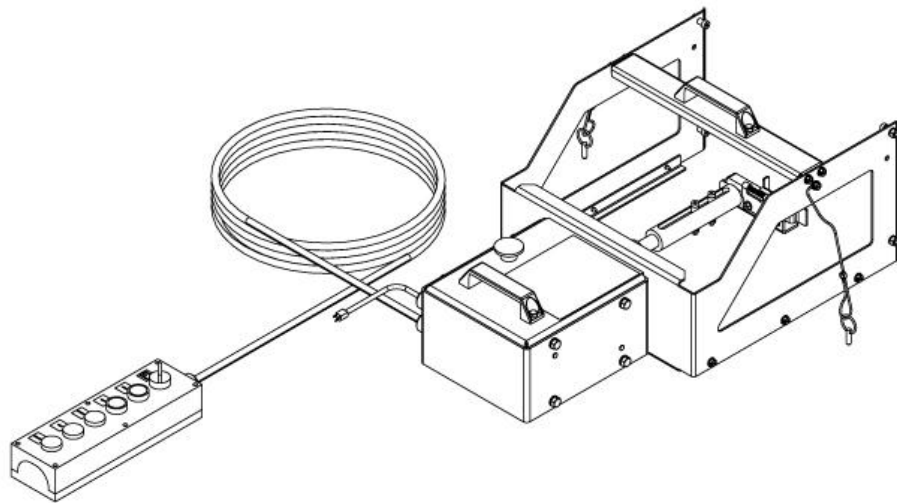


User Guide

SIEMENS Remote Breaker Racking Device RBRD



User Guide P/N: 11-D-9319-01 Rev. 1



SAFETY PRECAUTIONS

- (a) Only qualified persons familiar with the construction and operation of Low Voltage Switchgear containing Low Voltage Power Circuit Breakers should perform work described in this set of instructions and . Such work should be performed only after reading this complete set of instructions, the WL Circuit Breaker Operating Instructions, catalog # WLOPMAN1 or WLULOPMAN1, and the Type WL Switchgear Instruction and Installation Guide, catalog # LVBR-02000.
- (b) Follow safety related work practices as described in NFPA 70E at all times.
- (c) Hazardous voltages in all electrical equipment can cause severe personal injury or death. Energizing the equipment for the first time after initial installation or maintenance is potentially dangerous. Inspection and maintenance should be performed on the equipment only after power has been cut off, disconnected, and electrically isolated so that no accidental contact can be made with energized parts.
- (d) Some types of electrical equipment will cause harmonics in the electrical system which may result in overheating. Consider this condition when determining this equipment loading, as possible de-rating of equipment may be necessary.

IMPORTANT

The information contained herein is general in nature and not intended for specific application purposes. It does not relieve the user of responsibility to use sound practices in application, installation, operation, and maintenance of the equipment purchased. Siemens reserves the right to make changes in the specifications shown herein or to make improvements at any time without notice or obligations. Should a conflict arise between the general information contained in this publication and the contents of drawings or supplementary material or both, the latter shall take precedence.

QUALIFIED PERSON

For the purpose of this manual and product labels, a qualified person is one who is trained in the installation, construction, operation or maintenance of the equipment and the hazards involved. In addition, this person must have the following qualifications:

- (a) **is trained and authorized** to de-energize, clear, ground, and tag circuits and equipment in accordance with established safety practices.
- (b) **is trained** in the correct care and use of protective equipment such as rubber gloves, hard hat, safety glasses or face shields, flash clothing, etc., in accordance with established safety practices.
- (c) **is trained** in rendering first aid.

SIGNAL WORDS

The signal words “**Danger**,” “**Warning**” and “**Caution**” used in this manual indicate the degree of hazard that may be encountered by the user. These words are defined as:

Danger - Indicates an imminently hazardous situation which if not avoided, **will** result in death or serious injury.

Warning - Indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.

Caution - Indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury.

DANGEROUS PROCEDURES

In addition to other procedures described in this manual as dangerous, user personnel must adhere to the following warnings:

(a) **Danger!** High Voltage. Qualified personnel only. Lock off all power to this equipment before working inside. Only work on de-energized equipment. Always de-energize equipment before performing any tests, maintenance or repair.

(b) **Warning!** Always perform maintenance on the interrupting device after the closing mechanism(s) are discharged.

(c) **Caution!** Always let an interlock device or safety mechanism perform its function without forcing or defeating the device.

(d) **Caution!** Hydrocarbon spray propellants and hydrocarbon compounds will cause degradation of certain plastics. Contact your local Siemens representative before using these products to clean or lubricate components during installation or maintenance.

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These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met in conjunction with installation, operation or maintenance. Should further information be desired, or should particular problems arise which are not covered sufficiently for the purchaser’s purposes, the matter should referred to the local Siemens sales office. The contents of this instruction manual shall not become part of or modify any prior or existing agreement, commitment or relationship. The sales contract contains the entire obligation of Siemens. The warranty contained in the contract between the parties is the sole warranty of Siemens. Any statements contained herein do not create new warranties or modify the existing warranty.

Chapter

1 Introduction

Overview

The purpose of this manual is to assist the user in installation and operation of the Remote Breaker Racking Device (**RBRD**) to the Siemens WL Switchgear equipment.

