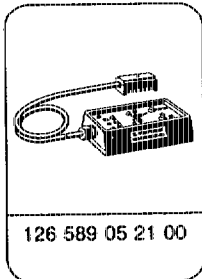


Special tool



Prerequisite for testing

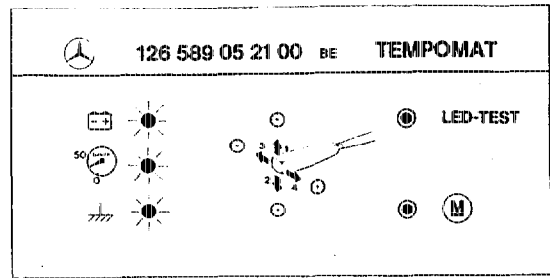
Prior to starting test with adapter, check battery voltage ($> 11\text{ V}$), stop lamps and speed indication for function. If required, recondition according to findings and also check cruise control/Tempomat prior to test for function by means of adapter.

Test cruise control/Tempomat with adapter only. If other testing and measuring instruments are used, the cruise control/Tempomat unit may be destroyed. During this test, the cruise control/Tempomat unit is tested with the exception of the cruise control amplifier. Faults can be discovered by means of the adapter only with the cruise control/Tempomat constantly without function. Complaints such as a temporary breakdown or poor control characteristics (e.g. shaking) cannot be tested with the adapter. In such cases, proceed according to notes for trouble diagnosis 30.0101-502.

If testing with the adapter indicates a faulty component, pay attention to good contact-making qualities prior to exchanging connectors, for instance, making sure that the jacks (sockets) are not widened. Widened jacks should be re-shaped. Then check rejected component once again.

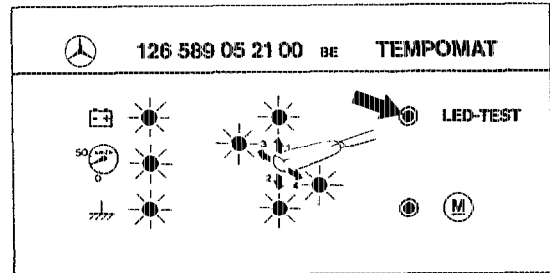
Preparations for test

- 1 Expose cruise control amplifier (refer to 30.0101-565).
- 2 Pull 14-pole connector from amplifier.
- 3 Connect test adapter to 14-pole connector.
- 4 Switch on ignition. The LED displays of the symbols for battery, km/h and ground (if line according to wiring diagram is installed) will light up, provided no fault has been detected.






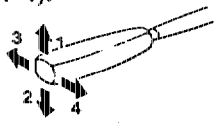

1543-9603




- 5 Push "LED-TEST" pushbutton switch of test adapter and check whether all LED displays are lighting up. If no LED display is lighting up, check connection of voltage supply and circuit connections of 14-pole connector (refer to wiring diagrams 30.0101-580).



1543-9600

Test program survey

Test step	Actuation	Nominal indication	Possible cause of deviation from nominal indication
1		LED display lighting up. 	Lines wrongly connected. Lines interrupted.
		LED display lighting up on models with grounding bridge. 	Grounding bridge in 14-pole connector interrupted.
		LED display may light up. 	Perform test step 6.
2	Actuate cruise control/Tempomat switch (position 1-4). 	Respective LED display lighting up.	Lines interrupted. Switch defective.
3	Depress  pushbutton switch.	Regulating linkage moving uniformly to full throttle position and remains there.	Regulating linkage and accelerator pedal not moving: Connecting rod on cruise control actuator or on regulating linkage not connected. Lines interrupted or wrongly connected. Switch on clutch pedal defective. Actuator defective. Regulating linkage and accelerator pedal constantly moving to-and-fro: Poor contacting of plug connection harness/actuator harness. Throttle control and accelerator pedal not pulled to full throttle position: Check contacting of lines for actuator and amplifier (control unit). Actuator defective.

Test step	Actuation	Nominal indication	Possible cause of deviation from nominal indication
4	Depress  pushbutton Regulating linkage at full throttle position. Depress brake pedal. Then release pushbutton switch.	Regulating linkage not moving immediately into idle speed position when brake pedal is actuated.	Regulating linkage sluggish. Actuator defective.
5 Manual transmission only	Depress  pushbutton switch Regulating linkage at full throttle position. Depress clutch pedal. Then release pushbutton switch.	Regulating linkage moving immediately into idle speed position when clutch pedal is actuated.	Lines shorted. Switch on clutch pedal defective.
6	Move vehicle for at least 2 revolutions of wheels.	LED display flashing. 	Lines interrupted or wrongly connected. Sensor defective.

