(3) Securely tighten the retaining bolt of the distributor. Care must be exercised to ensure that the distributor body dose not turn during this tightening operation.
Specified Tightening Torque:
1.5 - 2.2 kg-m (10.8 - 15.9 ft-lb)

WM-03023

11. Checking ignition advance

(1) Disconnect the vacuum hose and plug the disconnected hose. Accelerate the engine repeatedly. Using a timing light, check to see whether the governor ignition advance is taking place.

NOTE:

Prior to starting this test, disconnect the vacuum hose. Make sure to plug the disconnected hose.

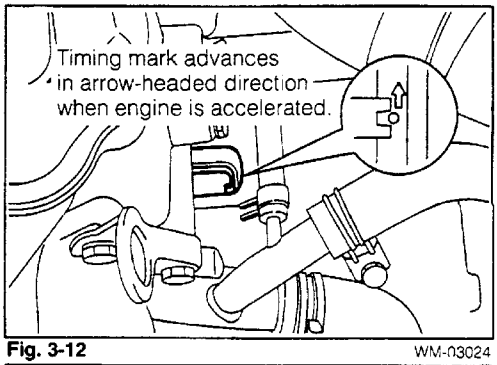


Fig. 3-12 WM-03024

(2) Apply a negative pressure to the vacuum advancer by means of a MityVac or by sucking the hose.
Ensure that the ignition mark moves in the ignition advance direction.

(3) Reconnect the vacuum hose in the original position.

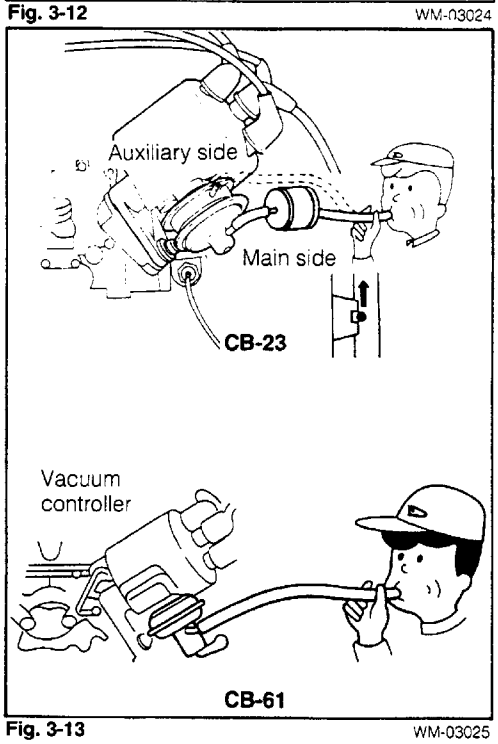
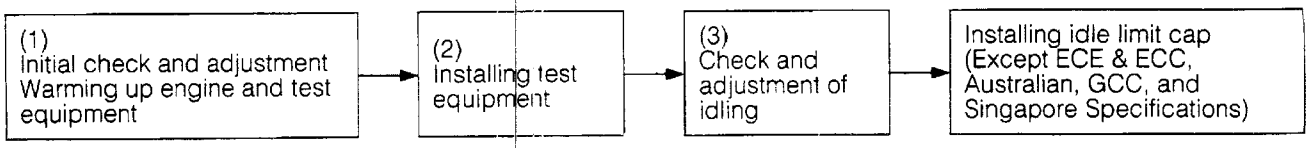


Fig. 3-13 WM-03025

12. Checking idle speed



WM-03026

(1) Precaution

The following notes must be observed before or during the idle speed adjustment.

