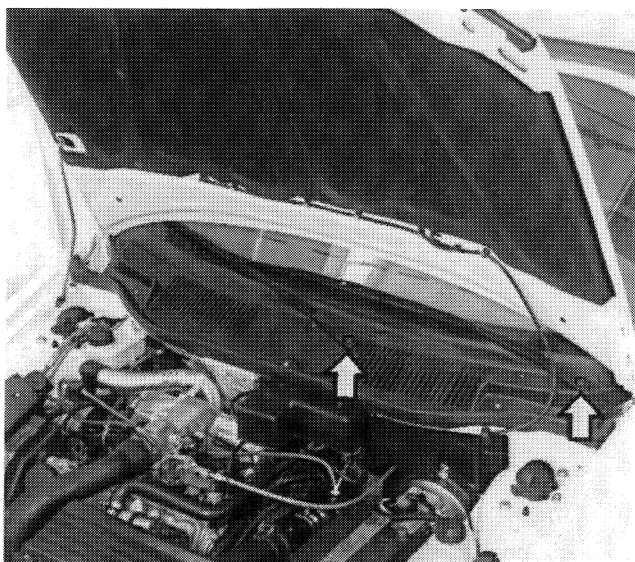


PUNTO eMANUAL

Electrical Equipment

Title	Page
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Removing/refitting rear wiper motor	3 ➡
location of wiper components	5 ➡
Rear screen wash wipe	6 ➡
Location of headlamp washer components	8 ➡
Removing/refitting headlamp/windscreen washer pump	11 ➡
Removing/refitting steering column switch unit	13 ➡
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Tailgate electrical contacts	15 ➡
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Removing/refitting fuel sender unit	18 ➡



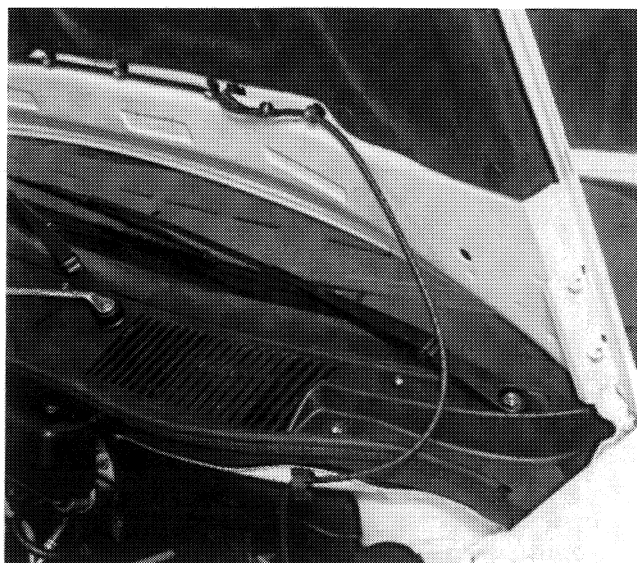
P3M069L01



REMOVING-REFITTING WINDSCREEN WIPER MOTOR



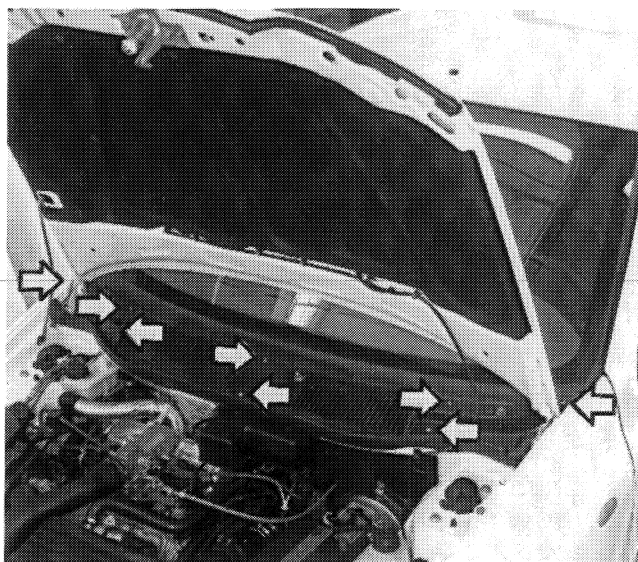
- Lift off the attachment covers shown in the figure;



P3M083L01



- undo the nuts located underneath;
- remove the windscreen wiper arms;

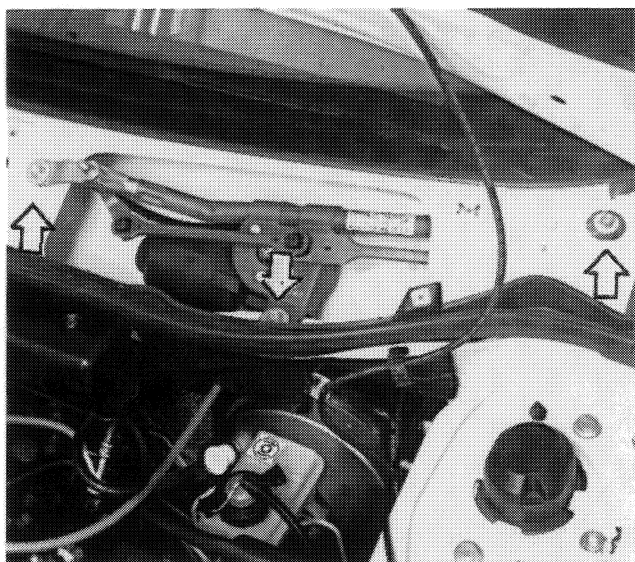


P3M069L02

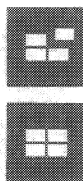


- undo the screws securing the windscreen's bottom trim, then remove the trim;

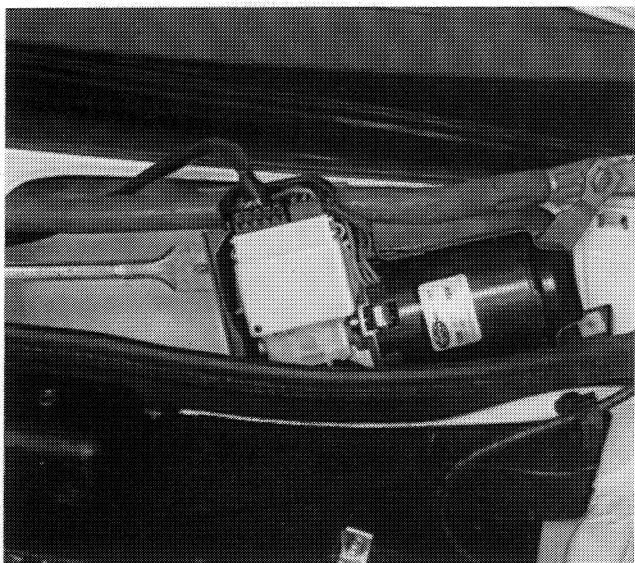
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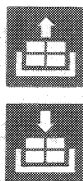
P3M084L01



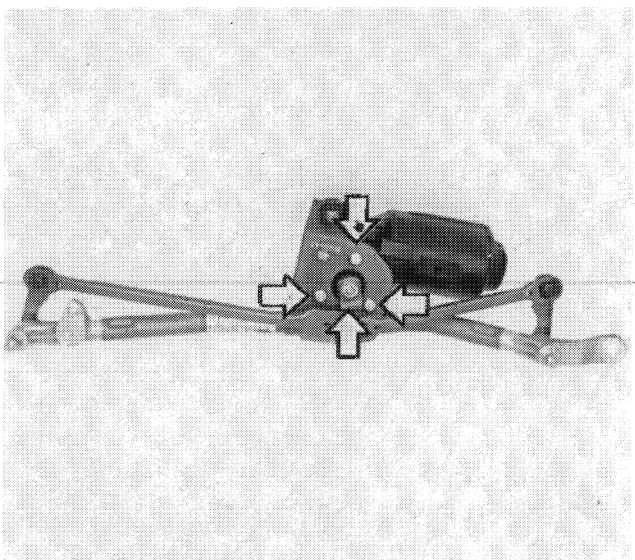
- undo the screws shown in the figure, which secure the windscreen wiper motor to the body shell;



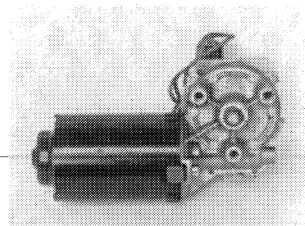
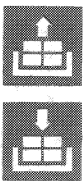
P3M084L02



- gently withdraw the motor and disconnect the connectors;
- remove the complete assembly;

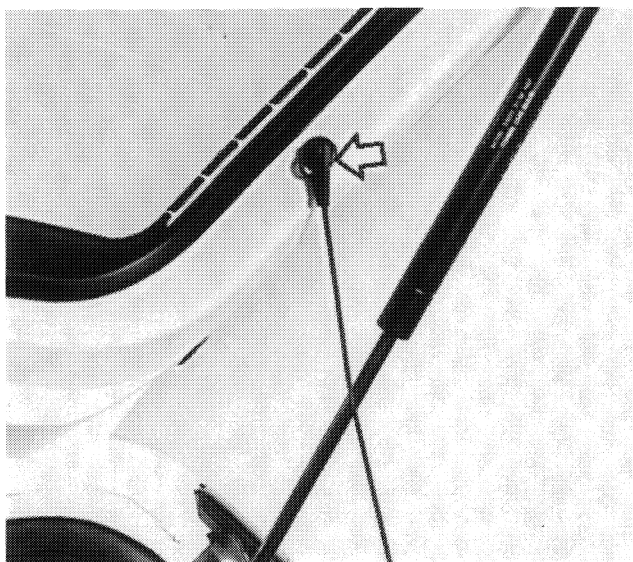


P3M084L03



P3M084L04

- undo the screws (arrowed) and withdraw the windscreen wiper motor;
- to refit, reverse the procedure for removal.