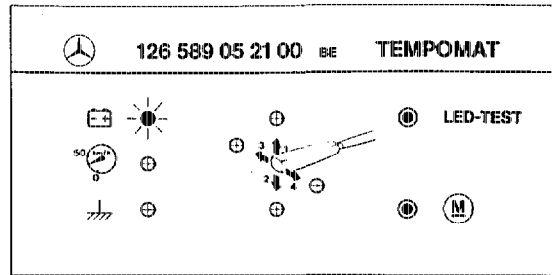
If no fault has shown up on previous test:

1. Test blue line from connector cruise control actuator jack 5 to connector cruise control amplifier jack 10 for short to ground by means of ohmmeter.
2. On amplifiers (control units) with reference resistor, test reference resistor R 29 (30.0101-506).
3. Mount new cruise control amplifier (control unit) for test drive.

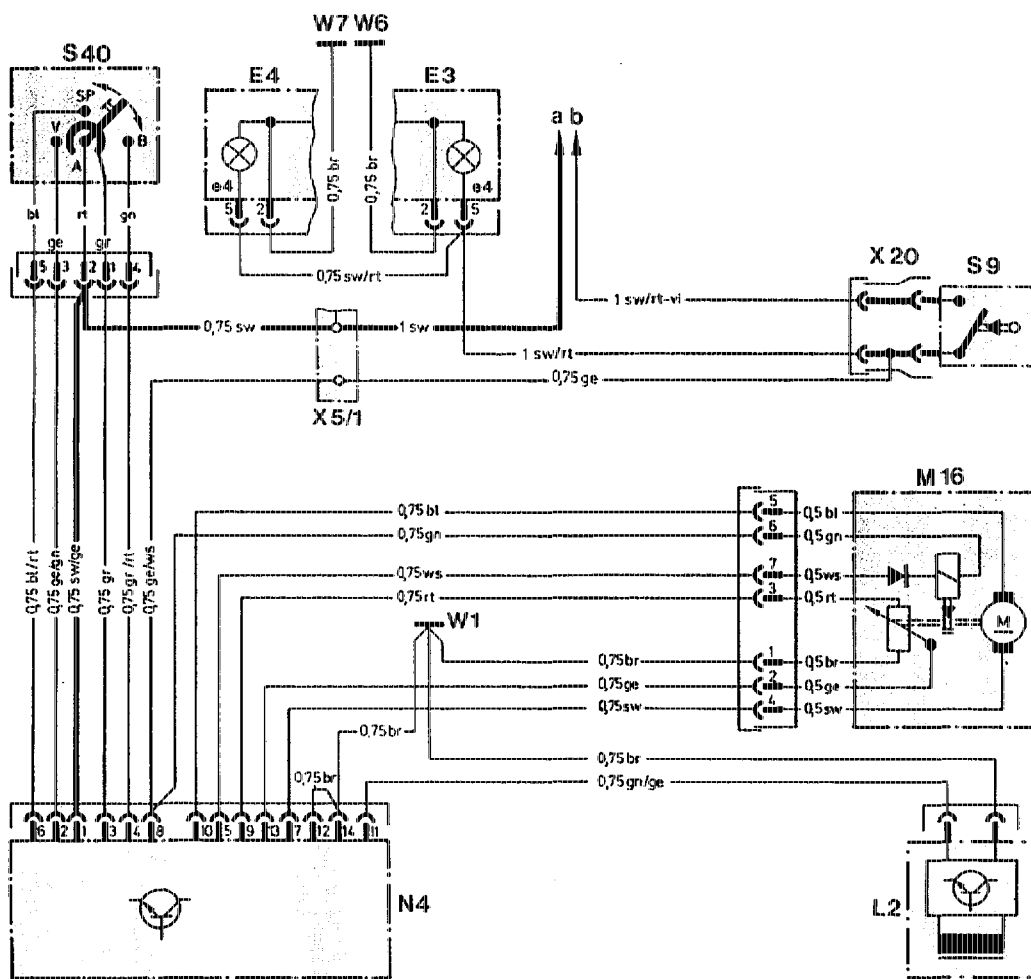
Testing

Check voltage supply.	
LED display lighting up	
Yes	No

Check lines for correct connection and passage.

