CBS ArcSafe®

Distance Is Safety®

A Group CBS Company

RSA-27

For Square D - HVL/cc Medium Voltage Metal-Enclosed Switchgear
Load Interrupter Switch w/ Over Toggle Mechanism

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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

1 Installation

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

2. Rotate the operating adapter to match the state of the breaker. See the Operation section of the manual for specific instructions on operating the RSA.
3. Place the RSA on the face of the breaker ensuring that the operating adapter is fully seated in the operating socket.

4. Ensure the locators on the RSA are properly positioned, and seated flush against the breaker housing.
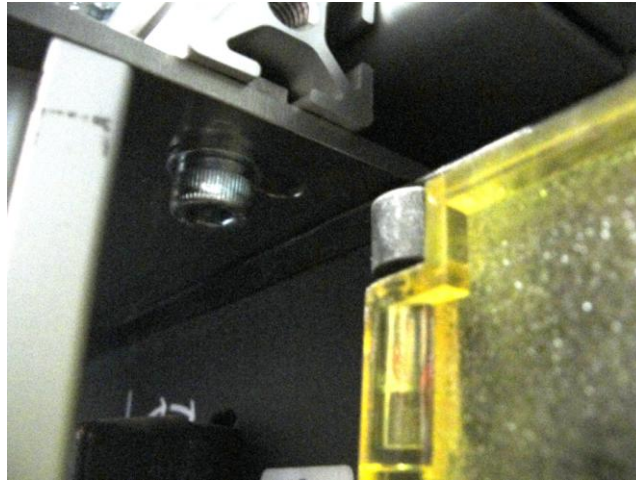

DANGER

If the RSA's operating adapter and locators are not properly seated, attempting to operate the breaker with the RSA may cause binding which can damage the RSA or the breaker mechanism.

Before operating, be sure that the operating adapter and locators are flush and that the operaton adapter is at the proper depth. See 3.4 Locator Adjustment in the Adjustments section to adjust the locator depth for proper positioning of the operating adapter.

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5. Ensure the mounting magnets on the RSA are flush against their mounting surfaces, and then attach the RSA to the breaker by turning the handles of the twist-lock magnets 180° clockwise.

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The RSA is now ready for remote operation
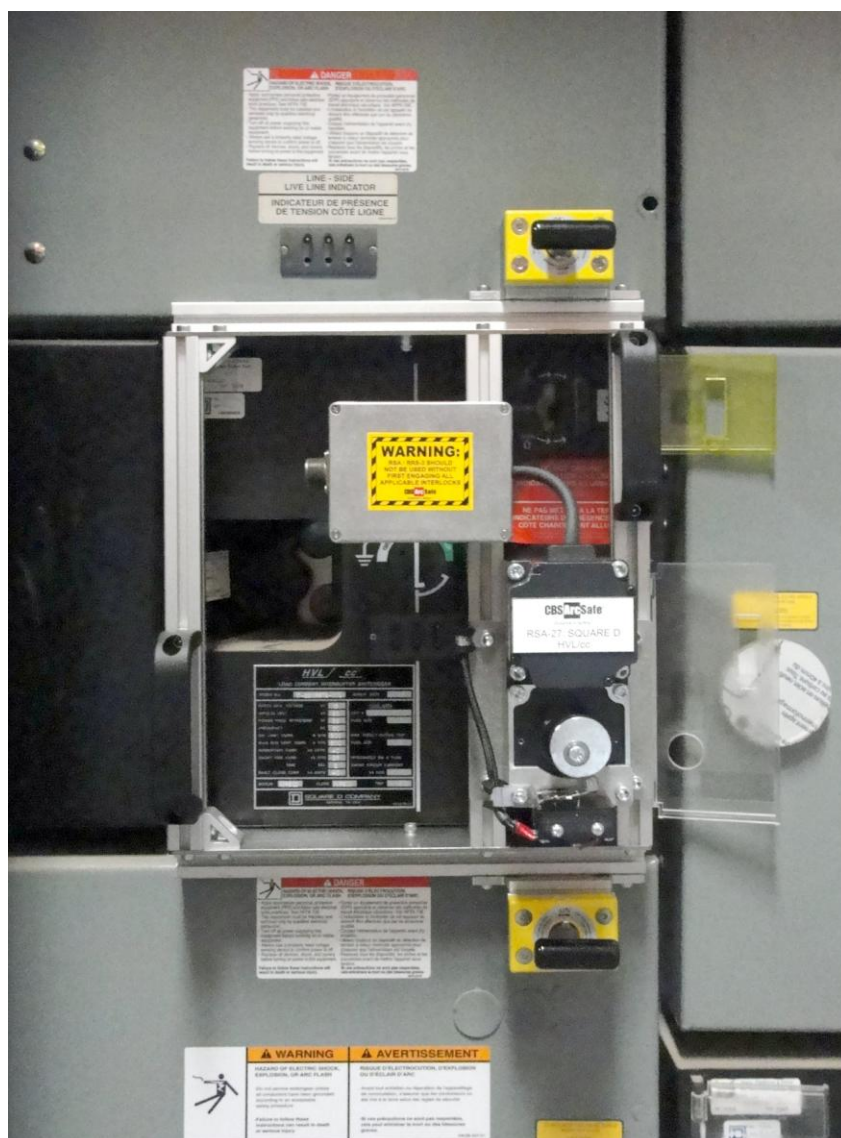
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2 Operation

