CE

Manufacturer's Declaration of Conformity

This product has been manufactured in accordance with the harmonized European standards, following the provisions of the below stated directives:
Electro Magnetic Compatibility Directive 2004/108/EC
Low Voltage Directive 2006/95/EC

only Medical Approval Scale is in conformity with
Medical Directive 93/42/EEC

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 412, Taiwan (R.O.C.)

FDA no.: D051883 / 3007074192

charder®

MS 3801
USER MANUAL

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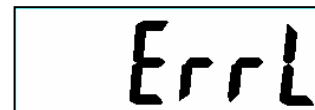
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ERROR MESSAGE

■ **Low battery :**
This warning shows that the voltage of battery is too low to use. Please replace new battries or plug the AC adaptor for operation.

$$Lo$$

■ **Counting error(too low):**
The loading is lower than limit when power on, please increase the loading and try again. If the trouble still exists please call your local service partner.
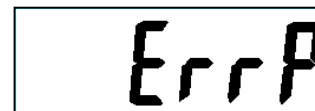
$$ErrL$$

■ **Overload or counting error(too high):**
The loading is over limit when power on, please reduce the loading and try again. If the trouble still exists, please call your local service partner.
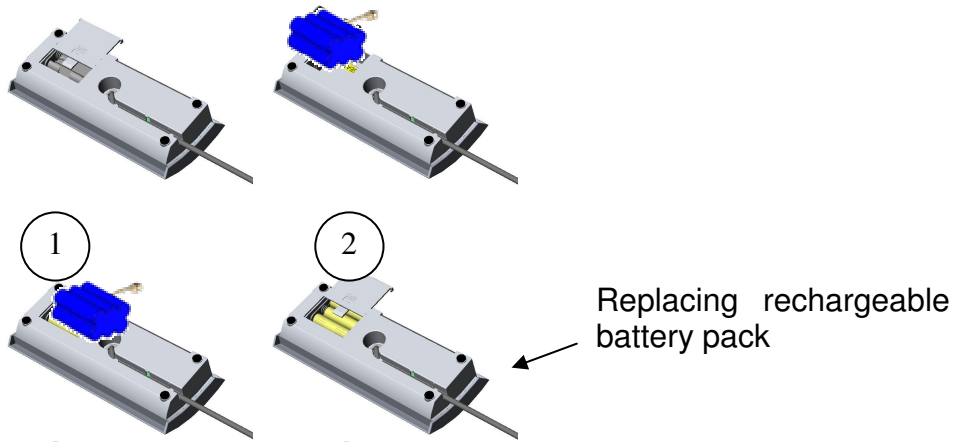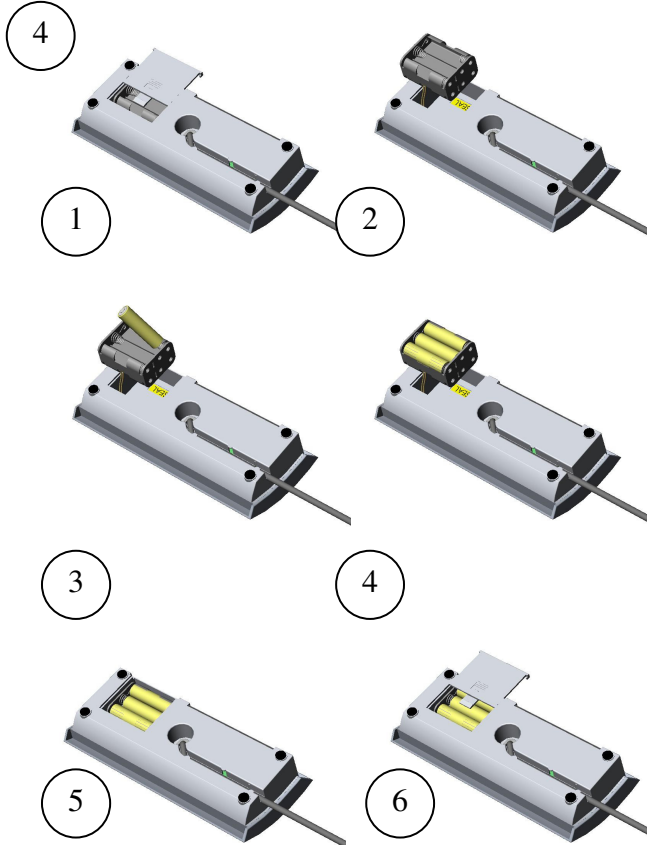
$$Err$$

