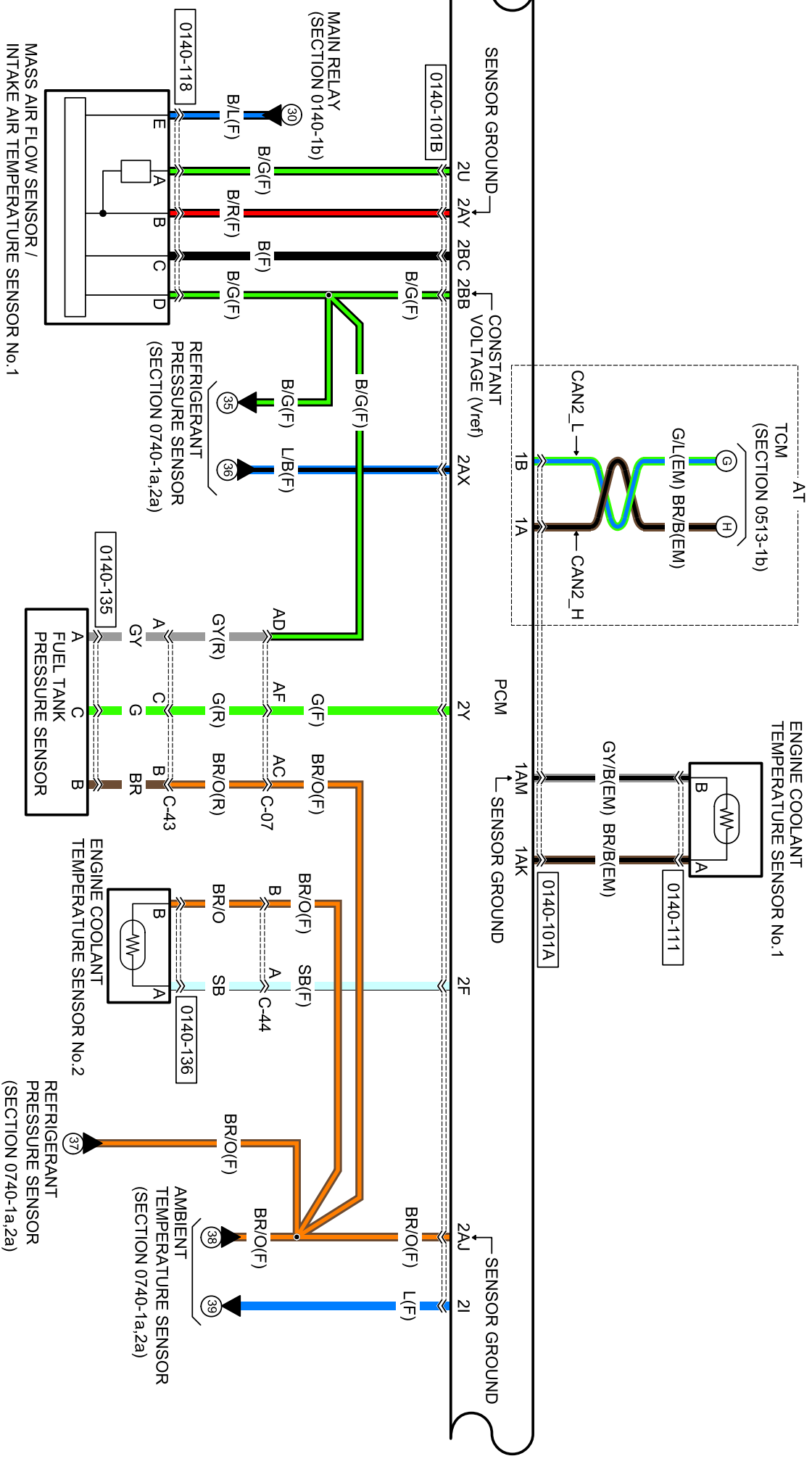




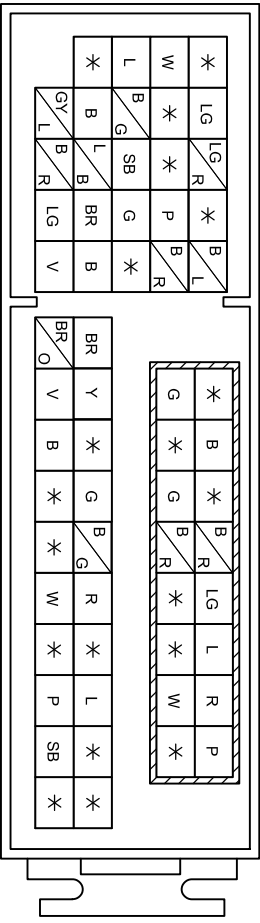
0140-1e

PCM

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PCM

2BE	2AZ	2AU	2AP	2AK	2AE	2AA	2W	2S	2O	2K	2G	2C
2BF	2BA	2AV	2AQ	2AL	2AF	2AB	2X	2T	2P	2L	2H	2D

[illegible]

