

25 Gear shift mechanism

Manual transmission

25 11 000	Shift lever – remove and install	25-	11/1
001	Shift lever, complete – replace	25-	11/2
005	Shift lever – adjust	25-	11/3
041	Ball shell for shift lever – replace	25-	11/4
071	Knob for shift lever – replace	25-	11/4
111	Shift rod joint – replace	25-	11/5

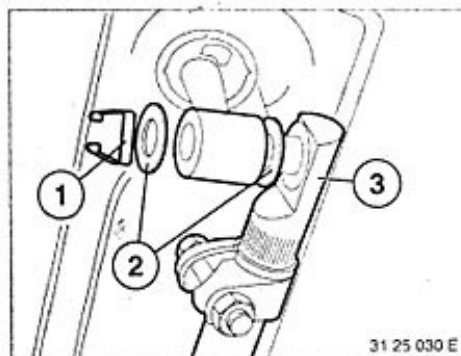
Automatic transmission

25 16 050	Shift lever with mount – remove and install	25-	16/1
051	Shift tower – remove and install/replace (step shift)	25-	16/3
056	Shift tower – remove and install/replace (shift lock / interlock)	25-	16/5
061	Handle for shift lever – replace	25-	16/7
080	Shift lever – remove and install/replace	25-	16/8
130	Shift lock solenoid – remove and install/replace	25-	16/9
202	Cable for gear selector lever – replace	25-	16/10
202	Cable for gear selector lever – replace (step shift)	25-	16/11



25 11 000 Removing and installing shift lever

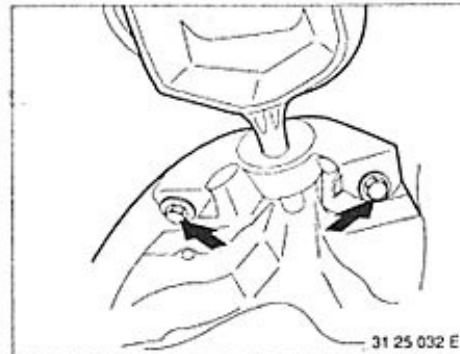
Lift cover off retaining tabs.
Pull off shift lever knob by hand with a sudden jerk.
Pulling-off force: approx. 40 kp.
Remove complete exhaust assembly 18 00 020. Remove heat shield.
Remove propeller shaft from transmission and center mount (see 26 11 000).



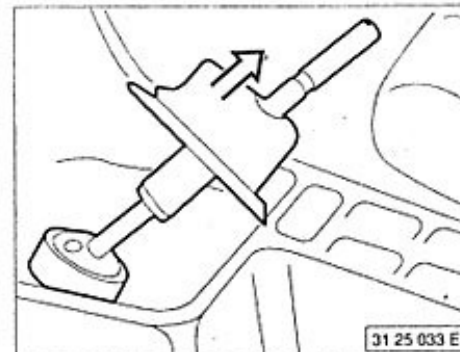
Lift out retainer (1).
Remove disk (2).
Remove shift rod (3).

Installation:
Coat bearing with Klüber Polytop GLY 801*.

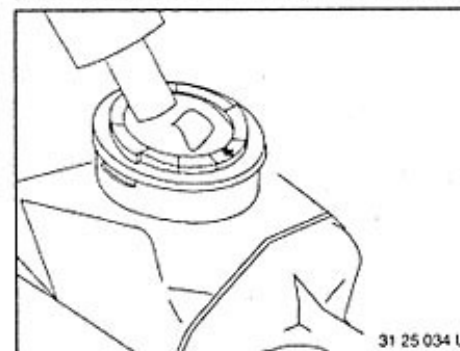
Note:
On vehicles with an M60 engine and an S65 420 D transmission, the shift rod is attached from left to right.



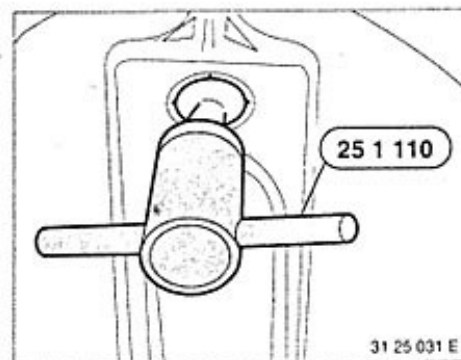
Remove support bearing from body.