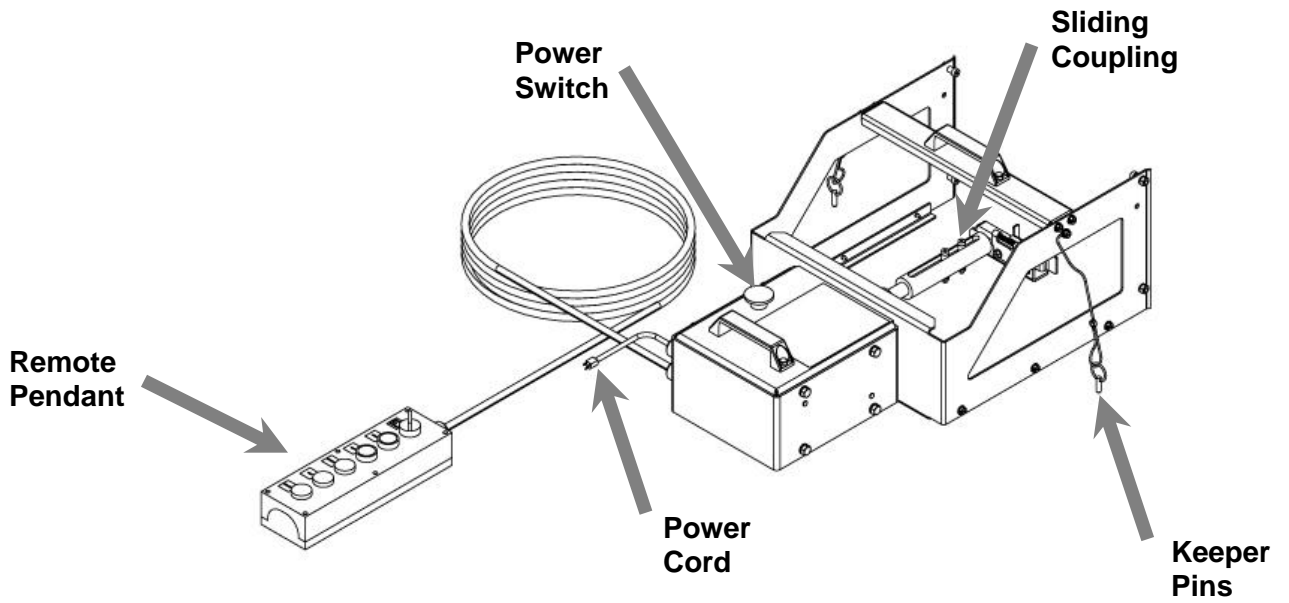


Figure 1.1: Remote Breaker Racking Device Components

Chapter

2 Installation Guide



Warning

Always unplug Device or turn main power switch OFF before installing, removing, adjusting or transporting Device.

Introduction

This chapter provides a list of directions explaining the steps required to install the Remote Breaker Racking Device onto Siemens WL Switchgear. The WL Switchgear must be equipped with the RBRD Door Mounting Brackets.

On the Switchgear:

The WL Power Circuit Breaker must be open before attempting to rack the Breaker. Follow safety related work practices as described in NFPA 70E at all times. See the WL Circuit Breaker Operating Instructions, Catalog # WLOPMAN1 or WLULOPMAN1.

1. Ensure the door is closed and fully latched and is equipped with the RBRD Door Mounting Brackets.
2. Fully withdraw the Breaker Racking Handle.

