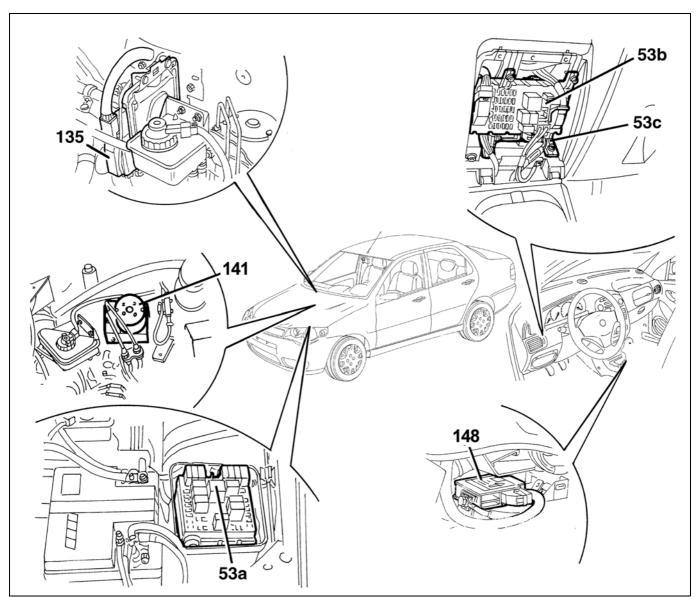
Albea 1370 8v

Electrical system

Index

			55.
	page		page
Position of vehicle components CONTROL UNITS POSITION ON VEHICLE	1	Lighting REMOVAL - REFITTING FRONT LIGHT CLUSTER	17
Braching unit DASHBOARD CONTROL UNIT AND		HEADLIGHT POSITIONING	19
BODY COMPUTER DETACHMENT - REATTACHMENT ENGINE COMPARTMENT CONTROL	2	Starting and charging REMOVAL – REFITTING BATTERY ALTERNATOR REMOVAL - REFITTING -	20
UNIT DETACHMENT – REATTACHMENT ENGINE COMPARTMENT CONTROL	4	1.4 8V engine STARTER REMOVAL - REFITTING -	21
UNIT CANISTER DETACHMENT - REATTACHMENT	4	1.4 8V engine	22
Instrument panel INSTRUMENT PANEL DETACHMENT – REATTACHMENT	5	Compressor COMPRESSOR REMOVAL - REFITTING - 1.4 8V engine	23
INSTRUMENT PANEL REMOVAL – REFITTING	6	Self-learning procedures THROTTLE BODY ACTUATOR SELF LEARNING	24
Miscellaneus devices EMOVAL - REFITTING CONTACT BLOCK OF IGNITION SWITCH	7	CLIMATE CONTROL SYSTEM SELF LEARNING	24
FIAT CODE ANTENNA DETACHMENT -REATTACHMENT	8		
REMOVAL - REFITTING POWER WINDOW CONTROL UNIT STEERING WHEEL STALK DETACHMENT	8		
- REATTACHMENT REMOVAL - REFITTING HORN CONTROL REMOVAL - REFITTING CENTRAL SWITCH	9 10		
ASSEMBLY ON DASHBOARD REMOVAL - REFITTING SWITCH	10		
ASSEMBLY ON DASHBOARD, DRIVER'S SIDE REMOVAL - REFITTING FRONT POWER	10		
SOCKET REMOVAL - REFITTING RADIO	11 12		
Air bag DRIVER'S AIRBAG DETACHMENT			
– REATTACHMENT CLOCK WIRE REMOVAL – REFITTING	13 14		
PASSENGER'S AIRBAG DETACHMENT - REATTACHMENT REMOVAL - REFITTING SUPPORT FOR	15		
AIR BAG, PASSENGER SIDE PASSENGER'S AIRBAG DEACTIVATION SWITCH DETACHMENT - REATTACHMENT	16 16		

CONTROL UNITS POSITION ON VEHICLE



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53a	Engine compartment shunting control unit
53b	Shunting control unit under the dashboard
TO -	Dody Commutan

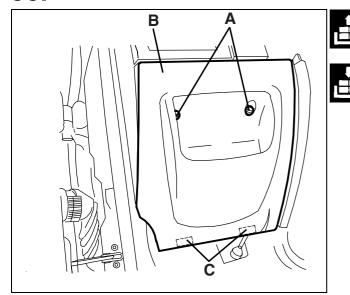
53c Body Computer

135 Injection / ignition control unit

141 ABS control unit148 Air Bag control unit

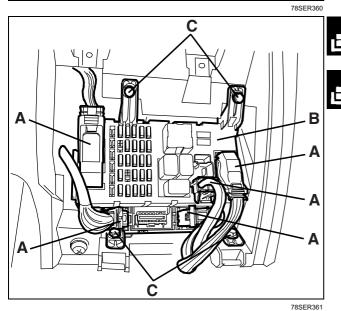
Electrical system Branching unit

55.

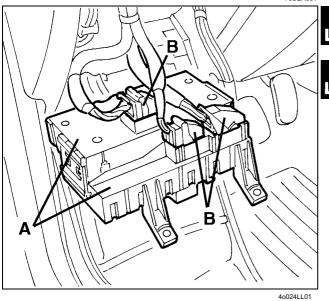


DASHBOARD CONTROL UNIT AND BODY COMPUTER DETACHMENT - REATTACHMENT

- Unscrew the fastening screws (A). Lower the door (B) providing access to the shunting control unit and the body computer.
- Remove the door (B) by releasing it from the retaining elements (C).

