



Preliminary Information

PIT6015A Diagnostic Tips When Having Difficulties Programming Or Adding Key Fob Transmitters

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Cadillac	Escalade Models	2021 - 2024	All	All	All	All
Chevrolet	Silverado 1500 New (RPO J22, VIN Digit 5 = A or D)	2022	All	All	All	All
Chevrolet	Silverado 1500	2023 - 2024	All	All	All	All
Chevrolet	Silverado 2500/3500 HD	2024	All	All	All	All
Chevrolet	Suburban	2021 - 2024	All	All	All	All
Chevrolet	Tahoe	2021 - 2024	All	All	All	All
GMC	Sierra 1500 New (RPO J22, VIN Digit 5 = H or U)	2022	All	All	All	All
GMC	Sierra 1500	2023 - 2024	All	All	All	All
GMC	Sierra 2500/3500 HD	2024	All	All	All	All
GMC	Yukon Models	2021 - 2024	All	All	All	All

Involved Region or Country	North America
Condition	In some cases, when performing the IMMO Immobilizer Learn to program or add key fob transmitters, there has been some difficulties or even error messages such as, "0004 DEVICE CONTROL NOT AVAILABLE" Or "Communication Error".
Cause	The cause of these concerns could be one of many different possibilities.

Correction:

The information below is only for reference and normal SI diagnostics and programming instructions should always be followed. When having difficulties programming or learning key fob transmitters to a vehicle, the following tips may help.

1. 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 and follow the latest version of bulletin [21-NA-061](#).

2. Do not assume where the programming fob pocket is located, as it can vary from vehicle to vehicle. Use the owner's manual to verify the proper location of the programming fob pocket.

NOTE: If there is still a fob transmitter programmed to the vehicle, one quick test to determine that the IMMO coil is working properly and you have the correct programming fob pocket location, is to perform the following:

- Remove the battery from the fob that is still programmed to the vehicle.
- Move all fobs away from the vehicle.
- Try to start the vehicle and the results should be a DIC message stating no fob detected.
- Place the learned fob, with the battery removed, into the programming fob pocket and try to restart or power up the vehicle. If the vehicle powers up, then you have verified the IMMO coil is working properly, and the correct

programming fob pocket is being used.

3. If there was any reprogramming, a module replaced, or any modules with a current DTC U1962, then make sure the Serial Data Authentication Configuration (SDAC) has completed.
4. If there are any "Environment Identifier" DTC's set, they should be addressed.
5. During the IMMO Immobilizer Learn, after the ignition automatically powers on, make sure to set the parking brake. Also, on vehicles with an Electronic Transmission Range Shifter, press the "Park" button on the shifter.
6. During the IMMO Immobilizer Learn, only place the key fob transmitter in the programming fob pocket when instructed, and make sure ALL additional transmitters are AT LEAST 3 m (9.8 ft) away from the vehicle. Do NOT place key fob transmitters on the roof, hood, etc. keep them away from the vehicle.
7. During the IMMO Immobilizer Learn, always stay with the TLC computer and the vehicle at all times so you can follow ALL programming instructions, as SPS will instruct multiple times to perform various functions. If these instructions are missed, the learn could fail.
8. During the IMMO Immobilizer Learn a "Communication Error" message maybe displayed. This error has been seen when an aftermarket device is connected inline with the DLC, see the latest version of bulletin [13-08-116-001H](#). Inspect and remove any aftermarket devices.
9. In some rare cases, if the computer/lap top being used to do the IMMO Immobilizer Learn is inside the vehicle it, could cause interference. Make sure the computer/lap top is outside the vehicle when performing the IMMO Immobilizer Learn.
10. When performing an IMMO immobilizer learn, there are 6 different "Immobilizer System Component Programming" functions to choose from listed in SPS/TLC, see example SI Document ID: 4430507. It is important to read and select the most appropriate function when performing the IMMO immobilizer learn.

NOTE: On VIP vehicles, if the "Engine Control Module and Body Control Module IMMO Learn" function is selected, it will invalidate all previously learned fobs and in most cases those fobs will not be able to be relearned back to the vehicle. When this happens, the IMMO learn will indicate "0 fobs learned" and then ask if you would like to program additional fobs and it will be stuck in this loop. In these cases, the original fobs will need to be replaced with new fobs.

11. If a vehicle has other complaints, such as passive entry/start inoperative or no fob/key detected message, then repair those issues first. Even though the exterior or interior passive antennas are not used for the IMMO immobilizer learn there has been some cases where an issue with one of these antennas has caused the IMMO learn to fail. Below is a GDS2 screen shot of the BCM Keyless Entry Data List from a 2023 Tahoe. In this example, the vehicle did have a complaint of the IMMO fob learn not completing/failing, but it also had a complaint of a no fob detected message. When vehicle the GDS2 data it was found that one of the antennas was showing "Short to Ground". After repairing this fault, the IMMO fob learn would now complete successfully.

Parameter Name	Value
Door Lock Event History 6	Unlock Driver Door
Door Lock Requestor History 6	Key Fob Lock Button
Door Lock Event History 7	Lock
Door Lock Requestor History 7	Key Fob Lock Button
Door Lock Event History 8	Unlock Driver Door
Door Lock Requestor History 8	Key Fob Lock Button
Keyless Entry Antenna 1 Status	Normal
Keyless Entry Antenna 2 Status	Normal
Keyless Entry Antenna 3 Status	Short to Ground
Keyless Entry Antenna 4 Status	Normal
Keyless Entry Antenna 5 Status	Normal
Keyless Entry Antenna 6 Status	Normal
Keyless Entry Antenna 7 Status	Normal
Keyless Entry Antenna 8 Status	Normal
Passive Entry Disabled Due to Lack of Motion Counter	0
Passive Start Disabled Due to Excessive Motion Counter	0
Passive Start Disabled Due to Lack of Motion Counter	0

Version History

Version	2
Modified	05/11/2023 - Created on.



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