



Installation Instructions


Part No. 30XV70001601

SAFETY CONSIDERATIONS

Installation of this accessory can be hazardous due to system pressures, electrical components, and equipment location (such as a roof or elevated structure). Only trained, qualified installers and service technicians should install, start-up, and service this equipment.

When installing this accessory, observe precautions in the literature, labels attached to the equipment, and any other safety precautions that apply:

- Follow all safety codes
- Wear safety glasses and work gloves
- Use care in handling and installing this accessory

It is important to recognize safety information. This is the safety-alert symbol: . When you see this symbol on the unit 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 **may** 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 shock can cause personal injury and death. Shut off all power to this equipment during installation. There may be more than one disconnect switch. Tag all disconnect locations to alert others not to restore power until work is completed.

INTRODUCTION

The Carrier controller heater accessory, shown in Fig. 1, provides ambient heat to the area surrounding the Carrier controller where installation is subject to extremely low ambient conditions (below -4°F (-20°C)) for extended periods

of time. At temperatures lower than -4°F (-20°C), the refresh rate and display response time may be affected. There may also be a minor effect on touch sensitivity. The heater will keep the temperature around the Carrier Controller above this threshold.



Fig. 1 — Carrier Controller Heater

The accessory kit provides all necessary wires and hardware for accessory installation. See Table 1.

Table 1 — Accessory Package Contents

ITEM NO.	ITEM	P/N	QTY
1	DISPLAY HEATER	HT38DB120	1
2	FUSE	HY10KB428	1
3	FUSE HOLDER/TERMINAL BLOCK	HY11EA063	1
4	END STOP	HY26EA017	3
5	RELAY HOLDER	HY11TC032	1
6	HEATER RELAY (HTR RLY)	HN61ZP032	1
7	HARNESS ASSY	30XV50128001	1
8	HARNESS ASSY	30XV50128101	1
9	SCREW	A6X10004352	2
10	DIN RAIL	XBANS3575P-4	1
11	TERMINAL BLOCK	HY84EA001	1
12	TERMINAL BLOCK END COVER	HY26EA018	1
13	WIRE TIE	HY76TB125	6






INSTALLATION

1. Inspect package contents for missing or damaged parts. File a claim with the shipping agency if parts are damaged, and notify your Carrier representative if any item is missing.
2. Open and tag all electrical disconnects.
3. Open the unit control box door. Refer to Fig. 2 for door location.
4. For 30XV350-500, locate screws (Item 9) and DIN rail (Item 10) and install DIN rail in location shown in Fig. 3. Holes for mounting DIN rail are already in the backplate.
5. Locate fuse (Item 2) and install it in fuse holder/terminal block (TB/FU17) (Item 3). Install the fuse holder/terminal block (TB/FU17) in location shown in Fig. 4 for 140-325 ton units or Fig. 5 for 350-500 ton units.
6. For 30XV350-500, locate the Terminal Block End Cover (Item 12) and the Terminal Block (Item 11). Install the terminal block and terminal block end cover to the right of the Fuse Holder/Terminal Block TB/FU17 (Item 3) as shown in Fig. 5.
7. For 350-500 ton units, locate heater relay (Item 6; shown as Display HTR RLY on wiring diagram) and install in relay holder (Item 5). Install relay holder in location shown in Fig. 4 for 140-325 ton units or Fig. 5 for 350-500 ton units.
8. Install display heater (Item 1) in location as shown in Fig. 4 for 140-325 ton units or Fig. 3 for 350-500 ton units.
9. Install end stops (Item 4) on each side of heater (the heater has a finger safe enclosure around it so end stops should be placed against the enclosure to keep heater in place) and next to the heater relay to keep installed components from moving.
10. For 30XV140-325, locate wire harness (HARNESS ASSY, PN 30XV50128001, Item 7) and refer to Fig. 6 and 7. Connect pink wire labeled SIOB-B J7 5 QC to the pink wire with same labeling and quick connect near SIOB-B board connection (see Fig. 4 and 7). Connect the other end of the pink wire labeled HTR RLY A1 to terminal A1 on the relay holder (Item 5). Connect the brown wire labeled SIOB-B J7 6 QC to the brown wire with same labeling and quick connect near SIOB-B board connection (see Fig. 4 and 7). Connect the other end of the brown wire labeled HTR RLY A2 to terminal A2 on the relay holder (Item 5).
11. For 30XV350-500, locate wire harness (HARNESS ASSY, PN 30XV50128101, Item 8) and refer to Fig. 6 and 8. Connect the pink and brown wires (attached to connector) to the SIOB-B board terminal J7, positions 5 and 6 (as shown in Fig. 8). Connect the other end of the pink wire labeled HTR RLY A1 to terminal A1 on the relay holder (Item 5). Connect the other end of the brown wire labeled HTR RLY A2 to terminal A2 on the relay holder (Item 5).