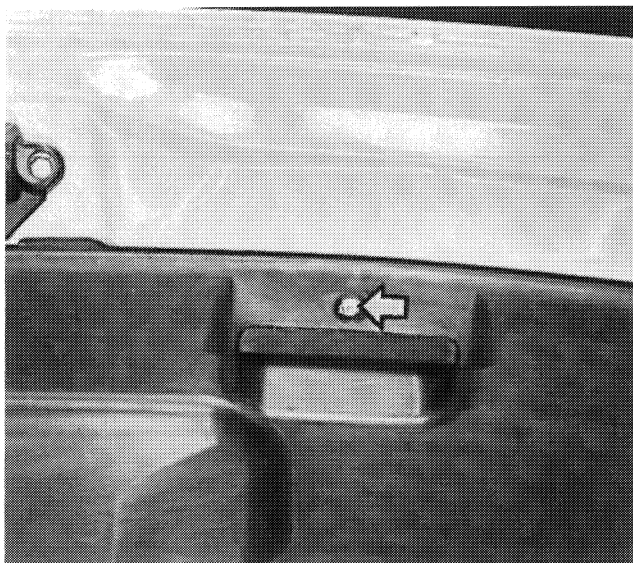


P3M085L01

REMOVING-REFITTING REAR WINDOW WIPER MOTOR

Removing

- Disengage from the tailgate the rear window parcel shelf lift cables;

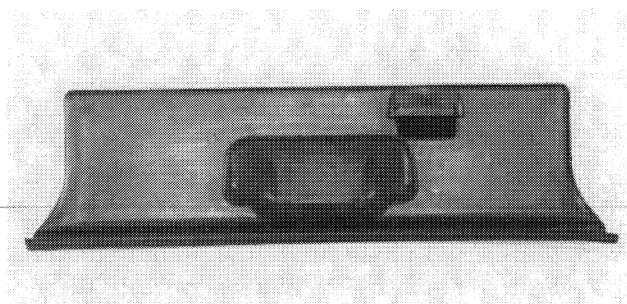


P3M085L02

- undo the screw securing the tailgate trim panel;



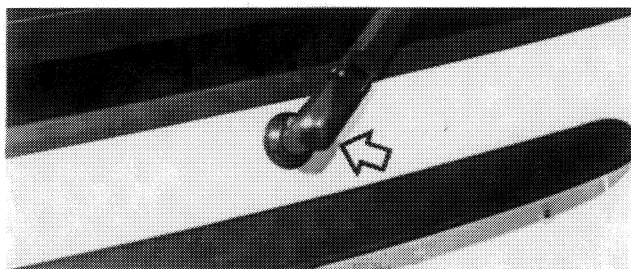
P3M085L03



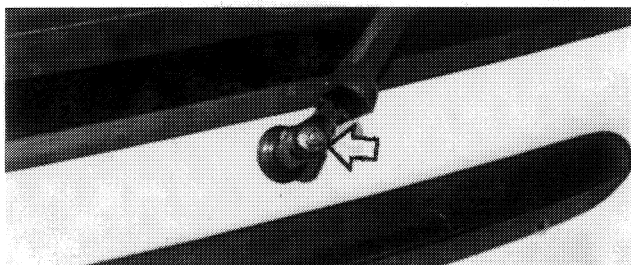
P3M085L04

- using tool 1878077000, separate the trim panel from the retaining clips on the tailgate;
- remove the trim panel from the tailgate;

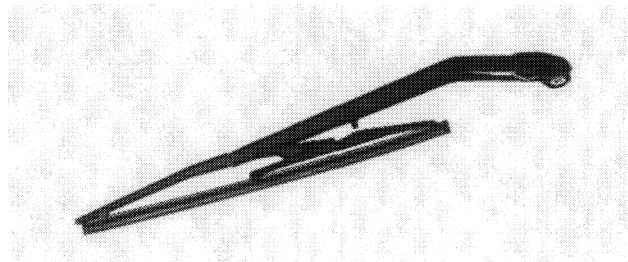
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P3M086L01

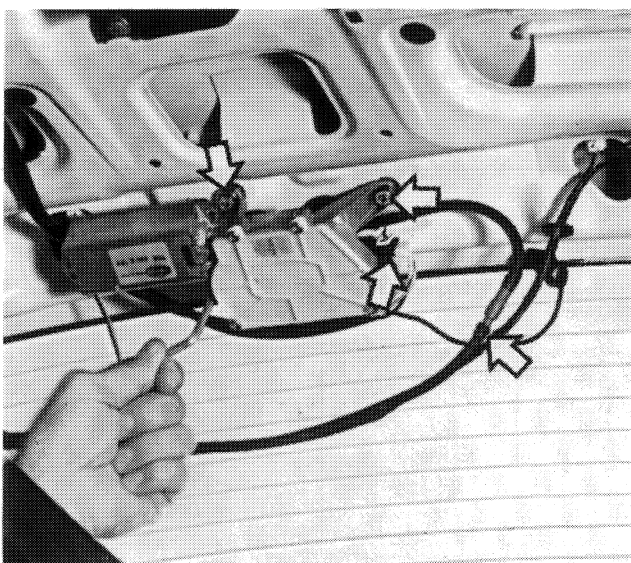


P3M086L02

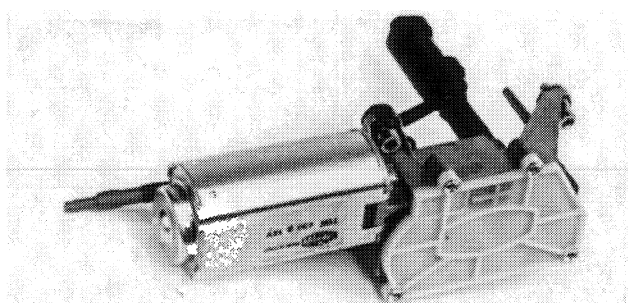


P3M086L03

- lift off the attachment cover;
- undo the screw indicated, then remove the windscreen wiper arm;



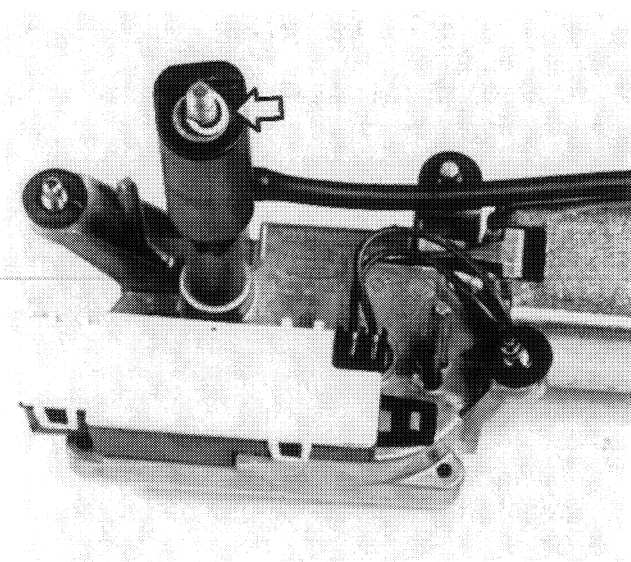
P3M086L04



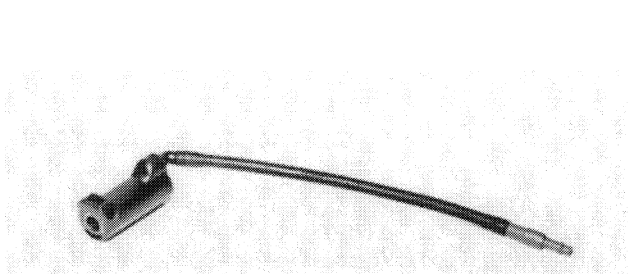
P3M086L05

- undo the attachment screws, disconnect the connector and rear window washer pipe, then remove the rear window wiper motor.

NOTE To refit, reverse the procedure for removal.



