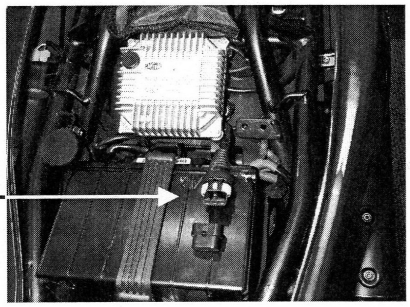
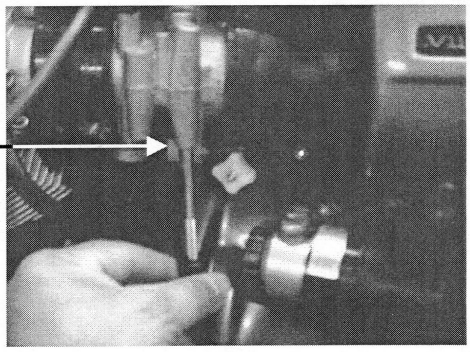
V11 Sport Setup (Baseline):

1. Ride motorbike in order to reach operating temperature (70 – 80 Celsius)
2. Remove saddle to access ECU

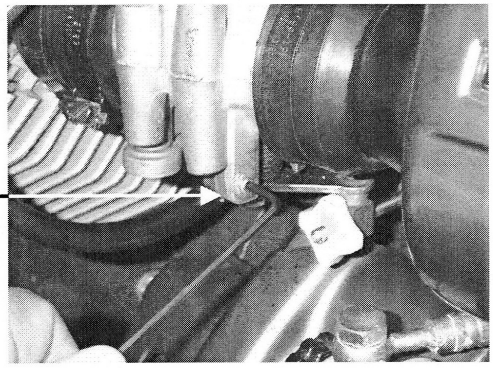


3. Detach connecting rod between throttle bodies from the R / H throttle body. NOTE: Be careful not to bend the connecting lever

4. Close the air bypass screws on **both** throttle bodies (turn clockwise) DO NOT FORCE!



5. Back-off (turn counter clockwise) butterfly valve adjustment screws on **both** throttle bodies so butterfly valves are completely shut using a 2.5mm allen

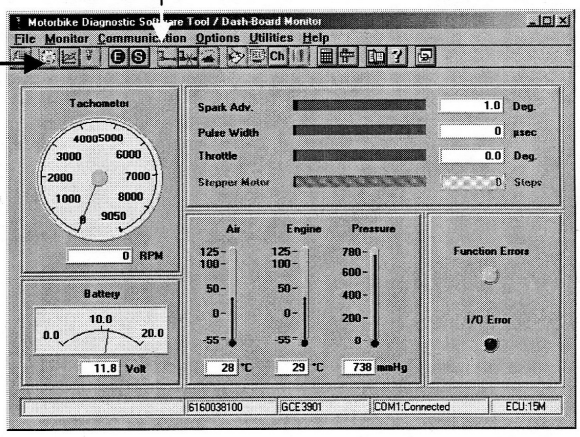


6. Connect your PC to the electronic control unit (ECU) and launch the Magneti Marelli Motorbike Diagnostic Software (MDST) and choose English. Note: make sure you have the hardware key connected to the parallel port (printer port) or you will get a "Hardware Key Not Found" error and you will not be able to use the MDST.
   The hardware key is included in the MDST kit (P/N 00 97 97 15) along with the connecting cable and software.

   DO NOT LOSE THE HARDWARE KEY OR YOU WILL HAVE TO BUY A NEW KIT!

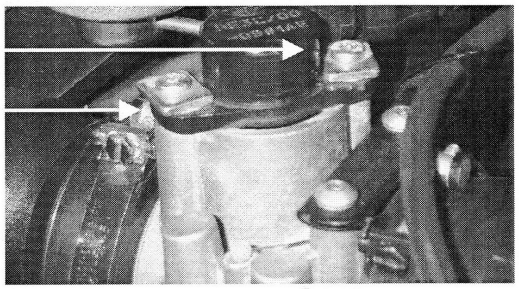
7. Turn ignition switch on. Go to the DashBoard screen in the MDST and click the connect icon.

