

RENAULT

Le Car
18i

DESCRIPTION

Clutch system is single disc dry plate type. Main components are: Disc, diaphragm spring operated pressure plate, ball bearing type clutch release bearing, release fork, and pilot bearing. Clutch operation is mechanical through cable actuation.

REMOVAL & INSTALLATION

CLUTCH ASSEMBLY

Removal (Le Car) – 1) Disconnect battery. Disconnect speedometer cable from transmission. Remove water pump belt, camshaft belt and air injection components. Remove both upper starter bolts (it may be necessary to use special wrench Ele. 565).

2) Remove clutch housing mounting bolts. Take off calipers and support out of way. Disconnect tie rods at steering rack end. Disconnect upper ball joints. Separate axle drive shafts by pulling stub axle out and down.

NOTE – Be careful not to damage oil seal lips on differential adjusting ring nuts.

3) Remove bolts from support tab on underside of transaxle. Disconnect and free clutch cable lever. Remove tubular crossmember bolts and slide crossmember out rearward. Use a jack and support front of transaxle. Remove front mount. Remove lower starter bolt. Remove clutch cover and any side reinforcement bolts. Remove transaxle from vehicle. Mark pressure plate assembly for installation reference and remove entire clutch assembly.

Installation – To install, reverse removal procedure and note following: Larger end of clutch disc hub should face engine. Use centering tool to align pressure plate and disc. Lightly grease input shaft and axle drive shaft splines. Make sure axle drive shafts fully seat into side gears.

Removal (18i) – 1) Disconnect battery ground cable. Disconnect battery cables at starter and starter solenoid. Remove starter retaining bolts. Loosen top bolt of engine mount.

2) Swing rear starter bracket into horizontal position. Pull starter back as far as it will go, rotate starter 90° and remove starter. Disconnect clutch cable from fork and remove housing stop.

3) Place support spacers (T. Av. 509.01) between lower shock retaining bolts and lower suspension arm shafts. Remove front wheels. Remove front brake calipers.

4) Using a drift punch and hammer, tap roll pins out of side gears. Remove steering ball joint nut. Using extractor tool, remove cone from ball joint housing.

5) Remove upper ball joint nut using extractor tool. Tilt stub axle carrier to free drive shaft from side gear. Do the same for other side. Disconnect back-up light wires, emission control wires and speedometer cable from transmission.

6) Disconnect gearshift linkage. Remove clutch protective cover. Support transmission with jack. Remove left and right

transmission supports. Remove transmission retaining bolts. Pull transmission rearward and remove transmission from vehicle.

7) Mark pressure plate assembly for installation reference and remove entire clutch assembly.

Installation – To install, reverse removal procedure and note the following: Larger end of clutch disc hub should face engine. Use centering tool to align pressure plate and disc. Lightly grease input shaft and axle drive shaft splines. Make sure axle drive shafts fully seat into side gears.

CLUTCH CABLE

Removal – Disconnect cable from lever on transaxle. Free transaxle end of cable from sleeve stop. From inside vehicle, remove clutch pedal retaining clip and cable-to-pedal clevis pin. Slide pedal off of pivot rod, free cable from sleeve stop on pedal bracket, and remove cable.

Installation – To install, reverse removal procedure and note the following: Lubricate pedal bores and retaining pins with Molykote BR 2 lubricant. Adjust clutch free play.

CLUTCH RELEASE BEARING & FORK

Removal – With transaxle removed, disconnect the return spring from release bearing and fork, and slide bearing off transmission input shaft. Using a suitable tool (Emb. 384), extract fork retaining roll pins. Remove fork shaft, fork, and return spring.

Installation – **1)** Lubricate fork shaft with Molykote BR 2 grease. Slide shaft into transaxle housing (fitted with rubber seal) and through release fork and return spring.

2) Align holes in shaft with those in fork and install roll pins, making sure that pins protrude $\frac{1}{32}$ " on forward side of fork. Lubricate bearing sleeve and fork fingers with Molykote BR 2 grease, and slide bearing onto transmission input shaft.

3) Install return spring, placing ends in holes of release bearing support and in fork. Lubricate bearing face and portion of clutch diaphragm spring which bearing contacts with Molykote BR 2 grease. Install transmission and adjust clutch free play.

PILOT BEARING

Removal – Remove transaxle, clutch assembly and flywheel. Using a suitable tool (Mot. 11), extract bearing from crankshaft.

Installation – Using a suitable driver, install pilot bearing into crankshaft. Install flywheel, clutch assembly and transaxle. Adjust clutch free play.

OIL SEAL

Removal – Remove transaxle from vehicle. Remove the clutch housing attaching bolts and separate clutch housing from transmission. Using a suitable tool, remove oil seal from clutch housing.

RENAULT (Cont.)

Installation — Fit oil seal into place over special tool B. Vi. 526 or 488. Coat paper gasket with sealer. Place tool inside clutch release bearing guide to spread seal lip. Refit clutch housing on transaxle and slide tool along clutch shaft, then remove tool. Tighten clutch housing nuts.

ADJUSTMENT

CLUTCH FREE PLAY

Loosen lock nut. Turn adjusting nut to obtain free travel at end of release lever of $\frac{1}{8}$ - $\frac{5}{32}$ " (3-4 mm).

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N·m)
Flywheel-to-Crankshaft	
Le Car	35 (48)
18i	67-81 (91-111)
Clutch Housing-to-Transmission	
Le Car	
8 mm Bolts	15 (20)
10 mm Bolts	30 (41)
18i	
8 mm Bolts	18 (24)
10 mm Bolts	26 (35)