Instruction Booklet **IB48080E**

Effective May 2014
Supersedes January 2014

SC9000 EP unit connection guide

Main bus connection

For units requiring main bus, connections should be made using 3/8–16 HHCS, flat washers, lock washers, and nut. Apply 18–25 lb ft torque. Bus splice plates will be shipped connected to one end of the unit split. See **Figure 1**.

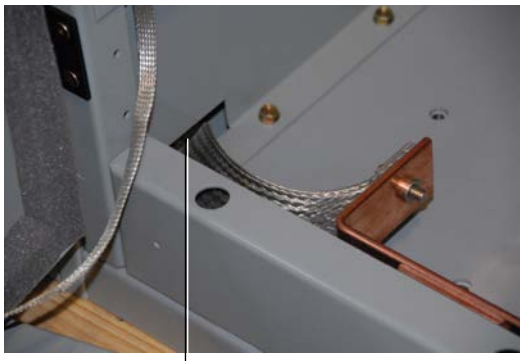
Main Bus Splice Between Unit Split

Figure 1. Main Bus Splice

Note: The boots are included only in the event that the main bus is insulated. Otherwise, the bus is not booted.

Ground bus connection

Ground bus is typically linked between units/splits using a braided flexible shunt (P/N 151B587G02). Ground bus links will be shipped connected to one end of the split. See **Figure 2** and **Figure 3**. Connections should be made using 3/8-16 HHCS with flat and lock washer. Apply 18–25 lb ft torque. In specific configurations, hard bus links may be used, but hardware and torque values will be consistent.



Shunt Passing Through Opening in Side Sheet

Figure 2. Flexible Ground Bus Link

Shunt Pre-Connected to One End of Split for Shipping

Figure 3. Flexible Ground Bus Link

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In drive-to-drive applications, the ground bus connection will generally be made through the forward most opening in the side sheet. In rear aligned drive to AMPGARD® applications, the ground bus connection will be made through the central opening of the drive, while the forward opening is blanked by a cover plate. See **Figure 4**.

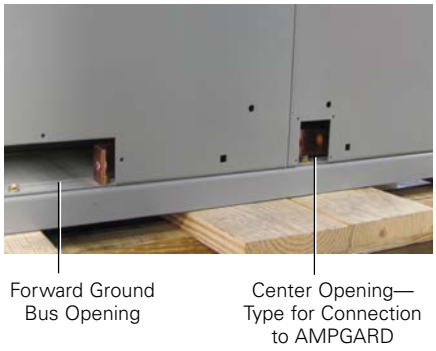

Figure 4. Ground Bus Openings

Structure connection

Drive-to-drive and shipping splits within a drive unit are directly coupled. One coupling method uses a side sheet with weld nut where the mating side sheet has a clearance hole. Other couplings use clearance holes in both mating sheets. In either case, 3/8-16 HHCS, flat washer, and lock washer are to be used and torqued to 18–25 lb ft torque. See **Figure 5**.

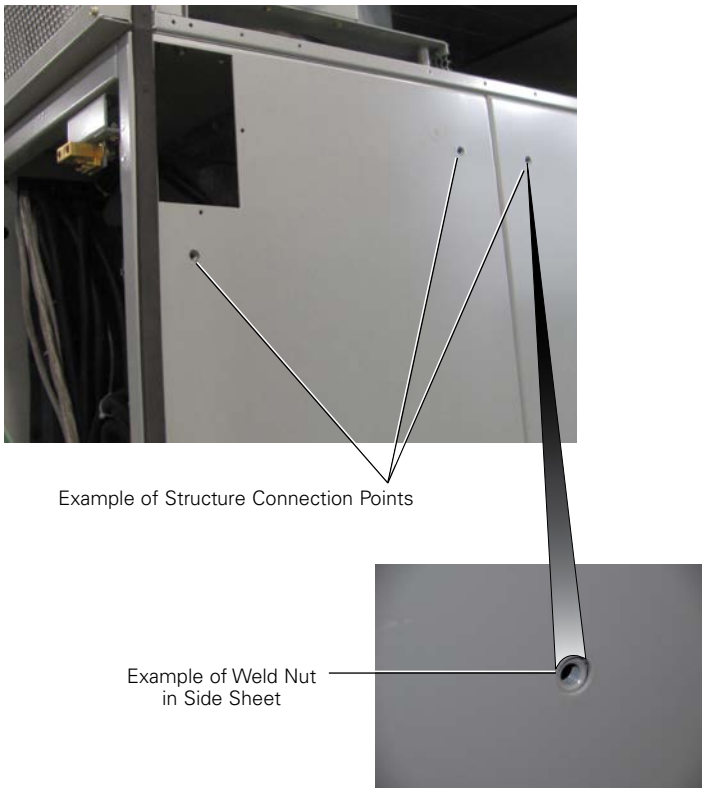

Figure 5. Structure Connection Points and Connection Detail

Drive units are secured to AMPGARD units through the use of a transition section. In these applications, Tinnerman® nuts are placed in the side sheet of the drive and the transition section is bolted to it using 3/8-16 HHCS with flat and lock washer. Tinnerman nuts (5/16-18) are also placed in the opposite flange (AMPGARD side) of the transition section. See **Figure 6** and **Figure 7**.

