

CRANKCASE HEATER KIT (FOR 7.5-12.5 Ton) MODELS DR/DB/DF/DS/DH LIGHT COMMERCIAL ROOFTOP UNITS INSTALLATION INSTRUCTIONS

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SAFETY CONSIDERATIONS

The following symbols and labels are used throughout this manual to indicate immediate or potential safety hazards. It is the owner's and installer's responsibility to read and comply with all safety information and instructions accompanying these symbols. Failure to heed safety information increases the risk of personal injury, property damage, and/or product damage.



WARNING

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE, MAINTENANCE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT.

THIS EQUIPMENT IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPACITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.

CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE EQUIPMENT.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SUPERVISION, SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER SUPERVISION, INSTALLATION, ADJUSTMENT, SERVICING, MAINTENANCE OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER SUPERVISION OR TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

DO NOT BYPASS SAFETY DEVICES.



WARNING

**HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**



ATTENTION INSTALLING PERSONNEL

As a professional installer, you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair, it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is your responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

ACCESSORY KIT NUMBERS

Part #	Ex Desc.
HECH90150230	7.5-12.5 Ton 230 V
HECH90150460	7.5-12.5 Ton 460 V
HECH90150575	7.5-12.5 Ton 575 V
HECH90150230R32	7.5-12.5 Ton 230 V R32
HECH90150460R32	7.5-12.5 Ton 460 V R32
HECH90150575R32	7.5-12.5 Ton 575 V R32

KIT CONTENTS (ALL)

Item	QTY
Crankcase Heater	2
Auxillary Switch	2
Harness Assembly (ONLY NON-R32)	1
Auxiliary Switch Jumper Comp 1 (Black)	1
Auxiliary Switch Jumper Comp 2 (Gray)	1
Screws for Ground	1
Installation Instructions	1
Tie-Elec Sm	6



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CRANKCASE HEATER KIT INSTALLATION INSTRUCTIONS

IMPORTANT: ENSURE THE MAIN POWER AND GAS SUPPLY TO THE UNIT IS OFF BEFORE ATTEMPTING ANY WIRING ON THE UNIT. BE SURE TO WEAR THE APPROPRIATE PPE FOR THE INSTALLATION OF THIS KIT. TO ASSIST WITH THE INSTALLATION OF THE KIT, REMOVE THE CONTROL BOX, BLOWER, COMPRESSOR COIL, AND COMPRESSOR COVER PANELS.

1. Install auxiliary switch (0130M00249) by sliding the switch down the side of compressor contactor 1 until the bottom of the switch is seated in the opening on the side of the contactor. Then press the top of the auxiliary switch into the side of the contactor until the clips of the switch are secured onto the side of the contactor. Refer to Figure 4 for an example of a completed auxiliary switch installation.
2. Repeat step 1 for compressor contactor 2.
3. Install the crankcase heaters on both compressors. Refer to Figure 1 for location guidelines. Use the crankcase heater adjustment screw to secure the heater to the compressor.
4. Locate the single black wire provided with the kit. Connect one end of the wire to compressor contactor 1-L1 and the other end to the normally closed terminal on auxiliary switch 1. Refer to Figure 2 for point to point wiring connections.
5. Locate the single gray wire provided with the kit. Connect one end of the wire to compressor contactor 2-L1 and the other end to the normally closed terminal on auxiliary switch 2. Refer to Figure 2 for point to point wiring connections.

NOTE: Steps 6 through 8 will differ slightly depending on what model the heaters are being installed in.

DB, DR, AND DF MODELS:

6. Before installing the crankcase heater wire harness, review the routing path illustrated in Figures 4, 5 & 6. Locate the end of the harness with the grounding ring terminal and feed it into the control box from the blower compartment. Connect the wires inside the control box as shown in Figure 2. Use the ground screw provided with the kit to secure the ground wires.
7. Route the wire harness on the raceway through the blower compartment as shown in Figure 6. Secure harness with existing clip guides.
8. Feed the end of the harness through both partition panels. Move to the compressor end of the unit and carefully reach into the condenser section and pull the wire harness down to the base pan. Secure the harness in the clip guides as shown in Figure 6.

