



676 Broadway Street
Dayton, Tennessee 37321
423-775-2131
www.AIRXCEL.com



INSTALLATION INSTRUCTIONS FOR MODELS NT-30SP • NT-34SP



The design of the furnace has been listed 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 AIRXCEL, INC. - SUBURBAN DIVISION.

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.

This book contains instructions covering the operation and maintenance of your furnace.
INSTALLER: LEAVE THIS MANUAL WITH THE APPLIANCE. **CONSUMER: RETAIN THIS MANUAL FOR FUTURE REFERENCE.** Should you require further information, contact your dealer or nearest Suburban Service Center.

⚠ 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.

⚠ WARNING

FIRE, EXPLOSION AND ASPHYXIATION HAZARD

Improper adjustment, alteration, service, maintenance or installation can cause serious injury or death.

Read and follow instructions and precautions in User's Information Manual provided with this furnace. Installation and service must be performed by a qualified 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.

⚠ WARNING

FIRE OR EXPLOSION HAZARD

Failure to follow safety warning exactly could result in serious injury, death or property damage.

— Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

— WHAT TO DO IF YOU SMELL GAS

- 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.

— Installation and service must be performed by a qualified installer, service agency or the gas supplier.

⚠ WARNING

CARBON-MONOXIDE POISONING HAZARD

Failure to follow instructions could result in severe personal injury or death due to carbon-monoxide poisoning, if combustion products infiltrate into the building.

Check that all openings in the outside wall around the vent (and air intake) pipe(s) are sealed to prevent infiltration of combustion products into the building.

Check the furnace vent (and air intake) terminal(s) are not obstructed in any way during all seasons.

⚠ 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 opened.

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.

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.

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. It is imperative that the products of combustion be properly vented to the atmosphere and that all combustion air supplied to burner be drawn from the outside atmosphere. (See Installing Vent Assembly.)

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.

NOTE: These furnaces shall be installed so the electrical components are protected from water.

NOTE: Do not install the furnace with the vent facing toward the forward end of the coach. See figures 9 and 10.

Please adhere strictly to the installation instructions to insure proper installation and safe operation, as well as adequate clearances for accessibility.

These furnaces are certified for use with propane gas only. Gas supply pressure for purposes of input adjustment:

GAS	MINIMUM	MAXIMUM
Propane	11.0" W.C.*	13.0" 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 NFPA 1192.
2. National Fuel Gas Code ANSI Z223.1/NFPA 54.
3. Furnace must be electrically grounded in accordance with the latest edition of the National Electrical Code NFPA 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:

1. Standard CAN/CSA Z240.0.2-08 Recreational Vehicles.
2. CSA Standard CAN/CSA Z240.6.2-08/C22.2 No. 148-08 Electrical Requirements for Recreational Vehicles.
3. Standard CAN/CSA Z240.4.2-08 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

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. Other openings may be used as well. The minimum return air to the furnace must total 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.

NOTE: Return air must be from within 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.

A. INSTALLATION DIRECTLY AGAINST OUTER SKIN OF COACH
(See Figure 1)**MAXIMUM WALL THICKNESS FOR THIS TYPE OF INSTALLATION IS 3"**

- 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.
- 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.
- 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.)
- Cut an opening through the inner wall 12 7/16 x 13". This will allow the rear of the furnace to be installed against the outer skin of the coach. (See Figure 1.)
- Cut two 2 1/4" diameter holes through the outer skin of coach as shown in Figure 1.
- 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).
- Secure furnace to the floor using the two (2) holes provided in the furnace cabinet. (See Figure 1.)
- 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 OF INSTALLATION IS 2 1/4"**

- 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.
- 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.
- 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.)
- 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.)
- 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).
- Secure furnace to the floor using the two (2) holes provided in the furnace cabinet. (See Figure 1.)
- 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. Figure 4 lists by kit number the vent extension range up to 9".

Example: If the distance you measured is 2 7/8", using Figure 4 as your guide, you will order Kit #520498, 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 AIRXCEL, INC. - SUBURBAN DIVISION.

Model	Front	Left Side	Right Side	Top	Bottom	Back	Exhaust and Intake Tube
NT-30SP	0"	1"	1"	0"	0"	0"	3/8"
NT-34SP	0"	2"	2"	0"	0"	0"	3/8"

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

TABLE 1

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.

- 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.
- Insert intake tube through RV skin and slide it onto the furnace intake (See Figure 2.) Minimum tube overlap of 1/2" is required.
- Insert vent cap exhaust tube through RV skin and slide it onto the furnace exhaust (See Figure 2.) Minimum tube overlap of 1 1/4" is required.
- Attach vent cap assembly to outer skin of RV with the six (6) screws provided. Do not install vent assembly upside down. The word "Suburban" must be right side up.
- Attach the vent assembly to the furnace using the special 3 1/4" screw provided. Insert screw through hole provided in exhaust opening of vent assembly and secure to bracket in exhaust tube of furnace. This anchors the furnace to the vent assembly and the outer skin of the RV (See Figure 2.)

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 propane 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 PSIG.

NOTE: 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 PSIG.

- Be sure that the gas fitting is outside of the furnace jacket and easily accessible. (See Figure 1.) The fitting may be connected directly to the 90° elbow at the gas inlet to the furnace. To assure an airtight seal, be sure the gasket provided with the furnace is installed between the fitting and the furnace cabinet, as illustrated in Figure 1. If this gasket is omitted, it could result in overheating of component parts within the furnace.
- In order to maintain a check on gas supplied pressure to the furnace, a 1/8" NPT plug tap must be installed and accessible for test gauge connection immediately upstream of the gas supply connection to the furnace.
- 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. Connect only to a protected circuit fused for not more than 20 amps.

Be sure all wiring to the furnace is of heavy enough gauge to keep the voltage drop through it to a minimum and to provide enough power for start-up surge. 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.

Connect the power supply to the quick connect pigtail 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 with 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 service two purposes.

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

CONNECTING DUCTS TO FURNACE

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

1. For Model NT-30SP, maintain a minimum of 36 square inches open duct area throughout entire duct system including through register. (Minimum 3 ducts - 4" diameter.)

For Model NT-34SP, maintain a minimum of 48 square inches open duct area throughout entire duct system including through register. (Minimum 4 ducts - 4" diameter.)

On all models, maintain a minimum of 48 square inches throughout entire duct system including through register when under floor ducting is used.

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. No outlet register is to be placed within 18" of the return air opening. Any register installed at 18" should never be adjusted to blow the outlet air toward the return air opening. If a register is installed on a wall 90 degrees to the return air, it can be less than the 18".

3. 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.

4. 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.

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

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

7. 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

The thermostat used with this unit must have NO voltage output to return leg when there is not a call for heat or in the "OFF" setting.

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 wires to the blue wires leaving power supply plug on right side of furnace. (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 longer 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 disconnecting for servicing and servicing controls. Wiring errors can cause improper and dangerous furnace operation. Proper polarity MUST BE OBSERVED so the furnace motor will run with the proper direction of rotation to insure correct air delivery. (See wiring diagram).

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.

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 chamber and venting to assure that these components are physically sound without holes or excessive corrosion and that the installation and/or re-installation 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.)
6. 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.
7. 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 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 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 8). 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 6). 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 6).

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 Propane 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.

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 into 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.

PARTS AND SERVICE

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 with the appliance installed.

