PS-3710A Series Installation Guide

Caution

Be sure to read the “Warning/Caution Information” on the attached sheet before using the product.

Package Contents

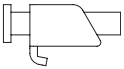
(1) PS-A Unit (1)

(2) English and Japanese Installation Guides (one of each) <This Guide>

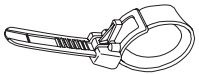
(3) Warning/Caution Information (1)

(4) Installation Gasket (1) (attached to the PS-A unit)

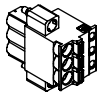
(5) Installation Fasteners (Set of 4 x 2)



(6) USB Cable Clamp (2 ports) (2)



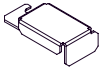
(7) Power Plug (1)



AC type
(5.08mm pitch)

DC type
(7.62mm pitch)

(8) Power Switch cover (cover:1, secrew:1) (AC type Only)



IMPORTANT

- Be careful when installing the PS-A not to damage the built-in HDD.

This unit has been carefully packed, with special attention to quality. However, should you find anything damaged or missing, please contact your local PS-A distributor immediately.

When you order a PS-A unit built to your specifications, that PS-A package should include each optional item's Installation Guide. Please use that guide to check the contents of each optional item's package.

About the Manual

For detailed information on PS-A series, refer to the following manuals.

- PS-3710A/PS-3711A Series Hardware Manual
- PS-3710A/PS-3711A Series Reference Manual
- API Reference Manual

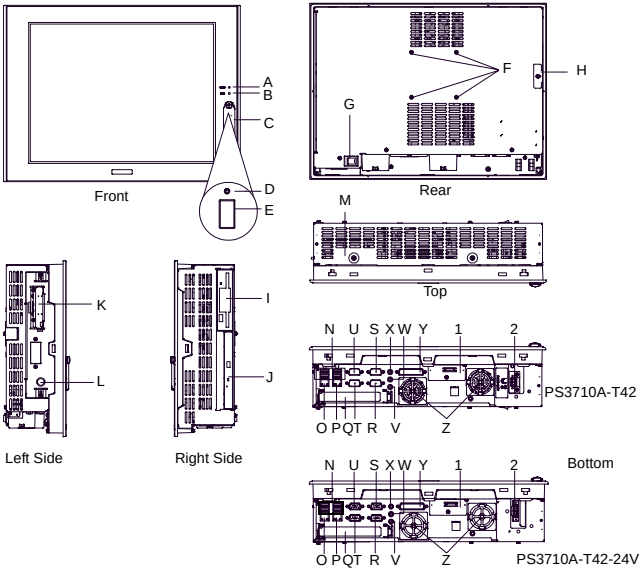
  Manual can be downloaded from Pro-face Home Page.

  URL
  http://www.pro-face.com/otasuke/

NOTE

- The drivers and utilities for PS-A can be downloaded from Pro-face Home Page.

Part Names and Functions



	Name	Description
A	Power LED / RAS Status Lamp (POWER)	LED: Green (lit) — Normal Operation (power is on); Green (blinking) — Soft OFF state; Orange (lit) — System Monitor Error, Touch Panel Self Test Error; Orange/Red (blinking) — Backlight burnout is detected; Not lit — Power is OFF
B	IDE Access Lamp	LED: Green (lit) — Currently using IDE I/F

