

Installation and Operation



Distance Is Safety®

A Group CBS Company

RSA-221C

For Eaton/Cutler-Hammer Type SM Safety Handle

For Series C Molded Case Circuit Breakers In Stainless Steel Enclosure

(Modifications Required For Installation And Operation)

Includes J Frame, K Frame, L Frame & M Frame



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

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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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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.

This RSA includes a mounting bracket that must be installed on the breaker before attempting to operate.

1.1 Bracket Installation

DANGER!

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

1. Remove the two screws the switch faceplate, as indicated below.



2. Place the mounting bracket on the breaker face as shown, and fix in place using the two provided screws and a 5/16" hex key.



You are now ready to install the RSA.

1.2 RSA Installation

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 breaker is free from obstructions that may interfere with proper installation of the RSA.



3. Ensure the mounting bracket has been installed on the breaker prior to attempting to install the RSA. See Section 1.1 Bracket Installation for instructions if required.
4. Position the actuator on the RSA to match the breaker state, prior to installation.

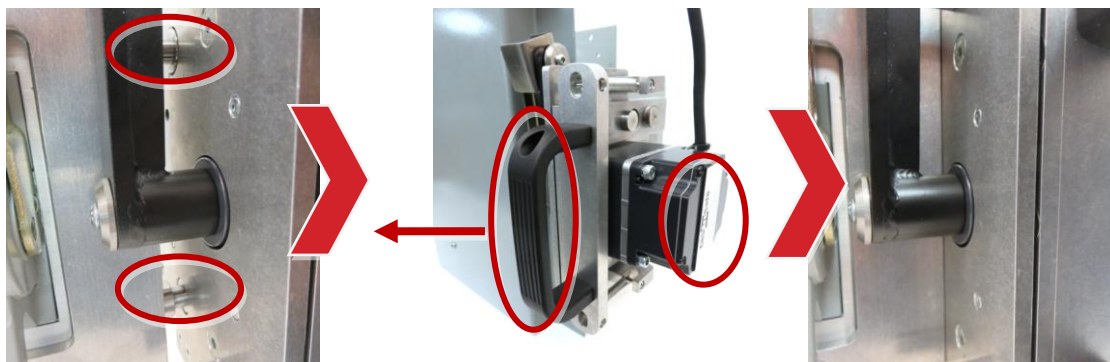


Breaker ON



Breaker OFF

5. Place the RSA on the side of the breaker with the locking pegs in the matching holes on the RSA (below left). Grip the back of the motor housing with one hand, and with the other hand pull handle on the RSA outward while pushing the RSA toward the breaker (below center). The RSA should slide in towards the breaker, and become flush with the mounting bracket (below right).



6. Allow the locking handle to return to the retracted position to lock in place. The locking plate on the RSA should slide past the locking posts. If the locking plate fails to fully retract, push on the handle gently while maintaining a grip on the motor until the locking plate fully slides into place.
7. Ensure the handle of the breaker is seated in the handle actuator on the RSA. If the switch is not fitted inside the actuator, remove the RSA, readjust the actuator position, and then reinstall it.

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 set according to the placard on the RSA. If not specified, then AR should be turned OFF
6. Press and hold CLOSE to turn the breaker OFF.
7. Press and hold TRIP to the breaker ON.



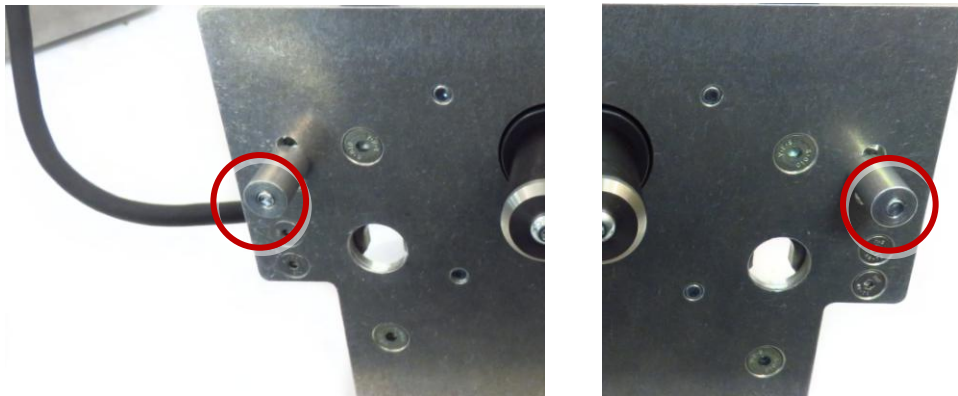
3 Adjustments

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

This RSA has travel stops on it to prevent over-travel and damage of the handle operator during operation.

1. Install the RSA as directed in the Installation section
2. Loosen the bolt on each travel stop, as indicated below.



3. To set the RSA to stop the handle at the ON position, tap the RSO CLOSE button to carefully jog the RSA until the breaker has reached the ON position. Slide the ON travel stop so it sits flush against the handle, and re-tighten the bolt.
4. To set the RSA to stop the switch at the OFF position, tap the RSO TRIP button to carefully jog the RSA until the Handle Operator is at the OFF position. Slide the OFF travel stop so it sits flush against the handle, and re-tighten the bolt.

Notes

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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).