



INSTALLATION GUIDE
S3 SWING ARM

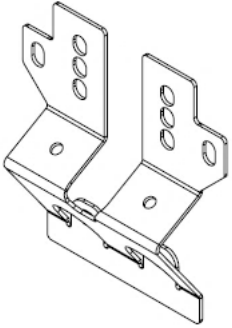
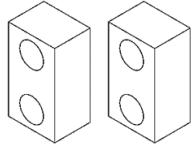
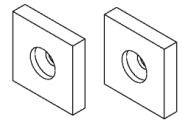
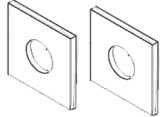
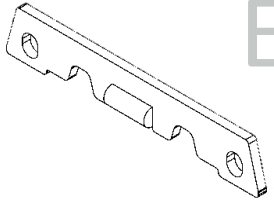


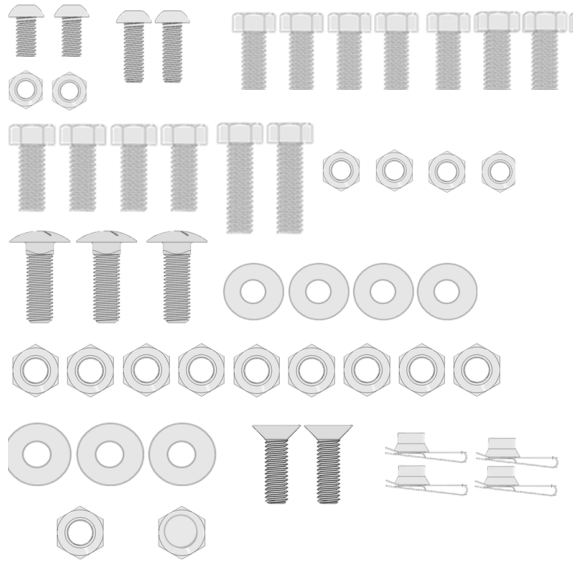
HARDWARE – SWING ARM

ITEMS	QTY	
A – S3 SWING ARM	1	
B – LATCH HANDLE MOUNT	1	
C – LATCH HANDLE	1	
D – LOGO PLATE	1	
E – DROP PIN	1	
F – PIN PLATE	1	


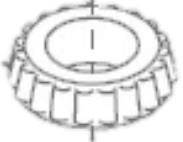
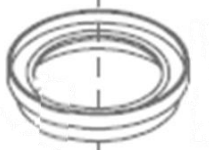


ITEMS	QTY	
G – S3 SWING ARM HARDWARE KIT	1	
1/4" -20 X 3/4" Button Head Bolts	4	
1/4" -20 Nylock Nuts	4	
1/2" -13 X 1 1/2" Hex Cap Bolts	4	
1/2" -13 X 1 1/2" Button Head Bolts	2	
1/2" -13 Nylock Nuts	6	
1/2" X 1.375" USS Washers	6	
1/2" X 1.062" SAE Washers	4	

HARDWARE – KICK PLATE

ITEMS	QTY	
A – KICK PLATE	1	
B – KICK PLATE BUMPSTOPS	1	
C – KICK PLATE NYLON SQUARES	1	
D – KICK PLATE SQUARE SPACERS	1	
E – HOOK PLATE W/ WELDED ROD	1	

ITEMS	QTY	
F – KICK PLATE HARDWARE KIT	1	
Includes Hardware For Mounting:		
Kick Plate, Latch, Drop Pins & Pin Plate		
10 – 32 X 3/4" Hex Drive Button Head	2	
10 – 32 X 1 1/4" Hex Drive Button Head	2	
10 – 32 Nylock Nut	2	
1/4" – 20 X 3/4" Hex Drive Button Head	7	
1/4" – 20 X 3/4" Counter Sink Screw	2	
1/4" – 20 Nylock Nut	4	
1/4" – 20 Extended Clip Nut	4	
5/16" – 18 X 3/4" Hex Cap Bolt	4	
5/16" – 18 X 1" Hex Cap Bolt	2	
5/16" – 18 X 1" Carriage Bolt	3	
5/16" X 0.688" SAE Washer	4	
5/16" X 0.875" USS Washer	3	
5/16" – 18 Nut	1	
5/16" – 18 Nylock Nut	9	
5/16" – 18 Acorn Nut	1	

HARDWARE – HUB

ITEMS	QTY		
A – ENGRAVED HUB CAP	1		A
Hub Cap O-Ring	1		
Anti Seize Packet	1		
B – GREASE SEAL	1		B
C – BEARINGS	2		
D – SPINDLE HARDWARE	1	D	
1" -14 Nylock Nut	1		
1" USS Washer	1		

SKILL LEVEL - 2 STARS



- 1 STAR ★☆☆☆☆
- 2 STARS ★★☆☆☆
- 3 STARS ★★★☆☆
- 4 STARS ★★★★☆
- 5 STARS ★★★★★

- EASY - No tools required
- BASIC - Requires standard tools, basic mechanical knowledge and understanding
- MODERATE - Requires standard tools. Some drilling and/or cutting.
- ADVANCED - Requires speciality tools. Drilling, cutting, and/or welding
- EXPERT - Professional installation recommended.

