

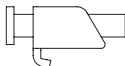
PS-3650A/PS-3651A Installation Guide

Caution

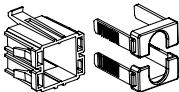
Be sure to read the "Warning/Caution Information" on the attached sheet before using the product.

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)



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



- (7) Power Plug (1)



AC type
(5.08mm[0.2in.]
pitch)



DC type
(7.62mm[0.3in.]
pitch)

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, the PS-A package should include an Installation Guide for any optional items included. Please use that guide to check that all components are included in each optional item's package.

About the Manual

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

- PS-3650A/PS-3651A Series Hardware Manual
- PS-3650A/PS-3651A Series Reference Manual
- PS-3650A/PS-3651A Series API Reference Manual

Manual can be downloaded from Pro-face Home Page.

URL

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

NOTE

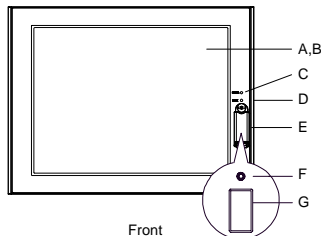
- The drivers and utilities for PS-A can be downloaded from Pro-face Home Page.

This Installation guide is for the following models:

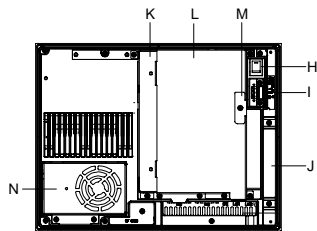
- PS3650A-T42
- PS3650A-T42-24V
- PS3651A-T42
- PS3651A-T42-24V
- PS3650A-T42S
- PS3650A-T42S-24V
- PS3651A-T42S
- PS3651A-T42S-24V

Please refer to related manuals or installation guides for PS-3650A/3651A Series that are not listed above.

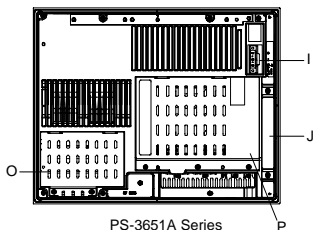
Part Names and Functions



	Name	Description												
A	Display	Display Area												
B	Touch Panel	User input is available by means of touching the panel.												
C	Power LED / Status Lamp (POWER)	<p>The lamp shows the status of the PS-A's power and operation. The display colors and their details are as follows.</p> <table border="1"> <thead> <tr> <th>LED</th> <th>PS-A Status</th> </tr> </thead> <tbody> <tr> <td>Green (lit)</td> <td>Normal Operation (power is on)</td> </tr> <tr> <td>Green (blinking)</td> <td>Soft OFF state</td> </tr> <tr> <td>Orange (lit)</td> <td>System monitor error</td> </tr> <tr> <td>Orange/Red (blinking)</td> <td>Backlight burnout is detected</td> </tr> <tr> <td>Not lit</td> <td>Power is OFF</td> </tr> </tbody> </table>	LED	PS-A Status	Green (lit)	Normal Operation (power is on)	Green (blinking)	Soft OFF state	Orange (lit)	System monitor error	Orange/Red (blinking)	Backlight burnout is detected	Not lit	Power is OFF
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Orange (lit)	System monitor error													
Orange/Red (blinking)	Backlight burnout is detected													
Not lit	Power is OFF													
D	DISK Access Lamp (DISK)	<p>The lamp shows the status PS-A's DISK access and battery operation. The display colors and their details are as follows.</p> <table border="1"> <thead> <tr> <th>LED</th> <th>PS-A Status</th> </tr> </thead> <tbody> <tr> <td>Green (lit)</td> <td>When HDD or IDE is accessed</td> </tr> <tr> <td>Not lit</td> <td>When neither HDD nor IDE is accessed</td> </tr> <tr> <td>Orange (lit)</td> <td>PS-A is in operation with backup battery</td> </tr> <tr> <td>Red (lit)</td> <td>PS-A is in suspension with backup battery</td> </tr> </tbody> </table>	LED	PS-A Status	Green (lit)	When HDD or IDE is accessed	Not lit	When neither HDD nor IDE is accessed	Orange (lit)	PS-A is in operation with backup battery	Red (lit)	PS-A is in suspension with backup battery		
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Red (lit)	PS-A is in suspension with backup battery													
E	Front Cover	—												
F	Hardware Reset Switch (RESET)	Restart PS-A.												
E	Front USB Interface (USB)	<p>1 port. Complies with USB 1.1. Uses a "TYPE-A" connector.</p> <table border="1"> <tbody> <tr> <td>Power supply voltage</td> <td>DC 5V \pm5%</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> </tbody> </table>	Power supply voltage	DC 5V \pm 5%	Output current	Each port: 500mA(max.), 5 ports total: 500mA(max.)	The maximum communication distance	5m						
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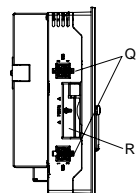


