

INSTALLATION INSTRUCTIONS

3500-5841/B A/C — H.P. CONTROL BOX PACKAGE

IMPORTANT NOTICE

These instructions are intended for the use of qualified individuals specially trained and experienced in installation of this type of equipment and related system components.

Installation and service personnel are required by some states to be licensed.

Persons not qualified shall not install this equipment or interpret these instructions.

WARNING

IMPROPER INSTALLATION MAY DAMAGE EQUIPMENT, CAN CREATE A SHOCK HAZARD, AND WILL VOID THE WARRANTY.

NOTE

The words "Shall" or "Must" indicate a requirement which is essential to satisfactory and safe product performance.

The words "Should" or "May" indicate a recommendation or advice which is not essential and not required but which may be useful or helpful.

1. Application

This control package is designed to be installed on EB Series and 3500 & EB Series electric furnaces when the home owner wants the convenience of having the control switches at the thermostat. When installed, the control center engages the furnace transformer and uses its 40 VA transformer as the control power source.

This conversion package is approved for use on furnaces in the downflow application only.

2. Installation of Control Box Package

NOTE

Make sure the correct blower is installed. If the blower needs to be changed it is to be done at this time before the control package is installed. Refer to equipment sticker on furnace.

- a. Turn the wall thermostat to its lowest setting. Allow furnace to shut off completely. Turn off all electrical supply circuits to furnace.

WARNING

FURNACE MAY BE CONNECTED TO MORE THAN ONE SUPPLY CIRCUIT.

- b. Remove the furnace door.
- c. On EB Series — Turn circuit breakers to the "OFF" position.
On 3500 Series — Pull out the electric disconnect block from control panel cover. (Fig.1)
- d. Disconnect motor plug from furnace control panel receptacle. (Fig.1)
- e. Attach control box to the front of the blower scroll using holes provided. (Fig.1)
- f. Insert the control box plug into furnace receptacle. Plug blower plug into control box receptacle. (Fig.1)
- g. Install thermostat and wire according to diagram furnished with the thermostat and diagrams in control box instructions.
- h. Wire the control wiring according to the instructions packed with the Condensing Unit or the Heat Pump.

