

# CBS ArcSafe®

RSA-138 (For Allis Chalmers LBS-SE)



Distance Is Safety®

**CBS ArcSafe®**

A Group CBS Company

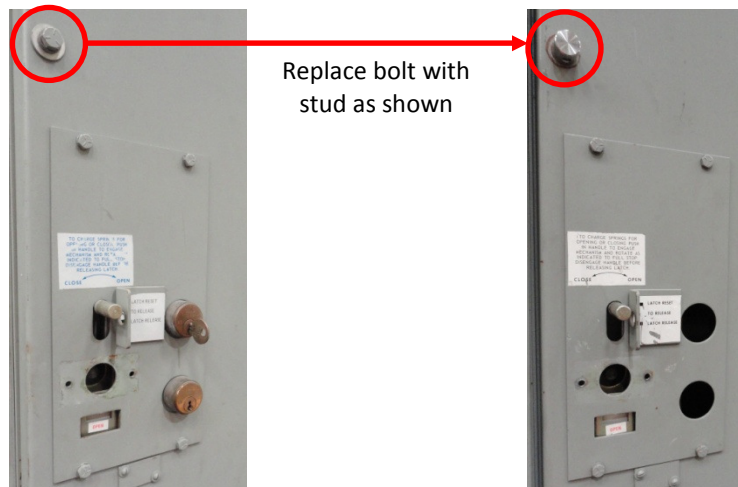
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# 1.0 Installation

## DANGER!

*Ensure that the switch to be serviced matches the switch shown on cover. If the switch to be serviced does not match, please call CBS ArcSafe® for more information regarding remote switching applications for your particular model.*

1. Remove the bolt located above the switch and replace it with the provided threaded stud as shown in the following pictures. Tighten stud and ensure that the through hole in the stud is vertically aligned.



2. Remove the cover that houses the stock tooling by removing the two bolts that hold it in place. Remove the original tooling as well and set aside with cover.



Switch before tooling removal



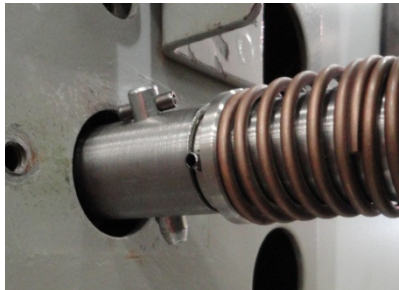
Switch after tooling removal

3. Insert the provided replacement tooling into the switching mechanism. Ensure that it is fully engaged into the switching mechanism before continuing. Do not replace the tooling cover, it will not be needed for the remote switching procedure.
4. Install the RSA onto the switchgear in the following steps:
  - a) Place the RSA onto the switchgear by inserting the threaded stud into the hole in the upper left corner of the RSA, all the while ensuring that the protruding spring loaded shaft from the motor engages with the tooling inserted into the switch. Place the provided pin through the stud to secure the RSA to the switchgear.
  - b) Turn the handle of the single twist lock magnet 180° clockwise to engage the magnet and fully secure the RSA to the switchgear. Ensure the magnet is fully seated against the panel before continuing.

**ATTENTION!**

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

5. Next, index motor shaft using the T-handle on the end of the shaft so that the hole in the spring loaded shaft aligns with the hole in the tooling. Pin these components together using the provided pin as shown in the following picture.



6. Once again ensure that the tooling is fully engaged in the switching mechanism.
7. The RSA is now properly installed onto the switch. See the next section for the charging operation details.

## 2.0 Charging Operation

### **DANGER!**

*Ensure that all applicable interlocks are defeated before beginning any remote switching operation on the switchgear. Failure to do so will damage interlocks, switchgear, and/or RSA. Please follow all applicable operation instructions and take necessary precautions as stated in the switchgear operation manual.*

1. Connect the four pin connector from the RSA-138 Interface Module to the control box located on the right side of the RSA.
2. Connect the four pin connector from the RSO-I AR to the plug located on the RSA-138 Interface Module.

### **ATTENTION!**

*The RSA-138 Interface Module allows the operator to choose which operation to control. This interface module must be used with this device. The RSA will not operate properly without it. Failure to comply will lead to problems during the remote switching operation.*

*Please ensure that all cables are clear of moving parts. Failure to do so could damage cables and/or actuator.*

3. Set the two position selector switch on the RSA-138 Interface Module to the setting labeled "Charging Motor."
4. Power on the RSO-I AR.
5. Press and hold the applicable button for the charging operation to be completed. For example, if the switch is open and is to be closed, press and hold the "CLOSE" button on the RSO-I AR to charge the switch to close. This charging mechanism requires approximately 6.5 revolutions to charge the springs. Hold the applicable button on the RSO-I AR until the drive motor fully charges the springs and stops rotation.
6. The switch is now charged and is ready to be either closed or opened. See the next section for applicable closing and opening operational details.

## 3.0 Closing/Opening Operation

### **DANGER!**

*Ensure that all applicable interlocks are defeated before beginning any remote switching operation on the switchgear. Failure to do so will damage interlocks, switchgear, and/or RSA. Please follow all applicable operation instructions and take necessary precautions as stated in the switchgear operation manual.*

1. Ensure that the switch is fully charged as outlined in the previous section.
2. Next, pull the spring-loaded shaft outward using the T-handle on the backside of the shaft to disengage the tooling from the switching mechanism and bypass the interlock. With the shaft disengaged, rotate it slightly to ensure that when it is released it will not engage the switching mechanism.
3. On the RSA-138 Interface Module, switch the two position switch to the setting labeled "Open/Close Actuator."
4. Power on the RSO-I AR and ensure that the AR function is "ON."
5. To perform the applicable opening or closing operation press and hold the "CLOSE" button to extend the linear actuator and engage the opening/closing lever located above the shaft. The actuator will automatically retract when the "CLOSE" button is released.

### **ATTENTION!**

*Please note that even if the desired effect is to open the switch, the "CLOSE" button must still be pressed on the RSO-I AR. Because of this misnomer, operators must be aware of the actions being performed on the switch.*

## RSA-138 Parts List

Item	Description	Part Image
1	RSA-138 Assembly	 A photograph of the RSA-138 Assembly, a complex metal component with various ports and a yellow warning label.
2	RSA-138 Interface Module	 A photograph of the RSA-138 Interface Module, a black rectangular device with a coiled cable and a connector.
3	RSA-138 Cabinet Attachment Stud & Pin	 A photograph of the RSA-138 Cabinet Attachment Stud & Pin, a small metal component with a threaded section and a pin.
4	RSA-138 Replacement Tooling & Pin	 A photograph of the RSA-138 Replacement Tooling & Pin, a long, cylindrical metal component with a threaded section and a pin.

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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).*