



**PRODUCT: JL 4-Door UnderCloak System, E-Torque 3.6L**

REV: B | 08-25-2021 | II-6369/6382

**READ INSTRUCTIONS IN FULL BEFORE INSTALLATION.**

**QUESTIONS? CALL 916-631-8071 M-F 7:00 AM – 5:00 PM PST**

The MetalCloak experience includes the ease of installation of our products. We design for most contingencies, but installation may be different based on different Jeep condition, configuration and/or year.

We are continually trying to improve our products and instructions – please help us by providing feedback and pictures if you find any part of the instructions that do not match your particular Jeep or are not easily understandable.

If you have any difficulties at all, please give us a call. Thank you and enjoy your MetalCloak Products!

**IMPORTANT NOTE: We use Stainless Steel Hardware where possible. Therefore, a tube of Silver Anti-seize is provided and should be used on all bolts—only a small amount is needed.**

**WARRANTY INFORMATION:** This article is sold without warranty expressed or implied. No warranty or representation is made as to this products ability to protect the user from injury or death. The user assumes that risk. The effectiveness, warranty and longevity of this equipment are directly related to the manner in which it is INSTALLED, USED and/or MAINTAINED. THE USER ASSUMES ALL RISK. By purchasing this product and opening the packaging, purchasers expressly acknowledge, understand and agree that they take, select and purchase these MetalCloak products from Armored Works, LLC, its affiliates and distributors and agents as is and with all faults. The entire risk as to the quality and performance of these MetalCloak products is with the purchaser. Working on your vehicle can be a dangerous activity. If you are unsure of what you are doing, please leave mechanical or safety critical work to a skilled mechanic. We take no responsibility for the incorrect use and/or installation of MetalCloak products.

## Section 1: Tools & Notes on Installation



**Tools Required:** This list is the recommended tools for ease of installation. Other versions of the same tool can be used. For example, Allen Wrenches instead of Allen Drive Sockets.



Socket & Ratchet Wrench

10mm Socket  
13mm Socket/Wrench  
17mm Socket  
18mm Socket/Wrench  
3/4" Socket/Wrench  
9/16" Socket/Wrench



8mm Allen Socket or wrench

**HOW TO USE THIS GUIDE:** The installation guide contains ALL steps for installation. Please read and follow the instructions in order of each page top to bottom, and left to right.

**Jeep Model:** Instructions may apply to multiple Jeep models, but are labeled separately where appropriate (i.e. TJ vs. LJ).

**Options:** Because of the number of component options we offer, these instructions may contain steps that will not match your particular configuration. You can skip these steps.

**Images:** Pictures are provided and parts are labeled throughout the instructions. Each text box contains guidance based on the pictures next to it. The text will refer to alphabetical labels (A, B, etc.) found in the images.

**Installation Notes:** Terms may be used in the body of the instructions that you may not be familiar with, if you have any questions feel free to contact us at the number below, or email [techhelp@metalcloak.com](mailto:techhelp@metalcloak.com)

**QUESTIONS:** Any questions or comments about the instructions? Call us at 916-631-8071 M-F 7:00 AM – 5:00 PM PST.

# Section 2: Product Components



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SHEET 1 OF 1

| ITEM      | PART NUMBER/DESCRIPTION                                    | QTY. |
|-----------|--|------|
| 1         | CP-6081 GUSSET STRAP, MOTOR SKID, JL DRIVE                 | 1    |
| 2         | CP-6084 REAR GUSSET STRAP, GAS TANK SKID, JL               | 1    |
| 3         | CP-6085 BEVELLED SKID WASHER, 90DEG                        | 8    |
| 4         | CP-6094 MID GUSSET STRAP, GAS TANK SKID, JLU               | 1    |
| 5         | CP-6110 REAR HANGER OUTSIDE, BATTERY SKID, JL              | 1    |
| 6         | CP-6111 REAR HANGER INSIDE, BATTERY SKID, JL               | 1    |
| 7         | CP-6112 MIDDLE HANGER, BATTERY SKID, JLU                   | 1    |
| 8         | CP-6113 CABLE MOUNT, BATTERY SKID, JL                      | 1    |
| 9         | CP-6114 GUSSET STRAP, 3.6L MOTOR SKID, JL PASS             | 1    |
| 10        | WM-6070 WELDMENT, TRANSMISSION SKID PLATE, JLU             | 1    |
| 11        | WM-6071 WELDMENT, 3.6L MOTOR SKID PLATE, JLU               | 1    |
| 12        | WM-6072 WELDMENT, GAS TANK SKID PLATE, JLU                 | 1    |
| 13        | WM-6099 WELDMENT, BATTERY SKID, JLU                        | 1    |
| HK-6369-5 |  |      |
| 14        | FA-1005 ZIP TIE DOUBLE LOCK, 8IN, UV BLACK                 | 2    |
| 15        | FM-12188 SFHCS, M12-1.5 X 45L STL C10.9 CLEAR ZINC         | 8    |
| 16        | FS-06030 NYLOCK NUT, 0.38-16 X 0.45H STL GF ZINC           | 9    |
| 17        | FS-06031 HHCS, 0.38-16 X 1.0L STL G5 ZINC                  | 8    |
| 18        | FS-06104 HHCS SERRATED FLANGE, 0.38-16 X 0.75L STL G5 ZINC | 2    |
| 19        | FS-06181 SFHCS, 0.38-16 X 1.00L SS 18-8 PLAIN              | 1    |
| 20        | FS-08061 HHCS, 0.5-13 X 1.25L STL G8 ZINC                  | 4    |
| 21        | FS-08127 NYLOCK FLANGE NUT, 0.5-13 X 0.56H STL GF ZINC     | 4    |

