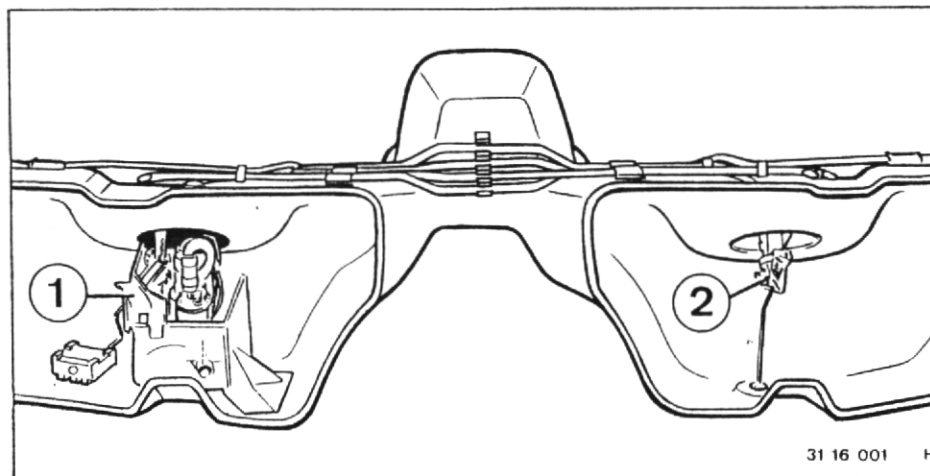


16 Fuel Tank and Lines

	Fuel tank survey	16-11/1
16 00 005	Fuel - drain (part of 16 11 030)	
16 11 030	Fuel tank - remove and install	16-11/2
	Swing-arm level sender and Intank pump survey	16-12/1
16 12 000	Swing-arm level sender for fuel gage (right) - remove and install or replace	16-12/2
001	Swing-arm level sender for fuel gage (left) - remove and install or replace	16-12/4
16 14 010	Fuel pumps - remove and install or replace	16-14/1

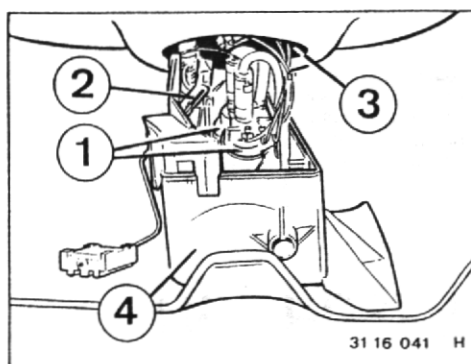
16-11/1

FUEL TANK SURVEY
(Section Drawing in Opposite Forward Direction)

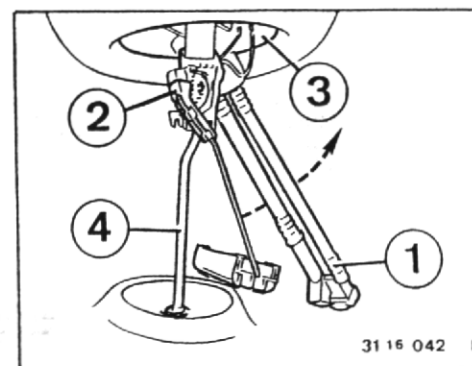


1 = Fuel pump/swing-arm sender unit (right)

2 = Ejector/swing-arm sender unit (left)

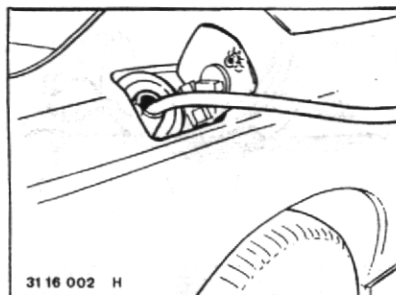


1 = Fuel pumps 3 = Tank flange
2 = Swing-arm sender 4 = Splash shell

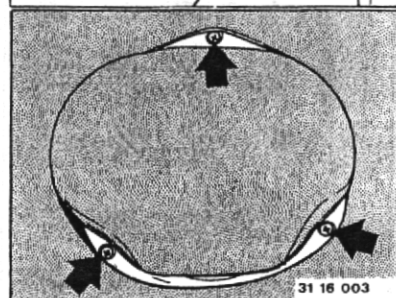


1 = Ejector 3 = Tank flange
2 = Swing-arm sender 4 = Stylus (for basic setting)

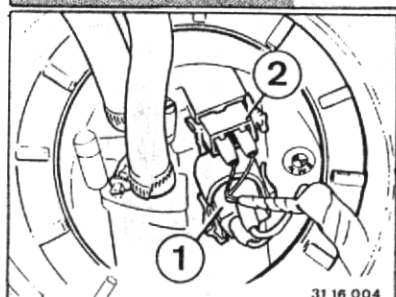
16-11/2



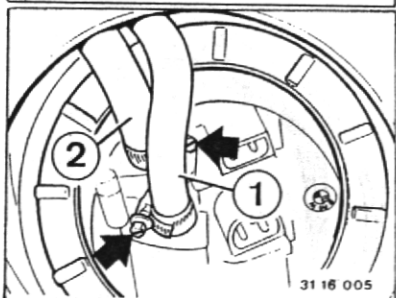
31 16 002 H



31 16 003



31 16 004



31 16 005

16 11 030 REMOVING AND INSTALLING FUEL TANK

Draw out as much fuel as possible through the filler opening with a scavenging pump.

