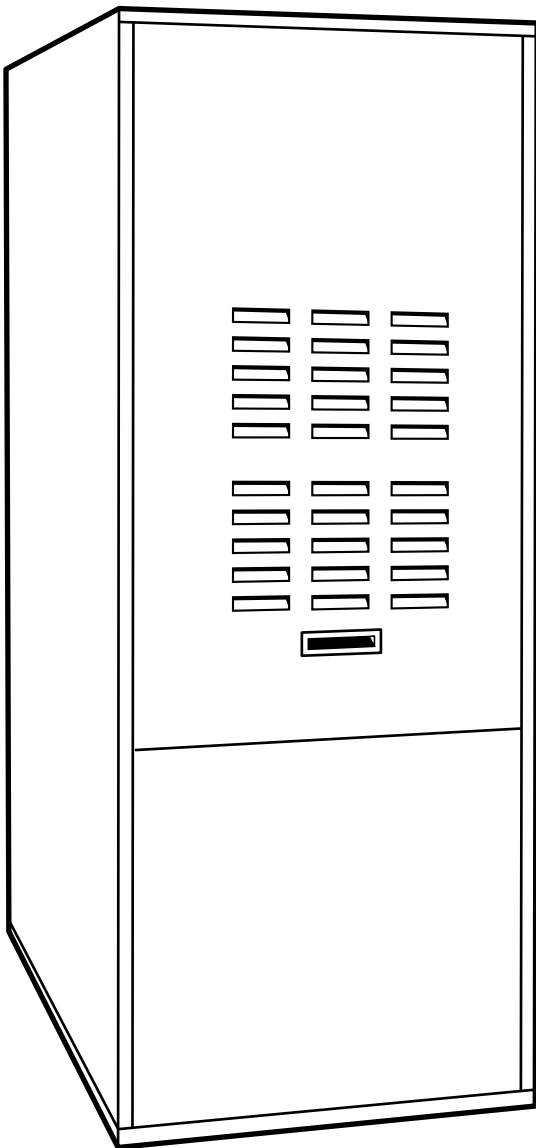




58BLA, 58BMA, 58BTA

# OIL FURNACE

**USER'S INFORMATION MANUAL  
FOR THE OPERATION AND  
MAINTENANCE OF YOUR NEW  
OIL-FIRED FURNACE**



**NOTE TO INSTALLER:  
THIS MANUAL MUST BE LEFT  
WITH THE EQUIPMENT USER.**

## INSTALLATION DATA

Date Installed \_\_\_\_\_

Dealer Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_

## FURNACE

Product No. \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

## SPLIT-SYSTEM

### OUTDOOR UNIT:

Product No. \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

### INDOOR COIL:

Product No. \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

## ACCESSORIES

Product No. \_\_\_\_\_

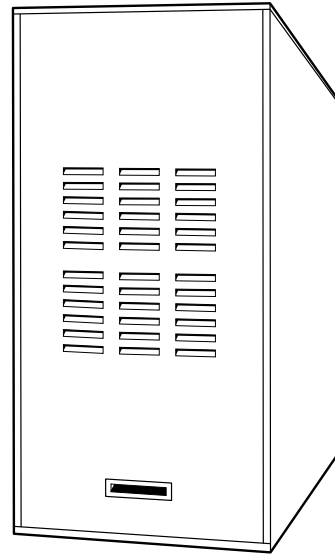
Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Product No. \_\_\_\_\_

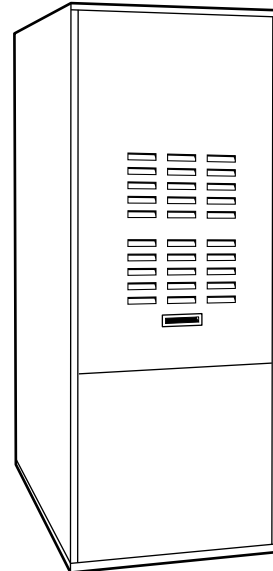
Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_



