

This section contains the description of the operations required for disconnecting and connecting back the components specific to the power supply of motor 1108 in EEC Stage 3.

As to the description of the removed parts, please refer to the issue relating to EOBD, printed item 507.137.





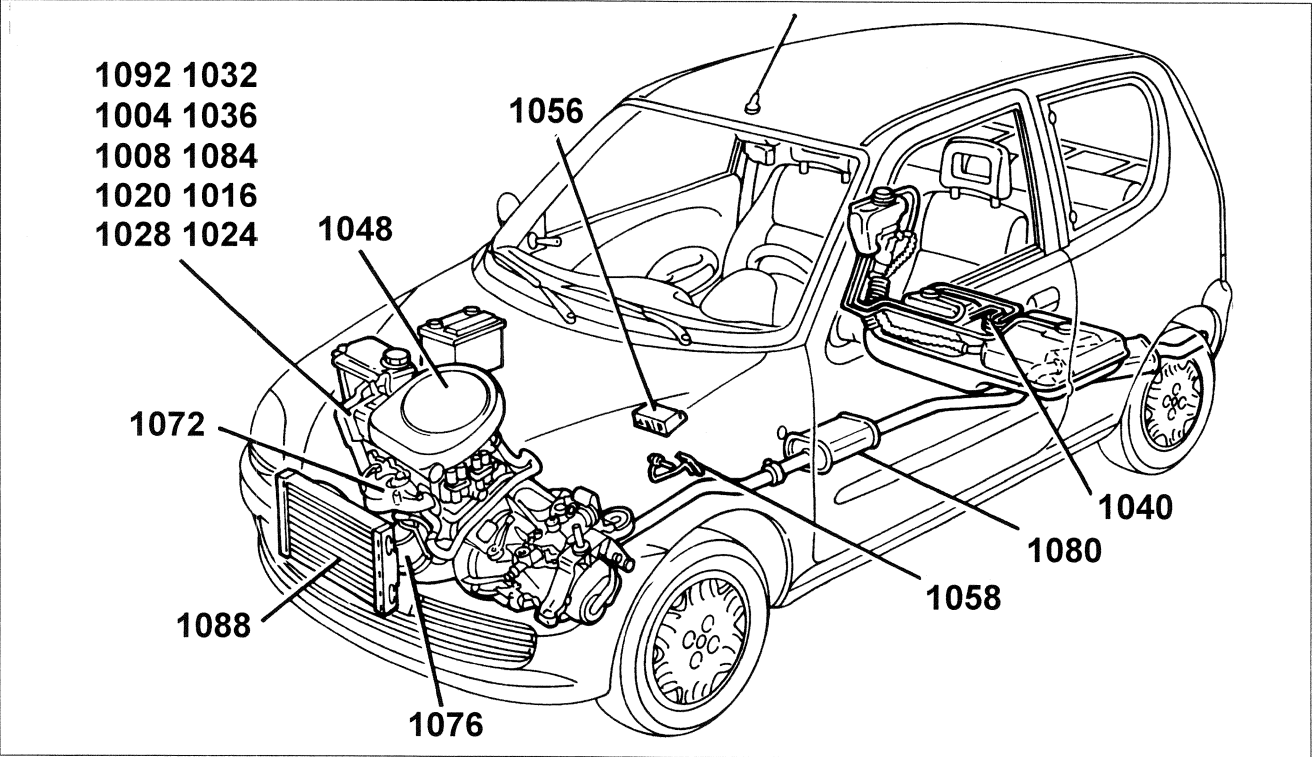
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1108

ATTENTION

1108

All operations should be carried out taking great care to avoid injury to persons.



# 10

The engine compartment contains numerous moving parts, components at high temperatures and electrical wiring with voltage. Closely observe the following precautions when carrying out operations in the engine compartment:

Switch off the engine and wait for it to cool down.  
Do not smoke.

No naked flames.

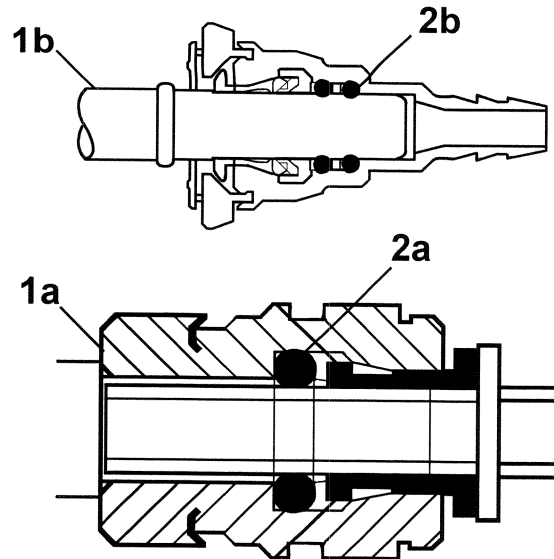
Make sure that an extinguisher is at hand in the work area.

For some procedures, the use of special Fiat tools is indicated. The use of these tools is vital in order to work safely.

Follow the safety instructions in force for workshop procedures. Where necessary, the Manual contains specific warnings to prevent the risk of dangerous situations.

When using chemicals, closely follow the safety instructions given on the safety sheet which the supplier must give to the user (in Italy, in accordance with D.M. no. 47/1992).

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## WARNINGS

1108

All the operations must be carried out with the utmost attention and care to avoid damaging the components.

In order to release parts which are sticking, tap lightly using an aluminium or lead hammer if iron materials are involved; use a wooden or resin hammer for light alloy parts. use a wooden or resin hammer for light alloy parts.

During dismantling, check that parts which have to be marked carry reference marks.

When refitting, lubricate the parts, where necessary, to prevent sticking or seizing during the initial operating period.

During refitting, it is essential to observe the tightening torques and adjustment data.

During each refitting, replace the gaskets, oil seals, flexible washers, safety plates, self-locking nut and all components which have deteriorated.

The quick-release fittings used in the evaporation control system and fuel system are JOHN GUEST type: SL for evaporation control system pipes and GSL for fuel system pipes.

To prevent fuel vapour leaks, the quick-release fittings are fitted with an interior O-ring seal.

1 The figure shows cross-sections through both types of quick-release fitting, SL (1a) and GSL (1b).

2 SL-type quick-release fittings are fitted with a single O-ring seal (2a), while GSL fittings are fitted with two O-ring seals (2b).

1108

To connect SL quick-release fittings, push the fitting fully home and then pull to check the pipe is secure without touching the tabs on the outer case of the female quick-release fitting.

To connect GSL quick-release fittings, push the fitting fully home and check there is no clearance between the thrust washer on the male fitting and the outer case of the female quick release fitting.

Do not use solvents and/or materials incompatible with the pipes and fittings.

107.00.00/PR V.10/059 \_\_\_\_\_ C.02 C. 11F





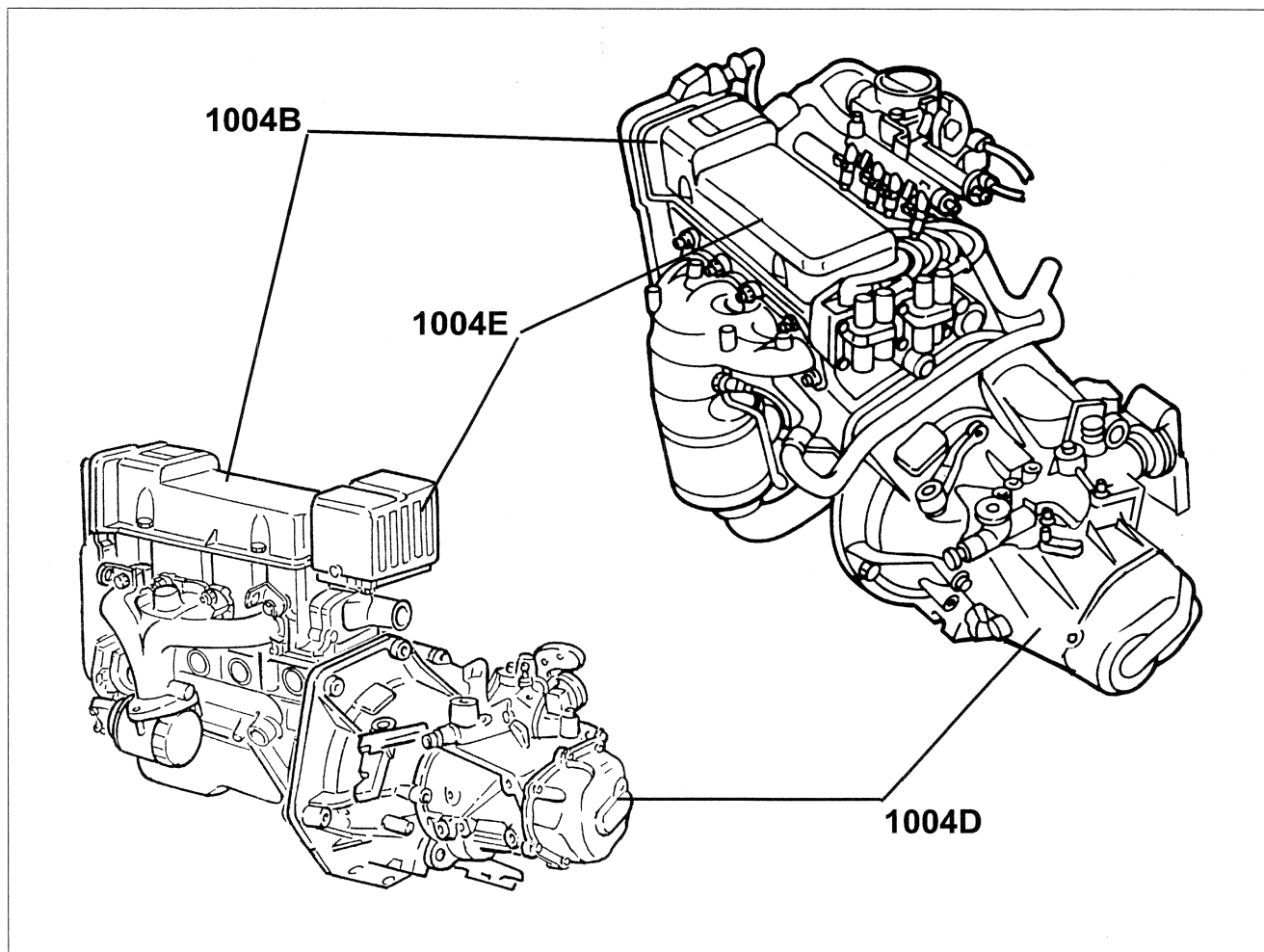
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*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1004B	Power unit assembly	1108   Euro 3
1004D	Remove engine and wash	1108   Euro 3

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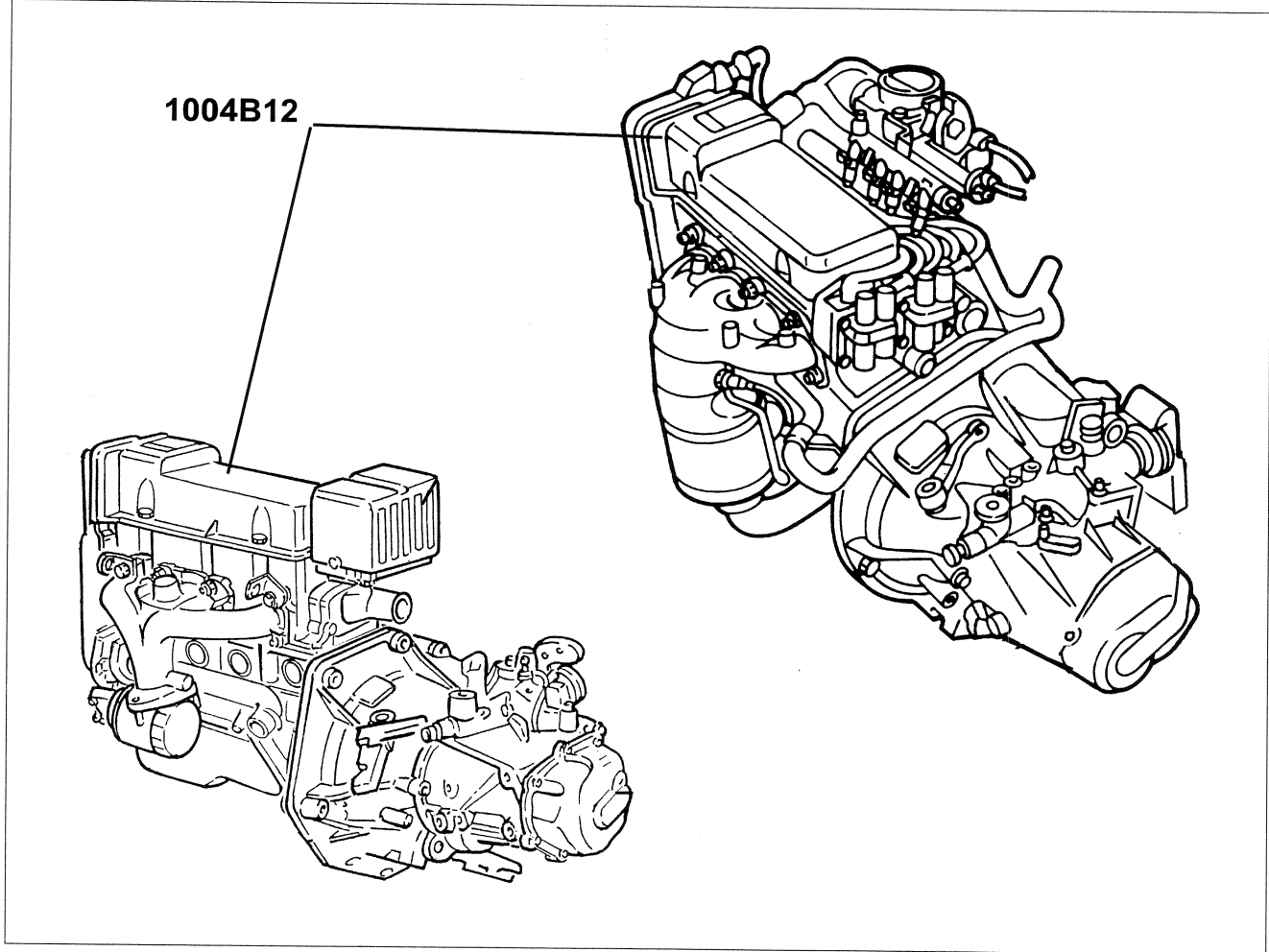
107.00.00.PR.V.10.052 \_04\_ \_ \_ \_ \_ C.01.H \_ \_ \_ \_



1108

## 1004B - Power unit assembly

### VIEW OF ASSEMBLY



187 00 00 PR V 10 059 \_ 04 \_ B \_ C 01 H \_ 10

### Operations index

Code	Operation	Validity
1004B12	Power unit with manual gearbox - r+r for versions with a/c	1108

## OPERATIONS

1108

### 1004B12 - POWER UNIT WITH MANUAL GEARBOX - R+R FOR VERSIONS WITH A/C

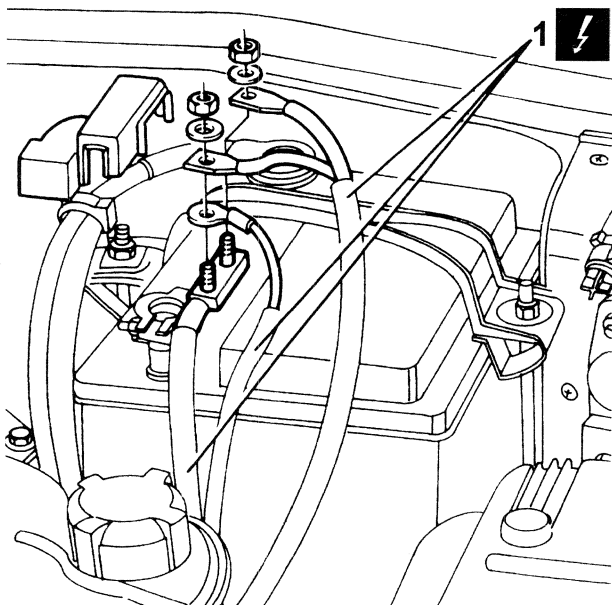
#### Removal

1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Disconnect the battery negative (-) terminal.



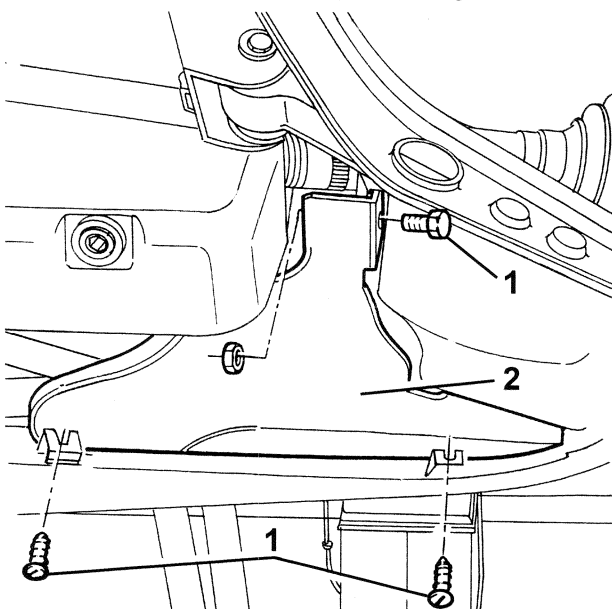
Description	Connector
- Battery	A1
1. Disconnect the alternator and starter motor wiring terminals from the battery (+) terminal.	
Description	Connector
1 Battery	A1



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1108 Euro 3

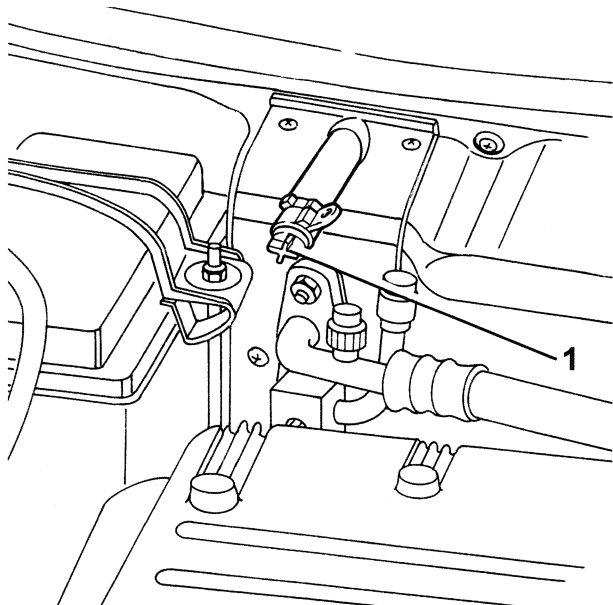
- See Op. 4450B12 Front or rear wheels (two) - r+r
  - See Op. 7055B42 Supplementary wheel arch (one) - r+r
  - See Op. 7210E10 Front bumper
1. Undo the screws securing the engine compartment guard.
  2. Remove the engine compartment guard.



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1108 Euro 3

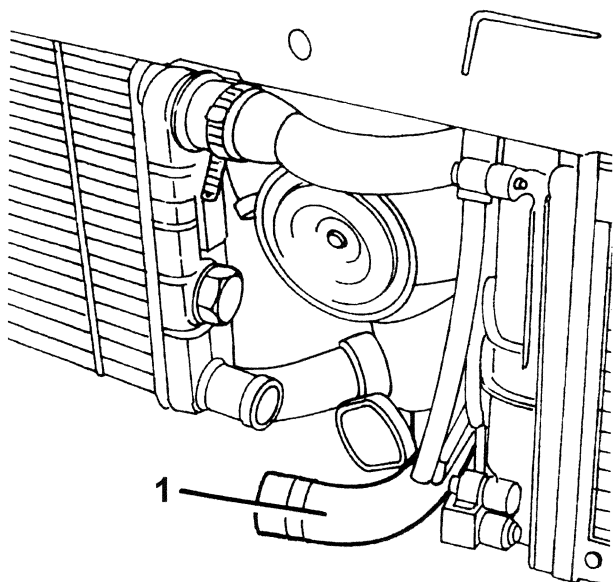
- See Op. 5040A10 Air conditioner cooling circuit - dehydrate and reload
  - See Op. 1048A10 Air cleaner filtering element - replace
1. Undo the engine coolant reservoir cap.
  1. Undo the engine coolant circuit vent cap.



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1108 Euro 3

1. Disconnect the lower coolant outlet hose from the radiator and drain the engine coolant into a suitable container.



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1108 Euro 3

1. Release the locking devices (1a) and disconnect the fuel injection control unit's electrical connector, engine side (1b).

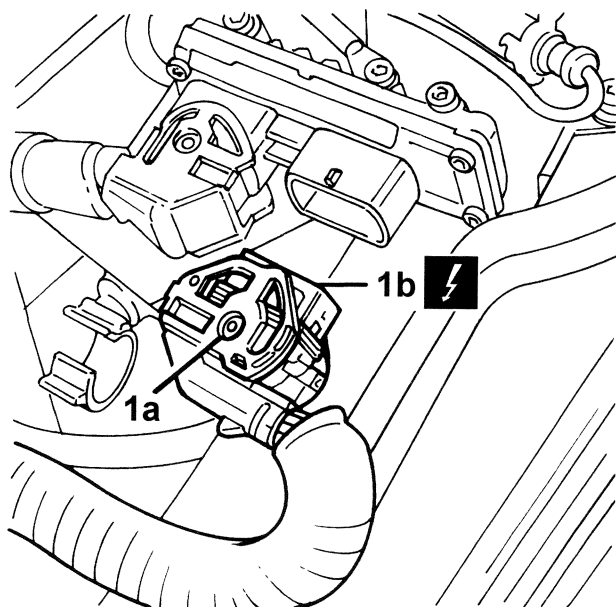
**Description****Connector**

1b Engine management ECU

M10



# 1004



187.00.00.PRV.10.059...04...B.12.C.05.B.B14.11F

1108 Euro 3

1. Disconnect the electrical connection of the engine-vehicle interface.

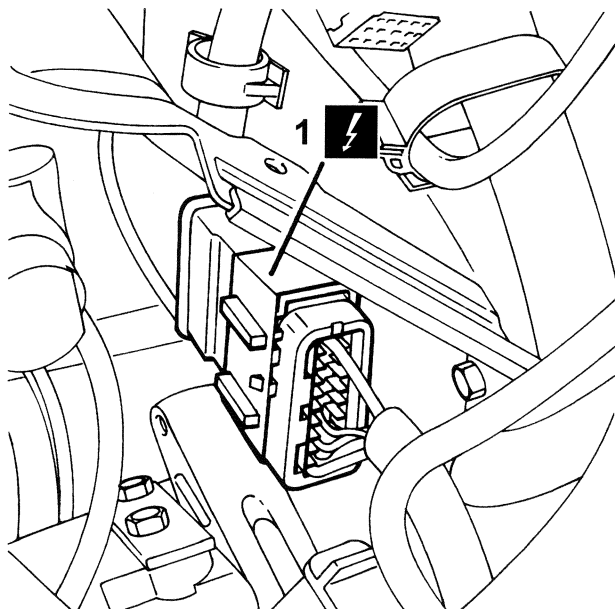


Description

Connector

1 Front / engine coupling

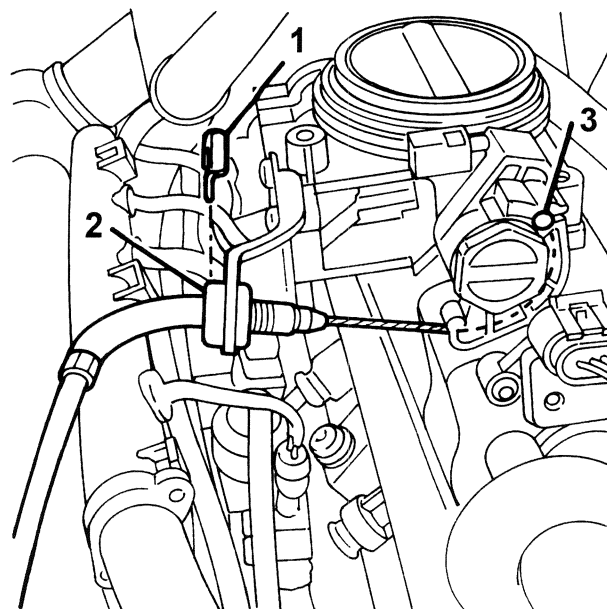
D4



187.00.00.PRV.10.059...04...B.12.C.06.B.B14.11F

1108 Euro 3

- Release the engine wiring from the securing bands and tip it over onto the engine.
1. Withdraw the throttle cable adjustment retaining clip.
  2. Remove the flexible cable from the reaction bracket.
  3. Withdraw the end of the cable from the throttle body.



187.00.00.PRV.10.059...04...B.12.C.07.B.B14.11F

1108 Euro 3

1. Remove the protective cap (1a) for the fuel manifold (1b) and use the tool (1c) for draining the fuel pressure.



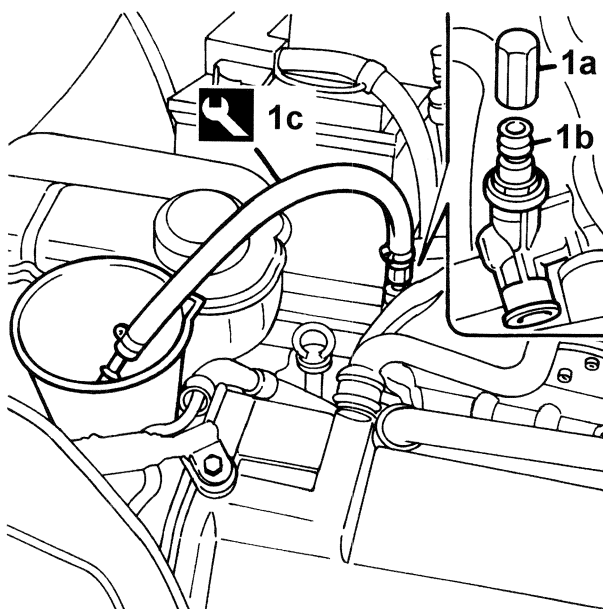
Description

Code

1c Rapid clutch fitting

1.870.684.000

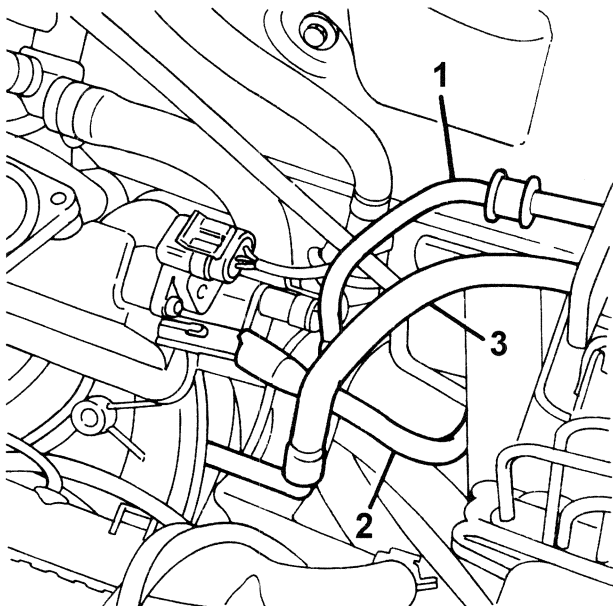
- Collect the fuel in a suitable container.



187.00.00.PRV.10.059...04...B.12.C.08.B.B14.11F

1108 Euro 3

1. Disconnect the rapid attachment for the fuel vapour pipe.
2. Disconnect the brake servo vacuum pipe.
3. Disconnect the fuel supply pipe.



187.00.00.PR.V.10.069...04...B.12.C.09.B.B14.TIF

1108 Euro 3

- Disconnect the coolant outlet hose from the inlet manifold.
- 1. Disconnect the electrical connection for the Lambda sensor upstream of the catalyzer.



**Description**

**Connector**

1 Lambda probe

K40

2. Disconnect the electrical connector for the Lambda sensor downstream of the catalyzer.

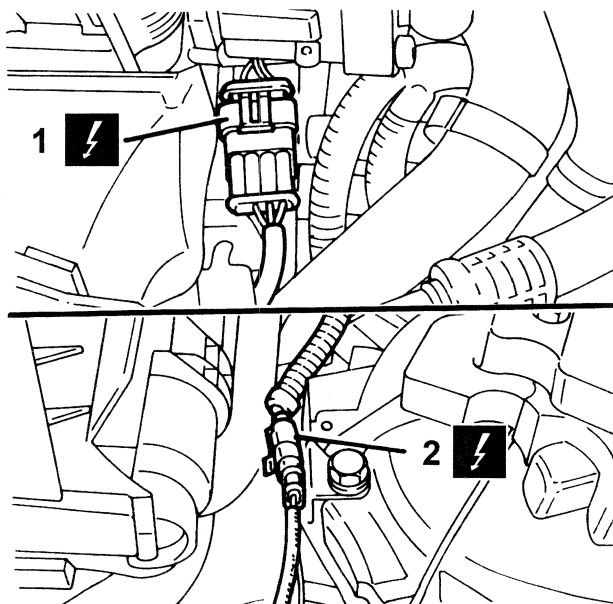


**Description**

**Connector**

2 Lambda sensor-2

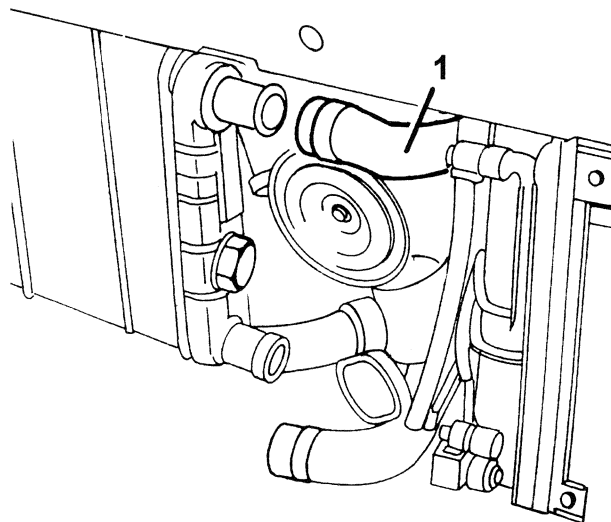
K39



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1108 Euro 3

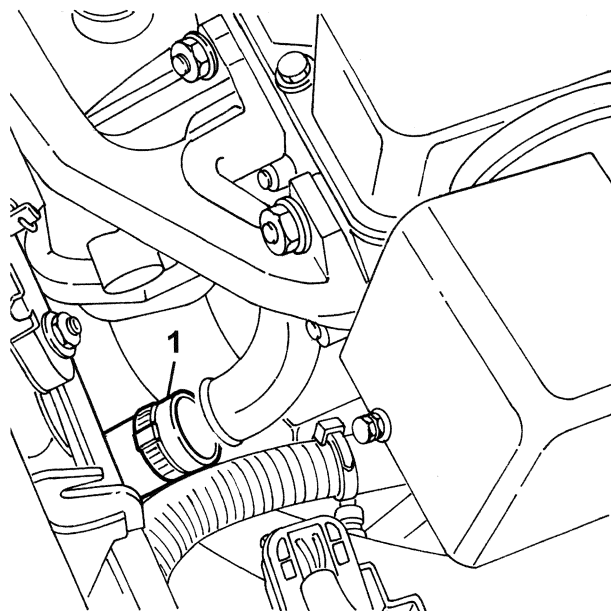
1. Withdraw the radiator upper hose.



187.00.00.PR.V.10.069...04...B.12.C.11.B.B14.TIF

1108 Euro 3

1. Withdraw the hose from the water pump inlet rigid pipe.



187.00.00.PR.V.10.069...04...B.12.C.12.B.B14.TIF

1108 Euro 3

- Unscrew the nut for the battery earth cable on the gearbox.



**Description**

**Connector**

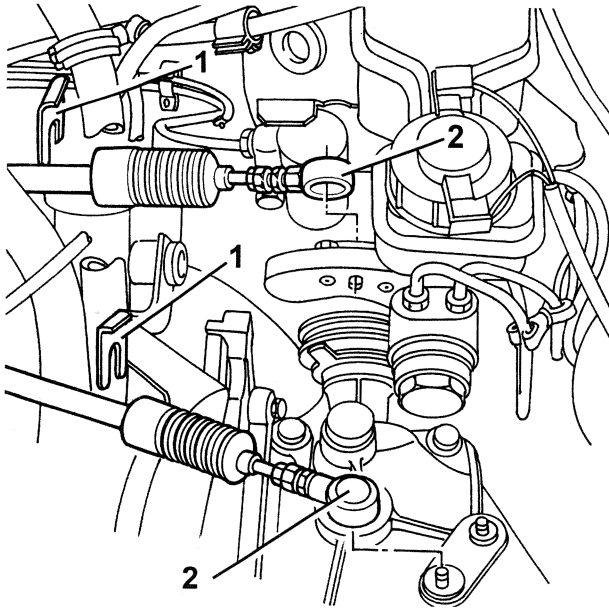
- Battery earth

C1

1. Withdraw the retaining clips from the gear engagement flexible cable sheaths.
2. Withdraw the ends of the gear engagement flexible cables.



# 1004



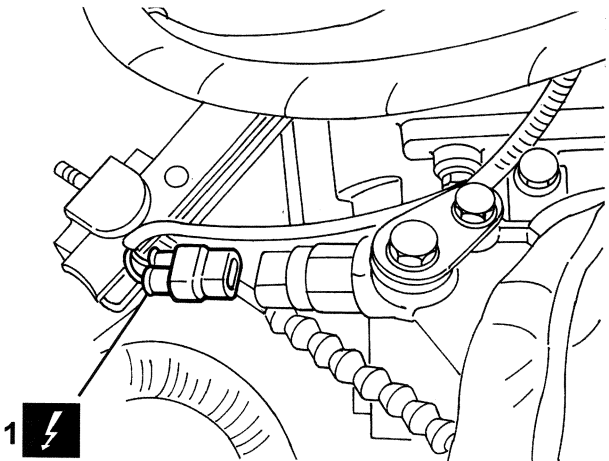
107.00.00.PRV.10.059...04...B.12.C.13.B.B14.TIF

1108 Euro 3

1. Disconnect the electrical connection from the reversing lights switch.



Description	Connector
1 Reversing lights switch	I20

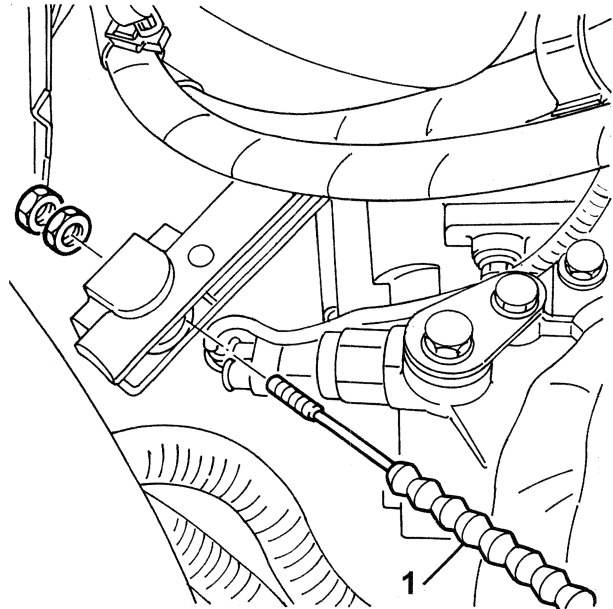


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1108 Euro 3

1. Disconnect the clutch release cable from the clutch release control linkage.



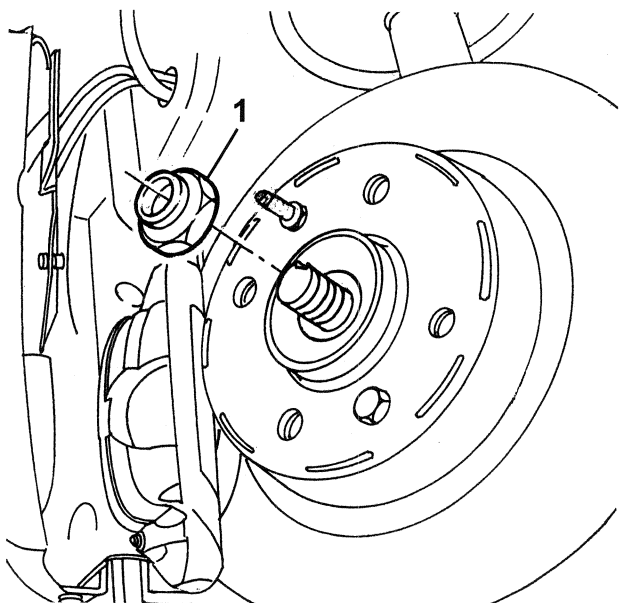
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1108 Euro 3

- See Op. 1092B60 Alternator drive belt - r + r
- See Op. 5040A20 Air conditioner compressor - r+r - includes fluid level check and top up if necessary
- See Op. 1076B12 Exhaust pipe assembly r+r emission control versions
- Relieve the staking from the nuts securing the constant velocity joints to the front hub vertical links.

1. Undo the nuts securing the constant velocity joints to the front hub steering knuckles.

**Note:** Keep the brake pedal pressed whilst loosening the nuts.

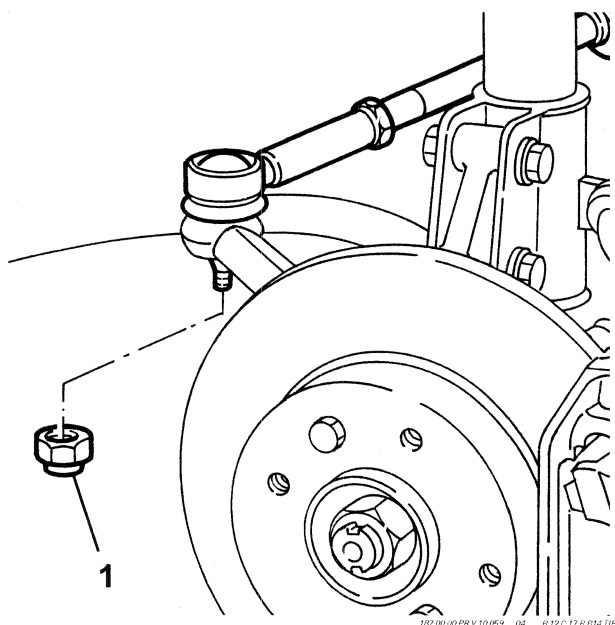


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1108 Euro 3

1. Undo the steering track rod balljoint nuts.

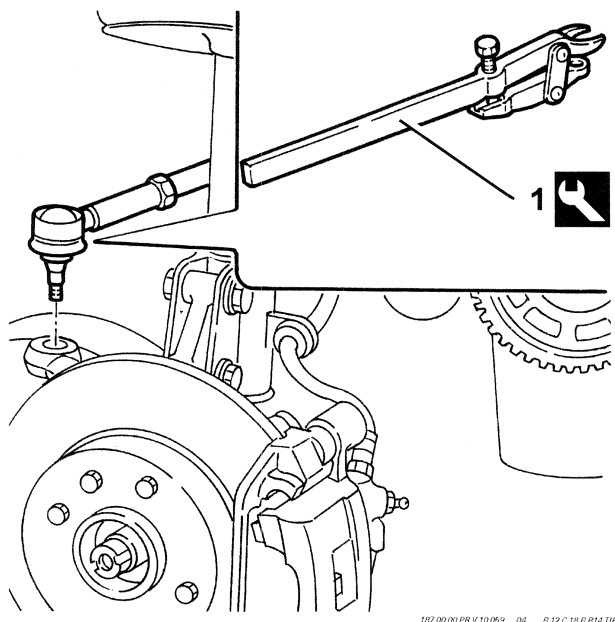


1108 Euro 3

1. Separate the track rod balljoints from the front hub steering knuckles using the tool.

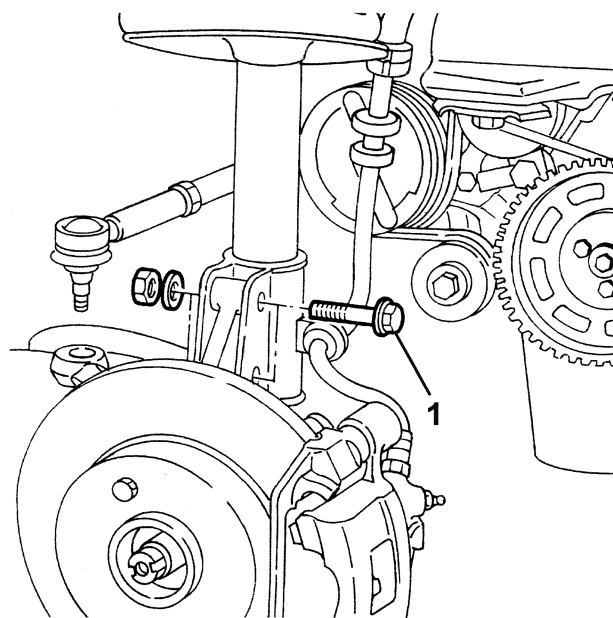


Description	Code
1 Head removal	1.847.035.000



1108 Euro 3

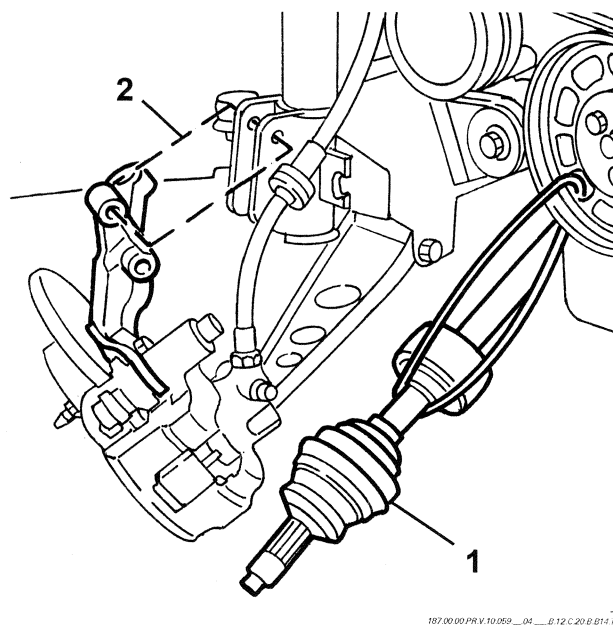
1. Undo the bolts securing the steering knuckles to the shock absorbers.



1108 Euro 3

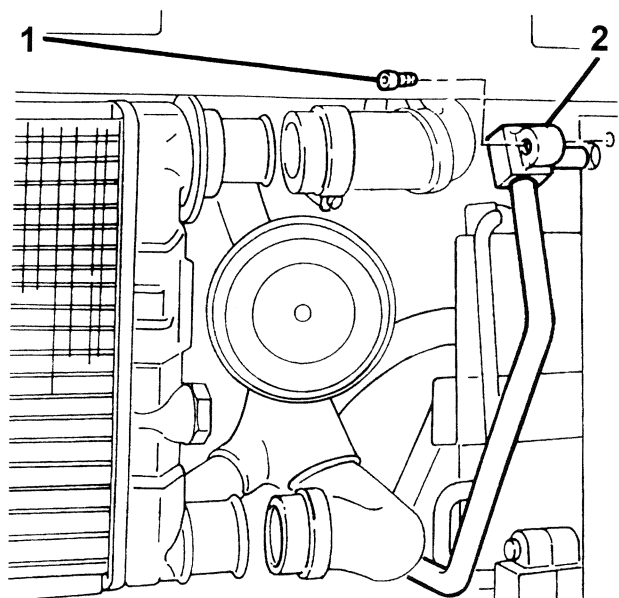
1. Separate the constant velocity joints from the steering knuckles.
2. Tie the steering knuckles to the shock absorbers.

**Note:** Tie the drive shafts to stop them coming out of the differential inner case.



1108 Euro 3

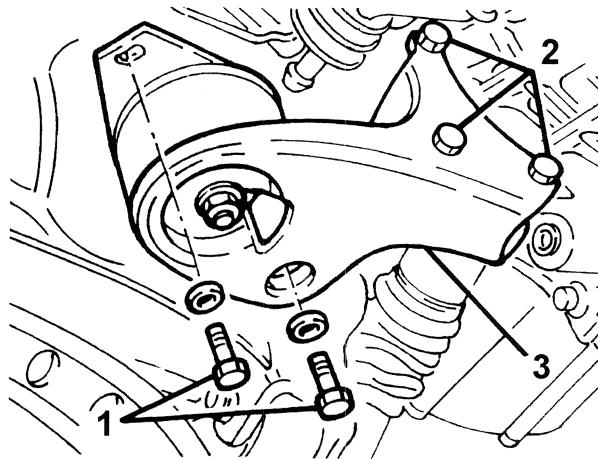
1. Undo the bolt securing the condenser upper pipe.
2. Separate the pipe from the condenser.