Caution!
Conform with safety regulations and local legislation.
Use a suitable suction hose* and twist it slightly while inserting and pulling it out.

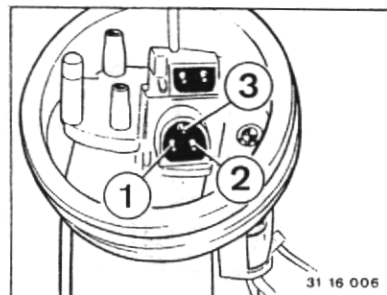
Remove left and right rear seats. Unscrew screws. Take off left and right covers.

Pull off plugs for fuel pumps (1). Pull off plugs for swing-arm senders (2).

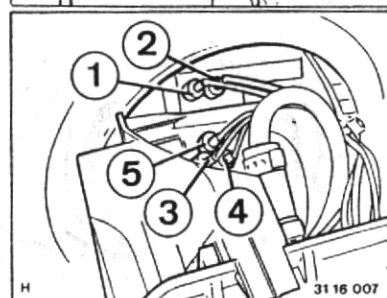
Disconnect fuel hoses. Extract* fuel vapors in car.

Note:
Mark fuel hoses.
1 = Feed for pump 1 (cyl. bank 1...6)
2 = Feed for pump 2 (cyl. bank 7...12)
1 - 6 or 7 - 12 is cast on tank flange.

* See Service Information for Workshop Equipment
** Source of Supply: HWB

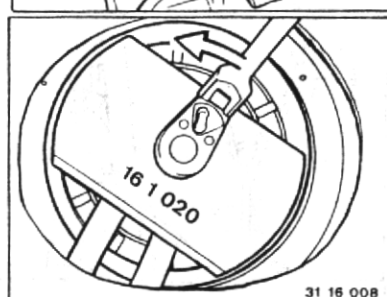


31 16 006

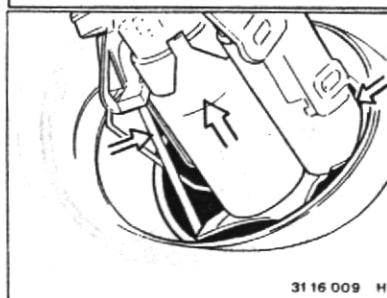


H

31 16 007



31 16 008



31 16 009 H

Fuel Pump Plug Connections:

- 1 = Fuel pump 1 (gray, cyl. 1...6)
- 2 = Fuel pump 2 (purple, cyl. 7...12)
- 3 = Ground (brown)

Wire Connections on Inside of Tank Flange:

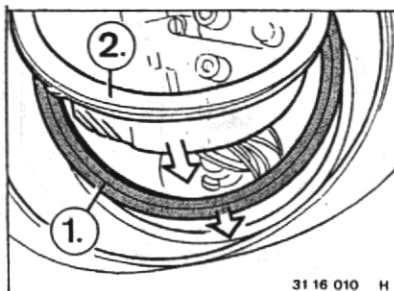
- 1 = Swing-arm sender (yellow)
- 2 = Swing-arm sender (black)
- 3 = Fuel pump 1 (gray)
- 4 = Fuel pump 2 (violet)
- 5 = Fuel pump ground (brown)

Unscrew coupling nut on fuel pump/swing-arm sender unit with Special Tool 16 1 020.

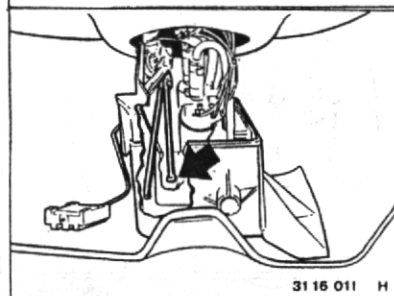
Pull out unit carefully.

Installation:
Press altitude stylus toward housing slightly.

