



# WOOD FURNACE MODEL WF200 BY ENTERPRISE FAWCETT CANADA'S FIRST AIR TIGHT WOOD BURNING FURNACE

## OWNERS MANUAL



Canada's first air tight wood burning furnaces. Some of its' features include: Thermostatically controlled wood burning furnace, can use up to **a** less wood than conventional wood furnaces, large firebox handles logs up to 36" length, constructed of **C** steel plate, dual baffle plates for better heating and top quality controls but to name a few.

### INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS:

Read these instructions carefully. Consult your local authorities concerning local fire safety regulations, and to determine the need to obtain a permit. Installation must be made in accordance with the Local, Provincial or State codes in your area which may differ from this manual. Always comply with the most severe application. Proper installation and use will ensure safe and satisfactory performance. Improper installation or use could result in voiding your warranty.



**BURN WOOD ONLY:**

**ENTERPRISE FAWCETT**

Making Wood Stoves Since 1852

73 Lorne Street  
Sackville, NB  
E4L 4A2

We reserve the right to make improvements and design modifications without notification.

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Fax: 506-536-1820  
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If the furnace is installed in a tight basement or furnace room, adequate air must be supplied for combustion and ventilation.

Minimum clearances from combustion materials:

FRONT: 48"

SIDE 1: (BLOWER): 30"

SIDE 2: (GRAVITY PANEL): 18"

ABOVE PLENUM AND FIRST 6' OF DUCT: 6"

DUCT: 2"

FLUE PIPE: 18"

FLOOR: Non-Combustible

NOTE: MAXIMUM LIMIT SETTING 180° F.

**Gravity Firing Panel covers an opening the same size as the one for the blower on the opposite side of the heat exchanger casing.**

**CAUTION: The chimney will be of an approved type for solid fuel.**

### **INSTALLATION:**

Your Fawcett Wood Furnace can be set up with the blower compartment on the left or right-hand side, (See attached drawing), this may simplify the duct installation. Select and place near the chimney to eliminate flue pipe and elbows as much as possible.

Set the furnace on a full sized non-combustible level foundation (recommend a cement slab of about 2" thick with about 18" extra in front of feed door).

Place warm air section on foundation in selected area.

Attach blower section to selected side:

- Gravity panel fits opening on left and right-hand sides.
- Remove blower and motor unit.
- Replace blower & motor.

Connect blower wire and BX cable to motor and blower section using the cable straps and the prepunched holes.

If blower section is mounted on the right-hand side, it will be necessary to shorten the BX cable to the blower section and use the long BX cable and wire packed in blower section, between the junction box and the next location of the fan limit control. All holes are prepunched (See attached drawing).

Install the thermostat in selected area.

Connect the furnace to an approved chimney for solid fuel. Recommended chimney size 8" x 8" inside. Smoke pipe

should have a minimum of 1¼" rise per foot of run. Install draft control at this time, draft control setting must not exceed 0.05" W.C. All smoke pipe joints must be secured with metal screws or its equal. Smoke pipe should be constructed of 24 gauge metal.

The installation must conform with local ordinances having jurisdiction.

Install and maintain sand or ashes in the bottom of the firebox to within ½" below feed door sill.

Fuel storage must conform with local ordinances having local jurisdiction.

Plastic ductwork is not recommended. Use metal ducts.

Do not use joist space as ducts on this furnace.

Install humidifier in return air plenum as heat at power failure time may damage humidifier.

The unit may be used as a Gravity System in a power failure and we recommend the following:

- Locate the furnace as near central as practical for better distribution of warm air.
- Oversize the extended plenum (rectangular duct) one or two sizes according to recommended sizes in National Warm Air Standards.
- Use 6" diameter minimum pipe size.
- Where possible grade (slope) ducts and pipes upward to assist in gravity flow of warm air.

Do not use smoke pipe damper with this furnace.

The furnace should be installed by a qualified installer.

