

**INSTALLATION INSTRUCTIONS FOR VARIABLE FREQUENCY DRIVE (VFD) REPLACEMENT
 KITS USED WITH LGH/LCH, SGC/SCC, KG/KC/KH AND TA UNITS**


WARNING

ELECTRICAL SHOCK HAZARD.

Failure to follow instructions exactly could result in serious injury or death.

VFD HOLDS A POTENTIALLY LETHAL CHARGE UP TO 10 MINUTES AFTER POWER HAS BEEN DISCONNECTED. Do not open VFD cover until 10 minutes AFTER power source has been disconnected and power lamp has turned off.

Read manual provided by VFD manufacturer. Carefully review and follow all safety warnings in that manual also.

Shipping and Packing List

Package 1 of 1 contains:

- 1- Pre-programmed VFD (A96)

Application

Kits are used to replace the variable frequency drive as shown in table 1.


WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer, service agency or the gas supplier

Installation

- 1- Disconnect all power to unit and **WAIT AT LEAST 10 MINUTES** before opening the VFD cover. See figure 1 or 2 for VFD location.


WARNING

ELECTRICAL SHOCK HAZARD.

STOP! Before you continue, make sure that power to the VFD has been off for at least 10 minutes. The capacitor in the VFD holds high voltage power for up to 10 minutes after power has been disconnected.

- 2- Open the lower cover on the VFD to access wire connections. Disconnect the wires from the terminals, making special note of the wire color and stamping that was connected to each terminal.
- 3- Remove the top two screws which secure the existing VFD to the mounting bracket. Loosen the lower two securing screws and remove the existing VFD from the controls compartment.

NOTE - It is not necessary to completely remove the two lower screws to remove the VFD.


CAUTION

Danger of sharp metallic edges. Can cause injury. Take care when servicing unit to avoid accidental contact with sharp edges.

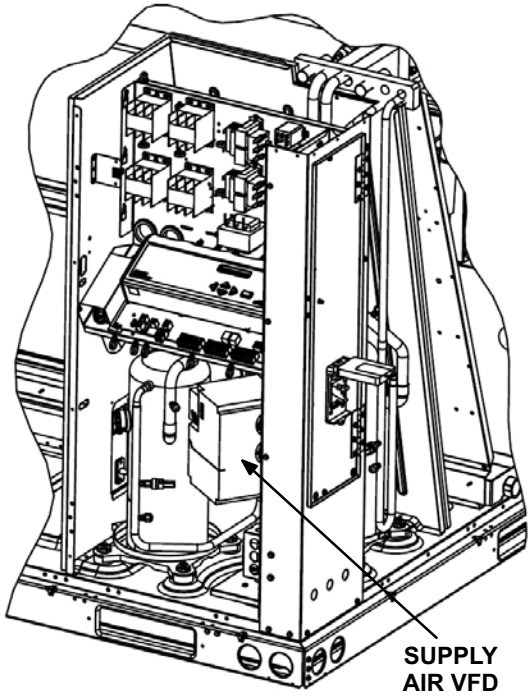
TABLE 1

Model	HP Rating	Volt-age	Kit Num-ber	Catalog Num-ber
LGH/LCH092-156 KG/KC/KH 092-150 TAA090, 120	2HP	230V	607820-01	84W30
		460V	607820-02	84W31
		575V	607820-03	84W32
LGH/LCH092-210 SGC/SCC120 KG/KC/KH 092-150 KG/ KC 180, 210 KH180 TAA090-180	3HP	230V	607820-04	84W33
		460V	607820-05	84W34
		575V	607820-06	84W35
LGH/LCH092-360 SGC/SCC240, 288 KG/KC/KH 092-150 KG/ KC 180-300 KH180, 240 TAA150-240	5HP	230V	607820-07	84W36
		460V	607820-08	84W37
		575V	607820-09	84W38
LGH/LCH180-360 SGC/SCC240, 288 KG/ KC 180-300 KH180, 240 TAA240	7.5HP	230V	607820-10	84W39
		460V	607820-11	84W40
		575V	607820-12	84W41
LGH/LCH240-360 KG/ KC 240, 300 KH 240	10HP	230V	607820-13	84W42
		460V	607820-14	84W43
		575V	607820-15	84W44

