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RenewAire
Energy Recovery Ventilation

RenewAire MC Series Occupancy Sensor

Specifications

- **Coverage floor space:**
  - **Ceiling mount:** 1500 sq. ft.
  - **Wall mount:** 2500 sq. ft.
- **Major motion area:**
  - **Ceiling mount:** 50 ft. diameter
  - **Wall mount:** 68 x 50 ft.

OVERVIEW

SPECIFICATIONS

- Passive infared sensor
- Adjustable time-off delay to 30 minutes
- 24VAC power requirement
- Ceiling mount or directable wall mount
- **Coverage floor space**
  - **Ceiling mount:** 1500 sq. ft.
  - **Wall mount:** 2500 sq. ft.
- **Major motion area**
  - **Ceiling mount:** 50 ft. diameter
  - **Wall mount:** 68 x 50 ft.

Model	Volts	Current	Isolated Relay	Coverage Area	Suggested Mounting Height
MC-C	15-28VAC	30 mA	1 A @ 30 VAC/DC	1500 sq. ft.	8-10 ft.
MC-W	15-28VAC	30 mA	1 A @ 30 VAC/DC	2500 sq. ft.	8-10 ft.

INSTALLATION

MC-C CEILING MOUNT

See the Leviton installation instructions provided in the original box for in-details or for more options.
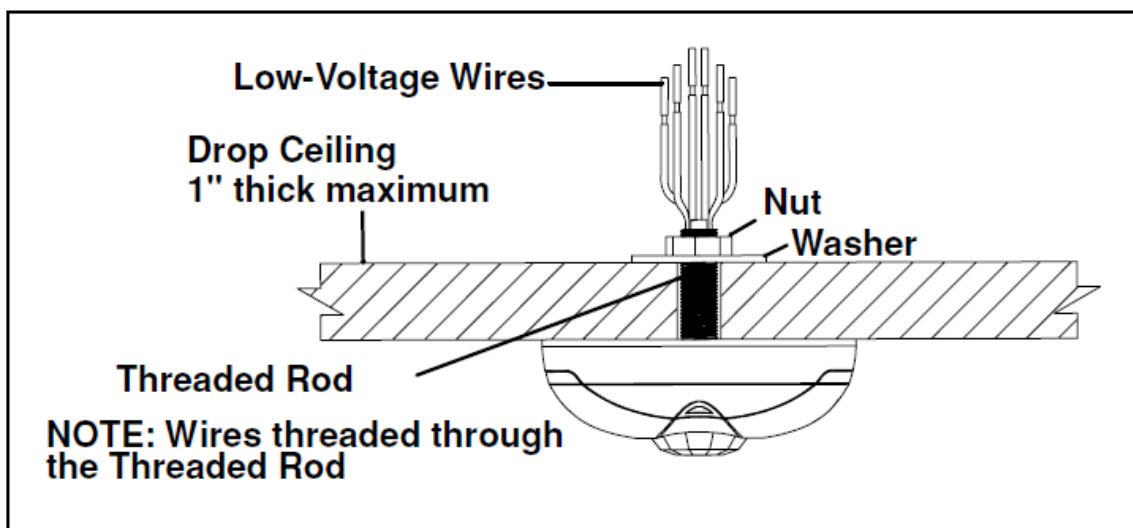

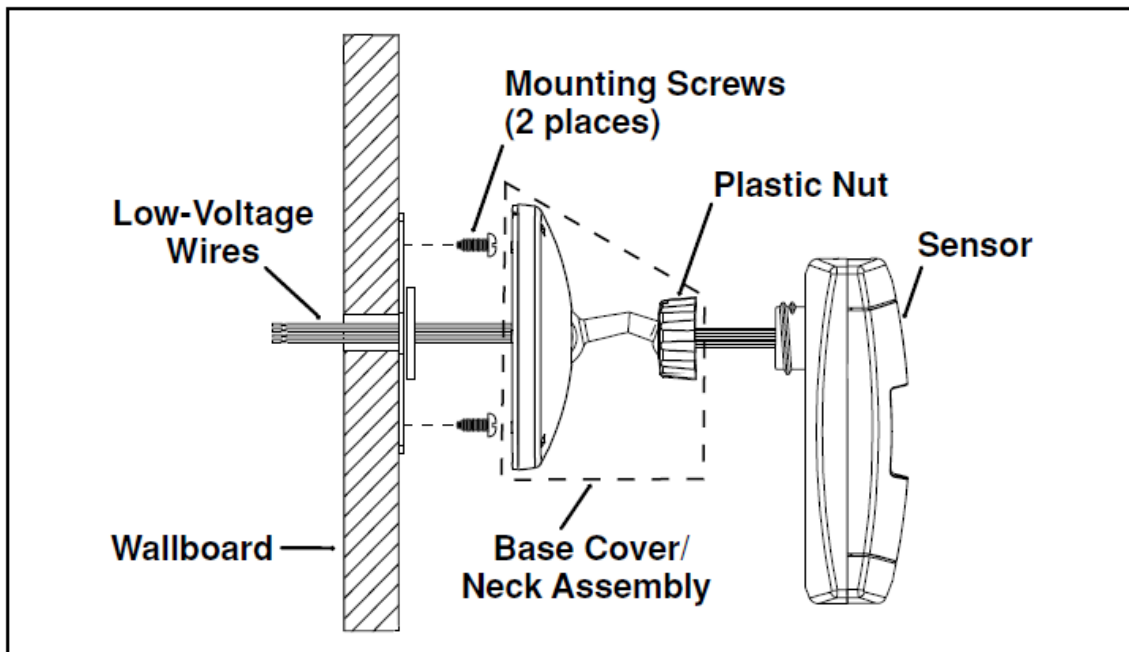FIGURE 2.1.0 MC-C CEILING MOUNT INSTALLATION

