

475 Installation Instructions: LUNOS e² and e² short with 5/UNI-FR No.:40269 Controller



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ABOUT THIS MANUAL


- Read this manual carefully and completely before assembly. Comply with the general safety instructions symbols with information in the text.
- Hand out this manual to the user (tenant, proprietors, property management, etc.) after completing assembly.


Symbols in this manual


 This symbol is a danger warning in connection with risk of injury or product malfunction

 This symbol is a danger warning in connection with risk of injury from electricity

Safety instructions

 Beware! Any assembly work to the ventilation device may only be carried out after disconnecting all phases of supply currents! The ventilation device is fitted with protective insulation according to Protection Class II, the protection connection is superfluous!

 Attention! The electric connection may only be authorized by qualified electricians according to the local building codes.

 Attention! This device may not be operated (including filter replacements/cleaning) by children and persons who are not able to operate the device safely due to their abilities, or Lack of knowledge.

TECHNICAL SPECIFICATIONS

Device voltage: 12 VDC SELV

Type of protection: IP 22

Volume flow: 10;15;20 CFM or
(9CFM-15m³/h;18CFM-30m³/h;22CFM-38m³/h)

Measuring sound pressure level: 16,5 dB; 19,5 dB

Sound level difference: 42 dB

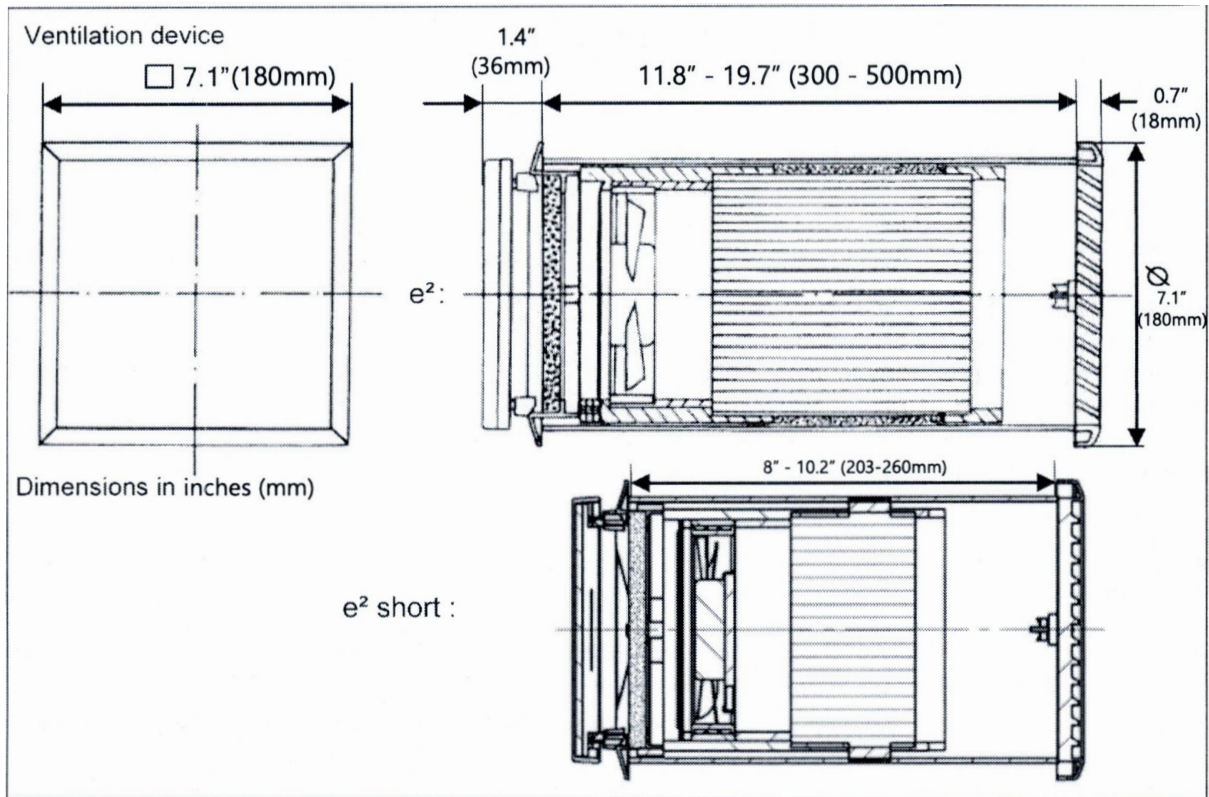
UL: fans are certified to the UL 507-2010: Electric Fans 9th Edition

