

Technical BULLETIN

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SAFETY RECALL

This modification has top priority. This bulletin must be performed immediately to ensure customer safety.

NOTE: Bulletins that announce a recall will have an "R" at the end of the bulletin number.

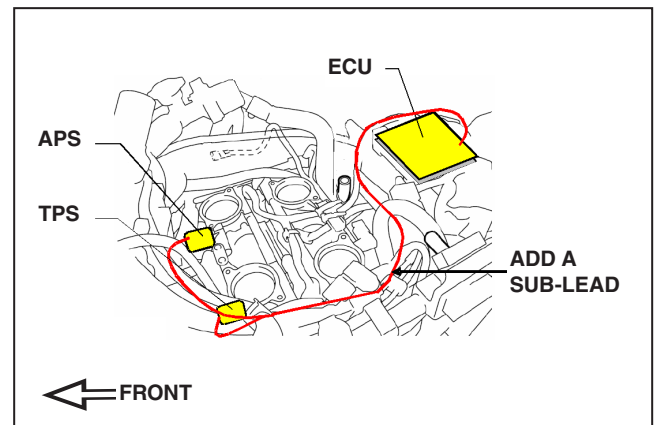
2009 VMX17Y/YC

FACTORY MODIFICATION CAMPAIGN – APS/TPS Wiring

I

INTRODUCTION

Yamaha Motor Corporation, U.S.A. has decided that a defect which relates to motor vehicle safety exists in certain 2009 VMAX (VMX17Y/YC) model motorcycles. In affected motorcycles, there could be excessive electrical resistance in the ground wire for the Accelerator Position Sensor (APS) and Throttle Position Sensor (TPS) due to an insufficiently crimped connection. Excessive resistance can cause incorrect signals to be sent to the Engine Control Unit (ECU) which could lead to unstable engine idle speed and/or keep idle speed from falling below about 3000 rpm when the throttle is released, preventing a proper return to idle that could result in a crash with injury or death.



To correct this defect, Yamaha is initiating a Factory Modification Campaign. Affected motorcycles must have an additional sub-lead wire installed that bypasses the problem area of the wire harness to prevent the excessive resistance.

Yamaha is notifying all registered owners of affected motorcycles by mail. A copy of this letter is included in this bulletin. The customer should take the letter along with the affected motorcycle to an authorized Yamaha dealer for the modification.

A computer report listing all affected motorcycles invoiced to your dealership is included with this bulletin. Use the list to help ensure all motorcycles are modified. All sold motorcycles that have been registered with Yamaha will show the customer's name and address. Your dealership must notify the owner of any affected motorcycle that was actually sold but is listed as "unsold" in the report.

You must modify all affected motorcycles in your inventory as well as all customer-owned motorcycles brought to you for this service. Any affected motorcycle that you purchase from Yamaha in the future will also require modification. If you purchase a motorcycle from another dealer, check to see if the procedures in this bulletin have already been performed before you sell the motorcycle.

Motorcycles that are affected should not be operated until they are modified. It is a violation of Yamaha policy for your dealership to deliver any affected motorcycles to customers until the procedures in this bulletin are performed.

When the modification on each motorcycle is performed, follow the Warranty Information section of this bulletin to receive reimbursement. Be sure to use the Factory Modification Campaign procedures in Chapter 7 of the **Warranty and Y.E.S. Handbook** (LIT-11760-00-08).



DEALER ACTION SUMMARY

Unsold

Units: Install the additional sub-lead wire during PDI service.

Sold

Units: Install the additional sub-lead wire. Check first to be sure the modification has not already been performed (see *Identification Procedure* section in this bulletin).

Parts: Yes, order a Sub-Lead Kit for each affected unit. See the *Parts Information* section for details.

Warranty: Factory Modification Campaign. See the *Warranty Information* section of this bulletin. This modification applies to all affected units regardless of ownership or warranty status.