MC-W WALL MOUNT

FIGURE 2.2.0 MC-W WALL MOUNT INSTALLATION

SETTINGS

ADJUSTMENT KNOBS

KNOB COLOR	SYMBOL	FUNCTION	KNOB SETTING	FACTORY DEFAULT SETTING	
Red	👁	Sets the infrared range	Range Setting Full CCW = min. (OFF) Full CW = max.	75%	↗
Black	🕐	Delayed-Off Time	Full CCW = min. (30 sec.) Full CW = max. (30 min.)	50% (10 min.)	↑

FIGURE 3.1.0 KNOB ADJUSTMENT TABLE
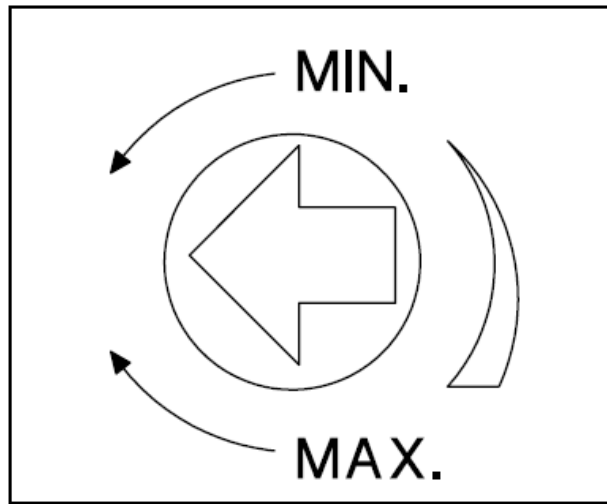
FIGURE 3.1.1 INFRARED RANGE ADJUSTMENT
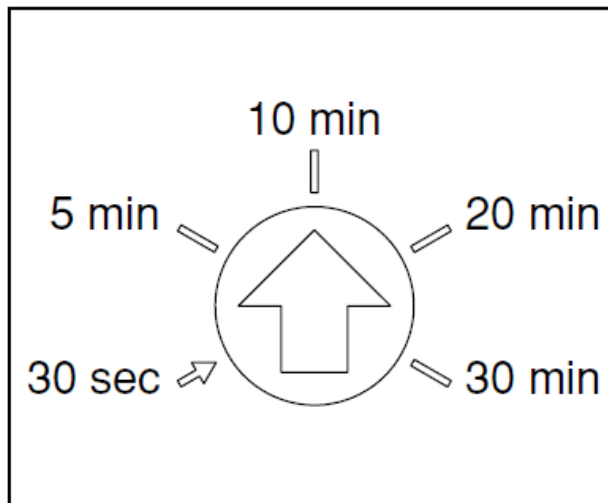
FIGURE 3.1.2 DELAYED—OFF TIME ADJUSTMENT

DIP SWITCHES

Switch	Switch Functions	Switch Settings	
	Bank A	OFF	ON
A1	N/A	N/A	N/A
A2	N/A	N/A	N/A
A3	Manual Mode	Auto Adapting Enabled	Auto Adapting Disabled
A4	Walk-Through Disabled	Walk-Through Enabled	Walk-Through Disabled

	Bank B	OFF	ON
B1	Override to ON	Auto Mode	Lights Forced ON
B2	Override to OFF	Auto Mode	Lights Forced OFF
B3	Test Mode	OFF ¢ ON ¢ OFF = Enter/Exit Test Mode	
B4	LEDs Disabled	LEDs Enabled	LEDs Disabled

