



SUBURBAN MANUFACTURING COMPANY
Post Office Box 399
Dayton, Tennessee 37321

SUBURBAN GAS FURNACES

INSTALLATION INSTRUCTIONS

FOR MODELS

SF-20 • SF-25 • SF-30 • SF-35



LISTED



The design of the furnace has been listed by Underwriters Laboratories and the Canadian Gas Association for installation in recreational vehicles only. In order for the furnace to operate in conformity with generally accepted safety regulations, the Installation Instructions must be followed. Failure to comply with the Installation Instructions will void the warranty on the furnace and any responsibility on the part of Suburban Manufacturing Company.

The furnace was inspected before it left the factory. If any parts are found to be damaged, do not install the furnace. Immediately contact the transportation company and file a claim.

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.

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 the Installation Instructions provided with the furnace and this manual. For assistance or additional information, consult a qualified installer, service agency or the gas supplier.

This book contains instructions covering the operation and maintenance of your furnace. Keep with unit at all times.

Should you require further information, contact your dealer or nearest Suburban Service Center.

INSTALLATION INSTRUCTIONS

CAUTION: If possible, do not install the furnace to where the vent can be covered or obstructed when any door on the trailer is opened. If this is not possible, then the travel of the door must be restricted in order to provide a 6" minimum clearance between the furnace vent and any door whenever the door is opened.

NOTE: These furnaces must be installed and vented as described in this manual, so that the negative pressure created by the air circulating (return air) fan cannot affect the combustion air intake or venting of any other appliance. (See Installing Vent Assembly.)

NOTE: These furnaces are not designed nor are they to be used in conjunction with cooling units. To do so will damage furnace and will void the warranty.

These furnaces are design certified for Liquefied petroleum (LP) gas only. Do not attempt to convert to natural gas.

Gas supply pressure for purposes of input adjustment:

Minimum: 11" W.C." Maximum: 13" W.C."

(W.C." Water Column).

In the U.S.A., the installation of the furnace must be in accordance with local codes and regulations. In the absence of local codes and regulations, refer to:

1. Standard for Recreational Vehicles ANSI A-119.2-1987.
 2. National Fuel Gas Code ANSI Z223.1-1988.
 3. Furnace must be electrically grounded in accordance with the National Electrical Code ANSI/NFPA No. 70-1987.
- In Canada, the furnace must be installed in accordance with:
1. Standard CSA 2240-4 - Gas Equipped Recreational Vehicles and Mobile Housing.
 2. CSA Standard Z240.6.1 and Z240.6.2 Electrical Requirements for Recreational Vehicles.
 3. Any applicable local codes and regulations.

This unit is equipped with an electric igniter device that has an energy consumption of 1 amp @ 12 volts D.C.

ACCESS FOR FURNACE REMOVAL

Unless a back access door is used (See Figure 4), we require that a permanent access be provided directly in front of the furnace. The access must allow for free, unobstructed removal and reinstallation of the furnace.

RETURN AIR

There are three methods described below for installing the furnace. Regardless of the method you choose, we require that a permanent opening be provided in the interior cabinetry of the coach so as to provide a passageway for circulating return air to the furnace. It must contain a minimum of 55 square inches free area. It is important that adequate return air be provided to assure normal heating and operation of the furnace. Failure to provide the minimum return air will cause erratic furnace cycling.

A. INSTALLATION DIRECTLY AGAINST OUTER SKIN OF COACH (See Figure 1)

Maximum wall thickness for this type installation is 3".

NOTE: For this type installation, the installer must provide a permanent opening in the interior cabinetry directly in front of the furnace. This opening must allow for free, unobstructed removal of the furnace.

1. Locate the furnace near lengthwise center of the coach.
2. Choose a location for installation out of the way of wires, pipes, etc., which might interfere with the installation. Adhere to the minimum clearances from the cabinet to combustible construction as listed in Table 1. Refer to Figure 3 for illustration of furnace clearances.
3. When an appliance is installed directly on carpeting, tile or other combustible material, other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance. If preferred, the carpeting, tile or combustible materials, other than wood may be cut away the full length and depth of the appliance plus the appliance minimum clearances to combustibles. (See Table 1.)
4. Cut an opening through the inner wall 17-3/4" x 8". This will allow the rear of the furnace to be installed against the outer skin of the coach. (See Figure 1.)
5. Cut two 2-1/4" diameter holes through the outer skin of the coach, as shown in Figure 1.
6. The furnace is shipped from the factory with two (2) tie down screws - one (1) in the rear of the furnace and one (1) in the front. The purpose of these screws is to secure the furnace to the cabinet. In this type installation, you must remove the screw in the rear of the unit. If not removed prior to mounting the furnace cabinet to the floor, you will be unable to get to the screw, which must be removed to permit furnace to be pulled from the cabinet for service.
7. Put furnace in place, making sure that rear of furnace cabinet is as close to outer skin of coach as possible and still assure proper vent tube overlap. (See Installing Vent Assembly.)
8. Fasten furnace to floor of coach using the two holes provided in the front plenum area of furnace cabinet. (See Figure 1.)
9. Install vent assembly. (See instructions for installing vent.)

B. INSTALLATION DIRECTLY AGAINST INNER WALL OF COACH (See Figure 2.)

Maximum wall thickness for this type installation is 1-1/2" without extension tubes.

NOTE: For this type installation, the installer must provide a permanent opening in the interior cabinetry directly in front of the furnace. This opening must allow for free, unobstructed removal of the furnace.

1. Locate the furnace near lengthwise center of the coach.
2. Choose a location for installation out of the way of wires, pipes, etc., which might interfere with the installation. Adhere to the minimum clearances from the cabinet to combustible construction as listed in Table 1. Refer to Figure 3 for illustration of furnace clearances.
3. When an appliance is installed directly on carpeting, tile or other combustible material, other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance. If preferred, the carpeting, tile or combustible materials, other than wood may be cut away the full length and depth of the appliance plus the appliance minimum clearances to combustibles. (See Table 1.)
4. Locate center lines for exhaust and intake tubes as shown in Figure 1. Cut two 2-3/4" diameter holes through coach wall for exhaust and intake. (See Figure 2.)

5. The furnace is shipped from the factory with two (2) tie down screws - one (1) in the rear of the furnace and one (1) in the front. The purpose of these screws is to secure the furnace to the cabinet. In this type installation, you must remove the screw in the rear of the unit. If not removed prior to mounting the furnace cabinet to the floor, you will be unable to get to the screw, which must be removed to permit furnace to be pulled from the cabinet for service.

