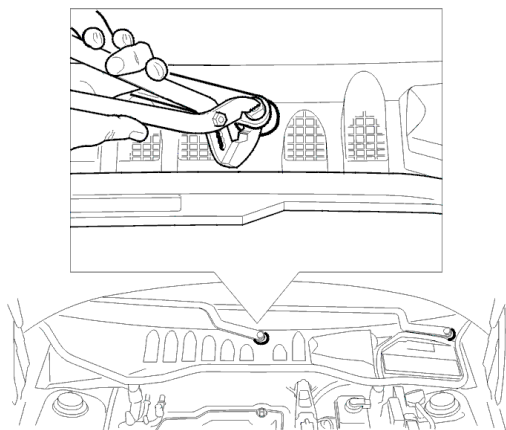


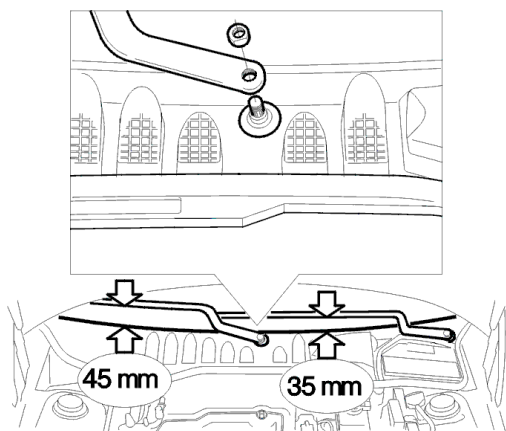
Windshield wiper arm, replacement

Removal



- Undo nut, then do it up a few turns to protect threads on wiper arm mechanism shaft.
- Remove wiper arm from wiper mechanism by holding nut with polygrip pliers and pushing arm off.
- Remove nut.
- Remove wiper arm.

Installation



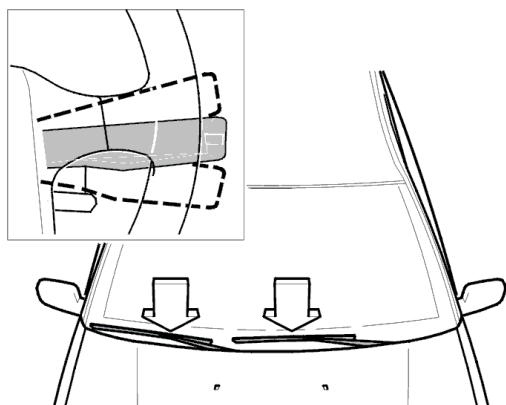
- Install wiper arm.
- Fit nut, but do not tighten.
- Adjust position of wiper arm as in picture.
- Tighten nut. Torque setting 16 Nm.

Replacing front wiper unit and wiper motor

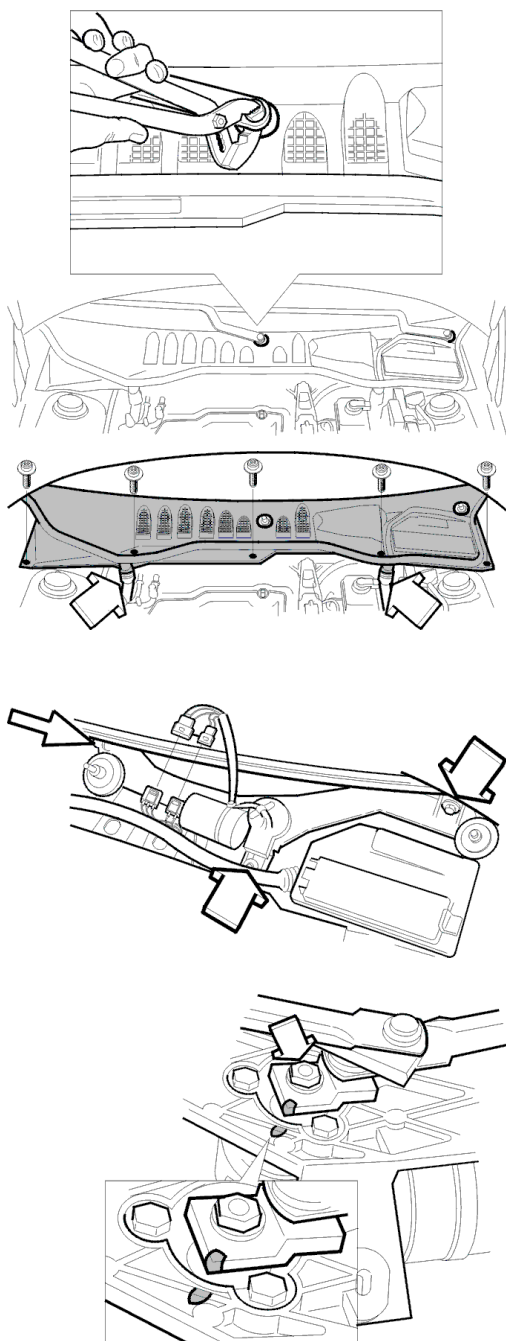
Note! If the arms are out of position start repair with [Method if arms are out of position](#) . Reinstall the special suppression kit if installed.

Removing panel

Removing



- Ignition off.
- Check whether the wiper motor is in its parked position, switch the wiper switch to the on position and then to the parked position.



- Slacken off the nut, unscrew a few turns to protect the thread on the wiper mechanism spindle.
- Remove wiper arm from wiper arm mechanism by supporting a pipe wrench on the nut and pressing off the arm.
- Remove nut.

Remove:

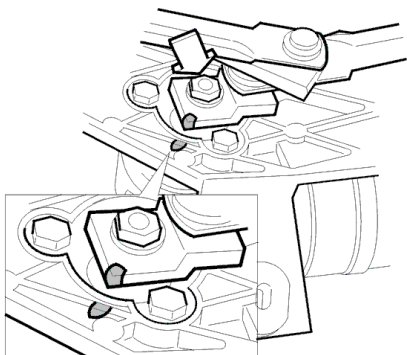
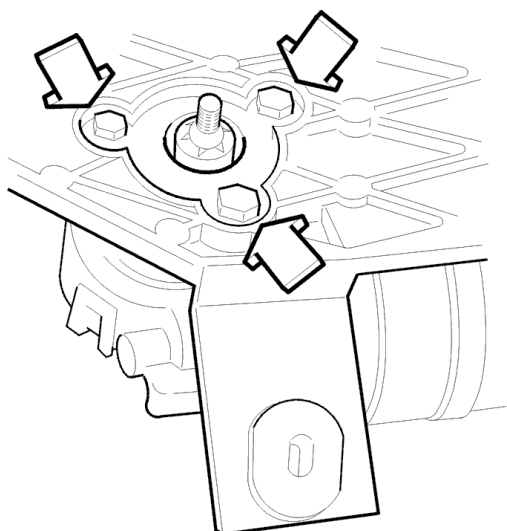
- cover screws.
- disconnect cover drainage hoses.
- cover.

Removing wiper unit

Remove:

- wiper unit screws.
- wiper unit by pulling it out to release it from the mounting pin.
- Separate connectors.
- wiper unit, reverse wiper unit to access its underside.
- Mark up crank link.
- Remove nut to the crank link on the wiper motor spindle.
- Remove crank link.

- Remove wiper motor screws.



Installing

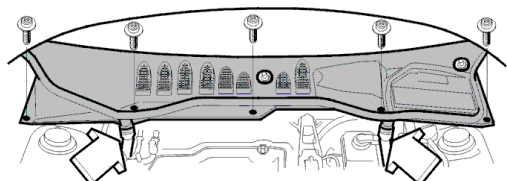
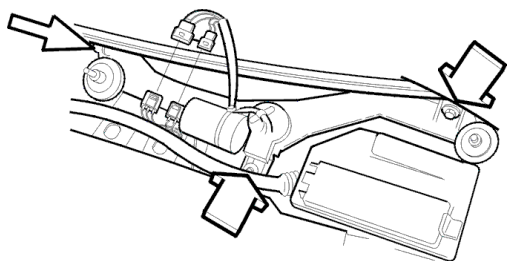
- Connect 12 V to the wiper motor to ensure that the wiper motor goes to its parked position.

Install:

- wiper motor.
- screws.
- crank link as marked.
- Apply thread sealant P/N 1161053-2 to the motor spindle thread.
- Tighten nut to 20 Nm. Use a 26 mm fixed wrench as a counterhold on the crank link when tightening the nut.
- Connect connectors and clamp wiring.

