

Enginer Brand[©]

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Toyota Brand Vehicles

Prius / Camry /Lexus CT 200 PHEV Conversion 4 Kwh and 8 Kwh Proposals

4 Kwh PHEV kit

Per your inquiry, please review the 4 Kwh proposals below:

The following 4 KWH Plug-In Add-On Kit description invoice will serve as our proposal /invoice to purchase the solar power generator with Prius / Camry / Lexus CT 200 PHEV conversion kit to qualify.

The following Solar Power Generator and 4 KWH Plug-In Add-On Kit description invoice will serve as our proposal /invoice to purchase the solar power generator with Prius PHEV conversion kit to qualify for the 30% Federal Tax Deduction as per the following description

Enginer Brand 4 Kwh Plug-In System Complete

\$3495.00 one [1] lot Enginer Brand Prius PHEV conversion system 4 kwh kit with 600 W Solar Power Kit w inverter 50w output

\$950.00 Enginer Brand Advanced BMS with Software, Safety Disconnect 300Vdc / 30 Amp Dc output

\$4445.00 Grand Total

Purchase unit today using your credit/debit card

Option purchase GE Credit app 12 months same as Cash

Disclaimer: Please be advised, we am not authorized to provide tax advice, we are providing published information only from the IRS. Contact your tax adviser for exact information prior to purchasing this product.

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Prius / Camry / Lexus CT 200 PHEV Conversion 4 Kwh and 8 Kwh Proposals 8 Kwh

Per your inquiry, please review the 8 Kwh proposals below:

The following 8 KWH Plug-In Add-On Kit description invoice will serve as our proposal /invoice to purchase the solar power generator with Prius / Lexus CT 200PHEV conversion kit

The following Solar Power Generator and 8 KWH Plug-In Add-On Kit description invoice will serve as our proposal /invoice to purchase the solar power generator with Prius PHEV conversion kit to qualify for the 30% Federal Tax Deduction as per the following description

Enginer Brand 8Kwh Plug-In System Complete

\$5495.00 one [1] lot Enginer Prius PHEV conversion system 8 kwh kit with 600 W Solar Power Kit w inverter 50w output

\$1750.00 Two [2] required Enginer Brand Advanced BMS with Software, One [1] Required Safety Disconnect 300Vdc / 30 Amp Dc output

\$7145.00 Grand Total

\$250.00 Shipping

\$7395.00 Grand Total

Purchase unit today using your credit/debit card

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Federal

Incentives/Policies for Renewables & Efficiency

Residential Renewable Energy Tax Credit

Last DSIRE Review: 12/11/2012

Program Overview:

State:	Federal
Incentive Type:	Personal Tax Credit
Eligible Renewable/Other Technologies:	Solar Water Heat, Photovoltaics, Wind, Fuel Cells, Geothermal Heat Pumps, Other Solar-Electric Technologies, Fuel Cells using Renewable Fuels
Applicable Sectors:	Residential
Amount:	30%
Maximum Incentive:	Solar-electric systems placed in service after 2008: no maximum Solar water heaters placed in service after 2008: no maximum Wind turbines placed in service after 2008: no maximum Geothermal heat pumps placed in service after 2008: no maximum Fuel cells: \$500 per 0.5 kW
Eligible System Size:	Fuel cells: 0.5 kW minimum
Equipment Requirements:	Solar water heating property must be certified by SRCC or a comparable entity endorsed by the state where the system is installed. At least half the energy used to heat the dwelling's water must be from solar. Geothermal heat pumps must meet federal Energy Star criteria. Fuel cells must have electricity-only generation efficiency greater than 30%.
Carryover Provisions:	Excess credit generally may be carried forward to next tax year
Start Date:	1/1/2006
Expiration Date:	12/31/2016
Web Site:	http://www.energystar.gov/taxcredits
Authority 1:	26 USC § 25D
Date Enacted:	8/8/2005 (subsequently amended)
Date Effective:	1/1/2006
Expiration Date:	12/31/2016
Authority 2:	IRS Form 5695 & Instructions: Residential Energy Credits

ENGINEER BARND[®]ADVANCED BMS

March 1, 2013 Enginer Plug-In kits BMS supplied directly from Enginer. It requires the driver do nothing while using the car -- no monitoring, no playing with switches, just driving. First time installation can take from one to four hours depending on your skill and tool organization. We recommend it only for people who are comfortable cutting and stripping wires; if not, please talk to your local installer. Please read are user and installation manual below!

Enginer Plug-In kits BMS battery management system, available with two varieties of cell modules and a single Electric Vehicle Control Module.

The shared features are:

- Prevent every cell from under- or over-voltage
- Balance cells during charge
- Automatically reduce throttle to protect the batteries
- Disable the DC/DC converter if it is over-discharging batteries
- Disable charger if is over-charging the batteries

Cell module capable of preventing overcharging or over discharging of a lithium battery cell. It comes in a convenient package capable of fitting any standard prismatic cell from 40Ah through 200Ah, or can be supplied with two ring lugs to mount on any desired battery size.

- Leaves the center of the battery open, allowing you to hold down the batteries with a simple mounting bar!
- Can protect cell up to 400C charging rate
- 1.5 AMP (1500mA) bypass capability -- our competitors are 200mA...
- Thermal limit protection of the bypass circuit
- All parameters are fixed at the factory
- You can request your own high and low set points prior to shipping
- Our recommended parameters are 2.5V-3.9V hard limits, a lower soft limit of 2.8V, a bypass voltage of 3.60V, and a full-charge level of 3.55V
- Signals when full charge is reached
- With our other equipment, supports any charger which will reach the bypass voltage multiplied by the number of cells, so you can choose a charger based on its other features rather than any special curves available
- This cell unit works with our integration board for throttle control, and over/undercharge protection
- The system consists of a relay box that turns the charger and converter off if the batteries are overcharged or over-discharged and two balancer boards that monitor the cells and pass the cell status on to the relay box.

The Cell Logs provide the logic to turn off the charger and converter. Cell Logs also give the voltage read-out and (if you have the 8s version) the Cell Logs can collect and download data. The boards have shunt resistors for each cell that provide the balancing capability of

350mA. This shunting is only done when a cell gets above 3.6v. So any cell that goes high at the end of charge gets drained automatically a little. This balancing is independent of the Cell Logs. Several cells can be shunting at once.

The BMS works on getting the pack better balanced every time it charges. The BMS will eventually bring the pack fully into balance and once it has it in balance it should stay that way.

Leave the AC Power to the charger on overnight, as that is the only way to balance. Don't unplug the system when the first cell reaches the high voltage limit, or it will actually hinder the ability of the balancer to balance out the whole pack. The system is designed to let the balancer cycle the charger on/off on its own until things get balanced out.

The balancer is 8 power resistors with zener diodes, to top balance, plus a CellLog8s. The alarms from the Cell Logs go to the control unit and it turns off the converter and charger. The BMS system will cut off when any cell goes below 2.7V. Rarely will the converter shut off due to its own low-voltage detection circuit.

During charging, the new BMS cuts off the charger at HVC by opening the AC power to the charger. Balancing begins at 3.6v per cell, HVC voltage is set in the cell log at 3.9V HVC cut-off.

The resistors on balancing cells are warm (even hot to the touch). There is a fairly wide tolerance on the balance voltage; as well it turns on balancing gradually. If individual cells are getting to 3.8V+ without getting warm, then the balance circuit is broken. Otherwise, they are just fine.

Enginer Brand © Safety Disconnect
300 vDC 40 Amp

