

Technical BULLETIN

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2004~2005 YZF-R1S/SC/T/TC; FZS600S/SC/T/TC (FZ6) Unstable Engine Idling

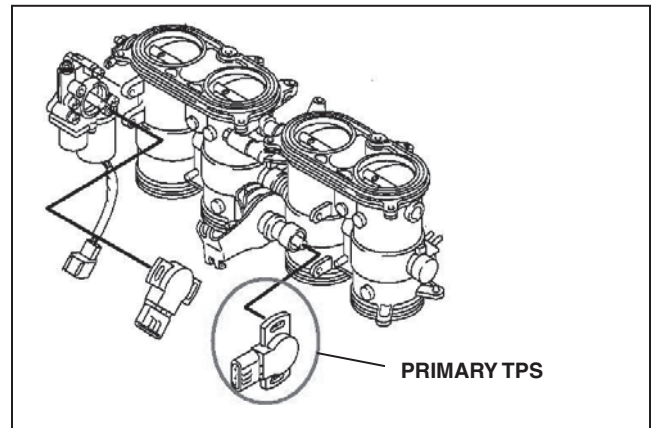


INTRODUCTION

Symptom: On some units in the affected range, engine idling speed can become intermittently unstable after the engine reaches operating temperature. Idle speed can drop to 500~600 rpm and the engine can stall if left idling.

Cause: Intermittent TPS (Throttle Position Sensor) internal contact.

Remedy: Replace the TPS with one of a new type as described in this bulletin.



DEALER ACTION SUMMARY

Unsold

Units: Exchange the TPS during predelivery set-up on all affected units.

Sold

Units: Replace the TPS on all units in the affected range, whether or not unstable idle has been experienced. A letter is being mailed to all registered customers. A copy of the letter is included in this bulletin (see page 5). Please contact any customers whose units were registered for warranty after 7/26/06. Before beginning the modification, verify that this modification has not been performed already by checking YDS and the motorcycle (refer to *Identification Procedure* section, page 4).

Parts

Required: Yes, order one TPS per unit.

Warranty: This modification applies to all affected units regardless of its ownership or warranty status.



AFFECTED RANGE

2004:		2005:	
YZF-R1S/SC	All	YZF-R1T	RN13E-0007911~0012965
FZS600S/SC	All	YZF-R1TC	RN13Y-0001423~0003392
		FZS600T	RJ08E-0002249~0004781
		FZS600TC	RJ08Y-0000303~0000702



SERVICE PROCEDURES

REMOVAL AND INSTALLATION

The procedure is different for YZF-R1 and FZ6 models. See below:

YZF-R1

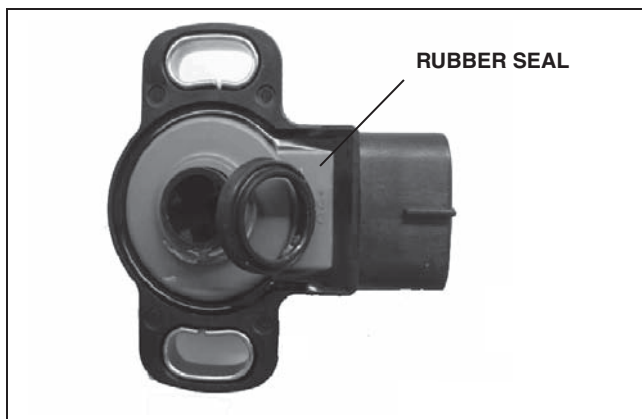
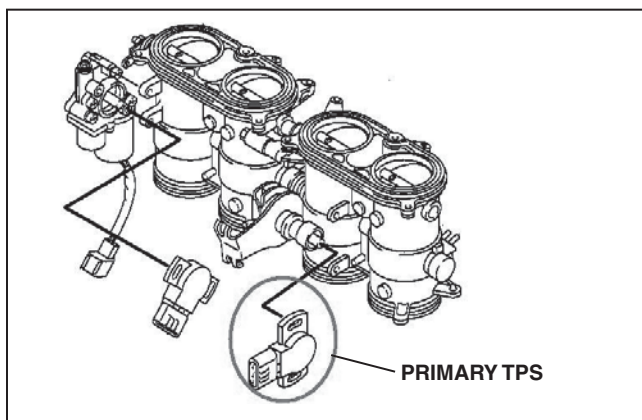
Refer to the service manual LIT-11616-17-55 for specific procedures.

