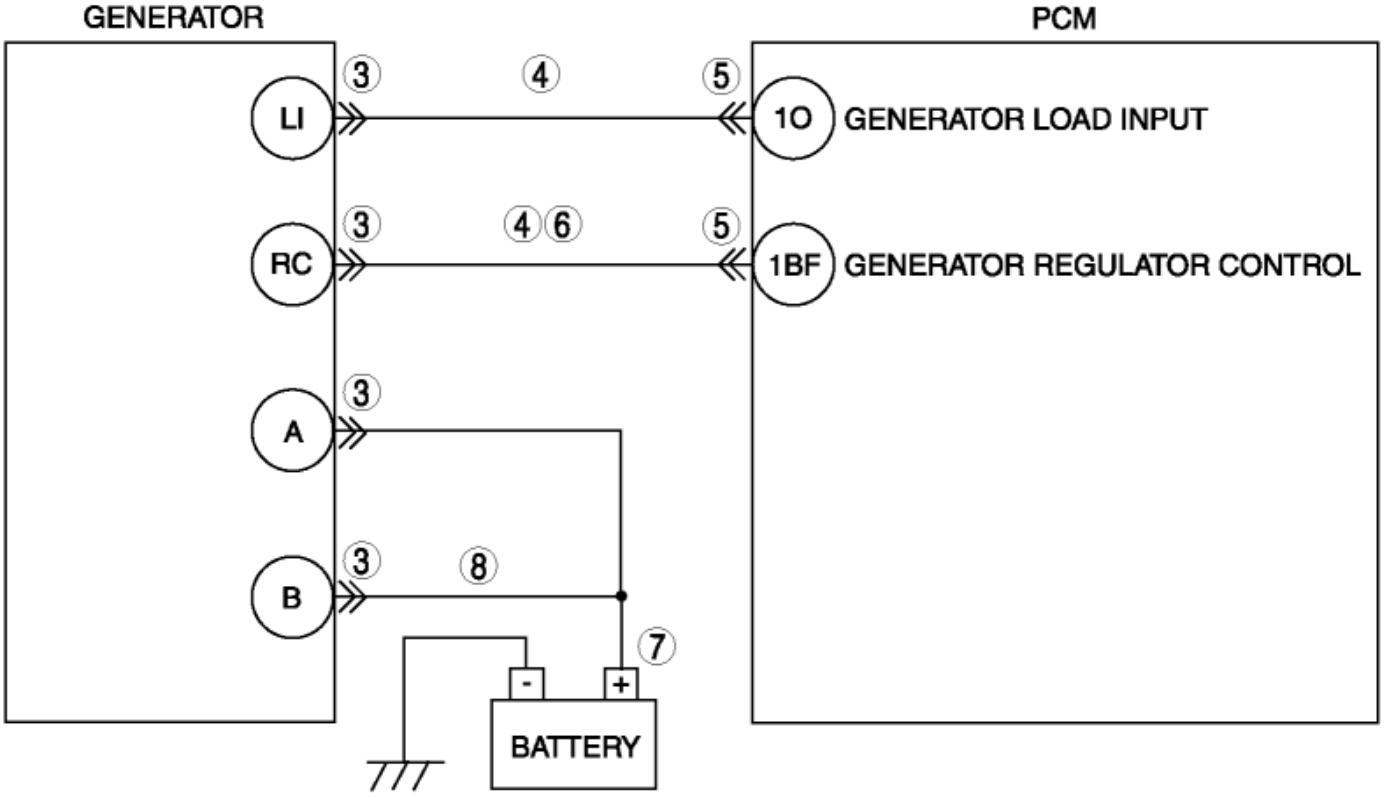
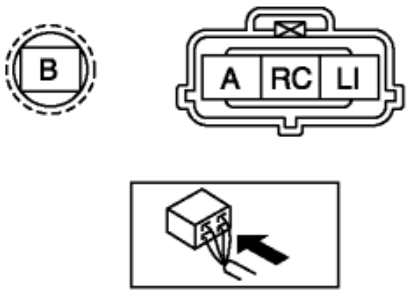
2012 - Mazda6 - Engine

DTC P0626:00 [MZI 3.7 V6]