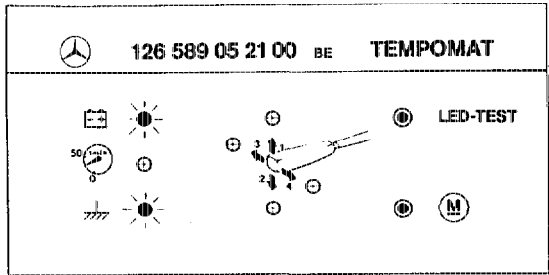
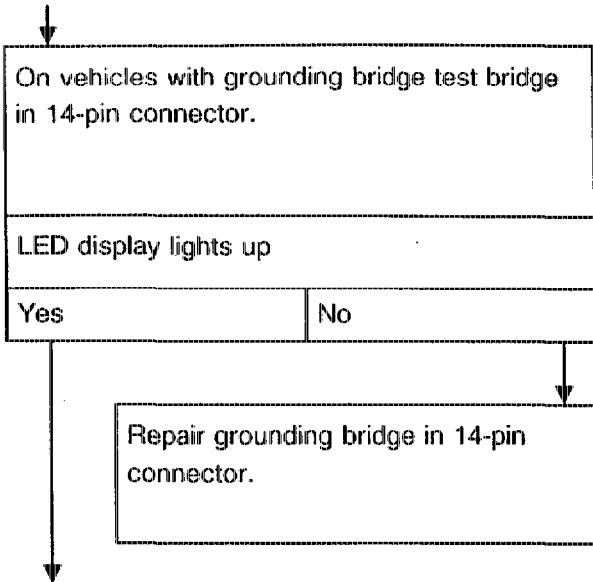


