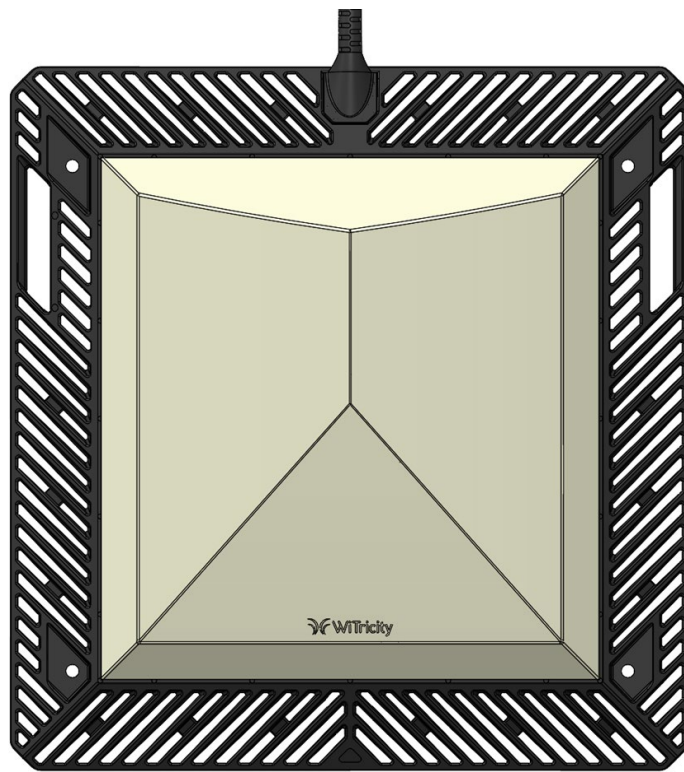




WiTricity Halo™ Power Hub



Installation & User Manual

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Experience Charge Happy™

WiTricity is the pioneer in wireless charging for electric vehicles, leading the development and implementation of magnetic resonance technology across passenger and commercial vehicles alike. Automakers and Tier 1 suppliers rely on WiTricity to help accelerate the adoption of EVs by eliminating the hassle of plug-in charging and setting the stage for future autonomy. Now, Neighborhood Electric Vehicle manufacturers are doing the same.

Product Description

The WiTricity Halo™ PV Wireless Power System allows golf carts to be charged wirelessly. This includes Neighborhood Electric Vehicles (NEV), Personal Transportation Vehicles (PTV), Industrial vehicles, and golf cart fleets that have been enabled for wireless charging.

The system consists of a Power Hub with optional risers, a riser installation template, a wheel guide installation template, and a wheel guide.

Your golf cart will need to be configured with the Power Receiver by your dealer or directly from the golf cart manufacturer.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WARNING: Failure to follow these safety instructions could result in fire, electric shock, injury, or damage to the Power Hub or other property. Read the entire document and all the safety information below before using the Power Hub.

- Do not touch or put your fingers on any parts of the wireless power system while in use.
- Only connect the Power Hub to a properly grounded 120 VAC outlet/ receptacle.
- Do not use this product with an extension cord.
- Do not bundle the power cord.
- Only use attachments or accessories specified by WiTricity.
- Do not place any objects or devices on the Power Hub or between the Power Hub and receiver while in use. Do not store any objects or devices under the Power Hub. Keep area around the breather vent free of obstructions.
- For best results, install the Power Hub and its accessories in covered locations on flat surfaces made of concrete or asphalt.

 **CAUTION:** Risk of electric shock, do not tamper with the Ground Fault Circuit Interrupter (GFCI) adapter (plug end of cord). Doing so could lead to injuries or electric shock.

