

INSTALLATION INSTRUCTION

AUXILIARY LIMIT / MAIN LIMIT KIT
FOR 3 TO 25 TON ROOFTOP UNITS
DHB, DUC, DHC, DUS, DHE, DHG, DEE, DEG,
DCE, BCH, BDF, & BCB

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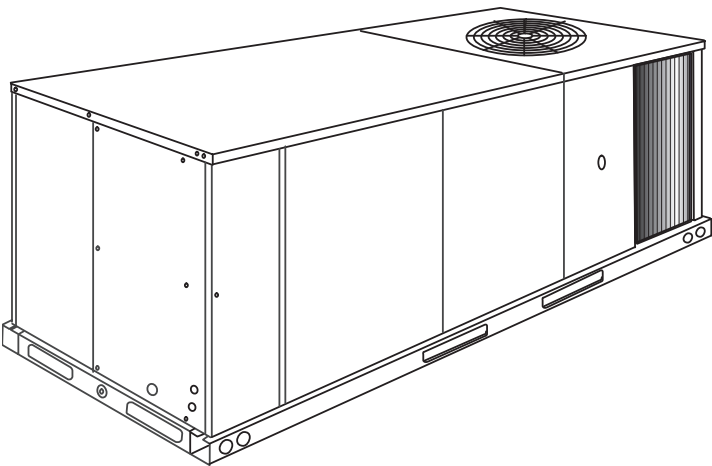
4 OLDER 3 & 6 TON LIMIT SWITCH WIRNING 3

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DESCRIPTION

These kits allow installation of the auxiliary furnace limit switch in units that were originally equipped with only the main limit. The kit also includes a new main limit switch, mounting bracket and wiring harness. The limit switches are factory wired in the proper configuration.

CAUTION

To ensure proper operation, the entire limit assembly, mounting bracket and harness should be replaced with the parts included in this kit.

INSTALLATION

1. Disconnect the power from the unit.
2. Access the heat exchanger compartment by removing the side duct cover. If side ducts are installed, the compartment must be accessed by removing the unit roof.
3. Remove the limit switch mounting plate. Access to the mounting plate is in the condenser section.
4. Remove the limit switch harness in the heat section. This harness connects the limit assembly to the mate-n-lock plug in the evaporator partition panel. The mate-n-lock on the 15 - 25 ton units is located on the condenser partition.
5. Install the new limit assembly/harness. Route the wiring to the evaporator partition (condenser partition on 15-25 ton units). At the installers discretion, on 15-25 ton units only the affected limit switch wires may be replaced rather than the entire harness.
6. Verify the pin configuration in both halves of the mate-n-lock plug to ensure male and female pins are aligned.

NOTE: Some units employ alternating male and female pins. This is to prevent potential mis-wiring at the factory. If a terminal does not match, remove that wire from the mate-n-lock housing and re-terminate with the appropriate terminal provided in this kit.

CAUTION

The limit switch wiring must be free and clear of the heat exchange tubes.

7. Verify operation of both limits as follows:

CAUTION

Never manually press the disc in the limit switch. This can permanently alter the operating temperature of the limit switch.

- a. Shut off the gas supply to the unit.
 - b. Connect power to the unit.
 - c. With no call from the space thermostat, apply heat to the main limit switch. When the limit switch trips, the indoor blower and draft motor should energize after the time delays. Verify there is no try for ignition (no spark).
 - d. With a call for heat from the space thermostat, wait for the indoor fan to energize, then apply heat to the auxiliary limit switch. When the auxiliary limit trips, the try for ignition should be immediately terminated. The limit is reset by pushing the button on top of the control. When reset, the ignition control should start the ignition cycle again.
8. Some Older models 3 to 6 ton units used a different main limit switch design with different terminal markings. The limits provided in this kit must only be wired per the diagrams below which may differ from the diagram provided with the older 3-6 ton units.

