



DYNATRAIL INSTALLATION AND OPERATING INSTRUCTIONS FOR MODEL P-40



Design evaluated by CSA in accordance with Section 3280.707(a) (2) of HUD Manufactured Housing Construction and Safety Standard for Energy Efficiency.

This design is UL listed and meets UL 307B Standard for installation in recreational vehicles and mobile homes only. This design is also certified by the Canadian Standard 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:

- Extinguish any open flame.
- Evacuate all persons from the vehicle.
- Shut off the gas supply at the gas container or source.

• Do not touch any electrical switch, or use any phone or radio in the vehicle.

 Do not start the vehicle's engine or electric generator.

• Contact the nearest gas supplier or qualified service technician for repairs.

• If you cannot reach a gas supplier or qualified service technician, contact the nearest fire department.

• Do not turn on the gas supply until the gas leak(s) has been repaired.

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.

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 property damage, personal injury or loss of life. Refer to the installation instructions and/or owners manual provided with this appliance. Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WARNING! Be sure the furnace and all ignition systems are "off" during any type of refueling and while vehicle is in motion or being towed.

INSTALLATION INSTRUCTIONS

WARNING! Installation of this appliance must be made in accordance with the written instructions provided in this manual. No agent, representative or employee of Suburban or other person has the authority to change, modify or waive any provision of the instructions contained in this manual.

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 open.

NOTE: The exhaust temperature of this furnace could discolor or warp some materials. You should verify that the material used on the coach door, panel, or cover will not discolor or warp from the exhaust temperature whenever any door, panel, or cover is in the open position.

CAUTION: Due to the differences in vinyl siding, this appliance should not be installed on vinyl siding without first consulting with the manufacturer of the siding or cutting the siding away from the area around the appliance vent.

CAUTION: In any installation in which the vent of this appliance can be covered due to the construction of the RV or some special feature of the

RV such as slide out, pop-up, etc. always insure that the appliance cannot be operated by setting the thermostat to the positive "OFF" position and shutting off all electrical and gas supply to the appliance. Never operate furnace with vent covered.

NOTE: This furnace 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: This furnace shall be installed so the electrical components are protected from water.

IMPORTANT: If this furnace is to be connected to a common duct system also serving a cooling unit, a manual or automatic damper is required to prevent any cold conditioned air from circulating back into the furnace. Cold air passing over the furnace combustion chamber during the operation of the cooling unit can result in the formation of condensation inside the furnace combustion chamber. This condensation may promote corrosion and premature failure of the combustion chamber.

This furnace is design certified for Propane/LP gas or conversion to natural gas.

Gas supply pressure for purposes of input adjustment:

minimum - 11" W.C.*; maximum - 13" W.C.* for LP minimum - 5" W.C.*, Maximum - 7" W.C.* for natural gas

(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, installation must comply with the latest edition of:

- 1. Standard for Recreational Vehicles ANSI A-119.2/NFPA 501C.
- National Fuel Gas Code ANSI Z223.1.
- Furnace must be electrically grounded in accordance with the latest edition of the National Electrical Code ANSI/NFPA No. 70.

This unit is equipped with an electric igniter device that has an energy consumption of .1 amp @ 24 volts A.C.

In Canada, the furnace must be installed in accordance with:

- Standard CAN/CSA Z240 Recreational Vehicles.
- CSA Standard CAN/CSA Z240.6.2-M86 Electrical Requirements for Recreational Vehicles.
- 3. Standard CAN/CSA-Z240.4.2-M86 Installation Requirements for Propane Appliances and Equipment in Recreational Vehicles.
- 4. CAN/CGA B149 Installation Codes.
- 5. Any applicable local codes and regulations.

Return air

NOTE: Return air must be from the living area of the coach.

NOTE: RV's that have a wall of separation to a cargo area (Toy Box) to transport internal combustion engine vehicles must not have return air openings from this area.

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 directly in front of the furnace. The opening must allow for free, unobstructed removal of the furnace. This opening may be used as a means of providing circulating return air to the furnace. It is recommended that the opening total 64 square inches. Suburban also recommends a return air opening of 49 square inches be provided in the left side of coach cabinetry and centered by room air blower opening. (See Figure 3.) These are suggested locations for return air. Other locations and areas may be used. Regardless of the location for return air, the return air to the furnace must total 113 square inches. (See Figure 3.)

