



# Installation Instructions

## REAR

### Level of Difficulty

Moderate

All hardware listed below will be provided when ordering a kit number. If ordering a replacement center or side extensions you will receive the hardware listed for that part only.

### Center Section Parts List

1	TrailChaser™ center section
2	C-channel bracket
4	Hex bolt, M12 x 35mm
4	Flat washer, M12
4	Lock washer, M12

### Side Extensions Parts List

1	Driver / left side extension
1	Passenger / right side extension
1	Driver / left side bracket
1	Passenger / right side bracket
4	Hex bolt, M10 x 35mm
8 / 6*	Hex bolt, M10 x 30mm
4	Button head bolt, M10 x 40mm
20 / 16*	Flat washer, M10 x 20mm
8	Flat washer, M10 x 27mm
16 / 14*	Lock washer, M10
12 / 10*	Nut, M10
2	LED work light (#1501252) (side extensions with LEDs only)

\* Quantities listed are dependent on the side extension option (without LEDs / with LEDs)

### Tools Required

Torque wrench	Socket set
Level	Allen wrench set

### Torque Specifications

M10 bolt	33 ft-lbs.
M12 bolt	58 ft-lbs.

Use above torque setting unless otherwise noted

### Product Photo (available with or without LED lights, see table below for configurations)



2082061 aluminum  
2082060 steel

LED lights included



2082036 aluminum  
2082038 steel

LED lights not included

### Rear TrailChaser™ Kits & Components

Kit#	Material	Center#	Side#	LED Lights
2082036	Aluminum	2081021	2081221	Not included
2082061	Aluminum	2081021	2081223	Included
2082038	Steel	2081020	2081220	Not included
2082060	Steel	2081020	2081222	Included

All TrailChaser™ bumpers and components are finished with a textured black powder coat

### Notes and Maintenance

Before you begin installation, read all instructions thoroughly.

Proper tools will improve the quality of installation and reduce the time required.

To protect the product, wax after installing. Regular waxing is recommended to add a protective layer over the finish. Do not use any type of polish or wax that may contain abrasives that could damage the finish.

For polished, gloss and other smooth finishes, polish may be used to clear small scratches and scuffs on the finish.

Mild automotive detergent may be used to clean the product. Do not use dish detergent, abrasive cleaners, abrasive pads, wire brushes or other similar products that may damage the finish.

Periodic inspection of all wires and connections should be performed to ensure there is no visible damage or loose connections.

**CAUTION:** Improper electrical installation may result in personal injury. Unless you are familiar with the installation and handling of electrical systems, have this step performed by someone who has that familiarity.

Refer to the table to the left when securing hardware during the installation process to help prevent damage to the product or vehicle.

### Step 1

Starting on the driver side, using a 16mm socket, remove the M10 bolts holding the corners of the factory bumper support bracket to the frame.



### Step 2

Remove the center bumper bolts holding the Z-shaped brackets to the frame.

Repeat this step for the passenger side.



### Step 3

With the brackets removed, lift the bumper off the frame rails and set it aside.

Using an 18mm socket, remove the bolts holding the stock tow hooks to the frame. These will not be reinstalled.



### Step 4

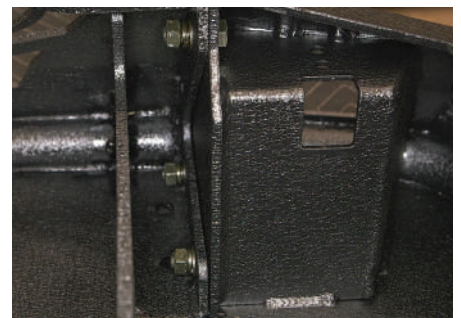
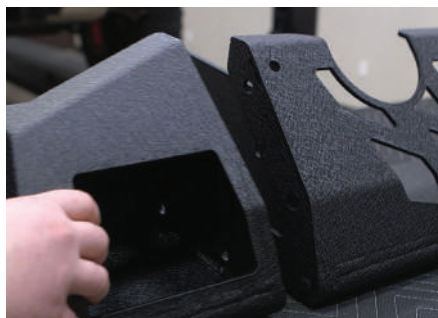
Lay bumper on flat work surface and attach the bumper side extensions. Each attachment point will be fastened with an M10 hex bolt, lock washer, two M10 x 20mm flat washers and a nut.

