

EXEL-FIRE

GAS STOVE

INSTALLATION AND OPERATING INSTRUCTIONS

WARNING: FAILURE TO CAREFULLY FOLLOW INSTRUCTIONS IN THIS MANUAL MAY RESULT IN FIRE OR EXPLOSION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

FOR YOUR SAFETY

IF YOU SMELL GAS :

1. DO NOT TRY TO LIGHT ANY APPLIANCE
2. OPEN WINDOWS
3. TURN OFF MAIN GAS SUPPLY
4. DO NOT TOUCH ELECTRICAL SWITCHES
5. EXTINGUISH ANY OPEN FLAME
6. CALL YOUR GAS SUPPLIER IMMEDIATELY

INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED TECHNICIAN, SERVICE AGENCY OR GAS SUPPLIER

Manufactured by :

DROLET STOVES AND FIREPLACES INC.
1700, Leon-Harmel
Quebec, Qc (Canada)
G1N 4R9

Tested by :


WARNOCK HERSEY

REV. 7/96 45052A

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GENERAL INFORMATION

The **EXEL-FIRE** gas stove is a high-efficiency free-standing gas appliance with a maximum input rating of 28,000 Btu/h with natural gas or 28,000 Btu/h with propane. It features a thermostatic modulating valve and a constant pilot. This means flame height will vary according to room temperature. The cooler the ambient temperature, the larger the flame. The valve is also independent of any outside electrical supply. The appliance will therefore continue to heat your home in the event of a power failure.

To improve efficiency, a 130 CFM blower with speed control and thermo-switch is available for optional automatic on/off control.

Read these instructions and consult local building authorities before installing this appliance. Install the unit and its venting system only as directed in these instructions.

CONSERVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

This gas stove has been tested by WARNOCK HERSEY in accordance with CAN1-2.1-M86, ANSI Z21.11.1 1991 and Z21.11.1a 1993 standards.

WARNING

- THIS HEATER MUST BE PROPERLY CONNECTED TO A VENTING SYSTEM. THIS HEATER IS EQUIPPED WITH A SHUTOFF SAFETY SYSTEM TO PROTECT AGAINST IMPROPER VENTING OF COMBUSTION FUEL.
- THIS APPLIANCE MUST BE INSTALLED IN ACCORDANCE WITH LOCAL BYLAWS WHERE APPLICABLE. WHERE NO BYLAWS EXIST, INSTALLATION MUST BE MADE IN ACCORDANCE WITH THE CURRENT CAN/CGA B-149 OR ANSI Z223-1 STANDARDS.
- ALWAYS ENSURE ADEQUATE AIR SUPPLY FOR PROPER BURNING. FOR MORE INFORMATION, CONSULT THE CAN/CGA B-149 OR ANSI Z223-1 STANDARDS OR LOCAL BYLAWS.
- DO NOT BURN WOOD OR ANY OTHER MATERIAL IN THIS APPLIANCE.
- HOT WHEN IN OPERATION. KEEP CHILDREN, FURNITURE, CLOTHING AND FLAMMABLE MATERIAL AWAY FROM THE APPLIANCE. INSTALL AWAY FROM HEAVY TRAFFIC AREAS.
- ADVISE ADULTS AND CHILDREN OF THE HAZARD OF HIGH SURFACE TEMPERATURES AND THAT CONTACT MAY RESULT IN BURNS OR IGNITE CLOTHING.
- YOUNG CHILDREN MUST BE SUPERVISED WHEN IN THE SAME ROOM AS THE APPLIANCE.
- THE APPLIANCE MUST BE INSPECTED BEFORE USE AND THEREAFTER, ONCE A YEAR BY QUALIFIED SERVICE TECHNICIAN. MORE FREQUENT CLEANING MAY BE REQUIRED DUE TO EXCESSIVE LINT FROM CARPETING, BEDDING MATERIAL, ETC.
- CONTROL COMPARTMENTS, BURNERS AND CIRCULATING AIR PASSAGEWAYS MUST BE KEPT CLEAN.
- DO NOT MODIFY THIS APPLIANCE.
- OPENINGS IN THE GAS STOVE PEDESTAL MUST NEVER BE OBSTRUCTED.
- PROVIDE ADEQUATE ACCESS FOR SERVICING AND PROPER OPERATION.
- THIS APPLIANCE MUST NOT BE CONNECTED TO A CHIMNEY FLUE WHERE SOLID FUELS ARE CURRENTLY BURNED.

