30GN,GT130-420
Accessory High-Ambient Kit
50/60 Hz

Installation Instructions

Part No. 30GT911056

PACKAGE CONTENTS

QUANTITY	PART NO.	ITEM
2	--HK--02ZA-350--	High-Ambient, Capacity-Control Pressure Switch
2	--EF--19ZE-024--	Unloader Solenoid Coil
1	--HT--01AW-229--	Transformer
2	50EQ-400---532--	Snubber Assembly
2	--AL--56AU-166--	No. 8, ½-in. Screw
10	--HY--89TB-013--	Wirenut
2	--HW--60EA-001--	Strain Relief
2	—	Varnish Cloth
2	—	36-in , 18-gage Wire Assembly
2	—	260-in., 18-Gage Wire Assembly

NOTES:
1. Two field-supplied unloader packages (Carrier part no. 06EA-660---138--) are also required for this installation
2. For the 30GN/GT130-210 units, the high-ambient kit supplies all of the necessary parts to modify both circuits. For all 30GN, GT230-315 modular units, one high-ambient kit is required for the "A" module only. For the 30GN/GT330-420 modular units, 2 high-ambient kits will be required (one for each module)

GENERAL

In areas where the outdoor ambient temperatures are expected to be above 115 F (46.1 C) and return fluid temperatures are expected to be above 60 F (15.5 C) this package may be required. The accessory package is equipped with 2 high-ambient, capacity-control pressure switches which close on pressure rise. Each controls an unloader solenoid coil to unload the lead compressor of each circuit to keep the machine on line at reduced capacity. The switch is set to close at 411 ± 7 psig (2833 ± 48 kPa). The switch will open when the pressure falls to 300 ± 10 psig (2068 ± 68 kPa).

INSTALLATION

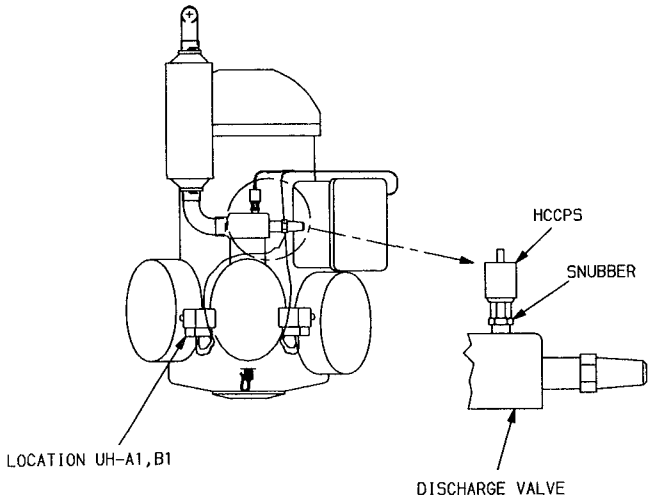
Be sure that all electrical disconnects are open and tagged before any work begins. Inspect the package for any damage during shipping, and file a claim with the shipper if damage has occurred. Install accessory high-ambient kit as follows:

1. Install one new accessory compressor unloader head on the lead compressor in each circuit as described in the instructions provided with the unloader accessory.
2. Backseat the discharge valve (see Fig. 1) of the lead compressor so that the gage port is isolated from the system.
3. Remove the ¼-in. pipe plug from the gage port of the discharge service valve.
4. Install a snubber assembly into the gage port, and install the high-ambient, capacity-control pressure switch (HCCPS) onto the snubber assembly. Make sure all connections are tight.
5. Move the service valve off of the backseated position to allow the HCCPS to read the discharge pressure. Failure to do so will result in the HCCPS not functioning.
6. Install the unloader solenoid coil (UH) on the unloader head.
7. Route the wires from the HCCPS and the UH to the compressor junction box as shown in Fig. 2. Use a strain relief (provided) to secure the wires.
8. Remove the cover to the raceways to obtain access to the compressor conduit and the unit control box.
9. Select one set of the 260-in. long wires provided in the accessory kit. Route the set of wires selected through the compressor conduit in the raceway from the control box to the compressor junction box.
10. Using wirenuts provided, connect the wires in the compressor junction box to complete a circuit with the unloader solenoid and the HCCPS included.
11. Repeat Steps 9 and 10 for the other lead compressor using the other set of wires.
12. Mount the High Ambient Transformer (Tran-HAK) on the side wall of control box, in the position shown in Fig. 3 using the screws provided.
13 Using the 36-in. wire assemblies provided, connect the primary leads of the transformer to the proper terminals for the appropriate control diagram designated in Fig. 4 or 5.
14. Connect the secondary leads to the control leads from the compressor. See Fig. 6.
15. Before installing the raceway cover and closing the control box, recheck the electrical connections to be sure they are tight.
16. Secure all access panels and raceway covers.
17. Restore power to the unit. Be sure to open the service valves of the compressors.
18. Check for refrigerant leaks.
19. Start the unit and be sure that the unit is operating properly.

