

Percent Timer Control with Furnace Interlock

For use with EV70/130/EV200/EV300 (and select RenewAire Commercial ERVs)

Operation

The Percent Timer Control with furnace interlock (FM) automatically turns on your EV70, EV130, EV200 or EV300 energy recovery ventilator and the furnace blower every hour, ensuring proper ventilation for your home around-the-clock. When the "Runtime %" light is on, the control is telling your energy recovery ventilator to operate – and is also telling your furnace or air-conditioner to circulate air throughout your home. Set the control and your ventilator will run once every hour. How long it runs depends on the runtime percentage setting.

FOR CONSTANT OPERATION: Press the logo until the 100% light is on. The "Runtime %" light turns on. The ERV unit and furnace blower will run continuously.

FOR REGULAR OPERATION: Set the control at the percentage that is right for your home. Press the logo until the light for the percent desired is on. See the "Percent Run Time Table" for guidance. You may wish to adjust this percentage to your specific needs. For example, if you have excess humidity in the winter, increase the ventilation percentage. You may also want to decrease the ventilation percentage when the home will be unoccupied for many days, or increase the ventilation percentage during a party.

FOR NO REGULAR OPERATION: Press the logo until all lights are off. The control is off.

NOTE for ERV systems with more than one control:

Another control may be causing your ventilator to run -even if the light on this control is off. If you wish to keep your ventilator from running, check that none of your controls are calling for unit operation. **NOTE: Furnace blower will also run whenever your thermostat tells it to!**

Installation

1. Install control in a standard 2" x 4" electrical box, with a minimum depth of 1.5", with the two screws provided.
2. Wire Size: 18 - 22 gauge, no more than 500 feet. Wiring is non-polar.
3. See the wiring schematics for your specific installation.
4. Use Lutron Decora™ cover plate to complete installation.

Percentage Run Time Table (to achieve 0.35 air changes per hour)

As recommended by the American Society of Heating, Refrigeration, and Air Conditioning Engineers
 *Based on 8' ceiling height. If ceiling is other than 8', recalculate house volume based on your ceiling height.
 Other standards and local codes should be considered when determining the required ventilation rate.

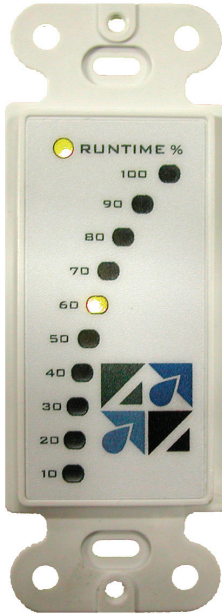
House Living Area (square feet)	House Volume* (cubic feet)	% Setting with EV70@69 cfm	% Setting with EV130@124 cfm	% Setting with EV200@181 cfm	% Setting with EV300@295 cfm
750	6000	51%	28%	19%	12%
1250	10000	85%	47%	32%	20%
1750	14000	100%	66%	45%	28%
2250	18000		85%	58%	36%
2750	22000		100%	71%	44%
3250	26000			84%	51%
3750	30000			97%	59%
4250	34000			100%	67%
5125	41000				81%
5750	46000				91%
6500	52000				100%

WIRING OPTIONS 1 and 2:

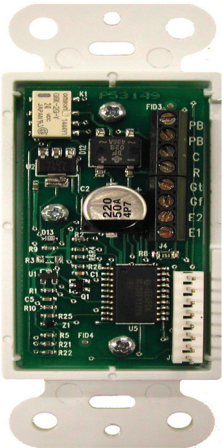
In most Furnace/Thermostat systems, if a circuit is made between R & G on the furnace, in an attempt to make the furnace blower operate, the Y contacts are also energized, because the thermostat has an internal connection between its G & Y terminals. This will cause the air conditioning unit to operate as well. The Furnace Interlock in the FM takes the thermostat's G terminal out of the circuit whenever there is a call for the Energy Recovery Ventilator to operate.

WIRING OPTIONS 3 and 4:

The FM requires 24VAC power to operate. This is usually provided by the furnace control. If there is no Furnace connection, it is possible to power the FM with an external transformer; in this case, make no connections to any appliance other than the EV70, EV130, EV200, or EV300. Use Option 3 or 4 when connecting a larger commercial Energy Recovery Ventilator unit.



