Installation and Operation

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-1F

For Breaker Control Switch

Compatible with: General Electric SB-1, SB-9, SB-10

Pull To Operate

Distance is Safety®

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

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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

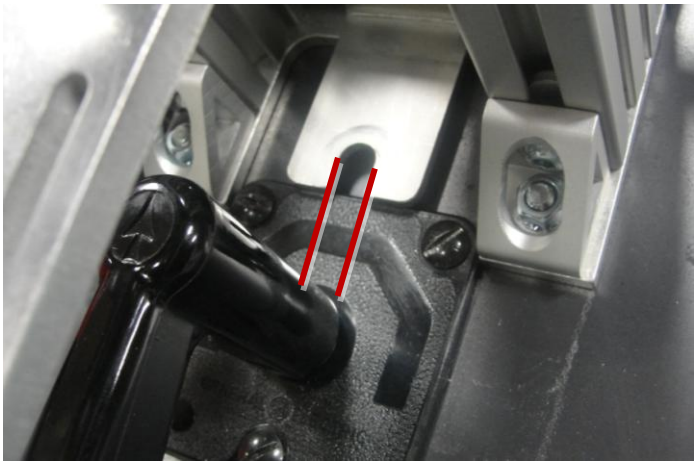
DANGER!

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.

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.

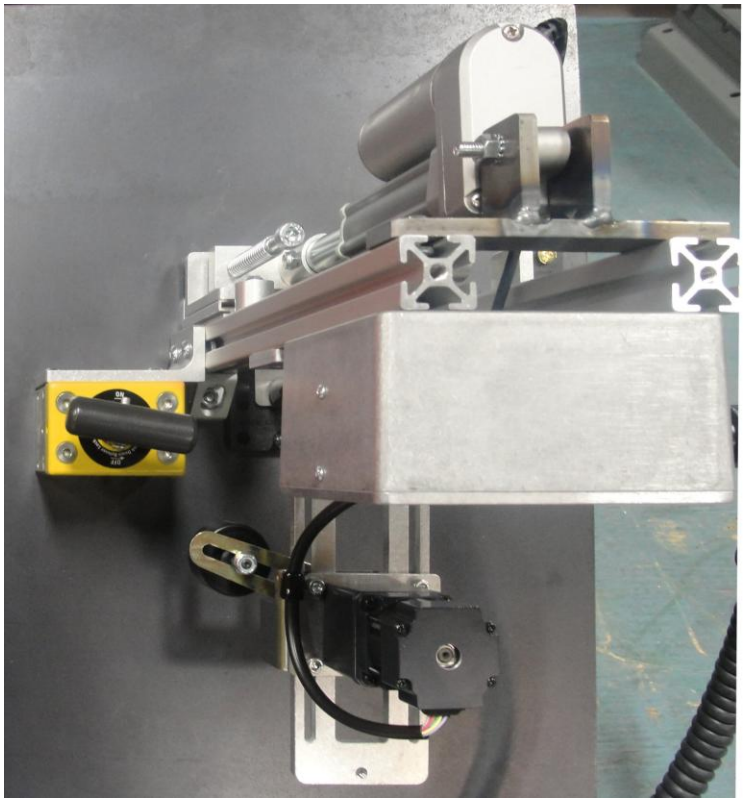
1. Ensure that the Breaker Control Switch to be operated is free from obstructions that may interfere with proper installation of the RSA
2. Place the RSA on the face of the breaker above the handle, as shown below, to align the actuator plate plate with the handle to be operated.



3. Slide the RSA down on the breaker face positioning the actuator plate behind the breaker handle.

4. Turn the handles of the twist-lock magnet 180° clockwise to hold 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.