To obtain information on locating a local service agency, contact:

AIRXCEL, Inc., - Suburban Division
Customer Service Department
 676 Broadway Street
 Dayton, TN 37321
 (423) 775-2131 Ext. 7101
www.Airxcel.com

*3 1/2" FROM CENTER LINE
OF INTAKE TO CENTER LINE
OF EXHAUST

** 7 1/2" FROM CENTER LINE
OF INTAKE TO FLOOR

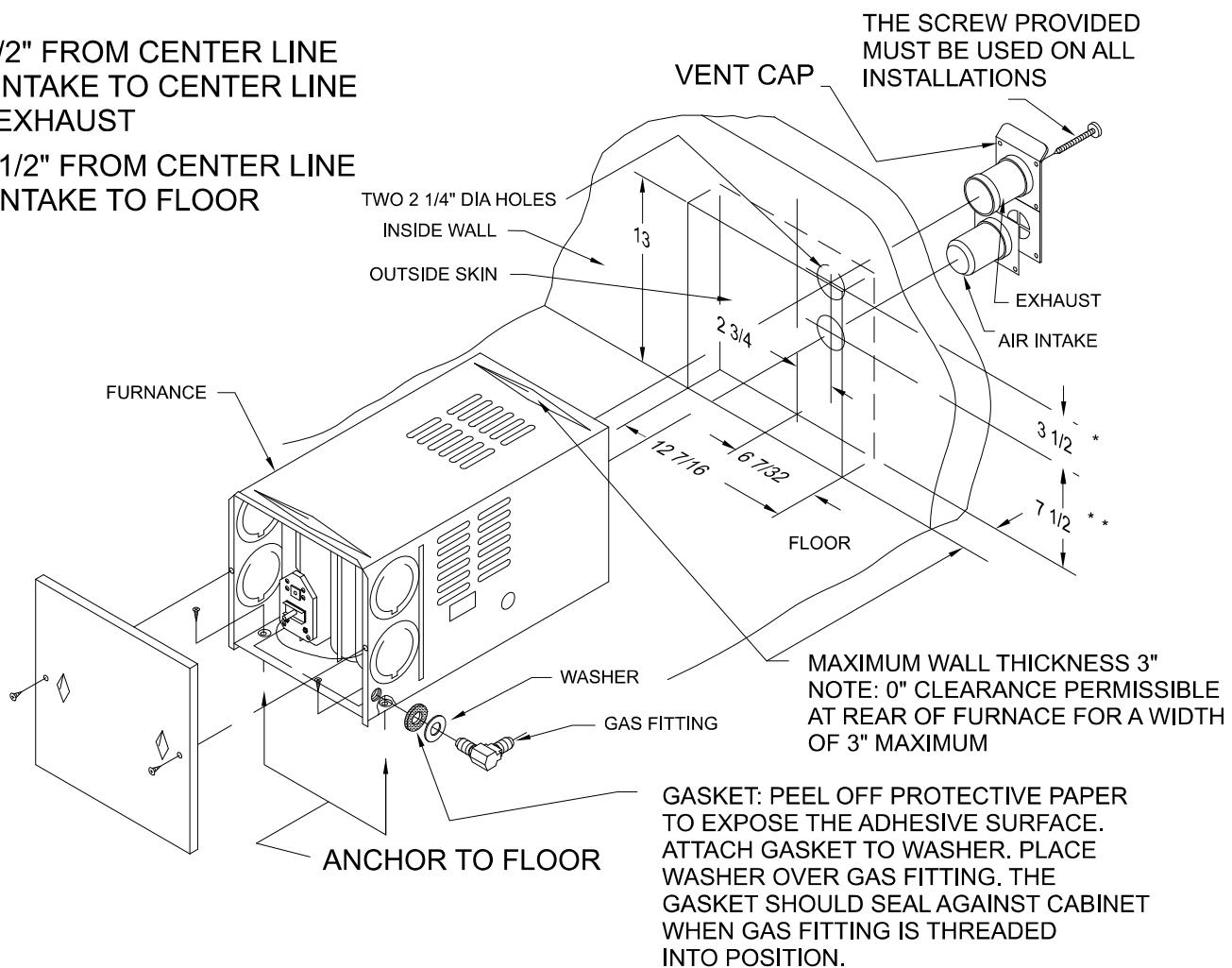


Figure 1

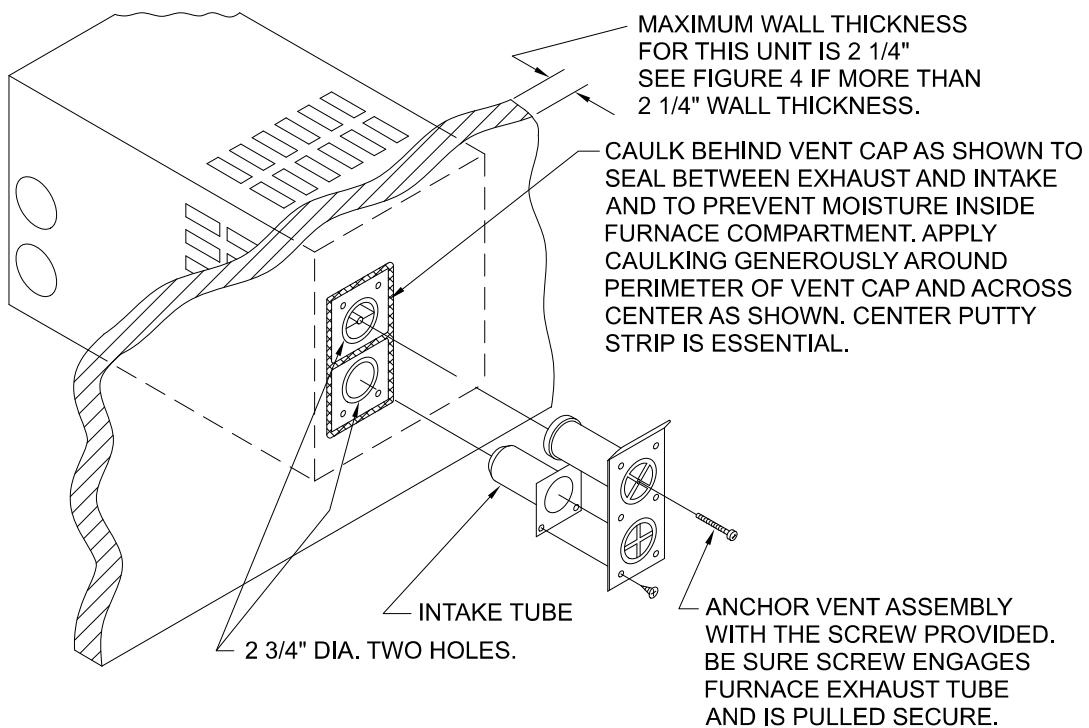


Figure 2

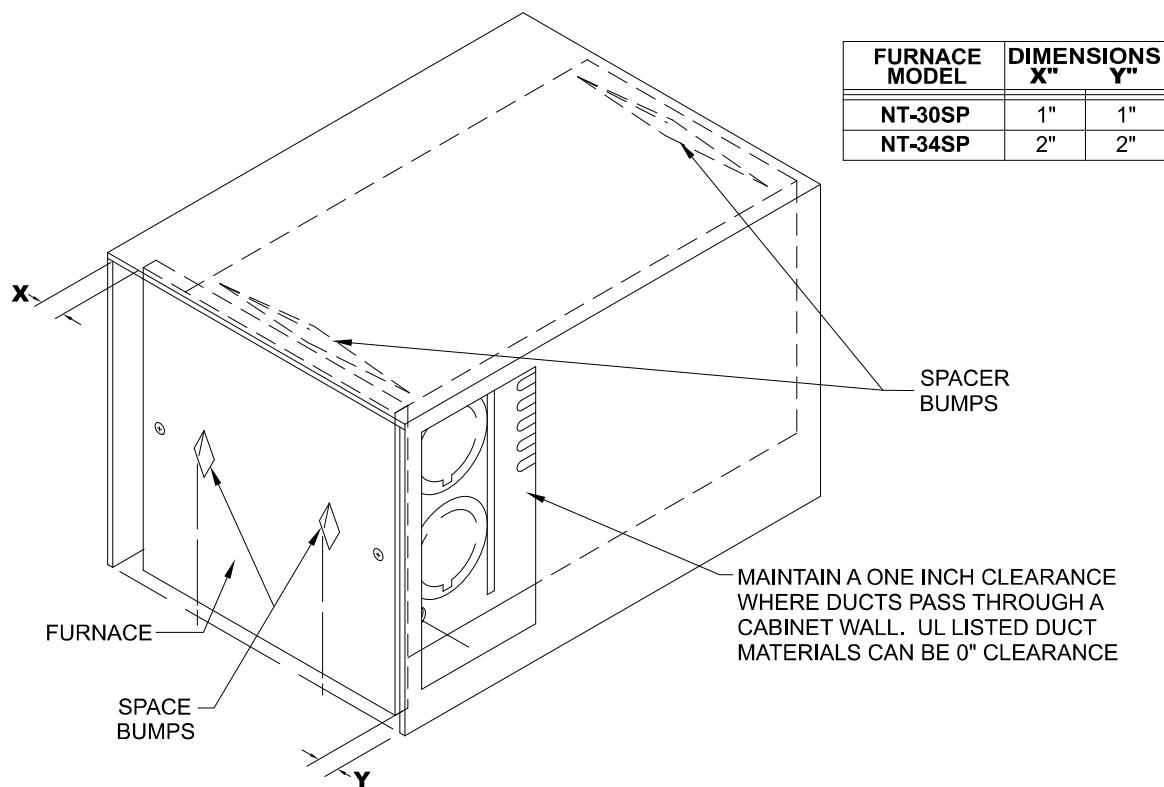


Figure 3

EXTENSION TUBE KIT NUMBER	MIN/MAX LENGTH (EXTENSION TUBE RANGE)
520972	2 1/4" to 3 1/8"
520973	3 1/8" to 4 7/8"
520500	4 7/8" to 7"
520501	7" to 9"