DISCLAIMER

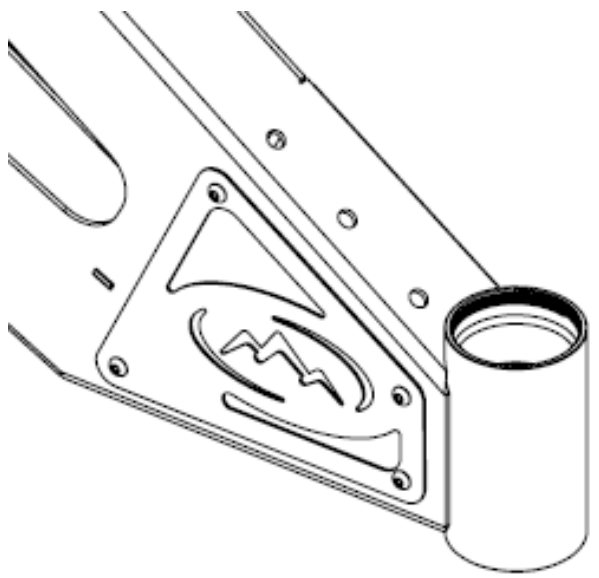
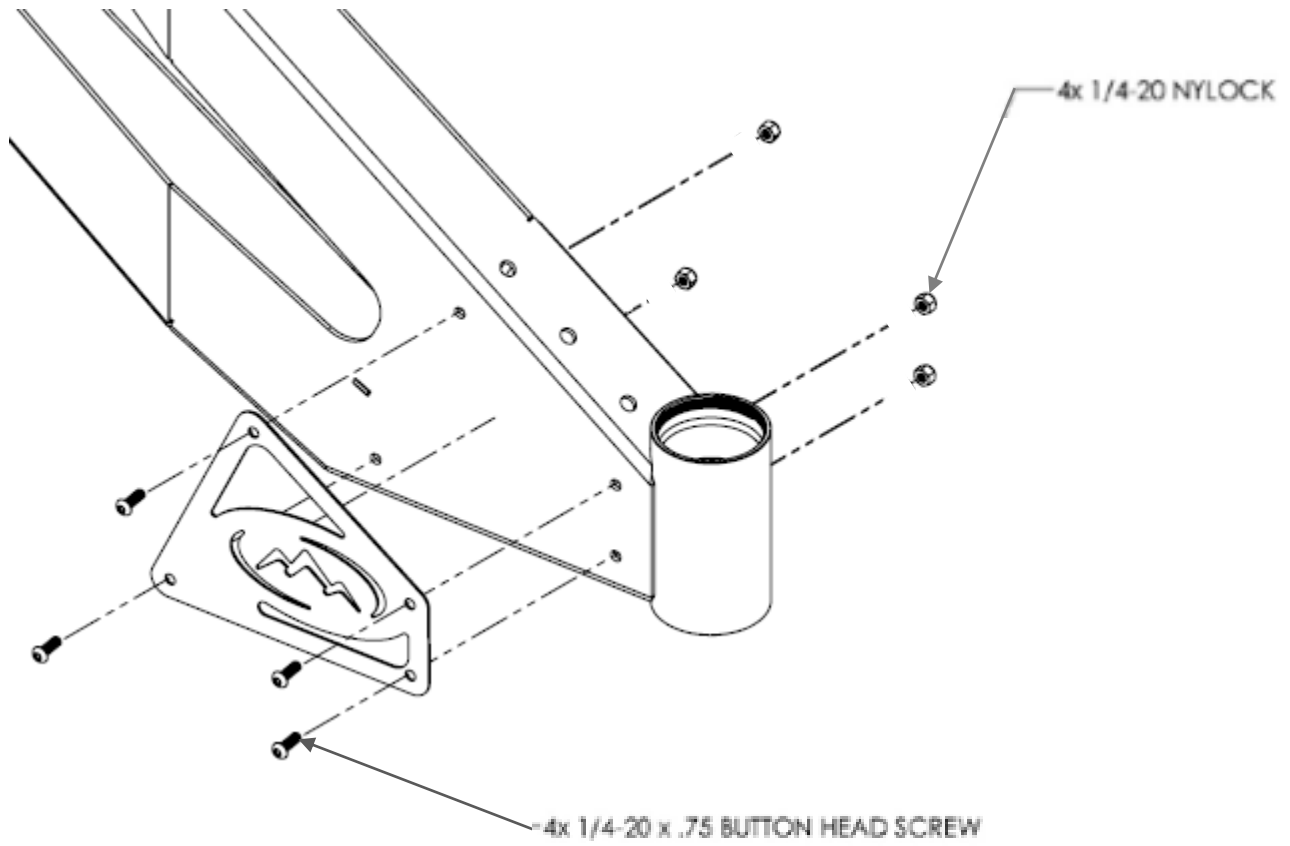
Expedition One is not responsible for any damages to vehicle or injury.
 We always recommend professional assistance when installing our vehicle products.

Always follow safety precautions including the use safety gear and devices.