Notify

Customers: Yes. You must immediately contact any customer whose motorcycle shows as unregistered on the enclosed report. Yamaha has sent letters to customers whose motorcycles were registered for warranty as of 7/26/10.



AFFECTED RANGE

VMX17Y
VP29E-0000013~0000611

VMX17YC
VP29Y-0000033~0000132



SERVICE PROCEDURES

Preparation

1. Set the engine stop switch to the stop position to prevent engine starting. Check the malfunction code history with the diagnostic system mode D:61. If there are any codes indicating a problem, repair that problem separately before beginning this modification.
2. Remove the parts listed below:
 - Rider seat
 - Meter assembly 2 cover
 - Top cover
 - Meter assembly 2
 - Main switch cover
 - Both intake duct assemblies
 - Battery leads from battery
 - ECU tray (Battery cover)
 - Air filter case (disconnect and remove with Intake funnel servo motor)



NOTICE:

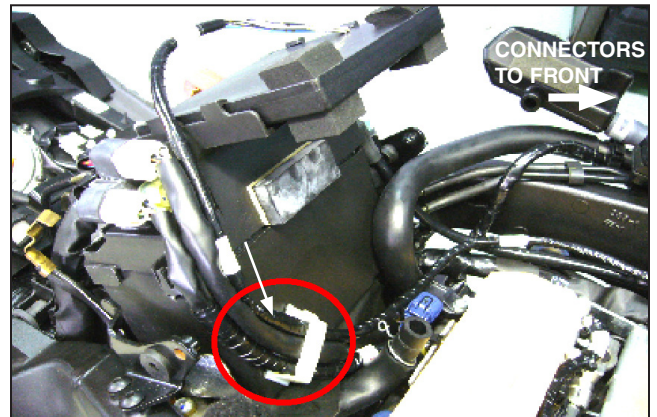
- Be sure to remove and retain the 4 lower air filter case gaskets so they will not be lost, as they will be reused.
- Cover the throttle body bore with tape to prevent foreign material from entering the engine.

Routing the sub-lead from ECU to APS/TPS

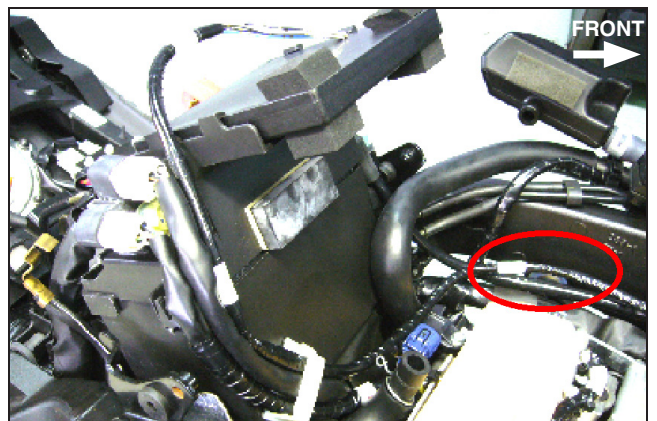
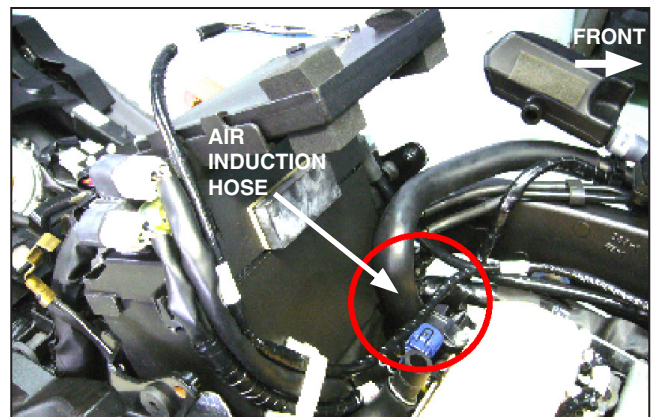
3. Clamp the new sub-lead wire in the white plastic clamp at the front of the battery box. Install the sub-lead so that the end with the connectors is routed towards the front of the unit.



