

# MERITOR WABCO

## Technical Bulletin

### OnGuard™ System Parameter Update to Increase the Following Distance Alert at Highway Speeds

#### Hazard Alert Messages

Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

#### WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Serious personal injury and damage to components can result.

#### How to Obtain Additional Maintenance, Service and Product Information

For more information about OnGuard™, refer to Maintenance Manual MM-1306, OnGuard™ Collision Mitigation System. If you have any questions about the material covered in this publication, or for more information about the Meritor WABCO product line, please contact the Meritor OnTrac™ Customer Call Center at 1-866-OnTrac1 (866-668-7221) or visit our website: [www.meritorwabco.com](http://www.meritorwabco.com).

#### Purpose of this Parameter Update

OnGuard™ provides a visual and audible following distance alert through the OnGuard™ display. The alert display changes to yellow and emits an audible double chirp. Currently, the OnGuard™ system has a fixed alert interval of 1.5 seconds at all speeds. This programming tool increases the alert interval to 3.0 seconds at speeds greater than 37 mph (60 kph). At speeds less than 37 mph (60 kph), the alert will remain at a 1.5-second following interval.

The alert interval is the following distance of the vehicle relative to a tracked vehicle. At lower speeds, the system will warn if the vehicle gets closer than 1.5 seconds. At above 37 mph (60 kph), the system will warn if the vehicle gets closer than a 3.0 second following interval.

#### Description and Function

OnGuard™ is an Adaptive Cruise Control (ACC), Collision Warning System (CWS) and Collision Mitigation System (CMS). ACC is a radar-based tracking system that works in conjunction with standard Cruise Control to maintain the set cruise speed when no vehicle is being tracked and maintains a safe following distance when a lead vehicle is being tracked. The safe following distance is maintained by controlling engine throttle, engine retarder and requesting foundation brake application as necessary. This automatic brake application is intended only to provide early braking until the driver has recognized and reacted to the situation. The driver must also apply the brakes in response to the Collision Warning.

Failsafe radar monitoring is designed to alert the driver of a blocked radar sensor. If the radar sensor is blocked, all OnGuard™ functions are disabled: ACC, Distance warnings, Forward Collision Warnings, Haptic Warnings and collision mitigation braking. The driver is informed through the OnGuard™ display.

#### Procedures

Freightliner tractors that have the current OnGuard™ System (SOP Jan 2013) installed require an update of the OnGuard™ Radar Software and Parameters. Freightliner tractors equipped with 2013 Detroit engines GHG 14, and have the current OnGuard™ System (SOP Jan 2013) installed require an update of the Radar Parameters.

This update requires installation of OnGuard™ Programming Tool software. This software is distributed by e-mail. Once installed, you must run the update, and then e-mail the VIN number and parameter files back to Meritor WABCO. Send the e-mail to [OnTrac@Meritor.com](mailto:OnTrac@Meritor.com). Write 'OnGuard Following Distance Update' in the subject line.

#### Install the Software

**NOTE:** An internet connection is required to obtain the OnGuard™ Programming Tool software.

1. Obtain the OnGuard™ Programming Tool software.
2. Unzip the OnGuardProgrammingTool\_HwyDistanceAlertIncrease.zip.

The folder contains four files:

- OnGuard Programming Tool.exe
- J1939Diag\_UDS.dll
- Adapter\_Selection.exe
- ars301\_appl\_DPL1-60-1-6-1-9-4-9.hex

## Run the Software Update

1. Turn the vehicle ignition switch OFF.
2. Connect the computer to the vehicle's SAE J1939-13 Off-Board Diagnostic Connector using a diagnostic interface.
3. Turn the vehicle ignition switch ON.
4. Run the program file OnGuard Programming Tool.exe.

**NOTE:** The first time you run this software, you should use the selection screen for Diagnostic Interfaces by running Adapter\_Selection.exe.

5. Select the device name for your specific diagnostic interface (e.g. NEXIQ or NOREGON) from the "Vendor" pull-down list. Refer to the examples in Figure 1 and Figure 2.



Figure 1



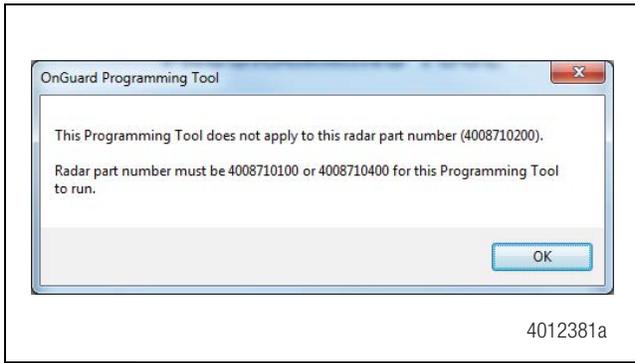
Figure 2

6. Select the Protocol: **J1939**.
7. Select the Adapter you are using. Refer to the examples in Figure 1 and Figure 2.
8. Click OK.
9. Select "Update Radar Software" by clicking the button. Figure 3.