P3M086L06

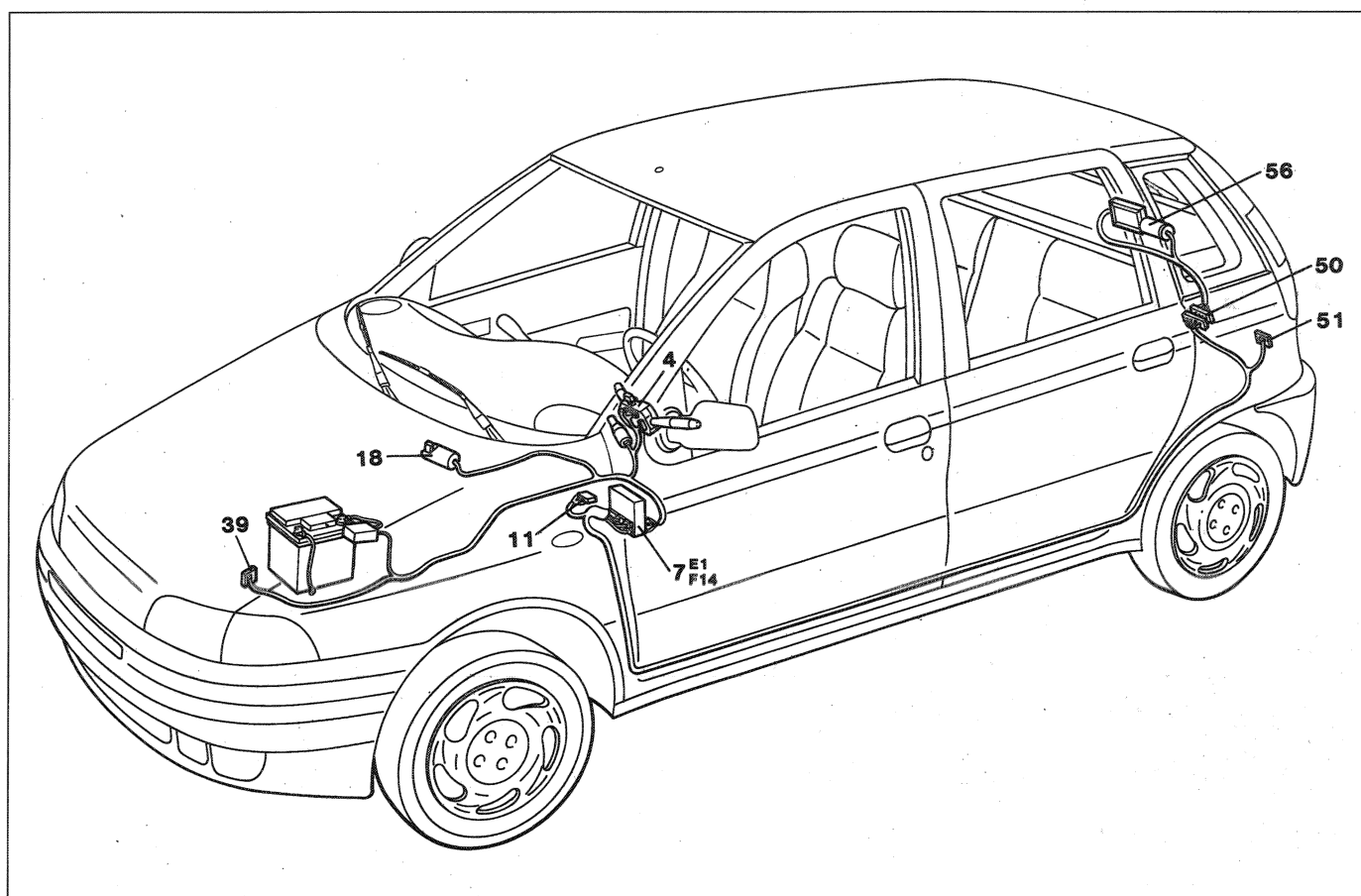


P3M086L07

Removing-refitting rear window washer spray jet

After removing the rear window wiper motor, remove the spring retaining clip and the spray jet.

LOCATION OF WINDSCREEN AND REAR WINDOW WIPER COMPONENTS AND CABLE HARNESS



P3M023L01

- 4 Stalk unit with rear window wiper and windscreen wiper switches
- 7 Junction unit
 - F14 Circuit protection fuse
 - E1 Ignition switch discharge relay
- 11 Connection

- 18 Windscreen wiper motor
- 39 Front left earth
- 50 Rear cables connection
- 51 Rear left earth
- 56 Rear window wiper motor

55.

REARSCREEN WASH/WIPE

The rear window wiper and pump are controlled by the right lever on the stalk unit, which comprises two additional switches: one is a ring switch for controlling the rear window and the other switch controls the pump. The rear window wiper motor (56) comprises a relay and a switch, constituting the control/reset circuit for the window wiper arm.

When the ring switch (I) located on the lever on the stalk unit (4) is turned, a terminal of the control relay is connected directly to earth by the C cable, providing a continuous supply to the motor.

WINDSCREEN WIPER

The windscreen wiper system is of the two-speed type plus intermittent function.

The right lever on the stalk unit (M) operates the windscreen washer pump and at the same time activates an automatic wiping cycle.

The system comprises:

Windscreen wiper motor (18)

A container is mounted on the motor body, which holds the switching circuit. This consists of a relay and a switch for the automatic return of the arms to the rest position.

Right lever on stalk unit (4)

The right lever on the stalk unit controls the windscreen wiper in intermittent or continuous mode and the windscreen washer pump, in accordance with the following logic:

- When the right lever is moved downwards one click, it activates the switch (M), which switches on the intermittent operation of the windscreen wiper at approximately 15 wipes per minute.
- When the switch (M) is turned two clicks (position 35), intermittent operation at about 35 wipes per minute is selected.

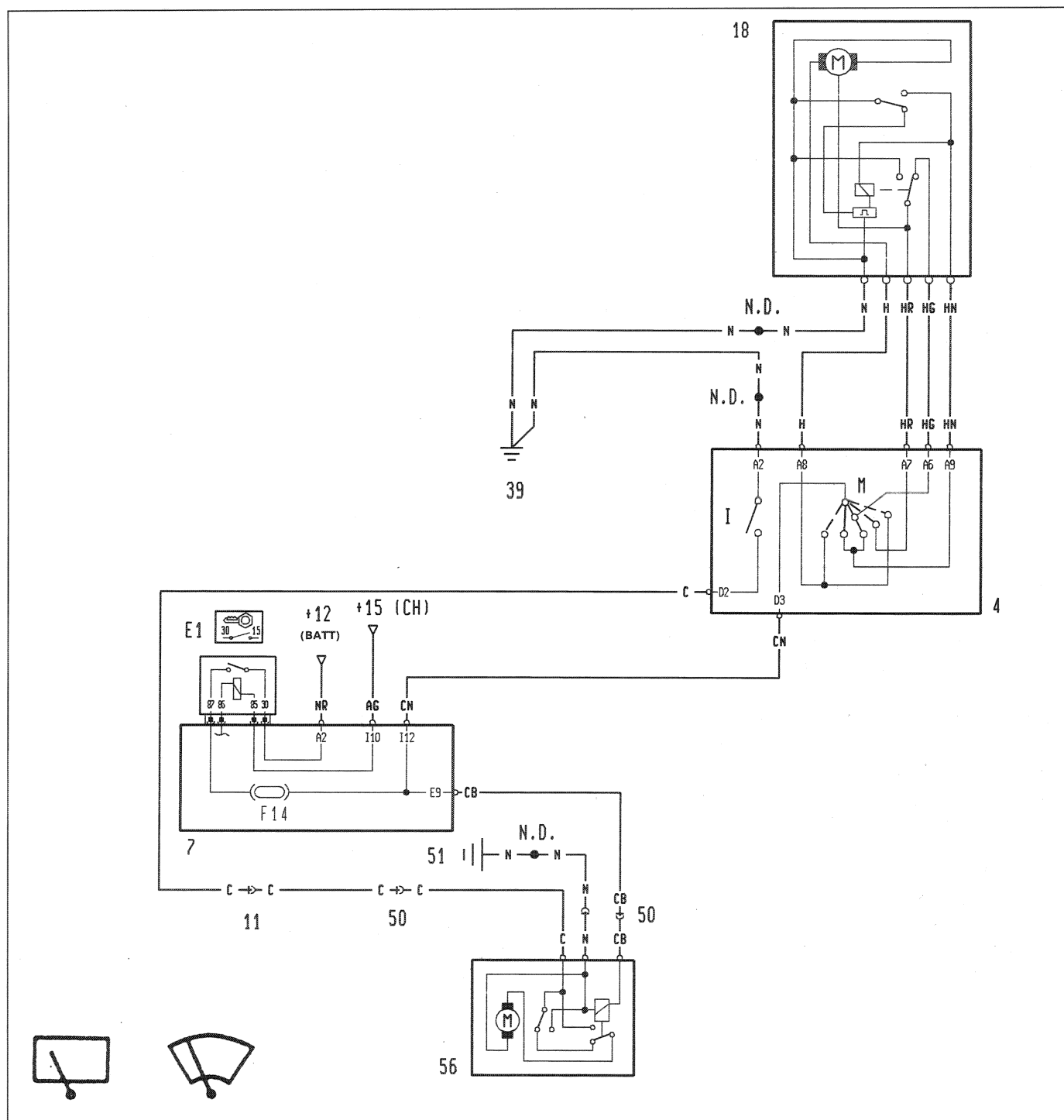
Its operation remains the same as that described above, except that the pause time between wipes becomes slightly over 2 seconds.

