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Intake manifold change-over, checking

Carry out this check only if complaints of "vehicle under-powered" are received.

Intake manifold change-over from the "long" to "short" intake path occurs at approx. 4000 RPM.

Checking function

- Raise engine speed above 4000 RPM.
- Vacuum canister for intake manifold change-over valve (on intake manifold, left rear) must tighten.

If canister does not tighten:

- Check intake manifold change-over valve using output Diagnostic Test Mode ⇒ [page 01-145](#) ,.

If necessary check valve and triggering ⇒ [page 24-64](#) .

- Check vacuum reservoir for leaks ⇒ [page 24-111](#) .

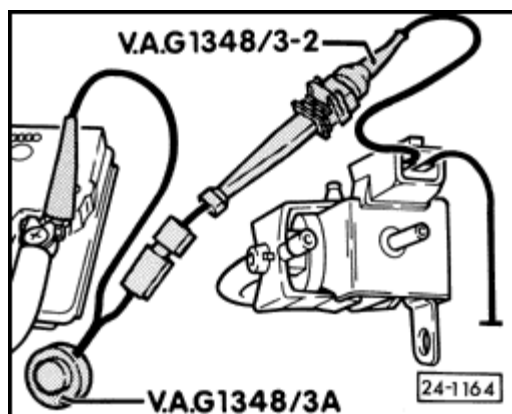
- Check vacuum lines for correct routing, leakage

and flow (blockage) ⇒ [page 24-111](#) .

- Actuate change-over linkage by hand to check change-over system mechanical components for ease of movement.

Checking vacuum system

- Start engine and let idle for two to three minutes to build up vacuum.
- Switch ignition OFF.
- Disconnect 2-pin harness connector from intake manifold change-over valve.



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- Using jumper wires from connector test kit VW 1594:
 - Connect either connector terminal to intake manifold Ground (GND) point.
 - Connect remaining terminal to VAG1348/3A remote control.
 - Connect VAG1348/3-2 adapter wire to B+.
- Activate remote for approx. 2 to 3 minutes, during which time vacuum canister must remain connected.

If the vacuum canister returns to its original position, check as follows:

- Switch ignition OFF.
- Disconnect vacuum lines from intake manifold change-over vacuum canister.
- Connect US 8026 hand pump to vacuum canister.
- Operate hand pump and note change-over operation.

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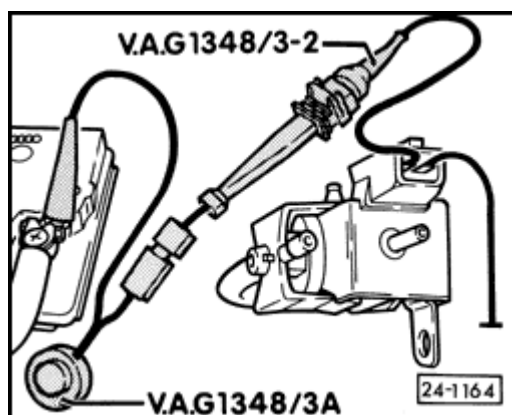
- Check vacuum canister for leaks
 - Vacuum canister should tighten and not return to its original position until the vacuum is released at the hand pump

If vacuum canister returns to its original position (while vacuum is applied):

- Replace intake manifold change-over canister.

If vacuum canister does not tighten, check intake manifold change-over valve for continuity as follows:

- Using jumper wires from connector test kit VW 1594:



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- Connect either of valve terminals to intake manifold Ground (GND) connection.
- Connect remaining terminal to VAG1348/3A remote control.
- Connect VAG1348/3-2 adapter wire to B+.
- Operate VAG1348/3A remote control.
- Check valve for flow (remove vacuum lines and blow through them).
- If necessary, replace intake manifold change-over valve.

If no malfunction was found during these checks:

- Check vacuum system for leakage ⇒ [page 24-111](#) .