Vision™ OPLC™

Installation Guide, V350/V130 COM Modules
V100-17-CAN, V100-17-RS4/X, V100-17-ET2

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

- V100-17-CAN (CANbus)
- V100-17-RS4 (RS232/RS485, non-isolated)
- V100-17-RS4-X (RS232/RS485, isolated)
- V100-17-ET2 (Ethernet)

Note that the V130 is the model shown for the purposes of explanation throughout this document.

Danger Symbols

When any of the following symbols appear, read the associated information carefully.

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. |

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.

In the next section, continue with the instructions that are appropriate for your module type.

Note that if you are installing both a V100-17-CAN module and either V100-17-RS4/X or V100-17-ET2 modules, you should install the V100-17-RS4/X or V100-17-ET2 modules **first**.

Installing V100-17-CAN (CANbus)

1. Remove the plastic tab marked X.
2. Plastic tab X comprises a cutout that covers the CANbus port location. Snip through the cutout holders and remove the cutout.
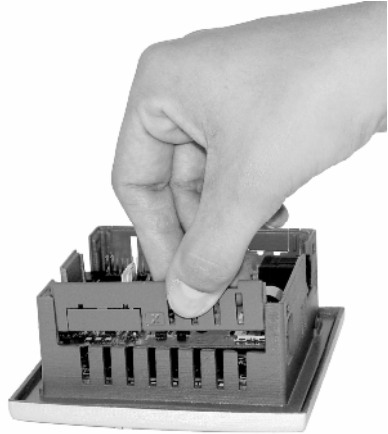

3. On the V100-17-CAN, locate the:
   - white plastic pin. The main board comprises an insertion point for this pin.
   - 6-pin **female** CANbus connector. The main board comprises a **male** 6-pin CANbus connector.
4. Insert the module as shown in the accompanying figure.
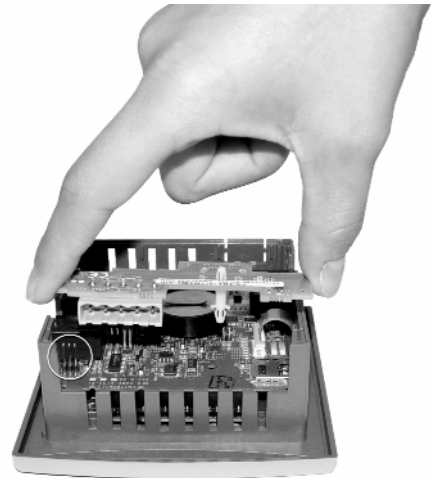
Caution	▪ Make certain that the pins fit correctly into their matching receptacle.

5. When the module is properly installed in the controller, it is held in place by the white plastic pin.
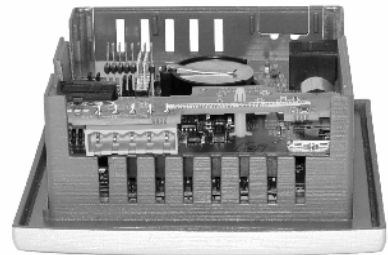
6. Replace the plastic tab marked X and then close the controller as shown on page 6.

Note that in order to remove the module, you must compress the ends of the white pin with a pair of pliers while pulling the module out of the controller.
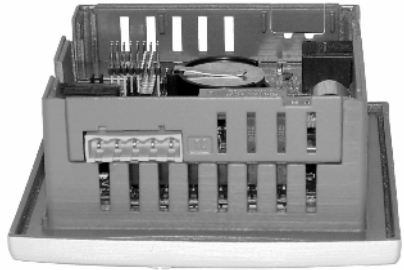
Installing V100-17-RS4-X (RS232/RS485)/ V100-17-ET2 (Ethernet)

The installation procedure for both modules is nearly identical.

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

V130 and V350

1. Remove the plastic tabs marked X and Y.
   Note that if the controller already contains a V100-17-CAN, you must remove it.

V130 only

2. Remove the keypad ribbon cable shown in the accompanying figure.
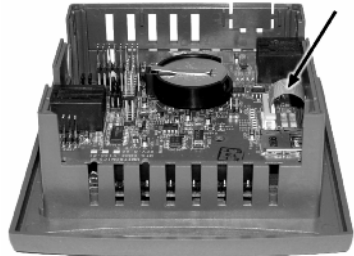
    a. Press the sides of the cable connector and pull it slightly upwards; this releases the cable.

