

## REGISTRATION

### 1. DESCRIPTION OF REGISTRATION

HINT:

- Smart key codes are the same as recognition codes for the wireless transmitter. Registering a smart key code enables both the smart key system and the wireless door lock control system to be operated.
- Code registration is needed when the theft warning ECU (theft deterrent ECU) or smart key is replaced with a new one.
- There are 2 types of keys: a master key that has a trunk open switch, and a sub-key that does not have a trunk open switch.
- The smart key system functions can be operated only by a master key.

(a) Select the operation mode from the following:

- New registration mode is used when the theft warning ECU is replaced with a new ECU. In this mode, be sure to register a master key code first. Otherwise, you cannot proceed to the add mode for registering other keys. If a sub-key code is registered first, pressing one of the transmitter's switches (master key (transmitter) switch operation in add mode\*) to try to make an additional key registration erases the registered sub-key code.

\* Refer to the registration flowchart on the next page.

- Add mode is used when a new key is added.
- After using erase mode to erase all smart key codes previously registered, use re-registration mode to reenter them.
- Erase mode is used to erase all the key codes except for the code for the master key that is used during erasure mode. Use this mode in such a case where the key is lost.
- Confirmation mode is used to confirm the number of key codes (master key and sub-key) that are registered in the theft warning ECU. During key code registration mode (new registration mode or add mode), you can confirm the number of registered key codes on the tester's screen, "SMART (KEY) CODE REGISTRATION".

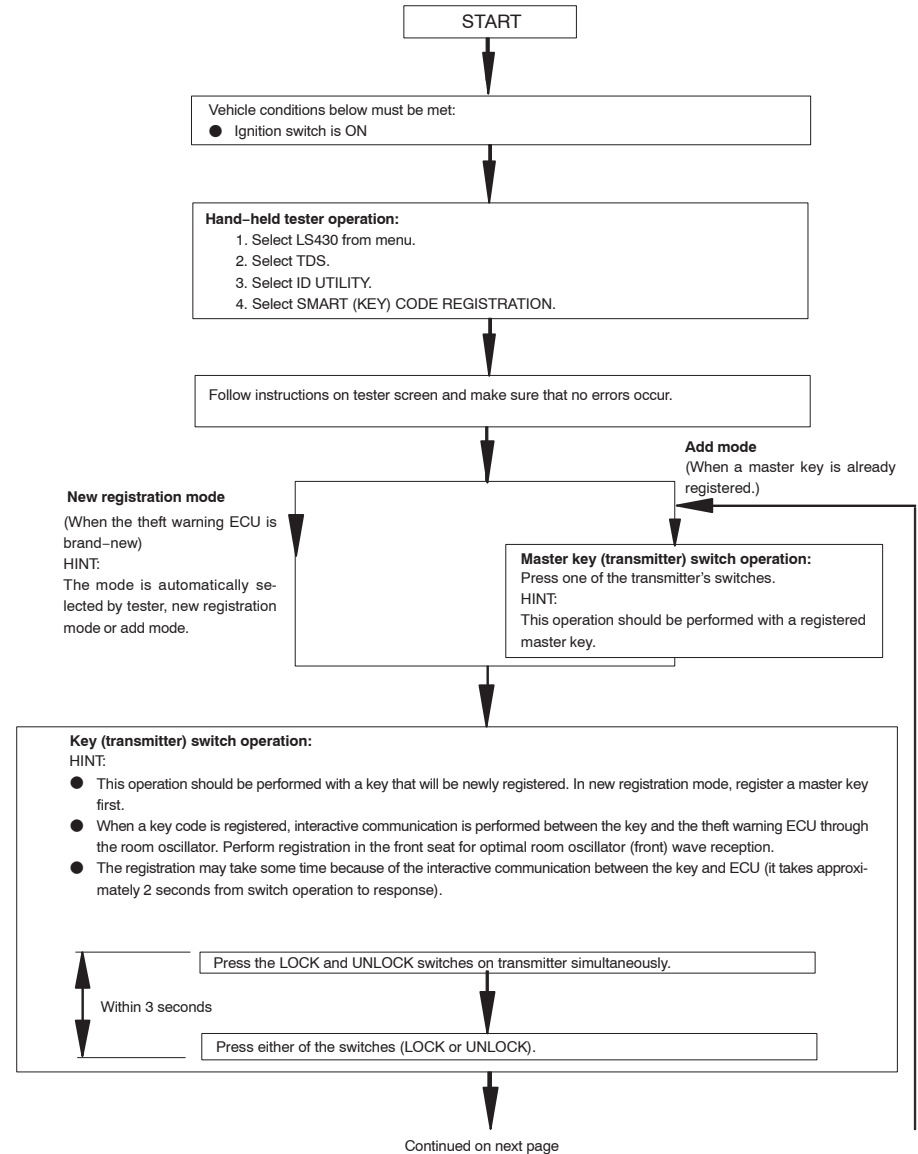
(b) Perform the code registration and the code erasure according to the flowcharts (see steps 2 and 3).

