



Electrical Components Inspection

E.C.U. INPUT/OUTPUT SIGNAL INSPECTION

1. E.C.U. is located behind the center console panel. For this inspection, remove the center console under cover.
2. Remove E.C.U. harness protector.
3. Perform all voltage measurements with the connectors connected. Extend tester probe as shown to perform tests easily.

Electrical Components Inspection (Cont'd)

E.C.U. inspection table

*Data are reference values.

TERMINAL NO.	ITEM	CONDITION	*DATA
1	Ignition signal	Engine is running. └ Idle speed	0.3 - 0.5V
		Engine is running. └ Engine speed is 2,000 rpm	0.7 - 0.8V
3	Ignition check	Engine is running. └ Idle speed	Approximately 12V
4	E.C.C.S. relay (Self-shut off)	Engine is running. └ Ignition switch "OFF" └ For approximately 2 seconds after turning ignition switch "OFF"	0 - 1V
		Ignition switch "OFF" └ Approximately 2 seconds after turning ignition switch "OFF"	BATTERY VOLTAGE (11 - 14V)
9	Radiator fan relay	Engine is running. └ Radiator fan is not operating.	BATTERY VOLTAGE (11 - 14V)
		Engine is running. └ Radiator fan is operating.	0.6 - 0.8V
11	Air conditioner relay	Engine is running. └ Both A/C switch and blower switch are "ON".	0.5 - 1V
		Engine is running. └ A/C switch is "OFF".	BATTERY VOLTAGE (11 - 14V)
16	Air flow meter	Engine is running. (Warm-up condition) └ Idle speed	1.0 - 1.5V
		Engine is running. (Warm-up condition) └ Engine speed is 2,000 rpm.	1.3 - 1.8V
18	Engine temperature sensor	Engine is running.	0 - 5.0V Output voltage varies with engine water temperature.
19	Exhaust gas sensor	Engine is running. └ After warming up sufficiently.	0 - Approximately 1.5V

Electrical Components Inspection (Cont'd)

*Data are reference values.

TER-MINAL NO.	ITEM	CONDITION	*DATA
20	Throttle sensor	Ignition switch "on" └ Accelerator pedal released	0.45 - 0.55V
		Ignition switch "on" └ Accelerator pedal fully depressed	Approximately 4V
22 30	Crank angle sensor (Reference signal)	Engine is running. └ Do not run engine at high speed under no-load.	0.2 - 0.5V
27	Detonation sensor	Engine is running. └ Idle speed	2.0 - 3.0V
31 40	Crank angle sensor (Position signal)	Engine is running. └ Do not run engine at high speed under no-load.	2.0 - 3.0V
34	Start signal	Ignition switch "ON"	Approximately 0V
		Ignition switch "START"	BATTERY VOLTAGE (11 - 14V)
35	Neutral switch	Ignition switch "ON" └ Neutral	0V
		Ignition switch "ON" └ Except the above gear position	Approximately 6V
36	Ignition switch	Ignition switch "OFF"	0V
		Ignition switch "ON"	BATTERY VOLTAGE (11 - 14V)
37	Throttle sensor power supply	Ignition switch "ON"	Approximately 5V
38 47	Power supply for E.C.U.	Ignition switch "ON"	BATTERY VOLTAGE (11 - 14V)
41	Air conditioner switch	Engine is running. └ Both air conditioner switch and blower switch are "ON".	Approximately 0V
		Engine is running. └ Air conditioner switch is "OFF".	Approximately 8V

Electrical Components Inspection (Cont'd)

*Data are reference values.

TER-MINAL NO.	ITEM	CONDITION	*DATA
43	Power steering oil pressure switch	Engine is running. └ Steering wheel is being turned.	0V
		Engine is running. └ Steering wheel is not being turned.	8 - 10V
46	Power supply (Back-up)	Ignition switch "OFF"	BATTERY VOLTAGE (11 - 14V)
101	Injector No. 1	Engine is running	BATTERY VOLTAGE (11 - 14V)
103	Injector No. 3		
110	Injector No. 2		
112	Injector No. 4		
104	Fuel pump relay	Ignition switch "ON" └ For 1 second after turning ignition switch "ON"	0.7 - 0.9V
		Engine is running. Ignition switch "ON" └ 1 second after turning ignition switch "ON"	BATTERY VOLTAGE (11 - 14V)
111	Wastegate valve control solenoid valve	Engine is running. └ Idle speed	BATTERY VOLTAGE (11 - 14V)
		Engine is running. └ Accelerator pedal is quickly depressed and released.	0 - 1.0V
113	A.A.C. valve	Engine is running. └ Idle speed	9 - 14V
		Engine is running. └ Steering wheel is being turned. └ Air conditioner is operating. └ Rear defogger is "ON". └ Headlamp are in high position.	5 - 9V

Electrical Components Inspection (Cont'd)

E.C.U. HARNESS CONNECTOR TERMINAL LAYOUT

101	102	103	104	105	106	107	108	1	2	3	4	5	6	7	15	16	17	18	19	20	21	22	31	32	33	34	35	36	37	38	39
109	110	111	112	113	114	115	116	8	9	10	11	12	13	14	23	24	25	26	27	28	29	30	40	41	42	43	44	45	46	47	48



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