

# CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

Installation and Operation

## RSA-113J

For Cutler Hammer R Frame  
800-2500A



Distance *is* Safety®

WHAT STANDS  
BETWEEN YOU AND  
ARC-FLASH DANGER?

WE  
DO.

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Rev. 3/24/2015

## 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!

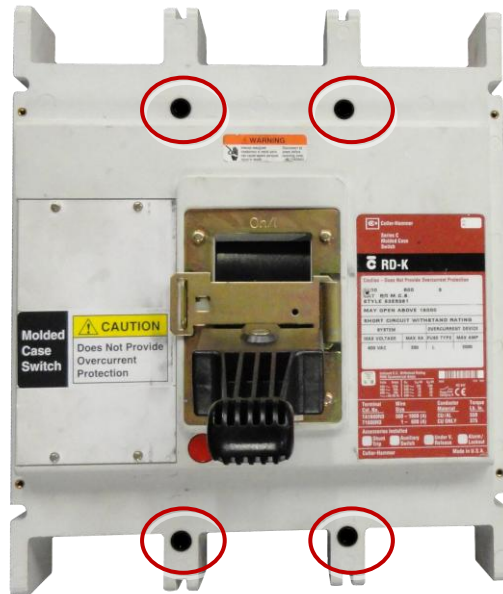
Before servicing any breaker, make sure that it matches the breaker discussed. If the breaker does not match the breaker described above, please call CBS ArcSafe® for more information.

## 1.1 Bracket Installation

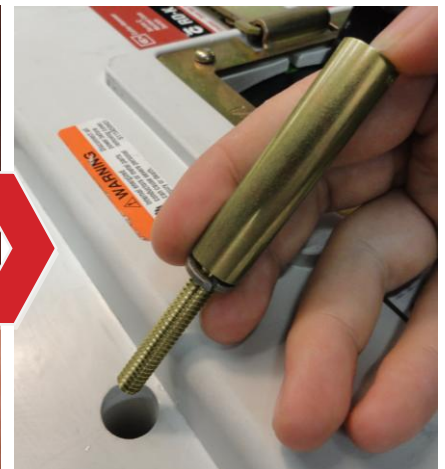
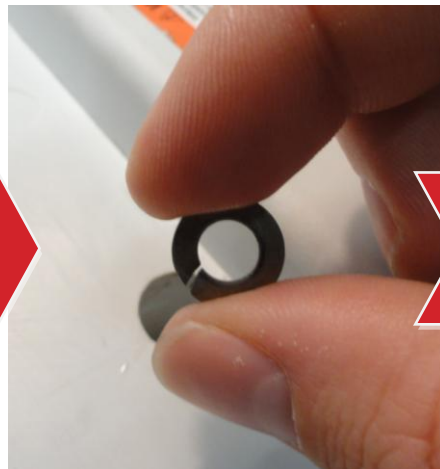
## DANGER!

Before installing any mounting brackets, ensure the breaker has been de-energized to minimize any potential Arc-Flash hazard.

1. Locate and remove the four bolts on the front of the breaker where the brackets are to be installed.



2. Take the lock-washer from the breaker bolts that were just removed, and place one on each of the standoff bolts that have been included with the bracket kit.



3. Insert a standoff bolt with lock washer into each of the four holes, and tighten until the top of the standoff is flush with the breaker faceplate.



4. Place the mounting brackets as shown on the breaker face, and fix in place using the additional bolts included in the bracket kit



You are now ready to install the RSA.

## 1.2 RSA Installation

### ATTENTION!

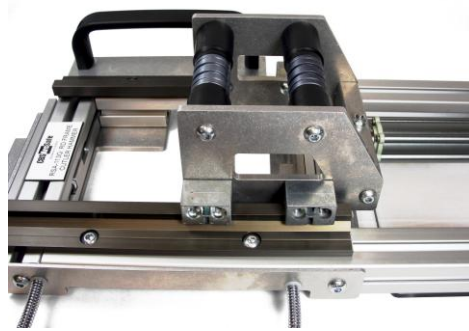
The location of certain items such as mimic bus, stickers, and/or placards may interfere with the proper installation of the RSA. Please remove or reposition these items before installing the RSA.

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

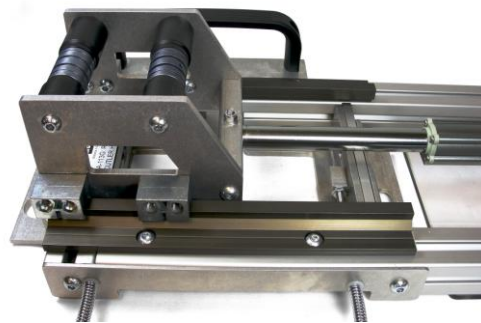




2. Ensure the mounting brackets have been installed on the breaker prior to attempting to install the RSA. See Section 1.1 Bracket Installation for instructions.
3. Position the actuator on the RSA to match the breaker state, prior to installation. See the Operation section on how to operate the RSA.
4. If the breaker is ON and needs to be turned OFF, then the actuator needs to be fully retracted.



5. If the breaker is OFF and needs to be turned ON, then the actuator needs to be fully extended.



6. Push the locking handle on the side of the RSA inward, and place the RSA on the face of the breaker. Ensure that the locator on the RSA is flush against the breaker switch escutcheon, as shown.



7. Allow the locking handle to return to the extended position to lock in place. The locking plates on the RSA should slide past the tapered locking posts as shown. If the locking plate fails to fully extend, pull on the handle gently until the locking plates fully slide into 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 OFF the breaker.
7. Press and hold TRIP to turn ON the breaker.
8. To RESET the breaker with the RSA:
  - a. Jog the RSA with the CLOSE button to position the actuator over the switch
  - b. Install the RSA as described in the Installation section.
  - c. Hold the CLOSE button until the breaker is fully OFF, then proceed to operate as stated above.







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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).