



Detroit Speed
4-Point Roll Cage
1970-1981 Camaro/Firebird
P/N: 011303DS

Thank you for your purchase of the Detroit Speed 4-Point Roll Cage. The exclusive Detroit Speed design follows the interior lines of the car, does not interfere with the interior comfort and packages close to the headliner and back window glass.



Some key features include:

- Increased chassis strength
- Provides additional safety
- Removable crossbar with CNC machined clevis ends
- Main hoop constructed of 1 5/8" - 0.134" wall mild steel tubing
- Crossbar constructed of 1 5/8" - 0.134" wall mild steel tubing
- Roll Cage is not intended for use with back seat passengers
- Roll Cage is for off road use only
- Roll Cage does not meet NHRA/IHRA requirements due to removable crossbar

The Detroit Speed 4-Point Roll Cage Kit includes the following components:

Item	Component	Quantity
1	Roll Cage Main Hoop	1
2	Roll Cage LR Down Bar	1
3	Roll Cage RR Down Bar	1
4	Roll Cage Cross Brace Bar	1
5	Left Front Doubler	1
6	Right Front Doubler	1
7	Left Rear Doubler	1
8	Right Rear Doubler	1
9	Tube Adapter	2
10	Clevis - Upper Half	2
11	Clevis - Lower Half	2
12	5/16"-18 X 1" Socket Head Cap Screw	4
13	Instructions	1

NOTE: If you are unsure about your welding abilities, have a professional welder complete the installation. Follow all safety guidelines that are provided with the equipment you are using. Always wear eye protection.

1. Remove the seats, carpet and padding, rear interior side panels, and package tray. Any other interior panels, including headliner, door panels, dash, etc. should be removed or masked well to protect them from grinding and welding sparks.
2. Install the trunk floor doublers. Place the doubler rearward of the wheel tubs with the inside edge lined up with the profile of the trunk floor. Additionally, the bend in the doubler lines up with the bend in the trunk floor. Leave at least 1/4" around the doubler to allow for a perimeter weld. Prep the trunk pan around the doubler for welding by removing the paint where the doubler will weld to the pan.
3. Install the doublers in the trunk. Note the location of the frame rail flanges on the doubler and drill four 9/32" holes accordingly so that it can be plug welded to the flanges. Weld the perimeter of the doubler to the floor pan as well as the plug welds. See Figure 1.



Figure 1 – Trunk Doubler Installed

4. Install the rocker doublers. Measure forward from the wheel tub at the pinch weld 7-1/4". From this point on the pinch weld, measure an additional 5-3/4" forward. Remove the portion of the pinch weld between these two measurements. After the pinch weld has been removed, a small gap between the floor and the rocker is left. This gap must be welded solid.
5. Place the doubler in the cutout area of the pinch weld. Mark and drill three 9/32" holes in the doubler that are in line with the pinch weld. Weld the perimeter of the doubler to the rocker, as well as the plug welds. Figure 2 shows a completed installation of the rocker doubler.



Figure 2 – Rocker Doubler Installed

6. Prep the package tray for the installation of the down bars. Cut the template from the attached sheet on page 7. It may be helpful to transfer the template to a piece of poster board. Align the template to the speaker opening in the package tray. To align the template, locate the centerline of the speaker opening and line up the template with the centerline along with the outer radius of the speaker opening. Mark and cut out the material in the package tray where the rear down bars will pass through. The template allows for a flange to help strengthen the package tray. Bend the flange down around the down bar opening. Correct placement of the template can be seen in Figure 3.



Figure 3 – Placement of the Template

7. Position the main hoop in the vehicle. Place the bottom of the hoop so the rear edge (at the doubler) is 10-1/2" from the front of the wheel tub. Tack weld the hoop in place on both sides. Angle the hoop so it is parallel to the angle of the "C" pillar.
8. At the rear of the rocker doubler, measure upward 32-1/4" and make a mark on the main hoop (Figure 4). This is where the rear down bar attaches to the main hoop. Place the down bars inside the car through the package tray. Fit the down bars so they meet the rear doublers and the main hoop at the measured location. These marks will locate the outside edges of each down bar. Once in position, weld them to the main hoop as far around the tubes as possible.