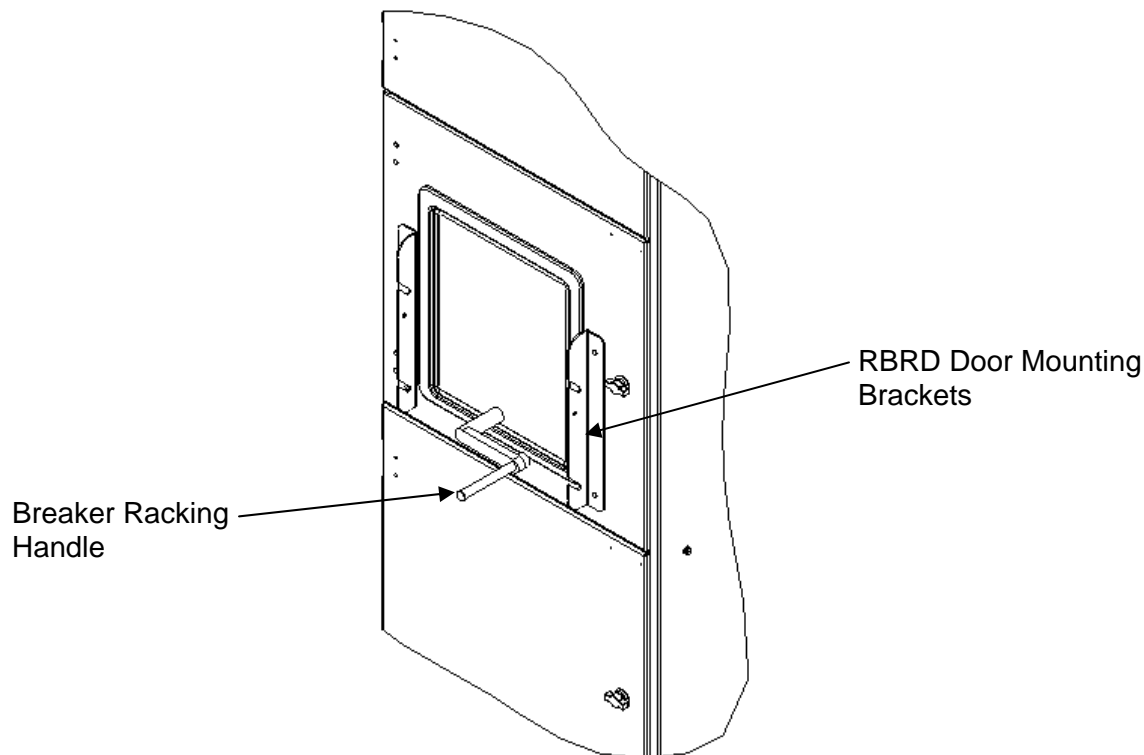


Fig. 2.1

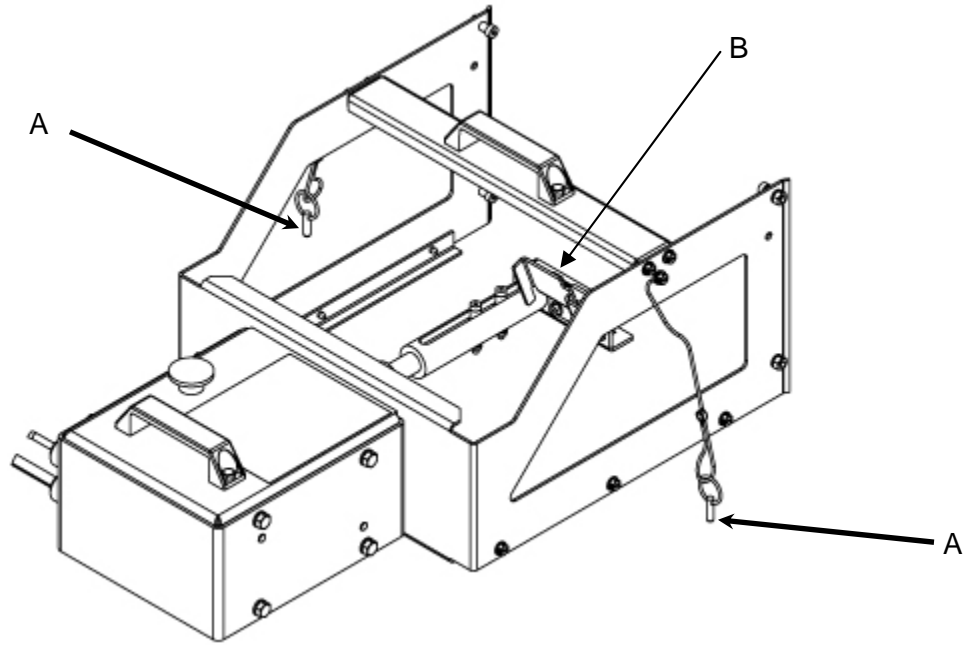


Fig. 2.2

On the Remote Breaker Racking Device:

1. Ensure the two Keeper Pins are removed from the Frame Retaining Holes. See Fig. 2.2, item A.
2. Ensure the Handle Retainer is in the disengaged position on the Sliding Coupling. See Fig. 2.2, item B.
3. Push the Sliding Coupling back into the fully retracted position.

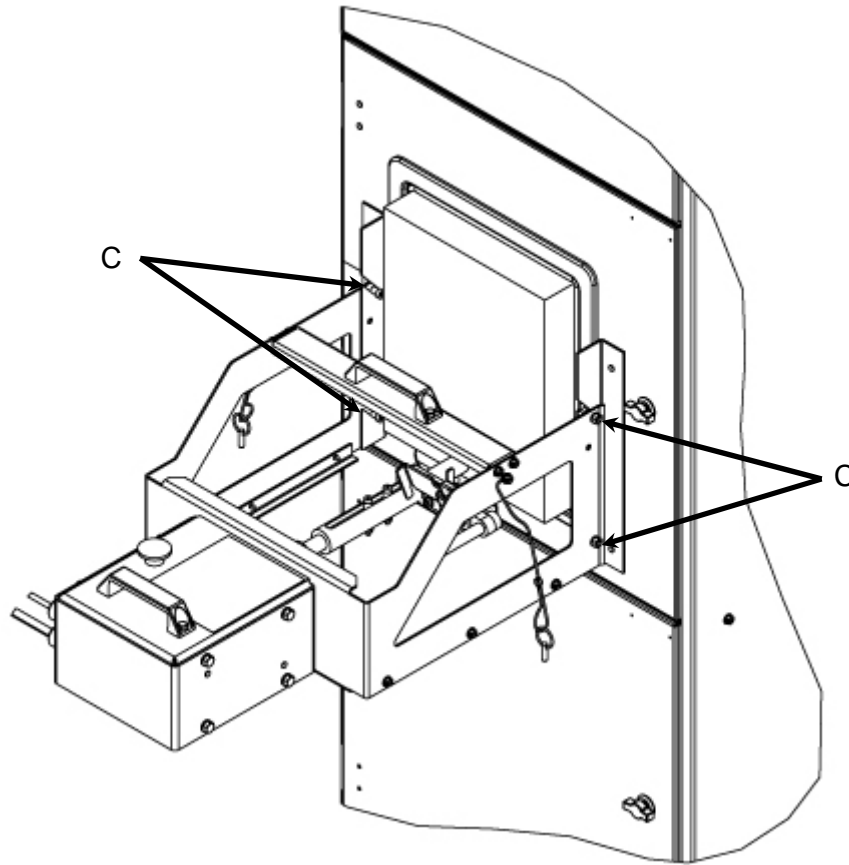


Fig. 2.3

4. Install the RBRD onto the door by sliding the 4 shoulder bolts into the angled slots of the door mounting brackets. Ensure the Device is fully seated. See Fig.2.3, item C.



