

CLAYTON OFF ROAD

COR-4804321

**JEEP GRAND CHEROKEE PRO SERIES 3 LINK LONG ARM UPGRADE KIT
(1993-1998, ZJ)**



NOTES: This product requires general welding, fabrication and automotive mechanic skills. Welding should only be done by a competent welder. Clayton Off Road implies no guarantees or warranties and is not liable for improper installation. Some grinding and fitment may be required when installing this product. Every vehicle varies slightly and some fabrication may be required. For more information please visit our web site.

Refer to individual product part number instructions.

Step 1: Install part number COR-2104613 3 piece cross member.

Step 2: Install part number COR-2204110 rear frame brackets.

Step 3: Install part number COR-2204210 uni-body frame rails.

Step 4: Install part number COR-1100106, 3-link bridge, COR-1130100 or COR-1130101 3-link truss on front axle.

Step 5: Remove front upper and lower control arms.

Step 6: Remove lower control arm brackets on frame side.

Step 7: Install part number COR-1900301 front lower control arms.

Step 8: Install part number COR-1900007 front upper control arm.

Step 9: Install part number COR-1200010 4 link rear axle truss.

Step 10: Remove rear upper and lower control arms.

Step 11: Remove lower control arm brackets on frame side.

Step 12: Install part number COR-1900302 rear lower control arms.

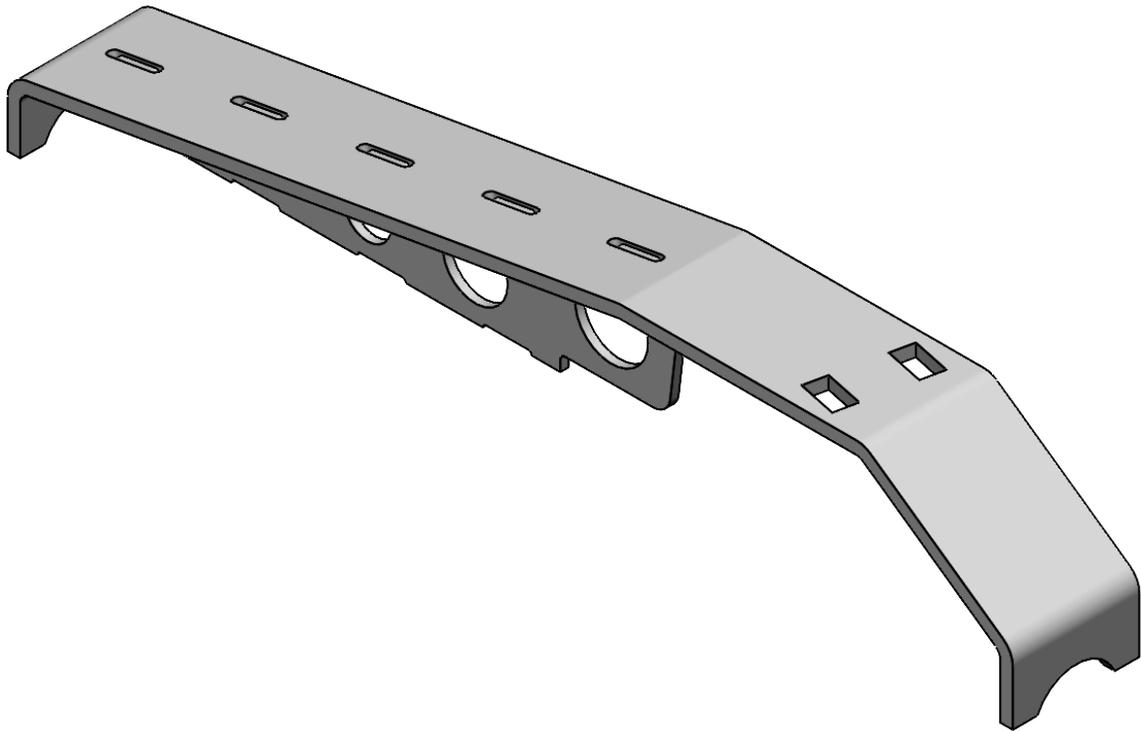
Step 13: Install part number COR-1900102 rear upper control arms.

Notes: All final adjustments and tightening of hardware should be done with the vehicle sitting at ride height. Care should be taken to set caster and track without binding up the suspension.

There maybe some contact with the upper front and rear control arms and the uni-body under full compression of the suspension. The uni-body will conform to the control arm with no effect to the floor boards inside the vehicle.

There maybe some slight contact with the 3-link bridge or truss a under full compression of the suspension. Please be sure to check for this and make adjustments to the axle position or install a 3.5" to 4" bump stop.

**CLAYTON OFF ROAD
COR-1130101
JEEP WRANGLER DANA 44 TRUSS (1997-2006,TJ/LJ)**



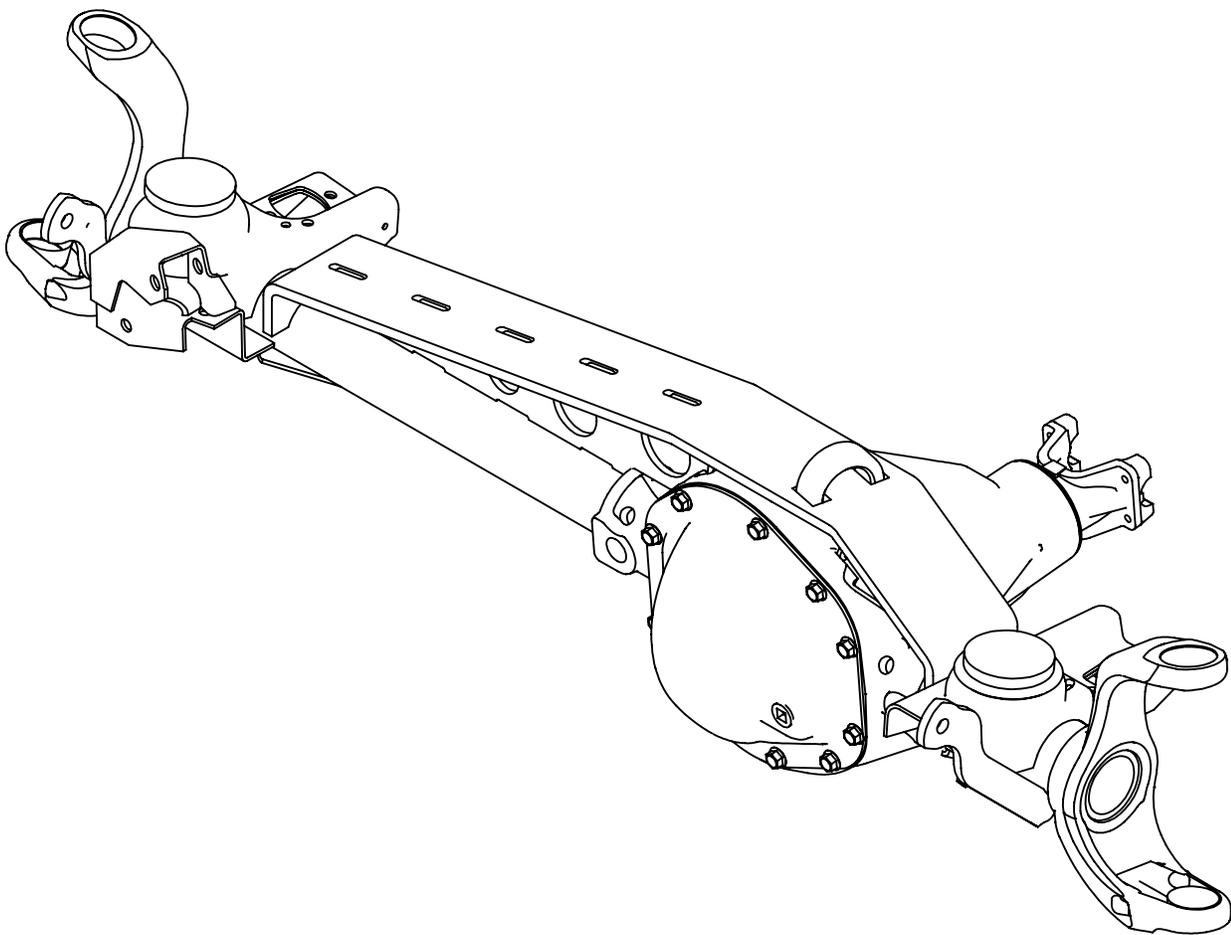
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Refer to picture below.

Step 1: Remove axle from vehicle.

Step 2: Remove passenger side upper control arm mount.

Step 3: Remove drive side upper control arm bushing.