### **OPERATING:**

When the installation is complete, close the power supply switch and set the thermostat above room temperature. Damper motor should open draft door. If not, check the following:

- Freedom of draft door
- Power supply and fuses
- Output of transformer to damper motor, if output is ok, damper motor is defective
- Oil blower motor twice a year, 2 - 3 drops SAE 20-30 motor Oil on each bearing

Set the flue draft by adjusting the draft control and the use of a draft gauge to a setting not to exceed -0.05" W.C. Draft reading to be taken between the furnace flue pipe outlet and the draft regulator while the furnace is operating.

When the furnace left the factory the motor blower variable, speed pulley was set to deliver an 85° F temperature rise maximum through the unit at plus .20" W.C. static pressure. As all ductwork will vary in resistance, it will be necessary to adjust the blower speed after installation to give 85° F temperature rise.

With a couple of sheets of newspaper and a few kindlings of wood, start a fire, then add small wood and after this has burned down add larger wood. At no time load the fuel above the bottom edge of the smoke curtain in the feed door.

**CAUTION:**

- ▶ The chimney will be approved for solid waste.
- ▶ Burn Wood only.
- ▶ Fill and maintain sand or ashes to about 1/2" below fire door sill
- ▶ Do not use fluids, gasoline, chemicals, etc., to start a fire
- ▶ Do not burn garbage, tar products, gasoline, oils, plastics, rubber, driftwood containing salt and chemicals, etc.
- ▶ Do not set flue draft above 0.05" W.C.
- ▶ Maximum draft opening 1/2".
- ▶ Clean as required or at least once a year the heat exchanger, flue pipes, and chimney.
- ▶ Do not store combustible materials within the following minimum clearances:

FRONT: 48"

SIDE1 (BLOWER): 30"

SIDE 2 (GRAVITY PANEL): 18"

ABOVE WARM AIR PLENUM & FIRST SIX FEET OF DUCT: 6"

DUCT: 1/2"

FLUE PIPE: 18"

FLOOR - NON COMBUSTIBLE

**POWER FAILURE:**

In case of a prolonged power failure, remove the gravity firing panel, open all air registers. Open all duct dampers and if more draft is required for combustion, brace the draft door open not more than 1/4" with a non combustible object.

When refuelling use only 1/2 of maximum charge. Do not expect maximum comfort. Furnace area must have an adequate supply of combustion and circulation air (open basement or furnace door if necessary).

After power failure check all components for operation and replace gravity firing panel.

Do not allow an inexperienced operator to service fire.

**NOTE:** The flue products can contain carbon monoxide, particularly where the wood fire is being starved for air (made to burn at a slow rate). Vent pipes should have a relatively gas-tight engagement.

Connect the furnace to the chimney, approved for Solid Fuel, avoid long horizontal runs of vent pipe, use as few elbows in vent pipes as possible. Horizontal pipes should be graded upward 1 1/4" per foot of run. All vent pipe joints should have a relatively gas tight secure engagement and metal screwed, and be of 24 gauge construction.

At no time connect an automatic stoker to this unit.

Clean ½ of unit through the fire door, clean ¼ through the vent pipe and ¼ through the cleanout.

Set wood thermostat above room temperature, this will open combustion draft door. With paper and kindlings, build a small fire, after four or five minutes add a few sticks of larger wood. In mild weather use your driest wood and maintain a small brisk fire instead of a large smouldering one. This will reduce creosote accumulation. Set thermostat to desired temperature.

Keep furnace, vent pipe and chimney clean, as it increases efficiency and reduces the chance of a soot or creosote fire.

Solid fuel requires a sufficient supply of air for combustion and combustion air is required above the fuel bed.

The furnace when installed in a central location and a reasonable distance from a chimney with a large warm air duct will give reasonable satisfaction in a power failure situation.

