

## Separate Installation

### Introduction

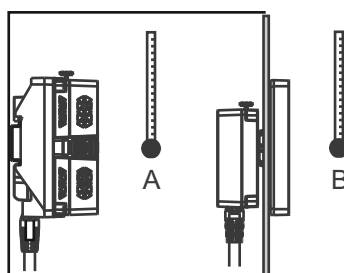
This section describes how to install the display module and rear module separately.

Use the following optional products to mount the rear module on the DIN rail and connect it to the display module mounted on the panel. For information about optional products, refer to Accessories, page 14.

- Display Module/Rear Module Separation Cable
- Rear Module Installation Adapter

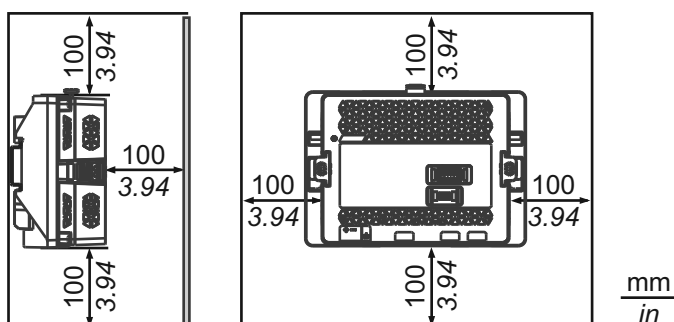
### Installation Requirements for Separate Installation

- Check that the installation wall or cabinet surface is flat, in good condition and has no jagged edges. Metal reinforcing strips may be attached to the inside of the wall, near the panel-cut, to increase its rigidity.
- Decide on the thickness of the enclosure wall, based on the level of strength required. Even if the installation wall thickness is within the recommended range for the Panel Cut Dimensions, page 37, depending on wall's material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.
- Check that the ambient air temperature and the ambient humidity are within their specified ranges in Environmental Specifications, page 19. When installing this product in a cabinet or enclosure, the ambient air temperature is the cabinet's or enclosure's internal and external temperature.



- A. Internal temperature
- B. External temperature

- Be sure that heat from surrounding equipment does not cause this product to exceed its standard operating temperature.
- For easier maintenance, operation and improved ventilation, install this product at least 100 mm (3.94 in) away from adjacent structures and other equipment as shown in the following illustration:



- The panel must be designed to avoid any induced vibration resonance on the rear module exceeding an amplitude factor of 10 and to avoid any induced permanent vibration resonance. To reduce the resonance use the spacer (sold separately).

## **NOTICE**

### **EQUIPMENT DAMAGE**

When transporting the cabinet or enclosure with the product installed, remove its rear module.

**Failure to follow these instructions can result in equipment damage.**

## **Pressure Differences**

When applying and installing this product, it is important that steps are taken to eliminate any pressure difference between the inside and the outside of the enclosure in which this product is mounted. Higher pressure inside the enclosure can cause delamination of the front membrane of the display. Even a small pressure difference inside the enclosure will act on the large area of the membrane and can result in sufficient force to delaminate the membrane and thus cause failure of the touch capability. Pressure differences can often occur in applications where there are multiple fans and ventilators moving air at different rates in different rooms. Please follow these techniques to ensure that this product's function is not impacted by this mis-application:

1. Seal all conduit connections inside of the enclosure, especially those that lead to other rooms that may be at a different pressure.
2. Where applicable, install a small weep hole at the bottom of the enclosure to allow equalization of the internal and external pressure.

## **Installation Procedure on DIN Rail and Panel**

This section describes how to install the rear module on a DIN rail and the display module to the panel.

## **⚠️⚠️ 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 this product and the power supply prior to installing the product.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.
- Replace and secure all covers or elements of the system before applying power to this product.

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

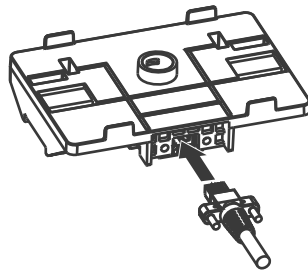
## **NOTICE**

### **EQUIPMENT DAMAGE**

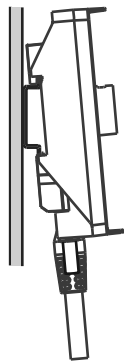
Always use the installation gasket.

**Failure to follow these instructions can result in equipment damage.**

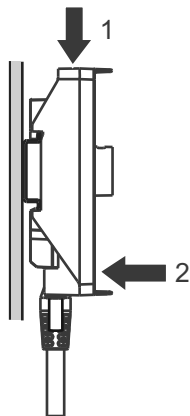
1. Connect the separation cable to the rear module installation adapter. Affix the screws on both sides of the cable connector to secure the cable to the adapter.



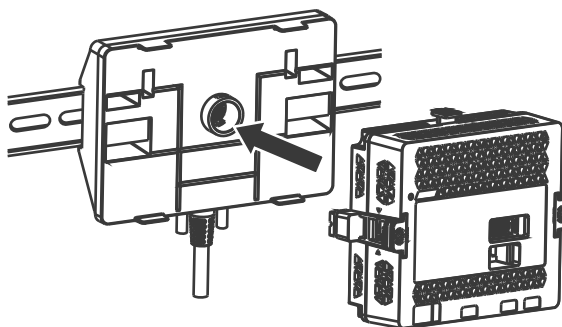
2. Position the top groove of the rear module installation adapter on the top edge of the DIN rail.