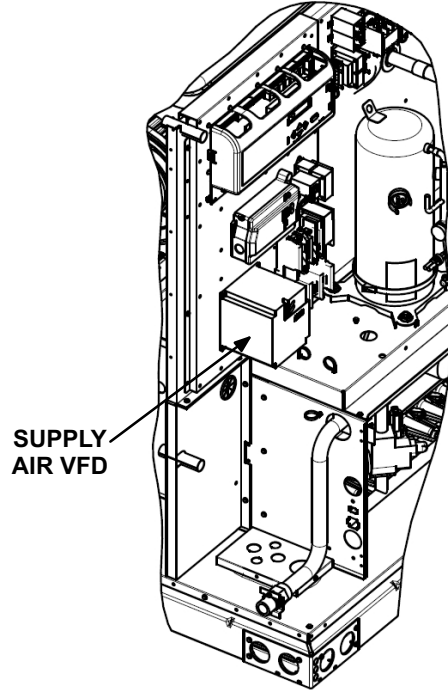


VFD LOCATION

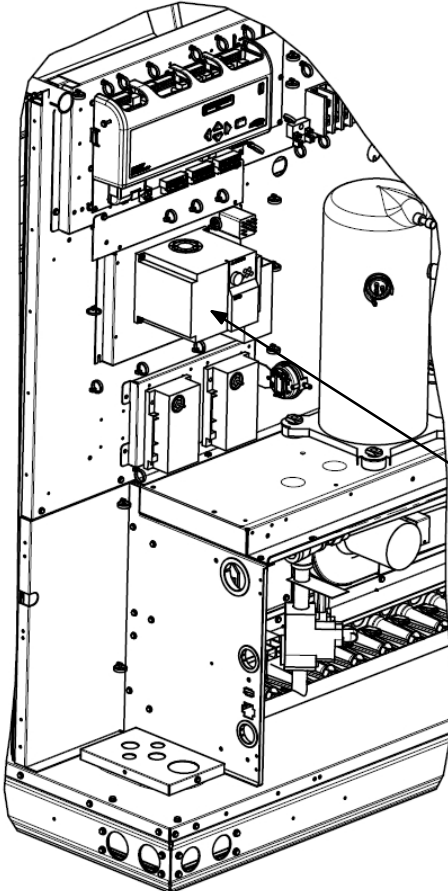
LGH/LCH092-150
KG/KC/KH 092-150



SGC/SCC120



LGH/LCH156-300S
KG/KC/KH 180-300



LGH/LCH242H-360H
SGC/SCC240 & 288

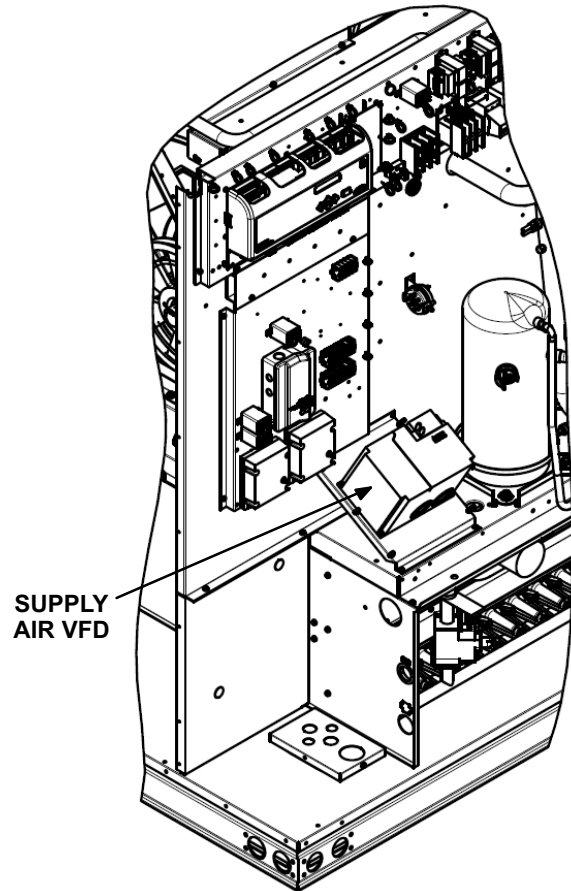


FIGURE 1

VFD LOCATION - TA SPLIT SYSTEM AIR HANDLER

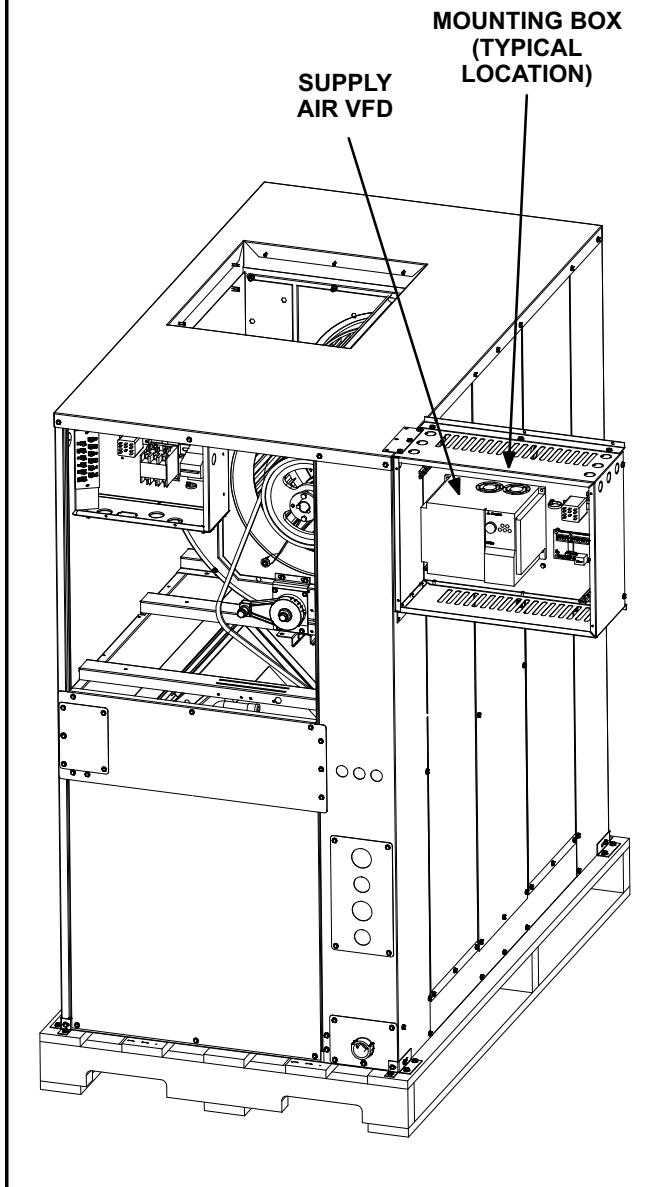


FIGURE 2

- Slide keyholes on replacement VFD over lower securing screws. Reinsert and tighten two upper screws, then tighten lower screws.

⚠ WARNING

Power wiring must be connected properly. Improperly connected power wiring may result in damage to the VFD.

- Carefully connect existing wires to the replacement VFD as illustrated in figure 3, 4, 5, 6, or 7. On units without harnesses, take care to properly connect the power wiring going into and out of the VFD.
- Close access panel and restore power to the unit.

