REGISTRATION

05J51–01

HINT:

The key has 2 codes: the key code (immobilizer code), the wireless code. All of these code types need to be registered. Refer to page for the 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 transponder key ECU.

Target ECU	See Step
Transponder key ECU	3

(b) When replacing the transponder key ECU (new registration).

    (1) Register the key code (immobilizer code) in the transponder key ECU.

Target ECU	See Step
Transponder key ECU	2

    (2) Register the ECU COMMUNICATION ID to be used between the hybrid vehicle control ECU and the transponder key ECU.

Target ECU	See Step
Hybrid vehicle control ECU	5

(c) When replacing the hybrid vehicle control ECU.

    (1) Register the ECU COMMUNICATION ID to be used between the hybrid vehicle control ECU and the transponder key ECU.

Target ECU	See Step
Transponder key ECU	6

(d) When replacing the transponder key ECU and hybrid vehicle control ECU at the same time.

    (1) Register the key code (immobilizer code) in the transponder key ECU.

Target ECU	See Step
Transponder key ECU	2

    (2) Register the ECU COMMUNICATION ID to be used between the hybrid vehicle control ECU and the transponder key ECU.

Target ECU	See Step
Hybrid vehicle control ECU	5
Transponder key ECU	6

(e) When erasing of the key codes.

    (1) Erasure of the key codes.

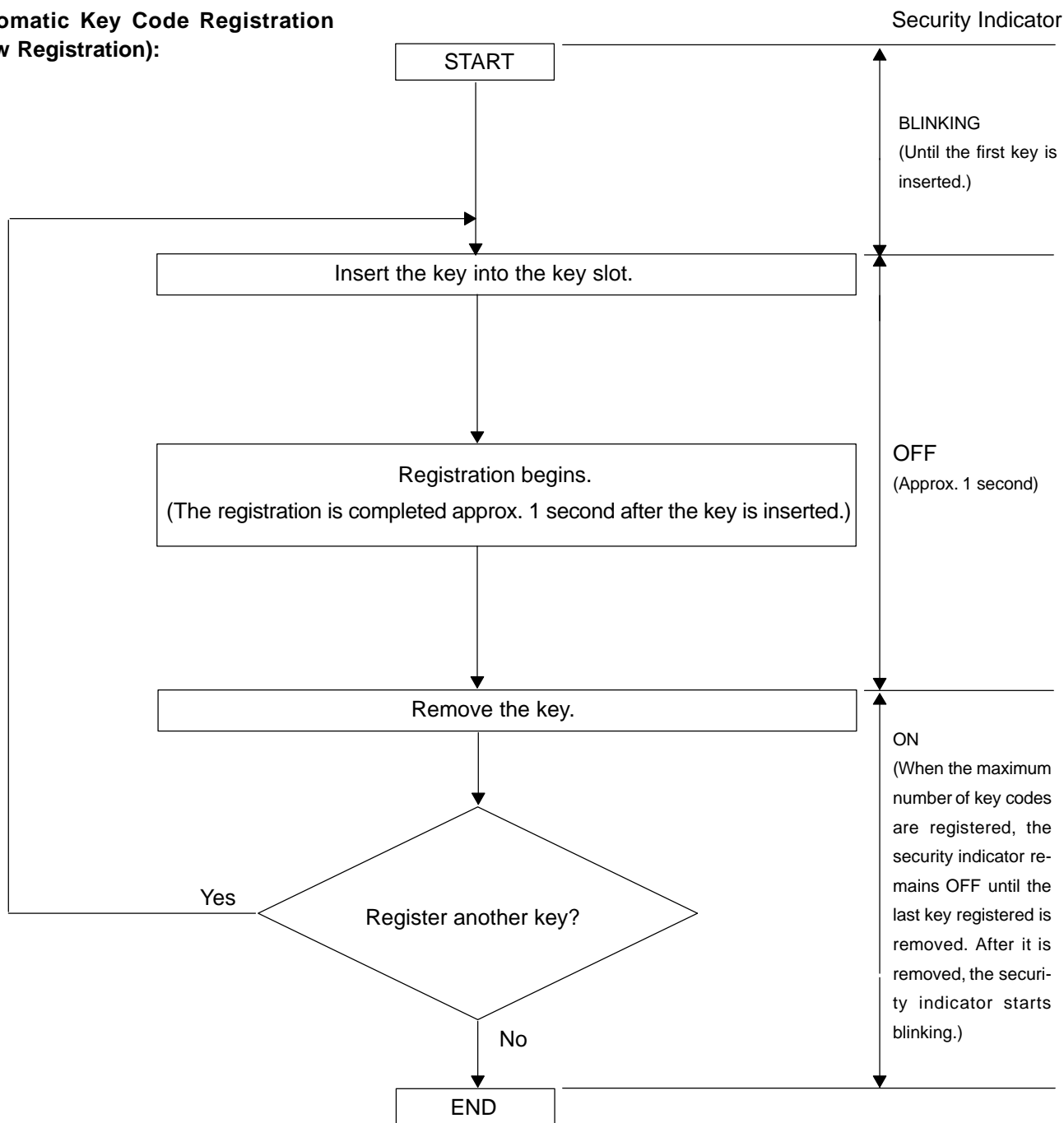| Target ECU	See Step
Transponder key ECU	4

