

Applies To: **1998–02 Accord – ALL**  
**2000 and later Insight – ALL**  
**1998 and later Odyssey – ALL**  
**2003 and later Pilot – ALL**  
**2000 and later S2000 – ALL**

**April 29, 2003**

## Immobilizer System (Type 2) (Supersedes 00-049, dated July 5, 2000)

All 1998–02 Accords, 2000 and later Insights, 1998 and later Odysseys, 2003 and later Pilots, and 2000 and later S2000s have a Type 2 immobilizer system that disables the vehicle unless a programmed ignition key is used. 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 engine cranks, but it cannot start.

This service bulletin covers

- Immobilizer system components
- Adding programmed ignition keys
- Replacing all programmed ignition keys
- Clearing transponder codes of lost programmed ignition keys
- Starting the engine without a programmed ignition key
- 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.

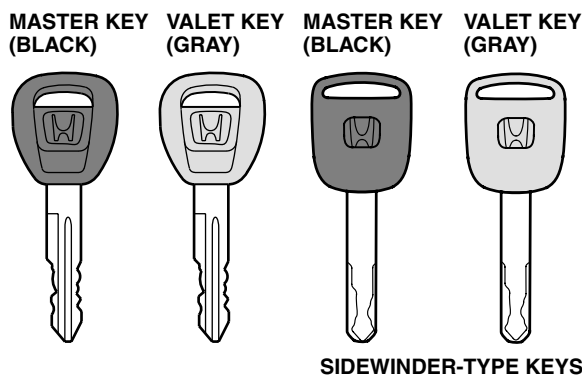
### IMMOBILIZER SYSTEM COMPONENTS

The immobilizer system includes the

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

### Immobilizer System Keys

The vehicle comes with two master keys (black grip) and one valet key (gray grip).

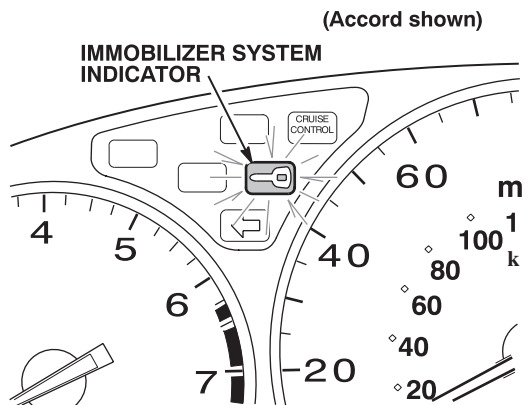


Each master and valet key has a transponder in its grip that outputs an ID code when you insert the key into the ignition switch. The immobilizer system uses this ID code to determine whether to start the engine. There are no batteries or other serviceable parts inside the keys.

The master and valet keys for 2003 and later Odysseys and 2003 and later Pilot models are sidewinder-type keys and require a special key cutting machine. Refer to S/B 01-077, *Cutting Sidewinder-Type Keys With the MATRIX H Key Cutting Machine*. Make sure the key blanks you use do not have a **V** stamped on the shank. These keys work *only* on a Type 4 immobilizer system.

## Immobilizer System Indicator

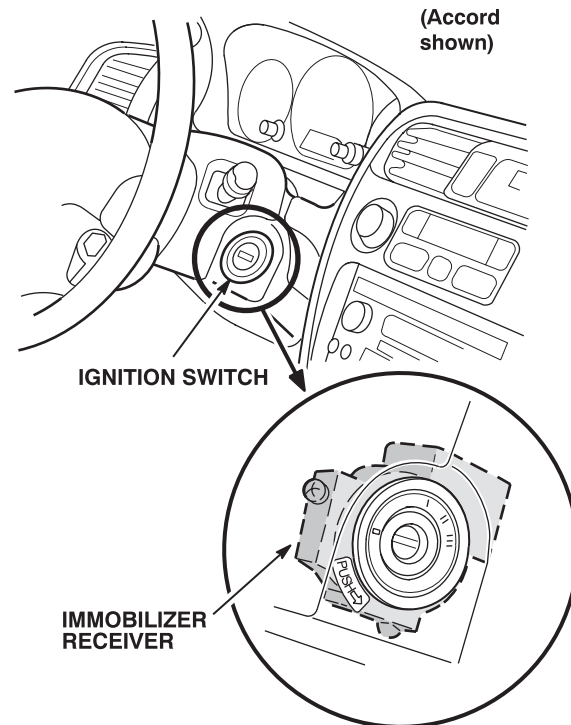
The immobilizer system indicator is on the instrument panel. If you insert a programmed ignition key (master or valet) into the ignition switch, and turn the switch to ON (II), the indicator comes on for **2 seconds** and then goes off. When you turn the ignition switch to LOCK (0), the indicator blinks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