Figure 4

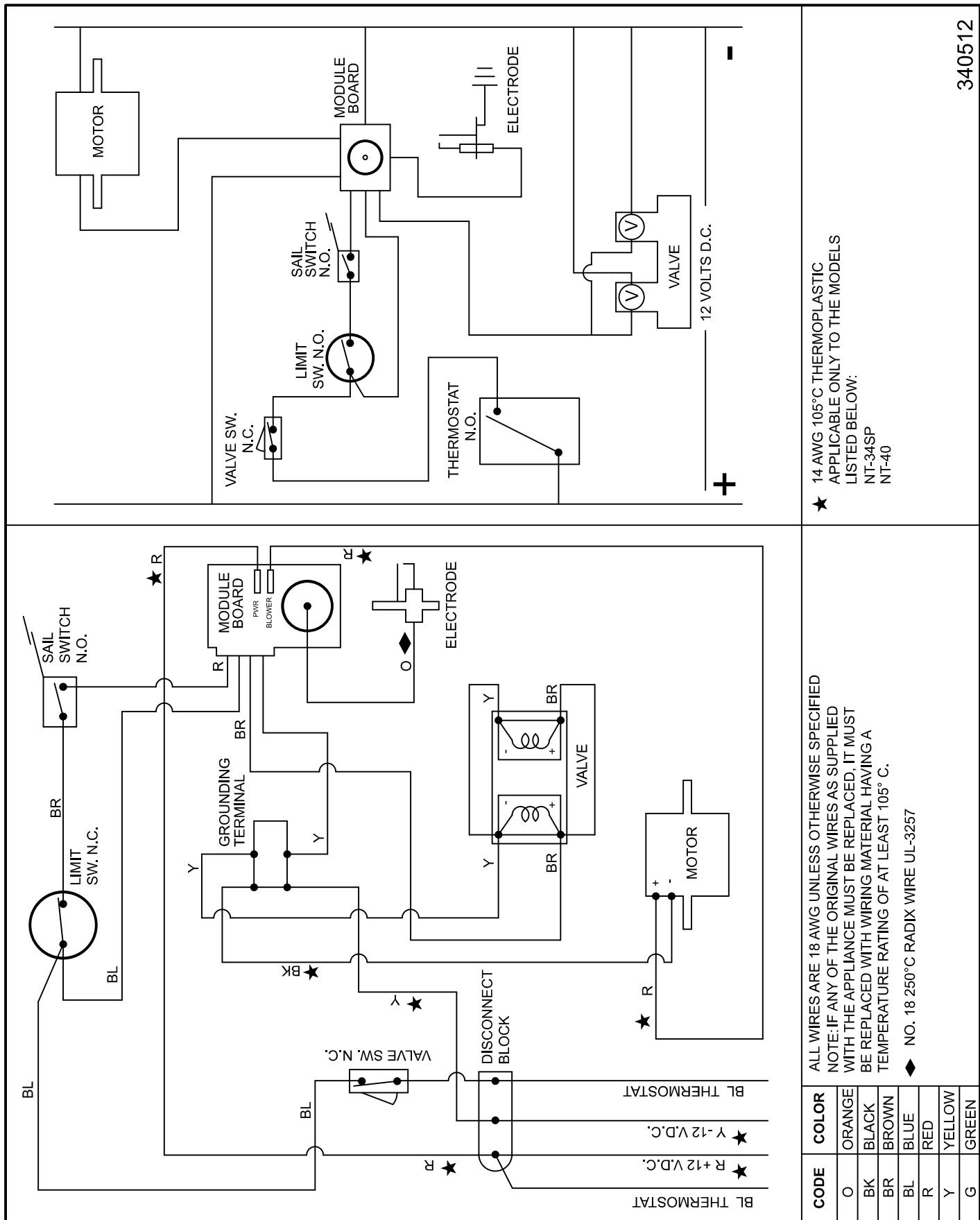


Figure 5

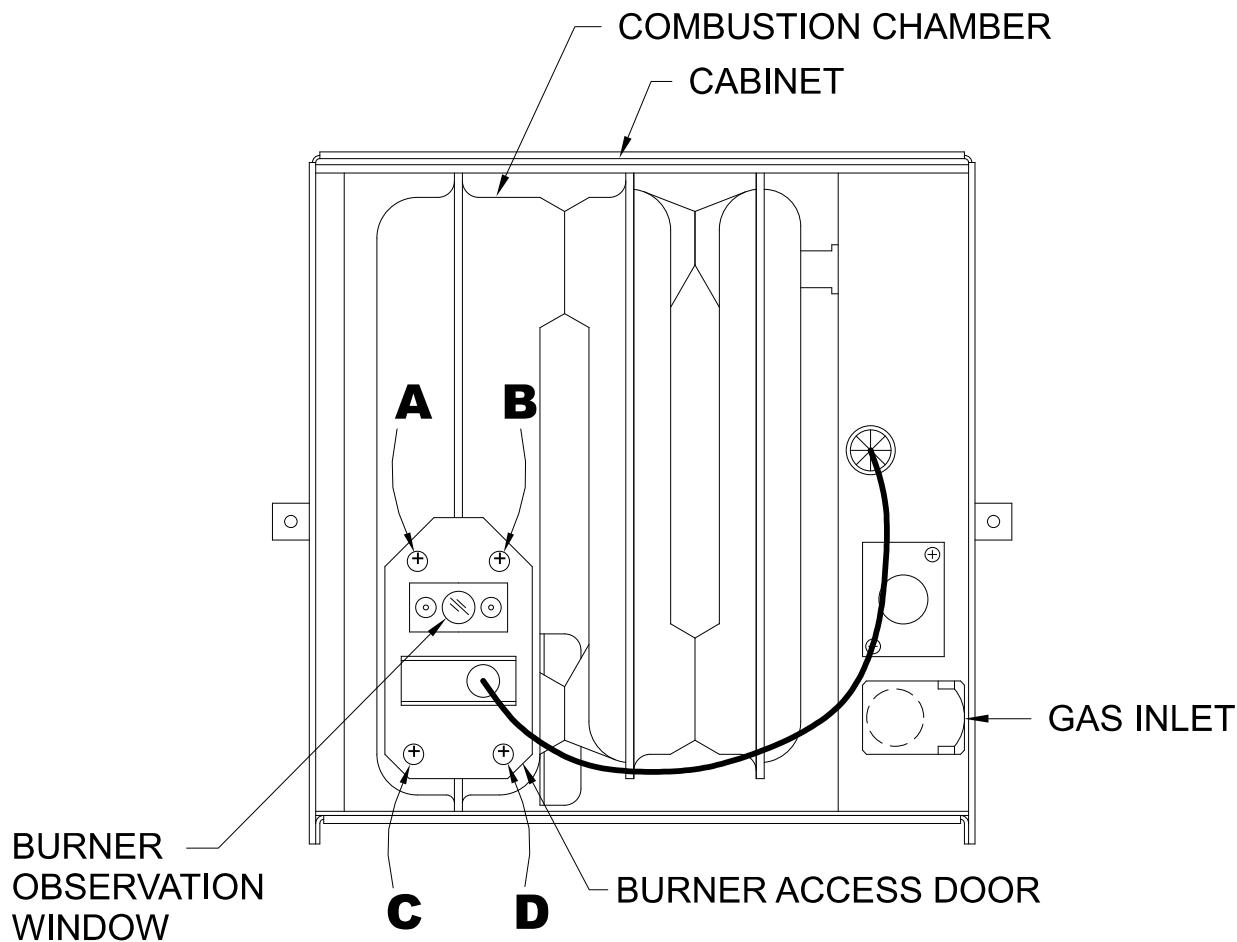
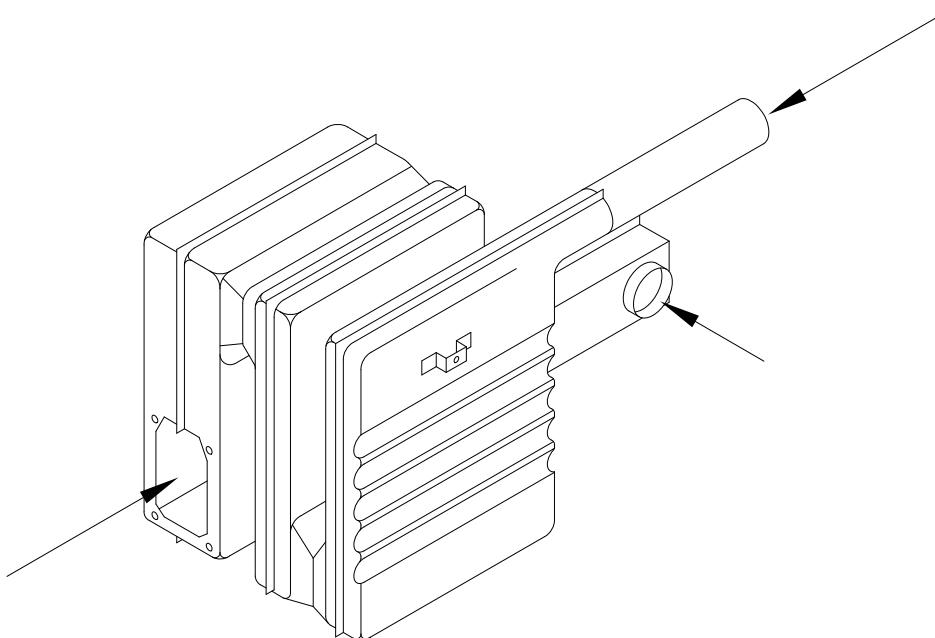
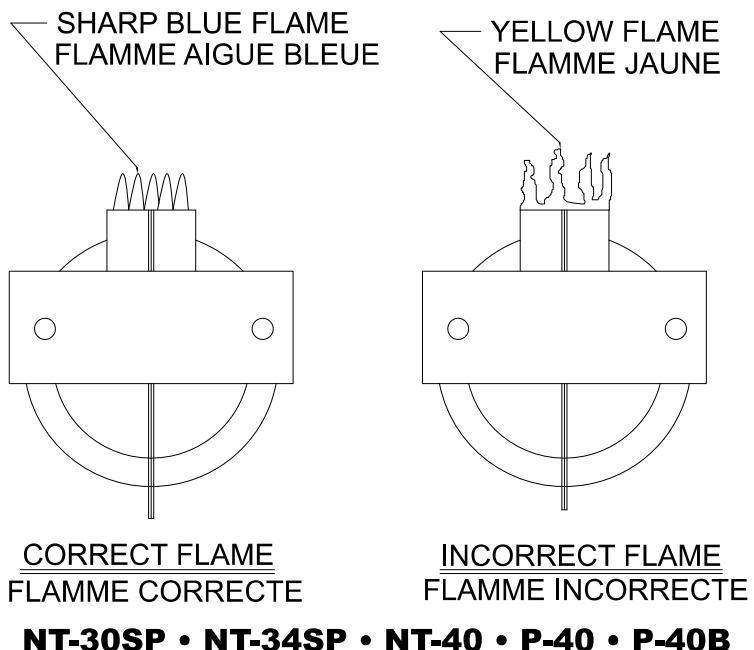


