uponor

RADIANT HEATING SYSTEMS

UPONOR CLIMATE CŎNTROL™ NETWORK SYSTEM PRIMARY EQUIPMENT CONTROL

INSTRUCTION SHEET

Primary Equipment Control

The Primary Equipment Control (A9012000) is designed to control the main heating sources for a building. The variety of heat sources that can be controlled include:

- Boilers (single, dual, or modulating)
- Ground source heat pumps
- Domestic hot water (DHW) tank(s)
- Domestic hot water recirculation

Note: The domestic hot water recirculation feature ensures a continuous flow of hot water with no time lapse. However, if a building requires more than one hot water tank, the Primary Equipment Control can manage two tanks without recirculation or one tank with recirculation.

Getting Started

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

The package includes:

- Primary Equipment Control (A9012000)
- Interconnect Cable (A9060002)
- Outdoor Sensor (A9012005)
- Four #6-32 x ¼" machine screws

Tools Required for Installation

- RJ45 crimper and connectors
- Cable tester

Installation

Mounting the Unit

Mount the Primary Equipment Control in the second position in the Main Control Cabinet (A9010002) using the included machine screws.

Note: When a control cabinet is not used, use any appropriate fasteners or screws for 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.

Interconnect Cable

The included Interconnect Cable connects the network and power for the Primary Equipment Control to the Router Main Control (A9011000).

1. Attach one end of the cable into the top connector on the left side of the Primary Equipment Control.

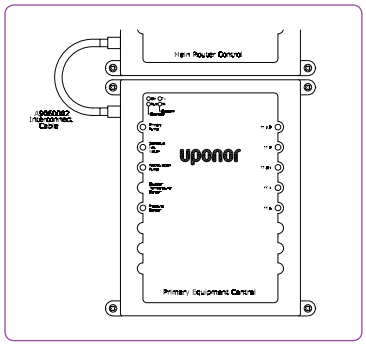

Figure 1: Connecting the Cable

2. Attach the other end of the cable into the bottom connector on the left side of the Router Main Control.

Output Wiring

Use RJ45-terminated Cat5e patch cables to wire to other supported devices. Standard Ethernet cables can be used, or you can build cables of the correct length on site. Refer to Appendix D in the Uponor Climate Cõntrol Network System Manual for more information about making Cat5e patch cables.

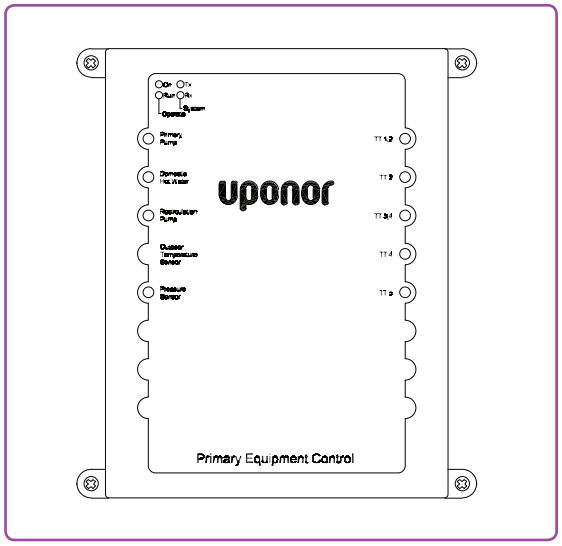

Figure 2: Wiring Schematic

Configuration

Configure the functionality for the external supported devices (pump relay, boiler relay, system pressure sensor, etc.) using the Uponor Configuration Tool software (A9090000).

External Supported Devices: Ports

Devices	Ports
Pump Relay, On/Off (A9013030)	Primary, DHW, Recirc
Boiler Relay, On/Off (A9012010)	Boiler 1 – 5
Boiler Relay, Modulating 0-10VDC (A9012020)	Boiler 1 – 5
System Pressure Sensor (A9012004)	Press Sensor

Table 1: Devices

Indicators and Configuration Specifications

Indicator	Definition
On	Illumines when the control has power
Run	Flashes intermittently to signal the control is processing information **Note:** The flash speed and duration are irregular and at times may appear on solid.
Green TX and Red RX	Flash rapidly when the control transmits or receives information **Note:** For proper network communication, both red and green lights should flash intermittently.
Output Off	Signals that the Uponor Climate Cõntrol Network System is not activating the device
Output On	Signals that the system is activating the device and properly connected
Output Flashing	Signals that the system is trying to activate the device, but the device is not physically connected to the system or is not functioning properly

Table 2: Indicators

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
Voltage	24VAC +/- 10%, 50-60Hz 34VA under full load
Output	0-10VDC 20 mA maximum
Input	10K NTC resistive

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