

### Product Update: DC-DC Converter (Supersedes 00-093, dated November 21, 2000)

#### BACKGROUND

The DC-DC converter serves as the “alternator.” Its purpose is to charge the 12V battery that powers the lighting, accessories, etc. The DC-DC converter has thermal protection to keep it from overheating. If the converter gets too hot, it shuts down and no longer charges the battery. When this happens, the Charging System indicator comes on to show the “no charge” condition.

In certain DC-DC converters, the internal temperature monitors are defective, causing the converter to shut down when there is no overheating.

#### CUSTOMER NOTIFICATION

All owners of affected vehicles will be sent a notification of this product update. An example of the customer notification is at the end of this service bulletin.

#### CORRECTIVE ACTION

Replace the DC-DC converter.

#### PARTS INFORMATION

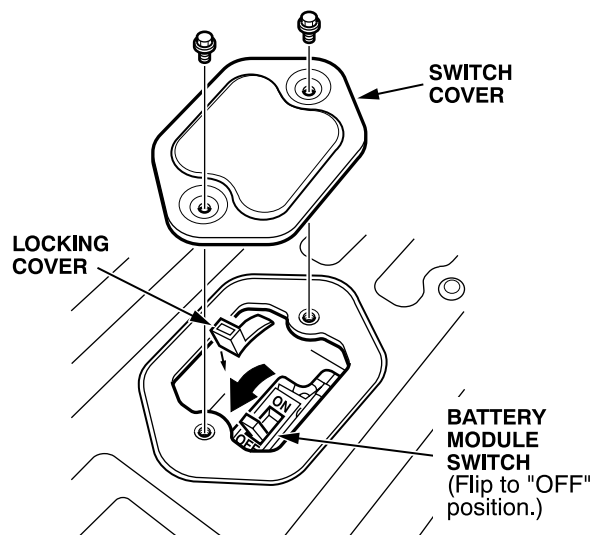
DC-DC Converter: P/N 1C800-PHM-003, H/C 6339857

#### WARRANTY CLAIM INFORMATION

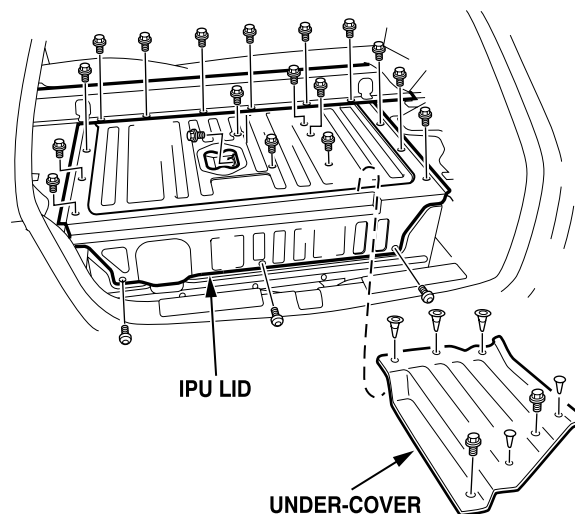
Operation Number: 118119  
 Flat Rate Time: 1.6 hours  
 Failed Part: P/N 1C800-PHM-003  
 H/C 6339857  
 Defect Code: 764  
 Contention Code: L07  
 Template ID: 00-093A  
 Skill Level: Repair Technician

#### REPAIR PROCEDURE

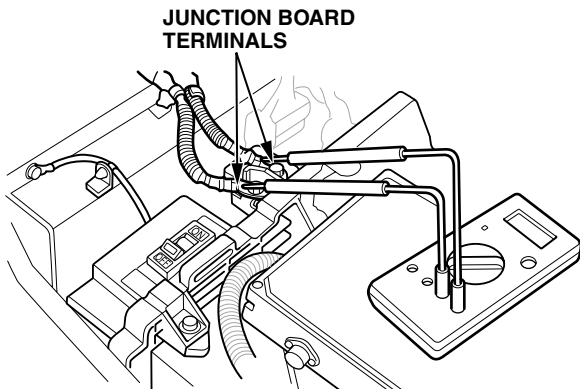
1. Disconnect the negative cable from the under-hood 12V battery.
2. Remove the cargo area floor carpet.
3. Remove the battery module switch cover. Remove the locking cover, turn off the battery module switch, then reinstall the locking cover.



