

ELITE SERIES II

Portable Motor Kit

MCU02 - User Manual

Thank you for your purchase.
Please read this user manual before using and keep it for future reference.
If not following the instructions, it may cause injury or property loss.
Use the products in proper use as per the instruction.
Manufacturer is not responsible for the accident causing by not following the instructions.
Product's design and specification can be changed for improving the quality.



Caution

- Use the designated adaptor when charging the unit.
- Change the rotary direction after stopping the motor.
- Do not use the bent bit. It causes product's malfunction.
- Do not work in a dangerous place. Do not use the control box in a humid place.
- Our handpiece should be only used for our control box.
- Check for any troubles, including excessive vibration of bit, at low speed, and then try high speed.
- Change the bit after stopping the motor.
- Be careful not to drop the handpiece as it may be damaged or broken. In case that it is dropped, check if the bit is bent or that any excessive heat is generated while carefully operating it.
- If any problem occurs in products, use after repairing.
- Do not put the handpiece down before it stops completely.
- Use the specified voltage.
- Use accessories suitable for this product.
- Wear proper protective clothes and equipment, including a dust mask and safety goggles.
- Keep the workplace clean. Debris may cause an accident.
- Do not touch the cords or connectors with wet hand.
- Do not bend the cords excessively and do not press with heavy things. It may cause electric shock or fire.
- Do not place near heat equipment, candles or cigarette causing fire.
- In case of using extension cord, do not use much electricity equipment in one time. It causes fire or electric shock.
- *This appliance can be used by children aged from 8 years and above and person with reduced

physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in safety way and understand the hazards involved." "Children shall not play with the appliance."

"Cleaning and user maintenance shall not be made by children without supervision"

"If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard."

- The battery must be removed from the appliance before it is scrapped.
- This appliance must be disconnected from the supply mains when removing the battery.
- The battery is to be disposed of safely.
- WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.
- Follow the user manual by manufacturer of bit to use bit.
- Keep the recommended speed limit by manufacturer of bit to use bit. If exceed the speed limit, it might cause an accident.

Battery maintenance

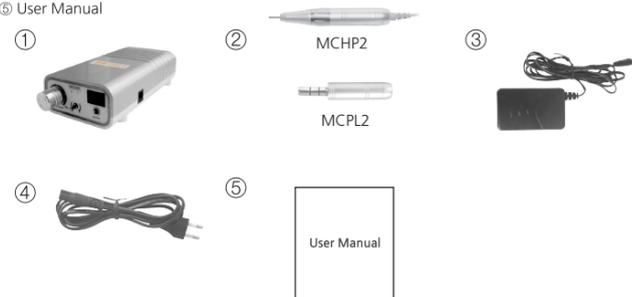
- Charge after use.
- Battery life will become shortened if the battery is left unused for a long time and then completely discharged. Charge the battery once a month in case that you do not use for a long time.
- Turn off the power after use. If the unit is left on, the battery will be discharged which can lead to inability to recharge.
- Battery cautions are common for all general batteries.
- The battery used in the control box is a Nickel-Hydrogen type, and is recyclable.
- In case of contact to the liquid on clothing, body skin or eyes, wash immediately.
- In case of shortening the operating time or if speed gets slower, it is time to replace the battery.
- Always follow government or local law for battery disposal.
- Battery is a wearable component and its life is limited. Battery capacity decreases little by little as its used over time. Its life varies depending on storage, operating conditions, and environment. When not in use for a prolong period, the battery might deteriorate. When the battery operating time seems to have considerably shortened, a probable cause is that the battery has reached its end of life. To replace it, contact the manufacturer or dealer.

Product Features & Advantages

- Max. 30,000 rpm
- Max. torque 3.0 N·cm
- Rotation Selector Switch (F/N/R)
- Use the standard Bit Φ2.35mm
- Method for connecting any Collet-chuck type Bur
- Portable Type (Battery Use)
- Battery charging time: approx. 2 hours 30 minutes
- Battery use time: approx. 8 hours (with max. RPM and no-load)

Product Components

- Control Box (MCU02)
- Handpiece (MCHP2/MCPL2 - Optional)
- Adaptor
- Power Cord
- User Manual



Part Name

- PUSH (ON/OFF) Encoder Button
- Rotation Selector Switch
R: Reverse / N: Neutral (Stop) / F: Forward
- Battery Display
- Handpiece Connector
- Display Screen
- Adaptor Connector



Connection of Each Part

Control Box

- Connect the handpiece to the connection part.
- By pressing the PUSH (ON/OFF) Encoder Button, check level of battery power. If the battery became low, connect the adaptor to the adaptor connector.
- When the battery became fully charged, disconnect the adaptor from the Control Box.

Bit

- Open the handpiece chuck by turning handle as below picture.



- Insert the bit.

- Lock the handpiece chuck by turning handle as below picture.



