IAQ Sensor
Supplemental Wiring Manual for Accessories

EV-Series
SL-Series
EV Premium
HE-Series
LE-Series

IAQ-D

IAQ-W

TABLE OF SCHEMATICS

1.0 OVERVIEW

The Indoor Air Quality (IAQ) monitor uses an advanced MEMS metal oxide semiconductor sensor to detect poor air quality. The sensor reacts quickly to detect a broad range of VOCs such as smoke, cooking odors, bio-effluence, outdoor pollutants, and from human activities. The sensor captures all VOC emissions that are completely invisible to CO_2 sensors and provides a linear analog signal output of 4–20 mA, 0–5, or 10–10 VDC and a Normally Open (NO) relay to control an alarm or ventilation fan in various ways.

2.0 DIMENSIONS

2.1 IAQ-W

2.2 IAQ-D

Conduit/EMT Connection
Ø 0.875"

Mounting Holes
(X4) Ø 0.200"

Vent Holes
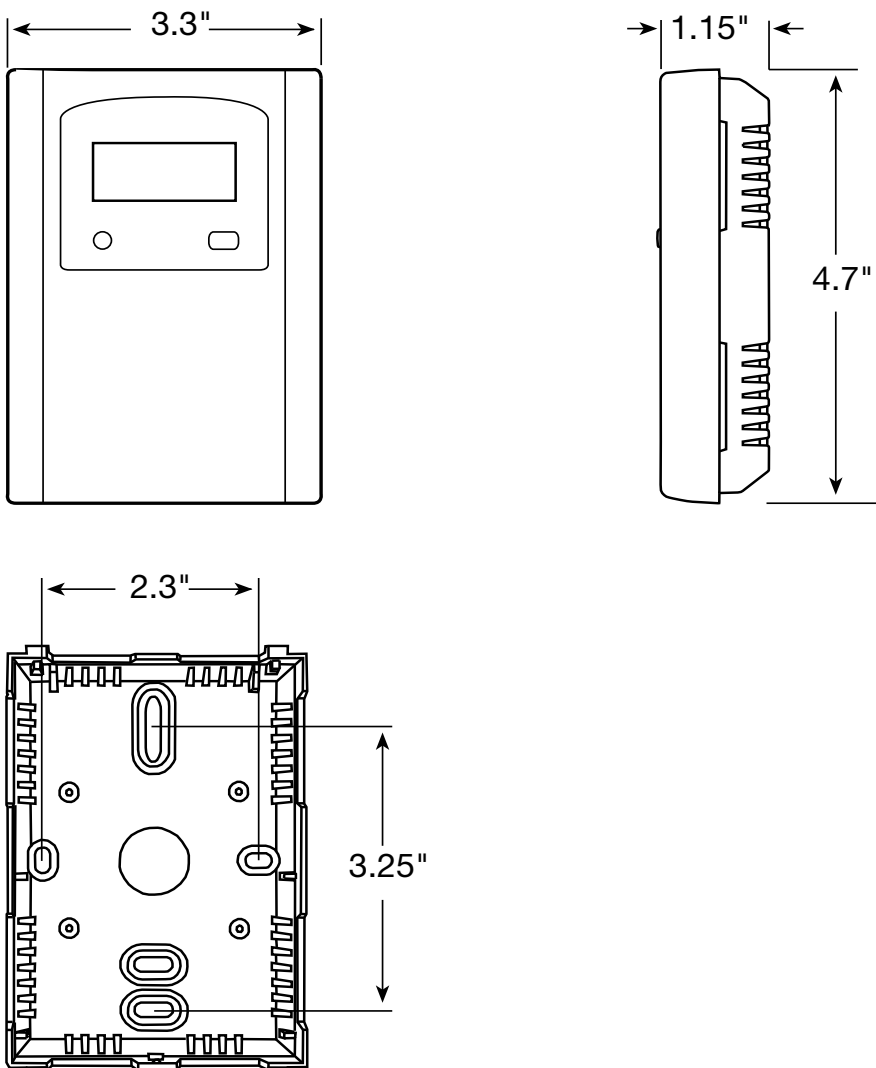
Vent Holes
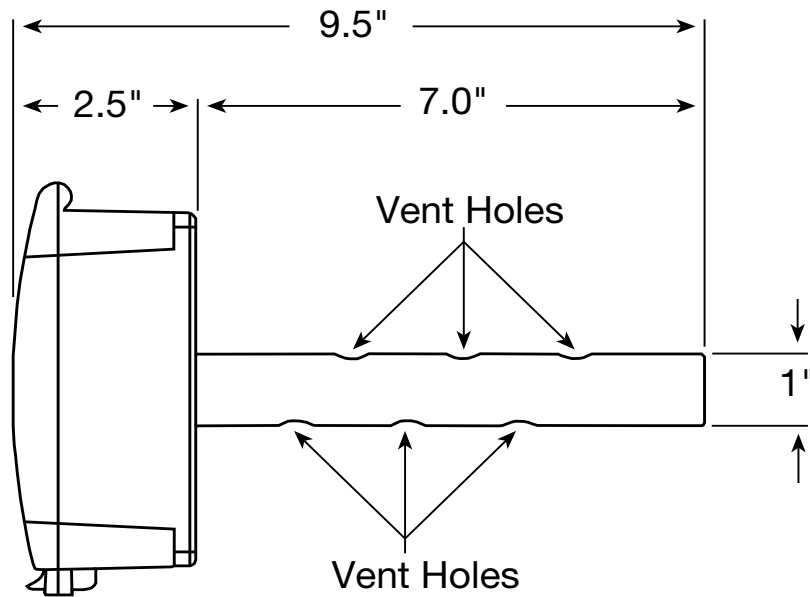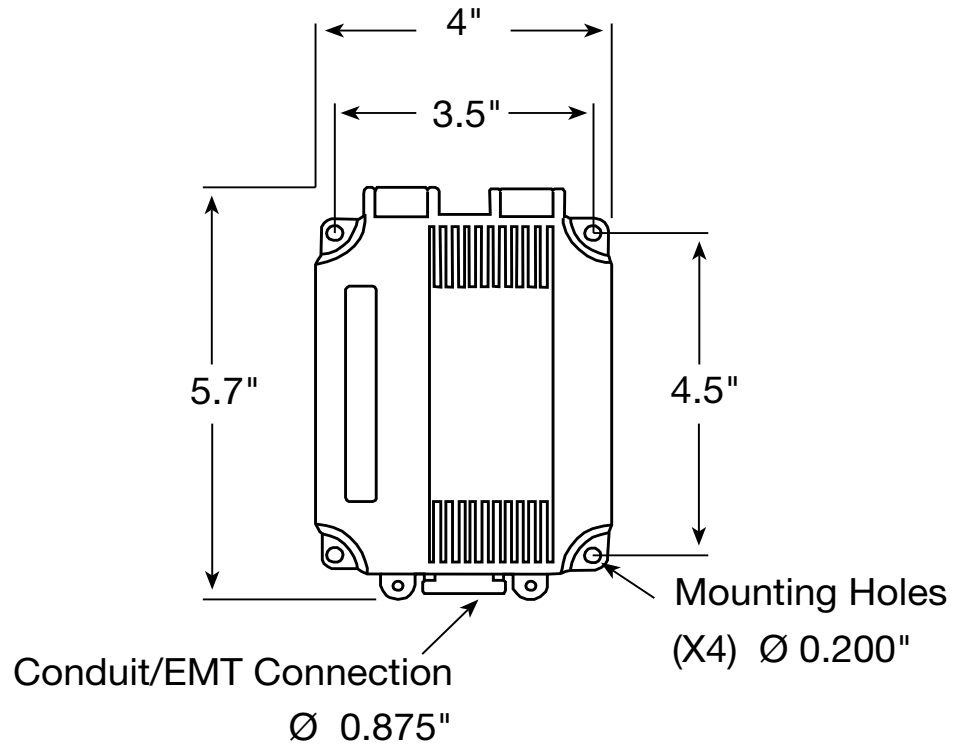
3.0 ELECTRICAL