① Warm up the engine throughly
② Do not perform the engine idling speed adjustment while the fan motor is functioning.
③ Never apply extra loads such as the headlamps, rear window defogger or the like during the adjustment of the engine idle speed. (On the day light-equipped vehicle, keep the headlamps glowing.)
④ Be sure to install the air cleaner element in place.
⑤ Be sure to disconnect the HIC (Hot Idle Compensator) hose and plug the disconnected hose.
⑥ Ensure that the choke valve opens fully.
⑦ Ensure that the exhaust system exhibits no gas leakage.
⑧ Ensure that the intake system exhibits no air leakage.
⑨ The idle limit cap can be removed by cutting it off with pliers or the like. (Except the ECE & EEC, Australian, GCC, Singapore specifications) After the adjustment has been completed, be sure to install a new cap. Make sure that it can rotate freely.
⑩ The shape of the idle limit cap for the ECE & EEC, Australian, GCC, Singapore specifications differs from that of other specifications. Use the following SST to adjust the cap.
SST: **09243-00020**
⑪ On those vehicles whose air cleaner is equipped with a vacuum motor, disconnect the vacuum motor hose and plug the disconnected hose.

WM-03027

(2) Initial check and adjustment

① Warm up the engine, until the cooling water temperature becomes 75°C - 85°C (167 - 185°F). (As for a guide for this temperature, you may use a point when the fan motor stops running. Th idling should not be adjusted while the fan motor is operating.)
② Warm up the CO meter.
③ If the engine is equipped with a plastic idle limit cap, remove it.
④ Ensure that the choke valve opens fully.

(3) Test equipment installation

Install an engine tachometer to the engine.

WM-03028

(4) Check and adjustment of idle speed

- **Manual transmission-equipped vehicle**

① Back off the idling adjusting screw the specified turns from the fully closed position.
Specified backing-off turn:
CB-23 4¾ turns
CB-61 7 turns

② Start the engine. Turn the throttle adjusting screw, until the engine runs at 850 rpm.

③ Screw in the idle adjusting screw, until the engine runs at 800 rpm.
Specified Idling Speed: 800 ± 50 rpm

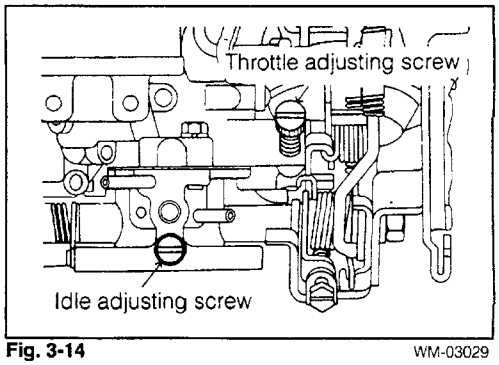


Fig. 3-14 WM-03029

- **Automatic transmission-equipped vehicle**

① Back off the idle adjusting screw about 4¾ turns from the fully-closed position.

② Start the engine. Turn the throttle adjusting screw, until the engine runs at 950 rpm.

③ Screw in the idle adjusting screw, until the engine runs at 850 rpm.
Specified Idling Speed: 850 ± 50 rpm
(For Day-Light Relay-equipped vehicle:
1000 ± 50 rpm)

NOTE:
On those engines for ECE & EEC Australian, GCC and Singapore specifications, screw in the idle adjusting screw, using a SST (09243-00020).

WM-03030

- **Except AS (secondary air suction) system-equipped vehicle**

(As for the AS system-equipped vehicle, see the next section.)

④ Measure the CO concentration.

Specified CO concentration:

General specifications:	5 - 6 %
ECE & EEC specifications:	0.5 - 1.5 %

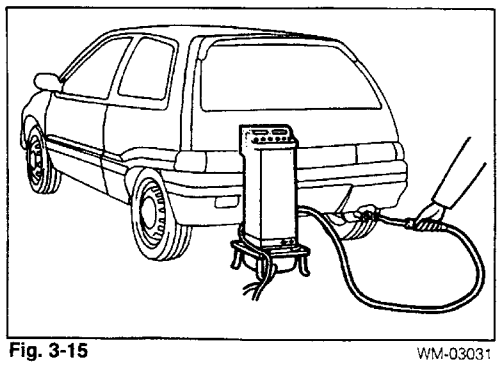


Fig. 3-15 WM-03031

⑤ If the CO concentration does not conform to the specified values, turn the idle adjusting screw. If the engine rotates roughly, check to see if the CO concentration or engine revolution speed drops excessively. Set these values to higher points within the allowable ranges.

WM-03032

- **AS (secondary air suction) system-equipped vehicle**

(Australian, and West German specifications)

④ Measure the CO concentration.