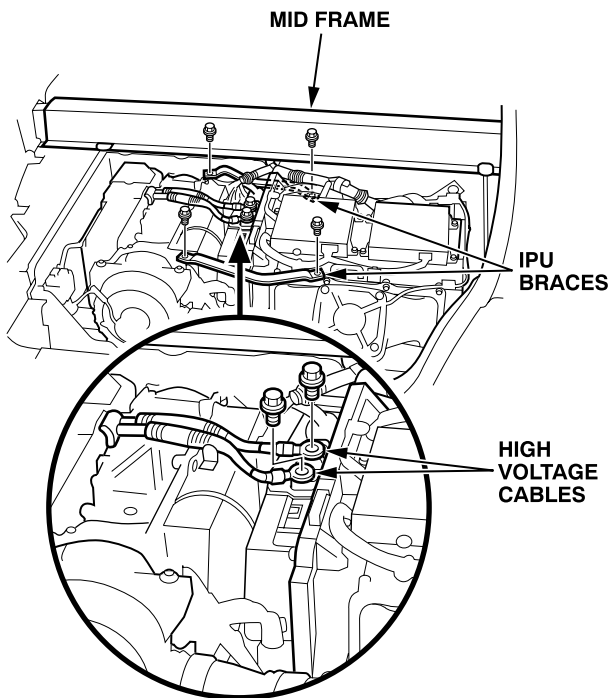
4. Wait for at least 5 minutes for the capacitors in the system to discharge.
5. Remove the under-cover and the IPU lid.



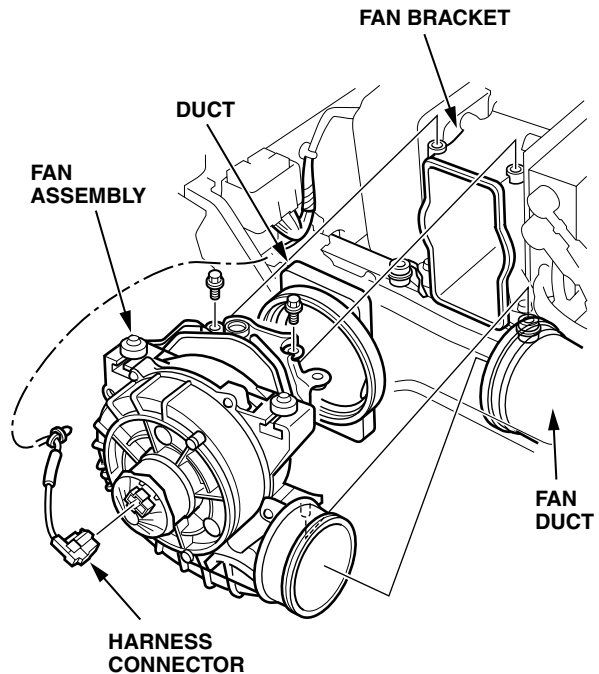
6. Measure the voltage between the junction board terminals. There should be 10V or less.
  - If there is more than 10V, there is a problem in the IMA system. Look for and troubleshoot any DTCs before continuing.
  - If there is 10V or less, continue to step 7.