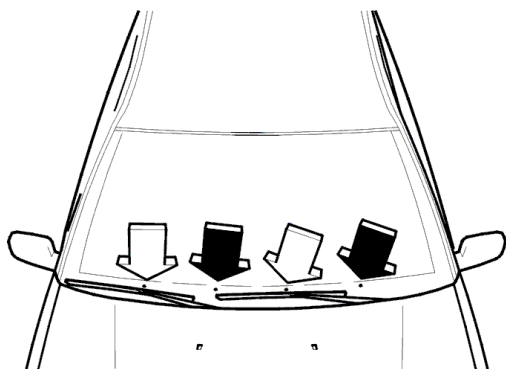
Installing wiper unit

- Install wiper unit, locate mounting pin and install screws.
- Connect connectors.
- Test wiper unit function.



Install:

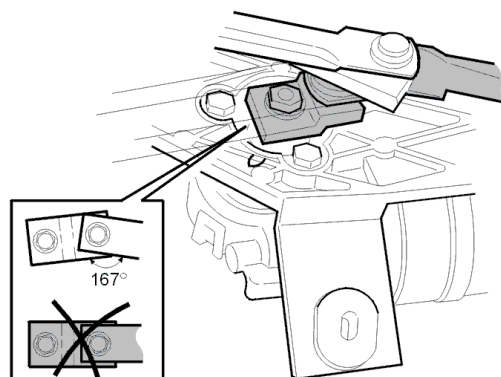
- cover.
- cover screws.
- drain hoses.
- Position wiper arms by the wiper transmission spindle.
- Install the wiper blade on the white dot under



the wiper blade (see white arrows on the illustration) and press wiper arm onto the splines on the spindle.

- Install locknut and tighten to 16 Nm.

Note! The dots marked by the black arrows on the illustration are for right-hand drive cars.



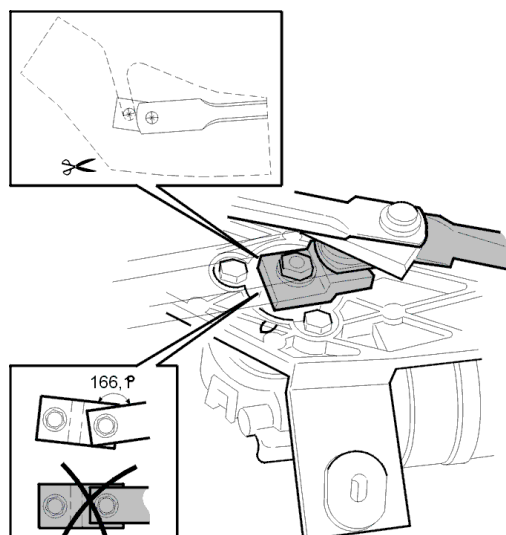
Method if arms are out of position

Cars with chassis numbers up to and including 854 -166000 and 855 -70000 (left-hand drive) and 854 -171000 and 855 -75000 (right-hand drive) and when replacing wiper motor.

- Remove wiper unit according to [Removing panel](#) and [Removing wiper unit](#) .
- Remove nut holding the crank link onto the wiper motor spindle (if not already removed).
- Adjust the position of the crank link so that the extension of the arm closest to the windshield wiper unit is above the motor spindle. The upper arm should be directly above the motor spindle.
- Press down the crank link onto the motor spindle splines.
- Apply thread sealant P/N 1161053-2 to the motor spindle thread.
- Tighten nut to 20 Nm. Use a 26 mm fixed wrench as a counterhold on the crank link when tightening the nut.
- Install wiper unit according to: [Installing wiper unit](#) .
- Carry out a function test and adjust if necessary until the unit is operating satisfactorily.

Cars with chassis numbers from and including 854 166000- and 855 70000- (left-hand drive) and 854 171000- and 855 75000- (right-hand drive) and when replacing wiper motor.

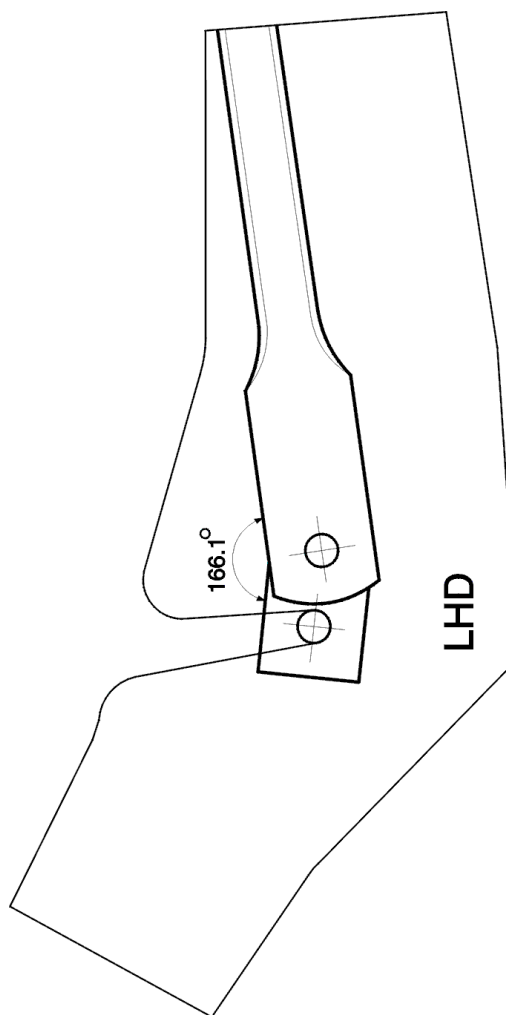
- Remove wiper unit according to: [Removing panel](#) and [Removing wiper unit](#) .
- Remove nut holding the crank link onto the wiper motor spindle (if not already removed).
- Place template on the wiper mechanism base.
- Adjust the crank arms using the template.



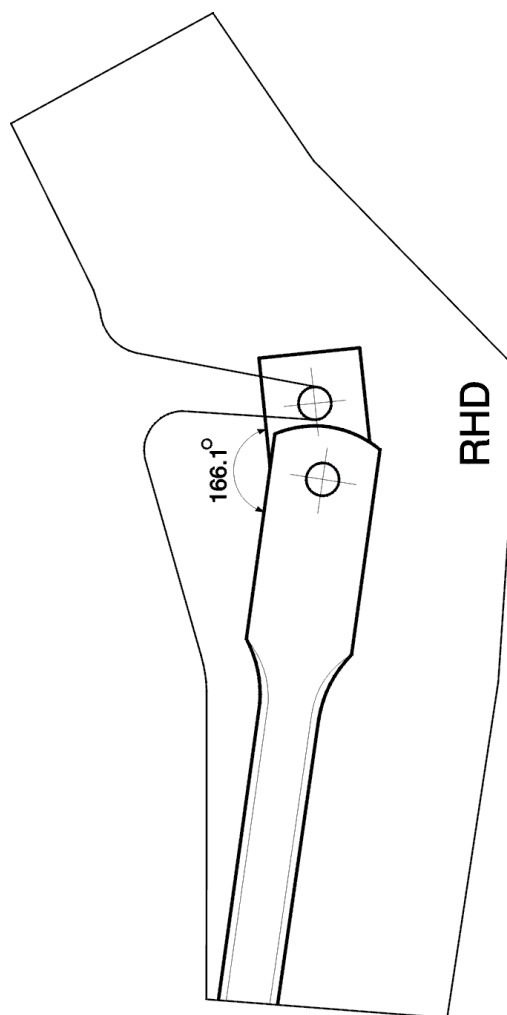
Note! The extension of the arm which is located nearest the windshield wiper unit and motor shaft makes an angle of 166.1° .

- Press down the crank link onto the motor spindle splines.
- Remove template.
- Apply thread sealant P/N 1161053-2 to the motor spindle thread.
- Tighten nut to 20 Nm. Use a 26 mm fixed wrench as a counterhold on the crank link when tightening the nut.
- Install wiper unit according to: [Installing wiper unit](#).
- Carry out a function test and adjust if necessary until the unit is operating satisfactorily.

Template for a left-hand drive version.



Template for a right-hand drive version.



Replacing rear wiper unit and motor

Note! Reinstall the special suppression kit if installed.

Removing

Removing wiper arm

Ignition off.

