

Pro-face

by **Schneider** Electric

Multi Display Adapter Installation Guide

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Important Information

Notice

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Pro-face for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

Introduction

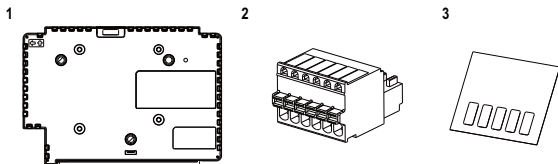
The Multi Display Adapter attaches to the SP5000 Series Display Module (hereafter referred to as “Display Module”), enabling you to view the host screen from a Display Module on an Ethernet network.

NOTE:

- This product does not support wireless LAN communication. Even when attaching a Display Module's wireless LAN model to this product, you need a wired LAN connection between this product and the host.
- For Display Module model numbers, refer to the SP5000 Series Hardware Manual.

Package Contents

The following items are included in the package. Before using this product, please confirm that all items listed here are present.



- 1 Multi Display Adapter (model number: PFXZCDADEXR1): 1
- 2 DIO Connector: 1
- 3 USB masking sticker (mini-B)*¹: 1
- 4 Multi Display Adapter Installation Guide (this manual): 1

*1 When using this product with the SP5000 Series Premium Display, you will be unable to use the Premium Display's USB (mini-B) port. Affix the USB masking sticker to this unused USB port.

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

About the Book

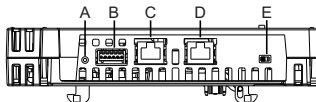
This manual describes wiring and installation procedures. The product's display settings, number of connections to the host and connection settings depend on the configuration software. For more information refer to the Multi Display Adapter User Manual.

You can download the manual from our support site.

<http://www.pro-face.com/trans/en/manual/1001.html>

PFXZCDADEXR1

Bottom



- A: Reset switch^{*1}
B: DIO interface
C: Ethernet interface (Ethernet1)
D: Ethernet interface (Ethernet2)
E: DHCP switch^{*2}

^{*1} Switch for reverting to factory default. Turn on the Display Module while pressing the reset switch, and continue pressing the switch for six seconds or more to revert the Display Module to its factory default settings. Updated standby screen and firmware are preserved.

^{*2} Switch that toggles between enabling and disabling DHCP server feature. In the factory default, the switch is set to OFF.

NOTE:

- For information on settings, refer to the Multi Display Adapter User Manual.
- Recommended Ethernet communication speed: 1000BASE-T (with twisted pair Ethernet cables with a rating of category 5e)
- To prevent interruptions in communication, use an Ethernet cable with a locking tab to confirm that the cable does not disconnect itself from the connector.

LED Indications

Status LED

For the status of this product, check the Display Module's status LED.

Color	Indicator	Description
Green	ON	In operation
	LED fade	Backlight is OFF (Standby Mode), or no video input signal
Green/Orange	Alternating	Setting up Multi Display Adapter
Orange	Flashing	Waiting for Multi Display Adapter communication connection
Red	ON	Power is ON
Orange/Red/ Green	Alternating	Display unit error* ¹
—	OFF	Power is OFF

*¹ The product may be malfunctioning. Please contact your local distributor.

NOTE:

- While the green or orange light is on, if communication is not terminated using an appropriate procedure, the green or orange light will remain on until you restart the product.
- If the screen does not display and the status LED is not in the LED fade state, the backlight is burned out. When the screen does not display, always check the LED status and do not perform touch operations.

