

Thermostats and Controllers for Marvair Wall Mount Air Conditioners and Heat Pumps

Controllers

➤ **MPC-10 PLC Controller** P/N K/40028-100

The MPC-10 from Marvair controls between 1 and 10 PLC-equipped HVAC units.

- Controls up to 10 PLC Equipped Marvair Units
- Single or 2-Stage for up to 20 Stages of Cooling
- Lead/Lag Control
- Modbus TCP/IP or BACnet Connectivity
- 7-Inch Color Touchscreen Interface

The HVAC units can be single or dual circuit systems. For dual circuit units the MPC-10 will stage the compressors for a maximum of 20 stages of cooling when using 10 dual circuit units.

The MPC-10 works in a lead-lag fashion and will swap the lead unit every 12-24 hrs. It features remote connectivity through either Modbus TCP/IP or BACnet. MPC-10 users have remote access to all the unit faults and room conditions as well as the ability to view/change set points:

- Temperature
- Anti-Short Cycle Time
- Differentials
- + More

The thermostat can be set to Auto, Cooling, Heating, or Off and each unit can be shutdown manually through the 7 inch color HMI display which displays the current status of each unit. The HMI also has a built-in alarm screen to display which unit has a fault, what the fault is, what time it occurred, and the status of the fault." See the MPC-10 Product Data Sheet for more details.



➤ **MAR8000 Thermostat/Controller**

MAR8000 with Temperature, Humidity and vent Control, BACnet ready with Ethernet port P/N 51738

MAR8000 Optional CO2 Sensor P/N 70954

The MAR8000 thermostat/controller is a standalone, self-programming HVAC controller designed to optimize performance of Marvair heat pumps and air conditioners. It can function as an independent controller or used in conjunction with a BACnet network.

With built-in temperature and humidity sensors, motion sensing and an optional CO2 detection sensor, the MAR8000 can control:

- 1 Heating stage / 1 Cooling stage
- 2 Heating stages / 2 Cooling stages
- 3 Heating stages / 2 Cooling stages
- Hot gas dehumidification operation
- An economizer cycle, and
- Marvair's various ventilation options including the Marvair GreenWheel[®] and/or GreenCube Energy Recovery Ventilator.

Features include:

- *Interface:* Touch screen LCD interface.
- *Aesthetics:* Up to ten selectable screen colors.
- *Flexible:* Configurable economizer/scheduler, supports upload of custom standby screen and Lua scripts.
- *Conformity:* Conforms to ASHRAE specifications for Green Building Standards and applicable safety, EMC and radio standards.
- *Protocols:* Wired BACnet MS/TP or wireless BACnet IP, Modbus RTU, wireless Zigbee Pro, BACnet/IP and email notification via Wi-Fi (requires optional Wi-Fi module).
- *Peripherals:* Easy to install Zigbee Pro, CO2 sensor or Wi-Fi plug-in modules.
- *Optional Sensors:* CO2
- *Standard Sensors:* Motion, temperature, relative humidity.
- *Integration:* Wireless connection to Multi-Purpose Manager (MPM).
- *Automatic Demand Response:* Load shedding application for demand response.
- Generate automatic energy savings
- Interchange between °C/°F
- 22 selectable languages



➤ **CoolLinks PLC-Based Telecom HVAC Controller**P/N 70933

The Marvair PLC-based CoolLinks controller sequences the operation of the two Marvair A/C units to ensure the most energy-efficient conditioning of the shelter space and the most balanced use of the conditioning equipment. The CoolLinks system determines the need to cool or heat the shelter based on an indoor temperature sensor and outside temperature/humidity sensor connected directly to the controller. When cooling or heating is required, the controller selects the unit that was not running in the previous cooling/heating cycle. This lead/lag operation ensures that each unit receives equal runtime and therefore extends the operating life of the units. In the event that one of the units is unavailable, for example, scheduled maintenance, the system will automatically select the active unit. Similarly, if the internal shelter temperature continues to rise/fall, the system will run both units.



➤ **CommStat 6 4/8 Telecom HVAC Controller** P/N S/12087-04

➤ **CommStat 6 6/12 Telecom HVAC Controller** P/N S/12087-06

The CommStat 6 is an HVAC controller, is available in three configurations, and is designed specifically for controlling up to six redundant air conditioners with two stage compressors in a telecommunications shelter or enclosure. The **CommStat 6 2/4** controls up to two single or 2-stage air conditioners (4 Stages max.), the **CommStat 6 4/8** controls up to four single or 2-stage air conditioners (8 Stages max.) and the **CommStat 6 6/12** controls up to six single or 2-stage air conditioners (12 Stages max.)