DISPOSAL

Dispose of the packaging correctly sorted. If you want to dispose of the device, abide by the current rules and regulations. The applicable municipal office will provide information.



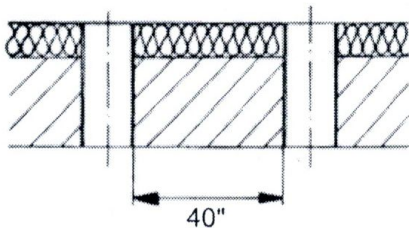
DIMENSIONAL DIAGRAMS - All dimensions in inches (mm)



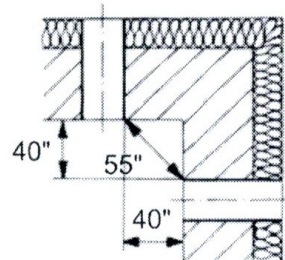
INSTALLATION POSITION

Ductless e^2 ventilation devices with heat recovery can only function in pairs operation in opposite directions. One fan operates 70 seconds (60 seconds for e^2 short) in supply air operation, while the other works in exhaust air operation at the corresponding set flow rates. After which, both units' air flow direction reverses. This assures that the total of supplied ventilation volume is equal to the total exhausted volume. If a pair of fans in this balanced push-pull operation is installed in two different rooms of a dwelling, a sufficiently dimensioned interconnection (undercut door, etc.) between the rooms should be installed to allow unrestricted air movement between these spaces. Please see the product page at foursevenfive.com for videos.

Recommended minimum spacing when installing a pair of devices in a wall:



Recommended minimum spacing when installing a pair of devices across a corner:



OPERATING CONDITIONS

Rated operating conditions: 5°F to 104°F (-15°C to +40°C).

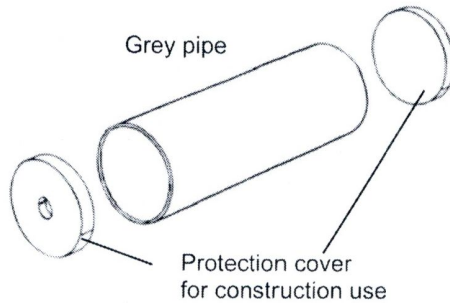
Formation of condensation during the heating season is possible on grill. If these operation limits are exceeded, switch off the device and close the inside panel and ensure supply of fresh air via window ventilation. The e^2 can be used in heat recovery mode up to relative humidity up to 65% in the interior room area. Switch to exhaust only operation if RH exceeds 65% and is higher inside then outside.

SHIPPING UNITS

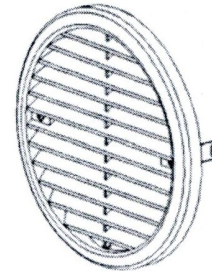
Check the shipment to ensure all items ordered have been received. Note any missing items or damages to 475 ASAP and include photos if possible.