107.00.00 PR V10.059...04...B.12.C.21.B.B14.11F

1108 Euro 3

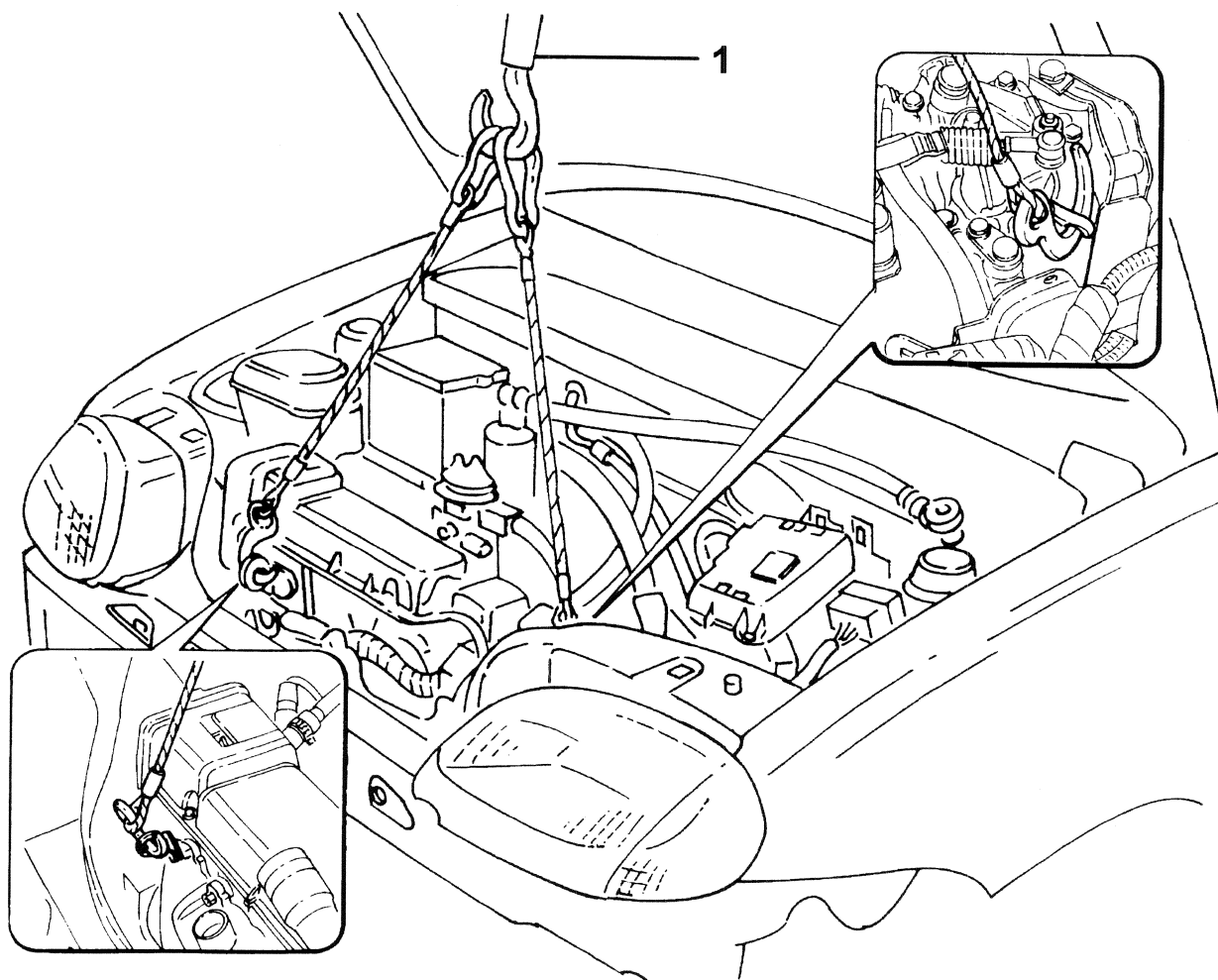
1. Undo the bolts securing the power unit intermediate mounting.



107.00.00 PR V10.059...04...B.12.C.22.A.B14.11F

1108 Euro 3

1. Secure and support the engine for hoisting using a hydraulic hoist.



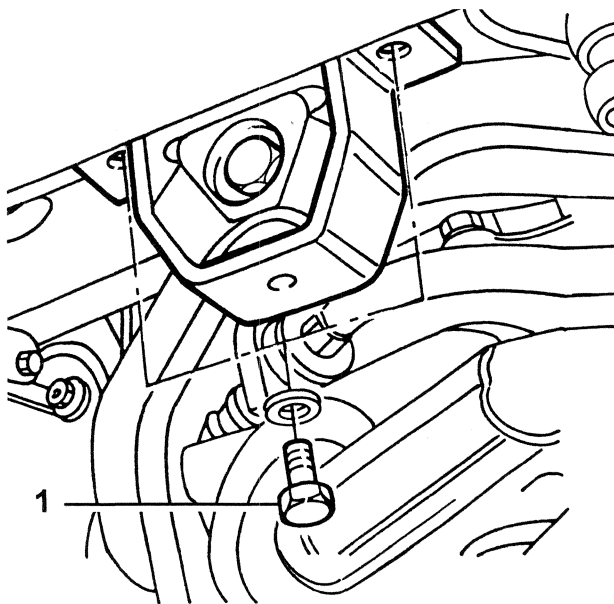
107.00.00 PR V10.059...04...B.12.C.23.H.B14.11F





1108 Euro 3

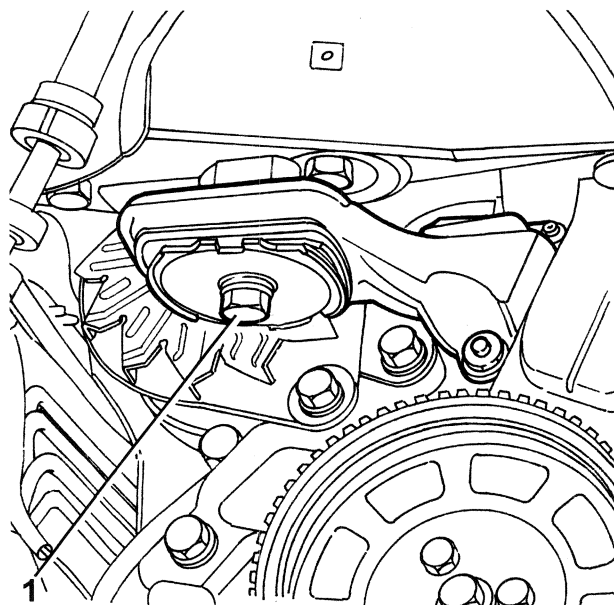
1. Undo the bolts on the power unit mounting, gearbox side.



107.00.007.PW.V.10.05.09...04...B.12.C.24.B.B14.T1F

1108 Euro 3

1. Undo the bolt on the power unit mounting, timing gear side.



107.00.000.PW.V.10.05.09...04...B.12.C.25.B.B14.T1F

1108 Euro 3

- Lower the power unit and rest it on the ground.
- Release the power unit from the hoist.
- Raise the lift fully.
- Secure the power unit again using the hydraulic hoist.
- Move the power unit onto a platform.
- Release the power unit from the hoist.

### Installation

1108 Euro 3

- Raise the lift fully.
- Secure the power unit using a hydraulic hoist.

- Reposition the power unit on the ground under the vehicle.
- Release the power unit from the hoist.
- Partially lower the vehicle.
- Secure the power unit again using the hydraulic hoist.
- Raise the power unit and fit it in its seating in the engine compartment.
- Tighten the bolts on the power unit mounting, timing gear side, to torque.



Mounting	Component	Ø	Value (daNm)
- Screw	POWER UNIT SUPPORT TIMING SIDE	M10	(Body-shell side) 5.1

- Tighten the bolts on the power unit mounting, gearbox side, to torque.



Mounting	Component	Ø	Value (daNm)
- Bolt	POWER UNIT SUPPORT GEARBOX SIDE	M8	(Body-shell side) 3.0

- Release the power unit from the hoist.
- Raise the vehicle.
- Tighten the bolts on the power unit intermediate mounting to torque.



Mounting	Component	Ø	Value (daNm)
- Bolt	POWER UNIT INTERMEDIATE SUPPORT	M8	(Body-shell side) 2.5

- Fit the ends of the gear engagement flexible cables.
- Fit the retaining clips on the gear engagement flexible cable sheaths.
- Connect the pipe to the condenser and tighten the fixing bolt.
- **See Op. 5040A20** Air conditioner compressor - r+r - includes fluid level check and top up if necessary
- Connect the electrical connection for the reversing lights switch.



Description	Connector
- Reversing lights switch	I20

- Connect the battery earth to the gearbox.




Description	Connector
- Battery earth	C1

- Connect the clutch release flexible cable to the clutch release linkage.
- **See Op. 1820A14** Clutch pedal - adjust travel (clutch pedal adjustment)




- Connect the hose to the water pump rigid inlet pipe.
- Connect the lower radiator hose.
- Connect the upper radiator hose.
- Fit the constant velocity joints in the steering knuckles.
- Connect the shock absorbers to the steering knuckles and tighten the nuts to torque.

 Mounting	Component	Ø	Value (daNm)
- Nut	FRONT SHOCK ABSORBER	M12	9.1

**Note:** When the front hub steering knuckle bolts are tightened, and push the steering knuckles upwards to cancel out any play.

- Join the adjustable track rod balljoints to the front hub steering knuckles and tighten the nuts to torque.

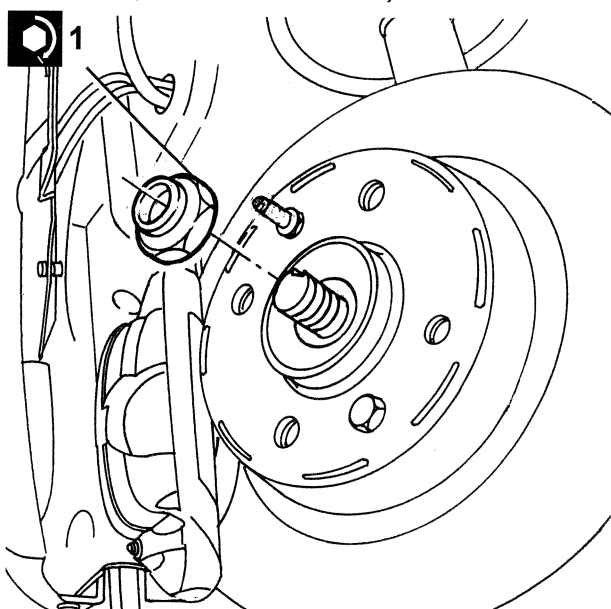
 Mounting	Component	Ø	Value (daNm)
- Nut	ADJUSTABLE TRACK ROD END	M10	3.4

1. Tighten the constant velocity joint nuts to torque.

 Mounting	Component	Ø	Value (daNm)
1 Nut	WHEEL HUB	M22	24.0

**Note:** Keep the brake pedal pressed while the nuts are tightened.

**Note:** The constant velocity joint nuts must be replaced whenever they are dismantled.



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1108 Euro 3

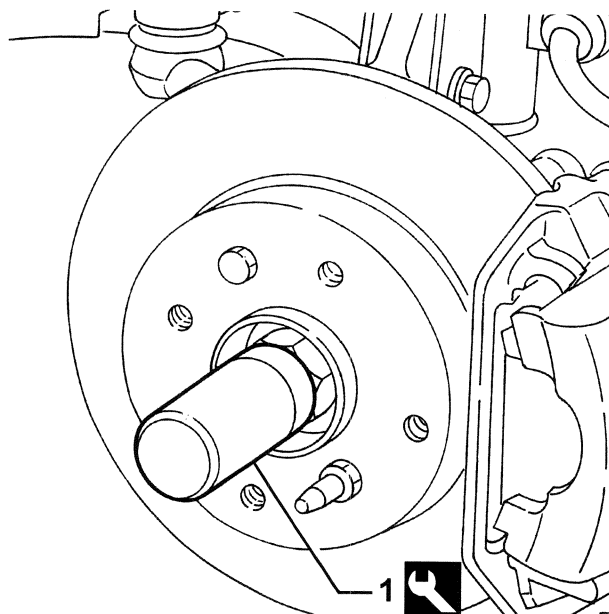
1. Stake the wheel hub nuts using the tool.



### Description

### Code

1	Drift	1.875.063.000
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187.00.00.PRV.10.059...04...B.12.C.27.B.D14.TIF

1108 Euro 3

- See Op. 1076B12 Exhaust pipe assembly r+r emission control versions
- Fit the engine compartment guard.
- Connect the electrical connection for the upstream Lambda sensor.



### Description

### Connector

- |                |     |
|----------------|-----|
| - Lambda probe | K40 |
|----------------|-----|
- Connect the coolant outlet pipe to the inlet manifold.
  - Connect the fuel supply pipe.
  - Connect the brake servo vacuum pipe and secure it using the band.
  - Connect the vapour pipe rapid attachment.
  - Insert the end of the throttle cable in the throttle body.
  - Fit the flexible cable in the reaction bracket.
  - Fit the throttle cable adjustment retaining clip.
  - See Op. 1068A10 Accelerator pedal control - check, adjust if necessary and lubricate
  - Connect the electrical connection for the upstream Lambda sensor.



### Description

### Connector

- |                   |     |
|-------------------|-----|
| - Lambda sensor-2 | K39 |
|-------------------|-----|

1. Connect the electrical connection, engine side, for the fuel injection control unit.



### Description

### Connector

- |                         |     |
|-------------------------|-----|
| - Engine management ECU | M10 |
|-------------------------|-----|



- Connect the electrical connection of the engine-vehicle interface.



Description	Connector
- Front / engine coupling	D4

- Secure the engine wiring to the securing bands.
- Refill the engine cooling system with coolant.



Type	Component	Description	Q.ty.
- Liquido [I]	COOLING SYSTEM ENGINE	PARAFLU' 11	4.0

- Screw on the engine coolant circuit vent cap.
- **See Op. 1048A10** Air cleaner filtering element - replace
- **See Op. 5040A10** Air conditioner cooling circuit - dehydrate and reload
- **See Op. 7210E10** Front bumper
- **See Op. 7055B42** Supplementary wheel arch (one) - r+r
- **See Op. 4450B12** Front or rear wheels (two) - r+r
- Connect the alternator and starter motor wiring terminals to the battery (+) terminal.



Description	Connector
- Battery	A1

- Connect the negative (-) battery terminal.



Description	Connector
- Battery	A1

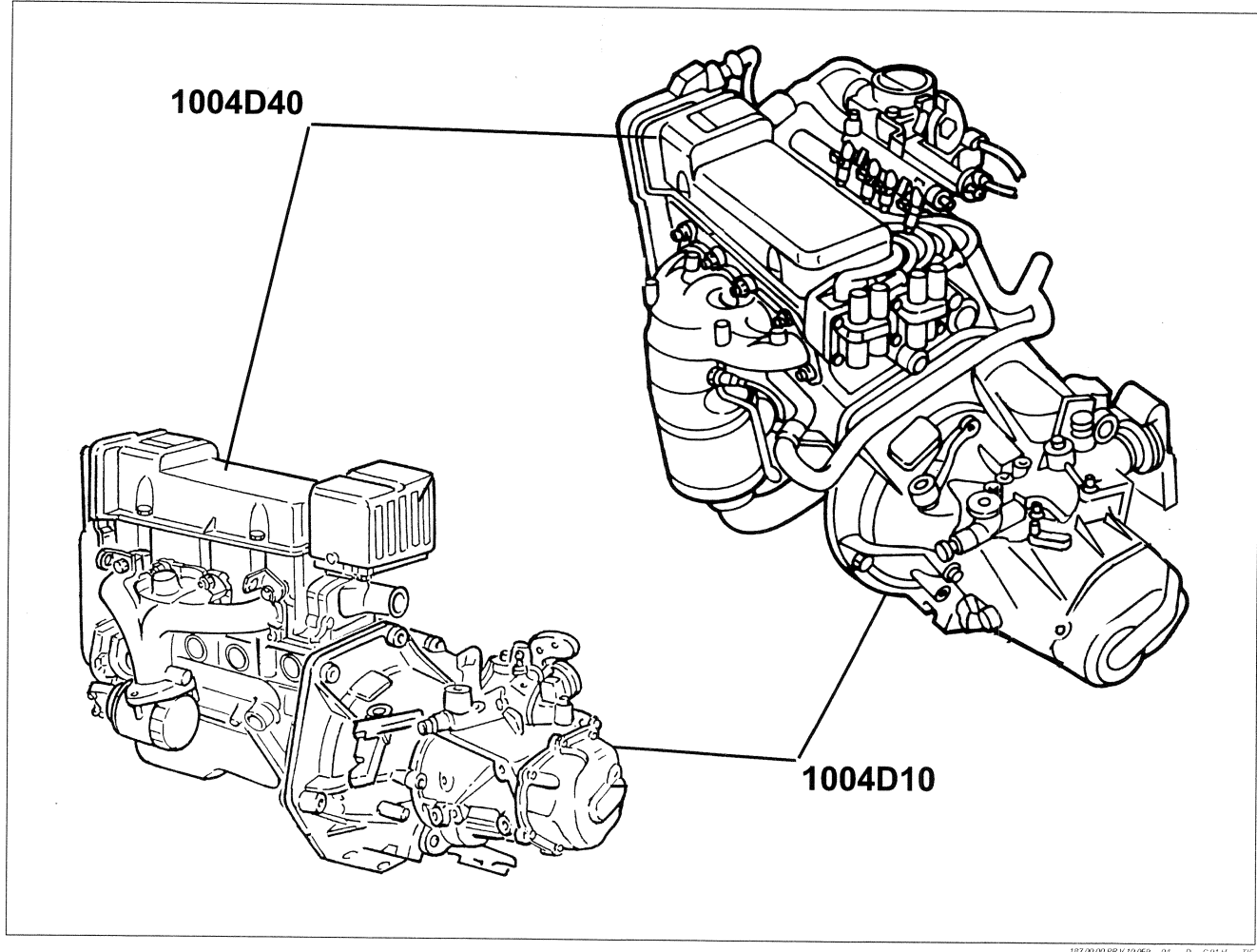
- Close the bonnet lid.
- Remove the car from the ramp.



1108

## 1004D - Remove engine and wash

### VIEW OF ASSEMBLY



187.00.00.PRV.10.059\_04\_D\_C01.H\_1F

### Operations index

Code	Operation	Validity
1004D10	Power unit (manual gearbox), removed, remove and re-build	1108

## OPERATIONS

1108

### 1004D10 - POWER UNIT (MANUAL GEARBOX), REMOVED, REMOVE AND RE- BUILD

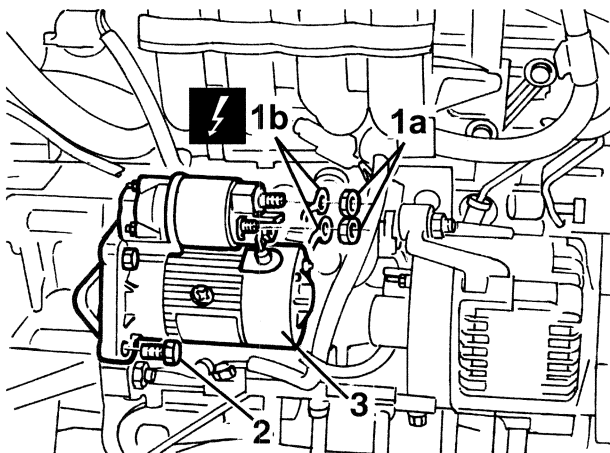
#### Removal

1108 Euro 3

1. With the engine on a stand, unscrew nuts (1a) retaining starter motor electrical connections.



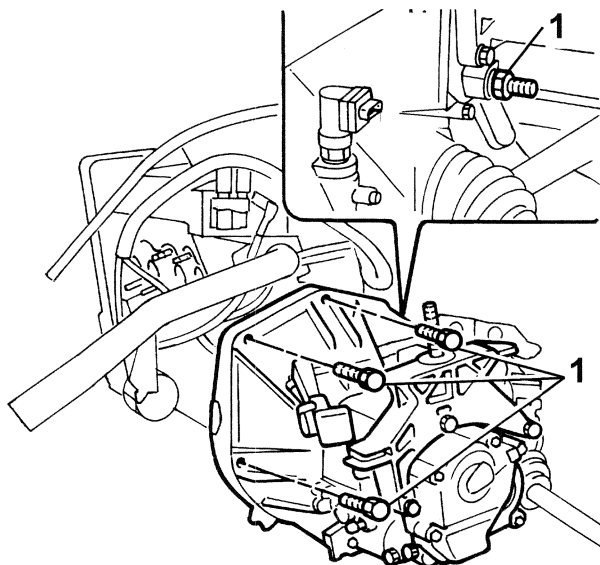
Description	Connector
1b Starter' motor	A20
<ol style="list-style-type: none"> <li>2. Undo the starter motor bolts on the engine and gearbox sides.</li> <li>3. Remove the starter motor.</li> </ol>	



187.00.00 PR V.10.059 \_\_04\_\_ D.10 C.01.AB14.TIF

1108 | Euro 3

1. Undo the bolts securing the gearbox to the engine.





187.00.00 PR V.10.059 \_\_04\_\_ D.10 C.02.B14.TIF


## Installation

1108 | Euro 3

- Tighten the bolts securing the gearbox to the engine to torque.

 Mounting	Component	Ø	Value (daNm)
- Screw	MANUAL GEARBOX	M12 x 1.25	8.5


 Mounting	Component	Ø	Value (daNm)
- Screw	MANUAL GEARBOX	M10 x 1.25	4

 Mounting	Component	Ø	Value (daNm)
- Screw	MANUAL GEARBOX	M12 x 1.25	5.5

- Fit the starter motor and secure with bolts.

 Mounting	Component	Ø	Value (daNm)
- Bolt	STARTER MOTOR	M8	2.5

- Connect the electrical connections to the starter motor and secure with nuts.

 Description	Connector
- Starter' motor	A20





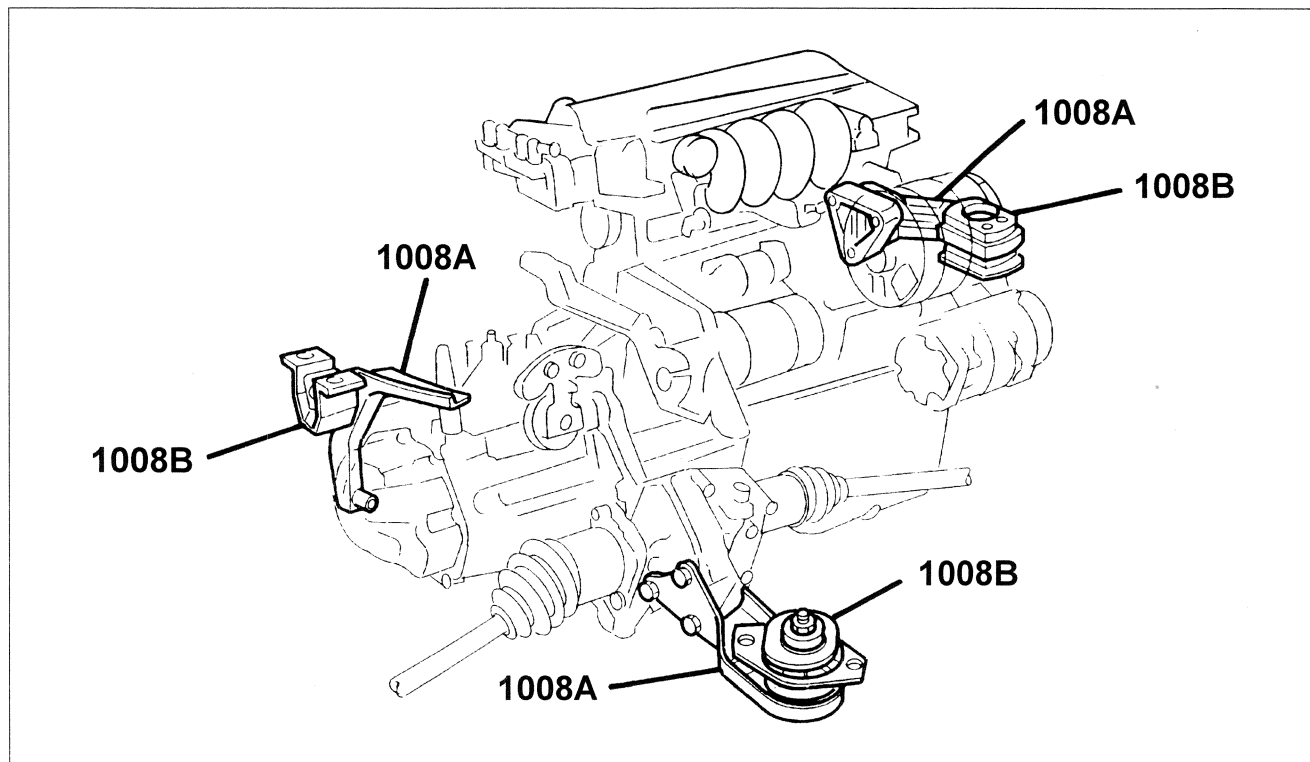
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1008A	Power unit fastenings	1108   Euro 3

SUB-GROUP GRAPHIC INDEX

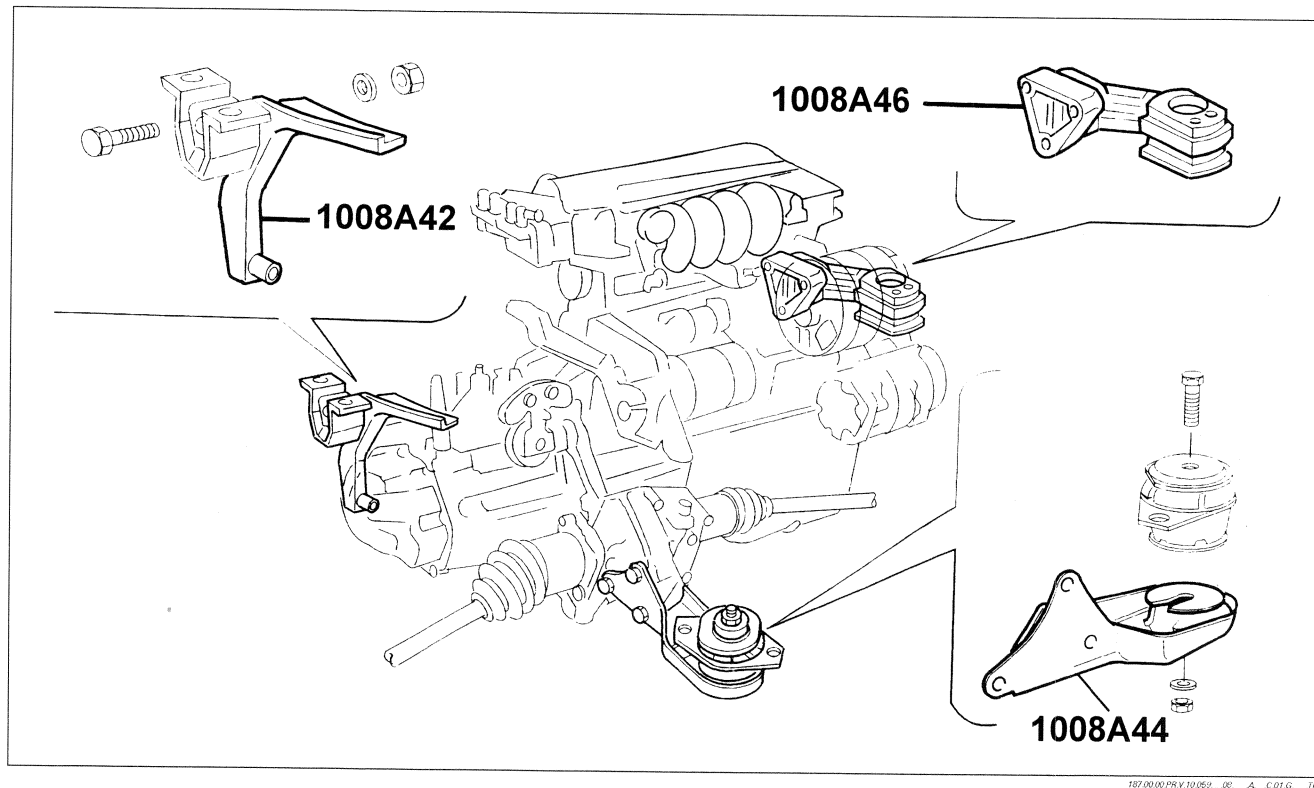


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1108

## 1008A - Power unit fastenings VIEW OF ASSEMBLY



187 00 00 PR V 10 069 \_ 08 \_ A \_ C 01 G \_ 11F

### Operations index

Code	Operation	Validity
1008A44	Rear rigid mount - r r	1108

## OPERATIONS

1108

### 1008A44 - REAR RIGID MOUNT - R R

#### Removal

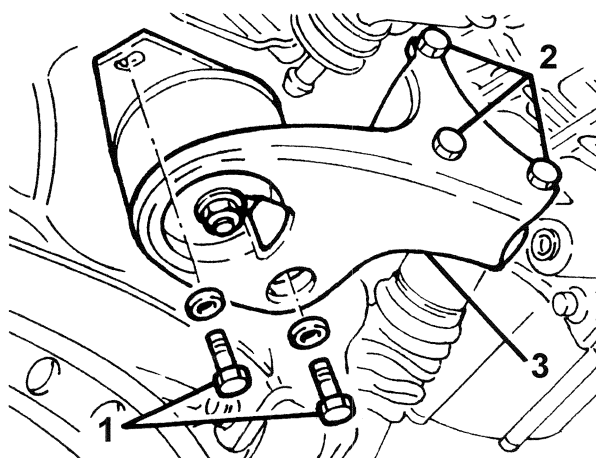
1108 Euro 3

- Position the vehicle on the ramp.
- Disconnect the battery negative (-) terminal.



Description	Connector
- Battery	A1

- Position a hydraulic jack under the gearbox.
  1. Undo the retaining bolts of the rear flexible mounting on the bodyshell.
  2. Undo the rear rigid mount retaining bolts.
  3. Remove the power unit rear mount.



187 00 00 PR V 10 069 \_ 08 \_ A \_ C 01 AB14TF

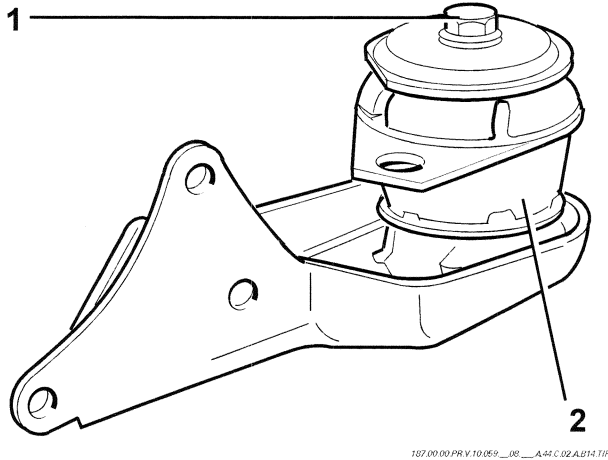
1108 Euro 3

1. Loosen the bolt securing the flexible block to the rear rigid mount.
2. Remove the flexible block from the rear rigid mount.





**Note:** Before loosening the bolt securing the rear flexible block, make a reference mark ready for refitting.



### Installation

1108 Euro 3

- Connect the rear flexible block to the rigid mount and tighten the nut to torque.



Mounting	Component	Ø	Value (daNm)
- Nut	REAR FLEX- IBLE MOUNTING	M10	(Engine side) 5.1

- Refit the power unit rear mount to the differential.
- Tighten to torque the nuts on the bolts securing the rear rigid mount to the differential.



Mounting	Component	Ø	Value (daNm)
- Nut	POWER UNIT RIGID REAR MOUNT	M12	(Differ- ential side) 9.1

- Tighten to torque the bolts securing the rear flexible block to the floor.



Mounting	Component	Ø	Value (daNm)
- Bolt	REAR FLEX- IBLE MOUNTING	M8	(Body- shell side) 2.5

- Remove the hydraulic jack.
- Connect the negative (-) battery terminal.



Description	Connector
- Battery	A1

- Remove the car from the ramp.





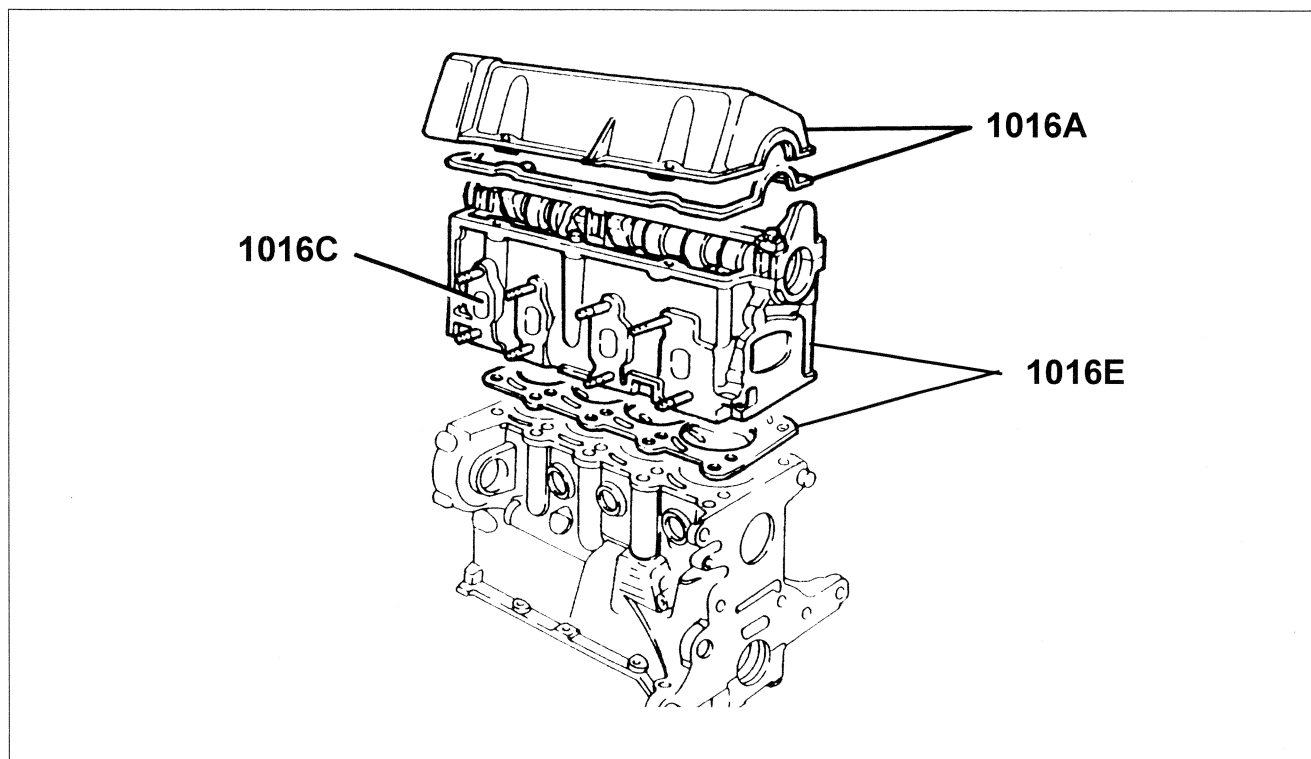
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1016A	Cam covers	1108 Euro 3
1016C	Cylinder head - remove + re-fit	1108 Euro 3

SUB-GROUP GRAPHIC INDEX



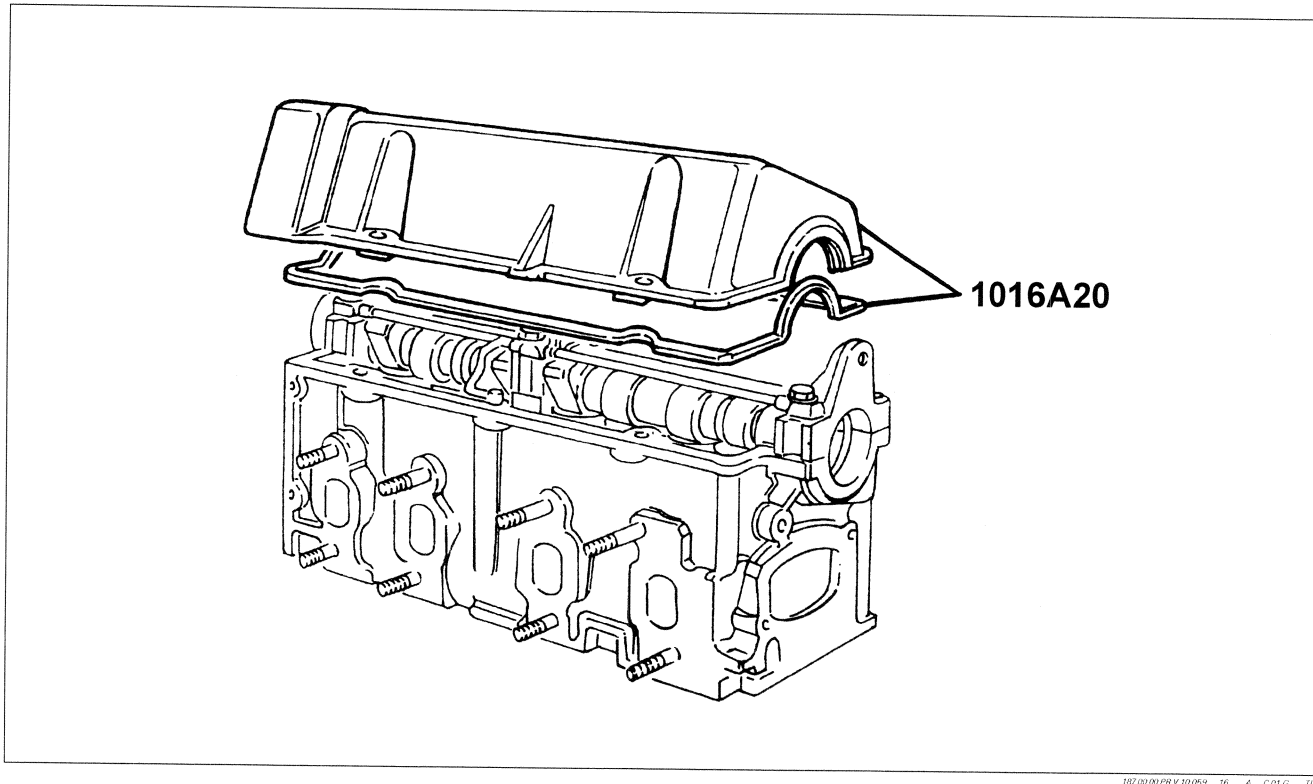
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1108

## 1016A - Cam covers

### VIEW OF ASSEMBLY



107/00.00/PR.V.10.05/9...16...A...C.01 G...TIF

### Operations index

Code	Operation	Validity
1016A20	Single cam cover - r + r and replace gasket	1108

## OPERATIONS

1108

### 1016A20 - SINGLE CAM COVER - R + R AND REPLACE GASKET

#### Removal

1108 Euro 3

- Open the bonnet
- Disconnect the battery negative terminal.

Description	Connector
- Battery	A1

- See Op. 1080D24 Engine oil vapour intake pipe - r + r
- 1. Disconnect the electrical connection for the cam angle sensor.



Description	Connector
1 Timing sensor	K47
2. Disconnect the electrical connector for the rpm sensor.	



Description	Connector
2 RPM sensor	K46

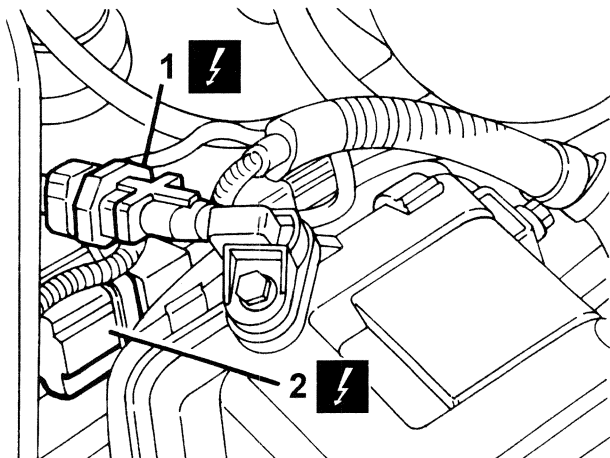


# REPAIR PROCEDURES

## Cylinder head/s

1108

# 1016



187.00.00.PRV.10.059...16...A20.C.01.AB14.1TF

1108 Euro 3

1. Disconnect the electrical connector for the butterfly valve position sensor.



Description	Connector
1 Throttle position sensor (i.e.)	K56

2. Disconnect the electrical connector for engine idle speed actuator.



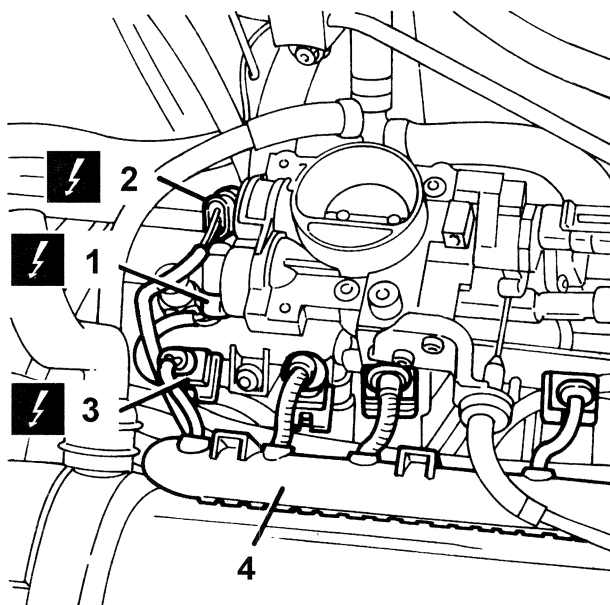
Description	Connector
2 Idle actuator	N74

3. Disconnect the electrical connectors for the injectors.



Description	Connector
3 Injector (SPI)	N70

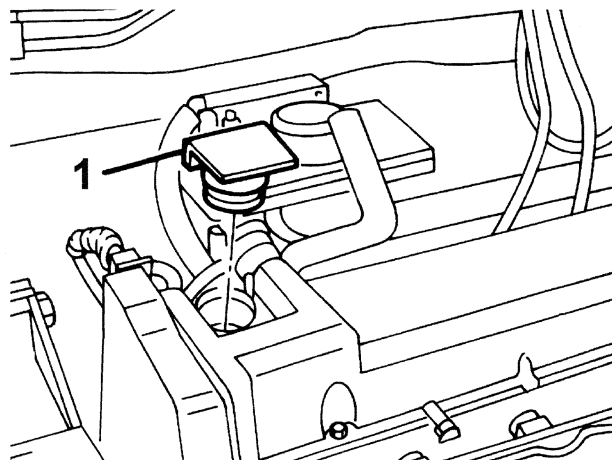
4. Withdraw the wiring sheath and tilt it backwards.



187.00.00.PRV.10.059...16...A20.C.02.B.014.1TF

1108 Euro 3

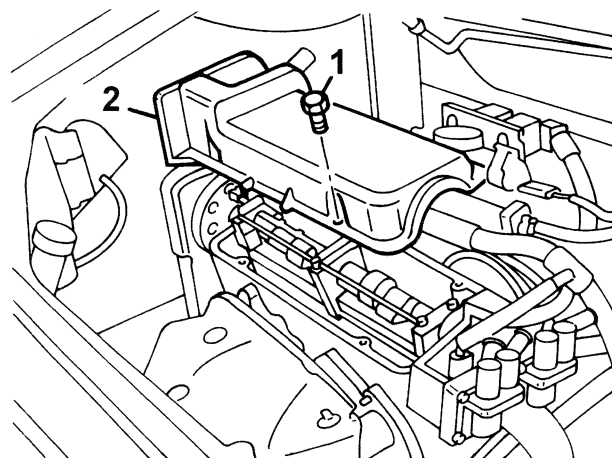
1. Remove the engine oil filler plug.



187.00.00.PRV.10.059...16...A20.C.03.AB14.1TF

1108 Euro 3

1. Undo the rocker cover bolts.
  2. Remove the rocker cover.
- Remove the rocker cover gasket.



187.00.00.PRV.10.059...16...A20.C.04.AB14.1TF

## Installation

1108 Euro 3

- Fit the gasket on the cylinder head.
- Fit the rocker cover.
- Tighten the bolts to torque.



Mounting	Component	Ø	Value (daNm)
- Screw	CAM COVER	M6	(Engine side) 0.8

- Fit the wiring sheath in its seating.
- Connect the electrical connectors for the injectors.



Description	Connector
- Injector (SPI)	N70

- Connect the electrical connector for the engine idle speed actuator.

**Description****Connector**

- | Description     | Connector |
|-----------------|-----------|
| - Idle actuator | N74       |
- Connect the electrical connector for the butterfly valve position sensor.

**Description****Connector**

- | Description                       | Connector |
|-----------------------------------|-----------|
| - Throttle position sensor (i.e.) | K56       |
- Connect the electrical connector for the engine idle speed actuator.

**Description****Connector**

- | Description     | Connector |
|-----------------|-----------|
| - Idle actuator | N74       |
- Connect the electrical connector for the butterfly valve position sensor.

**Description****Connector**

- | Description                       | Connector |
|-----------------------------------|-----------|
| - Throttle position sensor (i.e.) | K56       |
- Connect the electrical connector for the rpm sensor.

**Description****Connector**

- | Description  | Connector |
|--------------|-----------|
| - RPM sensor | K46       |
- Connect the electrical connector for the cam angle sensor.

**Description****Connector**

- | Description     | Connector |
|-----------------|-----------|
| - Timing sensor | K47       |
- **See Op. 1080D24** Engine oil vapour intake pipe  
- r + r
  - Connect the battery negative terminal.

