Installation and Operation

CBS ArcSafe®

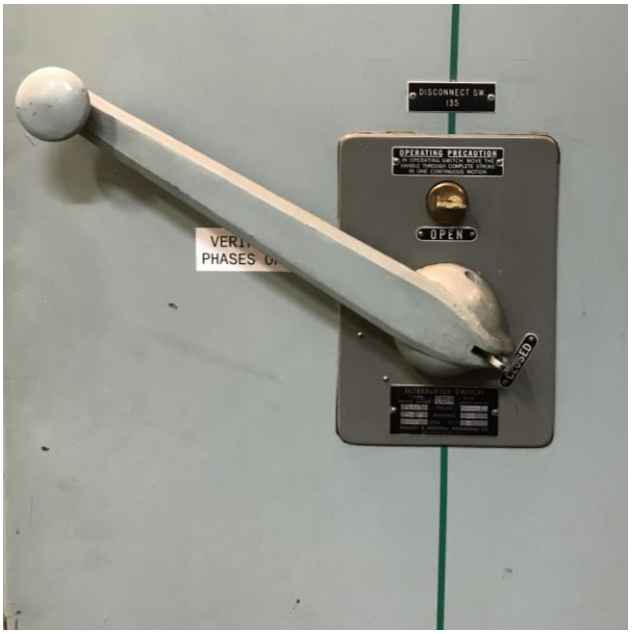
Distance Is Safety®

A Group CBS Company

RSA-247

For R & IE Load Interrupter Switch

Left or Right Orientation



Distance is Safety®

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

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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 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 actuator arm is fully seated in the handle actuator on the RSA, and that the cabinet locators and the handle locator are fully seated.
    a. The handle adapter on the RSA can be manually rotated to match the switch position as needed.
3. Ensure the magnets are fully seated against the switchgear door and then turn the handles of the twist-lock magnets 180° to lock the RSA in place.
4. Tighten down the interlock defeat tool on the RSA handle.
5. Set the option switch on the RSA to Left or Right, depending on which side the switch Closes toward. For example, if the CLOSED indicator on the switch is on the right-side, set the switch to RIGHT. If the CLOSED indicator on the switch is on the left side, set the switch to LEFT.

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 set according to the placard on the RSA. If not specified, leave AR turned OFF.
6. Press and hold CLOSE to turn ON the breaker.
7. Press and hold TRIP to turn OFF the breaker.

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 Travel OPEN/OFF Adjustment

Due to the switch having multiple mounting orientations, the limit switches on the motor are used only to find the center OPEN/OFF position of the switch for both switch orientations.

1. Loosen the lock screws on the two switch cams.

2. Install the RSA on the breaker, as described in the Installation section.

3. With the RSA actuator arm in the LEFT configuration, rotate the inner limit switch cam until the limit switch is undepressed and clicks slightly, then rotate the cam back onto the switch until another slight click is heard, and the switch is depressed. Re-tighten the lock-screw on the cam.

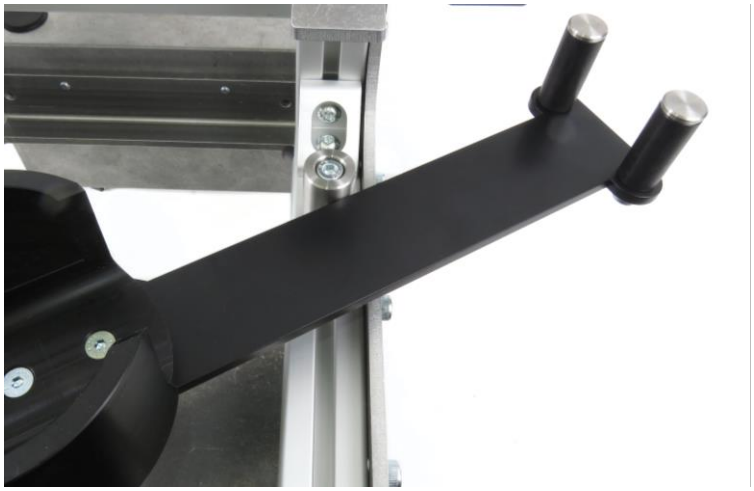
4. With the RSA charging arm in the RIGHT configuration, rotate the outer limit switch cam in the direction of travel for the arm, until a slight click is heard. Re-tighten the lock screw.

3.2 Travel Limits

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

3.2.1 Left Travel Limit

1. Loosen the bolt on the left side travel limit.
2. Attach the RSA as described in the Installation section and set it in the LEFT orientation.
3. Rotate the RSA's actuator arm to match the CLOSED position of the switch.
4. Slide the travel stop RSA's actuator arm until it just makes contact with the arm (shown removed below for clarity).



5. Re-tighten the bolt from Step 1.

3.2.2 Right Travel Limit

1. Loosen the bolt on the right-side travel limit.
2. Attach the RSA as described in the Installation section and set it to RIGHT orientation.
3. Rotate the RSA's actuator arm to match the CLOSED position of the switch.
4. Slide the travel stop RSA's actuator arm until it just makes contact with the arm (shown removed below for clarity).

5. Re-tighten the bolts from Step 1.

Notes

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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).