

INSTALLATION AND OPERATION MANUAL

DIRECT VENT GAS WATER HEATER



MODELS

SW6P • SW6PE • SW6D • SW6DM
SW6PR • SW6PER • SW6DE

LISTED



FOR INSTALLATION IN RECREATIONAL
VEHICLES AND MOBILE HOUSING

FOR YOUR SAFETY WHAT TO DO IF YOU SMELL GAS

1. DO NOT TRY TO LIGHT ANY APPLIANCE.
2. DO NOT TOUCH ANY ELECTRIC SWITCH: DO NOT USE ANY PHONE IN YOUR BUILDING.
3. IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE. FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS.
4. IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.

FREEZE WARNING

DRAIN HEATER IF SUBJECT TO FREEZING TEMPERATURES.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY OR PROPERTY DAMAGE. REFER TO THIS MANUAL. FOR ASSISTANCE OR ADDITIONAL INFORMATION, CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER COMBUSTIBLE MATERIALS OR LIQUIDS NEAR OR ADJACENT TO THIS HEATER OR ANY OTHER APPLIANCE. THIS APPLIANCE SHALL NOT BE INSTALLED IN ANY LOCATION WHERE FLAMMABLE LIQUIDS OR VAPORS ARE LIKELY TO BE PRESENT.

AN ODORANT IS ADDED TO THE GAS USED BY THIS WATER HEATER.

INSTALLER: AFFIX THESE INSTRUCTIONS TO OR ADJACENT TO WATER HEATER.
OWNER: RETAIN THESE INSTRUCTIONS AND WARRANTY FOR FUTURE REFERENCE.

ALL TECHNICAL AND WARRANTY QUESTIONS SHOULD BE DIRECTED TO THE COMPANY LISTED ON THE WARRANTY, OR RATING PLATE WHICH CAME WITH YOUR WATER HEATER.



SUBURBAN MANUFACTURING COMPANY
Post Office Box 399
Dayton, Tennessee 37321
(615) 775-2131
Fax: (615) 775-7015

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INSTALLATION REQUIREMENTS

CAUTION: If possible, do not install the water heater 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 water heater vent and any door whenever the door is opened.

This installation must conform with the requirements of the authority having jurisdiction or in the absence of such requirements with the latest edition of the National Fuel Gas Code ANSI Z223.1; and the latest edition of the American National Standard for Recreational Vehicles-501C: in Canada the installation should conform with the following standards.

A. For installation in Recreational Vehicle

1. Gas - CSA standard CSA Z240.4.2 Installation Requirements for Propane Appliances and Equipment in Recreational Vehicles.
2. Electrical - CSA standard C22.2 No. 148/Z240.6.2 Electrical Requirements for Recreational Vehicles.
3. Plumbing - CSA standard CSA Z240.3.2 Plumbing Requirements for Recreational Vehicles.

B. For installation in Mobile Housing

1. Gas - CSA standard CSA Z240.4.1 Installation Requirements for Gas Burning Appliances and Equipment in Mobile Homes.
2. Electrical - CSA standard CSA C22.1 Canadian Electrical Code Part 1.
3. Plumbing - CSA standard CSA Z240.3.1 Plumbing Requirements for Mobile Homes.

Au Canada, l'installation doit satisfaire aux normes suivantes:

A. Pour installation dans les vehicules de loisir.

1. Gaz - Norme ACNOR Z240.4.2 Exigences d'installation des appareils et de l'equipement a propane dans les vehicules de loisir.
2. Electricite - Norme ACNOR C22.2 No. 148/Z240.6.2 Exigences electriques des vehicules de loisir.
3. Plomberie - Norme ACNOR Z240.3.2 Exigences de plomberie des vehicules de loisir.

B. Pour installation Dans Une Maison Roulante

1. Gaz - Norme ACNOR Z240.4.1 Exigences d'installation des appareils et de l'equipement a gaz dans les maisons roulantes.
2. Electricite - Norme ACNOR C22.1 Premiere partie du Code Electrique Canadien.
3. Plomberie - Norme ACNOR Z240.3.1 Exigencies de plomberie des maisons roulantes.

The appliance shall be disconnected from the gas supply piping system during any pressure testing of the system.

The appliance and its gas connection shall be leak tested before placing the appliance in operation.

All air for combustion must be supplied from outside the structure. Air for combustion must not be supplied from occupied spaces.

INSTALLATION INSTRUCTIONS

Minimum clearance from combustible construction on sides, top, floor and rear = 0 inches. Provide room for access to rear of heater for servicing.

Degagement minimal de constructions combustibles sur les cotes, le dessus, le plancher et a l'arriere = 0 pouces. Prevoyez suffisamment d'espace pour qu'un technicien puisse avoir acces & l'arriere du chauffe-eau.

Provide an opening flush with floor in outer wall of coach as shown. Wall of coach should be framed as shown in Figure 1. Maintain inside dimensions listed below. Do not install on carpet unless the carpet is covered by a metal or wood shield covering the entire area underneath the water heater. If you prefer, you may cut away the carpet from this area.

Quand le chauffe-eau est installe directement sur le tapis, la tuile, ou sur autre matiere combustible autre que parquet de bois, le chauffe-eau aura installe sur panneau du metal ou de bois au moins que deux pouces plus grand que la largeur et la longueur du chauffe-eau. Si vous preferez, vous pouvez couper le tapis ou metiere du parquet, si n'est pas bois, d'au-dessous du chauffe-eau et etendant deux pouces de la largeur et la longueur du chauffe-eau.

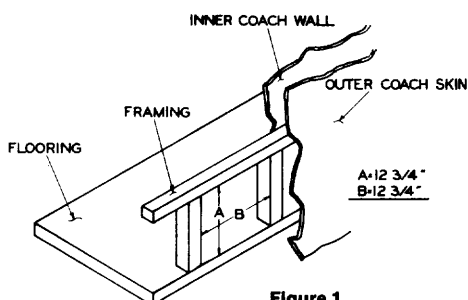


Figure 1

NOTE: The units are shipped from the factory with the flanges on the control housing bent down for flush mount installation.

I. INSTALLATION USING FLUSH MOUNT FRAME AND DOOR (See Figure 2 for illustration)

- A. Position heater into framed opening as illustrated. Slide unit into opening until the front of the control housing is flush with the exterior coach skin.
- B. Secure the control housing to the coach wall with nails at bottom and sides of control housing compartment. NOTE: Caulk around nail heads to assure water tight seal.
- C. Caulk around opening and around back side of door frame as shown.
- D. Insert door frame into control housing and secure with three (3) No. 8 x 3/8 screws provided. NOTE: Three (3) No. 8 x 3/8 screws installed at factory to seal extruded holes must first be removed.
- E. To install door, place the two holes in the bottom of the door over the door pins on the frame. Close the door so that the latch protrudes through the slot in the door. Turn latch 90 degrees to fasten door.
- F. The module board on models SW6D and SW6DE is not secured to the water heater. It is to be permanently mounted by the installer.

