# Invent series fan / LIGHT

Please visit our website - www.broan.com or www.nutone.com - to register this product and to view installation tips and videos.

## READ AND SAVE THESE INSTRUCTIONS

## **A WARNING**

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- Use this unit only in the manner intended by the manufacturer.
   If you have questions, contact the manufacturer at the address or telephone number listed in the warranty.
- Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
- Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
- 4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- 5. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- 6. Ducted fans must always be vented to the outdoors.
- Acceptable for use over a tub or shower when connected to a GFCI (Ground Fault Circuit Interrupter) - protected branch circuit (ceiling installation only).
- 8. This unit must be grounded.

## **A** CAUTION

- For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
- To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
- Please read specification label on product for further information and requirements.

#### **CLEANING & MAINTENANCE**

For quiet and efficient operation, long life, and attractive appearance - lower or remove grille and vacuum interior of unit with the dusting brush attachment.

The motor is permanently lubricated and never needs oiling. If the motor bearings are making excessive or unusual noises, replace the blower assembly (includes motor and impeller).

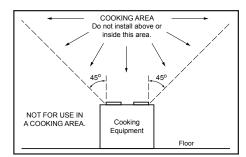
#### **OPERATION**

Use an on/off switch or speed control to operate this ventilator. See "Connect Wiring" for details.

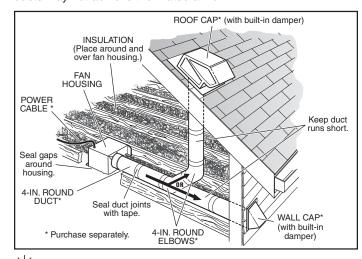
Installer: Leave this manual with the homeowner.

### **ALL INSTALLATIONS**

Start here.

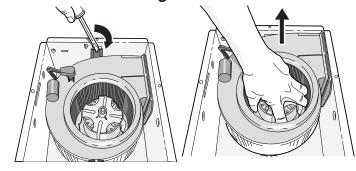


\*\*IMPORTANT - The ducting from this fan to the outside of the building has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated airflow.



••• OPTION - To mount housing anywhere between ceiling framing: Use optional Hanger Bar Kit (sold separately from local distributors or website). Follow mounting instructions included with kit.

## 1. Remove blower and all packing material from fan housing.



## 2. Remove wiring panel from fan housing.



#### NEW CONSTRUCTION —

For Retrofit Installation - Skip to back page.

3. Attach damper/duct connector to fan housing.

Push connector through opening from inside of housing.

Engage tabs and secure with screw from parts bag.



## 4. Mount housing to ceiling structure.

Make sure bottom of housing will be flush with finished ceiling.

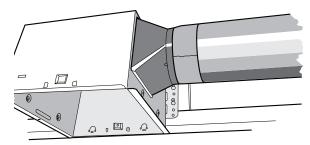
For proper location using ½" ceiling material: Bend out housing tabs to fit against bottom of structure.

Secure housing through mounting ears with appropriate fasteners.

If mounting housing to I-joist, use wood blocking as shown.



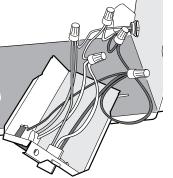
## 5. Connect 4-in, round duct.



## 6. Connect wiring.

Bend tab to expose desired access hole. Connect power cable to housing with appropriate UL approved connector. Connect black to black, white to white and green to green or bare wire. Re-install wiring panel and secure with screw from parts bag.

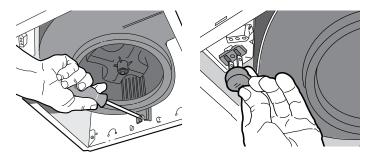






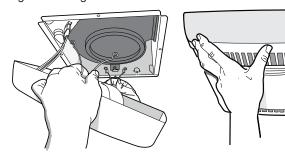
#### 7. Install blower.

Re-install blower removed in Step 2. Secure blower with 2 screws from parts bag and plug blower into black receptacle.



## 8. Finish ceiling, then install grille.

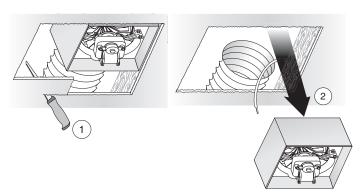
Install 100W max. incandescent light bulb. Plug in light. Squeeze grille srings and insert into slots in housing. Push grille up against ceiling.



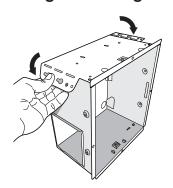
#### RETROFIT

## 3. Remove old fan.

Enlarge ceiling opening (if necessary) to 9¾" parallel to joist) by 10½" (perpendicular to joist). Leave ductwork and wiring in place.

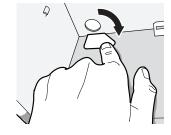


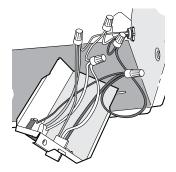
## 4. Fold mounting ears flat against housing.

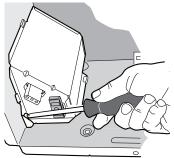


### 5. Connect wiring.

Bend tab to expose desired access hole. Connect power cable to housing with appropriate UL approved connector. Connect black to black, white to white and green to green or bare wire. Reinstall wiring panel and secure with screw from parts bag.

