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2 - Knuckle (Driv/Pass)
2 - Differential Bracket (Driv/Pass)
2 - Front Brake Line Brackets
1 - Front Lower Skid Plate
1 - Rear Brake Line Bracket
2 - Front Strut Spacers
2 - Rear Bump Stop Brackets
2 - Rear Shock Absorbers
2 - Crossmember (Front/Rear)
1 - Diff. Brace Bracket (Pass)
2 - Sway Bar Bracket (Driv/Pass)
1 - Rear E-Brake Bracket
2 - Rear Spacer Blocks
1 - Driveshaft Spacer
4 - Rear U-bolts
*See back page for complete list of included hardware

2015 Ford F150 4WD
6" Suspension Lift Kit

PRE-INSTALLATION

Professional installation by a certified technician is strongly recommended.

Not responsible for altered products. No claims are made regarding any lifting devices. Any and all claims implied in this document excluded.

NOTES:

The following instructions assume the use of 18 x 9 aftermarket wheels with 4.5" back spacing and size 35x12.50x18 tires.
IMPORTANT: This vehicle may require EPAS (Electronic Power Assist Steering) plugs to be disconnected before installing this kit. Failure to do so may result in damage to the EPAS module, requiring its replacement.
Do not cut or remove factory crash bar if equipped.

REQUIRED TOOLS:

5mm Allen Wrench	8mm Allen Wrench	8mm Socket/Wrench	10mm Socket/Wrench
12mm Wrench	13mm Socket/Wrench	15mm Socket/Wrench	16mm Socket/Wrench
18mm Socket/Wrench	19mm Socket/Wrench	21mm Socket/Wrench	22mm Socket/Wrench
24mm Socket/Wrench	30mm Socket/Wrench	9/16" Socket/Wrench	1 1/16" Wrench
1/4" Drill Bit	5/8" Drill Bit	11/32" Drill Bit	1 1/4" Hole Saw
Drill	Reciprocating Saw	Hammer	Jack and Jack Stands

Torque Specs:

Size	Grade 5	Grade 8
5/16"	15 ft/lbs	20 ft/lbs
3/8"	30 ft/lbs	35 ft/lbs
7/16"	45 ft/lbs	60 ft/lbs
9/16"	95 ft/lbs	130 ft/lbs

Size	Class 8.8	Class 10.9
10MM	32ft/lbs	45ft/lbs
18MM	170ft/lbs	240ft/lbs

INSTALLATION INSTRUCTIONS *Front*

STEP 1: Chock rear wheels and jack up front of vehicle.
STEP 2: Place jack stands under frame rails and lower vehicle onto jack stands.
STEP 3: Remove wheels and tires. (21mm socket)
STEP 4: Remove skid plate. (13mm socket)
STEP 5: **IMPORTANT!** Remove EPAS (Electronic Power Assist Steering) plugs located on steering assembly by front differential.
STEP 6: Remove tie-rod end, tapping side of knuckle with hammer to dislodge. (21mm wrench)
STEP 7: Remove ABS bracket (8mm wrench) and brake line bracket (10mm wrench) from knuckle. (Save factory hardware)
STEP 8: Remove vacuum line from hub.
STEP 9: Remove brake caliper and hang caliper out of way. Do not let caliper hang by brake hose. (19mm socket and 21mm wrench, save factory hardware) Remove rotor.
STEP 10: Remove dust shield and dust cap. (8mm socket)
STEP 11: Remove ABS wire from bearing assembly. (5mm allen wrench)
STEP 12: Remove axle nut. (15mm socket - save factory hardware)
STEP 13: Loosen upper ball joint nut, tapping side of knuckle with hammer to dislodge. (21mm wrench)
STEP 14: Loosen lower ball joint, tapping side of knuckle with hammer to dislodge. (24mm wrench)
STEP 15: Remove upper and lower ball joint nuts. Remove knuckle from vehicle.
STEP 16: Remove sway bar links from sway bar. (8mm and 19mm wrench - save factory hardware)
STEP 17: Remove lower strut nuts. (18mm socket - save factory hardware)
STEP 18: Note factory position of sway bar, then remove sway bar from frame mount. (15mm socket - save factory hardware)
STEP 19: Remove lower control arm. (21mm and 1-1/16 wrench - save factory hardware)
STEP 20: Remove strut from upper mount. (15mm socket/wrench - save factory hardware)
STEP 21: If equipped, remove four bolts and lower skid plate. (13mm socket)
STEP 22: Remove driveshaft from front differential. (10mm socket) Secure driveshaft out of the way.
STEP 23: Remove stock rear cross-member. (15mm & 18mm socket - save factory hardware)
STEP 24: Cross meember mount must be trimmed to allow differential to drop. Attach printed cutting template to front and back of driver side lower cross-member mount. Cut cross-member mount along designated line. (Use hole saw first, then finish cut along line.)
STEP 25: Remove differential vent tube from differential.
STEP 26: Support differential using floor jack and remove upper driver side differential bolt. (18mm wrench - save factory hardware)
STEP 27: Remove passenger side differential bolt. (18 & 21mm wrench - save factory hardware)