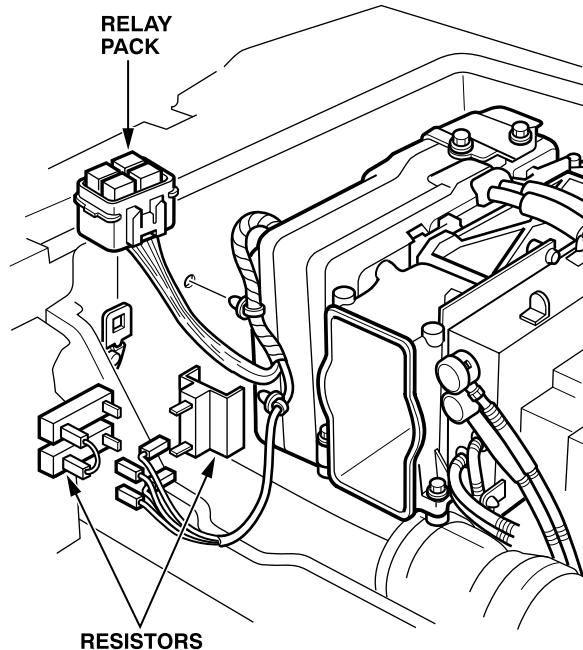
7. Remove the foam inserts.
8. Remove the IPU braces. Disconnect the high voltage cables from the junction board.



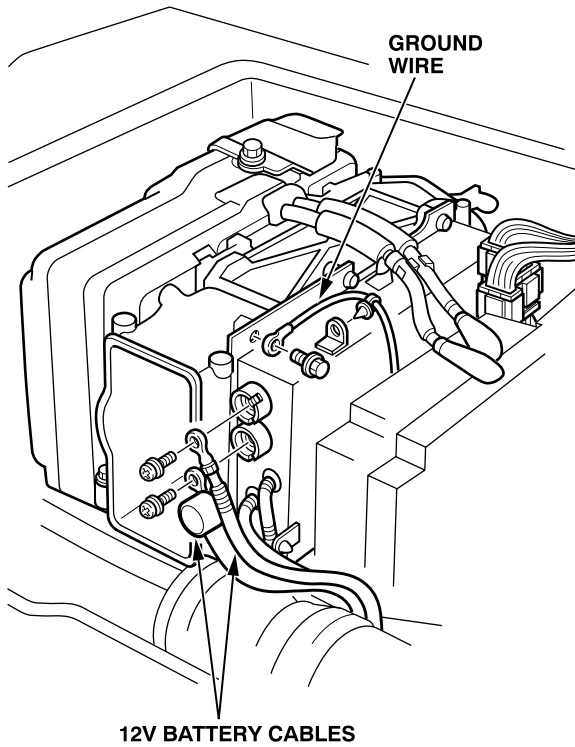
9. Disconnect the harness connector and harness clip from the cooling fan assembly.



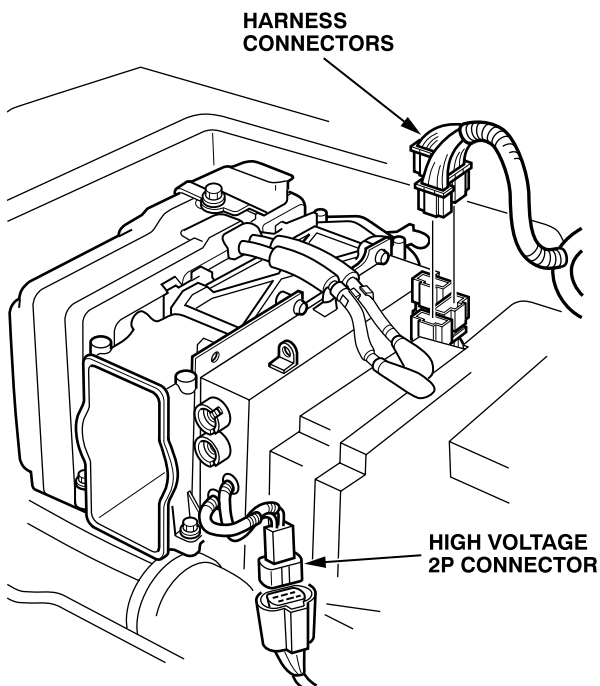
10. Remove the fan mounting bolts, the fan bracket, and the fan duct from the fan assembly. Remove the fan assembly.
11. Remove the relay pack from its holder. Disconnect the harness ends from the resistors, and disconnect the harness clips from the body.