PS-3650A Series

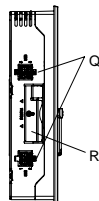


PS-3651A Series

Rear



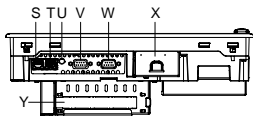
PS-3650A Series



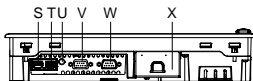
PS-3651A Series

Side

Name		Description						
H	Power Switch	Supported by AC type only.						
I	Power Connector	For connection, install a power plug, which is one of accessories, to the power cable.						
J	Mask Cover	—						
K	Expansion Board Base	PS-3650A Series only.						
L	Expansion Board Cover	The PCI board installation interface is located in the cover opening. PS-3650A Series only						
M	Expansion Board Supporter	PS-3650A Series only						
N	Fan Unit	PS-3650A Series only						
O	Memory Slot Cover	PS-3651A Series only						
P	DISK Cover	PS-3651A Series only						
Q	USB Interface (USB)	Side: comply with USB 2.0 (4 ports). "TYPE-A" connector. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Power supply voltage</td> <td>DC 5V \pm5%</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>	Power supply voltage	DC 5V \pm 5%	Output current	Each port:500mA(max.), 5 ports total:500mA(max.)	The maximum communication distance	5m
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The maximum communication distance	5m							
R	PCMCIA Slot Cover	1 slot under the cover. Complies with Type II.						



PS-3650A Series



PS-3651A Series

Bottom

	Name	Description
S	Ethernet Interface (LAN2)	10BASE-T/100BASE-TX/1000BASE-T Auto Changeover. This interface uses an RJ-45 type modular jack connector.
T	Ethernet Interface (LAN1)	10BASE-T/100BASE-TX Auto Changeover. This interface uses an RJ-45 type modular jack connector.
U	Speaker Output Interface (SPEAKER OUT)	Mini jack connector.
V	RAS Interface (RAS)	RAS port type 2ch General-Purpose Input/Output. D-Sub 9-pin socket type.
	Serial Interface (COM2)	Serial 2 port type D-Sub 9-pin plug. RS-232C compliant (RI Only).
W	Serial Interface (COM1)	D-Sub 9-pin plug. RS-232C, RS-422, RS-485 Changeover.
X	CF Card Interface Cover	CF card interface is under the cover. Type II-compliant slot, or Type 1 x 1 slot.
Y	Expansion Slot	PS-3650A Series only.

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

		AC Power Supply	DC Power Supply
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	PS-3650A Series: 110VA or less PS-3651A Series: 95VA or less	PS-3650A Series: 80W or less PS-3651A Series: 40W or less
	In-Rush current (room temperature)	AC100V : 30A or less AC240V : 50A or less	30A 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

		PS-3650A Series	PS-3651A Series
Physical	Surrounding Air Temperature	0 to 50 °C : without HDD 5 to 50 °C : with HDD	0 to 50 °C : without HDD 5 to 45 °C : with HDD
	Storage Temperature	-20 to +60°C	
	Ambient Humidity	10 to 90% RH (Not condensing, wet bulb temperature: 39°C or less. with HDD: 29°C or less.)	
	Storage Humidity	10 to 90% RH (Not condensing, wet bulb temperature:39°C or less.)	
	Dust	0.1mg/m ³ and below (Non-conductive levels)	
	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[®] 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.

DIP Switches

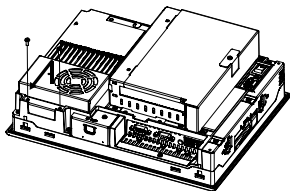
1. Changing Settings

To set the DIP switches which are on the PS-A's circuit board, remove the PS-A's Fan Unit or Memory Slot Cover.

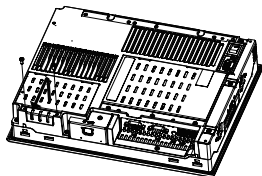
IMPORTANT

- 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.
- (1) Turn OFF the power switch of the PS-A and remove the power cable. Place the PS-A on a flat, level surface facing the display face downwards.

