



SUBURBAN MANUFACTURING COMPANY
Post Office Box 399
Dayton, Tennessee 37321



OWNERS' INFORMATION MANUAL

For Models

NT-12SE • NT-16SE • NT-20SE



FOR YOUR SAFETY

IF YOU SMELL GAS:

1. OPEN ALL WINDOWS.
2. DON'T TOUCH ANY ELECTRICAL SWITCHES.
3. EXTINGUISH ANY OPEN FLAMES.
4. IMMEDIATELY CALL YOUR GAS SUPPLIER.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

This book contains instructions for operating and maintaining the furnace. Keep with unit at all times.

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

Due to high temperatures, the unit should be located out of traffic and away from furniture and draperies.

Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the unit.

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

Any safety screen or guard removed for servicing the unit must be replaced prior to operating the unit.

The area around the unit must be kept clear from combustible materials, gasoline and other flammable vapors and liquids.

Installation and repairs should be done by a qualified service person. The unit should be inspected before use and at least annually by a qualified service person. 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 unit be kept clean.

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

WARNING! Should overheating occur, or the gas supply fail to shut off, turn off the manual gas valves to the appliance before disconnecting the electrical supply.

1. Keep the furnace area clear of any combustible materials, gasoline or other flammable vapors and liquids.
2. Before operating the 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.
3. 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.
4. Never operate the furnace if you smell gas.
5. Immediately shut furnace down and call a service agency if furnace cycles erratically or delays on ignition.

6. Always follow the lighting instructions. Do not deviate from the step-by-step procedures.

7. Never attempt to repair damaged parts. Always have them replaced by a qualified service agency.

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

9. Periodically observe the main burner flame to assure it is burning with a hard blue flame with well defined burner ports (see Figure 2). If flame appears yellow or burner has a lazy flame, shut furnace down and contact a qualified service person.

NOTE: To observe flame, remove front discharge grille. Operation of burner can then be observed through the viewing window on front of chamber (see Figure 1).

10. Periodically inspect outside vent cap for obstructions or presence of soot. If soot is present, immediately shut furnace down and contact a qualified service person.

OPERATING INSTRUCTIONS

To operate the furnace.

1. Remove cabinet front.
2. Turn main gas valve control knob to the 'OFF' position. (See Figure 1.)
3. Move 'OFF' lever, located at bottom of thermostat, to the right if set on 'OFF' position.
4. Set thermostat above room temperature. A slight delay will occur before the blower starts.
5. Allow blower to run for five (5) minutes for combustion chamber purge cycle.
6. After five (5) minutes, set thermostat below room temperature.
7. Turn main gas valve control knob to 'ON'. (See Figure 1.) Correct operating characteristics depend on valve being positioned fully open. Never attempt to operate furnace with valve partially closed. Valve is fully open when handle is parallel to gas line.
8. Set thermostat above room temperature.
9. Allow 30 seconds for ignition to occur after the blower comes on.
10. If burner does not light, repeat Steps 2 through 9.
11. If after three (3) attempts with no ignition, go to shutdown and contact a qualified service agency. Do not continue to cycle furnace through thermostat in an attempt to get ignition.
12. After main burner ignition, replace cabinet front.

TO SHUT DOWN

1. Turn main gas valve control knob to 'OFF'. (See Figure 1.)
2. Set thermostat on 'OFF'.

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 combustion chamber and venting system 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.
2. 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.
3. Inspect return air inlet openings to the furnace. Remove any restrictions to assure adequate air flow.
4. Inspect main burner by removing the four (4) screws (A, B, C, D) securing the burner access door to the combustion chamber. (See Figure 1.) If excessive rust and corrosion are present on burner surface, the burner must be cleaned or replaced. The burner may be cleaned with a steel wire brush and the burner ports and venturi blown clean using compressed air.