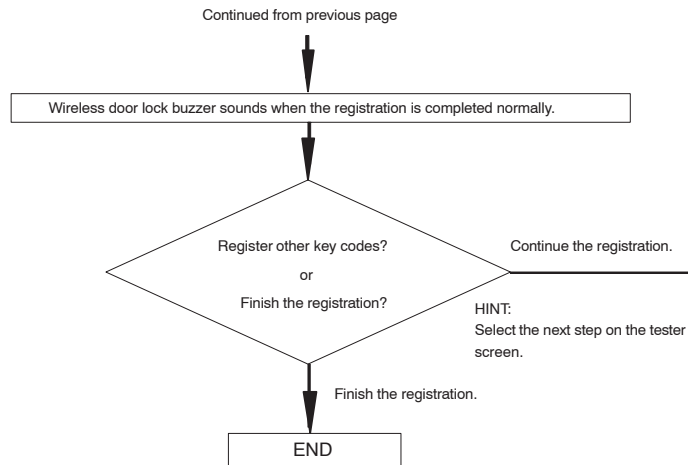
HINT:

Up to 5 master keys and 3 sub-keys can be registered in the theft warning ECU.

### 2. REGISTRATION OF NEW AND ADDITIONAL SMART KEY CODE

(a) Register a smart key code using the hand-held tester.



