# CBS Arc Safe®

Distance Is Safety®

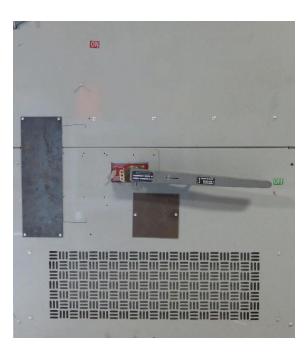
A Group CBS Company

**RSA-152** 

For Boltswitch SLB Series
600V Pressure Contact Switch







Distance is Safety®

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

#### 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

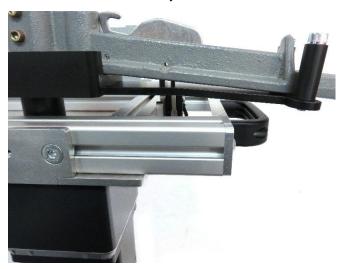
#### DANGER!

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.

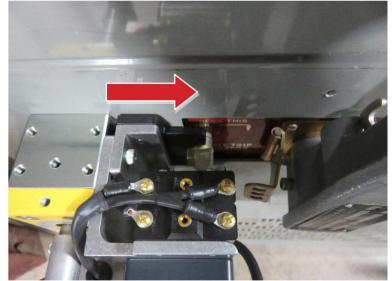
#### **ATTENTION!**

Please verify that the mounting hardware has been properly attached to the breaker as per the locator installation kit provided. 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 to be operated is free from obstructions that may interfere with proper installation of the RSA
- 2. Place the RSA over the handle on the switch. Ensure that the switch arm is fully seated in the handle actuator on the RSA.
- 3. The handle adapter on the RSA can be manually rotated to match the switch position as needed.



4. Ensure that the shunt trip actuator is positioned around the shunt trip, as indicated below. Slide the actuator to the right to locate on the twist shunt trip rod. Once the trip assembly is in place, rotate the magnet handle 180° to lock into place.



5. Ensure the magnets are fully seated against the switch cover and then turn the handles of the twist-lock magnets 180° to lock 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-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.

- 1. Ensure that the RSA is properly installed. See the Installation Section for detailed instructions.
- 2. Connect the cables from the RSO-IIID to the RSA.
- 3. Turn the power switch on the RSO-IIID to the ON position.
- 4. Program the settings for 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.
- 5. Ensure that the Auto-Retract (AR) function is set according to the instructions on the setting placard on the RSA. For detailed information on the AR function see the RSO-IIID instruction manual
- 6. Exit the arc flash boundary
- 7. Once the timers have been properly set press the CHARGE/CLOSE button to actuate the switch arm and charge the switch mechanism, and then close the switch.
- 8. Press and hold the TRIP button to trip the switch.



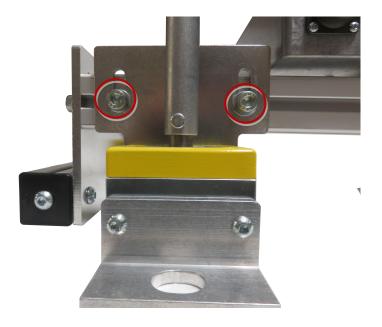


## 3 Adjustments

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 Cabinet Locator Adjustment

The locators on the magnet mount can be adjusted to accommodate small differences in mounting. First loosen the (2) bolts on the magnet mount, then follow the steps below.



- 1. Attach the RSA as described in the Installation section.
- 2. Slide the locator to the desired position along the extrusion. Note that this will affect depth adjustment.

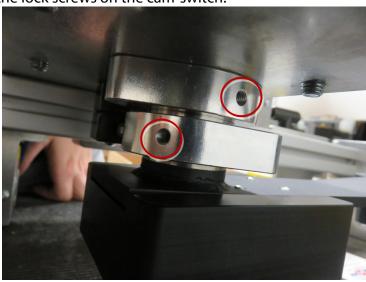
#### 3.2 Switch Travel Limits

The RSA has travel stops on it to prevent over-travel and damage of the handle operator during operation.

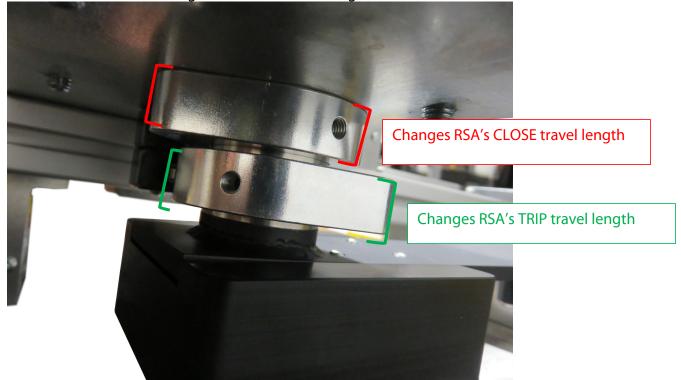
#### 3.2.1 Upper Travel Limit

If the RSA needs an adjustment, & more/less travel is desired, loosen the set screws holding the cams in place, and adjust as instructed below.

1. Locate and loosen the lock screws on the cam-switch.



- 2. With the RSA charging arm in the CLOSE position, rotate the bottom limit switch cam in the direction of travel for the arm, until a slight "click" is heard. Re-tighten the lock screw.
- 3. With the RSA charging arm in the TRIP position, rotate the top limit switch cam in the direction of travel for the arm, until a slight "click" is heard. Re-tighten the lock screw



#### 3.3 Operator Depth

The operator on the RSA can be adjusted to accommodate some differences in the depth of the switch housing.

1. Loosen the two bolts on each magnet plate (indicated below).

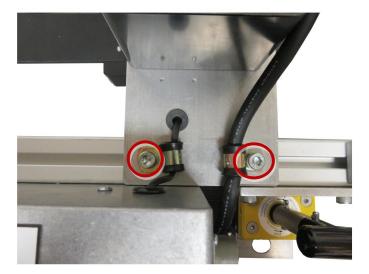


- 2. Attach the RSA as described in the Installation section.
- 3. Slide the operator in or out so the RSA is properly aligned and positioned on the switch.
- 4. Re-tighten the bolts from Step 1

#### 3.4 Motor Position

The motor mount on the RSA can be adjusted to accommodate differences in the switch dimensions.

1. Loosen the four bolts on the motor mount plate (below top and bottom).





2. Attach the RSA as described in the installation section.

3. Slide the motor assembly as required so the handle locator and the handle adapter are properly

positioned.



4. Tighten the (4) bolts referenced in step 1 after motor is set in the desired position.

# **Notes**



# CBS Arc Safe®

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RSA-152Installation 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).