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**DO NOT SCALE DRAWING**

**Metal Cloak**  
A DIVISION OF ARMORED WORKS, LLC

**PART NUMBER/DESCRIPTION**  
6369 SKID PLATE SYSTEM, E-TORQUE, 3.6L JLU

# Section 2: Product Components



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SHEET 1 OF 1

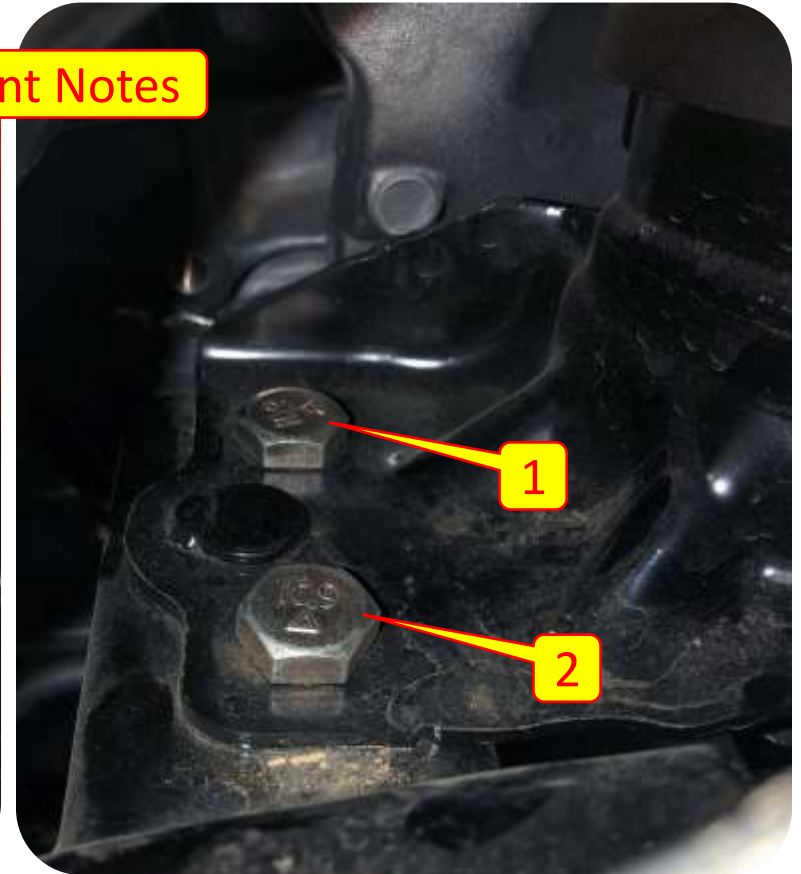
|   |                                     | 1  | 2 | 3 | 4 | 5 | 6 | 7 | 8 |      |
|---|-------------------------------------|--|---|---|---|---|---|---|---|------|
|   | ITEM                                | PART NUMBER/DESCRIPTION                                    |   |   |   |   |   |   |   | QTY. |
|   | 1                                   | CP-6084 REAR GUSSET STRAP, GAS TANK SKID, JL               |   |   |   |   |   |   |   | 1    |
|   | 2                                   | CP-6085 BEVELLED SKID WASHER, 90DEG                        |   |   |   |   |   |   |   | 8    |
|   | 3                                   | CP-6094 MID GUSSET STRAP, GAS TANK SKID, JLU               |   |   |   |   |   |   |   | 1    |
|   | 4                                   | CP-6110 REAR HANGER OUTSIDE, BATTERY SKID, JL              |   |   |   |   |   |   |   | 1    |
|   | 5                                   | CP-6111 REAR HANGER INSIDE, BATTERY SKID, JL               |   |   |   |   |   |   |   | 1    |
|   | 6                                   | CP-6112 MIDDLE HANGER, BATTERY SKID, JLU                   |   |   |   |   |   |   |   | 1    |
|   | 7                                   | CP-6113 CABLE MOUNT, BATTERY SKID, JL                      |   |   |   |   |   |   |   | 1    |
|   | 8                                   | CP-6216 GUSSET STRAP, 3.6L MOTOR SKID, JT DRIVE            |   |   |   |   |   |   |   | 1    |
|   | 9                                   | CP-6232 GUSSET STRAP, 3.6L MOTOR SKID, 2021+ JLU PASS      |   |   |   |   |   |   |   | 1    |
|   | 10                                  | FA-1005 ZIP TIE DOUBLE LOCK, 8IN, UV BLACK                 |   |   |   |   |   |   |   | 2    |
|   | 11                                  | FM-10140 TOPLOCK NUT, M10-1.5L X 8H STL C10 ZINC           |   |   |   |   |   |   |   | 4    |
|   | 12                                  | FM-10213 HHCS, M10-1.5 X 40L STL C10.9 ZINC, FULL THREAD   |   |   |   |   |   |   |   | 4    |
|   | 13                                  | FM-12188 SFHCS, M12-1.5 X 45L STL C10.9 CLEAR ZINC         |   |   |   |   |   |   |   | 8    |
|   | 14                                  | FS-06030 NYLOCK NUT, 0.38-16 X 0.45H STL GF ZINC           |   |   |   |   |   |   |   | 9    |
|   | 15                                  | FS-06031 HHCS, 0.38-16 X 1.0L STL G5 ZINC                  |   |   |   |   |   |   |   | 8    |
|   | 16                                  | FS-06104 HHCS SERRATED FLANGE, 0.38-16 X 0.75L STL G5 ZINC |   |   |   |   |   |   |   | 2    |
|   | 17                                  | FS-06142 WASHER, 0.41ID X 1.0OD X 0.09TH STL ZINC          |   |   |   |   |   |   |   | 4    |
|   | 18                                  | FS-06181 SFHCS, 0.38-16 X 1.00L SS 18-8 PLAIN              |   |   |   |   |   |   |   | 1    |
|   | 19                                  | FS-08061 HHCS, 0.5-13 X 1.25L STL G8 ZINC                  |   |   |   |   |   |   |   | 2    |
|   | 20                                  | FS-08127 NYLOCK FLANGE NUT, 0.5-13 X 0.56H STL GF ZINC     |   |   |   |   |   |   |   | 2    |
|   | 21                                  | WM-6070 WELDMENT, TRANSMISSION SKID PLATE, JLU             |   |   |   |   |   |   |   | 1    |
|   | 22                                  | WM-6071 WELDMENT, 3.6L MOTOR SKID PLATE, JLU               |   |   |   |   |   |   |   | 1    |
|   | 23                                  | WM-6072 WELDMENT, GAS TANK SKID PLATE, JLU                 |   |   |   |   |   |   |   | 1    |
| 24  | WM-6099 WELDMENT, BATTERY SKID, JLU |  |   |   |   |   |   |   | 1 |      |
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| <p><b>PART NUMBER/DESCRIPTION</b></p> <p>6382 SKID PLATE SYSTEM, 3.6L E-TORQUE, 2021+ JLU</p>   |                                     |  |   |   |   |   |   |   |   |      |