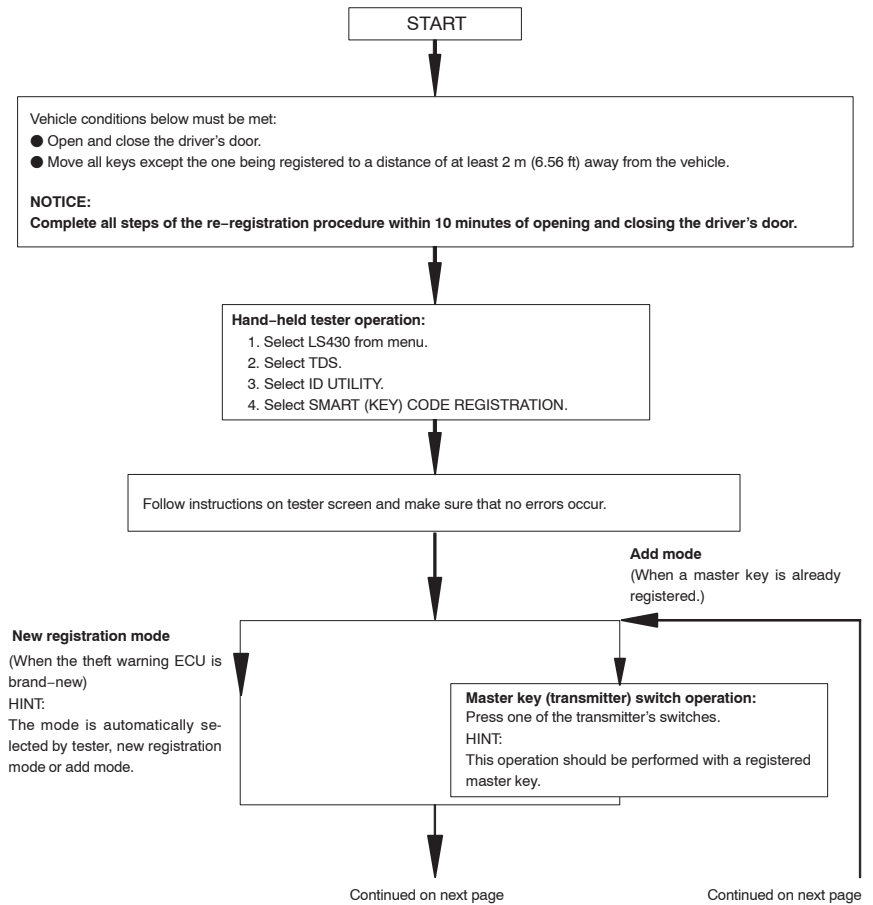


**HINT:**

- A brief outline of procedures for key code registration is shown on this page and the previous page. For more detailed information, please refer to the hand-held tester screen's instructions.
- The number of currently registered codes can be checked on the first screen, "SMART (KEY) CODE REGISTRATION".

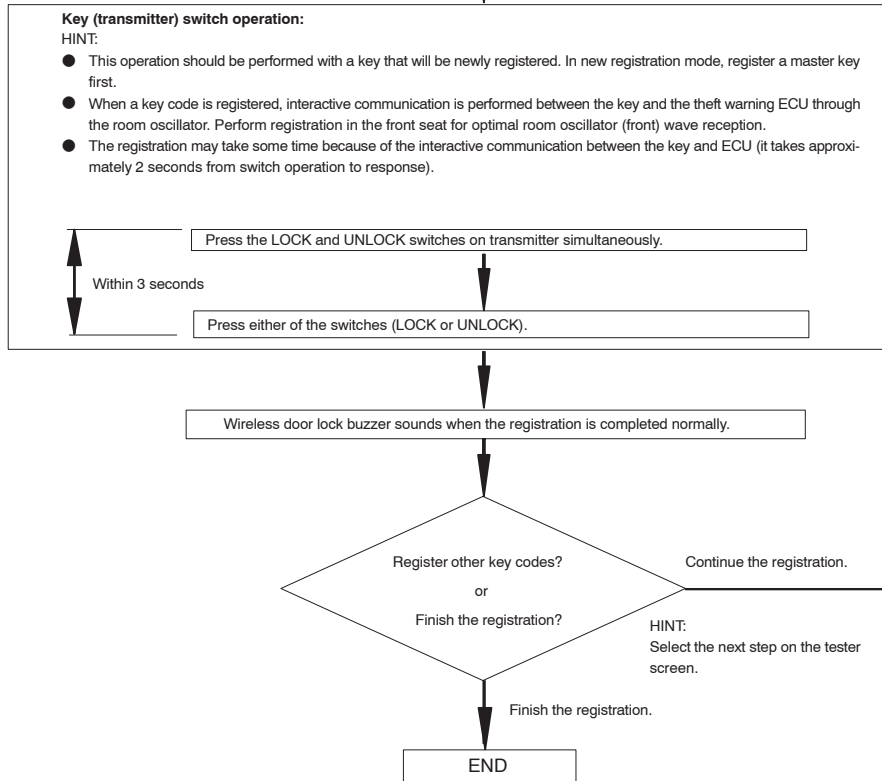
**3. RE-REGISTRATION OF SMART KEY CODES AFTER ALL KEY CODES ERASED**

(a) Register a smart key code using the hand-held tester.



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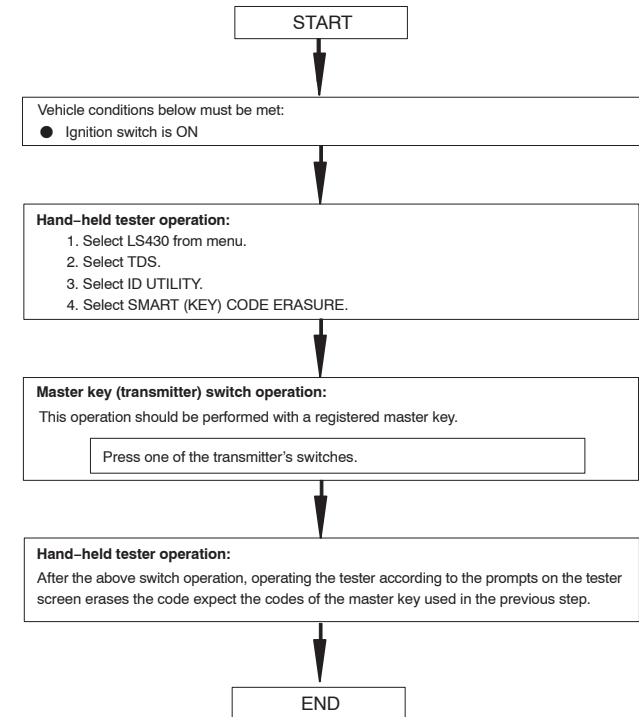


