

Module Power Supply Installation Instructions



Regulatory Compliance

Safety

This device has been tested and found to be in compliance with the requirements set forth in UL 916, Energy Management Equipment, and is listed by Underwriters Laboratories, Inc., for installations in the United States.

This device has been tested and found to be in compliance with the requirements set forth in C22.2, No. 205-M1983, Signal Equipment, and is Certified by Underwriters Laboratories, Inc., for installations in Canada.

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Description

Novar Controls' Module Power Supply (MPS) is intended for use in Logic One[®] systems that use one or more of the following Electronic Thermostat Modules (ETMs):

- ETM-1010
- ETM-1020
- ETM-2040

The Module Power Supply provides 24-volt DC power for these modules.

NOTE! The Novar Controls ETM-2010 has connections for 24-VAC and 24-VDC power, so the MPS can be used to supply power to the ETM-2010 if 24-VDC power is used. The Novar Controls ETM-2020 provides optional baseplates that accept 24-VDC power and can be powered by the MPS. The 24-VDC baseplate option must be selected when the ETM-2020 is ordered.

Specifications

Agency Approvals

Listed device:	CUL/UL E90949
Standards used:	UL 916, Energy Management Equipment CSA C22.2, No. 205-M1983, Signal Equipment

Input

120-V AC, 60 Hz

Outputs

12 volts AC, 2 Amps (not used)
24 volts DC, 2 Amps

Capacity

The Module Power Supply can power up to 24 ETMs up to a distance of 1000 feet. If more than 24 ETMs are used in the system or if any are more than 1000 feet away, additional Module Power Supplies are required.

Precautions

Take the following precautions during installation:

- Observe all national and local electrical codes.
 - Observe all warnings and voltage and current limits marked on the module.
 - Connect the MPS to a dedicated source of 115-VAC (nominal) power so that the Logic One system cannot be turned off accidentally.
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Installing the Module Power Supply

A hardware kit is included with the Module Power supply when it is shipped. The kit contains four screws, four hollow-wall anchors, one hex key, two wire nuts, and two 9/16-inch bushings that will be needed when the module is installed.

Use the following procedure and refer to Figure 1, as necessary, to mount the module.

Step	Procedure
1	Turn off all power to the HVAC equipment during the installation.
2	Use the hex key included in the hardware kit to loosen the retaining screws at the top and bottom of the module and remove the cover.
3	Position the module <i>horizontally</i> against the mounting surface and mark the location of the four mounting holes. <ul style="list-style-type: none">■ The MPS must be mounted horizontally for proper cooling. <hr/> <p>NOTE! Two of the mounting holes are located under the line voltage wiring compartment cover. Remove this cover only when power has been disconnected from the branch circuit supply. To remove the cover, loosen and remove the two screws as shown in Figure 1.</p> <hr/>
4	Drill holes in the locations marked in Step 3 and install the hollow-wall anchors, if necessary.
5	Insert the mounting screws into the holes and tighten until the heads of the screws are approximately 1/4-inch from the wall.
6	Position the module over the screws, slide it down until the screws move into the slots, and tighten to secure the module.
7	Reconnect the shield cover to the MPS using the two screws that held it on.

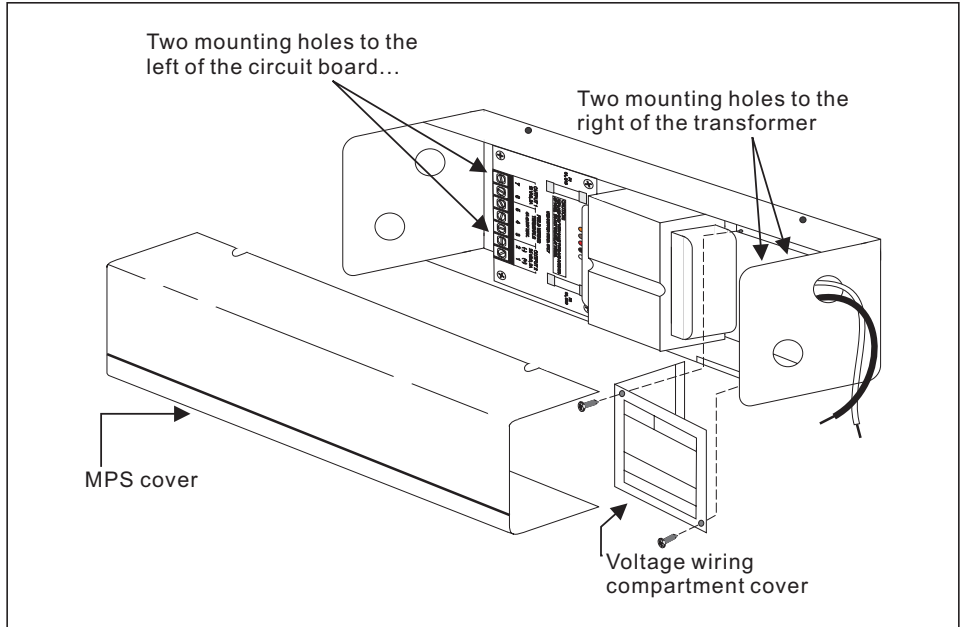


Figure 1. Mounting the Module Power Supply

Wiring the Module Power Supply

Figure 2 shows the terminal strip for the Module Power Supply. The two knockouts on the left side of the MPS can be removed to run the wiring and install the two 9/16-inch bushings included in the hardware kit to hold the wiring in place.

