

Technical BULLETIN

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ALL 2014 FZ-09 MODELS

Service Manual Update – Intake Pressure Sensors' Troubleshooting Procedure Error

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INTRODUCTION

In the 2014 FZ-09 Service Manual (P/N: LIT-11616-27-39), the troubleshooting procedure for fault codes 13, 14, 20, 25, and 26 and diagnostic codes 03 and 04 of intake air pressure sensors 1 (code 3) and 2 (code 4) has been revised due to an error in the procedure.

Please update your printed manual by using the provided correction stickers as shown in the following illustration. File an Online Tech Support Request on YDS ([YDS>Service>Online Tech Support>New Request](#)) if more stickers are needed. The manual in the YDS Tech Library has already been updated.

LIT-11616-27-39, Page 8-40, Fault Code 13

FUEL INJECTION SYSTEM			
Fault code No.		13	
Item		Intake air pressure sensor 1: open or short circuit detected.	
Procedure		Shift the transmission into gear, extend the sidestand, and then operate the throttle while pushing the "ø" side of the start/engine stop switch. (If the display value changes, the performance is OK.)	
Item	Probable cause of malfunction and check	Maintenance job	Confirmation of service completion
1	Connection of intake air pressure sensor 1 coupler. Check the locking condition of the coupler. Disconnect the coupler and check the pins (bent or broken terminals and locking condition of the pins).	Improperly connected → Connect the coupler securely or replace the wire harness.	Turn the main switch to "ON". Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 2.
2	Connection of wire harness ECU coupler. Check the locking condition of the coupler. Disconnect the coupler and check the pins (bent or broken terminals and locking condition of the pins).	Improperly connected → Connect the coupler securely or replace the wire harness.	Turn the main switch to "ON". Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 3.
3	Wire harness continuity.	Open or short circuit → Replace the wire harness. Between intake air pressure sensor 1 coupler and ECU coupler. pink-pink. Between intake air pressure sensor 1 coupler and joint connector. blue-blue. black/blue-black/blue. Between joint connector and ECU coupler. blue-blue. black/blue-black/blue.	Turn the main switch to "ON". Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 4.
4	Installed condition of intake air pressure sensor 1. Check for looseness or pinching.	Improperly installed sensor → Reinstall or replace the sensor.	Turn the main switch to "ON". Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 5.

Operate the throttle while pushing the "ø" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

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FUEL INJECTION SYSTEM

Fault code No.		13
Item		Intake air pressure sensor 1: open or short circuit detected.
5	Defective intake air pressure sensor 1.	Execute the diagnostic mode. (Code No. 03) When engine is stopped: Atmospheric pressure at the current altitude and weather conditions is indicated. At sea level: Approx. 101 kPa (757.6 mmHg, 29.8 inHg) 1000 m (3300 ft) above sea level: Approx. 90 kPa (675.1 mmHg, 26.6 inHg) 2000 m (6700 ft) above sea level: Approx. 80 kPa (600.0 mmHg, 23.6 inHg) 3000 m (9800 ft) above sea level: Approx. 70 kPa (525.0 mmHg, 20.7 inHg) When engine is cranking: Make sure that the indication value changes. The value does not change when engine is cranking. → Check the intake air pressure sensor 1. Replace if defective. Refer to "CHECKING THE INTAKE AIR PRESSURE SENSOR" on page 8-109.
6	Malfunction in ECU.	Replace the ECU. Refer to "REPLACING THE ECU (engine control unit)" on page 8-93.

TIP
If fault code numbers "13" and "14" are both indicated, take the actions specified for fault code number "13" first.

Fault code No.		14
Item		Intake air pressure sensor 1: hose system malfunction (clogged or detached hose).
Fail-safe system		Able to start engine Able to drive vehicle
Diagnostic code No.		03
Meter display		Displays the intake air pressure.
Procedure		Shift the transmission into gear, extend the sidestand, and then operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

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Operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

FUEL INJECTION SYSTEM

Fault code No.		19
Item		Sidestand switch: a break or disconnection of the black/red lead of the ECU is detected.
6	Defective sidestand switch.	Execute the diagnostic mode. (Code No. 20) Shift the transmission into gear. Sidestand retracted: "ON" Sidestand extended: "OFF" Replace if defective.
7	Malfunction in ECU.	Replace the ECU. Refer to "REPLACING THE ECU (engine control unit)" on page 8-93.
Fault code No.		20
Item		Intake air pressure sensor 1 or intake air pressure sensor 2: when the main switch is turned to "ON", the intake air pressure sensor 1 voltage and intake air pressure sensor 2 voltage differ greatly.
Fail-safe system		Able to start engine Able to drive vehicle
Diagnostic code No.		03, 04
03	Meter display	Displays the intake air pressure.
04	Procedure	Shift the transmission into gear, extend the sidestand, and then operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)
04	Meter display	Displays the intake air pressure.
04	Procedure	Shift the transmission into gear, extend the sidestand, and then operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)
Item		Probable cause of malfunction and check
		Maintenance job
		Confirmation of service completion

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Operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