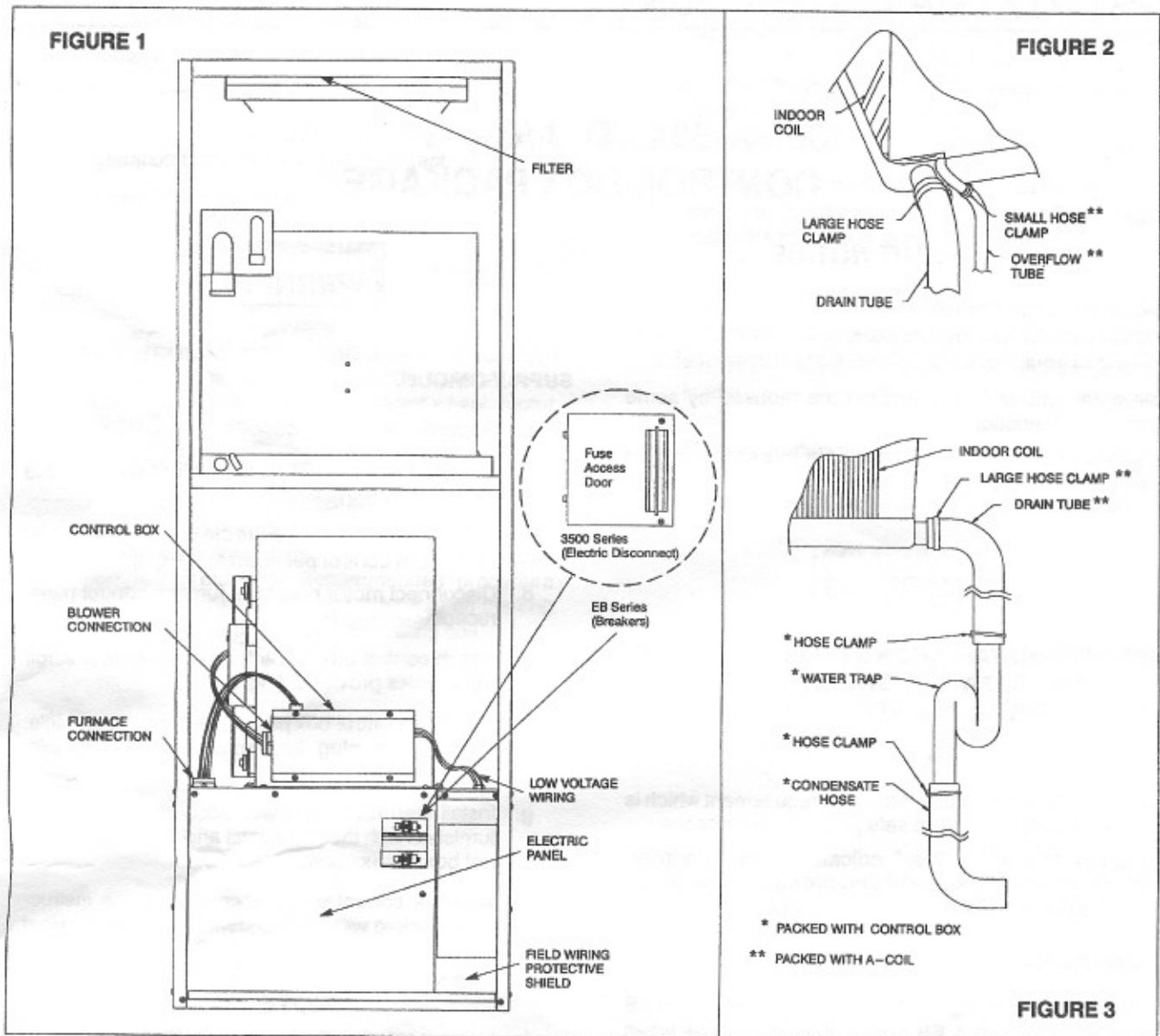
NOTE

The fan switch located on the furnace electric box (not on all models) must be set to AUTO position to enable the blower to turn on automatically on demand from the heating/cooling thermostat

- i. Install condensate drain pieces provided in this control package as shown in Figure 2 & 3. Refer to A-coil installation instructions for more information regarding drain line connections.

WARNING

FAILURE TO CORRECTLY INSTALL A CONDENSATE DRAIN LINE, SECONDARY DRAIN LINE AND CONDENSATE P-TRAP COULD RESULT IN CONDENSATE FLOWING OUT OF COIL DRAIN PAN AND INTO FURNACE WHICH MAY CREATE A HAZARD. SEE FIGURE 2 & 3.



3. Thermostat Wiring: Four Wire A/C

a. Attach the 4 low voltage wires extending from the control box as follows (Refer to Figure 4):

1. **RED** wire to thermostat terminal **R**.
2. **WHITE** wire to thermostat terminal **W**.
3. **GREEN** wire to thermostat terminal **G**.
4. **BLACK** wire to condensing unit contactor.
5. Thermostat terminal **Y** to condensing unit contactor.

4. Thermostat Wiring: Heat Pump

a. Attach the 4 low voltage wires extending from the control box as follows (refer to Figure 5):

1. **RED** wire to thermostat terminal **R** and heat pump red wire.
2. **WHITE** wire to heat pump white wire.
3. **GREEN** wire to thermostat terminal **G**.
4. **Black** wire to thermostat terminal **X** and heat pump black wire.

NOTE

When using a five wire thermostat, it may be necessary to install a jumper wire between terminals **RC** and **4** or terminals **RC** and **RH**. Refer to the separate instructions packed with the thermostat.

