

419-01C Passive Anti-Theft System (PATS) - Vehicles With: Keyless Vehicle System

2019 Ranger

General Procedures

Procedure revision date:
08/2/2018

Anti-Theft Key Programming - Scan Tool

Programming

NOTE: Make sure the passive key battery(ies) measure at least 2.5 volts. A passive key with a depleted battery(ies) only starts the vehicle when in the backup starting location. The RKE functionality remains inoperative until the key battery(ies) is replaced.

NOTE: The diagnostic scan tool **must** have an active Internet connection. A hardwired connection is strongly recommended.

NOTE: When programming keys, the RKE transmitter and the PATS portion of the key are programmed at the same time.

NOTE: Common anti-theft security access choices are:

- Count keys
 - Erase Keys
 - Program Keys
 - Module Initialization
1. Using a diagnostic scan tool, establish a session with the vehicle.
Refer to: [Diagnostic Methods](#) (100-00 General Information, Description and Operation).
 2. **NOTE:** If the perimeter alarm activates when a diagnostic scan tool is connected and no valid programmed keys are available, carry out the following steps:
 - If equipped with a keyless entry keypad, enter the keyless entry keypad code to allow a diagnostic scan tool session to be established. Proceed to Step 3 further below.
 - If not equipped, allow the alarm to activate for 10 minutes, which will then be followed by a 1 minute access window where a diagnostic scan tool session can be established. Proceed to the following steps:
 - To avoid nuisance from the horn, remove the horn fuse.
 - Using a diagnostic scan tool, establish a session with the vehicle. If equipped with push-button start, it is necessary to use the blank path vehicle identification method (tear tag).
 - Select TOOLBOX>PCM under HS1 module list> PATS Programming, but do **not** select the check mark box to proceed further.
 - If equipped with a hood latch switch, and the hood is open for battery charging purposes, place the hood latch in the closed position.
 - Latch the striker in the driver's door to prevent a door ajar condition from being reported to the BCM and leave the driver's door open to allow access to the DLC and ignition switch or push to start button. Ensure that all other doors, liftgate, luggage compartment lid, and or tailgate are closed.
 - If the exterior lights are not flashing to indicate an alarm event, disconnect and reconnect the battery.
 - Select PATS Programming and then select the appropriate function to erase keys. Select the corresponding check marks until the screen is displayed which indicates that 2 keys will need to be programmed to start the vehicle. Select the check mark on this screen to continue. An error

may be reported on the next screen. Ignore this error. Exit from this diagnostic scan tool function and select PATS Programming a second time. Proceed until either a screen is displayed which advises to turn the ignition on or the main PATS Programming menu is displayed. Do not select the check mark on this screen or proceed any further.

- The process of requesting to erase keys with the diagnostic scan tool initiates a 10 minute timer in the BCM which must conclude before the 1 minute DLC access window will occur.
 - Reinsert the horn fuse after the exterior and interior lights stop flashing. This will occur within 4-5 minutes of when a command to erase keys was sent from the diagnostic scan tool. After another 5-6 minutes (9-11 minutes from the initial point of diagnostic scan tool DLC access), the horn will chirp 1 time to indicate that the 1 minute data link access time period has begun. **Immediately proceed to step 5.** If the single horn chirp is not heard, perform the procedure again starting at step 1.
 - **NOTE:** Depending on the diagnostic scan tool power settings, it may be required to provide an occasional mouse/keypad input to prevent power saver mode from being entered and the diagnostic scan tool session being interrupted during the 10 minute period before the 1 minute access window. Also, ensure that a technician service publication website session is active and has not timed out on the laptop or PC being used for this procedure.
3. Using a diagnostic scan tool, select TOOLBOX>PCM under HS1 module list> PATS Programming.
 4. Select the appropriate procedure and follow the on-screen instructions.
 5. When the "Gaining Security Access" screen appears, ensure the diagnostic scan tool is connected to the Internet and select "Yes" to continue. If directed to this step from the above alarm activation steps for vehicles without a keyless entry keypad, select "Erase Keys."
 6. **NOTE:** If programming a passive key (vehicles with push-button start), refer to the Owner's Literature for the passive key backup starting location. The passive key must be placed in this location to successfully program.

Return to the diagnostic scan tool window and follow the on-screen instructions. The door locks and hazard flashers cycle to indicate when a key is successfully programmed. After programming the first key and selecting OK, place the second key in the backup starting location and select "Program Key" to program the second key. Start the vehicle; if it will not start, select PATS Functions and perform a parameter reset or module initialization for the BCM, the PCM, or the ABS module as necessary. If the vehicle will still not start, perform the procedure again starting at step 1.

