

Unitary Control Module (UCM)



Legacy Modules

The UCM replaces the following legacy Novar controllers:

- Unit Ventilator Controllers
UVC-1, UVC-3, UVC-9, UVC-10,
UVC-11, and UVC-13
- Electronic Thermostat Controllers
ETC-1, ETC-2, ETC-3, ETC-4, and ETC-6
- Custom Controller (CC)
- Heat Pump Controller (HPC)
- Heat Pump Controller with heating
reversing valve output (HPC Plus)
- Heat Pump Controller with cooling
reversing valve output (HPC Plus-R)

Novar's Unitary Control Module (UCM) is an advanced direct digital controller for unitary equipment such as package rooftop HVAC units, unit ventilators, heat pumps, and package dehumidification units. It is the most flexible Novar unitary controller to date. This single controller replaces fifteen legacy Novar control modules, simplifying service and the selections customers must make.

The UCM can be used for new installations or as a drop-in replacement for any of the legacy controllers. In replacement applications, no reprogramming or downloading is necessary—it is completely compatible with legacy sensors and is programmed automatically.

Application

In Novar's ESS32 and iScope® software, the UCM can be programmed as any of the UVC (Unit Ventilator Controller), ETC (Electronic Thermostat Controller), HPC (Heat Pump Controller), or CC (Custom Controller) module types to match the type of unitary equipment that is being controlled. During installation, the UCM configuration switches are set to match the software program that has been defined for it.

Electrical

24 VAC, 8 VA, Class 2

Operating Environment

Temperature: -40° to 158°F (-40° to 70°C)

Humidity: 0% to 95% RH, noncondensing

Mounting

Surface-mount in a control panel using four slotted screw holes.

Physical Characteristics

Height: 5.5 inches

Width: 8.0 inches

Depth: 1.0 inches

Weight: 0.6 lb

Input Points

Analog:

- Zone Temperature, 10,000-ohm Thermistor, Type 2
- Discharge-Air Temperature, 10,000-ohm Thermistor, Type 2
- Humidity (used with UVC-6 configuration only)
- Setpoint adjustment potentiometer (for all but UVC-6 configuration)

Digital:

- Fan Status
- Dirty Filter Status
- Schedule timed override

Output Points

Digital: Six normally open relay outputs (contacts rated for 24-VAC, 1-amp maximum)

Analog: Three (0–10 VDC)

Network Communications

Method: RS-485

Baud Rate: 9600 or 1747, auto-detect

Cable (network): Belden 8761 or equivalent (two-conductor plus shield)

Addressing

6-Position DIP Switch

Unit Configuration

4-Position DIP Switch

Special Circuits/Diagnostics

- Over Current (Protects against overloading of power supply.)
- Low Voltage Detect (Senses proper operating voltage.)
- Surge Suppression (All inputs and outputs protected against high-voltage surge or transients.)

Status LEDs

- Six for digital output status
- One for module power and communications
- One for schedule status

Certifications

UL/CUL; CE, C-tick, FCC Part 15