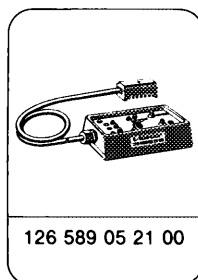


**Special tool**



**Notes**

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Test cruise control/Tempomat with adapter only. If other testing and measuring instruments are used, the cruise control/Tempomat may be destroyed. During this test, the cruise control/Tempomat system is tested with the exception of the control unit.

Faults can be found by means of the adapter only if cruise control/Tempomat is permanently not functioning. Complaints such as temporary failure or poor control characteristics (e.g. shaking) cannot be checked with adapter. In such cases, proceed according to programmed repairs.

If testing with adapter indicates a faulty component, check plug connections for good contacting prior to replacement, e.g. the plug sockets should not be widened. Reshape widened plug sockets. Then check respective component once again.

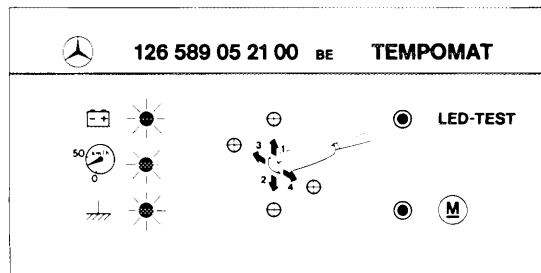
Prior to testing by means of adapter, check battery voltage ( $> 11$  V), stop lamps and speed indication for function. Repair, if required, and check cruise control/Tempomat for function prior to testing with adapter.

## Preparation for test

- 1 Remove cover under instrument panel on side of driver.
- 2 Pull 14-point plug from control unit.
- 3 Connect test adapter to 14-point plug.
- 4 Test jacks in 14-point plug, reshape widened bushings.

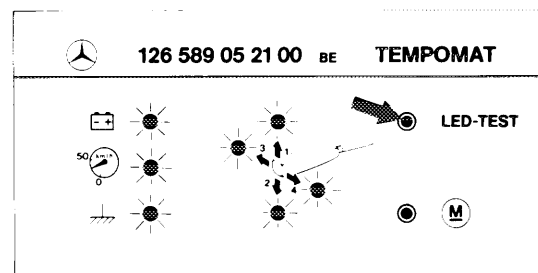
5 Switch on ignition. The following LED readouts will light up, if no fault is indicated.

Symbol	Models
Battery	all
km/h	123 with sensor on mechanical speedometer
Ground	107 with engine 103, 116.960 (USA) (J) 116.962 except (CH) up to 83, (AUS) 116.964 and 117, 123 with engine 617.95 except (USA) 81, 126 with engine 116.96, (USA) 116.963 except (CH) (S) up to 83, (AUS) 116.965 and 117



1543-9603

5 Push "LED-TEST" push-button of test adapter and check whether all LED readouts are lighting up. If no LED readout is lighting up check connection of voltage supply and line-up of 14-pole coupler (refer to wiring diagram 54-580).