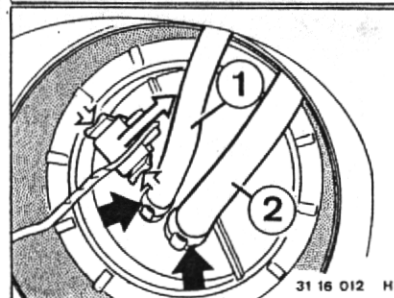
16-11/3



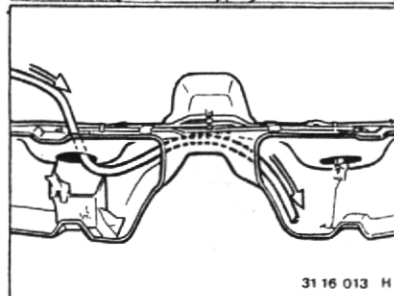
31 16 010 H



31 16 011 H



31 16 012 H



31 16 013 H

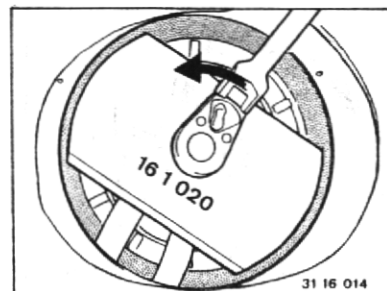
Installation:
Insert new seal and press in unit into correct position.
Correct installed position is shown on page 16-12/5.

Installation:
The stylus must be felt to just bear on the bottom of the tank.
Swing-arm with float must have free movement.

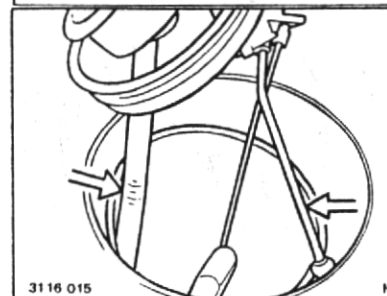
Pull off plug for left swing-arm sender.
Disconnect hoses for return (1) and expansion tank (2).

Draw out fuel through right sender opening with a scavenging pump**. Push suction hose through the tunnel and draw as much fuel as possible out of the left side of the tank.

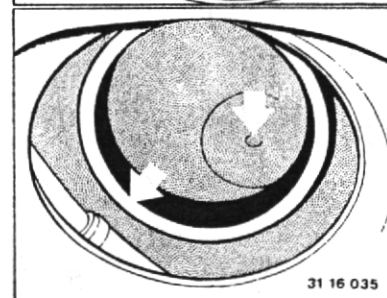
** Source of Supply: HWB



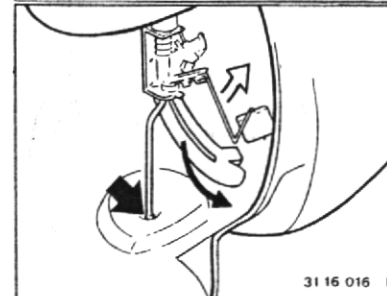
31 16 014



31 16 015



31 16 035



31 16 016 H

Unscrew coupling nut on swing-arm sender unit with Special Tool 16 1 020.

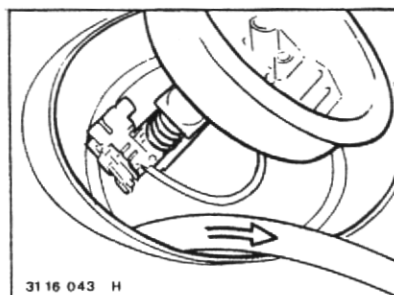
Pull out unit carefully.

Installation:
Press altitude stylus toward housing slightly.

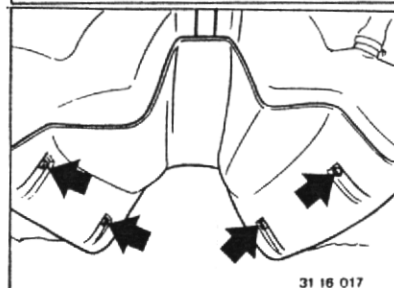
Installation:
Insert new seal and press in unit vertically into correct position so that the stylus just bears on the bottom of the tank.
Correct installed position is shown on page 16-12/5.

Important!
Return and ejector hose is pressed on the bottom of the tank with preload. The swing arm with float must have free movement.

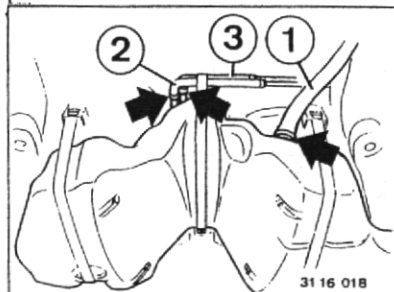
16-11/4



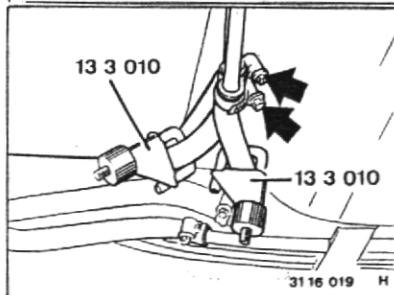
Draw out remaining fuel with the scavenging pump.
Loosen and unscrew parking brake cables on the parking brake lever – see 34 41 ...