<table>
<tr><td>C</td><td>Front Cover</td><td>—</td></tr>
<tr><td>D</td><td>Hardware Reset Switch (RESET)</td><td>Used to restart PS-A.</td></tr>
<tr><td>E</td><td>USB Interface (USB)</td><td>1 port. Complies with USB 2.0. Uses a “TYPE-A” connector.<table><tr><td>Power supply voltage</td><td>DC 5V ±5%</td></tr><tr><td>Output current</td><td>Each port:500mA(max.),
5 ports total:500mA(max.)</td></tr><tr><td>The maximum communication distance</td><td>5m</td></tr></table></td></tr>
<tr><td>F</td><td>Arm Insertion Hole Location</td><td>VESA 75mm</td></tr>
<tr><td>G</td><td>Power Switch</td><td>Supported by AC type (PS3710A-T42) only.</td></tr>
<tr><td>H</td><td>Expansion Board Support</td><td>—</td></tr>
<tr><td>I</td><td>FD Drive</td><td>—</td></tr>
<tr><td>J</td><td>DVD Drive</td><td>—</td></tr>
<tr><td>K</td><td>PCMCIA Interface (PCMCIA)</td><td>2 ports. PCMCIA Type II, Type III can be available.
Corresponding to CARD BUS (Excluding VIDEO ZOOM, SOUND functions)</td></tr>
<tr><td>L</td><td>PS/2 Keyboard Interface (KEYBOARD)</td><td>A mini DIN 6 pin (socket) is used.</td></tr>
<tr><td>M</td><td>Rear Cover</td><td>—</td></tr>
<tr><td>N</td><td>USB Interface (USB)</td><td>4 ports. Complies with USB 2.0.Uses a “TYPE-A” connector.<table><tr><td>Power supply voltage</td><td>DC 5V ±5%</td></tr><tr><td>Output current</td><td>Each port:500mA(max.),
5 ports total:500mA(max.)</td></tr><tr><td>The maximum communication distance</td><td>5m</td></tr></table></td></tr>
<tr><td>O</td><td>Ethernet Interface (LAN1)</td><td>10BASE-T/100BASE-TX Auto Changeover.
This interface uses an RJ-45 type modular jack connector (8 pins).</td></tr>
<tr><td>P</td><td>Ethernet Interface (LAN2)</td><td>10BASE-T/100BASE-TX/1000BASE-T Auto Changeover.
This interface uses an RJ-45 type modular jack connector (8 pins).</td></tr>
<tr><td>Q</td><td>Expansion Unit Interface</td><td>1 port. Used to attach the PCI Unit.</td></tr>
<tr><td>R</td><td>Serial Interface (COM1)</td><td>D-SUB 9-pin plug type. RS-232C, RI/+5V Changeover.</td></tr>
<tr><td>S</td><td>Serial Interface (COM2)</td><td>D-SUB 9-pin plug type. RS-232C, RI/+5V Changeover.</td></tr>
<tr><td>T</td><td>Serial Interface (COM3)</td><td>D-SUB 9-pin plug type. RS-232C, RS-422, RS-485 Changeover.</td></tr>
<tr><td>U</td><td>Serial Interface (COM4)</td><td>D-SUB 9-pin plug type. RS-232C.
Changes the Touch Panel communication method.
(Serial <---> USB)</td></tr>
</table>

V	Line Input Interface (LINE IN)	3 ports. (standard type AUDIO jack)
W	Speaker Output Interface (SPEAKER OUT)	
X	Mike Input Interface (MIC IN)	
Y	RAS Interface (RAS)	D-SUB 25-pin plug type.
Z	Cooling FAN	—
1	CF Card Interface Cover	CF card interface is under the cover. Type II-compliant slot. IDE-type connection.*1 CF card (Type I / II-compliant) is available.
2	Power Connector	—

*1 Since an IDE-type connection is used, the unit is not hot-swappable. When inserting/removing the CF card, be sure that power is turned OFF.

IMPORTANT

- When attaching peripheral units to the PS-A, be sure the PS-A's power cord is disconnected from the main power supply.

General Specifications

■ Electrical Specifications

		PS3710A-T42	PS3710A-T42-24V
Power Supply	Input Voltage	AC100/240V	DC24V
	Rated Voltage	AC85 to 265V	DC19.2 to 28.8V
	Rated Frequency	50/60Hz	—
	Allowable Voltage Drop	1 cycle or less (Voltage drop interval must be 1s or more.)	5ms or less
	Power Consumption	150VA or less	110W or less
Voltage Endurance		AC1,500V 20mA for 1minute (between charging and FG terminals)	AC1,000V 20mA for 1 minute (between charging and FG terminals)
Insulation Resistance		DC500V 10MΩ (min.) (between charging and FG terminals)	

■ Environmental Specifications

Physical	Surrounding Air Temperature	0 to 50°C : without HDD 5 to 50°C : with HDD
	Storage Temperature	-20 to +60°C
	Ambient Humidity	10 to 90% RH (Not condensing, wet bulb temperature: 29°C or less.)
	Storage Humidity	10 to 90% RH (Not condensing, wet bulb temperature:29°C or less.)
	Dust	Free of dust
	Pollution Degree	For use in Pollution Degree 2 environment

IMPORTANT

- When using any of the PS-A's optional devices, be sure to check that device's specifications for any special conditions or cautions that may apply to its use.
- Be aware that not only does the Hard Disk have a fixed lifetime, but that accidents can always occur. Therefore, be sure to back up your Hard Disk's data regularly, or prepare another Hard Disk unit that can be used for backup.
- The Hard Disk lifetime given here may be reduced due to unforeseen environmental factors, however, generally speaking, the disk should last for 20,000 hours (of operation) or approximately 5 years, whichever comes first, at an operating temperature of 20°C and 333 hours of operation per month. (HDD access frequency of 20% or less)
- Using the Hard Disk in an environment that is excessively hot and/or humid will shorten the disk's usage lifetime. A wet bulb temperature of 29°C or less is recommended. This is equivalent to the following data.

