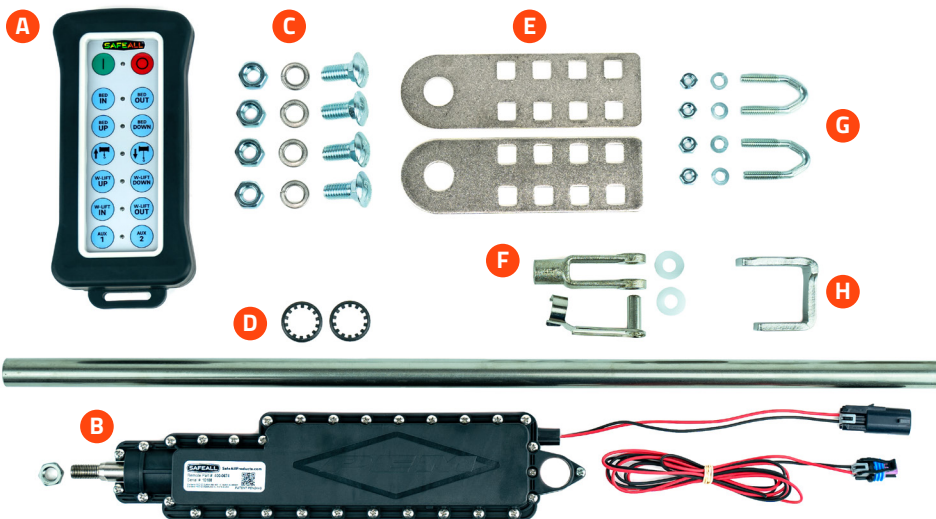




# SafeAll Proportional Remote Control

## Installation Guide



### Verify Kit Parts

- A.** (1) Handheld remote control
- B.** (1) Actuator, (1) acuator nut, (1) wiring splice connector
- C.** (4) Carriage bolts, lock washers & nuts
- D.** (1) Actuator mounting bar, (2) mounting bar retaining rings
- E.** (2) Mounting tabs
- F.** (1) Clevis, clevis pin, (2) plastic washers
- G.** (4) U-bolt lock washers & nuts
- H.** (1) C-bracket





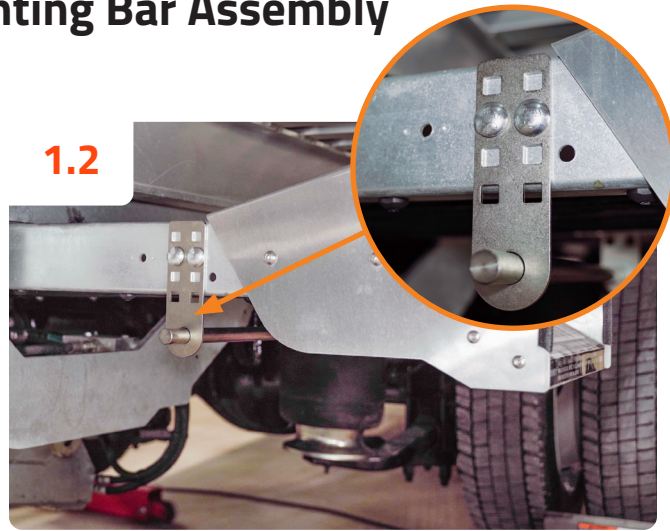
## Step 1: Install the Actuator Mounting Bar Assembly

1.1



This remote system was designed to be attached to the crossover tunnel on the PASSENGER SIDE of the car carrier bed. A minimum of 17" length of space is required behind the control station hood for proper installation.

1.2



Install mounting tabs to the outside of the control rod crossover tunnel – close to the control station hood.

1.3



Allow for a 2" gap between the center of the actuator mounting bar below the car carrier control rods. Use the mounting tabs as a template to mark two drill points and drill two 7/16" holes on each side of the crossover tunnel.