- (2) Unscrew the screws (2) as you see on the following figure, then remove the Fan Unit or the Memory Slot Cover.



PS-3650A Series



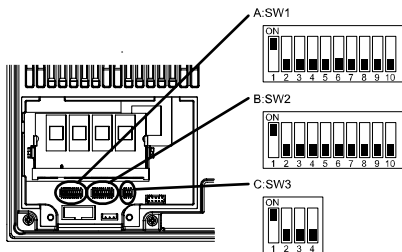
PS-3651A Series

2. DIP Switches Configuration

IMPORTANT

- 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.

DIP Switch Locations



Switch Location	Switch Name	Description
A	System Set SW1	10-point DIP switch. For the switches details, see Table (1).
B	Serial Mode Select SW	10-point DIP switch. Designates COM1 communication settings. For the switches details, see Table (2).
C	System Set SW2	4-point DIP switch. For the switches details, see Table (3).

Switch No.	Description	ON	OFF	Notes
1	Used for the system.	Reserved	Reserved	Factory Settings: ON
2	Used for the system.	Reserved	Reserved	Factory Settings: OFF
3	Change Reset SW mode. *1	Power button	Reset SW	Factory Settings: OFF
4	Sets up an enabled/disabled state for the port execution control function of hardware reset switch. *1	Disabled	Enabled	Factory Settings: OFF
5	Used for the system.	Reserved	Reserved	Factory Settings: OFF
6	Sets up an enabled/disabled state for the front USB port execution control function. *2	Disabled	Enabled	Factory Settings: OFF
7	Used for the system.	Reserved	Reserved	Factory Settings: OFF
8	Cancellation function of pushing two points on the touch panel	Enabled	Disabled	Factory Settings: 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.
9	Used for the system.	Reserved	Reserved	Factory Settings: OFF
10	Changes COM1's # 9 pin (RI ----> +5V). Enabled only when RS-232C mode	+5V Output	RI	Factory Settings: OFF

Table 1) System Set Switch 1

*1 The PS-A restarts when pressing the switch in the Soft OFF state. Soft OFF means 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 System Standby set by Windows®.

*2 Setting up an enabled/disabled state for the USB port execution control function is available for only Windows®. Make sure to disable the function of the setting when using another OS.

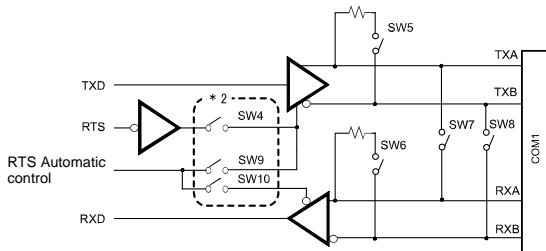
Factory setting is RS-232C. Only SW No.1 is ON.

Switch No.	Description	ON	OFF	RS-232C	RS-422	RS-485
1	Changes COM1's communication method.	RS-232C	RS-422/RS-485	ON	OFF	OFF
2	Changes COM1's communication method.	RS-422/RS-485	RS-232C	OFF	ON	ON
3	Changes COM1'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*1

Switch No.	Description	ON	OFF	RS-232C	RS-422	RS-485
5	Switches the TX termination resistance ON/OFF.	Inserts termination resistance of 220Ω between TXA and TXB.	No termination	OFF	ON	ON/OFF*2
6	Switches the RX termination resistance ON/OFF.	Inserts termination resistance of 220Ω between RXA and RXB.	No termination	OFF	ON	ON/OFF*2
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	The data is automatically controlled via the RTS signal.	The data is not automatically controlled via the RTS signal.	OFF	OFF	ON/OFF*1
10	(enabled only when RS-485 mode).			OFF	OFF	ON/OFF*1

Table 2) Serial Mode Select Switch

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



*1 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

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

Switch No.	Description	ON	OFF	Notes
1	Changeover of a Master/Slave setting for primary CF Card I/F.	Master	Slave	Factory Settings: ON
2	Used for the system.	Reserved	Reserved	Factory Settings: OFF
3	Change Reset SW mode. ^{*1}	Enabled	Disabled	Factory Settings: OFF
4	Used for the system.	Reserved	Reserved	Factory Settings: OFF

Table 3) System Set Switch 2

*1 In SOFT OFF state, input to RAS Interface DIN1(+), will start the PS-A. RAS port type only.

