USERS INFORMATION MANUAL

DOWNFLOW & UPFLOW ONLY
SINGLE & TWO-STAGE ELECTRIC HEAT FURNACE

For Installation In:

1. Manufactured (Mobile) Homes **2. Recreational Vehicles**
3. Modular Homes & Buildings **4.Residential Homes**

For installation only in HUD manufactured home per Construction Safety Standard 24 CFR Part 3280

MODELS: E30 SERIES

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CONTACT INFORMATION

Manufactured and Distributed by:

Mortex Products, Inc.
501 Terminal Rd
Fort Worth, TX 76106

www.mortx.com

SECTION 1: GENERAL

The following list includes important facts and information regarding the electric furnace and its inclusions

1. Furnace is rated for 208/240 VAC at 60 Hz.
2. All furnaces have the same cabinet size.
3. All furnaces are designed for A/C or Heat Pump operation.
4. This furnace is designed for downflow applications only.
5. This furnace must not be operated with the control box cover and front access panel removed.
6. This furnace is listed by ETL for the United States and Canada.
7. This air handler is for use at elevations of 10,000 ft (3,048m) or less.
8. This appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of this appliance by a person responsible for their safety. Children must not be allowed to play with this appliance.

⚠ WARNING

FIRE OR ELECTRICAL HAZARD

Failure to follow the safety warnings exactly could result in serious injury, death, or property damage.

A fire or electrical hazard may result causing property damage, personal injury or loss of life.

USERS MUST READ ALL INSTRUCTIONS IN THIS MANUAL
THIS MANUAL MUST BE SAVED FOR FUTURE REFERENCE

This is a safety alert symbol. When this symbol is seen on labels or in manuals, be alert to the potential for personal injury. Understand and pay particular attention to the signal words **DANGER, WARNING, or CAUTION.**

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 potentially hazardous situation, which if not avoided, **may result in minor or moderate injury.** It is also used to alert against unsafe practices and hazards involving property damage.

⚠ WARNING

Any adjustment, service or maintenance by the homeowner and/or user may create a condition where the operation of the product could cause personal injury or property damage.

Only qualified service personnel, a contractor, or an installer may refer to the service and maintenance section of this manual for assistance or for additional service or repair information on this air handler.

⚠ CAUTION

This product requires periodic routine maintenance and cleaning of the exterior surfaces by the homeowner or user to remove dust and debris. Any additional service must be performed by qualified personnel. This air handler must be serviced and maintained as specified in these instructions and/or to any applicable local, state, and national codes including, but not limited to building, electrical, and mechanical codes.

⚠ WARNING

FIRE OR ELECTRICAL HAZARD

Failure to follow the safety warnings exactly could result in serious injury, death, or property damage.
A fire or electrical hazard may result causing property damage, personal injury or loss of life.
Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this air handler or any other appliance.

SAFETY REQUIREMENTS

1. This electric furnace must be kept clear and free of combustible materials, gasoline and other flammable vapors and liquids.
2. Insulating materials may be combustible. The furnace must be kept free and clear of insulating materials. The furnace area must be examined when installed in an insulated space or when insulation is added to be sure that the insulation material has been kept away from the furnace.
3. Follow the instructions in **Section 4: Furnace Startup and Shutdown** in this manual to properly start up or shut down this furnace.
4. If overheating occurs, turn off the power to the furnace and **contact a qualified contractor, installer, or service agency.**

⚠ DANGER

Do not use this air handler if any part has been under water. A flood damaged air handler is extremely dangerous. Attempts to use the air handler can result in a fire.

A qualified contractor, installer, or service agency must be contacted to inspect the air handler for any water damage and replace all components, control system parts, or electrical parts that have been damaged. If enough damage is present, the air handler may need to be replaced.

5. Never store flammable materials of any kind near your furnace. Gasoline, solvents and other volatile liquids should be stored only in approved containers outside the home. These materials vaporize easily and are extremely dangerous.
6. Never store cleaning materials such as bleaches, detergents, powder cleaners, etc. near the furnace. These chemicals can cause corrosion of the furnace sheet metal, electric heaters, blower, and electrical controls.
7. Never use the area around the furnace as a storage area for items which could block or obstruct the air circulation around the furnace. The flow of air is required for safe and proper operation.
8. Never block or obstruct air openings used for ventilation and cooling of the furnace electrical components.
9. Refer to the furnace rating plate for the furnace model number and specifications for safe operation.
10. Provide adequate clearances for servicing the control box, electric heating elements, and blower.
11. Failure to carefully read and follow all instructions in this manual can result in malfunction of the furnace, death, personal injury, and/or property damage.
12. If the furnace is installed in a residential garage, it must be installed so that the electric heating elements are located not less than 18 inches above the floor. The furnace must be located or protected to avoid physical damage by vehicles.
13. These instructions cover the minimum requirements and conform to existing national standards and safety codes. In some cases, these instructions exceed certain local codes and ordinances, especially those who have not kept up with changing mobile home, modular home and HUD construction practices. These instructions are to be followed and are the minimum requirements for a safe installation and to preform service or repairs on this furnace.

⚠ WARNING

FIRE OR ELECTRICAL HAZARD
Servicing heating/cooling equipment can be hazardous due to electrical components.

Only trained and qualified personnel can service or repair heating/cooling equipment. The homeowner must never try to perform service, repair or maintenance on this air handler.

Untrained service personnel can perform only basic maintenance functions such as cleaning of exterior surfaces and replacing the air filters ONLY!

Observe all precautions in the manuals and on the attached labels when working on this air handler.

SECTION 3: HOMEOWNER/USER INFORMATION

How The Air Handler Works – Heating Cycle

How the Furnace Works
This furnace must only be installed in the downflow orientation. The furnace is equipped with the controls necessary for proper and safe operation. Figure 1 shows the furnace in the downflow position and the location of the circuit breakers and low voltage fuse. The furnace is equipped with a blower assembly and transformer for no-heat models or a blower assembly, transformer, electric heat contactors, circuit breakers, and electric heating elements for electric heat models.
The transformer provides 24 VAC for the operation of the furnace controls and thermostat. When the thermostat calls for heat, 24 VAC is sent through the furnace low voltage terminal block (LVTB) and the over-temperature limits to the contactor coil which causes the contactor contacts to close. This sends 208/240 VAC to the electric heating elements which causing them to heat up. The furnace blower motor is then energized on the heating speed. The blower draws cool air from the living space, passes it across the heating elements, and circulates the warm air through the ductwork to the living space. When the thermostat is satisfied, the electric heating elements are de-energized and the blower motor is de-energized. The furnace is now in "standby" awaiting the next call for heat.

Visual Inspection of Furnace
The homeowner/user should visually inspect the furnace every month for any defects or problems. The items to be inspected are:
1. The physical support of the furnace with no sagging cracks, gaps, etc.
2. The furnace casing for any obvious signs of deterioration from rust or corrosion.
3. The supply duct connection is sealed to the furnace casing. The return connection (furnace base) is sealed to the floor base.
4. The furnace must be serviced by a qualified service technician annually, preferably at the start of each heating season.

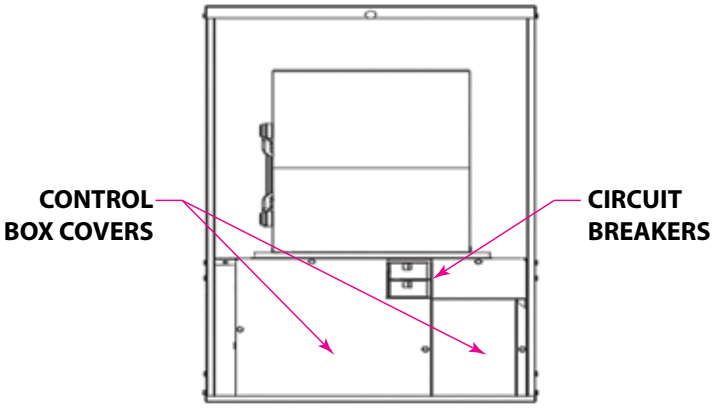

Figure 1: Circuit Breaker Locations

The Service Technician
If the furnace gives any indication of improper operation, a service technician should be called to inspect and repair the furnace. The service technician is allowed to perform the normal routine care of the furnace and can detect potential problems and then make corrections before trouble develops. Preventative maintenance of this type will allow the furnace to operate with minimal concerns to the homeowner/user and will provide years of comfort.

Warranty and Responsibilities
It is the sole responsibility of the homeowner to make certain the furnace has been properly installed and adjusted to operate properly.

The manufacturer warrants the furnace to be free from defects in material or workmanship for a stated time in the warranty agreement. The manufacturer will not be responsible for any repair costs to correct problems due to improper setup, improper installation, improper furnace adjustments, adding parts that are not listed for use with this furnace, improper operating procedures by the homeowner/user or repairs performed by the homeowner/ user.

Examples of service calls not covered by warranty:
1. Correcting faulty duct system in the home. This can be due to an insufficient number of ducts or ducts that are too small to provide proper air-flow through the air handler.
2. Correcting electrical wiring problems in the supply wiring to the air handler.
3. Resetting circuit breakers or ON/OFF switches used for servicing.
4. Problems caused by installation and operation of any outdoor unit or air quality devices which are not approved for use with this air handler.
5. Improper thermostat settings or calibrating the thermostat.
6. Problems caused by construction debris that has fallen into the furnace.
7. Replacement of fuses.
8. Insufficient air-flow problems caused by dirty air filters.
9. Furnace malfunction or component premature failure caused by restrictions in the return or supply ducts causing low air-flow.