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

## Immobilizer Receiver

The immobilizer receiver is inside the bezel around the ignition switch. It uses electromagnetic induction to power the transponder in the key. There is no direct electrical connection. Once the transponder is powered up, the key sends its ID code to the receiver, which then sends the code to the ECM/PCM. The immobilizer receiver contains no logic circuitry; it does not need to be rewritten when replaced.



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

The ECM/PCM is an integral part of the immobilizer system. It contains the immobilizer system logic. When the ECM/PCM receives the transponder ID code from the immobilizer receiver, it checks that code against the codes stored in its memory. If the code matches, the ECM/PCM enables the fuel system so the engine can start.

## ADDING PROGRAMMED IGNITION KEYS

The vehicle originally comes with three programmed ignition keys. The ECM/PCM accepts a total of six transponder codes, so three more codes can be added to its memory. Use the procedures below to add a key or to add multiple keys.

### Ilco Immobilizer Key Code Duplicator Method

If your customer wants an additional ignition key(s), use the Ilco Immobilizer Key Code Duplicator with Ilco programmable key blanks (look for a **T5** stamped on the shank or molded into the grip). The key code duplicator offers a low-cost, quick, and convenient way to make a duplicate key from a programmed ignition key. Refer to S/B 99-053, *Ilco Immobilizer Key Code Duplicator*, for details.

### Alternate HDS Method

If the key code duplicator is not available, use the Honda Diagnostic System (HDS) with Honda key blanks instead. The HDS programs (rewrites) the ECM/PCM, storing the transponder code of the new key(s) in the memory of the ECM/PCM.

### Adding Keys for the 1998–99 Accord and 1998 Odyssey

#### Preparation

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

- Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436  
or  
Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444
- All of your customer's programmed ignition keys (master, valet, T5) for the vehicle.
- Key code for the vehicle (if cutting by code)
- Suitable key cutter
- HDS with 1.006.004 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 key cutter to cut a new ignition key (see S/B 88-012, *Cutting Keys With the Exacta Code Key Cutter*).
2. Gather up *all* of your customer's programmed ignition keys (master and valet) for the vehicle. Set aside any T5 keys.
3. Stick a small piece of masking tape to the grip of each programmed ignition key and each new key. Starting with the programmed ignition keys, mark them as **A**, **B**, **C**, etc. (The ECM/PCM stores a maximum of six transponder codes.)
4. Connect the HDS to the 16P data link connector (DLC).
5. Insert key **A** into the ignition switch, and turn the switch to ON (II). Turn on the HDS.
6. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
7. From the **System Selection Menu** screen, select **IMMOBI**.
8. From the **Mode Menu** screen, select **Immobilizer Setup**.
9. From the **Immobilizer Test Mode Menu** screen, select **Add and Delete Keys**.
10. From the **Add and Delete Keys** screen, select **Add Multiple Keys**.
11. From the **Add Multiple Keys** screen, select **Begin to add multiple keys**.
12. 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.
13. *T5 keys only:* Start the engine with each of the T5 keys you set aside in step 2.
  - If all of the T5 keys start the engine, the transponder codes are already recognized by the ECM/PCM and the immobilizer procedure is complete.
  - If any of the T5 keys do not start the engine, go to step 14.
14. *T5 keys only:* Repeat steps 4 through 12, and include the nonprogrammed T5 keys from step 13. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

#### NOTE:

- The HDS shows you the number of transponder codes stored in the memory of the ECM/PCM. If any of the keys share the same transponder code (as might be the case with a T5 key), the number of codes shown may be fewer than the actual number of keys.

