Installation and Operation

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-73C

For GE Type HPC High Pressure Contact Switch, 2000-4000A (Manual Or Electric Trip, Bottom Feed Inverted)

Distance is Safety®

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Rev. 1/24/2018

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 breaker is free from any obstruction that may interfere with the proper installation of the RSA.

2. Prior to installation onto the switchgear, ensure that the RSA handle grip is properly positioned to align with the charge/close handle of the breaker. If it is not, manually move the handle grip so it will align with the breaker's charging handle.
3. Place the RSA onto the breaker. Ensure that the handle grip of the RSA fits properly around the charge/close handle of the breaker, that the three magnets are fully seated against the panel with no obstructions, and the base plate of the RSA is flush against the sides of the breaker, as shown below.

4. To attach the RSA to the breaker turn the handles of the three twist-lock magnets 180° clockwise.
5. Check to make sure the solenoid push button operator is correctly positioned so that when it is extended it will depress the trip button.

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 set according to the settings placard on the RSA. If not specified, the default is OFF.
6. If the breaker is ON and needs to be turned OFF then push the TRIP button on the RSO-I.
7. If the breaker is OFF and needs to be turned ON then push and hold the CLOSE button on the RSO-I until the breaker is closed.

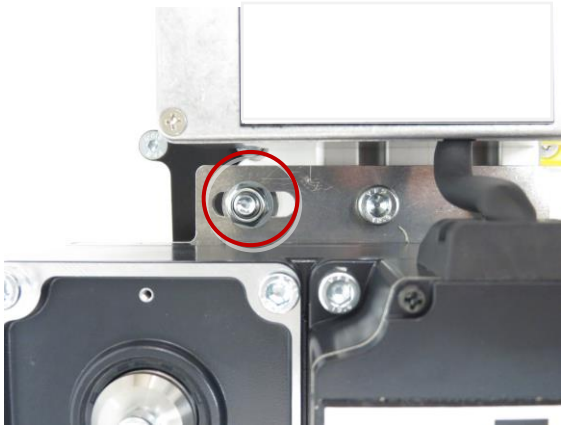
3 Adjustments

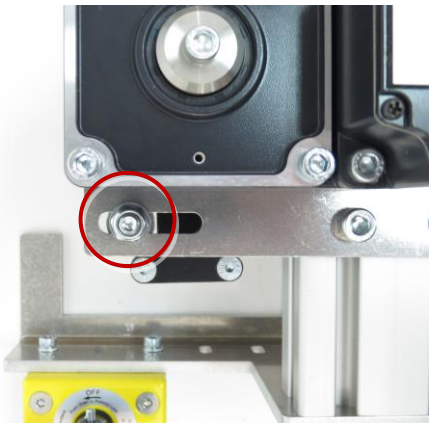
This RSA comes adjusted from the factory to fit most common configurations, and should not need to be adjusted in most cases. However, if adjustments do need to be performed, it is recommended that they be done on de-energized and isolated equipment to prevent possible damage or injury.

3.1 Travel 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 shown.



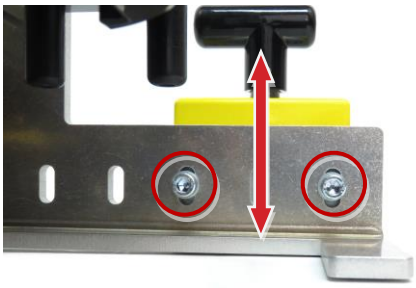


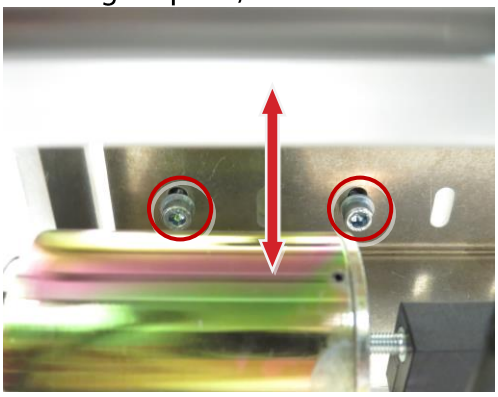
2. Attach the RSA as described in the Installation section.
3. With the the Charge/Close handle in the resting position, slide both travel stops until theycontact the RSA's handle grip. Tighten each travel stop bolt, as adjustment is completed.