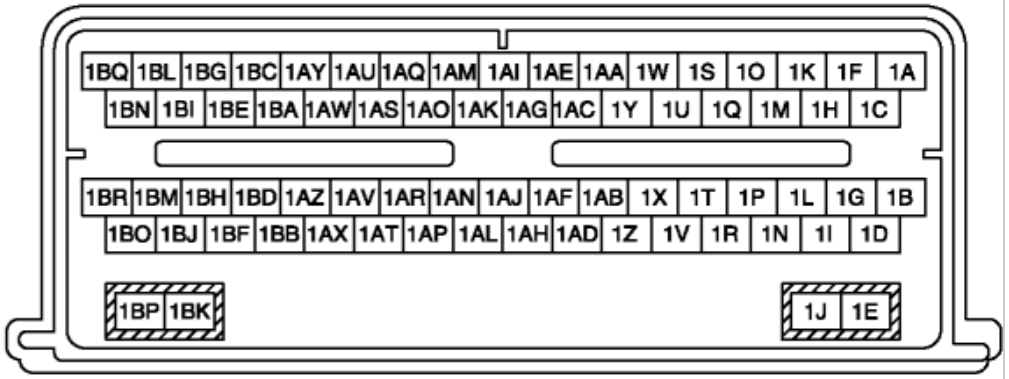
DTC P0626:00	Generator field terminal circuit high
DETECTION CONDITION	• The PCM monitors generator load from the generator/regulator in the form of frequency. The concern indicates the input is higher than the load should be in normal operation. The load input could be high when a battery short to ground exists.
POSSIBLE CAUSE	• Short to power supply between generator terminal RC and PCM terminal 1BF • Short to power supply between generator terminal LI and PCM terminal 1O • Open circuit in wiring harness between generator terminal RC and PCM terminal 1BF • Connector or terminal malfunction



GENERATOR
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**	Yes	Perform repair or diagnosis according to the available Service Bulletins.

	• Verify related Service Bulletins and/or on-line repair information availability. • Is any related Service Bulletins available?		• If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	**INSPECT GENERATOR TERMINAL FOR POOR INSTALLATION** • Switch the ignition off. • Inspect generator terminal B for looseness. • Are there any malfunction?	Yes	Connect generator terminal B correctly, then go to Step 9.
		No	Go to the next step.
4	**INSPECT GENERATOR CIRCUIT FOR SHORT TO POWER SUPPLY** • Switch the ignition ON (Engine off). • Measure the voltage between the following terminals: ▪ Generator terminal RC (wiring harness-side) and body ground. ▪ Generator terminal LI (wiring harness-side) and body ground. • Is the voltage B+?	Yes	Repair or replace suspected part, then go to Step 9.
		No	Go to the next step.
5	**INSPECT PCM CONNECTOR FOR POOR CONNECTION** • Switch the ignition off. • Inspect for poor connection (such as damaged/pulled-out terminals, corrosion). • Are there any malfunction?	Yes	Repair or replace suspected part, then go to Step 9.
		No	Go to the next step.
6	**INSPECT GENERATOR CIRCUIT FOR OPEN CIRCUIT** • Inspect for continuity between generator terminal RC (wiring harness-side) and PCM terminal 1BF (wiring harness-side). • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 9.
7	**INSPECT BATTERY POSITIVE TERMINAL FOR POOR INSTALLATION** • Switch the ignition off. • Inspect the battery positive terminal for looseness. • Is there any malfunction?	Yes	Connect the battery positive terminal correctly, then go to Step 9.
		No	Go to the next step.
8	**INSPECT GENERATOR CIRCUIT FOR OPEN CIRCUIT** • Inspect the continuity between generator terminal B (wiring harness-side) and battery positive terminal (wiring harness-side)	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to the next step.

	• Is there continuity?		
9	**VERIFY TROUBLESHOOTING OF DTC P0626:00 HAS BEEN COMPLETED** • Verify that all disconnected connectors reconnected. • Clear the DTC from the PCM memory using the M-MDS. • Perform the KOEO or KOER self-test. (See **KOEO/ KOER SELF TEST [MZI 3.7 V6]**.) • Is the PENDING CODE for the 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.
10	**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.

