INSTALLATION INSTRUCTIONS

’73-87 CHEVY C-10

4-Link Rear End

Please read these instructions completely before starting your installation.

Assemble suspension on vehicle before powder-coating to ensure proper fitment, and to make modifications if necessary.

For questions on installations please call 800-841-8188  In Illinois (847) 487-0150

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PARTS LIST

1) Forward Crossmember
1) Drivers Side Axle Bracket
1) Panhard Bracket
1) Upper Shock Crossmember
1) Lower Shock Mount Passenger Side
2) Adjustable Shocks
1) Passenger Side Axle Bracket
1) Panhard Bar
1) Lower Shock Mount Drivers Side
2) Forward Struts
2) Chrome Springs

2) Forward Strut Chassis Mounts

HARDWARE PACKAGE

8) \( \frac{3}{8} \) Stainless Steel Washers
2) \( \frac{1}{2}-20 \) Nylock Jam Nuts
88) \( \frac{1}{2} \) Flat Washers
14) \( \frac{5}{8}-18 \) Nylock Jam Nuts
14) \( \frac{3}{8}-18 \) X \( 3\frac{3}{4} \) Hex Bolts
2) \( \frac{1}{2}-20 \) X \( 2\frac{3}{4} \) Hex Bolts
44) \( \frac{1}{2}-20 \) X \( 1\frac{1}{4} \) Hex Bolts
2) \( \frac{1}{2}-20 \) 12 Pt. Flange Nuts
2) \( \frac{1}{2}-20 \) X 3 12Pt. Flange Head

44) \( \frac{1}{2}-20 \) Nylock Nuts
28) \( \frac{5}{8} \) Washers
14) \( \frac{5}{8}-18 \) Nylock Jam Nuts
4) \( \frac{3}{8}-24 \) Nylock Nuts
2) \( \frac{1}{2}-20 \) X 3 \( 3\frac{3}{4} \) Hex Bolts
4) \( \frac{3}{8}-24 \) X \( 3\frac{3}{4} \) Hex Bolts
2) \( \frac{1}{2}-20 \) 12 Pt. Flange Nuts

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1) Start by jacking up your truck and supporting it on sturdy jack stands. Remove the rear wheels and bed. Disconnect the drive shaft from the rear end. Disconnect the brake lines, emergency brake cables, and fuel tank. Remove the shocks and rear end. **BE SURE TO LABEL ALL HARDWARE FOR RE-INSTALLATION!** At this point the rear end of your truck should be stripped down to the bare frame. Remove cross members and rear end bump stops. Leave the two rear cross members in original position. See Figures 1 and 2.

![Figure 1](image1.png)

**Figure 1**

![Figure 2](image2.png)

**Figure 2**

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2) The first part to install is the Front Crossmember. Prior to installation the frame rails will need to be slightly ground for fitment. **Figure 3** shows the factory cross member that will need to be removed for the installation of the four link front cross member. Once that Crossmember is removed eight rivet holes will be on top and bottom of the frame rails. **The holes on the bottom of the frame rail are critical for the installation of the front Crossmember.** Figures 4 and 5 also show the areas on both sides of the chassis that need to be ground. Those areas are above and forward of the factory leaf spring mount. Grind approximately 3/16” on both sides to get started. **See Figures 3-5.**

![Figure 3](image)

**Figure 3**

![Figure 4 Drivers Side](image)

**Figure 4 Drivers Side**

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3) After the frame rails are ground for clearance, place the front Crossmember up in the chassis as shown in Figure 6. Use clamps to hold the Crossmember in the chassis. There should be four holes on the bottom frame rail on both sides where the factory Crossmember that was cut out. Align the bottom of the new Crossmember mounting holes with the ONE rivet hole closest to the factory spring mount. See Figure 7.
4) To do a double check, place a square in the center of the leaf spring mount rivet shown in Figure 8. Measure from the Crossmember to the square. Our Measurement came out to be 3 ¾" from the Crossmember to the end of the ruler. There may be little plus and minus across fifteen years, ('73-87) however it is important to check both sides until there is an equal measurement. Check measurements again before drilling. See Figure 8.
5) Once the Crossmember is in the correct location, it is time to drill all the mounting holes. There are four mounting holes on the bottom of each side. The alignment hole we used in Step 3 can be drilled first on both driver and passenger sides. Drill the two holes to ½”. Insert a ½-20 x 1 ½” grade 8 bolt with a nylock nut on each side to hold the Crossmember in place. Drill all other holes to ½”. Use a center punch and pilot drill before drilling to ½”. See Figures 9 and 10.

6) Install the front crossmember using eight ½-20 x 1 ½” grade 8 bolts, washers and nylock nuts. Four bolts on each side. DO NOT TIGHTEN until the top bolts are installed.

7) Install the chassis brackets as shown in Figures 11-19. Figure 11 shows the drivers side and Figure 12 shows the passenger side. Bolt the drivers side bracket to the crossmember shown in Figure 13.
8) With the upper brackets installed, use a ruler and scribe the lines for the upper mounting bolts. Measure from the center of the rivet hole from the factory Crossmember and scribe a line at 2 ½” and another at 5”. These scribe lines will be the locations of the other holes for the mounting bracket. See Figure 14.

