

Distance Is Safety® A Group CBS Company

## **RSA-79**

## For ITE KA/KB/KC/KD/KE Close/Trip Operation





# **Distance** *is* **Safety**®



2616 Sirius Road | Denton, TX 76208 | (877) 4-SAFETY | www.cbsarcsafe.com *Rev. 12/24/2014* 

## More Products by CBS ArcSafe<sup>®</sup>

## RRS-1 – Universal Remote Racking System (Rotary)

The CBS ArcSafe<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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 is free from any obstruction that may interfere with the proper installation of the RSA.



- 2. Manually rotate the handle adapter to match to position of the breaker handle.
- 3. Place the RSA on the face of the breaker ensuring that the handle actuator is properly seated around the operating handle, as shown.
- 4. Ensure the operator handle on the RSA is properly positioned, and seated flush against the breaker operating handle, as shown.





5. To attach the RSA to the breaker turn the handles of the twist-lock magnets 180° clockwise.

The RSA is now ready for remote operation







## 2 Operation

## **ATTENTION!**

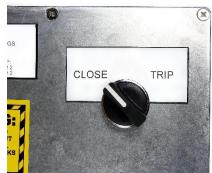
Please ensure that all cables are clear of moving parts. Failure to do so may result in damage to cables and/or actuator.

## **ATTENTION!**

Please ensure that the batteries to the RSO-IIID are fully charged or that the unit is plugged into AC power.

For detailed instructions on the operation of the RSO-IIID please see the RSO-IIID Manual.

- 6. Ensure that the RSA is properly installed. See the Installation Section for detailed instructions.
- 7. Connect the cables from the RSO-IIID to the RSA.
- 8. The three pin twist type cable will attach to the motor control box on the RSA.
- 9. Turn the power switch on the RSO-IIID to the ON position.
- 10. Set the switch on the motor control box to either the "CLOSE" or "TRIP" position as shown.



- 11. Program the settings for either the "CLOSE" or "TRIP" function of the RSA into the RSO-IIID. These settings can be found on the placard on the RSA. For more information on programming the RSO-IIID please refer to the RSO-IIID Technical Manual.
- 12. Exit the arc flash boundary
- 13. Once the timers have been properly set press the CHARGE/CLOSE button to actuate the motor arm to close or trip the breaker as needed.







RSA-79 Installation and Operation

## 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 Handle Adapter Depth Adjustment

The operation depth of the handle adapter on this RSA can be adjusted to accommodate differences in depth requirements based on variances in door thickness.

1. To increase or decrease the depth, loosen the four bolts in the slotted holes at the top and bottom of the breaker. With the RSA sitting on the breaker, adjust the depth and re-tighten the four bolts.



## 3.2 Solenoid Position Adjustment

The location of the solenoids on the RSA can be adjusted in order to ensure they make optimum contact with the breaker pushbuttons.

## 3.2.1 Motor Height Adjustment

1. Loosen the bolts securing the motor mount, as shown.



2. Slide the motor up or down to align the handle adapter with the handle on the breaker and retighten the four bolts.



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## 3.3 Magnet Adjustment

The position of the magnets on the RSA can be adjusted in order to avoid interference from items mounted to the switch door.

## 3.3.1 Depth Adjustment

1. Loosen the two bolts on each magnet, as shown below.



- 2. .Slide each magnet up or down as required to adjust the magnet depth.
- 3. Re-tighten any loosened bolts.

## **3.3.2 Position Adjustment**

1. Loosen the two bolts on the side magnet, as shown.



- 2. Slide the magnet as required so the RSA can be installed without interference.
- 3. Re-tighten the bolts.



## 3.4 Travel Adjustment

The travel length for the motor may be adjusted to avoid damage to the operator handle.

- 1. Install the RSA on the operator handle as described in the Installation section.
- 2. Loosen the screw on the "CLOSE" position travel stop.



3. Move the handle and RSA operator arm fully to the end of travel in the "CLOSE" direction, then slide the travel stop until it contacts the RSA arm as shown.



- 4. Remove the RSA carefully, and tighten the screw afterwards to hold the stop in place.
- 5. Repeat the process for the "TRIP" direction.



## 3.5 Locator Adjustment

The locator on this RSA can be adjusted for the height of the escutcheon and can also be configured for earlier breakers with a 3.25" width escutcheon, or later versions with a 3.5" width escutcheon.

## 3.5.1 Height Adjustment

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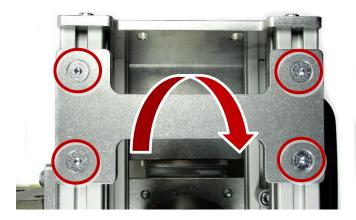
1. Loosen the four bolts on the locator, as shown.



- 2. Slide the Locator up and down to adjust for the height of the escutcheon.
- 3. Re-tighten the four bolts.

## **3.5.2 Escutcheon Width Configuration**

1. Loosen and completely remove the four bolts on the locator, as shown.



- 2. Turn the Locator 180° to change the locator width for the applicable breaker.
- 3. Reinstall and tighten the four bolts.



## Notes

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RSA-79 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).