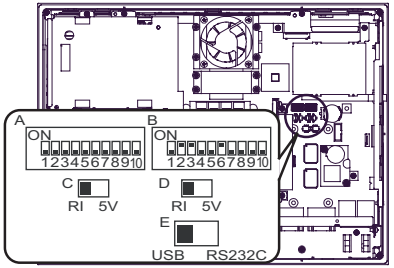
Temperature	at 35°C	at 40°C
Humidity	no higher than 64% RH	no higher than 44% RH

- In order to extend the lifetime of the hard disk, Pro-face recommends you set the Windows® 2000 or XP (classic) [Control panel]-[Power Options]-[Power Options Properties]-[Power Schemes]-[Turn off hard disks] selection to turn the hard disk off when the unit is not being operated. A setting of 5 minutes is recommended.

Switches

The following switch settings corresponding to Serial Interfaces and some system features need to be signified. To set the switches which are on the PS-A's circuit board, remove the PS-A's Rear Cover. Please refer to "Installations", "4.Removal/Attachment the Rear Cover".

Switch Locations



Inside of the rear

Switch Location	Switch Name	Compatible I/F	Factory Settings	Description
A	Serial Mode Select SW	COM3	All OFF (RS-232C)	10-point dip switch. Designates COM3 communication settings. For Serial Mode Select SW details, see Table (2).
B	System Set SW	-	See Table (1)	10-point dip switch. For System Set SW and the factory settings details, see Table (1).

Switch Location	Switch Name	Compatible I/F	Factory Settings	Description
C	RI/+5V Changeover SW	COM1	RI	Changes # 9 pin (RI <---> +5V).
D	RI/+5V Changeover SW	COM2	RI	Changes # 9 pin (RI <---> +5V).
E	Touch Panel's Communication Changeover SW	COM4 USB	USB	Changes the Touch Panel communication method. (Serial <---> USB) (If "Serial" is selected, COM4 cannot be used.)

Switch No.	Description	ON	OFF	Factory Settings	Notes
1	Cancellation function of pushing two points on the touch panel*1.	Enabled	Disabled	OFF	The middle point is not considered to be touched when the SW is ON. It is considered to be touched when the SW is OFF.
2	Changes PIO/DMA of CF Card.	PIO+DMA	PIO	ON	
3	Changes PIO/DMA of CF Card.	PIO+DMA	PIO	ON	
4	Sets up an enabled/ disabled state for the port execution control function of hardware reset switch.	Disabled	Enabled	OFF	The hardware reset switch is unavailable when the SW is ON. But, it is available to enter switch from the Soft OFF*2 state.
5	Able to change a Master/Slave setting for CF Card slot.	Master	Slave	OFF*3	
6	Sets up an enabled/ disabled state for the front USB port execution control function.*4	Enabled	Disabled	OFF	The front USB port is available when the SW is ON. It is unavailable when the SW is OFF.
7	Used for the system.	Reserved	Reserved	OFF	
8	Used for the system.	Reserved	Reserved	ON	
9	Implements the logical inversion operation for RAS output.	Normal Close	Normal Open	OFF	RAS output is a CLOSE state when the SW and the system is ON. When the SW is OFF, it is the opposite. The RAS Output keeps Normal OPEN when the Soft OFF*2 state occurs or the power turns OFF.
10	Used for the system.	Reserved	Reserved	OFF	

Table 1) System Set Switch

*1 When two points are pushed, it is considered that middle point between the two points is touched according to the nature of the analog resistive touch panel.
When the switch, etc. is set on the middle point, it will be enabled and may operate.
To prevent such a switch from malfunction in case of pushing two points, turn ON the SW No.1 in advance, then the middle point will be disabled to be touched.

*2 The Soft OFF refers to the state that Windows® has been shut down and the power is provided only for the electric circuit to boot system. This Soft OFF State is different from what is System Standby set by Windows®.

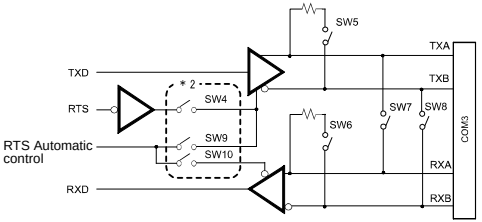
*3 When built in Pro-face's Windows® XP Embedded, the factory setting is ON.

