

AUTOMATIC TRANSMISSION

Oil change

23

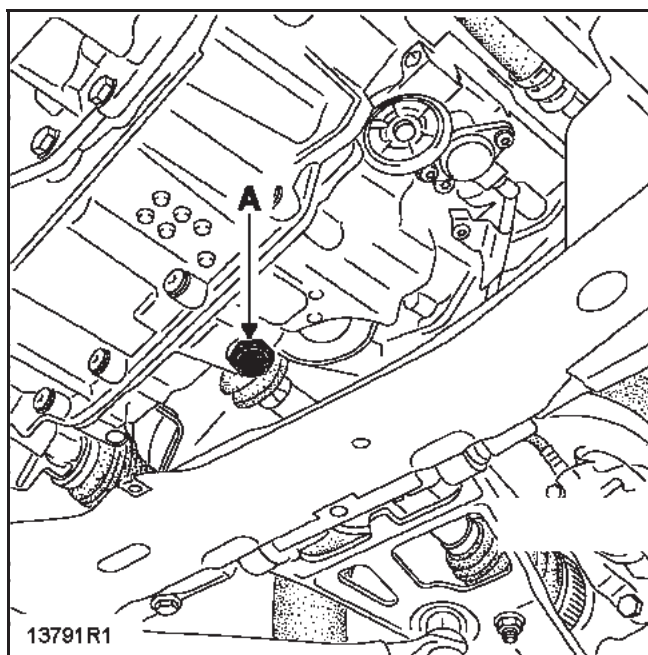
DP0

TIGHTENING TORQUES (in daN.m)		
Drain plug	2.5	
Filler spout	3.5	

DRAINING

The automatic transmission should preferably be drained with the oil warm (60°C maximum), to remove as many impurities as possible.

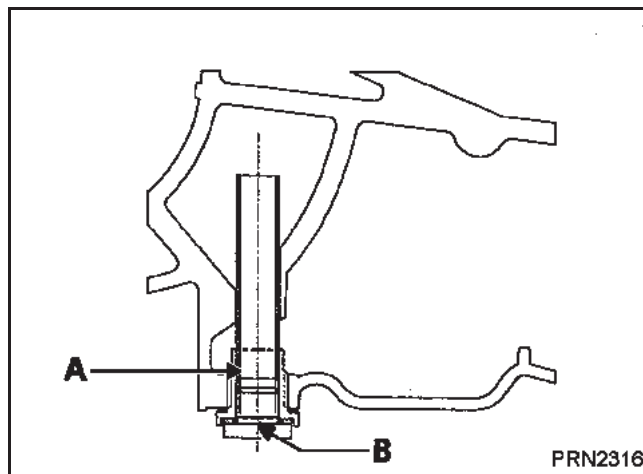
Draining is performed by removing the plug (A).



Special notes:

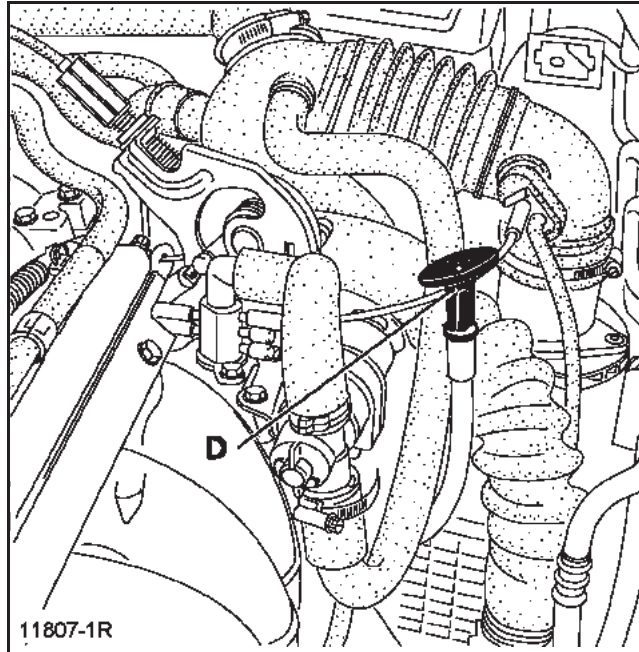
The plug has two functions:

- draining through the plug (A),
- filling through the spout (B).



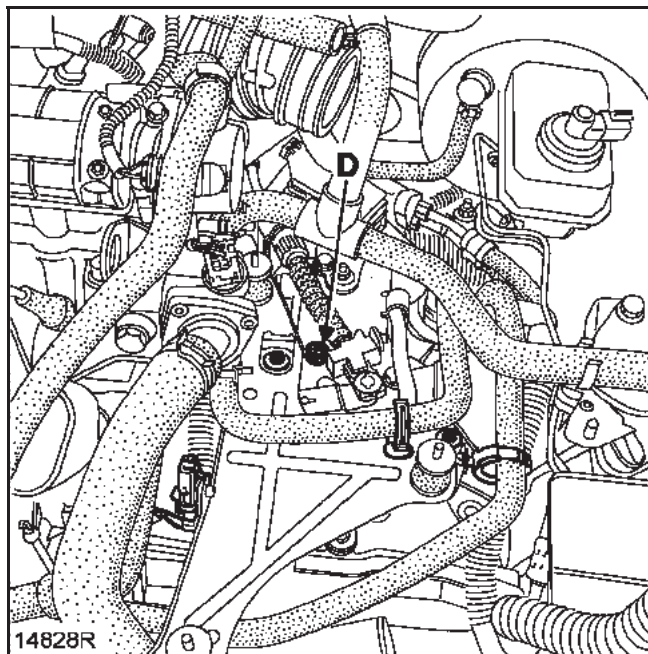
DRAINING

The oil is drained using suction via the dipstick pipe (D).