12. Disconnect the ground wire. Disconnect the 12V battery cables.

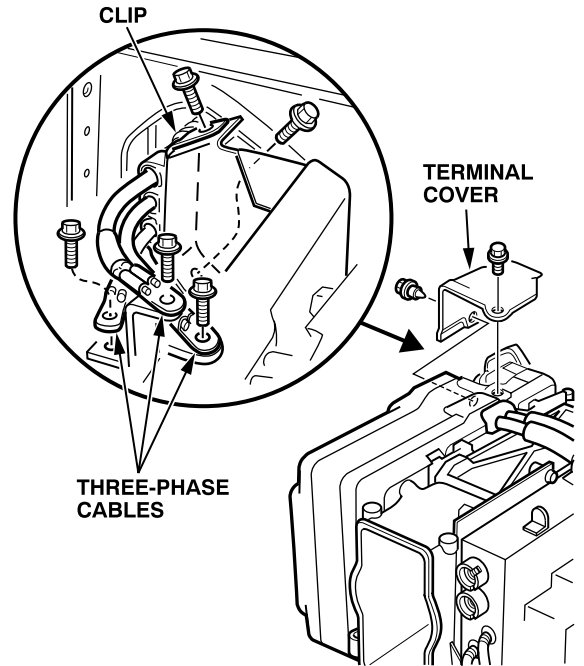


13. Disconnect the harness connectors from the PCU. Disconnect the high voltage 2P connector.

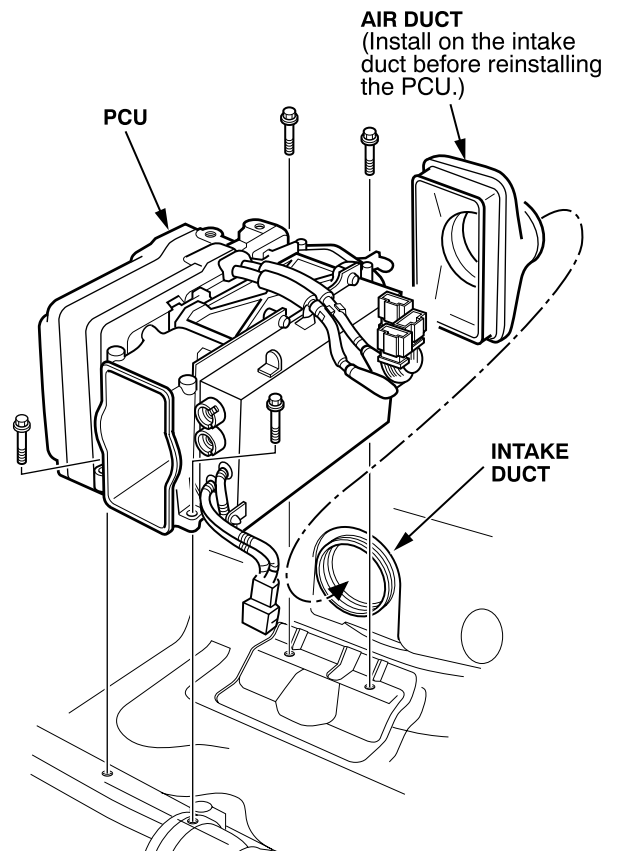


14. Pull the air intake duct away from the front of the PCU.

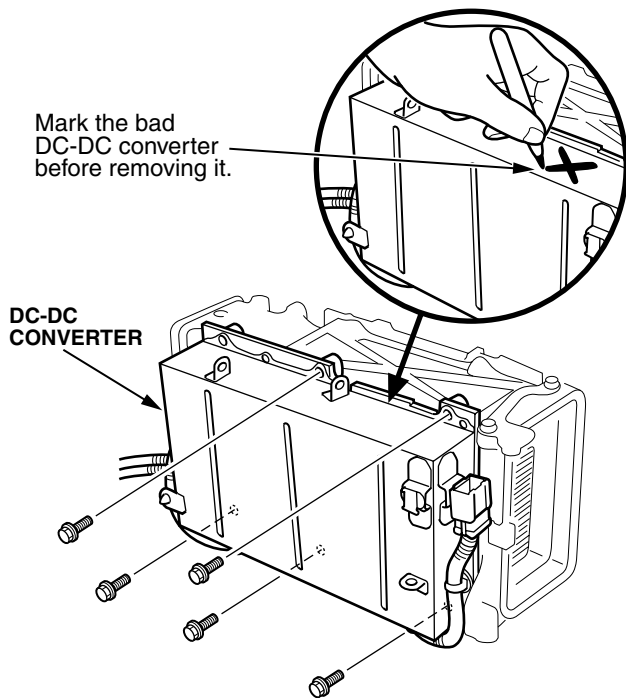
15. Remove the terminal cover. Disconnect the three-phase cables from the PCU (three bolts and one clip).