- Children should be supervised when around this device.
- Do not use the Power Hub if broken, cracked, or if it shows any signs of physical damage. Immediately contact WiTricity Customer Support at customersupport@witricity.com.
- Do not use this product if the cord is frayed, has broken insulation, or any other signs of damage.
- The Power Hub must not be modified or adjusted in any unauthorized manner. Do not attempt to repair the Power Hub or change its height. The installation template (and risers if applicable) is provided for your specific vehicle and should not be changed in any way. The wireless charging system will not provide more power, nor will it operate more efficiently at closer distances!
- The product is designed to operate optimally within the following temperatures: -4°F to 104°F (-20°C to 45°C). Outside of this temperate range, it may not deliver full power.
- This product is rated at 120V, 12A. The product must be connected to a dedicated 120V 15A minimum circuit.
- Do not use water jets (hoses, pressure washers, etc.) to clean the Power Hub.
- Refer all servicing to qualified service personnel. Do not attempt to repair or service the unit yourself. Only authorized and qualified personnel are allowed to do so. Disassembling the Power Hub may damage it and may cause injury to you. If your Power Hub is damaged or malfunctions, contact WiTricity at customersupport@witricity.com.
- Do not remove any identifiers, such as security signs, warning instructions, nameplates, labels, or cable markings.
- Metallic materials or objects may heat up if left on the Power Hub or Power Receiver. If any metallic materials come in contact with the Power Hub during operation, unplug the Power Hub and wait several minutes before checking the temperature of the material and removing it from the Power Hub.

The WiTricity Halo™ Power Hub must not be used with any other wireless charger or wireless receiver. Do not attempt to charge other devices or cell phones with the Power Hub at any time.

RF EXPOSURE WARNING

- The Power Hub meets the requirements of IEEE C94.1-2019, Safety Levels for Human Exposure of Electromagnetic Fields when used in accordance with instructions.
- Keep all cardiac implantable electronic devices, including pacemakers, more than roughly 16 inches (40 cm) from all parts of the Power Hub when powered on. Do not lay on or next to the Power Hub at any time. Medical devices such as pacemakers, defibrillators, and other implantable devices may contain sensors that respond to fields in close proximity. Consult with your physician and device manufacturer for more specific guidance.
- The Power Hub utilizes near-field radio frequencies at 85 kHz for wireless power transfer. The exposure reference level is tested at 7.87 inches (20 cm) or less from the Power Hub. Always maintain a minimum distance of 8 inches (20 cm) from the Power Hub when plugged in.
- Do not crawl or reach underneath the vehicle during charging.
- Do not attempt to move or adjust the Power Hub or any of its accessories while plugged in.

Regulatory Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

What's in the Box?

Power Hub Box

- WiTricity Power Hub
- Wheel Guide
- User and Installation Guide

Accessories Box

- Risers
- Adhesive Attachments
- Installation Templates
- Alignment Strip
- 5/16" Allen Key

