

CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RRS-3 AKD(ME)

For GE Type AK, 1600-3200A

(Includes AK/AKU

1/2/3 - 50/50S/75/75S)



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

Rev. 12/18/2018

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® 2018

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

About the User's Guide

This user's guide describes the functions and features of the CBS ArcSafe® Single Application Remote Racking System (RRS-3). This technical document is intended to act as a simplified reference for users of the equipment; allowing for safe, quick, and efficient use of the RRS-3 features.

DANGER!

This is a red hazard alert warning box; red hazard alert boxes contain information pointing out potential hazards to personnel and equipment.

ATTENTION!

This is a green information box; green information boxes are used to place emphasis on valuable information the user will want to pay particular attention to.



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).

DANGER!

Ensure that switchgear is properly maintained and in good working order before using the RRS-3 on your switchgear. Contact your local group CBS service provider at www.gcbs.com to assist in proper care and maintenance for your switchgear.

1 Installation

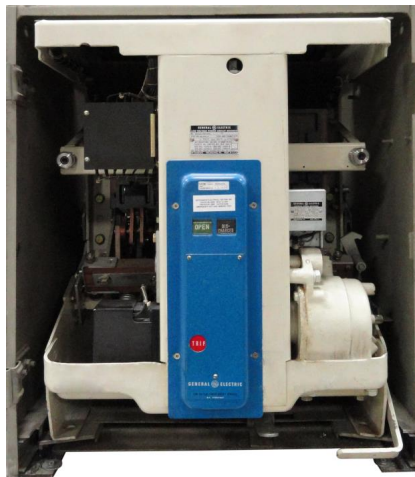
DANGER!

Ensure that the equipment to be remotely operated matches the equipment shown and described on the cover page. If the equipment does not match, please contact CBS ArcSafe® for more information regarding remote operating applications for the equipment in question.

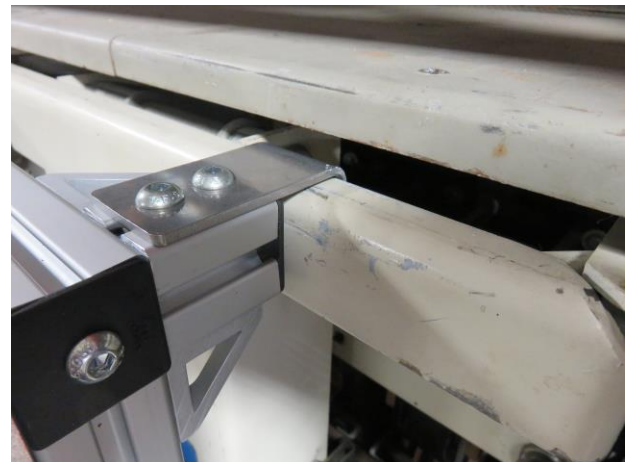
ATTENTION!

The location of certain items such as mimic bus, stickers, and/or placards may interfere with the installation of the remote operating equipment. These items may need to be removed or repositioned for proper installation.

1. Ensure that the breaker is free from any obstruction that may interfere with the proper installation of the RRS-3.



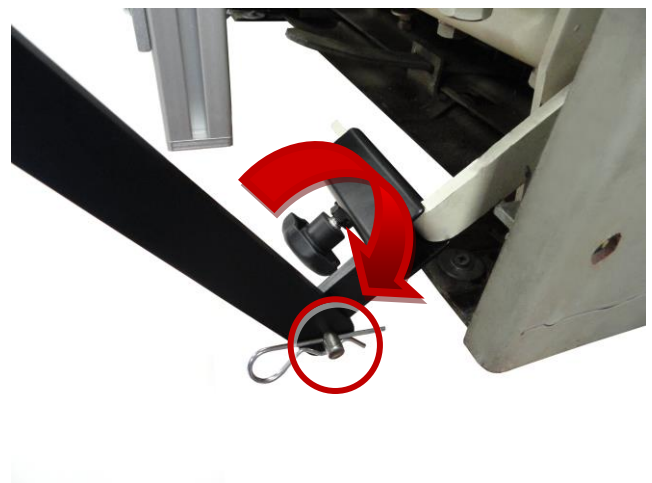
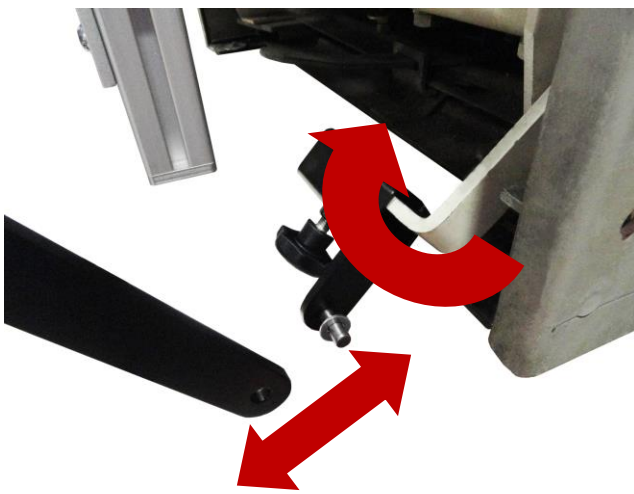
2. Next, hook the RRS-3 over the top frame of the breaker, and then slide it all the way to the left.



