FM

Percentage Timer Control with Furnace Interlock
For use with EV90/EV130/EV200/EV300
(and select RenewAire Commercial ERVs)

Front

Back

Operation

The Percentage Timer Control with indicator lights and furnace interlock (FM) is the primary control for RenewAire Energy Recovery Ventilator (ERV) models EV90, EV130, EV200 and EV300 when Furnace Interlock is needed and no Push Button Lighted (PBL) controls are used. This proportional runtime control will operate your ERV an adjustable amount of time each hour as well as tell your furnace or air-conditioner to circulate air throughout your home at the same time, if not already doing so. When the "Runtime %" light is on, the FM control is telling your ERV and furnace / air-conditioning blower to operate. Additionally, the FM can be set to turn your ERV off or to operate constantly. ERV operation time will vary from application to application as well as time of year, lifestyle, indoor air quality concerns and other factors. Discuss any questions with your HVAC professional or contact RenewAire directly.

Constant Operation
Press the RenewAire logo until the light next to "100" is lit.

Operation Each Hour
Run time of your ERV and furnace/air-conditioning blower can be adjusted from 10%, or 6 minutes each hour, up to 100% operation in 10% increments. Simply press the RenewAire logo until the light next to the desired percentage amount is lit. You can increase or decrease the run time based upon daily, weekly or monthly variations in occupancy levels, indoor odors, cold weather winter humidity, or other indoor air quality concerns as needed.

No Operation
Press the logo until all lights are off. The control is off. When set to off, your furnace / air-conditioning blower will run based upon your thermostat or other controls.

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 Tables

Runtime % Setting	Minutes of Operation (Per Hour)	Equivalent Continuous Operation CFM			
		EV90	EV130	EV200	EV300
10	6	9	13	18	30
20	12	18	26	36	59
30	18	27	39	54	89
40	24	36	52	72	119
50	30	45	65	91	149
60	36	54	78	109	178
70	42	63	91	127	208
80	48	72	104	145	238
90	54	81	117	163	267
100	60	90	130	181	297

ASHRAE 62.2 2013 Residential Ventilation Air Requirements Continuous CFM

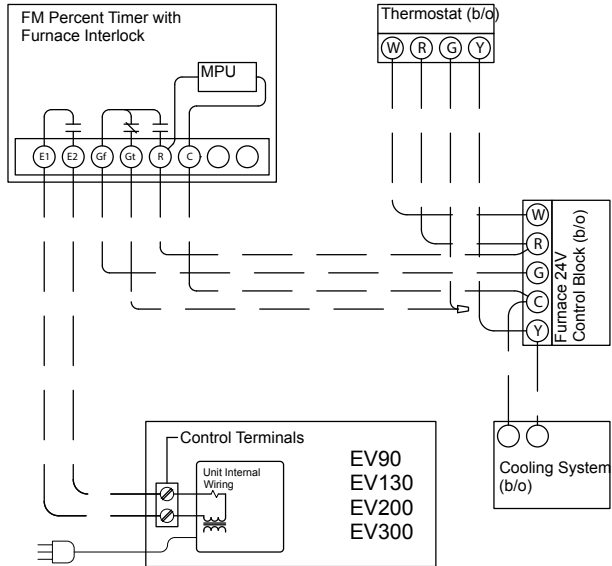| Floor Area (ft²)	Bedrooms				
	1	2	3	4	5
<500	30	38	45	53	60
501 - 1000	45	53	60	68	75
1001 - 1500	60	68	75	83	90
1501 - 2000	75	83	90	98	105
2001 - 2500	90	98	105	113	120
2501 - 3000	105	113	120	128	135
3001 - 3500	120	128	135	143	150
3501 - 4000	135	143	150	158	165
4001 - 4500	150	158	165	173	180
4501 - 5000	165	173	180	188	195

