



# SIEMENS VN2001-A1 Ethernet Module Instruction Manual

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# SIEMENS

**SIEMENS VN2001-A1 Ethernet Module**



## INSTALLATION INSTRUCTIONS

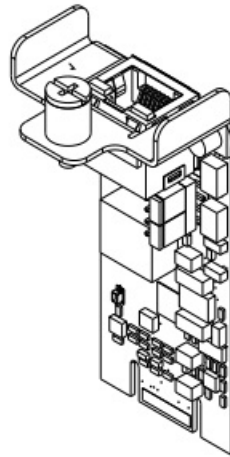
### Model VN2001-A1 Ethernet Module (10/100 BaseTx)

The optional Model VN2001-A1 Ethernet Module (10/100 BaseTx) is an interface card which provides dual interconnecting copper wire links for networked systems.

### FEATURES

The principal features of the VN2001-A1 (10/100 BaseTx) include:

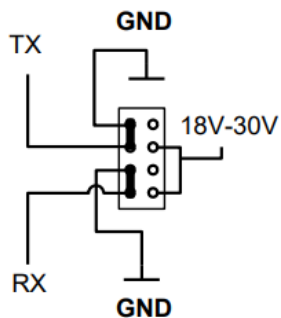
- Is easily plugged into the host card or assembly
- Is automatically identified by the system at power up
- Protects the Ethernet signal path from overvoltage caused by electrostatic discharge (ESD) or electrical fast transients (EFT)
- Provides optimal ground fault detection (user selectable)
- Provides Power-over-Ethernet (PoE), 24V, 500mA (user selectable)
- Can be used in the UL and ULC markets



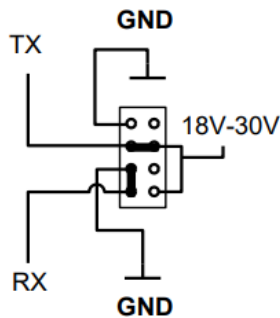
*Figure 1*  
*VN2001-A1 Ethernet Module*  
*(10/100 BaseTx)*

### PRE-INSTALLATION

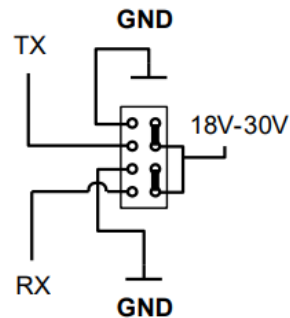
1. Determine from the site-specific shop drawings whether the VN2001-A1 should be set for ground fault supervision alone, Power-over-Ethernet (PoE) plus ground fault supervision, or neither function.
2. For ground fault supervision alone, set the jumpers as illustrated in Figure 2a. For Power-over Ethernet plus ground fault supervision, set the jumpers as illustrated in Figure 2b. If neither ground fault supervision nor PoE is required, set the jumpers to the default setting as illustrated in Figure 2c



