

USER'S INFORMATION MANUAL

G16/G16R SERIES UNITS

502,208M
9/87
Supersedes 502,129M

RETAIN THESE INSTRUCTIONS
FOR FUTURE REFERENCE

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information, consult a qualified installer, service agency, or the gas supplier.

FOR YOUR SAFETY

WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; Do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

PARTS IDENTIFICATION

1. Flue connection.
2. Burner access panel. Lift up and out to remove.
3. Fan and limit control.
4. Wiring make-up box.
5. Main gas valve.
6. Pilot burner.
7. Main burners.
8. Ignition control.
9. Hammock-type air filter (Slab filters used on downflow models).
10. Blower motor.
11. Blower and filter access panel(s). Lift up and out to remove.
12. DURACURVE heat exchanger.
13. Direct drive blower.
14. Induced draft blower.
15. Pressure switch.
16. Blower compartment vestibule panels (Downflow units only)

PARTS ARRANGEMENT

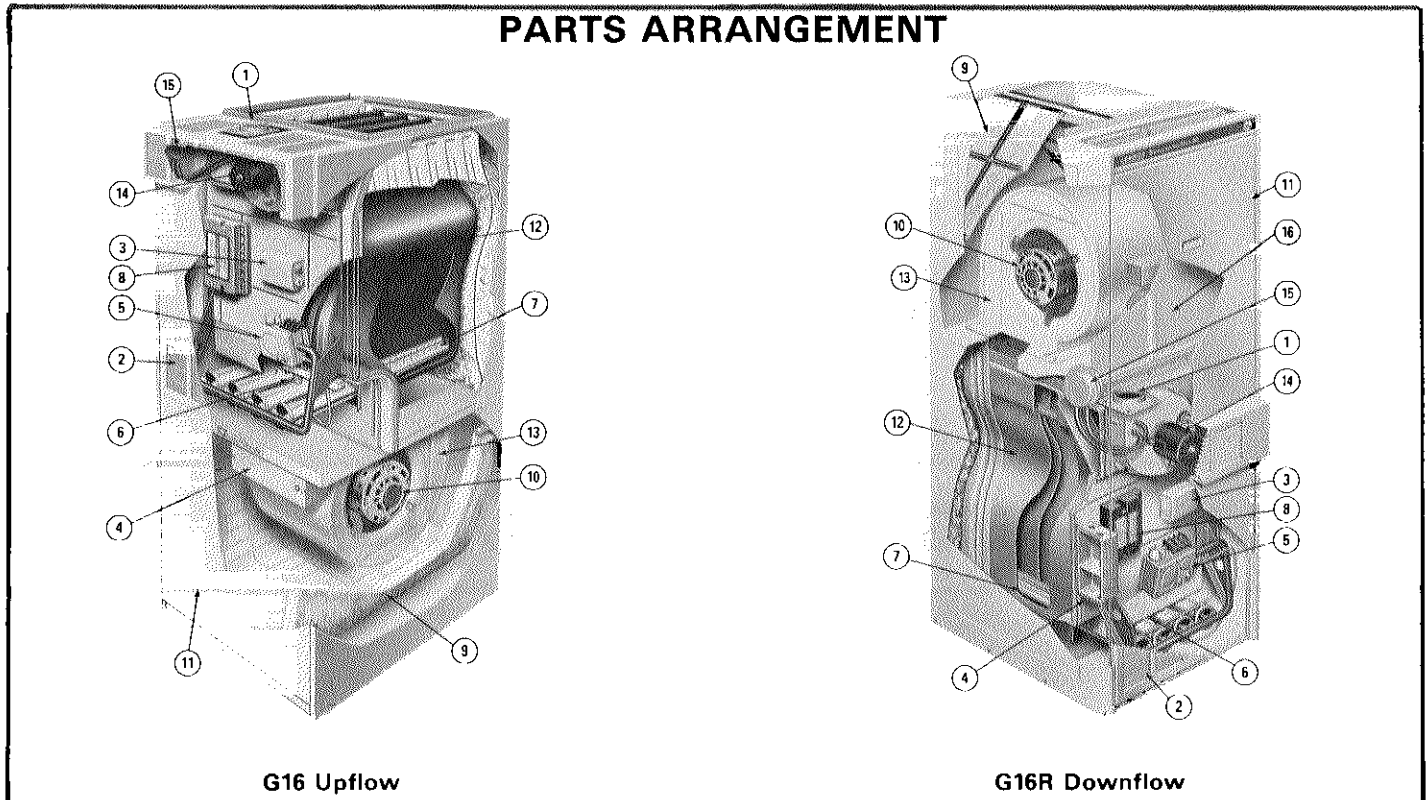


FIGURE 1

WARNING - Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace before shutting off the electrical supply.

WARNING - Do not use this furnace if any part has been under water. Immediately call a qualified service technician to inspect the furnace and to replace any part of the control system and any gas control that has been under water.

CAUTION - Before attempting to perform any service or maintenance, turn electrical power to the unit OFF at unit disconnect switch.

I - IMPORTANT DIRECTIONS

A - Clearing Furnace Area

Keep the furnace area clear and free of combustible materials, gasoline and other flammable vapors and liquids.

NOTE - When furnace is installed in an attic or other insulated space, the area must be inspected periodically to clear insulation away from furnace. Insulating material may be combustible.