2. KEY REGISTRATION IN AUTOMATIC REGISTRATION (NEW REGISTRATION)

(a) When a key is inserted into the key slot, the key code (immobilizer code) registration is automatic. In this mode, a maximum of 5 key codes for 4 master keys and 1 sub–key can be registered. Any order of registration for the master keys and sub–keys is fine because the transponder key ECU can distinguish between different types of keys.

HINT:

* When a new transponder key ECU is installed, key codes (immobilizer codes) must be registered in the new transponder key ECU.
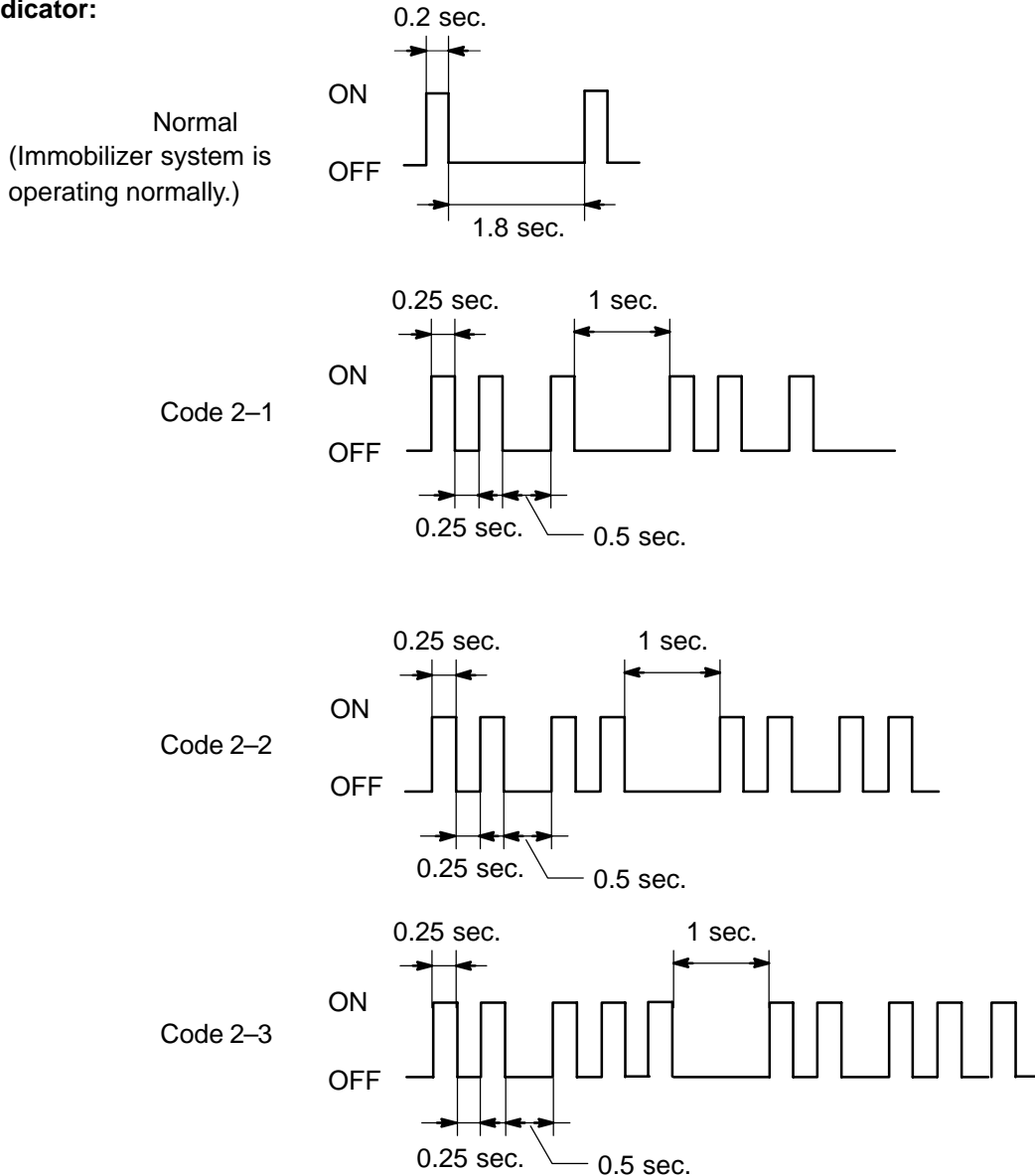* A new transponder key ECU is automatically set to automatic key code registration mode.