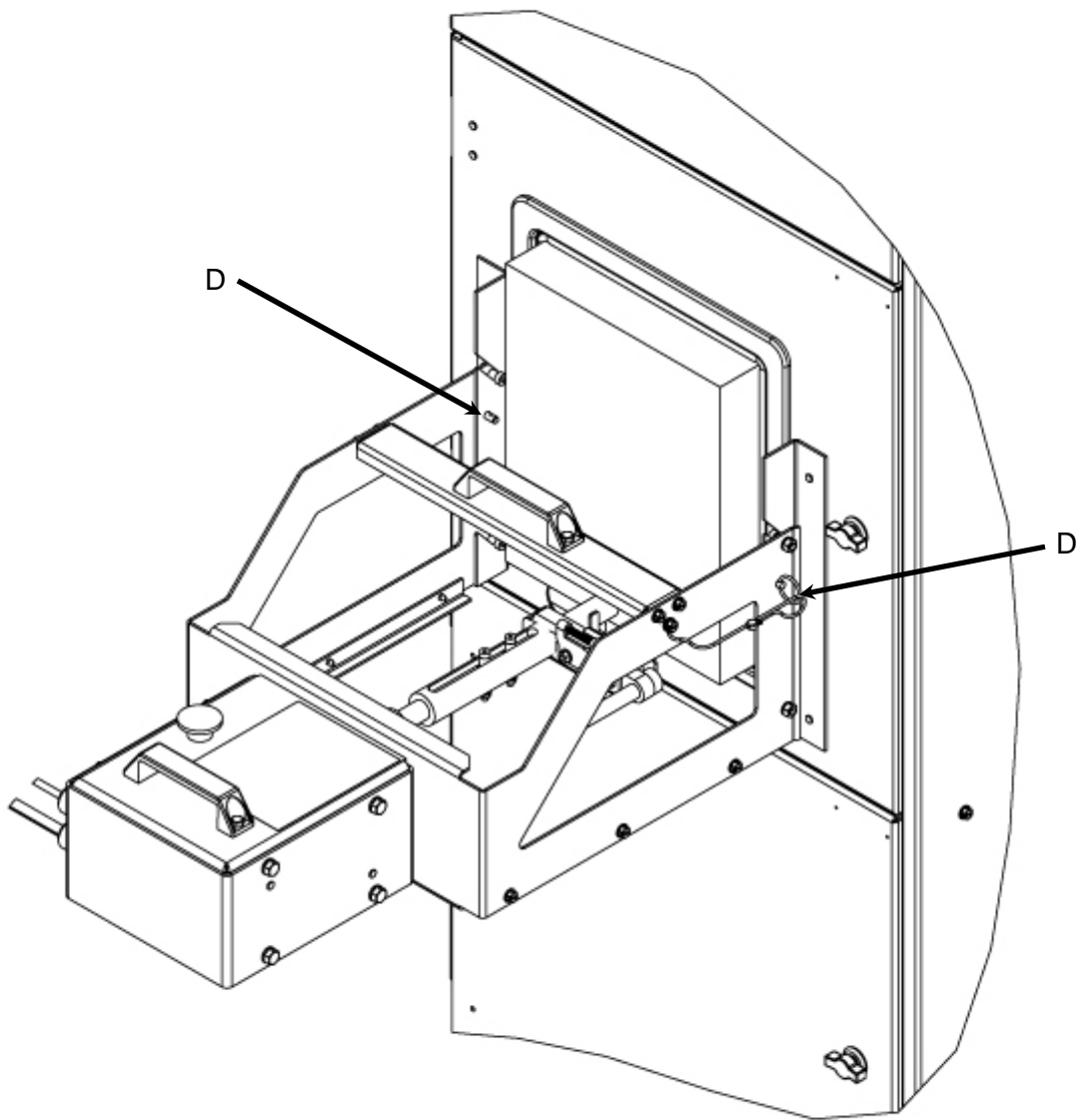


Fig. 2.4

5. Insert the two Keeper Pins into the Frame Retaining Holes on each side of the frame and through the door brackets. See Fig.2.4, item D.