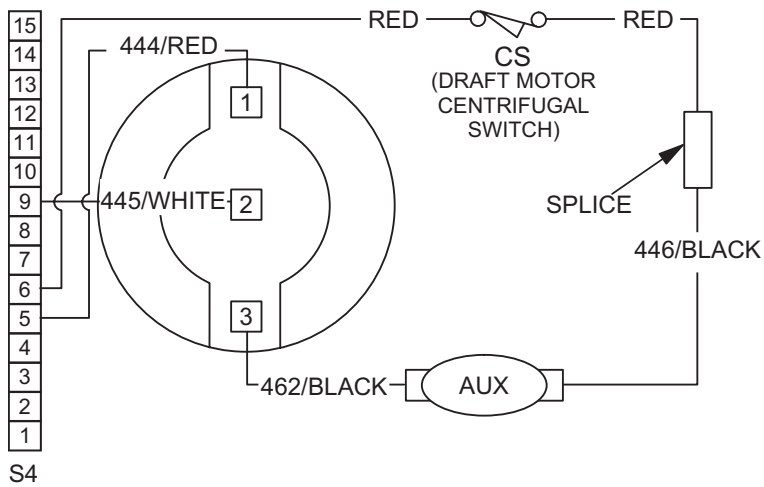


FIGURE 1 : 15 AND 20 TON LIMIT SWITCH WIRING

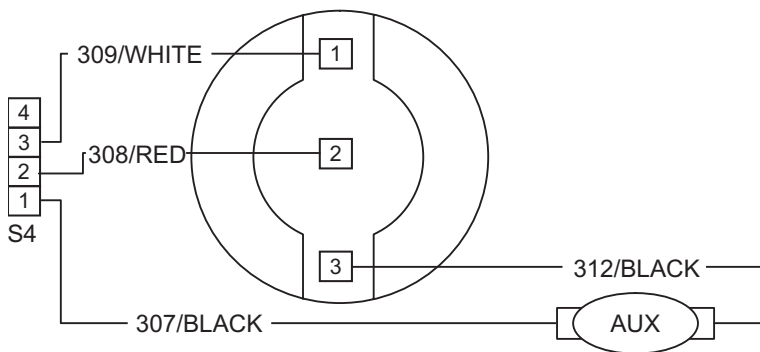


FIGURE 2 : 7 AND 12 TON LIMIT SWITCH WIRING

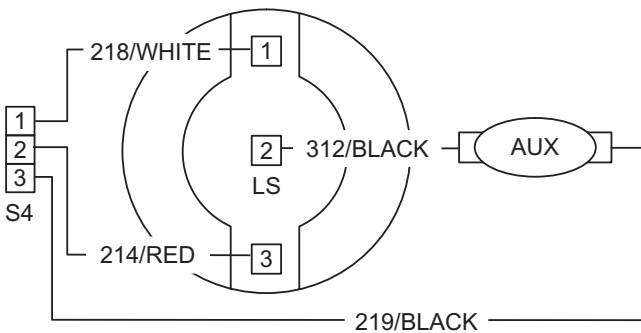


FIGURE 3 : 3 AND 6 TON LIMIT SWITCH WIRING

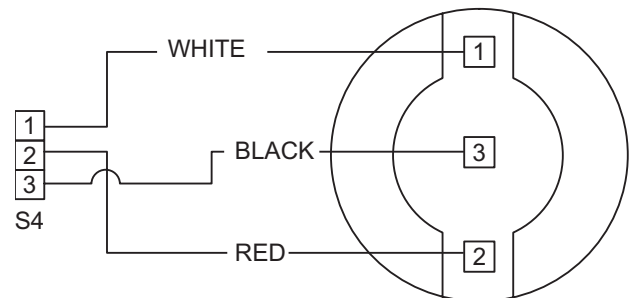


FIGURE 4 : OLDER 3 AND 6 TON LIMIT SWITCH WIRING (NOT USED WITH NEW LIMIT SWITCHES)

Table 1: CONTENTS OF AUXILIARY LIMIT KIT FOR 15-25 TON UNITS P.N. 37301911605

ITEM #	QTY	PART #	DESCRIPTION
4	1	363-90036-005	Limit & Bracket Assembly
462	1	AF005BLK7171462	Jumper Wire
602	1	025-33432-000	Harness
1	1	025-27763-000	Splice
2	1	035-17267-000	Instruction Shipped Loose
3	6	025-19673-000	Terminal Shipped Loose
5	6	025-20533-000	Terminal Shipped Loose
9	1	AF210BLK5471446	Wire

Table 2: CONTENTS OF AUXILIARY LIMIT KIT FOR 7 - 12 TON UNITS P.N. 37303136602

ITEM #	QTY	PART #	DESCRIPTION
51	1	363-90036-002	Limit & Bracket Assembly
312	1	AF004BLK7171312	Jumper Wire
600	1	025-33397-000	Harness
2	1	035-17267-000	Instructions Shipped Loose
3	6	025-19673-000	Terminal Shipped Loose
5	6	025-20533-000	Terminal Shipped Loose

Table 3: CONTENTS OF AUXILIARY LIMIT KIT FOR 3 - 6 TON UNITS P.N. 37313300604

ITEM #	QTY	PART #	DESCRIPTION
51	1	363-90036-007	Limit & Bracket Assembly
312	1	AF004BLK7171312	Jumper Wire
601	1	025-33431-000	Harness
2	1	035-17267-000	Instructions Shipped Loose
3	6	025-19673-000	Terminal Shipped Loose
5	6	025-20533-000	Terminal Shipped Loose