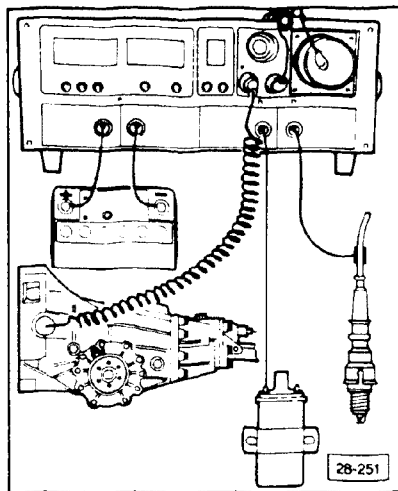


## Ignition timing, checking and adjusting

### Vehicles without VAG 1551 diagnostic connectors, checking

#### Requirements:

- engine oil temperature minimum 80°C (176°F)
- throttle in idle setting
- A/C switched **OFF**
- fault lamp **OK**



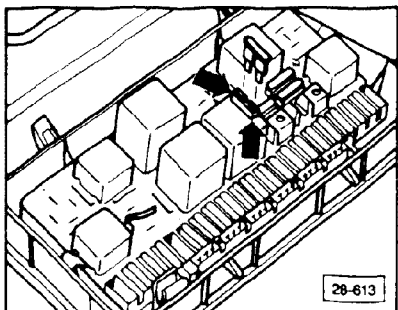
- connect tester **VW 1367** according to manufacturers instructions

#### CAUTION

Make sure that the **TDC** sender of the tester is inserted into the transmission housing as far as possible.

- start engine, run at idle

Ignition timing is displayed directly on the **VW 1367** tester. Flashing a strobe light on the timing mark is not required.



- bridge fuel pump relay terminals with spare fuse until completion of checking or ignition point adjustment

The electronic ignition control unit will **NOT** provide a constant timing value until 4 seconds after bridging the terminals.

#### Specification for ignition timing:

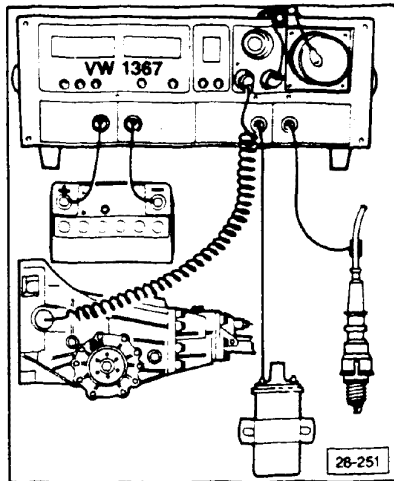
- checking: 13-17° before TDC
- adjusting: 15 ± 1° before TDC

- remove spare fuse from fuel pump relay and briefly raise engine speed to over 2500 RPM
- run engine at idle
  - ignition angle varies within the regulating range from 7° to 20° before TDC
- check idle speed
  - 720 ± 50 RPM

#### If **NO**

- check CO content

## Ignition System



### Vehicles with VAG 1551 diagnostic connectors, checking

Check these first:

- engine oil temperature 80°C (176°F) minimum
- throttle in idle position
- A/C switched OFF

- connect **VW 1367** engine tester according to manufacturer's instructions

### CAUTION

Make sure that the **VW 1367** TDC pickup is fully seated into the transmission housing recess.

- start engine and let idle

### Note

The ignition timing point is displayed directly on the **VW 1367** engine tester. Checking ignition timing using a strobe is **NOT** necessary.

- jumper terminal **C** (ground) with terminal **D** until ignition timing checking/adjusting is completed
  - checking: 13 to 17° Before TDC
  - adjusting: 15 ± 1° Before TDC

### Note

A constant ignition timing point is available from the ignition control unit 4 seconds after terminal **C** is jumpered to terminal **D**.

### Adjusting

- loosen distributor clamp bolt
- rotate distributor until specification is obtained
- remove jumper between terminals **C** and **D**
- briefly increase engine speed above 2500 RPM
- let engine idle
  - ignition timing must fluctuate between 7° and 20° Before TDC
- if necessary, adjust idle and CO content

