

# **Preliminary Information**

## PIT6065E Software Update On GM Ultium Vehicles

<u>Proactive</u>

### <u>Models</u>

Brand	Model:	Model Vears:	VIN:		Engine	Transmissions	
Brand.	Wodel.	Model reals.	from	to	Engine.		
Cadillac	LYRIQ	2023 - 2024	All	All	All	All	
Chevrolet	Silverado EV	2024	All	All	All	All	
GMC	HUMMER EV	2022 - 2024	All	All	All	All	

Involved Region or Country	All Regions					
	Electric Vehicles (EV) contain significant number of Electronic Modules that may require software updates.					
Condition	These software updates are important to not only fix issues, but also enhance the vehicle functions.					
	For the effected vehicles above, GM is recommending that dealers check each module for software updates anytime affected vehicles are brought in for service.					
	Technicians are to utilize SPS2 on Techline Connect to check for updates on every module.					
Correction	*For 2023 LYRIQ's, please review PIE0779 prior to performing any software updates.					
	*For 2024 LYRIQ's, please review PIE0768 prior to performing any software updates.					

#### Service Procedure

Caution: Before downloading the update files, be sure the computer is connected to the internet through a network cable (hardwired). DO NOT DOWNLOAD or install the files wirelessly. If there is an interruption during programming, programming failure or control module damage may occur.

- Ensure the programming tool is equipped with the latest software and is securely connected to the data link connector. If there is an interruption during programming, programming failure or control module damage may occur.
- Stable battery voltage is critical during programming. Any fluctuation, spiking, over voltage or loss of voltage will interrupt programming. Install a GM Authorized Programming Support Tool to maintain system voltage. Refer to <u>www.gmdesolutions.com</u> for further information. If not available, connect a fully charged 12V jumper or booster pack disconnected from the AC voltage supply. DO NOT connect a battery charger.
- Follow the on-screen prompts regarding ignition power mode, but ensure that anything that drains excessive power (exterior lights, HVAC blower motor, etc) is off.
- Clear DTCs after programming is complete. Clearing powertrain DTCs will set the Inspection/Maintenance (I/M) system status indicators to NO.

Important: The service technician always needs to verify that the VIN displayed in the TLC left side drop down menu and the top center window match the VIN plate of the vehicle to be programmed prior to using Service Programming System 2 (SPS2) for programming or reprogramming a module.

- For the TLC application, service technicians need to always ensure that the power mode (ignition) is "ON" before reading the VIN from the vehicle's VIN master module and that they do not select a VIN that is already in the TLC application memory from a previous vehicle.
- If the VIN that shows up in the TLC top center window after correctly reading the VIN from the vehicle does not match the VIN plate of the vehicle, manually type in the VIN characters from the vehicle VIN plate into the TLC top center window and use these for programming or reprogramming the subject module with the correct vehicle VIN and software and/or calibrations.

- The Engine Control Module (ECM) is the master module (for VIP vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the ECM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.
- The Body Control Module (BCM) is the master module (for GEM vehicles) that TLC reads to determine the VIN of the vehicle. If the VIN read from the vehicle by TLC does not match the VIN plate of the vehicle, the BCM also needs to be reprogrammed with the correct VIN, software and calibrations that match the vehicle's VIN plate.

Caution: Be sure the VIN selected in the drop down menu (1) is the same as the vehicle connected (2) before beginning programming.



1. Start programming the first module listed on the SPS2 supported controllers table (3).

am	SPS2		
ت		$(\mathbf{a})$	Supported Controllers
÷	Select Controller	(3)	
	Code		Controller Name
(m)	Z4	Vehicle wide Capture of Module Identification Data	
	Т3	Audio Amplifier	
	K16A	Battery Energy Control Module 1	
	K9	Body Control Module	
1 - F	K160	Brake System Control Module	
	K107	Drive Motor Control Module	
Q	K107A	Drive Motor Control Module 1	
	K40D	Driver Seat Adjuster Memory Module	
	82338	Forward Range Radar Sensor - Long Range	
ØA	8174W	Front View Camera - Windshield	
	K26	Headlamp Control Module	
(H)S	K124	Image Processing Module	
-	Z1	Immobilizer Learn	
	Lusia	10 M / M / M / M	
61			
-	Select Function/Segu	ence	

Important: If the same calibration/software warning is noted on the TLC Summary screen like the example below. Select OK and follow screen instructions.