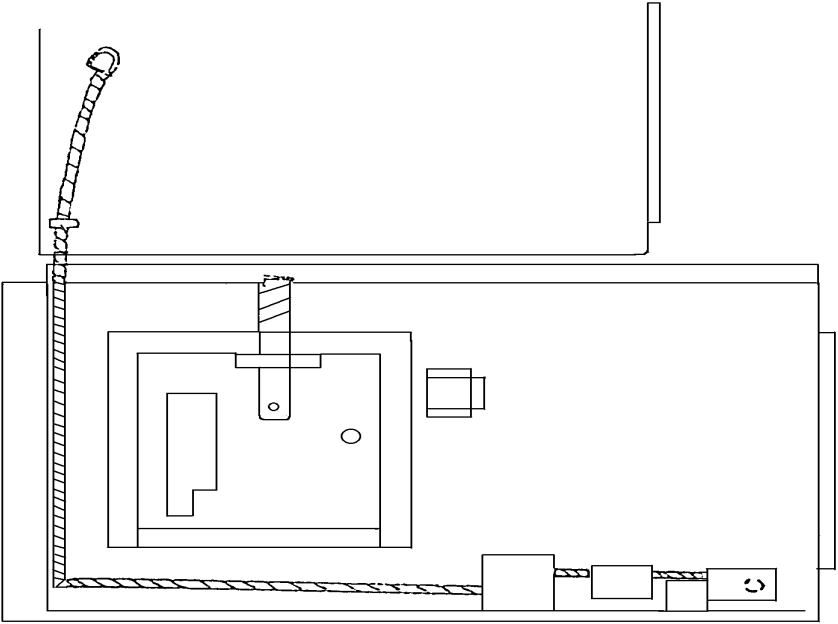
### **RUN AWAY FIRE:**

Caused by excessive fuel, excessive soot or too much draft.

- ▶ Set thermostat to lowest setting.
- ▶ Close all supply of combustion air.
- ▶ Unhook chain from draft door.
- ▶ Open draft regulator full open.
- ▶ Excessive heat will damage controls.
- ▶ Check all controls for operation before restoring system to service.