6. Put furnace in place, making sure that rear of furnace cabinet is as close to inner wall of coach as possible and still assure proper vent tube overlap. (See Installing Vent Assembly.)

7. Fasten furnace to floor of coach using the two holes provided to front plenum area of furnace cabinet. (See Figure 1.)

8. Install vent assembly. (See instructions for installing vent.)

C. INSTALLATION DIRECTLY THROUGH OUTER PANEL OF COACH (See Figure 4)

WARNING: Extension tubes cannot be used in this application, as it will result in improper installation which could cause unsafe furnace operation.

1. Locate the furnace near lengthwise center of coach.
 2. Choose a location for installation out of the way of wires, pipes, etc., which might interfere with the installation. Adhere to the minimum clearances from the cabinet to combustible construction as listed in Table 1. Refer to Figure 3 for illustration of furnace clearances.
 3. When an appliance is installed directly on carpeting, tile or other combustible material, other than wood flooring, the appliance shall be installed on a metal or wood panel extending the full width and depth of the appliance. If preferred, the carpeting, tile or combustible materials, other than wood may be cut away the full length and depth of the appliance plus the appliance minimum clearances to combustibles. (See Table 1.)
 4. After furnace location has been determined, cut an opening 18-7/32" x 8-9/32" through the outer panel (coach skin) and inner coach wall.
 5. Caulk around opening as illustrated.
 6. Secure frame to outer panel through the holes in the frame. Screws should be used. (See illustration.)
 7. The furnace is shipped from the factory with two (2) tie down screws - one (1) in the rear of the furnace and one (1) in the front. The purpose of these screws is to secure the furnace to the cabinet. In this type installation, you must remove the screw in the front of the unit. If not removed prior to mounting the furnace cabinet to the floor, you will be unable to get to the screw, which must be removed to permit furnace to be pulled from the cabinet for service.
 8. Slide furnace in place. The back of the furnace must be installed against the flange on the door frame. (See illustration.)
- This assures the required overlap of the vent tubes onto the furnace exhaust and intake.
9. Fasten furnace to coach floor using either the holes in the front or the holes in the rear. (See Figure 1.)
 10. Attach furnace access door to door frame with screws provided. (See illustration.)
 11. Install vent assembly. (See instructions for installing vent.)

Model	Front	Left Side	Right Side	Top	Bottom	Back	Exhaust and Intake Tube
SF-20	1"	0"	0"	0"	0"	0"	3/8"
SF-25	1"	0"	0"	0"	0"	0"	3/8"
SF-30	1"	0"	0"	0"	0"	0"	3/8"
SF-35	1"	0"	0"	0"	0"	0"	3/8"

- NOTE -
0" MEANS TO SPACER BUMPS
CLEARANCE FROM DUCTS TO
COMBUSTIBLE MATERIAL — 1/4" (See Figure 3)

