



# Programming Key Fob Transmitters

*When performing the IMMO Immobilizer Learn procedure to program or add key fob transmitters on some 2021-2023 Tahoe, Suburban, Yukon, Escalade; 2022-2023 Silverado, Sierra; and 2024 Silverado 2500HD/3500HD and Sierra 2500HD/3500HD models, there may be some difficulty completing programming or an error message such as “0004 Device Control Not Available” or “Communication Error” may be displayed.*

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# Programming Key Fob Transmitters

If there are programming issues or error messages, there are several possible causes that should be addressed.

## PART NUMBER

First, if programming new key fobs, verify the correct part number fob is being used. Also make sure there is not a VIN already learned to the new key fob by using the EL-52545 TPMS and RF Tool. Refer to Bulletin #21-NA-061 for more details.

## KEY FOB POCKET LOCATION

Before programming, check the Owner's Manual to confirm the location of the fob pocket in the vehicle. The programming location can vary from vehicle to vehicle.



Key fob pocket location on Yukon XL with bucket seats

If there is still a fob transmitter programmed to the vehicle, perform the following procedure to determine that the IMMO coil is working properly and the correct programming fob pocket location:

1. Remove the battery from the fob that is still programmed to the vehicle.
2. Move all fobs away from the vehicle.
3. Try to start the vehicle. The result should be a Driver Information Center (DIC) message stating no fob detected.
4. Place the learned fob, with the battery removed, in the programming fob pocket and try to restart or power up the vehicle. If the vehicle powers up, the IMMO coil is working properly and the correct programming fob pocket is being used.

## CHECK DTCS

On vehicles that have had any reprogramming, a module has been replaced, or any modules with a current DTC U1962 (Unable to Authenticate Serial Data Message), it should be verified that the Serial Data Authentication Configuration (SDAC) has completed.

Any "Environment Identifier" DTCs that are set also should be addressed.

## IMMO IMMOBILIZER LEARN

During the IMMO Immobilizer Learn, after the ignition automatically powers on, make sure to set the parking brake. On vehicles with the Electronic Transmission Range Select (ETRS) system, press the Park button on the shifter.

In addition, during the IMMO Immobilizer Learn, do not place the key fob transmitter in the programming fob pocket until instructed to do so. All other transmitters must be at least 9.8 feet (3 m) away from the vehicle. Key fob transmitters should not be placed on the roof, hood, or other locations on or near the vehicle.

Be sure to stay with the Techline Connect computer and the vehicle at all times during the IMMO Immobilizer Learn procedure in order to follow all programming instructions. If these instructions are missed, the learn could fail.

If a "Communication Error" message is displayed, check that an aftermarket device is not connected in line with the DLC. Refer to Bulletin #13-08-116-001H for more information about aftermarket devices.

In some cases, if the computer/laptop being used for the IMMO Immobilizer Learn is inside the vehicle, it could cause interference. It's best to place the computer/laptop outside the vehicle when performing the IMMO Immobilizer Learn.

For more information, refer to #PIT6015.

► Thanks to Jim Will



# FSE Technician

## RECOGNITION AWARDS

### 2ND QUARTER 2023

The GM Field Service Engineer (FSE) Technician Recognition Awards (U.S.) celebrate the skill and dedication of dealership technicians who have recently worked with FSE's on challenging repairs.

Technicians at GM dealerships are selected for recognition based on a variety of factors, including their focus on safety, customer satisfaction, personal accountability, training achievements, diagnostic abilities and the level of repair documentation.

Each recognized technician receives a Service Excellence magnetic plaque and an Excellence in Service Award certificate.



### 2nd Quarter 2023 Technician Recognition Award Winners



**Technician:** Mike Guest

**Dealership:** Anderson Buick GMC, Cockeysville, Maryland

**FSE:** Charles Mielke

#### Service Excellence:

Mike Guest has shown a continued dedication to excellent customer service, evidenced by his recent demonstration of the "It's on me" and "Innovate now" behaviors. Mike always has his STS training at 100% and is one of the Hybrid/EV service specialists at Anderson. He clearly has a deep passion for fixing things right the first time.