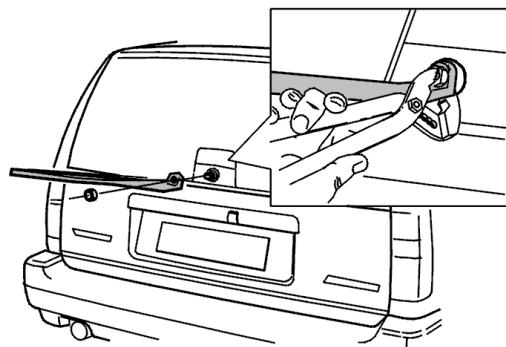
Remove:

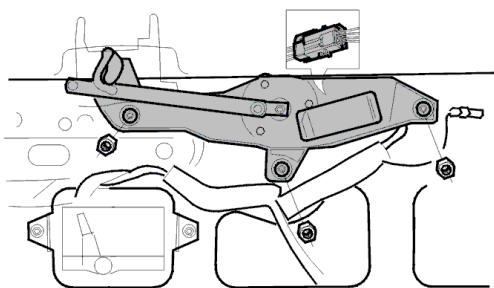
- nut, unscrew a few turns to protect the thread on the wiper mechanism spindle.
- wiper arm from wiper arm mechanism by supporting a pipe wrench on the nut and pressing off the arm.

Remove wiper arm.

Removing wiper unit

Remove:





- tailgate panel: [Tailgate](#) , Interior, exterior, S70/V70, 1997–.
- wiper unit nuts.
- disconnect wiper unit connector.
- wiper unit.
- nut on wiper motor spindle to wiper mechanism.
- wiper motor screws.
- wiper motor from wiper unit.

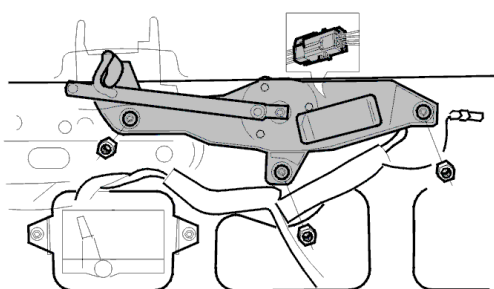
Installing

Installing wiper unit

Connect 12 V to the wiper motor to ensure that the wiper motor goes to its parked position.

Install:

- wiper motor on wiper unit.
- wiper motor screws.
- nut on wiper motor spindle to wiper mechanism.
- wiper unit on tailgate.
Connect connector to wiper unit.
- nuts to wiper unit, tighten to 10 Nm (7.4 ft.lbs).
- tailgate panel: [Tailgate](#) , Interior, exterior, S70/V70, 1997–.



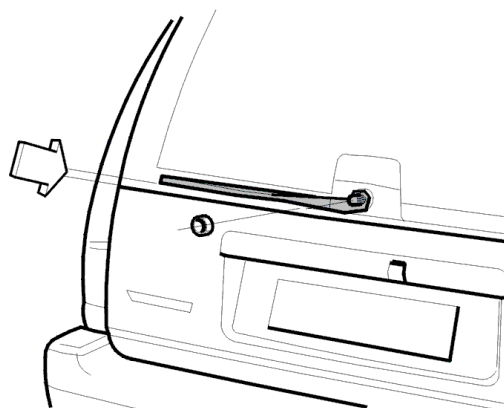
Installing wiper arm

Install:

- wiper arm
- nut loosely.

Adjust so that the wiper arm is parallel with the lower edge of the rear windshield.
Tighten nut to 16 Nm. (11.8 ft.lbs)

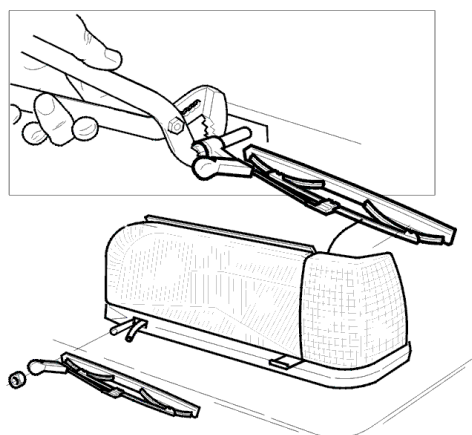
* Test wiper motor function.



Headlight wiper arm, replacement

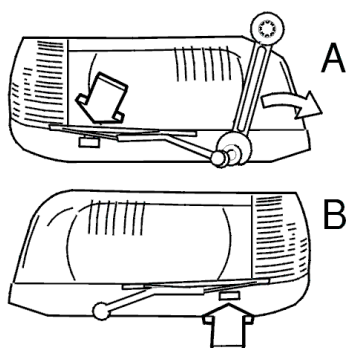
Removal

- Turn cover down by mounting on wiper arm.
- Undo nut, tighten it up a few turns to prevent damaging wiper mechanism shaft threads.



- Remove wiper arm from wiper mechanism shaft by holding nut with polygrip pliers and pushing arm off.
- Remove nut.
- Remove arm.
- Undo washer hose.

Installation



- Install wiper arm.
- Install nut handtight.
- Adjust wiper arm position as in picture.

Note! Adjust headlamp wiper on RH side of car so that wiper blade is directly below the stop when the nut is tightened. Now lift blade over stop, so blade presses against stop A. On the LH side of car, blade should be over stop when tightening B.

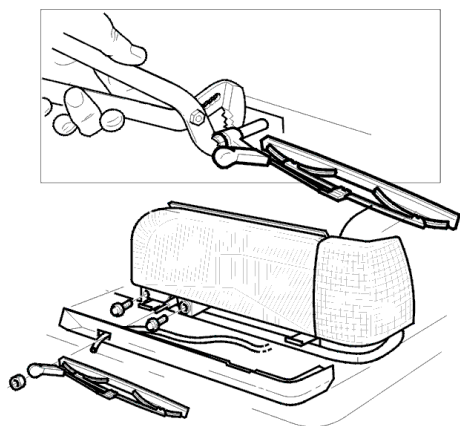
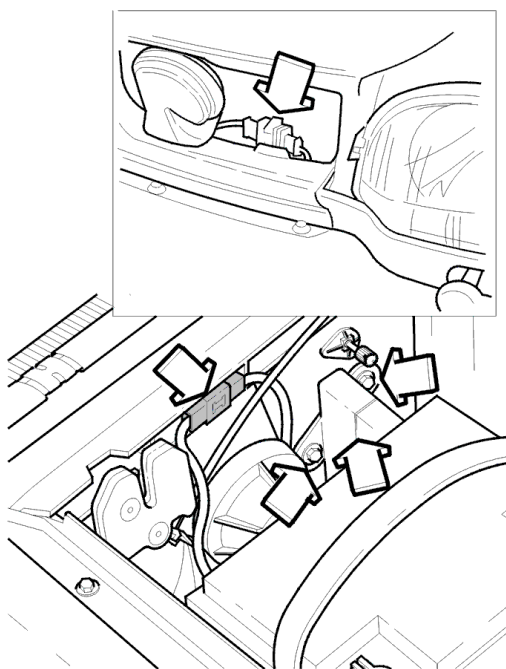
- Tighten nut to 4 Nm.
- Test headlamp wipers. Check that wiper arms are horizontal when off.

Headlight wiper motor LH side, replacement

Note! NOTE Special radio interference suppression unit must be reinstalled if fitted.

Removal

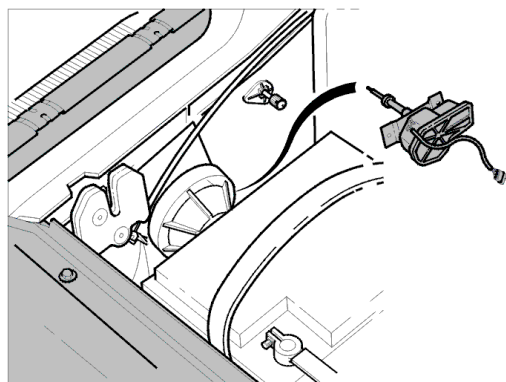
- Ignition off.
- Remove screw from front connector, turn connector down under battery shelf.
- Undo washer motor connector. Connector is located in front panel over the cluster casing or in front of the radiator, depending on the model concerned.



- Turn cover down by mounting on wiper arm.
- Undo nut, do it up a few turns to protect threads on wiper mechanism shaft.
- Remove wiper arm by holding nut with polygrip pliers and pushing wiper arm off.
- Remove nut.
- Remove arm.
- Undo washer hose.
- Remove strip underneath headlamp, hold strip by inside and pull carefully out until it comes free.