**Description****Connector**

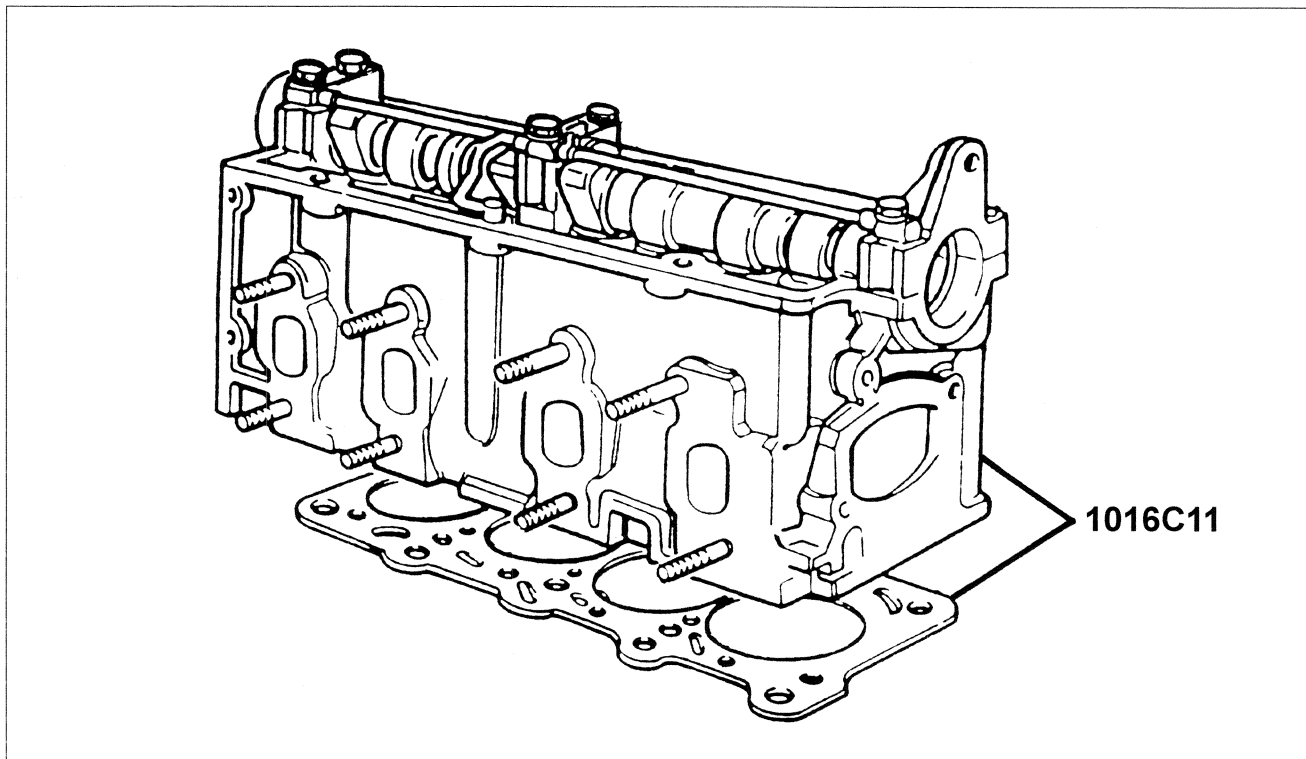
- | Description | Connector |
|-------------|-----------|
| - Battery   | A1        |
- Close the bonnet lid.



1108

## 1016C - Cylinder head - remove + re-fit

### VIEW OF ASSEMBLY



187/00/00 PN V.10/05/\_\_\_16\_\_\_C\_\_\_C 01 G \_\_\_TF

### Operations index

Code	Operation	Validity
1016C11	Single cylinder head-r r gasket for versions with air conditioner	1108

## OPERATIONS

- Undo the engine coolant reservoir cap.
- 1. Undo the coolant system vent cap.

1108

### 1016C11 - SINGLE CYLINDER HEAD-R R GASKET FOR VERSIONS WITH AIR CONDITIONER

#### Removal

1108 Euro 3

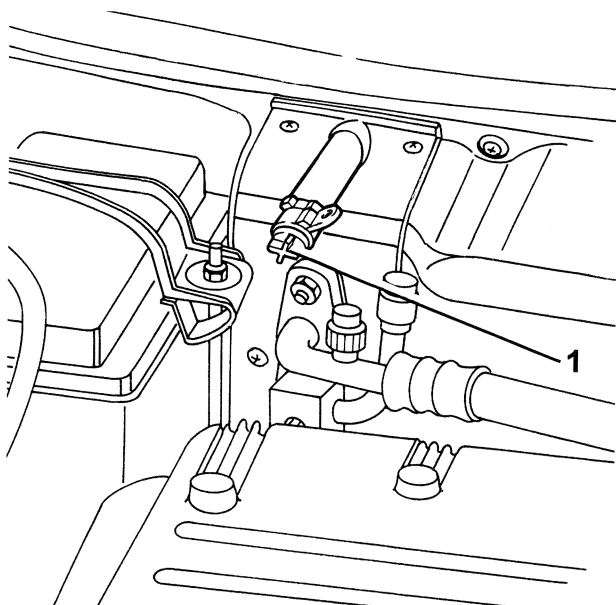
- Place the car on a ramp.
- Open the bonnet
- Disconnect the battery negative terminal.



Description	Connector
- Battery	A1
- See Op. 1080D24 Engine oil vapour intake pipe - r + r	



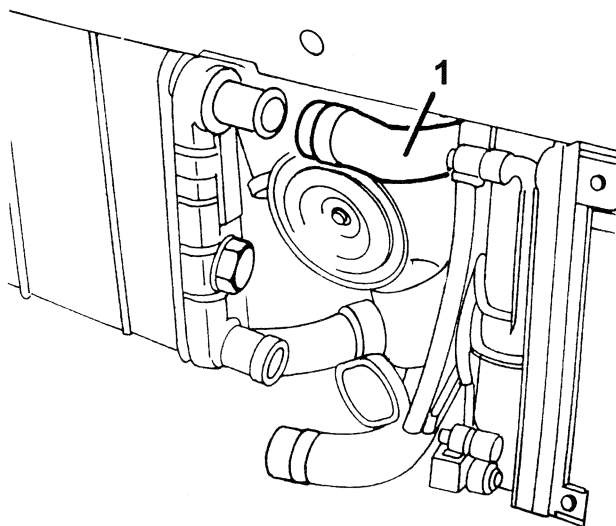
# 1016



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1108 Euro 3

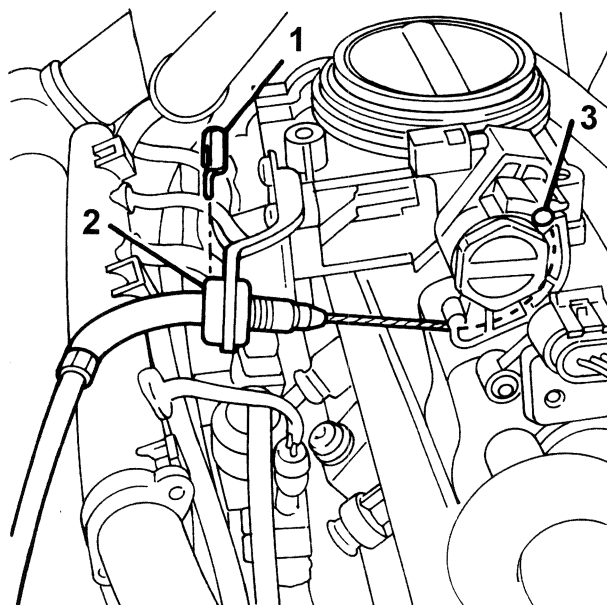
1. Disconnect the lower coolant outlet hose from the radiator and drain the coolant into a suitable container, then disconnect the hose.



187.00.00 PR V.10.059...16...C.11.C.02.B.B14.TIF

1108 Euro 3

1. Withdraw the throttle cable adjustment retaining clip.
2. Remove the flexible cable from the reaction bracket.
3. Withdraw the end of the cable from the throttle body.



187.00.00 PR V.10.059...16...C.11.C.03.B.B14.TIF

1108 Euro 3

1. Remove the protective cap (1a) for the fuel manifold (1b) and use the tool (1c) for draining the fuel pressure.



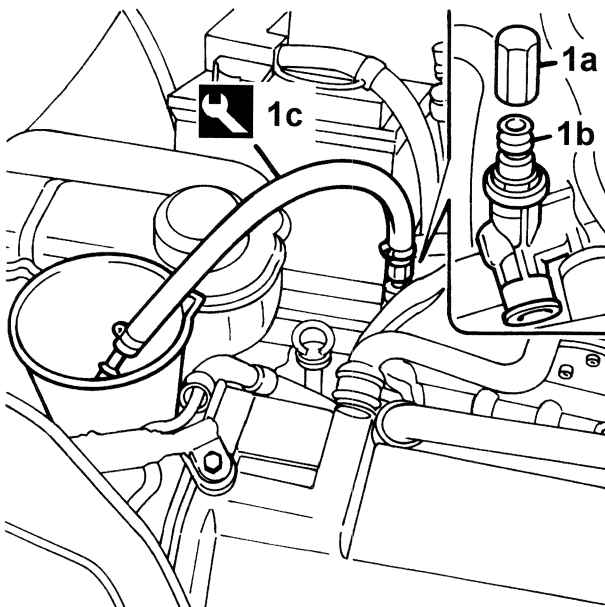
Description

Code

1c Rapid clutch fitting

1.870.684.000

- Collect the fuel in a suitable container.



187.00.00 PR V.10.059...16...C.11.C.04.B.B14.TIF

1108 Euro 3

1. Disconnect the rapid attachment for the fuel vapour pipe.
2. Disconnect the brake servo vacuum pipe.
3. Disconnect the electrical connector for the integrated air temperature-pressure sensor.





# REPAIR PROCEDURES

## Cylinder head/s

1108

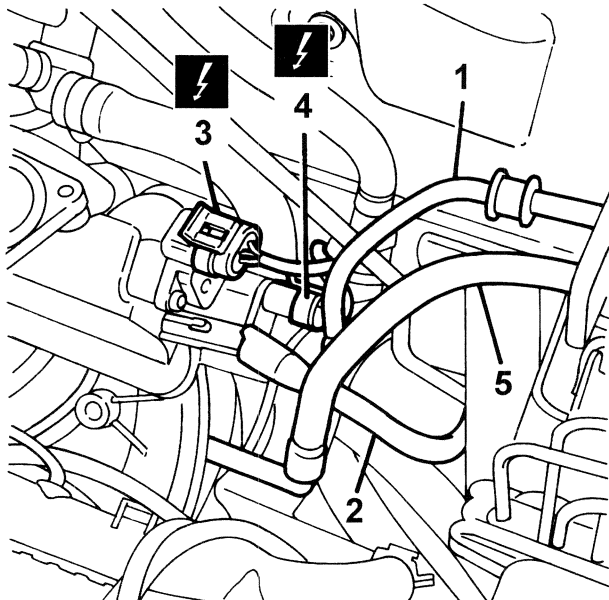
# 1016



Description	Connector
3 Integrated air temperature sensor	K43
4. Disconnect the electrical connection from the fuel vapour inlet enablement solenoid valve.	



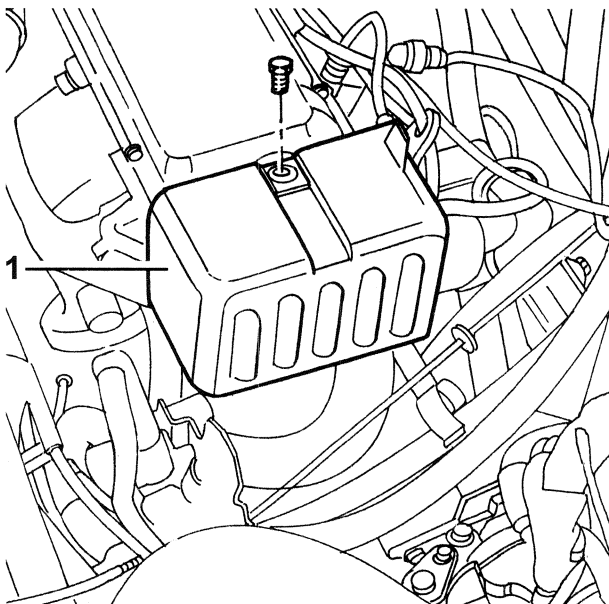
Description	Connector
4 Fuel vapour recovery solenoid	L10
5. Disconnect the fuel supply pipe.	



187.00.00 PR V 10.059 \_16\_ C 11 C 05 B B14.1/F

1108 Euro 3

1. Undo the screw securing the coil protection cover and remove the cover.



187.00.00 PR V 10.059 \_16\_ C 11 C 06 B B14.1/F

1108 Euro 3

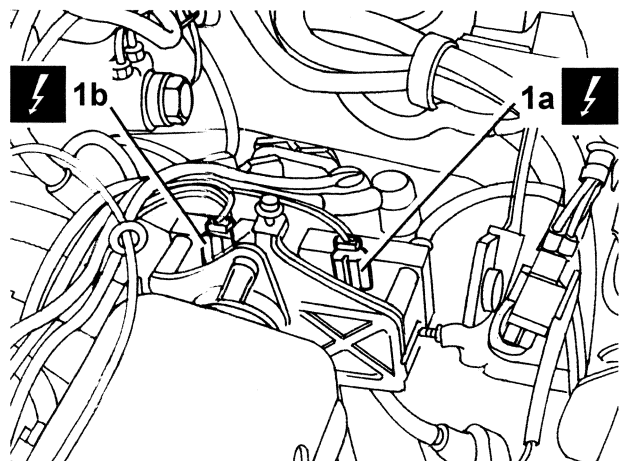
1. Disconnect the electrical connectors from the ignition coils (1a) cyl. 1-4 and (1b) cyl. 2-3.



Description	Connector
1a Ignition coil	A30



Description	Connector
1b Ignition coil	A30



187.00.00 PR V 10.059 \_16\_ C 11 C 07 A B14.1/F

1108 Euro 3

- Undo the nut on the engine earth lead.



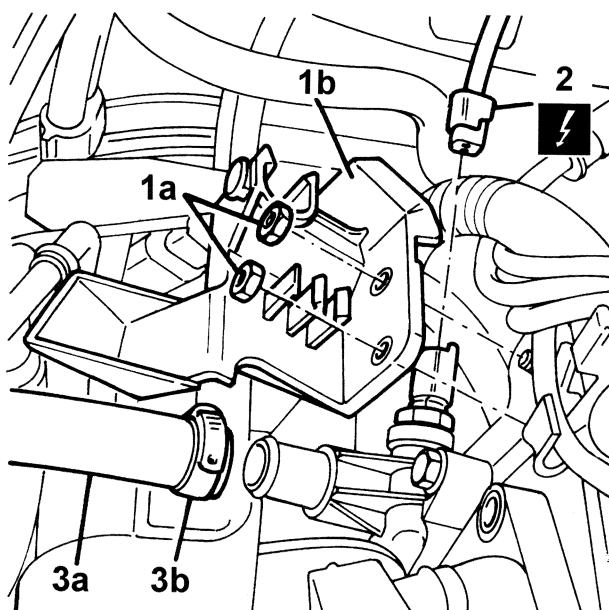
Description	Connector
- Earth on engine	C40

1. Undo the nuts (1a) and remove the wiring mounting bracket (1b).
2. Disconnect the electrical connection from the engine coolant temperature sensor.



Description	Connector
2 Data not yet available	K36

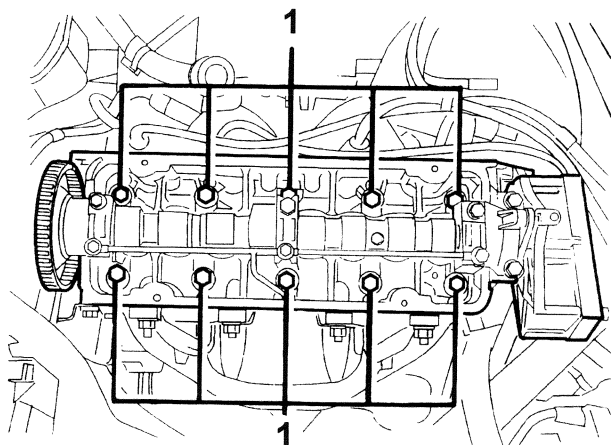
3. Loosen the band (3a) and disconnect the hose (3b).



107.00.00.PRV.10.059\_\_16\_\_C.11.C.05.B.014.TIF

1108 Euro 3

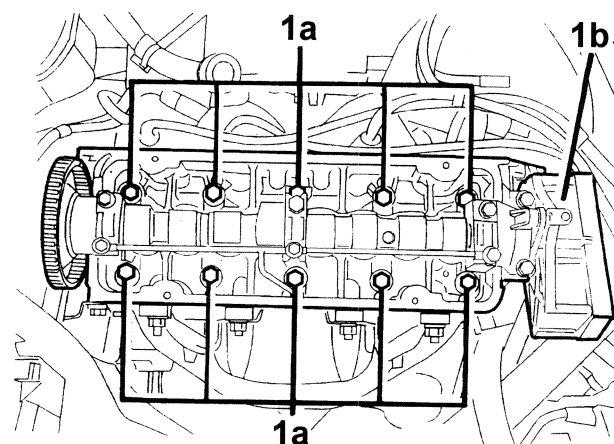
- Remove the oil dipstick guide tube.
  - Remove the coolant hose from the thermostat.
  - **See Op. 1016A20** Single cam cover - r + r and replace gasket
  - **See Op. 1032D12** Timing system protective cover(s) - r + r
  - **See Op. 1032B14** Toothed timing belt - r + r for timing adjustment or replacement versions with air conditioner
1. Undo all the cylinder head bolts without removing them.



107.00.00.PRV.10.059\_\_16\_\_C.11.C.05.AB14.TIF

1108 Euro 3

- **See Op. 1072C16** Exhaust manifold with catalytic converter - r r
1. Remove the fixing bolts (1a) and remove the cylinder head (1b).



107.00.00.PRV.10.059\_\_16\_\_C.11.C.10.AB14.TIF

## Installation

1108 Euro 3

- Fit a new cylinder head gasket on the cylinder block.

**Note:** The new gasket must be of the same thickness as the old one.

**Note:** The cylinder head gasket is of the Astadur type. On account of the special material from which these gaskets are made they undergo a polymerization process during the operation of the engine so that they become considerably harder during usage.

**Note:** In order for the polymerization process to take place it is necessary to:

- keep the gasket in its sealed nylon container until fitting
- not to take out of its container until ready to fit
- not lubricate or get oil on the gasket
- Position the cylinder head on the crankcase.
- Lubricate the bolts and washers and leave them to drain for at least 30 minutes.
- Insert the bolts and finger tighten them.
- **See Op. 1072C16** Exhaust manifold with catalytic converter - r r

1. Tighten the cylinder head bolts to torque in accordance with the sequence shown in the figure.

	Mounting	Component	Ø	Value (daNm)
1	Screw	CYLINDER HEAD	M9	2.0

- Further tighten the cylinder head bolts to torque in accordance with the sequence shown in the figure.

	Mounting	Component	Ø	Value (daNm)
1	Screw	EXHAUST MANIFOLD	M9	3.0

2. Further tighten the cylinder head bolts in two stages to a total angular rotation of 180 (90 + 90) using the tool.



# REPAIR PROCEDURES

## Cylinder head/s

1108

# 1016



### Measure

### Value

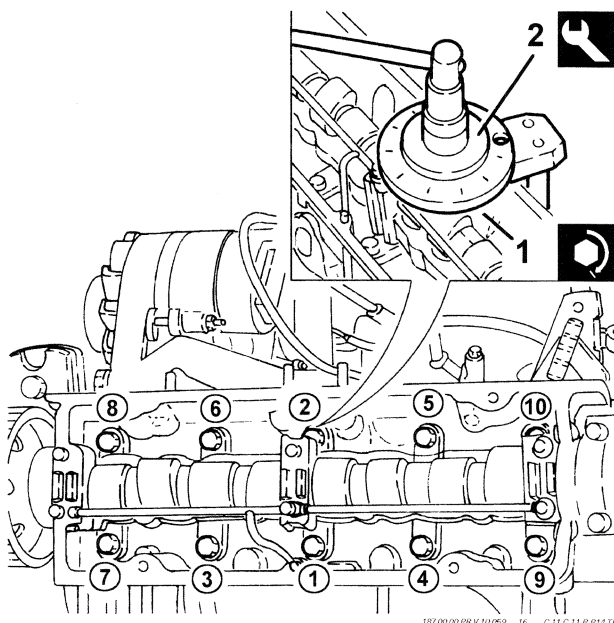
-	CO2 (%) (%)	>= 13
	CO2 (carbon dioxide) concentration with engine idling (-)	-



### Description

### Code

2	Goniometer	1.860.942.000
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187 00 00 PRL V 50 059 \_ 16 \_ C 11 C 11 B B14 1 F

1108 | Euro 3

- **See Op. 1032B14** Toothed timing belt - r + r for timing adjustment or replacement versions with air conditioner
- **See Op. 1032D12** Timing system protective cover(s) - r + r
- **See Op. 1016A20** Single cam cover - r + r and replace gasket
- Fit the coolant hose on the thermostat and secure it with its band.
- Fit the oil dipstick guide tube.
- Fit the coolant outlet hose to the inlet manifold and secure it with its band.
- Connect the electrical connection to the engine coolant temperature sensor.



### Description

### Connector

-	Data not yet available	K36
-	Fit the wiring support bracket and tighten the fixing nuts.	
-	Tighten the engine earth lead nut.	



### Description

### Connector

-	Earth on engine	C40
---	-----------------	-----

- Connect the electrical connectors on the ignition coils (1a) cyl. 1-4 and (1b) cyl. 2-3.



### Description

### Connector

1a	Ignition coil	A30
----	---------------	-----



### Description

### Connector

1b	Ignition coil	A30
----	---------------	-----

- Fit the coil protection cover and tighten the fixing bolt.
- Connect the fuel delivery pipe.
- Connect the fuel vapour flow enablement solenoid electrical connection.



### Description

### Connector

-	Fuel vapour recovery solenoid	L10
---	-------------------------------	-----

- Connect the electrical connector for the integrated air temperature-pressure sensor.



### Description

### Connector

-	Integrated air temperature sensor	K43
---	-----------------------------------	-----

- Connect the brake servo vacuum pipe and secure it using the band.
- Connect the evaporation control pipe rapid attachment.
- Insert the end of the throttle cable in the throttle body.
- Insert the flexible cable in the reaction bracket.
- Fit the throttle cable adjustment retaining clip.
- **See Op. 1068A10** Accelerator pedal control - check, adjust if necessary and lubricate
- Supply the engine cooling system with the recommended fluid.



### Type

### Component

### Description

### Q.ty.

-	Liquido [I]	COOLING SYSTEM ENGINE	PARAFU' 11	4.0
---	-------------	-----------------------	------------	-----

- Tighten the cooling system vent cap.
- **See Op. 1080D24** Engine oil vapour intake pipe - r + r
- Connect the battery negative terminal.



### Description

### Connector

-	Battery	A1
---	---------	----

- Close the bonnet lid.
- Remove the vehicle from the ramp.





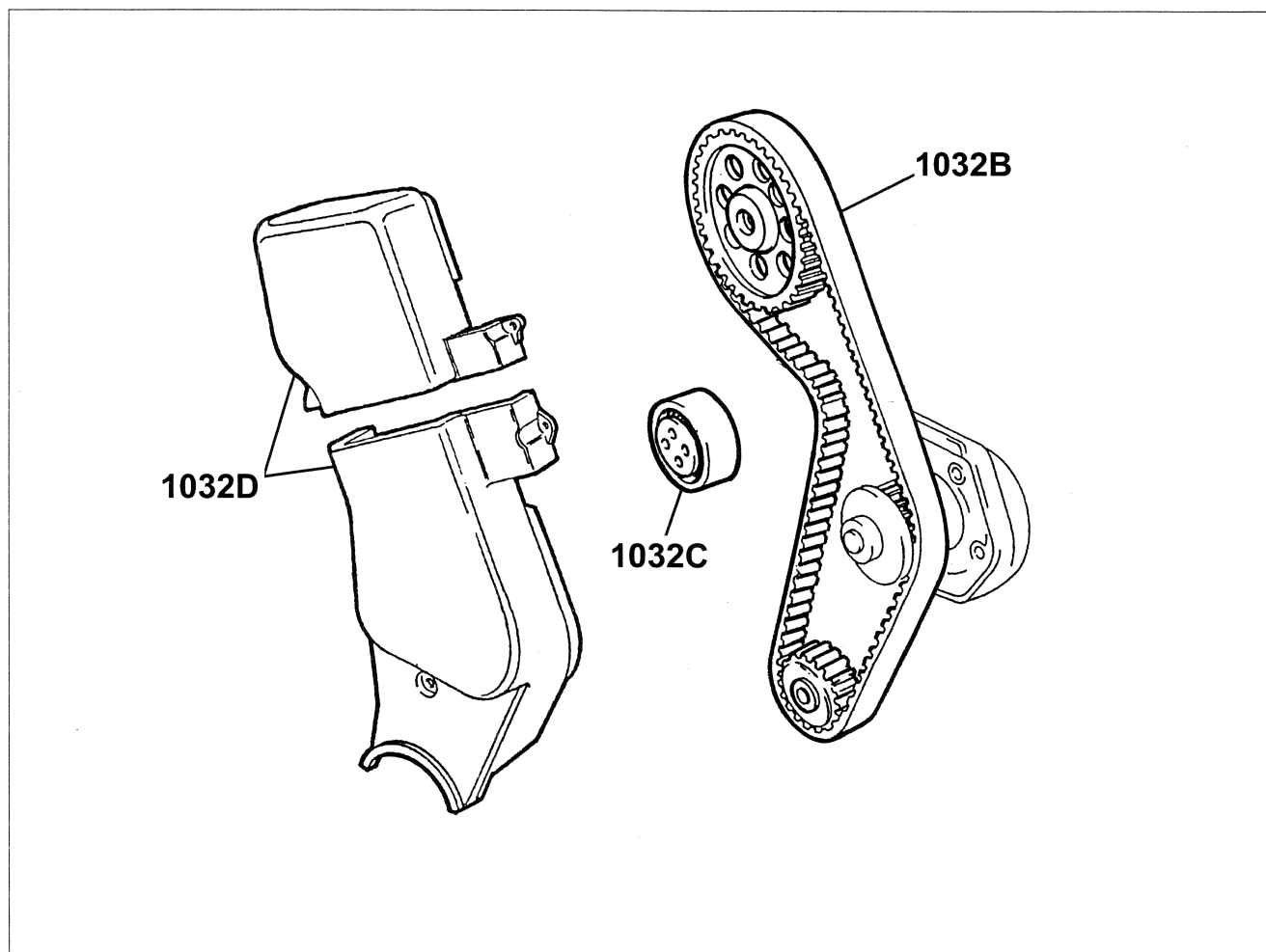
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1032B	Belt timing system	1108 Euro 3
1032D	Timing system protections	1108 Euro 3

SUB-GROUP GRAPHIC INDEX



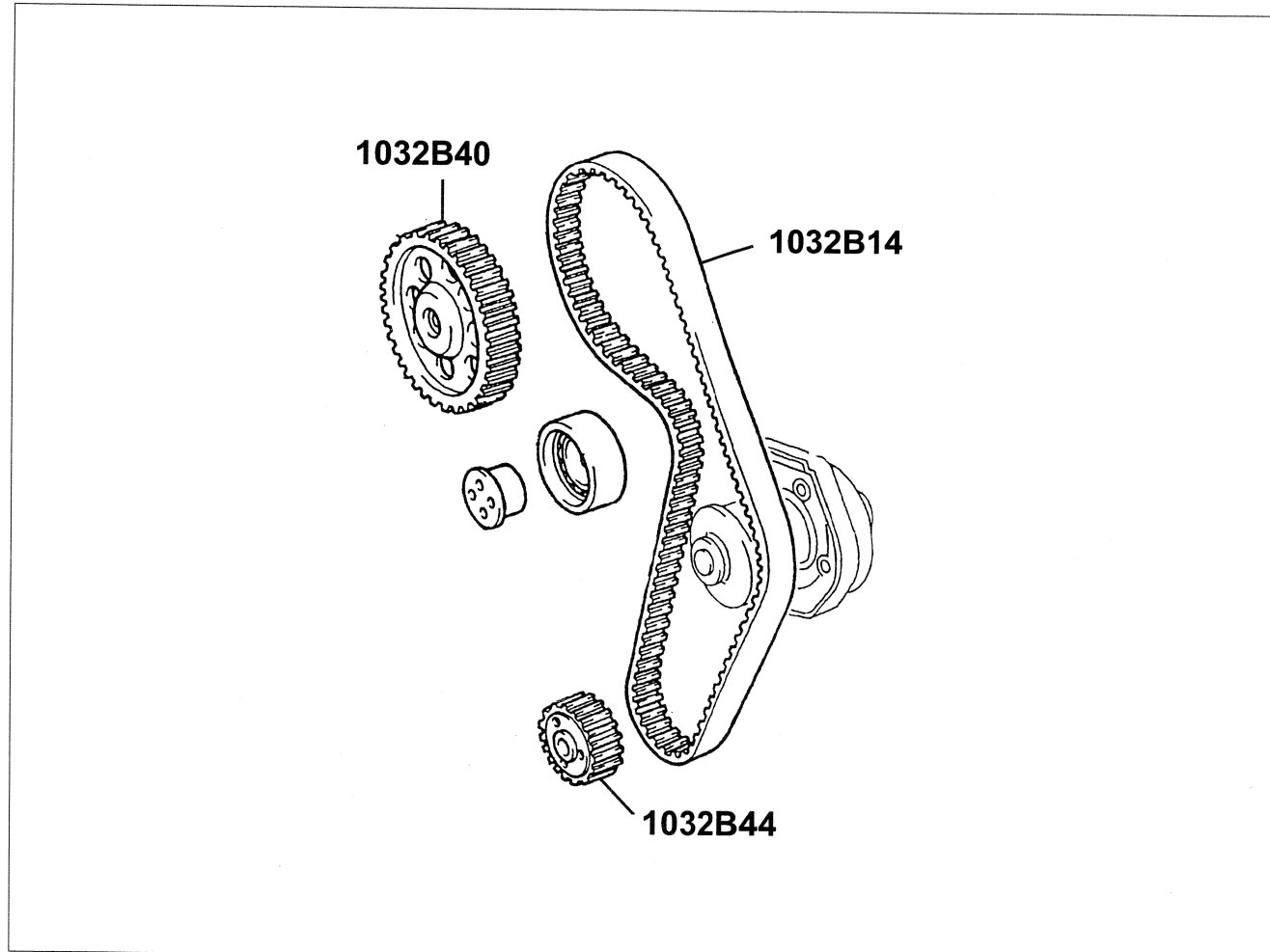
187.00.00 PR.V. 10.059...32...C 01 H...TIF



1108

## 1032B - Belt timing system

### VIEW OF ASSEMBLY



187.00.00-PR.V.10.059 \_\_S2\_\_B\_\_C.01.H\_\_TIF

### Operations index

Code	Operation	Validity
1032B14	Toothed timing belt - r + r for timing adjustment or replacement versions with air conditioner	1108

## OPERATIONS

1108

### 1032B14 - TOOTHED TIMING BELT - R + R FOR TIMING ADJUSTMENT OR REPLACEMENT VERSIONS WITH AIR CONDITIONER

#### Removal

1108 Euro 3

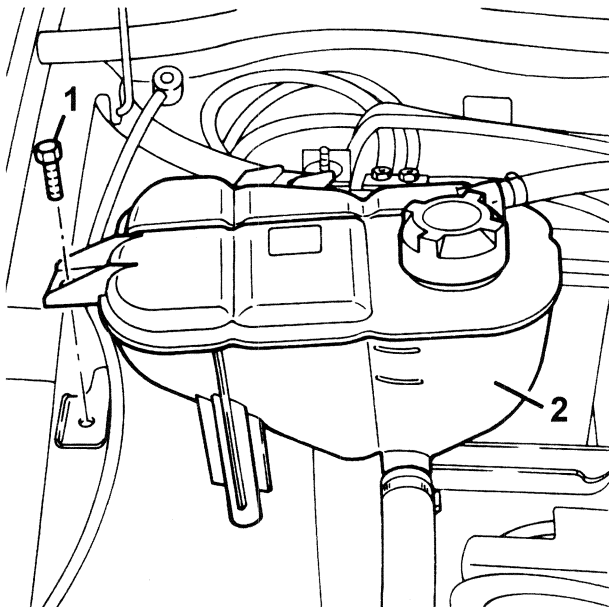
- Position the vehicle on the ramp.
- Fit the right protective bodywork cover.
- Disconnect the battery negative (-) terminal.



Description	Connector
- Battery	A1
- See Op. 4450B10	Front or rear wheel (one) - r+r
- See Op. 7055B42	Supplementary wheel arch (one) - r+r
- See Op. 5540B10	L/h or r/h headlamp (one) - r+r

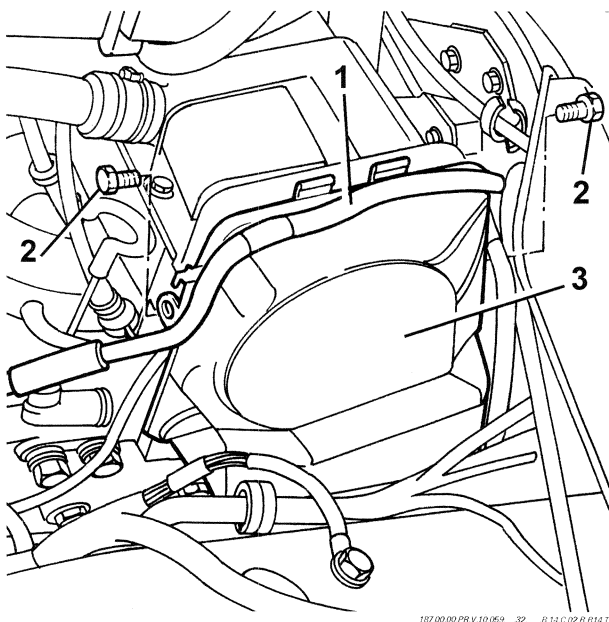


1. Undo the bolts securing the engine cooling reservoir.
2. Move the coolant reservoir without disconnecting the pipes.



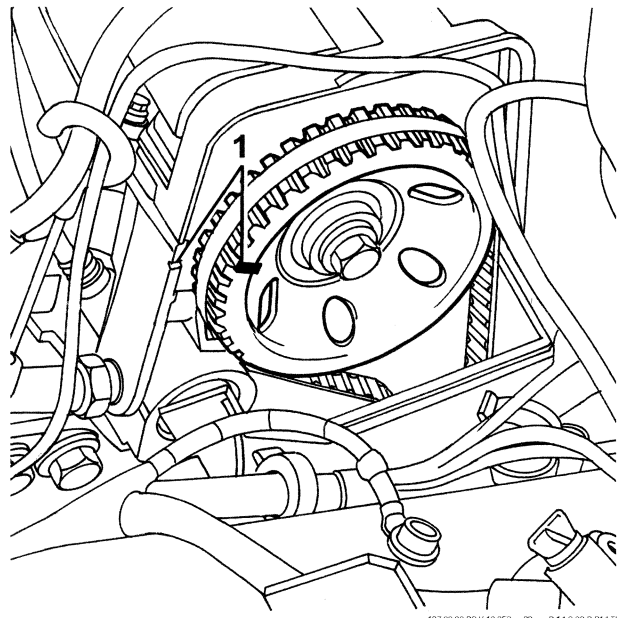
1108 Euro 3

1. Remove the wiring from the timing gear top cover.
2. Undo the bolts on the timing gear top cover.
3. Remove the timing gear top cover.



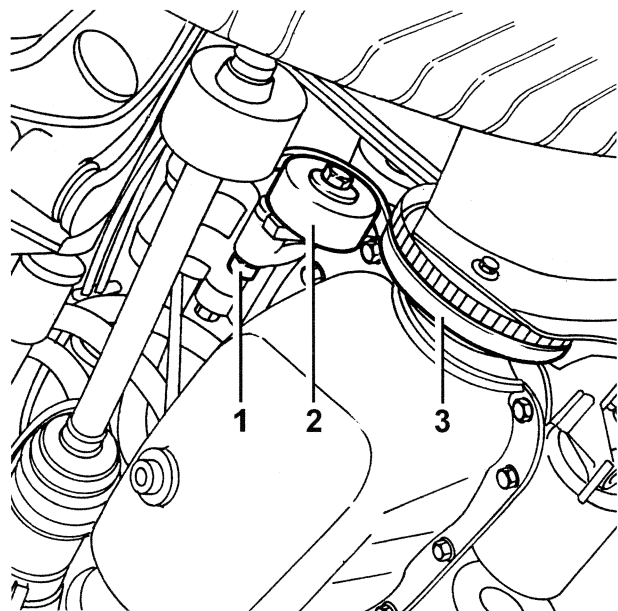
1108 Euro 3

1. Rotate the crankshaft to line up the timing marks on the driven pulley and cylinder head.



1108 Euro 3

1. Loosen the bolt securing the air conditioner compressor drive belt tensioner.
2. Move the air conditioner compressor drive belt tensioner.
3. Remove the air conditioner compressor drive belt.

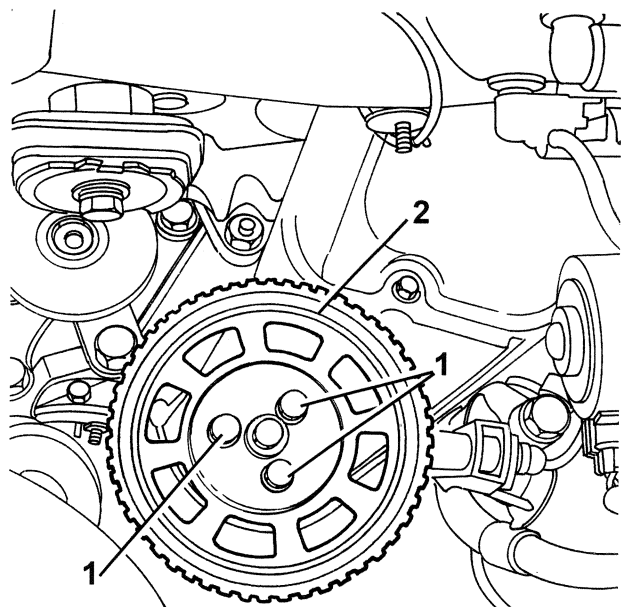


1108 Euro 3

1. Undo the crankshaft pulley bolts.
2. Remove the crankshaft pulley.



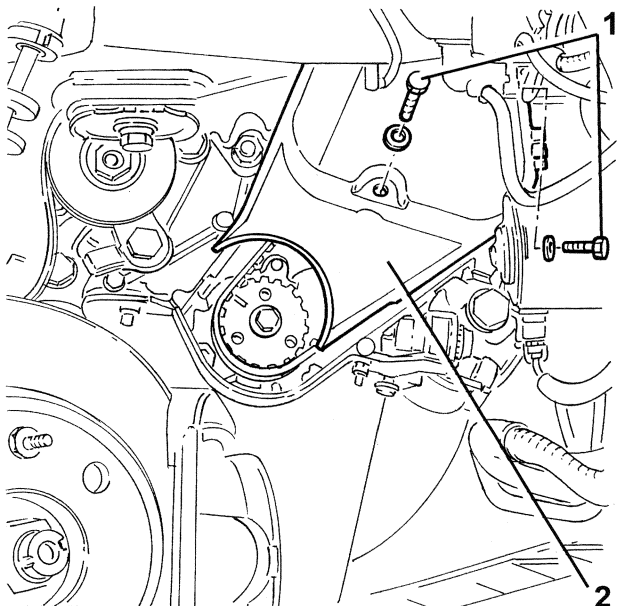
# 1032



187.00.00.PRV.10.059...32...B.14.C.05.B.B14.11F

1108 Euro 3

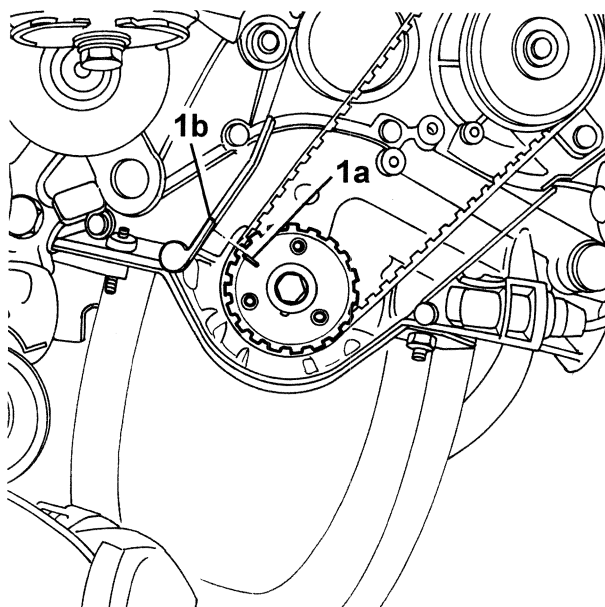
1. Undo the bolts on the timing gear bottom cover.
2. Remove the timing gear bottom cover.



187.00.00.PRV.10.059...32...B.14.C.06.B.B14.11F

1108 Euro 3

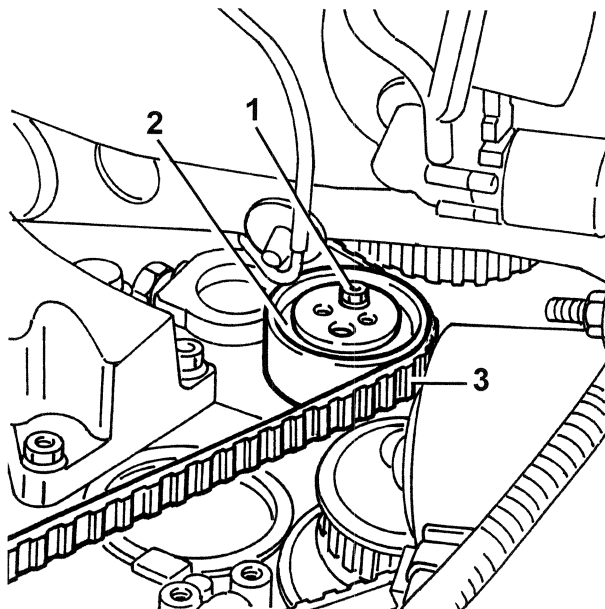
1. Check that the timing mark on the driving pulley (1a) is lined up with the reference on the engine block (1b).



187.00.00.PRV.10.059...32...B.14.C.07.B.B14.11F

1108 Euro 3

1. Slacken the nut on the timing belt moving tensioner.
2. Move the moving tensioner.
3. Remove the timing belt.



187.00.00.PRV.10.059...32...B.14.C.08.B.B14.11F

## Installation

1108 Euro 3

- Fit the timing belt on the pulleys and moving tensioner.



*The timing belt must be renewed whenever dismantled.*





The timing belt must be fitted with the arrows pointing in the direction of rotation of the engine.

1. Connect tool (1a) to tool (1b) using the bolt.



Description	Code
1a Belt tensioner	1.860.745.300



Description	Code
1b Belt tensioner	1.860.745.100

2. Place the tool on the timing belt moving tensioner (2a) and tighten the bolt on the balljoint (2b).

**Note:** The top of the tool must be horizontal.

3. Position the weight, without the knurled part, on the rod with millimetre graduations at a distance of 80 mm and lock it.

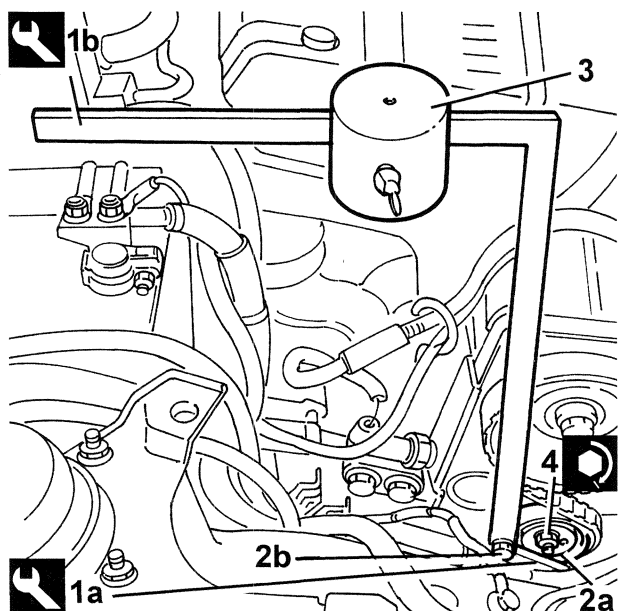
- Bed in the belt with two revolutions of the crankshaft in its direction of rotation.

**Note:** If the millimetre-graduated rod moves during the operation, undo the balljoint on the tool and return it to the horizontal position. Then repeat the operation.

4. Tighten the nut on the moving tensioner to torque.



Mounting	Component	Ø	Value (daNm)
4 Nut	MOVING TENSIONER	M8	2.8



1108 Euro 3

- Fit the timing gear bottom cover.



Before fitting the timing gear covers, check that the timing reference marks on the drive pulley and driven pulley line up.

- Fit the air conditioner compressor drive belt on the crankshaft pulley.
- Fit the crankshaft pulley and tighten the bolts to torque.