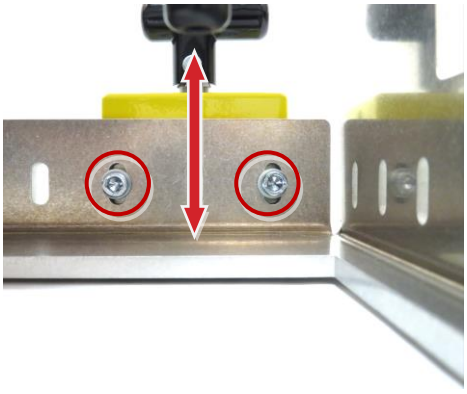
3.2 Magnet Depth

The depth of the magnets can be adjusted to accommodate minor differences in equipment installation.

4. Loosen the two bolts on each magnet plate, as indicated below shown.





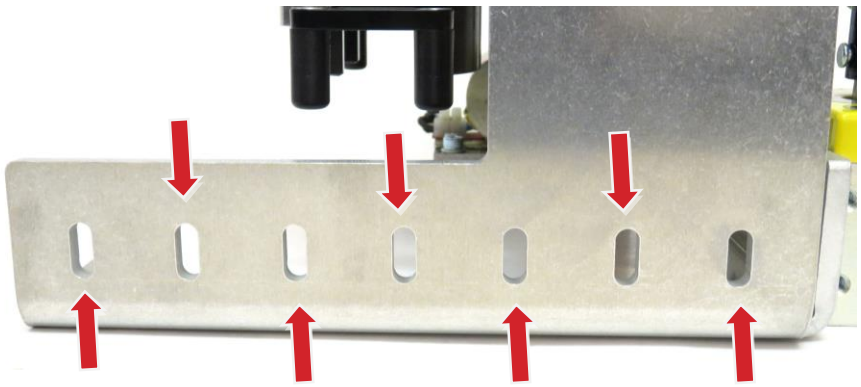


5. Attach the RSA as described in the Installation section.
6. Slide the magnets up or down as required to ensure that the bottom of each magnet sits flush against the equipment door.
7. Re-tighten any bolts loosened in step 1.

3.3 Magnet Position Adjustment

The magnets on this RSA can be repositioned to allow users to accommodate for obstructions on their equipment.

1. Loosen and remove both bolts from the back of the magnet to be moved.
2. Move the magnet to another set of holes along the base of the RSA, so that the magnet will avoid any obstructions.

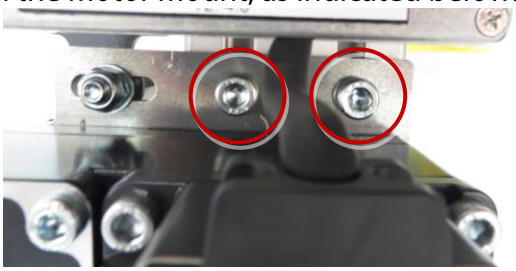


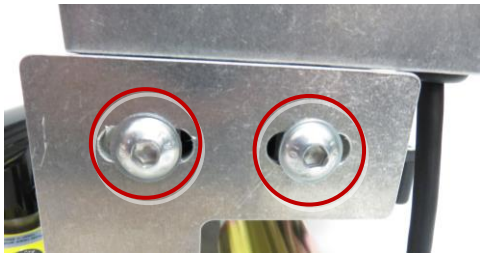
3. Replace the bolts removed in step 1 above, and tighten. Note that it may be necessary to perform a depth adjustment for the magnet after moving. See Section 3.2 Magnet Depth for instructions on performing this adjustment.

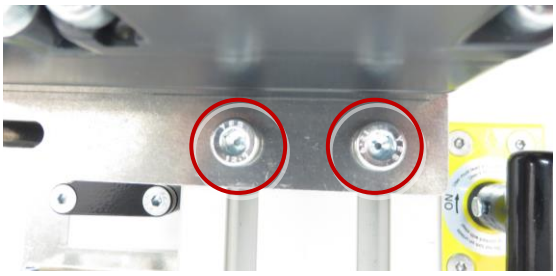
3.4 Actuator Position Adjustment

The actuator on this RSA can be repositioned to accommodate differences in customer switchgear.

1. Loosen the two bolts on the end of the extrusion holding the motor in place, as well as the four bolts on the motor mount, as indicated below.







2. Install the RSA as described in the Installation section of this manual.
3. During installation, adjust the position of the motor so that the handle grip on the RSA fits properly over the Charge/Close handle.
4. Re-tighten all bolts loosened during adjustment.

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).