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INSTALLATION INSTRUCTIONS *Front (Continued)*

STEP 28: Remove lower rear driver side differential bolt. (21mm socket/wrench) Lower differential and remove from vehicle.
STEP 29: Complete trimming of frame on driver side using template.
STEP 30: Install new bracket on passenger side differential mount with included hardware. Install 9/16 x 4 bolt, washers, and nut in passenger side mount.
STEP 31: Install driver side differential mount with included 9/16 x 4 bolt, washers and nut from front to rear in order to clear the rack and pinion.
STEP 32: Raise differential into place and install driver and passenger upper differential bolts with factory hardware, but do not tighten.
STEP 33: Install rear cross-member with included 18mm x 150mm bolt. Bolt will install through sway bar bracket and rear cross-member, securing to stock location. Do not tighten.
STEP 34: Install passenger side differential brace using factory cross-member hardware, but do not tighten.
STEP 35: Install included 9/16 x 4 rear differential bolt through sway bar mount and new differential mount.
STEP 36: Tighten differential bolt. (21mm and 22mm wrench)
STEP 37: Tighten all differential bolts. (Upper: 18mm socket/wrench, Lower: 21mm and 22mm socket/wrench) Also tighten passenger side differential brace hardware. (15mm and 18mm socket/wrench)
STEP 38: Reinstall vent tube on differential with new included vent tube extension.
STEP 39: Install front cross-member using factory hardware, but do not tighten at this time.
STEP 40: Install lower control arms using included 18mm x 160mm cam bolts, cam washers and nuts. Do not tighten.
STEP 41: Secure new skid plate in front and rear cross-members threaded holes with included 3/8 x 1 bolts and washers. (9/16 socket)
STEP 42: Tighten all upper cross-member bolts. (21mm, 1 1/16 socket and 1 1/16 wrench)
STEP 43: Tighten sway bar drop mounts to frame using factory hardware. (15mm socket)
STEP 44: Install drive shaft spacer with included 10mm x 85mm hardware and tighten. (8mm allen wrench)
STEP 45: Remove brake line bracket from driver and passenger side frame. (10mm wrench)
STEP 46: On passenger side remove brake line from two factory clips.
STEP 47: Install new brake line bracket on driver and passenger side with factory hardware.
STEP 48: Install factory passenger side brake line in new bracket using included 5/16 x 3/4 bolt, washer and nuts.
STEP 49: On driver side, pull slightly on brake line to allow line to be installed on new bracket. Secure brake line to new bracket with included 5/16 x 3/4 bolt, washers and nut.
STEP 50: Tighten included brake line hardware (13mm socket/wrench) and factory hardware. (10mm socket/wrench)
STEP 51: Install included 10mm studs in strut spacers. (17mm wrench)
STEP 52: Install strut spacers on struts with factory hardware and tighten. (15mm socket)
STEP 53: Install strut with strut spacers installed in stock upper mount. Secure with included 10mm nuts, washers and lock washers, but do not tighten.
STEP 54: Install lower strut in lower control arm with factory hardware and tighten. (18mm socket)
STEP 55: Tighten upper strut mount hardware. (17mm wrench)
STEP 56: Install sway bar body on sway bar links located on lower control arms. Install nut to hold sway bar in place but do not tighten.
STEP 57: Swing up sway bar and install on sway bar drop brackets with included 7/16 x 1 bolts, washers and nuts, then tighten. (18mm wrench on sway bar drop hardware and 18mm wrench on sway bar links on lower control arms)
STEP 58: Remove stock bearing assembly from stock knuckle. (18mm wrench for bearing and 8mm wrench for locking hub mechanism) Install bearing assembly on new knuckle using factory hardware and tighten. (18mm wrench)
STEP 59: Install new knuckles with factory hardware on lower ball joints and tighten. (24mm and a 12mm wrench)
Do not use air impact on upper and lower ball joint, hand tools only.

