



Applies To: 2002 and Later Vehicles With a Programmable ECM/PCM

August 13, 2001

Using the Honda Interface Module (HIM) to Update the ECM/PCM (Supersedes 01-026, *Updating the ECM/PCM*, dated June 28, 2001)

The procedures in this service bulletin will be used and referenced in other service bulletins.

The ECM/PCM in 2002 and later RSXs can be reprogrammed. The tool used to update the RSX ECM/PCM is the Honda Interface Module (HIM).

Programmable ECMs/PCMs will be used in future Acura models. When a new model comes out, refer to its service manual to determine if this is the case.

To program an ECM/PCM, you need the HIM, the vehicle you're working on, a PC with Windows 95 or later, and your ACURALINK 2000, IN (Interactive Network), or TechCart workstation.

This service bulletin describes these items:

- Questions or problems with the HIM or the ACURALINK 2000 CD
- Required tools and equipment
- HIM user tips
- Programming the HIM and updating an ECM/PCM
- Diagnosing the HIM
- HIM self-test for warranty repair

WARRANTY CLAIM INFORMATION

Refer to the specific service bulletin for the symptom you are repairing.

Skill Level: Repair Technician

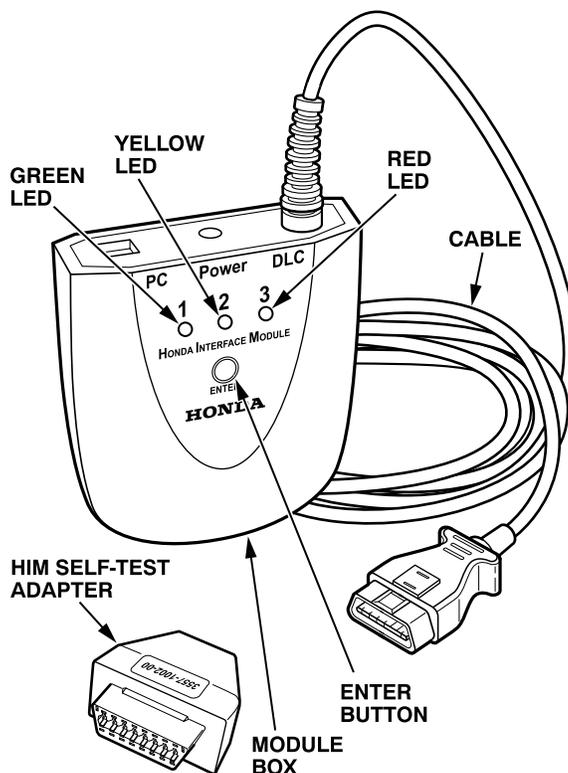
QUESTIONS OR PROBLEMS WITH THE HIM OR THE ACURALINK 2000 CD

For questions or problems on HIM hardware and its use, call American Honda Special Tools at 800-346-6327.

For questions when loading the ACURALINK 2000 CD, call the ACURALINK 2000 Support Center at 800-245-4343.

REQUIRED TOOLS AND EQUIPMENT

- Honda Interface Module: P/N EQS05A35570 includes module box, attached cable, and self-test adapter.



- ACURALINK 2000 CD (July 2001 or later) loaded into your ACURALINK 2000 master terminal
- ACURALINK 2000 Workstation with 32-bit processor (not the master terminal)
 - or
 - IN (Interactive Network) Workstation
 - or
 - TechCart Workstation
- PC Interface Cable: P/N VET-01002832

This is the same cable you use to connect the PGM Tester to the ACURALINK 2000, IN, or Tech Cart workstation when updating the Tester's program card or downloading DTCs to American Honda. It includes a blue cable with an integrated adapter.

- 110 VAC/12 VDC Power Supply:
P/N VET-02002426

This is the same power supply used by the PGM Tester.

- RS232 Self-Test Connector: P/N 02001606

This connector is used in the HIM self-test. It was included along with your PGM Tester.

NOTE: The HIM, the blue PC interface cable, the 110 VAC/12 VDC power supply, and the RS232 self-test adapter can be ordered through the Acura Tool and Equipment Program at 888-424-6857.