SEQUENCE OF OPERATION

Once the machine is operating, if the discharge pressure is above the HCCPS setting, the HCCPS switch will close, energizing UH and unloading the compressor. The compressor will continue to run unless the high-pressure switch (HPS) opens. If the HPS opens on the lead compressor, the circuit will shut down. To reset the HPS, refer to the unit Controls and Troubleshooting literature. The HCCPS will reset once the discharge pressure drops below the reset pressure, unloading the compressor again.

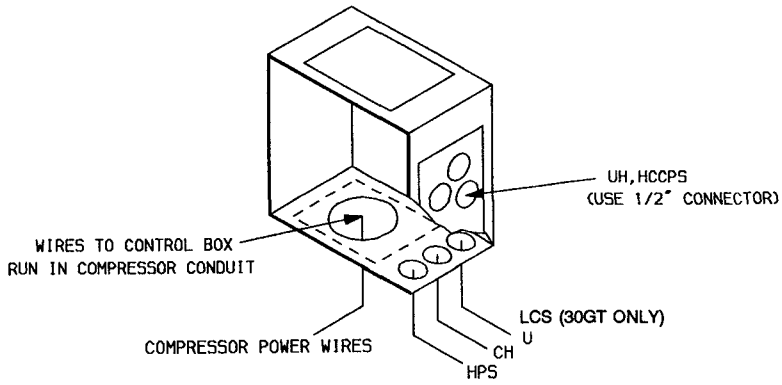
Book 2 Tab 5c PC 903 Catalog No 563-035 Printed in U S A Form 30G-14SI Pg 1 4-94 Replaces: New

