



Honda K-Series To Mazda RX-8

There are a few things that you have to do before this will go in smoothly:

-You will need to relocate the ABS. It will conflict with the accessory drive otherwise. We unbolted the ABS and pushed it as far as we could towards the strut tower and made small sheet metal right angle bracket to secure it off to the side.

-You will also need to relocate the steering rack using our rack relocation kit. Once installed, you will need to lengthen the rx-8 steering shaft, or use a longer splined shaft at the bottom to go in between the U-joint and the rack. We used one from a Lexus is250, we modified the top of it so it installs easily.

-The front crossmember will need to be notched as shown (insert picture) to provide clearance for the oil pan.



-There is a brace in the engine bay in front of the engine where a wiring harness attaches- you can either cut this out or trim it down if you would like to keep it.

-The firewall has a heat shield on it that will need to be removed. We cut the heat shield from the brake booster area to the A/C and removed it, exposing the steel firewall behind it. You will also need to remove the plastic wiper cowl and trim the metal cowl from the plastic cover to the firewall to make room for the head of the engine when installing it. You will then be able to put the plastic cowl back in place after installation.

Engine and Transmission-

1. Install the K-Series Engine mount block adapter (Aluminum Block) to the driver's side of the engine.
2. Install the adapter plate onto the engine with the supplied hardware. Some of the hardware will go in through the engine side into the adapter plate, a Starter bolt and two passenger side bolts as well. Once the adapter plate is in, mock up the starter to the transmission. You will need to grind a relief where the starter snout interferes with the RX-8 transmission. This is easy and can be denoted by the two bolt holes in the transmission that hold the slave cylinder on, draw a line through these two holes to the end of the bell housing where the starter is and make a small notch in the transmission until the starter fits on flush and nice.
3. Now that you have clearanced the transmission, you can install the flywheel clutch and pressure plate and mate the engine and transmission.
4. When installing the flywheel, first hand tighten the bolts. Then tighten all the bolts to 20 ft/lbs in a star pattern, then tighten all the bolts to 40 ft/lbs in a star pattern, Then tighten all the bolts to 60 ft/lbs in a star pattern, then you will finish tightening the bolts to 87 ft/lbs using the same star pattern. Make sure to use red Loctite on the threads and sure no thread locker seeps between the flywheel and crank flange.
5. Center up the clutch disc using the supplied clutch alignment tool.
6. Install the pressure plate to the flywheel. Lightly tighten the pressure plate in a star pattern a couple of turns at a time until the pressure plate is physically touching the flywheel and hand tightening is no longer easy. Now torque the pressure plate bolts to 20 ft/lbs in a star pattern making sure to use red Loctite.

Installation-

1. Remove shifter from the transmission.
2. Place a 2x4 between the differential cover and the subframe, this will help keep the differential where it needs to be. Very helpful if doing this swap alone.
3. Before installing the pre-assembled Engine and transmission, you will need to hammer the firewall excessively until the firewall is pushed back approximately 1.5" in the center where the rear coolant passage extension currently is(K-Series engine). A rule of thumb is to install the engine and transmission and try to bolt up the transmission where it needs to go(stock position) with the torque tube, and if the rear of the engine keeps hitting the firewall, you need to hammer more until it clears. You will take the engine and transmission in and out several times to do this correctly. You do not need to cut into the firewall to get the engine and transmission in and where it needs to be.
4. Once you have the engine and transmission in the bay, you will install the motor mounts. You will not be able to attach them to the engine before it's in the car. The driver side bolts directly to the Collins Aluminum engine mount adapter that bolts to the block and the passenger side bolts directly to the engine itself and don't forget to install the aluminum spacer between the engine bracket and the block itself on one of the bolts.

If you have any questions, do not hesitate to call—it's what we are here for! (803) 792-7189
Thanks again!