Mounting	Component	Ø	Value (daNm)
- Bolt	DRIVE PULLEY(IES) TIMING	M8	(Engine side) 2.5

- Refit the air conditioner compressor drive belt.
- Tension the air conditioner compressor belt and tighten the tensioner bolt to torque.



Mounting	Component	Ø	Value (daNm)
- Screw	COMPRESSOR DRIVE BELT TENSIONER	M10	(Engine side) 5.0

- Check the tension of the air conditioner compressor belt using the tool.



Description	Code
- Torque wrench	1.895.762.000

- Tension of used belt



Measure	Value
- Tension (daN)	30 - 41
Used belt (-)	-

- Tension of new belt



Measure	Value
- Tension (daN)	48 - 60
New belt (-)	-

- Fit the timing gear top guard.
- Fit the wiring on the timing gear top guard.
- Refit the engine coolant reservoir and tighten the fixing bolts.
- **See Op. 5540B10** L/h or r/h headlamp (one) - r+r
- **See Op. 7055B42** Supplementary wheel arch (one) - r+r
- **See Op. 4450B10** Front or rear wheel (one) - r+r
- Connect the negative (-) battery terminal.

**Description****Connector**

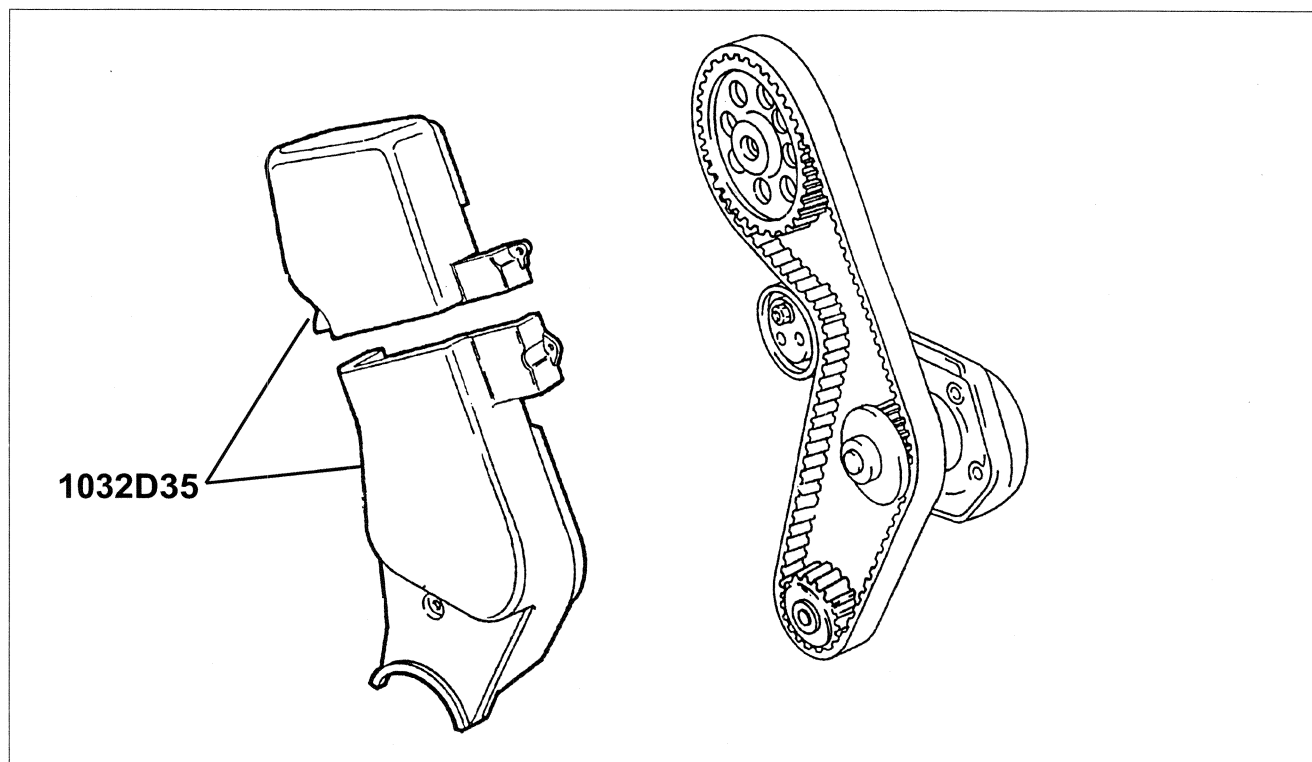
- |   | <b>Description</b> | <b>Connector</b> |
|---|--------------------|------------------|
| - | Battery            | A1               |
- Remove the protective bodywork cover.
  - Remove the car from the ramp.



1108

## 1032D - Timing system protections

### VIEW OF ASSEMBLY



10/00/00 PR.V.10/059...32...U...C.01.G...10F

### Operations index

Code	Operation	Validity
1032D35	Complete timing covers -r r for versions with air conditioner	1108

## OPERATIONS

1108

### 1032D35 - COMPLETE TIMING COVERS -R R FOR VERSIONS WITH AIR CONDITIONER

#### Removal

1108 Euro 3

- Position the vehicle on the ramp.
- Fit the right protective bodywork cover.
- Disconnect the battery negative (-) terminal.

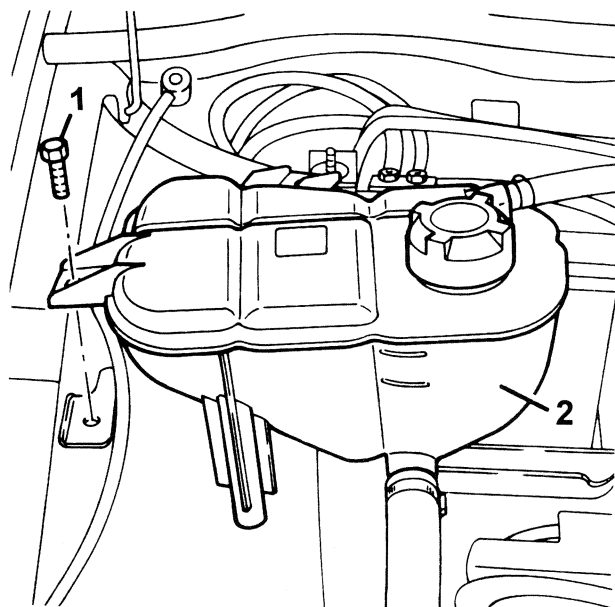


Description	Connector
- Battery	A1
- See Op. 4450B10 Front or rear wheel (one) - r+r	
- See Op. 7055B42 Supplementary wheel arch (one) - r+r	

- See Op. 5540B10 L/h or r/h headlamp (one) - r+r
- 1. Undo the bolts securing the engine cooling reservoir.
- 2. Move the engine coolant reservoir without disconnecting the pipes.



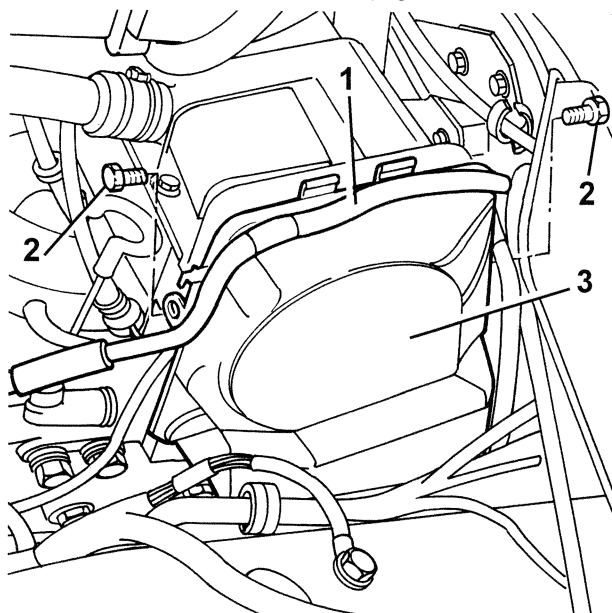
1032



187.00.00.PR.V.10.059...32...D.35.C.01.B.B14.TIF

1108 Euro 3

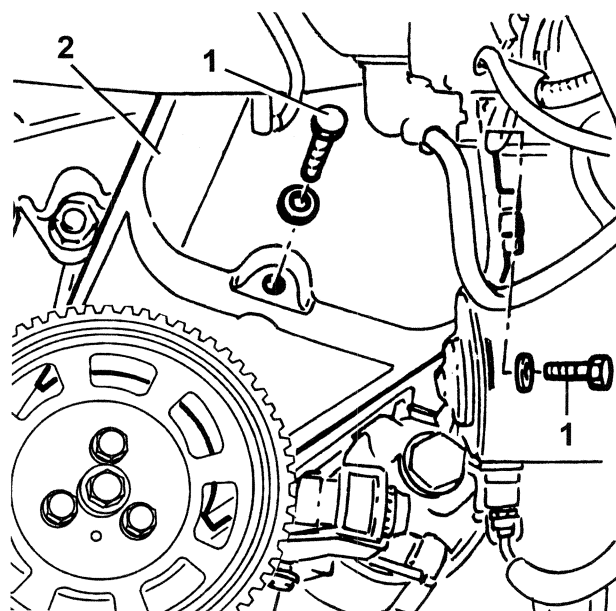
1. Remove the wiring from the timing gear top guard.
2. Undo the bolts on the timing gear top guard.
3. Remove the timing gear top guard.



187.00.00.PR.V.10.059...32...D.35.C.02.B.B14.TIF

1108 Euro 3

1. Undo the bolts on the timing gear bottom guard.
2. Remove the timing gear bottom guard.



187.00.00.PR.V.10.059...32...D.35.C.03.B.B14.TIF

## Installation

1108 Euro 3

- Fit the timing gear bottom guard and tighten the fixing bolts.
- Fit the timing gear top guard and tighten the fixing bolts.
- Fit the wiring on the timing gear top guard.
- Refit the engine coolant reservoir and tighten the fixing bolts.
- **See Op. 5540B10** L/h or r/h headlamp (one) - r+r
- **See Op. 7055B42** Supplementary wheel arch (one) - r+r
- **See Op. 4450B10** Front or rear wheel (one) - r+r
- Connect the negative (-) battery terminal.



Description	Connector
- Battery	A1

- Remove the protective bodywork cover.
- Remove the car from the ramp.

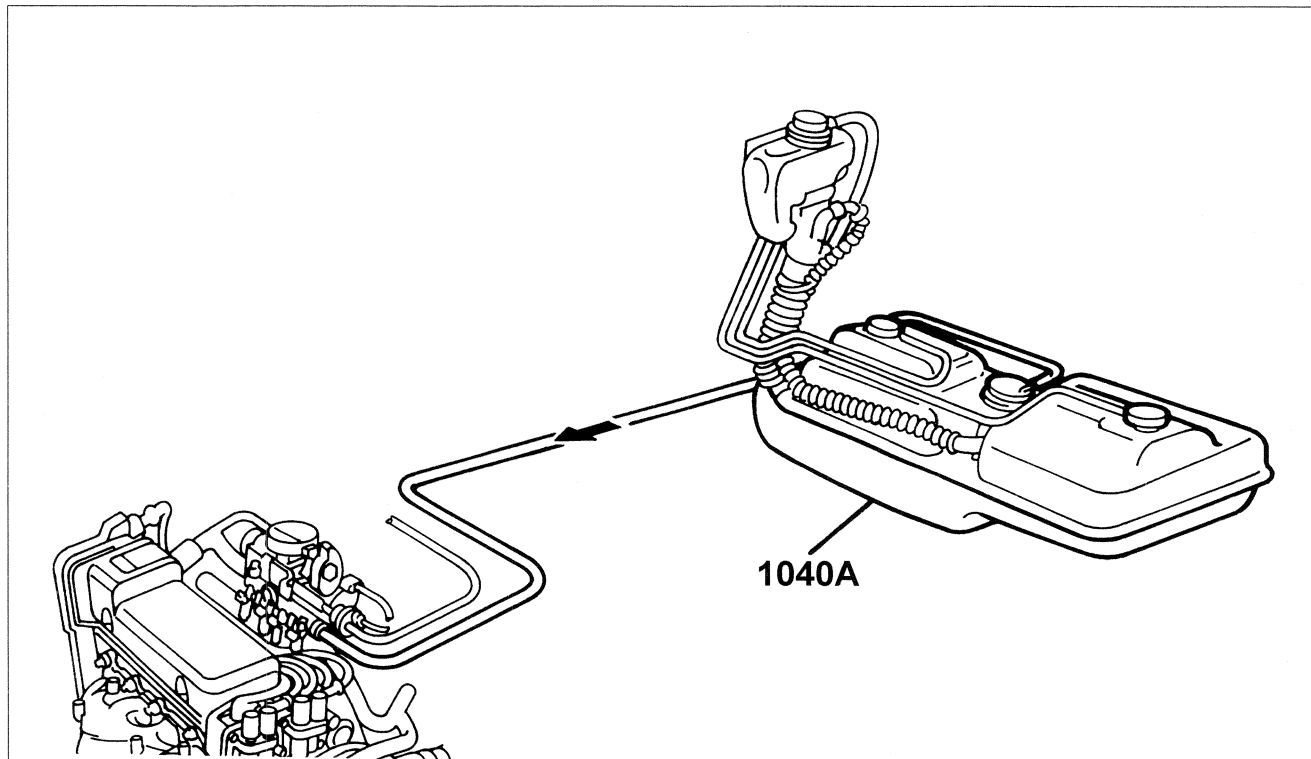
### Sub-group index

## - SUB-GROUP GRAPHIC INDEX

## Assembly drawings index

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1040A	Fuel tank and components	1108 <span>Euro 3</span>

## SUB-GROUP GRAPHIC INDEX



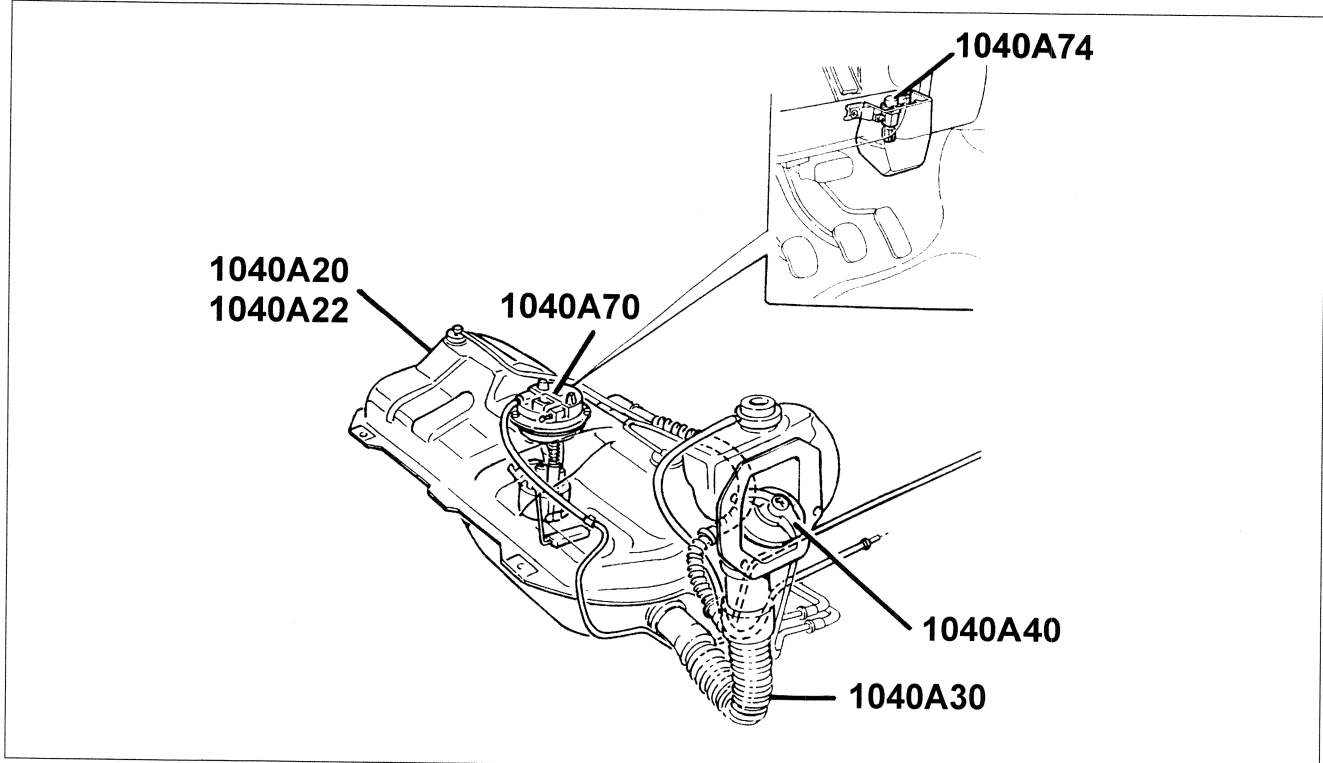


# 1040

1108

## 1040A - Fuel tank and components

### VIEW OF ASSEMBLY



107 00 00 PR V.10 059 \_A2 \_A \_C 01 G \_110

### Operations index

Code	Operation	Validity
1040A20	Fuel tank - r + r and decant fuel for versions with evaporation control system	1108
1040A22	Fuel tank - r + r for versions with evaporation control system for replacement	1108
1040A30	Fuel filler pipe - r + r	1108
1040A40	Plug for fuel filler pipe - r + r	1108
1040A70	Submerged pump assembly complete with level gauge control - r + r	1108

## OPERATIONS

1108

### 1040A20 - FUEL TANK - R + R AND DECANT FUEL FOR VER- SIONS WITH EVAPORATION CONTROL SYSTEM

#### Removal

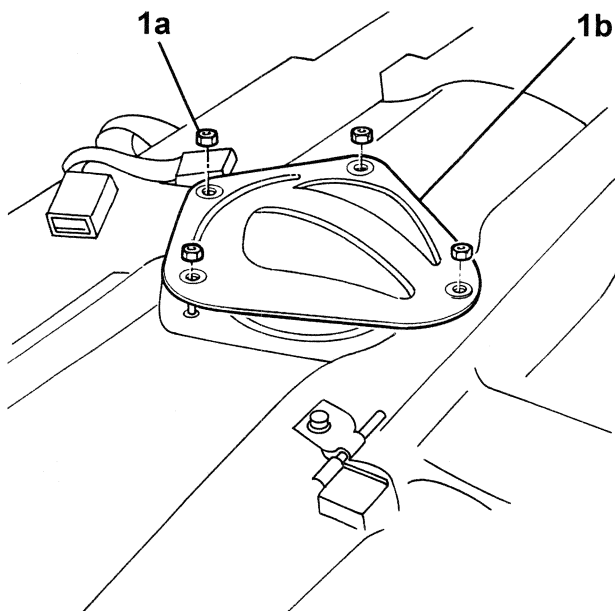
1108 Euro 3

- Position the vehicle on the ramp.

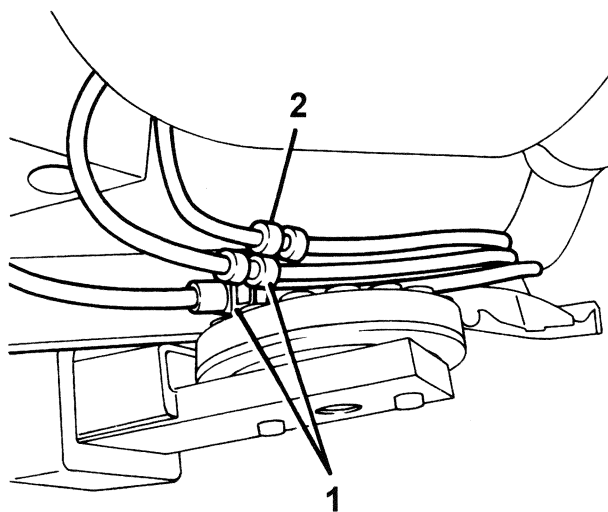
- Open the bonnet.
- Disconnect the battery negative (-) terminal.



Description	Connector
- Battery	A1
- Drain the fuel from the tank using suitable equipment.	
- See Op. 7050A22 Rear seat cushion - r+r	
1. Undo the nuts (1a) and remove the access cover (1b) to the fuel pump assembly.	



107.00.00.PRV.10.059...40...A20.C.01.B.B14.TIF



107.00.00.PRV.10.059...40...A20.C.03.B.B14.TIF

1108 Euro 3

1. Disconnect the electrical connection from the electric fuel pump and level gauge.



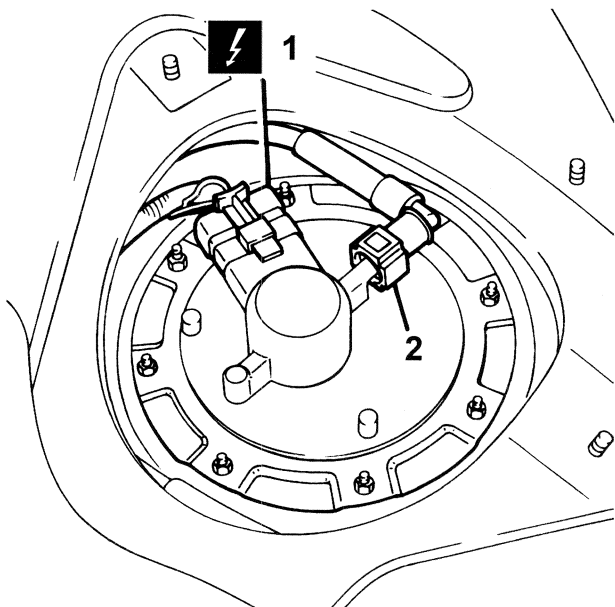
### Description

### Connector

1 Fuel pump and sender unit

N40

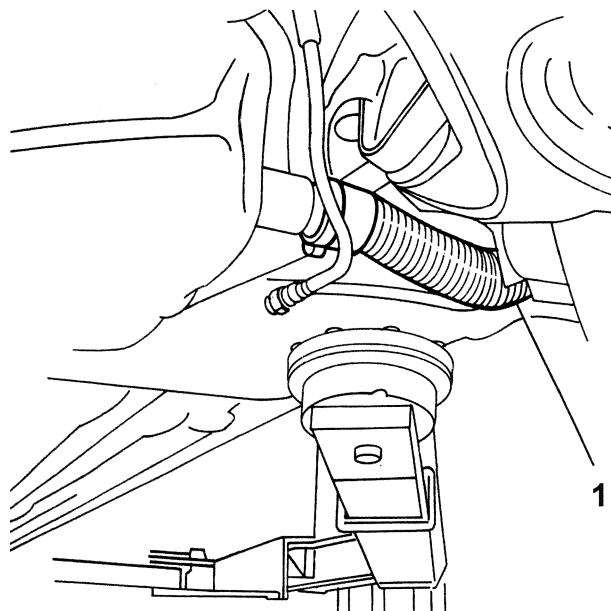
2. Withdraw the fuel delivery pipe from the rapid attachment.



107.00.00.PRV.10.059...40...A20.C.02.B.B14.TIF

1108 Euro 3

1. Disconnect the fuel filler pipe from the fuel tank.



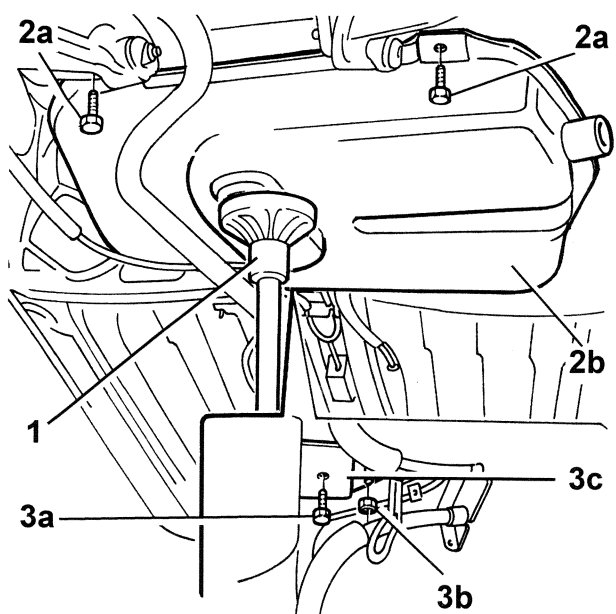
107.00.00.PRV.10.059...40...A20.C.04.B.B14.TIF

1108 Euro 3

1. Position a hydraulic jack under the fuel tank.
2. Undo the bolts (2a) which secure the fuel tank (2b) to the bodyshell.
3. Undo the bolt (3a) and nut (3b) which secure the front fuel tank bracket to the bodyshell.

1108 Euro 3

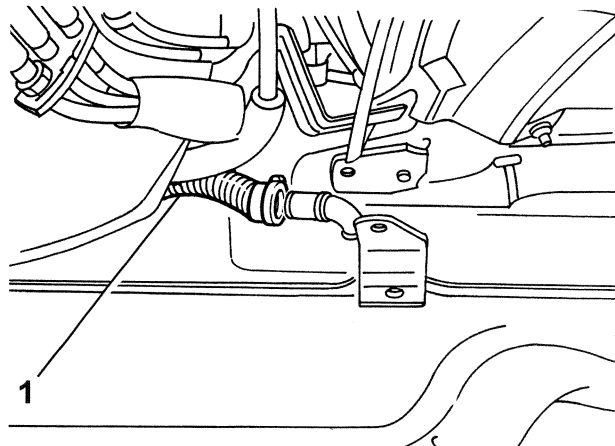
- See Op. 4450B11 Rear wheel (one) - r r
  - See Op. 1076B12 Exhaust pipe assembly r+r emission control versions
1. Disconnect from the rapid attachment the pipes (two) from the fuel tank valves to the fuel vapour recovery reservoir.
  2. Disconnect the pipe from the fuel vapour recovery reservoir to the active charcoal filter.



187.00.00.PR.V.10.059...40...A.20.C.05.B.B14.TIF

1108 Euro 3

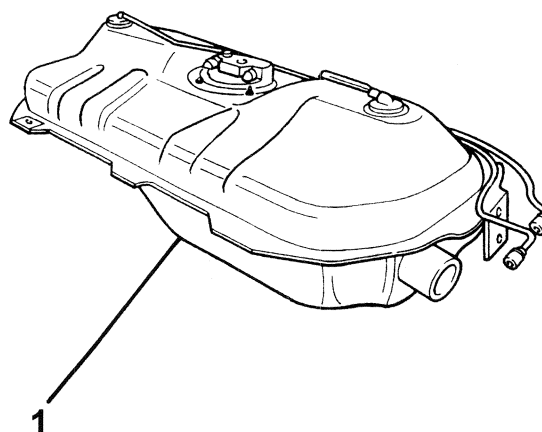
1. Gently lower the fuel tank to withdraw the overfull pipe.



187.00.00.PR.V.10.059...40...A.20.C.06.A.B14.TIF

1108 Euro 3

1. Lower the hydraulic jack and remove the fuel tank complete with valves, pipe and electric pump.



187.00.00.PR.V.10.059...40...A.20.C.07.B.B14.TIF

## Installation

1108 Euro 3

- Using the hydraulic jack, fit the fuel tank complete with valves, pipe and electric pump.
- Fit the overfull pipe.
- Tighten to torque the bolt and nut which secure the fuel tank front bracket to the bodyshell.

 Mounting	Component	Ø	Value (daNm)
- Bolt	FUEL TANK	M8	(Body-shell side) 5.0

 Mounting	Component	Ø	Value (daNm)
- Nut	FUEL TANK	M8	(Body-shell side) 5.0

- Tighten to torque the bolts which secure the fuel tank to the bodyshell.

 Mounting	Component	Ø	Value (daNm)
- Bolt	FUEL TANK	M8	(Body-shell side) 5.0

- Remove the hydraulic jack.
- Connect the fuel filler pipe to the fuel tank.
- Connect the pipe from the fuel vapour recovery tank to the active charcoal filter.
- Connect the pipes from the fuel tank valves to the fuel vapour recovery reservoir.
- **See Op. 1076B12** Exhaust pipe assembly r+r emission control versions





- See Op. 4450B11 Rear wheel (one) - r r
- Connect the fuel supply pipe to the rapid attachment.
- Connect the electrical connection to the electric pump and fuel gauge sender unit.



Description

Connector

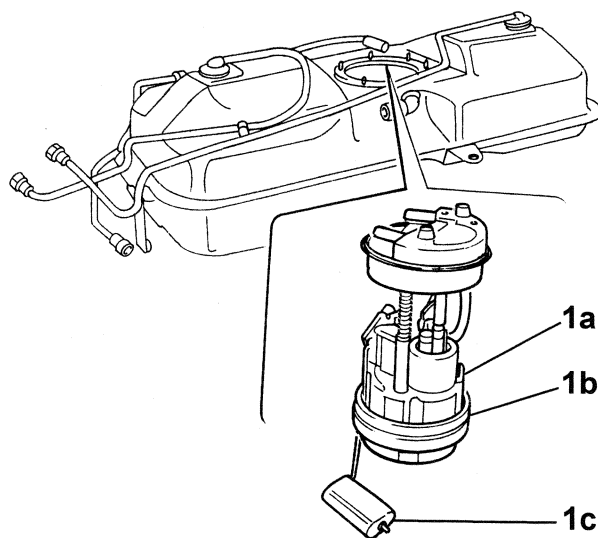
- |                             |     |
|-----------------------------|-----|
| - Fuel pump and sender unit | N40 |
|-----------------------------|-----|
- Fit the access cover to the fuel pump assembly and fix it with the bolts.
  - See Op. 7050A22 Rear seat cushion - r+r
  - Connect the negative (-) battery terminal.



Description

Connector

- |           |    |
|-----------|----|
| - Battery | A1 |
|-----------|----|
- Close the bonnet lid.
  - Remove the car from the ramp.
  - Refill the vehicle using the recommended fuel.



187.00.00 PR V 10 059 \_ \_ \_ \_ \_ A22.C.01.B.B14.11F

1108

## 1040A22 - FUEL TANK - R + R FOR VERSIONS WITH EVAPO- RATION CONTROL SYSTEM FOR REPLACEMENT

### Removal

1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Disconnect the battery negative (-) terminal.



Description

Connector

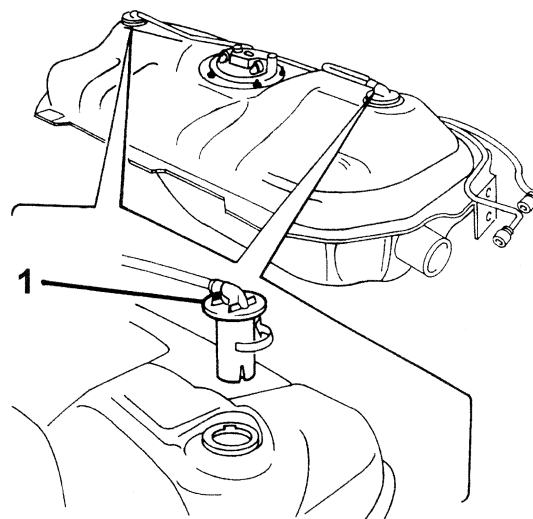
- |           |    |
|-----------|----|
| - Battery | A1 |
|-----------|----|
- Drain the fuel from the tank using suitable equipment.
  - See Op. 1040A20 Fuel tank - r + r and decant fuel for versions with evaporation control system (complete fuel tank)
  - Undo the nuts securing the fuel pump to the fuel tank.
  - Remove the ring nut.

**Note:** To facilitate the removal of the fuel pump, use a screwdriver to lever on the edge.

1. Remove the fuel pump (1a) with the gasket (1b) and fuel gauge sender unit (1c).

1108 Euro 3

1. Rotate the two valves located on the fuel tank in an anti-clockwise direction and remove them.



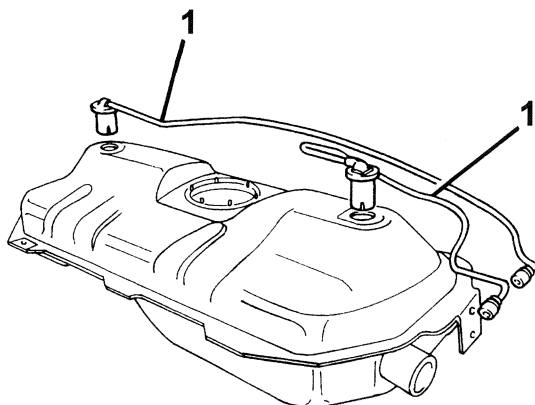
187.00.00 PR V 10 059 \_ \_ \_ \_ \_ A22.C.02.B.B14.11F



# 1040

1108 Euro 3

1. Disconnect the pipes from the fuel tank and remove them, complete with valves.



187.00.00.PR.V.10.059...40...A.22.C.03.B.B14.TIF

## Installation

1108 Euro 3

- Connect the pipes to the fuel tank complete with valves.
- Fit the two valves located on the fuel tank and rotate them in a clockwise direction.
- Fit the fuel pump with the gasket and fuel gauge sender unit.
- Fit the ring nut.
- Tighten the nuts securing the fuel pump to the fuel tank.
- **See Op. 1040A20** Fuel tank - r + r and decant fuel for versions with evaporation control system
- Connect the negative (-) battery terminal.



### Description

### Connector

- | Description | Connector |
|-------------|-----------|
| Battery     | A1        |
- Close the bonnet lid.
  - Remove the car from the ramp.
  - Refill the vehicle using the recommended fuel.

1108

## 1040A30 - FUEL FILLER PIPE - R + R

## Removal

1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Disconnect the battery negative (-) terminal.

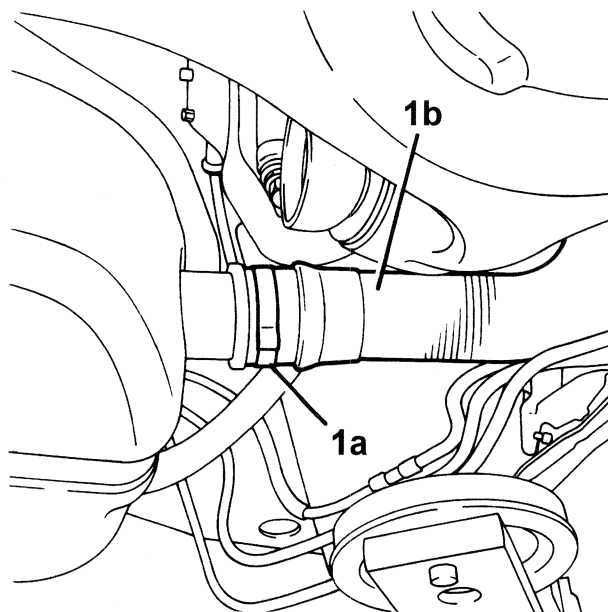


### Description

### Connector

- | Description | Connector |
|-------------|-----------|
| Battery     | A1        |

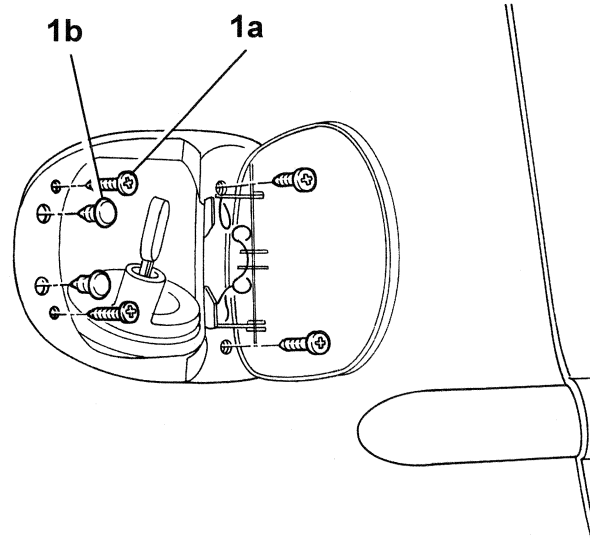
- Drain the fuel from the tank using suitable equipment.
  - **See Op. 4450B11** Rear wheel (one) - r r
  - **See Op. 7055B42** Supplementary wheel arch (one) - r+r
1. Loosen the fixing band (1a) and disconnect the fuel filler pipe (1b) from the tank.



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1108 Euro 3

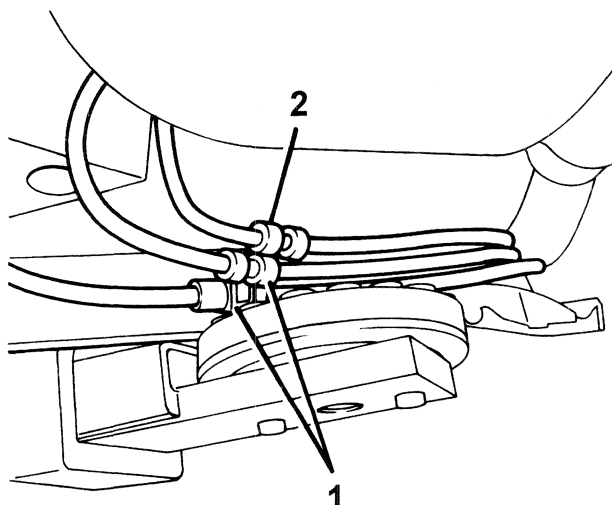
1. Undo the bolts (1a) and remove the rubbers (1b) in the seating of the fuel cap flap.



187.00.00.PR.V.10.059...40...A.30.C.02.B.B14.TIF

1108 Euro 3

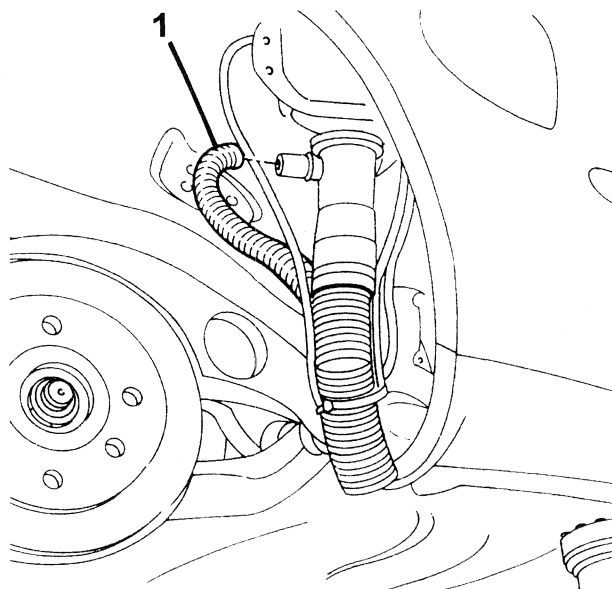
- Remove the fuel filler pipe and the fuel vapour reservoir.
1. Disconnect from the rapid attachment the pipes (two) from the fuel tank valves to the fuel vapour recovery reservoir.
  2. Disconnect the pipe from the fuel vapour recovery tank to the active charcoal filter.



107.00.00.PR.V.10.059...\_80...\_A.30.C.03.B.014.TIF

1108 Euro 3

1. Disconnect the overfull pipe from the fuel filler pipe.



107.00.00.PR.V.10.059...\_80...\_A.30.C.04.B.014.TIF

1108 Euro 3

- Undo the bolts which secure the fuel vapour reservoir to the fuel filler pipe.
- Separate the fuel vapour reservoir from the fuel filler pipe.
- Remove the fuel filler pipe.

**Installation**

1108 Euro 3

- Fit the fuel vapour reservoir to the fuel filler pipe and tighten the fixing bolts.
- Connect the overfull pipe to the fuel filler pipe.
- Connect the pipes on the active charcoal filter and anti-overturn valves.
- Refit the fuel filler pipe and fuel vapour reservoir behind the fuel flap compartment.

- Fit the rubbers and tighten the bolts securing the fuel filler pipe with reservoir to the compartment.
- Connect the fuel filler pipe to the tank.
- **See Op. 7055B42** Supplementary wheel arch (one) - r+r
- **See Op. 4450B11** Rear wheel (one) - r r
- Connect the negative (-) battery terminal.



Description	Connector
- Battery	A1

- Close the bonnet lid.
- Remove the car from the ramp.
- Refill the vehicle using the recommended fuel.

1108

**1040A40 - PLUG FOR FUEL FILLER PIPE - R + R****Removal**

1108 Euro 3

- Open the access flap.
- Turn the key in the lock on the fuel filler pipe cap and unscrew it.
- Release the retaining cable and remove the cap.

**Installation**

1108 Euro 3

- Engage the retaining cable.
- Screw the cap on the fuel filler pipe until it clicks into place.
- Turn the key in the cap lock and remove it.
- Close the access flap.

1108

**1040A70 - SUBMERGED PUMP ASSEMBLY COMPLETE WITH LEVEL GUAGE CONTROL - R + R****Removal**

1108 Euro 3

- Open the bonnet.
- Disconnect the battery negative (-) terminal.

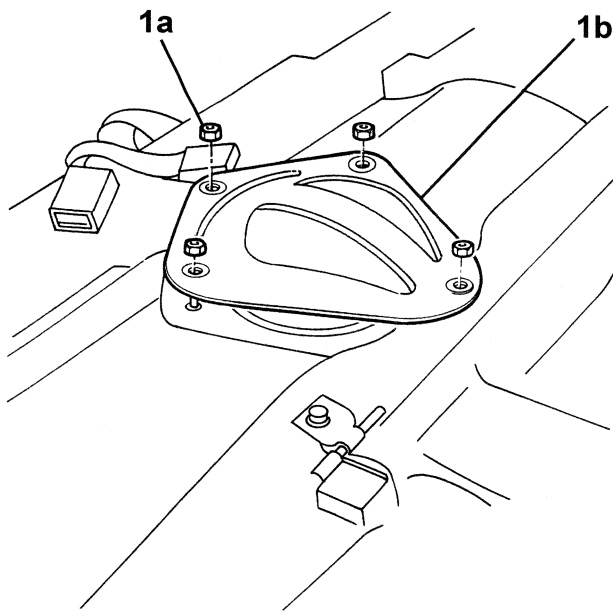


Description	Connector
- Battery	A1

- Drain the fuel from the tank using suitable equipment.
- **See Op. 7050A22** Rear seat cushion - r+r
- 1. Undo the nuts (1a) and remove the access cover (1b) to the fuel pump assembly.



# 1040



107.00.00.PRV.10.059...40...A.70.C.01.B.B14.TIF

1108 Euro 3

1. Disconnect the electrical connection from the electric fuel pump and fuel gauge sender unit.

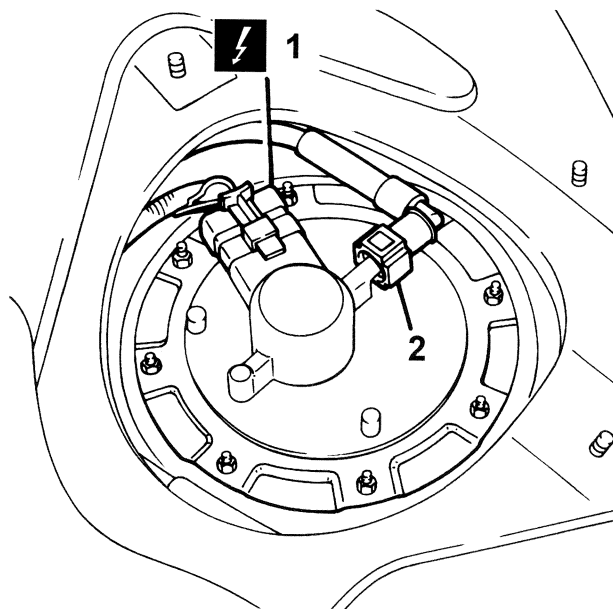


### Description

### Connector

- |   |                           |     |
|---|---------------------------|-----|
| 1 | Fuel pump and sender unit | N40 |
|---|---------------------------|-----|

2. Withdraw the fuel filler pipe from the rapid attachment.

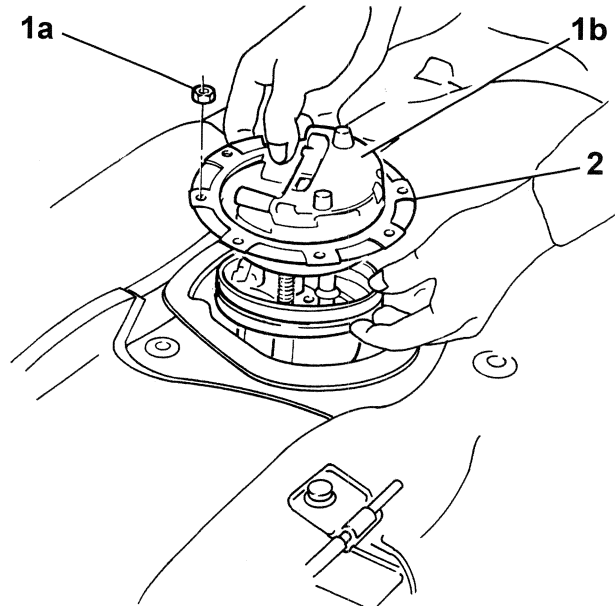


107.00.00.PRV.10.059...40...A.70.C.02.B.B14.TIF

1108 Euro 3

1. Undo the nuts (1a) securing the immersed pump assembly (1b) to the fuel tank.
2. Remove the ring nut.

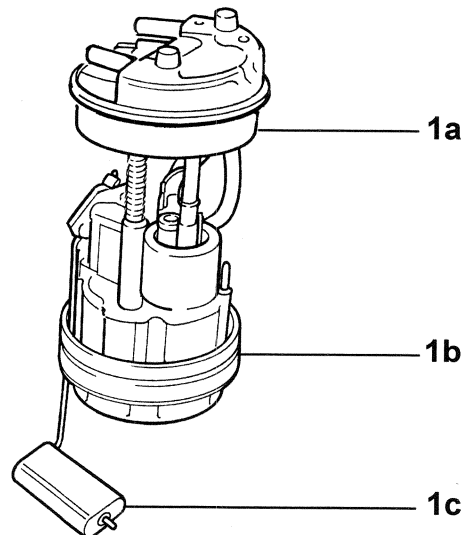
**Note:** To facilitate the removal of the fuel pump, use a screwdriver as a lever.