FILLING

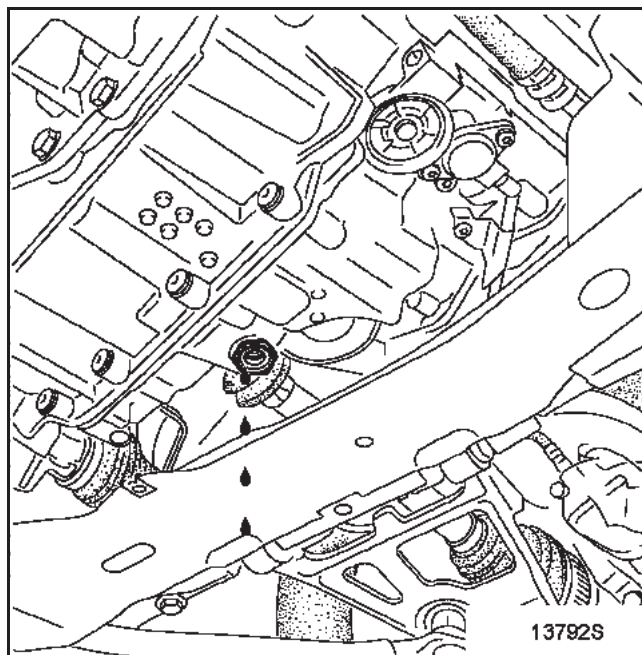
Filling is performed through the hole (D).



Use a funnel with a **15/100** filter to prevent impurities from entering the system.

FILLING PROCEDURE

- 1 - Park the vehicle on level ground.
- 2 - Fill the automatic transmission with **3.5 litres** of new oil.
- 3 - Run the engine at idling speed.
- 4 - Connect the diagnostic tool and set up a dialogue with the automatic transmission computer.
- 5 - Monitor the transmission oil temperature parameter.
- 6 - When a temperature of **60°C ± 1°C** is reached, open the top-up plug.
- 7 - Position a container to retrieve at least **0.1 litre** of excess oil and wait until the oil flows out **drop by drop**.



- 8 - Close the top-up plug.

PROCEDURE FOR CHECKING THE LEVEL OUTSIDE FILLING OPERATIONS

The level **MUST** be checked in accordance with the method described below:

- 1 - Park the vehicle on level ground.
- 2 - Fill the automatic transmission with **0.5 litres** of new oil.
- 3 - Run the engine at idling speed.

Perform operations 4, 5 and 6 described previously.

If oil does not flow out or if the quantity retrieved is less than **0.1 litre**: switch off the engine, add **0.5 litre**, allow the transmission to cool down to **50°C** then repeat operations 3-4-5-6.

IMPORTANT: you must reset the oil wear electronic counter (integrated within the computer) when the oil is changed. Enter the date of the oil change using the "Write date of gearbox oil change" command (NXR).

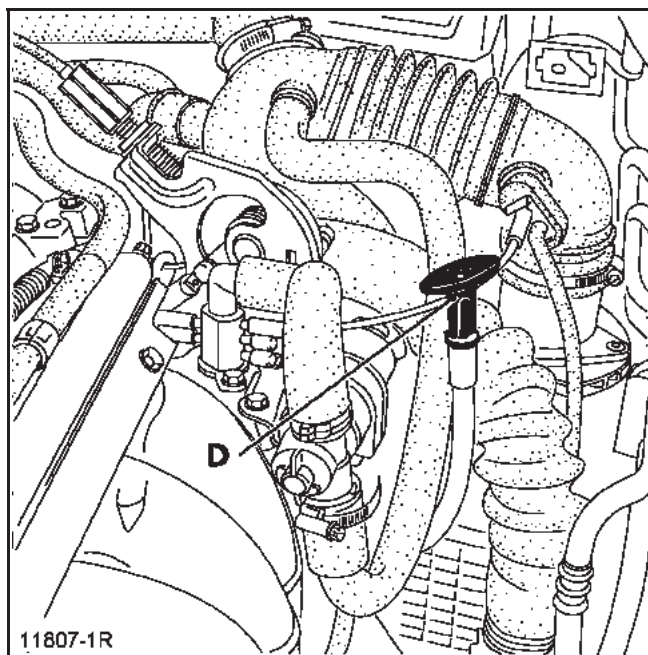
AUTOMATIC TRANSMISSION

Filling - Levels

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SU1

The gearbox is filled through the pipe (D).