3.1 WIRING SCHEMATICS
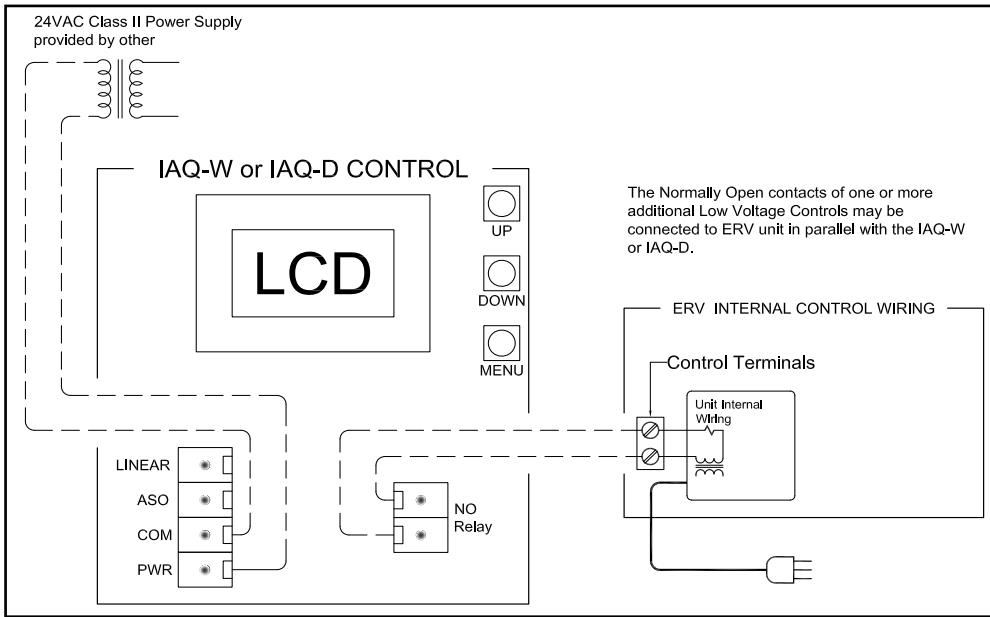
FIGURE 3.1.0 WIRING SCHEMATIC FOR EV90, EV90P, EV130, EV200, EV240, EV300 UNITS ONLY
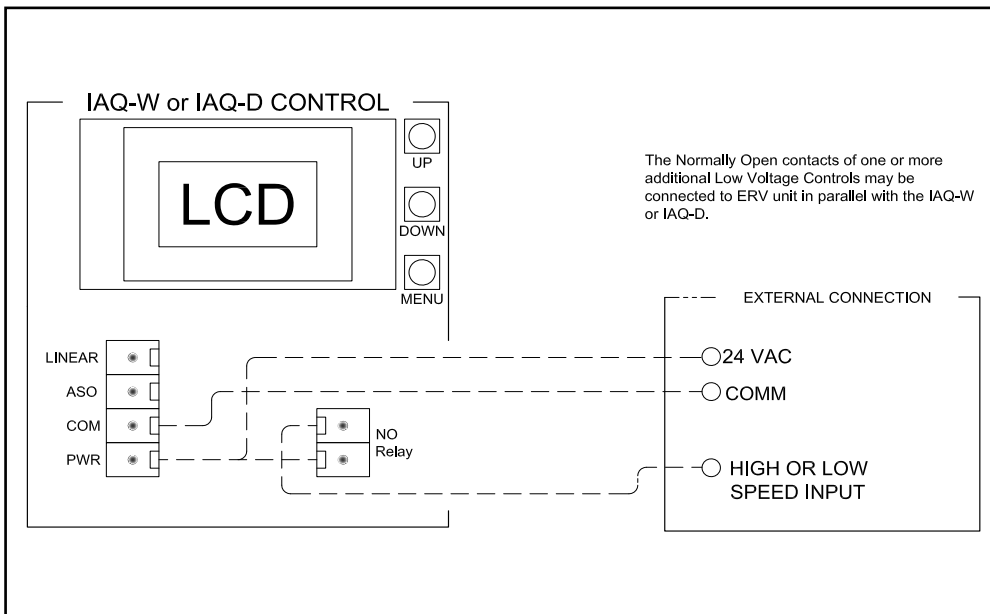