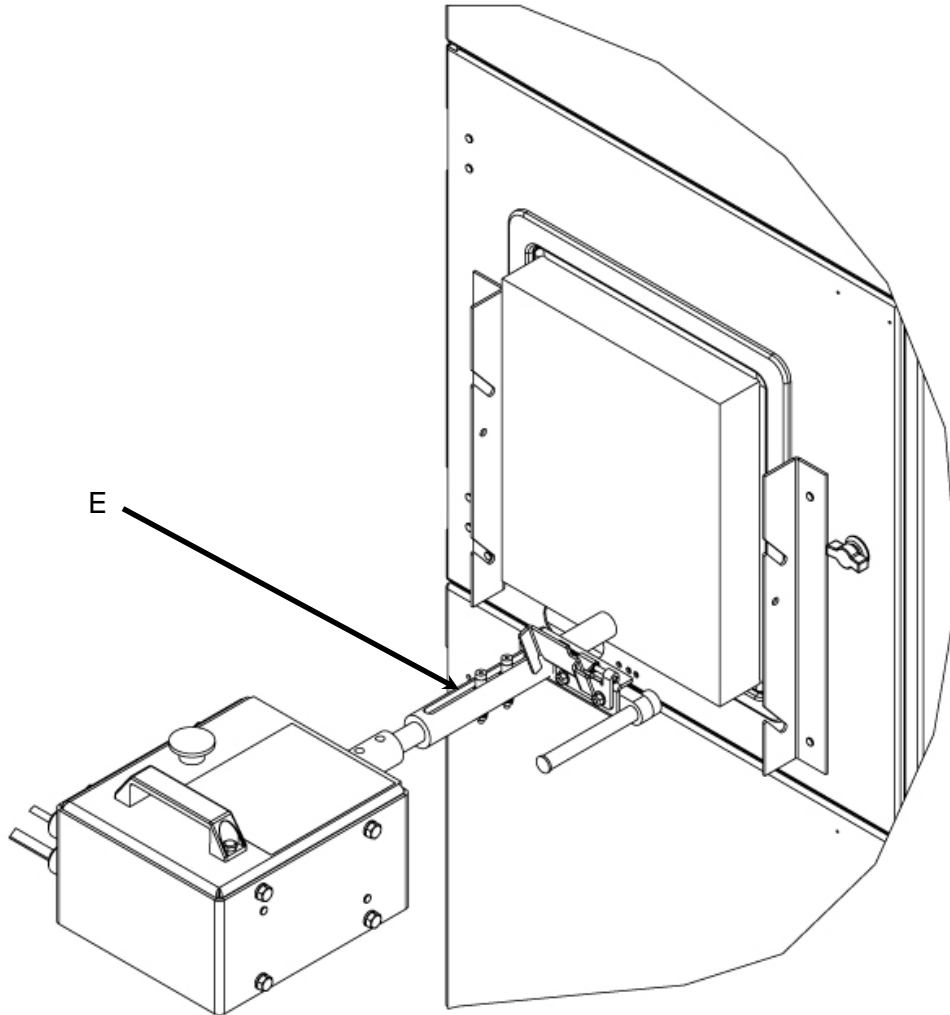


Fig. 2.5
Frame removed for clarity

6. Rotate the Breaker Racking Handle to align with the Sliding Coupling.
7. Engage the Sliding Coupling with the Breaker Racking Handle by sliding it forward. See Fig.2.5, item E.



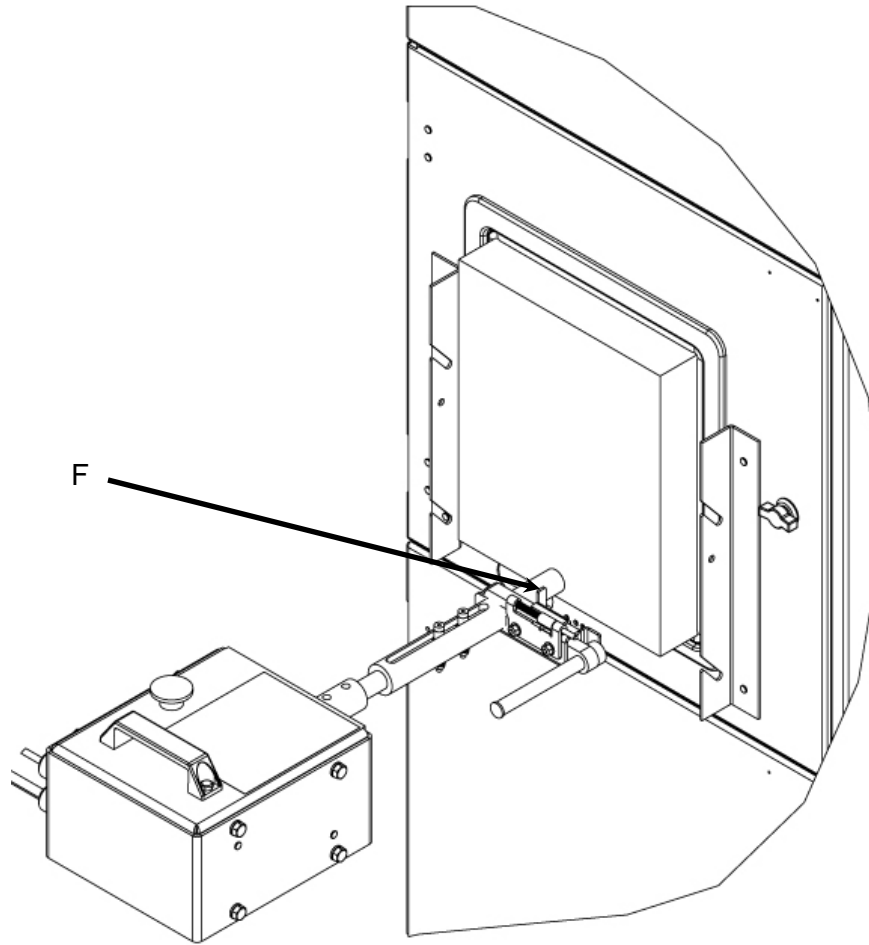


Fig. 2.6
Frame removed for clarity

8. Engage the Handle Retainer by rotating and sliding the tab into the slot on the edge of the Sliding Coupling. The Retainer is spring loaded and will stay in place once engaged into slot. See Fig.2.6, item F.