9) With the lines scribed the holes and can located and drilled. Use a center punch to start the holes as seen in Figure 15. Use a 1/8” pilot drill first followed by a 3/8” for ease of ½” drilling. See Figures 15 and 16.
10) After the holes are pilot drilled, drill all holes to $\frac{3}{8}"$. The factory rivet hole needs to also be drilled to $\frac{3}{8}"$. Use $\frac{1}{2}$-20 x 1 1/2” grade 8 bolts, washers and nylock nuts supplied in the hardware kit to bolt the bracket to the frame rail and Crossmember. ALL NUTS AND BOLTS CAN NOW BE TIGHTENED. See Figures 17-19.

Figure 17

Figure 18

Figure 19
11) With the front crossmember bolted in the Forward Struts can now be installed. Bolt the Forward Strut to the front Crossmember as seen in **Figure 20** using 5/8-18 x 3 ¾” bolt, washers and nylock jam nut. Bolt the Forward Strut mount to the Forward Strut using 5/8-18 x 3 ¾” bolt, washers and Nylock nut. See **Figures 20 and 21**.

![Figure 20](image1.png)  ![Figure 21](image2.png)

**Figure 20**  **Figure 21**

12) Push the Forward Strut with the mount up to the frame rail. Center punch the ½” holes of the mount to the frame. Pilot drill and drill the ½” holes to the frame. See **Figures 22 and 23**.

![Figure 22](image3.png)  ![Figure 23](image4.png)

**Figure 22**  **Figure 23**

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13) Bolt the Forward Strut Mount to the frame using $\frac{1}{4}$-20 x 1 $\frac{1}{2}$" grade 8 bolts, washers and nylock nuts. Unbolt the Forward Strut from the mount. Center punch and drill the bottom holes of the Forward Strut Mount. See Figures 24-26.

![Figure 24](image)

14) Repeat Step 13 for the passenger side. Tighten all bolts, washers and nuts and reinstall the Forward Struts to the Strut Mounts.
15) The next part to be installed is the upper shock crossmember. Place the shock crossmember in the chassis and clamp to the frame rails as shown in Figure 27.

![Figure 27](image)

16) With the shock crossmember clamped snug to the frame rails, the crossmember needs to be squared and clamped tight before the ½” holes can be drilled. Place a straight edge against the front of the lower bracket and measure from the straight edge to the top factory leaf spring mount rivet. The dimension should be 27 5/8”. Repeat this step for passenger side. See Figures 28-31.

![Figure 28](image)

![Figure 29](image)

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17) Place the straight edge to the rear of the lower mounting bracket. Measure from the straight edge to the center of the middle rivet of the rear leaf spring mount. This dimension should be 15”. Repeat this step for passenger side. See Figures 32-34.
18) Now that the shock crossmember is square front to rear, the side to side dimensions need to be corrected. Measure from the inside of the frame rail to the outside of the in board shock mount tab. The drivers side dimension should be 5 ½”. The passenger side is dimension is 5”. See Figures 35 and 36.

19) After all dimensions are square front to rear and side to side, clamp the shock cross member tight against the frame rails. Double check all measurements one more time before drilling holes. After all dimensions are checked one last time, center punch all six lower ½” holes to the chassis. After lower holes are punched, remove crossmember and drill all six holes. Start with an 1/8” pilot drill, then use 3/8” bit followed by ½”. See Figures 37 and 38.
20) After all six holes are drilled ½”, place the shock crossmember back into the chassis to double check bolt hole alignment. Bolt down the crossmember to the chassis in the four corners. Use ½-20x 1 ¼” grade 8 bolts, washers and nylock nuts to complete this step. Using a small square, scribe lines on the top frame rail parallel to the top of the mounting bracket. Repeat this step for the passenger side. See Figures 39 and 40.

![Figure 39](image1.png)  ![Figure 40](image2.png)

21) After all four lines are scribed, flip crossmember upside down and reversed driver to passenger side. Align the brackets with the scribe lines previously scribed. Once the brackets are aligned clamp the crossmember snug to the frame rail. See Figures 41 and 42.

![Figure 41](image3.png)  ![Figure 42](image4.png)

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22) After the shock crossmember is squared to the scribe line, measure from the inside of the frame rail to the inboard shock mount repeating Step 18. The side to side dimensions are: 5 ½” from frame rail to inboard shock tab on drivers side, and 5” inside frame rail to inboard shock tab on passenger side. Double check all dimensions. See Figure 43. Once the side to side dimensions are true, clamp the crossmember tight and scribe the 8 holes to the top frame rail. See Figure 44.

![Figure 43](image1)

![Figure 44](image2)

23) Once all 8 holes are scribed to the top frame rail, remove the shock crossmember and center punch the scribed holes. See Figure 45. Drill the holes by using a 1/8” pilot drill, 3/8” then ½” to complete the shock crossmember mounting holes. See Figures 45-48.