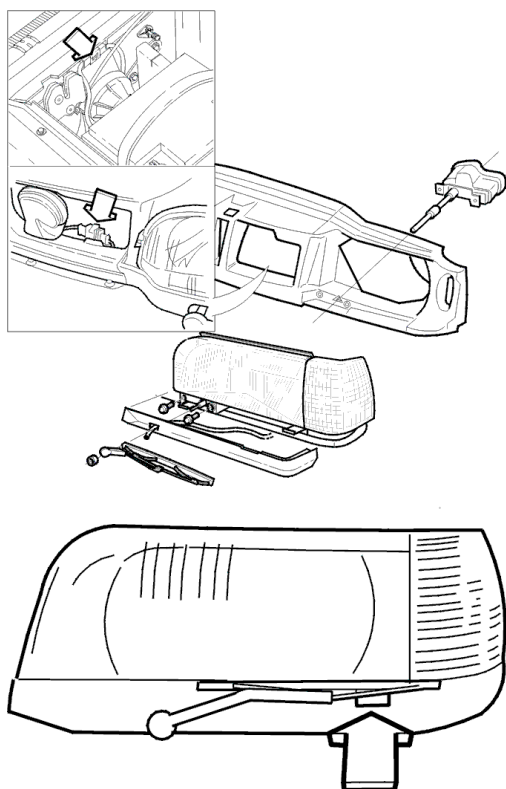
Note! Take care when removing the headlamp strip so as not to damage bumper paintwork.

- Remove wiper motor screws.
- Remove wiper motor. Pull it out from inside engine compartment.



Installation

- Install wiper motor, wiper motor screws, front connector and strip underneath headlight,



match up guide pin and push it into place.

Note! Make sure that hoses and leads do not get pinched.

- Connect washer motor connector and install in clip as before.
- Install washer hose.
- Install wiper arm.

Note! Before installing wiper arms, check that motor has returned to off position of its own accord and that washer hose is not being pinched.

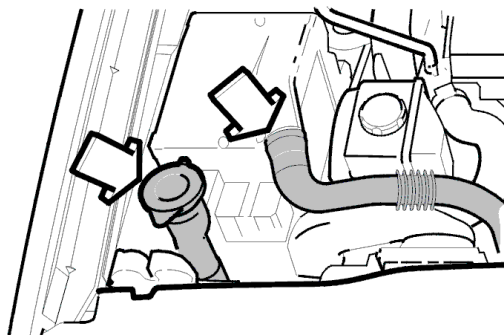
- Install nut handtight.
- Adjust position of wiper arm so blade is against the top of the stop when tightening. Torque setting 4 Nm.
- Test headlight wipers.

Headlight wiper motor RH side, replacement

Does not apply to cars fitted with AC or twin-bulb lights. For cars with AC and/or twin-bulb lights see LAK1 – LAK15 [Headlight wiper motor RH side, replacement](#).

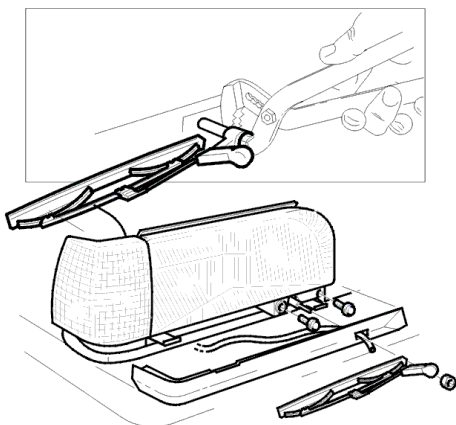
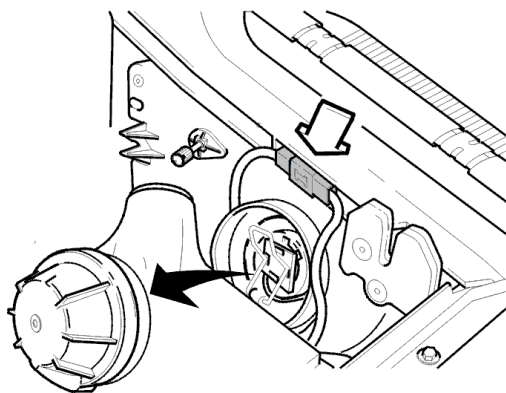
Note! Reinstall special radio interference suppressor if fitted.

Removal



- Ignition off.
- From front air duct to control module box from engine compartment.
- Remove washer reservoir filler pipe.

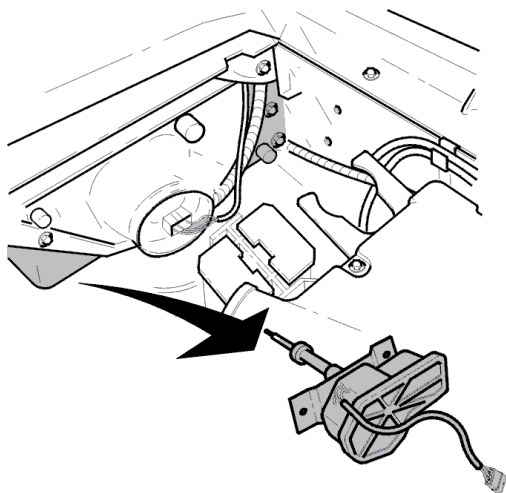
- Remove cover from headlamp casing.
- Undo washer motor connector. Connector is located at top of front.



- Turn down cover by mounting on wiper arm.
- Undo nut, do it up a few turns to protect threads on wiper mechanism shaft.
- Remove wiper arm from wiper mechanism shaft by holding nut with polygrip pliers and pushing arm off.
- Remove nut.
- Remove wiper arm.
- Undo washer hose.
- Remove strip under headlamp; hold inner section and pull carefully out until it comes free.

Note! Take care when removing headlamp strip so as not to damage bumper paintwork.

- Remove wiper motor screws.
- Remove wiper motor, pulling it out via engine compartment.

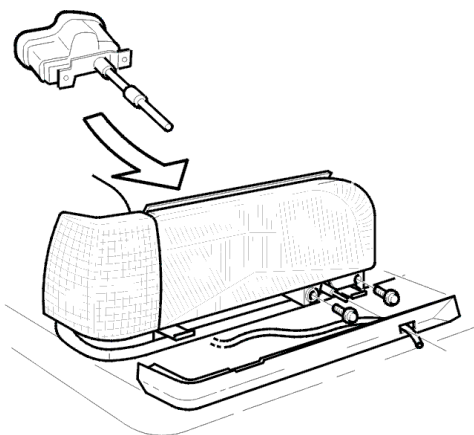


Installation

Install:

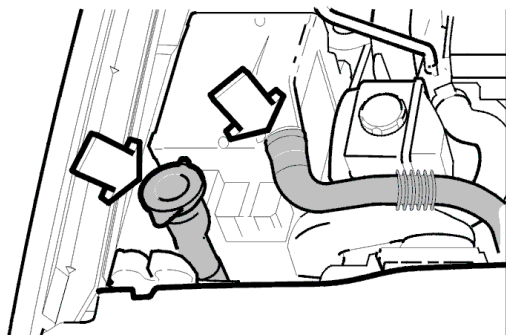
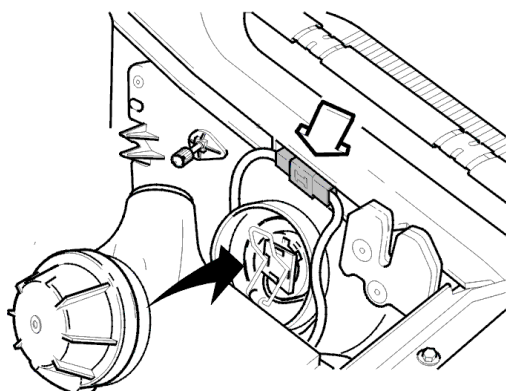
- Wiper motor, wiper motor screws.
- Strip under headlight, match up guide pin and push into place.

Note! Make sure hoses and leads do not get



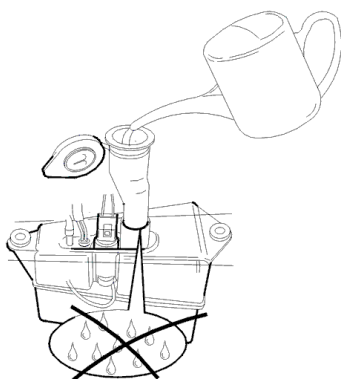
pinched.