Follow OE instructions for disassembly and assembly of IWE actuator. These instructions for reference only.
STEP 60: Install IWE actuator on CV shaft. Make sure actuator splines line up to splines on CV shaft.
STEP 61: Install CV shaft into knuckle assembly.
STEP 62: Using floor jack, raise lower control arm and connect upper ball joint on upper control arm to spindle and tighten to factory torque specs. (21mm wrench) If ball joint turns, use a 3/8 wrench to hold ball joint.
STEP 63: Reinstall steering linkage nut. (21mm wrench)
STEP 64: Using hand vacuum pump, apply and hold 24inHG of vacuum to actuator through large port.
STEP 65: Install three bolts securing actuator to knuckle and tighten. (8mm wrench)

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INSTALLATION INSTRUCTIONS *Front (Continued)*

STEP 66: With vacuum still applied to actuator, measure depth of CV shaft treads protruding through hub bearing. If minimum 15.5mm or .61" is not achieved, rotate hub to eliminate binding of splines.
STEP 67: Install axle nut and tighten to 30 lb.ft. Hand tools only, no impact wrench.
STEP 68: Verify free rotation of hub with NO CV shaft rotation and no clicking or grinding noise.
STEP 69: Release vacuum from actuator and rotate hub to engage actuator. You may hear/feel actuator engage.
STEP 70: Verify that hub and CV rotate together. Reconnect vacuum lines to actuator.
STEP 71: Install ABS wire on bearing assembly. (5mm allen wrench) Do not reuse factory dust sheild.
STEP 72: Install rotor. Install caliper on knuckle with factory hardware, inserting included 1/2" caliper bolt spacer under bolt head and tighten. (19mm or 21mm wrench)
STEP 73: Make sure vacuum hose and ABS wire are out of harms way. Secure vacuum hose and ABS wire to knuckle neck with zip ties.
STEP 74: Install tires and wheels. (21mm socket) Remove jack stands and lower truck.
STEP 75: Tighten lower control arm bolts. (1-1/16 wrench and socket. Torque to 200ft/lbs)

