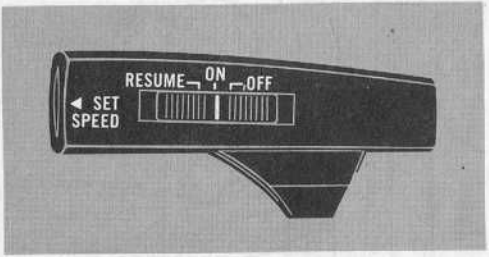
AUTO-CRUISE

Owner's Manual

Keep in Glove Compartment for future reference



OPERATING INSTRUCTIONS

Caution: Do not engage on wet pavement.
If neutral is accidently selected when Auto-Cruise is operating, gently tap brake pedal or slide engagement switch to "OFF" position. This will prevent engine from over-reving.

To Set:

1 - Slide engagement switch to "ON".
2 - Accelerate to desired speed above 30 mph (50 kph).
3 - Press in "SET SPEED" button located on end of engagement switch.

To Disengage:

- Gently depress brake, or slide engagement switch to "OFF" position.

Resume Feature:

1 - Speed must be previously set.
2 - To resume previously set speed after braking, slide engagement switch to "RESUME" position. Engagement switch will automatically return to "ON" position.
3 - Auto-Cruise will automatically return to previously set speed after acceleration past set speed.

OPERATIONAL CHECK PROCEDURE

CAUTION: Auto-Cruise should not be engaged on wet or slick roads.

Perform the following checks after Auto-Cruise installation is completed. If problems are experienced during this operational check, refer to the Trouble-Shooting Guide.

IGNITION SWITCH OFF

UNDER HOOD. Manually operate vehicle's throttle linkage through its full travel, thus allowing the Auto-Cruise linkage (chain and cover) to go slack. Check to see that there is no possibility of

the chain and cover becoming entangled with any adjacent parts (which would tend to hold the throttle open).

TURN IGNITION SWITCH ON AND START ENGINE

1. Set emergency brake and put transmission in "park" or neutral".
2. Move slide switch to "on" position.
3. Depress set speed button and hold for approximately 2 seconds. System should NOT engage. If system DOES engage, (engine races), immediately turn ignition off.
4. Disconnect vacuum tube at regulator from the "M" connector. Engine speed should increase somewhat and idle will be rougher. There should be vacuum available at the tube end. Reconnect vacuum tube and check all connections for leakage.

VEHICLE ROAD CHECK

(Should be made on open or uncongested highway.)

1. Move slide switch to "ON" position.
2. Drive at 10 miles per hour, depress and release set speed button. The system should not engage. (Normally system should engage at speeds above 30 mph.)
3. Drive at 45 miles per hour. Depress the set speed button and release. System should engage and hold within plus or minus 3 mph (slightly more in hilly terrain).
4. Depress brake pedal. System will disengage.
5. Move slide switch to "Resume" position and release. Vehicle will resume pre-set speed.

NOTE: THE GREATER THE DIFFERENCE BETWEEN THE FORMER SET SPEED AND THE SPEED AT WHICH YOU ENGAGE "RESUME", THE FASTER YOUR VEHICLE WILL ACCELERATE. RAPID ACCELERATION CAN BE ELIMINATED BY MERELY ACCELERATING WITH GAS PEDAL TO WITHIN 10 MPH OF PREVIOUS SET SPEED AND THEN ENGAGE "RESUME".

6. Move slide switch to "OFF" position. System will be completely disengaged.

ELECTRICAL CHECKS

It is not always necessary to remove the regulator in case of inoperative Auto-Cruise. The following checks should be performed as part of the diagnosis to determine the cause and correction of Auto-Cruise trouble:

1. Disconnect push on connectors at regulator (single and triple). Grounding lug may be left connected.
2. Use a test light to check proper ground of regulator body to chassis.
3. Turn ignition switch to accessory position.
4. Move slide switch to the "On" position.
5. Using a test light, ground one test light lead and touch the other lead to the brown wire and then the green wire at the connectors. Test light should light. If test light does not light on brown wire, check fuse, engagement switch, and newly made connection at power source. If test light does not light on green wire, check engagement switch and newly made connections at power source and brake light switch.
6. Push "set speed" button all the way in and hold. Ground one test light lead and touch the other lead to each wire in the connector. Test light should light on the brown and yellow wires and should not light on the green or blue wire.
7. Release "set speed" switch button.
8. Move slide switch to "resume" position and hold. Ground one test lamp lead and touch the other lead to each wire in the connector. Test bulb should light on all wires except the blue wire (blue connects to brake lamp side of the brake light switch).

