

Applies To: 2004 TL – ALL
2004 TSX – ALL

October 28, 2003

Immobilizer System (Type 4) (Supersedes 03-012, dated March 31, 2003)

All 2004 TLs and 2004 TSXs have a Type 4 immobilizer system that disables the vehicle unless a programmed ignition key is used. The Type 4 system is unique. The transponder ID code in the key is a rolling-type code instead of a set code. In this service bulletin, a programmed ignition key refers to a transponder-type key that has been cut to fit the ignition switch and whose transponder ID code is recognized by the immobilizer system. If you try to start the engine without a programmed ignition key, the starter turns the engine, but the engine cannot start.

This service bulletin covers

- Immobilizer system components
- Adding or replacing programmed ignition keys
- Clearing transponder codes of lost programmed ignition keys
- Starting the engine without a programmed ignition key
- Replacing the immobilizer control unit-receiver
- Replacing the ECM/PCM

It also has a customer situation and required items chart.

You can find more information about the immobilizer system in the Body Electrical section of the appropriate service manual.

WARRANTY CLAIM INFORMATION

None. This service bulletin is for information only.

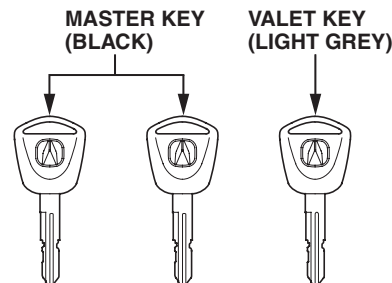
IMMOBILIZER SYSTEM COMPONENTS

The immobilizer system includes the

- Immobilizer system keys (two master keys and one valet key at new vehicle delivery)
- Immobilizer system indicator
- Immobilizer control unit-receiver
- Engine control module (ECM)/powertrain control module (PCM)

Immobilizer System Keys

These vehicles come with two master keys (black grip) and one valet key (gray grip). Each key is stamped with a **V** on the shank.

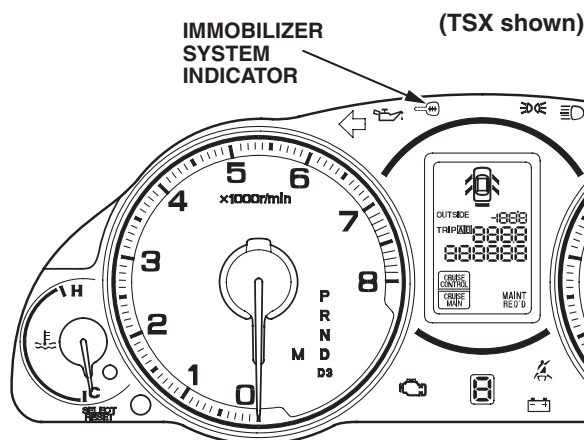


Each key (master or valet) has electronic circuits in its grip that output a rolling-type code (set by the immobilizer control unit-receiver) when you insert the key into the ignition switch. The immobilizer system uses this code to determine whether to start the engine. There are no batteries or other serviceable parts inside the keys.

Because of the rolling code characteristics of the Type 4 immobilizer system, you cannot use the Ilco Immobilizer Key Code Duplicator or Ilco programmable (T5) key blanks with this system.

Immobilizer System Indicator

The immobilizer system indicator is on the instrument panel. If you insert a programmed ignition key (master or valet) into the ignition switch, and turn the switch to ON (II), the indicator comes on for **2 seconds** and then goes off. When you turn the ignition switch to LOCK (0), the indicator blinks for **5 seconds** and then goes off.



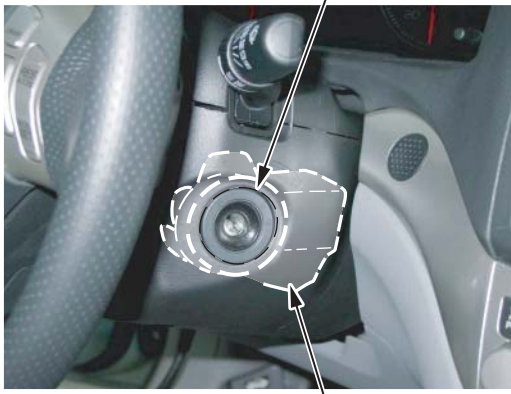
If you insert a nonprogrammed ignition key into the ignition switch, the indicator comes on for **2 seconds** when you turn the switch to ON (II) and *then starts to blink*. The indicator keeps blinking until you turn the switch to LOCK (0) and remove the key. If you try to start the engine with a nonprogrammed ignition key, the engine cranks, but it cannot start.

