

Detroit Speed
1962-67 Chevy II Mini-Tubs
P/N: 040404DS

The Detroit Speed Mini-Tubs are inner wheel housings designed to accommodate wider tire and wheel packages, including tires as wide as 295mm for the 1962-1965 Chevy II and 315mm for the 1966-1967 Chevy II. The DSE Mini-Tubs are engineered for a precise fit and retain a stock appearance. The Mini-Tubs are 2-1/2" inches wider than stock, stamped from 18-gauge steel and proudly **Made in the USA.**



Scan the QR code to guide you through the step-by-step installation video of the 1962-67 Chevy II DSE Mini-Tub installation.

Item	Component	Quantity
1	DSE Mini-Tubs - 1962-67 Chevy II	2
2	1962-67 Driver & Passenger Side Frame Rail Closeout (99040212 & 99040218)	2
3	1962-67 Mini-Tub & 1962-65 Upper Seat Back Brace Templates (99040247)	1
4	1966-67 Driver Side Trunk Hinge Bracket Template (99040265)	1
5	1966-67 Upper Seat Back Brace Template (99040266)	1
6	Instructions	1

INTRODUCTION

Congratulations on your purchase of the Detroit Speed Chevy II Rear Mini-Tub Kit. Please read the entire set of instructions, watch the installation video available on the Detroit Speed website, and fully understand all the steps involved before beginning the project. Always make sure to wear the appropriate safety equipment for the job and properly support the vehicle.

Wheel and Tire Fitment			
1962-65 Chevy II		1966-67 Chevy II	
Wheel Size	Tire Size	Wheel Size	Tire Size
17" x 10"	295/40R17	17" x 11"	315/35R17
18" x 10"	295/35R18	18" x 11"	315/30R18

NOTE: All work should be performed by a qualified welder and technician.

Detroit Speed offers a DSE QUADRALink or DSE Leaf Spring Relocation Kit rear suspension system to go along with the DSE Mini-Tubs (Figure 1).

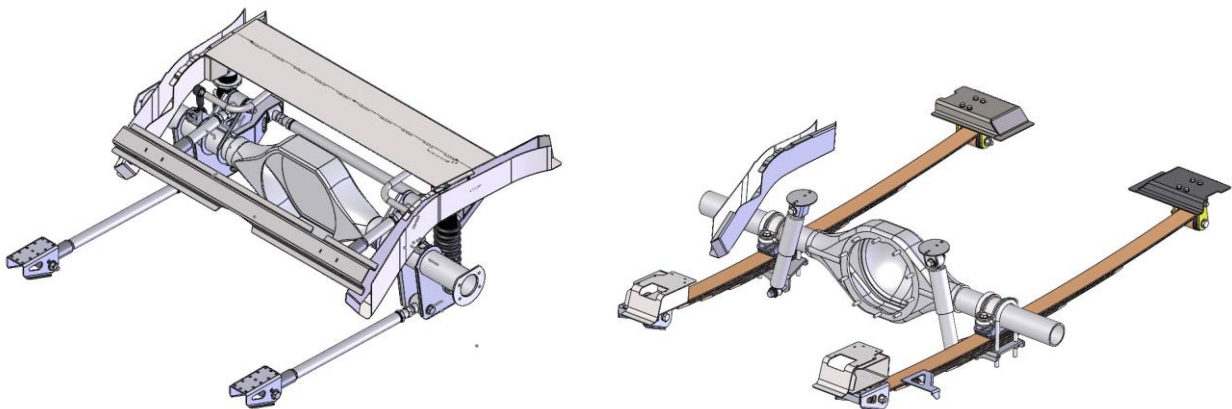


Figure 1 - DSE QUADRALink (PN: 041707DS) and Leaf Spring Relocation Kit (PN: 041228DS)

NOTE: We recommend welding one Detroit Speed Mini-Tub at a time because it is easier to fit and install the Detroit Speed upper shock crossmember for the DSE QUADRALink Kit without one of the Mini Tubs in place. Cut and fit both sides, however, only weld one side in place until the upper shock crossmember has been fitted.

I. PREPARING THE VEHICLE

1. Raise the vehicle a few feet off the ground so the interior, trunk, and the underside of the vehicle are accessible. Ensure the vehicle is level and well supported.

2. Disconnect the battery cables.
3. Remove the gas tank and fuel lines. **NOTE:** Make sure to eliminate all the fuel vapors from the work area before continuing.
4. Remove the rear suspension and axle.
5. Remove the seats, carpet, carpet padding, rear interior quarter trim panels, and package tray. Any other interior panels, headliner, door panels, etc., should be removed or masked well to protect them from grinding and welding sparks.
6. Remove the trunk lid, springs, and hinges. Take care when removing the trunk springs as they are under high tension when installed.