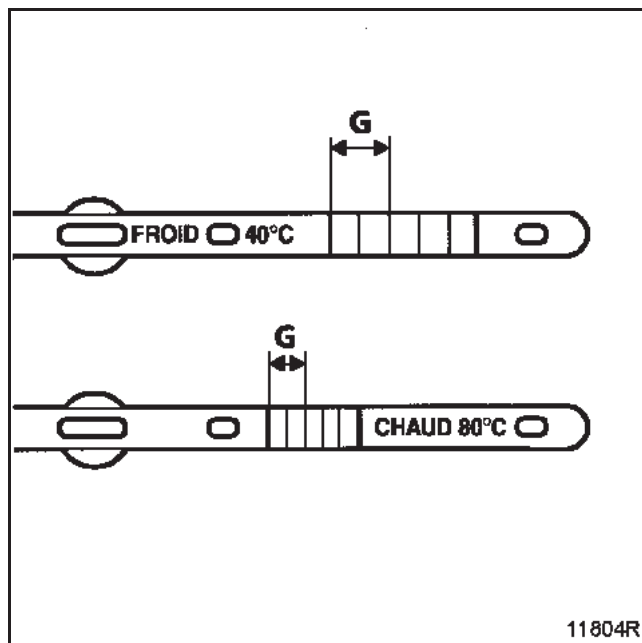
Use a funnel with a **15/100** filter to prevent impurities from entering the system.

The level **MUST** be checked in accordance with the method described below:

- 1 - Park the vehicle on level ground.
- 2 - Fill the automatic transmission with the same amount of oil retrieved when draining, in order to obtain an approximate level (approximately **3.3 litres**).
- 3 - Run the engine at idling speed.
- 4 - Connect the diagnostic tool and set up a dialogue with the automatic transmission computer.
- 5 - When a temperature of **80°C ± 1°C** is reached, remove the dipstick and the level should be between the two upper graduations (G) (on the 80°C side).
If it is not, add oil with the engine running (ensure that the oil is checked at 80°C and check the level again).

NOTE: the dipstick has a reading at **40°C**, this can only be used for checking and topping up the oil when the engine is running. It is essential to confirm this using the diagnostic tool.

G = max level zone



IMPORTANT: you must reset the oil wear electronic counter (integrated within the computer) when the oil is changed. Enter the date of the oil change using the "Write date of gearbox oil change" command (diagnostic tool).

AUTOMATIC TRANSMISSION

Checking the setting point of the converter

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Put the vehicle on a 2 post lift.

Lift the vehicle until the wheels are raised off the ground by a few centimetres.

Connect the diagnostic tool.
Enter dialogue with the automatic transmission computer

Monitor the transmission oil temperature parameter.

The check should be carried out when the oil temperature is between **60°C** and **80°C**.

Start the engine and put the lever in D.

Monitor the engine speed parameter:
Enter dialogue with the computer.

Accelerate fully keeping the brakes on.
The front wheels should not rotate.

IMPORTANT: Full load should not be maintained for more than **5 seconds**. Beyond this, there is a **high risk of destroying** the converter or the automatic transmission.

IMPORTANT: Once the measurement has been taken, release the accelerator and **keep the brakes applied until the engine speed is stabilised at idle speed** (risk of damage to the automatic transmission if this is not done).

The engine speed should stabilise at:

K4M 711 → **2400 ± 150 rpm.**

F4P 711 → **2300 ± 150 rpm.**

L7X 731 → **2820 ± 150 rpm.**

A setting point outside the tolerance requires the converter to be replaced.

NOTE: a setting point which is too low may be associated with a lack of engine power.

SPECIAL TOOLING REQUIRED**B. Vi. 1462** Leaf spring lever adjusting screw**TIGHTENING TORQUES (in daN.m)****Cover mounting bolt****1****Distributor mounting bolt****0.75****REMOVAL**

Put the vehicle on a two post lift.

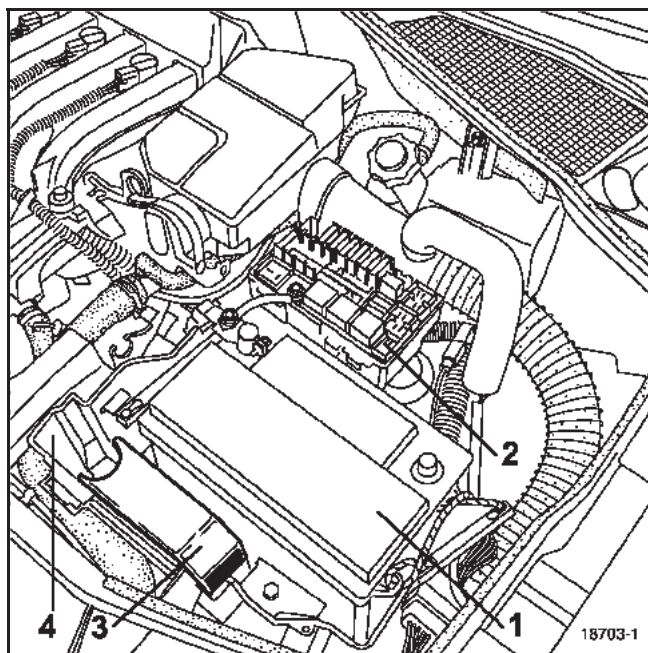
Disconnect the battery.

