

GF47.30-P-3013L

Fuel evaporation control system function

10.7.96

MODEL 203 with ENGINES 112.912 /916 /946 /953

Shown on Engine 119

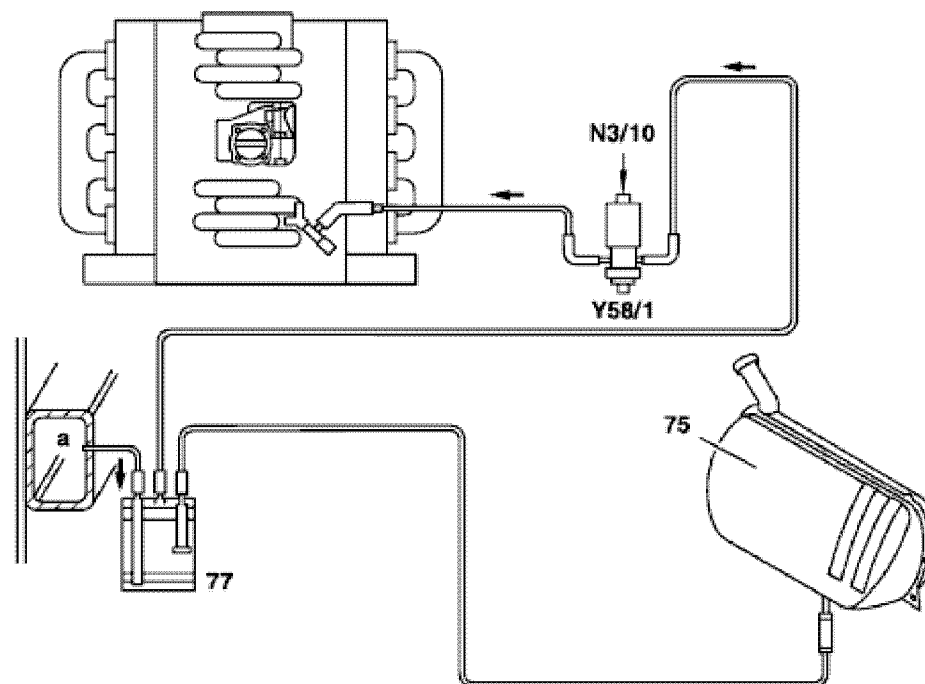
75 Fuel tank

77 Activated charcoal canister

N3/10 ME control unit

Y58/1 Purge control valve

a Pressurization line



P47.30-0282-06

Shown on engine 120

75 Fuel tank

77 Activated charcoal canister

93 Expansion reservoir

(only with optional ski bag)

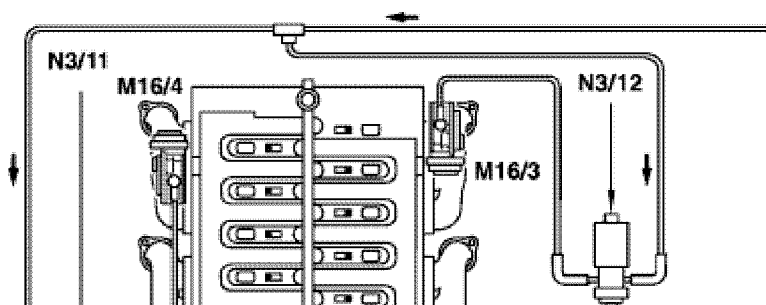
M16/3 Right EA/CC/ISC actuator

Position on left of engine

M16/4 Left EA/CC/ISC actuator

Position on right of engine

N3/11 Left ME-SFI [ME] control unit



*N3/12 Right ME-SFI [ME] control unit
 Y58/2 Switchover valve
 Left regeneration
 Y58/3 Switchover valve
 Right regeneration
 a Pressurization line*

P47.30-0273-06

The evaporative emission control system prevents fuel vapors escaping to atmosphere. This is done by storing the fuel vapors temporarily in the activated charcoal canister.

When the engine is running, the fuel vapors stored in the activated charcoal canister, are drawn off through the purge control valve and combusted in the engine.

The activated charcoal canister is purged (re-generated) at:

- coolant temperature > 70°C
- blocking time after engine start elapsed, approx. 2 minutes
- engine not in deceleration mode

The purge quantity is controlled by the ME-SFI control unit operating the purge control valve. The purge quantity is determined by constantly opening and closing the purge control valve for on and off periods of various lengths.

Vent valve

On vehicles fitted with a vent valve the fuel tank is vented from a pressure of 30 to 50 mbar, and air admitted at a vacuum of 1 to 16 mbar. In addition, this prevents overfilling the fuel tank.

 **as of MY 98**

During refueling the fuel vapors are collected at the filler neck and passed to the activated charcoal filter (ORVR = Onboard

The idle speed control prevents changes in engine speed resulting from purging. Depending on the level of charge of fuel vapor in the activated charcoal canister, the fuel-air mixture becomes richer or leaner.

Air admission to fuel tank

Air is admitted through the activated charcoal canister. Here either air is sucked out of the aeration/vent line on the activated charcoal canister or fuel vapors are sucked out of the activated charcoal canister into the fuel tank.

Air release from fuel tank

The fuel tank is vented through the activated charcoal canister. The fuel vapors flow to the activated charcoal canister, where they are stored or drawn into the intake manifold in case of simultaneous regeneration.

Engines with charging (compressor or turbocharger)

A check valve in the purge line prevents the boost pressure building up toward the activated charcoal canister.

Refueling Vapor Recovery). Large activated charcoal canister.

ME-SFI control unit, location/task/design/function		<u>GF07.61-P-5000F</u>
Coolant temperature sensor, location/task/design/function	Engine 112	<u>GF07.04-P-5026A</u>
Purge control switchover valve, location/task/design/function		<u>GF47.30-P-4030L</u>
Activated charcoal canister, location/task/design/function		<u>GF47.30-P-3102F</u>
Purge control valve actuation, function		<u>GF07.61-P-3013F</u>
Purge system with leak test function	(USA) Model 203	<u>GF47.30-P-3016L</u>
On-board refueling vapor recovery function	(USA) Model 203	<u>GF47.10-P-3004B</u>