(1) Disconnect the hose between the air cleaner and the air suction valve. Plug the disconnected hose.

(2) Leave the engine idling for about 10 minutes.

(3) Check the CO concentration.

Specified CO Concentration:

Not to exceed 1.0 %

⑤ If the measured concentration does not conform to the specified value, perform the idle adjustment described below.

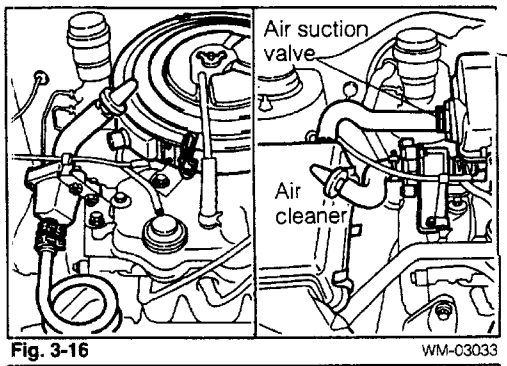


Fig. 3-16 WM-03033

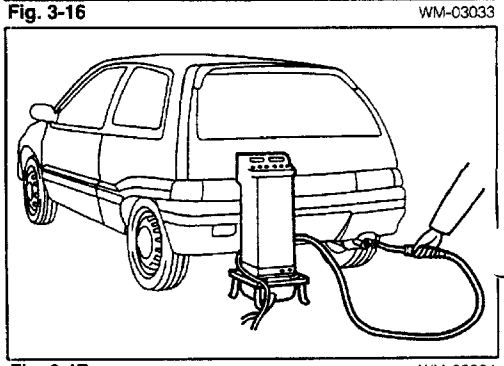


Fig. 3-17 WM-03034

(5) Idle limit cap installation

Install the idle limit cap in the original position. (This applies to those engines equipped with a plastic idle limit cap.)

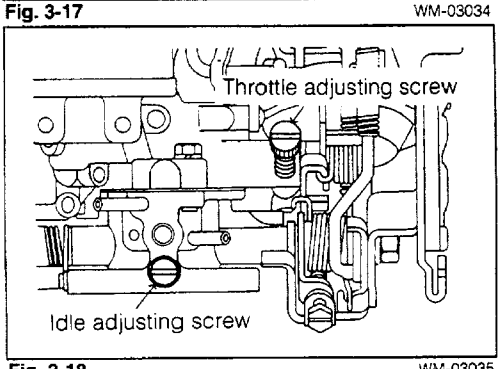


Fig. 3-18 WM-03035

(6) Idle adjustment

① Back off the idle adjusting screw the specified turns from the fully-closed state

Specified Value:

CB-23: About 5¼ Turns

CB-61: About 7 Turns

② Turn the throttle adjusting screw to set the idling to the specified speed

Specified idling speed:

Manual Transmission: 800 ± 50 rpm

Automatic Transmission: 850 ± 50 rpm

③ Remove the air suction valve.

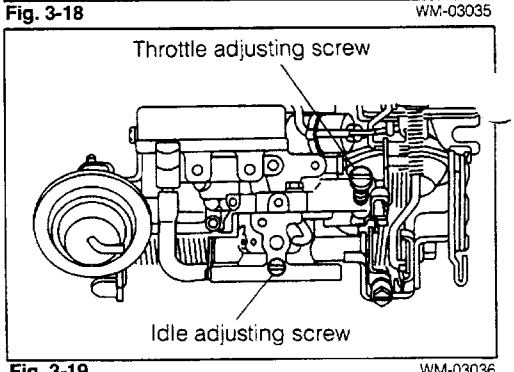


Fig. 3-19 WM-03036

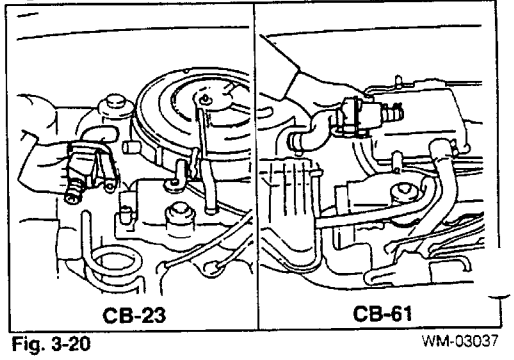


Fig. 3-20 WM-03037

④ Insert the sampling pipe into the air suction pipe. Plug the gap between the air suction pipe and the sampling pipe, using heat-resistant tape or the like.

