Installation and Operation

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-147

For Square D Power Zone

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. 8/18/2016

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® 2013

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!

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.

1.1 Locator Post Installation

DANGER!

Before installing any locating posts, ensure the breaker has been de-energized to minimize any potential Arc-Flash hazard.

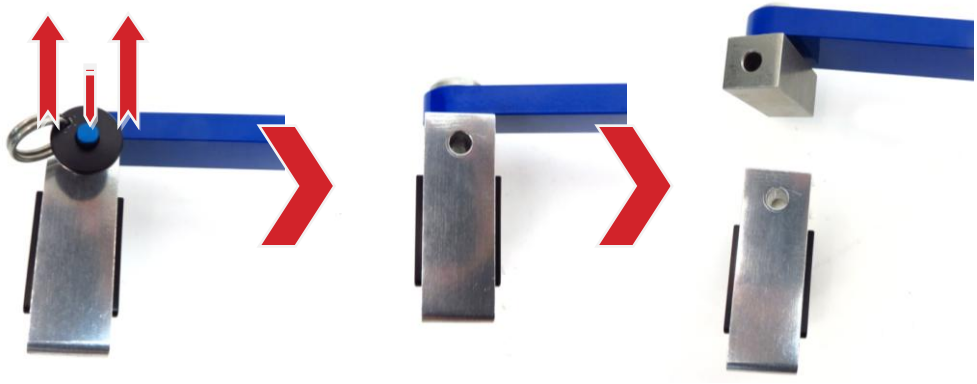
1. Locate and remove the two access screws on the front panel of the switchgear.

2. Insert the locating post and bolt into each of the previous bolt holes on the breaker, and tighten.

You are now ready to install the RSA.

1.2 RSA Installation

1. First, remove the spring pin on the RSA handle adapter by pressing the blue button while pulling out, and slide off the plastic bushing and its metal support piece.

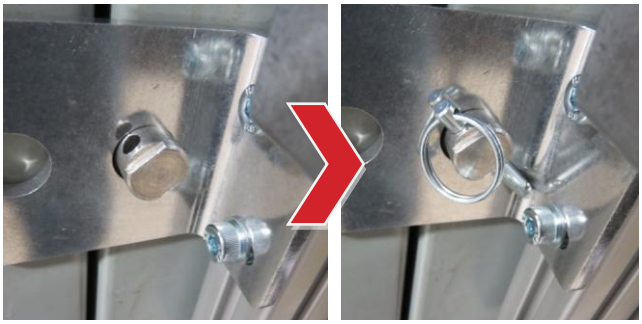


2. Slide the RSA onto the locator posts through the holes thatallow the handle adapter to fit appropriately against the handle, as shown. If locator posts are not installed, see Section 1.1 Locator Post Installation. *Match the operator handle to the breaker handle position if it is not already.*