LOGO PLATE

DROP PIN INSTALLATION

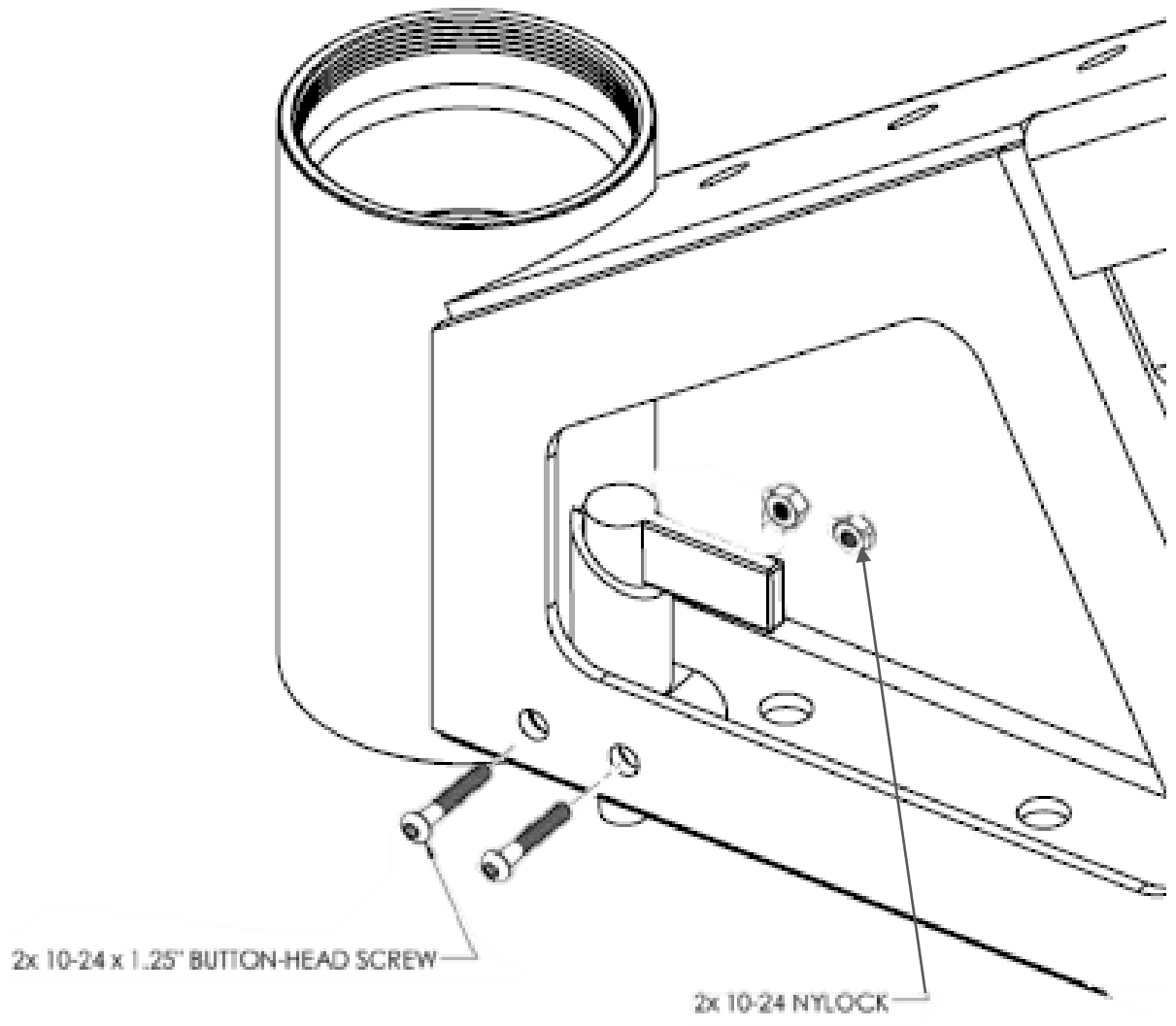
Install the drop pin as shown below.



