2022 Toyota Supra L6-3.0L Turbo (B58B30O)

FRONT SUSPENSION MEMBER LOWER PROTECTOR - REMOVAL [03/2019 -]

FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: REMOVAL; 2020 - 2023 MY Supra [03/2019 -]

CAUTION / NOTICE / HINT

CAUTION:

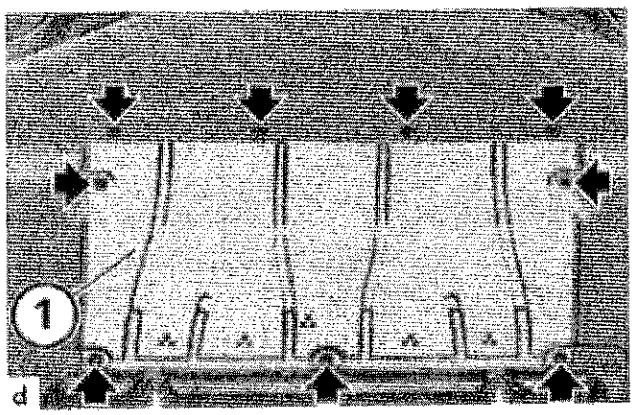
- **Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.**
  Danger! Life-threatening injuries!
  - **Observe safety information on raising the vehicle using a vehicle hoist.**
  - **For additional information see:**
    Click here [INTRODUCTION: REPAIR INSTRUCTION: VEHICLE LIFT AND SUPPORT LOCATIONS]

NOTICE:

Driving without front suspension member lower protector is not permissible.

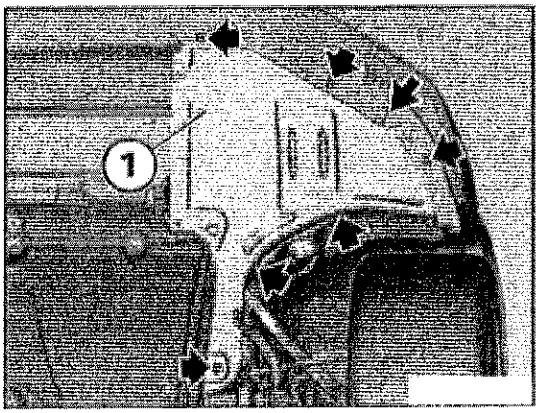
PROCEDURE

1. **REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY**
   a. Remove screws (arrows).



   b. Remove the No. 1 engine under cover assembly (1).

2. **REMOVE FRONT FENDER SPLASH FRONT SHIELD LH**
   a. Remove screws (arrows).



b. Feed out the front fender splash front shield LH (1) to the side and remove.

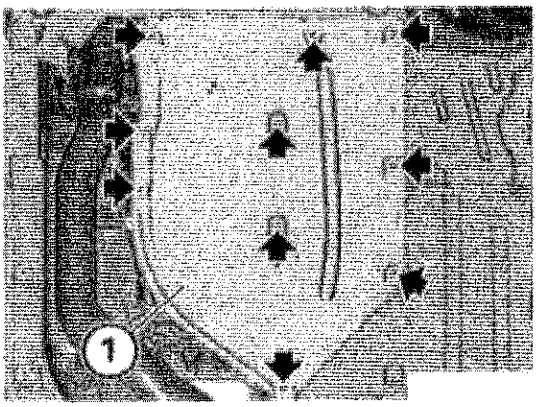
3. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE FRONT FLOOR COVER

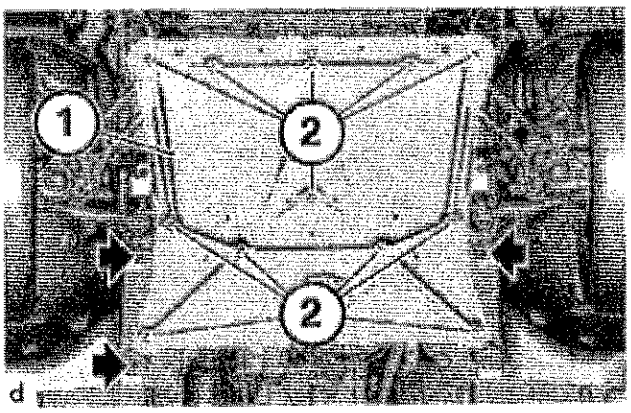
a. Remove screws (arrows).



b. Remove the front floor cover (1).

5. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

a. Remove screws (arrows).



b. Loosen the 16 mm bolts (2).

c. Remove the front suspension member lower protector (1).

2022 Toyota Supra L6-3.0L Turbo (B58B30O)

COOLANT (HIGH TEMPERATURE, B58) - REPLACEMENT [03/2019 -]

MAINTENANCE: B58 COOLANT (for High Temperature): REPLACEMENT; 2020 - 2023 MY Supra [03/2019 -]

PROCEDURE

1. **REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR**
   Click here **[FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: REMOVAL]**

2. **DRAIN ENGINE COOLANT**
   CAUTION:

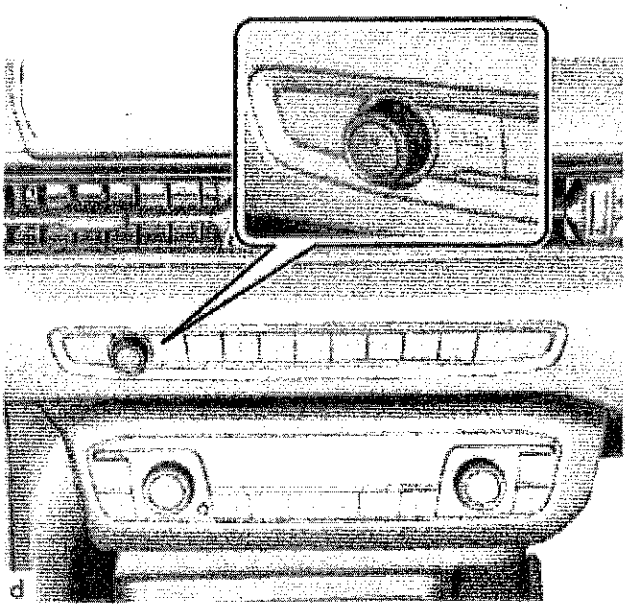
   - **Hot fluids.**
     Risk of scalding!
     - **Conduct all work in the vehicle wearing appropriate personal protective equipment only.**

   NOTICE:

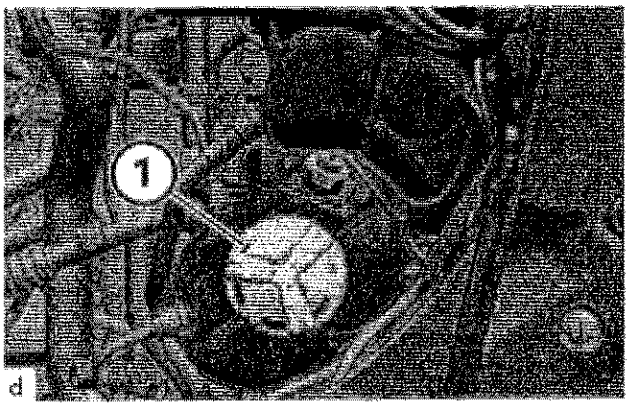
   - Life-long fill of coolant!
   - Do not reuse used coolant.
     When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.
     In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.
   - Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

   a. Check that the START-STOP button (engine switch) off.
      HINT:

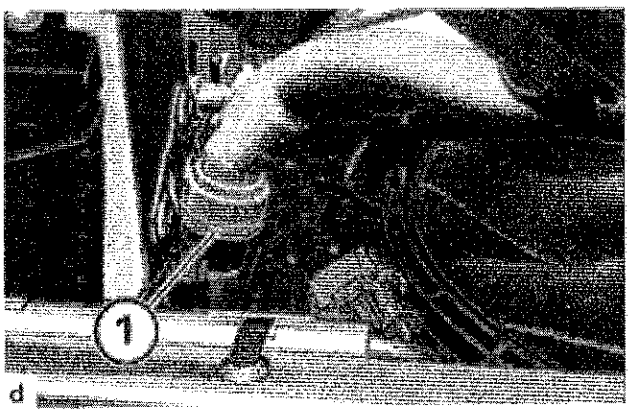
      Pressing and holding the AUDIO button changes the power source mode to IG OFF.



b. Loosen reserve tank cap sub-assembly (1).

