



# **XDBKITS4 BUS / DB TERMINAL KIT (SIZE 4)**

**INSTALLATION MANUAL**

DPD00115

# Need Help?

This manual answers most installation and startup questions that may arise. However, if you have any problems, please let your first call be to us.

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## INSTALLING THE BUS / DB TERMINAL OPTION KIT

### INTRODUCTION

The XDBKITS4 option kit is designed to allow the Size 4 X4 and X5 AC drives to be easily adapted to install either external DB resistors or to interconnect the DC bus terminal with another controller. Included in that Size 4 category are the following X4 and X5 drive models:

X4 AC Drive Model No.	X5 AC Drive Model No.
X4C40600C	X5C40600C
X4C40750C	X5C40750C
X4C41000C	X5C41000C
X4C50600C	X5C50600C
X4C50750C	X5C50750C
X4C51000C	X5C51000C

### APPLICABLE DOCUMENTS

This manual is supplied as a supplement to the X4 AC Drive User's Manual (DPD 00088; previously Form 1428), and the X5 AC Drive User's Manual (DPD 00089; previously Form 1434).

### OPTION KIT CONTENTS

The option kit is illustrated in Figure 1:

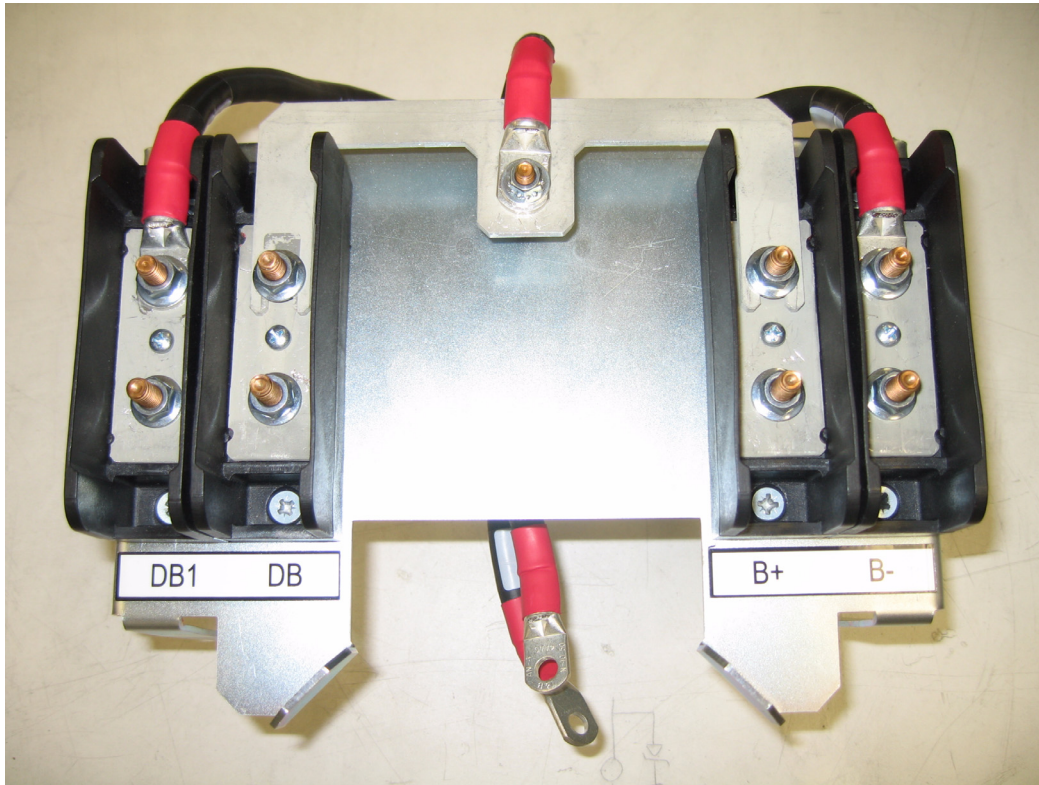


Figure 1: The XDBKITS4 option kit

## INSTALLATION PROCEDURES

### WARNING

#### SENSITIVE EQUIPMENT

This assembly contains static-sensitive components. It should be handled only by a static-safe installer, using a grounded wrist strap.