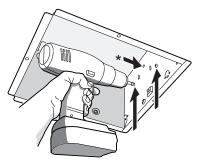






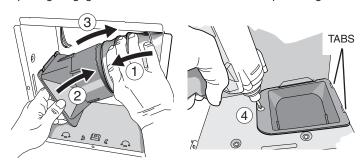
## Mount fan to ceiling structure.

Mount housing to ceiling structure with standard drywall or wood screws in locations shown. \*Center hole optional.

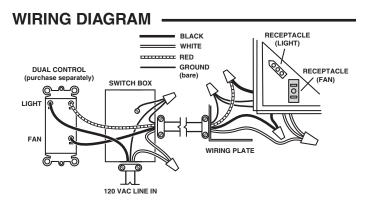


## 7. Connect 4-in. round duct.

Pull existing ducting through housing discharge opening and tape ducting to duct connector. Push connector/ducting back through opening. Engage tabs and secure with screw from parts bag.



Install blower. Finish ceiling, then install grille. See Steps 7 & 8 at top of this page..



#### **Limited Warranty**

Warranty Period and Exclusions: Broan-NuTone LLC (the "Company") warrants to the original consumer purchaser of its product ("you") that the product (the "Product") will be free from material defects in the Product or its workmanship for a period of three (3) years from the date of original purchase.

The limited warranty period for any replacement parts provided by the Company and for any Products repaired or replaced under this limited warranty shall be the remainder of the original warranty period.

This warranty does not cover speed controls, fluorescent lamp starters, tubes, halogen and incandescent bulbs, fuses, filters, ducts, roof caps, wall caps and other accessories for ducting that may be purchased separately and installed with the Product. This warranty also does not cover (a) normal maintenance and service, (b) normal wear and tear, (c) any Products or parts which have been subject to misuse, abuse, abnormal usage, negligence, accident, improper or insufficient maintenance, storage or repair (other than repair by the Company), (d) damage caused by faulty installation, or installation or use contrary to recommendations or instructions, (e) any Product that has been moved from its original point of installation, (f) damage caused by environmental or natural elements, (g) damage in transit, (h) natural wear of finish, (i) Products in commercial or nonresidential use, or (j) damage caused by fire, flood or other act of God. This warranty covers only Products sold to original consumers in the United States by the Company or U.S. distributors authorized by the Company.

This warranty supersedes all prior warranties and is not transferable from the original consumer purchaser.

No Other Warranties: This Limited Warranty contains the Company's sole obligation and your sole remedy for defective products. The foregoing warranties are exclusive and in lieu of any other warranties, express or implied. THE COMPANY DISCLAIMS AND EXCLUDES ALL OTHER EXPRESS WARRANTIES, AND DISCLAIMS AND EXCLUDES ALL WARRANTIES IMPLIED BY LAW, INCLUDING WITHOUT LIMITATION THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. To the extent that applicable law prohibits the exclusion of implied warranties, the duration of any applicable implied warranty is limited to the period specified for the express warranty above. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Any oral or written description of the Product is for the sole purpose of identifying it and shall not be construed as an express warranty.

Whenever possible, each provision of this Limited Warranty shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision is held to be prohibited or invalid, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the other remaining provisions of the Limited Warranty.

Remedy: During the applicable limited warranty period, the Company will, at its option, provide replacement parts for, or repair or replace, without charge, any Product or part thereof, to the extent the Company finds it to be covered by and in breach of this limited warranty under normal use and service. The Company will ship the repaired or replaced Product or replacement parts to you at no charge. You are responsible for all costs for removal, reinstallation and shipping, insurance or other freight charges incurred in the shipment of the Product or part to the Company. If you must send the Product or part to the Company, as instructed by the Company, you must properly pack the Product or part—the Company is not responsible for damage in transit. The Company reserves the right to utilize reconditioned, refurbished, repaired or remanufactured Products or parts in the warranty repair or replacement process. Such Products and parts will be comparable in function and performance to an original Product or part and warranted for the remainder of the original warranty period.

Exclusion of Damages: THE COMPANY'S OBLIGATION TO PROVIDE REPLACEMENT PARTS, OR REPAIR OR REPLACE, AT THE COMPANY'S OPTION, SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY AND THE COMPANY'S SOLE AND EXCLUSIVE OBLIGATION. THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL, INDIRECT, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE PRODUCT, ITS USE OR PERFORMANCE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

This warranty covers only replacement or repair of defective Products or parts thereof at the Company's main facility and does not include the cost of field service travel and living expenses. Any assistance the Company provides to or procures for you outside the terms, limitations or exclusions of this limited warranty will not constitute a waiver of such terms, limitations or exclusions, nor will such assistance extend or revive the warranty.

The Company will not reimburse you for any expenses incurred by you in repairing or replacing any defective Product, except for those incurred with the Company's prior written permission. **How to Obtain Warranty Service:** To qualify for warranty service, you must (a) notify the Company at the address or telephone number stated below within seven (7) days of discovering the covered defect, (b) give the model number and part identification and (c) describe the nature of any defect in the Product or part. At the time of requesting warranty service, you must present evidence of the original purchase date. If you cannot provide a copy of the original written limited warranty, then the terms of the Company's most current written limited warranty for your particular product will control. The most current limited written warranties for the Company's products can be found at www.broan.com.

Broan-NuTone LLC 926 West State Street, Hartford, WI 53027 www.broan.com 800-637-1453 www.nutone.com 888-336-3948