

SOLAR*PAL WALL FURNACE MODEL 8610C

The Coleman Model 8610C Thru-the-Wall Vented furnace is a small, compact furnace designed for installation in Travel Trailers where space is at a premium. The furnace can be installed in either of two locations: in a small cabinet abutting an outside wall (rear vent-Fig. 1), or, in a cabinet at a right angle to an outside wall (side vent-Fig. 2).

To install the 8610C wall furnace, two separate components are required: the wall furnace and one of the following vent packages:

- a. 8610-7371 Recessed Telescoping Vent Package. (For rear wall recessed vent installations 24" to 31").
- b. 8610-7221 Recessed Telescoping Vent and Turn Box Package (For side wall recessed vent installation).
- c. 8610-7461 Recessed Vent Package (For rear wall recessed vent installations 15" to 26").

REAR VENT

When installing the 8610C wall furnace with the furnace vented to an outside wall directly behind the furnace, use the 8610-7371 Telescoping Rear Vent Package. Where the dimension between the forward face of the wall and the outer surface of the exterior wall is between 24" (minimum) and 31" (maximum), the vent can be installed without modification.

The 8610-7461 Rear Vent Package will allow installation where the dimension between the forward face of the wall and the outer surface of the exterior wall is between 15" (minimum) and 26" (maximum). When using this Package, the flue pipe and intake pipes must be trimmed to the proper length.

SIDE VENT

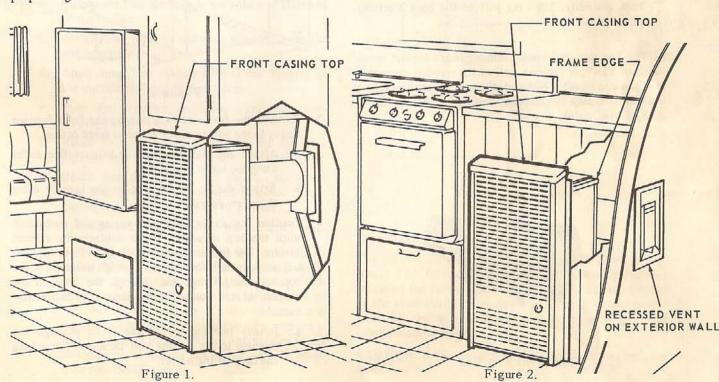
When installing the furnace at right angles to the wall, the 8610-7221 Vent and Turn Box Package must be installed on the rear of the furnace to allow discharge to either the left or right of the furnace as shown in Fig. 2. When using the side vent installation, a cabinet depth of 15¼" must be available behind the forward face of the cabinet to allow for installation of the turn box. The (left) or (right) side of the furnace must be located 2" minimum from the inside wall surface as shown in Fig. 3.

When the dimension from the edge of the furnace cutout to the outer surface of the side wall is between 4" (minimum) and 6" (maximum), the 8610-7221 Recessed Telescoping Vent Package will allow installation without modification. If the minimum dimension is 3", the air intake pipe must be trimmed to the correct length.

INSTALLATION CLEARANCES-

Floor - 0" Sidewall - 2" (See Figs. 3 and 4) Ceiling - 24" (From top of front grille casing)

The furnace may be installed directly on the floor or anywhere in the cabinet as long as the top of the furnace front casing is at least 24" from the ceiling. Always maintain at least 2" clearance on either side of the furnace front casing measured from the frame edge to the side wall.



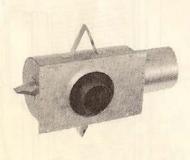


Installation cut-outs for the furnace and the vent are shown in Figures 3 and 4.

SIDE VENT INSTALLATION

- 1. Cut an opening in the cabinet and in the exterior wall of the travel trailer as shown in Figure 3.
- 2. Remove the four screws attaching the front furnace casing to the furnace liner. Remove front casing.
- 3. Place vent pipe elbow in the turn box. Attach the turn box to the rear of the furnace with screws provided. Be sure the vent pipe elbow is properly engaged on the furnace flue.
- 4. Attach shorter piece of telescoping air intake pipe to turn box collar with screw provided. (If the dimension from the edge of the furnace cut-out to the outer surface of the side wall is less than 4 in. discard this piece.)
- 5. Position furnace in opening and push back until the top mounting flange contacts the cabinet surface. The furnace must be vertical and not tilted in any way. Install wood screws through the holes in the top mounting flange and through the holes in the bottom of the control compartment to secure furnace.
- Attach vent pipe and longer air intake pipe to vent terminal assembly using the screws provided.
- 7. Apply mastic or scalant around the opening in the outside wall. Insert the vent terminal assembly through the hole and mate it with the flue elbow and turn box. Attach to wall using screws provided. Note that the pipe opening is not in the center of the vent back assembly. The long part of the back assembly must be up.