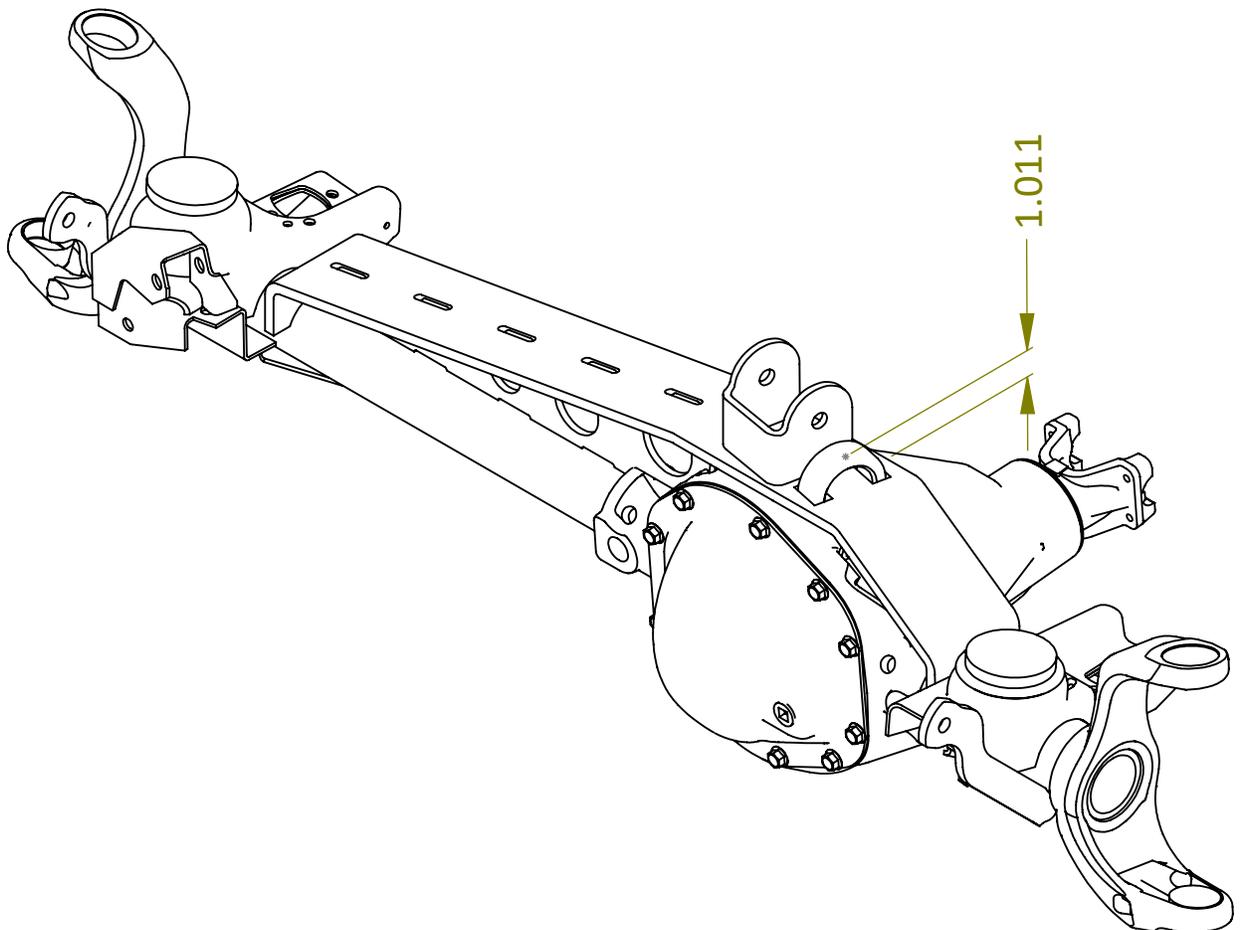
Refer to picture below.

Step 4: Trim driver side upper control arm mount so that you have 2 posts that fit into the 2 cut outs in the top of the truss about an 1/8" below the top of the truss.

Step 5: Bevel the truss where the axle tube goes so it clears the welds on the spring perch.

Step 6: Test fit the truss and gusset on the axle. It maybe necessary to clamp it down so the gusset fits tight to the axle tube.

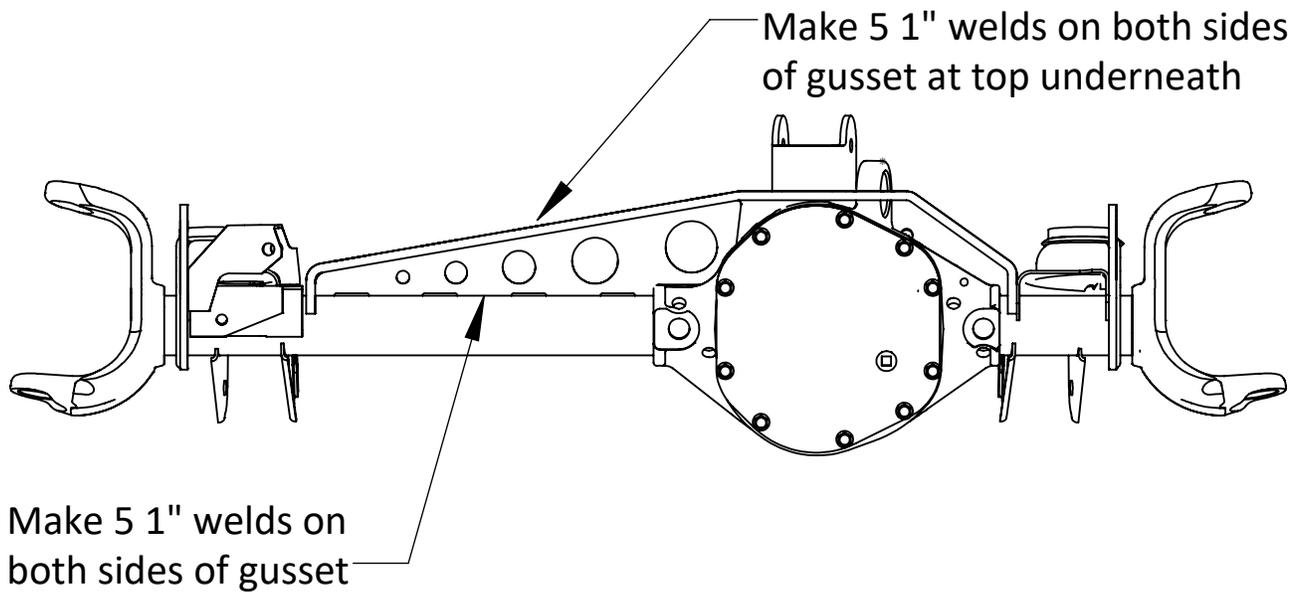
Note: This is a rough dimensions to use for trimming the mount. The 1.011" dimension is from the top of the mount to the top of the truss. Remember the post should be an 1/8" below the top of the truss for welding.



Refer to picture below.

Step 8: Make 5 1" welds along gusset to axle tube on both sides.

Step 9: Make 5 1" welds along top of gusset on both sides.



Refer to picture below.

Step 10: Weld 3 keyways.

Step 11: Weld 2 posts into cut outs.

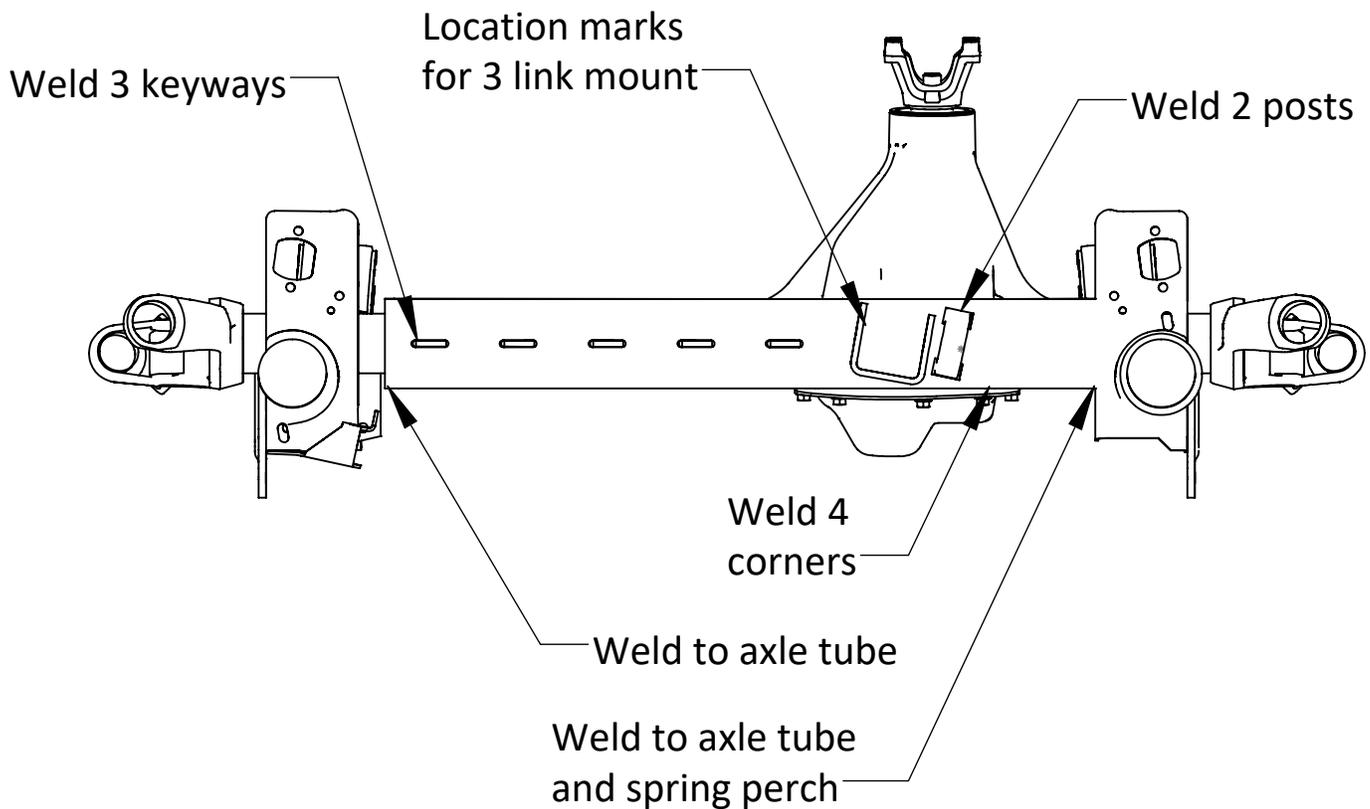
Step 12: Weld truss to axle tubes and spring perches.