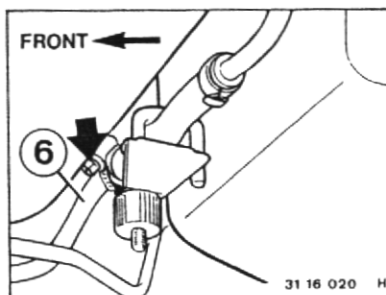
Unscrew propeller shaft – see 26 11 000.
Unscrew nuts.
Unscrew heat shield.



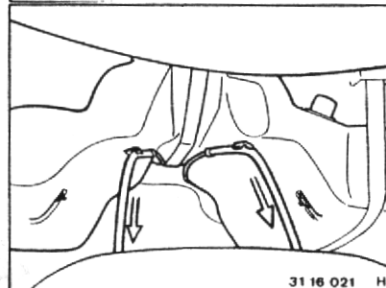
Disconnect filler hose (1).
Disconnect filler bleeding hose (2) and operation bleeding hose (3).



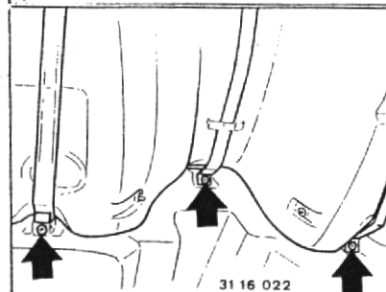
Clamp fuel hoses with Special Tool 13 3 010 and disconnect feed pipes.



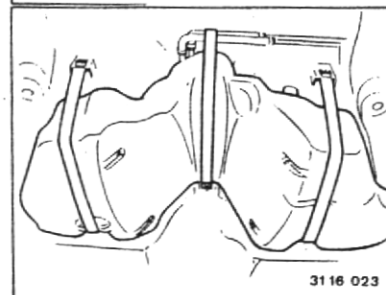
Clamp fuel hose with Special Tool 13 3 010 and disconnect return pipe (6).



Pull cable guides out of clamps.



Unscrew nuts.
Disconnect mounting straps.
Lower fuel tank.

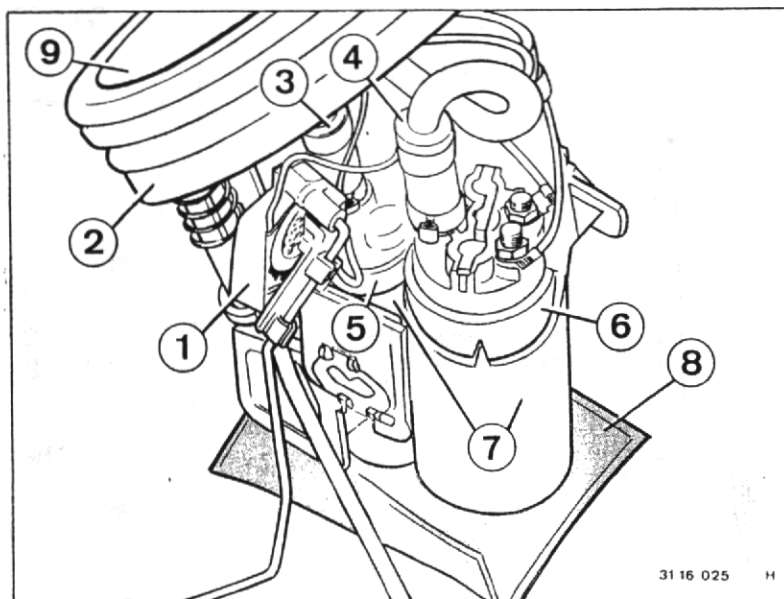


Installation:
Check for correct seating of mounting straps.
Tightening torque*.

* See Specifications

16-12/1

SWING-ARM SENDER AND INTANK
PUMP SURVEY



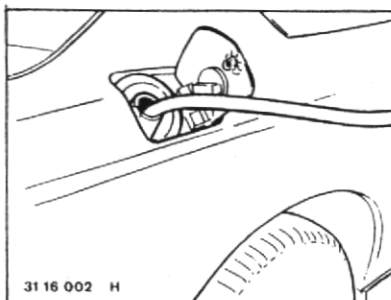
31 16 025 H

- 1 = Swing-arm sender
- 2 = Gasket
- 3 = Feed pipe 1
- 4 = Feed pipe 2
- 5 = Fuel pump 1
- 6 = Fuel pump 2
- 7 = Pump console with rubber liner
- 8 = Fuel filter screen
- 9 = Tank flange

Check fuel pressure and delivery rate –
see Group 13.
Check fuel level sender* – also refer to
plug connections on page 16-12/5.

Note:
Pressure damper and check valve are
integrated in the pumps.

