

# CBS ArcSafe®

*Distance Is Safety®*

A Group CBS Company

## RSA-140

For Klockner Moeller/Moeller Electric – IVS  
Modan 2000, Modan 3000 MCC Handle Operator (Small)



Installation and Operation

**Distance is Safety®**

WHAT STANDS  
BETWEEN YOU AND  
ARC-FLASH DANGER?

**WE  
DO.**

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Rev. 8/28/2015

## 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

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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.

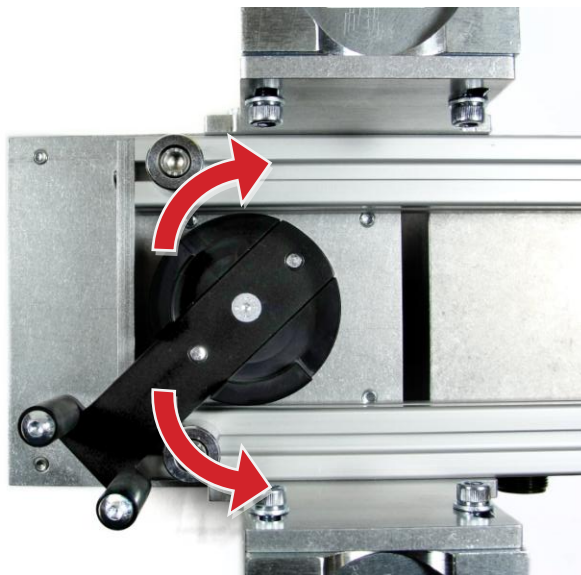
## ATTENTION!

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.

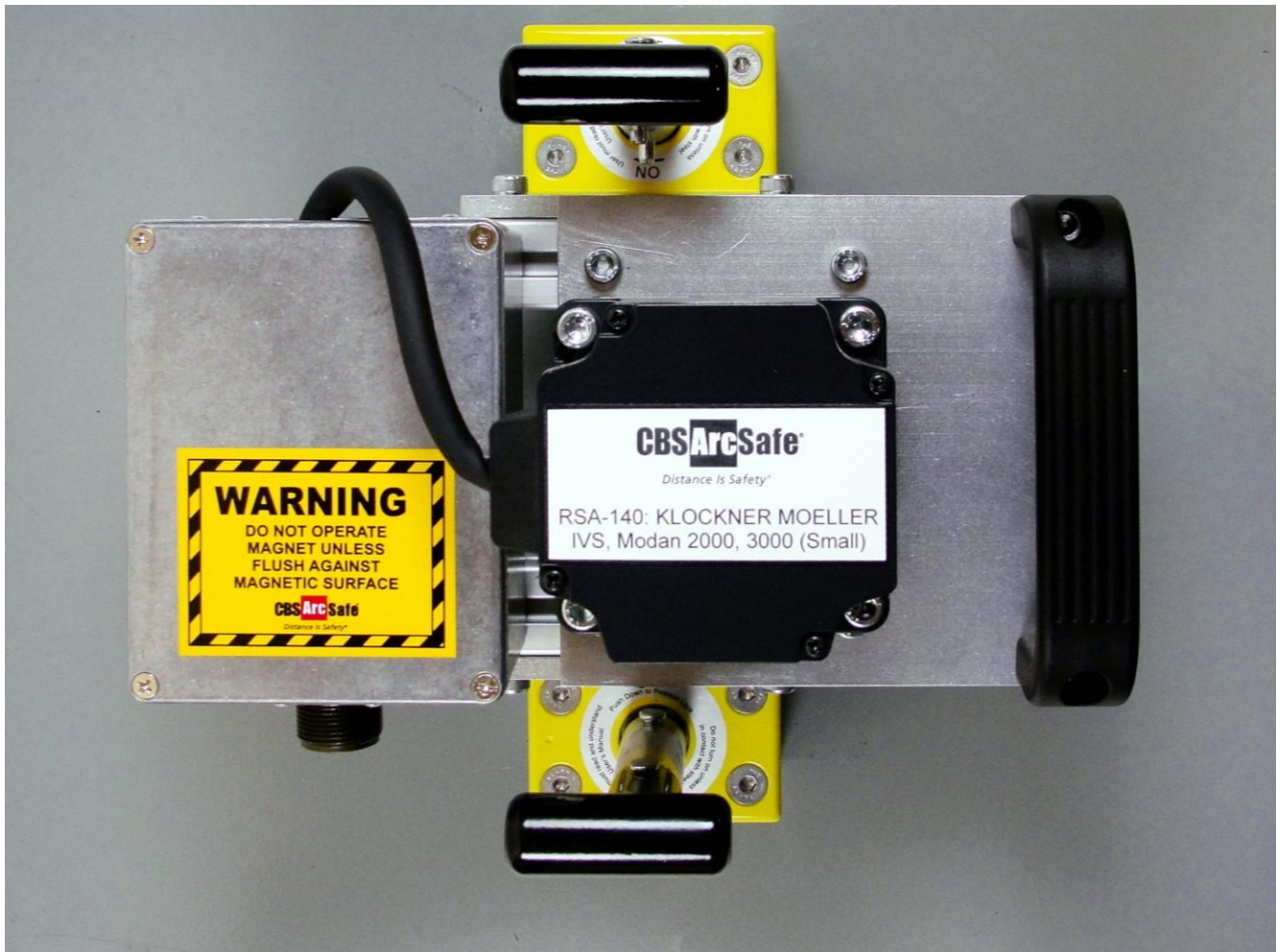
1. Ensure that the device to be operated is free from obstructions that may interfere with proper installation of the RSA