Figure 6



TO CLEAN THE CHAMBER, THE FURNACE MUST BE REMOVED FROM THE CABINET AND THE MANIFOLD, BLOWER ASSEMBLY AND CONTROLS REMOVED LEAVING THE CHAMBER **ONLY**, AS SHOWN. USING COMPRESSED AIR, BLOW THROUGH THE CHAMBER, AS SHOWN BY ARROWS, TO REMOVE SOOT OR LOOSE DEBRIS.

Figure 7



NT-30SP • NT-34SP • NT-40 • P-40 • P-40B

Figure 8

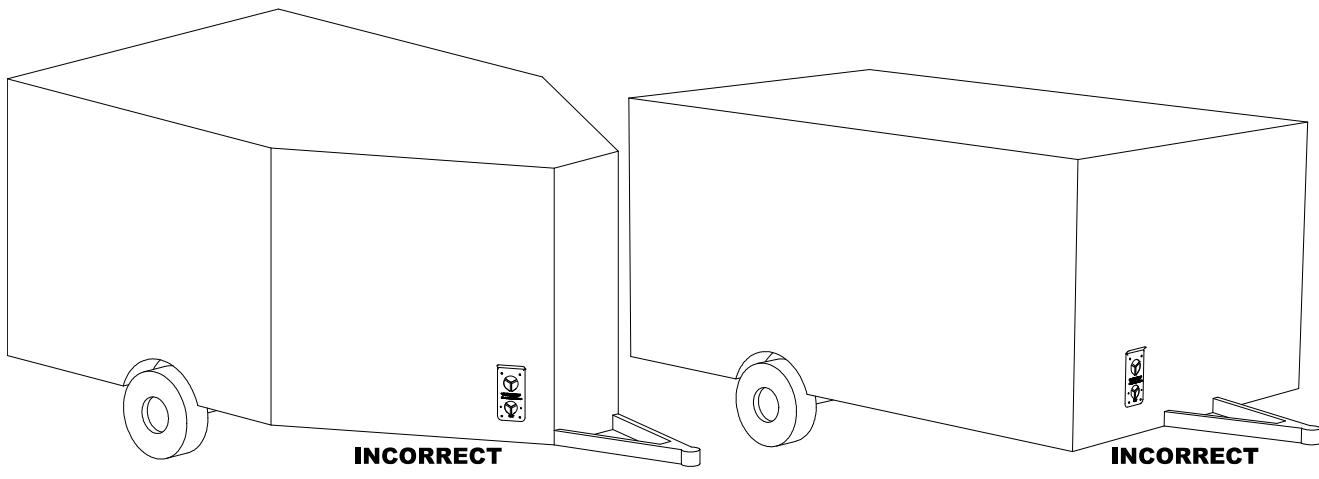


Figure 9

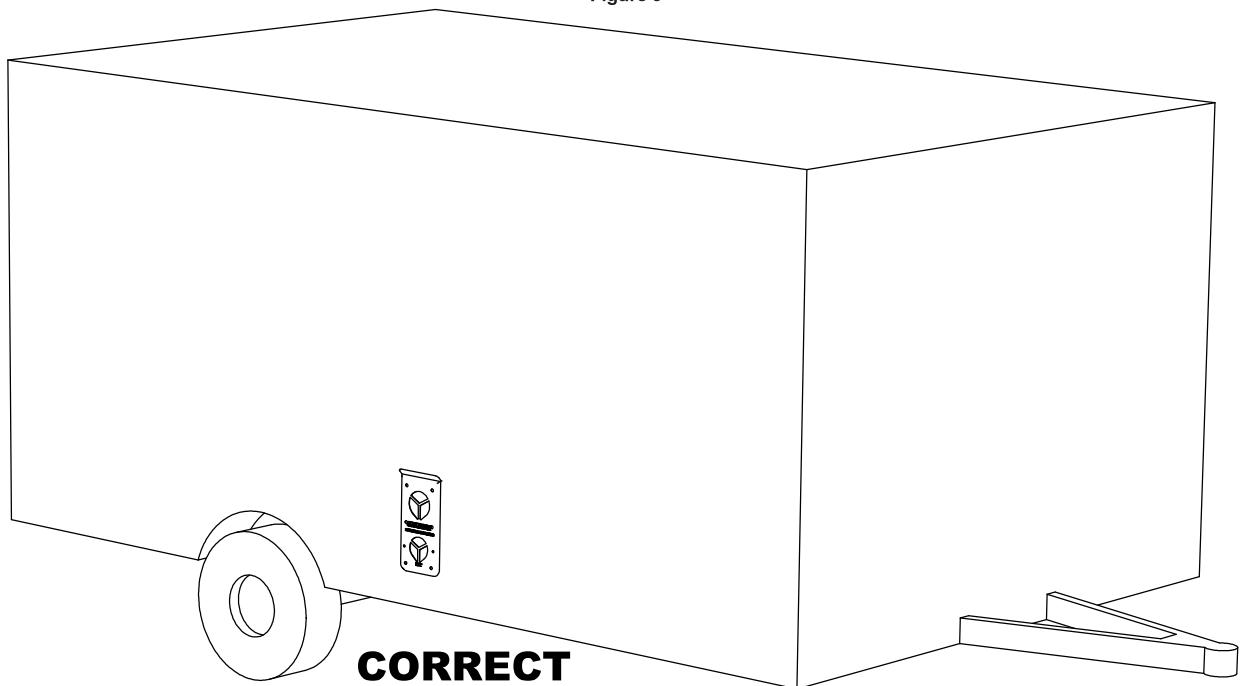


Figure 10

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.**

Suburban reserves the right to examine the alleged defect in the furnace or component parts, and it is the owner's obligation to return the furnace and/or component parts to Suburban or its representative. When returning a furnace, it must include all component parts and the serial number plate. Returned component parts must be individually tagged and identified with the furnace's model number, serial number and date of installation.

