

# CBS ArcSafe®

*Distance Is Safety®*

A Group CBS Company

Installation and Operation

## RSA-32

For Mitsubishi Medium Voltage MCC Handle



**Distance is Safety®**

WHAT STANDS  
BETWEEN YOU AND  
ARC-FLASH DANGER?

**WE  
DO.**

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Rev. 8/3/2015

## 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.

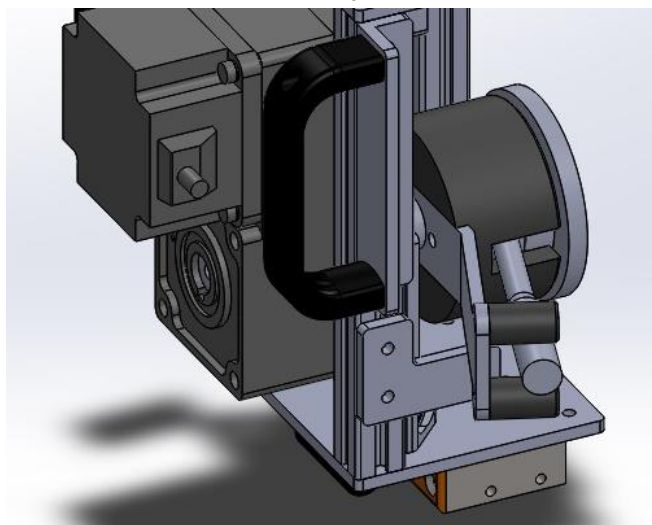
## ATTENTION!

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.

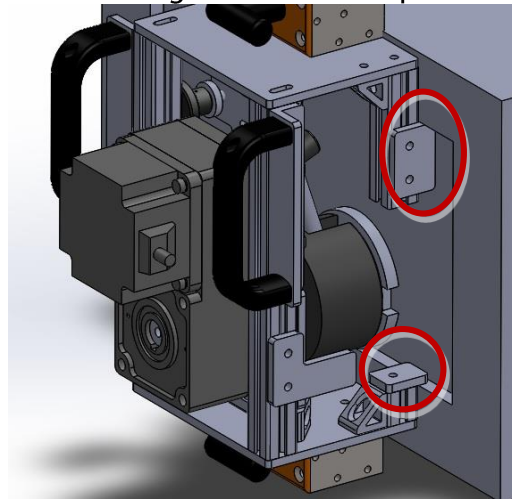
1. Ensure that the breaker is free from any obstruction that may interfere with the proper installation of the RSA.



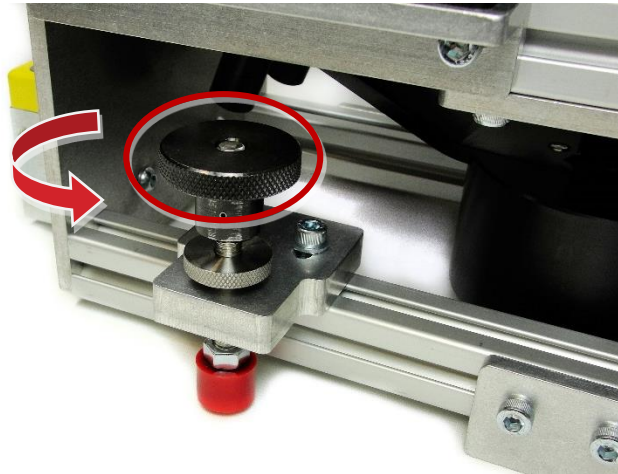
2. Manually rotate the handle adapter to match to position of the breaker handle.
3. Place the RSA on the face of the breaker ensuring that the handle actuator is properly seated around the operating handle, as shown. (Illustration with parts removed for clarity).



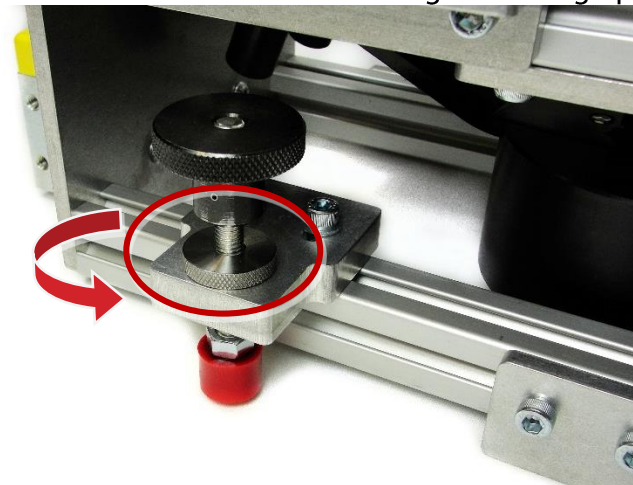
4. Ensure that the locator tabs are flush against the inner lip on the face of the breaker, as shown.



