



WHEELSWING 

Light & Smart Bike Generator

Generator for every bike in the world
WHEELSWING BIKE GENERATOR





WITHUS & EARTH

WITHUS & EARTH, a venture company established in 2017,
and the one and only manufacturer making the rechargeable
non-contact bicycle generator in Korea

We are a generator manufacture company. Developed bicycle generator
with the world's first non-contact power generation technology,
We started to make it easier for more people to use
eco-friendly energy anytime, anywhere.

We are developing technologies and products related to Energy
Harvesting using physical activity, and We have developed a
non-resistance/friction-free non-contact generator for users.





01

Non-contact Generator

WHEELSWING VOLT1
Plus NCD/NCB

- ✔ **The world's first rechargeable non-contact bicycle generator**
Powered by a magnetic field between the rim and the magnet inside the generator
- ✔ **Self-generation**
Bicycle riders directly generate electricity
- ✔ **Can choose built-in battery option**
NCD (Direct Rechargeable) / NCB (Battery Built-in)
- ✔ **Convenient charging method**
Rechargeable with USB cable
- ✔ **Simple installation**
Self-installation is possible even for non-professionals
- ✔ **Universal bracket**
Can be installed on both front and rear wheels
- ✔ **Hybrid method**
By replacing the rubber ring, it can be used by changing to a contact type.
- ✔ **Light pedaling**
Non-contact driving method, pedaling is very light and driving feeling is smooth
- ✔ **Reliability test**
Strict tests such as drop, vibration, cold resistance, and heat resistance tests
- ✔ **Life waterproof design**
IPX5 rating waterproof design

Product composition



Contact Generator

WHEELSWING VOLT1
CD/CB



- ✔ **Contact drive method bicycle generator**
Rim-friction-type contact bicycle generator
- ✔ **Self-generation**
Bicycle riders generate electricity themselves
- ✔ **Can choose built-in battery option**
CD (Direct Rechargeable) / CB (Built-in Battery)
- ✔ **Convenient charging method**
Rechargeable with USB cable
- ✔ **Simple installation**
Self-installation is possible even for non-professionals
- ✔ **Usage of universal bracket**
Can be installed on both front and rear wheels
- ✔ **Light pedaling**
Lighter pedaling and smoother driving feeling compared to other contact generators
- ✔ **Reliability test**
Strict tests such as drop, vibration, cold resistance, and heat resistance tests
- ✔ **Life waterproof design**
IPX5 rating waterproof design

Product composition



03

Light Generator



Non-Contact Generator

NCD/NCB + LIGHT
(Headlight, Taillight)



Contact Generator

CD/CB + LIGHT
(Headlight, Taillight)

✔ Lighting combination

New concept bicycle generator combining Headlights and taillights to the WHEELSWING generator

✔ Generator option

Non-contact generator (NCD/NCB), Contact generator (CD, CB), Any generator of the 4 models can be combined

✔ Lighting options

Can choose one headlight or taillight, or Both headlights and taillights (DUAL) can also be selected

✔ Convenience

Useful when it is difficult to turn on the light or charge every time

✔ Weight and volume

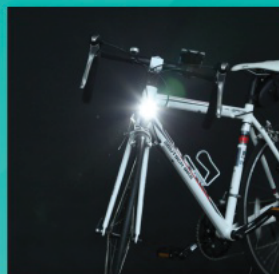
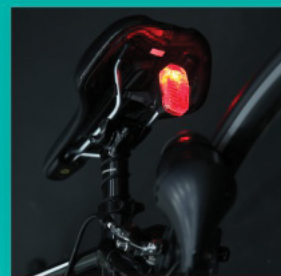
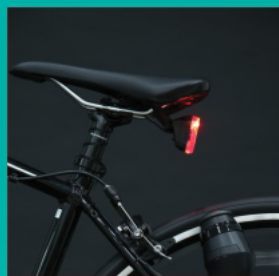
Small and lightweight headlights and taillights