HIM USER TIPS

- Before you update an ECM/PCM, make sure the vehicle's battery is fully charged.
- If you're updating the ECM/PCM on a new vehicle, make sure all its fuses were installed at PDI.
- To prevent ECM/PCM damage, do not operate anything electrical (audio system, brakes, A/C, power windows, moonroof, etc.) during the update.
- Do not connect an additional power supply to the HIM when it is connected to the vehicle; power is supplied through the DLC.
- If you need to diagnose the HIM because the red (#3) light came on or was flashing during an update, leave the ignition switch in the ON (II) position while you disconnect the HIM from the DLC (data link connector). This will prevent ECM/PCM damage.
- When you replace an ECM/PCM with a new one from parts stock, make sure it has the latest update. As with any ECM/PCM replacement, you need to do the idle learn procedure, and also rewrite (initialize) the new ECM/PCM with the PGM Tester so the immobilizer system will work.
- After you've read this service bulletin and done a few updates, you can save some time by using the abbreviated updating instructions on the back of the HIM.
- If you get a Code 40 error message while the HIM is connected to the computer workstation (usually caused by a communication error between the HIM and the computer), do this:
 - Reprogram the PGM Tester program card to eliminate the HIM and its cable as the cause of the code.
 - Do the HIM self-test procedure (see HIM self-test for warranty repair).
 - Move the blue PC interface cable to another communication port on the back of the computer.
 - If one of the communication ports on the back of the computer has another cable connected to it, disconnect that cable, leave it disconnected during the HIM procedure, and connect the blue PC interface cable to that port.

- Connect the HIM to another computer. (If you're using an IN workstation, know that some newer INs require an internal communication port setup procedure. For help, call the ACURALINK 2000 Support Center at 800-245-4343.

- If you get a Code 50 error message while the HIM is connected to the computer workstation (usually caused by a communications error between the HIM and the vehicle's DLC), do this:

- Diagnose and clear any DTCs. (The ECM/PCM must be free of DTCs before you can update it.)
- Make sure there's a good connection between the HIM and the DLC.
- Retry the ECM/PCM updating procedures in this service bulletin or on the back of the HIM.
- If needed, call Tech Line for further assistance.

PROGRAMMING THE HIM AND UPDATING AN ECM/PCM

To update an ECM/PCM, you need to program the HIM, and then do the actual update. Here's an overview, followed by the step-by-step procedures.

Take the HIM to the vehicle, and connect it to the DLC; information about the ECM's/PCM's software is loaded into the HIM. Then, take the HIM to your computer workstation, connect it, and follow the instructions on the screen. The workstation determines if the software in the ECM/PCM is up-to-date. If the ECM/PCM needs to be updated, the update is programmed into the HIM. (If the ECM/PCM already has the update, it is indicated on the screen, and no further action is needed.)

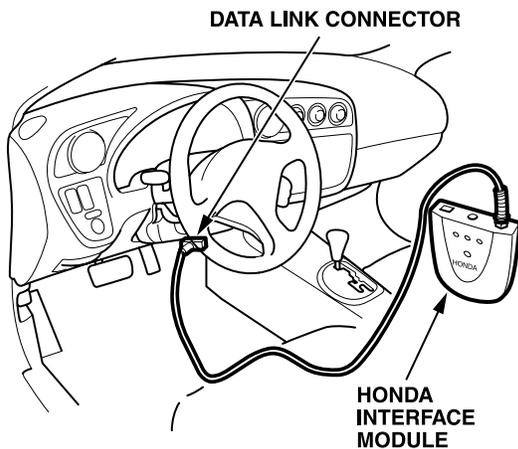
To complete the ECM/PCM update, take the HIM back to the vehicle, connect it to the DLC, and press the ENTER button. The HIM then replaces the current ECM/PCM software information with the update.

NOTE: To avoid permanent ECM/PCM damage, be sure to follow the HIM programming and ECM/PCM updating procedures exactly.

