



Installation Instructions

Series BRC-10 HYDRO FLAME Furnaces

GRAVITY SEALED COMBUSTION SYSTEM WALL FURNACE

for Installation Mobile Homes and Travel Trailers — for Use with Liquefied Petroleum Gases

REAR VENTED FURNACES

1. Before starting the installation, check applicable state and local codes.
2. Select furnace location so that vent will terminate on an outside wall. Determine wall thickness. See Figure 3. Check VentKit Selection Chart shown below to assure that Vent Kit matches wall thickness. **OBSERVE ALL MEASUREMENTS SHOWN HEREIN.**

3. Provide a 12½" wide x 17" high opening in wall where furnace is to be mounted. The surface of an adjacent inside wall may not be closer than 1½" to one side of this opening. The bottom of opening may not be closer than 1" to the floor or the top closer than 24" to the ceiling. See Figure 1.
NOTE: If wall where furnace is to be mounted is of thin material such as ¾" plywood, the back of the opening must be framed with ¾" x 1" (minimum) stock to assure sufficient support. See Figure 2.

4. Provide an 8" wide x 11½" high opening through outside wall to accommodate vent assembly. This opening must be as shown in Figure 1. Check the location and size of this opening very carefully.

5. Place furnace into opening provided under step 3. Secure into position with screws through holes provided in the mounting flanges.

6. From outside, insert vent box assembly through opening provided under step 4 until the tube engages the furnace tube. See Figure 3. Place exhaust tube assembly into vent box making sure the exhaust tube extension slides over outside of furnace exhaust tube. Push vent cap into vent box until mounting arms slide into channels located on each side of vent box. Attach vent box grill over vent cap assembly. See Figure 4.

NOTE: Matching screw holes are provided in the flanges of the vent box and the louvered plate.

NOTE: THE TUBES ON THE VENT BOX ASSEMBLY MUST OVERLAP THE TUBES ON THE FURNACE A MINIMUM OF ¼". The correct overlap is assured if the vent kit is selected to match the wall thickness in accordance with the vent kit selection chart.

7. Enclose body and furnace tubes as well as vent box assembly. See Figure 2. Enclosure must prevent combustible materials from contacting furnace parts as well as preventing objects from damaging the unit. If space for installation is limited, follow tables II and III for minimum clearance around the furnace and vent tubes.

In actual installation, however, the enclosure need not contact the outside surfaces of the unit and may be as simple as shown in Figure 2.

8. If furnace is equipped with a fan, attach 12 volt D.C. positive wire to the terminal block positive side. If furnace is not equipped with a fan assembly and fan is desired; for proper installation see Installation Instructions for Fan Assembly Part No. BRC-10F.

9. If furnace is equipped with automatic gas controls employing a bulb type thermostat, the bulb must be mounted in clip provided on flange at bottom of furnace casing. See Figure 5. The small tube between bulb and gas controls should be routed out the bottom of furnace adjacent to one of screws securing furnace in position. This will prevent tube from being pinched when trim panel is in position.

10. Install front trim panel by hanging it on the flange across the top of the furnace casing. While hanging the panel, hold bottom out approximately 3" from lower wall. Position panel securely on flange by "bumping" top downward with side of hand. Then lower bottom of panel carefully towards wall. Install screw in bottom center of panel. This screw secures the bottom of the trim panel to the furnace.

11. Connect gas supply to fitting provided at inlet of gas controls on furnace. Openings for gas line are provided in side and back of casing. See Figure 3.
CAUTION: BE SURE ENTIRE GAS LINE SYSTEM IS TIGHT AND FREE FROM LEAKS. USE SOAP AND WATER SOLUTION FOR CHECKING FOR LEAKS. DO NOT FIRE ANY APPLIANCE UNTIL SYSTEM IS FULLY CHECKED OUT. HAVE ENTIRE GAS SYSTEM RECHECKED AT LEAST ONCE A YEAR FOR LEAKS. ALSO, WHILE CHECKING, DO NOT APPLY MORE THAN ½ PSI PRESSURE. (This would be 14" water column if using a water type gauge.)

THE FURNACE IS NOW READY FOR USE. TO OPERATE, FOLLOW INSTRUCTIONS PROVIDED ON METAL PLATE LOCATED INSIDE OF FURNACE. IT IS IMPORTANT THAT THE CONTROL COMPARTMENT BE KEPT CLEAN AT ALL TIMES.