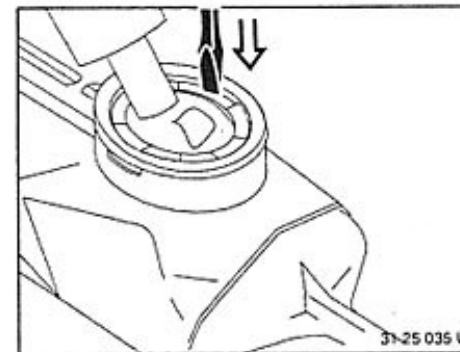
Remove rubber grommet from body opening and lift out upwards together with shift lever.



Install shift lever with bearing shell.
Install bearing shell with tabs or arrows pointing towards bearing pin.



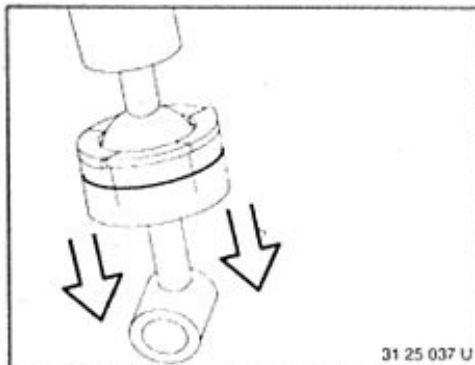
Fit pin wrench 25 1 110 and rotate 90° anti-clockwise.
Press bearing shell upwards.



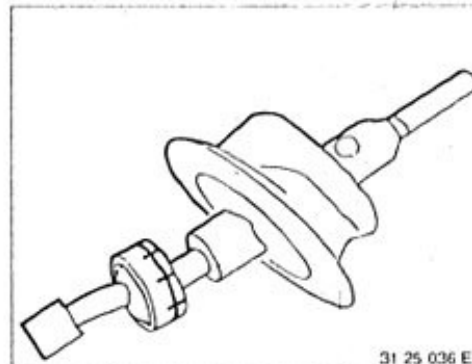
Press down on bearing shell at point of retaining tabs until they are heard to engage.

* Source of Supply: BMW Parts Service.

25-11/2



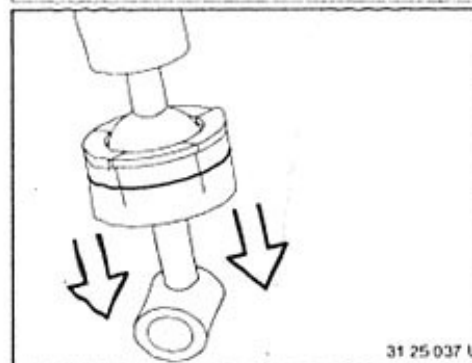
Installation:
Button in inner dust cover over the shift arm and outer dust cover in the body opening.



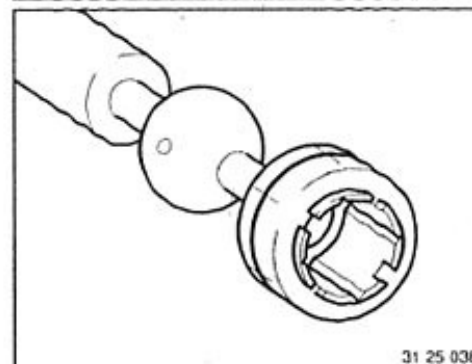
25 11 001 Replacing complete shift lever

Remove shift lever 25 11 000.
Remove rubber grommet from shift lever.

Installation:
Fit rubber grommet to shift lever with tire fitting compound.

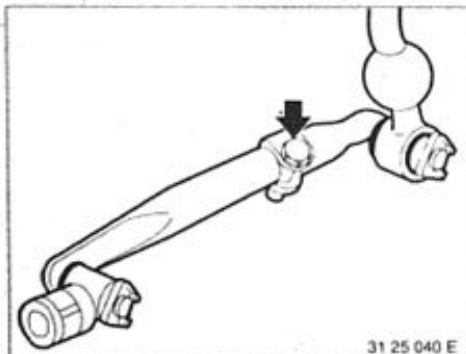


Press bearing shell downwards to remove.



The bearing shell can be removed from the shift lever through the slots in the bearing shell.