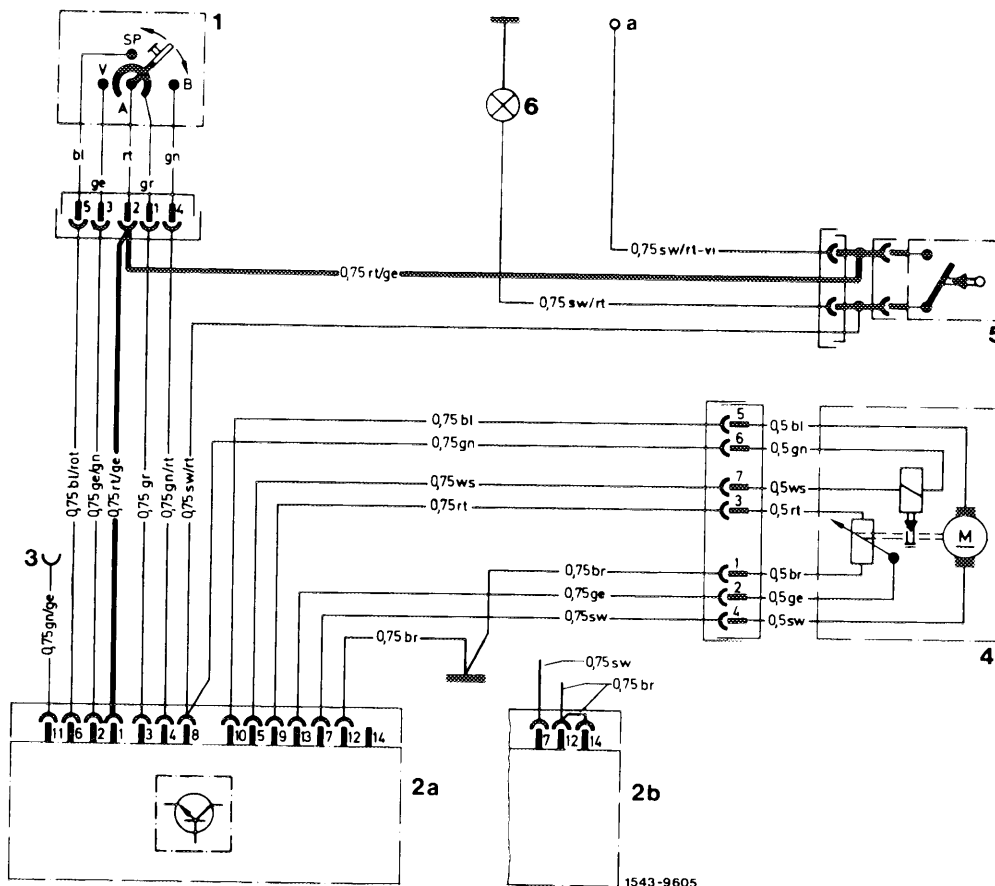
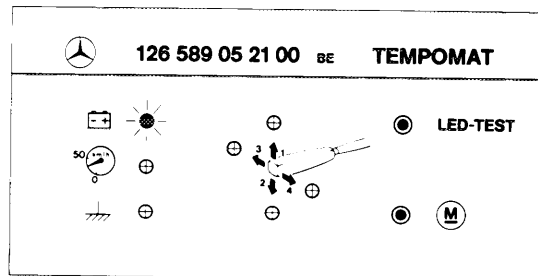


1543-9600

Test

Voltage supply on all models	
LED readout lighting up	
yes	no

Check lines for correct connection and passage, while paying attention to changed voltage supply (refer to 54-580).



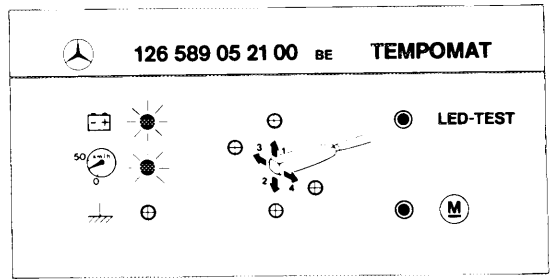
Wiring diagram up to 08/81

- 1 Switch
- 2 a Control unit
- 2 b Control unit
- 5 Stop lamp switch

Sensor on mechanical speedometer  
 model 123 (except 123.033/053 (J) 1981 and 123.193 (USA) 1981)