- When the switch (M) is turned three clicks (position 45), intermittent operation at 45 wipes per minute is selected.

If from the STOP position, the lever is pushed upwards and held in this position, continuous operation of the windscreen wiper is still selected, but with the lever in an unstable position.

In other words, the windscreen wiper operates for as long as the lever is held in this position, and it stops as soon as the lever is released.

Wiring diagram of rear window/windscreen wipers



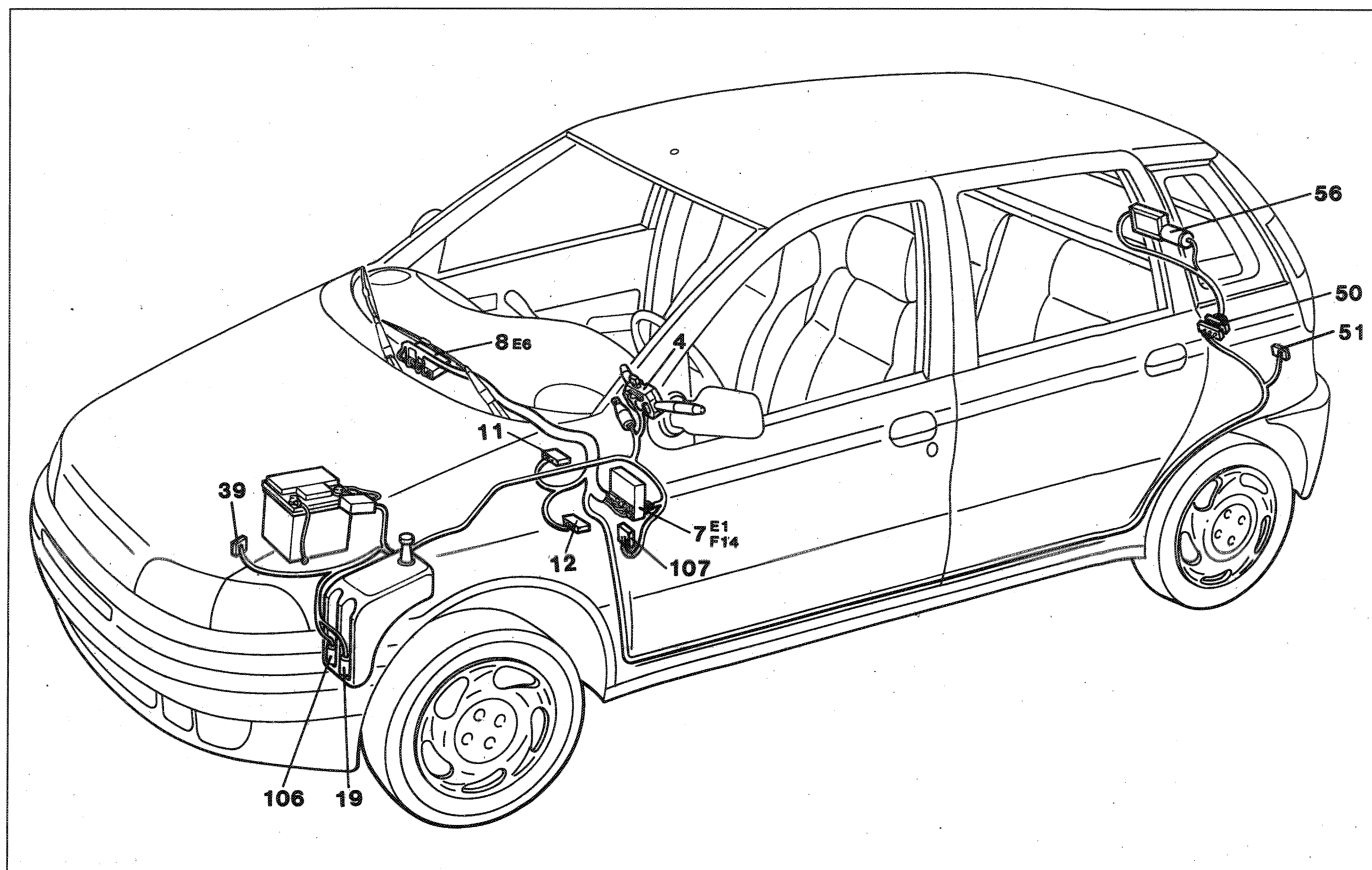
P3M025L01

- 4 Stalk unit
 - I Rear window wiper switch
 - M Windscreen wiper switch
- 7 Junction unit
 - F14 Circuit protection fuse
 - E1 Ignition switch discharge relay
- 11 Connection between dashbaord cables and rear cables

- 18 Windscreen wiper motor
- 39 Front left earth
- 50 Rear cables connection
- 51 Rear left earth
- 56 Rear window wiper motor
- N.D. Connector blocks

55.

LOCATION OF WINDSCREEN WASHER/REAR WINDOW WASH WIPE AND HEADLAMP WASHER COMPONENTS AND CABLE HARNESS



P3M020L01

- | | |
|--|---------------------------------------|
| 4 Stalk unit | 19 Windscreen/rear window washer pump |
| 7 Junction unit | 39 Front left earth |
| E1 Ignition switch discharge relay | 50 Rear cables connection |
| F14 Circuit protection fuse | 51 Rear left earth |
| 8 Optional devices control unit | 56 Rear window wiper |
| E6 Relay controlling rear fog lamps when | 106 Headlamp washer pump |
| front fog lamps are on | 107 Headlamp washer pump relay |
| 11 Connection | |
| 12 Connection | |

Headlamp washer

The headlamp washer comprises an additional pump (106) located on the windscreen and rear window washer fluid reservoir, to which two jets, mounted on the front bumper, are connected via pipes. The headlamp washers are activated by a timer (107) when the dipped beam or front and rear fog lamps are on, and when the windscreen washer pump is activated. The headlamp washer is activated by operating the lever (L) located in the stalk unit (4).

Operation

The timer (107) is supplied on terminal (30) by a positive 12 V coming directly from the battery. It is protected by a 20 A fuse and is connected to the front left earth (39) through the terminal (31). When the dipped beam or front and rear fog lamps are switched on by the ring switch on the stalk unit, the timer (107) is supplied on terminal (56), preparing the system for operation.

Windscreen washer

When the lever (4) is moved backwards, horizontally (switch L), the windscreen washer pump (19) is supplied and at the same time an automatic wiping cycle is activated in accordance with the following logic:

About one second after the pump has been switched on, the windscreen wiper is switched on in continuous mode.

This condition remains for as long as the pump is supplied.

When the lever is released, the pump stops while the windscreen wiper remains on for about four seconds to finish wiping the windscreen.

Windscreen washer pump (19)

The windscreen washer pump is inserted directly in the fluid reservoir, located inside the front left mud-guard.