## Section 3: Installation Instructions

### Step 1: Removing Factory Components

**Important Note:** You will need to remove your front fender wells to gain access to the two 13mm bolts. These bolts will need to be removed. And replaced with the provided 17mm bolts.

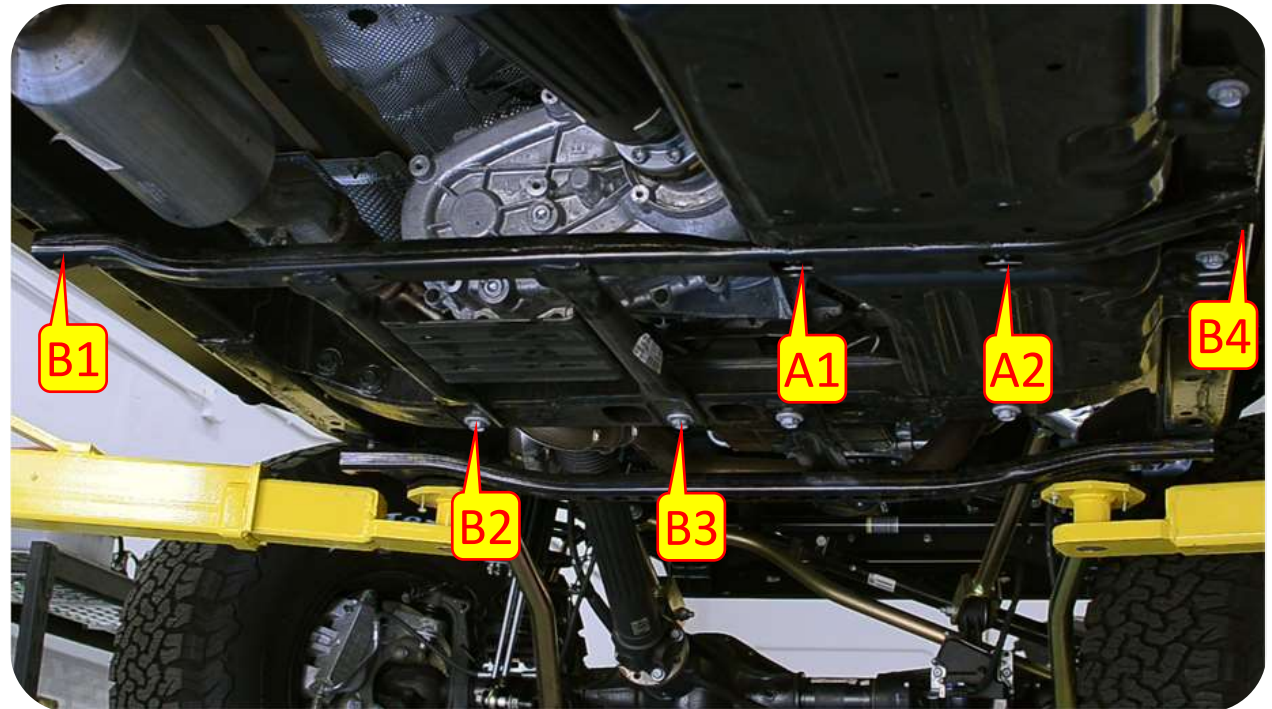
#### Important Notes



## Section 3: Installation Instructions

### Step 1: Removing Factory Components

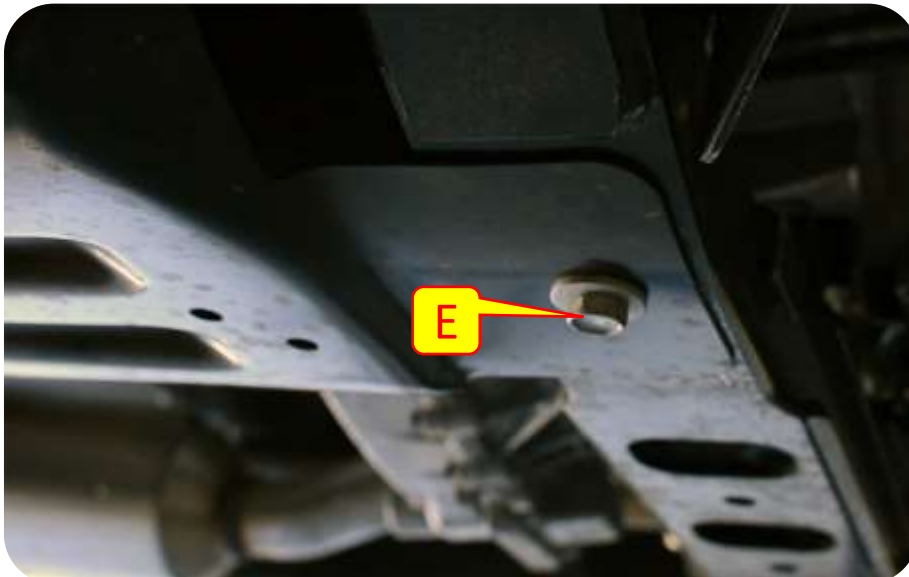