**HINT:**

- A brief outline of procedures for key code registration is shown on this page and the previous page. For more detailed information, please refer to the hand-held tester screen's instructions.
- The number of currently registered codes can be checked on the first screen, "SMART (KEY) CODE REGISTRATION".

**4. ERASURE OF SMART KEY CODE**

- (a) Erase the smart key codes using the hand-held tester.

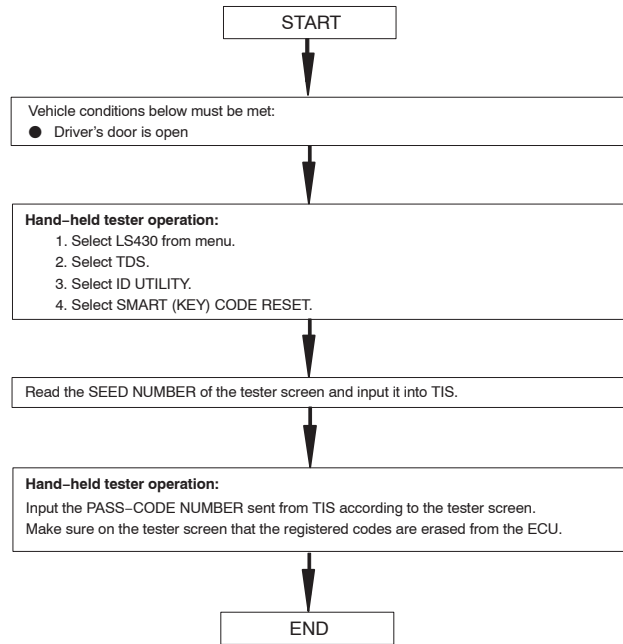


**HINT:**

A brief outline of procedures for key code registration is shown on this page. For more detailed information, please refer to the hand-held tester screen's instructions.

**5. RESET OF SMART KEY CODE**

- (a) Reset the smart key codes using the hand-held tester.



**HINT:**

- A brief outline of procedures for key code reset is shown on this page. For more detailed information, please refer to the hand-held tester screen's instructions.
- The SEED NUMBER is a 6-digit code.
- The PASS-CODE NUMBER is a 6-digit code.
- Reset mode will take approximately 16 minutes to complete.

**REGISTRATION**

**HINT:**

The key has 3 codes: the key code (immobilizer code), the smart code and wireless code. All of these code types need to be registered. Refer to page 05-2825 for the smart code (wireless code) registration procedures.

**1. DESCRIPTION OF CODE REGISTRATION**

- (a) When adding master keys and sub-keys (additional registration).  
 (1) Register the key code (immobilizer code) in the steering lock ECU.

Target ECU	See Step
Steering lock ECU	3

- (2) Register the key code (smart code) in the steering lock ECU.

Target ECU	See Step
Theft warning ECU	See page 05-2825

- (b) When replacing the steering lock ECU (new registration).

- (1) Register the key code (immobilizer code) in the steering lock ECU.

Target ECU	See Step
Steering lock ECU	2

- (2) Register the ECU COMMUNICATION ID between the ECM and the steering lock ECU.

Target ECU	See Step
Steering lock ECU	5
ECM	6

- (c) When replacing the theft warning ECU.

- (1) Register the ECU COMMUNICATION ID between the ECM and the steering lock ECU.

Target ECU	See Step
Steering lock ECU	5

- (d) When replacing the ECM.

- (1) Register the ECU COMMUNICATION ID between the ECM and the steering lock ECU.

Target ECU	See Step
ECM	6

- (e) When replacing the steering lock ECU and theft warning ECU at the same time.