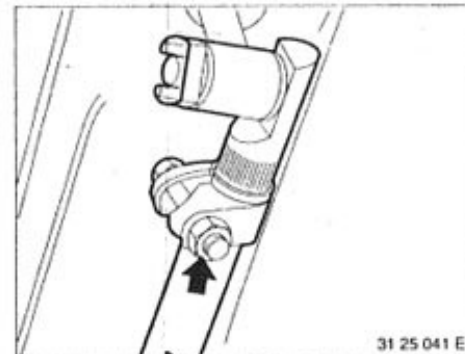
Installation:
Coat bearing shell and ball with Klüber Poly-lup GLY 801*



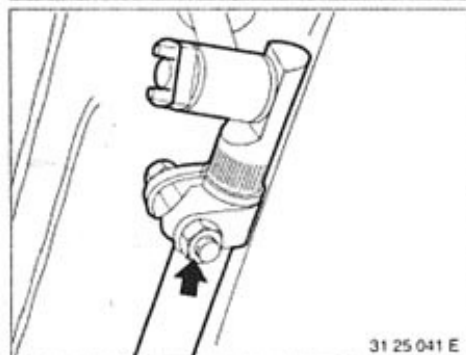
25 11 005 Adjusting shift lever

Note:
The shift rod is fitted with a clamping fixture to compensate for unfavourable tolerances.

Note:
On vehicles with an M60 engine and an S6S 420 D transmission, the shift rod is mounted from left to right.



Tighten clamping screw.

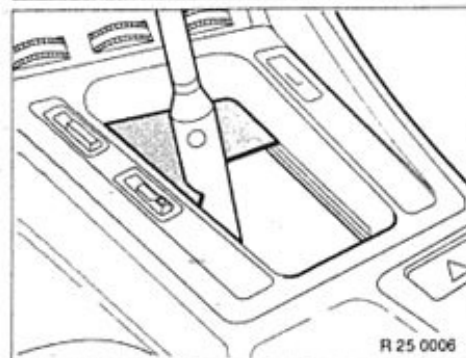


Move manual transmission into "Reverse" position.

Loosen clamping screw on the shift rod.



Unclip shift lever dust cover from console and push upwards to remove.

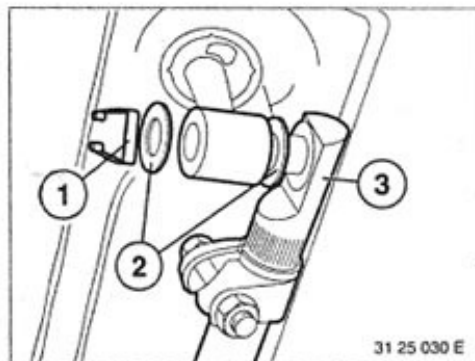


Insert template in the console aperture and press shift lever into "Reverse" setting.

Note:
Refer to BMW Service Information for sample template.

25 11 111 Replacing shift rod joint

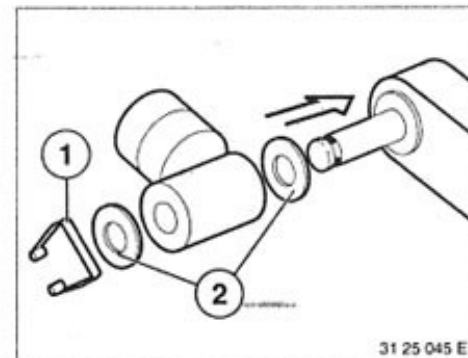
Remove propeller shaft from transmission and center bearing (see 26 11 000).



Remove shift rod from shift lever.
Remove retainer (1).
Remove disk (2).
Pull out shift rod (3).

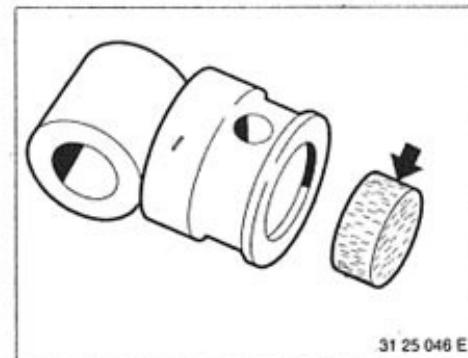
Installation:
Coat bearing with Klüber Polyube GLY 801*.

Note.
On vehicles with an M60 engine and an S65 420 D transmission, the shift rod is installed from left to right.

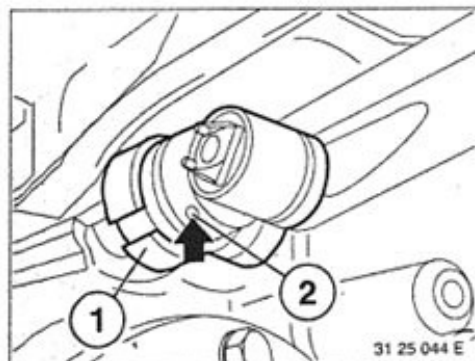


Lift out retainer (1).
Remove disks (2).
Remove shift rod.

