RenewAire
Energy Recovery Ventilation

Isolation Dampers

Supplemental Manual for Options

HE07 and HE10
HE1.5X through HE8X
LE-Series

Typical Damper Shown

READ AND SAVE THIS MANUAL/LIRE ET CONSERVER CE MANUEL

UNIT INFORMATION

NOTE: This page is to be completed by the installing contractor. The completed document is to be turned over to the owner after start up.

Record information as shown below.

In the unlikely event that factory assistance is ever required, information located on the unit label will be needed.

Locate the RenewAire unit label found on the outside of the unit.

NOTE: This information is for purposes of identifying the unit-specific option data from the Option Code.

Option Code:

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Serial Number:

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SO #:

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UNIT INFORMATION

RenewAire® Energy Recovery Ventilation

201 Raemisch Rd Waunakee, WI 53597 (800) 627.4499
renewairesupport@renewaire.com

Energy Recovery Ventilator

c ETL LISTED US

Option Code	HE07-JINH-S15EE---GNT---L		
Model/Modele	HE07IN	**Sales Order**	054254
Serial Number	J23100018 C	**Job Order**	29646-000

SCCR 5 KAIC

Power Supply to Unit Alimentation d'energie a l'unite			Motors protected by IEC Style Motor Starters Les moteurs protégés par des dé moteur de modéle de IEC	
Voltage	Minimum Circuit Amps	Max Overcurrent Protection Device	(QTY) & W/HP	FLA
208-230V	2.6	15	None	-
60 HZ 1-Phase	Amp. Minimales de Circuit	Dispositif de protection maximum contre les surintensites	(QTY) & W/CV	APC

Motors Thermally Protected Moteurs protégé thermiquement		Motors Protected by Variable Frequency Drives Les moteurs protégés par la frequence variable conduit	
(QTY) & W/HP	FLA	(QTY) & W/HP	FLA
2@170 W	1.16	None	-
(QTY) & W/CV	APC	(QTY) & W/CV	APC

⚠WARNING ⚠AVERTISSEMENT

Danger of electric shock. Always disconnect power source before servicing. Do not install in a cooking area or make line-voltage electrical power connections directly between this unit and any appliance.
Danger de choc èlectrique. Tojours deconnector la source d'alimentation avant les rèparations. N'installez pas de zone cuisine ou de ligne de tension les connexions d'alimentation électrique directement entre cette unité et tout.

130137_001

UNIT LABEL (TYPICAL)

1.0 INSTALLATION

NOTE: This unit is an Energy Recovery Ventilator, or ERV. It is commonly referred to throughout this manual as an ERV.

Damper(s) are factory installed and fully wired in all ERV models.

Outdoor Installations: For H and F orientations, attach ductwork to the ERV cabinet or to the outer flanges of the damper frame.

For R and V orientations, attach ductwork to the curb before installing the ERV to the curb.

Indoor Installations: Attach ductwork directly to the ERV cabinet or to the outer flanges of the damper(s) frame.

1.1 DAMPER LOCATIONS ON OUTDOOR ERVS

Damper(s) are located at the Outside Air (OA) location (underneath the air intake hood) and at the Room Air (RA) location for all units except HE07, HE10, HE1.5X, HE6X, and HE8X. The OA and RA locations are marked on the outside of the ERV. The damper actuators are located inside the ERV and are accessible through the ERV core door.

NOTE: In some ERV models, the intake hoods must be installed over the damper.

1.2 DAMPER LOCATIONS ON INDOOR ERVS

Damper(s) are located at the Outside Air (OA) location and at the Room Air (RA) location for all units except HE07, HE10, HE1.5X, HE6X, and HE8X. The OA and RA locations are marked on the outside of the ERV. The damper actuators are located inside the ERV and can be accessed through the ERV core door.

1.3 DAMPER LOCATIONS IN HE07, HE10, AND HE1.5X ERVS

Damper(s) are located at the Supply Air (SA) location and at the Exhaust Air (EA) locations. The FA and EA locations are marked on the outside of the ERV. The damper actuators are located inside the ERV. The SA and EA actuators are accessible through the left door.