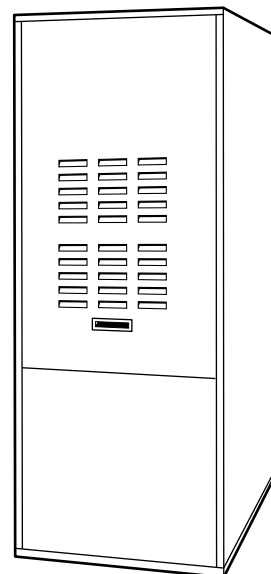
1

## 58BLA LOW-BOY



2

## 58BMA 3-WAY MULTIPOISE



3

## 58BTA UPFLOW/HORIZONTAL

## WELCOME TO A NEW GENERATION OF COMFORT

Congratulations on the purchase of your new 80+% efficient oil furnace. If you are replacing an older, less efficient oil furnace, you may use 20% to 30% less oil.

In order to achieve greater efficiency, your new furnace operates differently in some respects than your old furnace.

One main difference between an older and newer oil furnace is in the operation of the oil burner. The new style retention head oil burner operates at twice the RPM, therefore the sound is different — not louder but probably a different pitch. This higher RPM delivers more air which burns the oil more efficiently.

You will also find the main blower comes on sooner than before. This is done with efficiency in mind but also to keep heat exchanger temperatures within allowable limits. The more efficient furnace design heats up faster requiring a shorter blower on time.

Your new oil furnace blower is also sized for air conditioning and will deliver (even on heating speeds) more air than your old furnace. Depending on your existing ductwork this could lead to a noticeable difference in air noise. A change in ductwork could be required to reduce air noise, especially if air conditioning is being added.

Please read the remainder of this manual in order to familiarize yourself with the operation of your furnace.

## IMPORTANT FACTS

### FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

### ⚠ WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency, or the oil supplier.

## FOR PROPER AND SAFE OPERATION OF YOUR FURNACE:

- **DO NOT** place combustible materials, gasoline, and/or other flammable vapors or liquids on, against, or near the furnace or flue pipe.

- **DO NOT** block or obstruct air openings on the furnace, air openings communicating with the area in which the furnace is installed, and the spacing around the furnace. These provide air for combustion and ventilation.

- **DO NOT** store anything near or in contact with the furnace such as: spray or aerosol cans, rags, brooms, dust mops, vacuum cleaners or other cleaning tools, soap powders, bleaches, waxes or other cleaning compounds, plastic or plastic containers, gasoline, kerosene, cigarette lighter fluid, dry cleaning fluids, or painting compounds.

### ⚠ WARNING

Turn off the oil supply and electrical power to furnace before performing any maintenance or service on unit. Failure to take this precaution may result in personal injury due to electrical shock or uncontrolled oil leakage.

### ⚠ CAUTION

A furnace that is installed in an insulated space must be kept free and clear of insulating materials. After the furnace is installed, or whenever additional insulation is added, check that all combustion air intakes are free and clear and that all clearance dimensions are maintained. **INSULATING MATERIALS MAY BE COMBUSTIBLE.**

### ⚠ WARNING

Do not use this furnace if any part has been under water. Immediately call a qualified service technician to inspect the furnace and to replace any part of the control system and any oil control which has been under water. Failure to comply with this warning could lead to equipment failure, electrical shock, and a hazardous condition which may lead to bodily harm.

## **⚠ WARNING**

The unit cabinet must have an uninterrupted or unbroken electrical ground to minimize personal injury if an electrical fault should occur. This may consist of electrical wire or approved conduit when installed in accordance with existing electrical codes. Do not use oil piping as an electrical ground. Failure to follow this warning could result in an electrical shock, fire, or bodily harm.

## **⚠ WARNING**

Return air must not be taken from the room in which the appliance is installed. All duct connections to the furnace must be airtight to avoid a “negative” pressure condition within the room. Incorrect ductwork termination and sealing will create a hazardous condition which could lead to bodily harm.

## **⚠ CAUTION**

The ability to properly perform maintenance on this equipment requires certain mechanical skills and tools. If you are at all uncertain, contact your dealer for qualified maintenance and service.

