

CRUISE CONTROL SYSTEM

Article Text

1989 Volkswagen Golf

For Volkswagen Technical Site

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ARTICLE BEGINNING

1985-92 ACCESSORIES/SAFETY EQUIPMENT

Volkswagen Cruise Control System

GTI, Golf, Jetta

DESCRIPTION

Cruise control operates at speeds greater than 22 mph (35 km/h). The system consists of the following components:

- * Electronic control unit.
- * Speed sensor at speedometer.
- * Vacuum servo at throttle valve.
- * Vacuum pump.
- * Vacuum vent valves at brake and clutch pedals.

OPERATION

The control unit, using a signal from speedometer speed sensor, compares the car's true speed to cruise control speed selected by driver. The control unit then either turns on vacuum pump which causes the vacuum servo to open the throttle, or opens a vent at pump which bleeds air into vacuum lines to release throttle and slow the car. If driver steps on either brake pedal or clutch pedal, a combination vacuum vent valve and electric switch vents the vacuum system and switches off cruise control.

TROUBLE SHOOTING

To get a complete check of cruise control system operation, perform the series of test in Fig. 1 below.

If results of test are as specified, there are no vacuum leaks and system still does not function properly, control unit is faulty and must be replaced.

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Table k. Cruise Control Troubleshooting

– All test points at control unit harness connector unless otherwise specified – Automatic transmission: test with gear selector in D or 2 (with parking brake applied)				
Symptom/Test	Procedure	Test points (at control unit connector)	Specification	Corrective action
Ground circuit	– connect test light	12 volt power (battery) and terminal 8	test light should light	– check ground circuit wiring
ON/OFF switch does not work	– connect test light – ignition ON – cruise control switch ON	terminal 1 and ground	test light should light	– check wiring
Vacuum vent valves do not work	– connect test light – ignition ON – cruise control switch ON – depress brake pedal – repeat: depress clutch pedal	terminals 1 and 3	test light should light	– check wiring – adjust valve – replace valve
Cruise control switch (RESUME) does not work	– connect test light – ignition ON – cruise control switch ON – push RESUME	terminal 6 and ground	test light should light	– check wiring – replace switch
Cruise control switch (SET) does not work	– connect test light – ignition ON – cruise control switch ON – push SET	terminal 2 and ground	test light should light	– check wiring – replace switch
Vacuum control motor does not work	– connect jumper wire – ignition ON	terminal 4 and ground	vacuum control motor should run	– replace vacuum control assembly
Vacuum control motor vent valve does not work	– connect one end of jumper wire to terminal 7 – ignition ON – briefly touch free end of jumper wire to ground	terminal 7 and ground briefly	vent valve should click	– check wiring – replace vacuum control assembly
Speed sensor does not operate	– ignition OFF – check resistance	terminal 5 and ground	90 – 10 ohms	– replace speed sensor

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Fig. 1: Cruise Control Trouble Shooting

Other system faults may be caused by leaks in system vacuum lines or other components. Check vacuum lines and connections carefully.

To leak test vacuum servo, remove vacuum line, squeeze servo until it is fully depressed, and then plug vacuum line connection. If servo does not hold its depressed position, it is faulty and should be replaced.

TESTING

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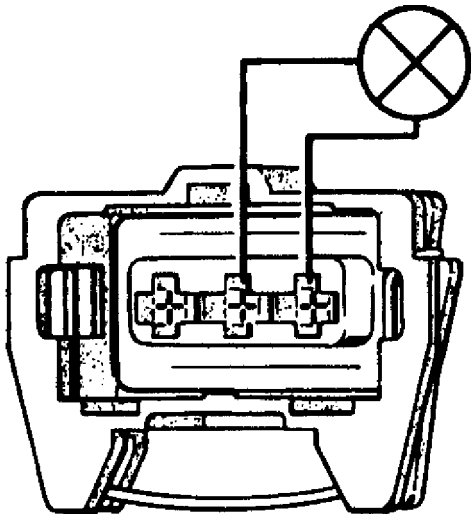
CRUISE CONTROL SYSTEM TEST

1) Remove bi-pressure pump from its housing, and disconnect pump's harness connector.

2) Press driver's door lock button in "UP" (Open) position. Voltage should exist at pump's harness connector. See Fig. 2.

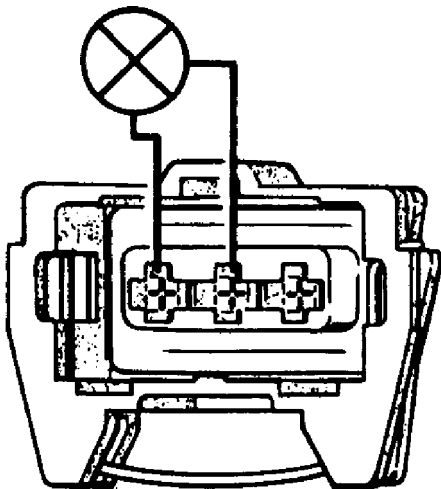
3) Press driver's door lock button in "DOWN" (Locked) position. Voltage should exist at pump's wiring connector. Refer to Fig. 3.

4) If above conditions are not as specified, test switch and wiring. See WIRING DIAGRAMS. Door trim panel must be removed to reach master activator.



