

4. READ CURRENT DATA FOR ENGINE. (NORMAL MODE)

- 1) On the «Main Menu» display screen, select the {Each System Check} and press the [YES] key.
 - 2) On the «System Selection Menu» display screen, select the {Engine} and press the [YES] key.
 - 3) Press the [YES] key after the information of engine type has been displayed.
 - 4) On the «Engine Diagnosis» display screen, select the {Current Data Display/Save}, and then press the [YES] key.
 - 5) On the «Data Display Menu» screen, select the {Data Display} and press the [YES] key.
 - 6) Using the scroll key, move the display screen up or down until the desired data is shown.
- A list of the support data is shown in the following table.

Remarks	Display	Unit of measure	Note (at idling)
Engine load	Engine load	%	2.4%
Engine coolant temperature signal	Engine coolant temperature	°C or °F	≥ 75°C or 167°F (After engine is warmed-up.)
A/F compensation 1	A/F Compensation 1	%	-5.5%
A/F learning 1	A/F learning 1	%	0.0%
A/F compensation 2	A/F Compensation 2	%	-7.8%
A/F learning 2	A/F learning 2	%	0.0%
Intake manifold absolute pressure	Intake manifold absolute pressure	mmHg, kPa, inHg or psig	200 — 300 mmHg, 26.7 — 40 kPa, 7.8 — 11.8 inHg or 3.8 — 5.8 psig
Engine speed signal	Engine speed	rpm	600 — 800 rpm
Meter vehicle speed signal	Meter vehicle Speed	km/h or MPH	0 km/h or 0 MPH
Ignition timing signal	Ignition timing	deg	13 — 15 deg
Intake air temperature signal	Intake air temperature	°C or °F	(Ambient air temperature)
Amount of intake air	Amount of intake air	g/s or lb/m	4.8 g/s or 0.63 lb/m
Throttle opening angle signal	Throttle valve angle	%	2.4%
Front oxygen sensor voltage value 1	Front oxygen sensor voltage value 1	V	0.85 V
Front oxygen sensor voltage value 2	Front oxygen sensor voltage value 2	V	0.87 V
Battery voltage	Battery Voltage	V	12 — 14 V
Mass air flow voltage	Mass air flow voltage	V	1.1 — 1.2 V
Injection 1 pulse width	Injection 1 pulse width	ms	2.82 ms
Injection 2 pulse width	Injection 2 pulse width	ms	2.82 ms
Knock sensor compensation	Knock correction	deg	0 deg
Atmospheric pressure signal	Atmospheric pressure	mmHg, kPa, inHg or psig	(Atmosphere pressure)
Intake manifold relative pressure	Intake manifold relative pressure	mmHg, kPa, inHg or psig	(Intake manifold absolute pressure — Atmospheric pressure)
Acceleration opening angle signal	Acceleration opening angle	%	0%
Radiator fan output	Radiator fan output	%	0%
Purge control solenoid valve duty ratio	CPC Duty	%	0 — 3%
EGR step number	EGR step number	STEP	0
Generator duty	ALT Duty	%	0%
Fuel pump duty	Fuel pump duty	%	33%
Variable valve timing advance angle amount R	VVT advance angle amount R	deg	0 deg
Variable valve timing advance angle amount L	VVT advance angle amount L	deg	0 deg
Oil flow control solenoid valve duty R	OCV duty R	%	9.4%

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ENGINE (DIAGNOSTICS)

