# CBS Arc Safe®

Distance Is Safety®

A Group CBS Company

**RSA-136E** 

## For ITE/Siemens Sentron Series

LMD/MD (500-800A), ND (800-1200A), PD (1200-1600A), RD (1600-2000A) - With Handle Extension







Distance is Safety®

WHAT STANDS BETWEEN YOU AND ARC-FLASH DANGER? WE DO.

# 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 switch is free from any obstruction that may interfere with the proper installation of the RSA.



- 2. Prior to installation of the RSA, manually rotate the motor arm to the correct position corresponding to the breaker handle's current position.
  - a. If the breaker is ON, rotate the motor arm of the RSA to its upward position.
  - b. If the breaker is OFF, rotate the motor arm of the RSA to its downward position.

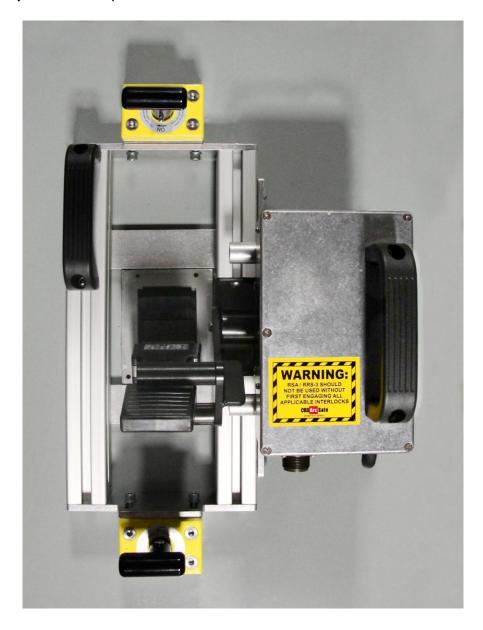
3. Slide the RSA over the breaker handle, ensuring the handle adaptor fits inside the breaker handle, as shown below.



4. Ensure that the breaker locators are flush with the edges of the breaker handle escution. If the locator is not flush, it may be adjusted according to the instructions in the Adjustments section of this manual.

5. To attach the RSA, ensure that both magnets are seated flush against the switch panel, then turn the handles of the two twist-lock magnets 180° clockwise.

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 breaker is ON and needs to be turned OFF, then push and hold the TRIP button on the RSO-I AR until the breaker trips.
- 7. If the breaker is OFF and needs to be turned ON, then push and hold the CLOSE button on the RSO-I AR until the breaker is closed.



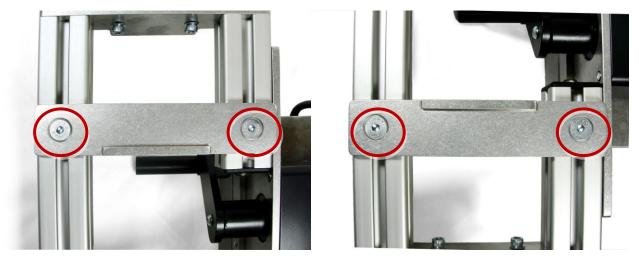
# 3 Adjustments

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 locator on the RSA can be adjusted in order to account for minor differences in equipment layout.

1. Loosen the screws holding each locator in place, as shown.



- 2. Slide each locator up or down as necessary to position it so it adequately avoids any obstructions, and sits flush against the breaker handle escuton.
- 3. Re-tighten the screws.

# 3.2 Travel Adjustment

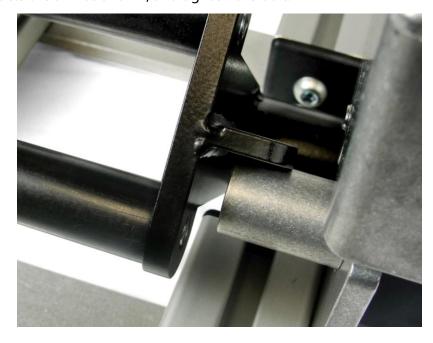
The travel length for the motor arm may be adjusted to avoid damage to the breaker.

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





- 3. Attach the RSA to a de-energized breaker according to the instructions in the Installation section.
- 4. With the breaker handle and RSA operator arm fully in the ON (UP) position, slide the upper travel stop up until it contacts the arm as shown, and tighten the bolt.



5. With the breaker handle and RSA operator arm fully in the OFF (DOWN) position, slide the travel stop up until it contacts the arm as shown, and tighten the bolt.



# **Notes**



# CBS Arc Safe®

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RSA-136E Installation and Operation

> 2616 Sirius Road Denton, TX 76208 Tel: 877-4-SAFETY

Fax: 940-382-9435

Website: www.CBSArcSafe.com Email: 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).