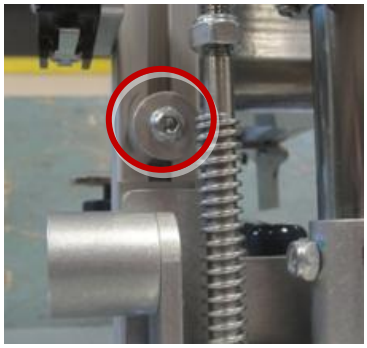
1. Ensure that the RSA is properly installed. See the Installation section for detailed instructions.
2. Plug the RSO-I AR into the motor control box.
3. Exit the arc flash boundary
4. Turn the power switch on the RSO-I AR to the ON position.
5. Ensure that the Auto Retract (AR) function is set according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

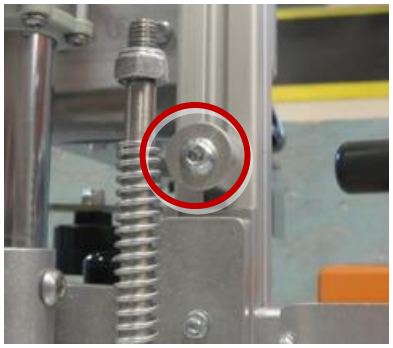
3 Adjustments

Although each RSA is tested on a fully maintained breaker at the CBS ArcSafe® facility, some adjustments may need to be made to ensure proper operation. If possible, perform all adjustments on a spare or de-energized breaker control switch.

3.1 Hard Stop adjustment

1. Loosen the two bolts holding the hard stops in place.

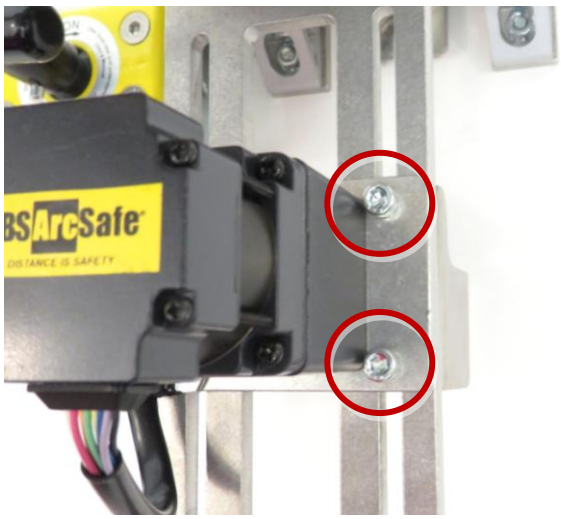




2. Install the RSA, as described in the Installation section of this manual.
3. Turn AR off on the RSO and tap the CLOSE or TRIP button repeatedly to retract the actuator until the breaker handle is pulled outward to its maximum travel position.
4. Slide the hard stops so they contact the linear actuator mounting plate,and re-tighten the bolts with the hard stops in the new position. Be sure to tighten the stops down firmly so they do not move during operation to prevent damage to the switch.
5. Return switch to AR for normal operation.

3.2 Motor Adjustment

1. Loosen the four bolts on the back of the motor



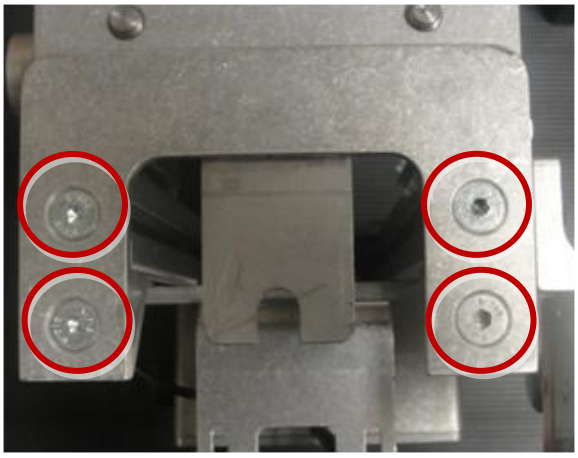
2. Install the RSA, as described in the Installation section of this manual.
3. Slide the motor up or down to ensure the motor fully engages the switch during operation.
4. Re-tighten any bolts loosened during adjustment.

3.3 Magnet Adjustment

The magnet can be repositioned to clear any obstructions on the breaker.

1. Remove the magnet from the magnet bracket by removing the 2 bolts, indicated below.

2. Remove the Base Plate from the RSA by removing the four bolts, indicated below.



3. Loosen the two bolts holing the magnet bracket to the RSA, and remove the end-cap on the end of the extrusion.

4. Slide the magnet bracket out.
5. Slide the magnet bracket into the opposite side of RSA.
6. Re-tighten the bolts for the magnet bracket.
7. Re-attach the magnet to the magnet bracket.
8. Replace the base plate.

Notes

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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).