

90A Field Board Replacement (for 1250, 1650, and 3000A 1395 DC Drives)

Contents

This document shows how to remove and replace a 90A field 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:
90A field board	1

Other Items Needed

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

- Tools needed for:
 - Loosening and tightening screws (slotted screwdriver)
 - Test for voltage (multimeter)
- 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:



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.

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

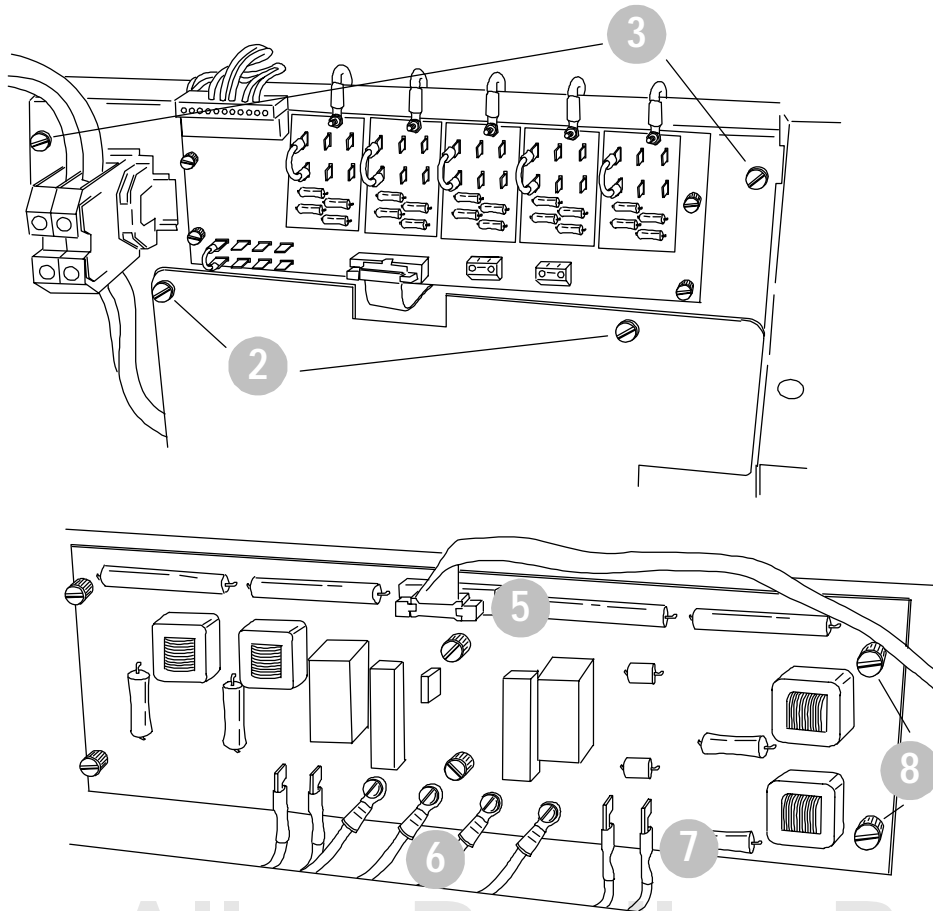
Removing the Field Board

1. Using a voltmeter, test the voltage across the three phases, then across the field board terminals (F1, F2, L1, and L3).



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

2. Loosen the thumb screws to lower the control board panel.
3. Loosen the thumb screws to lower the feedback board panel.
4. Observe the board wiring and tag wires as necessary.
5. Disconnect J1.
6. Unscrew and disconnect the leads to F1, F2, L3, and L1.
7. Disconnect the gate leads G11, G12, G21, and G22.
8. Unscrew the six mounting screws and remove the board.



Replacing the Field Board

1. Mount the board, securing the six mounting screws.
2. Connect gate leads to G11, G12, G21, and G22 accordingly.
3. Fasten F1, F2, L3, and L1 leads to the board.
4. Connect J1.
5. Secure the feedback board panel in the upright position.
6. Secure the control board panel in the upright position.

Concluding Steps

After installing the field board, replace all Lexan shielding and secure the disconnect bay door. To have the board repaired, place the board in an electrostatic-safe bag and send it to the manufacturer. Dispose of old parts according to your company procedures and local codes.

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Rockwell Automation Headquarters, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414 382-2000, Fax: (1) 414 382-4444

Rockwell Automation European Headquarters SA/NV, avenue Hermann Debrouxlaan, 46, 1160 Brussels, Belgium, Tel: (32) 2 663 06 00, Fax: (32) 2 663 06 40

Rockwell Automation Asia Pacific Headquarters, 27/F Citicorp Centre, 18 Whitfield Road, Causeway Bay, Hong Kong, Tel: (852) 2867 4788, Fax: (852) 2508 1846