Remove the engine undertray.

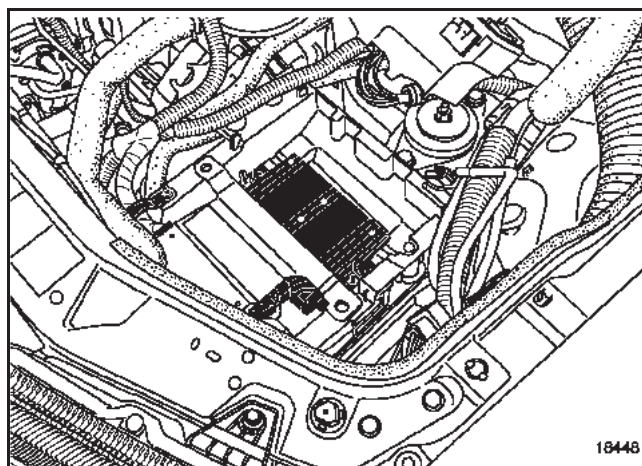
Drain the automatic transmission (see the relevant Section).

Remove:

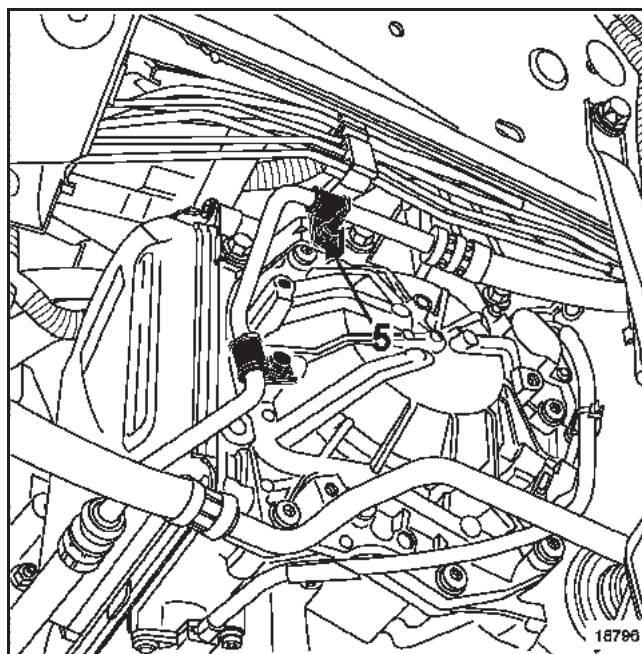
- the battery (1),
- the fuse box (2),
- the automatic transmission computer (3),
- the battery mounting (4).



Remove the injection computer and its support.



Remove the mounting bolt from the power steering hose support (5).