DROP PIN ASSEMBLY

DROP PIN INSTALLATION

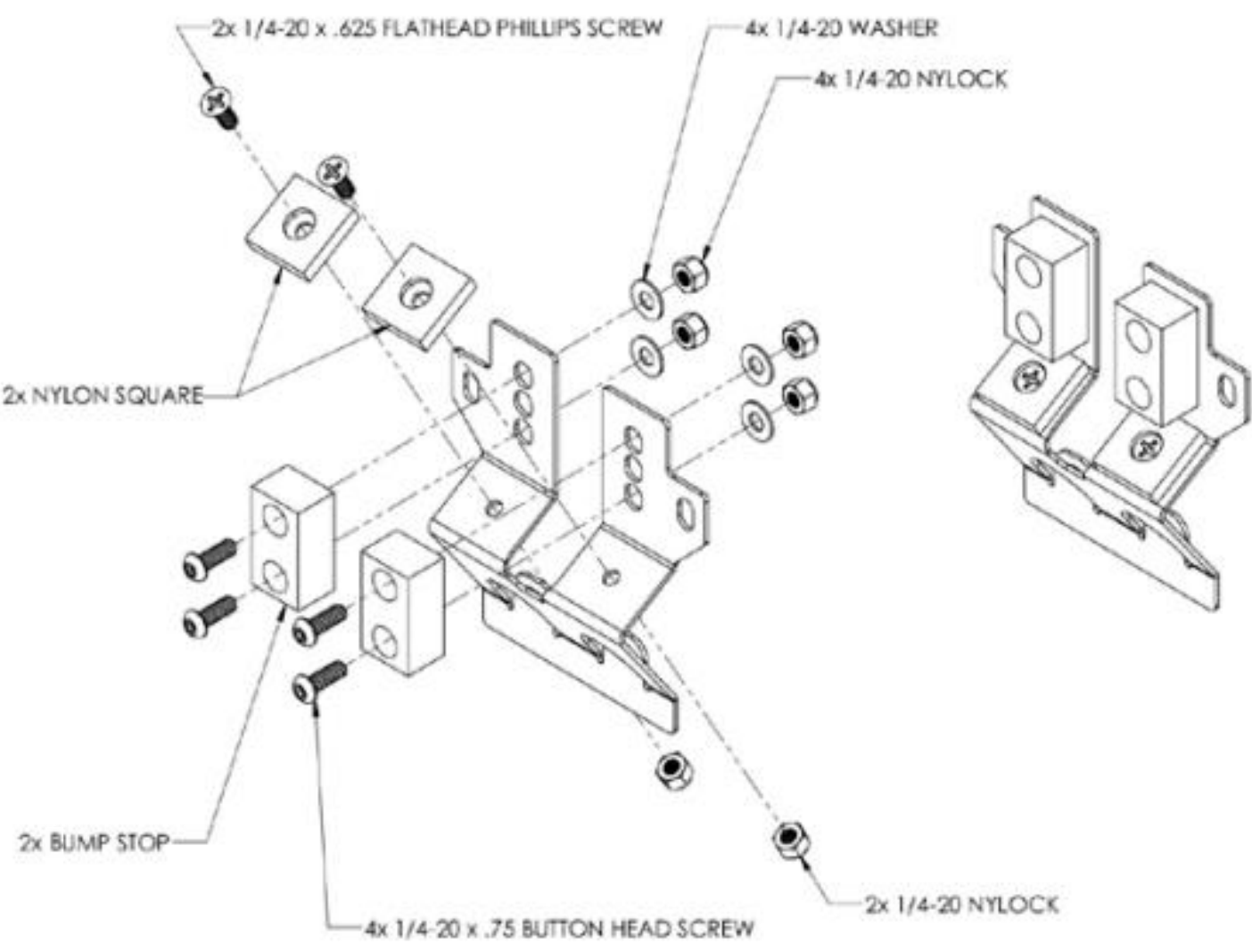
Install the drop pin as shown below.



KICK PLATE ASSEMBLY

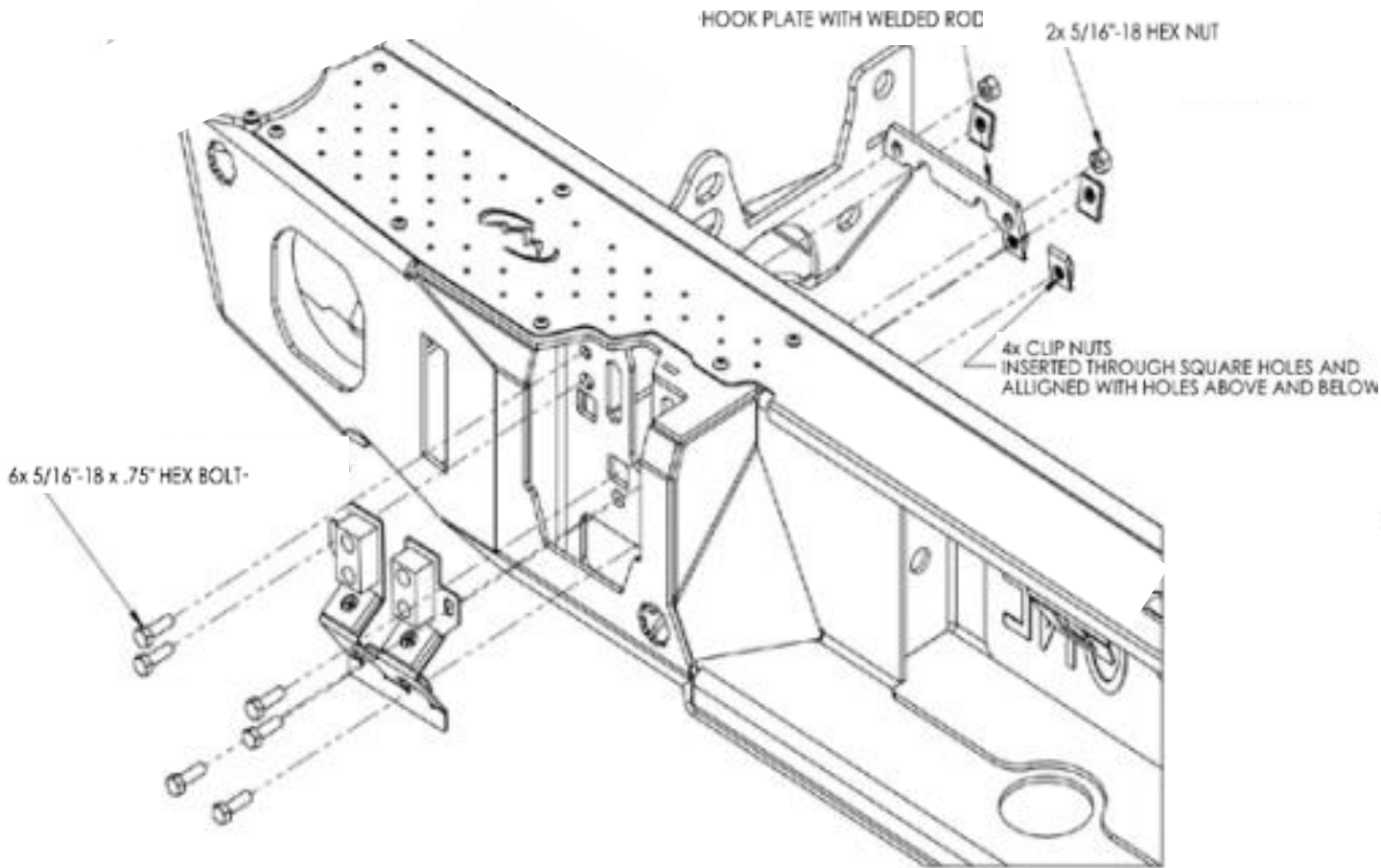
KICK PLATE ASSEMBLY

Assemble the kick plate as shown below.