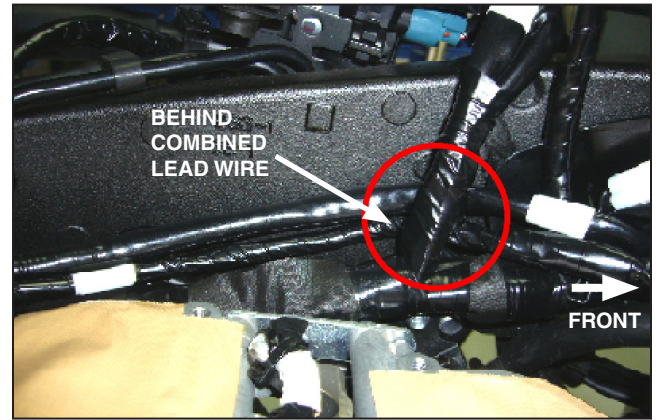
4. Route the sub-lead wire in front of the air induction hose.



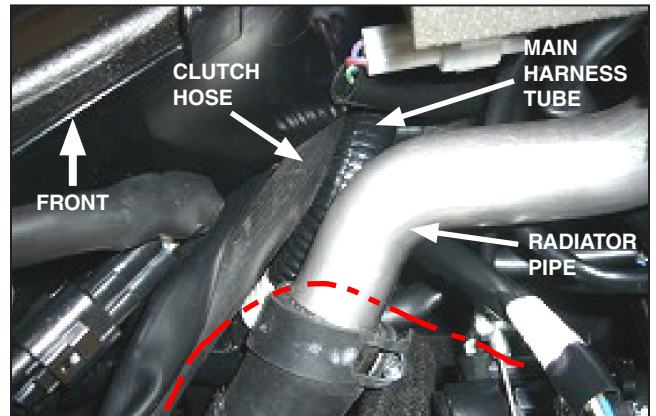
5. Route the new sub-lead wire along the starter motor lead.



6. Route the new sub-lead wire between the frame and the combined lead wires for the radiator fan, air induction system, and atmospheric sensor.



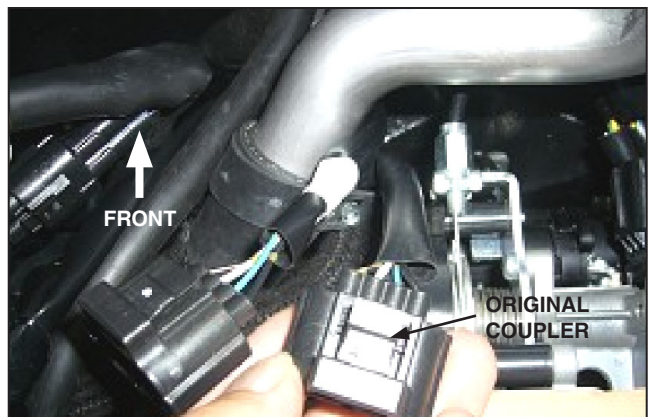
7. Route new APS sub-lead behind the clutch hose, main harness, and radiator pipe. Pull the new APS connector out from between the radiator pipe and throttle cable.