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Fig. 2: Open Position Voltage Check Schematic



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Fig. 3: Locked Position Voltage Check Schematic

VACUUM SERVO LEAK TEST

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- 1) Remove vacuum line, squeeze servo until it is fully depressed, and then plug vacuum line connection.
- 2) If servo does not hold its depressed position, it is faulty and should be replaced.

COMPONENTS

COMPONENT LOCATION TABLE

Component	Location
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Control Unit

With CIS-E Fuel Injection Behind center console, in passenger compartment

Without CIS-E Fuel Injection Under instrument panel on passenger side

[illegible]

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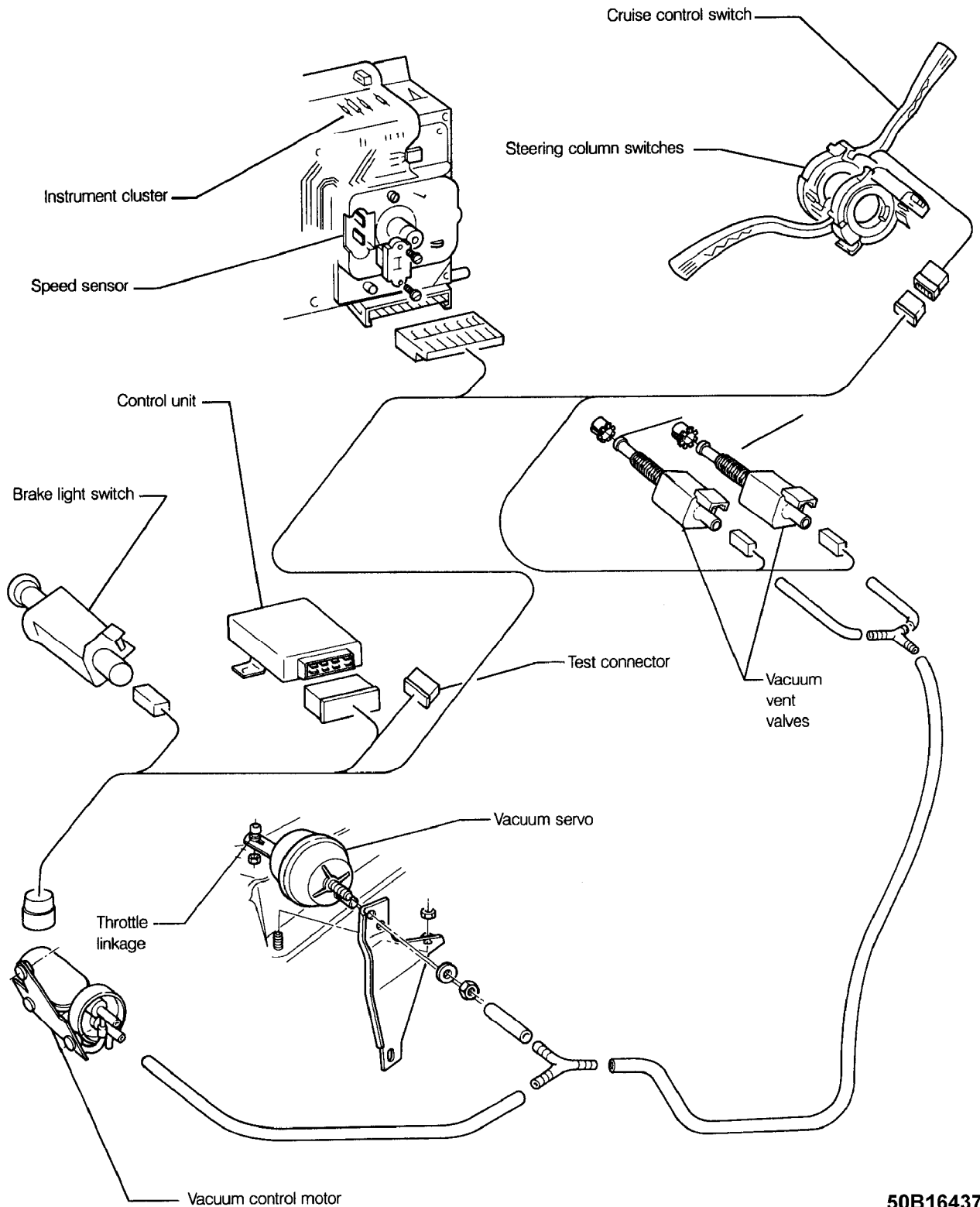


Fig. 4: Exploded View of Cruise Control Components

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WIRING DIAGRAMS

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For wiring see appropriate article in WIRING DIAGRAMS ARTICLE REFERENCE TABLE.

WIRING DIAGRAMS ARTICLE REFERENCE TABLE

AA

Application Article

1985

Golf/GTI WIRING DIAGRAMS

Jetta WIRING DIAGRAMS

1986

Golf/GTI WIRING DIAGRAMS

Jetta WIRING DIAGRAMS

1987

Golf/GTI WIRING DIAGRAMS

Jetta WIRING DIAGRAMS

1988

Golf/GTI WIRING DIAGRAMS

Jetta WIRING DIAGRAMS

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END OF ARTICLE