- The HDS accepts only one key of a certain transponder code. If the total number of nonprogrammed T5 keys *plus* the keys you entered is greater than six, use the key code duplicator to recode the additional T5 keys to match an existing transponder code.

### **Adding One Key for 2000–02 Accord, 2000 and later Insight, 1999 and later Odyssey, 2003 and later Pilot, 2000 and later S2000**

NOTE: These models have an enhanced immobilizer system. You can add one ignition key with the HDS using just *one* programmed ignition key. For adding multiple ignition keys, you need *all* of your customer's programmed ignition keys (master and valet) for the vehicle, including any T5 keys.

#### **Preparation**

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

- *2000–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000*: Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436  
or  
Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444
- *2003 and later Odyssey, 2003 and later Pilot*: Immobilizer Key blank (master, chrome logo), P/N 35113-S0X-A01, H/C 7233133 or Immobilizer Key blank (master, solid black), P/N 35113-S9A-A01, H/C 7012966  
or  
Immobilizer Key blank (valet), P/N 35114-S9A-A01, H/C 7012982
- One programmed ignition key (master, valet, T5) for the vehicle
- Key code for the vehicle (if cutting by code)
- Suitable key cutter  
NOTE: For 2003 and later Odyssey and 2003 and later Pilot models, you must use the MATRIX H Key Cutting Machine.
- HDS with 1.006.004 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 suitable key cutter to cut a new ignition key. Refer to S/B 88-012, *Cutting Keys With the Exacta Code Key Cutter*, or to S/B 01-077, *Cutting Sidewinder-Type Keys With the MATRIX H Key Cutting Machine*.
2. Connect the HDS to the 16P data link connector (DLC).
3. Insert the 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 for 2000–02 Accord, 2000 and later Insight, 1999 and later Odyssey, 2003 and later Pilot, and 2000 and later S2000**

#### **Preparation**

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

- *2000–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000*: Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436  
or  
Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444
- *2003 and later Odyssey, 2003 and later Pilot*: Immobilizer Key blank (master, chrome logo), P/N 35113-S0X-A01, H/C 7233133 or Immobilizer Key blank (master, solid black), P/N 35113-S9A-A01, H/C 7012966  
or  
Immobilizer Key blank (valet), P/N 35114-S9A-A01, H/C 7012982

- All of your customer's programmed ignition keys (master, valet, T5) for the vehicle
  - Key code for the vehicle (if cutting by code)
  - Suitable key cutter
- NOTE: For 2003 and later Odyssey and 2003 and later Pilot models, you must use the MATRIX H Key Cutting Machine.
- HDS with 1.006.004 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 key cutter to cut new ignition keys. Refer to S/B 88-012, *Cutting Keys With the Exacta Code Key Cutter*, or to S/B 01-077, *Cutting Sidewinder-Type Keys With the MATRIX H Key Cutting Machine*.
2. Gather up *all* of your customer's programmed ignition keys (master and valet) for the vehicle. Set aside any T5 keys.
3. Stick a small piece of masking tape to the grip of each programmed ignition key and each new key. Starting with the programmed ignition keys, mark them as **A**, **B**, **C**, etc. (The ECM/PCM stores a maximum of six transponder codes.)
4. Connect the HDS to the 16P data link connector (DLC).
5. Insert key **A** into the ignition switch, and turn the switch to ON (II). Turn on the HDS.
6. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
7. From the **System Selection Menu** screen, select **IMMOBI**.
8. From the **Mode Menu** screen, select **Immobilizer Setup**.
9. From the **Immobilizer Test Mode Menu** screen, select **Add and Delete Keys**.
10. From the **Add and Delete Keys** screen, select **Add Multiple Keys**.
11. From the **Add Multiple Keys** screen, select **Begin to add multiple keys**.