- Connect wiper motor connector and install it in clip in front.
- Headlight casing cover.



Install:

- washer reservoir filler pipe.
- front air duct to control module box.

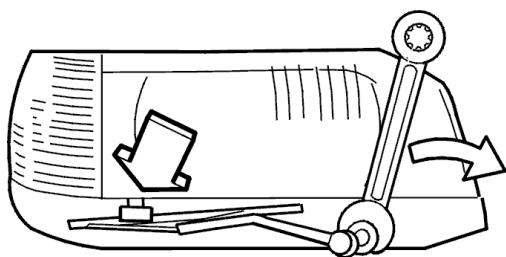


- Check that filler pipe seals flush to washer reservoir.

- Install washer hose and wiper arm.

Note! Before installing wiper arm, check that motor has returned to the off position and that the washer hose is not being pinched.

- Install nut handtight.



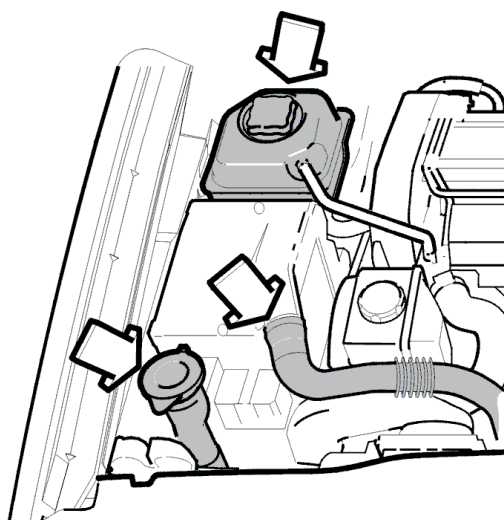
- Adjust position of wiper arm: blade should be directly underneath stop when tightening.
Torque setting 4 Nm.
- Lift wiper arm over stop.
- Test headlight wipers.

Headlight wiper motor RH side, replacement

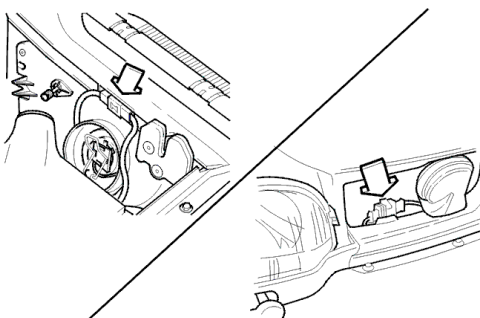
Cars with AC and/or twin-bulb headlight.

Note! Reinstall special radio interference suppressor kit if fitted.

Removal

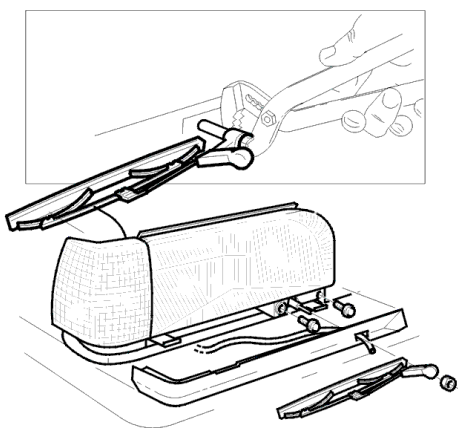


- Ignition off.
- Remove front air duct from control unit box in engine compartment.
- Remove washer reservoir filler pipe.
- Remove expansion tank, pull upwards.



- Undo washer motor connector. Connector is located in front end above cluster housing or in front of radiator, depending on model.

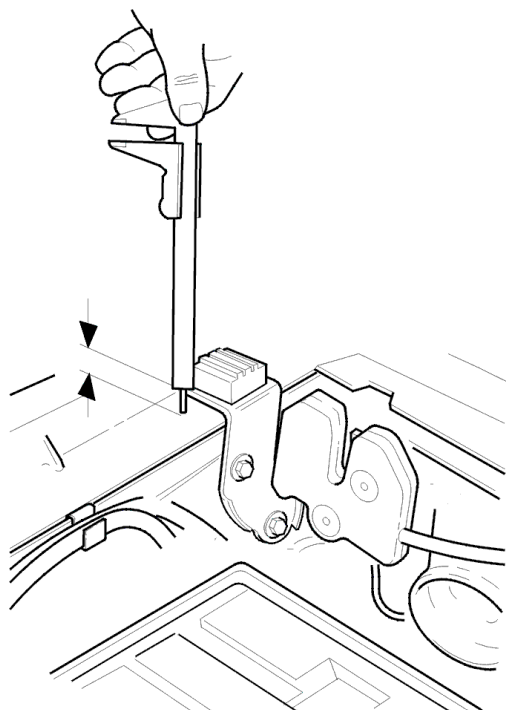
- Turn down cover by mounting on wiper arm.
- Undo nut, do it up a few turns to avoid damaging threads on wiper mechanism shaft.
- Remove wiper arm from wiper arm shaft by holding nut with polygrip pliers and pushing arm off.
- Remove nut.
- Remove wiper arm.
- Undo washer hose.
- Remove strip under headlight. Hold inner end



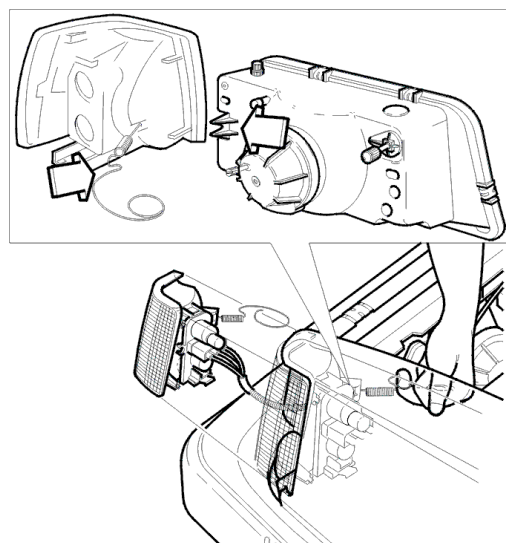
of strip and pull carefully until it comes free.

Note! When removing headlight strip, take care not to damage bumper paintwork.

- Remove wiper motor screws.

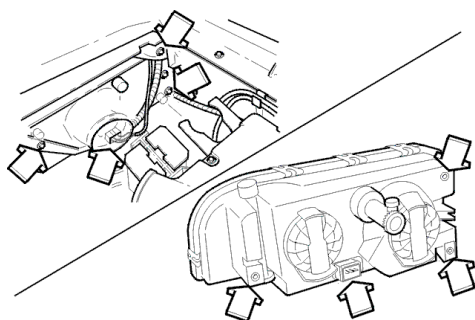


- Mark position of hood lock.
- Remove screws, turn hood lock down.



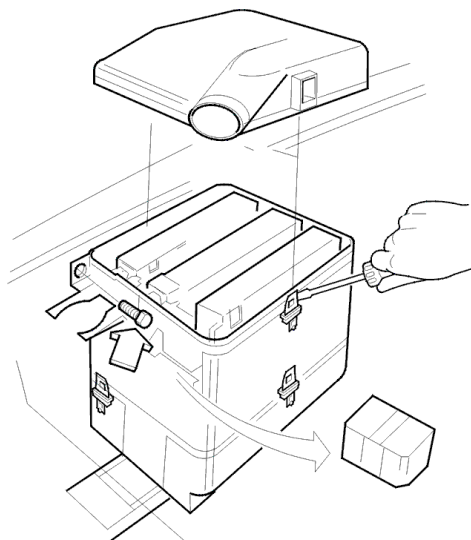
- Remove flashers/parking light.
- Undo connector.

