



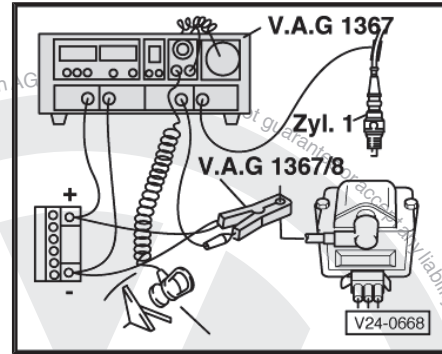
Note

Some vehicles require a TDC sensor along with adaptor - VAG1367/9- . Connect the ignition tester to these vehicles with engine warm and without removing the distributor cap.

- Remove splash shield from distributor



- Connect engine tester -VAG1367- using inductive pickup - VAG1367/8- .
- Connect Scan Tool -VAG1551- => [page 56](#)
- Start engine and let idle until warm
- ◆ engine oil 80 °C (176 °F) minimum
- ◆ below 1500 rpm



i Note

If the engine stalls or shuts off, it can run at increased idle speed for up to 4 minutes after re-starting. In this case wait until engine speed drops before measuring the timing.

- Operate -VAG1551- with respect to the displays shown
- Press 1 to obtain Rapid data transfer
- Press 0 and 1 buttons to select address word 01: "Engine electronics"
- Press button to enter input
- Press button
- Press 0 and 4 buttons to select Function 04: "Engine basic setting"
- Press button to enter input

i Note

When Function 04 is selected, the idle speed is coordinated with the engine via the ECM.

Display will appear as shown

```
Introduction of basic setting HELP
Indicator group number input
```

- Press the button twice to select the indicator group number
- Press button to enter input

Display will appear as shown

```
System in basic adjustment
1 2 3 4 5 6 7 8 9 10
```

or

If the display appears as shown

```
Function unknown/
or can not be conducted at this time
```

- Check the following possibilities:
 - ◆ Coolant temperature of 85 °C minimum not yet obtained
 - ◆ Idle speed exceeds 1500 rpm
 - ◆ Function 04 "Basic setting" using Scan Tool -VAG1551- is not possible

If YES

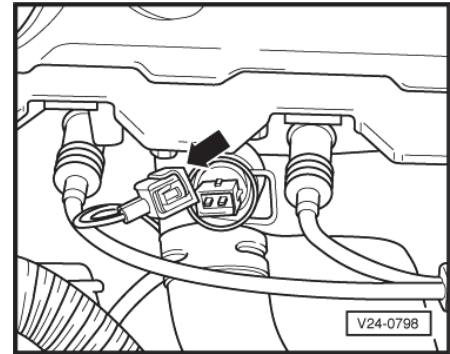


- Disconnect blue Engine Coolant Temperature sensor harness connector (with throttle removed) -arrow-

i Note

If the engine shuts off; before restarting, re-connect the ECT harness connector; otherwise, the Digifant Engine Control Module will default to an emergency program making a test/adjustment impossible.

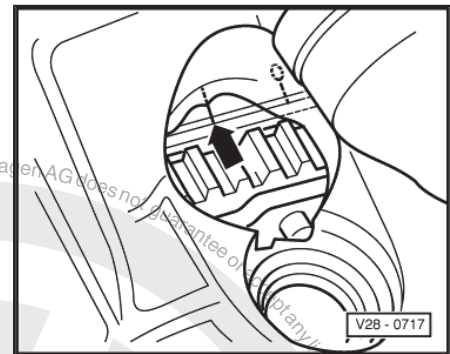
- Check ignition timing point
- ◆ Between 2000 and 2500 RPM
- ◆ Ignition timing must be between 4 and 8° BTDC and fluctuating



4.9 Ignition Timing, Checking with Strobe Light

Ignition timing mark flashes

- Adjust ignition timing point by turning the distributor
- Press button to end Function 04: "Basic setting"
- ◆ Radiator cooling fan must not be running during measurement
- Check and erase Diagnostic Trouble Code memory
 ⇒ [page 31](#)
- ◆ this will erase the stored DTC caused by disconnecting ECT sensor -G62-
- Correct idle adjustment if necessary via Function 04: "Engine basic setting" ⇒ [page 103](#)
- Press 0 and 6 buttons to select Function 06: "End data transfer"
- Press button to enter input
- Allow engine to cool
- Remove splash shield from distributor cap
- Remove -VAG1367- TDC sender from bell housing



4.10 Ignition Timing, Checking and Adjusting

Special tools and workshop equipment required

- ◆ Engine Tester -VAG1367- using inductive pick-up -VAG1367/8-
- ◆ Scan Tool -VAG1551- using adaptor cable -VAG1551/1-

Test Conditions

- ◆ Engine oil temperature 80°C (176°F) minimum
- ◆ Scan Tool -VAG1551- connected

Test Sequence

i Note

On some vehicles a TDC sensor is fitted as standard. Use adapter cable -VAG1367/9- to connect to a TDC sensor.