The homeowner should establish a clear understanding of these responsibilities with the installer and /or service company so there will be no misunderstanding of what will be covered under warranty later.

While Homeowner or User is Away

The furnace is equipped with safety shutoff devices which are designed to prevent it from overheating in case of a malfunction. For this reason, it is never practical to assume the furnace will operate unattended for long periods of time. Examples of a malfunction that can cause significant damage to the home would be:

1. The furnace blower motor fails and the heating elements on the safety shutoff devices while the temperature inside the home continues to drop. Water pipes will freeze and could burst once their temperature falls below 32°F (0°C) resulting in significant damage to the structure.
2. The furnace blower motor or outdoor unit fails in the summer resulting in the temperature inside the home to rise above the setpoint. If the temperature of the home rises above the rated temperature of appliances, appliance failure can occur.
3. If the homeowner to be away from home for a long period of time, they should have someone check on the home every day, especially when the outside temperatures will be below 35°F (1.7°C) or above 75°F (23.9°C) to ensure the furnace is operating properly. This will help prevent water pipes from freezing or appliances from failing.

If the Furnace Fails to Operate Properly

If any abnormalities are observed while the furnace is operating, perform the following checks:

1. Check the setting on the thermostat to make sure the thermostat is set above the room temperature.
2. Check to see if the electrical power is turned on at the circuit breakers at the main electrical panel (circuit breaker box) or check any switches that may be used for service disconnect switches. These are often mistaken for light switches and are turned off.
3. Make sure the air filters are clean, return grilles clean, are not obstructed, and supply air registers are open.
4. If the cause of the malfunction is not obvious, the homeowner/user must not attempt to service the furnace. **A qualified service company must be called to repair the furnace.**

⚠ WARNING

Should overheating occur turn the circuit breakers on the control box and the main electrical service entrance (Circuit Breaker Box) to the off position. Call qualified service personnel to troubleshoot and repair the furnace. DO NOT allow the furnace to continue to cycle on the limit controls.

When to Call for Service Assistance

Very often time can be saved if the homeowner provides the service agency information about the furnace ahead of time. This will enable the service agency to determine the specific components used and possibly identify the problem and arrive with the correct parts to fix the problem. Write down the model number, serial number and be prepared to describe problem with the furnace and what has already been checked.

SERVICE AGENCY INFORMATION

Fill in Below

MODEL NUMBER: _____

SERIAL NUMBER: _____

SERVICE COMPANY: _____

ADDRESS: _____

TELEPHONE (DAYTIME): _____

TELEPHONE (EMERGENCY): _____

NOTES: _____

SECTION 4: STARTUP AND SHUTDOWN INSTRUCTIONS

⚠ WARNING

If the Startup and Shutdown instructions are not followed exactly, a fire may result causing property damage, personal injury, and/or loss of life. Read the instructions below before trying to start up or shut down the furnace.

1. **BEFORE OPERATING:** Check around perimeter of the furnace to make sure there are no flammable materials in the area. If vapors of any kind are smelled, do not turn the electrical power to the furnace on until vapors have been ventilated and removed from the area of the furnace.
2. **CHECK THE FURNACE:** Visually check the furnace for loose screws and panels that may be missing or have fallen off.
3. **CHECK DUCT CONNECTIONS:** Visually check the connections of the ducts to the furnace to make sure there are no gaps or holes and ducts are securely fastened to the furnace. Check the furnace base for any gaps or deuteration that can cause leakage of the return air to the furnace.

Turning On / Starting Up the Furnace

1. STOP! Read the safety information above before proceeding.
2. Set the thermostat to the OFF setting.
3. Move the circuit breakers in the main electrical panel (home circuit breaker box) to the "OFF" position.
4. Remove furnace front access panel.
5. Move the circuit breakers located on the control box cover to the "ON" position.

   NOTE: Homeowners or furnace users must not remove the furnace control box cover. Homeowners and furnace users should only reset the circuit breakers located on the front of the control box cover and in the main electrical panel (home circuit breaker box).
6. Install the furnace front access panel.
7. Move the circuit breakers in the main electrical panel (home circuit breaker box) to the "ON" position.
8. Set the thermostat to the desired mode and temperature setting.

Turning Off / Shutting Down the Furnace

1. Set the thermostat to the OFF setting.
2. Move the circuit breakers in the main electrical panel (home circuit breaker box) to the OFF position.

   NOTE: Homeowners or furnace users must not remove the furnace control box cover. Homeowners and furnace users should only turn the circuit breakers located on the front of the furnace control box cover and in the main electrical panel (home circuit breaker box) to the OFF position.
3. Remove the furnace front access panel.
4. Turn the circuit breakers located on the control box cover to the OFF position.
5. Replace the furnace front access panel.

SECTION 5: HOMEOWNER/USER MAINTENANCE

All appliances need maintenance at the beginning of each heating season in order to operate properly. The annual service must be performed by qualified service personnel. The homeowner is expected to perform general maintenance and general cleaning of the exterior surfaces, clean dust from the louvers in the return air grille and replacement of the air filters. Air filters must be checked every month and replaced as needed. Homeowners/users must be instructed as to how to replace air filters for good preventive maintenance. Figures 2 and 3 show the location of the air filters for applications with a coil cabinet return air grille. Figure 5 shows the location of the air filter applications with a coil cabinet top filter.

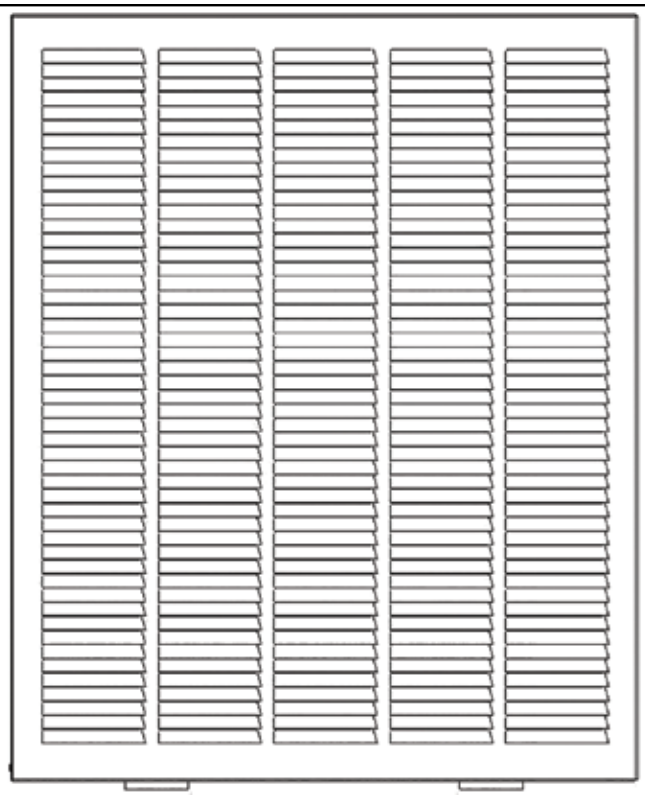

Figure 2: Return Air Louvered Grille

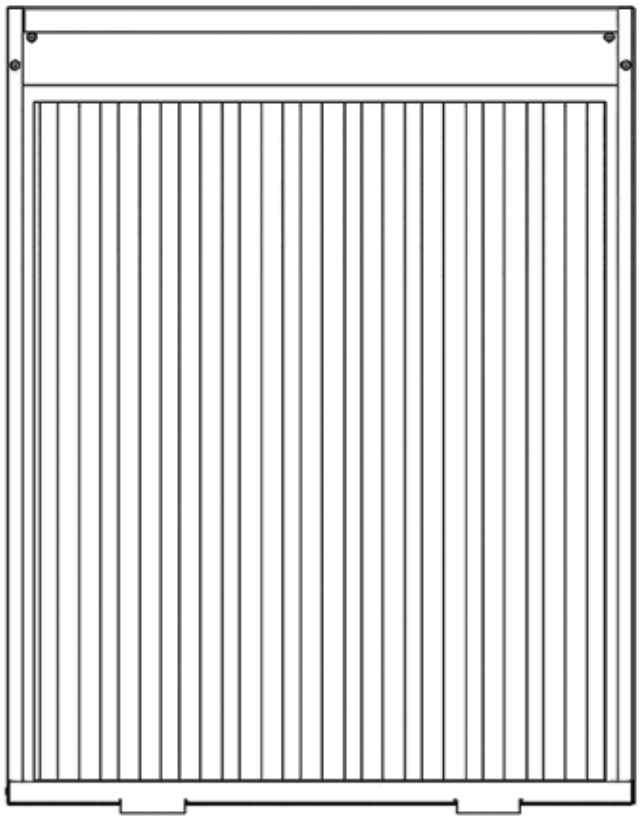

Figure 3: Return Air Louvered Grille Air Filters 20” x 20” x 1” (508mm x 508mm x 25.4mm) (2 Required)

Replacement of Air Filters in Louvered Return Air Grille

Follow steps below to replace the filters in the louvered return air grille.

1. Follow the **"Turning Off / Shutting Down the Furnace" procedure in the Section 4: Furnace Startup and Shutdown Instructions** of this manual.
2. Remove the thumb screw at the top center of the louvered grille by turning it counter-clockwise (See Figure 4).
3. Pull the top of the grille outward and lift up on the grille until the bottom tabs are out of the slots in the furnace top cover.
4. Turn the grille upside down and pull the bottom frame out to gain access to the air filters.
5. Remove the two air filters.

   NOTE: The filters are disposable. Do not attempt to clean the filters and reuse them.

