

**MODELS 170FT, 174FT, AND 178FT
FAN-FORCED WALL HEATER
FINISH ASSEMBLIES FOR USE WITH BROAN
MODEL 171H ROUGH-IN HOUSING**



READ AND SAVE THESE INSTRUCTIONS

IMPORTANT INSTRUCTIONS

READ ALL INSTRUCTIONS BEFORE INSTALLING OR USING THIS HEATER.

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. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
5. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, etc. and curtains at least 3 feet (0.9 m) from the front of the heater.
6. Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating and unattended.
7. Do not operate any heater after it malfunctions. Disconnect power at service panel and have heater inspected by a reputable electrician before reusing.
8. Do not use outdoors.
9. To disconnect heater, turn controls to off, and turn off power to heater circuit at main disconnect panel (or operate internal disconnect switch, if provided).
10. Do not insert or allow foreign objects to enter any ventilation or exhaust opening, as this may cause an electric shock or fire, or damage the heater.
11. To prevent a possible fire, do not block air intakes or exhaust in any manner.
12. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
13. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
14. Install heater at least 6 inches from floor or any adjacent wall.
15. To avoid electrical shock: Do not install unit in a tub or shower enclosure or any location where it may come in contact with water. Never place a switch where it can be reached from a tub or shower.
16. This product may ONLY be installed horizontally in a wall. Do not mount in any other position.
17. Do not connect heater to dimmer switch or speed control.
18. This product must be grounded.

SAVE THESE INSTRUCTIONS

PLANNING

This wall heater finish assembly is intended for installation into a Broan Model 171H rough-in housing - after the wall has been completed.

The heater can be operated using its built-in thermostat or a remote thermostat (Broan Model 86W Line-Voltage Thermostat - purchase separately).

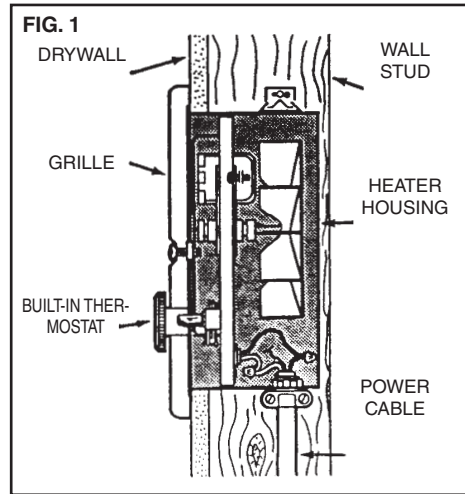
The table below lists the ratings for each model.

MODELS	VOLTS	AMPS	WATTS	BTU/HR
170FT	120	8.33/4.16	1000/500	3413/1707
	240	4.16	1000	3413
	208	3.61	750	2560
174FT	120	12.5/6.25	1500/750	5120/2560
	240	6.25	1500	5120
	208	5.41	1125	3840
178FT	240	8.33/4.16	2000/1000	6827/3413
	208	7.21/3.61	1500/750	5120/2560

BOLD ratings are factory wired. See "OPTIONAL WIRING CONVERSIONS" section for wattage and voltage conversion instructions.

Follow these basic steps when installing this heater:

- Remove the housing mask.
- Fasten finish assembly inside housing.
- Plug assembly in.
- Attach grille and knob.



INSTALLATION

WARNING: To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.

CAUTION: High temperature, risk of fire, keep electrical cords, drapery, furnishings, and other combustibles at least 3 feet (0.9 m) from the front of the heater and away from the side and rear.

1. Remove housing mask.

Make sure wall has been finished (including paint or wall paper, etc.). Take out and discard the cardboard mask from inside of housing.

2. Install heater assembly into housing.

Place element end of heater assembly behind the tabs on the left side of housing. Pivot the assembly in an fasten with retaining screw from parts bag. (FIG. 2)

Plug wiring harness into receptacle.

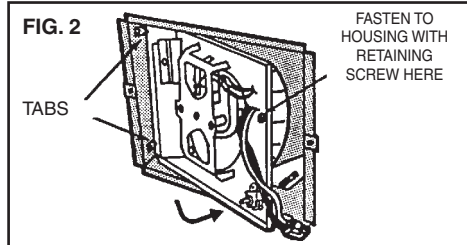


FIG. 2

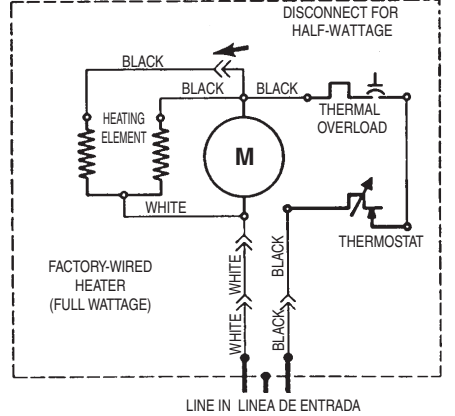


FIG. 4 - HALF-WATTAGE CONVERSION

- (2) BLACK WIRES (connected to motor)
- (2) CABLES NEGROS (conectados al motor)

