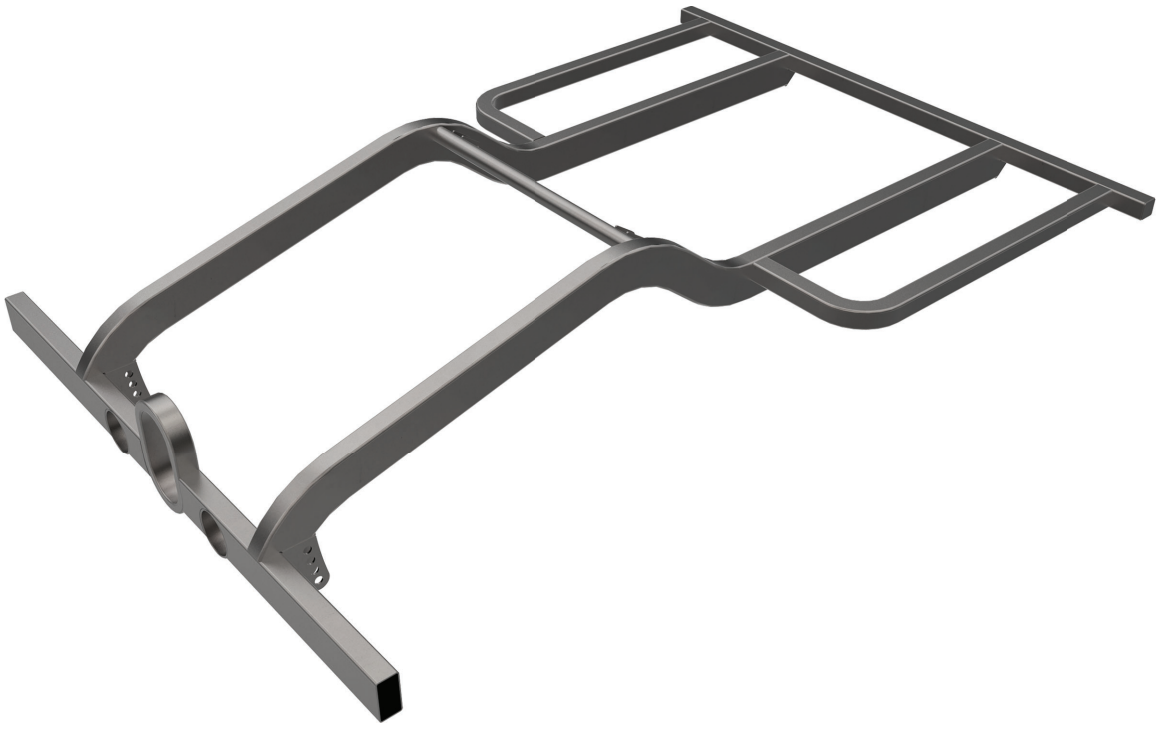
READ ALL INSTRUCTIONS COMPLETELY AND THOROUGHLY UNDERSTAND THEM BEFORE DOING ANYTHING. CALL CHASSISWORKS TECH SUPPORT (916) 388-0288 IF YOU NEED ASSISTANCE.