INSTALLATION INSTRUCTIONS *Rear*

STEP 1: Chock front weels and jack up rear of vehicle. Place jack stands under frame rails.
STEP 2: Remove wheels and tires. (21mm socket)
STEP 3: Remove factory shock absorbers. (Upper: 18mm wrench - Lower: 15mm wrench - Save factory hardware)
STEP 4: Remove brake line assembly on inner driver-side frame rail. (10mm wrench)
STEP 5: Install brake line extension bracket on frame with factory hardware and tighten. (10mm wrench)
STEP 6: Attach factory brake line bracket onto new bracket using supplied 3/8" x 1" bolt, washer and nut. (9/16" socket and wrench)
STEP 7: Remove e-brake cable mount on driver-side (10mm wrench)
STEP 8: Install new e-brake bracket with factory hardware and tighten. (10mm wrench)
STEP 9: Install e-brake mount into new bracket with included 5/16" bolt, washers and lock nut.
STEP 10: Support rear end with jack and remove stock u-bolts. (21mm socket) Remove and save factory blocks.
STEP 11: Lower axle assembly with jack to allow lift block installation. Install new lift blocks between springs and axle. Raise axle with jack and align pins in blocks and axle seat.
STEP 12: Install included 9/16" u-bolts with included hardware. (22mm socket - torque to factory specs)
STEP 13: Install upper leaf spring u-bolts over spring and into blocks with included hardware. (16mm socket - torque to factory specs)
STEP 14: Install rear bump stop bracket (if included) on axle with 3/8" x 3/5" round u-bolt and 3/8" nylock nuts. (9/16" socket)
STEP 15: Install new shock absorbers and secure with factory hardware. (18mm wrench upper - 15mm wrench lower)
STEP 16: Install wheels and tires.
STEP 17: Jack up vehicle to remove jack stands, then lower vehicle to floor.
STEP 18: With vehicle weight on axle, torque u-bolts to 130-150 ft-lbs.
STEP 19: Check all hardware for proper torque.

POST-INSTALLATION

STEP 1: Adjust steering wheel to re-center before driving vehicle.
STEP 2: Check for proper torque on all fasteners. Check steering for proper working order and check for interference. Inspect and test brake system. Check clearance between all rotating, mobile, fixed and hot parts. Check clearance between exhaust and brake lines, fuel tank and lines, wiring harness and floorboards.
STEP 3: Check distance between tire sidewall and the brake hose during full–turn to full-turn steering sweep. Do not skip this step! Any contact may result in component failure. Check rear brake hoses at full extension for proper slack and if needed, purchase longer hoses.
STEP 4: Re-torque u-bolts and other fasteners after first 100 miles, then again after another 100 miles.
STEP 5: Adjust headlights to proper alignment.

MAINTENANCE: After 500 miles, re-torque all fasteners. (Recommended every 1000 miles thereafter) Have all suspension, driveline and steering components inspected buy a certified technician durning routine maintenance (Recommended every 3000 miles)

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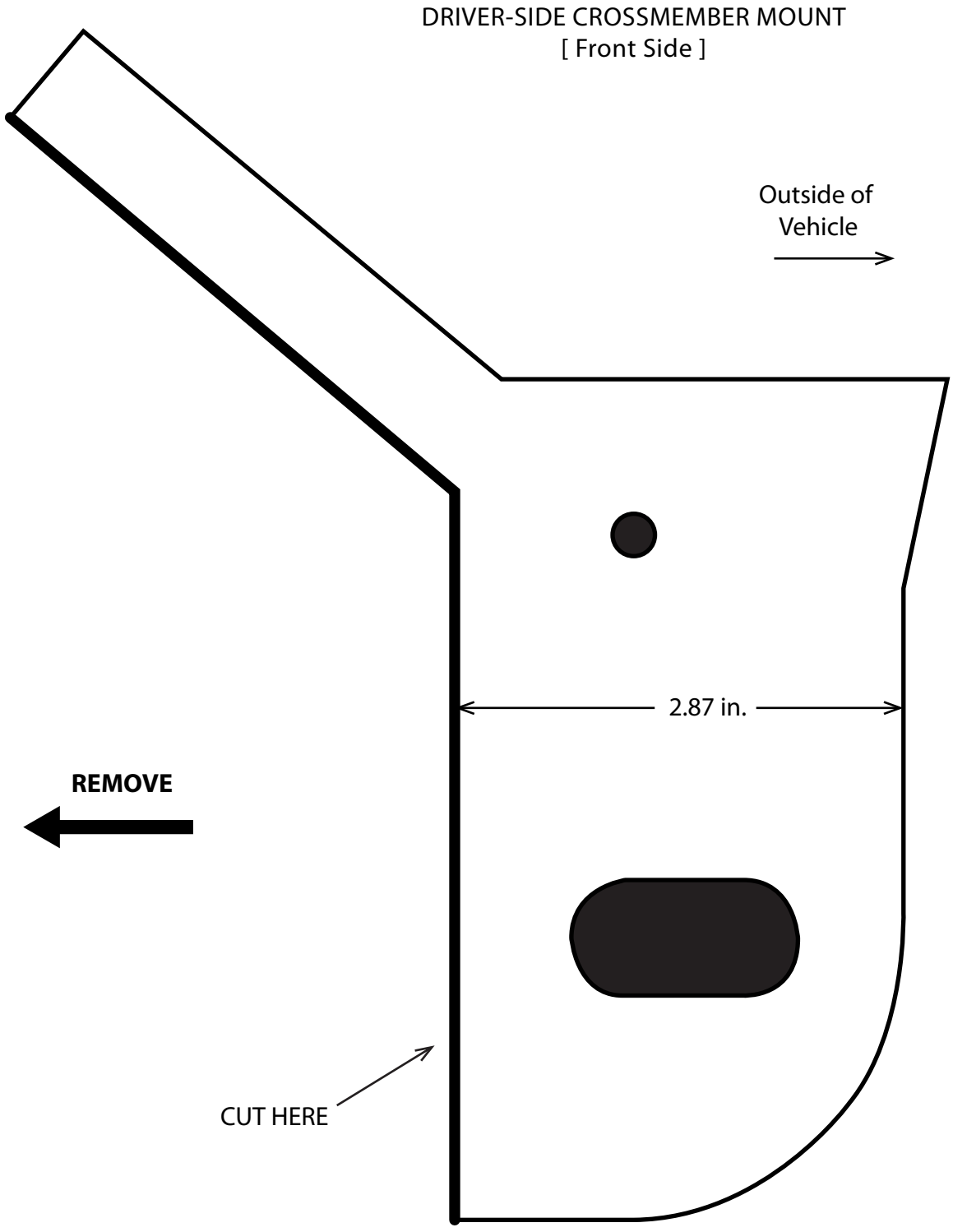
CUTTING TEMPLATE



