

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-1

For All Types of Breaker Control Switch

(Compatible with: Electroswitch - Series 24, 24P; General Electric - SB-1, SB-9, SB-10, SBM; Westinghouse - Type W; Instrument Transformer Inc - Series 95; Shallco - Series 26)



Distance is Safety®

WHAT STANDS
BETWEEN YOU AND
ARC-FLASH DANGER?

**WE
DO.**

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Rev. 4/27/2017

Installation and Operation

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 Introduction

This manual describes the installation and operation procedures for the Remote Switch Actuator (RSA-1). Do not use this manual as a reference for the operation of any breaker or as an installation guide for any other CBS ArcSafe® product. Please read and follow these instructions carefully. Failure to follow these instructions may result in personal injury or property and equipment damage.

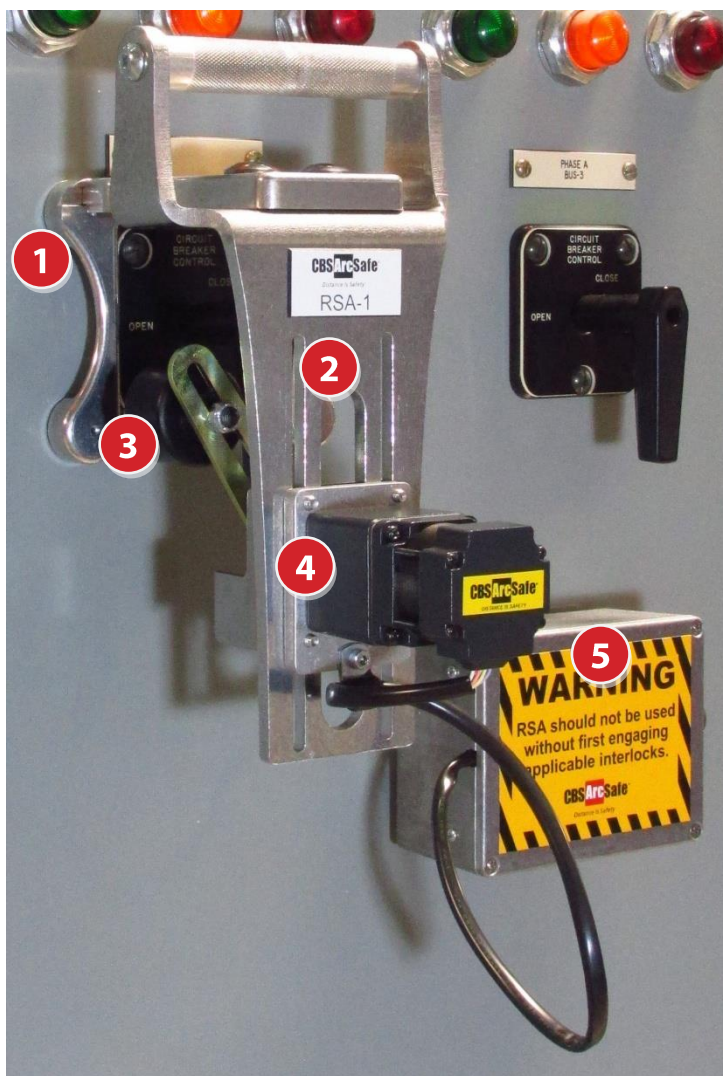
1.1 Description

The RSA-1 will perform CLOSE/TRIP operations on all types of breaker control switches. The use of the RSA-1 for operations will greatly increase the safety of the operator by positioning the operator outside of the arc flash boundary.

1.2 Components

The components of the RSA-1 are shown in the image, and listed below:

1. Mounting plate
2. Motor mount
3. Switching arm
4. Motor
5. Motor control box



2 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 Control Switch to be operated is free from obstructions that may interfere with proper installation of the RSA
2. Ensure that the RSA-1 is properly adjusted. See the Adjustments section for detailed instructions.
3. Place the RSA-1 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-1 is out of the way of any moving parts.



3 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 and hold CLOSE to close the Breaker Control Switch.
7. Press and hold TRIP to trip the Breaker Control Switch.



4 Adjustments

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.

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.

4.1 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.

4.2 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.

4.3 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.



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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).