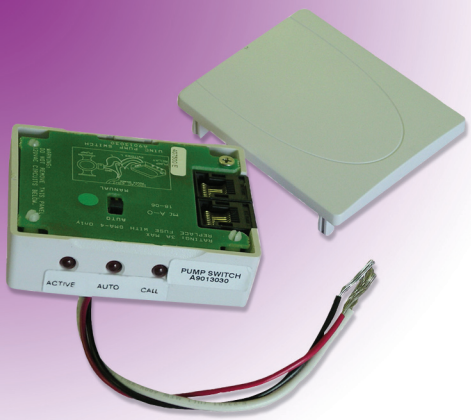

RADIANT HEATING SYSTEMS

UPONOR CLIMATE CŎNTROL™ NETWORK SYSTEM PUMP RELAY

INSTRUCTION SHEET

Network Pump Relay

The Pump Relay (A9013030) is used on any pump or circulator (3 amp maximum) to switch the device on and off. This control is compatible with the Uponor Climate Cŏntrol™ Multifunction Controller and Climate Cŏntrol™ Network System.

The Pump Relay is visually different from the other white relay boxes in the system as it has three wires coming out of the ½-inch hub on the bottom of the box. This design allows for simple, consistent wiring for various types of pump operation — primary, secondary, domestic hot water (DHW), zone pumping or any other application in which on-off pump operation is required.

Getting Started

Check the contents of this package. If the contents are damaged, please contact your Uponor sales representative or distributor for assistance.

The package includes:

- Network Pump Control (A9013030)

Tools and Parts Required

- RJ45 crimper and connectors
- Cable tester
- Wire cutter and stripper

Installation

Mounting the Unit

There are two options for mounting the Pump Relay:

- Directly to the pump
- On an electrical box

Pump Mount

Some pump manufacturers provide pumps with two ½-inch knockouts that allow the Pump Relay to be mounted directly to the pump (see **Figure 1**).

Figure 1: Pump Mounting

Electrical Box

The Pump Relay can easily mount to single and double gang (two-pump installation) electrical boxes (see **Figure 2**).

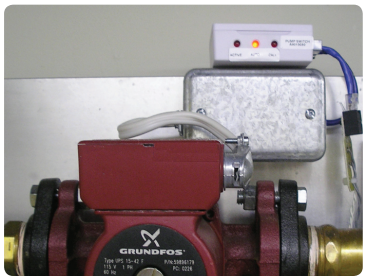

Figure 2: Electrical Box Mounting

Caution: Before performing any wiring, disconnect the electrical power to the system to prevent electrical shock and damage to the device.

Note: Ensure all wiring complies with local electrical codes.

Communication Cable

The Pump Relay connects a pump or circulator to an operating control via a single RJ45-terminated Cat5e cable. The pump relay can be used on either of the Uponor control systems, Multifunction or Network.

Multifunction Controller — The pump relay connects to any port assigned to the following functions on the Multifunction control:

- Primary pump
- DHW pump
- Zone pump
- Secondary pump

Network System — The Pump Relay connects to the following ports on the main cabinet controllers:

- Primary Equipment Control (A9012000)
  - Primary pump
  - DHW pump
  - DHW recirculation pump
- Supply Water Temperature Control (A9013000)
  - Secondary pumps, 1 through 5
  - Mixing, 1 through 5
- Zone Pump Control (A9014000)
  - Zone pumps, 1 through 16

Refer to Appendix D in the Uponor Climate Cŏntrol Network System Manual for more information about making Cat5e patch cables.

Sensors

A second RJ45 connection is built in to the Pump Relay for connecting sensors. It makes no difference which connection you use for the communication cable and sensor. A good practice is to connect the sensor to the device that either uses the sensor data or is controlled by the sensor information.