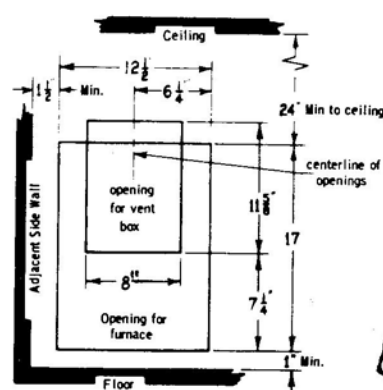


FIG. 1 Front view showing furnace cutout and outside wall cutout for vent box

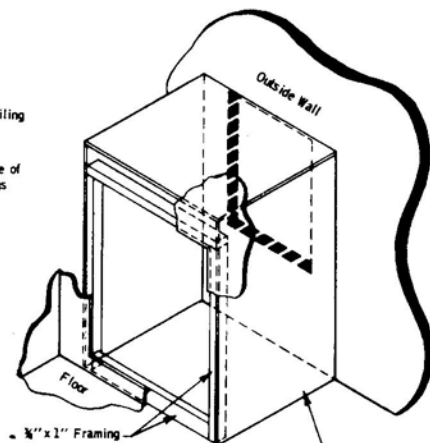


FIG. 2 Recommended enclosure if desired, (combustible material)

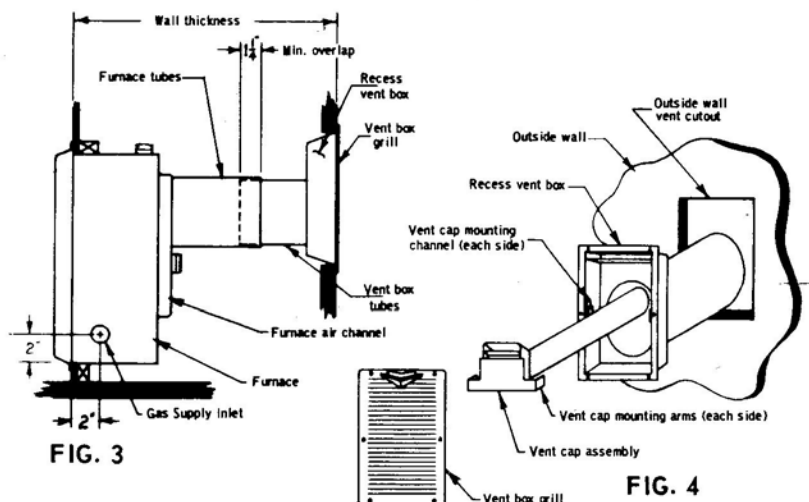


FIG. 3

FIG. 4

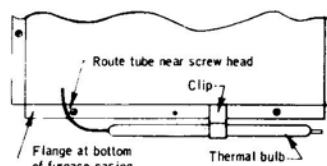


FIG. 5 Thermostat Bulb Position

TABLE I
VENT KIT SELECTION CHART

VENT KIT NO.	WALL THICKNESS	
	MIN.	MAX.
BRC-10V-1	20"	27¼"
BRC-10V-2	27¼"	34½"

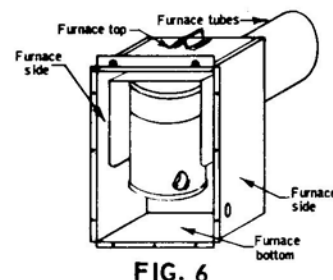


FIG. 6

TABLE II
Minimum Clearances for furnace enclosure by requirements

MODEL	TOP	BACK	SIDES	BOTTOM
BRC-10	3/4"	2"	0"	0"

TABLE III
Minimum Clearances for vent tube enclosure by requirements

MODEL	TOP	SIDES	BOTTOM
BRC-10	3½"	1"	2"



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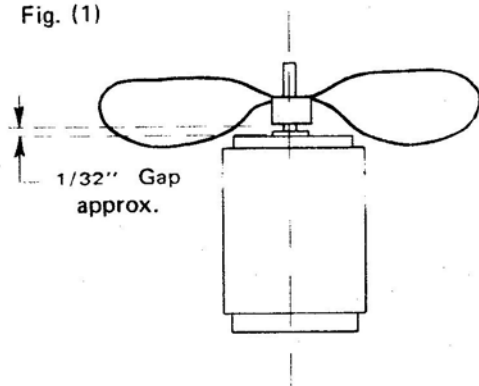
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INSTALLATION INSTRUCTIONS FOR FAN ASSEMBLY