NOTE: The control wiring for 30XV140-325 has quick connect connectors as shown in Fig. 6 and 7. The control wiring for 30XV350-500 comes factory wired with the connector that plugs directly onto the SIOB-B board as described in Step 11.

12. For 30XV140-325, terminal blocks TB12 and TB13 are factory installed and wired to TB9-L1 and TB9-L2 respectively. Using wire harness (HARNESS ASSY, PN 30XV50128001, Item 7), refer to Fig. 4 and 9 and connect the black wire labeled TB12 to an open connection point on terminal block TB12. Connect the other end of the black wire labeled TB/FU-17 into the terminal on TB/FU-17 fused terminal block. Connect the black wire labeled TB/FU-17 into the other side of TB/FU-17 fused terminal block

and connect the other end labeled HTR RELAY 11 into terminal 11 on relay holder (Item 5). Connect the black wire labeled HTR RELAY 14 to terminal 14 on the relay holder (Item 5). Connect the other end of the black wire labeled DISPLAY HTR 1 to terminal 1 on the display heater (Item 1). Connect the white wire labeled DISPLAY HTR 2 to terminal 2 on the display heater (Item 1). Connect the other end of the white wire labeled TB13 to an open connection point on terminal block TB13.

13. For 30XV350-500, using wire harness (HARNESS ASSY, PN 30XV50128101, Item 8), refer to Fig. 3, 5, and 8 and connect the black wire labeled TB9-L1 to an open connection point on terminal block TB9-L1. Connect the other end of the wire marked TB/FU-17 to TB/FU-17 fused terminal block. Connect the black wire labeled TB/FU-17 into the other side of terminal block TB/FU-17 and connect the other end labeled HTR RELAY 11 into terminal 11 on the relay holder (Item 5). Connect the black wire labeled HTR RELAY 14 to terminal 14 on the relay holder (Item 5). Connect the other end of the black wire labeled DISPLAY HTR 1 to terminal 1 on the display heater (Item 1). Connect the white wire labeled DISPLAY HTR 2 to terminal 2 on the display heater (Item 1). Connect the other end of the white wire labeled TB13 to an open connection point on terminal block TB13. Connect the white wire labeled TB13 into the other side of the terminal block TB13. Connect the other end of the white wire labeled TB9-L2 to an open spot on terminal block TB9-L2.
14. Verify point to point continuity of wiring per diagram in Fig. 6, 9 and 10.
15. Use wire ties (Item 13) to ensure wiring is bundled and routed in a neat manner.
16. Ensure that electrical connections are tight, remove tags from disconnects, and restore power to the unit.
17. Once power is restored to the unit and before starting the unit, use the Carrier Controller to navigate to the Quick Test Menu (select MAIN MENU  then QUICK TEST TABLE ). Once on the Quick Test Menu, first ENABLE quick test by changing QUICK TEST ENABLE from the default of DISABLE to ENABLE and select the SAVE BUTTON . This enables the QUICK TEST and allows the user to confirm that the Display Heater is working properly. Scroll to the last screen in the QUICK TEST MENU by selecting the arrow . Once on the last screen locate the Control Box Heater ON/OFF radio buttons and select the ON button. Confirm that there is voltage (120V) across the terminals of the display heater (terminals 1 and 2 as shown in Fig. 9 and 10). If 120V is verified across the terminals of the display heater, select the OFF radio button on the Carrier Controller. After selecting the OFF button, confirm that 120V is no longer present across the terminals of the display heater. Once this is confirmed, return to the QUICK TEST ENABLE in the menu and DISABLE the quick test by changing ENABLE to DISABLE and selecting the SAVE BUTTON .
18. Restart the chiller and close the control box door.