- (1) Register the key code (immobilizer code) in the steering lock ECU.

Target ECU	See Step
Steering lock ECU	3

- (2) Register the key code (smart code) in the steering lock ECU.

Target ECU	See Step
Theft warning ECU	See page 05-2825

- (3) Register the ECU COMMUNICATION ID between the ECM and the steering lock ECU.

Target ECU	See Step
Steering lock ECU	5
ECM	6

- (f) Erasure of key code.

- (1) Erase the key codes.

Target ECU	See Step
Steering lock ECU	4

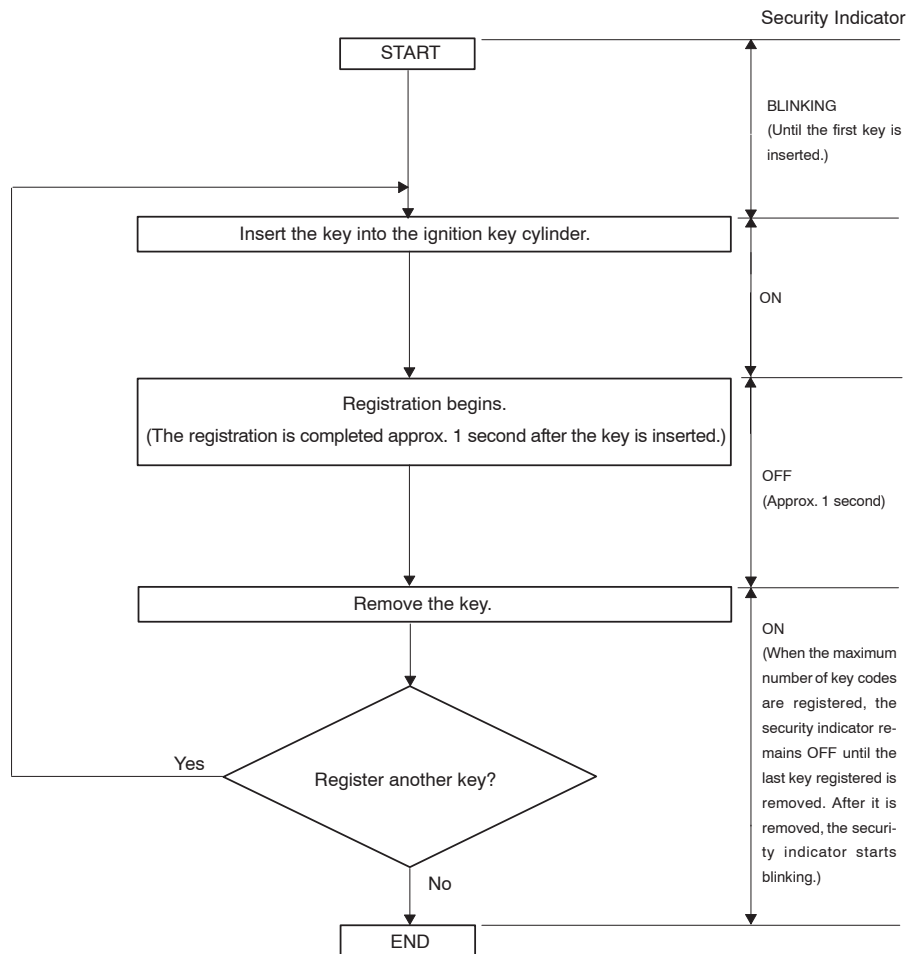
## 2. KEY REGISTRATION IN AUTOMATIC REGISTRATION (NEW REGISTRATION)

- (a) When an ignition key is inserted into the ignition key cylinder, the key code (immobilizer code) registration is automatic. In this mode, a maximum of 4 key codes for 3 master keys and 1 sub-key can be registered. Any order of registration for the master keys and sub-key is fine because the steering lock ECU can distinguish between different types of keys.

### HINT:

- When a new steering lock ECU is installed, key codes (immobilizer codes) must be registered in the steering lock ECU.
- New steering lock ECUs are automatically set to automatic key code registration mode.