KICK PLATE INSTALLATION

Attach the kickplate as shown below to the bumper.



Welded Rod Plate should face inside the bumper and mounted in the upper most position

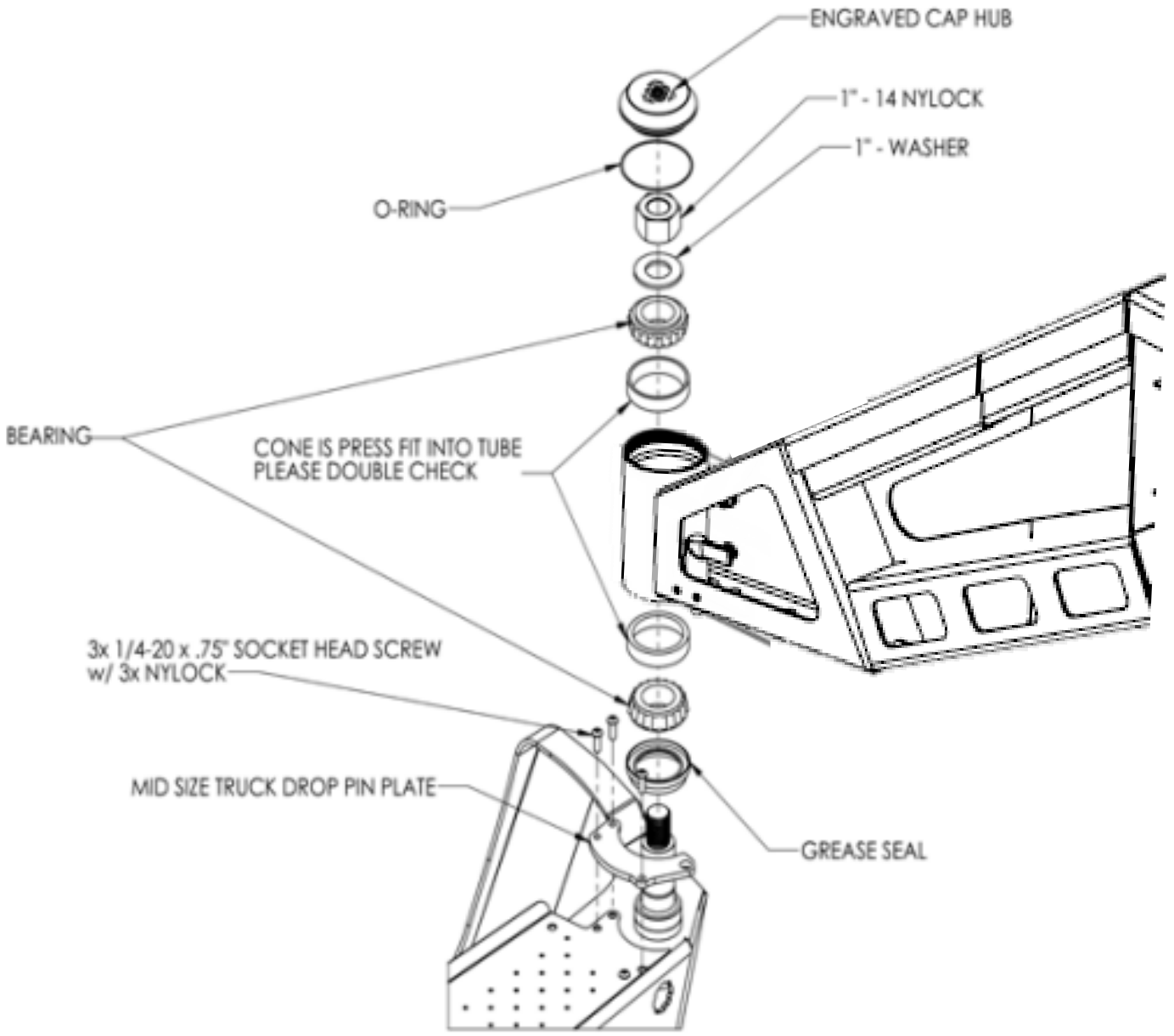


Adjust the Kickplate as needed for best arm contact and latch travel.

HUB ASSEMBLY

HUB DIAGRAM

Attach the swing arm and drop pin plate as shown below.



1 BOTTOM BEARING AND GREASE SEAL

Grease Bearings using marine-based lithium grease. Install the first bearing into the bottom of the swing arm. Then Place a grease seal inside the bottom of the arm



2 S3 SWING ARM INSTALLATION

Place the arm on the spindle and move the arm until it falls into place. Insert the bearing into the top of the arm



3 S3 SWING ARM MOUNTING

Place the washer into the swing arm, then insert the nut over the bolt. Tighten the nut using a **36mm** socket. Don't over tighten to prevent binding.

