DELTA HF integrale '91 Range

${\bf Bodywork}$

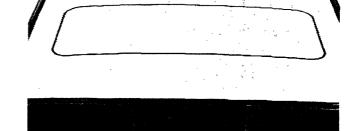
70.

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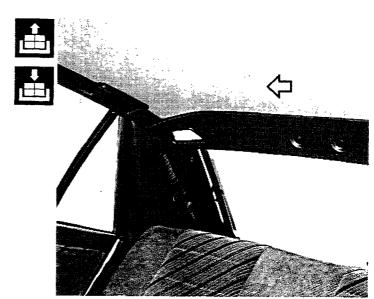
EMERGENCY MANUAL OPENING OF **ELECTRIC SUN-ROOF**

If the motor operating the sun-roof electric system should fail, the roof may be operated manually using the special key provided.



P1L01AM01

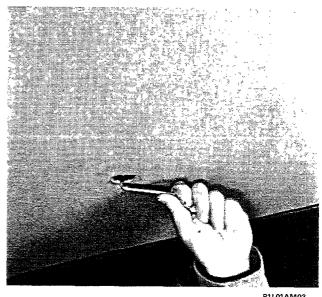
The correct procedure for manual operation of the sun-roof is as follows:



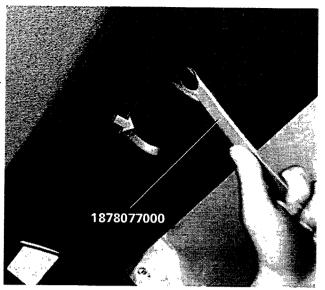
P1L01AM02

remove the plate indicated by the arrow;

- insert the key in the pin of the sun-roof motor;
- turn the key until the sun-roof is in the required position.

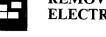


P1L01AM03



P1L02AM01



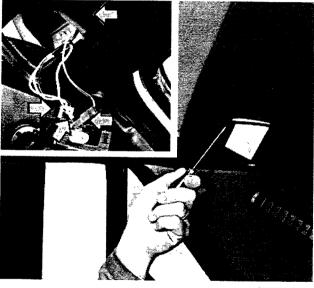




- Position the sun-roof so that it is closed and flush with the roof;
- disconnect the battery negative lead and proceed as follows:

Removing-refitting roof panel fastening studs

Prise open roof panel fastening studs using tool 1878077000.



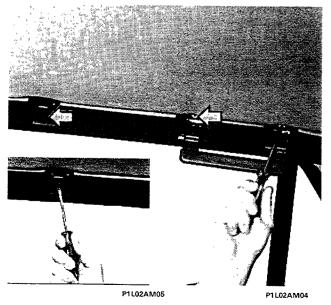
P1L02AM08

P1L02AM02



Removing-refitting rear courtesy light

- take off the rear courtesy light;
- disconnect the courtesy light connectors and the roof panel fastening studs shown in the illustration.







P1L02AM07

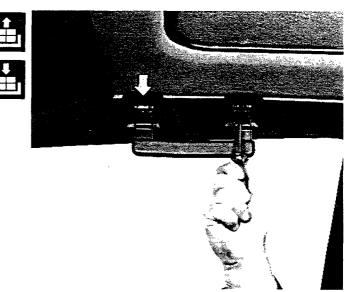
Removing-refitting rear grab handle and coat hook

- Remove the plate covering the fastening as shown in the illustration:
- remove the grab handle and coat hook by undoing the retaining screw.



Removing-refitting front passenger grab handle

Remove the passenger grab handle by unscrewing the retaining screws shown in the diagram.



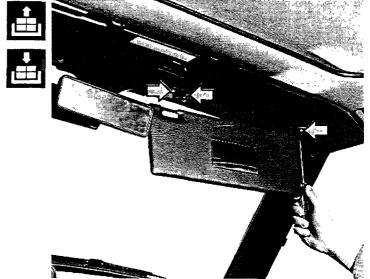
P1L03AM01



P1L03AM04



Remove sun blinds and anchorages by undoing the retaining screws shown in the diagram.