B - Do Not Obstruct Air Flow

Do not obstruct air flow to unit. Unit must receive an unobstructed flow of combustion and ventilation air.

C - Hazard To Furnace

Do not store chlorine or fluorine products near unit or introduce them into the combustion air. These products can cause furnace corrosion.

II - UNIT OPERATION

WARNING - If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

Unit is equipped with an automatic gas valve using an intermittent pilot with an automatic pilot ignitor. Do not attempt to manually light the pilot.

A - Gas Valve Operation

Refer to gas valve operation sticker located on the burner access panel and figure 2 for gas valve identification.

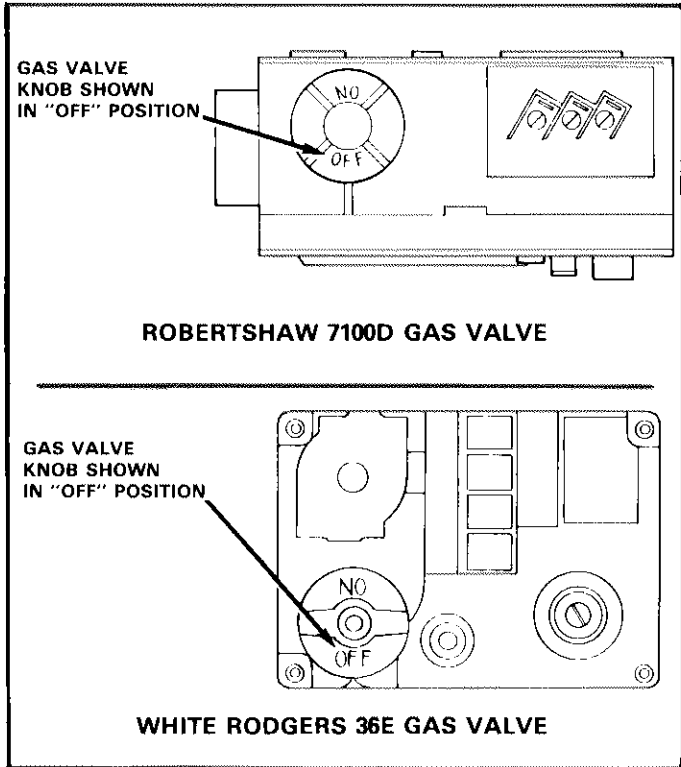


FIGURE 2

- 1 - STOP! Read the safety information section of the gas valve operation sticker located on burner access panel.
- 2 - Set thermostat to its lowest setting. See figure 3.
- 3 - Turn off all electrical power to furnace at unit disconnect switch. See figure 4.
- 4 - This furnace is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- 5 - Remove burner access panel.
- 6 - Turn knob on gas valve clockwise to off. See figure 2.
- 7 - Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information section of the gas valve operation sticker. If you don't smell gas, go to next step.
- 8 - Turn knob on gas valve counterclockwise to "ON."
- 9 - Replace burner access panel.
- 10 - Turn off electrical power to furnace.
- 11 - Set thermostat to desired setting.
- 12 - If the appliance will not operate, follow the instructions "To Turn Off Gas To Furnace," and call your service technician or the gas supplier.

