

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

Installation and Operation

RSA-78

For Cutler-Hammer F2100, Advantage,
Series 2100; Westinghouse Five Star
Size 1-5 MCC Bucket



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. 12/9/2016

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

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1 Installation

DANGER!

Before performing a remote operation on any electrical equipment please ensure that it matches the electrical equipment discussed and shown on the cover of this manual. If the electrical equipment does not match please contact CBS ArcSafe® for more information.

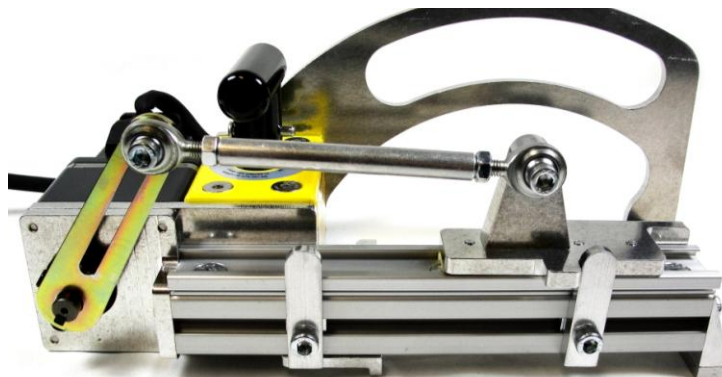
ATTENTION!

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. Ensure that the area around the MCC bucket operating handle is free from any obstruction that may interfere with the proper installation of the RSA as shown below.



2. Next, ensure that the RSA handle operator position matches the operating handle position on the MCC bucket. The handle operator on the RSA can be moved by hand if necessary.
 - a. If the MCC bucket operating handle is ON or CLOSED, then the arm on the RSA needs to be fully extended.



- b. If the MCC bucket operating handle is OFF or OPEN, then the arm on RSA needs to be fully retracted.

