

1969-73 RENAULT R-12, R-15, R-16 & R-17

R-12 (1971-73)
 R-16 (1969-72)
 R-15 (1971-73)
 R-17 (1971-73)

DESCRIPTION

Clutch system is a single disc dry plate type. Main components of clutch assembly are: disc, diaphragm spring operated pressure plate, ball bearing type release bearing, release fork, and pilot bearing. Clutch is pedal actuated and cable operated.

REMOVAL & INSTALLATION

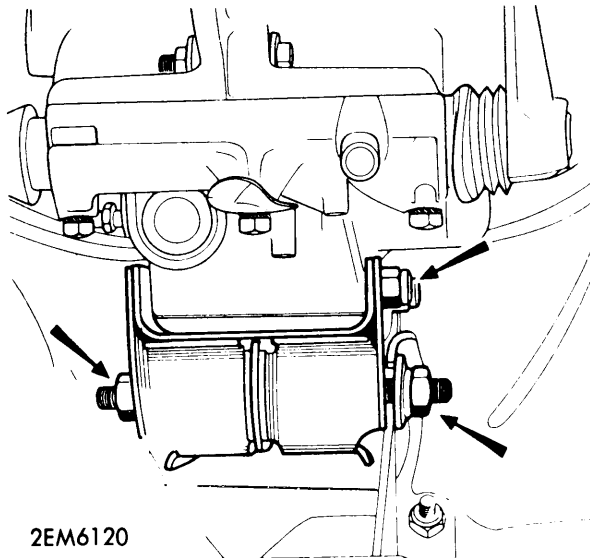
CLUTCH

R-16 Models – 1) Disconnect battery and drain transmission. Remove fan and shroud. Disconnect positive battery cable from steering mounting. Using suitable clamp (Mot. 453), pinch line between radiator and expansion tank. Swing radiator over engine without disconnecting hoses.

2) Disconnect speedometer cable at centrifugal switch and place switch out of way. Disconnect left and right steering arms at adjustable ends. Remove pulley outer flange, adjusting shims, drive belt and pulley. Disengage flexible coupling on steering column and remove bolts mounting steering crossmember to cowl sides.

NOTE – To remove steering box crossmember, position steering full right lock. Pull left side out, toward front, and manipulate assembly until clear.

3) Remove two bolts securing gear selector lever to transmission and move lever to one side. Unscrew two nuts holding front mount pad and remove anchor washers. Remove mounting bracket and pad.



FRONT MOUNTING PAD

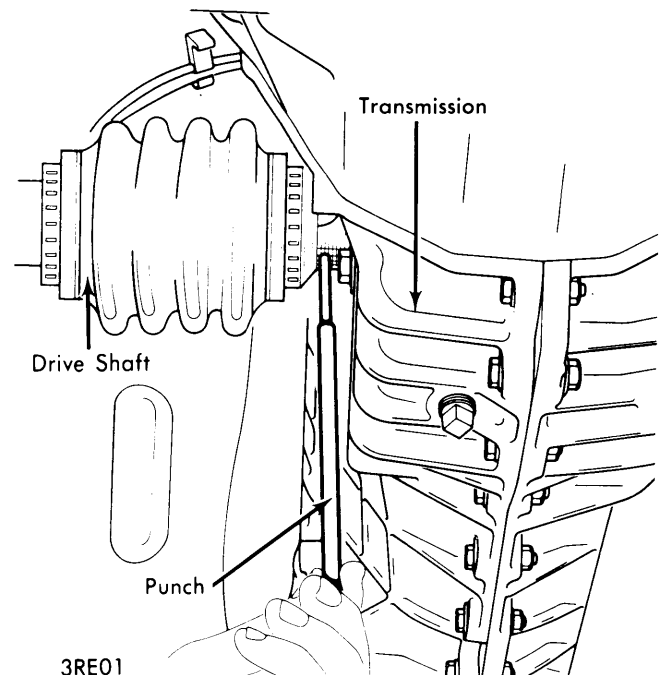
4) Using suitable drift (B. Vi. 31 B), punch out drive shaft roll pins. Fit retaining clips on drive shaft to prevent damage. Place a jack between transmission and left side rail. Disengage drive shaft from sun gear. Repeat procedure for right side, after first disconnecting clutch cable and stop.

5) Unbolt transmission from engine. Slide transmission forward until clear of clutch. Remove clutch assembly from flywheel. To install clutch and transmission, reverse removal procedure.

All Other Models – 1) Disconnect and remove battery and bracket. Remove air filter and starter. Disconnect clutch cable and remove bracket. Remove camshaft and water pump pulley. Slide alternator inward as far as possible.

2) Install retaining tool (T. Av. 509) between shock absorber lower mounting and lower suspension arm hinge pins. Suitably support front of vehicle. Drain transmission fluid.

3) Using a suitable drift (B. Vi. 31 B), punch out drive shaft roll pins and disengage from transmission drive flanges. Using a suitable extractor (T. Av. 476) detach upper ball joint and steering arm ball joint from each front wheel.



REMOVING DRIVE SHAFT ROLL PIN

4) Disconnect speedometer cable, gear shift lever, and back-up light switch. Remove tubular crossmember, exhaust pipe (if necessary), and transmission crossmember. Using a suitable jack, support rear of transmission. *NOTE* – It may be necessary to raise rear of transmission to remove crossmember.