Click on the DashBoard icon first



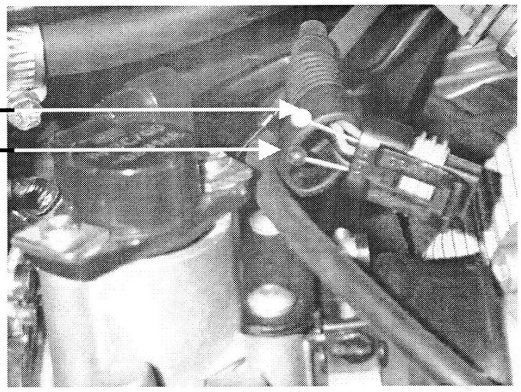
8. With the butterfly valves closed and the connecting rod disconnected:
loosen the two torx 20 screws on the throttle positioning sensor (TPS).

NOTE: Make sure the fast idle is not engaged.



KEY off

9. Now disconnect the TPS harness off the back of the TPS.
Using 2 one inch or slightly longer straight pins and slide into the back of the TPS connector. One pin will go into wire hole A and the other pin will go into wire hole C.
Now put the TPS harness back into the TPS.
The purpose for this is you allow you access to the TPS using a multi-meter to measure the mili-volts with the TPS harness connected.

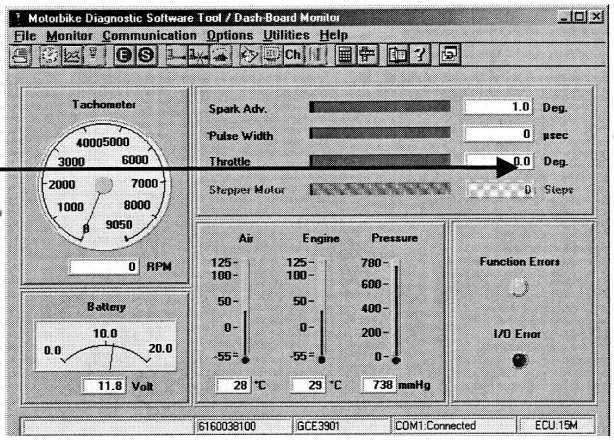


10. With the TPS harness connected and the ignition switch on, check the voltage touching the leads from your multi-meter to the straight pins for a voltage of 150 mV +- 15mV.
Rotate the TPS until the voltage indicates 150mV +- 15mV.
Then tighten the T20 screws and recheck the TPS voltage to make sure it is still in range.

172 millivolts

more = richer

11. With the ignition switch still on, and the butterfly valve closed, check the throttle position in the MDST. The throttle position should indicate 0.0
Note: Make sure you click on the connect icon.



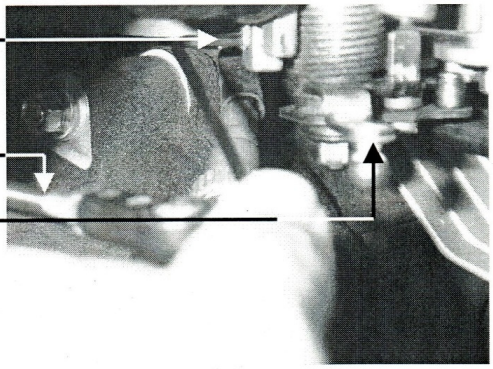
LATE 02/03

12. Now on the R/H throttle body use a 2.5 mm allen, adjust the butterfly valve adjustment screw (turn clockwise) until the throttle position indicates 3.4 +- 0.2 deg in the MDST.

540 millivolts

02/03 3.8

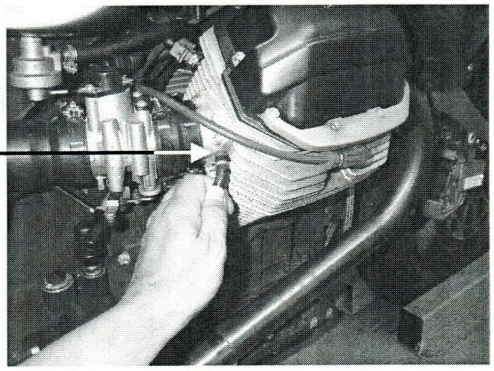
13. After you have adjusted the R/H butterfly valve to 3.4 +- 0.2 , reconnect the rod between the throttle bodies NOTE: be careful not to bend the throttle lever.