- Connect Engine Tester -VAG1367- using the inductive pickup -VAG1367/8-
- Start engine and let idle (idle speed not to exceed 1500 rpm)

i Note

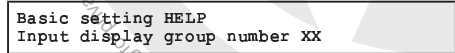
If the engine stalls, after restarting it can automatically run for up to 4 minutes at an increased speed. In which case do not continue until the speed drops off.

- Operate Scan Tool taking the displayed information into account
- Press button to select "Rapid data transfer"
- Press 0 and 1 buttons to select address word 01: "Engine electronics"
- Press button to enter input
- Press button
- Press 0 and 4 buttons to select Function 04: "Basic setting"
- Press button to enter input

i Note

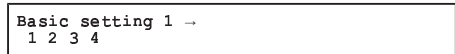
The Digifant Engine Control Module will be matched to the engine at idle speed, in the basic setting.

Display will appear as shown



- Press 0 and 1 buttons to select "Display group number"
- Press button to enter input

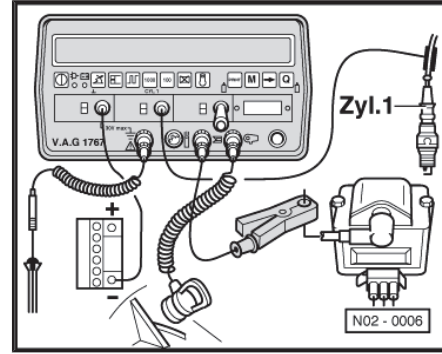
Display will appear as shown, (1 to 4 = Display zones)





Do not continue with check until

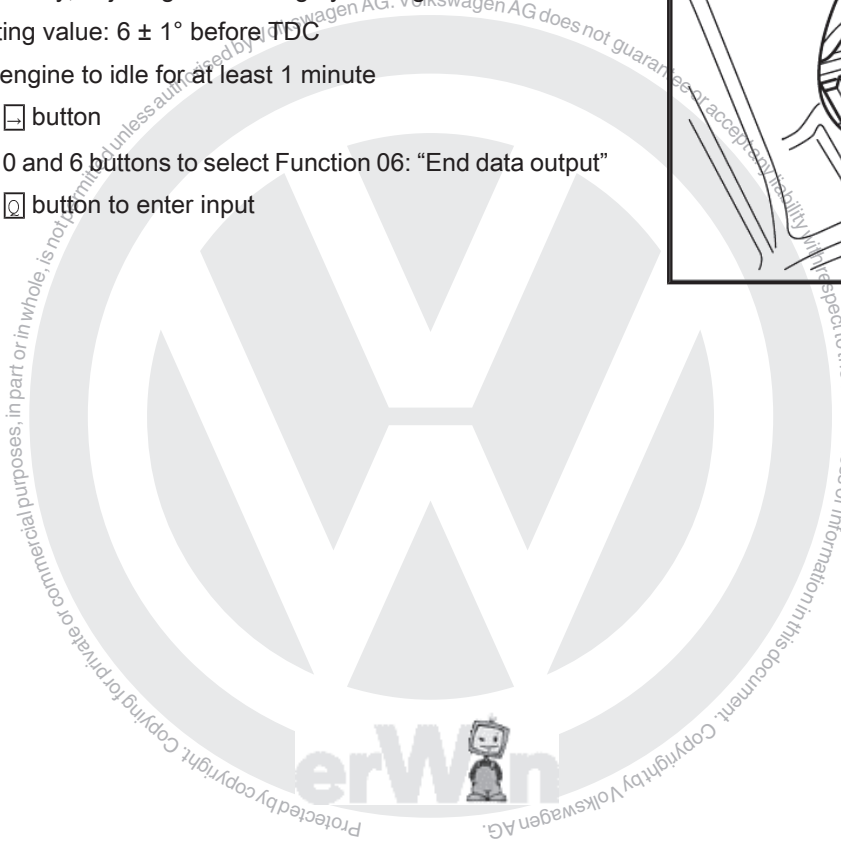
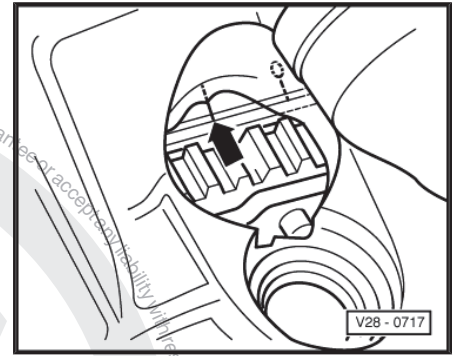
- ◆ Engine temperature exceeds 85°C (display zone 2)
- ◆ All setting conditions have been fulfilled Specification: 00000000 (display zone 4) 01-78
- Check ignition timing between 2000 and 2500 rpm
- ◆ Checking value: 3 to 8° before TDC (fluctuating)