TABLE 1

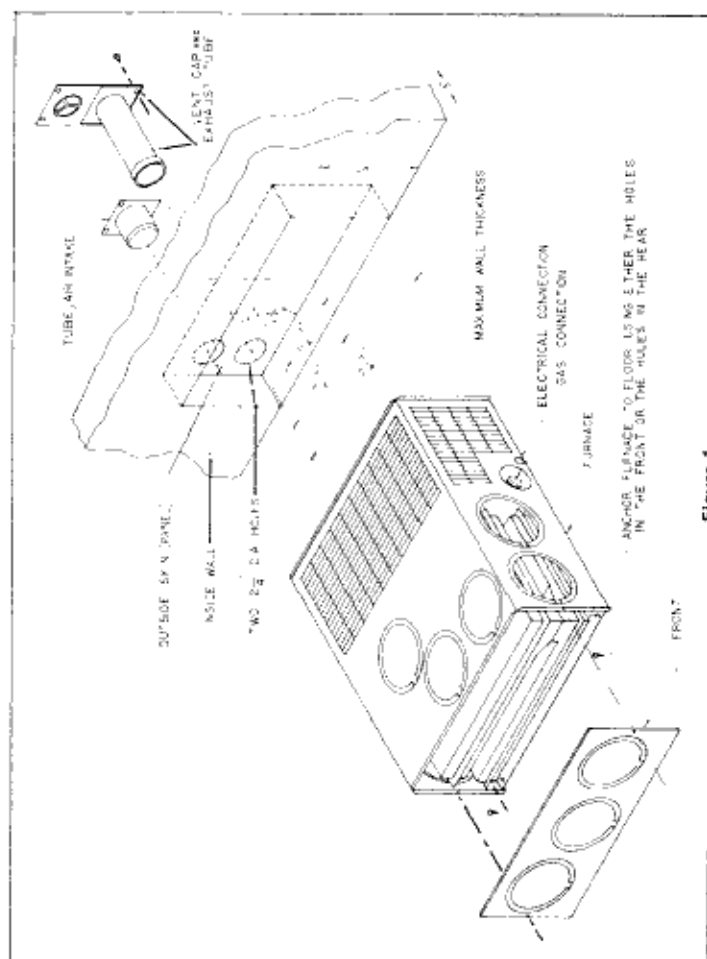


Figure 1

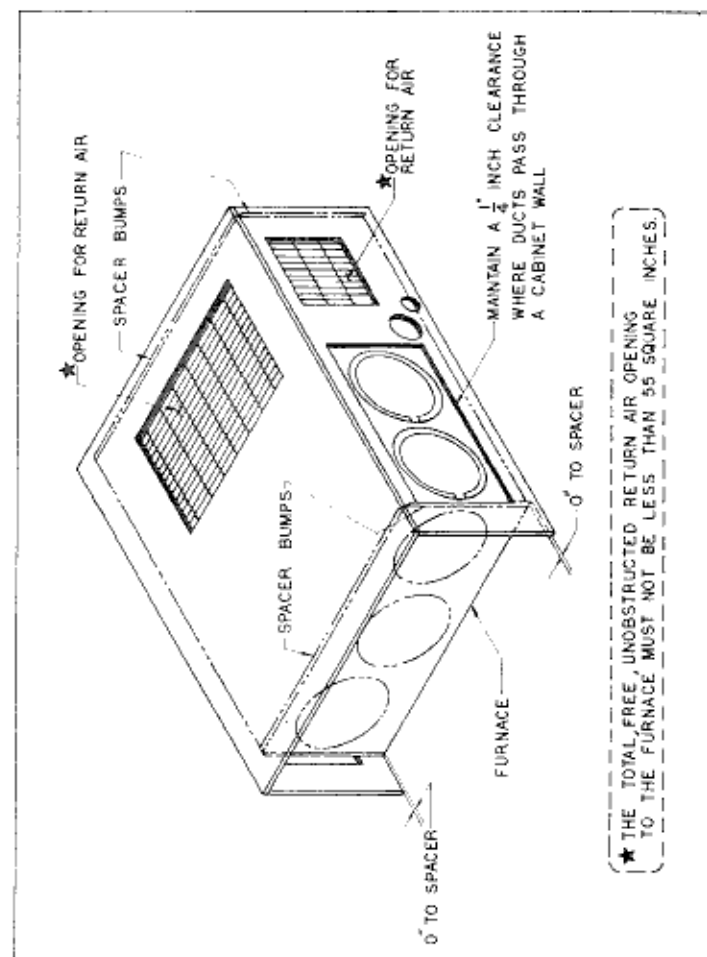


Figure 3

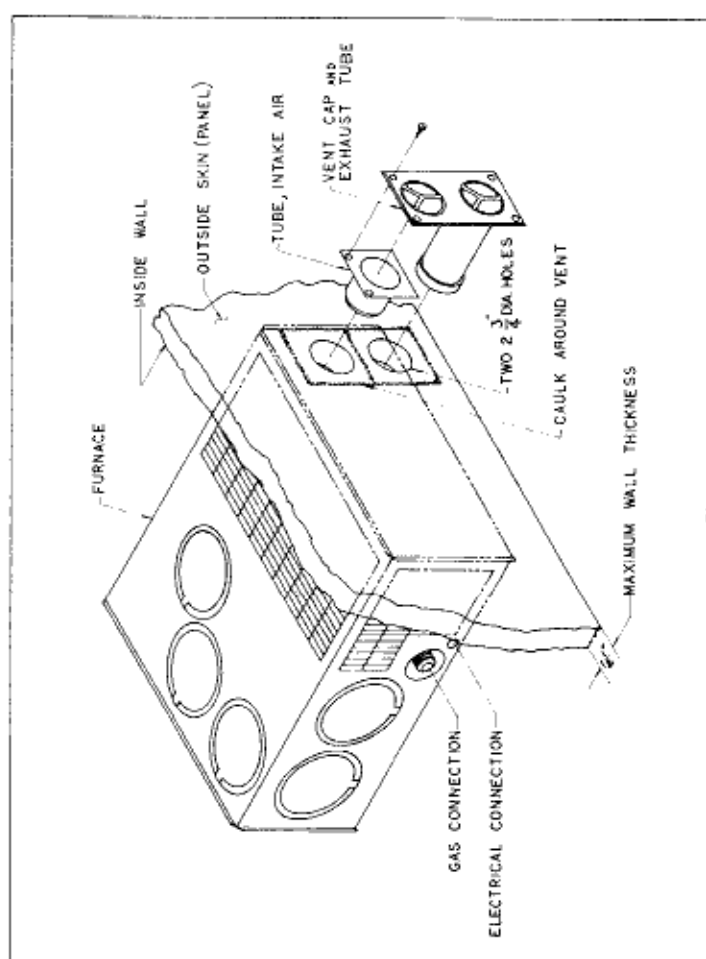


Figure 2

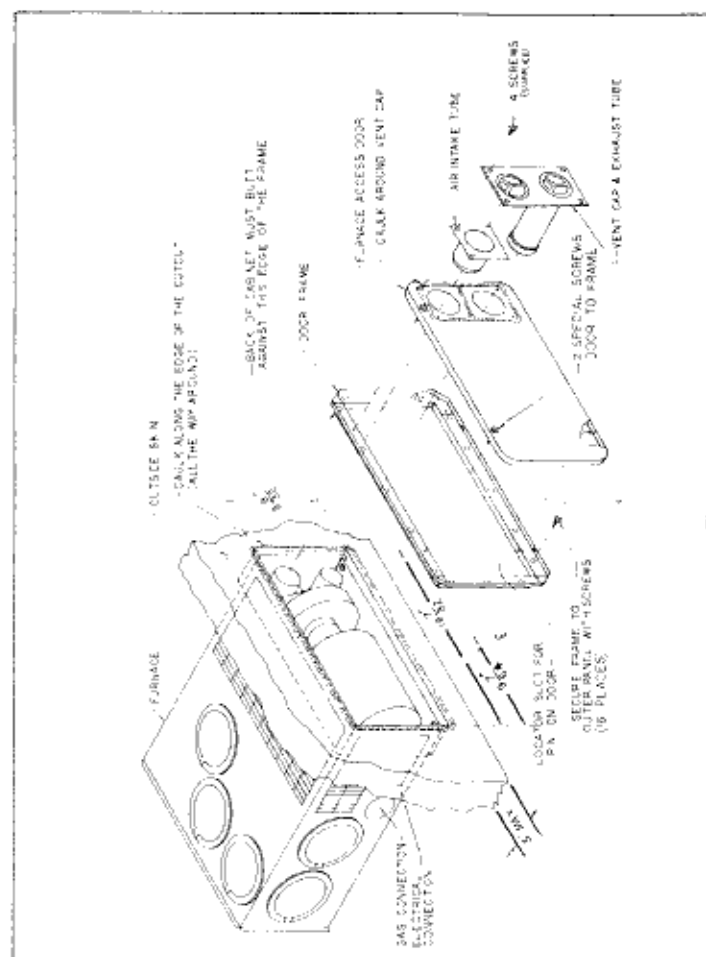


Figure 4

D. INSTALLATION USING VENT EXTENSION TUBES

When it is not possible to install the furnace as described in Installation A or B, extension tubes must be used to extend the exhaust and intake tube on the furnace to the vent tube assemblies on the outside of the coach.

Avoid the use of extension tubes whenever possible. If they must be used, it is important that the correct length tubes are used.

In order to determine the correct extension tube kit, you must determine the range in which the extension falls. To do this, determine where the furnace is to be installed and measure the distance from the end of the exhaust and intake tube to the outer edge of the coach skin. This determines the extension tube range you need. The table below lists the vent extension range up to 9" by kit number.

Example: If the distance you measured is 2-7/8", using this table as your guide, you will order Kit #520548 which accommodates a range from 1-1/2" to 3". The extension tube kit comes with complete installation instructions.

WARNING! Under no circumstances are the extension tubes, as supplied by Suburban, to be cut, altered, or modified in any way. To do so could be dangerous and will void the responsibility of Suburban Manufacturing Company.