- Bur connection method is same regardless of the handpiece type.
- Lock the handpiece chuck before using. It causes product's malfunction.
- Check the bit whether damage or not before replacing.
- Change the bit after stopping the motor.
- Bit Dimension: Φ2.35mm

Operation Method

- By pressing the PUSH (ON/OFF) Encoder Button, turn on the power.
- By turning the PUSH (ON/OFF) Encoder Button, control the speed. Turning clockwise increases rotation speed, turning counterclockwise decreases rotation speed. Actual RPM (revolutions per minute) is 1,000 times the number on display.
- Set the rotation direction. Rotation direction can be set to R(reverse), Neutral and F(forward). The motor does not work on the Neutral mode.
- By pressing the PUSH (ON/OFF) Encoder Button, start the motor.
- By pressing the PUSH (ON/OFF) Encoder Button, stop the motor.
- By long pressing the PUSH (ON/OFF) Encoder Button, turn off the power.

Battery Display

Battery Display	Condition
	Charging (Red LED On)
	Low Battery (Blinking Red LED)
	Charging Complete (Blue LED On)

- Charge the battery after checking level of battery power.
- Change the rotary direction after stopping the motor.

Auto Off

Power is off automatically after 3 minutes without handpiece operation.

Last Memory

The previous using rpm is memorized when the power is off after operation.

Error Code

Error Code	Cause	Remedy
E3	Overloaded handpiece	Press the PUSH (ON/OFF) Encoder Button once. Operate after cooling off for 10 minutes in a cool place. If the error doesn't get solved out, contact the manufacturer.

Problem & Remedy

Control Box

Problem	Cause	Remedy
The Control Box doesn't be turned on.	Battery became fully discharged.	Charge the battery.
	A problem occurred in the Control Box.	Please contact the manufacturer.
Speed cannot be controlled.	A problem occurred in the Control Box.	Please contact the manufacturer.
Motor does not rotate or battery runs out shortly, although the battery is fully charged.	Handpiece cord is not connected properly.	Reconnect the handpiece cord properly.
	Handpiece cord became damaged.	Please contact the manufacturer.
	Battery life became ended.	Change the battery. (Please contact the manufacturer to change the battery)

Handpiece

Problem	Cause	Remedy
Motor does not work.	Handpiece cord is not connected properly.	Reconnect the handpiece cord properly.
	Motor became damaged.	Please contact the manufacturer.
	Handpiece cord became damaged.	Please contact the manufacturer.
Abnormal overheating occurs during operation.	Bearings in the handpiece became damaged.	Please contact the manufacturer.
Abnormal vibration and noise occur.	Bearings or chuck in the handpiece became damaged.	Please contact the manufacturer.
	Bit became damaged.	Change the bit.
Motor will get stopped within 2~3 seconds.	Level of battery power became low.	Charge the battery.
	Motor became damaged.	Please contact the manufacturer.
Bit is not fixed or pulled out.	Chuck became damaged.	Please contact the manufacturer.

Product Maintenance

- Keep the place around in handpiece clean from dust and grindings.
- Remove dust on handpiece wiping with alcohol and avoid wet inside.
 - Do not apply the oil to the product or clean with water.
 - The grease inside of the bearing could melt away due to the oil.
- Air cleaning is acceptable but air pressure may affect the handpiece or motor.
- Store the product as condition a bur is fixed at the collet chuck.

Product Specification

Control Box

Model Name	MCU02
Input	DC 30 V , 1 A
Output	DC 24 V , 1 A
Battery charging time	approx. 2 hours 30 minutes
Battery use time	approx. 8 hours (with max. RPM and no-load)

Handpiece

Model Name	MCHP2
RPM	Max. 30,000 rpm
Chuck Type	Collet Chuck
Bit Dimension	Φ2.35mm
Type	Coreless Motor

Model Name	MCPL2
RPM	Max. 30,000 rpm
Chuck Type	N/A (E-Type Coupler)

Adaptor

Input	AC 100-240 V~, 50/60 Hz, 1 A
Output	DC 30 V , 1 A

Warranty

MEISINGER guarantees this product for 1 year from invoice date. Product warranty means that MEISINGER has responsibility for defective material or operation failure. The product warranty does not cover user's misuse, wrong installation, inappropriate maintenance and repair, and normal wear of consumables such as bearings, spindle, gear, and rotator. In order for MEISINGER to confirm if the warranty is valid will require checking the operating condition, environment information, serial number and stamped invoice. The warranty will be performed as a repair or exchange to manufacturer's analysis of product and judgement.

Exception of warranty

Any misuse or improper use and treatment of product
Using the product with incorrect input voltage (AC voltage)
Dropping the unit during setting or moving
Use not recommended consumables or accessories
Malfunction after repairing the product at an unauthorized repair shop
Normal wear of consumables: such as ball bearings, gear, chuck, spindle case assy, motor
Any Act of God

Operating Condition	Temperature (°C)	10~30
	Relative humidity (%)	10~80
	Atmospheric pressure (hPa)	700~1,060
Transport and Storage Condition	Temperature (°C)	-20~60
	Relative humidity (%)	10~90
	Atmospheric pressure (hPa)	500~1,060

Symbol

	Manufacturer		Class III appliance
	EC representative		Read operator's manual
	Serial number		General warning sign
	Fuse		CE mark
	This product should not be mixed with other commercial waste for disposal.		Alternating current
	Detachable supply unit		Direct current

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