1.4



Install the two mounting tabs on each side of the crossover tunnel. Do not tighten completely. Place the actuator mounting bar through the mounting tabs so it aligns the two mounting tabs perpendicular and level to the control rods.

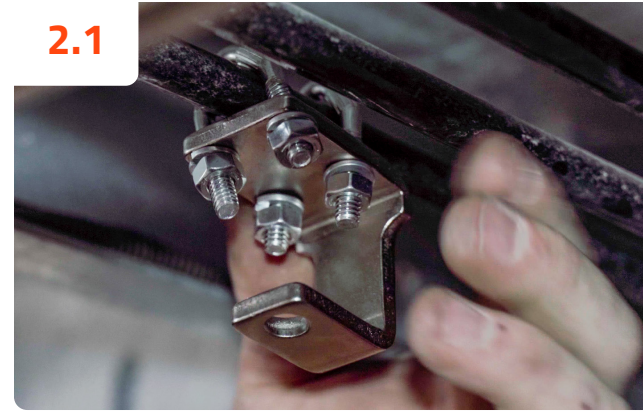
1.5



Install carriage bolts, lock washers and nuts to complete the connection of the mounting tabs to the crossover tunnel. **Torque each nut to 30ft-lbs. \*\*\*WARNING!\*\*\* The mounting tabs must be secured tightly. Loose mounting tabs WILL result in system failure!**

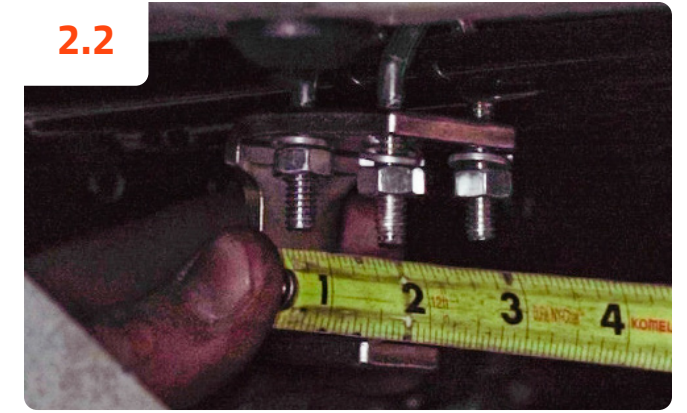
## Step 2: Install the C-Bracket Assembly

2.1



Loosely attach the C-bracket for each actuator to the designated control rod with the open end facing the actuator mounting bar.

2.2



Measure 16-3/4" from the center of the actuator mounting bar to the back side of the C-bracket. Ensure the C-bracket is positioned vertically so the actuator is parallel to the control rods. Tighten the U-bolt nuts evenly and **torque to 5 ft-lbs. \*\*\*WARNING!\*\*\* The C-brackets must be secured tightly. Loose C-brackets WILL result in system failure!**

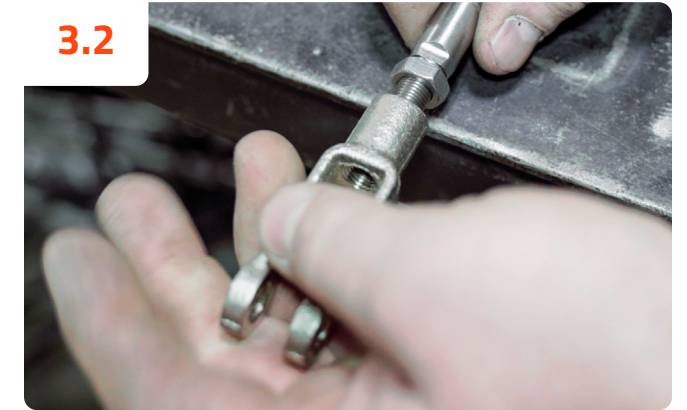
## Step 3: Install the Clevis Attachment

3.1



Thread the jam nut onto the actuator pushrod. Make sure to thread the jam nut all the way to the end of the threads.