II. REMOVING STOCK INNER WHEELWELLS

1. Removing the seat back braces and trunk flanges

- i. Begin inside the trunk by removing the two side trunk support flanges. On the passenger's side, grind and drill out the factory spot welds, then separate the upper and lower support flange pieces using a chisel (Figure 2).



Figure 2- Separating the Passenger Side Trunk Support Flange

- ii. On the driver's side, cut the trunk support flange 1/4" below the offset stamped into the support (Figure 3).



Figure 3 - Cutting the Driver Side Trunk Support Flange

- iii. Cut the lower support flange pieces out of the factory wheel wells using a 3/32" 3M cut off wheel and set them aside for modification later (Figure 4).



Figure 4 - Removing the Passenger Side Trunk Support Flange after Cutting

- iv. For all models, cut out the two Mini-Tub Inner Wheel Well Templates (99040247). For the 1962-65 models, cut out the Upper Seat Back Brace Template (99040247). For the 1966-67 models, cut out the Upper Seat Back Brace Template (99040266). Take care to ensure that the correct templates for your vehicle are used, as the templates differ between 1962-1965 models and 1966-1967 models.
- v. Line up the outboard edge of the upper seatback brace template with the vertical outer trim on the upper seatback brace inside the trunk. Trace and remove the template (Figure 5).

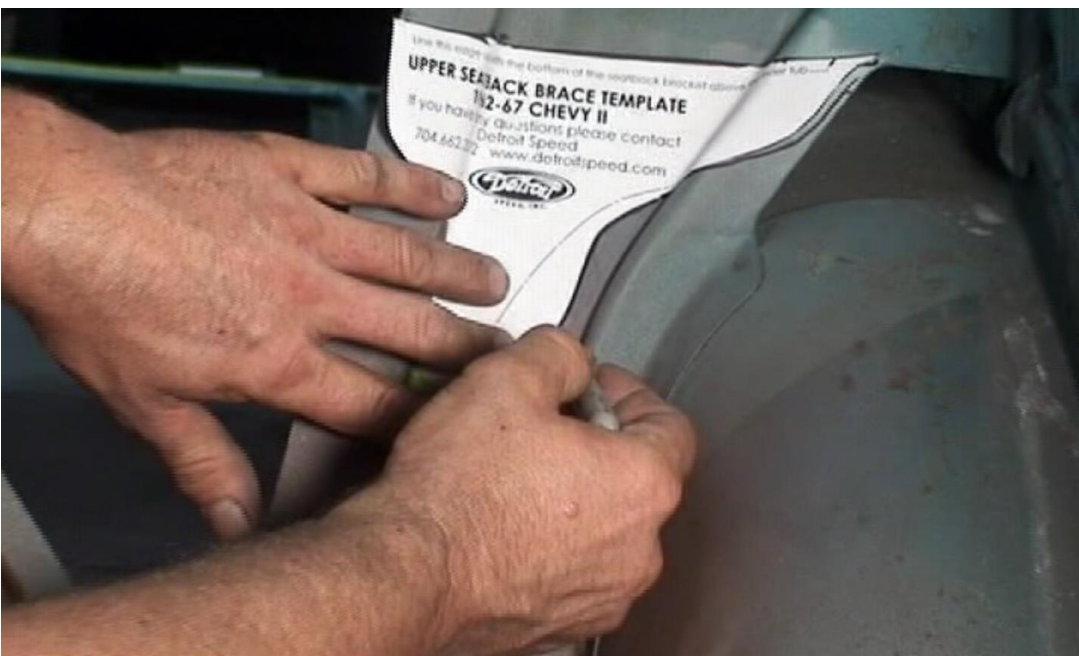


Figure 5 - Tracing the Template on the Seatback Brace (62-65 model shown)

- vi. Grind and remove the factory spot welds on the upper seatback braces. Cut along the traced template lines using a 3/32" 3M cutoff wheel, taking care to leave enough material for finish grinding later. After removing the main brace, the material in the bottom corner will need to be removed as well (Figure 6).



Figure 6a – Cutting the Seatback Brace



Figure 6b – Removing the Brace



Figure 6c – Removing the Bottom Corner Flange

2. Removing the stock tubs

- i. Position and trace the two Mini-Tub Inner Wheel Well Templates (99040247) around the factory wheel well, then rough cut along the contours of the factory inner wheel well. The factory wheel well should be free at this point and can be removed for better access to the traced areas (Figure 7).



