Installation and Operation

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RRS-3 Compact NS

Distance is Safety®

WHAT STANDS BETWEEN YOU AND ARC-FLASH DANGER? WE DO.

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Rev. 6/16/2015

More Products by CBS ArcSafe®

RRS-1 – *Universal Remote Racking System (Rotary)*

The CBS ArcSafe® RRS-1 is a universal remote racking system capable of remotely installing and removing rotary style draw out circuit breakers without requiring any modification to the existing switchgear. Operation of the simple to use RRS-1 is quite intuitive and requires only minimal setup. When used properly, the RRS-1 allows technicians to remain outside of the arc flash boundary during the potentially dangerous racking operation.

RRS-2 – *Universal Remote Racking System (Non-Rotary)*

The CBS ArcSafe® RRS-2 is a universal remote racking system capable of remotely installing and removing non-rotary style draw out circuit breakers without requiring any modification to the existing switchgear. Operation of the simple to use RRS-2 is quite intuitive and requires only minimal setup. When used properly, the RRS-2 allows technicians to remain outside of the arc flash boundary during the potentially hazardous racking operation.

RRS-3 – *Application Specific Remote Racking System (Rotary And Non-Rotary)*

The CBS ArcSafe® RRS-3 product line is made up of various application specific remote breaker racking devices. Each standalone system allows service personnel to remotely install and remove a particular type of circuit breaker safely while stationed safely outside of the arc flash boundary during the potentially dangerous operation. The lightweight and compact design of the RRS-3 systems makes them ideal for hard to access areas where space is at a premium.

RRS-4 – *PLC Based Universal Remote Racking System (Rotary)*

The CBS ArcSafe® RRS-4 universal remote racking system is an updated PLC based version of the best selling RRS-1. The dual mode, source programmable, PLC based control system offers two different operating modes to choose from based on user preference or the application. The RRS-4 is capable of remotely installing and removing rotary style draw out circuit breakers without requiring any modification to the existing switchgear, allowing users to remain outside of the arc flash boundary during the potentially hazardous racking operation.

RSA – *Remote Switch Actuator*

The CBS ArcSafe® Remote Switch Actuator (RSA) product line is made up of various application specific remote operating devices. These products allow service personnel to remotely perform all aspects of an operation for a particular type of electrical equipment from outside the arc flash boundary – reducing or eliminating the possibility of serious injury or death resulting from an arc flash.

RSO – *Remote Switch Operator*

During a remote operation, the CBS ArcSafe® RSO functions as both the power supply and user interface for the device being remotely operated by the user. When paired with an applicable CBS ArcSafe® device, this portable standalone system allows service personnel to remotely perform a racking or switching procedure from outside the arc flash boundary – reducing or eliminating the possibility of injury or death resulting from an arc flash

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About the User's Guide

This user's guide describes the functions and features of the CBS ArcSafe® Single Application Remote Racking System (RRS-3). This technical document is intended to act as a simplified reference for users of the equipment; allowing for safe, quick, and efficient use of the RRS-3 features.

DANGER!

This is a red hazard alert warning box; red hazard alert boxes contain information pointing out potential hazards to personnel and equipment.

ATTENTION!

This is a green information box; green information boxes are used to place emphasis on valuable information the user will want to pay particular attention to.

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DANGER!

Ensure that personnel using this equipment are adequately trained in the operation of the switchgear they are planning to work with; that they are correctly stationed outside the arc flash boundary; and that they comply with all applicable Federal, State, Local, and In-house safety regulations and procedures. Attention should be given to distance, angle, and personal protective equipment (PPE).

DANGER!

Ensure that switchgear is properly maintained and in good working order before using the RRS-3 on your switchgear. Contact your local group CBS service provider at www.gcbs.com to assist in proper care and maintenance for your switchgear.

1 Installation

DANGER!

Ensure that the equipment to be remotely operated matches the equipment shown and described on the cover page. If the equipment does not match, please contact CBS ArcSafe® for more information regarding remote operating applications for the equipment in question.