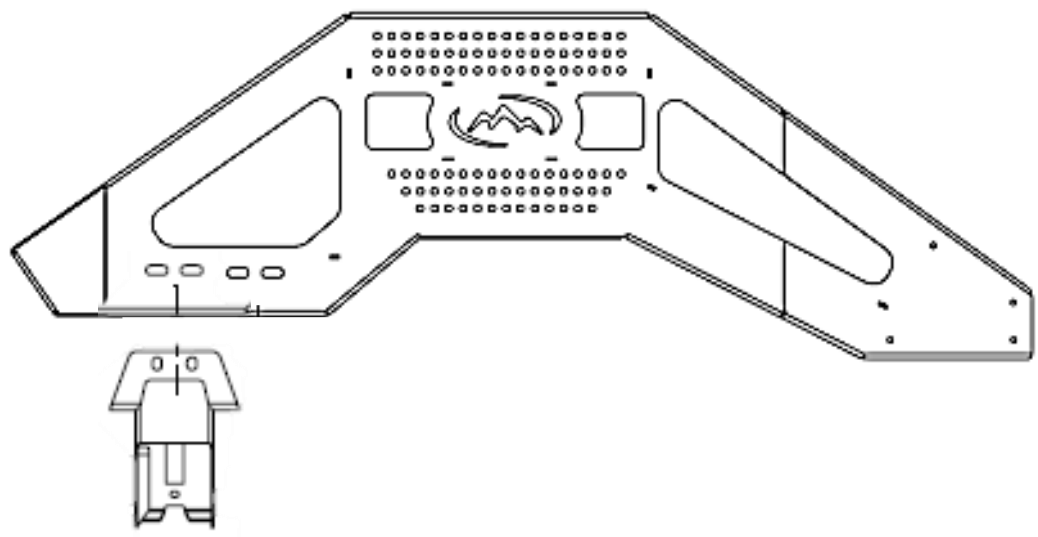
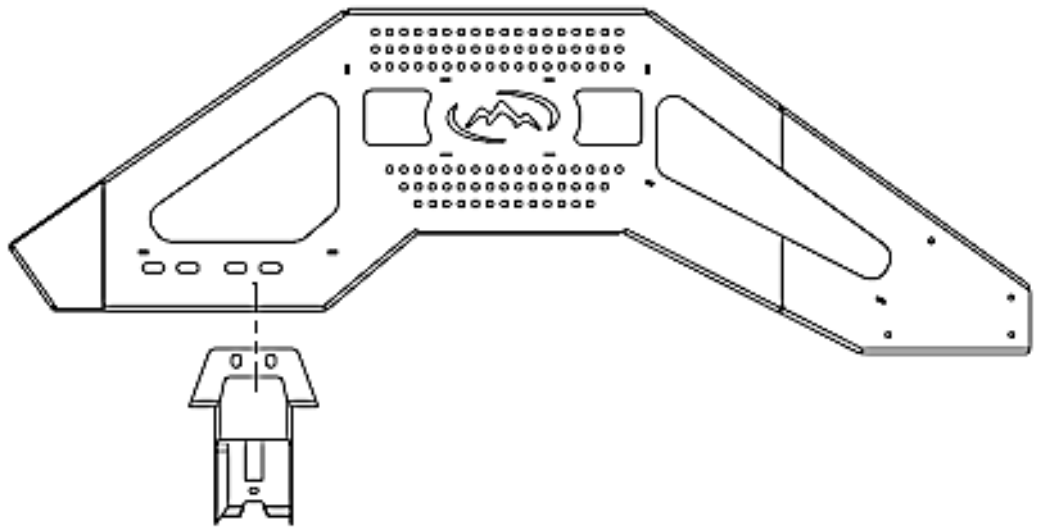
4 HUB CAP AND DROP PIN

Check that the hub cap has a O-ring and spread anti-selze around the cap before tightening on the arm. Install the drop pin plate as shown in the diagram page.