2. Mount the RSA on the Panel Unit by first aligning the handle adapter on the RSA to the Handle Operator on the panel, and then roll the RSA forward into position.
  - a. The handle adapter on the RSA can be rotated manually or jogged with the RSO to achieve proper alignment.



3. Note that from the factory, the travel stops on this RSA come configured to operate the switch between the CLOSED and RESET positions. If the switch is OFF, it may be necessary to manually adjust the position of the handle adapter on the RSA prior to operation.
  4. Turn the twist-lock magnet 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. The default is OFF if not specified.
6. If the switch is OFF and needs to be turned ON, press and hold CLOSE button until the switch is fully in the ON position.
7. If the switch is ON and needs to be turned OFF, press and hold TRIP button until the switch is fully in the OFF position.



## 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 RSA-34B has travel stops on it to prevent over-travel and damage of the handle operator during operation.

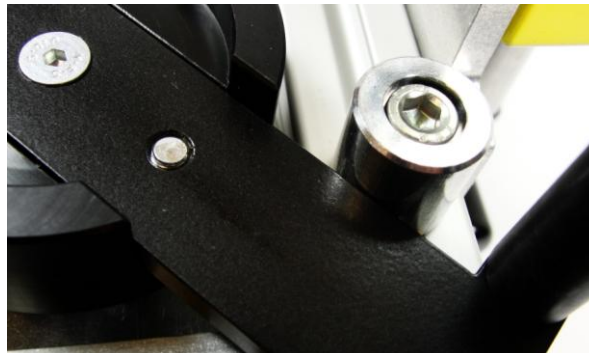
1. Install the RSA as directed in the Installation section
2. Loosen the two bolts on the travel stops.



3. To set the RSA to stop the handle at the ON position, tap the CLOSE button on the RSO to carefully jog the RSA until the Handle Operator has reached the ON position. Slide the stop so it sits flush against the handle, and re-tighten the bolt.



4. To set the RSA to stop the switch at the OFF position, tap the RSO TRIP button to carefully jog the RSA until the Handle Operator is at the OFF position. Slide the stop so it sits flush against the handle, and re-tighten the bolt.