8. Pull the APS coupler of the new sub-lead wire out from between the radiator pipe and throttle cable.



9. Disconnect the original APS coupler. Pull it out from between the radiator pipe and throttle cable.



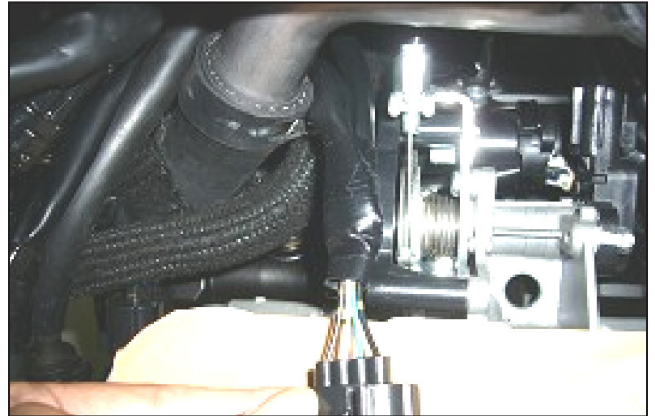
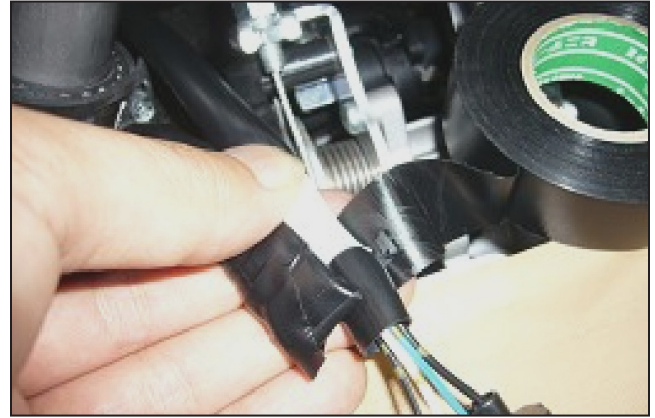
10. Push back the protective tube (sheath) and cut the original APS coupler wires.



11. Fold over the end of the protective tube and cover it with electrician's tape.



12. Tape the now-unused original APS lead and the new APS lead together at the white marking tape.



13. Route the new APS lead under the throttle cable and connect it to the APS coupler.



14. Disconnect the original TPS coupler.



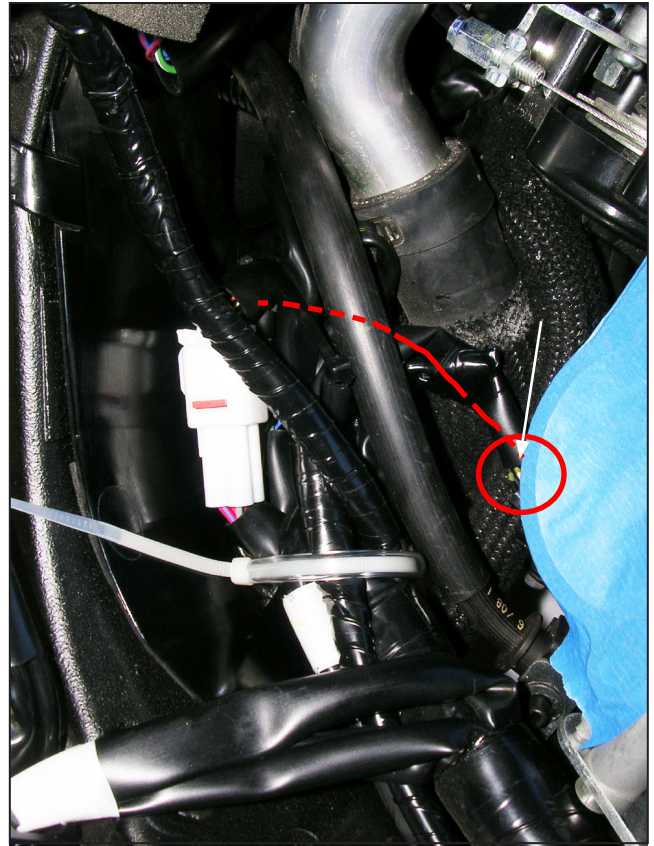
15. Push back the protective tube and cut the original TPS coupler wire. As before, fold over the end of the protective tube and cover it with electrician's tape.