If installing the side extensions without LEDs do this for all four mounting locations.

If installing the side extensions with LEDs do this for all three mounting locations.

Repeat this step for the passenger side.

Snug the hardware, but do not fully tighten.

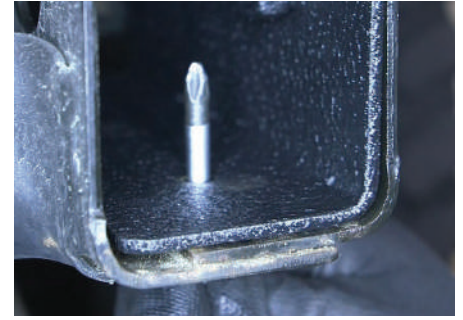


### Step 5

Take C-channel bracket and place it into the frame of the Jeep.

If necessary, move the C-channel into place with a screwdriver, as shown.

Repeat this step for the passenger side.



### Step 6

With help, lift the new bumper center section over the frame rails.



### Step 7

With bumper in place, secure using M12 hex bolts, lock washers and flat washers.

Snug with an 18mm socket, but do not fully tighten.

Repeat this step for the passenger side.



### Step 8

Secure the corner bumper bracket to the vehicle with M10 hex bolts, lock washers and M10 x 27mm flat washers.

Secure the corner bumper bracket to the bumper with M10 button head bolts, lock washers, M10 x 20mm and M10 x 27mm flat washers and nut.

Repeat this step for the passenger side



### Step 9

Check to make sure the bumper is level. Adjust if necessary and fully tighten all of the hardware.

If installing the side extensions with LED lights, continue to step 10.

If installing the side extensions without LED lights, skip to step 12.



### Step 10

Mount the LED lights in the recessed pockets on the bumper corners with the provided hardware.

Adjust the light to the desired angle and fully tighten all of the hardware.

**Note:** If these lights are being used with a 24V system, the relay will need to be replaced with a 24V unit.

Disconnect the supplied switch from the wiring harness and install in the desired location.



## Step 11

Once the LED lights and switch are installed, connect the harness extension to each light. Insert the male plug on the harness extension into the female socket on each LED light.

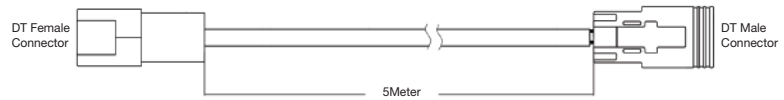
Route the harness extension to the front of the vehicle and connect to the wiring harness. Insert the male plug on the wiring harness into the female socket of the harness extension. Reconnect the blue, red and black spade connectors to the switch as shown in the 'Wiring Harness' diagram.

Connect the red fused wire with the ring terminal to the positive (+) battery post. Connect the black wire ring terminal to the negative (-) battery post or other suitable vehicle grounding point.

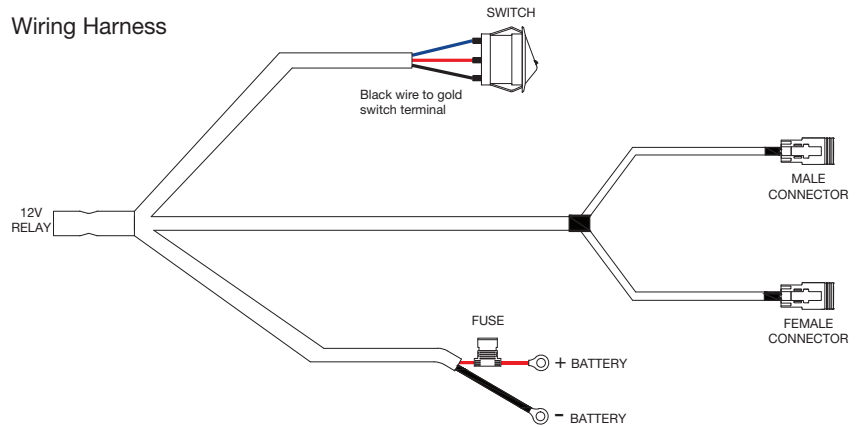
Mount the provided relay to the vehicle and secure all wires with zip ties away from moving parts to avoid damage.