Installation:
Check disks (2) and replace if necessary.
Coat bearing points with Klüber Polyube GLY 801*.

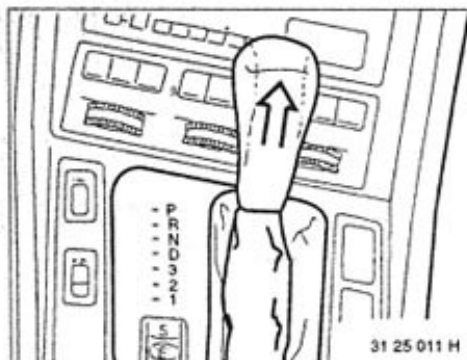


Installation:
Check damping disk in joint and replace if necessary.



Lift retaining sleeve (1) out of groove and slide backwards.
Push pin (2) out upwards.
Remove shift rod with joint.

* Source of Supply: BMW Parts Service

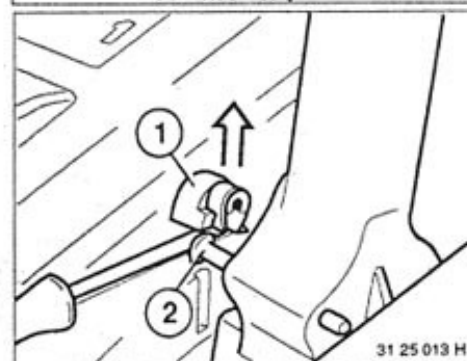


25 16 050 Removing and installing shift lever with shift tower

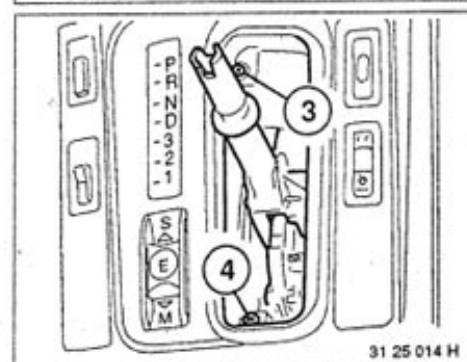
Remove selector lever handle by tugging firmly by hand.
Removal force approx. 25 kp.



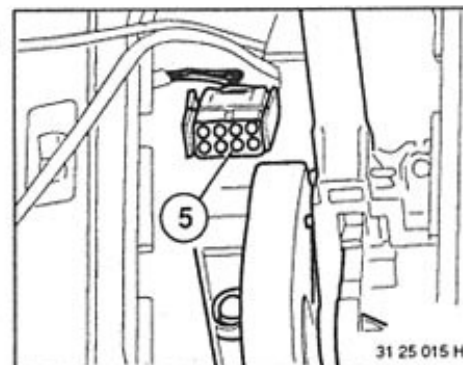
Lift off cover



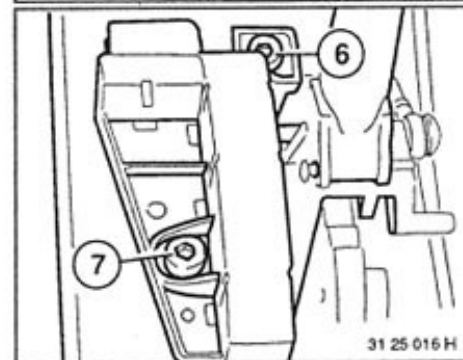
Press driver clip (1) upwards with a screw-driver until pin (2) can be moved.
Pin (2) remains in shift lever.



Unscrew and remove screws (3 and 4).

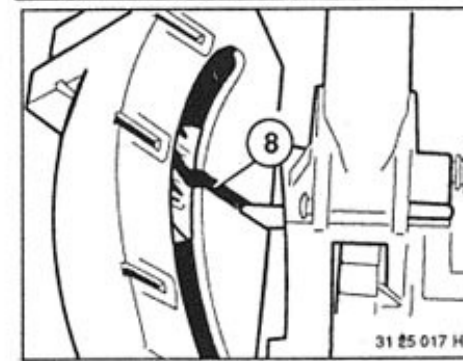


Lift out finisher.
Remove connector (5) from transmission switch.

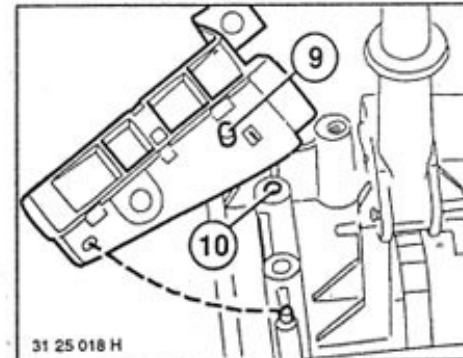


Unfasten screws (6 and 7).

