

27-110 Adjusting wire cable for control pressure

Operation no. of operation texts and work units or standard texts and flat rates: 27-1271

Note

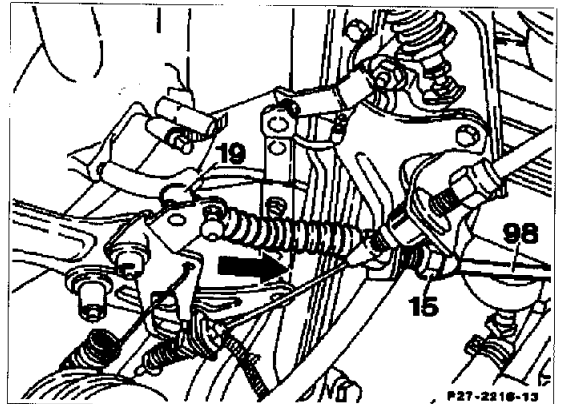
Only the basic adjustment facilities are shown. The peripheral parts of the individual engine variants can differ.

Condition for adjustment:

Throttle control must be adjusted accurately.

A. Engines with ball head version

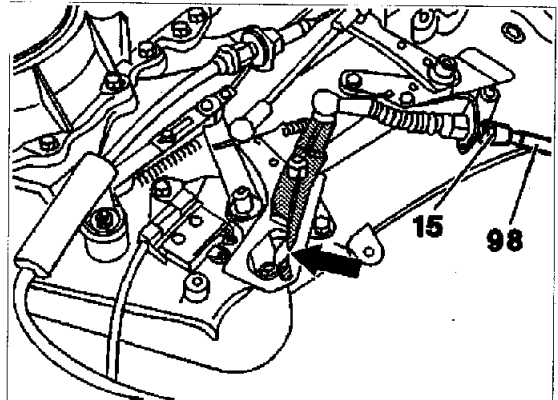
Detach control pressure cable. Push back ball socket (19) (direction of arrow), then pull forward again until a slight resistance is felt. It should now be possible to press the ball socket (19) onto the ball head free of tension; re-position adjusting screw (15), if necessary.



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B. Engines with pointer version

Detach control pressure cable. Screw in adjusting screw (15) of control pressure cable (98) until the tips of the pointers (arrow) are facing each other.

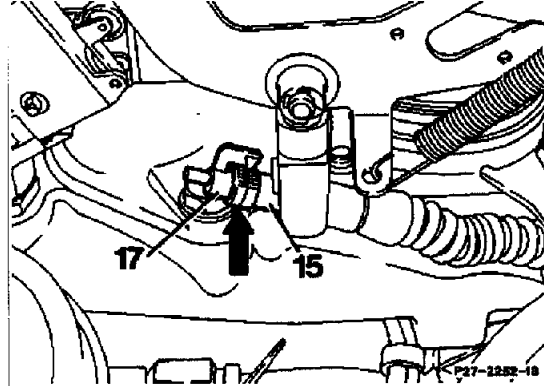


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C. Engines with crimp nipple version

Screw in adjusting screw (15) until the crimp nipple on the spacer sleeve (17) has approx.

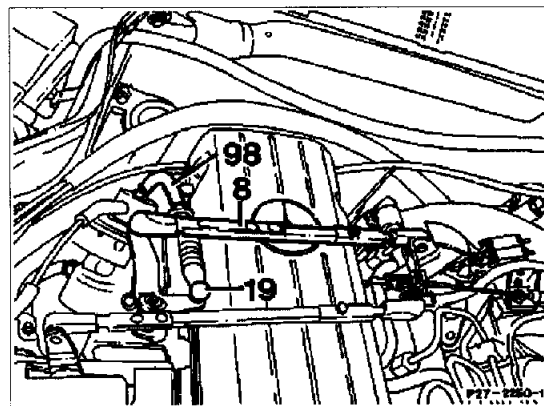
1 mm play, then unscrew the adjusting screw until the tip of the pointer is positioned directly above the groove on the adjusting screw (arrow).