Recently, Mike worked with FSE Charles Mielke on a case regarding a sagging air suspension concern on a 2022 Hummer EV. Over the course of a few unattended days, the left-side front corner would lower, followed closely by the right side. Mike was diligent in his efforts to understand and qualify the customer concern, and then took multiple measurements over time and plotted them. After published diagnostics did not identify the issue, Mike fabricated fittings (which are not supplied by General Motors) to use on the air suspension system in conjunction with the tools that are provided to isolate the components and make an accurate diagnosis. Ultimately, damage caused by rodents to one of the air lines above the high-voltage battery was discovered as the root cause.

The vehicle was repaired accurately and completely with an "outside the box" effort from Mike. This is what "It's on me" and "Innovate now" looks like and is a real example of professionalism in the trade.



**Technician:** Alan Whipp

**Dealership:** Smeadley's Chevrolet, Vandalia, Ohio

**FSE:** Leonard Tunstall

#### Service Excellence:

Earlier this year, FSE Leonard Tunstall was dispatched to a case at Smeadley's Chevrolet. Leonard worked with ASE Master Technician Alan Whipp, a young technician with an impressive work ethic, to work on a 2022 Trailblazer that had an illuminated Check Engine MIL and DTC P0128 set as a current DTC. The coolant control valve assembly had already been replaced.

They started from the top of the diagnostic tree to see if something was missed. Even though Alan previously covered these steps, he displayed a great amount of patience and willingness to work to unveil the underlying problem. Vigorous circuit system testing was unable to identify why the code was setting. Through this process, Leonard recognized Alan's deep understanding of

CONTINUED ON PAGE 4

electrical diagnostics. They decided to order another coolant flow control valve assembly and thought it would be a good idea to inspect the first replacement valve for mechanical malfunctions. Leonard noticed that the valve was missing an internal seal. The dealership had unknowingly installed a defective part. Alan felt like he should've been able to find this and was questioning his skill set; but Leonard explained that FSEs are here to assist in situations just like this. There was no way anyone could've known an internal seal was missing. The second replacement valve fixed the DTC P0128. Alan Whipp has a bright future ahead and Leonard looks forward to seeing his progress over the years to come. Congratulations, Alan. You deserve it!



**Technician:** Jeff Stockton  
**Dealership:** AutoNation South Chevrolet Buick GMC Cadillac, Corpus Christi, Texas  
**FSE:** Jorden Ellis

**Service Excellence:**

Jeff Stockton is the perfect example of "One Team." Within his own shop, he works collaboratively with all the other technicians. But Jeff not only helps his fellow technicians in his shop, he also helps other dealership technicians all over Texas by sharing his knowledge and findings through text message exchanges. He is always reaching out to FSE Jorden Ellis with product concerns that warrant a field product report and is never hesitant to assist even if he isn't assigned to the TAC case. Jeff has a lot of product knowledge and is great to work with. He is never hesitant to ask questions and to learn.

Recently, Jeff assisted with a case on a 2023 Silverado 1500 that had a clunking sound even though he wasn't assigned the vehicle. Jeff spent time mentoring another technician who was working on the vehicle at the time and is still fairly new. Jorden asked Jeff to oversee the repairs with this technician and help create a positive work environment. The results show that Jeff did a fantastic job. The vehicle noise was dampened successfully by installing new axle retainer clips. Jeff continues to assist this technician with any questions he may have to help him grow in his career at the dealership.

Luis always greets FSE Jorden Ellis with a smile and has great questions to ask on whatever it is that he is working on at the time. Luis is a great example of "Think Customer." In almost every vehicle he works on, he goes above and beyond to ensure the proper diagnosis is made for the customer, which reduces repeat repairs overall for his dealership. Luis works with other technicians and offers advice where needed as well.

Recently, Luis began to show interest in the PicoScope when working on cases with Jorden. Whenever Jorden asked Luis to perform a task, he would get on it in a timely manner and understand the importance of the task in order to service the customer. Jorden cannot speak highly enough about Luis' character and the way he conducts himself at his dealership.