*a. Ground Fault Only*



*b. Power-over-Ethernet and  
Ground Fault*



*c. Open (default setting)*

## OPERATION

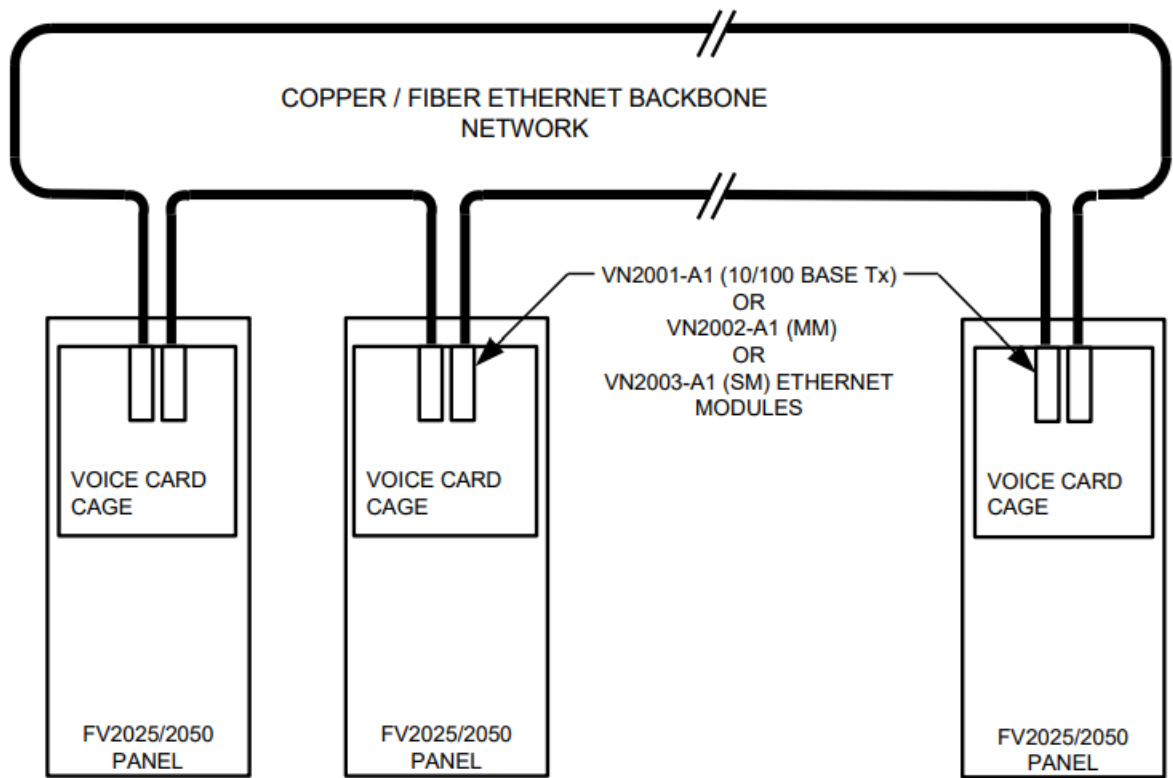
The VN2001-A1 Ethernet Module (10/100 BaseTx) can be used both in Voice networks of FV2025/2050 Fire Voice Control Panels and in generic Ethernet systems.

### Operation in a Voice Network of FV2025/2050 Fire Voice Control Panels

The VN2001-A1 Ethernet Module (10/100 BaseTx) is an optional card that plugs into the VCC Card Cage to provide an electrical interface for an Ethernet backbone network of FV2025/2050 Fire Voice Control Panels (see Figure 3). Each link in a Backbone is independently of any other link. It can be implemented as either copper wire or fiber-optic cable without any regard to what is used for the other links in the network.

### NOTE:

For installation instructions applicable to fiber-based links, see Siemens Industry, Inc., Building Technologies Division, document number A6V10370419 Installation Instructions for the Model VN2002-A1 Ethernet Module (MM) and the Model VN2003-A1 Ethernet Module (SM). The backbone is a dual self-healing, redundant, ring network that is able to detect failures and then automatically isolate and recover from them using an alternate routing.



**Figure 3**  
*Ethernet Network Topology in a Voice Network of FV2025/2050 Panels*

#### Operation in a Generic Ethernet Network

In addition to its use in an Ethernet backbone network of FV2025/2050 Fire Voice Control Panels (as illustrated in Figure 3), the VN2001-A1 Ethernet Module (10/100 BaseTx) can also be used to support copper wire connections among standalone FN2012-A1 Ethernet Switches (modular).

#### Controls and Indicators

The two LEDs on the VN2001-A1 which are located at the copper cable connector indicate the following:

- Green = Link established
- Yellow = Signal activity

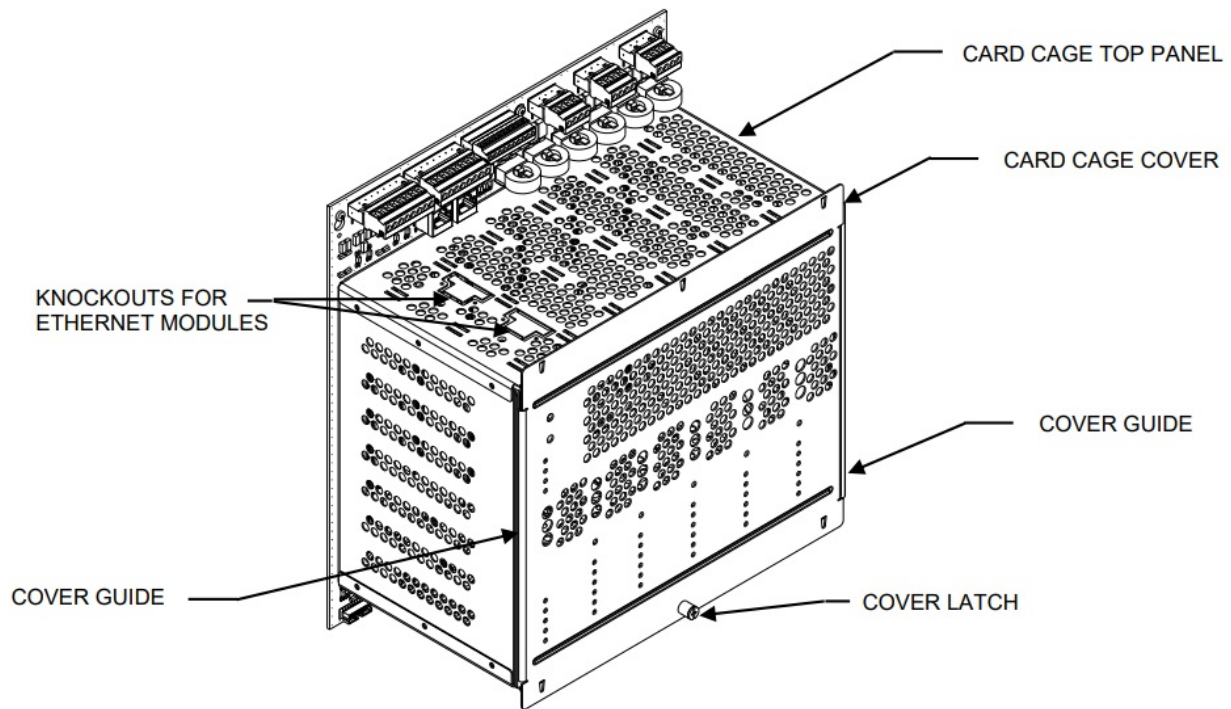
#### MOUNTING

Mounting the VN2001-A1 Ethernet Module, 10/100 BaseTx, in a Voice Network of FV2025/2050 Fire Voice Control Panels

**CAUTION:** Power down the Voice Panel before mounting the VN2001-A1.

1. Open the middle door of the FV2025/2050 Fire Voice Control Panel.
2. Unscrew the latch on the front of the Card Cage and remove the Card Cage cover.
3. If a VCC2001-A1 Voice CPU is installed in card slot X202, remove it. If no VCC2001-A1 is installed, proceed to the next step.
4. Referring to Figure 4, if the two knockouts for Ethernet modules are still present in the Card Cage top panel, remove them. To avoid damage to sensitive electronic components, remove any burrs that may be present in the knockout opening.

5. Install the VCC2001-A1 Voice CPU card into card slot X202 according to instructions provided in Siemens Industry, Inc., Building Technologies Division, document number A6V10397772 Installation Instructions for the Model VCC2001-A1 Voice CPU Card..