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.AIRXCEL.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. 7101
www.AIRXCEL.com

FOR FUTURE REFERENCE, YOU SHOULD RECORD THE FOLLOWING INFORMATION:

MODEL NUMBER: _____

SERIAL NUMBER: _____

STOCK NUMBER: _____

DATE OF PURCHASE: _____



Figure 10

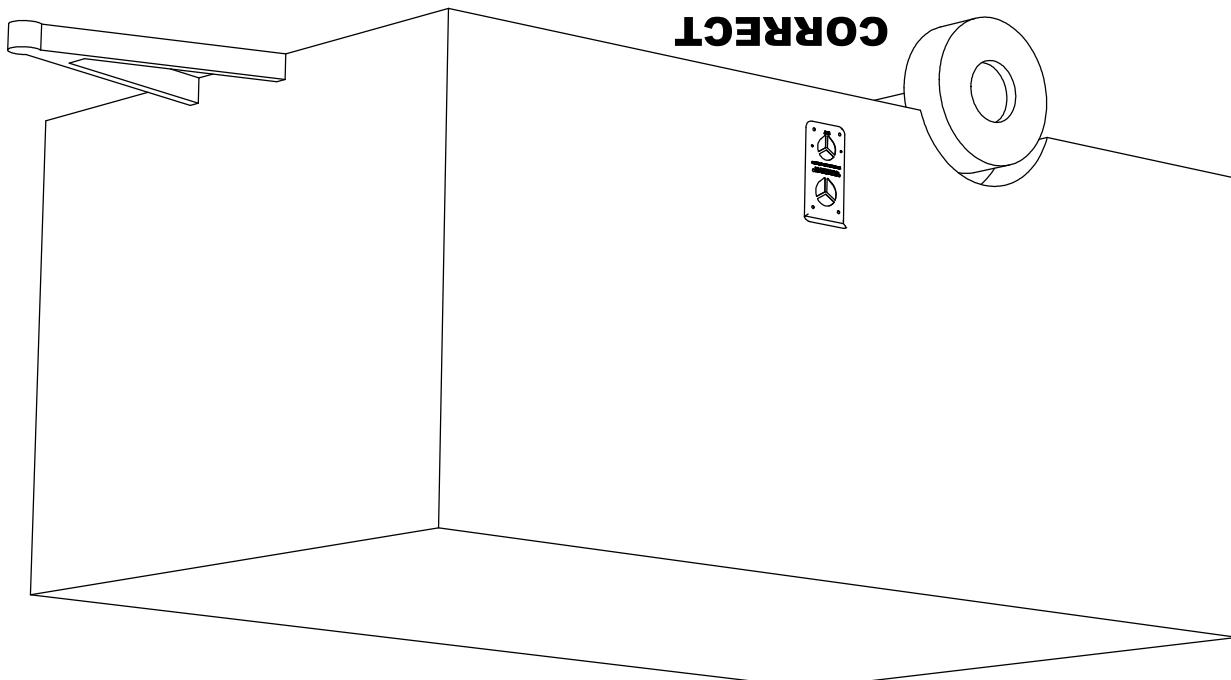


Figure 9

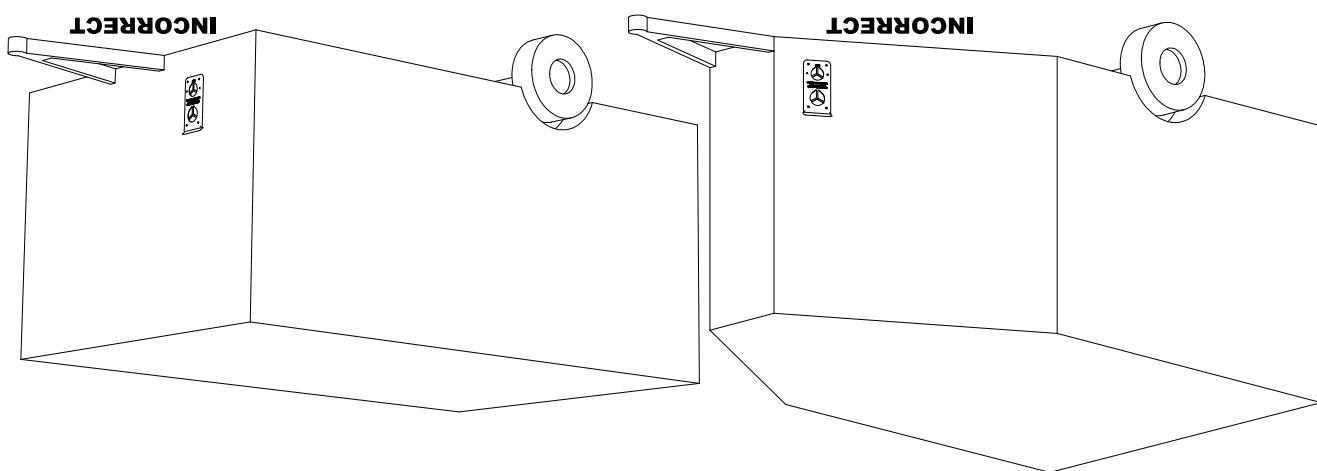
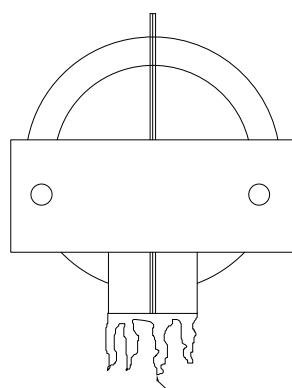


Figure 8

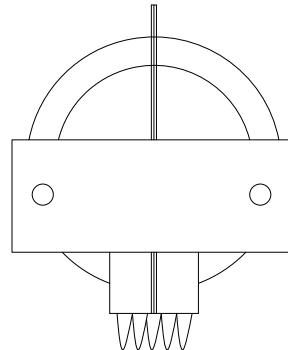
NT-30SP • NT-34SP • NT-40 • P-40 • P-40B

CORRECT FLAME
INCORRECT FLAME
FLAMME INCORRECTE



YELLOW FLAME
FLAMME JAUNE

CORRECT FLAME
INCORRECT FLAME
FLAMME CORRECTE



SHARP BLUE FLAME
FLAMME AIGUÉE BLEUE

Figure 7

POUR NETTOYER LA CHAMBRE DE COMBUSTION, ON DOIT RETIRER L'APPAREIL DE CHAUFFAGE DU PLACARD ET DÉPOSER SON SYSTÈME DE DISTRIBUTION, VENTILATEUR ET ORGANES DE COMMANDE, IL NE DOIT RESTER QUE LA CHAMBRE DE COMBUSTION COMME ON LE VOIT ICI. POUR ÉLIMINER LA SUIE ET LES DÉBRIS ACCUMULÉS, INJECTER UN JET D'AIR COMPRISE DANS LES OUVERTURES IDENTIFIÉES PAR LES FLÈCHES.