3. Push down on the adapter until the bottom groove of the installation adapter fits under the DIN rail.



4. Insert and push the rear module straight in to the adapter, until they lock into place.



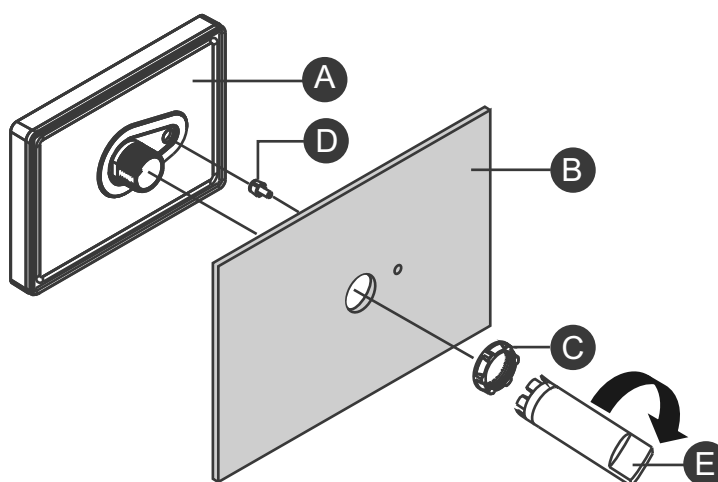
5. Place the display module on a clean and level surface with the screen facing down.
6. Check that the gasket is seated securely into the bezel groove, which runs around the perimeter of the display panel frame.

**NOTE:** Always use the installation gasket, since it absorbs vibration in addition to repelling water. For the procedure on replacing the installation gasket, refer to Replacing the Installation Gasket, page 58.

7. Based on this product's Panel Cut Dimensions, page 37, open a mount-hole on the panel.
8. Insert the display module and the anti-rotation tee into the panel hole from the front side. Use the socket wrench to tighten the nut. The necessary torque for the nut is 1.2 to 2.0 N•m (10.62 to 17.70 lb-in).

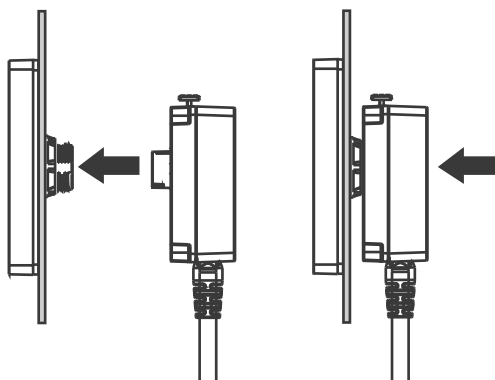
**NOTE:**

- The anti-rotation tee is used to install the display module horizontally on the panel. When you do not use an anti-rotation tee, applying 2.5 N•m (22.12 lb-in) or more force to the display module could cause the product to rotate. By using an anti-rotation tee, 6 N•m (53.10 lb-in) or more force could cause the product to rotate.
- If the panel thickness does not meet the specified conditions, use the spacer (sold separately).



- A. Display module
- B. Panel
- C. Display module fixing nut
- D. Anti-rotation tee
- E. Socket wrench

9. Insert and push the separation cable straight in to the display module, until they lock into place.



## Removal Procedure from DIN Rail and Panel

This section describes how to remove the rear module from a DIN rail and the display module from the panel.

### **⚡⚠ 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 this product and the power supply prior to removing the product.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.

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

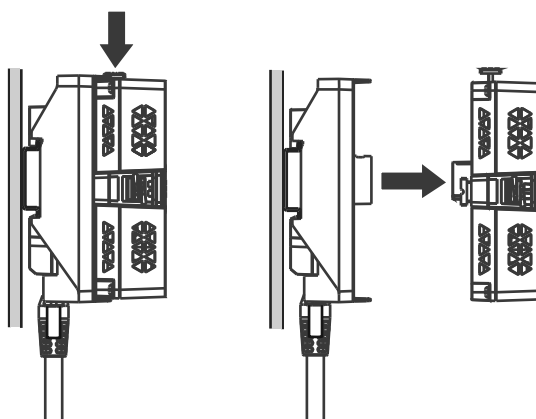
### **NOTICE**

#### **EQUIPMENT DAMAGE**

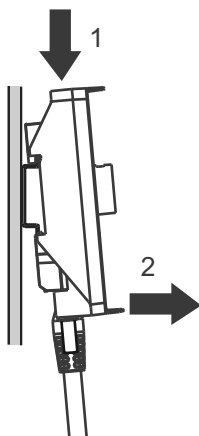
Be sure to remove the separation cable from the display module without twisting.

**Failure to follow these instructions can result in equipment damage.**

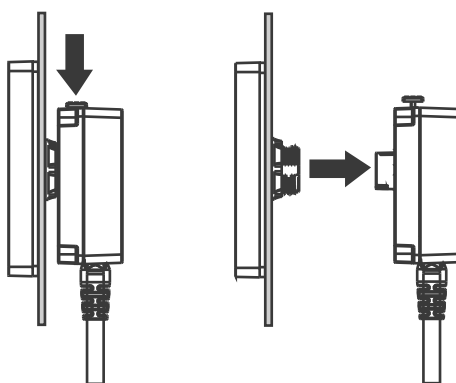
1. Push and hold the button at the top of the rear module, and pull the rear module straight out.



2. Push down on the rear module installation adapter and unhook the bottom part of the adapter from the DIN rail.



3. Push and hold the button at the top of the separation cable, and pull the separation cable straight out.



4. Remove the nut and the display module from the panel.