Automatic Key Code Registration (New Registration):

Security Indicator

```
              ┌──────────┐
              │  START   │─────────────────────────────────┐
              └──────────┘                                 │
                   │                            BLINKING
                   │                            (Until the first key is
                   │                            inserted.)
                   ▼
       ┌──────────────────────────────┐
   ┌──>│ Insert the key into the key slot. │
   │   └──────────────────────────────┘
   │                │
   │                │                           OFF
   │                ▼                           (Approx. 1 second)
   │   ┌──────────────────────────────┐
   │   │ Registration begins.          │
   │   │ (The registration is completed approx. 1 second after the key is inserted.) │
   │   └──────────────────────────────┘
   │                │
   │                ▼
   │   ┌──────────────────────────────┐
   │   │ Remove the key.               │
   │   └──────────────────────────────┘
   │                │                           ON
   │                ▼                           (When the maximum
   │           ╱──────────╲                     number of key codes
   │ Yes      ╱            ╲                     are registered, the
   └─────────╱ Register another key? ╲           security indicator re-
             ╲            ╱                      mains OFF until the
              ╲──────────╱                       last key registered is
                   │                            removed. After it is
                   │ No                         removed, the securi-
                   ▼                            ty indicator starts
              ┌──────────┐                      blinking.)
              │   END    │
              └──────────┘
```

HINT:
- When no key is inserted in the key slot 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:

Normal
(Immobilizer system is
operating normally.)

0.2 sec.

ON

OFF

1.8 sec.

Code 2–1

0.25 sec.   1 sec.

ON

OFF

0.25 sec.   0.5 sec.

Code 2–2

0.25 sec.   1 sec.

ON

OFF

0.25 sec.   0.5 sec.

Code 2–3

0.25 sec.   1 sec.

ON

OFF

0.25 sec.   0.5 sec.

(b) Finish the automatic key code registration mode.
     The automatic key code registration mode can be forced to end when at least 1 key code (immobiliser code) for the master key has been registered.
     (1) Insert the already registered master key into the key slot. Change the power switch's power mode between ON (IG) and OFF repeatedly 5 times within 10 seconds.