3. Secure the RRS-3 to the breaker by turning the handle of the twist-lock magnets 180 degrees clockwise.
4. Slide the handle adapter to the racking arm, as shown. Do not tighten the knob at this time.



5. Pull the racking handle up to meet the operator arm of the RRS-3. Slide the handle adapter over to attach it to the operator arm and insert the pin. Finish by tightening the knob to lock the handle adapter/operator arm assembly in place.



The RRS-3 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-IV are fully charged or that the unit is plugged into AC power.

For detailed instructions on the operation of the RSO-IV please see the RSO-IV Manual.

1. Ensure that the RRS-3 is properly installed. See the Installation section of this manual for detailed instructions.
2. Connect the cable from the RSO-IV to the motor control box on the RRS-3
3. Turn the power switch on the RSO-IV to the ON position.
4. Set both the Install and Remove current on the RSO-IV to 0. For more information on programming the RSO-IV please refer to the RSO-IV Technical Manual.
5. Exit the arc flash boundary.

2.1 Removing the Breaker

1. Alternate holding the Remove and Install buttons to operate the actuator arm up/down and rack the breaker out.
 - a. A total of 4 strokes are required to rack the breaker.
2. On the 5th up stroke, the handle will stop part-way, indicating the breaker is fully removed.
3. Press the Install button one more time to reset the handle position.

2.2 Installing the Breaker

1. Alternate holding the Remove and Install buttons to operate the actuator arm up/down and rack the breaker in.
 - a. A total of 4 strokes are required to rack the breaker.
2. On the 5th down stroke, the handle will stop part-way, indicating the breaker is fully installed.
3. Alternate the Remove and Install buttons one more time to reset the handle position.



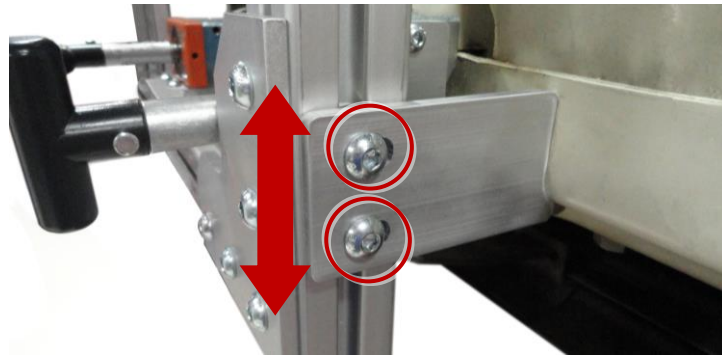
3 Adjustments

The RRS-3 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 Lower Frame Locator Adjustment

The height of the lower frame locator can be adjusted to allow the locator to sit flush with the lower part of the frame.

1. Loosen the two bolts on the locator bracket as indicated below.

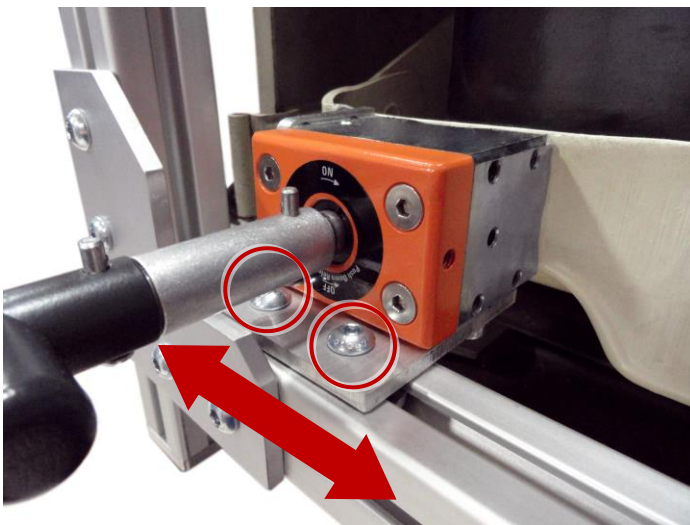


2. Next, slide the locator up or down as required, aligning it with the frame of the breaker.
3. Re-tighten the bolts loosened previously.

3.2 Magnet Position Adjustment

The position of the magnets can be adjusted to avoid any obstructions on the frame of the breaker.