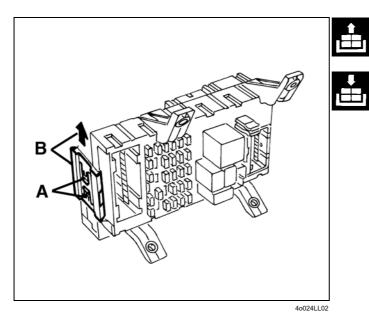


- Disconnect the electric connections (A). of control unit (B)
- Unscrew the control unit and body computer fastening screws (C).

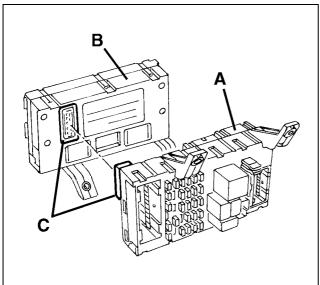


- Slightly move aside the control unit with the body computer (A) and disconnect the connections (B).
- Recover the control unit with the body computer.

Electrical system Branching unit



Release the retaining elements (A) and take the fastening plate (B) out of both sides of the control unit.



Separate the shunting control unit (A) from the body computer (B) by releasing the electric connection (C).

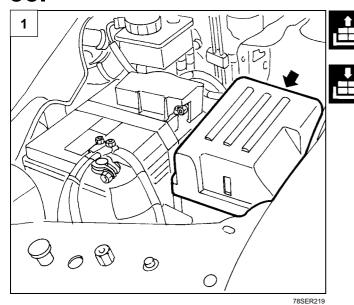
NOTE Refit by reversing the removal sequence.

NOTE After the intervention, check for system operation by means of an EXAMINER or other diagnostic instruments.

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Electrical system Branching unit

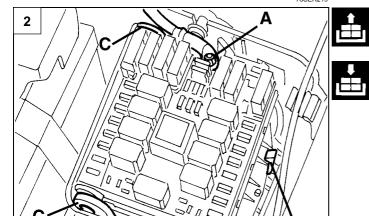
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ENGINE COMPARTMENT CONTROL UNIT DETACHMENT - REATTACHMENT

- Open the bonnet.
- Take off the engine compartment control unit cover.
- 2. Disconnect the electric connection (A). Release the retaining element (B) then the pins from their respective seats (C).
- 3. Move aside the engine compartment control unit (A) and disconnect the electric connections (B).

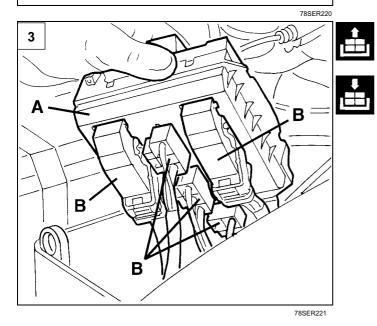
Recover the engine compartment control unit (A).

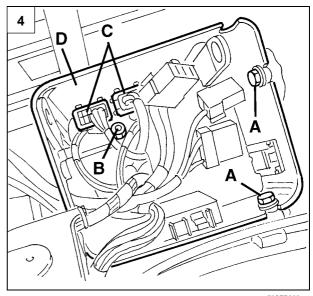


ENGINE COMPARTMENT CONTROL UNIT CANISTER DETACHMENT - REATTACHMENT

- Remove the engine compartment control unit (see previous procedure).
- Unscrew the screws (A) and the nut (B) fastening the canister. Take off the electric connections (C) from the retaining elements and remove canister (D).

NOTE Refit by reversing the removal sequence. Refit by reversing the removal sequence.

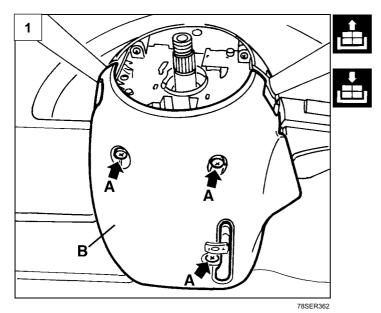




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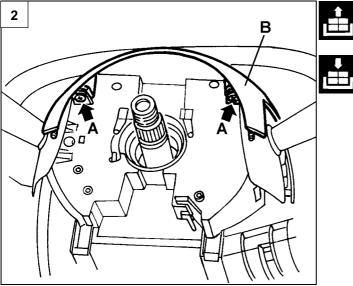
Electrical system Instrument panel

55.

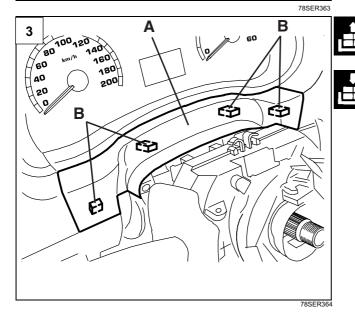


INSTRUMENT PANEL DETACHMENT - REATTACHMENT

- Remove the driver's side airbag (see the relevant paragraph).
- Remove the steering-wheel (see Section 41).
- 1. Unscrew the three screws (A) shown and remove the steering column lower guard (B).



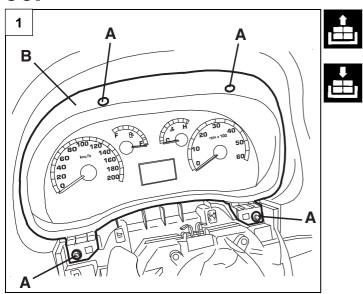
2. Unscrew the two screws (A) shown and remove the steering column upper guard (B).