*4 The Setting up an enabled/Disabled state for USB port execution control function is available for only Windows® 2000 and Windows® XP. Make sure to disable the function of the setting when other OS used.

Switch No.	Description	ON	OFF	RS-232C	RS-422	RS-485
1	Used by the system.	No Connection	No Connection	OFF*1	OFF*1	OFF*1
2	Changes COM3's communication method.	RS-422/RS-485	RS-232C	OFF	ON	ON
3	Changes COM3's communication method.	RS-422/RS-485	RS-232C	OFF	ON	ON
4	Changes TX data's output mode.	TX data output is controlled via the RTS signal.	TX data output is NOT controlled via the RTS signal. (normally output)	OFF	ON/OFF	ON/OFF*2
5	Switches the TX termination resistance ON/OFF.	Inserts termination resistance of 220W between TXA and TXB.	No termination	OFF	ON	ON/OFF*3
6	Switches the RX termination resistance ON/OFF.	Inserts termination resistance of 220W between RXA and RXB.	No termination	OFF	ON	ON/OFF*3
7	Switches the shorting of TXA and RXA ON or OFF.	Shorts TXA and RXA (RS-485 mode)	No shorting (RS-422 mode)	OFF	OFF	ON
8	Switches the shorting of TXB and RXB ON or OFF	Shorts TXB and RXB (RS-485 mode)	No shorting (RS-422 mode)	OFF	OFF	ON
9	RTS Automatic control mode (enabled only when RS-485 mode).	The data is automatically controlled via the RTS signal.	The data is not automatically controlled via the RTS signal.	OFF	OFF	ON/OFF*2
10				OFF	OFF	ON/OFF*2

Table 2) Serial Mode Select Switch

Serial Mode Select Switches (SW4 to SW10) operate as shown in the circuit diagram below.



*1 Be sure to keep the settings, "OFF".

*2 To enable RTS automatic control of the TX output driver, set SW No. 9 and 10 ON, and set SW No.4 OFF.
To enable control of the TX output driver via RTS signals, set SW No. 9 and 10 OFF, and set SW No.4 ON

*3 If you use the termination resistance, base your settings on the connection specifications.

External Interfaces

IMPORTANT

- Always connect the #5 SG (Signal Ground) of the PS-A unit to the connected device, especially if the connected device is also not isolated. Failure to do so may damage the RS-232C/RS-422/RS-485 circuit.

■ Serial Interface (COM1, COM2, COM3, COM4)

Interfit Bracket	#4-40 (UNC)

◆COM1, COM2, COM4

Pin #	RS-232C	
	Signal Name	Description
1	CD	Carrier Detect
2	RD(RXD)	Receive Data
3	SD(TXD)	Send Data
4	ER(DTR)	Data Terminal Ready
5	GND	Signal Ground
6	DR(DSR)	Data Set Ready
7	RS(RTS)	Request to Send
8	CS(CTS)	Clear to Send
9	CI(RI)/+5V*1	Called status display (Fixed "RI" for COM4)/ +5V Output (Switching available)
FG	FG	Frame Ground (Common with SG)

*1 To change the RI/+5V setting of #9 pin, open the PS-A unit's rear cover and set slide switch to the desired position.
Please refer to "Switches" for details.

◆COM3

COM3 can be changed to either RS-232C, RS-422 or RS-485. (The factory setting is RS-232C.) To change this setting, open the PS-A unit's rear cover and set slide switch on the circuit board to the desired position. Please refer to "Switches" for details.

Pin #	RS-232C	
	Signal Name	Description
1	CD	Carrier Detect
2	RD(RXD)	Receive Data
3	SD(TXD)	Send Data
4	ER(DTR)	Data Terminal Ready
5	GND	Signal Ground
6	DR(DSR)	Data Set Ready
7	RS(RTS)	Request to Send
8	CS(CTS)	Clear to Send
9	CI(RI)	Called status display
FG	FG	Frame Ground (Common with SG)

Pin #	RS-422	
	Signal Name	Description
1	RDA	Receive Data A (+)
2	RDB	Receive Data B (-)
3	SDA	Send Data A (+)
4	NC	No Connection
5	GND	Signal Ground
6	NC	No Connection
7	SDB	Send Data B (-)
8	NC	No Connection
9	NC	No Connection
FG	FG	Frame Ground (Common with SG)