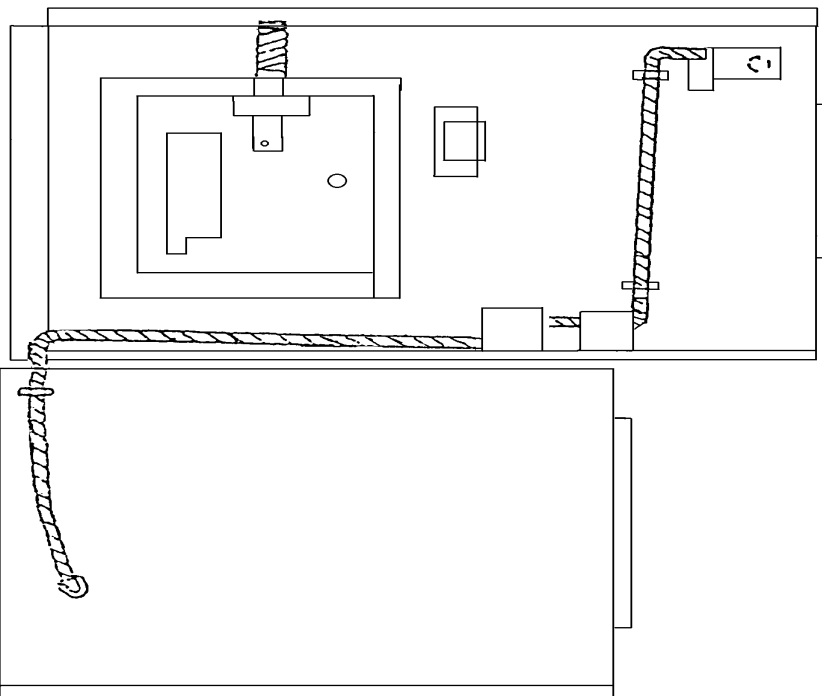
**WIRING HARNESS LOCATION WITH  
BLOWER COMPARTMENT ON LEFT**

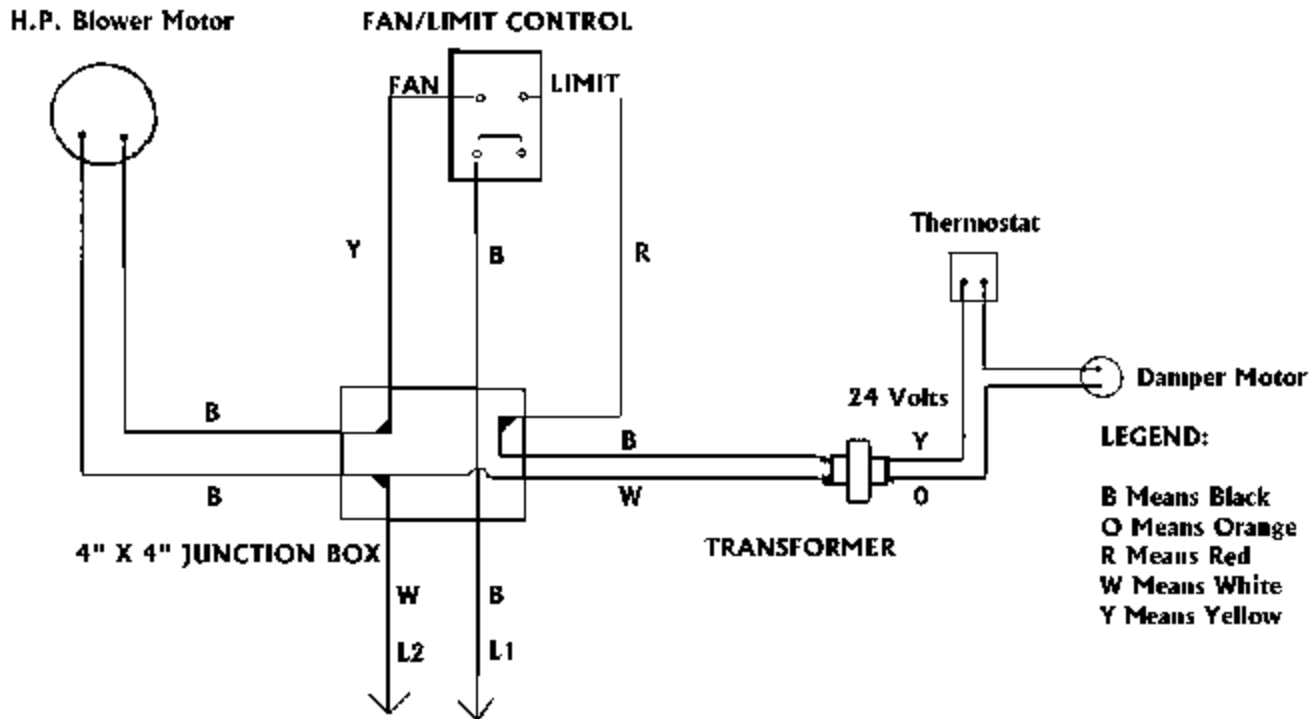
**EMPLACEMENT DU CABLAGE LORSQUE  
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**WIRING HARNESS LOCATION WITH  
BLOWER COMPARTMENT ON RIGHT**

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**LEGEND:**  
 B Means Black  
 O Means Orange  
 R Means Red  
 W Means White  
 Y Means Yellow

**FIG 9: Schematic Wiring Diagram**

Do Not store combustible materials within the following minimum clearances: TOP OF PLENUM AND 6' OF DUCT - 6"; DUCT - 2", FLOOR - NON-COMBUSTIBLE; FRONT - 48"; SIDE 1 (BLOWER) - 30"; SIDE 2 (GRAVITY PANEL) - 18"; FLUE PIPE - 18".

N'entrez pas de matériaux inflammables en dedans de distances minimum suivantes: DESSUS DE PLENUM ET 6' DU CONDUIT - 6"; CONDUIT - 2"; PLANCHER - NON-INFLAMMABLE; DEVANT - 48"; COTE 1 (SOUFLERIE) - 30"; COTE 2 (PANNEAU DE GRAVITE) - 18"; TUYAU DE FUMEE - 18"

**MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS**  
**DE DISTANCES MINIMUM POUR DE MATERIAUX INFLAMMABLES**