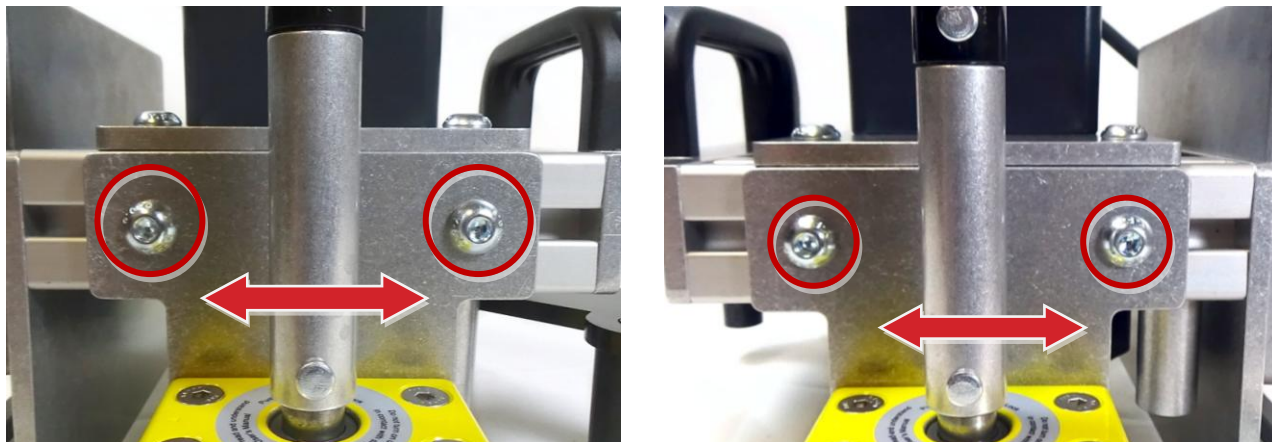


## 3.2 Magnet Adjustment

The depth of the magnets on the RSA can be adjusted in order to avoid interference from items mounted to the switch door.

### 3.2.1 Magnet Position

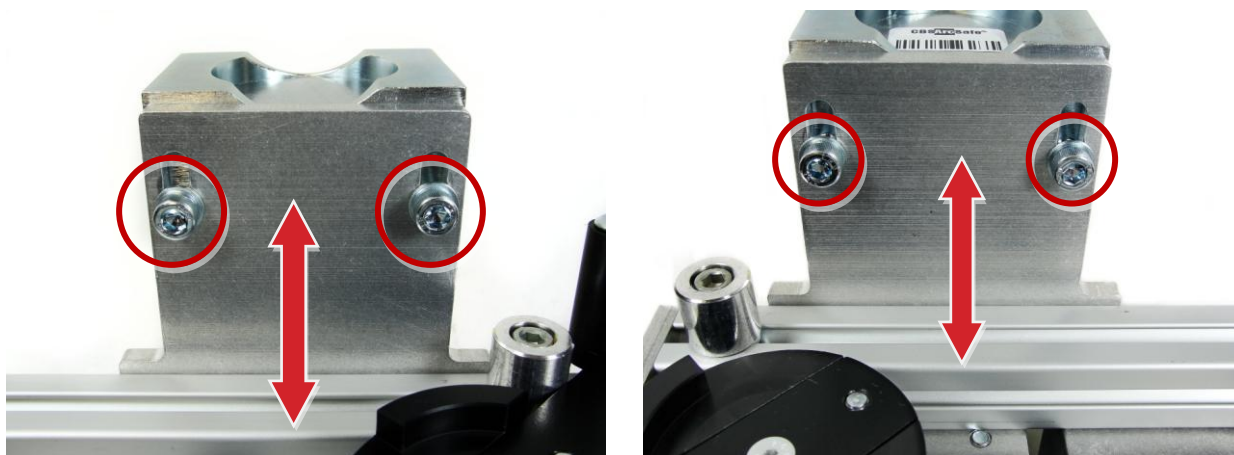
1. Loosen the two bolts on each magnet plate, as shown below.



2. Install the RSA over the switch as described in the Installation section of this manual.
3. During positioning, Slide the magnet left or right as necessary to position it so it adequately avoids any obstructions.
4. Re-tighten the bolts.

### 3.2.2 Magnet Depth

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



2. Install the RSA over the switch as described in the Installation section of this manual.
3. During positioning, slide the magnets in or out as required to achieve proper depth so the handle adapter on the RSA fully engages with the operator handle.

### 3.3 Operator Position Adjustment

The position of the handle operator on the RSA can be adjusted slightly to accommodate differences in handle layout.

1. Loosen the four bolts on the operator plate.



2. Slide the operator up or down as required to achieve proper alignment on the switch handle.
3. Install the RSA as described in the Installation section to ensure that the parts align as desired.
4. Re-tighten the bolts loosened in Step 1.











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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).