SPECIFICATIONS

Dimensions :

height : 29 1/2"
width : 24"
depth : 18"

Glass : 19.45" x 11.74" 1400° F clear ceramic

<u>Fuel :</u>	<u>Propane Gas</u>	<u>Natural Gas</u>
Maximum input rating :	28 000 (8206)	28 000 (8206) Btu/h (Watts)
Manifold pressure :	10 (2.5)	3.5 (0.9) w.c. (kPa)
Minimum input rating:	22 000 (6500)	20 000 (59000) Btu/h (Watts)
Minimum inlet pressure:	11 (2.7)	5 (1.7) po d'eau (kPa)
Maximum inlet pressure:	14 (3.5)	7 (1.8) po d'eau (kpa)
Output capacity (Fan off):	21 000 (6150)	21 000 (6150) Btu/h (Watts)
Output capacity (Fan on):	22 500 (6600)	22 500 (6600) Btu/h (Watts)
Efficiency (Fan off):	75%	75%
Efficiency (Fan on):	80%	80%

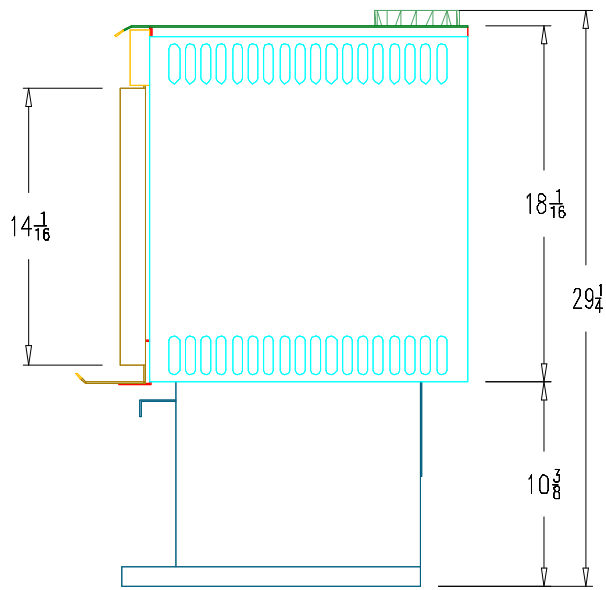
Vent pipe "B-vent" or "L-vent" certified 4" Diameter vent pipe

Valve: S.I.T., Eurosit 630 model
thermostatic modulating

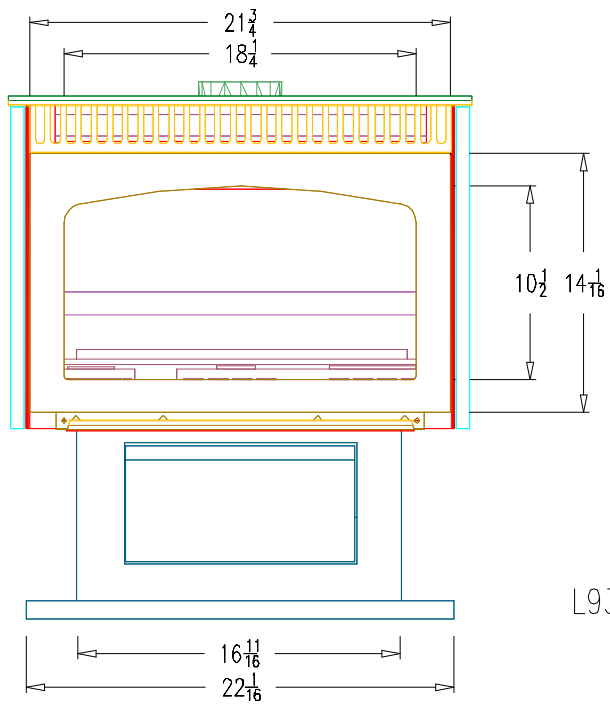
Blower : 130 CFM, variable speed

Thermo-switch :110° F "ON", 90° F "OFF", bi-metal type.

