BULLETIN

Carlyle

CARLYLE COMPRESSOR DIVISION

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☒ **PRODUCT** ☐ **GENERAL** ☐ **SERVICE & PARTS**

Date: 13 February, 2003 Number: 03T-1 Issued By: P. Tollar

Subject: ***Update 06E & 06T Terminal Wiring Instructions***

Product Name **06E & 06T**

DESCRIPTION

This bulletin is updating the terminal wiring instructions to all 06E, 06CC (E-body) semi-hermetic and 06T screw compressors. This bulletin is meant to clarify OEM bulletins #113 (dated 4/4/88) and 98T-1 (dated 3/25/98) that included our prior wiring instructions. We have also increased the recommended torque of the jam #3 used to tighten the field power wires.

The purpose of this change is to ensure the power wiring is secure in the field. Our 98T-1 Bulletin recommended up to 12 ft-lbs torque to tighten the power wiring (jam nut #3). We are now increasing this torque up to **18 ft-lbs max** and dropping our requirement of adding loctite to the #3 jam nut. This increase in allowable torque is based on the following limitations:

- Allowed on any terminals where a jumper bar is used over jam nut #2 (See figures 1 thru 7 attached). This allows the increased torque to any across-the-line wiring arrangements shown in attached figures 3 & 4 on all current and older compressors.
- For compressors being wired per figures 5, 6, & 7 the #2 jam nut must be restrained when the higher torque is applied. Carlyle recommends using serviceable loctite to restrain this #2 jam nut. To assist in this application the #2 jam nut at terminals T1, T2, T3 & T7, T8, T9 will be loctited at Carlyle factory on all 06E, 06CC (E-body) & 06T compressors beginning with serial number (06E starting 0203J00322, for 06T starting 0403J09339). Compressors built after this serial number will be able to be applied with the higher 18 ft-lbs torque.
- Compressors built before this serial number should have loctite applied on the terminal bolts in the area where the #2 jam nut is installed for wiring arrangements shown in figures 5, 6 & 7. The following procedure is recommended:
  - Install plastic insulator on top of #1 jam nut if not already there.
  - Install #2 jam nut on top of plastic insulator and torque to 3 to 4 ft-lbs (also - if not already in place).
  - Put a small amount of serviceable Loctite (Grade AA Green #089 can be used) on top of #2 jam nut at terminal bolt thread surface. Loctite recommends letting the material set for 72 hours before disturbing.
- Terminals T4, T5 & T6 will always have a jumper bar applied with them. Therefore higher torque can be applied without adding any loctite. These terminals may also have the plastic isolator removed to add the 3-hole jumper as shown in Figures 4 & 7. Loctite will not be applied to these terminals at Carlyle for this reason nor is it recommended in the field.

