Installation and Operation

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-117

For Westinghouse WLI
Load Break Switch

Distance is Safety®

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

2616 Sirius Road | Denton, TX 76208 | (877) 4-SAFETY | www.cbsarcsafe.com

Rev. 12/20/2017

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

Published and distributed by:
CBS ArcSafe®
2616 Sirius Road
Denton, Texas 76208

A division of:
GroupCBS, Inc.®
P.O. Box 1557
Gainesville, Texas 76241

Copyright CBS ArcSafe® 2017

Printed in the United States of America
Reproduction, adaptation, or translation without prior written permission is prohibited except as is allowed by law.

1 Installation

DANGER!

Before servicing any breaker, make sure that it matches the breaker discussed. If the breaker does not match the breaker described above, please call CBS ArcSafe® for more information.

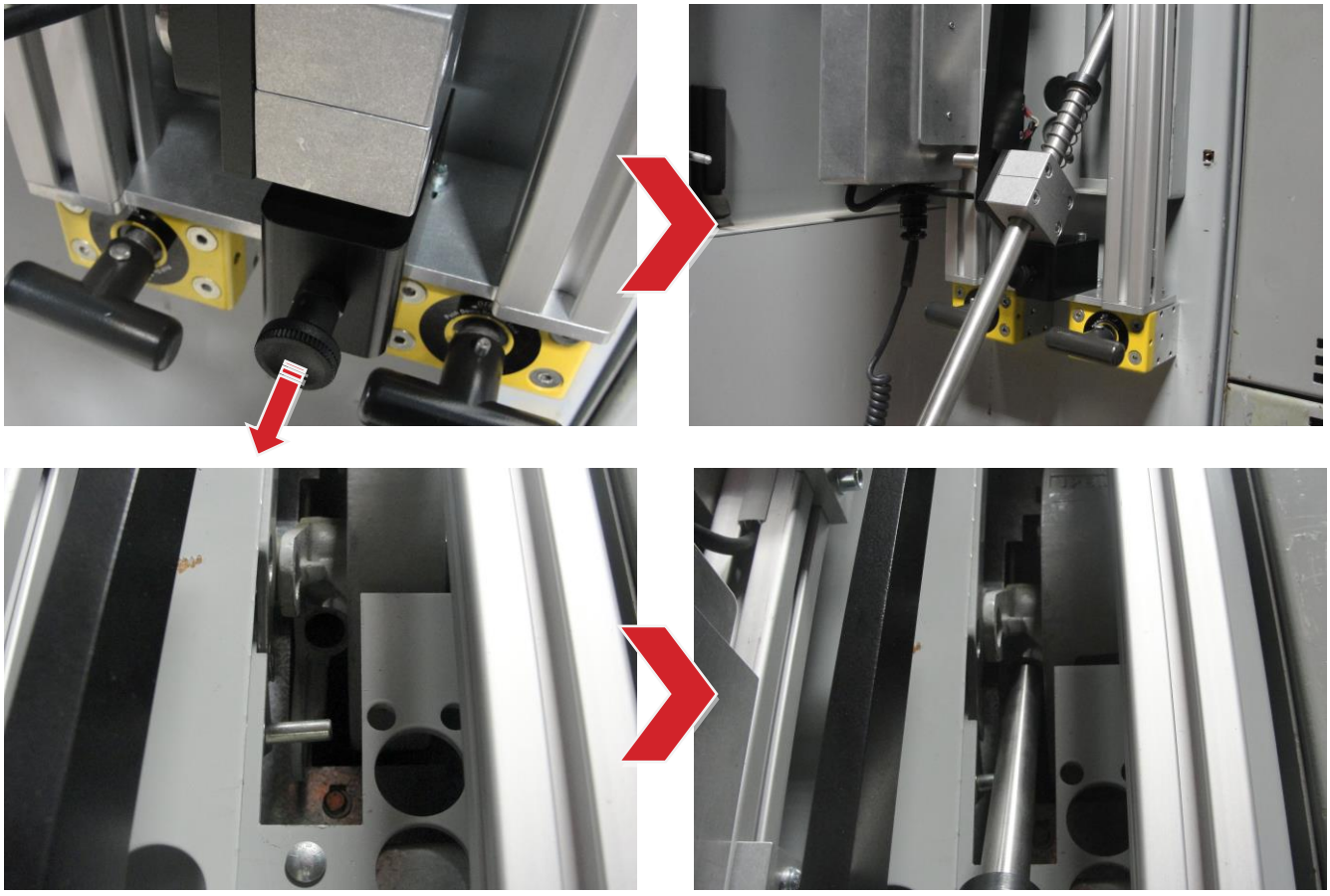
ATTENTION!