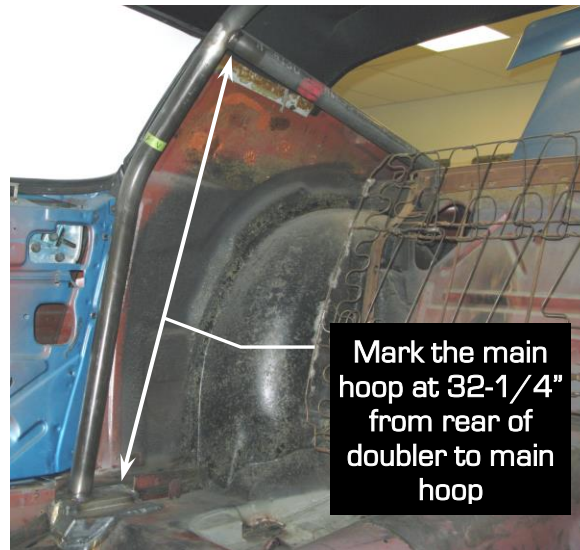


Figure 4 – Marking the Main Hoop

9. Carefully remove the entire cage in one piece. **NOTE:** This is possible with the glass out of the vehicle on most cars. Build variation or non-stock components may prevent removing the cage in one piece in certain applications. Remove the tack welds from the main hoop at the doublers. Cover the ends of the main hoop and down bars with rags to protect the interior/exterior from scratches while the roll cage is maneuvered out of the vehicle.
10. With the cage out of the car, finish welding the down bars to the main hoop.
11. Modify the package tray trim so that the down bars can pass through it. It can be installed now or modified so that it is removable with the cage installed and install later.
12. Carefully maneuver the cage back into place. Weld the down bars and main hoop to the doublers.
13. Use the cross brace hardware shown in Figure 5 for the next several steps. Assemble the upper and lower half clevis together using the 5/16"-18 socket head cap screws provided as shown in Figure 6.



Figure 5 – [Cross Brace Hardware]



Figure 6 – [Upper & Lower Clevis Assembly]

14. Install one end of the upper and lower clevis assembly into the tube adapter as shown in Figure 7. Use tape if needed to hold them together. Position the clevis tube adapter as shown in Figure 8 and have someone help you hold the cross brace in place where it will go along with the clevis/tube adapter. Scribe a cut line on the cross brace with everything mocked up in place. **NOTE:** In order to be NHRA compliant, the cross brace must be installed no more than 4" below, and not above, the driver's shoulders.



Figure 7 – (Clevis Tube Adapter)



Figure 8

15. The cross brace can be installed at any height that makes seat fitment optimum in your vehicle. Depending on the location of your tube adapter and their position on the main hoop, you may have to trim the crossbar to fit. Repeat this step for the other side of the vehicle. **NOTE:** The cross brace is long enough that you could weld it directly to the main hoop to be NHRA/IHRA compliant without using the clevis.
16. Cut the cross brace at the scribed line from step 14 and tape the clevis/tube adapter to the cross brace and test fit in the vehicle. Orientate the clevis and the tube adapter so the head of the bolts in the clevis faces up as shown in Figure 9.



Figure 9 – (Cross Brace Location)

- 17.If everything fits well, tack weld the clevis adapter to the cross brace tube on both sides as shown in Figure 10. Then place the crossbar assembly back in the vehicle to weld the tube adapter to the main hoop on both sides as shown in Figure 11. Weld the cross brace to the opposite clevis end on both sides.



Figure 10 – Tack Weld Clevis



Figure 11 – Tack Weld Tube Adapter

- 18.Once both sides are tack welded, remove the cross brace and finish welding the clevis adapter to the cross brace. Re-install the cross brace into the vehicle and finish welding the tube adapter to the main hoop as shown in Figure 12. Grind the weld smooth on the cross brace as seen in Figure 13.



Figure 12 – Finish Weld Cross Brace



Figure 13 – Finished Cross Brace

- 19.Attach any seat harness equipment and paint the crossbar if desired. Paint the doublers and surrounding areas to protect from corrosion. Reinstall the interior. Trim the carpet to fit around the main hoop tubes.

If you have any questions before or during the installation of this product, please contact Detroit Speed at tech@detroitsspeed.com or 704.662.3272

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On passenger side of car this side of template faces up.
(Flip over to do drivers side.)

Speaker Cutout Line
(Match up flush at radius center here)

Down Bar Cutout Line

Front of Car

Cutout shaded areas
along dashed lines.

Flange Bend Line

Cut away this portion
of paper to make template
easier to work with.

TITLE

Down Bar Template

APPLICATION(S)

70-81 Camaro/Firebird

SIZE DWG. NO.

A N/A

REV

P-00

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL: $\pm 1/64$
ANGULAR: MACH $\pm 3^\circ$, BEND $\pm 9^\circ$
TWO PLACE DECIMAL: $\pm .01$
THREE PLACE DECIMAL: $\pm .005$

INTERPRET GEOMETRIC
TOLERANCING PER:
ASME Y14.5M-1994

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DRAWN BY DATE

RDM 4/21/08

APPR. BY DATE

A N/A

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SCALE: 1:1

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SHEET 1 OF 1