Figure 7a – Tracing the Lower Templates



Figure 7b – Cutting the Factory Wheel Well



Figure 7c – Removing the Factory Wheel Well

- ii. Rough cut along the traced sections using a 3/32" 3M cut off wheel, leaving enough material for finish work later. You will need to cut through the top of the frame rail—this is normal. Be sure to save the original seat belt anchors if your car is a 1966 or 1967 (Figure 8).



Figure 8 - Removing the Previously Traced Floor Pan Section

- iii. Measuring from the outside of the remaining factory wheel housing, leave 4" of the original wheelhouse flange on the front and rear and remove the remaining flange past 4" (Figure 9a). Remove any remaining horizontal flange along the arc of the factory wheel tub (Figure 9b).



Figure 9a – Cutting the Factory Flange



Figure 9b – Cutting the Horizontal Flange

3. Modifying the frame rails

- i. Use a straight edge to mark vertical lines along the outboard wall of the rear frame rails where the cuts previously made in the floor pan intersect the frame rails. Re-use the Mini-Tub Inner Wheel Well Templates (99040247) and place it on the bottom side of the frame rail. Trace this pattern onto the bottom side of the frame rails, then cut and remove the outboard frame rail wall (Figure 10).



Figure 10a – Mark & Cut Vertical Ends First



Figure 10b – Follow Included Template



Figure 10c – Finished Frame Rail Clearance

- ii. Drill out the factory lap flange welds. Cut off the factory front lap flange. Cut off the outer layer of the factory rear lap flange and bend the inner layer down and into the wheel well (Figure 11).



Figure 11a – Removing Forward Lap Flange



Figure 11b – Removing & Bending Lap Flange

- iii. Prep all the edge surfaces by cleaning and de-burring the flange between the inner and outer wheel tubs.

III. INSTALLING THE Detroit Speed MINI-TUBS

1. Test fitting the new Detroit Speed Mini-Tubs

- i. It is a good idea to clamp the tub in place using either locking pliers and/or self-tapping sheet metal screws. Make note of areas that will need trimming and finish grinding, then remove the tub again. Due to the variation in sheet metal and the frame rails in these vehicles, the amount of trimming required to fit the new mini tub may vary. **Make sure the tub fits correctly *before* proceeding to weld the new frame rail close out into place.**

2. Prepping the frame rails

- i. If you are installing the DSE Leaf Spring Relocation Kit, PN: 041228DS, use those instructions to install your DSE frame rail doublers. If you are installing the DSE QUADRALink, PN: 041707DS, use those instructions to install your DSE frame rail doublers. If you are just installing the DSE Mini-Tubs, continue to the next step.
- ii. Locate the driver and passenger side frame rail closeout panels (99040212 & 99040218) to close out the clearance area created on the side of the frame rails. Tack the panels into place (Figure 12).



Figure 12 - Fitting and Trimming the New Frame Rail Close Out

- iii. Fabricate new front and rear flange pieces and tack weld them into place (Fig. 13).



Figure 13a - Fabricate Front Flange



Figure 13b - Fabricate Rear Flange

- iv. Finish welding the frame closeout and flanges and grind all welds smooth.

3. Prepping the Mini-Tubs

- i. Finish trimming as necessary for mini-tub fitment, then test fit the new mini-tub again. This will be the final test fit, so double-check fitment at all mounting surfaces and adjust fitment before continuing. **NOTE:** DSE recommends placing your wheel and tire in the mini tub to make sure you have sufficient clearance between the tire and the mini tub before you weld them in place. DSE recommends using your rear axle to help locate your wheel and tires.
- ii. When you are satisfied with the new mini-tub fitment, mark all the mating surfaces for plug welding. Once the basic weld area has been traced, removing the mini tub allows for easier marking and punching of plug weld holes. Space your marks 1-1/2" apart, and then punch your marks for welding (Figure 14).



