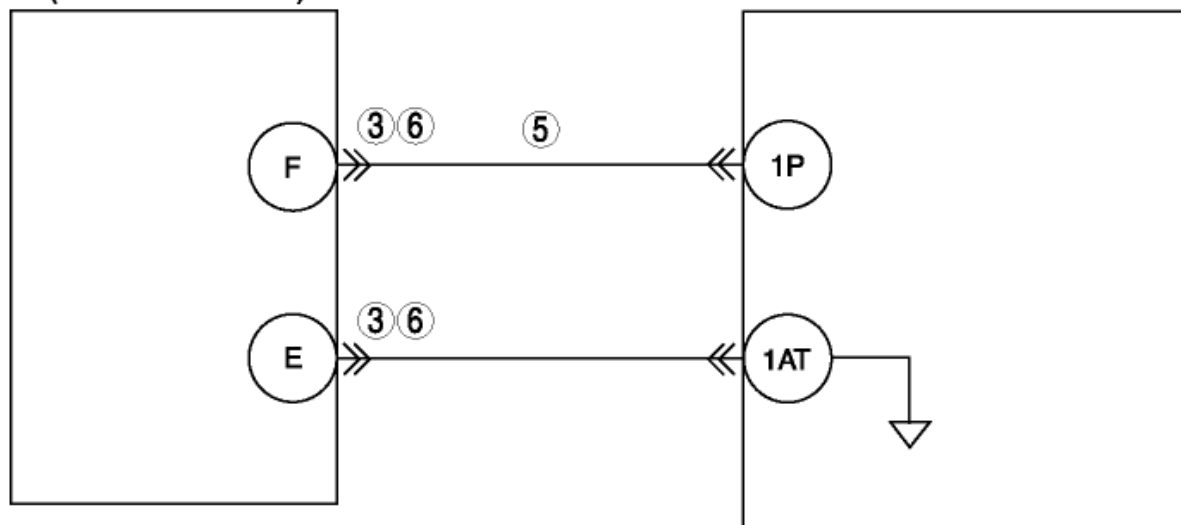


2012 - Mazda6 - Engine

DTC P0112:00 [MZI 3.7 V6]

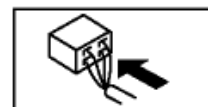
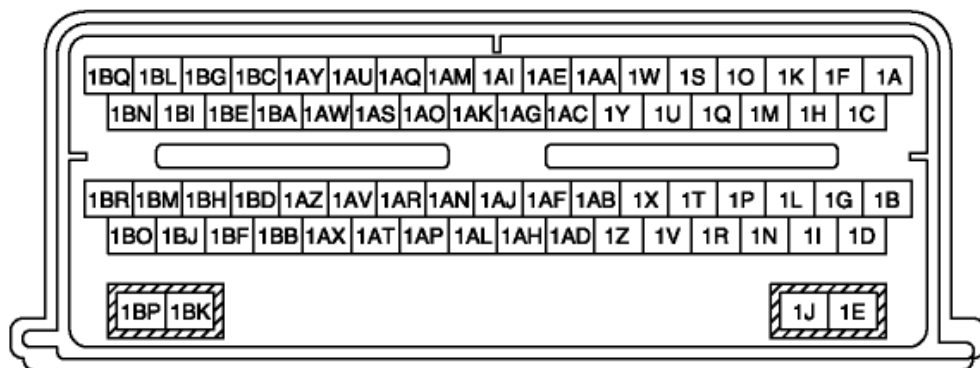
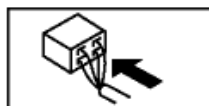
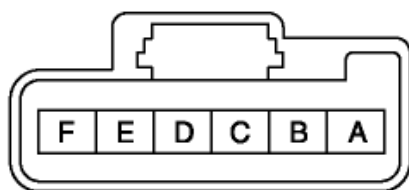
DTC P0112:00	IAT sensor circuit low input
DETECTION CONDITION	Indicates that the sensor signal is less than the self-test minimum. The IAT sensor minimum is 0.2 V or 121 °C { 250 °F } .
POSSI BLE CAUSE	- IAT sensor malfunction - Connector or terminal malfunction - Short to ground circuit between MAF/IAT sensor terminal F and PCM terminal 1P