FIGURE 3.2.0 DIP SWITCH SETTING TABLE
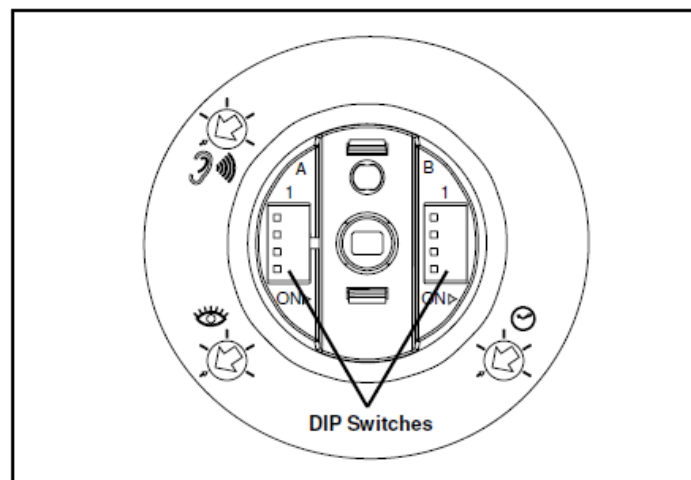
FIGURE 3.2.1 MC-C DIP SWITCHES
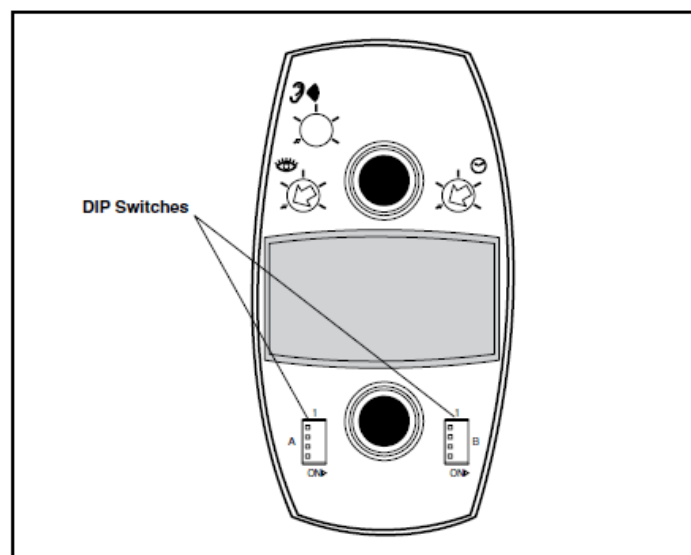
FIGURE 3.2.2 MC-W DIP SWITCHES

