

RGU-to-RGU Communication Board Replacement

Contents

This document shows how to replace an RGU-to-RGU (R2R) communication board in a Regenerative DC Bus Supply Unit (RGU).

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:
RGU-to-RGU communication board	1
ESD wrist strap	1
standoffs	4
mounting screws	4

Other Items Needed

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

- Tools needed for:
 - Loosening, securing, and torquing screws
 - Measuring voltages
- Documentation:
 - Your drive system schematics
 - Publication 2364F-5.01, *Regenerative DC Bus Supply Unit (RGU)–User Manual*

Safety Precautions

The following general precautions apply when servicing an RGU or a drive system lineup:



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 unit. Place parts, in the order removed, on a clean surface.

Preliminary Steps

Before replacing the RGU-to-RGU communication board, shut off the power; wait five minutes for voltage to discharge; and open the bay door to the power structure.

Replacing the RGU-to RGU Communication Board

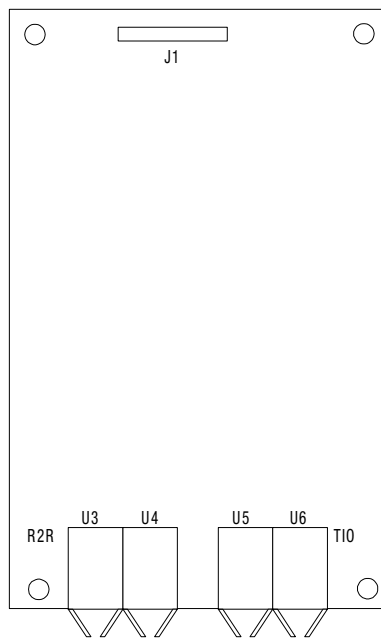
1. Using a meter, verify that there is no voltage across the DC bus terminals on the power structure, then check for voltage across the test points on the main control board.



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

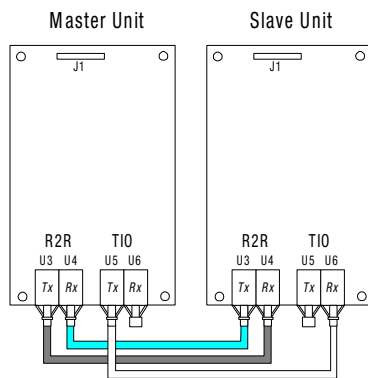
2. Put on the ESD wrist strap and connect it to one of the door latches.
3. Mark the fiber-optic cables. Sketch the wiring scheme on the board illustration below.
4. Carefully pull the fiber-optic cables from the board (holding by the connector, not holding by the wire).
5. Remove the protective boot from J1.
6. Remove the mounting screws and pull the board off.
7. Secure the new RGU-to-RGU communication board on the main control board. Torque the screws to 4 lb-in.
8. Connect the fiber-optic cables to the new board. Verify the system wiring according to the diagram on the next page.

RGU-to-RGU Communication Board

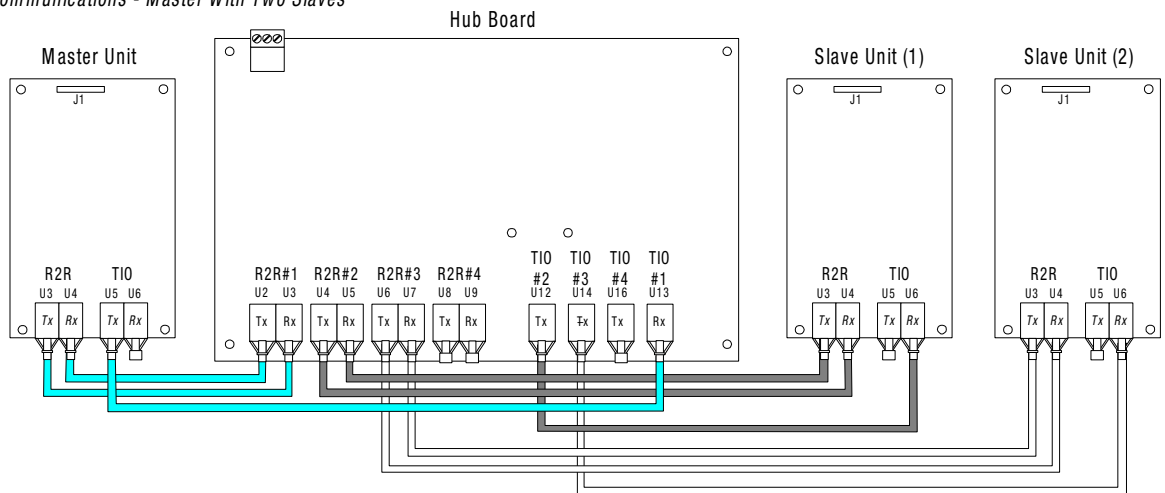


← Sketch Wiring Here

R2R Communications - Master With One Slave



R2R Communications - Master With Two Slaves



Concluding Steps

After installing the board, check for any scrap material or tools in the RGU, and secure the bay door. Dispose of old parts according to your company's procedures and your local ordinances.



Rockwell Automation helps its customers receive a superior return on their investment by bringing together leading brands in industrial automation, creating a broad spectrum of easy-to-integrate products. These are supported by local technical resources available worldwide, a global network of system solutions providers, and the advanced technology resources of Rockwell.

Worldwide representation.



Argentina • Australia • Austria • Bahrain • Belgium • Bolivia • Brazil • Bulgaria • Canada • Chile • China, People's Republic of • Colombia • Costa Rica • Croatia • Cyprus • Czech Republic • Denmark • Dominican Republic • Ecuador • Egypt • El Salvador • Finland • France • Germany • Ghana • Greece • Guatemala • Honduras • Hong Kong • Hungary • Iceland • India • Indonesia • Iran • Ireland • Israel • Italy • Jamaica • Japan • Jordan • Korea • Kuwait • Lebanon • Macau • Malaysia • Malta • Mexico • Morocco • The Netherlands • New Zealand • Nigeria • Norway • Oman • Pakistan • Panama • Peru • Philippines • Poland • Portugal • Puerto Rico • Qatar • Romania • Russia • Saudi Arabia • Singapore • Slovakia • Slovenia • South Africa, Republic of • Spain • Sweden • Switzerland • Taiwan • Thailand • Trinidad • Tunisia • Turkey • United Arab Emirates • United Kingdom • United States • Uruguay • Venezuela

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 Herrmann 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) 2887 4788, Fax: (852) 2508 1846