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Subject: Battery Drain Checklist For Corvettes - keywords adaptor column draw harness interface IPOD lamp light lights lock manual parasitic program shift shifter steering transmission wheel #PIC4188D - (04/03/2007)

Models: 2005-2013 Chevrolet Corvette

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

Condition/Concern:

A customer may complain of an intermittent battery drain.

Recommendation/Instructions:

If a complaint of a battery drain arrives it is important to do a little product investigation prior to applying battery power or jump starting the vehicle. Please read each step carefully. Only perform the steps that have the model year of the vehicle in question.

Use the emergency entry procedure to enter the car, unlock the trunk or hatch and release the driver's door.

2005 manual transmission only. Attempt to turn the steering wheel. If the steering wheel is locked it is a good indication the transmission was placed reverse before it was shut down. The Electric column lock waits to see if the shifter was placed in reverse prior to issuing the command to lock the column. If the column is locked the shifter had to be where it was supposed to be. If the column is unlocked there is a good chance the shifter was not in the proper location when the car was shut down.

2005 manual transmission only. Check the location of the shifter. The shifter should be placed into reverse prior to turning the vehicle off. Again if the shifter is not in the proper location the electrical system will not power down.

2005-2013. Open the hood and apply battery power, either to jump or charge the battery. DO NOT START THE ENGINE. Enter the car, close the door and wait for 90 seconds. Take note of what is on. Address any item that is on that should not be.

2005-2013. Are the headlamp or day time running lamps lit? With the key off there should not be any lamps lit. Perhaps the headlamp switch has been inadvertently turned on. Remember the only time the headlamps are turned off are in the off position or automatic. If the customer has turned the stalk to parking lamps or headlamps the headlamps will be lit when the ignition is off. There should be a chime to remind the driver the lamps are lit but often times the chime is ignored. These are on the 20 minute battery saver circuits but it does not take many short start and stop trips to draw the battery down to a voltage that will not allow the car to start

2005-2013. Is the radio still on? There have been reported cases where the radio stays powered up after the vehicle is shut down. This has been an intermittent complaint and it only occurs on cars equipped with the Bose systems which is the multi-disc player and the Nav radio. Only service the radio if this concern can be identified.

2005-2013. Does the customer own an I-Pod? It is possible an I-Pod interface has been installed. This device connects directly to the radio at the XM connection. It will keep the audio powered after shutdown. Even if the IPOD device has been unplugged, this device must be removed from the vehicle completely. The device triggers the Bus to maintain power even when the device is not powered.

2005-2013. Close both doors. After 2 minutes are there any interior lamps on? Visually check the map lamps on the rear view mirror and vanity lamps. Often these lamps can be bumped and if the car is only driven during the day it will not be noticed. Under dash lamps are controlled by the courtesy lamp switch. Many customers do not realize that the switch has been bumped and they have been turned on. The old switch (C5 cars) used to push in and you could tell it was off. The new switch (C6 cars) does not press in. It can be bumped and turned on and go unnoticed. There should not be any lamps on in the interior of the car after 3 minutes if the ignition has not been turned on, including the cluster.

Note anything that is on.

2005-2013. Check for electrical accessories plugged into the cigarette lighter and the accessory plug in

the console. Even though there may not be anything plugged into the accessory cord it can be a source of battery draw.

If the 2005-2013 is equipped with the Onstar (VCIM module) , check the draw, and if there is a parasitic draw, remove the VCIM fuse and check to see if the parasitic draw is gone.

If it is the issue, then the draw will be

2005-2013. Use the Tech2 and inspect the key cylinder operation for the deck lid or hatch depending on body style. Be sure this cylinder changes status on the Tech2 as the cylinder is rotated. An "Active" input to the BCM may keep the BCM awake and induce a battery drain condition. The Tech2 path is... Model Year > Passenger Car > Chevrolet > Y Car > Body and Accessories > Body Rear End > Data Display > Body Control Module > Chassis Data > Keyless/Remote Start Data > locate the parameter labeled "Trunk Key Cylinder Switch". This item should change from Active to Inactive and the cylinder is rotated.

2005-2013. Remove the CTSY/LAMP fuse from the electrical center. Perform a 20 minute parasitic draw test. Was the draw eliminated with the CTSY/LAMP lamp fuse removed? If so, remove 1732 circuits from the BCM, Connector C4 terminals D5 and E5 and Connector C3 terminal A3. Test for continuity to ground on each terminal. There should be no ground continuity with all devices turned off, trunk/hatch closed and door latches closed. Diagnose and repair circuit conditions on any 1732 branch with unwanted grounding path. Normal system operation will have a signal voltage on the 1732 circuit while powered down and all three 1732 circuits installed at the BCM in their proper connectors.

Note: There have been reports of buttons on the Universal Garage Door Opener sticking. This device could lead to an intermittent battery drain. Unplug the drivers side visor/sunshade and evaluate. When a button sticks, the vehicles battery draw is typically around 250mA. This device is powered by the 1732 courtesy circuit listed above.

2005-2006. Finally if all the above information has been inspected and Strategy Based Diagnostics has been performed with no resolution, reprogram the PCM/ECM with the latest calibration through TIS-2WEB. Once the calibration has been down loaded to the PCM/ECM, release the vehicle for customer to evaluate.

Notie: 2007 and above model vehicles were given this updated calibration prior to shipping from Bowling Green Assembly.

2005 Model vehicles select the calibration under the tab for "Main Operating System" labeled...

"New software to address potential battery run-down situation"

2006 Model vehicles select the calibration under the tab for "Main Operating System" labeled...

"New software contains diagnostics enhancement for DTC P0128 and DTC P0507. Also addresses battery drain."

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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