

INSTALLATION GUIDE



6263 Pro-Adjustable Ladder Bars, 32"



Description: Pro-Adjustable ladder bar kit includes black-matte-powder-coated ladder-bar weldment, zinc-plated rod ends and adjusters, unassembled axle-bracket components, and Grade 8 mounting hardware.

PARTS LIST

Prior to beginning installation use the following parts lists to verify that you have received all components required for installation.

| Item | Qty | Part Number | Description |
|------|-----|-----------------|---|
| 1 | 2 | A48.095-001.125 | Axle bracket tube gusset 3" OD x .095 wall x 1-1/8" long |
| 2 | 4 | A20.083-001.063 | Axle bracket tube gusset 1-1/4" OD x .083 wall x 1-1/16" long |
| 3 | 4 | 210126 | Pro ladder bar 3" axle bracket |
| 4 | 1 | 5409 | Pro-adjustable ladder bar, 32", driver side |
| 5 | 1 | 5410 | Pro-adjustable ladder bar, 32", passenger side |
| 6 | 4 | 1202 | Pivot spacer .750 x .625 bore |
| 7 | 2 | 1203 | Eyebolt 1-14 RH x 5/8" bore |
| 8 | 4 | 1204 | Eyebolt 3/4-16 RH x 1/2" bore |
| 9 | 2 | 1500 | Ladder bar adjuster, 1-14 LH male to 3/4-16 HR female |
| 10 | 2 | 2010 | Spacer washer 5/8" ID x 1-1/4 OD x.090 |
| 11 | 4 | 3130-050F2.25B | Bolt 1/2-20 x 2" 12-point head, black |
| 12 | 2 | 3122-063F3.00B | Bolt 5/8-18 x 3" 12-point head, black |
| 13 | 4 | 3101-050-20C | Locknut 1/2-20 nylon insert, plated |
| 14 | 2 | 3101-063-18C | Locknut 5/8-18 nylon insert, plated |
| 15 | 4 | 3102-075-16RC | Jam nut 3/4-16 RH, clear zinc |
| 16 | 2 | 3102-100-14RC | Jam nut 1-14 RH, clear zinc |
| 17 | 2 | 3102-100-14LY | Jam nut 1-14 LH, yellow zinc |

NOTE: Eyebolts must be inspected frequently. Following initial installation the eyebolts should be watched very closely. Check them after each pass. All cars launch differently so the life of the eyebolts will vary considerably. It is also very important to make sure the eyebolts and jam nuts are not binding on any of the brackets. The suspension should be free to swing throughout the entire suspension travel. **The eyebolts should be replaced at least once a year.**

Before starting installation level your chassis front to rear and right to left. Use jack stands to position your rear-end housing at the correct height and rearward location according to your assembly drawing. Rotate the pinion until it points toward the engine. Block it steady at the correct pinion angle of zero degrees after completion and prior to running the car. The pinion angle will need to be readjusted to 1° to 3° degrees negative (pinion down in relation to the driveshaft). The axle housing must also be centered in the car. The ends of the housing must be equal distances from the side of the frame rails.

INSTALLATION: The chassis ladder bar mount must be .188" steel and have an inside width of .900" with a 3/4" hole. Refer to the drawing shipped with your subframe or chassis for the location of the components of the rear suspension.

INSTRUCTIONS

NOTE: If eyebolts or jam nuts do not thread together easily, DO NOT use excessive force. Chase the threads with a tap or die. CHASSISWORKS will not replace eyebolts or ladder bars that are jammed together.

IMPORTANT: Apply a small amount of anti-seize to the eyebolt and adjuster threads before screwing them together.

1. Thread the left-hand jam nuts onto the adjusters until there are 5-6 threads remaining between the jam nut and the adjuster's hex.
2. Screw the adjusters into the shorter of the two tubes (lower tube) at the axle end of the ladder bar until the jam nut contacts the tube.
3. Thread the 3/4" jam nuts onto the four 1/2"-hole eyebolts until there are 5-6 threads remaining between the jam nut and the eye body.
4. Screw the eyebolts into the ladder bar's lower adjuster and upper tube until the jam nuts contact the receiving thread.
5. Thread the 1" jam nuts onto the 5/8"-hole eyebolts until there are only 1-2 threads remaining between the jam nut and the eye body.