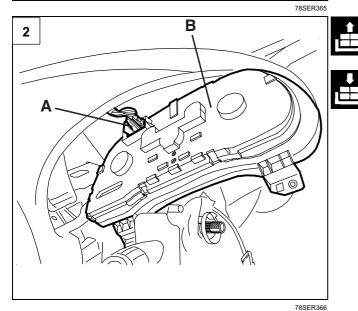
3. Remove the guard (A) by releasing it from the retaining elements (B).

Electrical system Instrument panel

55.

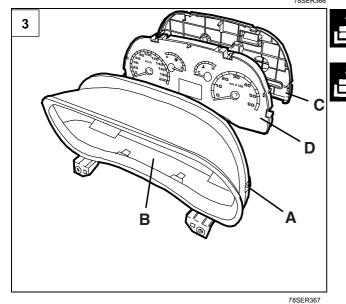


1. Unscrew the screws (A) then remove the control board (B)



2. Slightly move aside the control board (B) and disconnect the electric connections (A).

NOTE Refit by reversing the removal sequence.



INSTRUMENT PANEL REMOVAL - RE-FITTING

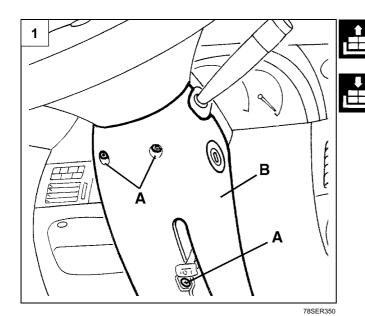
- Remove the instrument panel (see the relevant paragraph).
- 3. Release the internal retaining elements (A). Separate (the control board frame (B) and rear cover (C). Recover the control board (D).

NOTE Refit by reversing the removal sequence.

Electrical system

Miscellaneous devices

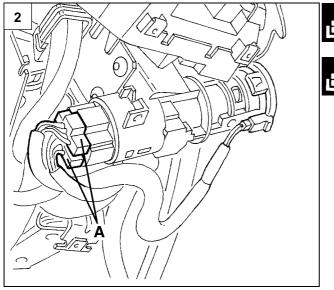
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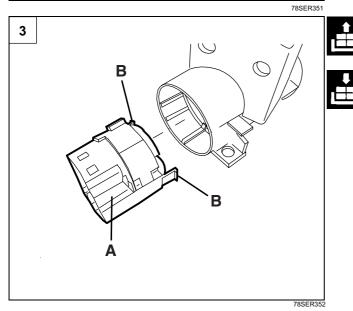


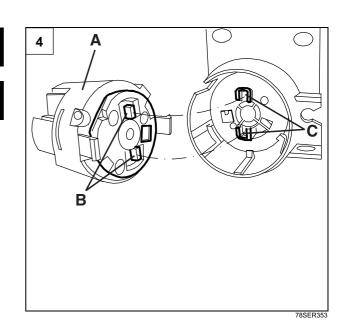
- 1. Unscrew the screws (A) and remove the lower guard (B) of the steering column.
- 2. Disconnect the electrical connections (A) of the ignition switch.
- 3. Extract the contact block (A) freeing the fasteners (B) from the related seats.

NOTE For refitting, carry out the steps performed for removal in reverse order, with the following warning.



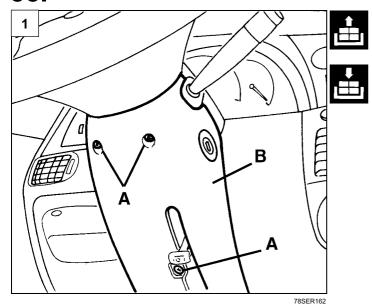
4. When inserting the contact block (A) couple the projections (B) with the related seats (C).





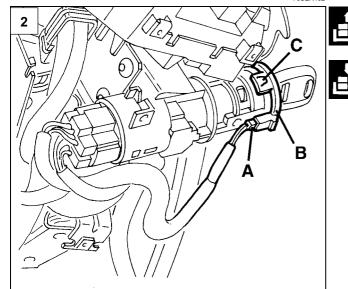
Electrical system Miscellaneus devices

55.



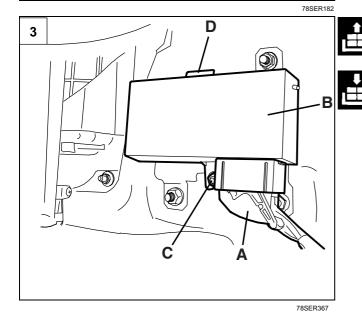
FIAT CODE ANTENNA DETACHMENT - REATTACHMENT

1. Unscrew the screws (A) and remove the steering column lower guard (B).



2. Disconnect connector (A) and remove the Fiat CODE antenna (B) by releasing the retaining elements (C).

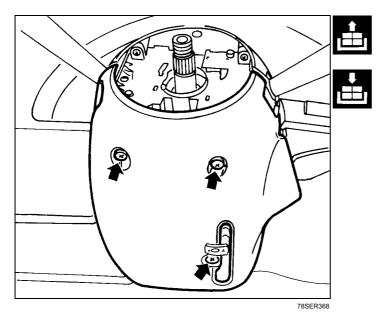
NOTE Refit by reversing the removal sequence



REMOVAL - REFITTING POWER WINDOW CONTROL UNIT

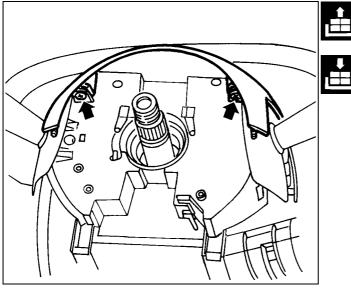
- 3. Working under the dashboard covering, passenger side, disconnect the electrical connection (A) of the power window control unit (B).
- Unscrew the screw (C).
- Remove the control unit (B) freeing the fastener (D).