INSTALLATION GUIDE

CHRIS ALSTON'S Chassisworks
THE HOME OF HIGHER TECHNOLOGY

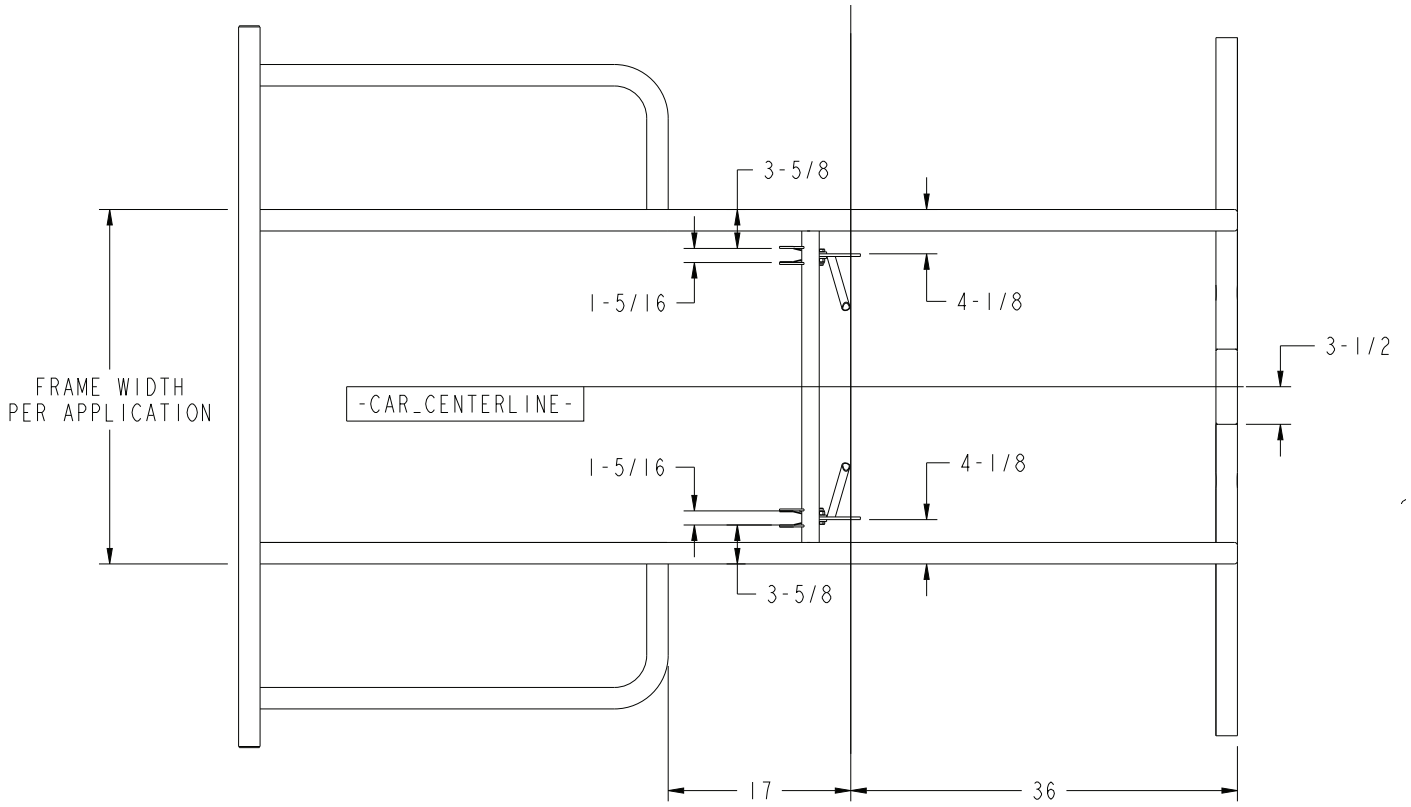
7724-U01

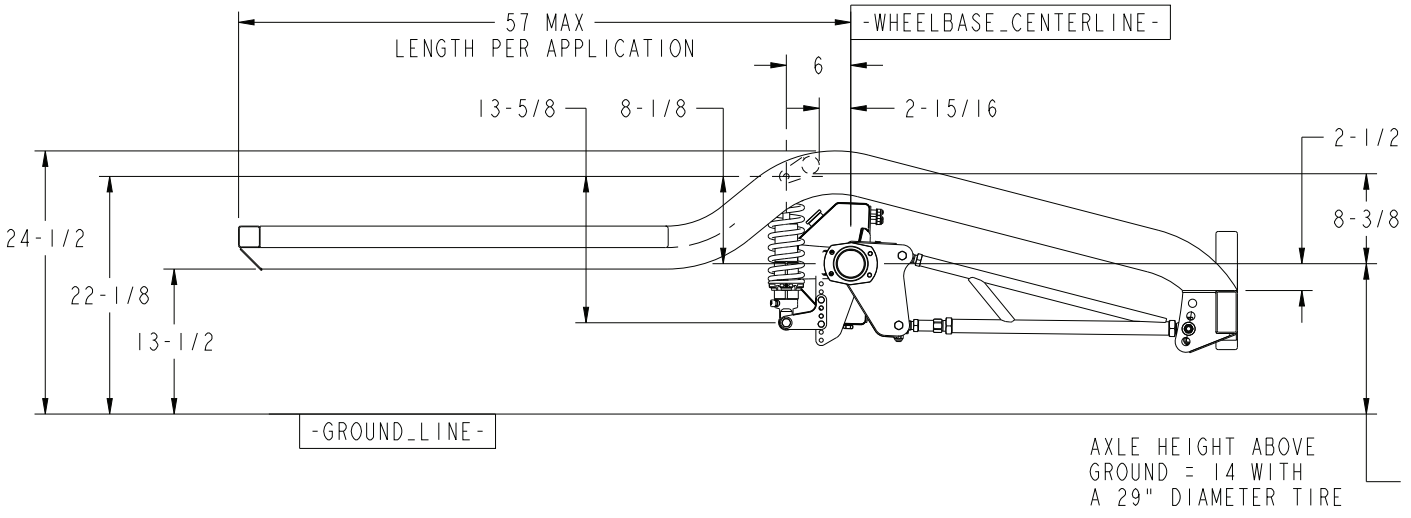
4x2” Frame Clip for 32” Ladder Bar



Description: Rear frame clip (kit or assembly) for 32” Ladder Bar suspensions.

Note: Optional components shown above. Suspension sold separately.