Figure 6. Transition Section

Figure 7. Transition Section

As shown in **Figure 8**, the AMPGARD-Drive connection is made by passing hardware through the AMPGARD side sheet into the Tinnerman nuts of the transition, and requires the use of 5/16-18 x 2 HHCS, two flat washers, lock washer, and spacer (Eaton PN 25A4184H01, .625OD x .328ID x .85LGH and torqued to 10–14 lb ft). See **Figure 9**.

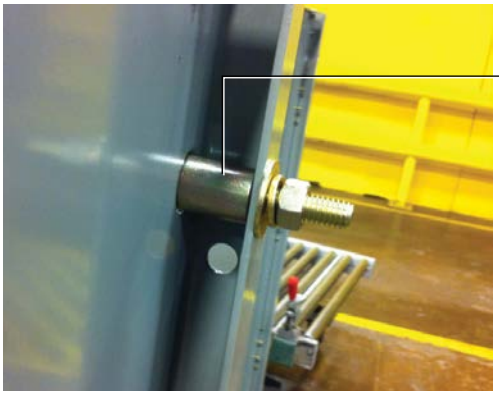

Figure 8. Transition Connection to AG

Figure 9. Hardware for Transition to AG

LV connection

LV pathways for drive-to-drive and shipping splits within a drive are located in the upper front area of the side sheet as shown in **Figure 10**. Within the drive, LV cables are routed along the top front of the cabinet (**Figure 11**) and in some cases are nested in wireways (**Figure 12**).

Figure 10. LV Pathway Between Splits

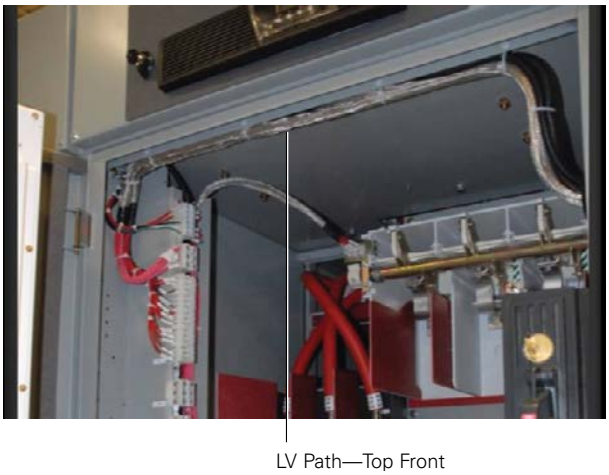

Figure 11. LV Pathway

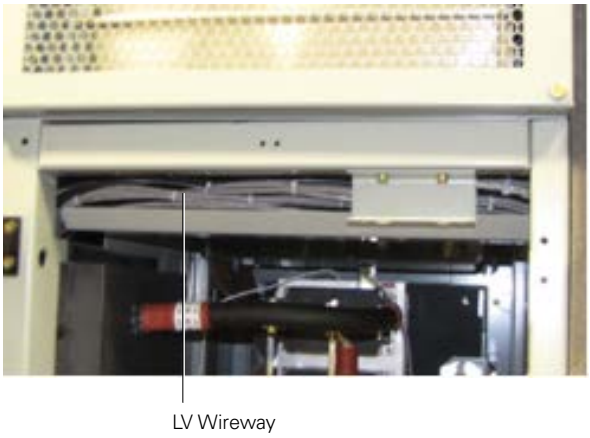

Figure 12. LV Wireway

LV pathways between drives and AMPGARD are most often located in the center of the drive side sheet as shown in **Figure 10**. In each case, pull apart terminal blocks are the general method of providing breaks between units. See **Figure 13**.

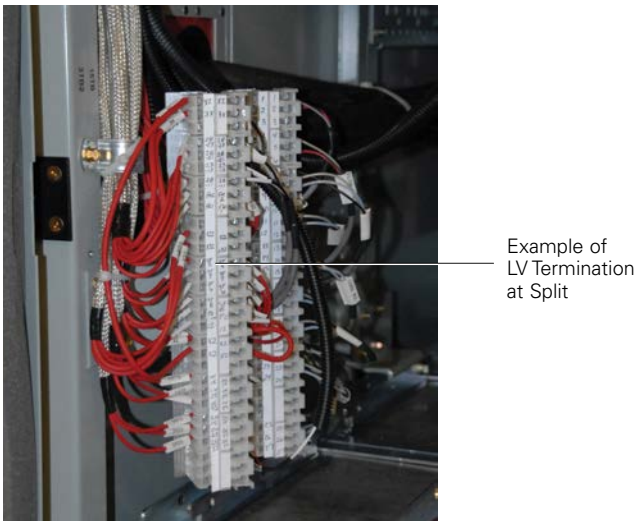

Figure 13. LV Termination at Split

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Printed in USA
Publication No. IB48080E / Z15306
May 2014

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