WIRING CONNECTIONS - LGH/LCH156-300S

WARNING!

DO NOT OPEN VFD COVER UNTIL POWER TO VFD HAS BEEN OFF FOR AT LEAST 10 MINUTES. VFD CAPACITOR HOLDS DANGEROUS HIGH VOLTAGE CHARGE. FAILURE TO FOLLOW WARNINGS COULD RESULT IN SERIOUS INJURY OR DEATH.

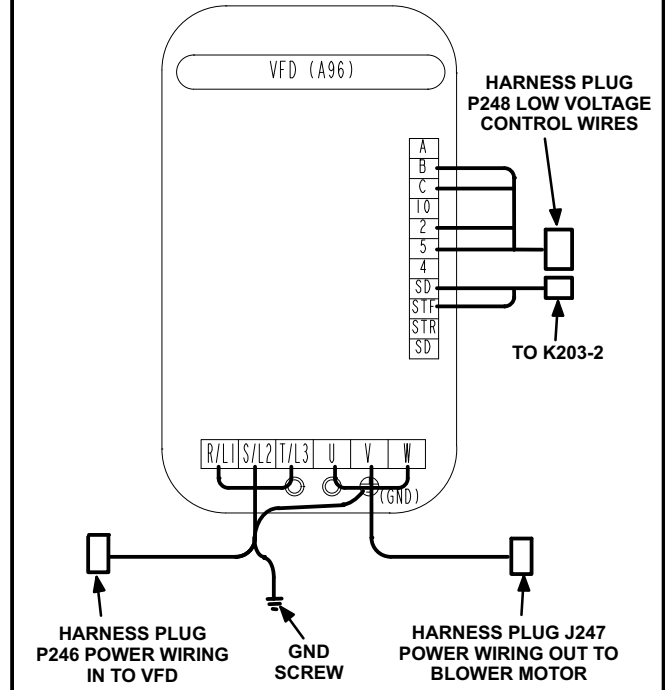


FIGURE 3

WIRING CONNECTIONS - LGH/LCH092-150 & 242H-360H; SGC/SCC120-288

WARNING!

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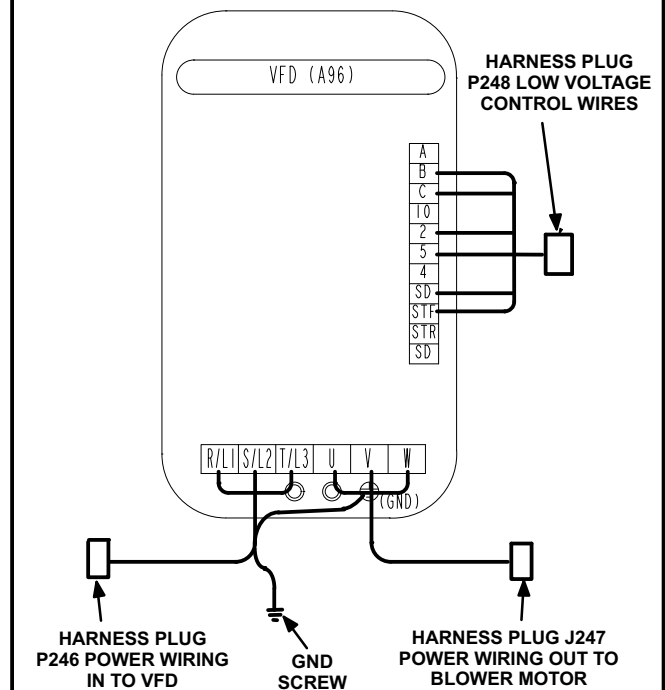


FIGURE 4

WIRING CONNECTIONS - KG/KC/KH 180-300

WARNING!

DO NOT OPEN VFD COVER UNTIL POWER TO VFD HAS BEEN OFF FOR AT LEAST 10 MINUTES. VFD CAPACITOR HOLDS DANGEROUS HIGH VOLTAGE CHARGE. FAILURE TO FOLLOW WARNINGS COULD RESULT IN SERIOUS INJURY OR DEATH.

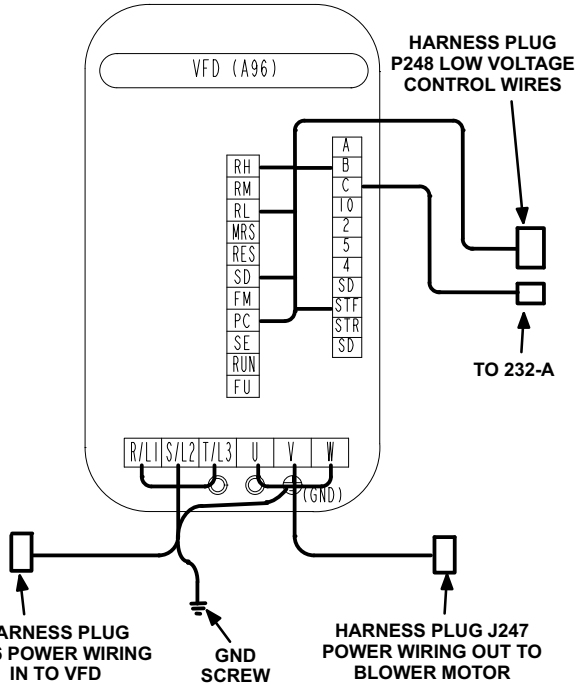


FIGURE 5

WIRING CONNECTIONS - TA UNITS

WARNING!

DO NOT OPEN VFD COVER UNTIL POWER TO VFD HAS BEEN OFF FOR AT LEAST 10 MINUTES. VFD CAPACITOR HOLDS DANGEROUS HIGH VOLTAGE CHARGE. FAILURE TO FOLLOW WARNINGS COULD RESULT IN SERIOUS INJURY OR DEATH.