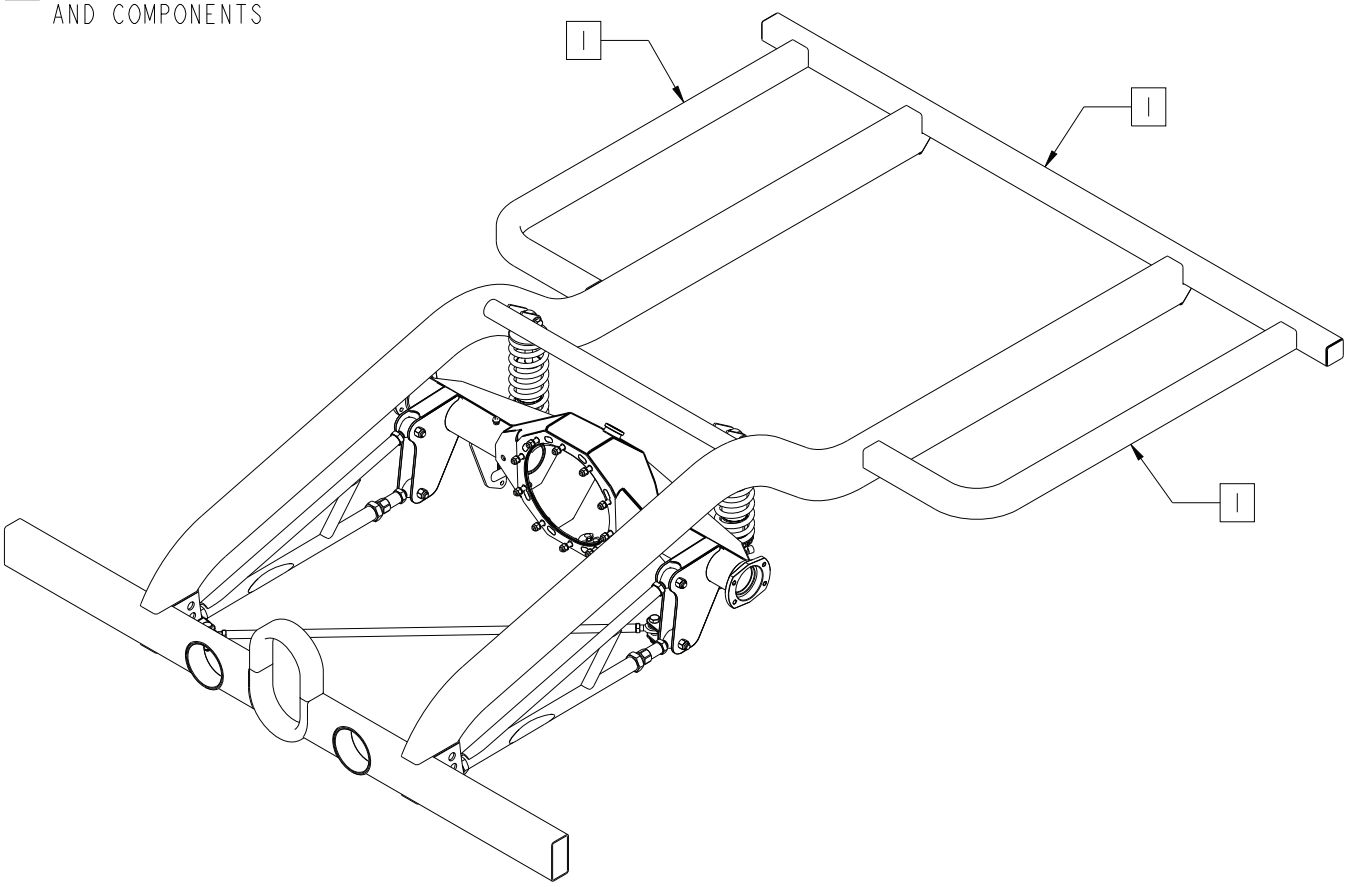


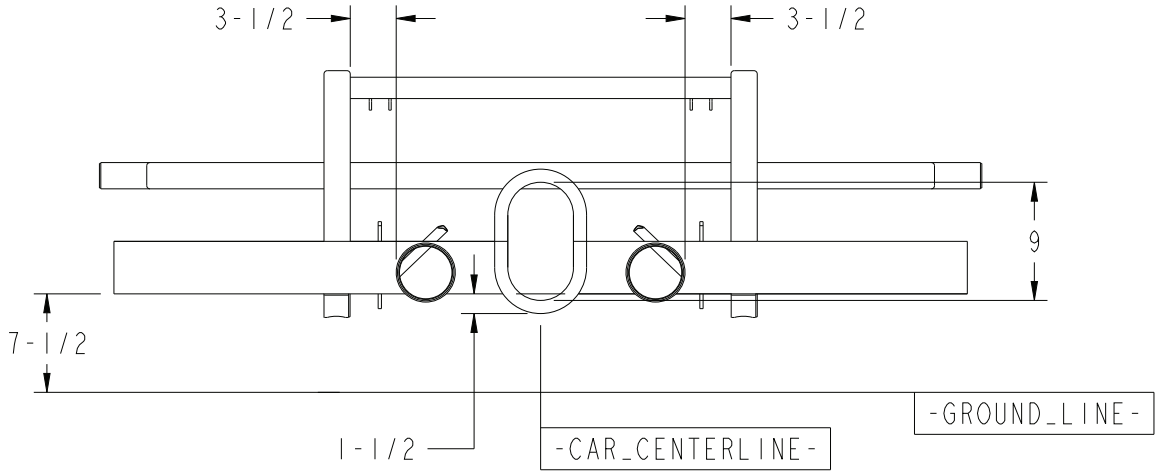


NOTES:

INSIDE BRACKET WIDTH
DRAG RACE - SOLID FRONT ROD ENDS = 7/8"
PRO STREET - POLY FRONT ROD ENDS = 1-5/8"