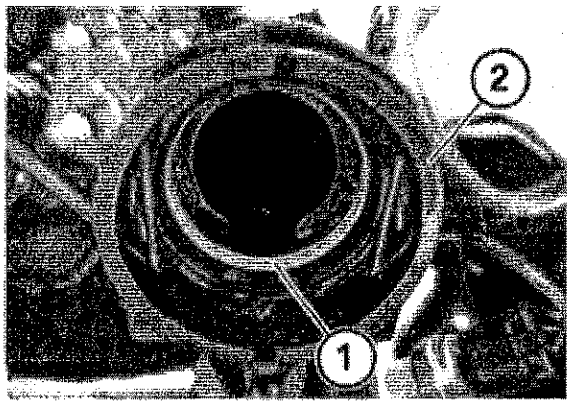


c. Unlock and disconnect the No. 1 radiator hose (1).



d. Catch and dispose of escaping coolant.

e. Check the sealing ring (1) of the No. 1 radiator hose (2) for damage and renew it with the SST, if necessary.



f. Connect and lock the No. 1 radiator hose.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

3. ADD ENGINE COOLANT

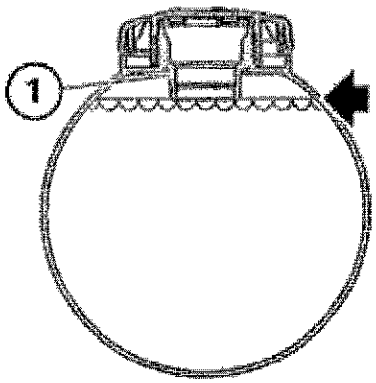
NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.
  When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.
  In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.
- Mixing different coolants is not permitted.
  Non-compliance will result in danger of component damage and/or engine damage.
- Filling specification absolutely must be adhered to.
  The operation of the vehicle is not permitted unless the filling procedure has been completed. Otherwise, functional limitations (degradation) and/or overheating may occur.
  A bleeding procedure is required after a part has been exchanged in the cooling system and/or after refilling the cooling system.

HINT:

- Before starting the automatic cooling system bleeding routine, make sure that all coolant circuits are filled. If the cooling system bleeding routine is started while one of the coolant circuits is empty, there is a risk of damage to the electric coolant pump when running it dry.
- Make sure that negative (-) battery terminal is not disconnected for the bleeding procedure. Switch on low-beam headlights and hazard warning lights. If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

a. Add engine coolant to the level shown in the illustration.



d

Standard Capacity:
10.5 liters (11.1 US qts, 9.2 Imp. qts)

1. Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12
   HINT:

   When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

b. Open the bleeder screw on the radiator reserve tank assembly for the high-temperature coolant circuit and close it again after approx. 10 s.
   1. You can close the bleeder screw prior to expiry of the 10 s once coolant escapes.
c. Close the reserve tank cap sub-assembly on the radiator reserve tank assembly of the high-temperature cooling circuit.
d. Make sure the bonnet is closed.[*1]
e. Make sure that the wheels touch the ground.[*2]
f. Engage the parking brake.[*3]
g. Engage into both "P" or "N" automatic transmissions.[*4]
h. Press the START-STOP button (engine switch) 3 times within 0.8 seconds to enter Diagnostic (PAD) Mode.[*5]
i. Turn on low-beam headlight and the hazard warning light.[*6]
   HINT:

   If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

j. Adjust the heating to maximum temperature and adjust the blower to the lowest stage.[*7]
k. Hold the accelerator pedal down for at least 10 s at limit position and do not step onto the brake pedal. [*8]
l. Start engine.[*9]
m. The cooling system bleeding routine has been started, pay attention to the display on the instrument cluster (KOMBI). ("Service function started")[*10]
   HINT:

   - **The engine speed (up to 3500 rpm) and the actuators in the cooling system are activated automatically for 11 minutes according to a cooling system bleeding routine.**
   - **The cooling system bleeding routine ends approx. 11 min after the engine starts.**

- The engine speed drops to the idle speed.
- Observe the display in the instrument cluster (KOMBI).
- If the service function is interrupted, the cooling system bleeding routine must be repeated.

n. Switch off engine.[*11]
o. Allow the coolant temperature to cool down to < 50°C.[*12]
p. Connect the diagnosis system to the vehicle and enter the following menus:

Vehicle information / Control unit list / DME / Call up control unit functions / Diagnostic request / Diagnostic request / 102 Coolant temperature

q. Loosen reserve tank cap sub-assembly.[*13]
r. Check that the engine coolant level is maximum mark.[*14]
s. If the engine coolant level is below the maximum mark, repeat steps [*1] through [*14] until the water level in the radiator reserve tank assembly stops decreasing.
t. Adjust the filling level in the radiator reserve tank assembly of the high-temperature coolant circuit to 200 ml over the maximum mark.
NOTICE:

- After the cooling system bleeding routine, the cooling system is topped up above the maximum mark.
- Overfilling the cooling system serves to balance the remaining air in the cooling system.
- The normal filling level of the coolant is reached while driving.

u. Close reserve tank cap sub-assembly.
v. Close the reserve tank cap sub-assembly until the arrows are flush.
w. Disconnect battery charger.

4. INSPECT FOR COOLANT LEAK
Click here [B58 (COOLING): COOLING SYSTEM: ON-VEHICLE INSPECTION+]

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR
Click here [FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: INSTALLATION]

2022 Toyota Supra L6-3.0L Turbo (B58B30O)

COOLANT (LOW TEMPERATURE, B58) - REPLACEMENT [03/2019 -]

MAINTENANCE: B58 COOLANT (for Low Temperature): REPLACEMENT; 2020 - 2023 MY Supra [03/2019 -]

PROCEDURE

1. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY
   Click here [FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: REMOVAL+]

2. REMOVE FRONT FENDER SPLASH FRONT SHIELD LH
   Click here [FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: REMOVAL+]

3. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH
   HINT:

   Use the same procedure as for the LH side.

4. DRAIN ENGINE COOLANT
   CAUTION:

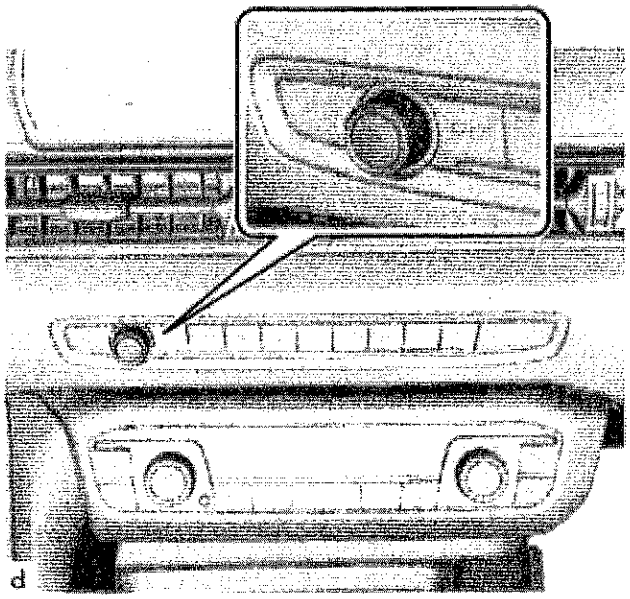
   - Hot fluids.
     Risk of scalding!
     - Conduct all work in the vehicle wearing appropriate personal protective equipment only.