ATTENTION!

The location of certain items such as mimic bus, stickers, and/or placards may interfere with the installation of the remote operating equipment. These items may need to be removed or repositioned for proper installation.

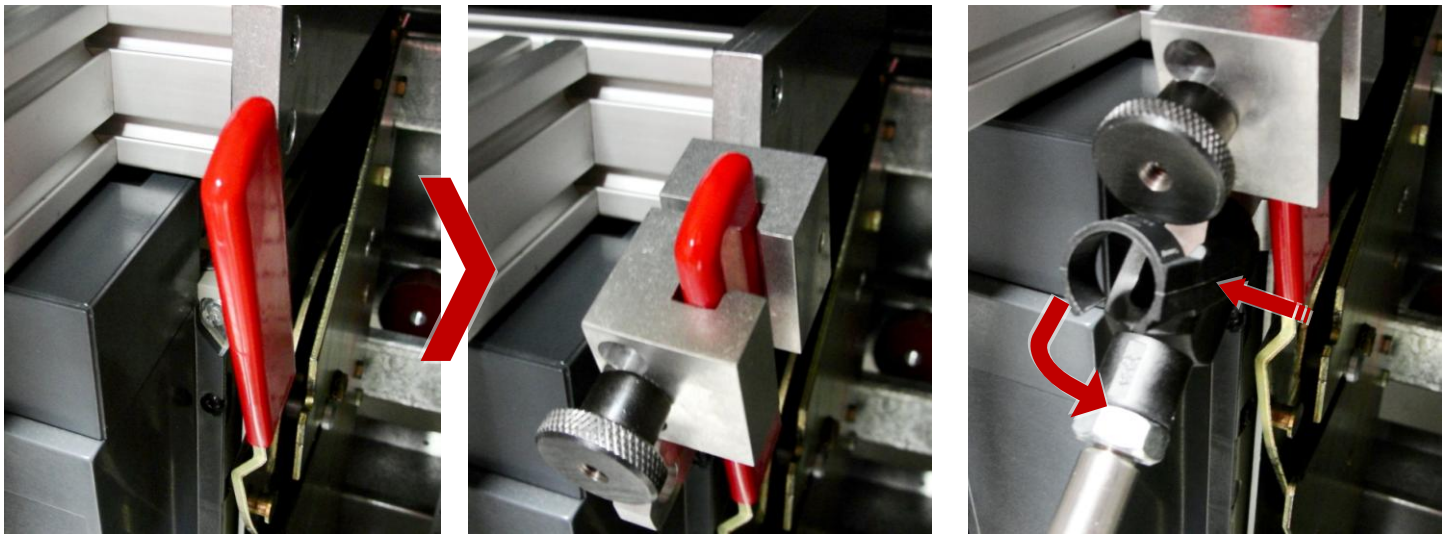
1. Ensure that the breaker is free from any obstruction that may interfere with the proper installation of the RRS-3.

2. Remove the handle adapter from the RRS-3, as shown below left and center. Also ensure that the interlock defeat handle is locked in the fully up position (below right).