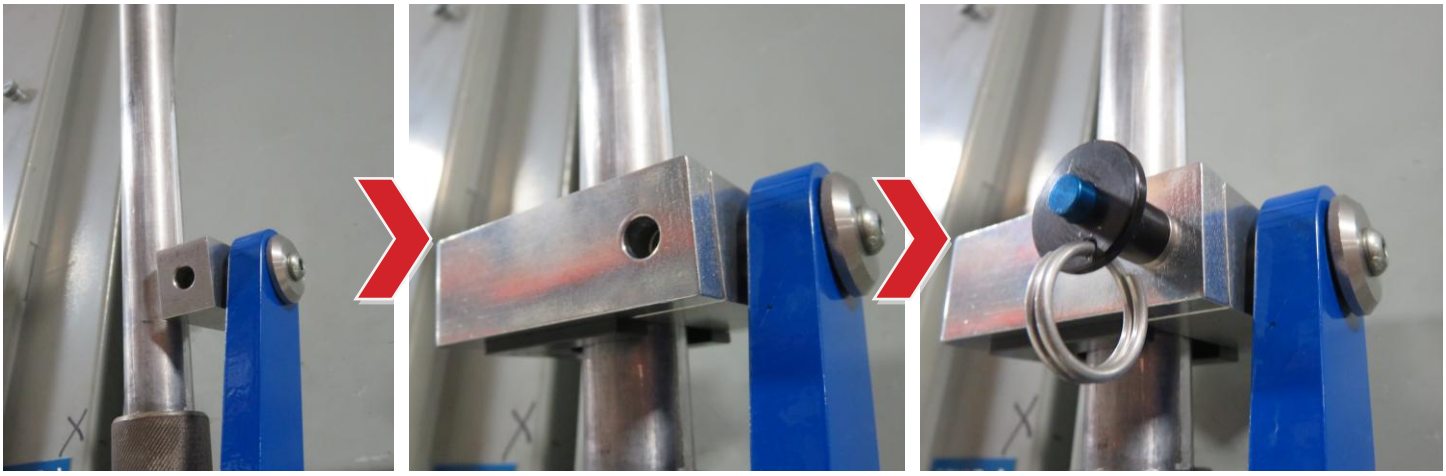
3. Turn the handles of the twst-lock magnets 180° clockwise to hold the RSA in place.
4. Insert the included pins into the upper and lower locator posts to fully lock the RSA in position.

DANGER!

The magnets on the RSA are not strong enough to hold the RSA in place during operation on this breaker. Do not attempt to operate this breaker without the locator post pins in place, or the RSA will be pulled from the breaker and could cause an Arc Flash.



5. Re-install the handle bushing onto the RSA, and lock it in place with the spring pin removed earlier. Ensure that the spring pin will face outwards when the breaker is in the CLOSED position, or the pin may be difficult or impossible to remove after closing the breaker.



The RSA is now ready for remote 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.

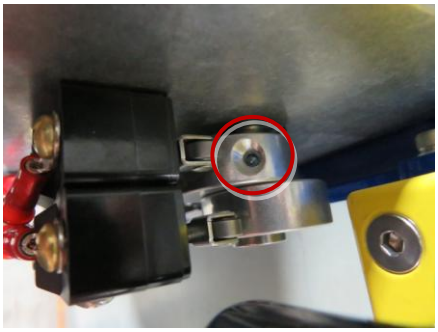
1. Ensure that the RSA is properly installed. See Section 3 for detailed instructions.
2. Plug the RSO-I AR into the motor control box.
3. Exit the arc flash boundary
4. Turn the power switch on the RSO-I AR to the ON position.
5. Ensure that the Auto Retract (AR) function is OFF
6. If the switch is OPEN and needs to be CLOSED, press and hold the CLOSE button on the RSO-I AR. The RSA will stop automatically when the breaker reaches the CLOSED position.
7. If the switch is CLOSED and needs to be OPEN, press and hold the OPEN button on the RSO-I AR. The RSA will stop automatically when the breaker reaches the OPEN position.

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 Travel Adjustment

1. The travel length for the motor arm may be adjusted to avoid damage to the switch.
2. Loosen the lock screws on the backs of the two switch cams.

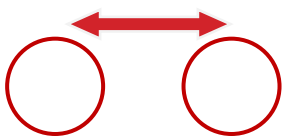


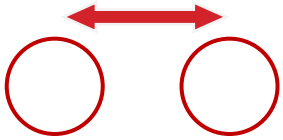
3. With the RSA charging arm in the UP position, rotate the inner limit switch cam until the limit switch is undepressed and clicks slightly, then rotate the cam back onto the switch until another slight click is heard, and the switch is depressed. Re-tighten the lock-screw on the cam.
4. With the RSA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

3.2 Locator Adjustment

The locator on the RSA can be adjusted to accommodate some differences in the depth of the switch.

1. Loosen the two bolts on each locator tab as shown.





2. Attach the RSA as described in the Installation section.
3. Slide the locator to the desired position along the extrusion.
4. Re-tighten the bolts from Step 1.

Notes

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-147
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).