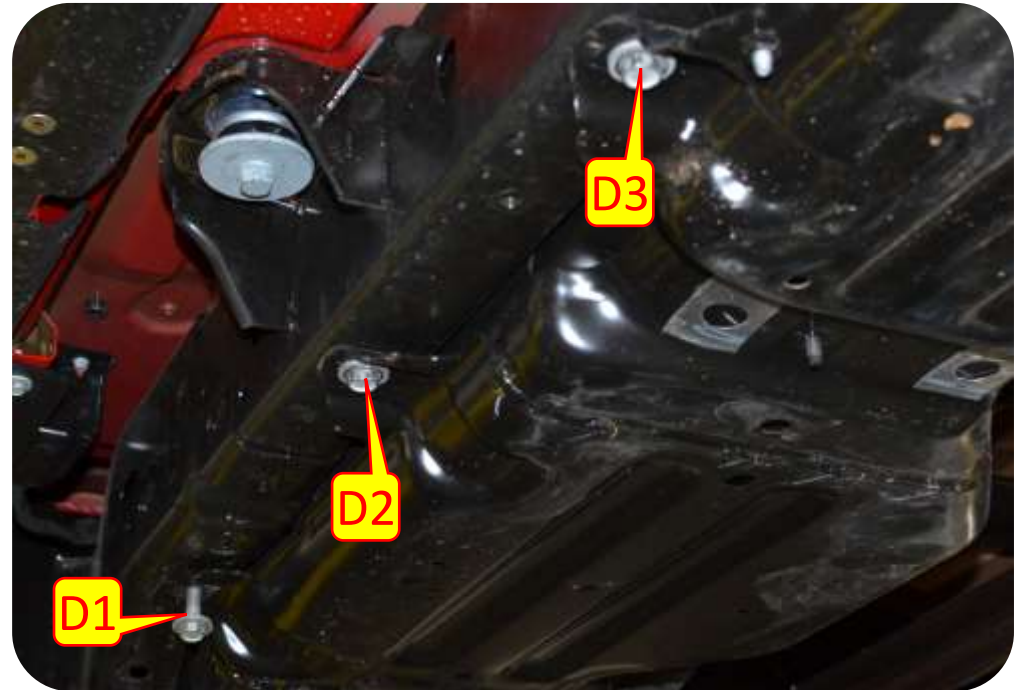
- A. Using a 13mm Socket disconnect the two nuts on the stock transfer skid. **Save All Hardware.**
- B. Using a 18mm Socket disconnect the four bolts on the stock transfer skid (*the hardware will not be reused*).
- C. Using a 18mm socket disconnect the three bolts on the stock transmission skid (*the hardware will not be reused*).



