CBS ArcSafe ®

Distance Is Safety ®

A Group CBS Company

RSA-1B

For Breaker Control Switch
Compatible with: Westinghouse/Electroswitch
Type W-2

Distance *is* Safety ®

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 Breaker Control Switch to be operated is free from obstructions that may interfere with proper installation of the RSA
2. Ensure that the RSA is properly adjusted. See the Adjustments section for detailed instructions.
3. Place the RSA on the face of the Breaker Control Switch make sure that the mounting bracket sits flush around the Breaker Control Switch handle.

4. Place the motor control box on the Breaker Control Switch making sure that the cord from the motor control box to the RSA is out of the way of any moving parts.

The RSA is now ready for operation.

2 Operation

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 Control Switch.
7. Press TRIP to trip the Breaker Control Switch.

3 Adjustments

Although the RSA-1 is tested on a fully maintained breaker at the CBS ArcSafe® facility, some adjustments may need to be made to ensure proper operation. If possible, perform all adjustments on a spare or de-energized breaker control switch.

3.1 Lateral Adjustment

The RSA-1's roller wheel should be at the top of its stroke when the wheel is directly below the switch operator.

1. Loosen the two bolts on the base of the mounting bracket.
2. Place the RSA-1 on the face of the Breaker Control Switch
3. Slide the RSA-1 motor mount to the left or right to center the motor under the Breaker Control Switch handle.
4. Carefully remove the RSA-1 and re-tighten the two bolts.

3.2 Depth Adjustment

The RSA-1's roller wheel should contact the Breaker Control Switch handle and remain centered on the handle for the duration of the operation.

1. Place the RSA-1 on the face of the Breaker Control Switch
2. Loosen the two nuts on the underside of the mounting bracket
3. Slide the motor mount toward or away from the face of the Breaker Control Switch until the roller wheel is at the correct depth.
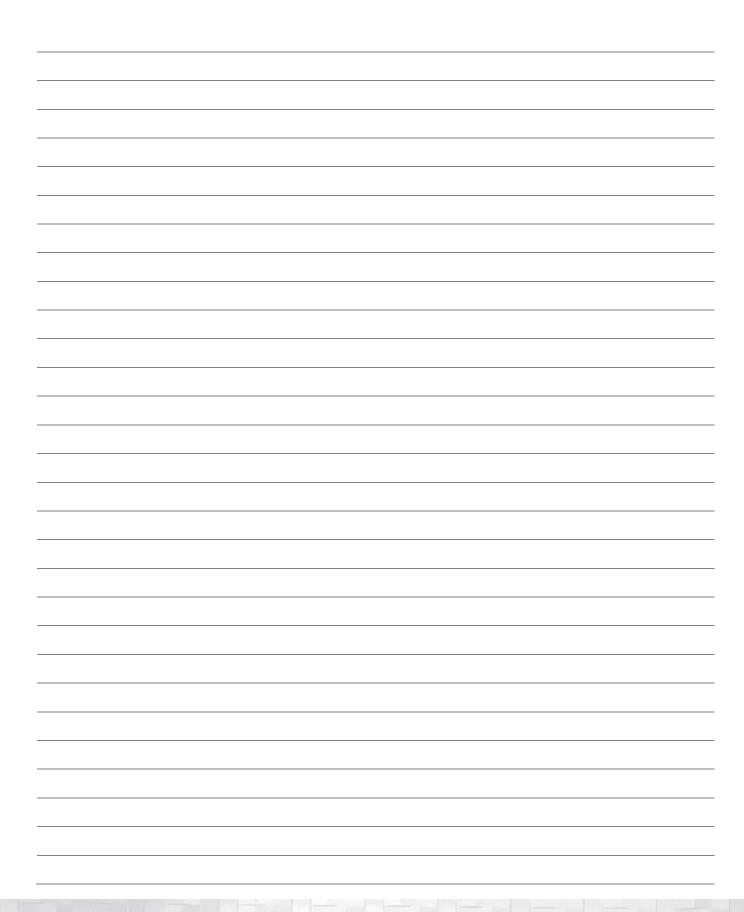4. Retighten the two bolts.

3.3 Height Adjustment

The RSA-1's roller wheel should contact the Breaker Control Switch handle and continue its stroke until the desired operation is performed. If the roller wheel hits too low on the handle the Breaker Control Switch will not be tripped or closed. If the roller wheel hits too high the roller wheel may break the handle before the operation is complete.

1. Place the RSA-1 on the face of the Breaker Control Switch.
2. Loosen the four bolts holding the motor to the motor mount.
3. Slide the motor up or down to achieve the desired height.
4. Retighten the bolts and remove the RSA-1.

Notes

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Installation and Operation

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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).