The location of certain items such as mimic bus, stickers, and/or placards may interfere with the proper installation of the RSA. Please remove or reposition these items before installing the RSA.

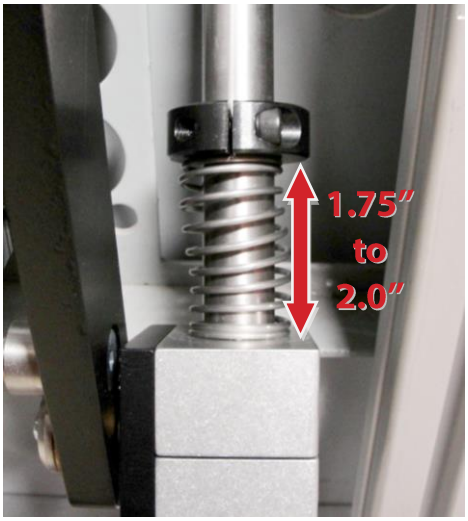
1. Open the switch door, and ensure that the switch is free from obstructions that may interfere with proper installation of the RSA

2. Position the RSA on the breaker, ensuring that locator on the RSA slips over the lip at the top of the switch housing door, as shown. If the switch does not have a lip, then ensure that the locator is flush to the top of the housing.

3. Release the actuator arm by pulling the black knob outward, then pull the actuator arm upward, and tilt the arm at a slight angle so it can be inserted into the receptacle on the switching mechanism, then insert it into the switching receptacle.



4. After installing the actuator arm, ensure that the spacing between the shaft collar and the bearing block on the actuator arm is between 1.75 and 2 inches. This distance ensures proper spring tension to prevent the arm from disengaging the switch mechanism during operation. To adjust this, see the Adjustments section.



5. Ensure the magnets are fully seated against the breaker door and then turn the handles of the twist-lock magnets 180° to lock the RSA in place.

The RSA 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-I AR are fully charged or that the unit is plugged into AC power.

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

1. Ensure that the RSA is properly installed. See the Installation section for detailed instructions.
2. Plug the RSO-I AR into the motor control box.
3. Exit the arc flash boundary
4. Turn the power switch on the RSO-I AR to the ON position.
5. Ensure that the Auto Retract (AR) function is OFF
6. Press and hold CLOSE to turn ON the switch.
7. Press and hold TRIP to turn OFF the switch.