1543-9604

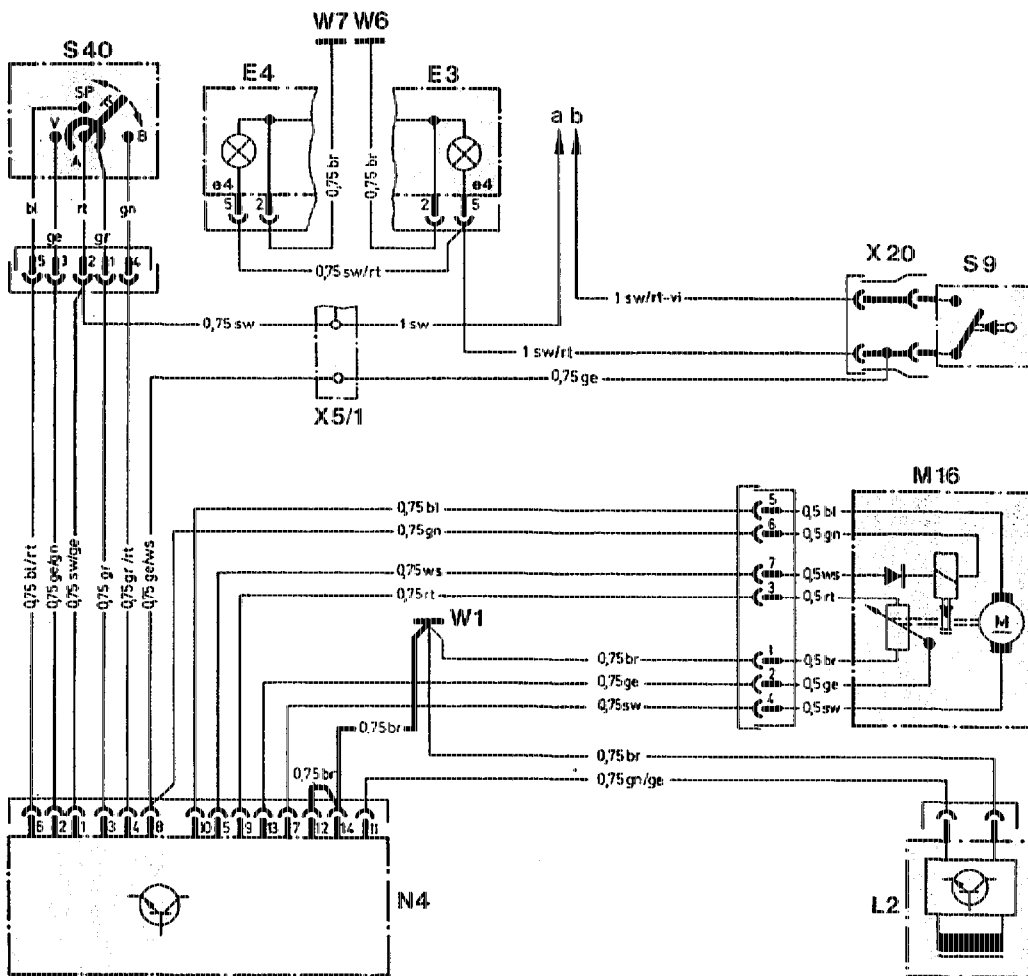


1543-119303

Example: Model 201.122 to approx. 08/85



1543-9606



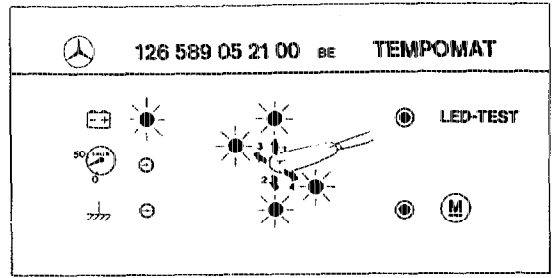
1543-11979/3

Example: Model 201.122 to approx. 08/85



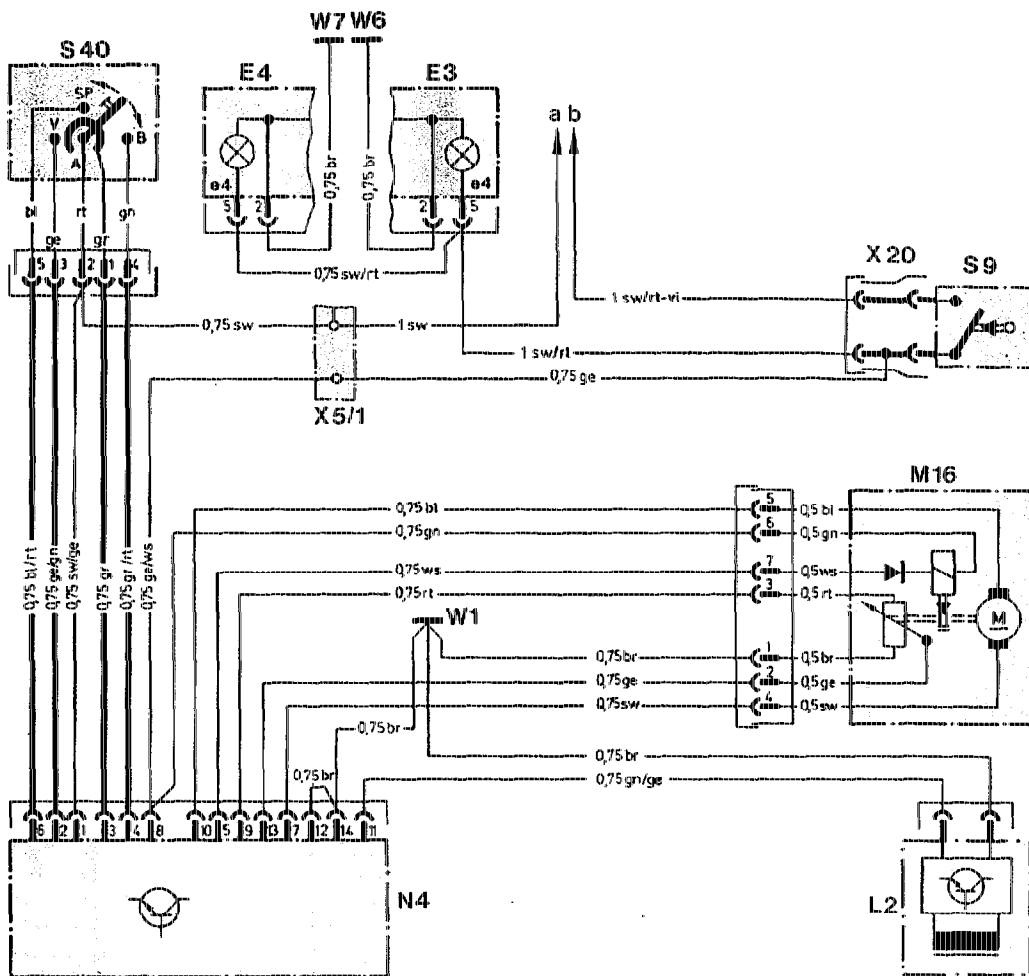
Test harness and pushbutton switch.	
Switch position	LED display
Accelerate	1
Decelerate	2
Off	3
Memory	4

Respective LED display lighting up.	
Yes	No



1543-9610

Check lines for correct connection and passage.
Renew switch.

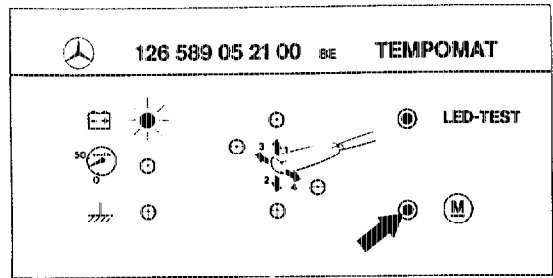


1543-1193113

Example: Model 201.122 to approx. 08/85



Test cruise control actuator. Depress pushbutton switch (M)	
Throttle control and accelerator pedal are moving uniformly to full throttle position and remain there.	
Yes	No



1543-9612

Throttle control and accelerator pedal not moving:

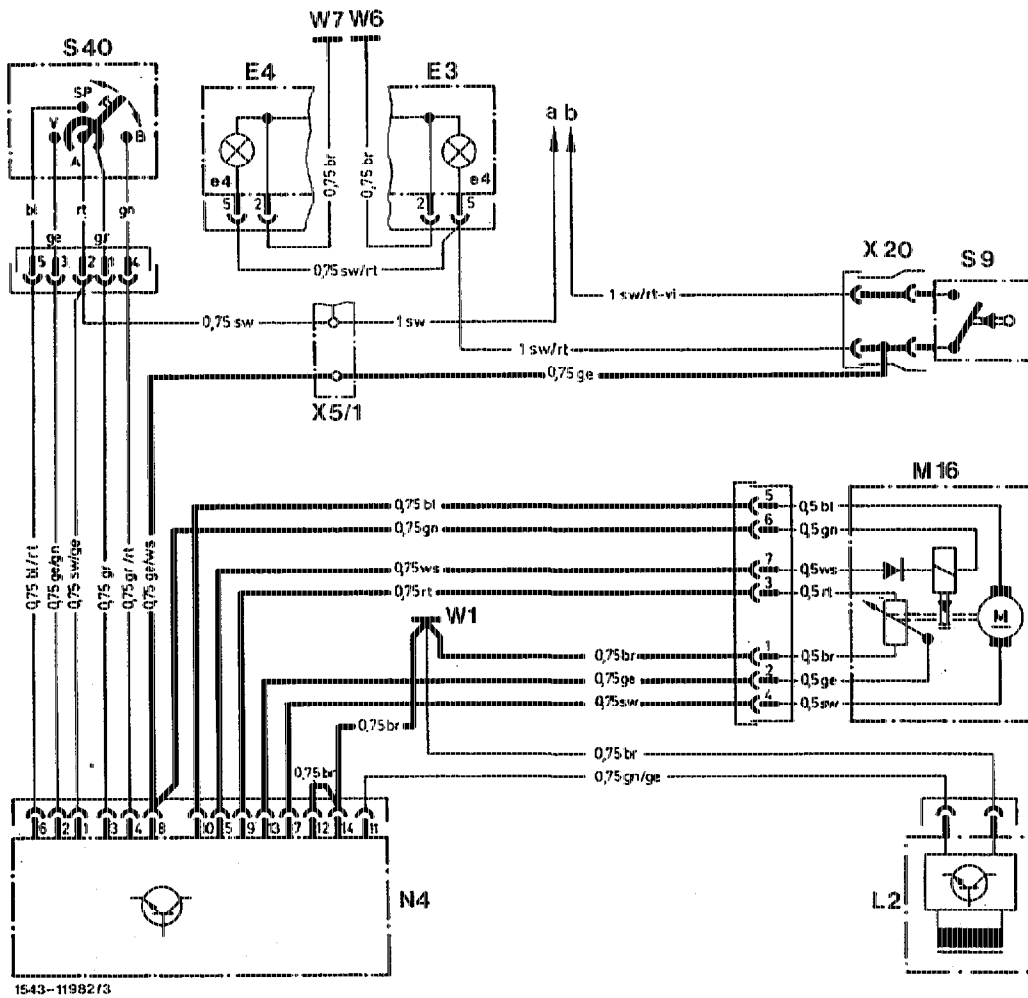
1. Check throttle control.
2. Check lines for correct connection or passage (30.0101-580).
3. On vehicles with manual transmission, check switch on clutch pedal for passage.
4. Renew cruise control actuator.

Throttle control and accelerator pedal constantly moving to-and-fro.

1. Check contacting of plug connection harness/actuator harness and harness/cruise control amplifier (control unit).
2. Renew cruise control actuator.

Throttle control and accelerator pedal are not pulled to full throttle position:

1. Test contacting of lines for actuator and for amplifier (control unit).
2. Renew actuator.



Example: Model 201.122 to approx. 08/85



Check cruise control/Tempomat cutout when braking.
 Depress pushbutton (M)
 Actuate throttle control and accelerator pedal at full throttle position of brake pedal.

Throttle control and accelerator pedal moving immediately into idle speed position. Then release pushbutton switch.

Yes	No
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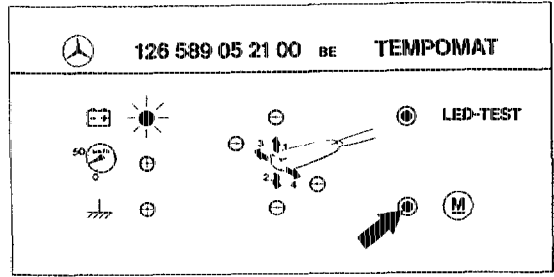
Check throttle control for easy operation.
 Renew actuator.

