## **Camshaft Adjustment Valves, Checking**

- Switch ignition on.
- Perform Output Diagnostic Test Mode (DTM) and actuate valves for camshaft adjustment → Chapter.

Indicated on display

Upon actuation of camshaft timing control, both valves should give a clearly audible click.

If specified value is not attained, perform the following tests:

Output Diagnostic Test Mode →
Valve 1 for camshaft adjustment

### Checking valves for camshaft adjustment electrically

- Disconnect connector from relevant valve for camshaft adjustment.
- Measure resistance between contacts on valve using hand-held multimeter -VAG1526-.

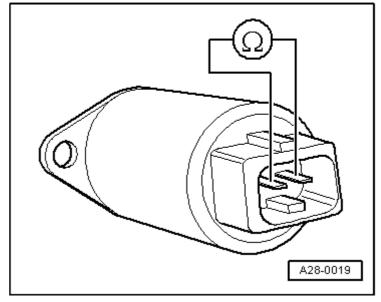
Specified value: 10 ... 18 ohm.

If specification is not attained:

 Replace relevant valve for camshaft adjustment.

# Testing voltage supply valves for camshaft adjustment

Disconnect connector from relevant valve.



- Connect diode test lamp -VAG1527between engine Ground and socket 1 (positive) on connector using cables from adapter set -VAG1594-.
- Operate starter for a few seconds. Engine may start.

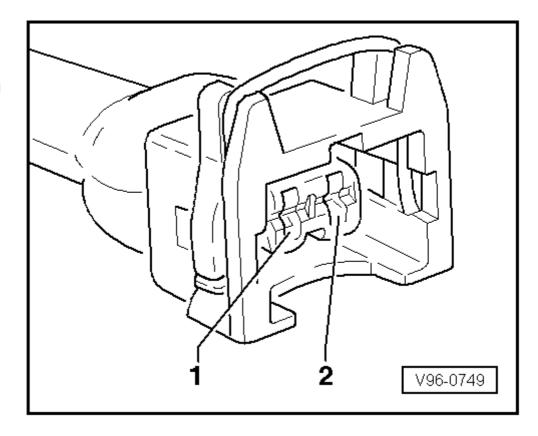
Diode test lamp should illuminate.

If the diode test lamp does not illuminate, perform the following tests:

Check fuse for

valves for camshaft adjustment. → Wiring diagrams, Troubleshooting & Component locations

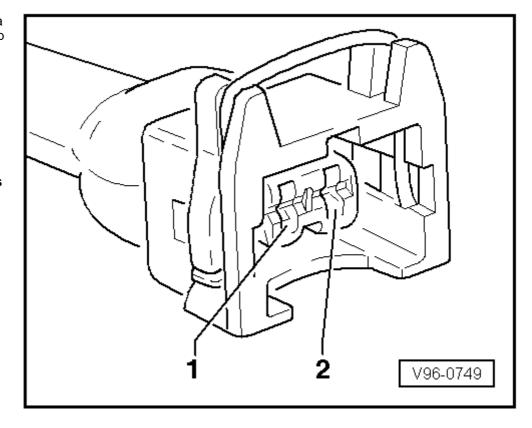
If the fuse is OK:



Check wiring from socket 1 via fuse to fuel pump relay for continuity.
 → Wiring diagrams, Troubleshooting & Component locations

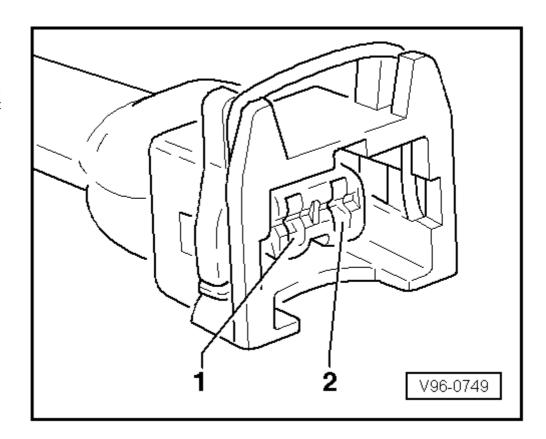
### Checking actuation of valves for camshaft adjustment

Disconnect connector from relevant valve.



