

A Group CBS Company

# **RSA-11**

## For Westinghouse DHP 1200-3000A



# **Distance** is Safety<sup>®</sup>

WHAT STANDS BETWEEN YOU AND ARC-FLASH DANGER?

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### 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<sup>®</sup> 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

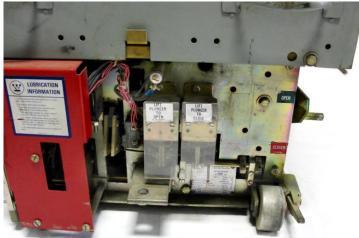
## DANGER!

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



2. Plate the RSA at a slight angle to the face of the breaker, then align and insert the locator pin on the RSA to the hole in the turning dolly bracket on the front of the breaker.



3. Ensure the motor on the RSA is in a neutral position (straight down between the actuators) before aligning the TRIP and CLOSE actuators.

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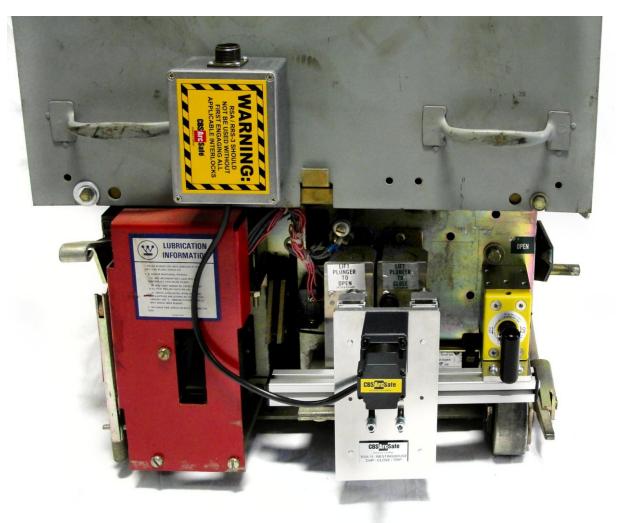
4. Next, rotate the RSA into place against the breaker.

5. Ensure the TRIP and CLOSE actuators align properly over the breaker switches.



6. Turn the handles of the twit-lock magnet 180° clockwise to lock the RSA in place

7. Place the motor control box so that the cord is out of the way of any moving parts. 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-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 Section 3 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. If the switch is OFF and needs to be ON, press and hold the CLOSE button on the RSO-I AR until the breaker is CLOSED.
- 7. If the breaker is ON and needs to be OFF, press and hold the TRIP button on the RSO-I AR until the breaker is TRIPPED.





## **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 actuators may be adjusted slightly to accommodate differences in breaker layout. Because the switch actuators themselves are fixed on the RSA, this is accomplished by adjusting the depth of the actuators.

- 1. Install the RSA on the face of the switch as described in the Installation section.
- 2. Loosen the two lock screws on the actuator plate of the RSA, as shown.



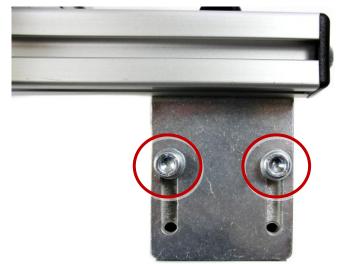
- 3. Slide the actuator plate up or down to position the actuators as desired. They should be positioned so that the switches on the breaker will be closed near the end of the actoator's travel.
- 4. Re-tighten the screws loosened in Step 2.



## 3.2 Magnet Depth

The depth of the magnet on the RSA can be adjusted to avoid interference with bolts, plackards, and other items mounted to the switchgear door.

1. Loosen the two bolts on the 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.



## 3.3 Magnet Position

The position of the magnet on the RSA can be adjusted to avoid interference with bolts, plackards, and other items mounted to the switchgear door.

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



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



## **3.4 Locator Position**

The locator position can be adjusted slightly to accommodate manufacturing differences between breakers.

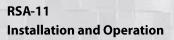
1. Loosen the bolt on the locator, as shown below.



- 2. Install the RSA as described in the Installation section, and slide the locator as required to properly align the switch actuators with the breaker switches.
- 3. Re-tighten any loosened bolts.



## Notes



# **CBS**ACC**Safe**®

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RSA-11 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).