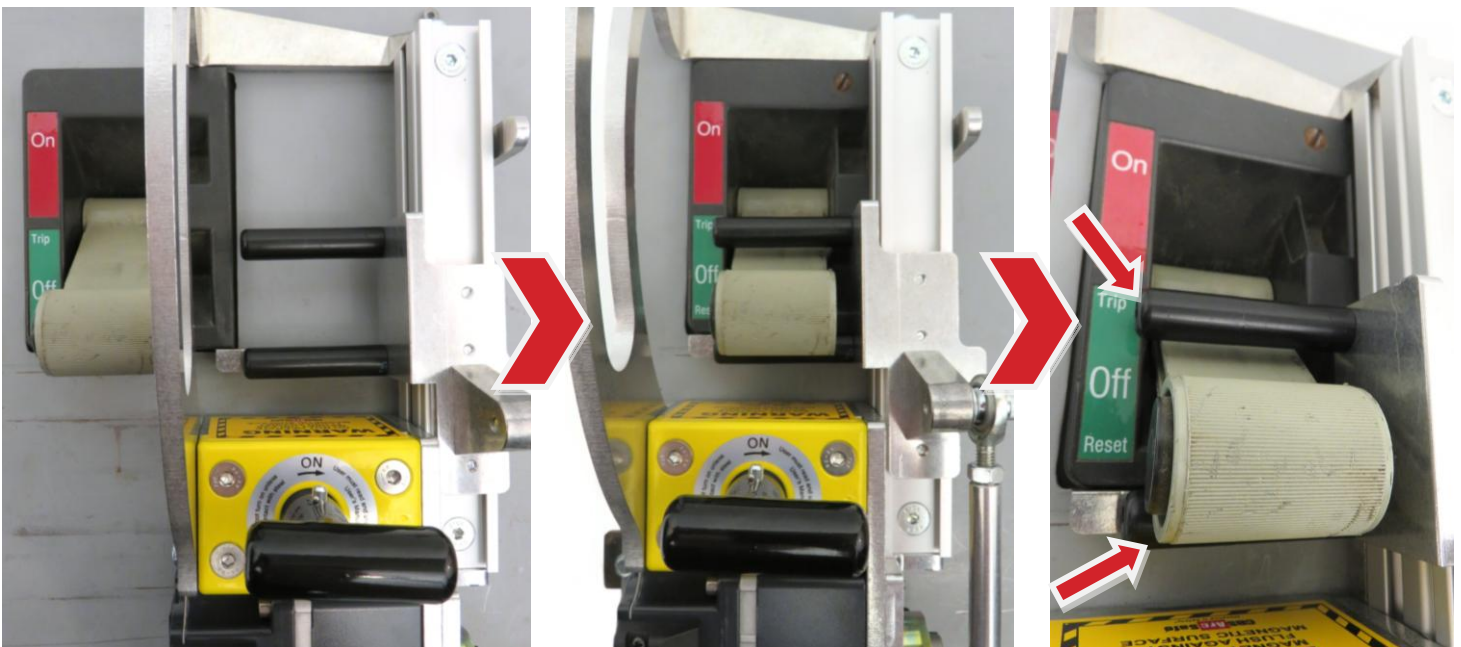


3. Slide the RSA onto the MCC bucket handle operator from right (below left) to left until it is firmly resting against the right side escutcheon (below center) of the operating handle base, all the while ensuring that the RSA handle adapter fits properly around the MCC bucket operating handle (below right).

ATTENTION!

Be sure to install the RSA with the motor and magnet facing the OFF side of the bucket operating handle.

If the RSA is installed with the motor in the incorrect orientation (i.e. not on the OFF side of the operating handle) then the RSA will fail to operate the handle properly.



4. Lock the RSA into place by turning the handle of the twist-lock magnet 180° clockwise to engage the magnet to the surface of the MCC bucket.
5. Lastly, magnetically attach and position the motor control box so that the cord is out of the way of any moving parts.

The RSA is now ready for remote operation.

ATTENTION!

Be sure that the orientation of the RSA relative to the switch matches the image below before proceeding, or the RSA will fail to actuate the MCC bucket operating handle.

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 1 for detailed instructions.
2. Plug the RSO-I AR into the motor control box.
3. Turn the power switch on the RSO-I AR to the ON position.
4. Ensure that the Auto Retract (AR) function is OFF.
5. Exit the arc flash boundary with the RSO-I AR or radio remote handheld control (Optional).
6. If the MCC bucket is OFF or OPEN and needs to be turned ON or CLOSED, press and hold the CLOSE button on the RSO-I AR until the MCC bucket is turned ON.
7. If the MCC bucket is ON or CLOSED and needs to be turned OFF or OPENED, press and hold the TRIP button on the RSO-I AR until the MCC bucket is turned OFF.



