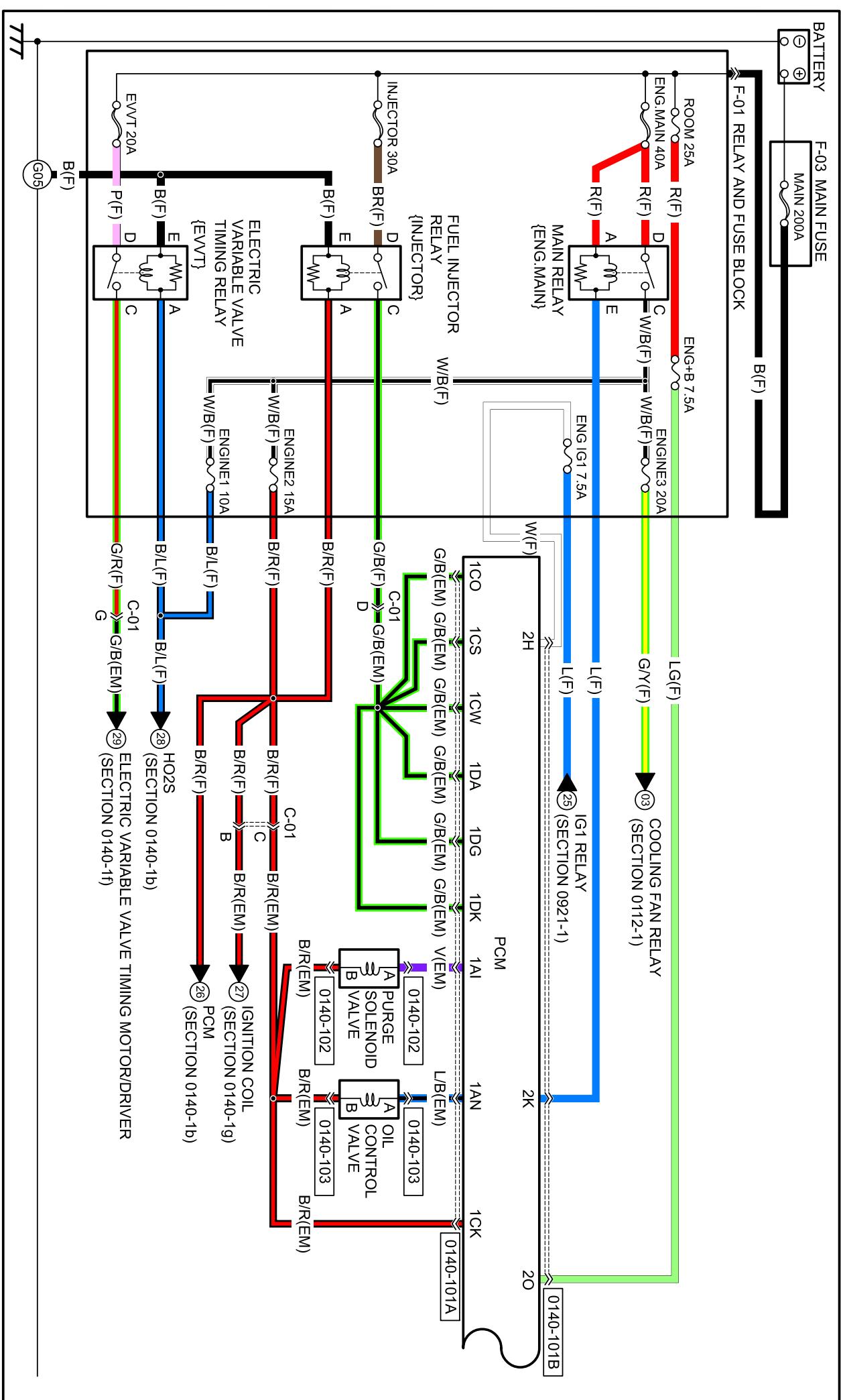


2016 Mazda MX-5 CONTROL SYSTEM (SKYACTIV-G 2.0)

0140-1a



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

0140-1a

0140-101
PCM

0140-101
PCM

0140-101E
PCM

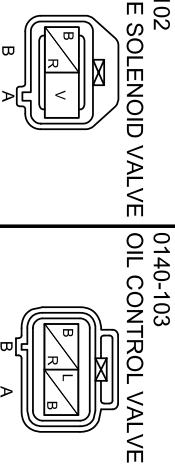
0140-101E
PCM

T T T T T F F F F F
T T T T T F F F F F
2AE 2AA 2W 2S 2O 2K 2G 2CC
2AF 2AB 2X 2T 2P 2L 2H 2Σ

*	B	*	B	G
*	G	R	L	G
G	B	R	L	R
B	R	*	*	P
R	*	W	*	

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Oil control valve (OCV) [SKYACTIV-G 2.0]

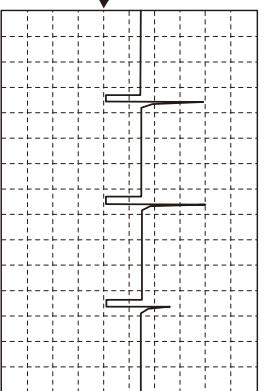
Measure the resistance between terminals A and B using an ohmmeter.
OCV coil resistance
6.9–7.5 ohms [20°C (68°F)]

PCM terminal voltage table (reference)

Terminal	Test condition	Voltage (V)	Terminal	Test condition	Voltage (V)
1AI	(See Purge control.)		1DA	Ignition switched ON (engine off)	B+
1AN	(See Hydraulic variable valve timing control signal.)		1DG	Ignition switched ON (engine off)	B+
1CK	Ignition switched ON (engine off)	B+	1DK	Ignition switched ON (engine off)	B+
1CO	Ignition switched ON (engine off)	B+	2H	Ignition switched ON (engine off)	B+
1CS	Ignition switched ON (engine off)	B+	2K	Ignition switched ON (engine off)	Approx. 0.87
1CW	Ignition switched ON (engine off)	B+	2O	Under any condition	B+

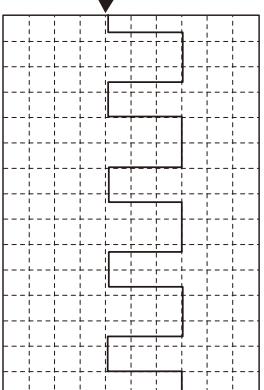
Inspection using an oscilloscope (reference)

- Purge control
- PCM terminals
- 1AI(+)—body ground(–)
- Oscilloscope setting
- 10 V/DIV (Y), 50 ms/DIV (X), DC range
- Vehicle condition
- Racing (engine speed is 2,000 rpm)