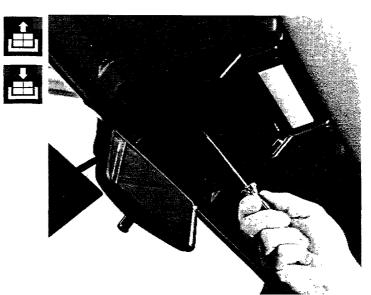


P1L03AM02

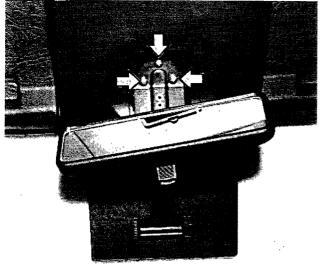


Removing-refitting rear view mirror

Remove the courtesy light plate to gain access to the screws underneath;



P1L03AM03

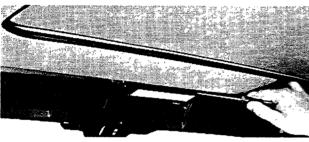




P1L04AM06

- unscrew the retaining screws shown in the diagram and then undo the door mirror.

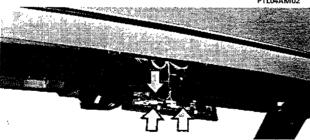
P1L04AM01







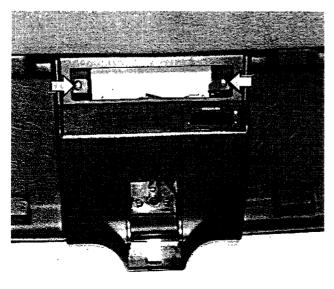
P1L04AM02



P1L04AM03

Removing-refitting courtesy light

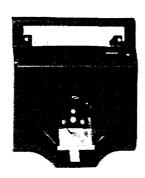
- Remove the courtesy light lens by prising open the retaining clips using a screwdriver;
- remove the courtesy light after disconnecting the connectors shown in the diagram.





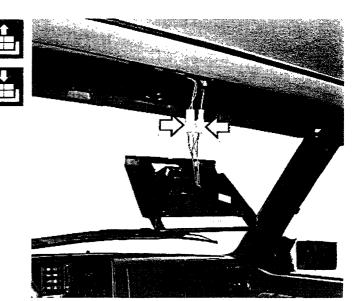
Removing-refitting courtesy light frame

- Undo the courtesy light retaining screws shown in the diagram,



P1L05AM02

- remove the courtesy light frame, disconnecting the indicated connectors.



P1L05AM01



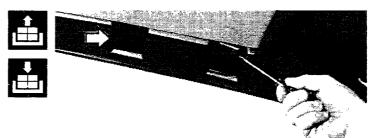


P1L05AM05

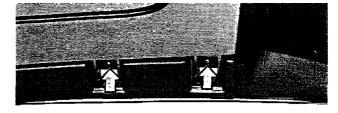
P1L05AM06

Removing-refitting fastening cover plate

- Remove the cover plate by undoing the retaining clips;
- remove the frames by undoing the retaining screws.



P1L05AM03



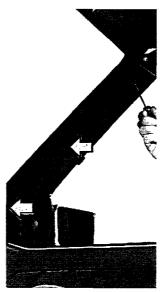
P1L05AM04



P1L05AM09

Removing-refitting front post trim

- Remove the front post trim retaining screw plates;
- undo the retaining screws and then remove the front post trim.

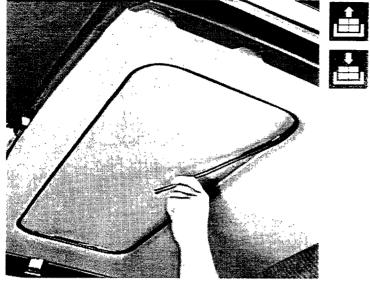


P1L05AM07



P1L05AM08

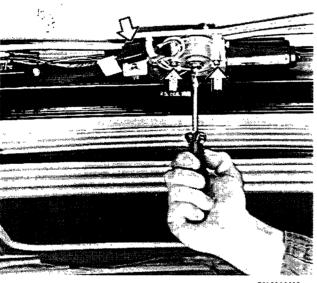
Copyright Fiat Auto



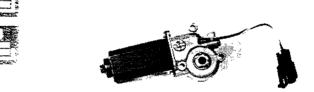
P1L06AM07

Removing-refitting sun-roof opening seal

- Detach the sun-roof opening seal from the roof panel, starting at the joint, and then remove;
- lower the roof panel from the roof and remove from the car through the tail-gate.