ELECTRICAL

WIRING SCHEMATICS
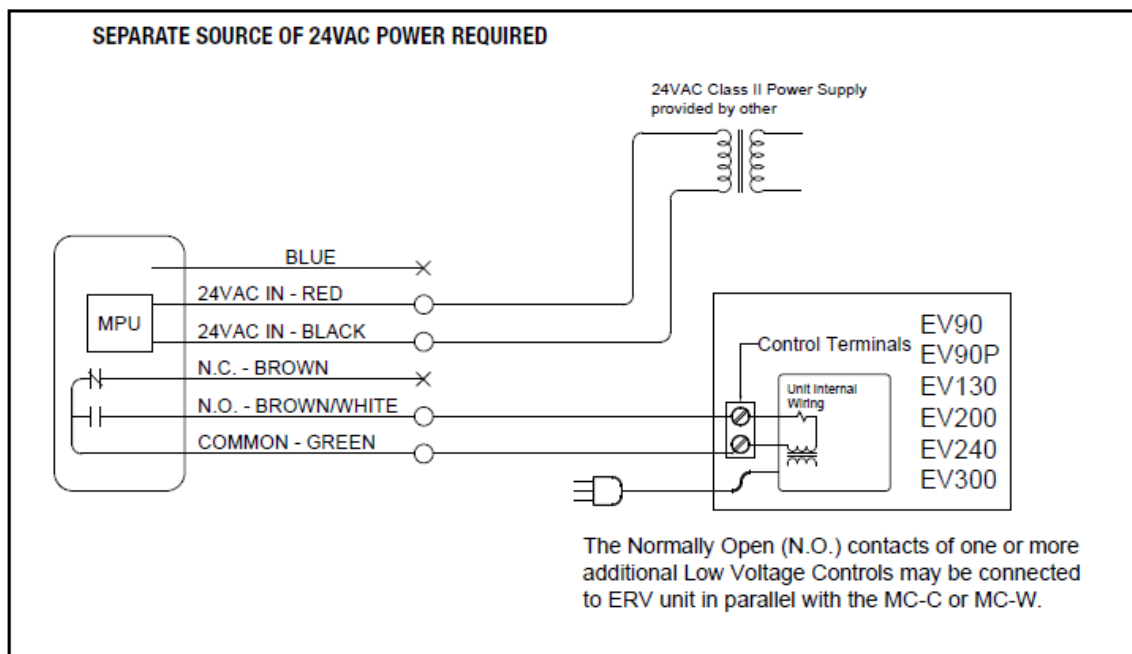
FIGURE 4.1.0 EV90, EV90P, EV130, EV200, AND EV300 SCHEMATIC

In this example, Motion Control Occupancy Sensor turns Energy Recovery Ventilator (ERV) on at High speed when space is occupied.
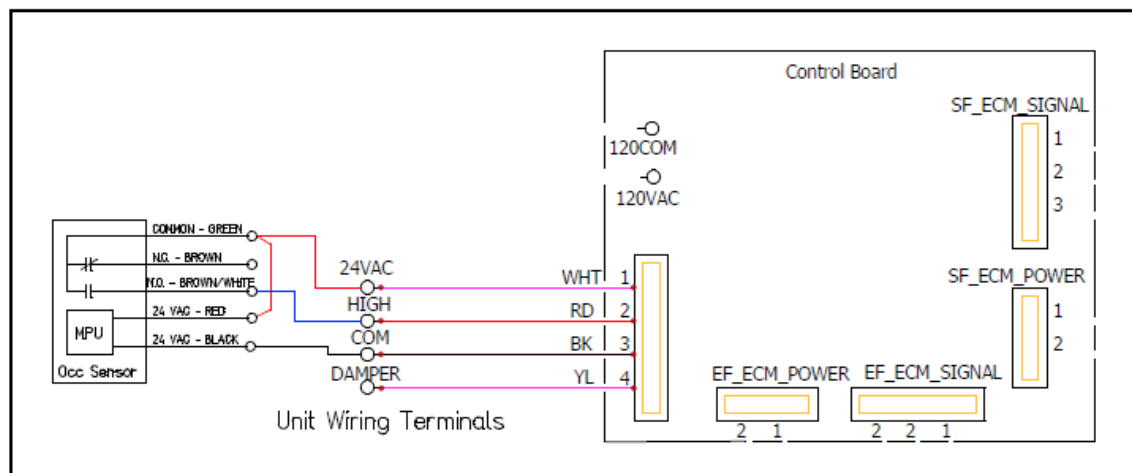
FIGURE 4.1.1 EV PREMIUM AND SL75 SCHEMATIC
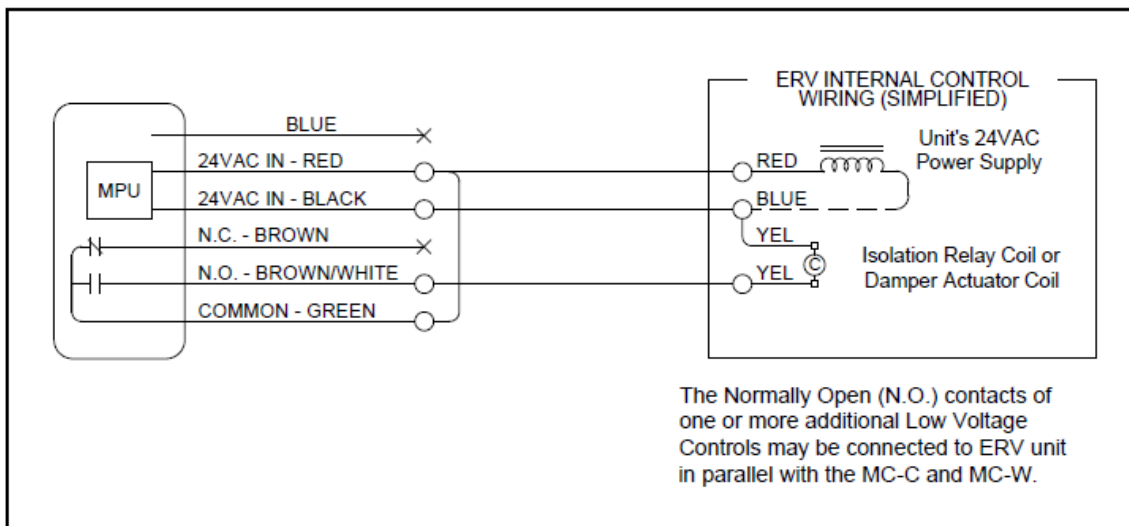
FIGURE 4.1.2 HE1.5IN—STANDARD WIRING (NON-ECM) SCHEMATIC
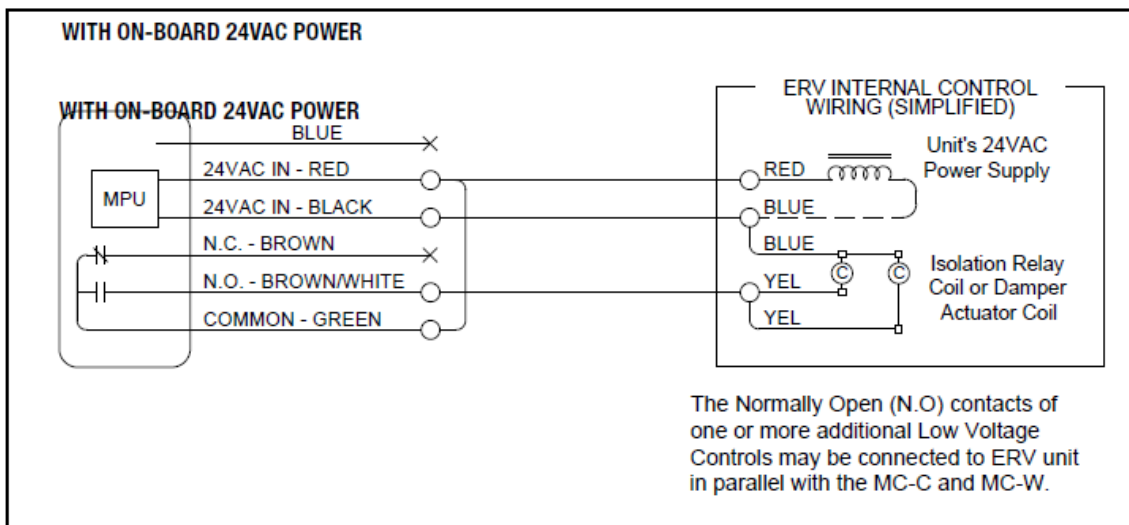
FIGURE 4.1.3 HE1.5IN—MOTORIZED DAMPER(S) OR INDEPENDENT BLOWER CONTROL SCHEMATIC