The module board must be mounted to where it is accessible for service yet out of way of children. It should be located in a place where it cannot be subjected to moisture, cleaning chemicals, flammable vapors and liquids, etc.

The board and all wiring to the board must be protected in order to prevent damages and accidental contact with these parts. The module board may be mounted with two (2) No. 6 x 5/8 screws or other suitable hardware.

II. INSTALLATION USING HINGED DOOR (See Figure 3 for illustration)

- A. Bend each flange on control housing up 90° to position illustrated.
- B. Caulk around opening and/or behind flanges and gussets as illustrated in Figure 4. NOTE: Purpose of caulking is to assure a water tight seal between control housing and exterior coach skin.
- C. Position heater into framed opening as illustrated.
- D. Align corner gussets and door latch bracket with mounting holes in control housing as shown. NOTE: Door hinge pin retainer brackets to be mounted later.
- E. Slide unit into opening until control housing is tight against exterior coach skin.
- F. Secure control housing to coach wall at all mounting points except the two used for the door hinge retainer brackets using No. 8 x 3/4" wood screws, screwed through holes, in flanges on control housing as illustrated.
- G. Position door hinge pins as illustrated. Place hinge pin into slot at bottom of door.
- H. Place door hinge pin retainer bracket over hinge pin. Align with mounting holes in control housing and secure to coach wall using No. 8 x 3/4" wood screws. NOTE: Be sure control housing is tightly secured to coach wall (twelve places) and sealed water tight. (See Figure 4)
- I. Close the door so that the door latch protrudes through the slot in the door. Turn latch 90 degrees to fasten door.
- J. The module board on models SW6D and SW6DE is not secured to the water heater. It is to be permanently mounted by the installer.

The module board must be mounted to where it is accessible for service yet out of way of children. It should be located in a place where it cannot be subjected to moisture, cleaning chemicals, flammable vapors and liquids, etc.

The board and all wiring to the board must be protected in order to prevent damages and accidental contact with these parts. The module board may be mounted with two (2) No. 6 x 5/8 screws or other suitable hardware.

III. MAKING WATER CONNECTIONS

A. Water connections are made at the rear of the water heater. Refer to Figure 5 for all models except SW6DM. For model SW6DM, refer to Figure 6. Connect the hot and cold water lines to the 1/2" female pipe fitting provided on rear of tank. These fittings are marked "HOT" and "COLD". NOTE: Inside each fitting is a plastic fill tube. Its purpose is to enhance water circulation. **DO NOT REMOVE PLASTIC FILL TUBE.**

IMPORTANT: Use a pipe thread compound suitable for potable water or pipe thread tape on all connections to assure they will not leak.

B. For ease of removal, it is suggested that a pipe union be installed in each water line.

C. Fill tank with water. Open both hot and cold water faucets to expel air from tank. When tank is filled and water flows from faucets, close both faucets and check all connections for leaks.

CAUTION: If you use air pressure to check for leaks, the pressure must not exceed 30 PSI (in accordance with 4-9.1.1 of ANSI A119.2).