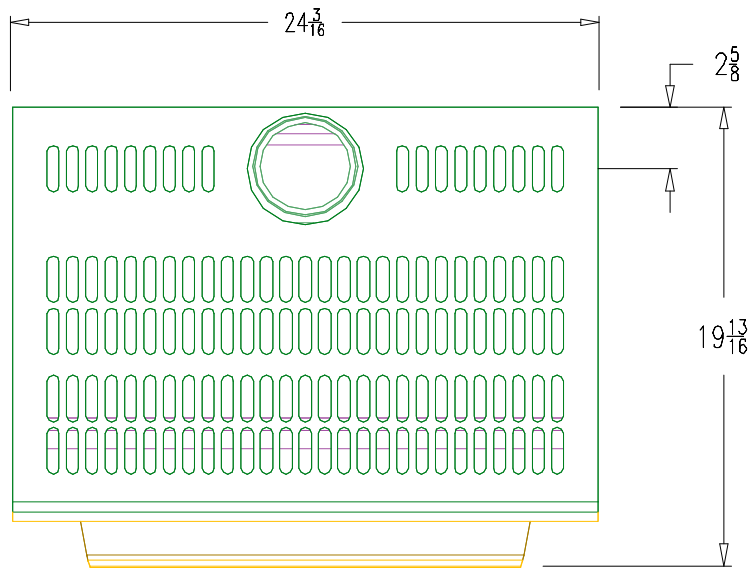
TOP, FRONT AND SIDE VIEWS



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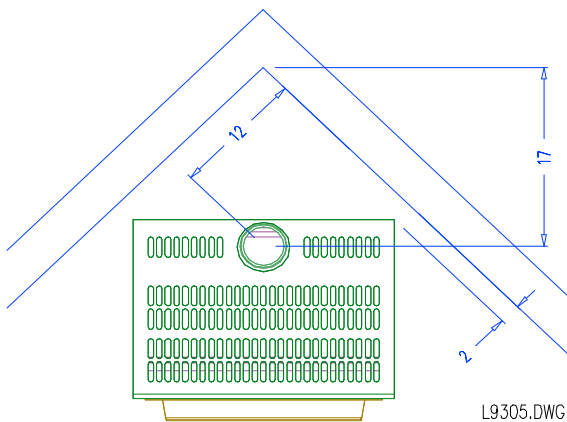
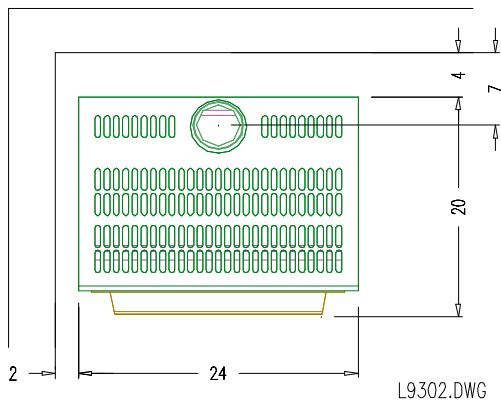
OPTIONAL BLOWER INSTALLATION

See instruction sheet included with optional blower before proceeding with installation.

