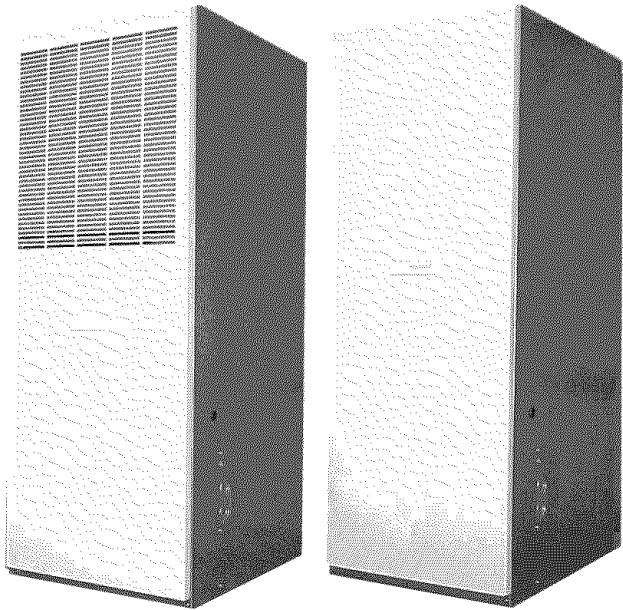


# OWNER'S MANUAL

## EB SERIES ELECTRIC FURNACES



### **▲ WARNING**

**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 personal safety be sure to turn the electrical power OFF at the household service box and at the furnace before attempting any service or maintenance operations. Homeowner should never perform any maintenance which requires opening the furnace electrical panel.

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

### **▲ CAUTION**

This furnace and its components, including the air conditioning coils and blowers listed on the A/C accessory sticker were listed in combination as a system by Underwriters Laboratories.

Use of other components not tested in combination with this furnace may make the equipment in violation of State Codes, may create a hazard, and may ruin the equipment.

In addition, the National Manufactured Housing Construction and Safety Standards Act and its Regulations require the use of components listed or certified by a nationally recognized testing laboratory in all manufactured homes built and sold subject to that act.

# Congratulations . . .

On your purchase of one of the most versatile furnaces available in the industry today. This compact, energy-efficient furnace has been precision designed, manufactured of high-quality materials and has passed many rigorous inspections and tests to ensure many years of satisfactory service. This booklet is meant to increase your understanding of your unit, tell you how to operate it efficiently and how to obtain the greatest measure of comfort at the lowest operating expense. Please read this booklet thoroughly. We appreciate your interest in our product and your decision to purchase our furnace. Enjoy your comfort.

## INTRODUCTION

### ▲WARNING

To avoid the possibility of electrical shock do not open electrical box panels.

## TO OPERATE FURNACE

1. Be sure electrical power to furnace is turned on at the household service box.
2. Set wall thermostat to the desired temperature.
3. If furnace is equipped with Air Conditioning, the System Switch, located at the wall thermostat, must be turned to HEAT in order for the furnace to operate in the heating mode.

### ▲WARNING

If you have an air conditioner which does not use the furnace blower for air distribution and operates completely independent of the furnace, the thermostat system must have an interlock to prevent the furnace and air conditioner from operating at the same time. Such operation could cause equipment damage, energy waste and overheating of the home.

The interlock system usually contains a heat-cool switch which must be turned to either HEAT or COOL to activate either heating or cooling operation.

If an interlock system has not been provided, the electrical supply to the furnace must be turned OFF at the household service box, when the air conditioner is being used. When operating the furnace, the electrical supply to the air conditioner must be turned OFF.

## TO SHUT FURNACE OFF

1. Turn thermostat to its lowest setting.

**NOTE:** Furnace will still operate if room temperature falls below thermostat setting.

2. For complete shut-down turn off electrical power at the household service box.

## SEQUENCE OF OPERATION

When room thermostat calls for heat, 24-volt power is supplied to the heating element switches. As soon as the first heating element switch closes, the blower starts and power is supplied to the first heating element. Each additional element is staged on in successive intervals.

When the room thermostat is satisfied and no more heat is required, the elements sequence off in the reverse order and the blower will then turn off.

## LIMIT CONTROLS

Each element has an automatic limit switch which is wired into the circuit and shuts off power to that element if the heat at that point exceeds the allowable maximum heat.

## BLOWER REMOVAL

**NOTE:** Only authorized service technicians should remove the blower.

To remove blower from furnace, turn off power at household service box, turn furnace circuit breakers OFF. Disconnect wiring to blower, and remove five (5) screws holding blower in furnace and slide blower out from front of the furnace. See Figure 1.

Re-install blower in reverse order when assembling back into furnace.