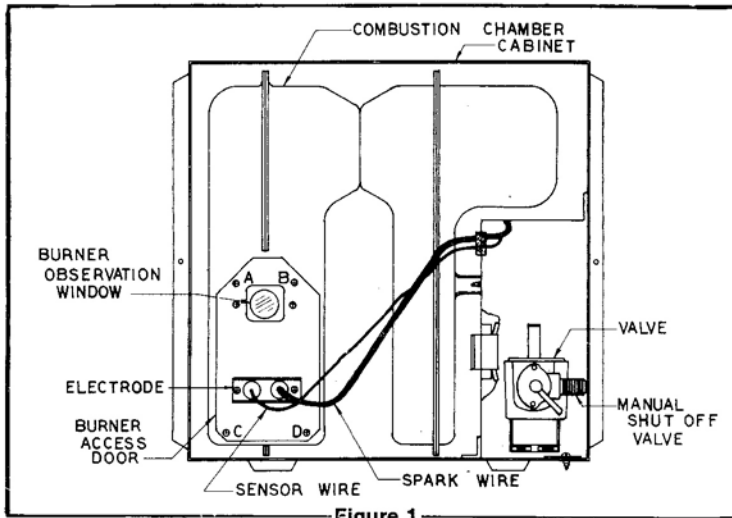


Figure 1

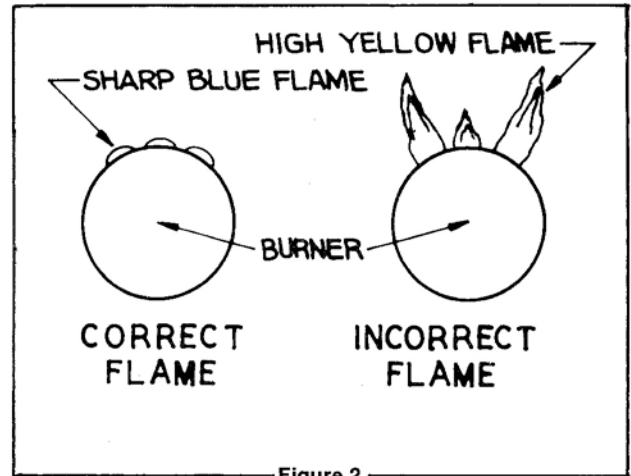


Figure 2

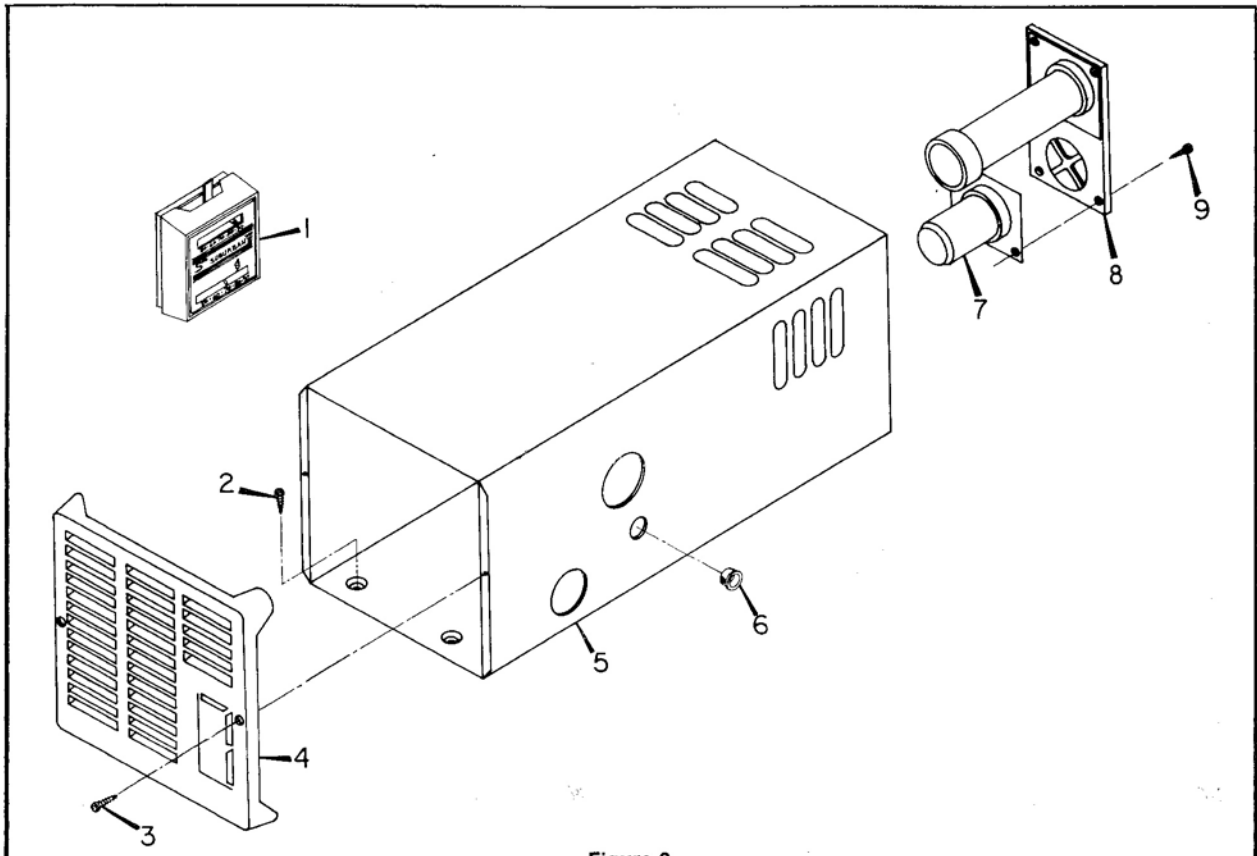


Figure 3

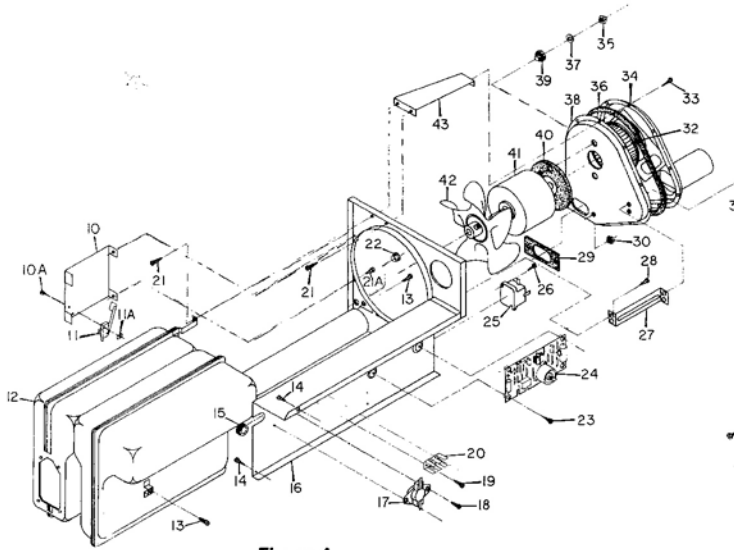