3 Adjustments

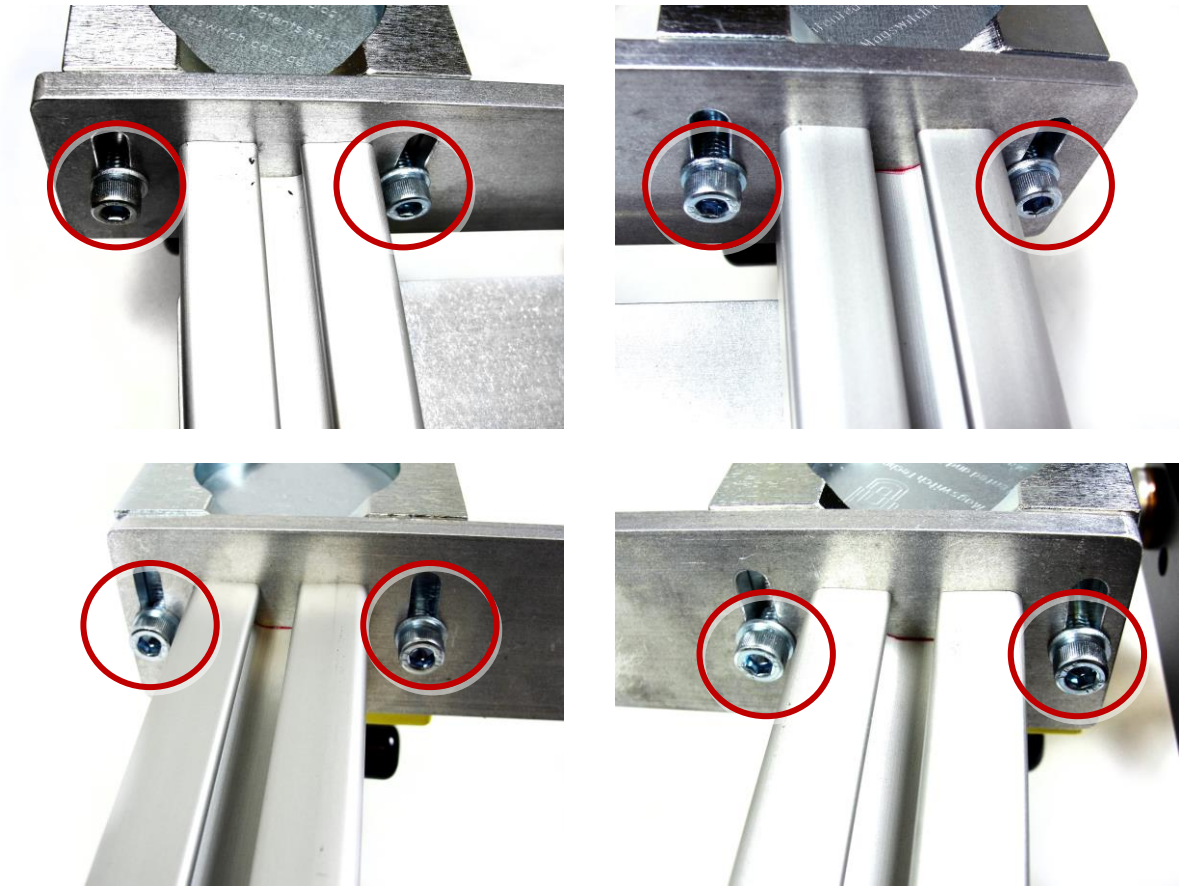
The RSA comes adjusted from the factory to fit most common configurations, and should not need to be adjusted in most cases. However, if adjustments do need to be performed, it is recommended that they be done on de-energized and isolated equipment to prevent possible damage or injury.

3.1 Depth Adjustment

The mounting depth of the RSA can be adjusted to avoid interference with bolts, plackards, and other items mounted to the switchgear door. To adjust the depth of the RSA, both the Magnets and the Locator must be adjusted at the same time, to the same level.

3.1.1 Magnet Depth

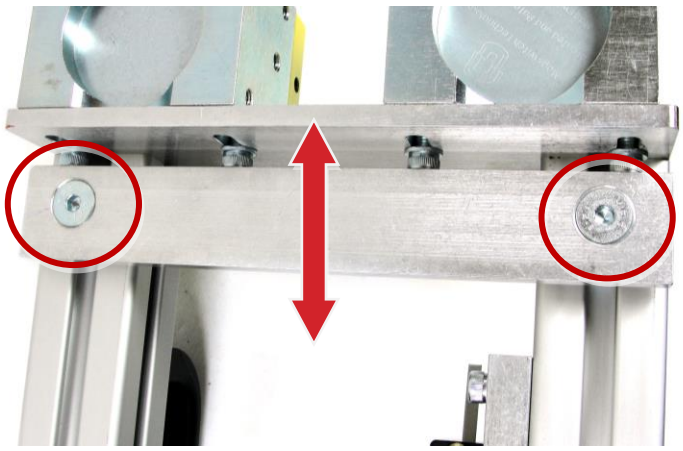
1. Loosen the two bolts on each magnet, as shown below.



2. Install the RSA as described in the Installation section.
3. Slide each magnet up or down as required to accommodate any obstructions on the gear door.
4. Re- tighten any loosened bolts.