Feed the longer red, black, and green wires through the condenser coil divider panel to compressor 1. Connect the wire harness to both crankcase heaters as shown in figure 2. Be sure to connect the correct wires to the correct crankcase heater. Use the zip ties provided with the kit to secure any excess wire and keep the wires from contacting the base pan.

DS AND DH MODELS:

6. Before installing the crankcase heater wire harness review the routing path illustrated in Figures 4 & 5. Mount the crank case heaters to the compressors as shown in Figure 1 and locate the wires coming from the heaters.
7. Feed the end of the harness from compressor 1 through the condenser coil divider panel to meet the wires from the heater mounted to compressor 2. Then feed both sets of wires up the exterior partition panel through existing clip guides, and through the grommets in both partition panels.
8. Route the wire harness on the raceway through the blower compartment. R32 units have wire harnesses separated by high and low voltage - Crankcase heater wires should be secured in the same clip guides as the main power wires for the compressors to maintain this voltage separation. Feed the end of the harness into the control box from the blower compartment. Connect the wires inside the control box as shown in Figure 3. Use the ground screw provided with the kit to secure the ground wires. Be sure to connect the correct wires to the correct auxiliary switch. Use the zip ties provided with the kit to secure any excess wire and keep the wires near the compressors from contacting the base pan or any tubing.
9. Inspect each termination again for both accuracy and to ensure no connections became loose while installing the harness. Also, verify the harness is routed as shown in Figures 4, 5 & 6.

CRANKCASE HEATER TESTING

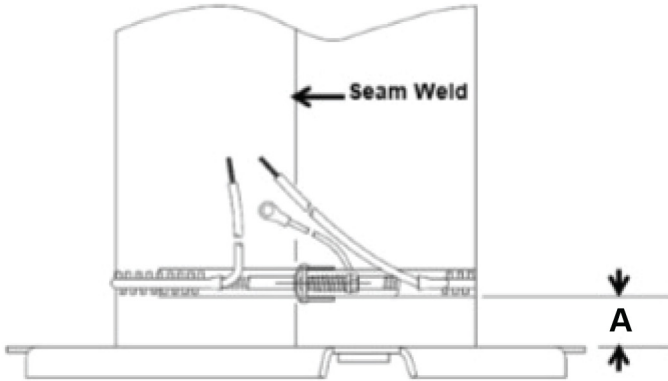
With the crankcase heater kit installed and ready for testing, perform the following:

1. Put back the panels, except for the compressor coil panel.
2. Give an all clear safety check around unit, ensure no one is standing at the compressor coil opening.
3. Set thermostat to OFF mode. (To test the crankcase heaters, the unit must be in OFF mode)
4. Energize the disconnect or power to the unit.
5. Look for any unusual operations. (Unit should be in thermostat OFF mode and should be idle)
6. Use a temperature probe to measure the temperature near the base of the compressors. (Temperature varies with ambient conditions but should be at least a few degrees warmer than the ambient temperature)

COMPLETE INSTALLATION

1. Shut off power.
2. Secure compressor coil panel.
3. Turn on power and gas supply.
4. Return the thermostat to normal mode of operation.