HYDRO FLAME FURNACE MODELS
BRC-10 AND ARS-10XL

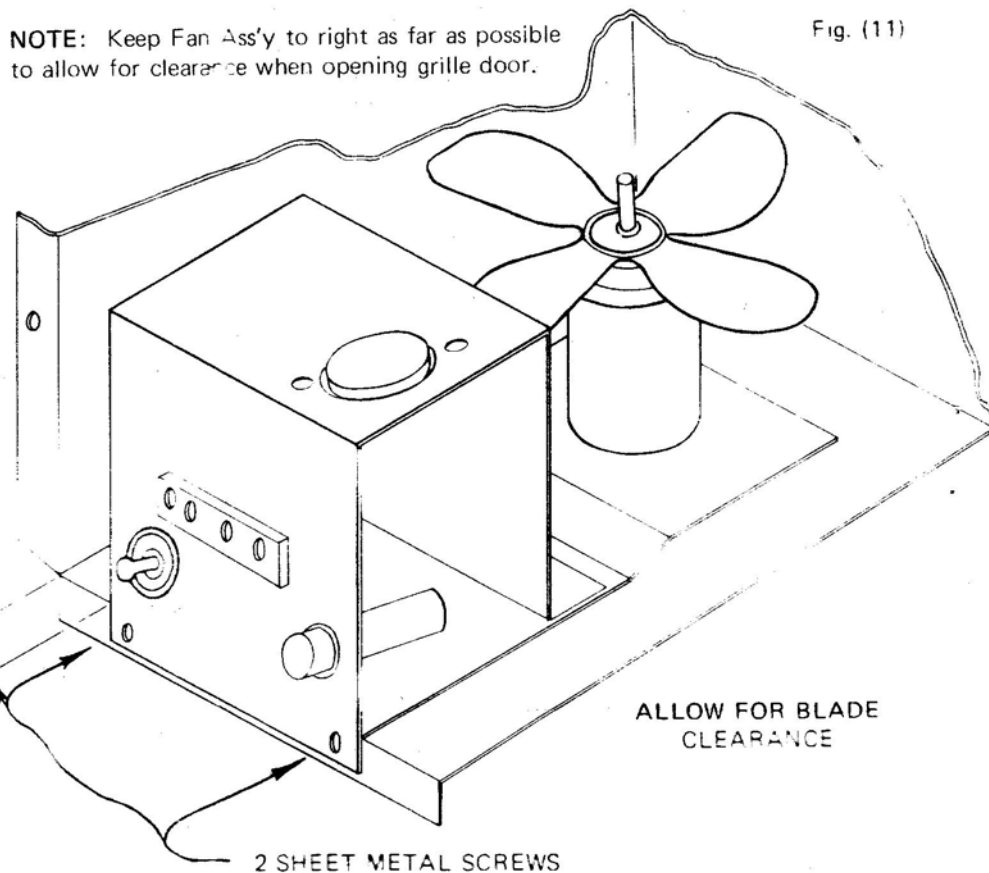
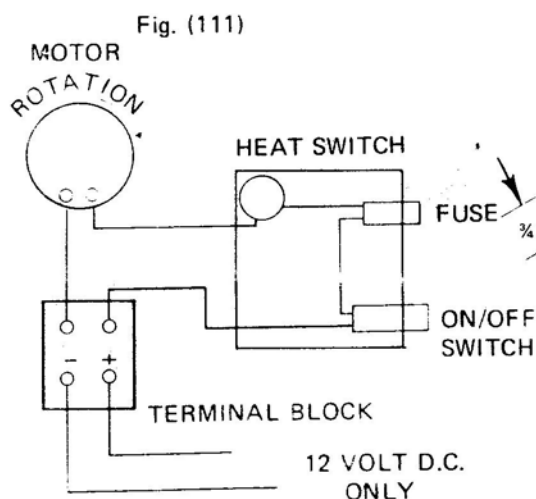
1. Install blade onto motor shaft as low as possible. See Fig. (1)
2. Remove furnace front panel by removing the screw from bottom flange. Lift panel up.
3. Slide Fan Assembly into lower left hand corner. See Fig. (11) Secure fan with two (2) sheet metal screws at front of junction box. See Fig. (11)
4. Connect 12 volt D.C. wires to terminal block. See Fig. (111)
5. Fan will operate automatically approximately 15 minutes after main burner is turned on. If fan is not desired, it can be turned off manually.

Fig. (1)



NOTE: Keep Fan Ass'y to right as far as possible to allow for clearance when opening grille door.

Fig. (11)



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

FAN ASSEMBLIES

Electrical power must be flowing through the two wires connected to the screws on the terminal block.

Furnace must be burning with an inside casing temperature of 115 degrees before the fan will automatically operate. It will switch itself off when the temperature drops below 90 degrees.

Failure to operate could be through:

- A. Blown fuse.
- B. Switch not set in "ON" position.
- C. Defective sensing switch.

To test, if the latter, attach a "jumper" wire to each side of the sensing switch. If the assembly operates then the switch needs replacing. Spares are available from Traco Manufacturing Ltd.

A noisy assembly is usually due to the motor-fan running backwards caused by having the two lead-in wires reversed.

If further information is needed contact the Service Department, Traco Manufacturing Ltd., 7041 - Farrell Road, S.E., Calgary, Alberta T2H 0T3.



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12V D.C. ONLY
Model ARC - 10FX
Model ARS - 10FX
Mfg. by Traco Mfg. Ltd.