12. 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.
13. *T5 keys only:* Start the engine with each of the T5 keys you set aside in step 2.
  - If all of the T5 keys start the engine, the transponder codes are already recognized by the ECM/PCM and the immobilizer procedure is complete.
  - If any of the T5 keys do not start the engine, go to step 14.
14. *T5 keys only:* Repeat steps 4 through 12, and include the nonprogrammed T5 keys from step 13. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

#### NOTE:

- The HDS shows you the number of transponder codes stored in the memory of the ECM/PCM. If any of the keys share the same transponder code (as might be the case with a T5 key), the number of codes shown may be fewer than the actual number of keys.
- The HDS accepts only one key of a certain transponder code. If the total number of nonprogrammed T5 keys *plus* the keys you entered is greater than six, use the key code duplicator to recode the additional T5 keys to match an existing transponder code.

#### REPLACING ALL PROGRAMMED IGNITION KEYS

If your customer has lost all of the programmed ignition keys, you need to replace all of the keys and rewrite the ECM/PCM with the HDS. The HDS clears all transponder codes from the memory of the ECM/PCM and stores the transponder codes of the replacement ignition keys.

#### Preparation

To replace all the keys, you need these items:

- *2000–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000:* Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436  
or  
Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444
- *2003 and later Odyssey, 2003 and later Pilot:* Immobilizer Key blank (master, chrome logo), P/N 35113-S0X-A01, H/C 7233133 or Immobilizer Key blank (master, solid black), P/N 35113-S9A-A01, H/C 7012966  
or  
Immobilizer Key blank (valet), P/N 35114-S9A-A01, H/C 7012982

- Key code for the vehicle
- Suitable key cutter

NOTE: For 2003 and later Odyssey and 2003 and later Pilot models, you must use the MATRIX H Key Cutting Machine.

- HDS with 1.006.004 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. Use the appropriate key blanks and a suitable key cutter to cut the requested number of ignition keys. Refer to S/B 88-012, *Cutting Keys With the Exacta Code Key Cutter* or to S/B 01-077, *Cutting Sidewinder-Type Keys With the MATRIX H Key Cutting Machine*.
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 ECM/PCM with the HDS to prevent the lost keys from starting the engine. The HDS clears the transponder codes from the memory of the ECM/PCM, and then stores the transponder codes of your customer's remaining programmed ignition 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 programmed ignition keys, you need these items:

- All of your customer's remaining programmed ignition keys (master and valet) for the vehicle. (This includes any master or valet keys with a **T5** stamped on the shank or molded into the grip. These are duplicate keys made with the Ilco Immobilizer Key Code Duplicator.)
  - HDS with 1.006.004 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  $\mathcal{N}$  VIN Status Inquiry display. This code is changed yearly.)

#### Procedure

1. Gather up *all* of your customer's remaining programmed ignition keys (master and valet) for the vehicle. Set aside any T5 keys.
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 Keys**.
9. From the **Delete Keys** screen, select **Begin to Delete 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.
11. *T5 keys only:* Start the engine with each of the T5 keys you set aside in step 1.
  - If all of the T5 keys start the engine, the transponder codes are already recognized by the ECM/PCM and the immobilizer procedure is complete.
  - If any of the T5 keys do not start the engine, go to step 12.
12. *T5 keys only:* Repeat steps 2 through 10, and include the nonprogrammed T5 keys from step 11. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

**NOTE:**

- The HDS shows you the number of transponder codes stored in the memory of the immobilizer control unit-receiver. If any of the keys share the same transponder code (as might be the case with a T5 key), the number of codes shown may be fewer than the actual number of keys.
- The HDS accepts only one key of a certain transponder code. If the total number of nonprogrammed T5 keys *plus* the keys you entered is greater than six, use the key code duplicator to recode the additional T5 keys to match an existing transponder code.