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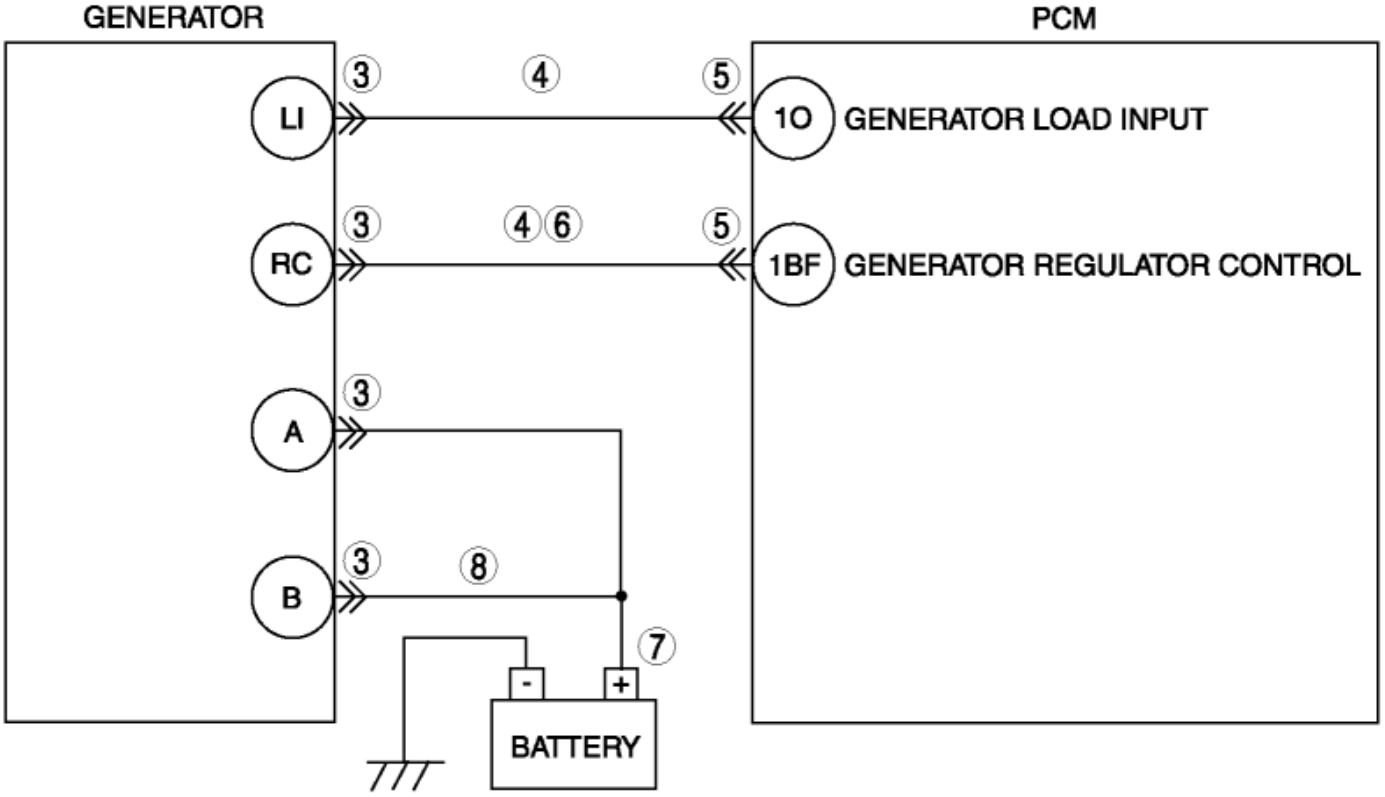
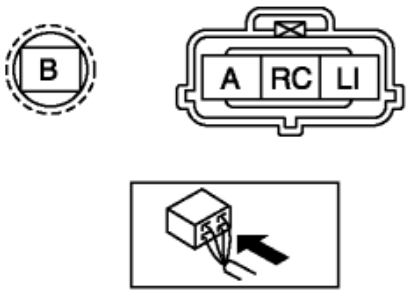
2012 - Mazda6 - Engine

DTC P0626:00 [MZI 3.7 V6]