2016 Mazda MX-5
CONTROL SYSTEM (SKYACTIV-G 2.0)

0140-1e

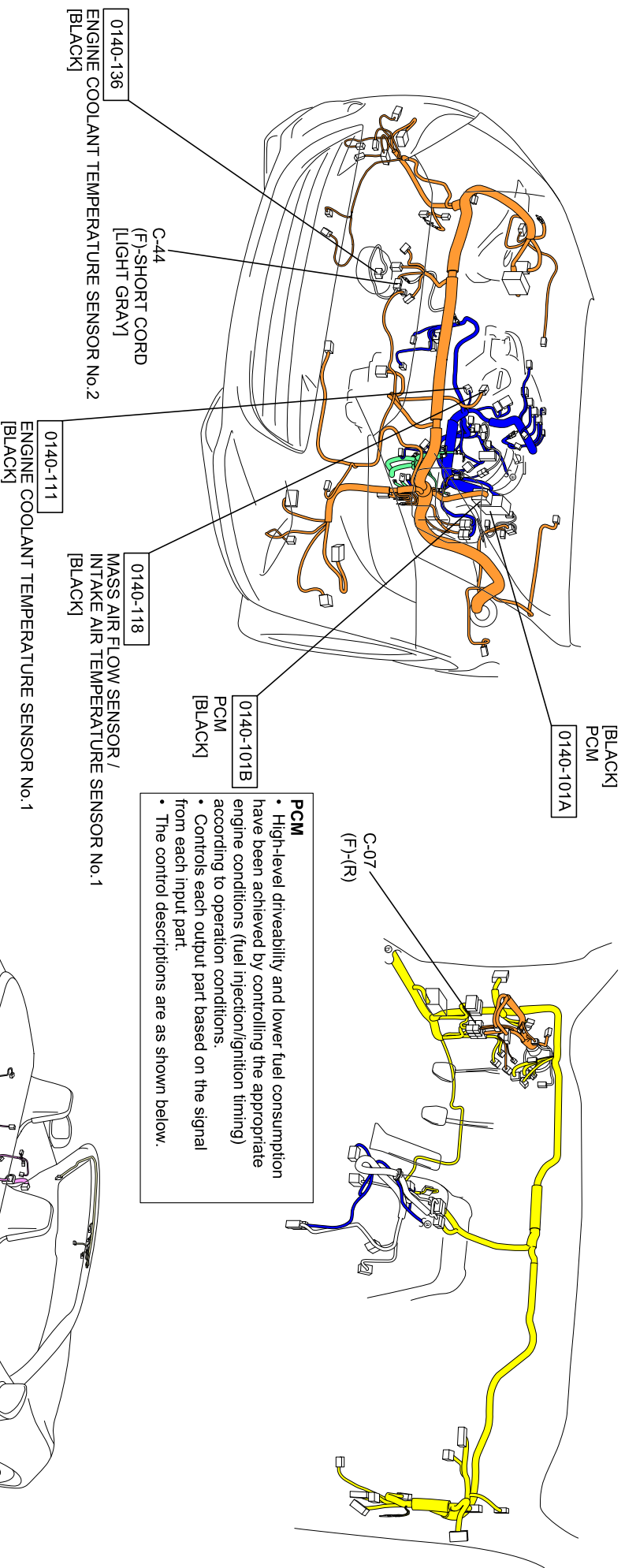
0140-111 ENGINE COOLANT TEMPERATURE SENSOR No.1	0140-118 MASS AIR FLOW SENSOR / INTAKE AIR TEMPERATURE SENSOR No.1	0140-135 FUEL TANK PRESSURE SENSOR	0140-136 ENGINE COOLANT TEMPERATURE SENSOR No.2
 B A S-1 S-1	 E D C B A Q Q Q Q Q	 C B A R R R	 B A S-1 S-1

PCM terminal voltage table (reference)

