



# Electric & Manual

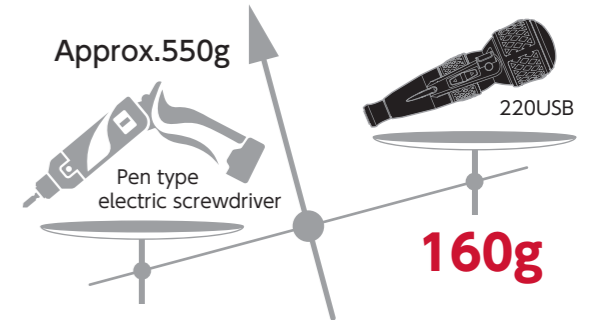
**Electric-powered quick tightening!!**

**Manual final tightening!!**

**Furniture or interior work** **Narrower space facility** **Equipment maintenance** **Automotive or motorcycle maintenance** **DIY**

VESSEL's Ball Grip Screwdrivers, providing the outstanding work efficiency, have made great progress. An electric-powered new solution with a lithium-ion battery and a motor.

**Light-weight**  
Carry the 220USB-1E in your waist bag.



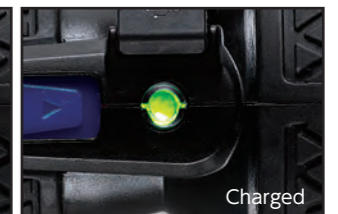
### Switch

Sliding switch enables to change the rotation direction, either clockwise or counterclockwise, with a light force.



**USB Recharge**  
Easy to recharge via USB terminal.

**3.6v**  
800mAh  
**Battery Charge Lamp**  
Li-ion Battery



\* For circuit-board protection, the lamp of the 220USB flashes red and the screwdriver stops operation, when a load such as 2N·m or over is given during electric-powered use. If the charge level of the battery is less than 15%, the battery charge lamp will flash red during operation.

High Brightness  
**LED**  
**LED light**

Illuminates in a dark working place.



Delay light type, also illuminating 5 seconds after stop.

### Sleeve Chuck

Both double-end and single-end bit can be used.



Highly durable gear built-in.



**6.35 mm** **High speed revolutions improves work efficiency!**  
No-load revolutions : 280min<sup>-1</sup>

Can be used with a screw upto M6.  
Torque range : **Electric 2N·m or less,**  
**Manual 10N·m or less**

**Electric-powered hand tool newly available.**  
**VESSEL Electric-powered Ball Grip Screwdriver**



### TECHNICAL SPECIFICATIONS

- Rated voltage	3.6V DC
- Capacity	800 mAh
No-load speed	280 min <sup>-1</sup>
Torque	
- Electric power (Max.)	2 N·m(17.7lbf-in)
- Hand operation (Max.)	10 N·m(88.5lbf-in)
Weight (not including accessories)	160 g
Permitted ambient temperature	
- during charging	0°C(32°F) - 40°C(104°F)
- operating* and storing	0°C(32°F) - 45°C(113°F)
Battery	Li-ion
Number of battery cells	1
Charging time	Approx. 60 min
Number of charges**	Approx. 500 charges
Charging port	micro USB Type-B
Noise	66.1 dB
according to EN 62841-1 Annex I	
Vibration values	0.421 m/s <sup>2</sup>
according to EN 62841-1 Annex I, EN 62841-2	
Input power (maximum) - Volt	5V DC
- Current	1A

\* limited performance at temperatures <0 °C(32 °F)  
\*\*Actual battery life will vary depending on specifications.

### How to use

- Slide the switch forward to rotate to the right (clockwise; tighten), and slide backward to rotate to the left (counterclockwise; loosen).
- Position yourself and hold the grip firmly.

How to hold for electric assistance



- Operate the switch to start tightening. (**Tentative tightening**)
- Release the switch at the moment when the screw sits. Then, hold again the grip to tighten slowly by hand (**final tightening**) until you feel that the gears were locked.

How to hold for manual use



**<Note>**  
Excessive load will lead to failure. Do not use this product for a screw that needs to be loosened with two hands. The small gears are built in so that the screwdriver fits into the waist sack.



**No. 220USB-1F**  
**Rechargeable BALL GRIP Screwdriver**

Model No.	Accessories	Outer Carton: 5 sets
220USB-1F	Bit : PH2 (90mm) USB Charging Cable (1m)	EDP No. 148516