Step 13: Weld 4 corners of the truss.

Step 14: Weld optional 3 link mount part number COR-1130110 to truss on all sides inside and out.

Step 15: Paint axle.

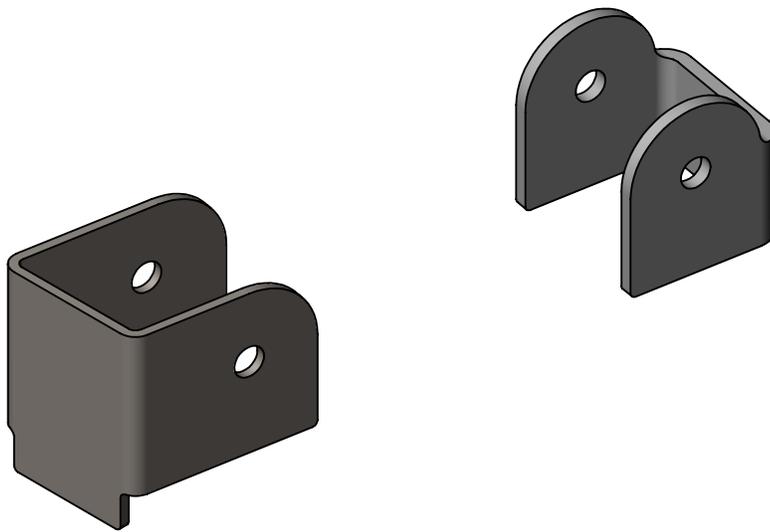
Step 16: Install axle in vehicle.



CLAYTON OFF ROAD

COR-1130300

JEEP CHEROKEE & GRAND CHEROKEE 3-LINK MOUNT KIT (1984-2001 XJ,ZJ)



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2104613 Jeep Grand Cherokee Front 3 Piece Cross Member (1996-1998 ZJ)

Step 1: Locate 3-link cross member bracket as shown below.

Step 2: Check fit of control arm in bracket.

Step 3: Tack bracket in place.

Step 4: Weld bracket in place on 3 sides.

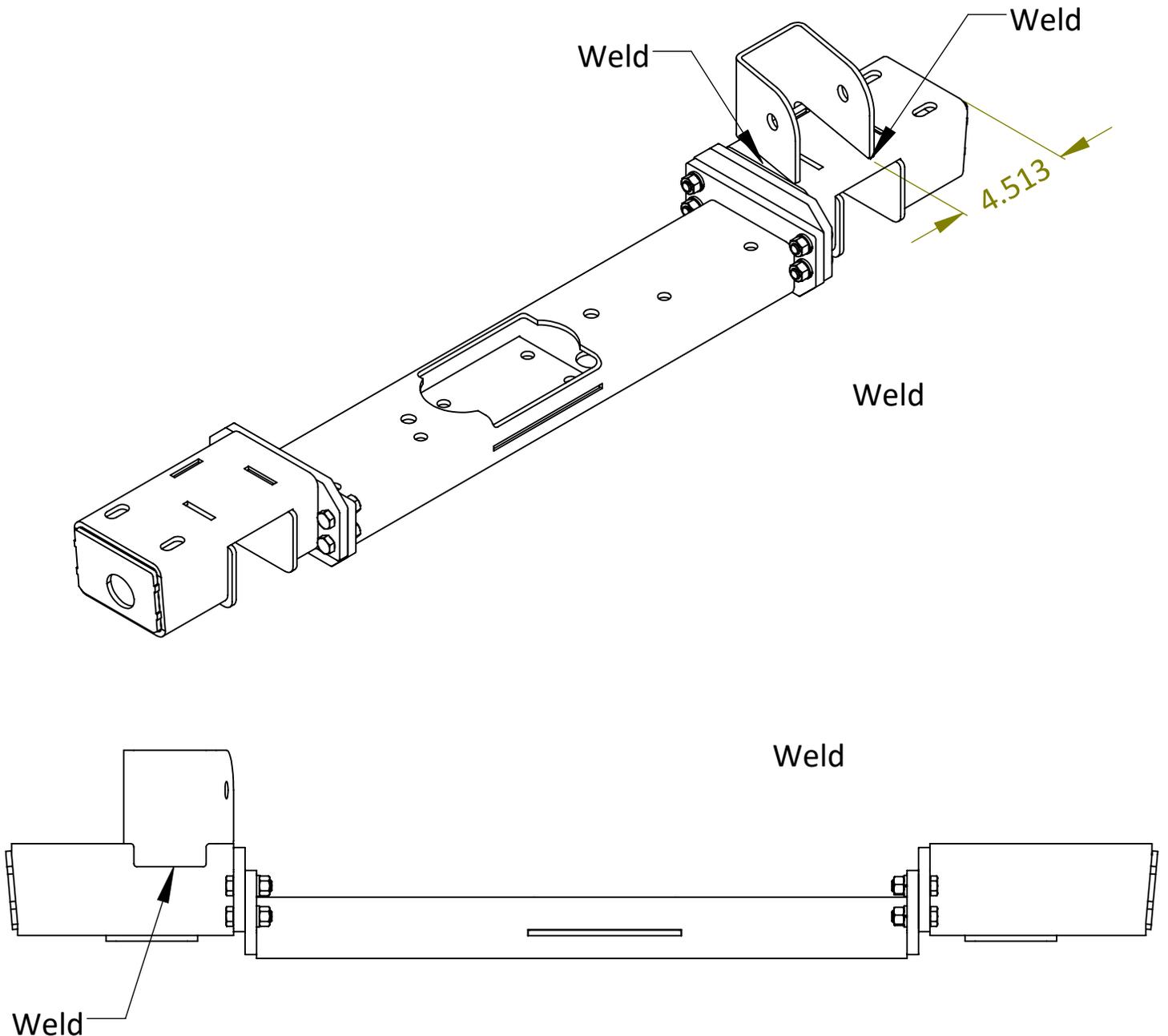
Step 5: Install cross member refer to instructions for part number 2104613.

Step 6: Locate 3-link axle bracket on optional part numbers 1100106 bridge , 1130100, 1130101 trusses or axle housing.

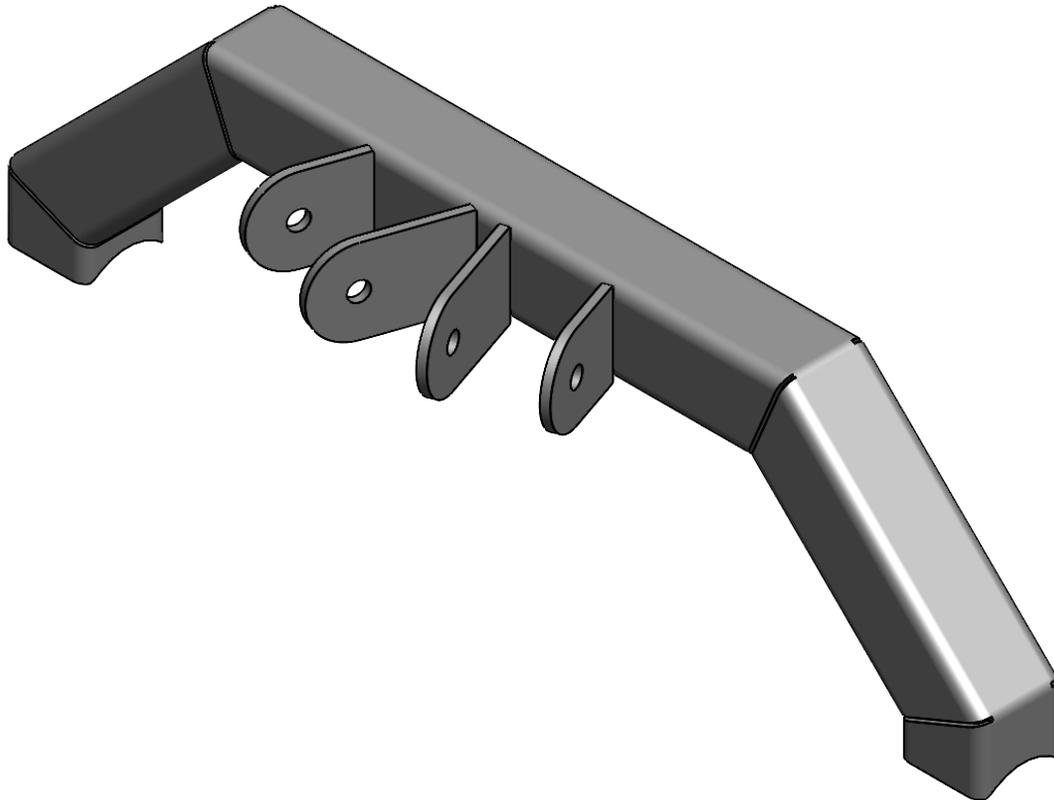
Step 7: Check fit of control arm in bracket.