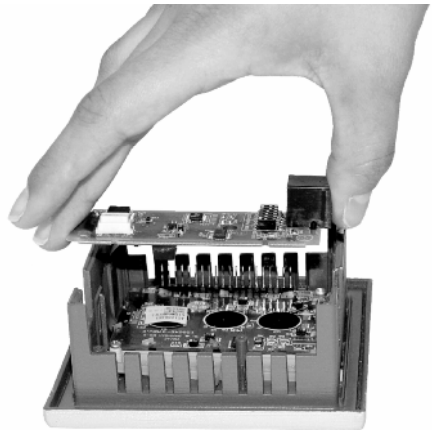   b. Pull the cable from the connector.
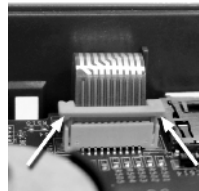
V130 and V350

3. Locate the two screws that fasten the board to the controller and remove them.

4. Hold the main board by Port 1 and by the I/O expansion port, and pull it out of the controller.
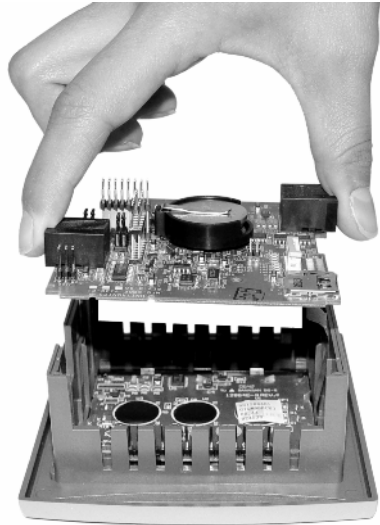
5. Remove the plastic tab marked A and B, and then break the tab in two.
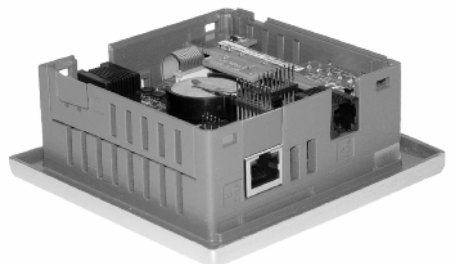
6. Install the module as shown in the accompanying figure.

7. If you are installing:
   - V100-17-RS4/X (RS232/RS485)
   Return plastic tab **B** over the new port.
   - V100-17-ET2 (Ethernet)
   Return plastic tab **A** over the new port.

   The accompanying figure shows V100-17-ET2 installed with tab A in place.

V130 and V350

8. Replace the main board, including the fastening screws.

V130 only

9. Replace the ribbon cable.
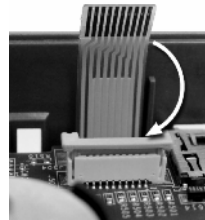
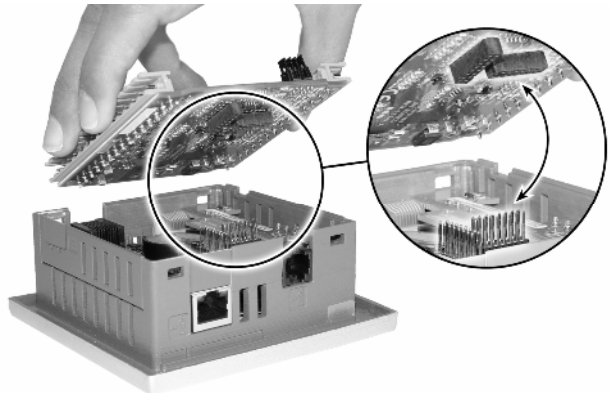10. Push the cable connector down to lock the cable in place.
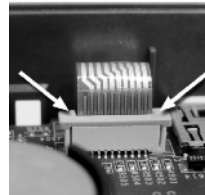
V130 and V350

11. If relevant, install a V100-17-CAN module according to the instructions starting on page 3
12. Close the controller according to the following instructions.

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.