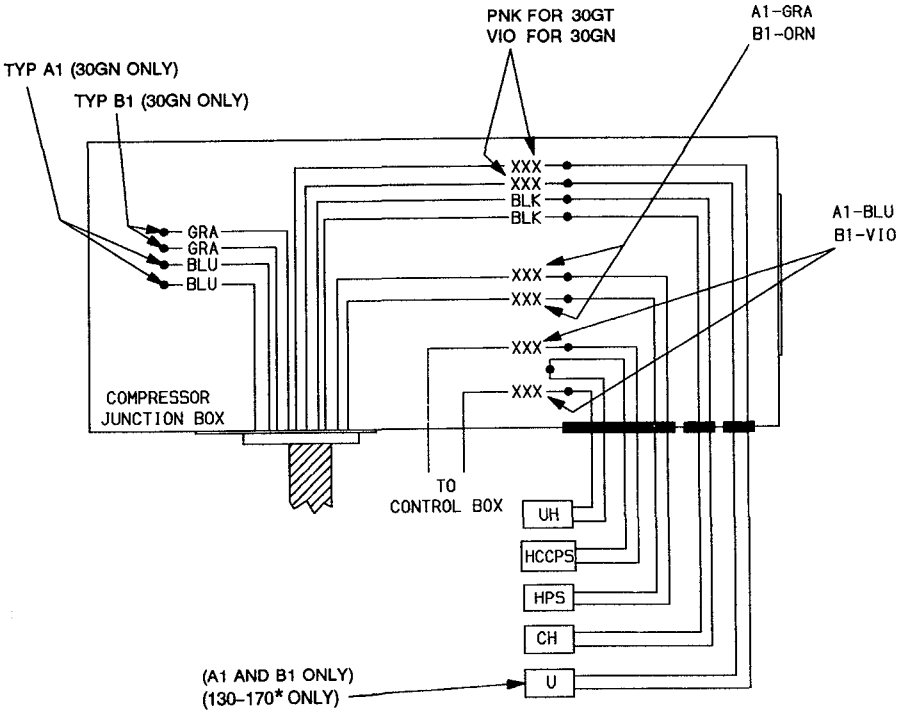


LEGEND

HCCPS — High-Ambient Capacity Control Switch
UH — Unloader Solenoid

Fig. 1 — Typical Lead Compressor Connection Details



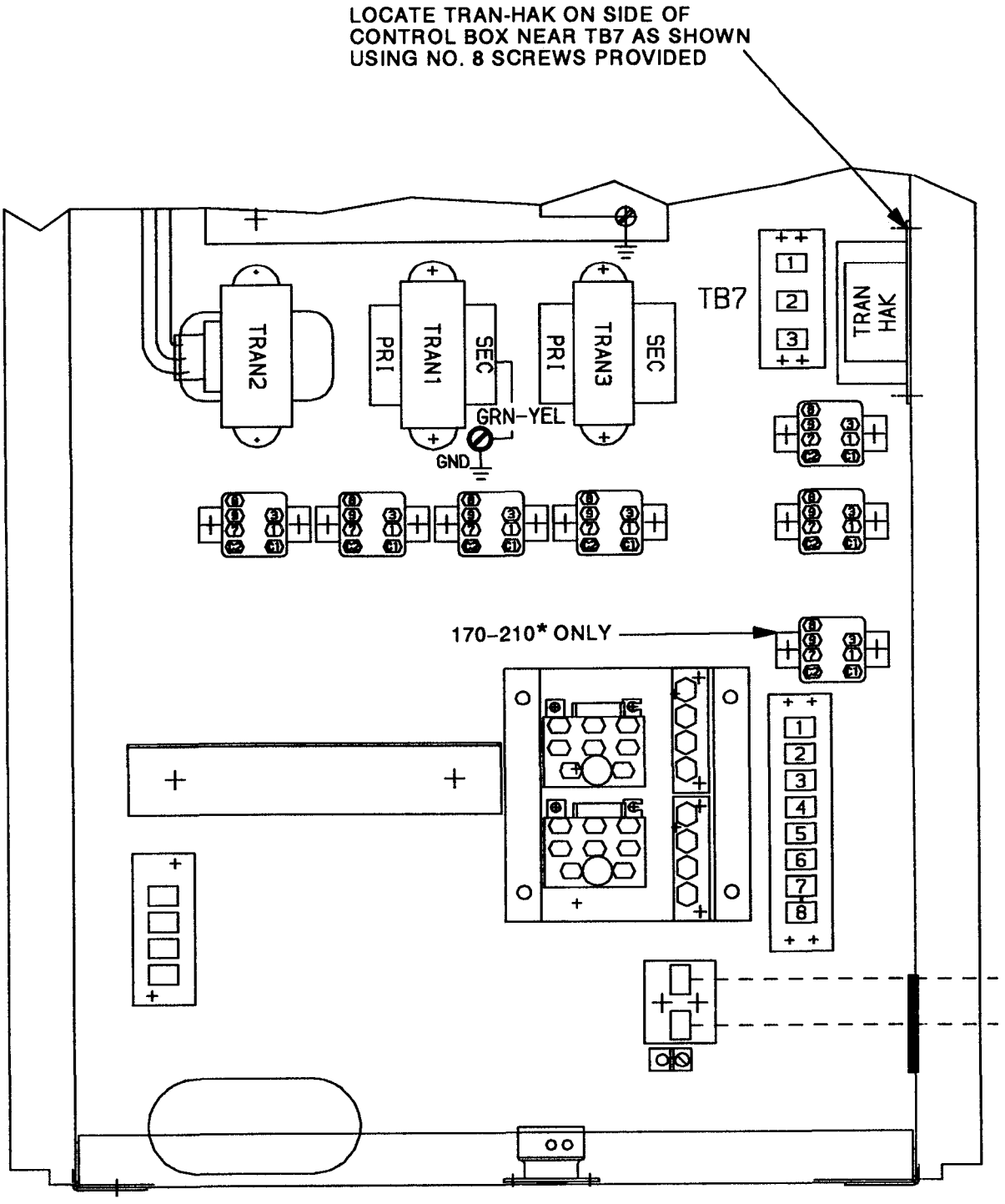


LEGEND

CH — Crankcase Heater
HCCPS — High-Ambient Capacity Control Switch
HPS — High Pressure Switch
LCS — Loss of Charge Switch
U — Unloader (Standard)
UH — Unloader Solenoid