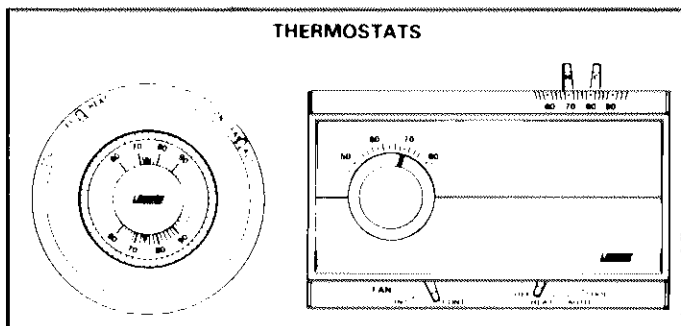


FIGURE 3

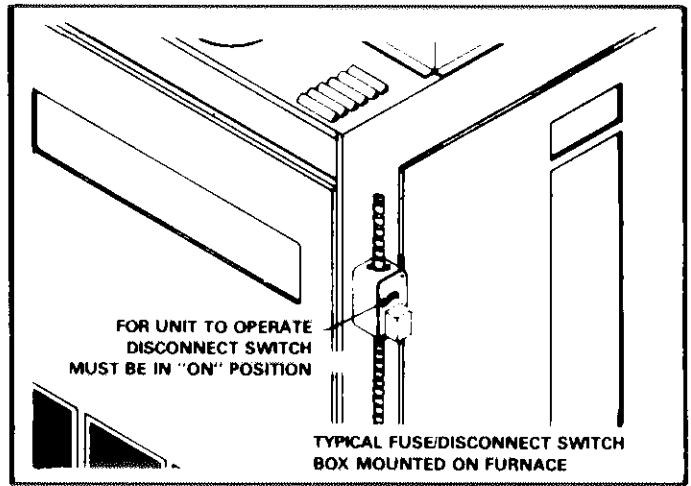


FIGURE 4

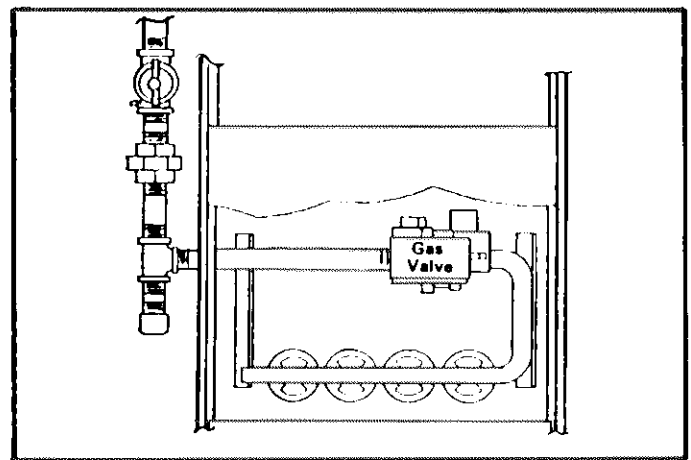


FIGURE 5

B - To Turn Off Gas to Furnace

- 1 - Set thermostat to its lowest setting. See figure 3.
- 2 - Turn off electrical power to the furnace if any service is to be performed.
- 3 - Remove burner access panel.
- 4 - Turn knob on gas valve clockwise to "OFF." Do not force.
- 5 - Replace burner access panel.

III - FILTER SERVICE

Inspect and replace furnace air filters twice annually (minimum) before heating and cooling seasons. Table 1 lists filter sizes.