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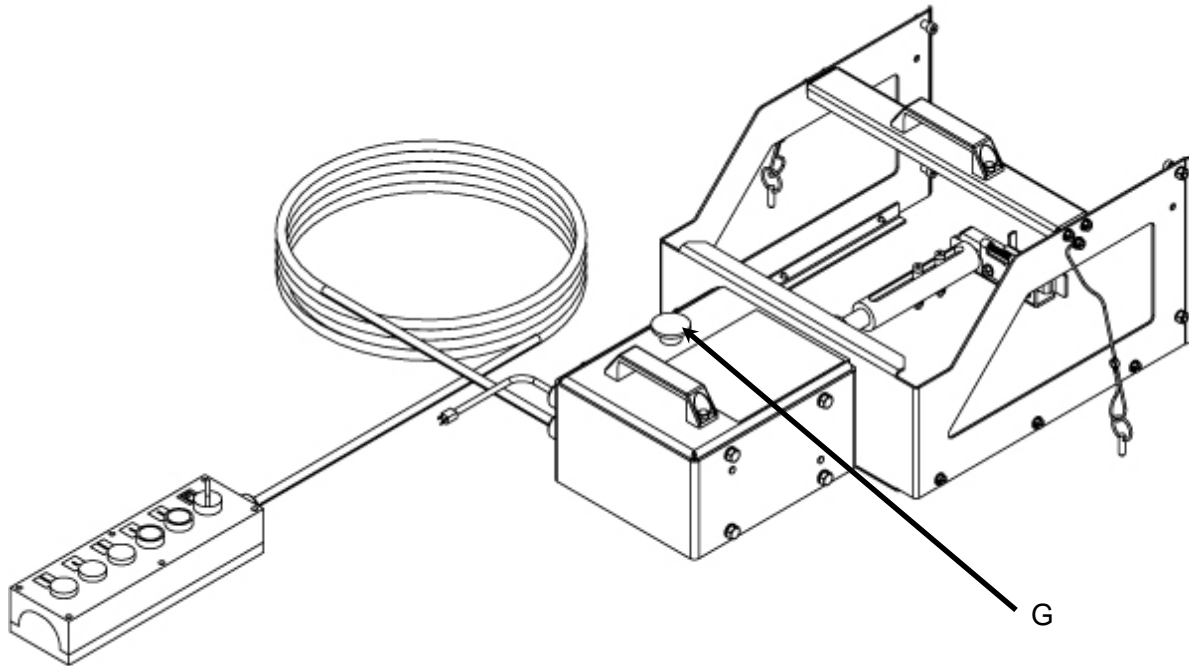


Fig. 2.7

9. Plug the Power Cord into a wall outlet and return the Power Switch to ON by lifting the knob. See Fig.2.7, item G.
10. The Device is now ready for use.

3 **Operation Guide**



Warning

Always unplug Device or turn main power switch OFF before installing, removing, adjusting or transporting Device.

Introduction

This chapter provides directions explaining the steps required to operate the Remote Breaker Racking Device once mounted to the Siemens WL Switchgear.

The RBRD is designed to rack the WL Frame Size 2, Frame Size 3 and Fuse Truck under normal operating conditions into the Connected, Test, and Disconnected positions. It has torque overload sensing to protect the Breaker Racking Handle. If the RBRD cannot rack the Breaker in, appropriate maintenance needs to be performed to the Breaker and/or Switchgear.

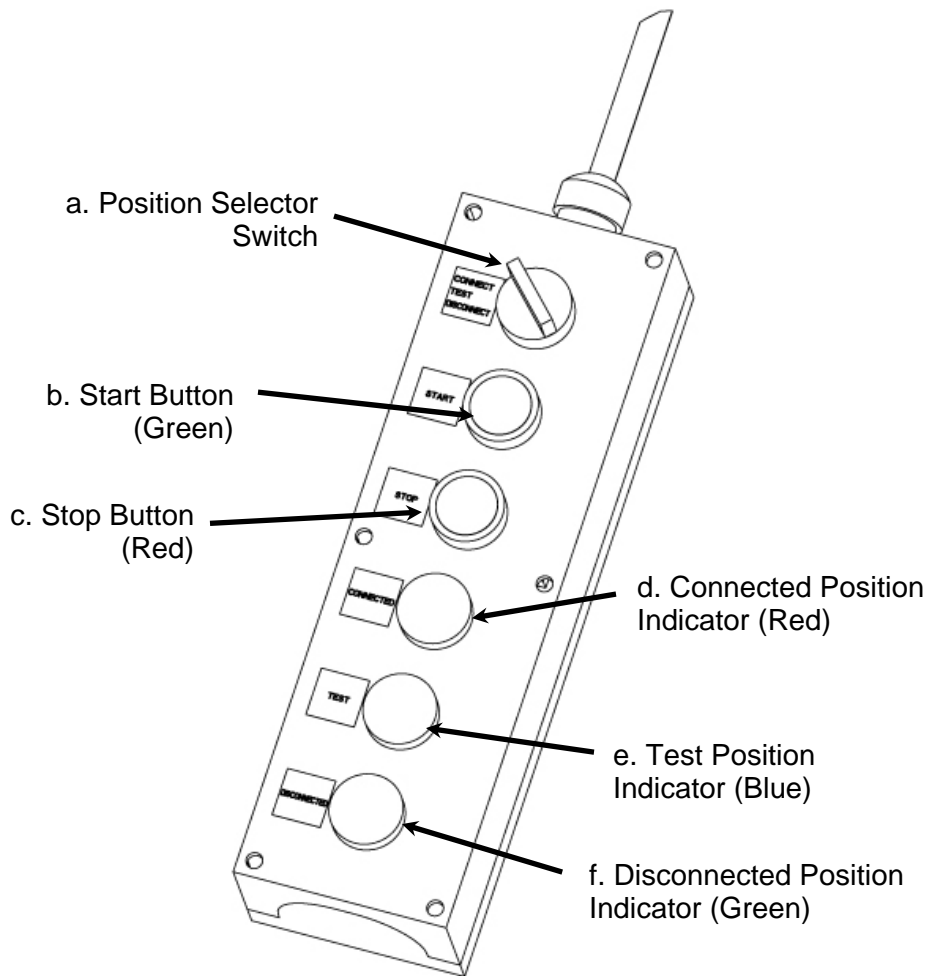


Fig. 3.1

Remote Control of Device:

1. Ensure the Device is properly installed on the Switchgear, the power cord is plugged into a wall outlet and the power switch is ON.
2. Stand back away from the Switchgear. The Device has a 30 foot remote cord.
3. Select the desired position using the Position Selector Switch. See Fig 3.1, item a.
4. Press the Start Button (b) to begin operation. The Device always racks the Breaker to Disconnect first, then proceeds to the selected position. The selected position indicator will blink while the Breaker moves to the desired position. The Position Selector Switch and Start Button have no affect during Device operation. There is a short pause of approximately 2 seconds when the Device changes direction.

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5. Press the Stop Button (c) to cancel operation. All three indicators will blink at a medium speed. When the indicators blink rapidly, the Position Selector Switch and the Start Button are reactivated and operation can continue by selecting a new position and pressing the Start button.
6. When the selected position is reached, the appropriate Indicator will illuminate continuously. The Device reverses direction approximately $\frac{1}{4}$ turn at Connect and Disconnect. This ensures the Racking Handle can easily be turned by hand.
7. If an over-torque error is detected (e.g. an obstruction blocking the travel of the Breaker), the Device will stop and all three Indicators will blink.
 - i. Unplug the Device or turn the main power switch OFF.
 - ii. Remove the Device from the Switchgear. See Chapter 4, Removal Guide.
 - iii. Perform the necessary steps to clear any obstructions or correct any issues with the Breaker travel.
 - iv. Re-install device referring to previous instructions.

Chapter

4

Removal Guide



Warning

Always unplug Device or turn main power switch OFF before installing, removing, adjusting or transporting Device.

Introduction

This chapter provides a list of directions explaining the steps required to remove the Remote Breaker Racking Device from the Siemens WL Switchgear.

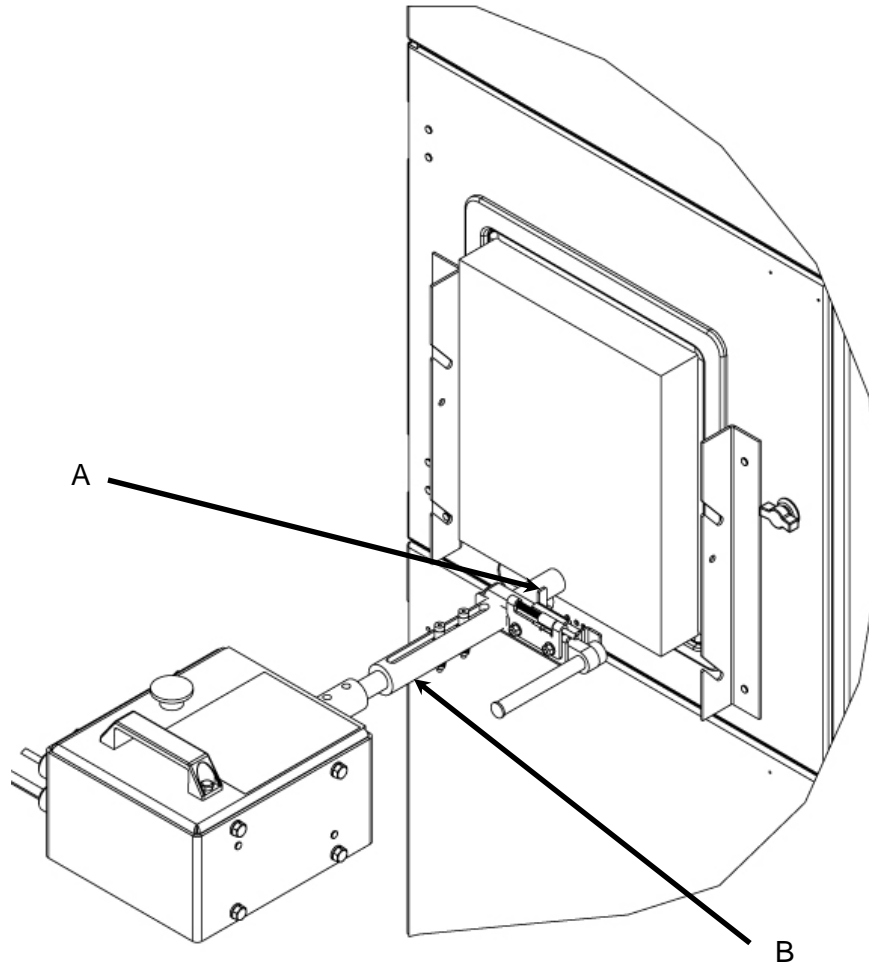


Fig. 4.1
Frame removed for clarity

1. Disengage the Handle Retainer by sliding the tab out of the slot on the edge of the Sliding Coupling and rotating behind the “catch” tab. The Retainer is spring loaded and will stay in place once engaged on the “catch” tab. See Fig.4.1, item A.
2. Move the Sliding Coupling away from Breaker Racking Handle into the fully retracted position. See Fig.4.1, item B.