The operation and care of your unit is simple and easy. By following these operating and maintenance procedures, you can expect to receive better, longer, and more reliable service from your new appliance.

## **COMBUSTION AIR REQUIREMENTS**

Combustion air requirements become more important for your new furnace. More efficient units have lower flue temperatures and less natural draft. Especially with new homes and with older homes that have been weatherized (storm windows, vinyl siding, additional insulation, etc.) infiltration air may no longer be enough to supply the necessary combustion air to your furnace. In these cases outside air will need to be introduced into the furnace location or directly into the furnace vestibule. This can be accomplished by means of louvered openings, ductwork, or tubing. Your dealer or service technician has access to the necessary air requirements specified by the National Fire Protection Agency.

Some symptoms of a lack of the proper amount of combustion air are:

1. Excessive oil burner after drip and oil fumes.
2. Sooting.
3. Melted oil burner couplings and/or ignitor/relay control.
4. A condition where air band or air shutter settings must be more open than normal to achieve proper combustion.
5. Lockouts on start-up.

## **HERE ARE A FEW DO'S AND DO NOT'S**

- **DO** become familiar with the instructions.
- **DO** use filters. Check them periodically and make sure that they are clean.
- **DO** check to see that your home has adequate insulation, weatherstripping, caulking, and storm windows. Eliminating infiltration of outside air and drafts can save up to 40% of your fuel bill.
- **DO NOT** waste fuel by setting your thermostat too high. Energy conservation experts recommend daytime thermostat setting of 68° F, with a lower setting at night.
- **DO NOT** turn off the furnace when you expect to be away for more than a day. Instead, lower the thermostat setting by a few degrees. You can then restore normal comfort level quickly and save fuel too.
- **DO NOT** block registers with furniture.
- **DO NOT** put a lamp, TV, or radio near your thermostat. This will cause it to give a false reading.

## **HERE'S HOW YOUR HEATING SYSTEM WORKS**

The furnace operates automatically. It is controlled by a thermostat which you set at the temperature most comfortable to you. When the inside temperature drops below this setting, your thermostat starts the furnace.

When the thermostat calls for heat, power from the transformer energizes the fan control board. The fan control energizes the ignition control. The ignition control automatically lights the burner.

The electronic fan control automatically turns on the blower after 30 sec. Fan on control is not adjustable. The air moved over the heat exchanger by the blower is warmed and passes through the ducts to the room registers.

When the thermostat is satisfied, the circuit is de-energized and the primary control shuts off the burner. The blower continues to run until the selectable fan off time period has expired.

The heat sensing switch performs as the furnace high temperature limit switch. If the furnace overheats for any reason, the limit switch opens, breaking the circuit to the burner. The blower motor will be energized and as the unit cools the limit switch will close. This relights the burner, however, unless the overheating condition is corrected, the furnace will continue to cycle on limit.

This unit is equipped with an interrupted ignition electronic control. If the main burner does not ignite within 30 sec from the call for heat, the control will lock out. The red button on top of the control must be depressed for 3 sec in order to reset the control. The control CANNOT be reset from the room thermostat.

## HEATING

### Preparing Furnace For Operation

Before attempting to put your furnace into operation for the heating season, you should perform the following procedures.

#### **⚠ WARNING**

**If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.**

1. Open all warm air registers and make sure that all return-air grilles are unobstructed.
2. If a humidifier is installed with your system, open the water supply valve.
3. Set the thermostat to its lowest setting.
4. Turn on electric power to the furnace.
5. Open the oil supply valve.
6. Check all connections to ensure there are no leaks.

### Lighting Your Furnace

#### **⚠ CAUTION**

**This furnace is equipped with an interrupted type electronic ignition system. DO NOT ATTEMPT TO LIGHT WITH A MATCH.**

#### **⚠ DANGER!**

**HIGH VOLTAGE AT IGNITOR.**

1. This appliance is equipped with an ignition device which automatically lights the burner. Do NOT try to light the burner by hand.
2. After preparing the furnace for heating operation (See previous section.) and checking for proper oil supply, proceed as follows.
3. For a heating/cooling system, set the thermostat to HEAT and the fan to AUTO. Set the thermostat to the desired room temperature and turn on the electrical power to the furnace.
4. The burner should light and the system should be controlled by the thermostat.

