



# HEATIZON

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## S Y S T E M S

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### HEATIZON RELAY PANEL SERIES Part No. M330 and M330G

Read these instructions and review the wiring diagrams on the inside of the enclosure door in their entirety before attempting to install the M330 Heatizon Relay Panel.

#### FEATURES

The Heatizon Relay Panel is design to operate four high voltage heating element lengths or areas manually, from one activation device, or from Heatizon Systems Selector Box (Heatizon Part No. M329). Each heating element length connected to the M330 and M330G models has a 2-pole 30-Amp relay that, when on, is designed to deliver up to 30 amps at 120 or 208/240/277VAC. Each heating element length connected to the M330-50 or M330G-40 models has a 2-pole 50-Amp relay designed to deliver up to 50 Amps at 120 or 208/240/277VAC. The relays can be turned on individually or all at the same time by the zone activation selection switches on the front panel of the Heatizon Relay Panel (Heatizon Part No. M330, M330G, M330-50, M330G-40), by an appropriate independent activation device, or by a Heatizon Selector Box (Heatizon Part No. M329). Heatizon Relay Panels with the letter “G” in the Heatizon part Number have built in ground fault sensing. Ask your Heatizon Distributor for details.

#### OPERATION

The Heatizon Relay Panel has five switches on its front panel, a Manual Override Switch and four Zone Activation Selection Area switches.

- **Manual Mode:** To turn an individual Area (length of Heatizon Cozy Heat, GutterMelt, or Hott-Wire) on manually, turn the Manual Override Switch to the “ON” position and turn the appropriate Zone Activation Selection switch(es) to the “ON” position and all other, if any, Zone Activation Selection Switches to the “OFF” position. When the Manual Override Switch is turned on, it and each Zone Activation Selection switch that is in the “ON” position and has a length of Cozy Heat, GutterMelt, or Hott-Wire connected to it will illuminate.

- **Automatic Mode:** To activate Areas (lengths of Cozy Heat, GutterMelt, or Hott-Wire) from an activation device or a Heatizon Selector Box (Heatizon Part No. M329) the Manual Override Switch must be in the “OFF” position and each utilized Zone Activation Selection Switch must be in the “ON” position. When the activation device or M329 Selector Box calls for heat, the utilized Zone Activation Selection Switch(s) will illuminate. See your Heatizon Distributor for acceptable activation device alternatives.

#### CONNECTIONS—MODEL M330 AND M330G RELAY PANEL

*Warning: Inappropriate wiring of the Heatizon Relay Panel is dangerous and may damage the one or more of the components.*

The input terminal numbering system starts with number 1, a black terminal block in the upper left hand portion of the Heatizon Relay Panel, and moves to the right along the upper terminal blocks ending at a red terminal block number 17. (Note: The grey terminal blocks number 14 and 15 are

prewired at the factory.) The output terminal block numbering system starts with number 1, a red terminal in the lower left hand portion of the Heatizon Relay Panel and moves right ending with a yellow terminal block number 8. Ground posts have been provided in the upper corners of the Heatizon Relay Panel.

Connections to the terminals blocks are made by stripping ½ inch of insulation from the end of each appropriately sized wire conductor. Insert the blade of a small screwdriver into the square slot immediately above or below the round slot designed to accommodate the wire conductor, gently pry the metal gate keeper at the bottom of the round slot open, insert the appropriate wire conductor, release the metal gate keeper and remove the screwdriver.

**Input Terminal.** Input terminal blocks numbers 1 (black -- hot) and 2 (White -- neutral) are for the 120VAC power supply to power the Heatizon Relay Panel.

Input terminal blocks numbers 3 (white -- neutral), 4 (yellow) and 5 (yellow) are used to connecting activation devices that require a 120VAC power supply.

Input terminal blocks numbers 6 – 13 (upper red, blue, orange, and yellow) are the input power supply terminal blocks for each area or each length of cable heating element. NOTE: Each area or length of cable heating element must be connected to individual circuit breakers in the Power Distribution Panel. The circuit breakers installed must be consistent with those required by the National Electric Code or Canadian Electric Code.

**Output terminal.** Output terminal blocks numbers 1 – 8 (lower red, blue, orange, and yellow) are for connecting each Area or length of heating element. Connect the wires that come from the heating cable to lower output terminals 1 thru 8 red, blue, and orange, yellow.

**Connection to M329 Selector Box.** To activate the Heatizon Relay Panel (Heatizon Part No. M330 or M330G) from a Heatizon Selector Box (Heatizon Part No. M329), connect input terminal numbers 16 (white) and 17 (red) to the Zone 12 red and white terminals on the Heatizon Selector Box. Be sure to observe polarity red on the M330 or M330G to Zone 12 red on the M329 and white on the M330 or M330G to white Zone 12 on the M329.

## **WARNINGS**

Installation of Heatizon Systems products and associated work must be performed by qualified persons and conform to all local building codes, ordinances, and regulations and all applicable sections of the National Electric Code (NEC) and the Canadian Electric Code (CEC).

Risk of fire! Risk of fire is possible if the installation of any Heatizon Systems product is not completed according to all of the installation instructions including but not limited to the warnings and notes.

Risk of Shock and Injury to Persons may occur if all power to any Heatizon Systems product(s) and the activation device is not shut off at the electric distribution panel before installing, removing covers, servicing, or working on any of its components.

Knockout openings made in the Heatizon Relay Panel enclosure must be filled with devices that are designed to fill such openings.

**Please do not hesitate to call the Heatizon Systems Technical Group at (801) 293-1232 with any comments, questions or problems you have regarding any of Heatizon Systems products.**