

## V200-19-R4 RS485 COM Port

V200-19-R4 is a communication module that enables you to install an RS485 COM port in compatible Vision controllers.

The V200-19-R4 may be installed in accordance with the instructions beginning on page 2.

### Component identification

|   |                                    |
|---|------------------------------------|
| 1 | J1 connector, plugs into PLC board |
| 2 | RS485 port                         |
| 3 | Termination jumpers                |

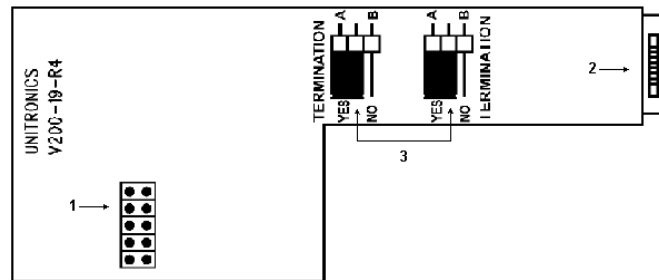


Figure 1. RS485 Module (V200-19-R4)

### User safety and equipment protection guidelines

This document is intended to aid trained and competent personnel in the installation of this equipment as defined by the European directives for machinery, low voltage and EMC. Only a technician or engineer trained in the local and national electrical standards should perform tasks associated with the electrical wiring of this device.

- Under no circumstances will Unitronics be liable or responsible for any consequential damage that may arise as a result of installation or use of this equipment, and is not responsible for problems resulting from improper or irresponsible use of this device.
- All examples and diagrams shown in the manual are intended to aid understanding. They do not guarantee operation.
- Unitronics accepts no responsibility for actual use of this product based on these examples.
- Only qualified service personnel should open this device or carry out repairs.
- Please dispose of this product in accordance with local and national standards and regulations.



- Check the user program before running it.
- Do not attempt to use this device with voltage exceeding permissible levels.
- Install an external circuit breaker and take appropriate safety measures against short-circuiting in external wiring.



- Failure to comply with appropriate safety guidelines can result in severe personal injury or property damage. Always exercise proper caution when working with electrical equipment.

**Network Termination Settings**

The jumper settings shown in Figure 1 determine whether the controller can function as an end device in a RS485 network. Note that the factory default setting is YES, whether or not the RS485 port was supplied already installed in the controller. If the OPLC is **not** a network end device, set both jumpers to NO.

To access the module and change the jumper settings, follow the relevant instructions listed below.

**Installation Instructions**

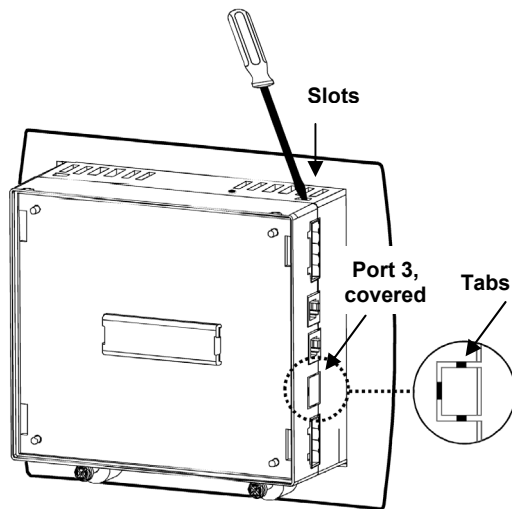


Figure 2. Opening the Controller

1. Turn power off before opening the controller.
2. If the controller has an installed Snap-in I/O module, remove it. Instructions are given in 'Removing a Snap-in Module' in the Vision User Guide.
3. Open the OPLC by inserting a screwdriver into the slots located on the sides of the controller as shown, then carefully prying the cover off.
4. The port's location, COM 3, is covered by plastic. Remove the plastic covering using a razor cutter to cut through the tabs shown in Figure 2.
5. Locate the J3 connector shown in Figure 3.
6. Install the module by placing the J1 connector (female) of the module onto the J3 connector (male) on the controller card as shown in Figure 4. Make sure that the connection is secure.
7. Close the controller by snapping the plastic cover back in its place. If the card is placed correctly, the cover will snap on easily.
8. If required, reinstall the Snap-in Module.

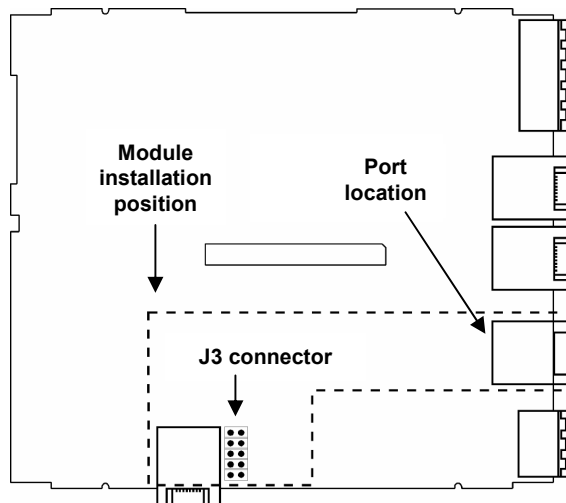


Figure 3. Controller, Main PCB Board

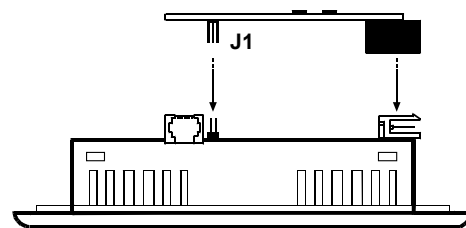


Figure 4. Installing the Module

**RS485 Wiring**

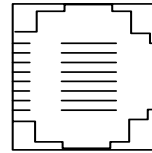
- Do not touch live wires.
- Double-check all the wiring before turning on the power supply.

- Use shielded, twisted pair cables.
- Configure the network as multidrop bus network
- Minimize the stub (drop) length leading from each device to the bus.
- Ideally, the main cable should be run in and out of the network device.
- Do not cross positive (A) and negative (B) signals.  
Positive terminals must be wired to positive, and negative terminals to negative.

**RJ45 Connector Pin-out**

| Pin Number | Function     |
|------------|--------------|
| 8          | A signal (+) |
| 1          | B signal (-) |

Pin #1 →

**RS485 Port Specifications**

|               |   |
|---------------|---|
| Input Voltage | -7 to +12V differential max.                        |
| Cable type    | Shielded twisted pair, in compliance with EIA RS485 |
| Cable length  | 1200m maximum (4000 feet)                           |
| Isolation     | No  |
| Baud rate     | 110 - 57600 bps                                     |

**V200-19-R4 Module Technical Specifications**

|                        |                            |
|------------------------|----------------------------|
| <b>Weight</b>          | 14.3g (0.56 oz)            |
| <b>Environmental</b>   |                            |
| Operating temperature  | 0° to 50°C (32 to 122°F)   |
| Storage temperature    | -20° to 60°C (-4 to 140°F) |
| Relative Humidity (RH) | 5% to 95% (non-condensing) |

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Unitronics' OPLC controllers combine full-function PLCs and HMI operating panels into single, compact units. These HMI + PLC devices are programmed in a single, user-friendly environment. Our clients save I/O points, wiring, space, and programming time; elements that translate directly into cost-efficiency.

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