Installation and Operation

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-69A

For Megamax F Low Voltage Power Circuit Breaker
1200-6000A
All Sizes (F1, F2, F3, F4, F5, F6)

Distance is Safety®

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

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Rev. 2/19/2018

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!

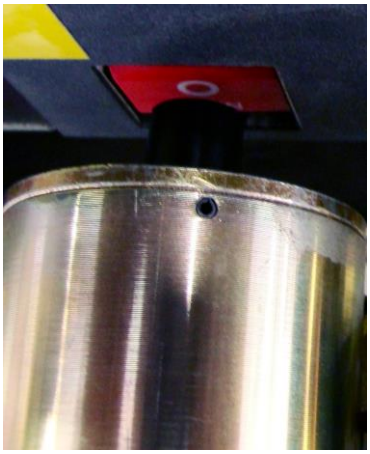
The location of certain items such as mimic bus, stickers, and/or placards may interfere with the proper installation of the RSA. Please remove or reposition these items before installing the RSA.

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

2. Place the RSA on the face of the breaker as shown. The upper cross member of the RSA should rest on the upper edge of the breaker door escutcheon with the sides of the RSA flush on the edges of the escutcheon.

3. Ensure that the three magnets seated flush and contacting metal, and then secure the RSA to the breaker by turning the handles of the three magnets 180 degrees clockwise.

4. Ensure that both solenoids are correctly aligned over the breaker pushbuttons as shown. If the solenoid positions need to be adjusted, see the Adjustments section.



The RSA is ready for remote operations.

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 OFF
6. Press CLOSE to close the breaker.
7. Press TRIP to trip 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 Plunger Depth Adjustment

The operation depth of the solenoids on this RSA can be adjusted to accommodate differences in the button-press depth requirements.

1. To increase the solenoid plunger depth, loosen the nut on the solenoid plunger, and turn the black end counter-clockwise . Test the depth by operating the appropriate plunger with the RSO, and re-tighten the nut.

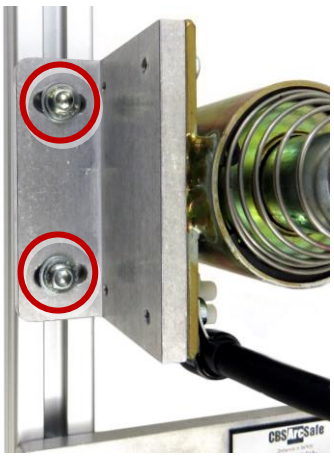
2. To decrease the solenoid plunger depth, loosen the nut on the solenoid plunger, and turn the black end clockwise. Test the depth by operating the appropriate plunger with the RSO, and re-tighten the nut.

3. If additional depth options are required, alternate plungers for the solenoids may be provided. To utilize them, simply loosen the lock nut as described above, but completelt remove the old plungers, install the new plungers, then proceed with the depth adjustment. Please contact CBS ArcSafe with any questions regarding alternate plungers.

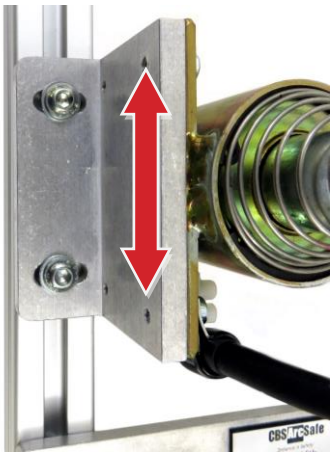
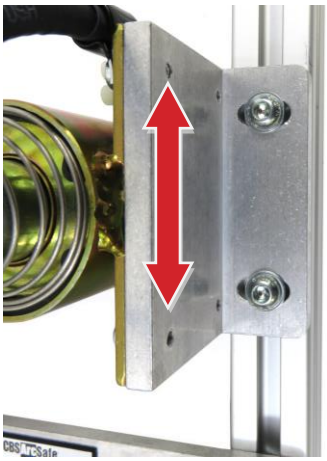
3.2 Solenoid Position Adjustment

The location of the solenoids on the RSA can be adjusted in order to ensure they make optimum contact with the breaker pushbuttons.

1. Loosen the two bolts on each magnet that needs to be adjusted, as shown.



2. Slide the solenoid assembly up or down as required to properly align the solenoids with the breaker pushbuttons, as described in the Installation section.

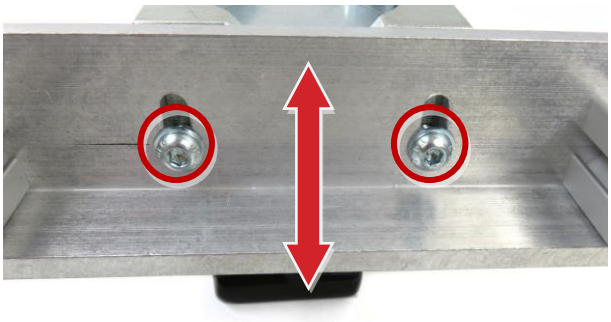



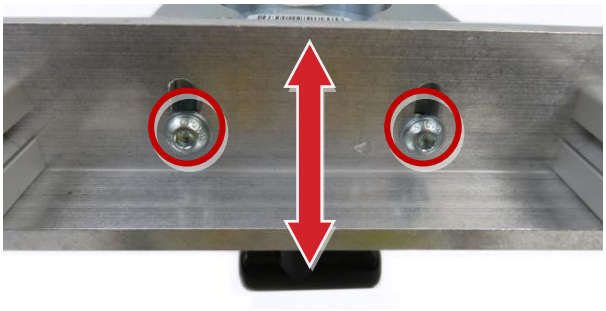
3. Re-tighten any loosened bolts.
4. If horizontal adjustment for the solenoid plungers is required, a plunger offset kit may be included with the RSA to provide additional adjustment flexibility. To install these offsets:
    a. first remove the factory plungers, following procedures listed in Section 3.1: Plunger Depth Adjustment.
    b. Install the aluminum offset block in the place of the original hardware, using the socket-head bolts that will be included with the kit. *Do not tighten the offset yet.*
    c. Reinstall the factory plungers, or use the alternate set provided with the offset kit, whichever is required to achieve proper operating depth. Ensure that a lock nut is installed on each plunger.
    d. Position the offsets so the plungers fully contact the pushbuttons, in their approximate center. Tighten down the socket-head bolt holding the offset in place.
    e. Proceed with final depth adjustment of the new plungers, as described in Section 3.1: Plunger Depth Adjustment.

3.3 Magnet Depth Adjustment

The depth of each magnet on the RSA can be adjusted in order change the mounting depth of the entire operator frame on the switchgear door.

1. Loosen the two bolts on each magnet that needs to be adjusted, as indicated below.





2. Install the RSA, as described in the Installation section of this manual.
3. During installation, slide the loosened magnets in or out as necessary to the RSA at the desired depth.
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).