

# **Service Bulletin**

# PRELIMINARY INFORMATION

# Subject: Diagnostic Tip - Ambient Temperature Display / Information (Topology)

Models:2015 Cadillac Escalade Models2015 Chevrolet Tahoe, Silverado, Suburban2014 Chevrolet Silverado 15002015 GMC Sierra, Yukon Models2014 GMC Sierra 1500

## This PI was superseded to update Condition/Concern. Please discard PIT5365B.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

# **Condition/Concern**

There has been some confusion on how the temperature reading that is displayed on the radio, gets from the ambient temperature sensor to the actual radio display. Depending on the model and radio option, it may vary. The block diagrams below should help clarify any confusion.

## -1500 Trucks and All SUV's With IO3 Radio

Ambient Air Temperature Sensor >>> (hard wired circuits 636 and 61) >>> ECM >>> (High Speed Lan)>>> BCM >>> (Low Speed Lan) >>> Radio tuner >>> (LVDS Cable) >>> Radio Display

#### -1500 Trucks and All SUV's With IO4, IO5, or IO6

Ambient Air Temperature Sensor >>> (hard wired circuits 636 and 61) >>> ECM >>> (High Speed Lan)>>> BCM >>> (Low Speed Lan) >>> Radio tuner >>> (MOST BUSS) >>> HMI >>> (LVDS Cable) >>> Radio Display

#### -2500/3500 Trucks With IO3 Radio

Ambient Air Temperature Sensor >>> (hard wired circuits 636 and 61) >>> IPC >>> (Low Speed Lan) >>> Radio tuner >>> (LVDS Cable) >>> Radio Display

#### -2500/3500 Trucks with IO4, IO5, or IO6

Ambient Air Temperature Sensor >>> (hard wired circuits 636 and 61) >>> IPC >>> (Low Speed Lan) >>> Radio tuner >>> (MOST BUSS) >>> HMI >>> (LVDS Cable) >>> Radio Display

**Important:** For all 2500/3500 radio combinations listed above, some early built 2015i trucks (RPO AVF = 2015i mid year change) equipped with 6.6L diesel engine (RPO LML) built before 12/14/14 use the ambient air temperature sensor located in the passenger mirror for the temperature displayed on the radio, HVAC and powertrain requirements. If the BCM and IPC are reprogrammed with the latest calibrations in TIS2WEB, this will change the operation of the radio and HVAC topology to what is shown above. This is how these trucks built since 12/14/14 come programmed. The grille mounted ambient air temperature sensor will now only be used for the radio and HVAC requirements, and the passenger mirror sensor will now only be used for powertrain requirements. The radio outside temperature display will show "- -" if only one of the modules (BCM or IPC) is programmed with the latest calibrations. The other module will need to be programmed with the latest calibration to correct the issue. The 2015 6.6L diesel trucks (RPO LML) built PRIOR to the mid year change 2015i (i.e. NOT equipped with RPO AVF) do not use a physical ambient air temperature sensor in the passenger outside mirror for the powertrain requirements. The outside temperature for powertrain requirements is calculated by the ECM. The radio outside temperature display and HVAC requirements will still follow the 2500/3500 topology listed above.

**Note:** For all the 1500/2500/3500 radio configurations listed above, after the IPC or BCM sends the ambient air temperature out on the Low Speed LAN buss, the HVAC control module will use this information for HVAC related requirements.

# **ADDITIONAL SI KEYWORDS**

#### dash dashes

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

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