NOTE: The side vent installation requires a cabinet recess depth of 15¼", If the rear wall of the recess is composed of a non-combustible material, the rear spacer bracket on the turn box may be removed allowing installation in cabinets of 14½" depth.



Side Vent Turn Box

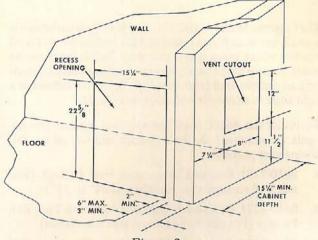


Figure 3.

REAR VENT INSTALLATION

 Cut opening in cabinet wall and outside wall of the travel trailer as shown in Figure 4.

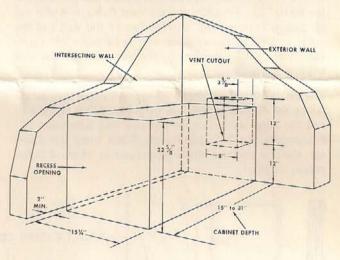


Figure 4.

- Remove the four screws attaching the front furnace casing to the furnace liner. Remove front casing.
- 3. a. Attach the vent pipe to the furnace flue collar using the screw provided.
 - b. Attach the air intake pipe to the furnace using the screw provided.
- 4. Position furnace in recessed opening and push back until the top mounting flange contacts the cabinet surface. The furnace must be vertical and not tilted in any way. Install wood screws through the holes in the top mounting flange and through the holes in the bottom of the control compartment to secure furnace.
- a. Insert telescoping insulator tube through the opening in the outside wall. Be sure it is touching the back of the heater.



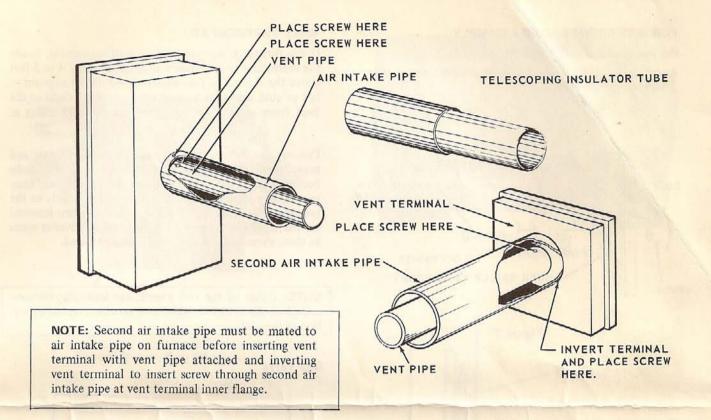
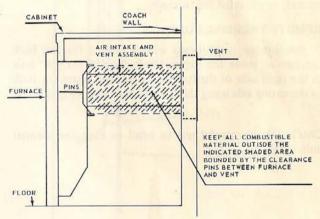


Figure 5

- Mate second air intake pipe with the one attached to the furnace.
- c. Attach flue pipe to the vent terminal with the screw provided.
- d. Apply mastic or sealant around the opening in the outside wall to a width of ¾ in.
- e. Turn vent terminal upsidedown and mate telescoping flue pipes.
- f. Reach into the opening and pull the insulator pipe out into position on the vent terminal.
- g. Reach into the opening and pull the air intake pipe into position on the vent terminal flange. Fasten it in place with the screw provided.
- h. Turn the vent terminal right side up and install.

NOTE: If the cabinet in which the furnace is installed adjoins an accessible storage cabinet, be sure no combustible material accidentally falls onto the flue pipe. Clearance pins are provided on the rear of the furnace. Combustible material must never be placed within the area perpendicular to the rear of the furnace and parallel to the flue pipe as marked by the location of the clearance pins. See Figure 6.



Vent Pipe Clearances
Figure 6

GAS PLUMBING

The gas control valve inlet is equipped with an ell fitting. Route 3/8" tubing through the hole provided in the rear casing of the furnace. Bend the tubing to fit and connect to the valve inlet fitting. Apply pressure to the gas supply line, and test all line connections for possible gas leaks using a soap solution.

CAUTION: Never use a match or open flame to check for leaks.



FURNACE FRONT CASING ASSEMBLY

Replace the front grille assembly.

Assemble the grille knob and install on the furnace door as shown.

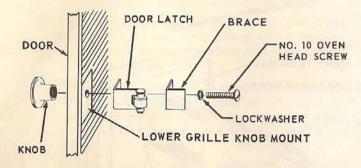


Figure 7

FURNACE CONTROLS

The 8610C wall furnace is available with any of three control systems: wall thermostat, remote thermal bulb thermostat, or a manual control valve.

REMOTE THERMAL BULB

If the furnace is equipped with a remote thermal bulb thermostat, route the thermal bulb through the 3/8" hole in the right side of the furance casing, and fasten the bulb to the casing side using the bracket provided. (Fig. 9).