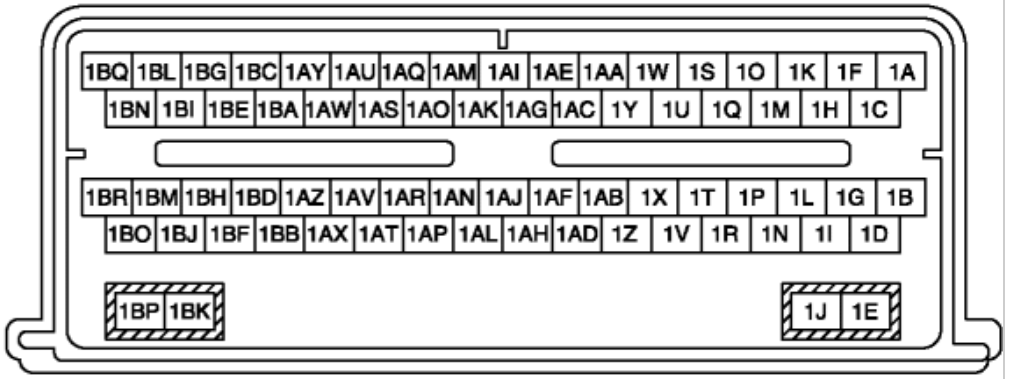
DTC P0626:00	Generator field terminal circuit high
DETECTION CONDITION	• The PCM monitors generator load from the generator/regulator in the form of frequency. The concern indicates the input is higher than the load should be in normal operation. The load input could be high when a battery short to ground exists.
POSSIBLE CAUSE	• Short to power supply between generator terminal RC and PCM terminal 1BF • Short to power supply between generator terminal LI and PCM terminal 1O • Open circuit in wiring harness between generator terminal RC and PCM terminal 1BF • Connector or terminal malfunction



GENERATOR
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**	Yes	Perform repair or diagnosis according to the available Service Bulletins.

	• Verify related Service Bulletins and/or on-line repair information availability. • Is any related Service Bulletins available?		• If the vehicle is not repaired, go to the next step.
		No	Go to the next step.
3	**INSPECT GENERATOR TERMINAL FOR POOR INSTALLATION** • Switch the ignition off. • Inspect generator terminal B for looseness. • Are there any malfunction?	Yes	Connect generator terminal B correctly, then go to Step 9.
		No	Go to the next step.
4	**INSPECT GENERATOR CIRCUIT FOR SHORT TO POWER SUPPLY** • Switch the ignition ON (Engine off). • Measure the voltage between the following terminals: ▪ Generator terminal RC (wiring harness-side) and body ground. ▪ Generator terminal LI (wiring harness-side) and body ground. • Is the voltage B+?	Yes	Repair or replace suspected part, then go to Step 9.
		No	Go to the next step.
5	**INSPECT PCM CONNECTOR FOR POOR CONNECTION** • Switch the ignition off. • Inspect for poor connection (such as damaged/pulled-out terminals, corrosion). • Are there any malfunction?	Yes	Repair or replace suspected part, then go to Step 9.
		No	Go to the next step.
6	**INSPECT GENERATOR CIRCUIT FOR OPEN CIRCUIT** • Inspect for continuity between generator terminal RC (wiring harness-side) and PCM terminal 1BF (wiring harness-side). • Is there continuity?	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to Step 9.
7	**INSPECT BATTERY POSITIVE TERMINAL FOR POOR INSTALLATION** • Switch the ignition off. • Inspect the battery positive terminal for looseness. • Is there any malfunction?	Yes	Connect the battery positive terminal correctly, then go to Step 9.
		No	Go to the next step.
8	**INSPECT GENERATOR CIRCUIT FOR OPEN CIRCUIT** • Inspect the continuity between generator terminal B (wiring harness-side) and battery positive terminal (wiring harness-side)	Yes	Go to the next step.
		No	Repair or replace suspected part, then go to the next step.

	• Is there continuity?		
9	**VERIFY TROUBLESHOOTING OF DTC P0626:00 HAS BEEN COMPLETED** • Verify that all disconnected connectors reconnected. • Clear the DTC from the PCM memory using the M-MDS. • Perform the KOEO or KOER self-test. (See **KOEO/ KOER SELF TEST [MZI 3.7 V6]**.) • Is the PENDING CODE for the 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.
10	**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.

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