Installation:
Screws are micro-encapsulated and must be replaced each time they are dismantled.
Tightening torque*

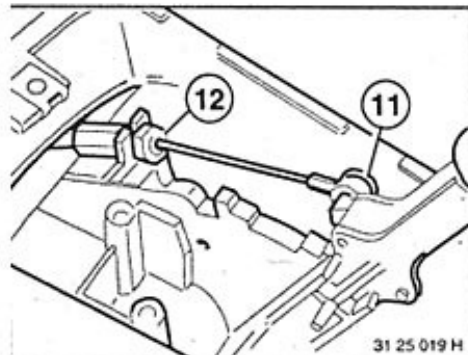


Move selector lever until transmission switch can be removed from driver pin through groove (8).



Installation:
Lug (9) on transmission switch must engage in bore (10).

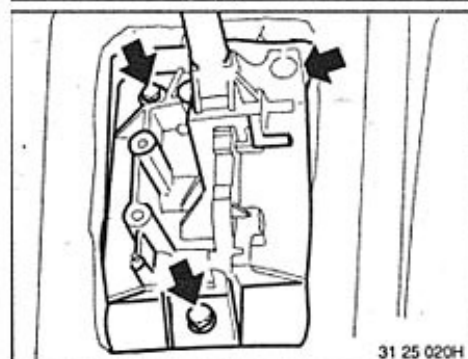
* Refer to Technical Data.



Press off retainer (11).

Installation:
Replace retainer (11).
Unscrew nut (12).
Disconnect cable.

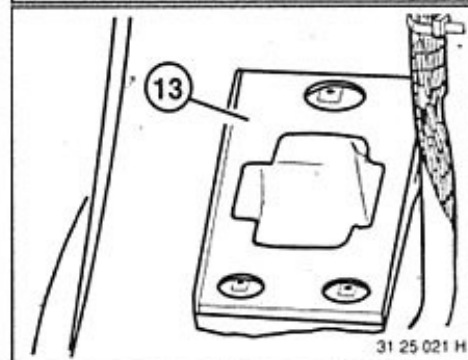
Installation:
Adjust shift mechanism 24 00 006.



Unfasten screws.
Remove shift tower with selector lever.

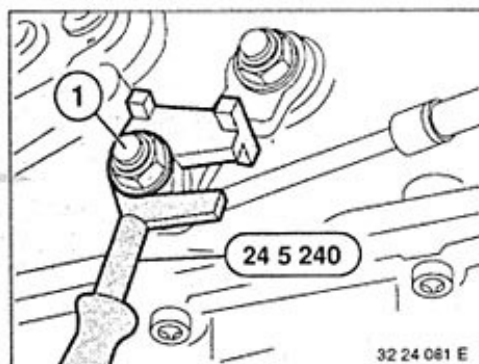
Installation:

Tightening torque *



Installation:
Check that gasket (13) can be reused and replace if necessary.

25 16 051 Removing and installing / replacing shift tower (step gear selection)

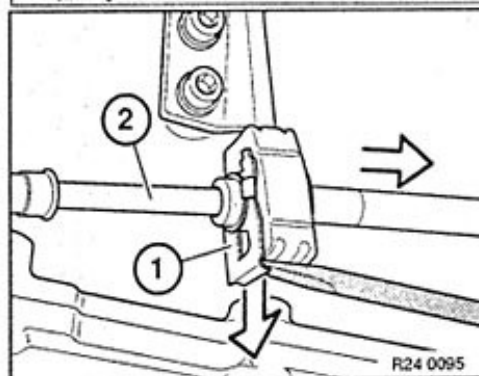


Fit special tool 24 5 240 to the shift lever.

Note:
Only possible to fit in setting "P".

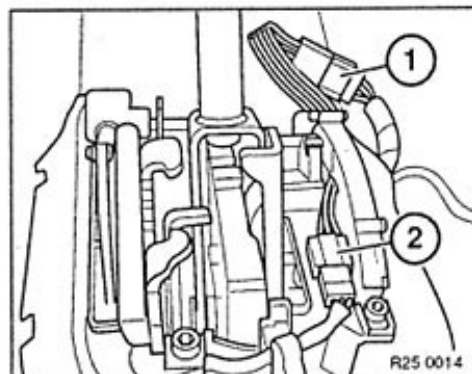
Loosen nut (1).