■ **EEPROM Error :**
The program of the scale has error, please call your local service partner.

$$ErrP$$

INSTRUCTION FOR REPLACING BATTERY

① ②

Replacing rechargeable battery pack

③ ④

Replacing six 1.5V AAA batteries.

① ②

③ ④

⑤ ⑥

PREFACE

Thank you for choosing CHARDER MEDICAL product. All features of this product were designed to state of the art and are optimized for simple and straightforward use. If you have any queries or experience any problems not addressed in the operating instructions, please contact your CHARDER MEDICAL service partner, or visit us on the Internet at www.chardermedical.com

GENERAL INFORMATION

We strongly recommend you use the scales on flat and hard surface. Any soft surface, like carpet will cause inaccuracy.

SAFETY INSTRUCTION

⚠ Before putting the device into use, please read with care the information given in the Operating Instructions. They contain important instructions for installation, proper use and maintenance of the device.

The manufacturer shall not be liable for damages arising out of failure to heed the following instructions:

- ♦ When using electrical components under increased safety requirements, always comply with the appropriate regulations.
- ♦ Improper installation will render the warranty null and void.
- ♦ Ensure the voltage marked on the power supply unit matches your mains power supply.
- ♦ This device is designed for use indoors.
- ♦ Observe the permissible ambient temperatures for use
- ♦ The device meets the requirements for electromagnetic compatibility. Do not exceed the maximum values specified in the applicable standards.

If you have any problem, contact your local CHARDER MEDICAL service partner.

ENVIROMENTAL

- ♦ All batteries contain toxic compounds; disposal of batteries should be delegated to a competent organisation, complying with the deposit of Poisonous Waste Regulation 1972.

- ◆ Please do not incinerate batteries.
- ◆ The optimum operating temperature for the scale is 5℃ to +35℃; although it will operate at higher and lower temperatures the scales battery life will be adversely effected.

CLEANING

- ◆ We would recommend using alcohol based wipes or similar when cleaning the scales.
- ◆ Please do not use large amounts of water when cleaning the scales as this will cause damage to the scales electronics, you should also refrain from using corrosive liquids or high pressure washers.
- ◆ Always disconnect the scales from the mains power supply before cleaning.

MAINTENANCE

- ◆ The scale does not require any routine maintenance. However, we recommend checking the scale's accuracy at regular intervals. The regularity of these checks is dependent on the level of use and the state of the scale. If any inaccuracies occur, please contact your local dealer or CHARDER MEDICAL service partner.

WEIGHING OPERATION

Before reading detailed instructions on how to use all the weighing functions that are built into your scale, please read the following important guidelines:

- ◆ Always be sure that the display shows `Zero` before use, if it does not then please press the ZERO key.
- ◆ The device is designed to detect when a stable weight is achieved, the indicator will `bleep` twice to indicate a stable weight value, your reading should be taken at this point.

WARRANTY-LIABILITY

- ◆ If a fault or defect is present on receipt of the unit which is within CHARDER MEDICAL's scope of responsibility, CHARDER shall have the right to

PRINT FUNCTION INSTRUCTION

PRINT FUNCTION IS AVAILABLE FOR SPECIFIC MODELS. PLEASE CONFIRM YOUR SCALE FUNCTION WITH YOUR SERVICE PARTNER BEFORE YOU USE IT. YOU CAN USE YOUR PC OR AN OPTIONAL EXTERNAL PRINTER TO PRINT OUT THE PATIENTS WEIGHT, HEIGHT, AND BMI RESULT ON TO A PAPER ROLL. ONCE THE PERSON HAS BEEN WEIGHED AND THERE BMI CALCULATED, SIMPLY PRESS THE PRINT KEY TO PRODUCE THE FOLLOWING TICKET.

