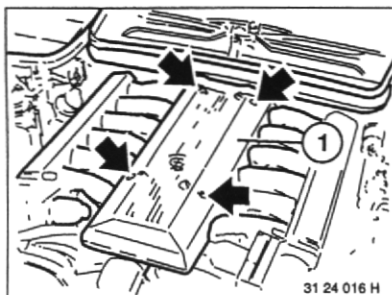


23 Manual Transmission

23 00 025	Transmission – remove and install	23-00/1
035	Transmission – exchange	23-00/4
00 11 229	Oil change in manual transmission	23-00/4



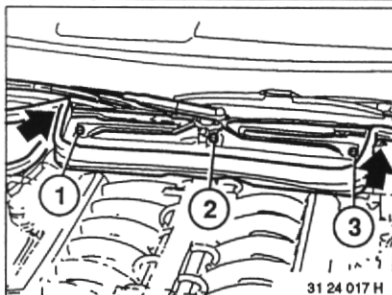
31 24 016 H

23 00 025 REMOVING AND INSTALLING TRANSMISSION

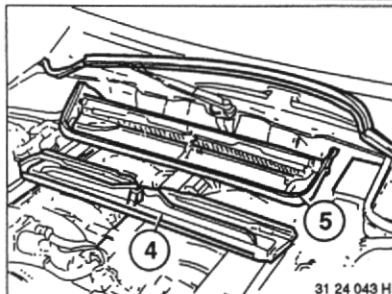
Disconnect ground lead on connection point.
Important!
Disconnection erases the fault memories of control units.
Consequently first read fault memories with a tester and print faults if applicable.

Unscrew cover (1).

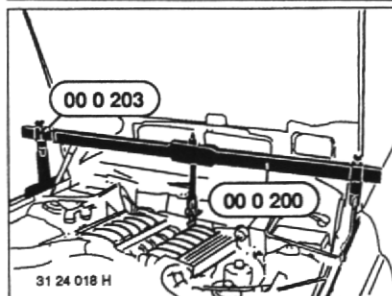
Pull off rubber seal partially.
Turn retainers (1 ... 3).
Unscrew left and right bolts.



31 24 017 H



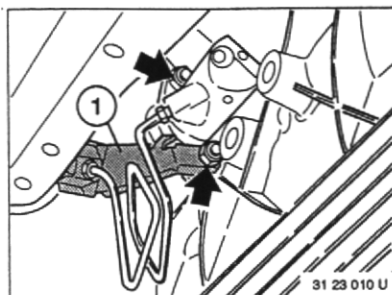
31 24 043 H



31 24 018 H

Important!

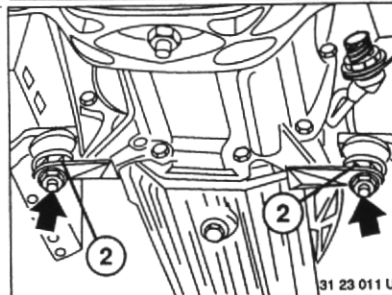
Support engine with Special Tool 00 0 200 before lowering the transmission to avoid damaging (danger of leaks) heater pipe connections on the engine compartment wall.
Set up Special Tool 00 0 200 in conjunction with extension 00 0 203 and attach in the rear eye.
Tension the chain.
Remove exhaust assembly – see 18 00 020.



31 23 010 U

Unscrew clutch slave cylinder on the transmission.
Pressure pipe remains connected.

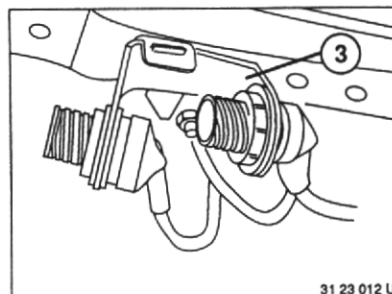
Installation:
Also screw on holder (1) for pressure pipe.
Tightening torque*.



31 23 011 U

Unscrew left and right exhaust suspension holders.

Installation:
Install rubber mount with tab (2) facing the opening.



31 23 012 U

Unscrew holder (3) for the oxygen sensor plug.



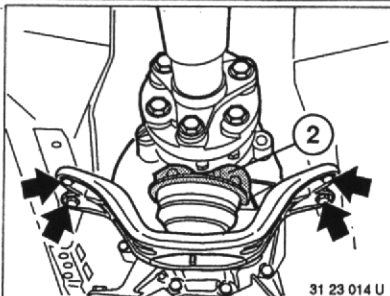
31 23 013 U

Lift electric leads for oxygen sensors out of the holders.

* See Specifications

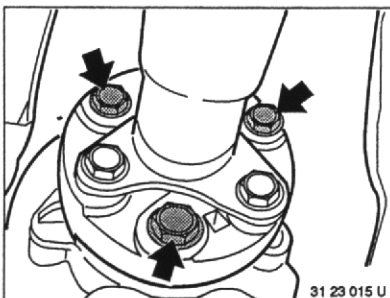


Remove heat shield (1).

