

**October 19, 2016**

04969 Version 9

**Immobilizer System (Type 4)**

Supersedes 02-053, dated February 22, 2013; see REVISION SUMMARY

**AFFECTED VEHICLES**

Year	Model	Trim	VIN Range
2003–07	Accord	ALL	ALL
2007–11	Element	ALL	ALL
2007–08	Fit	ALL	ALL
2005–10	Odyssey	ALL	ALL
2005–08	Pilot	ALL	ALL
2006–13	Ridgeline	ALL	ALL
2006–09	S2000	ALL	ALL

**REVISION SUMMARY**

The bulletin was revised extensively for i-HDS updates. AHM recommends reading the entire bulletin.

**BACKGROUND**

All of the listed vehicles have a Type 4 immobilizer system that disables the vehicle unless a programmed ignition key is used. The Type 4 system is different than previous systems in that the transponder ID code in the key is a rolling-type code instead of a fixed 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 engine cranks, but it does not start.

This service bulletin covers these subjects:

- 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 immobilizer control unit-receiver
- Replacing the ECM/PCM
- Replacing the IMOES unit

For more information on the immobilizer system, refer to the service information.

**WARRANTY CLAIM INFORMATION**

None. This service bulletin is for information only.

**CUSTOMER INFORMATION:** The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

## IMMOBILIZER SYSTEM COMPONENTS

The immobilizer system includes these components:

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

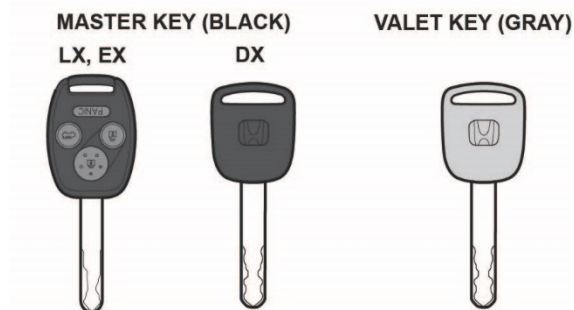
Applies to the following models:

- 2007– 11 Element
- 2006 – 13 Ridgeline
- 2008 Pilot
- 2008 – 10 Odyssey
- 2008 – 09 S2000

### Immobilizer System Keys

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

**Accord shown**



Each master key and valet key 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.

Some master keys have a battery-operated remote transmitter built into the grip that lets you lock and unlock the vehicle. The keys without remote transmitters contain no batteries or other serviceable parts.

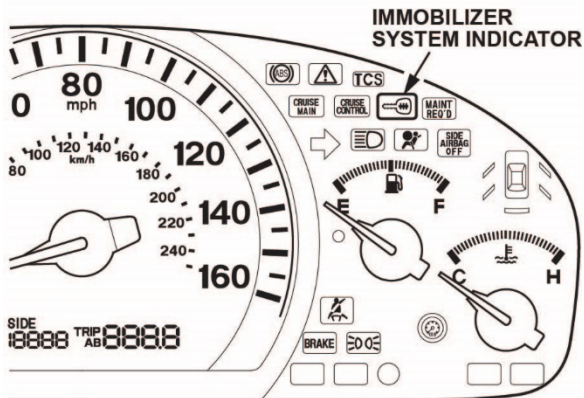
Both the master and valet keys used with this system are sidewinder-type keys. For key cutting, use the appropriate tool from the Honda Tool and Equipment Program. Call **888-424-6857**, or online: log in to the iN (Interactive Network), then click on **Service > Quick Links> Tool and Equipment Program**.

*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 Indicator

The immobilizer indicator is on the instrument panel. When 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.

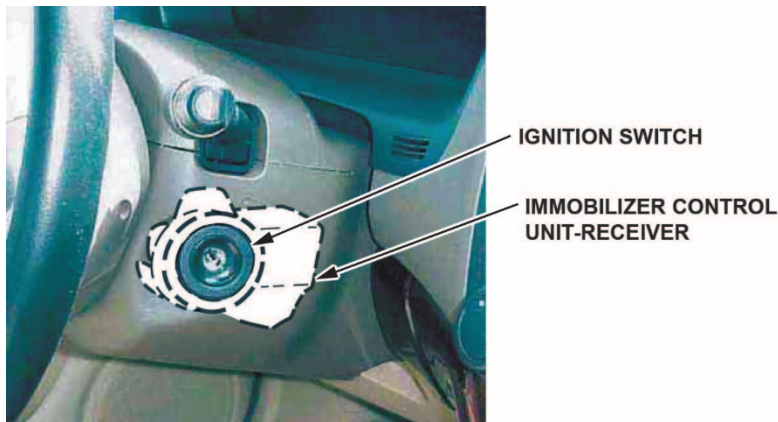
### Accord shown



If you insert a non-programmed 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 non-programmed ignition key, the engine cranks, but it does not 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 transponder in the key. There is no direct electrical connection. Once the electronic transponder is 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 codes match, 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, and the vehicle won't start.



## ECM/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 with the immobilizer control unit-receiver by sending back its own unique serial code. If the serial codes are mutually recognized during this communication process, the ECM/PCM energizes the fuel supply system so the engine can start.

## ADDING PROGRAMMED IGNITION KEYS

Vehicles 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 or to add multiple keys.

### Adding a Key

Use the Honda Diagnostic System (i-HDS) with Honda key blanks to add a key. The i-HDS rewrites the immobilizer control unit-receiver, storing the transponder code of the new key in the memory of the immobilizer control unit-receiver.