CONNECT TO PC

2. Start Hyper Terminal

Start Hyper Terminal program from clicking

Start Menu → Programs → Accessories → Communication → Hyper Terminal.

1. New Connection Description

Give new connection a name then click **OK**.

3. Select Your COM Port

Clicking **Connect using** to select your COM port. Usually there's only one option for select. Then click **OK.**
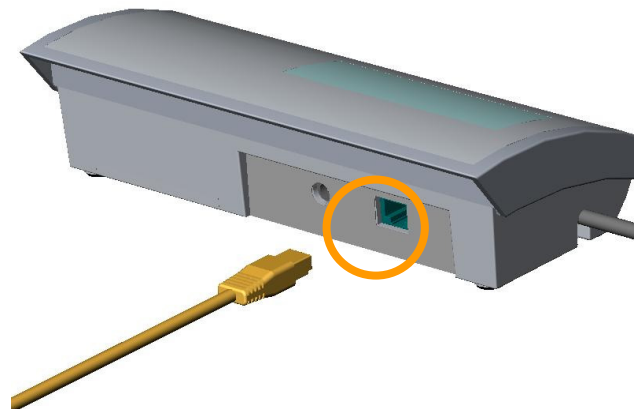
4. Port Settings

Click **Bits per second** to set up rate at **9600, Data bits** at **8, Parity** at **None**, **Stop bits** at **1** and **Flow control** at Hardware. Then click **OK** to complete your setting.
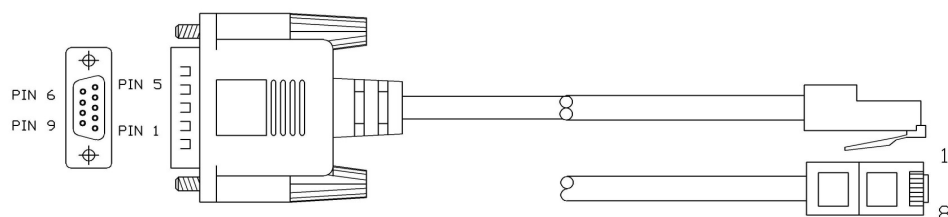
5. Output Data

When the patient has been weighed and BMI calculated, simply press the **PRINT** key to output data from scale to PC or an Optional Printer.

INSTRUCTION FOR DATA TRANSMISSION(option)

Using RJ-45 – 9PIN connector transfer weighing result to PC or specialized printer.

either repair the fault or supply a replacement unit. Replaced parts shall be the property of CHARDER. Should the fault repairs or replacement delivery not be successful, the statutory provisions shall be valid. The period of warranty shall be two years, beginning on the date of purchase. Please retain your receipt as proof of purchase. Should your scale require servicing, please contact your dealer or CHARDER MEDICAL Customer Service.

◆ 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, changes or modifications, incorrect or negligent handling, overuse, chemical, electrochemical or electrical interference or humidity, unless this is attributable to negligence on the part of CHARDER MEDICAL.

◆ If operating, climatic or any other influences lead to a major change in conditions or material quality, the treaty for perfect unit functioning shall be rendered null and void. If CHARDER provides and individual warranty, this means that the unit supplied will be free of faults for the length of the warranty period.
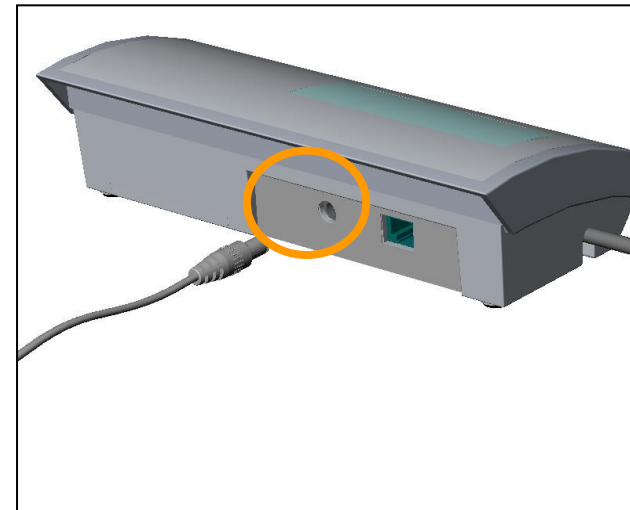
DISPOSING OF THE SCALE

◆ This product is not to be treated as regular household waste, but should be handed in to an electrical/electronic equipment recycling centre.

