

Starting System Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Starter Relay Switch	VDC (Input)	Y/R → (+) - Battery (-) → (-)	Battery Voltage	VDC	
	Ω (Ground Line)	G/R ↔ (-)	0 ~ 10 Ω	Ω	
	Ω (w/battery)	(+) ↔ (-)	0 ~ 10 Ω	Ω	
	Ω (w/o battery)	(+) ↔ (-)	OL	Ω	
Relay Coil Ground Lines	Ω	G/R ↔ NDiode ↔ NS	0 ~ 10 Ω	Ω	
	Ω	G/R ↔ CS ↔ SS	0 ~ 10 Ω	Ω	
Clutch Switch	Ω (in)	G/R ↔ G/O	0 ~ 10 Ω	Ω	
	Ω (out)	G/R ↔ G/O	OL	Ω	
Side Stand Switch	Ω (up)	G ↔ G/W	0 ~ 10 Ω	Ω	
	Ω (down)	G ↔ G/W	OL	Ω	
Ignition Switch	Ω (key on)	R/W ↔ BL/R	0 ~ 10 Ω	Ω	
	Ω (key off)	R/W ↔ BL/R	OL	Ω	
	Ω (key on or off)	R/W ↔ P	0 ~ 10 Ω	Ω	
Neutral Switch	Ω (in N)	Terminal ↔ ⊥	0 ~ 10 Ω	Ω	
	Ω (not in N)	Terminal ↔ ⊥	OL	Ω	
Neutral Diode	Ω	A - (+) ↔ B (-)	0 ~ 1 Ω	Ω	
		C - (+) ↔ B (-)	0 ~ 1 Ω	Ω	
		B - (+) ↔ A - (-)	OL	Ω	
		B - (+) ↔ C - (-)	OL	Ω	
Diode	Ω	B - (+) ↔ A - (-)	0 ~ 1 Ω	Ω	
		A - (+) ↔ B - (-)	OL	Ω	

Starting System Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Engine Stop Switch	Ω (run)	BL/BU ↔ BL/G	0 ~ 10 Ω	Ω	
	Ω (stop)	BL/BU ↔ BL/G	OL	Ω	
Starter Switch	Ω (pressed)	BL/BU ↔ Y/R	0 ~ 10 Ω	Ω	
	Ω (not pressed)	BL/BU ↔ Y/R	OL	Ω	

Charging System Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Battery	Battery Tester	(+) - (-)	13.0 - 13.2 VDC	VDC	
	VDC (Charging Voltage)	Battery (+) → (+) - Battery (-) → (-)	BV < CV < 15.5 VDC	VDC	
Current Leakage	Amps	BL → (+) - Battery (-) → (-)	≤ 0.8 mA	mA	
	Amps w/o Regulator/Rectifier	BL → (+) - Battery (-) → (-)	≤ 0.8 mA	mA	
Alternator	Ω	BL (1) ↔ BL (2)	0.1 ~ 1.0 Ω	Ω	
	Ω	BL (1) ↔ BL (3)	0.1 ~ 1.0 Ω	Ω	
	Ω	BL (2) ↔ BL (3)	0.1 ~ 1.0 Ω	Ω	
	Ω	BL (1) ↔ ⊥	OL	Ω	
	Ω	BL (2) ↔ ⊥	OL	Ω	
	Ω	BL (3) ↔ ⊥	OL	Ω	
Regulator / Rectifier	VDC (Battery Charging Line)	R/W → (+) - ⊥ → (-)	Battery Voltage	VDC	
	Ω (Charging Coil Line)	BL ↔ BL	0.1 ~ 1.0 Ω	Ω	
	Ω (Ground Line)	G ↔ ⊥	0 ~ 10 Ω	Ω	