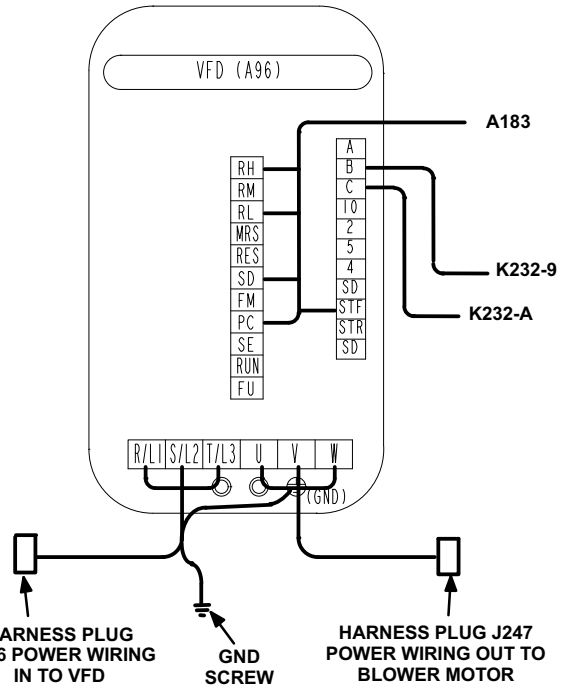


FIGURE 7

WIRING CONNECTIONS - KG/KC 092-150

WARNING!

DO NOT OPEN VFD COVER UNTIL POWER TO VFD HAS BEEN OFF FOR AT LEAST 10 MINUTES. VFD CAPACITOR HOLDS DANGEROUS HIGH VOLTAGE CHARGE. FAILURE TO FOLLOW WARNINGS COULD RESULT IN SERIOUS INJURY OR DEATH.

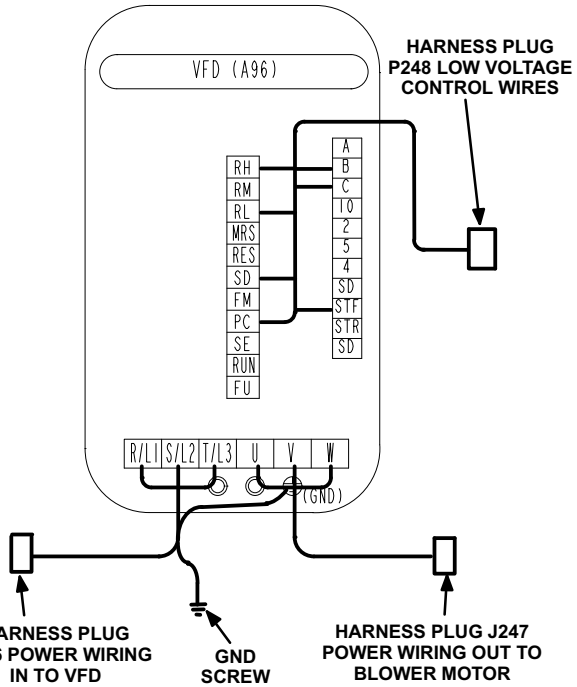


FIGURE 6

Verify Proper Operation

If the blower is not rotating in the proper direction:

- 1- Disconnect all power to the unit and open the compressor / controls compartment access panel.
- 2- Check all control wiring to the VFD. No wires should be connected to STR.
- 3- Check all power wiring to the VFD. Verify the high voltage wire connections are not crossed.
- 4- Check to ensure that wiring connections are secure.
- 5- Close access panel and restore power to unit.

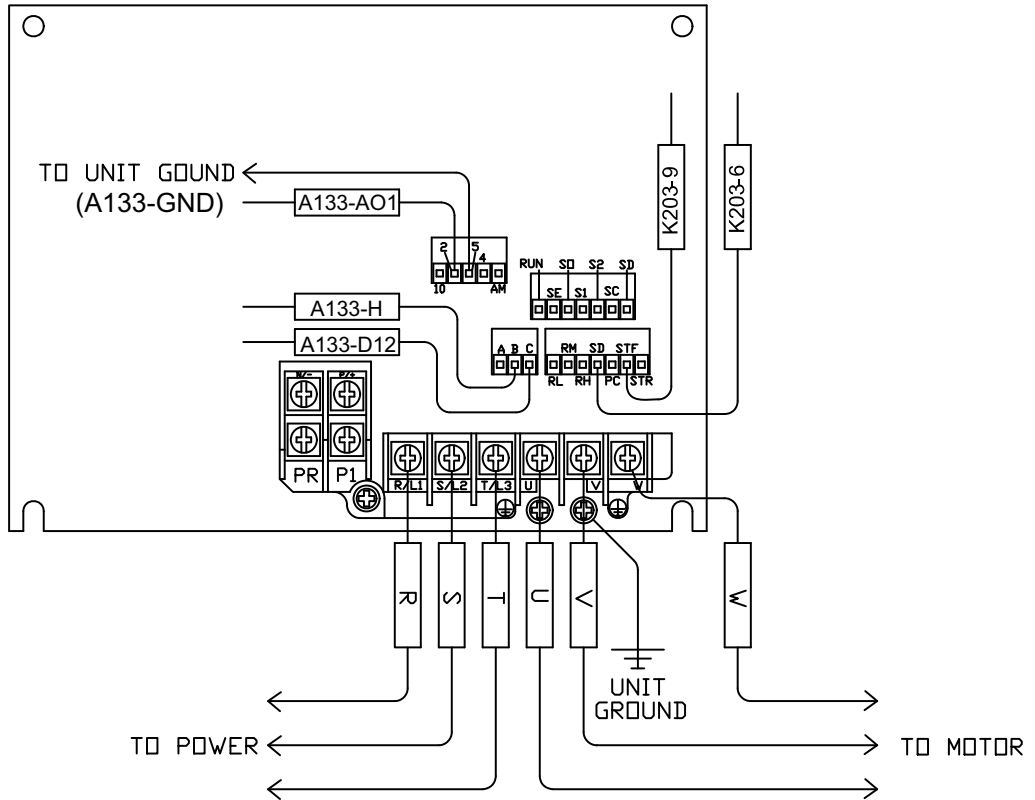
Verify proper operation of VFD:

Refer to MSAV unit start-up instructions in unit installation instructions.

