FABRICATOR UNIVERSITY

Wilsonart

WILSONART® Solid Surface

WILSONART LINKCHARGE™ CHARGING STATION

INTRODUCTION

Any fabrication procedure or technique not contained within the Wilsonart® Solid Surface Fabrication Manual will not be recognized by Wilsonart, LLC as an approved method of fabrication. Deviations from these techniques must be approved in writing by a Wilsonart Representative.

General Safety:

Safety is a critical concern for any shop and key to a successful business. The following safety rules should be incorporated into your safety program to help prevent an accident. Safety training, knowledge, product use and environment are the responsibility of the facility owner and the shop employees.

CAUTION: Always follow product, equipment and/or tool manufacturer's recommendations and instructions carefully.

- Read directions carefully before fabricating/installing Wilsonart® Solid Surface.
- Read and follow the instruction manual before operating the different tools.
- Keep all guards in place and in working order.
- Ensure all tools are properly grounded. Never remove the third prong.
- Keep work area clean, uncluttered and well lit.
- Don't use electric power tools in a damp or wet work area.
- Keep visitors at a safe distance from the work area.
- Use the right tools. Don't force a tool or attachment to do a job it was not designed to perform.
- Always use safety glasses or approved eye protection and/or face shield, ear/noise protectors and safety shoes. (FIG. 4A & 4B)
- Wear the proper apparel, no loose clothing or jewelry.
- Secure all work with the proper clamp or vise to a stable work surface.
- Don't overreach. Keep proper footing and balance at all times.
- Maintain tools in top condition. Disconnect tools before servicing and when changing accessories such as blades, bits, cutters, etc.
- Keep and use denatured alcohol, adhesives and materials in a safe, ventilated place.
- Dust collection should be used when cutting, routing and sanding. Tools should be used with dust collection at all times.

Figure 4A

Figure 4B

Wilsonart® Hard Surface Adhesive:

- Wilsonart® Hard Surface Adhesive is for professional use only. Always follow the manufacturer's recommendations and instructions carefully. (FIG. 5A)
- Warning: This seam kit contains the following hazardous ingredients: Methyl Methacrylate, Benzoyl Peroxide, and Dibutyl Pathlate. Avoid prolonged breathing of vapors. Use only in a well ventilated area. Keep out of reach of children. Eye protection is always recommended. Motors and other equipment used in the fabrication and installation process must be UL labeled explosion proof.
- For further information refer to Wilsonart® Hard Surface Adhesive Material Safety Data Sheet available on request. Contact your local distributor or call 1-800-433-3222 for immediate response.

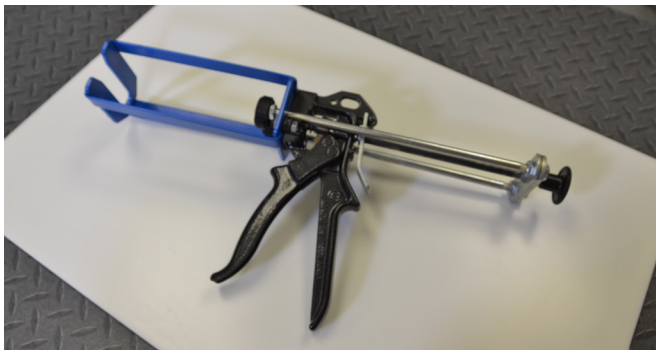

Figure 5A

FAB TIP:

- For Wilsonart Solid Surface hard seam design color chart, refer to www.wilsonart.com

INTRODUCTION

Product Information:

Wilsonart Engineered Charging Surfaces becomes the solid solution when the need to charge your wireless Smart Phones or Smart Pads. There are several charging options to pair Wilsonart Engineered surfaces with in the market today, the following are Wilsonart's recommends with Laminate, Solid Surface, and Compact surfacing products in residential and commercial applications.