Pin #	RS-485	
	Signal Name	Description
1	DATA +	Send/Receive Data(+)
2	DATA -	Send/Receive Data(-)
3	NC	No Connection
4	NC	No Connection
5	GND	Signal Ground
6	NC	No Connection
7	NC	No Connection
8	NC	No Connection
9	NC	No Connection
FG	FG	Frame Ground (Common with SG)

IMPORTANT

- Do not connect any pins to COM3 [NC].
- Be sure to connect pin number 5 (GND) of COM1, COM2, COM3, and COM4 (RS-232C) to the host unit's Signal Ground terminal.
- Be sure to confirm what settings will be used by the other device and set the slide switches accordingly. Failure to do so can result in a unit malfunction or damage.
- Whenever changing the PS-A switches, be sure to first turn the PS-A's power supply OFF. Failure to do so can cause a PS-A malfunction.
- Connect the FG terminal line to the shell.
- FG and SG terminals are internally connected in the PS-A. When connecting to another device, be sure not to create an SG shorting loop in your system.

■ RAS Interface

IMPORTANT

- Be sure to use only the rated voltage level when using the No. 2, 15 [+5V] and No.3 [+12V] for external power output. Failure to do so can lead to a unit malfunction or accident.

Interfit Bracket	#4-40(UNC)

Pin #	Signal Name	Description
1	GND	Ground
2	+5V	Output Current:100mA or less (with a total of 2 pin and 15 pin) Output Voltage: 5V±5%
3	+12V	Output Current: 100mA or less Output Voltage: 12V±5%
4	NC	-
5	RST(+)	Reset in(+)
6	DIN0(+)	Data in 0(+)
7	DOUT2(-) (UPS Shutdown(-))	Data out 2(-) (UPS Shutdown(-))
8	DOUT2(+) (UPS Shutdown(+))	Data out 2(+) (UPS Shutdown(+))
9	DOUT0(-)	Data out 0(-)
10	DOUT0(+)	Data out 0(+)
11	RST(-)	Reset in(-)
12	DIN0(-)	Data in 0(-)
13	DIN1(+)	Data in 1(+)
14	GND	Ground
15	+5V	Output Current:100mA or less (with a total of 2 pin and 15 pin) Output Voltage: 5V±5%
16	DIN2(+)	Data in 2(+)
17	DIN2(-)	Data in 2(-)
18	DIN3(+)	Data in 3(+)
19	DOUT1(-)	Data out 1(-)
20	DOUT1(+)	Data out 1(+)
21	DOUT3(-)	Data out 3(-)
22	DOUT3(+)	Data out 3(+)
23	DIN3(-)	Data in 3(-)
24	DIN1(-)	Data in 1(-)
25	NC	-

NOTE

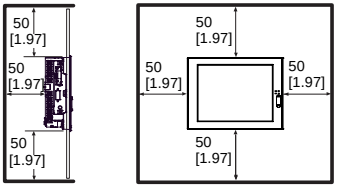
- For the circuit diagram, refer to “PS-3710A/ PS-3711A Series Reference Manual”.

Installations

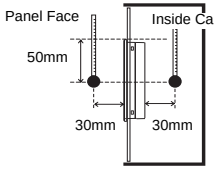
1. Installation Requirements

- For easier maintenance, operation, and improved ventilation, be sure to install the PS-A at least 50mm [1.97 in.] away from adjacent structures and other equipment.

Unit:mm[in.]



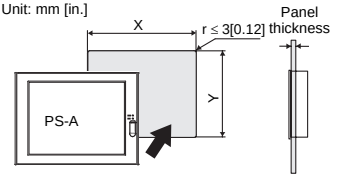
- Be sure that the surrounding air temperature and the ambient humidity are within their designated ranges. (Surrounding air temperature: with HDD 5 to 50°C without HDD 0 to 50°C, Ambient humidity: 10 to 90%RH, Wet bulb temperature: 29°C or less,)
  When installing the PS-A on the panel of a cabinet or enclosure, "Surrounding air temperature" indicates both the panel face and cabinet or enclosure's internal temperature.



- Be sure that heat from surrounding equipment does not cause the PS-A to exceed its standard operating temperature.

2. PS-A Installation

(1) Create a Panel Cut following the dimensions in the table below.