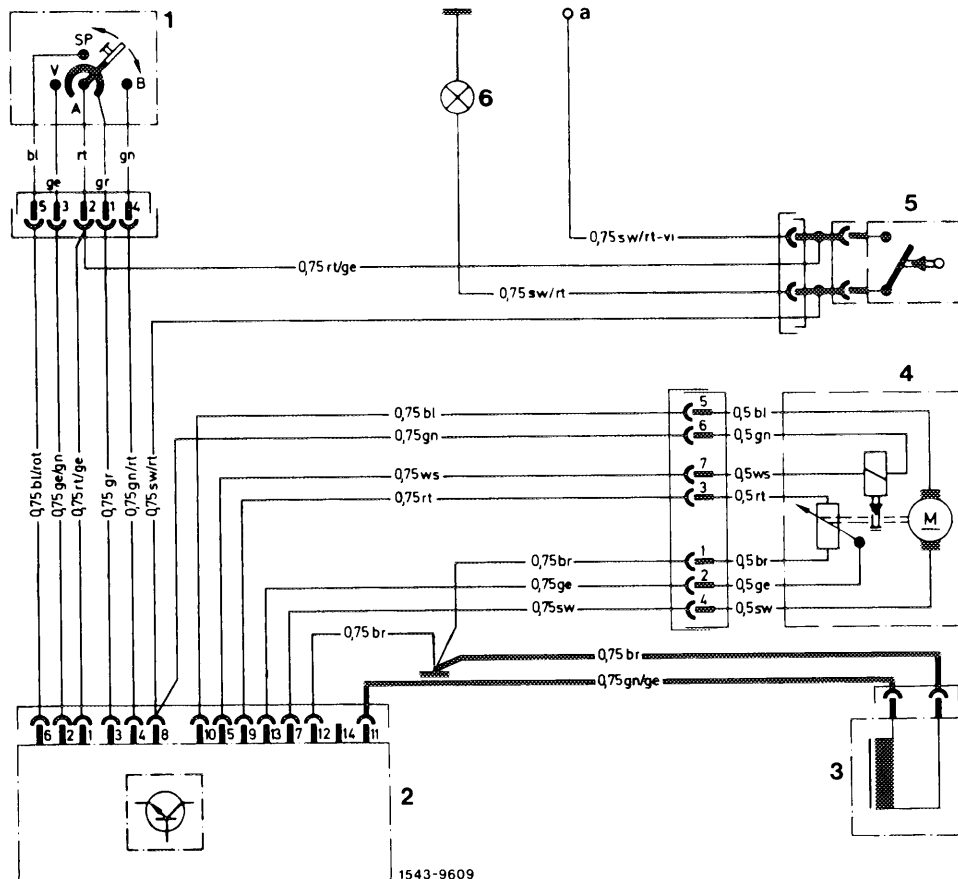
LED readout lighting up

yes | no



1543-9608

Test lines for correct connection  
 and passage.  
 Replace sensor.



1543-9609

- 2 Control unit
- 3 Sensor for model 123 except 123.033/053 (J) 1981 and 123.193 (USA) 1981

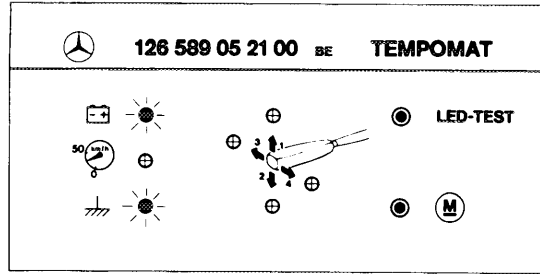
Ground connection on jack (plug) 14 of control unit on models:

- 107 with engine 103, 116.960 (USA) (J)
- 116.962 except (CH) up to 83, (AUS)
- 116.964 and 117
- 123 with engine 617.95 except (USA) 1981
- 126 with engine 116.961 (USA), 116.963 except (CH) (S) up to 83, (AUS)
- 116.965 and 117