P27-2252-13

D. Diesel engines (601, 602, 603, 606)

Press off ball socket (19). Pull idle travel rod apart (8) as far as the stop, pull control pressure cable forward until a slight resistance is felt. In this position, hold ball socket above the ball head and attach free of tension; it may be necessary to re-set idle travel rod (8).

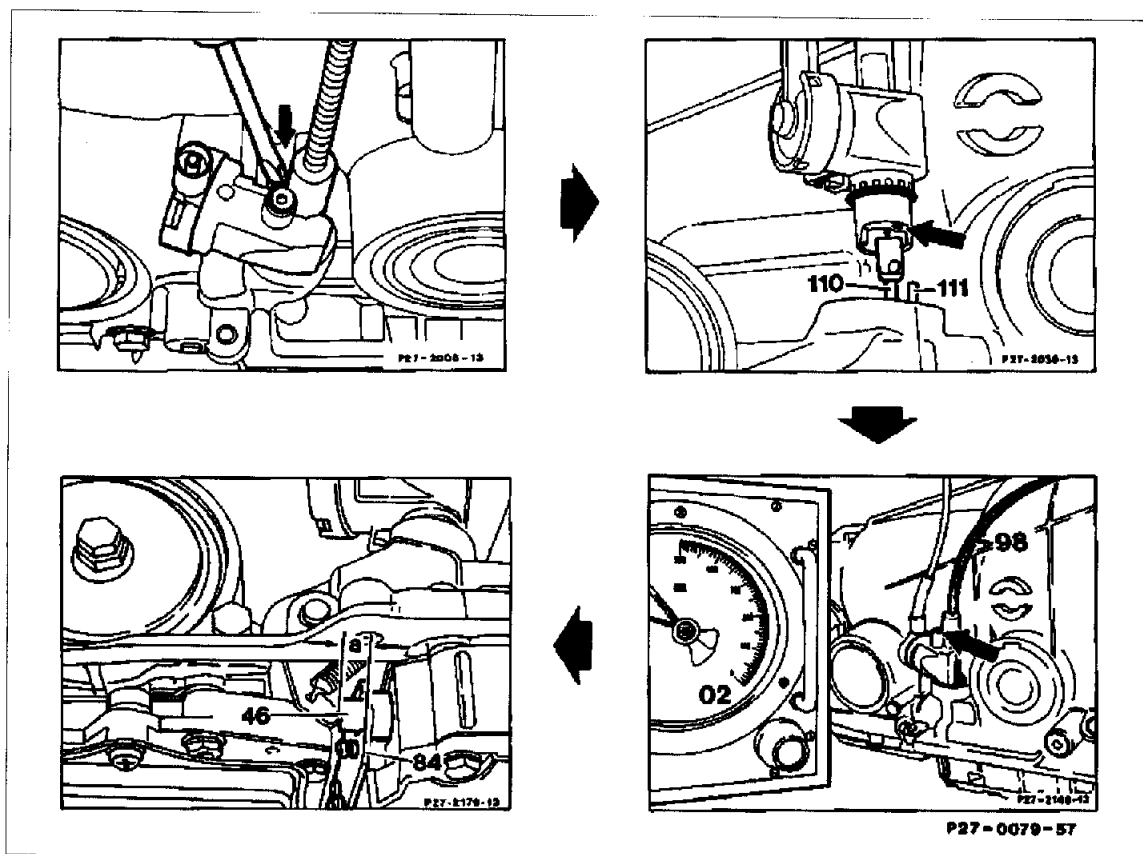


P27-2250-13

27-115 Removing, installing and adjusting control pressure cable with vacuum element

Operation no. of operation texts and work units or standard texts and flat rates:
27-6820

A. Vehicles with program selector switch



P27-0079-57

Note

On model 201, the control pressure cable with vacuum element can be replaced only when the transmission is removed.

Control cable lock (arrow)

Slacken with a screwdriver and detach at connecting rod (110). For installing, take off transmission oil sump. Attach connecting rod (110) to the control pressure cable (98). Introduce limiting rod (111) into the hole (arrow) and insert control pressure cable. Turn control pressure cable until lock engages.