Ignition System Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Coil	Primary Peak Voltage	LG → (+) - ⊥ → (-)	≥ 100 VP	VP	
Crankshaft Position Sensor	Peak Voltage at ECM	W/Y → (+) - Y → (-)	≥ 0.7 VP	VP	
	Peak Voltage at CKP	W/Y → (+) - Y → (-)	≥ 0.7 VP	VP	
Bank Angle Sensor	Output VDC (tilted)	Use MCS	0.40 ~ 0.84 VDC	VDC	
	Output VDC (up)	Use MCS	7.0 ~ 8.8 VDC	VDC	
Ignition Switch	Ω (key on)	R/W ↔ BL/R	0 ~ 10 Ω	Ω	
	Ω (key off)	R/W ↔ BL/R	OL	Ω	
	Ω (key on or off)	R/W ↔ P	0 ~ 10 Ω	Ω	

PGM-FI Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
EVAP Purge Control Solenoid Valve (AC)	Ω	BL/G ↔ Y/BL	30 ~ 34 Ω (68°)	Ω	
Fuel Pump	VDC (Input)	BR/R → (+) - G → (-)	Battery Voltage	VDC	
Fuel Pump Relay	Ω (with battery)	BL/BU → (+) - BR → (-)	0 ~ 10 Ω	Ω	
		BL/G ↔ BR/R			
	Ω	BL/BU ↔ BR	0 ~ 10 Ω	Ω	
		BL/G ↔ BR/R	OL	Ω	
PAIR Control Solenoid Valve	Ω	BL/G ↔ O	24 ~ 28 Ω (68°)	Ω	
SENSOR UNIT	VDC (Input)	Y/R → (+) - G/W → (-)	4.75 ~ 5.25 VDC	VDC	
	Ω	Y/R (ECM) ↔ Y/R (SU)	0 ~ 10 Ω	Ω	
		G/W (ECM) ↔ G/W (SU)	0 ~ 10 Ω	Ω	
SENSOR UNIT MAP Sensor (Low Voltage)	VDC	Use MCS	~ 0 VDC	VDC	
	VDC (Input)	Y/R → (+) - G/W → (-)	4.75 ~ 5.25 VDC	VDC	
	VDC (Output)	LG/Y → (+) - G/W → (-)	4.75 ~ 5.25 VDC	VDC	
	Ω	Y/R (ECM) ↔ Y/R (SU)	0 ~ 10 Ω	Ω	
		G/W (ECM) ↔ G/W (SU)	0 ~ 10 Ω	Ω	
		LG/Y ↔ $\frac{1}{2}$	OL	Ω	
DTC	Use MCS	DTC 1-1	Yes / No		

PGM-FI Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
SENSOR UNIT MAP Sensor (High Voltage)	VDC	Use MCS	~ 5 VDC	VDC	
	VDC (Input)	Y/R → (+) - G/W → (-)	4.75 ~ 5.25 VDC	VDC	
	VDC (Output)	LG/Y ↔ G/W Use MCS	~ 0 VDC	VDC	
	Ω	Y/R (ECM) ↔ Y/R (SU)	0 ~ 10 Ω	Ω	
		G/W (ECM) ↔ G/W (SU)	0 ~ 10 Ω	Ω	
		LG/Y (ECM) ↔ LG/Y (SU)	0 ~ 10 Ω	Ω	
SENSOR UNIT ECT Sensor (Low Voltage)	VDC	Use MCS	~ 0 VDC	VDC	
	VDC (ECT Disconnected)	Use MCS	~ 0 VDC	VDC	
	Ω	Y/BU ↔ G/W	2.3 ~ 2.3 kΩ	Ω	
		Y/BU ↔ $\frac{1}{2}$	OL	Ω	
SENSOR UNIT ECT Sensor (High Voltage)	VDC	Use MCS	~ 5 VDC	VDC	
	VDC (ECT Disconnected)	Y/BU ↔ G/W Use MCS	~ 0 VDC	VDC	
	Ω	Y/BU (ECM) ↔ Y/BU (SU)	0 ~ 10 Ω	Ω	
		G/W (ECM) ↔ G/W (SU)	0 ~ 10 Ω	Ω	
		Y/BU ↔ G/W	2.3 - 2.6 kΩ (68°)	Ω	
		Y/BU ↔ G/W	0.31 - 0.33 kΩ (176°)	Ω	

