V200-19-ET1 Ethernet COM Port

The V200-19-ET1 Ethernet COM Port is a communication module that enables you to install an Ethernet COM port into compatible Vision controllers. The Ethernet port enables you to implement communications via TCP/IP, such as MODBUS over TCP.

- Before using this product, it is the responsibility of the user to read and understand this document and any accompanying documentation.
- All examples and diagrams shown herein 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 in accordance with local and national standards and regulations.
- Only qualified service personnel should open this device or carry out repairs.

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 device's electrical wiring.

Symbols are used to highlight information relating to the user's personal safety and equipment protection throughout this document. When these symbols appear, the associated information must be read carefully and understood fully.

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

- 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.

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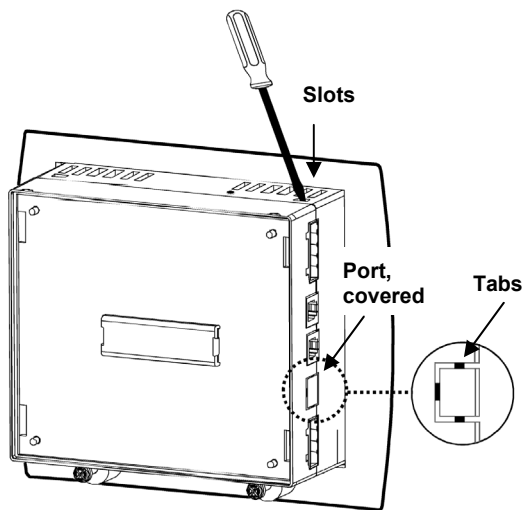
Installation Instructions

Figure 1. 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 is covered by plastic. Remove the plastic covering using a razor cutter to cut through the tabs shown in Figure 1.
5. Locate the J1 and J3 connectors shown in Figure 2.
6. Install the module by placing the module's connectors onto the controller card as shown in Figure 3.
   In order to avoid bending the connector pins, exercise appropriate caution.
   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.
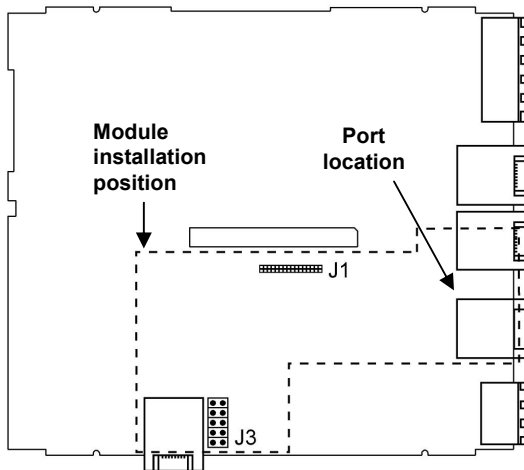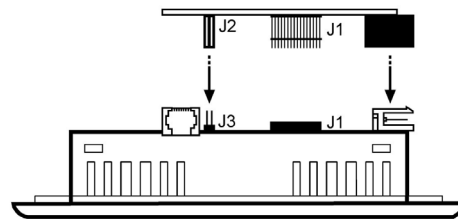8. If required, reinstall the Snap-in Module.

Figure 3. Installing the Module

Figure 2. Controller, Main PCB Board

Wiring

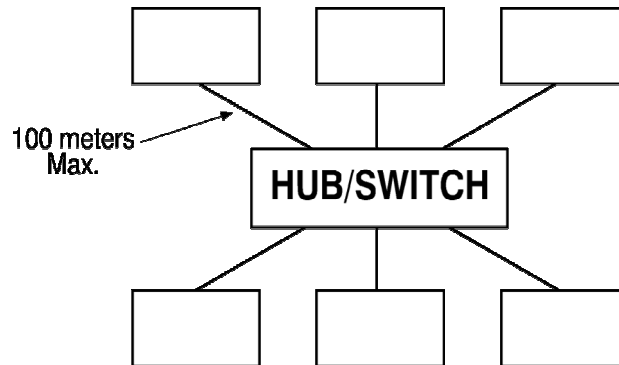|	
⚡	■ Do not touch live wires.
⚠	■ Unused pins should not be connected. Ignoring this directive may damage the device. ■ Double-check all wiring before turning on the power supply.

Ethernet Wiring—General
- Use CAT5 STP (shielded twisted pair) cable.
- Set up the network in accordance with the star configuration shown below.

RJ45 Connector Pin-out

Pin Number	Function	
1	T+ = Positive transmit signal	Pin#1
2	T- = Negative transmit signal	
3	R+ = Positive receive signal	
6	R- = Negative receive signal	Metal Lining

Topology
Star topology is recommended.

Ethernet Connections

Controller to hub/switch connection					
Controller				**Hub/Switch**	
Pin #	Function			Pin #	Function
1	T+	→		1	T+
2	T-	→		2	T-
3	R+	←		3	R+
6	R-	←		6	R-

Controller to controller connection					
Controller				**Controller**	
Pin #	Function			Pin #	Function
1	T+	→		3	R+
2	T-	→		6	R-
3	R+	←		1	T+
6	R-	←		2	T-

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V200-19-ET1 Technical Specifications

Transmission speed	10/100Mbps
Network topology	Star, based on external hub/switch
Cable type	Category 5 STP (shielded twisted pair) is recommended; UTP (unshielded twisted pair) may also be used
Connector type	RJ45
Drop line length	Up to 100 meters, controller to hub/switch or controller to controller.