

# MODELS 504 & 505 VERTICAL DISCHARGE FANS

# BROAN®

## READ AND SAVE THESE INSTRUCTIONS

### WARNING

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

1. 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.
2. 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.
3. 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.
7. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application.
8. Never place a switch where it can be reached from a tub or a shower.
9. This unit must be grounded.

#### TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:

1. Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.
2. Always turn hood ON when cooking at high heat or when cooking flaming foods.
3. Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter.
4. Use proper pan size. Always use cookware appropriate for the size of the surface element.

#### TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A RANGE TOP GREASE FIRE, OBSERVE THE FOLLOWING:\*

1. SMOTHER FLAMES with a close-fitting lid, cookie sheet, or metal tray, then turn off the burner. BE CAREFUL TO PREVENT BURNS. If the flames do not go out immediately, EVACUATE AND CALL THE FIRE DEPARTMENT.
2. NEVER PICK UP A FLAMING PAN - You may be burned.
3. DO NOT USE WATER, including wet dishcloths or towels - a violent steam explosion will result.
4. Use an extinguisher ONLY if:  
A. You know you have a Class ABC extinguisher and you already know how to operate it.  
B. The fire is small and contained in the area where it started.  
C. The fire department is being called.  
D. You can fight the fire with your back to an exit.

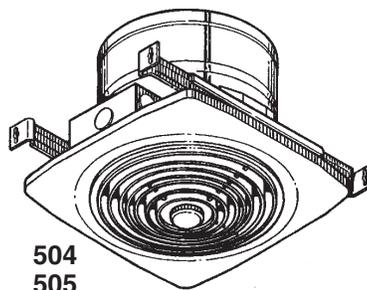
\*Based on "Kitchen Firesafety Tips" published by NFPA.

### CAUTION

1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
2. This product is designed for ceiling installation only. DO NOT MOUNT THIS PRODUCT IN A WALL!
3. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
4. Please read specification label on product for further information and requirements.

### TOOLS AND MATERIALS REQUIRED

- Straight blade screwdriver
- Hammer
- Pliers
- Electrical wiring and supplies of type to comply with local code
- 8" or 10" round duct as required
- Duct tape, caulk and tin snips
- Roof cap
- Saw



**INSTALLER: Leave This Manual With The Homeowner. HOMEOWNER: Use and Care Information on Page 3.**

## TYPICAL INSTALLATION

Fig. 1 shows typical installations.

Make sure that the selected location allows enough vertical clearance above the fan to allow you to install the ductwork.

The Model 505 uses 8" diameter ductwork and has a built-in damper.

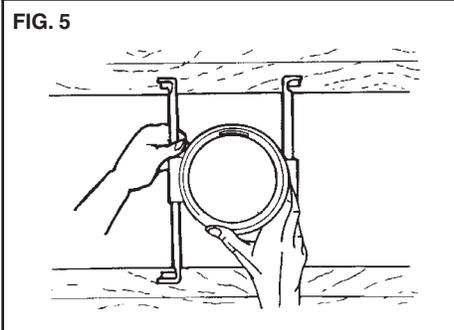
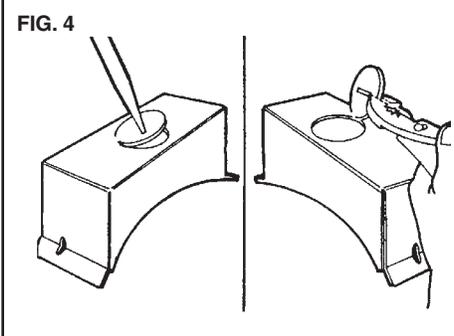
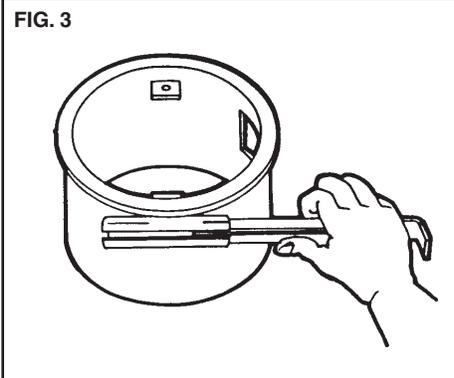
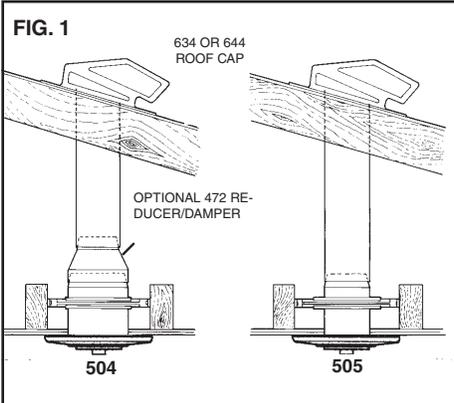
The Model 504 uses 10" diameter ductwork.

