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 licensed professional HVAC installer or equivalent, service agency, or the gas supplier.

CAUTION
As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

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 – Preprogrammed VFD (A96 or A137)

Application
Kits are used to replace the variable frequency drive (VFD) in LG/LC, SG/SC, KG/KC/KH, TA/EL series units.
See table 1 for usage.

Installation
1 - Disconnect all power to the unit and WAIT AT LEAST 10 MINUTES before opening the VFD cover. See figures 1 through 4 for location.

TABLE 1

<table>
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<th>HP Rating</th>
<th>Voltage</th>
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VFD LOCATION - TA SPLIT SYSTEM AIR HANDLER

MOUNTING BOX
(TYPICAL LOCATION)

SUPPLY AIR VFD

FIGURE 1

VFD LOCATION – EL SPLIT SYSTEM AIR HANDLER

MOUNTING BOX
(TYPICAL LOCATION)

SUPPLY AIR VFD

FIGURE 2
SUPPLY AIR VARIABLE FREQUENCY DRIVE
420, 480, 540, & 600 UNITS

SUPPLY AIR VFD (A96)
OUTDOOR AIR SECTION
OPTIONAL A34
VIEW SHOWN FROM FRONT SIDE OF UNIT

FIGURE 3

POWER EXHAUST VARIABLE FREQUENCY DRIVE
420, 480, 540, & 600 UNITS

POWER EXHAUST VFD (A137)
OUTDOOR AIR SECTION
VIEW SHOWN FROM BACK SIDE OF UNIT

FIGURE 4
VFD LOCATION

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

SGC/SCC120

SUPPLY AIR VFD

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

LGH/LCH242H-360H
SGC/SCC240 & 288
Installation – continued

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. See figures 6 through 10.

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.

NOTE - If the existing VFD is model E520 or E540 it may be necessary to drill new mounting holes in the VFD mounting plate. The model number is located on the VFD nameplate.

4 - 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.

5 - Carefully connect existing wires to the replacement VFD. On units without harnesses, take care to properly connect the power wiring going into and out of the VFD.

6 - Close access panel and restore power to the unit.
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.

WIRING CONNECTIONS - LGH/LCH092-150 & 242H-360H; SGC/SCC120-288; LGH/LCH420-600

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.

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.
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. Reverse any two power wires going from the VFD to the blower motor.
3. Check all field wiring to the VFD. No wires should be connected to TB2-STR.
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 staged supply air blower 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.