3.1.2 Locator Position

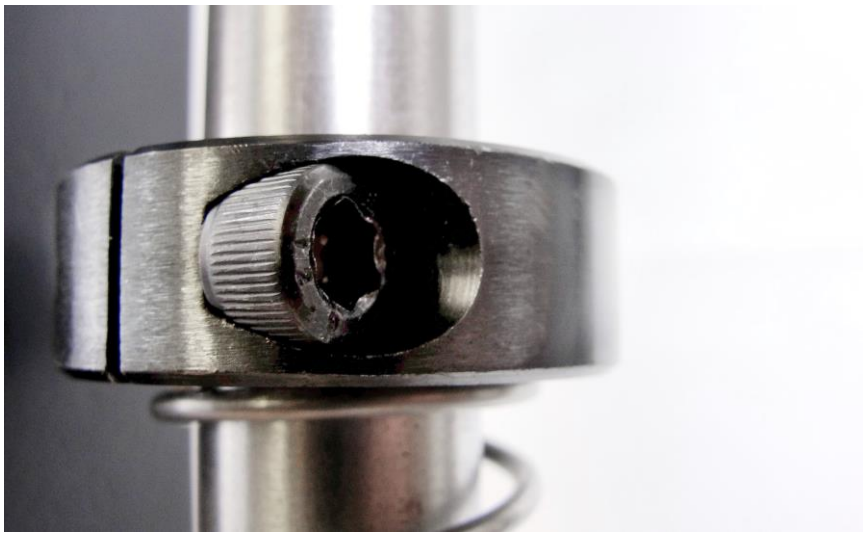
1. Loosen the two bolts on the locator, as shown below.



2. Install the RSA as described in the Installation section.
3. Slide the locator as required to properly position the RSA properly on the switch.
4. Re- tighten any loosened bolts.

3.1.3 Lock Collar Position.

1. Install the RSA on a switch in the OFF position. Ensure the Actuator arm is fully inserted in the breaker mechanism.
2. Loosen the lock screw on the shaft collar (shown).

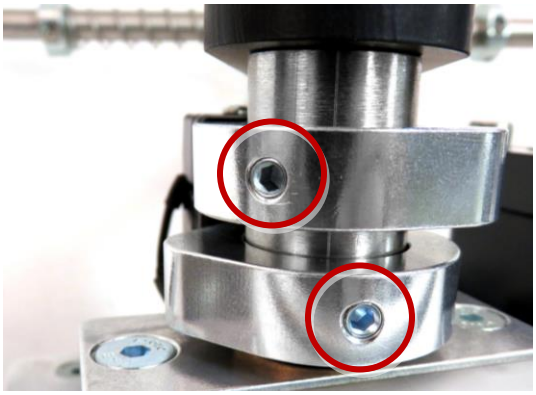


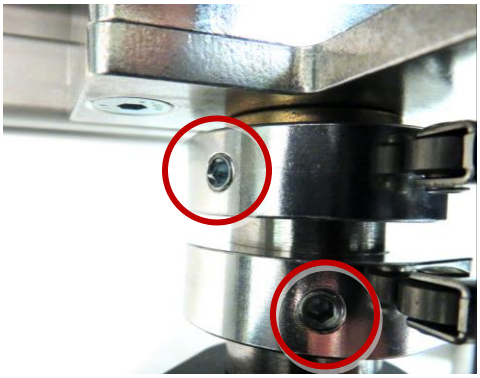
3. Slide the collar shaft down, compressing the spring until the spacing between the shaft collar and bearing block is between 1.75 and 2 inches, as described in the Installation section.
4. Re-tighten the lock screw on the shaft collar.

3.2 Travel Adjustment

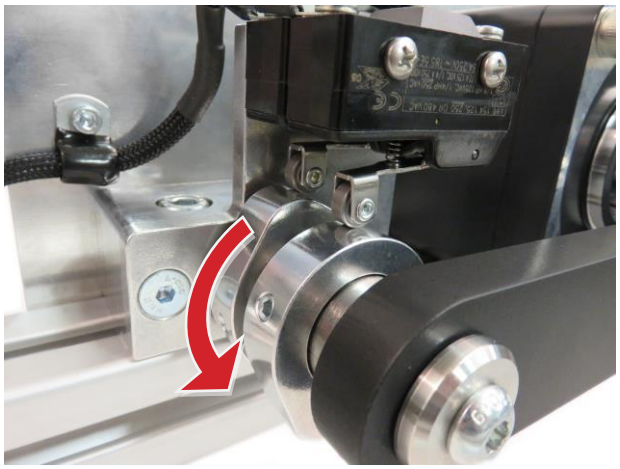
The travel length for the motor arm may be adjusted to avoid damage to the switch.