16-12/2

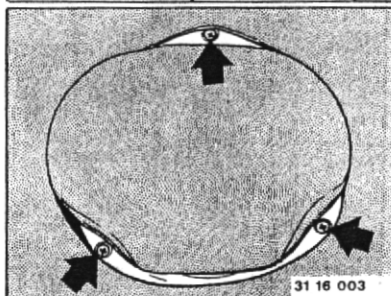


16 12 000 REMOVING AND INSTALLING OR REPLACING SWING-ARM SENDER FOR FUEL GAGE (RIGHT)

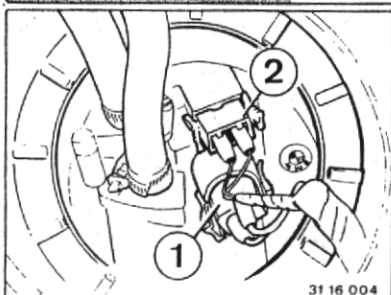
Draw out as much fuel as possible through the filler opening with a scavenging pump**.

Caution!

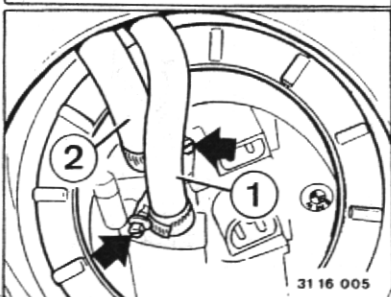
Conform with safety regulations and local legislation.
Use a suitable suction hose* and twist it slightly while inserting or pulling out.



Remove right rear seat.
Unscrew screws.
Take off right cover.



Pull off plugs for fuel pumps (1).
Pull off plugs for swing-arm senders (2).

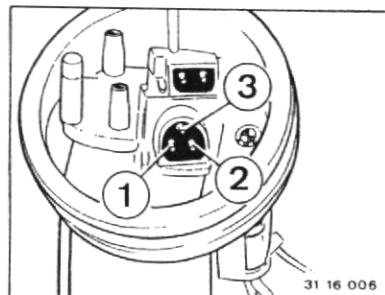


Disconnect fuel hoses.
Extract* fuel vapors in car.

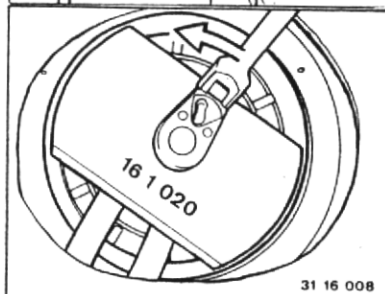
Note:

Mark fuel hoses.
1 = Feed for pump 1 (cyl. 1...6)
2 = Feed for pump 2 (cyl. 7...12)

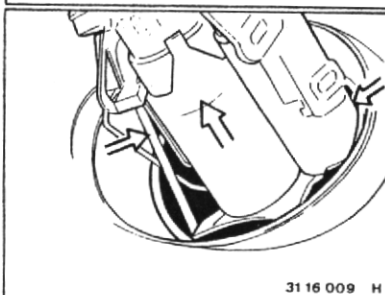
* See Service Information for Workshop Equipment
** Source of Supply: HWB



Fuel pump plug connections – see page 16-12/6.

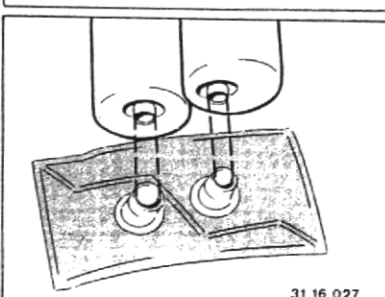


Unscrew coupling nut on fuel pump/swing-arm sender unit with Special Tool 16 1 020.



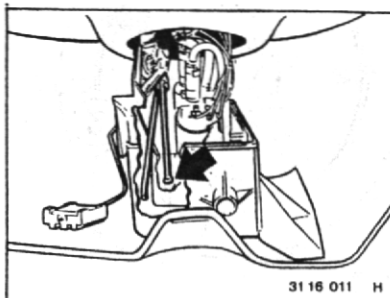
Pull out unit carefully.

Installation:
Press altitude stylus toward housing slightly.

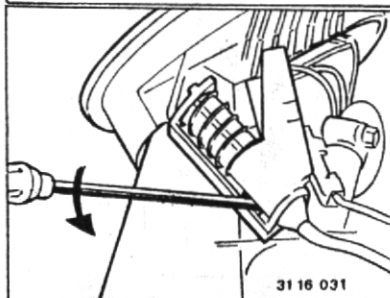


Installation:
Replace fuel filter screens.

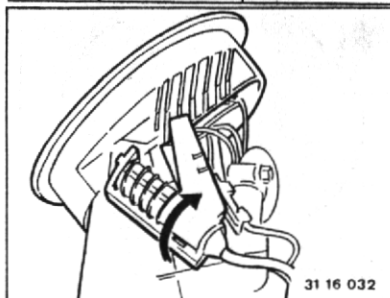
16-12/3



Installation:
 Insert new seal and press unit vertically into correct position so that the stylus is felt to just bear on the bottom of the tank.
 The swing-arm with float must have free movement.
 Correct installed position is shown on page 16-12/5.