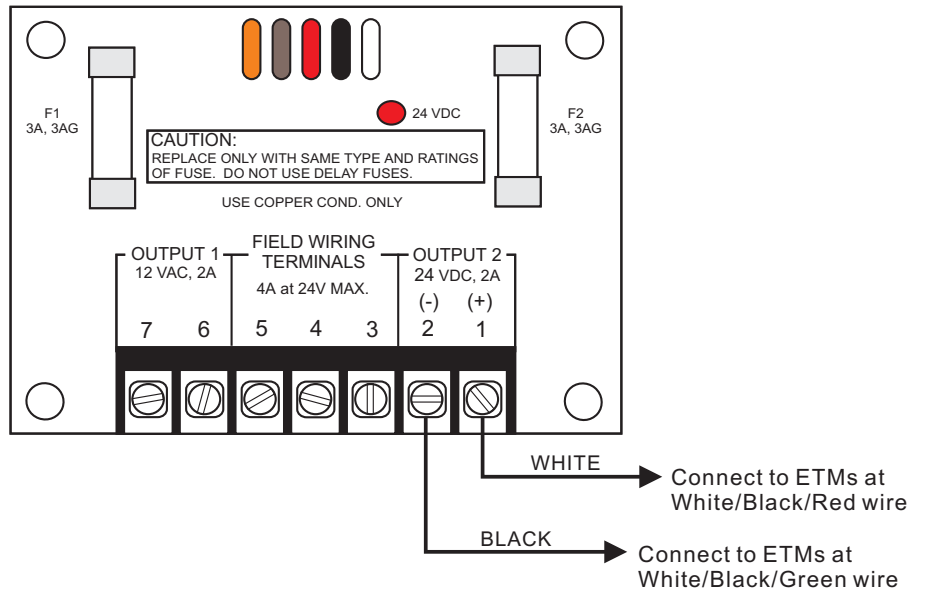


Figure 2. Module Power Supply wiring connections

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Connecting the MPS to a Dedicated AC Source

The wires for the power connections are located under the voltage wiring compartment cover to the right side of the power module (see Figure 1). Remove this cover *only* when power is not connected to the branch circuit supply. Use the following procedure to connect the MPS to a dedicated AC source.

Step	Procedure
1	Loosen and remove the two screws (see Figure 1) to remove the cover from the voltage wiring compartment.
2	Use the two wire nuts provided in the hardware kit to connect the wires from the dedicated power source.
3	Run a green ground wire from the chassis grounding post of a 10-amp circuit breaker to the building ground.
4	Replace the voltage wiring compartment cover.

Connecting to Local Control Modules (ETMs)

Use a two-conductor shielded cable (Belden #8761, Novar Controls WIR-1010, or equivalent) to make the following connections. Be sure to observe the color code and polarity scheme.

Step	Procedure
1	Connect the white wire from Terminal 1 (+) at the MPS to the White/Black/Red wire at the ETM.
2	Connect the black wire from Terminal 2 (-) at the MPS to the White/Black/Green wire at the ETM.

Figure 2 shows the wiring connections for all ETMs except the ETM-2010 and ETM-2020. Use of the MPS with these modules is optional. The following procedure should be used to connect the MPS to the ETM-2010 and ETM-2020. Polarity must be observed.

Step	Procedure
1	Connect a wire from the 24-VDC (+) terminals on these modules to Terminal 1 on the MPS.
2	Connect the other wire from the 24 VDC (-) terminals on these modules to terminal #2 on the MPS.

CAUTION! Do not connect more than 32 ETMs to a Module Power Supply within 500 feet. Do not connect more than 24 ETMs to a Module Power Supply if any are more than 500 feet. Do not connect to an ETM more than 1000 feet away.

Model and Part Numbers

Use the part numbers provided in Table 1 to order the necessary Novar Controls parts.

Table 1. Novar Controls Part Numbers		
PRODUCT	MODEL NO.	PART NO.
Module Power Supply	MPS-1010	709000000
Two-conductor shielded cable (Belden 8761 equivalent)	WIR-1010	709001000

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