14. Remove the pins from the TPS connector and slide the TPS connector boot back on.

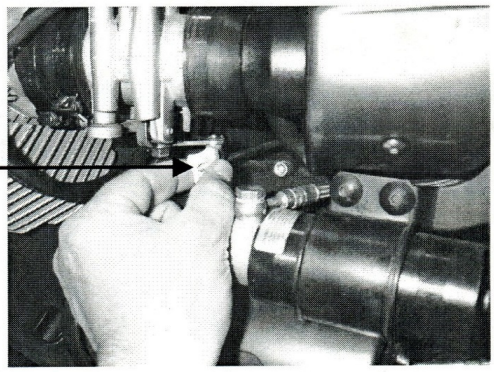
15. Now remove the air box hoses from the vacuum pipes and connect your vacuum gages.

ISA CAL THROTTLE MATCH TO RIGHT



16. Start motorbike and make sure the bike is warmed up (70 – 80 degrees Celsius) as indicated in the MDST.
At idle check the synchronization between throttle bodies and adjust the sync using synchronization knob located under the L/H throttle body

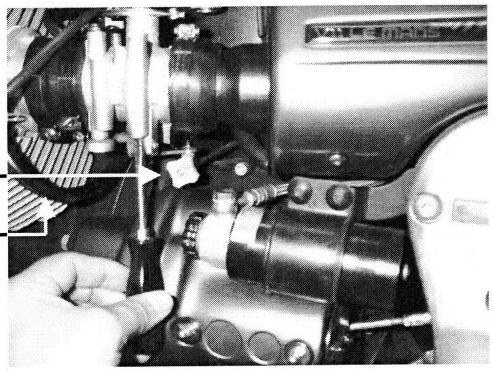
Also check the synchronization between the throttle bodies at 1,500 RPM and adjust as necessary.



17. Now on each throttle body use the air bypass screw to achieve final idle speed of 1050 – 1150 RPM and check throttle body synchronization adjustments using the air bypass screw and also maintaining proper idle speed of 1050 – 1150 RPM.

18. Make final throttle body synchronization adjustments by running the motorbike at 1500 RPM and using the synchronization knob.

19. Reattach the air box hoses.



This completes the V11 Sport throttle setup.

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Carbon Monoxide (CO) setting.

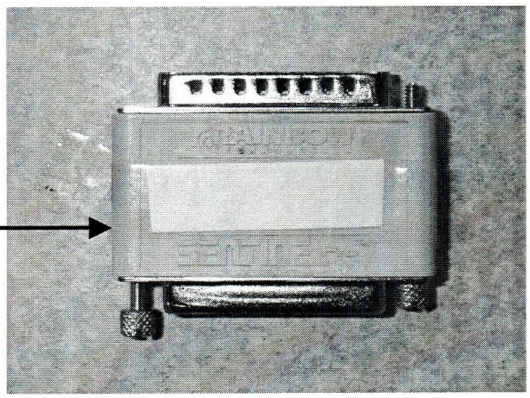
NOTE: Baseline must be set first before setting CO.

It is critical to have the motorbike CO setting correct in order to have the motorbike running properly and have a happy customer.
It is also critical that the CO be set not to violate Environmental Protection Agency laws.
Moto Guzzi NA is dedicated to the protection of the environment and the promotion of safe fun motorcycling.

The CO setting controls the mixture of air and fuel. So the proper setting is critical to the efficiency of the motorbike and the environment.

The CO setting is done VIA the Magneti Marelli Motorbike Diagnostic Software Tool (MDST) P/N 00 97 97 15.

DO NOT LOSE THE HARDWARE KEY OR YOU WILL HAVE TO BUY A NEW KIT!



The following sequence should be followed to set the Carbon Monoxide level, which will set the air fuel mixture.