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 EV90, EV130, EV200, or EV300. Use Option 3 or 4 when connecting a larger commercial Energy Recovery Ventilator unit.
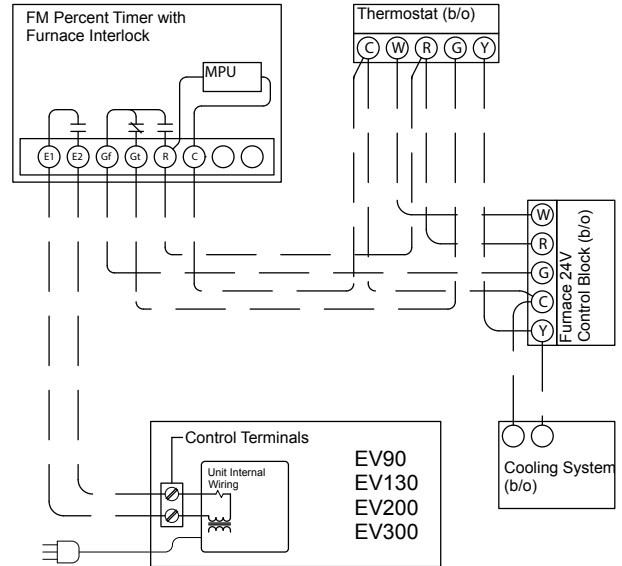
RenewAire®
Energy Recovery Ventilation
The Natural Choice for Fresher Air

4510 Helgesen Drive, Madison, WI 53718
(608) 221-4499, (800) 627-4499, Fax: (608) 221-2824
support@renewaire.com   www.renewaire.com

Wiring Schematics

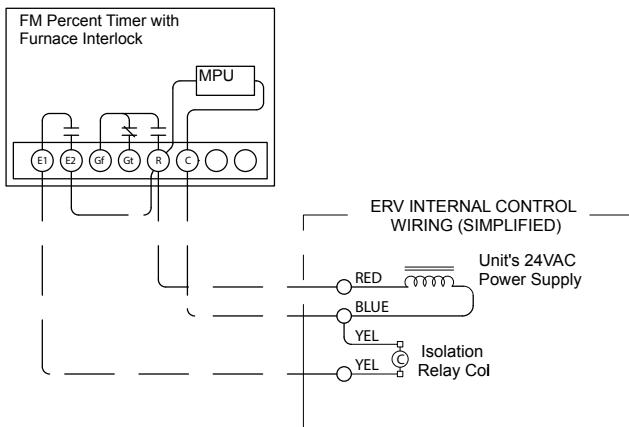### OPTION 1: Wire FM to Furnace and to Energy-Recovery Ventilator.

This schematic applies to EV90, EV130, EV200 and EV300 models.

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

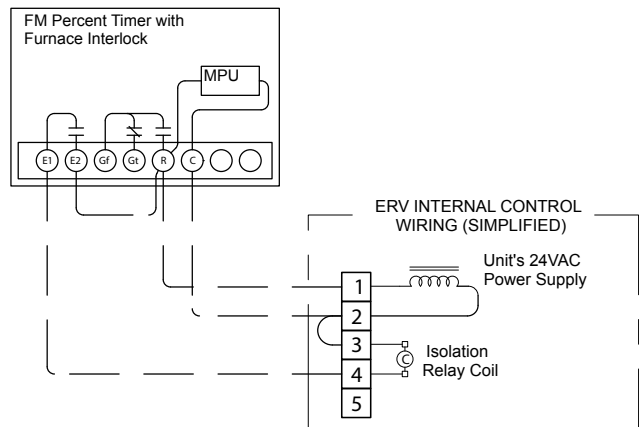This schematic applies to EV90, EV130, EV200 and EV300 models.

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

The Normally Open 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 (excludes ECM models).

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

The Normally Open 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 (excludes ECM and VFD models).

FM Control

140475_007

Due to continuing product development, specifications are subject to change without notice.

PTL_InstructionSheet_July13.indd   Revised 07/2013

© 2013 RenewAire LLC

www.renewaire.com

Page 2