FIGURE 3.1.1 WIRING SCHEMATIC FOR SL-SERIES UNITS

In this example, the IAQ Controller turns the Energy Recovery Ventilator (ERV) on at High speed when the IAQ sensor level exceeds IAQ Controller Relay setting.
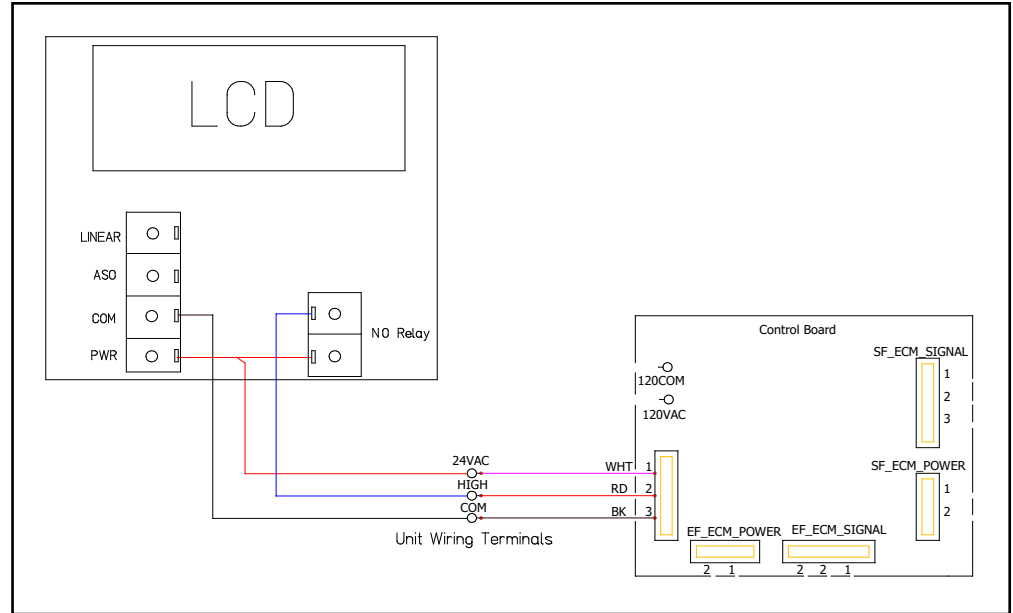
FIGURE 3.1.2 WIRING SCHEMATIC FOR EV PREMIUM UNITS
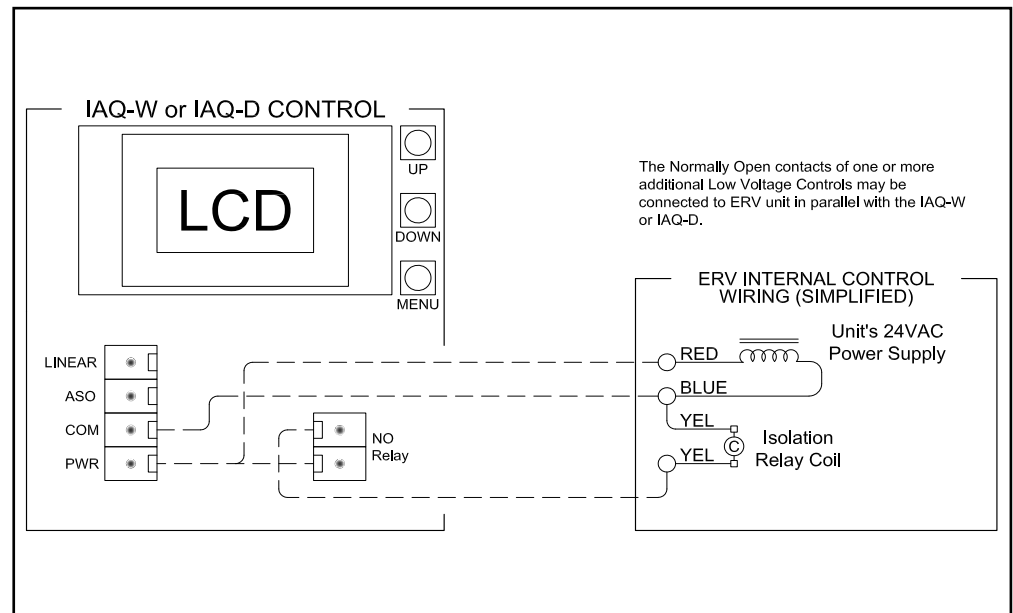
FIGURE 3.1.3 WIRING SCHEMATIC FOR EV450, HE1XIN, AND HE1.5IN UNITS WITHOUT ECM

