

INSTALLATION OPERATION AND SERVICE MANUAL

UNVENTED DECORATIVE GAS APPLIANCE/DECORATIVE LOG-SET

CASCADE LOG SET

PLEASE READ THIS MANUAL CAREFULLY BEFORE INSTALLING AND OPERATING THE APPLIANCE.

ALWAYS RETAIN THE MANUAL WITH THE UNIT IN THE EVENT OF CHANGE OF OWNERSHIP.

WARNING: If the 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:

- *Do not try to light any appliance.
- *Do not touch any electrical switch; do not use any phone in your building.
- *Immediately call your gas supplier from a neighbors phone. Follow the gas suppliers instructions.
- *If you cannot reach your gas supplier; call your fire department.

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

This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for the adequate combustion and ventilation air must be provided. Refer to section 2 of this manual.

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INTRODUCTION

The Old Salem Hearth “Cascade” Model No. WR400 1N (Natural Gas) or WR400 1P (Propane) is a ventless decorative appliance consisting of an integrated burner controls and a simulated coal fire. There are neither loose parts nor any field assembly required. It is intended for installation in a wood-burning fireplace. It is supplied with an integrated cast iron grate and cover plate. It may also be installed in a dedicated simulated fireplace and zero clearance box assembly. The zero clearance box assembly can be configured to direct combustion products through an output directly above the fireplace opening or thru flexible conduits to heater grills placed at another location within the same room. Cast iron surrounds are available or the zero clearance may be faced with customer provided masonry or tile etc. When installed in an existing fireplace, ***the flue must be blocked to prevent down drafts from disturbing the flame patterns and the chimney must be capped to prevent potential water damage to the appliance.*** See following section for additional requirements.

I GENERAL INSTRUCTIONS

WARNING: This appliance is for installation only in a solid fuel-burning fireplace or the Old Salem Hearth simulated fireplace and zero clearance box assembly.

WARNING: Before installing in a solid fuel-burning fireplace, the chimney flue and firebox must be cleaned of soot, creosote, ashes and loose paint by a qualified chimney cleaner.

WARNING: Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.

WARNING: Do not use a blower insert, heat exchanger insert or other accessory not approved for use with this heater.

- (a) A fireplace screen must be in place when the appliance is operating. The screen must have openings for introduction of combustion air.
- (b) The minimum size of the fireplace in which the appliance is to be installed shall have the following minimum dimensions. **Front Width: 19”, Back Width: 14”, Depth 9.75”, Height: 12”** .
- (c) No combustible materials shall be placed or burned in the fireplace where the appliance is installed.
- (d) The “Cascade Coal Basket” is provided as a completed assembly with no loose parts. If improper handling should result in one or more of the “coals” becoming loosened, the coals must be repositioned in exactly the position into which they were first attached. Should there be any doubt as to that location or if the coals will not remain in that position during operation, the unit must

be repaired by a factory approved repair man or returned to **Old Salem Hearth** for repair.

WARNING: State or local codes may not allow operation of unvented appliances. Check your state or local codes.

2 **COMBUSTION AIR**

- (a) This appliance shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air.
- (b) The *National Fuel Gas Code ANSI Z223. 1* defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 Btu per hour (4.8 cubic meters per kw) of the aggregate input rating of all appliances installed in that space and an unconfined space as a space whose volume is not less than two cubic feet per 1000 Btu per hour(4. 8 cubic meters per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.
- (c) To determine the compliance with this requirement, measure the room into which the appliance is to be installed and perform the following calculation. Multiply the length times the width times the ceiling height. This will provide the number of cubic feet in the room. The Ventless Cascade Decorative appliance provides an output heat content of 15,000 BTU per hour maximum. Therefore, the cubic feet in the room must be greater than 750 cubic feet to be considered an unconfined space.
- (d) **WARNING:** If the area in which the appliance is to be operated is smaller than 750 cubic feet, or if the building is of an unusually tight construction, adequate combustion and ventilation air must be provided by one of the methods described in the *National Fuel Gas Code ANSI Z223. 1*, Section 5.3 or applicable local codes.