LED readout lighting up

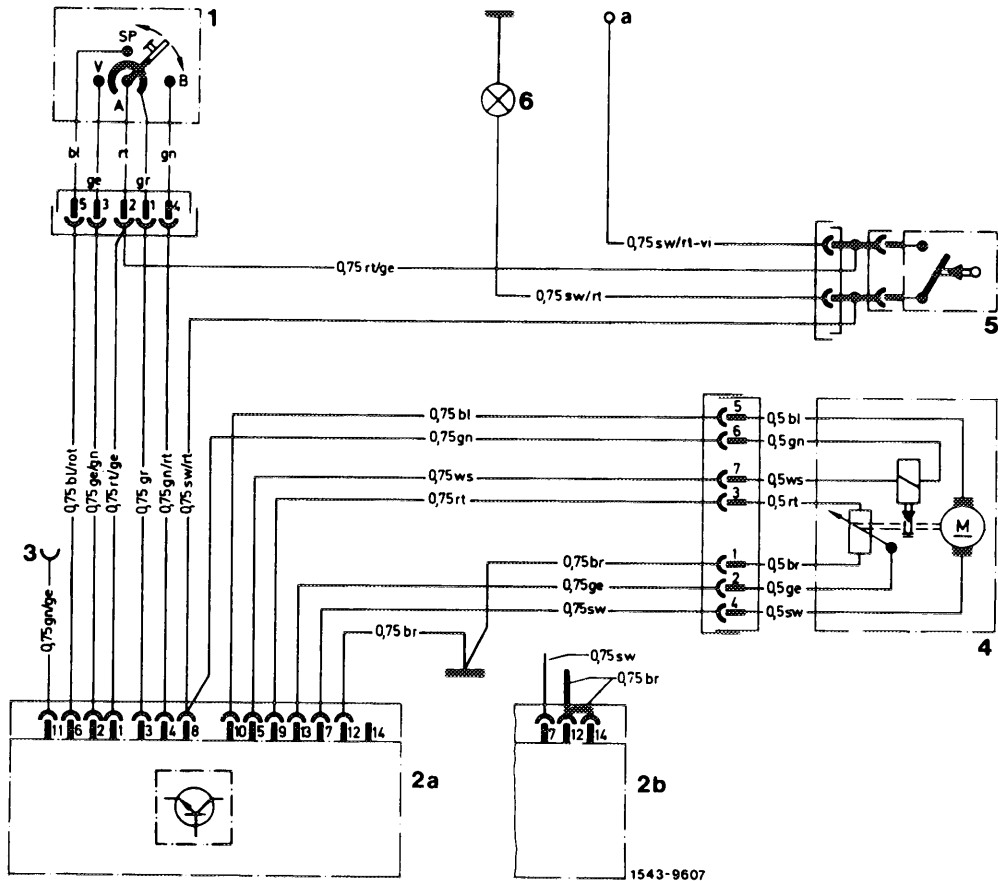
yes

no



1543-9606

Recondition grounding line to 14-point plug.



1543-9607

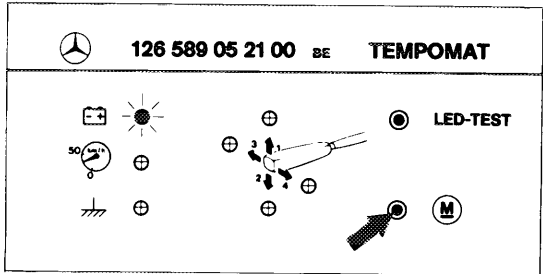
- 2b Control unit for Models
- 107 with engine 103, 116.960 (J) (USA), 116.962 except (CH) up to 83, (AUS), 116.964 and 117
  - 123 with engine 617.95 except (USA) 1981
  - 126 with engine 116.961 (USA), 116.963 except (CH) (S) up to 83, (AUS), 116.965 and 117



Testing actuator.  
Depress push-button switch M.

Regulating linkage and accelerator pedal are moving uniformly to full throttle position and remain there.