TABLE 1
FILTER MEDIA DIMENSIONS

Unit	Filter Type	Qty.	Dimensions	
			All filters 1 in. (25mm) thick in. x in.	mm x mm
G16Q4-75, G16Q3/4-100	Hammock	1	40 x 28	1016 x 711
G16Q4-100, G16Q5-100, G16Q4/5-125	Hammock	1	52 x 28	1321 x 711
G16RQ4/5-125	Slab	2	16 x 20	406 x 508
G16Q2-50, G16Q3-50, G16Q3-75	Hammock	1	36 x 28	914 x 711
G16RQ3-50, G16RQ3-75	Slab	2	10 x 20	254 x 508
G16RQ4-100	Slab	2	12 x 20	305 x 508

**A - Replace One-Piece Hammock Filter Media
(Upflow models)**

See figure 6.

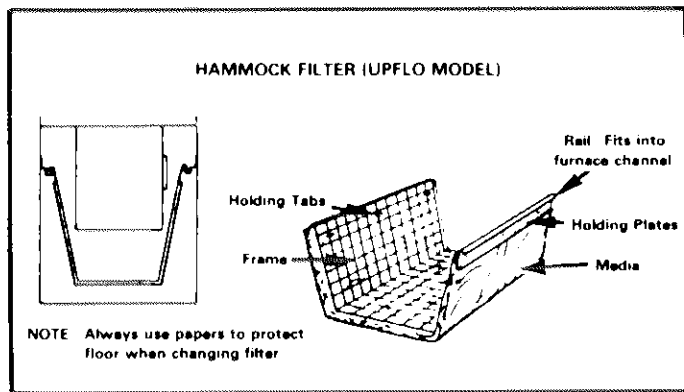


FIGURE 6

- 1 - Turn off electrical power to furnace. See figure 4.
- 2 - Wait for blower to stop rotating.
- 3 - Remove burner and blower access panels. See figure 1.
- 4 - Slide entire one-piece hammock filter assembly from unit.
- 5 - Release media holding tabs by sliding holding plates lengthwise.
- 6 - Clip new filter media to frame with colored side out, closing the holding plates and hooking the tabs.
- 7 - Slide hammock assembly into unit and reinstall blower and burner access panels.
- 8 - Restore power to unit.
- 9 - Set thermostat to and fan switch desired settings.

**B - Remove and Clean Two Permanent Slab Filters
(Downflow models)**

G16RQ3-50/75 Filter Removal

See figure 7.