1.4 DAMPER LOCATIONS IN HE6X AND HE8X ERVS

Damper(s) are located at the Outside Air (OA) location and at the Exhaust Air (EA) locations. The OA and EA locations are marked on the outside of the ERV. The damper actuators are located inside the ERV. The OA actuator is accessible through the ERV core door, while the EA actuator is accessible through the right ERV blower door.

2.0 OPERATION

2.1 SEQUENCE OF OPERATION

2.1.1 At start-up

When the ERV receives an external call for ventilation, the blowers will not turn on immediately. The damper(s) are opening inside the ERV. It will take approx. 45 seconds to open, at which point a low voltage end switch in the actuator closes. The end switch call on the VFD or the motor starter to turn on the blower.

2.1.2 At shut-down

When the ERV no longer calls for ventilation, the damper(s) will begin closing (spring return). When the damper(s) are approx. 75% closed (15-20 seconds), the end switch will open and the blowers will stop.

⚠ CAUTION

The blowers will still be spinning, but will stop. Do not try to manually slow the fans down.

NOTE: Dampers(s) are spring return and are in the shut or closed position when the ERV is not operating.

NOTE: Dampers(s) return to the closed position if power to the ERV is interrupted.

2.2 COMMISSIONING

Check all dampers and insure they open and close properly and without binding. Apply power to motorized dampers to ensure the actuator opens and closes the damper as designed.

To check damper operation without operating blowers:

1. Turn off power to unit by rotating unit disconnect switch to “off” position (Warning! Line side of disconnect switch is still hot!)
2. Temporarily disconnect motor control(s):
    a. Units with one or two Motor Starters: Disconnect blue low-voltage wire leading to transformer from terminal 96 of all of the motor starters.
    b. Units with one or two Variable Frequency Drives (VFDs): Disconnect low-voltage wire leading to damper end switches from terminal 9 or 12 of all VFDs. Alternately use VFD keypad to set motor speed to 0 (WARNING: control equipment you install in the next step might over-ride this setting).
    c. Units with MOLEX plugs connecting the motor wire harnesses to power and control wire harnesses: Unplug the low voltage motor control harnesses (two pin connection).
3. Consult unit wiring schematic and make temporary or permanent connections of jumpers or controls to call for unit operation.
4. Turn on power to unit.
5. Using the jumper(s) or controls installed in step 3, call for unit operation. Dampers should open.
6. Disconnect power to the unit; dampers should close.
7. Reconnect the motor control(s) by reversing what you did in Step 2, above.

NOTE: Check for unobstructed operation.

NOTE: For indoor units, the dampers are located inside the ductwork attached to the unit. Therefore, check damper operation after installing the first lengths of ductwork that cover the damper, but before completing the ductwork and making it inaccessible.

NOTE: This procedure does not confirm proper operation of the actuator end switches.

3.0 MAINTENANCE

Damper bearings are an impregnated bronze material and do not need lubrication.

Clean out wind-born debris such as leaves from the sealing surfaces of OA dampers in rooftop units at the same time you change filters.

3.1 TESTING AND REPLACEMENT OF DAMPERS AND ACTUATORS

If dampers fail to open at the signal for ventilation, disconnect power to the unit. To determine if the actuator is defective, disconnect the 24v power source. Connect the actuator directly to a known 24v power source with an appropriate cable. If the damper operates correctly, the problem is in the internal wiring connections.

4.0 TROUBLESHOOTING

Damper:

Low air flow: Unit damper(s) not fully open, check for unobstructed operation. Clear any obstruction; re-tighten the actuator U-clamp; or replace damper actuator.

Dampers open, but blowers don't run: check end switch closure.

5.0 FACTORY ASSISTANCE

In the unlikely event that you need assistance from the factory for a specific issue with the ERV or its Isolation Damper Option, make sure that you have the information called for in the Unit Records pages at the front of this 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

Remember that RenewAire Customer Service can only assist with the ERV and its options, it cannot resolve engineering issues that result from air handling system design by others.

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About RenewAire

For over 40 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

201 Raemisch Road | Waunakee, WI | 53597 | 800.627.4499 | RenewAire.com

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RenewAire® Energy Recovery Ventilation