



1120 North Main Street • Elkhart, IN 46514  
 PHONE: 574-264-2131 FAX: 574-206-9713  
 INTERNET: <http://www.atwoodmobile.com>



**hydro flame™**

Furnace Models  
 7900-II, 8012-II,  
 8500-IV, 8900-III

Series User's Information Manual

ENGLISH, FRANCAIS (et Canada)

•Operation •Maintenance

Effective 1/08

This furnace design has been certified by the American Gas Association and Canadian Gas Association for installation in recreation vehicles as a MSP Category III furnace.

Location and phone numbers of qualified Service Centers can be found at our website <http://www.atwoodmobile.com> or call 574-264-2131 to have a Service Center List mailed.

### FOR YOUR SAFETY READ BEFORE OPERATING

**BEFORE OPERATING FURNACE**, smell all around appliance area for gas. Be sure to smell next to floor because some gas is heavier than air and will settle on floor.

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.

Use only your hand to turn a gas control valve. Never use tools. If the valve will not turn by hand, don't try to repair it, call a qualified Service Technician. Force or attempted repair may result in a fire or explosion.

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 control system and any gas control which has been under water.

### WARNING FIRE OR EXPLOSION

If information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- 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 vehicle.
- Shut off gas supply at gas container or source.
- DO NOT touch any electrical switch, or use any phone or radio in vehicle.
- DO NOT start vehicle's engine or electric generator.
- Contact nearest gas supplier or qualified Service Technician for repairs.
- If you cannot reach a gas supplier or qualified Service Technician, contact nearest fire department.
- DO NOT turn on gas supply until gas leak(s) has been repaired.

- Installation and service must be performed by a qualified Service Technician, Service Center or gas supplier.

### FOR YOUR SAFETY

#### READ ALL INFORMATION BEFORE OPERATING FURNACE

**Installer:** Provide this instruction to the consumer.

**Consumer:** Keep document for future reference.

For complete instructions on lighting and shutting down furnace see booklet attached to furnace.

#### LOCATION AND PHONE NUMBERS QUALIFIED SERVICE CENTERS

- website <http://www.atwoodmobile.com>
- call 574-264-2131 for a Atwood Service Center List

#### OPERATING INSTRUCTIONS

1. STOP! Read all safety information.
2. Set thermostat to lowest setting.
3. Turn off electric power to furnace.
4. This furnace is equipped with an ignition device which automatically lights burner. DO NOT try to light burner with a flame.
5. Open furnace exterior door.
6. Turn switch or circuit breaker to OFF.
7. Wait five (5) minutes to clear out any gas. Then smell for gas, including near floor. If you smell gas, STOP! Follow **WHAT TO DO IF YOU SMELL GAS** in safety information. If you don't smell gas, go to next step.
8. Turn ON circuit breaker or switch.
9. Close furnace exterior door.
10. Turn on electric power to furnace.
11. Set the thermostat to desired setting.
12. If furnace does not operate, follow instructions **HOW TO TURN OFF ELECTRICAL POWER TO FURNACE GAS VALVE** and call an authorized Service Technician.

#### HOW TO TURN OFF ELECTRICAL POWER



1. Set the thermostat at the lowest setting.
2. Open furnace exterior door and turn OFF electric switch or circuit breaker.
3. Close furnace exterior door.
4. L/D Model switch is located on outside of furnace near electrical hook up.

### SAFETY ALERT SYMBOLS

Safety Symbols alerting you to potential personal safety hazards. Obey all safety messages following these symbols.



#### WARNING

avoid possible injury or death



#### CAUTION

avoid possible injury and/or property damage



### CARBON MONOXIDE POISONING / FIRE / EXPLOSION

- A qualified Service Technician must install, repair or perform preventive maintenance on furnace.
- DO NOT modify this furnace.
- Follow the information in this instruction exactly.

Location and phone numbers of qualified Service Centers can be found at our website <http://www.atwoodmobile.com> or call 866-869-3118 to have a Service Center List mailed.

### FIRST TIME USE OF FURNACE



#### WARNING HARMFUL FUMES

- Open all windows and doors allowing the fumes to fully dissipate to the outside.

First time use of the furnace may circulate fumes caused by the heating of materials used in the furnace manufacturing process. These fumes may cause physical irritation in some persons.

First time heating of some building materials in the coach can also give off fumes that can be fatal to birds or other small animals and may be harmful to humans.

### AIR VENTILATION



#### WARNING CARBON MONOXIDE POISONING

- Door must be properly sealed and draft cap must be adjusted correctly to prevent carbon monoxide from entering coach.
- Combustion air must NOT be drawn from the living area.
- DO NOT vent exhaust into living area or outside enclosed porch area.
- DO NOT vent any other appliance with venting system serving the furnace.
- DO NOT allow snow or any objects to block exhaust system of furnace.