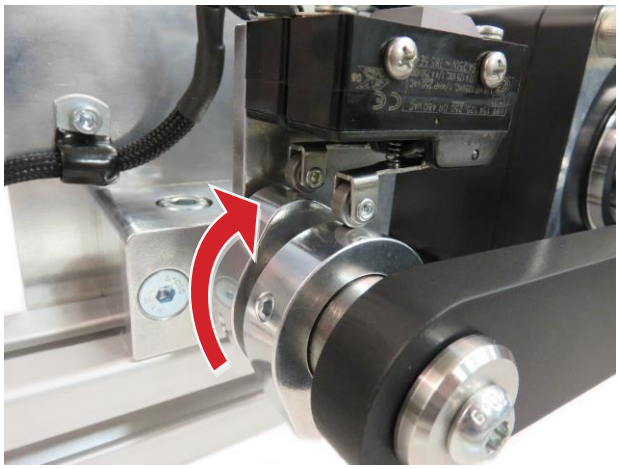
1. Loosen the lock screws on the backs of the two switch cams. Note that each cam has two screws.



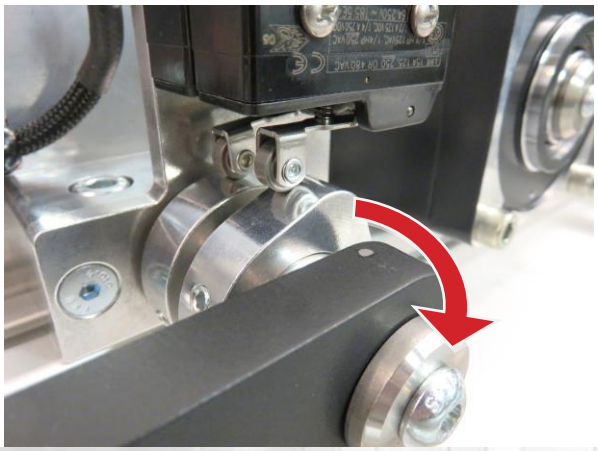


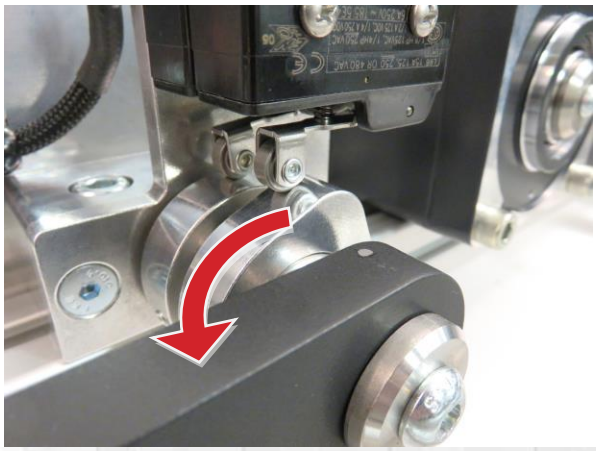
2. With the RSA charging arm in the UP position, rotate the inner limit switch cam opposite the direction of travel until the limit switch is undepressed and clicks slightly, then rotate the cam back onto the switch until another slight click is heard, and the switch is depressed. Re-tighten the lock-screw on the cam.





3. With the RSA charging arm in the DOWN position, rotate the outer limit switch cam opposite the direction of travel for the arm, until a slight click is heard. Re-tighten the lock screw.





Notes

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-117
Installation and Operation

2616 Sirius Road
Denton, TX 76208
Tel: 877-4-SAFETY
Fax: 940-382-9435
Website: www.CBSArcSafe.com
Email: info@CBSArcSafe.com

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).