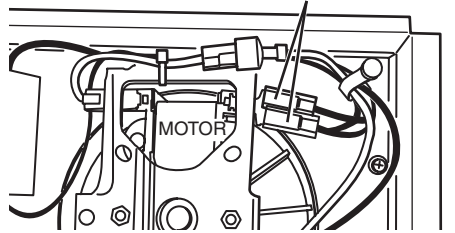


FIG. 5 - 120VAC TO 240VAC CONVERSION

- WHITE WIRES
- BLACK WIRE (from motor)

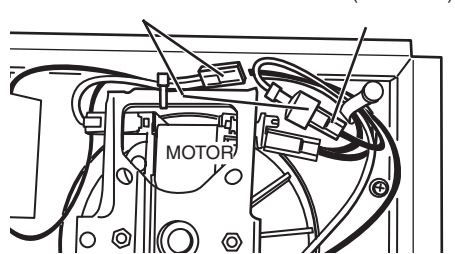
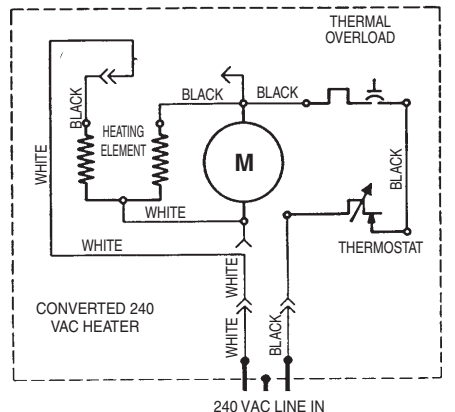


FIG. 6



WIRING DIAGRAM

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.

Please refer to Figure 3 for the explanation of how this unit is wired.

OPTIONAL WIRING CONVERSIONS

1. Conversion to half-wattage. (FIG. 4)

The heater will produce less heat and use less electricity if converted to half-wattage.

Disconnect ONE of the two (2) black wires (with insulated terminals) from the motor.

2. 120 VAC to 240 VAC Conversion (FIGS. 5 & 6)

(Factory-wired 120 VAC Models 170 and 174 ONLY)
These heaters can be converted to operate on 240 VAC.

- 1) Disconnect ONE of the two (2) black wires (with insulated terminals) from the motor.
- 2) Disconnect the two (2) white wires (with insulated terminals) from each other. Do not remove the white wire from beneath plastic wire tie.
- 3) Connect the black wire to the white wire.

NOTE: When heater is converted from 120 VAC to 240 VAC, half-wattage conversion is not possible.

COMPLETE THE INSTALLATION

1. Attach grille. Fasten grille to heater with two (2) screws from parts bag. (FIG. 7)
2. Push knob onto thermostat stem.
3. **Check operation.**
Turn on power at service entrance. Turn thermostat to its highest setting and make sure heating element and blower come on. Then turn it to its lowest setting and make sure element and blower shut off.

OPERATION

Before using heater, make sure heater has been properly installed according to installation steps beginning with the "PLANNING" section on page 1.

MAINTENANCE

THERMAL OVERLOAD PROTECTOR

If heater fails to operate when thermostat is turned to its highest setting; Turn power off at service entrance. Remove knob and grille and press button marked "RESET".

LUBRICATION

The heater is permanently lubricated and never needs oiling or disassembly.

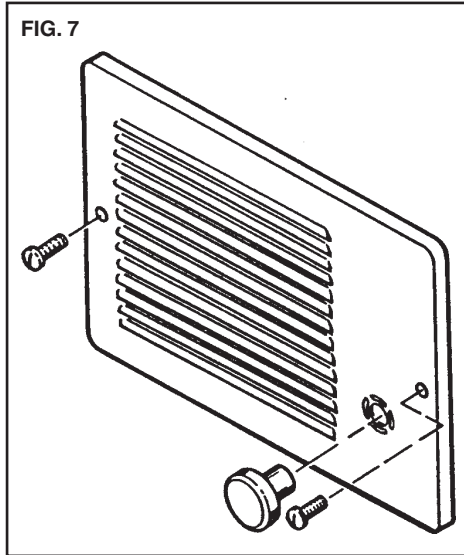
CLEANING

Clean heater once a month as follows:

1. Turn off power at service panel.
2. Make sure heating element is cool.
3. Use a soft brush attachment to gently vacuum grille openings or wipe grille clean with a soft cloth.
4. Restore power.