## Section 3: Installation Instructions

### Step 1: Removing Factory Components

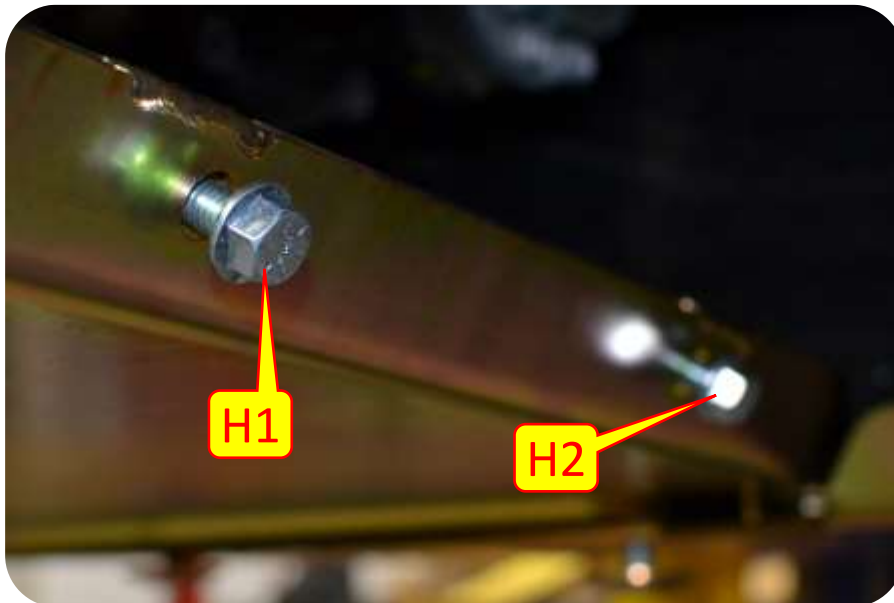
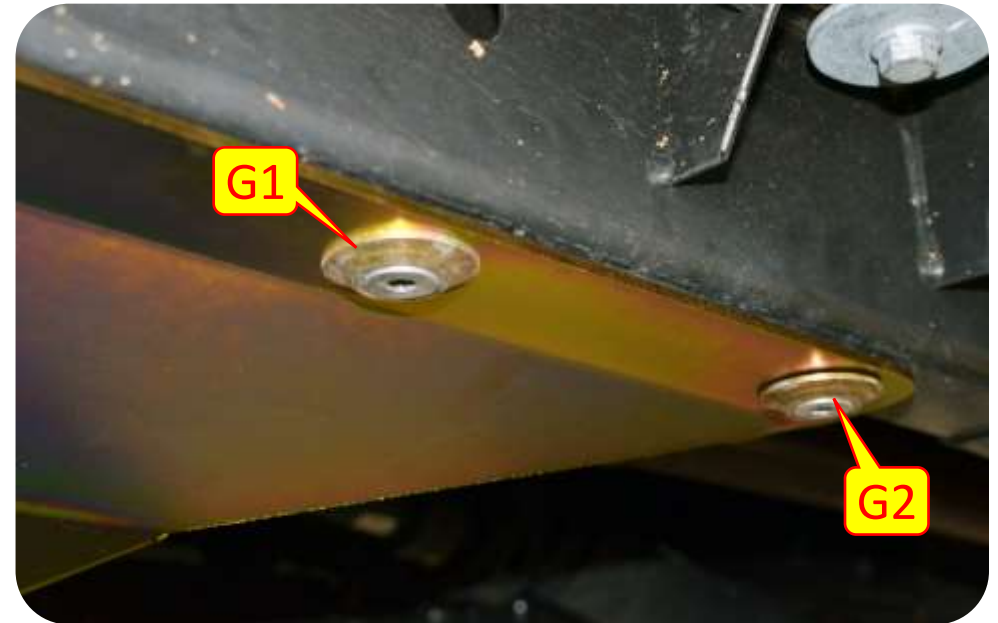
- D. Using a 18mm socket disconnect the three bolts on the stock gas tank skid at the frame. **Save all Hardware.**
- E. Disconnect the stock gas tank skid bolt from the cross member using a 18mm socket (*This hardware will not be reused*).
- F. Using the provided hardware and a 8MM Allen wrench install the transfer case skid plate snug. Do not fully tighten.



## Section 3: Installation Instructions

### Step 2: Installing the JT Transmission Skid

- G. Fully tighten both bolts at the frame using a 8mm wrench.
- H. Install the provided hardware in the rear transmission skid holes and tighten with a 9/16" socket.
- I. Disconnect the three counter sunk bolts on the transfer case skid plate on the crossmember in preparation for installing the motor skid plate.





## Section 3: Installation Instructions



### Step 3: Installing the JT Motor Skid

**Important Note:** When installing the front motor mount brackets each bracket is marked with a number to show which side the bracket should be installed on.