Installation:
Adjust shift lever,
refer to 24 00 007

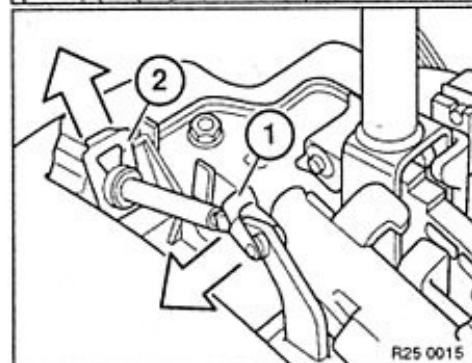


Pry out retaining clip (1) with a screwdriver.
Pull cable (2) out of bracket.

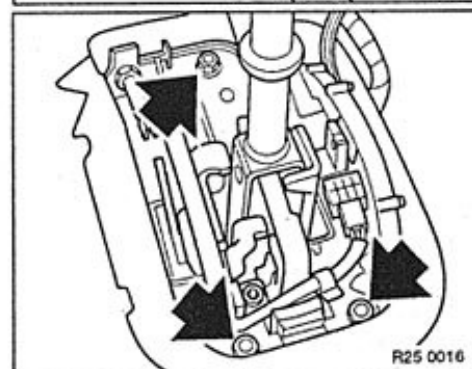
Remove finisher from centre console,
refer to 51 16 200.



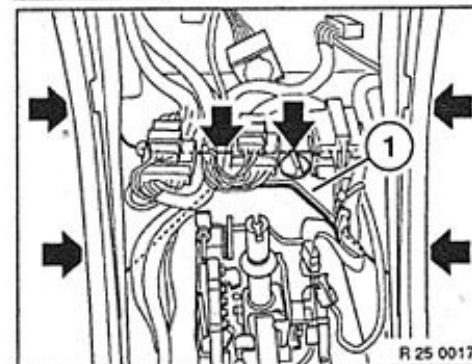
Disconnect connectors (1) and (2).



Release pin (1) and remove.
Remove retaining clip (2).
Press cable out of guide.

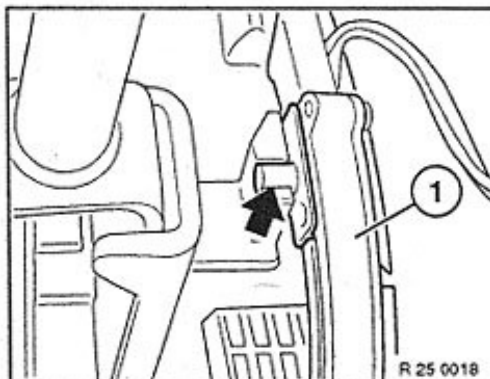


Unfasten screws.



Unfasten screws.
Press reinforcement plate (1) forwards and
remove shift tower.

Note:
If necessary, unfasten cable and cable connector from reinforcement plate.

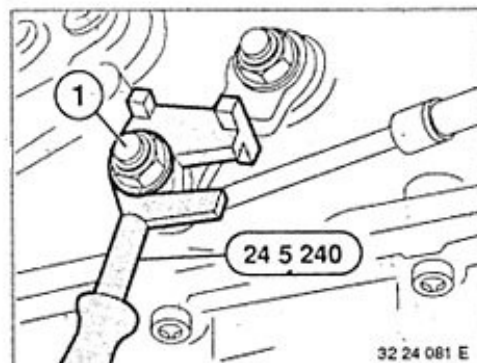


If necessary, fit position switch (1) to the new shift tower.

Installation:

The pin on the switch must be in the recess on the shift lever.

25 16 056 Removing and installing / replacing shift tower (Shift-Lock / Interlock)



Fit special tool 24 5 240 to the shift lever.

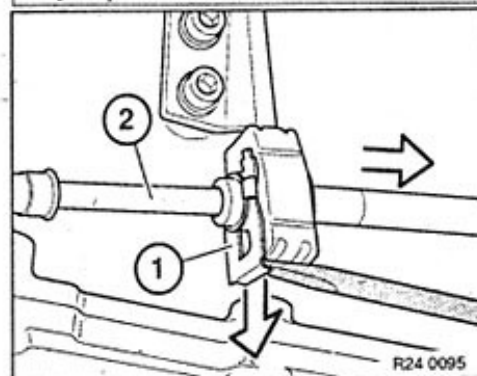
Note:

Can only be fitted in setting "P".

Loose nut (1).