EXTENSION TUBE KIT NUMBER	MIN/MAX LENGTH (EXTENSION TUBE RANGE)
520548	1-1/2" to 3"
520549	3" to 4-1/2"
520550	4-1/2" to 7-1/2"
520551	7-1/2" to 9"

INSTALLING VENT ASSEMBLY

NOTE: Vent outlet must be installed so it is in the same atmospheric pressure zone as the combustion air intake.

CAUTION: Combustion air must not be drawn from the living area. The combustion air must be supplied from the outside atmosphere; therefore, one must insure that the vent cap and tube assemblies are properly installed. A minimum of 1/2" overlap on intake tube and a minimum of 1/4" on the exhaust tube is required.

1. Caulk around vent assembly as shown in Figure 2.
2. Insert intake tube over intake tube on furnace. Tube must be installed from the outside of the coach as illustrated in Figure 2. Minimum 1/2" overlap.
3. Insert vent assembly over exhaust tube. Tube must be installed from the outside of the coach as illustrated in Figure 2. Minimum tube overlap of 1-1/4" is required.
4. Attach vent assembly to outer skin of coach with the four (4) screws provided. Do not install vent assembly upside down. The vent cap with exhaust tube attached must be installed as illustrated.

CONNECTING GAS SUPPLY

Connect the gas supply to the furnace at the manifold, following the suggestions outlined below. It will be necessary to hold the flare fitting on the furnace manifold when connecting or loosening gas line.

NOTE: The compound used on threaded joints must be resistant to liquefied petroleum (LP) gas.

NOTE: The appliance must be disconnected from the gas supply piping system during any pressure testing of that system at test pressure in excess of 1/2 in. P.S.I.G.

The appliance must be isolated from the gas supply piping during any pressure testing of the gas supply piping system at test pressure equal to or less than 1/2 in. P.S.I.G.

1. A 3/8" male flare connection is provided for gas line hookup. Some standards may require the use of a manual shut off valve in the gas line external to the furnace cabinet.
2. In order to maintain a check of gas supplied pressure to the furnace, Suburban advises the installer to provide the 1/8" NPT plug tap for test gauge connection immediately upstream of the gas supply connection to the furnace and that it be readily accessible.
3. After the furnace has been connected to the gas supply, all joints must be checked for leaks.

WARNING! Never check for leaks with an open flame. Turn on the gas and apply soapy water to all joints to see if bubbles are formed.

CONNECTING ELECTRICAL SUPPLY

CAUTION: This furnace is designed for negative ground 12 volt D.C. system only. Do not attempt to alter the furnace for a positive ground system or connect the furnace directly to 115 volts A.C. Damage to furnace component parts will occur.

Be sure all wiring to the furnace is of heavy enough gauge to keep the voltage drop through it to a minimum. No. 12 gauge wire is recommended. If any of the original wire that is supplied with the appliance must be replaced, it must be replaced with type 105° C or its equivalent.

Power supply connections are to be on the right side of the furnace. The wires are color coded, red for positive (+) and yellow for negative (-). This polarity must

be observed so the furnace motor will run the proper direction of rotation to insure correct air delivery. (See wiring diagram.)

If the furnace power supply is to be from a converter, we recommend that the converter system used to power the furnace be wired in parallel with the battery. This will serve two purposes:

1. Provide a constant voltage supply to the furnace.
2. Filter any A.C. spikes or volt surges.

NOTE: This furnace is not furnished with a built-in 115 volt A.C. power supply. If the optional power pack supplied by Suburban is used, it must be wired to furnace as shown in Figure 6.

Under no circumstances should any other appliance or switching be connected to the power pack. To do so could result in damage to the power pack.

CONNECTING DUCTS TO FURNACE

The following duct requirements must be followed in order to assure proper operation of the furnace.

A. For Model SF-20, maintain 25 square inches open duct area from furnace cabinet to register. (Minimum 2 ducts - 4" diameter.)

For Models SF-25 and SF-30, maintain a minimum of 36 square inches open duct area from the furnace cabinet to register. (Minimum 3 ducts - 4" diameter.)

For Model SF-35 maintain a minimum of 48 square inches open duct area. (Minimum 4 ducts - 4" diameter.)

On all models, maintain a minimum 56 square inches when under floor ducting is used.

B. Make the duct connections at the furnace cabinet tight. Loose connections will result in overheating of the component parts on the furnace and a reduction of the heated air flow through the duct system.

C. Avoid making any sharp turns in the duct system. Sharp turns will increase the static pressure in the plenum area and could cause the furnace to cycle.

D. Avoid making a lot of turns in the duct system. The straighter the duct system, the better the performance of the furnace.

E. Maintain a minimum of 1/4" clearance where ducts pass through any combustible construction, such as coach cabinetry. (See Figure 3.)

F. Do not install air boosters in the duct system. Such devices will cause the furnace to cycle on limit and to have erratic sail switch operation.

NOTE: After installation of the furnace and duct system is completed, adjustments must be made to obtain a temperature rise within the range specified on the Rating Plate.

INSTALLING THERMOSTAT

Locate the room thermostat approximately 4 1/2 feet above the floor on an inside bulkhead where it is not affected by heat from any source except room air. Connect thermostat wiring to the blue wires on right side of furnace. (See wiring diagram.)

PREVENTIVE MAINTENANCE

Your furnace should be inspected before use at least annually by a qualified service agency. Particular attention should be given to the following items:

1. Inspect furnace installation and vent termination to be sure furnace is properly secured in place (see Installation Instructions), that vent terminates to the atmosphere, and that vent tubes overlap properly (see Installing Vent Assembly.)
2. Inspect combustion chamber for restrictions in exhaust or intake. It is imperative that the flow of intake combustion air and the flow of exhaust gases being expelled to the outside atmosphere not be obstructed. Any soot or loose debris should be blown out using compressed air. (See Figure 7.)
3. Inspect all gaskets. If any gaskets show signs of leakage or deterioration, replace them. Safe operation of the furnace depends on all gaskets being tight.
4. Inspect return air inlet openings to the furnace. Remove any restrictions to assure adequate air flow.
5. Periodically inspect outside vent cap for obstructions or presence of soot. If it is present, immediately shut furnace down and contact a qualified service person.
6. Keep furnace clean. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways of the appliance be kept clean.
7. The motor is permanently lubricated and requires no oiling.

You, as the owner/user, should inspect the furnace monthly during the heating season for presence of soot on vent. Operating the furnace under this condition could lead to serious property damage, personal injury or loss of life. If soot is observed on the vent, immediately shut the furnace down and contact a qualified service agency.

Listed below are several safety related items that you should follow to assure continued safe operation of the furnace.