Contact: info@475.supply

Installation Pipe



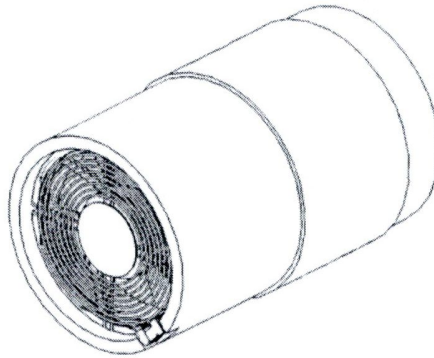
Outside Grill



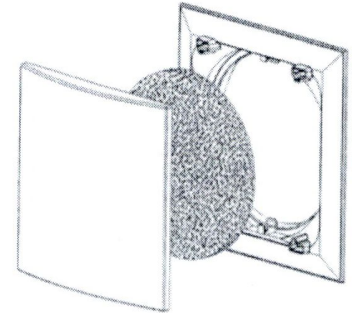
e² : Installation pipe, exterior white grill, heat exchange unit, indoor cover, optional condensate ring, and installation instructions are supplied as a complete set.

e² short: Installation pipe, exterior white grill, heat exchanger unit, indoor cover, optional condensate ring, and installation instructions are supplied as a complete set.

Heat Exchange Unit



Indoor Cover



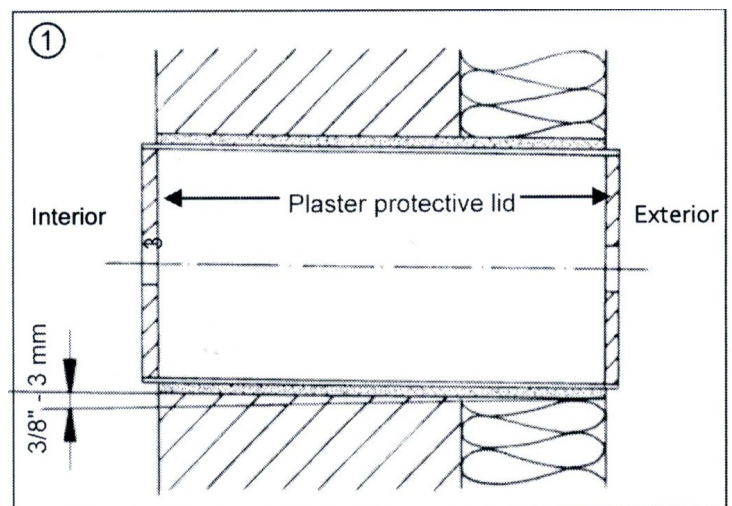
ASSEMBLY – INSTALLATION PIPES

Make the wall openings for the assembly pipes (e.g. by coring, core bit Ø 6.37"/162mm).

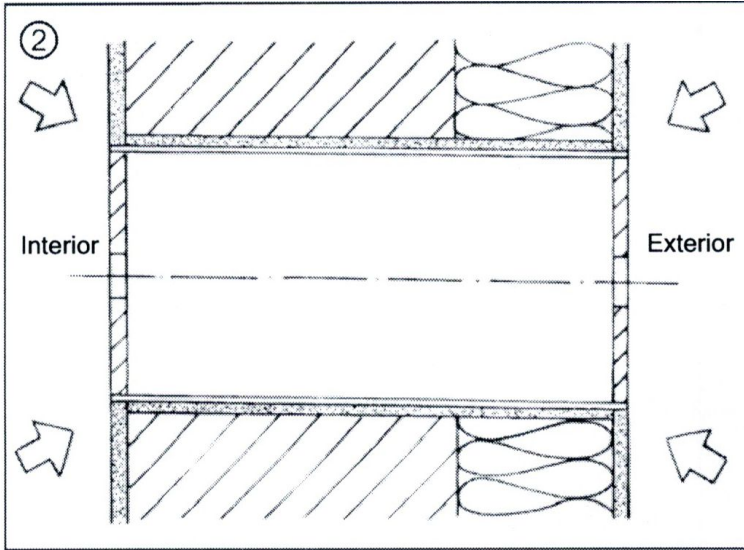
If necessary, shorten the pipe to the desired installation length **e² minimum 12" (300 mm)**; **e² short minimum 8" (200 mm)**.

Take care that the pipe extends on both sides for finishes (sheetrock plaster, siding) with finishes installed flush with the pipe.