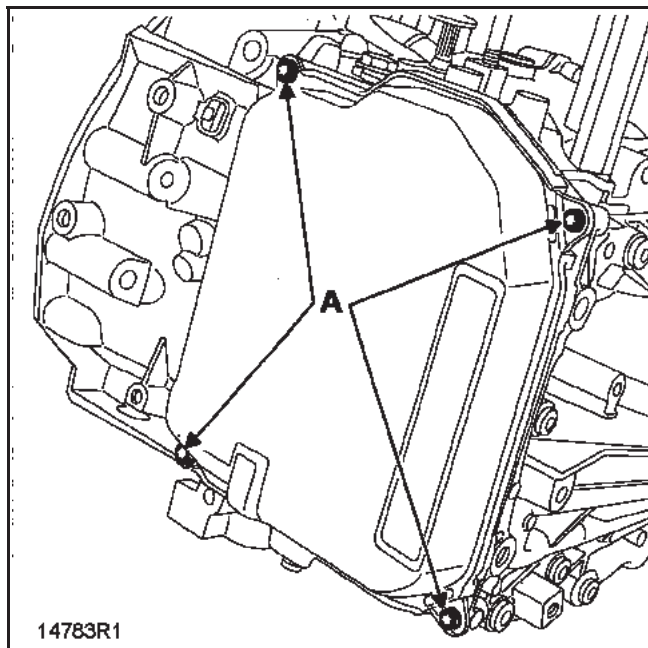
AUTOMATIC TRANSMISSION

Hydraulic distributor

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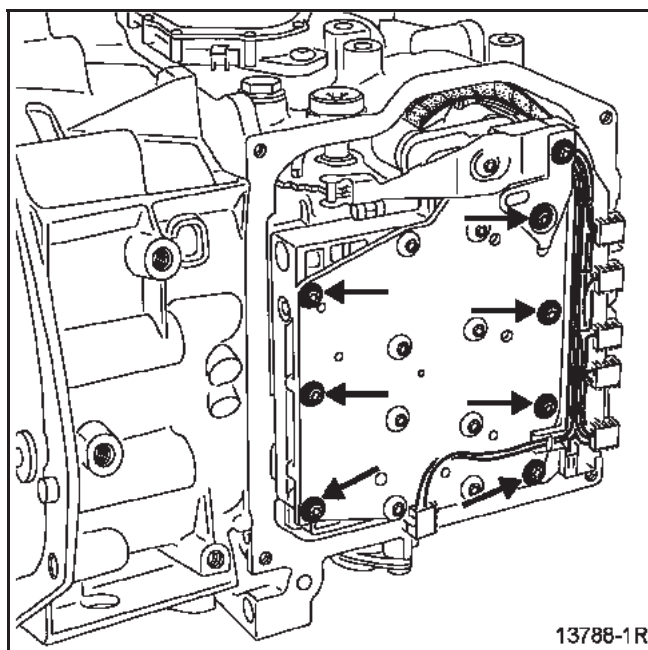
DP0

- the four mounting bolts (A) of the hydraulic distributor cover (be careful as oil may run out).



Disconnect the solenoid valve connectors and remove the hydraulic distributor.

- the seven mounting bolts of the hydraulic distributor.

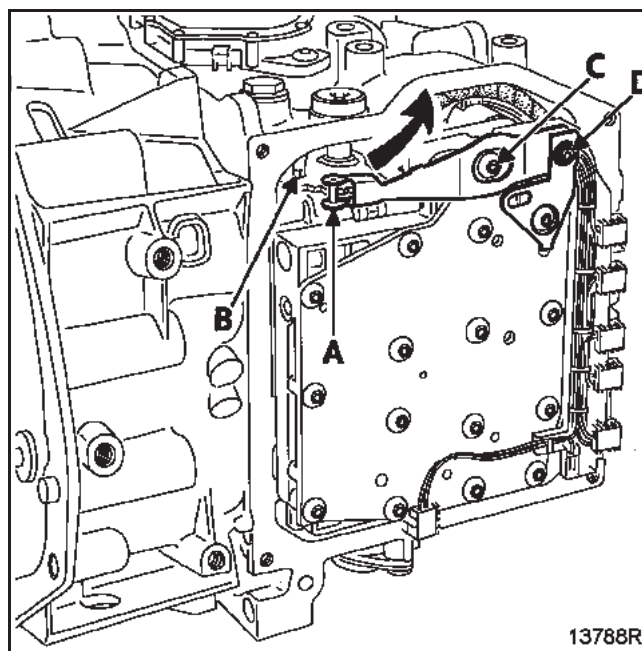
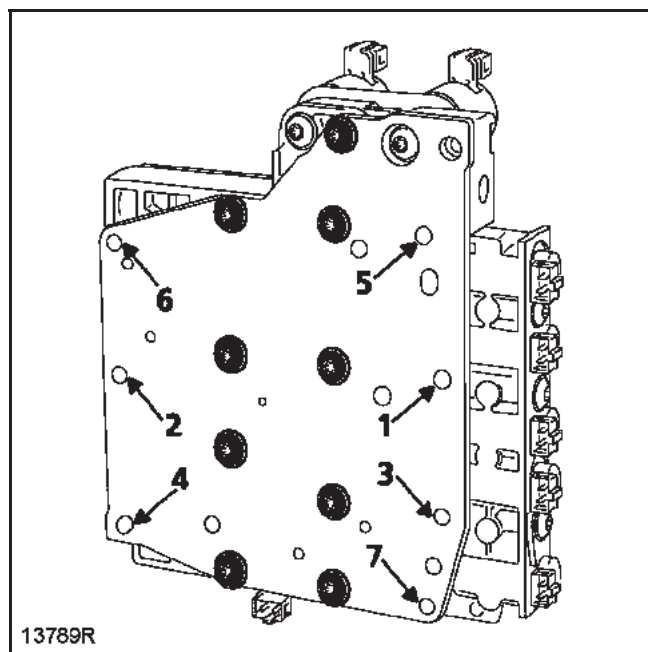


REFITTING

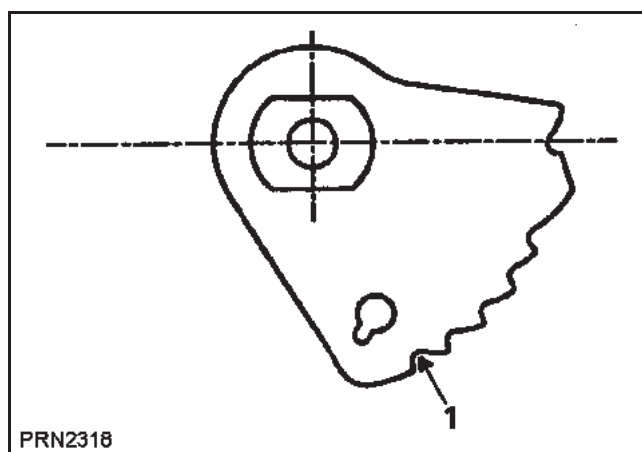
Position the hydraulic distributor and reconnect the solenoid valve connectors.