Use the Model 472 Reducer/Damper with the 504 when 8" diameter ductwork is desired or when a damper is needed.

## PREPARE THE FAN

1. Remove motor assembly by loosening mounting screws and rotating motor (FIG. 2).
2. Use care when handling motor bracket assembly to prevent damage to blade. Do not set down assembly with weight of motor resting on the blade.
3. Slide adjustable mounting brackets into channels on side of housing (FIG. 3). Brackets expand to fit joists up to 24" on center.
4. Remove knockout from wiring box by breaking tabs on knockout (FIG. 4). Remove bottom knockout.

**NOTE**  
Remove bottom knockout ONLY!



## INSTALL FAN

1. Place fan in installation location. Extend adjustable brackets to fit joists (FIG. 5).
2. Nail or screw brackets to joists so that flange on housing will flush with finished ceiling (FIG. 6). For wide joist centers: A #8 x 3/8 self-tapping screw can be used to join extended brackets together and create a rigid mount.
3. Slide fan to either side for final positioning. Crimp bracket channels with pliers to keep fan from shifting to one side (FIG. 7).
4. Connect cable to wiring box with proper cable connector for type of cable used. Provide 6" leads inside box. Make electrical connections as shown in Figure 8. Make sure unit is grounded using green ground screw. Install wiring box and cover.
5. Install ductwork and roof cap. Check both fan damper and damper inside roof cap to make sure that they open freely (FIG. 9).
6. Reinstall motor assembly. Spin fan blade by hand to make sure that blade does not strike anything in housing. Plug in motor, turn on power and check operation of fan. Install grille (FIG. 10).

## USE AND CARE

### DISCONNECT ELECTRICAL POWER SUPPLY BEFORE SERVICING FAN.

Always unplug the fan motor before servicing the fan. The motor bearings on this fan are lifetime lubricated and will never need oiling.

Clean the fan blade and motor every six months by removing the grille, unplugging the motor, and gently vacuuming the fan blade and motor.

Clean the grille in warm, soapy water. Use a mild detergent, such as a dishwashing liquid. DO NOT USE ABRASIVE CLOTHS, STEEL WOOL OR SCOURING POWDERS.