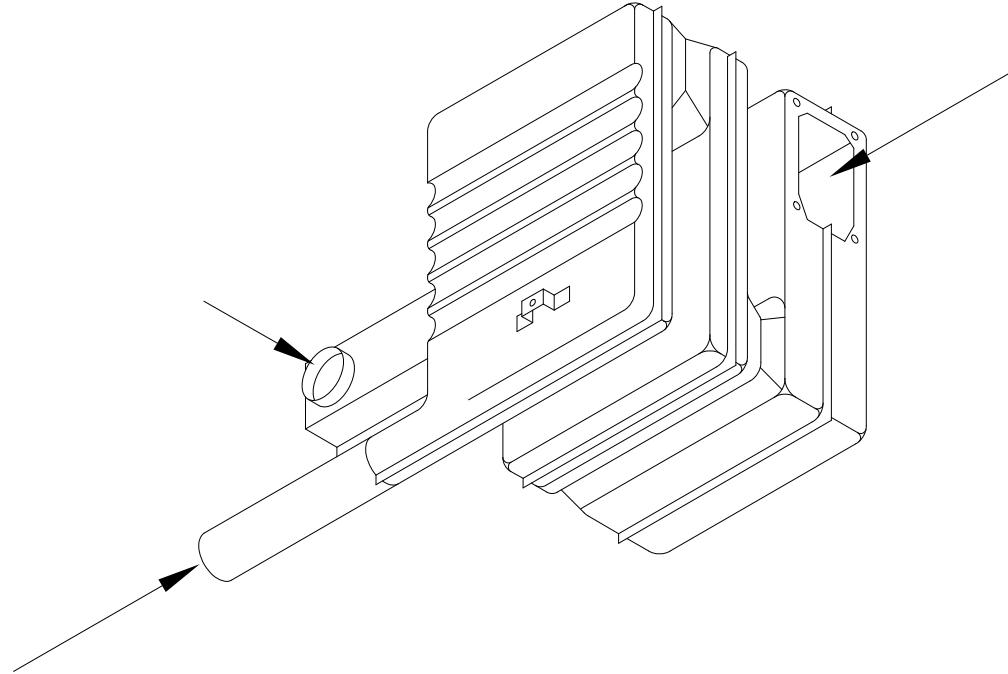


Figure 6

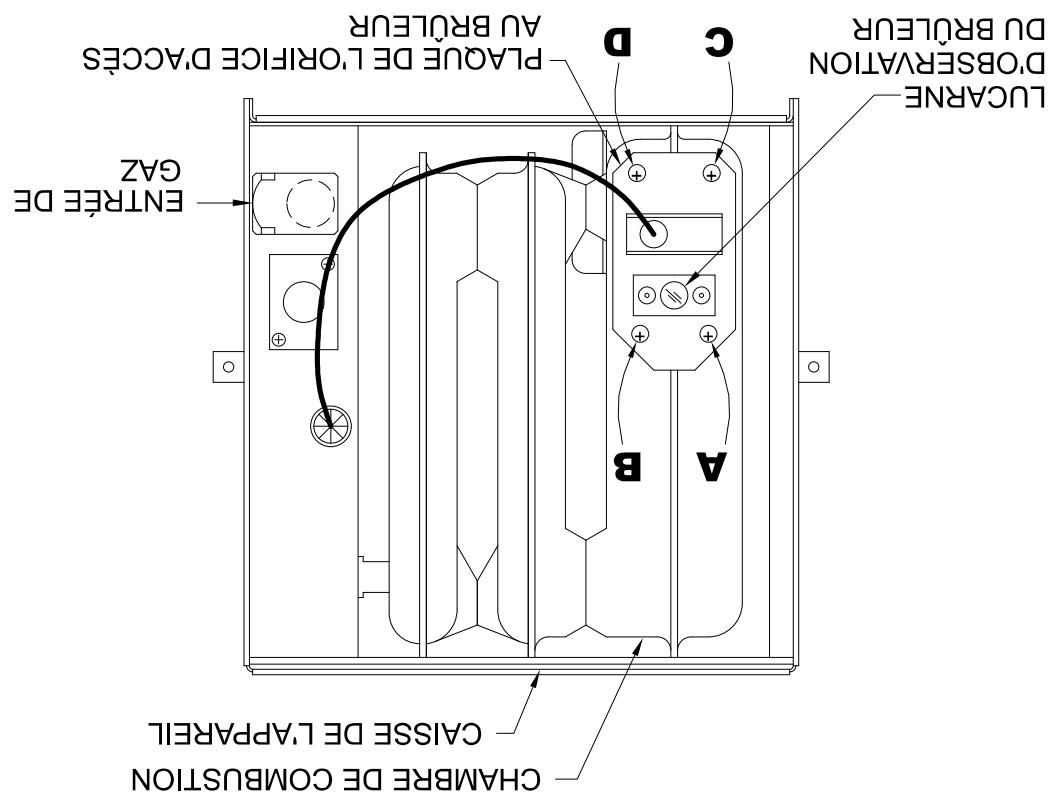


Figure 5

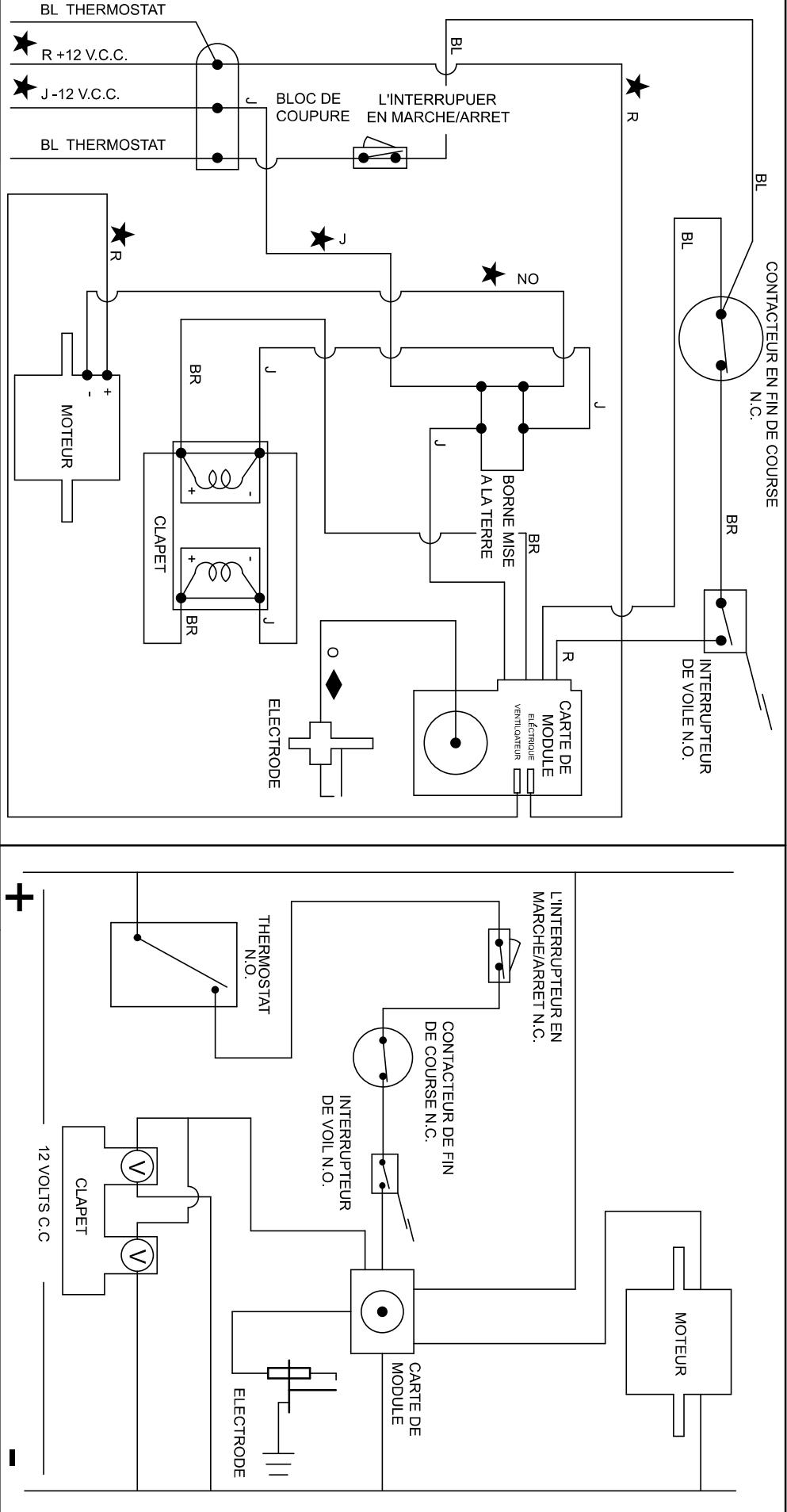


Figure 4

520972	TUBE D'EXTENSION LONGEUR MINI/MAXI (FOURCHETTE DIMENSIONNELLE)	2 1/4 PO to 3 1/8 PO	520973	3 1/8 PO to 4 7/8 PO	520974	4 7/8 PO to 7 PO	520500	7 PO to 9 PO	520501
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Figure 3