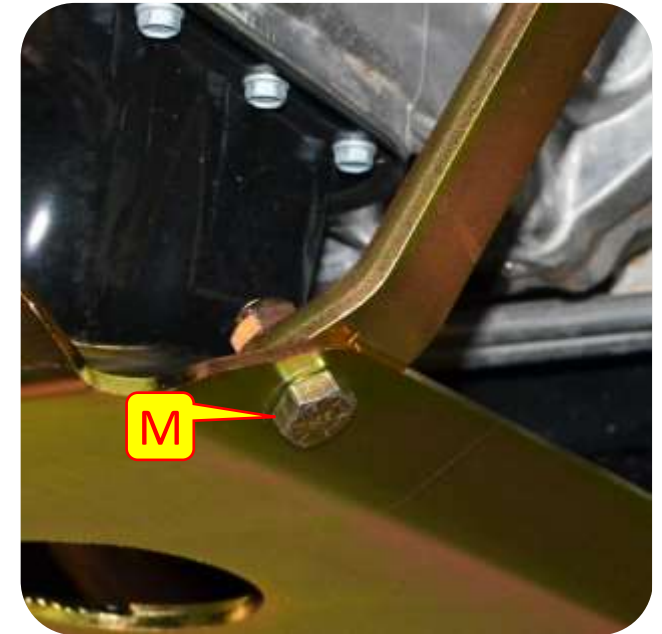
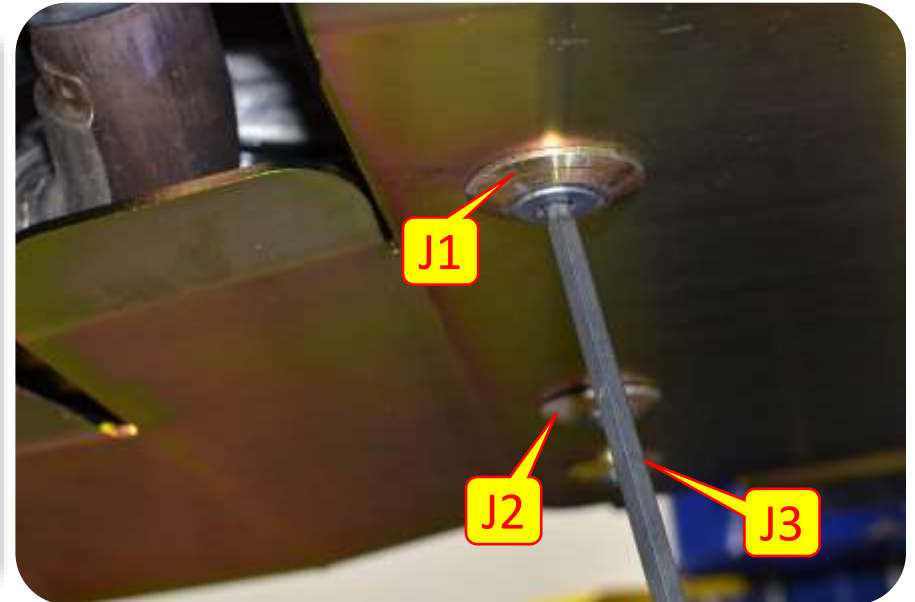
**CP-6216 – Driver Side**