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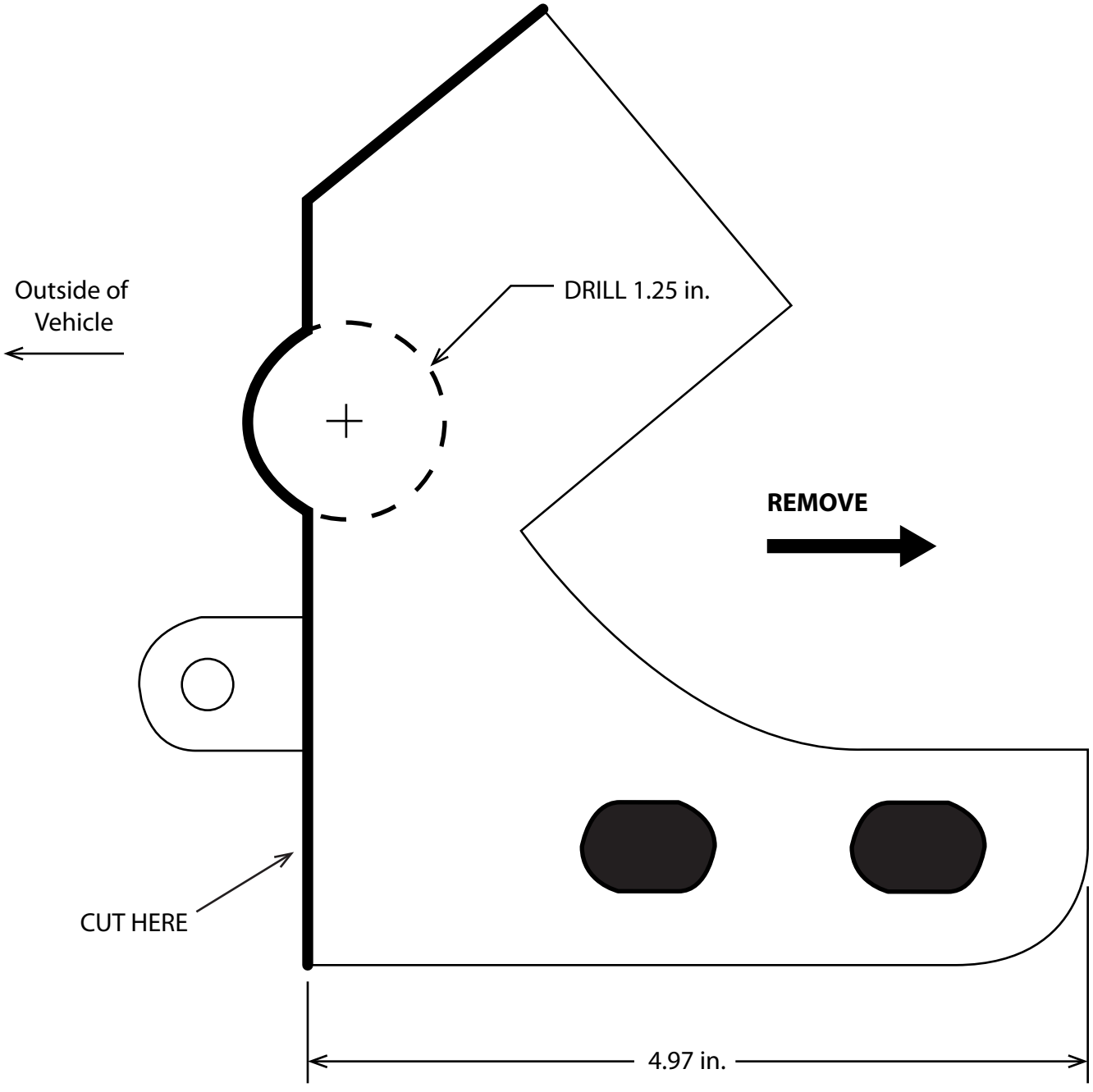
CUTTING TEMPLATE

