



Preliminary Information

PIC4935F Normal Characteristic - OnStar Power Consumption

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
All	All	2000 - 2017	All	All	All	All

With OnStar Gen6, Gen7, Gen8, Gen9, and Gen10

Supersession Statement

This PI was superseded to update model years, and gen10 information. Please discard PIC4935D.

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

Condition / Concern

During battery parasitic drain test, there may be some confusion as to what the normal power consumption reading should be from the OnStar® system.

Recommendations / Instructions

When performing a current draw test it is important to understand the power cycles of the various OnStar® systems. All OnStar® customers with active accounts on their vehicles have digital cellular capability. A green status LED on the OnStar® keypad normally indicates an active OnStar® account. A red LED indicates a system DTC. On Gen 6 and later systems, a dark or no LED lit may indicate the OnStar® system has been deactivated or possibly it may have a no power/no communication concern.

The OnStar® system will stay powered up after ignition off for an extended time in order to allow for remote services like door unlock, horn honk, light flash, etc. to take place as requested by the customer.

Power cycle (also referred to as DRX) times vary depending on the generation of the OnStar® system. Technicians may identify the system generation by using a Tech 2 (Body>VCIM>Module ID Information>Module Information 2), or using GDS/GDS 2 (Telematics Communication Interface Control Module/ Identification Information).

All Gen 6, 7, 8, and 9 systems are powered up continuously for 48 hours from ignition off. After the 48 hours the Gen 6 and some Gen 7 power off; Gen 7.XXL, and all Gen 8 systems will enter a 9 minute OFF 1 minute ON power cycle for an additional 72 hours. Gen9 and FCP1 (Volt) will remain in that mode for 120 hours (5 days). At the beginning and end of the 1 minute ON stage, you may experience a short spike of current. This allows for calls from OnStar to be received by the system.

After 120 hours from ignition off, these systems then completely power off. The expected current draw of the OnStar® module is:

- IGN ON - 240 to 400 mA
- IGN OFF and in DRx (Stand by mode) - 3 to 20 mA for 48 hours on Gen 6,7, 8, or 120 hours on Gen9, FCP1 (Volt), and specified VCP's
- IGN OFF and after DRx has been canceled - 1 to 3 mA after 48 hours on Gen 6,7, 8, or 120 hours on Gen9, FCP1 (Volt), and specified VCP's

Gen 10 from the factory is set to 4 days DRx (Stand by mode) with (no active service). At time of subscriber activation, DRX mode changes to 10 days.

If DRx mode is active, module current draw may be 3-20 mA.

Once DRx mode times out (after the 4 or 10 day time frame), the parasitic draw should be 1-3 mA.

- During extended current monitoring for platform battery parasitic it is possible that you may see an amperage spike caused by a cellular registration call that was triggered by the local cellular system, or that OnStar® has set a monthly trigger for a vehicle data upload call for the OnStar® Vehicle Diagnostic email upload.

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.

