

CBS ArcSafe®

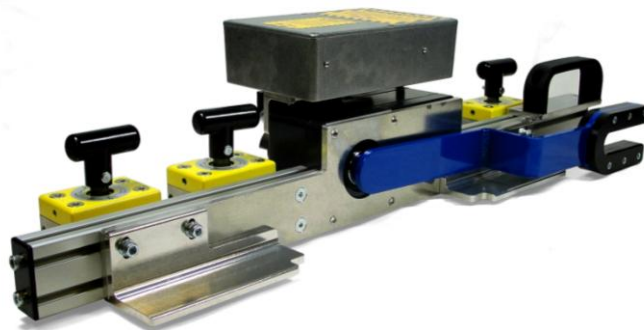
Distance Is Safety®

A Group CBS Company

Installation and Operation

RSA-31

Powercon Load Break Interrupter Switch
(PIF Interrupter, 600A & 1200A, Flush Mounted On Panel)



Distance is Safety®

WHAT STANDS
BETWEEN YOU AND
ARC-FLASH DANGER?

**WE
DO.**

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Rev. 10/9/2014

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.

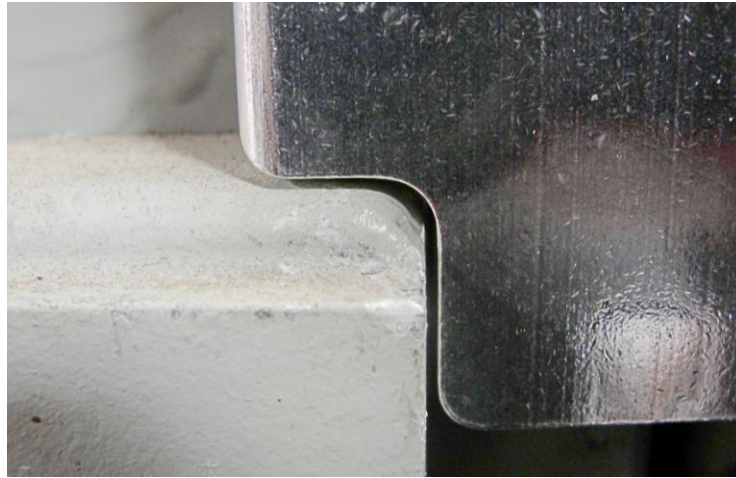
1. Ensure that the switch is free from any obstruction that may interfere with the proper installation of the RSA.



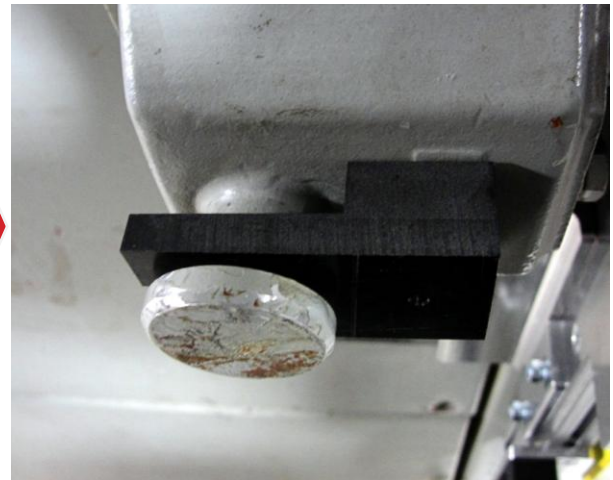
2. To adjust the RSA for accommodating unavoidable obstructions such as bolt heads or lock-out mechanisms, see the Adjustments section, and make any applicable adjustments to the RSA before attempting to install.
3. Align the RSA to the handle escutcheon on the opposite side of the switch's operating handle, then slide the handle adapter of the RSA over the switch handle, and gently lower the RSA into place. Rotate the actuator arm gently to re-align as needed.



