


No cords.  
No plugs.  
No hassle.

Charging your  
electric vehicle is  
perfectly simple with  
Plugless Power.™



Plugless Power™  
*unleash your EV.*



A close-up, low-angle shot of the front of a white car. The focus is on the black honeycomb-patterned grille and the tread of the front tire. The car is parked on a light-colored, textured surface, possibly a garage floor. The background is a blurred outdoor scene with a green field and a clear sky.

All you have to do is park your electric vehicle (EV) in your garage, and Plugless Power does the rest.

It's truly that simple. You'll never get dirty and frustrated fighting with a heavy, twisted, kinked-up power cord or forget to plug in your EV for a charge. You've freed your car from the gas pump. Now set it free from the charging cord – with Plugless Power.



## The science behind wireless charging

Plugless Power uses inductive power transfer to replenish your EV's battery – the same process used by common household devices like electric toothbrushes. Originally discovered in 1831, electromagnetic induction does not transfer live power across an air gap. Instead, the system leverages magnetic fields to safely transfer power between two coils – one in the Plugless Power parking pad on the floor of your garage and one that's installed in an adapter on your EV.

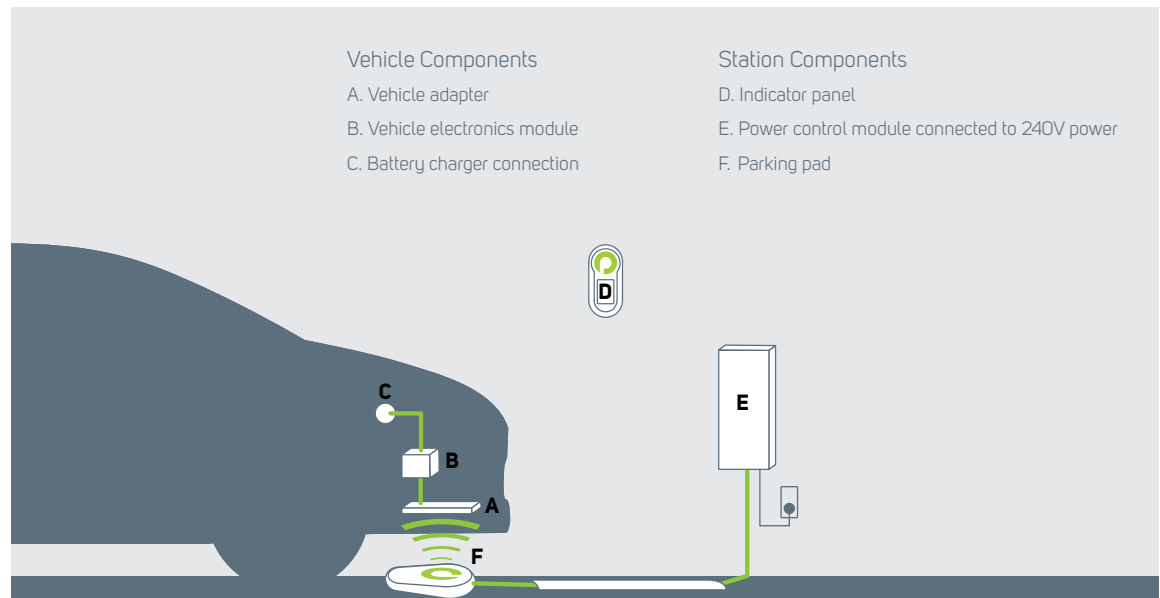
## Totally hands-free charging

**Step 1:** The Plugless Power system recognizes your EV from approximately 50 feet away. As you enter the alignment zone – the last five to 10 feet – the system provides parking guidance. When your EV is optimally positioned over the parking pad, you will receive confirmation that the system is ready to charge your car.

**Step 2:** Using a communication system based off the SAE J1772 protocol used in corded systems, your vehicle wirelessly communicates it is ready to charge. After it receives this signal, the Plugless Power system begins charging automatically. The indicator panel communicates charging status.