Immobilizer Control Unit-Receiver

The immobilizer control unit-receiver is inside the bezel around the ignition switch. It uses electromagnetic induction to energize the electronic circuits in the key. There is no direct electrical connection. Once the electronic circuits are energized, the key sends its ID code to the immobilizer control unit-receiver, which checks the code against the codes stored in its memory. If the code matches, the immobilizer control unit-receiver sends a unique serial code to the ECM/PCM. But if the transponder ID code does not match, no serial code is sent.

(TSX shown)

IGNITION SWITCH



IMMOBILIZER CONTROL UNIT - RECEIVER

Engine Control Module (ECM)/Powertrain Control Module (PCM)

The ECM/PCM is an integral part of the immobilizer system. When the ECM/PCM receives the unique serial code from the immobilizer control unit-receiver, it communicates or “handshakes” with the immobilizer control unit-receiver by sending back its own unique serial code. If the serial codes are mutually recognized during this handshaking process, the ECM/PCM energizes the fuel supply system and the ignition system so the engine can start.

ADDING OR REPLACING PROGRAMMED IGNITION KEYS

These vehicles originally come with three programmed ignition keys. The immobilizer control unit-receiver accepts a total of six transponder codes, so three more codes can be stored in its memory. Use the following procedures to add a key, to add multiple keys, or to replace all keys.

Adding a Key

Use the Honda Diagnostic System (HDS) with Acura key blanks to add a key. *Make sure you use only key blanks with a V stamped on the shank.* The HDS rewrites the immobilizer control unit-receiver, storing the transponder code of the new key in the immobilizer control unit-receiver’s memory.

Preparation

To add a key with the HDS, you need these items:

- Immobilizer Key blank (master), P/N 35113-SEC-A01
- **or**
- Immobilizer Key blank (valet), P/N 35114-SEC-A01
- *One* programmed ignition key (master or valet) for the vehicle
- Vehicle’s key code for cutting new ignition keys
- Suitable code key cutter
- HDS with 1.009.010 or later software

NOTE: Make sure the setup and time are correct before you use the HDS. Select the **F12** key in the upper right corner to get the **Set-up Details** screen. Make sure **Market:** is set to **USA**. Select the time display in the lower right corner to get the **Date/Time Properties** pop-up window. Make sure the date and time are correct. For details, refer to the **Honda Diagnostic System (HDS) Setup Instructions** listed under **Tool Information** in ISIS.

- 1st Password (Get this five-character code from the **N** VIN Status Inquiry display. This code is changed yearly.)

Procedure

1. Use an appropriate key blank and a suitable code key cutter to cut a new ignition key (see S/B 99-010, *Cutting Keys With the Exacta Code Key Cutter*).
2. Connect the HDS to the 16P data link connector (DLC).
3. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the HDS.
4. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
5. From the **System Selection Menu** screen, select **IMMOBI**.
6. From the **Mode Menu** screen, select **Immobilizer Setup**.
7. From the **Immobilizer Test Mode Menu** screen, select **Add and Delete Keys**.
8. From the **Add and Delete Keys** screen, select **Add 1 Key**.
9. From the **Add 1 Key** screen, select **Begin to add 1 key**.

10. From the **1st Password** screen, enter the 1st Password, and then follow the screen prompts. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

Adding Multiple Keys

Use the HDS with Acura key blanks to add multiple keys. *Make sure you use only key blanks with a V stamped on the shank.* The HDS rewrites the immobilizer control unit-receiver, storing the transponder codes of the new keys in the immobilizer control unit-receiver's memory.

Preparation

To add multiple keys with the HDS, you need these items:

- Immobilizer Key blank (master), P/N 35113-SEC-A01
- **or**
- Immobilizer Key blank (valet), P/N 35114-SEC-A01
- All of your customer's programmed ignition keys for the vehicle
- Vehicle's key code for cutting new ignition keys
- Suitable code key cutter
- HDS with 1.009.010 or later software

NOTE: Make sure the setup and time are correct before you use the HDS. Select the **F12** key in the upper right corner to get the **Set-up Details** screen. Make sure **Market:** is set to **USA**. Select the time display in the lower right corner to get the **Date/Time Properties** pop-up window. Make sure the date and time are correct. For details, refer to the **Honda Diagnostic System (HDS) Setup Instructions** listed under **Tool Information** in ISIS.

- 1st Password (Get this five-character code from the **N** VIN Status Inquiry display. This code is changed yearly.)