Step 8: Tack bracket in place.

Step 9: Weld bracket in place on 3 sides.



**CLAYTON OFF ROAD
COR-1200010
4 LINK AXLE TRUSS (1984-2006 TJ/LJ/XJ/ZJ)**



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Refer to drawing for specific vehicle for truss angle.

Step 1: Remove axle from vehicle.

Step 2: Remove old upper control arm mounts.

Step 3: Move brake lines out of the way.

Step 4: Clean axle tubes for welding.

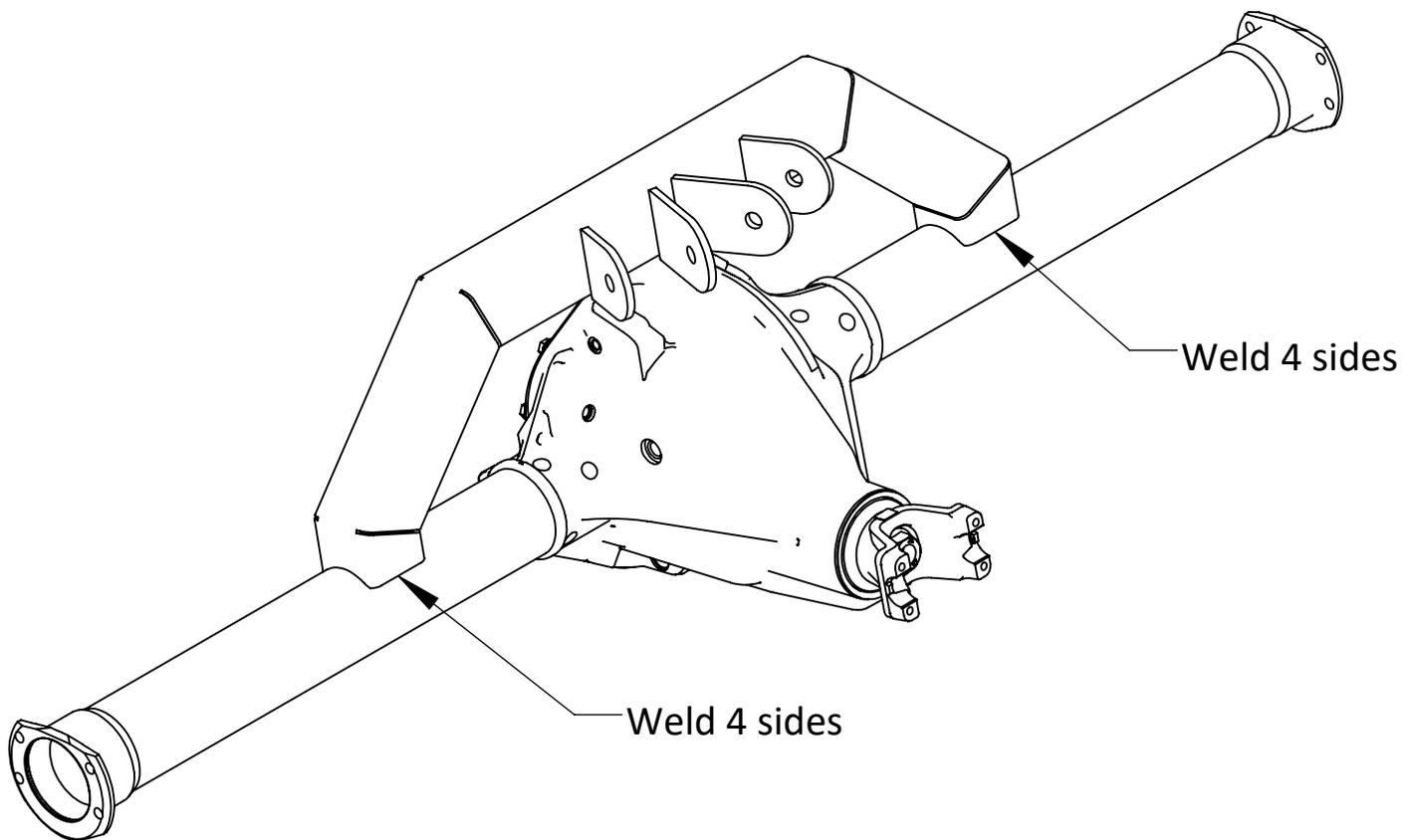
Step 5: Center axle truss on axle at proper angle.

Step 6: Tack weld four corners of truss.

Step 7: Weld as indicated.

Step 8: Paint axle and truss.

Step 9: Install axle in vehicle.



JEEP GRAND CHEROKEE 1993-1998 ZJ

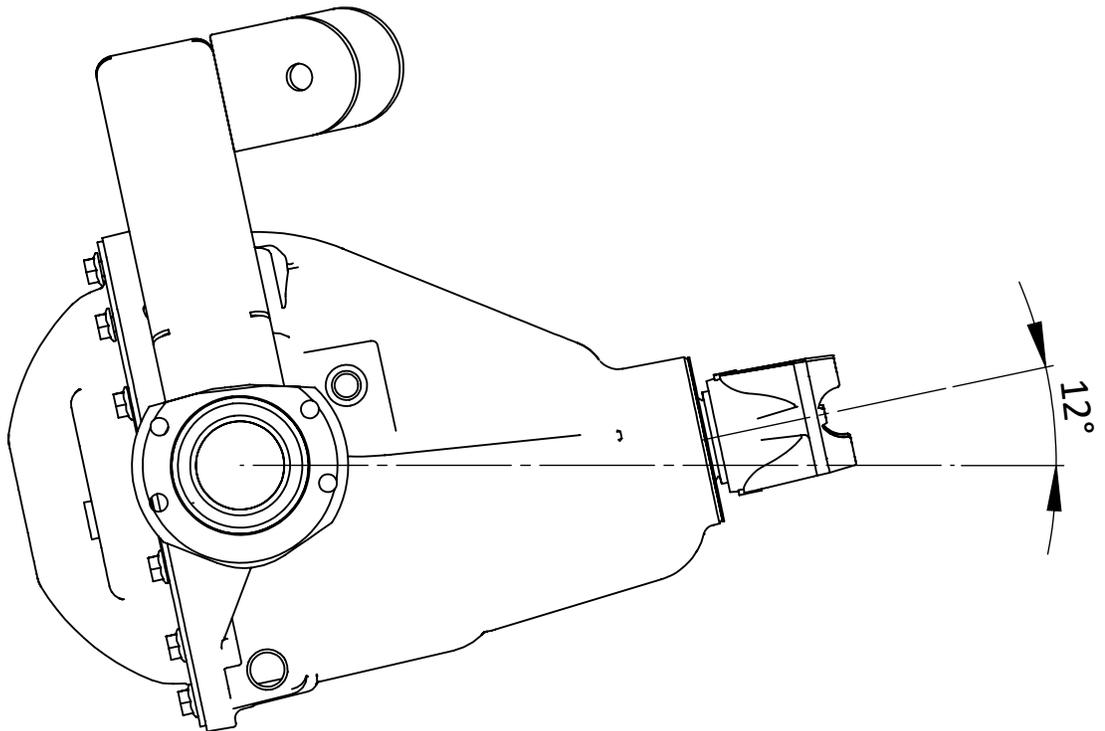
Standard setup 5" - 7" of lift.

SYE kit.

Approx. 12 degree pinion angle low pinion.

Approx. 7 degrees pinion angle high pinion.

Truss angle is parallel to differential cover face or perpendicular to pinion angle.



**CLAYTON OFF ROAD
COR-1900007
JEEP PRO SERIES FRONT UPPER CONTROL ARM (1984-2004 TJ/LJ/XJ/ZJ)**



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Refer to drawing view below.

Step 1: Support axle from pivoting on lower control arms. (A bottle jack works well)

Step 2: Make sure vehicle is at ride height and track is set.

Step 3: Install new upper control arm using new hardware.

Step 4: This arm has left and right hand threads for easy adjustment.