   NOTICE:

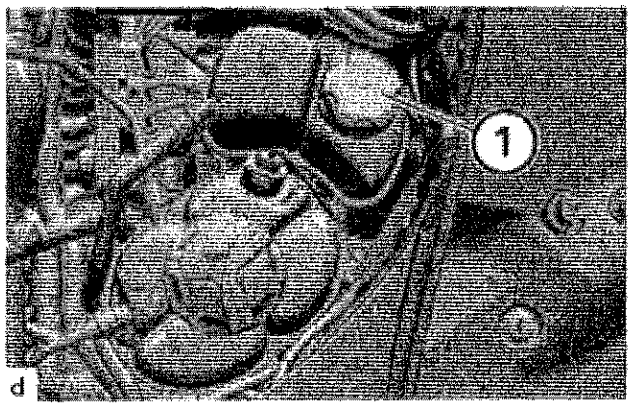
   - Life-long fill of coolant!
   - Do not reuse used coolant.
     When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.
     In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.
   - Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

   a. Check that the START-STOP button (engine switch) off.
      HINT:

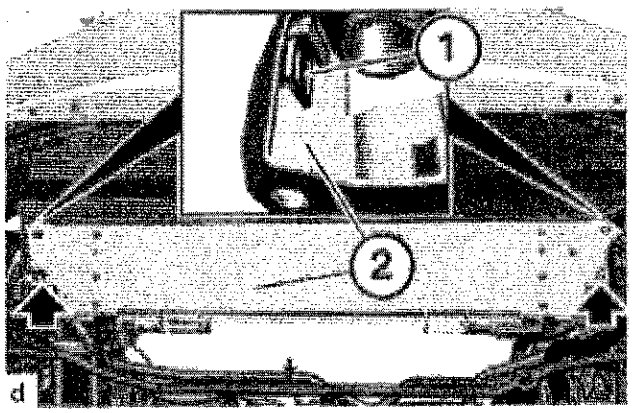
      Pressing and holding the AUDIO button changes the power source mode to IG OFF.



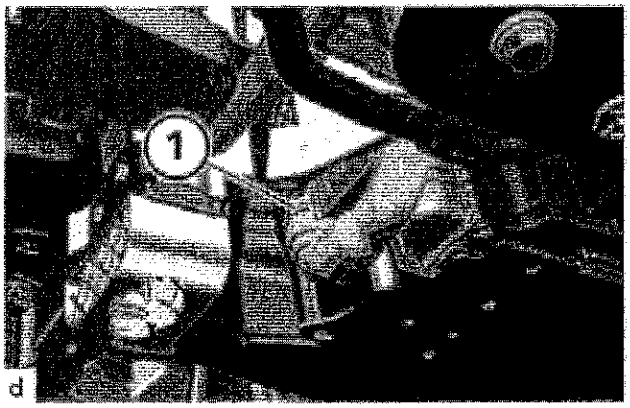
b. Loosen radiator reserve tank cap sub-assembly (1).



c. Remove T30 screws (arrows).

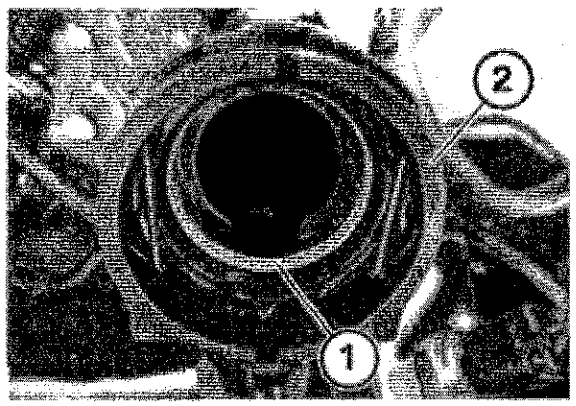


d. Unlock the locks (1).
e. Remove the radiator lower air guide plate (2) from the radiator assembly.
f. Unlock No. 6 radiator hose (1) on radiator reserve tank sub-assembly for low-temperature cooling system and release.



g. Catch and dispose of escaping coolant.

h. Check the sealing ring (1) of the No. 6 radiator hose (2) for damage and renew where required.



i. Connect No. 6 radiator hose on radiator reserve tank sub-assembly for low-temperature cooling system and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

j. Install the radiator lower air guide plate to the radiator assembly.