Procedure

1. Use appropriate key blanks and a suitable code key cutter to cut new ignition keys (see S/B 99-010, *Cutting Keys With the Exacta Code Key Cutter*).
2. Gather up *all* of the programmed ignition keys (master and valet) for the vehicle.
3. Connect the HDS to the 16P data link connector (DLC).
4. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the HDS.
5. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
6. From the **System Selection Menu** screen, select **IMMOBI**.

7. From the **Mode Menu** screen, select **Immobilizer Setup**.
8. From the **Immobilizer Test Mode Menu** screen, select **Add and Delete Keys**.
9. From the **Add and Delete Keys** screen, select **Delete or Add Multiple Keys**.
10. From the **Delete or Add Multiple Keys** screen, select **Begin to Delete or Add Multiple Keys**.
11. From the **1st Password** screen, enter the 1st Password, and then follow the screen prompts. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

Replacing All Keys

If your customer has lost all of the programmed ignition keys, you need to replace all of the keys and rewrite the immobilizer control unit-receiver with the HDS. The HDS clears all transponder codes from the immobilizer control unit-receiver's memory and stores the transponder codes of the replacement ignition keys.

Preparation

To replace all the keys, you need these items:

- Immobilizer Key blank (master), P/N 35113-SEC-A01
- Immobilizer Key blank (valet), P/N 35114-SEC-A01
- Vehicle's key code for cutting new ignition keys
- Suitable code key cutter
- HDS with 1.009.010 or later software

NOTE: Make sure the setup and time are correct before you use the HDS. Select the **F12** key in the upper right corner to get the **Set-up Details** screen. Make sure **Market:** is set to **USA**. Select the time display in the lower right corner to get the **Date/Time Properties** pop-up window. Make sure the date and time are correct. For details, refer to the **Honda Diagnostic System (HDS) Setup Instructions** listed under **Tool Information** in ISIS.

- PCM Code (This VIN-specific, four-digit code is available on the **N** VIN Status Inquiry display. The code is changed daily, so use it as soon as you get it.)

Procedure

1. Use appropriate key blanks and a suitable code key cutter to cut the requested number of ignition keys (see S/B 99-010, *Cutting Keys With the Exacta Code Key Cutter*).
2. Connect the HDS to the 16P data link connector (DLC).
3. Insert a newly cut ignition key into the ignition switch, and turn the switch to ON (II). Turn on the HDS.

4. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
5. From the **System Selection Menu** screen, select **IMMOBI**.
6. From the **Mode Menu** screen, select **Immobilizer Setup**.
7. From the **Immobilizer Test Mode Menu** screen, select **Add and Delete Keys**.
8. From the **Add and Delete Keys** screen, select **All Keys Lost**.
9. From the **All Keys Lost** screen, select **Begin to register keys**.
10. From the **PCM-Code** screen, enter the PCM Code, and then follow the screen prompts. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

CLEARING TRANSPONDER CODES OF LOST PROGRAMMED IGNITION KEYS

If your customer has lost one or more (but not all) of the programmed ignition keys, you should rewrite the immobilizer control unit-receiver with the HDS to prevent the lost keys from starting the engine. The HDS clears the transponder codes from the memory of the immobilizer control unit-receiver, and then stores the transponder codes of your customer's remaining keys. This process, in effect, clears the codes of the lost keys so they could not start the engine.

Preparation

To clear the transponder codes of lost keys, you need these items:

- All of your customer's remaining programmed ignition keys (master and valet)
- HDS with 1.009.010 or later software

NOTE: Make sure the setup and time are correct before you use the HDS. Select the **F12** key in the upper right corner to get the **Set-up Details** screen. Make sure **Market:** is set to **USA**. Select the time display in the lower right corner to get the **Date/Time Properties** pop-up window. Make sure the date and time are correct. For details, refer to the **Honda Diagnostic System (HDS) Setup Instructions** listed under **Tool Information** in ISIS.

- 1st Password (Get this five-character code from the \bar{N} VIN Status Inquiry display. This code is changed yearly.)

Procedure

1. Gather up *all* of the remaining programmed ignition keys (master and valet) for the vehicle.
2. Connect the HDS to the 16P data link connector (DLC).
3. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the HDS.

4. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
5. From the **System Selection Menu** screen, select **IMMOBI**.
6. From the **Mode Menu** screen, select **Immobilizer Setup**.
7. From the **Immobilizer Test Mode Menu** screen, select **Add and Delete Keys**.
8. From the **Add and Delete Keys** screen, select **Delete or Add Multiple Keys**.
9. From the **Delete or Add Multiple Keys** screen, select **Begin to Delete or Add Multiple Keys**.
10. From the **1st Password** screen, enter the 1st Password, and then follow the screen prompts. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

STARTING THE ENGINE WITHOUT A PROGRAMMED IGNITION KEY

If your customer is stranded because he or she has no programmed ignition keys, or a part of the immobilizer system has failed, you can still start the engine using a properly cut key blank and the VIN-specific, five-digit Immobilizer Brake Code.