107.00.00.PRV.10.059...40...A.70.C.03.B.B14.TIF

1108 Euro 3

1. Remove the fuel pump (1a) with the gasket (1b) and fuel gauge sender unit (1c).



107.00.00.PRV.10.059...40...A.70.C.04.B.B14.TIF

## Installation

1108 Euro 3

- Fit the fuel pump with the gasket and fuel gauge sender unit in the fuel tank.
- Fit the ring nut.
- Tighten the nuts securing the fuel pump to the fuel tank.
- Connect the fuel supply pipe to the fuel pump.
- Connect the electrical connection to the electric pump and fuel gauge sender unit.



### Description

### Connector

- |   |                           |     |
|---|---------------------------|-----|
| - | Fuel pump and sender unit | N40 |
|---|---------------------------|-----|



- Fit the access cover to the fuel pump assembly and fix it using the bolts.
- **See Op. 7050A22** Rear seat cushion - r+r
- Connect the negative (-) battery terminal.



<i>Description</i>	<i>Connector</i>
- Battery	A1

- Close the bonnet lid.
- Refill the vehicle using the recommended fuel.





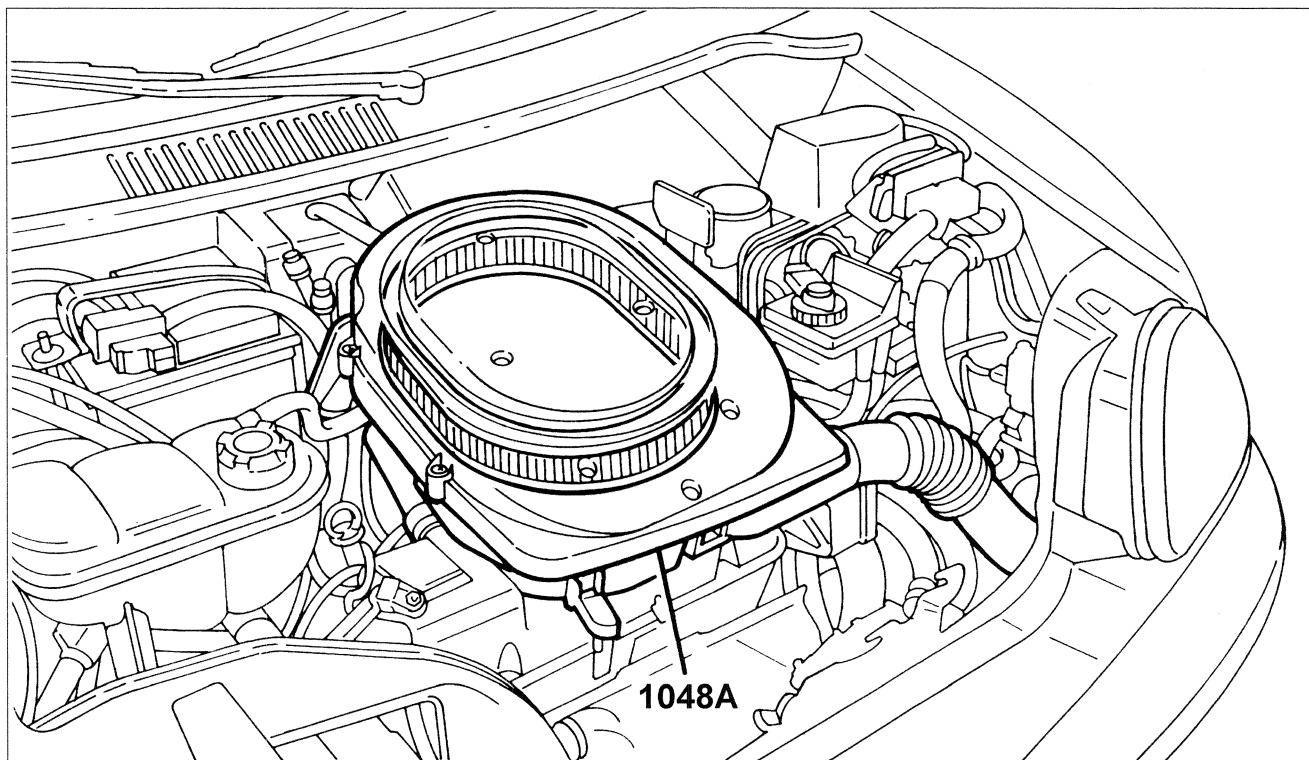
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1048A	Vacuum air circuit	1108   Euro 3

**SUB-GROUP GRAPHIC INDEX**



187 00 00 PR V 10 069 \_ 48 \_ \_ C 01 G \_ TF

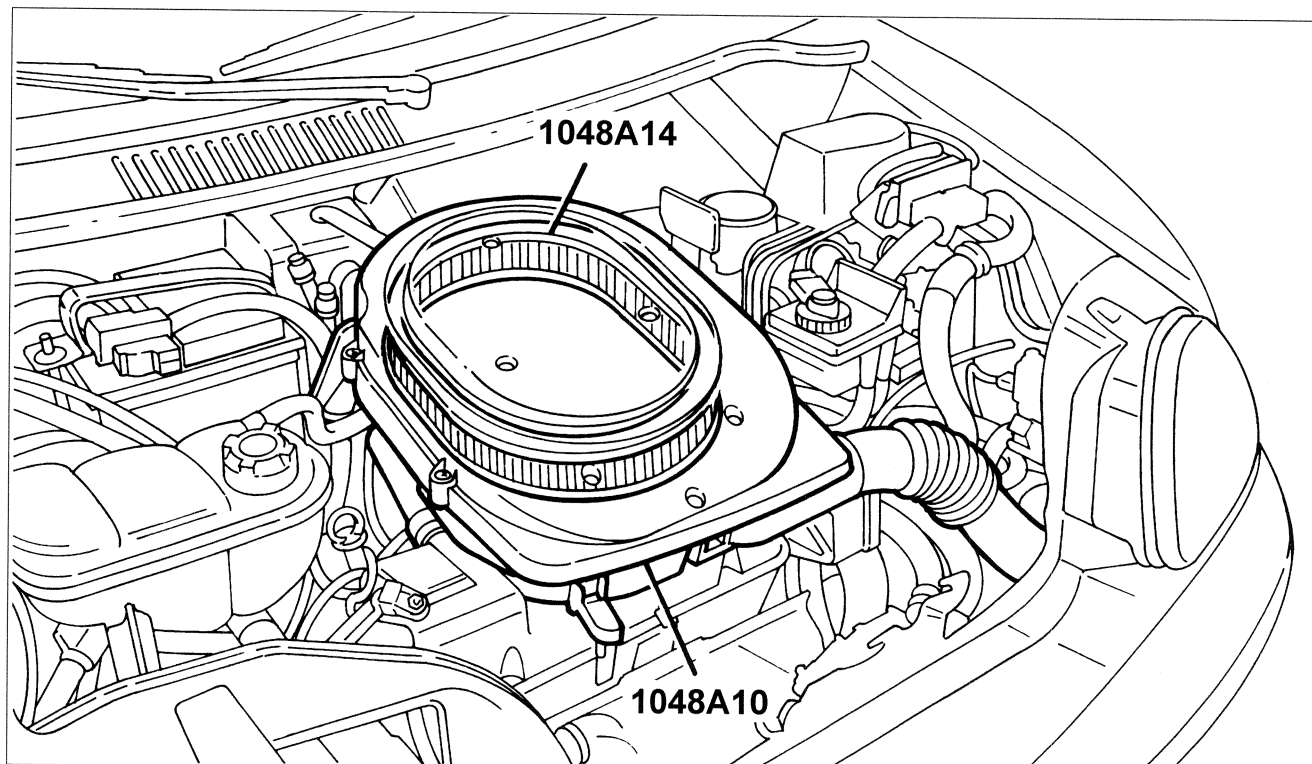


# 1048

1108

## 1048A - Vacuum air circuit

### VIEW OF ASSEMBLY



107.00.00 PR V.10.059 \_40\_ \_A\_ C.01 G \_11F

### Operations index

Code	Operation	Validity
1048A10	Air cleaner filtering element - replace	1108
1048A14	Air cleaner filtering element - replace.	1108

## OPERATIONS

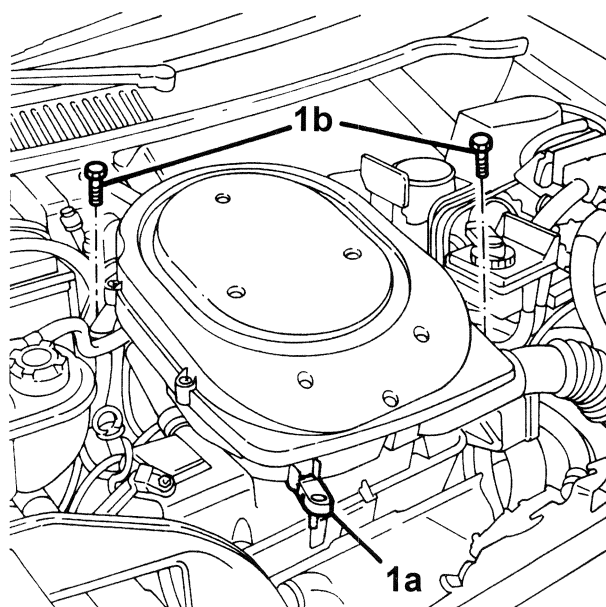
1108

### 1048A10 - AIR CLEANER FILTERING ELEMENT - REPLACE

#### Removal

1108 Euro 3

- Open the bonnet
- 1. Release the retaining clip (1a) and remove the fixing bolts (1b).



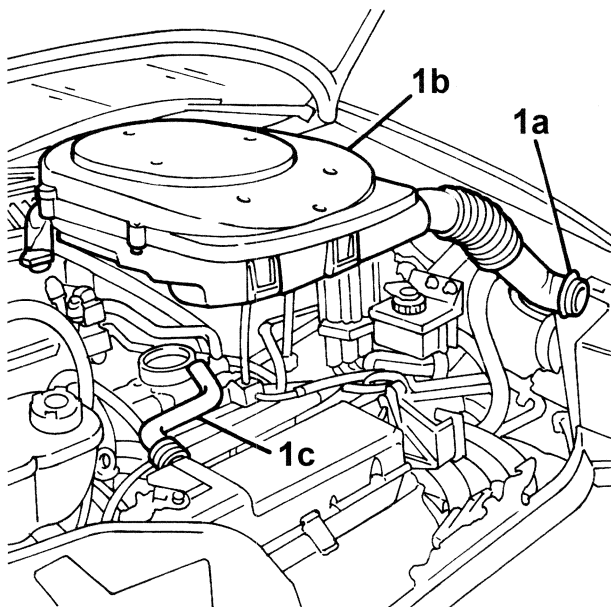
107.00.00 PR V.10.059 \_40\_ \_A.10 C.01 B B14.11F





1108 | Euro 3

2. Disengage the air inlet hose (1a) from the filler and remove the air filter unit (1b), disengaging it from the oil vapour inlet tube (1c).



### Installation

1108 | Euro 3

- Fit the air filter unit and connect the oil vapour inlet pipe.
- Engage the retaining clip and tighten the fixing screws.
- Close the bonnet lid.

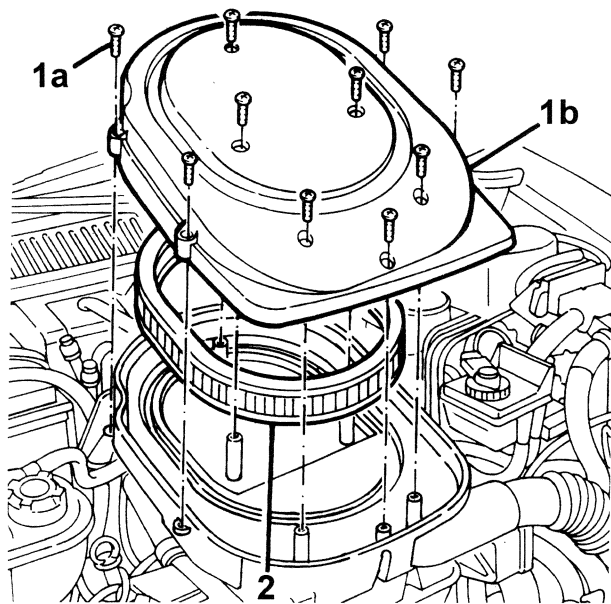
1108

## 1048A14 - AIR CLEANER FILTERING ELEMENT - REPLACE.

### Removal

1108 | Euro 3

- Open the bonnet
  1. Undo the fixing bolts (1a) and remove the filter element container cover (1b).
  2. Remove the filter element.



### Installation

1108 | Euro 3

- Position the new filter element.
- Fit the container cover and tighten the fixing bolts.
- Close the bonnet lid.





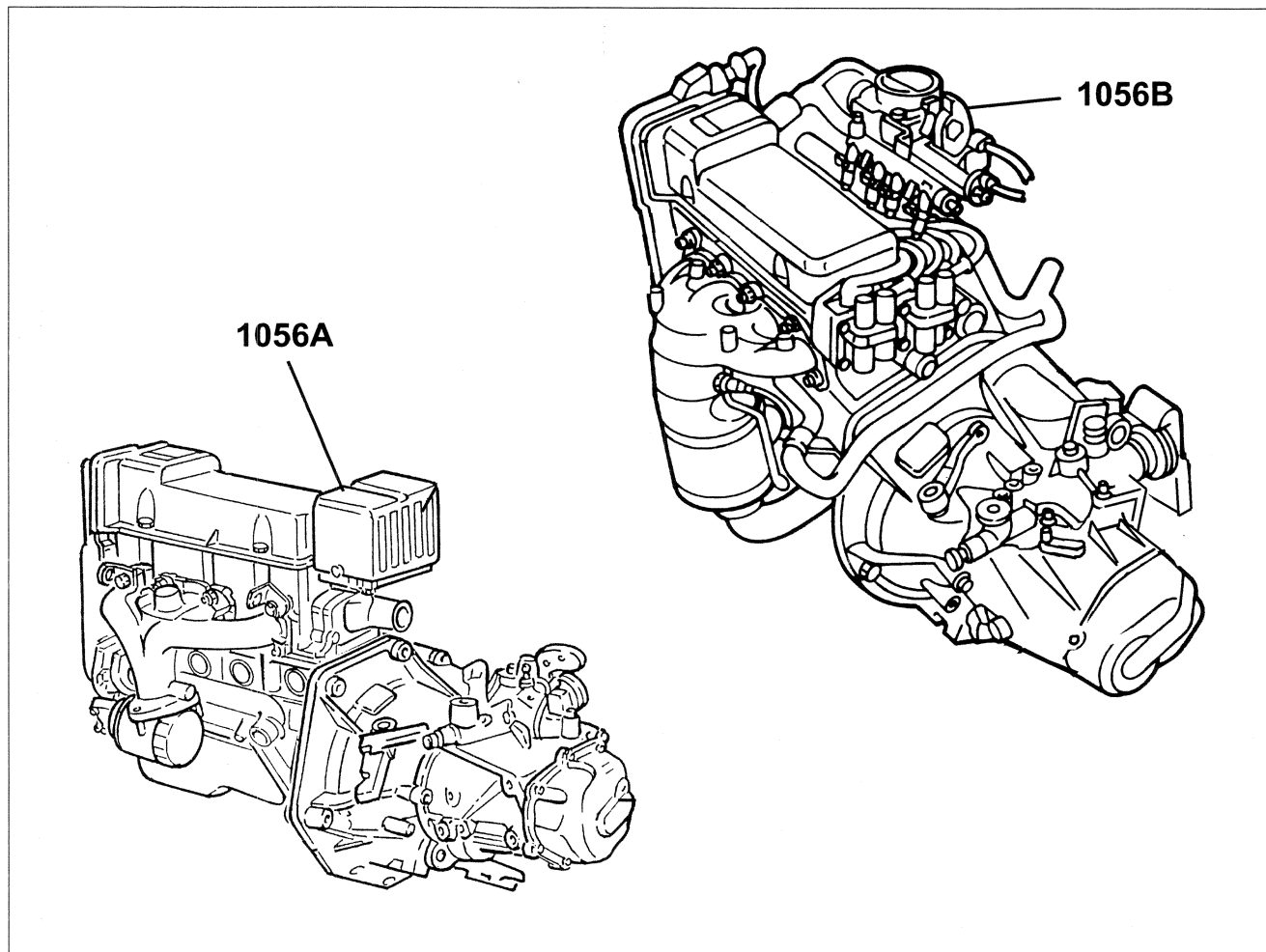
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1056B	Multi-point injection system (mpi)	1108   Euro 3

SUB-GROUP GRAPHIC INDEX

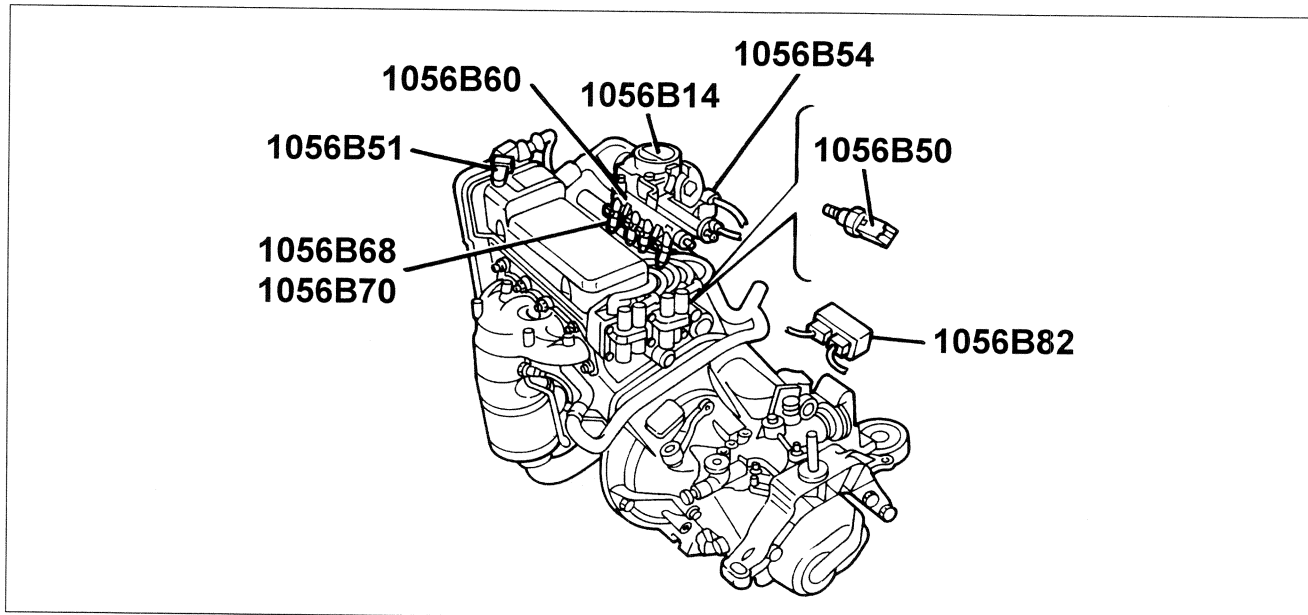


187.00.00.PHY.10.052\_56\_01.01\_01



1108

## 1056B - Multi-point injection system (mpi) VIEW OF ASSEMBLY



10/00/00 PRV 10/05/96 \_B\_ C 01 F B14 10

### Operations index

Code	Operation	Validity
1056B14	Throttle case - r + r	1108
1056B50	Coolant temperature sensor - r + r	1108
1056B51	Cam angle sensor r + r	1108
1056B54	Intake air pressure/temperature sensor - r r	1108
1056B60	Single fuel manifold pipe, with injectors - r + r	1108
1056B68	Set of injectors - r + r with fuel manifold pipe removed - includes seal replacement	1108
1056B70	Injector (one) - r + r with fuel manifold pipe removed - includes seal replacemnt	1108
1056B82	Injection/ignition system e.c.u. (one) - r + r	1108

## OPERATIONS

1108

### 1056B14 - THROTTLE CASE - R + R

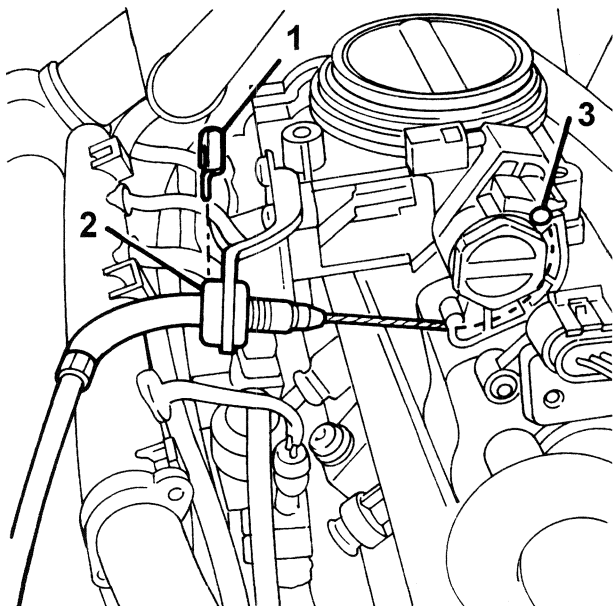
#### Removal

1108 Euro 3

- Open the bonnet
- Disconnect the battery negative terminal.



Description	Connector
- Battery	A1
- <b>See Op. 1048A10</b> Air cleaner filtering element - replace	
1. Withdraw the throttle cable adjustment retaining clip.	
2. Remove the flexible cable from the reaction bracket.	
3. Withdraw the end of the cable from the throttle body.	



1108 Euro 3

1. Disconnect the electrical connector for the butterfly valve position sensor.



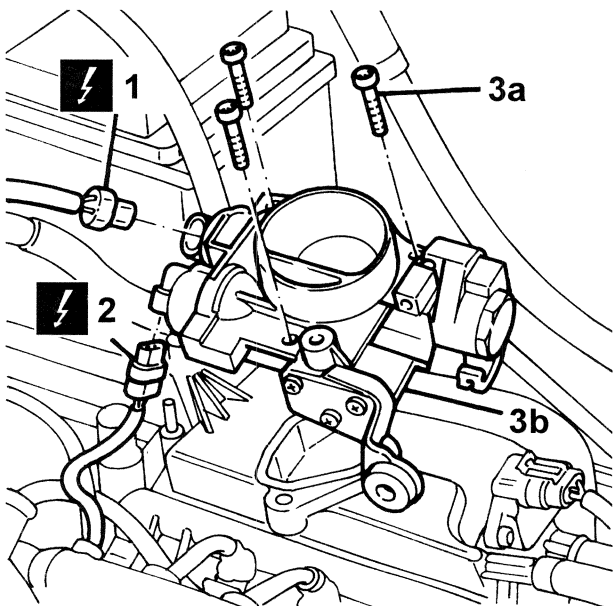
Description	Connector
1 Throttle position sensor (i.e.)	K56

2. Disconnect the electrical connector for engine idle speed actuator.



Description	Connector
2 Idle actuator	N74

3. Undo the fixing bolt (3a) and remove the throttle body (3b).



102 00 00 PR V 10 069 \_56\_ B.14 C.02 B.014 TIF

## Installation

1108 Euro 3

- Position the throttle body and tighten the fixing bolts.
- Connect the electrical connector for the engine idle speed actuator.



Description	Connector
- Idle actuator	N74

- Connect the electrical connector for the butterfly valve position sensor.



Description	Connector
- Throttle position sensor (i.e.)	K56

- Reposition the accelerator cable on the mounting bracket and fit it on the butterfly valve.
- **See Op. 1068A10** Accelerator pedal control - check, adjust if necessary and lubricate
- **See Op. 1048A10** Air cleaner filtering element - replace
- Connect the battery negative terminal.



Description	Connector
- Battery	A1

- Close the bonnet lid.

1108

## 1056B50 - COOLANT TEMPERATURE SENSOR - R + R

### Removal

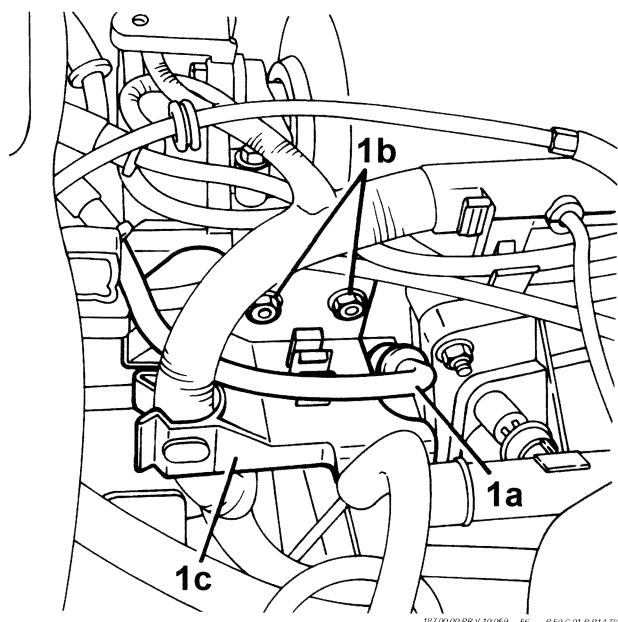
1108 Euro 3

- Open the bonnet.
- Disconnect the battery negative terminal.



Description	Connector
- Battery	A1

- **See Op. 1048A10** Air cleaner filtering element - replace
- 1. Release the spark plug cables (1a) from the retaining lugs, undo the fixing nuts (1b) and move aside the wiring mounting bracket (1c).



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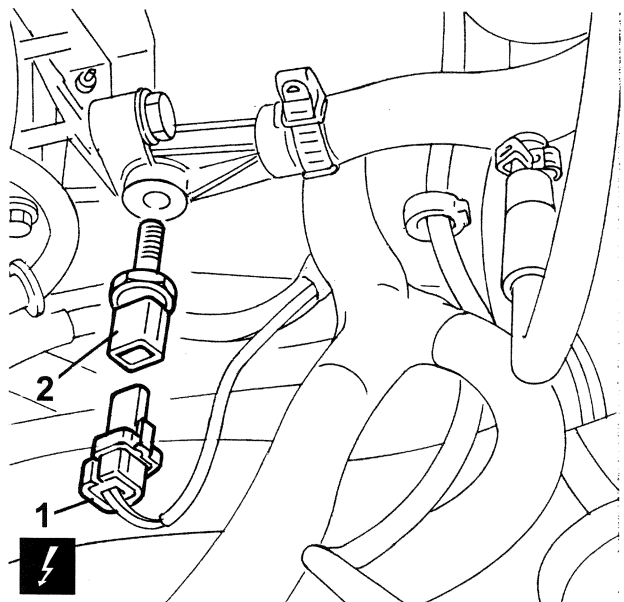
1108 Euro 3

1. Disconnect the electrical connector for the sensor.



Description	Connector
1 Data not yet available	K36

2. Undo and remove the sender unit.



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## Installation

1108 Euro 3

- Tighten the engine coolant temperature sender unit to torque.



Mounting	Component	Ø	Value (daNm)
- Transmitter	COOLANT TEMP SENSOR	M16	3.4

- Connect the electrical connector for the sender unit.



Description	Connector
- Data not yet available	K36

- See Op. 1048A10 Air cleaner filtering element - replace
- Connect the battery negative terminal.



Description	Connector
- Battery	A1

- Close the bonnet lid.

1108

## 1056B51 - CAM ANGLE SENSOR R + R

### Removal

1108 Euro 3

- Open the bonnet.
- Disconnect the battery negative terminal.



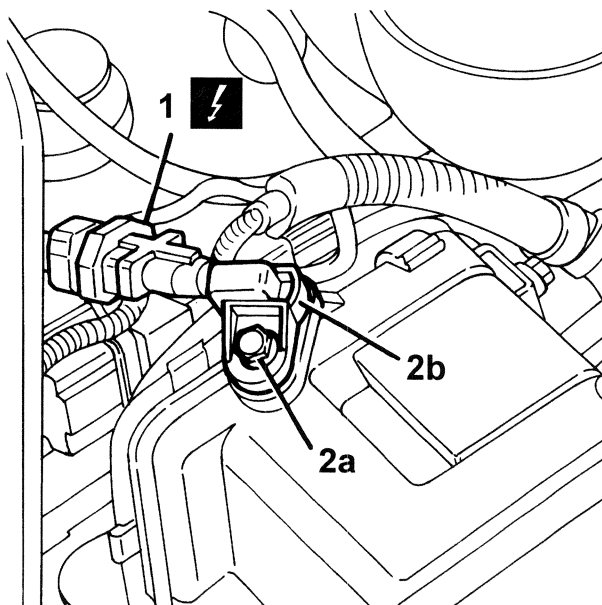
Description	Connector
- Battery	A1

1. Disconnect the electrical connector for the sensor.



Description	Connector
1 Timing sensor	K47

2. Undo the fixing bolt (2a) and remove the sensor (2b).



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## Installation

1108 Euro 3

- Fit the sensor and tighten the fixing bolt.
- Connect the electrical connector for the sender unit.



Description	Connector
- Timing sensor	K47

- Connect the battery negative terminal.



Description	Connector
- Battery	A1

- Close the bonnet lid.

1108

## 1056B54 - INTAKE AIR PRES- SURE/TEMPERATURE SENSOR - R R

### Removal

1108 Euro 3

- Open the bonnet.
- Disconnect the battery negative terminal.



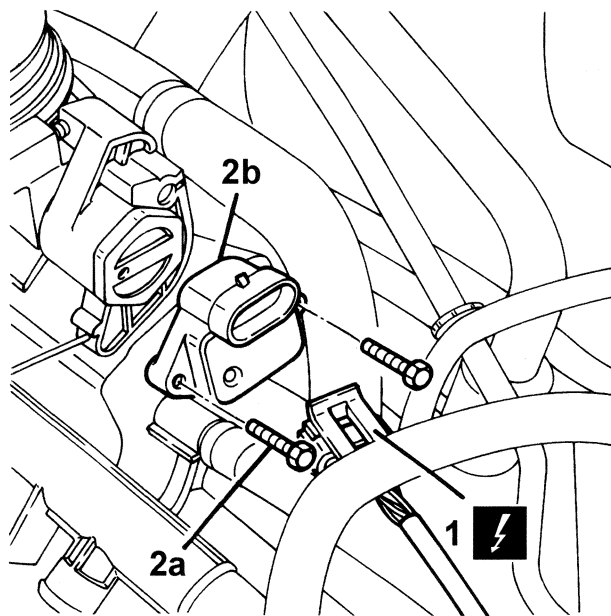
Description	Connector
- Battery	A1

- **See Op. 1048A10** Air cleaner filtering element - replace
- 1. Disconnect the electrical connector for the sensor.



Description	Connector
1 Integrated air temperature sensor	K43

2. Undo the fixing bolts (2a) and remove the sensor (2b).



107.00.00.PR.V.10.069...56...B54.C.01.B.014.1IF

## Installation

1108 Euro 3

- Fit the sensor and tighten the fixing bolts.
- Connect the electrical connector for the sensor.



Description	Connector
- Integrated air temperature sensor	K43

- **See Op. 1048A10** Air cleaner filtering element - replace
- Connect the battery negative terminal.



Description	Connector
- Battery	A1

- Close the bonnet lid.

1108

## 1056B60 - SINGLE FUEL MANI- FOLD PIPE, WITH INJECTORS - R + R

### Removal

1108 Euro 3

- Open the bonnet.
- Disconnect the battery negative terminal.



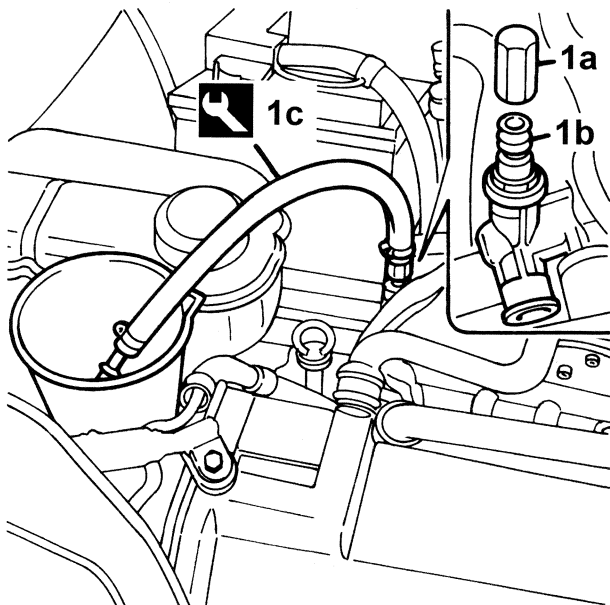
Description	Connector
- Battery	A1

- **See Op. 1048A10** Air cleaner filtering element - replace
- 1. Remove the protective cap (1a) for the fuel manifold (1b) and use the tool (1c) for draining the fuel pressure.

**Description****Code**

1c	Rapid clutch fitting	1.870.684.000
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- Collect the fuel in a suitable container.



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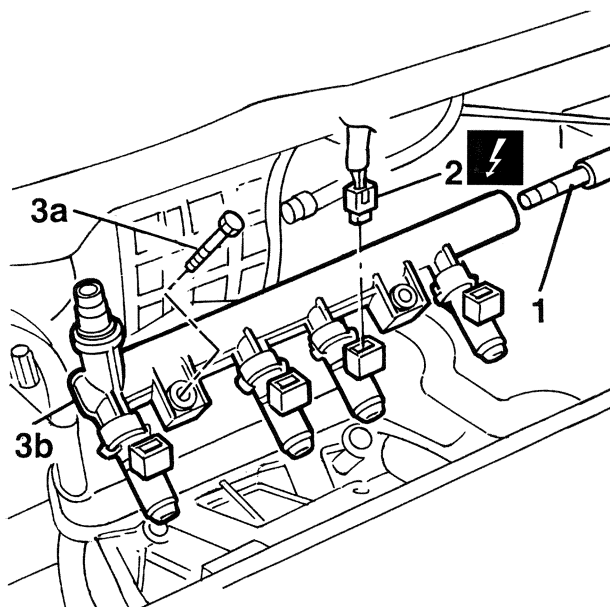
1108 Euro 3

1. Disconnect the rapid attachment for the fuel supply pipe.
2. Disconnect the electrical connectors for the injectors.

**Description****Connector**

2	Injector (SPI)	N70
---	----------------	-----

3. Undo the bolts (3a) and remove the manifold pipe (3b).



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**Installation**

1108 Euro 3

- Fit the manifold pipe and secure it using the bolts.
- Connect the electrical connectors for the injectors.

**Description****Connector**

-	Injector (SPI)	N70
---	----------------	-----

- Connect the rapid attachment for the fuel supply pipe.
- **See Op. 1048A10** Air cleaner filtering element - replace
- Connect the battery negative terminal.

**Description****Connector**

-	Battery	A1
---	---------	----

- Close the bonnet lid.

1108

**1056B68 - SET OF INJECTORS - R + R WITH FUEL MANIFOLD PIPE REMOVED - INCLUDES SEAL REPLACEMENT**

1108 Euro 3

- **Refer to op.. 1056B70** Injector (one) - r + r with fuel manifold pipe removed - includes seal replacement

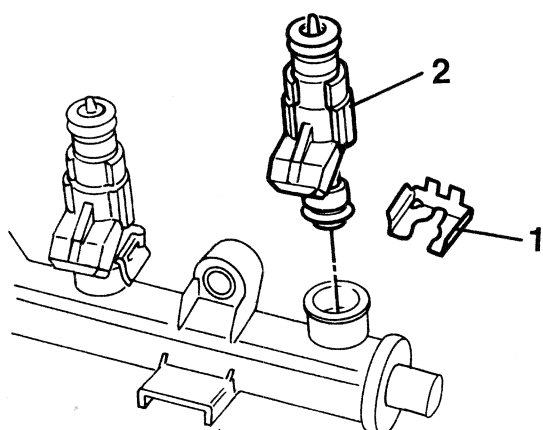
1108

**1056B70 - INJECTOR (ONE) - R + R WITH FUEL MANIFOLD PIPE REMOVED - INCLUDES SEAL REPLACEMENT****Removal**

1108 Euro 3

1. Remove the safety clip.
2. Remove the injector.





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### Installation

1108 Euro 3

- Before refitting, replace the gaskets.
- Fit the injector, applying slight pressure to the manifold housing.
- Fit the safety clip.

1108

## 1056B82 - INJECTION/IGNITION SYSTEM E.C.U. (ONE) - R + R

### Removal

1108 Euro 3

- Open the bonnet.
- Disconnect the battery negative terminal.



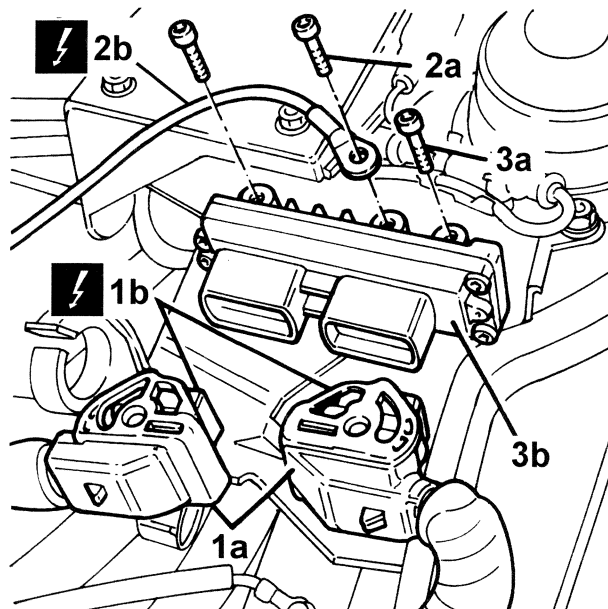
Description	Connector
- Battery	A1
- <b>See Op. 1048A10</b> Air cleaner filtering element - replace	
1. Act on the locking devices (1a) and disconnect the electrical connectors for the injection control unit (1b).	



Description	Connector
1b Engine management ECU	M10
2. Undo the fixing bolt (2a) and disconnect the fuel injection control unit earth lead (2b).	



Description	Connector
2b Injection ECU earth	C60
3. Undo the fixing bolts (3a) and remove the fuel injection control unit (3b).	



187.00.00.PR.V.10.059...56...B.92.C.01.B.B14.TIF

### Installation

1108 Euro 3

- Fit the injection control unit and tighten the fixing bolts.
- Connect the injection control unit earth lead and tighten the fixing bolt.



Description	Connector
- Injection ECU earth	C60
- Connect the electrical connections.	



Description	Connector
- Engine management ECU	M10
- <b>See Op. 1048A10</b> Air cleaner filtering element - replace	
- Connect the battery negative terminal.	



Description	Connector
- Battery	A1
- Close the bonnet lid.	





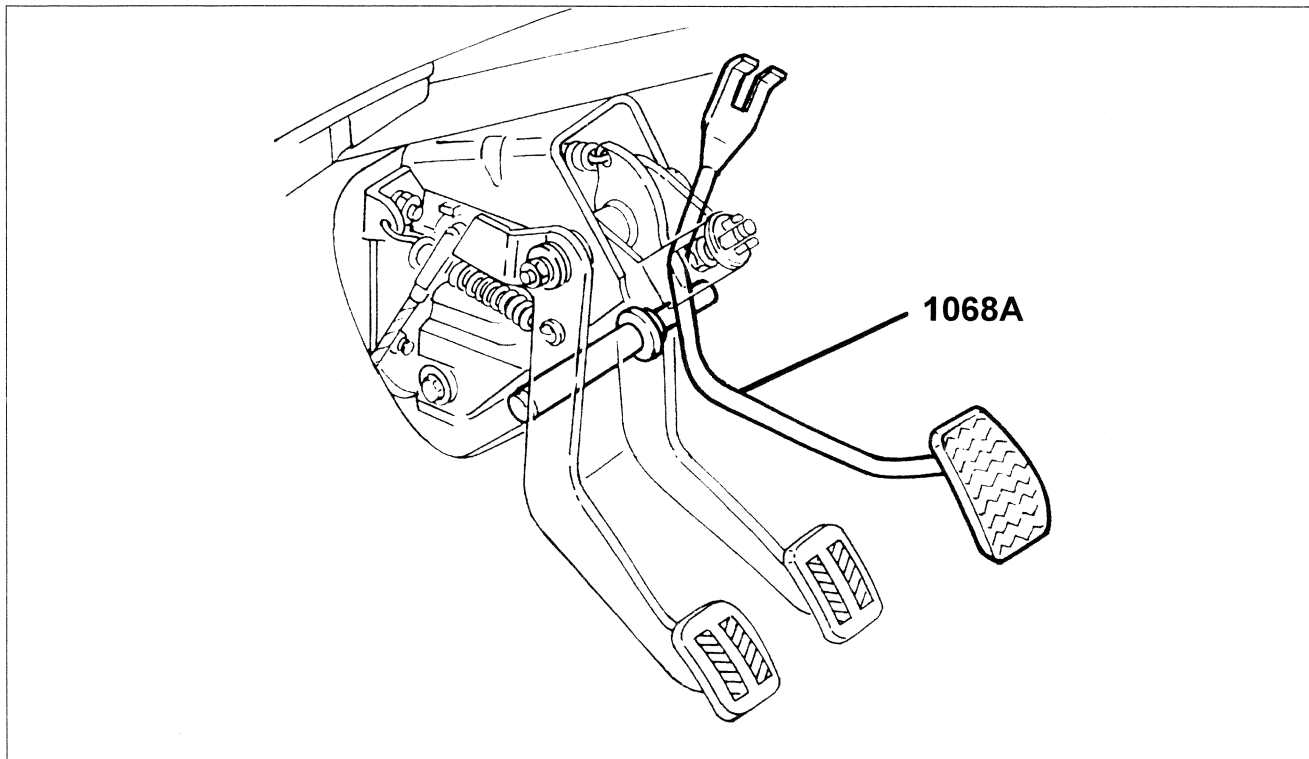
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*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1068A	Accelerator pedal control	1108 Euro 3

**SUB-GROUP GRAPHIC INDEX**

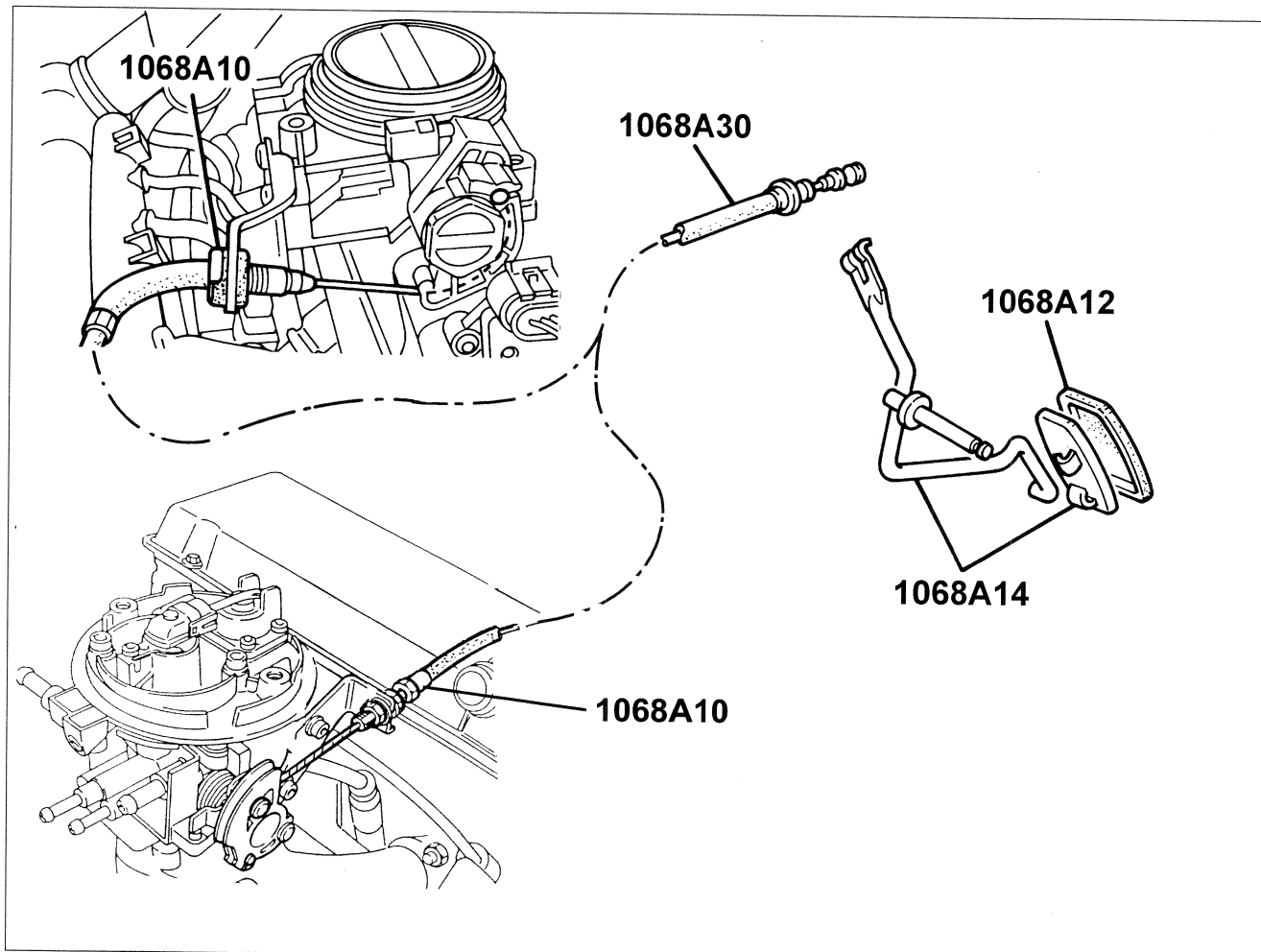


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1108

## 1068A - Accelerator pedal control VIEW OF ASSEMBLY



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### Operations index

Code	Operation	Validity
1068A10	Accelerator pedal control - check, adjust if necessary and lubricate	1108
1068A30	Accelerator control cable - r + r	1108

## OPERATIONS

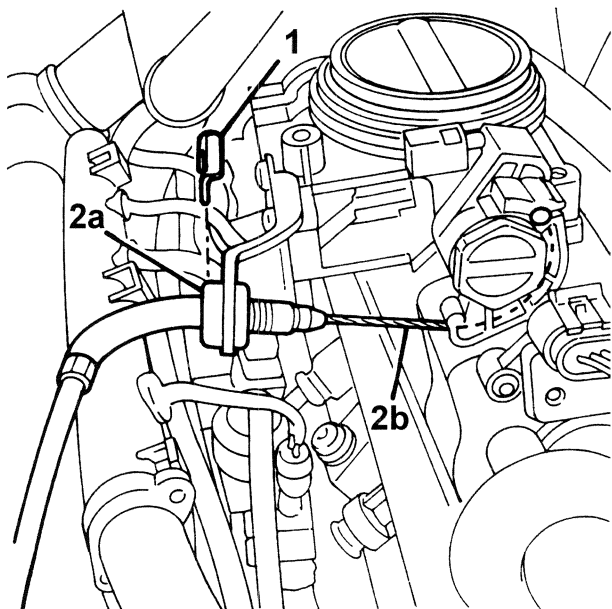
1108

### 1068A10 - ACCELERATOR PEDAL CONTROL - CHECK, ADJUST IF NECESSARY AND LUBRICATE

- Refer to op.. 1048A10 Air cleaner filtering element - replace
- 1. Withdraw the throttle cable adjustment retaining clip.
- 2. Adjust the axial position of the cable pass (2a) so that the cable (2b) is neither too taut or too slack.