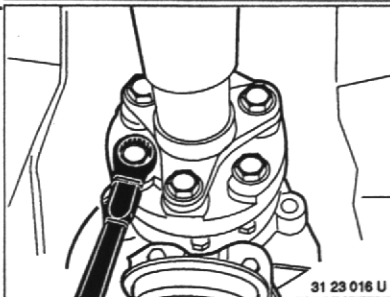


Unscrew cross member on body.
Unscrew member (2) on transmission.

Installation:
Center transmission – see Group 26.
Tightening torque*.

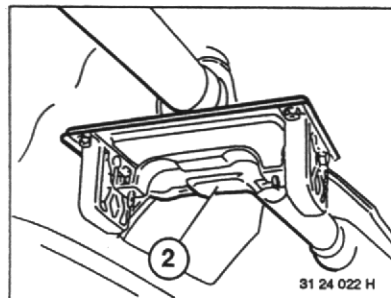


Unscrew joint disc on transmission



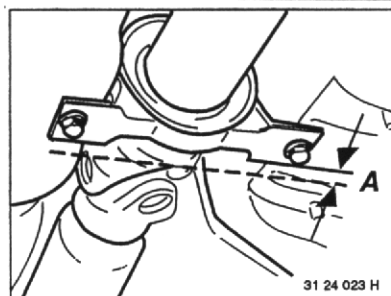
Installation:
Tighten joint disc with specified torque.
Tightening torque*.

* See Specifications



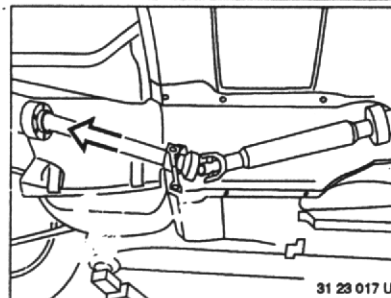
Unscrew exhaust suspension (2).

Installation:
Tightening torque*.



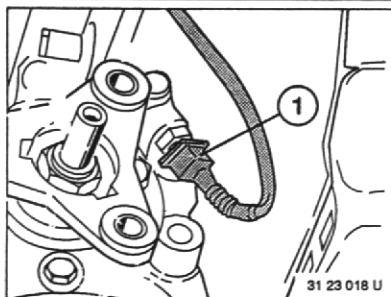
Unscrew center mount.

Installation:
Preload center mount forward by distance A = 2 ... 4 mm (0.079 ... 0.157").
Tightening torque*.



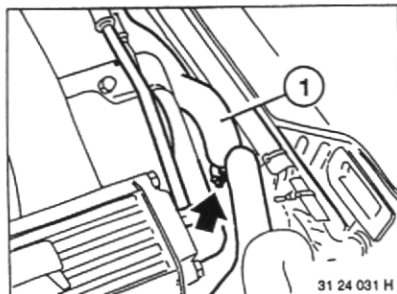
Push propeller shaft in direction of the constant velocity joint.
Tilt off propeller shaft at the center mount, while pulling the pilot bearing off of the output journal on the transmission.

Important!
Suspend propeller shaft from car on a piece of wire.

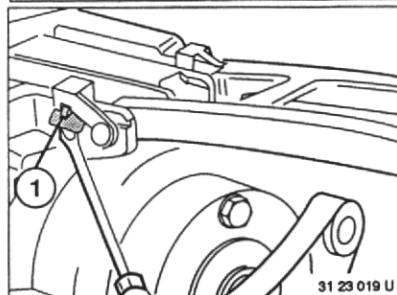


Pull off reverse gear plug (1).

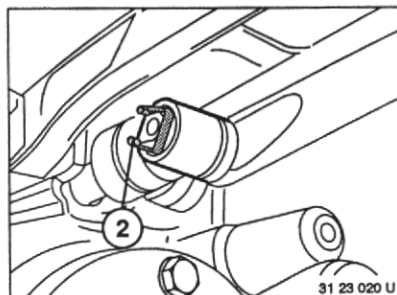
* See Specifications



Lower car.
Lower engine with the spindle of Special Tool 00 0 200 until there is a gap of approx. 1 mm (0.039") between the engine and rear heater pipe connection (1) — check visually.

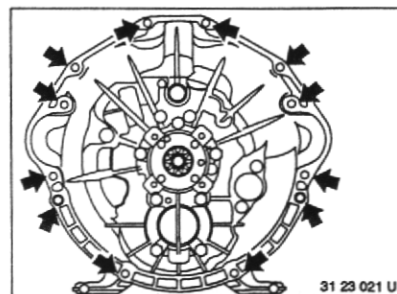


Pry off retainer (1) toward the outside with a screwdriver and turn pin up. Pull out left and right bearing pins.

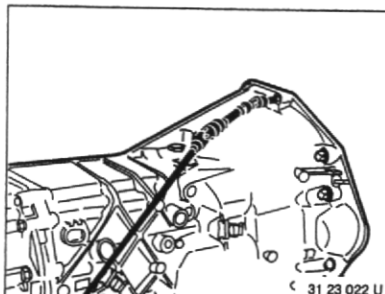


Pull off retainer (2). Pull out selector rod from the side.

Important!
Check plastic washers.