Refit the mounting bolts of the hydraulic distributor as shown below:

- fit the distributor, precentring it using bolts (4) and (5).
- insert the other bolts,
- tighten the bolts to a torque of **0.75 daN.m** in the order 1 - 2 - 3 - 4 - 5 - 6 - 7.



Position the leaf spring lever by placing the roller (A) in the hollow of sector (B) corresponding to 1st gear hold.



ADJUSTING THE LEAF SPRING LEVER

Hold the **multi-function switch** lever in the extreme position (1st gear hold) using a plastic clip and a bolt in the mechanism housing.

Remove the bolt (C).

Fit tool **B. Vi. 1462** instead and in place of bolt (C). Screw the tool in fully whilst holding the leaf spring lever.

Tighten bolt (D) to the correct torque.

Remove the tool, refit bolt (C) and tighten to the recommended torque.

If replacing the oil distributor, reset the auto-adaptives and reset the oil wear counter in the automatic transmission computer using the diagnostic tool.

AUTOMATIC TRANSMISSION

Hydraulic distributor

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SU1

TIGHTENING TORQUES (in daN.m)



Cover mounting bolt	1.2
Distributor mounting bolts	1
Dipstick mounting bolt	0.5

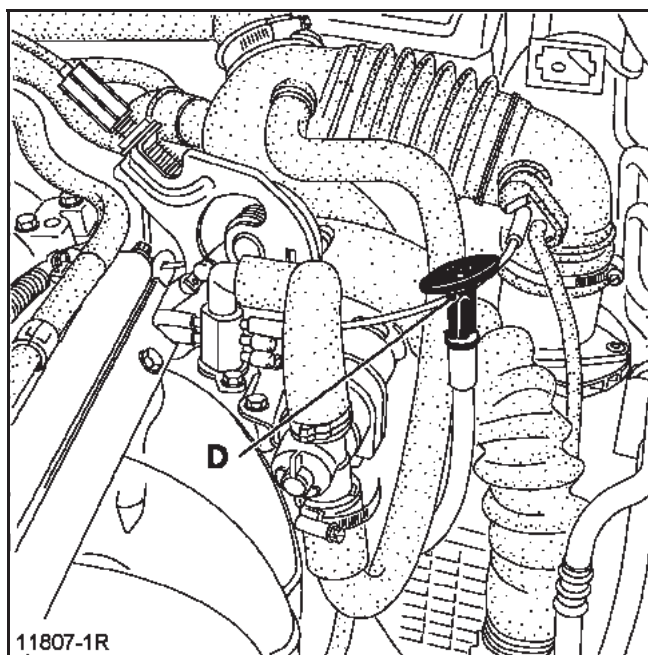
REMOVAL

Put the vehicle on a two post lift.

Disconnect the battery.

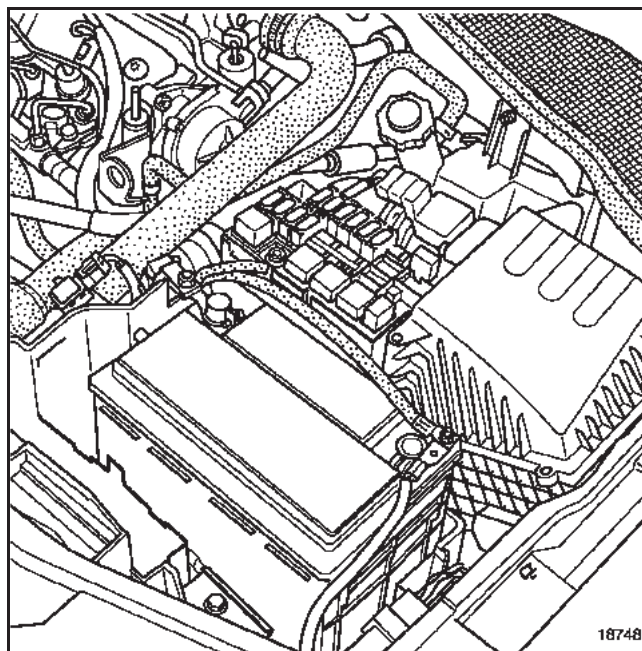
Remove the engine undertray.

Drain the automatic transmission using suction via the dipstick pipe (D) (see relevant section).



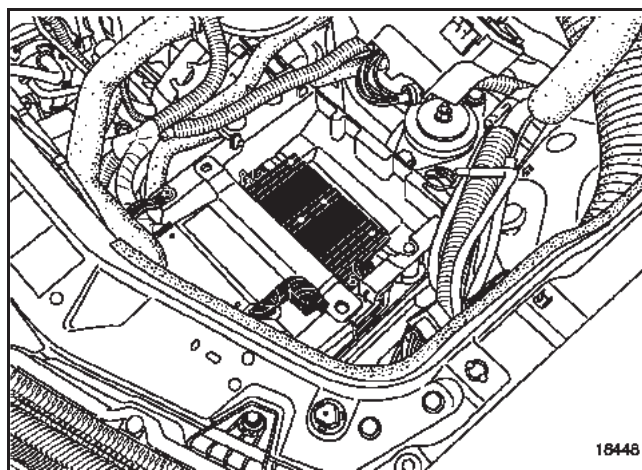
Remove:

- the battery,
- the fuse box,
- the automatic transmission computer,
- the battery mounting.



