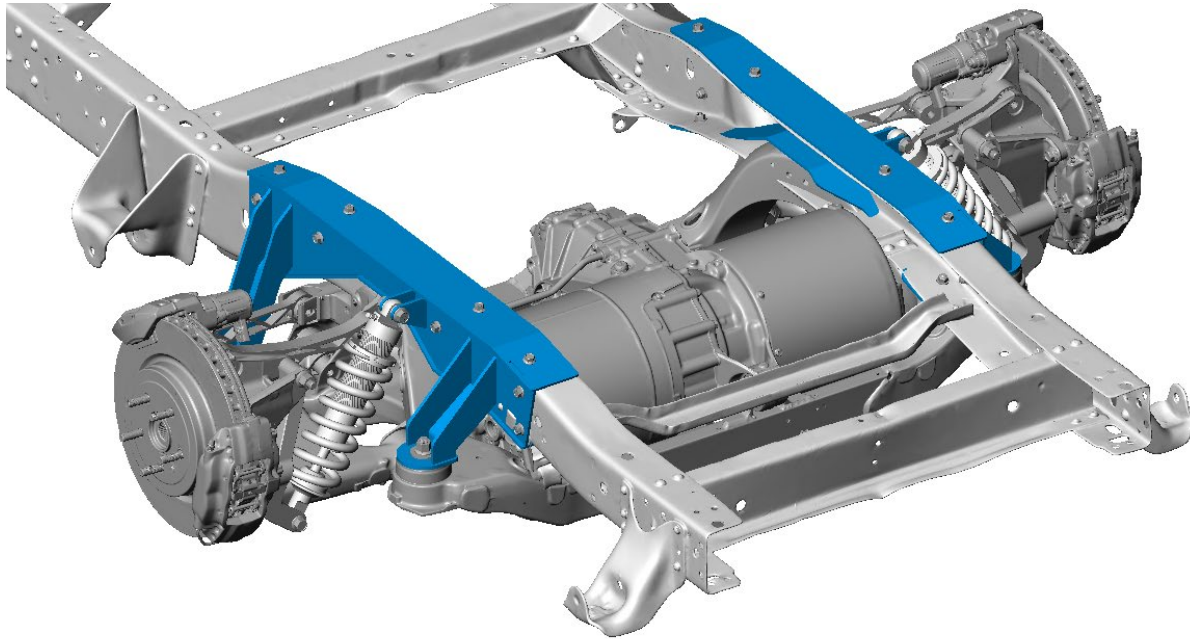


1973-87 Chevy C10 Rear Tesla Subframe Mount Kit

Part Number HEV002-001



***Compatible with 1973-87 Chevy C10 truck frames as well as 2012-2021 Tesla Model S and 2015-2021 Tesla Model X Subframes.**

This kit is designed to adapt the frame of a 73-87 C10 pickup (Long or Short Bed) to accept a 12-21 Model S or 15-21 Model X Tesla rear subframe/motor assembly. The kit is pre-engineered to rigidly mount the applicable Tesla subframe in the correct position on the truck frame to achieve proper suspension geometry while substantially increasing the rigidity of the truck frame. This kit also incorporates upper coil over shock mounts to pair with Holley Part Number HEV001-001 to successfully convert the stock Tesla coil over suspension to an aftermarket coil over shock system that is positioned lower to allow a clean fit into the swap truck without having to clearance any of the truck bed. Depending on the coil over shocks used this kit will accommodate a 4-6 inch drop from factory ride height in the rear of vehicle so it is advisable to also lower the front of the vehicle. An excellent addition to this kit is the SpeedMax kits for the front of the vehicle offered by Detroit Speed.

Note: This kit requires notching of the truck frame. It is also required to drill additional holes in the frame to rigidly bolt the subframe mounts to the frame. While welding the frame mounts to the truck frame is not required it is possible to further strengthen the assembly.

Depending on the front-end conditions of the vehicle and the weight balance front to rear it is recommended to run 200 lb./in to 300 lb./in coil springs with the coil over shocks (Not Provided). Coil over shock/spring assemblies should be standard 14" x 2.5" size.