Parts Supplied with the Product

Installation with Risers

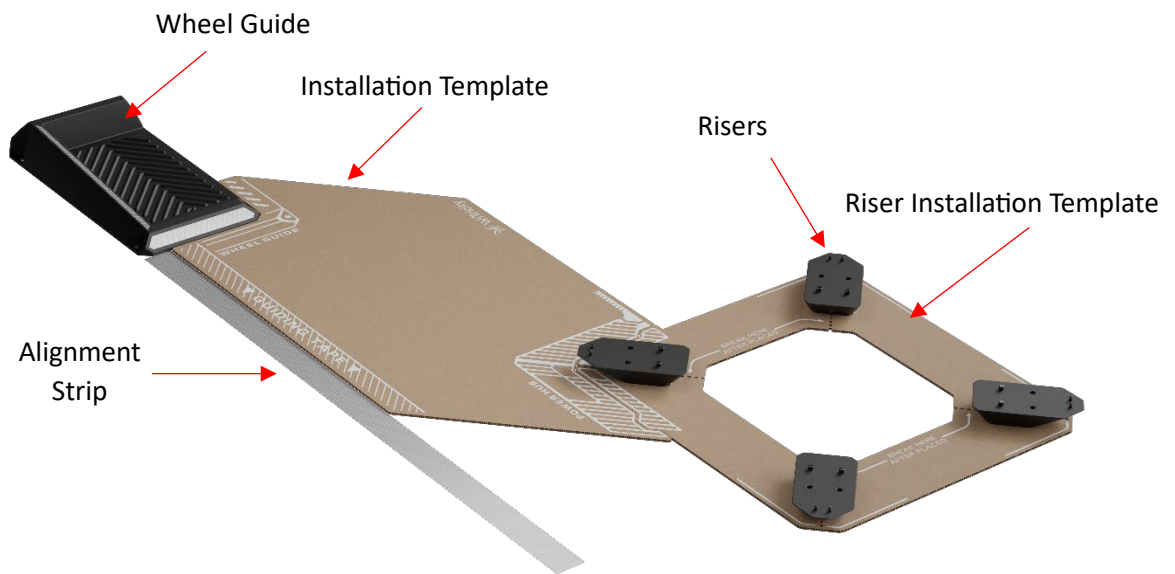


Figure 1

Installation without Risers

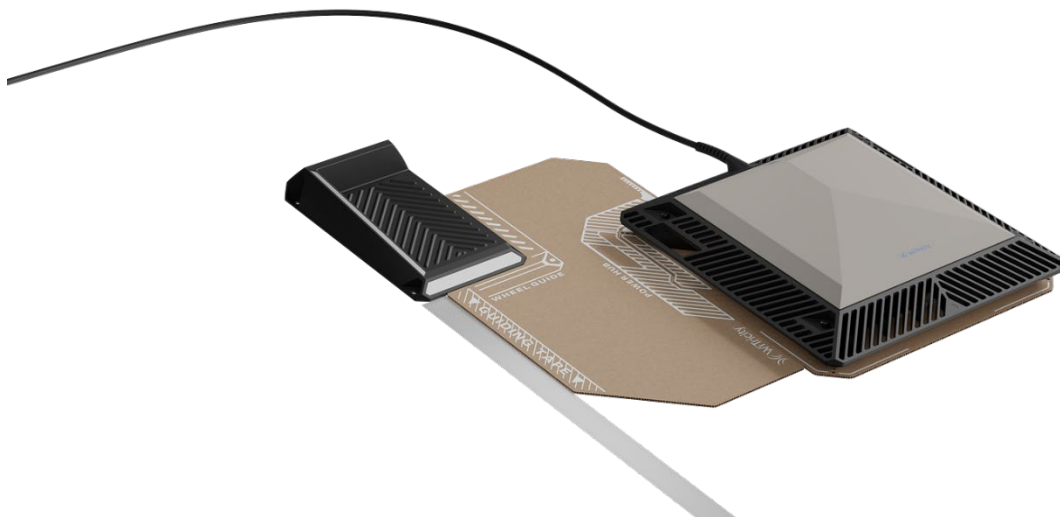


Figure 2

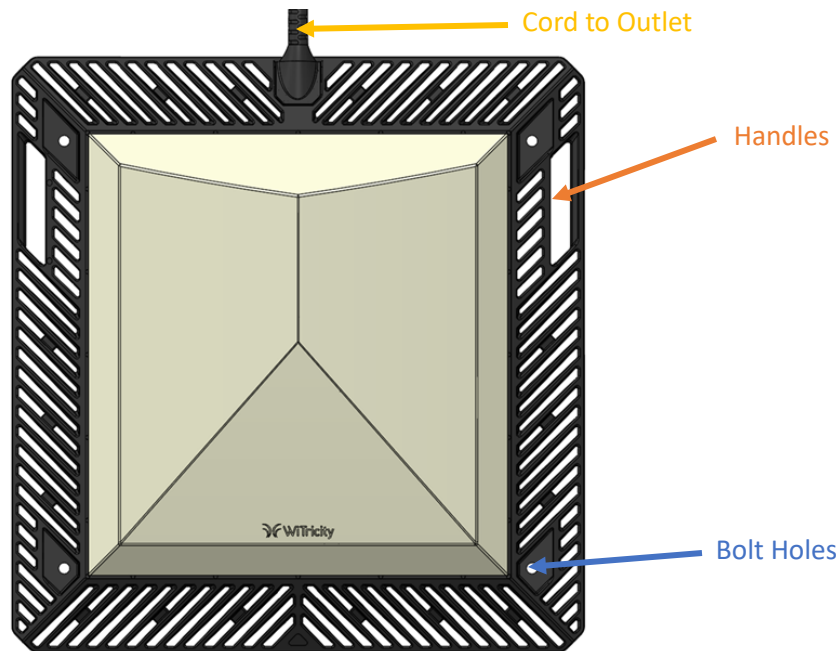


Figure 3

Tools Required

- 5/16" Allen key
- Painter's tape or temporary marking utensil (e.g., pencil) (not included)

Installation Procedure

1. Choosing location

When choosing the parking location of your golf cart, ensure that there is access to a dedicated 120V outlet. Keep in mind that the cord is 15 feet long.

Note: Be sure to clean and dry the mounting surface to ensure no dirt and debris before proceeding.

Determine the parking location of the vehicle by parking it in the desired location. Make sure there's sufficient space in the front, back, and sides of the vehicle. This is where the Power Hub will be installed in your parking space.