INSTALLATION

CLEARANCE DISTANCES AWAY FROM FLAMMABLE MATERIALS

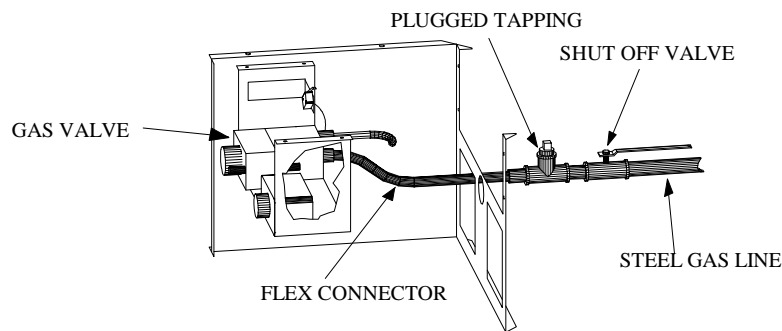
The stove location must respect clearance distances away from flammable materials.



- For clearance between pipe and flammable materials, follow vent pipe manufacturer's instructions.
- If the appliance is installed directly on carpeting or other flammable material other than wood flooring, the appliance must be installed on a metal or wood panel extending the full width and depth of the appliance pedestal (13" x 18").

INSTALLATION OF UNIT

- Move the Exel-Fire to the desired position. Mark the location for the gas inlet pipe and the location where the vent pipes will go through the wall. Remove the appliance.
- Route a 3/8" minimum NPT iron pipe gas line to the desired location.
- Install a shutoff valve on the gas line. Tighten securely using a pipe joint compound.
- Install a 1/8" NPT plugged tapping for the test gauge connection immediately beside the shutoff valve, between the shutoff valve and the appliance.
- Move the Exel-Fire to the desired position and secure in place with four screws.
- Connect the gas line to the steel connector supplied. Remove the burner (see page 10) if the gas connection is not accessible.



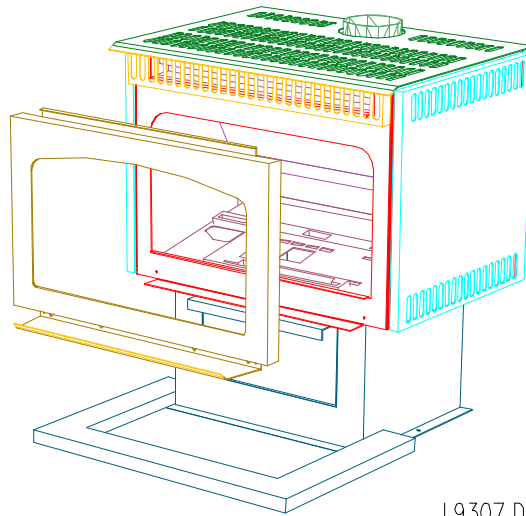
- Check the gas line piping for leaks. Use a soap and water solution.

WARNING : DO NOT USE AN OPEN FLAME TO CHECK FOR LEAKS.

PEDESTAL SELF-ADHESIVE GOLD STRIP INSTALLATION

- Slide the base around the pedestal as shown on drawing (page 9) of operating instructions.
- Remove the red and green plastic bands from the gold strip.
- Start sticking the self-adhesive gold strip from the rear corner of pedestal and 1/16" (1.5 mm) over the base. The strip covers only the sides and the front of the pedestal.

GLASS FRONT REMOVAL, CLEANING AND INSTALLATION



Removal :

- Allow the stove to cool for at least one hour.
- Remove the two (2) screws on the left and right, at the bottom of the glass front assembly.
- Remove the glass front assembly

CAUTION : Do not operate your stove without a glass front or if the glass is broken.

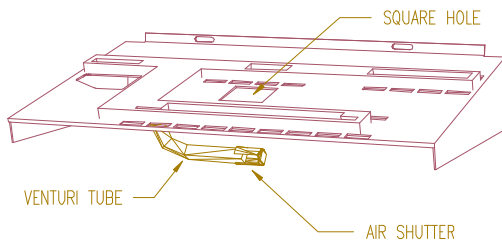
Cleaning :

- Clean glass only when cold.
- Clean with a liquid cleaner or soap and water; do not use abrasive cleaners, which can scratch the glass.