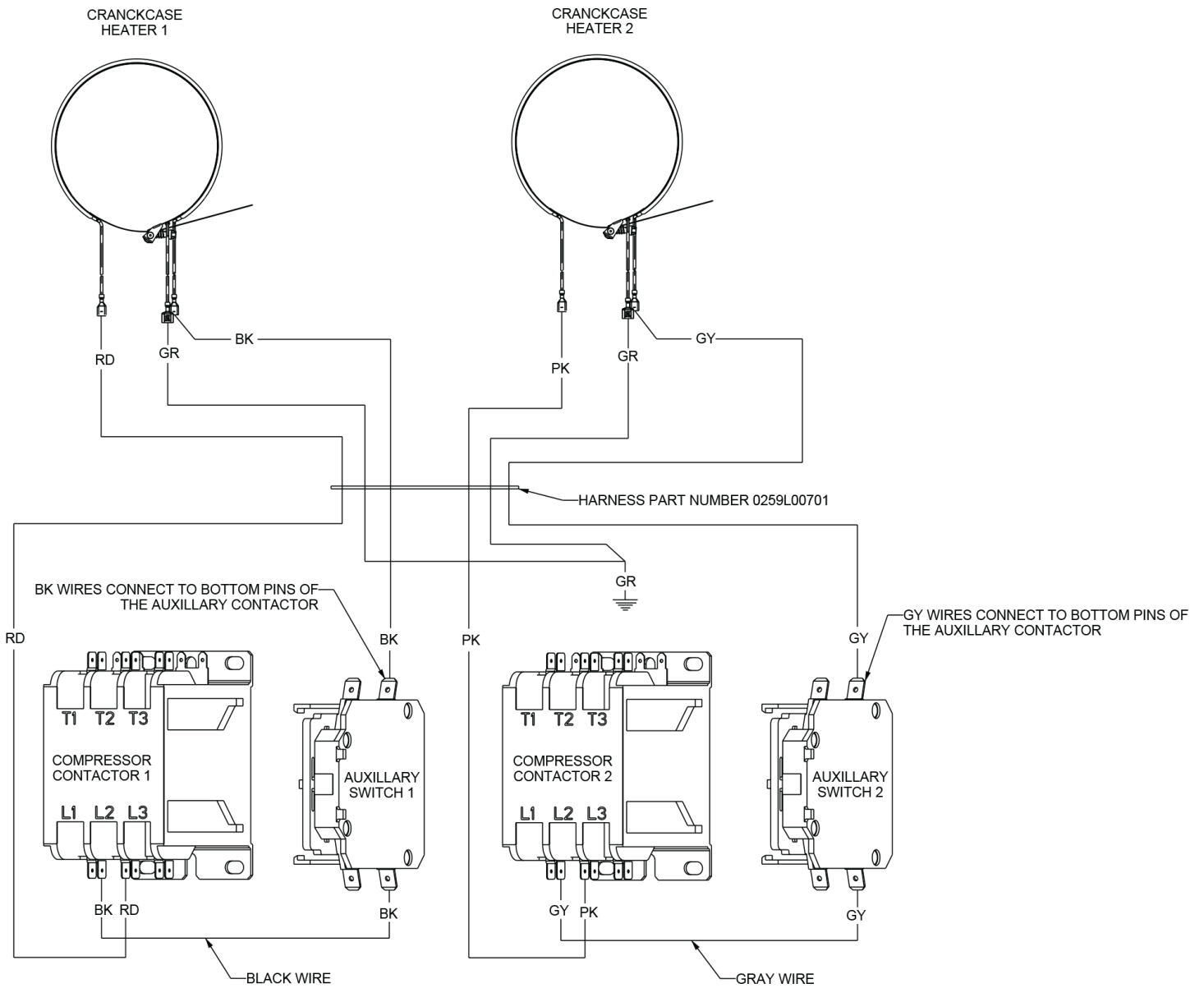
CRANKCASE HEATER LOCATION GUIDELINES



**7.5-12.5 TON COOLING & GAS HEAT
FIGURE 1**

	Vertical Distance from Compressor Base "A"	Watts
	Inch (mm)	
7.5-12.5 Ton Cooling, Gas Heat	0.2-0.47 (5.0-12.0)	40