NOTE For refitting, carry out the steps performed for removal in reverse order.

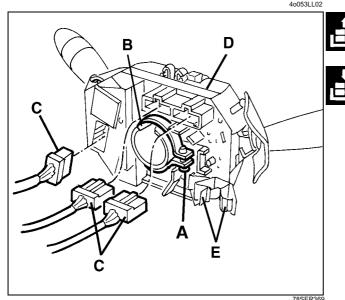


STEERING WHEEL STALK DETACH-MENT - REATTACHMENT

- Remove the driver's side airbag (see the relevant paragraph).
- Remove the steering-wheel (see Section 41).
- Remove the spiralled cable (see the relevant paragraph).
- Unscrew the three screws shown and remove the steering column lower guard.



- Unscrew the two screws shown and remove the steering column upper guard.

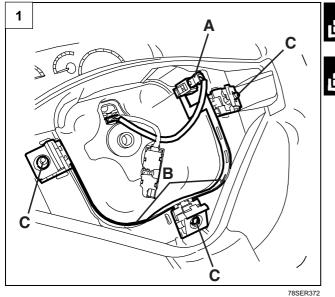


- Loosen the steering column stalk fastening strap (A).
- Move the stalk (D) slightly aside, releasing the tongue (B) from steering column retaining elements.
- Disconnect the three electric connections (C)
- Release the electric cables from the retaining elements (E), than remove the steering column stalk unit (D).

NOTE Refit by reversing the removal sequence.

Electrical system Miscellaneus devices

55.

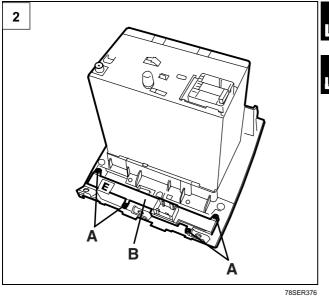




REMOVAL - REFITTING HORN CON-**TROL**

- Remove the Air Bag module on the driver's side (see the specific paragraph).
- Disconnect the electrical connection (A) of the horn control (B).
- Remove the horn control (B) freeing the fasteners (C).

NOTE For refitting, carry out the steps performed for removal in reverse order.



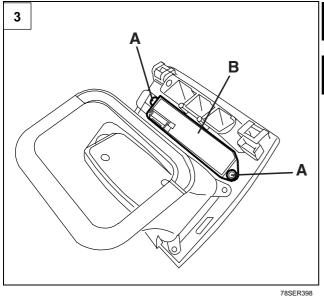




REMOVAL - REFITTING CENTRAL SWITCH ASSEMBLY ON DASHBOARD

- Remove the radio (see the specific para-
- 2. Unscrew the screws (A) and remove the switch assembly (B).

NOTE For refitting, carry out the steps performed for removal in reverse order.







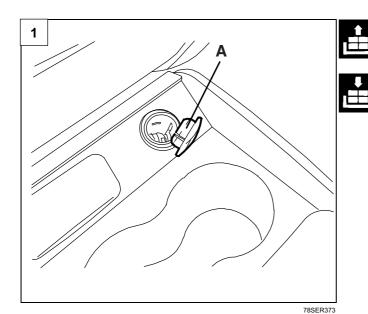
REMOVAL - REFITTING SWITCH AS-SEMBLY ON DASHBOARD, DRIVER'S SIDE

- Remove the air side vent, driver's side (see unit 50)
- 3. Unscrew the screws (A) and remove the switch assembly (B).

NOTE For refitting, carry out the steps performed for removal in reverse order.

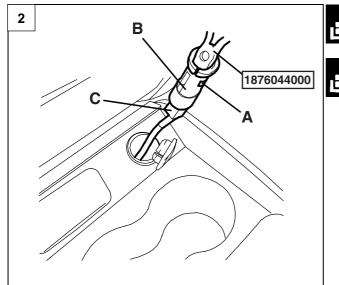
Miscellaneous devices

55.

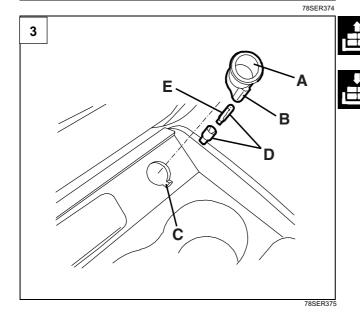


REMOVAL - REFITTING FRONT POWER SOCKET

1. Open the cover (A) of the power socket.



- 2. Insert the tool 1876044000 into the seat of the power socket and hook it onto the niches (A).
- Extract the power socket (B).
- Disconnect the electrical connection (C) and retrieve the power socket.

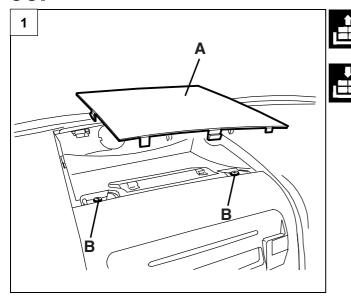


- 3. If necessary, remove the ring nut (A) freeing the fastener (B) from the seat (C).
- Extract the lamp holder with the light bulb (D).
- Extract the light bulb (E) from the lamp holder (pressed on).