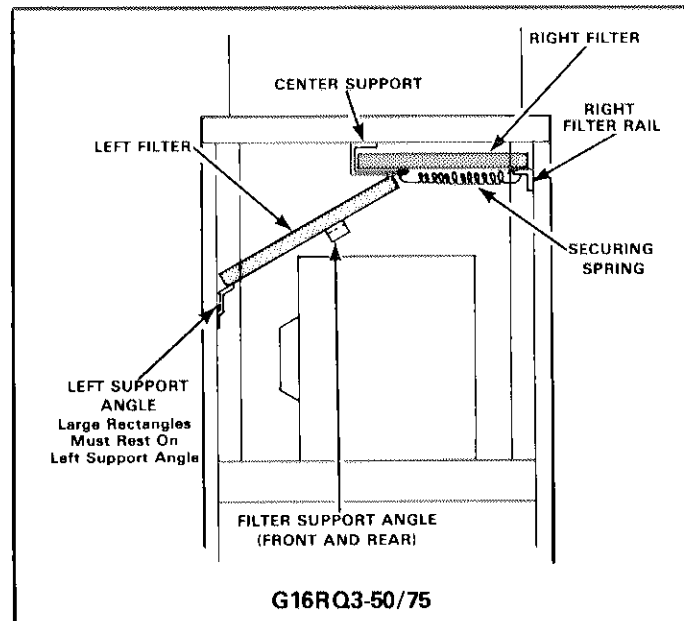


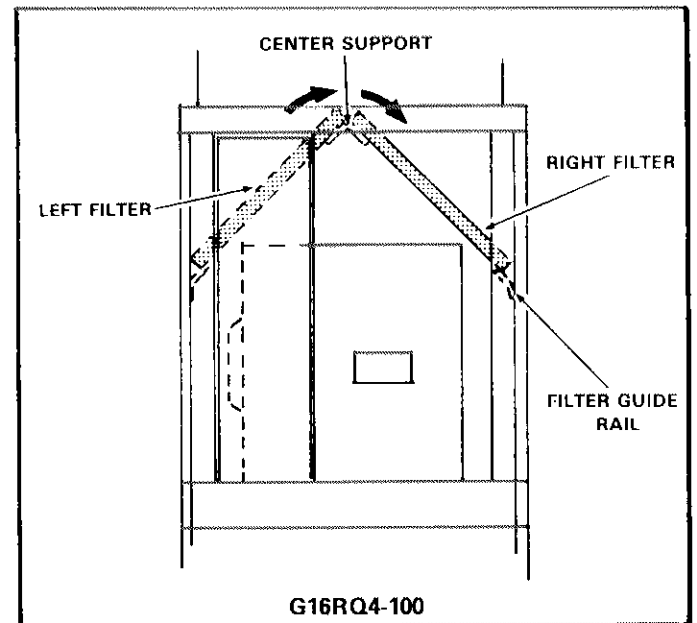
FIGURE 7

- 1 - Turn off electrical power at unit disconnect switch.
- 2 - Remove blower access panel and right vestibule panel.
- 3 - Remove securing spring from slotted center support tab and right filter rail.
- 4 - Using slotted center support tab as a handle, slide right filter slightly left to clear right filter rail. Slide filter downward to the right, below filter rail and around blower and remove filter from cabinet.
- 5 - Remove left filter by lifting filter up and around blower and out right vestibule opening.
- 6 - Clean filters as outlined and replace.

IMPORTANT - When plastic-framed foam filters are used, left filter must be positioned in the unit so that the larger rectangles in the filter pattern rest on the left support angle. The smaller rectangles should point toward the top of the unit. This positioning will prevent left filter from falling during operation.

G16RQ4-100 Filter Removal

See figure 8.



G16RQ4-100

FIGURE 8

- 1 - Turn electrical power to unit off at disconnect switch, See figure 4.
- 2 - Remove blower access panel and right vestibule panel.
- 3 - Remove right filter by pushing up and around filter guide rail.
- 4 - Slide left filter over center support and out right side of cabinet.
- 5 - Clean filters as outlined and replace.

G16RQ4/5-125 Filter Removal

See figure 9.

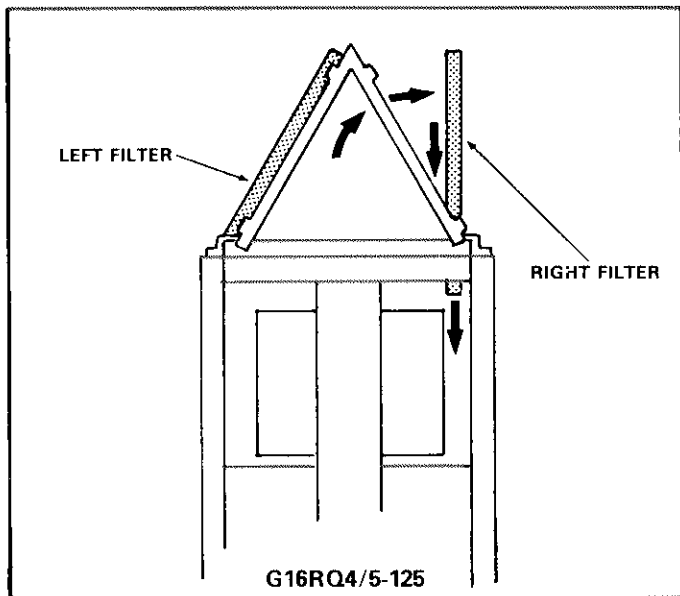


FIGURE 9

- 1 - Turn off all electrical power at unit disconnect switch. See figure 4.
- 2 - Remove blower access panel and vestibule panels.
- 3 - Push right filter up into vertical position and pull down and out through blower compartment. Repeat procedure with the left filter.
- 4 - Clean filters as outlined and replace.