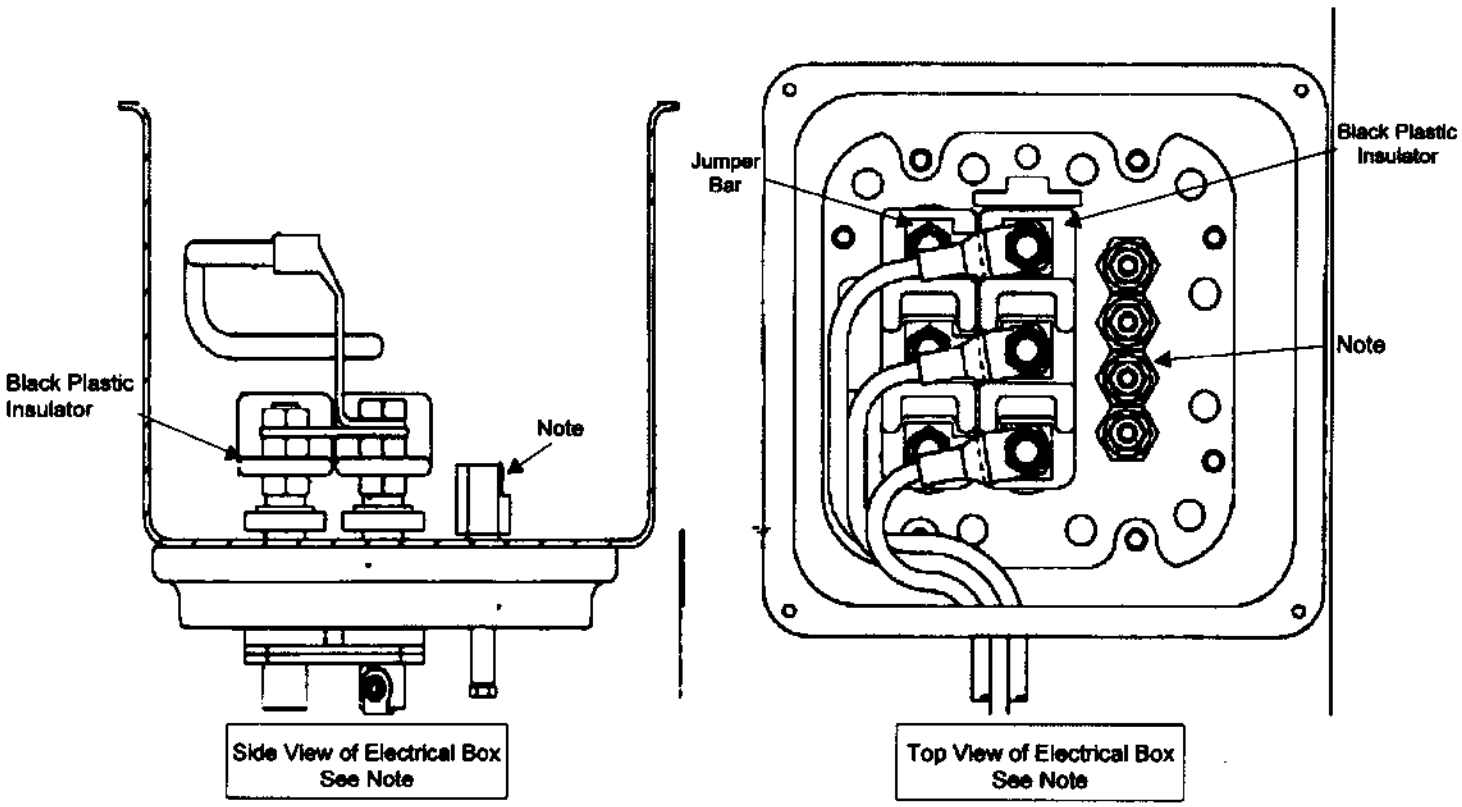


FIGURE 1: 06E, 06CC & 06T TERMINAL BOX & WIRING

NOTE: 06T terminal arrangement shown. The 06E and 06CC (50-99 cfm) terminal box may or may not have three electrical posts in place of the 4 thermistor pins shown above.