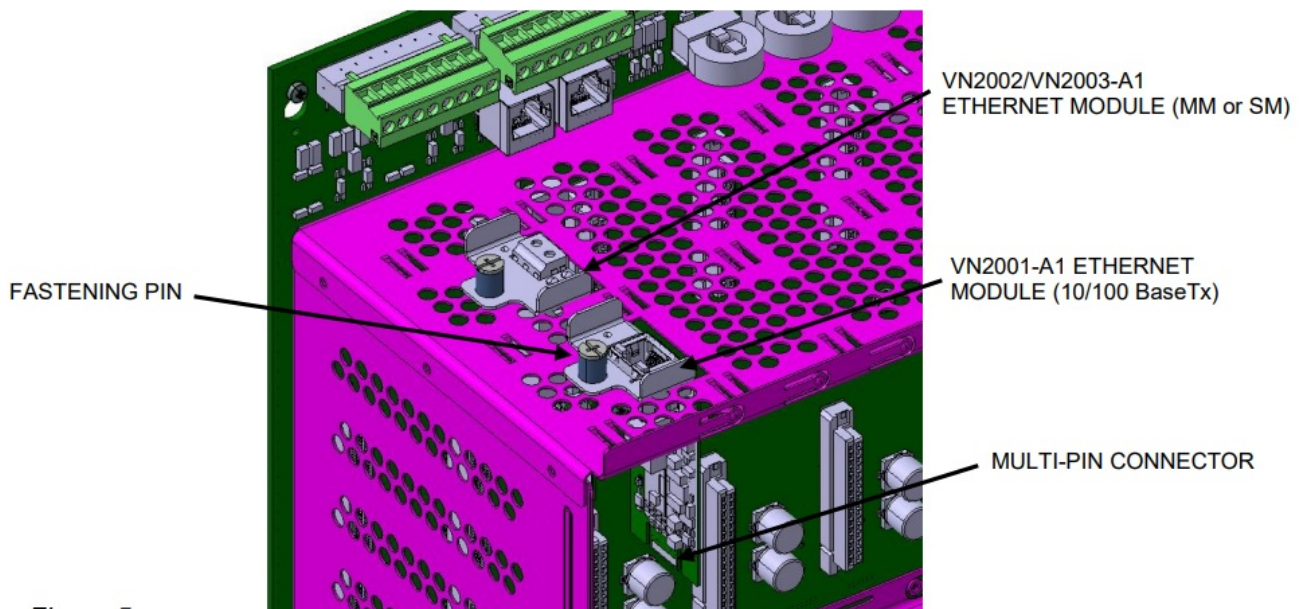


**Figure 4**  
*Removing knockouts for Ethernet Modules*

6. Refer to the site specific shop drawings to determine which position on the Voice CPU Card the module is to be installed in.
7. Insert the VN2001-A1 through the specified knockout opening on top of the VCA2002-A1 Card Cage and carefully press it into the multi-pin connector mounted on the VCC2001-A1 Voice CPU card. The multi-pin connector is located approximately 21/2" below the knockout opening, as illustrated in Figure 5. Install the second module for the other link in the same manner through the remaining knockout opening.
8. Tighten the fastening pin on the top of each module (see Figure 5) by turning it clockwise until the modules are firmly held in place by the Card Cage.

**NOTE:**

If it becomes necessary to deinstall the VCC2001-A1 Voice CPU Module, first remove the Ethernet modules that have been mounted on it.