External Interfaces

Serial Interface (COM1, COM2)

The PS-A unit side connector is a D-Sub 9 pin plug type.

Interfit Bracket	#4-40 (UNC)
------------------	-------------

NOTE

- COM2 is an interface for the serial 2 port type only.

IMPORTANT

- Do not connect any pins to [NC].
- Connect the FG terminal line to the shell.
- 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 RS232C/RS422/RS485 circuit.
- 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.

◆COM1

COM1 can be changed to RS-232C, RS-422 or RS-485. (The factory setting is RS-232C.) To change this setting, open the PS-A unit's FAN Unit or Memory Slot Cover and set DIP switch on the circuit board to the desired position.

Please refer to "DIP Switches" on page 5 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 (SG)
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 /+5V Output (Switching available)
Shell	FG	Frame Ground (Common with SG)

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

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

Pin #	RS-422	
	Signal Name	Description
5	GND	Signal Ground (SG)
6	NC	No Connection
7	SDB	Send Data B (-)
8	NC	No Connection
9	NC	No Connection
Shell	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 (SG)
6	NC	No Connection
7	NC	No Connection
8	NC	No Connection
9	NC	No Connection
Shell	FG	Frame Ground (Common with SG)

◆COM2

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 (SG)
6	DR(DSR)	Data Set Ready
7	RS(RTS)	Request to Send
8	CS(CTS)	Clear to Send
9	CI(RI)	Called status display
Shell	FG	Frame Ground (Common with SG)

■ RAS Interface

The PS-A unit side connector is a D-Sub 9 pin socket type.

Interfit Bracket	#4-40(UNC)
------------------	------------

NOTE

- RAS is an interface for RAS port type only.

IMPORTANT

- Be sure to use only the rated voltage level when using pin # 1 (+12V) for external power output. Failure to do so can lead to a unit malfunction or accident.

Pin #	Signal Name	Description
1	+12V	Output Current: 100mA or less Output Voltage: 12V±5%
2	DOUT0(+)	Data out 0(+)
3	DOUT1(+)	Data out 1(+)
4	DIN0(+)	Data in 0(+)
5	DIN1(+)	Data in 1(+) ^{*1}
6	GND	Ground
7	DOUT0(-)	Data out 0(-)
8	DOUT1(-)	Data out 1(-)
9	DINCOM	Data in common

*1 This pin can be used as an input start or external reset input of the RAS feature. The factory setting is data input.

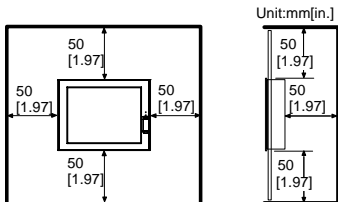
NOTE

- For the circuit diagram, refer to “PS-3650A/PS-3651A Series Hardware Manual”.

Installations

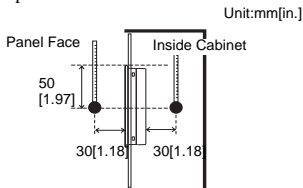
1. Installation Requirements

- 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.



- Be sure that the surrounding air temperature and the ambient humidity are within their designated ranges. Surrounding air temperature 0 to 50°C: (with HDD: PS-3650A - 5 to 50°C, PS-3651A - 0 to 45°C). Ambient humidity: 10 to 90% RH (wet bulb temperature: 39°C or less, with HDD 29°C or less).

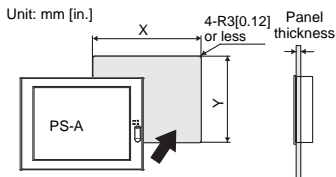
When installing the PS-A on the panel of a cabinet or enclosure, “Surrounding air temperature” indicates both the panel face and cabinet or enclosure’s internal temperature.



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

2. PS-A Installation

- Create a Panel Cut following the dimensions in the table below. Also, determine the panel thickness according to the panel thickness range with due consideration of panel strength.



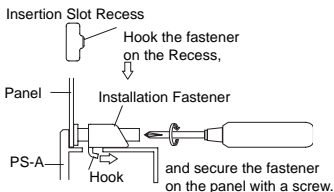
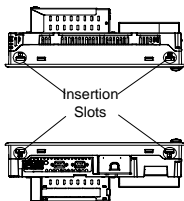
PS-A	X	Y	Panel thickness
PS-3650A	301.5 ⁺¹ ₋₀ [[11.87 ^{+0.04} ₋₀]]	227.5 ⁺¹ ₋₀ [[8.96 ^{+0.04} ₋₀]]	1.6[0.06] to 10.0[0.39]

- 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. To replace the installation gasket, see “PS-3650A/PS-3651A 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.

