

SERVICE BULLETIN

Model 1997 PRELUDE	Applicable To ALL	File Under ELECTRICAL	Bulletin No. 96-051 Issue Date NOV 4, 1996
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Information on the Immobilizer System

The 1997 Prelude is equipped with a theft deterrent feature called the immobilizer system. When the correct key is used in the ignition switch, a transponder inside the key sends an identification (ID) code to the immobilizer receiver. The receiver then sends the code to the immobilizer control unit, allowing the engine to start. If an incorrect key is used in the ignition switch, the engine's fuel delivery and starter circuits are disabled.

This bulletin gives you information on system components, adding or replacing keys, replacing components, and emergency starting procedures. Additional information on the immobilizer system is in section 23 of the 1997 Prelude Service Manual and in the PROformance 1997 Prelude Technician's Information Guide.

WARRANTY CLAIM INFORMATION

None. This Service Bulletin is for information only.

IMMOBILIZER SYSTEM COMPONENTS

The immobilizer system has five main components:

- Engine control module (ECM)
- Immobilizer control unit
- Immobilizer receiver
- Immobilizer indicator light
- Keys: 2 master keys (black grip), 1 valet key (gray grip), and 1 learning key (red grip)

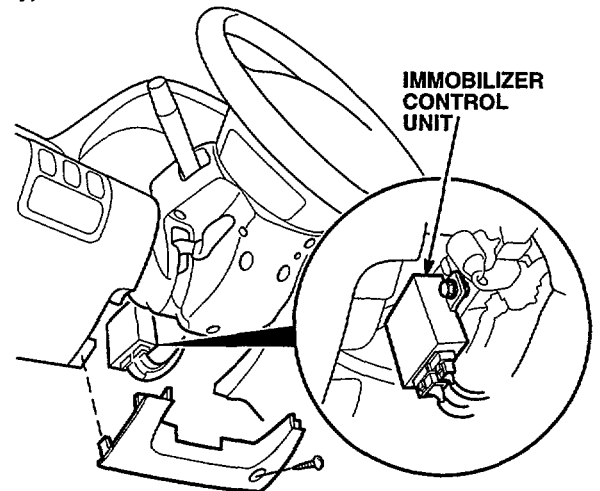
Engine Control Module (ECM)

The ECM is on the floor of the passenger compartment. When it receives the correct signal from the immobilizer control unit, the ECM enables the fuel supply system.

Immobilizer Control Unit

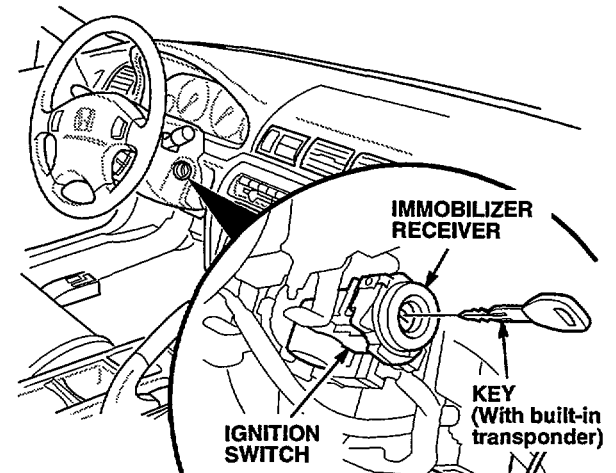
The immobilizer control unit is below the dashboard, on the left side of the steering column. When the ignition switch is turned on, the control unit sends power to the transponder through the immobilizer receiver. When the control unit receives the ID code from the transponder, it compares it with the one in its memory.

If the codes match, the control unit sends an enable signal to the ECM and connects the starter circuit. If the codes do not match, the control unit disables the starter circuit, and does not send an enable signal to the ECM. The control unit can accept up to five keys (not including the learning key).



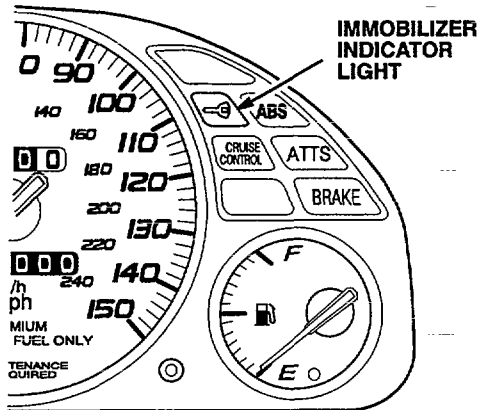
Immobilizer Receiver

The immobilizer receiver is in the bezel surrounding the ignition switch. It supplies power to the transponder inside the key using electromagnetic induction. There is no physical connection between the key and the receiver. Once the transponder is powered up, it sends its ID code to the receiver, which then sends the code to the immobilizer control unit.