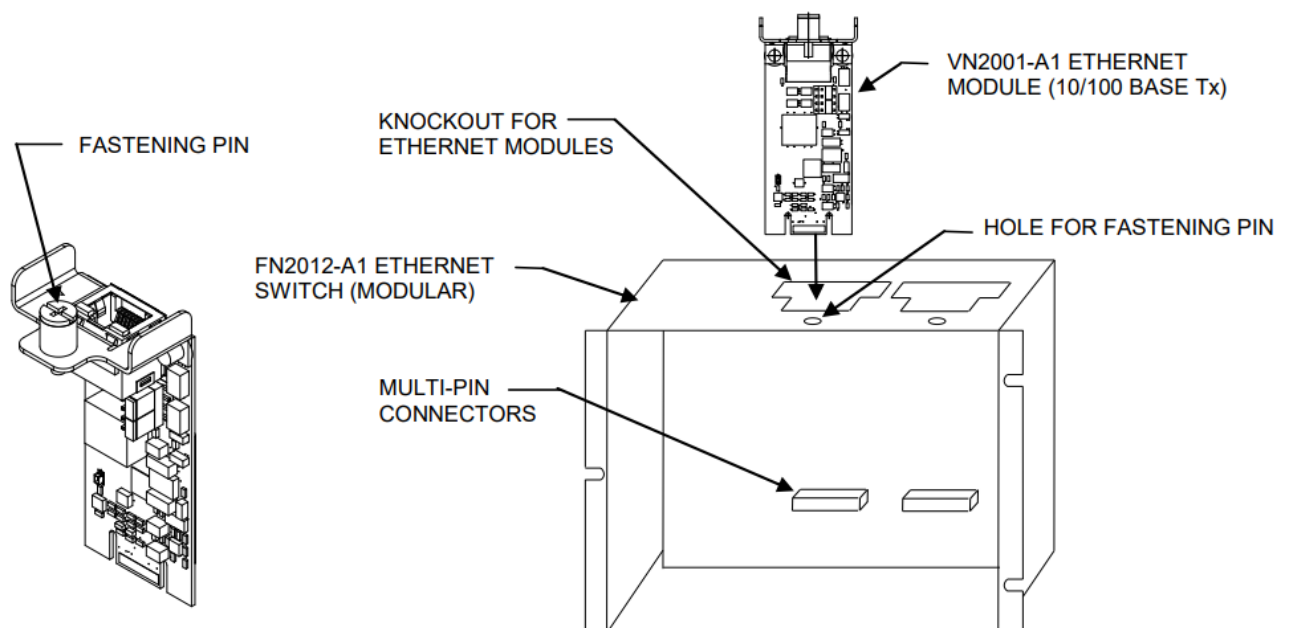


**Figure 5**  
*Ethernet Modules Installed in the VCA2002-A1 Card Cage*

1. Replace the Card Cage cover by re-inserting it into the top of the Card Cage and sliding it downward until it reaches bottom.
2. Screw the cover latch back into the Card Cage cover.

#### **Mounting the VN2001-A1 Ethernet Module, 10/100 BaseTx, in an FN2012-A1 Ethernet Switch (Modular)**

1. Remove the screws fastening the cover to the body of the FN2012-A1 Ethernet Switch (modular) and lift the cover off the assembly.
2. Please refer to Figure 6. If necessary, remove one of the knockouts in the FN2012-A1 Ethernet Switches (modular) side panel.



**Figure 6**  
*Mounting the VN2001-A1 Ethernet Module in the FN2012-A1 Ethernet Switch*

3. Insert the VN2001-A1 Ethernet Module (10/100 BaseTx) through the knockout opening and carefully press it into the multi-pin connector mounted on the circuit card inside the switch body. The multi-pin connector is

- located approximately 21/2 inches inside the opening.
4. Screw the fastening pin on the VN2001-A1 module into the mating hole in the side of the FN2012-A1 Ethernet Switch (modular).
  5. Replace the cover on the FN2012-A1 Ethernet Switch (modular).

WIRING

There are no wiring operations for installing the VN2001-A1 onto the VCC2001-A1 Voice CPU card or into an FN2012-A1 Ethernet Switch (modular).

When using the VN2001-A1 Ethernet Module (10/100 BaseTx) to connect FV2025/2050 Panels, consult the site-specific shop drawings for instructions on cabling FV2025/2050 Panels together to establish Ethernet rings. A single multi-conductor cable is used to connect from one module to the next in the ring. Ethernet cable specifications are provided in Siemens Industry, Inc., Building Technologies Division, document number A6V10380472 Installation Instructions for the Model VCA2002-A1 Card Cage, Table 2 Cable Specifications.

ELECTRICAL RATINGS

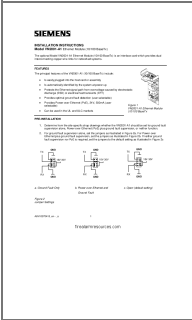
VN2001-A1 Ethernet Module (10/100 BaseTx) Power Requirements		
Ethernet option, no PoE	Aux (20 – 30VDC)	35mA max
	MoNET:	36mA
With PoE active	Aux (20 – 30VDC)	35mA, max
	MoNET:	36mA, max

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Siemens Industry, Inc. Building Technologies Division Florham Park, NJ CSiemens Canada Limited Building Technologies Division 2 Kenview Boulevard Brampton, Ontario L6T 5E4 Canada Document ID: A6V10370415\_en—\_a P/N: A5Q00054390

- [firealarmresources.com](http://firealarmresources.com)

Documents / Resources

	<p><a href="#">SIEMENS VN2001-A1 Ethernet Module</a> [pdf] Instruction Manual VN2001-A1 Ethernet Module, VN2001-A1, Ethernet Module, Module</p>
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References

-  [Fire Alarm Resources | Download fire alarm documents](#)