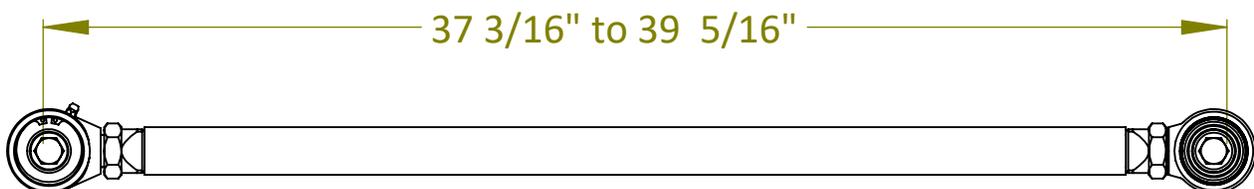
Step 5: Adjust caster angle to specifications below by turning the control arm tube.

Step 6: Tighten bolts.

Step 7: Tighten jam nuts. (We recommend a 1 7/16" combination wrench for this. We also recommend cutting the box end off the wrench and getting a three foot piece pipe to put over the end of the wrench for leverage. Inserting a large screw driver between the joint body and the mount will hold the housing joint straight.)

Step 8: The joints are pre greased so initial greasing is not required. (We do recommend greasing the joints every time you change your oils or grease other components on your vehicle. Use a hand grease gun not a pneumatic grease gun.)

We recommend a caster angle on the drivers side to be between 5 and 6 degrees. (Top of the inner knuckle tipped towards the rear of the vehicle)
In certain cases caster angles as low as 3 to 4 degrees are possible to get better drive shaft angles however this may effect the handling of the vehicle.
Too much caster change from the factory settings may also cause the coil springs to bow and effect clearances on the steering linkages. Keep length within the minimum and maximum lengths shown below.



**CLAYTON OFF ROAD
COR-1900102
JEEP LONG REAR UPPER CONTROL ARMS (TJ/LJ/ZJ/WJ 1993-2006)**



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Refer to drawing view below.

Step 1: Set both arms as close to recommended length as possible with grease fittings lined up.

Step 2: Set desired pinion angle. (1 to 2 degrees down is recommended for CV style drive shafts, a bottle jack works well for this.)

Step 3: Center chassis over axle. (Ratchet straps work well for this.)

Step 4: Install one arm at frame end with grease fittings up.

Step 5: Adjust the length of the arms so that you can easily get the bolt in at the axle end with the grease fitting up.

Step 6: The center ball of the Johnny Joint may need to be aligned for the bolt to get the bolt to go in easily.

Step 7: Repeat steps 4 and 6 on other side.

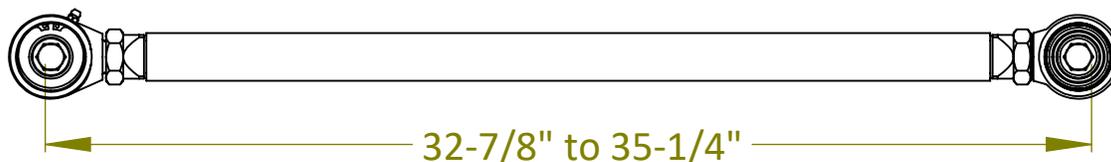
Step 8: Tighten bolts after vehicle is sitting at ride height.

Step 9: Tighten jam nuts. (We recommend a 1 7/16" combination wrench for this. We also recommend cutting the box end off the wrench and getting a three foot piece pipe to put over the end of the wrench for leverage. Inserting a large screw driver between the joint body and the mount will hold the housing joint straight.)

Step 10: The joints are pre greased so initial greasing is not required. (We do recommend greasing the joints every time you change your oils or grease other components on your vehicle. Use a hand grease gun not a pneumatic grease gun.)

Recommended control arm length for 4.0" to 7.0" of lift is 34".

Some adjustment of this measurement maybe performed for special applications as long as the length stays within the minimum and maximum lengths shown below.



**CLAYTON OFF ROAD
COR-1900301**

JEEP PRO SERIES LONG FRONT LOWER CONTROL ARMS (1984-2006 TJ/LJ/XJ/ZJ)



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Refer to drawing view below and individual product part number instructions.

Step 1: Set one arm as close to recommended length as possible with grease fitting down.

Step 2: Set second arm to same length with grease fitting down. (Use two 9/16" bolts in each end of both arms.)

Step 3: Bolt control arm into cross member.

Step 4: Bolt control arm into axle.

Step 5: Repeat steps 3 and 4 on other side.

Step 6: Tighten bolts after vehicle is sitting at ride height.

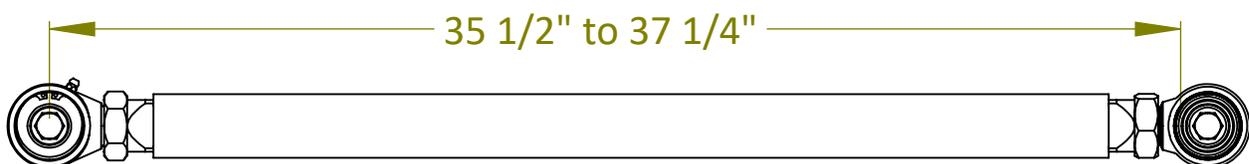
Step 7: Tighten jam nuts. (We recommend a 46 mm or 1 13/16" combination wrench for this. We also recommend cutting the box end off the wrench and getting a three foot piece pipe to put over the end of the wrench for leverage. Inserting a large screw driver between the joint body and the mount will hold the housing joint straight.)

Step 8: The joints are pre greased so initial greasing is not required. (We do recommend greasing the joints every time you change your oils or grease other components on your vehicle. Use a hand grease gun not a pneumatic grease gun.)

Step 9: Remove grease fittings and install set screws.

Recommended control arm length for 4.0" to 7.0" of lift is 36".

Some adjustment of this measurement maybe performed for special applications as long as the length stays within the minimum and maximum lengths shown below.



**CLAYTON OFF ROAD
COR-1900302**

JEEP PRO SERIES LONG REAR LOWER CONTROL ARMS (1984-2006 TJ/LJ/ZJ)



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Refer to drawing view below and individual product part number instructions.

Step 1: Set one arm as close to recommended length as possible with grease fitting down.

Step 2: Set second arm to same length with grease fitting down. (Use two 9/16" bolts in each end of both arms.)

Step 3: Bolt control arm into rear bracket.

Step 4: Bolt control arm into axle.

Step 5: Repeat steps 3 and 4 on other side.

Step 6: Tighten bolts after vehicle is sitting at ride height.

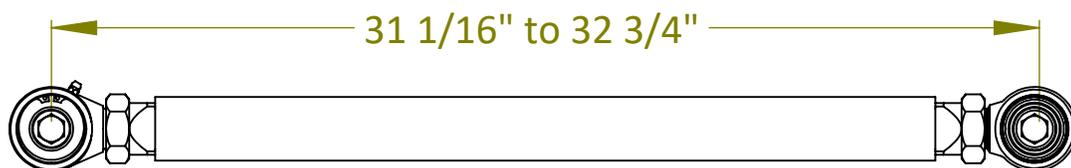
Step 7: Tighten jam nuts. (We recommend a 46 mm or 1 13/16" combination wrench for this. We also recommend cutting the box end off the wrench and getting a three foot piece pipe to put over the end of the wrench for leverage. Inserting a large screw driver between the joint body and the mount will hold the housing joint straight.)

Step 8: The joints are pre greased so initial greasing is not required. (We do recommend greasing the joints every time you change your oils or grease other components on your vehicle. Use a hand grease gun not a pneumatic grease gun.)

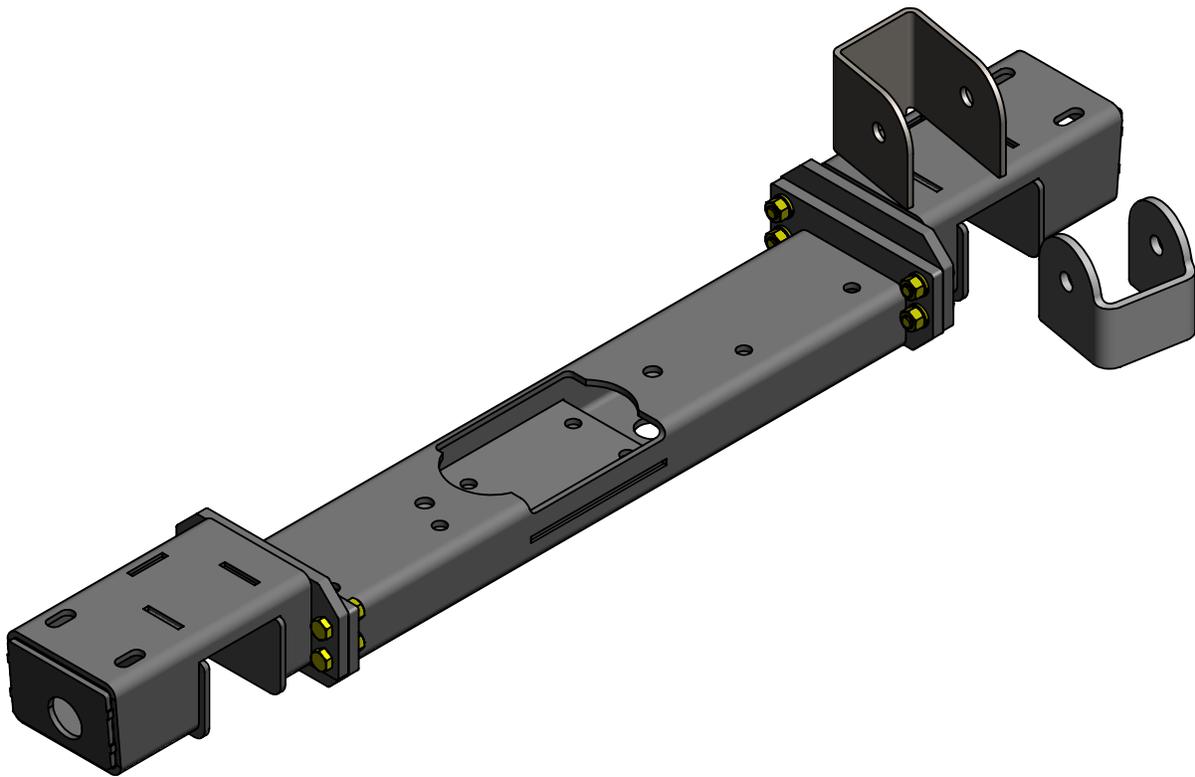
Step 9: Remove grease fittings and install set screws.