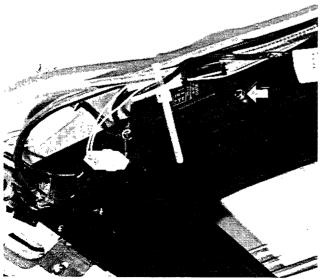
P1L06AM02



P1106AM03

Removing-refitting sun-roof electric motor

- Disconnect the connector and undo the retaining screws shown in the diagram;
- disconnect sun-roof electric motor.





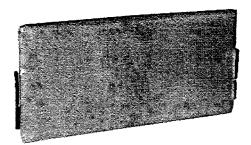
P1L06AM05

REMOVING-REFITTING SUN-ROOF RELAY

To remove the sun-roof relay, first remove the roof panel and then proceed as follows:

- undo the retaining screws shown in the dia-
- remove the sun-roof relay.

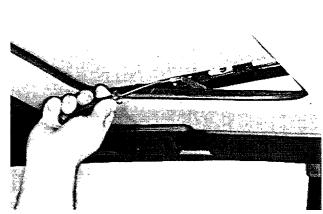
REMOVING SUN-ROOF



P1L07AM02

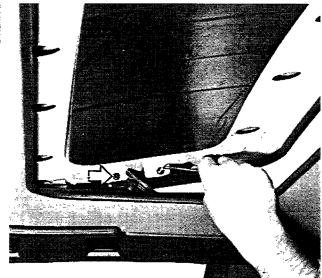
Move sun-roof to fully raised position;remove the lining panel from the frame by undoing the retaining clips





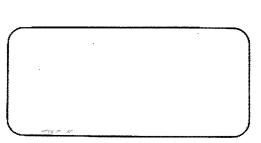
P1L07AM01





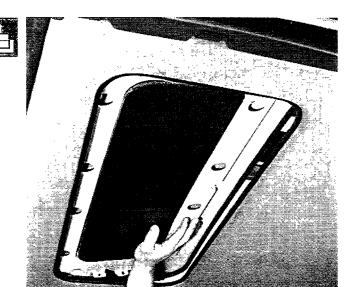
P1L07AM03

- undo the screws retaining the roof to the frame, shown in the diagram;

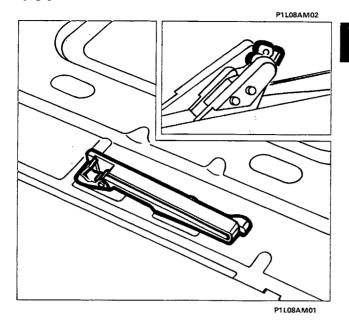


P1L07AM05

- remove the roof from the frame by raising as shown in the diagram.



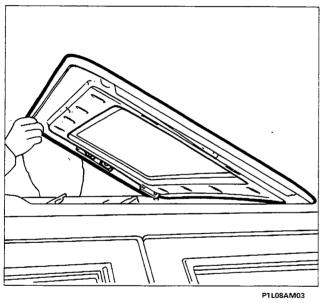
P1L07AM04





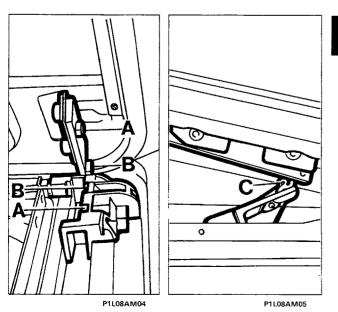
Operation sequence

- Loosen the screw retaining the catch block on the roof rail, turn the block to the position shown and lock in open position by screwing in the retaining screw to medium tightness;
- turn the roof slide bush to the position shown in the box so that this is aligned with the roof raising lever;



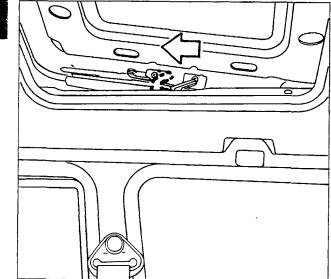


- position the roof on the vehicle by inserting the front hinges into the seats on the body shell;



- lower the roof, making sure that bush C is fully inserted in the open guide section on the roof without forcing;
- NOTE Make sure that the roof hinges are properly fitted into their seats by checking that teeth A and B are engaged with their seats on the sun-roof frame.



