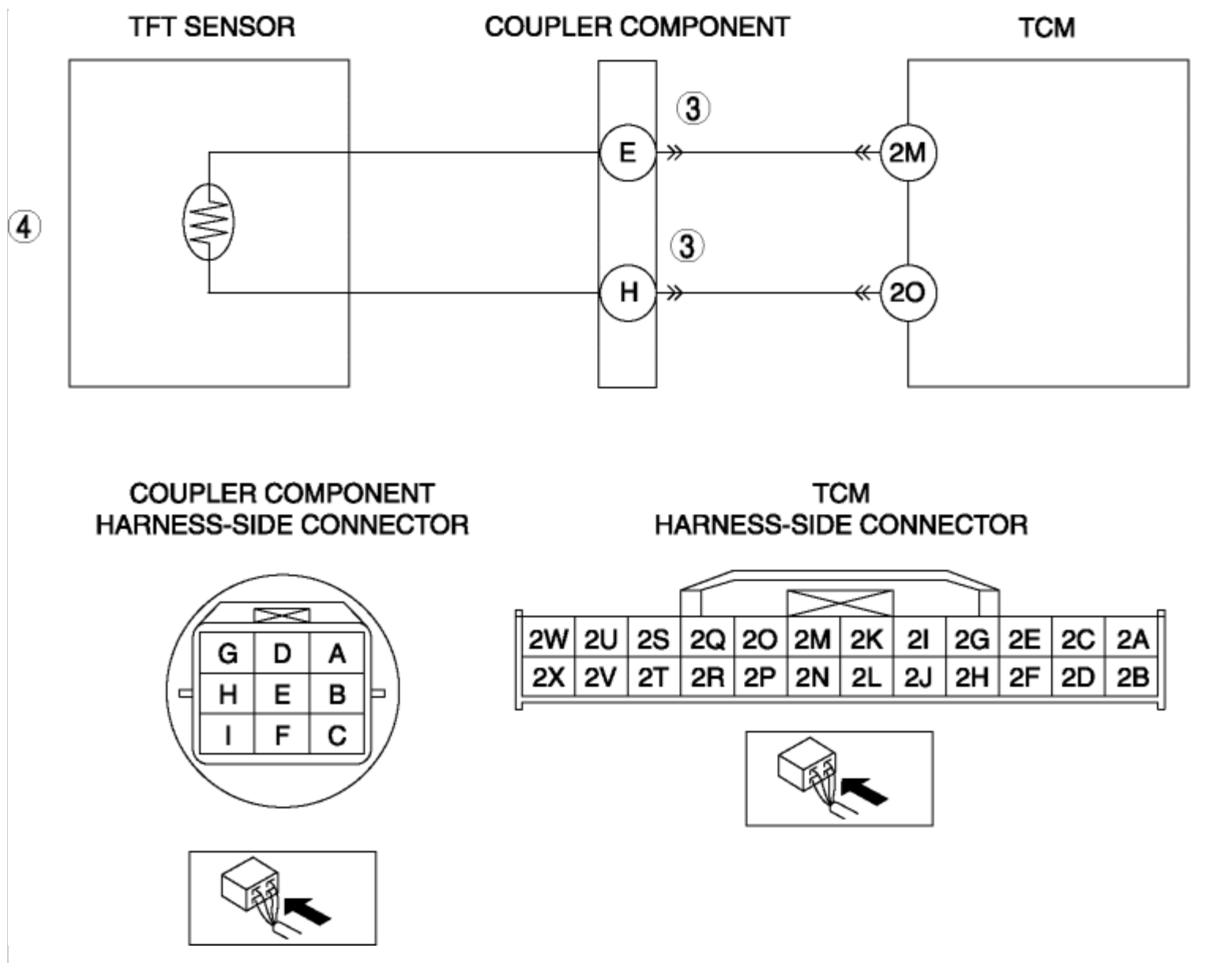


2012 - Mazda6 - Transmission/ Transaxle

DTC P0711:00 [FS5A-EL]