This procedure is suited for situations where your stranded customer either plans to drive the vehicle directly to an Acura dealership for immobilizer system repair, or he or she has the other programmed ignition keys at home and plans to drive there with no side trips.

If your customer has lost his or her programmed ignition keys but has programmed ignition keys at home, advise him or her to schedule an appointment to have the immobilizer control unit-receiver rewritten for the remaining ignition keys; this way the transponder codes of the lost keys are cleared from the immobilizer control unit-receiver's memory. Refer to **CLEARING TRANSPONDER CODES OF LOST IGNITION KEYS**.

If your customer has lost *all* of the programmed ignition keys, he or she will need to have them replaced and to have the immobilizer control unit-receiver rewritten. Refer to **Replacing All Keys** under **ADDING OR REPLACING PROGRAMMED IGNITION KEYS**.

Preparation

To start the engine without a programmed ignition key, you need these items:

- Acura key blank (This can be for any Acura model.)
- Vehicle's key code for cutting a new ignition key
- Suitable code key cutter
- Immobilizer Brake Code (This five-digit code is available on the \bar{N} VIN Status Inquiry display.)

Procedure

1. Use an Acura key blank and a suitable code key cutter to cut a temporary ignition key (see S/B 99-010, *Cutting Keys With the Exacta Code Key Cutter*).
2. Release the parking brake.
3. Insert the temporary key into the ignition switch.
4. Turn the ignition switch to ON (II). Wait for the immobilizer system indicator to start blinking.
5. Enter the first digit of the five-digit Immobilizer Brake Code by setting and releasing the parking brake that number of times within **30 seconds**. For example, if the first digit is four, set and release the parking brake four times.
6. Turn the ignition switch to LOCK (0). (This enters the first digit into the ECM/PCM.)
7. Turn the ignition switch to ON (II), set and release the parking brake the appropriate number of times, and turn the ignition switch to LOCK (0) to enter the second, the third, the fourth, and the fifth digits.

NOTE: When you turn the ignition switch to ON (II), the immobilizer system indicator does not blink but stays on. The immobilizer system indicator stays on even when the ignition switch is turned to LOCK (0).

8. After you enter the fifth digit and turn the ignition switch to LOCK (0), the immobilizer system indicator blinks three times and then goes off. You can now start the engine with the temporary key.

NOTE: This procedure is only a temporary fix. When you start the engine with the temporary key, the immobilizer system indicator comes on and stays on while the engine is running. And when you turn the ignition switch to LOCK (0), the indicator does not blink three times as it normally would.

9. Start the engine within **10 minutes** or you must repeat this procedure entirely.

REPLACING THE IMMOBILIZER CONTROL UNIT-RECEIVER

If you replace the immobilizer control unit-receiver, you must rewrite it with the HDS, or the engine cannot start.

Preparation

To replace the immobilizer control unit-receiver, you need these items:

- Replacement immobilizer control unit-receiver
- *All* of the programmed ignition keys (master and valet) for the vehicle

- HDS with 1.009.010 or later software

NOTE: Make sure the setup and time are correct before you use the HDS. Select the **F12** key in the upper right corner to get the **Set-up Details** screen. Make sure **Market:** is set to **USA**. Select the time display in the lower right corner to get the **Date/Time Properties** pop-up window. Make sure the date and time are correct. For details, refer to the **Honda Diagnostic System (HDS) Setup Instructions** listed under **Tool Information** in ISIS.

- PCM Code (This VIN-specific, four-digit code is available on the \mathcal{N} VIN Status Inquiry display. The code is changed daily, so use it as soon as you get it.)

Procedure

1. Replace the immobilizer control unit-receiver. Refer to the Body Electrical section of the appropriate service manual.
2. Gather up *all* of the programmed ignition keys (master and valet) for the vehicle.
3. Connect the HDS to the 16P data link connector (DLC).
4. Insert a programmed ignition key into the ignition switch, and turn the ignition switch to ON (II). Turn on the HDS.
5. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
6. From the **System Selection Menu** screen, select **IMMOBI**.
7. From the **Mode Menu** screen, select **Immobilizer Setup**.
8. From the **Immobilizer Test Mode Menu** screen, select **Replace Immobilizer Receiver/Control Unit**.
9. From the **Replace Immobilizer Receiver/Control Unit** screen, select **Begin to register Keys in the new Immobilizer Receiver/Control Unit**.
10. From the **PCM-Code** screen, enter the PCM Code, and then follow the screen prompts. When the process is complete, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

REPLACING THE ECM/PCM

If you replace the ECM/PCM, you must use the HDS to instruct the new ECM/PCM and the immobilizer control unit-receiver to recognize the other's unique serial code, or the engine cannot start.