FUEL INJECTION SYSTEM

Fault code No.		24	
Item		O ₂ sensor: no normal signals are received from the O ₂ sensor.	
5	Check fuel pressure.	Refer to "CHECKING THE FUEL PRESSURE" on page 7-11.	Start the engine, warm it up, and then race it, or execute the diagnostic mode. (Code No. 63) Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 6.
6	Defective O ₂ sensor.	Check the O ₂ sensor. Replace if defective. Refer to "ENGINE REMOVAL" on page 5-3.	Start the engine, warm it up, and then race it, or execute the diagnostic mode. (Code No. 63) Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 7.
7	Malfunction in ECU.	Replace the ECU. Refer to "REPLACING THE ECU (engine control unit)" on page 8-93.	
Fault code No.		25	
Item		Intake air pressure sensor 2: open or short circuit detected.	
Fail-safe system		Able to start engine Able to drive vehicle	
Diagnostic code No.		04	
Meter display		Displays the intake air pressure.	
Procedure		Shift the transmission into gear, extend the sidestand, and then operate the throttle while pushing the "Ⓢ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)	
Item	Probable cause of malfunction and check	Maintenance job	Confirmation of service completion
1	Connection of intake air pressure sensor 2 coupler. Check the locking condition of the coupler. Disconnect the coupler and check the pins (bent or broken terminals and locking condition of the pins).	Improperly connected → Connect the coupler securely or replace the wire harness.	Turn the main switch to "ON". Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 2.

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Operate the throttle while pushing the "Ⓢ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

FUEL INJECTION SYSTEM

Fault code No.		26	
Item		Intake air pressure sensor 2: hose system malfunction (clogged or detached hose).	
Procedure		Shift the transmission into gear, extend the sidestand, and then operate the throttle while pushing the "Ⓢ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)	
Item	Probable cause of malfunction and check	Maintenance job	Confirmation of service completion
1	Condition of intake air pressure sensor 2 hose. Check the intake air pressure sensor hose condition.	Clogged or detached hose → Repair or replace the sensor hose.	Start the engine and race it for approximately 5 seconds. Fault code number is not displayed → Service is finished. Fault code number is displayed → Go to item 2.
2	Defective intake air pressure sensor 2.	Execute the diagnostic mode. (Code No. 04) When engine is stopped: Atmospheric pressure at the current altitude and weather conditions is indicated. At sea level: Approx. 101 kPa (757.6 mmHg, 29.8 inHg) 1000 m (3300 ft) above sea level: Approx. 90 kPa (675.1 mmHg, 26.6 inHg) 2000 m (6700 ft) above sea level: Approx. 80 kPa (600.0 mmHg, 23.6 inHg) 3000 m (9800 ft) above sea level: Approx. 70 kPa (525.0 mmHg, 20.7 inHg) When engine is cranking: Make sure that the indication value changes. The value does not change when engine is cranking → Check the intake air pressure sensor 2. Replace if defective. Refer to "CHECKING THE INTAKE AIR PRESSURE SENSOR" on page 8-109.	

TIP

- If fault code numbers "25" and "26" are both indicated, take the actions specified for fault code number "25" first.
- If fault code numbers "26" and "37" are both indicated, take the actions specified for fault code number "26" first.

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Operate the throttle while pushing the "Ⓢ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

SELF-DIAGNOSTIC FUNCTION AND DIAGNOSTIC CODE TABLE

Fault code No.	Item	Reference pages
59	Accelerator position sensor: open or short circuit detected.	8-74
60	YCC-T drive system: malfunction detected.	8-76
70	Engine idling stop	—

Communication error with the meter

Fault code No.	Item	Reference pages
89 (Yamaha diagnostic tool) Err (multi-function meter display)	Multi-function meter: signals cannot be transmitted between the ECU and the multi-function meter.	8-78

Diagnostic code: sensor operation table

Diagnostic code No.	Item	Meter display	Procedure
01	Throttle position sensor signal 1		
	• Fully closed position	11~21	Check with throttle valves fully closed.
	• Fully open position	96~106	Check with throttle valves fully open.
03	Intake air pressure 1	Displays the intake air pressure.	Shift the transmission into gear, extend the side-stand, and then operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)
04	Intake air pressure 2	Displays the intake air pressure.	Shift the transmission into gear, extend the side-stand, and then operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)
05	Air temperature	Displays the air temperature.	Compare the actually measured air temperature with the meter display value.

Operate the throttle while pushing the "a" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

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Operate the throttle while pushing the "Ⓐ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

LIT-11616-27-39, Page 8-41

Operate the throttle while pushing the "Ⓐ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

LIT-11616-27-39, Page 8-46

Operate the throttle while pushing the "Ⓐ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

LIT-11616-27-39, Page 8-52

Operate the throttle while pushing the "Ⓐ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

LIT-11616-27-39, Page 8-55

Operate the throttle while pushing the "Ⓐ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

LIT-11616-27-39, Page 9-6

Operate the throttle while pushing the "Ⓐ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)

LIT-11616-27-39, Page 9-6

Operate the throttle while pushing the "Ⓐ" side of the start/engine stop switch. (If the display value changes, the performance is OK.)