3.2



Thread the clevis onto the actuator pushrod. Make sure to thread the clevis up against the jam nut and torque the jam nut to 26 ft-lbs.



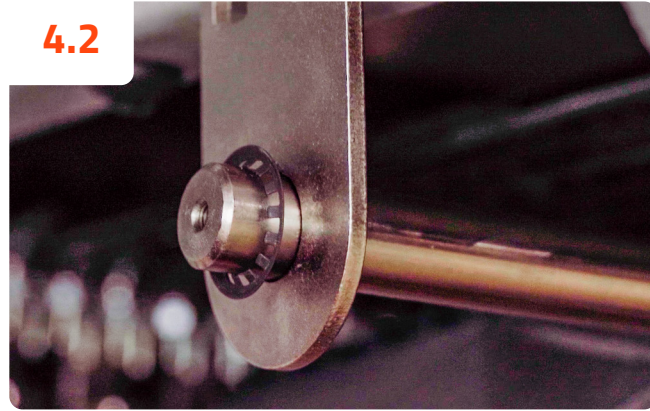
## Step 4: Install the Actuator(s)

4.1



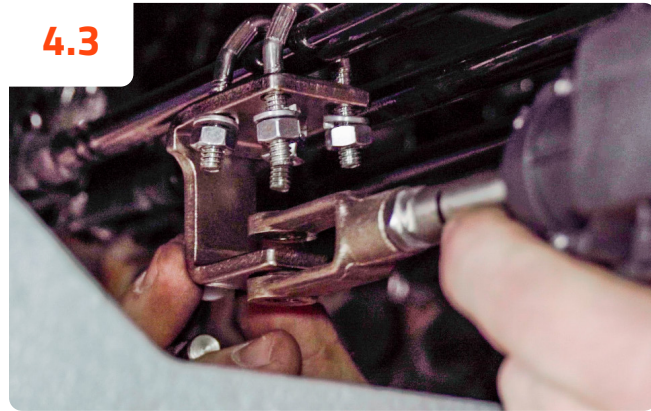
With the wires facing down, slide the actuator(s) onto the actuator mounting bar.

4.2



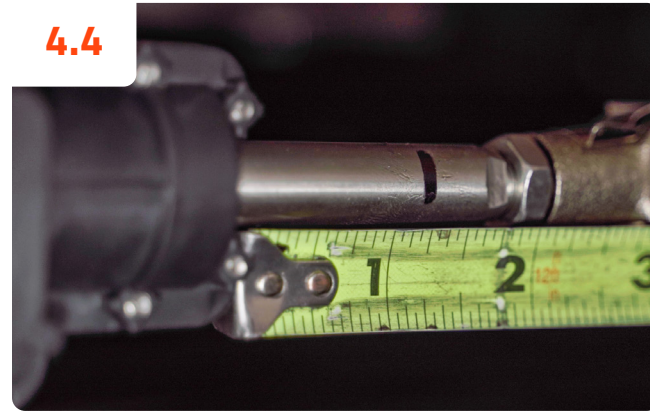
Install mounting bar retaining rings to each end of the actuator mounting bar.

4.3



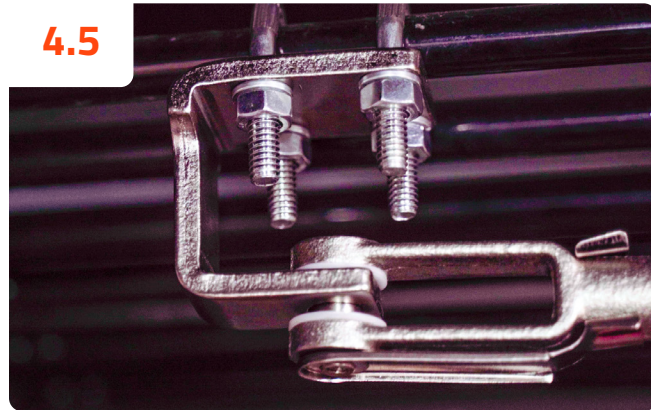
Manually pull or push the actuator pushrod into position so the clevis aligns with the C-bracket hole.