Connect to vacuum element and subject to vacuum. Pull control pressure cable as far as the full load stop.

Dimension "a" _____

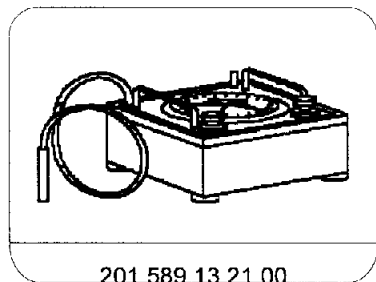
Measure between end face of the control pressure valve (46) and connecting plate (84).

Nominal value: 8 mm 4-cylinder engines
6 mm 6-cylinder engines.

Adjust dimension "a" with hexagon socket bolt (arrow) if necessary.

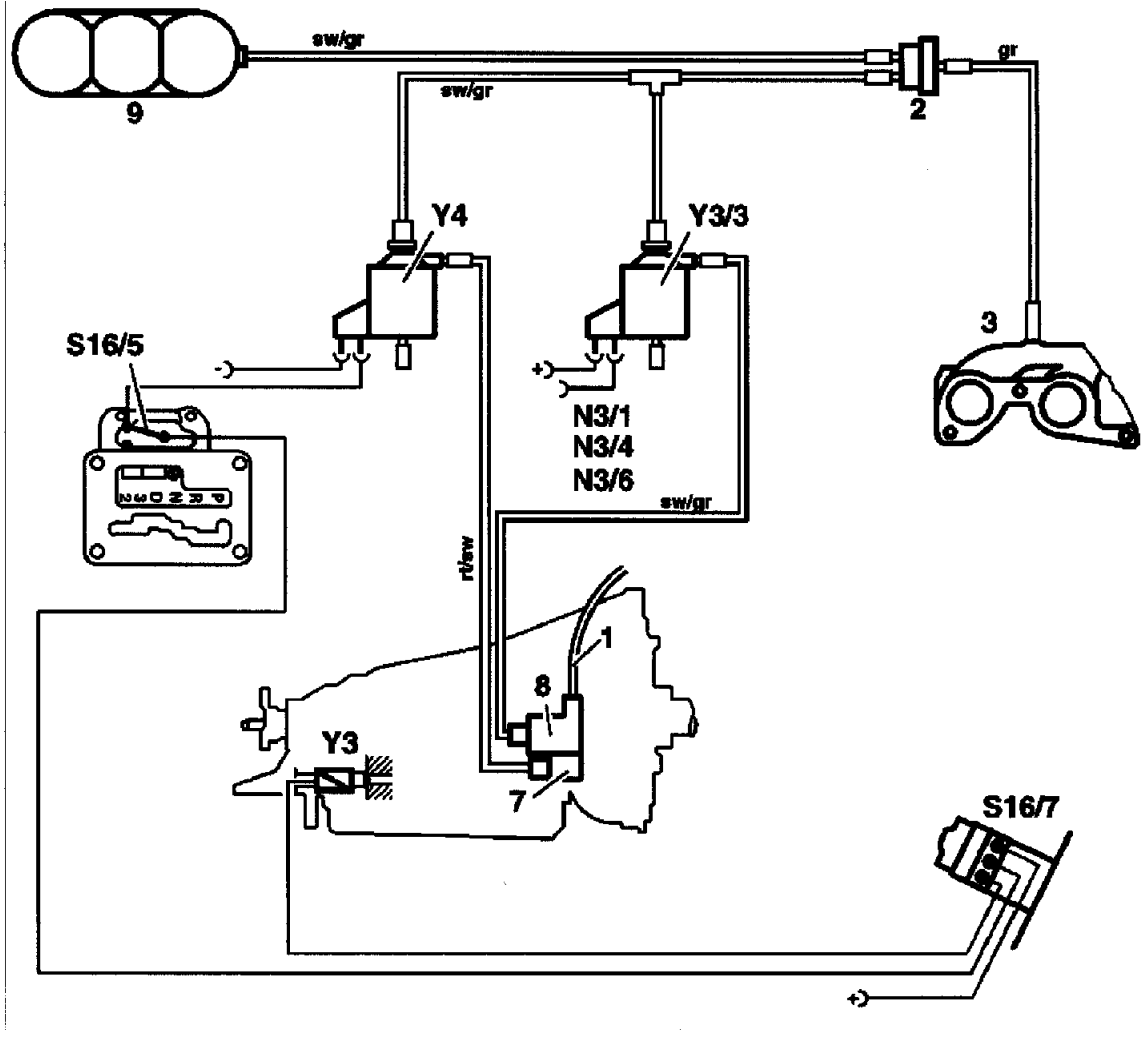
Test step/ test scope	Test connection/ tester	Operation/ requirement	Nominal value	Possible cause/remedy
Test vacuum at vacuum element of control pressure cable	Connect vacuum tester with Y distributor to vacuum element of control pressure cable	Engine idling. Program selector switch setting "E"	approx. 400 mbar	Switchover valve (Y4) Program selector switch (S16/5) Vacuum line
		Setting "S"	0 bar	