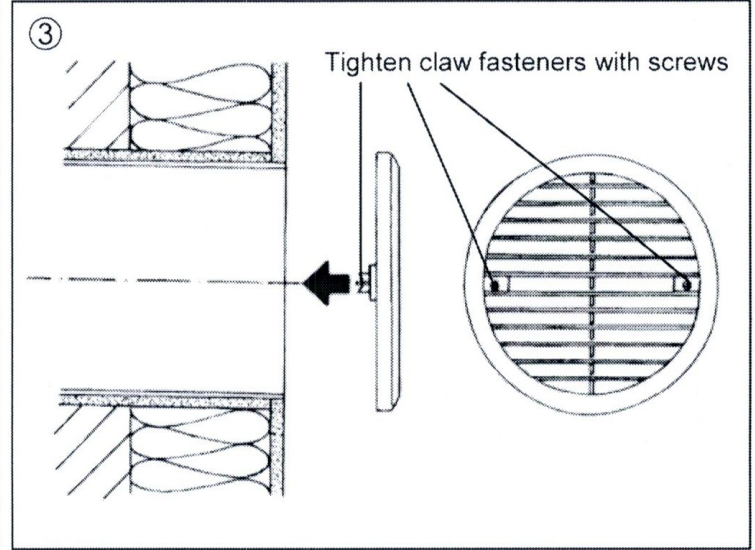
Insert the pipe, with a min. 3/8":12 (3mm) pitch and airseal it with ROFLEX 150 gaskets, TESCON tapes or other airtight solutions.



ASSEMBLY – INSTALLATION PIPES (continued)



Apply exterior finishes and waterproofing with ROFLEX/TESCON tape combination or other construction type specific measures.



Remove the construction protection lid outdoors. Insert and attach the exterior grill using the integrated claw fasteners (tighten screws). Make sure the exterior grill mounted with the louvers directing rain away from the tube. Exterior grill finishes are also available in: stainless steel, grey, burgundy, and white.

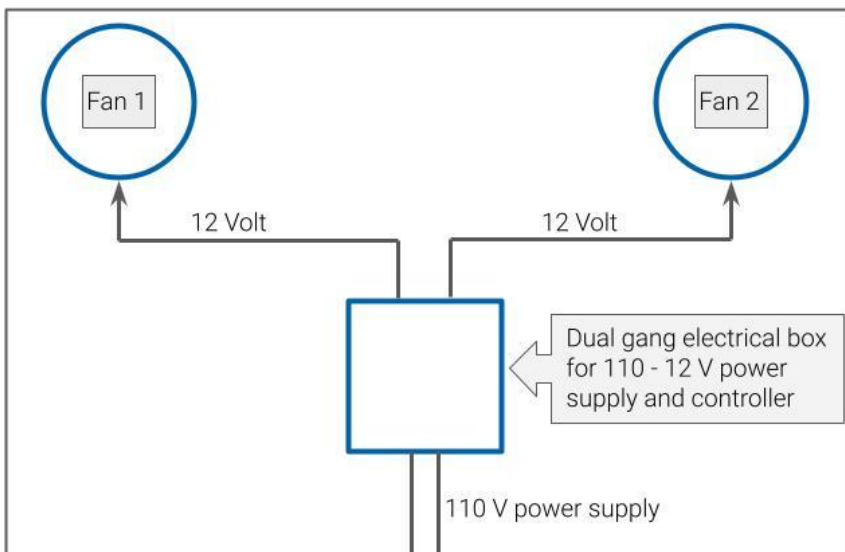
ASSEMBLY - ELECTRIC INSTALLATION AND ELECTRIC CONNECTION



Safety Instructions: Beware! Any assembly work to the ventilation device may only be carried out when all of the supply current has been disconnected! Make sure that all electrical circuits are turned off. All controllers of this ventilation system should be installed on a AFCI protected circuit.



Electric connection only by a licensed electrician.