6. Slide the two new 20" x 20" x 1" (508mm x 508mm x 25.4mm) air filters into the grille. Make sure the flow arrows on the filters are pointing away from the grille louvers.
7. Reinstall the bottom frame.
8. Insert the two tabs on the bottom of the grille into the two slots in the furnace top cover.
9. Push the top of the grille forward until it is aligned with the cabinet top flange and side flanges (See Figure 4). Reinstall the thumb screw to secure the grille to the coil cabinet.
10. Follow the "Turning On / Starting Up the Furnace" procedure in the **Section 4: Furnace Startup and Shutdown Instructions** of this manual.

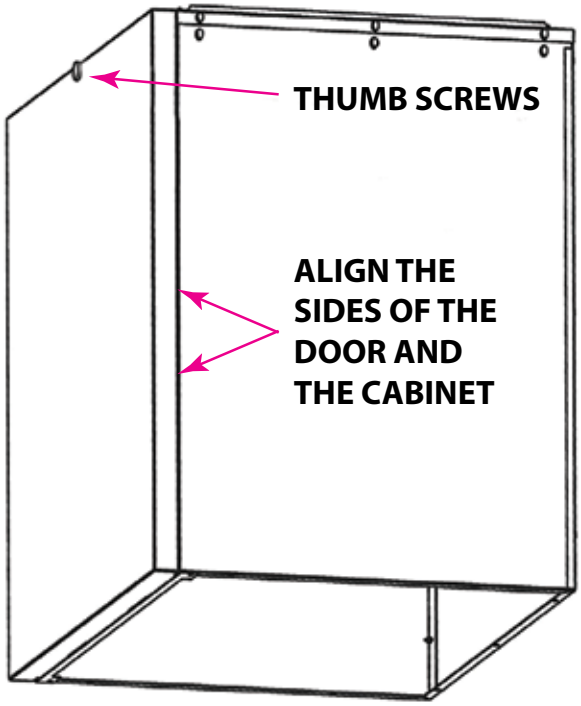

Figure 4: Removing/Replacing the Coil Cabinet Grille/Door

Replacement of Air Filter in Top of Coil Cabinet

Follow the steps below to replace the filter located in the top of the coil compartment.

1. Follow the **"Turning Off / Shutting Down the Furnace"** procedure in the Section **4: Furnace Startup and Shutdown Instructions** of this manual.
2. Remove the thumb screw at the top center of the solid coil cabinet door by turning the screw counter-clockwise.
3. Pull the top of the door outward and lift up on the door until the bottom tabs are out of the slots in the furnace top cover.
4. Set the door on the floor.
5. Remove the air filter from the rack in the top of the coil cabinet (See Figure 5).

   NOTE: The filter is disposable. Do not attempt to clean the filter and reuse it.

6. Slide the new 20" x 24" x 2" (508mm x 610mm x 50.8mm) pleated air filter into the filter rack. Make sure the flow arrows on the air filter are pointing toward the coil.
7. Insert the two tabs on the bottom of the coil cabinet door with the two slots on the furnace top cover.
8. Push the top of the coil cabinet door forward until it is aligned with the cabinet top flange and side flanges (See Figure 4). Reinstall the thumb screw to secure the door to the coil cabinet.
9. Follow the **"Turning On / Starting Up the Furnace" procedure in the Section 4: Furnace Startup and Shutdown Instructions** of this manual.

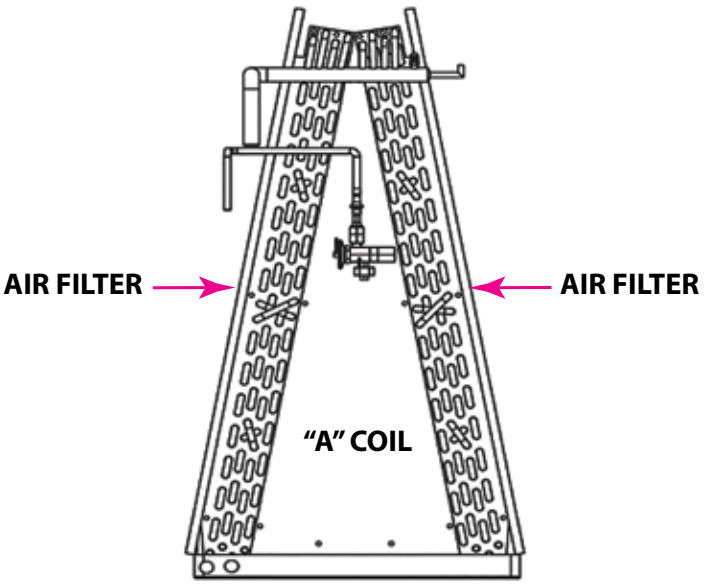

Figure 5: Uncased Coil Top Return Air Filter Location

SERVICE AND MAINTENANCE MANUAL

SECTION 1: SAFETY

THE HOMEOWNERS AND / OR FURNACE USERS MUST STOP HERE! Continuing will void your warranty.

This section has been designed to assist a ***qualified service agency*** in performing service and maintenance on this furnace.

The homeowners and/or the furnace user must never attempt to perform any service or maintenance on the furnace especially when it involves the removal or adjustment of any parts and/or components.

⚠ WARNING

The manufacturer or distributer will not be responsible for any repairs due to improper parts changes, improper maintenance, improper furnace adjustments or improper modifications made by the homeowner and/or the appliance user.

The manufacturer will not be responsible if the homeowner and/or appliance user use this section of the instructions in an attempt to perform maintenance or repairs to the furnace. This practice is very dangerous and may result in a fire causing property damage, personal injury, loss of life and/or will void the appliance warranty.

The following safety rules must be followed when servicing this furnace.

This is a safety alert symbol. When this symbol is seen on labels or in manuals, be alert to the potential for personal injury. Understand and pay particular attention to the signal words **DANGER, WARNING, or CAUTION.**

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 potentially hazardous situation, which if not avoided, **may result in minor or moderate injury.** It is also used to alert against unsafe practices and hazards involving property damage.

⚠ WARNING

Improper adjustment, service or maintenance may create a condition where the operation of the product could cause personal injury or property damage.
Refer to this manual for assistance or for additional information consult the Technical Support Group.

⚠ CAUTION

This product must be serviced and maintained as specified in these instructions and/or to any applicable local, state, and national codes including, but not limited to building, electrical, and mechanical codes.

⚠ WARNING

ELECTRICAL SHOCK, FIRE HAZARD
Failure to follow the safety warnings exactly could result in serious injury, death, or property damage.
A fire or electrical hazard may result causing property damage, personal injury or loss of life.

SAFETY REQUIREMENTS

1. This electric furnace may have a dual electrical supply circuit. Make sure you check each electrical circuit with a meter to be sure the power has been disconnected.
2. Insulating materials may be combustible. The furnace must be kept free and clear of insulating materials.
3. Follow the instructions exactly as shown in Start Up and Shutdown Section in this manual to properly Start Up or Shutdown this appliance.
4. Make sure all moving parts have come to a complete stop before attempting to perform any work once the furnace door has been removed. Moving parts can cause serious injury if clothing or body parts get caught in the moving part.

⚠ WARNING

ELECTRICAL SHOCK, FIRE HAZARD

Failure to follow the safety warnings exactly or improper servicing could result in dangerous operation, serious injury, property damage, and/or death.

- **Before servicing, disconnect all electrical power to the furnace. Make sure you disconnect both power supplies if the furnace has a dual power supply circuit. Dual circuits may be used on the 12 kW, 15kW and 20kW furnaces.**
- **When servicing controls, label all wires prior to disconnecting to aid in proper reconnection of wires.**
- **Verify proper operation after servicing by turning the thermostat above the room temperature for a brief period of time to ensure future furnace operation.**

⚠ WARNING

FIRE HAZARD

NEVER PLACE A JUMPER BETWEEN "R" & "W"

Placing jumper wire between the RED and WHITE thermostat wires at the air handler to override the thermostat and energize the heater elements is an extremely dangerous practice that can result in damage to the thermostat, dangerous operation, serious injury, property damage and/ or death.

SECTION 2: FURNACE MAINTENANCE

The interior sections of the furnace must be cleaned and adjusted by a qualified service contractor once a year or before the start of each heating season. The following items must be checked:

1. The blower wheel and motor for excessive dust/lint/ debris buildup.
2. The electric heaters for dust/lint/debris buildup, wear, damage, and corrosion.
3. The electrical components for excessive dust/lint/debris buildup, wear, and deterioration.
4. The supply air duct system for excessive dust/lint/debris buildup and deterioration.
5. The return air duct system for excessive dust/lint/debris buildup and deterioration.
6. All electrical wiring for secure connections, wear, insulation deterioration, and damage.
7. Indoor coil for dust/lint/debris buildup or damage.
8. Indoor coil drain pan for dust/lint/debris buildup, mold, and proper drainage.
9. Furnace casing and all interior sheet metal panels or dividers.

Furnace Cleaning Procedure

1. Follow the instructions in Section 4: Furnace Startup and Shutdown Instructions found in the Users Information Manual to properly shut down the furnace.
2. Remove the access panel on the front of the furnace.
3. Remove the access panel on the front of the indoor coil compartment.
4. Remove the screws on the control box covers and remove both covers (See Figure 6).
5. Remove the two screws on the right side and the screw on the left side of the blower mounting plate and slide the blower out of the furnace (See Figure 7).
6. Use a vacuum cleaner and small soft bristle brush to remove any dust, lint, and debris from the blower compartment.
7. Inspect the area below the blower compartment where the electric heating elements are located and remove any dust, lint, and debris from around the heating elements. Be careful not to damage the heating element.

