

SOUTHERN TRUCK

Lift your life.

2009-2013 Ford F150 4WD

6" Suspension Lift Kit

25006

2 - Knuckle (Driv/Pass) 2 - Crossmember (Front/Rear)
2 - Differential Bracket (Driv/Pass) 1 - Diff. Brace Bracket (Pass)
2 - Front Brake Line Brackets 2 - Sway Bar Bracket (Driv/Pass)
1 - Front Lower Skid Plate 1 - Rear E-Brake Bracket
1 - Rear Brake Line Bracket 2 - Rear Spacer Blocks
2 - Front Strut Spacers 1 - Driveshaft Spacer
2 - Rear Shock Absorbers

*See back page for complete list of included hardware

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.

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 | 41/64" Drill Bit | 11/32" Drill Bit |
| 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: Jack up front of vehicle so that front wheels are off the ground. Support vehicle with jack stands.

STEP 2: Remove front wheels. (21mm deep well socket)

STEP 3: Remove tie-rod end - hit side of knuckle with hammer to loosen tie-rod. (21mm wrench - save factory hardware)

STEP 4: Remove ABS bracket from knuckle. (8mm socket) Remove brake line bracket. (10mm socket) (Save factory hardware)

STEP 5: Remove caliper bolts, remove brake caliper and hang out of way - do not hang by brake line. (19mm socket and 21mm wrench - save factory hardware) Remove brake rotor.

STEP 6: Remove dust shield bolts. (8mm socket) Remove ABS wire from knuckle. (5mm allen wrench) Disconnect vacuum line.

STEP 7: Pull off axle dust cap with pliers. Remove axle nut. (13mm socket - save factory hardware)

STEP 8: Loosen upper ball joint nut. Tap knuckle with hammer to release balljoint from knuckle (21mm wrench)

STEP 9: Loosen lower ball joint nut. Tap knuckle with hammer to release balljoint from knuckle (24mm wrench)

STEP 10: Remove upper and lower ball joint nuts. Remove knuckle from vehicle. (Save factory hardware)

STEP 11: Remove sway bar links from sway bar. (19mm wrench - save factory hardware)

STEP 12: Remove lower strut nuts. (18mm socket - save factory hardware)

STEP 13: Note exact position of sway bar for reinstallation, then remove sway bar from frame mount. (15mm socket)

STEP 14: Remove lower control arm. (21mm and 1 - 1/16" wrenches - save factory hardware)

STEP 15: Remove strut from upper mount. (15mm wrench - save factory hardware)

STEP 16: Remove four bolts holding lower skid plate and remove it from vehicle. (13mm socket)

STEP 17: Remove driveshaft from front differential. Secure driveshaft out of way. (10mm socket)

STEP 18: Remove stock rear crossmember. (15mm and 18mm socket - save factory hardware)

STEP 19: Tape included cutting template on front and back of driver-side lower crossmember mount. Using template as guide, trim crossmember mount to allow removal of differential.

STEP 20: Remove differential vent tube from differential.

STEP 21: Use floor jack to support differential. Remove upper driver-side differential bolt. (18mm wrench - save factory hardware)

STEP 22: Remove passenger-side differential bolt. (18mm and 21mm wrench - save factory hardware)

STEP 23: Remove lower rear driver-side differential bolt. (21mm socket - save factory hardware)

STEP 24: Remove differential from vehicle by lowering jack.

STEP 25: Finish trimming of crossmember mount using template. Drill 1/4" pilot hole on rear side of crossmember where indicated on template. Finish hole using 5/8" drill bit.