Luis also assisted Jorden on a 2022 Cadillac XT6 with a Service Transmission message on the Driver Information Center and DTC U0101. This case required extensive diagnosis and verification. Some of the testing required the PicoScope, which Luis picked right up on using the scope. Luis never once complained or was hesitant to perform any tasks asked of him. They ended up isolating the issue to the power steering control module. Even months after the case was closed and the vehicle was long gone, the engineering team asked for more pictures of the PSCM and requested that it be shipped to a specific location. Luis oversaw that entire process, even though he didn't have to, without hesitation.



**Technician:** Kris Keller  
**Dealership:** Corwin Buick GMC Reno, Reno, Nevada  
**FSE:** Burns McCalman

**Service Excellence:**

FSE Burns McCalman became involved in a case early on a Saturday morning where engineering was requesting data from a 2022 Hummer EV with a potential high-voltage battery issue. The vehicle was at Corwin Buick GMC Reno on a Saturday with only Quick Lube technicians available. The dealership is about 2.5 hours from Burn's house and he was not able to get to the dealership on that Saturday. He contacted Kris even though it was his day off as well. Kris didn't hesitate to go to the dealership to gather the requested data and disconnect the 12V battery.

Burns was able to make it to the dealership the following Monday, gathering the remaining information and ordering an EV battery pack. Kris installed the new pack in a very timely manner once it arrived and quickly got the customer back on the road. Kris went above and beyond for GM and Field Service Engineering by going to the dealership on his day off to perform the tasks requested. This is what "Think customer" and "It's on me" looks like.



**Technician:** Luis Sanchez  
**Dealership:** Bert Ogden Cadillac, Edinburg, Texas  
**FSE:** Jorden Ellis

**Service Excellence:**

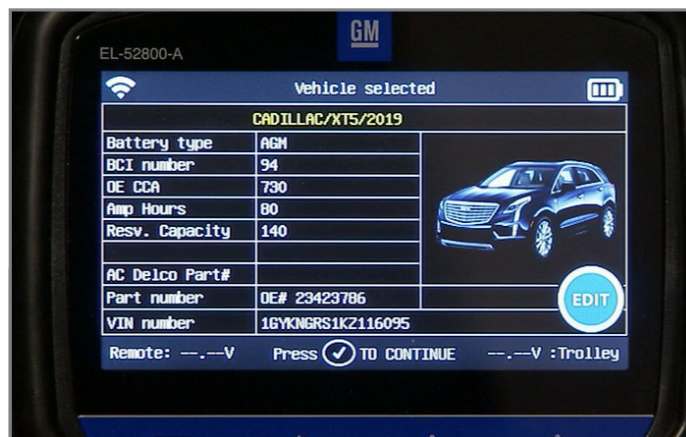
Luis Sanchez's positive mood and attitude are incredibly contagious and have spread throughout the entire shop.



# Testing, Software and More

## All the Answers to Your DCBS Questions

The EL-52800 Diagnostic Charge Battery Station (DCBS) is the recommended and approved tool for diagnosing battery replacements and submitting battery warranty claims. And effective January 1, 2024, the DCBS will become Essential Equipment for all GM dealerships, and the DCBS Warranty Claim Code and test result printout attachment will be the only acceptable supporting documentation for warranty battery replacement transactions.



After scanning the VIN, the vehicle information and original battery specifications are shown on the hand-held remote screen.

### FREQUENTLY ASKED QUESTIONS

With all the features of the DCBS, dealerships may have questions about the tool, such as testing and charging functions, the remote's utilities and software updates, or may like to know more about other tool capabilities. For example, the built-in 12V/80–100A battery charger/maintainer can be used to provide a clean power supply for control module calibration updates.

For the latest information about the DCBS, refer to Bulletin #23-NA-055. It has been updated with a number of Frequently Asked Questions about the tool, its functions and a variety of other topics.



The remote must be linked to the trolley.