Figure 14a – Mark Surface for Weld

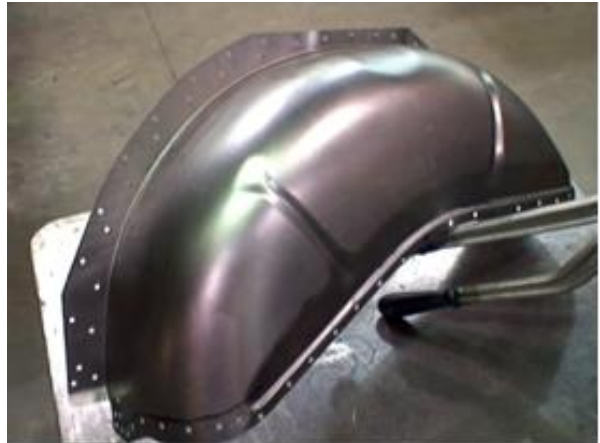


Figure 14b – Mini-Tub Ready to Weld

4. Installing the Mini-Tubs

- i. Install the mini-tub, confirm mini-tub position, and spot weld it to the newly fabricated flanges and frameraills. Grind the welds after they are completed.
- ii. Fabricate new front outer lap flanges and weld them into place. Bend the rear flanges back onto the new tub and weld them into place (Figure 15).



Figure 15a – Weld Front Lap Flange



Figure 15b – Bend Rear Lap Flange into Place

- iii. Clean and smooth all welded surfaces in preparation for painting.

5. Modifying the Seatback Braces and Trunk Support flanges

i. 1962-1965:

1. Use the supplied Upper Seat Back Brace Template (99040247) to modify the rear seat brace that was removed earlier for clearance around the new mini-tubs, and then weld the brace at both the top and bottom and along the new mini-tub (Figure 16).



Figure 16a - Trace Template on Brace



Figure 16b - Welding Modified Brace



Figure 16c - Finished Modified Brace

2. Use the original side trunk brace flanges to make a template that will help determine how the braces will need to be modified to fit with the new tubs (Figure 17).



Figure 17 - Comparing Cardboard Template to Factory Trunk Flange

- Carefully modify the flanges to fit, then test fit the flanges to ensure proper fitment before preparing the upper sections and wheel tubs for welding. Prime the flanges using a weld-through primer to eliminate the chance of future rust damage (Figure 18).



Figure 18 - Modified and Primed Factory Trunk Flange

- Use the modified flanges as a template to locate the flange weld holes in the new tub. Weld the modified trunk flange lower sections to the upper sections and the new wheel tubs (Figure 19 & 20).



Figure 19a - Tub Marked for Flange



Figure 19b - Passenger Trunk Brace Flange



Figure 20a - Mark Driver Side for Welding



Figure 20b - Driver Side Trunk Brace Flange

ii. 1966-1967:

1. Use the included Upper Seatback Brace Template (99040266) to modify the rear seat brace that was removed earlier for clearance around the new mini-tubs, and then weld the brace at both the top and bottom and along the new mini-tub (Figure 21).



Figure 21 - Marking the Upper Seatback Brace

2. Select an appropriate new location for the seat belt mount based on your car's floor pan. Using the saved seat belt mounts from earlier as a guide, mark the floor pan, then drill a new hole for the seat belt mounting bolt. Use the seat belt mounting bolt to hold the mounting plate and then plug weld the mounting plate into place (Figure 22).



Figure 22a - Mark & Trim Belt Anchors



Figure 22b - Mark New Anchor Location



Figure 22c - Weld Anchor (Supported by Anchor Bolt)

3. Fabricate a new flange to tie the factory trunk hinge/braces onto the new mini tubs. Make a simple template to modify the factory braces as necessary (Figure 23).



Figure 23a - Fabricate Flange for 66-67 Vehicles Figure 23b - Trimming Factory Brace & Flange

4. Once proper fitment is achieved with the newly fabricated brace flanges, weld the brace flanges to the new mini-tubs and the factory braces (Figure 24).



Figure 24 - Finished Passenger Side Trunk Brace

5. Due to the differences from vehicle to vehicle caused by factory GM tolerances, the trunk hinge may need to be trimmed slightly to clear the new mini tubs. Modify the factory hinges as necessary (Figure 25).



Figure 25 - Trimming Trunk Hinges for Clearance

IV. FINAL ASSEMBLY

1. Paint all bare metal to prevent the formation of rust.
2. Remove the rear seat cover and padding. Modify the bottom of the seat frame to clear the DSE Mini-Tubs. Install the bare seat frame and mark points of interference between the seat frame and mini-tubs. These points will have to be modified to clear the new mini tubs.
3. Cut 2" from the center flat section of the lower main seat frame on each side. Save the removed material as it will be used to rebuild the frame at the end (Figure 26).



Figure 26 - Cut 2" from Top and Bottom Rail

4. There is a diagonal support rod and a vertical support rod at the outside rear of each side of the frame. Measure and mark 5" from the vertical rod and 2-1/2" from the diagonal rod on the cross rod, then cut the cross rod at the 2-1/2" mark and at the attachment point to the main seat frame (Figure 27).