1108 Euro 3

- Open the bonnet



187.00.00 PR V 10.059 \_\_ 68 \_\_ A.10 C 01 B B14.TIF

1108 Euro 3

- Refit the clip.
- Check that when the accelerator pedal is pressed fully down, the throttle body valve opens fully.
- **Refer to op.. 1048A10** Air cleaner filtering element - replace
- Close the bonnet lid.

1108

## 1068A30 - ACCELERATOR CONTROL CABLE - R + R

### Removal

1108 Euro 3

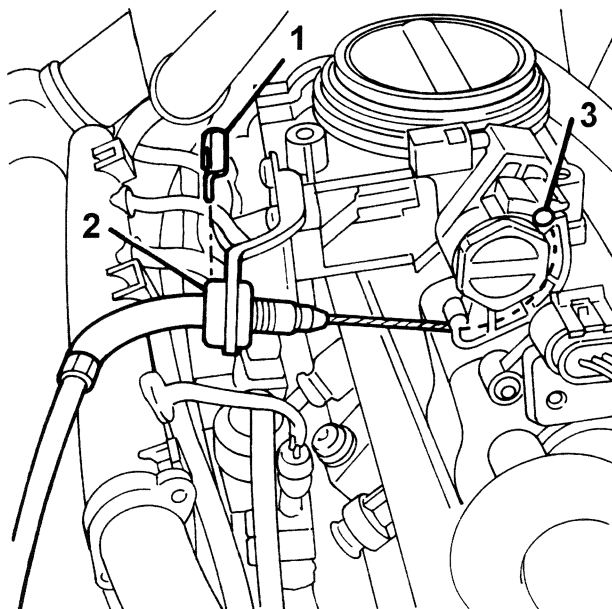
- Open the bonnet.
- Disconnect the battery negative (-) terminal.



Description	Connector
- Battery	A1

- <b>See Op. 1048A10</b> Air cleaner filtering element - replace
1. Withdraw the throttle cable adjustment retaining clip.
2. Remove the flexible cable from the reaction bracket.
3. Withdraw the end of the cable from the throttle body.



187.00.00 PR V 10.059 \_\_ 68 \_\_ A.30 C 01 B B14.TIF

1108 Euro 3

- Withdraw the end of the accelerator cable from the accelerator pedal.
- Remove the accelerator cable rubber from the engine compartment bulkhead.
- Remove the accelerator cable from the engine compartment.

### Installation

1108 Euro 3

- Fit the accelerator cable in the engine compartment.
- Fit the accelerator cable rubber in the engine compartment bulkhead.
- Fit the end of the accelerator cable on the accelerator pedal.
- Fit the end of the accelerator cable in the throttle body.
- Fit the cable in the reaction bracket.
- Fit the accelerator cable adjustment clip.
- **See Op. 1068A10** Accelerator pedal control - check, adjust if necessary and lubricate
- **See Op. 1048A10** Air cleaner filtering element - replace
- Connect the battery terminal (-).



Description	Connector
- Battery	A1

- Close the bonnet lid.
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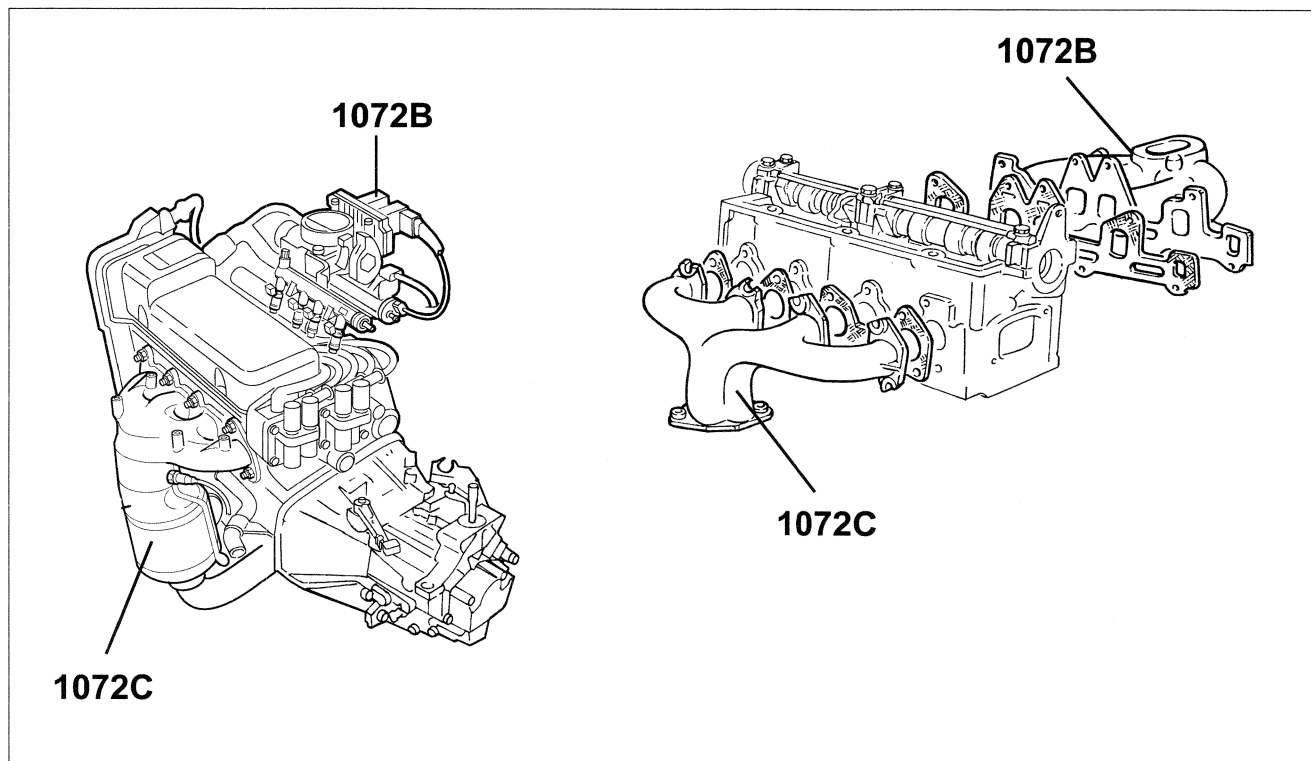
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

Cmp	Description	Validity
1072C	Exhaust manifolds	1108 Euro 3

SUB-GROUP GRAPHIC INDEX

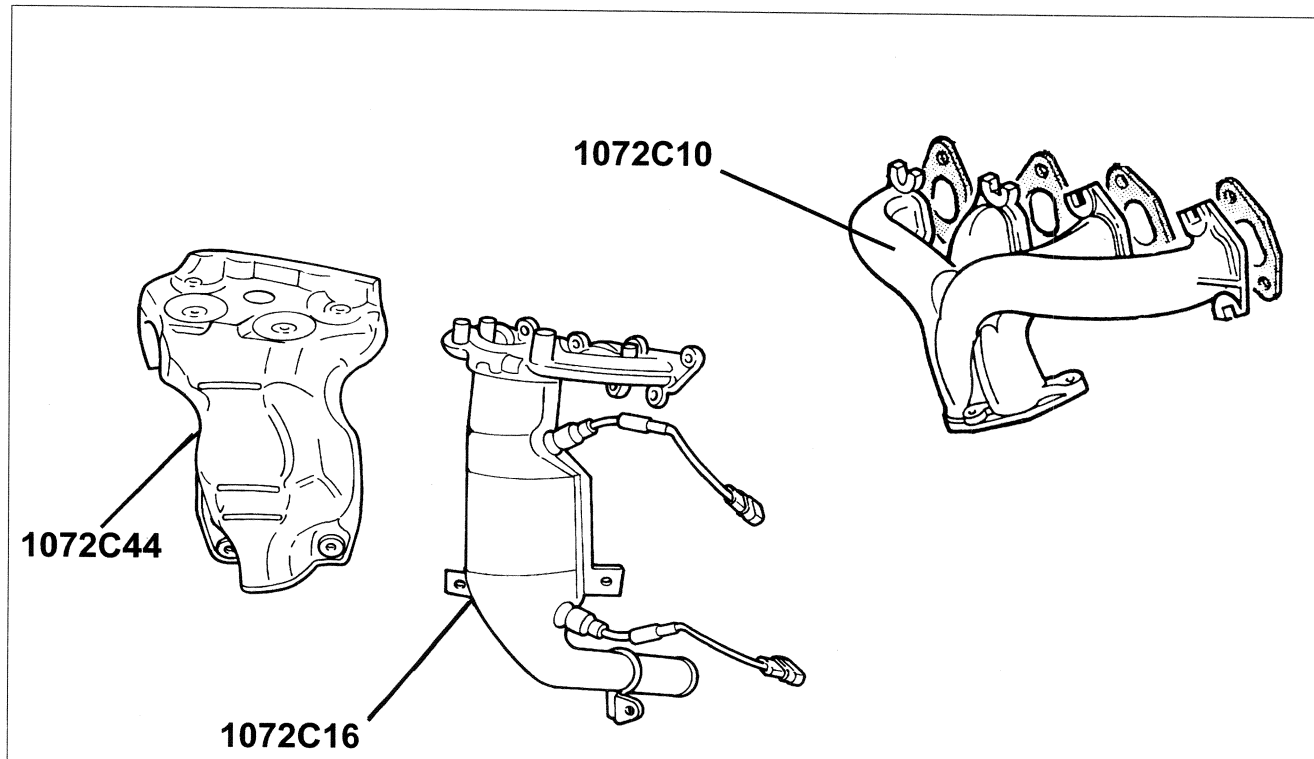


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1108

### 1072C - Exhaust manifolds VIEW OF ASSEMBLY



107.00.00.PRV.10.059\_F2\_C\_01.G\_11F

#### Operations index

Code	Operation	Validity
1072C16	Exhaust manifold with catalytic converter - r r	1108
1072C44	Exhaust manifold heat shield on bulkhead - r+r	1108

## OPERATIONS

1108

### 1072C16 - EXHAUST MANI- FOLD WITH CATALYTIC CON- VERTER - R R

1. Disconnect the electrical connection for the Lambda sensor on the rear catalytic converter.
2. Unscrew the lambda probe and remove.



	Description	Connector
1	Lambda sensor-2	K39

#### Removal

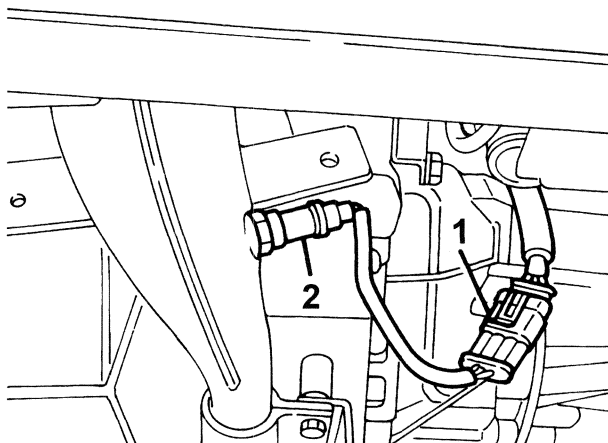
1108 Euro 3

- Place the car on a ramp.
- Open the bonnet
- Disconnect the battery negative terminal.



	Description	Connector
-	Battery	A1
-	<b>See Op. 1072C44</b> Exhaust manifold heat shield on bulkhead - r+r	

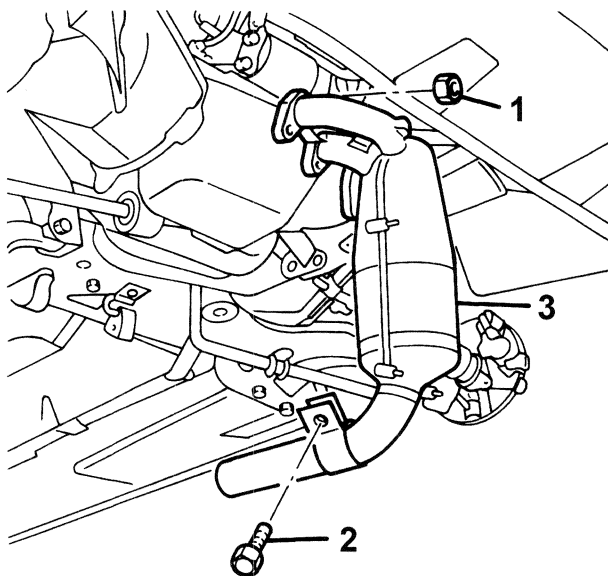




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1108 Euro 3

1. Unscrew the retaining bolts
2. Undo the bolt securing the mounting bracket to the gearbox.
3. Remove the exhaust manifold.




187.00.00.PRV.10.059...72...C.16.C.02.B.B14.11F

### Installation

1108 Euro 3

- Position the manifold/converter and tighten the nut fixing the mounting bracket to the gearbox to torque.

 Mounting	Component	Ø	Value (daNm)
- Bolt	CATALYTIC CONVERTER (ONE)	M8	2.7

- Tighten the cylinder head fixing nuts to torque.



Mounting	Component	Ø	Value (daNm)
- Nut	CATALYTIC CONVERTER (ONE)	M8	2.5

- To permit a correct thermal match apply the specified grease on the thread of the Lambda sensor.



Type	Component	Description	Q.ty.
- Grease	EXHAUST PIPE FROM MANIFOLD	ANTISEIZE MATERIAL-BORON NITRIDE N.G.K.	-

- Tighten the Lambda sensor to torque.



Mounting	Component	Ø	Value (daNm)
- -		M18 x 1.5	4.5

**Note:** During tightening, do not exert pressure on the Lambda sensor so as not to cause irreparable damage.

- Connect the electrical connector of the rear Lambda sensor.



Description	Connector
- Lambda probe	K40

- See Op. 1072C44 Exhaust manifold heat shield on bulkhead - r+r
- Connect the battery negative terminal.



Description	Connector
- Battery	A1

- Close the bonnet lid.
- Remove the vehicle from the ramp.

1108

## 1072C44 - EXHAUST MANIFOLD HEAT SHIELD ON BULKHEAD - R+R

### Removal

1108 Euro 3

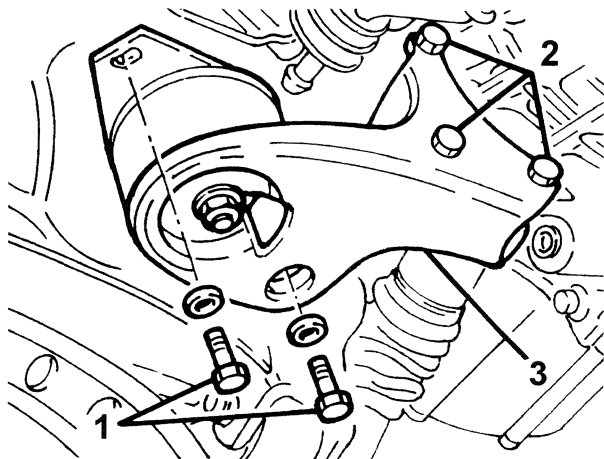
- Place the car on a ramp.
- Open the bonnet
- Disconnect the battery negative terminal.



Description	Connector
- Battery	A1



- See Op. 1048A10 Air cleaner filtering element - replace
  - See Op. 1088B10 Engine cooling tank - r + r
  - See Op. 4450B10 Front or rear wheel (one) - r+r
  - See Op. 7055B42 Supplementary wheel arch (one) - r+r
  - See Op. 1076B12 Exhaust pipe assembly r+r emission control versions
1. Undo the bolts securing the rear mount flexible block to the bodysell.
  2. Undo the bolts securing the rigid mount to the differential.
  3. Remove the mounting.



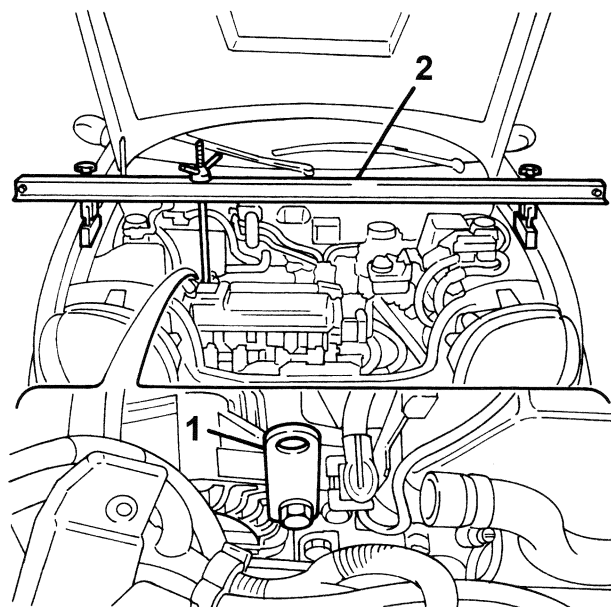
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1108 Euro 3

1. Position a suitable bracket, securing it to the alternator bolt as shown in the figure.
2. Secure and support the power unit with the tool, using a stay engaged in the bracket fitted previously.

**Description****Code**

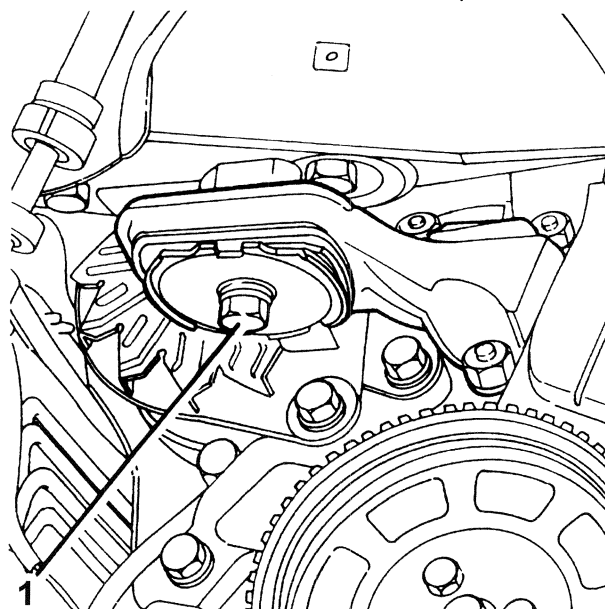
2	Crossmember	1.870.595.000
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1108 Euro 3

1. Undo the bolts securing the flexible block, timing gear side, to the bodysell, then lower the power unit by 3-4 centimetres and move the crossmember backwards as far as possible.



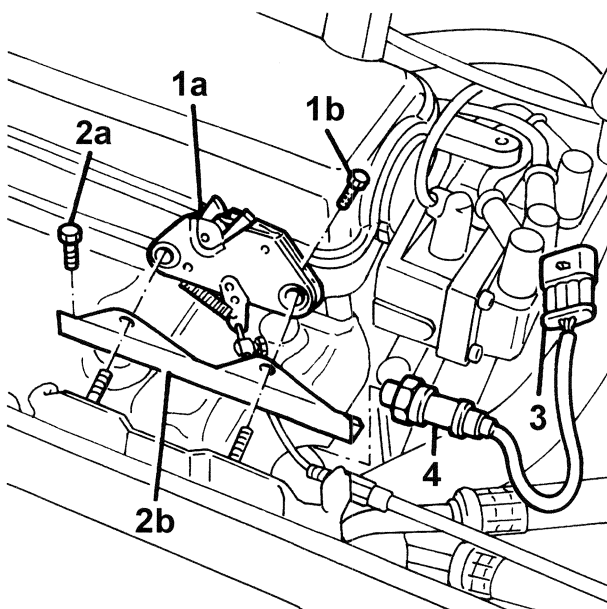
187.00.00.PRV.10.059...72...C.44.C.03.B.B14.TIF

1108 Euro 3

1. Undo the bolts (1a) and remove the bonnet release catch (1b).
2. Undo the bolts (2a) and remove the bonnet release catch mounting (2b).
3. Disconnect the electrical connector on the front catalyzer Lambda sensor.
4. Undo the front Lambda sensor and remove it.

**Description****Connector**

3	Lambda probe	K40
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## REPAIR PROCEDURES

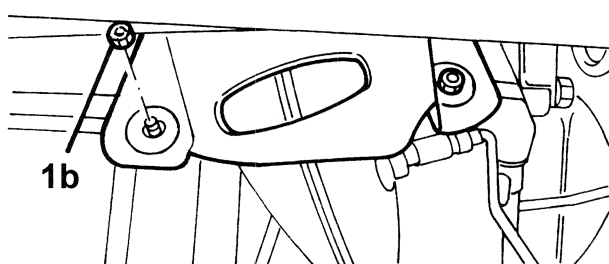
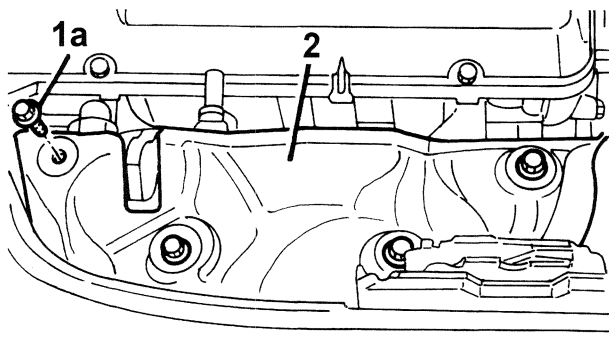
### Inlet and exhaust manifolds

1108

1072

1108 | Euro 3

1. Undo the fixing bolts (1a) and nuts (1b).
2. Remove the heat shield.



187 00 00 PR V 10 06 9 ... 72 ... C 44 C 06 B 014 11F

### Installation

1108 | Euro 3

- Tighten the nuts securing the heat shield to the exhaust manifold/converter.
- Tighten the bolts securing heat shield to the exhaust manifold.
- To permit a good thermal match, apply the specified grease on the Lambda sensor thread.



Type	Component	Description	Q. ty.
- Grease	EXHAUST PIPE FROM MANIFOLD	ANTISEIZE MATERIAL - BORON NITRITE N.G.K.	-

- Tighten the front Lambda sensor to torque.



Mounting	Component	Ø	Value (daNm)
-	-	M18 x 1.5	4.5

**Note:** During tightening, do not exert pressure on the Lambda sensor so as to avoid irreparable damage.

- Connect the electrical connector for the front Lambda sensor.



Description	Connector
- Lambda probe	K40

- Fit the bonnet release catch mounting and tighten the bolts.
- Fit the bonnet release catch and tighten the bolts.

- Position the power unit and tighten to torque the bolt securing the flexible block mount, timing gear side, to the bodyshell.



Mounting	Component	Ø	Value (daNm)
-	-	-	-

- Release the power unit from the hoist and remove the power unit support tool.
- Remove the supporting bracket and tighten the alternator bolt to torque.



Mounting	Component	Ø	Value (daNm)
- Screw	ALTERNATOR ASSEMBLY	M12	8

- Tighten to torque the nuts on the bolts securing the rear rigid mount to the differential.



Mounting	Component	Ø	Value (daNm)
-	-	-	-

- Tighten to torque the bolts retaining the rear flexible block to the bodyshell.



Mounting	Component	Ø	Value (daNm)
-	-	-	-

- **See Op. 1076B12** Exhaust pipe assembly r+r emission control versions
- **See Op. 1088B10** Engine cooling tank - r + r
- **See Op. 1048A10** Air cleaner filtering element - replace
- Connect the battery negative terminal.



Description	Connector
- Battery	A1

- Close the bonnet lid.
- Remove the vehicle from the ramp.





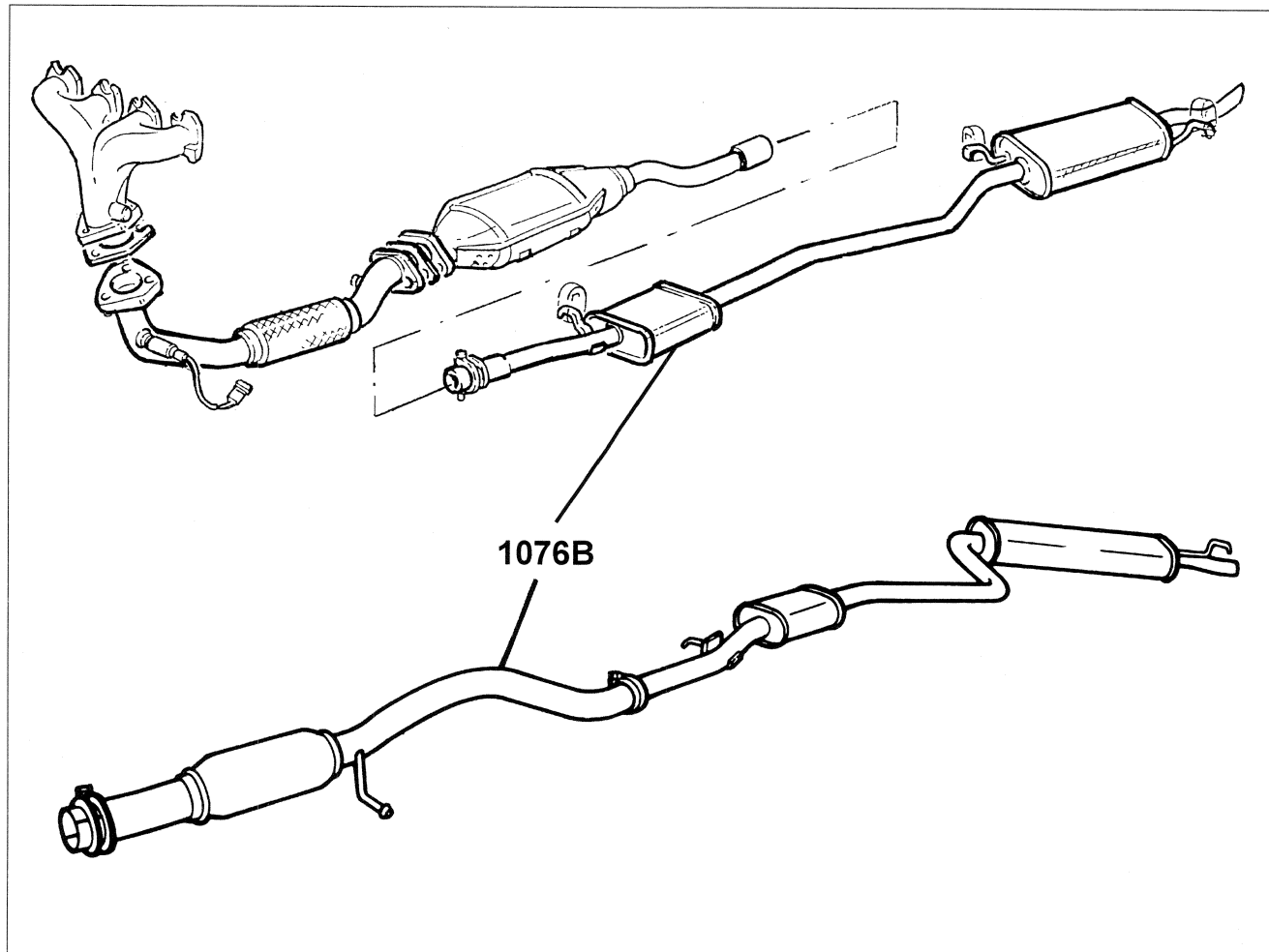
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*Assembly drawings index*

Cmp	Description	Validity
1076B	Exhaust pipes and silencers	1108 Euro 3

SUB-GROUP GRAPHIC INDEX

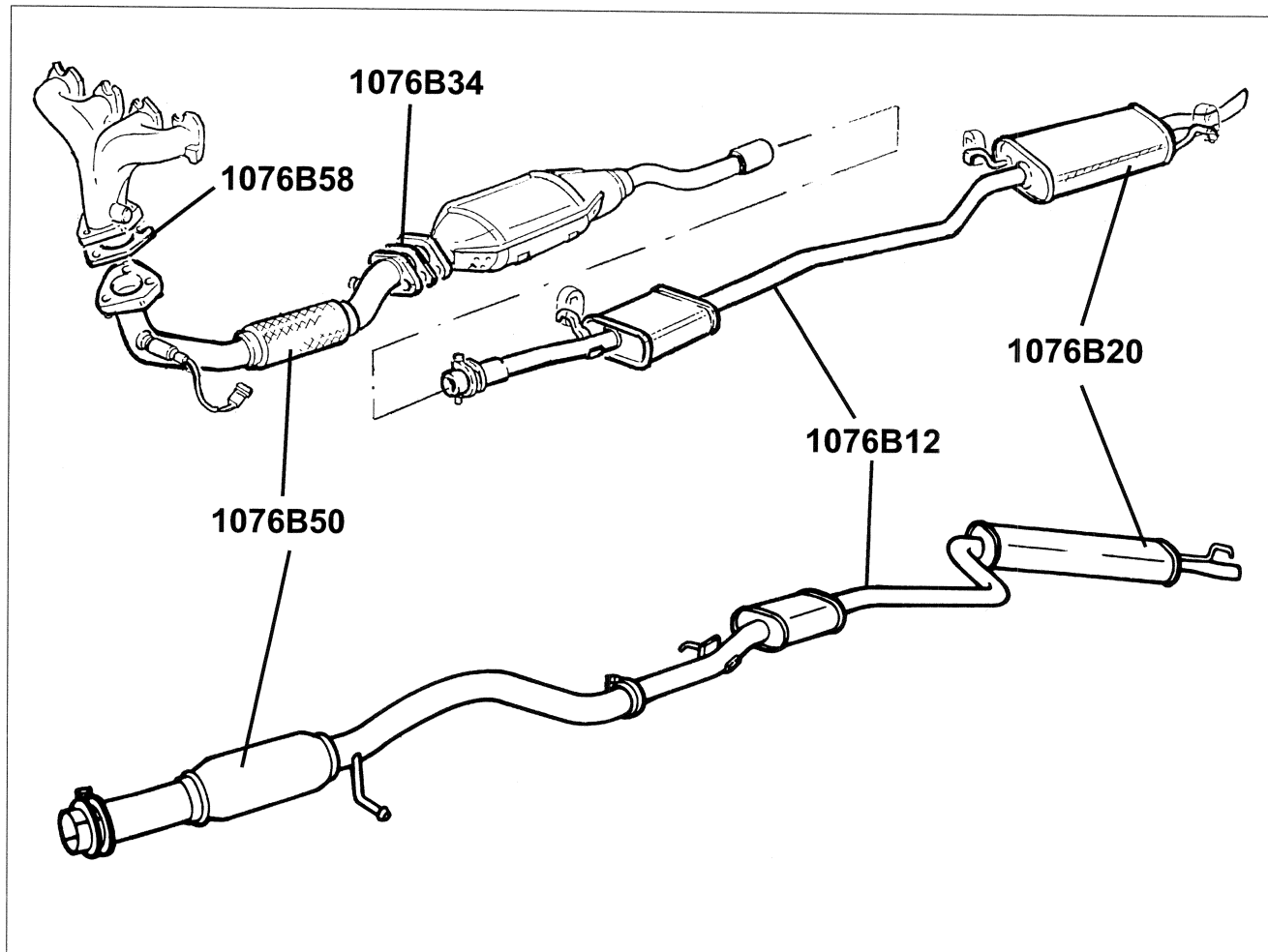


107 00 00 PR V.10 059 \_\_ 76 \_\_ C 01 H \_\_ 11F



1108

### 1076B - Exhaust pipes and silencers VIEW OF ASSEMBLY



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#### Operations index

Code	Operation	Validity
1076B12	Exhaust pipe assembly r+r emission control versions	1108
1076B20	Rear exhaust silencer - r + r	1108

## OPERATIONS

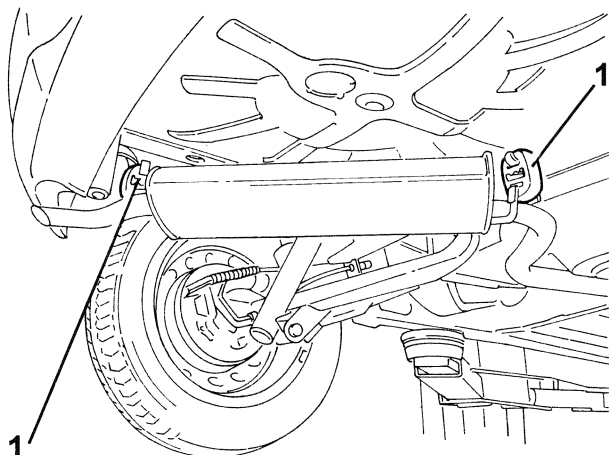
1108

### 1076B12 - EXHAUST PIPE ASSEMBLY R+R EMISSION CONTROL VERSIONS

#### Removal

1108 Euro 3

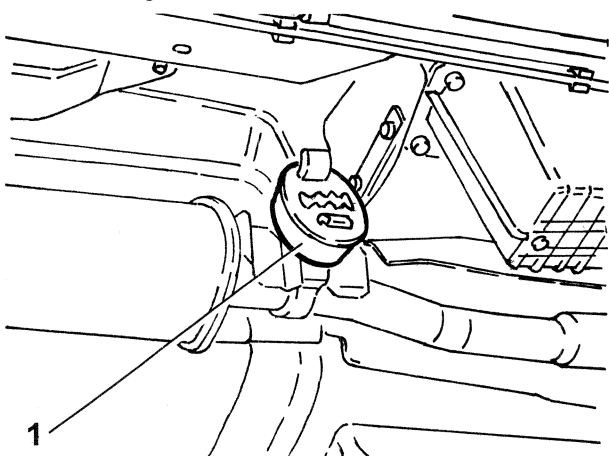
- Place the car on a ramp.
- 1. Withdraw the brackets from the flexible mounting of the rear exhaust silencer.



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1108 Euro 3

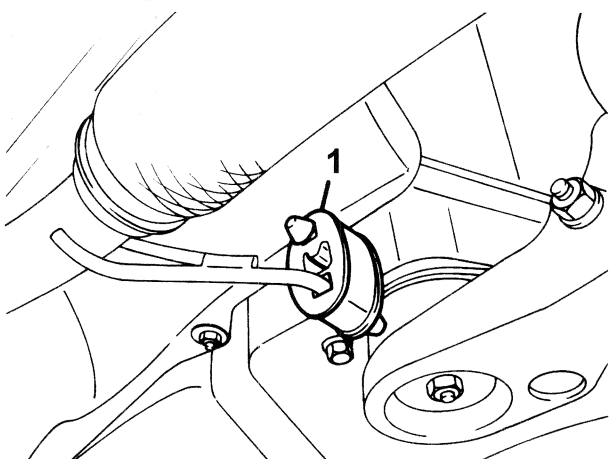
1. Withdraw the bracket from the flexible mounting of the front exhaust silencer.



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1108 Euro 3

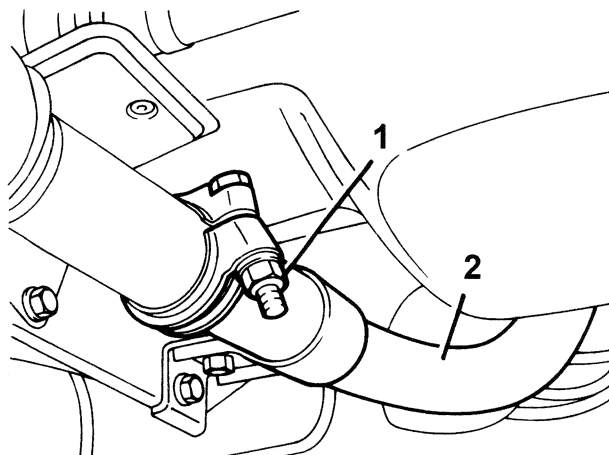
1. Withdraw the bracket from the flexible mounting of the section with flexible cable.



107.00.00.PRV.10.06.9 \_\_\_ 76 \_\_\_ B.12.C.03.A.B14.TIF

1108 Euro 3

1. Loosen the nut on the flange joining the exhaust pipe-exhaust manifold.
2. Withdraw the exhaust pipe.



107.00.00.PRV.10.06.9 \_\_\_ 76 \_\_\_ B.12.C.04.A.B14.TIF

## Installation

1108 Euro 3

- Fit the exhaust pipe, connecting it to the exhaust manifold.
- Insert the bracket of the section with flexible cable in the flexible mounting.
- Insert the bracket of the front exhaust silencer in the flexible mounting.
- Insert the brackets of the rear exhaust silencer in the flexible mountings.
- Tighten the nut securing the flange joining the exhaust pipe-exhaust manifold to torque.

 Mounting	Component	Ø	Value (daNm)
- Nut	EXHAUST PIPE ASSEMBLY	M8	2.5

- Remove the vehicle from the ramp.

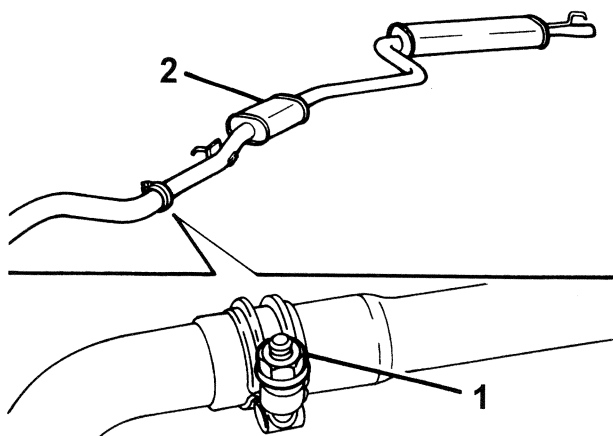
1108

## 1076B20 - REAR EXHAUST SILENCER - R + R

### Removal

1108 Euro 3

- Place the car on a ramp.
- **See Op. 1076B12** Exhaust pipe assembly r+r emission control versions
  1. Loosen the nut on the flange joining the section with flexible cable-exhaust silencers.
  2. Withdraw the exhaust silencers.



187/00/00 PR.V.10/059 \_\_76\_\_B 20.C.01 AB14.11F

## Installation

1108 Euro 3

- Fit the exhaust silencers, connecting them to the section with flexible cable.
- Tighten to torque the nut securing the flange joining the section with flexible cable-exhaust silencers.



Mounting	Component	Ø	Value (daNm)
- Nut	REAR EXHAUST SILENCER	M8	2.5

- **See Op. 1076B12** Exhaust pipe assembly r+r emission control versions
- Remove the vehicle from the ramp.