**CP-6217 – Passenger Side**

## Section 3: Installation Instructions

### Step 3: Installing the JT Motor Skid

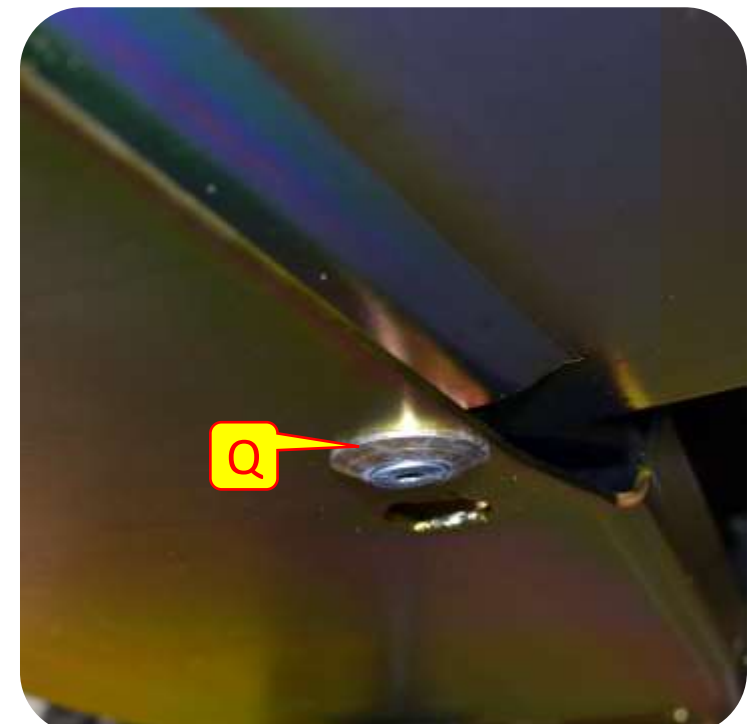
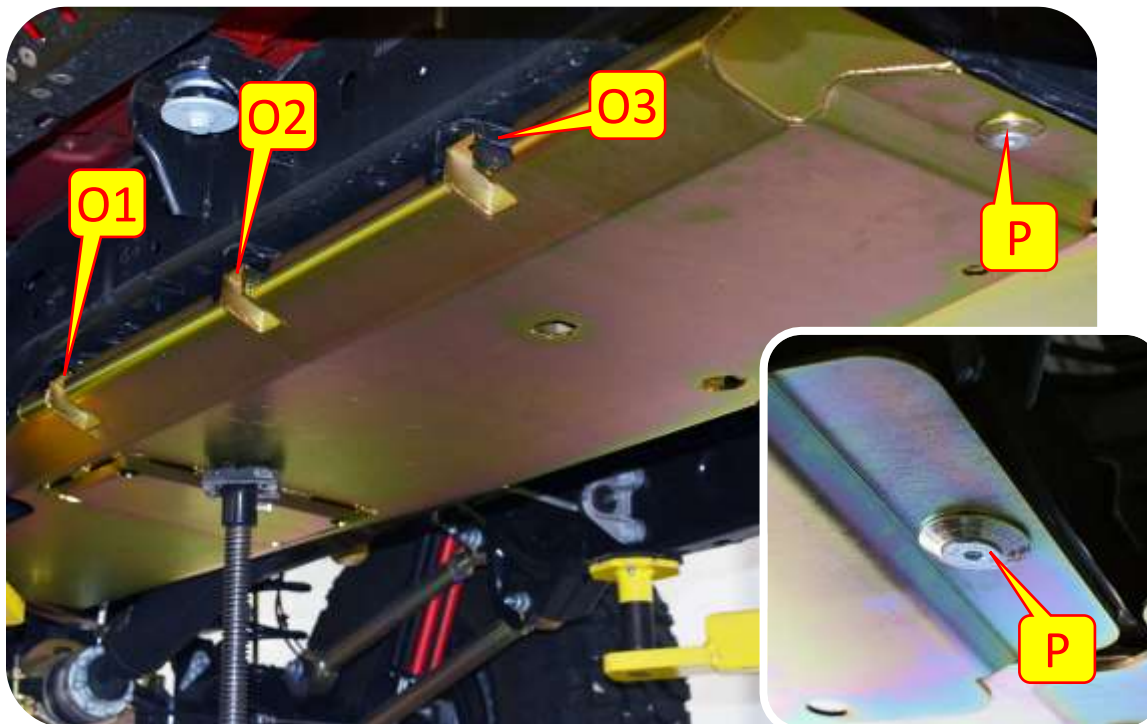
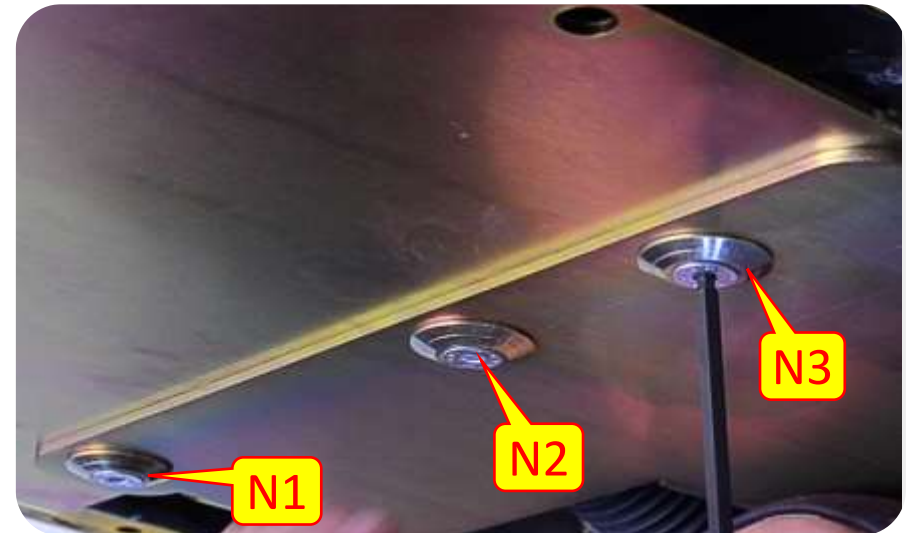
- J. Using a 8mm allen wrench attach the motor skid plate to the transfer case skid plate using the counter sunk bolts.
- K. Install the front brackets to the motor skid hand tight. *(The brackets will be installed onto the two 17mm bolts on page 4).*
- L. Install the provided 17mm nylock nuts.
- M. Using a 17mm socket and wrench fully tighten the front motor mount brackets. Make sure the motor mount brackets are installed on the inside of the skid plate.