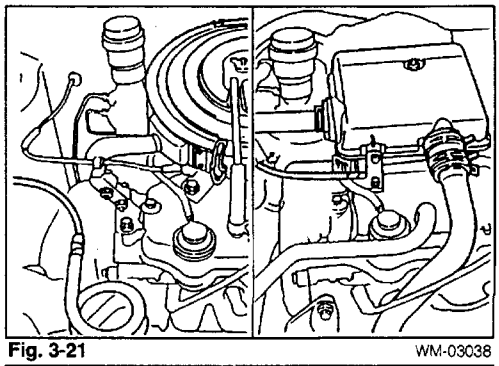


Fig. 3-21 WM-03038

⑤ Measure the CO concentration.
Specified CO Concentration:
Swiss specifications:
Not to exceed 1.5 ± 0.5 %
Australian specifications:
Not to exceed 1.0 ± 0.5 %
West German specifications:
Not to exceed 1.5 ± 0.5 %

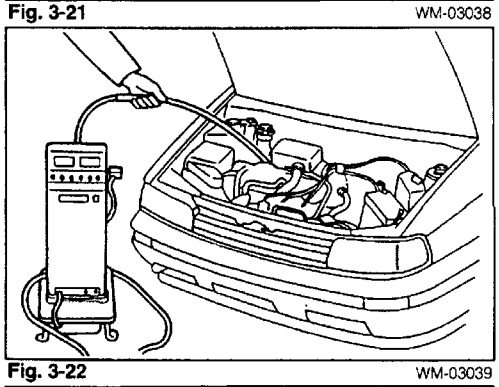


Fig. 3-22 WM-03039

⑥ If the idling speed dose not conform to the specified value, adjust the idle speed by the throttle adjusting screw.

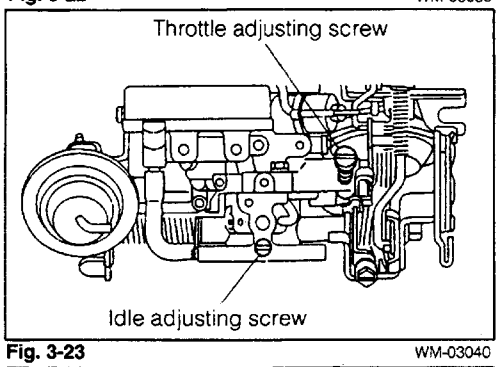


Fig. 3-23 WM-03040

⑦ At this time, if the engine rotates roughly, recheck the CO concentration and check to see if the engine revolutional speed is too low. Set the CO concentration to 0.5 to 1.5%.

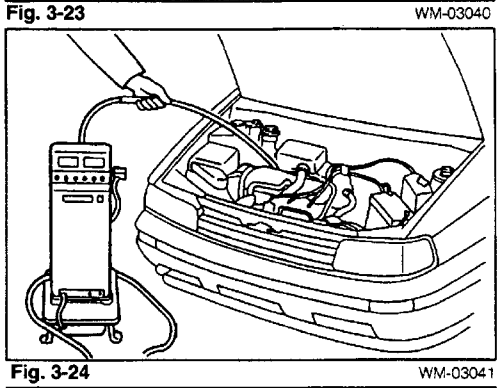


Fig. 3-24 WM-03041

⑧ Reinstall the AS valve in the original position.

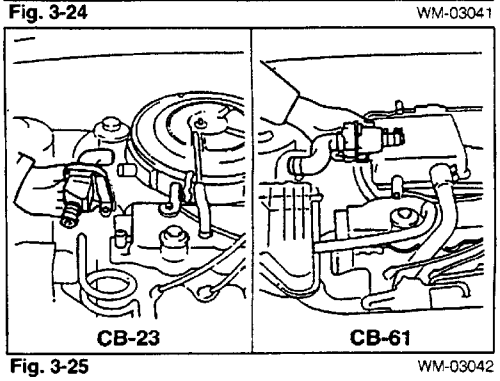


Fig. 3-25 WM-03042

⑨ Ensure that the CO concentration decreases.