FIGURE 4.1.4 HE1.5RT—STANDARD WIRING (NON-ECM OR VFD UNITS) SCHEMATIC

WITH ON-BOARD 24VAC POWER

ERV INTERNAL CONTROL WIRING (SIMPLIFIED)

MPU
- BLUE ✕
- 24VAC IN - RED
- 24VAC IN - BLACK
- N.C. - BROWN ✕
- N.O. - BROWN/WHITE
- COMMON - GREEN

1
2
3
4
5

Unit's 24VAC Power Supply

Isolation Relay Coil or Damper Actuator Coil

The Normally Open (N.O.) contacts of one or more additional Low Voltage Controls may be connected to ERV unit's Terminals 1 & 4. Do not apply power to these terminals.

FIGURE 4.1.5 HE1.5RT—MOTORIZED DAMPER(S) OR INDEPENDENT BLOWER CONTROL SCHEMATIC
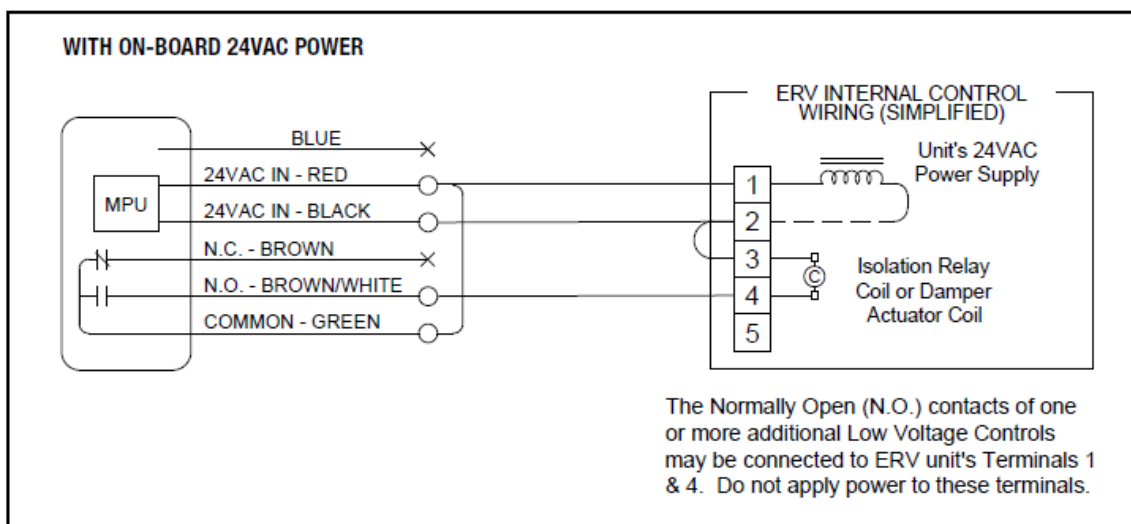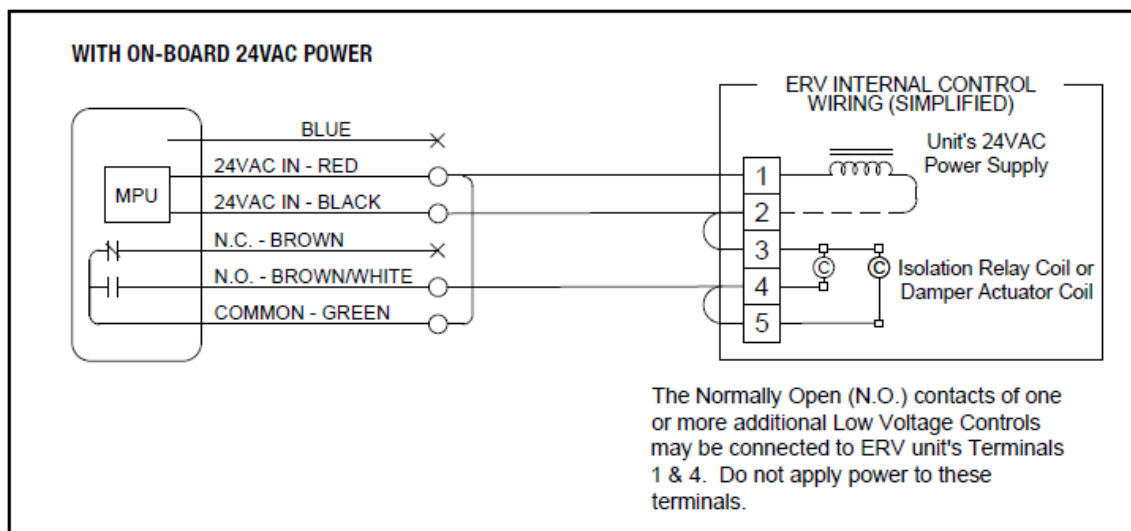
WITH ON-BOARD 24VAC POWER