Special tool



201 589 13 21 00

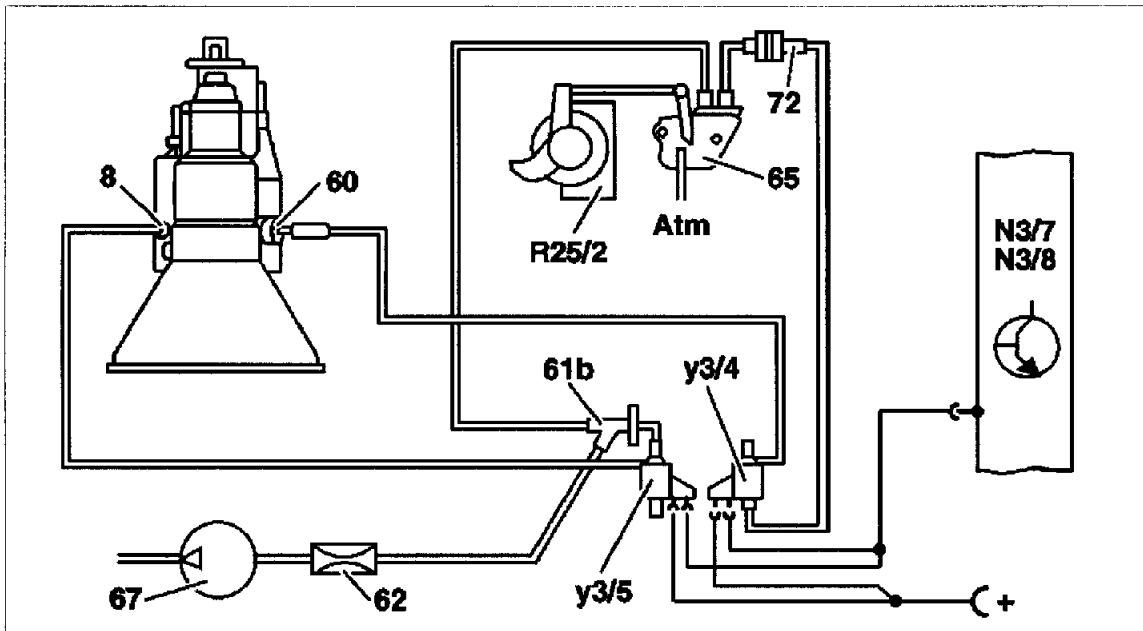
B. Vehicles with shift point retard (CAT heating)



P27-5217-59

1	Control pressure cable	N3/6	Pressure engine management (PMS) control unit
2	Check valve	S16/5	Transmission mode switch (2nd mode)
3	Engine intake manifold	S16/7	Kick-down switch
7	2nd drive program vacuum element	Y3	Kick-down valve
8	Shift point retard vacuum element	Y3/3	Shift point retard switchover valve
9	Vacuum reservoir	Y4	Switchover valve (2nd transmission mode)
N3/1	LH or KE control unit		
N3/4	HFM control unit		

Models 202.121/125 with Tempomat/cruise control



P27-5195-56

1 **Accelerate** in Tempomat mode in selector lever position "D" and establish upshift point 3-4 (nominal value 45-50 km/h).