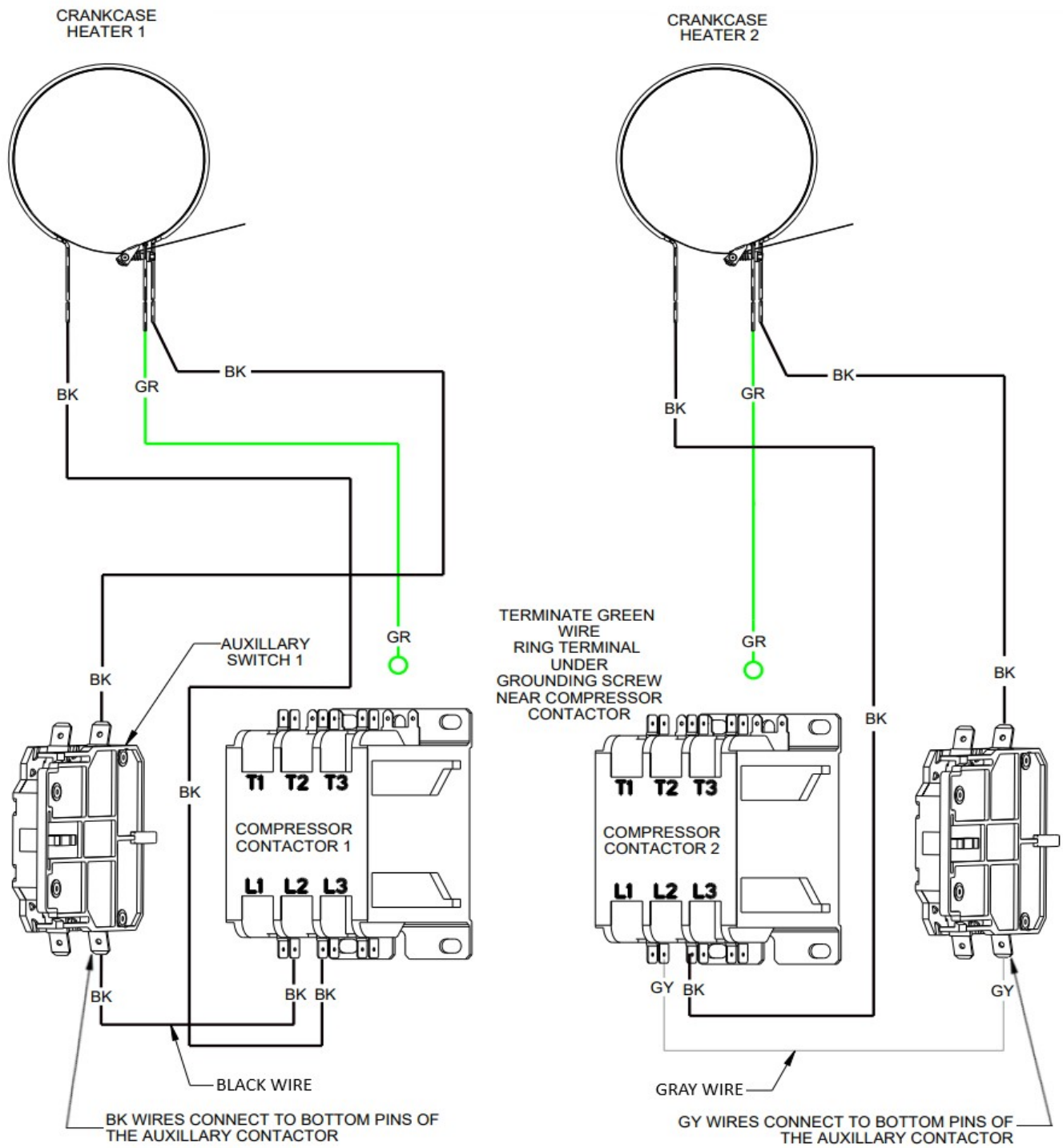
CRANKCASE HEATER WIRE HARNESS DIAGRAM AND ROUTING