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 opening as well as an adequate opening for furnace removal, voids the warranty.

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

Maximum wall thickness for this type installation is 2-1/4".

1. Locate the furnace near lengthwise center of the coach. Do not install the furnace with the vent facing toward the forward end 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 constructions listed in Table 1. Refer to Figure 3 for illustration of furnace clearances.

NOTE: Side and top clearances may be 0" for through the wall installations up to a maximum wall thickness of 2-1/4". (See Figure 1.)

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 $12-7/16 \times 13-1/8"$. This will allow the rear of the furnace to be installed against the outer skin of the coach. (See Figure 1.)

5. Cut two 3" diameter holes through the outer skin of coach as shown in Figure 1.

6. 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).

7. Fasten furnace to floor of coach using the two (2) holes provided in the front plenum area of furnace cabinet. (See Figure 1.)

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

Model	Front	Left Side	Right Side	Тор	Bottom	Back	Exhaust and Intake Tube
P-40	1"	2"	2"	1"	0"	0"	3/8"
				- NOTE	-		
		0	MEAN	S SPAC	ER BUMP	s	
		CL	EARANC	E FRO	M DUCTS	то	
		сом	BUSTIB		ERIAL WI	THIN	
		FIRST	3 FEET	FROM	FURNACE	- 1/4"	
			(S	ee Figu	re 3)		

TABLE 1

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

Maximum wall thickness for this type installation is 2-1/4".

1. Locate the furnace near lengthwise center of the coach. Do not install the furnace with the vent facing toward the forward end 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 2. Cut two 3" diameter holes through coach wall for exhaust and intake. (See Figure 2.)

5. 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).

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

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

C. INSTALLATION USING VENT EXTENSION TUBES

When it is not possible to install the furnace as described in installations A or B, extension tubes must be used to connect the exhaust and intake tube to the vent assembly 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, position the furnace in its permanent location 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. Table 2 lists by kit number the vent extension range up to 9". Example: if the distance you measured is 2-7/8", using Table 2 as your guide, you will order Kit #520593 which accommodates a range from 2-1/4" to 3-1/8". 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)
520593	2-1/4" to 3-1/8"
520594	3-1/8" to 4-7/8"
520595	4-7/8" to 7"
520596	7" to 9"
	TABLE 2

INSTALLING VENT ASSEMBLY

The vent outlet must be installed so it is in the same atmospheric pressure zone as the combustion air intake. The exhaust and intake tubes must be installed from the outside, pass through the RV skin and slide onto the furnace exhaust and intake.

WARNING! Do not alter the vent assembly supplied with this furnace. Any modifications will result in improper installation which could cause unsafe furnace operation.

CAUTION! Combustion air must not be drawn from the living area. All air for combustion must be drawn from the outside atmosphere. All exhaust gases must be vented to the outside atmosphere - never inside the RV. Therefore, it is essential to insure that the vent cap and tube assemblies are properly installed.

Suburban recommends all vents be installed using the rain shield supplied. (See Figure 2)

1. Apply caulking to RV skin behind vent cap as shown in Figure 2. Apply caulking generously around perimeter of vent cap and across center as shown.

2. Insert intake tube through RV skin and slide it onto the furnace intake (See Figure 2.) Minimum tube overlap of 1/2" is required.

3. Insert the vent cap assembly with heat shield collar through the 3" diameter hole in the RV skin as illustrated in Figure 2. Slide vent cap exhaust tube onto furnace exhaust. Minimum tube overlap of 1 1/4" is required.

4. Attach vent cap assembly to outer skin of RV with the six (6) screws provided. Do not install vent assembly upside down. The words "Suburban" and "Dayton, Tenn." must be right side up.

CONNECTING GAS SUPPLY

Connect the gas supply to the furnace at the manifold. A suggested method is illustrated in Figure 1. Other methods are acceptable if they allow for the gas to be shut off at the furnace for furnace removal while allowing other appliances to remain operational.

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

NOTE: The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressure in access of 1/2 PSIG.

The appliance must be isolated from the gas supply piping by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressure equal to, or less than, 1/2 PSIG.

1. Be sure that the manual shut-off valve is outside of the furnace jacket and easily accessible. (See Figure 1.)

2. A drip leg should be installed upstream of the manual shut-off valve exterior to unit casing.

3. In order to maintain a check on gas supplied pressure to the furnace, Suburban

advises the installer to provide a 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.