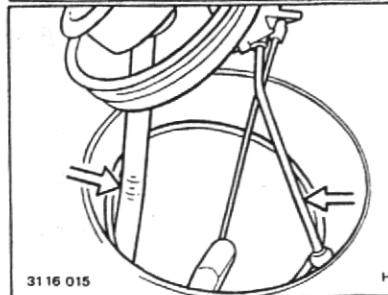
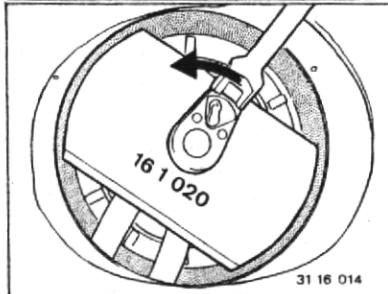
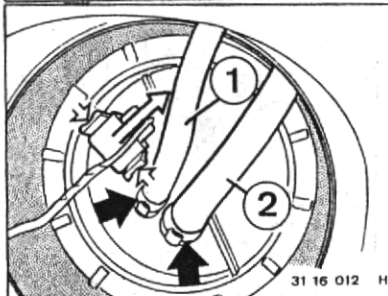
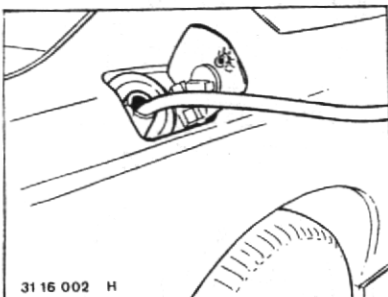
Removing Sender:
 Unclip tab with a screwdriver.



Twist and disconnect sender.

When Replacing Sender or Flange:
 Cut off wires.
 Parallel connectors and shrink-on hoses are contained in the repair kit.

Installation:
 Install shrink-on hoses.
 Connect electric wires with parallel connectors that colors match.
 Heat shrink-on hoses with an electric air blower and pull over connections.
 Attach, twist and have sender engage which is heard.



16 12 001 REMOVING AND INSTALLING OR REPLACING SWING-ARM SENDER FOR FUEL GAGE (LEFT)

Draw out as much fuel as possible with a scavenging pump**

Caution!

Conform with safety regulations and local legislation.
Use a suitable suction hose* and twist it slightly while inserting or pulling out.

Important!

If the tank contains more than 50 liters (11 Imp./13 US gal.) of fuel, the right sender/intank pump unit must be removed first and fuel drawn out through the tunnel.

Remove left rear seat and left cover. Pull off plug for left swing-arm sender. Disconnect fuel hoses for return (1) and expansion tank (2). Extract* fuel vapors in car.

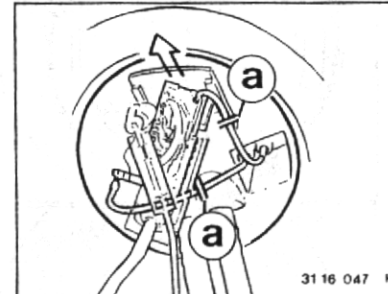
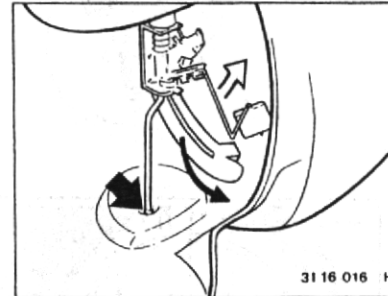
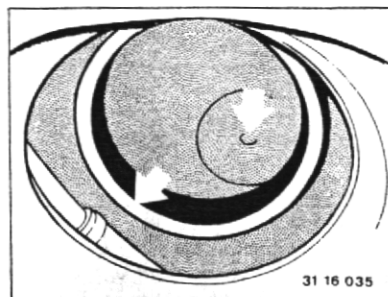
Unscrew coupling nut on swing-arm sender unit with Special Tool 16 1 020.

Pull out unit carefully.

Installation:

Press altitude stylus toward housing slightly.

* See Service Information for Workshop Equipment
** Source of Supply: HWB



Installation:

Insert new seal and press unit vertically into correct position so that the stylus is felt to just bear on the bottom of the tank.
Correct installed position is shown on page 16-12/5.

Important!

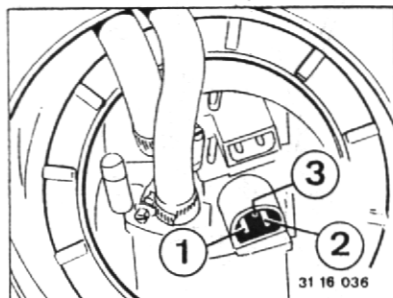
Return and ejector pipe is pressed on the bottom of the tank with preload. The swing-arm with float must have free movement.

When Replacing Sender or Flange:
Cut off electric wires at (a).
Pull out sender in direction of arrow.
Parallel connectors and shrink-on hoses are contained in the repair kit.

Installation:

Install shrink-on hoses.
Connect electric wires with parallel connectors that colors match.
Heat shrink-on hoses with an electric air blower and pull over connections.