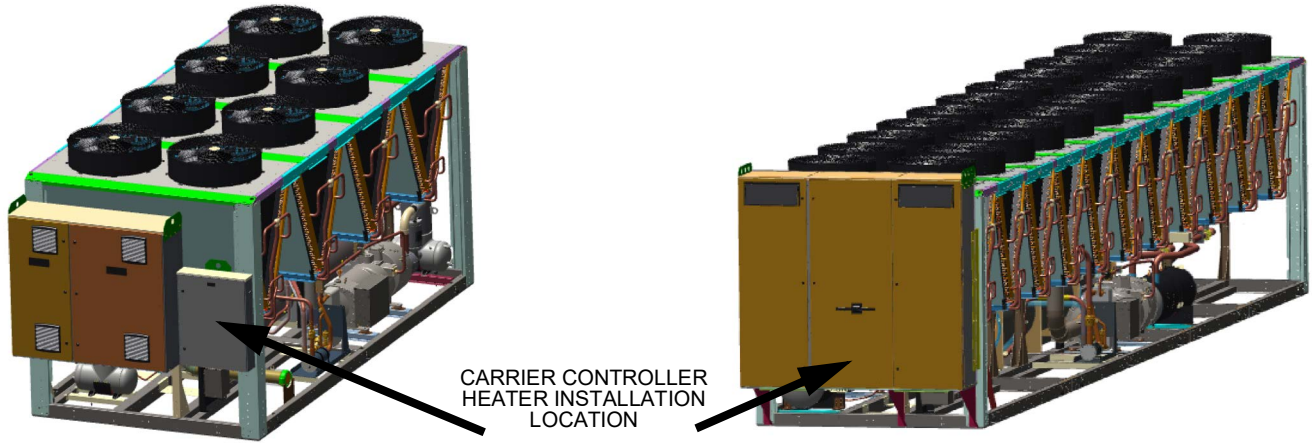


Fig. 2 — Control Box Location for 30XV140-325 (left) and 30XV350-500 (right)