yes | no



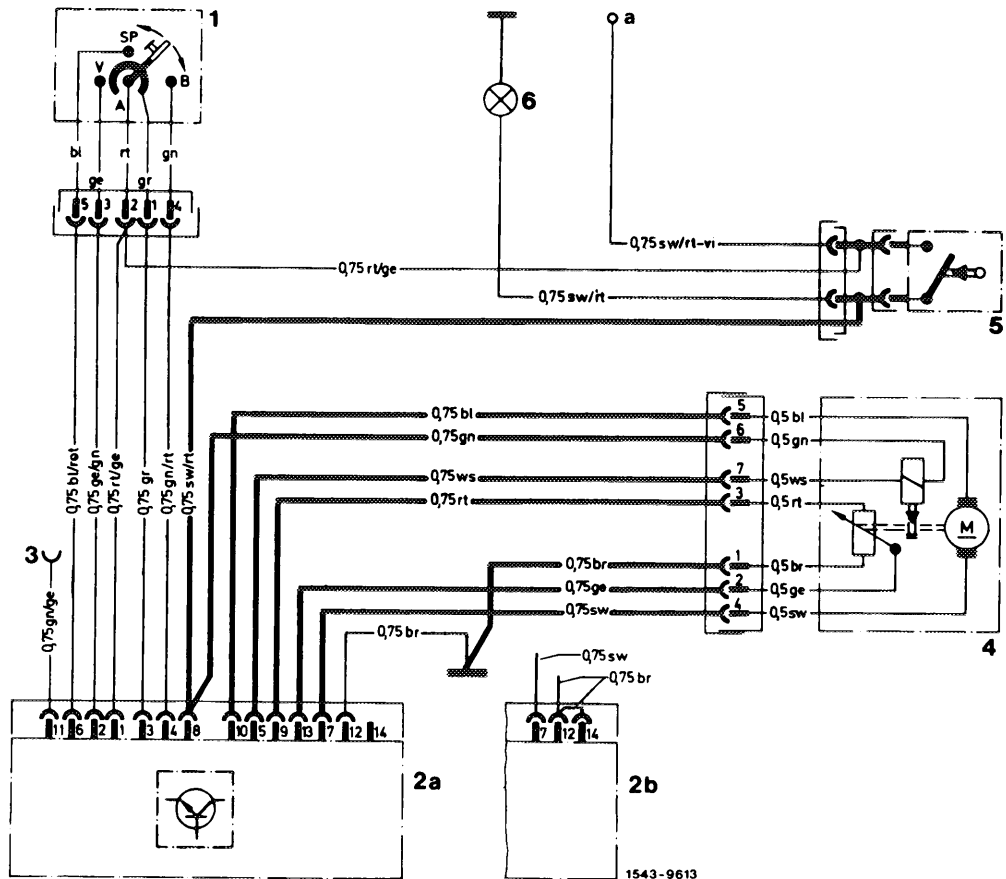
1543-9612

Regulating linkage and accelerator pedal are not moving:

- 1 Check regulating linkage.
- 2 Check lines for correct connection or passage, pay attention to changed voltage supply (54–580).
- 3 Replace actuator.

Regulating linkage and accelerator pedal are constantly moving back and forth:

- 1 Test contacting of plug connection line harness/actuator harness.
- 2 Replace actuator.



Wiring diagram up to 08/81

2 Control unit

4 Actuator

5 Stop lamp switch

Test cruise control cutout while braking.  
Depress push-button **M**.  
Regulating linkage and accelerator pedal  
in full throttle position!  
Push brake pedal.

---

Regulating linkage and accelerator pedal are  
immediately moving into idle position.  
Then release push-button switch.

yes | no

Test regulating linkage for  
easy operation.

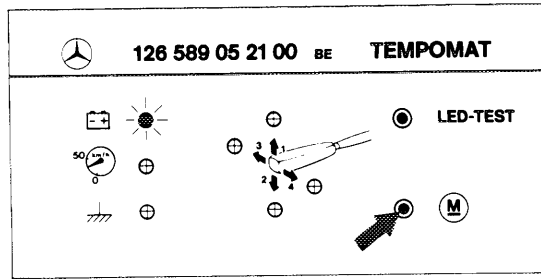
Replace actuator.

Test cruise control cutout while declutching  
(manual transmission only).  
Pushbutton **M** is pushed.  
Regulating linkage and accelerator  
pedal are in full throttle position!  
Depress clutch pedal.

