CBS ArcSafe®

Distance Is Safety®
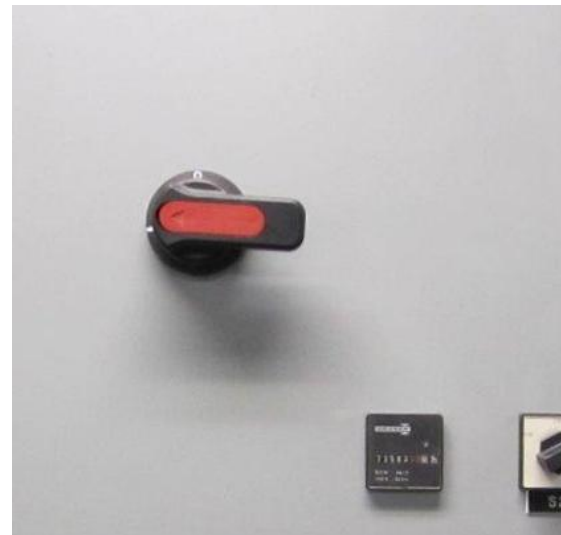
A Group CBS Company

RSA-198

For ABB Rotary Handle Operator
Variable Depth: Square Type 1 K2VD-H
For use with ABB Isomax S1 Frame MCCB
Flush mounted, 2.56" Diameter Base

WARNING:
RSA / RRS-3 SHOULD NOT BE USED WITHOUT FIRST ENGAGING ALL APPLICABLE INTERLOCKS

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

1 Installation

1. Ensure that the Handle Operator to be operated is free from obstructions that may interfere with proper installation of the RSA

2. Mount the RSA on the Motor Control Center by first aligning the handle adapter on the RSA to the Handle Operator on the MCC, then roll the RSA forward into position.
   a. The handle adapter on the RSA can be rotated manually to achieve proper alignment.
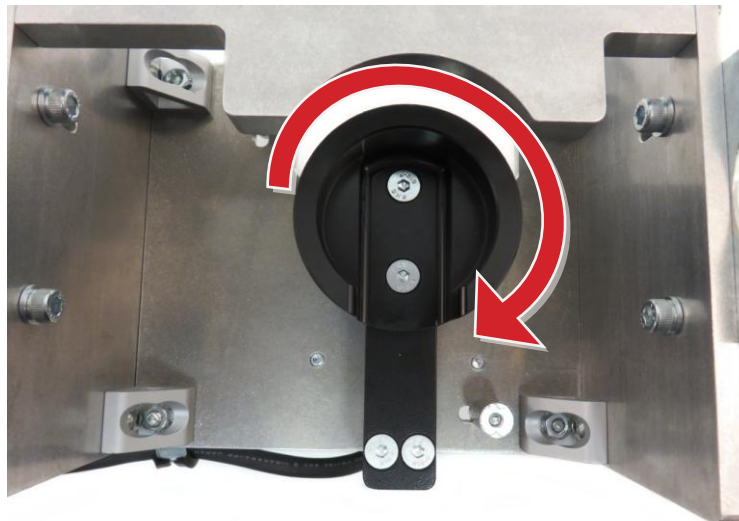
3. When mounting the RSA onto the switchgear, verify that the handle operator is seated in the handle adapter on the RSA, as indicated below.
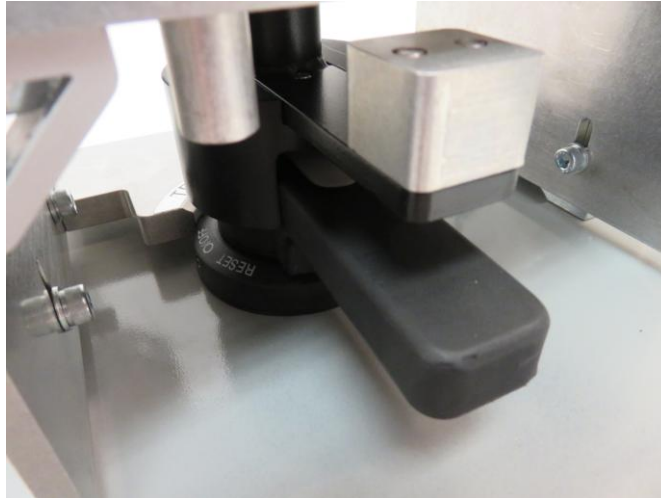

4. Ensure the magnets of the RSA are flush to the switchgear door, and the label on the locating sticker is in alignment with the label on the operating handle, as indicated below.