1. Inspect furnace venting. Venting must be free of obstructions, void of soot, and properly terminated to the atmosphere. (See Installing Vent Assembly.)
2. Keep the furnace area clear of any combustible materials, gasoline or other flammable vapor and liquids.

- Before operating furnace, check the location of the furnace vent to make sure it will not be blocked by the opening of any door on the trailer. If it can be blocked, do not operate the furnace with the door open.
- Do not restrict the flow of combustion air or the warm air circulation to the furnace. To do so could cause personal injury and or death.
- Never operate the furnace if you smell gas. See warning on front cover of this manual.
- Immediately shut furnace down and call a service agency if furnace cycles erratically or delays on ignition.

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

- Never attempt to repair damaged parts. Always have them replaced by a qualified service agency.
- Never attempt to repair the furnace yourself. Seek the help of a qualified service person.
- Never restrict the ducting installed by your trailer manufacturer. To do so could cause improper furnace operation.
- Do not install air boosters in the duct system. Such devices will cause the furnace to cycle on limit and to have erratic sail switch operation.
- Clothing or other flammable material should not be placed on or near the appliance.
- Always follow the Operating Instructions. Do not deviate from the step-by-step procedures.
- Do not use this appliance if any part has been submerged under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been submerged under water.

INSTALLATION AND REMOVAL OF UNIT INSTALLED FROM INSIDE

TO REMOVE

- Disconnect power supply at furnace.
- Remove vent cap assembly.
- Disconnect gas connections.
- Remove cabinet front (2 screws).
- Remove tie-down screw from center of unit and remove furnace from cabinet.

TO INSTALL

- Slide unit into cabinet. NOTE: Care must be taken in routing wiring to back of cabinet and outside of cabinet.
- Reinstall tie-down screw.
- Reinstall cabinet front.
- Connect gas line.
- Check gas connections for leaks using a soap and water solution. Correct any gas leaks immediately.
- Reinstall vent cap assembly.
- Reconnect power supply.

INSTALLATION AND REMOVAL OF UNIT WHEN OPTIONAL BACK IS USED

TO REMOVE

- Break power to furnace.
- Remove vent cap assembly.
- Remove optional back.
- Disconnect power supply at furnace.
- Disconnect power supply plug from module board.
- Disconnect electrode wire from module board.
- Remove the two (2) screws securing module board and panel assembly to firewall and pull out assembly. EXERCISE CARE NOT TO DAMAGE BOARD.

NOTE: This will allow more room for making the gas connections at the flare fitting. It will be necessary to hold the flare fitting with a wrench when tightening or loosening the gas line.

- Remove gas line.
- Remove tie-down screw at blower base and remove furnace from cabinet.

TO REINSTALL

- Slide unit into cabinet and secure with screw at base of blower.
- Connect gas line.
- Check gas connections for leaks using a soap and water solution. Correct any gas leaks immediately.
- Reinstall module board and panel assembly.
- Reconnect electrode wire to board.

- Reconnect power supply to board.
- Reconnect power to furnace. NOTE: If this connection was made inside the cabinet, care must be exercised to prevent wires from coming in contact with the room air blower wheel.
- Reinstall optional back.
- Reinstall vent cap.
- Provide power to furnace.

OPERATING INSTRUCTIONS

NOTE: During initial firing of this furnace, a burn-off of excess paint and oils remaining from manufacturing process may cause "smoking" for 5 - 10 minutes.

- Turn the manual valve (if so equipped) or the valve at the outside LP tank to the "OFF" position. Do not force.
- Move "OFF" lever located at bottom of thermostat to the right if set on "OFF" position.
- Set thermostat above room temperature to begin blower operation. A slight delay will occur before the blower comes on. Allow blower to run for 5 minutes for combustion chamber purge cycle.
- After 5 minutes, move thermostat lever below room temperature. Blower will remain on. Wait approximately 2 minutes for blower to go off.
- Open manual shut-off valve (if so equipped) or the valve at the outside LP tank. Correct operating characteristics depend on the valve being positioned fully open. Never attempt to operate with a valve partially closed.
- Set thermostat lever to desired setting. If set above room temperature, blower will come on.
- Allow 30 seconds for main burner to light after blower comes on. This furnace is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.
- If burner does not light, repeat Steps 1 through 5.
- If after three (3) attempts with no ignition, go to shut down and contact your dealer or a local recreational vehicle service agency. Do not continue to cycle furnace through thermostat in an attempt to get ignition.

TO SHUT DOWN

- Set thermostat to positive off position. (Move "OFF" lever on bottom of thermostat to "OFF" position.)
- Turn manual shut off valve (if so equipped) to the "OFF" position. Do not force.

ELECTRODE ADJUSTMENT

For consistent ignition of the burner, it is important that the electrode be positioned properly over the top of the burner. The electrode was set at the factory for proper ignition and should not need further adjustment; however, if you should experience inconsistent ignition, reposition electrode as follows:

Equipment needed: flashlight, black felt-tip pen, needle-nose pliers, measuring tape.

NOTE: Furnace must be removed. (See instructions for removing unit.)

- Remove burner from combustion chamber by removing six (6) screws which attach the burner to the chamber and air baffles (plates).
- Locate the lance in relation to the burner ports for electrode positioning by:
 - Shine a flashlight into the burner venturi as illustrated. (Be sure flashlight lens is against the end of the burner.)
 - Light will reflect off the lance in the venturi of the burner and shine through a portion of the two (2) rolls of burner ports in the top of the burner.
 - Using a black felt-tip pen, mark a line along top of burner 3/16" in back of the lance and parallel with lance. Make an additional mark indicating the center line of the lance. (See illustration.) Both marks will be used later as reference marks; therefore, keep lines thin.
- Reassemble the burner.
- Adjust electrode so the electrode probe is positioned along the marked center line of the burner lance and the tip of the electrode terminates 3/16" from the back of the lance. (At the line marked in Step 2-c.) (See Figure 4A.)
- IMPORTANT: Be sure electrode probe maintains a 1/8" spark gap over the burner as illustrated.**
- Reinstall the furnace into the cabinet following the instructions in the manual.