Installation :

- Place the glass front assembly back in position. Align the holes for screws.
- Install the two (2) screws.

BURNER REMOVAL AND INSTALLATION



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REMOVAL :

- Remove the glass front assembly as shown on page 9
- Remove the two (2) screws holding the burner.
- Slide the burner to the left and pull towards you.

INSTALLATION :

- Place the burner assembly back in the fire box and push to the right until it touches the valve support.
- Ensure that the main orifice is inserted into the venturi tube by looking through the square hole shown.
- Reinstall the two (2) screws to secure the burner.

WARNING: NEVER OPERATE THE GAS STOVE WITHOUT HAVING THE ORIFICE PROPERLY INSERTED INTO THE VENTURI TUBE. FAILURE TO DO SO MAY RESULT IN SERIOUS DAMAGE TO THE GAS INSERT AND CAUSE A FIRE.

VENTURI TUBE ADJUSTMENT

- The venturi tube must be correctly adjusted to ensure efficient burning. If the flame is blue and small, close the venturi tube. If the flame is yellow and long (possible carbon deposit), open the venturi tube.
- The venturi tube is normally adjusted at the factory. With this appliance, best results are obtained with the following openings.

Natural gas: completely closed.

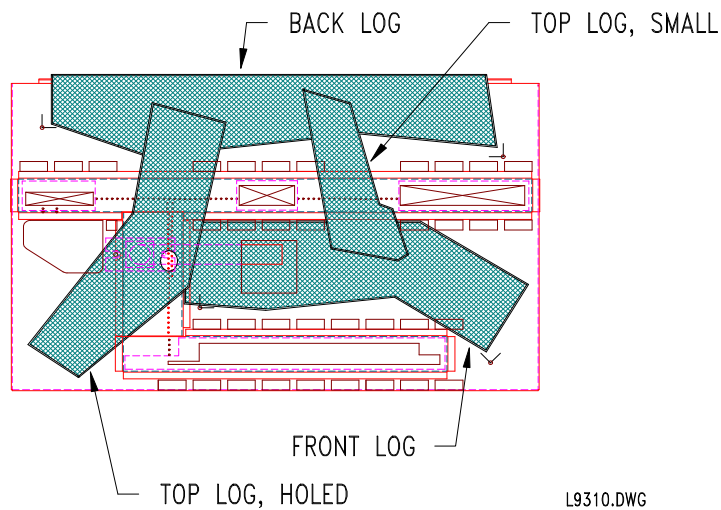
Propane gas: completely open.

Adjustment must be performed by a qualified technician. Follow this procedure.

- Allow the stove cool.
- Open the pedestal door and find the venturi tube (above the valve).
- Using a "Phillips" no. 1 screw driver, loosen the venturi tube screw. A hole through the valve support allows passage of the screwdriver.
- Adjust the venturi tube and tighten the screw.

LOG INSTALLATION

1. Remove the glass front as described on page 9.
2. Install the longest log at the back of the firebox, with locating grooves on top.
3. Install the 14" log at the front of the firebox and to the right. Ensure that the log is pushed against the metal retainers on the burner face.
4. Place the front of the log with a hole in the first notch from the left in the log holder at the front of the burner and position its back in the back log groove. It should be touching the 14" log.
5. Place the smallest log sideways on top of both the back and 14" logs, with the bend facing the front.
6. Put the glass front assembly back into place.