**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 a Honda 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 ECM/PCM rewritten for the remaining ignition keys; this way the transponder codes of the lost keys are cleared from the memory of the ECM/PCM. Refer to **CLEARING TRANSPONDER CODES OF LOST PROGRAMMED 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 ECM/PCM rewritten. Refer to **REPLACING ALL PROGRAMMED IGNITION KEYS**.

**Preparation**

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

- *2000–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000:* Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436  
or

Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444

- *2003 and later Odyssey, 2003 and later Pilot:* Immobilizer Key blank (master, chrome logo), P/N 35113-S0X-A01, H/C 7233133 or Immobilizer Key blank (master, solid black), P/N 35113-S9A-A01, H/C 7012966  
or

Immobilizer Key blank (valet), P/N 35114-S9A-A01, H/C 7012982

- Key code for the vehicle
- Suitable key cutter

**NOTE:** For 2003 and later Odyssey and 2003 and later Pilot models, you must use the MATRIX H Key Cutting Machine.

- Immobilizer Brake Code (This code is available on the *N* VIN Status Inquiry display.)

**Procedure**

1. Use an appropriate key blank and a suitable key cutter to cut a temporary ignition key. Refer to S/B 88-012, *Cutting Keys With the Exacta Code Key Cutter* or to S/B 01-077, *Cutting Sidewinder-Type Keys With the MATRIX H Key Cutting Machine*.
2. Insert the temporary key into the ignition switch.
3. Turn the ignition switch to ON (II).
4. Enter the first digit of the five-digit Immobilizer Brake Code by pressing and releasing the brake pedal that number of times within **30 seconds**. For example, if the first digit is four, press and release the brake pedal four times.
5. Turn the ignition switch to LOCK (0). (This enters the digit into the ECM/PCM.)
6. Turn the ignition switch to ON (II), press and release the brake pedal 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).

7. 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 five times as it normally would.

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

## REPLACING THE ECM/PCM

If you replace the ECM/PCM, you must program (rewrite) it with the HDS to accept the transponder codes sent from the immobilizer receiver, or the engine cannot start. Use the appropriate procedure below to rewrite the ECM/PCM.

### Replacing the ECM/PCM in 1998–99 Accord and 1998 Odyssey

#### Preparation

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

- Replacement ECM/PCM
  - All of your customer's programmed ignition keys (master and valet) for the vehicle. (This includes any master or valet keys with a **T5** stamped on the shank or molded into the grip. These are duplicate keys made with the Ilco Immobilizer Key Code Duplicator.)
  - HDS with 1.006.004 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 **iN** 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. Gather *all* of your customer's programmed ignition keys (master and valet) for the vehicle. Set aside any T5 keys.
3. Stick a small piece of masking tape to the grip of each programmed ignition key. Mark them as **A**, **B**, **C**, etc. (The ECM/PCM stores a maximum of six transponder codes.)

4. Connect the HDS to the 16P data link connector (DLC).
5. Insert key **A** into the ignition switch, and turn the switch to ON (II). Turn on the HDS.
6. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
7. From the **System Selection Menu** screen, select **IMMOBI**.
8. From the **Mode Menu** screen, select **Immobilizer Setup**.
9. From the **Immobilizer Test Mode Menu** screen, select **Replace ECM/PCM**.
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.
11. *T5 keys only:* Start the engine with each of the T5 keys you set aside in step 2.
  - If all of the T5 keys start the engine, the transponder codes are already recognized by the ECM/PCM and the immobilizer procedure is complete.
  - If any of the T5 keys do not start the engine, go to step 12.
12. *T5 keys only:* Repeat steps 4 through 10, and include the nonprogrammed T5 keys from step 11. When you are finished, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.