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 supply 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 DC power supply Type 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	Solid or Stranded Wire*1
Conductor Length	10mm [0.39in.]

*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)
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- To prevent the possibility of a terminal short, use a pin terminal that has an insulating sleeve.

1. Power Supply Cautions

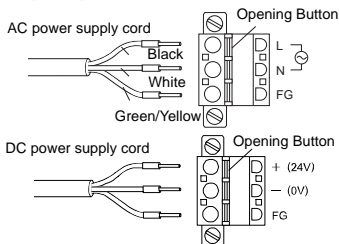
- Input and Output signal lines must be separated from the power control cables for operational circuits.
- To improve the noise resistance, be sure to twist the ends of the power cord wires before connecting them to the Power Plug.
- The PS-A unit's power supply cord should not be bundled with or kept 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.

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.



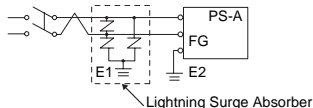
- (4) After inserting all three pins, insert the Power Plug into the Power Connector at PS-A. Fix the plug with two (2) slot screws.

IMPORTANT

- 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.



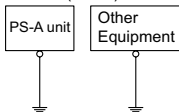
IMPORTANT

- Confirm that all wires are connected correctly.
- The torque required to tighten these screws is 0.5 to 0.6N•m.

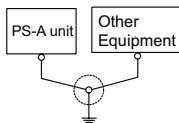
2. Grounding Cautions

- 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.

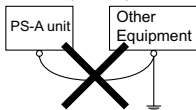
Exclusive Grounding
(BEST)



Common Grounding (OK)



Common Grounding
(Not OK)



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.

To prevent the USB cable from coming off

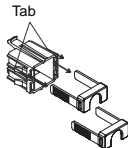
When using a USB device, attaching the USB holder to the USB Interface located on the side of the PS-A unit prevents the USB cable Interface from becoming disconnected.

NOTE

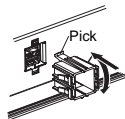
- The USB holder cannot be attached to the USB Interface located on the front of the PS-A.

■ Attaching the USB Holder

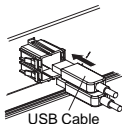
- (1) Before starting the procedure, lift up the tab on both sides of the USB Holder and remove the USB Cover.



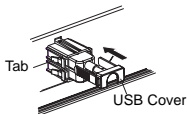
- (2) Attach the USB holder to the USB Interface on the side of the PS-A unit. Hook the upper pick of the USB holder to the attachment hole of the PS-A unit and then insert the lower pick as shown below to fix the USB holder.



- (3) Insert the USB cable into the USB Interface.



- (4) Insert the USB cover into the tab of the USB holder to fix the USB cable.



In case of installing the second USB cable, repeat the steps (3) and (4).

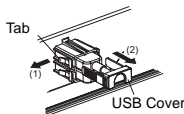
IMPORTANT

- When attaching the USB holder, be sure to attach both USB covers, no matter how many USB cables are connected.

■ Removing the USB Holder

Remove USB Holder by the reverse procedures to the attachment procedures.

- (1) Lift up the tab of the USB holder and then remove the USB cover.



- (2) Remove the USB cable.
- (3) Remove the picks pushing the USB holder from both top and bottom and then remove the USB holder from PS-A unit.

Installation prerequisites for standards

The following units are UL/c-UL listed products: (UL/c-UL File No.E220851)

Product Model No.	UL/c-UL Registration Model No.
PS3650A-T42	3480801-02
PS3650A-T42S	
PS3651A-T42	3480801-01
PS3651A-T42S	
PS3650A-T42-24V	3480801-12
PS3650A-T42S-24V	
PS3651A-T42-24V	3480801-11
PS3651A-T42S-24V	

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.

CE Marking

- PS3650A-T42, PS3650A-T42S, PS3651A-T42, PS3651A-T42S units are CE marked product that conforms to EMC directives and Low Voltage Directives.
- PS3650A-T42-24V, PS3650A-T42S-24V, PS3651A-T42-24V, PS3651A-T42S-24V units are 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.

SCIENCE GATE
Your Automation Partner



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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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