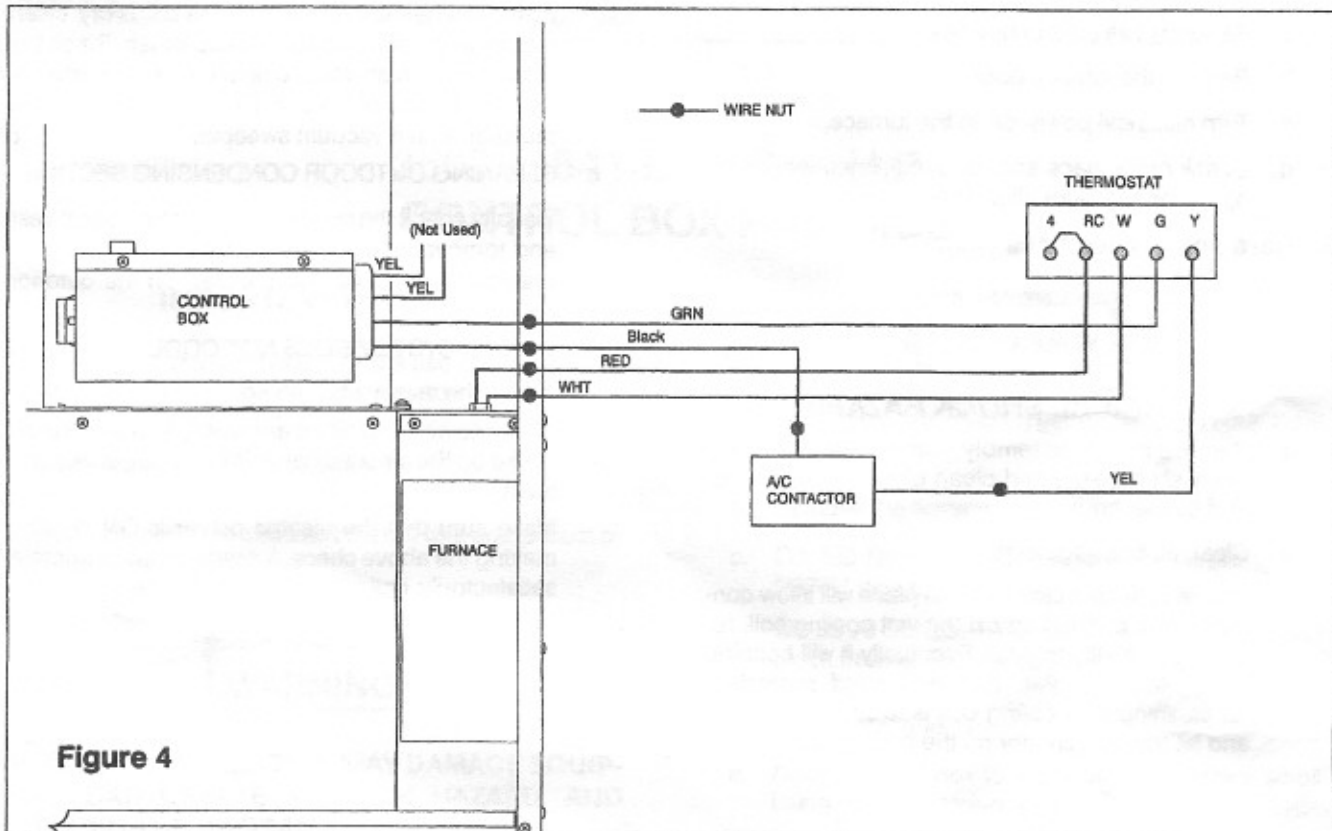


Figure 4

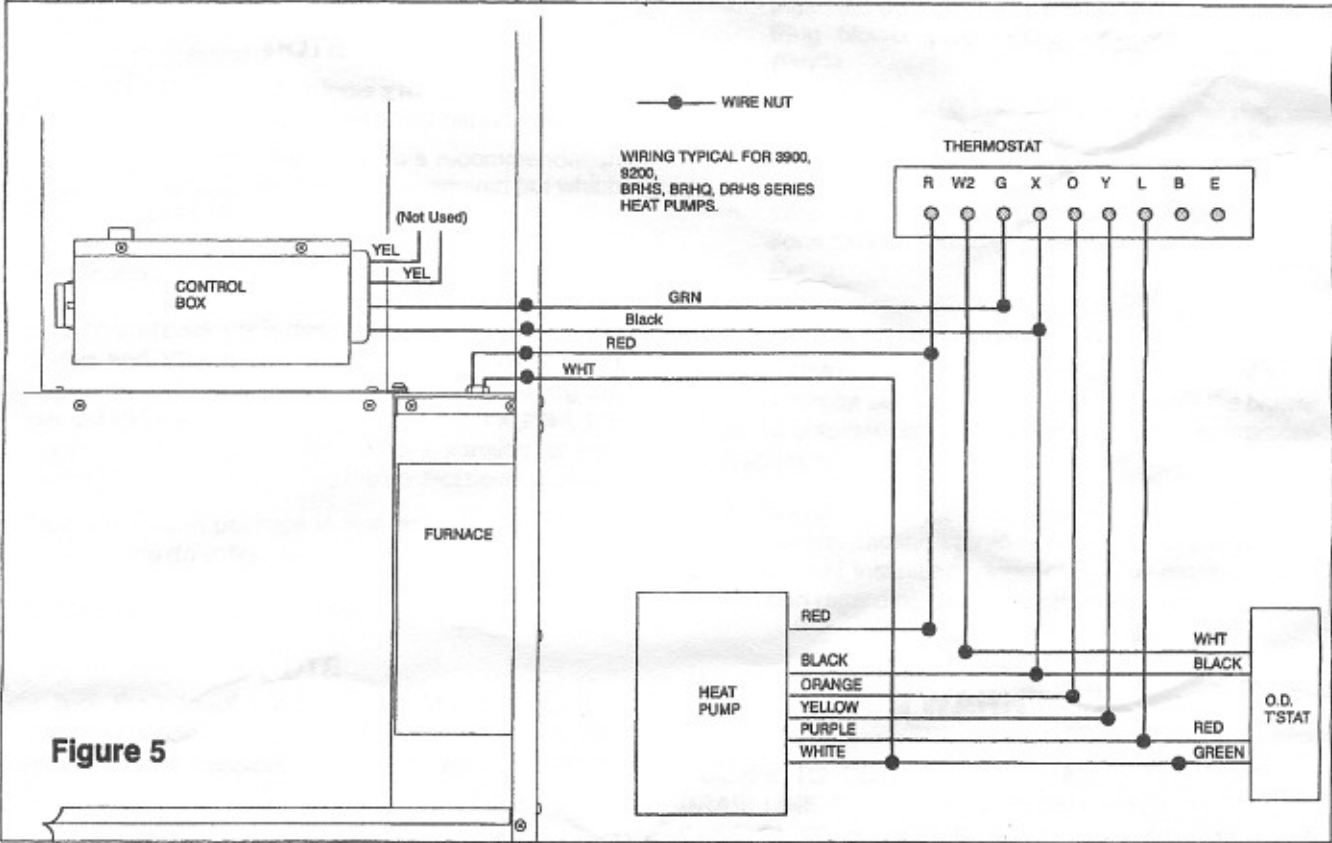


Figure 5

5. Installation Complete

- a. Re-install all control box lids.
- b. Replace the furnace door.
- c. Turn electrical power on to the furnace.
- d. Check out furnace and air conditioner/heat pump operation to insure all wiring is correct.

6. Care and Maintenance

WARNING

ELECTRICAL SHOCK HAZARD

- a. Remove blower assembly from the furnace (once every six months) and clean blower wheel, motor and blower housing.
- b. Clean air filter regularly.

Failure to keep a clean filter in place will allow contamination to build up on the wet cooling coil, reducing its ability to cool. Eventually it will become completely plugged. Recommended procedure for cleaning the cooling coil is to shut off the unit and let the dust lint dry on the cooling coil.

This drying operation can be speeded up with constant "ON" fan operation. After the coil is dry, clean the cooling coil with a stiff bristled brush. Brush the dust and lint in an upward position, taking care not to bend the fins of the coil. Then remove this accumulation with a vacuum sweeper.

c. CLEANING OUTDOOR CONDENSING SECTION

Visually check the outdoor unit at least once a year and remove leaves; grass, paper or other foreign materials may have accumulated on the outdoor section.

d. IF YOUR SYSTEM DOES NOT COOL

Check the thermostat setting.