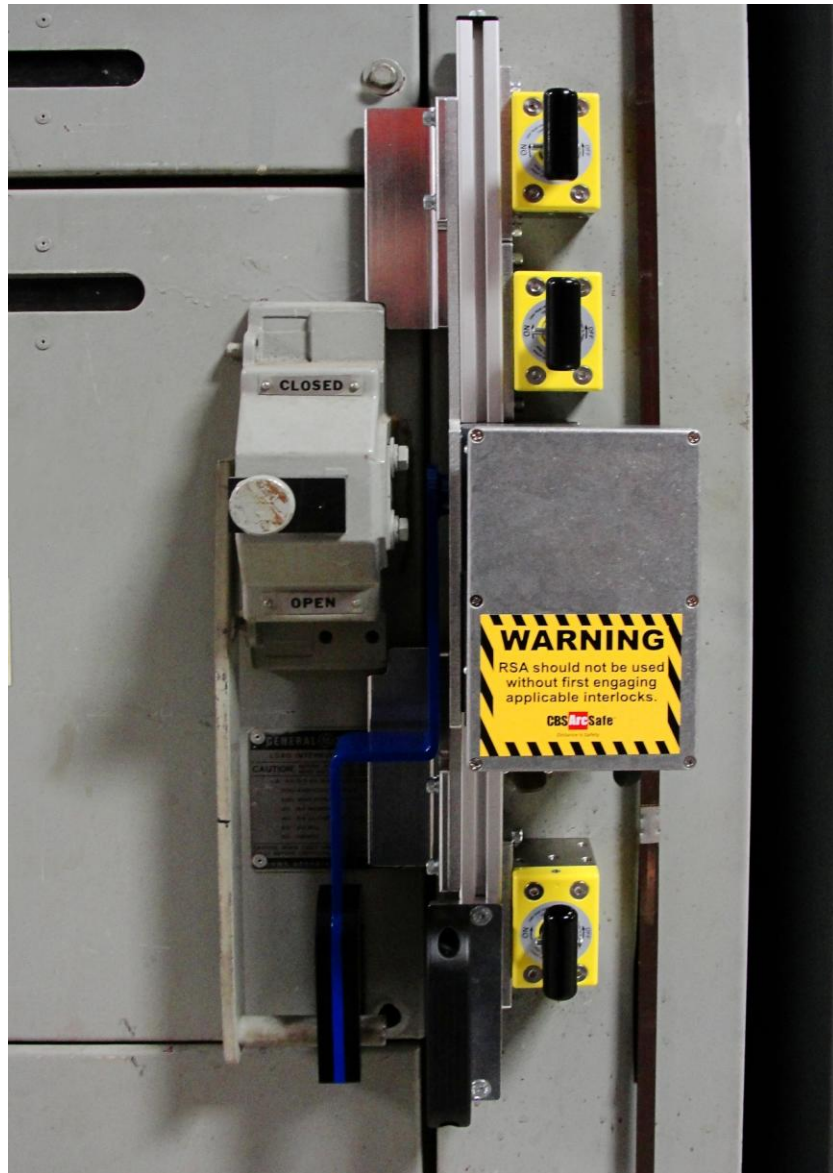
4. Ensure that the upper locator on the RSA is flush with the top and side of the switch escutcheon, as shown.



5. Turn the handles of the twist-lock magnets 180° clockwise to lock the RSA in place
6. Once the RSA is locked in place, install interlock defeat by pulling out the interlock knob, and inserting it into the gap as shown.



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 Section 3 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. If the breaker is CLOSED and needs to be opened, press and hold the TRIP button on the RSO-I AR until the breaker is tripped.
7. If the breaker is OPEN and needs to be close, press and hold the CLOSE button on the RSO-I AR until the breaker is closed.



DANGER!

In some cases where the switch is mounted in an inverted configuration, pressing the CLOSE button may cause the switch to OPEN, and pressing the TRIP button may cause the switch to CLOSE.

Be sure to verify the orientation of the switch before attempting to remotely operate with the RSA and RSO, and reconfigure the RSA if necessary. Failure to properly configure the RSA could result in damage to the breaker.

3 Adjustments

3.1 Magnet Adjustment

The twist-lock magnets on this RSA are fitted with slotted plates to allow adjusting the RSA to avoid interference due to bolt heads, or other items on the switchgear door. They can also be moved along the length of the RSA, or exchanged to completely different positions to accommodate different accessories on the switchgear.

