

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

Installation and Operation

RSA-95

For Westinghouse DB-50

3 Position Drawout

Rectangular Trip Button Above Charging Handle



Distance is Safety®

WHAT STANDS
BETWEEN YOU AND
ARC-FLASH DANGER?

**WE
DO.**

2616 Sirius Road | Denton, TX 76208 | (877) 4-SAFETY | www.cbsarcsafe.com

Rev. 10/6/2017

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. Remove the operating handle from the breaker, if installed.
3. Place the RSA on the faceplate of the breaker. Ensure the upper support of the RSA is flush across the top of the breaker, as indicated below.



4. Ensure that the solenoid is correctly aligned over the breaker TRIP pushbutton, and that the racking tool is seated in the breaker racking mechanism.



5. To attach the RSA to the breaker turn the handles of the twist-lock magnets 180° clockwise. 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-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.

2.1 Tripping the Breaker

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. Exit the arc flash boundary
4. Turn the power switch on the RSO-IIID to the ON position.
5. Press the TRIP button to trip the breaker.

2.2 Closing the Breaker

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. Exit the arc flash boundary
4. Turn the power switch on the RSO-IIID to the ON position.
5. Program the settings for the RSA into the RSO-IIID, if applicable. These settings will be found on a placard on the RSA. For more information on programming the RSO-IIID please refer to the RSO-IIID Technical Manual.
6. 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
7. Exit the arc flash boundary
8. Once the timers have been properly set press the CHARGE/CLOSE button to actuate the switch arm and charge the breaker mechanism, and then close the breaker.
9. Remove the RSA from the breaker after operation.



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.

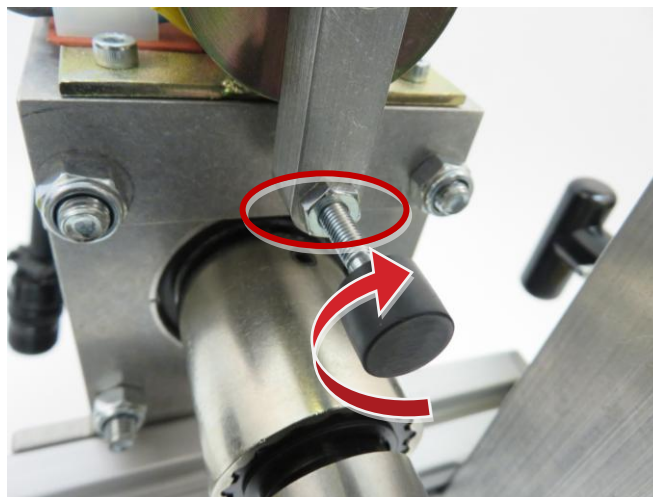
3.1 Plunger Depth Adjustment

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.



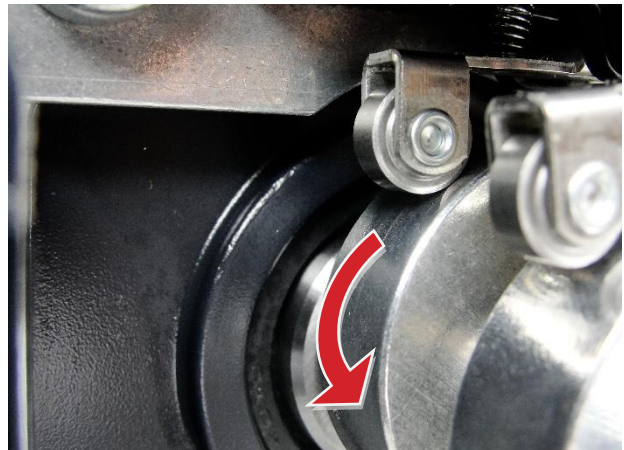
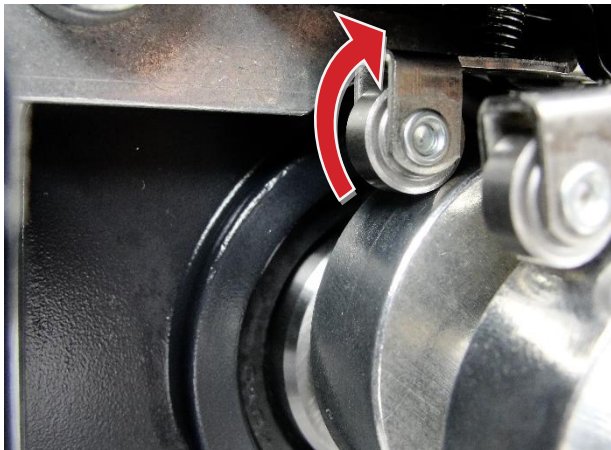
3.2 Motor Travel Adjustment

The travel length for the motor arm may be adjusted to avoid damage to the switch.

