

TRANSMISSION REMOVAL & INSTALLATION - M/T

Article Text

1987 Volkswagen Quantum/Quantum Syncro

For Volkswagen Technical Site

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Sunday, March 19, 2000 01:55AM

ARTICLE BEGINNING

MANUAL TRANSMISSION REMOVAL

1987 Volkswagen

Cabriolet, Golf, GTI, Jetta, Scirocco, Quantum, Vanagon

CABRIOLET, GOLF, GTI, JETTA & SCIROCCO R & I

REMOVAL

NOTE: Transaxle is lowered out of vehicle. Engine remains installed.

1) Disconnect battery ground. Attach an engine support assembly. Remove left transaxle mount bolts and mount. Disconnect back-up light wires, speedometer drive cable (plug hole) and clutch cable.

2) Remove upper clutch housing-to-transaxle bolts. Remove starter. On models equipped with flywheel which has cut-outs, align flywheel lug with boss on bellhousing. On all models, disconnect shift linkage at rod lever and relay lever and remove front selector rod.

NOTE: Vehicles with cut-outs in flywheel can be identified by a stud/nut at right engine-to-transaxle mounting position. Flywheel on this type vehicle MUST be aligned before separating engine/transaxle.

3) Remove exhaust pipe bracket. Remove transaxle rear mount and support transaxle on jack. Disconnect left and right drive shafts at transaxle and wire up out of way. Remove large plate cover bolts (plate remains on engine). Remove small cover bolts and cover.

4) Remove the right engine-to-transaxle bolt (stud/nut). On vehicles with cut-outs in flywheel, pull transaxle away from engine to clear dowels and lower and remove transaxle. On all other vehicles, pull transaxle away from engine, while cocking engine so right drive flange clears flywheel. Lower and remove transaxle.

5) With transaxle removed from engine, install Holder (VW558) to ring gear or pressure plate. Remove bolts in a diagonal manner until flywheel can be removed. Pry retaining ring from release plate and lift release plate from pressure plate. Remove pressure plate bolts in a diagonal manner and separate clutch disc.

INSTALLATION

NOTE: When replacing clutch components, it is recommended that 190 mm parts be upgraded to latest 200 mm version.

1) To install, coat pressure plate bolts with Loctite 270 or 271 and reverse removal procedure. Align cut-out in flywheel to allow right drive shaft flange passing clearance (if equipped).

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2) Ensure large cover plate is properly seated. Retaining ring ends must be between 2 slots in release plate. Use Clutch Aligner (VW547) to center clutch disc on flywheel. If new flywheel is to be installed, a new timing mark must be cut into flywheel 1/4" (6 mm) to right of TDC mark.

QUANTUM R & I

REMOVAL

1) Disconnect battery ground. Remove upper engine-to-transaxle bolts. Detach speedometer cable. Unhook clutch cable. Disconnect exhaust pipe at manifold. Remove engine support bolts. Remove front muffler and exhaust pipe.

2) Remove drive shafts at transaxle. Disconnect back-up light wiring. Remove cover plate bolts. Remove starter bolt. Remove shift rod coupling bolt. Pry off shift rod coupling ball. Pull off shift rod coupling from shift rod.

3) Position transmission lift under transaxle and lift up slightly. Loosen bolt "A" and remove bolt "B" from rear transaxle mount. Remove rubber mount. Remove 3 front transaxle support bolts. Remove lower engine-to-transaxle bolts.

4) Pry transaxle away from engine. Remove transaxle by lowering transaxle support 2071 or US 618 with US 618/1. Lock flywheel to prevent rotation and index mark pressure plate and flywheel. Loosen pressure plate bolts 1/4 turn at a time, working in a diagonal pattern. Slide pressure plate off dowels on flywheel.

INSTALLATION

1) Using a clutch alignment tool, fit pressure plate with clutch. Make sure alignment marks are observed. Loosely attach assembly with 6 bolts.

2) Tighten pressure plate bolts in a criss-cross pattern about 2 turns at a time. Position transaxle to engine. Make sure mainshaft splines are clean and lubricated lightly with molybdenum disulphide grease.

3) Reverse removal procedure to install remaining components. Make sure all engine-to-transaxle mounts are aligned and free of tension before tightening bolts and nuts.

VANAGON R & I

REMOVAL

1) Disconnect negative battery cable. Remove bolts attaching top of engine to transmission. Remove bracket for accelerator cable. Remove left drive shaft from transmission and support with a wire.

2) Remove clutch cable bracket from transmission. Remove clutch slave cylinder from mounting bracket and hang on a wire (DO NOT disconnect hydraulic line).

3) Disconnect back-up light wires. Disconnect starter wires

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and remove starter. Remove right drive shaft from transmission and support with a wire. Support engine using VW Engine Support (VW 785/1B). Remove rubber plugs from left wheel housing to hook in support chain.

4) Remove shift rod support and shift linkage from transmission. Support transmission using transmission jack. Disconnect ground strap from body. Remove front transmission mount from body.

5) Lower front part of transmission by loosening spindle of Engine Support (VW 785/1B) until there is enough room to remove transmission. Remove lower bolts attaching engine to transmission. Pull transmission off of engine guide bolts and remove from vehicle.

6) Lock flywheel with flywheel retainer tool. Mark position of pressure plate on flywheel for reassembly reference. Loosen pressure plate-to-flywheel bolts evenly in a diagonal fashion and remove clutch assembly.

INSTALLATION

1) Apply molybdenum disulfide grease to release bearing. Clean splines of transmission input shaft and lubricate lightly with molybdenum disulfide powder. Position clutch disc against flywheel and align using a centering tool.

2) Install pressure plate and tighten bolts evenly in a diagonal fashion. Install transmission by reversing removal procedure. Tighten front transmission mounts. Insert rear bolt for slave cylinder before installing. Position air deflector plates correctly.

END OF ARTICLE