- Undo connector to headlamp/halogen lamp.
Connector fits directly to halogen lamp in

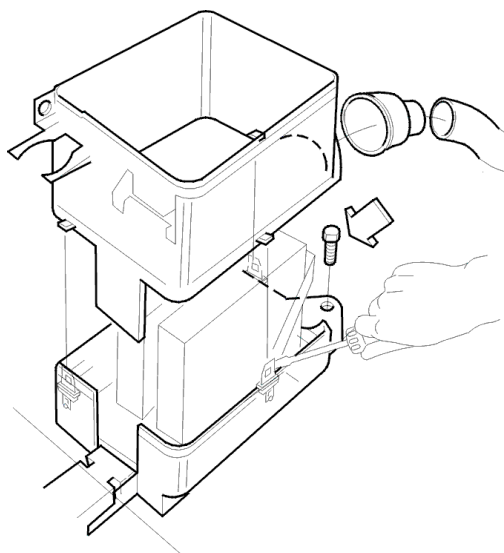


high cluster and to bottom of headlamp casing
in low cluster.

- Remove headlamp screws.
- Remove headlamp.

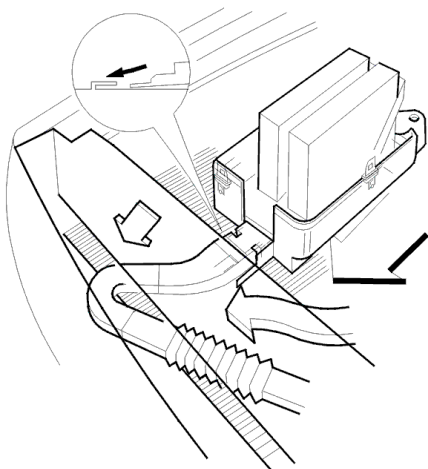
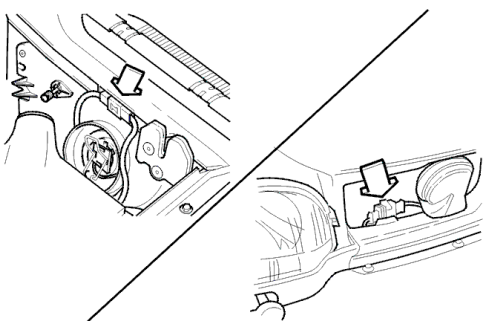
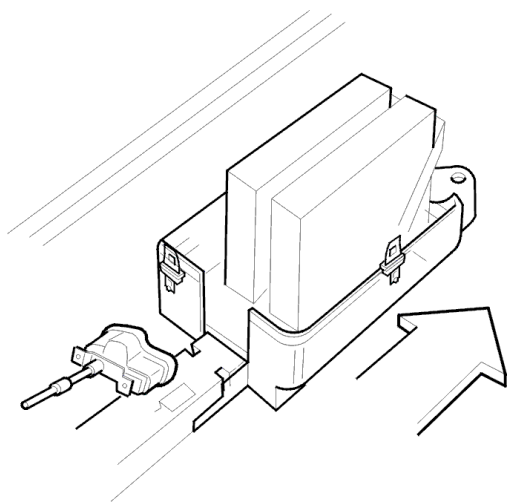


- Undo DLC from mounting in control module box.
- Remove upper mounting screw from control module box.
- Remove cover from control module box, open metal clip with screwdriver.



- Bend out clip on underside of control module box so that center section of control module box comes free.
- Pull center section of control module box up carefully.
- Remove connecting support to control module box rear air inlet.
- Remove rear mounting screw.

- Pull lower section of control module box back so it comes free of body plate section on the front of the control module box.
- Pull control module box backwards and lift cable duct up to expose wiper motor.
- Remove wiper motor. Pull it out from inside engine compartment, turn wiper motor 1/2 turn to make it easier to remove.



Installation

- Install wiper motor.

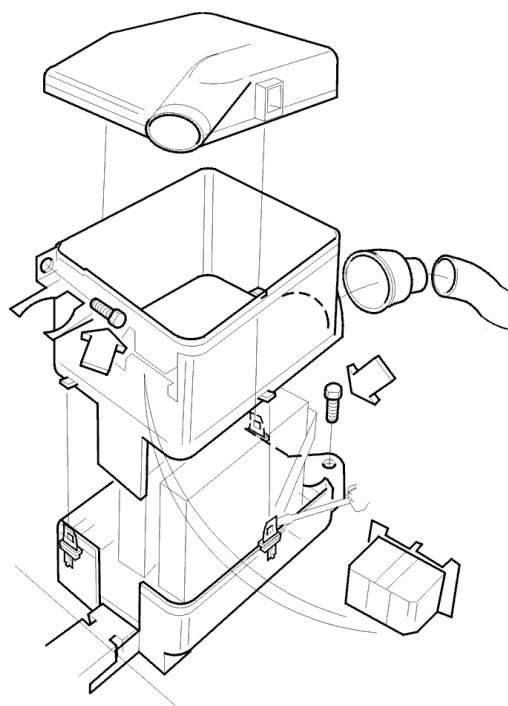
Note! Make sure that hoses and leads do not get pinched.

- Install wiper motor screws.
- Connect wiper motor connector and install in clip as before.

- Adjust position of cable duct so it runs between the bodywork and front end.
- Refit control module box, inserting it in front under the bodywork plate section.

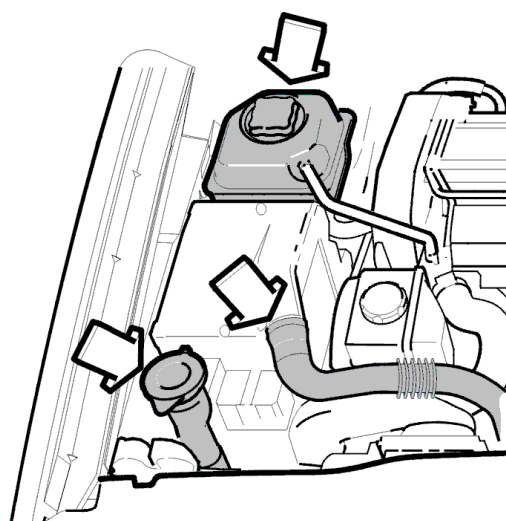
Install:

- rear mounting screw.
- connecting support to control module box rear air inlet.
- insert center section of control module box so control units fit into guide slots. Now push in until clip locks.
- cover to control module box. Make sure clip locks.
- upper mounting screw.



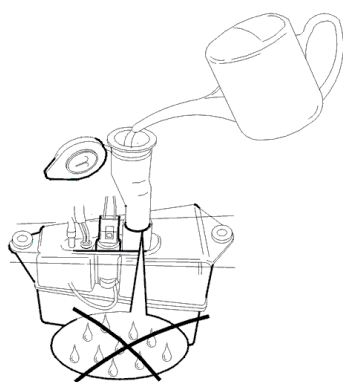
- DLC.

Note! Take great care to avoid damaging control modules or control module box. Check that upper and lower sections of control module box are a tight fit and that clip locks properly.



Install:

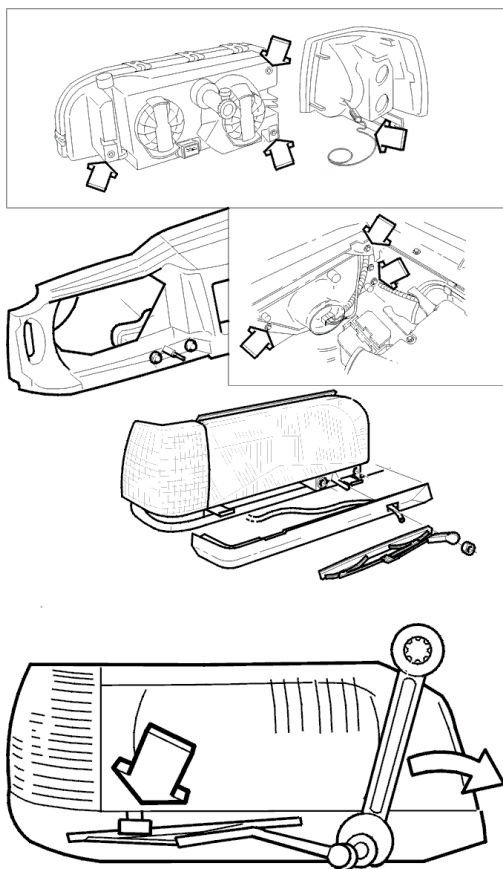
- front air duct to control module box in engine compartment.
- expansion tank.
- washer fluid reservoir filler pipe.



- Fill washer fluid reservoir and check that filler pipe seals tight to reservoir.

Install:

- headlamp, screws, flashers/parking light.
- connect connector to headlamp.
- strip under headlamp, match up guide pin



and press into position.

- wiper arm, install nut handtight.

Note! Before fitting wiper arm, check that motor has returned to off position and that washer fluid hose is not being pinched.