*And associated modular units

Fig. 2 — Compressor Junction Box Connection Details

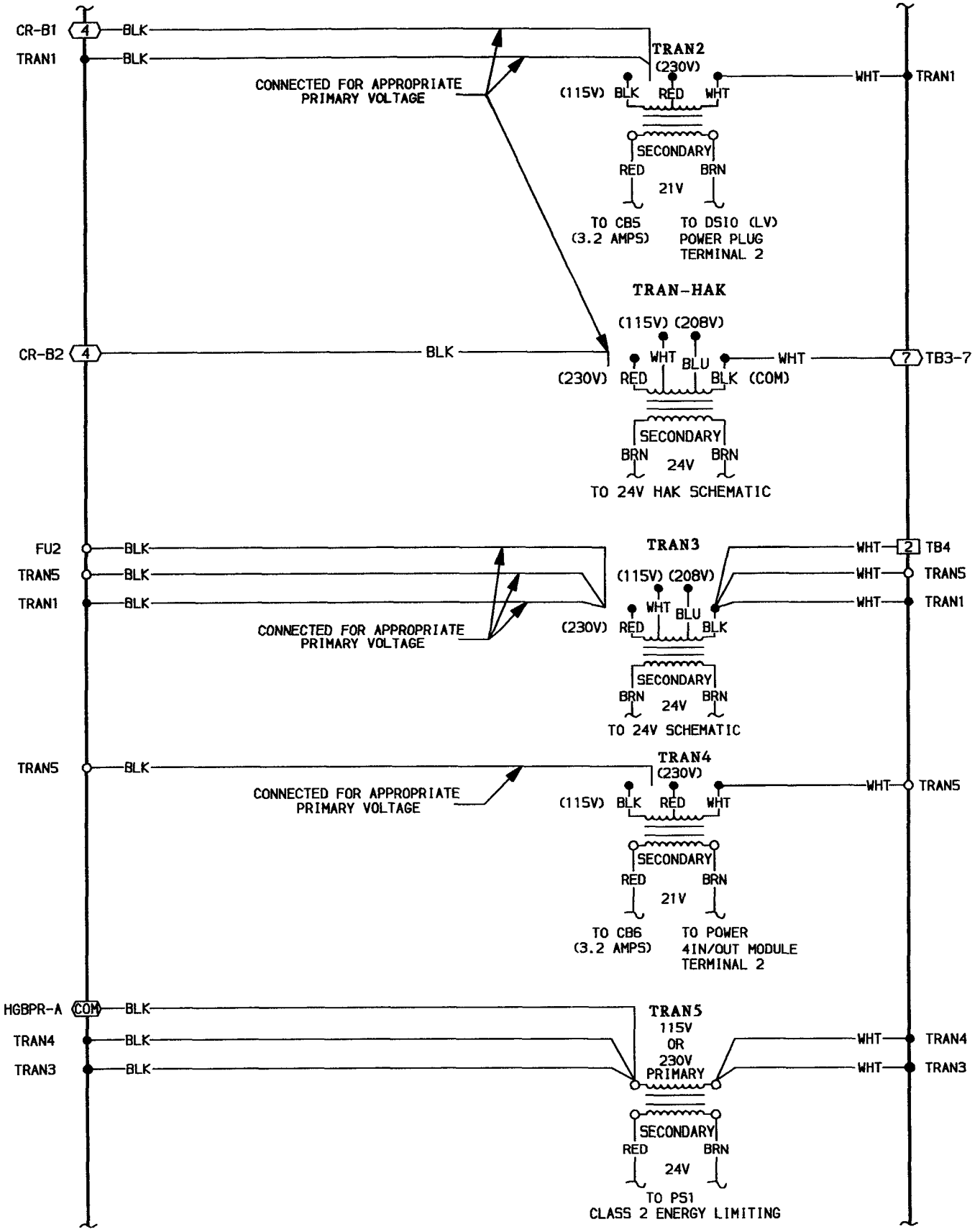


LEGEND

HAK — High-Ambient Kit
PRI — Primary
SEC — Secondary
TB — Terminal Block
TRAN — Transformer