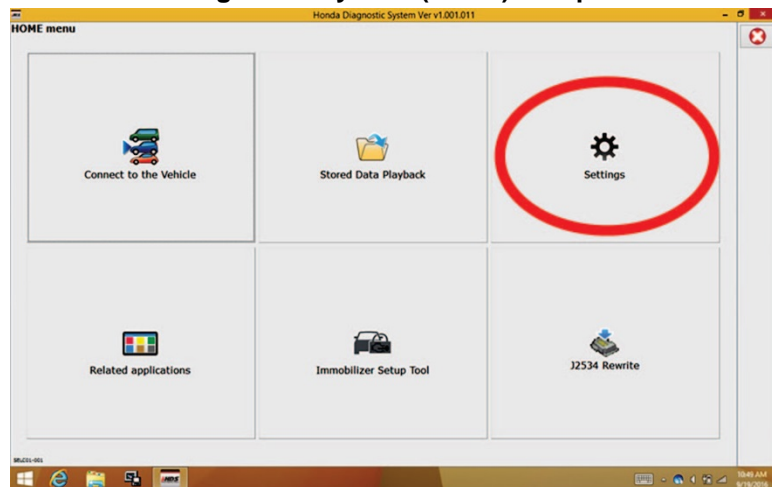
### Preparation

NOTE: Refer to the parts catalog for the P/Ns, and search by VIN for the correct parts.

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

- Immobilizer master key blank
  - or
  - Immobilizer and transmitter master key blank
  - or
  - Immobilizer valet key blank
- One programmed ignition key (master or valet) for the vehicle
- Key code for the vehicle (if cutting by code)
- Suitable key cutting machine
- i-HDS with the latest software

NOTE: Make sure the market, the date, and the time on the i-HDS setup screen are correct. From the **HOME menu** screen, select the **Settings** button. 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 (i-HDS) Setup Instructions** listed under **Tool Information** in SIS.

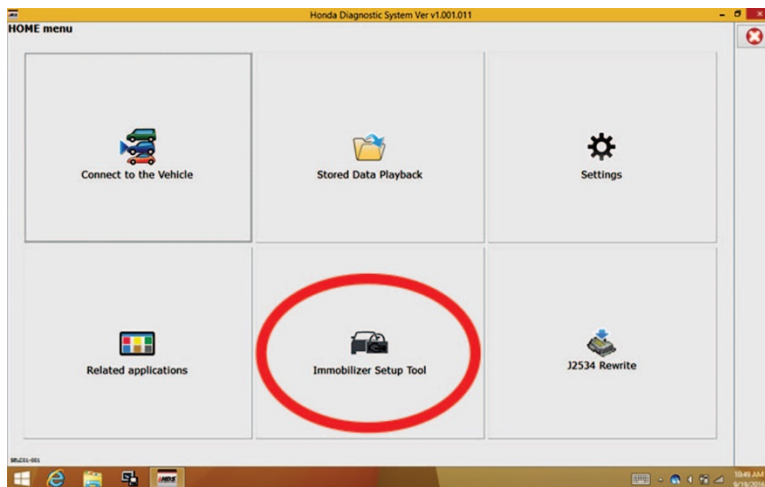


- PCM code

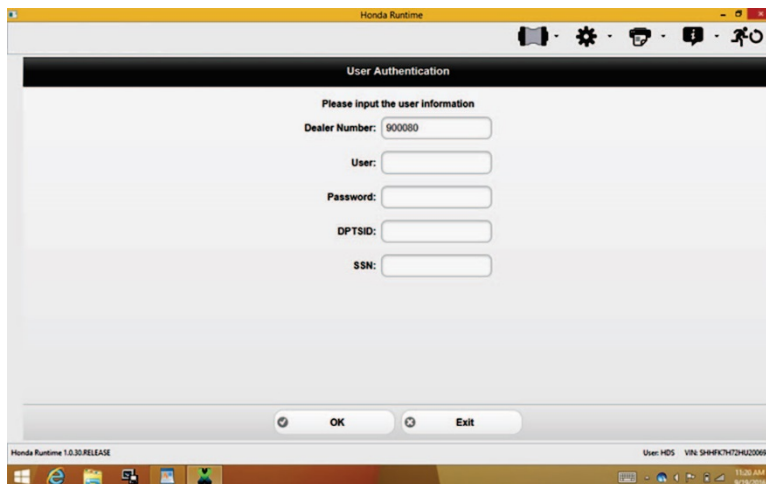
NOTE: If you cannot log in to the iN (Interactive Network) screen on the i-HDS, you must retrieve the PCM code from the Immobilizer Code Inquiry in the iN.

## Procedure

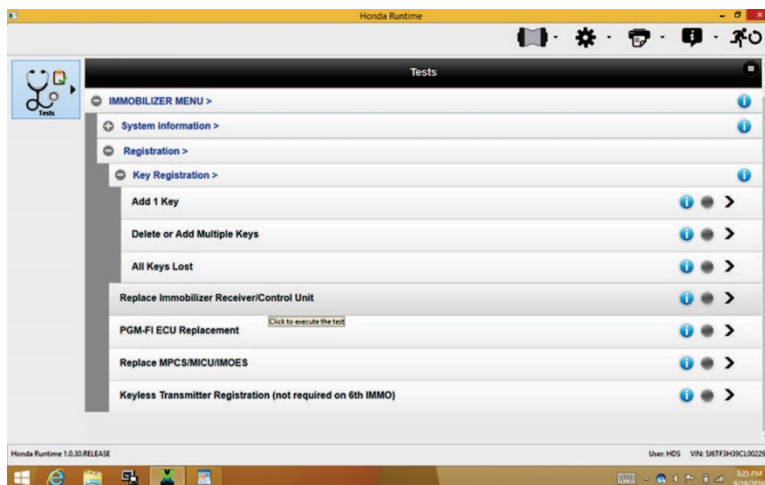
1. Use an appropriate key blank and a suitable key cutting machine.
2. Connect the i-HDS to the DLC (data link connector).
3. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the i-HDS. From the **HOME menu** screen, select **Immobilizer Setup Tool**.



4. At the **User Authentication** screen, log in to the iN.



5. From the **Tests** screen, select **Add 1 Key**.



6. Follow the screen prompts. If your i-HDS is not logged in to the iN, you will have to enter the PCM code you have retrieved from the iN Immobilizer Code Inquiry to proceed. When you are finished, turn the ignition switch to LOCK (0), then turn off and disconnect the i-HDS.

## ADDING MULTIPLE KEYS

Use the i-HDS with Honda key blanks to add multiple keys. The i-HDS rewrites the immobilizer control unit-receiver, storing the transponder codes of the new keys in the memory of the immobilizer control unit-receiver.