FIGURE 3.1.4 WIRING SCHEMATIC FOR HE1XRT, HE1.5RT, LE-SERIES, AND ALL HE2X AND LARGER UNITS WITHOUT VFDS OR ECM

FIGURE 3.1.5 WIRING SCHEMATIC FOR HE- AND LE-SERIES UNITS WITH FACTORY-INSTALLED VFDS

FIGURE 3.1.6 WIRING SCHEMATIC FOR EV450 UNITS WITH ECM AND TERMINAL BLOCK

FIGURE 3.1.7 WIRING SCHEMATIC FOR HE1X AND HE1.5 UNITS WITH ECM AND TERMINAL BLOCK

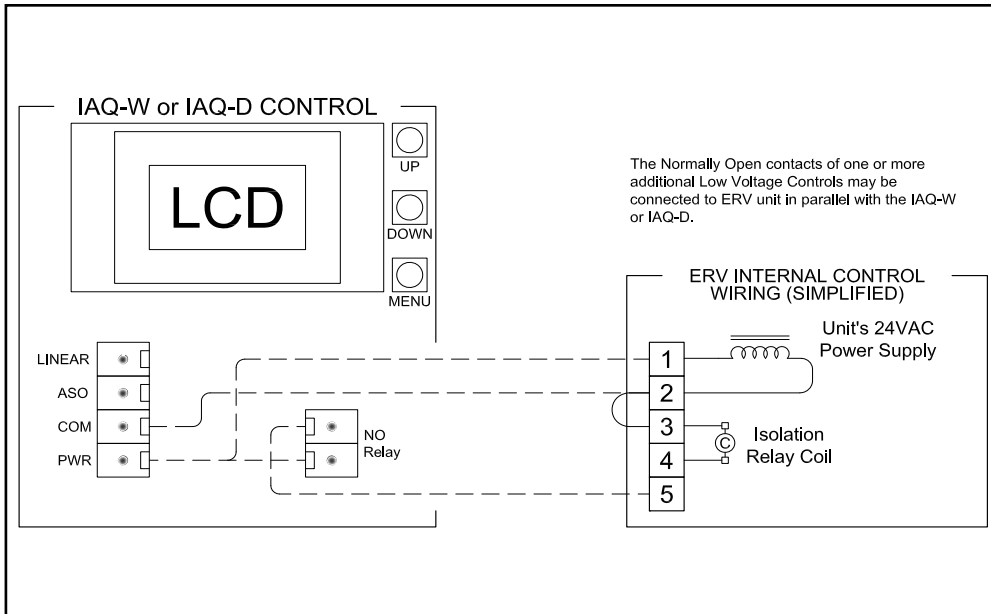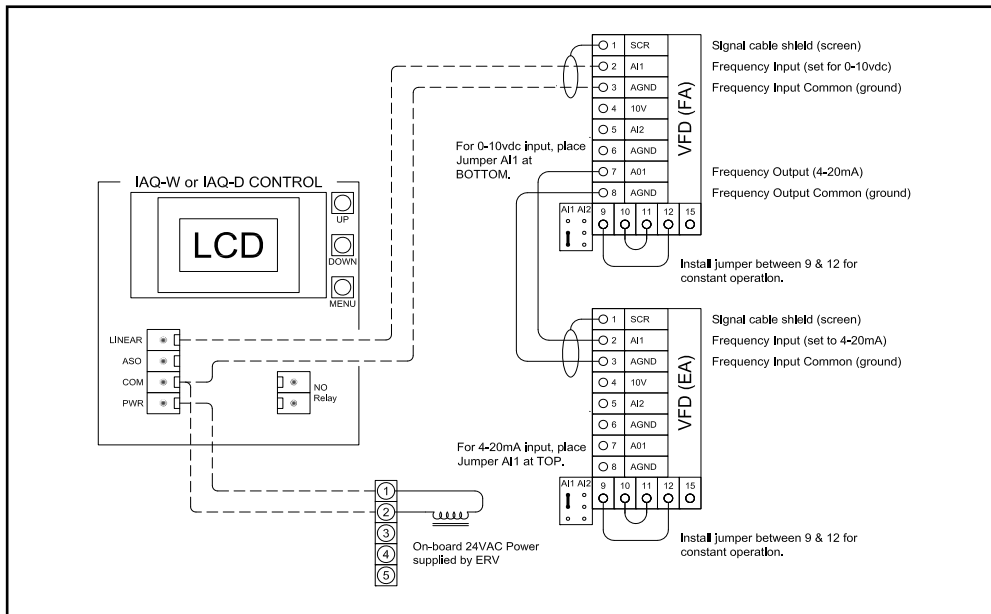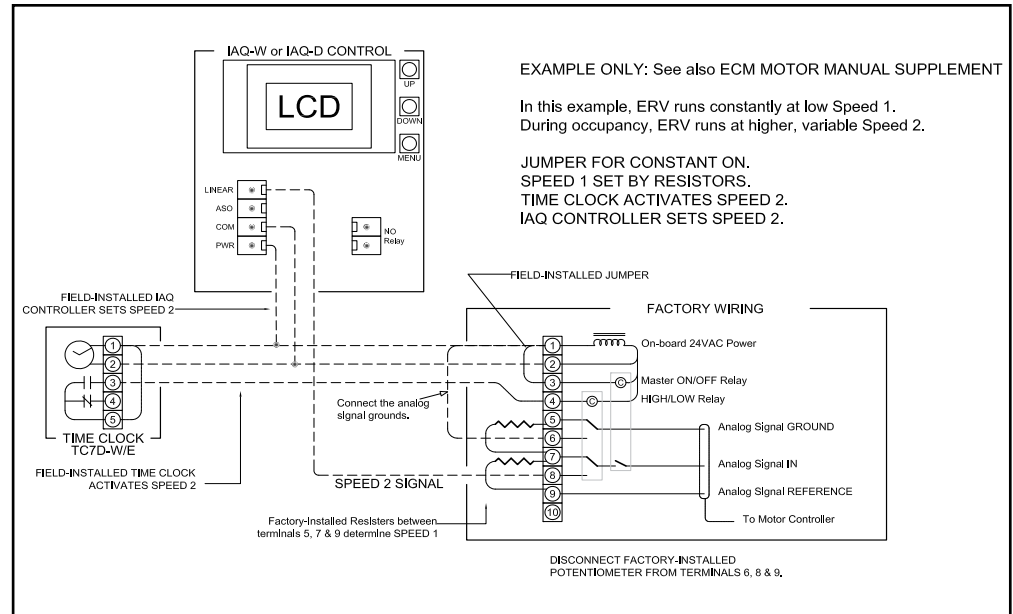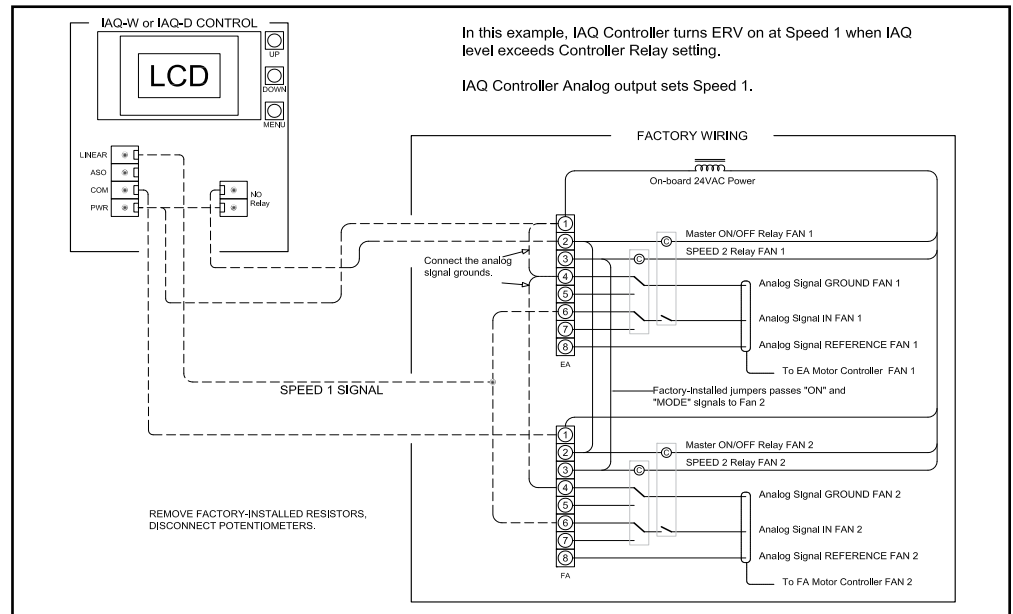In this example, the IAQ Controller turns the ERV on at speed set by potentiometer(s) when