LATCH ASSEMBLY

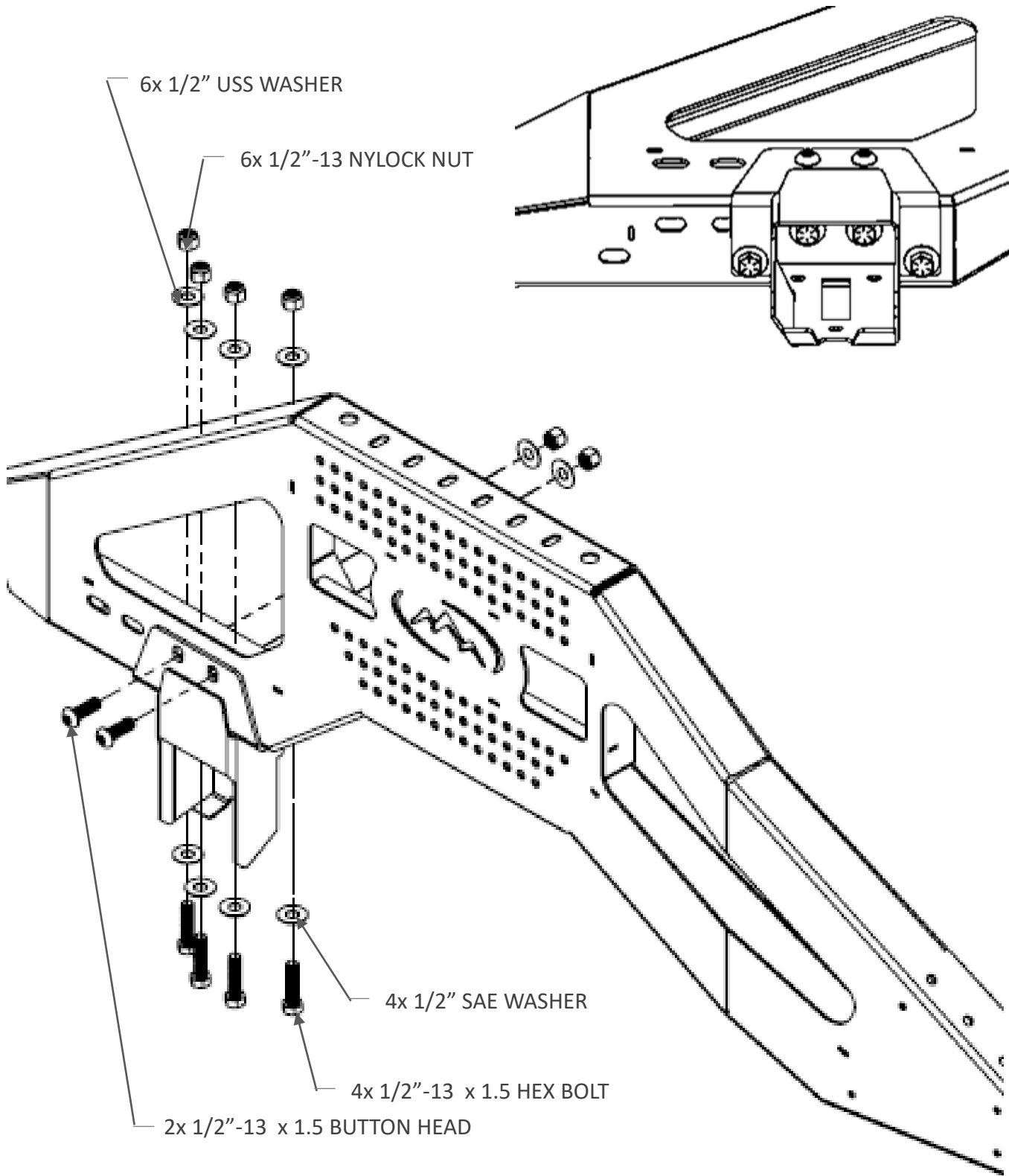
LATCH POSITION

With the arm mounted, chose the correct latch handle position for your truck / bumper combination.



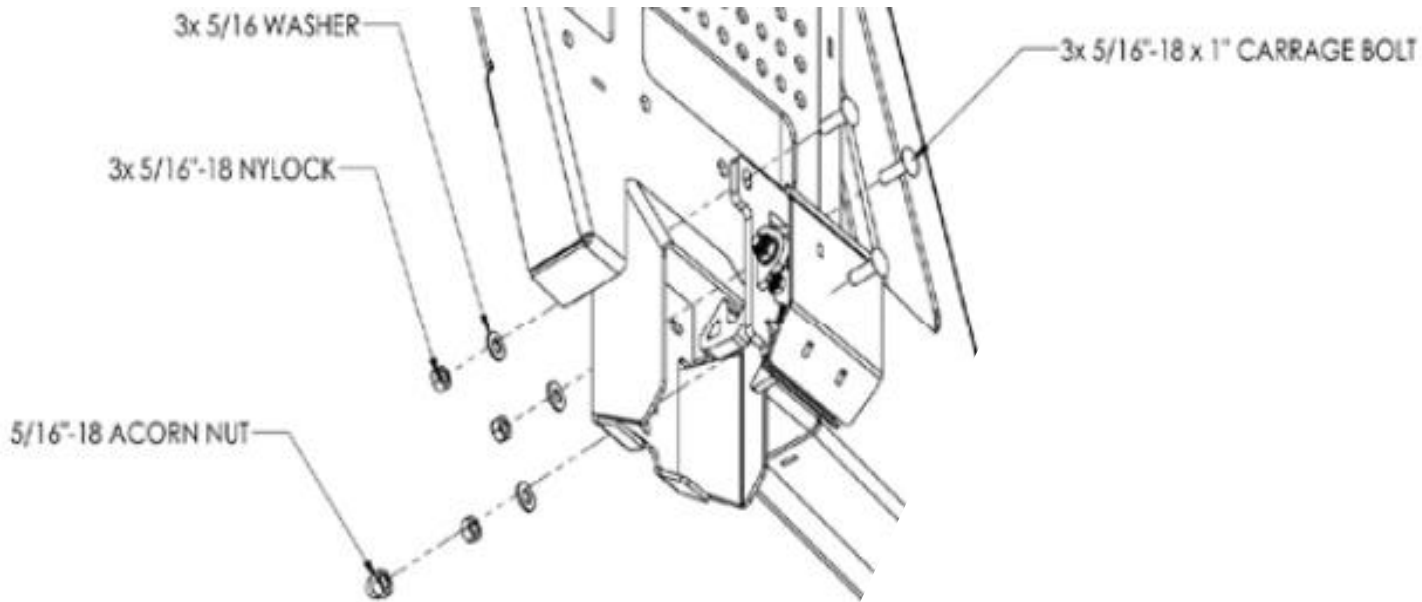
1 LATCH HANDLE MOUNTING

Mount the latch handle as shown below using the provided hardware. Leave hardware loose for adjustment. Center and align the handle with the kickplate area as needed before mounting.