Check cruise control/Tempomat cutout during declutching (with manual transmission only).
 Depress pushbutton switch (M)
 Throttle control and accelerator pedal at full throttle position!
 Actuate clutch pedal.

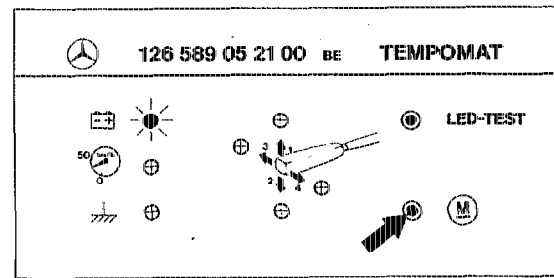
Throttle control and accelerator pedal are immediately moving into idle speed position. Then release pushbutton switch.

Yes	No
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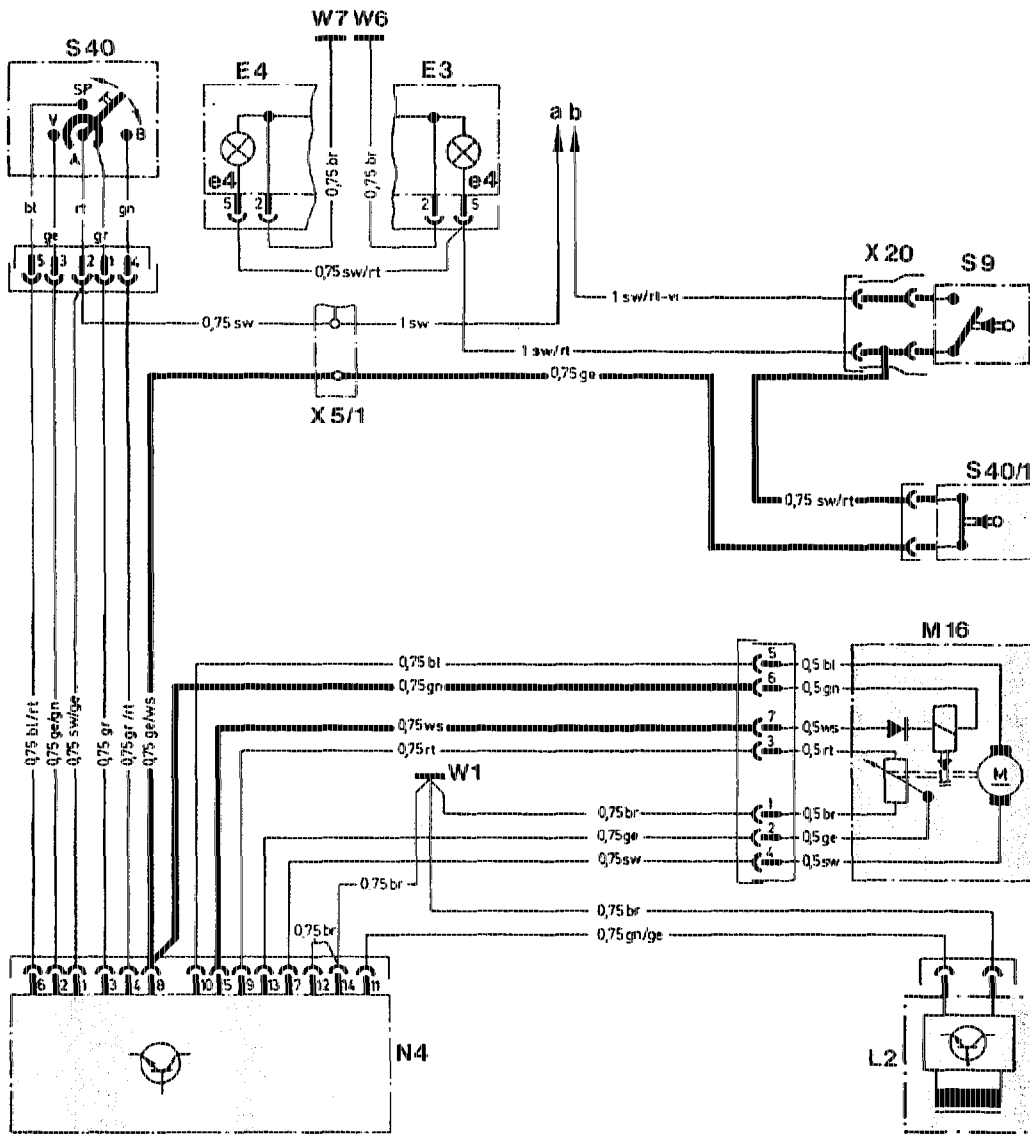
Lines are shorted.
 Switch on clutch pedal defective.



