Warren Electric Heater Model Brarrier WAQBE WQBBL	INSTALLATION AND OPERATING INSTRUCTIONS Form: Brarrier Date: 12-28-89	Air Handler Model 40AQ 018-036 40QB 042-060 517E 018-060

GENERAL

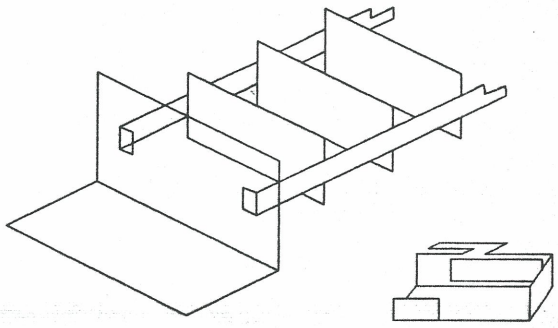
This Warren Manufacturing Company electric heater is engineered, designed, and approved to be installed in the Carrier 40AQ 018-036, 40QB 042-060 and Bryant 517E 018-060 Series. Before proceeding, check the heater label for correct voltage and KW requirements.

Installation and servicing should be performed by trained service personnel. Before installing the heater, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect heater element wire to see that none have been deformed. Clean all dirt, dust, and moisture from equipment. Check for proper clearances of live parts, between phases, and to ground. Make sure that all required barriers are in place. Check conductors run in multiple to insure that they are properly phased.

HEATER INSTALLATION

Install heater as follows:

1. Refer to the base unit installation instructions as required.
2. Remove access plate of fan coil unit.
3. Remove internal heater cover plate. Save sheet metal screws. Discard cover plate.
4. Install heater assembly into blower access opening of unit so that the mounting plate of the heater is flush with base unit and element support rods engage holes in heat shield.
5. Route fan motor leads through opening in fan deck. Attach leads to receptacle on blower.
6. Secure plate with sheet metal screws from cover plate.



ELECTRICAL CONNECTIONS

CAUTION

Disconnect All Electrical Power Before Proceeding. Failure To Do So May Result In Electrical Shock.

All electrical connections, wire sizes and type of conduit sizes shall meet the National Electrical Code, State and Local Codes.

Refer to air handler unit instructions for recommended wiring procedure.

Connect low voltage control wires as shown in heater schematic diagram and wiring diagram supplied with cooling control package.

ELECTRICAL CONNECTIONS (CON'T)

Terminal Markings

The Brarrier Heater (which can be used to for stock both Carrier and Bryant units):
Terminal labeled W1/W2 is wired to Step 1 of heater.
Terminal labeled E is wired to Step 2 of heater.
Terminal labeled W3 is wired to Step 3 of heater when required.
A jumper connects W1/W2 with E (and W3 when 3 steps).

Thermostat Connections

The Carrier Heater:
Wire Step 1 of thermostat to the W1/W2 terminal.
Wire Step 2 of thermostat to the E terminal.
Wire Step 3 of thermostat to the W3 terminal.

The Bryant Heater:
Wire Step 1 of thermostat to the W1/W2 terminal.
Wire Step 2 of thermostat to the E terminal.
Wire Step 3 of thermostat to the W3 terminal.
Remove the jumper from W1/W2 and E (and W3 if 3 steps).

Connect power wiring as shown in heater wiring diagram. All connections should be made inside the air handler and comply with National Electrical Codes, State and Local Codes. Heaters with factory installed fuses or circuit breakers may be installed on a branch circuit protected by either a fuse or a circuit breaker. For all other heaters, the branch circuit must be protected by a fuse or a circuit breaker supplied by others.

Make all wire spliced connections inside air handler unit. Separate all wires from incoming power leads.

Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding.

Check operation as described in the Start-Up section.

START-UP and CHECK-OUT

1. Refer to base unit installation instructions as required.
2. Check for loose terminal connections.
3. Check that all fuse and circuit breaker short circuit interrupting ratings are adequate.
4. Turn on unit and heater power.
5. Set thermostat to call for heat.
6. Check operation of heater.
7. Check that air flow across heater is at or above minimum recommended fan speed. Adjust as required.
8. Any modifications or repairs to this equipment without written permission from the factory will be done at the installer's own risk and expense.

SERVICE

Fuses/Circuit Breaker - Malfunction will interrupt power to unit. Check for cause of failure, correct and replace fuses or reset circuit breaker.

Limit Switch/Fusible Link - Malfunction prevents heating element(s) from being energized. Replace switch if malfunction occurs.

Sequencer - Malfunction will cause heater to not come on or shut off. Replace faulty sequencer.