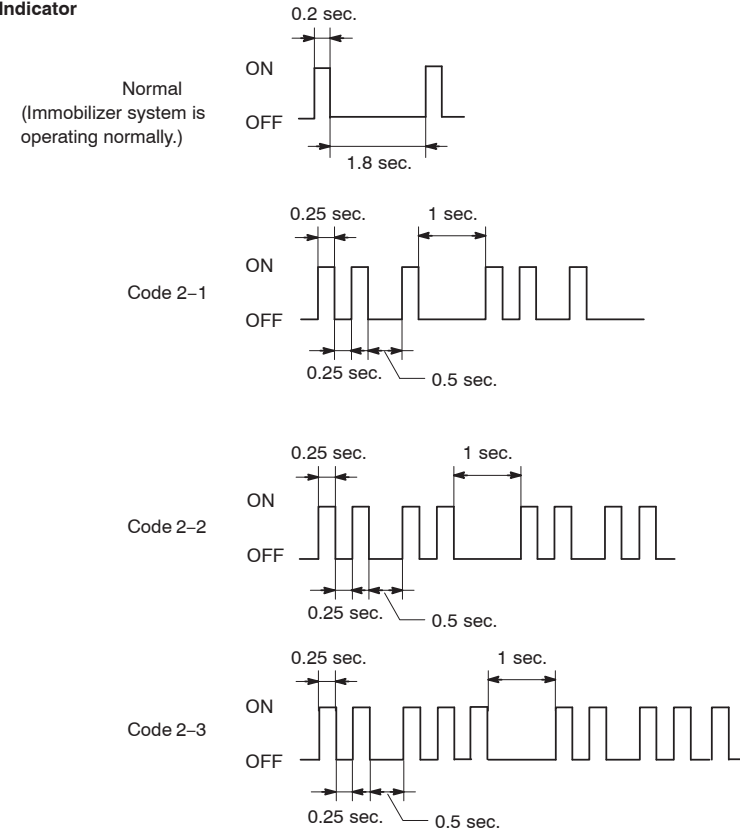
### Automatic Key Code Registration (New Registration)



### HINT:

- When no key is inserted into the ignition key cylinder in automatic key code registration mode, the security indicator remains on.
- When the immobilizer system is operating normally and the key is pulled out, the security indicator blinks continuously.
- If the key code registration has failed in automatic key code registration mode, code 2-1 will be output from the security indicator. Trying to re-register an already registered key will cause code 2-2 to be output when the key is inserted. If the number of registered key codes exceeds the limit, code 2-3 will be output from the security indicator. The output details are shown below.

### Security Indicator



- (b) Finish the automatic key code registration mode.

### HINT:

The automatic key code registration mode can be forced to end when at least 1 key code (immobilizer code) for the master key has been registered.