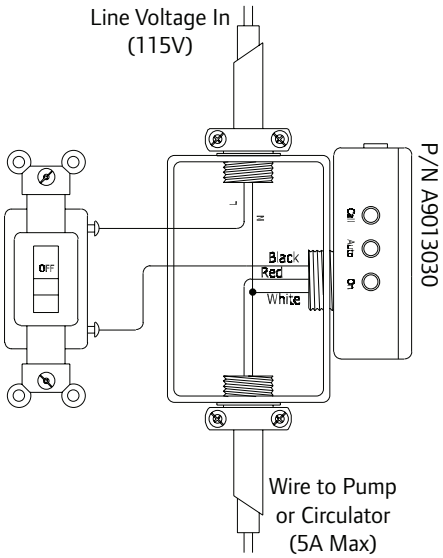

Figure 3: Pump Wiring – Single

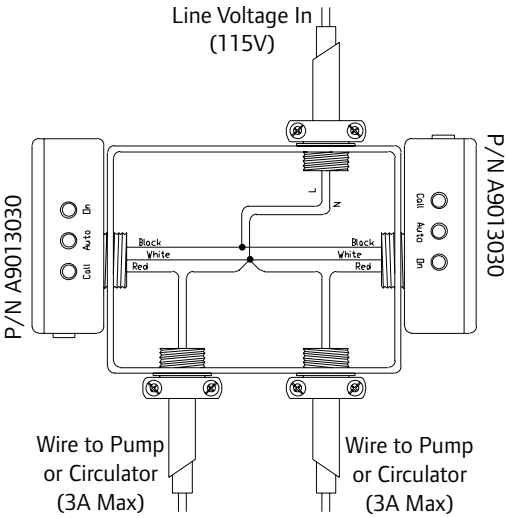

Figure 4: Pump Wiring – Double

Remember to:

- Connect a Supply and Return Sensor (A9013001) when controlling a primary pump.
- Connect a Supply and Return Sensor (A9013001) when controlling an injection pump.
- Connect a DHW Tank Sensor (A9012002) when controlling a DHW tank pump.
- Connect a DHW Recirculation Sensor (A9012003) when controlling a DWH recirculation pump.

Wiring

To wire the pump properly, see **Figure 5** and refer to the following instructions.

1. Connect GND from the power source directly to the pump housing.
2. Connect all neutral (white) wires together with a wire nut.
3. Connect the line of the Network Pump Control (black) to the line from the power source.
4. Connect the switched line (red) from the Network Pump Control to the line of the pump.

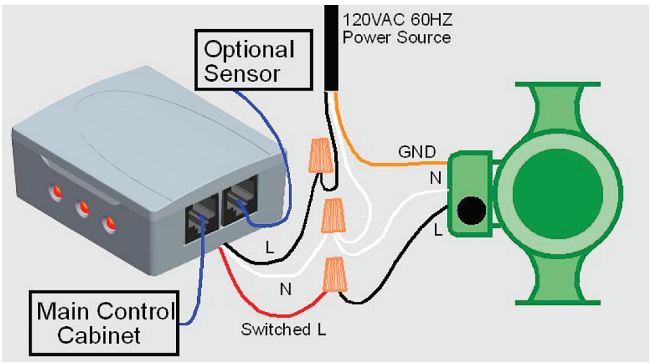

Figure 5: Wiring Diagram

Configuration

Manual Switch

The Pump Relay contains a manual switch inside the top cover. This switch can be used for starting a pump without having the relay box connected to the main Multifunction or Network control.

When the Manual switch is in the Auto position, the pump runs only when the system calls for it to run. When the Manual switch is in the Manual position, the pump runs continuously until returned to the Auto position.

To access the Manual switch, squeeze the long sides of the top cover and pull it away.

Indicators

Indicator	Definition
Active	Illuminates when pump is active
Auto	Illuminates when the Manual switch is in the automatic position
Call	Illuminates when the system calls for the pump to activate

Table 1: Indicator Definitions

Specifications

Storage Temperature:
14 to 160°F (-10 to 70°C)

Operating Temperature:
32 to 105°F (0 to 40°C)

% Relative Humidity:
10 to 90%
non-condensing

Output:
Switched 120VAC
3A maximum

Control Input:
10VDC 10mA control signal

Power Input:
120VAC line voltage

Certifications:
- CSA Standard 22.2 No. O-M91
- CSA Standard 22.2 No. 205
- CSA C/UL 202806
- UL 916 Ed 3

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