NOTES:
1 OPTIONAL OUTRIGGERS AND COMPONENTS





DESCRIPTION

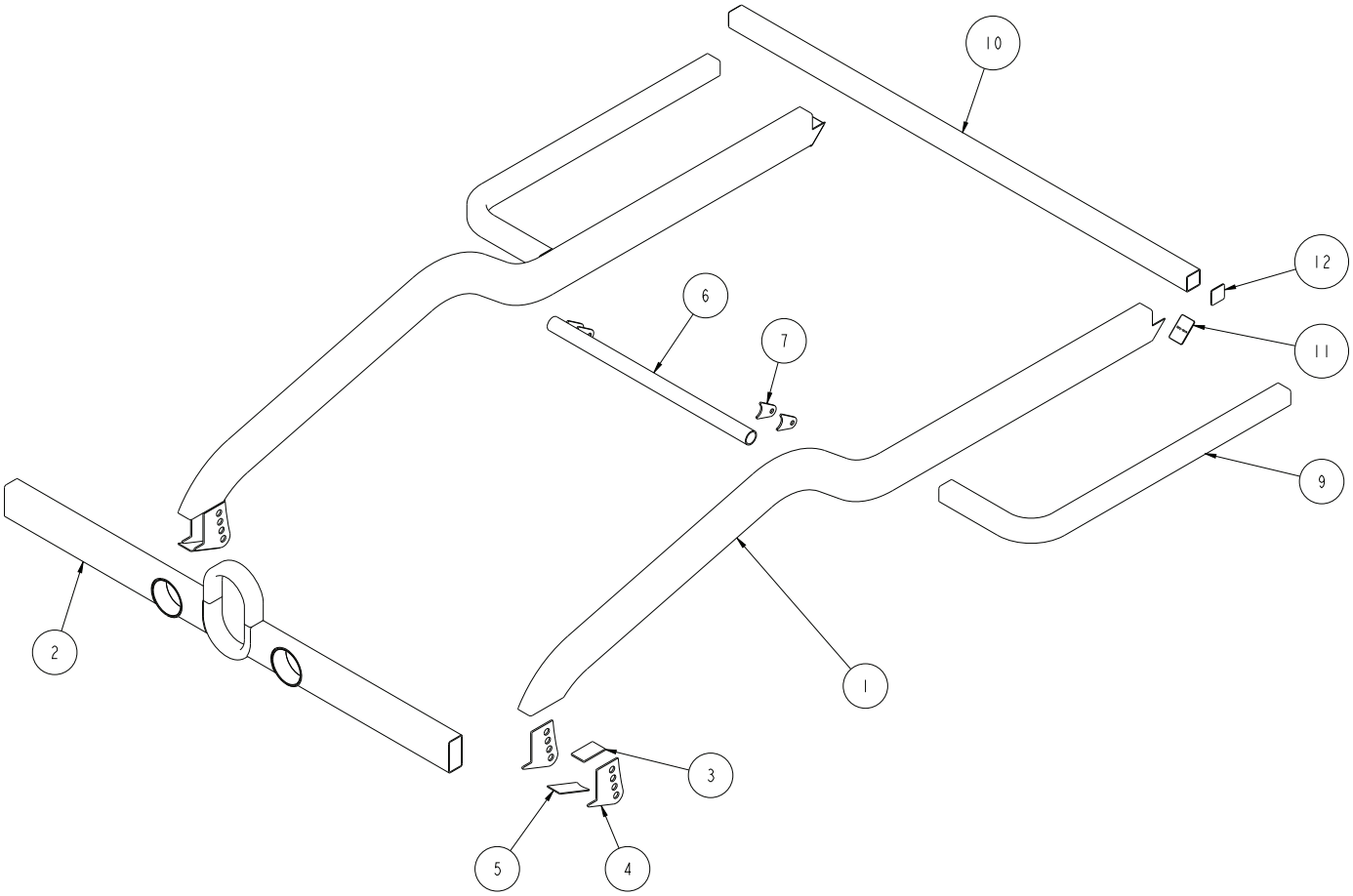
4 x 2 REAR FRAME, 32 INCH LADDER BAR

Chris Alston's CHASSISWORKS INC.
8661 YOUNGER CREEK DRIVE
SACRAMENTO, CA 95828
(916) 388-0288 FAX 388-0295

PART NO. 7724-U01

8/2/21 | DWG: 7951-7724U01

ITEM	QTY	PART NO.	DESCRIPTION
1	2	4550	4 x 2 REAR RAIL 32 INCH LADDER BAR
2	1	5408	9 OVAL, EXHST PORTS, 4 x 2 XMEMBER, 65 LONG, 1 1/2 DROP ASSEMBLY
3	2	2157	LADDERBAR FRAME CAP FOR 4550 2 x 4 FRAME RAIL
4	4	2156	LADDER BAR MOUNT 2 x 4 FRAME, 4-3/4 HOLES
5	2	2037	LADDER BAR UNDER FRAME MT BOTTOM GUSSET 2x4.625
6	1	E26.134-RAW	STEEL TUBE, ∅1 5/8 x .134 ERW
7	4	2101	SUSPENSION TAB 1/2 INCH HOLE
8	1	E26.134-036.000	STEEL TUBE ∅1 5/8 x 36
9	2	4564	OUTRIGGER, REAR FRAME RAILS, PERIMETER CHASSIS
10	1	B3216.120-67.00	TUBE, 2 x 2 x .120 WALL ERW x 67.00 LONG
11	2	7972-5014	TUBE CAP, REAR CLIP, 2 x 4 PERIMETER FRAME
12	2	7972-5015	TUBE CAP, 2 x 2, 12 GA



DESCRIPTION

4 x 2 REAR FRAME, 32 INCH LADDER BAR

Chris Alston's CHASSISWORKS INC.
8661 YOUNGER CREEK DRIVE
SACRAMENTO, CA 95828
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PART NO. 7724-U01

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PARTS LIST

UNASSEMBLED KIT

7724-U01 - 4x2” Frame Clip for 32” Ladder Bar Supsension

Qty	Part Number	Description
1	3036	Hardware box for ladder bar rear frame
1	4405	4x2” box crossmember with 1x2” driveshaft loop
1	4550	4x2 rear 32” ladder bar frame rail (pair)

3036 - Hardware Box

Qty	Part Number-	Description
4	2101	Suspension tab, 1/2” hole
