

LENNOX®

PRODUCT LITERATURE

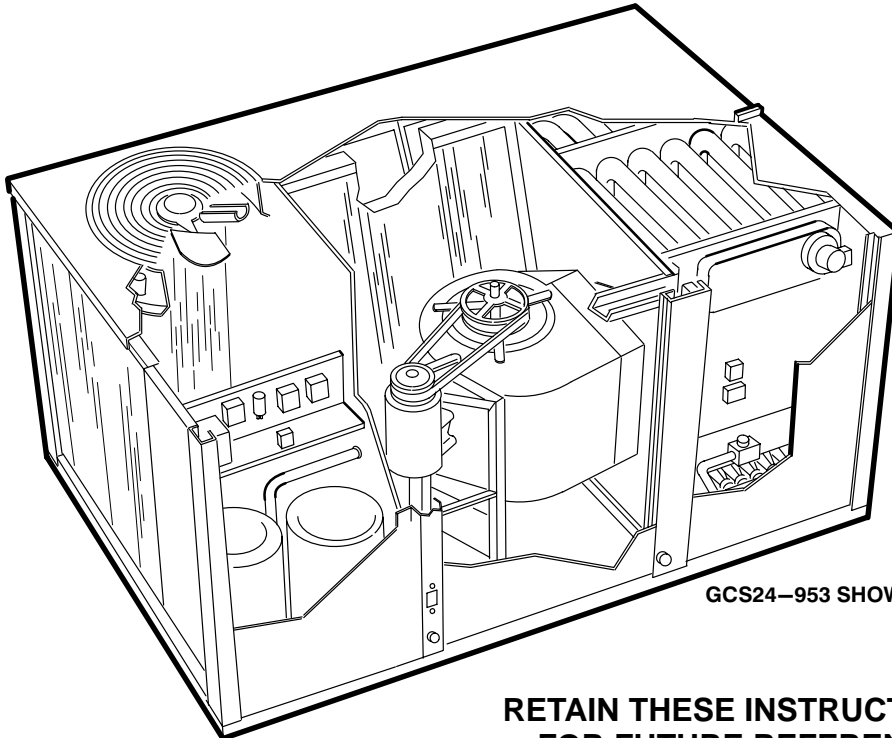
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Dallas, Texas

503,054M
11/93
Supersedes 502,889M

USER'S INFORMATION MANUAL

GCS24-953, 1353, AND 1603

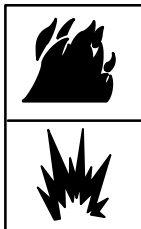
ROOFTOP UNITS



GCS24-953 SHOWN

RETAIN THESE INSTRUCTIONS
FOR FUTURE REFERENCE

Technical
Literature
Litho U.S.A.



⚠ WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.



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

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Extinguish any open flames.
- 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 ARRANGEMENT