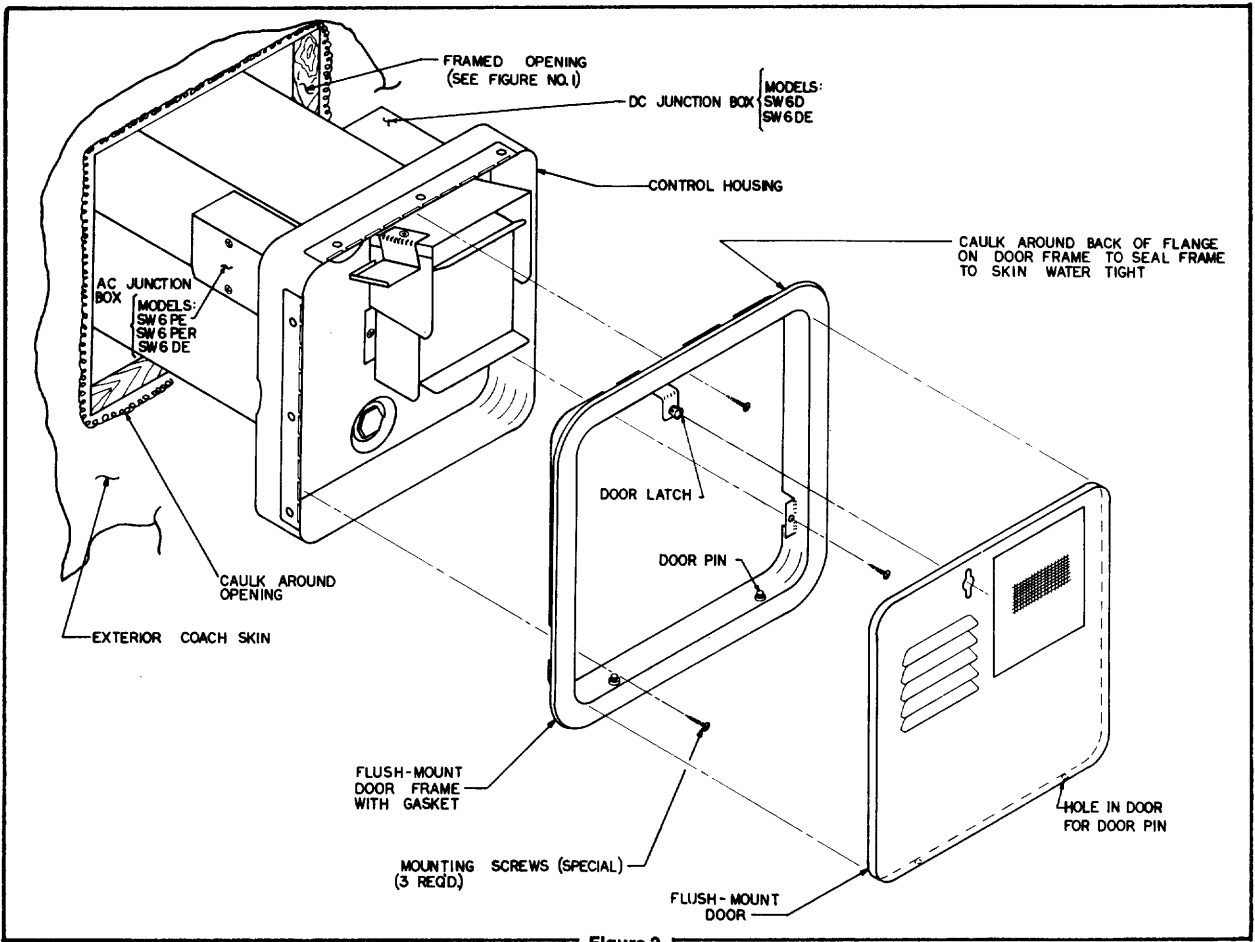


Figure 2

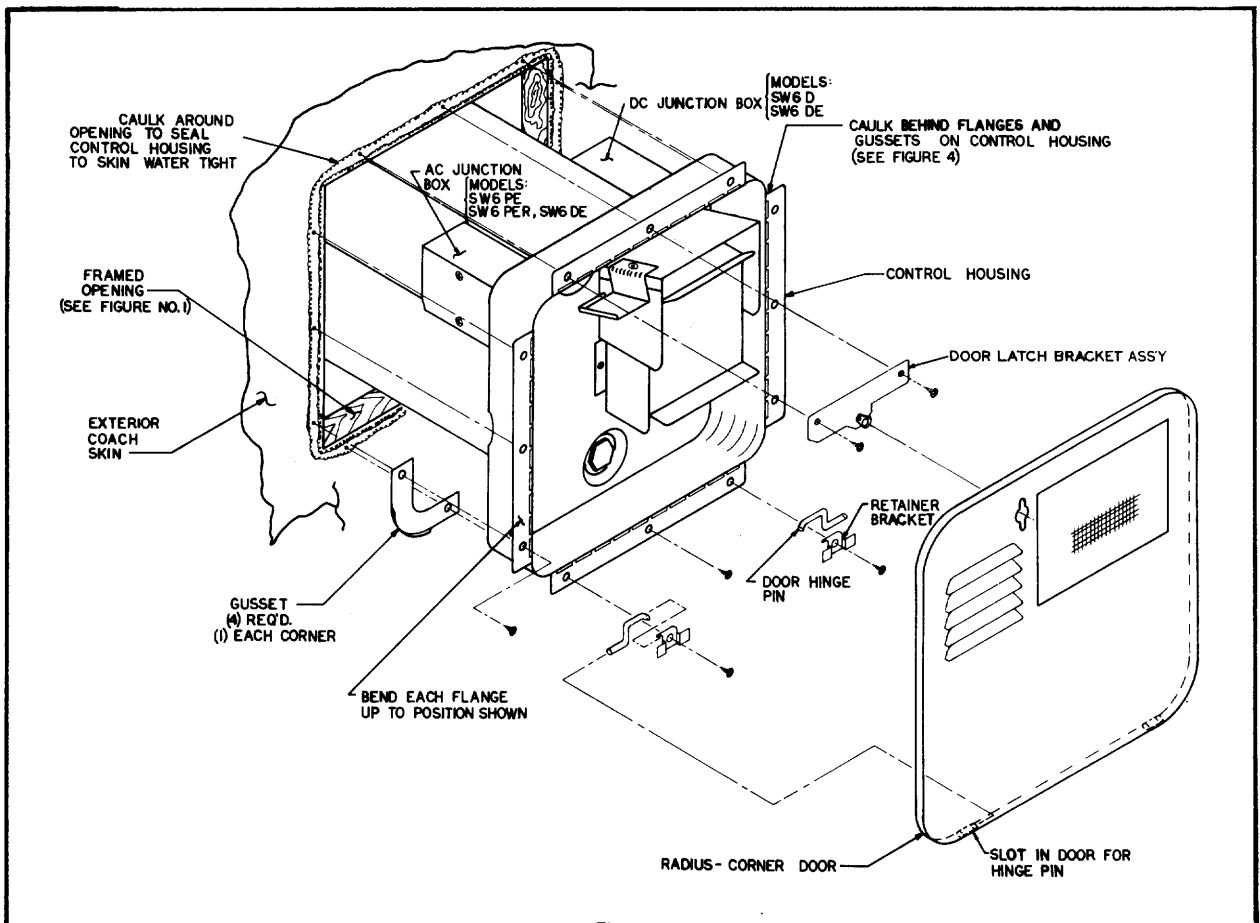


Figure 3

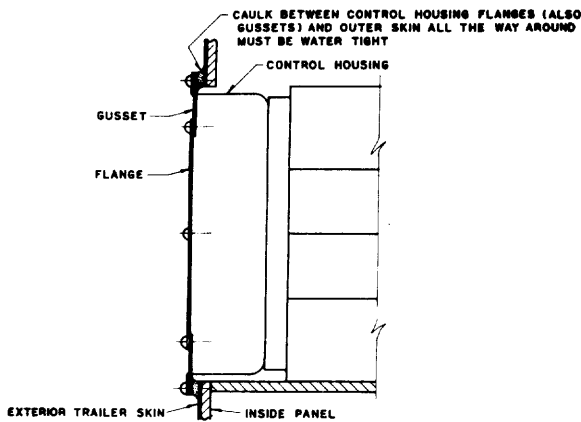


Figure 4

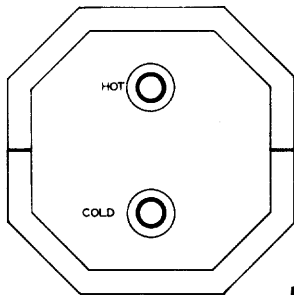


Figure 5

MODELS:
SW6P
SW6PE
SW6PR
SW6PER
SW6D
SW6DE

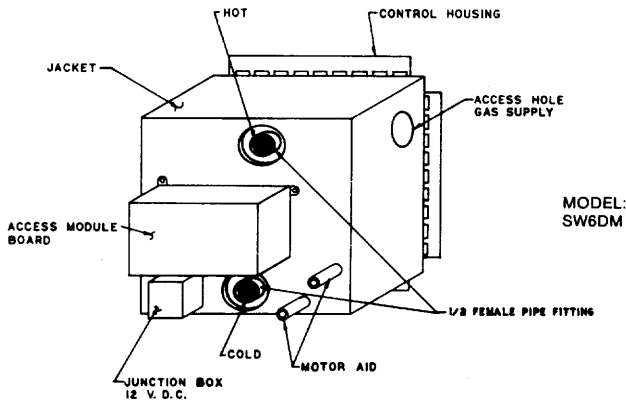


Figure 6

MODEL:
SW6DM

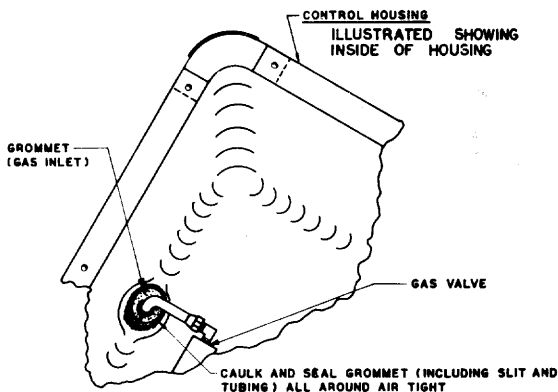


Figure 7

IV. MAKING GAS CONNECTIONS

A. Connect a 3/8" gas supply line to the 3/8 flare fitting at gas valve located in the control housing.

NOTE: It will be necessary to remove the grommet from the control housing, make the gas connection at the valve, then reinstall grommet.