-		( ) ·	-						-		
ASHBOARD	GDS2		SPS2				Support *	RPO *	Search Service Ma	ruats.	Q
152										- 0	3 ×
		Program	nming	M4521: You are attempting calibration.	to reprogram with t	fre same					
Controller	ID		Current #	Colord Part on construct of Const	dia final			Description			
1	1	84820	771	select UK to continue, Cano	e to step		-				
1	2	84820	790		OK	Cancel					
r	3	84820	797	84820797	- Charles in						
r	4	84820	801	84520801	-		-				
1	5	84820	808	84820808	-						
	6	84820	819	84820819	Ten lines	on Calibration					
	7	84820	125	84820825							

After a successful programming event, the WCC is located in the Service Programming System dialogue box of the SPS Summary screen.

Document the WCC on the job card and proceed to the next module.

Refer to the Warranty Information section of this bulletin.

						1.11						
GM Techline Co Version: 1.8.0 Valida	onnect			-	harmint a Comp	:	ADI 2 SN/F: CORO Click to disconne	ect	2	-	4-	
DASHBOARD	GDS2	81	SPS2				Support *	RPO	<b>•</b> 54	with Service Mar	sala.	Q
SP52											- 0	3 ×
				War	ranty Claim Code							
Programming Compl	ete.											
VIN -				$\sim$								
_				1)								
2020-08-19 12:23:43 P	°M			<u> </u>								
1 201 1				-								
Warranty Claim Cod	e: 28VN4680855	16										
The Warranty Claim	code is require	to Confirm pr	ogramming has be	en completed.	Incorrect or mis	ning Warra	nty Claim Codes	may rest	dt in reject	ion of warra	sty claim.	
Record this code on the	in for prior VIN	order (if applic	be retrieved thro	igh "Nettings"	at SPS start pag	pr.						
NUCCES SHE COME OF SH	e warranty repair	canes (a abbar										
Post Programming In	structions											
Follow the Controller 5	Specific Instruction	ons below.										
If there are no Controll	ler Specific Instru	ections, turn ign	ition off for 30 sec	nds to reset the	controller.							

Note: The screenshot above is an example of module programming and may not be indicative of the specific module that is being programmed. Module selection and VIN information have been blacked out.

2. Record the SPS Warranty Claim Code on the job card for warranty transaction submission.

Important: To avoid warranty transaction rejections, you MUST record the warranty claim code provided on the Warranty Claim Code (WCC) screen shown above on the job card. Refer to callout 1 above for the location of the WCC on the screen.

3. After successfully programming the module select "*Proceed with same VIN*" to continue programming the rest of the vehicle.

4. Repeat the steps above for the next modules to verify all have the latest software going down the list (4).

am	SPS2		
2		1	Supported Controllers
-	Select Controlle	+/	
	Code	r	Controller Name
(m)	Z4	Vehicle wide Capture of Module Identification Data	
	T3	Audio Amplifier	
	K16A	Battery Energy Control Module 1	
	K9	Body Control Module	
1 I I	K160	Brake System Control Module	
	K107	Drive Motor Control Module	
Q	K107A	Drive Motor Control Module 1	
	K40D	Driver Seat Adjuster Memory Module	
	8233B	Forward Range Radar Sensor - Long Range	
60	8174W	Front View Camera - Windshield	
_	K26	Headlamp Control Module	
CHUS	K124	Image Processing Module	
-	Z1	Immobilizer Learn	
	Lizzan	1110 A 1 111 11	
•			
-	Select Function/Sequ	ience	

5. Use GDS2 to clear any DTCs after successfully programming.

#### Warranty Claim Code Information Retrieval

	VIN	Module	Function	Warranty Claim Code	Job Can
Java Ven		K73 - Telematics Communication Interface Control Module	Programming & Service Activation		test
1.0.0_92	-	K9 - Body Control Module	Programming		test
		K5 - Automatic Level Control Module Ignition	orr		test driver
		K56 - Serial Data Gateway Module	Programming		test driver
	4 C				
					Ok Cano

If the Warranty Claim Code was not recorded on the Job Card, the code can be retrieved in the SPS2 system as follows:

- 1. Open TLC on the computer used to program the vehicle.
- 2. Select and start SPS2.
- 3. Select Settings (1).
- 4. Select the Warranty Claim Code tab (2).

The VIN, Warranty Claim Code and Date/Time will be listed on a roster of recent programming events.

If the code is retrievable, dealers should resubmit the transaction making sure to include the code in the SPS Warranty Claim Code field.

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operations. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

If a module requires updating, utilize the following labor operations and time for claim payment. Only modules requiring an update should be claimed. Claim payment for the Software Maintenance Reprogramming labor operation will be based on .3 hours base time plus the add time for each additional module that requires programming.

If the Image Processing Module requires programming, a separate labor operation should be submitted utilizing straight time for the base time.

Note: The following Add times are for normal programming events. If there are issues with programming, Other Labor Hours should be utilized for the additional time.