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 handle is in the CLOSED position and needs to be OPENED, then press and hold the TRIP button on the RSO-I AR until the operator reaches the OPEN travel stop.
7. If the handle is in the OPEN position and needs to be CLOSED, then push and hold the CLOSE button on the RSO-I AR until the operator reaches the CLOSE travel stop.

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 Adjustment

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

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

2. Slide the magnet left or right as necessary to position it so it adequately avoids any obstructions.
3. Re-tighten the bolts.

3.2 Travel Adjustment

The travel length for the motor may be adjusted to avoid damage to the operator handle.

1. Install the RSA on the face of the breaker as described in the Installation section.
2. Loosen the lock screws on the backs of the two switch cams.

3. With the RSA operator arm in the OPEN position, rotate the outer 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.

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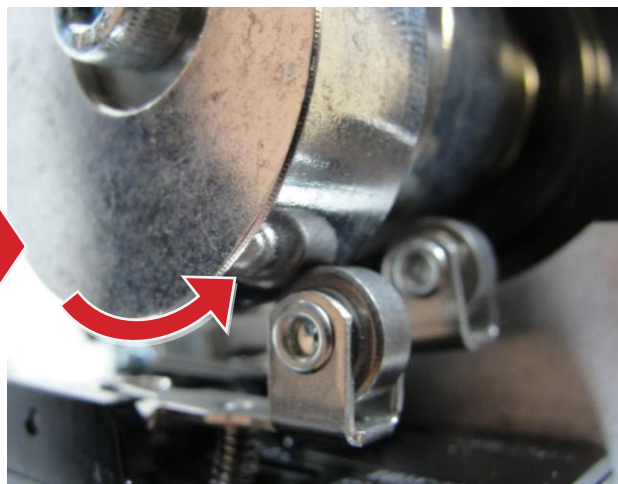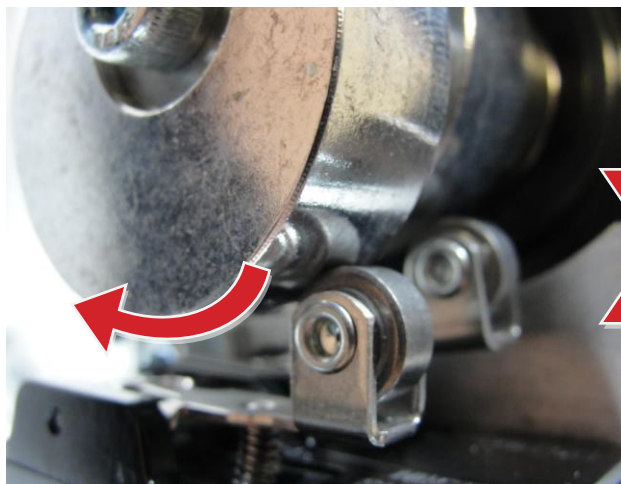
4. With the RSA operator arm in the CLOSED position, rotate the inner limit switch cam until the limit switch is undepressed and clicks slightly, then rotate the cam back onto the switch until another slight click is heard, and the switch is depressed. Re-tighten the lock-screw on the cam.
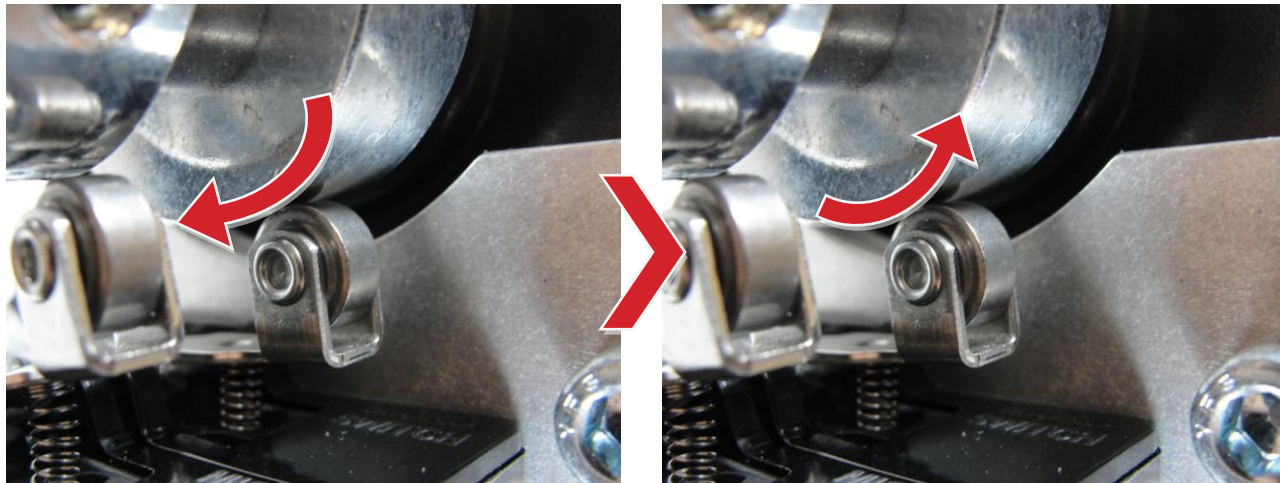
3.3 Operator Position Adjustment