4.4



Confirm that the actuator pushrod is at or near an extension of 1-1/2".

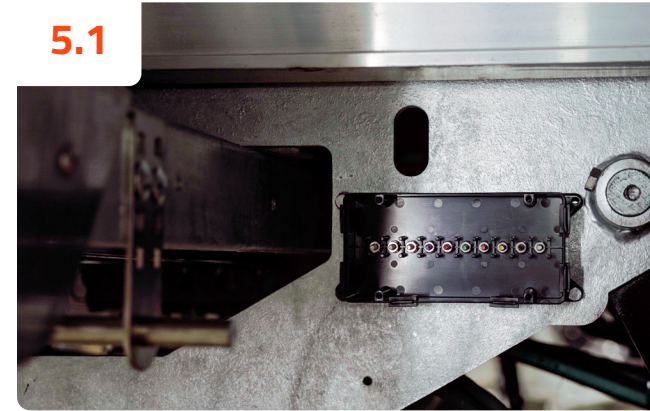
4.5



Insert the clevis pin into the clevis. To prevent corrosion, place one plastic washer on each side of the C-bracket, between the yoke of the clevis.

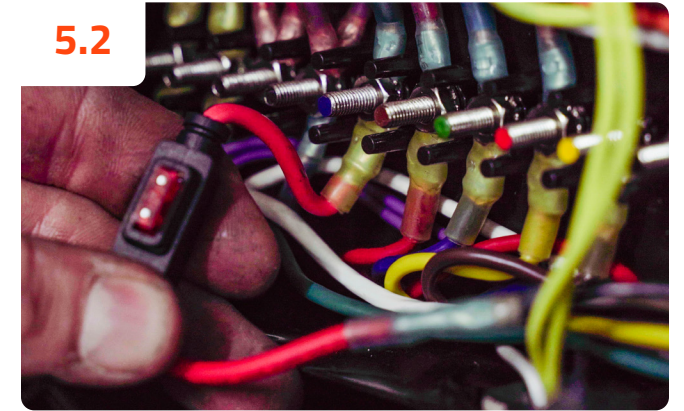
## Step 5: Wiring of the Actuator(s)

5.1



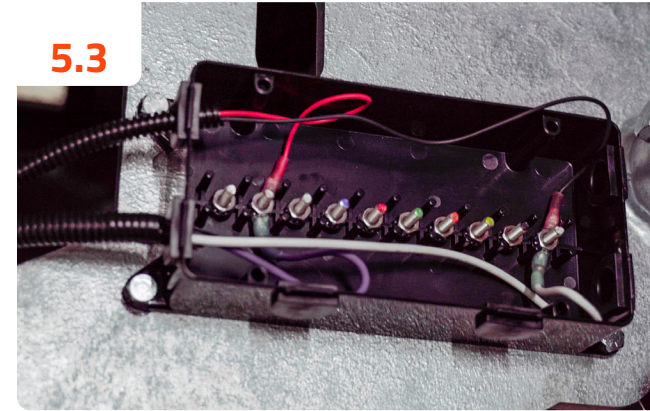
Locate a clear space on the side of the car carrier subframe past the end of the chassis frame. Install a junction box which provides a connection point for the 12V power supply from the PTO activating wire, a ground and 10 amp protected terminal(s) to connect to the actuators. **NOTE:** Actuators can be combined on a single ground or power terminal. The remote control system can also operate under a 24V system, if needed. A junction box is not provided with the SafeAll kit.

5.2



Run a 14-ga. wire from the PTO (Power Take Off) activation circuit to a terminal in the junction box so the actuators are live when the PTO is engaged.

5.3



Connect the red wire from the actuator 48" pigtail to a protected power terminal in the junction box and the black wire to ground. **IMPORTANT:** Do not eliminate the provided two-prong quick connector from the actuator pigtail when wiring. Also, wires cannot be reversed to change the direction of operation. The system won't work if the wires are reversed.



