



# Lunos Operation Manual

Knowing how to operate the Lunos e2 and eGO HRV systems will help you get the most out of balanced, decentralized heat recovery ventilation. Your Lunos should already have been set up to be operating continuously and providing healthy indoor air quality to your living spaces. However, you may want to change the flow rates at night or in summer depending on your individual preferences. This guide will help you determine the best ventilation strategy for your needs.

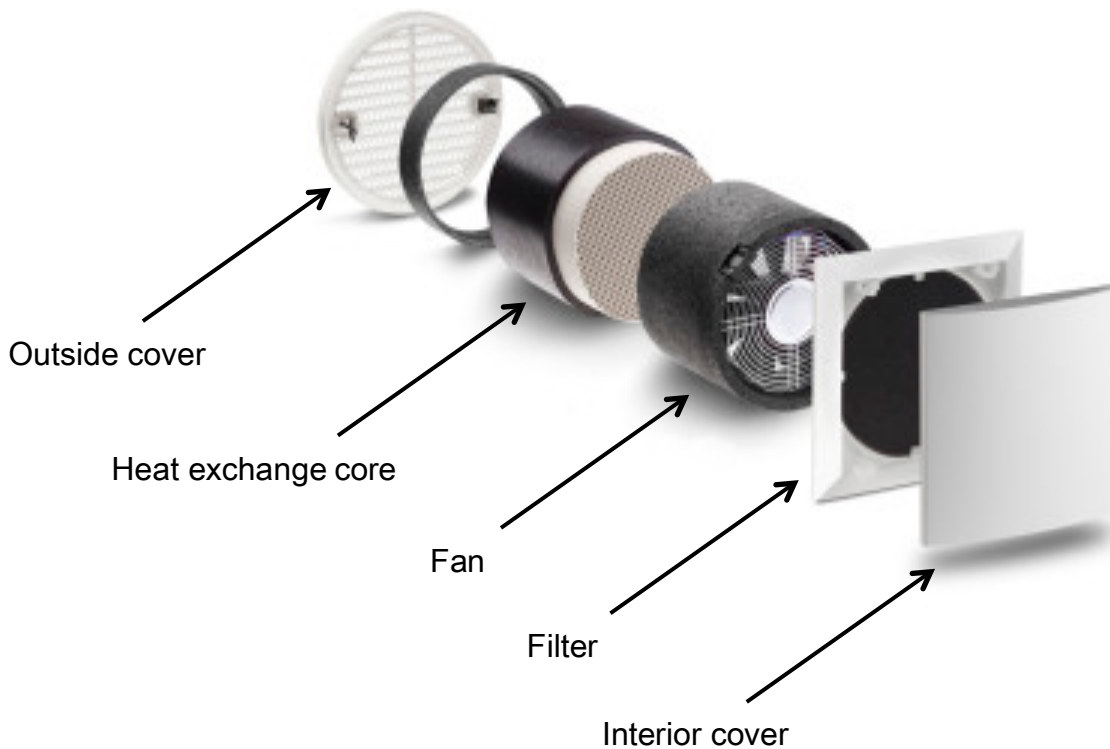
## How Lunos works – an introduction

The basic Lunos unit is a through wall fan, with a ceramic regenerative heat exchanger behind it. But the fan doesn't become a heat recovery ventilation *system* until two fan units are combined in pairs.

Each Lunos system provides heat recovery ventilation by synchronizing the direction and speed of air flow through the ceramic cores. By reversing the air flow on regular intervals, the ceramic cores capture and release heat to condition the interior space at optimal efficiency - while maintaining balanced ventilation. Depending on your Lunos model, the reversal interval will be either 55 or 70 seconds.

With the Lunos e<sup>2</sup>, fan pairs will be inside two different tubes that are generally on opposite ends of your space. (For the Lunos eGO, both fans are in the same tube.) A maximum of 4 Lunos e<sup>2</sup> fans can be connected to one controller - a double rocker switch or rotary switch (sold separately). Therefore, if your dwelling unit has more than 4 fans, you will have more than one controller.

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## How to operate the Lunos Double-Rocker Switches

Lunos e<sup>2</sup> systems can be operated at different flow rates depending on your ventilation needs. With normal setup, the switch has four positions: off, low, medium and high. This corresponds to fan pairs set to OFF, 10, 15 and 20 CFM.

