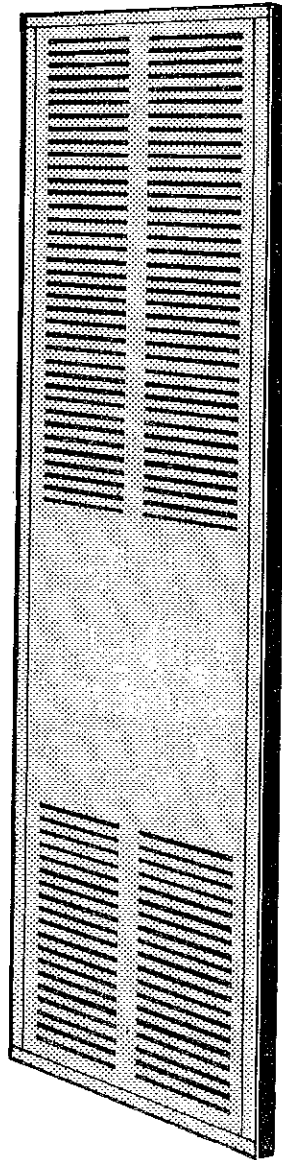


DUO-THERM[®]

INSTALLATION and OPERATING INSTRUCTIONS

For Series { 62101 & 62101E
 { 62102 & 62102E

Gas Sealed Combustion Wall Furnace



READ THESE INSTRUCTIONS AND KEEP FOR FUTURE REFERENCE.

IDENTIFICATION OF HEATERS

62101 - 115 VAC 12 VDC
without Ignitor

62102 - 12 VDC only
without Ignitor

62101E - 115 VAC 12 VDC
with Ignitor

62102E - 12 VDC only
with Ignitor

LOCATION

This vented wall furnace is A.G.A. listed as a Gas-Fired Gravity Sealed Combustion System wall furnace for installation in mobile homes and travel trailers.

This furnace may be operated without external power as a conventional wall furnace without forced air circulation. Provision is also made for partial forced air circulation when external power is available, by attachment to a duct.

This furnace may be installed in a recess with clearances as follows:

0" from sides, 8" minimum from top, 0" from back of furnace casing, 0" on bottom, 20" from front of furnace, and 2" minimum clearance from corner side wall. Maximum 13" ceiling thickness. Installation, and all piping must be in accordance with the American Standard Z21-30 "Installation of Gas Appliances and Gas Piping". PART NO. 2 (Gas Piping Instructions), and Authorities having local, state or municipal jurisdiction should be consulted before installation is made.

INSTALLATION

1. Locate furnace near the center of the area to be heated.
2. Heater opening in wall or closet must be 14" wide, 61-1/4" high and no less than 9-5/8" deep.

NOTE: The top of wall opening may be located anywhere from 10" to 21" from top of roof. (Dimension "A" shown in Figure 1), remember an 8" minimum must be maintained between ceiling and top of furnace. The 10" minimum and 21" maximum is made possible by the telescoping flue pipe.

If dimension "A" is 10", no flue extension is needed. If dimension "A" is 10" to 21", use the flue extension provided.

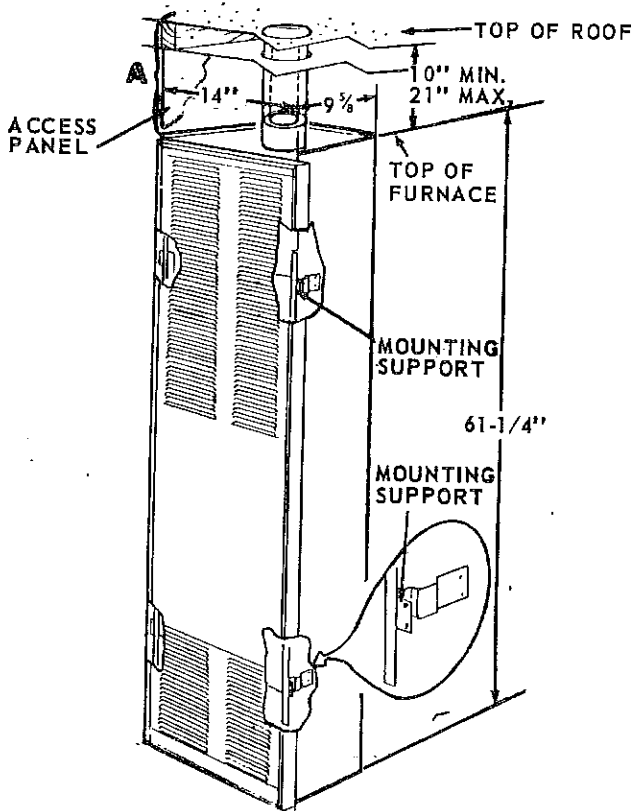


FIGURE 1

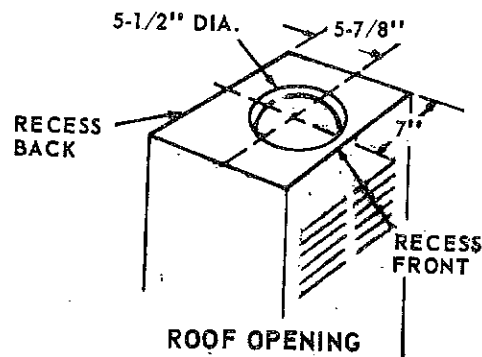


FIGURE 2

3. Cut a 5-1/2" Dia. hole in ceiling and roof, 7" from right side of recess to center of hole, and 5-7/8" from back of recess to center of hole.

