**ECU** REMAPPING

MODULES

MODULES

POWER BENCH TESTERS







\_\_\_\_\_ Applicability \_\_\_\_\_

Make: **BMW** 

Model: **R 1250 GS** 19-20

R 1250 GS Adventure 19-20

R 1250 R 19-20

R 1250 RS 19-20

R 1250 RT 19-20

\_\_\_\_\_ Component view and item ID \_\_\_\_\_

Wiring code: F27-SMR-001 Module code: F27RBSMART





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- 1. Turn ignition off.
- 2. Put the bike on the centre stand.
- 3. Remove the black plastic lid on the right side and the rider's seat.
- 4. Unfasten the ODB port.



## **Trottle Position Sensor**

- Route the wire marked as TPS toward the stock ECU placed under rider's seat
  - passing behind the frame on top of the battery



and under the fuel tank



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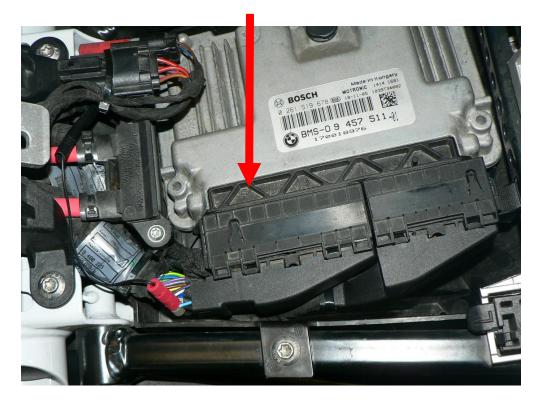




reaching the spot near the 2-way plug on the right side of OEM ECU.



- 6. Gently pull OEM ECU up to remove it from its location.
- 7. Disconnect the connectors of OEM ECU pulling out the tabs.
- 8. Carefully remove the back cover of the larger connector to expose the wires behind it.

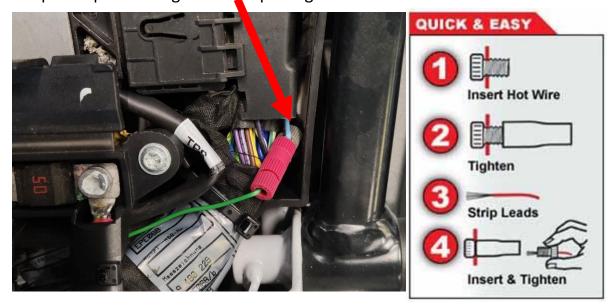


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9. Locate the light blue wire and connect the green wire of Rapid Bike harness using the supplied posi-tap. Cut the tape to expose more wire and connect the posi-tap far enough to allow placing the cover back.



10.Re-connect OEM ECU's connectors and place back the ECU in its location.

# Front Right O2 sensor - LW2

11.Locate the connectors of the right cylinder's Lambda sensor placed near the rear brake pedal.



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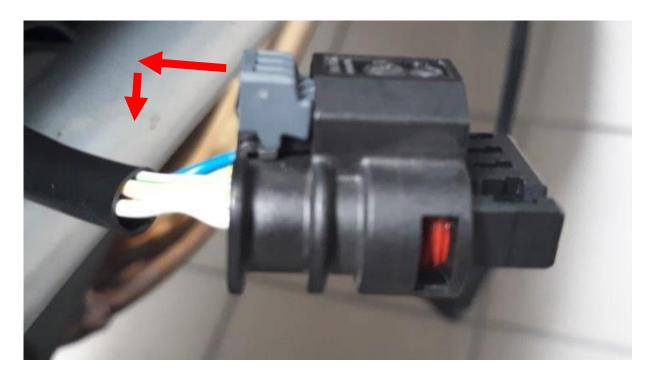




11a Use a flat tool to gently pull away the plastic hook and unfasten the connectors from the frame.



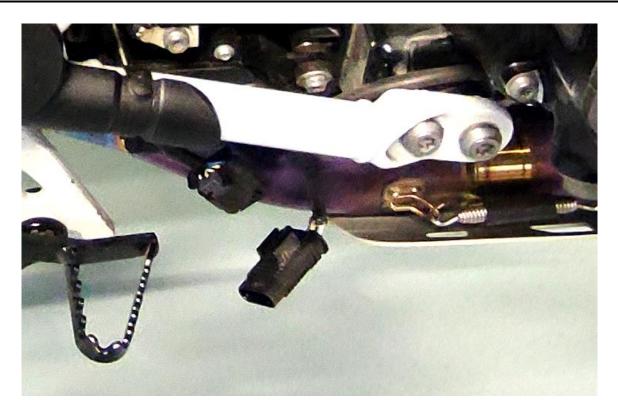
11b Pull out and then push down the grey tab to disconnect the connectors.



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12. Plug the connectors marked as **LW2** in-line with the stock wiring and fasten them to the frame using zip ties.