FIG. 6

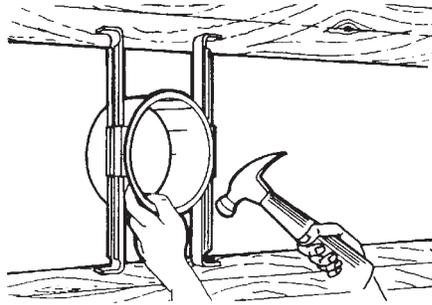


FIG. 7

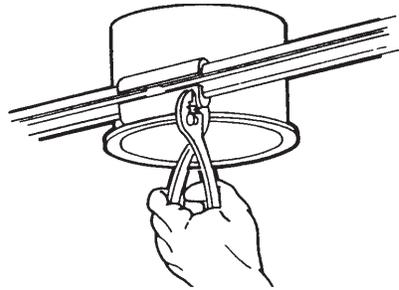


FIG. 8

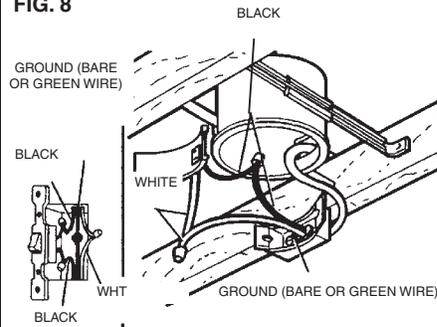


FIG. 9

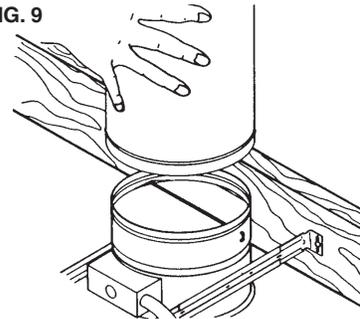
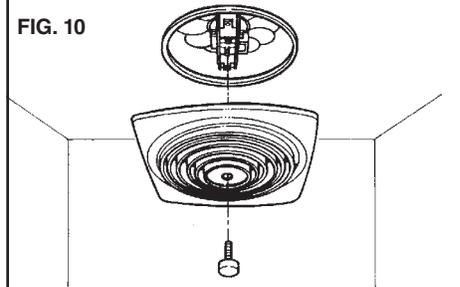
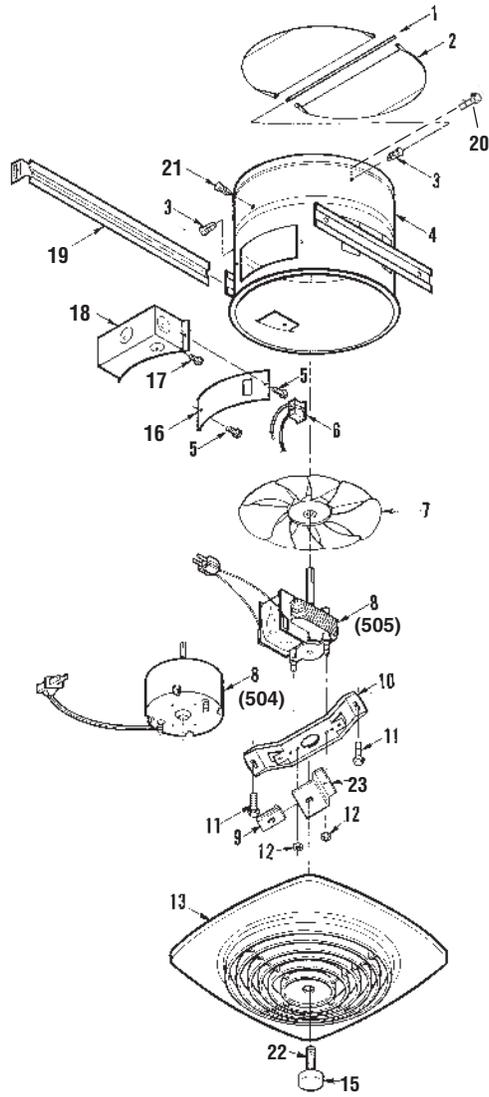


FIG. 10



# SERVICE PARTS

## MODELS 504 & 505



DESCRIPTION	KEY NO.	MODEL 504 PART NO.	MODEL 505 PART NO.
Damper Rod	1	—	98009485
Damper Leaf (2 Req.)	2	—	98006062
Damper Rod Bushing (2 Req.)	3	—	99100379
Housing	4	97007080	97007077
#8B x 3/8 Hex Head Self Tapping Screws (2 Req.)*	5	99170245	99170245
Receptacle	6	99270982	99270982
Fan Blade	7	99020271	99020165
Fan Motor	8	99080596	99080176
1/4-20 U-Type Sheet Metal Nut	9	99260434	99260434
Motor Mounting Bracket	10	98006066	98007820
#8-32 x 1/2 Hex Head Self Tapping Screws (2 Req.) *	11	99150479	99150479
Motor Mounting Nuts (2 Req.)	12	99260425	99260428
Grille (Polymeric)	13	99110977	99110916
Grille Knob	15	97011918	97011918
Wiring Box Cover	16	98006047	98006047
#10-32 x 1/2 Hex Head Self Tapping Screw	17	99150471	99150471
Wiring Box	18	98006046	98006046
Support Angle - long (4 Req.)	19	98003036	98003036
PH HD Screw, #10-12 x .625	20	99150591	99150591
Damper Bumper (2 Req.)	21	—	99100586
Grille Stud	22	99420580	99420585
Grille Bracket	23	98008494	98008494

\* Standard Hardware. May be purchased locally.

\*\* Not Illustrated.

Order replacement parts by "PART NO." - NOT by "KEY NO."