

## 2361 Gate Interface Board Replacement (for 1250, 1650, and 3000A 1395 DC Drives)

### Contents

This document shows how to remove and replace a gate interface board in a 1250, 1650, or 3000A 1395 DC drive.

### What This Kit Contains

Using the table below, verify that you have received the appropriate items in your kit:

For this part:	You should receive this quantity:
gate interface board	1

### Other Items Needed

Before you begin, be sure you also have the following:

- Tools needed for:
  - Measuring voltage (multimeter)
  - Removing, loosening, and tightening screws (slotted screwdriver and a small screwdriver for terminals)
- Documentation:
  - Your drive system schematics
  - Publication 1395-5.40, *Bulletin 1395 Digital DC Drive—User Manual*
  - Publication 2361-5.01, *Bulletin 1395 Digital DC Drive in Bulletin 2361 Motor Control Center for Drive Systems—User Manual*

## Safety Precautions

The following general precautions apply when working on drives:

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**ATTENTION:** Only those familiar with the drive system, the products used in the system, and the associated machinery should plan or implement the installation, startup, and future maintenance of the system. Failure to comply can result in personal injury and/or equipment damage.

**ATTENTION:** Verify that all sources of AC and DC power are deenergized and locked out or tagged out in accordance with the requirements of ANSI/NFPA 70E, Part II.

**ATTENTION:** The system may contain stored energy devices. To avoid the hazard of electrical shock, verify that all voltage on capacitors has been discharged before attempting to service, repair, or remove a drive system or its components. You should only attempt the procedures in this manual if you are qualified to do so and are familiar with solid-state control equipment and the safety procedures in publication NFPA 70E.

**ATTENTION:** When servicing any unit, do not drop any nuts, bolts, washers, etc. inside the unit, as they may cause a short circuit on power up.

**ATTENTION:** This drive system contains ESD (Electrostatic Discharge) sensitive parts and assemblies. Static control precautions are required when installing, testing, or repairing this assembly. Component damage can result if ESD control procedures are not followed. If you are not familiar with static control procedures, refer to Rockwell Automation publication 8000-4.5.2, *Guarding Against Electrostatic Damage* or any other applicable ESD protection handbook.

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## Special Instructions

**Important:** You will need to reuse parts that are removed from the drive. Place parts, in the order removed, on a clean surface.

**Important:** Some washers, such as clamp and Belleville washers, have only one correct orientation.

## Preliminary Steps

Before replacing the gate interface board, shut off the drive power, wait five minutes for the voltage to discharge, open the disconnect bay door, and remove the Lexan™ shielding.

## Removing the Gate Interface Board

1. Using a voltmeter, test the voltage across the three phases, then across the gate interface board connections.



**ATTENTION:** If there is any voltage present, remove the source of the voltage and check for voltages again before proceeding to the next step.

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2. Lower the flip-down panel on the control module by loosening the two set screws.
3. Remove the four ribbon cables from J1, J2, J3, and J4. You may need to tag the cables.
4. Remove the two gate lead plugs from TB1 (non-regenerative units will only have one gate lead plug in TB1).
5. Remove the two gate lead plugs from TB2 (non-regenerative units will only have one gate lead plug in TB2).
6. Loosen the four set screws and remove the board.