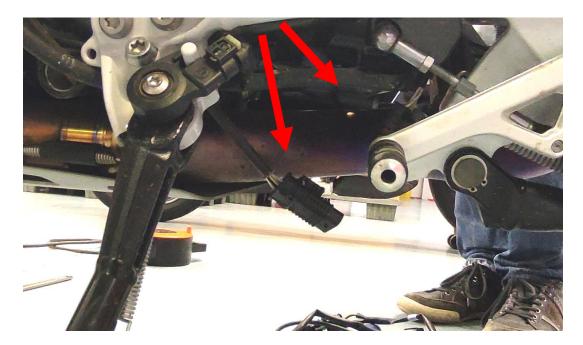
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## Front left O2 Sensor - LW1

- 13.Locate and disconnect the connectors of the left cylinder's Lambda sensor placed near the gear lever.
- 14. Route the connectors marked as **LW1** between the bottom of the battery and the starter.



15. Plug the connectors marked as **LW1** in-line with the stock wiring and fasten them to the frame using zip ties.



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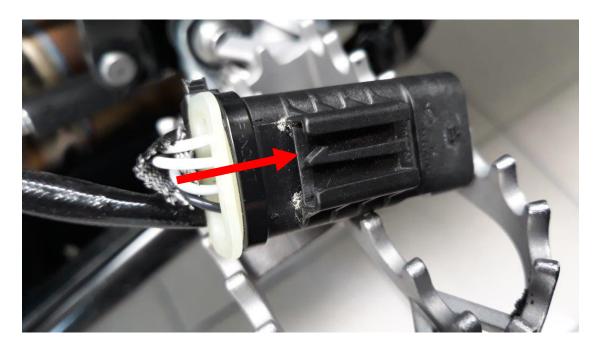


## **Central rear O2 Sensor - LN1**

16.Locate and disconnect the connectors of the post catalytic converter Lambda sensor placed under the battery. They are reachable from the right side of the bike.



a. Using a flat tool to gently pull away the plastic hook and unfasten the connectors from the frame may help unplugging the connectors.

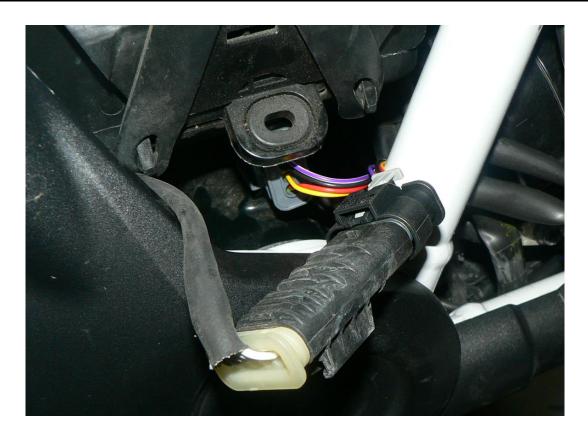


17. Plug the connectors marked as **LN1** in-line with the stock wiring.

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18. Place the SMART unit near the starter, inserting it with the label facing toward the outside of the bike and then flip it upside-down to have the SMART label facing toward the engine.



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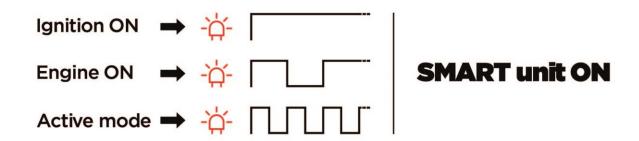




19. Connect the wiring harness to the SMART unit.



- 20. Put the OBD port back in its location.
- 21. Check the installation with the red LED placed on the back of SMART unit.



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22. Fasten the wiring harness to the frame using zip ties.



23. Ensure the wiring harness is properly fastened, then re-install the black plastic lid and the rider's seat.

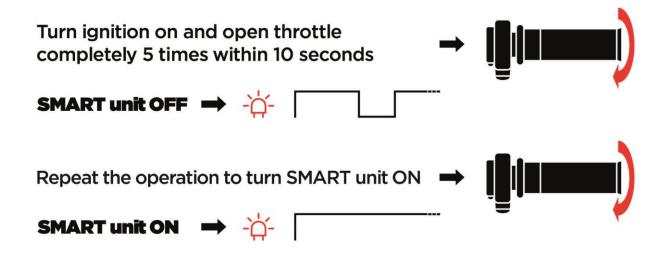


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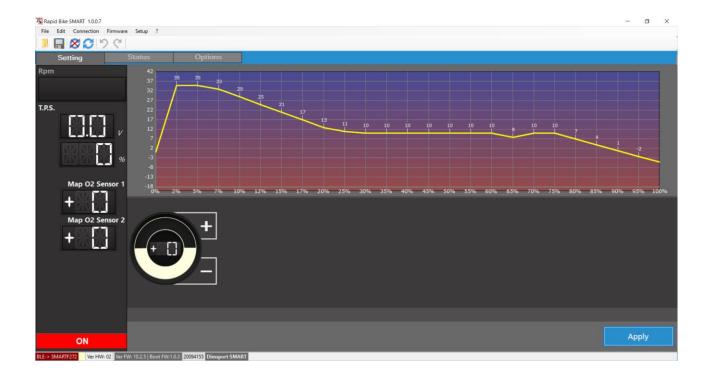




Rapid Bike SMART is programmed to be ON by default as described in point **21**. The following procedure shows how to turn SMART unit OFF, allowing the bike to run in stock configuration, and how to turn it ON again:



Same operation can be performed with Rapid Bike SMART software downloadable for free from <a href="www.rapidbike.com">www.rapidbike.com</a>. Furthermore, software allows users to increase / reduce the range of the adjustments available with SMART unit.



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Notes:






# www.dimsport.it





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