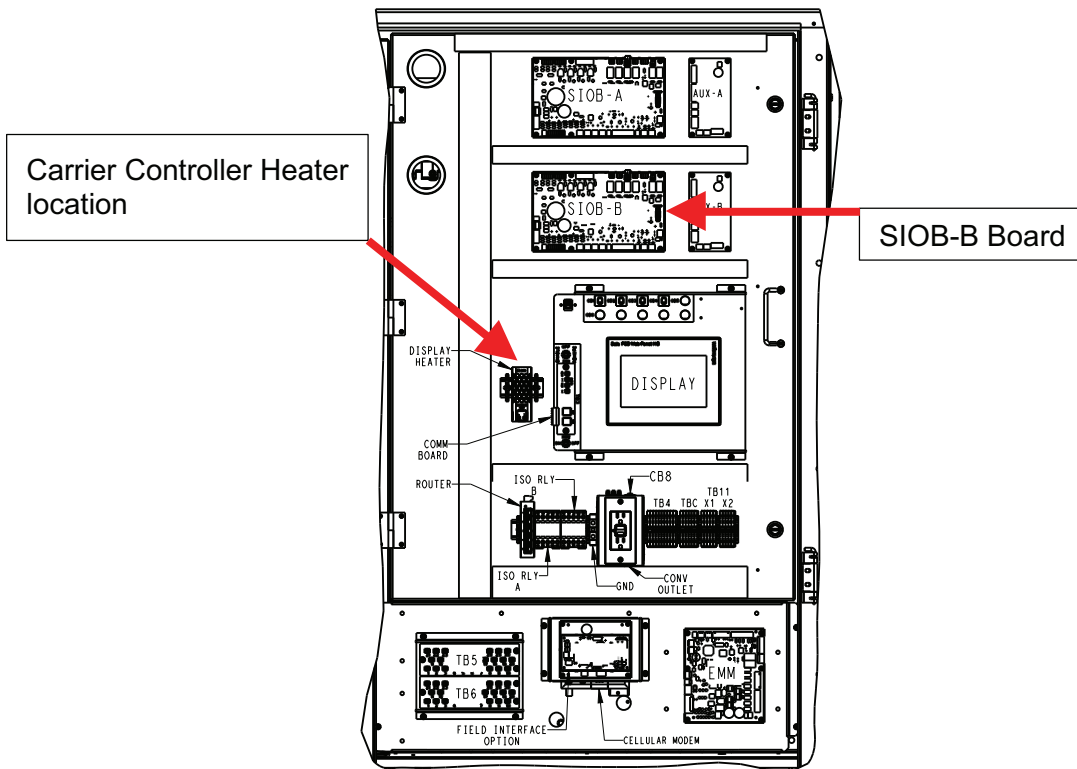
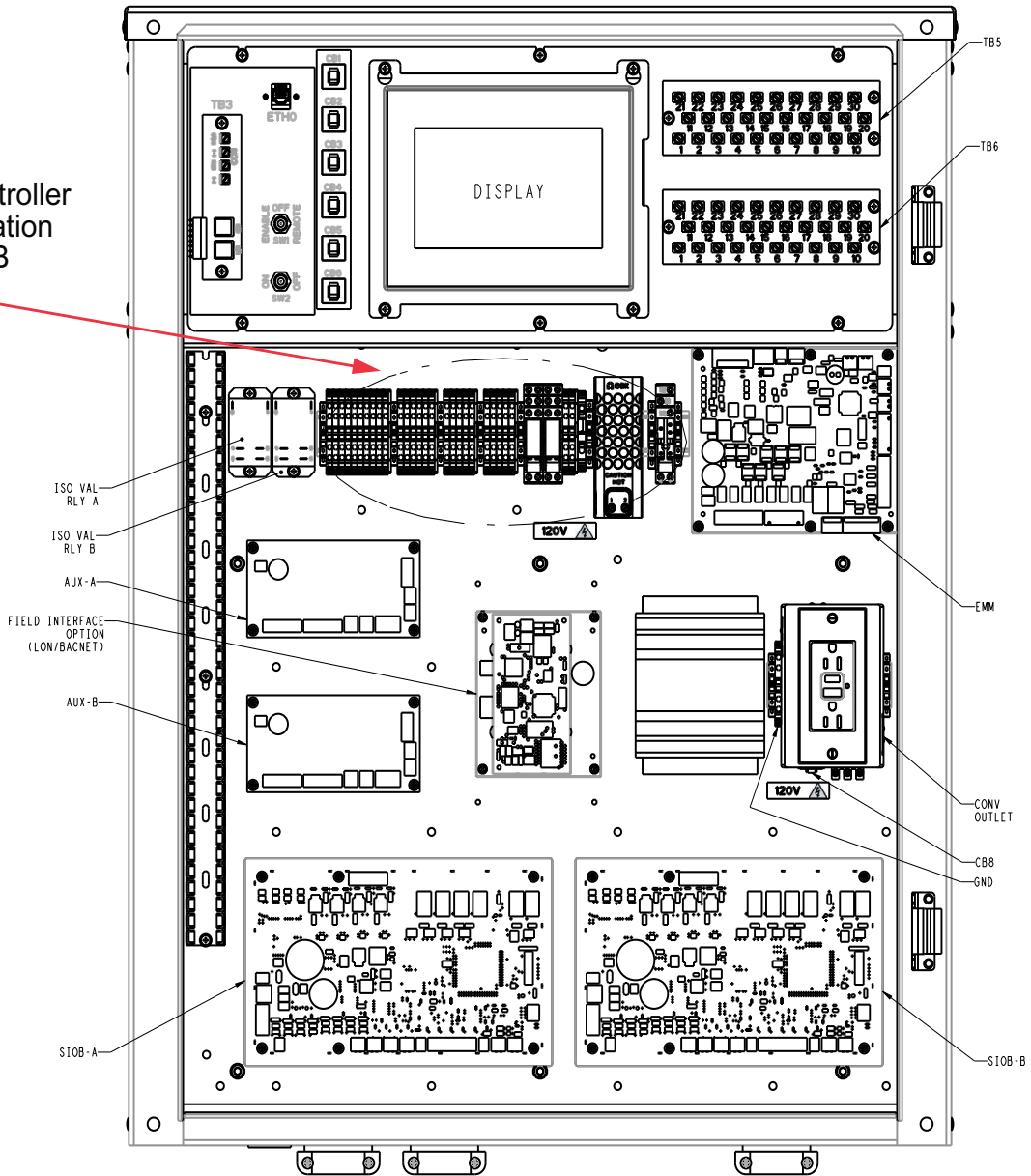