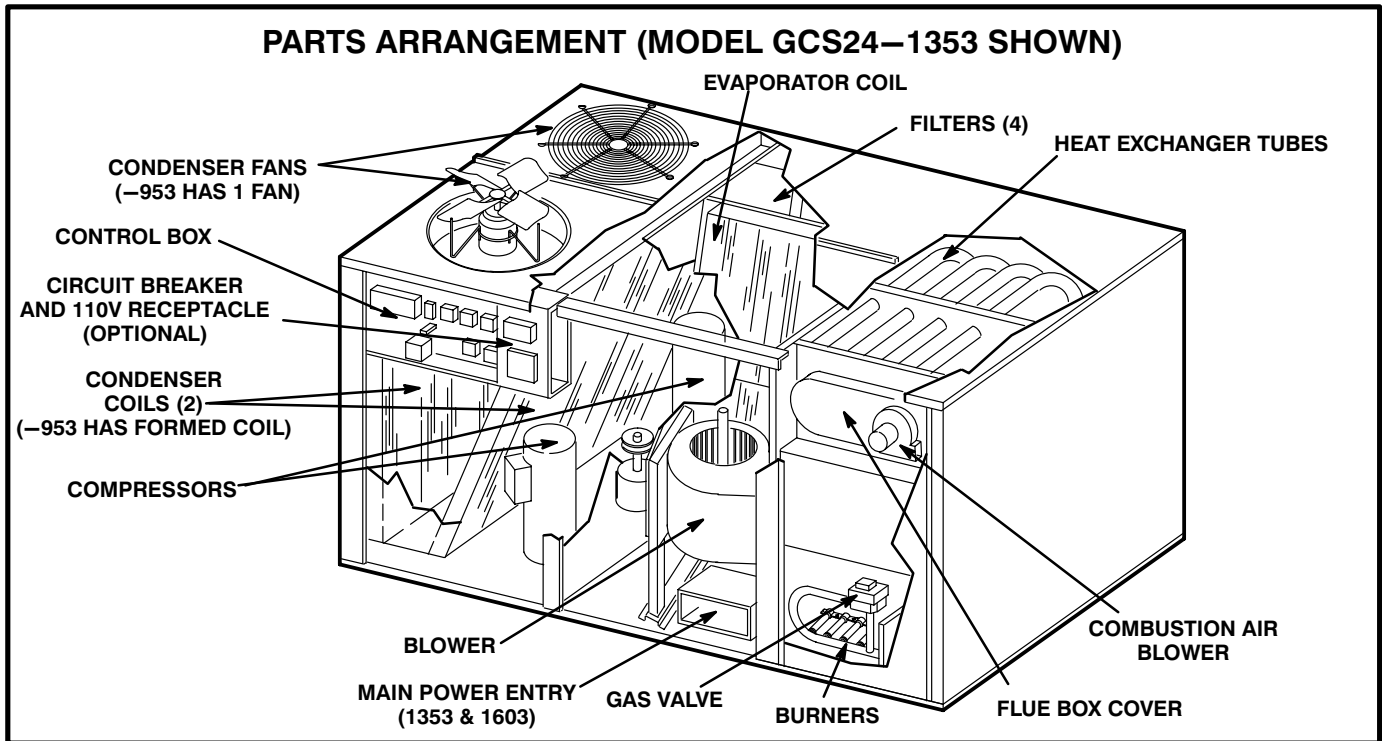


FIGURE 1

IMPORTANT DIRECTIONS

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

- 2— Inspect return air duct to ensure duct is sealed to the furnace and terminates outside the space containing appliance.
- 3— Inspect physical support of unit to guarantee that it is sound without sagging, cracks, or gaps around base. On downflow units, seal between base and support must also be checked to make sure it is tight.
- 4— Do not obstruct air flow around unit. Unit must receive an unobstructed flow of combustion and ventilating air.

! WARNING



Danger of explosion. Can cause injury or product or property damage. If overheating occurs or if gas supply fails to shut off, shut off the manual gas valve to the appliance before shutting off electrical supply.

! WARNING



Electric shock hazard. Can cause injury or death. 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 which has been under water.

! WARNING



Electric shock hazard. Can cause injury or death. Before attempting to perform any service or maintenance, turn the electrical power to unit OFF at disconnect switch(es). Unit may have multiple power supplies.

UNIT OPERATION

This unit is equipped with an automatic spark ignition system. There is no pilot. In case of a safety shutdown, move thermostat switch to "OFF," then return the thermostat switch to "HEAT" position. Thermostat shown in figure 2.