 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

This furnace is wired for 120 volts A.C. only. Connect the 120 volts A.C. wire leads in the junction box located on the right side of the furnace cabinet.

All wiring and wire connections must conform to local codes and the latest edition of the National Electrical Code ANSI/NFPA No. 70.

CONNECTING DUCTS TO FURNACE

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

1. Maintain a minimum of 48 square inches open duct area throughout entire duct system including through register. (Minimum 4 ducts 4" diameter.) Applicable to under floor ducting as well.

NOTE: Ducts terminating in a dead air space (like holding tank compartments or cargo areas (Toy Boxes) with no means for return air recirculation should not be counted in the required duct area. Also, ducts 2" in diameter or smaller should not be counted in the required duct area.

2. 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.

3. 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.

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

5. Maintain a minimum of 1/4" clearance where ducts pass through any combustible construction; such as, coach cabinetry. (See Figure 3.) NOTE: UL listed duct materials can be "0" clearance.

6. Do not install air boosters in the duct system. Such devices will cause the furnace to cycle on limit and cause 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 white wires on right side of furnace marked "Thermostat Wires". (See wiring diagram.)

If your furnace is equipped with a thermostat that has an adjustable anticipator, the anticipator should be set at .7 amps. If you desire linger heating cycles, adjust the anticipator to a higher setting. If you desire shorter heating cycles, adjust the anticipator to a lower setting. Adjustments to the anticipator setting should be made in .5 amp increments.

PREVENTIVE MAINTENANCE

WARNING! If the user of this appliance fails to maintain it in the condition in which it was shipped from the factory or if the appliance is not used solely for its intended purpose or if appliance is not maintained in accordance with the instructions in this manual, then the risk of a fire and/or the production of carbon monoxide exists which can cause personal injury, property damage or loss of life.

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring error can cause improper and dangerous furnace operation.

Always verify proper operation of furnace after servicing.

Your furnace should be inspected by a qualified service agency yearly before turning the furnace on. Particular attention should be given to the following items:

 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.)
Inspect chamber and venting to assure that these components are physically sound, without holes or excessive corrosion and that the installation and/or reinstallation is in accordance with Suburban's installation instructions. (Reference installation manual supplied with furnace.)

WARNING! It is imperative that the products of combustion be properly vented to atmosphere and that all combustion air supplied to burner be drawn from outside atmosphere.

3. Check the base on which furnace is mounted. Be sure it is physically sound, void of any sagging, deterioration, etc.

4. Inspect furnace, the venting, ducting and gas piping to furnace for obvious signs of deterioration. Correct any defects at once.

5. 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.)

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.
Inspect return air inlet openings to the furnace. Remove any restrictions to

assure adequate air flow. You, as the owner/user, should inspect the furnace periodically 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 during the heating season 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.)

WARNING! Do not install screens over the vent for any reason. Screens will become restricted and cause unsafe furnace operation. Accessories are being marketed for RV products which we do not recommend. For your safety, only factory authorized parts are to be used on your furnace.

2. Periodically inspect the vent for obstructions or presence of soot. Soot is formed whenever combustion is incomplete. This is your visual warning that the furnace is operating in an unsafe manner. If soot is present, immediately shut furnace down and contact your dealer or a qualified service person.

3. Periodically observe the main burner flame to assure it is burning with a hard blue flame with well defined burner ports. (See Figure 6). If flame appears yellow or burner has a lazy flame, shut furnace down. It is possible that burner needs cleaning or replaced. To inspect the main burner, remove the four (4) screws (A, B, C and D) securing the burner access door to the combustion chamber (See Figure 5). If excessive rust and corrosion are present on burner surface, the burner must be thoroughly cleaned or replaced. The burner may be cleaned using a steel wire brush and blown clean using high compression air. Contact a qualified service person for assistance.

NOTE: To observe flame, cabinet front must be removed. Operation of burner can then be observed through the viewing window on front of chamber (See Figure 5).

4. 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.

5. The motor is permanently lubricated and requires no oiling.

6. Keep the furnace area clear of any combustible materials, gasoline or other flammable vapor and liquids.

7. 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.

8. 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.

9. Never operate the furnace if you smell gas. Do not assume that the smell of gas in your RV is normal. Any time you detect the odor of gas, it is to be considered life threatening and corrected immediately. Extinguish any open flames including cigarettes and evacuate all persons from the vehicle. Shut off gas supply at LP gas bottle. (See safety notice on front cover of this manual.)