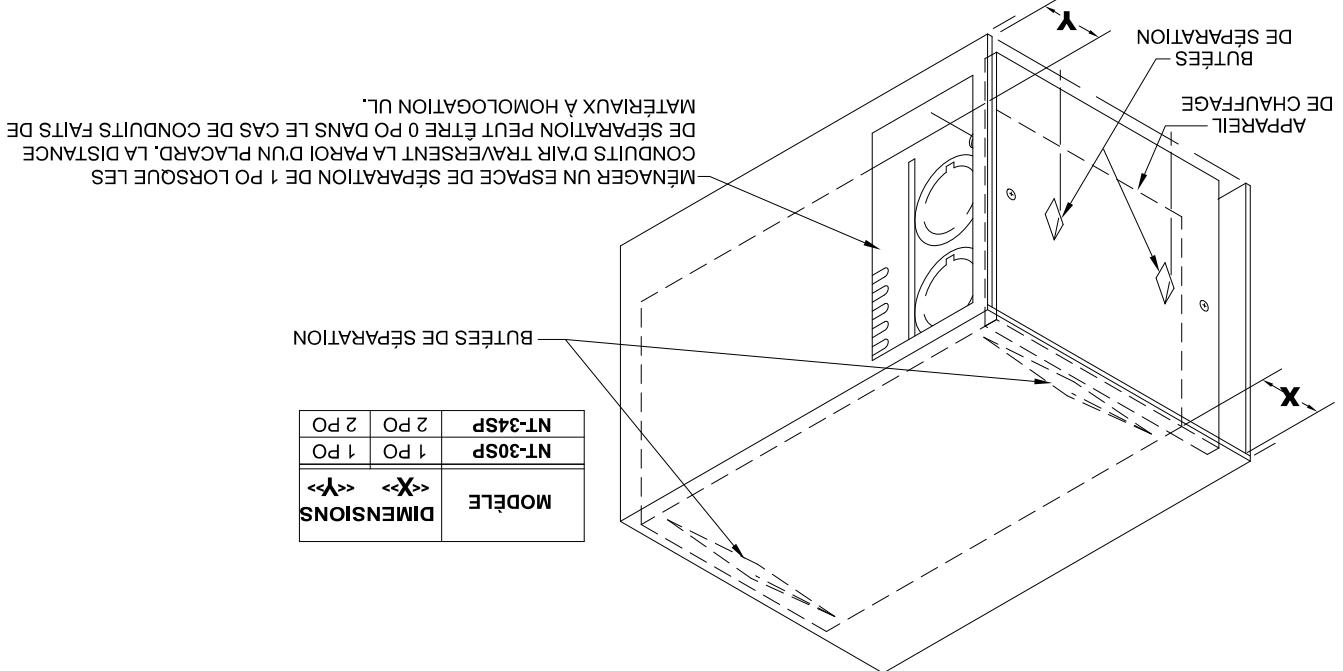
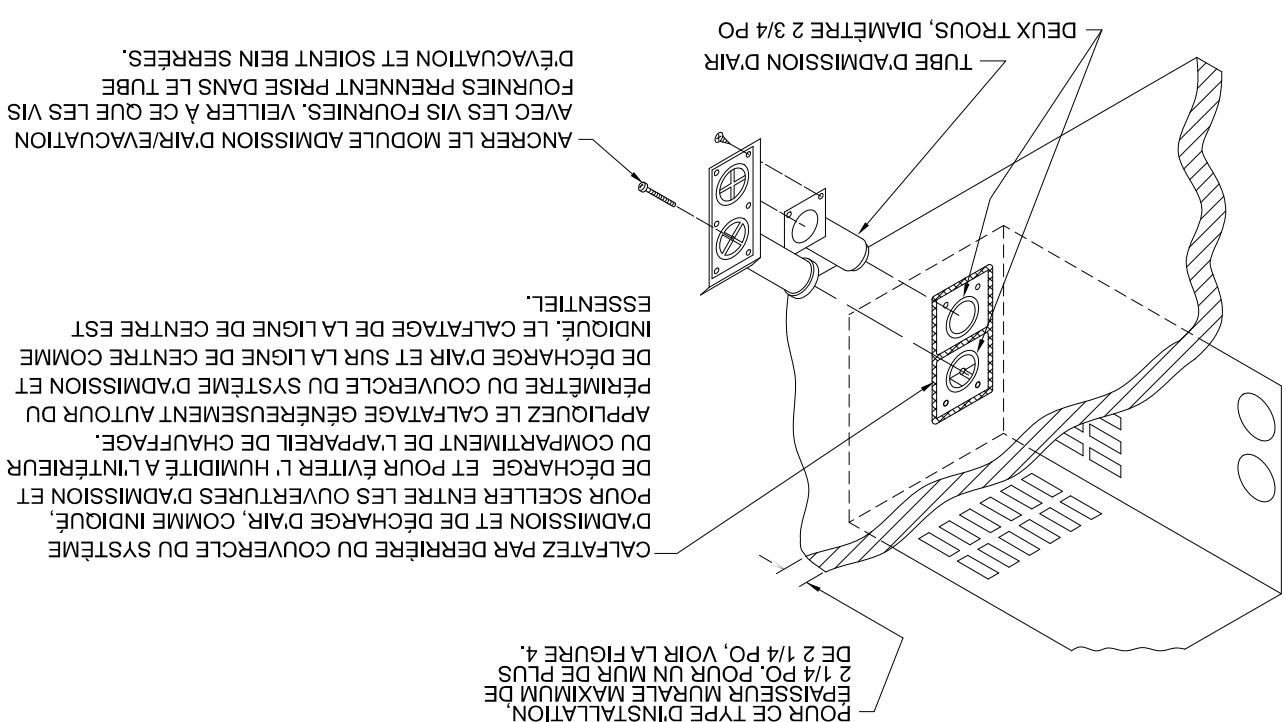


Figure 2



MISE EN GARDE

NOTE: La température de l'échappement de l'escadron certaines matraux. Veuillez toujours utiliser le démolir certains matériaux. Verifiez toujours que le matériau utilisé est approuvé pour la porte du véhicule, puisque une défaillance de l'échappement peut entraîner un incendie dans la cabine.

Si c'est possible, ne pas installer l'appareil de chauffage dans une configuration où il est possible de débrancher l'appareil de chauffage sans une configuration qui oblige à débrancher la porte et toute la boîte de charge de l'appareil de chauffage.

MISE EN GARDE

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A VOTRE SECURITE PAS REMISER OU UTILISER LIQUIDES OU D'AUTRES PRODUITS D'INFLAMMABILITE PROXIMITE DE CET APPAREIL OU D'AUTRE APPAREIL.

Ces callofères doivent être installés et déchargés comme défi dans ce manuel pour que la pression négative créée par le ventilateur de l'air en circulation (l'air de reprise) ne peut pas affecter l'admission de l'air de combustion ou le décharge d'au moins apparemment. C'est important que tout l'air de combustion soit en décharge au bac est tiré de l'atmosphère à l'extérieur. Voir l'installation de l'assemblage ventouse.

Dans toute situation dans laquelle la ventilation de cet appareil peut être courue à cause de la construction du véhicule de récréation ou quelque autre cause, assurez-vous que l'appareil fonctionne correctement. Si l'appareil ne fonctionne pas correctement, il peut dégager de la chaleur et causer des blessures graves.

A cause des différences des baradages de vinyly, cet appareil ne doit pas être installé sur le bardage de vinyly sans permettrement consulter le fabricant du bardage ou pour le bardage au loin de l'endroit autorisé de la venteuse de l'appareil.

A VOTRE SECURITE

NE PAS REMISER OU UTILISER DES LIQUIDES OU GAZEUX INFAMMABLES A PROXIMITE DE CET APPAREIL OU D'UNE AUTRE APPAREIL.

Ces callofères doivent être installés et déchargés comme décrit dans ce manuel pour que la pression négative créée par le ventilateur de l'air en circulation (l'air de reprise) ne puisse pas déclencher l'admission de l'air extérieur. (Voir L'installation de l'assemblage ventouse.)

Dans toute situation dans laquelle la ventilation de cet appareil peut être courue à cause de la construction du véhicule de récréation ou quelque autre source d'air soufflé dans l'appareil. Ne jamais faire fonctionner l'appareil lorsque la bouche de décharge à l'appareil. Ne jamais faire fonctionner l'appareil lorsque la bouche de décharge est obstruée.

A cause des différences des baradages de vinyly, certains appareils n'ont pas été installé sur le bardage de vinyly sans permettre de consulter le tableau au bardage ou pour le bardage au loin de l'endroit autorisé de la venteuse de l'appareil.

