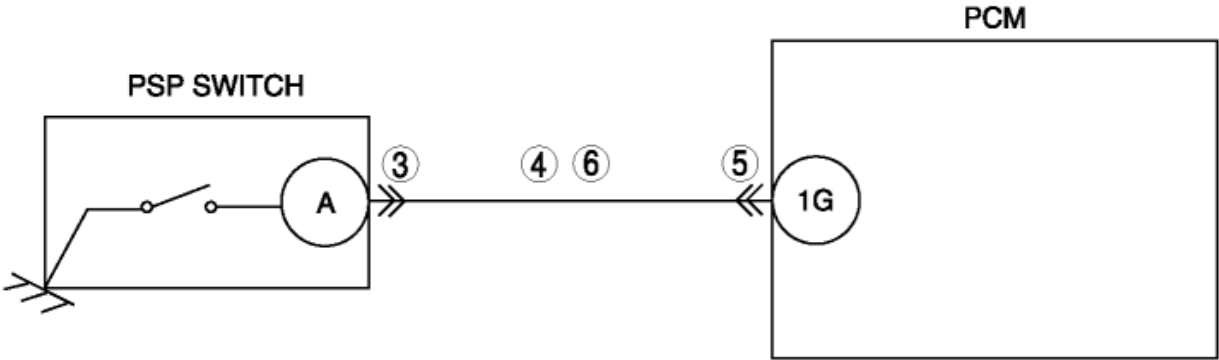


2012 - Mazda6 - Engine

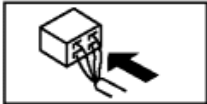
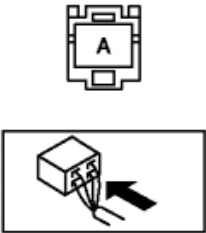
DTC P1650:00 [MZI 3.7 V6]

DTC P1650:00	PSP switch out of self-test range
DETECTION CONDITION	• In the KOEO self-test, this DTC indicates the PSP input to the PCM is high. In the KOER self-test, this DTC indicates the PSP input did not change state.
POSSIBLE CAUSE	• PSP switch malfunction • Short to ground circuit between PSP switch terminal A and PCM terminal 1G • Open circuit between PSP switch terminal A and PCM terminal 1G • The steering wheel must be turned during KOER self-test



PCM
WIRING HARNESS-SIDE CONNECTOR

PSP SWITCH
WIRING HARNESS-SIDE CONNECTOR



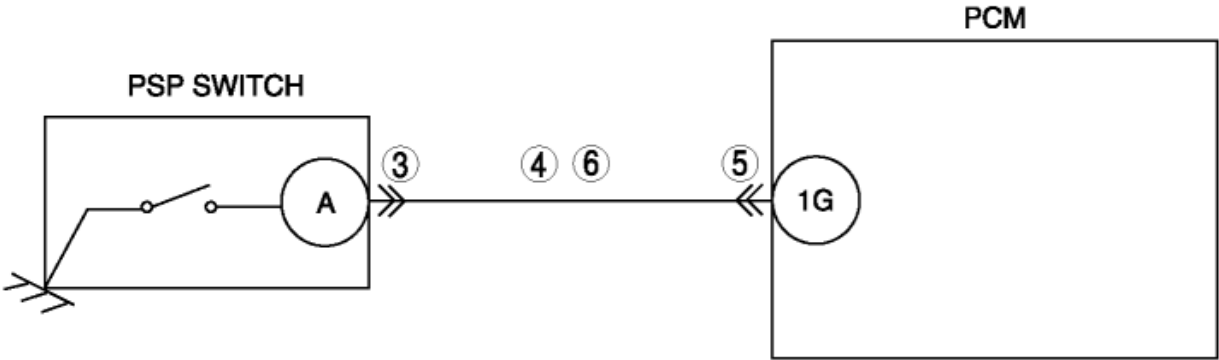
STEP	INSPECTION	ACTION	
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has FREEZE FRAME DATA been recorded?	Yes	Go to the next step.
		No	Record FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY - Verify related Service Bulletins and/or on-line repair information availability. - Is any related Service Bulletins available?	Yes	Perform repair or diagnosis according to available Service Bulletins. If vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	INSPECT PSP SWITCH CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the PCM connector. - Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). - Is there any malfunction?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
4	INSPECT PSP SWITCH CIRCUIT FOR SHORT TO GROUND - Switch the ignition off. - Inspect for continuity between PSP switch terminal A (wiring harness-side) and body ground. - Is there continuity?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the PCM connector. - Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). - Is there any malfunction?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
6	INSPECT PSP SWITCH CIRCUIT FOR OPEN CIRCUIT - Inspect for continuity between PSP switch terminal A (wiring harness-side) and PCM terminal 1G (wiring harness-side) - Is there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 8.
7	INSPECT FOR CORRECT PCM OPERATION - Disconnect all the PCM connectors. - Visually inspect for:	Yes	Go to the next step.
		No	The system is correctly. Go to the next step.

	Pushed out pins ▪ Corrosion • Connect all the PCM connectors and verify that they seat correctly. • Retrieve DTCs using the M-MDS. • Is the PENDING CODE for this DTC present?		
8	VERIFY TROUBLESHOOTING OF DTC P1650:00 HAS BEEN COMPLETED • Verify that all disconnected connectors reconnected. • Start the engine. • Clear DTC from PCM memory using M-MDS. • Perform the KOEO or KOER self-test. (See KOEO/ KOER SELF TEST [MZI 3.7 V6].) • 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.
9	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.

2012 - Mazda6 - Engine

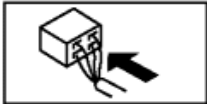
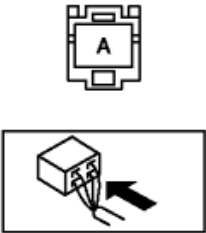
DTC P1650:00 [MZI 3.7 V6]

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PCM
WIRING HARNESS-SIDE CONNECTOR

PSP SWITCH
WIRING HARNESS-SIDE CONNECTOR



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		No	Go to the next step.
4	INSPECT PSP SWITCH CIRCUIT FOR SHORT TO GROUND - Switch the ignition off. - Inspect for continuity between PSP switch terminal A (wiring harness-side) and body ground. - Is there continuity?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
5	INSPECT PCM CONNECTOR FOR POOR CONNECTION - Switch the ignition off. - Disconnect the PCM connector. - Inspect for poor connection (such as damaged/ pulled-out pins, corrosion). - Is there any malfunction?	Yes	Repair or replace suspected part, then go to Step 8.
		No	Go to the next step.
6	INSPECT PSP SWITCH CIRCUIT FOR OPEN CIRCUIT - Inspect for continuity between PSP switch terminal A (wiring harness-side) and PCM terminal 1G (wiring harness-side) - Is there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 8.
7	INSPECT FOR CORRECT PCM OPERATION - Disconnect all the PCM connectors. - Visually inspect for:	Yes	Go to the next step.
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	Pushed out pins ▪ Corrosion • Connect all the PCM connectors and verify that they seat correctly. • Retrieve DTCs using the M-MDS. • Is the PENDING CODE for this DTC present?		
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		No	Troubleshooting completed.