NOTE For refitting, carry out the steps performed for removal in reverse order.

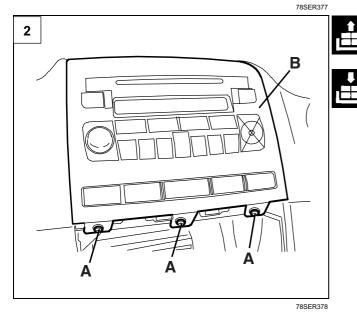
Electrical system Miscellaneus devices

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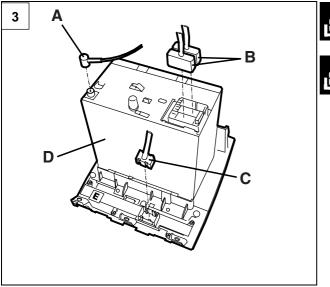


REMOVAL - REFITTING RADIO

- Remove the air middle vent (see unit 50)
- 1. Remove the upper central cover (A) of the dashboard, freeing the internal fasteners.
- Unscrew the upper screws (B) fastening the radio.



2. Unscrew the lower screws (A) fastening the radio (B).

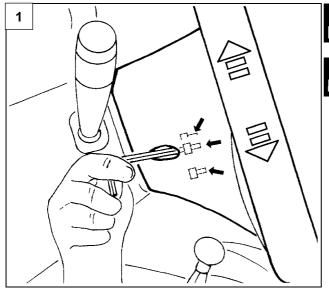


- 3. Move the radio and disconnect:
 - the antenna connection (A)
 - the electrical connections (B) of the radio
 - the electrical connection (C) of the switch assembly
- Retrieve the radio (D).
- If necessary, remove the central switch assembly on the dashboard (see the specific paragraph)

NOTE For refitting, carry out the steps performed for removal in reverse order.

Electrical system Air bag

55.





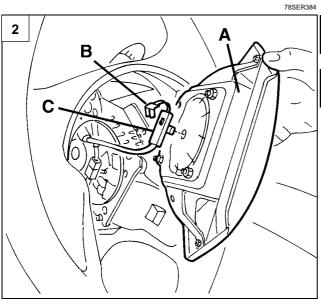
DRIVER'S AIRBAG DETACHMENT REATTACHMENT



Before removing and refitting airbag modules, turn the ignition key to STOP and remove it. Disconnect the negative and positive battery terminals and insulate them accurately.

Then, wait 10 minutes before proceeding with the subsequent operations

IN ANY CASE, COMPLY WITH THE SAFETY REGULATIONS DESCRIBED IN PREVIOUS SERVICE LITERATURE.







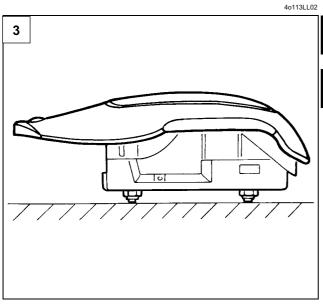
- Unscrew the three socket screws shown: to get access to each screw, it is necessary to turn the steering-wheel properly, as shown in the figure
- Slightly move aside the airbag module (A); by acting with care, disengage the safety retaining element (B), then connector (C), taking care so as not to pull it by the cable, but by the connector body.
- 3. Remove the airbag module and lay it on the work bench with the cover facing upward. Place the module in the special cabinet, in the previously indicated position. The figure shows the correct position of the module itself.

NOTE Refit by reversing the removal sequence.



CONNECT THE BATTERY ONLY AFTER THE INSTALLATION HAS BEEN COMPLETED CORRECTLY.

NOTE When the work has been completed, verify the system operation by means of an Examiner or other diagnostic equipment.

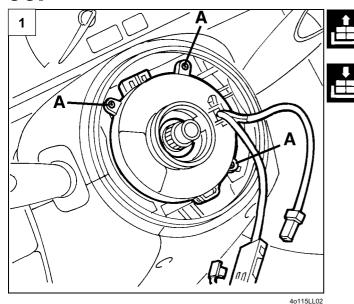


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Electrical system

Air bag

55.



CLOCK WIRE REMOVAL - REFITTING

 Remove the driver's airbag by acting as shown in the previous page and following the SAFETY REGULATIONS indicated.



All the operations below must be carried out with the FRONT WHEEL ALIGNED TO THE LONGITUDINAL AXIS OF THE VEHICLE (straight wheels). Lock the steering column properly, if necessary (e.g. by means grip pliers).

- Remove the steering-wheel (see Group 41)
- 1. Unscrew the screws (A) securing the clock wire to the steering column. Slightly move aside the spiralled cable.



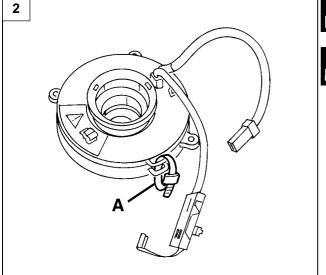
 \triangle

The spiralled cable is equipped with a device that automatically stops the rotation when it is removed from the steering column stalk. Avoid forcing rotation.

In case the spiralled cable is used again, locks up the two pans by means of a strap (A), as shown in the figure, so as to prevent accidental relative rotation.

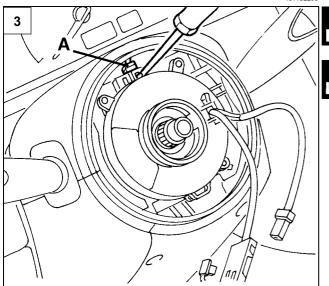


If for any reason the upper CLOCK SPRING plate should turn with respect to the lower plate and no longer recognise the position where it was removed, REPLACE THE CLOCK SPRING.