6. Screw the eyebolts into the chassis end of the ladder bars until the jam nuts contact the tube.
7. Install the axle-housing brackets onto the rear of the ladder bar. (Refer to image for proper orientation.) A bracket plate is placed on each side of the eyebolts and secured with the supplied 1/2" mounting hardware. Torque bolts to 50 lb. ft.
8. Place all gusset tubes into their relative positions. The 1-1/4" tubes fit the two smaller holes and the 3" tube is for the hole closest to the adjuster. *Gusset tubes are purposely .090" narrower than the bracket-assembly's final outside width.*
9. Space the bracket plates apart .890" using a block or spacer stack and clamp together directly over the block to avoid flexing the plate. Spacing less than .890" will prevent the billet shock mount from fitting properly.
10. Center the gusset tubes so that there is approximately a .045" weld-prep area at each joint and then tack weld in three places.
11. Verify the bracket's inside width (.890") and then final weld each of the gusset tubes to the axles plates.



Mounting the Ladder Bar to the Chassis

The chassis ladder bar mount must be .188" steel and have an inside width of .900" with 3/4" mounting holes.

12. Position the ladder bar on the correct side of the vehicle. The pre-welded safety straps must be closest to the centerline of the vehicle.
13. Slide the rear axle bracket over the rearend-housing axle tube and move inward while raising the front eyebolt to chassis bracket's center mounting position. The innermost chassis mount plate will sit between the safety strap and the eyebolt.
14. Install the pivot spacers from the outside of the chassis mount. They extend through the mounting holes and contact the eyebolt and allow the ladder bar to pivot freely when tightened.
15. Place the washer between the safety strap and the pivot spacer.
16. Secure with a 5/8" bolt and locknut. Torque to 65 lb. ft.



Before welding the axle brackets to the rearend housing:

- Verify that the chassis and rearend housing are level from right to left. Failing to do so will create unwanted chassis preload and prevent the vehicle from sitting level.
 - Position the rearend housing at ride height and centered in relation to the chassis. Ideally, the ladder bar's lower bar should sit parallel with the ground or run slightly downhill toward the front.
 - Set pinion angle set to approximately 1° down.
 - DO NOT install the housing ends until after the ladder bar brackets are fully welded to the housing.
 - Make sure each ladder bar is square to the chassis and the rearend housing.
17. Tack weld the brackets to the axle tube then double-check the position of all components. If correct, finish welding the axle brackets to the rearend housing.
 18. Verify all jam nuts and mounting hardware are correctly tightened before testing and adjustment.

ADJUSTMENT

- Remove all of the car's weight from the rear suspension before beginning adjustment.
- All ladder bar jam nuts and axle-bracket bolts must be loose to reduce strain on the adjuster threads.
- Do not unscrew the front eyebolt more than 1-2 threads between the jam nut and eye body. Doing so greatly decreases the eyebolt's bending strength.
- Verify all jam nuts are securely tightened before use.

WARRANTY NOTICE:

There are NO WARRANTIES, either expressed or implied. Neither the seller nor manufacturer will be liable for any loss, damage or injury, direct or indirect, arising from the use or inability to determine the appropriate use of any products. Before any attempt at installation, all drawings and/or instruction sheets should be completely reviewed to determine the suitability of the product for its intended use. In this connection, the user assumes all responsibility and risk. We reserve the right to change specification without notice. Further, Chris Alston's Chassisworks, Inc., makes **NO GUARANTEE** in reference to any specific class legality of any component. **ALL PRODUCTS ARE INTENDED FOR RACING AND OFF-ROAD USE AND MAY NOT BE LEGALLY USED ON THE HIGHWAY.** The products offered for sale are true race-car components and, in all cases, require some fabrication skill. **NO PRODUCT OR SERVICE IS DESIGNED OR INTENDED TO PREVENT INJURY OR DEATH.**

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