CAUTION: Be careful not to bend or kink the thermal bulb tube.

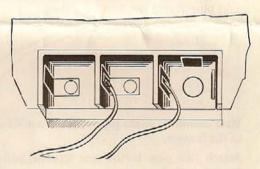
WALL THERMOSTAT

If the furnace is equipped with a wall thermostat, locate the thermostat on an inside wall approximately 4 to 5 feet above the floor. The thermostat should not be exposed to hot or cold drafts, or located where direct sunlight or the heat from a lamp or any other source might affect it.

Connect the thermostat wire leads to the thermostat and route them through the wall structure to the furnace burner area. Attach the short leads supplied to the thermostat terminals on the valve. One lead connects to the center terminal, the other connects to the vacant terminal on the right (See Figure 8.) Attach the thermostat wires to these short leads using the wire nuts provided.

NOTE: Either of the two thermostat leads may be connected to the center terminal with no affect on the operation of the unit.

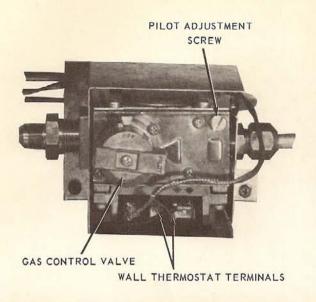
Gas Valve



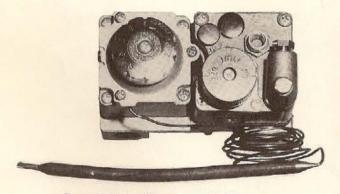
Thermostat wire connections

Figure 8.

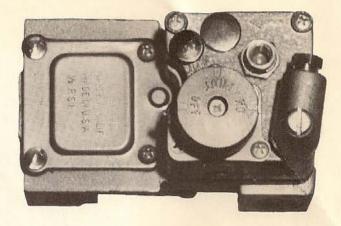




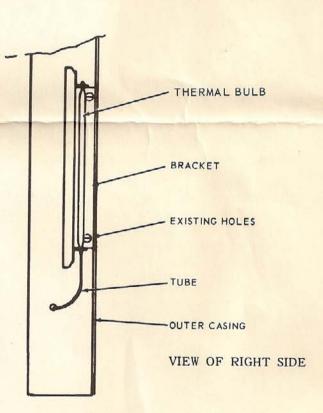
Control Valve: Wall Thermostat



Control Valve Remote Bulb Thermostat

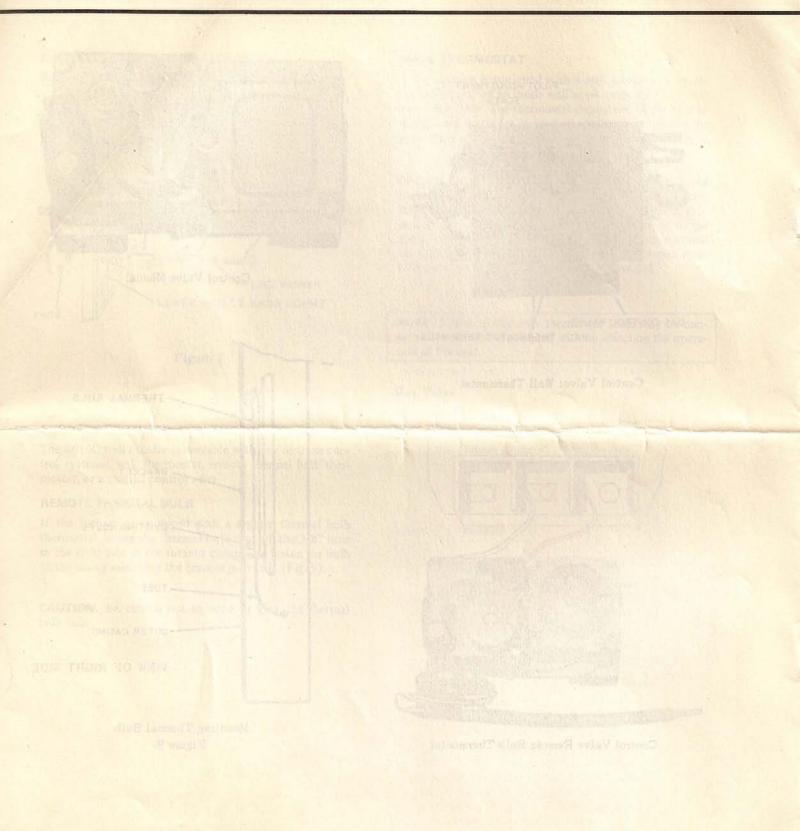


Control Valve Manual



Mounting Thermal Bulb Figure 9.









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