

ZF5 TRANSMISSION CROSSMEMBER INSTALLATION INSTRUCTIONS

Notice to Dealer / Consumer

Important! Read all instructions before attempting any work on the vehicle.

Disclaimer Notice: Installing this suspension system on any vehicle implies that you are in agreement with the following term and conditions with respect to that vehicle, the vehicle owner, and any or all occupants of said vehicle at any time:

Sky Manufacturing is not responsible and cannot be held responsible for any conditions of said vehicle, including but not limited to the following: 1) Any and all adverse behavior, premature failure, or breakage caused by oversized tires and wheels, improper installation, failure to follow instructions, or any general negligence caused by installer or owner of said vehicle. 2) Any breakage or premature failure caused by racing or driver negligence. 3) Any incident determined to be caused by an increase height in said vehicle's center of gravity. 4) Any incident determined to be caused by improper installation. 5) Any incident determined to be caused by a failure of materials.

Sky Manufacturing is to be held harmless by the installer of this suspension component, owner of said vehicle, and any parties related directly or indirectly to said vehicle or owner of said vehicle. Sky Manufacturing is to be held harmless by all parties mentioned during the course of any and all circumstances or incidence resulting from the installation of this suspension component. It is not the intention of Sky Manufacturing that said vehicle be modified for use on public highways sanctioned by the Department of Transportation, or any state or local governing body. Vehicle owner accepts sole responsibility for ensuring that said vehicle is not in violation of local, state, or federal laws or vehicle code. Please check local vehicle laws and regulations before modifying your vehicle.

By installing this kit or having this kit installed on your vehicle, you are implying that you agree to the above terms and conditions. Please do not install this system if you do not agree.

WARNING:

Vehicles modified for Off-road use may handle differently and vehicle may roll-over.

Vehicles modified for off-road use are generally do not improve in cornering or maneuverability on the highway, therefore it is imperative to familiarize yourself and all operators with the specific driving characteristics of the vehicle. Failure to operate in a safe and conservative manner may cause you, your passengers, and/or third parties to suffer serious injury or even death if control is lost.

Always wear your seatbelt and shoulder harness. Seatbelts not only help to protect occupants from injury but also keep the driver behind the wheel and in control when operating in rough terrain. Always remain on trails and observe conservation techniques while operating your vehicle.

There are no specific directions to install this product due to the number of combinations of springs, axles, lifts etc. possible. Professional installation is recommended. This kit requires knowledge of suspension design, fabrication and welding skills.

If you lack those, do not purchase this kit!

KIT INCLUDES

- 1X ZF5 CROSSMEMBER
- 2X MOUNTING JIG
- 4X ½" X 2.5" BOLT
- 2X ½" X 3" BOLT
- 2X ALUMINUM SPACER
- 6X ½" NYLOCK NUT
- 12X ½" WASHER

STEP 1: Support the transmission in a way that will not allow it to move side to side.

STEP 2: Remove the factory transmission crossmember, front drive shaft and factory skid plate if equipped.



STEP 3: Remove the transmission mount from the transmission.



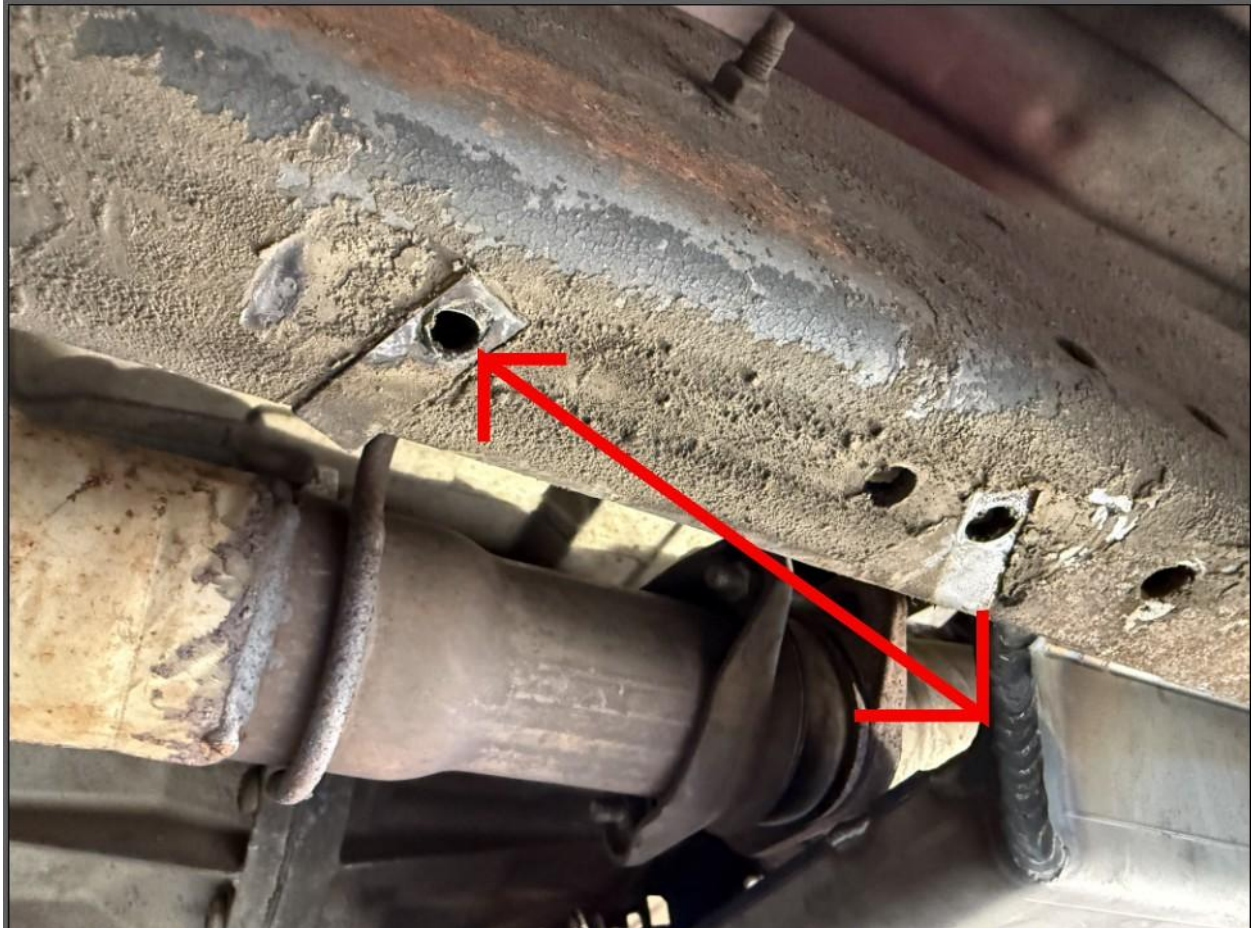
STEP 4: Install the new Sky's Transmission Crossmember. To do this you will set the driver side (end that is clearanced for the front drive shaft) in the frame, you will then put the passenger side in the frame by angling the passenger side towards the rear of the truck to get it in the frame and then sliding it forward once it is in the frame. **NOTE: YOU MAY HAVE TO MOVE OR REMOVE THE EXHAUST IN ORDER TO GET THE PASSENGER SIDE TO MOVE FORWARD. WE DID NOT HAVE TO BUT EVERY EXHAUST SITS UNDER THE TRUCK DIFFERENTLY.**