#### NOTE:

- The HDS shows you the number of transponder codes stored in the memory of the ECM/PCM. If any of the keys share the same transponder code (as might be the case with a T5 key), the number of codes shown may be fewer than the actual number of keys.
  - The HDS accepts only one key of a certain transponder code. If the total number of nonprogrammed T5 keys *plus* the keys you entered is greater than six, use the key code duplicator to recode the additional T5 keys to match an existing transponder code.
13. 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**.



## Replacing the ECM/PCM in 2000–02 Accord, 2000 and later Insight, 1999 and later Odyssey, 2003 and later Pilot, 2000 and later 2000

NOTE: These models have an enhanced immobilizer system. You can rewrite the new ECM/PCM with the HDS using just *one* programmed ignition key. Make sure you download the transponder codes from the original ECM/PCM to the HDS before replacing it.

### Preparation

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

- One programmed ignition key (master, valet, T5) for the vehicle
- HDS with 1.006.004 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 **iN** VIN Status Inquiry display. The code is changed daily, so use it as soon as you get it.)

### Procedure

#### Downloading From the Original ECM/PCM

1. Connect the HDS to the 16P data link connector (DLC).
2. Insert the programmed key into the ignition switch, and turn the ignition switch to ON (II). Turn on the HDS.
3. At the screen prompts, enter the VIN and the odometer reading, and then verify the correct date and time.
4. From the **System Selection Menu** screen, select **IMMOBI**.
5. From the **Mode Menu** screen, select **Immobilizer Setup**.
6. From the **Immobilizer Test Mode Menu** screen, select **Replace ECM/PCM using 1 original key**.
7. From the **Replace ECM/PCM using 1 original key** screen, select **Begin to Replace ECM/PCM Using 1 Original Key**.
8. From the **PCM-Code** screen, enter the PCM Code, and then follow the screen prompts. (During the procedure, all immobilizer key transponder codes are automatically downloaded from the original ECM/PCM to the HDS. During this download process, make sure the ignition switch remains turned to ON (II), and the HDS stays connected.

9. When the downloading is complete, turn the ignition switch to LOCK (0).
10. Replace the ECM/PCM. Refer to the Fuel and Emissions section of the appropriate service manual.

#### Uploading to the New ECM/PCM

11. Turn the ignition switch to ON (II). Keep following the screen prompts on the HDS. (All the transponder codes are automatically uploaded to the new ECM/PCM.)
12. When the uploading is complete, turn the ignition switch to LOCK (0), and then turn off and disconnect the HDS.
13. 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**.

## CUSTOMER SITUATION AND REQUIRED ITEMS CHART

This chart lists the customer situations most commonly associated with the immobilizer system along with the 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 the latest software and the setup for it is correct before you use it. If you are adding programmed ignition keys, clearing the transponder codes of lost programmed ignition keys, or replacing the ECM/PCM, make sure you get all of your customer's programmed ignition keys (master, valet, and T5 keys), along with the key code for the vehicle (if available).

