

AH07.61-P-0001-01F	Comparison of LH-SFI sequential multiport fuel injection system with ME-SFI fuel injection and ignition system	Engine 119.980/981/982/985 Engine 120.982/983	i
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Modifications compared to LH-SFI fuel injection system

ME-SFI 1.0 fuel injection and ignition system	LH-SFI fuel injection system
The following functions are integrated in the ME-SFI 1.0 control module: <ul style="list-style-type: none"> ● fuel injection ● ignition ● electronic accelerator with cruise control and idle speed control ● DTC memory/diagnosis system ● drive authorization system stage 2 (DAS 2) 	The following functions are integrated in the LH-SFI control module: <ul style="list-style-type: none"> ● fuel injection ● DTC memory ● drive authorization system stage 2 (DAS 2)
Drive authorization system stage 2 (DAS 2): networking of ME-SFI control module with RCL control module (N54) via CAN databus	Drive authorization system stage 2 (DAS 2): network of LH-SFI control module with RCL control module (N54) via PWM signal
Correction program with HHT in ME-SFI control module for correcting ignition and mixture maps, idle speeds and CO correction (without TWC)	Correction of ignition and mixture maps, CO correction (without TWC) using reference resistor coupling, variable reference resistor and CO potentiometer
DTC memory: stored faults are erased if open circuit of circuit 30 at ME-SFI control module	Fault memory: stored faults remain stored if open circuit in circuit 30 of LH-SFI control module
Intake air temperature sensor, round connector (smaller pins)	Intake air temperature sensor, round connector
Coolant temperature sensor, flat connector	Coolant temperature sensor, round connector
Air mass measured by hot film mass air flow sensor	Air mass measured by hot wire mass air flow sensor
EA/CC/ISC actuator: <ul style="list-style-type: none"> ● emergency running linkage discontinued ● safety contacts and magnetic coupling between servo motor and throttle valve discontinued ● 2 actual value potentiometers 	EA/CC/ISC actuator: <ul style="list-style-type: none"> ● emergency running linkage ● safety contacts and magnetic coupling between servo motor and throttle valve ● actual value/set value potentiometer
Pedal value sensor	-

Modifications compared to LH-SFI fuel injection system

ME-SFI 1.0 fuel injection and ignition system	LH-SFI fuel injection system
Cylinder 1 recognition by means of camshaft Hall-effect sensor	Cylinder 1 recognition by camshaft position sensor
Knock sensors with connector at knock sensor	Knock sensors with connection cable
Two O ₂ sensors upstream of TWC	Engine 119: one O ₂ sensor upstream of TWC
O ₂ sensor connector without bayonet lock	O ₂ sensor with bayonet lock
Engine 119: camshaft adjuster with 1 segment Engine 120: exhaust camshaft sprocket with 1 segment	Engine 119: camshaft adjuster with 2 segments Engine 120: exhaust camshaft sprocket with 2 magnets
Crankshaft position sensor with connector	Crankshaft position sensor with connection cable
Driven plate with additional ring gear with "60-2" teeth for incremental control	Driven plate with segments for segmental control
Engine 120: intake manifold with recesses for retaining clips of ignition coils	-
Ignition coils installed above spark plugs, distributorless high voltage distribution (no rotating parts)	Ignition coils positioned at wheelhouse, high voltage distributor in front of cylinder head
Helical spindle fuel pump	Roller cell fuel pumps
Control module box	Module box
Air shut-off valve, design modified	Air shut-off valve
Transmission upshift delay: <ul style="list-style-type: none"> ● information on selector lever position through CAN databus from ETC control module 	Transmission upshift delay: <ul style="list-style-type: none"> ● information on selector lever position via starter lockout and reverse lamp switch

Components unchanged compared to LH-SFI fuel injection system

Version coding, adaptation of ME-SFI control module to different vehicle versions by coding with HHT	Inlet camshaft adjustment
Model 129, 140: voltage supply of ME-SFI control module through base module, fused/unfused	Evaporative emission control system - operated by purge control valve
Self-adjustment of mixture formation (TWC only)	Secondary air injection on engine 120
Model 129, 140: fuel pump operated by fuel pump relay	CAN databus
Fuel pressure regulation by diaphragm pressure regulator as a function of intake manifold pressure	
Operation of fuel injection valves individually, in line with firing order	

Components discontinued compared to LH-SFI fuel injection system

Previous component	Is replaced by
LH-SFI fuel injection system variable reference resistor	Correction program with HHT
DI reference resistor coupling	Correction program with HHT

Distributor cap and distributor rotor arm	Ignition coil for each cylinder, positioned above spark plug
DI ignition control module	Ignition system control performed by ME-SFI 1.0 control module
EA/CC/ISC control module	EA/CC/ISC control performed by ME-SFI 1.0 control module
Exhaust gas recirculation	Optimization of maps in ME-SFI 1.0 control module
Secondary air injection on engine 119	Optimization of maps
Idle speed contact switch at accelerator pedal	Pedal value sensor in component compartment
CO potentiometer	Correction program with HHT