2	2037	Front-mount bottom gusset
4	2156	Ladder bar 4-hole frame mount
2	2157	Front-mount frame rail cap
2	3101-050-20C	Locknut 1/2-20 nylon insert, clear zinc
2	3100-050F2.50Y	Cap screw 1/2-20 x 2-1/2”, hex head, yellow zinc

OPTIONS

Qty	Part Number-	Description
1	4668	Subframe connector, 2x4x60” (pair)
2	1070	Exhaust ports, 4-1/2” OD x 4” ID x 2” long
1	5909-OFR	Rear frame outriggers, 2x2”

WELDED FRAME CLIPS

7724-U01-WR - Drag Race 32” Ladder Bar Frame Clip

Qty	Part Number	Description
1	7972-5026-XX	Frame clip assembly (XX = widths from 20 to 32 inches

7724-U01-WS - Pro Street 32” Ladder Bar Frame Clip

Qty	Part Number	Description
1	7972-5027-XX	Frame clip assembly (XX = widths from 20 to 32 inches

OPTIONS

Qty	Part Number-	Description
1	4668	Subframe connector, 2x4x60” (pair)
2	1070	Exhaust ports, 4-1/2” OD x 4” ID x 2” long
1	5909-OFR	Rear frame outriggers, 2x2”

INSTRUCTIONS

NOTE: Read all of the instructions and understand them before you begin. This kit is designed to provide a rear subframe for use with coil-over shocks and ladder bars. It should be used with Chassisworks 32” ladder bar suspension. It is a good idea to install at least an 8-point roll cage with this subframe. The best method to install this frame is to cut out the entire floor from the 2x4” crossmember to the taillight panel. This will require that the floor be replaced with aluminum or steel panels. This subframe can be used with unibody or full frame vehicles. The first step is to determine your new frames outside width. A Chassisworks rear end worksheet will help you do this.

