







Front



Percentage Timer Control with Furnace Interlock

For use with EV90/EV90P/EV130/EV200/EV240/EV300 (and select RenewAire Commercial ERVs)

Operation

The Percentage Timer Control with indicator lights and furnace interlock (FM) is the primary control for RenewAire Energy Recovery Ventilator (ERV) models EV90, EV90P, EV130, EV200, EV240 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 airconditioner 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

% Setting (Per Hour) (Per Hour) EV90/P EV130 EV200 EV240 EV300 10 6 9 13 18 24 30 20 12 18 26 36 48 59 30 18 27 39 54 72 89 40 24 36 52 72 96 119 50 30 45 65 91 120 149 60 36 54 78 109 144 178 70 42 63 91 127 168 208 80 48 72 104 145 192 238 90 54 81 117 163 216 267 100 60 90 130 181 240 297	Runtime % Setting	Minutes of Operation (Per Hour)	Equivalent Continuous Operation CFM					
20 12 18 26 36 48 59 30 18 27 39 54 72 89 40 24 36 52 72 96 119 50 30 45 65 91 120 149 60 36 54 78 109 144 178 70 42 63 91 127 168 208 80 48 72 104 145 192 238 90 54 81 117 163 216 267			EV90/P	EV130	EV200	EV240	EV300	
30 18 27 39 54 72 89 40 24 36 52 72 96 119 50 30 45 65 91 120 149 60 36 54 78 109 144 178 70 42 63 91 127 168 208 80 48 72 104 145 192 238 90 54 81 117 163 216 267	10	6	9	13	18	24	30	
40 24 36 52 72 96 119 50 30 45 65 91 120 149 60 36 54 78 109 144 178 70 42 63 91 127 168 208 80 48 72 104 145 192 238 90 54 81 117 163 216 267	20	12	18	26	36	48	59	
50 30 45 65 91 120 149 60 36 54 78 109 144 178 70 42 63 91 127 168 208 80 48 72 104 145 192 238 90 54 81 117 163 216 267	30	18	27	39	54	72	89	
60 36 54 78 109 144 178 70 42 63 91 127 168 208 80 48 72 104 145 192 238 90 54 81 117 163 216 267	40	24	36	52	72	96	119	
70 42 63 91 127 168 208 80 48 72 104 145 192 238 90 54 81 117 163 216 267	50	30	45	65	91	120	149	
80 48 72 104 145 192 238 90 54 81 117 163 216 267	60	36	54	78	109	144	178	
90 54 81 117 163 216 267	70	42	63	91	127	168	208	
	80	48	72	104	145	192	238	
100 60 90 130 181 240 297	90	54	81	117	163	216	267	
	100	60	90	130	181	240	297	

ASHRAE 62.2 2013/16 Residential Ventilation Air Requirements Continuous CFM									
	Bedrooms								
Floor Area (ft²)	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, EV90P, EV130, EV200, EV240, or EV300. Use Option 3 or 4 when connecting a larger commercial Energy Recovery Ventilator unit.



Wiring Schematics