Product Charging Descriptions:

LinkCharge™ - CT Infrastructure Wireless Charging System

This infrastructure transmitter module is a complete self-contained system and contains a custom controller for managing the Qi or PMA protocol and charging functions. During the pairing process with a WPC Qi 1.2 compatible receiver above the transmitter coil, the module implements a WPC 1.2.1 wireless system with power output up to 15W.

The transmitter will automatically adjust the charging power, based on the requirements of the receiver.

Features

- Supports Qi, PMA and proprietary charging applications
- Power output up to 15W
- Easily mounts under counter or in most non- metallic furniture surfaces
- Determines correct wireless power protocol depending on the receiver
- Requires a 19V @ 2A DC input supply
- Can be daisy-chained on a single power supply for multi-site charging
- LED indicators for power on, charging and error conditions

Specifications

- PMA SR1 compatible
- Compatible with fast charging phones
- 15W power output
- Charges portable devices through up to 10 mm of material thickness

Minimum Spacing

LinkCharge™ - CT Infrastructure Wireless charges portable devices through up to 25/64” (10 mm) of material thickness.

GENERAL SAFETY

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Safety Guidelines:

Dust mask must be worn at all times and always follow U.S. regulations for proper ventilation - Wilsonart Wireless Charging Station dust contains silica which can be hazardous to one's health. Always shape and cut material with wet tools, reducing the amount of airborne particles to be inhaled.

Protective Wear:

Wearing an approved face mask is recommended when fabricating Wilsonart Wireless Charging Station. Wilsonart Wireless Charging Station dust contains silica, which is dangerous when inhaled. Always cut and polish Wilsonart Wireless Charging Station with wet diamond tools and take appropriate measures to provide efficient ventilation in the work area.

CAUTION

- Read Wilsonart Wireless Charging Station Installation Guide carefully before fabricating or installing Wilsonart Wireless Charging Station.
- Refer to Wilsonart Wireless Charging Station SDS sheet at www.wilsonart.com or click here for detailed information regarding material composition, precautions and other critical safety information before handling or fabricating Wilsonart Wireless Charging Station.
- Always use safety glasses or approved eye protection and/or face shield, ear/noise protectors, and protective work gloves.
- Dust mask must be worn at all times and always follow U.S. Regulations for proper ventilation.
- Always use safety toe work shoes.
- Always follow product, equipment and/or tool manufacturer's recommendations and instructions carefully.
- Keep all guards in place and in working order.
- Insure all tools are properly grounded, don't use tools in dangerous environments. Never remove the third prong and be cautious with tools exposed to water and moisture.
- Keep work area clean, uncluttered and well lit.
- Keep visitors at a safe distance from the work area at all times when installing Wilsonart Wireless Charging Station.
- Use the right tools. Don't force a tool or attachment to do a job it was not designed to perform.
- Wear the proper apparel, no loose clothing or jewelry.
- Maintain tools in top condition. Disconnect tools before servicing and when changing accessories such as blades, bits, cutters, etc…
- Secure all material with the proper clamp or vise to a stable work surface.
- Don't overreach. Keep proper footing and balance at all times.
- Keep and use denatured alcohol, adhesives and materials in a safe, ventilated place.