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4o115LL04

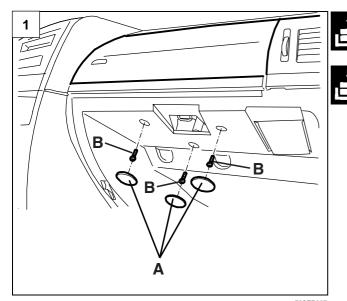


NOTE Refit by reversing the removal sequence, following the WARNINGS below.

3. By acting on the tab, disconnect connector (A) of the yellow-sheathed cable that connects the spiralled device to the airbag control unit. Take the aforesaid cable out of the spring placed in the upper part of the steering column stalk.

Electrical system Air bag





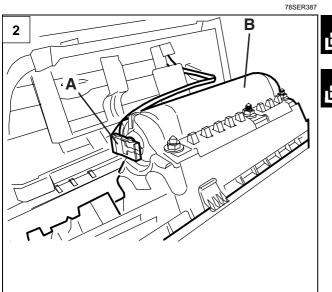
PASSENGER'S AIRBAG DETACHMENT - REATTACHMENT



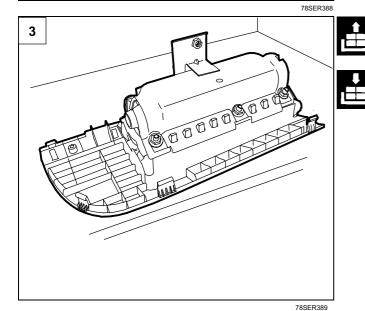
Airbag modules must be assembled and disassembled only with the ignition key in the "STOP" position and extracted; moreover, the positive and negative cables of the battery must be disconnected and properly insulated.

Then wait 10 minutes before proceeding with the subsequent operations.

IN ANY CASE, OBSERVE THE SAFETY REGU-LATIONS PREVIOUSLY DESCRIBED



- Remove the glove compartment cover (see Group 70)
- 1. Remove the screw covers (A). Unscrew the airbag module fastening screws (B), acting with the greatest care
- 2. Slightly move aside the airbag module (B) and release connector (A)
- Remove the airbag module from the vehicle.



3. Lay the airbag module on the work bench in the position shown in the figure. Place the module in the special cabinet in the previously described position.

NOTE Refit by reversing the removal sequence.



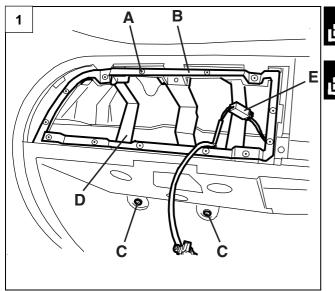
NEVER RECONNECT THE BATTERY UNTIL THE REFITTING OPERATION IS COMPLETED CORRECTLY.

NOTE After the work has been completed, verify system operation by means of an Examiner or other diagnostic instrument.

Electrical system

Air bag 1370 8v

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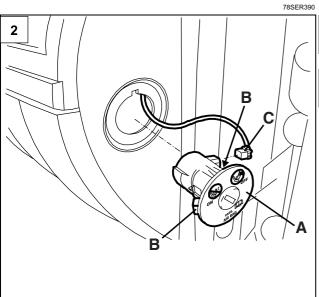




REMOVAL - REFITTING SUPPORT FOR AIR BAG, PASSENGER SIDE

- Remove the Air Bag module on the passenger side (see the specific paragraph).
- Using a drill, remove the rivets (A) fastening the outside frame (B). Retrieve the parts of the removed rivets.
- Unscrew the screws (C) fastening the internal support (D).
- Disconnect the fastener of the electrical connection (E) and remove the internal support (D).

NOTE For refitting, carry out the steps performed for removal in reverse order.





PASSENGER'S AIRBAG **DEACTIVA-**TION SWITCH DETACHMENT - REAT-**TACHMENT**



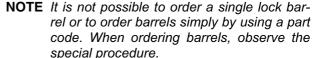
Before operating, bring the ignition key to the "STOP" position and extract it; moreover, disconnect the battery.

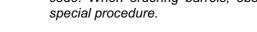
2. Extract the passenger's airbag deactivation switch (A) by releasing the retaining elements

Disconnect the electric connection (C) and recover the switch.

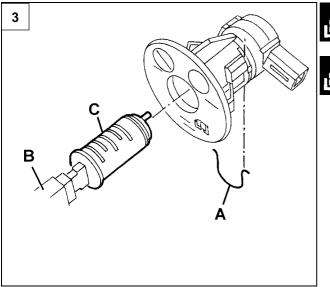
NOTE Refit by reversing the removal sequence.

3. If it is necessary ti remove the barrel from the switch, operate as follows:





- Withdraw the retaining clip (A).
- Insert the vehicle key (B) in the barrel.
- Extract the lock barrel. (C).