Wheel recommendations: The Tesla suspension has a wider track width than the O.E. truck track width does. In order to fit wheels and tires in the fender wells without modifications we recommend using 10" wide wheels with an 8" backspace measurement to optimize clearance with the outer fender and the

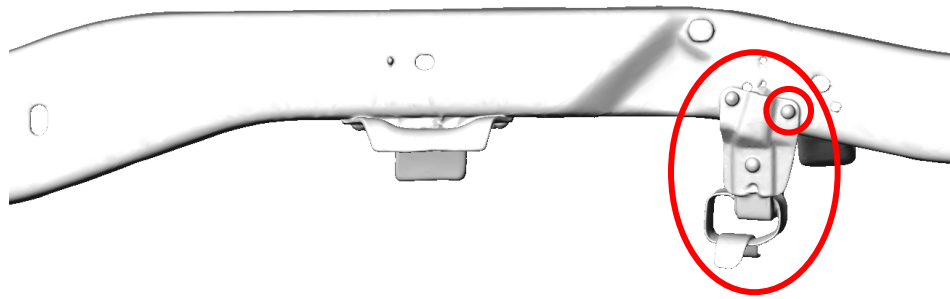
frame rail on the inner side. Wider wheels will not fit without modification. If narrower wheels are chosen the backspace should be calculated in a fashion that keeps the position of the outer face of the wheel in the same location (width should be removed from the inside of the wheel).

Included Components:

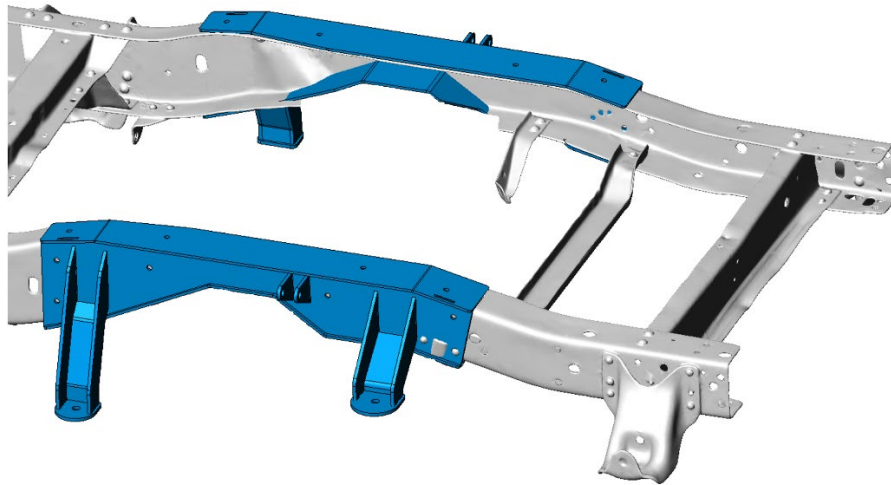
- (1) LH Frame Mount Assembly
- (1) RH Frame Mount Assembly
- (2) M14 x 2.0 x 120mm Hex Head Bolt
- (2) M14 x 2.0 x 100mm Hex Head Bolt
- (8) M14 Oversize Fender Washer
- (4) M14 x 2.0 Flange Head Nylon Lock Nut
- (24) 3/8"-16 x 1.0" Flange Head Bolt
- (24) 3/8"-16 Flange Head Nylon Lock Nut
- (1) LH Frame Cutting Template
- (1) RH Frame Cutting Template

Installation

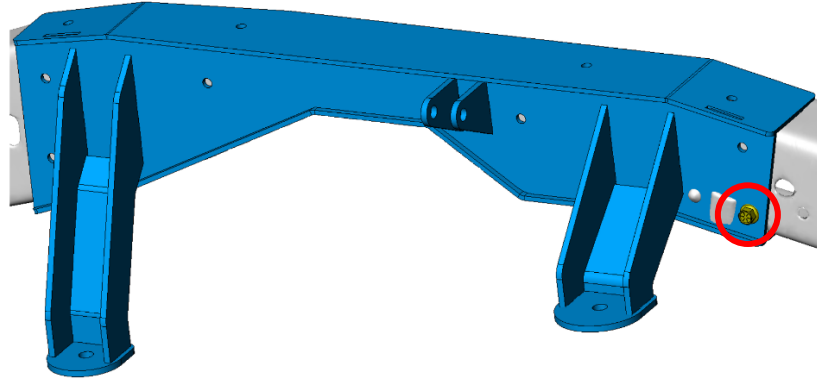
1. Remove truck bed from frame and set aside.
2. Support truck frame with jack stands both in front of and behind the axle.
3. Remove all exhaust system, fuel tank(s), and the entire rear end by unbolting the leaf springs. *If a cleaner looking frame is desired, the leaf spring brackets can be removed by grinding the rivet heads off and punching the rivet body out of the frame.*
4. Using scissors cut the frame notch templates free from the larger sheet.
5. Identify the appropriate cut template (they are labeled driver side and passenger side, front and rear) and begin by taping it to the frame. The templates can be properly aligned a few different ways depending on your year model frame configuration. On the rear of each template there is a hole labeled "Frame Alignment Hole". In most situations that hole will align with a hole located behind the axle. On the LH side of the frame there will likely be an exhaust hanger rivet occupying that hole. If the alignment hole is not present on your frame there is a centerline mark on the template labeled "Axle Centerline". That line on the template can be aligned with the center of the axle by dropping a string with a weight attached. Once the template is properly aligned it can be securely taped to the frame.
6. Determine if any brackets that may remain are overlapping the templates. If so, said brackets should be removed. The image below shows a situation where a factory exhaust hanger bracket must be removed. This image below also shows the rear hanger bracket rivet that will serve as the template alignment hole.