Immobilizer Indicator Light

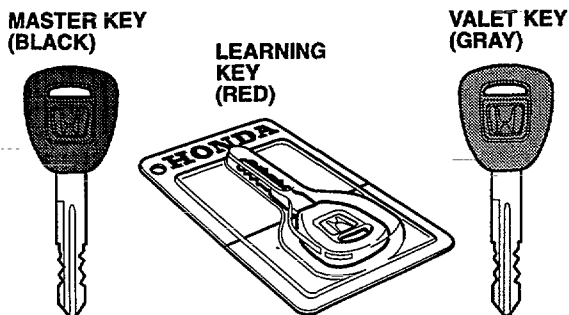
The immobilizer indicator light is on the right side of the instrument panel. When you turn the ignition switch on with the correct master key or valet key, the light goes on for two seconds, then it goes off. When you remove the key from the ignition switch, the light blinks for five seconds, then it goes off.



If you insert an incorrect key into the ignition switch, the indicator light goes on for two seconds, then it blinks continuously. When you remove the key, the light goes off immediately.

Immobilizer System Keys

The car comes with two master keys (black grip), one valet key (gray grip), and one learning key (red grip). All keys have a transponder inside them that outputs an ID code used by the immobilizer control unit to start the car. *Keys have no batteries or serviceable parts inside them.*



The **master key** operates the ignition switch, the doors, the trunk, the trunk release handle, the rear seat trunk access, and the glove box. When the correct master key is used in the ignition switch, its transponder sends an ID code to the immobilizer control unit, allowing the engine to start.

The **valet key** works like the master key, except it does not open the trunk, the trunk release handle, the rear seat trunk access, or the glove box.

The **learning key** has a unique ID code that is matched to the car's immobilizer control unit. It allows you to

recode or replace a key, but **it will not start the engine**. If you try to start the engine with the learning key, it may disable the fuel supply system and the starter system. If this happens, you will need to do the procedure in **ADDING OR REPLACING KEYS**.

The learning key is given to the customer, sealed in its plastic case. The customer should be advised that the learning key is a tool for the dealer to use when adding or replacing keys; **it cannot be used to start the engine**. The customer should keep the learning key sealed in its case and stored in a safe place.

ADDING OR REPLACING KEYS

Since the car comes with three keys, and the immobilizer control unit can accept up to five codes, two more keys can be added to the system. When adding or replacing keys, you need these items:

- Master Key Blank: P/N 35113-SZ3-Q01, H/C 5202502 or Valet Key Blank: P/N 35114-SZ3-Q01, H/C 5202510
- Learning Key
- All existing master keys and valet keys for the car (They need to be programmed along with the new key. If you do not have at least one master key or valet key, refer to page 3 for **REPLACING COMPONENTS**.)
- PGM Tester with SN 701 (or higher) software on a 4 MB program card
- Password code for the PGM Tester program card (If you do not know the password code, ask your Service Manager for it, or find it on the HONDANET 2000 VIN Status Inquiry display.)

Procedure

1. Cut the new key(s).
2. Gather up all the keys for the car. (The immobilizer control unit accepts up to five keys.)
3. Connect the PGM Tester, then turn the ignition switch ON (II) with the master key or valet key.
4. Go into the immobilizer menu. (Do not use the "Generic OBD II" mode.)
5. Select **REWRITE** on the tester screen to bring up the rewriting menu.
6. From the rewriting menu, select **IMMOBI** (Immobilizer unit). Follow all screen prompts until you return to the rewriting menu.
7. From the rewriting menu, select **ECM**, and follow the screen prompts. (You will need the password code for this step.)
8. Start the engine with all master keys and valet keys. If *any* of the keys do not start the engine, you will have to repeat steps 3 through 8 for *all* of the keys.
9. When you are finished, put the learning key back into its plastic case, and return it to the customer.

REPLACING COMPONENTS

Use the chart, along with the information on the right, to find which immobilizer system component(s) you need to replace. For component testing and replacement, refer to section 23 of the Service Manual. You will also need a PGM Tester with SN 701 (or higher) software on a 4 MB program card and the password code for the card. If the repair involves the immobilizer control unit, lost keys, or improper use of the learning key in the ignition switch, the customer should supply you with the learning key, any available master keys and valet keys, and key numbers.

NOTE: If you replace the immobilizer control unit, the ECM, or any keys, the immobilizer system must relearn the transponder ID code for the keys. (See ADDING OR REPLACING KEYS on page 2.)

Condition	Required Parts (from right)
The customer wants a spare key, and has all the original keys.	A
The customer wants to replace a missing master key or valet key.	A
All master keys are missing, but the customer has the valet key.	A
All keys are missing.	A and B
The immobilizer control unit is faulty.	B
The ECM is faulty.	C
The immobilizer receiver is faulty.	D
The ignition key lock is faulty or damaged.	D* or E
The learning key was used in the ignition switch.	None. Refer to ADDING OR REPLACING KEYS.
One or more of these locks are damaged: door(s), glove box, trunk, trunk release handle, or rear seat trunk access.	If you know how to re-key locks, replace them individually, otherwise, use E.