WARNING: It is imperative that grommet and gas line through grommet be caulked air tight. If not tightly sealed, moisture and potential harmful flue products could vent through opening and into living area of trailer. (See Figure 7)

B. Turn on gas and check for leaks, using a soap and water solution. Correct even the slightest leak immediately.

WARNING! Do not use an open flame to check for leaks!

V. MAKING ELECTRICAL CONNECTIONS 12 VOLTS D.C.

A. Applicable to following models: SW6D, SW6DE, and SW6DM.

B. Refer to Figure 2 for location of D.C. junction box on models SW6D and SW6DE. Refer to Figure 6 for location of D.C. junction box on model SW6DM.

C. The electrical connections must be made in accordance with local codes and regulations. In the absence of local codes and regulations, refer to the latest edition of the National Electrical Code ANSI/NFPA No. 70.

In Canada, the electrical installation should conform with CSA standard CSA C22.2 No. 148/Z240.6.2 Electrical Requirements for Recreational Vehicles and CSA C22.1 Canadian Electrical Code Part 1 when installing the unit in recreational vehicles and mobile homes respectively.

Au Canada, l'installation électrique doit satisfaire à la norme ACNOR 22.2 N 148/Z240.6.2 Exigences électriques des véhicules de loisir ou à la norme ACNOR C22.1 Première Partie du Code Électrique Canadien selon que l'appareil est installé dans un véhicule de loisir ou une maison roulante.

D. Make sure the water heater is filled with water before making the electrical connections.

E. Make the 12 Volt D.C. electrical connections following the wiring diagram illustrated in Figure 8.

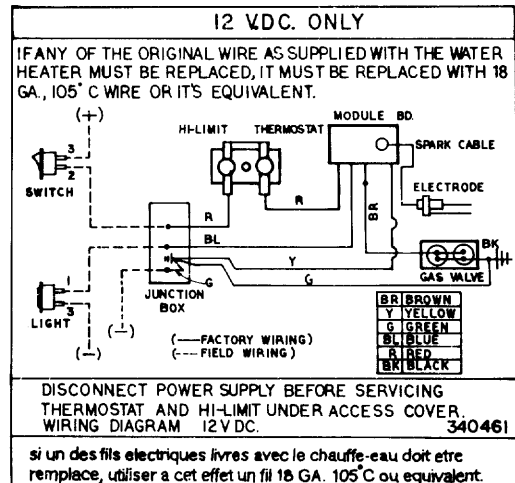


Figure 8

VI. MAKING ELECTRICAL CONNECTIONS 120 VOLTS A.C.

A. Applicable to following models: SW6PE, SW6PER, and SW6DE

B. Refer to Figure 2 for location of A.C. junction box.

C. The electrical connections must be made in accordance with local codes and regulations. In the absence of local codes and regulations, refer to the latest edition of the National Electrical Code ANSI/NFPA No. 70.

In Canada, the electrical installation should conform with CSA standard CSA C22.2 No. 148/Z240.6.2 Electrical requirements for Recreational Vehicles and CSA C22.1 Canadian Electrical Code Part 1 when installing the unit in recreational vehicles and mobile homes respectively.

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D. Be sure the switch for the electrical element is "OFF" and that the water heater is filled with water before making electrical connections. Failure to do so will result in burn-out of the electrical element.

E. Check rating plate and wiring diagram (Figure 9) before proceeding. Install a fused safety switch or circuit breaker of adequate capacity between heater and electrical power source. Attach the black and white wires from the fused switch or breaker to corresponding colored wires in heater junction box. A green wire from a well grounded source must be attached to the green nut in the junction box.

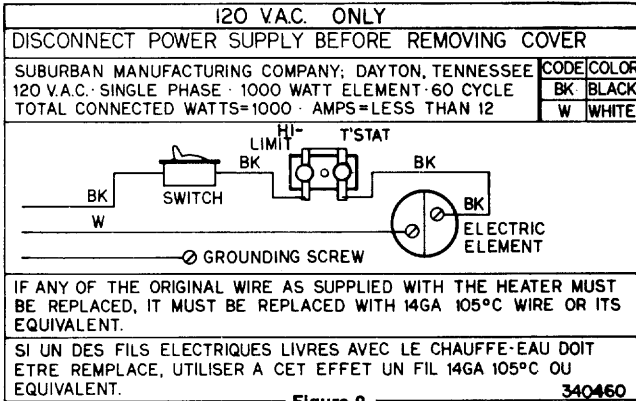


Figure 9

VII. ELECTRICAL CONNECTION (RE-IGNITOR MODELS)

A. Applicable to models: SW6PR and SW6PER.

B. Make 12 volt D.C. connections to re-ignitor as illustrated in Figure 10.

CAUTION: Be sure that the supply wires have adequate strain relief to prevent wires from pulling loose.

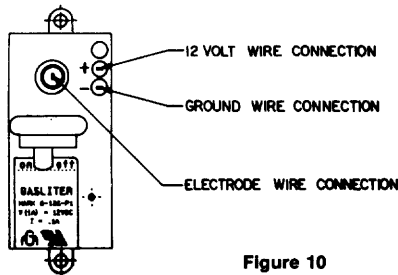


Figure 10

VIII. INSTALLATION OF MOTOR AID HEAT EXCHANGER

A. Place copper "Y"s in heater as shown in Figure 11.

B. Secure hoses to "Y"s with hose clamps.

C. Attach hose from motor-aid heat exchanger to "Y"s.

D. Secure hoses to motor-aid and "Y"s with clamps.

E. Check all connections for water leaks and proper water circulation through motor-aid heat exchanger, with engine running.

The system should be checked annually for deterioration of heater hose and hose connections. Replace as needed.

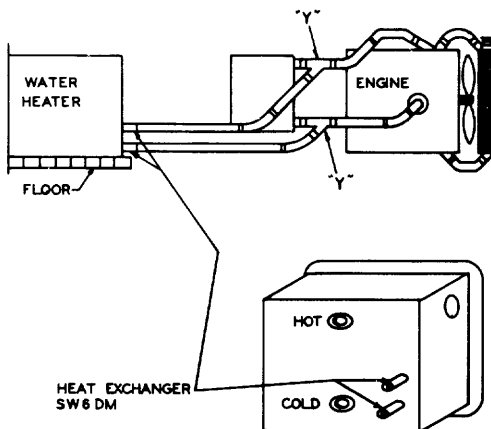


Figure 11

IX. MAINTENANCE

A. Main Burner Adjustment - All air shutters are pre-set at the factory to obtain a blue or orange-blue flame. If it is necessary to adjust the air shutter, be sure to maintain the blue or orange-blue flame color. Do not allow the burner flame to burn with a yellow flame, because sooting will occur.

In cases where sooting has occurred, there is a possibility that this condition may be corrected by making the correct air shutter adjustment. If the burner flame continues to burn yellow after adjusting the air shutter, shut unit down and contact a qualified service agency. Do not continue operating unit with improper burner flame. NOTE: A direct spark ignition burner/valve relationship was used to illustrate air shutter adjustment. The same air shutter/burner relationship is applicable to the pilot models as well.