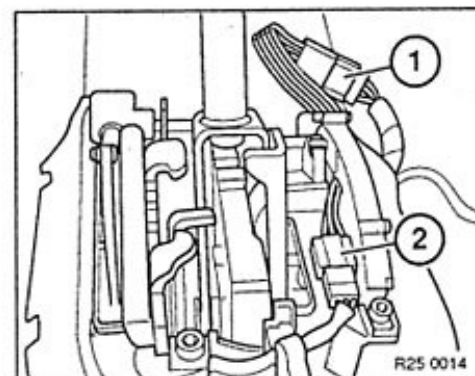
Installation:

Adjusting shift lever, refer to 24 00 007

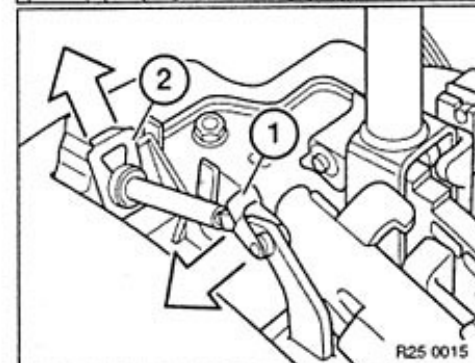


Pry out retaining clip (1) with a screwdriver. Pull cable (2) out of bracket.

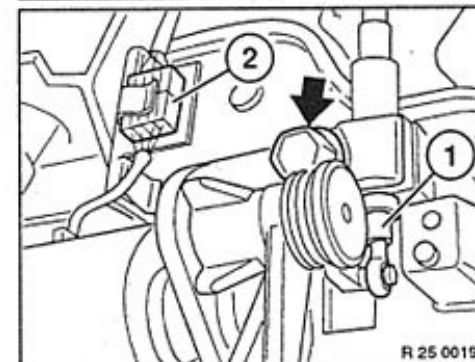
Remove finisher from centre console, refer to 51 16 200.



Unfasten cable connectors (1) and (2).



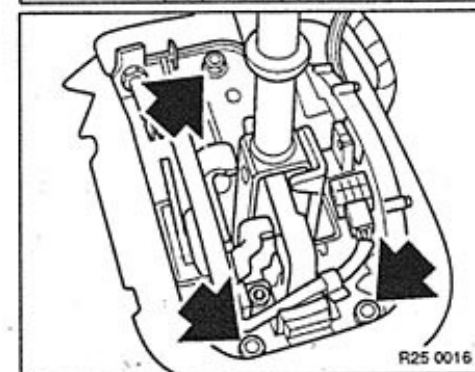
Release pin (1) and remove. Remove retaining clip (2). Press cable out of guide.



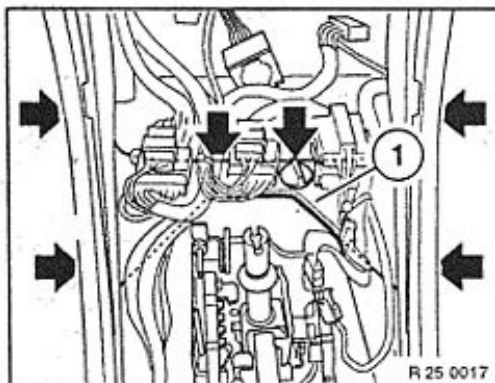
Unfasten screw. Remove interlock cable. Unfasten cable connector (2).

Installation:

Adjust interlock cable, refer to 25 16 . . Repair Instructions for 3 Series E36.

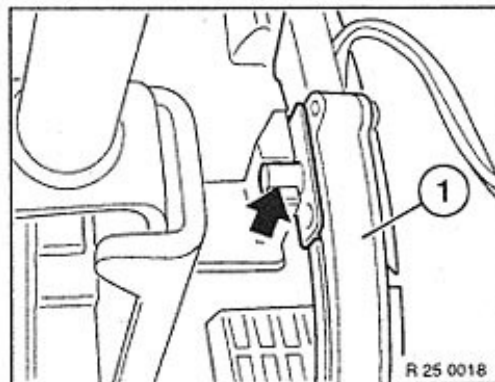


Unfasten screws.



Unfasten screws.
Press reinforcement plate (1) forwards and
remove shift tower.

Note:
If necessary, unfasten cable and connector
from reinforcement plate.



If necessary, fit position switch (1) to new shift
tower.

