

OIL FIRED WARM AIR FURNACE

⚠ WARNING ⚠

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT, CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

⚠ WARNING ⚠

FOR YOUR SAFETY

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

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE INJURY, PROPERTY DAMAGE OR LOSS OF LIFE. REFER TO THIS MANUAL.

INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.

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OIL FIRED WARM AIR FURNACE

HOMEOWNER INSTRUCTION MANUAL
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PLEASE READ THIS MANUAL CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE BY A SERVICE TECHNICIAN.

1 - SAFETY SYMBOLS AND WARNINGS

The following defined symbols are used throughout this manual to notify the reader of potential hazards of varying risk levels.



DANGER

Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



WARNING

Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



CAUTION

Indicates a potential hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT: Read the following instructions **COMPLETELY** before installing!!

2 - SAFETY ISSUES

IMPORTANT: Read these instructions thoroughly before attempting to operate this furnace.

This furnace has been designed to deliver many years of efficient, dependable service. With regular maintenance, some of which requires the attention of a qualified installer, service agency or oil supplier, some of which you may do yourself, the furnace will operate satisfactorily over many heating seasons.

Please read this manual to familiarize yourself with safety procedures, operation, and routine maintenance procedures.

All models are CSA listed, (NRTL/C) for use with No. 1 (Stove) and No. 2 (Furnace) oil.



CAUTION

DO NOT USE GASOLINE, CRANK CASE OIL, OR ANY OIL CONTAINING GASOLINE.



CAUTION

NEVER BURN GARBAGE OR PAPER IN THE HEATING SYSTEM, AND NEVER LEAVE PAPER OR RAGS AROUND THE APPLIANCE.



WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

FOR ASSISTANCE OR ADDITIONAL INFORMATION, CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY, OR YOUR OIL SUPPLIER.



IMPORTANT: Before remodelling, for annual service and maintenance (including air filter replacement), and before and after extended periods of appliance in-operation, we recommend consulting a qualified service technician.



DEVICES ATTACHED TO EITHER THE VENT OR COMBUSTION AIR INTAKE FOR THE PURPOSES OF EXCEEDING THE LIMITATIONS DESCRIBED IN THE INSTALLATION MANUAL, INCLUDING FIELD INSTALLED INDUCED BLOWER FANS HAVE NOT BEEN TESTED AND ARE NOT INCLUDED IN THE DESIGN CERTIFICATION OF THE FURNACE.

THE MANUFACTURER CANNOT AND WILL NOT SPECULATE ON THE EFFECTS OF SUCH MODIFICATIONS AND CANNOT AND WILL NOT BE RESPONSIBLE FOR INJURY OR DAMAGE CAUSED BY THE USE OF SUCH UNTESTED AND/OR UNCERTIFIED DEVICES, ACCESSORIES OR COMPONENTS.

GENERAL SAFETY RULES

1. Combustible materials should not be stored against or around the furnace. Keep the furnace area clear and free from all combustible materials such as newspapers, rags, cardboard, clothing, etc. This applies especially to gasoline and other flammable vapors and liquids.
2. A furnace needs adequate amounts of combustion and ventilation air to operate properly. Do not block or obstruct air openings on the furnace, or air openings supplying combustion or ventilation air to the area where the furnace is installed. There are many areas from which your furnace could be receiving combustion and ventilation air including from within the heated area (inside air), from outdoors, from an attic or crawl space. If renovations are done, be sure that air supply openings are not inadvertently covered over with insulation, vapor barrier, or similar construction material.
3. All doors and panels must be in place during normal furnace operation. Attempting to operate the furnace with missing doors or panels could lead to dangerous and improper operating conditions.

4. If the furnace is installed in a confined space or if you intend to build a furnace room where insulation is present, be aware that some insulating materials are combustible. Do not allow building insulating materials to come into contact with the furnace.

5. Any additions, alterations or conversions required in order for the furnace to properly match the application requirements must be done by a qualified installation contractor, service agency or oil supplier, using factory specified or approved parts.

6. Familiarize yourself with the location of the furnace gas manual shut-off valve and any electrical switches, fuse or circuit breaker associated with the furnace.

7. Should over-heating occur, or if the burner fails to shut off, shut off the oil supply with the furnace manual shut-off valve, then shut off the electrical supply to the furnace. In the case of the latter, call a qualified installation contractor, service contractor, or oil supplier.