NOTE: Use the soft bristle brush along with the vacuum to clean the area so dirt or debris gets drawn into the vacuum hose and does not fall into the supply duct.

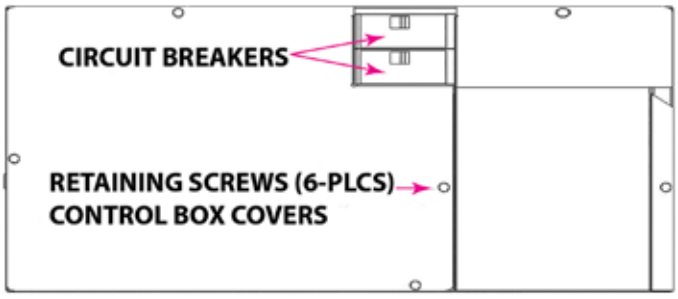

Figure 6: Control Box Cover

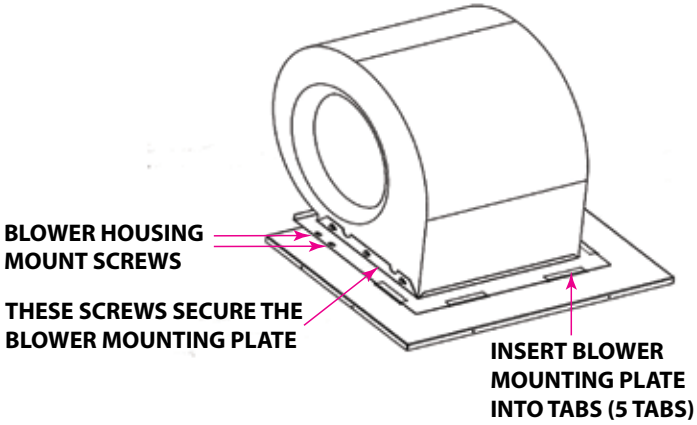

Figure 7: Blower Assembly and Mounting Screw Location

8. Check the blower wheel for dust, lint, and debris buildup. Use the brush and the vacuum cleaner to remove any dust, lint, and debris from the blower wheel. Be careful not to move or remove any of the balance weights located on the blower wheel blades. If the blower wheel weight is moved or removed, the blower wheel will vibrate. If the blower wheel is vibrating, it must be replaced.
9. Remove any dust, lint, and debris buildup from the blower motor. Clean the openings on the motor housing. If these openings are blocked, the motor may overheat and trip on its internal protector and could fail prematurely.
10. Remove any dust, lint, and debris buildup in the supply and return ducts as far as possible with the brush and vacuum cleaner. Excessive amount of dust, lint, or debris in the ductwork should be cleaned by a professional duct cleaning service.
11. Remove any dust, lint, and debris from the furnace controls and all surfaces in the control box to prevent overheating and premature failure of the controls and premature failure.
12. Remove any dust, lint, and debris buildup from indoor coil, coil co compartment, and condensate drain pan.
13. After cleaning the drain pan, verify the drain pan is draining properly by pouring water into the drain pan.
14. Remove any excess water that may have spilled from verifying the condensate drain pan is draining properly.
15. Reinstall the blower assembly and secure the blower mount plate to the fan deck using the screws that were removed in step 5.
16. Reinstall the control box covers and secure them to the control box\ with the screws that were removed in step 4.
17. Reinstall the furnace and indoor coil compartment access panels.
18. Follow the instructions in Section 4: Furnace Startup and Shutdown Instructions found in the Users Information Manual to properly place the furnace back into service.

SECTION 3: FURNACE CONTROLS

This section explains how the furnace control operate. Refer to Figure 8 for component locations.

1. **Limit Controls** – Each electric heating element has an automatic reset limit switch directly in front of it to sense the heating element temperature to prevent overheating. The limit switch opens if the temperature rises above the set point and interrupts the 24 VAC signal to the heater contactor coil which disconnects electrical power to the heating element. In addition to the automatic reset limit switch, each heating element has a non-resettable (one-shot) limit switch that will interrupt 208/240 VAC to the heating element should the automatic reset limit switch fail to function properly in an overtemperature situation.
2. **Heater Contactor(s)** –The contactors are controlled by the thermostat. Upon a call for heat, 24 VAC is sent from the thermostat "W" terminal to the contactor coil(s) causing the contactor contacts to close which sends 208/240 VAC to the electric heating elements. When the call for heat has been satisfied, the contactor contacts open removing the 208/240 VAC from the heating elements.
3. **Circuit Breaker(s)** – The circuit breakers are designed as short circuit protection for the electric heating elements and can also be used to disconnect the electrical power to the furnace.

   NOTE: The circuit breaker(s) are not intended to protect the wiring from the main control panel (home circuit breaker box) to the furnace, so the appropriate size breaker(s) or fuse(s) must be selected (See furnace rating plate) and installed in the main electrical panel to protect the electrical supply wiring and furnace.

4. **Transforme**r – The transformer is used to reduce the 208/240 VAC line voltage to 24 VAC which is used by the system control circuit.
5. **3 Amp Low Voltage Fuse** – This fuse is used for over-current protection of the 24 VAC circuit and transformer.

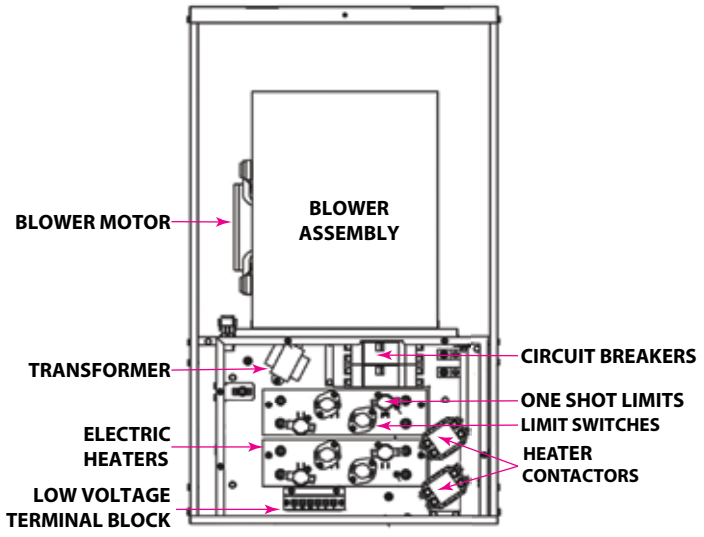

Figure 8: Component Locations

SECTION 4: SEQUENCE OF OPERATION

Continuous Blower

When the thermostat fan switch is in the "ON" position (continuous indoor fan operation), the circuit between the "R" and "G" terminals in the thermostat is completed causing 24 VAC to be sent through the GREEN wire to the "G" terminal on the furnace low voltage terminal block (LVTB). This energizes the furnace blower motor and air will be circulated through the ductwork into the conditioned space. The indoor fan motor will operate continuously until the thermostat fan switch is switched to the "AUTO" position.

Intermittent Blower

When the thermostat fan switch is set in the "AUTO" position (intermittent indoor fan operation), the indoor blower motor is only energized when there is a call for cooling or heating operation. Different motor speed taps are typically use for cooling and heating operating. The indoor fan motor will operate until the call for cooling or heating is satisfied.

Heating Cycle

When the thermostat is set in the "HEAT" mode and the fan switch on the thermostat is set in the "AUTO" position, a call for heat completes the circuit between the "R" and "W" terminals in the thermostat and 24 VAC is sent from the "W" thermostat terminal through the WHITE thermostat wire to the W" terminal on the low voltage terminal block (LVTB).

24 VAC is sent from the LVTB "W" terminal through the limit controls to the heater contactor coils which closes the contactor contacts and energizes the heating elements with line voltage. The blower motor heating speed lead is connected to the "W" terminal on the LVTB so the blower is energized on the selected heating speed tap.

The blower will continue to operate until the call for heat has been satisfied. The electric heater contactor coil is de-energized which opens the contactor contacts and de-energizes the heating elements. The 24 VAC signal is also removed from the blower motor heating speed tap which de-energizes the blower motor. The furnace is now in standby mode awaiting the next heating cycle.

The 12 kW, 15 kW and 20 kW models have a BLACK wire that can be disconnected from the spade terminal on the back of the LVTB "W" terminal and connected to the wire from the thermostat "W2" terminal (2nd stage heat) for two-stage heating operation. A thermostat that has the second stage (W2) heating feature must be used. The 2nd stage heat cycle is enabled when the room temperature falls approximately 3º below the thermostat set point. Once the room temperature is within approximately 1º of the thermostat set point, the 2nd stage of heat is de-energized until the thermostat calls for the 2nd stage heat again.

⚠ WARNING

For personal safety be sure to turn the electrical power For personal safety, turn the electrical power "OFF" to the furnace at the main electrical panel (circuit breaker box) before performing service or maintenance on the furnace. Homeowners/users should never attempt to perform any servicing or maintenance which requires opening the furnace control box covers.

Cooling Cycle

When the thermostat is set in the "COOL" mode and the fan switch on the thermostat is set in the "AUTO" position, a call for heat completes the circuit between the "R" and "Y" terminals in the thermostat and 24 VAC is sent from the "Y" thermostat terminal through the YELLOW thermostat wire to the "Y" terminal on the low voltage terminal block (LVTB). The blower motor cooling speed lead is connected to the "Y" terminal on the LVTB so the blower is energized on the selected cooling speed tap.