NOTE: It is not necessary to remove the throttle bodies to install the new TPS if you use a T-25 safety Torx® bit.

1. Remove the seat, fuel tank, and air box assembly.

CAUTION:

Be careful not to let debris fall into the throttle when removing the air box assembly. Debris in the engine can cause premature engine wear.



2. Using a T-25 safety Torx® bit, remove the upper and lower fastener for the primary TPS.

CAUTION:

Be sure to remove the old TPS seal from the throttle body if it did not come off with the TPS. Otherwise, the leftover seal may cause the new TPS to exhibit an unstable idle.

3. Install new TPS provided in the kit. Follow Adjustment procedures below.

FZ6

Refer to the service manual LIT-11616-17-50 for specific procedures.

1. Remove seat, fuel tank, and air box.
2. Loosen the carburetor joint screws. Lift the throttle body off the carburetor joints and tilt it to access the TPS.
3. Using a T-25 safety Torx® bit, remove the upper and lower fastener for the primary TPS.

CAUTION:

Be sure to remove the old TPS seal from the throttle body if it did not come off with the TPS. Otherwise, the leftover seal may cause the new TPS to exhibit unstable idle.

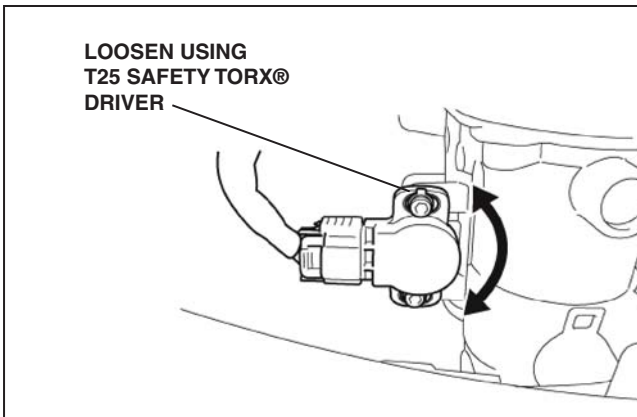
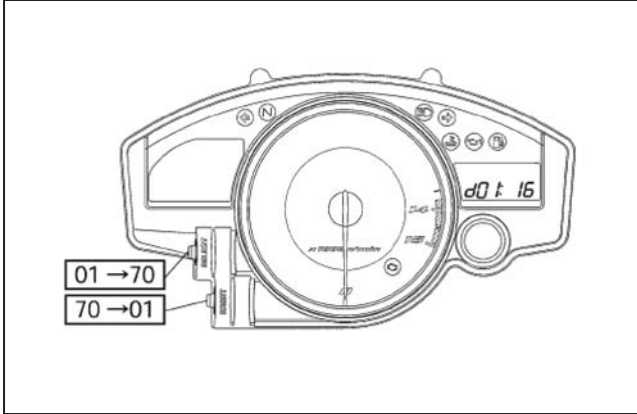
4. Install new TPS provided in the kit. Follow Adjustment procedures below:

ADJUSTMENT (YZFR1 and FZ6)

1. Turn off the main switch and engine stop switch.
2. Disconnect the fuel pump wire harness connector.
3. While simultaneously pressing and holding the Reset and Select buttons, turn the main switch on. The meter should enter "DIAG" mode after 8 seconds.
4. Select diagnostic code 01 (Throttle Angle). The throttle angle will display on the right side LCD display of the meter assembly.