Note - Operate unit in the heating mode or mode which operates at the highest blower speed. Measure amp draw to blower motor between the VFD and blower motor. Verify that the amperage does not exceed the FLA value listed on the motor nameplate.

LGH/LCH/SGC/SCC

MAIN TERMINAL CONNECTIONS 5 HP Y VOLT

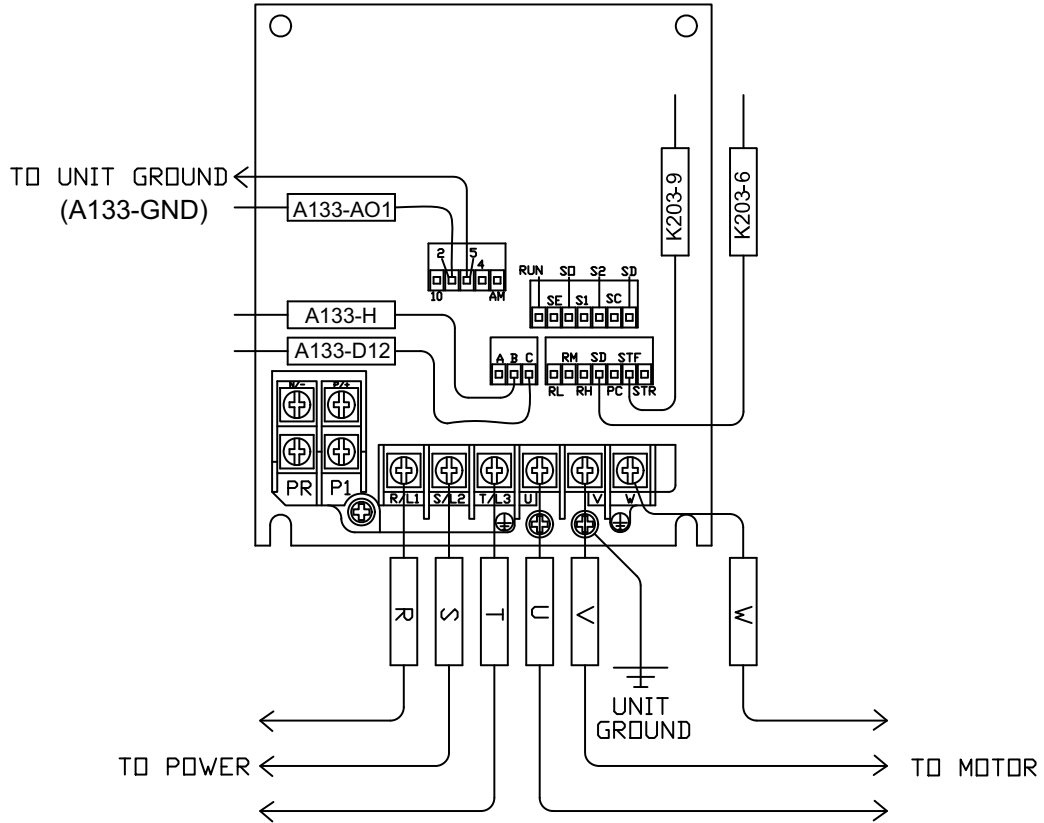


Refer to B or B3 wiring diagram section located in unit for details.

FIGURE 8

LGH/LCH/SGC/SCC

MAIN TERMINAL CONNECTIONS
 2 & 3 HP Y VOLT, 2, 3 & 5 HP G VOLT

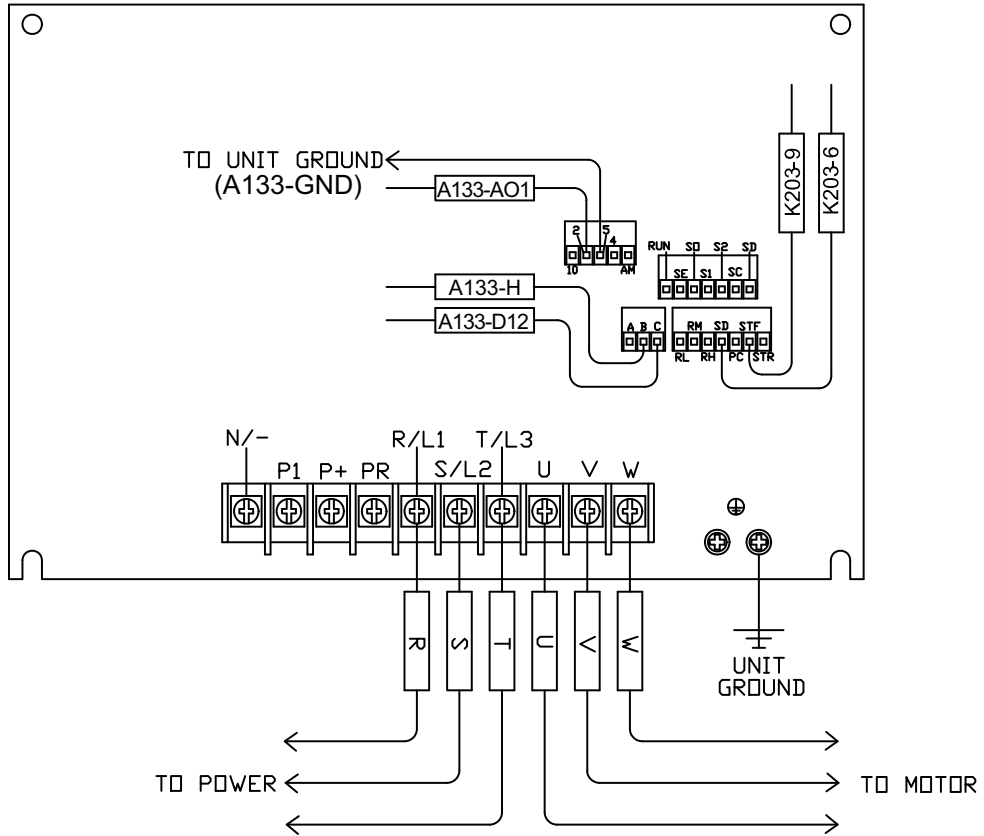


Refer to B or B3 wiring diagram section located in unit for details.