INSTALLATION INSTRUCTIONS *Front (Continued)*

- STEP 26:** Install upper differential drop bracket in driver-side mount location using factory hardware but do not tighten. (Offset toward front of vehicle)
- STEP 27:** Install differential drop bracket in passenger-side mount location using factory hardware but do not tighten. (Offset toward front of vehicle)
- STEP 28:** Install differential in new passenger-side bracket with included hardware. (9/16" x 4" bolt, washers and nut)
- STEP 29:** Swing differential into position to attach in new driver-side upper bracket. (9/16" x 4" bolt, washers and nut from front to rear)
- STEP 30:** Install new rear crossmember and sway bar mounts (passenger and driver side). Insert included 18mm x 160mm bolts through end of sway bar mount and through rear crossmember to secure in factory location. Flat side of sway bar mount should face outside of vehicle. Do not tighten bolt yet.
- STEP 31:** Install passenger-side differential brace on front side of stock crossmember using factory hardware. Do not tighten at this time.
- STEP 32:** Install included 9/16" x 4 1/2" rear differential bolt through sway bar mount and new differential mount. Do not tighten.
- STEP 33:** Reinstall stock sway bar bolts down through original mount holes into new sway bar drop bracket. Do not install nuts at this time, bolts are only to keep bracket aligned while tightening crossmember bolts.
- STEP 34:** Tighten all differential bolts. (Upper bolts: 18mm socket/wrench, Lower: 21mm and 22mm socket/wrench, Passenger-side differential brace: 15mm and 18mm socket/wrench)
- STEP 35:** Reinstall vent tube on differential.
- STEP 36:** Install front crossmember using factory hardware. Do not tighten yet.
- STEP 37:** Install lower control arms using including 18mm x 160mm cam bolts, washers & nuts. Do not tighten yet.
- STEP 38:** Install new skid plate in front and rear crossmembers using included 3/8" x 1" bolts and washers in threaded holes. (9/16" socket)
- STEP 39:** Tighten all upper crossmember bolts. (21mm socket, 1 1/16" socket and 1 1/16" wrench)
- STEP 40:** Tighten sway bar drop brackets to frame using factory hardware. (15mm socket)
- STEP 41:** Install drive shaft spacer and driveshaft using included 10mm x 80mm hardware. (8mm allen wrench)
- STEP 42:** Remove brake line brackets from frame on driver and passenger side. (10mm wrench)
- STEP 43:** Remove brake line from two factory clips on passenger side.
- STEP 44:** Install brake line extension brackets on driver and passenger side. Secure to frame with factory hardware. (10mm wrench)
- STEP 45:** Install factory brake line bracket onto extension bracket on driver and passenger side with included 5/16" x 3/4" bolts, washers and nuts. Pull slightly on driver-side brake line to allow installation. (13mm socket/wrench)
- STEP 46:** Install included 10mm studs into top of strut spacers. (17mm wrench)
- STEP 47:** Install strut spacers on top of strut and secure with factory hardware. (15mm socket)
- STEP 48:** Install strut with strut spacers into stock upper mount with included 10mm nuts, washers and lock washers. Do not tighten yet.
- STEP 49:** Install lower strut in lower control arm with factory hardware. (30mm and 1 1/16" wrenches)
- STEP 50:** Tighten upper strut mount hardware. (9/16" wrench)
- STEP 51:** Install sway bar body on sway bar links on lower control arms. Install nuts to hold sway bar in place, but do not tighten yet.
- STEP 52:** Swing sway bar up and attach to new sway bar drop brackets with included 3/8" x 1" bolts, washers and nuts. Tighten all hardware. (Drop mounts: 9/16" wrench, Link nuts: 18mm wrench)
- STEP 53:** Check fit of brake caliper bolts in new knuckles. If factory bolt is 16mm, mounting holes in knuckle will need to be enlarged. (Enlarge holes with drill and 41/64" drill bit)
- STEP 54:** Remove factory bearing assembly and locking hub mechanism from stock knuckle. (Bearing: 18mm socket, Hub: 8mm socket)
- STEP 55:** Install bearing assembly and locking hub mechanism in new knuckle. (Bearing: 18mm socket, Hub: 8mm socket)
- STEP 56:** Install new knuckles on lower ball joints using factory hardware and tighten, making sure half shafts are installed in bearing assembly. **HAND TOOLS ONLY!** Do not use impact wrench on ball joint. (24mm and 12mm wrenches)
- STEP 57:** Install half shaft axle nut and lightly tighten. **HAND TOOL ONLY!**
- STEP 58:** Install new knuckle on upper ball joints using factory hardware and tighten. **HAND TOOLS ONLY!** Do not use impact wrench on ball joint. (21mm and 10mm wrenches)
- STEP 59:** Reinstall locking hub vacuum hose on hub mechanism. Install ABS wire on bearing assembly. (5mm allen wrench) Do not reinstall factory dust shield.