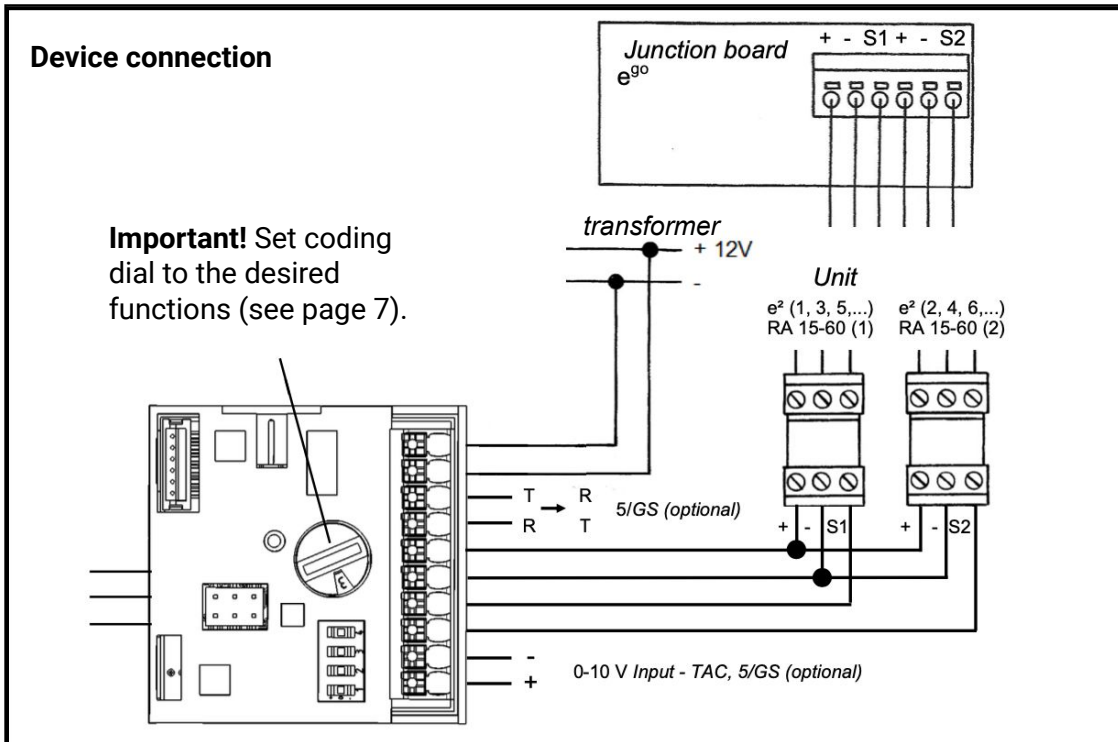
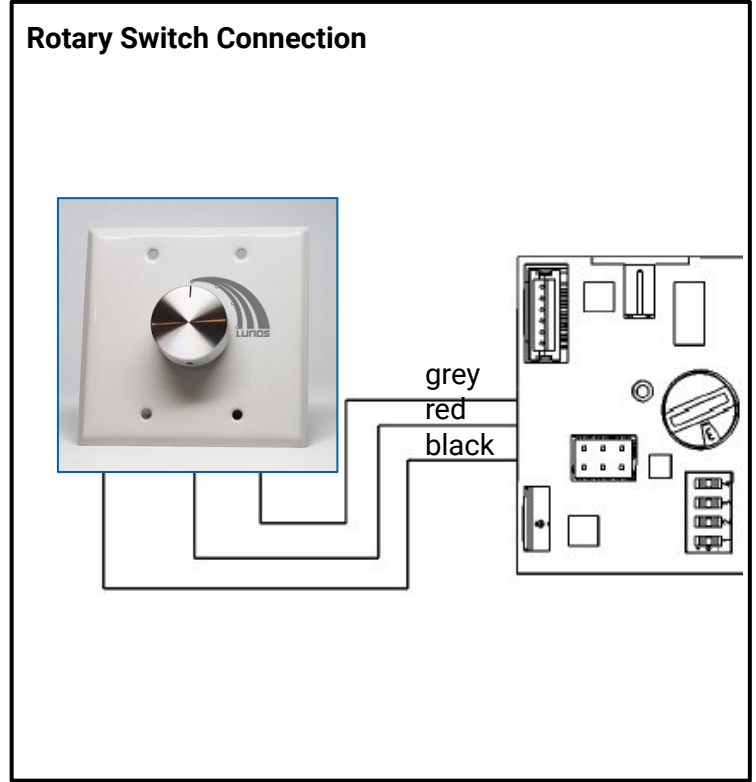
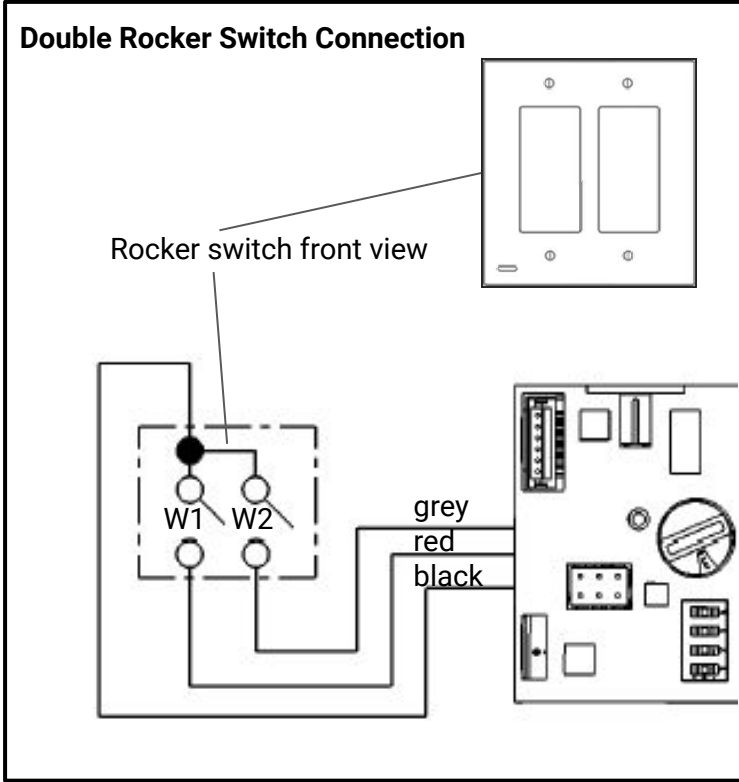
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- The system is controlled by Universal Control 5/UNI-FR.
- Select the location for the switch.
- 120V cable (14 gauge).
- 12V to each fan (3 x 18 gauge solid thermostat wire).
- Controller is wired and set per diagram on following page.