Figure 4

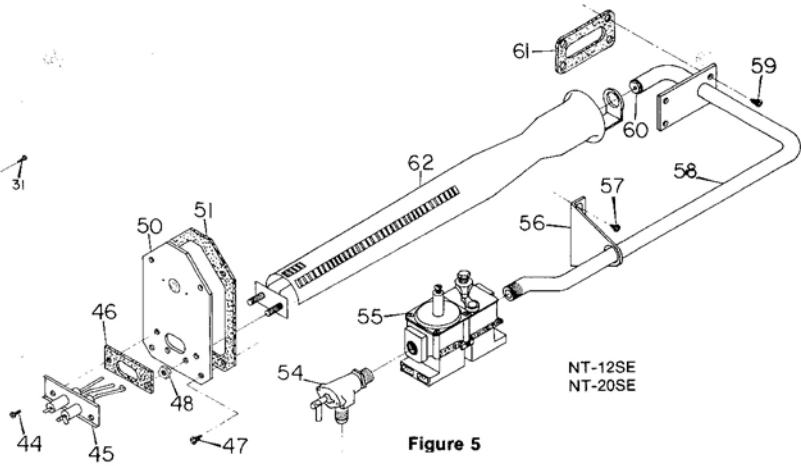


Figure 5

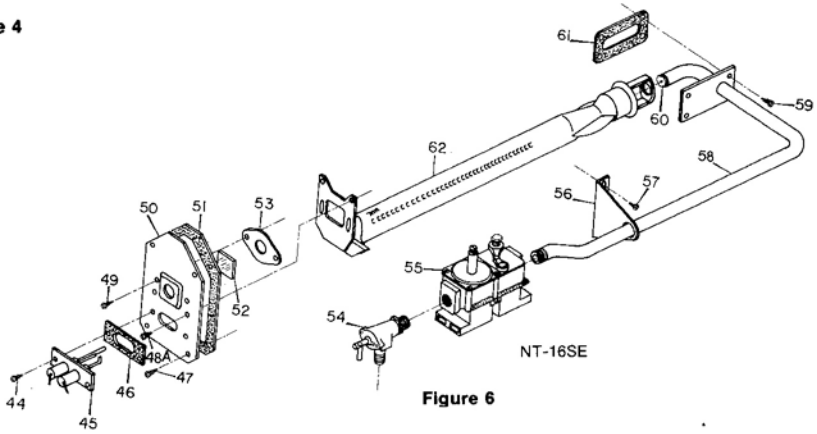


Figure 6

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:

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

Item No.	Part Number			Description	Item No.	Part Number			Description
	NT-12SE	NT-16SE	NT-20SE			NT-12SE	NT-16SE	NT-20SE	
1	160912	160912	160902	Thermostat	30	120717	120717	120717	Nut 10-24 Hex Lock (2 Required)
2	121224	121224	121224	Screw, #10 x 3/4 (2 Required)	31	120158	120158	120158	Screw, #8 x 3/8 (2 Required)
3	121520	121520	121520	Screw, #8 x 3/8 (2 Required)	32	350082	350082	350082	Wheel, Combustion Air
4	030520	030520	030520	Cabinet Front	33	120158	120158	120158	Screw, #8 x 3/8 (9 Required)
5	100957	100957	100957	Cabinet Bushing	34	X390222	X390222	X390222	Box, Combustion Air (Outside) Assembly
6	070569	070569	070569	Tube, Intake (Standard) (5" Long)	35	120716	120716	120716	Nut 10-32 Hex Lock (2 Required)
7	X050712	X050712	X050712	Tube, Intake (Special) (2 3/4" Long)	36	070446	070446	070446	Gasket, Combustion Air Box
	X050711	X050711	X050711	Tube, Intake (Special) (7 3/4" Long)	37	120684	120684	120684	Washer, Flat (2 Required)
	X050708	X050708	X050708	Vent Cap and Exhaust Tube Assembly	38	X390223	X390223	X390223	Box, Combustion Air (Inside) Assembly
8	260098	260098	260098	Screw, #10 x 3/4 (4 Required)	39	530089	530089	530089	Grommet (2 Required)
9	121224	121224	121224	Bracket, Microswitch Mounting	40	070448	070448	070448	Gasket, Motor
10	062476	062476	062476	Screw, #2 - 56 x 5/8 (2 Required)	41	230616	230616	230634	Motor
10A	121247	121247	121247	Microswitch Assembly	42	350083	350083	350083	Impeller, Room Air
11	X230933	X230933	X230933	Fastener, Tinnerman (2 Required)	43	062290	062290	062290	Bracket, Combustion Air Housing Mounting
11A	121661	121661	121661	Combustion Chamber Assembly	44	121387	121387	121387	Screw, #8-32 x 1/2 Self Tapping (2 Required)
12	X020839	X020839	X020839	Screw, #10 x 1/2 With Serrated Head (2 Required)	45	231258	230615	231258	Electrode
13	121388	121388	121388	Screw, #8 x 3/8 (2 Required)	46	070163	070163	070163	Gasket, Electrode
14	120158	120158	120158	Grommet	47	121388	121388	121388	Screw, #10 x 1/2 Serrated Head (4 Required)
15	070243	070243	070243	Backwall Radiation Shield Assembly	48	120717	-----	120717	Nut 10-24 Hex Lock (2 Required)
16	X110440	X110440	X110440	Limit Switch	48A	-----	121387	-----	Screw, #8-32 x 1/2 Self Tapping (2 Required)
17	230635	230635	230849	Screw, #8 x 3/8 (2 Required)	49	-----	120158	-----	Screw, #8 x 3/8 (2 Required)
18	120158	120158	120158	Screw, #6 x 1/4 (2 Required)	50	030621	030485	030621	Door, Burner Access
19	120714	120714	120714	Splicer	51	070398	070398	070398	Gasket, Burner Access Door
20	230714	230714	230714	Screw, #8 x 3/8 (2 Required)	52	-----	310026	-----	Glass Disc
21	120158	120158	120158	Screw, #8 x 3/8 (2 Required)	53	-----	290120	-----	Cover Plate
21A	120158	120158	120158	Screw, #8 x 3/8 (2 Required)	54	160740	160740	160740	Valve, Manual Shut-Off
22	070270	070270	070270	Bushing	55	160832	160832	160832	Valve
23	121357	121357	121357	Screw, #6 x 5/8 (2 Required)	56	062288	062288	062288	Bracket, Manifold Mounting
24	230587	230587	230587	Module Board	57	120158	120158	120158	Screw, #8 x 3/8 (2 Required)
25	230625	230625	230625	Relay, Time Delay	58	X170744	X170744	X170744	Manifold Assembly
26	121357	121357	121357	Screw, #6 x 5/8 (2 Required)	59	120158	120158	120158	Screw, #8 x 3/8 (4 Required)
27	062392	062392	062392	Stiffener Bracket, Combustion Air Housing	60	180225	180224	180231	Orifice, Main Burner
28	120158	120158	120158	Screw, #8 x 3/8 (2 Required)	61	070449	070449	070449	Gasket, Manifold
29	070450	070450	070450	Gasket, Burner Tunnel	62	X010614	X010595	X010614	Burner Assembly

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 to the authorized Suburban Service Center at rates mutually agreed upon between Suburban and its authorized service centers. Replacement parts will be shipped freight prepaid within the Continental United States, Alaska and Canada.

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.

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.
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. 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.
9. Suburban products whose serial number has been altered, defaced or removed.
10. Suburban products installed outside the Continental U.S.A., Alaska and Canada.
11. Damage as a result of floods, winds, lightning, accidents, corrosive atmosphere or other conditions beyond the control of Suburban.
12. 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



DAYTON, TENNESSEE