FIGURE 9

LGH/LCH/SGC/SCC

MAIN TERMINAL CONNECTIONS 7.5 & 10 HP Y & G VOLT

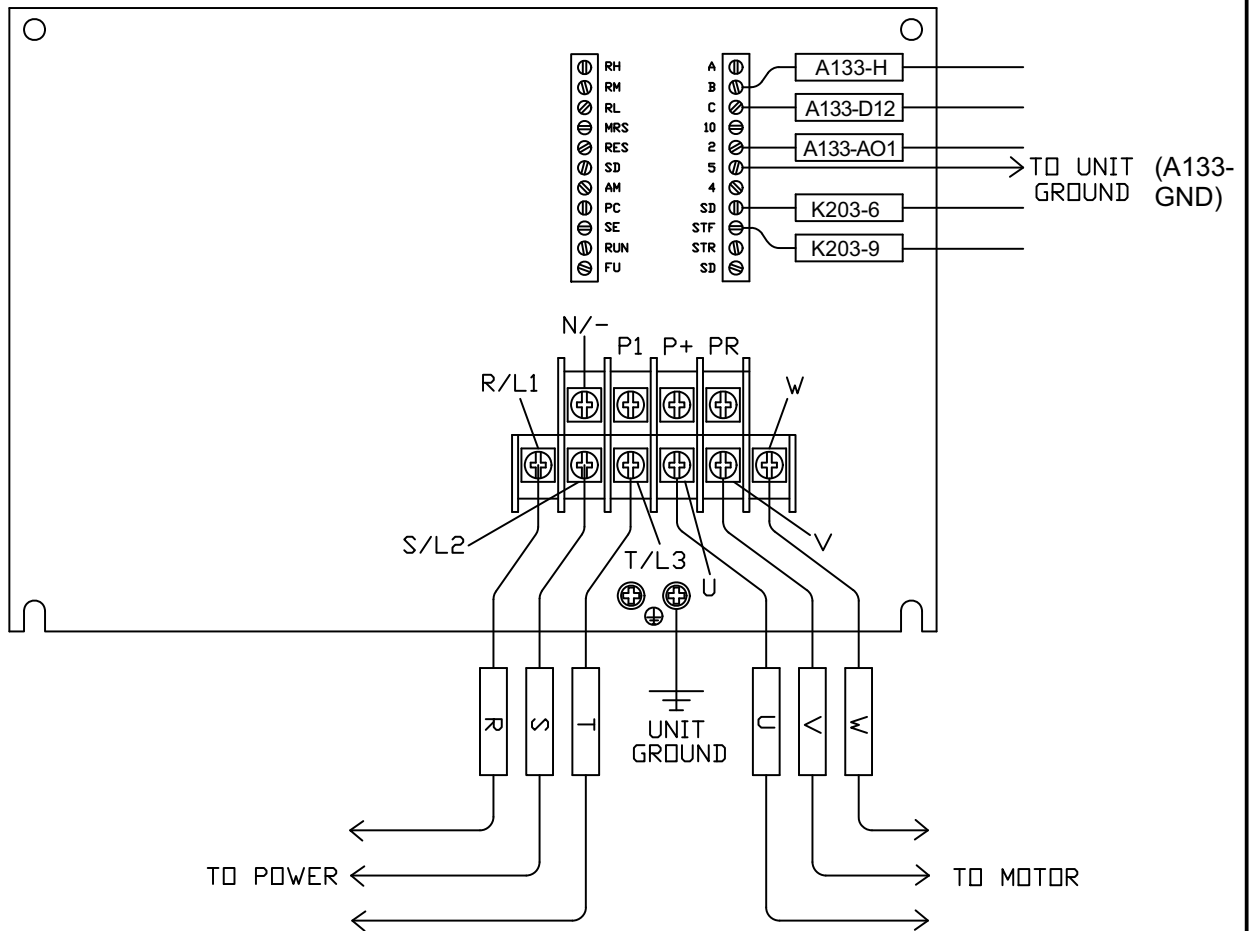


Refer to B or B3 wiring diagram section located in unit for details.