10. 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.____

 $\ensuremath{\textbf{11}}$. Never attempt to repair damaged parts. Always have them replaced by a qualified service agency.

12. Never attempt to repair the furnace yourself. Seek the help of a qualified service person.

13. Never restrict the ducting installed by your trailer manufacturer. To do so could cause improper furnace operation.

14. 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.

15. Clothing or other flammable material should not be placed on or near the appliance.

16. Always follow the operating instructions. Do not deviate from the step-by-step procedures.

17. 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.

18. When considering add-on rooms, porch or patio, attention must be given to the venting of your furnace. For your safety, do not terminate furnace vent inside add-on rooms, screen porch or onto patios. Doing so will result in products of combustion being vented in to the room or occupied areas.

19. In any installation in which the vent of this appliance can be covered due to the construction of the RV or some special feature of the RV such as slide out, pop-up etc. always insure that the appliance cannot be operated by setting the thermostat to the positive "OFF" position and shutting off all electrical and gas supply to the appliance. Never operate furnace with vent covered.

OPERATING INSTRUCTIONS

WARNING! Do not operate furnace while vehicle is in motion or being towed.

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

1. Stop! Read Users Information Manual supplied with furnace.

2. Turn the manual valve or the valve at the outside LP tank to the "OFF" position. Do not force.

3. 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. If blower does not come on or stops before ignition cycle, go to shut down and contact your dealer or a local recreational vehicle service agency.

4. After 5 minutes, move thermostat lever below room temperature. Blower will remain on. Wait approximately 2 minutes for blower to go off.

5. Open manual shut-off valve 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.

 ${\bf 6.}\,$ Set thermostat lever to desired setting. If set above room temperature, blower will come on.

7. 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.

8. If burner does not light, repeat Steps 1 through 8.

9. 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

1. Set the thermostat to lowest setting, then move lever to "OFF" position.

- 2. Turn off all electric power to the appliance if service is to be performed.
- 3. Turn shut off valve clockwise → to "OFF". Do not force.

CONVERTING FROM LP TO NATURAL GAS

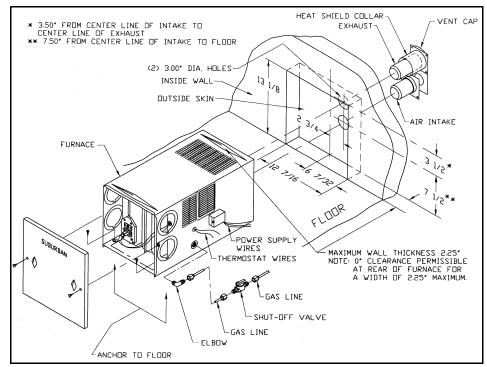
The furnace was factory equipped for use with LP gas. For natural gas, use the No. 30 drill orifice provided with the furnace. (Orifice is attached to furnace manifold near valve.)

Gas supply (line pressure) for natural gas should be: minimum - 5" W.C.; maximum - 7" W.C.

CONVERTING FURNACE TO NATURAL GAS

- 1. Shut off gas supply.
- 2. Disconnect gas supply and electrical power.
- 3. Remove outside vent assembly.
- 4. Remove chamber assembly from cabinet.
- 5. Remove manifold assembly.
- 6. Remove orifice from manifold assembly.
- 7. Install the natural gas orifice (No. 30 drill) supplied.
- 8. Convert valve to natural gas by removing regulator stem, turning over and reinstalling. (Ring on stem will now show natural).
- 9. Reinstall manifold assembly.
- 10. Slide chamber assembly into cabinet and secure.
- 11. Reconnect vent assembly.
- 12. Reconnect gas and electrical connections.
- 13. Perform operations check and inspect for gas leaks.

NOTE: After completing the conversion, check the manifold (gas) pressure at the pressure tap located on the outlet side of valve. Pressure should be 3.2" W.C.