**3. REGISTRATION OF ADDITIONAL KEY (ADDITIONAL REGISTRATION)**

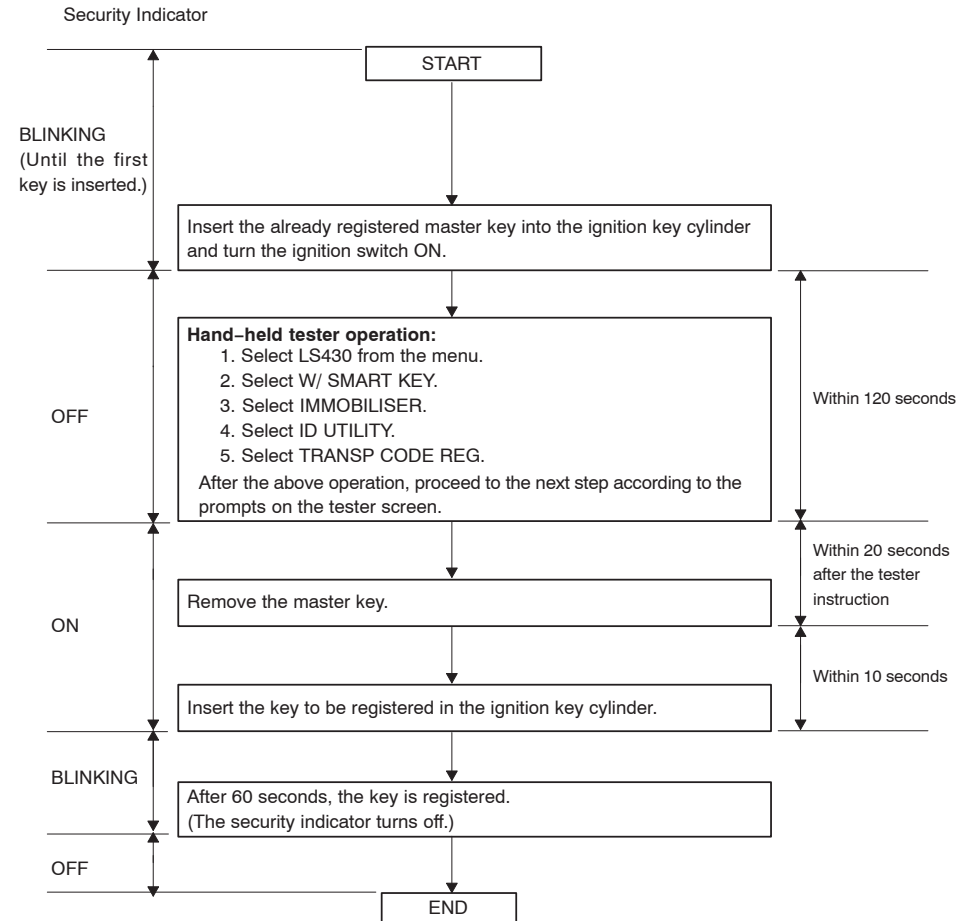
(a) Register an additional key using the hand-held tester.

**HINT:**

- A maximum of 5 master key codes and 3 sub-key codes can be registered.
- Registration mode will end if each step is not completed within the specified time.
- When the ignition cylinder or the key cylinder set is replaced, remove the transmitter module from the original master key. Then install this transmitter module to a new key and use the new key as the master key. If necessary, use this master key to register other keys.

**NOTICE:**

When the ignition key cylinder has been replaced, locking and unlocking doors is possible with the new master key's transmitter module (taken from the original master key). However, the new master key will not be able to lock and unlock doors through the door key cylinder. Keep the original master key. If the new master key's transmitter module's battery fails, the original master key can be used to lock and unlock doors through the door key cylinder.

**Additional Registration****HINT:**

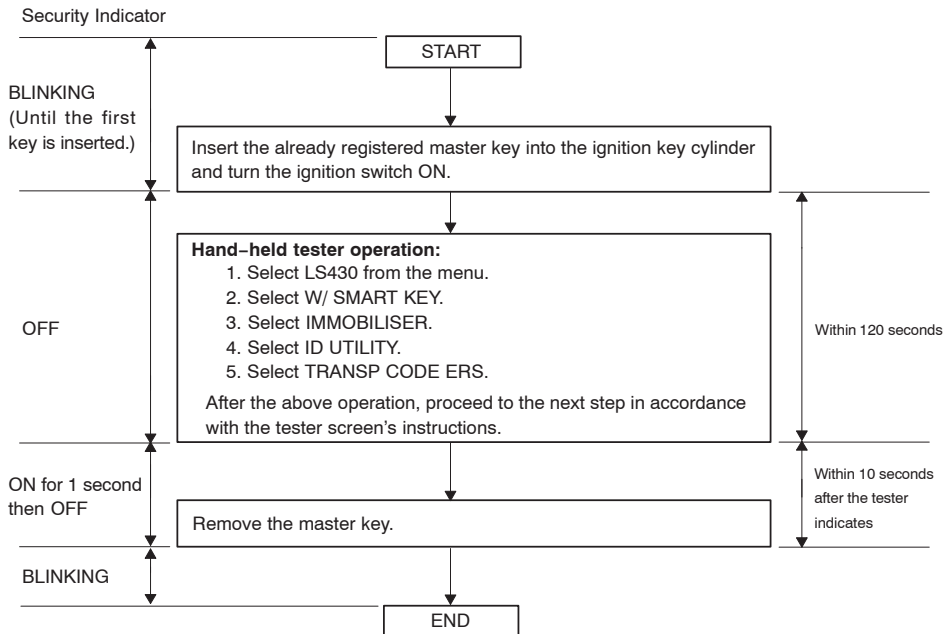
- A brief outline of procedures for key code registration is shown on this page. For more detailed information, please refer to the hand-held tester screen's instructions.
- When the immobilizer system is operating normally and the key is pulled out, the security indicator blinks continuously.
- If the key code registration has failed in automatic key code registration mode, code 2-1 will be output from the security indicator. Trying to re-register an already registered key will cause code 2-2 to be output when the key is inserted. If the number of registered key codes exceeds the limit, code 2-3 will be output from the security indicator. The output details are shown in step 2 (new registration).