NOTE: Refer to Figure 13 for all Pilot Models. Refer to Figure 14 for all Direct Spark Ignition Models.

B. Pilot Flame - The pilot flame should engulf the tip of the thermocouple as illustrated in Figure 15. Correct as needed.

C. Periodically inspect unit for soot. If soot is present anywhere on water heater, shut unit down at once. Soot is a sign of incomplete combustion and must be corrected before operating water heater. Areas to check would include:

1. Check for an obstruction in burner or the flue box.
2. Check the screen in the door to see that no foreign material has accumulated to prevent flow of combustion and ventilating air.
3. Check to be sure there is no flame present at burner orifice or burner whenever main gas valve is closed. On Direct Spark Models this can be checked by turning the OFF/ON switch to the "OFF" position. On Pilot Models, this can be checked by turning the temperature dial on the valve all the way to the left (counter clockwise).
4. Check air shutter for proper adjustment.

D. Frequent checks should be made of the grommet on the gas inlet to assure tight seal. See "Making Gas Connections".

E. Periodically check wiring and wire connection to be sure wiring is not damaged/frayed and that all terminals and connections are tight and in compliance with codes. (See "Making Wire Connections").

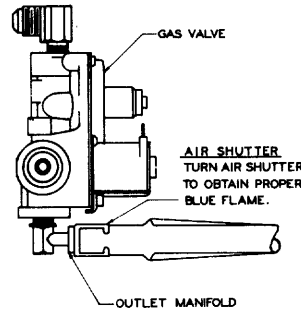


Figure 12

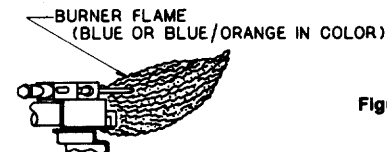


Figure 13

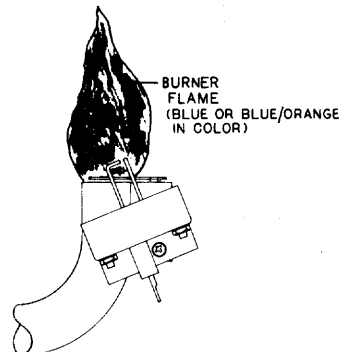


Figure 14

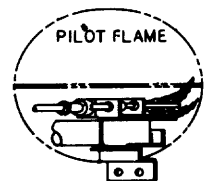


Figure 15

X. SAFETY WARNINGS

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.

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.

Do not alter the operation of your water heater nor change the design/construction of your water heater. 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 water heater.

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

When considering add-on rooms, porch or patio, attention must be given to the venting of your water heater. For your safety, do not terminate the vent on your water heater 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.

Never operate the heater 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. (See Safety notice on front cover of this manual.)

WARNING! Make sure water heater is filled with water before power is turned on. Even momentary operation of heater without water in it will burn out the element.

NOTE: Always open both the cold and hot water faucets when filling vehicle water tank to allow air pockets to be forced out of the water heater. When water flows from the heater faucets, close both faucets.

WARNING! Do not store or use combustible materials or liquids near or adjacent to this heater. The appliance shall not be installed in any location where flammable liquids or vapors are likely to be present.

XI. ANODE PROTECTION

The tank in this water heater is protected by a magnesium or aluminum anode to prolong the life of the tank. Under normal use, the anode rod will deteriorate and because of this, we recommend it be replaced yearly. NOTE: Water with high levels of iron and/or sulfate will increase the rate of deterioration; therefore, more frequent replacement may be required.

Operating the water heater without proper anode protection will decrease tank life and will void your warranty on the tank. NOTE: Tank is drained by removing anode rod (See "Drain and Storage Instructions").

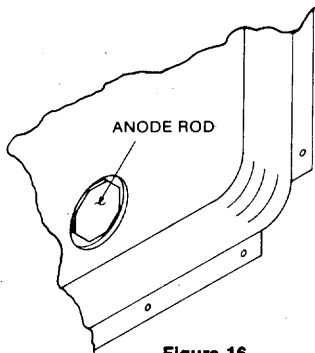


Figure 16

XII. PRESSURE RELIEF VALVE

The temperature and pressure relief valve is designed to open if the temperature of the water within the heater reaches 210°F, or if the water pressure in the heater reaches 150 pounds. Recreational vehicle water systems are closed systems and during the water heating cycle the pressure build-up in the water system will reach 150 pounds. When this pressure is reached, the pressure relief valve will open and water will drip from the valve. This dripping will continue until the pressure is reduced to below 150 pounds, and the valve closes. This condition is normal and does not indicate a defective relief valve.

XIII. THERMOSTAT AND MANUAL RESET

MODELS: SW6D, SW6DE and SW6DM (See Figure 17)

The model water heaters listed above are equipped with a high temperature limit as a cut-off device. Temperature above 180°F will cause manual reset button to trip shutting down main burner.

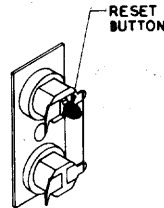
To activate burner, the water temperature must be below 100°F, push reset button to re-activate burner.

XIV. THERMOSTAT AND MANUAL RESET

MODELS: SW6PE, SW6PER and SW6DE (See Figure 18)

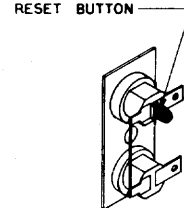
The model water heaters listed above are equipped with a high temperature limit as a cut-off device. Temperature above 180°F will cause manual reset button to trip shutting down the electric element.

To activate element, the water temperature must be below 100°F, push reset button to re-activate the electric element.



12 V.D.C. T-STAT
HI-LIMIT

Figure 17



120 VAC T-STAT
HI-LIMIT

Figure 18

XV. DRAINING AND STORAGE INSTRUCTIONS

If RV is to be stored during winter months, the water heater must be drained to prevent damage from freezing.

1. Turn off electrical power to water heater either at the switch for the electrical element or at breaker.
2. Shut-off gas supply to water heater.
3. Turn off pressure pump on water system.
4. Open both hot and cold water faucets.
5. Remove anode rod from tank.
6. Follow RV manufacturer's instructions for draining entire water system.

NOTE: Be certain to refill water heater with water and remove all air from tank and liner before re-lighting or before turning on electrical power.

XVI. ODOR FROM HOT WATER SYSTEM

Odor from the hot water system is not a service problem and many water supplies contain sufficient amounts of sulphur to produce an odor. The odor is similar to rotten eggs and is often referred to as "sulphur water". Sulphur water is not harmful - only unpleasant to smell. Sulphur water can be caused by a chemical action or by bacteria. The solution to eliminate is heavy chlorination of the water system. Add about six (6) ounces of chlorine (common household liquid bleach) to each 10 gallons in the water tank. Then run the heavily chlorinated water throughout the system, opening each faucet one at a time until you smell the chlorine. Let the RV sit for a few days and the chlorine should take care of the problem. Then you will need to take care of the chlorine. If you don't have a water filtration system that removes chlorine, you will have a problem getting rid of the chlorine taste. You might consider adding such a system because it allows you to keep the water chlorinated and this prevents several problems, including sulphur water. Chlorination also takes care of other types of bacteria and viruses.

