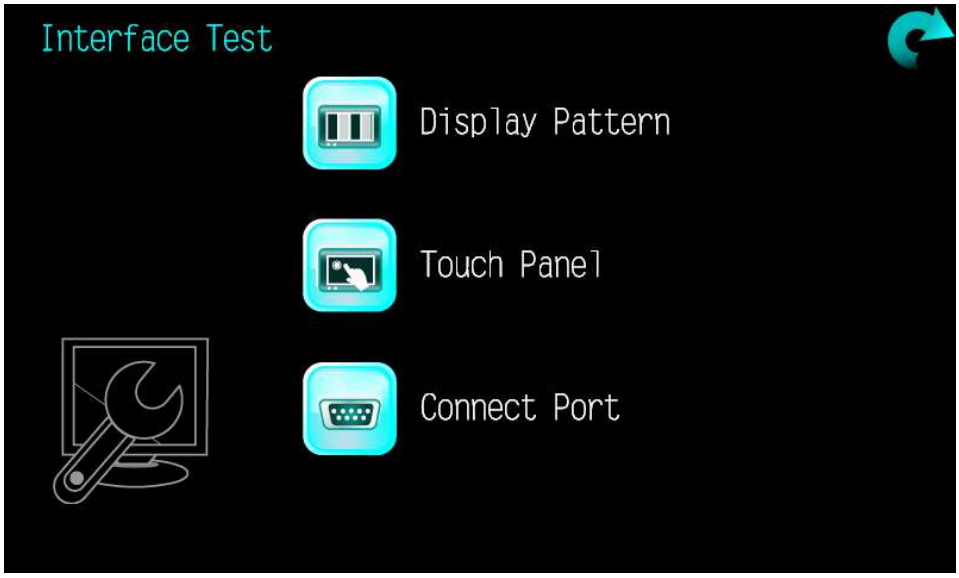
	**Description**	**Remark**
Security Level	Set up the password level	0~15
Old Password	Set up the old password	For the first setup, no old password is required. Enter up to 8 digits for the password.
New Password	Set up the new password	
Check Password	Reconfirm the password	

- After the setup is done, be sure to click the  button to save the settings in the system.
- When the password is set to the highest level of 15, on the upper left corner of the execution screen, touch 5 times consecutively to get back to the system screen (if the time interval between two touches is more than five seconds, HMI will void the count), and then enter the highest-level password.

3.7. Interface Test

Click the Interface Test icon, the following test items will be available, as shown in Table 3-7-1.

Table 3-7-1 Interface Test



	**Description**	**Remark**
Display Pattern	Test screen color	N/A
Touch Panel	Test screen touch points	
Connect Port	Test serial ports	Please short-circuit the cable.

NOTE

- To test the serial port communication, please short-circuit the pin connection first, as shown in Figure 3-7-2.

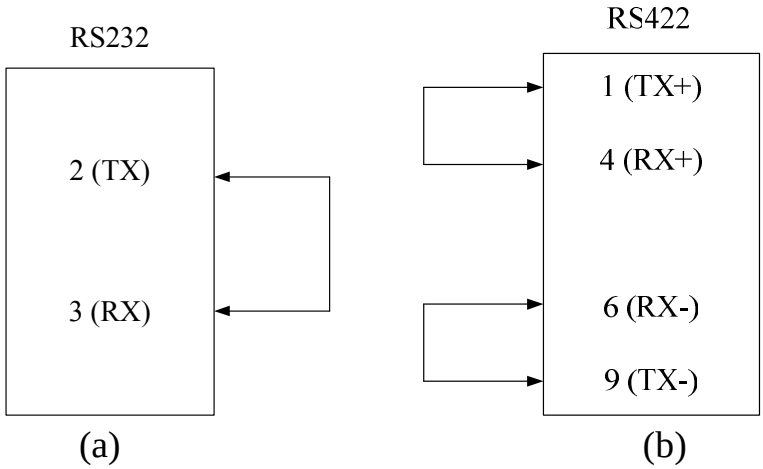


Fig. 3-7-2、Short-circuit Wiring Diagram (a) RS232 (b) RS422

- When the setup is done, be sure to click the button to save the settings in the system.

3.8. Data Transfer

Use the By-Pass data transfer method, as shown in Figure 3-8-1.