### Turning Off Your Furnace

Follow these simple procedures to put your furnace into retirement for the summer.

1. Set the thermostat to the lowest setting.
2. Turn off all electrical power to the appliance.
3. Turn the oil supply off.
4. If applicable, turn off water supply to humidifier.
5. If furnace blower will be necessary for cooling system, remember to turn electrical power back on when needed for air conditioning.

## MAINTAINING YOUR UNIT

In order to keep your furnace running properly and at the efficiency for which it was designed, the furnace MUST be inspected and serviced once a year. Lack of yearly service could lead to poor furnace performance and damage to the furnace.

Here are the things you should do and have your service technician do for you.

#### **Homeowner:**

1. Inspect and clean filter.
2. Make sure the following areas are clear:
  - A. Outlet and return registers.
  - B. Air openings to furnace and furnace area.
  - C. Chimney or flue exhaust.
3. Set up yearly service.

#### **Technician:**

Minimum yearly service should include the following:

1. Check flue and secondary tube passage ways including chimney — clean if necessary.
2. Change oil filter.
3. Change nozzle.
4. Check and adjust combustion and draft.

**NOTE:** Before you start, TURN OFF all electrical power to unit and turn thermostat to OFF.

## Filters

A filter is supplied with the furnace. It is **NECESSARY THAT ALL FURNACES BE EQUIPPED WITH A FILTER.**

If a different type of filter is used, it must be an equivalent high airflow capacity.



**DURA LAST Filter**

**WASHABLE**

- PERMANENT
- NEEDS NO OIL
- MORE EFFICIENT

LASTS FOR YEARS

WASH FILTERS REGULARLY • RE-INSERT SO HAIRY SIDE CATCHES DUST • NEEDS NO OIL

**DURA LAST PRODUCTS CORP. NEW ORLEANS 70130**

### **⚠ WARNING**

**Never operate unit without a filter or with filter access door removed. Failure to adhere to this warning could lead to a hazardous condition which could lead to equipment damage and bodily harm.**

## Keeping Filters Clean

As a homeowner, this is your most important responsibility. A dirty filter reduces the efficiency of your sys-

tem, causes erratic performance of controls, and could result in damage to the motor or heat exchanger.

1. Inspect filters at regular intervals depending upon dirt conditions. For new homes, check filters every week for 4 consecutive weeks. In all cases, inspect your filters at least every 3 to 4 weeks when the system is in constant operation. Replace or clean filter at least at the beginning of each season (heating & cooling) and thereafter as needed.
2. If the permanent filter supplied with the unit becomes dirty, it can be cleaned with cold water and soap.

Be sure that the filter is thoroughly dry before installing back into the furnace.

## Lubricating Motors

Direct drive motor and blower assemblies are factory lubricated and normally do not require oiling. If oiling is required, lubrication of the blower motor is to be performed only by a qualified service technician.

## Here is A Handy Checklist

If your furnace fails to operate properly, first check the following. It may save you the cost of a service call:

1. Is your room thermostat set correctly? On heating/cooling systems, the thermostat should be set to HEAT or COOL mode and the fan set to AUTO or ON (continuous fan operation).
2. Are the electrical power and oil supplies both on?
3. Are the filters clean?
4. Is the ignition control on the burner operational (not in lockout)? The red button on top of the control must be depressed for 3 sec in order to reset the control.

If the answer to these questions is YES and the furnace still does not operate properly, call your authorized dealer for service.





**TO OBTAIN INFORMATION ON PARTS:** Consult your installing dealer or the classified section of your local telephone directory under the "Heating Equipment" or "Air Conditioning Contractors & Systems" heading for dealer listing by brand name. Have available the Model No., Series Letter, & Serial No. of your equipment to ensure correct replacement part.

**Carrier Corporation ● Syracuse, New York 13221**

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