 Connect diode test lamp -VAG1527between sockets 1 (positive) and 2 on connector valve using cables from adapter set - VAG1594-.

Perform Output
 Diagnostic Test
 Mode and
 actuate valves
 for camshaft
 adjustment
 → Chapter.



Indicated on display

Output Diagnostic Test Mode → Valve 1 for camshaft adjustment

Diode test lamp should flash on and off upon actuation of camshaft timing control.

If the diode test lamp is continuously lit:

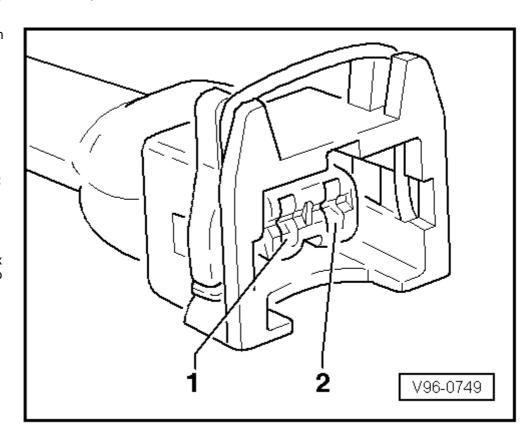
 Check wiring connections from socket 2 of relevant connector for valve for camshaft adjustment for Ground short.

If the diode test lamp does not flash:

Check wiring.

### **Checking wiring**

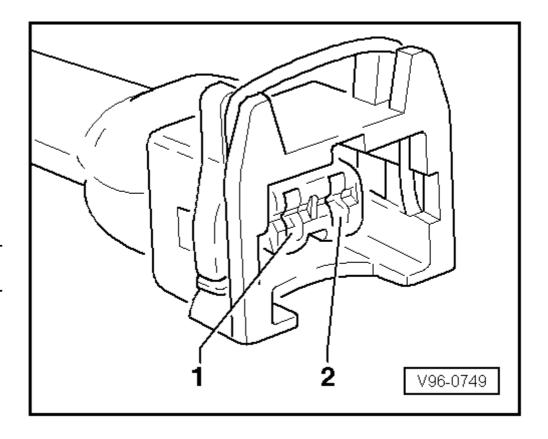
- Connect test box -VAG1598/31- to wiring harness for engine control unit; do not connect engine control module
  - → Chapter.



 Check wiring connection of relevant connector for valve for camshaft adjustment for open circuits as well as short to positive.

# Vehicles up to model year 2001

Valve 1 for camshaft adjustment -N205and Valve 2 for camshaft adjustment -N208-



| 2-pin connector on wiring harness, contact. | Test box -VAG1598/31-<br>socket |
|---|---------------------------------|
| 2   | 115                             |

Wire resistance: max. 1.5 Ohm

 Correct any open/short circuit as necessary. → Wiring diagrams, Troubleshooting & Component locations

#### Vehicles from model year 2002

#### Valve 1 for camshaft adjustment -N205-

| 2-pin connector on wiring harness, contact. | Test box -VAG1598/31-<br>socket |
|---|---------------------------------|
| 2   | 115                             |

Wire resistance: max. 1.5 Ohm

 Correct any open/short circuit as necessary. → Wiring diagrams, Troubleshooting & Component locations

## Valve 2 for camshaft adjustment -N208-

| 2-pin connector on wiring harness, contact. | Test box -VAG1598/31-<br>socket |
|---|---------------------------------|
| 2   | 120                             |

Wire resistance: max. 1.5 Ohm

 Correct any open/short circuit as necessary. → Wiring diagrams, Troubleshooting & Component locations

If no short circuit or open circuit is found, replace engine control module  $\rightarrow$  Chapter.

 If none of tests already performed indicate a malfunction, then replace mechanical camshaft adjuster. → Engine Mechanical; Rep. Gr.15