

General Service Bulletin (GSB):	<b>Adaptive Cruise Control &amp; Collision Warning Radar Alignment Process</b>
GSB Overview:	Information on set up and completion steps for proper horizontal alignment of the cruise control module (C-CM) radar sensor
NOTE: This information is not intended to replace or supersede any warranty, parts and service policy, Work Shop Manual (WSM) procedures or technical training or wiring diagram information.	

## This GSB includes information on the following topics:

- **Vehicle Applications**
- **System Preparation**
- **Horizontal Drive Cycle Process**

# Adaptive Cruise Control & Collision Warning Radar Alignment Process

- **Vehicle Application:**

- 2010-2017 Taurus, Explorer, Edge, Flex, Fusion, MKS, MKX, MKT, MKZ
- 2015-2017 F150, Mustang, and MKC
- 2017 Super Duty, Escape, and Continental

- **Preparation:**

- Check DTCs, tires, Cruise-Control Module (C-CM) attachment/vertical alignment. (Refer to Workshop Manual [WSM] section 419-03)
- If any DTCs are found in an On-Demand Self-Test of the C-CM (i.e. return after clearing), the Horizontal Alignment Procedure may not run or may abort.
- If the C-CM (radar sensor) is detached from the bracket on one or more nylon ball socket joints, it must be reattached and leveled per the WSM prior to performing the Horizontal Alignment procedure. (New grommets are available for service – p/n W790214-S900)



Detached ball socket with sensor hanging free.

- Once the C-CM calibration procedure is activated, a message will appear in the dual display instrument cluster. Older style clusters will have a flashing amber symbol instead.

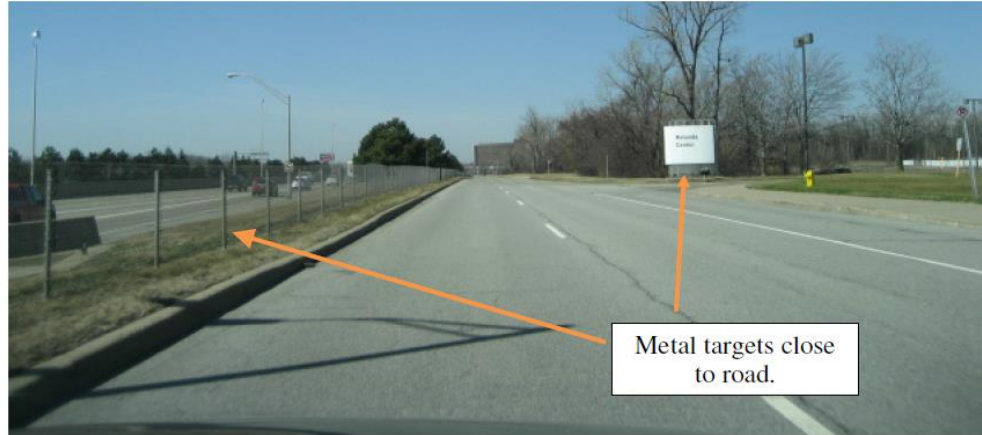
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- **Vehicle Horizontal Drive Cycle Process:**
  - **Vehicle must be driven in the same key cycle**
    - If a key cycle or power loss occurs before completion of the alignment procedure, the sensor will exit the procedure. The message will change to "Adaptive Cruise Not Available" for dual display clusters.
  - **If the vehicle does not have the original equipment tires**
    - Check that the tire size matches what is programmed in the PCM. If there is a mismatch, the Adaptive Cruise Control (ACC) alignment process may not complete, or the customer may experience stuttering or surging during usage of the cruise control. Upon successful completion of the alignment procedure, the "Front Sensor Not Aligned" message will clear and normal instrument cluster display will resume. For older clusters, the amber light will cease blinking.
  - **Targets**
    - While driving the car during Horizontal Alignment mode, the radar is constantly scanning for stationary targets.
    - Once it detects enough targets (around 250) it will align and the "Front Sensor Not Aligned" message will disappear from the cluster.
- Note:** Driving in areas with more stationary metallic objects will align the radar faster than in areas with fewer.

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## Vehicle Horizontal Drive Cycle Process (cont.):

- This picture shows a target-rich environment. Steel fence posts run next to the road along with signs and light posts. Each post, sign and pole counts as a single target.



- This picture shows a target-poor environment (very few targets) the vehicle will need significantly longer drive time to detect enough stationary targets in order to align.