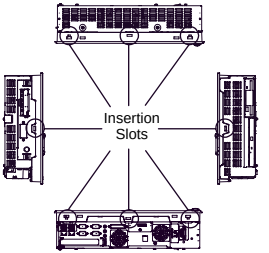
PS-A	X	Y	Panel thickness
PS-3710A	383.5^{+1}_{-0} [$15.10^{+0.04}_{-0}$]	282.5^{+1}_{-0} [$11.12^{+0.04}_{-0}$]	1.6[0.06] to 10.0[0.39]

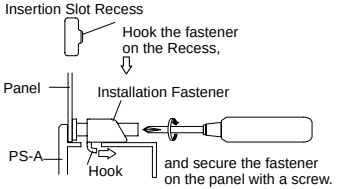
(2) Confirm that the installation gasket is attached to the PS-A unit and then place the PS-A unit into the Panel from the front.

IMPORTANT

- It is strongly recommended that you use the installation gasket, since it absorbs vibration in addition to repelling water.
  For the procedure for replacing the installation gasket, refer to "PS-3710A/PS-3711A Series Hardware Manual".

(3) Insert each fastener's hook into the slot and tighten it with a screwdriver. Insert the installation fasteners securely into the insertion slot recess. There are eight insertion slots.





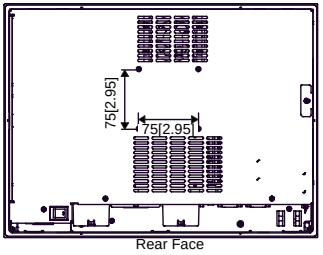
IMPORTANT

- Tightening the screws with too much force can damage the PS-A unit.
- The necessary torque is 0.5N•m.
- Be sure to insert installation fasteners in the recessed portion of an installation fasteners hole. If the fasteners are not correctly attached, the PS-A unit may shift or fall out of the panel.

3. Attach the PS-A unit to an Arm

To attach the PS-A unit to an Arm or to the wall, insert the attachment screws for a commercial-type arm or wall mount adaptor into the holes in the PS-A's rear face.
(Holes specifications: VESA 75mm)
For detailed attachment instructions, please refer to that product's installation guide. The VESA Arm Attachment Hole dimensions are signifies as follows;

(unit:mm[in.])



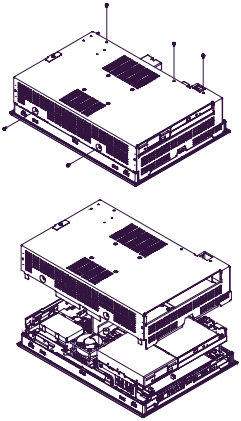
Arm Attachment Screw Holes (VESA 75mm).
Attach the four (4) M4 attachment screws. (Screw length: 6mm (0.24 in.) or less.) The torque required for these screws is 0.7 to 0.8 N•m.

4. Removal/Attachment the Rear Cover

IMPORTANT

- Use a screwdriver to loosen or tighten the screws. Be sure not to tighten screws too tightly, since it may damage the unit.
- Be careful when removing or inserting any screws that they do not fall inside the PS-A.

Unscrew the five (5) attachment screws used to hold the Rear Cover in place, and remove the Rear Cover. The torque of the rear cover required for these screws is 0.5 to 0.6 N•m.



Wiring

⚠ WARNING

- To avoid an electric shock, prior to connecting the PS-A unit's power cord terminals to the power terminal block, confirm that the PS-A unit's power sup-

ply is completely turned OFF, via a breaker, or similar unit.

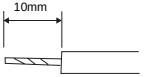
- Supplying a power voltage other than that specified can damage the PS-A and the power supply.
- Since the PS3710A-T42-24V has no power ON/OFF switch, be sure to attach a breaker-type switch to its power cord.
- When the FG terminal is connected, be sure the wire is grounded.

IMPORTANT

- When the FG terminal is connected, be sure the wire is grounded. Not grounding the PS-A unit will result in excessive noise. Use your country's applicable standard for grounding.

■ Power Cord Specifications

Use copper conductors only.

Power Cord Diameter	0.75 to 2.5mm^2 (18 to 12 AWG)
Conductor Type	Simple or Stranded Wire*1
Conductor Length	

*1 If the Conductor's end (individual) wires are not twisted correctly, the end wires may either short against each other, or against an electrode.

■ Wiring

When connecting the power cord, use the following items when performing wiring. (Items are made by Phoenix Contact.)