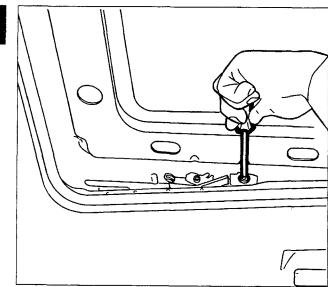


P1L09AM01

P1L09AM02

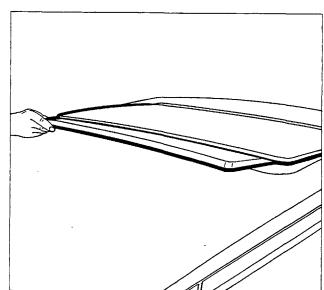
remove the sun-roof electric motor (see page 6);
operate the regulation device manually to move the roof a couple of centimetres back from its fully open position (spoiler) towards its closed position so that the lift arm moves to the position shown by the dotted lines in the diagram;





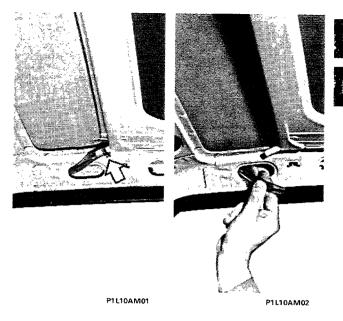
- loosen the screw that holds the roof guide catch block open and check it closes properly before tightening the retaining screw;





- refit the sun-roof lining panel.

P1L09AM03





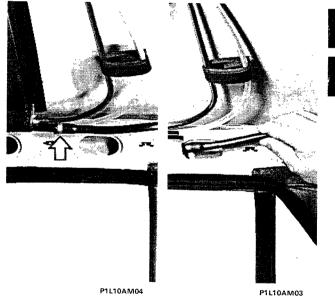
Preliminary operations

Remove the following components in order to remove the sun-roof frame:

- sun-roof (see page 7);
- roof panel (see page 2 to page 6);

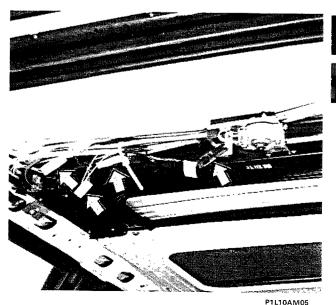
Dismantling-fitting front water drainage pipes

- Remove the arrowed clip after loosening the retaining screw;
- disconnect the water drainage pipe from the sun-roof frame.



Dismantling-fitting rear water drainage pipes

- Disconnect the arrowed clip after unscrewing the retaining screw;
- disconnect the water drainage pipe from the sun-roof frame.





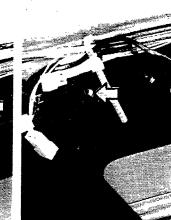
Disconnect the arrowed connectors.

Removing-refitting relay

70.





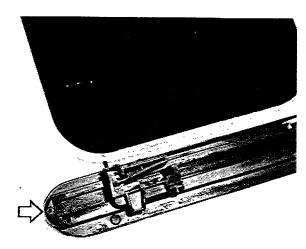


P1L11AM01

P1L11AM02







Removing-refitting plate retaining roof frame to body shell

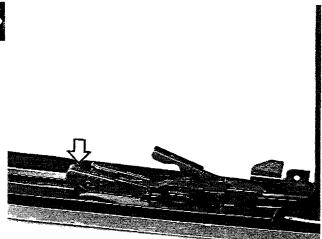
Undo the retaining screw indicated in the left hand box and then disconnect the relay;remove the relay support by unscrewing the

screw shown in the right hand box.

Undo the retaining screw and remove the plate.