IAT SENSOR (MAF/IAT SENSOR)



MAF/IAT SENSOR WIRING HARNESS-SIDE CONNECTOR

PCM WIRING HARNESS-SIDE CONNECTOR



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	Yes Go to the next step.
		No Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY - Verify related Service Bulletins and/or on-line repair information availability. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to the available Service Bulletins. If the vehicle is not repaired, go to the next step.
		No Go to the next step.

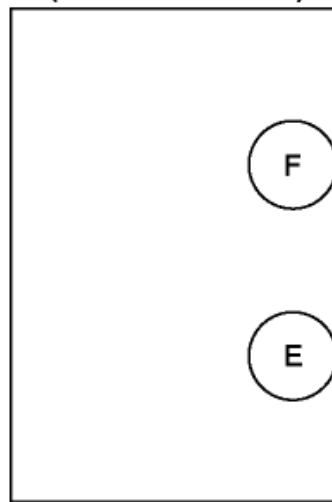
3	INSPECT IAT SENSOR TERMINAL • Switch the ignition to off. • Disconnect MAF/IAT sensor connector. • Inspect for bent terminal of MAF/IAT sensor terminals E and F (part-side). • Is there any malfunction?	Yes	Repair or replace suspected part, then go to Step 6.
		No	Go to the next step.
4	CLASSIFY IAT SENSOR MALFUNCTION OR HARNESS MALFUNCTION • Connect M-MDS to DLC-2. • Access IAT PID. • Verify IAT value when disconnecting MAF/IAT sensor connector. • Does IAT value change?	Yes	Replace MAF/IAT sensor or harness, then go to Step 6.
		No	Go to the next step.
5	INSPECT IAT SIGNAL CIRCUIT FOR SHORT TO GROUND • Switch the ignition to off. • Disconnect the PCM connector. • Inspect continuity between MAF/IAT sensor terminal F (wiring harness-side) and body ground. • Is there continuity?	Yes	Repair or replace suspected part, then go to the next step.
		No	Go to the next step.
6	VERIFY TROUBLESHOOTING OF DTC P0112:00 HAS BEEN COMPLETED • Verify that all disconnected connectors reconnected. • Switch the ignition to ON (Engine off). • Clear the DTC from the PCM memory using the M-MDS. • Start engine and warm it up completely. • Is same DTC present?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6].) Go to the next step.
		No	Go to the next step.
7	VERIFY AFTER REPAIR PROCEDURE • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection.
		No	Troubleshooting completed.

2012 - Mazda6 - Engine

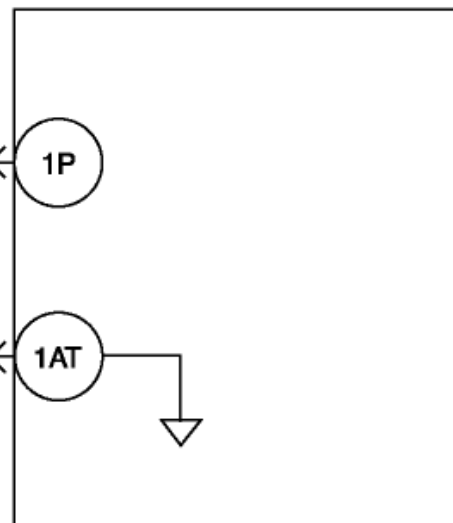
DTC P0112:00 [MZI 3.7 V6]

DTC P0112:00	IAT sensor circuit low input
DETECTION CONDITION	Indicates that the sensor signal is less than the self-test minimum. The IAT sensor minimum is 0.2 V or 121 °C { 250 °F } .
POSSI BLE CAUSE	- IAT sensor malfunction - Connector or terminal malfunction - Short to ground circuit between MAF/IAT sensor terminal F and PCM terminal 1P