Test the lights to ensure proper function.

### Harness Extension



### Wiring Harness



## Step 12

With the bumper installed, periodic inspections should be performed to ensure all mounting hardware remains tight.

To protect your investment, see the 'Notes and Maintenance' section on the first page of this instruction manual.

Congratulations on the installation of your new ARIES rear TrailChaser™ bumper.



### Level of Difficulty

Moderate

All hardware listed below will be provided when ordering a kit number. If ordering a replacement center or side extensions you will receive the hardware listed for that part only.

### Center Section Parts List

1	TrailChaser™ center section
1	C-channel bracket
2	Hex bolt, M14
8	Flat washer, M14
8	Lock washer, M14
8	Button head screws, M6
6	Lock nut, M6
2	Cable ties
1	License plate bracket
1	License plate bracket cover

### Corner Parts List

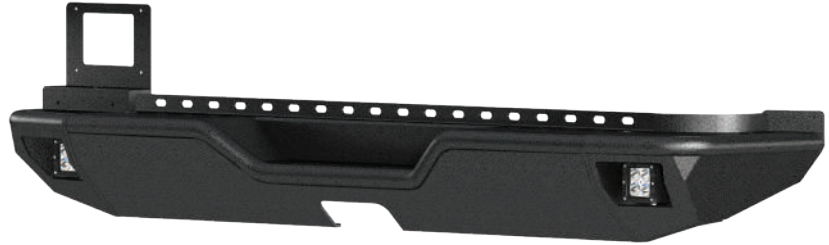
1	Driver / left corner
1	Passenger / right corner
1	Driver / left side bracket (not used on Jeep JL)
1	Passenger / right side bracket (not used on Jeep JL)
4	Hex bolt, M10 x 35mm
8 / 6*	Hex bolt, M10 x 30mm
4	Button head bolt, M10 x 40mm
20 / 16*	Flat washer, M10 x 20mm
8	Flat washer, M10 x 27mm
16 / 14*	Lock washer, M10
12 / 10*	Nut, M10
2	LED work light (#1501252) (side extensions with LEDs only)

\* Quantities listed are dependent on the side extension option (without LEDs / with LEDs)  
Note: All hardware may not be used

### Tools Required

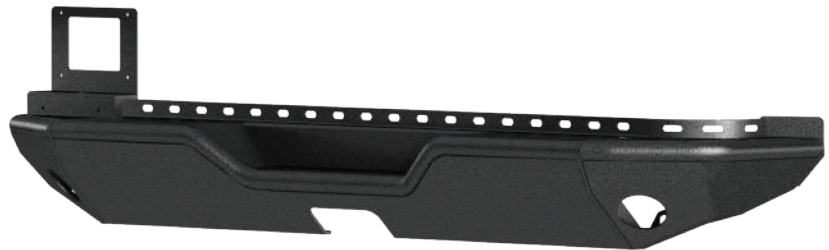
Torque wrench	Ratchet
Socket set	Level
Wrench set	Drill
Small screwdriver	Drill bit, .25"
Hex key set	--

### Product Photo (available with or without LED lights, see table below for configurations)



2082083 aluminum  
2082081 steel

LED lights included



2082082 aluminum  
2082080 steel

LED lights not included

### Rear TrailChaser™ Kits & Components

Kit#	Material	Center#	Side#	LED Lights
2082082	Aluminum	2081025	2081221	Not included
2082083	Aluminum	2081025	2081223	Included
2082080	Steel	2081024	2081220	Not included
2082081	Steel	2081024	2081222	Included

All TrailChaser™ bumpers and components are finished with a textured black powder coat

### Notes and Maintenance

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Mild automotive detergent may be used to clean the product. Do not use dish detergent, abrasive cleaners, abrasive pads, wire brushes or other similar products that may damage the finish.