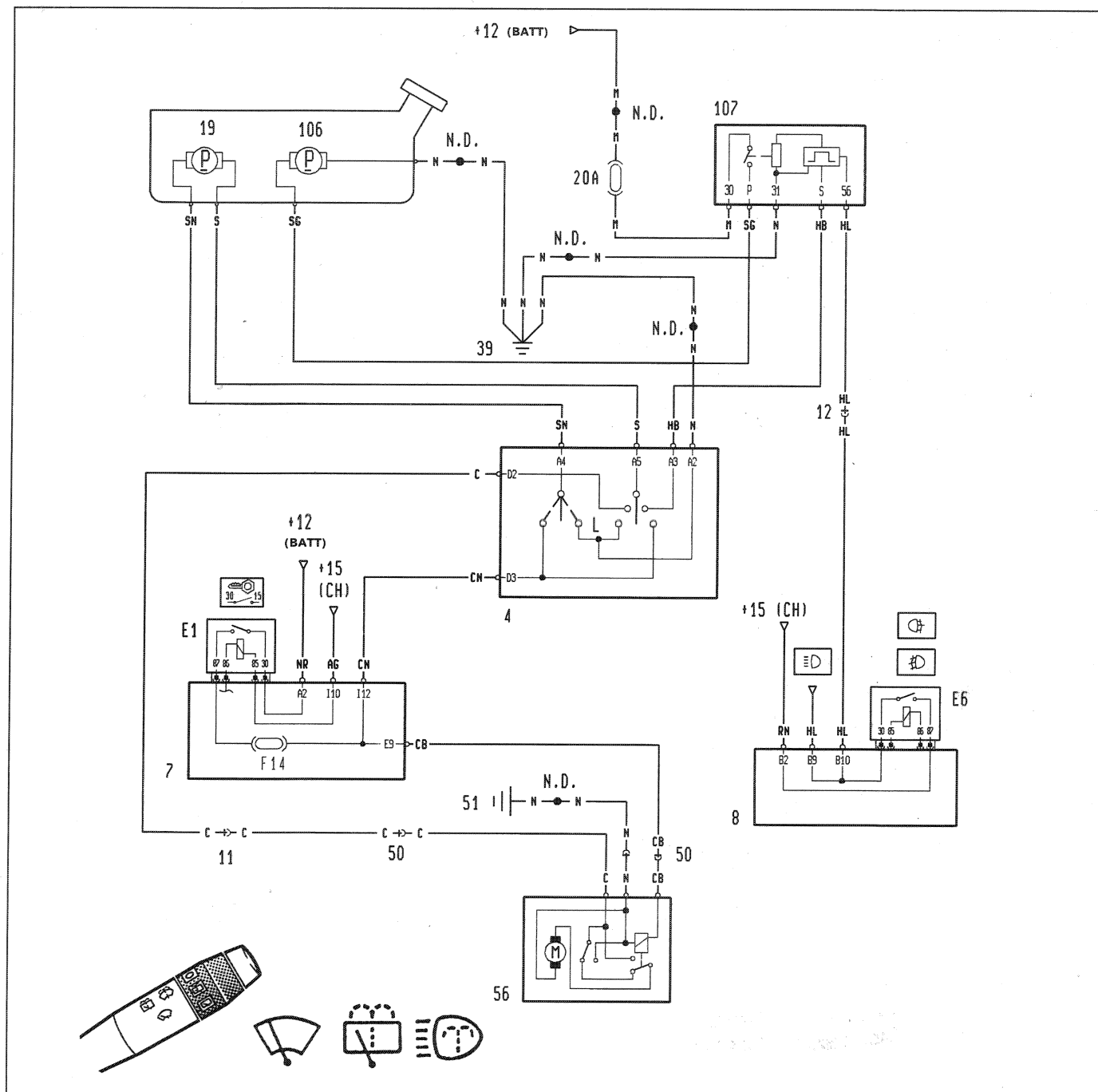
Rear window wash/wipe

The pump is of the bidirectional type. It has two connectors on which are connected the two pipes that convey the washing fluid to the windscreen and rear window spray jets.

The direction of the fluid and so its destination depend on the direction of the rotation of the pump, which is determined by the position to which the lever (L) of the stalk unit (4) is moved. So if the lever is pushed forwards, horizontally, the pump is supplied sending the positive to the SN cable and the negative to the S cable.

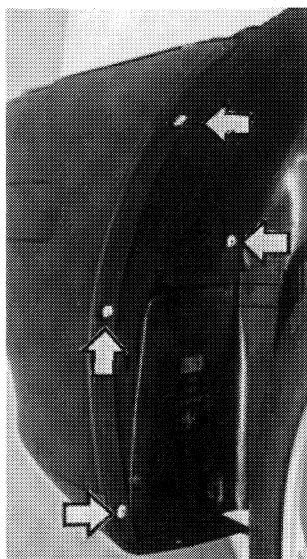
The fluid is thus sent to the rear window and at the same time the rear window wiper (56) is activated until the lever (L) is released.

Wiring diagram of windscreen washer/rear window wash-wipe/headlamp washer

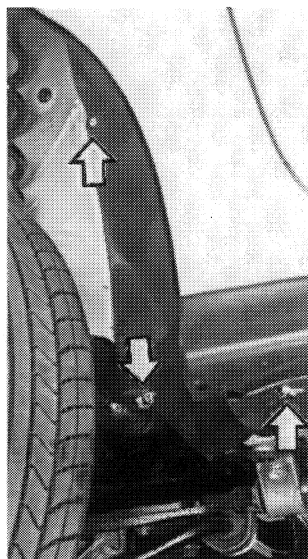


P3M022L01

- | | | | |
|----|---|------|------------------------------------|
| 4 | Stalk unit | 19 | Windscreen/rear window washer pump |
| 7 | Junction unit | 39 | Front left earth |
| | E1 Ignition switch discharge relay | 50 | Rear cables connection |
| | F14 Circuit protection fuse | 51 | Rear left earth |
| 8 | Optional devices control unit | 56 | Rearscreen wash/wipe |
| | E6 Relay controlling rear fog lamps with front fog lamps on | 106 | Headlamp washer pump |
| 11 | Connection between dashboard cables and rear cables | 107 | Timer for headlamp washer pump |
| 12 | Connection between dashboard cables and front cables | N.D. | Connector blocks |



P3M093L01



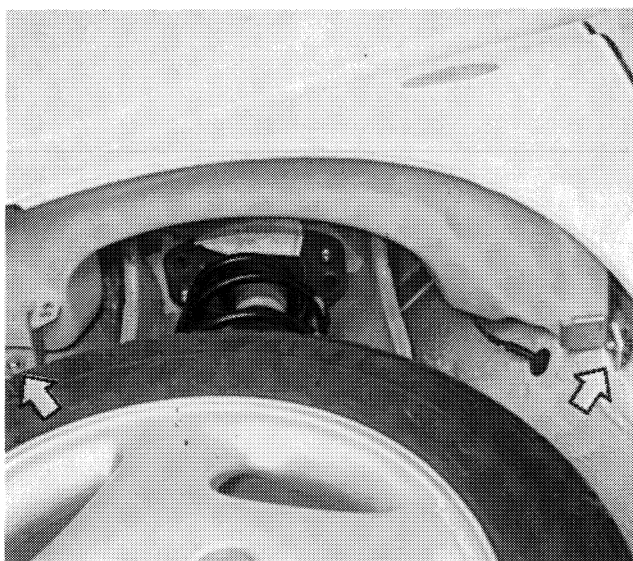
P3M093L02



REMOVING-REFITTING WINDSCREEN AND HEADLAMP WASHER PUMPS

NOTE *The car has only one reservoir which feeds the windscreen/rear window and headlamp washer pumps.*

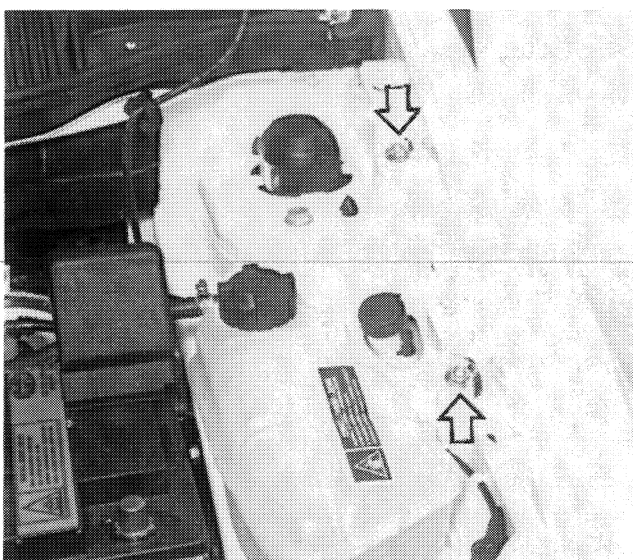
- Working from underneath the car, undo the screws securing the front of the wheelarch protection (left picture);
- undo the remaining rear screws on the wheelarch protection (right picture);
- remove the wheelarch protection;



P3M093L03



- undo the bottom screws securing the windscreen washer fluid to the body shell;

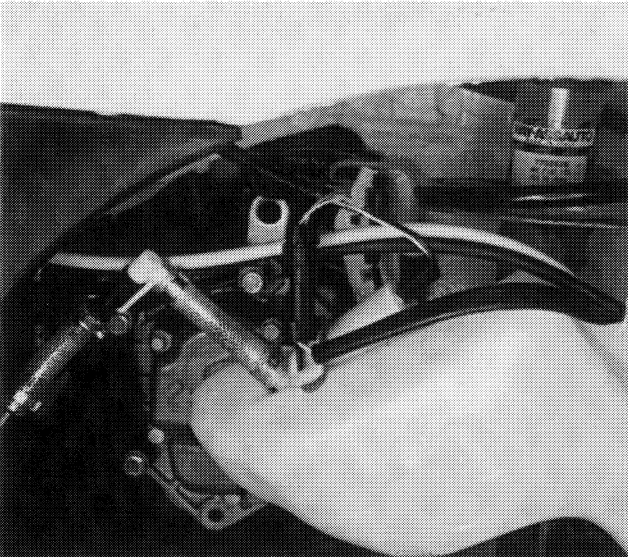


P3M093L04

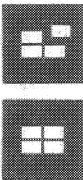


- working from inside the engine compartment, undo the top nuts securing the windscreen washer fluid reservoir;