#### CAUTION PRODUCT DAMAGE

- DO NOT allow flue gas exhaust to have extended contact with exterior sidewall of recreation vehicle. It will cause the material to degrade over time.

All exhaust system tubes must overlap no less than 1-1/4" and be positioned for proper function. All air intake tubes must overlap no less than 1/2" and be positioned for proper function.

### MATERIAL NEAR FURNACE



#### WARNING FIRE OR EXPLOSION

- DO NOT store or use gasoline or other flammable vapors and/or liquids in the vicinity of this or any other appliance.
- DO NOT use the furnace cabinet area as a storage compartment.
- DO NOT block furnace outlet registers or return air grille.
- Keep all insulating material away from furnace.

### POWER TO FURNACE



#### WARNING FIRE OR EXPLOSION

- DO NOT alter the furnace to a positive grounding system.
- DO NOT use battery charger to supply power to DC model furnace even when testing.
- DO NOT use 120 volt AC current with DC models.

### WATER DAMAGE TO FURNACE



#### WARNING FIRE OR EXPLOSION

- Should overheating occur, or the gas supply fail to shut off, shut off the manual gas valve to the furnace before shutting off the electrical supply.
- DO NOT use furnace if any part has been under water.

Immediately call a qualified Service Technician to inspect the furnace and replace any part of control system and any gas control which has been under water.

### PROPANE (LP) & NATURAL (NAT) GAS FURNACE IDENTIFICATION AND CONVERSION



#### WARNING FIRE OR EXPLOSION

- Use the correct gas specified for your furnace.
- Only a qualified Service Technician may convert a 8900 series furnace from LP to NAT or NAT to LP.

All models, except the 8900 AC-III Series, are designed for LP GAS ONLY and cannot be converted to natural gas. To verify the setting of your furnace, open furnace door and check the model number on the label (SEE TABLE BELOW). Use only the type of gas your furnace has been set for. ONLY the 8900 AC-III series can be converted-by a qualified Service Technician-to use either Propane (LP) or Natural (NAT) gas.

MODEL	GAS TYPE	MODEL	GAS TYPE
ALL 7900	LP ONLY	8900 DC	LP ONLY
ALL 8000	LP ONLY	8900 ACLC	LP OR NAT
ALL 8500	LP ONLY		

### REFUELING RECREATION VEHICLE AND LP TANKS



#### WARNING FIRE OR EXPLOSION

- DO NOT refuel gasoline tanks or LP tanks unless the gas has been turned OFF AT THE LP TANK disabling all gas appliances and pilot lights.
- DO NOT over fill LP gas tanks.
- LP tanks must be filled by a qualified gas supplier only.

Follow tank manufacturer's operating instructions located on tank. Liquid gas from an over filled tank can be forced through the pressure regulator resulting in high pressure gas escaping, causing fire/explosion.

### WHEN YOUR RECREATION VEHICLE IS IN MOTION



#### WARNING FIRE OR EXPLOSION

- Turn gas OFF AT THE LP TANK when vehicle is in motion. This disables all gas appliances and pilot lights.

### HOT SURFACE



#### CAUTION BURN INJURY

- DO NOT touch exterior exhaust grille, when furnace is operating.
- Supervise young children in the same room as the furnace.

### FOR BEST FURNACE PERFORMANCE



#### WARNING CARBON MONOXIDE POISONING / FIRE / EXPLOSION

- Installation, repairs and preventive maintenance should be done by a qualified Service Technician only.
- The furnace should be inspected before use at least annually by a qualified Service Technician.
- Frequent cleaning may be required due to excessive lint from carpeting, bedding material, pet hair, etc. It is imperative that control compartments, burners and circulating air passageways of the furnace be kept clean.
- DO NOT block or obstruct return air passages or outlet registers to the furnace.

## ANNUAL PREVENTIVE MAINTENANCE INSPECTION

**A qualified RV service technician should perform the following preventive maintenance and safety checks ANNUALLY. Failure to properly maintain the furnace may void the furnace warranty and can result in unsafe furnace operation. Preventive maintenance is not covered under warranty.**

**AIR WHEEL** Clean and clear any obstructions. Operating furnace with any obstruction in the blower will damage wheel making replacement necessary.

**BURNER** Requires no adjustments, inspect annually. Burner should be cleaned with a wire brush to remove debris and corrosion build up.

**COMBUSTION CHAMBER** Check air intake and flue areas for internal obstructions (wasp or bird nests, etc.). To clean obstructions - REMOVE THE COMBUSTION CHAMBER, flush with water and completely dry before replacing. Replace combustion chamber if any cracks or holes are found this condition is not field repairable.