Fig. 3 — Carrier Controller Heater Location for 30XV350-500

Carrier Controller
Heater Location
See Detail B



Detail B

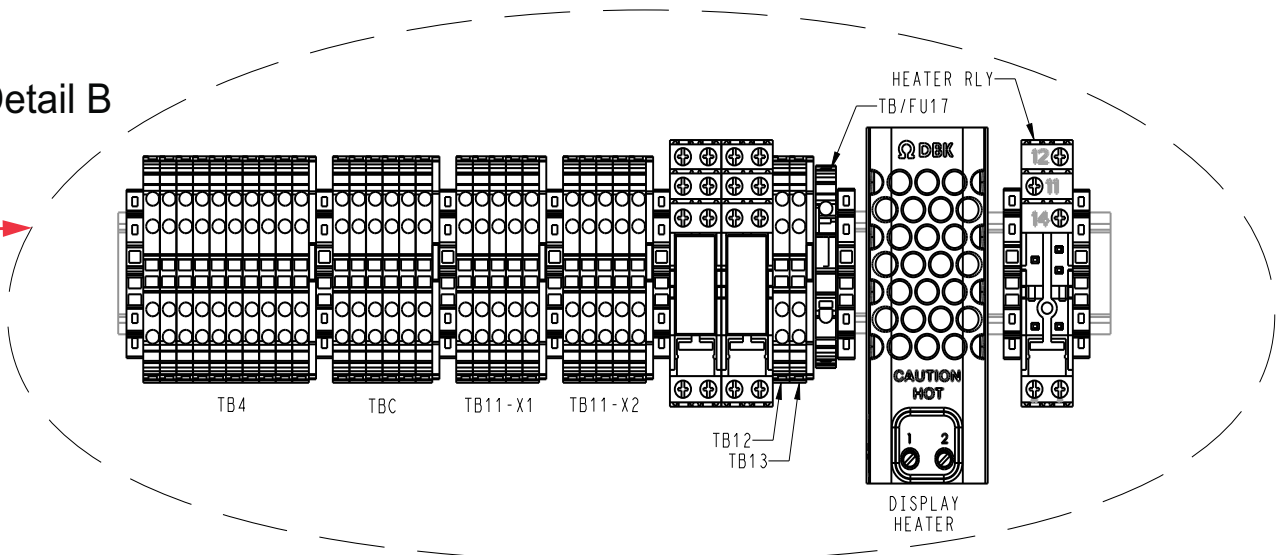


Fig. 4 — Carrier Controller Heater Location for 30XV140-325

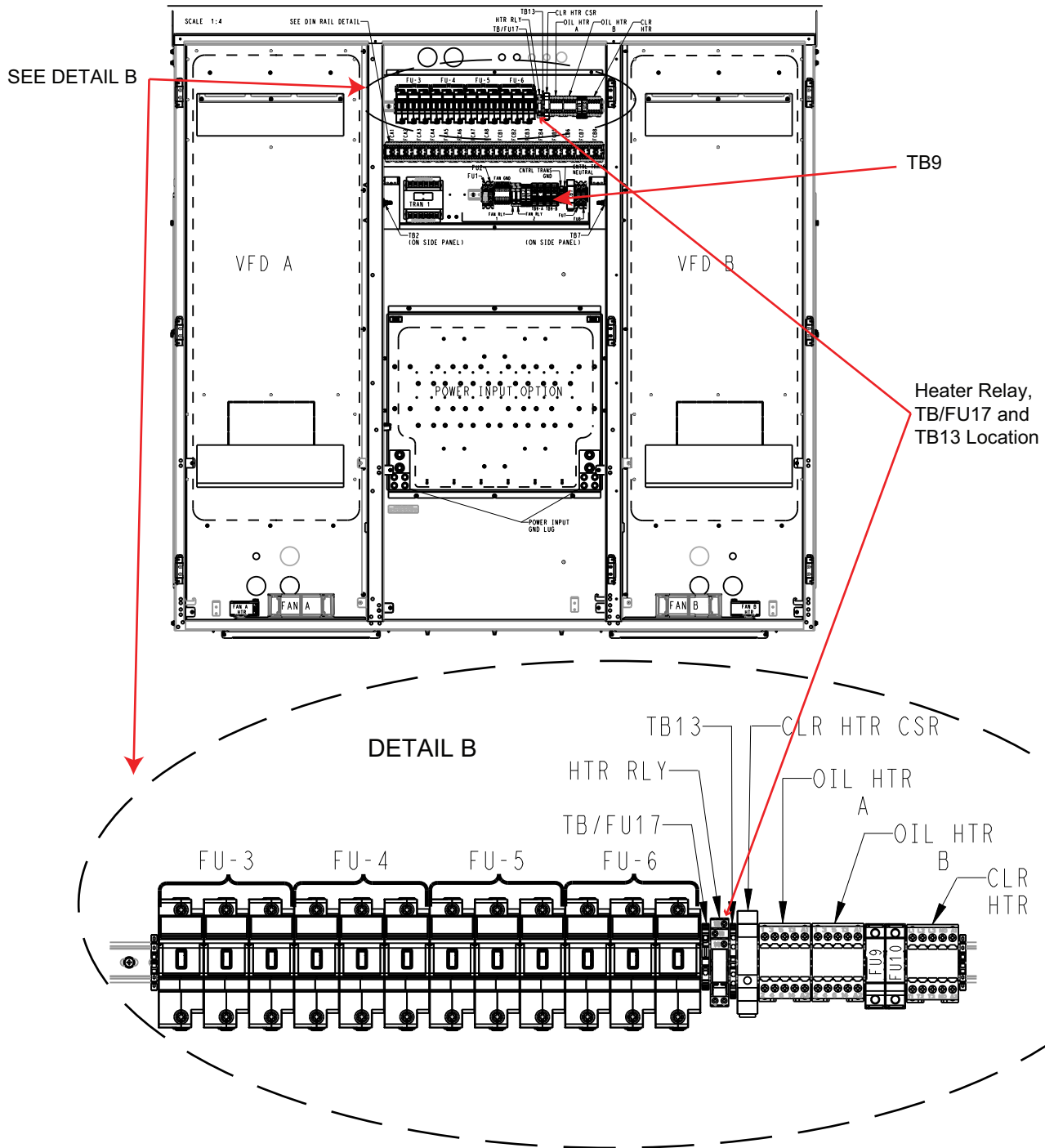


Fig. 5 — Carrier Controller Heater Relay and Fuse Installation Location for 30XV350-500