The blower will continue to operate until the call for cooling has been satisfied. The 24 VAC signal is removed from the blower motor cooling speed tap which de-energizes the blower motor. The furnace is now in standby mode awaiting the next cooling cycle.

SECTION 5: TROUBLESHOOTING

The following checks should be made before troubleshooting the furnace controls for a no-heat issue.

1. Check all of the circuit breakers in the main electrical panel and on the furnace control box cover to make sure they are in the "ON" position and have not tripped.
2. Check the 3-amp low voltage fuse on the left side of the control box. If the fuse is blown, check the wiring with an ohmmeter for a short to ground. If shorted, repair the short and replace the fuse.
3. Check any electrical switches that are external to the furnace to make sure they are turned on.
4. Check all wiring connections make sure they are securely fastened.

If the furnace still will not operate, check the following.

1. Check to see if the voltage is above 200 volts for a 208 VAC power supply and above 220 volts for a 240 VAC power supply. If there is no voltage or the voltage is low, check the circuit breakers in the main electrical panel or the electrical supply wiring to the furnace.
2. If the blower is operating, but there is no heat, check the heater contactors to be sure they are closing or check the limit controls to make sure they are not open.
3. If the motor is not running, check for 208 - 240 VAC on the L1 and L2 contactor terminals. Check for 24 VAC at the motor speed tap terminals connected between the low voltage terminal block (LVTB) "G" and "C" terminals for continuous fan operation, between the LVTB "W" and "C" terminals for heating operation, or between the LVTB "Y" and "C" terminals for cooling operation.
4. If 240 VAC is present on the L1 and L2 contactor terminals and 24 VAC is present on the motor speed tap terminals and the motor is still not operating, replace the motor.
5. Refer to Figure 9 and Table 1 for the motor terminal connections.

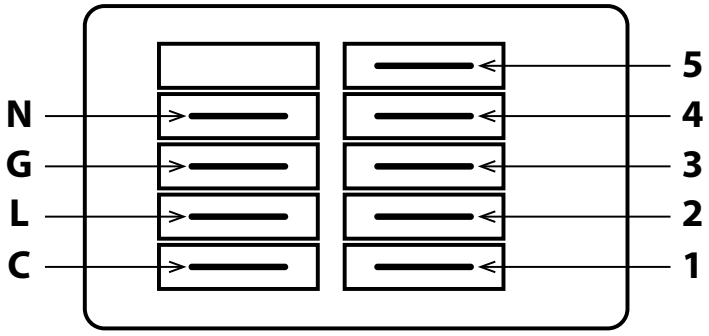

Figure 9: Constant Torque Motor Terminals

Blower Motor FLA

1/3 HP Motor – 2.8
1/2 HP Motor – 4.3
3/4 HP Motor – 6.8

⚠ WARNING

To avoid personal injury or property damage, make certain that the motor leads cannot contact non-insulated metal components of the unit.

Terminal	Connection
C	Speed Tap Common - 24 VAC Common
L	Supply Voltage - 240 Vac Line 1
G	Ground Connection
N	Supply Voltage - 240 Vac Line 2
1	Low Speed Tap - 24 VAC Input
2	Medium-Low Speed Tap - 24 VAC Input
3	Medium Speed Tap - 24 VAC Input
4	Medium-High Speed Tap - 24 VAC Input
5	High Speed Tap - 24 VAC Input

Table 1: Constant Torque Motor Terminal Connections

Heating Element Not Heating

Check for 208 - 240 VAC between terminals T1 and T2 of the heater contactor(s). If 208 - 240 VAC is present, check the resistance across the heating element terminals. If the heating element resistance is infinity (open circuit) for any heating element, replace the defective heating element.

The heater design is as follows:

- The 5kW and 6kW models have one 5 kW or 6kW heating element.
- The 8kW and 10 kW models have a heater assembly with two 4kW or 5 kW heating elements.
- The 12kW model has a heater assembly with two 6kW heating elements.
- The 15 kW model has one heater assembly with two 5 kW heating elements and one heater assembly with one 5 kW heating element.
- The 20 kW model has two heater assemblies, each with two 5 kW heating elements.

The correct heating element amp draw is approximately as follows:

4 kW Heating Element = 16.7 amps
5 kW Heating Element = 20.8 amps
6 kW Heating Element = 25.0 amps

If the heating element current draw is below the amps shown above or at 0.0, replace the heating element.

If 208 - 240 VAC is not present between the T1 and T2 terminals (load) of a heater contactor, but there is 208-240 VAC present between terminals L1 and L2 (line) of that heater contactor, check for an open limit control and replace the open limit control if it has failed open.

If 208-240 VAC is not present between the T1 and T2 terminals (load) of a heater contactor, but 208-240 VAC is present between the terminals L1 and L2 (line) of the heater contactor(s) and there is 24 VAC across the coil of that contactor, replace the heater contactor.

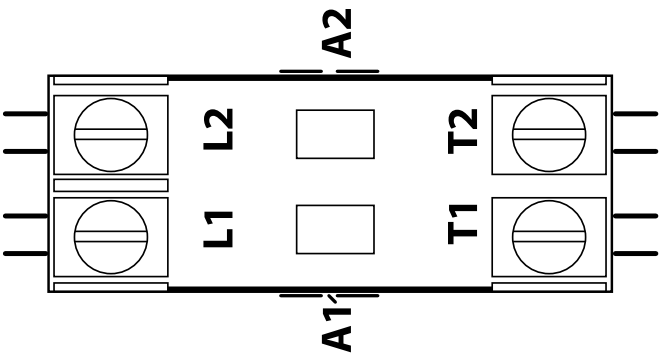

Figure 10: Heater Contactor Terminal Designations

Replacing the Blower Motor

1. Follow the instructions as shown in **Section 4: Startup and Shutdown Instructions in the Users Information Manual** to properly shut down this furnace.
2. Remove furnace front access panel and switch the furnace circuit breaker(s) to the "OFF" position.
3. Disconnect the blower motor 9 pin plastic plug from the top left corner of the control box (furnace in downflow orientation).
4. Remove the two screws on the right side and the screw from the left side of the blower mounting plate. See Figure 11 for screw locations.
5. Slide the blower out of the blower compartment and set it on the floor.
6. Loosen the set screw on the blower wheel hub that secures the wheel to the blower motor shaft. Make sure the wheel spins freely with no obstructions. File off any burrs on the motor shaft before trying to remove the wheel.
7. Remove the 3 screws that secure the motor mounting bracket legs to the blower housing and remove the motor/bracket assembly from the blower housing.
8. Disconnect the wires from the motor terminal block after labeling which terminal each wire was connected to for use when connecting the wires to the new motor.
9. Remove the blower motor from the motor mounting bracket by removing the ¼" screw that secure the blower motor to the bellyband.
10. Insert the new motor and original mounting legs into the motor mounting bracket and secure to the bellyband and mounting legs are to the motor with the ¼" screw and nut. Make sure the belly band and mounting legs are positioned in the same place as they were on the original motor so the motor is not at an angle and the wire terminals are located in the proper position.
11. Insert the 3 screws that secure the motor mounting bracket legs to the blower housing. Tighten the screws until the mount bracket arms are securely fastened to the blower housing.
12. Position the blower wheel in the housing until the wheel is centered between the orifices on each side of the housing. Center the setscrew on the center of the shaft flat and tighten the setscrew securely to hold the wheel in place.
13. Reconnect the wires to the motor terminal block terminals. If the wires were not labeled in step 8, refer to the wiring diagram for the correct connections.
14. Plug the motor speed tap connector to the motor terminal.
15. Slide the blower assembly onto the blower deck and attach the blower assembly to the blower mounting plate with the screws that were removed in step 4.
16. Connect the 9-pin plastic plug to the 9-pin plastic plug on the top left corner of the control box (furnace in downflow orientation).
17. Turn the furnace circuit breakers to the "ON" position.
18. Install the furnace front access panel.
19. Follow the instructions in **Section 4: Furnace Startup and Shutdown Instructions found in the Users Information Manual** to properly place the furnace back into service.
20. Turn the thermostat fan switch to the "ON" position and check for proper blower operation. Make sure the blower does not make any noises or vibrate during operation.
21. When the blower check is complete, set the thermostat to the desired mode and temperature.

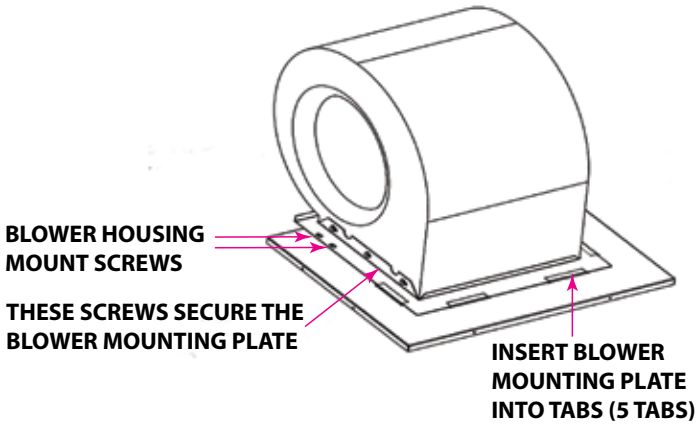

Figure 11: Blower Mounting Plate Screw Locations

⚠ WARNING

To avoid personal injury, take precautions to not touch non-insulated electrical components.

Avoid wearing loose clothing or any items that can become caught in moving parts, such as the blower wheel. This can cause serious personal injury.