Recommended Driver	SZS 0.6x3.5 (1205053)
Recommended Pin Terminals	AI 0.75-10GY (3201288) AI 1-10RD (3200182) AI 1.5-10BK (3200195) AI 2.5-12BU (3200962)
Recommended Pin Terminal Crimp Tool	CRIMPFOX ZA3 (1201882)

NOTE

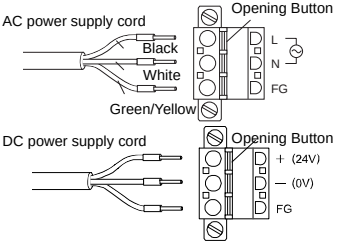
- Accompanying AC type power supply plug is CA7-ACCNL-01 from Pro-face or FKC2.5/3-STF-5.08 is manufactured by Phoenix Contact.
- Accompanying DC type power supply plug is CA7-DCCNL-01 from Pro-face or GFKC2.5/3-STF-7.62 is manufactured by Phoenix Contact.

■ Connecting the Power Cord

(1) Confirm that the power is not supplied to the PS-A unit.

(2) Push the Opening button with a small and flat screw driver to open the desired pin hole.

(3) Insert each pin terminal into its each hole. Release the Opening button to clamp the pin in place.



(4) After inserting all three pins, insert the Power Plug into the Power Connector at PS-A. Fix the plug with two (2) slot screws.

IMPORTANT

- Confirm that all wires are connected correctly.
- The torque required to tighten these screws is 0.5 to 0.6N•m.
- To prevent the possibility of a terminal short, use a pin terminal that has an insulating sleeve.

1. Power Supply Cautions

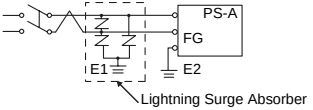
- Input and Output signal lines must be separated from the power control cables for operational circuits.
- To improve the noise resistance, be sure to twist the ends of the power cord wires before connecting them to the Power Plug.
- The PS-A unit's power supply cord should not be bundled with or kept close to main circuit lines (high voltage, high current), or input/output signal lines.
- To reduce noise, make the power cord as short as possible.
- If the supplied voltage exceeds the PS-A unit's range, connect a voltage transformer.
- Between the line and the ground, be sure to use a low noise power supply. If there is an excess amount of noise, connect a noise reducing transformer.
- The temperature rating of field installed conductors: 75°C only.

IMPORTANT

- Use voltage and noise reducing transformers with capacities exceeding Power Consumption value.
- Connect a surge absorber to handle power surges.

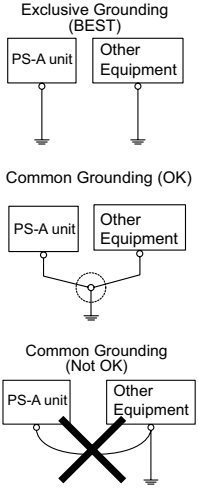
IMPORTANT

- Be sure to ground the surge absorber (E1) separately from the PS-A unit (E2). Select a surge absorber that has a maximum circuit voltage greater than that of the peak voltage of the power supply.



2. Grounding Cautions

- Be sure to create an exclusive ground for the Power Cord's FG terminal. Use a grounding resistance of 100Ω, a wire of $2mm^2$ or thicker, or your country's applicable standard.
- The SG (signal ground) and FG (frame ground) terminals are connected internally in the PS-A unit.
  When connecting the SG line to another device, be sure that the design of the system/connection does not produce a shorting loop.
- The grounding wire should have a cross sectional area greater than $2mm^2$. Create the connection point as close to the PS-A unit as possible, and make the wire as short, as possible. When using a long grounding wire, replace the thin wire with a thicker wire, and place it in a duct.



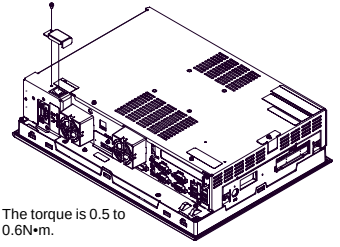
3. Input/Output Signal Line Cautions

- All PS-A Input and Output signal lines must be separated from all operating circuit (power) cables.
- If this is not possible, use a shielded cable and ground the shield.

- To improve noise immunity, it is recommended to attach a ferrite core to the power cord.

Attaching the Power Switch cover

For the AC type to conform to ANSI/ISA standards, the Power Switch cover needs to be attached to the main unit.

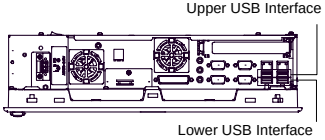


The torque is 0.5 to 0.6N•m.

To prevent the USB cable from coming off

■ Attaching the USB Cable Clamp

(1) Place the PS-A unit face-down on a flat surface as shown below. Your PS-A unit has four USB connectors.