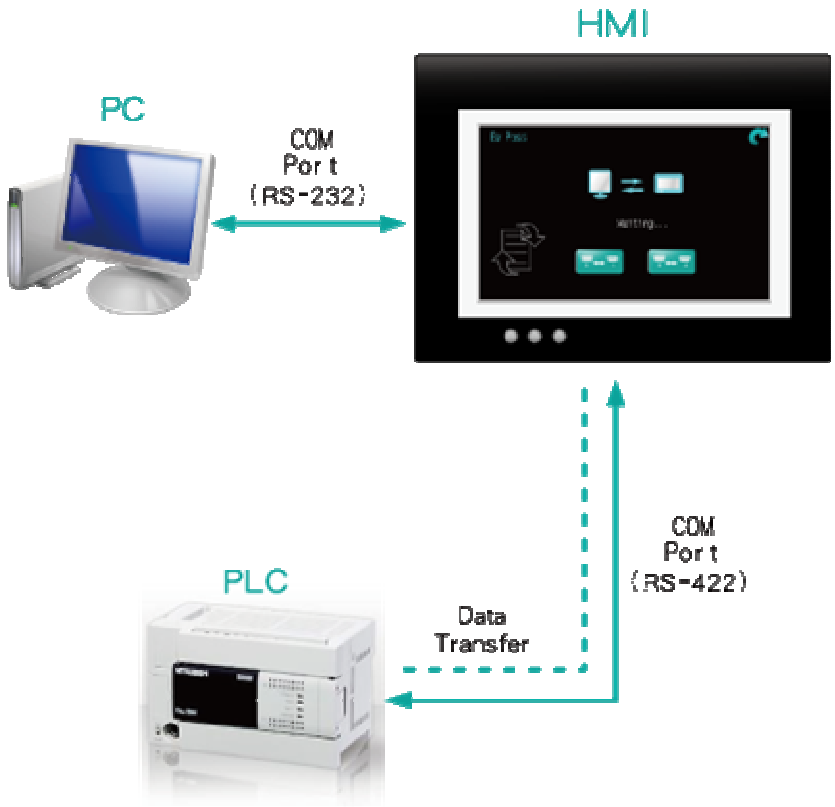
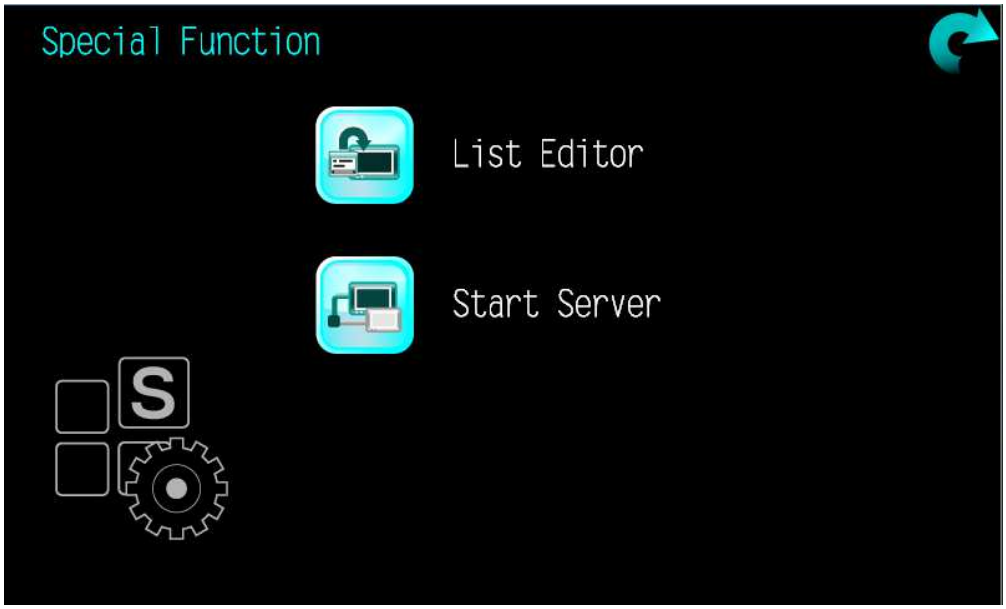


Fig. 3-8-1、By-Pass Transfer Topology

3.9. Special Function

Click the Special Functions icon, the following items will be available, as shown in Table 3-9-1.

