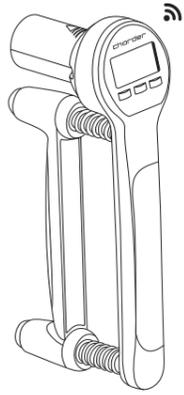


**MG4800**  
Hand Dynamometer



Please keep the instruction manual at hand all the time for future reference.

**1. Explanation of Graphic Symbols on Label/Packaging**

- Caution, consult accompanying documents before use.
- Separate collection for waste of electrical and electronic equipment, in accordance with Directive 2002/96/EC.
- Manufacturer of medical device.
- Carefully read user manual before installation and usage, and follow instructions for use.
- Manufacturing year of medical device.
- Device has been approved by Taiwan NCC.

**2. Copyright Notice**

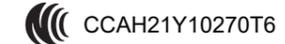
**Charder Electronic Co., Ltd.**  
No.103, Guozhong Rd., Dali Dist., Taichung City 41262 Taiwan  
Tel: +886-4-2406 3766 | Fax: +886-4-2406 5612  
Website: www.chardermmedical.com E-mail: info\_cec@charder.com.tw

Copyright© Charder Electronic Co., Ltd. All rights reserved.  
This user manual is protected by international copyright law. All content is licensed, and usage is subject to written authorization from Charder Electronic Co., Ltd. (hereinafter Charder)  
Charder is not liable for any damage caused by a failure to adhere to requirements stated in this manual. Charder reserves the right to correct misprints in the manual without prior notice, and modify the exterior of the device for quality purposes without customer consent.

**3. Declaration of Conformity**

This product has been manufactured in accordance with the harmonized European standards, following the provisions of the below stated directives:

- RED Directive 2014/53/EU
- Low Voltage Directive 2014/35/EU
- Electro Magnetic Compatibility Directive 2014/30/EU
- RoHS Directive 2011/65/EU and Delegated Directive (EU) 2015/863



**FCC Class B Declaration of Conformity**

This device complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules.

Manufactured by:  
Charder Electronic Co., Ltd.  
No.103, Guozhong Rd., Dali Dist.,  
Taichung City, 41262 Taiwan (R.O.C.)

Patent number list  
Japan Patent: 1314405  
RCD Patent: 000702592-0001  
US Patent: D564382

**4. Safety Notes**

Thank you for choosing this Charder Medical device. It is designed to be easy and straightforward to operate, but if you encounter any problems not addressed in this manual, please contact your local Charder service partner.

**Intended Purpose**

This device is intended to measure the handgrip of subjects, for diagnosis of strength-related issues by professionals.

**Clinical Benefit**

Measurement results can be used by professionals to diagnose (and monitor) grip strength-related issues.

**General Handling**

- Ensure the correct spring is installed before usage.
- Make sure the display shows zero before use. The device is designed to detect when a stable force has been achieved, and the indicator will beep to indicate that the reading can be taken.

**Safety Instructions**

- Batteries should be kept away from children. If swallowed, promptly seek medical assistance.

- The device has an expected service life of 5 years when correctly handled, serviced, and periodically inspected in accordance with manufacturer's instructions.
- Always comply with appropriate regulations when using electrical components under increased safety requirements.
- Observe permissible ambient temperatures for use.
- This device should not be used while batteries are charging. Please unplug charging cable before use.

**Environmental**

- All batteries contain toxic compounds; batteries should be disposed of via designated competent organizations. Batteries should not be incinerated.

**Cleaning**

- Device surface should be cleaned using alcohol-based wipes.
- Do not use large amounts of water when cleaning the device, as it may cause damage to the internal electronics.

**Maintenance**

- Device does not require routine maintenance. However, regular checking of accuracy is recommended; frequency to be determined by level of use and state of device. If results are inaccurate, please contact local distributor.