5. To attach the RSA to the breaker turn the handles of the twist-lock magnets 180° clockwise.
6. Ensure that the interlock defeat is correctly aligned over the pushbutton and turn the black knob clockwise to fully depress the interlock defeat.



7. With the pushbutton fully depressed, turn the silver ring clockwise until it is snug against the mounting plate. This will prevent the interlock defeat from backing out during operation.



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.

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 the CLOSE button to put the breaker into the SERVICE position.
7. Press and hold the TRIP button to put the breaker into the ISOLATION TEST position.



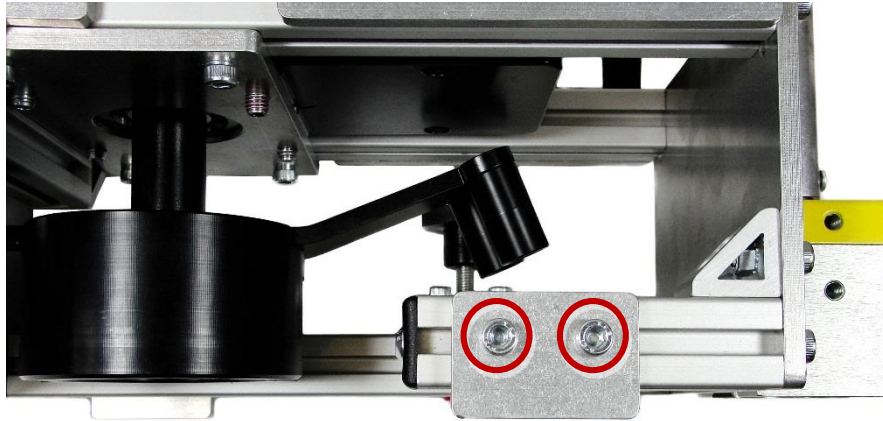
## 3 Adjustments

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 Adjustment

The locators can be adjusted to ensure proper location of the RSA onto the breaker cabinet.

1. Loosen the two bolts located at each of the two locator tabs, as shown.



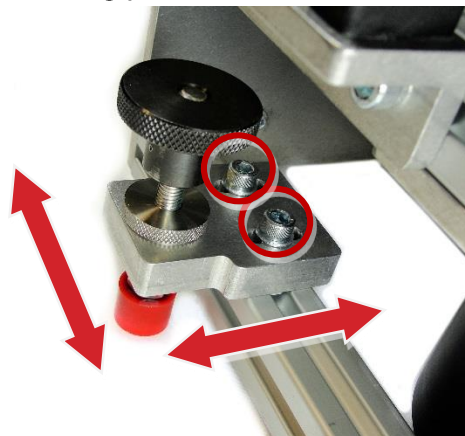
2. With the RSA properly located on the handle and the magnets fully flush with the cabinet, move each locator tab until flush with the lip of the cabinet.
3. Re-tighten each bolt.

### 3.2 Interlock Defeat Position Adjustment

The location of the interlock defeat can be adjusted to ensure that it is centered over the interlock defeat pushbutton.

#### 3.2.1 Position Adjustment

1. Loosen the two bolts on the mounting plate, as shown.



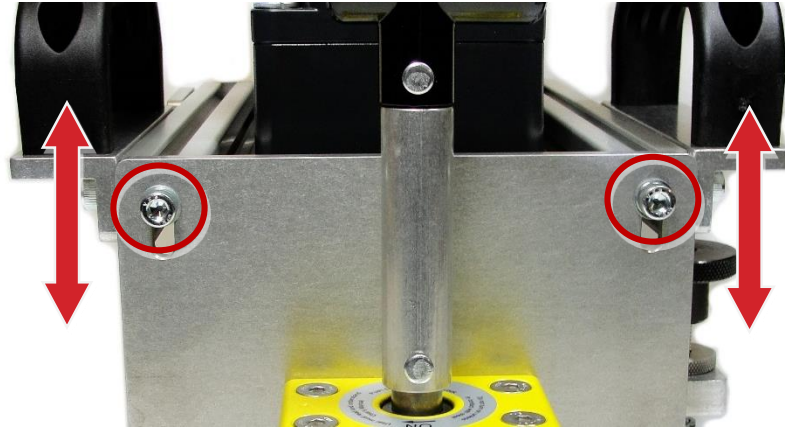
2. Slide the mounting plate left, right, up, or down as required to properly align the plunger with the breaker pushbutton, as described in the Installation section.
3. Re-tighten any loosened bolts.

### **3.3 Depth Adjustment**

The depth of the upper assembly of the RSA can be adjusted in order to ensure full engagement of the handle adapter with the handle on the breaker.