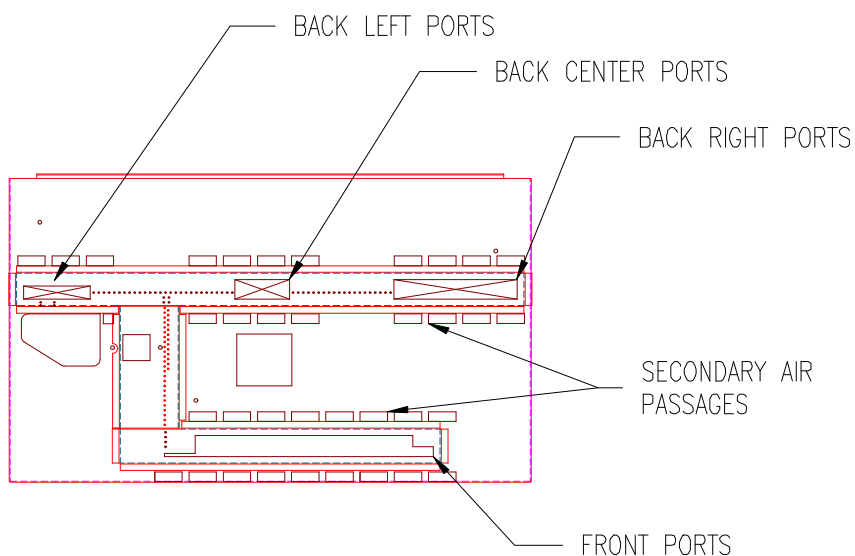
EMBER KIT INSTALLATION

Three small plastic bags are supplied with your unit. One contains vermiculite to simulate ashes in the fire box, the second contains lava rock to simulate coals and the third is filled with rock wool fibre to resemble hot glowing embers.

1. Place the vermiculite and lava rocks at the bottom of the fire box and on top of the burner plate. Ensure that these materials do not obstruct secondary air passage holes to allow circulation and to obtain a good flame .

CAUTION : Obstruction of gas ports with vermiculite or lava rock will result in poor light-up performance and delayed firing.

2. Place five to six pieces of rock wool fibre approximately 1" wide on top of the front gas ports. Place two to three pieces over each of the back gas ports. Placing too many pieces may result in an altered flame pattern and carbon deposits.



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OPERATING INTRUCTIONS

For your safety read before lighting.

WARNING: Failure to carefully follow these instructions may result in a fire or explosion, causing property damage, personal injury or loss of life.

- This appliance has a pilot burner which must be lighted manually. When lighting the pilot, follow these instructions carefully.
- Before lighting, smell all around the appliance for gas. Be sure to smell next to the floor since some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- Do not attempt 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 neighbor's phone. Follow the gas supplier's instructions.
- If you cannot contact your gas supplier, call the fire department.
- Use only your hand to push in or turn the gas control knob. Never use tools. If the knob does not push in or turn by hand, do not try to repair it, call a qualified service technician. Forced or attempted repair may result in a fire or explosion.
- Do not use this appliance if it has been submerged under water. Immediately call a qualified service technician to inspect the appliance and replace any part of the control system or gas control that has been under water.

LIGHTING INSTRUCTIONS

- 1) Open the pedestal front cover panel to reach the control.
- 2) Turn off all electrical power to the appliance.
- 3) Turn the gas valve knob to the "OFF" position and wait 5 minutes to clear out any gas.
- 4) Find pilot in the upper left of the burner.
- 3) Turn the gas valve knob counterclockwise to "PILOT".
- 4) Depress and hold the knob while lighting the pilot by pressing the pilot ignite button (RED button right of the valve). Keep the knob depressed for about 30 seconds. Release the knob. The pilot should continue to burn by itself. If not, repeat step 4.

Note: It may be necessary to press the pilot ignite button more than once to light the pilot.

- 5) Turn the gas valve knob counterclockwise to "ON" until the main flame ignites.
- 6) Turn on all electrical power to the appliance.

NOTE : This valve is equipped with a modulating thermostat that will automatically adjust flame height according to room temperature. As room temperature approaches the value set by the knob (anywhere between HI and LOW on the knob), the flame will decrease in height. When the room reaches the set temperature, the flame will go out. To restart flame, turn the knob to a higher setting or wait for room temperature to fall below actual setting. The calibration of the thermostat is approximately 55°F at LOW and 100°F at HI.

SHUTOFF INSTRUCTIONS

Main burner only: Turn the gas valve knob clockwise to the pilot position.

