

# CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

Installation and Operation

## RSA-105F

For LA/LAF 600-800 Amp  
Yellow Zinc Face, Manual Operated  
Includes LA/LAF-600, 600A, 600AF, 600B, 600F, 800, 800A, 800B



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. 3/15/2016

## 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 to be operated is free from obstructions that may interfere with proper installation of the RSA



2. Place the RSA on the front of the breaker. Ensure that the frame of the RSA is fully seated against the breaker face, and that the upper support of the assembly is resting on the top of the breaker escutcheon.



3. Ensure the Trip solenoid on the RSA is aligned over the trip button on the front of the switch (below left) and that the Close lever on the RSA is aligned properly over the Close lever on the breaker (below right).



4. Ensure the magnets are fully seated against the switchgear door and then turn the handles of the twist-lock magnets 180° to lock the RSA in 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 set according to the placard on the RSA.
6. Press and hold CLOSE to turn ON the breaker.
7. Press and hold TRIP to turn OFF 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 Magnet Depth Adjustment

The depth of each magnet on the RSA can be adjusted in order to avoid interference from items mounted to the breaker door.

1. Loosen the two bolts on each magnet plate that needs to be adjusted, as shown.

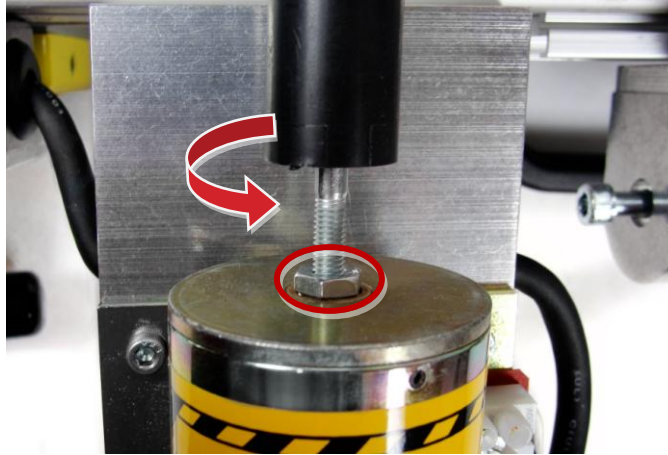


2. Slide the loosened magnets as necessary to position each one so they adequately account for any depth differences. Ensure the magnets sit flush against the gear door.
3. To adjust the position of a magnet, unlock the twist-lock magnet to be adjusted, slide it along the rail on the RSA to a new position, and re-set depth and re-lock the magnet.
4. Re-tighten any loosened bolts.

## 3.2 Plunger Depth Adjustment

The operation depth of the solenoids on this RSA can be adjusted to accommodate differences in the button-press depth requirements.

1. To increase the solenoid plunger depth, loosen the nut on the solenoid plunger, and turn the black end counter-clockwise. Test the depth by operating the plunger with the RSO, and re-tighten the nut.



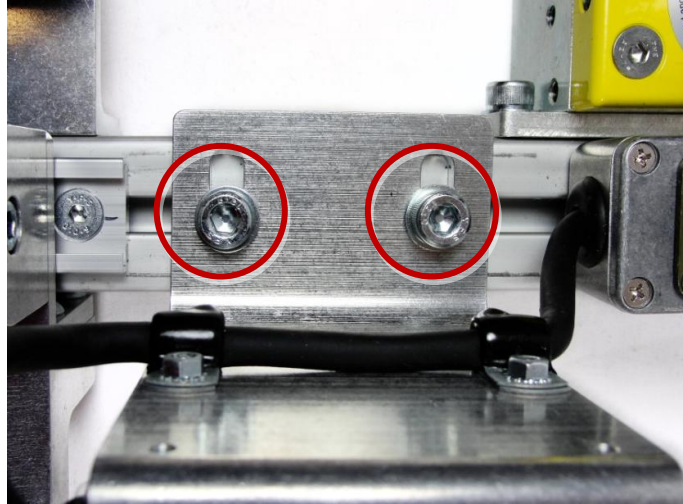
2. To decrease the solenoid plunger depth, loosen the nut on the solenoid plunger, and turn the black end clockwise. Test the depth by operating the plunger with the RSO, and re-tighten the nut.