1. Place the Wheel Guide next to the front left tire as shown below in Figure 4. The Wheel Guide sets the location of where the vehicle will be parked to charge, so ensure this is where you want the vehicle to be located.
2. Use the front of the Wheel Guide as a reference to place a piece of painter's tape or other mark along the front edge of the driver's side front tire as seen in Figure 4 below. Move the wheel guide away from the wheel and place a piece of painter's tape or other mark to indicate the edge of the wheel as seen below in Figure 5.



Figure 4

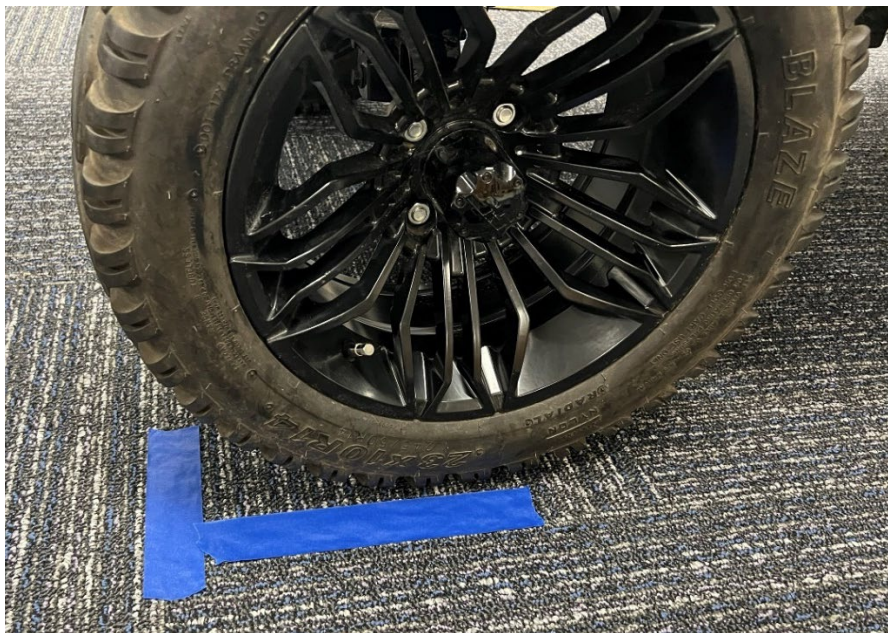


Figure 5

3. Back the vehicle out to allow plenty of room to complete the installation.
4. Move the Wheel Guide to its final position using the marks you made earlier to locate it.
5. Drive back over the Wheel Guide before peeling off the tape to ensure it is in an ideal location, then back the vehicle out. *Note: The Wheel Guide is difficult to reposition after the adhesive is applied, so be sure the Wheel Guide is where you want it.*