Release:

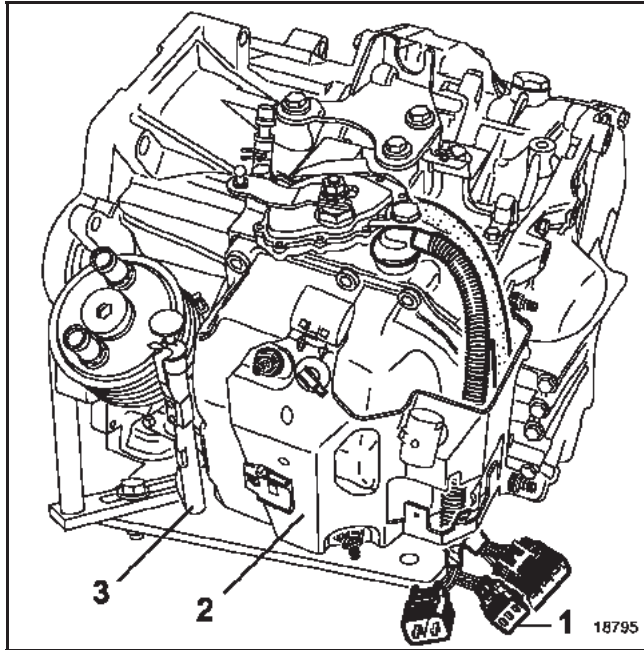
- the injection computer,
- the injection computer tray.



Disconnect the harness (1).

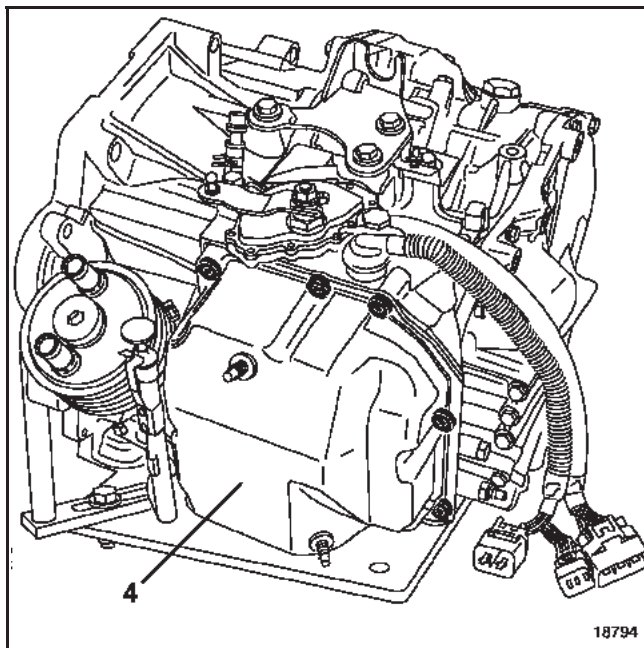
Remove:

- the wiring channel support (2) and release it,
- the engine undertray,
- the dipstick (3),



Place a clean container under the automatic transmission to collect the oil.

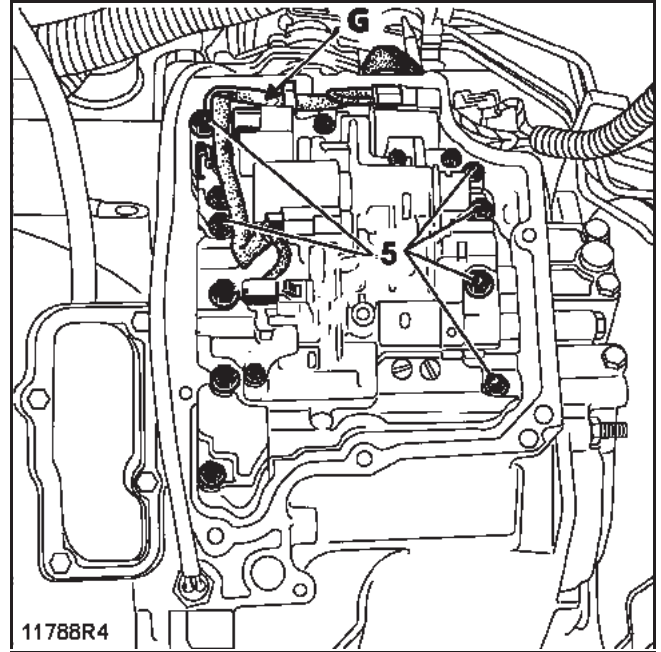
Remove the housing (4) from the hydraulic distributor, by releasing it with a very thin blade (without damaging the contact surfaces).