FIGURE 10

LGH/LCH/SGC/SCC

MAIN TERMINAL CONNECTIONS
2, 3, 5, 7.5, & 10 HP J VOLT

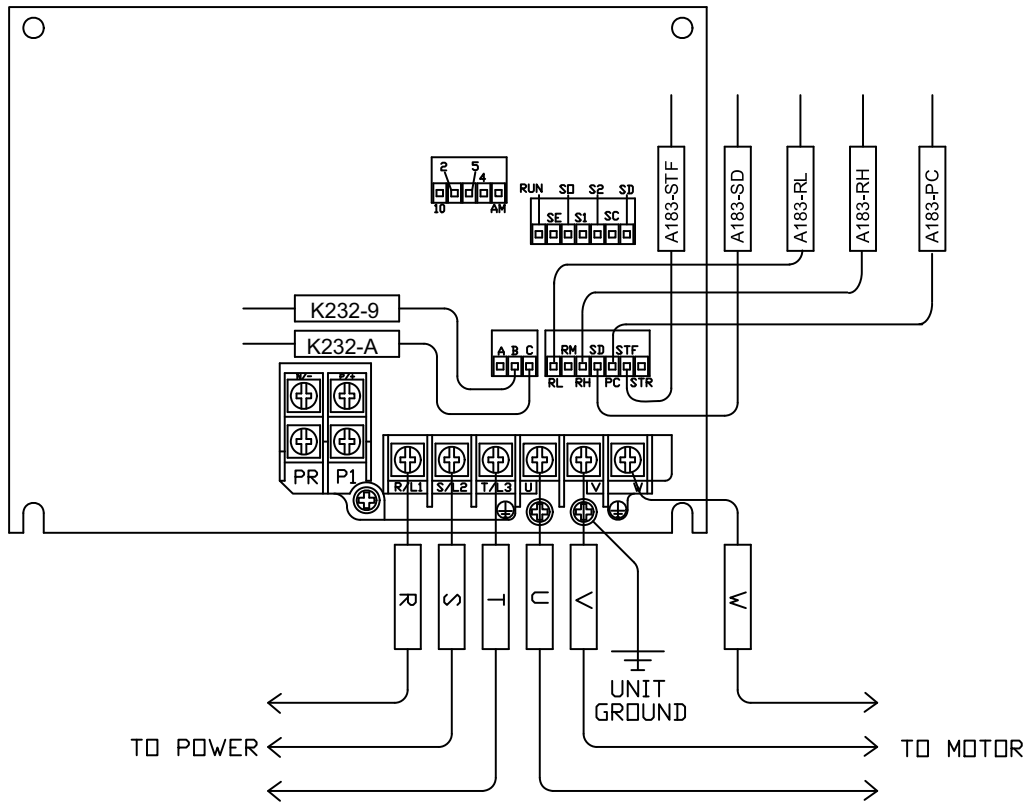


Refer to B or B3 wiring diagram section located in unit for details.

FIGURE 11

KG/KC/KH/TA

MAIN TERMINAL CONNECTIONS 5 HP Y VOLT

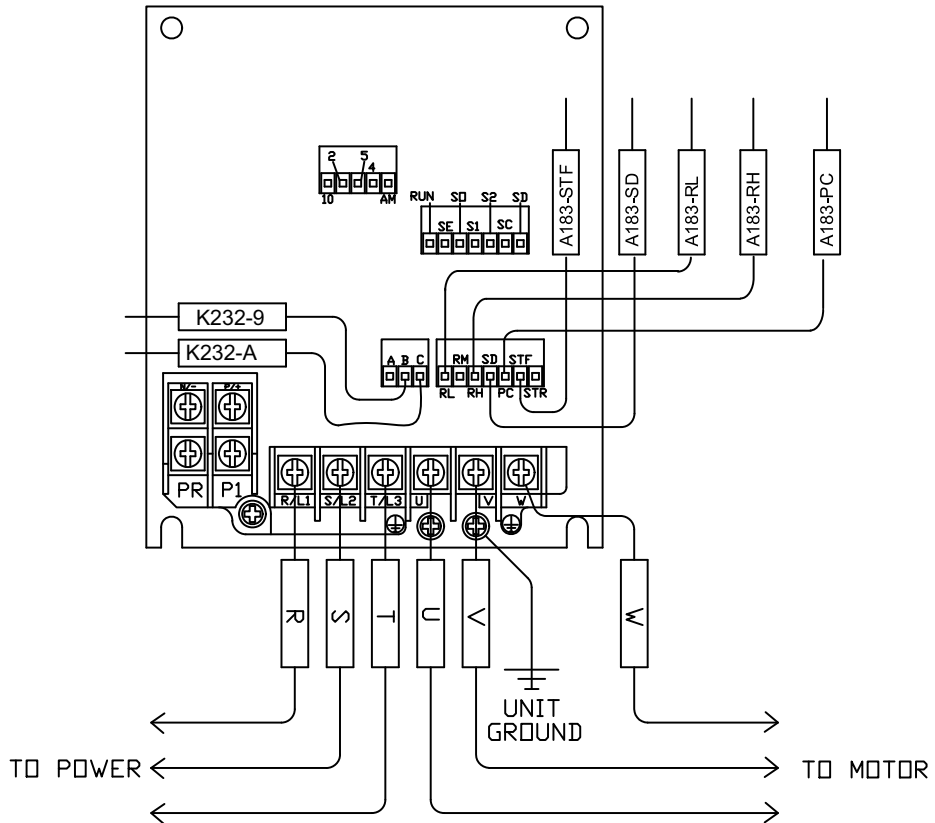


Refer to B wiring diagram section located in unit for details.