SECTION 6: BLOWER PERFORMANCE

Blower Motor Speed Tap Information

The constant torque motor has 5 speed taps. The speed taps are designed to be used as shown below:

Tap 5 is used for HIGH-SPEED Cooling operation.

Tap 4 is used for MED-HIGH SPEED Cooling or Heating operation.

Tap 3 is used for MEDIUM SPEED Cooling or Heating operation.

Tap 2 is used for MED-LOW SPEED Heating operation.

Tap 1 is used for LOW-SPEED Constant Circulation operation ONLY. This speed tap is energized by the "G" thermostat terminal and delivers approximately 200 CFM which is insufficient to support cooling or heating operation and will result in the indoor coil freezing and tripping of the heating limits.

E30B3 Blower Airflow Performance Without Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B3	2.0	1/3	240	Constant Torque	10x9	1	805	577	193		
						2	1001	798	584	479	386
						3	1095	955	939	864	714
						4	1280	1205	1128	1045	939
						5	1415	1295	1247	1170	1098
E30B3 Blower Airflow Performance With Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B3	2.0	1/2	240	Constant Torque	10x9	1	575	323	64		
						2	742	642	517	452	378
						3	962	874	795	777	637
						4	1163	1086	1026	953	850
						5	1267	1164	1145	1069	984
E30B4 Blower Airflow Performance Without Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B4	3.0	1/2	240	Constant Torque	10x9	1	921	671	198		
						2	1094	943	891	807	644
						3	1393	1309	1226	1155	1080
						4	1561	1481	1371	1277	1158
						5	1665	1576	1460	1390	1291
E30B4 Blower Airflow Performance With Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B4	3.0	1/2	240	Constant Torque	10x9	1	655	409	167		
						2	959	880	780	662	590
						3	1224	1161	1094	1002	911
						4	1404	1311	1201	1204	1116
						5	1482	1390	1302	1191	1199
E30B5 Blower Airflow Performance Without Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B5	4.0	3/4	240	Constant Torque	10x9	1	981	775	261	190	
						2	1336	1241	1130	1035	1014
						3	1687	1618	1547	1463	1391
						4	1824	1692	1588	1499	1373
						5	1935	1791	1680	1610	1491
E30B5 Blower Airflow Performance With Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B5	4.0	3/4	240	Constant Torque	10x9	1	742	475	238	162	
						2	1238	1167	1102	998	941
						3	1585	1497	1421	1336	1215
						4	1679	1596	1476	1368	1250
						5	1794	1682	1540	1352	1380
E30B6 Blower Airflow Performance Without Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B6	5.0	3/4	240	Constant Torque	12x9T	1	1264	1086	882	834	705
						2	1322	1168	1035	957	879
						3	1393	1214	1226	1139	1036
						4	1593	1493	1398	1263	1285
						5	2100	2021	1943	1852	1762
E30B6 Blower Airflow Performance With Coil											
Blower Code	Nominal Tons	Motor HP	Volts 1 Ph. 50/60 Hz.	Motor Type	Blower Wheel	Motor Tap	CFM @ 0.10"	CFM @ 0.20"	CFM @ 0.30"	CFM @ 0.40"	CFM @ 0.50"
B6	5.0	3/4	240	Constant Torque	12x9T	1	1007	923	828	716	689
						2	1183	1089	1015	926	824
						3	1375	1296	1228	1152	1074
						4	1552	1465	1386	1288	1193
						5	2047	1957	1862	1753	1605

Table 2: Blower Performance (With Air Filters)

Minimum CFM for Electric Heat: 6kW = 390 CFM; 8kW = 520 CFM; 10kW = 650 CFM; 12kW = 780 CFM; 15kW = 975 CFM; 20kW = 1,300 CFM

DOWNFLOW E30 MANUFACTURED / MODULAR HOUSING ELECTRIC FURNACE ACCESSORIES				
COOLING COIL CABINETS				
PART NUMBER	**TOP**	**TYPE DOOR**	**MAX CFM**	**MAX SIZE COILS**
97-FLSB-21	Solid	Louvered	1200	96-( )( )4…Note 1
97-FSOB-21	Open	Solid	1600	96-( )( )4…Note 1
97-FLOB-21	Open	Louvered	1800	96-( )( )4…Note 1
97-FLSB-27	Solid	Louvered	1600	98-( )( )7…Note 1
97-FSOB-27	Open	Solid	1600	98-( )( )7…Note 1
97-FLOB-27	Open	Louvered	1800	98-( )( )7…Note 1
97-FLSB-39	Solid	Louvered	1800	98-( )( )13… Note 1
97-FSOB-39	Open	Solid	1800	98-( )( )13… Note 1
97-FG-18	N/A	Frame & Grille	1200	96-( )( )4…Note 1 & 2
97-FG-24	N/A	Frame & Grille	1600	98-( )( )7…Note 1 & 3
90-DCU0-01	1" to 4" Duct Connector, Floor to Duct			
90-DCU0-02	6" to 8" Duct Connector, Floor to Duct			
90-DCU0-03	9" to 12" Duct Connector, Floor to Duct			
90-DCU0-04	E30 Transition Sub Base to Old Style Electric Furnaces			
95-1741-UES	Universal Electro-Static Coil Filter			
R87MH0012	Solid Door for the 97-F***-21 Cabinet			
R87MH0026	Louvered Door for the 97-F***-21 Cabinet			
R87MH0014	Solid Door for the 97-F***-27 Cabinet			
R87MH0027	Louvered Door for the 97-F***-27 Cabinet			
R87MH0016	Solid Door for the 97-F***-39 Cabinet			
R87MH0028	Louvered Door for the 97-F***-39 Cabinet			
UPFLOW E30 MANUFACTURED / MODULAR HOUSING ELECTRIC FURNACE ACCESSORIES				
97-FSCB-28	Up Flow 28" Tall Coil Cabinet			
97-FSCB-36	Up Flow 36" Tall Coil Cabinet			
97-FFSB-20	Up Flow Filter Cabinet and Stand 20"			
97-FFSB-24	Up Flow Filter Cabinet and Stand 24"			
E30 MANUFACTURED / MODULAR HOUSING ELECTRIC FURNACE ACCESSORIES				
R87MH0010	White Furnace Door			
R68BAE003	Feeder from Single Circuit to Dual Breaker Furnace			
Note 1: Maximum height of coil, see coil spec sheet. All 9(6,7,8)-Series coils will fit in the 39 cabinet. Alcove modification will be required with most coil cabinets				
Note 2: 97-FG-18 used in conjunction with the E30 Electric Furnace. Will fit in the existing alcove opening when replacing a Coleman electric furnace with 96-Series Coils.				
Note 3: 97-FG-24 used in conjunction with the E30 Electric Furnace. Will fit in the existing alcove opening when replacing a Nordyne electric furnace. (98-8W7 Max Height)				