ASSEMBLY - ELECTRIC INSTALLATION AND ELECTRIC CONNECTION (continued)

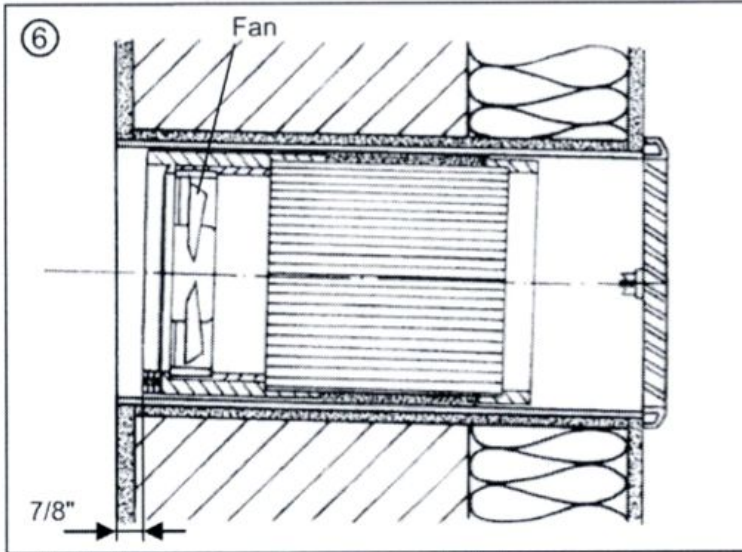
- 5 Use the following cables for the electric connection:
- Cable to the ventilation units: 18/3 solid
 - Cable for the supply voltage to the transformer/ power supply unit 14 gauge

Ensure, once installed, the Lunos controller LED light will be visible from behind the faceplate of the switch.



