



Preliminary Information

PIC6401 Key & Transmitter Programming

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Chevrolet	Camaro	2010 - 2015	All	All	All	All

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

Condition / Concern

Involved Region or Country	North America
Condition	Some technicians may questions the key and/or transmitter learning procedure for the 5th Generation Camaro (2010 - 2015). With the various ignition key recalls that have been released on the vehicle, there may be confusion in the field on what is needed to be done, what parts are used, and how the various learning procedures are completed.

Correction:

This PIC is meant to help clear up the questions surrounding the key and transmitter programming procedures related to these vehicles.

Originally, recall 14294 was released, which required dealership technicians to remove the key blade from the original flip key/RKE transmitter assemblies. They would then provide two new stand alone keys to the customer, each with two separate key rings.

Later on, recall N192223230 was released to accomplish the same thing on switchblade key / transmitter assemblies that were sold as GM service parts. The purpose of both recalls remains the same.

The servicing technician is to remove the switchblade shanks of the transmitter assemblies, program two new ignition keys to the vehicle, and attach these new keys to the transmitters with two key rings each. When done properly, this should take the average technician less than 30 minutes to complete.

The first thing that the servicing tech will need to do is to verify that the transmitter in question has the correct PN and that it has not been previously programmed to a different VIN. (See also PIT4945H on this issue.)

The second thing that the servicing tech will need to check is that the flipper door on the ignition lock cylinder is not stuck in place. These vehicles use a small door over the ignition lock cylinder as a "key-in-ignition" switch. Sometimes these flipper doors can become stuck open due to lack of maintenance. This is a moving part and will require periodic lubrication. (See also PIT5119F on this issue.) This can be used as a piece of diagnostic information. When this flipper door sticks in place the RKE operation becomes inoperative and the key-in-ignition chime will continue to sound, even when the key has been removed from the ignition lock cylinder.

If the concern remains after checking the previously listed items, the concern is almost always narrowed down to performing the learn procedure incorrectly. To understand the procedure, it is important to understand exactly what each part is.

Transmitter - The transmitter incorporates all the electronics required to operate the Remote Keyless Entry (RKE) system.



Ignition Key - The ignition key is a key with a black plastic head that contains a small transponder embedded inside. When the IMMO coil is powered up, it energizes the transponder embedded in the head of this key. The key then transmits or broadcasts a packet of information that is picked up by the RCCLR and carried to the BCM.



Service Key - The service key is a basic metal key that does not contain any electronics. This key cannot start the vehicle because it does not contain the electronics necessary to provide the vehicle immobilizer system the information it needs to allow vehicle starting. There are multiple PN service keys. One PN is for an uncut (uncoded) key and there is another PN for a precut (coded) key. A picture of the service key can be seen below. PN 23489478 is for the uncut key and PN 23425557 is for the coded key. (Check with your Part's Department for any possibly supersessions.)



There are two different ways to program keys / transmitters to these vehicles. Dealership technicians should refer to Service Information (SI) for the document titled "Transmitter Programming" to review the specific instructions on how to perform the following procedures.

Keys / transmitters may be either "added" or "replaced". If a key is "added", this simply adds another programmed key to the BCMs list of programmed devices. This does NOT erase any keys or transmitters that were previously learned to the vehicle. This procedure will simply program a key or a transmitter to the next available slot in the BCM's memory. A maximum of 8 keys / transmitters may be learned to a Global A vehicle.

If a key or transmitter is "replaced", this means that the procedure will first erase all the known keys and transmitters that were previously learned to the vehicle. This procedure is typically used when the customer has lost a key or transmitter. This procedure will ensure that the lost device will not be able to be used to access or start the vehicle in the future.

Each selection (adding or replacing) also has two available methods to complete the procedure. The servicing technician may select to use the Service Programming System (SPS) or without SPS programming.

For the recall procedure, typically, the technician will be able to use the "Adding Transmitters - Without SPS" procedure. This is also known as the "Turn-and-Burn" procedure. Keep in mind, that this procedure will NOT erase previously learned keys or transmitters.

1) With a previously learned key, turn the ignition ON.

2) Turn the ignition OFF and remove the key.

3) Within 10 seconds of turning OFF the ignition, insert the key to be learned and turn ON the ignition. The vehicle has now learned the new key.

4) To add transmitters, repeat steps 1 - 3 with a transmitter and service key. Hold the service key securely against the transmitter as seen in the photo below for the entire time that the key is inserted into the ignition. Place the service key at the end of the transmitter so it is centered with the key blade projecting outward from the transmitter. Hold the service key on the side of the transmitter with the Chevrolet emblem to maintain full contact between the service key and transmitter.



5) Verify each transmitter and key is operating properly. Operate each of the keyless entry functions and use the vehicle key to start the vehicle. When verifying operation, make sure that no other transmitters or keys are near the vehicle.

IMPORTANT NOTE: When attempting to learn a transmitter to the vehicle, the service key **MUST** be used. Do **NOT** use the regular ignition key with the black plastic head as seen in the photo below. This will **NOT** learn the transmitter as there is already a transponder embedded in the head of this style ignition key. **THIS ATTEMPT WILL NOT WORK.**



INCORRECT transmitter programming procedure being attempted.

Once the required programming procedure has been completed, the technician **MUST** return the various keys and transmitters back to the customer in the following manner. No other configurations are acceptable. There must be a transmitter without the blade attached. The larger key ring (18.9 mm) must be attached to the transmitter itself. The ignition key must be attached by the smaller key ring (16 mm). The two photos below show the correct configuration of the transmitter, the key rings, and the key.



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.

Version History

Version	1
Modified	2-03-2020 - Created



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