16. Tape the now-unused TPS lead and the new TPS lead together at the yellow marking tape.



17. Route the TPS lead under the clutch hose and connect it to the TPS coupler.

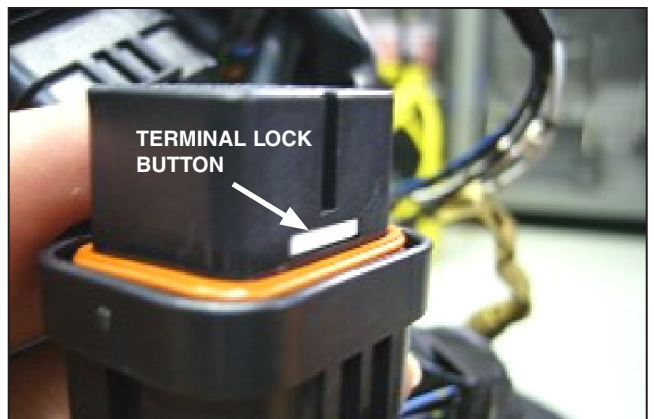


Modifying ECU coupler terminals for APS

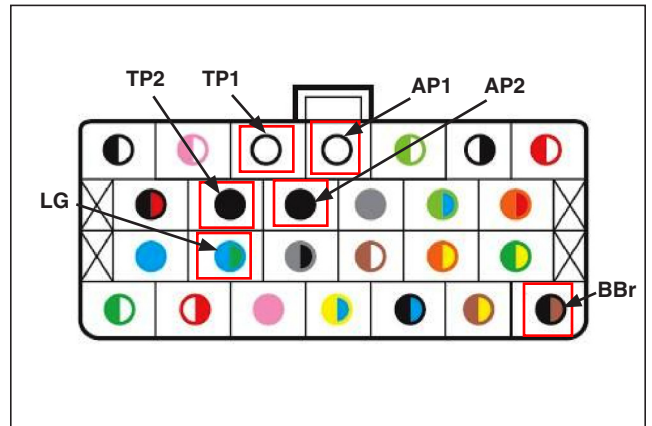
18. Disconnect the 26-pin ECU coupler from the ECU (the 26-pin coupler is the smaller of the two).



19. Push the white button to release the lock of the terminals.



20. Pull out the original **B/Br (Black/Brown)**, **L/G (Blue/Green)**, **AP1 (White)**, **AP2 (Black)**, **TP2 (Black)** and **TP1 (White)** terminals from ECU coupler. If the lock is correctly released, the terminals should pull out easily.

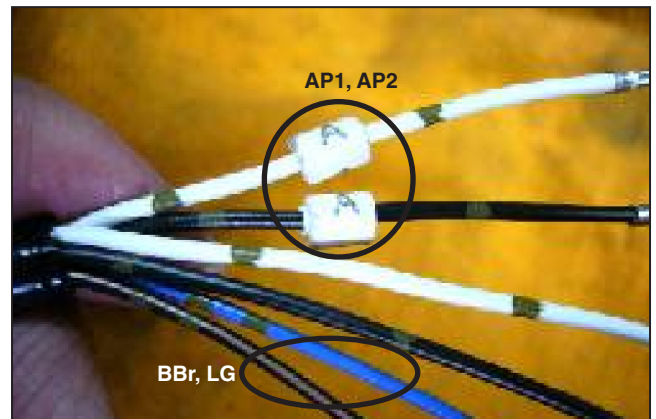


21. Insert the new **B/Br (Black/Brown)**, **L/G (Blue/Green)**, **AP1 (White)**, **AP2 (Black)**, **TP2 (Black)** and **TP1 (White)** terminals of the sub-lead wire to the matching slots in the ECU coupler.

TIP: The AP1 and AP2 lead wires have an “A” label.

22. Lock the terminals by returning the lock button to the locking position.

TIP: If the terminals are not fully inserted, the white locking button cannot be pushed into the locked position.



23. Reconnect the ECU coupler to the ECU.

24. Reconnect the battery and temporarily reconnect the meter. Enter the diagnostic system to check the APS and TPS signals.