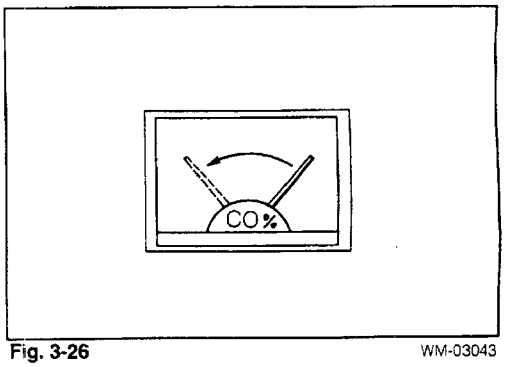


Fig. 3-26 WM-03043

⑩ Ensure that the engine revolution speed is within the specified idle speed.
Specified idle speed:
Manual transmission-equipped vehicle:
800 ± 50 rpm
Automatic transmission-equipped vehicle:
850 ± 50 rpm

13. Checking fast idle speed
Check
(1) Warm up the engine.
(Temperature of coolant 75 - 85°C)
(2) Stop the engine and pull the choke button out as far as it will go. Depress the accelerator pedal once or twice. Restart the engine.
(3) After starting the engine, ensure that the choke opener is functioning and that the fast idle adjusting lever rests on the second stage of the fast idle cam
(4) Check the engine revolution speed.
Specified Fast Idling Speed:
CB-23: 1800 - 2200 rpm
CB-61: 2400 - 2800 rpm

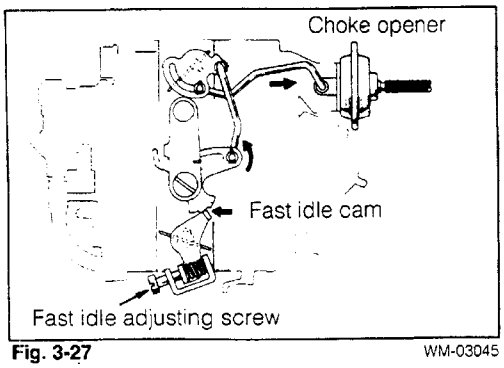


Fig. 3-27 WM-03045

(5) Ensure that the engine returns to its idling speed, when the choke button is pushed back to the original position.

NOTE:
The operations described in the steps (3) and (4) should be carried out for a short period of time.

Adjustment
The fast idling speed can be adjusted by turning the fast idle adjusting screw.

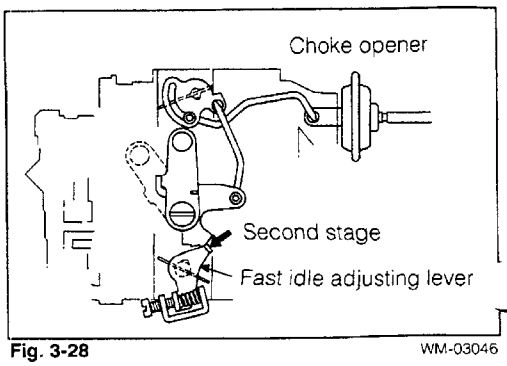


Fig. 3-28 WM-03046

4. Checking dashpot
(Dashpot-equipped vehicle only)

(1) Touch revolution speed check

① Start the engine. Disconnect the vacuum hose ① from the diaphragm pipe ②.

② Open the throttle so that the throttle touch arm ③ may be held separated from the diaphragm shaft ④.
Plug the diaphragm pipe by finger.