7. Transfer the notch section lines on the bottom to be removed from the frame onto the sides of the frame with a marker. On either end of the notch section where the template bisects the bottom of the frame extend the line across the bottom surface of the frame straight across. Remove templates.
8. Using a cutoff wheel/reciprocating saw, cut the notch free of the frame on both driver and passenger sides.
9. At this point test fit the welded bracket assemblies to the frame. A tight fit is desired, so it is better to do multiple test fits and slowly remove material in interference areas. The image below illustrates how the brackets will be oriented on the frame.

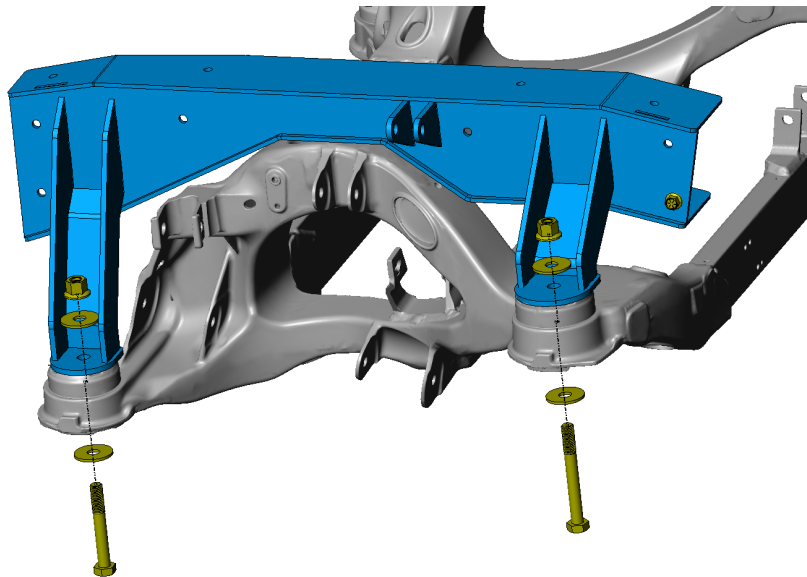


10. Once both bracket assemblies are fully seated against the frame install one of the 3/8" flange bolts into the alignment hole toward the rear on both side brackets. If the hole doesn't line up sufficiently to install the bolt or the hole is not present in the frame the hole can be enlarged or drilled at this time using a 25/64 drill bit. See image below.



11. Torque the alignment bolts to 44 Ft-lbs.

12. At this point it is advisable to fit check the Tesla subframe to bracket assemblies. Install the M14 x 100mm bolts in the front two bushing mounts as shown below and the M14 x 120mm bolts in the rear mounts. If the alignment is optimal and the bolts install easily, the subframe can be removed. If the bolts do not install easily the mounting pads on the bracket assemblies may need to have the mounting holes enlarged or the bracket assemblies may need to be shifted forward or rearward on the frame independently to square the subframe to the truck frame.

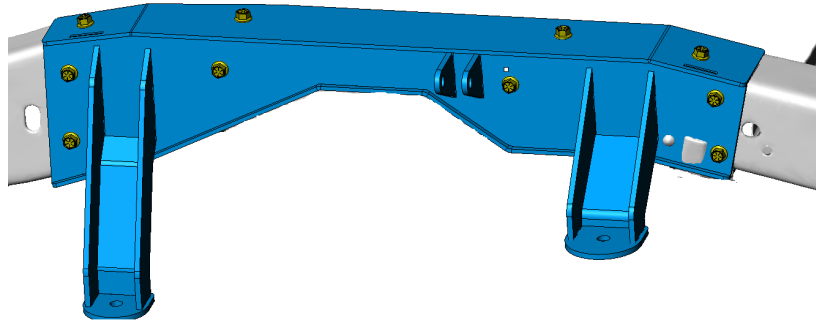


13. Once any modifications to the fitment are complete and the subframe has been successfully fit checked and squared to the truck frame the Tesla components can be removed and set aside.