DO NOT FINAL WELD ANY PART OF THE FRAME UNTIL AFTER YOU HAVE DOUBLE-CHECKED ALL DIMENSIONS AND INSTALLED THE SUSPENSION TO CHECK FOR BINDING AND CLEARANCE THROUGHOUT THE FULL RANGE OF TRAVEL.

MEASURE AND CUT

1. **Measure 36-inches forward from the rear axle centerline** to a point on the rocker panel or OEM Frame. Draw a line between these points on the car’s floor. This is sometimes easier to do under the car because of the driveshaft tunnel. Cut the entire floor and wheel wells out of the car from your line to the rear taillight panel. Cut out the package tray and double panels against the sides of the car leaving the inner part of the rocker panel in place. In some cases, you will have to remove most of the rear window crank mechanism to make room for the new wheel wells. Usually a simple bracket welded to the inner body panel and bolted to the window will hold the windows up.

2. After you have cut the floor out and neatly trimmed all the panels you must level the car front to rear and right to left. The door sills are a good place to put your level. When you cut the floor out, you should have left the inner part of the rocker panel in place. If installing frame in full frame car weld ends of 2x4” crossmember to OEM frame, instead of rocker panel. The rocker panel or OEM frame should be trimmed to allow for a good fit of the crossmember. Position the body at ride height above the floor. Use a string to make a chassis centerline on the floor. Find the center at the front of the car and at the rear, use duct tape to hold the string to the floor. You will use this later to align the new frame rails.

ASSEMBLE THE 4x2” CROSSMEMBER

3. The driveshaft loop in the crossmember will usually be offset from the center of the car to the passenger side about 1/2-inch. This is because most cars have an offset rear axle. Measure your stock rear end to determine the amount of offset. After you have determined the crossmember offset, you can build the driveshaft crossmember. Cut the straight legs off of both 1x2” driveshaft loops so each one is 5-1/2 inches tall. Weld the loops together to form an oval. This will create a driveshaft oval loop that is 9-inches tall inside with a 7-inch outside width. Fit one end of each 2x4” tube to the driveshaft oval so the bottom of the oval is 1-1/2-inches below the 2x4” tube. Cut the 2x4” driveshaft loop crossmember to length so it fits between the rocker panels (or stock frame in a full frame car). If your inner rocker panel is not straight, you will have to contour the crossmember. Make sure you have a good fit to the rocker panel or it will be difficult to weld. You can also taper cut the bottom of the 2x4” crossmember where it attaches to your vehicle (see assembly drawing). This is an optional step.

4. If you purchased optional exhaust ports, now is the best time to install them. Position the exhaust ports in the crossmember about 2-inches inside of the new rear frame. Make sure your exhaust will fit before you install them. A 4-1/2 inch holes saw work best to cut the holes. The center of the holes should be 2-1/4 inches down from the top of the crossmember

POSITION THE CROSSMEMBER

5. Verify that your driveshaft oval has the correct offset from the vehicle’s centerline to match the factory offset. Make sure you have enough clearance for the driveshaft throughout its travel while trial fitting the crossmember. Tack weld the crossmember in place so the forward side is 40-inches forward of the rear axle centerline. The bottom should be even with the bottom of the rocker panel or stock frame. The stock

floor should butt-up against the front of the crossmember. In some vehicles the floor will hang below the crossmember. Push floor up and tack it to the crossmember. The factory driveshaft tunnel will not be high enough to reach the top of the new driveshaft oval. It should be replaced using one of the Chassisworks manufactured driveshaft tunnels.

TRIM AND POSITION THE FRAME RAILS

6. Verify that the body is positioned at your desired ride height above ground.

7. The rear of the frame may have to be shortened to fit the car. To determine how much to cut off the rear of the frame, **measure from the front of the crossmember** to the taillight panel or other rear attaching point. Figure out the attachment method (described in following two steps) prior to cutting the frame rail as the cut may be angled or notched to best fit the vehicle.

8. FRAME RAIL PITCH - The height that the rear of the frame rail will contact the rear of the body will be at different locations at the rear depending on your body style. With the frame rail sitting on top of the 2x4" crossmember and notch seated against the back corner, the straight rear section of frame rail should be level to the ground (plus or minus 5-degrees).