Table 3: Accessories

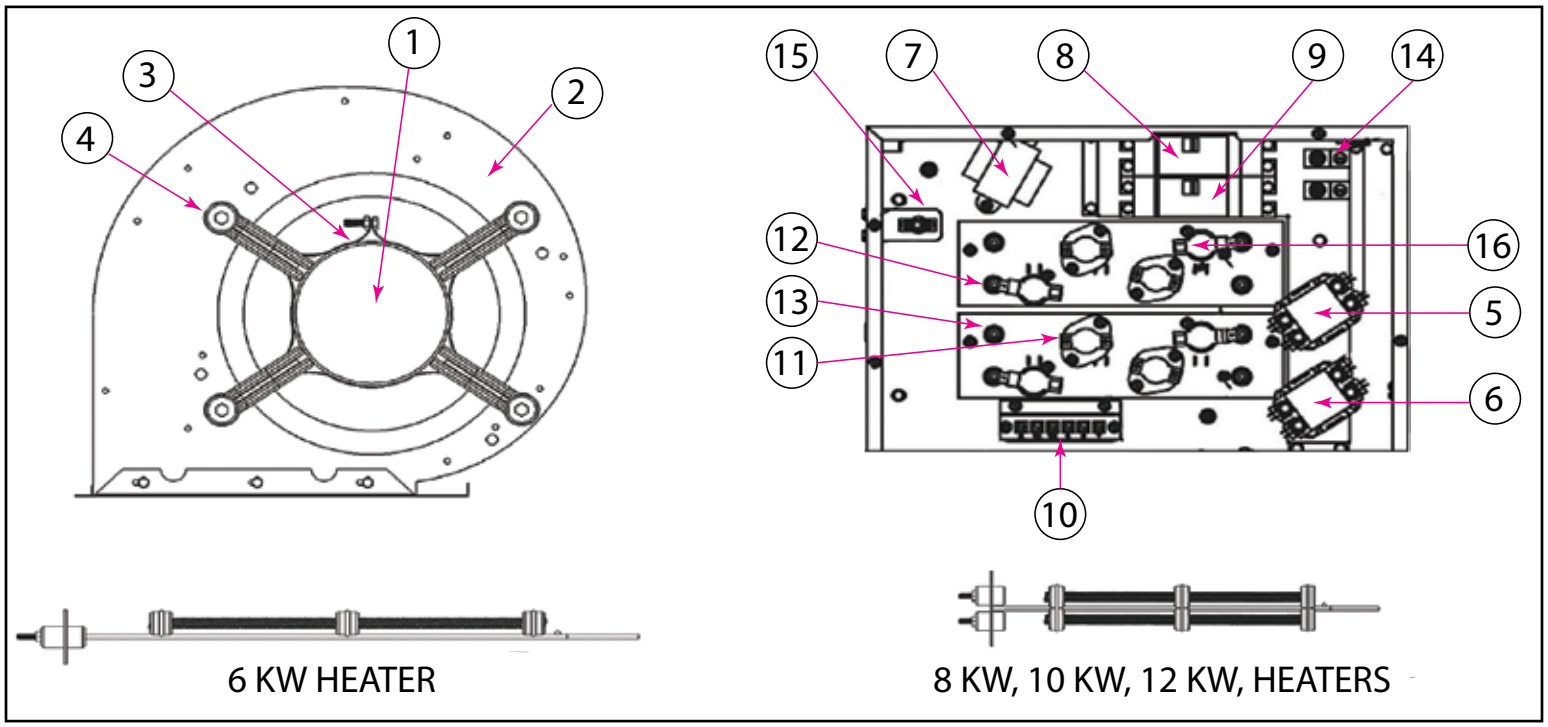

Figure 12: Replacement Parts Item Identification for E30B3 Models

Item	Description	E30B3D006AAE	E30B3D008AAE	E30B3D010AAE	E30B3D012ABE	E30B3D015ABE	E30B3D020ABE
1	1/3 HP CT BLOWER MOTOR	R65BV0025R	R65BV0025R	R65BV0025R	R65BV0025R	R65BV0025R	R65BV0025R
2	BLOWER HOUSING & WHEEL	R69AD0018	R69AD0018	R69AD0018	R69AD0018	R69AD0018	R69AD0018
3	MOTOR MOUNT BAND	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065
4	MOTOR MT ARM & GROMMET	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066
5	HEATER CONTACTOR 1	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P
6	HEATER CONTACTOR 2				R68AB0019P	R68AB0019P	R68AB0019P
7	TRANSFORMER	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003
8	CIRCUIT BREAKER 1	R68BAD015	R68BAD017	R68BAD018	R68BAD015	R68BAD018	R68BAD018
9	CIRCUIT BREAKER 2				R68BAD014	R68BAD014	R68BAD018
10	LOW VOLTAGE TERMINAL BLOCK	R68DC0013	R68DC0013	R68DC0013	R68DC0063	R68DC0063	R68DC0063
11	AUTO-RESET LIMIT SWITCH 155° F	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008
12	ELECTRIC HEATER ELEMENT 1	R67AB0022	R67AB0016	R67AB0017	R67AB0018	R67AB0017	R67AB0017
13	ELECTRIC HEATER ELEMENT 2					R67AB0015	R67AB0017
14	GROUND LUG	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022
15	3 AMP FUSE AND FUSE HOLDER	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001
16	NON-RESETTABLE LIMIT SWITCH	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011

Table 4: Replacement Parts for Electric E30B3 Models

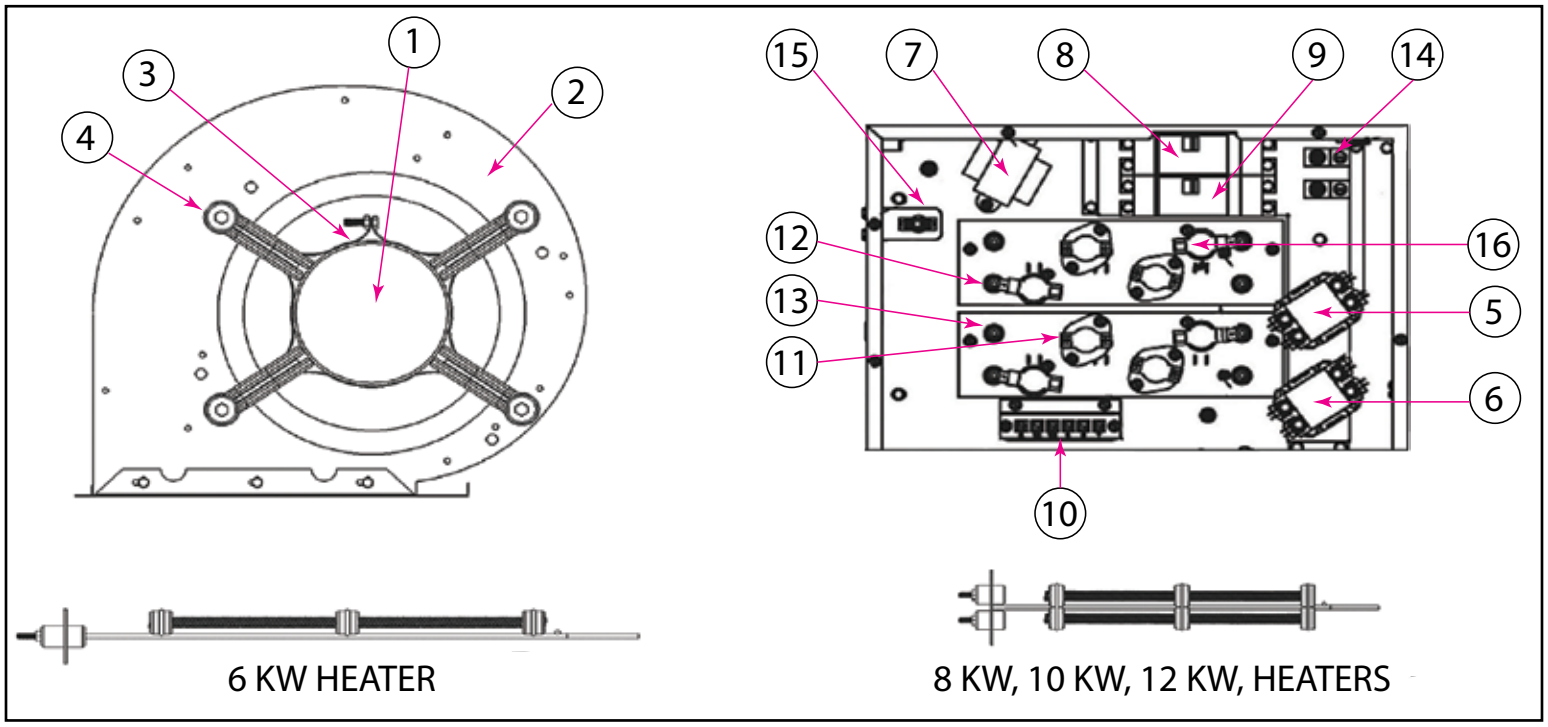

Figure 13: Replacement Parts Item Identification for E30B4 Models

Item	Description	E30B4D006AAE	E30B4D008AAE	E30B4D010AAE	E30B4D012ABE	E30B4D015ABE	E30B4D020ABE
1	1/2 HP C.T. BLOWER MOTOR	R65BV0026R	R65BV0026R	R65BV0026R	R65BV0026R	R65BV0026R	R65BV0026R
2	BLOWER HOUSING AND WHEEL	R69AD0018	R69AD0018	R69AD0018	R69AD0018	R69AD0018	R69AD0018
3	MOTOR MOUNT BAND	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065
4	MOTOR MOUNT ARM & GROMMET	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066
5	HEATER CONTACTOR STAGE 1	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P
6	HEATER CONTACTOR STAGE 2				R68AB0019P	R68AB0019P	R68AB0019P
7	TRANSFORMER	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003
8	CIRCUIT BREAKER STAGE 1	R68BAD014	R68BAD016	R68BAD018	R68BAD014	R68BAD018	R68BAD018
9	CIRCUIT BREAKER STAGE 2				R68BAD014	R68BAD014	R68BAD018
10	LOW VOLTAGE TERMINAL BLOCK	R68DC0013	R68DC0013	R68DC0013	R68DC0063	R68DC0063	R68DC0063
11	AUTO-RESET LIMIT SWITCH 155°F	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008
12	ELECTRIC HEATER ELEMENT STAGE 1	R67AB0022	R67AB0016	R67AB0017	R69AB0018	R67AB0017	R67AB0017
13	ELECTRIC HEATER ELEMENT STAGE 2					R67AB0O15	R67AB0017
14	GROUND LUG	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022
15	3 AMP FUSE AND FUSE HOLDER	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001
16	NON-RESETTABLE LIMIT SWITCH	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011