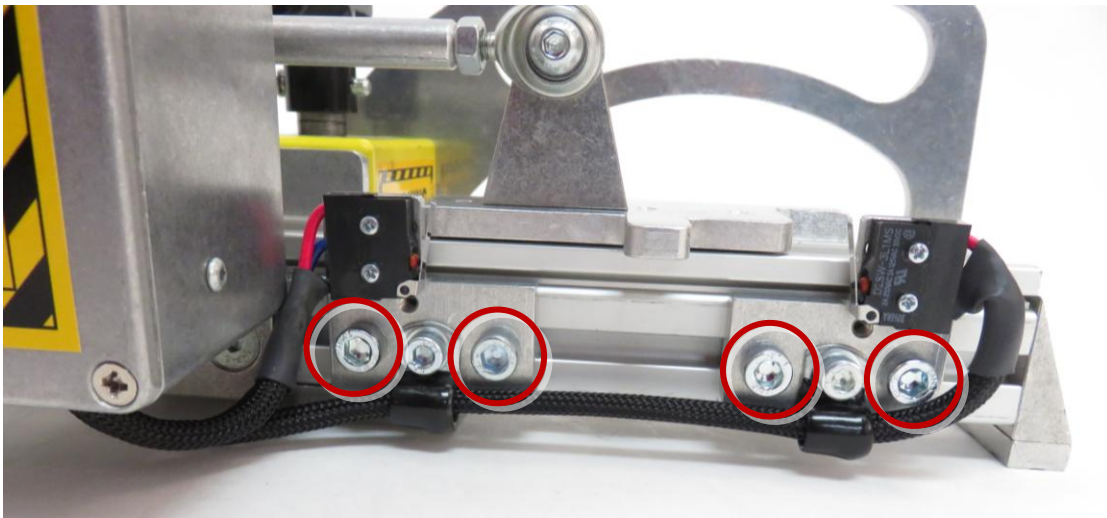
3 Adjustments

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.

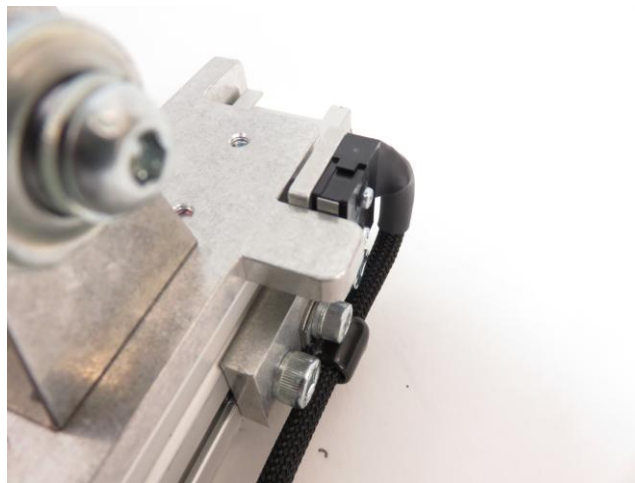
3.1 Travel Adjustment

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

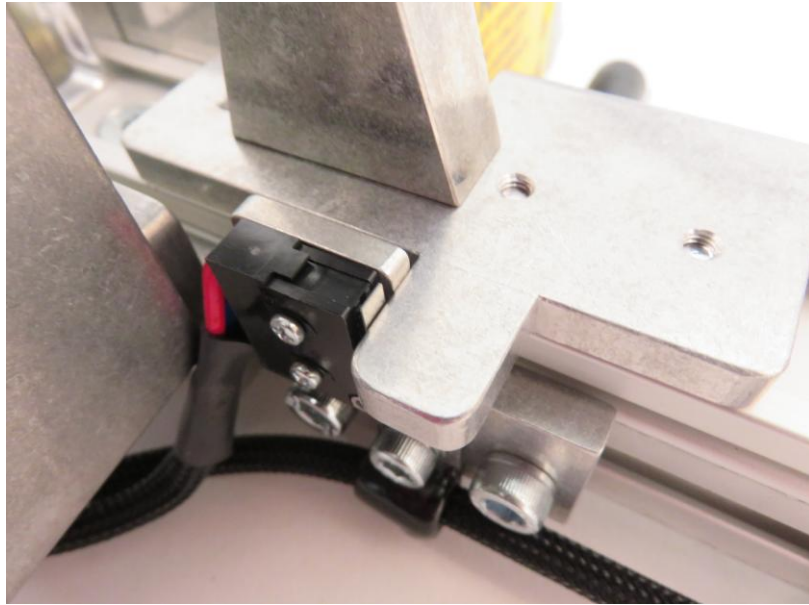
1. Install the RSA on the face of the switch as described in the Installation section.
2. Loosen the lock screws on the two travel stops, indicated below.



3. With the MCC bucket and RSA in the ON position, slide the ON travel stop so it contacts the actuator arm and tighten into place.



4. With the MCC bucket and RSA in the OFF position, slide the OFF travel stop so it contacts the actuator arm and tighten into place.





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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).