Preparation

To replace the ECM/PCM, you need these items:

- Replacement ECM/PCM
- One programmed ignition key for the vehicle
- HDS with 1.009.010 or later software

NOTE: Make sure the setup and time are correct before you use the HDS. Select the **F12** key in the upper right corner to get the **Set-up Details** screen. Make sure **Market:** is set to **USA**. Select the time display in the lower right corner to get the **Date/Time Properties** pop-up window. Make sure the date and time are correct. For details, refer to the **Honda Diagnostic System (HDS) Setup Instructions** listed under **Tool Information** in ISIS.

- PCM Code (This VIN-specific, four-digit code is available on the **N** VIN Status Inquiry display. The code is changed daily, so use it as soon as you get it.)

Procedure

1. Replace the ECM/PCM. Refer to the Fuel and Emissions section of the appropriate service manual.
2. Connect the HDS to the 16P data link connector (DLC).
3. Insert the programmed ignition key into the ignition switch, and turn the ignition switch to ON (II). Turn on the HDS.
4. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
5. From the **System Selection Menu** screen, select **IMMOBI**.
6. From the **Mode Menu** screen, select **Immobilizer Setup**.
7. From the **Immobilizer Test Mode Menu** screen, select **Replace ECM/PCM**.
8. From the **PCM-Code** screen, enter the PCM Code, and then follow the screen prompts.
9. Do the idle learn procedure:
 - Make sure all electrical items (A/C, audio unit, defogger, lights, etc.) are turned off, and then start the engine.
 - Let the engine reach its normal operating temperature (the cooling fans cycle twice).
 - Let the engine idle (throttle fully closed and with all electrical items off) for **10 minutes**.
10. Turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

CUSTOMER SITUATION AND REQUIRED ITEMS CHART

This chart lists the customer situations most commonly associated with the immobilizer system along with the required items needed to remedy each situation. If you need to repair the system, refer to the Body Electrical section of the appropriate service manual. If you need the HDS, make sure it is loaded with current software and the setup for it is correct before you use it. If you are clearing the transponder codes of lost programmed ignition keys or replacing the immobilizer control unit-receiver, make sure you get all of your customer's ignition keys (master and valet) for the vehicle, along with the vehicle's key code (if available).

Customer Situation	Required Items
Your customer has at least one programmed ignition key, but wants an additional key.	Immobilizer Key blank (master), P/N 35113-SEC-A01 or Immobilizer Key blank (valet), P/N 35114-SEC-A01 A programmed ignition key (master or valet) Suitable code key cutter and vehicle's key code HDS and 1st Password
Your customer wants multiple programmed ignition keys.	Immobilizer Key blank (master), P/N 35113-SEC-A01 or Immobilizer Key blank (valet), P/N 35114-SEC-A01 All available programmed ignition keys (master and valet) Suitable code key cutter and vehicle's key code HDS and 1st Password
Your customer wants to clear the transponder code of a lost programmed ignition key.	All available programmed ignition keys (master and valet) HDS and 1st Password
Your customer has lost all of the programmed ignition keys.	Immobilizer Key blank (master), P/N 35113-SEC-A01 or Immobilizer Key blank (valet), P/N 35114-SEC-A01 Suitable code key cutter and vehicle's key code HDS and PCM Code
The immobilizer control unit-receiver is faulty.	Immobilizer Control Unit-Receiver (refer to parts catalog for P/N) All programmed ignition keys (master and valet) HDS and PCM Code
The ECM/PCM is faulty.	Replacement ECM/PCM (refer to parts catalog for P/N) A programmed ignition key (master or valet) HDS and PCM Code
The ignition key cylinder is faulty or damaged.	Steering Lock Assembly (refer to parts catalog for P/N) or Key Cylinder Set (refer to parts catalog for P/N) NOTE: If you know how to re-key locks, use the Steering Lock Assembly, and re-key the rest of the locks to match the new assembly. If not, and your customer does not mind needing more than one key, you can still use the Steering Lock Assembly. However, if your customer wants all the lock cylinders to match and you do not know how to re-key locks, use the Key Cylinder Set.
One or more of these locks are damaged: door(s), glove box, trunk, trunk release handle, or rear seat trunk access.	Key Cylinder Set (refer to parts catalog for P/N) NOTE: If you know how to re-key locks, replace them individually; otherwise, use the Key Cylinder Set.