the IAQ sensor level exceeds IAQ Controller Relay setting. EV450 Circuit Board shown with one potentiometer. HE1X and HE1.5 Circuit Boards have two potentiometers.
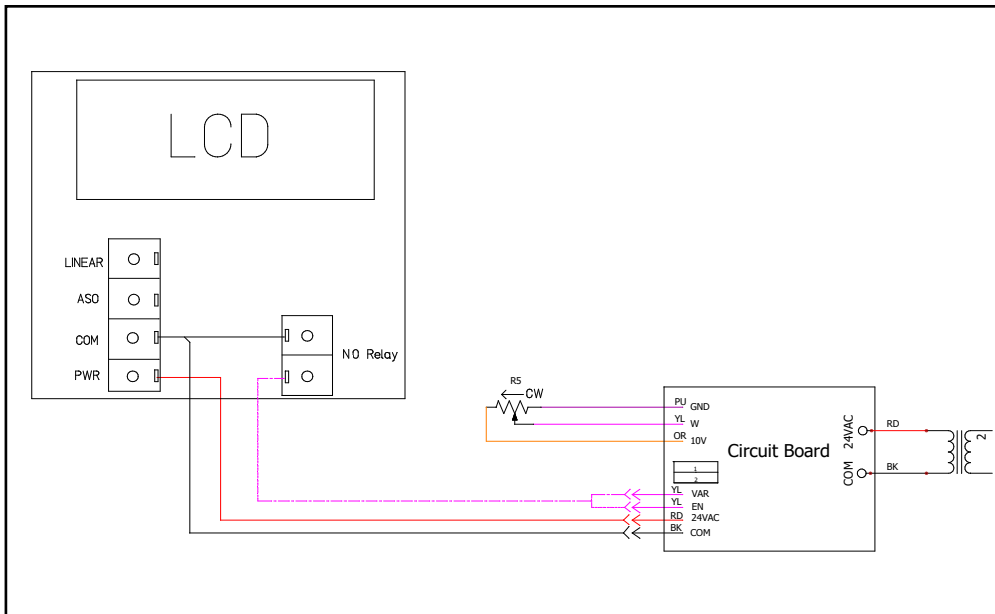
FIGURE 3.1.8 WIRING SCHEMATIC FOR EV450, HE1X, AND HE1.5 UNITS WITH ECM AND CIRCUIT BOARD