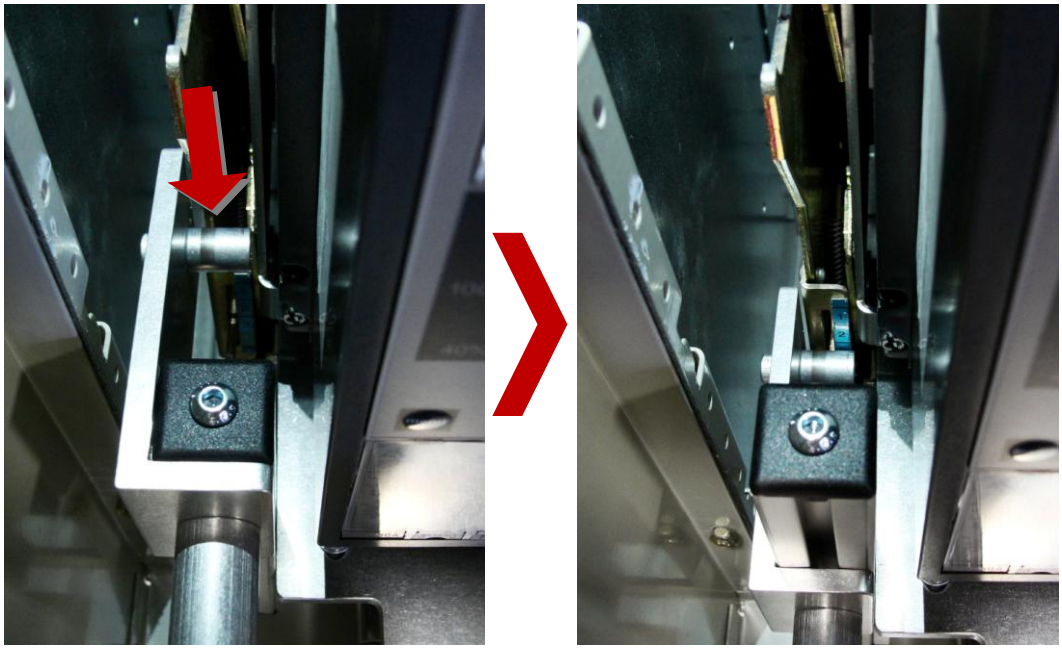
3. Place the RRS-3 on the breaker faceplate, ensuring the notch on each black locator piece seats around the upper frame of the breaker.

4. Ensure the twist-lock magnet is flush against the cabinet, and then secure the RRS-3 by turning the handle180 degrees clockwise.

5. Pull the breaker racking handle out from it's stowed position and install the handle adapter, leaving approximately 0.5 in of the handle exposed above the adapter. Lock the adapter back onto the racking arm with the black lock pin.



6. Loosen the interlock defeat handle, slide the handle downward until it engages the racking interlock, and then re-tighten it in place.



The RRS-3 is now ready for operation.

2 Operation

ATTENTION!

Please ensure that all cables are clear of moving parts. Failure to do so may result in damage to cables and/or actuator.

ATTENTION!

Please ensure that the batteries to the RSO-IV are fully charged or that the unit is plugged into AC power.

For detailed instructions on the operation of the RSO-IV please see the RSO-IV Manual.

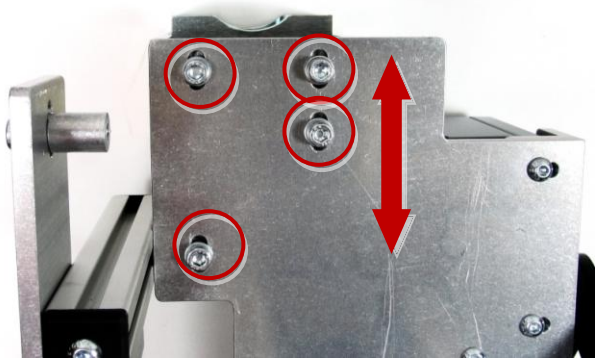
1. Ensure that the RRS-3 is properly installed. See the Installation section of this manual for detailed instructions.
2. Connect the cable from the RSO-IV to the motor control box on the RRS-3
3. Turn the power switch on the RSO-IV to the ON position.
4. Program the settings for the RRS-3 into the RSO-IV. These settings can be found on the placard on the RRS-3. For more information on programming the RSO-IV please refer to the RSO-IV Technical Manual.
5. Exit the arc flash boundary.
6. Once the current limits have been properly set, press and release the REMOVE button on the RSO-IV control panel or remote pendant to rack the breaker out.
7. Press and release the INSTALL button on the RSO-IV control panel or remote pendant to rack the breaker in.