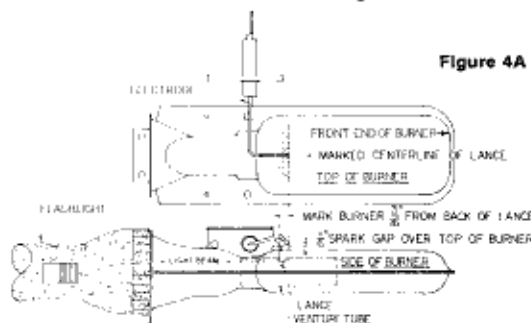


Figure 4A

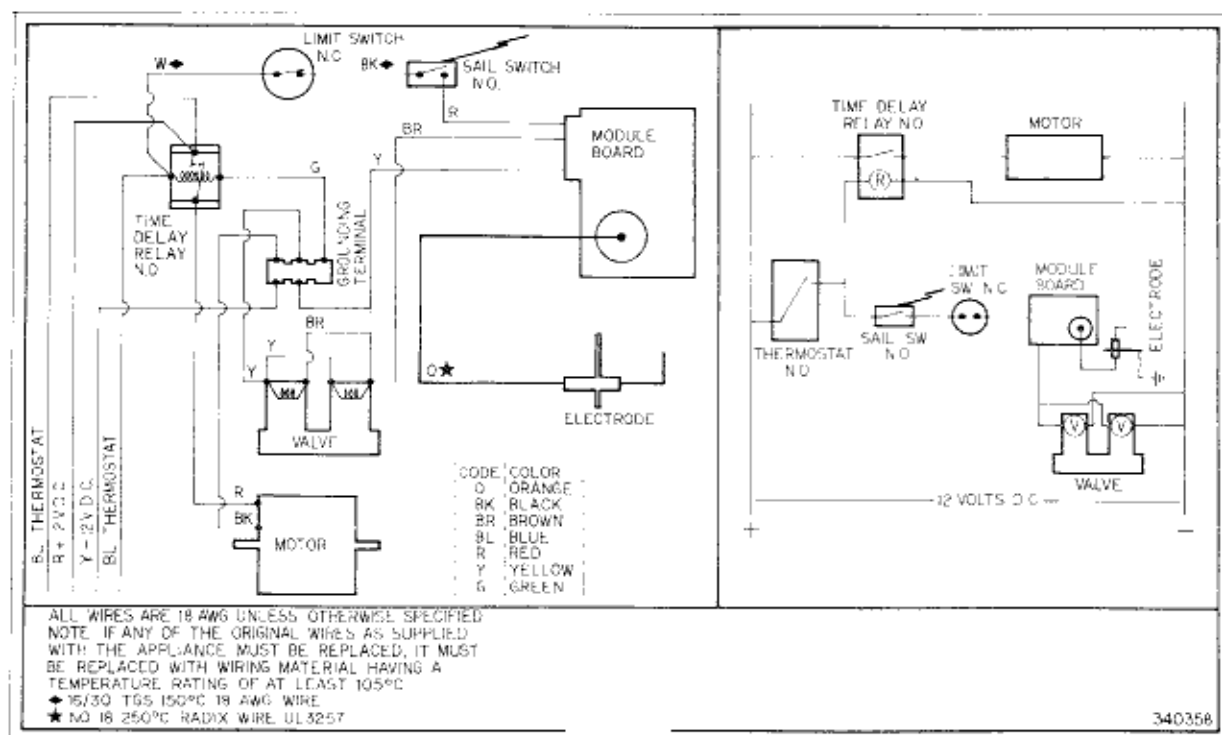


Figure 5

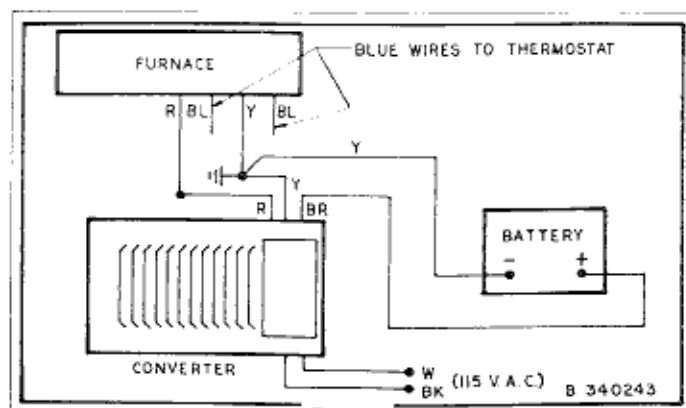


Figure 6

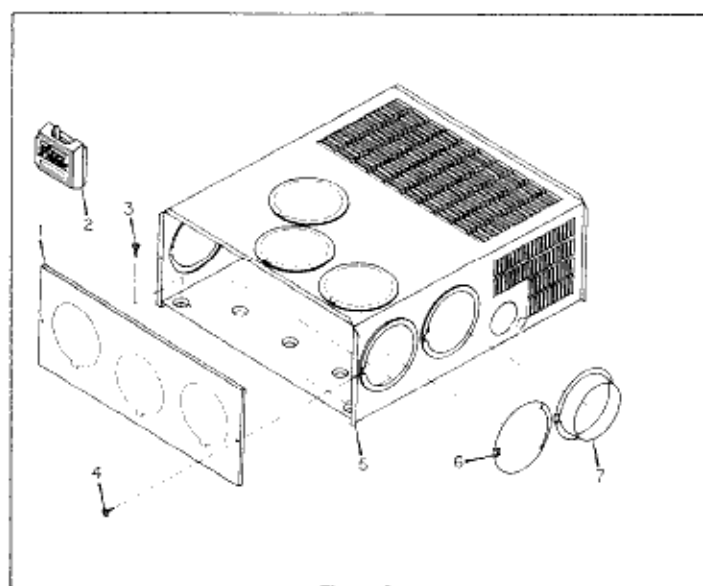
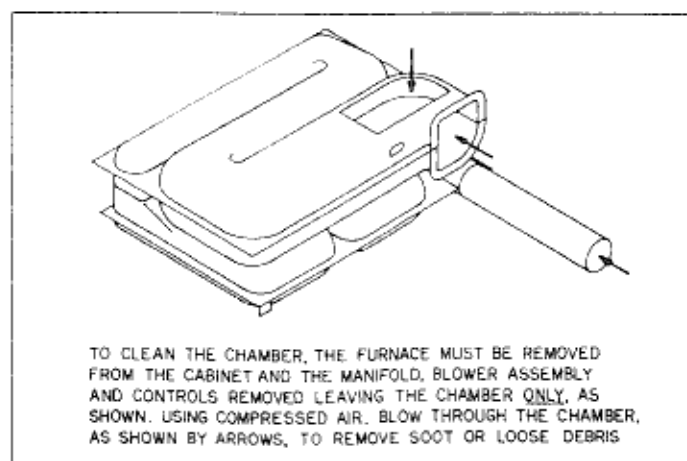