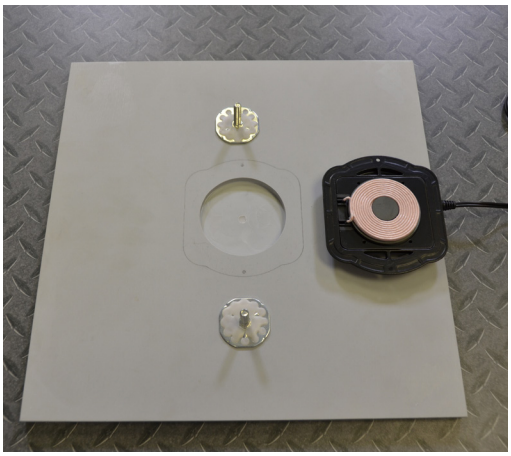
FAB U

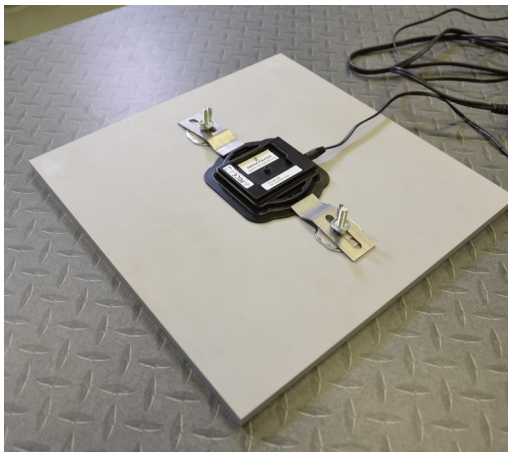
Hazards Identification:

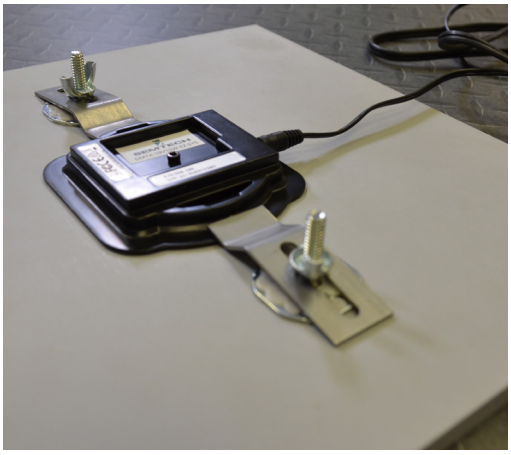
Potential Health Effects Include

Acute Eye: Product in finished form does not present a health hazard via this route of entry. Dust and flying particles generated during cutting, grinding and forming may cause irritation and injury

- Acute Skin: Dust generated from this product may cause skin irritation.
- Acute Ingestion: Not considered a potential health hazard via this route of entry. This product may cause gastrointestinal irritation if dust is swallowed.
- Aggravation of Pre-existing Conditions Not Determined.







INSTALLATION

Electromagnetic Considerations:

Locate the charger at least 1" (25 mm) from any support structure. Assure that no metal is present above the transmitter unit. Provide at least 11/2" (36 mm) of clearance above the charger, and 1" (25 mm) below the unit. If multiple chargers are present, allow at least 6" (150 mm) spacing between each.

Identifying The Location of The Charging Point:

Since efficient power transfer relies upon close coupling of the receiver with the transmitter, it is important that the user be able to accurately locate their handheld device directly above the transmitter for charging. As such, consideration should be given to providing some form of location guide on the counter top. The prominence and styling of these visual guides is a matter of installer preference, and should take into consideration the needs of the end user. In a setting where the installation will be well known to a limited number of users, a subtle or even temporary location guide may be sufficient. In settings where users won't be familiar with the location of the charging site, a more prominent marking would likely be preferred, both to identify the availability of the site and the optimal placement for the handheld device to be charged.

Mechanical Details:

The charger should be mounted to the underside of a counter top. The installer should verify that the power and micro USB ports are accessible after installation, and should plan for the routing of the DC power supply cable. The installer should also plan for the mounting of the included power transformer. Lastly, the installer should plan for the routing of the AC cable from the transformer to an available AC outlet.

Testing the Charger:

Before installing the transmitter, verify its functionality:

1. Apply power and check to see that the green LED blinks once.
2. Place a 1/4"- 3/8" (6 to 10 mm) spacer above the charger coils: - spacer can be made of any non-metallic material desired, e.g.: plastic, wood, cardboard, etc.
3. Place a compatible handheld device over the spacer and verify that the device indicates charging has commenced.

FABTIPS: Never place a receiver in direct contact with the transmitter coil. The minimum allowable spacing is 1/4" (6mm). Placement closer than this could damage the receiving device and must be avoided at all times. Once installed, this concern is eliminated, but the installer must take this concern into account when testing the device prior to installation.