#### **3.3.1 Depth Adjustment**

1. With the RSA mounted and aligned, loosen the four bolts in the slotted holes on each end plate, as shown.



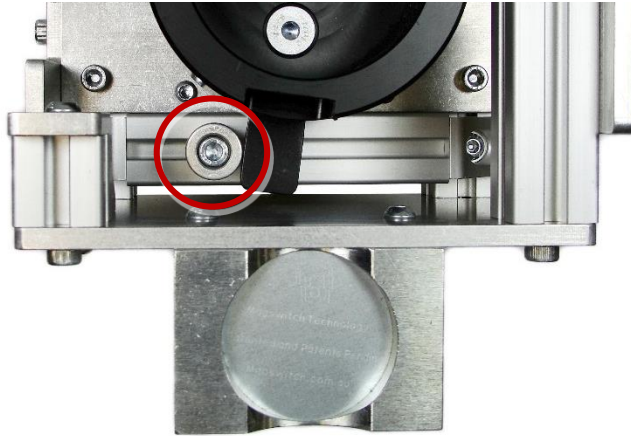
2. Move the assembly in an out as needed to fully engage the handle with the handle adapter of the RSA.
3. Re-tighten the four bolts.

## 3.4 Travel Adjustment

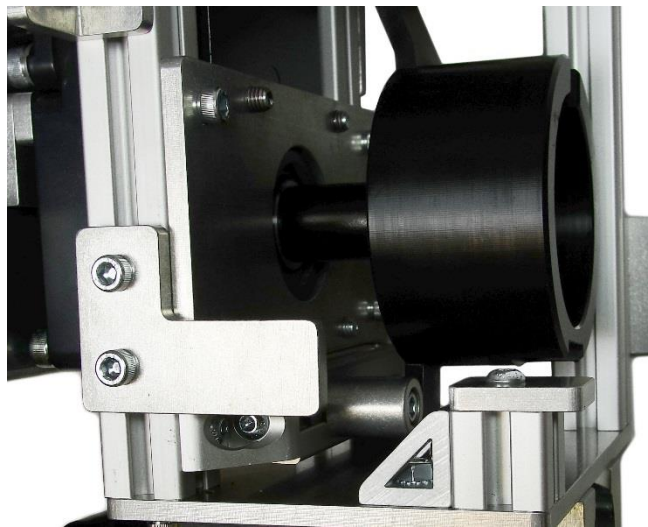
The travel length for the motor arm may be adjusted to avoid damage to the operator handle.

### 3.4.1 Upper Travel Limit Adjustment

1. Install the RSA on the operator handle as described in the Installation section.
2. Loosen the screw on the upper travel stop.



3. Move the handle and the RSA operator arm fully to the upward position, then slide the travel stop until it contacts the RSA arm as shown.

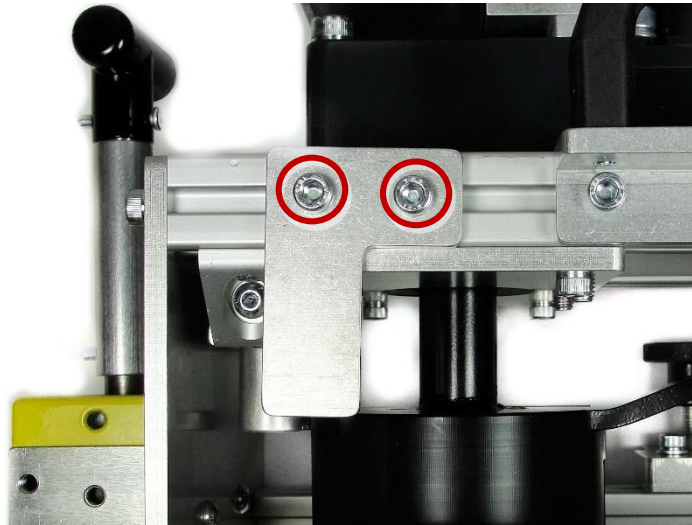


4. Remove the RSA carefully, and tighten the screw afterwards to hold the stop in place

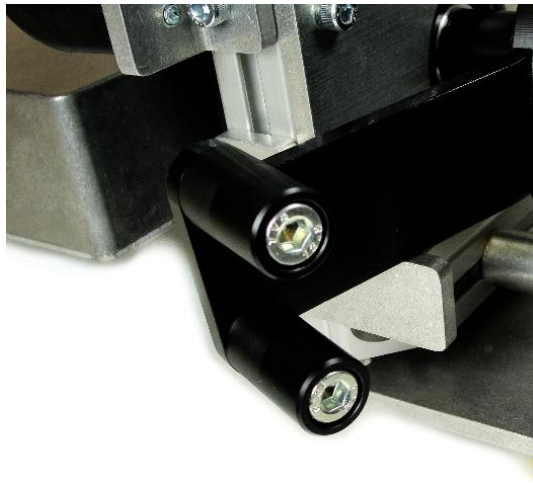


### 3.4.2 Lower Travel Limit Adjustment

1. Install the RSA on the operator handle as described in the Installation section.
2. Loosen the two screws on the lower travel stop.



3. Move the handle and the RSA operator arm fully to the downward position, then slide the travel stop until it contacts the RSA arm as shown.



4. Tighten the two screws to hold the stop in place







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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).