

Distance Is Safety® A Group CBS Company

# **RSA-117D**

## For Westinghouse WLI

Load Break Switch with permenant handle



## **Distance** is Safety<sup>®</sup>



2616 Sirius Road Denton, TX 76208 (877) 4-SAFETY www.cbsarcsafe.com *Rev. 4/13/2017* 

## More Products by CBS ArcSafe<sup>®</sup>

#### RRS-1 – Universal Remote Racking System (Rotary)

The CBS ArcSafe<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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



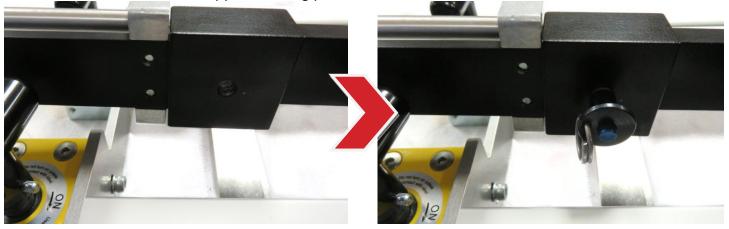
2. Position the RSA on the breaker, ensuring that locator on the RSA slips over the lip at the top of the switch housing door, as shown. If the switch does not have a lip, then ensure that the locator is flush to the top of the housing.



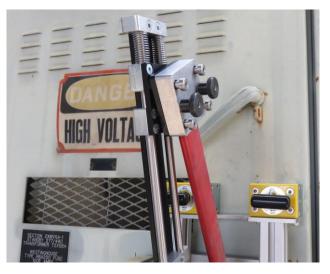




- 3. Ensure the magnets are fully seated against the breaker door and then turn the handles of the twist-lock magnets 180° to lock the RSA in place.
- 4. Extend the collapsible handle on the breaker, and lock it in place.
- 5. Rotate the actuator arm to to match the position of the breaker arm, and then slide the arm extension over the end of the breaker, and into it's mating slot on the RSA. Lock the arm extension to the RSA actuator with the supplied locking pin.



6. Clamp the handle adapter onto the breaker handle





The RSA is now ready for operation.



RSA-117D Installation and 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 close the switch.
- 7. Press and hold TRIP to open 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 Travel Adjustment

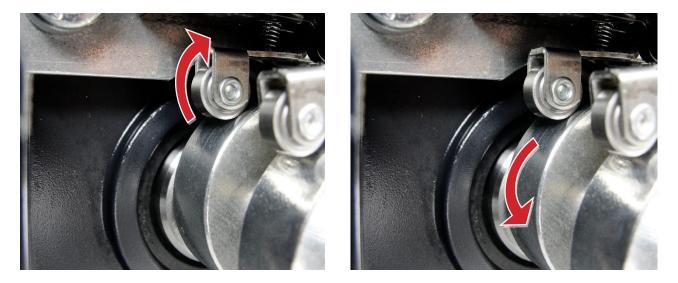
The travel length for the motor arm may be adjusted to avoid damage to the switch.

1. Loosen the lock screws on the backs of the two switch cams.





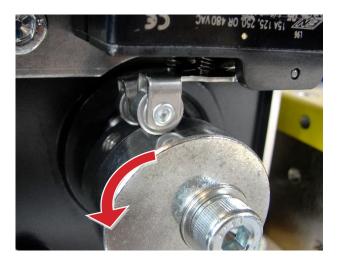
2. With the RSA charging arm in the UP position, rotate the inner limit switch cam until the limit switch is undepressed and clicks slightly, then rotate the cam back onto the switch until another slight click is heard, and the switch is depressed. Re-tighten the lock-screw on the cam.



3. With the RSA charging arm in the DOWN position, rotate the outer limit switch cam in the direction of travel for the arm, until a slight click is heard. Re-tighten the lock screw.









RSA-117D Installation and Operation

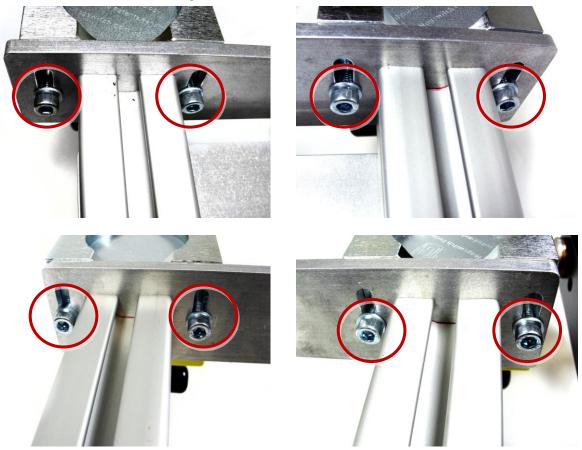


## 3.2 Depth Adjustment

The mounting depth of the RSA can be adjusted to avoid interference with bolts, plackards, and other items mounted to the switchgear door. To adjust the depth of the RSA, both the Magnets and the Locator must be adjusted at the same time, to the same level.

## 3.2.1 Magnet Depth

1. Loosen the two bolts on each magnet, as shown below.

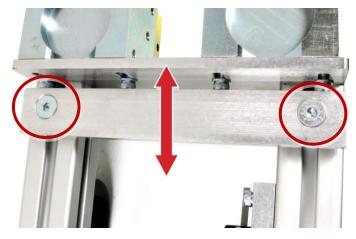


- 2. Install the RSA as described in the Installation section.
- 3. Slide each magnet up or down as required to accommodate any obstructions on the gear door.
- 4. Re-tighten any loosened bolts.



## **3.2.2 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.



## Notes


RSA-117D Installation and Operation



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RSA-117D 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).