3.1.1 Magnet Depth

To adjust the magnet depth:

1. Loosen the bolts in the magnet mounting plates for each magnet as shown.



2. Slide the magnets up or down vertically to the desired depth.
3. Re-tighten the bolts.

3.1.2 Magnet Position

To adjust magnet position, for avoiding abstractions on the switchgear:

1. Loosen the bolts in the magnet mounting plates for each magnet as shown



1. Slide the magnets left or right horizontally to the desired position.
2. Re-tighten the bolts.

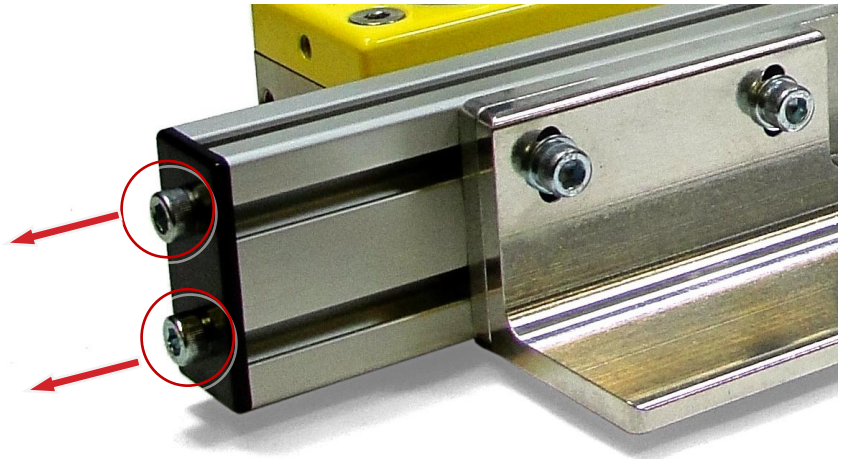
3.1.3 Moving a magnet

To move a magnet from one end of the RSA to the other:

1. Loosen the bolts in the magnet mounting plates for each magnet as shown.



2. Remove the bolts from the black end caps on the rail the magnets are attached to, and remove the caps..

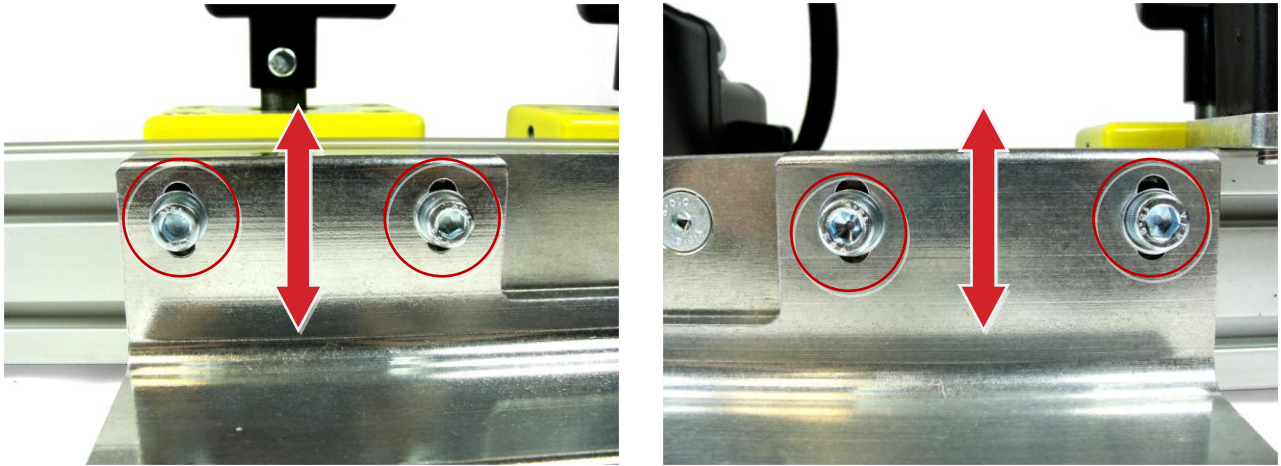


3. Slide the magnet out the end of the rail, and put it back in on the other side.
4. Replace the black end caps on the rail.
5. Proceed to adjust magnet position and depth as per instructions in Section 3.1.1 Magnet Depth and Section 3.1.2 Magnet Position.