XVII. REMOVING WATER HEATER

1. Shut-off gas supply and disconnect gas supply line from water heater.
2. On all Electric Models, disconnect 120 V.A.C. supply at junction box mounted on heater.
3. On all DSI Models, disconnect 12 V.D.C. power supply at junction box on heater.
4. On Models SW6D and SW6DE disconnect all wires at module board.
5. Shut-off water supply. Drain water from tank following instructions under "Draining and Storage".
6. Disconnect hot and cold water lines from water heater.
7. Remove screws or nails securing control housing to framed opening.
8. Slide heater out. To reinstall, follow instructions in manual under "Installation Instructions".

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.

B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- * Do not try to light any appliance
- * Do not touch any electric switch;
- * Do not use any phone in your building
- * Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

* If you cannot reach your gas supplier, call the fire department.

C. Use only your hand to push in or turn the gas cock or reset button. Never use tools. If the knob will not push in or turn by hand, don't try to repair it; call a qualified service technician. force or attempted repair may result a fire or explosion.

D. Do not use this appliance if any part has been 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 which has been under water.

E. Before operating water heater, check the location of the 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 water heater with the door open.

LIGHTING INSTRUCTIONS

If the water heater comes equipped with a re-ignitor control, see (LIGHTING INSTRUCTIONS FOR REIGNITOR CONTROL PAGE 6).

- (1) STOP! Read the safety information provided.
- (2) Turn gas cock (C) clockwise to "OFF" position and temperature indicator to the lowest setting.
- (3) Turn off all electric power to the appliance.

(4) Wait five minutes for gas to clear the area. If you smell gas then STOP! Follow instructions in items B above in the safety information. If you don't smell gas, go to next step.

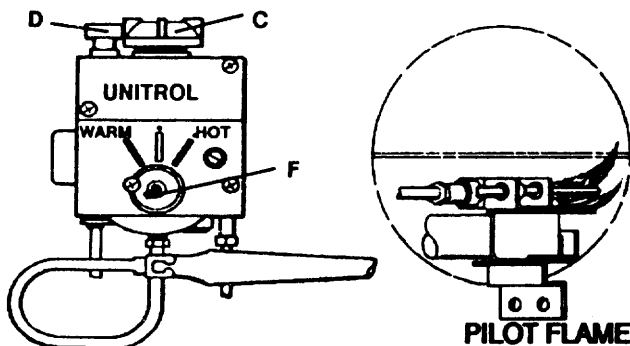
(5) Turn gas cock (C) counter clockwise to "pilot" position, press reset button (D) and light pilot, hold down until pilot remains lit.

(6) Turn gas cock (C) counter clockwise to "ON" position.

(7) If pilot goes out, repeat steps 2 through 6. On initial start-up, this may take several times in order to purge the air from the gas lines.

(8) Turn on all electrical power to appliance if the combination electric/gas feature is a part of the water heater.

(9) Set temperature dial (F) to desired setting. (Caution: Setting the temperature dial past the 130 degrees F location will increase the risk of scald injury. Small children or invalids may require a lower temperature setting.)



TO TURN OFF WATER HEATER

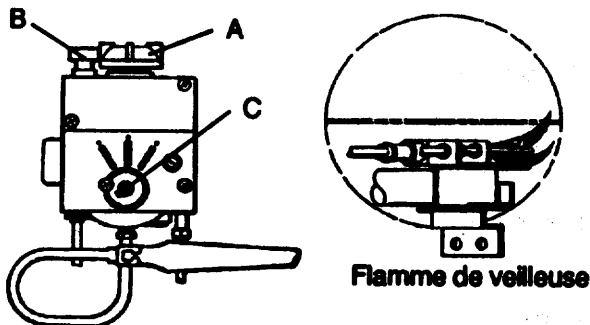
- (1) Turn temperature dial (F) counter clockwise to the lowest setting.
- (2) Turn off electrical power to the appliance.
- (3) Turn gas cock (C) clockwise to the "OFF" position.

(4) If vehicle is to be stored or heater is going to be turned off while subject to freezing temperature, drain water heater. (SEE DRAINING AND STORAGE INSTRUCTION)

DIRECTIVES D' ALLUMAGE

Si le chauffe-eau est muni d'une commande de rallumage, voir, les DIRECTIVES DE REALLUMAGE.

1. Arrêtez! Lisez attentivement les renseignements de sécurité fournis.
2. Tournez le robinet de gaz (A) dans le sens de l'horloge en position "OFF" et l'indicateur de température au réglage le plus bas.
3. Coupez toute alimentation électrique vers l'appareil.
4. Attendez cinq minutes que les vapeurs de gaz de dissipent. Si vous sentez le gas, ARRETEZ! Suives les directives de l'article B acua "Renseignements de sécurité". Si vous ne sentez pas le gas, passez a la prochaine étape.



5. Tournez le robinet de gas (A) dans le sens contraire de l'horloge en position "PILOT", appuyez sur le bouton de remise a zero (B) "reset" et allumez la flamme de veilleuse. Tenez le bouton de remise a zero enfonce jusqu'a ce que la flamme de la veilleuse demeure allumee.

6. Tournez le robinet de gas (A) dans le sens contraire de l'horloge vers la position "ON".

7. Si la flamme de la veilleuse s'etait, repetez les etapes 2 & 6. Au moment de l'allumage initial, il faudra peut-etre refaire l'allumage plusieurs fois avant d'evacuer l'air des conduits de gaz.

8. Coupez toute alimentation électrique vers l'appareil si le chauffe-eau peut etre alimente tant a l'electricite qu'au gas.

9. Positionnez le cadran de réglage de la température (C) a la température desirée. (Avertissement: vous augmentez la risque de brulures en réglant le cadran a une température supérieure a 130 F. Les enfants et les invalides peuvent exiger une température inférieure.)