Recommended control arm length for 4.0" to 7.0" of lift is 31.5".

Some adjustment of this measurement maybe performed for special applications as long as the length stays within the minimum and maximum lengths shown below.



**CLAYTON OFF ROAD
COR-2104613
JEEP GRAND CHEROKEE FRONT 3-LINK 3 PIECE CROSS MEMBER (1993-1998, ZJ)**



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Refer to drawing views.

Step 1: Assembly cross member as shown.

Step 2: If you have a 96-98 model year slide transmission mount into cross member and weld in place using the slots in the cross member. Be sure to lineup with the access holes in cross member.

Step 3: If installing a 3-link system refer to part number 1130300 instructions.

Step 4: Support vehicle drive line.

Step 5: Remove old cross member.

Step 6: Clean frame for welding.

Step 7: Lightly bolt new cross member into place.

Step 8: Square and center cross member.

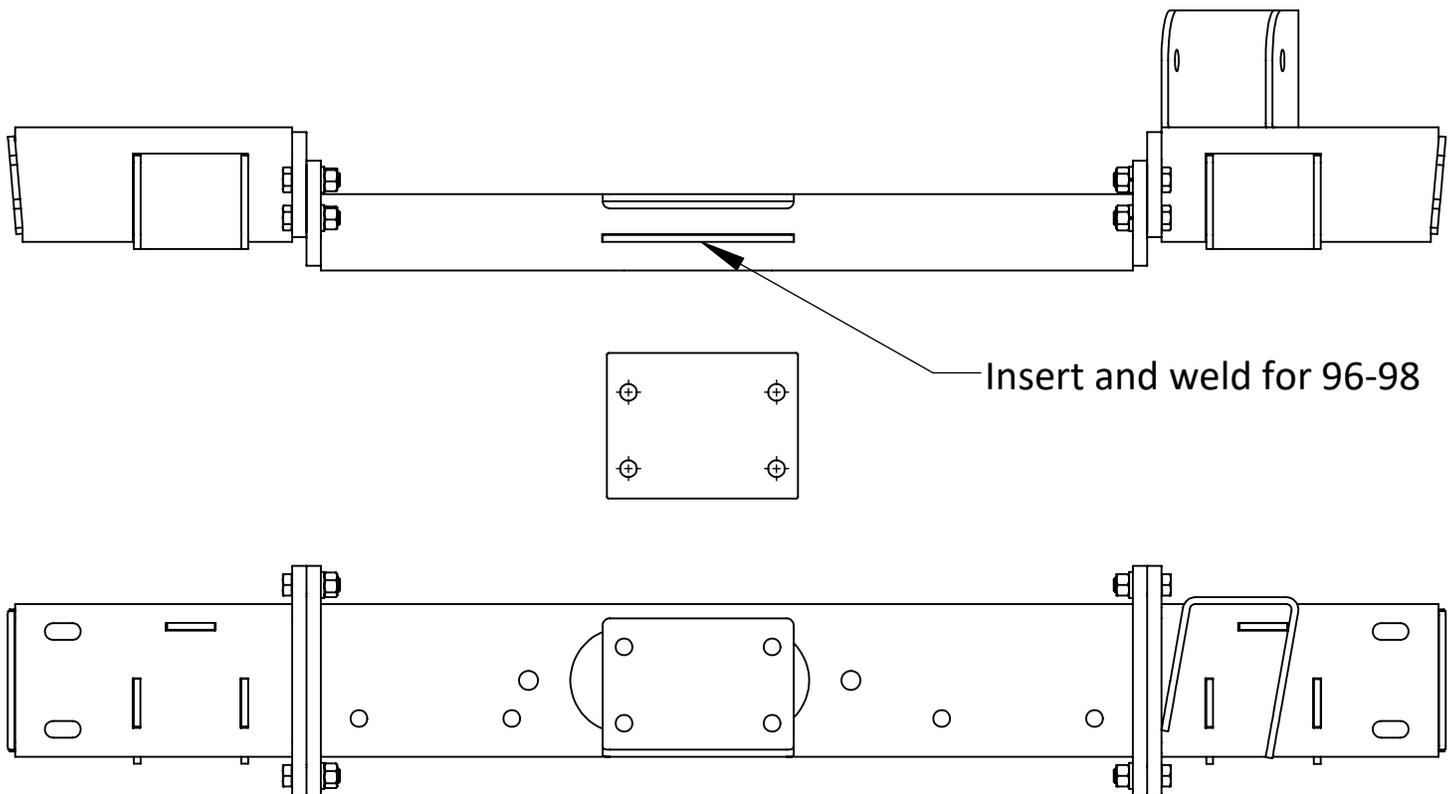
Step 9: Tighten bolts.