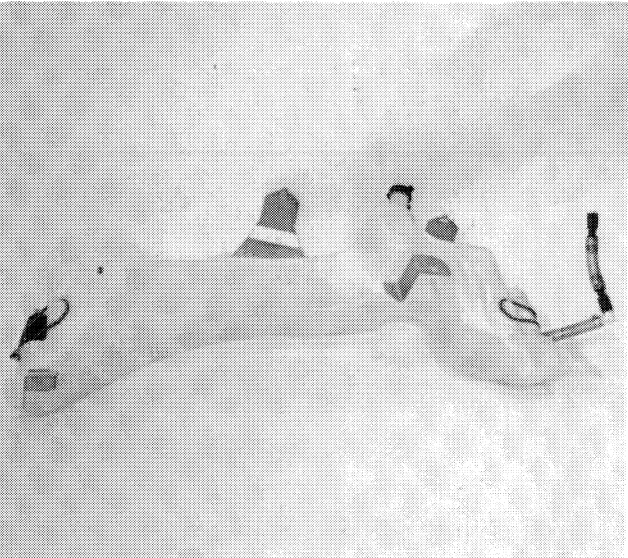
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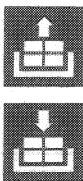
P3M094L01



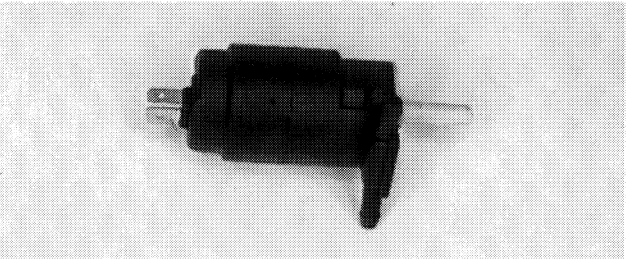
- remove the front left wheel;
- disconnect the connectors and connecting pipes to the reservoir;



P3M094L02



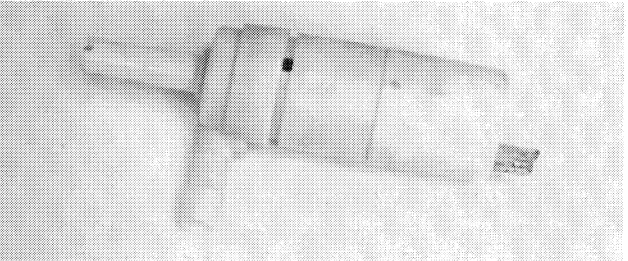
- remove the washer fluid reservoir from its location, then detach the pumps illustrated below from the reservoir.



P3M094L03

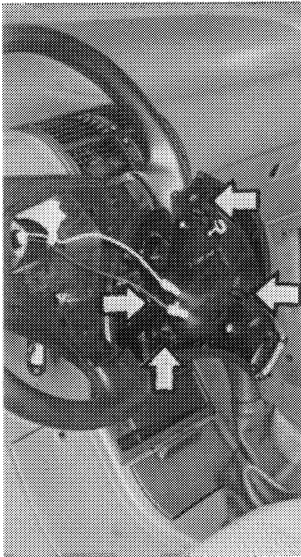


Windscreen/rear window washer pump

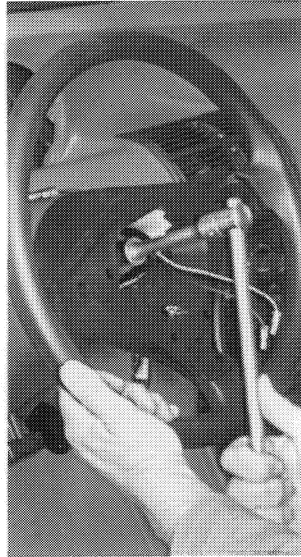


P3M094L04

Headlamp washer pump



P3M095L01



P3M095L02



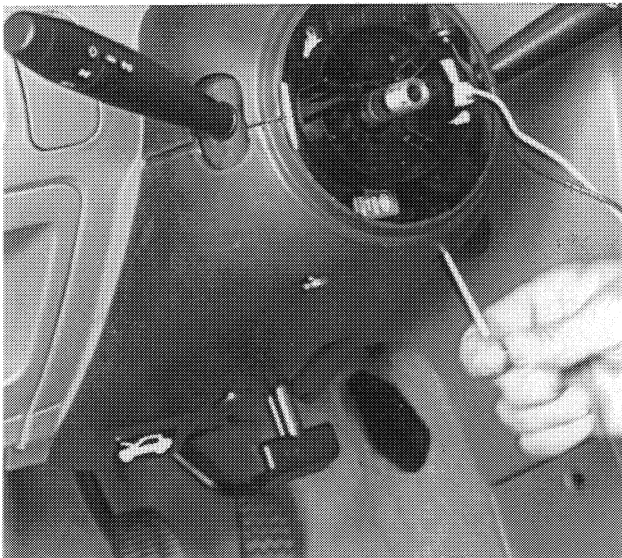
REMOVING-REFITTING STEERING COLUMN SWITCH UNIT



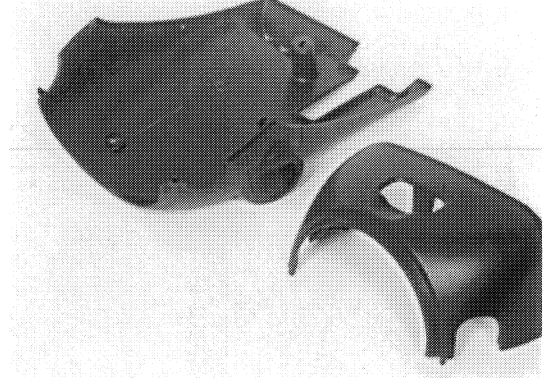
NOTE For versions fitted with Air Bag systems, follow the instructions for the operations of REMOVING-REFITTING the clock spring described in the section dealing with the Air Bag system in this manual.

Removing-refitting steering wheel

- Extract the centre trim using the retaining tabs illustrated as leverage, then disconnect the connectors (left inset);
- undo the nut fixing the steering wheel to the steering column and remove it (right inset).

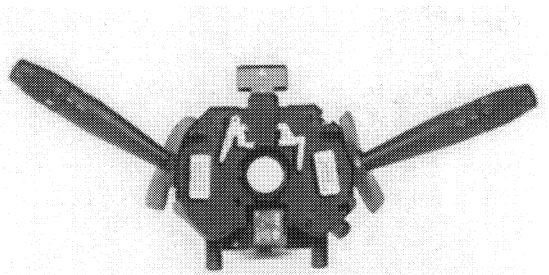


P3M095L03

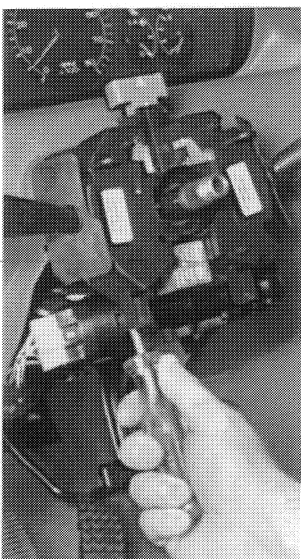


P3M095L04

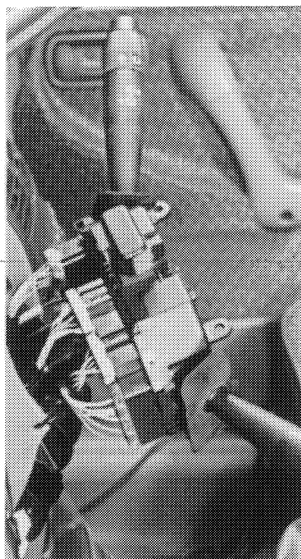
Removing-refitting upper steering shaft covers



P3M095L07



P3M095L05



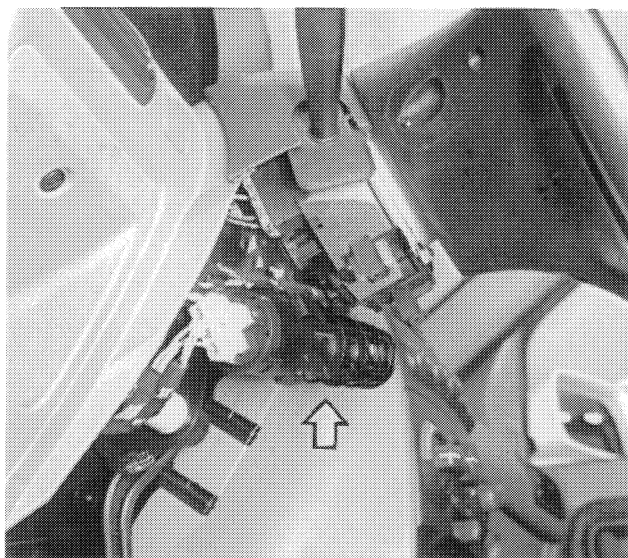
P3M095L06



Removing-refitting steering column switch unit

- Loosen the bands;
- gently extract the steering col. switch unit;
- disconnect the connectors;
- remove the steering column switch unit from its housing;
- to refit, simply reverse the order of the operations carried out for the removal.

55.