POUR ARRETER LE CHAUFFE-EAU

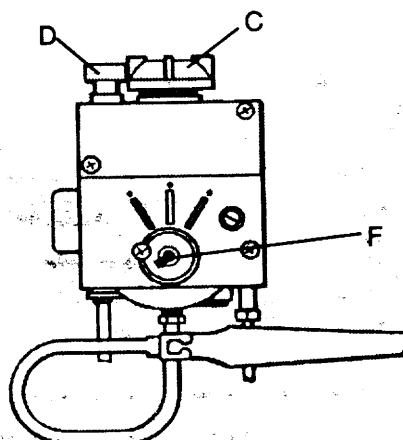
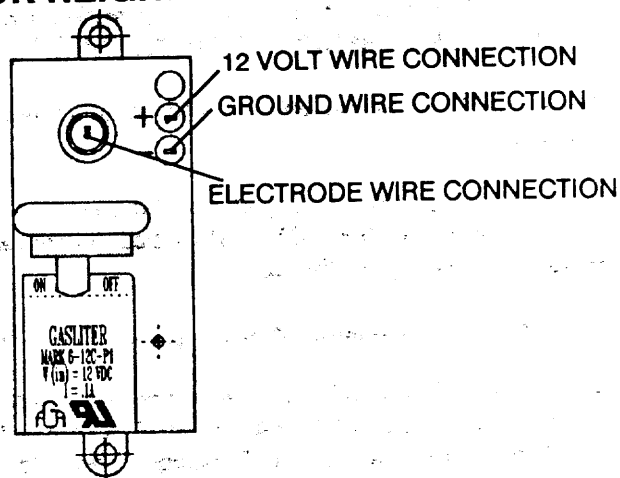
1. Tournez le cadran de réglage de la température (C) dans le sens contraire de l'horloge a la température la plus basse.
2. Coupez toute alimentation électrique vers l'appareil.
3. Tournez le robinet de gas (A) dans le sens de l'horloge en position "OFF".
4. Si vous comptez entreposer l'appareil ou arreter le chauffe-eau de sorte qu'il soit expose au get, videz-le. (VOIR "DIRECTIVES DE DRAINAGE ET D'ENTREPOSAGE")

LIGHTING INSTRUCTIONS FOR REIGNITOR CONTROL

- (1) STOP Read the safety information provided on page 5.
- (2) Place re-ignitor control in the "OFF" position.
- (3) Turn gas cock (C) clockwise \curvearrowright to "OFF" position and temperature indicator to the lowest setting.
- (4) Turn off all electrical power to the appliance.
- (5) Wait five (5) minutes for gas to clear the area. If you smell gas then, STOP! Follow instructions in item "B" of the safety information (Page 5). If you don't smell gas, to next step.
- (6) Turn gas supply on.
- (7) Turn on electrical power to the appliance.
- (8) Turn gas cock (C) counter clockwise \curvearrowleft to "pilot" position, press reset button (D), and switch the electric re-ignitor module to "ON" position. Spark will start between electrode tip and pilot hood.
- (9) When pilot lights, the spark will stop. Continue depressing reset button (D) for approximately one minute or until pilot light remains lit. On initial start-up, it may take several minutes before the pilot lights in order to purge the air from the gas lines.
- (10) Turn gas cock (C) counter clockwise \curvearrowleft to "ON" position.
- (11) Set temperature dial (F) to desired setting. (Caution: Setting the temperature dial past the 130 degrees F location will increase the risk of scald injury. Small children or invalids may require a lower temperature setting.)

NOTES:

(1) When the re-ignitor switch is in the "ON" position, the re-ignitor will operate automatically when the pilot flame is extinguished.



(2) When the vehicle is to be stored or the LP gas supply is to be turned off, be sure to turn the re-ignitor control switch to the "OFF" position. This will prevent the battery from being discharged (the re-ignitor will continue sparking.)

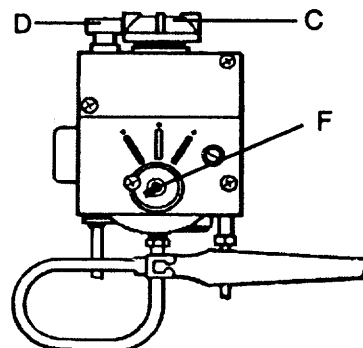
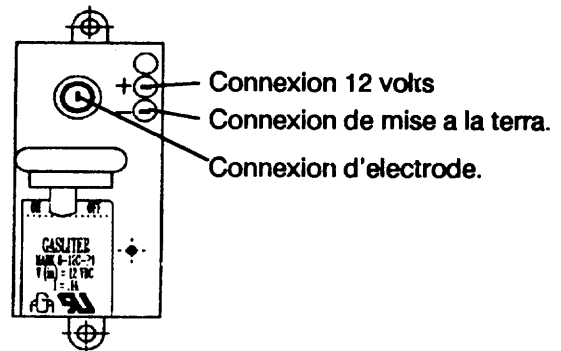
(3) The re-ignitor has an alarm which will sound when the pilot is extinguished or if the LP supply is turned off. The alarm will serve as a reminder to turn off the re-ignitor.

TO TURN OFF WATER HEATER

- (1) Turn temperature dial (F) counter clockwise \curvearrowleft to lowest setting.
- (2) Turn off the re-ignitor.
- (3) Turn off electrical power to the appliance.
- (4) Turn gas cock (C) clockwise \curvearrowright to the "OFF" position.
- (5) If vehicle is to be stored or heater is going to be turned off while subject to freezing temperatures, drain water heater (see "DRAINING AND STORAGE INSTRUCTIONS")

DIRECTIVES DE REALLUMAGE

1. **ARRETEZ!** Lisez attentivement les renseignements de securite fournis.
2. Placez la commande de reallumage en position "OFF".
3. Tournez le robinet de gaz (C) dans le sens de l'horloge ➤ en position "OFF" et l'indicateur de temperature au reglage le plus bas.
4. Coupez toute alimentation electrique vers l'appareil.
5. Attendez cinq minutes que les vapeurs de gaz se dissipent. Si vous sentez le gaz, **ARRETEZ!** Suivez les directives de l'article B sous "Renseignements de securite". Si vous ne sentez pas le gaz, passez a la prochaine etape.
6. Allumez le gaz.
7. Allumez l'electricite vers l'appareil.
8. Tournez le robinet de gaz (C) dans le sens contraire de l'horloge ↶ vers la position "pilot". Appuyez sur le bouton de remise a zero (D) "reset" et placez le module de reallumage electrique en position "ON". Une etincelle se fera entre la pointe d'electrode et le capot de la veilleuse.
9. Lorsque la veilleuse s'allume, l'etincelle s'eteint. Maintenez la bouton de remise a zero (D) enfonce pendant environ une minute ou jusqu'a ce que la veilleuse demeure allumee. Au moment de l'allumage initial, il faudra peut-etre refaire l'allumage plusieurs fois avant d'evacuer l'air des conduits de gaz.
10. Tournez le robinet de gaz (C) dans le sens contraire de l'horloge ↶ vers la position "ON".
11. Positionnez le cadran de reglage de la temperature (F) & la temperature desiree. (Avertissement: vous augmentez le risque de brulures en réglant le cadran a une temperature superieure a 130 F. Les enfants et les invalides peuvent exiger une temperature inferieure.)



Remarques:

1. Lorsque le commutateur de reallumage est en position "ON", le reallumage se fait automatiquement lorsque la flamme de la veilleuse s'eteint.
2. Lorsque l'appareil est entrepose ou que l'alimentation en gaz est coupee, assurez-vous de remettre le commutateur de reallumage en position "OFF". Ceci empechera la decharge de la pile (l'etincelle de reallumage contiendra de scintiller).
3. La commande de reallumage est munie d'une alarme qui sonne lorsque la veilleuse s'eteint ou que l'alimentation en gaz est coupee. L'alarme vous rapelle d'eteindre la commande de reallumage.

