

RAM Force 9.5 clutch system C4 Corvette LT1, LT4, ZR1



SPECIAL NOTES:

DRIVE STUD LENGTH: The drive stud for the release bearing is oversized and must be trimmed to the proper length. Once you have finished your setup, extend the bearing to full travel, mark the stud, then remove it and trim to length.

BLEED CHECK: RAM recommends connecting the hydraulic bearing, bleeding the system, and checking for leaks **BEFORE** reinstalling the transmission. This may save you time and trouble later!

BEFORE INSTALLATION

Remove the 6 pressure plate attachment bolts from the flywheel. Notice the proper orientation of the pressure plate on the flywheel. Be sure the unit is installed this way. Lift the cover from the flywheel. The top disc is a sprung hub configuration. After removing the sprung hub disc you will see the floater plate.

The floater plate drives off of the three straps mounted to the flywheel, which are bolted in position. This is how the floater should fit when installing the unit in the car.

Remove the three 5/16-18 capscrews and lift the floater plate out of the assembly. The solid hub bottom disc can now be removed.

Install the flywheel loctite or similar thread locker on the flywheel bolts. Torque the flywheel bolts to 75-85 ft/lbs.

Slip the top clutch disc (sprung hub disc) onto the clutch alignment shaft followed by the floater plate and bottom clutch disc (solid hub). **Be sure the floater plate side that has the machined outer lip is facing the transmission** (i.e. the completely flat side towards the flywheel).

Slide the clutch alignment tool into the pilot bushing while positioning the floater plate over the drive lugs. The three retaining straps should line up with the three 5/16-18 holes on the flywheel surface.

Install the three 5/16-18 capscrews through the strap into the flywheel (note: the straps should line up without any repositioning). Use a threadlocker on the capscrews.

At this point make sure the floater plate should have a slight gap between the friction surface and the bottom disc.

Place the pressure plate onto the flywheel and **torque the cover bolts to 30 ft/lbs, tightening them in a star pattern so that the diaphragm is pulled down evenly.**

HYDRAULIC SLAVE CYLINDER

ZR-1 / LT-5 INSTALLATION Conversion Package 75-2177, 75-2179

Test fit the slave cylinder assembly on the release bearing sleeve and position the slave housing so that the hydraulic lines are pointed to the original slave cylinder opening in the bellhousing. Remove the transmission retainer plate bolt that aligns with the guide slot in the housing and install the guide stud in its place.

With the flywheel and clutch installed, put the bellhousing in place and secure it against the block with two bolts. Measure the distance from the transmission mounting surface to the tip of one of the clutch fingers with a vernier caliper. Record this measurement.

Install the slave cylinder onto the transmission collar making sure the bearing and housing are retracted as far as possible and that the base is sitting on the retainer plate.

Accurately measure the distance from the contact face of the bearing down to the mounting surface of the transmission. Record this measurement.

Subtract the bearing face to transmission measurement from the bellhousing to finger measurement. You should have 0.135" to 0.200". This is the required bearing to finger clearance when the transmission is in place.

With the bellhousing still in place, select an accessible spot on the passenger side of the bellhousing to hole saw a 1-¼ " access hole in order to align the slave cylinder with the guide pin when installing the transmission. You will do this with a long screwdriver. After mating the guide stud with the alignment slot in the slave housing, insert the screwdriver between the clutch fingers and bearing face to seat the slave against the retainer plate and check for adequate clearance between the bearing and clutch fingers.

Complete the bellhousing installation with the slave supported with a dowel through the input shaft hole into the disc. Support the slave by hand and remove the dowel. Start the transmission input shaft through the slave and work the slave onto the transmission collar (Using the access hole and long screwdriver) as you complete insertion of the transmission. After bolting the transmission to the bellhousing, do the screwdriver procedure described above making sure the hydraulic lines are exiting through the original slave cylinder opening in the bellhousing.

Connect the hydraulic feed line from the master cylinder using the supplied adapters, then fill bleed the system.

At this point you should check for proper clutch release. Insert the driveshaft into the transmission. Put the transmission into the 1:1 gear. (High. Not overdrive.) Depress the clutch pedal and make sure the driveshaft turns freely.

Complete the reassembly process.

LT-1 & L98 INSTALLATION Conversion Package 75-2173, 75-2175

Slide the slave cylinder assembly onto the release bearing sleeve and position the slave housing so that the hydraulic lines are pointed to the original slave cylinder opening in the bellhousing. Note the transmission retainer plate bolt that aligns with the guide slot in the housing. Note the retainer plate bolt that sits directly under hydraulic connections on the slave body.

Remove the transmission retainer plate. Countersink the plate hole for the bolt that sits under the hydraulic connections to accept the flat head socket screw supplied. Make sure the head is flush or slightly below the plate surface. Replace the retainer plate using this screw. Replace the bolt that aligns with the guide slot with the guide stud. (Note: The pin does not clamp the plate to the transmission housing.)

Slide the slave assembly onto the release bearing sleeve and make sure the slave housing sits down flush with the retainer plate.

With the flywheel and clutch installed, put the bellhousing in place and secure against the block with two bolts. Measure the distance from the transmission mounting surface to the tip of one of the clutch fingers with a vernier caliper. Record this measurement.

Install the slave cylinder onto the transmission collar making sure the bearing and housing are retracted as far as possible and that the base is sitting on the retainer plate.

Accurately measure the distance from the contact face of the bearing down to the mounting surface of the transmission. Record this measurement.

Subtract the bearing face to transmission measurement from the bellhousing to finger measurement. You should have 0.135" to 0.200". This is the required bearing to finger clearance when the transmission is in place.

With the bellhousing still in place, select an accessible spot on the passenger side of the bellhousing to hole saw a 1-¼ " access hole in order to align the slave cylinder with the guide stud when installing the transmission. You will do this with a long screwdriver. After mating the guide pin with the alignment slot in the slave housing, insert the screwdriver between the clutch fingers and bearing face to seat the slave against the retainer plate and check for adequate clearance between the bearing and clutch fingers.

Complete the bellhousing installation with the slave supported with a dowel through the pilot hole into the disc. Support the slave by hand and remove the dowel. Start the transmission input shaft through the slave and work the slave onto the transmission collar as you complete insertion of the transmission. After bolting the transmission to the bellhousing, do the screwdriver procedure described above making sure the hydraulic lines are exiting through the original slave cylinder opening in the bellhousing.

Connect the hydraulic feed line from the master cylinder and bleed the system.

At this point you should check for proper clutch release. Insert the driveshaft into the transmission. Put the transmission into the 1:1 gear. (High. Not overdrive.) Depress the clutch pedal and make sure the driveshaft turns freely.

Complete the reassembly process.

Note: These instructions are for original factory stock cars. Correct fit for these parts is not assured for vehicles modified from stock specifications.

Technical help

Please visit our website www.ramclutches.com for technical or product information.

IMPORTANT NOTICE

PROPER FLYWHEEL BOLT TORQUE IS CRITICAL WHEN INSTALLING YOUR RAM STREET DUAL CLUTCH SYSTEM. RAM STRONGLY RECOMMENDS AFTERMARKET FLYWHEEL BOLTS FOR YOUR APPLICATION.

7/16" BOLTS – 85 FT/LBS.

½" BOLTS – 135 FT/LBS.

10mm BOLTS – 65-70 FT/LBS.

11mm BOLTS – 80-85 FT/LBS.

USE A HIGH QUALITY AFTERMARKET BOLT SET AND RED LOCTITE ON THE THREADS. **GO THROUGH THE TORQUE SEQUENCE 3 TIMES.**