**Step 3:** When your vehicle is fully charged, the system stops charging. And if you need to leave before charging is finished, simply back up and the system will turn off. There's never any exposed electricity, so the system is completely safe. And best of all, you didn't have to do a thing, except park.

*If you need a charge while you're out and about, you can still plug in your vehicle with a traditional corded system.*



# Simple installation and vehicle integration

Plugless Power will be available as a dealer-installed feature on new EVs or as a retrofit system for your car.

- > Request that your dealer equip your newly purchased car with the necessary adapter or visit a certified installation partner to have your EV retrofitted with the system.
- > The system adds less than 10 pounds to the weight of the vehicle and is wired directly into the existing onboard battery charger.
- > The vehicle adapter is installed on the undercarriage of your car based on available space and surrounding components.
- > The dealer can wrap the purchase price and installation costs into your vehicle purchase or lease.
- > Within 24 hours of your purchase, the Plugless Power customer service network will contact you to schedule an appointment to set up your charging station and assist you with the necessary local permits.
- > A Plugless Power technician will install your charging station using a standard 240V outlet – the same voltage that your clothes dryer uses – and walk you through the charging process.
- > Maintenance and service will be provided through the Plugless Power customer service network.



Evatran, the developer of Plugless Power (patent pending), and its partner, Yazaki North America, a subsidiary of the world's largest supplier of automotive electrical distribution systems, are working with automotive manufacturers to integrate Plugless Power into new EV models.

Through the partnership, Yazaki will focus on the design of the system's vehicle components and any necessary integration

parts. Additionally, Yazaki will provide the necessary automotive testing to ensure the system has the highest level of safety and robustness.

Virginia-based Evatran will focus its efforts on designing, manufacturing, and installing the charging station. Evatran's parent company, MTC Transformers, has used the principle of electromagnetic induction for more than 25 years in the design and manufacture of electrical transformers for

corporations and governments, including Long Island Rail Road (LIRR), the U.S. Navy, and Siemens. Currently, Evatran is the only wireless charging developer solely focused on developing systems for EVs.

The combination of Evatran's expertise in electromagnetic induction and Yazaki's experience in automotive components will help ensure drivers everywhere can unleash their EVs.

## Bringing Plugless Power to your EV

### Benchtop demonstration systems now available.

Evatran aims to have automotive manufacturers integrate Plugless Power into their EVs. Demo systems enable automotive manufacturers to see performance data and basic functionality, including:

- > Efficiency and power transfer
- > Alignment
- > Object detection
- > System communication

Evatran's engineering team is available to provide integration guidance and assist with installation needs.

### Now, fleet customers can experience perfectly simple EV charging.

Put an end to the hassle by being one of the first to trial Plugless Power. Evatran is focusing its first installations on the Chevrolet Volt and is looking for early partners. During the fourth quarter of 2011, five to 10 systems will be released for trial and an additional 20 to 30 systems will be released in early 2012.

### As a participant in the trial program, you will:

- > Receive vehicle integration services and charging station installation support
- > Influence the design of the Plugless Power Aftermarket Package
- > Be included in marketing efforts and showcased at the Volt Retrofit Launch

In March 2011, Google™ became the first company to trial Plugless Power trial at its Mountain View, CA headquarters. Their EVs are currently used for short-range travel around their campus and as part of the company's employee car-sharing program.

For more information on the Plugless Power demo systems or the fleet trial program, email [info@evatran.com](mailto:info@evatran.com) or call 276.228.7911.



## Technical Specifications

System Description:	SAE Level II EVSE
AC Power Input:	240V, 30A
Rated Power Output:	3.3kW
Transfer Efficiency:	90%
Drive Over Capacity:	5,000 pound vehicle
Weight Added to Vehicle:	<10 pounds
Compliance Standards:	ICNIRP, NEC 625, UL 2231

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