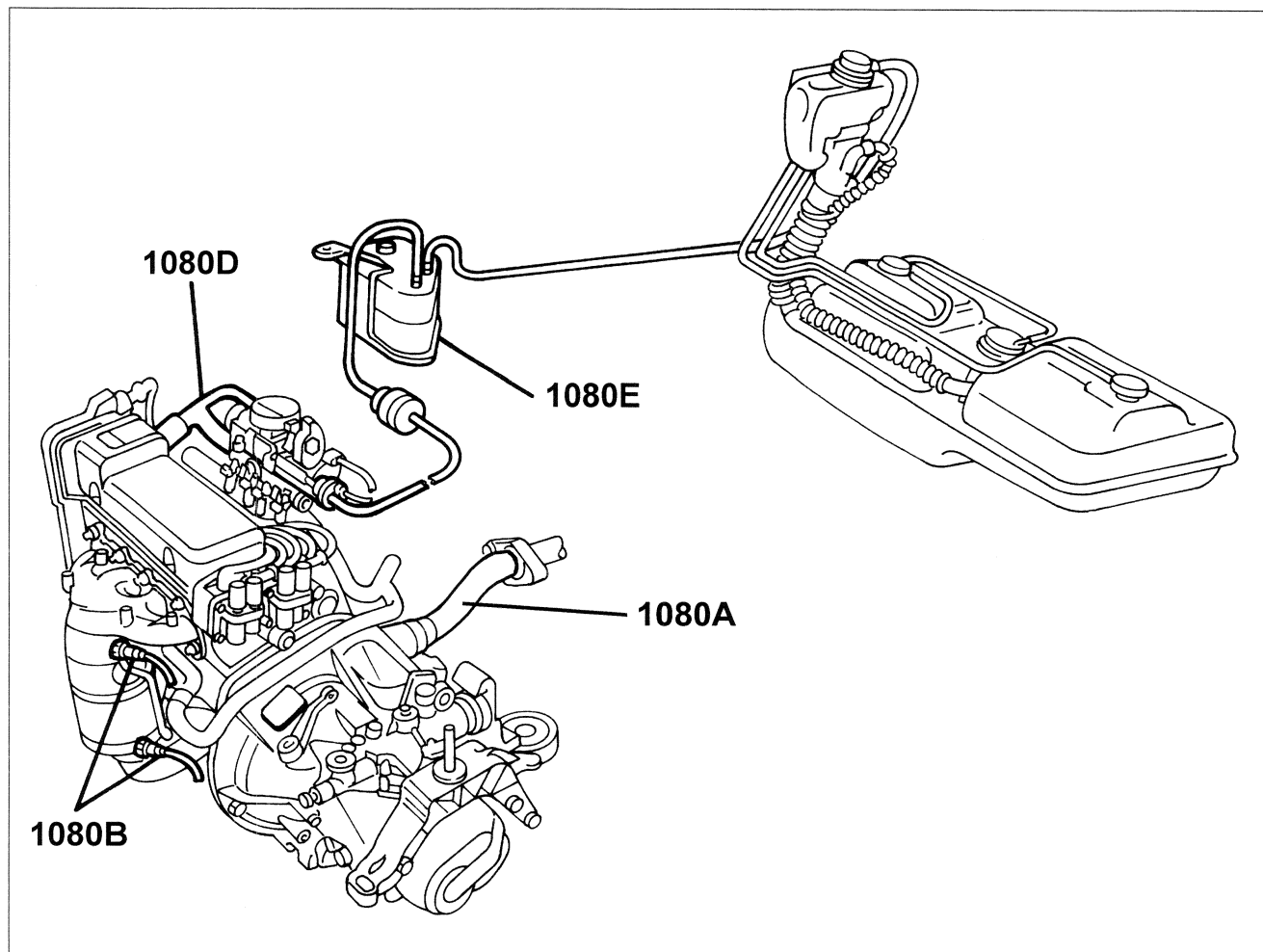
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1080B	Exhaust emission control system	1108 Euro 3
1080D	Crankcase vapour/gas recirculation system	1108 Euro 3
1080E	Evaporation control system	1108 Euro 3

SUB-GROUP GRAPHIC INDEX



187.00.00.PR.V.10.052...R0...C.01.H...TF

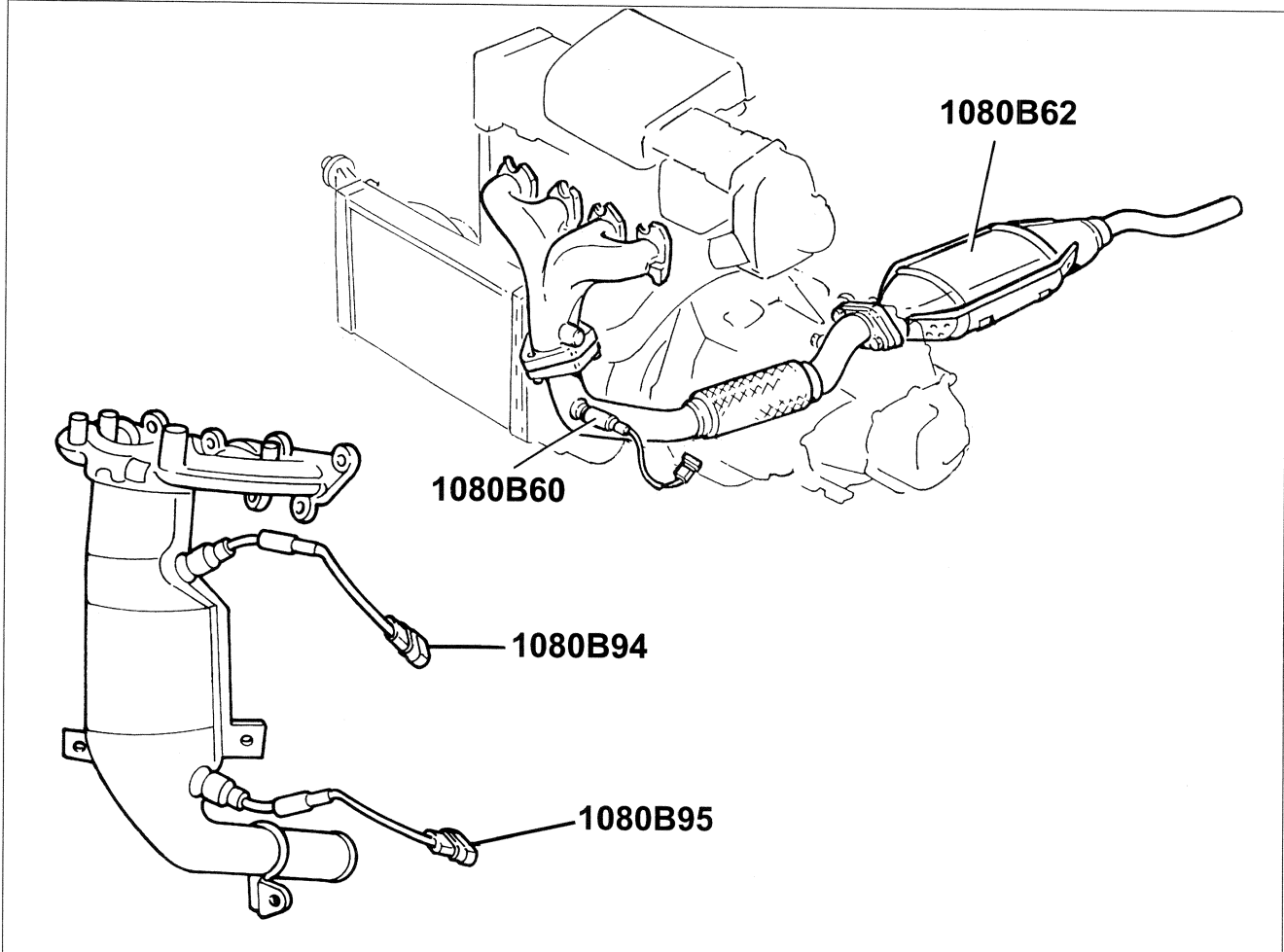


# 1080

1108

## 1080B - Exhaust emission control system

### VIEW OF ASSEMBLY



107.00.00.PRV.10.059...B...C.01.H...TIF

### Operations index

Code	Operation	Validity
1080B94	Front lambda probe with catalitic converter r r	1108
1080B95	Rear lambda probe with catalitic converter r r	1108

## OPERATIONS

1108

### 1080B94 - FRONT LAMBDA PROBE WITH CATALITIC CONVERTER R R

#### Removal

1108 Euro 3

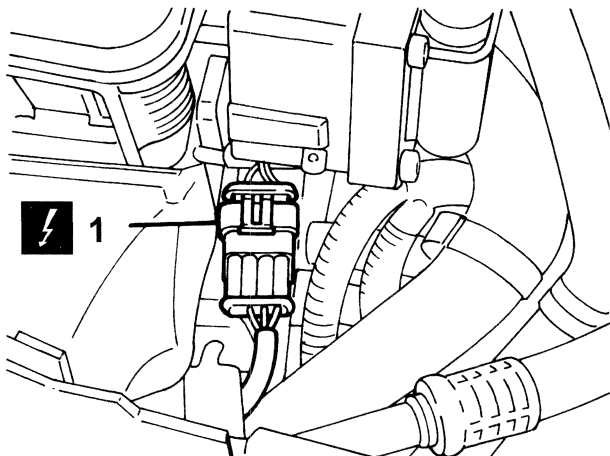
- Place the car on a ramp.
- Disconnect the battery negative terminal.



Description	Connector
- Battery	A1
- See Op. 1048A10 Air cleaner filtering element - replace	
1. Disconnect the electrical connection for the Lambda sensor.	



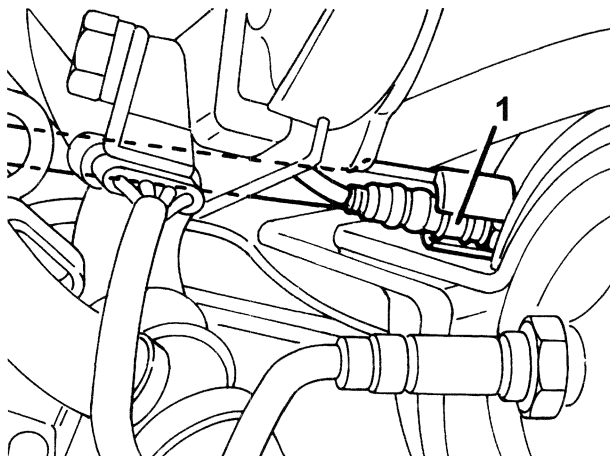
Description	Connector
1 Lambda probe	K40



187.00.00.PR.V.10.059...B0...B.94.C.01.A.B14.TIF

1108 Euro 3

1. Working from underneath the car, undo the Lambda sensor and remove it.



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## Installation

1108 Euro 3

- To permit a correct thermal match, apply the specified grease to the Lambda sensor thread.



Type	Component	Description	Q.ty.
- Grease	EXHAUST PIPE FROM MANIFOLD	ANTISEIZE MATERIAL-BORON NITRIDE N.G.K.	-

**Note:** During tightening, do not exert pressure on the Lambda sensor so as not to cause irreparable damage.

- Tighten the lambda probe to torque.



Mounting	Component	Ø	Value (daNm)
-	-	M18 x 1.5	4.5

- Connect the lambda probe electrical connector.



Description	Connector
1 Lambda probe	K40

- Connect the battery negative terminal.



Description	Connector
- Battery	A1

- See Op. 1048A10 Air cleaner filtering element - replace
- Remove the vehicle from the ramp.

1108

## 1080B95 - REAR LAMBDA PROBE WITH CATALITIC CONVERTER R R

### Removal

1108 Euro 3

- Place the car on a ramp.
- Disconnect the battery negative terminal.



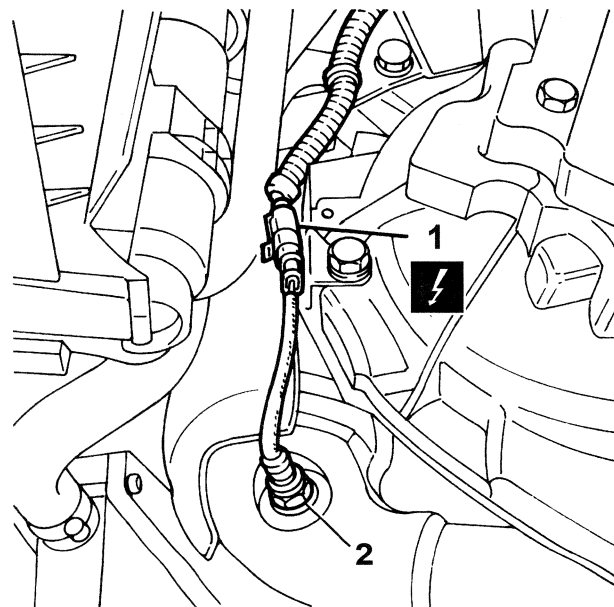
Description	Connector
- Battery	A1

1. Disconnect the electrical connection for the Lambda sensor.



Description	Connector
1 Lambda sensor-2	K39

2. Working from under the vehicle, withdraw the Lambda sensor and remove it.



187.00.00.PR.V.10.059...B0...B.95.C.01.B.B14.TIF



## Installation

1108 Euro 3

- To permit a correct thermal match, apply the specified grease to the Lambda sensor's thread.



Type	Component	Description	Q.ty.
- Grease	EXHAUST PIPE FROM MANIFOLD	ANTISEIZE MATERIA- BORON NITRITE N.G.K.	-

**Note:** During tightening, do not exert pressure on the Lambda sensor so as not to cause irreparable damage.

- Tighten the Lambda probe to torque.



Mounting	Component	Ø	Value (daNm)
-	-	M18 x 1.5	4.5

- Connect the Lambda probe electrical connector.



Description	Connector
1 Lambda sensor-2	K39

- Connect the battery negative terminal.



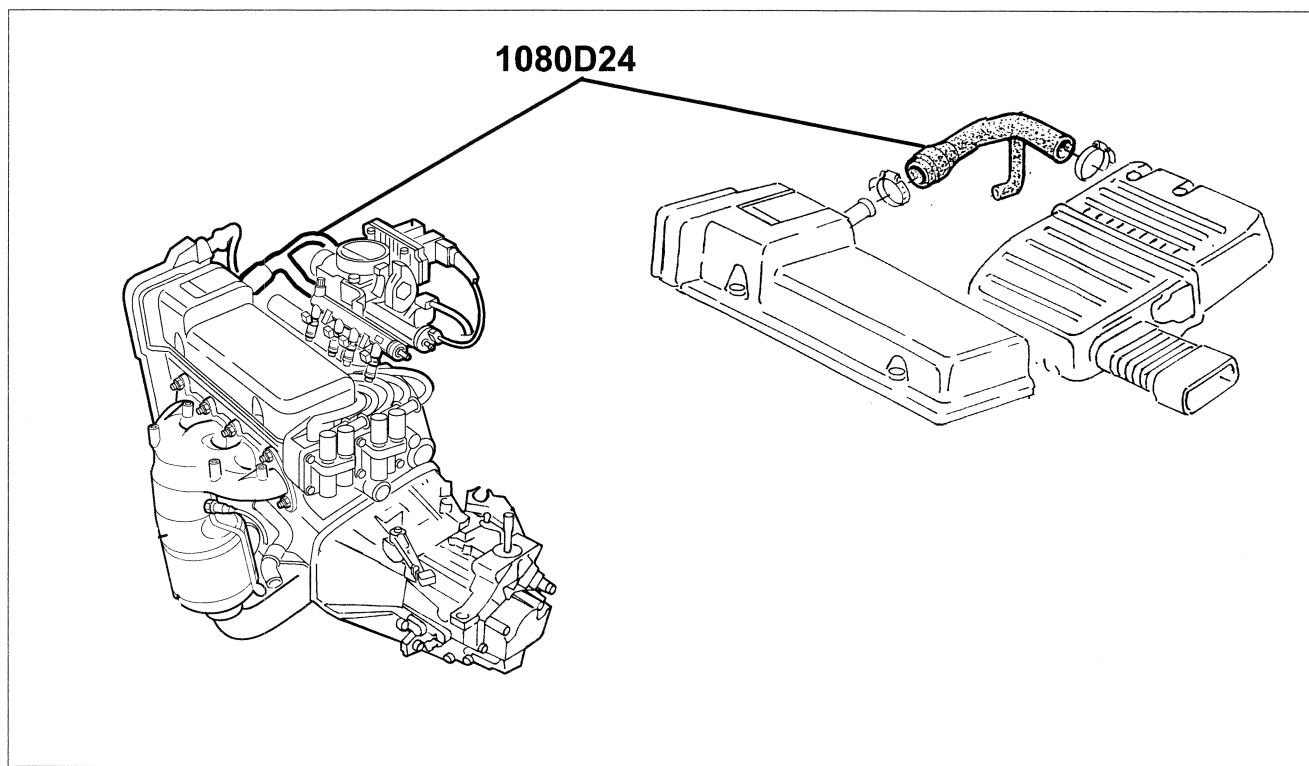
Description	Connector
- Battery	A1

- Remove the vehicle from the ramp.



1108

## 1080D - Crankcase vapour/gas recirculation system VIEW OF ASSEMBLY



107.00.90.PRV.10.05.9\_\_80\_\_D\_C.01.G\_\_TIF

### Operations index

Code	Operation	Validity
1080D24	Engine oil vapour intake pipe - r + r	1108

## OPERATIONS

1108

### 1080D24 - ENGINE OIL VAPOUR INTAKE PIPE - R + R

#### Removal

1108 | Euro 3

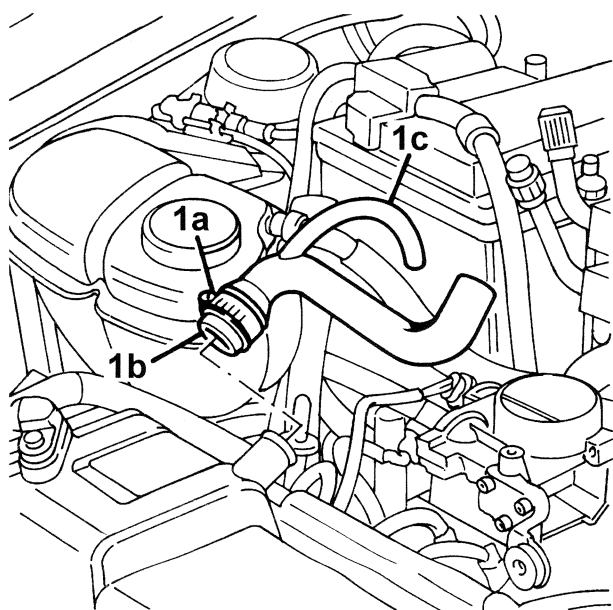
- Open the bonnet.
- Disconnect the battery negative (-) terminal.



Description	Connector
- Battery	A1

-	<b>See Op. 1048A10</b> Air cleaner filtering element - replace
1.	Withdraw the oil vapour inlet pipe from the throttle body.
2.	Withdraw the oil vapour inlet pipe from the rocker cover and remove it.



107.00.00.PRV.10.05.9\_\_80\_\_D.24.C.01.B.B14.TIF



## Installation

1108 Euro 3

- Fit the oil vapour inlet pipe on the rocker cover.
- Fit the oil vapour inlet pipe on the throttle body.
- **See Op. 1048A10** Air cleaner filtering element - replace
- Connect the negative (-) battery terminal.



### Description

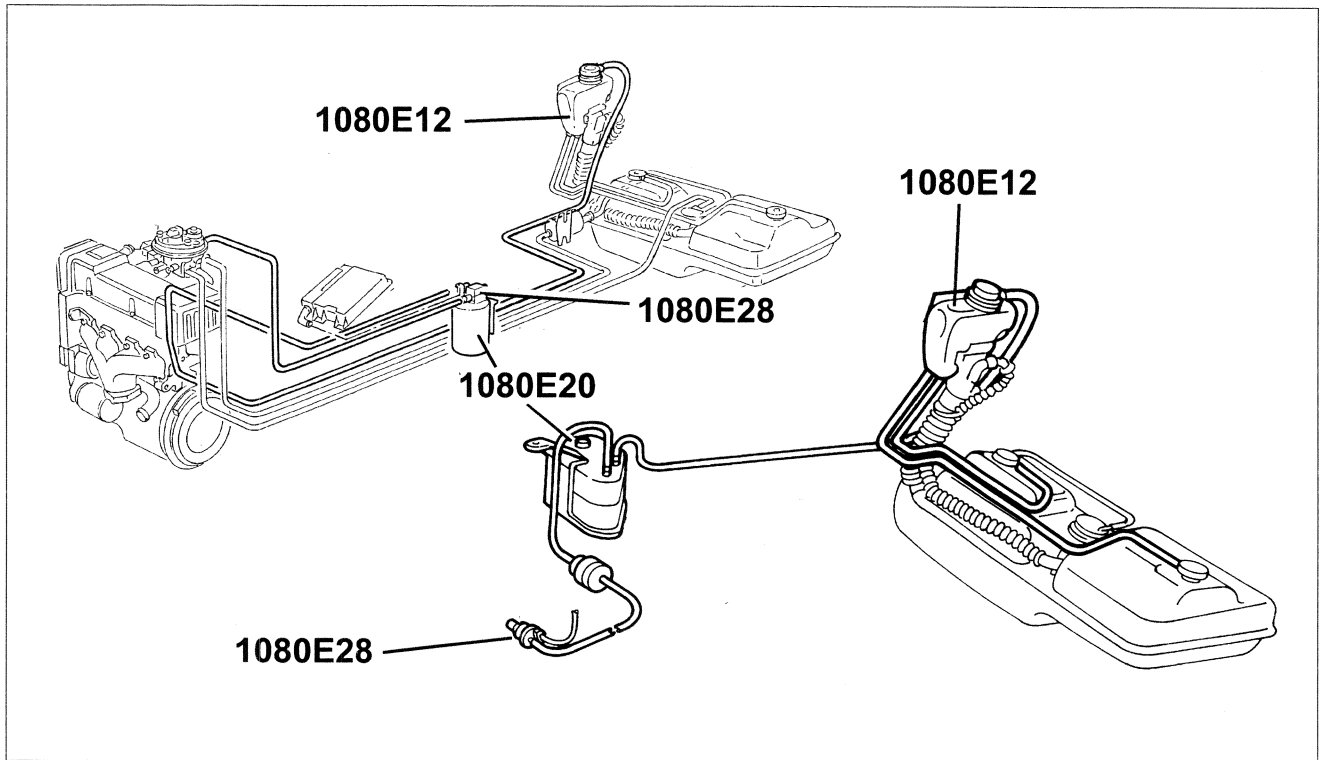
### Connector

- | Description | Connector |
|-------------|-----------|
| - Battery   | A1        |
- Close the bonnet lid.



1108

## 1080E - Evaporation control system VIEW OF ASSEMBLY



107.00.00.PRV.10.059...\_R0...\_E...C.01.G...TIF

### Operations index

Code	Operation	Validity
1080E20	Active carbon filter for fuel vapours - r + r	1108
1080E28	Enablement solenoid for flow of fuel vapour to inlet - r+r	1108

## OPERATIONS

1108

### 1080E20 - ACTIVE CARBON FILTER FOR FUEL VAPOURS - R + R

#### Removal

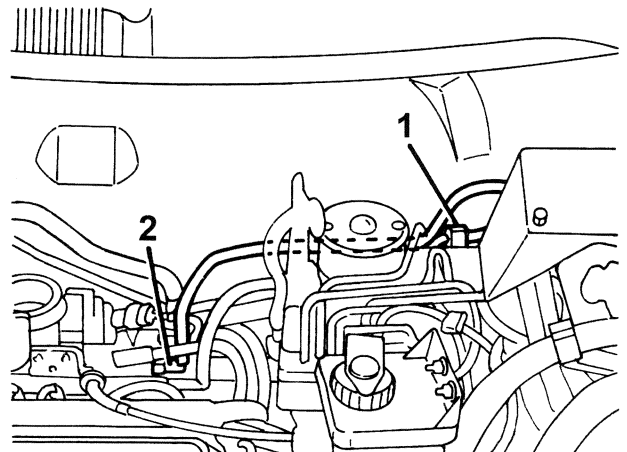
1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Disconnect the battery negative (-) terminal.



Description	Connector
- Battery	A1
- See Op. 1048A10 Air cleaner filtering element - replace	

1. Disconnect the vapour inlet pipe to the active charcoal filter from the rigid pipe.
2. Disconnect the vapour inlet pipe to the solenoids from the solenoid.

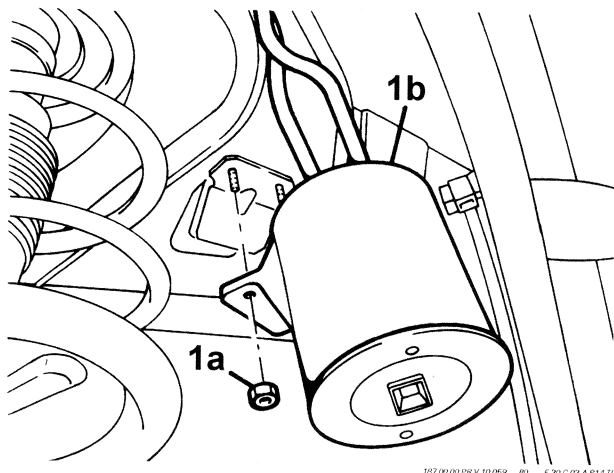


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1108 Euro 3

- See Op. 4450B10 Front or rear wheel (one) - r+r
  - See Op. 7055B42 Supplementary wheel arch (one) - r+r
  - Remove the pipes from the clip on the wheelarch.
  - Withdraw the pipes, and take them out of the engine compartment.
1. Undo the fixing nuts (1a) and remove the active charcoal filter (1b).



## Installation

1108 Euro 3

- Fit the inlet and outlet pipes of the active charcoal filter through the wheelarch into the engine compartment.
- Fit the active charcoal filter, securing it with the nuts.
- See Op. 7055B42 Supplementary wheel arch (one) - r+r
- See Op. 4450B10 Front or rear wheel (one) - r+r
- Connect the vapour inlet pipe to the active charcoal filter to the rigid pipe.
- Connect the vapour inlet pipe to the solenoid.
- See Op. 1048A10 Air cleaner filtering element - replace
- Connect the negative (-) battery terminal.



Description	Connector
Battery	A1

- Close the bonnet lid.
- Remove the car from the ramp.

1108

## 1080E28 - ENABLEMENT SOLENOID FOR FLOW OF FUEL VAPOUR TO INLET - R+R

### Removal

1108 Euro 3

- Open the bonnet.
- Disconnect the battery negative (-) terminal.



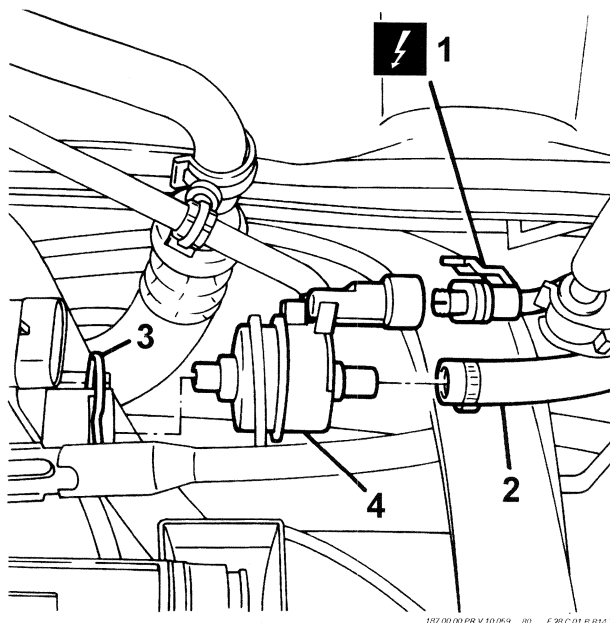
Description	Connector
Battery	A1

- See Op. 1048A10 Air cleaner filtering element - replace
1. Disconnect the electrical connection of the fuel vapour enablement solenoid.



Description	Connector
1 Fuel vapour recovery solenoid	L10

2. Disconnect the vapour inlet pipe to the solenoid from the solenoid.
3. Withdraw the retaining clip upwards.
4. Remove the solenoid from the inlet manifold.



## Installation

1108 Euro 3

- Fit the solenoid in its seating.
- Fit the retaining clip and press it until it clicks in place.
- Connect the electrical connection for the fuel vapour enablement solenoid.



Description	Connector
Fuel vapour recovery solenoid	L10

- Connect the vapour inlet pipe to the solenoid.
- See Op. 1048A10 Air cleaner filtering element - replace
- Connect the negative (-) battery terminal.



Description	Connector
Battery	A1

- Close the bonnet lid.





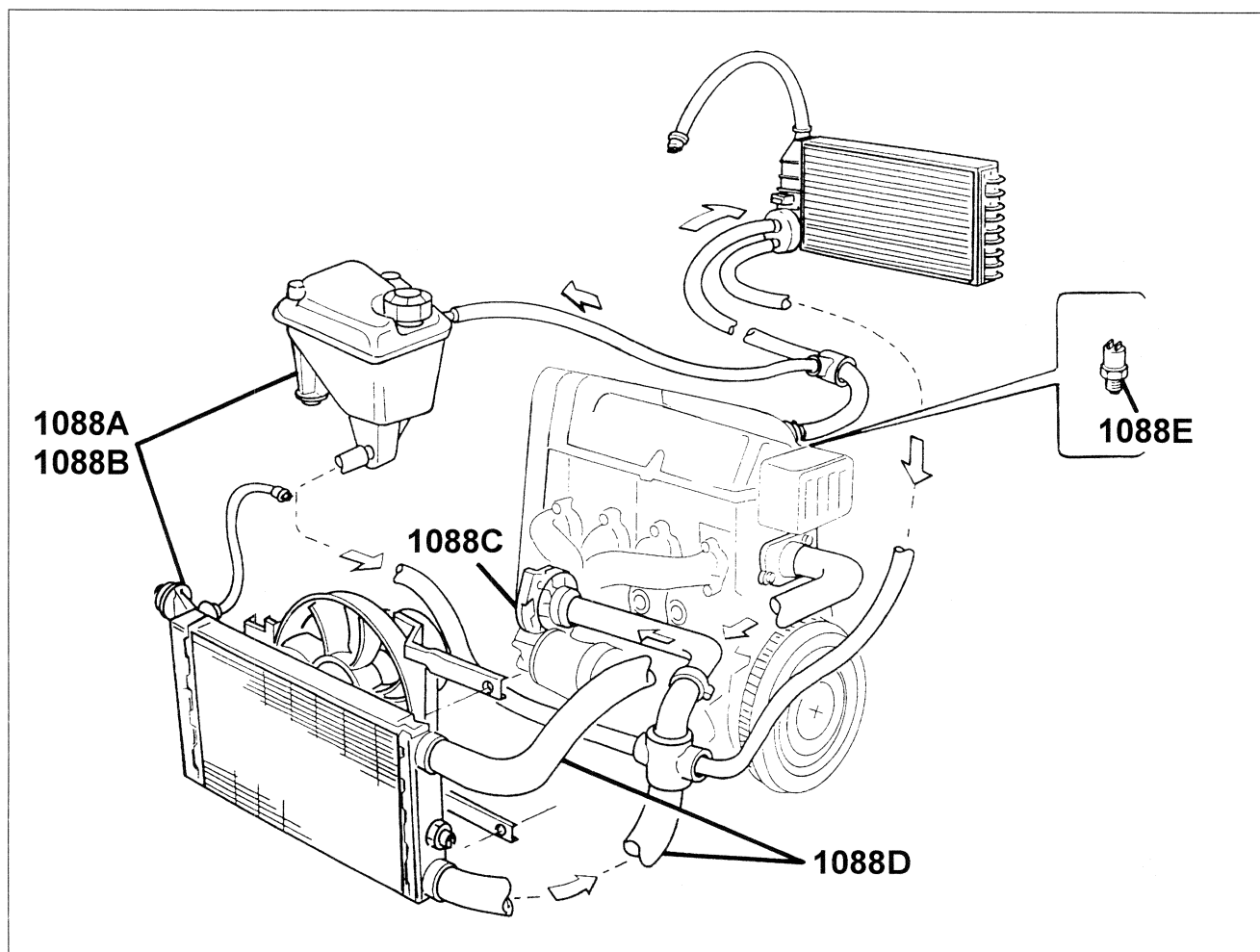
*Sub-group index*

- SUB-GROUP GRAPHIC INDEX

*Assembly drawings index*

<i>Cmp</i>	<i>Description</i>	<i>Validity</i>
1088A	Miscellaneous - engine cooling checks	1108 Euro 3
1088B	Engine cooling tank - r + r	1108 Euro 3
1088C	Water pump and thermostat	1108 Euro 3
1088D	Coolant hoses and sleeves	1108 Euro 3

SUB-GROUP GRAPHIC INDEX



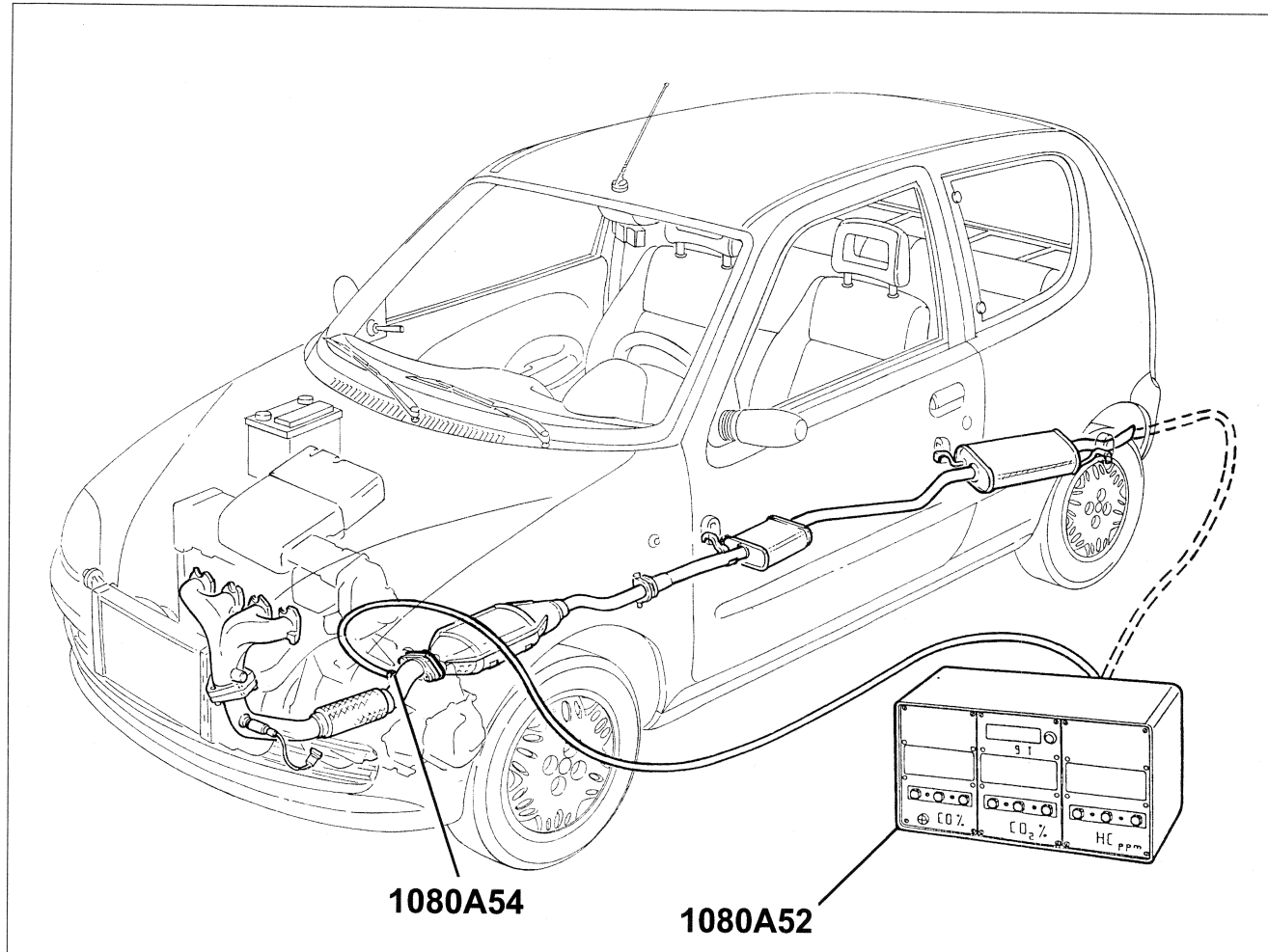
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1108

## 1088A - Miscellaneous - engine cooling checks

### VIEW OF ASSEMBLY



### Operations index

Code	Operation	Validity
1088A30	Engine cooling system - drain and fill circuit, includes bleeding air	1108

## OPERATIONS

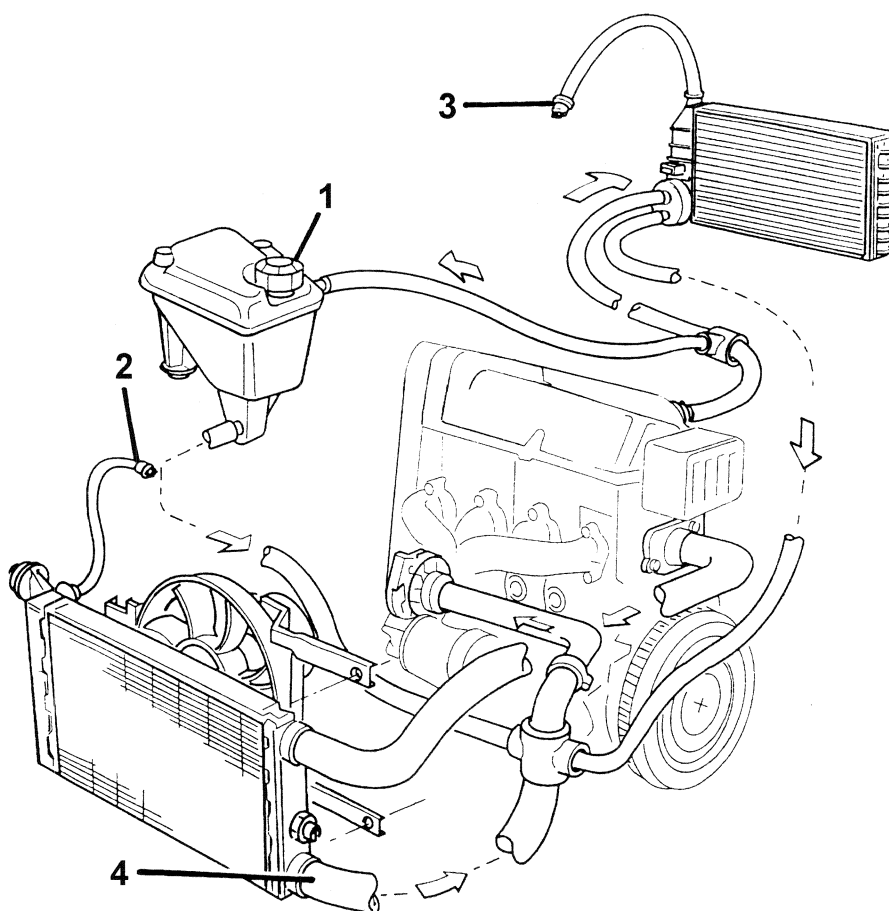
1108

### 1088A30 - ENGINE COOLING SYSTEM - DRAIN AND FILL CIRCUIT, INCLUDES BLEEDING AIR

1108 Euro 3

1. Remove the expansion tank cap.
- Make sure that the heater cock located in the interior compartment is in the fully open posi-

- tion.
2. Open the bleed located on the radiator branch pipe.
3. Open the bleed on the radiator branch pipe.
4. Drain the system by removing the radiator bottom hose.
- Reconnect the radiator hose.



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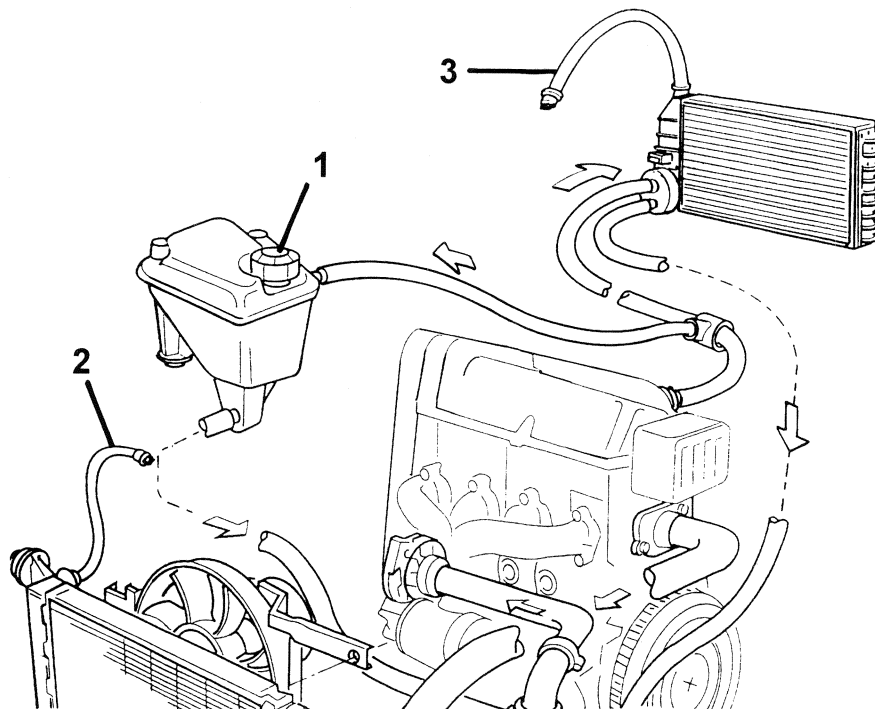
1108 Euro 3

- Prepare a 50/50 water / Paraflu mixture in a container, sufficient to fill the circuit.



Type	Component	Description	Q. ty.
- Fluid	ENGINE COOLING CIRCUIT	Paraflu' 11	4.6

1. Fill the system by pouring the fluid slowly so as to keep the level near the MIN mark on the reservoir.
2. When fluid emerges from the bleed, close the bleed.
- Continue filling until the MAX mark is reached on the reservoir.
3. As the reservoir is lower than the heater bleed, fluid will not emerge from the latter; close the bleed.
- Tighten the expansion reservoir cap.
- Start the engine and run it at idle speed for 2-3 minutes



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1108 Euro 3

- Pump the accelerator gradually at intervals (every 30 seconds or so) up to 3/4 maximum rpm; continue until the engine cooling fan switches on.
- Keep the engine idling for at least 5 minutes.
- Make sure that hot air comes out of the interior compartment vents, indicating that fluid is circulating correctly in the system.

**Note:** *If fluid boils, interrupt the procedure and look for the cause of the fault.*

- Turn off the engine.
- Allow the engine to cool down until the coolant temperature does not exceed 25C, then top up as necessary until the MAX mark on the reservoir is reached.

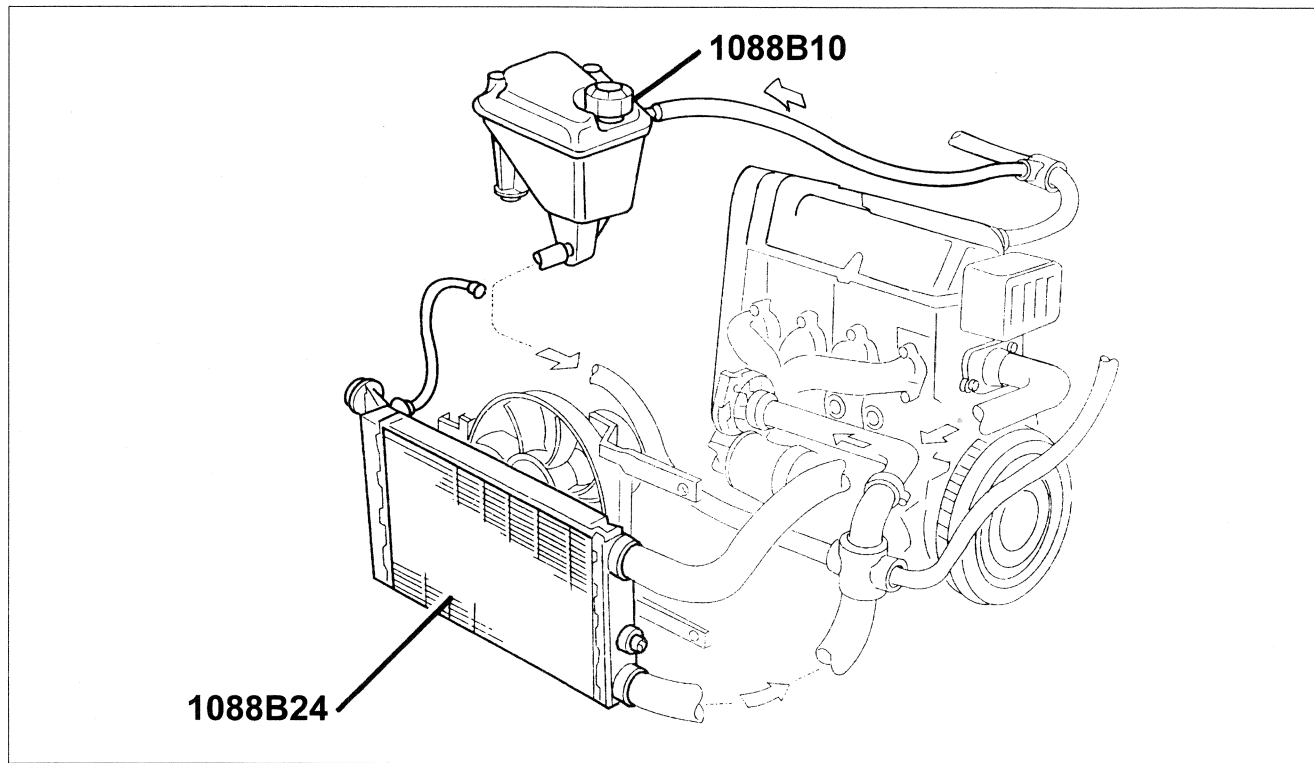
**Note:** *Make sure that the quantity of fluid added is at least the same as that collected during draining.*



1108

## 1088B - Engine cooling tank - r + r

### VIEW OF ASSEMBLY



187/00/00/PR V.10/05/9 \_B0 \_C 01 G \_T0

### Operations index

Code	Operation	Validity
1088B10	Engine cooling tank - r + r	1108
1088B24	Engine cooling radiator - r r for air conditioned versions	1108

## OPERATIONS

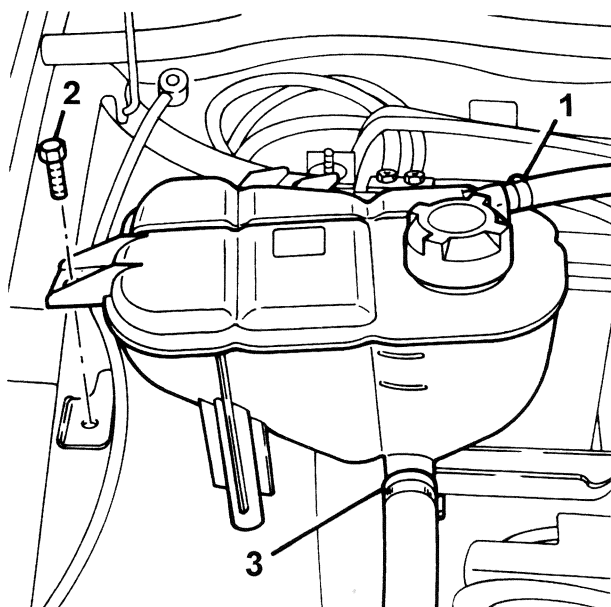
1108

### 1088B10 - ENGINE COOLING TANK - R + R

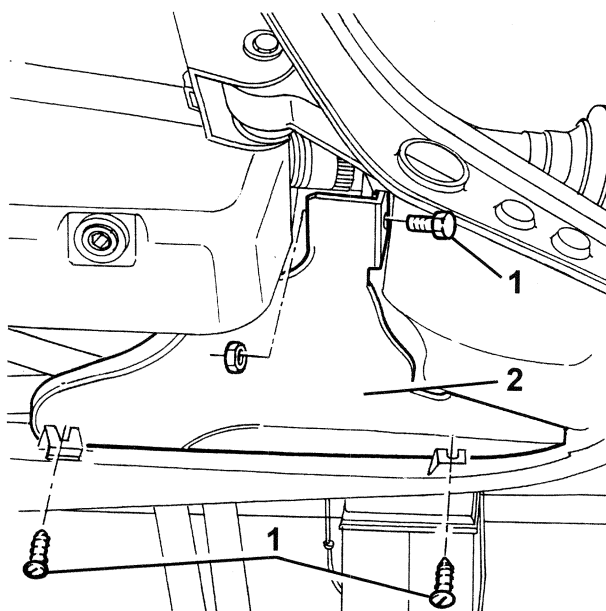
#### Removal

1108 Euro 3

- Open the bonnet.
- Fit the protective bodywork covers.
- 1. Remove from the reservoir the engine coolant return pipe.
- 2. Undo the bolts securing the reservoir and remove it from the mounting.
- 3. Remove the coolant supply pipe from the reservoir, and collect the coolant in a suitable container.
- 4. Remove the engine coolant reservoir.



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107.00.00.PRV.10.059...88...B.24.C.01.B.B14.11F

## Installation

1108 Euro 3

- Fit the coolant supply pipe to the reservoir.
- Fit the coolant reservoir and fix it using the bolts.
- Fit the coolant return pipe to the reservoir.
- Fit the coolant return pipe.
- Refill the cooling system with coolant.



Type	Component	Description	Q.ty.
- Liquido [I]	ENGINE COOLING CIRCUIT	Paraflu' 11	-

- Remove the protective bodywork covers.
- Close the bonnet lid.