Customer Situation	Required Items
<p>Your customer has at least one programmed ignition key, but wants an additional key.</p>	<p>Ilco Immobilizer Key Code Duplicator with Ilco programmable key blanks (see S/B 99-053 for details)</p> <p style="text-align: center;"><b>OR</b></p> <p><i>1998–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000:</i>            Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436</p> <p style="text-align: center;">or</p> <p>Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444</p> <p><i>2003 and later Odyssey, 2003 and later Pilot:</i>            Immobilizer Key blank (master, chrome logo) P/N 35113-S0X-A01, H/C 7233133 or Immobilizer Key blank (master, solid black), P/N 35113-S9A-A01, H/C 7012966</p> <p style="text-align: center;">or</p> <p>Immobilizer Key blank (valet) P/N 35114-S9A-01, H/C 7012982</p> <p><i>2000–02 Accord, 2000 and later Insight, 1999 and later Odyssey, 2003 and later Pilot, 2000 and later S2000:</i>            One programmed ignition key (master, valet, T5)</p> <p><i>1998–99 Accord, 1998 Odyssey:</i>            All programmed ignition keys (master, valet, T5)</p> <p>Suitable key cutter and the key code for the vehicle (if cutting by code)</p> <p>HDS and 1st Password</p>
<p>Your customer wants multiple programmed ignition keys.</p>	<p>Ilco Immobilizer Key Code Duplicator with Ilco programmable key blanks (see S/B 99-053 for details)</p> <p style="text-align: center;"><b>OR</b></p> <p><i>1998–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000:</i>            Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436</p> <p style="text-align: center;">or</p> <p>Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444</p> <p><i>2003 and later Odyssey, 2003 and later Pilot:</i>            Immobilizer Key blank (master, chrome logo) P/N 35113-S0X-A01, H/C 7233133 or Immobilizer Key blank (master, solid black), P/N 35113-S9A-A01, H/C 7012966</p> <p style="text-align: center;">or</p> <p>Immobilizer Key blank (valet) P/N 35114-S9A-01, H/C 7012982</p> <p>All programmed ignition keys (master, valet, T5)</p> <p>Suitable key cutter and the key code for the vehicle</p> <p>HDS and 1st Password</p>
<p>Your customer wants to clear the transponder code of a lost programmed ignition key and has a least one programmed ignition key.</p>	<p>All programmed ignition keys (master, valet, T5)</p> <p>HDS and 1st Password</p>

Customer Situation	Required Items
Your customer has lost all of the programmed ignition keys.	<p><i>1998–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000:</i>  Immobilizer Key blank (master), P/N 35113-S84-A01, H/C 5435433 or P/N 35113-S84-A02, H/C 6344436  or  Immobilizer Key blank (valet), P/N 35114-S84-A01, H/C 5435441 or P/N 35114-S84-A02, H/C 6344444</p> <p><i>2003 and later Odyssey, 2003 and later Pilot:</i>  Immobilizer Key blank (master, chrome logo), P/N 35113-S0X-A01, H/C 7233133 or Immobilizer Key blank (master, solid black), P/N 35113-S9A-A01, H/C 7012966  or  Immobilizer Key blank (valet) P/N 35114-S9A-A01, H/C 7012982</p> <p>Suitable key cutter and the key code for the vehicle  HDS and PCM Code</p>
The immobilizer receiver is faulty.	Replacement immobilizer receiver (refer to the parts catalog for P/N)
The ECM/PCM is faulty.	<p>Replacement ECM/PCM (refer to parts catalog for P/N)</p> <p><i>2000–02 Accord, 2000 and later Insight, 1999 and later Odyssey, 2003 and later Pilot, 2000 and later S2000:</i>  One programmed ignition key (master, valet, T5)</p> <p><i>1998-99 Accord, 1998 Odyssey:</i>  All programmed ignition keys (master, valet, T5)</p> <p>HDS and PCM Code</p>
The ignition key cylinder is faulty or damaged.	<p><i>1998–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000:</i>  If you know how to rekey locks, order the Steering Lock Assembly, and rekey the other locks to match. If you do not know how to rekey locks, order this kit <i>only</i> if your customer does not insist on all the locks matching. If your customer insists on all the locks matching, but you do not know how to rekey locks, order the Key Cylinder Set. Refer to the parts catalog for P/Ns</p> <p><i>2003 and later Odyssey, 2003 and later Pilot:</i>  Order the Steering Lock Assembly <i>only</i> if your customer does not insist on all the locks matching; otherwise, order the Key Cylinder Set. Refer to the parts catalog for P/Ns.</p>
One or more of these locks are damaged: door(s), tailgate, glove box, trunk, trunk release handle, or rear seat trunk access.	<p><i>1998–02 Accord, 2000 and later Insight, 1999–02 Odyssey, 2000 and later S2000:</i>  Replace locks individually if you know how to rekey them; otherwise, order the Key Cylinder Set (refer to the parts catalog for P/N).</p> <p><i>2003 and later Odyssey, 2003 and later Pilot:</i>  Order the Key Cylinder Set (refer to the parts catalog for P/N).</p>