ERV INTERNAL CONTROL WIRING (SIMPLIFIED)

MPU
- BLUE ✕
- 24VAC IN - RED
- 24VAC IN - BLACK
- N.C. - BROWN ✕
- N.O. - BROWN/WHITE
- COMMON - GREEN

1
2
3
4
5

Unit's 24VAC Power Supply

Isolation Relay Coil or Damper Actuator Coil

The Normally Open (N.O.) contacts of one or more additional Low Voltage Controls may be connected to ERV unit's Terminals 1 & 4. Do not apply power to these terminals.
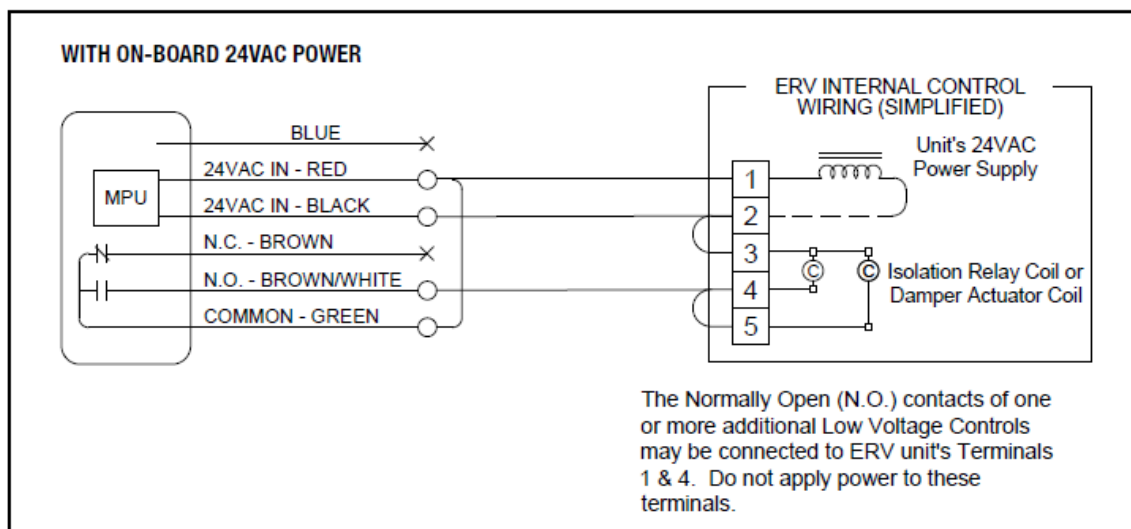
FIGURE 4.1.6 HE2X-8X, LE6X-10X—WITH STANDARD WIRING OR MOTORIZED DAMPER(S) SCHEMATIC

WITH ON-BOARD 24VAC POWER

ERV INTERNAL CONTROL WIRING (SIMPLIFIED)

MPU
- BLUE ✕
- 24VAC IN - RED
- 24VAC IN - BLACK
- N.C. - BROWN ✕
- N.O. - BROWN/WHITE
- COMMON - GREEN

TB (EA/RA)
1
2
8

Unit's 24VAC Power Supply

Isolation Relay Coil or Damper Actuator Coil

1
2
8
TB (OA/FA)