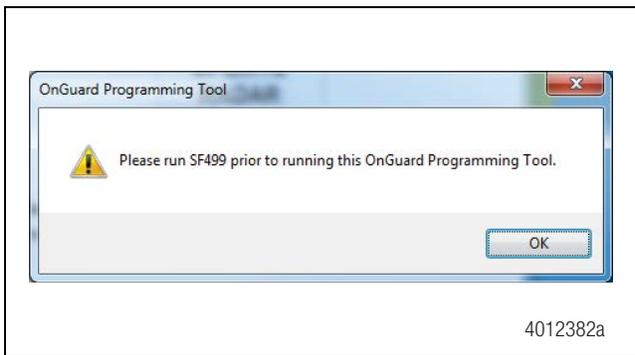
Figure 3

10. If the radar part number is not correct for this tool to run, the following message will appear. Click OK to close the window. Figure 4.



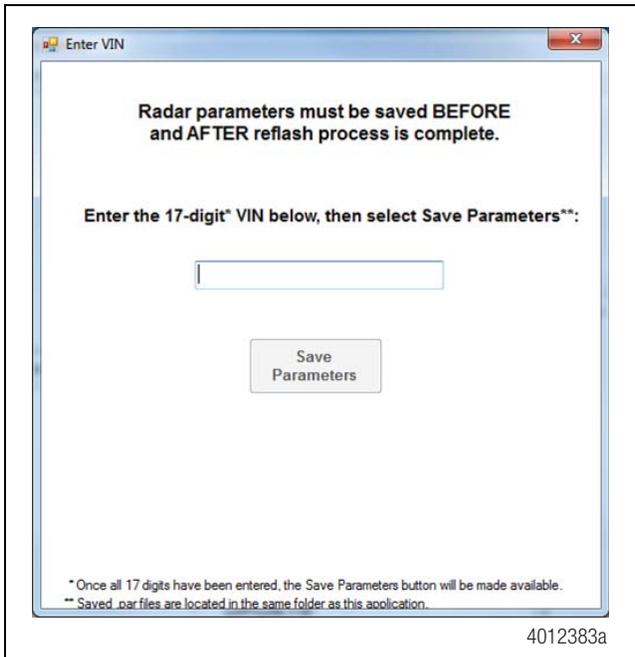
**Figure 4**

- If the radar software version is not correct (i.e. not 1.60.1.6.1.9.4.3.1.3), the following message will appear. Click OK to close the window. Figure 5.



**Figure 5**

- When the part number and software version number are correct, enter the VIN and click "Save Parameters". Figure 6.



**Figure 6**

The following screens will appear as the parameters are saved. Figure 7, Figure 8, Figure 9, Figure 10 and Figure 11.



**Figure 7**



**Figure 8**



**Figure 9**

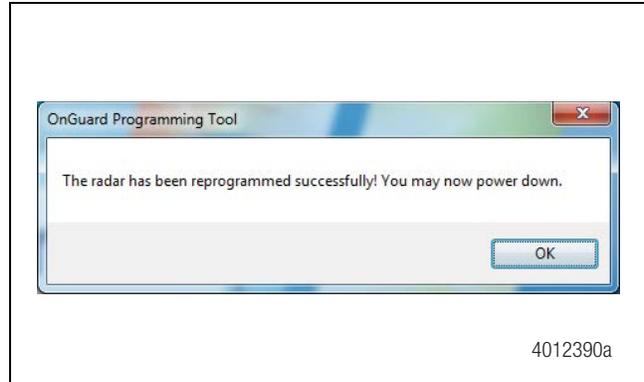


**Figure 10**



**Figure 11**

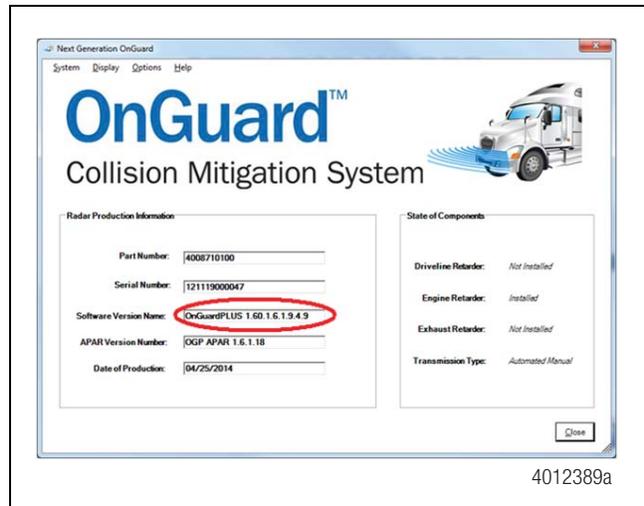
13. When the radar has been reprogrammed successfully, the following message will appear. Click OK. Figure 12.



**Figure 12**

14. The new programmed software version 1.60.1.6.1.9.4.9 will appear in the Software Version Name field in the TOOLBOX™ Software.

**NOTE:** In order to verify the software version has been successfully programmed, TOOLBOX™ Software is required to display the below production software data. Figure 13.



**Figure 13**

## **MERITOR WABCO**

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