## Step 6: Remote to Actuator Synchronization & Calibration Preparation

6.1



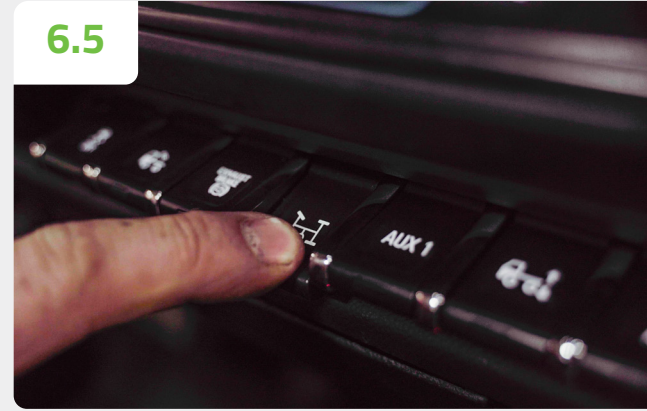
Remove the battery tray cover by removing the four cover screws from the remote. Install a 9V battery and reinstall cover.

6.2



Press the green power button on the remote which will illuminate the red and green LEDs, confirming functionality. After two seconds, the green LEDs will display the battery power level. **NOTE:** The remote will automatically turn off after a three-minute period of inactivity.

6.5



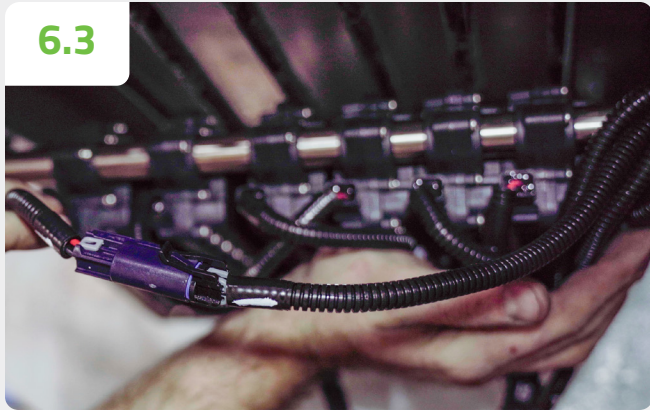
Engage the PTO. Activating the PTO provides power to the junction box.

6.6



**IMPORTANT:** Shift the car carrier winch into free spool as it will activate during the synchronization process.

6.3



Only one actuator at a time can have power when synchronizing. **IMPORTANT:** Before synchronization a desired actuator function, the power source to all other actuators must be disconnected. Connect only one two-prong quick connector at a time when synchronizing.

6.4



Set the parking brake and start the engine of the truck.

6.7



Confirm that the area around the truck is clear of any persons or obstructions. **\*\*\*WARNING!\*\*\* During the synchronization process, all bed functions will operate while synchronizing.**

6.8



Using the manual controls on the car carrier, extend the bed so it's clear of the front bed locks.



## Step 7: Synchronization of the Handheld Remote to Actuator(s)

7.1



Select the desired function on the remote to synchronize. Each row extends or retracts the actuator push rod.

7.2



Hold both right and left buttons in the desired row for a period of 10 seconds. Once 10 seconds has elapsed, the green LED will turn off; then release the buttons.

7.3



Once the buttons are released, the red LED will blink quickly. This indicates the remote is searching for the powered actuator. Once the handheld finds the actuator, the red LED will blink slowly, which indicates synchronization is in process. When the green LED illuminates a steady light, the synchronization is complete. **NOTE:** If the green LED does not illuminate, repeat Step 7.2.

7.5



**IMPORTANT:** If an actuator is removed from the mounting hardware after synchronization and/or calibration has taken place, the respective actuator(s) MUST be resynchronized and calibrated upon being re-installed.