PGM-FI Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
SENSOR UNIT TP Sensor (Low Voltage)	VDC (Throttle Closed)	Use MCS	~ 0 VDC	VDC	
	VDC (Input)	Y/R → (+) - G/W → (-)	4.75 ~ 5.25 VDC	VDC	
	VDC (ECT Disconnected)	Use MCS	~ 0 VDC	VDC	
	Ω	Y/R (ECM) ↔ Y/R (SU)	0 ~ 10 Ω	Ω	
		G/W (ECM) ↔ G/W (SU)	0 ~ 10 Ω	Ω	
		Y ↔ ⊥	OL	Ω	
		Y (ECM) ↔ Y (SU)	0 ~ 10 Ω	Ω	
DTC	Use MCS	DTC 8-1	Yes / No		
SENSOR UNIT TP Sensor (High Voltage)	VDC	Use MCS	~ 5 VDC	VDC	
	VDC (Throttle Open to Close)	Use MCS	VDC Increase	VDC	
	VDC (Input)	Y/R - (+) - G/W - (-)	4.75 ~ 5.25 VDC	VDC	
	Ω	Y ↔ G/W	0.29 ~ 0.71 Ω	Ω	
		G/W (ECM) ↔ G/W (SU)	0 ~ 10 Ω	Ω	
		Y/BU ↔ G/W	2.3 - 2.6 kΩ (68°)	Ω	
		Y/BU ↔ G/W	0.31 - 0.33 kΩ (176°)	Ω	
SENSOR UNIT IAT Sensor (Low Voltage)	VDC	Use MCS	~ 0 VDC	VDC	
	VDC (IAT Disconnected)	Use MCS	~ 0 VDC	VDC	
	Ω	GR ↔ ⊥	OL	Ω	

PGM-FI Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
SENSOR UNIT IAT Sensor (High Voltage)	VDC	Use MCS	~ 5 VDC	VDC	
	VDC (Input)	Y/R → (+) - G/W → (-)	4.75 ~ 5.25 VDC	VDC	
	VDC (Output)	GR/BU ↔ G/W Use MCS	~ 0 VDC	VDC	
	Ω	Y/R (ECM) ↔ Y/R (SU)	0 ~ 10 Ω	Ω	
		G/W (ECM) ↔ G/W (SU)	0 ~ 10 Ω	Ω	
		GR/BU (ECM) ↔ GR/BU (SU)	0 ~ 10 Ω	Ω	
VS Sensor	DTC	Use MCS	DTC 11-1	Yes / No	
	VDC	W/R → (+) - ⊥ → (-)	0 ~ 5 VDC	VDC	
Injector	DTC	Use MCS	DTC 12-1	Yes / No	
	VDC	BL/BU → (+) - ⊥ → (-)	Battery Voltage	VDC	
	Ω	P/W ↔ ⊥	OL	Ω	
		P/W ↔ BL/BU	11 ~ 13 Ω	Ω	
		P/W (ECM) ↔ P/W (Inj)	0 ~ 10 Ω	Ω	
O₂ Sensor	DTC	Use MCS	DTC 21-1	Yes / No	
	Ω	BL/W ↔ ⊥	OL	Ω	
		BL/W (ECM) ↔ BL/W (O ₂)	OL	Ω	