With the throttle fully closed:

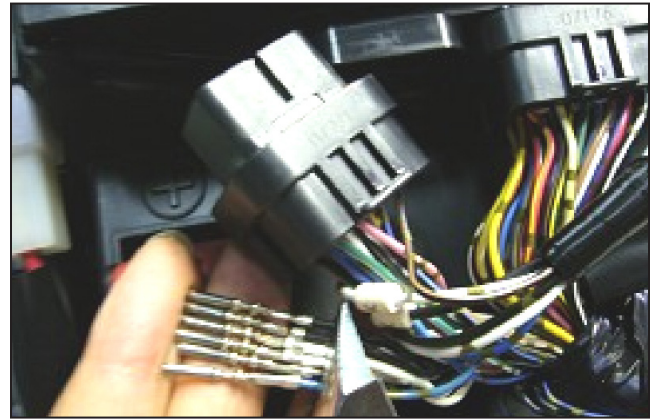
- Check the TPS signal 2 with diagnostic mode D:01. Confirm closed position value is 14~16.
- Check the TPS signal 2 with diagnostic mode D:13. Confirm closed position value is 12~18.
- Check APS signal 1 with diagnostic mode D:14. Confirm closed position value is 15~18.
- Check APS signal 2 with diagnostic mode D:15. Confirm closed position value is 14~19.

If any values are not within the ranges specified above, inspect the related component and adjust or replace as necessary. Note that these test values are different from those in the Service Manual; the Service Manual will be updated in the future to show the values in this bulletin.

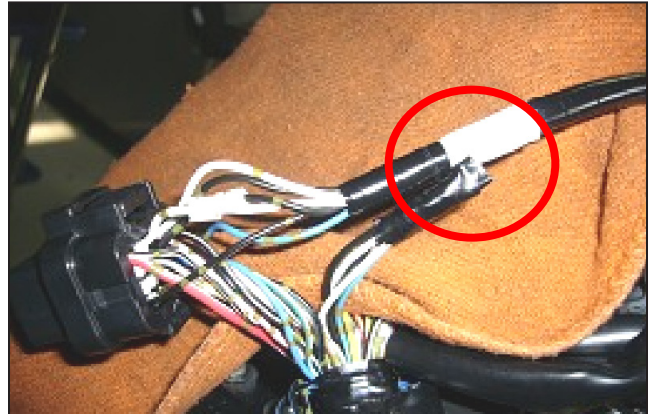
25. Check the malfunction history of the diagnostic system for malfunction code 15 which was caused by this modification procedure. Delete the malfunction history code with the diagnostic mode D:62.

Completing modification at ECU

26. Disconnect the coupler from the ECU again. Cut the terminal ends off the six now-unused lead wires. Tape the wires together as a bundle.