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**Technician:** Jason Drouare

**Dealership:** Fields Cadillac, St. Augustine, Florida

**FSE:** Andy Nelson

#### Service Excellence:

Jason Drouare worked on a 2020 Cadillac XT5 case with FSE Andy Nelson. The vehicle came in for a campaign and, while performing the repairs, Jason noticed the right-rear turn signal

would not flash and was always on. Jason knew this was a safety issue and refused to let the customer take her car until the safety concern could be repaired. After digging into the condition, Jason also found the interior lamps would go out whenever the vanity mirror lights were turned on. It was a difficult case that eventually required a new body harness to fix the problems and deliver the vehicle back to the customer. This is what "Being Bold" and "Think customer" looks like!

► Thanks to Hank Poelman

## BATTERY TESTING

The DCBS provides comprehensive battery diagnostic services using a smart logic test sequence, which produces in-depth test results for lead acid, Absorbent Glass Mat (AGM) and Enhanced Flooded Batteries (EFB). The DCBS can determine the battery's state of health by checking the IR (internal resistance) and performing a true 1/2 cold cranking amps (CCA) Load Test. It also features an integrated reserve capacity (RC) tester to determine a true RC measurement, if needed.

The hand-held diagnostic remote can read 1D barcodes and 2D QR codes that, along with an integrated GM vehicle database with battery specifications, offers quick identification of GM vehicles to help speed up the diagnostic process.

Bulletin #23-NA-055 also covers common questions about using the remote, with tips about scanning the VIN and setting up remote communication with the trolley.

## TESTING FUNCTIONS

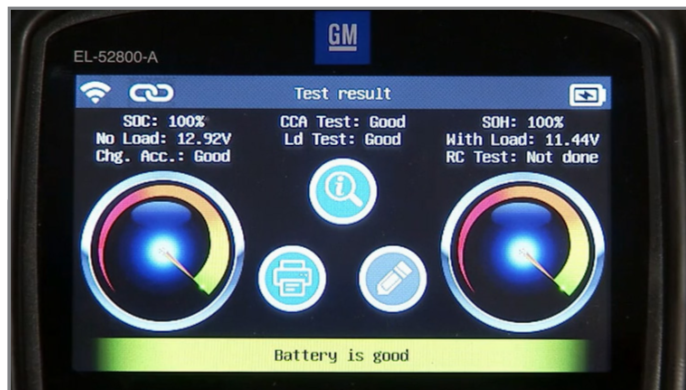
The DCBS features a true 1/2 CCA load test and an integrated reserve capacity (RC) tester for true RC measurement. Testing to determine the condition of a battery will take only about 20 minutes. More time may be required to charge the battery for final testing.

**TIP:** Any concerns about the original clamps on the DCBS can be resolved with new, improved clamps from E-XTEQ. The new clamps can be installed on the original cables by E-XTEQ. This is a covered repair. New cables that include the new clamps also are available via the GM Dealer Equipment website at [gmdeolutions.com](http://gmdeolutions.com).

Once a battery test is complete, the on-screen results will show "Battery is good" if the battery has a good state of health. The test results will show "Battery is bad" if the battery needs to be replaced. The tool will ask for the RO along with the VIN and BAC if not already entered. It will then print a warranty code if the test was run using the trolley. No warranty code will be generated when a battery test is done with the remote only.



Diagnostic icon



The on-screen results show if the battery is good or bad.

Questions about printing the battery test slip as well as remote communication issues also are covered in Bulletin #23-NA-055.

## SOFTWARE UPDATES

The Optimus software included with the DCBS must be updated regularly. The Optimus site is used to store all the testing records that are performed at the dealership and enables dealerships to view past test records and retrieve warranty codes.

**TIP:** Jobs that are removed from the tool can be accessed and downloaded later for dealerships to review through Argos if needed. Go to [e-xteq.com](http://e-xteq.com) for more information and to review quick guide instructions.

The regular DCBS software updates keep the DCBS operating with the latest vehicle information and product enhancements and will only be delivered to the handheld diagnostic remote through the Optimus program.



The DCBS prints battery warranty codes.

Additional resources on DCBS operation, including several quick guides and user manuals, are available at [e-xteq.com](http://e-xteq.com). In the U.S., dealerships with any additional questions can contact E-XTEQ Tech Support at 1-877-453-3265.