5) Tilt engine and transmission assembly. Remove clutch shield and bolts securing transmission to engine, and remove transmission. Mark pressure plate and flywheel for reassembly reference, and remove clutch assembly.

Installation – 1) To install, reverse removal procedure and note the following: Lightly lubricate clutch disc splines with Molykote BR 2 grease. When installing drive shafts, lightly lubricate drive shaft splines and drive flange splines with Molykote BR 2 lubricant, align splines and slide together. Use a suitable elbow drift (B. Vi. 31 B) to align roll pin holes.

2) To adjust transmission gearshift lever, place transmission and shift lever in fourth gear and, without holding lever, tighten gearshift control lever link bolt. Adjust clutch free play, and refill transmission with EP 80 grade oil.

1969-73 RENAULT R-12, R-15, R-16 & R-17 (Cont.)

CLUTCH CABLE

Removal — 1) Disconnect cable from lever on transmission. Remove the bolt securing mounting pad (if equipped). From inside vehicle, remove pedal shaft retaining clip, push shaft to the right, and disconnect clutch pedal.

2) Disconnect clutch pedal return spring from pin retaining cable end-to-pedal, remove pin, and disconnect cable end from pedal. Free cable from sleeve stop on pedal assembly bracket, and remove cable.

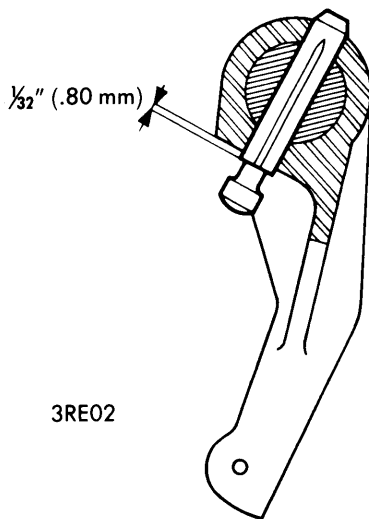
Installation — To install, reverse removal procedure and note the following: Lubricate pedal bores and retaining pins with Molykote BR 2 lubricant. Adjust clutch free play.

CLUTCH RELEASE BEARING & FORK

Removal — With transmission removed, disconnect 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, and slide shaft into transmission 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 $\frac{1}{32}$ " (.80 mm) on forward side of fork. Lubricate bearing sleeve and fork fingers with Molykote BR 2 lubricant, and slide bearing onto transmission input shaft.



3RE02

CLUTCH FORK PIN INSTALLATION

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 transmission, clutch assembly, and flywheel. Using a suitable tool (Mot. 11), extract bearing from crankshaft.

Installation — Using a suitable driver, install pilot bearing into crankshaft. *NOTE* — Bearing is pre-greased, do not clean. Install flywheel, clutch assembly, and transmission. Adjust clutch free play.

OIL SEAL

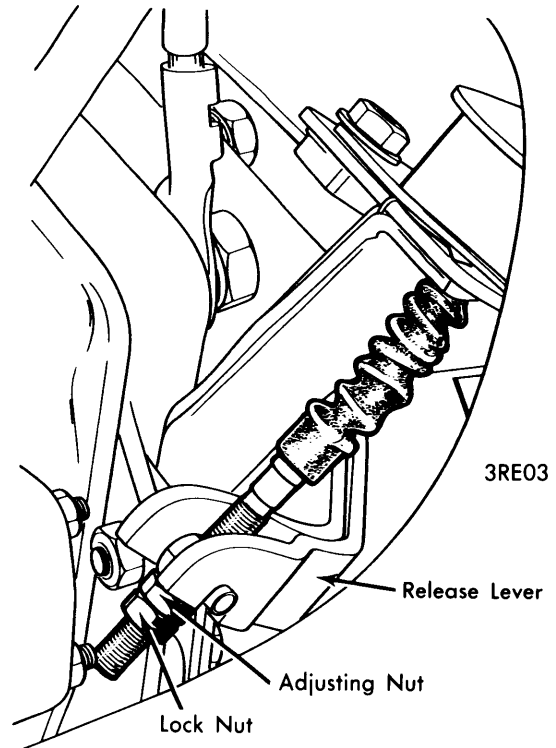
Removal — Remove transmission from vehicle. Remove clutch housing attaching bolts and separate clutch housing from transmission. Using a suitable tool, remove oil seal from clutch housing.

Installation — Install a new oil seal into clutch housing using a suitable driver (B. Vi. 526). Coat clutch housing paper gasket with a suitable sealer. Install a seal protector (B. Vi. 526) into release bearing guide to spread seal lip, then install clutch housing onto transmission.

ADJUSTMENT

CLUTCH FREE PLAY

Loosen adjuster lock nut. Turn adjusting nut to obtain a free travel at end of release lever of $\frac{7}{64}$ - $\frac{9}{64}$ " (2.8-3.6 mm) on R-12 models, or $\frac{5}{64}$ - $\frac{1}{8}$ " (2.0-3.2 mm) on R-15 and R-17 models.



CLUTCH ADJUSTMENT

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Flywheel-to-Crankshaft	35 (4.8)
Clutch Housing-to-Transmission	
8 mm Bolts	15 (2.0)
10 mm Bolts	30 (4.2)