POUR ARRETER LE CHAUFFE-EAU

1. Tournez le cadran de reglage de la temperature (F) dans le sens contraire de l'horloge ↶ a la temperature la plus basse.
2. Eteignez la commande de reallumage.
3. Coupez toute alimentation electrique vers l'appareil.
4. Tournez le robinet de gaz (C) dans le sons de l'horloge ➤ en position "OFF".
5. Si vous comptez entreposer l'appareil ou arreter le chauffe-eau de sorte qu'il soit expose au gel, videz-le. (VOIR "DIRECTIVES DE DRAINAGE ET D'ENTREPOSAGE").

FOR YOUR SAFETY READ BEFORE OPERATING

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This appliance does not have a pilot. It is equipped with an ignition device which automatically lights the burner. Do not try to light the burner by hand.

B. BEFORE LIGHTING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- * Do not try to light any appliance
- * Do not touch any electric switch
- * Do not use any phone in your building
- * Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.

* If you cannot reach your gas supplier, call the fire department.

C. This is an automatic gas valve, no adjustments are necessary. Do not attempt to repair the gas valve, this may result in a fire or explosion.

D. Do not use this appliance if any part has been 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 which has been under water.

E. Before operating water heater, check the location of the 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 water heater with the door open.

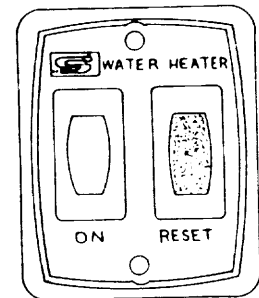
OPERATING INSTRUCTIONS

- (1) STOP! Read the safety information provided.
- (2) Turn off all electrical power to the appliance.
- (3) Turn "OFF" gas supply.
- (4) Wait five (5) minutes for gas to clear the area. If you smell gas then, STOP! Follow instructions in item B of the safety information. If you don't smell gas, go to next step.
- (5) Turn "ON" gas supply.
- (6) Turn on electrical power to the appliance.
- (7) Turn switch to "ON" position, there will be a 15 second purge before spark. If burner does not light on first try, there will automatically be 2 more tries for ignition before lockout. Each ignition cycle will have a 15 second purge before spark.

(8) If lockout occurs before main burner lights, turn switch to "OFF", wait five (5) seconds and turn switch to "ON" position. This will re-start the ignition cycle. The first start-up of the heater may require several ignition cycles before all air is purged from the gas lines.

If the burner will not come on, the following items should be checked before calling a service man.

1. Switch turned off.
2. Gas supply to heater is empty or turned off.
3. Reset button on ECO is tripped.



TO TURN OFF WATER HEATER

- (1) Turn switch to "OFF" position.
- (2) Turn off electrical power to the appliance
- (3) Turn off gas supply.

(4) If vehicle is to be stored or heater is going to be turned off while subject to freezing temperatures, drain water heater (see "DRAINING AND STORAGE INSTRUCTION")

DIRECTIVES DE FONCTIONNEMENT

1. **ARRETEZI** Lisez attentivement les renseignements de securite fournis.

2. Coupez toute alimentation electrique vers l'appareil.

3. Coupez l'alimentation en gaz.

4. Attendez cinq minutes que les vapeurs de gaz se dissipent. Si vous sentez le gaz, **ARRETEZI** Suivez les directives de l'article B sous "Renseignements de securite". Si vous ne sentez pas le gaz, passez a la prochaine etape.

5. Allumez le gaz.

6. Allumez l'electricite vers l'appareil.

7. Mettez le commutateur en position "ON". Il faudra 15 secondes pour que l'air soit evacue des conduits avant que l'etincelle ne jaillisse. Si le chauffe-eau ne s'allume pas de la premiere essai, vous disposez automatiquement de deux autres essais d'allumage avant que le mecanisme ne se bloque. Chaque cycle d'allumage comporte un temps d'evacuation de l'air de 15 secondes avant que l'etincelle ne jaillisse.

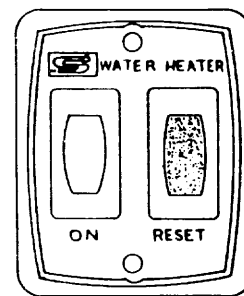
8. Si le blocage survient avant que le bruleur principal ne s'allume, placez le commutateur "OFF", attendez cinq (5) secondes et remettez-le en position "ON". Cette manoeuvre recommencera le cycle d'allumage. L'allumage initial peut necessiter plusieurs cycles d'allumage avant que l'air ne soit entierement evacue des conduits de gaz.

Si vous n'arrivez pas a mettre le chauffe-eau en marche verifiez ce qui suit avant d'appeler un technicien.

1. Le commutateur est en position "OFF".

2. L'alimentation en gaz vers le chauffe-eau est vide ou coupee.

3. La remise a zero (ECO) est declenchee.



POUR ARRETER LE CHAUFFE-EAU

1. Mettez le commutateur en position "OFF".

2. Coupez toute alimentation electrique vers l'appareil.

3. Coupez toute alimentation en gaz vers l'appareil.

4. Si vous comptez entreposer l'appareil ou arreter le chauffe-eau de sorte qu'il soit expose au gel, videz-le (VOIR "DIRECTIVES DE DRAINAGE ET D'ENTREPOSAGE")

LIMITED WARRANTY

SUBURBAN RECREATIONAL VEHICLE WATER HEATER

LIMITED ONE YEAR WARRANTY

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

Suburban will replace any parts that are found defective within the first year and will pay a warranty service allowance directly to the authorized Suburban Service Center at rates mutually agreed upon between Suburban and its authorized service centers. Replacement parts will be shipped FOB the shipping point within the Continental United States, Alaska and Canada to authorized service centers performing such repairs. All freight, shipping and delivery costs 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 an authorized 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 water heater or component parts, and it is the owner's obligation to return the water heater and/or component parts to Suburban or its representative. When returning a water heater, it must include all component parts and the serial number plate. Returned component parts must be individually tagged and identified with the water heater's model number, serial number and date of installation.

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 water heater) 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 water heater and a current listing may be obtained from Suburban. If you cannot locate an authorized service center locally, the service agency chosen to perform warranty repairs must contact our Service Department at 615-775-2131 for authorization. Unauthorized repairs made will not be paid by Suburban.

LIMITED THREE YEAR WARRANTY ON TANK

The inner tank is further warranted to be free from defects in material and workmanship for three years from the date of original purchase. A replacement water heater 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 and cleaning or replacement of the burner orifice. Any water damage arising, directly or indirectly, from any defect in the water heater or component parts or from its use.
2. Initial checkouts and subsequent checkouts which indicate the water heater 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; improper gas pressure; low voltage.
5. Cleaning or adjustment of components: electrode, burner tube, pilot and thermocouple.
6. Costs incurred in gaining access to the water heater.
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. 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 water heater 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 water heater to the selected service center.

THIRD:

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