**Failure to observe this precaution may cause premature equipment failure.**

### DANGER

#### HAZARDOUS VOLTAGE

- Disconnect all power before servicing a drive unit or its components. **WAIT 5 MINUTES** until the DC bus capacitors discharge.
- Ensure that any other power sources that may feed control logic have been disconnected.
- **DO NOT** short across DC bus capacitors or touch unshielded components or terminal strip screw connections with voltage present.
- Install all covers before applying power or starting and stopping the drive.
- The user is responsible for conforming to all applicable code requirements with respect to grounding all equipment.
- Many parts in a drive, including printed circuit boards, operate at line voltage. **DO NOT TOUCH.** Use only electrically-insulated tools.

Before servicing any drive.

- Disconnect all power.
- Place a “DO NOT TURN ON” label on the drive disconnect.
- Lock the disconnect in the open position.

**Failure to observe these precautions will cause shock or burn, resulting in severe personal injury or death.**

### STEP 1.

Open the enclosure door by unthreading the door screws in eight places. Lift and rotate the door into the open position.

**STEP 2.**

Remove the two M4 screws (see Figure 2) from the internal fan bracket and lower the fan assembly out of the way. Ensure that the fan leads are not damaged or disconnected.

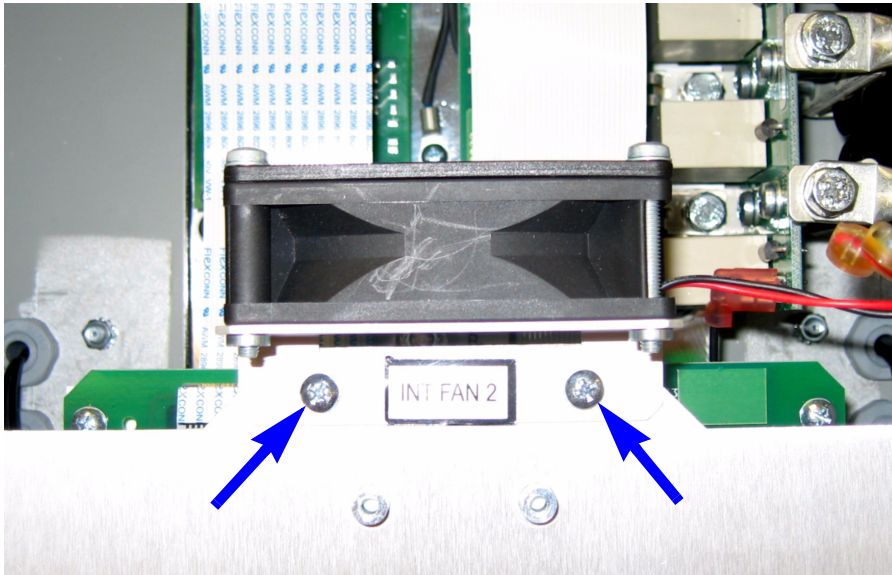


Figure 2: Removing the M4 screws from the assembly

**STEP 3.**

Remove the nuts, washers, and identification tags from the connections labeled B-, B+, and DBC (see Figure 3).

Retain these pieces (except for the ID tags) for later use during the reassembly of the option kit.

Disconnect and insulate the AWG16 black wire connected to the DBC terminal, as this will no longer be used in external resistor applications.

