

Throttle Body Removal/Installation

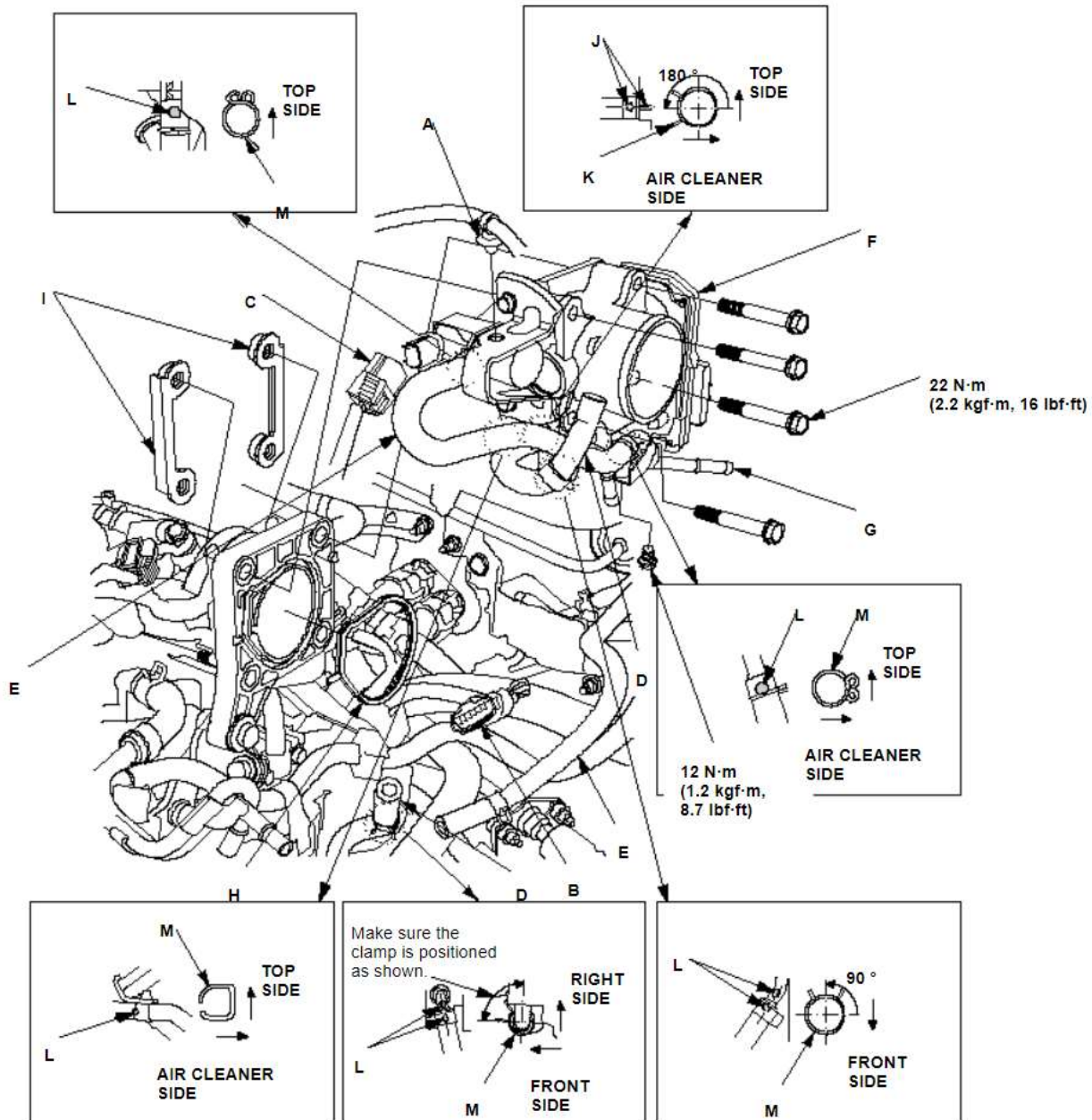
⚠CAUTION

Do not insert your fingers into the installed throttle body when you turn the ignition switch ON (II) or while the ignition switch is ON (II). If you do, you will seriously injure your fingers if the throttle valve is activated.

1. [Remove the air cleaner.](#)
2. Remove the harness clamp (A).
3. Disconnect the throttle body connector (B), and the EVAP canister purge valve connector (C).
4. Disconnect and plug the water bypass hoses (D), the purge hose (E).
5. Remove the throttle body (F).
6. Remove the purge pipe (G), the water bypass hoses, and the purge hose from the throttle body.
7. Install the parts in the reverse order of removal with a new gasket (H), then [refill the radiator with engine coolant.](#)

NOTE:

- If you replace or clean the throttle body, go to [Step 8](#).
- If you did not replace or clean the throttle body, this procedure is complete.
- Be careful not to damage to drops the plates (I).
- Align the marks (J) on the hose and throttle body, then insert the hose. Make sure the clamp (K) is positioned as shown.
- Align the mark (L) on the hose as shown, then insert the hose. Make sure the clamp (M) is positioned as shown.



ECM/PCM Idle Learn Procedure

The idle learn procedure must be done so the ECM/PCM can learn the engine idle characteristics.

Do the idle learn procedure whenever you do any of these actions:

- Replace the ECM/PCM.
- Reset the ECM/PCM.
- Update the ECM/PCM.
- Replace or clean the throttle body.
- When the engine or transmission is disassembled.

NOTE: Clearing the DTCs with the HDS does not require you to do the idle learn procedure.

Procedure

1. Make sure all electrical items (A/C, audio, lights, etc.) are off.
2. Reset the ECM/PCM with the HDS OR TAKE BATTERY OFF (15 mins).
3. Turn the ignition switch to ON (II), and wait 2 seconds.
4. Start the engine. Hold the engine speed at 3,000 rpm (min^{-1}) without load (A/T in P or N, M/T in neutral) until the radiator fan comes on, or until the engine coolant temperature reaches 90 °C (194 °F).
5. Let the engine idle for about 5 minutes with the throttle fully closed.

NOTE: If the radiator fan comes on, do not include its running time in the 5 minutes.

6. Verify on the HDS data list that the idle learn procedure is complete.