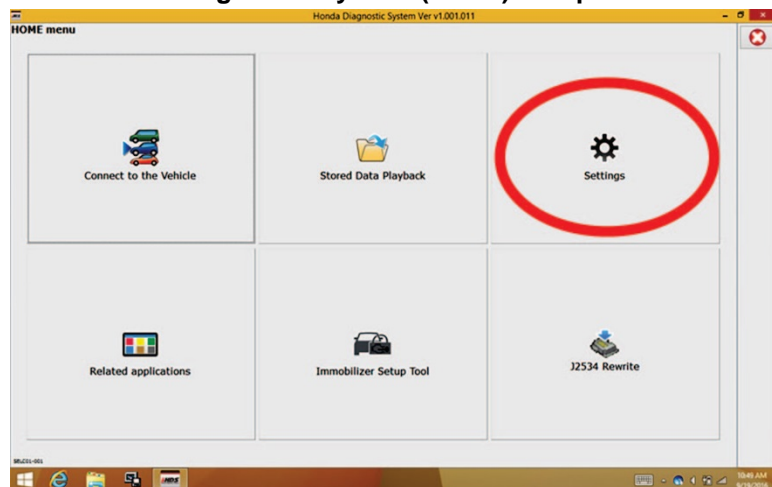
### Preparation

NOTE: Refer to the parts catalog for the P/Ns, and search by VIN for the correct parts.

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

- Immobilizer master key blank  
or  
Immobilizer and transmitter master key blank  
or  
Immobilizer valet key blank
- All the programmed ignition keys (master and valet) for the vehicle
- Key code for the vehicle (if cutting by code)
- Suitable key cutting machine
- i-HDS with the latest software

NOTE: Make sure the market, the date, and the time on the i-HDS setup screen are correct. From the **HOME** menu screen, select the **Settings** button. 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 (i-HDS) Setup Instructions** listed under **Tool Information** in SIS.

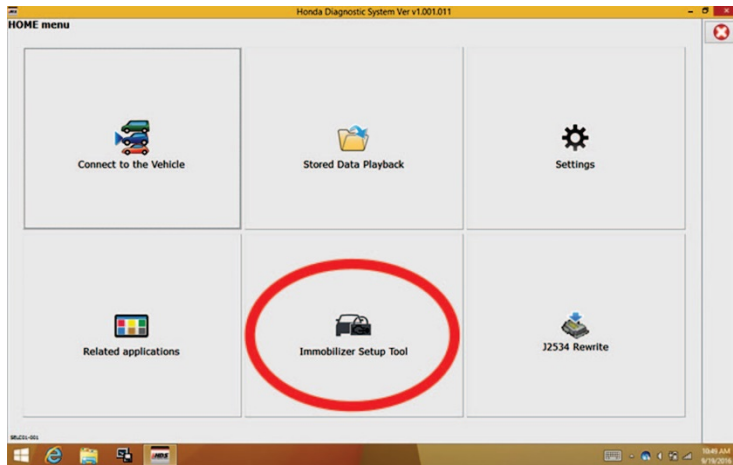


- PCM code

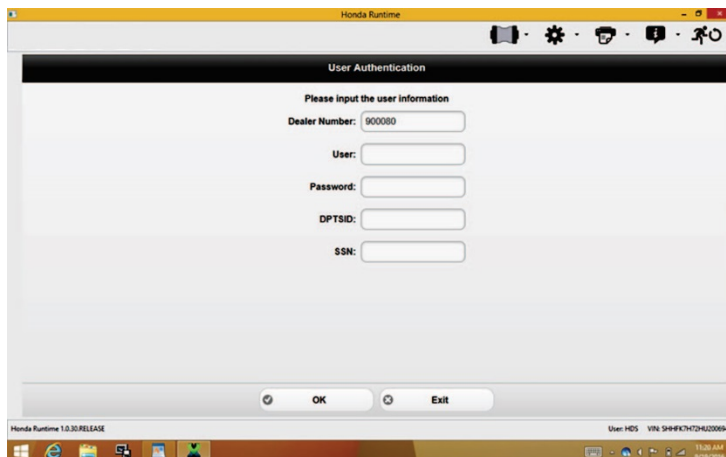
NOTE: If you cannot log in to the iN (Interactive Network) screen on the i-HDS, you must retrieve the PCM code from the Immobilizer Code Inquiry in the iN.

## Procedure

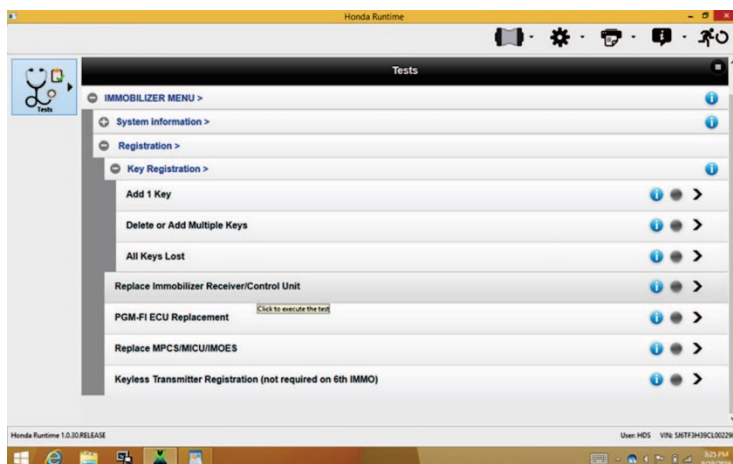
1. Use the appropriate key blanks and a suitable key cutting machine.
2. Gather up *all* of the remaining programmed ignition keys (master and valet) for the vehicle.
3. Connect the i-HDS to the DLC (data link connector).
4. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the i-HDS. From the **HOME** menu screen, select **Immobilizer Setup Tool**.



5. At the **User Authentication** screen, log in to the iN.



6. From the **Tests** screen, select **Delete or Add Multiple Keys**.



7. Follow the screen prompts. If your i-HDS is not logged in to the iN, you will have to enter the PCM code you have retrieved from the iN Immobilizer Code Inquiry to proceed. When you are finished, turn the ignition switch to LOCK (0), then turn off and disconnect the i-HDS.