PGM-FI Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
IACV	DTC	Use MCS	DTC 29-1	Yes / No	
	Ω	BU/W ↔ ⊥	OL	Ω	
		BR/W ↔ ⊥	OL	Ω	
		BR/BL ↔ ⊥	OL	Ω	
		BU/BL ↔ ⊥	OL	Ω	
		BU/W (ECM) ↔ BU/W (IACV)	0 ~ 10 Ω	Ω	
		BR/W (ECM) ↔ BR/W (IACV)	0 ~ 10 Ω	Ω	
		BR/BL (ECM) ↔ BR/BL (IACV)	0 ~ 10 Ω	Ω	
		BU/BL (ECM) ↔ BU/BL (IACV)	0 ~ 10 Ω	Ω	
		BU/BL ↔ BU/W	110 ~ 150 Ω	Ω	
		BR/BL ↔ BR/W	110 ~ 150 Ω	Ω	
EEPROM	DTC	Use MCS	DTC 33-2	Yes / No	
Bank Angle Sensor (Low Voltage)	DTC	Use MCS	DTC 54-1	Yes / No	
	VDC	BL/BU → (+) - ⊥ → (-)	Battery Voltage	VDC	
	Ω	R/BU ↔ ⊥	OL	Ω	
		R/BU (ECM) ↔ R/BU (BAS)	0 ~ 10 Ω	Ω	
	DTC	Use MCS	DTC 54-2	Yes / No	
Bank Angle Sensor (High Voltage)	DTC	Use MCS	DTC 54-2	Yes / No	
	VDC	BL/BU → (+) - ⊥ → (-)	Battery Voltage	VDC	
	Ω	R/BU (ECM) ↔ R/BU (BAS)	0 ~ 10 Ω	Ω	
MIL Circuit	💡	W/BU ↔ ⊥	💡	💡 / 🔒	
	Ω	BU ↔ ⊥	OL	Ω	

PGM-FI Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
ECM	VDC	BL/BU → (+) - ⊥ → (-)	Battery Voltage	VDC	
	Ω	G/BL ↔ ⊥	0 ~ 10 Ω	Ω	
		G ↔ ⊥	0 ~ 10 Ω	Ω	
		G ↔ ⊥	0 ~ 10 Ω	Ω	

ABS Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Indicator (OFF)	💡	Disconnect ABS	💡	💡 / 🔌	
	Ω	W/BL ↔ ⊥	OL	Ω	
Indicator (ON)	Ω	BL ↔ ⊥	OL	Ω	
		G ↔ ⊥	0 ~ 10 Ω	Ω	
		R/BU ↔ ⊥	OL	Ω	
	VDC	R/BU → (+) - ⊥ → (-)	Battery Voltage	VDC	
	💡	W/BL ↔ ⊥	💡	💡 / 🔌	
Front Wheel Speed Sensor	Ω (Sensor)	W ↔ ⊥	OL	Ω	
		BU ↔ ⊥	OL	Ω	
	Ω (ABS)	P ↔ ⊥	OL	Ω	
		G/BU ↔ ⊥	OL	Ω	
		P → G/BU (ABS)	0 ~ 10 Ω	Ω	
		P ↔ G/BU (Sensor)			
Rear Wheel Speed Sensor	Ω (Sensor)	W ↔ ⊥	OL	Ω	
		BU ↔ ⊥	OL	Ω	
	Ω (ABS)	P/W ↔ ⊥	OL	Ω	
		G/R ↔ ⊥	OL	Ω	
		P/W → G/R (ABS)	0 ~ 10 Ω	Ω	
		P/W ↔ G/R (Sensor)			
Pump Motor	Ω	R ↔ ⊥	OL	Ω	
	VDC	R → (+) - ⊥ → (-)	Battery Voltage	VDC	

ABS Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Power Input	Ω	R/BU ↔ ⊥	OL	Ω	
	VDC	R/BU → (+) - ⊥ → (-)	Battery Voltage	VDC	





Combination Meter Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Coolant Temperature Gauge	"H"	GR/BU → \perp	"H"		
Meter Unit	VDC (in)	BL - (+) - \perp - (-)	Battery Voltage	VDC	
	VDC (Back-up Line)	R - (+) - \perp - (-)	Battery Voltage	VDC	
Speedometer	VDC	W/R - (+) - BL/G - (-)	0 ~ 5 VDC	VDC	
Tachometer	Peak Voltage	Y/G - (+) - \perp - (-)	≥ 10.5 VP	VP	
	Ω	Y/G (ECM) ↔ Y/G (CM)	0 ~ 10 Ω	Ω	
		G/BL ↔ \perp	0 ~ 10 Ω	Ω	
