**MEDIUM CHASSIS 7.5-12.5 TON DB, DR, & DF CRANKCASE HEATER INSTALLATION
FIGURE 2**

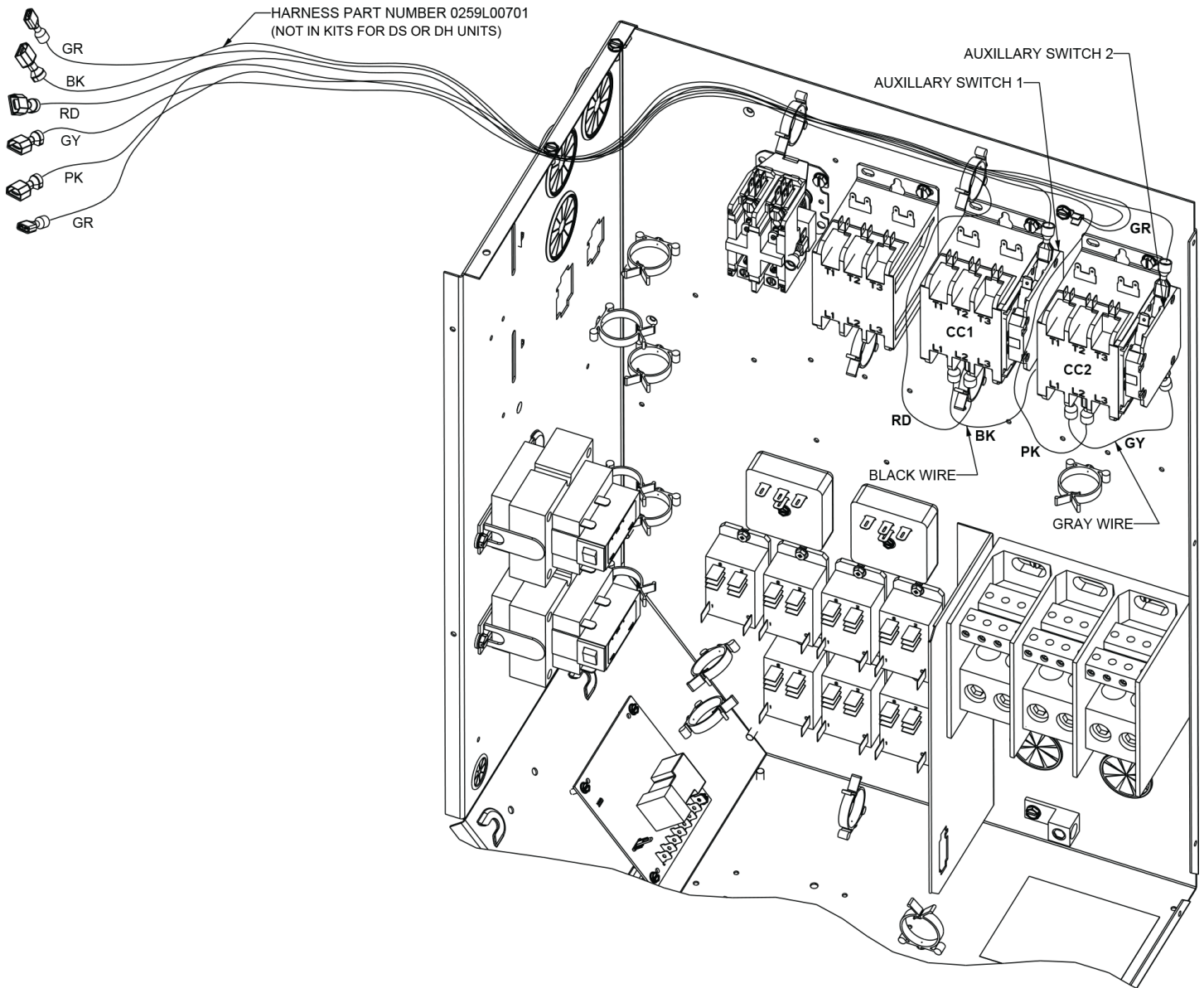
Wiring is subject to change. Always refer to the unit wiring diagram and accessory wiring diagram booklet for the most up-to-date wiring.