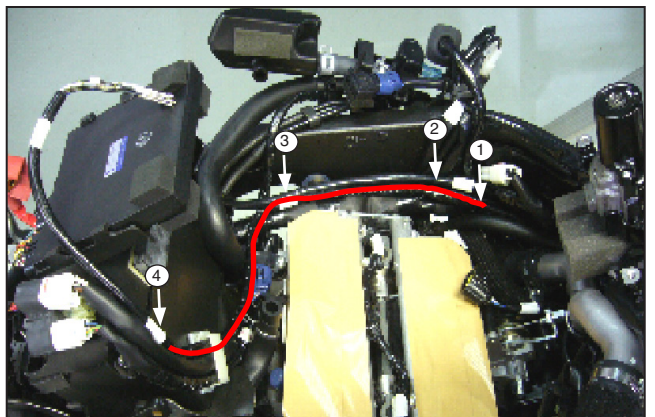


27. Tape the original lead wire bundle and new lead wire together at the white marking tape. Reconnect the coupler.



Securing the sub-lead wire

28. Remove the existing plastic clamps from points 1 and 2 of the left side panel described in the picture to the right.



29. Secure the sub-lead at the four points shown as follows:

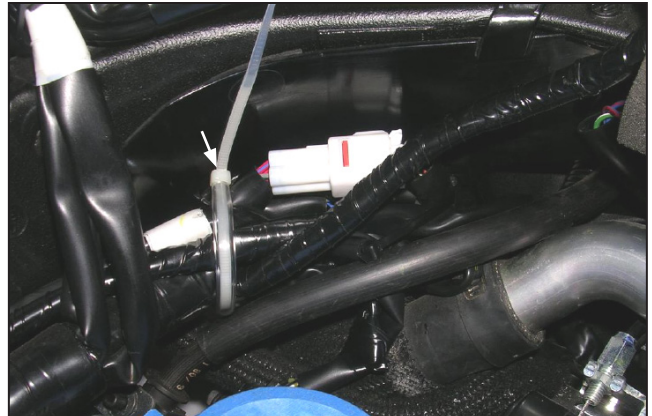
POINT 1

- Insert a black wire tie from the kit through the black hose from the kit.
- Pass the black wire tie through mounting hole 1.
- Fasten the APS lead with the ignition coil sub-lead, front wheel sensor lead, and cylinder identification sensor lead.
- Cut off the end of the wire tie to 0~3mm.



POINT 2

- Insert the white wire tie from the kit through the clear hose from the kit.
- Pass the white clamp through mounting hole 2.
- Fasten the APS lead (in front of APS/TPS lead separating point) with the starter motor lead, ignition coil sub-lead, front wheel sensor lead, and cylinder identification sensor lead.
- Don't cut off the end of the wire tie.



POINT 3

- Using a black wire tie from the kit, combine the sub-lead wire with the starter motor lead and main harness at point 3 by the white marking tape point of the sub-lead.
- Cut off the end of the wire tie to 0~3mm.



POINT 4

- Using a black wire tie from the kit, combine the sub-lead wire with the ignition coil sub-harness and sub-wire harness at the white tape point of the sub-lead at the right side of the battery box.
- Cut off the end of the clamp to 0~3mm.



Reassembly

30. Reassemble the unit, reinstalling the components removed in step 3.

NOTICE:

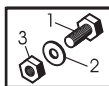
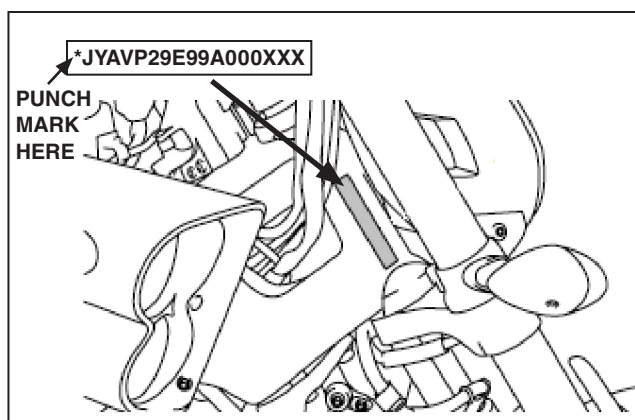
- Be sure to reinstall the lower case gaskets.
- Remove the tape from the throttle body bore after being sure no foreign material will fall into the engine.

31. Confirm proper operation, then put a punch mark next to the VIN on the steering head as described in Identification Procedure below.



IDENTIFICATION PROCEDURE

When the modification is complete, put a punch mark next to the Primary ID as shown. Check for this punch mark if you encounter an unfamiliar unit. You can also check unit status on YDS or by contacting your Regional Technical Advisor.



PARTS INFORMATION

Part Number	Description	Qty.	Dealer Cost
90891-30067-00	Sub-Lead Kit Contents: • Wire sub lead 1 • Clamp (White) 1 • Hose (Clear) 1 • Clamp (Black) 3 • Hose (Black) 1 • Tape 1	1	\$25.88



WARRANTY INFORMATION

The owner of each warranty-registered unit will receive a letter announcing this campaign. The customer's letter includes the Primary ID and Recall Number.

