Vision™ OPLC™

Installation Guide, V130/V350/V430/SM35/SM43/SM70 COM Modules V100-17-RS4/X, V100-17-ET2, V100-S-ET2, V100-17-PB1

This guide shows you how to install an additional communication module in a Vision130™ or Vision350™ or Vision430™ or SM35™ or SM43™ or SM70™ controller. Instructions are included for modules:

- V100-17-RS4 (RS232/RS485,non-isolated), V100-17-RS4X (RS232/RS485,isolated)
- V100-17-ET2 (Ethernet), V100-S-ET2 (Ethernet-Wide Temperature)
- V100-17-PB1 (PROFIBUS slave supported by Vxxx Series Only)

Danger Symbols

Symbol	Meaning	Description
⚡	Danger	The identified danger causes physical and property damage.
⚠	Warning	The identified danger could cause physical and property damage.
Caution	Caution	Use caution.

- Before using this product, the user must read and understand this document.
- All examples and diagrams are intended to aid understanding, and do not guarantee operation. Unitronics accepts no responsibility for actual use of this product based on these examples.
- Please dispose of this product according to local and national standards and regulations.
- Only qualified service personnel should open this device or carry out repairs.

⚡ Failure to comply with appropriate safety guidelines can cause severe injury or property damage.

⚠
- Do not attempt to use this device with parameters that exceed permissible levels.
- To avoid damaging the system, do not connect/disconnect the device when power is on.

Environmental Considerations

⚡
- Do not install in areas with: excessive or conductive dust, corrosive or flammable gas, moisture or rain, excessive heat, regular impact shocks or excessive vibration.

⚠
- Do not place in water or let water leak onto the unit.
- Do not allow debris to fall inside the unit during installation.

General

⚡
- Turn off power before making communications connections.
- Do not touch live wires

⚠
- Unused pins should not be connected. Ignoring this directive may damage the device.
- Double-check all wiring before turning on the power supply.

Installation Instructions

This section comprises all of the installation procedures for each of the modules.

Caution
- Installing modules also requires you to remove and replace PCB boards already installed in the controller.
- Make certain that the pins fit correctly into their matching receptacle.

**Unitronics**

Opening the Controller

⚠
- Before performing these actions, touch a grounded object to discharge any electrostatic charge.
- Avoid touching the PCB board directly. Hold the PCB board by its connectors.

1. Turn off the power supply, disconnect, and dismount the controller.
2. The back cover of the controller comprises 4 screws, located in the corners. Remove the screws, and pull off the back cover.
3. Hold the I/O PCB board by its top and bottom connectors and steadily pull the board off.

Only SM70

4. Open the door marked "Battery & Communication Module Cover", under the arrow direction.
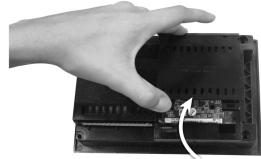
Follow the instructions below for installing the appropriate module type.

## Installing V100-17-RS4-X, V100-17-ET2, V100-S-ET2, V100-17-PB1

Note that the procedures below include the V130, V350, V430, SM35, SM43 and SM70. However, if you are installing the module into the V130, the keypad must be disconnected and reconnected. Separate instructions are provided for this procedure.

Only V130/V350/SM35

1. Remove the plastic tabs marked X and Y.
   Note that if the controller already contains a V100-17-CAN, V100-S-CAN, you must remove it, Separate IG is provided for this procedure

V130 only

2. Remove the keypad ribbon cable shown in the accompanying figure.

   a. Press the sides of the cable connector and pull it slightly upwards; this releases the cable.
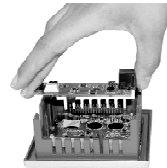   b. Pull the cable from the connector.
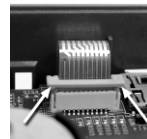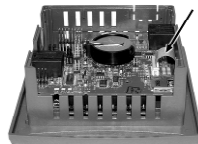
V130/V350/SM35

1. Locate the two screws that fasten the board to the controller and remove them.
2. Hold the main board by Port 1 and by the I/O expansion port, and pull it out of the controller.
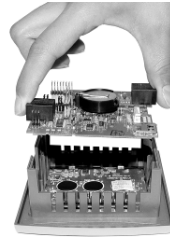
3. Remove the plastic tab marked A and B, and then break the tab in two.

4. Install the module as shown in the accompanying figure.

5. If you are installing the V100-17-PB1, pay attention to the cable direction.
6. If you are installing the V100-17-RS4/X, Pay attention to RS232 to RS485: DIP Switch Settings:

|	**Switch Settings**					
	1	**2**	**3**	**4**	**5**	**6**
RS232*	ON	ON	OFF	OFF	ON	ON
RS485	OFF	OFF	ON	ON	OFF	OFF
RS485 with termination**	ON	ON	ON	ON	OFF	OFF

*Default factory setting

**Causes the unit to function as an end unit in an RS485 network

7. If you are installing:
   - V100-17-RS4/X Return plastic tab **B** over the new port.
   - V100-17-ET2, V100-S-ET2 or V100-17-PB1 Return plastic tab **A** over the new port.
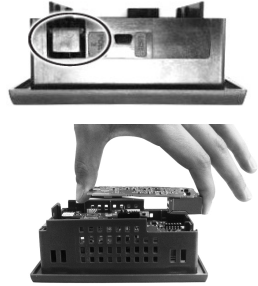8. Replace the main board, including the fastening screws.

V130 only

1. Replace the ribbon cable.
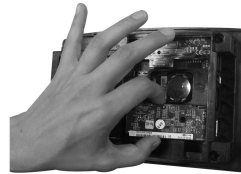2. Push the cable connector down to lock the cable in place.

2/15 V100-17-RS4/X, V100-17-ET2, V100-S-ET2, V100-17-PB1
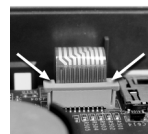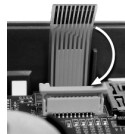
Only V430/SM43

1. Break the plastic tab marked PORT 2.

2. Install the module as shown in the
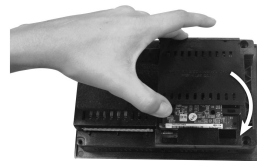   accompanying figure.

Only SM70

1. Install the module as shown in the
    accompanying figure.

Closing the controller

1. Replace the I/O board.
2. Close the controller by snapping the plastic cover
    back in its place. If the card is placed correctly,
    the cover will snap on easily.
3. Replace the screws in the corners of the back
    cover.
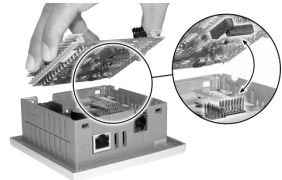
Only SM70

4. Close the controller by closing the Door marked
    "Battery & Communication
     Module Cover" back in its place.