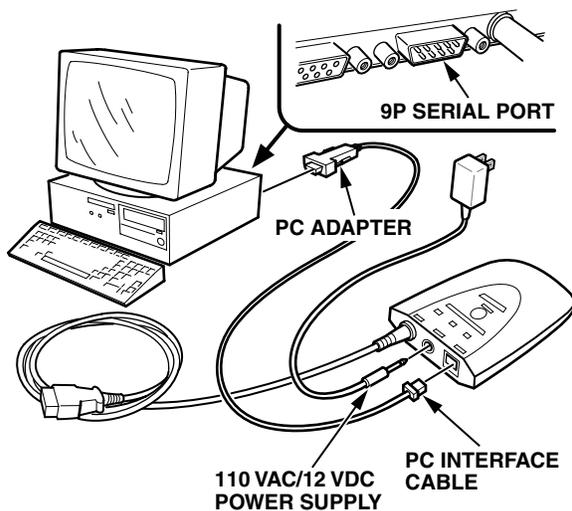
Programming the HIM

1. If not already done, load the July 2001 or later ACURALINK 2000 CD onto your ACURALINK 2000 master terminal. Loading instructions are included in the CD's mailing.
2. Take the HIM to the vehicle, and turn the ignition switch to ON (II).

3. Connect the HIM cable to the vehicle's DLC (data link connector). The HIM's green (#1) and yellow (#2) lights flash.



4. When the green (#1) light glows steadily and the yellow (#2) light is off, turn the ignition switch to LOCK (0). Disconnect the HIM from the DLC, then take it to the ACURALINK 2000, IN, or TechCart workstation.
5. Connect the small end of the blue PC interface cable to the PC port on the HIM. (Some interface cables are gray, and some have a yellow label near the small end to help you identify them.)



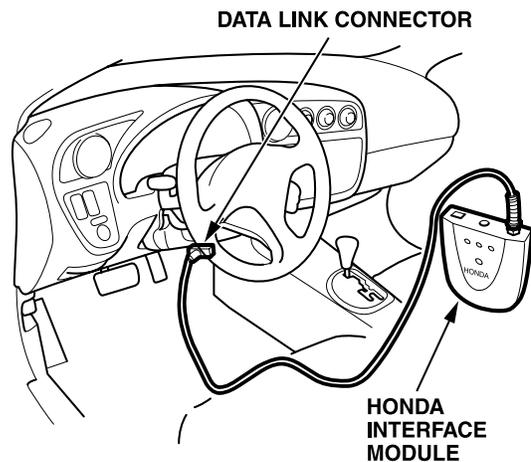
6. If not already done, connect the PC adapter end of the PC interface cable to the 9P serial port on the ACURALINK 2000, IN, or TechCart workstation.
NOTE: If the workstation isn't the same one used for updating PGM Tester program cards, disconnect the PC interface cable from one workstation, and connect it to the 9P serial port on the other workstation. You can avoid this extra step by getting a PC interface cable for each workstation.

7. Connect the 110 VAC/12 VDC power supply to the Power port on the HIM and to a wall outlet.
8. Log in to ACURALINK 2000.
9. At the top of the ACURALINK 2000 screen, click on **Service Bay**, then click on **HIM** in the drop-down menu. This brings up the Honda Interface Module Welcome screen.
10. From the Welcome screen, click on **Auto Sel** to retrieve the vehicle's ECM/PCM update status from the HIM.
NOTE: **Auto Sel** is used for most HIM procedures. The other button, **Select**, is used only when Tech Line or a service bulletin directs you to use it.
11. Follow the screen prompts exactly. When you are finished, the screen displays **Programming the Honda Interface Module is Complete**. Once the HIM is programmed, go to Updating an ECM/PCM With a Programmed HIM.

Updating an ECM/PCM With a Programmed HIM

NOTE: If the red light (#3) on the HIM comes on or flashes at any time during the procedure, the update was not completed. Leave the ignition switch ON (II), and go to DIAGNOSING THE HIM.

1. At the vehicle, turn the ignition switch to ON (II), then connect the HIM cable to the DLC. The HIM's green (#1) and yellow (#2) lights flash.