DTC P0711:00	TFT sensor circuit range/performance
DETECTI ON CONDI TION	• The TCM detects a difference between the actual ATF temperature and the ATF temperature when the engine is started of 2.77 °C {37.0 °F} or less for 300 s, when the following conditions are met. ▪ After cold engine start ▪ D or M position ▪ ATF temperature: 40 °C {104 °F} or less ▪ Input voltage from the TFT sensor: 4.66 V or less • The TCM detects an ATF temperature of 125 °C {257 °F} or more for 5 s when the following conditions are met. ▪ After cold engine start ▪ Input voltage from the TFT sensor: 0.12 V or more Diagnostic support note • The MIL illuminates if the TCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the TCM. • The AT warning light does not illuminate. • PENDING CODE is available. • FREEZE FRAME DATA is available. • The DTC is stored in the TCM memory.
POSSI BLE CAUSE	• Coupler component connector or terminal malfunction • TFT sensor malfunction • TCM malfunction



Diagnostic procedure

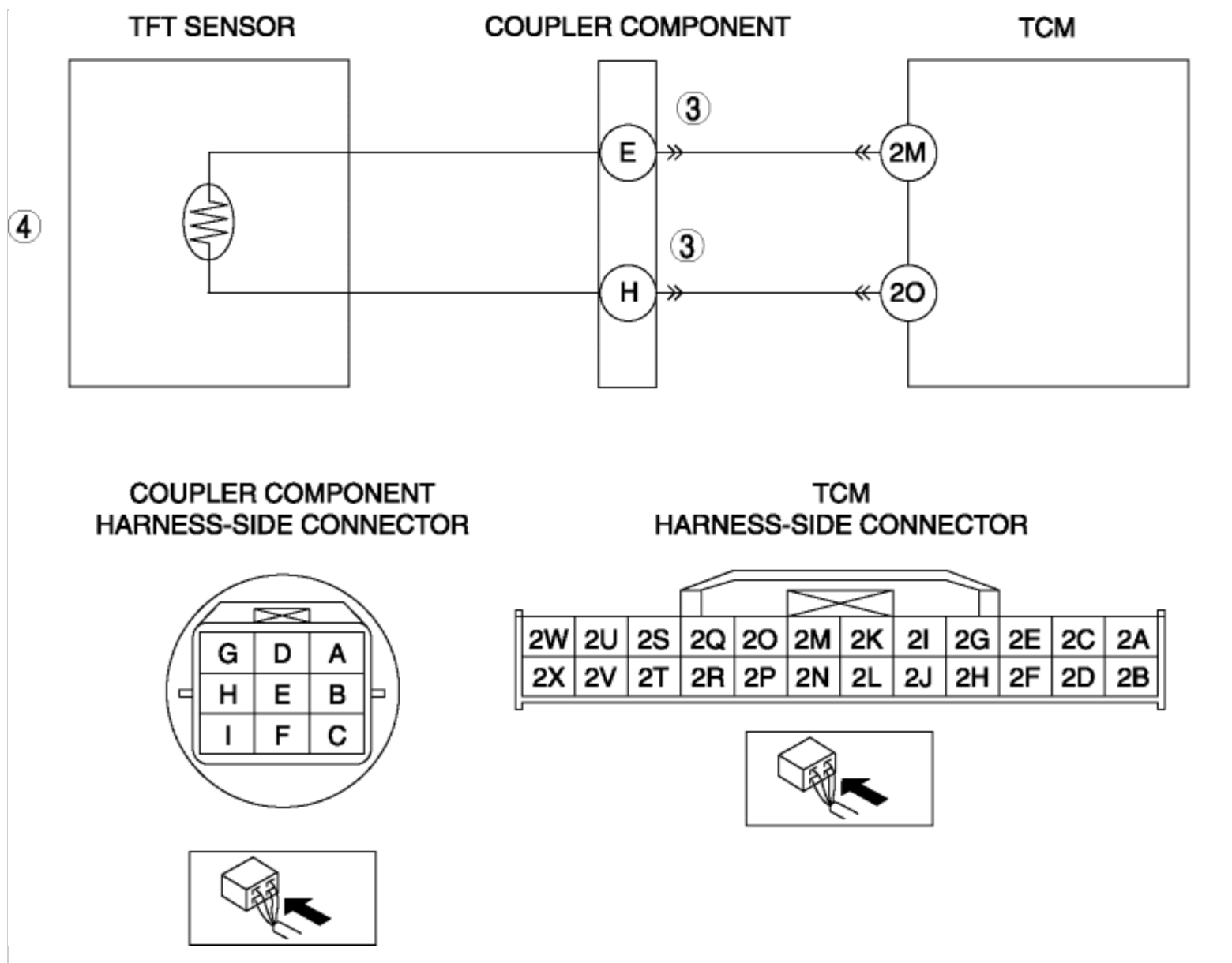
STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has the FREEZE FRAME DATA been recorded on the repair order?	Yes Go to the next step.
		No Record the FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY - Verify related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