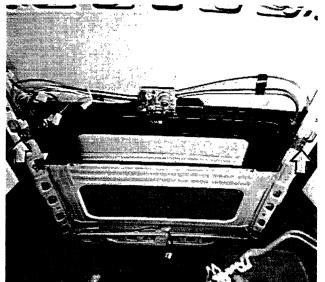




Positioning sun-roof frame support lever

Before removing the sun-roof frame, move the roof support lever forward mechanically to the position shown in the diagram.

P1L11AM04





Dismantling-fitting screws retaining sun-roof frame

Undo the retaining screws arrowed in the diagram.

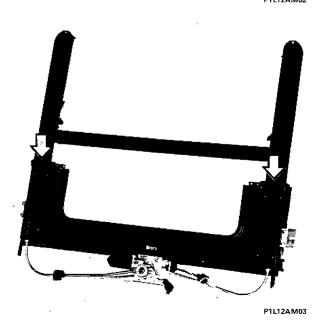




P1L12AM01

Removing the sun-roof frame from the vehicle

Proceed as shown in the diagram to remove the sun-roof frame from the vehicle.





Refitting sun-roof frame

NOTE When refitting the sun-roof frame on the vehicle, spread vaseline on the seals arrowed in the diagram and then reverse removal instructions.

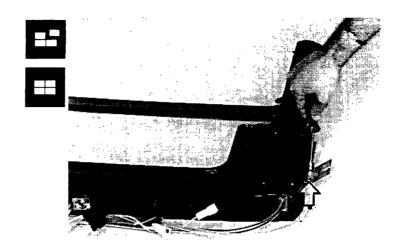
DISMANTLING-FITTING SUN-ROOF FRAME



P1L13AM04

Dismantling-fitting frame side brackets

Remove the anchorage brackets after undoing the screws shown in the diagram.



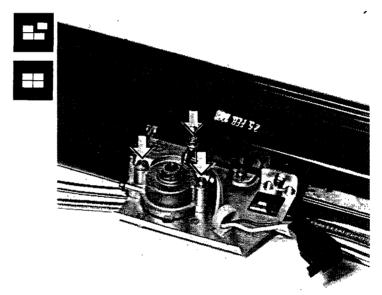
P1L13AM01



P1L13AM05

Dismantling-fitting sun-roof electric motor

Undo the screws shown in the diagram and then remove the sun-roof electric motor.



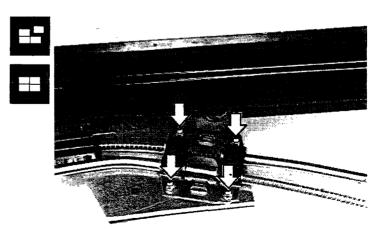
P1L13AM02



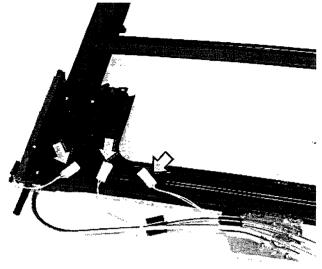
P1L13AM06

Dismantling-fitting plate retaining cable sheaths

Undo retaining screws and remove the cable sheath retaining plate.



P1L13AM03

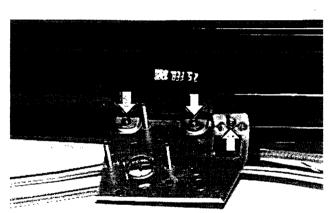




P1L14AM02

Dismantling-fitting connectors

Remove the connectors shown in the diagram from the cable sheaths.





P1L14AM01

P1L14AM04

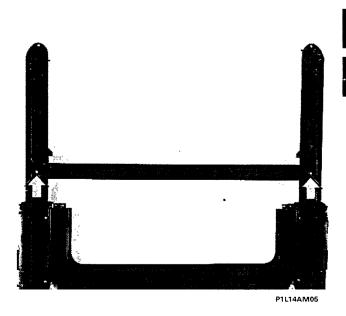




P1L14AM03

Dismantling-fitting sun-roof motor support plate

Remove the electric motor support plate by unscrewing the retaining nuts.