## REPLACING ALL PROGRAMMED IGNITION KEYS

If no programmed ignition keys are available, you need to replace the ignition keys and rewrite the immobilizer control unit-receiver with the i-HDS. The i-HDS clears all transponder codes from the memory of the immobilizer control unit-receiver and stores the transponder codes of the replacement ignition keys.

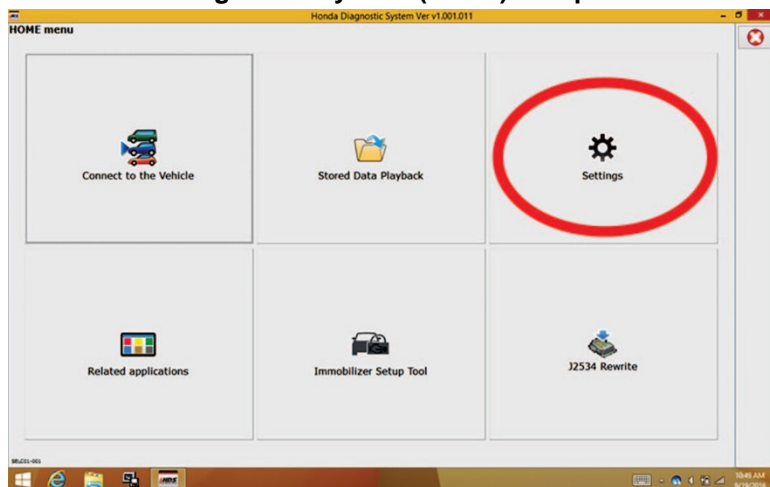
### Preparation

NOTE: Refer to the parts catalog for the P/Ns, and search by VIN for the correct parts.

To replace all keys, you need these items:

- Immobilizer master key blank  
or  
Immobilizer and transmitter master key blank  
or  
Immobilizer valet key blank
- Key code for the vehicle
- Suitable key cutting machine
- i-HDS with the latest software

NOTE: Make sure the market, the date, and the time on the i-HDS setup screen are correct. From the **HOME menu** screen, select the **Settings** button. 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 (i-HDS) Setup Instructions** listed under **Tool Information** in SIS.



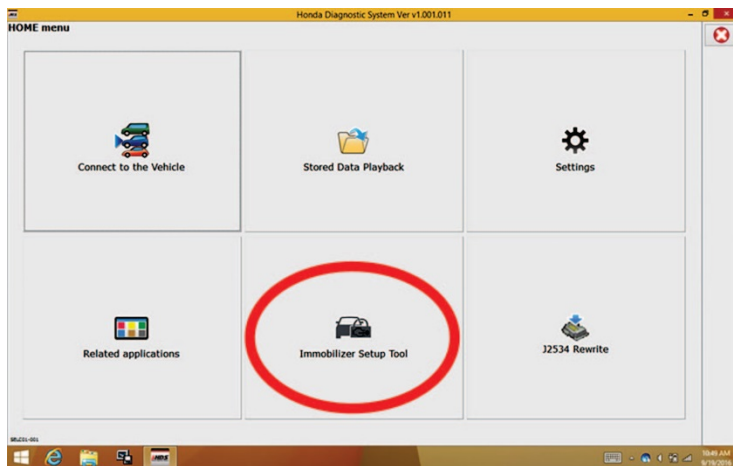
- PCM code

NOTE: If you cannot log in to the iN screen on the i-HDS, you must retrieve the PCM code from the Immobilizer Code Inquiry in the iN.

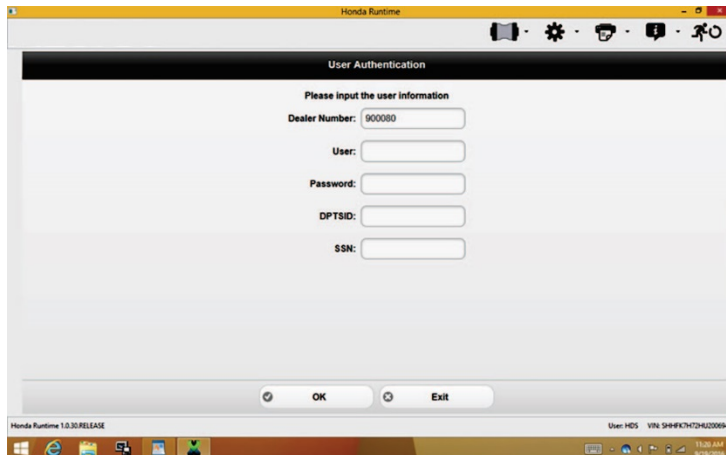


## Procedure

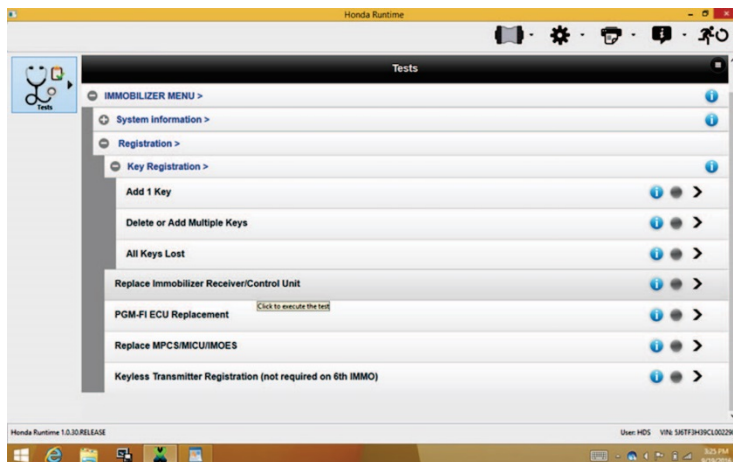
1. Use the appropriate key blanks and a suitable key cutting machine.
2. Connect the i-HDS to the DLC (data link connector).
3. Insert a newly cut ignition key into the ignition switch, and turn the switch to ON (II). Turn on the i-HDS. From the **HOME menu** screen, select **Immobilizer Setup Tool**.