3	INSPECT COUPLER COMPONENT CONNECTOR FOR POOR CONNECTION • Switch the ignition off. • Disconnect the coupler component connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion) • Is there any malfunction?	Yes	Repair or replace the terminal, then go to Step 5.
		No	Go to the next step.
4	INSPECT TFT SENSOR • Inspect the TFT sensor. (See TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR INSPECTION [FS5A-EL].) • Is there any malfunction?	Yes	Replace the coupler component, then go to next step. (See TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
5	VERIFY TROUBLESHOOTING OF DTC P0711:00 COMPLETED • Make sure to reconnect all the disconnected connectors. • Clear the DTC using the M-MDS. • Perform the following procedure to ensure that the DTC has been resolved: ◦ The ignition switch is off for 6 h or more. ◦ Start the engine. ◦ Drive the vehicle for 300 s. • Is the PENDING CODE same as the DTC present?	Yes	Replace the TCM, then go to the next step. (See TCM REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
6	VERIFY NO DTCs ARE PRESENT • Perform the "Reading DTCs Procedure". (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [FS5A-EL].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [FS5A-EL] .)
		No	DTC troubleshooting completed.

2012 - Mazda6 - Transmission/ Transaxle

DTC P0711:00 [FS5A-EL]

DTC P0711:00	TFT sensor circuit range/performance
DETECTI ON CONDI TION	• The TCM detects a difference between the actual ATF temperature and the ATF temperature when the engine is started of 2.77 °C {37.0 °F} or less for 300 s, when the following conditions are met. ▪ After cold engine start ▪ D or M position ▪ ATF temperature: 40 °C {104 °F} or less ▪ Input voltage from the TFT sensor: 4.66 V or less • The TCM detects an ATF temperature of 125 °C {257 °F} or more for 5 s when the following conditions are met. ▪ After cold engine start ▪ Input voltage from the TFT sensor: 0.12 V or more Diagnostic support note • The MIL illuminates if the TCM detects the above malfunction condition in two consecutive drive cycles or in one drive cycle while the DTC for the same malfunction has been stored in the TCM. • The AT warning light does not illuminate. • PENDING CODE is available. • FREEZE FRAME DATA is available. • The DTC is stored in the TCM memory.
POSSI BLE CAUSE	• Coupler component connector or terminal malfunction • TFT sensor malfunction • TCM malfunction



Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED Has the FREEZE FRAME DATA been recorded on the repair order?	Yes Go to the next step.
		No Record the 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 repair information available?	Yes Perform repair or diagnosis according to the available repair information. If the vehicle is not repaired, go to the next step.
		No Go to the next step.

3	INSPECT COUPLER COMPONENT CONNECTOR FOR POOR CONNECTION • Switch the ignition off. • Disconnect the coupler component connector. • Inspect for poor connection (such as damaged/pulled-out pins, corrosion) • Is there any malfunction?	Yes	Repair or replace the terminal, then go to Step 5.
		No	Go to the next step.
4	INSPECT TFT SENSOR • Inspect the TFT sensor. (See TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR INSPECTION [FS5A-EL].) • Is there any malfunction?	Yes	Replace the coupler component, then go to next step. (See TRANSAXLE FLUID TEMPERATURE (TFT) SENSOR REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
5	VERIFY TROUBLESHOOTING OF DTC P0711:00 COMPLETED • Make sure to reconnect all the disconnected connectors. • Clear the DTC using the M-MDS. • Perform the following procedure to ensure that the DTC has been resolved: ◦ The ignition switch is off for 6 h or more. ◦ Start the engine. ◦ Drive the vehicle for 300 s. • Is the PENDING CODE same as the DTC present?	Yes	Replace the TCM, then go to the next step. (See TCM REMOVAL/ INSTALLATION [FS5A-EL] .)
		No	Go to the next step.
6	VERIFY NO DTCs ARE PRESENT • Perform the "Reading DTCs Procedure". (See ON-BOARD DIAGNOSTIC SYSTEM DTC INSPECTION [FS5A-EL].) • Are any DTCs present?	Yes	Go to the applicable DTC inspection. (See ON-BOARD DIAGNOSTIC SYSTEM DTC TABLE [FS5A-EL] .)
		No	DTC troubleshooting completed.

