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Dallas, Texas, USA

KITS COMMON TO AIR HANDLERS WITH ELECTRIC HEAT SECTIONS

507538-01
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SEQUENCER RELAY KIT

INSTALLATION INSTRUCTION FOR SEQUENCER RELAY KIT USED WITH SINGLE-STAGE HEATING APPLICATIONS USING ECB29-12.5CB-6P, ECB29-15CB-6P OR ECB29-20CB-6P ELECTRIC HEAT SECTIONS (KIT PART #104582-01, CATALOG #12Y66)

Shipping and Packing List

Check unit for shipping damage. Consult last carrier immediately if damage is found.

Quantity	Part Description
1	Harness wired with 67K6501 relay
1	Wiring Diagram Sticker (537817-01)
1	Wiring Diagram Sticker (537818-01)
1	Wiring Diagram Sticker (537819-01)
1	Wiring Diagram Sticker (537820-01)

NOTE - In addition to kit contents, two field-provided 1/4" self-tapping screws are required to mount the relay. Use field-provided wire ties as necessary.

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause personal injury, loss of life, or damage to property.

Installation and service must be performed by a licensed professional installer (or equivalent) or a service agency.

⚠ WARNING



Electric Shock Hazard. Can cause injury or death. Unit must be grounded in accordance with national and local codes.

Line voltage is present at all components when unit is not in operation on units with single-pole contactors. Disconnect all remote electric power supplies before opening access panel. Unit may have multiple power supplies.

⚠ CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and use protective clothing.

Application

Instructions for installation of sequencer relay kit used for single-stage heating applications where ECB29-12.5CB-6P, ECB29-15CB-6P or ECB29-20CB-6P electric heat sections are installed in CBX27UH or CBX32M air handler units. Kit installation enables activation of sequencing relay(s) for second-stage electric heat.

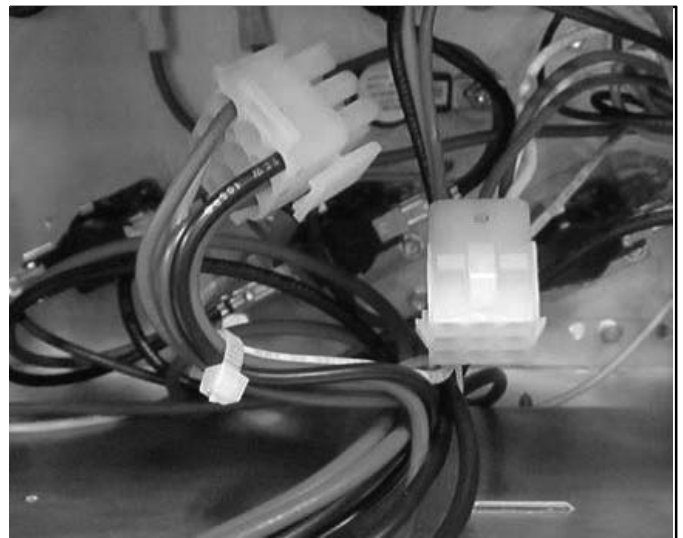
NOTE - This kit is not required for systems with two-stage-heating room thermostats.

TABLE 1. Wiring Diagram Applications

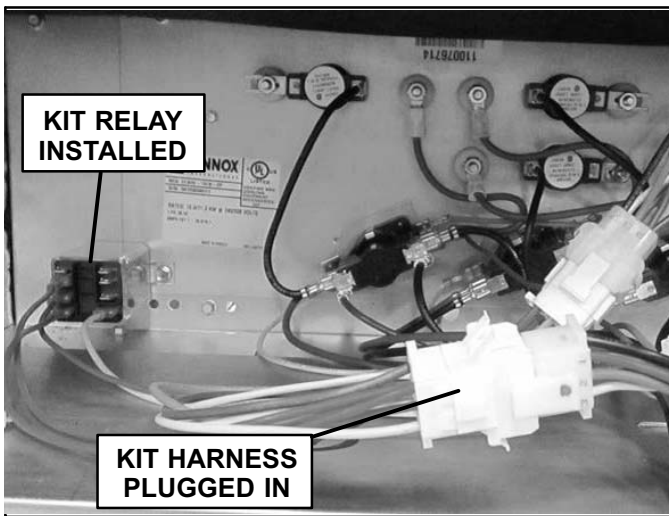
Diagram #	Air Handler / Heat Section Matchups
537817-01	CBX32M / ECB29-20CB-6P
537818-01	CBX32M / ECB29-12.5CB-6P CBX32M / ECB29-15CB-6P
537819-01	CBX27UH / ECB29-12.5CB-6P CBX27UH / ECB29-20CB-6P
537820-01	CBX27UH / ECB29-20CB-6P

Kit Installation Procedure

1. Disconnect all power to air handler unit. Remove screws securing the access panel. Remove panel and set aside.
2. Unplug electric power harness J2 in the control box.



3. Install provided relay in the control box using field-provided self-tapping screws as shown. Plug in the new kit harness in line with the unit's existing harness.



4. Reconnect and/or remount any components that were disconnected/unmounted during kit installation.
5. Select the wiring diagram sticker provided in the kit that corresponds with the air handler / heat section matchup. Remove the paper backing and apply the sticker on the blower housing, directly on top of the existing factory wiring sticker.
6. Reinstall the access panel and restore power to the unit.
7. Check electric heat section operation using the following procedure.

Single-Stage Electric Heat Operation

1. On a call for heat, W1 from the room thermostat energizes the electric heat 24V delay relay coils on K32 and K34. The K238 relay coil will energize (no delay).
2. When relay K32 1-to-2 contacts close, the indoor blower will be energized in 1 to 20 seconds.
3. When relay K32 3-to-4 and 5-to-6 contacts close, assuming the primary limit (S15) and secondary limit (S20) are closed, electric heat element HE1 is energized. When relay K33 1-to-2 and 3-to-4 contacts close, assuming the primary limit (S15) and secondary limit (S20) are closed, electric heat element HE2 is energized. These contacts should close in 20 to 60 seconds.
4. When K238 relay coil is energized in the ECB29-12.5CB-6P or ECB29-15CB-6p electric heat sections, 24 volts will be provided to second-stage K34 delay relay. When relay K34 1-to-2 and 3-to-4 contacts close, assuming the primary limit (S15) and secondary limit (S20) are closed, electric heat element HE1 is energized. These contacts should close in 30 to 90 seconds. The ECB29-20CB-6P electric heat section has one additional electric element relay (K35) that will be energized at the same time as the K34 delay relay. Both delay relays have the same timing functions.
5. When the room thermostat demand is satisfied, the K238 relay will open (no delay). The K32, K33 and K34 relays will delay between 1 and 30 seconds before opening the contacts that power the electric heat elements. The K32 1-to-2 contacts that energize the indoor blower will open in 40 to 110 seconds.