Set coding dial to the functions requested in accordance with the table on page 7. Selecting the wrong dial setting can lead to malfunctions!

ASSEMBLY- VENTILATION INSERT AND INDOOR ROOM COVER



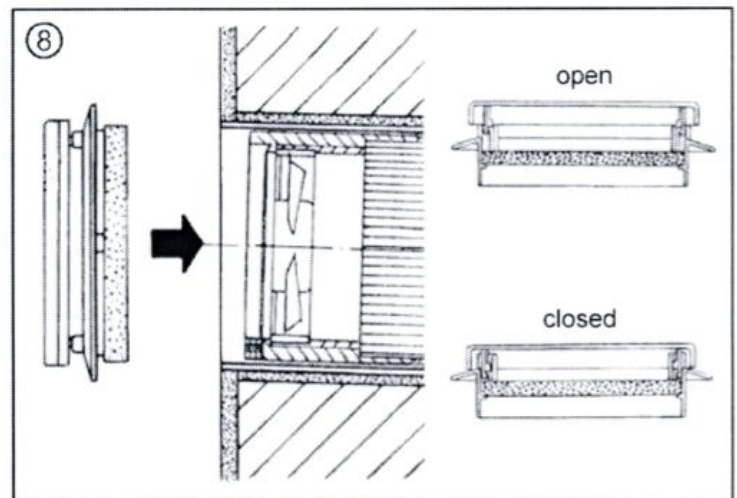
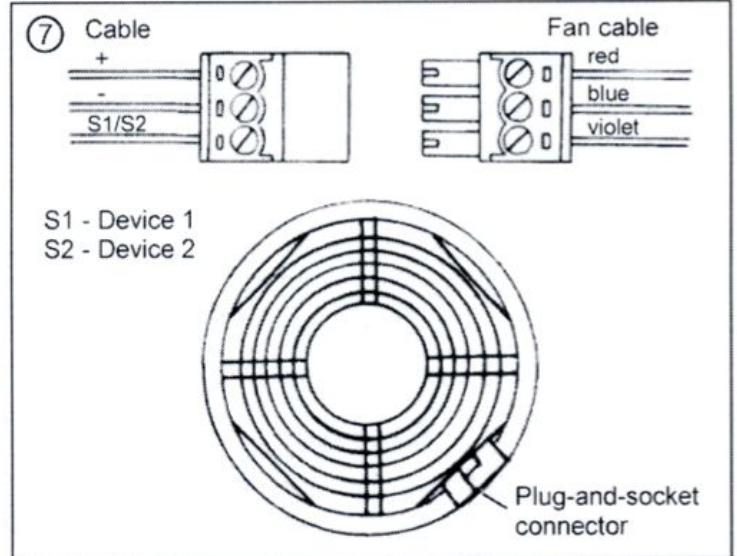
Remove interior protection lid cover, insert heat exchange unit into the installation pipe, ensure there is a $\frac{7}{8}$ " gap on interior of pipe. Motor/fan faces interior.

The loop on fan unit can be used to pull unit for maintenance.

Connect wiring to plug. Connect plug into socket and set them into the recess of the heat exchanger casing.

Insert interior cover with filter casing, snap the interior blind into place in open position ($\frac{1}{4}$ " off wall).

If cover completed covered, lift cover and rotate 180°. Installation is now complete.