✔ Accident prevention

Prevention of safety accidents by using lights during the day or at night

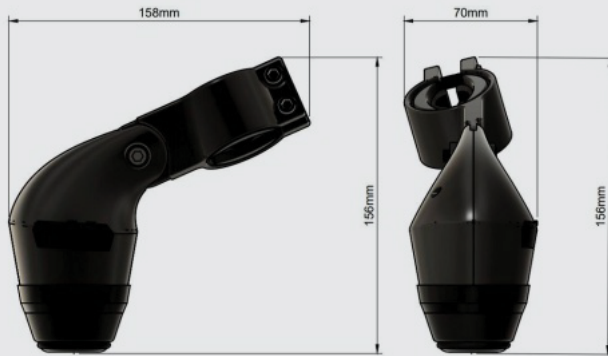
✔ Compatibility

Can be installed on any type of bike



WHEELSWING 
Light & Smart Bike Generator

Composition & specifications



	USB Charger	Phone	Battery	Light	GPS	Speaker	Earphone	Action camera	Cycling computer	Navigation
NCB	●	●	●	●	●	●	●	●	●	●
NCD	●		●	●	●	●	●	●	●	●
CB		●	●	▲	●	●	●	●	●	●
CD			●	▲	●	●				●

[Non-contact Generator] Product specifications

Product Name	Non-contact battery built-in type bike generator	Non-contact direct charging type bike generator
Model Name	WHEELSWING VOLT1 plus-NCB	WHEELSWING VOLT1 plus-NCD
Size	158X156X70mm	158X156X70mm
Weight	440g	415g
Material	PC, rubber, silicone, etc.	PC, rubber, silicone, etc.
Capacity	USB2.0 (5V, 500mAh output)	USB2.0 (5V, 500mAh output)
Battery	Li-ion battery 1,000mAh	-

[Contact Generator] Product specifications

Product Name	Contact battery built-in type bike generator	Contact direct charging type bike generator
Model Name	WHEELSWING VOLT1-CB	WHEELSWING VOLT1-CD
Size	158X156X70mm	158X156X70mm
Weight	345g	320g
Material	PC, rubber, silicone, etc.	PC, rubber, silicone, etc.
Capacity	USB2.0 (5V, 500mAh output)	USB2.0 (5V, 500mAh output)
Battery	Li-ion battery 1,000mAh	-

○ Composition & specifications



[Light] Product Detail

Bicycle lighting certification	ECE, CE and Rohs
Reflector certification	ECE
Power supply	Hub dynamo / Ebike / Escooter
Line of sight	35m
LED specifications	OSRAM LED
Luminance (brightness of light)	60 lux
Voltage	6V-58V
Waterproofing stage	IPX5
Texture	ABS, PMMA, Aluminum
Weight	70g
Standard	45x77x108mm
Cable length	1/1.2/2m
Power	1.8W

[Rear Light] Product Detail

Bicycle lighting certification	StVZO, ISO6742-1, CE, RoHS
Reflector certification	ISO6742-2, ECE, Z
Power supply	Hub dynamo / Ebike / Escooter
Waterproofing stage	IPX4
Viewing angle	220°
LED model	CREE CIM2D-RRD
line of sight	500m
Voltage	6V-48V
Power	0.4W
Texture	ABS, PMMA
Weight	23g
Cable length	1/1.2/2m
Standard	51X32X45mm

Common

Manufacturer	WITHUS & EARTH Co., Ltd.	Warranty period	within 1 year after purchase
Country of Origin	Republic of Korea	Customer Center	Tel : +82-53-213-8802 E-mail : wus.cs@wus.co.kr
Manufacturing date	Separately indicated		

Patent & Certification (5 domestic patents, 2 overseas patents, 3 trademark applications)



American patent



Taiwan patent



Wheelwing



Wheelswing



Wheelswing(Japan)



Method of noticing the arrival location of vehicle to the group-vehicle



A rotor for generator



A generator for a bike and a snap-fit battery module thereof



A rotor for a generator



A rotor for a bicycle generator and a generator using the same
A rotor for a bike generator and a generator using it

Certification & Awards



2019 HKEF
GOLD WINNER



2021 GENEVA INTERNATIONAL
INVENTIOS GOLD WINNER



2021 Korea Invention Patent Exhibition,
Commissioner of the Korean Intellectual
Property Office Award



CES INNOVATION AWARD
Awarded for 3 consecutive years (2020, 2021, 2022)



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Customer Center