CRANKCASE HEATER WIRE HARNESS DIAGRAM AND ROUTING

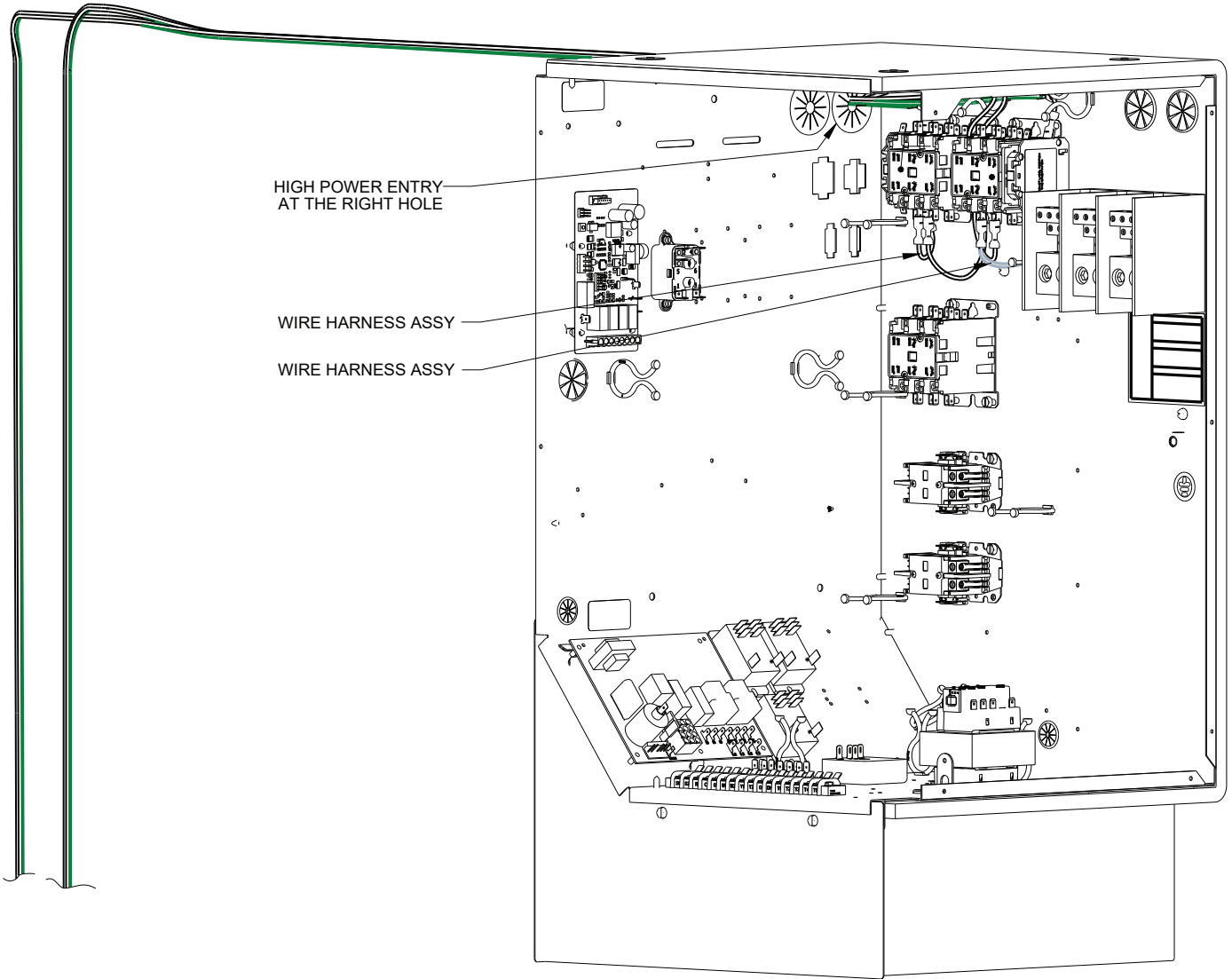


**MEDIUM CHASSIS 7.5-12.5 TON DS & DH CRANKCASE HEATER INSTALLATION
FIGURE 3**

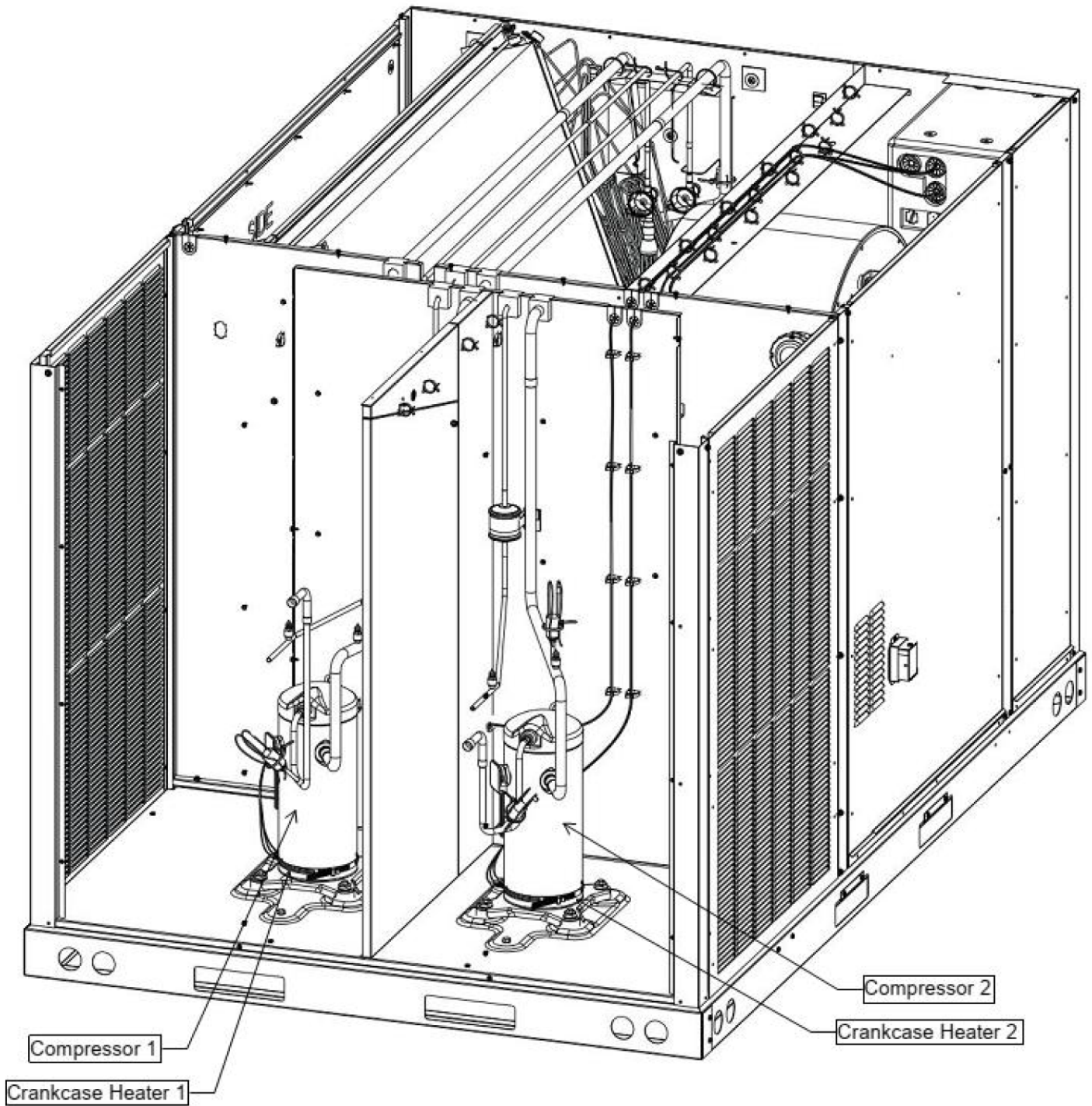
Wiring is subject to change. Always refer to the unit wiring diagram and accessory wiring diagram booklet for the most up-to-date wiring.



**CONTROL BOX WIRE ROUTING
FIGURE 4**



CONTROL BOX WIRE ROUTING - DS & DH
FIGURE 5



**BLOWER COMPARTMENT/CONDENSER SECTION WIRE ROUTING
FIGURE 6**

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CUSTOMER FEEDBACK

Daikin is very interested in all product comments.

Please fill out the feedback form on the following link:

<https://daikincomfort.com/contact-us>

You can also scan the QR code on the right to be directed to the feedback page.



NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE.

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