4. Loosen the two bolts on each of the magnet mounts as indicated below.



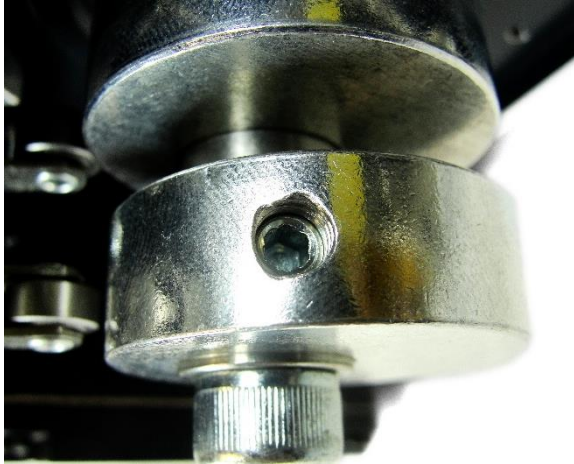
5. Next, slide the mounts left or right, up or down as required to clear any obstructions.

Re-tighten the bolts loosened previously.

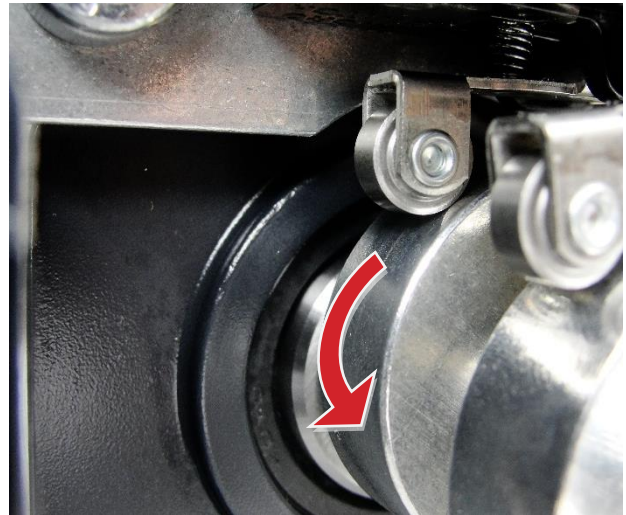
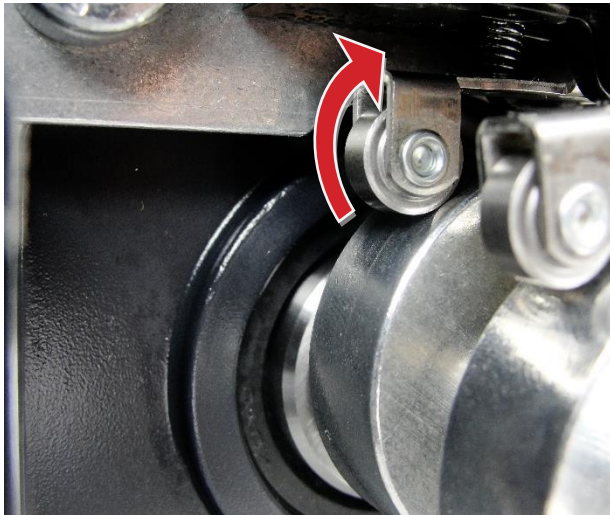
3.3 Travel Adjustment

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

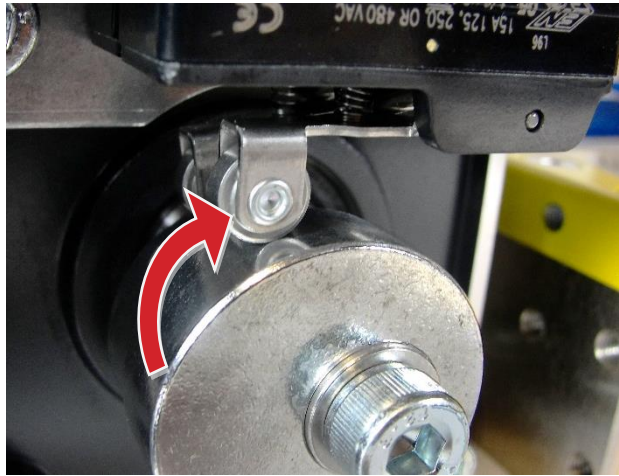
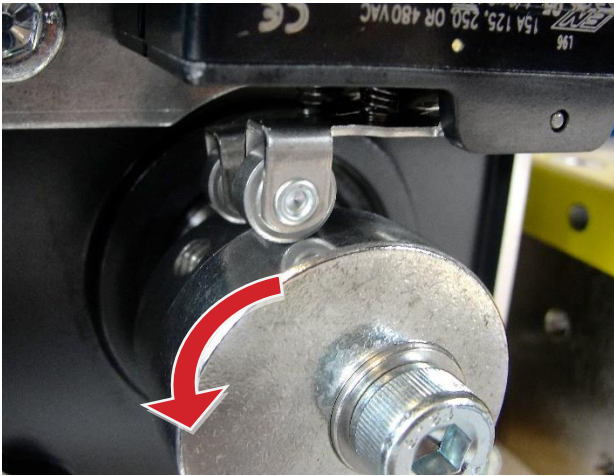
1. Loosen the lock screws on the backs of the two switch cams.



2. With the handle adapter and operator installed, and the racking 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 racking 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.





Distance Is Safety®

A Group CBS Company

RRS-3 AKD(ME)
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).