6. Carefully remove all dirt and debris where the Wheel Guide is to be placed. Clean the area well with cleaning techniques most appropriate for the type of surface. For smooth surfaces, finish cleaning with isopropyl rubbing alcohol and wipe dry with a clean lint-free rag.
7. Once the Wheel Guide is in place, pivot the wheel guide up and remove the backing from the adhesive.
8. Rotate the Wheel Guide back in place and press down firmly for one minute or longer to ensure it properly adheres to the mounting surface. *Note: For best adhesion results, leave the vehicle on the wheel guide overnight without movement.*

2. Place Templates

1. Place the Installation Template down aligning the cut out in the template with the Wheel Guide as shown below in Figure 6.
2. The alignment strip will be placed along the edge of the template marked "Guiding Tape." Using the same technique as for the Wheel Guide, clean the surface where the Guiding Tape will go, then peel off the backing and place the alignment strip on the ground as shown in Figure 6 below. Pull the alignment strip taut to allow the strip more easily to be placed in a straight line. Press down on the alignment strip to ensure there is good contact to the mounting surface.

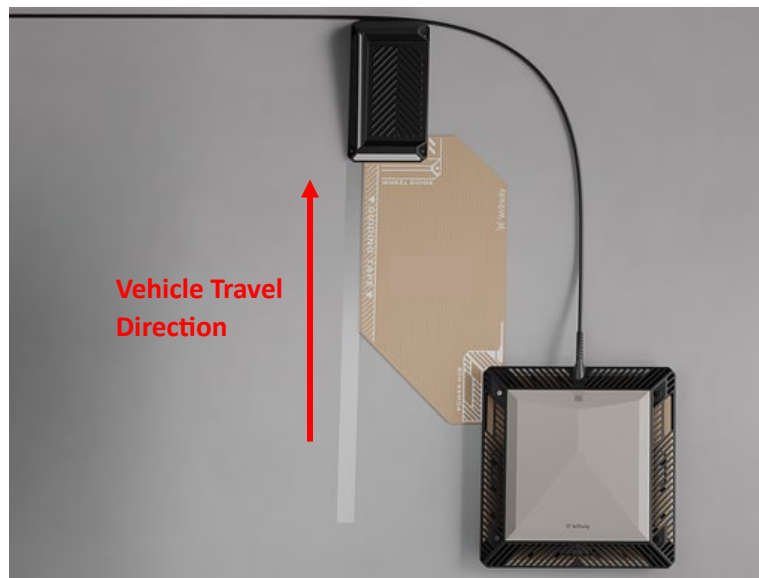


Figure 6

For Installation with Risers:

Place supplied Riser installation template down to align with the Wheel Guide installation template. Refer to Figure 1 if necessary. Be sure to not leave any gaps when fitting the Installation and Riser Templates into the indented corners. Place each of the four risers onto their respective locations within the Riser installation template.

3. Secure Power Hub

▲CAUTION: The Power Hub is heavy and is recommended to be lifted using the handles by two people. Never lift or grab the cord to move the Power Hub.

For Installation with Risers:

To secure the Power Hub to the risers, place the Power Hub on top of the four risers, making sure they snap into the two locators on each riser. The Power Hub should be oriented so that the cable will exit the top of the Power Hub, with the WiTricity logo as the bottom side, as seen in Figure 6 above. Install one bolt in each riser using a 5/16" Allen key to secure the Power Hub to the risers.

To secure the Power Hub to the floor, tilt on its side to remove the adhesive strips from the bottom of the risers. It is recommended that two people are utilized to lift the Power Hub into position. To ensure the Power Hub is properly placed, make sure the Riser Installation Template is in proper position and the four risers are lined up with the cut outs in the template. Once the risers are lined up properly with the cut outs of the template, press down and hold for one minute to ensure the Power Hub sticks to the surface.

For Installation without Risers:

At the underside of the Power Hub, snap the four Adhesive Mount Attachments into the holes on each corner. Reference Figure 7 below.

