

ENGINE 642 in MODEL 164.1 /8, 203.2, 251.1, 203.0, 251.0 up to model year 2008 /YoM 07

ENGINE 642.9 in MODEL 463.3 up to 31.5.12

ENGINE 642 in MODEL 461.3

ENGINE 642 in MODEL 211.2 /0, 219.3, 211.6, 209.4 /3

Start quantity control is used during engine start to calculate a specific start quantity independently of the position of the accelerator pedal sensor (B37) if the coolant temperature is < 80°C and if the engine speed is < 500 rpm. The CDI control unit (N3/9) reads in the following information via the Controller Area Network bus Class C (engine compartment) (CAN-C) to do this:

- The position of the accelerator pedal sensor
- The selector lever position "P" or "N" from the electronic selector lever module control unit (N15/5) (model 203, 209, 211, 219, 461, 463) or DIRECT SELECT gear selector switch (S16/13) (model 164, 251)
- The message "DAS 3 Message MS" and the message "Circuit 50 ON", from the EIS control unit (N73)

Via a discrete line:

- Coolant temperature from the coolant temperature sensor (B11/4)
- The engine speed, from the crankshaft Hall sensor (B70)

The CDI control unit uses the input signals to calculate the respective start quantity and controls the following components accordingly:

- Pressure regulator valve (Y74)
- Fuel injectors (Y76)
- Quantity control valve (Y94)

If the CDI control unit detects that the engine is running via the crankshaft Hall sensor and the message "Circuit 61 ON" and that the starting procedure has ended via the message "Circuit 50 ON", then the driver can control the injection quantity and thus the engine speed via the accelerator pedal sensor.

	Component description for crankshaft Hall sensor	B70	GF07.04-P-6220P
	Coolant temperature sensor, component description	B11/4	GF07.04-P-6040P
	Component description for rail pressure sensor	B4/6	GF07.04-P-6210P
	Pressure regulator valve, component description	Y74	GF07.05-P-6020P
	Component description for CDI control unit	Model 203, 209 N3/9	GF07.16-P-6000P
		Model 211, 219 N3/9	GF07.16-P-6000T
		Model 164, 463 N3/9	GF07.16-P-6000GZ
		Model 251 N3/9	GF07.16-P-6000RT
		Model 461 N3/9	GF07.16-P-6000GX