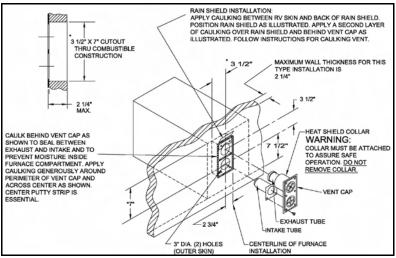
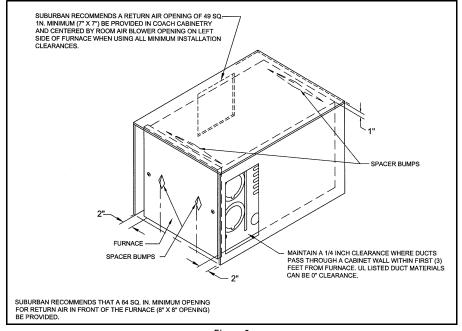
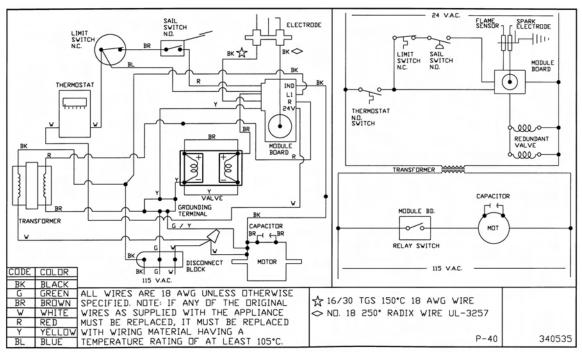


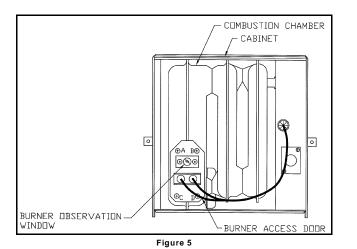
Figure 2

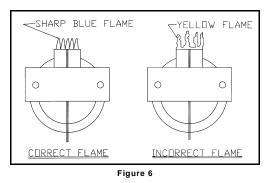












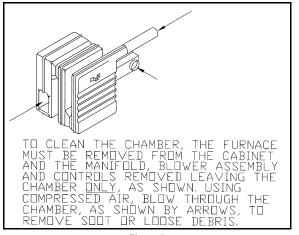
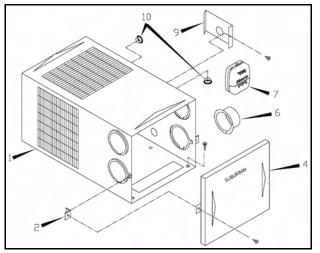


Figure 7





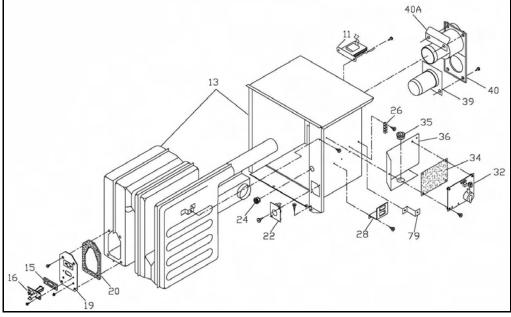


Figure 9

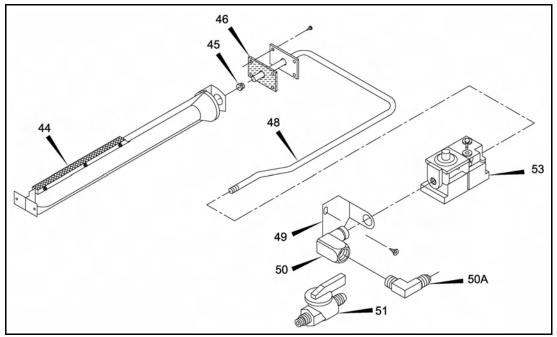


Figure 10

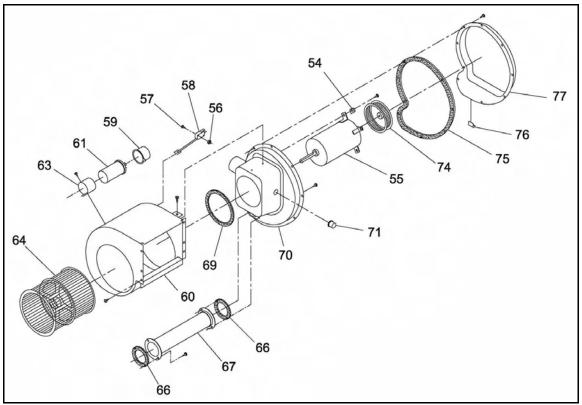


Figure 11

REPLACEMENT PARTS LIST

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:

Part Number (Not Item No.)
Part Description
Model Number, Serial Number, and Date Code of Furnace

4.	Number	of	Parts	Required
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ltem No. 1	Description Cabinet Assembly	
2	Fastener, Tinnerman (2 Required)	
4	Cabinet Front	. 101878
6	Duct Collar (4 Required)	
7	Thermostat	
9	Cover, Junction Box	
10	Bushing, Snap	
11	Transformer	
13 15	Combustion Chamber Assembly	
16	Electrode	
19	Burner Access Door	
20	Gasket. Burner Access Door	
22	Limit Switch	
24	Bushing, Universal	
26	Splicer	
28	Bracket, Power Supply	
32	Module Board	
34	Insulator, Module Board	
35	Bushing, Snap	
36	Panel, Module Board	. 090301
39	Intake Tube Assembly	
40	Vent Cap and Exhaust Tube Assembly	. 260350
40A	Rain Shield	. 280552
44	Burner Assembly	. 010702
45	Orifice (LP Gas Only)	
	Orifice (Natural Gas Only)	
46	Gasket, Manifold	. 070408

Item No. 48 49 500 50A 51 53 54 55 56 57 58	Part Part Description Number Manifold Pipe 171472 Bracket, Valve Mounting 063265 Elbow, Street 171427 Gas Fitting 170374 Valve, Manual Shut-Off 161114 Valve 161132 Tinnerman (4 Required) 121378 Motor 232846 Nut #2-56 (2 Required) 121951 Screw (2 Required) 121247 Micro Switch 2323245
59	Boot, Capacitor
60 61	Blower Housing Assembly
63	Capacitor
64	Wheel, Room Air
66	Gasket, Crossover Tube (2 Required)
67	Crossover Tube
69	Gasket, Motor
70	Housing Assembly, Combustion Air 390545BK
71	Bushing, Universal
74 75	Wheel, Combustion Air
75 76	Gasket, Combustion Air Housing
77	Housing, Combustion Air (Outside)
79	Bracket

TWO YEAR LIMITED WARRANTY SUBURBAN RECREATIONAL VEHICLE FURNACE

TWO YEAR LIMITED 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 two years 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 records.

Suburban will replace any parts that are found defective within the first two years and will pay a warranty service allowance directly to the recommended Suburban Service Center at rates mutually agreed upon between Suburban and its recommended service centers. Replacement parts will be shipped FOB the shipping point within the Continental United States, Alaska and Canada to the recommended service center performing such repairs. All freight, shipping and delivery cost shall be the responsibility of the owner. The exchanged part or unit will be warranted for only the unexpired portion of the original warranty. Before having warranty repairs made, confirm that the service agency is a recommended 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 recommended Suburban Service Center, advising them of the model and serial numbers (located on the furnace) and the nature of the defect. Transportation of the RV to and from the Service Center and/or travel expenses of the Service Center to your location is the responsibility of the owner/user. A current listing of recommended service centers may be obtained from Suburban's website, www.rvcomfort.com. If you cannot locate a recommended service center locally, the service agency chosen to perform warranty repairs must contact our Service Department at 423-775-2131 for authorization before making repairs. Unauthorized repairs made will not be paid by Suburban.

THREE YEAR LIMITED WARRANTY ON HEAT EXCHANGER

The furnace heat exchanger is further warranted to be free from defects in material and workmanship during the third through fifth year after the date of original purchase. A replacement heat exchanger will be provided under the same conditions as stated in the two 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 or warranty claims originating outside the Continental U.S.A., Alaska, Hawaii 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, RECOMMENDED SERVICE CENTER 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 suggested by your dealer or manufacturer of the RV.

SECOND:

Contact a conveniently located recommended Suburban Service Center. Describe to them the nature of your problem, make an appointment, if necessary, and provide for delivery of your RV to the selected service center.

THIRD:

For the location of the nearest service center, refer to the listing provided or contact:

Suburban Manufacturing Company
Customer Service Department
676 Broadway Street
Dayton, Tennessee 37321
(423) 775-2131, Ext. 1
www.rvcomfort.com

For future reference, you should record the following information
MODEL NUMBER
SERIAL NUMBER
STOCK NUMBER
DATE OF PURCHASE