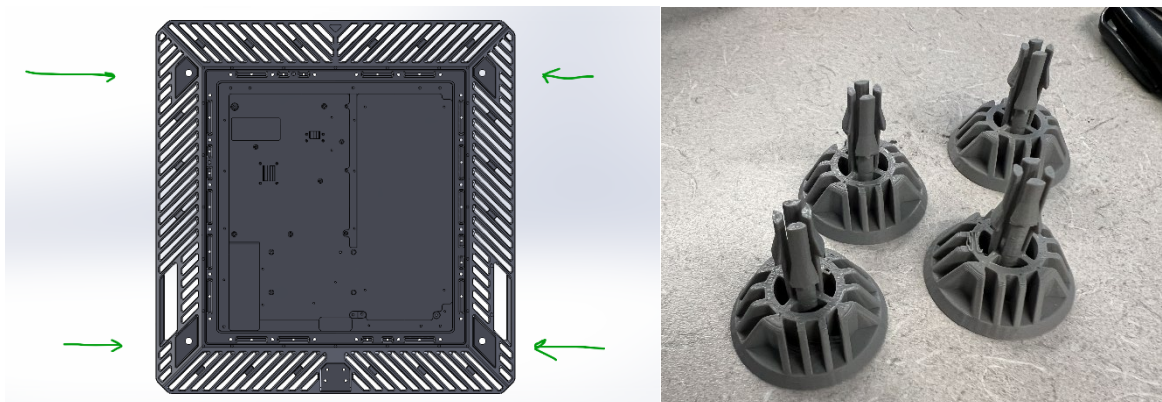


Figure 7

The Power Hub should be oriented so that the cable will exit the top of the Power Hub, with the WiTricity logo as the bottom side, as seen in Figure 6 above. Be sure to not leave any gaps when fitting the Power Hub into the indented corner of the Wheel Guide Installation template.

Once the Power Hub is positioned properly, secure the Power Hub to the floor by peeling off the adhesives on the bottom of the attachments. Press and hold for one minute to ensure the Power Hub sticks to the surface.

4. Plug in Power Hub

1. Unwind the Power Hub cable and place it next to the desired AC outlet.
2. Remove both installation templates. These can be stored for future use.
3. Route the cord carefully to avoid it being a trip hazard. If desired, snap into cord grip (Figure 8) on wheel guide to secure the cord neatly towards the outlet.



Figure 8

4. Plug the Power Hub into the nearest wall outlet.

5. Testing and Completion

Test installation by parking the golf cart on top of the Wheel Guide and confirming that the golf cart starts charging. (Each golf cart manufacturer will have their own unique way to display charging.) *Note: We recommend that you practice parking several times to get comfortable with the process and to ensure that charging starts consistently.*

Usage

Drive your wireless charging-enabled cart over the Power Hub and align the left front tire with the Wheel Guide. The left side of the tire wall should ideally be touching the inner edge of the Wheel Guide. Charging will begin automatically and will display on the indicator in the vehicle itself. Charging time will depend on the size and type of your battery, as well as the amount of energy required to reach full charge.

Note: If instructions are followed properly, the cart will align and charge correctly.

The Power Hub will only activate charging once a golf cart equipped with a wireless charging receiver is above it and has initiated a request to start charging. Charging will continue until charging reaches 100% or the vehicle is moved.

The Power Hub will automatically enter a standby mode when the vehicle with wireless charging receiver is not present. When storing the Power Hub for long periods of time, we recommend unplugging the unit.

Maintenance

The owner or user is responsible for the maintenance of the Power Hub.

Dirt on the outside of the Power Hub can be cleaned off using a soft damp cloth and water. Do not use chemicals or strong soaps to clean the Power Hub as this may degrade its water seal. Do not use water jets (hoses, pressure washers, etc.) to clean the Power Hub.

Regularly check for damage to the housing. If you notice any damage, please unplug the unit and contact WiTricity Customer Support at customersupport@witricity.com

Customer Support Information

Please contact WiTricity Customer Support at customersupport@witricity.com if you are having difficulties.

Limited Warranty

This Limited Warranty for WiTricity Halo™ Power Hub (“Warranty”) applies to you, the original purchaser of a new Power Hub from WiTricity. This warranty is not transferrable and is valid for purchasers located in the U.S.A. and Canada only.