1108

## 1088B24 - ENGINE COOLING RADIATOR - R R FOR AIR CONDITIONED VERSIONS

### Removal

1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Fit the protective bodywork covers.
- Disconnect the battery negative (-) terminal.

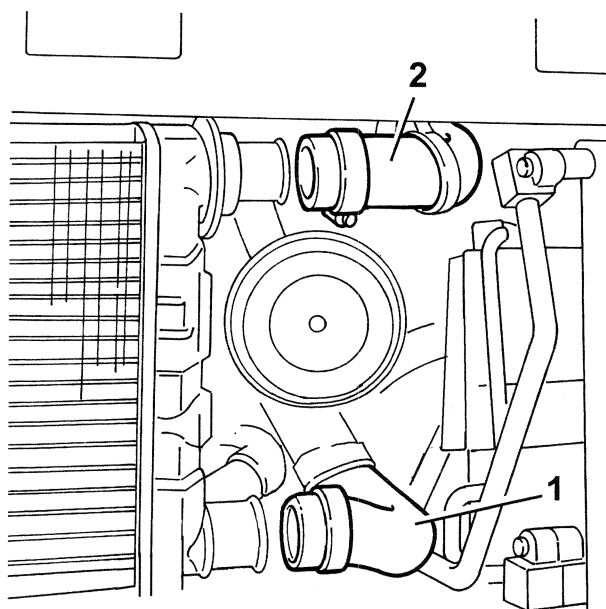


Description	Connector
- Battery	A1

- Raise the vehicle.
- 1. Undo the bolts securing the engine compartment guard.
- 2. Remove the engine compartment guard.

1108 Euro 3

- See Op. 4450B12 Front or rear wheels (two) - r+r
- See Op. 7055B42 Supplementary wheel arch (one) - r+r
- See Op. 7210E10 Front bumper
- Undo the engine coolant reservoir cap.
- 1. Disconnect the lower coolant outlet hose from the radiator and drain the engine coolant into a suitable container.
- 2. Remove the upper coolant hose from the radiator.



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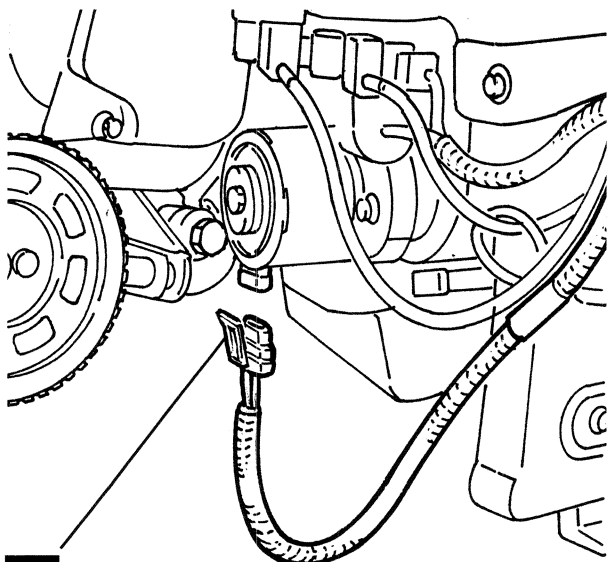
1108 Euro 3

- 1. Disconnect the electrical connector for the engine cooling fan motor and remove the electrical wiring band.

**Description****Connector**

1 Engine fan motor -1

N11

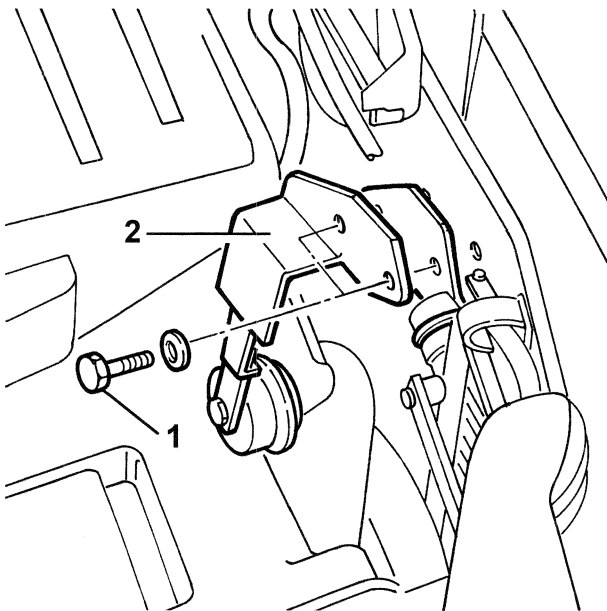


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1108 Euro 3

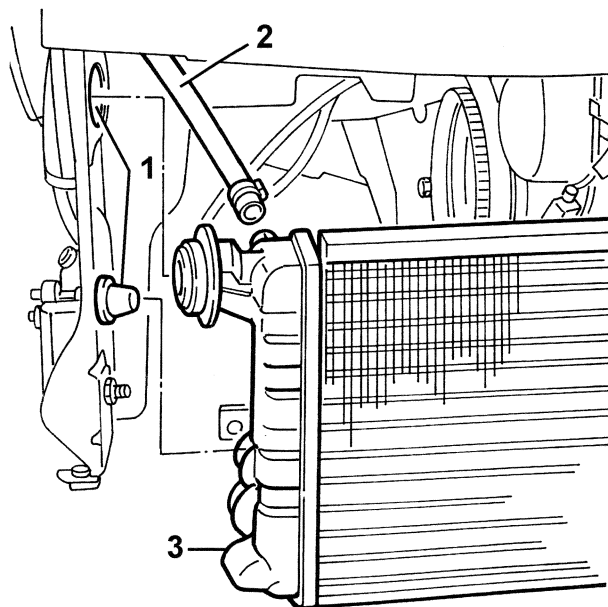
1. Undo the bolts securing the radiator mounting and horn bracket.
2. Move the horn bracket.



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1108 Euro 3

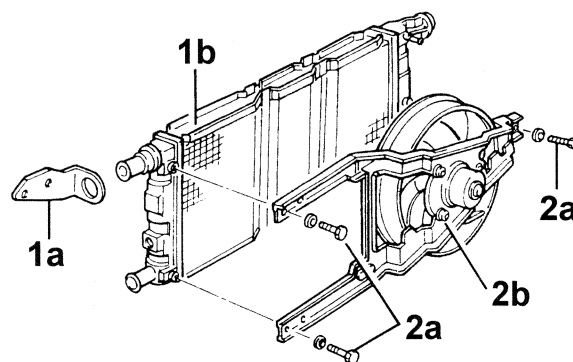
- Disconnect the coolant reservoir pipe from the bands on the rear of the radiator.
- 1. Remove the engine radiator from the mountings.
- 2. Remove the air bleed pipe from the engine radiator.
- 3. Remove the engine radiator.



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1108 Euro 3

1. Remove the mounting bracket (1a) from the engine radiator (1b).
2. Undo the bolts (2a) securing the engine radiator fan (2b) and remove it.
3. Undo the thermal switch from the engine radiator and remove it.

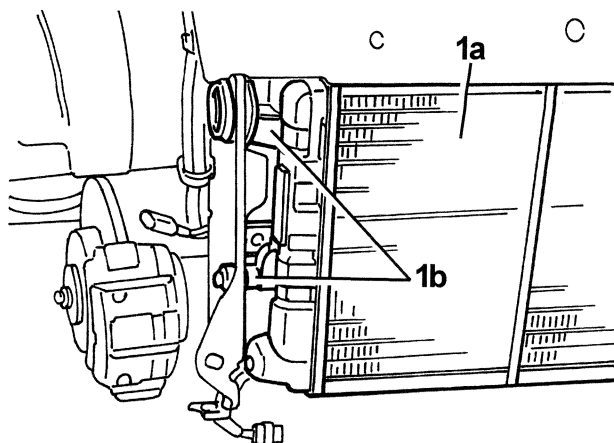


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**Installation**

1108 Euro 3

- Refit the radiator fan on the radiator and fix it using the bolts.
- Fit the mounting bracket on the radiator.
- Fit the air bleed pipe on the radiator.
- 1. Fit the radiator (1a) and fit the side mountings (1b) in their seats.



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1108 Euro 3

- Connect the coolant reservoir pipe to the bands on the rear of the radiator.
- Refit the horn bracket.
- Tighten the bolts securing the radiator mounting bracket and the horn bracket to the front cross-member.
- Connect the electrical connection to the engine fan motor and fit the electrical wiring band.



### Description

### Connector

- | Description           | Connector |
|-----------------------|-----------|
| - Engine fan motor -1 | N11       |
- Fit the coolant upper hose to the radiator.
  - Fit the coolant lower hose to the radiator.
  - Fit the engine compartment guard and fix it with the bolts.
  - **See Op. 7210E10** Front bumper
  - **See Op. 7055B42** Supplementary wheel arch (one) - r+r
  - **See Op. 4450B12** Front or rear wheels (two) - r+r
  - Lower the vehicle.
  - Connect the negative (-) battery terminal.



### Description

### Connector

- | Description | Connector |
|-------------|-----------|
| - Battery   | A1        |
- Refill the engine cooling system with coolant.



### Type

### Component

### Description

### Q.ty.

- | Type     | Component              | Description | Q.ty. |
|----------|------------------------|-------------|-------|
| - Liquid | ENGINE COOLING CIRCUIT | Paraflu' 11 | 4.6   |

- Remove the protective bodywork covers.
- Close the bonnet lid.
- Remove the car from the ramp.

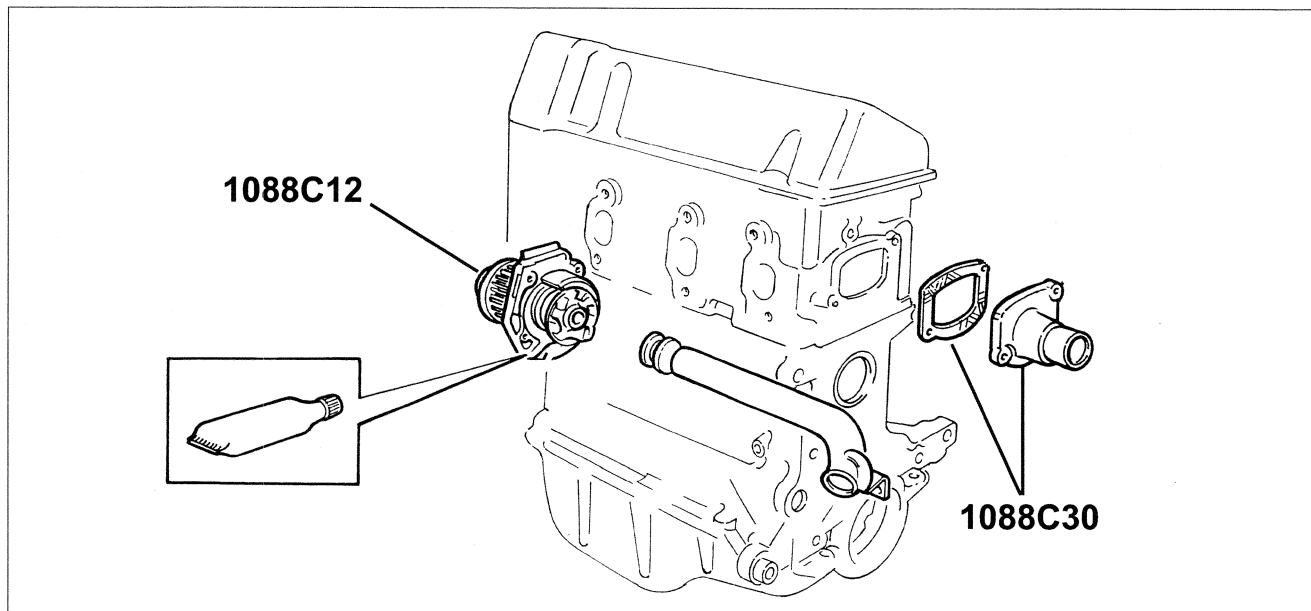




1108

## 1088C - Water pump and thermostat

### VIEW OF ASSEMBLY



107.00.00.PRV.10.059\_\_08\_\_C\_01.F\_\_TIF

### Operations index

Code	Operation	Validity
1088C12	Water pump - r+r for versions with air conditioner	1108
1088C30	Thermostat unit - r+r	1108

## OPERATIONS

1108

### 1088C12 - WATER PUMP - R+R FOR VERSIONS WITH AIR CON- DITIONER

#### Removal

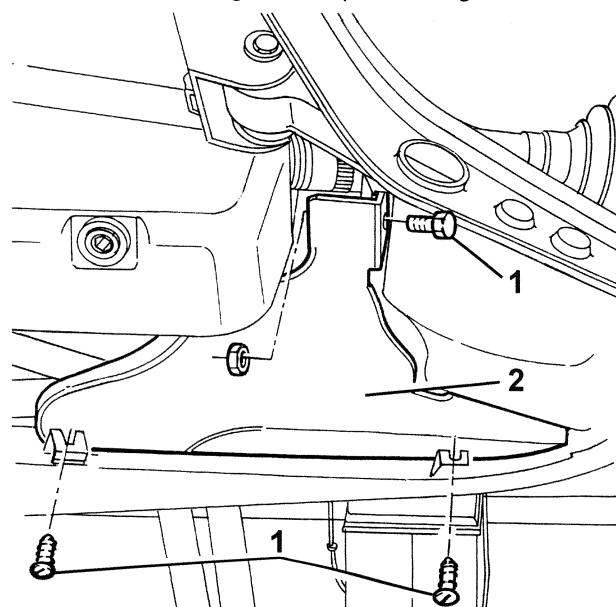
1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Fit the protective bodywork covers.
- Disconnect the battery negative (-) terminal.



Description	Connector
- Battery	A1
- See Op. 4450B10	Front or rear wheel (one) - r+r
- See Op. 7055B42	Supplementary wheel arch (one) - r+r
- See Op. 5540B10	L/h or r/h headlamp (one) - r+r
- Undo the engine coolant reservoir cap.	

- Raise the vehicle.
  1. Undo the bolts securing the engine compartment guard.
  2. Remove the engine compartment guard.

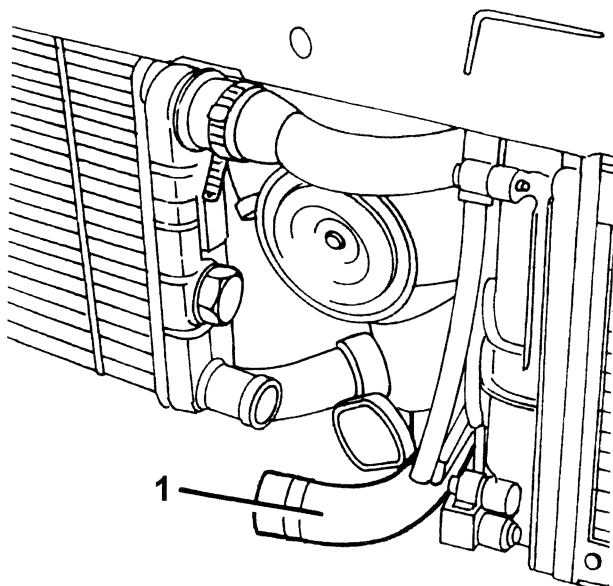


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1108 Euro 3

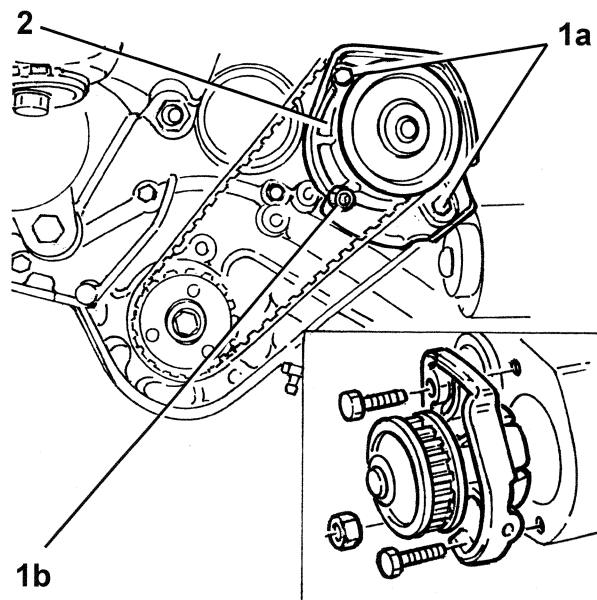
1. Remove the lower coolant hose from the radiator and drain the fluid into a suitable container.



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1108 Euro 3

- Fit the lower coolant hose to the radiator and fix it with the band.
  - **See Op. 1032D35** Complete timing covers - r r for versions with air conditioner
  - **See Op. 1032B14** Toothed timing belt - r + r for timing adjustment or replacement versions with air conditioner
1. Undo the bolts (1a) and nut (1b).
  2. Remove the water pump.



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## Installation

1108 Euro 3

1. Apply a 2.5 mm bead of sealant along the entire perimeter of the pump casing.

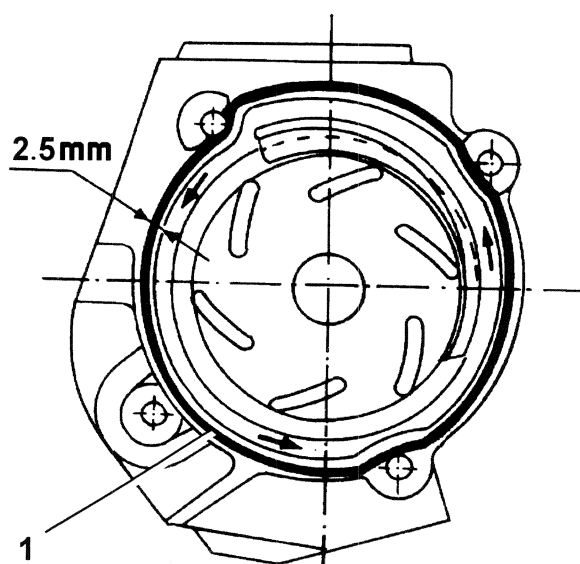


Type	Component	Description	Q.ty.
1	Silicone sealant	COOLANT PUMP	-

**Note:** Before fitting the water pump, use a sharp knife to trim away any surplus silicone on the edges of the sealed areas (pump casing - engine block), and remove the traces of coolant with a dry rag.



Apply sealant continuously (without interruptions) and make a perfect join between the beginning and end.



187.00.00.PRV.10.059...88...C.12.C.04.B.B14.TIF

1108 Euro 3

- Fit the water pump to the engine.



When fitting the water pump, avoid movements which could remove the sealant.

- Tighten the bolts and nut on the water pump to torque.



Mounting	Component	Ø	Value (daNm)
- Screw	COOLANT PUMP	M6	(Engine side) 0.8



Mounting	Component	Ø	Value (daNm)
- Nut	COOLANT PUMP	M6	(Engine side) 0.8

- **See Op. 1032B14** Toothed timing belt - r + r for timing adjustment or replacement versions with air conditioner
- **See Op. 1032D35** Complete timing covers - r r for versions with air conditioner



- Fit the engine compartment guard and fix it using the bolts.
- **See Op. 5540B10** L/h or r/h headlamp (one) - r+r
- **See Op. 7055B42** Supplementary wheel arch (one) - r+r
- **See Op. 4450B10** Front or rear wheel (one) - r+r
- Lower the vehicle.
- Connect the negative (-) battery terminal.

**Description****Connector**

- A1

- Refill the engine cooling system with coolant.

**Type****Component****Description****Q.ty.**

- Liquid ENGINE COOLING CIRCUIT Paraflu' 11 4.6



*After fitting the water pump, wait at least 1 hour before filling with coolant.*

- Remove the protective bodywork covers.
- Close the bonnet lid.
- Remove the car from the ramp.

1108

## 1088C30 - THERMOSTAT UNIT - R+R

### Removal

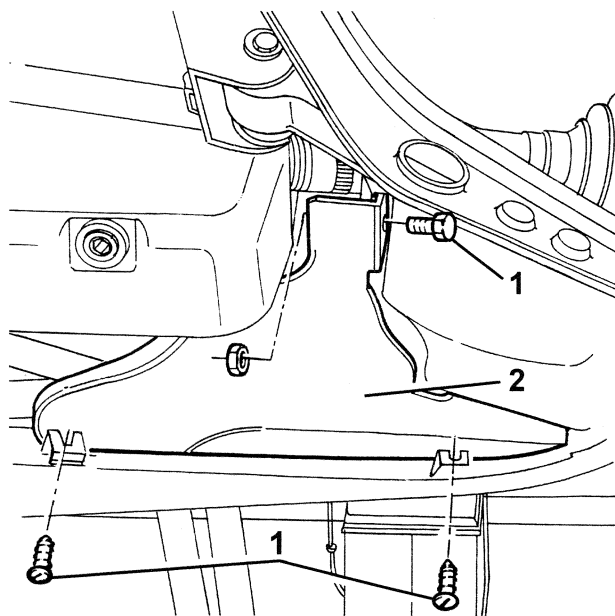
1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Fit the protective bodywork covers.
- Disconnect the battery negative (-) terminal.

**Description****Connector**

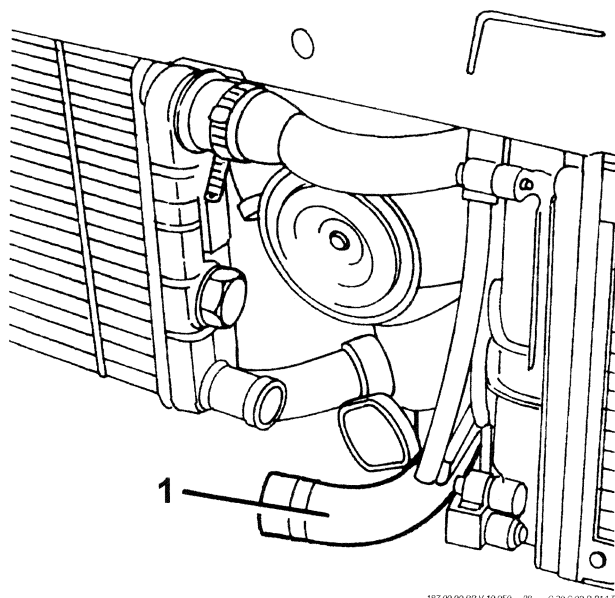
- Battery A1

- Undo the engine coolant reservoir cap.
- 1. Undo the bolts securing the engine compartment guard.
- 2. Remove the engine compartment guard.



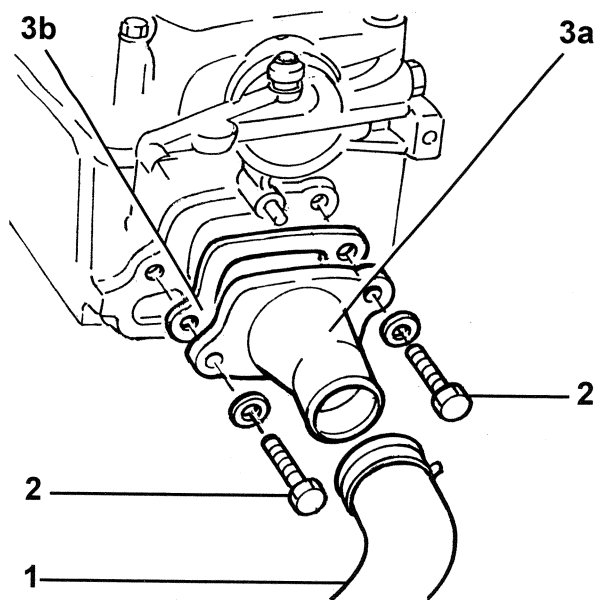
1108 Euro 3

1. Remove the lower coolant hose from the radiator and drain the fluid into a suitable container.



1108 Euro 3

- Connect the lower coolant outlet hose to the radiator.
- **See Op. 1048A28** Vacuum air circuit resonator pipe - r+r
- **See Op. 5510C10** Ignition coil/s - r+r
- Undo the bolt securing the ignition coils mounting and remove it.
- 1. Remove the upper radiator hose from the thermostat unit.
- 2. Unscrew the bolts.
- 3. Remove the thermostat unit (3a) and gasket (3b).



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## Installation

1108 Euro 3

- Fit the thermostat with the new gasket and fix it using the bolts.
- Fit the upper radiator hose to the thermostat unit.
- Fit the ignition coils mounting and fix it with the bolt.
- **See Op. 5510C10** Ignition coil/s - r+r
- **See Op. 1048A28** Vacuum air circuit resonator pipe - r+r
- Fit engine compartment guard and fix it using the bolt.
- Connect the negative (-) battery terminal.



### Description

### Connector

- | Description | Connector |
|-------------|-----------|
| Battery     | A1        |
- Refill the engine cooling system with coolant.



### Type

### Component

### Description

### Q.ty.

- | Type   | Component              | Description | Q.ty. |
|--------|------------------------|-------------|-------|
| Liquid | ENGINE COOLING CIRCUIT | Paraflu' 11 | 4.6   |

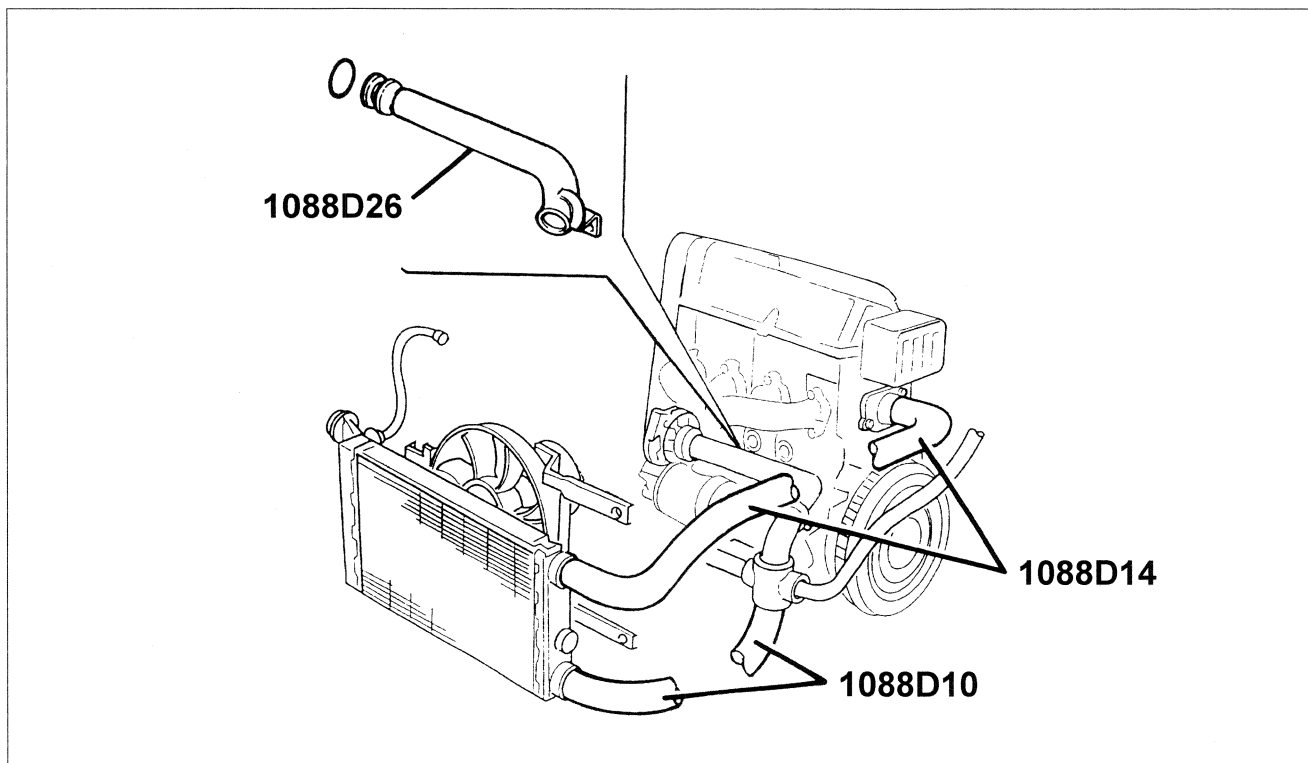
- Remove the protective bodywork covers.
- Close the bonnet lid.
- Remove the car from the ramp.



1108

## 1088D - Coolant hoses and sleeves

### VIEW OF ASSEMBLY



107/00/00/PR V 10/05/00 \_ 80 \_ 0 \_ C 01 G \_ 10F

### Operations index

Code	Operation	Validity
1088D10	Lower sleeve for coolant outlet from radiator - r + r	1108
1088D14	Upper sleeve for coolant inlet to radiator - r + r	1108
1088D26	Rigid intake pipe to water pump - r+r for versions with a/c	1108

## OPERATIONS

1108

### 1088D10 - LOWER SLEEVE FOR COOLANT OUTLET FROM RADIATOR - R + R

#### Removal

1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Fit the protective bodywork covers.
- Disconnect the battery negative (-) terminal.

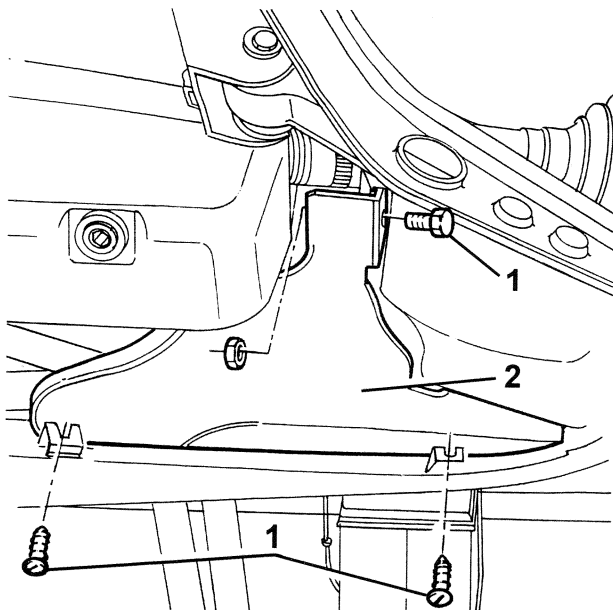


Description

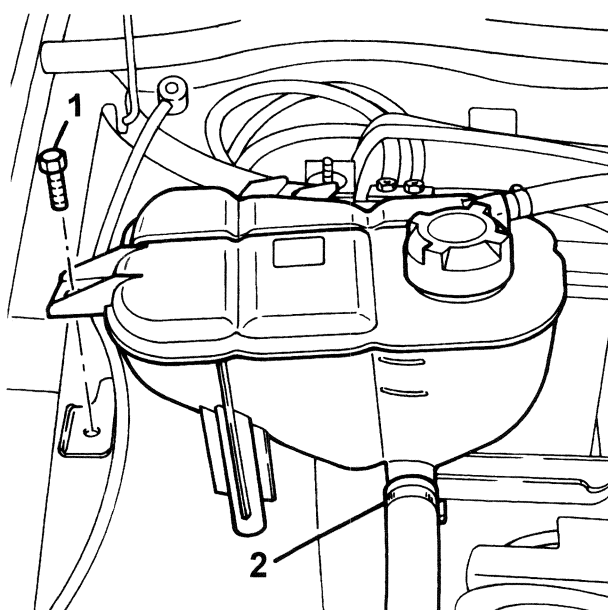
Connector

- |           |    |
|-----------|----|
| - Battery | A1 |
|-----------|----|

- Undo the engine coolant reservoir cap.
- Raise the vehicle.
- 1. Undo the bolts securing the engine compartment guard.
- 2. Remove the engine compartment guard.



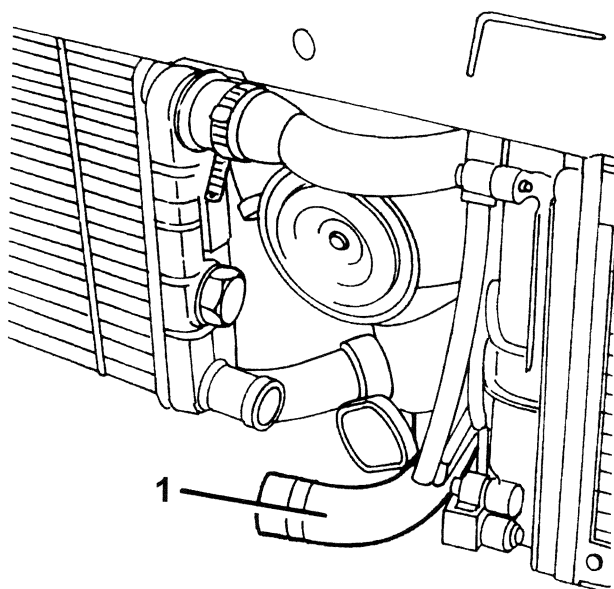
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1108 Euro 3

1. Remove the lower radiator hose and drain the coolant into a suitable container.



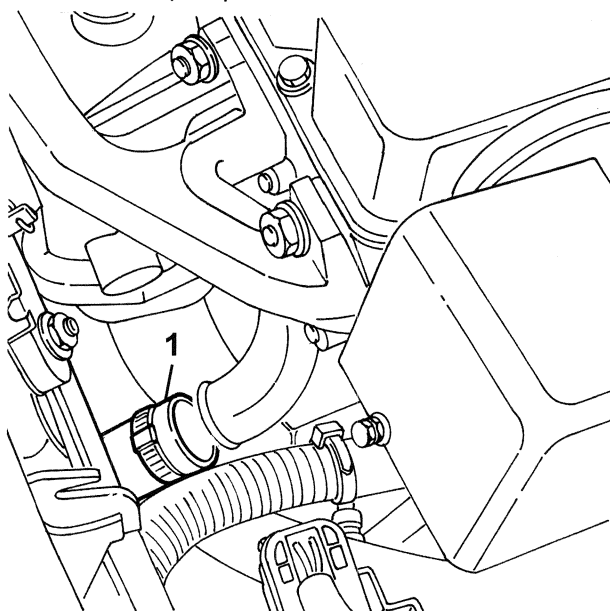
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1108 Euro 3

1. Undo the bolts securing the coolant reservoir and remove it from the mounting.
2. Remove the coolant supply pipe from the reservoir.

1108 Euro 3

- Remove the coolant supply pipe from the bands on the rear of the engine coolant radiator.
- 1. Withdraw the hose from the rigid inlet pipe to the water pump.



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1108 Euro 3

- Remove the water delivery pipe to the heater (**See Op. 5010A12** Engine/heater line - r r water supply PIPE to heater - S.R.).
- Remove the lower coolant outlet hose.

### Installation

1108 Euro 3

- Refit the lower coolant outlet hose.
- Fit the hose on the coolant rigid inlet pipe to the water pump.
- Fit the water supply pipe to the heater (**See Op. 5010A12** Engine/heater line - r r water supply PIPE to heater - S.R.).
- Fit the lower coolant outlet hose to the radiator.



- Fit the coolant supply pipe on the bands located on the rear of the engine coolant radiator.
- Fit the coolant supply pipe to the reservoir.
- Fit the engine coolant tank and fix it using the bolt.
- Fit the engine compartment guard and fix it using the bolts.
- Connect the negative (-) battery terminal.



Description	Connector
Battery	A1

- Refill the engine cooling system with coolant.



Type	Component	Description	Q.ty.
Liquid	ENGINE COOLING CIRCUIT	Parafllu' 11	4.6

- Remove the protective bodywork covers.
- Close the bonnet lid.
- Remove the car from the ramp.

1108

## 1088D14 - UPPER SLEEVE FOR COOLANT INLET TO RADIATOR - R + R

### Removal

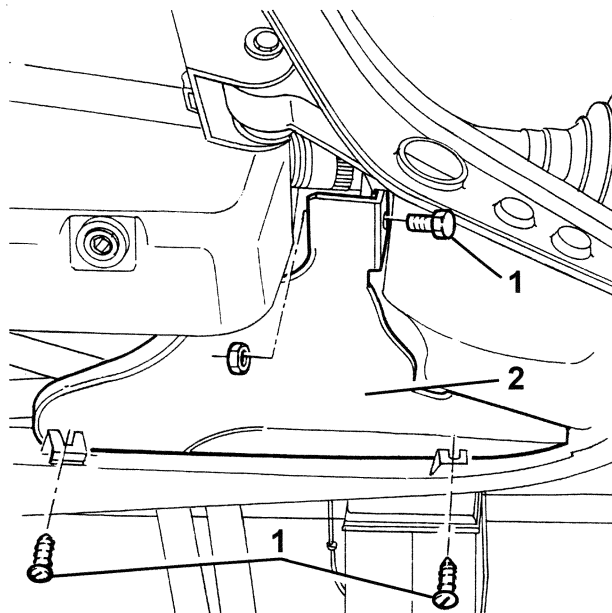
1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.
- Fit the protective bodywork covers.
- Disconnect the battery negative (-) terminal.



Description	Connector
Battery	A1

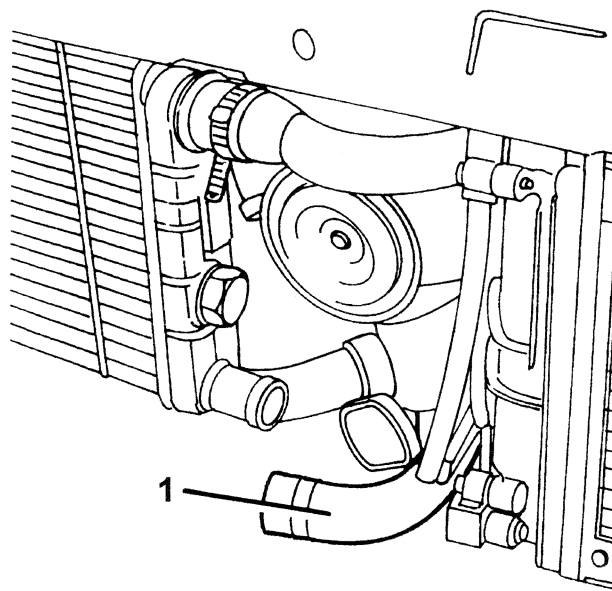
- Undo the engine coolant reservoir cap.
- Raise the vehicle.
- 1. Undo the bolts securing the engine compartment guard.
- 2. Remove the engine compartment guard.



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1108 Euro 3

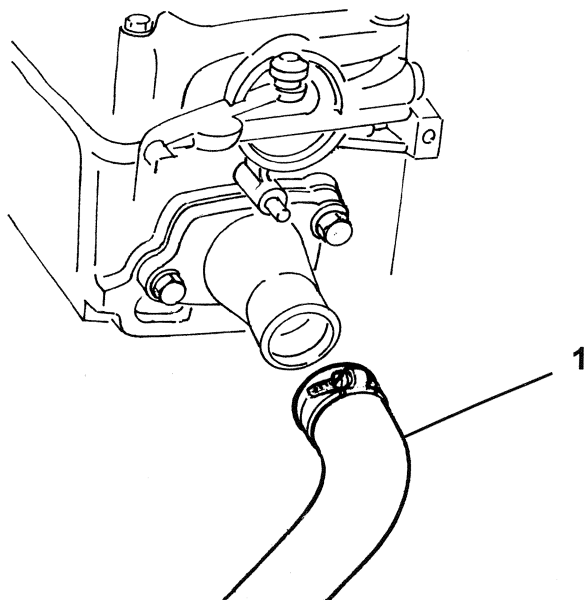
1. Withdraw the lower radiator hose and drain the coolant into a suitable container.



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1108 Euro 3

- Remove the upper radiator hose.
- **See Op. 1048A28** Vacuum air circuit resonator pipe - r+r
- **See Op. 5510C10** Ignition coil/s - r+r
- Remove the bolt securing the ignition coils mounting and remove it.
- 1. Remove the upper radiator hose from the thermostat unit and remove it.



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### Installation

1108 Euro 3

- Fit the upper radiator hose to the thermostat unit.
- Fit the upper radiator hose.
- Fit the lower radiator hose.
- Fit the engine compartment guard and fix it using the bolts.
- Fit the ignition coils mounting and fix it using the bolt.
- **See Op. 5510C10** Ignition coil/s - r+r
- **See Op. 1048A28** Vacuum air circuit resonator pipe - r+r
- Connect the negative (-) battery terminal.



#### Description

#### Connector

- Battery A1

- Refill the engine cooling system with coolant.



Type	Component	Description	Q.ty.
- Liquid	ENGINE COOLING CIRCUIT	Paraflu' 11	4.6

- Remove the protective bodywork covers.
- Close the bonnet lid.
- Remove the car from the ramp.

1108

## 1088D26 - RIGID INTAKE PIPE TO WATER PUMP - R+R FOR VERSIONS WITH A/C

### Removal

1108 Euro 3

- Position the vehicle on the ramp.
- Open the bonnet.

- Fit the protective bodywork covers.
- Disconnect the battery negative (-) terminal.

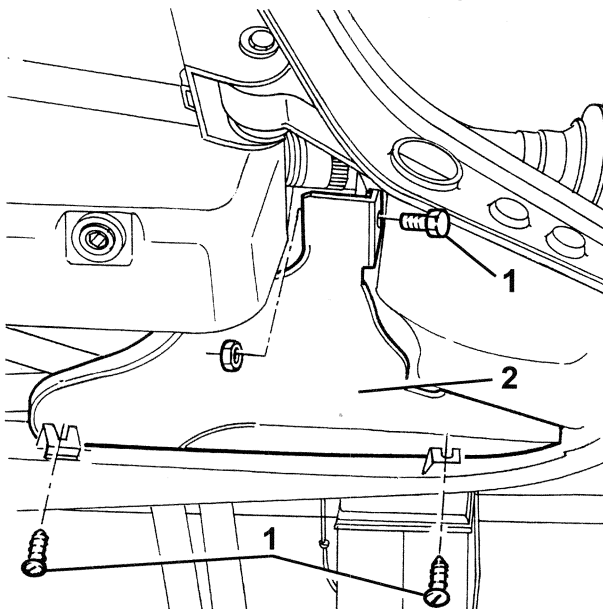


#### Description

#### Connector

- Battery A1

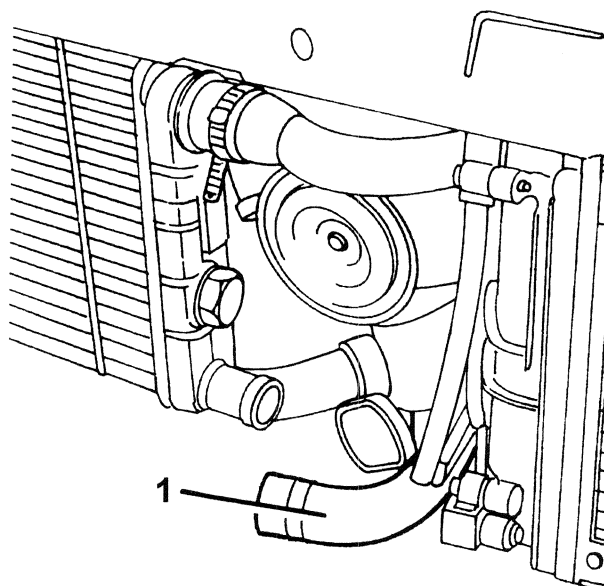
- Undo the engine coolant reservoir cap.
- Raise the vehicle.
- 1. Undo the bolts securing the engine compartment guard.
- 2. Remove the engine compartment guard.



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1108 Euro 3

- 1. Remove the lower radiator hose and drain the coolant into a suitable container.



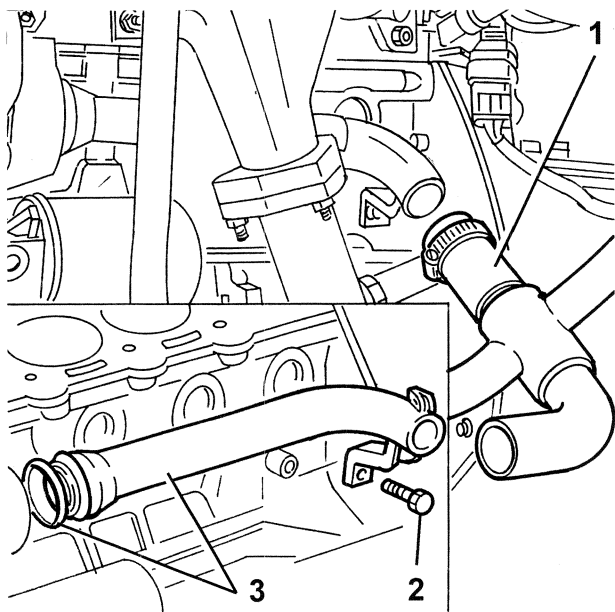
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1108 Euro 3

1. Remove the hose from the coolant rigid inlet pipe to the water pump.
2. Undo the bolt fixing the rigid pipe to the engine block.
3. Remove the rigid pipe together with the seal.



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## Installation

1108 Euro 3

- Fit the rigid pipe with the seal in the water pump seating and tighten the bolt to torque.



Mounting	Component	Ø	Value (daNm)
- Screw	COOLANT PUMP RIGID INLET PIPE	M6	(Engine side) 1.0

- Fit the hose on the coolant rigid inlet pipe to the water pump.
- Fit the lower coolant outlet hose to the radiator.
- Fit the engine compartment guard and fix it using the bolts.
- Connect the negative (-) battery terminal.



Description	Connector
- Battery	A1

- Refill the engine cooling system with coolant.



Type	Component	Description	Q.ty.
- Liquid	ENGINE COOLING CIRCUIT	Paraflu' 11	4.6

- Remove the protective bodywork covers.
- Close the bonnet lid.
- Remove the car from the ramp.