Terminal	Test condition	Voltage (V)	Terminal	Test condition	Voltage (V)
1A*2	Because this terminal is for CAN, integrity determination by terminal voltage is not possible.				
1B*2	Because this terminal is for CAN, integrity determination by terminal voltage is not possible.		2I	Ignition switched ON (engine off)	AAT 20 °C {68 °F} AAT 30 °C {104 °F}
1AK	Ignition switched ON (engine off)	ECT 20 °C {68 °F}	2U	Ignition switched ON (engine off)	IAT 20 °C {68 °F}
		ECT 40 °C {104 °F}			IAT 40 °C {104 °F}
		ECT 60 °C {140 °F}			IAT 60 °C {140 °F}
		ECT 80 °C {176 °F}			
		ECT 100 °C {212 °F}			
1AM	Under any condition	Below 1.0	2Y*1	Fuel tank pressure is 10 kPa {0.10 kgf/cm ² , 1.5 psi} lower than barometric pressure. Fuel tank pressure is equal to barometric pressure. Fuel tank pressure is 6 kPa {0.06 kgf/cm ² , 0.9 psi} higher than barometric pressure.	Approx. 1.2 Approx. 2.6 Approx. 3.7
2F*1	Ignition switched ON (engine off)	ECT 20 °C {68 °F}	2AJ	Under any condition	Below 1.0
		ECT 40 °C {104 °F}		Refrigerant pressure: 1.0 MPa {10 kgf/cm ² , 145 psi}	Approx. 1.58
		ECT 60 °C {140 °F}	2AX	Refrigerant pressure: 1.1 MPa {11 kgf/cm ² , 160 psi}	Approx. 1.75
		ECT 80 °C {176 °F}		Refrigerant pressure: 1.2 MPa {12 kgf/cm ² , 174 psi}	Approx. 1.88
		ECT 100 °C {212 °F}	2AY	Under any condition	Below 1.0
:U.S.A. and CANADA :AT			2BB	Ignition switched ON (engine off)	Approx. 5.03
				Ignition switched ON (engine off)	Approx. 0.75
				Idle (after warm up and no load)	Approx. 1.13
				Racing (Engine speed: 2,000 rpm)	Approx. 1.31
[SKYACTIV-G 2.0]					
ECT sensor No. 1 Measure the resistance between ECT sensor No. 1 terminals A and B. Specification (Reference)					
ECT (°C {°F})		Resistance (Kilohms)			
20 {68}		Approx. 2.45			
80 {176}		Approx. 0.318			
Engine coolant temperature (ECT) sensor [SKYACTIV-G 2.0]					
ECT sensor No. 2 (U.S.A. and CANADA) Measure the resistance between ECT sensor No. 2 terminals A and B. Specification (Reference)					
ECT (°C {°F})		Resistance (Kilohms)			
20 {68}		Approx. 2.45			
80 {176}		Approx. 0.318			
Intake air temperature (IAT) sensor [SKYACTIV-G 2.0]					
IAT Sensor No. 1 Measure the resistance between MAF sensor/IAT sensor No. 1 terminals A and B. Specification (Reference)					
IAT (°C {°F})		Resistance (Kilohms)			
-20 {-4}		Approx. 15.1			
20 {68}		Approx. 2.64			
60 {140}		Approx. 0.66			

*1 :U.S.A. and CANADA

*2
:AT



ENGINE COOLANT TEMPERATURE SENSOR

ECT sensor No.1

- Indicates the resistance value according to the engine coolant temperature before it passes through the radiator.

ECT sensor No.2 (U.S.A. and CANADA)

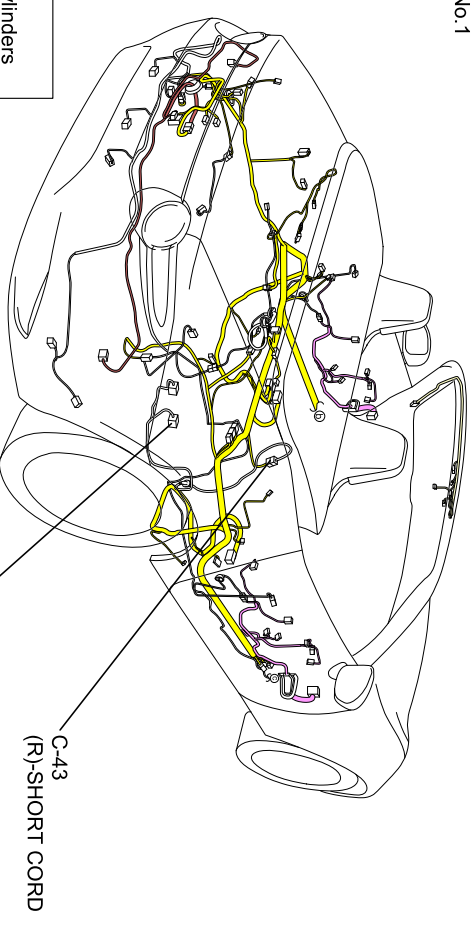
- Detects the engine coolant temperature after passing through the radiator and sends it to the PCM as basic information for mainly detecting an ECT sensor No.1 malfunction.
- By arranging the sensors in various detection positions and by comparing input signals from each sensor, malfunction detection accuracy is improved.

MASS AIR FLOW SENSOR

- Detects the intake airflow amount introduced into the cylinders and sends an intake airflow amount signal to the PCM.

INTAKE AIR TEMPERATURE SENSOR No.1

- Indicates the resistance value according to the intake air temperature just after it passes through the air cleaner.



- FRONT HARNESS
- ENGINE HARNESS
- ENGINE No.2 HARNESS
- REAR HARNESS
- REAR No.4 HARNESS
- EMISSION HARNESS
- DOOR HARNESS
- INTERIOR LIGHT No.2 HARNESS