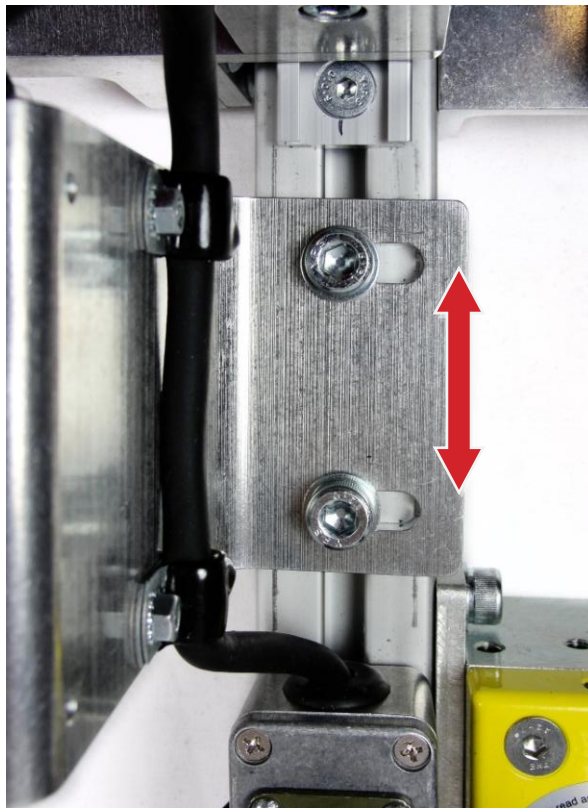
### 3.3 Solenoid Position Adjustment

The location of the solenoids on the RSA can be adjusted in order to ensure they make optimum contact with the breaker pushbuttons.

1. Loosen the bolts holding the solenoid mount in place, as shown.

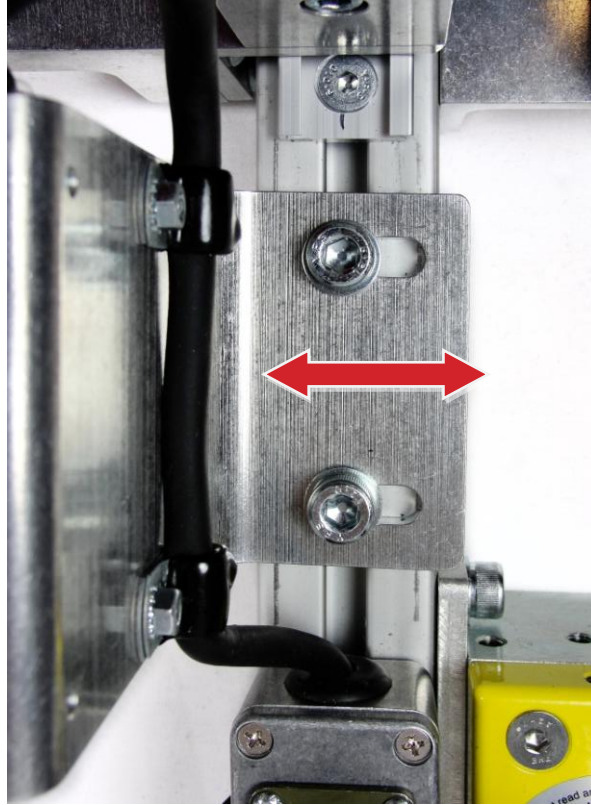


2. Slide the solenoid assembly up or down as required to properly align the solenoid with the center of the trip button.





3. Slide the solenoid assembly left or right as required to properly align the V-notch on the solenoid plunger with the breaker trip button, as described in the Installation section.



4. Re-tighten any loosened bolts.







*Distance Is Safety*®

A Group CBS Company

RSA-105F  
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).