MC SERIES OCCUPANCY SENSOR
Supplemental Installation Manual for Accessories

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MC-W (Wall Mount)
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1.0 OVERVIEW

1.1 SPECIFICATIONS

- Passive infrared 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.

<table>
<thead>
<tr>
<th>Model</th>
<th>Volts</th>
<th>Current</th>
<th>Isolated Relay</th>
<th>Coverage Area</th>
<th>Suggested Mounting Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC-C</td>
<td>15-28VAC</td>
<td>30 mA</td>
<td>1 A @ 30 VAC/DC</td>
<td>1500 sq. ft.</td>
<td>8-10 ft.</td>
</tr>
<tr>
<td>MC-W</td>
<td>15-28VAC</td>
<td>30 mA</td>
<td>1 A @ 30 VAC/DC</td>
<td>2500 sq. ft.</td>
<td>8-10 ft.</td>
</tr>
</tbody>
</table>
2.0 INSTALLATION

2.1 MC-C CEILING MOUNT

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

![Image of MC-C Ceiling Mount Installation](image1)

2.2 MC-W WALL MOUNT

![Image of MC-W Wall Mount Installation](image2)
3.0 SETTINGS

3.1 ADJUSTMENT KNOBS

<table>
<thead>
<tr>
<th>KOJB COLOR</th>
<th>SYMBOL</th>
<th>FUNCTION</th>
<th>KNOB SETTING</th>
<th>FACTORY DEFAULT SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>![Eye]</td>
<td>Sets the infrared range</td>
<td>Range Setting Full CCW = min. (OFF) Full CW = max.</td>
<td>75%</td>
</tr>
<tr>
<td>Black</td>
<td>![Clock]</td>
<td>Delayed-Off Time</td>
<td>Full CCW = min. (30 sec.) Full CW = max. (30 min.)</td>
<td>50%</td>
</tr>
</tbody>
</table>

**FIGURE 3.1.0 KNOB ADJUSTMENT TABLE**

**FIGURE 3.1.1 INFRARED RANGE ADJUSTMENT**

**FIGURE 3.1.2 DELAYED—OFF TIME ADJUSTMENT**
### 3.2 DIP SWITCHES

<table>
<thead>
<tr>
<th>Switch</th>
<th>Switch Functions</th>
<th>Switch Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank A</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>A1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>A3</td>
<td>Manual Mode</td>
<td>Auto Adapting Enabled</td>
</tr>
<tr>
<td>Bank B</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>B1</td>
<td>Override to ON</td>
<td>Auto Mode</td>
</tr>
<tr>
<td>B2</td>
<td>Override to OFF</td>
<td>Auto Mode</td>
</tr>
<tr>
<td>B3</td>
<td>Test Mode</td>
<td>OFF ¢ ON ¢ OFF = Enter/Exit Test Mode</td>
</tr>
<tr>
<td>B4</td>
<td>LEDs Disabled</td>
<td>LEDs Enabled</td>
</tr>
</tbody>
</table>

**FIGURE 3.2.0 DIP SWITCH SETTING TABLE**

**FIGURE 3.2.1 MC-C DIP SWITCHES**

**FIGURE 3.2.2 MC-W DIP SWITCHES**
4.0 ELECTRICAL

4.1 WIRING SCHEMATICS

SEPARATE SOURCE OF 24VAC POWER REQUIRED

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 or MC-W.

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
### MC Series Occupancy Sensor

**FIGURE 4.1.2 HE1.5IN—STANDARD WIRING (NON-ECM) SCHEMATIC**

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 4.1.3 HE1.5IN—MOTORIZED DAMPER(S) OR INDEPENDENT BLOWER CONTROL SCHEMATIC**

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

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.
This schematic applies to all HE1XRT and HE1.5XRT models with dampers option “D”, “E” or “F” on space 18 or unit control option “D” on space 19.

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.

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

FIGURE 4.1.5 HE1.5RT—MOTORIZED DAMPER(S) OR INDEPENDENT BLOWER CONTROL SCHEMATIC

This schematic applies to all HE2X through HE8X models with dampers option “D”, “E” or “F” on space 18 or unit control option “D” on space 19.

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.

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

FIGURE 4.1.6 HE2X-8X, LE6X-10X—WITH STANDARD WIRING OR MOTORIZED DAMPER(S) SCHEMATIC

This schematic applies to HE1XIN, HE1XRT, HE1.5XIN and HE1.5XRT models with unit control option “E” on space 14 and 15.

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.

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

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

![Circuit Board](image)

**FIGURE 4.1.9 RH-W HEATER ACCESSORY THERMOSTAT SCHEMATIC**

With on-board 24VAC power:

- **BLUE**: 24VAC IN - RED
- **24VAC IN - BLACK**: N.C. - BROWN
- **N.O. - BROWN/WHITE**: COMMON - GREEN
- **COMMON - GREEN**: 24VAC Class II Power Supply

When Normally Closed (N.C.) contacts open when occupied, the thermostat will operate in Comfort Mode. While unoccupied the contacts across RH-W Thermostat terminals will be closed and the thermostat will operate in Economy Mode which reduces the RH-W heater outlet set-point temperature by 8 degrees F.
5.0 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 energy-efficient air-moving technologies. For more information, visit: renewaire.com