INSTALLATION INSTRUCTIONS *Front (Continued)*

- STEP 60:** Fully tighten axle nut and install dust cap. (13mm wrench)
- STEP 61:** Install rotor and caliper on knuckle with factory hardware. *Models with 16mm caliper bolts, add two 5/16" washers on head of each caliper bolt before installing. Bolt should not protrude from other side when tightened. (19mm or 21mm wrench)
- STEP 62:** Zip tie vacuum hose and ABS wire to knuckle neck in a safe location.
- STEP 63:** Install tie rod end in knuckle. (21mm and 10mm wrench)
- STEP 64:** Install wheels and tires. (21mm socket) Remove stands and lower vehicle to ground.
- STEP 65:** Tighten lower control arm bolts. (1 1/16" wrench and socket - torque to 200 ft/lbs)

INSTALLATION INSTRUCTIONS *Rear*

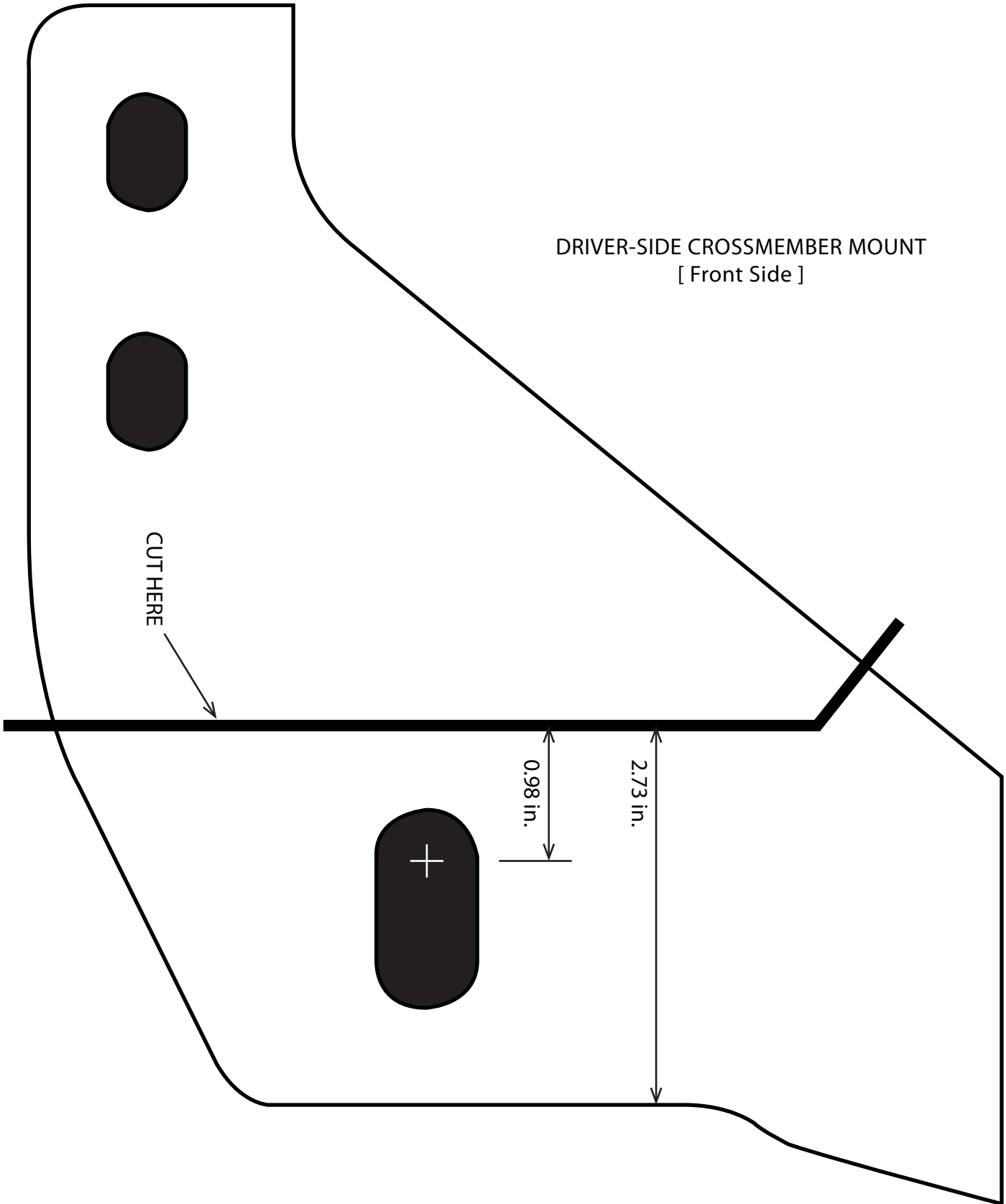
- STEP 1:** Chock front wheels and jack up rear of vehicle. Place jack stands under frame rails.
- STEP 2:** Remove wheels and tires. (21mm socket)
- STEP 3:** Remove factory shock absorbers. (Upper: 18mm wrench - Lower: 15mm wrench - Save factory hardware)
- STEP 4:** Remove brake line assembly on inner 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:** Separate e-brake cables on driver-side and remove e-brake cables from frame mount.
- STEP 8:** On frame, measure and mark 1 5/8" left of original e-brake frame mount and 1 3/8" up from bottom edge of frame.
- STEP 9:** Drill hole at mark using 11/32" drill bit.
- STEP 10:** Install new e-brake bracket in factory location lining up with new hole. Secure with included 7/16" x 1" bolt, washers and nut in factory hole and 5/16" x 3/4" bolt, washer and nut in drilled hole. (19mm and 13mm socket/wrench)
- STEP 11:** Support rear end with jack and remove stock u-bolts. (21mm socket) Remove factory blocks.
- STEP 12:** Lower axle assembly with jack to allow lift block installation. Install new lift blocks between leaf spring and axle. Raise axle with jack and align pins in blocks and axle seat.
- STEP 13:** Secure block to spring with included 7/16" u-bolts. (16mm socket)
- STEP 14:** Install included 9/16" u-bolts with supplied hardware. (22mm 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:** Install e-brake cable in new mount and reattach e-brake cables on frame.
- STEP 20:** 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 by a certified technician during routine maintenance (Recommended every 3000 miles)