Routing:

The transmitter coil must be located between 1/4" - 5/16" (6 and 8 mm) below the top of the counter to provide the correct transmitter to receiver spacing. In most cases, this will require milling a cavity into the underside of the counter into which the charger can be mounted to achieve the correct spacing.

FABTIPS: Avoid putting transmitter near locations where the device being charged may get wet, exposed to heat or other conditions which may damage charging device.

After the pocket is milled out, test-fit the charger and verify that there will be clearance for the power and USB connections.

FAB U

Mounting:

Clean the milled area along with the surface the transmitter flange will sit with a white cloth dampened with denatured alcohol. The flange will set slightly above the surface when the coil is in contact with the cavity surface. Attach the transmitter to the solid surface with 100% silicone adhesive. Place dime size dabs at each corner. Use clear or translucent adhesive, avoid contrasting or dark colored silicone. Hot melt adhesive may be used to hold the transmitter in place while silicone cures.

Rotoloc stems, sink clips, wing nuts and WA Solid Surface adhesive can be used for a more permanent mount. Clean the milled area along with the surface the transmitter flange will sit with a white cloth dampened with denatured alcohol. Two Rotoloc stems will be enough to securely mount the transmitter. Use a colored matched WA Solid Surface adhesive and apply a quarter sized dab to each location. Place each Rotoloc on top of dabs and slightly press into adhesive. Allow adhesive to cure. Use sink clips and wing nuts to secure the transmitter.

WIRING:

The transmitter kit includes a power supply compatible with the charger. If a volume purchase did not include the supply, one must be obtained that meets the following specifications: 19 +/-1.5 V DC input supply, 1.32 A (or greater) with a plug at the end of the DC line. See FIgure 10A

When planning the mounting the transmitter, attention should also be given to how the power cord(s) will be routed. While the cord could simply be plugged into the charger and allowed to drape to the floor, embedding the cord within the counter or attaching it to the underside of the counter should allow for greatly improved ergonomics, reliability, and aesthetics. It may be optimal to cut a shallow channel into the underside of the counter to route the cabling through, so as to minimize the chance of the cord interfering with anything below the counter. This is not a consideration unique to this charger, so the installer should determine the cable routing as they would any other similar power cable.

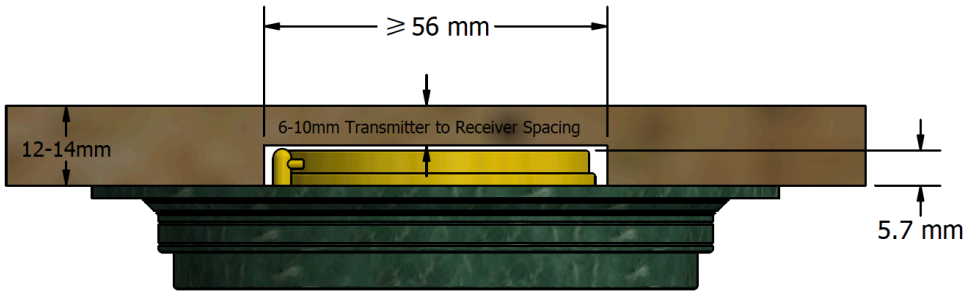


Figure 10A

LED Indicator:

The LED present on the side of the transmitter indicates the state of the device. During device test, it can easily be observed, but when mounted beneath a countertop it is not normally visible. If desired, the installer could use a length of fiber optic cable to route the light from the LED to a location visible after installation. Normally, the device being charged will display the charging status, so the need for status provided by the transmitter LED may be redundant. Below is a table defining the various LED displays:

No Light	Charger Off or Standby
One Green Flash	Power Applied, Device Initialized
Continuous Flashing Green Light	Charging Cycle Underway
Steady Green Light	Charge Complete
Flashing Red Light	Foreign Object in Charging Field - Remove Object, Restart Charging
Steady Red Light	Error- Remove and Replace Receiver