**Warranty/Liability**

- The period of warranty shall be eighteen (18) months, beginning on the date of purchase. Please retain your receipt as proof of purchase.
- No responsibility shall be accepted for damage caused through any of the following reasons: unsuitable or improper storage or use, incorrect installation or commissioning by the owner or third parties, natural wear and tear, changes or modifications, incorrect or negligent handling, chemical, electrochemical, or electrical interference.
- All maintenance, technical inspections, and repairs should be conducted by an authorized Charder service partner, using original Charder accessories and spare parts. Charder is not liable for any damages arising from improper maintenance or usage.

**Disposal**

- This product is not to be treated as regular household waste, but should be taken to a designated collection points for electronics. Further information should be provided by local waste disposal authorities.

**Warning**

- Do not under any circumstances dismantle or alter the device, as this could result in electric shock or injury as well as adversely affect the precision of measurements.
- Do not place the device in direct sunlight, or in close proximity to an intense heat source. Excessively high temperatures may damage the internal electronics.

**5. Inserting Battery**

- 1 Remove battery cover (slide off).



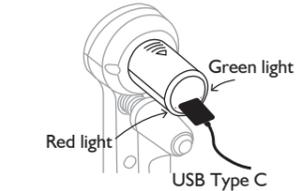
- 2 Insert RCRI23A rechargeable lithium battery. (ensure +/- polarity is correct).



- 3 Replace battery cover.



**Charging device**



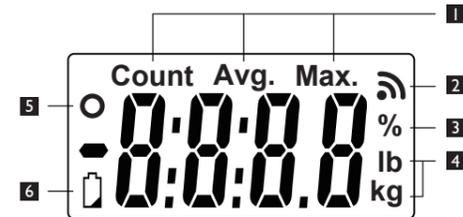
Charge battery using USB Type-C cable included with device.

- Red light: device charging
- Green light: device fully charged

**NOTE:**  
before using the device for the first time, please charge the battery fully.

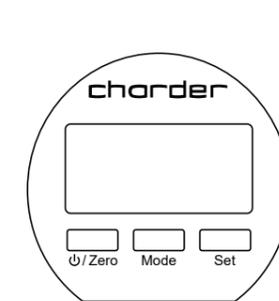
**6. Display and Key Functions**

**LCD Screen**



- 1 Mode Indicator
- 2 Wireless Indicator
- 3 Percentage Indicator
- 4 Unit (lb / kg)
- 5 Stable symbol
- 6 Low Battery

**Key Function**



**Zero**

Power on/Power off/Zero. When device is off, press to power on. Press to zero value. Press and hold for 3 seconds to turn off.

**NOTE :** please release device (do not squeeze) before zeroing value.

**Mode**

Press to toggle between different modes.

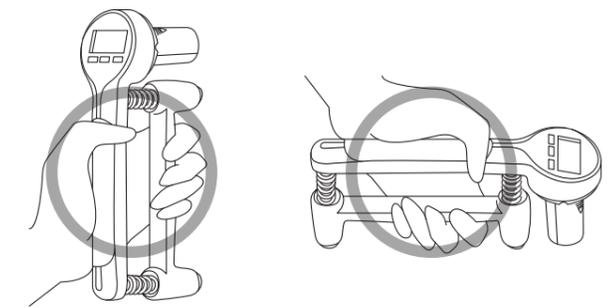
**Set**

In real mode, this will switch between units. In other modes, this will adjust digits.

**7. Using Device**

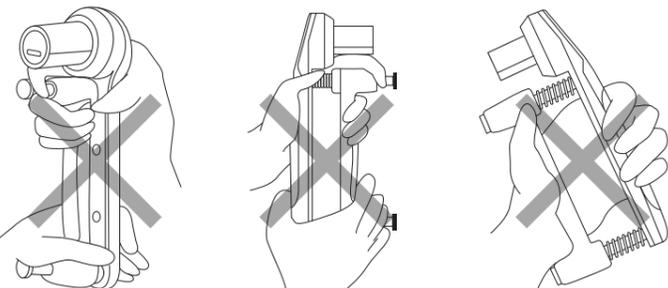
Please follow instructions to ensure measurement accuracy.