4. At the **User Authentication** screen, log in to it iN.



5. From the **Tests** screen, select **All Keys Lost**.



6. Follow the screen prompts. If your i-HDS is not logged in to the iN, you will have to enter the PCM code you have retrieved from the iN Immobilizer Code Inquiry to proceed. When you are finished, turn the ignition switch to LOCK (0), then turn off and disconnect the i-HDS.

## CLEARING TRANSPONDER CODES OF LOST PROGRAMMED IGNITION KEYS

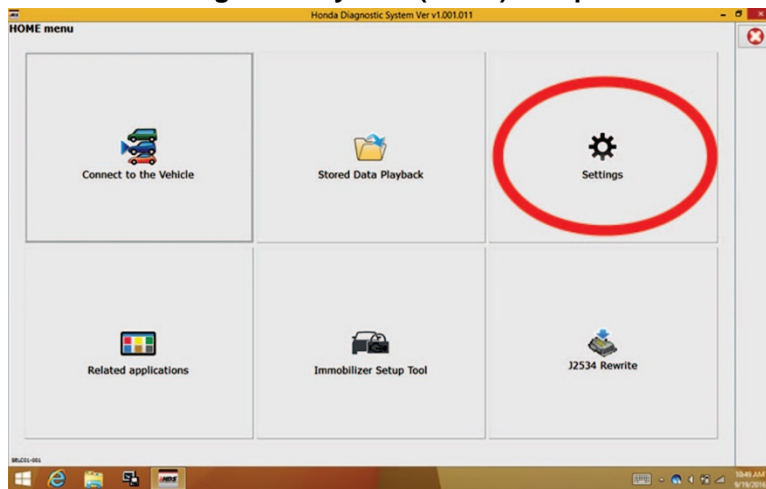
If one or more (but not all) of the programmed ignition keys are lost, you should rewrite the immobilizer control unit-receiver with the i-HDS to prevent the lost keys from starting the engine. The i-HDS clears the transponder codes from the memory of the immobilizer control unit-receiver and then stores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

### Preparation

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

- All of the remaining programmed ignition keys (master and valet) for the vehicle
- i-HDS with the latest software

NOTE: Make sure the market, the date, and the time on the i-HDS setup screen are correct. From the **HOME menu** screen, select the **Settings** button. 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 (i-HDS) Setup Instructions** listed under **Tool Information** in SIS.

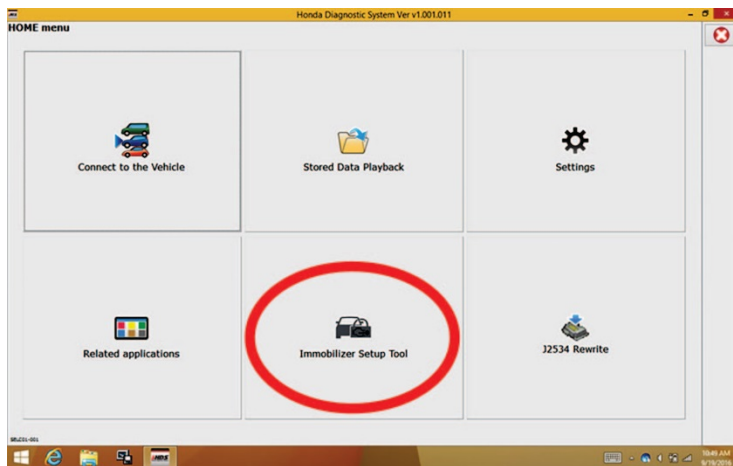


- PCM code

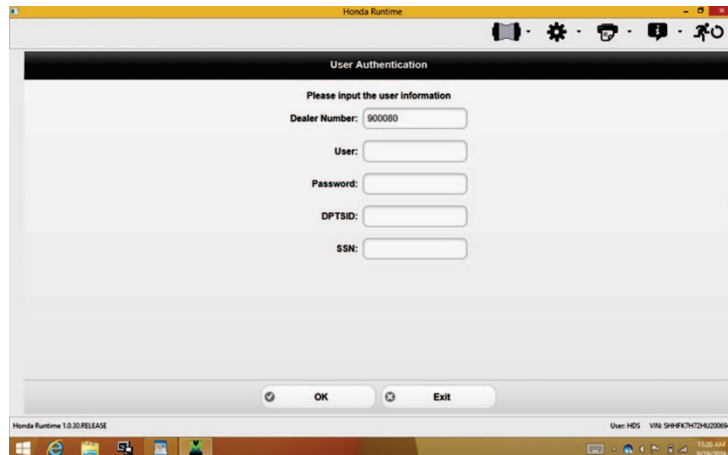
NOTE: If you cannot log in to the iN screen on the i-HDS, you must retrieve the PCM code from the Immobilizer Code Inquiry in the iN.

## Procedure

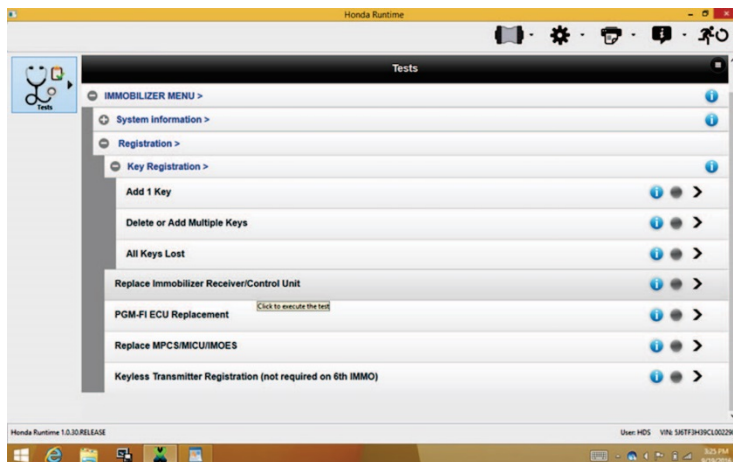
1. Gather up all of the remaining programmed ignition keys (master and valet) for the vehicle.
2. Connect the i-HDS to the DLC (data link connector).
3. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the i-HDS. From the **HOME menu** screen, select **Immobilizer Setup Tool**.