CUTTING TEMPLATE

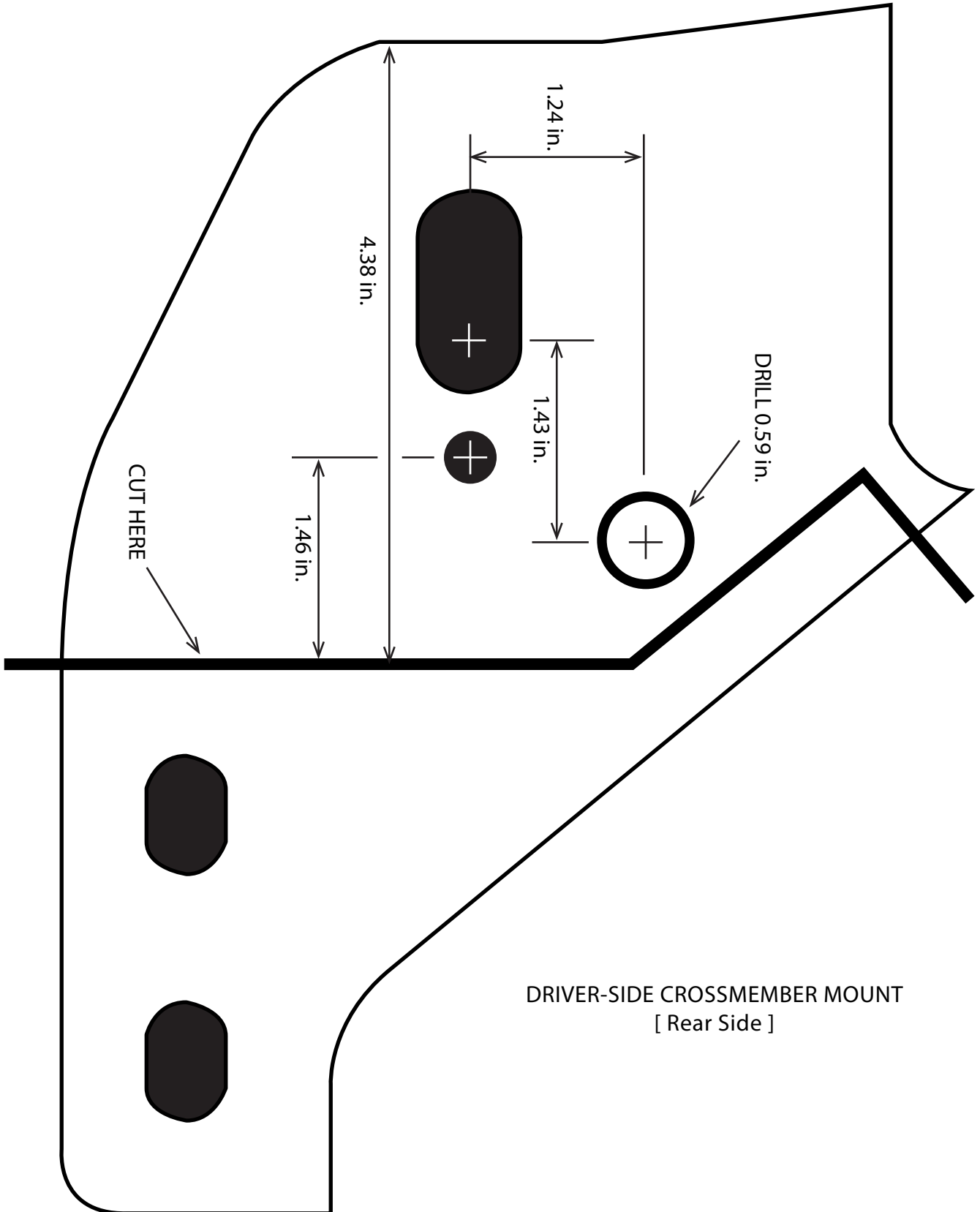


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CUTTING TEMPLATE



DRIVER-SIDE CROSSMEMBER MOUNT
[Rear Side]

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 1/2" Bolt
- 2 - 9/16" Flat Washers
- 1 - 9/16" Lock Nut

Rear Crossmember:

- 2 - 18mm x 160mm Bolts
- 4 - 18mm Flat Washers
- 2 - 18mm Lock Nuts

Front Lower Control Arms:

- 4 - 18mm x 160mm Cam Bolts
- 4 - Flat Washers
- 4 - 18mm Lock Nuts

Skid Plate:

- 4 - 3/8" x 1" Bolt
- 4 - 3/8" Flat Washers

Front Strut Spacers:

- 6 - 3/8" Self Clinch Studs
- 6 - 3/8" Lock Washer
- 6 - 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

Driveshaft:

- 6 - 10mm x 80mm Allen Bolts

Rear Blocks:

- 4 - 9/16" Axle U-Bolts
- 8 - 9/16" Nuts
- 8 - 9/16" Flat Washers
- 4 - 3/8" Spring U-Bolts
- 8 - 3/8" Nuts
- 8 - 3/8" Flat Washers

Rear Spring U-Bolts:

- 4 - 7/16" x 3" U-Bolts
- 8 - 7/16" Nuts
- 8 - 7/16" Washers

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 - 3/8" x 1" Bolts
- 8 - 3/8" Flat Washers
- 4 - Lock Nuts

16mm Caliper Bolts (if equipped):

- 4 - 5/16" thick washers