IAT SENSOR (MAF/IAT SENSOR)

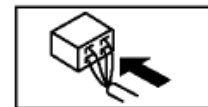
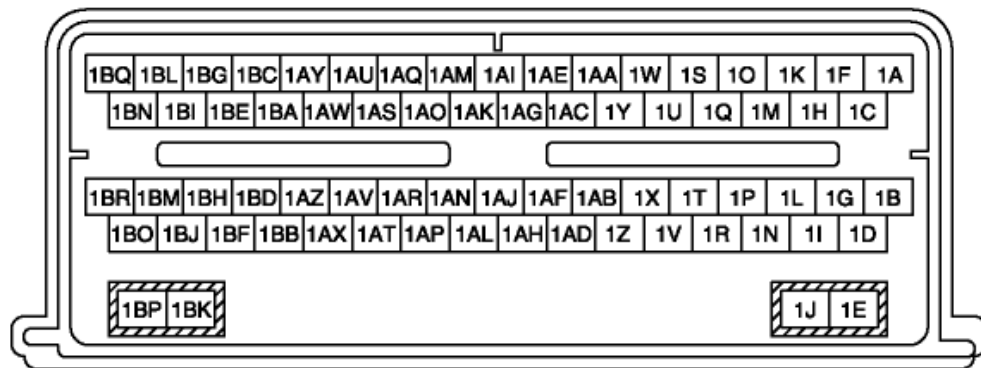
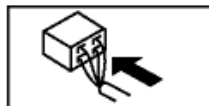
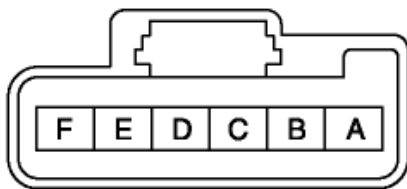


PCM



PCM WIRING HARNESS-SIDE CONNECTOR

MAF/IAT SENSOR WIRING HARNESS-SIDE CONNECTOR



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	Yes Go to the next step.
		No Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY - Verify related Service Bulletins and/or on-line repair information availability. - Is any related Service Bulletins available?	Yes Perform repair or diagnosis according to the available Service Bulletins. If the vehicle is not repaired, go to the next step.
		No Go to the next step.

3	INSPECT IAT SENSOR TERMINAL - Switch the ignition to off. - Disconnect MAF/IAT sensor connector. - Inspect for bent terminal of MAF/IAT sensor terminals E and F (part-side). - Is there any malfunction?	Yes	Repair or replace suspected part, then go to Step 6.
		No	Go to the next step.
4	CLASSIFY IAT SENSOR MALFUNCTION OR HARNESS MALFUNCTION - Connect M-MDS to DLC-2. - Access IAT PID. - Verify IAT value when disconnecting MAF/IAT sensor connector. - Does IAT value change?	Yes	Replace MAF/IAT sensor or harness, then go to Step 6.
		No	Go to the next step.
5	INSPECT IAT SIGNAL CIRCUIT FOR SHORT TO GROUND - Switch the ignition to off. - Disconnect the PCM connector. - Inspect continuity between MAF/IAT sensor terminal F (wiring harness-side) and body ground. - Is there continuity?	Yes	Repair or replace suspected part, then go to the next step.
		No	Go to the next step.
6	VERIFY TROUBLESHOOTING OF DTC P0112:00 HAS BEEN COMPLETED - Verify that all disconnected connectors reconnected. - Switch the ignition to ON (Engine off). - Clear the DTC from the PCM memory using the M-MDS. - Start engine and warm it up completely. - Is same DTC present?	Yes	Repeat the inspection from Step 1. If the malfunction recurs, replace the PCM. (See PCM REMOVAL/ INSTALLATION [MZI 3.7 V6] .) Go to the next step.
		No	Go to the next step.
7	VERIFY AFTER REPAIR PROCEDURE - Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [MZI 3.7 V6].) - Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)
		No	Troubleshooting completed.