

Distance Is Safety® A Group CBS Company

# RSA-79A

#### For ITE KA/KB/KC/KD/KE Close/Trip Operation (Flush Mount)



# Distance is Safety®

WHAT STANDS BETWEEN YOU AND ARC-FLASH DANGER?

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#### 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® 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® for more information.

#### **ATTENTION!**

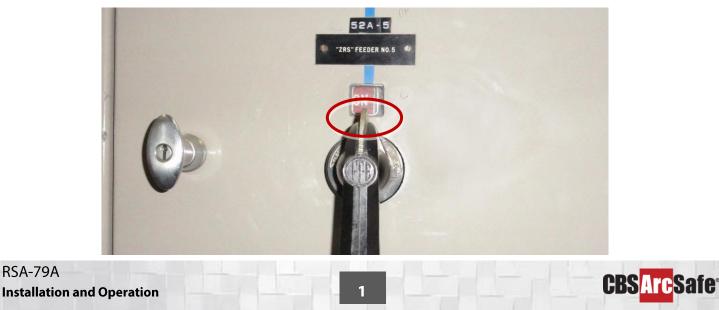
RSA-79A

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 bein the center position prior to operation. Use the yellow indicator lines on the back of the RSA to assist in aligning.
- 3. Place the RSA on the face of the breaker ensuring that the handle actuator is properly seated around the operating handle.
- 4. Ensure the locator sits at the bottom of the indicator window, shown below.



5. Ensure the operator handle on the RSA is properly positioned, and seated flush against the breaker operating handle, as shown.



6. 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-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. The default setting if not specified is OFF.
- 6. Press and hold CLOSE to turn ON the breaker
  - a. After operation, the switch handle must be re-centered before the RSA can be re-moved. To re-center, jog the RSA by tapping the TRIP button until the yellow lines on the back of the motor line up, as described in the Installation section.
- 7. Press and hold TRIP to turn OFF the breaker.
  - a. After operation, the switch handle must be re-centered before the RSA can be removed. To re-center, jog the RSA by tapping the CLOSE button until the yellow lines on the back of the motor line up, as described in the Installation section.





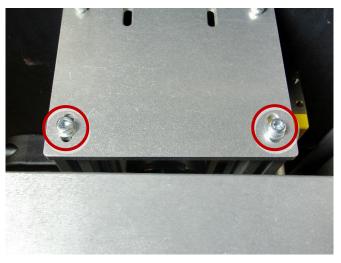
# 3 Adjustments

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 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.



- 2. With the RSA sitting on the breaker, adjust the depth as necessary.
- 3. Re-tighten the four bolts.

## 3.2 Motor Position Adjustment

The location of the motor on the RSA can be adjusted in order to ensure the operator makes optimum contact with the breaker mechanism.

#### 3.2.1 Motor Height Adjustment

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



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

#### 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.

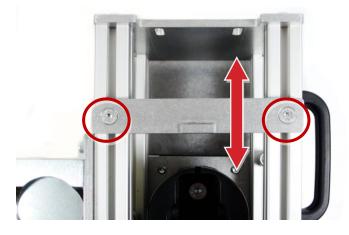


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## 3.5 Locator Adjustment

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.

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



- 2. Install the RSA as described in the installation section oif this manual.
- 3. Slide the Locator up and down to adjust for the height of the indicator window.
- 4. Re-tighten the bolts.



# Notes

RSA-79A Installation and Operation



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RSA-79A Installation and Operation

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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).