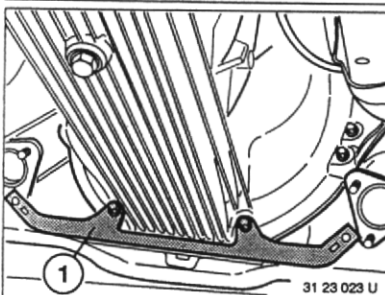


Unbolt transmission on engine.

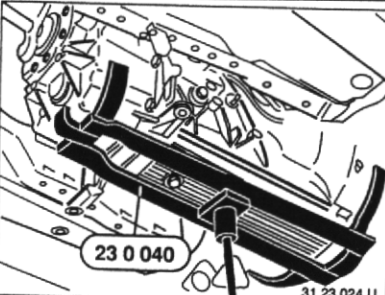


Unscrew Torx bolts with a Torx socket. Use an approx. 100 cm (39") long extension.

Important!
Use washers to avoid increasing the breaking-loose torque. Tightening torque*.

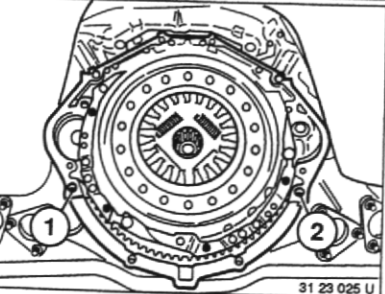


Installation:
Also mount exhaust holder (1).



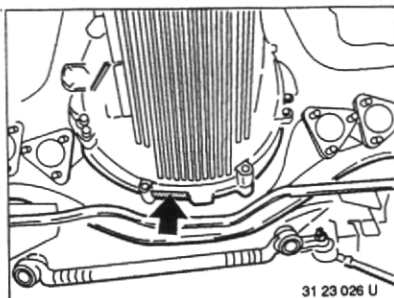
Apply Special Tool 23 0 040 together with a lifter on the transmission. Pull transmission off of the engine.

Important!
Lifting fixture with a mounted transmission may be moved only in completely lowered position.



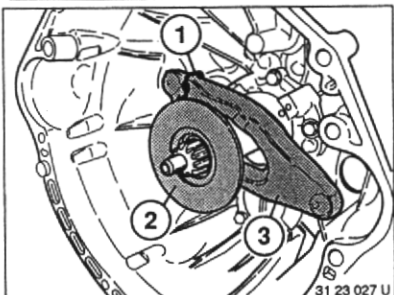
Important!
Check that guide sleeves (1 and 2) are not missing before installation of the transmission. If applicable, transfer guide sleeves from the transmission or install new sleeves. Check / correct oil level after installation.

* See Specifications



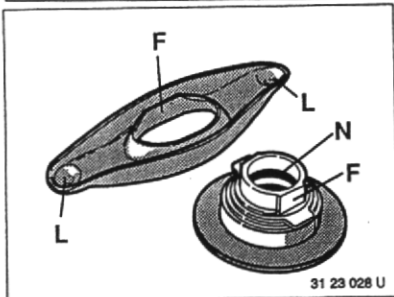
23 00 035 INSTALLING EXCHANGE TRANSMISSION

Remove transmission – see 23 00 025.
Transmission Identification:
BMW Code* on front case section.

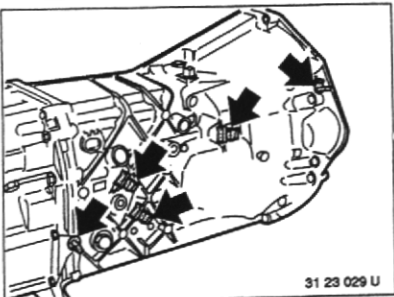


Lift retainer (1) off of the release lever.
Transfer release bearing (2) and release lever (3).

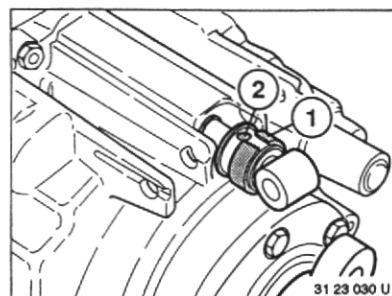
Note:
Apply a light coat of Microlube GL 261** on the transmission input shaft in area of the splines and guide pins.



Installation:
Fill lubricating groove (N) with Molykote Longterm 2**.
Lubricate guides (F) and bearings (L) lightly with Molykote Longterm 2**.
Non-conformance could lead to seizure of the bearing on the guide sleeve.

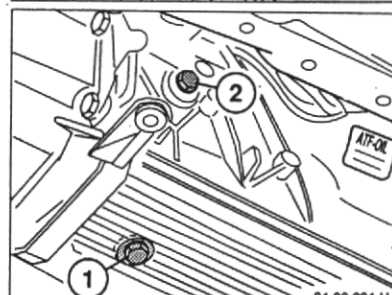


Transfer holders for oxygen sensor leads.



Transfer selector rod joint.
Push back locking sleeve (1).
Drive out cylindrical pin (2).

Important!
Transmissions are supplied filled with oil. Consequently it is only necessary to check the oil level after installation of the transmission.



* See Parts Catalog
** Source of Supply: HWB