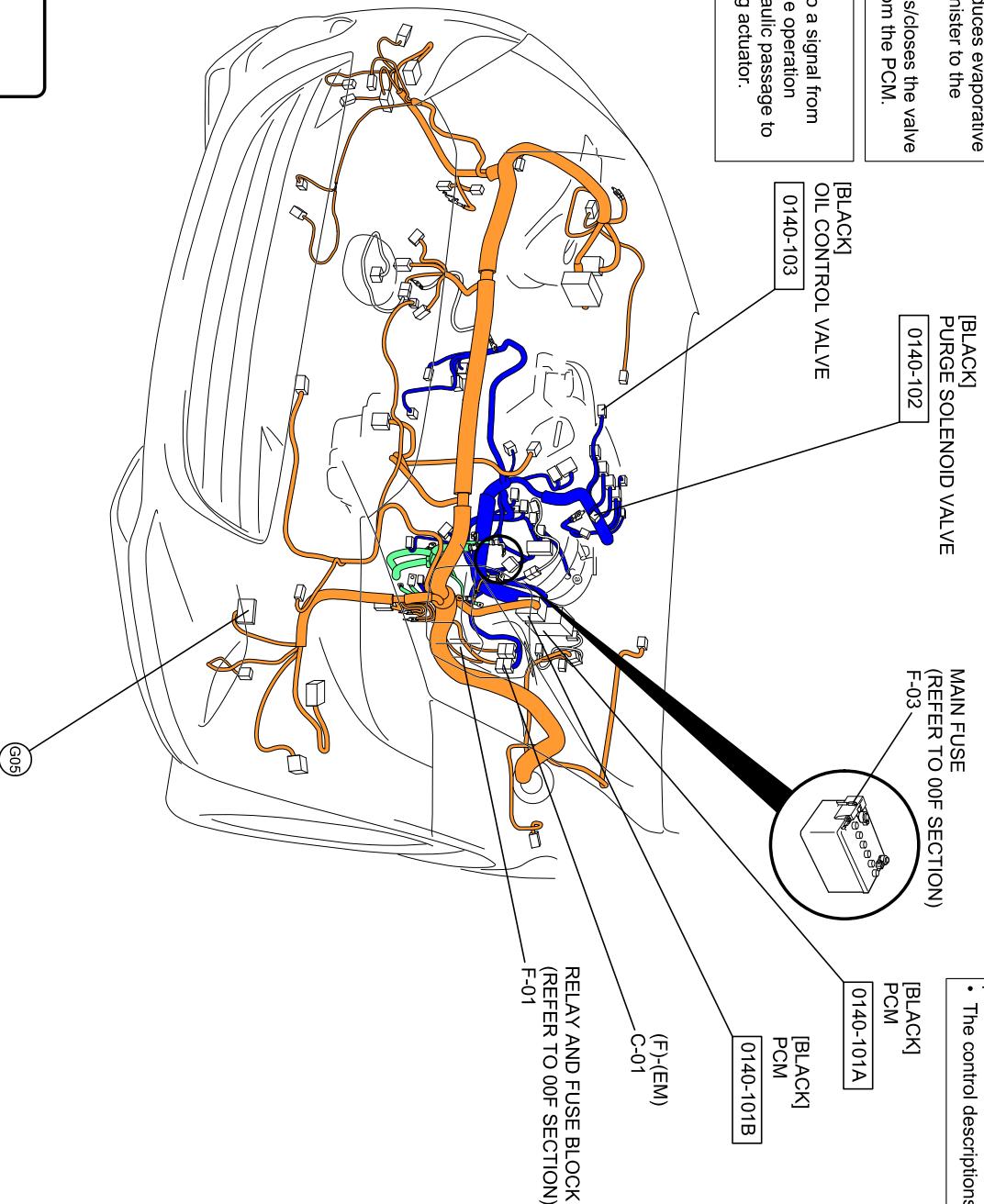
Inspection using an oscilloscope (reference)

- Hydraulic variable valve timing control signal
- PCM terminals
- 1AN(+)—body ground(–)
- Oscilloscope setting
- 5 V/DIV (Y), 1 ms/DIV (X), DC range
- Vehicle condition
- Idle (after warm up and no load)



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- PCM**
- High-level drivability and lower fuel consumption have been achieved by controlling the appropriate engine conditions (fuel injection/ignition timing) according to operation conditions.
 - Controls each output part based on the signal from each input part.
 - The control descriptions are as shown below.

- PURGE SOLENOID VALVE**
- The purge solenoid valve introduces evaporative gas absorbed by the charcoal canister to the intake manifold.
 - The purge solenoid valve opens/closes the valve according to the control signal from the PCM.

OIL CONTROL VALVE

- The OCV operates according to a signal from the PCM depending on the engine operation conditions and switches the hydraulic passage to the hydraulic variable valve timing actuator.

	: FRONT HARNESS
	: ENGINE HARNESS
	: ENGINE No.2 HARNESS
	: EMISSION HARNESS