STEP 5: Once you have the crossmember under the transmission, rotate the front of the crossmember down to install the transmission mount. When installing the mount you will put the end with the studs of the mount into the crossmember first. Once you have the mount sitting on top of the crossmember you can now install the bolts that hold the mount to the transmission. (We recommend using red loc tight for this)



STEP 6: Now to mount the crossmember to the frame you will need to make sure that the crossmember is sitting square in the frame and that the rear of the crossmember does not hit the transfer case. To do this you will measure 6" - 6 ¼" from the center of the rear skid plate holes to the back of the crossmember on both sides.



STEP 7: Once you have the crossmember square you will lower the transmission down to the crossmember so that it is barely touching but does not move the crossmember to verify that the transfer case does not touch back of the crossmember. If it does touch, move the crossmember forward on both sides until there is $\frac{1}{4}$ " of clearance and make sure that the crossmember is still square.



STEP 8: Once you have verified that the crossmember is square and the transfer case will not hit you can now use the drill jig to mark your holes. To do this you will put the side of the jig with 2 locating bumps onto the top of the bracket and make sure that the 2 bumps sit in 2 holes while the hole in the jig lines up with the 3rd hole in the crossmember. **DO STEPS 8-10 ONE SIDE AT A TIME, MEANING ONCE YOU HAVE ALL 3 HOLES DRILLED ON ONE SIDE OF THE FRAME YOU CAN MOVE TO THE OVER.**



STEP 9: Now that you have the jig located you can now drill a ½" hole in the locating hole on the jig that does not have a bump on the top side of the frame. **IT IS IMPORTANT THAT YOU DO NOT MOVE THE CROSSMEMBER AT THIS TIME. YOU CAN USE CLAMPS TO TEMPORARILY HOLD THE CROSSMEMBER IN PLACE.**



STEP 10: Now that you have drilled the hole in the frame using the locating hole that does not have a locating bump you will use a $\frac{1}{2}$ " x $2\frac{1}{2}$ " bolt to go through the bottom of the jig, the frame, crossmember and top of the jig. Tighten the bolt with a supplied nut to keep the jig and crossmember from moving. You can now drill the other 2 holes.



STEP 11: repeat steps 8-10 on the other side of the crossmember using the 2nd supplied jig.

STEP 12: Now that you have all 6 holes drilled you can remove the bolts used to hold the crossmember and remove the jigs.

STEP 13: Install the 2 aluminum spacers under the front holes of the crossmember (on top of frame, under crossmember). You will use the $\frac{1}{2}$ " x 3" bolts in those same holes as well as 2 washers and a nylock on both bolts. **FOR BETTER CLEARANCE AND A CLEANER LOOK INSTALL THE BOLTS THREAD FIRST WITH THE HEAD OF THE BOLT FACING THE GROUND.**



STEP 14: Install the ½" x 2 ½" bolts in the remaining 4 holes with 2 washers and 1 nylock per bolt. Torque all crossmember mounting bolts to **90ft lbs**



STEP 15: Now that you have the crossmember installed you can now install the front drive line, tighten the transmission mount to the crossmember and install the factory skid plate. Transmission wiring can be zip tied out of the way and/or you can drill holes in the crossmember to use the factory clamp but siliconing the portion of the clamp that goes into the crossmember is required to prevent moisture from getting inside the crossmember. If you fail to use silicone your warranty is no longer valid.