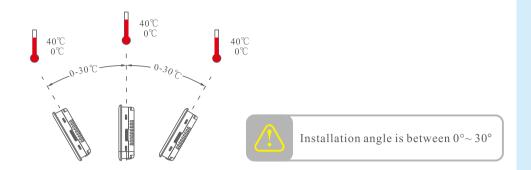
# Product Installation

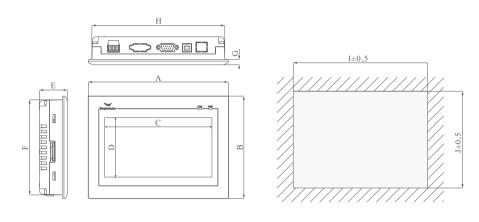
### 1 1 Installation Introduction

This file is only used for installation, please refer to Simphoenix manual for complete installation and debugging.

## 1.2 Product installation angle



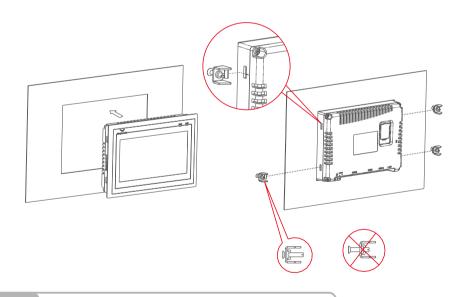
### 1.3 Appearance dimension



Model		В	C	D			G	Н		
EM1-070E/T	200	146	153	85	40	135.7	7.5	189.7	192	138
EM1-101E/T	271	213	222	124	40	200	7.5	256	262	205

=mm

# 1.4 Card buckle and hook installation introduction



Before installation, please keep the front of screw should be paralleled with hook.

# 2 | HMI Connection

# 2.1 Power connection

Connection step:

Step1: Insert stripped 24V power cable into power plug connection terminal;

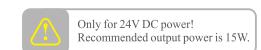
Step2: Use flathead screwdriver to lock power plug;

Step3: Plug in power into power outlet;

Recommendation: Use diameter 1.25mm<sup>2</sup> (AWG18) power cable.

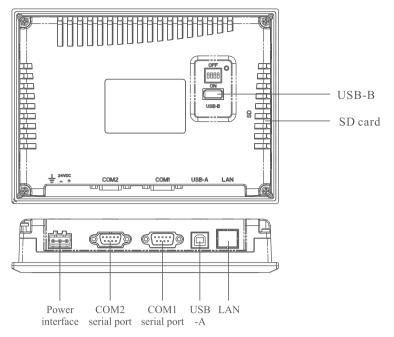


PIN	Definition
1	+
2	_
3	GND



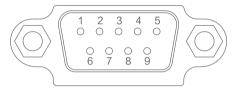
### 2.2 External interfac

(1) Interface description: serial port, USD port, LAN port, SD card port and power interface as shown in following diagram.



Item	EM1-070T/EM1-101T	EM1-070E/EM1-101E
LAN (RJ45)	No	Yes
Serial port (DB9)	1 port, support RS232/485	2 port, support RS232/485
USB-B	No	Host port, compatible with USB1.1 standard
USB-A	Guest port for downloading program	Guest port for downloading program
SDcard port	No	Yes
Power interface	±20%	

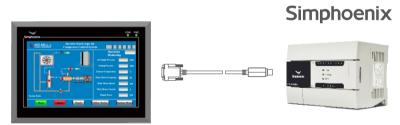
(2) Serial port pin definition: serial port outline and definition



Serial pin definition

Port	PIN	Pin Definition
	2	R232 RXD
	3	R232 TXD
COM1	5	GND
	8	RS485-
	9	RS485+
	2	R232 RXD
	3	R232 TXD
	5	GND
COM2	6	422TX-
	7	422TX+
	8	422RX-/RS485-
	9	422RX+/RS485+

# (3) EM1 and PLC connection: 3 brands of PLC

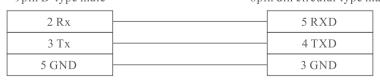


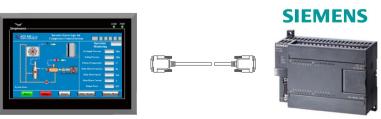
EM1

9pin D-type male

8pin din circular type male

EP1 series





EM1

XXX series

9pin D-type male 9pin D-type male

8 RS485-	8 D-
9 RS485+	3 D+

# MITSUBISHI

EM1 XXX series

 SG shield
 SG shield

 2 Rx
 0.51K resistance

 3 Tx
 0.51K resistance

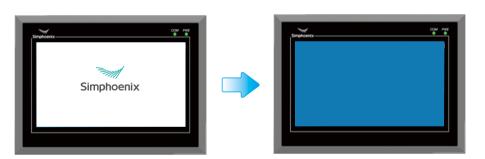
 5 GND
 2 RXD

7 TXD

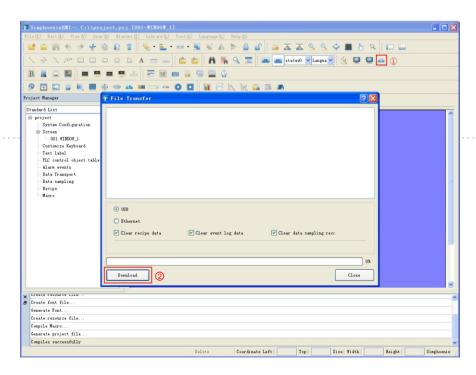
# 3.1 Hardware connection diagram Hardware connection method: USD connection

Start EM1

Use 24V DC power for EM1, progress bar appears after start-up, there is no need of any operation at this time, system will automatically come to program running interface.



3.3 Program download: file transmission window screen shot introduction



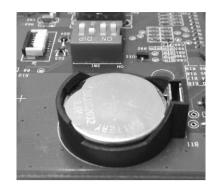


Download Step2: Confirm download

# 4 Product Maintenance

# 4.1 Change battery

Battery position: located on EM1 products' power board Battery specifications: CR2031 3V lithium battery





### 4.2 HMI correction

Set dial switch position "4" to "ON", after power on, wait for 5 seconds, system will automatically come to HMI correction program.

HMI correction: use touch pen or finger to click the center point of cross cursor, lift the latter cursor and move to the next point, repeat this action until enter into "confirmation interface", then click "OK" to power off, and set dial switch position "4" to "OFF", then finish correction.



Make the nib softly and exactly tap on the center of cross cursor, when the target is moving on the screen, repeat this action, and press ESC to cancel.

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Shenzhen Simphoenix Electric Technology Co., Ltd





EM1 Series
Human Machine Interface
Installation Manual