



Bulletin 1500 Isolator Handle and Isolator Assembly Adjustment and Maintenance

Instructions

Refer to the contactor publication provided under this tab for an illustration and general instructions on the interlock mechanism.

The two drawings provided we to be used by the customer to identify major components referenced in the following instructions. They may or may not relate directly to the assemblies supplied on the customer's order.

Lubrication

Electrically Conductive Part Lubrication:

(Using Aeroshell 7 or equivalent NO-OX-ID "a special" Dearborn Chemical)

- lubricate switch plates (Item 2 on 80098-595)
- lubricate grounding pins located on ground bar (Item 1 on 80098-595)
- lubricate back terminals (Item 3 on 80098-595)

Mechanical Part and Linkage Lubrication:

(Using Mmolykote Dow Corning 55m silicon grease)

- lubricate isolator shaft support molding (both ends) to allow smooth rotation of the shaft (Item 7 on 80098-595)
- lubricate isolator shutter lever assembly pin which controls moveable shutter (Item 17 on 80098-595)

Isolation Switch Shutter Lubrication:

(Using Chesterton Dry Lube Spray NR677)

- spray between the two shutter surfaces of the moveable and stationary shutter (Items 5 and 6 on 80098-595)

Specific Information on Isolator Adjustment

Essentially Two Adjustments Exist:

- rod assembly (Item 1 on 80098-596)
- stop bracket (Item 3 on 80098-596)

Rod Assembly (Refer to Item 1 80098-596):

When the switch handle is in the open position the isolating switch blades should touch or be within 1/16" of touching the ground pin on item 1 80098-596. In the "on" position, blades should fully engage the back terminal. Adjust rod to optimize operation (on to off, off to on).

Stop Bracket (Refer to Item 3 on 80098-596):

The distance between item 4 and 5 should be between 0.045" to 0.060". Torque item 7 to 75 inch pounds and apply Loctite 290 to the screws.

(Allen-Bradley gauge CTR 9145 may be used for this purpose)

Isolator Switch Handle Mechanism (Refer to 80098-596)

- operation of switch with door closed from either "on" or "off" position should drop out contactor from test or run position
- should not be able to open door to power cell unless the isolator is opened and grounded. Verify pin on isolator handle has not been broken off as this could allow door to be opened while isolator is closed.
- isolator should be prevented from operating from "off" to "on" position while door is open.

Operational Checks

Mechanical Interlock of Contactor to Isolator (Refer to 80098-596)

- contactor operates lever, item 4, which prevents isolator from being opened until contactor is open (drops out). This interlock is in addition to the electrical interlocks.
- claw of item 5 will be encapsulated by item 4 until the contactor drops out.

Switch Opening (Refer to 80098-595)

- as the isolating switch is opened using the isolator handle the electrical interlock, "Isa" should open (the normally open auxiliary contact on the left hand side at the isolating switch), before the mechanical interlock comes into effect. At this time the blades of the isolating switch should be engaged.

Switch Closing (Refer to 80090-595)

- the right hand electrical auxiliary (Isb), (the normally closed auxiliary contactor on the right hand side of the switch) should not close before the blades touch the grounding pins.
- ensure that isolator shutters close when the isolator is in the operating position. They have been painted white for ease of viewing in the open position.

The switch handle provided on our medium voltage starters should be used in a firm manner. The proper procedure for operating the handle is to move it from the "on" to "off" position or vice versa in one fluid motion. Do not attempt to merely inch it into a new position as it may resist this type of procedure. The isolator should be engaged and disengaged as quickly as possible to minimize arcing at the isolator switch plates. The handle has been designed with this in mind.



Allen-Bradley, a Rockwell Automation Business, has been helping its customers improve productivity and quality for more than 90 years. We design, manufacture and support a broad range of automation products worldwide. They include logic processors, power and motion control devices, man-machine interfaces, sensors and a variety of software. Rockwell is one of the world's leading technology companies.

Worldwide representation.



Argentina • Australia • Austria • Bahrain • Belgium • Brazil • Bulgaria • Canada • Chile • China, PRC • Colombia • Costa Rica • Croatia • Cyprus • Czech Republic • Denmark
Ecuador • Egypt • El Salvador • Finland • France • Germany • Greece • Guatemala • Honduras • Hong Kong • Hungary • Iceland • India • Indonesia • Ireland • Israel • Italy • Jamaica
Japan • Jordan • Korea • Kuwait • Lebanon • Malaysia • Mexico • Netherlands • New Zealand • Norway • Pakistan • Peru • Philippines • Poland • Portugal • Puerto Rico • Qatar
Romania • Russia-CIS • Saudi Arabia • Singapore • Slovakia • Slovenia • South Africa, Republic • Spain • Sweden • Switzerland • Taiwan • Thailand • Turkey
United Arab Emirates • United Kingdom • United States • Uruguay • Venezuela • Yugoslavia

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

Publication 1500SM-3.0 - August, 1994

Supersedes Publication 1500SM-3.0 - March, 1993

© 1994 Allen-Bradley Company Printed in Canada