

Introducing the Hymotion™ L5 Plug-In Conversion Module (PCM)

→ The L5 PCM is a supplemental lithium ion battery installed in the spare tire well of your Toyota Prius as shown in Figure 2. The L5 PCM provides approximately 5 kilowatt hours (kWh) of onboard electrical storage capacity. This additional electrical energy enables the Prius to use pure electric drive more often and for longer distances, resulting in fuel efficiency gains and CO₂ emissions reduction over the standard Prius.

The L5 PCM must be recharged from an electrical outlet or extension cord equipped with GFCI. The L5 PCM does not receive any regenerative charge during driving. When the L5 PCM is charged, the Prius is capable of achieving fuel economy in excess of 100 miles per gallon (mpg) and reducing CO₂ emissions by up to 2/3rds over the standard Prius.

→ The L5 PCM can provide electrical assistance for approximately 30 to 40 miles of driving on a single charge before becoming depleted. Once the L5 PCM's charge has been depleted, the vehicle's operation and fuel economy reverts to that of a regular Prius until the L5 PCM is recharged by plugging in.



Figure 2 L5 PCM location in your vehicle

Key Features

Operating the Prius with the L5 PCM engaged

- Electrically assisted driving range of 30 to 40 miles on a single charge
- Up to 100 mpg or greater city/highway combined fuel economy within the 30 to 40 mile electrically assisted driving range
- Prius resumes standard operation and fuel economy when the L5 PCM is fully depleted or turned off
- Maintains the Prius' Super Ultra Low Emissions Vehicle (SULEV) emissions rating
- Up to 2/3rds reduction in CO₂ emissions
- Prius' Energy Monitor Display indicates the L5 PCM State of Charge (SOC)

Safety

- Safety interlock prevents driving the Prius while charging
- The converted Prius meets the United States federal vehicle crash test safety standards
- Integrated crash sensor electrically isolates the L5 PCM in a collision



Operating Instructions

The L5 PCM is designed to work seamlessly with your Prius' existing drive, control, and display systems. Operate and maintain your modified Prius as you would a standard Prius. Refer to the *Prius Owner's Manual* for vehicle operation and maintenance instructions. Driving with the L5 PCM installed does not require any special driving techniques. The vehicle should be driven in the same manner as a standard Prius.

Turning the L5 PCM On and Off

1. Set the dashboard switch to the up position for On or the down position for Off. See Figure 3 for the location and details of the L5 PCM switch.
2. When the L5 PCM switch is in the On position and the vehicle is in READY mode, the L5 PCM automatically comes online if it has sufficient electrical charge.
3. When the L5 PCM switch is left in the On position, the L5 PCM automatically shuts off when the vehicle is turned off.
4. When the L5 PCM is turned off or if it fully discharges while driving, the L5 automatically disengages and standard Prius operation resumes.

LED Status Light

- Steady = L5 PCM is charged
 - Blinking = Possible L5 PCM problem
- See Chapter 4, Troubleshooting the L5 PCM for more information.

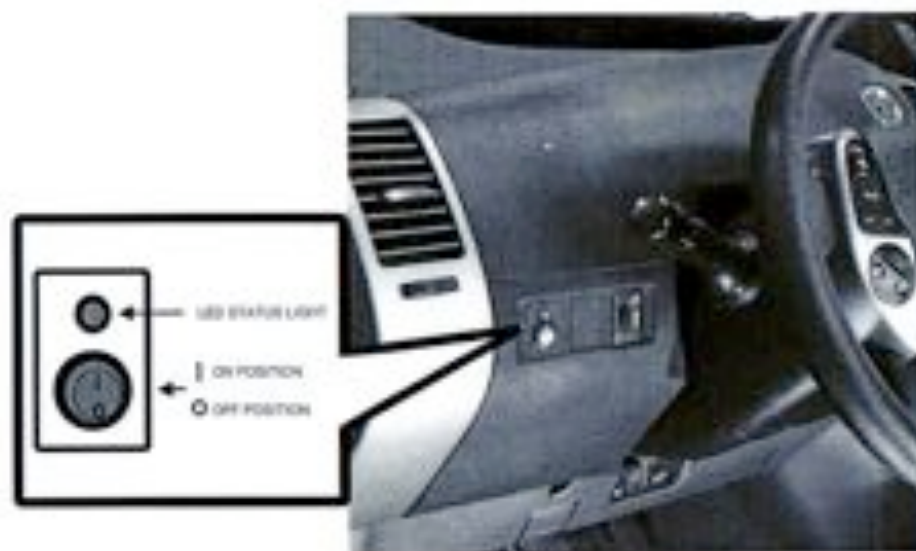


Figure 3 L5 PCM switch

Charging the L5 PCM

To charge the L5 PCM:

1. Verify the vehicle is turned off.
2. Plug an appropriate extension cord into the vehicle's charge port located on the rear bumper as shown in Figure 5 and into an electrical outlet.
3. Watch for the tail lights to illuminate for four to five seconds. This indicates a proper connection. During the charge cycle the tail lights remain dimly lit and go entirely dim when the L5 PCM is fully charged as shown in Figure 6.
 - The L5 PCM can be charged at any time regardless of its State of Charge (SOC).
 - It takes approximately 5.5 hours to charge a fully depleted L5 PCM.
 - The L5 PCM is only charged from an electrical outlet. It will not receive any regenerative charge during the drive cycle.

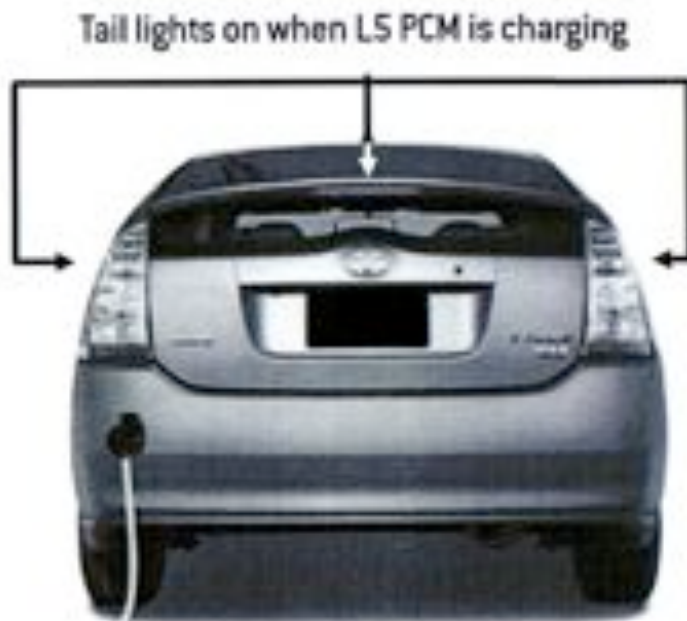


Figure 6 Charging indicators

Product Support and Service

In regular operation the L5 PCM does not require periodic service, inspection or maintenance. However, should product support or service become necessary contact your Green CHIP dealer. For Green CHIP contact information, go to www.hymotion.com or call (508) 497-7398.



Your Prius should be serviced and maintained according to the guidelines recommended in the *Prius Owner's Manual*. The L5 PCM does not need to be disconnected or isolated from the vehicle for Prius service to occur.

A123Systems Hymotion™ Product Support

Call: (508) 497-7398

Email: hymotionsupport@a123systems.com

Hours: Monday through Friday, 10 am to 6 pm Eastern Time