    - **Full Frame Cars** - Usually easiest to keep the OEM rear frame crossmember with its bumper mount in place and determine a method to attach to it using box tubing (not provided).

    - **Unit-Body Cars** - Usually attach the rear frame at the rear valance or taillight panel. Some fabrication will be required to achieve a suitable fit.

9. FRAME RAIL SPREAD - Rails should be positioned as wide apart as possible, while leaving enough room for tire clearance. The Chassisworks "Rear End Worksheet" should be used to find the correct distance.

    - Minimum outside width of 20-inches.

    - Each frame rail must be an equal distance from the car's centerline. *Driveshaft loop may be offset*. A large square or level should be used for accurate measurements.

    - Rails must be parallel (equal distance apart at front and rear) and diagonally square.

    NOTE: If the frame rails do not land centered at the taillight panel or are unequal distances from each side of the car body, double-check the 2x4" crossmember position. This could be an indication that the crossmbmer is misaligned or the body or rockers are out of square.

10. Tack weld the rails in place only after all dimensions validate that the rail and body positions are correct.

ASSEMBLE THE FRAME

11. Cap the open area along the bottom of the frame rail, just behind the 2x4" crossmember; caps provided.

12. Install the chassis ladder bar mounts as shown in the assembly diagram. Brackets should be even with the outside edge of the frame. For correct spacing between the bracket plates, install the rod ends or steel bushing sleeves while tack welding. **Brackets must be square to the frame** for the ladder bar to fit correctly and move freely without binding.

13. Install the lower gussets at the bottom of the ladder bar frame mounts.

14. Install the rear crossmember approximately 1/2-inch forward of the taillight panel and even with the bottom of the frame rail, if using the 1-5/8" round tube version. The optional 2x2" square crossmember that ships with the outrigger kit must install flush with the top of the frame. It can be cut into segments for installation or set into notches cut into the top of the frame rail.

15. For easier access when welding, the shock crossmember can be assembed prior to installing onto the frame. The position for the first shock mount tab is measured from the outside of the frame rail to the inside of the tab. **You will need to subtract the frame rail width from this dimension shown on drawing to**

position the first mount tab. When positioning the second tab, verify the correct spacing for your specific shocks and adjust tab position as necessary. All four tabs must be square and level to each other.

16. Position and tack the shock crossmember between the frame rails at the dimensions shown on drawing. The height dimension given is for reference and may vary slightly with your frame due to manufacturing tolerances. The shock mount holes should be 14-3/8" (+or- 1/2") above bottom of front 2x4" crossmember.

CHECK FOR BINDING AND CLEARANCE

17. With all frame components securely tacked into position, temporarily install the ladder bars, locater or panhard bar, rearend housing and shocks (without springs).

18. Cycle the suspension throughout its full range of travel and extremes of adjustment to check for any clearance issues with suspension, drivetrain or chassis components.
    - Shock mounts in their highest and lowest positions
    - Ladder bar front mount at highest and lowest position
    - Ladder bar pinion angle adjustment

19. If everything fits and there are no issues, you can finish welding the frame into the vehicle.

OPTIONAL SUBFRAME CONNECTORS

- UNIT-BODY CARS - The subframe connectors must run from the 2x4" crossmember forward to the stock front subframe. The floor will usually have to be slotted for the connectors. In most cases, the connector will be wider spaced at the front than at the 2x4" crossmember, where it should be the same width as the new rear frame.
- FULL FRAME CARS - Subframe connectors are not necessary in full frame cars such as '55-57 Chevys, Chevelles, etc., because the 2x4" crossmember welds directly to the factory frame.

FACTORY-WELDED FRAME

If you purchased the frame clip welded, the 2x4" crossmember and the rear frame length will be too long. Cut them to length for your application. The rear frame crossmember is tacked between the rails for shipping purposes. Knock it out and reinstall it at the correct position after you have trimmed the rear rails to length.

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