**CONTROL COMPARTMENT** Remove dirt and lint.

**DUCTING** Must be clean and clear of obstructions. Reconnect any ducts that have become loose.

**GAS PRESSURE TEST** Using a U-tube Water Manometer the entire piping system must be maintained within a range of 10-14" W.C. when all appliances are in operation. Test the gas connections for leakage with a leak test solution.

**GAS SUPPLY SYSTEM** To test for gas leaks, perform a pressure-drop test according to current ANSI standards

**GASKETS** Inspect all gaskets for tight seals. Do NOT reuse gaskets - always replace with new. Worn seals may allow carbon monoxide to enter the living areas and cause illness or death.

**GENERAL** Physical support system must be sound, without sagging, cracks gaps, etc.

**MOTOR** Requires no oiling. Permanently sealed and lubricated.

**RETURN AIR** Must be clean and clear of obstructions.

**VENTING** Exhaust tube and furnace chamber tube must overlap no less than 1-1/4" and be positioned against the door screen for proper function.

**VOLTAGE** Low voltage can cause furnace to overheat and cycle. High voltage can cause unbalanced combustion and excessive motor wear. DC voltage = 10.5 - 13.5 VDC at the furnace during operation. Check power with applicable power sources (generator, battery and converter).

**WIRE CONNECTIONS** Check for loose or disconnected wires.

### ATWOOD MOBILE PRODUCTS

#### hydro flame® FURNACE LIMITED WARRANTY

Atwood Mobile Products warrants to the original owner and subject to the below mentioned conditions, that this *hydro flame*® product will be free of defects in material or workmanship for a period of two years from the original date of purchase. Atwood's liability hereunder is limited to the replacement of the product, repair of the product, or replacement of the product with a reconditioned product at the discretion of the manufacturer. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other causes not arising from defects in material workmanship. This warranty extends to the original owner of the product only and is subject to the following conditions:

- For two years from the date of purchase, Atwood will repair or replace any part defective in material or workmanship. This warranty includes reasonable labor charges required to remove and replace the part. Service calls to customer's location are not considered part of these charges and are, therefore, the responsibility of the owner.
- This warranty does not cover the following items classified as normal maintenance:
  - ADJUSTING - gas pressure, voltage, loose wire connections, and/or thermostat heat anticipator
  - CLEANING - air wheels, burner and/or burner orifice
  - CLEANING OR ADJUSTING - heat chamber, heat ducting, return air opening, and/or exhaust tubes
- In the event of a warranty claim, the owner must contact, in advance, either an authorized Atwood Service Center or the Atwood Service Department. Warranty claim service must be performed at an authorized Atwood Service Center (a list will be provided at no charge) or as approved by the Consumer Service Department, 1120 North Main, Elkhart, IN 46514 USA. Phone: 574-264-2131
- RETURN PARTS MUST BE SHIPPED TO ATWOOD "PREPAID". Credit for shipping costs will be included with the warranty claim. The defective parts become the property of Atwood Mobile Products and must be returned to the Atwood Mobile Products, Quality Assurance Dept., Salt Lake City Operations, 1874 South Pioneer Road, Salt Lake City, Utah 84104 USA.
- This warranty applies only if the unit is installed according to the installation instructions provided and complies with local and state codes.
- The warranty period on replacement parts is the unused portion of the original warranty period.
- Damage or failure resulting from misuse (including failure to seek proper repair service), misapplication, alterations, water damage, freezing or not using genuine Atwood parts are the owner's responsibility.

8. Atwood does not assume responsibility for any loss of use of vehicle, loss of time, inconvenience, expense for gasoline, telephone, travel, lodging, loss or damage to personal property or revenues. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

9. Any implied warranties are limited to (2) two years. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

10. Replacement parts purchased outside of the original furnace warranty carry a 90 day warranty. This includes the part at no charge and reasonable labor charges to replace it.

This *hydro flame* furnace is designed for use in recreation vehicles for the purpose of heating air as stated in the "data plate" attached to furnace. Any other use, unless authorized in writing by the Atwood Engineering Department, voids this warranty.