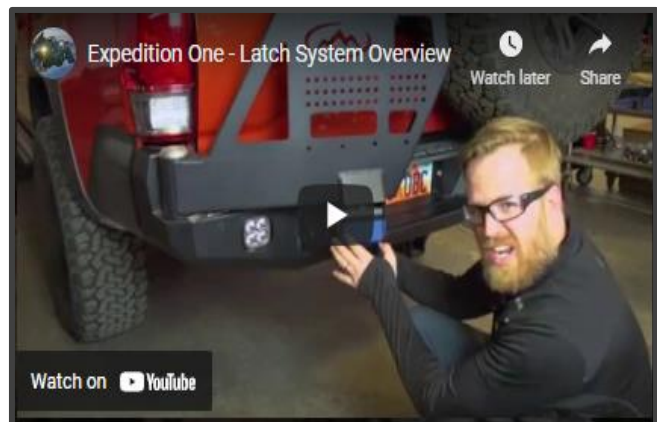


2 LATCH MOUNTING

Mount the latch as shown. The latch may require adjustment for fitment and alignment with the arm and bumper kick plate.



Align and center the latch within the handle assembly. Handle should have even straight gaps on each side.



YouTube: Expedition One – Latch System Overview
<https://www.youtube.com/watch?v=aCxjgYhMGjo>

CHECK HARDWARE REGULARLY AND TIGHTEN AS NEEDED, INCLUDING AFTER OFFROAD USE.

CARE & MAINTENANCE

Re-tighten your coupling unit after a period of time or after a good off-road trip. Looseness in your hub assembly or seizing of your carrier may be a sign you need to replace your bearings or that the 1" nylock nut in under the cap in your hub assembly has come loose and needs to be tightened.

Always be sure to use the anti-seize when installing and re-installing your hub cover, otherwise removal will be very difficult! Remove your hub cover and check inside your hub assembly regularly. If you live in a dry climate and off-road a "standard" amount, we would recommend you check your hub assembly at least once per year. If you live in a wet climate, humid climate, or a climate with extremes, we would recommend you check your hub assembly quarterly or with season changes. Climates with heavy salt content are some the harshest conditions on your components and may need to be checked more frequently.

When installing and/or re-installing bearings be sure to use a white lithium marine-style grease for best results. Once you have removed the cap, check the grease. Bad grease will be black or have lost most of its original color, will show signs of moisture, and/or will have become "chunky". If this is the case, remove your bearings and re-grease them. Check your bearings. The bearing cage can become corroded over time and break. Looseness or seizing in your hub and carrier assembly may be a sign that you need to replace your bearings. Races generally do not need to be replaced unless you can see they have broken or are heavily corroded. Races can be knocked out and replaced if/when needed.

Replacement parts. You can purchase a rebuild kit directly from us at Expedition One, however you can also find most of your hub assembly components at your local automotive/hardware store. Replacement part #'s can be found below for your convenience:

Dual Swing Arm Carriers

Grease Seals: PN 5121

Bearings: LM48548 or A5

Stiffness, binding, or rattling in your tire carrier arm may be an indicator for maintenance needed on the bearings in your hub assembly. This could be caused by a number of factors including environment, impact, lack of/type of grease, corrosion, and/or over-tightening.

Our carriers are designed for easy maintenance with easy removal of the hub cap to access the hub assembly. Zinc fittings are generally not necessary, due to ease of access. Wear components and replacement parts can be easily sourced from your local auto parts store and often have a variety of brands/pricing. The bearings used are a high-speed/high heat wheel bearings, but for our applications are being used under moderate loads and low speed (0 rpms), so they will typically last a long time.

Instructions for bearing checks and maintenance:

- Loosen your hub cover cap. If anti-seize was used this should easily be done by hand or with a simple grip tool.
- Observe the top bearing. If there is a lot of moisture, discoloration, or corrosion you could have a grease problem. We recommend using a water-resistant, marine grade grease for this reason.
- If you do not see a lot of moisture or discoloration and do not want to un-bolt the arm you can first try to pack the hub assembly with a lot of marine-grade grease and cycle it through by moving the arm back and forth. This may fix your problem. If movement is not improving with additional grease and cycling or you believe you have broken bearings continue by unbolting and removing the arm.
- Take out the top bearing and examine it. If it rolls and does not show signs of damage or coming apart then it is probably ok. Check the cage holding the bearings is in-tact. If you see any damage or broken parts you will need to replace the bearing.
- The bottom bearing is held in by the grease seal. You want to gently remove the grease seal by using a hammer and a tool such as a center punch, aul, or screwdriver to gently tap out the grease seal so you can access the bottom bearing.
- Observe and examine the bottom bearing for signs of damage. Again, If the bearing does not roll or if parts are popping out or there is damage to the cage you will want to replace the bearing.
- If the bearings are rolling and are just dirty or gummy, you can use WD40, brake cleaner, or penetration spray to clean them out.

Be sure to re-pack with a lot of marine-grade grease when replacing cleaned and/or used bearings and use anti-seize when re-installing your hub cover cap. Caps should be snug but be careful not to over-tighten, as this can put too much pressure on the bearing cage and cause bearings to fail. We do not provide torque specs, as the exact right tightening for your application can be hard to gauge with the nylock nut. We recommend you check to feel the nylock has been tightened and that the cap is snug and not to tighten beyond that point.