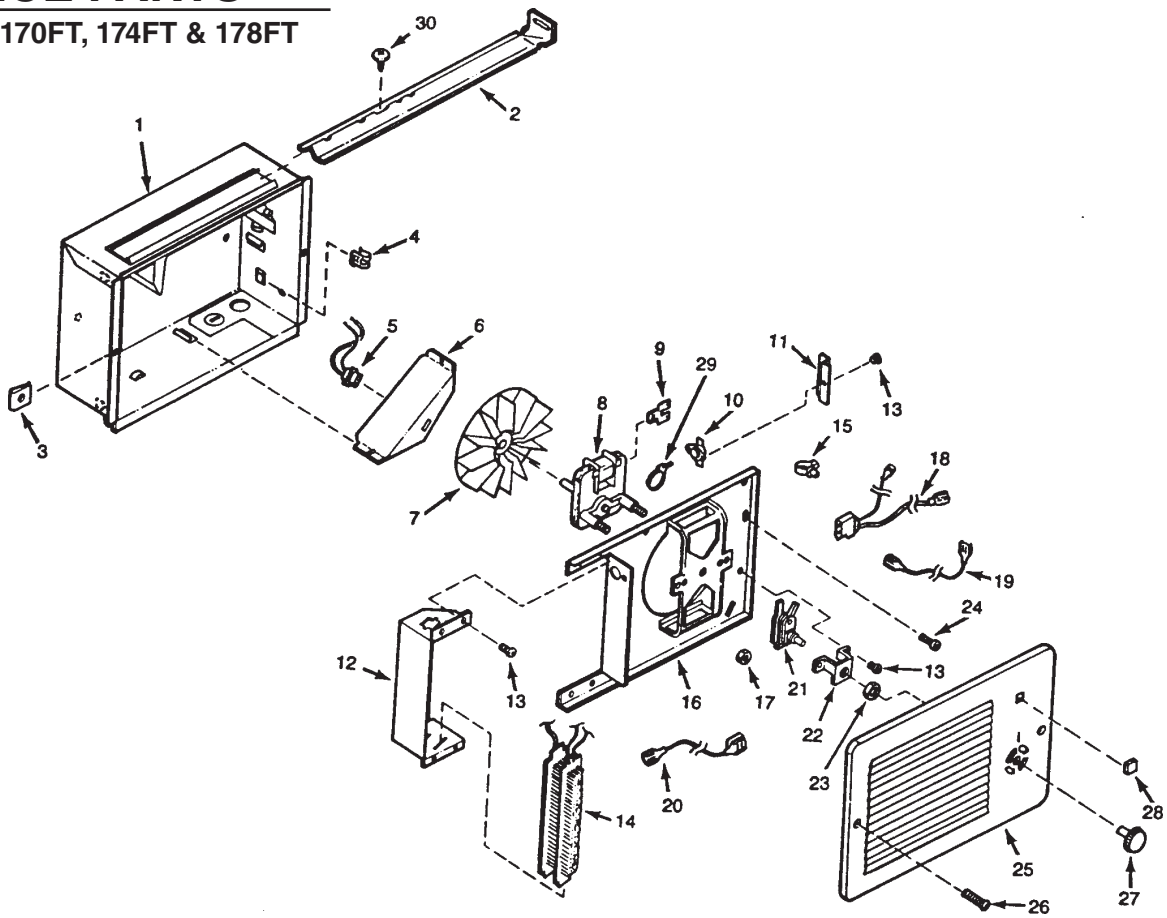
CAUTION: METAL AND ELECTRICAL PARTS SHOULD NEVER BE IMMERSSED IN WATER.

FIG. 7



SERVICE PARTS

MODELS 170FT, 174FT & 178FT



KEY NO.	PART NUMBER	DESCRIPTION
1	97008681	Housing
2	98003036	Mounting Bracket (2 Required)
3	99260512	#8-18 Sheet Metal Nut (2 Required)
4	99390015	Grounding Clip
5	97005422	Receptacle Assembly
6	98006975	Wiring Cover
7	99020130	Blower Wheel
8	99080248	Motor (Models 170FT & 174FT)
	99080252	Motor (Model 178FT)
9	99270735	Tab Adaptor
10	99030194	Thermal Overload
11	99271091	Guard
12	98006974	Element Bracket
13	99150491	Screw, #8-18 x 3/8 Ph. Pan Head (7 Required)
14	99270741	Heating Element (Model 170FT)
	99270725	Heating Element (Model 174FT)
	99270742	Heating Element (Model 178FT)
15	93270619	Wire Clamp
16	97008682	Partition Plate Assembly
17	99260428	Nut, #6-32 x 5/16 Keps (2 Required)
18	97008675	Plug Assembly
19	97008677	Thermostat Wire Assembly
20	97008678	Overload Wire Assembly
21	99030191	Thermostat
22	98006973	Thermostat Bracket
23	99260464	Lock Nut
24	99150571	Screw, #8-18 x 5/8 Ph. Plan Head
25	98006970	Grille
26	99150528	Grille Screw
27	99360135	Knob
28	99090681	Grille Logo
29	93270493	Wire Tie
30	99150470	Screw, #8-18 x 3/8 Ph. Truss Head

Always order replacement parts by "PART NUMBER" - NOT "KEY NUMBER".

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