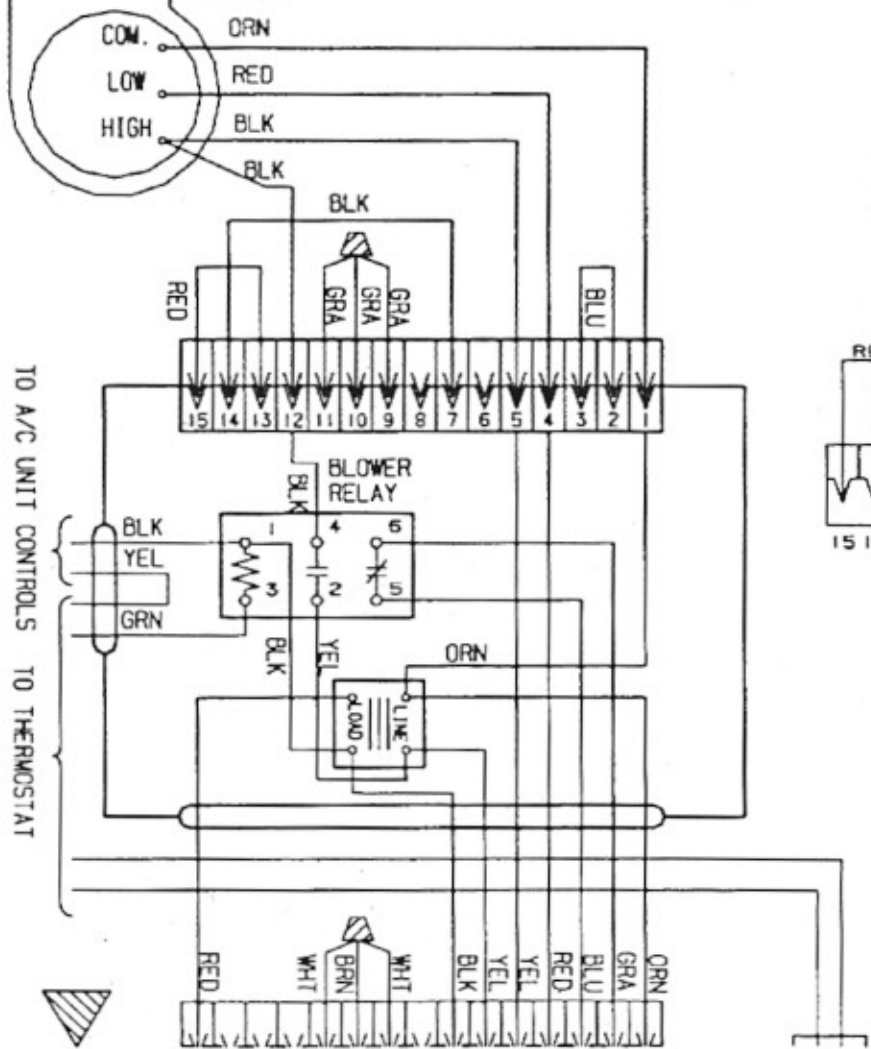
Check to see that filters are clean, and that the air intake on the air conditioner is free from leaves and trash.

Make sure that the electric power is ON. If, after making the above check, furnace does not operate satisfactorily, call your service technician.

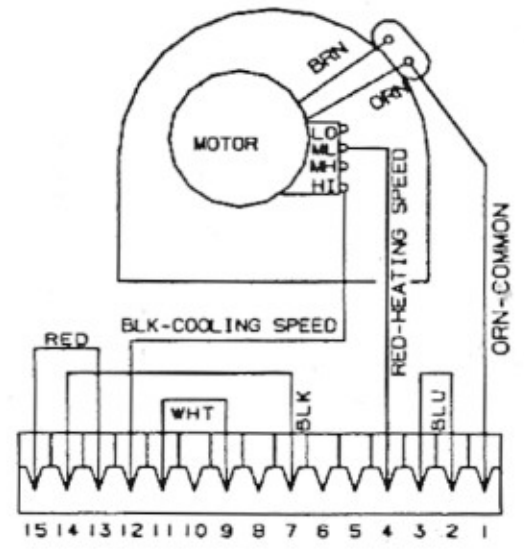
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BLOWER
3500-590



TO A/C UNIT CONTROLS TO THERMOSTAT



NOTE:
IF ANY OF THE ORIGINAL
WIRE SUPPLIED WITH THIS
UNIT MUST BE REPLACED,
IT MUST BE REPLACED WITH
TYPE 105° C THERMOPLASTIC
OR IT'S EQUIVALENT.

REPLACE FILTER
WITH SAME TYPE
AND SIZE PROVIDED
WITH FURNACE.