- Turn the TPS until the throttle angle indicates the proper specification:
YZF-R1: 18
FZ6: 17
Tighten the TPS Torx® fasteners.

Torque: 3.5Nm (0.35m-kg, 2.58 ft-lb, 30.98 in-lb)



- Verify TPS is set correctly. Verify the TPS operates in the following range:

	Fully Closed Throttle Position	Fully Open Throttle Position
YZF-R1	15~18	95~100
FZ6	15~17	97~100

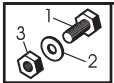
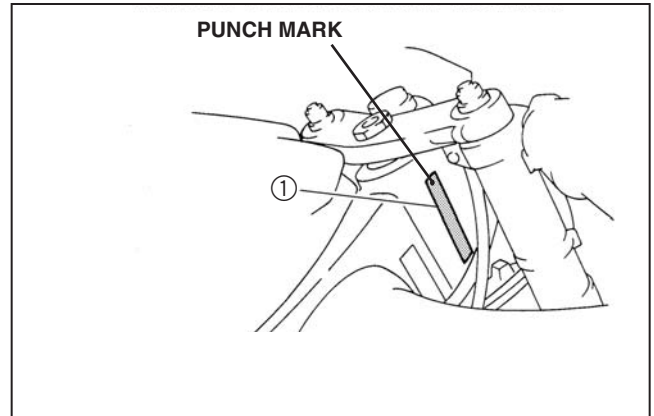
REASSEMBLY (YZFR1 and FZ6)

- Reverse the Removal steps.
- Enter "DIAG" mode again to clear out any codes generated during the installation procedure. Scroll up to diagnostic code 62; this erases only the history codes when the engine stop switch is turned from OFF to ON. If the engine stop switch is ON, turn it OFF once, and then turn it back ON.



IDENTIFICATION PROCEDURE

After the modification, place a punch mark at the front of the Vehicle Identification Number ① as shown in the adjacent illustration.



PARTS INFORMATION

Part Number	Part Name	Qty.	Dealer Cost
5FL-85885-02-00	TPS for FZS600 and YZF-R1 (includes new seal)	1	\$70.99



WARRANTY INFORMATION

Service of all affected units is authorized regardless of warranty status. To receive credit for parts and labor for the modification after completion, select **90TS** from the Problem Code pull down menu in the Yamaha Dealer System (YDS). If submitting a standard warranty claim, use Problem Code **90TS**. The labor allowance is **1.2 hours**.



YAMAHA MOTOR CORPORATION, USA

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July 26, 2006

Dear Yamaha Owner:

Yamaha strives to offer motorcycles with exceptional quality and performance, including the YZF-R1 or FZ6 motorcycle shown on the label above. We thank you for purchasing this motorcycle and hope that it is providing you with an enjoyable ownership experience.

Yamaha has determined that the Throttle Position Sensor (or "TPS") on 2004 and some 2005 models may not function correctly. As a result, some owners have experienced an intermittently unstable idle when the engine has reached operating temperature. The idle speed might drop to 500 to 600 rpm, and the engine may stall if you do not give it throttle again.

To correct this unstable idle condition, Yamaha will replace the TPS on your motorcycle at no cost to you for parts or labor, even if your motorcycle is out of warranty, and even if you have never experienced this unstable idle condition.

To get the free TPS replacement, simply call your Yamaha motorcycle dealer and make an appointment so he can be sure to have the parts in stock. The job takes a little less than one and a half hours to perform, but your dealer may need to keep your motorcycle longer depending upon his Service Department schedule.

Thank you again for owning a Yamaha. We know you have a choice in motorcycle brands and appreciate that you have chosen to be part of the growing Yamaha family. Please take advantage of this offer today by calling your dealer and scheduling the TPS replacement.

Sincerely,

Service Division
Customer Support Group