**4. ERASURE OF KEY CODE**

(a) Erase key codes using the hand-held tester.

**HINT:**

- All key codes are erased except for the master key, which is used for erasing the key codes. In order to use a key whose code has been erased, a new key code must be registered.
- Registration will be cancelled if each step is not completed within the specified time.

**Erasing Key Code****HINT:**

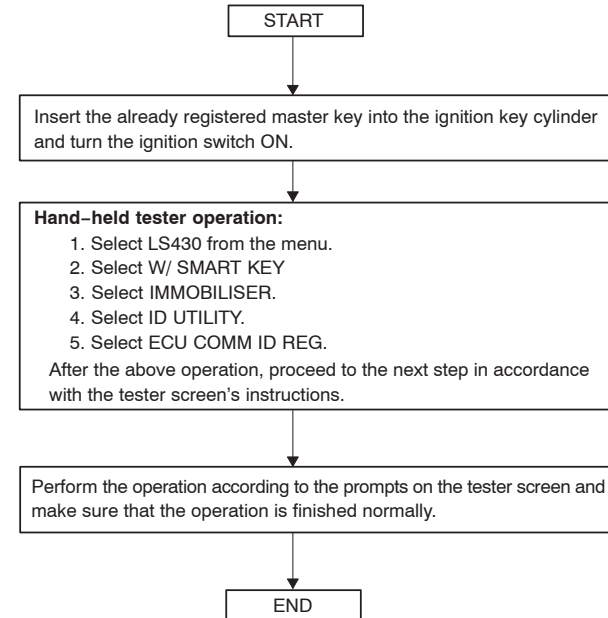
- A brief outline of procedures for key code erasure is shown on this page. For more detailed information, please refer to the hand-held tester screen's instructions.
- When the immobilizer system is operating normally and the key is pulled out, the security indicator blinks continuously.

**5. ECU COMMUNICATION ID REGISTRATION****NOTICE:**

- **The ECU communication ID should be registered when the steering lock ECU and/or the ECM is replaced in order to match the ECM COMMUNICATION ID.**
- **The engine cannot be started unless the ECM COMMUNICATION ID matches.**

**HINT:**

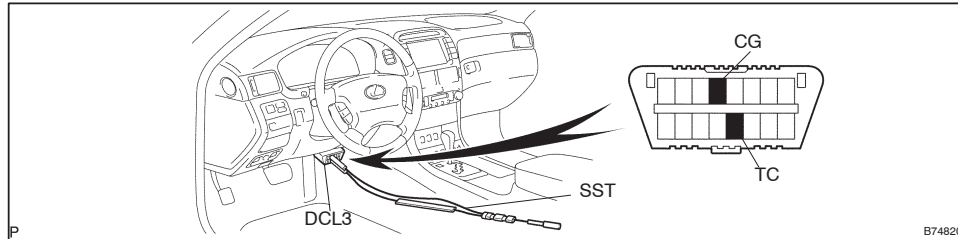
Registration will be cancelled if each step is not completed within the specified time.

**ECU Communication ID Registration**

**6. ECU COMMUNICATION ID REGISTRATION****NOTICE:**

- The ECU communication ID should be registered when the steering lock ECU and/or the ECM is replaced in order to match the ECM COMMUNICATION ID.
- The engine cannot be started unless the ECM COMMUNICATION ID matches.

(a) Register the ECU communication ID.



- (1) Using SST, connect terminals TC and CG of the DLC3.  
SST 09843-18040
- (2) Turn the ignition switch ON (do not start the engine) and leave it as is for 30 minutes.
- (3) Turn the ignition switch OFF and disconnect terminals TC and CG.
- (4) Check that the engine starts.