3. REGISTRATION OF ADDITIONAL KEY (ADDITIONAL REGISTRATION)

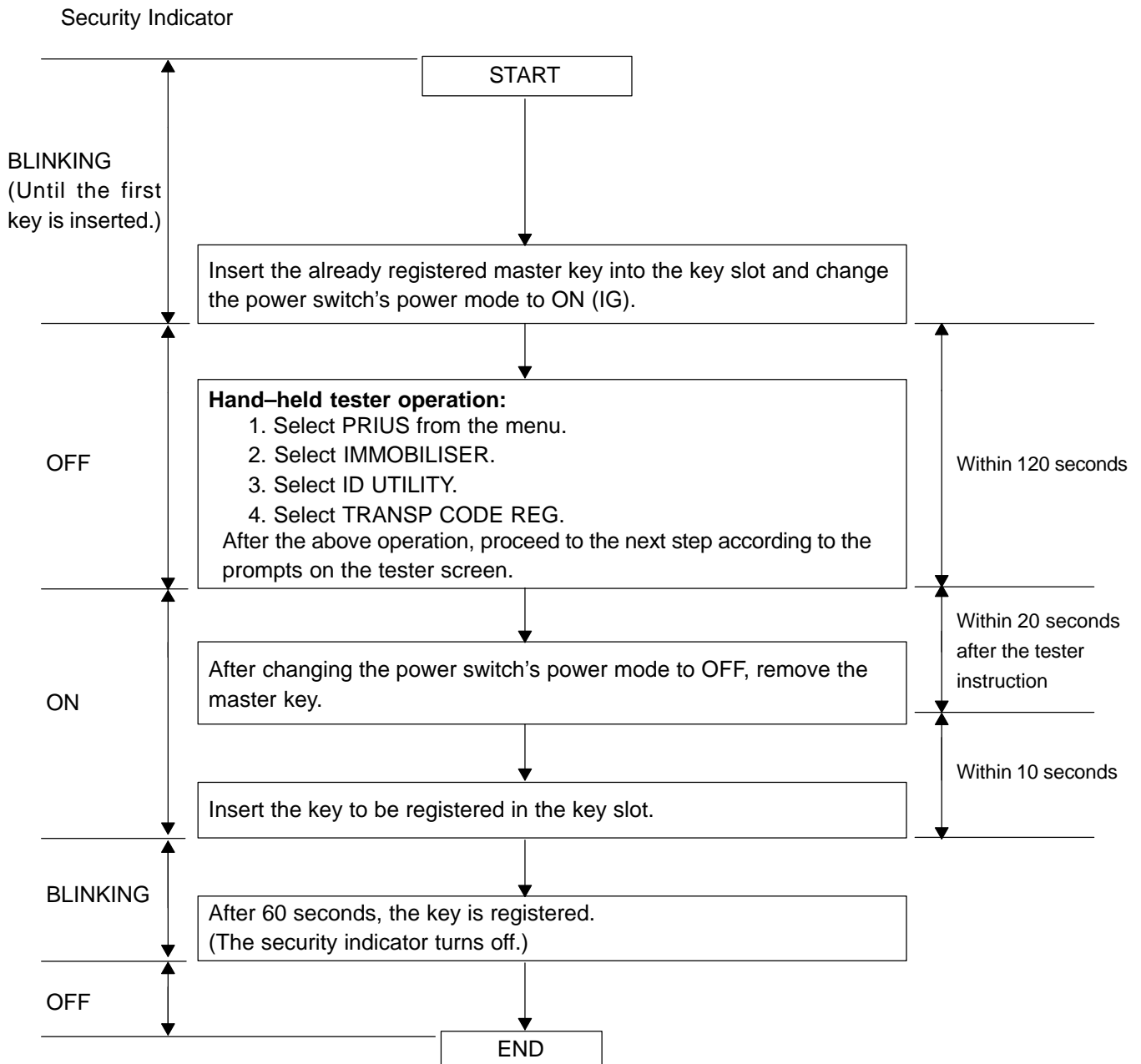(a)   Register an additional key by using the hand–held tester.

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 key slot 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 key slot 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

Security Indicator

```
                                    ┌─────────────┐
                                    │    START    │
                                    └─────────────┘
                                           │
BLINKING                                   ▼
(Until the first        ┌────────────────────────────────────────────────┐
key is inserted.)       │ Insert the already registered master key into  │
                        │ the key slot and change the power switch's      │
                        │ power mode to ON (IG).                          │
                        └────────────────────────────────────────────────┘
                                           │
                                           ▼
                        ┌────────────────────────────────────────────────┐
OFF                     │ Hand–held tester operation:                     │     Within 120 seconds
                        │   1. Select PRIUS from the menu.                │
                        │   2. Select IMMOBILISER.                        │
                        │   3. Select ID UTILITY.                         │
                        │   4. Select TRANSP CODE REG.                    │
                        │ After the above operation, proceed to the next  │
                        │ step according to the prompts on the tester     │
                        │ screen.                                         │
                        └────────────────────────────────────────────────┘
                                           │
                                           ▼                                    Within 20 seconds
                        ┌────────────────────────────────────────────────┐     after the tester
ON                      │ After changing the power switch's power mode to │     instruction
                        │ OFF, remove the master key.                     │
                        └────────────────────────────────────────────────┘
                                           │
                                           ▼                                    Within 10 seconds
                        ┌────────────────────────────────────────────────┐
                        │ Insert the key to be registered in the key slot.│
                        └────────────────────────────────────────────────┘
                                           │
BLINKING                                   ▼
                        ┌────────────────────────────────────────────────┐
                        │ After 60 seconds, the key is registered.        │
                        │ (The security indicator turns off.)             │
                        └────────────────────────────────────────────────┘
                                           │
OFF                                        ▼
                                    ┌─────────────┐
                                    │     END     │
                                    └─────────────┘
```