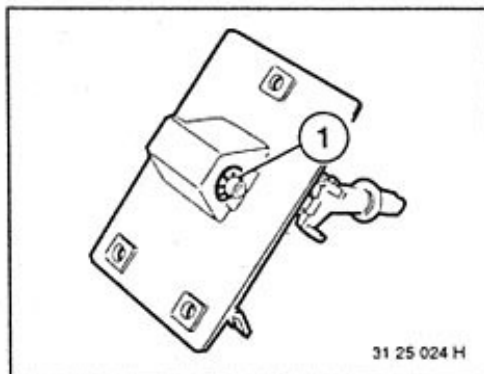
Installation:
Pin in switch must be in recess on shift lever.

25 16 061 Replacing handle on shift
lever



Remove selector lever handle by tugging
firmly.

31 25 011 H



25 16 080 Removing and installing / replacing shift lever

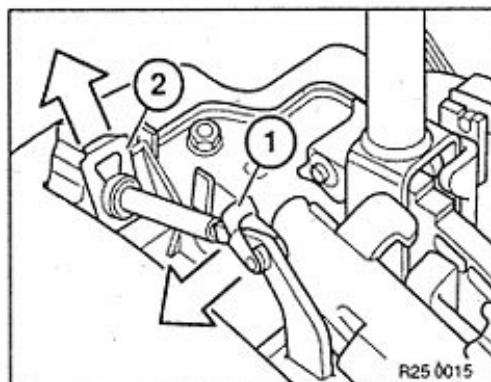
Remove shift tower 25 16 050.
Pry out retainer (1).

Installation:
Replace retainer (1)
Drive out bearing pin.

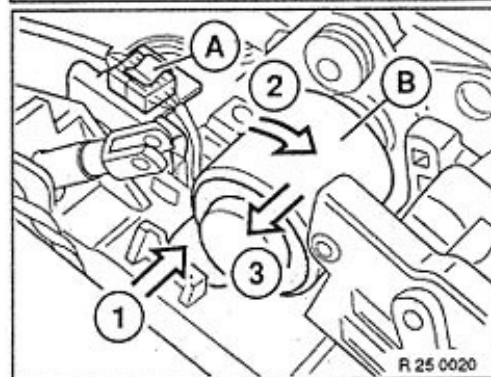
Installation:
Coat bearing points with Klüber Polytop
GLY 801 **.

26 16 130 Removing and installing / replacing shift lock solenoid

Remove finisher from centre console, refer to 51 16 200.

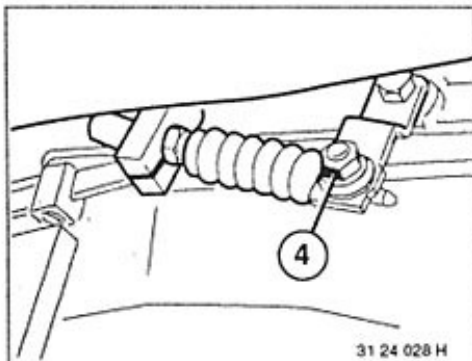


Release pin (1) and remove.
Remove retaining clip (2).
Press cable out of guide.



Disconnect cable connector (A).

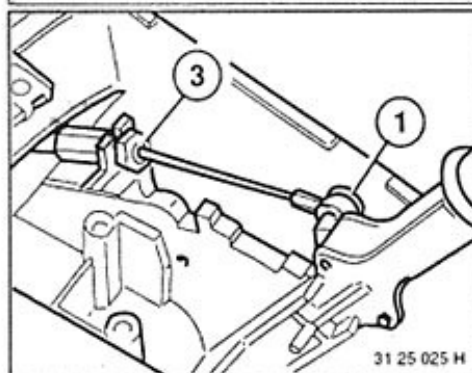
1. Press locking fixture in direction of arrow.
2. Twist electromagnet (B) approx. 90° in direction of arrow.
3. Pull out electromagnet (B) in direction of arrow.



25 16 202 Replacing cable for gear selector lever

Unfasten nut (4) (brace).
Remove cable from support bearing.
Pull out cable.
Tightening torque*

Installation:
Adjust shift mechanism 24 00 006.



Remove selector lever handle, cover and finisher (refer to 25 16 050)
Press of retainer (1).

Installation:
Replace retainer (1).
Unscrew nut (3).
Disconnect cable.
Tightening torque*

Cut open carpet from above cable and up to rubber seal.
Pull cable upwards to remove.

Installation:
Ensure that rubber seal is perfectly located.

25 16 202 Replacing cable for gear selector lever (step shift mechanism)

Operation is identical to "Removing and Installing Shift Tower", refer to 25 16 051/25 16 056.