

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

Installation and Operation

RSA-1A

Breaker Control Switch
(Compatible with: Electroswitch Series 20)



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.

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. Ensure that the RSA is properly adjusted. See the Adjustments section for detailed instructions.
3. Place the RSA on the face of the Breaker Control Switch by first fitting the Breaker Control Switch handle to the RSA handle adapter, then rolling the RSA forward onto the gear door until the magnets fully engage the door.
4. Make sure that the mounting bracket sits flush around the Breaker Control Switch handle, as shown.



5. Place the motor control box on the Breaker Control Switch making sure that the cord from the motor control box to the RSA is out of the way of any moving parts.

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 CLOSE to close the Breaker Control Switch.
7. Press TRIP to trip the Breaker Control Switch.



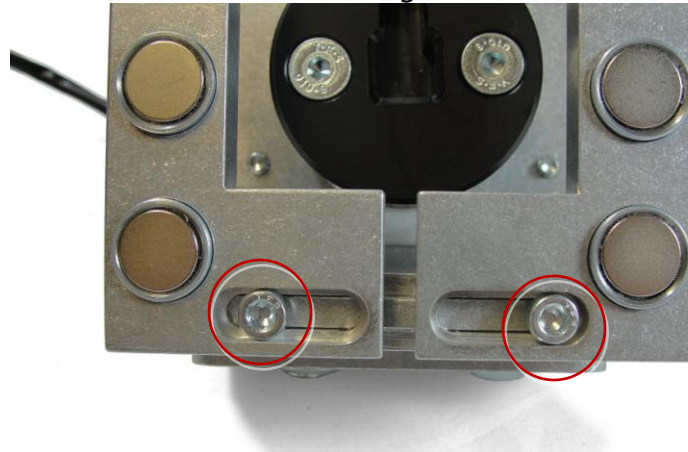
3 Adjustments

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 Locator Adjustment

The RSA's locator base can be adjusted to accommodate different operator switch sizes. To adjust the locators:

1. Loosen the two bolts on the base of the mounting bracket.

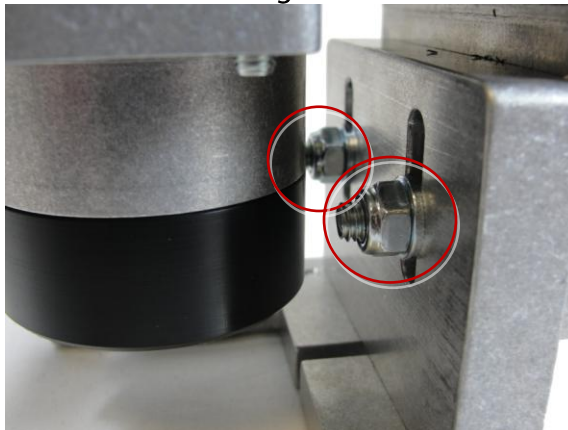


2. Place the RSA on the face of the Breaker Control Switch, but at a slight angle to keep the magnets from fully engaging the gear door panel.
3. Slide the brackets to the left or right to center the motor under the Breaker Control Switch handle, and so the locators sit flush against the sides of the switch base.
4. Carefully remove the RSA and re-tighten the two bolts.

3.2 Depth Adjustment

The RSA's handle adapter should contact the Breaker Control Switch handle and remain centered on the handle for the duration of the operation.

1. Place the RSA on the face of the Breaker Control Switch
2. Loosen the two nuts on the inside of the mounting bracket



3. Slide the motor mount toward or away from the face of the Breaker Control Switch until the handle adapter is fully seated inside.
4. Retighten the two bolts.

3.3 Height Adjustment

The RSA's handle adapter should be centered on the Breaker Control Switch handle, with the locator plates flush against the top and side edges of the handle, as shown in the Installation section. To adjust:

1. Place the RSA on the face of the Breaker Control Switch.
2. Loosen the four bolts holding the motor to the motor mount.



3. Slide the motor up or down to achieve the desired height.
4. Retighten the bolts and remove the RSA.



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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).