Periodic inspection of all wires and connections should be performed to ensure there is no visible damage or loose connections.

**CAUTION:** Improper electrical installation may result in personal injury. Unless you are familiar with the installation and handling of electrical systems, have this step performed by someone who has that familiarity.

Refer to the table to the left when securing hardware during the installation process to help prevent damage to the product or vehicle.

### Torque Specifications

M10 bolt	33 ft-lbs.
M12 bolt	58 ft-lbs.
M14 bolt	93 ft-lbs.

Use above torque setting unless otherwise noted

### Step 1

Remove the factory mud guards on each side of the Jeep by removing the three bolts securing each mud guard in place.



### Step 2

Remove the side braces on each side of the Jeep by removing the four bolts securing each side brace in place.



### Step 3

Disconnect the wiring harness for the license plate light from the body of the Jeep.

Separate the connector from the wiring harness. A small screw driver may be needed to separate the connector.

**Note:** The bumper does not accommodate rear backup sensors.

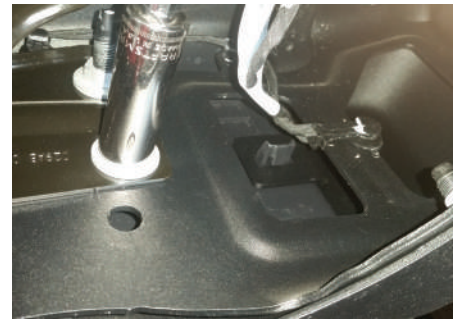
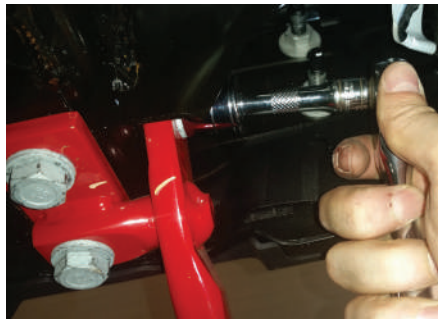


#### Step 4

Remove the four bolts securing the tow hook on the driver side. The tow hook will not be reinstalled.

Remove the two large bolts on the passenger-side frame. **Note:** The six large bolts from the tow hook and the frame will be re-used for the bumper installation.

Remove the two nuts securing the bracket to the bumper. Repeat on the passenger side.



#### Step 5

Remove the two bolts securing the cross member to the bottom of the bumper.

With assistance, remove the bumper from the Jeep.



#### Step 6

Remove the license plate light, nuts and harness. Set aside for use in the installation of the new bumper.



#### Step 7

Place the bumper on a flat work surface. Attach the bumper side extensions by securing with an M10 hex bolt, lock washer, two M10 flat washers and a nut at each attachment point.

If installing the side extensions without LEDs, repeat this process for all four mounting locations.

If installing the side extensions with LEDs, repeat this process for all three mounting locations.

Repeat this step for the passenger side. Adjust alignment as necessary and tighten fasteners on both sides.





### Step 8

Take the C-channel bracket and place it into the passenger side frame of the Jeep.

Make sure the nuts in the C-channel align with the holes in the bottom of the Jeep frame.



### Step 9

With assistance, lift the bumper into place



### Step 10

With the bumper held in place, secure the bumper to the Jeep by inserting two M14 bolts, lock washers and flat washers through the bumper and the Jeep frame into the nuts on the C-channel bracket on the passenger side.

Snug the fasteners, but do not fully tighten.



### Step 11

Re-use two of the factory bolts, lock washers and flat washers removed from the bottom of the frame to reattach the bumper to the bottom of the frame on the driver side.

Snug the fasteners, but do not fully tighten



### Step 12

Use the four remaining factory bolts, lock washers and flat washers to secure the bumper to the frame of the vehicle on the driver and passenger side.

Snug the fasteners, but do not fully tighten.



### Step 13

Tighten the four bolts on the bottom of the driver and passenger side of the vehicle.