8. If the furnace has been subjected to flood conditions, i.e., if any part of the furnace has been under water, call a qualified installer, service agency or oil supplier for a complete inspection. Electronic controls and oil piping components may become unstable and unreliable. The furnace must not be used until the furnace has been checked, and any affected parts have been replaced.

9. Familiarize yourself with the location of your furnace filter or filters. A blocked air filter will reduce efficiency, increase fuel consumption, raise the furnace operating temperature, and shorten the life of furnace components.

10. Do not cover return air grills and supply air registers with drapes, curtains, throw rugs, etc.

11. Avoid shutting off supply air registers in the interests of saving heat. While there is some validity to this practice with space heating, there is little to be gained in central heating systems. The furnace requires a quantity of air passing over the heat exchanger to operate within design temperatures. Reducing the number of supply air registers available for air delivery may have the unforeseen consequence of raising the furnace operating temperature, reducing furnace efficiency, and shortening the life of the furnace components.

3 - FURNACE OPERATION INFORMATION



Do not start the burner unless the blower access door is secured in place.

During the heating season, the operation of the furnace is fully automatic.

TO START THE FURNACE:

1. First read these instructions and safety notices thoroughly.
2. Set the thermostat to the lowest setting.
3. Ensure that all supply air registers and return air grilles are open.
4. Turn off the electric power to the furnace at the service switch, fuse or circuit breaker.
5. Remove the burner access door.
6. Ensure that the appliance oil shut-off valve is in the "ON" or open position.
7. If you see oil, STOP. Turn the appliance oil shut-off valve to the "OFF" or closed position. Contact a qualified installer, service agency or oil supplier for oil leak repairs.
8. Replace the burner access door, ensuring that it is properly in place.
9. Restore the electric power to the furnace.
10. Adjust the thermostat to the desired setting. If the thermostat also controls an air conditioning system, ensure that the thermostat system switch is in the "HEAT" or "AUTO" mode.

If this is the first time that the furnace has undergone a trial ignition since installation, or if there has been work done on the oil lines, the furnace might not light because of air trapped in the oil supply line or a lock out situation.

IMPORTANT: If a lock out condition occurs, do not attempt to reset the control. Contact a qualified installer, service agency or oil supplier to bleed the air from the oil line or investigate the cause of the lock out condition.

IMPORTANT: A proper start up should be performed by a qualified installer, service agency or oil supplier upon completion of the installation.

FURNACE SHUT-DOWN PROCEDURE:

1. Set the thermostat to its lowest setting.
2. Shut off electric power to the furnace.
3. Turn the appliance oil shut-off valve to the "OFF" or closed position.



Always keep the oil supply valve shut off if the burner is shut down for an extended period of time.

If you intend to be away from home for lengthy periods of time during the non-heating season, it is advisable to follow the furnace shut down procedure.



DO NOT ATTEMPT TO START THE BURNER WHEN EXCESS OIL HAS ACCUMULATED, WHEN THE FURNACE IS FULL OF VAPOUR, OR WHEN THE COMBUSTION CHAMBER IS VERY HOT. NEVER BURN GARBAGE OR PAPER IN THE FURNACE, AND NEVER LEAVE PAPER OR RAGS AROUND THE UNIT.



DO NOT TAMPER WITH THE APPLIANCE OR CONTROLS. CALL A QUALIFIED SERVICE TECHNICIAN TO PERFORM ADJUSTMENTS TO THE APPLIANCE.

4 - ROUTINE MAINTENANCE BY HOMEOWNER

AIR FILTER



Do not operate your furnace or air conditioner for extended periods of time without an air filter.

A portion of the dust entrained in the air may temporarily lodge in the air duct runs and the supply registers. Any recirculated dust particles will be heated and charred by coming into contact with the heat exchanger. This residue will soil ceilings, walls, drapes, carpets, furniture, and other household articles.



DISCONNECT THE ELECTRICAL POWER TO THE FURNACE BEFORE ATTEMPTING ANY MAINTENANCE. FAILURE TO DO SO MAY CAUSE ELECTRICAL SHOCK RESULTING IN SEVERE PERSONAL INJURY OR DEATH.

Follow air filter manufacturer's instructions for removal, replacement and cleaning the filter. If a washable filter is used, allow the filter to dry thoroughly before reinstallation and never operate the blower fan with a wet filter. Consult your installation contractor or service technician if you have any questions on filters.



If cleaning rather than replacing the filter, unless the filter is thoroughly washed and dried, be sure that the filter is re-installed with the airflow direction identical to its previous use. Reversing the filter will cause dust trapped within the filter to break free and recirculate within the duct system.

