

## OPEL

1900  
Manta

## DESCRIPTION

Clutch is a dry, single disc, diaphragm spring type. Clutch operation is mechanical through cable actuation. Release mechanism includes a control cable, rocker type release lever, and a prelubricated release bearing.

## REMOVAL &amp; INSTALLATION

## CLUTCH ASSEMBLY

1) Remove air cleaner and disconnect battery ground cable. Remove throttle rod from carburetor and rear support. Remove fan shroud attaching screws.

2) Remove console. Remove rubber bellows from cover plate, and remove protective cap from intermediate shift lever. Unhook tension spring of gear shift lever, remove retaining washer, and push pivot pin out of intermediate shift lever.

3) Raise and support vehicle, and disconnect exhaust pipe from manifold. Disconnect clutch cable at fork by pushing fork and unsnapping cable from slot. Disconnect electrical leads and speedometer cable from transmission.

4) Disconnect parking brake cable return spring and remove cable adjusting nut, equalizer and spacer. Remove drive shaft. Remove rear engine mount bolts and lower transmission as far as possible. Remove transmission attaching bolts, and slide transmission to rear to remove.

5) Remove bolts from engine support brackets on both sides and let brackets hang by front bolts. Remove flywheel cover pan. Remove flywheel housing attaching bolts and remove housing.

6) Mark pressure plate and flywheel for reassembly reference. Loosen clutch attaching bolts one turn at a time until spring pressure is released, then remove bolts and clutch assembly.

7) To install, index marks on pressure plate and flywheel made at disassembly. *NOTE* — Install disc with long splined end of hub facing forward against flywheel. Center disc on flywheel using a suitable aligning tool (J-22934). To complete installation reverse removal procedure and adjust clutch control cable.

## CLUTCH CONTROL CABLE

1) Disconnect return spring and cable with ball end from release lever. Slide control cable out of eye in clutch housing. Using a screw driver, pry retaining "E" ring out of groove in cable at firewall, and disconnect cable from clutch pedal. Pull cable out of retainer on dash panel and remove washers and grommet.

2) To install, slide control cable ball end through eye in clutch housing and connect to lever. Replace washers and grommet, slide cable through retainer on dash panel and connect to . Adjust cable.

## CLUTCH RELEASE BEARING &amp; LEVER

With transmission and bell housing removed, rotate bearing and check for roughness or noise during rotation. If bearing is found to be defective, it must be replaced. To remove release bearing from clutch fork, slide lever off ball stud against spring action. Remove ball stud lock nut and remove ball stud from housing.

## PILOT BUSHING

With clutch assembly removed, inspect pilot bushing in end of crankshaft for wear or roughness. If replacement is required, remove using a suitable puller (J-21718) and slide hammer. To install, drive bushing into crankshaft using a hammer and suitable bushing driver (J-21706).

## ADJUSTMENT

## PEDAL ADJUSTMENT

*NOTE* — This adjustment procedure is for readjustment only. If cable or disc has been replaced, see Cable Adjustment procedure.

1900 & Manta — *NOTE* — Clutch actuation works without pedal free travel. A readjustment of clutch is only required if indicator lamp at instrument panel lights up. If equipped with parking brake indicator lamp, release parking brake. Adjust ball stud on clutch housing so that distance between clutch housing contact surface and clutch release lever is 4.25" (108 mm).

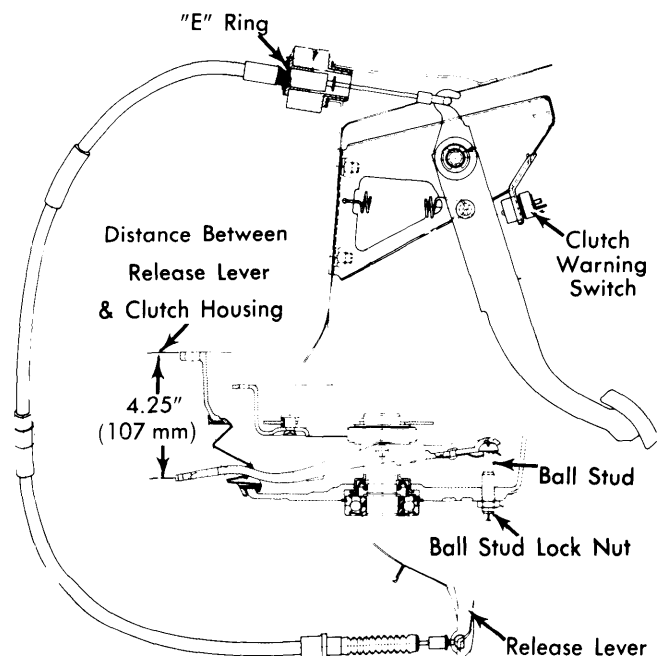


Fig. 1 View of Clutch Actuating System Showing Adjustment Points

## OPEL (Cont.)

### CABLE ADJUSTMENT

*NOTE* — This procedure should only be carried out when clutch disc, cable, or both have been replaced.

**1900 & Manta** — 1) Adjust ball stud on clutch housing to approximately  $\frac{3}{4}$ ". With lower end of control cable unhooked, push clutch release lever towards front so that release bearing rests against clutch spring.

2) Adjust ball stud so that distance between clutch housing contacting surface and clutch release lever is  $4\frac{1}{4}$ ". Connect cable to pedal, then pull out of dash panel so that clutch pedal

rests against switch (indicator lamp lights up). In this position, install lock washer at upper control wire attachment, three grooves towards front.

### TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (mkg)
Flywheel-to-Crankshaft .....	43 (5.9)
Pressure Plate-to-Flywheel .....	36 (5.0)
Transmission-to-Clutch Housing .....	32-36 (4.4-5.0)
Starter-to-Clutch Housing .....	40 (5.5)
Support-to-Clutch Housing .....	4 (0.6)
Manifolds-to-Head .....	33 (4.6)