

I PRODUCT REVIEW

Noren's Eco-Flow dual Filter Fan design pulls cool ambient air into your enclosure and moves the hot air out all while preventing contaminants and moisture from entering your enclosure. The Eco-Flow can be used in many different configurations to match the size of the enclosure, and the amount of heat dissipation needed for your application.

II FEATURES

- Easy installation via snap locks system, no screws needed.
- UV-resistant
- Adhesive gasket
- Easy and fast filter replacement, no tools required
- Minimal or no maintenance
- Energy efficient
- Moisture resistant fiber filters with a fine degree of filtration
- IP54 protection
- Flammability rating UL94V-0
- Storage/Operating temperature: -10 to 70 C°/-40 to 70 C°
- Do not impede the inlet and outlet flow

III IMPORTANT NOTES

1. The ambient temperature must be below the permissible interior temperature of the enclosure.
2. Indoor use only not for use outdoor.
3. The installation should be conducted by a qualified Filter Fan specialist.
4. Allow 6-8 inches of clearance in front of each fan for proper air flow.
5. 1 filter mat included with the unit.
6. The filter mat will need to be replaced periodically to ensure proper airflow. Call Customer Support at 512-595-5700 or email customerservice@norenthermal.com to order replacement mats. An unfiltered unit will be exposed to moisture and dirt with possible degradation of enclosure's contents.
7. The Eco-Flow Filter Fan unit is designed for vertical orientation. The louver section of the unit must point downward.

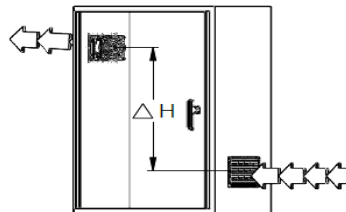
IV INCLUDED

This product includes below items in the package:

- Eco-Flow unit
- Filter mat
- User manual
- Cut-out sheet
- Snap locks

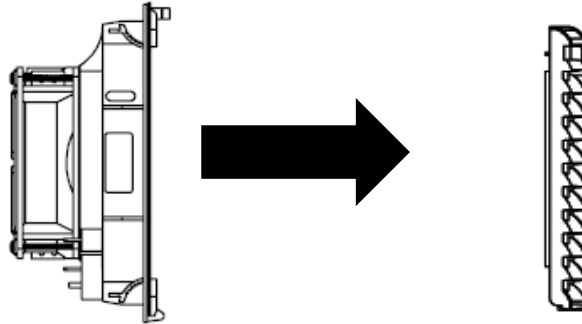
V INSTALLATION INSTRUCTION

1. First find the best site for installation Inlet and Outlet units, make sure the air flow will not have any negative affect on your electrical enclosure components. Units must be installed on the side or walls (vertical surfaces).
 - a. The Inlet unit must be installed on the lower section of the enclosure.
 - b. The Outlet unit must be installed on the higher section of the enclosure as shown in the picture below as this is where the heat will accumulate.
 - c. The higher and lower you install the units, the better as it will increase the change in temperature.

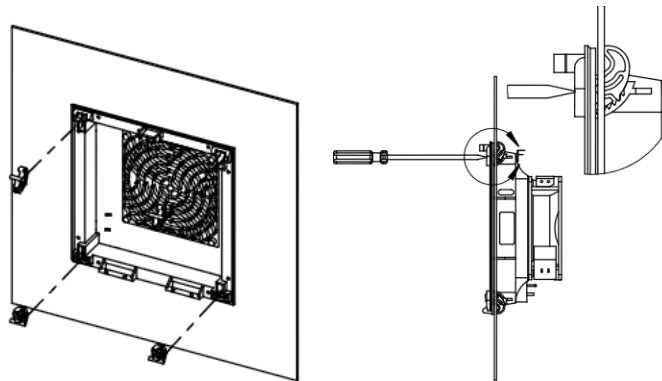


2. **Attach the cut-out template sheet to the enclosure in desired mounting location.**
(Reminder: Inlet unit must be installed on the lower side of the enclosures walls and Outlet unit must be installed on the top side of the enclosures walls.)
3. **Cut the holes into the enclosure walls**
 - a. Be cautious while cutting the cabinet, it must meet the tolerances specified on the template.
 - b. Carefully deburr the cutout section to prevent injuries and damages.
 - c. Improper cutting will cause potential sealing gasket failure, or the Snap Lock may not be able to grip on the enclosure.
 - d. Noren is not responsible for any damage result of improper installation.

4. Separate the louver cover from the Filter Fan base.



5. Install the Filter Fan base to the cut out on the enclosure using Snap Locks*.

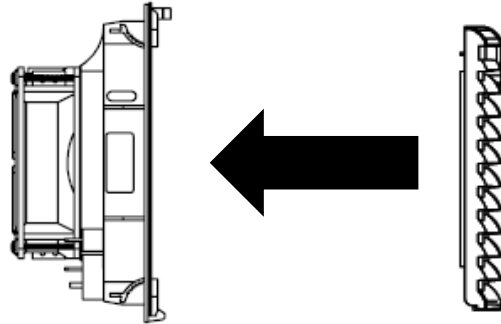


- a. The thickness of the enclosure wall must be under .1” for Snap Locks be able to secure the unit in place.
- b. **NOTE: If the enclosure’s wall thickness is over .1”, the Filter Fan unit must be fastened with screws.**

Wall Thickness	Mounting solution
> .1” (2.54mm)	Screws required
<.1” (2.54mm)	No Screws required. Use Snap Lock

- c. Insert the Filter Fan base into the cut out, make sure the unit will easily slide into the enclosure. **Do not force the unit in.**
- d. Before mounting make sure the cut out will meet the tolerances.
- e. Fasten the Plastic base via Snap locks or screws if needed.

6. Gently mount the louver cover on the plastic base.



7. Electrical installation

- a. Electrical connection should only be performed by a qualified electrician in order to observe standards and regulations.
- b. For DC units you must install pre-fuse to prevent short-circuiting.

VI Wiring Diagram



VII Maintenance

- a. Keeping the filter mat clean insures proper air flow.
- b. Regularly monitor the degree of dirt and soiling of the filter mat.
- c. Clean or replace the filter as needed.
- d. The component may need to be cleaned by vacuum or compressed air, do not use any flammable detergent to remove the stains and oils.

To order replacement filter mats call Customer Service at (512) 595-5700 or email them at customerservice@norenthermal.com