

Engine 117.967/968 CFI

Engine	117.967/968 - Federal	117.967/968 - California
CFI system designation	3	3
On-off ratio/DTC readout (CFI)		
On-off ratio readout with ignition: ON	% 70	85
Current at EHA		
Ignition: ON	mA 75	75
After start enrichment and warmup		
After start enrichment at +20 °C engine coolant temperature	mA 5 – 9; 1100 rpm/40 sec.	5 – 9; 1100 rpm/40 sec.
Warmup base value at +20°C engine coolant temperature	mA 0	0
Engine coolant temperature +80°C	mA readout oscillates	readout oscillates
Enrichment during acceleration and at +20°C engine coolant temperature	mA >20	>20
Engine at operating temperature		
Part load mixture correction	mA readout oscillates	readout oscillates
Wide open throttle enrichment at 2000 rpm	mA 4 – 6	4 – 6
Deceleration fuel shut off	approx. mA –60 (Bosch control module)	–60 (Bosch control module)
Deceleration fuel shut off	approx. mA –50 (VDO control module)	–50 (VDO control module)

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Ignition timing and dwell		
Engine speed	rpm	650 ⁺¹⁰⁰ -50
Ignition timing with vacuum	BTDC	10 – 14
Ignition timing without vacuum	BTDC	3 – 7
Engine speed	rpm	3500
Ignition timing with vacuum	BTDC	40 – 44
Ignition timing without vacuum	BTDC	24 – 28
Dwell	Δ°	27 – 40
Dwell	%	60 – 89

Reference Resistor (DI)

Engine	Model	MB Part No.	Ignition adjustment ° CA	Resistance Ω/kΩ
116.965	126	000 540 24 81	-6	750 Ω

Note: If the reference resistor fails, then the ignition is retarded 3° at wide open throttle.

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Closed throttle (idle)		
Selector lever position/Transmission range	P/N	D
Engine oil temperature °C approx.	80	80
Closed throttle (idle) speed rpm	650 ⁺¹⁰⁰ -50	<650
Control range	mA 700 – 1000	<700
On-off ratio readout during deceleration fuel shut off	% 95	
Vacuum	mbar 550 – 650	
Lambda control	ontrol range % ³⁾	

³⁾ Check on-off ratio at 2500 rpm and read mean value with the purge line disconnected and plugged.
 Compare this value with the closed throttle speed value. The mean value at closed throttle speed must be higher by 5 but not more than 15.
 From 1988 the mean value at closed throttle speed must not deviate from the value at 2500 rpm by more than ±10.

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Engine performance ⁴⁾	
Engine speed	rpm 4800
Output, 4-speed AT, transmission range 3	hp 180



⁴⁾ These are minimum performance values. Do not exceed speed of 80 mph.

Check performance only at simulated engine coolant temperature of 80 °C (use 2 resistance substitution units)