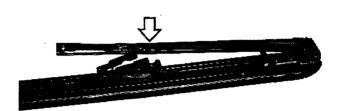


P1L14AM06

Dismantling-fitting central beam from sun-roof beam

Unscrew the retaining screws, then remove the central beam from the sun-roof frame.





Dismantling-fitting plunger

Lift the plunger and remove from the sun-roof frame rail.

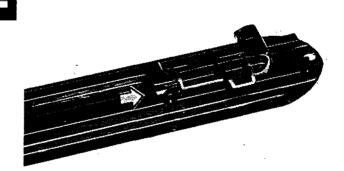




P1L15AM03

Dismantling-fitting hinge

Remove the sun-roof hinge by withdrawing towards the front open end of the frame.



P1L15AM02







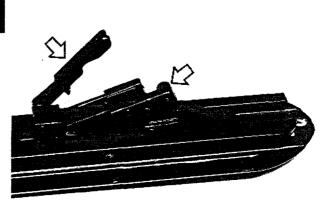
P1L15AM05



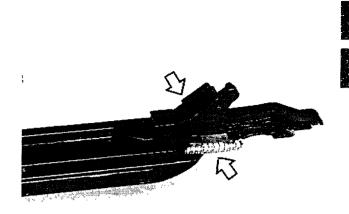
P1L15AM06

Dismantling-fitting sun-roof lift arm and guide bush

Withdraw the sun-roof lift arm and guide bush.



P1L15AM04

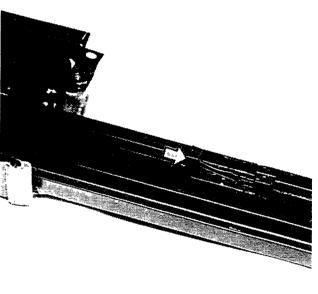




P1L16AM02

Dismantling-fitting cable regulation and transmission device

Remove the regulation device by withdrawing from the roof frame, then detach and remove cable transmission.





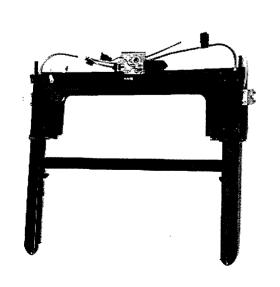
P1L16AM01



P11160M0

Dismantling-fitting regulation device stop

Remove the regulation device stop by withdrawing towards the open front end of the sunroof frame.



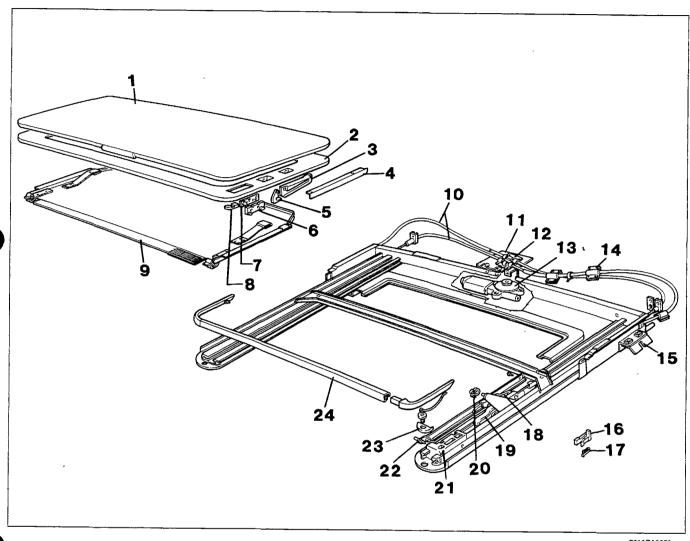
P1L16AM05

Fitting sun-roof

NOTE Reverse removal instructions to refit sun-roof frame.

70.