3 Adjustments

3.1 Magnet Adjustment

The depth of the twist-lock magnet on the RRS-3 can be adjusted to accommodate differences in the breaker and gear.

1. Loosen the four bolts holding the magnet plate in place, as indicated.

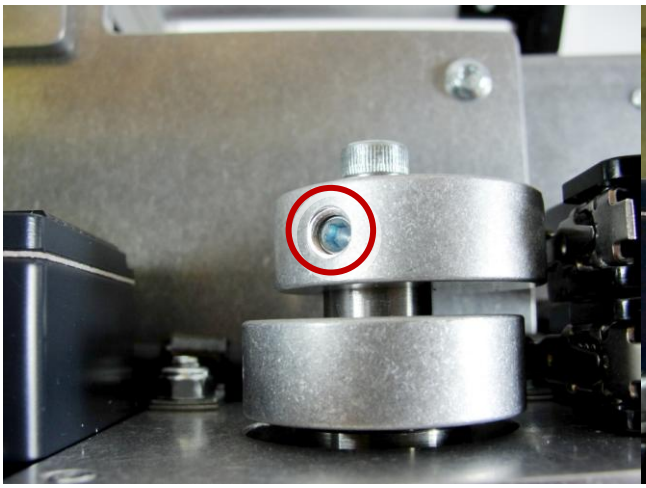


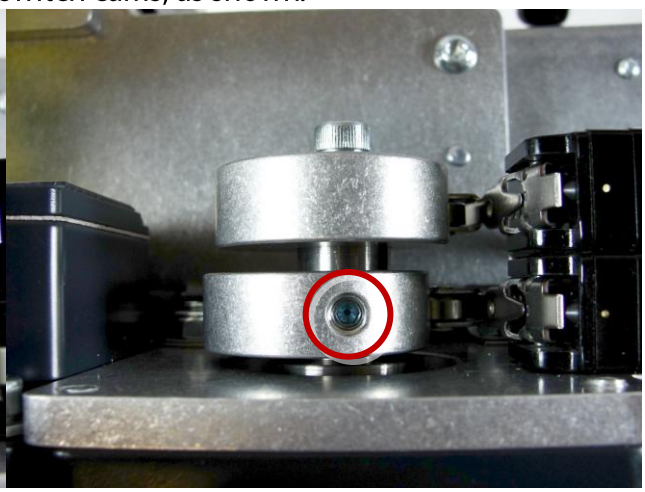
2. Install the RSA, per the instructions in the Installation section on a de-energized piece of equipment.
3. Before locking the twist-lock magnet in place, slide the mounting plate in or out as required for the magnet to properly seat againt the cabinet.
4. Re-tighten any bolts loosened during adjustment.

3.2 Travel Adjustment

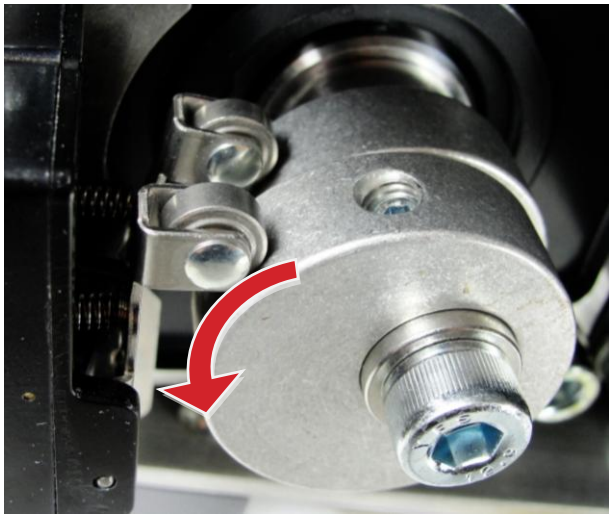
The travel length for the motor arm may be adjusted to avoid damage to the racking mechanism.