*And associated modular units

Fig. 3 — Transformer Mounting



LEGEND

CB	— Circuit Breaker	**FU**	— Fuse	**TB**	— Terminal Block
COM	— Common	**HAK**	— High-Ambient Kit	**TRAN**	— Transformer
CR	— Control Relay	**HGBPR**	— Hot Gas Bypass Relay		
DSIO-LV	— Low-Voltage Relay Module	**PS**	— Power Source		

Fig. 4 — 30GN 115/230-V Connection

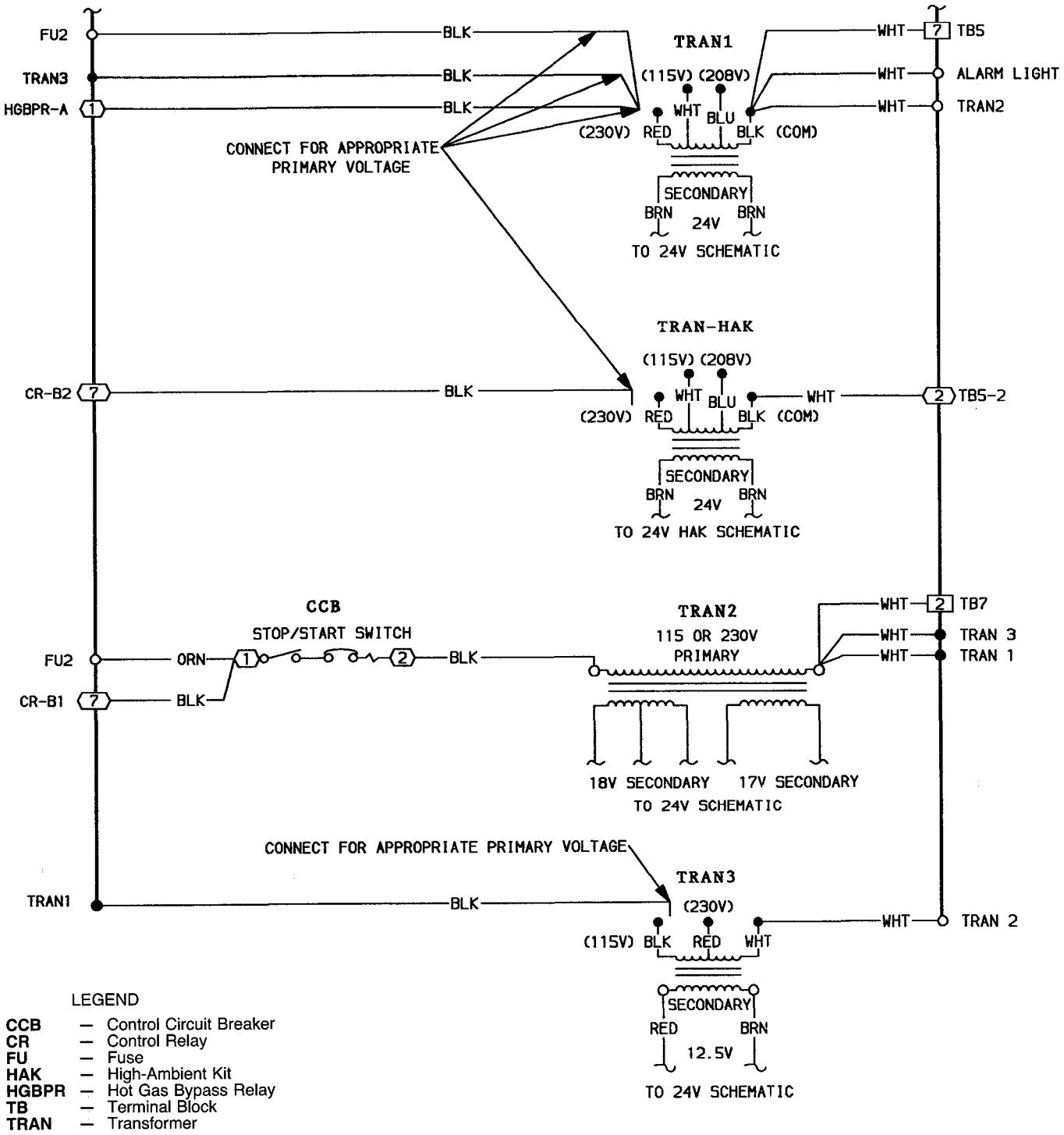
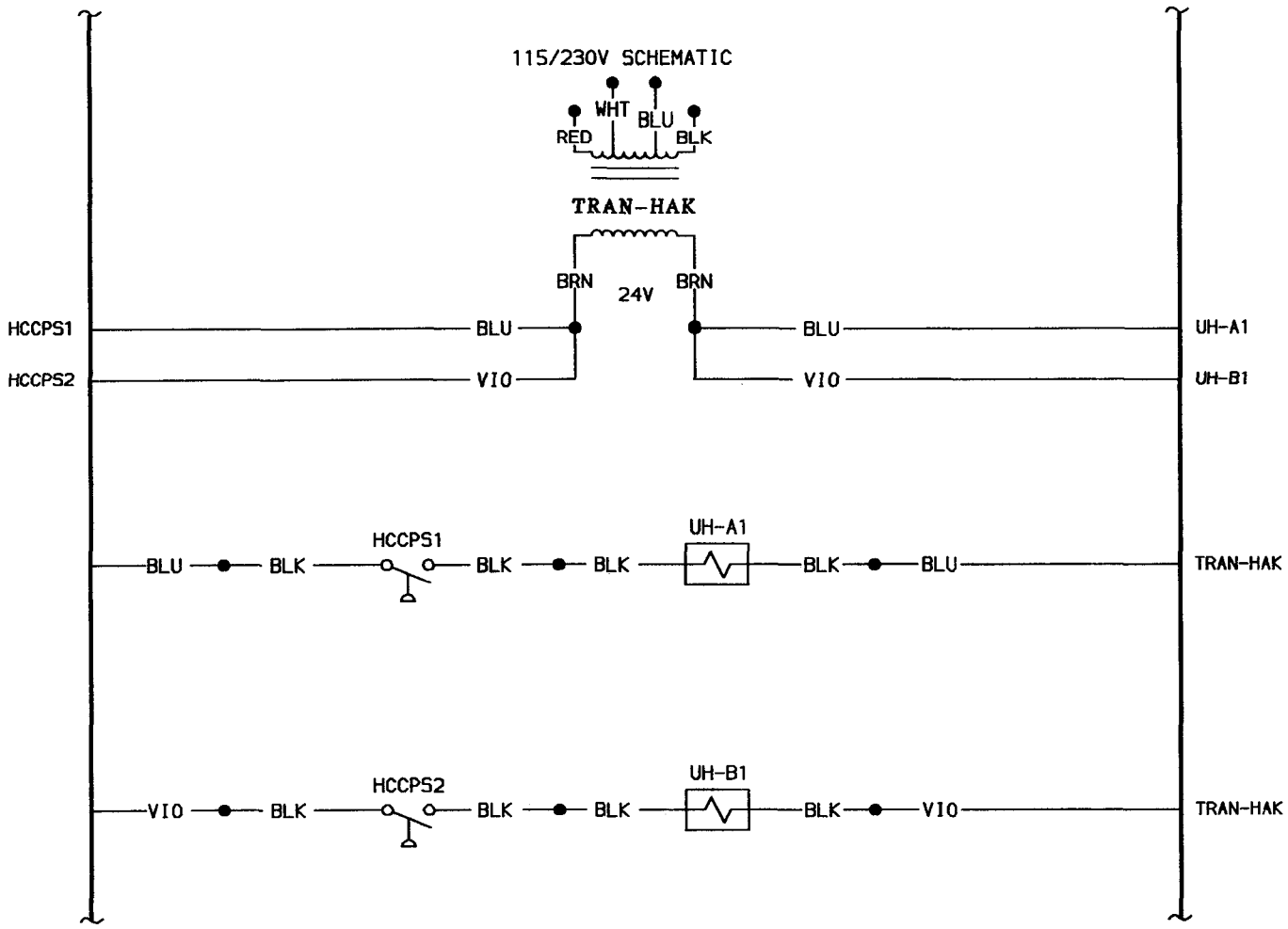


Fig. 5 — 30GT 115/230-V Connection



LEGEND

HAK — High-Ambient Kit
HCCPS — High-Ambient Capacity Control Switch
TRAN — Transformer
UH — Unloader Solenoid

Fig. 6 — 30GN,GT 24-V Connection