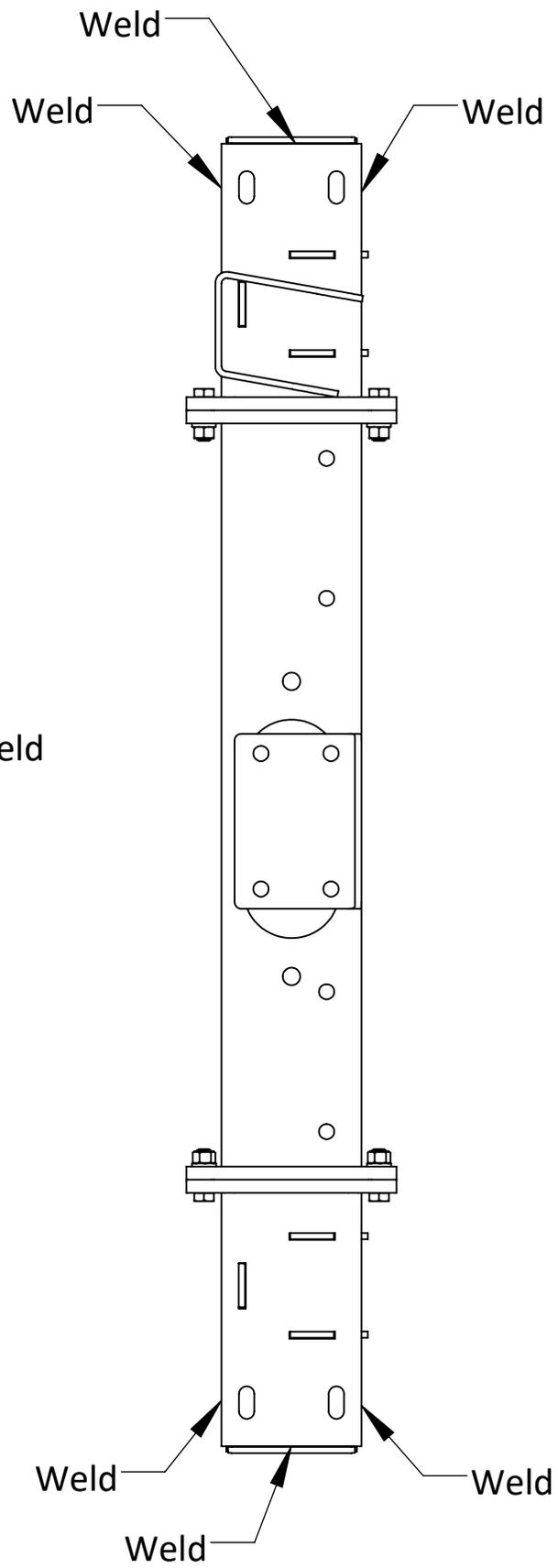
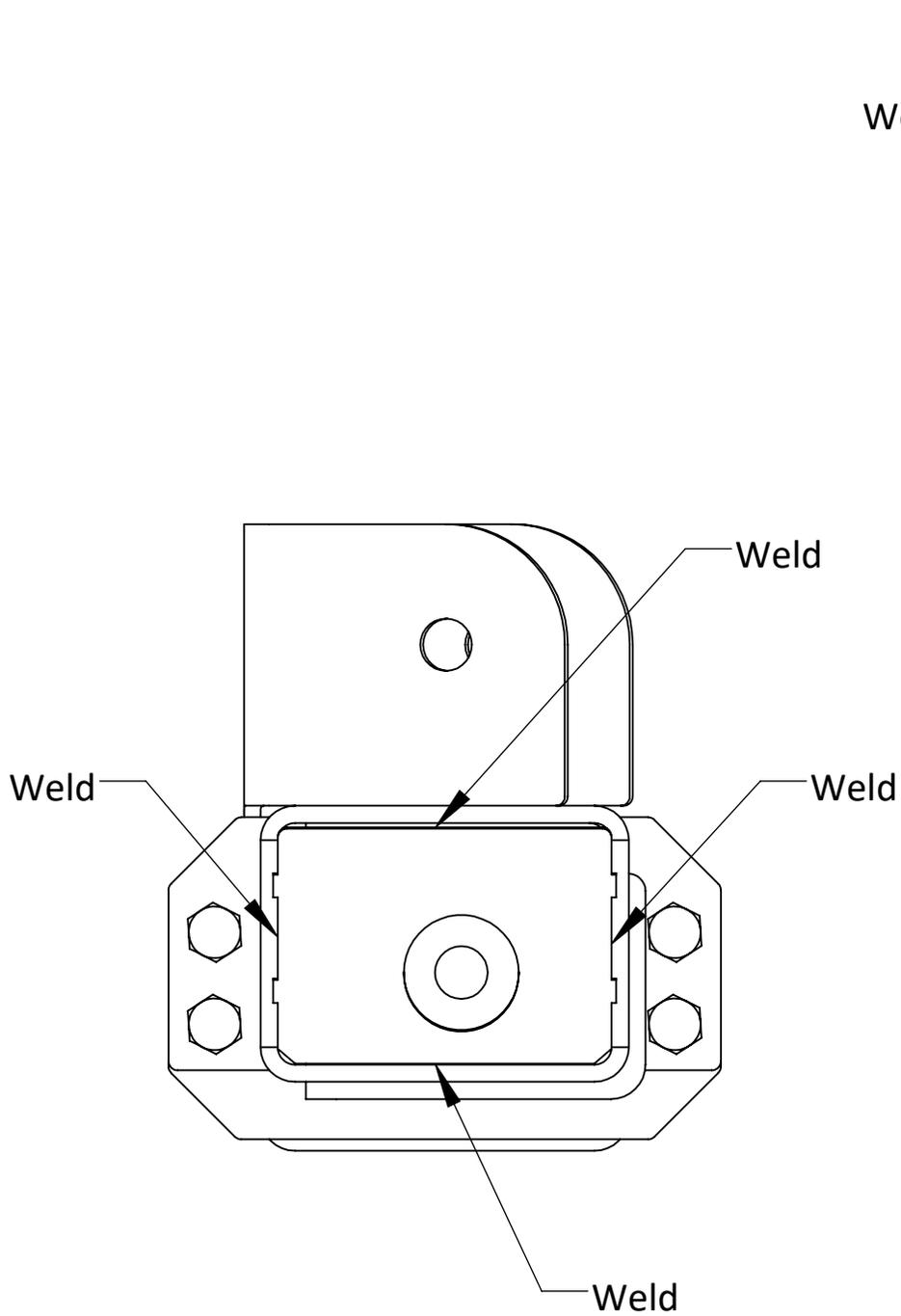
Step 10: Weld both sides along the front, back & end.

Step 11: Bolt transmission mount in.

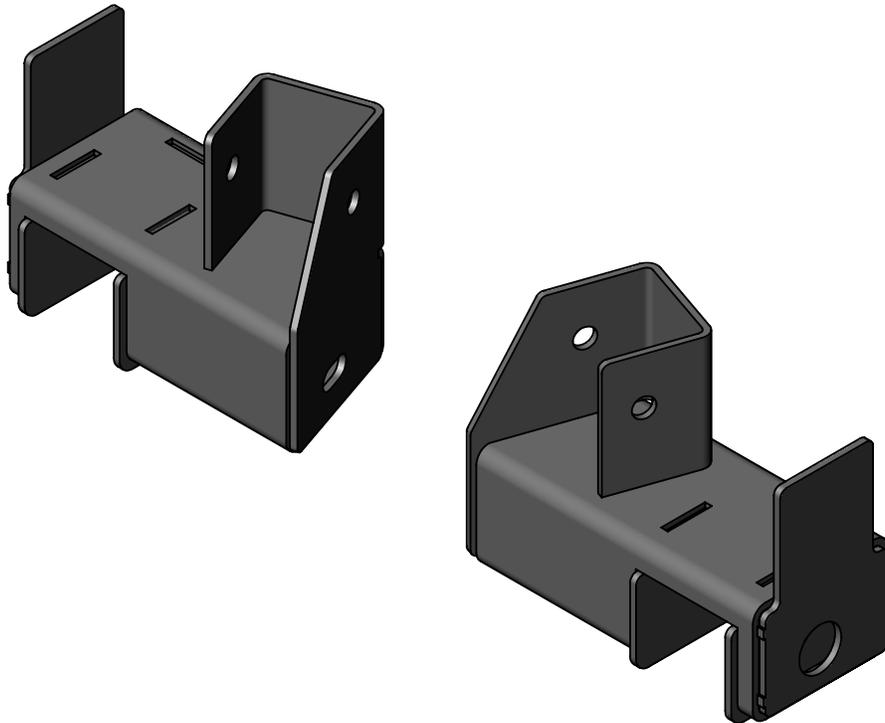
Step 12: Weld end caps on with access holes aligned.

Step 13: Paint cross member.





**CLAYTON OFF ROAD
COR-2204110
JEEP GRAND CHEROKEE REAR FRAME BRACKETS (1993-1998, ZJ)**



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Refer to drawing views.

Step 1: Install part number COR-2104310 or COR-2104610 3 piece cross member.

Step 2: Clean frame for welding.

Step 3: Locate brackets according to dimensions given. Wood blocks and a bottle jack work well for holding the brackets in place.

Step 4: Check fitment of ZJ uni-body sub frame rails. Leaving about 1/8" gap is helpful during the install.

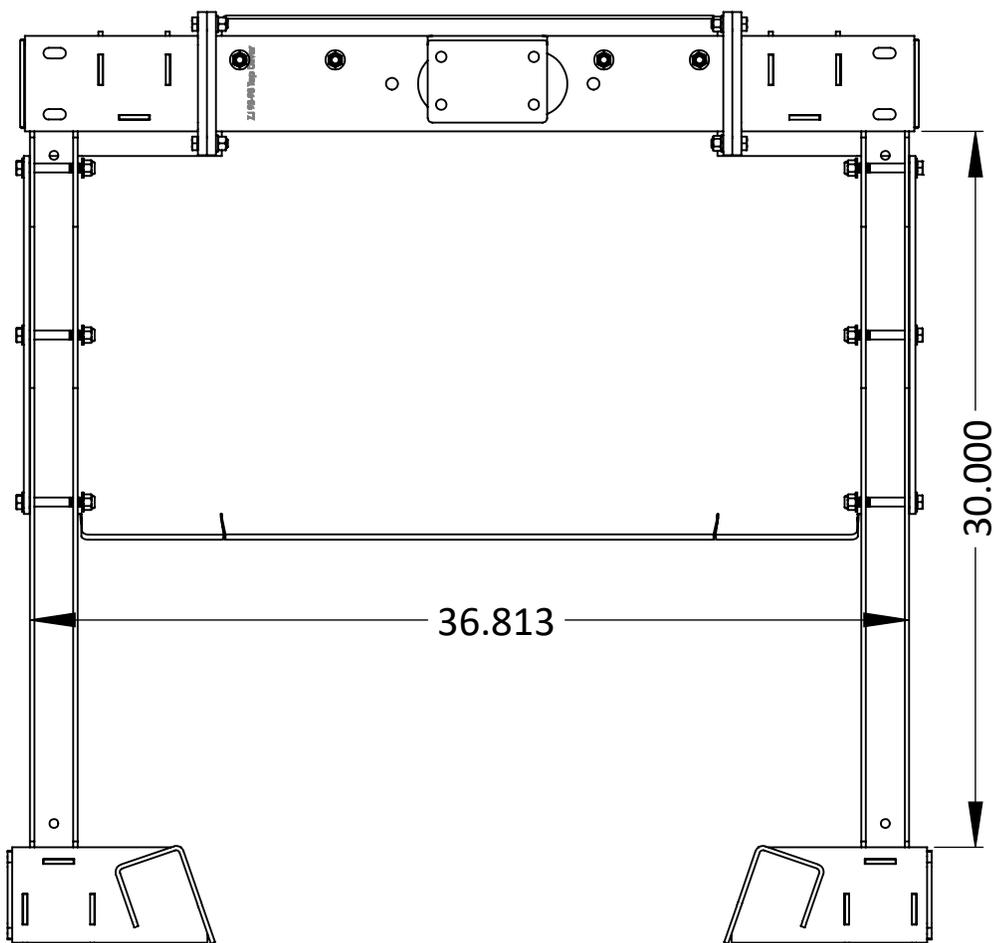
Step 5: Tack weld 4 corners of brackets.