Figure 8

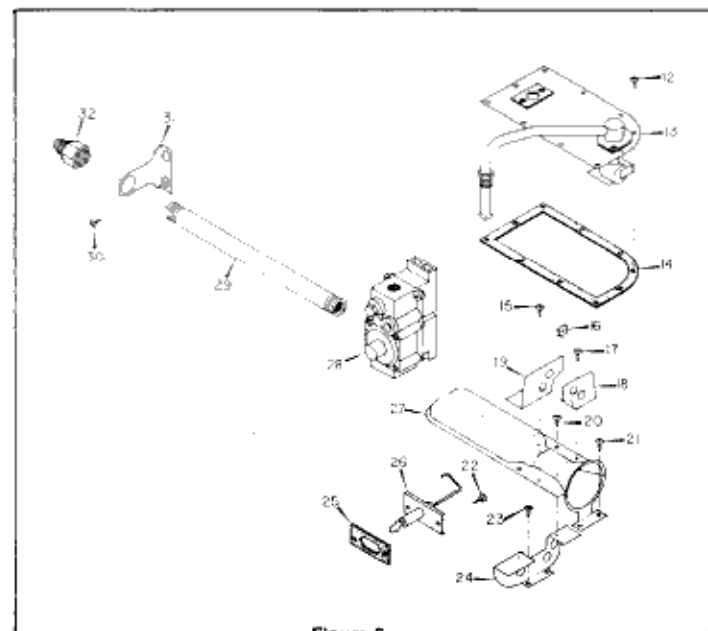


Figure 9

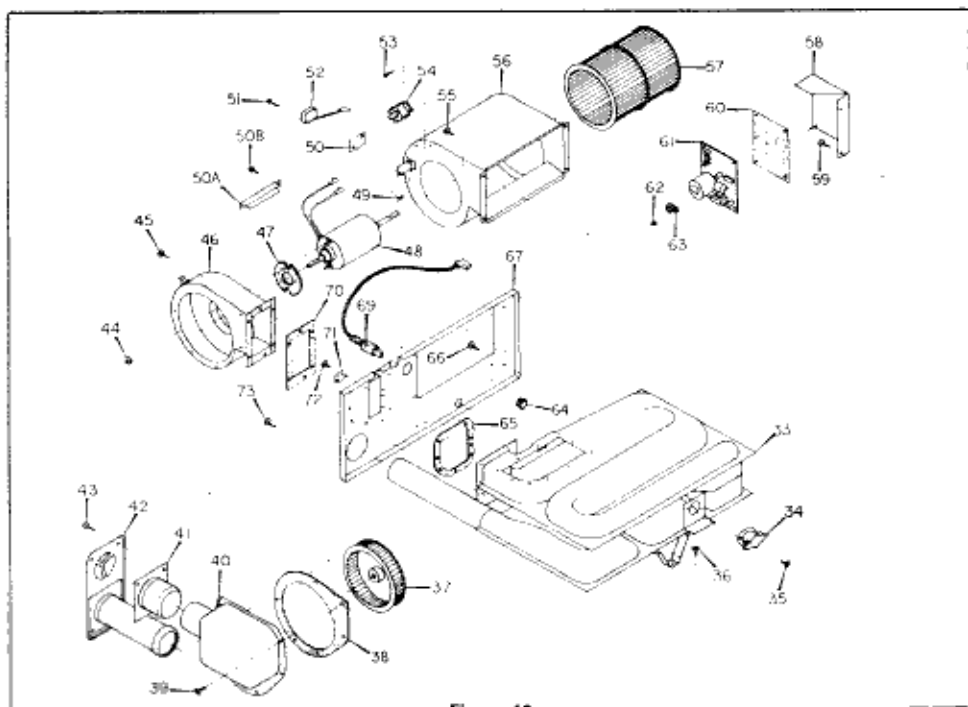


Figure 10

REPLACEMENT PARTS LIST

MODELS

SF-20 • SF-25 • SF-30 • SF-35

Only factory authorized parts are to be used. Do not attempt to repair defective parts.

When ordering repair parts from your dealer, a Suburban Service Center, or distributor, always give the following information:

1. Part Number (Not Item No.)
2. Part Description
3. Model and Serial Number of Furnace
4. Number of Parts Required

Item No.	Description	Part Number	Item No.	Description	Part Number
1	Cabinet Front	101242	35	Screw #8 x 3/8 (2 Required)	120158
2	Thermostat	160907	36	Screw #8 x 3/8	120158
3	Screw #10 x 3/4 (2 Required)	121224	37	Wheel, Combustion Air (SF-20 only)	350127
4	Screw #8 x 3/8 (2 Required)	120158		Wheel, Combustion Air (SF-25/SF-30/SF-35)	350122
5	Cabinet Assembly	101299	38	Gasket, Combustion Air Housing	070810
6	Cover, Duct	050733	39	Screw #8 x 3/8 (6 Required)	120158
7	Collar, Duct (2 Req. on SF-20, 3 Req. on SF-25, SF-30; 4 Req. on SF-35)	050715	40	Box Assembly Complete (Air Intake) (SF-20 only)	051096
12	Screw #8 x 3/8 (10 Required)	120158		Box Assembly Complete (Air Intake) (SF-25/SF-30/SF-35)	051032
13	Manifold Assembly Complete SF-20	171127	41	Tube Assembly Intake (Vent)	051044
	Manifold Assembly Complete SF-25	171126	42	Vent Cap and Exhaust Tube Assembly	260193
	Manifold Assembly Complete SF-30	171125	43	Screw #10 x 3/4 (4 Required)	121224
	Manifold Assembly Complete SF-35	171124	44	Nut 10-32 Hex (2 Required)	121328
13A	Orifice, Main Burner SF-20 (not shown)	180186	45	Screw #8 x 3/8 (6 Required)	120158
13B	Orifice, Main Burner SF-25 (not shown)	180193	46	Blower Assembly (Combustion Air)	390441
13C	Orifice, Main Burner SF-30 (not shown)	180214	47	Gasket, Motor	070812
13D	Orifice, Main Burner SF-35 (not shown)	180222	48	Motor Assembly (SF-20/SF-25/SF-30)	231706
14	Gasket, Burner Access Cover	070811		Motor Assembly (SF-35)	231707
15	Screw #8 x 1/2 Stainless	121651	49	Tinnerman (2 Required)	121661
16	Tinnerman	121704	50	Insulator, Sail Switch	230877
17	Screw #8 x 1/2 Stainless	121651	50A	Bracket, Spacer	062949
18	Plate, Secondary Air (Top-Front Half) (SF-20/SF-25/SF-30)	062933	50B	Screw, #6 20 x 3/8 (2 Required)	121652
	Plate, Secondary Air (Top-Front Half) (SF-35)	062936	51	Screw #2-56 x 5/8 (2 Required)	121247
19	Plate, Secondary Air (Top-Back Half) (SF-20/SF-25/SF-30)	062934	52	Switch, Sail (Assembly)	230509
	Plate, Secondary Air (Top-Back Half) (SF-35)	062937	53	Screw #5 x 3/8 (2 Required)	121502
20	Screw #8 x 1/2 Stainless (2 Required)	121651	54	Relay, Time Delay	230626
21	Screw #8 x 3/8 Stainless (2 Required)	121649	55	Screw #8 x 3/8 (4 Required)	120158
22	Screw #8 x 1/2 Stainless (2 Required)	121647	56	Blower Assembly (Room Air)	390440
23	Screw #8 x 3/8 Stainless (2 Required)	121649	57	Wheel, Room Air	350123
24	Plate, Secondary Air (Bottom) (SF-20/SF-25/SF-30)	062935	58	Panel Assembly (Module Board)	101300
	Plate, Secondary Air (Bottom) (SF-35)	062938	59	Screw #8 x 3/8 (2 Required)	120158
25	Gasket, Electrode	070163	60	Insulator, Module Board	070807
26	Electrode	231740	61	Board, Module	231741
27	Burner Assembly Complete (SF-20)	010767	62	Nut #6-32 Hex Lock (2 Required)	121271
	Burner Assembly Complete (SF-25)	010762	63	Wire Tie	061454
	Burner Assembly Complete (SF-30/SF-35)	010745	64	Bushing, Strain Relief	070362
28	Valve	160936	65	Gasket, Firewall (Chamber Side)	070808
29	Pipe, Gas Inlet	171073	66	Screw #8 x 3/8	120158
30	Screw #8 x 3/8 (2 Required)	120158	67	Firewall	110563
31	Bracket, Gas Inlet Pipe	062983	69	Wire Assembly (Electrode)	231713
32	Fitting, Flare	171032	70	Gasket, Firewall (Blower Side)	070809
33	Chamber Assembly Final	021034	71	Splicer	230714
34	Switch, Limit (SF-20)	231739	72	Screw #5 x 1/4 (2 Required)	121244
	Switch, Limit (SF-25/SF-30/SF-35)	231630	73	Screw #8 x 3/8 (6 Required)	120158

LIMITED WARRANTY

SUBURBAN RECREATIONAL VEHICLE FURNACE

LIMITED ONE YEAR WARRANTY

This Suburban product is warranted to the original purchaser to be free from defects in material and workmanship under normal use and maintenance for a period of one year from date of purchase whether or not actual use begins on that date. It is the responsibility of the consumer/owner to establish the warranty period. Suburban does not use warranty registration cards for its standard warranty. You are required to furnish proof of purchase date through a Bill of Sale or other payment record.

Suburban will replace any parts that are found defective within the first year and will pay a warranty service allowance directly to the authorized Suburban Service Center at rates mutually agreed upon between Suburban and its authorized service centers. Replacement parts will be shipped FOB the shipping point within the Continental United States, Alaska and Canada to authorized service centers performing such repairs. Before having warranty repairs made, confirm that the service agency is an authorized service center for Suburban. DO NOT PAY THE SERVICE AGENCY FOR WARRANTY REPAIRS; SUCH PAYMENTS WILL NOT BE REIMBURSED.

For warranty service, the owner/user should contact the nearest authorized Suburban Service Center, advising them of the model and serial numbers (located on the furnace) and the nature of the defect. Transportation of the unit to and from the Service Center and/or travel expenses of the Service Center to your location are the responsibility of the owner/user. A listing of authorized Service Centers is included in the owner's packet supplied with the furnace and a current listing may be obtained from Suburban. If you cannot locate an authorized service center locally, the service agency chosen to perform warranty repairs must contact our Service Department at 615-775-2131 for authorization. Unauthorized repairs made will not be paid by Suburban.

LIMITED FOUR YEAR WARRANTY ON HEAT EXCHANGER

The furnace heat exchanger is further warranted to be free from defects in material and workmanship during the second through fifth year after the date of original purchase. A replacement heat exchanger will be provided under the same conditions as stated in the one year warranty EXCEPT no labor reimbursement will be provided.

LIMITATION OF WARRANTIES

ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH EACH LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER OR OTHER PERSON WHOMSOEVER.

SUBURBAN WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation, operating and service instructions owner's manual including cleaning of component parts: such as, orifices and burners.
2. Initial checkouts and subsequent checkouts which indicate the furnace is operating properly, or diagnosis without repair.
3. Damage or repairs required as a consequence of faulty or incorrect installation or application not in conformance with Suburban instructions.
4. Failure to start and/or operate due to loose or disconnected wires; water or dirt in controls, fuel lines and gas tanks; restriction or alteration of return air circulation; low voltage.
5. Routine adjustments that may be required to the thermostat, electrode and burner.
6. Costs incurred in gaining access to the furnace.
7. Parts or accessories not supplied by Suburban.
8. Freight charges incurred from parts replacements.
9. Damage or repairs needed as a consequence of any misapplication, abuse, unreasonable use, unauthorized alteration, improper service, improper operation or failure to provide reasonable and necessary maintenance.
10. Suburban products whose serial number has been altered, defaced or removed.
11. Suburban products installed outside the Continental U.S.A., Alaska and Canada.
12. Damage as a result of floods, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Suburban.
13. ANY SPECIAL, INDIRECT OR CONSEQUENTIAL PROPERTY, ECONOMIC OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

NO REPRESENTATIVE, DEALER OR OTHER PERSON IS AUTHORIZED TO ASSUME FOR SUBURBAN MANUFACTURING COMPANY ANY ADDITIONAL, DIFFERENT OR OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS SUBURBAN PRODUCT.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

IF YOU HAVE A PRODUCT PROBLEM

FIRST:

If your RV has its original furnace and is still under the RV manufacturer's warranty, follow the steps described in your RV owner's manual.

SECOND:

Contact a conveniently located authorized Suburban Service Center. A list of such service centers is enclosed with Suburban's Installation, Operating and Service Instructions book. Describe to them the nature of your problem, make an appointment, if necessary, and provide for delivery of the furnace to the selected service center.

THIRD:

Contact: Suburban Manufacturing Company
Customer Service Department
Post Office Box 399
Dayton, Tennessee 37321
Telephone: (615) 775-2131