## Installing the Gate Interface Board

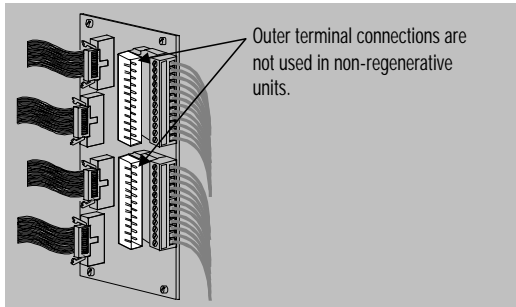
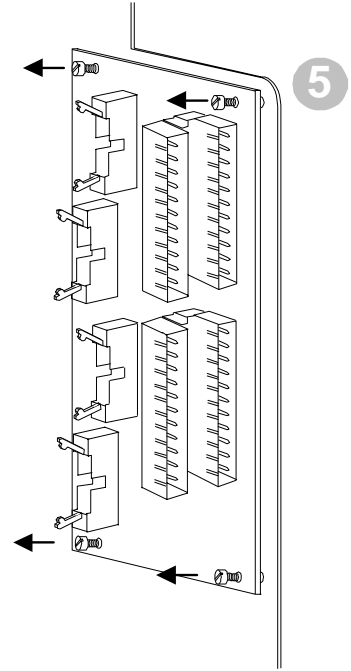
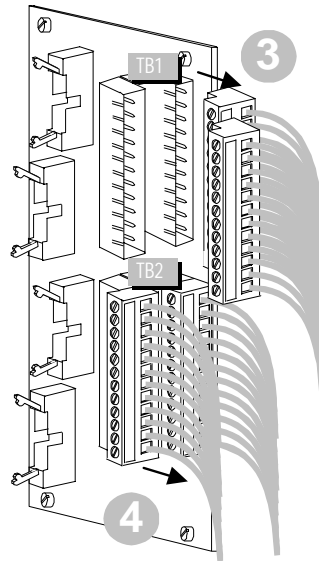
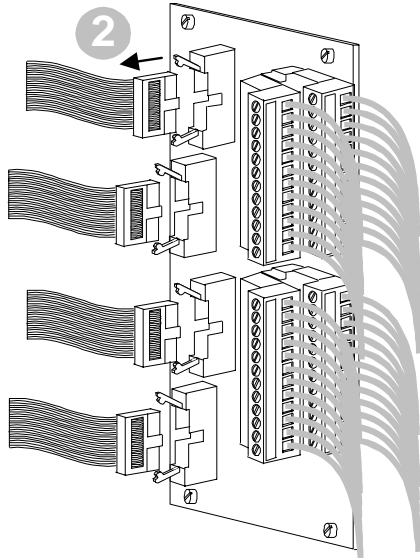
1. Mount the new board into the drive, securing the four set screws.
2. Connect the gate lead plugs to TB1 and TB2. Verify that the gate leads are secured in the terminals.



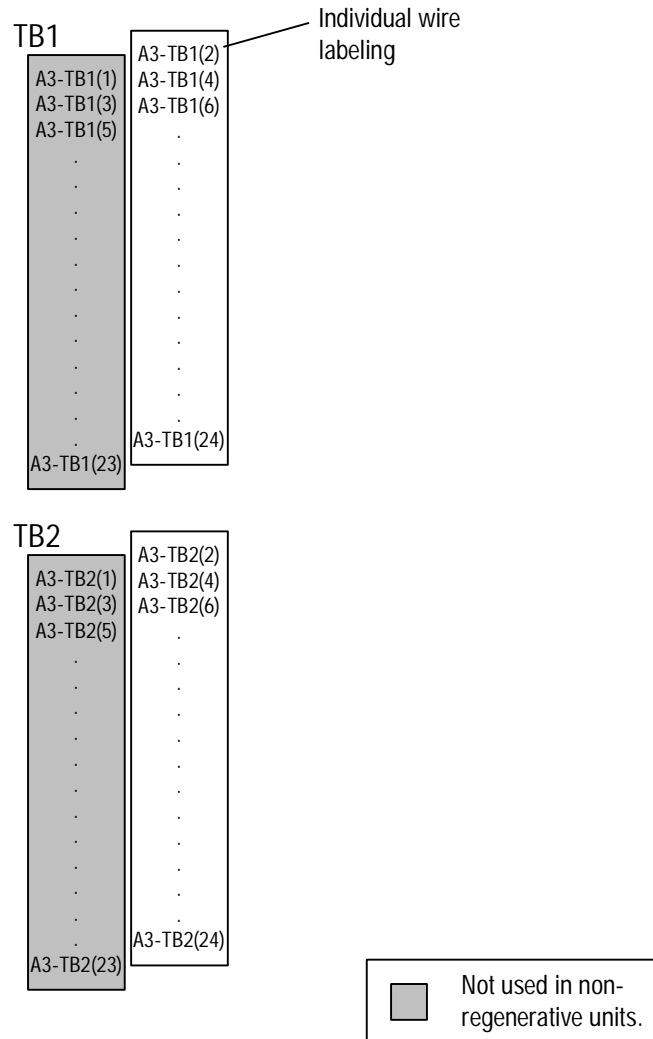
**ATTENTION:** Drive damage will occur if the terminal connections (TB1 and TB2) are not configured properly. Check that TB1 and TB2 are wired as shown in the following figure.

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3. Plug in the four ribbon cables to J1, J2, J3, and J4.
4. Raise the flip panel, and secure the set screws.



## Terminal Wiring



## Concluding Steps

After installing the gate interface board, replace all Lexan shielding and secure the disconnect bay door. Dispose of old parts according to your company procedures and local ordinances.

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