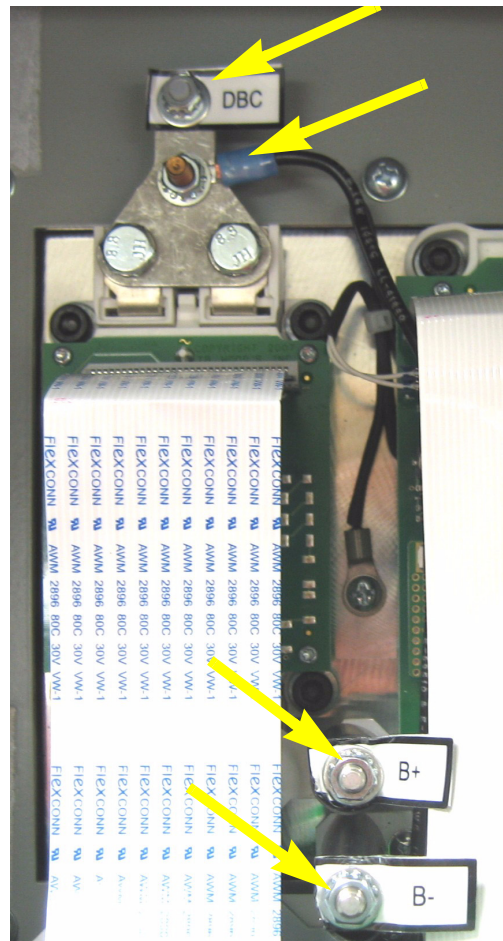


Figure 3: Location of DBC, B-, B+ connections

**STEP 4.**

Loosen the four M5 nuts located on threaded studs in the base of the enclosure (see Figure 4). Do not fully remove the nuts, as that will make reassembly more difficult.

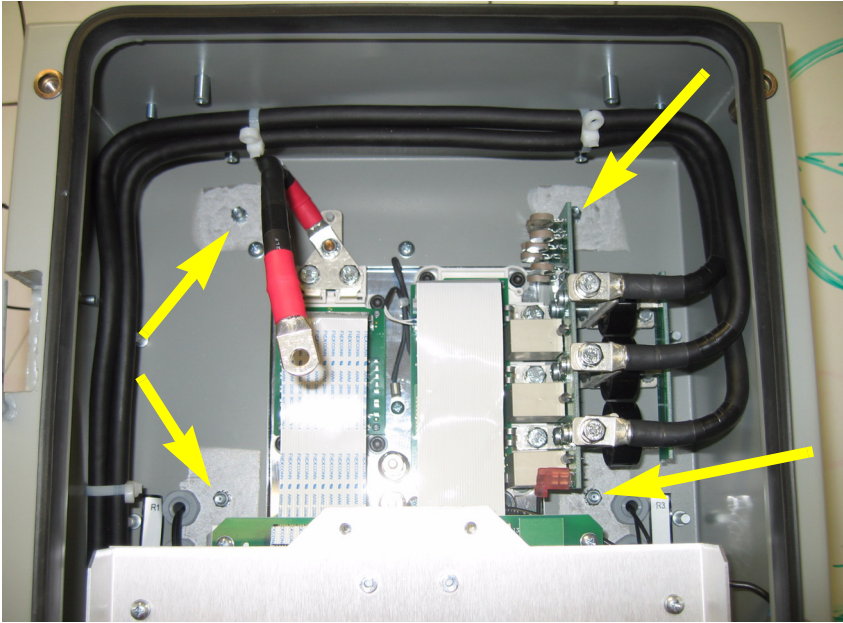
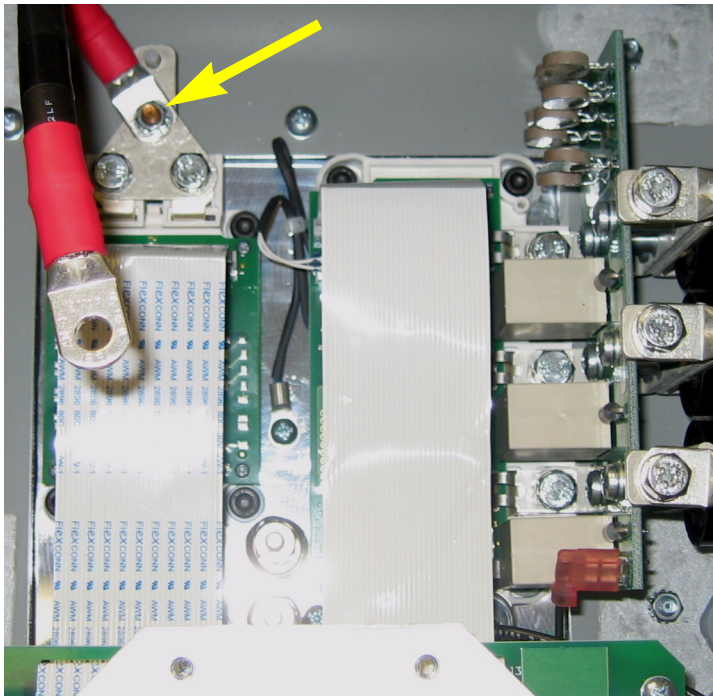


Figure 4: Location of the M5 nuts

**STEP 5.**

Remove the cable marked DBC from the terminal block of the option kit. Fasten one end of the DBC cable to the threaded stud, using one nut and washer removed during Step 3.