Cleaning Permanent Slab Filters

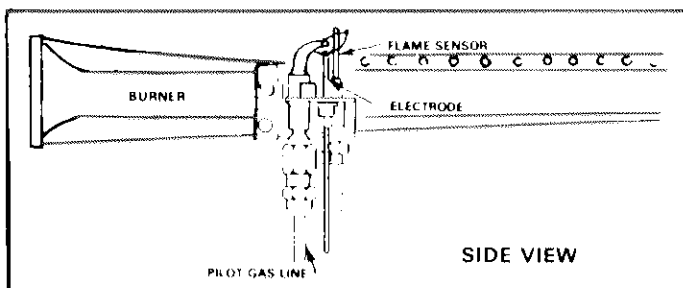
Wash permanent slab filters with water and mild detergent. When dry, filters should be sprayed with Filter Handicoater before replacing. Filter Handicoater is RP products coating No. 418 and is available as Lennox part No. P-8-5069.

If necessary, replace with permanent filter of like kind and size. DO NOT replace with disposable filter.

IV - PILOT AND BURNER FLAME

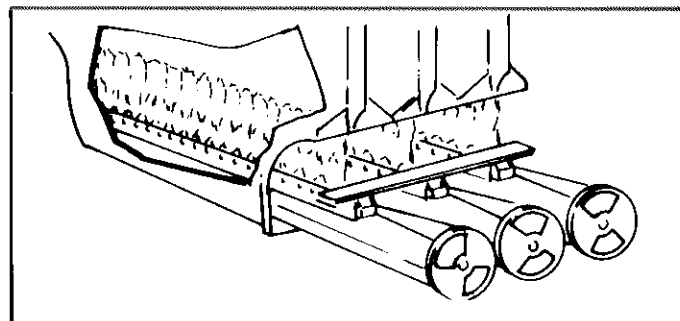
CAUTION - Check pilot flame and burner flame periodically to ensure proper operation.

- 1 - Pilot Flame — Pilot flame must surround the end of flame sensor for proper operation of pilot safety circuit.



PILOT FLAME

- 2 - Burner Flame — Start burner and allow to operate for a few minutes to establish normal operating conditions. Check burner flame by observation. Flame should be predominantly blue in color, strong in appearance and should rise directly from the burner ports into the heat exchanger. Check to see that flame is burning from all continuous ribbon ports and that flame does not impinge on the side of the heat exchanger.



BURNER FLAME

V - LUBRICATION

A - Motors Without Oiling Ports

Motors without oiling ports are prelubricated and sealed. No further lubrication is required.

B - Direct Drive Motors With Oiling Ports

Direct drive motors with oiling ports are prelubricated for an extended period of operation. For extended bearing life, relubricate with a few drops of SAE No. 10 non-detergent oil once every two years. It may be necessary to remove the blower assembly for access to oiling ports.

VI - FLUE PASSAGE AND VENT INSPECTION

Annually, before heating season, inspect chimney, vent pipe, vent cap, heat exchanger, burners and pilot for corrosion, deterioration, or deposits of debris. Remove any obstructions or blockage.

Horizontal runs of vent system should slope upward. The vent connector, the return air duct connection(s) and physical furnace supports should be sound, without holes, sags, cracks, gaps, or excessive corrosion.

Contact your Lennox dealer for periodic unit inspection by a qualified service technician.

VII - SERVICE REMINDER

Call your Lennox service technician if unit is inoperative. Before calling always check the following to be sure service is required.

- 1 - Be sure electrical disconnect switch(es) are on.
- 2 - Check room thermostat for proper setting.
- 3 - Replace any blown fuses or reset circuit breakers.
- 4 - Be sure gas valve is on.
- 5 - Blower access panel should be in place.
- 6 - Air filters should be clean.

PLANNED SERVICE

To keep your Lennox gas heating system in peak operating condition year after year, contact your independent Lennox dealer about a planned service program.