In this example, the ERV does not run while unoccupied, set by timer. During occupancy, the ERV runs at variable Speed. IAQ Controller sets speed based on IAQ sensor levels. Remove the potentiometer(s) by cutting the wires at the potentiometer. Cap the orange and purple wires from the potentiometer with wire nuts. EV450 Circuit Board shown with one potentiometer. HE1X and HE1.5 Circuit Board has two potentiometers and the cut wires can be wired in parallel back to the IAQ Controller.
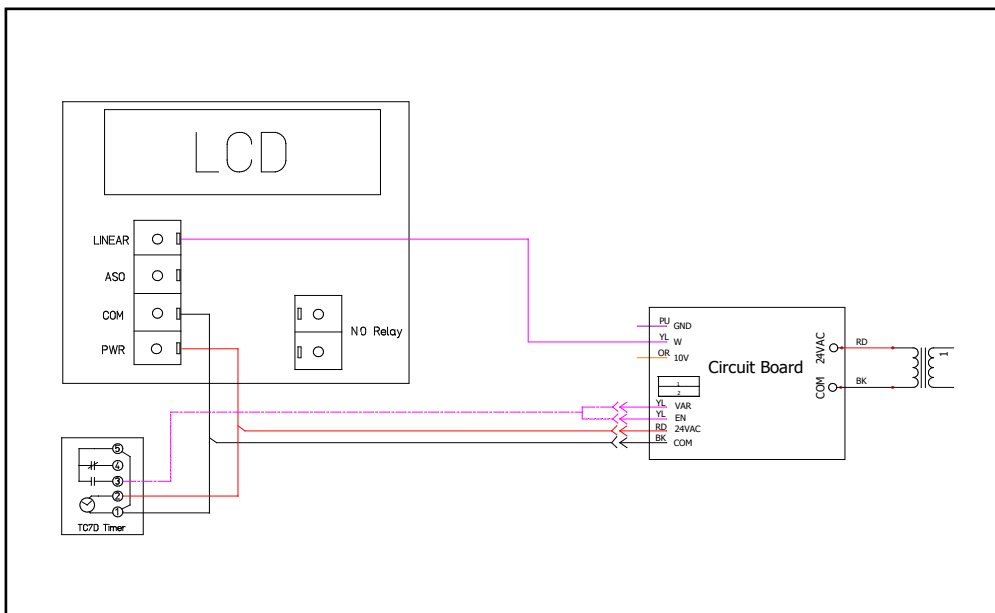
FIGURE 3.1.9 WIRING SCHEMATIC FOR EV450, HE1X, AND HE1.5 UNITS WITH ECM AND CIRCUIT BOARD AND TIMER

4.0 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

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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

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