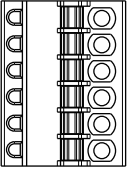
Electrical Specifications

Power Supply	Rated Input Voltage	12 Vdc (Supplied by Display Module)
	Power Consumption	8 W or less

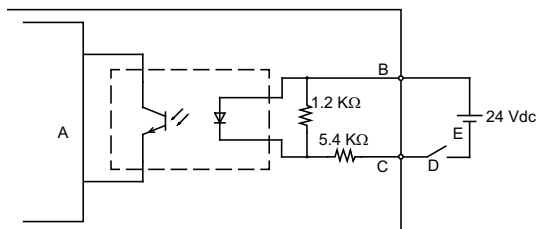
Environmental Specifications

Physical Environment	Surrounding Air Temperature	0...60 °C (32...140 °F)
	Storage Temperature	-20...60 °C (-4...140 °F)
	Surrounding Air and Storage Humidity	10...90% RH (non-condensing, wet bulb temperature 39 °C [102.2 °F] or less)
	Dust	0.1 mg/m ³ (10 ⁻⁷ oz/ft ³) or less (non-conductive levels)
	Pollution Degree	For use in Pollution Degree 2 environment

DIO Interface

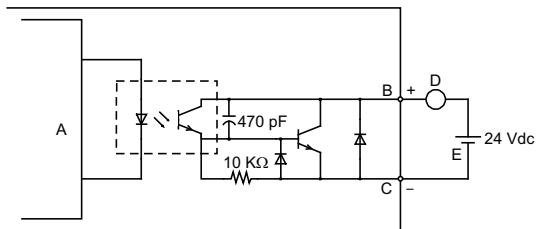
Cable connection side	Pin	Signal name	Direction	Description
	1	Request	Input	Request touch panel operation rights
	2	Request_GND	-	Ground (Request)
	3	Release	Input	Release touch panel operation rights
	4	Release_GND	-	Ground (Release)
	5	Lamp	Output	Output when touch panel operation rights acquired.
	6	Lamp_GND	-	Ground (Lamp)

Request/Release



- A Internal circuit
- B Pin number 1 or 3: Request or Release
- C Pin number 2 or 4: Request_GND or Release_GND
- D Switch
- E External power

Lamp



- A Internal circuit
- B Pin number 5: Lamp
- C Pin number 6: Lamp_GND
- D Load
- E External power

NOTE: Since the output terminals are not electrically protected, an output line might be short-circuited or a connection fault might damage this product. If necessary, install an applicable fuse to prevent an overload in the circuit.

Installation Procedure

Installing onto Display Module

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both the Display Module and the power supply.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace and secure all covers or elements of the system before applying power to the Display Module.

Failure to follow these instructions will result in death or serious injury.

NOTICE

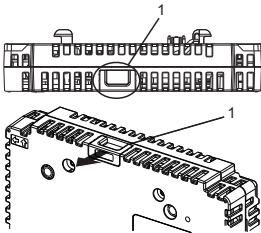
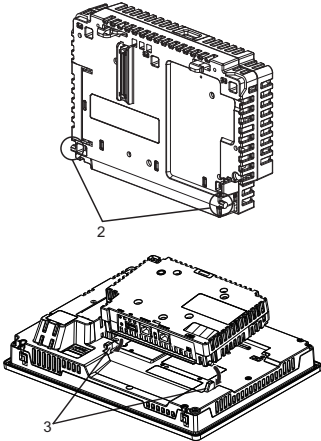
EQUIPMENT DAMAGE

- When mounting the Display Module vertically, first install this product onto the Display Module before attaching the Display Module to the panel.
- When installing this product onto the Display Module, place the Display Module on a clean and level surface with the screen facing downward.

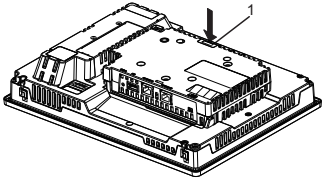
Failure to follow these instructions can result in equipment damage.

Be aware of the following when building this product into an end-use product:

- The rear face of this product is not approved as an enclosure. When building this product into an end-use product, be sure to use an enclosure that satisfies standards as the end-use product's overall enclosure.
- This product is not designed for outdoor use. UL certification obtained is for indoor use only.

Step	Action
1	Pull the LOCK forward on the top of this product to release the lock as illustrated.  1 LOCK
2	Insert the protruding points on the bottom left and right of this product into the two holes on the back of the Display Module to attach this product and the Display Module together.  2 Protruding points 3 Holes for insertion

Installation

Step	Action
3	Fully push on the LOCK on the top of this product to mount this product on the Display Module.  1 LOCK

NOTE: Refer to the SP5000 Series Hardware Manual or the SP5000 Series (Display Module) Installation Guide on how to mount the Display Module to the panel.

