



Preliminary Information

PIC6049F Wireless Charging Module Diagnosis

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Buick	LaCrosse	2017	All	All	All	All
Cadillac	ATS	2015 - 2017	All	All	All	All
Cadillac	CTS VIN A	2015 - 2017	All	All	All	All
Cadillac	Escalade Models	2015 - 2017	All	All	All	All
Cadillac	CT6	2016 - 2017	All	All	All	All
Cadillac	ELR	2016 - 2017	All	All	All	All
Cadillac	XTS	2016 - 2017	All	All	All	All
Cadillac	XT5	2017	All	All	All	All
Chevrolet	Suburban	2015 - 2017	All	All	All	All
Chevrolet	Camaro	2016 - 2017	All	All	All	All
Chevrolet	Cruze	2016 - 2017	All	All	All	All
Chevrolet	Impala	2016 - 2017	All	All	All	All
Chevrolet	Malibu	2016 - 2017	All	All	All	All
Chevrolet	Volt	2016 - 2017	All	All	All	All
Chevrolet	Silverado HD	2016 - 2017	All	All	All	All
Chevrolet	Colorado	2017	All	All	All	All
GMC	Yukon Models	2016 - 2017	All	All	All	All
GMC	Sierra HD	2016 - 2017	All	All	All	All
GMC	Acadia	2017	All	All	All	All
GMC	Canyon	2017	All	All	All	All
Chevrolet	Equinox	2018	All	All	All	

With Inductive Portable Wireless Device Charger (RPO K4C)

Supersession Statement:

This PI was superseded to end a part restriction and update EL 51755 'Inductive Charging Test Tool' with new sleeve diagnostics and add the 2018 Chevrolet Equinox. Please discard PIC6049E

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

Condition / Concern

The following procedure **REQUIRES** the use of EL 51755 'Inductive Charging Test Tool' which is an essential tool shipped to every GM store earlier this year. Refer to Use of EL 51755 'Inductive Charging Test Tool' below.

The diagnostic process follows the following outline

1. Validate applicability of the device to be charged
2. Understand "Normal" charger/device interaction
3. Validate the function of the Wireless Device Charger with EL 51755 tool and EL-51755-UPD Sleeve

Validate applicability of the device to be charged

Not all wireless devices are prepared to accept a charge from the built-in wireless charger.

First determine what device the owner is attempting to charge and validate this device is compatible with the GM Wireless Charger.

The following table is regularly updated and posted at: www.gmtotalconnect.com.

https://my.chevrolet.com/content/dam/gmownercenter/gmna/static/pageImages/learnAbout/articles/documents/GM_Wireless_Charging_Compatible_Device.pdf

Phone Manufacturer	Phone Model	Built-In Wireless Charging	Recommended Case / Back Cover
Apple	iPhone 4/4s		VITAHULT (IKEA): Wireless charging cover i4
			Energizer Model: IC-IP4G
Apple	iPhone 5/5s		Aircharge MFi Qi iPhone 5S / 5 Wireless Charging Case AIR0191
			VITAHULT (IKEA): Wireless charging cover i5/5S
			Duracell/Powermat REC000078
			CHOETECH Qi Standard Wireless Charger Receiver Case for iPhone 5/5s
Apple	iPhone 6/6s iPhone 7/7s		BEZALEL Latitude [Qi + PMA] Dual-Mode Universal Wireless Charging Receiver Case
			VITAHULT (IKEA): Wireless charging cover i6 (not compatible with Cadillac CT6)
			Aircharge MFi Qi iPhone 6S / 6 Wireless Charging Case
HTC	Incredible2		HTC6350-WLDR
LG	G2	X	N/A
LG	Nexus 4	X	N/A
LG	Nexus 5	X	Built-in / Not Required
LG	Spectrum 2	X	Built-in / Not Required
Motorola	Droid 4		Motorola Model: MOTDRD4-WLDR
Motorola	Droid Bionic		Motorola Model: MOTBIO-WLDR
Motorola	Droid Maxx	X	Built-in / Not Required
Motorola	Droid Mini	X	Built-in / Not Required
Motorola	Moto X		Incipio model: MT231
Nokia	Lumia 920	X	Built-in / Not Required