COMPONENTS OF SUN-ROOF



P1L17AM01

- Sun-roof
 Section
- 3. Guide
- 4. Guard 5. Key

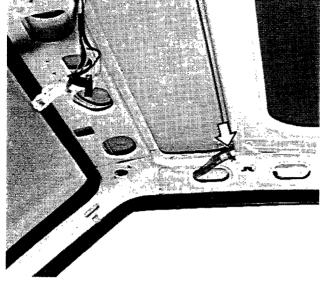
- 6. Support 7. Regulator 8. Cam 9. Blind

- 10. Cable guides 11. Plate
- 12. Cover

- 13. Electric motor
- 14. Support
- 15. Bracket

- 13. Bracket
 16. Stop
 17. Clip
 18. Arm
 19. Regulation device
 20. Bush
 21. Bracket
 22. Plunger

- 23. Plate 24. Spoiler





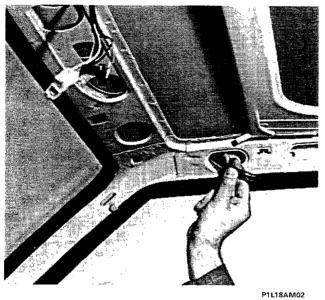
REMOVING-REFITTING FRONT WATER DRAINAGE PIPES

In order to remove and refit the front water drainage pipes, remove the roof panel (see pages 2 to 6); then proceed as follows:

Removing-refitting water drain pipe clip

Loosen and remove the water drainage pipe retaining clip arrowed in the diagram.

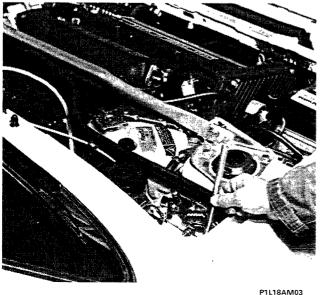






Removing-refitting water drainage pipes

Disconnect the water drainage pipes from the sun-roof frame.







Removing-refitting water drainage pipes

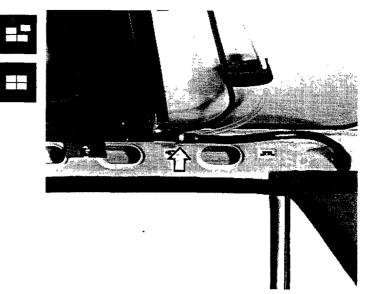
Withdraw the water drainage pipes, working from the engine bay.

REMOVING-REFITTING REAR WATER DRAINAGE PIPES

In order to remove and refit the rear water drainage pipes, remove the roof panel (see pages 2 to 6); then proceed as follows:

Removing-refitting water drainage pipe clip

Loosen and remove the water drainage pipe clip arrowed in the diagram.









P1L19AM02

Removing-refitting water drainage pipes

- Disconnect the water drainage pipes from the sun-roof frame.



- working from inside the luggage compartment, open the windscreen washer reservoir flap as shown in the box;
- withdraw the water drainage pipe.

