# CBS Arc Safe®

Distance Is Safety®

A Group CBS Company

**RSA-112B** 

For FPE H/HL-2/3
All, Close/Trip Only





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

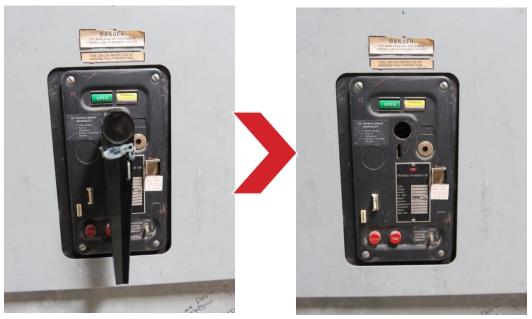
# DANGER!

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. Remove the operating handle from the Breaker. Ensure that the breaker is free from any other obstructions that may interfere with proper installation and operation of the RSA



2. Place the RSA on the breaker. Ensure that the frame of the RSA seats flush around the breaker, as indicated below.



3. Ensure the button actuators are positioned properly over the Close and Trip buttons on the front of the breaker. Note: If the breaker has an exposed trip button, it is recommended to replace the narrow steel plunger (below right) with a rubberized plunger. See the Adjustments section for more details.





4. Ensure the magnets are fully seated against the switch cover 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. If not specified, leave AR turned OFF.
- 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 Close Solenoid Adjustment

1. Loosen the bolts on the solenoid mounting plate, as indicated below



2. Slide the solenoid as required to align the plunger to the close button, as indicated below.



- 3. To adjust the depth of the solenoid, loosen the black knob on the back of the mount and slide the solenoid in or out as necessary to properly align the device.
- 4. If the breaker has an un-sheilded pushbutton, loosen and remove the solid steel plunger and replace it with a rubberized plunger, which is included with the RSA. Re-align as indicated below (note that depending on the revision of the RSA, the offset bar pictured may not be included. If it is not included then it is not necessary, and it is safe to proceed to adjust the solenoids as normal.



5. Re-tighten the bolts loosened during adjustment.

# 3.2 Trip Solenoid Adjustment

1. Loosen the bolts on the solenoid mount, as indicated below

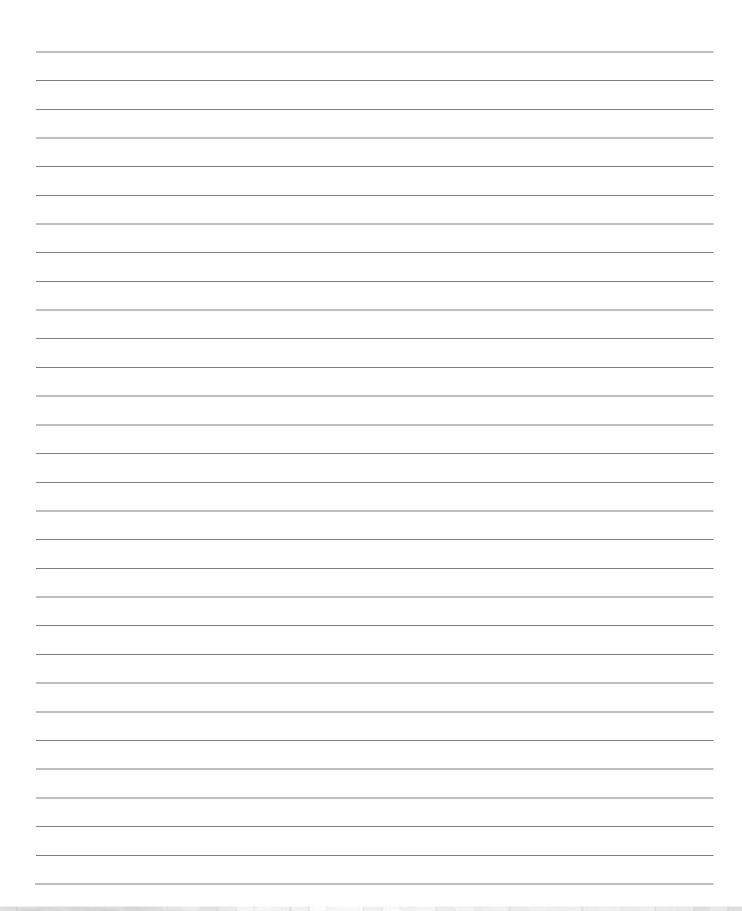


2. Slide the solenoid as required to align the close plunger to the close lever, without contacting the fixed plate next to the lever.



3. Re-tighten the bolts loosened for adjustment.

# **Notes**







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RSA-112B Installation and Operation

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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).