Table 3-9-1 Special Functions



	**Description**	**Remark**
List Editor	Use instructions to modify PLC and monitor the trapezoidal charts	1. Please connect to the PLC device. 2. The instruction list editor supports PLC of Mitsubishi FX series and Shihlin AX series.
Start/Stop Server	Start/close the network monitoring	After the network is connected, click the “start server” button, and execute the simulation software to start the monitoring. Setup of IP address is required for the monitoring end.

NOTE

- To use instruction list editing and trapezoidal chart monitoring, please connect the PLC device via COM port. The connection is shown in Figure 3-9-2.

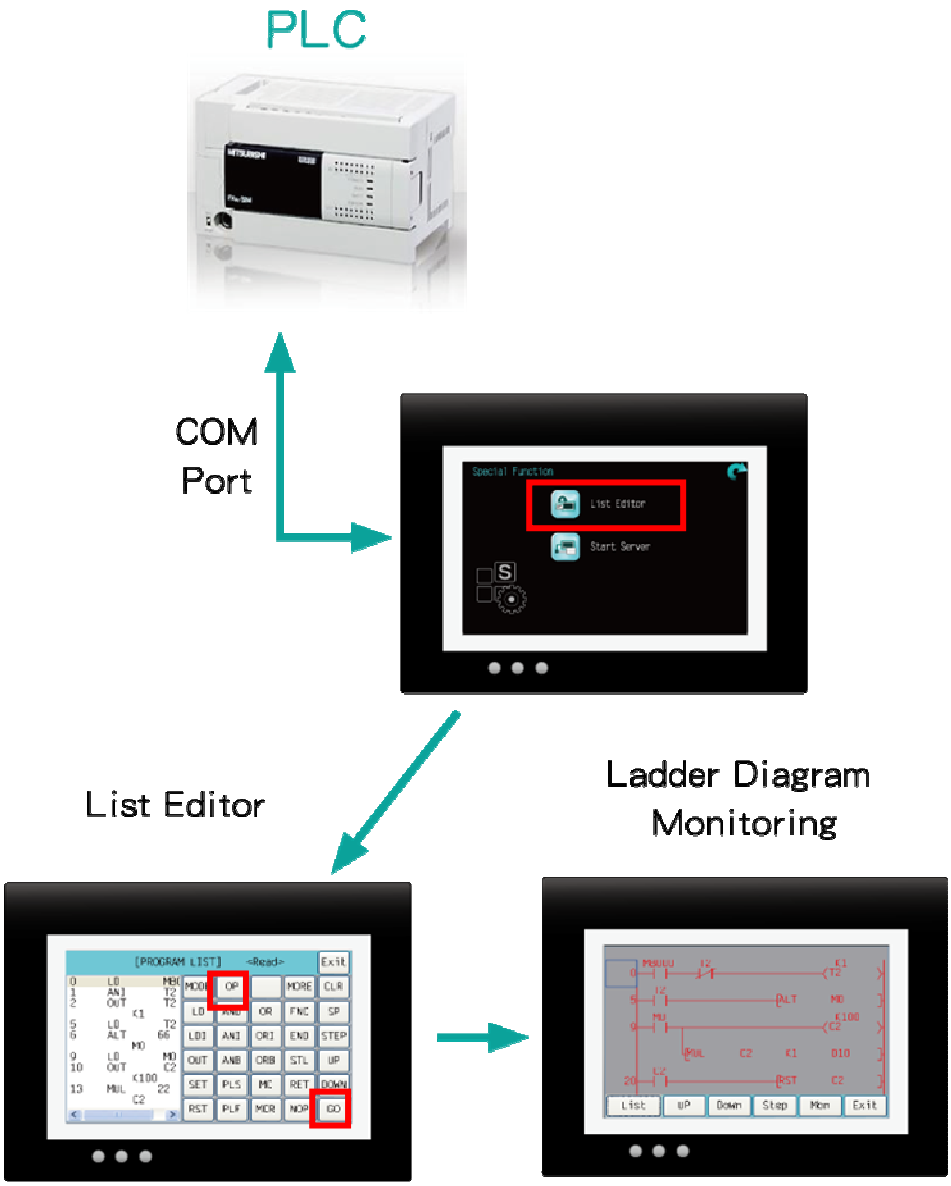


Fig. 3-9-2 PLC Monitoring

3.10. Run

To return to the execution screen, please click the  icon to once again get back to the editing screen you were working on.