4. At the **User Authentication** screen, log in to it iN.



5. From the **Tests** screen, select **Delete or Add Multiple Keys**.



6. Follow the screen prompts. If your i-HDS is not logged in to the iN, you will have to enter the PCM code you have retrieved from the iN Immobilizer Code Inquiry to proceed. When you are finished, turn the ignition switch to LOCK (0), then turn off and disconnect the i-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 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 stops on the way.

If your customer has lost the programmed ignition key but has additional 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 PROGRAMMED IGNITION KEYS.

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

### Preparation

NOTE: Refer to the parts catalog for the P/Ns, and search by VIN for the correct parts.

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

- Honda key blank
- Vehicle's key code for cutting a new ignition key
- Suitable key cutting machine
- Immobilizer Brake Code (This five-digit code is available on the iN Immobilizer Code Inquiry.)

### Procedure

1. Use the appropriate key blanks and a suitable key cutting machine.
2. Release the parking brake.
3. Insert the newly cut ignition key into the ignition switch.
4. Turn the ignition switch to ON (II). Wait for the brake indicator bulb check to complete.
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, third, fourth, and fifth digits.

NOTE: When you turn the ignition switch to ON (II), the immobilizer indicator stays on. The 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 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 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 as it normally would.

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

## REPLACING THE IMMOBILIZER CONTROL UNIT-RECEIVER

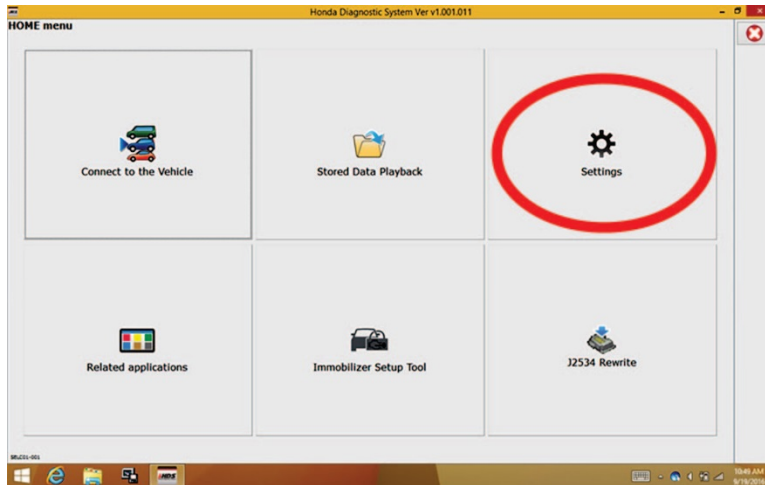
If you replace the immobilizer control unit-receiver, you must rewrite it with the i-HDS or the engine cannot start.

### 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
- i-HDS with the latest software

NOTE: Make sure the market, the date, and the time on the i-HDS setup screen are correct. From the **HOME menu** screen, select the **Settings** button. 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 (i-HDS) Setup Instructions** listed under **Tool Information** in SIS.

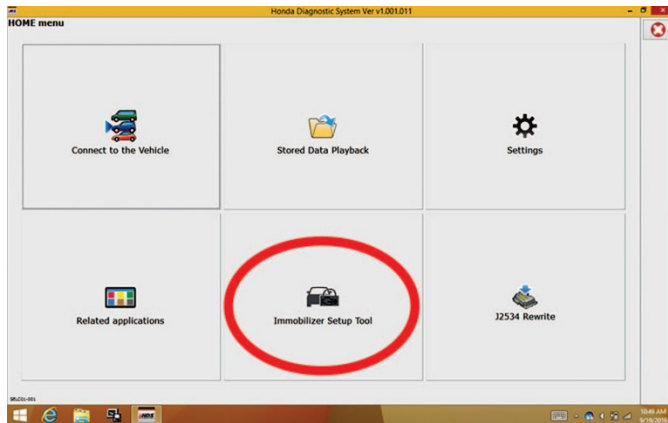


- PCM code

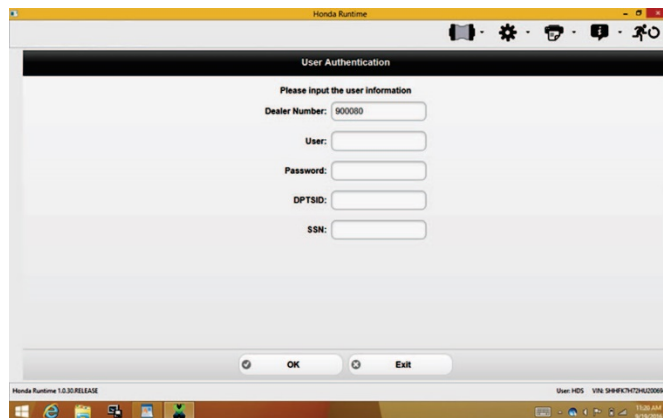
NOTE: If you cannot log in to the iN screen on the i-HDS, you must retrieve the PCM code from the Immobilizer Code Inquiry in the iN.

## Procedure

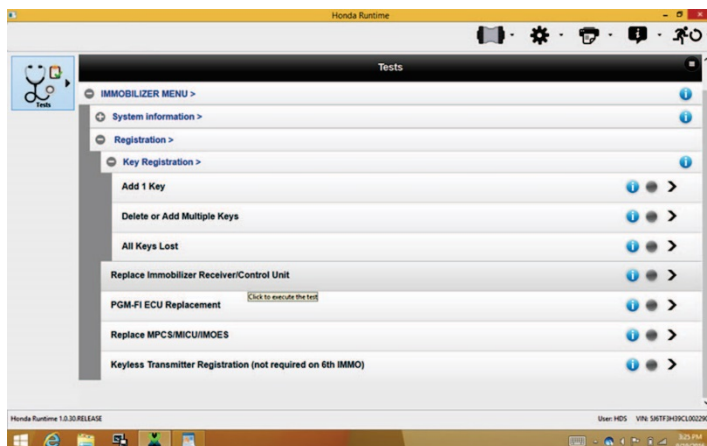
1. Replace the immobilizer control unit-receiver. See the service information, and follow the procedure.
2. Gather up *all* of the programmed ignition keys (master and valet) for the vehicle.
3. Connect the i-HDS to the DLC (data link connector).
4. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the i-HDS. From the **HOME** menu screen, select **Immobilizer Setup Tool**.