2. When the green (#1) light glows steadily and the yellow (#2) light is off, push and release the ENTER button on the HIM. The green (#1) light glows steadily, and the yellow (#2) light flashes for 5 to 8 minutes. (The flashing speed can vary from fast to slow.)
NOTICE: To avoid permanent ECM/PCM damage during the update, do not turn the ignition switch off, use anything electrical, or disconnect the HIM cable while the yellow (#2) light is flashing.
3. When the yellow (#2) light glows steadily and the green (#1) light is off, turn the ignition switch to LOCK (0) and then to ON (II) again.

4. When the green (#1) and yellow (#2) lights glow steadily (after about 10 seconds), the update is complete. Disconnect the HIM from the DLC, and turn the ignition switch to LOCK (0).
5. If the vehicle still has the problem you tried to correct with the update, refer to the appropriate service manual or ETM for troubleshooting information.

DIAGNOSING THE HIM

If the red (#3) light on the HIM came on or was flashing while updating the ECM/PCM, do this:

1. Leave the ignition switch in the ON (II) position while you disconnect the HIM from the vehicle's DLC.
2. If not already done, load the July 2001 or later ACURALINK 2000 CD onto your ACURALINK 2000 master terminal. Loading instructions are included in the CD's mailing.
3. Connect the HIM to the ACURALINK 2000, IN, or TechCart workstation. Connect the small end of the PC interface cable to the PC port on the HIM.
4. If not already done, connect the PC adapter end of the blue PC interface cable to the 9P serial port on the ACURALINK 2000, IN, or TechCart workstation.
5. Connect the 110 VAC/12 VDC power supply to the Power port on the HIM and to a wall outlet.
6. Log in to ACURALINK 2000.
7. From the choices across the top of the ACURALINK 2000 screen, click on **Service Bay**, and then click on **HIM** from the drop-down menu.
8. Click on **View Err** at the bottom of the screen to display the problem encountered while the HIM was connected to the vehicle.
9. Call American Honda Special Tools at 800-346-6327 for further instructions.

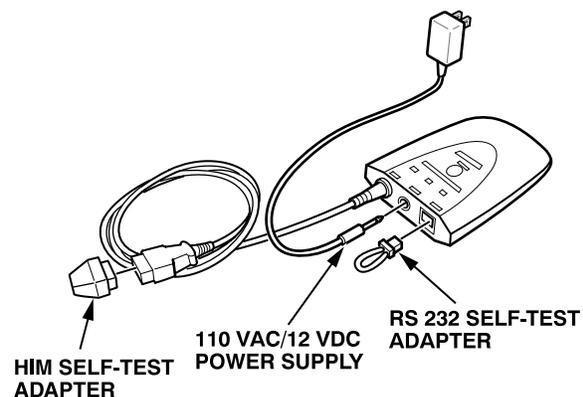
HIM SELF-TEST FOR WARRANTY REPAIR

If you suspect there's a problem with the HIM, review the instructions in this service bulletin to make sure you are using it correctly. If you still think there's a problem, do this HIM self-test.

1. If not already done, load the July 2001 or later ACURALINK 2000 CD onto your ACURALINK 2000 master terminal. Loading instructions are included in the CD's mailing.
2. Log in to ACURALINK 2000.
3. From the choices across the top of the screen, click on **Service Bay**, and then click on **HIM** from the drop-down menu. This brings up the Honda Interface Module Welcome screen.
4. Click on **Help** at the bottom of the screen to display the ECM/PCM Update System Table of Contents screen.
5. From the choices in the table of contents, click on **Honda Interface Module Self Test Procedure**.
6. Follow the instructions on the screen to run the HIM self-test.

NOTE: Be aware of these errors in the HIM self-test; they will be corrected in a future ACURALINK 2000 CD:

- In step 5, it should say that the yellow (#2) light glows steadily, and the green (#1) light flashes.
- Three tool names in the HIM self-test procedure do not match the names in this service bulletin. Here are the tool names from the self-test procedure, and the correct names:
 - The RS232 loopback connector is the RS232 self-test connector.
 - The DLC loopback connector is the HIM self-test connector.
 - The PGM Tester AC adapter is the 110 VAC/12 VDC power supply.



7. If the self-test indicates a problem with the HIM, call American Honda Special Tools at 800-346-6327 for instructions about warranty repair.