- If there is no any screen data sent to HMI, you won't be able to use  .

3.11. System Information

Click the  icon on the upper right corner of the system screen to view the system information, as shown in Figure 3-11-1.

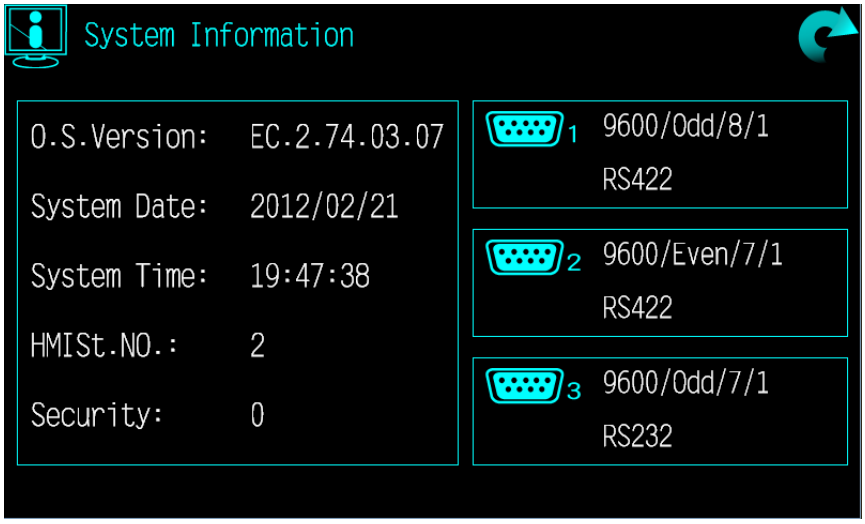


Fig. 3-11-1 System Information

3.12. Resume

Click the  icon on the upper right corner of the system screen to view the resume, as shown in Figure 3-12-1.

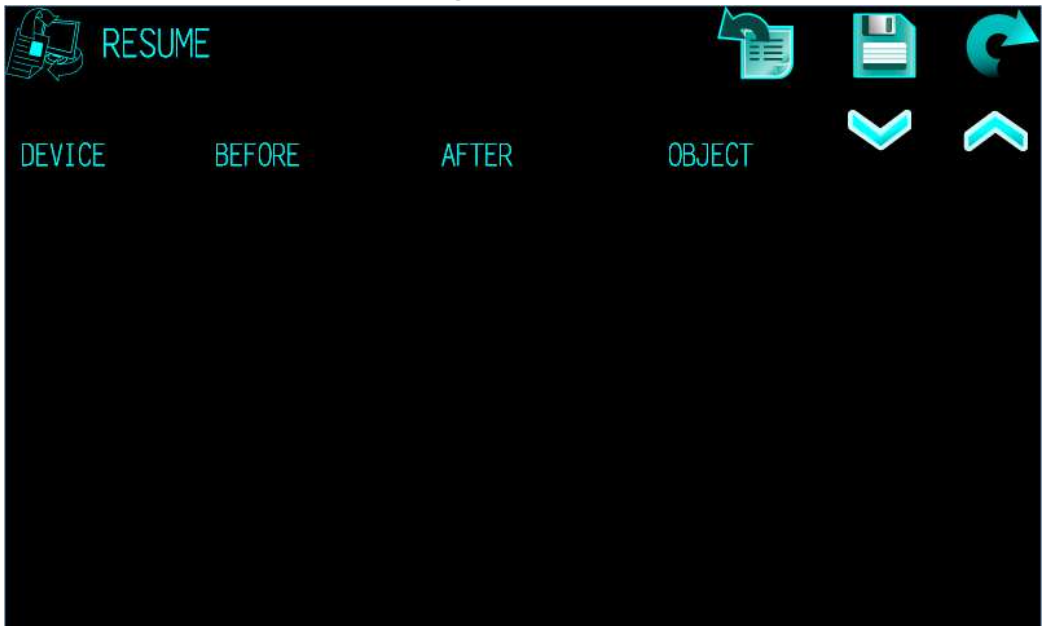


Fig. 3-12-1 Resume