In addition to the control of the air conditioners, the CommStat 6 has multiple configurable outputs for remote alarms or notification. The CommStat 6 is factory programmed with standard industry set points, but can be configured on site. Settings are retained indefinitely in the event of a power loss.

➤ **CommStat 4 Telecom HVAC Controller**P/N S/07846

The CommStat 4 HVAC controller is designed specifically for controlling two redundant air conditioners or heat pumps with 2-Stage compressors. The CommStat 4 has seven outputs for remote alarms or notification. Status LED's indicate HEAT, COOL, POWER and the LEAD unit. When a fault is detected, an alarm LED flashes and the LCD screen displays the fault. The CommStat can be daisy chained with a second CommStat 4 controllers for controlling up to four air conditioners in one shelter. See the CommStat 4 PDS for more details.



➤ **CommStat 4 ModBus Adapter** P/N 03272

The self-contained Marvair® Modbus Interface Adapter provides an Ethernet gateway to the Marvair CommStat™ 4 HVAC controller through which an external host can read and write information from the CommStat 4 as if it were a device on a Modbus TCP network. It is powered by 24VDC or 48VDC. The external host located, for example, within a Network Operations Center (NOC), can then monitor and control the operation of the HVAC units connected to the CommStat 4 controller. The adapter supports CommStat 4 controllers with protocol version 3 or later with software revision 67 or later.

➤ **CommStat3™ Lead/Lag Microprocessor Controller**P/N S/04581

Solid state controller designed to operate a fully or partially redundant air conditioning system. Ensures equal wear on both air conditioners while allowing the lag unit to assist upon demand. Lead/ lag changeover is factory set at 7 days, but is field programmable in 1/2 day increments from 1/2 to 7 days. The CommStat 3™ Controller has LED's to indicate status & function, digital display of temperature, a comfort override button for energy savings, five alarm relays, a built in temperature sensor and is fully programmable. See the CommStat 3 PDS for more details.



➤ **Thermostats for Single Stage Heat Pumps and Air Conditioners**

Digital, Seven Day Programmable ThermostatP/N 50123
 1 stage heat, 1 stage cool. Fan switch: Auto & On. Auto-changeover. Keypad lockout. Non-volatile program memory. Title 24 compliant.

➤ **Thermostats for Single Stage Heat Pumps (no electric heat)**

Digital, Non-Programmable ThermostatP/N 50186
 One stage cool/One stage heat. Manual or auto changeover. Fan mode: Auto or On. Permanent retention of settings upon power loss. Field adjustable temperature calibration. Max heat and minimum cool set points. Adjustable temperature differential. Remote sensor capable. Keypad lock out. Status LED. °F or °C selectable.

► **Thermostats for 2-Stage Heat Pumps and Air Conditioners**

Digital, 7 Day, 5-2 and 5-1-1 Day Programmable Thermostat..... P/N 50107
Two stage heat/Two stage cool. Manual or auto changeover. Fan: Auto & On. Permanent retention of setting on power loss. Field adjustable temperature calibration. Adjustable max. setpoint for heating and min. adjustable setpoints for cooling. Adjustable temperature differential. Keypad lockout. Status LED. °F or °C selectable. Title 24 compliant.

► **Thermostats for 2-Stage Heat Pumps**

Digital, 7 Day, 2 Occupied & 2 Unoccupied Periods for Each Day of the Week Programmable Thermostat..... P/N 50248
Three stage heat/Three stage cool. Manual or auto changeover. Fan: Auto & On. Ten year retention of programming settings and 48 hour clock and day settings on power loss. Adjustable max. setpoint for heating and min. adjustable setpoints for cooling. Adjustable temperature differential. Keypad lockout. Status LED. °F or °C selectable. Optional remote sensors for outdoor air, supply air and humidity. Title 24 compliant.

► **Humidity Controller**

Digital Humidity Controller P/N 51731
To be used with units with Hot Gas or electric reheat. Programmable dehumidistat, ventilation control. Permanent memory retention of set points. Humidity sensor can be field calibrated. High & low dehumidification set points. Outdoor temperature and humidity sensor included. °F or °C selectable.

► **Thermostat Guards**

Clear Thermostat Guard with Keylock & Clear Plastic Cover & Base..... P/N 50092
For use with 50123, 50186 and 50107 thermostats.

Clear Thermostat Guard with Keylock & Clear Plastic Cover & Base..... P/N 50119
For use with 50248 thermostat.



Please consult the Marvair® website at www.marvair.com for the latest product literature. Detailed dimensional data is available upon request. A complete warranty statement can be found in each product's Installation/Operation Manual, on our website or by contacting Marvair at 229-273-3636. As part of the Marvair continuous improvement program, specifications are subject to change without notice.



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