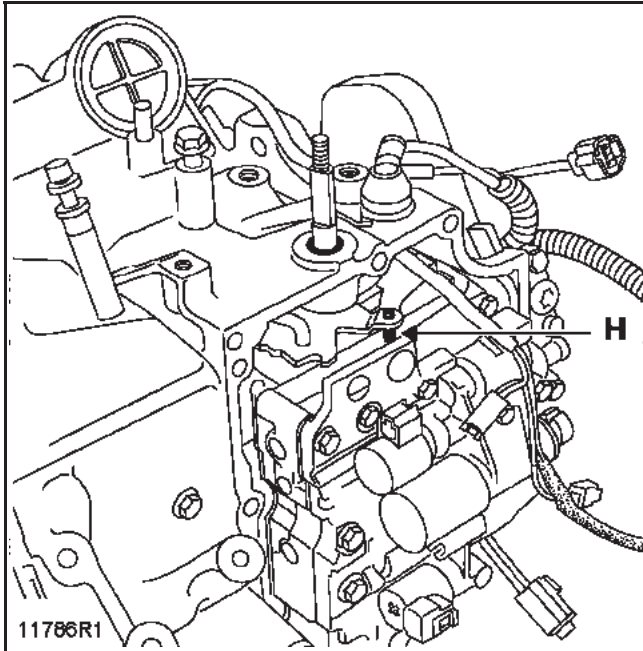
Disconnect and separate the bulkhead (G).

Remove:

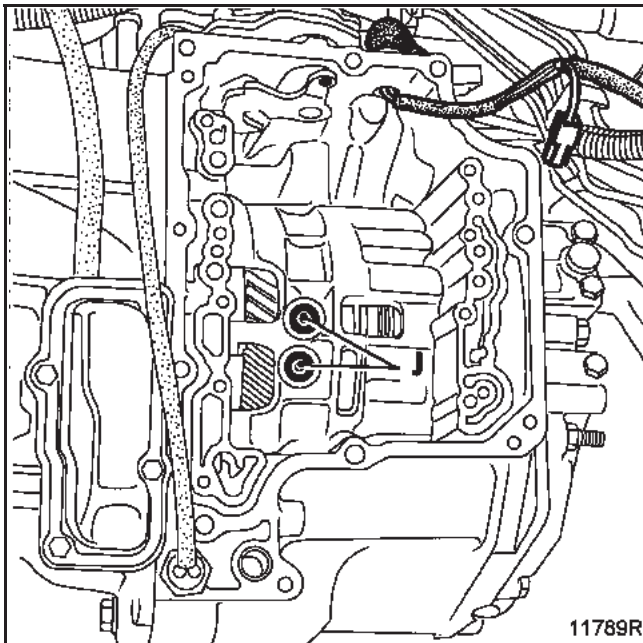
- the six mounting bolts (5) of the hydraulic distributor,



- the distributor by tilting it slightly in order to release the control (H) from the automatic transmission selector,



- the two seals (J) ensuring that no dirt enters the automatic transmission.



REFITTING

Clean the seal faces on the automatic transmission, taking care not to damage the surface.

Clean the seal faces of the hydraulic distributor housing.

Clean the bolts of the hydraulic distributor, ensuring that all remaining glue particles are removed.

Replace the seals (J).

Refit in the reverse order to removal.

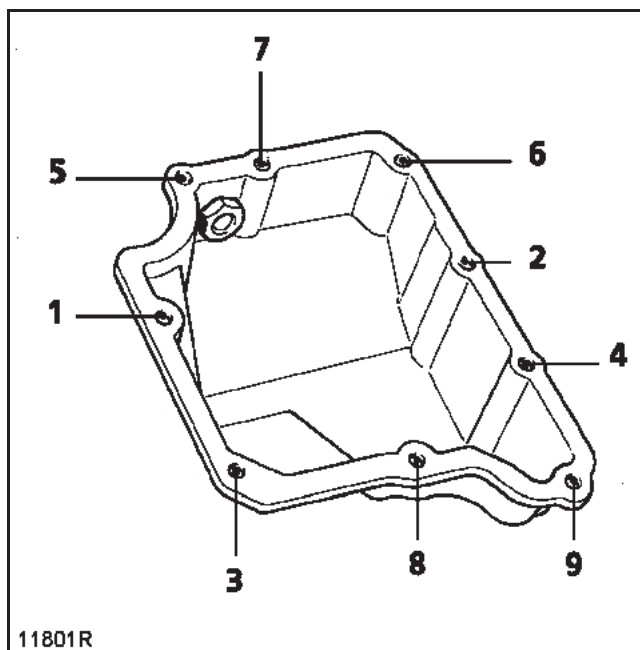
Tighten the bolts of the distributor to the recommended torque.

WARNING: the bolts are of different lengths.

Clean the surfaces of the automatic transmission housing.

Apply a bead of **LOCTITE FRENETANCH** of approximately **3 mm** in thickness.

Put a drop of **LOCTITE FRENETANCH** on the bolts of the hydraulic distributor housing and tighten them to the recommended torque in the order shown below.



Replace the oil pipe seal if necessary.

Fill the automatic transmission with oil, following the instructions (see relevant section).