- Adjust wiper arm position: blade should be directly over stop when tightening. Torque setting 4 Nm.
- Lift wiper arm over stop.
- Test headlamp wipers.
- Check headlamp setting, adjust as necessary.

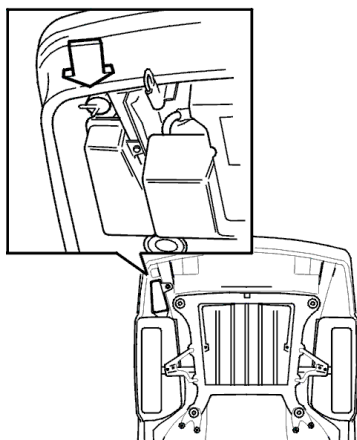
Replacing tailgate washer pump

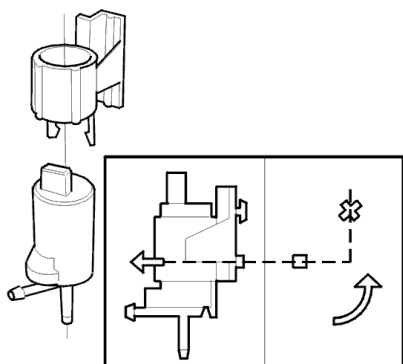
Note! Reinstall the special suppression kit if installed.

Removing

Replace tailgate washer motor from underneath the car.

Ignition off.





Remove:

- washer motor from its bracket, pry out the clips on the side of the bracket and pull down the pump.
- connector and washer motor hoses.
- washer motor bracket, pull out and turn a ¼ turn anti-clockwise to release it.

Installing

Install:

- washer motor bracket, locate the guide pin at the top and turn the bracket ¼ turn clockwise so that the pin at the bottom of the bracket locks it vertical.
- washer motor, ensure that the clips on the bracket engage in the bottom of the washer motor.

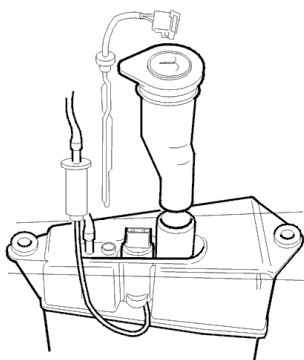
Reconnect connector and connect washer motor hoses.

* Test washer motor function.

Replacing washer level sensor

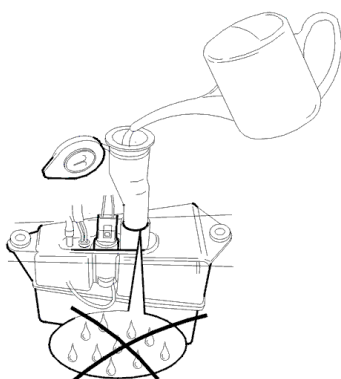
Removing

Remove washer reservoir filler pipe.
Pull up level sensor. (Located at the end of the cable.)
Disconnect connector.



Installing

Connect connector to level sensor.
Install sensor, press carefully into place.
Reinstall washer reservoir filler pipe. Fill washer reservoir with water and check that the level sensor and filler pipe are correctly connected to the washer reservoir.

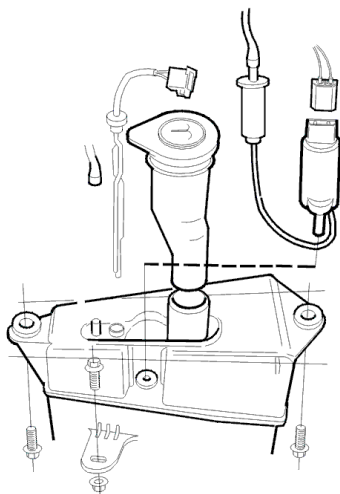


Replacing washer reservoir

Removing

Remove:

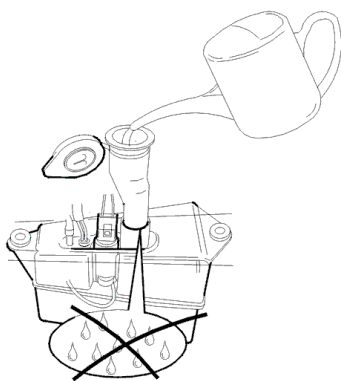
- washer reservoir filler pipe.
- windshield washer **pump**, rear windshield washer **pump** (5-door) and level sensor connectors.
- washer reservoir screws.
- washer reservoir.
- hoses.
- level sensor, pull up.
- windshield washer **pump**, pull out from underneath the car. (A)
- rear windshield washer **pump** (5-door), pull up. (B)



Installing

Install:

- rear windshield washer **pump** (5-door), press carefully into place. (A)
- windshield washer **pump**, install from underneath the car. (B)
- level sensor, press carefully into place.
- hoses.
- washer reservoir.
- washer reservoir screws.



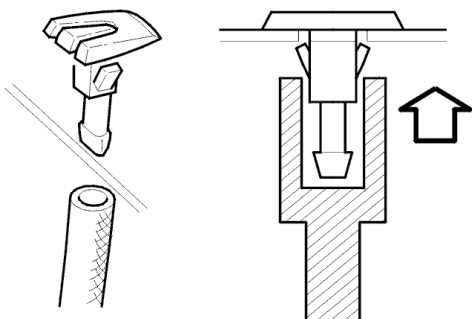
Note! Before installing **pump**, immerse intake pipe in water or a soap solution to avoid

compressing the rubber seal.

- washer reservoir filler pipe. Fill washer bottle with water and check that the pumps, level sensor and filler pipe are correctly connected to the washer bottle.

Replacing washer nozzle

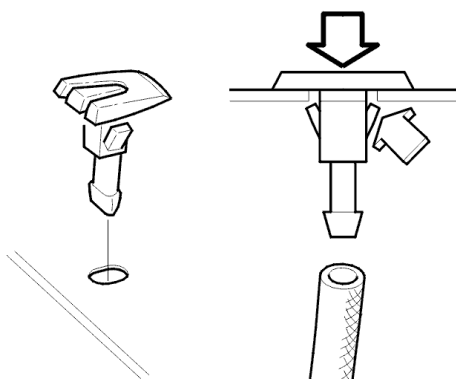
Removing



Note! If a customer complains about poor windshield cleaning the washer nozzles can be replaced. The new version has larger diameter washer jets (0.9 mm compared to 0.6 mm). 0.9 mm nozzles have been introduced from the following chassis numbers.

- 854 -184793
- 855 -84141
- Disconnect washer nozzle hose.
- Remove washer nozzle, press together hooks using a socket driver and press up the nozzle from below.

Installing



Note! The P/Ns for the right and left-hand sides are the same.

- Install washer nozzle, ensure that the hooks engage.
- Connect hose to washer nozzle. Check that the washer nozzle does not leak windshield washer fluid. If the washer nozzle leaks, check it according to: [Washer jet, inspection](#).

Adjusting washer nozzle

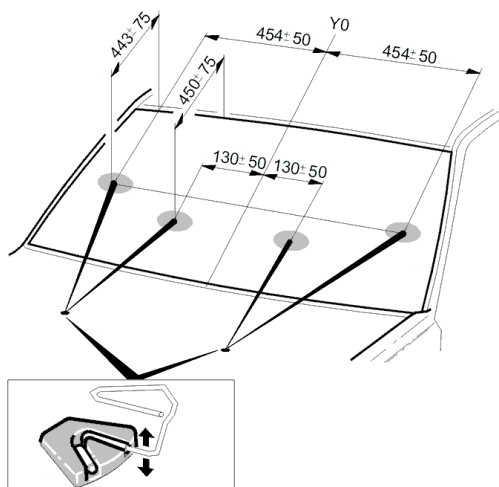
Adjust washer jet pattern by moving the jet up and down, as illustrated.

Adjust washer nozzle jet position with a pin or straightened paper clip.

The pattern of the water jets on the windshield is shown in the illustration.

Note! The dimensions in the illustration are given in mm.

Caution! Take care when installing new washer jet not to damage paintwork.