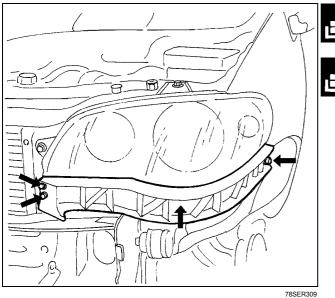




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Electrical system Lighting

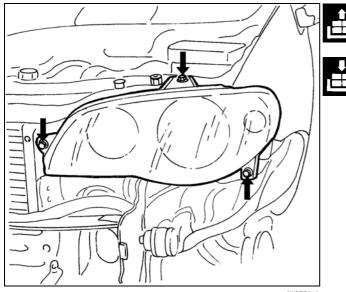
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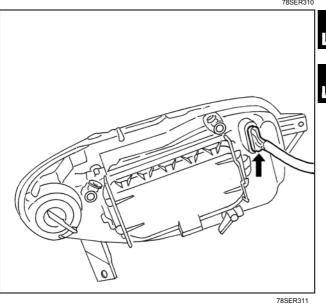


REMOVAL - REFITTING FRONT LIGHT CLUSTER

- Take off the front bumper (see Unit 70).
- Unscrew the three nuts and remove the headlight bracket.



 Unscrew the three screws fastening the light cluster.



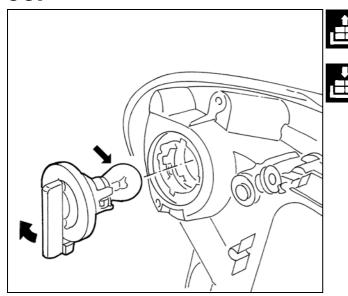
 Disconnect the electrical connection and retrieve the light cluster.

NOTE For refitting, carry out the steps performed for removal in reverse order.

Electrical system

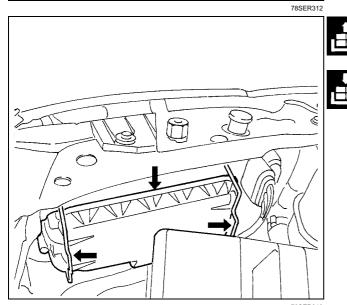
Lighting 1370 8v

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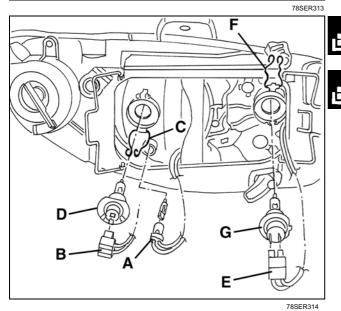
Renewing light bulbs

To renew the direction indicator light bulb turn the lamp holder and take out the light bulb (bayonet connection).

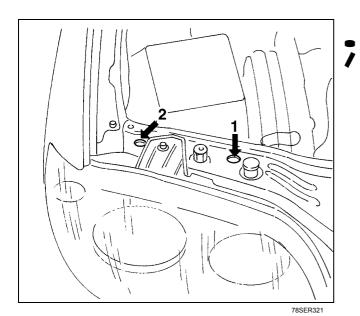


To renew the other light bulbs, proceed as follows:

Open the two clips and extract the safety cover.



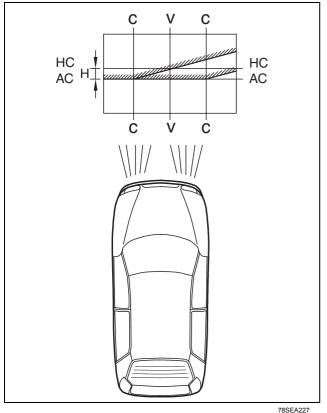
- Tail/side light:
 - extract the lamp holder (A) and retrieve the light bulb (press-on connection).
- Dipped beam headlight: disconnect the electrical connection (B), free the fastening clip (C) and extract the light bulb (D).
- Main beam headlight: disconnect the electrical connection (E), free the clip (F) and extract the light bulb (G).



HEADLIGHT POSITIONING

- 1. Screw for adjusting the light beam horizontally.
- Screw for adjusting the light beam vertically.

NOTE Work through the holes shown.



The vehicle must be comprehensive of a spare wheel, tools, fluids and fuel reserve; the tyre pressure must be the normal working pressure with the driver on board.

Set the vehicle on a level floor with the glass of the light cluster 10 m from a screen or matt surface on which the following lines are drawn:

- **V V**: vertical corresponding to the mark of the vehicle's symmetry plane.
- **C C**: corresponding to the marks of the vertical planes passing through the centres of reference of the light clusters.
- **HC HC**: horizontal corresponding to the height off the ground of the centres of reference of the light clusters.
- **AC AC**: horizontal under the line Hc-Hc of 10 cm (value for new and bedded vehicles corresponding to a reduction of 1%).

Adjust the light clusters on the main beam.

Using the headlight positioning device, proceed as follows.

Vertical positioning

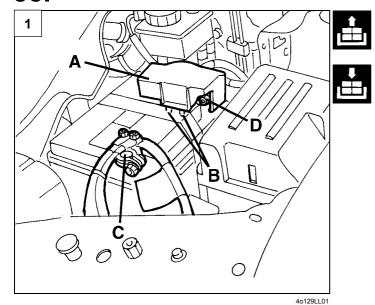
Make the horizontal section of the line marking the dark zone and the one illuminated by the light beam coincide with the line **AC-AC** marked on the screen.

Horizontal positioning

Make the point where the two horizontal and angled marking lines cross coincide with the respective cross of the lines **C-C** and **AC-AC** of the screen. Having to set the screen at a shorter distance, this value must be reduced in proportion.

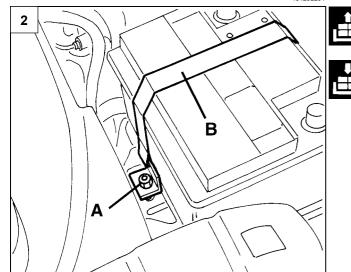
Electrical system Starting and charging

55.