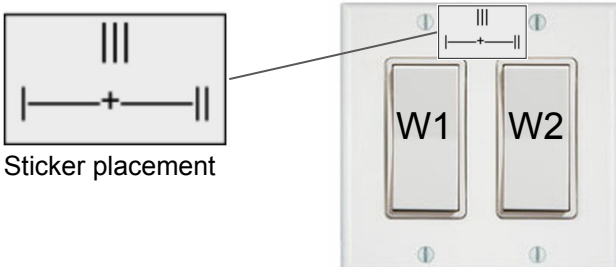
OPERATION

When operating the Lunos e² using a double-rocker switch, apply the provided sticker to the switch plate as shown. The markings on the sticker correspond to the following:

- Both W1 + W2 OFF = Level 0
- Switch W1 ON = Level I
- Switch W2 ON = Level II
- Both W1 + W2 ON = Level III

When operating the Lunos e² with the optional 475 Rotary Switch, the switch positions correspond to the following (assume a clock face):

- 12:00 (position 0) = Level 0
- 1:00 (position 1) = Level I
- 2:00 (position 2) = Level II
- 3:00 (position 3) = Level III



Sticker placement



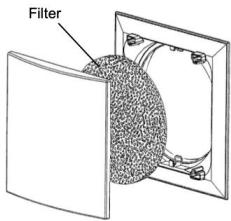
CONTROLLER DIAL SETTINGS

Dial position	Fan type	Programs and airflow				Activate alternate operation mode
		Level 0	Level I	Level II	Level III	
		W1 OFF	W1 ON	W1 OFF	W1 ON	
		W2 OFF	W2 OFF	W2 ON	W2 ON	
0	RA 15-60	OFF	10 cfm	20 cfm	25 cfm	
1	RA 15-60	OFF	10 cfm	20 cfm	35 cfm	
2	RA 15-60	10 cfm	20 cfm	25 cfm	35 cfm	
3	e ²	OFF	10 cfm	15 cfm	22 cfm	e ² short
4	e ²	10 cfm	15 cfm	20 cfm	22 cfm	e ² short
5	e ² 60	OFF	10 cfm	15 cfm	25 cfm	e ² 60 short
6	e ² 60	5 cfm	10 cfm	15 cfm	25 cfm	e ² 60 short
7	e ² 60	OFF	10 cfm	20 cfm	35 cfm	e ² 60 short
8	e ² 60	10 cfm	20 cfm	25 cfm	35 cfm	e ² 60 short
9	ego	OFF	3 cfm	6 cfm	26 cfm*	Level III HRV 10cfm
A	ego	3 cfm	6 cfm	10 cfm	26 cfm*	Level III HRV 10cfm
B	ego	6 cfm	10 cfm	26 cfm*	26 cfm*	Level III HRV 10cfm
C	e ² 60**	OFF	10 cfm	20 cfm	35 cfm	e ² 60 short
D	e ² 60**	10 cfm	20 cfm	25 cfm	35 cfm	e ² 60 short
E	0-10 V					

* Exhaust air without heat recovery

** Unpaired operation with 1 unit connected to S1 and two units connected to S2.

FILTER INDICATOR RESET + SUMMER VENT MODE OPERATION



Functions	Double Rocker Switch	Rotary Switch	LED Indicator Light
Reset filter indicator	Rocker W1 one time within 3 seconds	Rotating from Level 0 to I and back to 0 (within 3 seconds)	Blinks red 3 times
Activate summer vent mode	Rocker W2 one time within 3 seconds	Rotate dial from I to II and back to I again (within 3 seconds)	Lights green once for 3 seconds
Deactivate summer vent mode	Rocker W2 one time within 3 seconds	Rotate dial from I to II and back to I again (within 3 seconds)	Blinks green twice (1 second each)

- The LED will permanently light in red when the filter is due to be cleaned or replaced. Remove front cover, take filter out, and insert new or cleaned filter. Filters can be washed by hand, or in a dishwasher. MERV13 or Pollen filters cannot be washed.
- Period of summer vent mode lasts 8 hours, then will automatically revert to normal operation.