

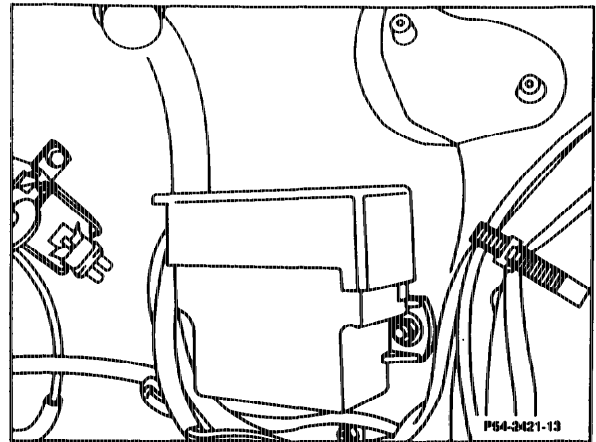
Location of preglow time relay

The preglow time relay is housed in the engine compartment on the left wheelhouse.

The electrical connections are accessible after removing the protective cap.

On Model 140 the preglow time relay must be taken out in order to be able to remove the protective cap.

Shown on Model 201



Functions of Preglow Time Relay

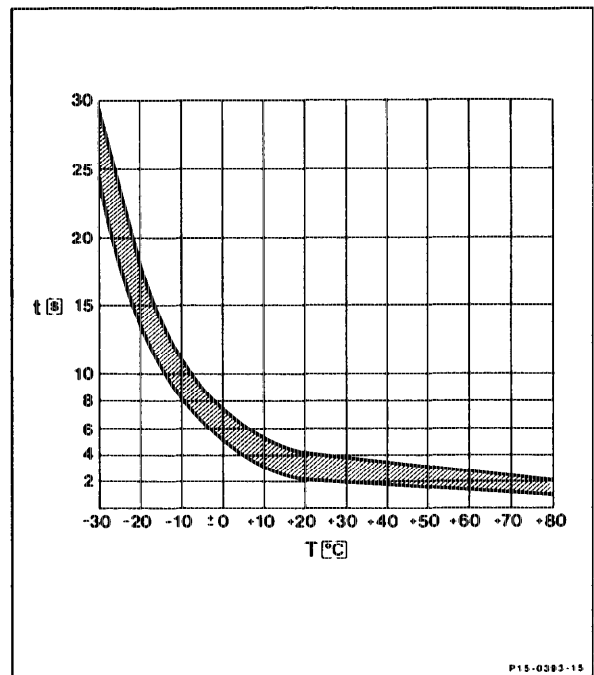
The preglow time relay has the following functions:

- Switching on the glow current
- Indicating readiness to start
- Safety cutout
- Fault indication

Preglow without Afterglow Model 124 Engine 603.96 Except (J) 1988

T Ambient temperature of preglow time relay in °C

t Preglow time in seconds

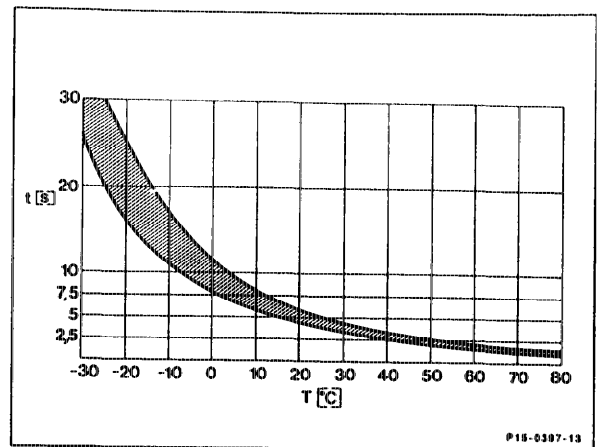


Preglow with Afterglow

Preglow Time

T Coolant temperature in °C

t Preglow time in seconds



Afterglow Time

To improve warming-up properties, the glow plugs continue to glow when the engine is running dependent on the coolant temperature.

a) Version:

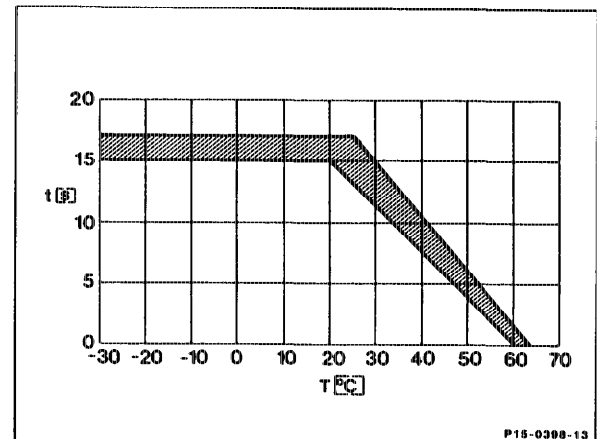
Model 124 Engine 603.96 (J) 1988,

Model 201 Engine 602.961 Model Year 1988

T Coolant temperature in °C

t Afterglow time in seconds

Afterglow time up to max. 17.5 s (refer to diagram)



b) Version:

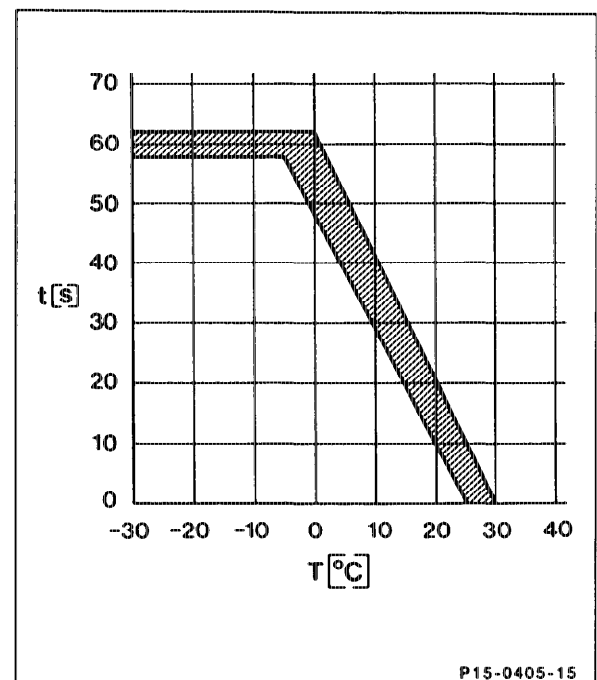
Models 124, 201 Engines 602.961/962,

Model 124 Engine 603.96 from Model Year 1989

T Coolant temperature in °C

t Afterglow time in seconds

Afterglow time up to max. 60 s (refer to diagram)

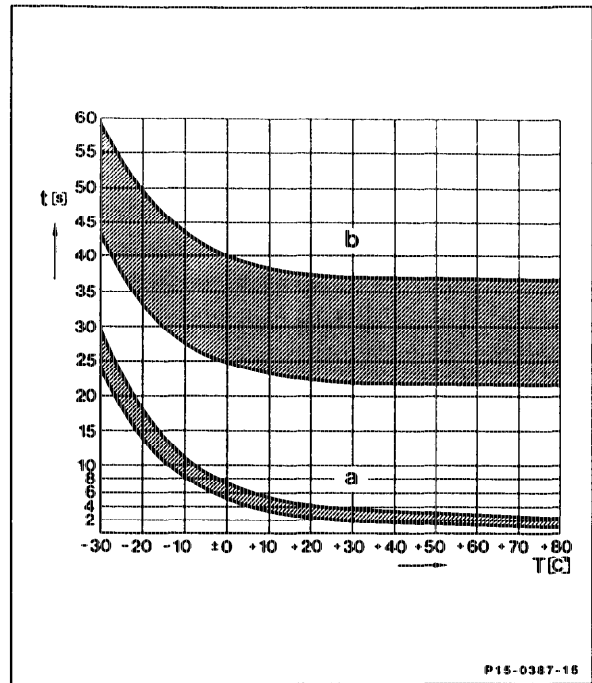


Safety Cutout

If the engine is not started within 20–25 seconds after the readiness to start indication being given, the glow current is interrupted by the safety cutout. If the engine is then started, the glow system is switched on again for the duration of the starting operation.

The duration of safety cutout is not fixed. It results from the time up to readiness to start (preglow indicator lamp going out) plus 20–35 seconds.

b Safety cutout



Actuating the Glow Current

When the key is moved into position "2" (preglow, drive), the preglow time relay is switched on (voltage to terminal 15). The preglow time relay closes the circuit from terminal 30 (positive) to the glow plugs (R9).

If the key is turned into position "3" (start), the preglow time relay remains activated and remains picked up through terminal 50. The glow process is continued until the key is turned back to position "2".

Readiness to Start Indication

a) Model 124 Engine 603.96 except (J) 1988

When the glow system is switched on, the preglow indicator lamp in the instrument cluster lights up. The glow duration is determined by a temperature sensor installed in the preglow time relay. Once the required glow time has been reached, depending on the ambient temperature of the preglow time relay, the preglow indicator lamp goes out, thus indicating that the engine is ready for starting.

b) Models 124, 126 Engine 603.96 (J) 1988,
Model 201 Engine 602.961,
Model 124 Engine 602.962, Engine 603.96
Effective 1989

When the glow system is switched on, the preglow indicator lamp in the instrument cluster lights up. The glow duration is determined by the temperature sensor in the coolant. Once the required glow time has been reached, the preglow time relay switches off the preglow indicator lamp, indicating that the engine is ready for starting.

Fault Indication

Model 124 Engine 603.96 Except (J) 1988

A fault in the preglow system is indicated by the preglow indicator lamp failing to light up when the key is moved into position "2".

The following faults are detected:

- Interrupt in the cable to connection terminal 30.
- 80 ampere fuse faulty.
- Fault in power relay of preglow time relay.
- Interrupt in one or several cables to the glow plugs.
- Interrupt in one or several glow plugs.

Fault Indication

**Models 124, 201 Engine 602.961, 602.962,
603.96 (J) 1988 603.96 as of 1989**

A fault in the preglow system is indicated by the preglow indicator lamp failing to light up when the key is turned into position "2". In addition, the preglow indicator lights up for approx. 1 minute when the engine is running.

The following faults are detected:

- Interrupt in the cable to connection terminal 30.
- Preglow time relay faulty.
- Interrupt in one or several cables to the glow plugs.
- Interrupt in one or several glow plugs.
- Short-circuit at one or several glow plugs or in the cables.