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 starts blinking.
- 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).
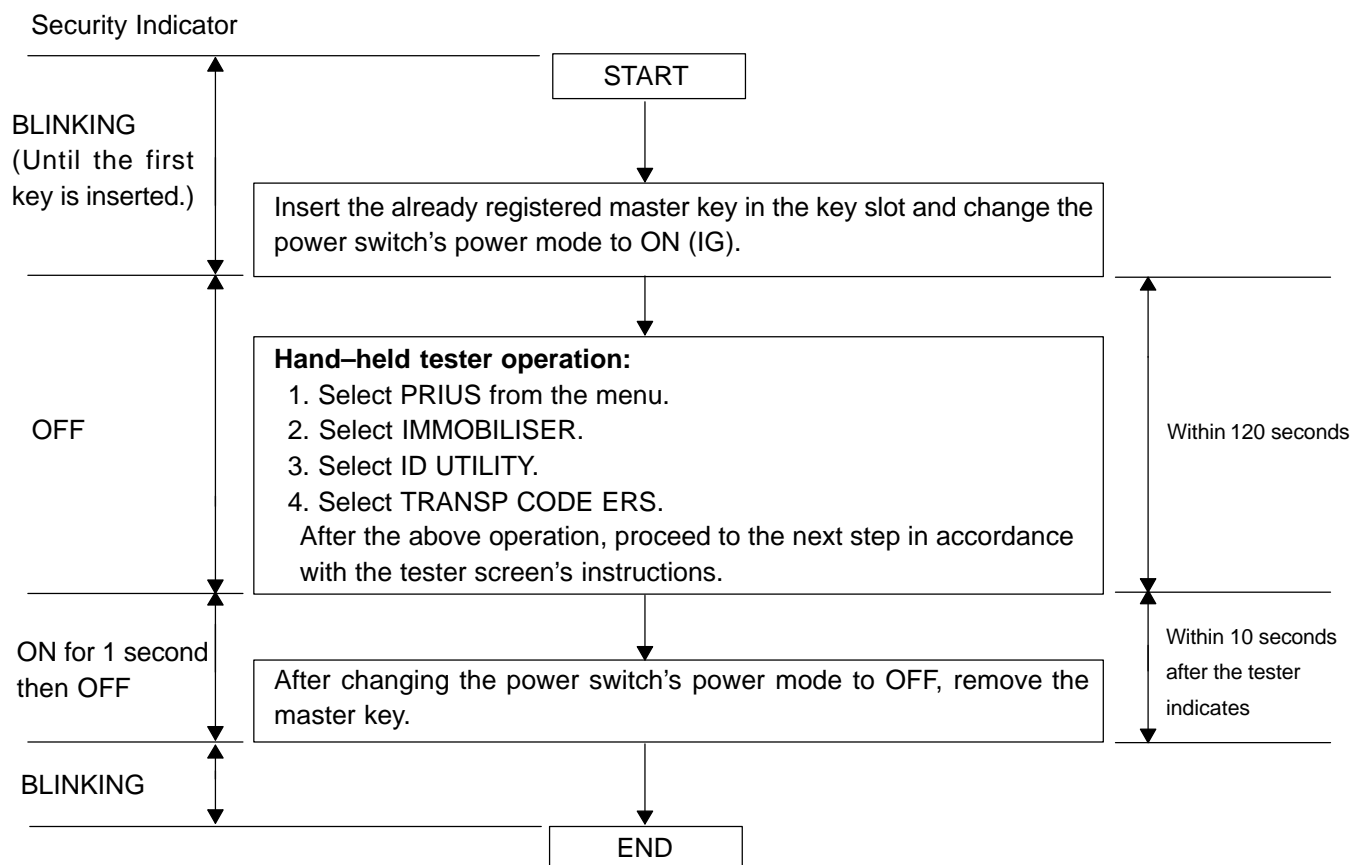
4. ERASURE OF KEY CODE

(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, the key's code must be re–registered.
- Registration will be cancelled if each step is not completed within the specified time.

Erasing Key Code

Security Indicator

BLINKING
(Until the first key is inserted.)