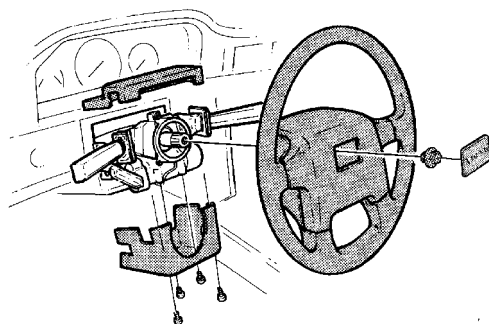
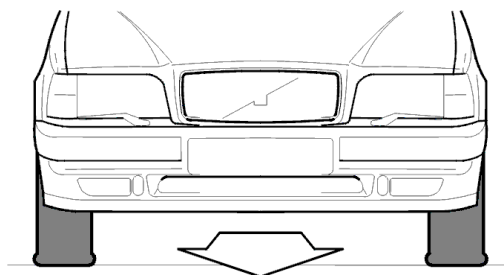
Caution! Take care not to damage the ends of the washer pipes.

Wiper and/or flasher switch, replacement

Note! NOTE Only for cars without SRS (Air bag)
Cars with SRS, see SRS (Air bag) service manual, section 8(88) 850 1992–.

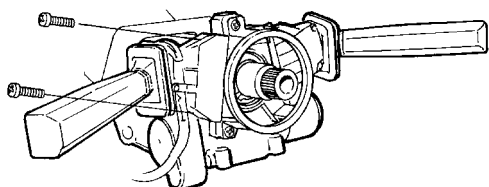
Removal

- Park car with wheels straight on level ground.
Check that wheels are straight.
- Ignition off.



Remove:

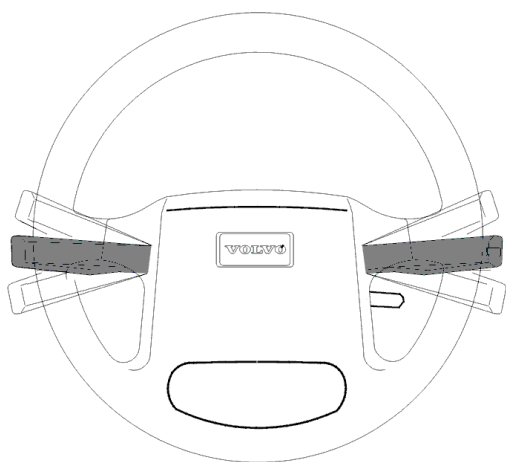
- steering wheel center plate.
- steering wheel nut.
- steering wheel.
- stalk screws.
- stalks.



- Remove switch screws.
- Undo connector.

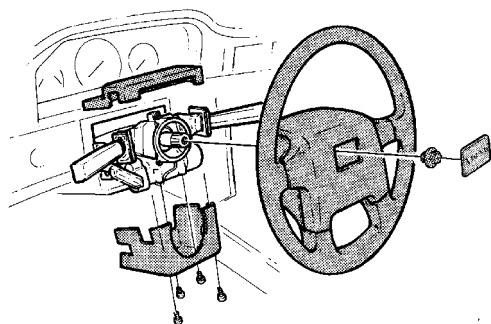
Installation

Note! NOTE Flasher switch should be in neutral position when installing steering wheel.
Otherwise, there is a risk that the pin which



controls the automatic reset will break off.

- Install wiper and/or flasher switches. When installing ground lead, check that this goes under the lower mounting screws.



Install:

- stalks and screws.
- steering wheel in straight-ahead position.
- steering wheel nut: torque setting 33 Nm.

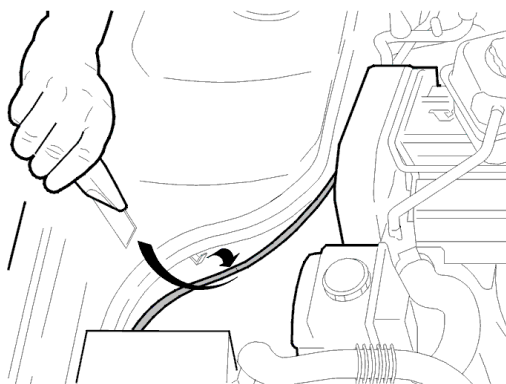
Installing 855 tailgate washer bleed valve

Background

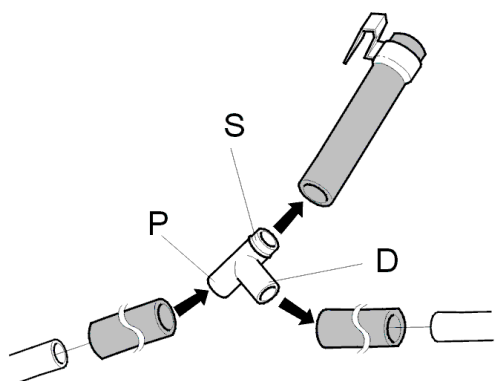
There is a pressure valve just inside the rear windshield washer jet. If the windshield washer fluid runs out, or if air gets into the washer hose, the washer **pump** cannot open this pressure valve. This can result in no windshield washer fluid getting to the rear windshield even when it has been topped up.

Installation of pressure valve:

Remove expansion tank and place it on the engine. Remove the washer hose from the holder on the cable duct. Cut off the washer hose with a knife opposite the holder. Place the hose from the rear windshield between the cable duct and wheel arch.



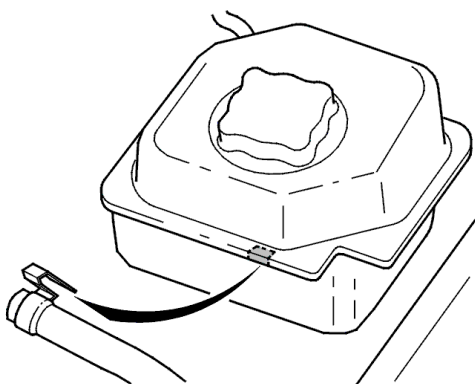
The valve is marked P, S and D.
Install the valve and hoses as illustrated.
P is connected to hose (70 mm long) and the



hose from the washer **pump**.

D is connected to hose (70 mm long) and the hose to the rear windshield.

S to the bleed hose (110 mm long).

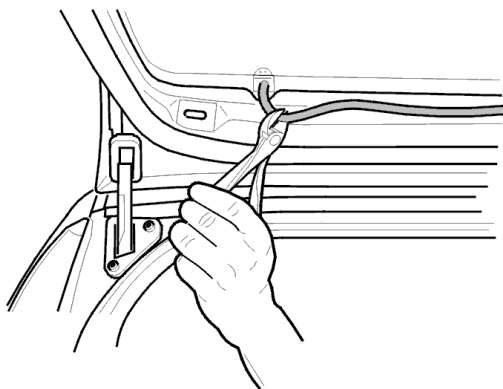


Install:

- Clip on expansion tank
- Bleed hose in clip
- Expansion tank in bracket

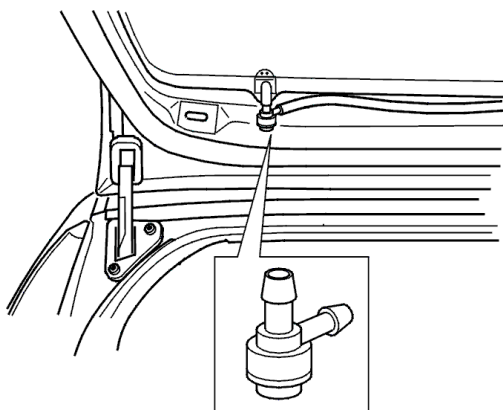
Note! Check that the "S" on the valve is pointing up. If not; adjust by moving the hose in the clip.

Installing rear washer nozzle pressure valve



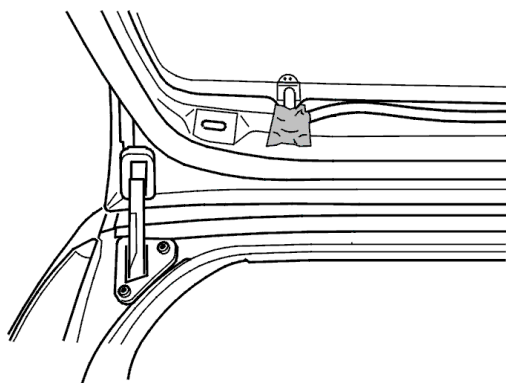
Remove panel around rear windshield.

- Cut the washer nozzle hose about 30 mm from the nozzle.



- Connect pressure valve to the cut hoses.

- Apply a piece of sound insulation tape around



the pressure valve to secure the valve and prevent rattling.

Finishing work:

- Carry out a function test.
- Reinstall components.

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