

# CBS ArcSafe®

*Distance Is Safety®*

A Group CBS Company

## RSA-30

For ABB/BBC/ITE K-Line

2000A & Below



Installation and Operation

**Distance is Safety®**

WHAT STANDS  
BETWEEN YOU AND  
ARC-FLASH DANGER?

**WE  
DO.**

2616 Sirius Road | Denton, TX 76208 | (877) 4-SAFETY | [www.cbsarcsafe.com](http://www.cbsarcsafe.com)

Rev. 12/19/2015

## 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

Published and distributed by:  
CBS ArcSafe®  
2616 Sirius Road  
Denton, Texas 76208

A division of:  
GroupCBS, Inc.®  
P.O. Box 1557  
Gainesville, Texas 76241

Copyright CBS ArcSafe® 2013

Printed in the United States of America  
Reproduction, adaptation, or translation without prior written permission is prohibited except as is allowed by law.

# 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.

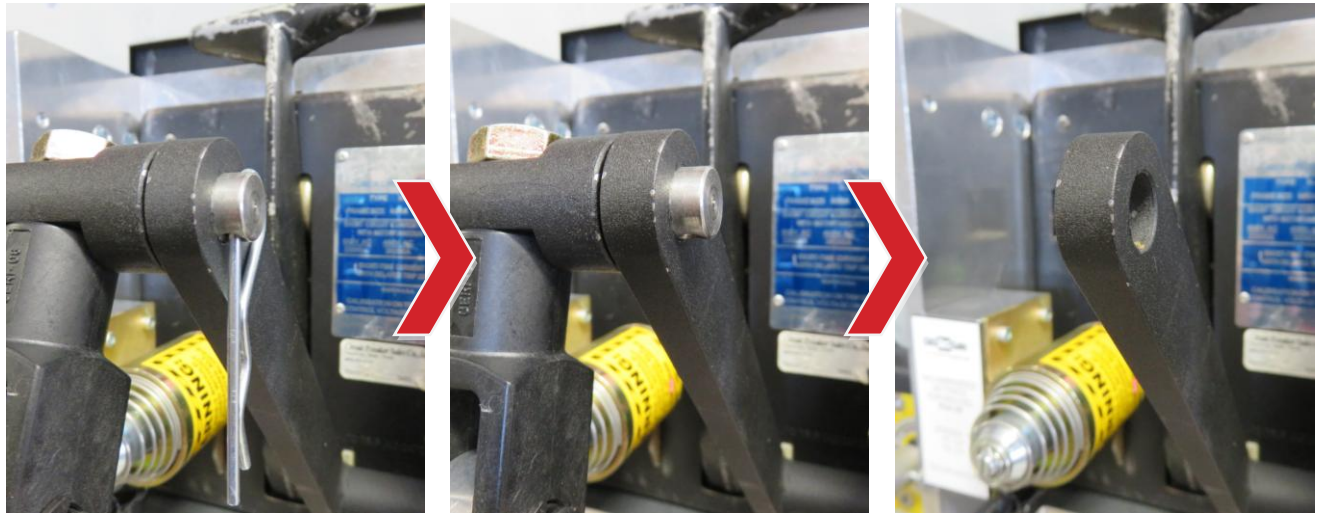


2. Place the RSA on the face of the breaker as shown. The upper cross member of the RSA should rest behind the upper edge of the breaker faceplate, with the notch cutout in the middle resting over the guide ridge on top of the breaker.