   To make an independent check of the engagement switch before removal from the vehicle, disconnect the switch from the wiring harness, at the multiple connector in the passenger compartment, and make the following checks: (Omit steps 9 thru 16 if steps 1 thru 8 check out.)

9. Attach a jumper wire from a 12-volt power source to the red lead of the engagement switch.
10. Move slide switch to the "off" position.
11. Using the test light, ground one test light lead and touch the other lead in turn, to the brown wire, the green wire and the yellow wire. The test light should not light on any of these wires.
12. Move slide switch to "on" position.
13. Touch test light lead to the brown wire and then the green wire. The test light should light on each of these. Touch the lead to the yellow wire. Light should not light.
14. Push "set speed" all the way in and hold. Test light should light on the brown wire and on the yellow wire. Test light should not light on the green wire.

15. Release "set speed" switch button.
16. Move slide switch to "resume" position and hold. Touch the test light lead in turn, to the brown wire, the yellow wire and then to the green wire. Test light should light.

NOTE: If Steps 1 thru 8 do not check out and 9 thru 16 do check out, replace wiring harness. If steps 9 thru 16 do not check out, replace the engagement switch.

BRAKE RELEASE CHECK

1. Disconnect multiple connector from regulator (all other connections are made).
2. Touch one test light lead to blue wire and other test light lead to ground. Bulb should not light.
3. Depress brake pedal; test light and brake lights should go on when pedal is depressed and off when pedal is released.

NOTE: Excessive brake pedal travel necessary to activate test light may result in vehicle braking before release of Auto-Cruise System. If this is objectionable adjust brake light switch.

4. If above sequence fails — check for brake light switch adjustment, defective switch, or defective brake light circuit fuse.

VACUUM CHECK

Make sure vacuum tubes are properly connected and carefully routed.

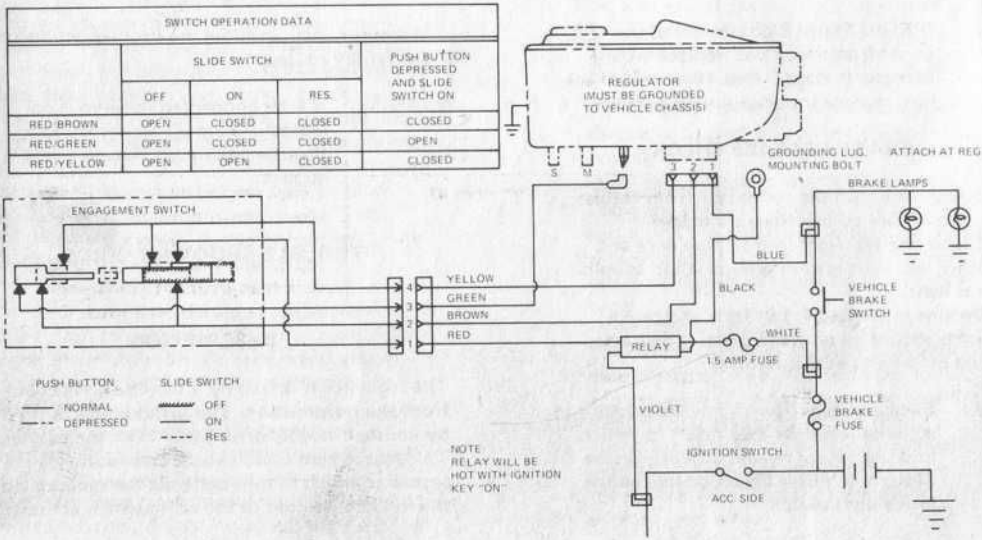
WARNING: If tube connected to servo is collapsed or kinked, servo may keep throttle open even though brake is applied.

TROUBLE SHOOTING GUIDE

DESCRIPTION

The regulator is driven by a flexible drive cable from the transmission. The speedometer is driven by another flexible drive cable from the regulator. The engagement switch electrically controls the regulator which in turn controls the vacuum from the intake manifold to the servo which actuates the

throttle. Electrical connections are provided for attachment to the existing brake light switch to cause disengagement of the unit when brakes are applied. For your convenience and safety the slide switch will disengage the entire system when pushed to the "off" position.



