# **CBS**ATCSafe®

Distance Is Safety®

A Group CBS Company

# **RSA-117A**

Cutler Hammer MVS

Load Break Switch





Distance is Safety®

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

# 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. Open the switch door, and ensure that the switch is free from obstructions that may interfere with

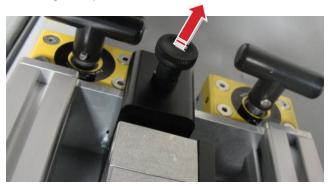
proper installation of the RSA

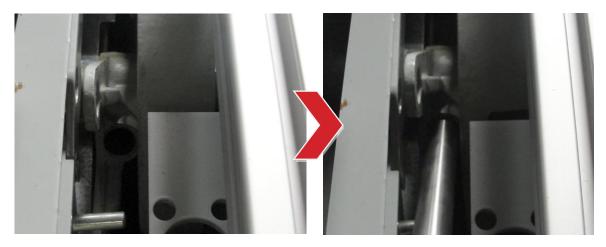


2. Position the RSA on the breaker, ensuring that locator on the RSA slips over the lip at the top of the switch housing door, as shown. If the switch does not have a lip, then ensure that the locator is flush to the top of the housing.



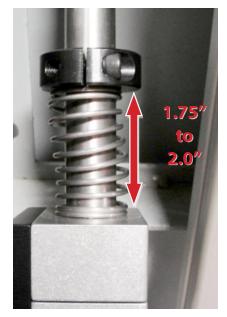
3. Release the actuator arm by pulling the black knob outward, then pull the actuator arm upward, and tilt the arm at a slight angle so it can be inserted into the receptacle on the switching mechanism, then insert it into the switching receptacle.





4. After installing the actuator arm, ensure that the spacing between the shaft collar and the bearing block on the actuator arm is between 1.75 and 2 inches. This distance ensures proper spring tension to prevent the arm from disengaging the switch mechanism during operation. To adjust this, see the

Adjustments section.



5. Ensure the magnets are fully seated against the breaker door and then turn the handles of the twistlock magnets 180° to lock the RSA in place.

The RSA is now ready for 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 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 turn ON the switch.
- 7. Press and hold TRIP to turn OFF the switch.

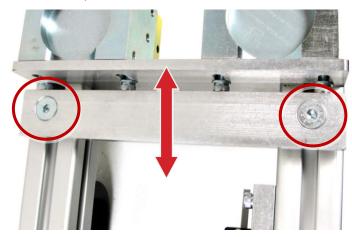


# 3 Adjustments

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 Locator Position

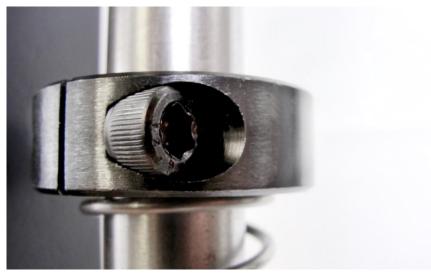
1. Loosen the two bolts on the locator, as shown below.



- 2. Install the RSA as described in the Installation section.
- 3. Slide the locator as required to properly position the RSA properly on the switch.
- 4. Re-tighten any loosened bolts.

# 3.2 Lock Collar Position.

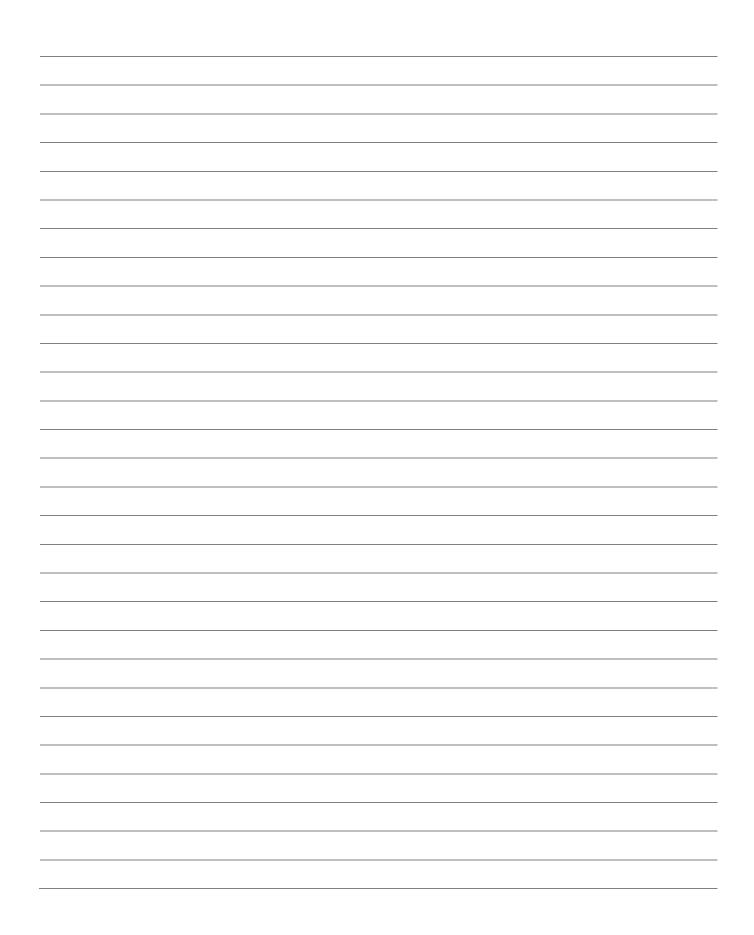
- 1. Install the RSA on a switch in the OFF position. Ensure the Actuator arm is fully inserted in the breaker mechanism.
- 2. Loosen the lock screw on the shaft collar (shown).



- 3. Slide the collar shaft down, compressing the spring until the spacing between the shaft collar and bearing block is between 1.75 and 2 inches, as described in the Installation section.
- 4. Re-tighten the lock screw on the shaft collar.

# **Notes**





# CBS Arc Safe®

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RSA-117A 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).