Using a Stroboscope





- Point strobe at ignition timing mark
- If necessary, adjust ignition timing by turning the distributor
- ◆ Adjusting value: $6 \pm 1^\circ$ before TDC
- Allow engine to idle for at least 1 minute
- Press  button
- Press 0 and 6 buttons to select Function 06: "End data output"
- Press  button to enter input





5 Removal and Installation

⇒ "5.1 Ignition Distributor through MY 1994, Installing",
page 138

⇒ "5.2 Ignition Distributor from MY 1995, Installing", page 139

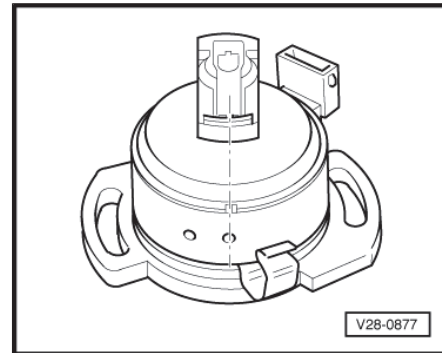
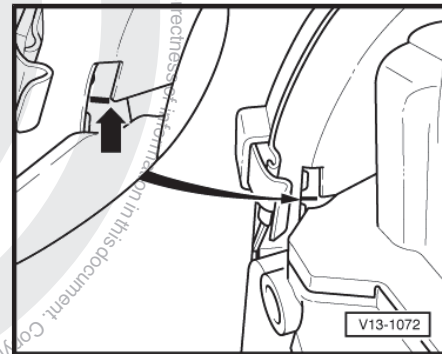
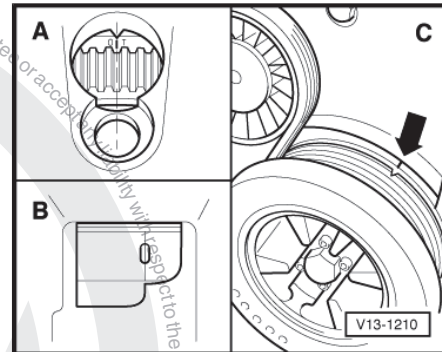
5.1 Ignition Distributor through MY 1994, Installing

Engine Installed

- Position flywheel at TDC as shown in views A and B

Engine Removed

- Align marking on vibration damper C with marking on lower toothed belt guard (arrow)
- Align mark on camshaft sprocket with marking on rear toothed belt guard (arrow)
- Turn rotor until it points to cyl. 1 mark on distributor housing
- Insert distributor into engine (watch out for nearby components and obstructions)
- Clean distributor cap and inspect for cracks, tracking etc. before installing, replace if necessary
- Start engine and let idle
- Check ignition timing, adjust if necessary





5.2 Ignition Distributor from MY 1995, Installing

Engine Installed

- Set flywheel -A- or drive plate -B- to TDC for cyl. 1

Engine Removed

- Align marking on vibration damper -C- with marking on lower toothed belt guard -arrow-
- Align marks on camshaft sprocket with mark on rear toothed belt guard -arrow-

- Position distributor rotor to point to cyl. 1 mark on housing
- Install ignition distributor
- Before installing, clean distributor cap and check for cracks and signs of tracking, replace if necessary
- Check and adjust ignition timing