CONDITION	POSSIBLE CAUSE	REMEDY
Blowing fuses	Short or ground in Auto-Cruise wiring circuit	Perform electrical checks — Replace with 1.5 amp fuse or 5 amp max.
Auto-Cruise does not engage	Auto-Cruise harness fuse burned out	Replace fuse (1.5 amp or 5 amp max.)
	Brake light switch on	Adjust or replace brake light switch
	Faulty brake light switch	Replace brake light switch
	No current to brown wire at regulator	Repair wiring harness or check for loose connections at 4 wire connector; clutch or brake switch (optional) and brake or clutch switch adjustment. See instructions for clutch brake switch.
	Vacuum leak	Repair leak
	Bad ground	Check regulator for ground
	Electrical	See Electrical Checks
	No ground	Add wire from regulator to ground
	Faulty connections	Tighten connections
	Brake light fuse burned out	Replace fuse

CONDITION	POSSIBLE CAUSE	REMEDY
	Brake lamp bulb(s), burned out	Replace bulb(s)
	Engagement switch inoperative	Replace engagement switch — See Electrical Checks — Steps 9 thru 16
	No current to three wire connector or green wire at regulator with ignition switch "on" and engagement switch to "on" position.	Replace relay. All wires from relay should be "hot" except black wire with ignition switch "on".
	Faulty regulator	Replace regulator
Auto-Cruise does not disengage when brake is applied	Improper brake light switch adjustment	Adjust brake light switch
	Defective brake light switch	Replace brake light switch
	Vacuum tubes reversed at regulator	Check for proper connections
Re-engages when brake is released	Faulty engagement switch	Replace engagement switch
	Faulty regulator	Replace regulator
Vehicle's battery discharged and Auto-Cruise switch left "on"	Connected to wrong terminal on fuse block	Select correct power source — Violet wire of Auto-Cruise wiring harness to 12 volts with

CONDITION	POSSIBLE CAUSE	REMEDY
		ignition key to "on" position. No voltage when ignition key is in "off" position.
	Defective relay in Auto-Cruise wiring harness	Replace relay – Replace Auto-Cruise fuse with a 1.5 amp fuse or 5 amp max.
Carburetor does not return to normal idle	Improper Auto-Cruise servo linkage adjustment	Adjust Auto-Cruise servo linkage
	Improper accelerator linkage adjustment	Adjust accelerator linkage
	Weak or disconnected throttle return spring	Replace or connect spring
Pulsating accelerator pedal	Speedometer cable or drive cable kinked or lack of lubrication	Lubricate cables lightly, including tips, or replace cable if necessary
Speedometer inoperative & Auto-Cruise operates	Speedometer cable not driving speedometer	Check for broken cable or loose connections
	Faulty regulator	Replace regulator
Neither speedometer nor Auto-Cruise operates	Transmission cable not driving regulator	Check for broken cable or loose connections

CONDITION	POSSIBLE CAUSE	REMEDY
Vehicle accelerates or decelerates more than 3 mph (slightly more in hilly terrain) and then controls speed upon depressing and releasing of "set speed" button	Regulator out of adjustment	Have checked at authorized dealer.
	Restricted vacuum source	Remove manifold fitting and increase diameter of hole to 1/8 inch
Engine accelerates when started	Vacuum tubes reversed at regulator	Check for proper connections
System disengages on level road without applying brake	Loose wiring connections or poor ground connection	Tighten connections and check ground
	Loose tubes	Check tube connections
	Servo linkage broken or throttle clamp slipped. Brake or clutch switch adjustment (optional).	Repair linkage or tighten clamps. See clutch switch mounting instructions.
Erratic operation of Auto-Cruise	Faulty vacuum servo or vacuum tube	Replace servo or vacuum tube.
	Faulty regulator	Replace regulator
Vehicle will not maintain speed but continues to accelerate after de-	Auto-Cruise wiring harness wires crossed at brake switch. Green wire not attached to	Reverse Auto-Cruise harness wires at brake switch. White wire should be "hot" and blue "cold"

CONDITION	POSSIBLE CAUSE	REMEDY
pressing and releasing "set speed" button	regulator. Regulator not grounded.	on Auto-Cruise harness. Attach green wire to regulator. Ground regulator

VOLKSWAGEN PRODUCTS CORPORATION · FORT WORTH, TEXAS

PRINTED IN USA 1/76

VPL 755 855