P3M096L01

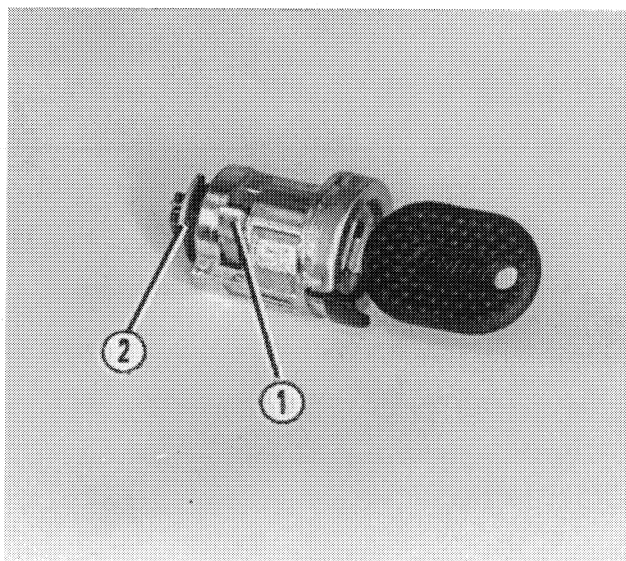


REMOVING-REFITTING IGNITION SWITCH LOCK BARREL AND STEERING LOCK



- Insert the ignition key in the lock barrel and turn it to the ON position;
- acting through the slit, press on the retaining tooth (1);
- extract the lock barrel from its housing;

NOTE Under these circumstances the insufficient oil pressure and battery recharging warning lights in the instrument panel will be on and those for any services switched on by mistake (e.g. lights, interior heater, windscreen wiper, etc.); if this is the case, deactivate them via the appropriate controls/switches.



P3M096L02

1. Lock barrel retaining tooth

BREAK IN DEVICE

The ignition switch is fitted with a mechanical device which, if it is forced/broken during a theft attempt, automatically locks the steering column.

Therefore, acting on the ignition switch (rotating the shaft from ON to OFF) without the lock barrel creates a situation similar to a break in attempt.

To fit the new lock barrel after having turned the key to the ON position first (with the component loose), act on the retaining tooth and reinsert it in the ignition switch housing.

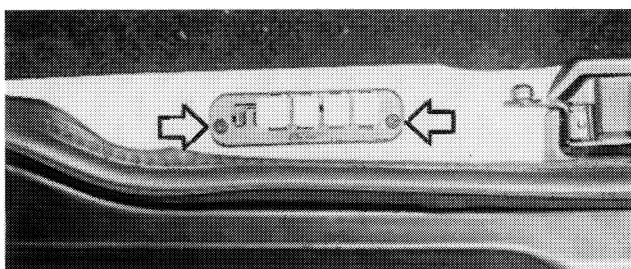


Warning

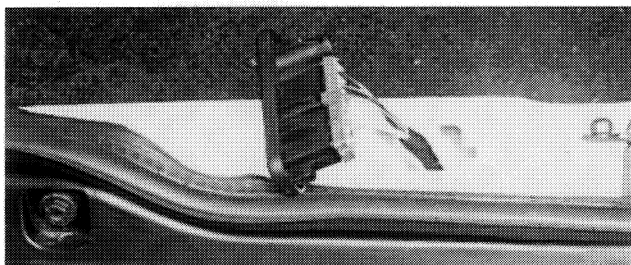


Never rotate the ignition switch control shaft from the ON position to the OFF position using inappropriate tools (e.g. screwdrivers or pliers) because this would cause the ignition switch BREAK IN device to come on automatically making the component impossible to use and irreparable.

If the ignition is going to be left switched ON for a long period, then the electrical connections should be disconnected from the ignition switch.



P3M097L01

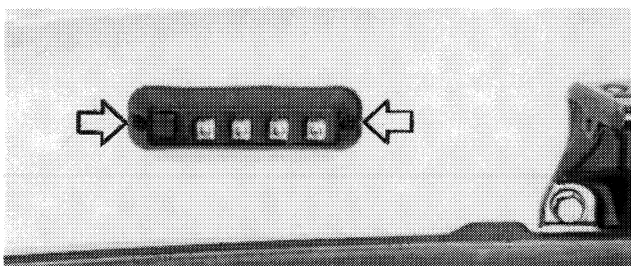


P3M097L02

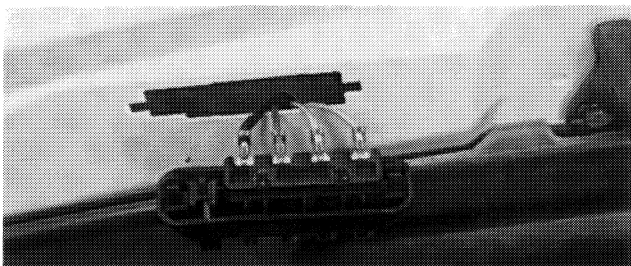
TAILGATE ELECTRICAL SUPPLY CONTACTS

Removing-refitting contact block, body shell side

- Undo the screws securing the contact block to the boot (top picture);
- gently withdraw the unit;
- disconnect the supply connectors and remove the contact block.



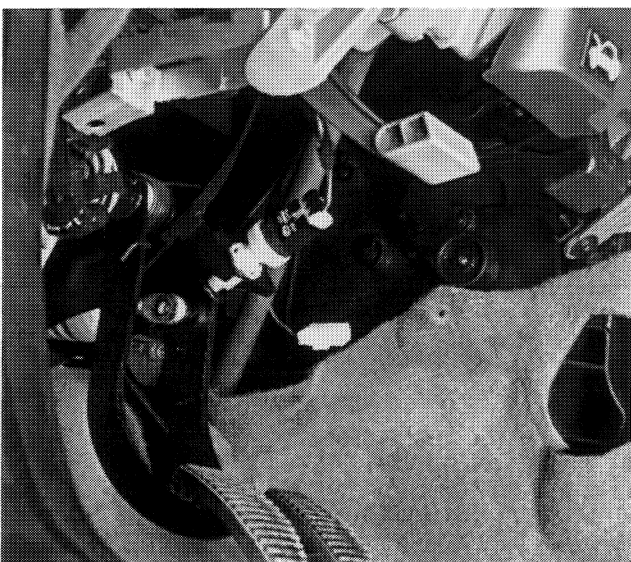
P3M097L03



P3M097L04

Removing-refitting contact block, tailgate side

- Undo the screws securing the contact block to the tailgate (top picture);
- gently withdraw the unit;
- disconnect the supply connectors and remove the contact block.



P3M097L05

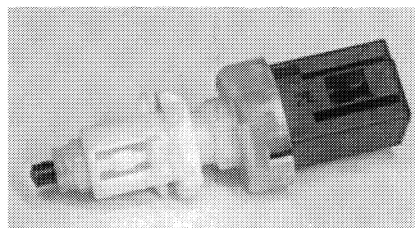
STOP LIGHTS SWITCH

- Detach the stop lights switch from the brake pedal bracket, by disengaging the retaining lugs;

55.

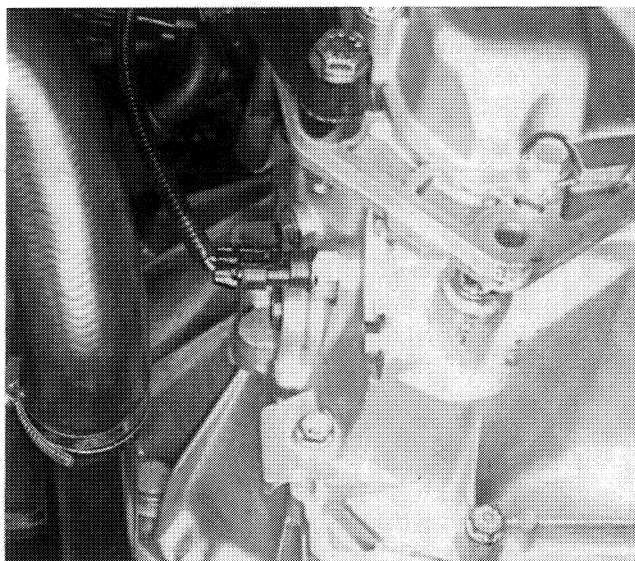


P3M098L01



P3M098L02

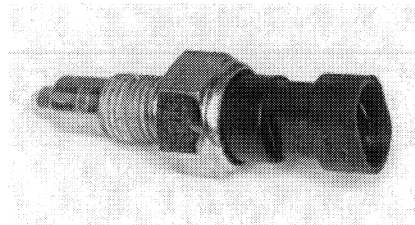
- disconnect the connector, then remove the switch.



