

**SETTING OBD READINESS CODE PRIOR TO STATE INSPECTION****TECHNICAL SERVICE BULLETIN**

Reference Number(s): SI M 12 02 04, Date of Issue: December 2004

MINI: MINI all models (R50, R52, R53)

GROUP: Engine Electrical

**SUBJECT****Setting OBD Readiness Code Prior to State Inspection****MODEL**

MINI all models (R50, R52, R53)

**SITUATION**

A vehicle which is in the workshop for an emissions related warranty repair (Check Engine light is illuminated), is also due for the State Emissions Inspection to be performed immediately after the repair. It is possible, that such a vehicle will not pass the state inspection (even with repairs successfully completed) due to OBD Readiness Codes having "Not Completed" status.

**CAUSE**

Since the EMS fault memory is being cleared during the emission related repair process, the OBD Readiness Codes are also cleared and set to "Not Completed" status. Consequently, when the vehicle is tested afterwards at state emission inspection, certain OBD II monitoring tests may not be completed, especially if vehicle's driving is limited between the repair and inspection times.

**CORRECTION**

Before emission-related repairs are attempted, OBD Readiness status should be determined. After repairs, all monitors can be activated by driving the vehicle in a manner prescribed in the "OBD Drive Cycle"; certain monitors may also be activated by using DISPlus/GT1 test modules.

Upon successful completion of each monitor, the OBD Readiness Code will be set to "Completed Status".

**PROCEDURE**

Before any repairs are performed, first determine the "as-received" status of "Readiness Codes" using procedure described in step # 1.

If any of the individual tests shows status "Not Completed", then determine the reason for this condition, and correct as necessary.

Then, investigate EMS fault memory, perform repairs to emission related systems as needed, and erase EMS fault memory.

Finally, follow the procedure described below in order to execute all of the readiness monitors and to set the Readiness Codes to "Completed" status.

In order to set the OBD Readiness Codes to a "Completed" status, EMS has to conduct a series of functional tests during a strictly defined "driving cycle". Refer to "STO44 MINI Complete Vehicle manual (chapter "Engine Management" section "OBD II Drive Cycle") for a detailed description of the OBD monitoring system.

1. To verify the status of Readiness Code using DISPlus/GT1 enter the following diagnostic path:
  1. Select "Function Selection"
  2. Select "Service Functions"
  3. Select "Drive"
  4. Select "DME Motor Electronics"
  5. Select "OBD Readiness Codes"
  6. Select "Test Plan"
  7. Select "Right Arrow"

The next screen will show the current status (completion rate) of individual tests monitored for OBD readiness code:

**Misfiring: (Completed or Not Completed)**

**Fuel System: (Completed or Not Completed)**

**Catalytic Converter: (Completed or Not Completed)**

**Fuel Tank Ventilation: (Completed or Not Completed)**

**Oxygen Sensors: (Completed or Not Completed)**

**Component Monitoring: (Completed or Not Completed)**

In order to complete to properly achieve Readiness the vehicle has to be driven in a fashion similar to "OBD Drive Cycle":

- First drive constantly with road speed between 20 to 30 MPH for approximately 4 minutes
- Then, drive constantly with road speed between 40 to 60 MPH for approximately 15 minutes. (Some vehicle coasting time should be included)
- The diagnostic sequence will be interrupted if one of the following conditions occurs:
  - Engine speed exceeds 3000 RPM, or
  - Driving speed exceeds 60 MPH, or
  - Large fluctuations in acceleration are requested.

In such a case, stop the vehicle, turn engine off and start the driving cycle again.

- It is recommended to connect GT1 for the duration of a driving test (with the "Diagnostic Function OBD II" test module selected) in order to monitor current completion status of system tests. This is particularly helpful in verifying that "drive cycle" criteria was achieved. In such a case monitor completion can be confirmed prior to finishing full drive cycle.

## **WARRANTY INFORMATION**

Covered under the terms of the MINI New Vehicle Limited Warranty.

**THE PROCEDURE DESCRIBED ABOVE AND DEFECT CODE MAY BE USED WHEN OBD READINESS CODE SCANNING IS PART OF THE STATE INSPECTION AND BECOMES NECESSARY AS A RESULT OF A WARRANTABLE REPAIR.**

**Defect Code:** 12 14 93 23 00 - Setting OBD Readiness Code prior to State Inspection

**Labor Operation:** 00 54 676

**Labor Allowance:** 5 FRU