Isolation Relay Coil or Damper Actuator Coil

The Normally Open (N.O.) contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the MC-C and MC-W.
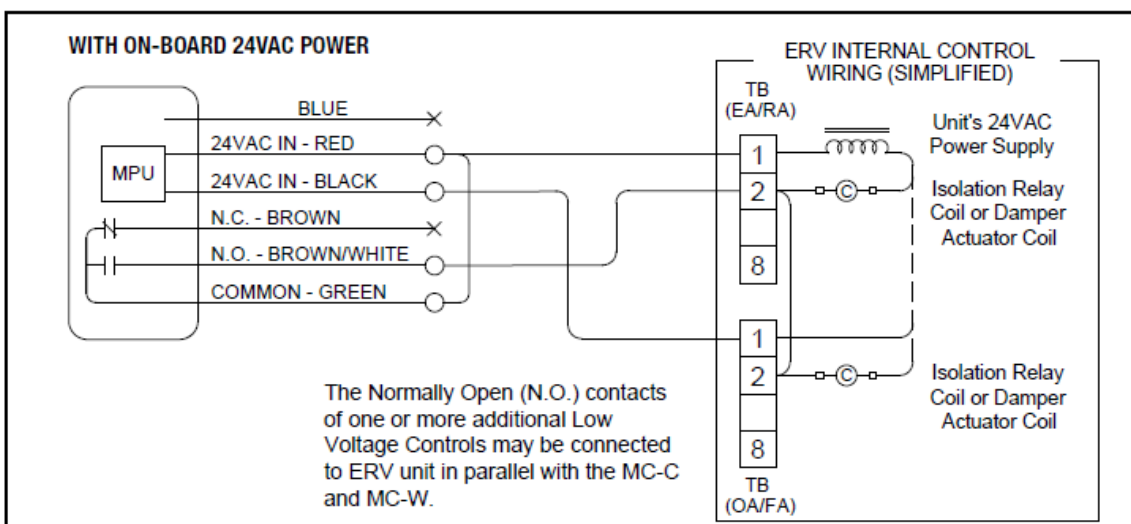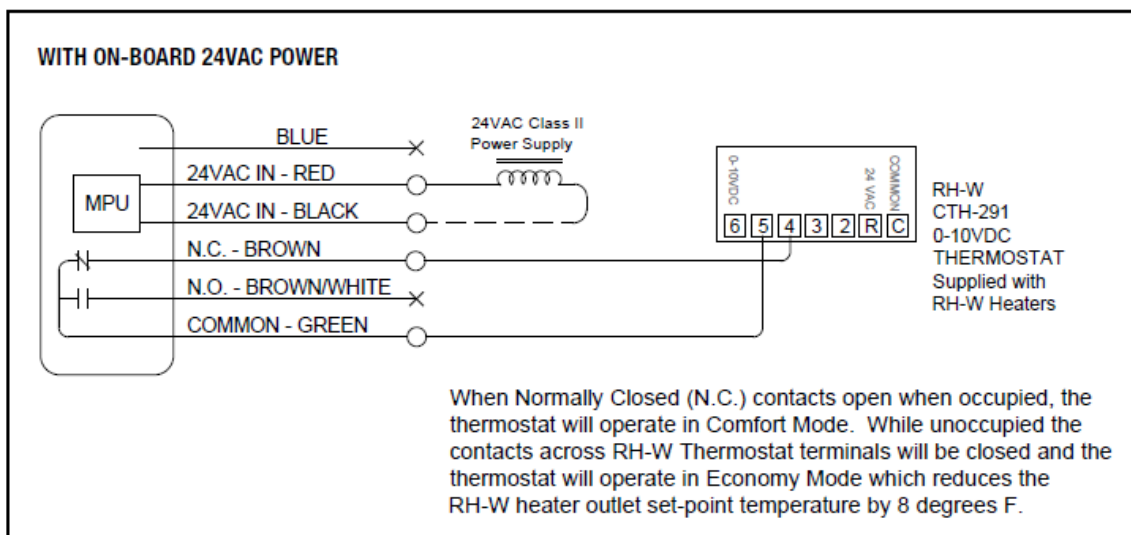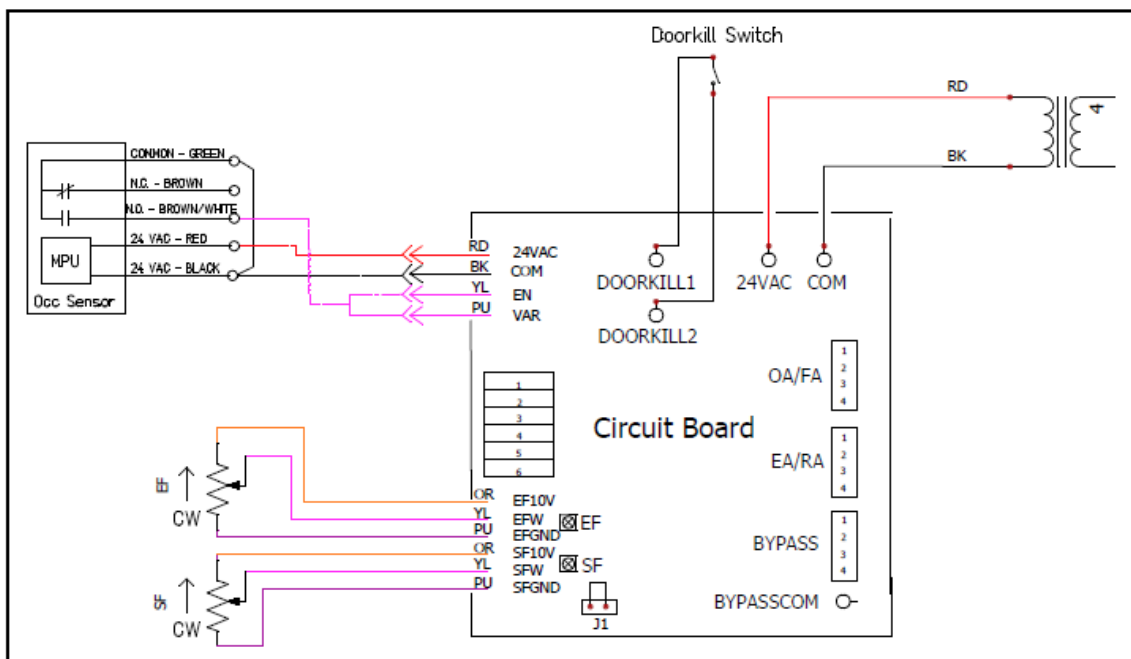
FIGURE 4.1.7 HE1.5—ECM WITH TERMINAL BLOCK (SPEED 1-LOW SPEED ON/OFF) SCHEMATIC