Removal Procedure

Removing from Display Module

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both the Display Module and the power supply.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace and secure all covers or elements of the system before applying power to the Display Module.

Failure to follow these instructions will result in death or serious injury.

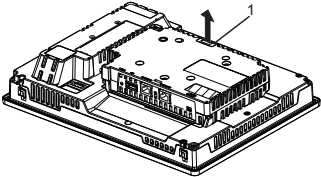
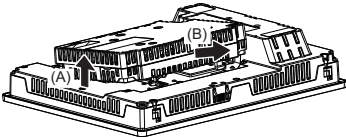
NOTICE

EQUIPMENT DAMAGE

When the Display Module is mounted vertically, first remove the Display Module from the panel, then remove this product from the Display Module.

Failure to follow these instructions can result in equipment damage.

Step	Action
1	If the Display Module was mounted vertically, remove the Display Module from the panel and place the Display Module on a clean and level surface with the screen facing down. NOTE: Refer to the SP5000 Series Hardware Manual or the SP5000 Series (Display Module) Installation Guide on how to remove the Display Module from the panel.

Step	Action
2	Release the LOCK on the top of this product as illustrated.  1 LOCK
3	Lift up this product in the direction indicated by arrow (A) in the diagram and remove it by sliding in the direction indicated by arrow (B). 

⚠ CAUTION

RISK OF INJURY

Do not drop this product when you remove it from the Display Module.

- Hold the unit in place after removing the fasteners.
- Use both hands.

Failure to follow these instructions can result in injury or equipment damage.

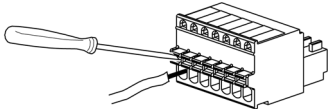
DIO Connector

DANGER

ELECTRIC SHOCK

- Remove the DIO connector from this product prior to wiring.
- Strip wires only to the required length.
- Do not solder the wire itself.

Failure to follow these instructions will result in death or serious injury.

Step	Action
1	Align the flat-head screwdriver with the groove of the orange spring release button, and while depressing the button insert the electric wire into the wire insertion slot (round-shaped hole).
2	Pull out the screwdriver from the release button. The wire insertion slot is then closed, and the wire is held securely in place. To remove the wire, align the flat-head screwdriver with the groove of the release button, and while depressing the button pull the wire out. 
3	Insert the wired DIO connector into the DIO Interface of this product.

Recommendations

- Screwdriver: SZS 0.4 X 2.0 (Product No. 1205202) manufactured by Phoenix Contact
- If you use another manufacturer, be sure the part has the following dimensions:
- point depth: 0.4 mm (0.02 in)
 - point height: 2.0 mm (0.08 in)

Point shape should have isolation properties meeting DIN 5264 and EN60900.

NOTE:

- Wire should be AWG 28 to AWG 20 thick and twisted.
- Applicable wire sizes are Style 1015 and Style 1007.
- Be sure to strip 8.0 mm (0.31 in) of cover from the wire.
- Use copper conductors only.

Attaching the VESA Mount Adapter

By attaching Pro-face's VESA mounting adapter (PFXZSPADVS1) to the back of this product's adapter mounting holes, you can attach commercially available VESA 75 mm arms and wall-mount adapters.

NOTE: For details on how to attach the arm or wall-mount adapter, refer to the product's associated instruction manual.

CAUTION

RISK OF INJURY

- Do not drop this product when you mount it to, or remove it from, a commercial-type arm or wall-mount adapter.
- Hold the unit in place after removing the fasteners.
- Use both hands.
- Attach this product to the Display Module before attaching the VESA Mount Adapter.
- Be careful not to injure your fingers when you mount this product to a commercial-type arm or wall-mount adapter.