*If you know how to re-key locks, use *D* and re-key the rest of the locks to match the new ignition key lock. If you do not know how to re-key locks, and the customer does not mind needing more than one key for the car, you can still use *D*. But if the customer wants all the lock cylinders to match and you do not know how to re-key locks, use *E*.

Depending on what is wrong (lost keys, damage to ignition switch, faulty ECM, etc.), you may need one or more of these parts:

A Master Key Blank, P/N 35113-SZ3-Q01, H/C 5202502 and
Valet Key Blank, P/N 35114-SZ3-Q01, H/C 5202510

B Immobilizer Unit Set,** P/N 04809-S30-A01 H/C 5198866

(Includes master key blank, valet key blank, learning key blank, and immobilizer control unit.)

C Engine Control Module
(Refer to the Parts catalog for the part number.)

D Steering Lock Assembly P/N 35100-S30-A01, H/C 5202452

(Includes contents of A and B, plus the immobilizer receiver, the receiver harness, the steering lock wire harness, and the ignition key cylinder.)

E Key Cylinder Set

(Includes contents of *D*, plus the lock cylinders for the doors, the glove box, the trunk, the trunk release handle, and the rear seat trunk access. (Refer to the Parts catalog for the part number.)

**After you replace the immobilizer control unit, program the keys that come with it using the procedure on page 2, ADDING OR REPLACING KEYS. For programming, you must use the learning key that comes with the new control unit. (Keep the old learning key with the old control unit, for warranty purposes).

When the PGM Tester refers to "original" keys, it means the keys that come with the new control unit. The keys used with the old control unit are now "new" keys that must be relearned by the new control unit.

EMERGENCY STARTING PROCEDURES

If all of the keys are lost, you can still get the engine started in either of two ways: without the PGM Tester or with the PGM Tester. These procedures are only a temporary repair; for a permanent repair, you may need to replace some or all of the immobilizer system components as described in REPLACING COMPONENTS.

To start the engine without the PGM Tester, you need these items:

- Regular key blank, P/N 35117-SM4-901, H/C 4225462, or equivalent
- The five-digit immobilizer brake code from the HONDANET 2000 VIN Status Inquiry display. (The code is VIN-specific.)

NOTE:

- After the engine is started with this procedure, you must repeat the procedure if the engine is turned off for more than ten minutes.
- While the engine is running, the immobilizer indicator light on the instrument panel remains on.
- Use this procedure only if the customer plans to drive the car directly to a Honda dealership for repair.

1. Cut a temporary key using a regular key blank.
2. Find the car's five-digit immobilizer brake code using the HONDANET 2000 VIN Status Inquiry display.
3. Turn the ignition switch ON (II) with the temporary key.
4. Enter the first digit of the code by setting and releasing the parking brake lever the same number of times as the first digit. For example, if the first digit is 3, set and release the lever three times. (This step can be done faster if you press and hold the parking brake release button while you set and release the lever.)

NOTE: While entering the code, the brake system indicator light stays on even when you release the parking brake lever.

5. Turn off the ignition switch. This enters the code into the immobilizer control unit.
6. Repeat steps 3, 4, and 5 using the second, third, fourth, and fifth digits of the code. You need to enter each digit of the code within thirty seconds.
7. After you enter the fifth digit and turn off the ignition, the immobilizer indicator light will flash five times, then go off. This means the engine can now be started with the new key that you made in step 1.

To start the engine with the PGM Tester, you need these items:

- Regular key blank, P/N 35117-SM4-901, H/C 4225462, or equivalent
- The four-digit ECM code (The code is VIN-specific.)
- PGM Tester with SN 701 or later software on a 4 MB program card
- Immobilizer jumper connector, T/N 07TAZ-SZ3010A
- "IMPORTANT REMINDER" key tag, T/N 07TAZ-SZ3020A

NOTE: This procedure disables the immobilizer system, allowing the car to start 50 times. While the system is disabled, the immobilizer indicator light will remain on.

1. Cut a temporary key using a regular key blank.
2. Find the car's four-digit ECM code using the HONDANET 2000 VIN Status Inquiry display. (The ECM code is called the IMMOBI DISABLE CODE on the display.)
3. Connect the PGM Tester, then turn the ignition switch ON (II) with the temporary key, and go into the immobilizer menu.
4. From the immobilizer menu, select *CANCELLATION* to bring up the cancellation menu.
5. From the cancellation menu, select *CANCELLATION*.
6. Enter the four-digit ECM code.
7. Follow the screen prompts on the PGM Tester. When you successfully disable the immobilizer system, the last screen indicates "*Immobilizer has been cancelled.*"
8. Disconnect the 8P wire harness connector from the immobilizer control unit, and plug the immobilizer jumper connector into it. (The engine will not crank without the jumper connector.)
9. Attach an "IMPORTANT REMINDER" key tag to the temporary key. This alerts the customer that the car must be repaired soon; the engine will start **only 50 times** with the temporary key.