Powermat Charging Spot 3.1

The Powermat Charging Spot is a critical component of our wireless charging solution. Users place their phones on the spot and 'connect' with your venue, creating a new, highly personalized customer engagement channel.

Sub-surface

Surface-mount

Each Charging Spot 3.1 is a network-connected unit, enabling you to push r eal time proximity offers to customers. The cloud connected charging network also allows for remote monitoring, management and upgrades. Additionally, integrated beacons enable user activation of charging through the Powermat application. You can choose to install the Powermat Charging Spot 3.1 in one of two ways: Surface-mount or sub-surface.

Wirelessly charges all mobile phones

Powermat Charging Spot can power all Qi and AirFuel-Inductive certified devices (i.e., iPhone 8/8Plus/X, Samsung Galaxy S6/7/8/9). Phones without built-in wireless charging can be charged with the help of a Powermat Ring.

To learn more about wireless charging compatiable devices go to:
https://www.powermat.com/technology/compatible-phones/

Designed for public spaces

The transfer of power is based on magnetic inductance and therefore safe even when the table's surface is wet, and spots are designed to withstand chemicals and cleaning solvents.

Durable and easy to maintain, the Charging Spot 3.1 can be installed on most surface types.

Our best in class intelligent DC Power delivery solution provides ultimate flexibility without costly electrical work. A single electrical port can support up to eight Charging Spots with one power delivery unit. Our custom designed power supply unit keeps the outlet available for other needs, and secures wiring to prevent tampering.

Charging Spot 3.1, Mounted SKU: CS-001-GEN3B-INT | Sub-surface SKU: CS-001-GEN3B-SIN

Specifications

Electrical

Receiver output power:
up to 15W

DC voltage input 24V

Up to 8 spots connected to
power supply

Current input 0.7A for 15W output

Operating Frequencies:
Ping 178kHz, Switch 200-300 kHz

Built-in protections:
voltage, current, thermal, FOD

Communication

Communicates with a
ZigBee®-to-IP gateway in the venue

IEEE 802.15.4 based RF channels
Transmit Power +8 dBm

Includes managed Beacon, Bluetooth 4.1
Transmit Power 0 dBm

Beacon (BLE) services support iBeacon
and Eddystone communication protocols

Remote firmware upgrade

Performance with Powermat 5w ring

(transmitter coil 3mm below surface)

X,Y on charging surface: Ø 30mm

Z above charging surface: 10mm
(14mm coil-to-coil)

Charging efficiency: 80% (full alignment)

Regulatory Compliance

CE, ICES, FCC, CSA, KOMINFO
– Radiated and Conducted emissions;
Maximum power exposure; RF Exposure

UL, IEC - Product safety for wireless
charging

RoHS, REACH, California OEHHA
proposition 65 - Environmental restrictions

Environmental Data

Operating Ambient Temperature:
0 to 40 °C, recommended 25 °C

Non-Operating Ambient Temperature:
-20 to 80 °C

Operating Humidity:
20% to 90% (non-condensing)

Non-Operating Humidity:
5% to 95%

Artwork

Ring marking for alignment

Mounted installation: printed on the
inner surface and covered by a PMMA
transparent layer during assembly

Sub-surface installation: adhesive
label; color can also be customized
by surface fabricator (e.g. resin inlay in
polymer based solid surfaces)

Mechanical Parameters

Parameters	Surface-Mounted	Sub-Surface
Hole Type	Pass through	Partial Cavity Thickness above cavity 0.14" (3.5mm)
Hole/Cave Diameter	Ø 2.75" (70mm)	Ø 2.75" (70mm)
Surface type	Wood/MDF/Ply, Corian (any polymer-based surface) & Stone Surfaces.	Wood/MDF/Ply & Corian (any polymer-based surface)
Tool	TCT, bi metal, or diamond grit hole saw Hand tool ok (if used with jig)	CNC / Routing
Top Surface Footprint	Horizontal: 3" (76mm) Ø Vertical: 0.063" (1.6mm) above surface	Charging Spot position marking for alignment
Bottom Surface Footprint	Width: 3.83" (97.3mm) Length: 7.02" (178.3mm) Thickness: 1.03" (26.2mm)	Width: 3.83" (97.3mm) Length: 7.02" (178.3mm) Thickness: 1.03" (26.2mm)
LED location	Bottom protective cover	Bottom protective cover

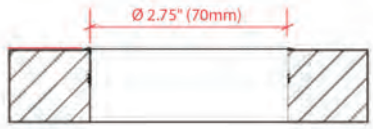
Note: Charging Spots are made for indoor use only and should not be installed in metal cabinets or behind metal enclosures. The distance between a Charging Spot to the next nearest spot should be no more than 65.6' (20m) and no less than 7.87" (20cm). The distance from the table edge should be at least 7" (18cm).

Easy Installation

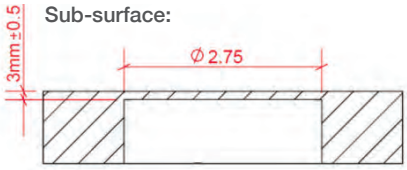
Below are the high level installation steps for the mounted and the subsurface configurations.

1 Make a hole/cavity in furniture for the magnetic coil

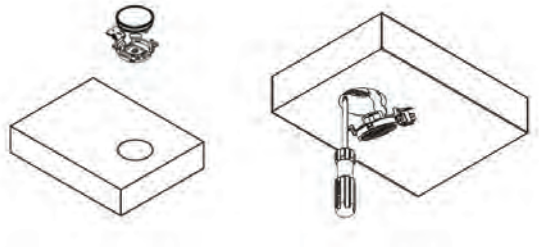
Mounted:



Sub-surface:



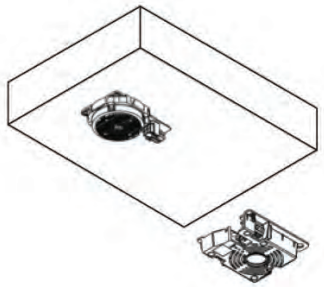
2 Insert the magnetic coil encasing into the hole



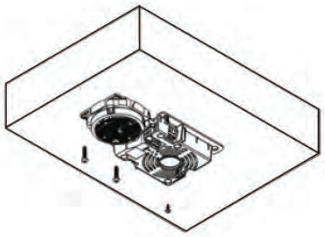
Sub-surface configuration

When using the sub-surface configuration, the magnetic coil encasing is inserted into the cavity from the surface bottom.

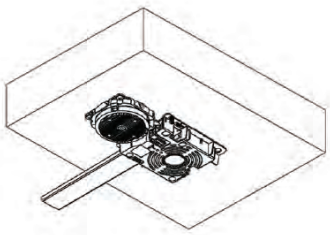
3 Connect and secure the electronics module



4 Fasten heat sink and electronics module to surface



5 Insert power wires into push-button connectors



6 Secure bottom cover housing