



HEATIZON

S Y S T E M S

4137 South 500 West • Murray, UT 84123
Phone 801.293.1232 • Fax 801.293.3077 • Toll Free 888.239.1232

HEATIZON RELAY PANEL SERIES

Part No. M330-50 and M330G-40

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 M330G-40 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 breaker screw terminal number 13. The output screw terminal number system starts with number 1 in the lower left hand portion of the Heatizon Relay Panel, and moves right, ending with 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 $\frac{1}{2}$ 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 for connecting activation devices that require a 120VAC power supply.

Input Screw Terminal. Input terminal blocks 6 – 13 (square holes on the back of each ground fault sensor breaker) 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.

Connections to input screw terminals are made by stripping $\frac{1}{2}$ inch of insulation from the end of each appropriately sized conductor. Insert the stripped end of the appropriately sized conductor into the square hole near the top back of the ground fault sensor and tighten screw to secure in place.

Output Screw Terminal. Output screw terminal blocks numbers 1 – 8 (screw terminals in the bottom of the black relays) are for connecting each Area or length of heating element. Connect the wires that come from the heating cable to lower output screw terminals 1 thru 8.

Connections to output screw terminals are made by stripping approximately one inch of insulation from the end of each appropriately sized conductor. Wrap the stripped end of the appropriately sized conductor around the output screw terminal and tighten screw to secure in place.

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.

CONNECTIONS—MODEL M330-50 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 and breaker screw terminals, ending at a breaker screw terminal number 13. The output screw terminal number system starts with number 1 in the lower left hand portion of the Heatizon Relay Panel, and moves right, ending with 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 for connecting activation devices that require a 120VAC power supply.

Input Screw Terminal. Connections to input screw terminals are made by stripping approximately one-half inch of insulation from the end of each appropriately sized conductor. Wrap the stripped end of the appropriately sized conductor around the input screw terminal and tighten screw to secure in place.

Input Screw Terminals 6 – 13: Input screw terminals number 6 -13 (screw terminals on the top of the black relays) are for connecting the input power for each area or length of heating element. Connect the conductors from the distribution panel to the upper input screw terminals 6 through 13.

Output Screw Terminal. Output screw terminal blocks numbers 1 – 8 (screw terminals on the bottom of the black relays) are for connecting each Area or length of heating element. Connect the wires that come from the heating cable to lower output screw terminals 1 thru 8.

Connections to output screw terminals are made by stripping approximately one inch of insulation from the end of each appropriately sized conductor. Wrap the stripped end of the appropriately sized conductor around the output screw terminal and tighten screw to secure in place.

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.