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

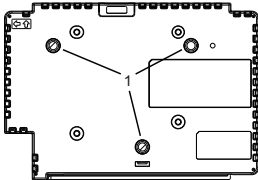
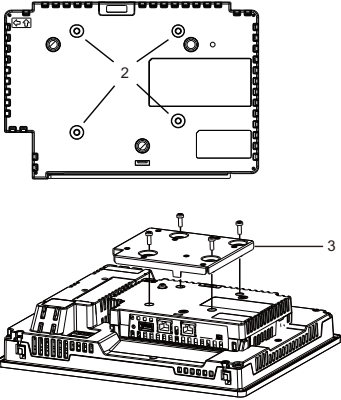
BROKEN ENCLOSURE

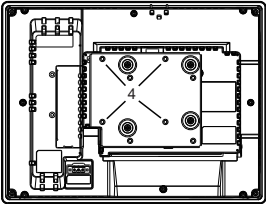
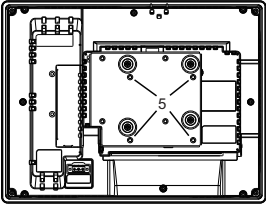
- Do not exert more than 1.5 N·m (13.3 lb-in) of torque when tightening the fastener's screws.
- Use the screw type specified in the following instructions.

Failure to follow these instructions can result in equipment damage.

Step	Action
1	Check your VESA Mount Adapter package and make sure it includes three M4 (35 mm) and four M4 (16 mm) screws.
2	Attach this product to the Display Module before attaching the VESA Mount Adapter (see page 14).

VESA Mount Adapter

Step	Action
3	To get a firmer hold between this product and the Display Module, at the back of this product, insert the screws (M4, 35 mm) into the fixed screw holes with a Phillips screwdriver, using a torque of 1.5 N·m (13.3 lb-in).  1 Fixed screw holes
4	Attach the VESA Mount Adapter to this product with the adapter mounting screws (M4, 16 mm). Tighten the screws using a torque of 1.5 N·m (13.3 lb-in).  2 Adapter mounting holes 3 VESA Mount Adapter

Step	Action
5	Attach the commercial-type arm or the wall-mount adapter with M4 screws, 10 mm or shorter. Tighten the screws using a torque of 1.5 N·m (13.3 lb-in). Check for the mounting holes by referring to the following diagram, as the mounting holes differ depending on the Display Module size.   4 VESA arm mounting holes (other than SP-5400WA) 5 VESA arm mounting holes (SP-5400WA)

Standards

For information on certifications and standards, such as certified models and certificates, see the product markings or the following URL:
<http://www.pro-face.com/trans/en/manual/1002.html>.

DANGER

POTENTIAL FOR EXPLOSION

- Suitable for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations.
- Substitution of any component may impair suitability for Class I, Division 2.
- Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable gases concentrations.
- Always confirm that this product is suitable for use in hazardous locations by checking that the ANSI/ISA 12.12.01 or CSA C22.2 N°213 certification appears on the product labeling.
- Do not attempt to install, operate, modify, maintain, service, or otherwise alter this product except as permitted in this manual. Unpermitted actions may impair the suitability of this product for Class I, Division 2 operation.
- To power on or power off this product installed in a Class I, Division 2 hazardous location, you must either:
 - Use a switch located outside the hazardous environment, or
 - Use a switch certified for Class I, Division 1 operation inside the hazardous area.
- Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous. This applies to all connections including power, ground, serial, parallel, and network connections.
- Never use unshielded/ungrounded cables in hazardous locations.
- When enclosed, keep enclosure doors and openings closed at all times to avoid the accumulation of foreign matter inside the workstation.

Failure to follow these instructions will result in death or serious injury.

The following is for UL Hazardous Locations.

DANGER

RISQUE D'EXPLOSION

- Le remplacement de n'importe quel composant peut nuire à la conformité à la Classe I, Division 2.
- Avant de déconnecter l'équipement, couper le courant ou s'assurer que l'emplacement est désigné non dangereux.

Le non-respect de ces instructions provoquera la mort ou des blessures graves.

Inquiry/After-sales Service

Do you have any questions about difficulties with your unit?
Please access our site any time that you need help with a solution.
<http://www.pro-face.com/trans/en/manual/1001.html>

Notes

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.