In this example, Motion Control Occupancy Sensor turns the ERV on at speed set by potentiometers when space is occupied.

FIGURE 4.1.8 HE05, HE07, HE10, AND HE1.5—ECM WITH CIRCUIT BOARD (SPEED 1-LOW SPEED ON/OFF) SCHEMATIC

FIGURE 4.1.9 RH-W HEATER ACCESSORY THERMOSTAT SCHEMATIC

FACTORY ASSISTANCE

In the unlikely event that you need assistance from the factory for a specific issue, make sure that you have the information called for in the Unit Records page in the Owner Information section of the unit manual. The person you speak with at the factory will need that information to properly identify the unit and the installed options.

To contact RenewAire Customer Service:

- **Call** 800-627-4499
- **Email:** RenewAireSupport@RenewAire.com.

About RenewAire

- For over 40 years, RenewAire has been a pioneer in enhancing indoor air quality (IAQ) in commercial and residential buildings of every size. This is achieved while maximizing sustainability through our fifth-generation, static-plate, enthalpic-core Energy Recovery Ventilators (ERVs) that optimize energy efficiency, lower capital costs via load reduction and decrease operational expenses by minimizing equipment needs, resulting in significant energy savings. Our ERVs are competitively priced, simple to install, easy to use and maintain and have a quick payback. They also enjoy the industry's best warranty with the lowest claims due to long-term reliability derived from innovative design practices, expert workmanship and Quick Response Manufacturing (QRM).
- As the pioneer of static-plate core technology in North America, RenewAire is the largest ERV producer in the USA. We're committed to sustainable manufacturing and lessening our environmental footprint, and to that end our Waunakee, WI plant is 100% powered by wind turbines. The facility is also one of the few buildings worldwide to be LEED and Green Globes certified, as well as having achieved ENERGY STAR Building status. In 2010, RenewAire joined the Soler & Palau (S&P) Ventilation Group in order to provide direct access to the latest in energyefficient air-moving technologies. For more information, visit: renewaire.com.

Accessories

MC-C Ceiling Mount

MC-W Wall Mount

CONTACT INFORMATION

- 201 Raemisch Road
- Waunakee, WI
- 53597
- 800.627.4499
- RenewAire.com.
- 2025 © RenewAire LLC
- 138280_008_JAN25

FAQs

- **Q: What is the suggested mounting height for the MC Series Occupancy Sensor?**
  - **A:** The suggested mounting height for both MC-C and MC-W models is between 8-10 feet.
- **Q: What is the coverage area of the MC Series Occupancy Sensor?**

- **A:** The coverage area is 1500 sq. ft. for the MC-C (Ceiling Mount) and 2500 sq. ft. for the MC-W (Wall Mount) model.

Documents / Resources

	[RenewAire MC Series Occupancy Sensor](#) [[pdf](#)] Instruction Manual MC-C, MC-W, MC Series Occupancy Sensor, MC Series, Occupancy Sensor, Sensor

References

- [User Manual](#)

🏷 MC Series, MC Series Occupancy Sensor, MC-C, MC-W, Occupancy Sensor, RenewAire,
📁 RenewAire   Sensor

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