See Figure 5 for cable routing.

Use a maximum torque of 26 in-lbs.

Figure 5: DBC cable routing

**STEP 6.**

Insert the terminal bracket with B- and B+ leads into the drive enclosure. Fasten it to the studs that had nuts previously loosened in Step 4. When fastening the bracket, use a maximum torque of 26 in-lbs. See Figure 7.

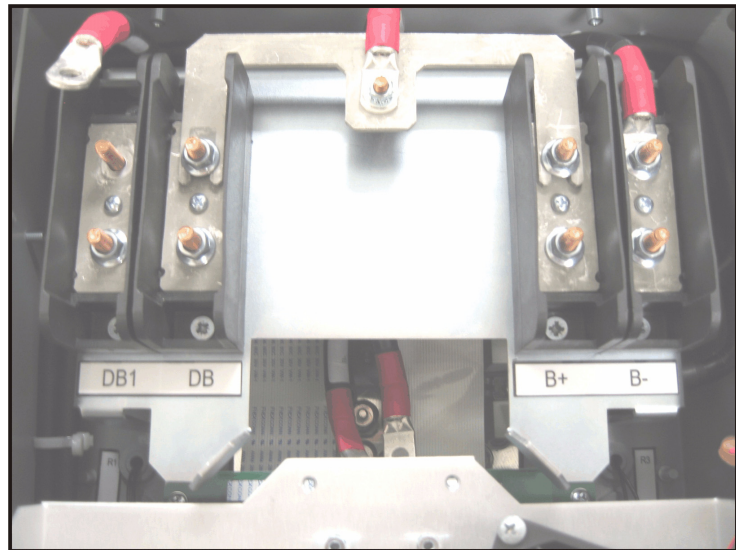


Figure 6: DBC cable routing

**STEP 7.**

.Attach B- and B+ cables to standoffs. (See Figure 3 on page 5 for the correct connection location.) When fastening the cables, use a maximum torque of 26-50 in-lbs.

**STEP 8.**

Fasten the DBC cable to the bus bar stud. Tighten the washer and nut assembly using a maximum torque of 50 in-lbs. See Figure 7.

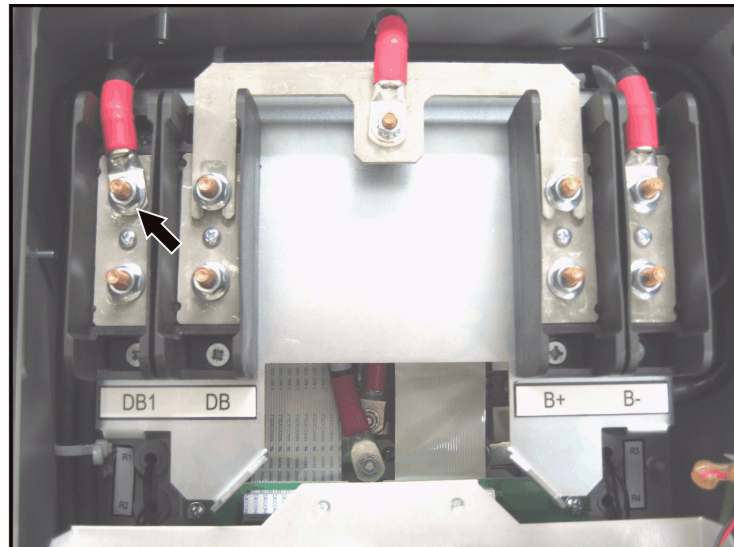


Figure 7: Fastening the DBC cable

**STEP 9.**

Re-install the internal fan bracket assembly, tightening the two M4 screws to 12 in-lbs.

**STEP 10.**

Close the door and tighten the cover screws to a maximum of 26 in-lbs.

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