Tighten the four bolts on the side of the driver and passenger side of the vehicle.

**Note:** M12 fasteners should be torqued to 58 ft-lbs. M14 fasteners should be torqued to 93 ft-lbs.



### Step 14

Secure the license plate bracket to the bumper using an M6 button head screw and lock nut.

Move the license plate bracket to the desired location and drill an additional 1/4" hole.

Place another M6 screw through the drilled hole and secure with a lock nut.

Tighten both M6 fasteners.



### Step 15

Route the factory wiring harness for the license plate light through the large hole on the driver side of the bumper.

Connect the wiring harness to the license plate light and place it in the license plate bracket cover.



### Step 16

Re-using the factory fasteners, secure the license plate light to the license plate bracket cover.

Fasten the license plate bracket cover to the license plate bracket using two M6 screws.



### Step 17

Fasten the license plate to the license plate bracket using four M6 button head cap screws and lock nuts. Once all four fasteners have been started, tighten them all.



### Step 18

Reconnect the wiring harness and test the function of the license plate light.

Use the provided cable ties to fasten any loose wiring to the body of the Jeep.

**Note:** If you are installing a rear bumper without LED lights, proceed to step 21.



### Step 19

Mount the LED lights in the recessed pockets on the bumper corners with the provided hardware.

Adjust the light to the desired angle and fully tighten all of the hardware.

**Note:** If these lights are being used with a 24V system, the relay will need to be replaced with a 24V unit.

Disconnect the supplied switch from the wiring harness and install in the desired location.



## Step 20

Once the LED lights and switch are installed, connect the harness extension to each light. Insert the male plug on the harness extension into the female socket on each LED light.

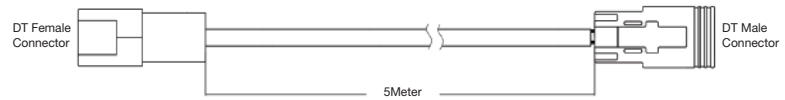
Route the harness extension to the front of the vehicle and connect to the wiring harness. Insert the male plug on the wiring harness into the female socket of the harness extension. Reconnect the blue, red and black spade connectors to the switch as shown in the 'Wiring Harness' diagram.

Connect the red fused wire with the ring terminal to the positive (+) battery post. Connect the black wire ring terminal to the negative (-) battery post or other suitable vehicle grounding point.

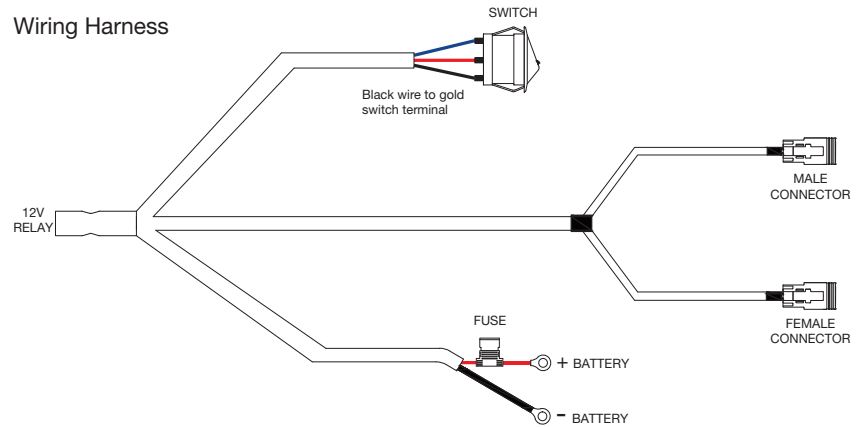
Mount the provided relay to the vehicle and secure all wires with zip ties away from moving parts to avoid damage.

Test the lights to ensure proper function.

### Harness Extension



### Wiring Harness



## Step 21

With the bumper installed, periodic inspections should be performed to ensure all mounting hardware remains tight.

Congratulations on the installation of your new ARIES rear TrailChaser™ bumper.

To protect your investment, see the 'Notes and Maintenance' section on the first page of this instruction manual.

