



# Georgia Analyzer System Message

Georgia's Clean Air Force (GCAF)

July 27, 2010

Message: 47168 Analyzers: 1038

## Random TSI Testing Procedures

REMINDERS FOR THE RANDOM TSI TEST:

- ✦ Immediately after performing an OBD II inspection, your analyzer will proceed with the TSI test.
- ✦ Aborting the TSI test will also abort the OBD test.
- ✦ Some analyzers perform an HC hang-up procedure if a tailpipe test is determined by the analyzer. The plumbing of the analyzer needs to be flushed so that the next vehicle can be tested without any remnants of the previous vehicle's emissions in the system. This is normal and the zero air bottle must be turned on to perform an auto zero air check before a test can proceed. The procedure will take place in the background if the zero air is flowing before the test begins. If the analyzer does not detect zero air, the analyzer will hang-up and will not continue until zero air is turned on and flowing.
- ✦ If you are unable to detect RPM, consult your analyzer documentation for instructions or contact your equipment manufacturer (EM) for assistance with the analyzer hardware.

RECOMMENDED TSI TESTING PROCEDURES (CHAPTER 13 OF THE INSPECTOR TRAINING MANUAL):

1. Ensure the engine is off unless otherwise recommended by the EM or State procedures.
2. Chock the wheels (at least one wheel).
3. Connect the RPM pickup probe of your choice. However, if you use the inductive pickup (the one that clips around the spark plug or coil wire), keep hands and wires away from the hot engine, exhaust manifolds, fans, etc. Testing will be aborted if the GAS unit suspects Invalid RPM.
4. Insert the probe tip into the tailpipe to a minimum depth of 10 inches. Do not touch the probe tip or metal part of the probe or probe line. Those parts get very hot after being in the tailpipe.
5. Make sure that ALL VEHICLE "SWITCHABLE" ACCESSORIES ARE OFF.
6. Sit inside the vehicle, with both feet in and the door closed.
7. Apply or ensure that the parking brake is applied.
8. Start the engine if it is off.
9. Set the transmission as directed by the GAS unit or according to auto manufacturer recommendation. If there is no specific direction from the GAS unit or auto manufacturer, we recommend that you set the transmission in park for automatic and neutral for manual transmissions for both the 2500 RPM and Curb Idle portions of the test. NOTE: SOME VEHICLES ARE ONLY TESTED AT CURB IDLE TO AVOID TRANSMISSION DAMAGE. THE GAS UNIT WILL INSTRUCT THE INSPECTOR IN THESE RARE SITUATIONS.
10. Follow the prompts of the GAS unit to complete the 2500 RPM test and then the Idle test of the TSI test cycle.
11. After the test is completed and the GAS unit directs you to disconnect the RPM pickup, remove the probe, etc.
  - a. Turn off the engine.
  - b. Ensure automatic transmissions are in park and manual transmissions are in either neutral, whichever is appropriate for your station's layout.
  - c. Remove the probe.
  - d. Remove the RPM pickup.
  - e. Remove the wheel chocks.
12. Follow the prompts to complete the remainder of the test.

AS A REMINDER, ABORTING THE TSI TEST WILL ABORT THE ENTIRE INSPECTION.

If you have questions, please contact GCAF Station Assistance at 800.449.2471, option 2.

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If you would like to receive an e-mail copy of GAS messages or to be added to our quarterly e-newsletter, RepairWatch E-News, please send a request to [info@cleanairforce.com](mailto:info@cleanairforce.com).

~ GCAF and EPD require that you print, read, and store all GAS messages in a binder on or near the analyzer. GCAF and EPD also recommend that you print a second copy of these messages and post them in a prominent location for your employees to read. To retrieve and print a previous GAS message, go to the GAS message retrieval function in your analyzer and select the appropriate message to print (the analyzer holds up to 500 messages). ~

800.449.2471

[info@cleanairforce.com](mailto:info@cleanairforce.com)

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