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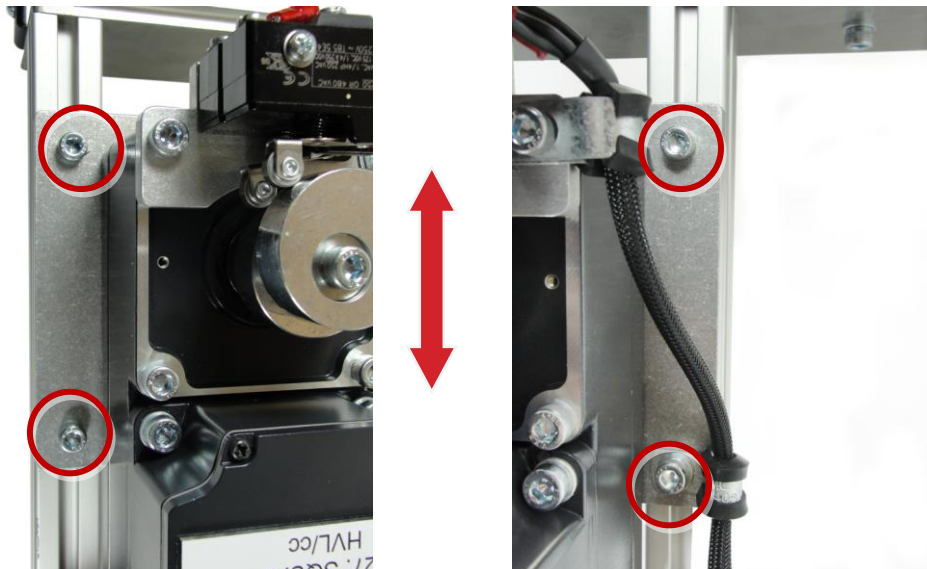
2. Slide the operator up or down as required to achieve proper alignment.
3. Install the RSA as described in the Installation section to ensure that the parts align as desired.
4. Re-tighten the bolts loosened in Step 1.

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3.4 Locator Adjustment

The depth of the locator on the RSA can be adjusted slightly to accommodate differences in breaker mounting.

ATTENTION

The locator depth on this RSA is very important for achieving proper alignment of the RSA's operating mechanism to the breaker operating mechanism. Ensure the locators are properly adjusted before attempting to operate the RSA.

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1. Loosen the three bolts on each locator plate.

2. Slide each locator up or down as required to achieve proper alignment of the RSA actuator.
3. Install the RSA as described in the Installation section to ensure that the parts align as desired. Ensure that the actuator on the RSA seats fully in it's socket on the breaker, and that the magnets are seated flush against their mounting surfaces.
4. Re-tighten the bolts loosened in Step 1.

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Notes

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Installation and Operation

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