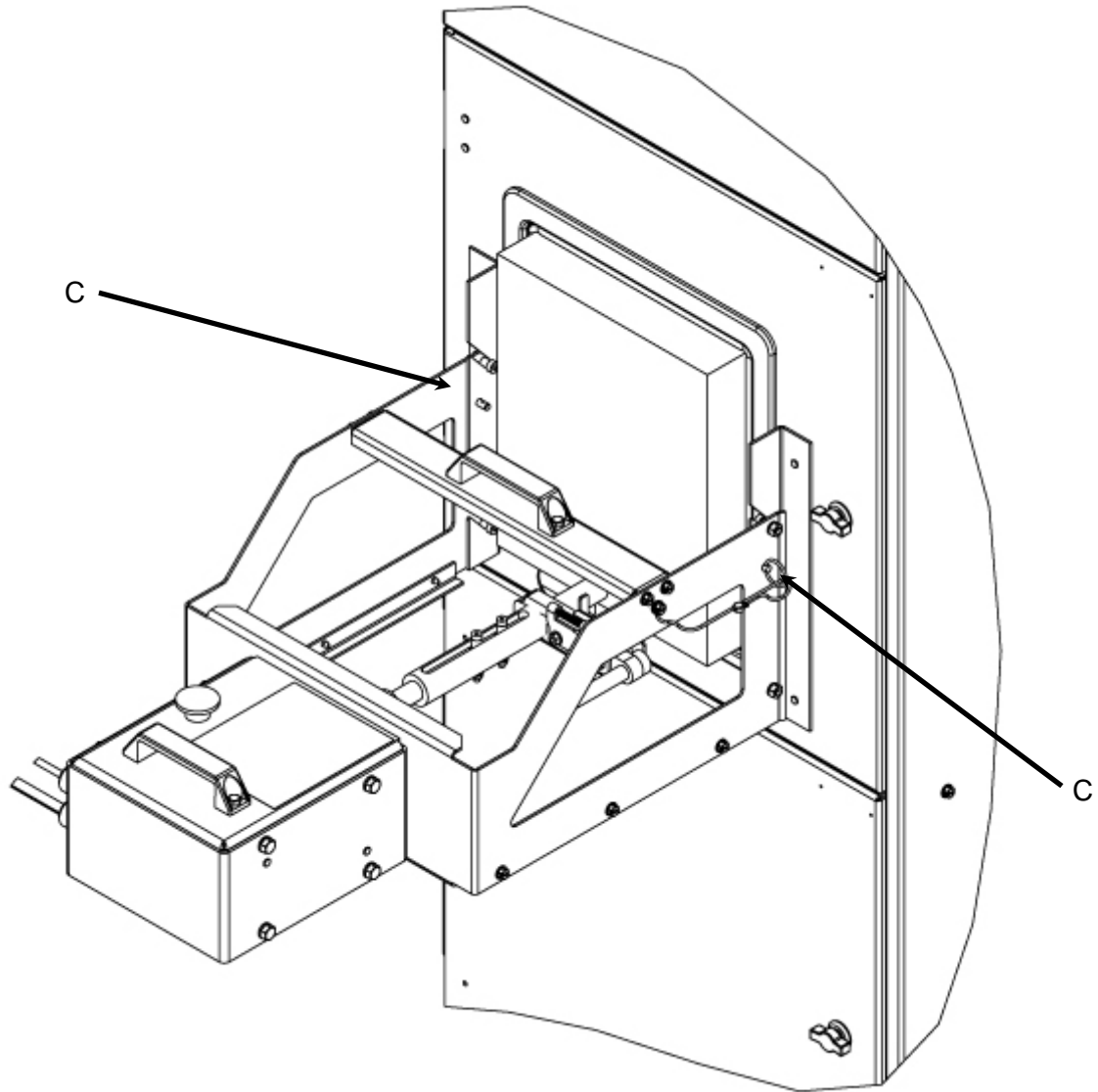


Fig. 4.2

3. Remove the two Keeper Pins from the Frame Retaining Holes on each side of the frame. See Fig.4.2, item C.
4. Lift Device out of angled slots on Door Brackets.



Chapter

5 Maintenance Guide



Warning

Always unplug Device or turn main power switch OFF before installing, removing, adjusting or transporting Device.

Introduction

This chapter provides directions explaining the steps required to maintain the Remote Breaker Racking Device.

After every 500 operations:

1. Wipe the shaft of Sliding Coupling clean with a soft cloth and apply Graphite/Molybdenum Disulfide dry type lubricant.
2. Check tightness of all exposed hardware.

There is no need to open the main enclosure. There are no maintainable components inside.

Appendix

A Troubleshooting

For troubleshooting the Remote Breaker Racking Device, please contact Siemens Technical Support at 1.800.241.4453

Appendix

B Remote Breaker Racking Device: Accessories / Spare Parts

Base Unit

Remote Breaker Racking Device, Catalog # WLRBRD

Accessories

Door Bracket Kit, Catalog # WLRBRDKIT

Door Bracket Field Installation Template, Catalog # WLRBRDTEMPL

Spare Parts

See Appendix C, Customer Service Support Information, regarding spare parts.

Appendix

C Customer Service Support Info

Siemens Industry, Inc.
Building Technologies Division
5400 Triangle Parkway
Norcross, GA 30092

For Technical Support:

Call us at 1.800.241.4453 or Visit www.usa.siemens.com/powerdistribution

For Nearest Sales Office:

Call us at 1.800.964.4114 or Visit www.sea.siemens.com/sales/salesoffices.html