For more information, refer to Bulletin #23-NA-055.

► Thanks to Josh Shuck

# Engine Vibration After Engine Mount Replacement

An engine vibration may be felt after the engine mounts were replaced on some 2019-2021 Silverado 1500, Sierra 1500; 2022 Silverado 1500 LTD and Sierra 1500 Limited models. The vibration may be more noticeable at idle.

The vibration condition may be due to not all necessary parts being replaced when the new engine mounts were installed.

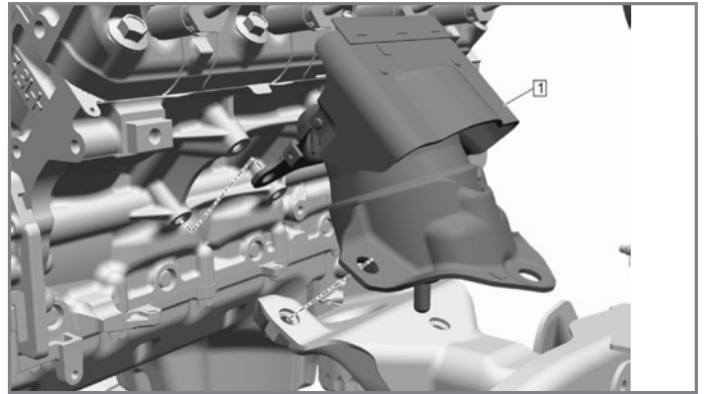
A change was made to some engine mounts and additional parts need to be replaced with the new mounts. If these additional parts are not installed with the new engine mount, the mount will ground out and result in a vibration.

For new engine mounts that require additional parts, the electronic parts catalog will have a note that states "ORDER T/W" along with a list of the additional part numbers that must be replaced with the engine mount.

Be sure to review the electronic parts catalog to determine if additional parts are needed before replacing the engine mounts.

Refer to #PIT6036 for more information.

► Thanks to Jim Will



Left side engine mount

Illustration Text	Part Text	Associated Parts	Usage	Brand	Year
Part #	Group	H	Part Description		
84848132	00.022	R	MOUNT, ENG (ORDER T/W 84848133 AND 85154274) - RH (ACDelco #84848132)	K1(03-43-53) 5.3-DL(B4)6.2 L(L87)	2019-2021
84848132	00.022	R	MOUNT, ENG (ORDER T/W 84848133 AND 85154274) - RH (ACDelco #84848132)	K1(03-43-53) 5.3 (L82)	2019-2021
84848132	00.022	R	MOUNT, ENG (ORDER T/W 84848133 AND 85154274) - RH (ACDelco #84848132)	K1(03-43-53) 4.3L (LV3)	2019-2021
85534479	00.022	R	MOUNT, ENG (ORDER T/W 85534479 85154275 85126607 86808126 86808127 11548893(X6) AND 11604169(X8)) - RH (ACDelco #85534479) (Service Lane Part)	K1(03-43-53) 2.7 TURBO(L38)	2019-2021
85534478	00.022	L	MOUNT, ENG (ORDER T/W 85534479 85154275 85126607 86808126 86808127 11548893(X6) AND 11604169(X8)) - LH (ACDelco #85534478) (Service Lane Part)	K1(03-43-53) 2.7 TURBO(L38)	2019-2021
85126627	00.022	L	MOUNT, ENG (SOLENOID NOT NEEDED) (ORDER T/W 85126626 85154275 85126630 85126631 11548893(X6) AND 11604169(X8)) - LH (ACDelco #85126627) (Service Lane Part)	K1(03-43-53) 3.0 (LM2)	2019-2021
85126626	00.022	R	MOUNT, ENG (SOLENOID NOT NEEDED) (ORDER T/W 85126627 85154275 85126630 85126631 11548893(X6) AND 11604169(X8)) - RH (ACDelco #85126626) (Service Lane Part)	K1(43-53) (LM2)	2019-2019

Look for a note that states "ORDER T/W" in the parts catalog.



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