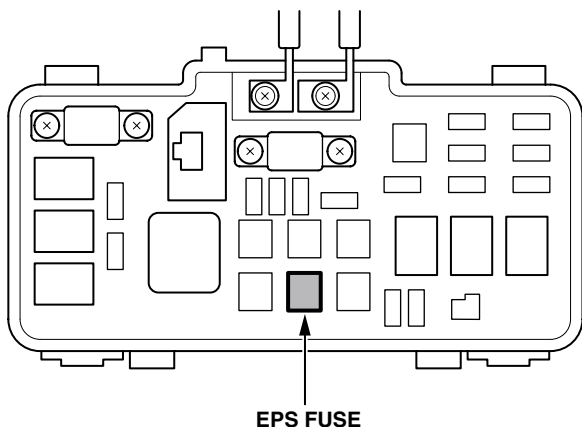
16. Remove the PCU mounting bolts. Carefully lift the PCU out of the vehicle.



- Remove the DC-DC converter mounting bolts. Remove the converter from the PCU.



- Install the new DC-DC converter.
- Remove the air intake from the side of the PCU and reinstall it on the air duct in the vehicle.
- Install the PCU into the vehicle in the reverse order of removal. Make sure the air intake duct is aligned properly with the PCU.
- Reinstall the remaining parts. Make sure you turn on the battery module switch.
- Reconnect the negative cable to the 12V battery.
- Remove the EPS fuse from the under-hood fuse/relay box.



- Turn the ignition switch ON (II). Make sure the charging system indicator illuminates. Then start the engine, and make sure the charging system indicator goes off.

- With the transmission in neutral and the clutch released, run the engine at 3,500 rpm until the battery level gauge shows at least 50 percent charge.
- Turn off the engine. Reinstall the EPS fuse.
- Center-punch a completion mark above the last character of the engine compartment VIN.

Center-punch here.

JHMZE1XXXXXXXXXXXX

#### Example of Customer Letter

November 2000

### Product Update: Insight Charging System

Dear Insight Owner:

We have sent this letter to inform you of a potential problem with your 2000 Insight.

#### What is the problem?

Your car has a DC-DC converter that is part of the Integrated Motor Assist (IMA) system. The DC-DC converter changes the 144 volts used by the IMA system to 12 volts to recharge the battery that powers the lights, stereo, windows, etc. Its purpose is very similar to the alternator on a conventional vehicle.

The DC-DC converter has built-in thermal protection. It will shut down if it detects that it is overheating, and start up again when it has cooled down. We have found that some converters have defective internal temperature sensors, which will cause them to shut down even though they are not overheated. If the DC-DC converter shuts down, the Charging System indicator on the instrument panel illuminates to tell you the battery is not being charged.

#### What should you do?

Call any authorized Honda dealer at your earliest opportunity, and make an appointment to have your car repaired. They will replace the DC-DC converter with a new unit. *This repair will be done free of charge.*

#### What to do if you feel this notice is in error.

Our records show that you are the current owner or lessee of an Insight involved in this campaign. If this is not the case, or the name/address information is incorrect, please fill out and return the enclosed, postage-paid *Information Change Card*. We will then update our records.

#### If you have questions.

If you have any questions about this notice, or need assistance with contacting a Honda dealer, please call the Honda Consumer Affairs Department at (800) 999-1009.

Thank you for your cooperation. We regret any inconvenience this may cause you.

Sincerely,  
**AMERICAN HONDA MOTOR CO., INC.**  
**Honda Automobile Division**