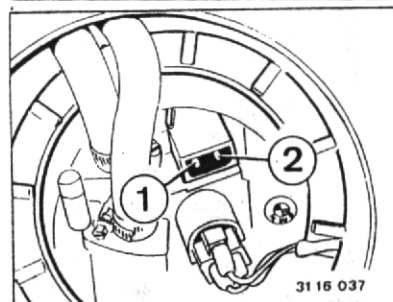
16-12/5



Plug and Hose Connections:

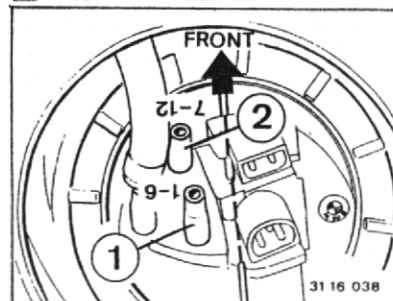
Fuel Pump Connection (Right Side of Tank)

- 1 = Fuel pump 1 (cyl. 1...6)
- 2 = Fuel pump 2 (cyl. 7...12)
- 3 = Ground (-) for both fuel pumps



Swing-arm Sender Connection (Right Side of Tank)

- 1 = Sender (black)
- 2 = Sender (yellow)

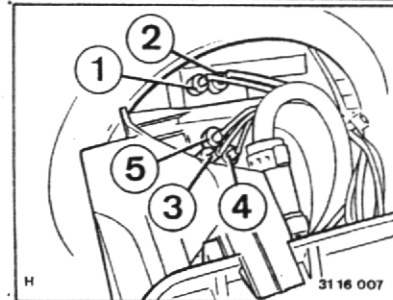


Fuel Feed

- 1 = Fuel pump 1 (cyl. 1...6)
- 2 = Fuel pump 2 (cyl. 7...12)

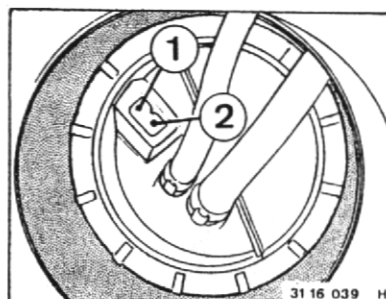
Arrow = Installed direction
Front = Forward

Cast tabs on the tank can be felt.



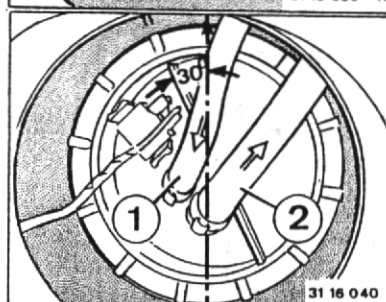
Electric Wire Connection on Inside of Tank Flange:

- 1 = Swing-arm sender (yellow)
- 2 = Sing-arm sender (black)
- 3 = Fuel pump 1 (gray)
- 4 = Fuel pump 2 (violet)
- 5 = Fuel pump ground (brown)



Swing-arm Sender Connection (Left Side of Tank)

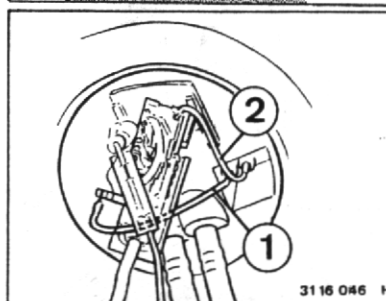
- 1 = Sender (black)
- 2 = Sender (yellow)



- 1 = Fuel return
- 2 = Fuel expansion tank from ejector

Installed position = approx. 30° toward forward.

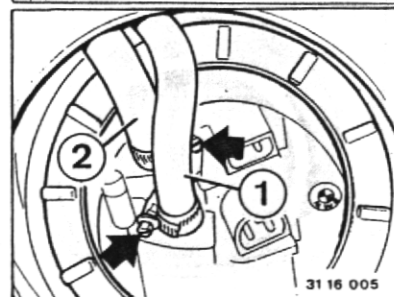
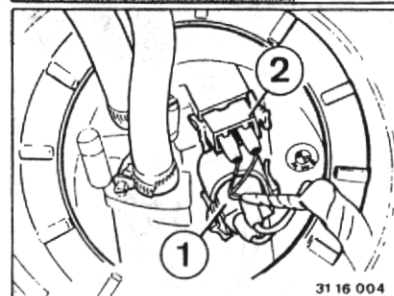
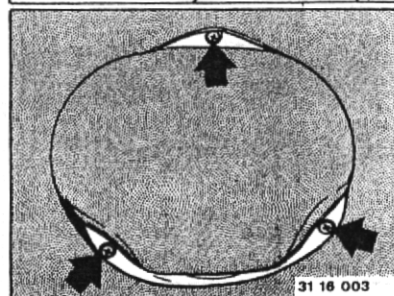
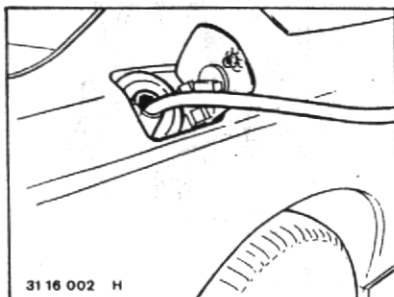
Cast tabs on the tank can be felt.