Table 5: Replacement Parts for E30B4 Models

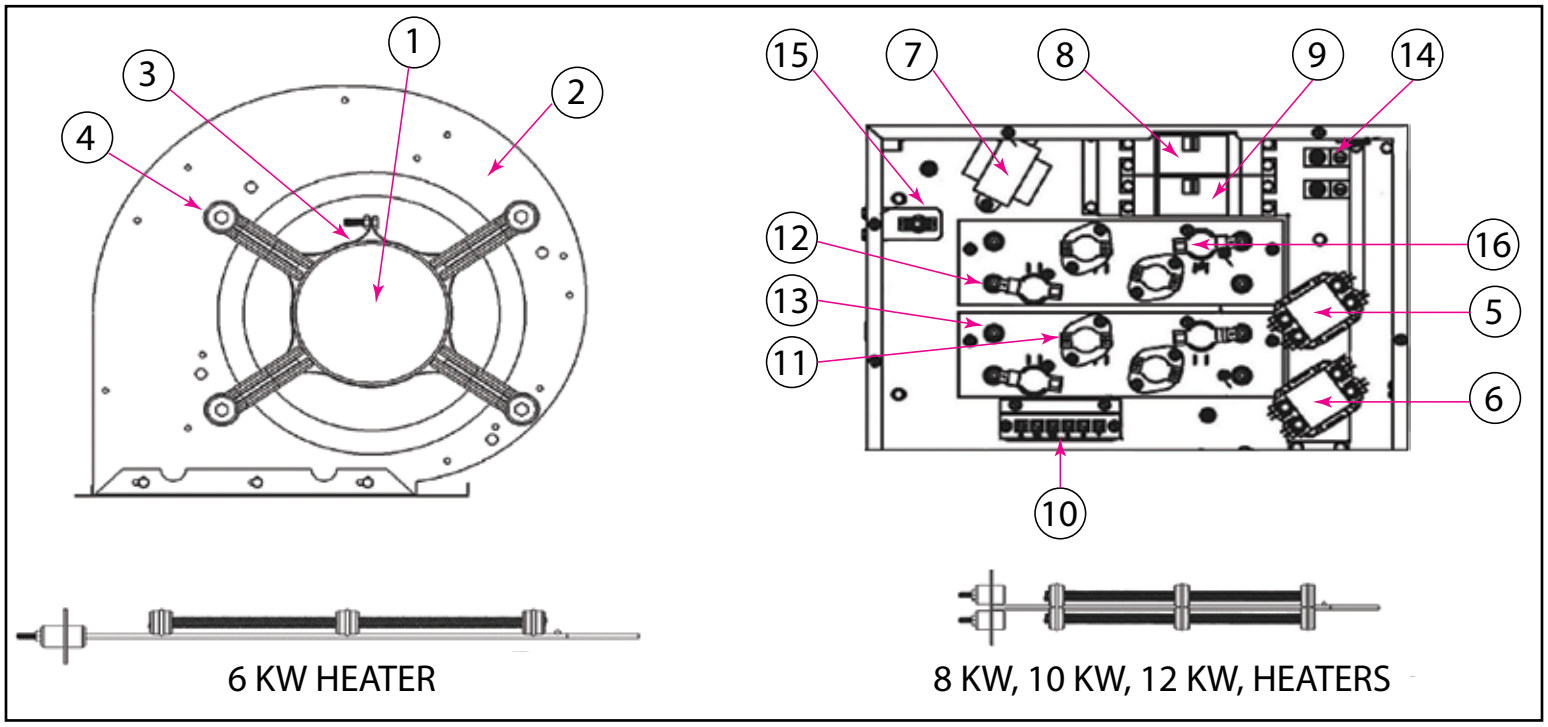

Figure 14: Replacement Parts Item Identification for E30B5 Models

Item	Description	E30B5D006AAE	E30B5D008AAE	E30B5D010AAE	E30B5D012ABE	E30B5D015ABE	E30B5D020ABE
1	3/4 HP C.T. BLOWER MOTOR	R65BV0027R	R65BV0027R	R65BV0027R	R65BV0027R	R65BV0027R	R65BV0027R
2	BLOWER HOUSING AND WHEEL	R69AD0018	R69AD0018	R69AD0018	R69AD0018	R69AD0018	R69AD0018
3	MOTOR MOUNT BAND	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065
4	MOTOR MOUNT ARM & GROMMET	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066
5	HEATER CONTACTOR STAGE 1	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P
6	HEATER CONTACTOR STAGE 2				R68AB0019P	R68AB0019P	R68AB0019P
7	TRANSFORMER	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003
8	CIRCUIT BREAKER STAGE 1	R68BA015	R68BAD017	R68BAD018	R68BAD015	R68BAD018	R68BAD018
9	CIRCUIT BREAKER STAGE 2				R68BAD014	R68BAD014	R68BAD018
10	LOW VOLTAGE TERMINAL BLOCK	R68DC0013	R68DC0013	R68DC0013	R68DC0063	R68DC0063	R68DC0063
11	AUTO-RESET LIMIT SWITCH 155°F	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008
12	ELECTRIC HEATER ELEMENT STAGE 1	R67AB0022	R67AB0016	R67AB0017	R69AB0018	R67AB0017	R67AB0017
13	ELECTRIC HEATER ELEMENT STAGE 2					R67AB0015	R67AB0017
14	GROUND LUG	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022
15	3 AMP FUSE AND FUSE HOLDER	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001
16	NON-RESETTABLE LIMIT SWITCH	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011

Table 6: Replacement Parts for E30B5 Models

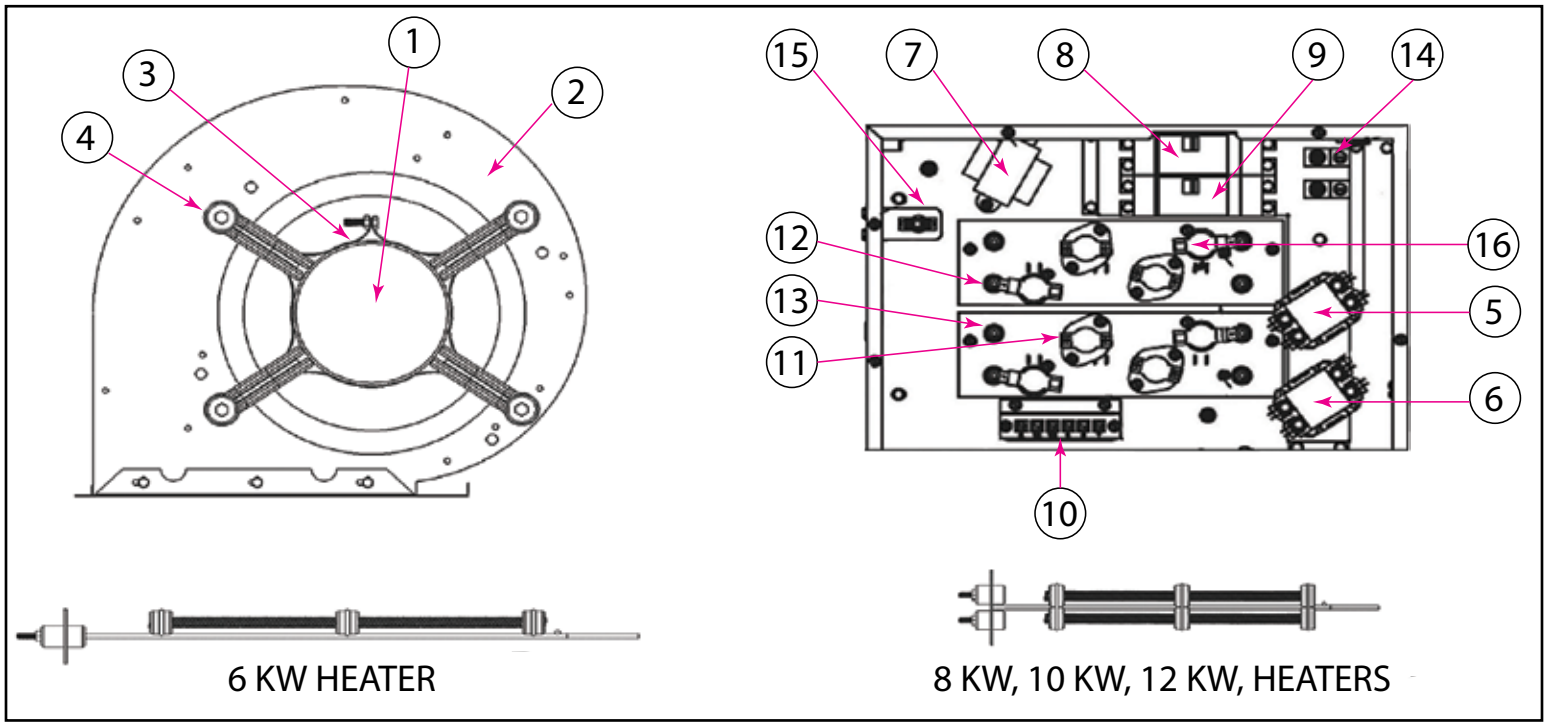

Figure 15: Replacement Parts Item Identification for E30B6 Models

Item	Description	E30B6D006AAE	E30B6D008AAE	E30B6D010AAE	E30B6D012ABE	E30B6D015ABE	E30B6D020ABE
1	3/4 HP C.T. BLOWER MOTOR	R65BV0027R	R65BV0027R	R65BV0027R	R65BV0027R	R65BV0027R	R65BV0027R
2	BLOWER HOUSING AND WHEEL	R69AD0013	R69AD0013	R69AD0013	R69AD0013	R69AD0013	R69AD0013
3	MOTOR MOUNT BAND	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065	R66AB0065
4	MOTOR MOUNT ARM & GROMMET	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066	R66AB0066
5	HEATER CONTACTOR STAGE 1	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P	R68AB0019P
6	HEATER CONTACTOR STAGE 2				R68AB0019P	R68AB0019P	R68AB0019P
7	TRANSFORMER	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003	R68AA0003
8	CIRCUIT BREAKER STAGE 1	R68BAD015	R68BAD017	R68BAD018	R68BAD015	R68BAD018	R68BAD018
9	CIRCUIT BREAKER STAGE 2				R68BAD014	R68BAD014	R68BAD018
10	LOW VOLTAGE TERMINAL BLOCK	R68DC0013	R68DC0013	R68DC0013	R68DC0063	R68DC0063	R68DC0063
11	AUTO-RESET LIMIT SWITCH 155°F	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008	R68CA0008
12	ELECTRIC HEATER ELEMENT STAGE 1	R67AB0022	R67AB0016	R67AB0017	R69AB0018	R67AB0017	R67AB0017
13	ELECTRIC HEATER ELEMENT STAGE 2					R67AB0015	R67AB0017
14	GROUND LUG	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022	R66GF0022
15	3 AMP FUSE AND FUSE HOLDER	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001	R86MHA001
16	NON-RESETTABLE LIMIT SWITCH	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011	R68CA0011

Table 7: Replacement Parts for E30B6 Models