Important: note that the switches don't control each fan separately, but rather the rate of ventilation for the *whole* system. These are the switch positions:

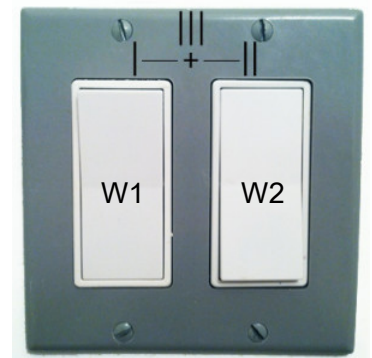
Position 1 = Left (W1) OFF\*, Right (W2) OFF\*: system is **OFF**

Position 2 = Left (W1) ON\*, Right (W2) OFF\*: system is **LOW** (fans at 10 CFM)

Position 3 = Left (W1) OFF\*, Right (W2) ON\*: system is **MEDIUM** (fans at 15 CFM)

Position 4 = Left (W1) ON\*, Right (W2) ON\*: system is **HIGH** (fans at 20 CFM)

\* OFF = switch position down, ON = switch position up



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## System Settings

Lunos systems are designed for continuous operation when the space is occupied. Any of the settings will help to provide good indoor air quality. Many people like to switch to the LOW (“sleep”) setting at night for the quietest operation, and return to MEDIUM or higher during the day.



Reasons to leave your HRV system running continuously 24/7:

- Continuous operation will help provide optimal indoor air quality
- The e<sup>2</sup> is extremely efficient – each fan uses only 1.4W at 10 CFM
- A Lunos HRV is an integral part of your home's high performance HVAC system.

## How to turn the system off

While it is NOT recommended to turn the system off while the space is occupied, certain conditions may warrant *lowering* the setting.

If you choose to turn your Lunos system off (eg going on vacation), it is recommended that you close the cover, as follows:

1. Turn system off (both rocker switches down)
2. Carefully remove the interior cover, rotate 180 degrees, and replace – the tabs will snap into place
3. When you return home, rotate cover back to the normal operating position (leaves a 1/2" gap on all four sides for ventilation air to move freely), and turn the system on

## Summer Ventilation mode

In the hot summer season it may be desirable to use the Lunos fans to help passively cool the building at night. “Summer Ventilation” mode runs each fan in one direction for 60 *minutes* before reversing. In this mode, heat recovery is suspended and interior spaces are flushed with cool nighttime air. This helps to set a cooler baseline before returning to regular heat recovery mode for the daytime.

How is this better than opening a window? With a still night, opening a window won't necessarily provide ventilation, but the Lunos in Summer Ventilation mode will provide a predictable and steady flow of filtered fresh air.

How to set up Summer Ventilation mode:

- Simply "rocker" the *right* rocker switch once up and down (or down and up) within 3 seconds. To return to normal heat recovery mode manually, wait 10 seconds and again rocker the right switch.

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If you sense that the Lunos heat recovery isn't working, or you're just not sure which mode you're in - simply listen to one fan for up to 70 seconds. If you don't hear the fan reverse (get up close, it's quiet), then you're in Summer Ventilation mode.



## Extreme Cold

At very cold outdoor temperatures (ie below -10F), it is recommended to operate units at the LOW (10 CFM) setting and keep indoor relative humidity (RH) below 35% to prevent frost issues. If RH is 50% or higher below -10F, and the RH cannot be lowered, a safer option is to turn the system off and close the interior covers until temperatures and/or RH recover.

## Filter Maintenance

Approximately every three months the LED filter indicator will light up - alerting you that it's a good time to clean or replace the filters in your Lunos system. We recommend the following filter\* maintenance schedule:

- Every 3 months: wash filters in warm water, squeeze dry, replace
- Every 2 years: replace filters. These are available in 3-packs from the 475 High Performance Building Supply online store at [foursevenfive.com](http://foursevenfive.com).

\*Note: Pollen filters can only be cleaned with a vacuum or replaced

To turn off the filter indicator LED or to restart the cleaning interval, simply "rocker" the *left* rocker switch once up then down (or down and up) within 3 seconds.

## How to operate the 475 Rotary Switch



As an alternative to the double-rocker switch, 475 has developed it's own rotary switch control to work with the Lunos system. This rotary switch, which is sold separately from Lunos systems, combined the same functionality achieved by the double-rocker switch control, including summer ventilation mode and deactivation of the filter warning light. With this new rotary switch, you can easily achieve all four ventilation settings by rotating the knob to the right. Assume a clock face:

- 12:00 = Off
- 1:00 = Low
- 2:00 = Med
- 3:00 = High

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Additionally, if you move from Low to Med and back to Low again (within 3 seconds) it will put the system into summer vent mode (ventilation without heat recovery). Repeat those actions to take back out of summer vent mode, and in to heat recovery mode again.

## General Maintenance

It's a good idea to clean the fans units at least once a year. To do this, remove the interior cover, unplug the low voltage connector, and remove the fan units from the wall tubes. Wipe the tube surfaces with a damp cloth. You can use a vacuum cleaner to clean the heat exchanger and fan.

## Installation Instructions

If you need more technical information, please refer to the installation instructions that came with your Lunos system, or find them on [foursevenfive.com](http://foursevenfive.com).

## Other questions?

Contact the experts at 475 High Performance Building Supply, and we'll be happy to assist.



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