ECM Motor Tester Kit
KFASD0301VSP

Service/Operating Instructions

NOTE: Read the entire instruction manual before starting the installation.

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause death, personal injury, or other conditions which may cause death, personal injury, or property damage. Consult a qualified installer, service agency or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Use quenching cloths for brazing operations and have a fire extinguisher available. Read these instructions thoroughly and follow all warnings or cautions included in literature and attached to the unit. Consult local building codes and National Electrical Code (NEC) for special requirements.

Recognize safety information. This is the safety-alert symbol ⚠. When you see this symbol on the furnace and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION and NOTE. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies hazards which could result in personal injury or death. CAUTION is used to identify unsafe practices which would result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

⚠ WARNING

ELECTRICAL OPERATION HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. Lock out and tag switch with a suitable warning label. There may be more than 1 disconnect switch. Turn off accessory heater power if applicable.

INTRODUCTION

The ECM Motor Tester is designed to isolate the ECM blower motor and help the technician determine if the blower motor is defective. The ECM Motor Tester can only be used to test the variable speed ECM 2.0 and 2.3 blower motors on thermostatically controlled (T-STAT) systems and ECM 3.0 blower motors on serial communicating systems. This tester cannot be used on ECM 2.5 blower motors. This includes residential fan coils, small packaged products, some models of 80% non-condensing furnaces and 90% condensing furnaces.

The ECM Motor Tester contains alligator clips to connect to 24VAC from the circuit board of the unit being tested.

NOTE: This tester will rotate the motor a portion of the expected airflow. This is not intended to replace the functionality of the control board.

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TESTING UNITS

⚠ CAUTION

PERSONAL INJURY HAZARD

Failure to follow this caution may result in unit damage.

To prevent possible damage to the motor electronics, never remove the 5-pin high voltage plug with the power on.

1. Shut off power to unit.
2. Unplug the 16-pin connector for ECM 2.0 and 2.3 motors or the 4-pin connector for ECM 3.0 motors. Leave the 5-pin high voltage plug connected at the ECM blower motor. Plug the 16-pin connector for ECM 2.0 and 2.3 motors or the 4-pin connector for ECM 3.0 motors from the ECM Tester, shown in Fig. 1, to the ECM motor.
3. Attach the RED lead of the tester to the R terminal on the unit control board and the BLACK wire to the C terminal on the unit control board. The ECM 3.0 may require the use of additional alligator clips or piggy-back connectors.
4. Turn on power to the unit. The green POWER LED found in the switch should turn on.
5. The green motor LED is attached to the output pins of the motor. The LED will blink dimly when the motor power is turned on. As the rpm of the motor increase, the brightness of the LED will increase.

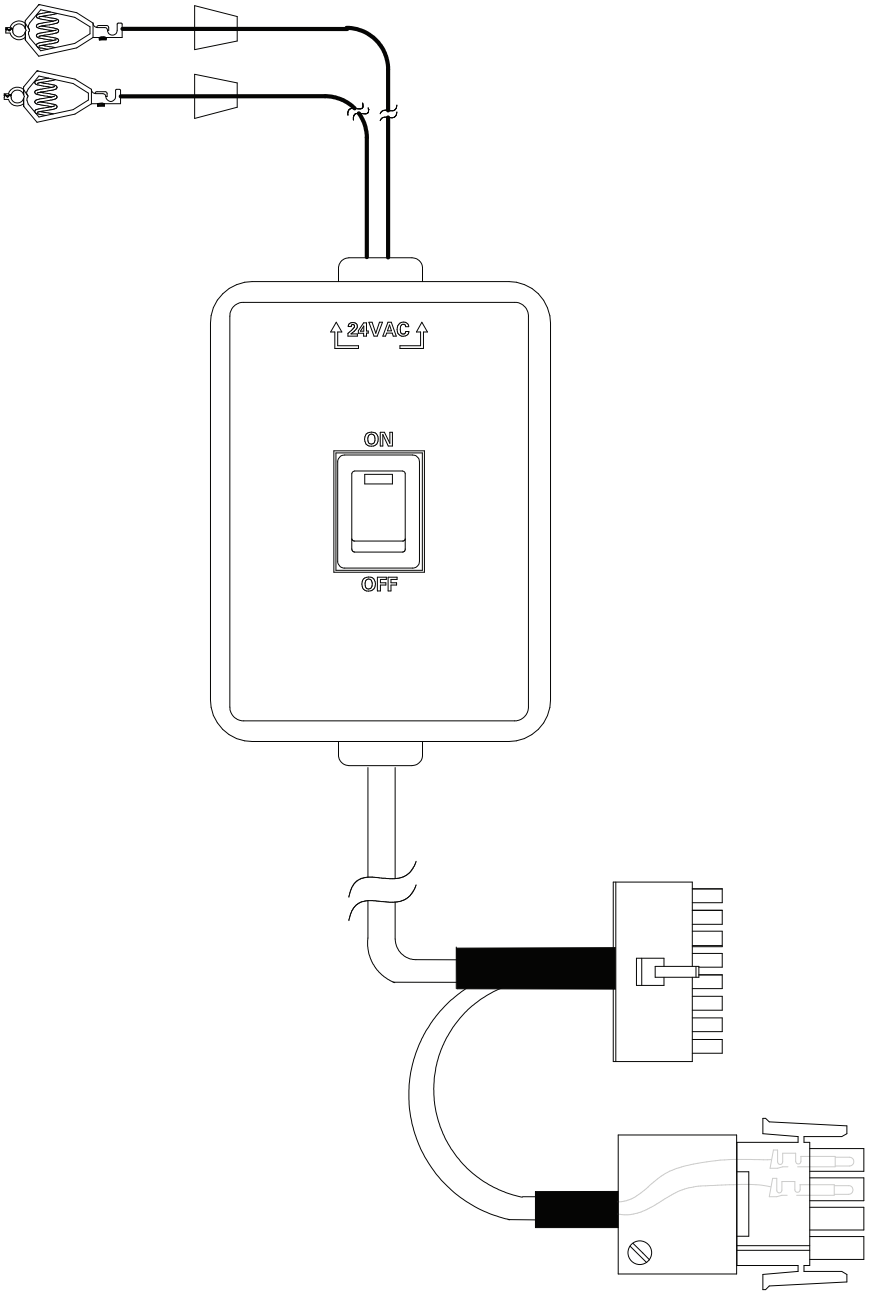

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Fig. 1 - ECM Motor Tester

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Edition Date: 10/12

Catalog No: AG- KFASD- 02

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Replaces: AG- KFASD- 01