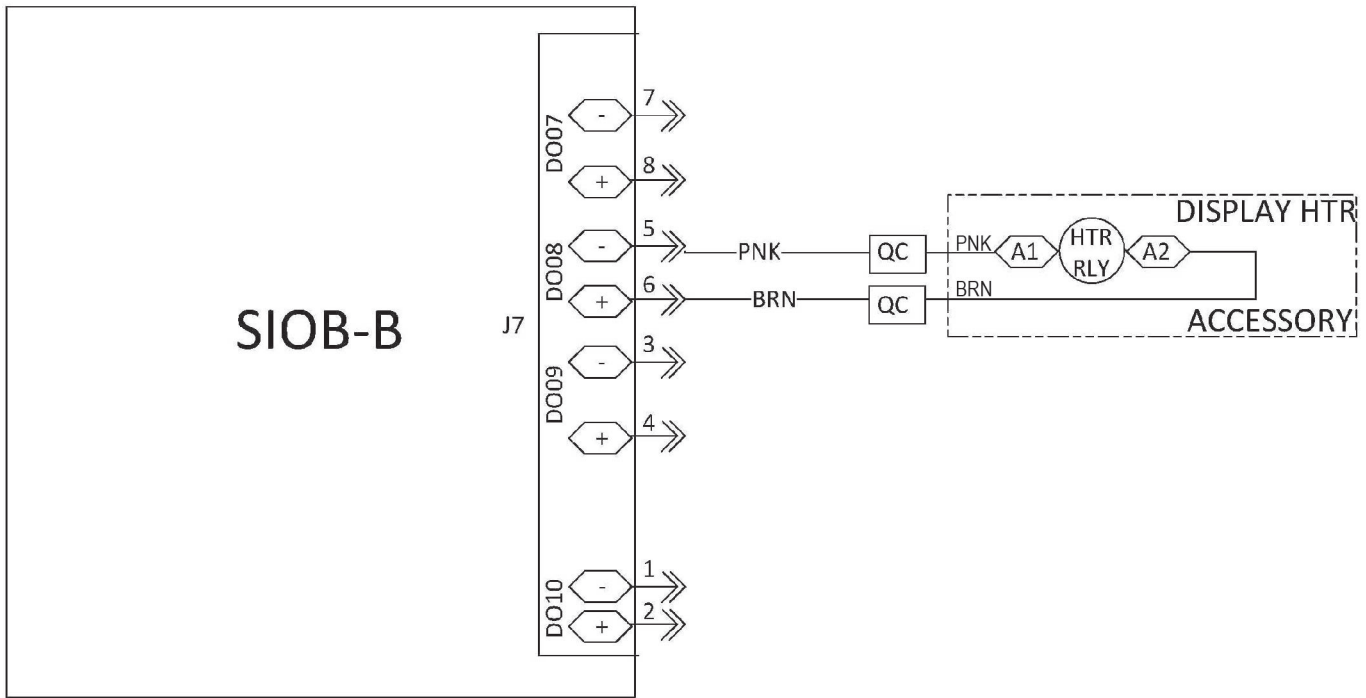


Fig. 6 — Carrier Controller Display Heater Accessory Controls Wiring Diagram

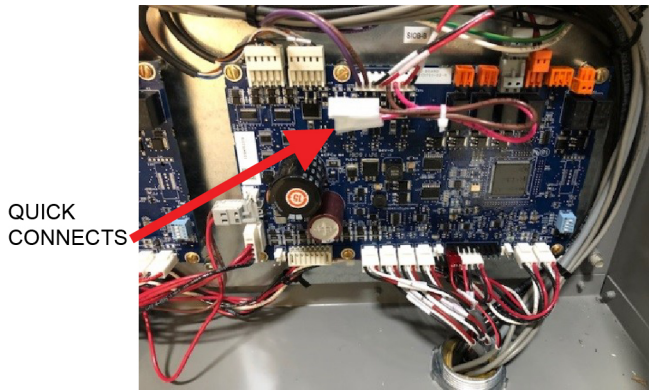


Fig. 7 — Quick Connect Location for Heater Control Wiring 30XV140-325

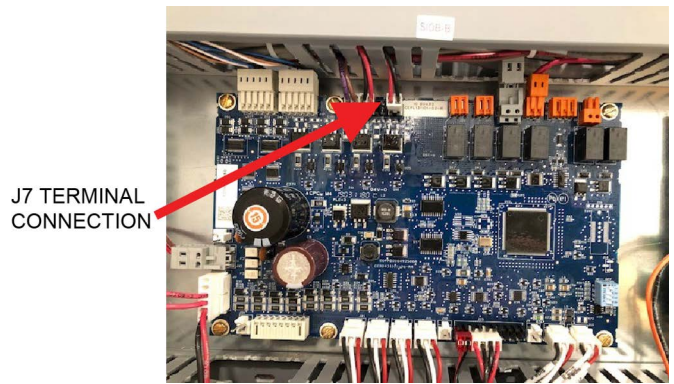