4. Install roof jack. Apply caulking between roof jack flashing and roof. Fasten roof jack to roof with sheet metal screws.
5. Install flue extension, if needed, (See NOTE on Page 1), and push up as far as possible.

Connection for utilization of forced air circulation is made as follows:

Cut a 6-1/4" wide by 4-3/4" deep hole in floor and main duct, 3-3/8" from front of recess, 2" from right side of recess.

6. Install duct connector into duct opening. Bend over tabs inside duct.

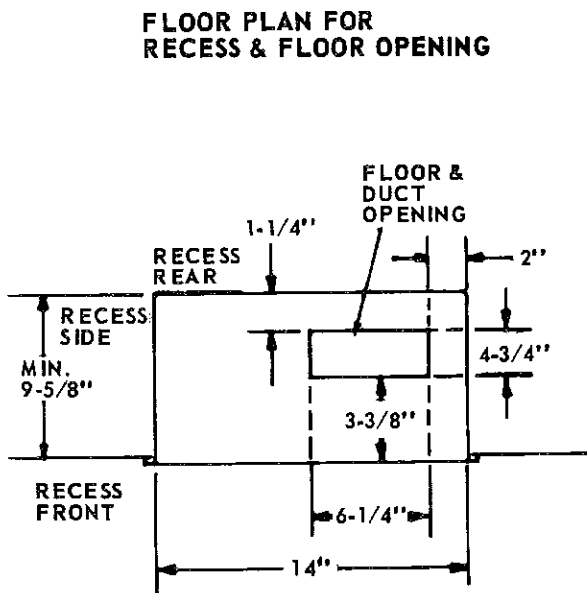


FIGURE 3

7. Set furnace in recess and secure to front of enclosure with wood screws.
8. Slide flue pipe down from roof jack and over the flue on furnace. Slide combustion air tube down from roof jack and into the combustion air tube on furnace. **BE SURE THESE FLUE CONNECTIONS ARE TIGHT.**

9. **PIPING** - Connect gas line to furnace. The gas line opening is provided on left side of heater.

- a. Run approved gas line in accordance to local codes and AS-B35 10-1959, through the floor or wall and connect to the furnace. The gas line is not supplied. All piping used must be standard weight wrought iron or steel, approved corrosion protected steel tubing or copper tubing. Do not use regular oil line tubing or water line tubing for gas line tubes. Use only tubing designed and approved for gas lines.

- b. Install, adjacent to the control, a union fitting. This union should be a ground joint union or a flanged joint, having a gasket, resistant to the action of L.P. Gases. A moisture trap and a shut-off valve must be installed in the supply line adjacent to the control. This will allow removal of the gas control and burner by turning off the gas and disconnecting the union. The moisture trap should be installed into a tee before the gas control and must drop at least two inches below the gas line connecting to the inlet of the tee. A cap should be installed at the bottom of the moisture trap to periodically remove moisture.

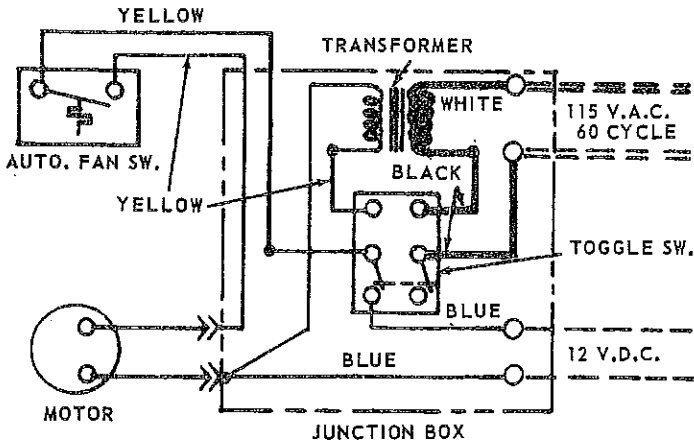
- c. Paint male threads of all pipe joints with a compound resistant to the action of L.P. gases to prevent gas leaks.

- d. Before lighting the furnace, turn on gas and check all pipe joints for leaks. Paint each joint with soap suds solution. If bubbles form, indicating leakage, make necessary corrections. **Never use a flaming match, candle or any other form of ignition to check for gas leaks.** The type of gas the control is equipped for is indicated on the rating plate of the furnace.