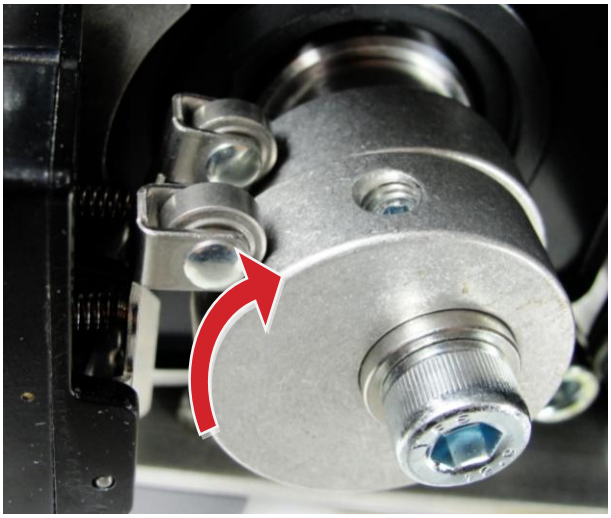
1. Install the RSA on the face of the breaker as described in the Installation section.
2. Loosen the lock screws on the backs of the two switch cams, as shown.



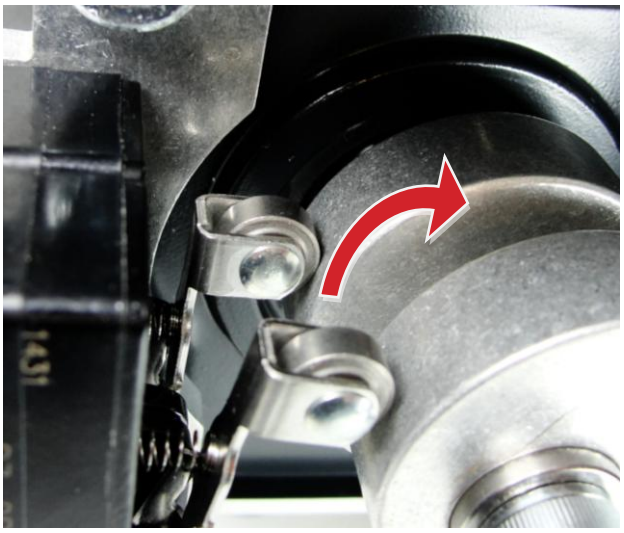


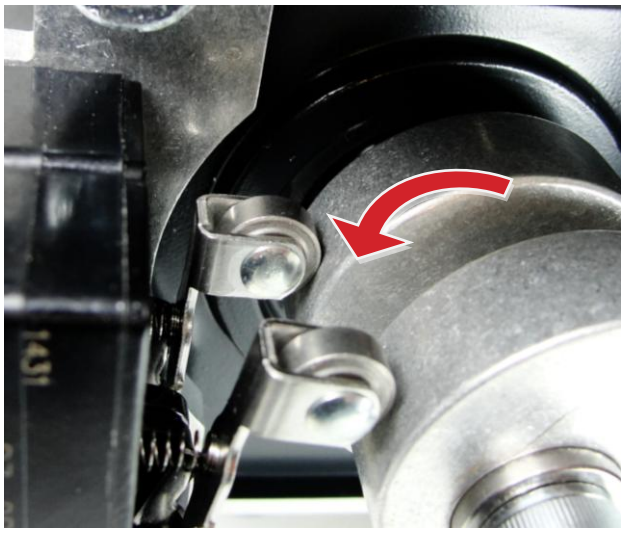
3. With the RSA operator and racking arm fully in the UP position, rotate the outer limit switch cam until the limit switch is undepressed and clicks slightly, then rotate the cam back onto the switch until another slight click is heard, and the switch is depressed. Re-tighten the lock-screw on the cam.





4. With the RSA operator and racking arm fully in the DOWN position, rotate the inner limit switch cam until the limit switch is undepressed and clicks slightly, then rotate the cam back onto the switch until another slight click is heard, and the switch is depressed. Re-tighten the lock-screw on the cam.





Notes

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