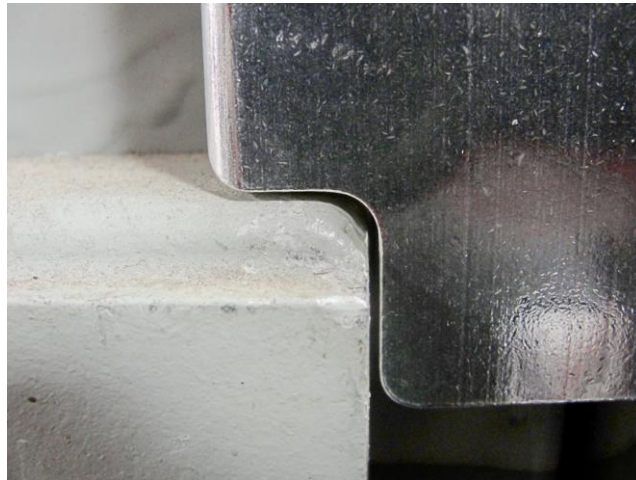
3.2 Locator Adjustment

The depth of the handle locator on the RSA can be adjusted in order to avoid interference from items mounted to the switchgear door.

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



2. Slide the locators up or down as necessary to position them flush to the upper and side edge of the handle escutcheon.



3. Re-tighten the four bolts.

3.3 Travel Adjustment

The travel length for the motor arm may be adjusted to avoid damage to the breaker.

ATTENTION!

In most cases, the RSA comes set up from the factory so the outer limit switch cam adjusts the OPEN operation travel limit, and the inner limit switch cam adjusts the CLOSE operation travel limit.

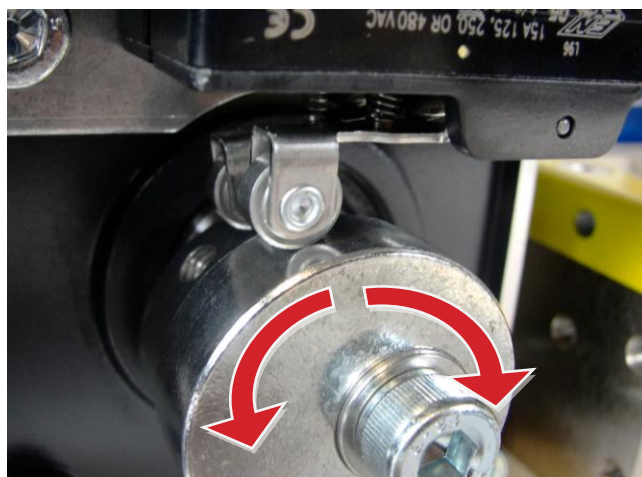
However, in some cases where the Load Break Interrupter is mounted in an inverted configuration, the outer limit switch cam may adjust the CLOSE operation travel limit, and the inner limit switch cam may adjust the OPEN operation travel limit.

If the travel limits must be adjusted, be sure to verify the correct configuration for the limit switches by jogging the RSA while on a bench or otherwise away from the breaker, and noting which switch engages in each direction.

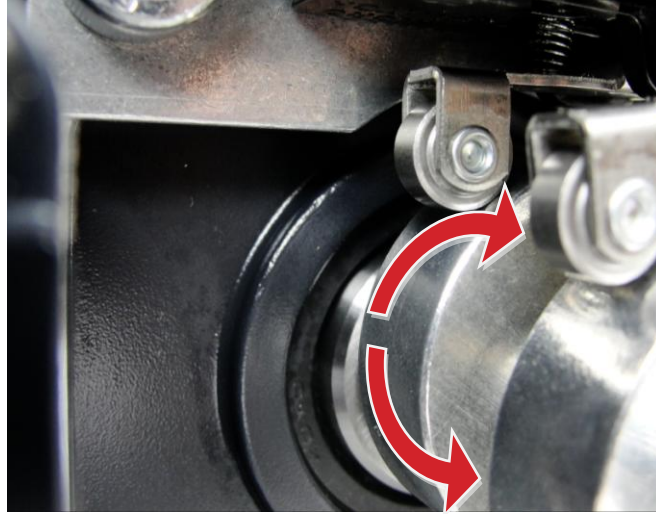
1. Install the RSA on the face of the breaker as described in the Installation section.
2. Loosen the lock screws on the backs of the two switch cams.



3. With the RSA operator arm in the OPEN position, rotate the outer limit switch cam in the direction of travel for the arm, until a slight click is heard. Re-tighten the lock-screw.



4. With the RSA operator arm in the CLOSED position, rotate the inner limit switch cam in the direction of travel for the arm, until a slight click is heard. Re-tighten the lock screw.





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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).