#### FURNACE EXTENDED SERVICE CONTRACT

##### TERMS AND PROVISIONS:

- Written approval by Atwood must be obtained prior to having any repairs made or parts replaced under these Warranties at other than an Atwood Authorized Service Center. A list can be obtained by calling 574-264-2131. Any such unauthorized charges will not be paid by Atwood.
  - Air freight or postage charges shall be borne by party claiming under Warranties. The Original Purchaser shall have the full responsibility of making the furnace or RV available for repair or replacement at Atwood Mobile Products, Salt Lake Operations or at an Atwood Authorized Service Center. Service calls are not covered under the normal two year warranty.
  - Atwood's Authorized Service Centers are neither agents nor employees of Atwood and at all times will be acting as independent contractors with the Original Purchaser. Atwood will reimburse service centers for warranty service rendered on a direct basis only.
  - Repairs, replacement parts and or furnace replacement authorized by Atwood shall be subject to the remainder of the warranty, if any of the aforesaid two year period.
- Exclusions (specifically excluded from the warranties)**
- Incidental or consequential damages.
  - Damaged caused by shipment.
  - Damage resulting from improper installation, misuse, neglect, accident or use in violation of instructions furnished by Atwood Mobile Products.
  - Equipment and parts which have been altered in any way whatsoever without written authorization from Atwood Mobile Products.
  - All repairs and replacement parts not authorized by Atwood Mobile Products.
  - Preventative maintenance.

##### Limitations

- The maximum liability of Atwood Mobile Products in connection with this limited warranty shall not in any event exceed the original price paid for the furnace claimed to be defective or unsuitable.
- Components manufactured by any supplier other than Atwood Mobile Products shall bear only that warranty made by the manufacturer or supplier of that product.

# Atwood Extended Service Contract Provides These Extras!

for



**ATWOOD WATER HEATER**  
inner tank



**HYDRO FLAME FURNACE**  
combustion chamber



**ATWOOD/WEDGEWOOD RANGE**  
gas valves & manifold

extends coverage to full five years

one price covers parts and labor

in-shop service  
(read complete information on form below)



**Also available...  
Service Related Travel**

Includes mileage travel expense by authorized service center

Up to 200 miles total of service travel

One full year of coverage

**PLEASE USE ORDER FORM BELOW TO BEGIN EXTENDED SERVICE CONTRACT OF YOUR PRODUCT(S).**

## ATWOOD EXTENDED SERVICE CONTRACTS



\$45



**Water Heater Tank**—An extended service contract is available covering the parts and labor for replacement of the **inner tank** in the event the water heater tank develops leaks due to corrosion. This extends the original (2) two year warranty an additional (3) three years for a total of (5) five years to the original owner from the original date of purchase of the water heater or vehicle.



\$25



**Furnace Combustion Chamber**—An extended service contract is available covering the parts and labor for the replacement of the **combustion chamber** in the furnace in the event the combustion chamber were to prematurely fail due to defects in material or workmanship. This extends the original (2) two year warranty an additional (3) three years for a total of (5) five years to the original owner from the date of purchase of the furnace or vehicle.



\$15



**Range Gas Valves and Manifold**—An extended service contract is available covering the parts and labor for the replacement of **range burner valves and manifold** in the event of premature failure due to defects in material and workmanship. This extends the original (2) two year warranty an additional (3) three years for a total of (5) five years to the original owner from the original date of purchase of the range or vehicle.

All 3

\$75



**Save \$10.00 by selecting all three Extended Service Contracts.**

## SERVICE RELATED TRAVEL MILEAGE—\$20.00 (See Explanation)



\$20



**Mileage Travel Expense**—Mileage travel expense is not covered by the Limited Warranty issued with each product. If it is anticipated that it may be inconvenient to transport your vehicle or Atwood product to obtain service you may choose to purchase this Service Mileage option. This will pay up to 200 miles of service travel at 20 cents per mile to an authorized Atwood Service Center whose service personnel travels to your location to perform in-warranty service work on your Atwood product. This is for (1) one year from the original date of purchase of the vehicle or Atwood water heater, furnace or range.

To qualify for any of these options, they must be purchased within 90 days of the vehicle or product purchase. Prices listed are in **US DOLLARS**—please make check amount accordingly. Upon receipt of this completed card together with your check or money order, Atwood will send you a written confirmation of the options you selected.

## EXTENDED SERVICE ORDER FORM

Today's Date \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ ST \_\_\_\_\_ ZIP \_\_\_\_\_

Phone \_\_\_\_\_

Your RV Manufacturer's Brand Name \_\_\_\_\_

Your Dealer's Company Name \_\_\_\_\_

## CONTRACT DESIRED

THE MODEL AND SERIAL NUMBER OF EACH COVERED APPLIANCE IS REQUIRED.

Model No. Serial No.

ATWOOD Water Heater Tank \_\_\_\_\_ \$45.00

HYDRO FLAME Furnace \_\_\_\_\_ \$25.00

ATWOOD/WEDGEWOOD Range \_\_\_\_\_ \$15.00

Save \$10—Select All Three from above

MILEAGE TRAVEL EXPENSE \$20.00



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1120 North Main  
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