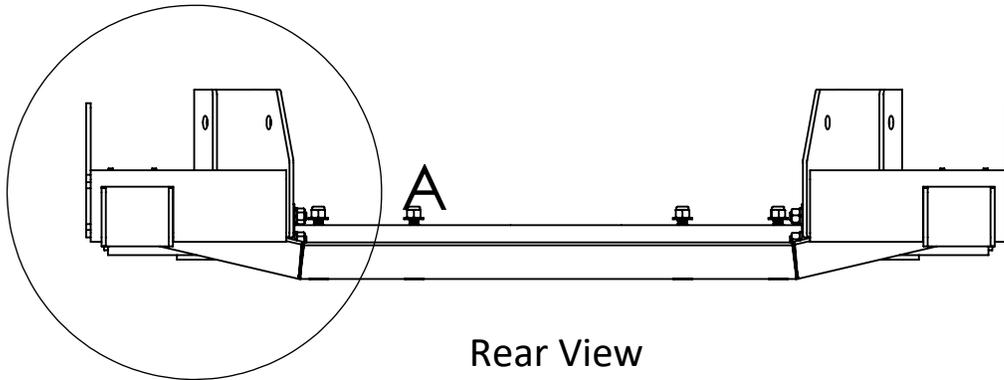
Step 6: Weld around all 4 sides of the bracket.

Step 7: Paint frame brackets.

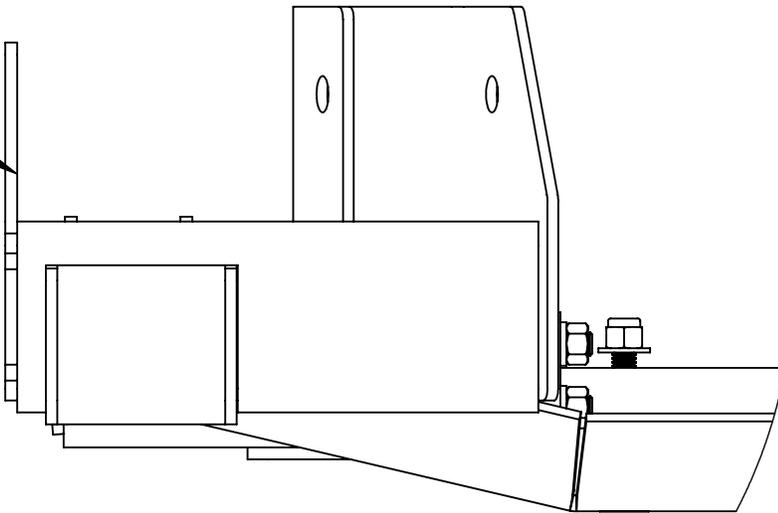
Note: It is possible to use these brackets without part number COR-2104310 or COR-2104610 and measure from the stock cross member. We recommend using part number

COR-2204210 to reinforce the brackets.



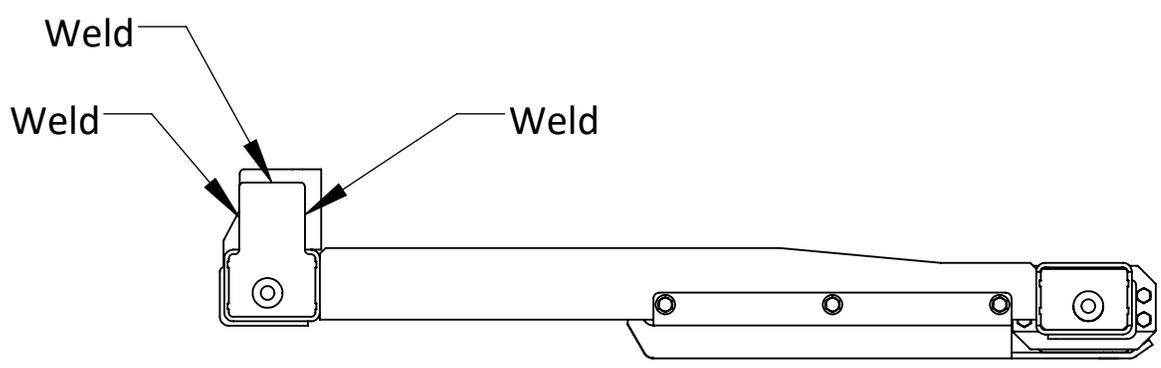
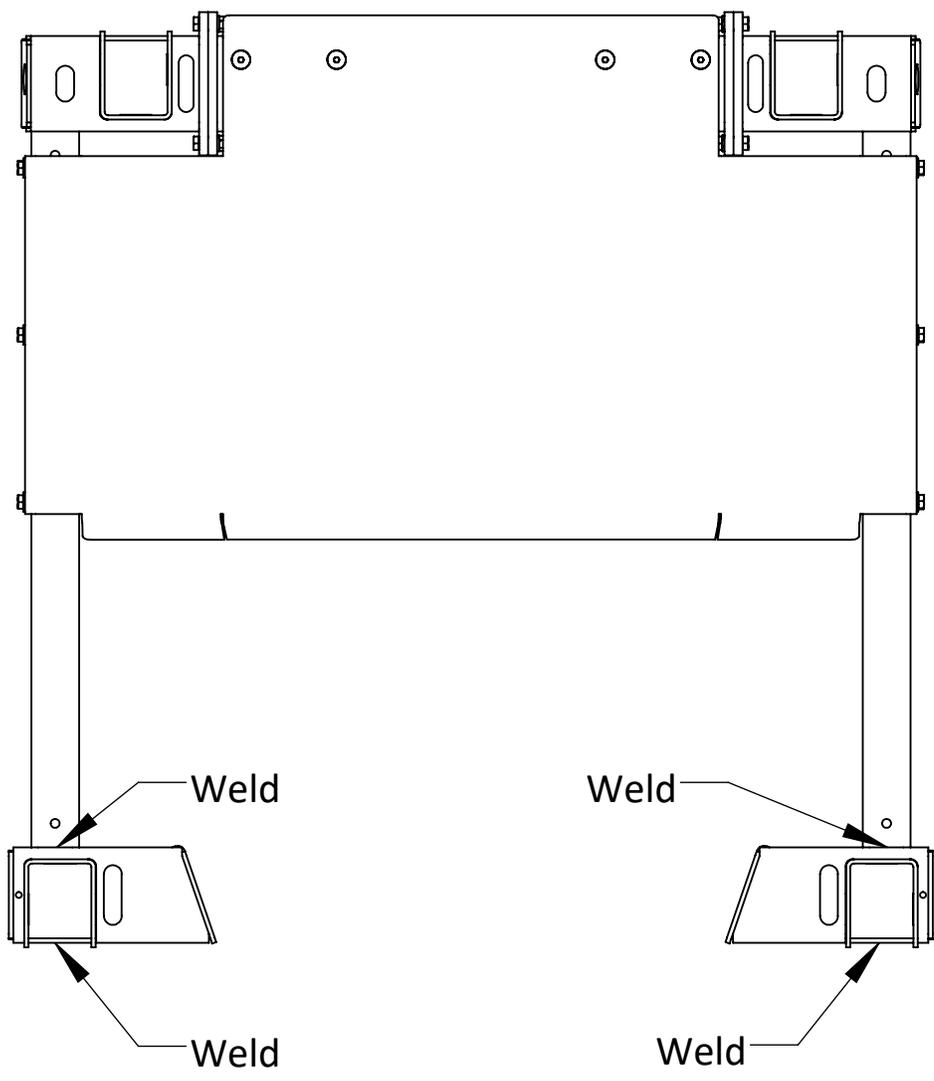


Align edge of
bracket with frame



DETAIL A

SCALE 1 : 3



**CLAYTON OFF ROAD
COR-2204210
JEEP GRAND CHEROKEE UNI-BODY FRAME RAILS (1993-1998, ZJ)**



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Refer to drawing views for measurements.

Step 1: Install part number COR-2104310 or COR-2104610 3 piece cross member.

Step 2: Install part number COR-2204110 rear frame brackets.

Step 1: Clean frame for welding.

Step 2: Locate rails according to dimensions given. Wood blocks and a bottle jack work well for holding the rails in place.

Step 3: Check fitment with ZJ 1/4" transfer case skid plate if using.

Step 4: Tack weld 4 corners of rails.

Step 5: Weld around 3 sides of the end of the rails.

Step 6: Weld along the insides and outside of the rails. Min. 6 welds spaced out.

Step 6: Paint sub frame rails.

Note: These frame rails can be installed alone but will interfere with installing other parts of our system in the future.