Note : Push in the knob while turning to extinguish the main flame to prevent the OFF position from accidentally being set.

Pilot and Main burner: Turn the gas valve to the "OFF" position.

MAINTENANCE INSTRUCTIONS

TURN OFF GAS USING SHUTOFF VALVE AND ELECTRICAL POWER BEFORE SERVICING THE APPLIANCE.

The vent pipes and gas stove must be inspected at least once a year.

Remove the glass front and logs and clean them if necessary.

The control compartment, air circulating passages, firebox, logs and burner should be cleaned at least once a year by vacuuming or by brushing.

Check the pilot flame to see if it is adjusted properly. Readjust the pilot flame if necessary, (as described below) or clean the pilot orifice if readjustment is not possible.

Check the burner for flame lifting or for unusual flame pattern. If necessary, clean the burner orifice.

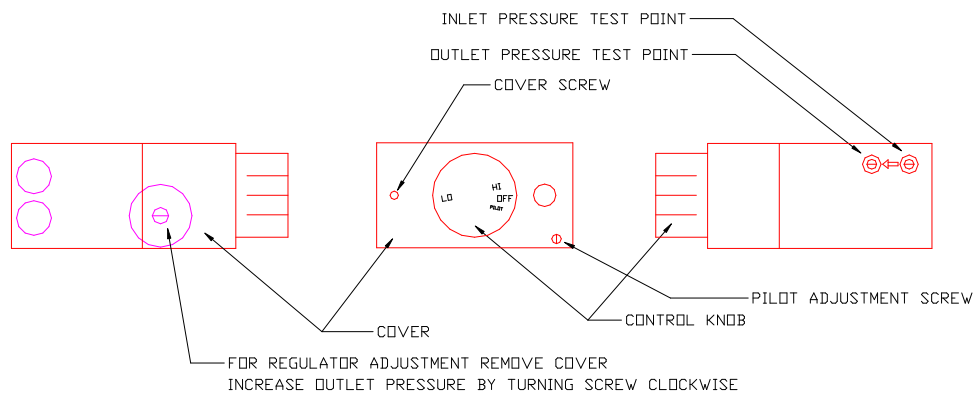
Keep the area clear and free of flammable materials, gasoline and other flammable vapors or liquids.

PILOT ADJUSTMENT

Remove the plastic cover on the valve and turn the screw on the face of the valve in the lower right corner. Clockwise decreases the flame.

PRESSURE READING AND ADJUSTMENT

Pressures can be checked by turning captured screw at the pressure test point counterclockwise 2 or 3 turns and then placing tubing (inside diameter 5/16" approximately) over test point.



Pressure readings could be as follows:

Inlet pressure, propane gas : 11 w.c. (2.7 kPa) approximately

Outlet pressure, propane gas : 10 w.c. (2.5 kPa) exactly

Inlet pressure, natural gas: 7 w.c. (1.7 kPa) approximately

Outlet pressure, natural gas: 3.5 w.c. (0.9 kPa) exactly.

WARNING:

- These operations must be carried out by a qualified technician.
- After taking pressure readings, captured screws must be turned clockwise firmly to reseal. Do not over screw. Use an appropriate screwdriver with a 0.150" x 0.030" blade.

TEMPERATURE SENSING BULB ADJUSTMENT

The temperature sensing bulb is located at the rear of the appliance in the pedestal. A series of holes allows bulb positioning, if necessary. If the ambient temperature is too high, raise the bulb. Lower it if the ambient temperature is too cool.

HIGH ALTITUDE ADJUSTMENTS (2000-4500 ft.)

Although the Exel-Fire is approved for use at high altitude, certain adjustments are necessary. This will ensure good burning, and prevent carbon deposits or lighting problems.

- Reduce input pressure by adjusting the output manifold pressure to:
 - 2.8 w.c. or 0.7 kPa for natural gas.
 - 7.5 w.c. or 1.9 kPa for propane gas.
- Follow instructions on page 17 for output pressure adjustment.
- If necessary, adjust the venturi tube by following instructions on page 11.