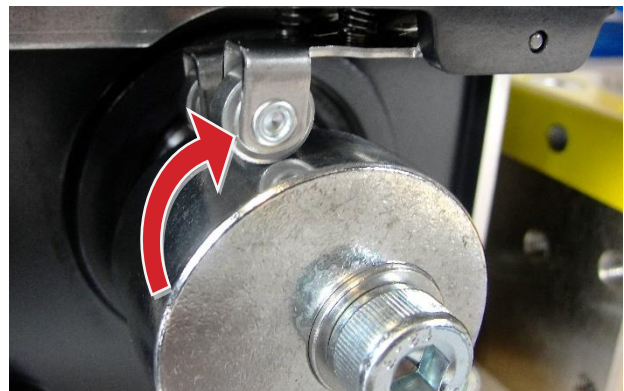
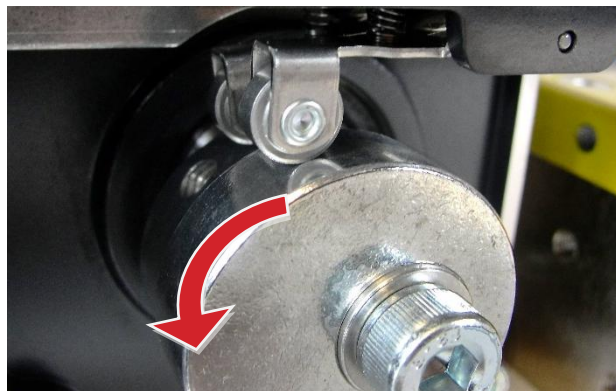
1. Loosen the lock screws on the backs of the two switch cams.



2. With the RSA charging arm in the UP position, 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.



3. With the RSA charging arm in the DOWN position, 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.



3.3 Solenoid Position Adjustment

The position of the operating solenoids can be adjusted to accommodate minor equipment differences.

1. Loosen the bolts on the solenoid plunger arm, as shown.



2. Install the RSA as described in the Installation section of this manual.
3. Carefully rotate the plunger arm as required to properly position the plunger over the operating button on the breaker.

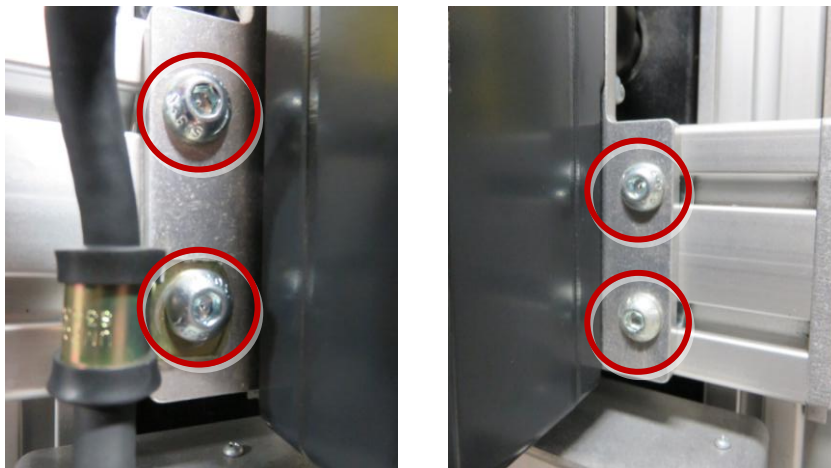


4. Re-tighten any bolts loosened in step 1.

3.4 Motor Adjustment

3.4.1 Horizontal Adjustment

1. Loosen the four bolts on the motor mounting plate, as shown.



2. Install the RSA as described in the Installation section.
3. Slide the motor mount left or right as required to properly align the motor actuator with the breaker operating handle shaft.
4. Re-tighten the bolts loosened during adjustment.

3.4.2 Vertical Adjustment

1. Loosen the four bolts on the motor mounting plate, as shown.



2. Install the RSA as described in the Installation section.
3. Slide the motor mount up or down as required to properly align the motor actuator with the breaker operating handle shaft.
4. Re-tighten the bolts loosened during adjustment.



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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).