**Correct Grip**

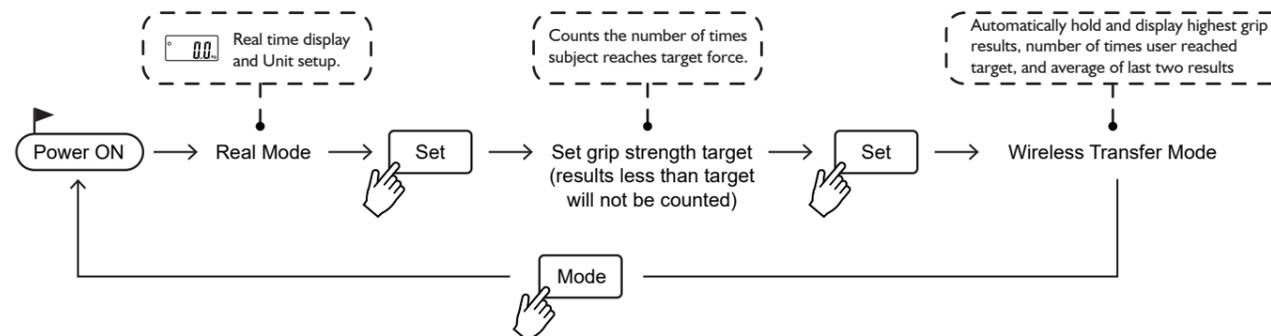


Gripping the device incorrectly may result in inaccuracy or product damage.

**Incorrect Grip**



**8. Mode Switching**

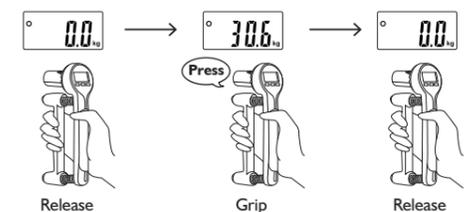


**NOTE:**  
Real Mode is the default mode. If the device is powered off in any other mode, it will start in that mode the next time it is powered on.

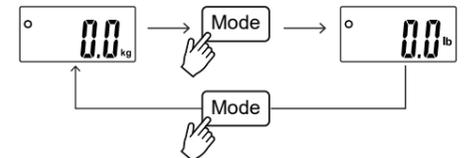
**9. Real Mode**

**Real Mode** is a dynamic mode. The force value will fluctuate according to force exerted during usage.

**Real Time Display:**



**kg / lb setup:**



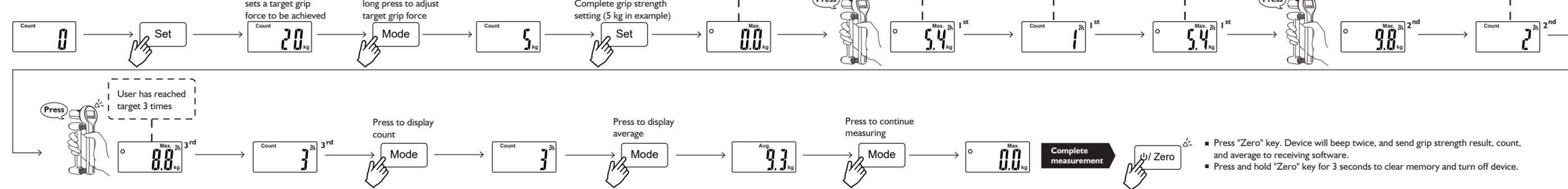
# 10. Wireless Data Transfer

To transfer measurement results, you must first set a target grip strength. In this mode ("Max" can be seen on screen), device will automatically count the number of times user reaches target grip strength, as well as the average of the last two results.

To set grip strength target, press **Set**

This symbol indicates that the device is connected to receiving software. If wireless is off, results will be temporarily stored in memory until device is turned off.