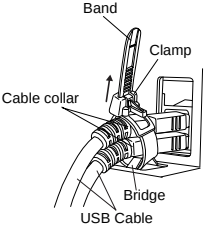
NOTE

- When using two or more USB ports, be sure to first connect one USB cable to the lower USB connector, and then connect the second USB cable to the upper USB connector.
- When using only one of the USB ports, be sure to use the lower USB connector. This allows you to securely clamp the USB cable in the cable clamp.

(2) As shown, insert the USB Cable Clamp's band through the Bridge. Pass the USB cables through the Cable Clamp's band and securely tighten the clamp band around the cables.

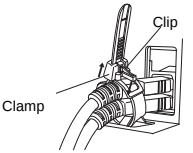
NOTE

- Be sure the clamp is securely holding the USB cable's plug and collar.
- Be sure the clamp is positioned as shown below, with the clamp pointing upwards - not to the side. This is to keep the clamp from interfering with nearby connectors and their cables.



■ Removing the USB Cable Clamp

(1) To remove the clamp from the USB cables, push down on the clamp strap's clip to release it while pulling up on the clamp.



Installation prerequisites for standards

For the detailed certification's information, refer to the Pro-face Home page.

<Cautions>

Be aware of the following items when building the PS-A into an end-use product:

- The PS-A unit's rear face is not approved as an enclosure. When building the PS-A unit into an end-use product, be sure to use an enclosure that satisfies standards as the end-use product's overall enclosure.
- The PS-A unit must be used indoors only.
- Install and operate the PS-A with its front panel facing outwards.
- If the PS-A is mounted so as to cool itself naturally, be sure to install it in a vertical panel. Also, it's recommended that the PS-A should be mounted at least 50mm [1.97in.] away from any other adjacent structures or machine parts. The temperature must be checked on the final product in which the PS-A is installed.
- For use on a flat surface of a Type 4X (Indoor Use Only) and/or Type 12 Enclosure.
- Type 4X (Indoor Use Only) and/or 12 Enclosure, when the hatch for Front USB Port is secured with a screw.
  Type 1 Enclosure, when the hatch for Front USB Port is open.

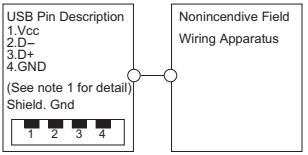
<Hazardous Locations - Compliance and Handling Cautions>

- Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations only.
- WARNING: Explosion hazard - substitution of components may impair suitability for Class I, Division 2.
- WARNING: Explosion hazard - do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.
- WARNING: Explosion hazard - when using the PS-A with the AC type power supply, be sure to attach the Power Switch Cover.

<Control Drawing of USB I/F on PS-A's Front Module>

The information below concerns the use of the USB I/F located on the PS-A unit's front modules used in Class I, Division 2 Groups A, B, C, and D hazardous locations (from Doc No. 35016429).

PS-A's Front Module



Notes:

1. Nonincendive Circuit Parameters:
   Front USB I/F:
   Voc = 5.0 V, Isc = 1.25 A, Ca = 10 µF,
   La = 16 µH
2. Selected Associated Nonincendive Field Wiring Apparatus shall satisfy the following:

Nonincendive Field Wiring Apparatus	-	Front module of PS-A unit
Voc	≤	Vmax
Isc	≤	Imax
Ca	≥	Ci+C cable
La	≥	Li+L cable

3. If the electrical parameters of the cable are unknown, the following values may be used:
   Capacitance = 60pF/ft, Inductive = 0.20 µH/ft
4. Nonincendive Field Wiring must be installed in accordance with article 501.10(B) of the National Electrical Code ANSI/NFPA 70.
5. Nonincendive Field Wiring Apparatus shall not contain or be connected to another source of power.

CE Marking

- PS3710A-T42 unit is a CE marked product that conforms to EMC directives and Low Voltage Directives.
- PS3710A-T42-24V is a CE marked product that conforms to EMC directives.

For the detailed information, please be downloaded and refer the Declaration of Conformity from Pro-face Home Page.

Inquiry

Do you have any questions about difficulties with this product?
Please access our site anytime that you need help with a solution.

http://www.pro-face.com/otasuke/

Note

Please be aware that Digital Electronics Corporation shall not be held liable by the user for any damages, losses, or third party claims arising from the uses of this product.

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California Proposition 65 Warning—Lead and Lead Compounds
Advertencia de la Proposición 65 de California—Plomo y compuestos de plomo
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