DRIVER-SIDE CROSSMEMBER MOUNT
[Rear Side]



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HARDWARE PARTS LIST

Front Driver-side Upper and Lower Differential Mount:
2 - 9/16" x 4" Bolt
4 - 9/16" Flat Washers
2 - 9/16" Lock Nut

Front Driver-side Differential Mount:
1 - 9/16" x 4" Bolt
2 - 9/16" Flat Washers
1 - 9/16'" Lock Nut

Rear Crossmember:
2 - 18mm x 150mm Bolts
4 - 18mm Flat Washers
2 - 18mm Lock Nuts

Front Lower Control Arms:
4 - 18mm x 160mm Cam Bolts
4 - 18mm Lock Nuts

Skid Plate:
4 - 3/8" x 1" Bolt
4 - 3/8" Flat Washers

Driveshaft:
6 - 10mm x 85mm Allen Bolts

Front Brake Line Bracket:
2 - 5/16" x 3/4" Bolt
4 - 5/16" Flat Washer
2 - 5/16" Lock Nut

Sway Bar Brackets:
4 - 7/16" x 1" Bolts
8 - 7/16" Flat Washers
4 - Lock Nuts

Front Strut Spacers:
6 - 10mm Self Clinch Studs
6 - 10mm Lock Washer
6 - 10mm Hex Nuts

Rear Brake Line Bracket:
1 - 3/8" x 1" Bolt
2 - 3/8" Flat Washers
1 - 3/8" Lock Nut

Rear E-Brake Bracket:
1 - 7/16" x 1" Bolt
2 - 7/16" Flat Washers
1 - 7/16" Lock Nut
1 - 5/16" x 3/4" Bolt
2 - 5/16" Flat Washers
1 - 5/16" Lock Nut

Rear Blocks:
4 - 9/16" Axle U-Bolts
8 - 9/16" Nuts
8 - 9/16" Flat Washers
4 - 7/16" Spring U-Bolts
8 - 7/16" Nuts
8 - 7/16" Washers

Rear Bump Stop Bracket:
4 - 3/8" Spring U-Bolts
8 - 3/8" Nuts
8 - 3/8" Flat Washers

Differential Tube:
1 - Differential Tube Extension
1 - Tube Coupler