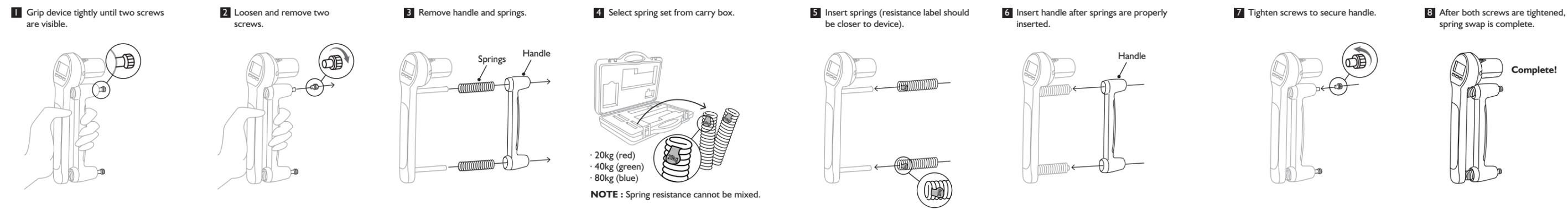
## SETUP TARGET GRIP FORCE



- Press "Zero" key. Device will beep twice, and send grip strength result, count, and average to receiving software.
- Press and hold "Zero" key for 3 seconds to clear memory and turn off device.

# 11. Swapping springs

Different spring sets are included and can be swapped by following the instructions below:



# 12. Connect to software

The MG4800 can send measurement results to receiving device wirelessly.

To transfer results, please set target grip strength (see Section 10). After doing so, device will automatically enter Max Mode

■ **PCs** should use "Smart Data Manager" software. This device is compatible with the Charder Smart Data Manager PC Software. Please contact your distributor for details.

■ **Smartphones/tablets** should use "Charder Connect" app.

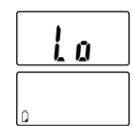


## How to connect MG4800 with software

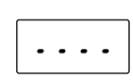
- Install software on receiving device, and ensure that MG4800 is wireless model. If you have difficulty connecting, please contact Charder or your local distributor.
- After MG4800 is turned on, software will automatically search for the MG4800's MAC. Select the MG4800 from the software's menu to begin connection.
- Note that subject ID must be input in order to save results in software.

**NOTE :** PCs should use "Smart Data Manager" software. Smartphones/tablets should use "Charder Connect" app. For more details, please consult website ([www.chardermedical.com](http://www.chardermedical.com)).

# 13. Error Messages



**Low battery warning**  
Voltage of battery is too low to operate device.  
➔ Replace batteries (or charge batteries).



**Force under zero**  
Force is under zero when device is powered on.  
➔ Press **ZERO** key and try again.



**Force over zero**  
Force is over limit when device is powered on.  
➔ Ensure nothing is pushing on device and power on again. If problem persists, please contact distributor.



**Counting Error (too low)**  
Force is under limit when device is powered on.  
➔ Ensure nothing is pulling on device and power on again. If problem persists, please contact distributor.



**Program Error**  
Fault with device software.  
➔ If problem persists, please contact distributor.

# 14. Product Specifications

Model		MG4800		
Weight Measurement	Capacity	80 kg(blue)	40 kg(green)	20 kg(red)
	Graduation	0.1 kg / 0.2 lb		
	Accuracy	±0.2kg / ±0.4lb		
	Unit	kg / lb		
	LCD Screen	0.5-inch LCD screen (4 digits)		
Dimensions	Overall	212(W) x 55(D) x 101(H) mm		
	Grip Span	64 mm		
Device Weight	0.33 kg			
Key Functions	On/Off/Zero, Mode, Set			
Data Transmission	Wireless			

Power Supply	RCR123A Rechargeable Lithium-Ion Battery
Operation Temperature & Humidity	5°C~35°C
Standard Accessories	Carry case*1, Rechargeable battery*1, Spring Set (80 kg)*1, Spring Set (40 kg)*1, Spring Set (20 kg)*1, Battery Charger Adapter*1, Charging Cable*1

# 15. Power Adapter Standards

Model	EM1005AVRU
DC Output	5V / 1.2A

