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
- 24 VAC 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>15-28 VAC</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>15-28 VAC</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

NOTE: Wires threaded through the Threaded Rod

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
2.2 MC-W WALL MOUNT

FIGURE 2.2.0 MC-W WALL MOUNT INSTALLATION
3.0 SETTINGS
3.1 ADJUSTMENT KNOBS

<table>
<thead>
<tr>
<th>Knob 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></td>
<td>Sets the infrared range</td>
<td>Range Setting</td>
<td>75 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Full CCW = min. (OFF)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Full CW = max.</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td>Delayed - Off Time</td>
<td>Full CCW = min. (30 sec)</td>
<td>50 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Full CW = max. (30 min.)</td>
<td>(10 min)</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></td>
<td></td>
<td>Auto Adapting Disabled</td>
</tr>
<tr>
<td>A4</td>
<td>Walk-Through Disabled</td>
<td>Walk-Through Enabled</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Walk-Through Disabled</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></td>
<td></td>
<td>Lights Forced ON</td>
</tr>
<tr>
<td>B2</td>
<td>Override to OFF</td>
<td>Auto Mode</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lights Forced OFF</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>
<tr>
<td></td>
<td></td>
<td>LEDs Disabled</td>
</tr>
</tbody>
</table>

**FIGURE 3.2.0 DIP SWITCH SETTING TABLE**

![DIP Switches](images/dip_switches.png)

**FIGURE 3.2.1 MC-C DIP SWITCHES**

![DIP Switches](images/dip_switches_2.png)

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

4.1 WIRING SCHEMATICS

**FIGURE 4.1.0 EV90, EV90P, EV130, EV200 AND EV300 SCHEMATIC**

**FIGURE 4.1.1 SL70 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 or MC-W.
**MC Series Occupancy Sensor**

**ACCESSORY**

**ELECTRICAL**

**FIGURE 4.1.2 EV450, HE1XIN AND HE1.5IN- WITH STANDARD WIRING (NON-ECM) SCHEMATIC**

**FIGURE 4.1.3 EV450- WITH ECM (SPEED 1-LOW SPEED ON/OFF) SCHEMATIC**

**FIGURE 4.1.4 HE1XIN AND HE1.5IN- WITH 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.
WITH ON-BOARD 24VAC POWER

**ERV INTERNAL CONTROL WIRING (SIMPLIFIED)**

1. 24VAC IN - RED
2. 24VAC IN - BLACK
3. N.C. - BROWN
4. N.O. - BROWN/WHITE
5. COMMON - GREEN

**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 HE1XRT AND HE1.5RT- WITH STANDARD WIRING (NON-ECM OR VFD UNITS) SCHEMATIC**

WITH ON-BOARD 24VAC POWER

**ERV INTERNAL CONTROL WIRING (SIMPLIFIED)**

1. 24VAC IN - BLACK
2. 24VAC IN - RED
3. N.O. - BROWN/WHITE
4. N.C. - BROWN
5. COMMON - GREEN

**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 HE1XRT AND HE1.5RT- WITH MOTORIZED DAMPER(S) OR INDEPENDENT BLOWER CONTROL SCHEMATIC**

WITH ON-BOARD 24VAC POWER

**ERV INTERNAL CONTROL WIRING (SIMPLIFIED)**

1. 24VAC IN - BLACK
2. 24VAC IN - RED
3. N.O. - BROWN/WHITE
4. N.C. - BROWN
5. COMMON - GREEN

**Unit’s 24VAC Power Supply**

**Isolation Relay**

**Coil or Damper Actuator Coil**

**TB (EA/RA)**

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 HE1XIN, HE1XRT, HE1.5IN AND HE1.5RT- WITH ECM (SPEED 1-LOW SPEED ON/OFF) 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.

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.
About RenewAire

For over 30 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