OPTIONAL 6-INCH PIPE INSTALLATION

Instead using a standard B-vent pipe it is possible to use a 4" flexible aluminium chimney lining system into an existing chimney. Refer to the installation standards in your area or CAN/CGA B-149 AND ANSI Z223-1 standards (under "venting systems") and instruction of flexible pipe manufacturer.

WARNING: ALWAYS USE AN APPROVED GAS PIPE. NEVER USE A CONVENTIONAL 6-INCH PIPE ALONE.

- Install the first 4-inch B-vent section or flexible aluminium chimney liner.
- Fasten the optional 6-inch collar adaptor to the stove with the two (2) screws supplied.
- Install one section of the conventional 6-inch pipe.
- Continue using the same method by alternating the different pipes.

OPTIONAL PARTS

<u>ITEM DESCRIPTION</u>	<u>Part no</u>
• 130 CFM fan, thermostwitch and variable speed control	E-5914
• Set of four (4) split oak logs	E-5979
• Arched cast iron door with pyroceram glass	E-5912
• Gold plated cast iron door with pyroceram glass	E-5913

REPLACEMENT PARTS

<u>ITEM DESCRIPTION</u>	<u>Part no</u>
• Set of four (4) oak logs	E-5975
• Burner	E-5905-03
• Pyroceram Glass (19.446" x 11.737")	A9311
• 1/2" diam. gasket for door	3-40020
• U gasket for glass	3-40005
• Squared steel door with pyroceram glass	E-5911
• Blower 130 cfm	3-44070
• Variable speed control	3-44080
• Thermo-switch	3-44044
• Gas valve (natural)	3-49108
• Gas valve (propane)	3-49100
• Pilot assembly (natural)	3-49110
• Pilot assembly (propane)	3-49102
• Cover and piezo	3-49118
• Electrode	3-49603
• Burner orifice (natural)	3-9354-03
• Burner orifice (propane)	3-9354-02
• Pilot orifice (natural #37)	3-49601
• Pilot orifice (propane #23)	3-49600
• Interrupter block	3-49115
• Thermocouple	3-49122
• Spillage switch	3-44047
• Compression sleeve 1/4" for pilot	3-49602
• Loxit 1/4" x 7/16" for pilot tube	3-49605

Additional parts available upon request.

LIMITED 5-YEAR WARRANTY

DROLET STOVES AND FIREPLACES INC. hereby guarantees the quality of its Exel-Fire gas stove to be free of manufacturing defects. The product must be delivered to the buyer in good condition and the buyer must inform the vendor immediately of any defect in the product delivered.

During the first year of the limited warranty, DROLET STOVES AND FIREPLACES INC. will provide free replacement parts for the fireplace gas stove except for the glass assembly. DROLET STOVES AND FIREPLACES INC. will cover labor costs deemed reasonable. All other costs related to dismantling the structure, decoration, venting system, etc. are the responsibility of the fireplace gas stove owner.

From year 2 to year 5 of the limited warranty, DROLET STOVES AND FIREPLACES INC. will replace defective parts free of charge except the VALVE, IGNITION CONTROL, BURNER ASSEMBLY, LOGS, GLASS ASSEMBLY, BLOWER and BLOWER CONTROL. DROLET STOVES AND FIREPLACES INC. will not assume labor costs related to parts replacement.

The warranty is valid only where the unit has been installed according to manufacturer instructions.

All repairs must be approved by an official representative of the company before being carried out.

Costs to deliver replacement parts provided by DROLET STOVES AND FIREPLACES INC. must be assumed by the client.

This warranty is non-transferable and takes effect the date the product is purchased.

The warranty may not be extended in any way by representatives, dealers or another intervening party.

No other claim of any nature whatsoever will be accepted by the vendor or manufacturer.

DROLET STOVES AND FIREPLACES INC.

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