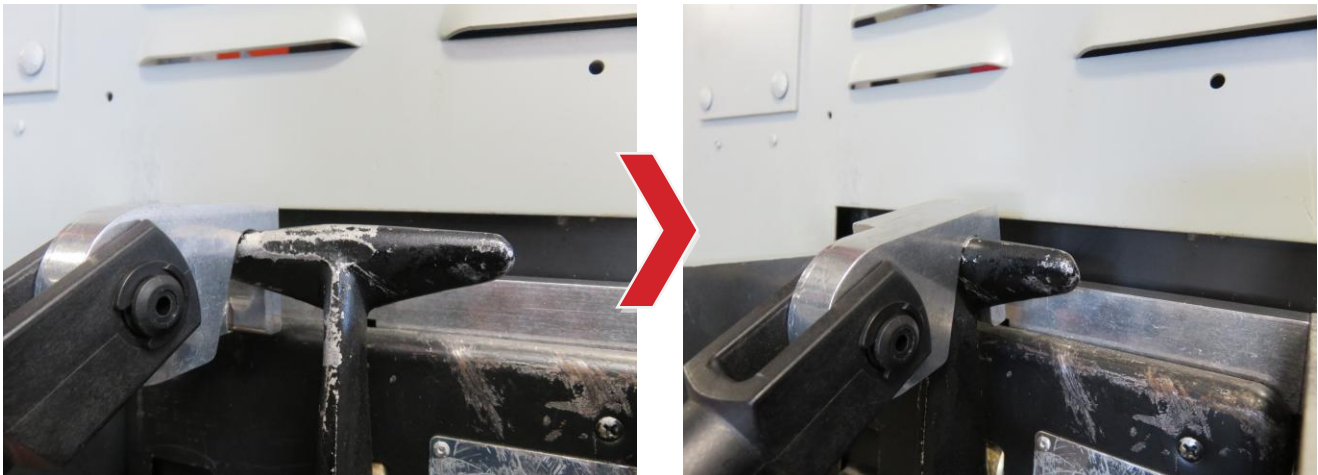
3. Ensure that the TRIP solenoid is correctly aligned over the breaker pushbutton as shown.



4. Ensure that the twist-lock magnet is seated flush and contacting metal, and then secure the RSA to the breaker by turning the handle of the magnet 180 degrees clockwise.
5. Remove the charging handle adapter from the RSA by removing the quick disconnect pin.



6. Place the charging arm adapter over the charging arm of the breaker. To do this pull out the charging arm slightly and slide the adapter over the arm. Be sure to slide the shaft on the handle adapter back into the charging arm while performing this step.



7. Reconnect the charging arm adapter to the RSA using the pin removed earlier.



8. Manually push the charging arm back to its resting position before beginning operation. The RSA is ready for remote operations.



## 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. Connect the cables from the RSO-IIID to the RSA.
3. The three pin twist type cable will attach to the motor control box on the RSA.
4. Turn the power switch on the RSO-IIID to the ON position.
5. Ensure that the Auto-Retract (AR) function is set according to the settings placard on the RSA. For detailed instructions on the AR function see the RSO-IIID manual.
6. Program the settings for the RSA into the RSO-IIID. These settings can be found on the placard on the RSA. For more information on programming the RSO-IIID please refer to the RSO-IIID Technical Manual.
7. Exit the arc flash boundary
8. Once the timers have been properly set press the CHARGE/CLOSE button to actuate the motor arm and charge the breaker, then close it.
9. Press TRIP to trip the breaker.



## 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 Plunger Adjustment

The operation depth and position of the solenoid on this RSA can be adjusted to accommodate differences in the button-press depth, and breaker differences.

1. Install the RSA as directed in the Installation section of this manual.
2. To increase the solenoid plunger depth, loosen the nut on the solenoid plunger, and turn the black end counter-clockwise. To decrease depth, turn the black end clockwise. Test the depth by operating the plunger with the RSO, and re-tighten the nut when finished.



3. Re-tighten the nut when adjustment is finished.

## 3.2 Travel Adjustment

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

1. Install the RSA on the face of the breaker as described in the Installation section.
2. Loosen the lock screws on the two travel stops.



3. Attach the RSA according to the instructions in the Installation section.
4. With the breaker handle and RSA operator arm in the UP position, rotate the upper travel stop until the arm is allowed to travel fully up, and re-tighten the bolt.





5. With the breaker handle and RSA operator arm in the DOWN position, rotate the travel stop up until the arm is allowed to travel fully down, and tighten the bolt.









*Distance Is Safety*®

A Group CBS Company

RSA-30  
Installation and Operation

2616 Sirius Road  
Denton, TX 76208  
Tel: 877-4-SAFETY  
Fax: 940-382-9435  
Website: [www.CBSArcSafe.com](http://www.CBSArcSafe.com)  
Email: [info@CBSArcSafe.com](mailto:info@CBSArcSafe.com)

**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).