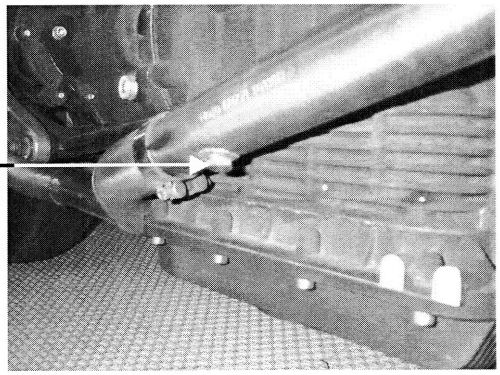
NOTE: Baseline settings must be done first before setting CO

1. Ride motorbike to warm up engine which is necessary to establish existing air fuel mixture.

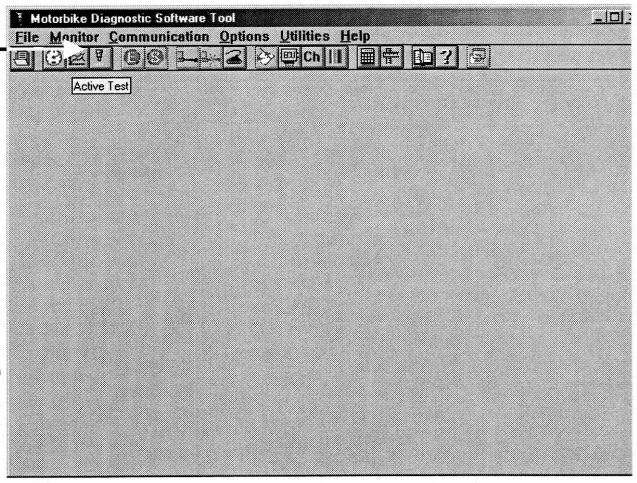
2. Connect your PC to the electronic control unit (ECU).

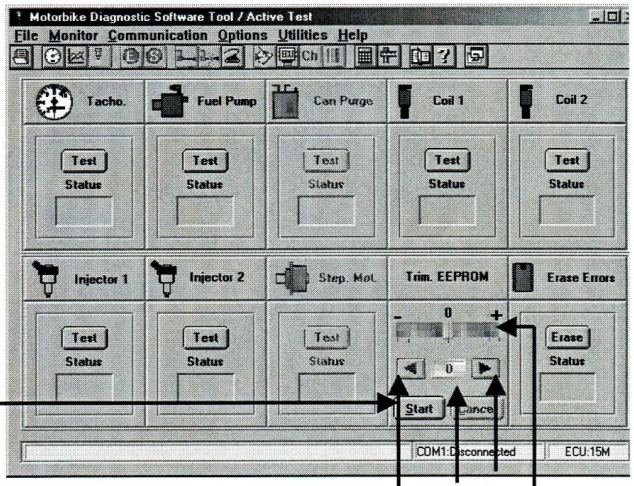
3. Remove the exhaust access screws on both exhaust headers in order to attach the CO analyzer hoses.

   NOTE: A two gas analyzer or greater will function properly.



4. Turn ignition on and launch the MDST, choose English, and click on the active test icon.
   This will give you access to the active test screen where you will adjust the air fuel mixture.





5. Now check your CO readings, you should have a reading that should not exceed 1.9.
   NOTE: If the motorbike displays a lean condition or an excessive fuel consumption click on the Start button in the Trim EEPROM area in the active test screen.
   Start engine and click OK.

6. Now slide the Trim EEPROM bar to the right to increase air fuel mixture. And slide the Trim EEPROM bar to the left to lean out the air fuel mixture.
   Or click in the numeric area and enter a number to increase the air fuel mixture or enter a negative number (ex: -20) to lean out air fuel mixture. **Or** click on the right arrow to increase air fuel mixture and on the left arrow to lean out air fuel mixture.

7. Now click on the save button.
8. Turn ignition off then turn engine on.
9. Now remove CO hose and put the exhaust access screw back in the exhaust header.
10. Remove the PC connection from the ECU.