![Figure 45](image3)

![Figure 46](image4)
24) Bolt the shock crossmember into the frame using 14 ½-20x 1 ¼” grade 8 bolts, washers and nylock nuts. If upper mounting holes are slightly off, we recommend using a C clamp to move the frame rail in closer to the holes. See Figure 49.
25) Install the passenger side rear shock. *(Figure 50)* Use a sharpie to mark the frame for spring clearance. Uninstall the shock and grind away the marked area. We recommend using a sanding drum for this step. Repeat this step for grinding the drivers side. See Figures 50-54.
26) Set all four link bars to 25 ½” center to center from the bolt holes. This will be the starting point when aligning the rear end. Install the two lower links using two 5/8-18 x 3 ¾” bolts, four washers and two 5/8-18 jam nuts. Install the Ford 9” housing using stands on each axle tube. **Connect the lower links to the housing finger tight. This will ease installation of the rear sway bar later.** Grease fittings on bushings should be facing up. See Figures 55 and 56.

![Figure 55](image55.jpg)

![Figure 56](image56.jpg)

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27) Install the two upper links using two 5/8-18 x 3 ¾” bolts, four washers and two 5/8-18 jam nuts. Grease fittings on the upper link bushings should be facing down. Opposite of lower link grease fittings. See Figures 57 and 58.

Figure 57

Figure 58
28) Set the Panhard bar to 24” center to center from the bolt holes. This will be the starting point when aligning the rear end. Install the panhard bar using two 5/8-18 x 3 ¾” bolts, four washers and two 5/8-18 jam nuts. Grease fittings on panhard bushings should be facing up. See Figure 59.

![Figure 59](image)

29) After rear end housing and Panhard bar are installed, it’s time to square the rear end. First using a floor jack or stands lift the rear end housing till the panhard bar and upper and lower links are dead level.

30) Now that the rear end housing is level with the panhard bar, you can measure from the face of the rear end housing to a rivet on the factory leaf spring mount. There are many places on the factory frame to utilize, however we are going to use this rivet in Figure 61 to square this rear end housing. Same rivet for passenger side. See Figures 60 and 61.

![Figure 60](image)  ![Figure 61](image)

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31) Measure from the front of the axle tube (Figure 60) to the start of the factory rivet (Figure 61). Measure both driver and passenger sides and adjust accordingly using the adjustable links. Due to factory tolerances, this dimension should be in the vicinity of 21 1/8” as seen in Figure 61.

32) To ensure rear end housing is square side to side, we will measure from the outer frame rail directly above the axle tube to the outside of the axle flange. Use a straight edge on the axle flange and a tape measure for this step. Make adjustments from the panhard bar until both driver and passenger side are the same dimensions. Dimensions will vary with different track width rear ends. See Figure 62 for example.

33) After the rear end is squared there needs to be frame clearance for the four link mounts. The steps are similar to the shock clearance step 25. Lift the rear end housing till the mounts hit the lower frame and mark with a sharpie. **The rear end housing and links will need to be removed before cutting frame rail.** Cut away the frame using a cutting wheel. See Figures 63-68.
Figure 63

Figure 64

Figure 65

Figure 66

Figure 67

Figure 68

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34) ***Install rear sway bar before installing shocks. See IN-188.***

35) Set the shocks at 13 ½” center to center from the bolt hole. Once the shocks are assembled, install the shocks to the upper shock mount first. The upper shock mount spacer is mounted on the outboard side. This is to keep the shock straight up and down. See Figure 69.

![Figure 69](image)

36) Install aluminum lower shock mount to the rear end housing. Use the 3/8-24 x 3 ½” grade 8 bolts, 3/8-24 nylock nuts and washers. See Figure 70.

![Figure 70](image)
37) Complete the shock installation by bolting the shock to the lower shock mount using \( \frac{1}{2} \)-20 X 3 12Pt. Flange Head bolts and \( \frac{1}{2} \)-20 12 Pt. Flange Nuts. Make sure adjuster faces towards the rear of the truck. **KEEP FLANGE BOLT LOOSE FOR BUMP STOP INSTRUCTION**

STEP 39. See Figures 71 and 72.

![Figure 71](image)

![Figure 72](image)

38) Install both shocks so both adjusters are facing out. This is for ease of adjustment. **Make sure all nuts and bolts are tightened before driving on the road.**

See Figure 73.
39) Disconnect the lower shock mount from the aluminum shock mount. Raise the rear end housing till the housing touches the chassis. Scribe lines around the axle tubes to the chassis. See Figures 74-75.

40) Once the lines are scribed, remove the rear end housing from the chassis. Measure 1 ½” from either one of the scribe lines (Center of scribe lines) and scribe another mark. This will determine where the bump stop will be installed. Approximately halfway between the sides of the chassis make another scribe mark. Center punch where the scribe lines meet. Pilot drill and drill to 3/8”. Install bump stop. See Figures 77-82.
Since you are now to the point where you have a finished, running truck (we hope!) it is time to test drive it. After a few hundred miles, double check the ride height and the alignment. The springs may have settled, which would change the ride height. Re adjust the ride height before changing the alignment. After this initial settling period, the springs and bushings should have taken their final set, so you should be on your way to many miles of cruising in style.