1543-9612



1543-9612



1543-13 283

Example: Model 201.122 to approx. 08/85



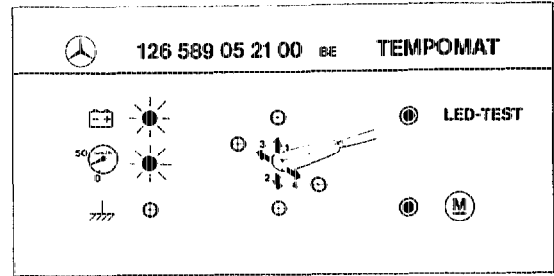
Test harness and sensor on speedometer, speed indicator must be in order.
Move vehicle for at least 2 revolutions of wheels.

LED display flashing.

Yes

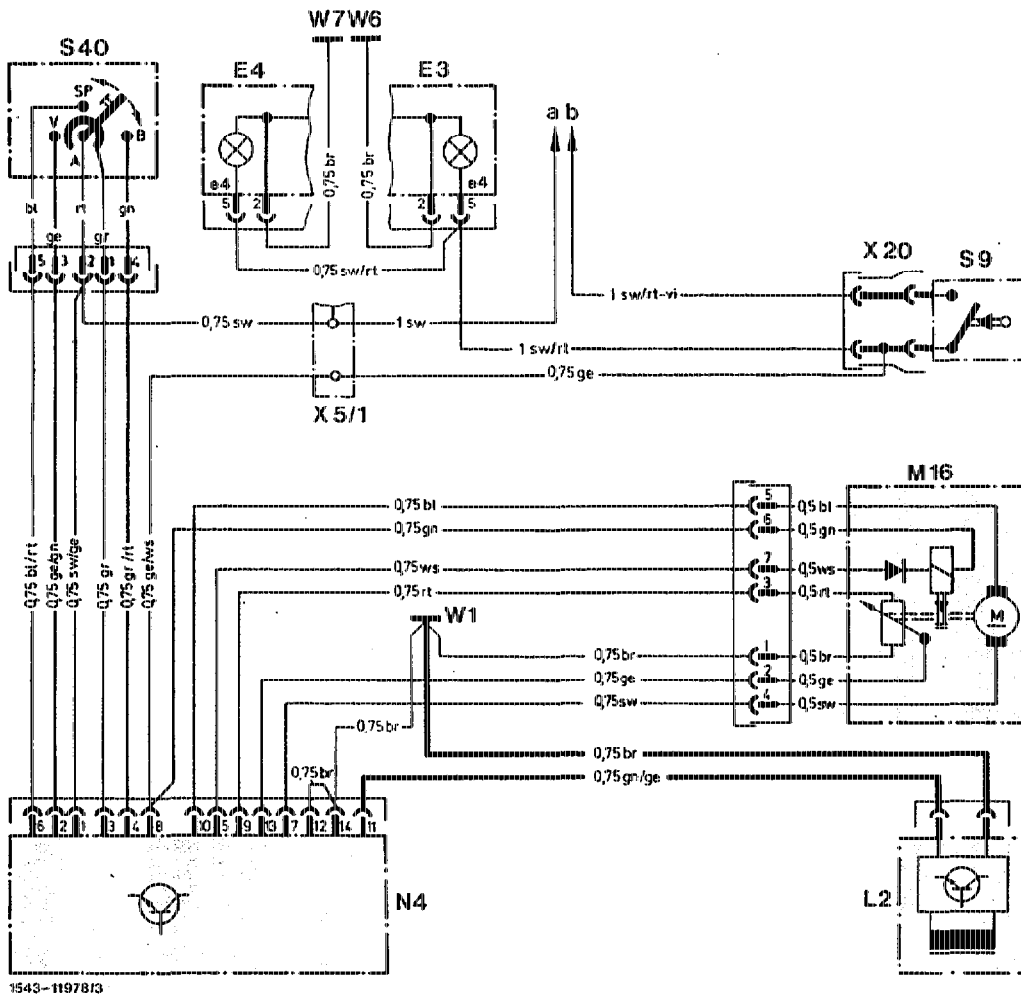
No

1. On vehicles with Hall-effect sensor (starting approx. 09/85) check voltage supply (terminal 15) of Hall-effect sensor on black line of 2-pole Hall-effect connector according to wiring diagram (30.0101-580).
2. Check lines according to wiring diagram for short circuit and interruption.
3. Renew sensor.