INSTRUCTIONS D'INSTALLATION

Aux U.S., l'installation doit statiser les prescriptions des codes détail ou autres codes, en l'absence de tels codes, consulter la dernière édition de : Standard for Recreational Vehicles N.F.P.A. 1192 (norme pour véhicules récréatifs).

1. Aux U.S., l'installation doit statiser les prescriptions des codes détail ou autres codes, en l'absence de tels codes, consulter la dernière édition de : Standard for Recreational Vehicles N.F.P.A. 1192 (norme pour véhicules récréatifs).

2. National Fuel Gas Code ANSI Z223.1/N.F.P.A. 54 (code national des installations de gaz).

3. L'aspiration de chauffage doit être électriquement reliée à la masse, conformément aux prescriptions de la dernière édition du Code national des installations électriques/N.F.P.A. 70.

4. Au Canada, l'installation doit statiser les prescriptions de : Code de l'électricité du Québec et du disjoncteur d'allumage électrique dont la consommation est de 0,1 A sous 12 VCC.

5. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.0, 6.2-08/Véhicules récréatifs.

6. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.2-08/Véhicules récréatifs.

7. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.2-08/Véhicules récréatifs.

8. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.4, 2-08/Installation électrique des véhicules récréatifs.

9. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.4, 2-08/Installation des équipements et appareils à propane dans les véhicules récréatifs.

10. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.4, 2-08/Installation électrique des véhicules récréatifs.

11. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.2-08/Véhicules récréatifs.

12. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.2-08/Véhicules récréatifs.

13. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.2-08/Véhicules récréatifs.

14. Au Canada, l'installation doit statiser les prescriptions de : Norme CAN/C.SA-Z-240.4, 2-08/Installation électrique des véhicules récréatifs.

GAS	MAXIMUM	MINIMUM	11 po H₂O*	13 po H₂O*	Propane
Véeuillez adhérer à l'avant du véhicule. Voir figures 9 et 10.	Instructions d'installation pour assurer une installation propre et fonctionnement sûr, aussi bien que des espaces libres pour l'accèsibilité.	Ces caloferes sont certifiés pour l'utilisation seulement avec le gaz de propane. La pression de la source de gaz pour les installations d'ajustage devra être de propane.			
REMARQUE: Lors de l'installation de l'appareil, ne pas orienter la bouche de décharge vers l'avant du véhicule. Voir figures 9 et 10.					
Sur protégés de l'eau.					
REMARQUE: Ces caloferes servent installés pour que les composantes électriques					

Si cet appareil de chauffage doit être raccordé à un circuit de conduits qui dessert également un appareil de climatisation, on doit installer un volant à manivelle manuelle ou automotrice destiné à empêcher l'air refroidi dès le dirigeur vers l'appareil de chauffage. Le message d'air refroidi dans la chambre de combustion favorise la corrosion et conduire à une défaillance prématurée de la chambre de condensation d'eau dans la chambre de combustion; cette condensation peut dé s'aggraver alors que le climatiseur fonctionne susciterait une combusstion de l'appareil de chauffage.

AVERTISSEMENT

On peut instaurer cet appariel de chaufrage selon les trois méthodes décrites ci-dessous. Quelle que soit la méthode choisie, il est indispensable qu'une ouverture permanente soit réalisée dans le placard du véhicule. L'excavation devrait l'appareil de chantage. L'ouverture peut être utilisée pour le retrait de l'air à l'appareil.

On peut instaurer cet appariel de chaufrage selon les trois méthodes décrites ci-dessous. Quelle que soit la méthode choisie, il est indispensable qu'une ouverture permanente soit réalisée dans le placard du véhicule. L'ouverture peut être utilisée pour le retour de l'air à l'appareil.

AVERTISSEMENT

Le dessin de ces calorifères a été créé pour l'installation dans les véhicules de récréation. Il faut que ces calorifères fonctionnent conformément aux normes de sécurité pour l'appareil de chauffage à être homologuée pour l'installation dans les véhicules recréatifs seulement. Pour que l'appareil fonctionne en conformité avec les critères de sécurité généralement acceptés, on doit se conformer aux instructions d'installation. Toute non-conformité par rapport aux instructions d'installation rend la garantie de l'appareil invalide et annule toute responsabilité de la part de AIRXCEL, INC. - SUBURBAN DIVISION.

L'appareil a été inspecté avant son départ de l'usine. Avenant qu'un composant quelconque soit endommagé, ne pas installer l'appareil immédiatement le transporter pour soumettre une demande.

Ce manuel contient des instructions couvrant le fonctionnement et l'entretien de votre appareil de chauffage.

INSTALLATEUR: LAISSEZ CETTE NOTICE AVANT L'APPAREIL. CONSOMMATEUR: CONSERVEZ CETTE NOTICE

POUR CONSULTATION ULTÉRIEURE. Pour toute demande d'information, contactez le concessionnaire ou le plus



INSTRUCTIONS D'INSTALLATION • **POUR MODELES NT-30SP • NT34SP**

www.AIRXCEL.com

423-775-2131

Dayton, Tennessee 37322

676 Broadway Street

Suburban



A VERTISSEMENT

Proche centre de service Suburban.

proche centre de service Suburban.

L'installation de cet appareil doit étre exécutée en accordanee avec les instructions écrites qui sont dans le manuel. Aucun agent-fourmisseur ne peut être tenu responsable pour tout dommage résultant d'une utilisation incorrecte ou dérogante au contenu des instructions fournies par la personne, n'a l'autorité pour changer, modifier ou déroger le contenu des instructions fournies dans ce manuel.

AVERTISSEMENT

«RISQUE D'INCENDIE, D'EXPLOSION
ET ASPHYXIE»

«Un reglage, une modification, un rparation, un entretien ou une installation incorrect puet entraîner des blesssures graves ou la mort.»
«Suivre les instructions et les consignes qui figurent dans la notice d'utilisation qui accompagne ce générateur d'air chaud. L'installation et l'entretien doivent étre effectués par un rparateur qualifié ou par le fournisseur.

Vérifier que l'appareil et tous les systèmes d'allumage sont à la position d'arrêt lors du remplissage du réservoir de carburant, ou lorsqu'un véhicule est en mouvement ou remorqué.

AVERTISSEMENT

ODEUR DE GAZ:

Ne pas éteindre le véhicule.
Couppez l'allumination en gaz au réservoir ou à la source.
Ne touchez à aucun interrupteur, ne pas vous servir du téléphone ou de la radio du véhicule.
Ne pas démarrer le moteur du véhicule ni aucune génératrice électrique.
Appelez le fournisseur de gaz le plus proche ou un technicien qualifié.
Si vous ne pouvez rejoindre ni un fournisseur ni un technicien qualifié,appelez le service des incendies le plus proche.

QUE FAIRE SI VOUS SENTEZ UNE ODEUR DE GAZ:

ou ni d'autres vapeurs ou liquides inflammables à proximité de cet appareil ou de tout autre appareil.
Ne pas éteindre ni utiliser d'essence ou de autres vapeurs ou liquides inflammables à proximité de cet appareil ou de tout autre appareil.
EVACUER LE VÉHICULE.
Couppez l'allumination en gaz au réservoir ou à la source.
Ne touchez à aucun interrupteur, ne pas vous servir du téléphone ou de la radio du véhicule.
Ne pas démarrer le moteur du véhicule ni aucune génératrice électrique.
Appelez le fournisseur de gaz le plus proche ou un technicien qualifié.
Si vous ne pouvez rejoindre ni un fournisseur ni un technicien qualifié,appelez le service des incendies le plus proche.

NE PAS RETABLIR L'ALLUMINATION EN GAZ TANT QU'ELLE A ÉTÉ RÉPARÉE.

Ne pa retablir l'allumation en gaz tant que la fuite n'a pas été réparée.

L'INSTALLATION ET L'ENTRETIEN DOIVENT ÊTRE ASSURÉS PAR UN INSTALLATEUR OU UN SERVICE D'ENTRETIEN QUALIFIÉ OU PAR LE FOURNISSEUR DE gaz.

**This manual has been provided courtesy of
My RV Works, Inc.**

www.myrvworks.com



You can find more RV service manuals here:

www.myrvworks.com/manuals

Over the years of running a mobile RV repair service, having a dedicated place to access service manuals for all the different appliances and components found on RVs was something that I always had a desire to create.

I hope this resource makes your RV repairs easier, as it has mine, but please be careful and follow proper safety practices when attempting to repair your own RV.

If in doubt, please consult with a professional RV technician!



DARREN KOEPP - OWNER, MY RV WORKS, INC.

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