Electric Wire Connections on Inside of Tank Flange:

- 1 = Swing-arm sender (black)
- 2 = Swing-arm sender (yellow)

16-14/1



16 14 010 REMOVING AND INSTALLING OR REPLACING FUEL PUMPS

Draw out as much fuel as possible through the filler opening with a scavenging pump.

Caution!
Conform with safety regulations and local legislation.
Use a suitable suction hose* and twist it slightly while inserting or pulling out.

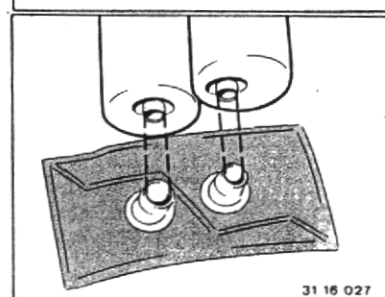
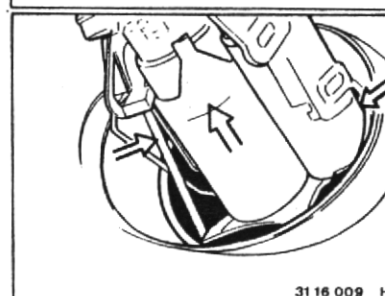
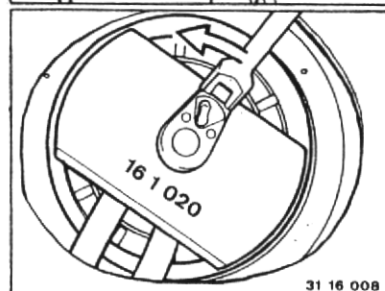
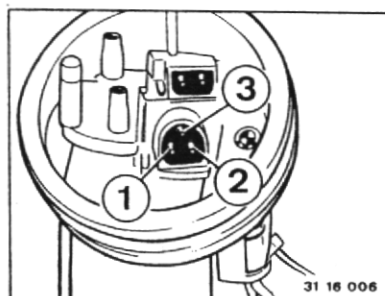
Remove right rear seat.
Unscrew screws.
Take off right cover.

Pull off plugs for fuel pumps (1).
Pull off plugs for swing-arm senders (2).

Disconnect fuel hose.
Extract* fuel vapors in car.

Note:
Mark fuel hoses.
1 = Feed for pump 1 (cyl. 1...6)
2 = Feed for pump 2 (cyl. 7...12)

* See Service Information on Workshop Equipment
** Source of Supply: HWB



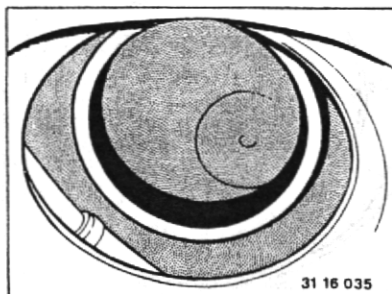
Fuel pump plug connections – see page 16-12/6.

Unscrew coupling nut on fuel pump/ swing-arm sender unit with Special Tool 16 1 020.

Pull out unit carefully.

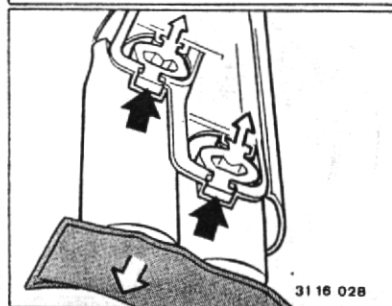
Installation:
Press altitude stylus toward housing slightly.

Installation:
Replace fuel filter screens.



31 16 035

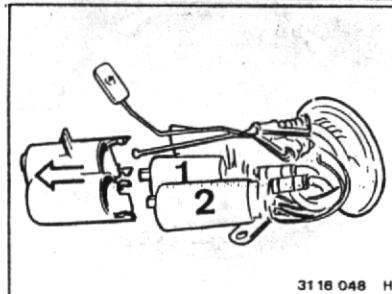
Installation:
Insert new seal and press unit vertically into correct position so that the stylus is felt to just bear on the bottom of the tank.
The swing-arm with float must have free movement.
Correct installed position is shown on page 16-12/5.



31 16 028

Disassembling Pump Unit:
Pull off fuel filter screens.
Lift out rubber liner.

Installation:
Replace fuel filter screens.
Replace rubber liner.



31 16 048 H

Pull off pump console.
Mark fuel pumps.
Disconnect pump (1) wire (gray),
pump (2) wire (violet)
and both ground wires (brown).



31 16 030

Disconnect fuel hoses on pumps.

Installation:
Check hoses, replacing if necessary.
Replace hose clamps.