P1L19AM03

DIAGRAM FOR CHECKING UNDERBODY

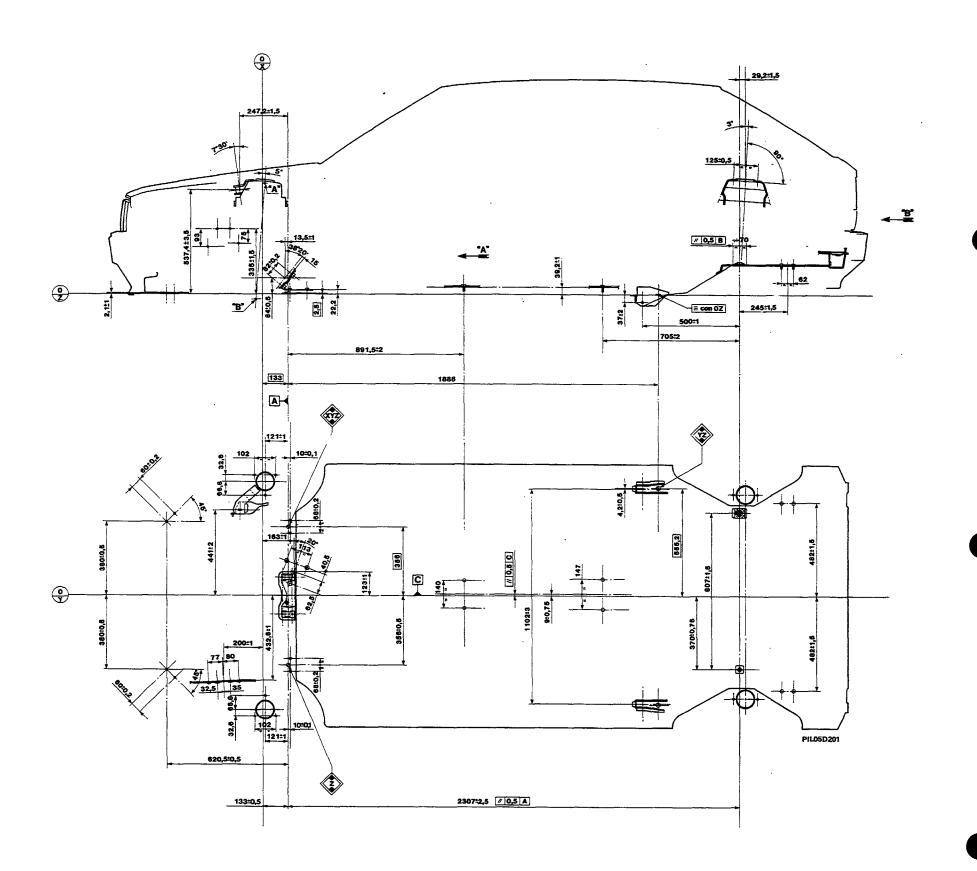
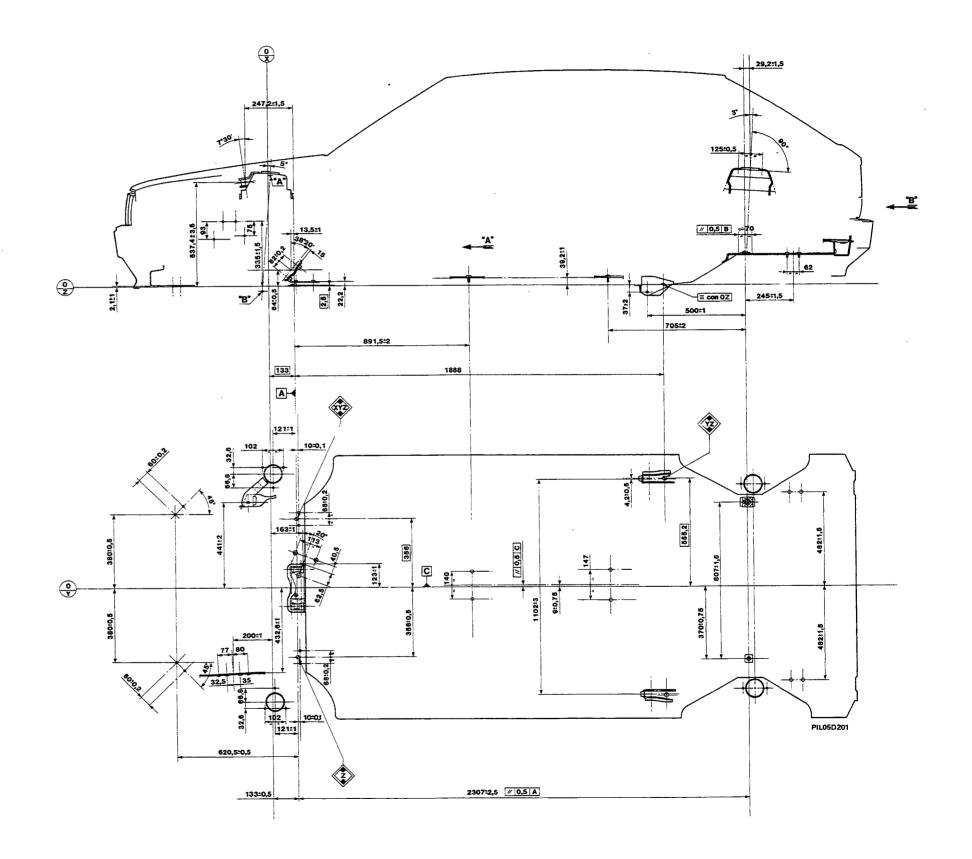


DIAGRAM FOR CHECKING UNDERBODY



VI-92 - Update