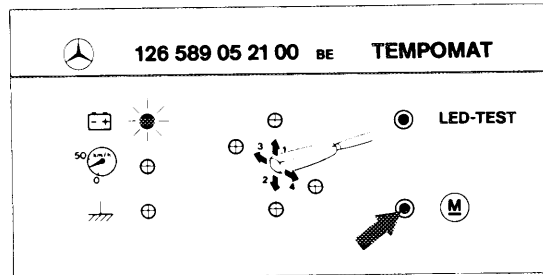
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Regulating linkage and accelerator pedal will  
move immediately into idle position. Then  
release pushbutton switch.

yes | no



1543-9612

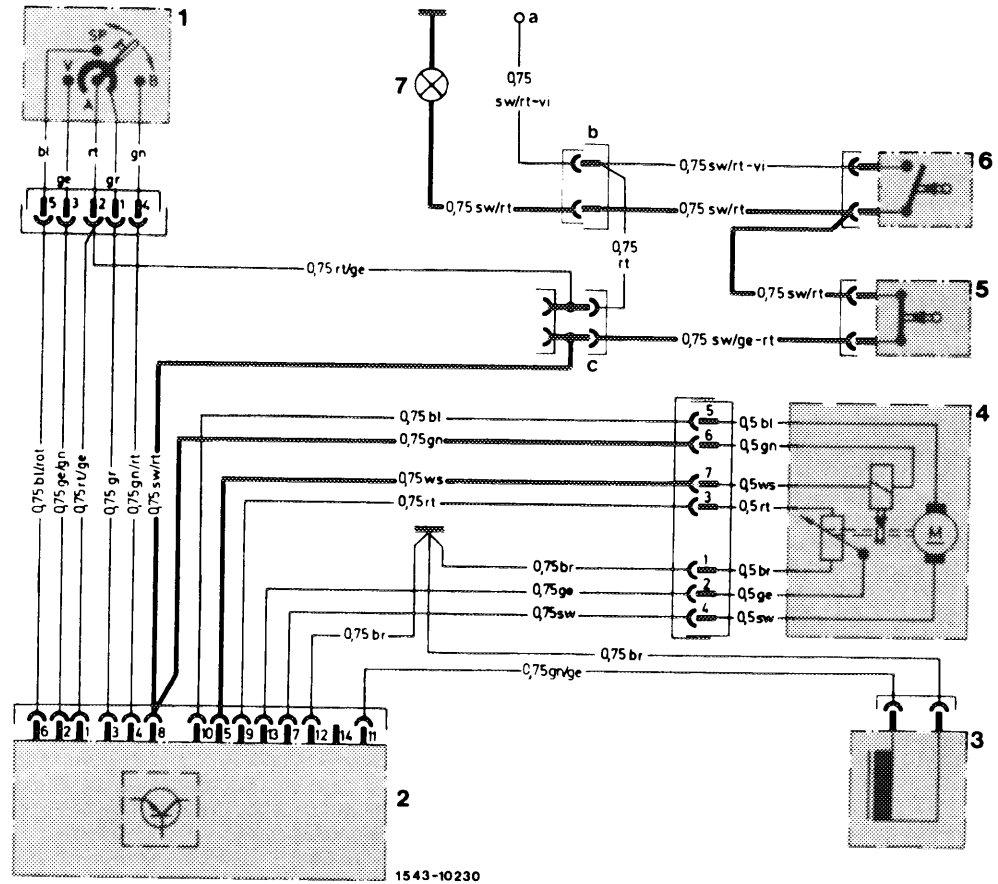


1543-9612



Lines are shorted.

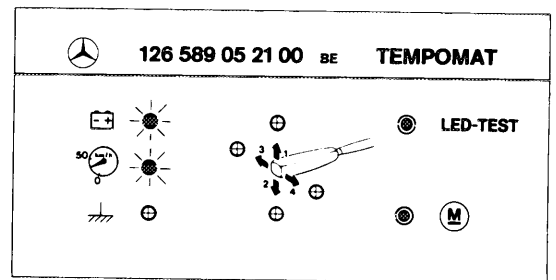
Switch on clutch pedal defective.