LIMITED THREE-YEAR PARTS EXCHANGE WARRANTY: Subject to the exclusions from Warranty coverage set forth below, WiTricity warrants that, when used under normal operating conditions, your charging station will be free from any defects in materials or workmanship for a period (the “Warranty Period”) of three (3) years from the date of original purchase. If, during the Warranty Period, your charger becomes defective in breach of the Warranty, WiTricity will, upon written notice of the defect received during the Warranty Period, either repair or replace the charger. The Warranty covers both parts and factory labor necessary to repair your Power Hub but does not include any on-site labor costs related to un-installing or reinstalling the repaired or replacement Power Hub.

IMPORTANT

1. You are responsible for the proper installation and maintenance of the Power Hub including the removal of any defective Power Hub and the installation of the repaired or replacement Power Hub returned to you.
2. Any service or repairs beyond the scope of the Warranty above will be performed upon customer approval at WiTricity’s then prevailing labor rates and other applicable charges.
3. Any Power Hub that is found by WiTricity to be out-of-warranty or otherwise ineligible for warranty service will be returned, repaired, or replaced upon your approval at WiTricity’s standard charges at your expense.
4. Please read carefully through the detailed descriptions of the WARRANTY, the EXCLUSIONS FROM LIMITED PRODUCT WARRANTY, and the LIMITATIONS ON WARRANTY AND LIABILITY on the following pages to assure that your Power Hub is eligible for warranty service without additional cost to you.

Exclusions from Limited Product Warranty

IMPORTANT: The Warranty on your Power Hub shall not apply to defects or service repairs resulting from the following: Improper site preparation or maintenance, improper installation, cosmetic damage such as scratches and dents, or normal aging.

- Abuse, vandalism, damage, or other problems caused by accidents, misuse, or negligence (including but not limited to physical damage from being struck by a vehicle), or use of the Power Hub in a way other than as specified in the applicable WiTricity documentation.
- Damage to the Power Hub caused by software, interfacing, parts, supplies, or any other product not supplied by WiTricity.
- Installation, alteration, disassembly, modification, or relocation of the charger that was not approved in writing or by WiTricity or performed by WiTricity or by a licensed electrician pursuant to this guide.
- Damage as a result of extreme power surge, extreme electromagnetic field, or any acts of nature. Any other causes beyond the control of WiTricity.
- Use of the charger in conjunction with any non-genuine WiTricity accessory or part.

IN ADDITION: The Warranty on your Power Hub shall not apply if the original identification markings (for example, serial numbers and trademarks) have been defaced, altered, or removed.

FCC Compliance Statement

This device complies with part 18 and part 15 subpart c of the FCC Rules. Operation is subject to three conditions: (1) This device may not cause harmful interference, (2) this device must accept any interference received, including interference that may cause undesired operation, and (3) this device must be operated in accordance with the provided instructions – specifically users must remain at least 20 cm (~ 8 inches) away from the device during operation.

Note: This equipment has been tested and found to comply with the ISM equipment limits in Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the provided instructions, may cause unintended harmful interference to radio communications. Due to a wide variety of installation scenarios, there is no guarantee that interference will not occur for a particular installation. It can be reasonably determined if this equipment causes interference by unplugging it and plugging it back in to see if interference continues for radio or television reception when plugged in. If this equipment does cause interference to radio or television reception, the user is encouraged to attempt to correct the interference using one or more of the following options:

- Increase the distance between the equipment and the receiving antenna on the radio and/or television.
- Relocate or change the orientation of the receiving antenna on the radio and/or television.
- Ensure that the equipment is attached to a different circuit than the one being used for the radio and/or television.
- Consult a radio expert, dealer, or technician for help resolving interference concerns.

Any changes made to this product not authorized by WiTricity might void the Electromagnetic Compatibility (EMC) or increase RF Exposure levels that have been validated. Unauthorized changes could negatively affect your authority to operate this product.

This product utilizes shielded cabling for connection to the public utility. No modification or extension of this cabling is authorized to ensure appropriate compatibility.