◆ You can obtain further details from your local council, your municipal waste disposal company or the firm which you purchased the product.

Model	MS 3801	
Capacity	300kg x 0.1kg	500kg x 0.2kg / 1100lb x 0.5lb
Accuracy	±150g	±400g / ±1lb
Weight Unit	kg / lb	
LCD Display	1.0" LCD display with 5 ½ digits	
Dimension	1150(L) x 800(W) x 66(H) mm	
Key Functions	ON/OFF, UNIT , HOLD/BMI , TARE	
Power Supply	Battery：AAA Battery x 6 OPTION: Rechargeable battery pack Adaptor：15V 300mA	
Operation Temperature	5℃ / 35℃	

If $\boxed{.\ Lo}$ appears, you should charge scale with exclusive adaptor for MS 3801.
Locate adaptor plug at the back of indicator.

CAUTION:
Always connect the AC adaptor to the indicator before connecting to the mains power supply. Please disconnect the adaptor from main power supply before indicator.

Body Mass Index(BMI)

When you obtain a stable weight and display shows **0,0 kg**, place a person in the middle of the scale plate. Wait until the weighing value is stable. Then press the **HOLD/BMI** key without release for 3 seconds. Now enter a body height.

Please take note that reliable determination of BMI index is only possible for body height from 100 cm to 250 cm and weight > 10 kg.

A body height entered as the last one is flashing on the display. Confirm the entered value with the key, and then a person's BMI index will be displayed.
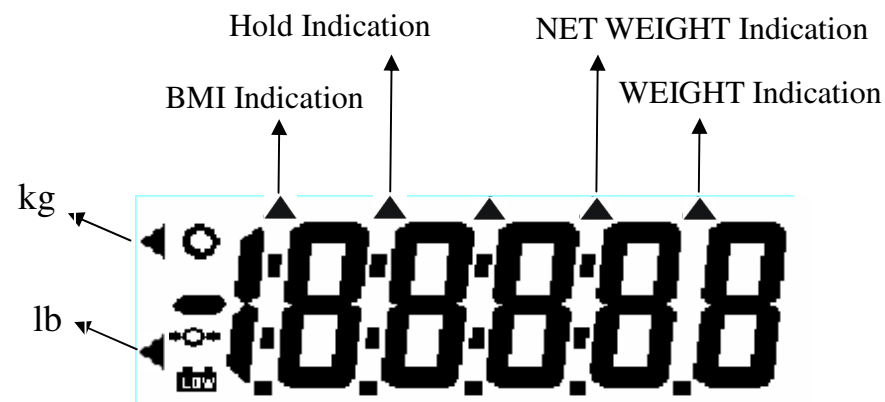
When the BMI index value is displayed, it is presented with the arrow pointing the **BMI** symbol. To return to the weighing mode, press the **BMI** key once again and the arrow at the **BMI** symbol will disappear.

CATEGORIES OF Body Mass Index

Classification of weight for adults over 18 years on the basis of Body Mass Index according to WHO, 2000 EK IV and WHO 2004 (WHO - World Health Organization).