Unusually tight construction is defined as construction where:

Walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of 1 perm(6 x 10 to the minus 11 kg per pa-sed-mswared) or less with openings gasketed or sealed and,

Weather stripping has been added on openable windows and doors, and,

Caulking or sealants are applied to areas such as joints around window and doorframes, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings.

- (e) The Cascade Set has been equipped with an oxygen depletion system to prevent reduction of he oxygen level in the installation room from reaching a level below 18 percent. The above requirements are provided to prevent the unlikely occurrence of this level.

3 APPLIANCE LOCATION CLEARANCE

- (a) Due to high temperatures the appliance should be located out of traffic areas by at least 36 inches away from furniture and draperies
- (b) Children and adults should be alerted to the hazards of high surface temperatures and open flames
- (c) Young children should be carefully supervised when they are in the same room as the appliance.

(d) **MINIMUM CLEARANCES TO COMBUSTIBLES:**

When installed in a non-combustible fireplace, (see dimensions in section 1 (b) above) or in the Wild Rose Ltd. Zero Clearance Box Assembly, the mantel may extend up to 12 inches maximum from the wall and must be located greater than 18 inches above the top of the exhaust grill or 18 inches above the top of the fireplace opening . Since the combustion gasses will exit the appliance from the top of the fireplace opening or grill, the underside of the mantel should be protected by a **high** temperature paint or application of a non combustibile lamination.

High Temperature paints such as those sold by:

Flame Control Coatings, LLC

4120 Hyde Park Blvd.

Niagara Falls, NY 14305

Under the Trade Name: **Flame Control**

When installed in a corner location, there must be a minimum clearance of 10 inches from the outer edge of the fireplace opening and the corner wall with the intervening space made of non combustibile materials, cast iron surround, masonry, tile etc.

When installed in the Zero Clearance Box Assembly, there must be a non-combustible hearth ***extending a minimum of 14 inches*** in front of the cast iron surround provided with the assembly.

4 NATURAL GAS PROPANE PIPING

- (a) The installation must conform with local codes or, in the absence of local codes, with the current National Fuel Gas Code ANSI Z 223 .
- (b) Before any system of gas piping is finally put into service, it should be carefully tested to ensure it is gas tight. As an aid in determining where the gas may leak, it is recommended that a soapsuds solution be used. Under no condition shall a live flame or fire be used to locate a gas leak.
- (c) The minimum inlet gas pressure permissible is 5 inches W.C. for natural gas and 11 inches W.C.

for Propane. -

- (d) The maximum inlet gas supply pressure permissible is 14 inches W.C.
- (e) A 1/2 inch natural gas supply pipe is required to ensure adequate capacity. It is recommended that either a flexible metallic hose or a union be placed in the supply piping to facilitate the easy removal and servicing of the appliance.
- (f) This appliance has been set for a maximum rating of 13,400 Btu per hour at sea level rating. Adjustment of orifice size may be required for altitudes above 2000 feet. Consult with your dealer or with Old Salem Hearth for recommendations. -

5 VENTING

- a) If the installation of the Cascade is to be in an existing solid fuel burning fireplace, the flu must be blocked at the top of the fireplace or damper. The flue (chimney) must be capped if there is any possibility that rain may enter the fireplace and contact the appliance.
- b) No venting per se is required, however, review section **2 “COMBUSTION AIR”** for information relative to air availability requirements.

6 INSTALLATION INSTRUCTIONS

IMPORTANT: The main gas supply shut off valve/tap must never be located inside the fire box and must be within arm’ s length from the fire and accessible at all times

Old Salem Hearth cannot and will not accept any warranty claim if the appliance has not been install to comply with the following instructions and with local and National codes as noted above

- a) With the controls facing the front, center the burner in the base of the firebox. When properly positioned, no part of the burner may project beyond the vertical opening of the fireplace. Mark this location and rotate the assembly to provide visibility of the gas input connection.
- b) It is recommended that a rigid 3/8” pipe be run through the masonry into the firebox area. Using an approved flexible gas line connect the line from the fixed pipe to the gas input to the appliance. All pipe work going through masonry should be sleeved in conduit. Where pipe work is liable to come into contact with fresh cement, cover with Denzo or similar electrical tape to protect the pipe from corrosion.
- c) The 3/8” flexible pipe should be no longer than 6 feet. The supply pressure at the appliance should be no less than 5 inches w.c. for natural gas and 11 inches w.c. for propane. After correctly installing the appliance and before connecting the supply to the burner, “blow out” any dust particles that could have entered the new pipe work by opening up the gas supply for a few seconds so as no to clog the burner.