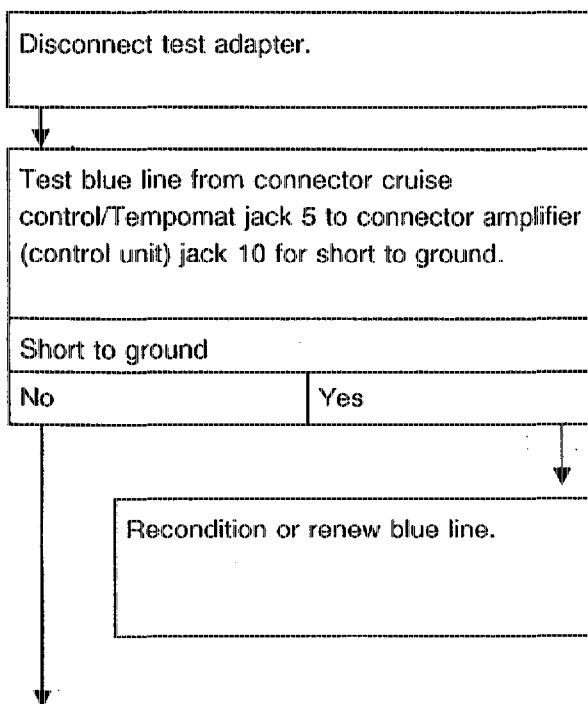


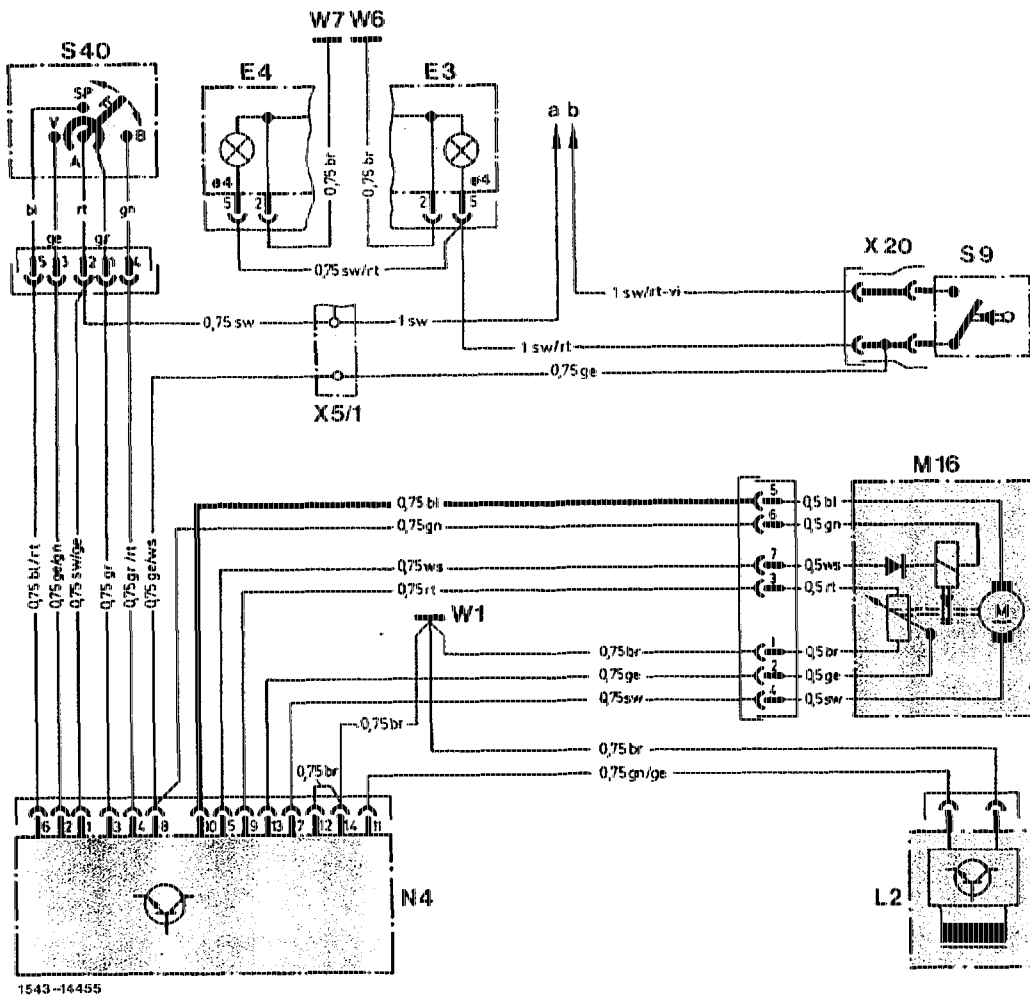
1543-9608





Example: Model 201.122 to approx. 08/85





Example: Model 201.122 to approx. 08/85