P3M098L03



REVERSING LIGHTS SWITCH

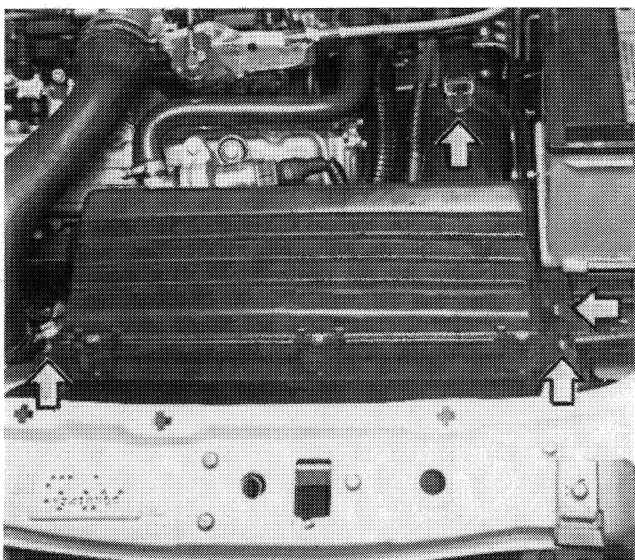


P3M098L04



Drain the gearbox oil.

- Disconnect the connector and withdraw the switch from the gearbox.

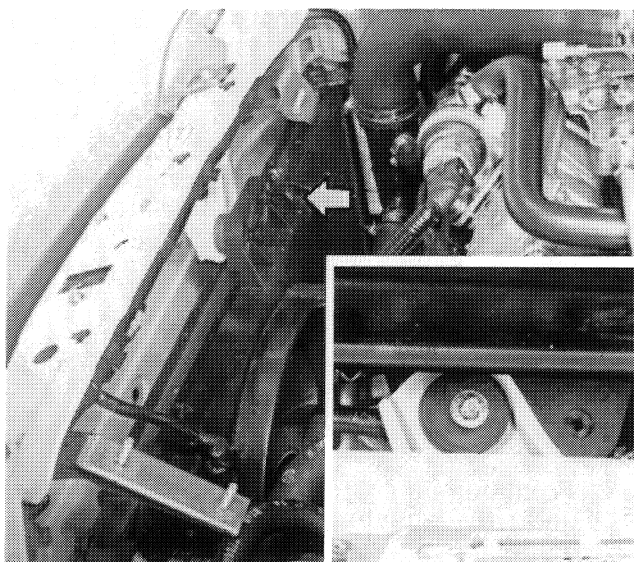


P3M098L05



RADIATOR FAN

- Undo the air cleaner attachment bolts;
- disengage the retaining lugs shown in the figure (only one is visible; the other is located symmetrically at the bottom of the car);
- remove the air cleaner from the car;

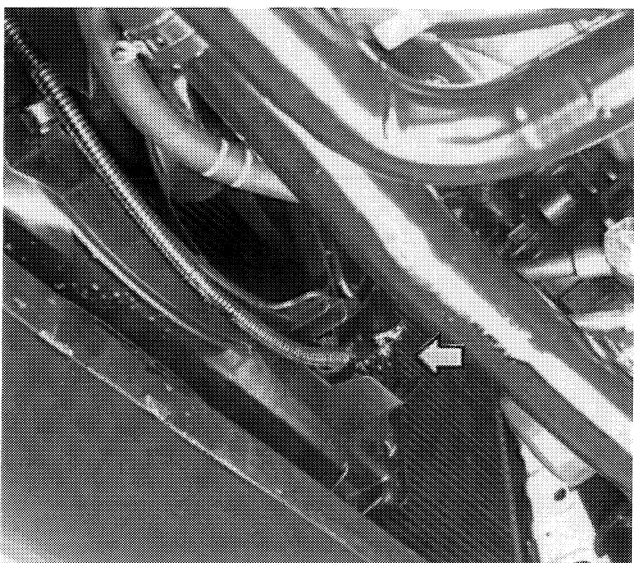


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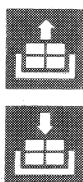
P3M099L02



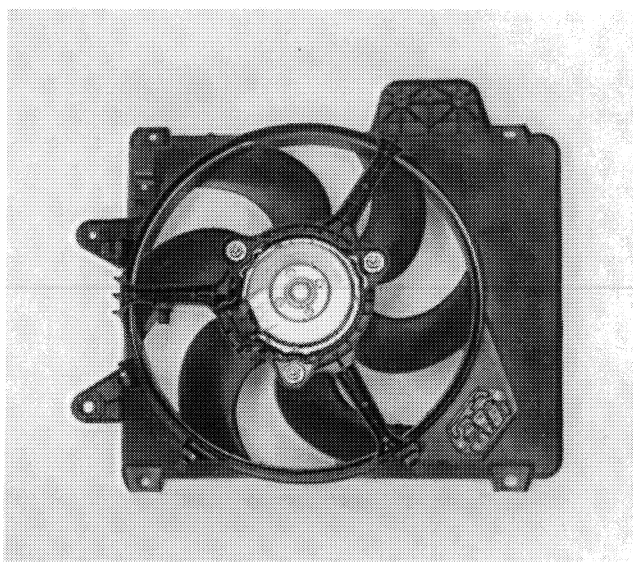
- working from the top of the car, undo the bolts securing the fan to the body shell;



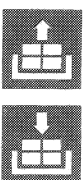
P3M099L03



- working from under the car, disconnect the connector and undo the other attachment bolts;
- withdraw the fan from its location;

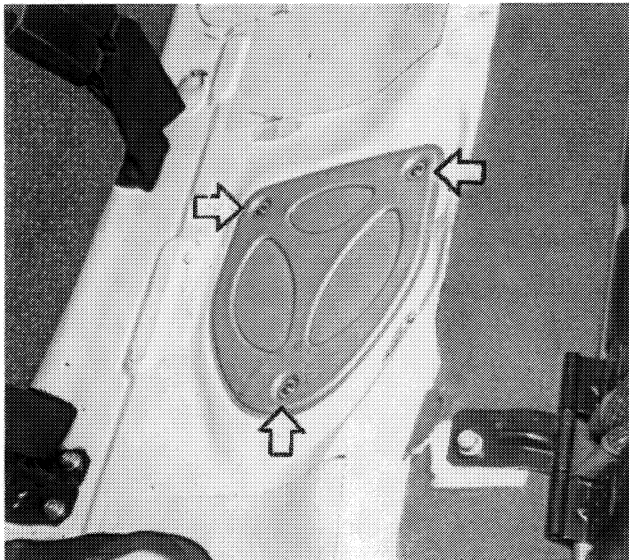


P3M099L04



- to refit, reverse the procedure for removal.

55.



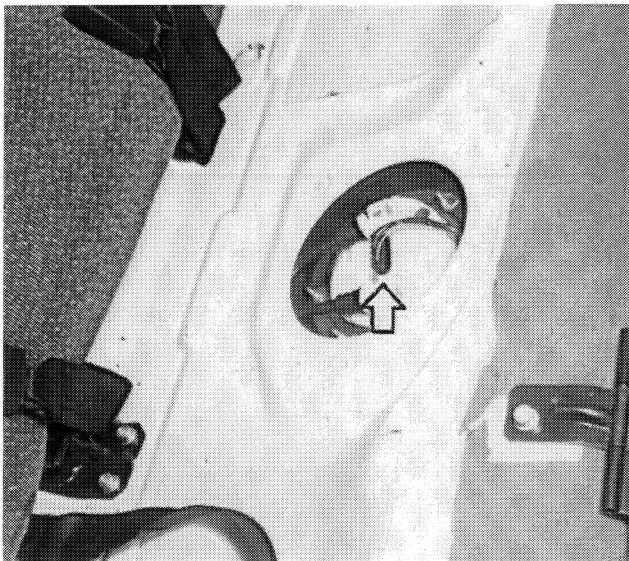
P3M100L01



REMOVING-REFITTING FUEL SENDER UNIT



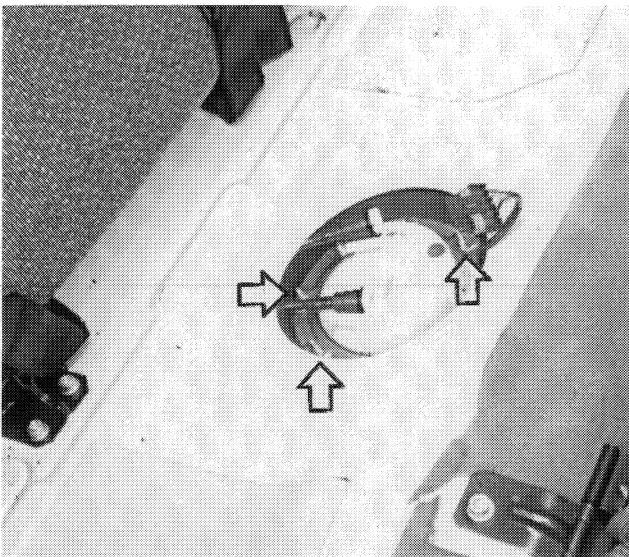
- Fold the rear seat cushion forwards;
- undo the attachment bolts shown in the figure;



P3M100L02



- disconnect the connector shown in the figure;



P3M100L03



P3M100L04

- undo the nuts securing the fuel sender unit to the body shell, disconnect the fuel delivery and return pipes and withdraw the sender unit.