Labor Operation	Description	Labor Time 2022	Labor Time 2023	Labor Time 2024
*2889878	EV - K124 Image Processing Module Reprogramming with SPS	ST	ST	ST
*2888068	Software Maintenance Reprogramming	.3 Hr.	.3 Hr.	.3 Hr.
	Add Times Per Module:			
	K160 Brake System Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.5 Hr.
	Electronic Suspension Control Module Reprogramming with SPS	N/A	N/A	.3 Hr.
	Electronic Suspension Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Body Control Module Reprogramming with SPS	.5 Hr.	.5 Hr.	.5 Hr.
	Instrument Cluster Reprogramming with	.9 Hr.	.9 Hr.	.9 Hr.
		N/A	N/A	.3 Hr.
	Silverado EV			
	Hummer EV Pickup and SUV	.9 Hr.	.9 Hr.	.9 Hr.
	Serial Data Gateway Module Reprogramming with SPS	.4 Hr.	.4 Hr.	.4 Hr.
	Battery Charger Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Radio Programming with USB	.3 Hr.	.3 Hr.	.3 Hr.
	- Additional Reprogramming with SPS	Add .3 Hr.	Add .3 Hr.	Add .3 Hr.
	K73 Telematic Control Module - Programming and Setup	.3 Hr.	.3 Hr.	.3 Hr.
	Parking Assist Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Communication Interface Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Pedestrian Alert Sound Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Headlamp Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Power Steering Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Chassis Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K68 Trailer Lighting Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Steering Column Lock Control Module Reprogramming with SPS	N/A	N/A	.3 Hr.
	Front View Camera Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Video Processing Control Module Reprogramming with SPS	.9 Hr.	.9 Hr.	1.7 Hr.
	K180 Driver Monitoring System Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K40D Driver Seat Adjuster Memory Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K40P Passenger Seat Adjuster Memory Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	T22 Wireless Accessory Charging Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	Battery Energy Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K16B Battery Energy Control Module 2 Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K219 Lighting Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.

Labor Operation	Description	Labor Time 2022	Labor Time 2023	Labor Time 2024
	Rear Wheel Steering Control Module	3 Hr	3 Hr	3 Hr
	Reprogramming with SPS			
	Serial Data Authentication Configuration	.3 Hr.	.3 Hr.	.3 Hr.
	Range Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K5 Automatic Level Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	B218L Side Obstacle Detection Control Module - Left Reprogramming with SPS	N/A	.3 Hr.	.3 Hr.
	B218R Side Obstacle Detection Control	N/A	.3 Hr.	.3 Hr.
	B233LF Short Range Radar Sensor - Left	.3 Hr.	.3 Hr.	.3 Hr.
	Front Reprogramming with SPS B233LR Short Range Radar Rear Sensor -	N/A	N/A	2 Ци
	Left Reprogramming with SPS B233RR Short Range Radar Rear Sensor -	N/A	N/A	.5 П.
	Right Reprogramming with SPS	N/A	N/A	.3 Hr.
	B233R Short Range Radar Sensor - Rear Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	B233RF Short Range Radar Sensor - Right Front Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	B233SL Short Range Radar Rear Side Sensor - Left Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	B233SR Short Range Radar Rear Side Sensor - Right Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K212 Gear Shift Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K36 Restraints Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K85P Restraints Occupant Classification System Module - Passenger Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	T3 Audio Amplifier Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K194 Rear Gate Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K183 UHF Short Range Low Energy Remote Control Access Transceiver Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	P22F Video Display - Passenger Seat Back Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	A26 Heater and Air Conditioning User Interface Control - Front Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K107 Drive Motor Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K179 Automated Driving Mapping Module Reprogramming with SPS	.4 Hr.	.4 Hr.	.4 Hr.
	K241 Powertrain Compartment Cover Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K107 Drive Motor Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K107B Drive Motor 2 Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	K107C Drive Motor 3 Control Module Reprogramming with SPS	.3 Hr.	.3 Hr.	.3 Hr.
	*This is a unique Labor Operation for Bulletin use only.			
	* 2889878 Labor Op - EV - K124 Image Processing Module Reprogramming with SPS will be active 10/16/2023.			



When more than one Warranty Claim Code is generated for a programming event, it is required to document all Warranty Claim Codes in the "Correction" field on the job card. Dealers must also enter one of the codes in the "Warranty Claim Code" field of the transaction, otherwise the transaction will reject. It is best practice to enter the FINAL code provided by SPS2.

#### Version History

Version	6
	09/28/2023 - Created On.
Modified	10/9/2023 - Updated Labor Op box and updated individual Labor times.
	12/05/2023- Updated to add 2024 Model Year LYRIQ, Hummer EV.
	01/02/2024 - Updated 2024 Model Year Labor operation times.
	02/19/2024 - Updated K73 TCICM Labor Op and Time, B218L and B218R Labor Op and
	Time. Reference to PIE0779.
	03/04/2024 - Updated to add 2024 Model Year Silverado EV.



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