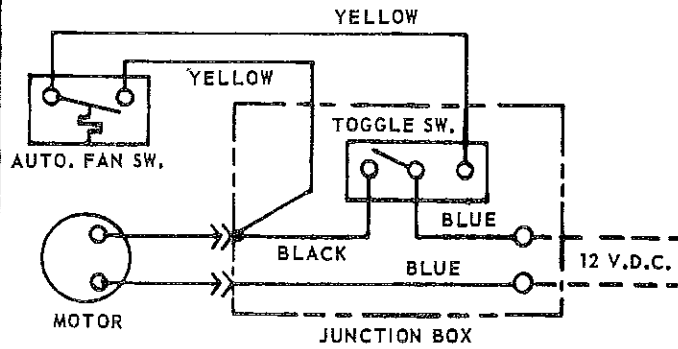
10. **WIRING** - All wiring must conform to the **National Electrical Codes** and/or local codes. For a unit that is equipped with a dual voltage blower, connect the 115V. power supply to the two leads as shown in wiring diagram. Connect the 12V power supply to the two wires marked 12 Volt only. For units equipped with a 12V blower, connect 12V supply only to the two leads inside junction box.

11. Connect the thermostat wires to the two terminals marked "Thermo" on control.
12. Fasten door frame to furnace with screws provided. Install lower front panel.

**FIELD WIRING DIAGRAM
MODEL 62101 115 V. AC - 12V. DC**



**FIELD WIRING DIAGRAM
MODEL 62102 12 V.DC ONLY**



FACTORY WIRING
 ——— LOW VOLTAGE
 - - - - 115 V.A.C.

FIELD WIRING
 - - - - 12 V.D.C.
 - - - - 115 V.A.C.

If any of the original wire as supplied with the Appliance has to be replaced, it should be replaced by wire having equivalent insulation and temperature rating.

**OPERATING INSTRUCTIONS B.T.U. INPUT 21,000
LIGHTING**

1. Turn thermostat to lowest setting.
2. Be sure all shut off valves in supply line are open.
3. Turn gas control dial to "OFF" open lighter door and wait 15 minutes.

62101 and 62102

4. Rotate dial to "PILOT". Depress dial while lighting pilot burner. This is easily accomplished by using a wooden type kitchen match, and attempting to get the flame to the pilot burner before the phosphorous is completely burned from tip of match.

62101E and 62102E

4. Rotate dial to pilot. Depress dial and push electric ignitor lever to left repeatedly until pilot is lit.

IMPORTANT - If unit fails to ignite within 15 seconds, turn gas control off. Leave lighter door open and wait 15 minutes, to allow unburned gas to escape. Then repeat steps 4 and 5.

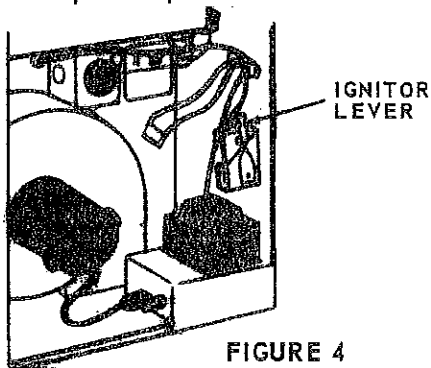


FIGURE 4

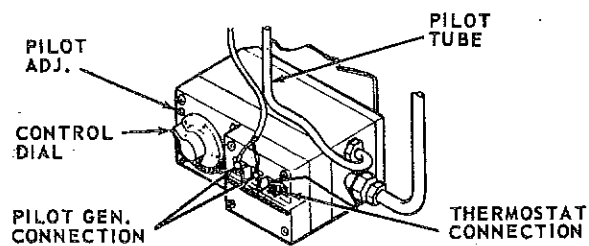
5. Keep dial depressed for 1 minute after pilot starts burning. Allow pilot to burn for 2 minutes and rotate dial to "ON" position.

6. Close lighter door after lighting heater.
7. Adjust thermostat dial to desired temperature.
8. If pilot goes out, open lighter door and wait 15 minutes before repeating lighting procedure. If pilot needs adjusting, see Pilot Adjustment.
9. For complete shut down, rotate dial towards the "OFF" position, depress slightly and rotate to the "OFF" position.

MANUAL BLOWER SWITCH - Blower operates automatically during normal "forced air" furnace operation. Manual switch allows complete shut-down of blower when only radiant heat is desired, to conserve 12 volt power supply.

PILOT ADJUSTMENT

Remove pilot adjusting cap and adjust screw so flame completely envelopes the end (Approximately 3/8") of thermocouple.



MILLIVOLT CONTROL

FIGURE 5

MAINTENANCE

The control compartment and blower wheel must be kept clean. Clean periodically to remove dust and lint. For Oiling Instructions see name plate on motor.