Test harness and cruise control connection of electronic speedometer, speed readout should be in order.  
 Models 107, 123.033/053 (J) 1981, 123.193 (USA) 1981 and 126, drive vehicle at max. 50 km/h.

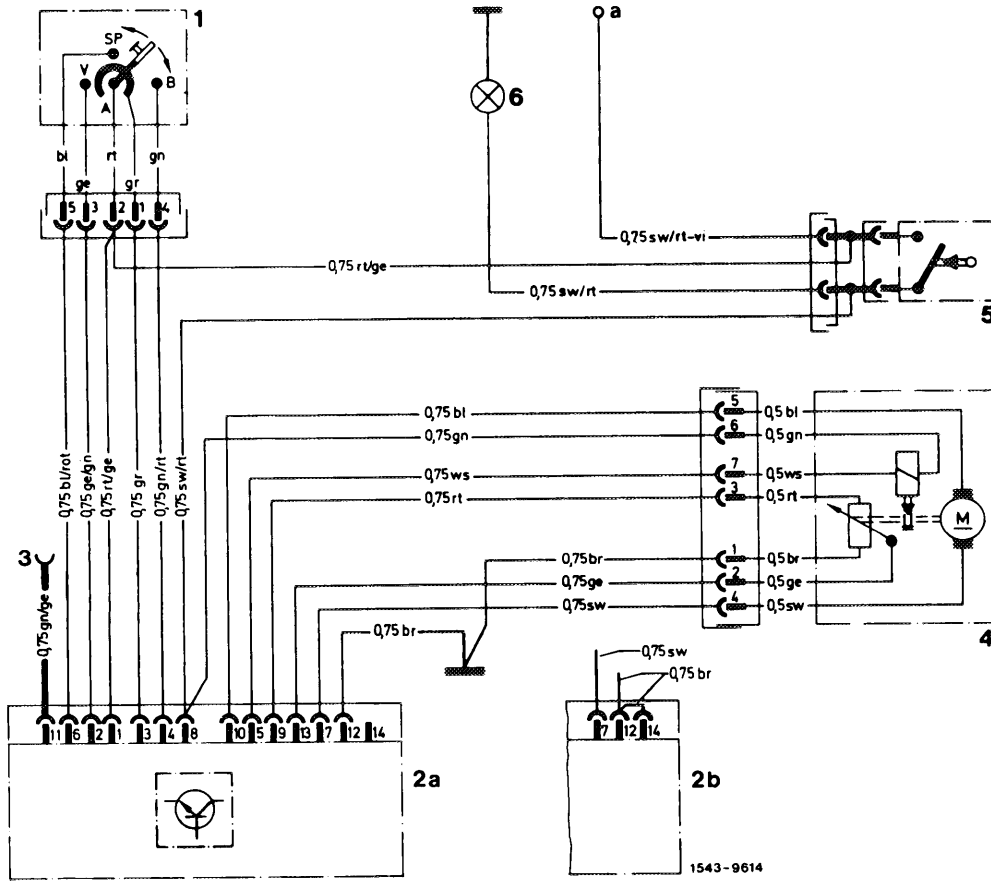
LED readout flashes or lights up.

yes	no
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1543-9608

Test lines for correct connection and passage.  
 Replace speedometer.



- 2a Control unit
- 2b Control unit
- 3 Cruise control connection on speedometer

Disconnect test adapter.

End of test.