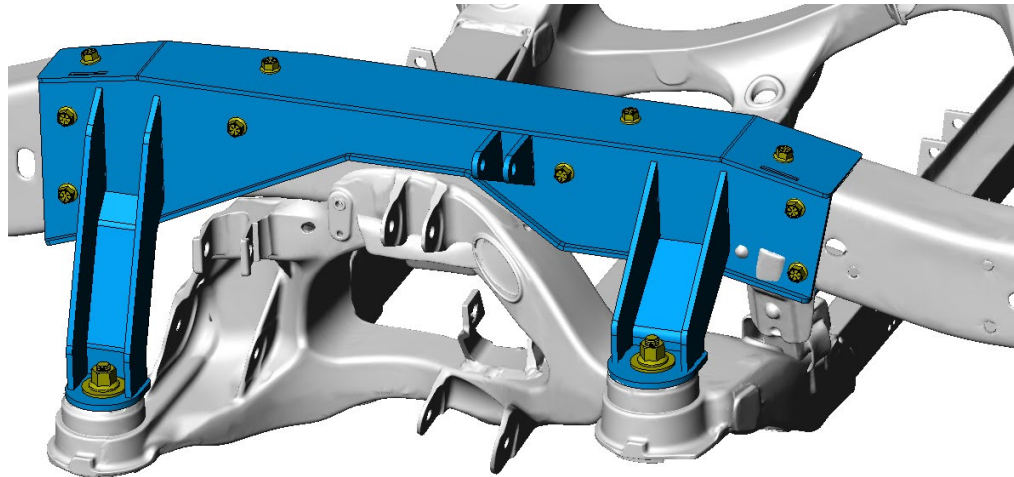
14. At this point the remaining 11 holes per side can be drilled using a 25/64" drill bit. The bracket assemblies will serve as the template to drill the remaining holes. If desired the holes can be

marked and then the brackets can be removed to drill the holes. It is also acceptable to drill the mounting holes with the brackets in place. In total there should be 6 frame bolts on the side of each bracket, 4 frame bolts on the top of each bracket, and 2 bolts on the bottom of each bracket.

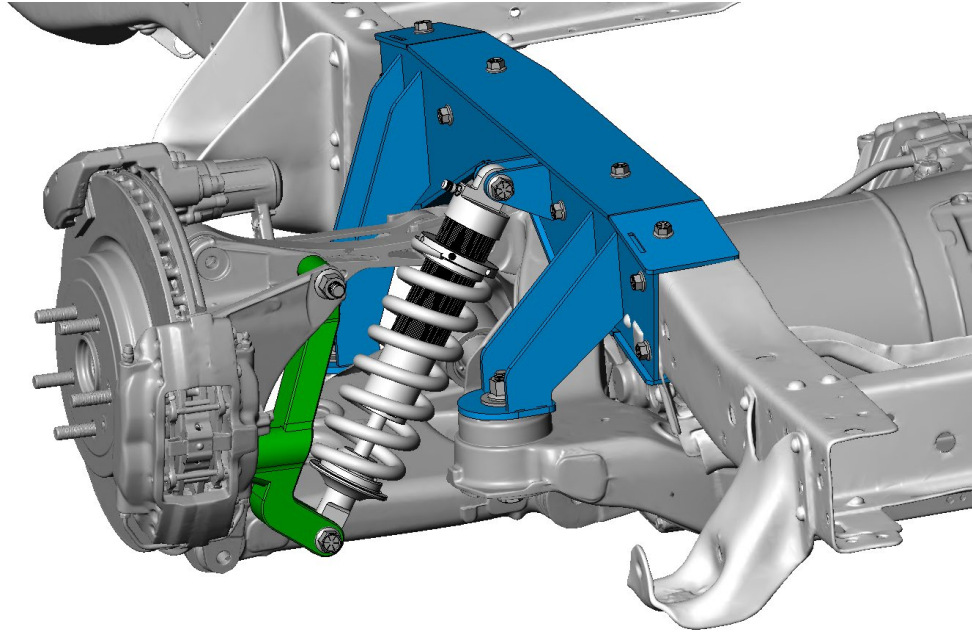
15. After all holes have been drilled, install the remaining 3/8" bolts and lock nuts. Torque all fasteners to 44 Ft-lbs. See below.



16. At this point the Tesla subframe assembly can be reinstalled. Loosely install the (4) M14 bolts, washers, and lock nuts through the subframe and frame mounting brackets. Washers should be used on both the bottom of the subframe bushing as well as on top of the frame mount brackets as shown below. The two shorter M14 x 100mm bolts will be used on the front mounts and the longer M14 x 120mm bolts will be used on the rear mounts. Once all four bolts have been installed, they can be torqued to 100 Ft-lbs. See below image.



17. The subframe is now fully installed and the last remaining suspension components to install are the coil over shocks (not provided). See provided instructions in coil over bracket relocation kit for details about the installation of the coil over shocks. An example of the coil over shock placement can be seen in the image below.



18. The truck bed can now be reinstalled on the frame.

19. Congratulations, the truck has been successfully converted to a Tesla rear suspension and drivetrain. After the initial drive it is advisable to retorque all fasteners.