OFF

ON for 1 second then OFF

BLINKING

START
↓
Insert the already registered master key in the key slot and change the power switch's power mode to ON (IG).
↓
Hand–held tester operation:
1. Select PRIUS from the menu.
2. Select IMMOBILISER.
3. Select ID UTILITY.
4. Select TRANSP CODE ERS.
 After the above operation, proceed to the next step in accordance with the tester screen's instructions.
↓
After changing the power switch's power mode to OFF, remove the master key.
↓
END

Within 120 seconds

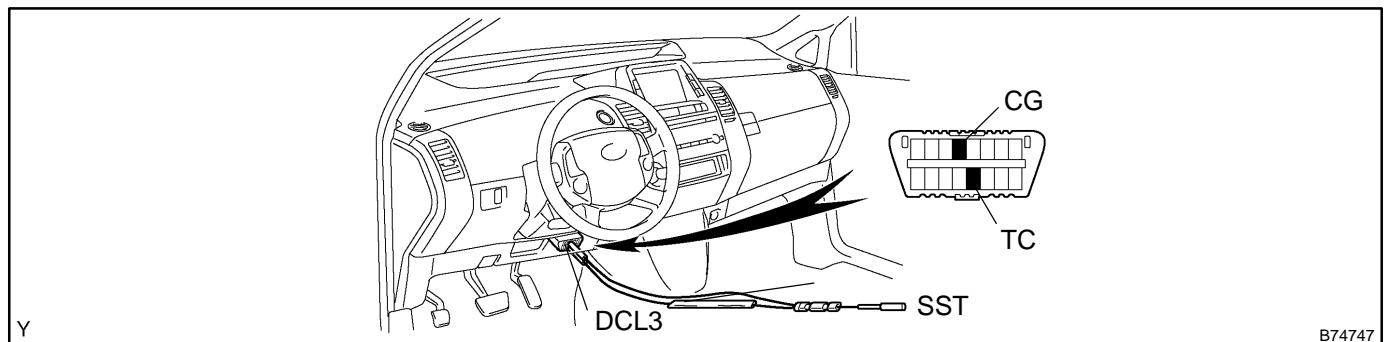Within 10 seconds after the tester indicates

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 starts blinking.

5.   ECU COMMUNICATION ID REGISTRATION

NOTICE:

- **The ECU communication ID should be registered when the transponder key ECU and/or the hybrid vehicle control ECU is replaced in order to match the HYBRID VEHICLE CONTROL ECU COMMUNICATION ID.**
- **The hybrid vehicle control system cannot be started unless the HYBRID VEHICLE CONTROL ECU COMMUNICATION ID matches.**
- **When the transponder key ECU has been replaced, do not change the power switch's power mode from ON to OFF 20 times or more consecutively. The ECU COMMUNICATION ID must be registered before such an occurrence or the transponder key ECU will need to be replaced. If the transponder key ECU is unable to recognize the hybrid vehicle control ECU, the hybrid vehicle control system will be unable to be started. If the transponder key ECU cannot recognize the hybrid vehicle control ECU, the transponder key ECU must be replaced again with new one.**
- **After the registration, pressing the power switch may not start the system on the first try. If so, press the power switch again.**
- **After the hybrid vehicle control system is started, erase DTC 2799 (code for hybrid vehicle control ECU's immobilizer communication error) using either of the following.**
  Use the hand–held tester (see page 05–2398).
  Disconnect the battery for 30 seconds.

(a)   Register the ECU communication ID.

(1)   Using SST, connect terminals TC and CG of the DLC3.
      SST 09843–18040
(2)   Change the power switch's power mode to ON (IG) (do not start the engine) and leave it as is for 30 minutes.
(3)   Change the power switch's power mode to OFF and disconnect terminals TC and CG.
(4)   Check that the hybrid vehicle control system starts.

6. ECU COMMUNICATION ID REGISTRATION

NOTICE:

- **The ECU communication ID should be registered when the hybrid vehicle control ECU is re-placed in order to match the HYBRID VEHICLE CONTROL ECU COMMUNICATION ID.**
- **The hybrid vehicle control system cannot be started unless the HYBRID VEHICLE CONTROL ECU COMMUNICATION ID matches.**

ECU COMMUNICATION ID Registration

```
                        ┌─────────────┐
                        │    START    │
                        └─────────────┘
                               │
                               ▼
  ┌──────────────────────────────────────────────────────────┐
  │ Insert the already registered master key in the key slot  │
  │ and change the power switch's power mode to ON (READY)     │
  │ with the brake pedal depressed.                           │
  └──────────────────────────────────────────────────────────┘
                               │
                               ▼
  ┌──────────────────────────────────────────────────────────┐
  │ Check that hybrid control system stays on for more than 3  │
  │ seconds.                                                   │
  └──────────────────────────────────────────────────────────┘
                               │
                               ▼
                        ┌─────────────┐
                        │     END     │
                        └─────────────┘
```