FIGURE 12

KG/KC/KH/TA

MAIN TERMINAL CONNECTIONS
 2 & 3 HP Y VOLT, 2, 3 & 5 HP G VOLT

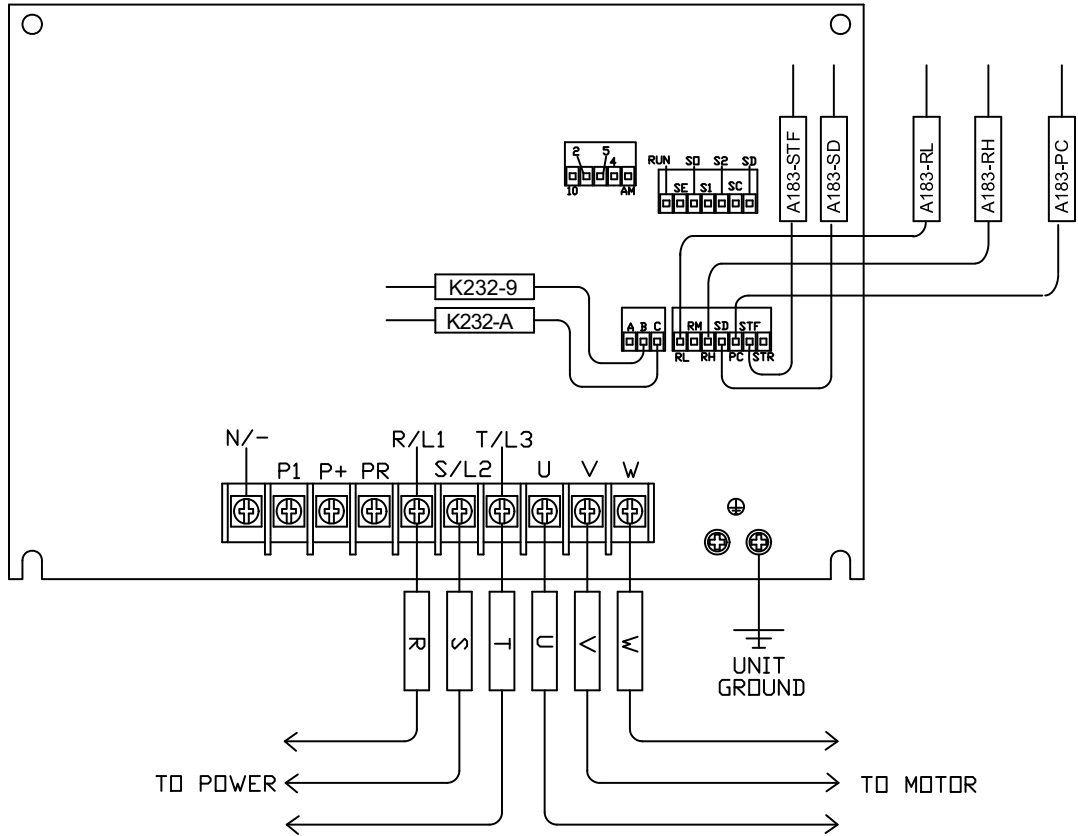


Refer to B wiring diagram section located in unit for details.

FIGURE 13

KG/KC/KH/TA

MAIN TERMINAL CONNECTIONS 7.5 & 10 HP Y & G VOLT

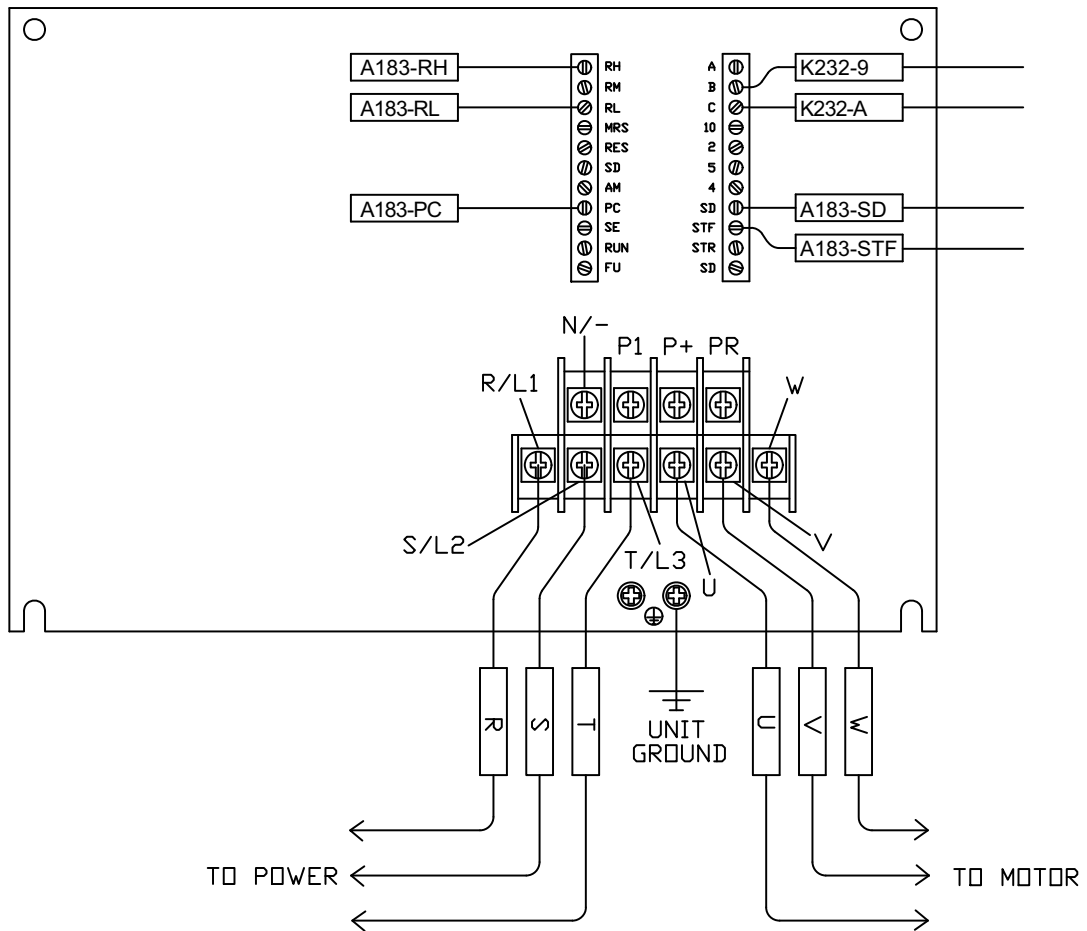


Refer to B wiring diagram section located in unit for details.

FIGURE 14

KG/KC/KH/TA

MAIN TERMINAL CONNECTIONS 2, 3, 5, 7.5, & 10 HP J VOLT



Refer to B wiring diagram section located in unit for details.

FIGURE 15