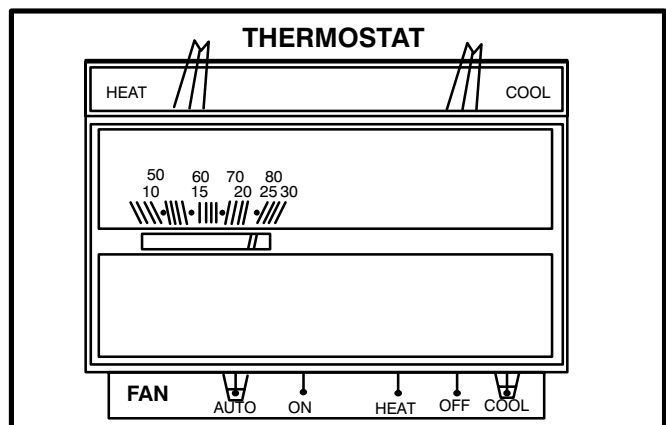


FIGURE 2

FOR YOUR SAFETY READ BEFORE LIGHTING



BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor or roof because some gas is heavier than air and will settle near the base of the unit.

Use only your hand to push in or turn the gas control knob. Never use tools. Call a qualified service technician if the knob will not push in or turn by hand. Do not try to repair it. Force or attempted repair may result in a fire or explosion.

Refer to gas valve operation sticker located on the front of the unit and figure 3 for gas valve identification.

A—Placing Unit In Operation (Heating Cycle)

Gas Valve Operation for White Rodgers 36C Series Valve (Figure 3)

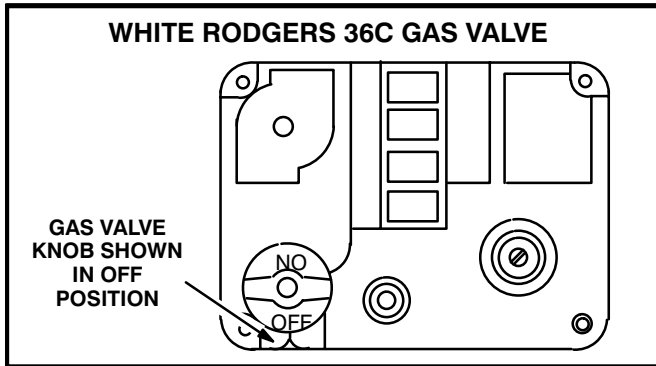





FIGURE 3

- 1— Set thermostat to lowest setting.
- 2— Turn off all electrical power to appliance.
- 3— This appliance is equipped with an ignition device which automatically lights the burner. Do **not** try to light the burner by hand.
- 4— Remove heat section access panel.
- 5— Turn knob on gas valve clockwise  to **OFF**. Do not force.
- 6— Wait five (5) minutes to clear out any gas. If you then smell gas, **STOP!** Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. If you do not smell gas go to next step.
- 7— Turn knob on gas valve counterclockwise  to **ON**.
- 8— Replace heat section access panel.
- 9— Turn on all electrical power to unit.
- 10— Set thermostat to desired setting.
- 11— If the appliance will not operate, follow the instructions "To Turn Off Gas To Unit" and call your service technician or gas supplier.

B—To Turn Off Gas To Unit

- 1— Set thermostat to lowest setting.
- 2— Turn off all electrical power to unit if service is to be performed.
- 3— Remove heat section access panel.
- 4— Turn knob on gas valve clockwise  to **OFF**. Do not force.
- 5— Replace heat section access panel.

SERVICE

A—Servicing Filter (Figure 5)

GCS24 units are equipped with either pleated 2" throwaway-type filters or 1" permanent foam filters. Filter rack is adjustable to accommodate either 1" or 2" filters. Filters should be checked periodically and replaced (or cleaned) when necessary with filters of like kind and size. DO NOT replace 1" permanent filters with 1" throwaway-type filters. Take note of air flow direction marking on filter frame when reinstalling filters. See figure 5. Permanent foam filters supplied with some GCS24 units can be cleaned with water and mild detergent. The filters should be sprayed with Filter Handicoater when dry, prior to reinstallation.

NOTE—Filters must be U.L.C. approved or equivalent for use in Canada.