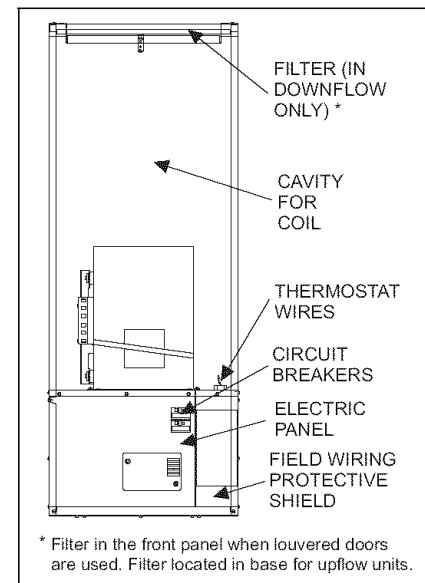


FIGURE 1

## FURNACE OPERATION

### CIRCUIT BREAKERS

Your electric furnace is equipped with a unique safety feature - circuit breakers. These circuit breakers are located behind the door of the furnace, near the bottom of the furnace. See Fig. 1. If a component should fail inside the furnace, the circuit breakers will prevent damage that can be caused by an electrical short. If the breakers ever trip, they can be reset by first turning off the power to the furnace at the home's circuit breaker panel. See Warning below. Then remove the furnace door and reset the circuit breaker in the furnace. Reinstall the furnace door and turn the power back on at the home's breaker panel. If for some reason these circuit breakers should trip again, a service technician should be contacted as a problem exists inside the furnace. A list of authorized service centers is provided with every furnace and will assist you in obtaining service for your furnace.

#### **⚠ WARNING**

*You must first de-energize the furnace at the main household power supply and lock it.*

### LUBRICATION

The blower motor bearings are factory sealed. Additional lubrication is not required.

## BLOWER ASSEMBLY

Every electric furnace comes equipped with a blower capable of operating a heat pump or air conditioner. With the addition of the proper heat pump, you can enjoy comfort and savings all year long. An air conditioner will also work with your furnace and will provide cool summer days, at a very low operating cost.

### AIR FILTER

The filter supplied with the furnace is of the throw-away type. Filters need to be cleaned frequently. Shake out all loose dirt, and use vacuum cleaner to clean additionally. This method of cleaning will prolong life of filters. DO change filters often since clean filters not only provide added comfort, better and cleaner environment, but increase the efficiency of the furnace as well.

**FILTER LOCATION:** The furnace's front panel must be removed to gain access to the filter of the downflow furnace. (See Figure 1.) However, the filter for the upflow furnace\* is located behind the return air grill, adjacent to the furnace closet or any other location in the return air.

### RETURN AIR

Return air must be provided back to the circulating blower in order to provide air distribution. DO NOT OBSTRUCT ANY RETURN AIR GRILLE. To do so will cause the furnace heating elements to cycle off and on repeatedly.

## IMPORTANT:

### WHILE YOU'RE AWAY

The power supply to your furnace is equipped with either a fused or breaker type disconnect. In case of an overload, this will interrupt the operation of your furnace until it is reset or fuse replaced. For this reason it is never practical to assume that the furnace will operate unattended for long periods of time, especially if there is a possibility of damage to your property because of freezing. So, if you plan to be away, arrange for someone to check your home every day or so.

### AT THE BEGINNING OF EACH HEATING SEASON

**NOTE:** Be sure electrical supply to furnace is turned off at the household service box and furnace circuit breakers before cleaning.

1. Replace filters as discussed previously. Clean dust and lint from in and around the furnace. Clean dust and lint from blower and blower compartment.
2. If furnace fails to operate properly:
  - a. Be sure electrical power is being supplied to furnace. Check main household power supply.
  - b. If, after following this procedure, the furnace still fails to operate, shut off furnace and contact your service technician.

## YOUR AUTHORIZED SERVICE TECHNICIAN

Your furnace's best friend is your service technician. If the unit gives any indication of improper operation, call your authorized service technician. If the service technician is allowed to perform the normal routine care of your furnace, he many times can detect potential difficulties and make corrections before trouble develops. Preventive maintenance of this type will allow you to operate this unit with a minimum of concern and, at the same time, pay for itself in added years of comfort.

## OPTIONAL AIR CONDITIONING ACCESSORIES

This furnace is already equipped with a blower and control system to add-on air conditioning up to 4 tons and heat pump up to 3-1/2 tons. Insulation and coil shelf kit (3500-8941 for downflow or 3500-8961/A for upflow) must be installed when adding on such remote air conditioning systems.

### **WARNING**

*Failure to install this insulation and coil shelf kit could result in damage to equipment and/or personal injury. Liability and warranty from the manufacturer could also be void.*

**NOTE:** If the controls are located at the top of the unit, the furnace is an upflow furnace and the airflow is forced up through the furnace and into the airways.

## HIGH PERFORMANCE BLOWER ACCESSORY PACKAGE

All EB furnaces are already equipped with a blower and control system to add-on air conditioning up to 4-tons and heat pump up to 3 1/2-tons. If the requirement is to achieve more than specified than the production blower inside the furnace would have to be replaced with an accessory blower package 3500-7901\*. This acces-

sory blower package would deliver air conditioning up to 5-tons, and heat pump up to 4-tons. Accessory package (3500-7901\*) includes blower, insulation, coil shelf, trap, clamps, etc. Please refer to the installation instructions packed with the accessory package for more information.

### **CAUTION**

*All areas around the line sets, drain hoses and other openings in the furnace should be sealed airtight. Use some moldable compound or caulking to seal the area. Failure to do so may result in loss of performance and premature compressor failure.*