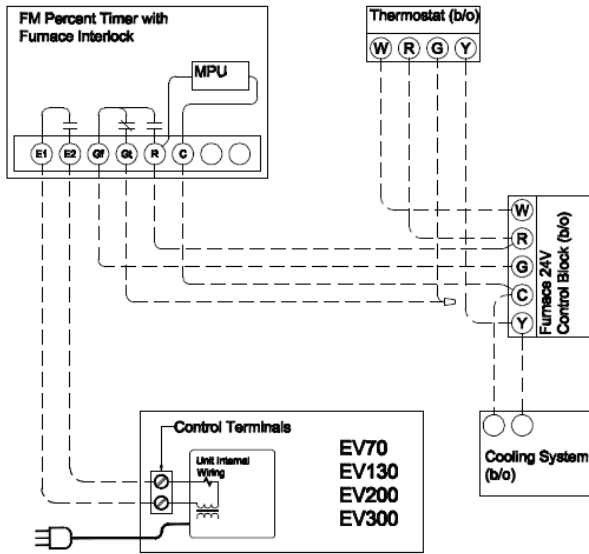
FRONT



BACK

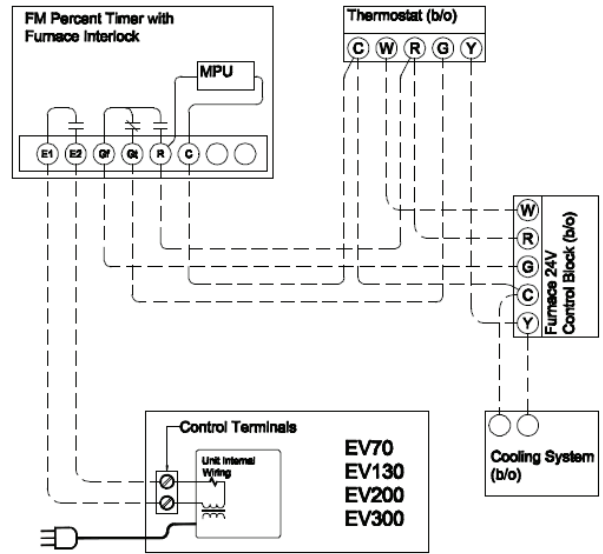
Wiring Schematics

OPTION 1: Wire FM to Furnace and to Energy-Recovery Ventilator.



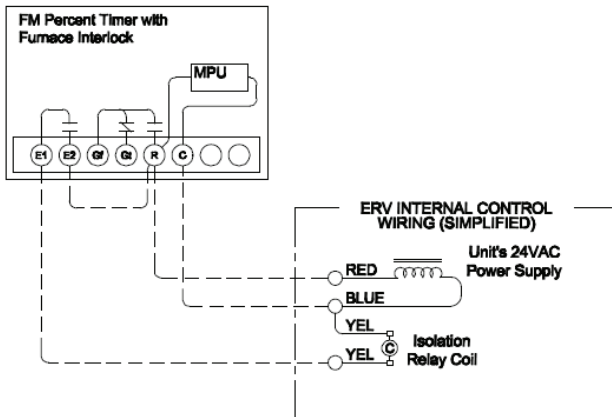
This schematic applies to EV70, EV130, EV200 and EV300 models.

OPTION 2: Wire FM to Thermostat and to Energy-Recovery Ventilator.



This schematic applies to EV70, EV130, EV200 and EV300 models.

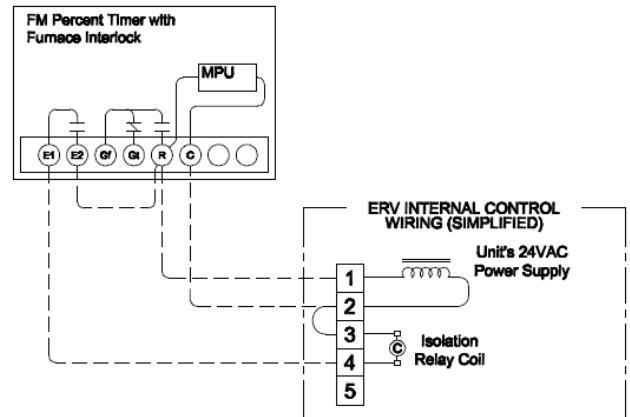
OPTION 3: FM controls RenewAire HE-series commercial ERV with on-board 24VAC power (Pigtail connections).



The Normally Closed contacts of one or more additional Low Voltage Controls may be connected to ERV unit in parallel with the FM. Do not apply power to these leads.

This schematic applies to all EV450 models and to HE1XIN models.

OPTION 4: FM controls RenewAire HE-series commercial ERV with on-board 24VAC power (Terminal strip connections).



The Normally Closed 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 HE1XRT models and to all HE2X through HE8X models.