Remarks	Display	Unit of measure	Note (at idling)
Oil flow control solenoid valve duty L	OCV duty L	%	9.4%
Oil flow control solenoid valve current R	OCV current R	mA	64 mA
Oil flow control solenoid valve current L	OCV current L	mA	64 mA
Front oxygen (A/F) sensor current value 1	A/F sensor current value 1	mA	0.0 mA
Front oxygen (A/F) sensor current value 2	A/F sensor current value 2	mA	0.0 mA
Front oxygen (A/F) sensor resistance value 1	A/F sensor resistance value 1	Ω	31 Ω
Front oxygen (A/F) sensor resistance value 2	A/F sensor resistance value 2	Ω	31 Ω
Front oxygen (A/F) sensor output lambda 1	A/F sensor output lambda 1	—	1.01
Front oxygen (A/F) sensor output lambda 2	A/F sensor output lambda 2	—	1.01
A/F compensation 3	A/F Compensation 3	%	-10.47%
A/F learning 3	A/F learning 3	%	0.0%
Throttle motor duty	Throttle motor duty	%	-13%
Throttle motor voltage	Throttle power supply voltage	V	(Battery voltage)
Sub throttle sensor voltage	Sub throttle sensor voltage	V	1.56 V
Main throttle sensor voltage	Main throttle sensor voltage	V	0.70 V
Sub acceleration sensor voltage	Sub acceleration sensor voltage	V	1.10 V
Main acceleration sensor voltage	Main acceleration sensor voltage	V	1.0 V
Memory vehicle speed (AT model)	Memory vehicle speed	km/h or MPH	0 km/h or 0 MPH
A/F compensation 4	A/F compensation 4	%	0.7%
A/F learning 4	A/F learning 4	%	0.0%
Fuel level sensor resistance	Fuel level resistance	Ω	4 — 96 Ω
Engine oil temperature	Oil Temperature	°C or °F	≥ 85°C or 185°F (After engine is warmed-up.)
Oil switching solenoid valve duty R	OSV duty R	%	16.9%
Oil switching solenoid valve duty L	OSV duty L	%	16.9%
Oil switching solenoid valve current R	OSV current R	mA	192 mA
Oil switching solenoid valve current L	OSV current L	mA	192 mA
Variable valve lift lift mode	VVL Lift Mode	—	1 (at LOW lift)
#1 cylinder roughness monitor	#1 cylinder roughness monitor	—	0
#2 cylinder roughness monitor	#2 cylinder roughness monitor	—	0
#3 cylinder roughness monitor	#3 cylinder roughness monitor	—	0
#4 cylinder roughness monitor	#4 cylinder roughness monitor	—	0
#5 cylinder roughness monitor	#5 cylinder roughness monitor	—	0
#6 cylinder roughness monitor	#6 cylinder roughness monitor	—	0
Test mode terminal	Test mode terminal	—	OFF
Neutral position switch signal	Neutral SW	—	ON

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Remarks	Display	Unit of mea- sure	Note (at idling)
Idle switch signal	Soft idle SW	—	ON
Ignition switch signal	Ignition SW	—	ON
Power steering switch signal	Power steering SW input signal	—	OFF (At OFF)
Air conditioning switch signal	A/C SW	—	OFF (At OFF)
Steering wheel switch signal	Steering wheel SW	—	Hi/Low
Starter switch signal	Starter SW	—	OFF
Front oxygen monitor 1	Front oxygen monitor 1	—	Lean
Front oxygen monitor 2	Front oxygen monitor 2	—	Rich
Knocking signal	Knock signal	—	No
Crankshaft position sensor signal	Crankshaft angle signal	—	Yes
Camshaft position sensor signal	Camshaft angle signal	—	Yes
Rear defogger switch signal	Rear defogger SW	—	OFF (At OFF)
Blower fan switch signal	Blower Fan SW	—	OFF (At OFF)
Light switch signal	Light SW	—	OFF (At OFF)
Wiper switch signal	Wiper SW	—	OFF (At OFF)
A/C lock signal	A/C lock signal	—	OFF
A/C middle pressure switch signal	A/C middle pressure SW	—	OFF
A/C compressor relay signal	A/C compressor relay output	—	OFF
Variable valve lift diagnosis oil pressure switch RH	Engine oil pressure SW 1	—	ON
Variable valve lift diagnosis oil pressure switch LH	Engine oil pressure SW 2	—	ON
AT/MT identification terminal (MT model)	AT/MT identification terminal	—	MT
AT coordinate retard angle demand signal (AT model)	AT coordinate retard angle demand	—	Yes
AT coordinate fuel cut demand signal (AT model)	AT coordinate fuel cut demand	—	No
Vehicle dynamics control (VDC) torque down prohibition output	VDC torque down prohibition output	—	ON
Vehicle dynamics control (VDC) torque down demand	VDC torque down demand	—	OFF
AT coordinate permission signal (AT model)	AT coordinate permission signal	—	ON
Electronic throttle control motor relay signal	ETC motor relay	—	ON
Stop light switch signal	Stop light SW	—	OFF
SET/COAST switch signal (Model with cruise control)	SET/CST SW	—	OFF
RESUME/ACCEL switch signal (Model with cruise control)	RES/ACC SW	—	OFF
Brake switch signal	Brake SW	—	OFF
Main switch signal (Model with cruise control)	Main SW	—	OFF
Body integrated module data reception	Body Int. Unit Data	—	ON
Body integrated module counter update	Body Int. Unit Count	—	ON
Cruise control cancel switch signal (Model with cruise control)	CC Cancel SW	—	OFF
Clutch switch signal	Clutch SW	—	OFF