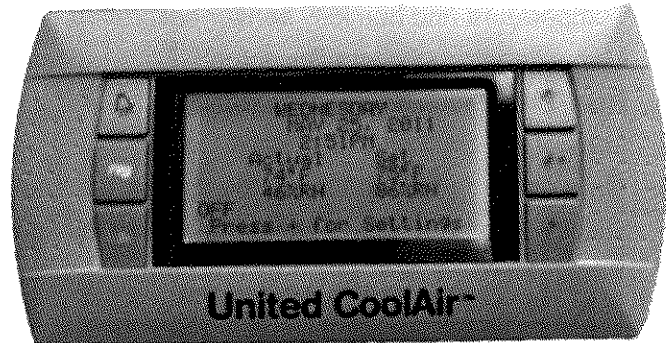


UNITED CoolAir

Marvel "J" Microprocessor

The Marvel "J" microprocessor is an intuitive, yet simplified controller for space temperature and humidity control. This controller utilizes an "on screen" guidance for ease of operation. The display has a white backlit LCD display that is 8 lines by 22 characters. The 6 buttons are used for navigation for typical settings such as set points, time, date and schedules.



Versatility of the Marvel "J" is provided by the selectable inputs and outputs. This feature allows the controller to be set up for just what the application requires. The controller will come from the factory already set up and ready to use once the display is installed and connected to the unit main control board. In the field only the desired set points need to be entered along with a schedule.

Standard Features

- ≡ Up to 2 stages of cooling or heating
- ≡ Up to 2 modulating analog outputs for hot gas bypass, hot gas reheat, air or water side economizer, humidifier, chilled water valve, hot water valve or SCR
- ≡ Up to 2 inputs for temperature or humidity sensors
- ≡ On an alarm or warning, a message will be displayed on the screen and an audible buzzer will sound
- ≡ Diagnostic screen displaying status of alarm inputs and sensor inputs for troubleshooting in the event of an alarm
- ≡ Set points can be password protected by a user defined 4 digit numerical code
- ≡ The advanced menu is password protected by an OEM code provided for use by a qualified technician for troubleshooting in the event of a critical alarm
- ≡ Daylight savings time is active by default. This can be de-activated for those areas of the country where it is not observed
- ≡ Leap years are taken into account for date display
- ≡ Compressor high and low pressure safeties lock out compressor operation
- ≡ 7-Day programmability

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Standard Features (Continued)

- ≡ One occupied / unoccupied period per day
- ≡ Night set-back / set-up limits during unoccupied mode
- ≡ On screen display of all active temperature and humidity readings
- ≡ On screen status for fan, cooling stages and heating stages
- ≡ On screen display of cooling, heating, humidification and dehumidification demands
- ≡ Temperature and humidity sensor calibration
- ≡ Manual control of controller outputs for diagnostics troubleshooting purposes
- ≡ Real Time Clock Board included
- ≡ Loss of Airflow Switch Standard
- ≡ On a power failure condition, the system restarts automatically
- ≡ Display can be located outside the controlled space, up to 160 feet from main control board
- ≡ Sensors are capable of $\pm 1.8^{\circ}$ F for temperature and $\pm 4\%$ for humidity
- ≡ Runs times are available for planning preventative or routine maintenance

Optional Features

- ≡ Humidification control as On / Off or Modulating
- ≡ Dehumidification by cooling / reheat
- ≡ Hot Gas Reheat control as On / Off or Modulating
- ≡ Modulating Hot Gas Bypass Valve
- ≡ Air or Water Side Economizer control
- ≡ Building automation compatibility via BACnet MS/TP, BACnet IP (Ethernet 10BaseT), MODBUS or LonWorks[®]

Selectable Optional Alarms / Inputs (Optional switches required)

- ≡ Dirty Filter Switch
- ≡ Drain Pan Overflow Switch
- ≡ High Heat Limit Switch (required when electric heat is used)
- ≡ Smoke Detector
- ≡ Firestat
- ≡ Remote On / Off