5. At the **User Authentication** screen, log in to it iN.



6. From the **Tests** screen, select **Replace Immobilizer Receiver/Control Unit**.



7. Follow the screen prompts. If your i-HDS is not logged in to the iN, you will have to enter the PCM code you have retrieved from the iN Immobilizer Code Inquiry to proceed. When the process is complete, turn the ignition switch to LOCK (0), then turn off and disconnect the i-HDS.

## REPLACING THE ECM/PCM

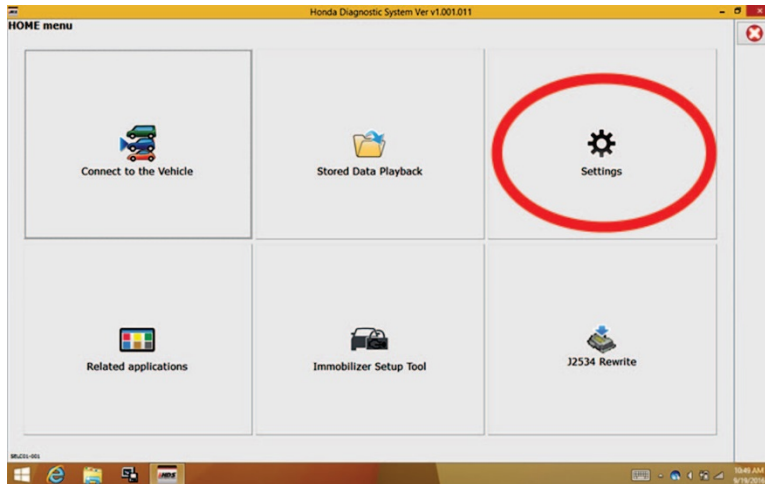
If you replace the ECM/PCM, you must use the i-HDS to instruct the new ECM/PCM and the immobilizer control unit-receiver to recognize each other's unique serial code or the engine cannot start.

### Preparation

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

- Replacement ECM/PCM
- One programmed ignition key for the vehicle
- i-HDS with the latest software

NOTE: Make sure the market, the date, and the time on the i-HDS setup screen are correct. From the **HOME menu** screen, select the **Settings** button. 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 (i-HDS) Setup Instructions** listed under **Tool Information** in SIS.



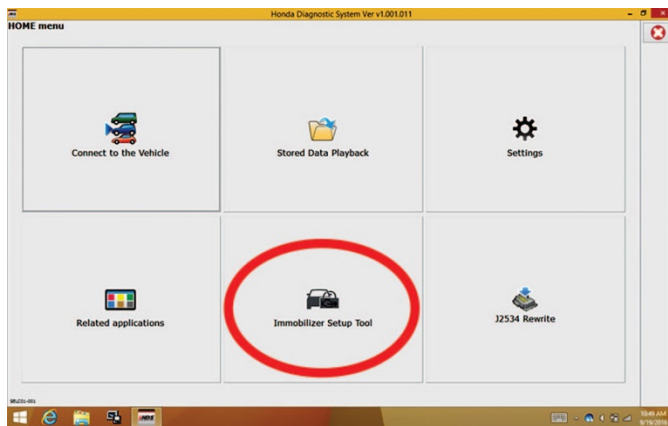
- PCM code

NOTE: If you cannot log in to the iN screen on the i-HDS, you must retrieve the PCM code from the Immobilizer Code Inquiry in the iN.

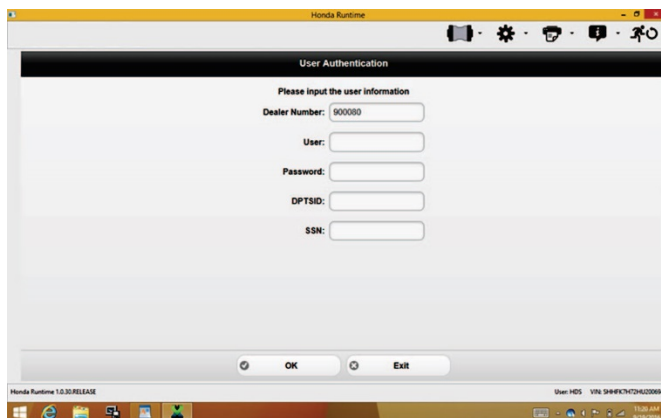


## Procedure

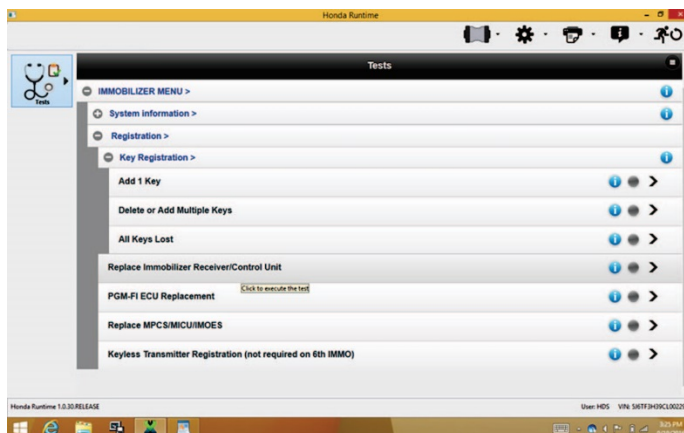
1. Replace the ECM/PCM. Refer to the service information, and follow the procedure.
2. Connect the i-HDS to the DLC (data link connector).
3. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the i-HDS. From the **HOME menu** screen, select **Immobilizer Setup Tool**.



4. At the **User Authentication** screen, log in to it iN.



5. From the **Tests** screen, select **PGM-FI ECU Replacement**.



6. Follow the screen prompts. If your i-HDS is not logged in to the iN, you will have to enter the PCM code you have retrieved from the iN Immobilizer Code Inquiry to proceed. When the process is complete, turn the ignition switch to LOCK (0), then turn off and disconnect the i-HDS.
7. Do the idle learn procedure:
  - Make sure all electrical items (A/C, audio unit, defogger, lights, etc.) are off, 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 all electrical items off) for 10 minutes.