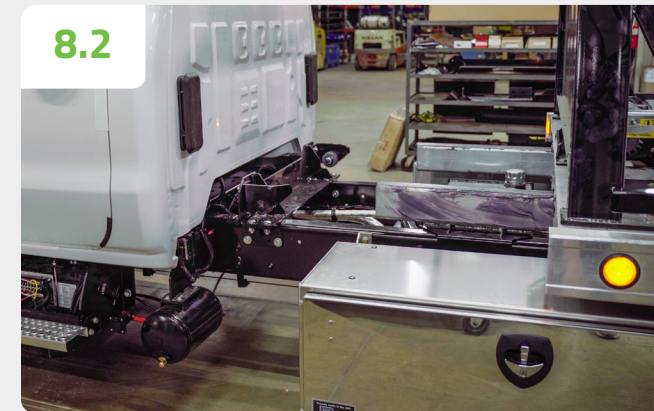
## Step 8: Perform Actuator(s) Calibration

8.1



Confirm the area around the truck is clear of any persons or obstructions. **\*\*\*WARNING!\*\*\* During the calibration process, the car carrier bed will move under operation.**

8.2



Confirm the bed remained extended so it's clear of the front bed locks.

8.3



With one hand, hold the remote in a horizontal position and rotate your wrist COUNTER-CLOCKWISE 90 degrees. Hold the remote in this position and proceed to step 8.4.

8.4



Press and release the LEFT button of desired function. The remote will then engage the powered actuator until it reaches the maximum travel. **NOTE:** Watch the corresponding control lever on the car carrier and verify maximum travel.

8.5



With one hand, hold the remote in a horizontal position and rotate your wrist CLOCKWISE 90 degrees. Hold the remote in this position and proceed to step 8.6.

8.6

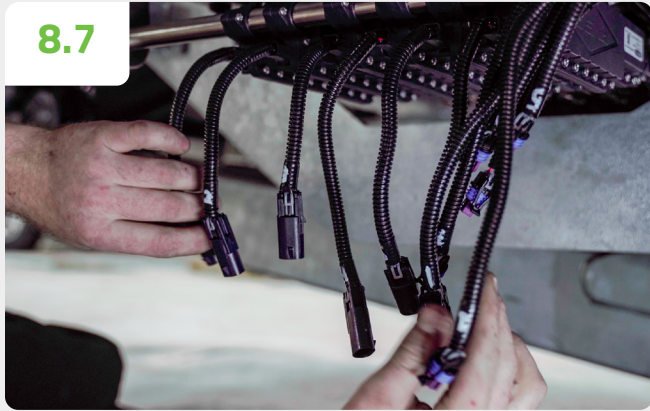


Press and release the RIGHT button of desired function. The remote will then engage the powered actuator until it reaches the maximum travel. **NOTE:** Watch the corresponding control lever on the car carrier and verify maximum travel.



## Step 9: Remote Operation

8.7



For additional actuators synchronization and calibration, repeat steps 7.1 through 7.3 for each function.

**IMPORTANT:** Before synchronizing additional actuators, make sure to disconnect power from previously synchronized actuator(s). Actuator remains synchronized and calibrated with power off.

8.8



**IMPORTANT:** If an actuator is removed from the mounting hardware after synchronization and/or calibration has taken place, the respective actuator(s) MUST be re-synchronized and calibrated upon being re-installed.

9.1



To engage the desired function, hold the remote in your hand in a horizontally and press and hold the button of the desired function.

9.2



Rotate your wrist counter-clockwise to operate a function in the left column and the actuator will engage. The further the wrist is rotated, the further the control lever travels and the speed of the function will increase. Rotate your wrist clockwise to operate a function in the right column and the actuator will engage. The further the wrist is rotated, the further the control lever travels and the speed of the function will increase. **NOTE:** Left button = rotate counter-clockwise | Right button = rotate clockwise.

9.3



Disengage the function by releasing the button or return the remote to the horizontal position.





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