ATTENTION!

Depending on your region, the operating switch may have an orientation which differs from what is indicated here. The RSA will come pre-configured from the factory so that the switch in the vertical position (as indicated in Step 1) is aligned with the arrow shown below (With the RSA oriented so that the text on the device name plate is readable normally).

Check your device operation with the RSO before initially operating any equipment to avoid damaging the switch.
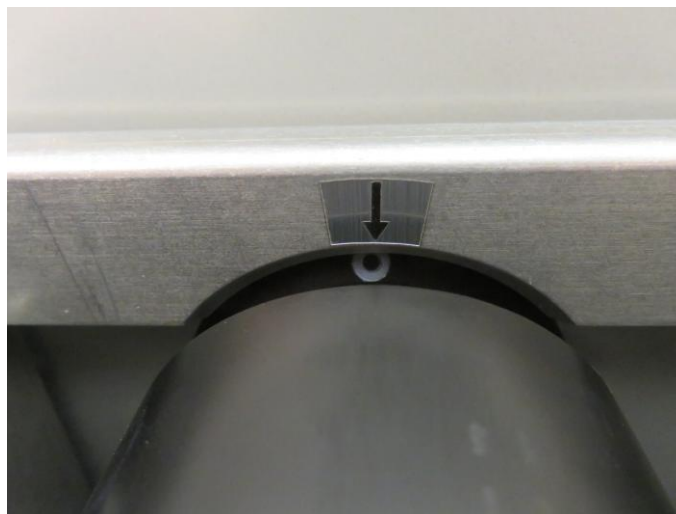
5. Turn the twist-lock magnet 180° to lock the RSA in place.
6. Place the motor control box on the switchgear so that the cord is clear from any moving parts to avoid damage to the RSA.

The RSA is now ready for operation.

CBS ArcSafe®

2 Operation

<div style="background:green;color:white">**ATTENTION!**</div>

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

<div style="background:green;color:white">**ATTENTION!**</div>

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 OFF
6. Press and hold CLOSE to close the Switch.
7. Press and hold TRIP to open 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 Depth Adjustment
1. Loosen the two bolts on each magnet as shown below.
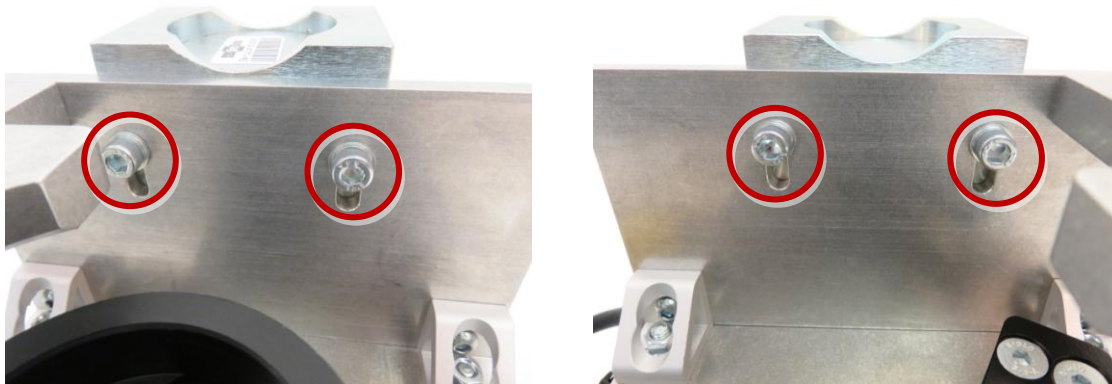
2. Install the RSA as described in the Installation section.
3. While positioning the RSA, slide each magnet to the desired position to accommodate the MCC switch depth and align all parts as described in the Installation section.
4. Re-tighten the bolts from Step 1.

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

1. Loosen the two bolts on the travel stops, as indicated.

2. Attach the RSA as described in the Installation section.
3. With the the switch in the OFF position, slide the upper travel stop up until it contacts the RSA's actuator armand tighten its bolt.
    a. If the RSA is to be used to Reset the breaker after a trip, put the switch in the RESET position instead of the OFF position before adjusting the travel stop.
4. With the the switch in the ON position, then slide the lower travel stop up until it contacts the RSA's actuator armand tighten it's bolt.

Notes

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RSA-198
Installation and Operation

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