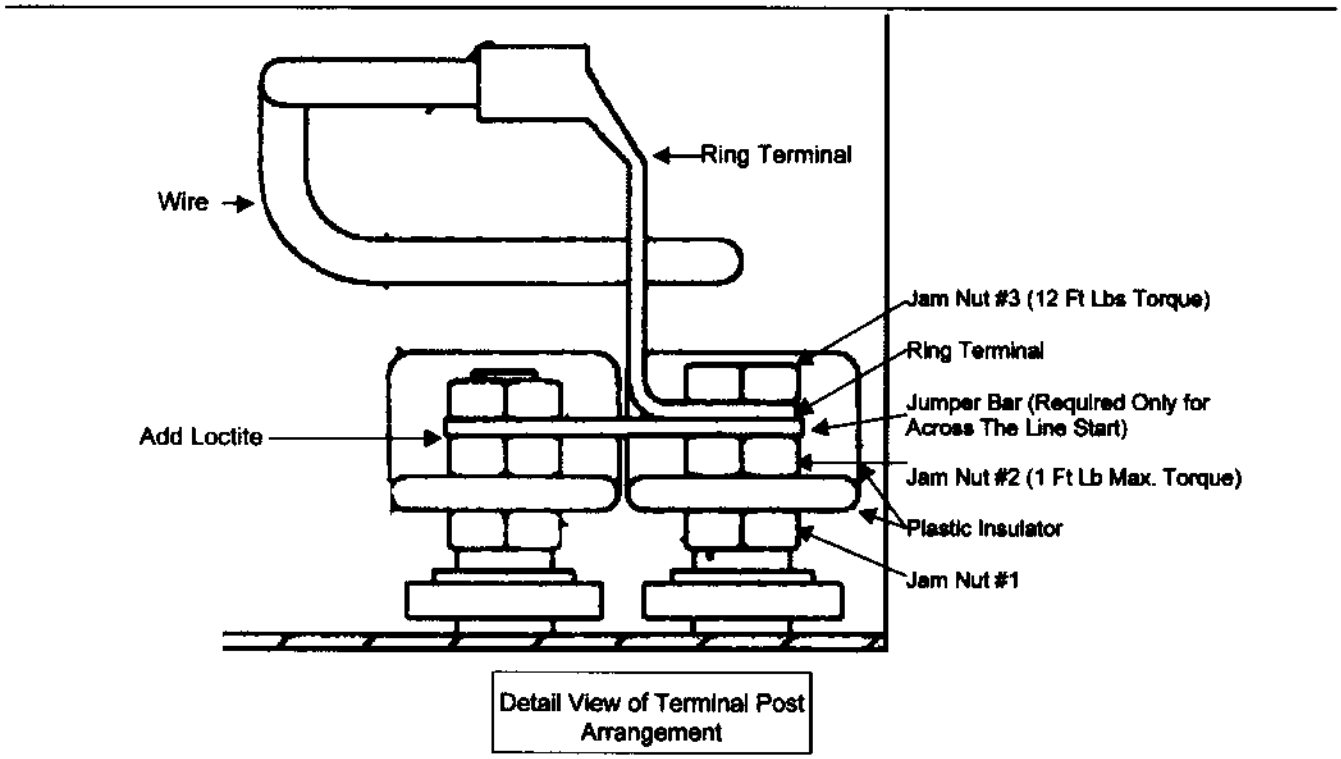


FIGURE 2: 06E, 06CC & 06T TERMINAL WIRING

06E COMPRESSORS (ACROSS-THE-LINE [XL] START)

6-Pin Term. Pl.
3-Lead XL Start

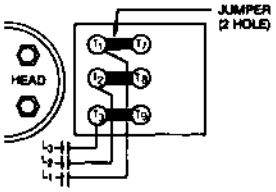


Figure 3: 6-Pin Terminal Plate

- For all across-the-line start
- Jumper bars at all terminals
- 06T's wired with 6-pin terminals
- See Figure 2 for jumper bars & power terminal connections
- Torque power wires to: 18 ft-lbs **max**
- Loctite not required on jam nut #2 for any terminals with jumper bars

9-Pin Term. Pl.
(208/230/460V, 300 Series Models)
208/230 XL Start

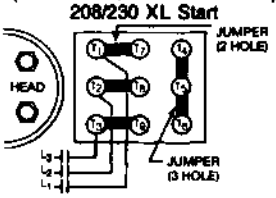


Figure 4: 9-Pin Terminal Plate

- For 208/230V across-the-line start with 9-pin terminal plate
- Jumper bars at all terminals
- Not an option with 06T's
- See Figure 2 for jumper bars & power terminal connections
- Torque power wires to: 18 ft-lbs **max**
- Loctite not required on jam nut #2 for any terminals with jumper bars

9-Pin Term. Pl.
(208/230/460V Models)
460V XL Start

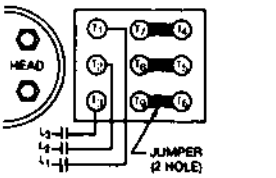


Figure 5: 9-Pin Terminal Plate

- For 460V across-the-line start with 9-pin terminal plate
- No jumper bars at terminals 1, 2 &3
- Not an option with 06T's
- See Figure 2 for jumper bars & power terminal connections
- Torque power wires to: 18 ft-lbs **max** if loctite applied to jam nut #2 at terminals T1, T2 & T3

06E COMPRESSORS (PART WINDING START)

6-Pin Term. Pl.
6-Lead PW Start

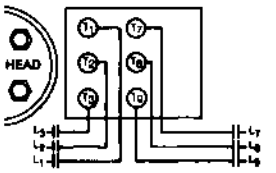


Figure 6: 6-Pin Terminal Plate

- For all part-winding start
- No jumper bars at all terminals
- 06T's wired with 6-pin terminals
- See Figure 2 for jumper bars & power terminal connections
- Torque power wires to: 18 ft-lbs **max** if loctite applied to jam nut #2 at all terminals

9-Pin Term. Pl.
(208/230/460V, 300 Series Models)
208/230 PW Start Only

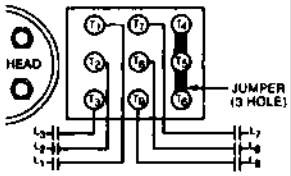


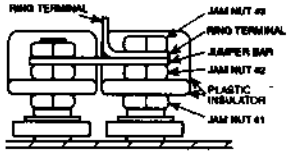
Figure 7: 9-Pin Terminal Plate

- For 208/230V part-winding start with 9-pin terminal plate
- No jumper bars at terminals 1, 2 &3 and 7, 8 & 9
- See Figure 2 for jumper bars & power terminal connections
- Torque power wires to: 18 ft-lbs **max** if loctite applied to jam nut #2 at terminals T1, T2, T3, T7, T8 & T9

9-Pin Term. Pl.
(460V, 600 Series Models)
460 PW Start

WARNING

With 208/230/460V 300 Series Models, the 460V cannot be wired for PW start. Use distinct 460V 600 Series Models for any 460V PW application.



Terminal Post Arrangement, Detail View (06E and 06CC 50 to 99 Ctn)