Fig. 8 — Location for Heater Control Wiring Connection 30XV350-500

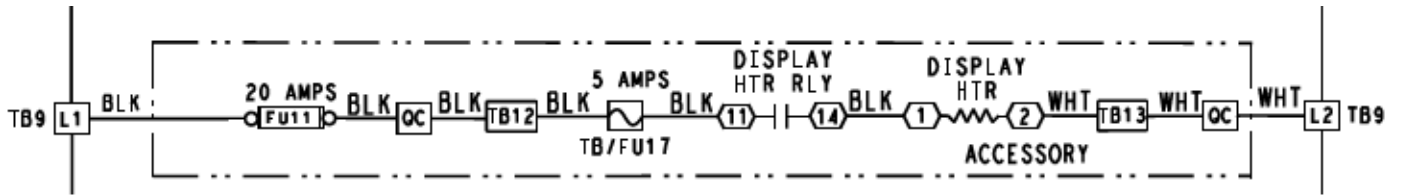


Fig. 9 — Carrier Controller Display Heater Accessory Power Wiring Diagram 30XV140-325

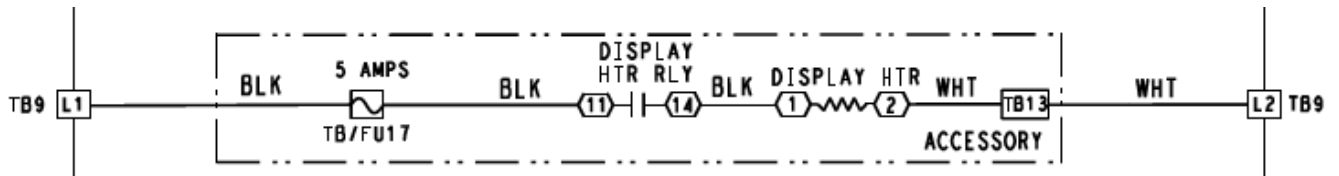


Fig. 10 — Carrier Controller Display Heater Accessory Power Wiring Diagram 30XV350-500