LUBRICATION

Minimal lubrication is required for your furnace. The oil burner assembly motors have sealed bearings. The bearings contain permanent special purpose lubricants. Attempting to force common oil into the induced blower motor bearings will deteriorate the original lubricant and shorten bearing life.

ROUTINE EXAMINATION

IMPORTANT: We recommend that your furnace and vents be checked by a qualified service technician once a year.

It is good practice to give a quick inspection of your furnace each time you inspect or clean the air filter. Things to check:

- Check the furnace for obvious signs of deterioration.
- Check the venting and combustion air piping to ensure that it is still fastened to the furnace. It should not sag, and should have a ¼" to the foot slope upwards to the chimney or outlet terminal.
- All duct work should be secured to the furnace, and all duct work should be solidly supported throughout the heating system.

FURNACE APPEARANCE

The furnace exterior finish is a durable automotive like coating. It may be washed with mild soap if necessary. Galvanized metal surfaces require no maintenance.

CLEANING

It is advisable to keep dust build-up on warm surfaces to a minimum, since dust, in some cases, can be a combustible.

Dust build-up in the circulating fan can impair blower performance; therefore, reduce efficiency. We recommend that major cleaning be left to your a qualified service technician.

The oil burner area should be inspected and cleaned periodically. Ensure that while cleaning the area, burner air settings are not accidentally altered or wiring is not pulled on. If this occurs, contact a qualified service technician.

⚠ WARNING ⚠

NEVER ATTEMPT TO CLEAN THE OIL BURNER AREA WHILE THE BURNERS ARE OPERATING.

ALWAYS DISCONNECT THE ELECTRICAL SUPPLY TO THE FURNACE BEFORE REMOVING THE BURNER COMPARTMENT ACCESS DOOR.

The furnace should be operated with all panels in place. Be sure that the burner compartment access door is properly in place before attempting to restart the furnace.

IMPORTANT: Your furnace should be cleaned and inspected annually by a trained and qualified service technician. Your service technician has the knowledge and test equipment to determine the condition of your furnace.

AIR AND OIL PRESSURE ADJUSTMENT

IMPORTANT: Oil burner air settings and oil pressure adjustments should only be performed by a trained and qualified service technician. Your service technician has the knowledge and test equipment to accurately perform these adjustments.

The installation, operation and maintenance manual should be consulted before any oil pressure adjustments or oil burner air settings are altered.

OIL FILTER OR STRAINER MAINTENANCE

IMPORTANT: Oil filter or strainer cleaning or replacement should only be performed by a trained and qualified service technician. Your service technician has the knowledge and equipment to properly perform this maintenance.

To ensure proper operation of this appliance the oil filter or oil strainer should be cleaned or replaced annually.

SEQUENCE OF OPERATION

1. Thermostat calls for heat in response to cool room.
2. Oil burner air blower begins.

3. After 15 second pre-purge, with igniter energized.
4. After approximately 5 seconds, the oil solenoid valve will open and the burners will ignite.
5. There will be a delay in fan on time delay before the circulating fan is energized and the main blower starts on the heating speed.
6. System remains in this state until the room air temperature rises causing the thermostat to terminate its call for heat.
7. The oil solenoid valve shuts off; the burners extinguish.
8. Some oil burners may have a post-purge period, after which the oil burner stops. The main blower continues to run.
9. Approximately 2 minutes after the burners extinguish, the main blower stops. Elapse time varies.
10. The furnace remains idle until the next call for heat.

VARIATIONS

If your system includes air conditioning, your thermostat (supplied by the installer) will likely have two switches. The first switch is the system switch. The switch settings usually include HEAT, COOL, and OFF. Some thermostats have system switches which include HEAT, COOL, AUTO, and OFF. The system switch must be in the HEAT or AUTO position for the furnace to run.

The second switch is the fan switch. It usually has settings of ON and AUTO. The fan switch may be in either position when using the furnace. If the fan switch is set to ON, the main blower will run continuously, and the blower delays mentioned in points 5 and 9 of the "Sequence of Operation" will be ignored.

5 - HOMEOWNER'S REFERENCE

HOMEOWNER'S REFERENCE TABLE
Model No.
Serial No.
Date Installed
Contractor
Contact
Address
Postal Code/Zip Code
Telephone No.
After Hours No.
If different from Installation Contractor:
Service Tech.
Telephone No.
After Hours No.
Fuel Supplier:
Gas Supplier
Contact
Telephone No.
After Hours No.

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 Supersedes: Nothing