③ Release the throttle valve. Measure the engine revolution speed at a time when the throttle touch arm begins to contact the diaphragm shaft. If this engine speed falls within the following range, it indicates that the system is functioning properly.
Touch Revolution Speed: 1200 - 1400 rpm

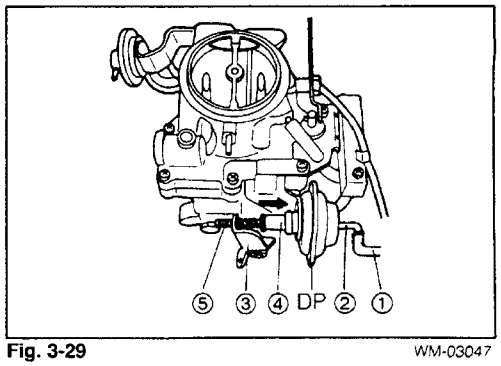


Fig. 3-29 WM-03047

(2) Adjustment

① Turn the adjusting screw ⑤ so that the specified revolution speed is obtained.

② Upon completion of the adjustment, reconnect the vacuum hose. Ensure that the engine revolution speed drops to the idle speed.

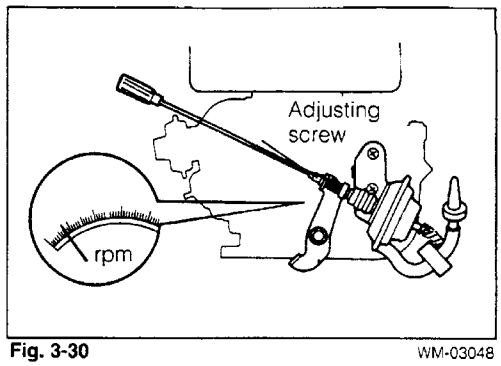


Fig. 3-30 WM-03048

(3) Dashpot function check

① Keep the engine revolution speed at 2500 rpm for a short period of time. Then, release the throttle valve.

② Measure the time required for the engine to drop its engine revolution speed from the touch revolution speed to the idle revolution speed.
Specified Time Required: 0.5 - 5.0 seconds

(4) If the measured time does not conform to the specified value, check the dashpot for air tightness. Also check the VTV and replace them as required.

5. Checking choke opener
(Choke opener-equipped vehicle only)

While the engine is idling, disconnect the vacuum hose connected to the choke opener. If the link functions in the way as described in the table below, it represents that the choke opener is functioning properly.

Cooling water temperature	When hose is reconnected, link moves. (Negative pressure is applied.)
29°C or above	

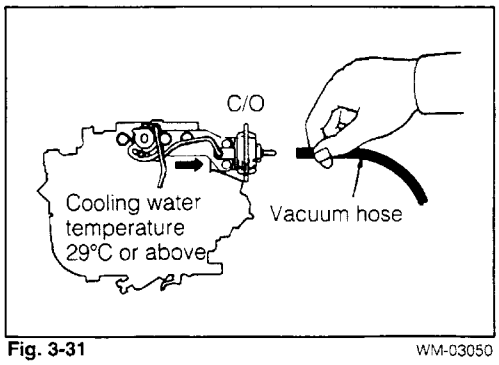


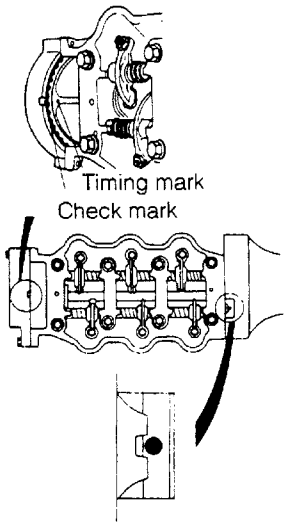
Fig. 3-31 WM-03050

If the link will not move, check the BVSV, TVSV or choke opener. Replace them, as required.

REFERENTIAL INFORMATION

Simple Checking Method of Valve Timing

The valve timing can be checked easily at a time when the piston of the No.1 cylinder is set to the top dead center at the end of the compression stroke for the purpose of checking and adjusting valve clearances. The following is the procedure for this simple checking method of valve timing.



Checking Procedure

1. Turn the crankshaft, until the ignition mark on the flywheel is aligned with the ignition mark of the No.1 cylinder.
2. When the operation described in the step 1 has been made, check to see whether the check mark on the timing belt cover is lined up with the timing mark on the camshaft pulley, as indicated in the illustration at the right.
   When these marks are aligned to each other, the valve timing is correct.

WM-03049