Switches Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Clutch Switch	Ω (in)	G/R ↔ G/O	0 ~ 10 Ω	Ω	
	Ω (out)	G/R ↔ G/O	OL	Ω	
Engine Stop Switch	Ω (run)	BL/BU ↔ BL/G	0 ~ 10 Ω	Ω	
	Ω (stop)	BL/BU ↔ BL/G	OL	Ω	
Ignition Switch	Ω (key on)	R/W ↔ BL/R	0 ~ 10 Ω	Ω	
	Ω (key off)	R/W ↔ BL/R	OL	Ω	
	Ω (key on or off)	R/W ↔ P	0 ~ 10 Ω	Ω	
Neutral Switch	Ω (in N)	Terminal ↔ \perp	0 ~ 10 Ω	Ω	
	Ω (not in N)	Terminal ↔ \perp	OL	Ω	
Side Stand Switch	Ω (up)	G ↔ G/W	0 ~ 10 Ω	Ω	
	Ω (down)	G ↔ G/W	OL	Ω	
Starter Switch	Ω (pressed)	BL/BU ↔ Y/R	0 ~ 10 Ω	Ω	
	Ω (not pressed)	BL/BU ↔ Y/R	OL	Ω	

Sensors Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Bank Angle Sensor	Output VDC (tilted)	Use MCS	0.40 ~ 0.84 VDC	VDC	
	Output VDC (up)	Use MCS	7.0 ~ 8.8 VDC	VDC	
Crankshaft Position Sensor	Peak Voltage at ECM	W/Y → (+) - Y → (-)	≥ 0.7 VP	VP	
	Peak Voltage at CKP	W/Y → (+) - Y → (-)	≥ 0.7 VP	VP	
Fuel Level Sensor	Ω	Y/W ↔ G/BL	Full: 6 ~ 10 Ω	Ω	
			Empty: 180 ~ 186 Ω	Ω	
Horn		G - (Battery +) - LG - (Battery -)		 / 	
Vehicle Speed Sensor	VDC	R/BL → (+) - BL/G → (-)	Battery Voltage	VDC	

Relays Electrical Test Sheet

Component	Test	Connections	Spec	Result	✓ / ✗
Fan Control Relay	Ω (with battery)	<i>BL/W</i> → (+) - <i>BR/R</i> → (-)	0 ~ 10 Ω	Ω	
		BL/W ↔ BU			
	Ω	BL/W ↔ BR/R	0 ~ 10 Ω	Ω	
		BL/W ↔ BU	OL	Ω	
Fuel Pump Relay	Ω (with battery)	<i>BL/BU</i> → (+) - <i>BR</i> → (-)	0 ~ 10 Ω	Ω	
		BL/G ↔ BR/R			
	Ω	BL/BU ↔ BR	0 ~ 10 Ω	Ω	
		BL/G ↔ BR/R	OL	Ω	
Starter Relay Switch	VDC (Input)	Y/R → (+) - Battery (-) → (-)	Battery Voltage	VDC	
	Ω (Ground Line)	G/R ↔ (-)	0 ~ 10 Ω	Ω	
	Ω (w/battery)	(+) ↔ (-)	0 ~ 10 Ω	Ω	
	Ω (w/o battery)	(+) ↔ (-)	OL	Ω	
Turn Signal Relay	VDC (in)	BL → (+) - G → (-)	Battery Voltage	VDC	
	Ω (Right Turn Signal On)	GR ↔ LB	0 ~ 10 Ω	Ω	
	Ω (Right Turn Signal Off)	GR ↔ LB	OL	Ω	
	Ω (Left Turn Signal ON)	GR ↔ O	0 ~ 10 Ω	Ω	
	Ω (Left Turn Signal Off)	GR ↔ O	OL	Ω	
	 (Front Right)	BL → LB/W		 / 	
	 (Front Left)	BL → O/W		 / 	
	 (Rear Right)	BL → LB		 / 	
 (Rear Left)	BL → O		 / 