Category	BMI (kg/m^2)	Risk of diseases accompanying overweight
Underweight	< 18.5	low
Normal weight	18.5 – 24.9	average
Overweight	≥ 25.0	
Preobesity	25.0 – 29.9	slightly increased
I degree of obesity	30.0 – 34.9	increased
II degree of obesity	35.0 – 39.9	high
III degree of obesity	≥ 40	very high

LCD DISPLAY

Hold Indication   NET WEIGHT Indication

BMI Indication   WEIGHT Indication

kg

lb

DISPLAY VIEW

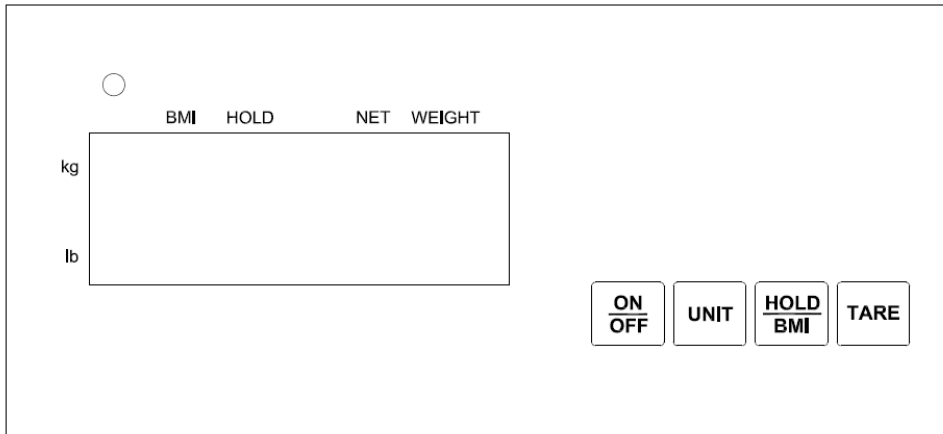|	
[→0←]	Scale zero display: If the scale does not show exactly zero value although the scale pan is unloaded, press the **[→0←]** key. After a short waiting time, the scale will be zeroed again.
[o]	Stabilization display: If the display shows the stabilization display [o], the scale is in the stable condition. When the scale is in the unstable condition, the stabilization display [o] disappears.
BMI ▲	Calculated value of the body mass index (BMI).
HOLD ▲	Hold function / saving function is active.
NET ▲	The net weight is displayed.
WEIGHT ▲	The present weight value is displayed.

KEY FUNCTIONS

BMI   HOLD   NET   WEIGHT

kg

lb

ON/OFF   UNIT   HOLD/BMI   TARE

Key	Description
ON/OFF	Swtiching ON/OFF the scale
UNIT	Change weighing unit in kg or lb
HOLD/BMI	Hold function / determination of stable weighing value BMI function / BMI value enable and disable
TARE	Taring the scale

BASIC OPERATION

WEIGHING
- Switch on the scale with the **[ON/OFF]** key. The diagnostic scale self-check is performed and then the software version is displayed. The scale is ready for weighing when the „**0,00 kg**" weight display is shown.

Direction: The **[→0←]** key makes it possible to zero the scale if necessary and at any time.
- Place a person in the middle of the scale. Wait until the stability display (**o**) is shown and then read the weighing result.

Direction:
If a person is heavier than the weighing range, the display will show the „Err" symbol (= overload).

TARING
The dead weight of any initial load used for weighing may be tared away by pressing the key, so that the following weighing shows the real weight of a person to be weighed.
- E.g. when a rubber mat is put on the scale plate, the scale does not show 0 value.
- To start the taring process, press the **[TARE]** key. Now internal weight saving is performed and value of **0.0 kg** is displayed.
- Place a person in the middle of the scale plate.
- Then read the weight on the display.

Direction:
The scale can store only one tare value.
When the scale is unloaded, the saved tare value is displayed with „negative" sign.
To delete the saved tare value, unload the scale plate and then press the **[TARE]** key.

HOLD/BMI
The scale is provided with the integrated hold function (determination of average value). It enables people to be weighed accurately although they are not still on the scale plate.

Note: Determination of average value is not possible when a person moves too much.

- Switch on the scale with the **[ON/OFF]** key. The diagnostic scale self-check is performed. The scale is ready for weighing when the „**0,00 kg**" weight display is shown.
- Place a person in the centre of the scale plate.
- Press the **[HOLD/BMI]** key. When the triangle is flashing on the display, the scale takes some measuring values and then the calculated average value is displayed.
- Press the **[HOLD/BMI]** key again to return the scale to the normal weighing mode.
- Pressing the **[HOLD/BMI]** key makes it possible to activate the function at any time.