## Section 3: Installation Instructions

### Step 4: Installing the JL Gas Tank Skid

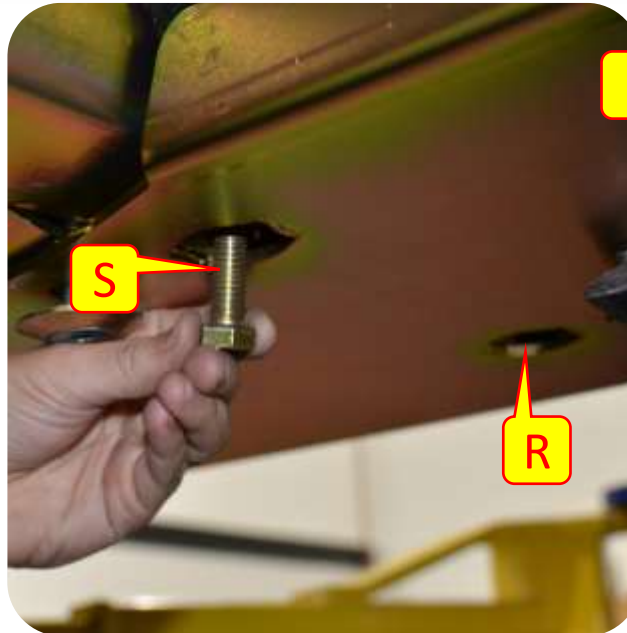
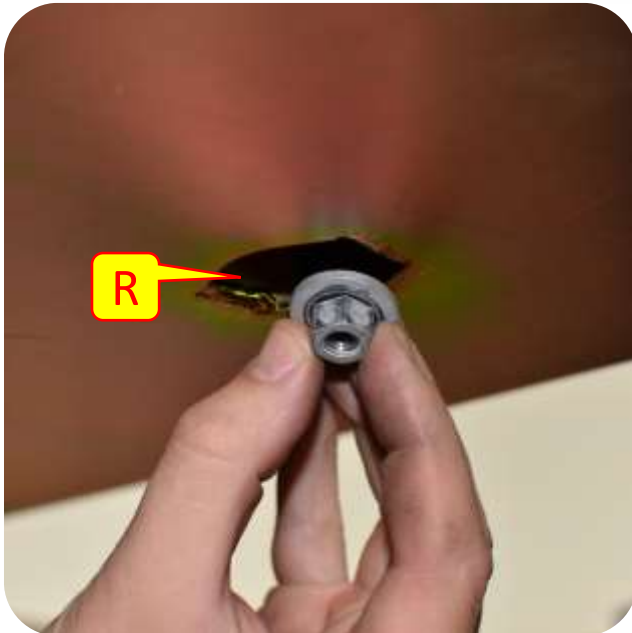
- N. Using a 8mm allen wrench fully tighten the motor skid/transfer skid bolts.
- O. Attach the gas tank skid plate to the frame with the stock hardware hand tight.
- P. Using a 8mm allen wrench attach the gas tank skid to the cross member.
- Q. Using a 8mm allen wrench attach the gas tank skid to the transfer case skid.



## Section 3: Installation Instructions

### Step 4: Installing the JL Gas Tank Skid

- R. Using a 13mm socket reinstall the stock nut from the stock transfer skid.
- S. Install the provide bolt and nut to connect the transfer skid and gas tank skid together. Tighten using a 3/4 socket and wrench.



## Section 3: Installation Instructions

### Step 4: Installing the JL Gas Tank Skid

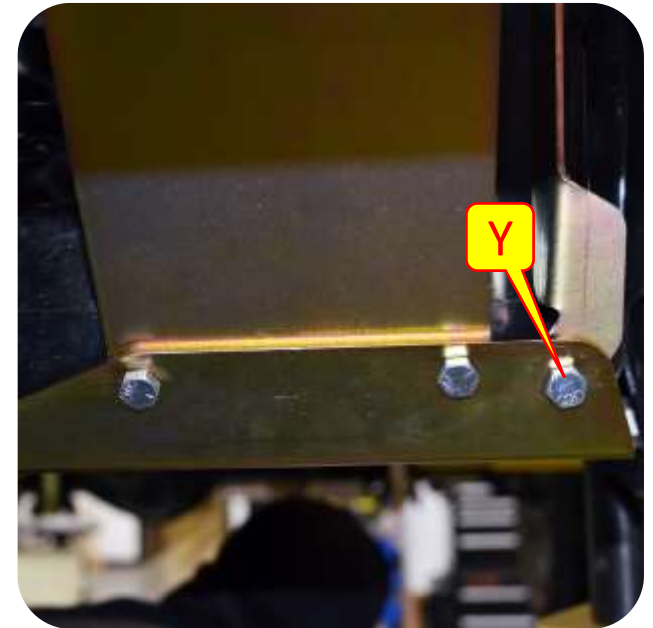
- T. Using a 16mm socket remove the stock gas tank mounting bolt next to the rear drive shaft support bearing. **SAVE HARDWARE.**
- U. Install the gas tank skid side hanger into the stock gas tank mounting bolt location using the stock 16mm bolt.
- V. Using a 9/16 socket and wrench install the gas tank skid side hanger to the gas tank skid. Make sure to install the hanger onto the inside of gas tank skid.



## Section 3: Installation Instructions

### Step 4: Installing the JL Gas Tank Skid

- W. Using a 16mm socket disconnect the rear gas tank bolt.
- X. Loosely install the rear gas tank skid hanger using the stock bolt.
- Y. Install the rear gas tank skid hanger to the gas tank skid plate using the provided 9/16 hardware.



## Section 3: Installation Instructions

### Step 5: Installing the JT EVAP Canister Skid Plate

- Z. Using the provided 9/16 hardware connect the EVAP canister skid to the gas tank skid plate.
- AA. Using a 10mm socket remove the stock nuts from the EVAP canister bolts. **SAVE HARDWARE.**
- BB. Install the EVAP canister hangers to the EVAP canister stock 10mm bolt locations using the stock nuts.
- CC. Install the EVAP Canister hangers to the inside of the EVAP canister skid plates and tighten using 9/16 socket and wrench.
- DD. Double check and tighten all hardware.