- d) Connect the gas to the appliance input. Carefully test to ensure that there are no leaks using a soapsuds solution. Do not use a flame to locate a gas leak.

7 OPERATION

- a) Test and adjust all controls under actual operating conditions and in accordance with applicable local and national installation codes for gas burning appliances.
- b) Before lighting the burner after installation, wait five (5) minutes to clear out any gas resulting from the “blow out” from (c) above. If you then smell gas, stop. Follow “B” in the safety information provided on the attached tag. If you don’t smell gas, go to the next step in the lighting instructions.

Note: There will **be some delay after the pilot** light valve is compressed before the piezo igniter will light the pilot due to the air remaining in the control valves etc. If after about 3 to 5 minutes the piezo igniter still fails **to** light the pilot, the pilot may be lit manually as follows:

- (1) Position the control knob to ‘PILOT’ position
 - (2) While depressing the control knob, light the pilot from beneath with a match.
 - (3) Hold the control knob down for 60 seconds.
 - (4) Contact your service technician or gas supplier to replace the defective igniter.
- c) The flame level has been preset for relatively small changes in BTU level. At first ignition, only the blue and yellow flames will be visible. After a few minutes, the coals on the rear stack will start to glow. The amount of glow and the height of the flames are restricted due to the critical nature of the exhaust gas constituents. This level has been tested extensively and a copy of the test results have been included in the shipment. Should any of the coals become mislocated and the flame pattern changes drastically, contact your distributor or Old Salem Hearth immediately.
 - d) The Cascade unit is repairable only at the manufacturer or a certified agent with the capability to measure the CO levels in the combustion products.
 - e) If a remote control system WR400I-4 REMOTE CONTROL ASSEMBLY is to be used, refer to Figure 1 for a schematic of the connections.

8 CLEANING PROCEDURE

9

CAUTION: Only the simplest of cleaning such as dusting the cast iron grate and control mechanism etc. is allowed. The latter must be accomplished by a qualified service person.

10 GENERAL MAINTENANCE

- a) INSTALLATION AND REPAIRS SHOULD BE DONE BY A QUALIFIED AND CERTIFIED SERVICE PERSON. IT IS RECOMMENDED THAT THE APPLIANCE BE INSPECTED BEFORE

EACH USE FOR DAMAGE TO TO COALS AND AT LEAST ONCE A YEAR BY A PROFESSIONAL CERTIFIED SERVICE PERSON. IT IS OF THE UTMOST IMPORTANCE THAT THE CONTROL COMPARTMENT AND CIRCULATING AIR PASSAGEWAYS OF THE APPLIANCE **BE KEPT CLEAN.**

b) **WARNING: Do not burn combustibles of** any kind in this appliance. Do not use this appliance if any part **has been under water. Immediately** call a qualified service technician to inspect the appliance and determine if the appliance must be returned to the manufacturer for repair and calibration.

11 TROUBLE SHOOTING

There are limited tests that can be accomplished in the absence of a qualified technician. Such obvious items such as the main gas valve to the appliance being off or the smell of raw gas being due to an incorrect connection should be checked. In the event of some other malfunction a phone call to your Certified technician for maintenance is recommended. Should such a person be unavailable, call Old Salem Hearth. immediately for assistance in talking through the problems and symptoms.

<p>IMPORTANT: The appliance is not field repairable due to the sensitive nature of the requirements for Carbon Monoxide emissions. Only a certified technician with certified equipment for measurement of the CO emissions may accomplish repairs to this unit.</p>

--- FOR YOUR SAFETY---

IF YOU SMELL GAS

- Open Windows.
- Don't touch any electrical switches; do not use any phone in your building.
- Extinguish any open flame.
- 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.