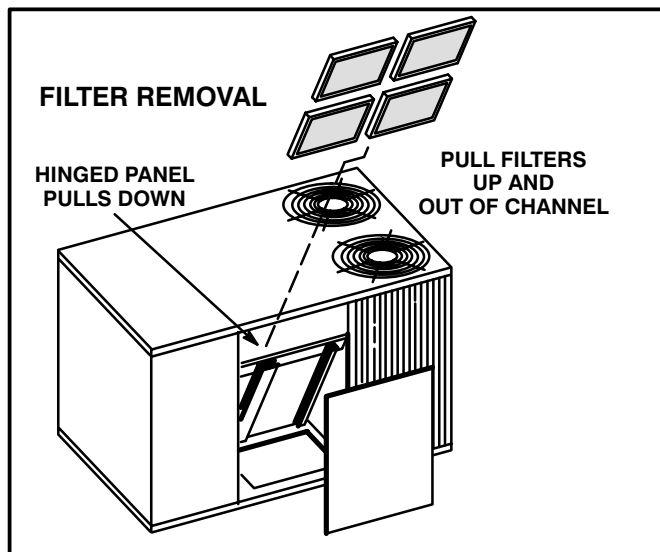


FIGURE 5

B—Blower Motor

Blower motor is prelubricated. No further lubrication is required.

FLUE PASSAGE AND VENT INSPECTION

The combustion air pressure switch checks the combustion air blower operation before allowing power to the ignition controller. Ignition controller will not operate if blower is obstructed.

Under normal operating conditions, the combustion air blower wheel should be inspected prior to heating season. With power supply disconnected, the condition of the blower wheel can be determined by removing the vent cap assembly and looking through the exhaust vent. Remove any deposits of debris from vent cap assembly before reinstalling it on unit. If cleaning combustion air blower is necessary, contact a qualified service technician. See figure 6.

Periodic Unit Inspection

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

BURNER FLAME

! WARNING



Danger of explosion. Can cause injury or product or property damage. Do not use matches, candles, flame or other sources of ignition to check for leaks.

- 1—Burner is factory set and does not require adjustment. The flame should be blue with clear yellow streaking.
- 2—The spark gap on the ignition electrode must be $3/32$ " and $7/64$ " (0.094 – 0.109 mm). The electrode assembly can be removed from unit by removing two screws securing the electrode assembly and sliding it out of unit. The gap can be checked using properly sized twist drills or feeler gauges.

SERVICE REMINDER

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

- 1— Be sure electrical disconnect switches are ON.
- 2— Check room thermostat for proper setting.
- 3— Replace any blown fuses or reset circuit breakers.
- 4— Gas valve(s) should be ON for heating cycle.
- 5— Air filters should not be plugged, limiting air flow.
- 6— Make sure all access panels are in place.

To keep your Lennox heating and cooling system in peak operating condition year after year, contact your Lennox dealer about a regular maintenance program.

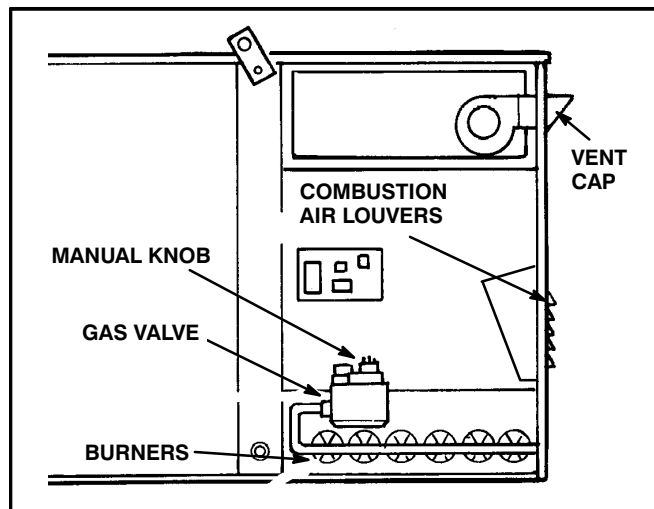


FIGURE 6