1. The locks must engage audibly.

k. Tighten T30 screws (arrows).

Torque : 6.0 Nm (61 kgf-cm, 53 in-lbf)

5. **ADD ENGINE COOLANT**

NOTICE:

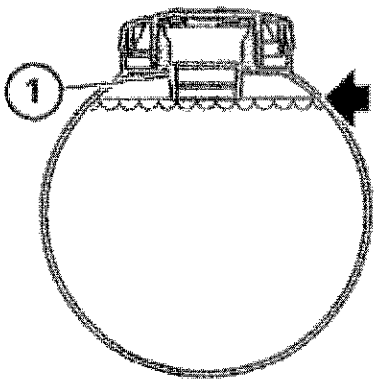
- Life-long fill of coolant!
- Do not reuse used coolant.
  When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.
  In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.
- Mixing different coolants is not permitted.
  Non-compliance will result in danger of component damage and/or engine damage.

- Filling specification absolutely must be adhered to.
  The operation of the vehicle is not permitted unless the filling procedure has been completed. Otherwise, functional limitations (degradation) and/or overheating may occur.
  A bleeding procedure is required after a part has been exchanged in the cooling system and/or after refilling the cooling system.

HINT:

- Before starting the automatic cooling system bleeding routine, make sure that all coolant circuits are filled. If the cooling system bleeding routine is started while one of the coolant circuits is empty, there is a risk of damage to the electric coolant pump when running it dry.
- Make sure that negative (-) battery terminal is not disconnected for the bleeding procedure. Switch on low-beam headlights and hazard warning lights. If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

a. Add engine coolant to the level shown in the illustration.



d

Standard Capacity:
4.0 liters (4.2 US qts, 3.5 Imp. qts)

1. Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12
   HINT:

   When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

b. Ensure that the bonnet is open.
c. Connect battery charger.
   NOTICE:

   For additional information see:

   Click here [B58 (BATTERY / CHARGING): BATTERY: PRECAUTION]

d. Press the START-STOP button (engine switch) 3 times within 0.8 seconds to enter Diagnostic (PAD) Mode.[*1]
e. Turn on low-beam headlight and the hazard warning light.[*2]
   HINT:

If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

f. Adjust the heating to maximum temperature and adjust the blower to the lowest stage.[*3]

g. Hold the accelerator pedal down for at least 10 s at limit position and do not step onto the brake pedal. [*4]

h. Do not start engine.

i. The cooling system bleeding routine will start.[*5]
HINT:

- The electric water pump in the low-temperature coolant circuit is activated for 11 minutes according to a cooling system bleeding routine.
- The cooling system bleeding routine ends after 11 minutes.
- Observe the display in the instrument cluster (KOMBI).

j. While adding coolant to the reserve tank sub-assembly to keep the coolant at the maximum mark and compensate for the drop in the coolant level as the air bleeds.[*6]
HINT:

If the service function is interrupted, the cooling system bleeding routine must be repeated.

k. If the engine coolant level is below the maximum mark, repeat steps [*1] through [*6] until the water level in the radiator reserve tank assembly stops decreasing.

l. Adjust the filling level in the radiator reserve tank sub-assembly of the low-temperature coolant circuit to 100 ml above the maximum mark.

m. Close radiator reserve tank cap sub-assembly.
NOTICE:

- After the cooling system bleeding routine, the cooling system is topped up above the maximum mark.
- Overfilling the cooling system serves to balance the remaining air in the cooling system.
- The normal filling level of the coolant is reached while driving.

n. Disconnect battery charger.

6. INSPECT FOR COOLANT LEAK
Click here [B58 (COOLING): COOLING SYSTEM: ON-VEHICLE INSPECTION+]

7. INSTALL FRONT FENDER SPLASH FRONT SHIELD LH
Click here [FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: INSTALLATION+]

8. INSTALL FRONT FENDER SPLASH FRONT SHIELD RH
HINT:

Use the same procedure as for the LH side.

9. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY
Click here [FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: INSTALLATION+]