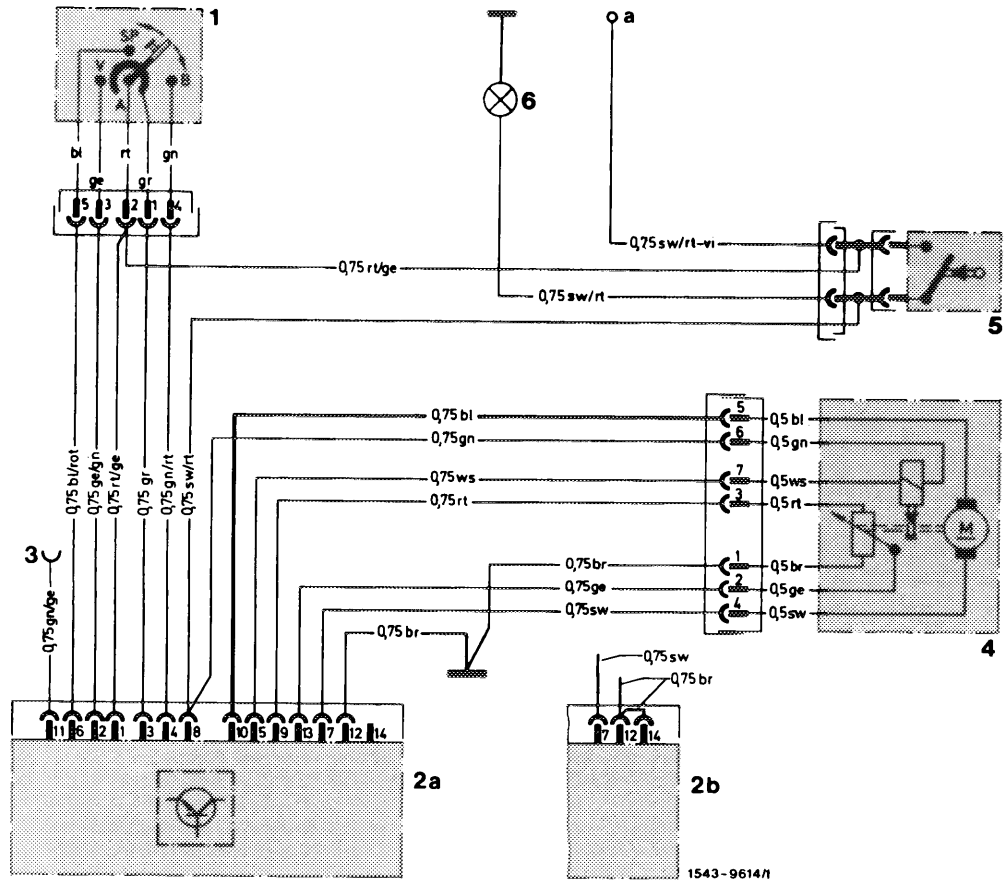
Check blue line from plug connection actuator jack 5 to plug connection control unit plug 10 for ground connection.

Ground connection

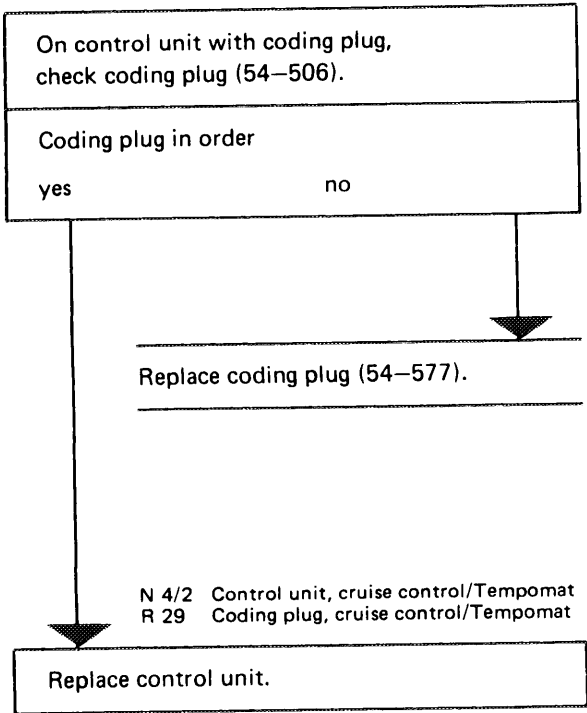
no

yes

Recondition blue line  
or replace.



- 2a Control unit
- 2b Control unit
- 4 Actuator



End of test.