2 Compare actual value with nominal value. If actual value differs from nominal value:

- a Adjust the adjusting screw (11) from the vacuum element for shift point retard.
- b Check electric control
(refer to diagnosis manual diesel engine volume 1.1 - 1).
- c Check pneumatic control (refer to diagnosis manual diesel engine volume 1.1 - 1).

3 In Tempomat mode at approx. 70 km/h, **decelerate** and introduce 4-3 downshift with selector lever from "D" to "3".

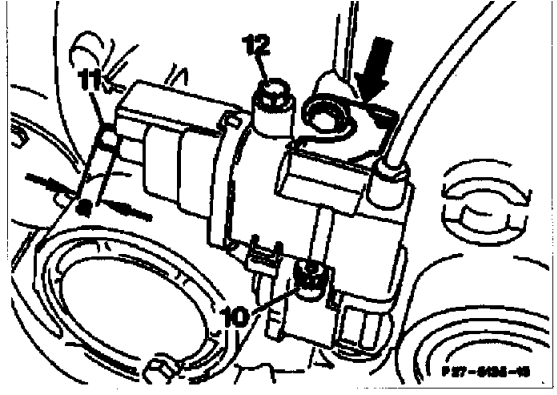
The downshift must take place immediately, (pay attention to engine braking effect).

4 If engine braking is not detectable:

- a Check electric control
(refer to diagnosis manual diesel engine volume 1.1 - 1).
- b Check pneumatic control (refer to diagnosis manual diesel engine volume 1.1 - 1).

Removing, installing (with shift point retard)

- 1 Turn and pull locking plate (arrow) upwards.
- 2 Rotate control pressure cable with vacuum element and remove from transmission housing.
- 3 Carry out basic setting:
Transfer dimensions "a" and "b" from old control pressure cable to the new one.
 - a) Dimension "a": Measure and adjust position of the adjusting screw (11).
 - b) Subject vacuum element (7) to >400 mbar vacuum.
 - c) Push control pressure cable together and pull it apart again.
 - d) Dimension "b": Measure position of valve (2) and set to adjusting screw (10).



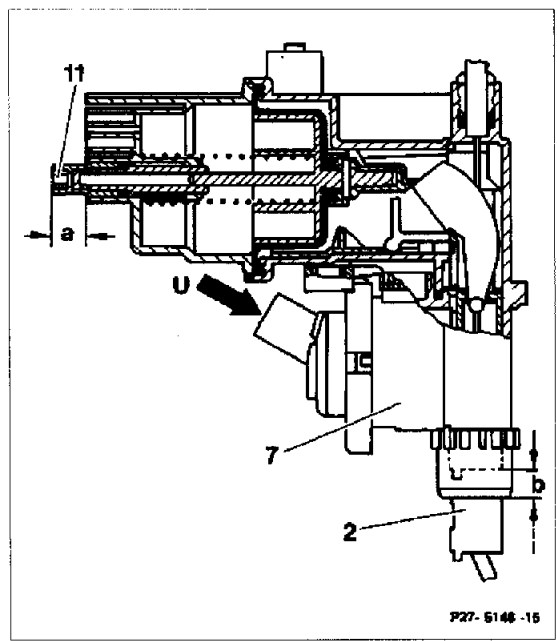
P27-5135-13

- 4 Push on cap (12).



Danger of water entering!

- 5 Pull out valve (2) with a hook, until it slots into mounting position.
- 6 Introduce control pressure cable with vacuum element into transmission and install. Ensure this is correctly locked into place!



P27-5148-15

Testing shift point retard

- 1 Connect both vacuum lines to switchover valve (Y3/3). Shift point retard is switched on.
- 2 During test drive, test in selector lever position "D" at low throttle: For adjustment values, refer to shift point table operation no. 27-330.

Note

- Turn adjusting screw (11) **clockwise**: Shift point at lower speed.
- Turn adjusting screw (11) **anticlockwise**: shift point at higher speed.