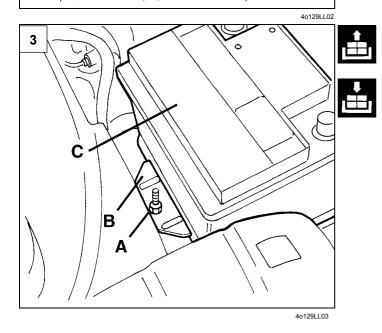
REMOVAL - REFITTING BATTERY

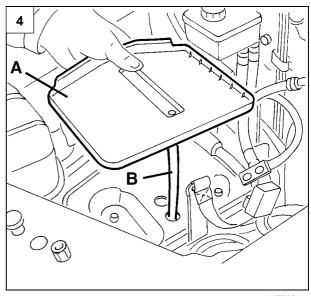
- Open the engine compartment cover.
- 1. Remove the cover (A) protecting the positive terminal (+) of the battery, freeing it from the fasteners (B). Disconnect the negative (-) terminal (C). Disconnect the positive (+) terminal (D).



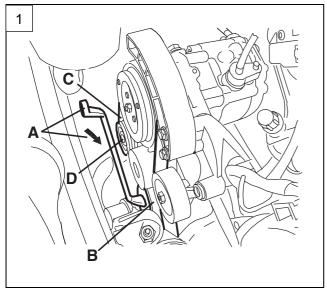
- 2. Unscrew the nut (A) and move the belt (B) fastening the battery.
- 3. Unscrew the nut (A) and remove the battery locking plate (B). Remove the battery (C).
- 4. If necessary, remove the container under the battery (A) with the related drain pipe (B).

NOTE For refitting, carry out the steps performed for removal in reverse order.





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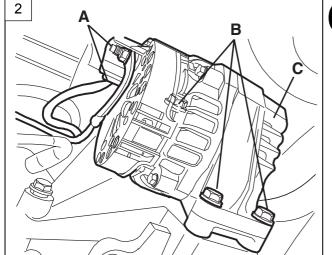


1.4

ALTERNATOR REMOVAL - REFITTING - 1.4 8V engine

- Place the vehicle on the lifter
- Open the engine compartment cover
 - 1. By means of a proper wrench (A) act on the belt tensioning device (B) of the service belt (C); turn in the direction shown by the arrow, loosening the belt (C), than slaken it from the alternator pulley (D).

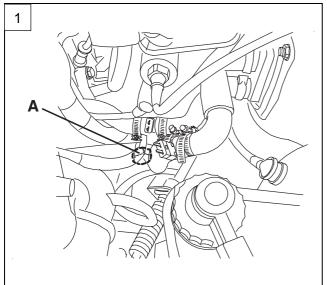




- 2. Lift the vehicle.
- Disconnect the electrical connections (A) of the alternator .
- Slacken the screws (B) and remove the alternator (C).

NOTE: Refit by reversing the removal sequence

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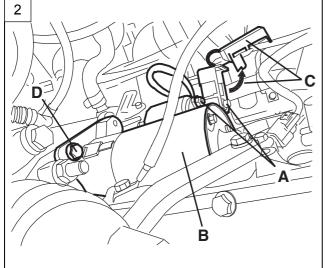
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STARTER REMOVAL - REFITTING

- 1.4 8V engine

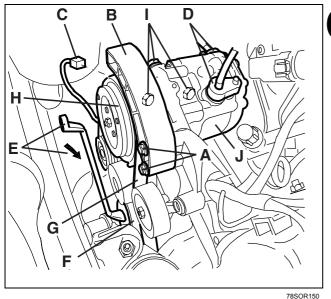
- Place the vehicle on the lifter
- Open the engine compartment cover
- 1. Slacken the starter upper fastening screw (A).

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- 2. Lift the vehicle.
- Operating behind the engine, disconnect the electrical connections (A) of the starter (B), after the cover (A) has been opened.
- Slacken the rear screw (D) and remove the starter (E).

NOTE: Refit by reversing the removal sequence.



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COMPRESSOR REMOVAL - REFITTING - 1.4 8V engine

- Drain off the refrigerant.
- Unscrew the screws (A) and remove the dust cover guard (B),
- Disconnect the electrical connection (B) of the compressor.
- Disconnect the two pipes (D) for the compressor intake and delivery.
- Put a wrench (E) on the socket of the tensioner (F) of the services belt (G); turn the wrench (E) in the direction of the arrow and loosen the services belt (G) then disconnect it from the pulley (H) of the compressor.
- Unscrew the screws (I) and remove the compressor (J)

NOTE: For refitting, carry out the steps performed for removal in reverse order; lubricate the disconnected couplings and renew the O-Rings.

 Afterwards, charge with the prescribed quantity of refrigerant

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Self-learning procedures

THROTTLE BODY ACTUATOR SELF LEARNING

If the throttle actuator or the injection-ignition system control unit are replaced, run the following self-learning procedure:

with the engine switched off, turn the ignition key to ON without pressing the accelerator pedal and wait for 5 seconds. in this way the throttle "learns" the min. and max. opening positions .

The same operaton can be executed via "Examiner" diagnostic system.

CLIMATE CONTROL SYSTEM SELF LEARNING

If the injection-ignition system control unit is replaced, run the following self-learning procedure: with the engine switched off, turn the ignition key to ON without pressing the accelerator pedal and wait few seconds activate the climate control system using the special button. Check the correct compressor engagementl.

The same operaton can be executed via "Examiner" diagnostic system.