12 GUARANTEE

Old Salem Hearth warrants burner and fuel effect components only, are guaranteed against breakage in normal use at their replacement cost for a period of twelve months from the date of purchase. All other components are guaranteed against defect in materials and workmanship for one year from date of purchase, and any replacement will not include labor charges. Any claim under this guarantee must be accompanied by a copy of the original retail purchase invoice clearly showing date of purchase and returned to the supplier. This guarantee will be invalidated if the appliance is not fitted by a certified technician in strict accordance with these instructions. If you have a problem contact the manufacturer.

PLEASE NOTE

This online version of the installation Manual is only for planning purposes. You must follow the most current instruction manual provided with your Coal Basket.

In the interest of product development and the introduction of any new relevant mandatory gas requirement, Old Salem Hearth., reserves the right to modify and amend the appliance(s) and instructions as and when deemed necessary, without prior notice. Diligence has been taken to compile these instructions in order to cover all building/gas utilization code requirements. It is our intention to cover every occurrence of the Company's involvement with decorative effect fires. The Company will not accept any liability for any omissions in these instructions. It is the gas installation contractor that must check for current compliance with the legal requirements of installation. These instructions are issued by Old Salem Hearth Co who have made every effort to make sure that they relate to the North American market place, particularly where safety is concerned.

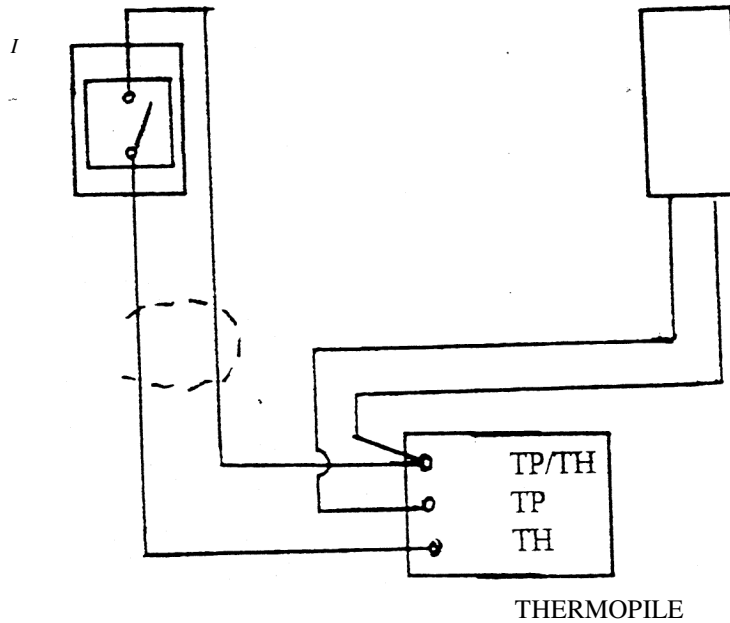
THERMOPILE

OPTIONAL REMOTE OR WALL SWITCH

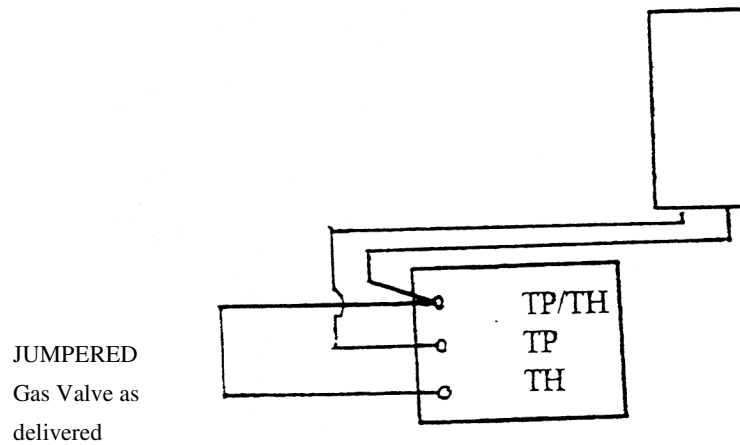
*18GaugeWlre
(Rated237Deg. F
125 Deg. C)

·Supplied with Remote
Supplied by Installer for
Wall Switch

GAS VALVE



(Shown
configured for
wall switch or
remote)



Schematic of the electrical connections for various installations.

**This Manual is provide for planning purposes only if you have questions
please contact:**

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FIGURE 1