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# **Preliminary Information**

# PIP4890B Battery Too Cold Plug In To Warm Message Vehicle Will Not Start

## <u>Models</u>

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
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Chevrolet	Volt	2011 - 2015	All	All	LUU	МКА
Cadillac	ELR	2014 - 2016	All	All	LUU	МКА

#### Supersession Statement

This PI was superseded to update model year and add note to concern. Please discard PIP4890A

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

### Condition / Concern

Some customers may state that their vehicle will not start and a message on the Drivers Information Center (DIC) displays: "Battery Too Cold, Plug In To Warm" Message.

This condition usually occurs on vehicles that have been parked for a prolonged period of time in extremely cold temperatures.

(Approximately -25C or -14F for 2011-2012 vehicles, and -30 C or -22 F for 2013-2016 vehicles.)



This DIC message displays during extremely cold temperatures. The vehicle will not start until the high voltage battery is warm enough.

When the vehicle is subjected to cold temperatures for an extended length of time, the electrolyte in the battery cells starts to freeze. Once that occurs, you cannot pass current through the battery for any reason, such as starting the gasoline engine or powering the battery internal heater.

It is a physical limitation of the vehicle, much the same as diesel fuel gelling at very cold temperatures and making the car impossible to start. For the electrolyte, it just happens at a warmer temperature than diesel fuel.

NOTE: If a customer experiences this message during warm weather, this may be due to a faulty temperature sensor in the battery pack and the vehicle should be taken into the dealer for service.

#### **Recommendations / Instructions**

If a customer experiences this concern, advise the customer of the physical limitations of the battery and that this is a normal condition. To mitigate the concern, advise the customer to plug the vehicle in to allow the charging system to warm the high voltage battery, and then the vehicle can be started.

Note: Without a charger to provide power from somewhere besides the battery, to use for heating, the contactors cannot be closed and the car cannot be started. The Volt does not have a conventional 12V starter and needs the 300 volt battery to supply high voltage to the electric motor to start the gasoline engine.

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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