Nokia	Lumia 928	X	Built-in / Not Required
Nokia	Lumia 830 / 930	X	Built-in / Not Required
Nokia	Lumia 950 / 950 XL	X	Built-in / Not Required
Samsung	Galaxy S3		VITAHULT (IKEA): Wireless charging cover S3
			Duracell/Powermat: REC000072
Samsung	Galaxy S4		VITAHULT (IKEA): Wireless charging cover S4
			Samsung Model: EP-CI950IWK
			Incipio Model: SA-069-SLV; SA-069-BLK
Samsung	Galaxy S5		VITAHULT (IKEA): Wireless charging cover S5
			Samsung model: EP-VG900BBU
			Samsung model: EP-CG900IBA
Samsung	Galaxy S6	X	Built-in / Not Required
Samsung	Galaxy S6 Edge	X	Built-in / Not Required

The inductive system in GM Vehicles is not intended to accommodate all devices that feature inductive charging.

Tablets and larger cell phone have dimensions beyond the design-targeted dimensions.

The following table shows the dimensions GM targeted for compatibility.

Any device or device/case combination that is outside these dimensions may not work or may work only intermittently.

This is **NOT** reason to replace parts and is not a warrantable event.

(mm)	Min	Max
Height	120	144
Width	60	73

Protective cases used on phones with built-in wireless charging capability may have reduced or no charging performance.

If the owner's device is not listed on the above compatibility matrix or is outside the dimensions listed in the above table, advise the owner their device is not compatible with the GM design and take no further action.

Recommendations / Instructions

Understand "Normal" charger/device interaction

The following guidance is applicable to both a compatible device and the EL 51755 testing tool used in addition with the new EL-51755-UPD Sleeve.

Review the owners manual or September 28, 2016 TechLink for charger operation for the specific model being serviced. In general care must be taken to assure:

1. Verify the device is properly equipped for wireless charging.
2. Turn on the vehicle or use Retained Accessory Power.
3. Remove all objects from the charging pocket or pad before attempting to charge the phone. Make sure there are not any coins, keys, cards, etc., trapped between the phone and the charging surface.
4. On a charging pad, align the back of the phone (screen facing up) against the flat surface of the charging pad. For a charging pocket, insert the phone (screen facing rearward) into the pocket so the phone screen faces the rubber bumps within the pocket. Proper positioning is critical; the charging coils of the charging surface and the device must line up in order for charging to take place.
5. When the phone is properly aligned, the phone charging icon (lightning bolt) will appear on the infotainment screen and, a few seconds later, the phone's battery will start charging. If the phone does not charge, remove it from the pocket/pad, rotate it 180 degrees, wait for 3 seconds, and reposition it correctly.

TIP: The Colorado and Canyon do not display the phone charging icon on the infotainment screen. An LED indicator on the console is green when the phone is charging. If the LED is yellow, the phone is not charging and it should be repositioned correctly on the charging pad.

For vehicles with charging pads, rough roads and vehicle dynamics may result in the phone shifting out of position and charging to stop. If this happens, lift the phone for 3 seconds and place again on the pad with the correct alignment to re-establish charging.

If customers have any questions about wireless charging, direct them to the Owner Center websites for their respective brand.

Validate the function of the Wireless Device Charger with EL 51755

Note: in December 2016 an updated "Sleeve" for the EL 51755 was shipped to all dealers. Assure your tool up updated with this sleeve to assure proper positioning of the tool in all inductive charging applications. More information available in the January Emerging Issues show is available on the training web site. This story is included. 10217.01V



The EL-51755 Inductive Charging Test Tool can be used to verify charging system operation in a vehicle.

There is no need to remove the rubber sleeve from the pocket or pad for testing.

To verify the operation of the charging system, simply position the tool on the charging pad or in the charging pocket.

If the tool's wireless charging indicator is on, the charging system is operating properly and any charging concern may be caused by an incompatible or defective mobile device.

If the charging indicator is off, continue diagnosis using the appropriate Service Information.

To complete the test successfully, the procedure may need to be repeated 5 times.

Between each attempt, remove the tool and wait at least 3 seconds to reset charger module from failure mode.

Tip: For any Mobile Device Wireless Charging System concerns, refer to circuit/system verification and testing in the appropriate Service Information. A scan tool cannot be used since the system is not connected to any control module. No DTCs or data parameters are available.

Note: To locate information in Service Information for Mobile Device Wireless Charger Malfunction, or Module Replacement please refer to the following path: Power and Signal Distribution | Power Outlets | Wireless Charging (K4C)

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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