Figure 27 - Cutting the Cross Bar at the 2-1/2" Mark

5. Flip the cut section of the cross rod so that the end that was closest to the vertical support rod can be re-mounted to the seat frame, and the end that was mounted to the seat frame can be reattached to the rest of the cross rod.
6. Weld the flipped section of the cross rod into place, then bend the diagonal rod to the 5" mark on the cross rod. Weld the diagonal rod to the cross rod (Figure 28).



Figure 28 - Finished Flipped Cross Rod & Bent Diagonal

7. Cut the contoured pieces of the main lower seat frame off the vertical main seat frame rails. Weld these contoured pieces to the remaining center flat section (so that the contoured pieces move in 2" on each side, clearing the new mini tubs) then use the saved 2" sections of material to complete the gaps left between the contours and the vertical main seat frame rails. Test-fit the modified seat frame. At this point, the diagonal bar, cross bar, and lower seat frame should all clear the new mini tub (Figure 29).

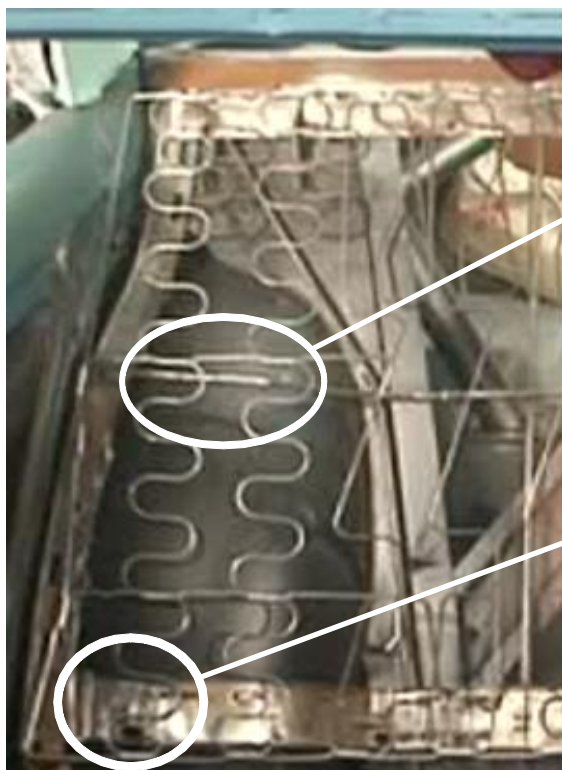


Figure 29a - Passenger Side Modified Frame

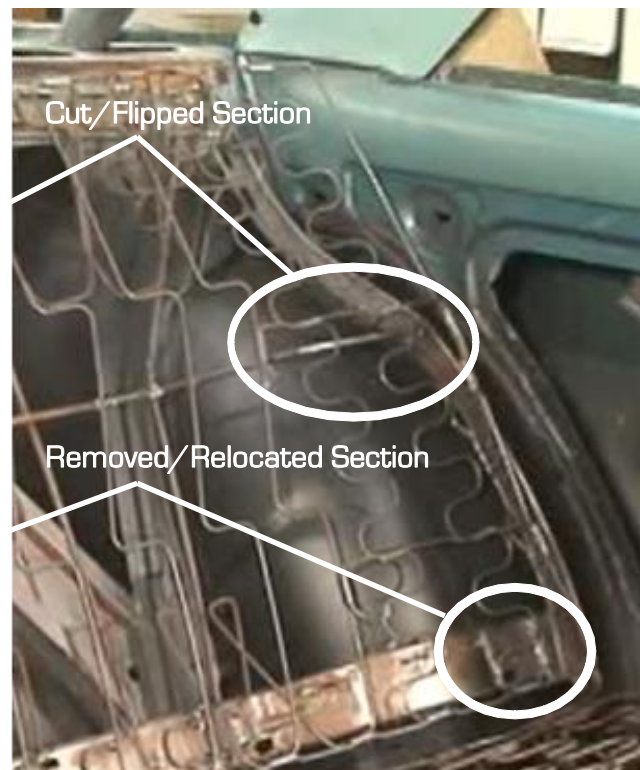


Figure 29b - Driver Side Modified Frame

8. Re-cover the seat bottom, and then reinstall the package tray, rear interior quarter trim panels, carpet padding, carpet, seats, gas tank, rear suspension, and any additional interior panels that were removed for the installation process.

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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