The modification is authorized for all motorcycles, both sold and unsold, regardless of ownership or warranty status. You do not need the customer's letter to perform the modification or to file for reimbursement.

Submit a Recall Request for the parts and labor for the sub-lead kit installation as described below using Recall Number **9900xx**. Choose the status "**M**." You will be reimbursed for the Main Switch Steering Lock plus labor. The labor allowance is **1.0 hour**.

YDS:

When signed on to YDS, click on the Service Tab, and then "Recall Request-Add." This function will allow you to enter multiple Primary IDs for the same recall. Remember that YDS requires a 7-digit serial number, so use a "0" as the first digit. The system will check your submission instantly to make sure the Primary ID numbers you've entered are valid for the recall. You can check back the next day for your claim numbers to track your credit.

MAIL:

Complete a recall Reimbursement Request (LIT-11790-00-03) as shown below:

Dealer Number		Dealer Name					
Recal Number		Primary I.D.		Date Completed		Status	
9 9 0 0 5 7		V P 2 9 E - 0 0 0 0 X X X		0 7 - 2 9 - 2 0 1 0		M I	

If you have any questions about proper procedures for Factory Modification Campaigns, see Chapter 7 in your **Warranty and Y.E.S. Handbook** (LIT-11760-00-08).



YAMAHA MOTOR CORPORATION, U.S.A.

6555 KATELLA AVENUE, CYPRESS, CALIFORNIA 90630-5101 800-962-7926

SAFETY RECALL NOTICE

Dear Yamaha Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. Yamaha Motor Corporation, U.S.A. has decided that a defect which relates to motor vehicle safety exists in certain 2009 VMAX (VMX17Y/YC) model motorcycles. Our records show that you own the affected motorcycle shown above.

The reason for this call:

In affected motorcycles, there could be excessive electrical resistance in the ground wire for the Accelerator Position Sensor (APS) and Throttle Position Sensor (TPS) due to an insufficiently crimped connection. Excessive resistance can cause incorrect signals to be sent to the Engine Control Unit (ECU) which could lead to unstable engine idle speed and/or keep idle speed from falling below about 3000 rpm when the throttle is released, preventing a proper return to idle that could result in a crash with injury or death.

What Yamaha and your dealer will do:

To correct this defect, affected motorcycles must have an additional sub-lead wire installed that bypasses the problem area of the wire harness to prevent the excessive resistance. There will be no charge to you for this procedure. Replacing the main switch takes about 1 hour, but your dealer may need to keep your motorcycle longer depending upon their schedule.

What you should do now:

Please call your Yamaha dealer to make a service appointment to have this procedure performed. Remember to take this letter with you when you take in your motorcycle.

You should not ride your motorcycle until this modification is performed.

If you are unable to return to the Yamaha dealer who sold you the motorcycle, this service will be performed by any authorized Yamaha Motorcycle dealer. For the name of a dealer near you, call 1-800-88-YAMAHA or visit the Yamaha web site at: www.yamaha-motor.com.

Federal regulations require that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within 10 days.

If you need help:

If, after contacting your dealership, you have questions or concerns which the dealership is unable to answer, please write to:

Yamaha Motor Corporation, U.S.A.
Customer Relations Department
P.O. Box 6555
Cypress CA 90630
or call 1-800-962-7926.

If, after contacting Yamaha Customer Relations, you are still not satisfied that we have done our best to remedy the situation without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153); or go to <http://www.safercar.gov>.

If you no longer own this Yamaha:

If you have sold your motorcycle to another party, please call us toll-free at 1-800-962-7926 with the name and address of the new owner, along with the serial number shown above your name on the address label above.

We're sorry to cause you any inconvenience, but we are sincerely concerned about your safety and continued satisfaction with our products. Thank you for giving your attention to this important matter.

Sincerely,
Customer Support Group
Yamaha Motor Corporation, U.S.A.