## REPLACING THE IMOES UNIT

- 2007 – 11 Element
- 2008 – 10 Odyssey
- 2006 – 13 Ridgeline
- 2008 – 09 S2000

To replace the IMOES unit, you must use the i-HDS to instruct the new IMOES unit and the immobilizer control unit-receiver to recognize each other's unique serial code or the engine cannot start.

### ***IMOES Unit Location:***

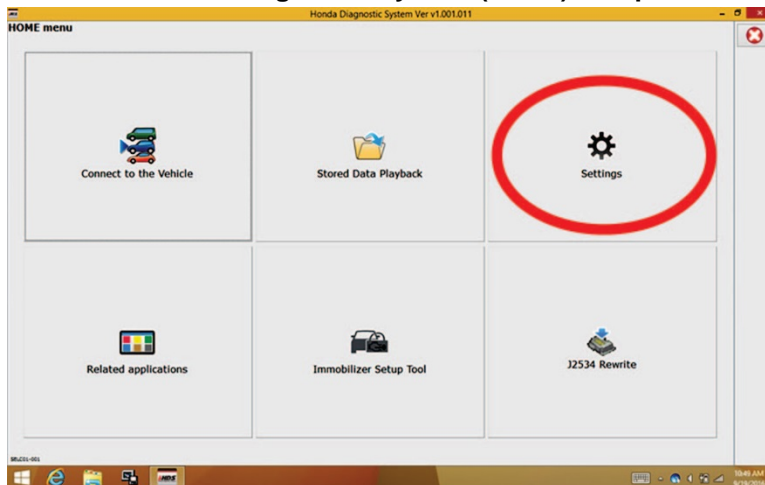
See the service information.

### ***Preparation***

To replace the IMOES unit, you need these items:

- Replacement IMOES unit
- One programmed ignition key for the vehicle
- i-HDS with the latest software

NOTE: Make sure the market, the date, and the time on the i-HDS setup screen are correct. From the **HOME** menu screen, select the **Settings** button. 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 (i-HDS) Setup Instructions** listed under **Tool Information** in SIS.

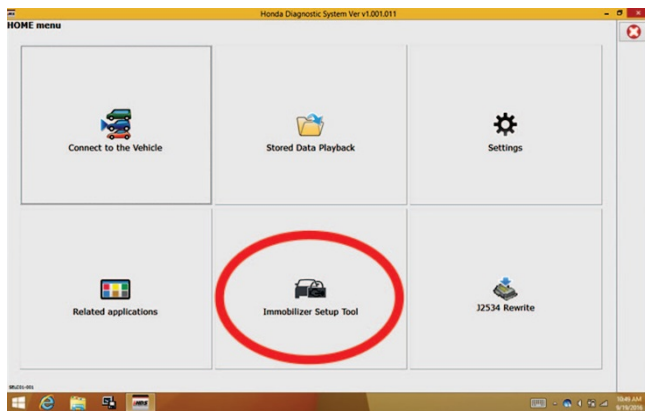


- PCM code

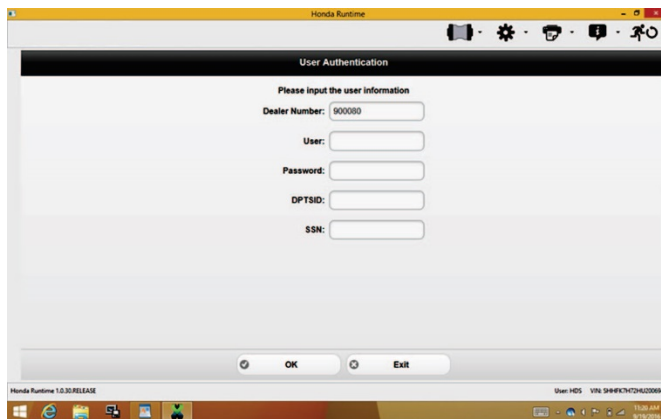
NOTE: If you cannot log in to the iN screen on the i-HDS, you must retrieve the PCM code from the Immobilizer Code Inquiry in the iN.

## Procedure

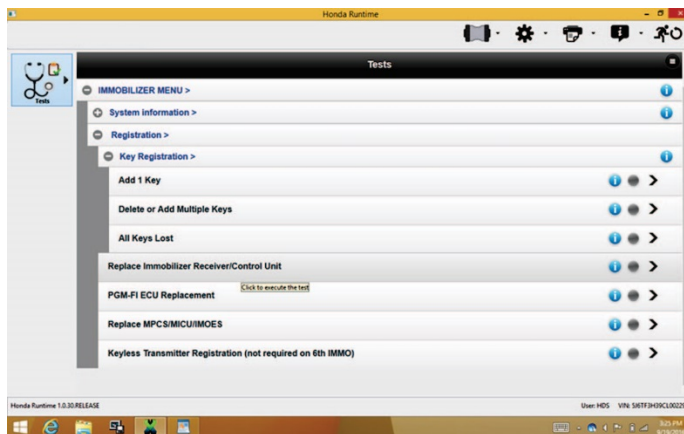
1. Replace the IMOES unit. Refer to the service information.
2. Connect the i-HDS to the DLC (data link connector).
3. Insert a programmed ignition key into the ignition switch, and turn the switch to ON (II). Turn on the i-HDS. From the **System Select** screen, select **Immobilizer Setup Tool**.



4. At the **User Authentication** screen, log in to it iN.



5. From the **Tests** screen, select **Replace MPC/MICU/IMOES**.



6. Follow the screen prompts, if your i-HDS is not logged in to the iN, you will have to enter the PCM code you have retrieved from the iN Immobilizer Code Inquiry to proceed. When the process is complete, turn the ignition switch to LOCK (0), then turn off and disconnect the i-HDS.
7. Do the idle learn procedure:
  - Make sure all electrical items (A/C, audio unit, defogger, lights, etc.) are off, 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 all electrical items off) for **10 minutes**.

END