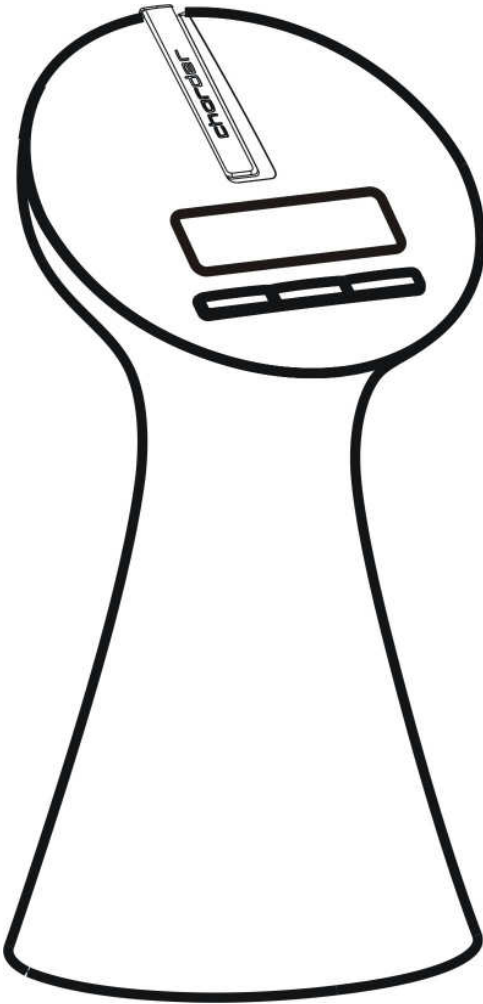


charder®



MS4400 / MS4400I

**Medical Scale
USER MANUAL**

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

Manual_MS4400_V1

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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 that **MS 44 baby** scale should be operated by medical professionals.

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:

These batteries should be kept away from small children. If swallowed, promptly seek medical assistance.

Expected Service Life: 5 years

When using electrical components under increased safety requirements, always comply with the appropriate regulations.

Improper installation will render the warranty null and void.

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.

Ensure that the patient does not lean against the device risk of falling!

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

ENVIROMENTAL

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

Please do not incinerate batteries.

The optimum operating temperature for the scale is 5°C to +35°C; although it will operate at higher and lower temperatures the scales battery life will be adversely effected.

You are legally obliged to hand in used batteries/rechargeable batteries to a local collection point so that they can be disposed of in an environmentally-friendly way. When buying new batteries, select batteries low in harmful substances and no mercury(Hg), cadmium(Cd) or lead(Pb).

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 turn off the scale 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 Professional Medical Hoist scale is designed to detect when a stable weight is achieved, 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 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 an individual warranty, this means that the unit supplied will be free of faults for the length of the warranty period.

RECYCLING

This product is not to be treated as regular household waste, but should be handed into 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.

READING BEFORE USE

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 ZERO key to reset.

Note: Do not measure weight during movement, tilt will cause inaccuracy.

CAUTION



DO NOT USE THIS DEVICE WITHOUT ANY HELP FROM MEDICAL PROFESSIONALS.

EXPLANATION OF THE GRAPHIC SYMBOLS

SN-T13000001

Designation of the serial number of every device, applied at the device.

(Number as an example)



“Please note the accompanying documents“
or “Observe operating instructions”



Identification of manufacturer of medical product including address

Charder Electronic Co., Ltd.

No.103, Guozhong Rd., Dali Dist.,
Taichung City 412, Taiwan (R.O.C.)



Type B applied part

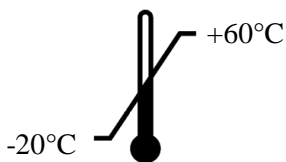


Dispose of old appliances
separately from your household
waste!!!

Instead, take them to communal
collection points.



Carefully read this operation manual before setup and commissioning, even if you are already familiar with Charder scales.



Transport and storage temperature limit indicating the upper and the lower limit

(Transport and storage temperature on packaging)

EMC GUIDANCE AND MANUFACTURER'S DECLARATION

Guidance and manufacturer's declaration-electromagnetic emissions

The MEDICAL SCALE MS4400 is intended for use in the electromagnetic environment specified below.

The customer or the user of the MEDICAL SCALE MS4400 should assure that it is used in such an environment.

Emission test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The MEDICAL SCALE MS4400 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The MEDICAL SCALE MS4400 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations /flicker emissions IEC 61000-3-3	Compliance	

Guidance and manufacturer's declaration-electromagnetic immunity

The MEDICAL SCALE MS4400 is intended for use in the electromagnetic environment specified below.

The customer or the user of the MEDICAL SCALE MS4400 should assure that it is used in such an environment.


Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Electrostatic discharge(ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC 61000-4-4	± 2kV for power supply lines + 1kV for input/output lines	± 2kV for power supply lines Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1kV line(s) to line(s) ± 2kV line(s) to earth	± 1kV differential mode Not applicable	Mains power quality should be that of a typical commercial or hospital environment.

<p>Voltage Dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11</p>	<p><5% UT(>95% dip in UT) for 0,5 cycle 40% UT(60% dip in UT) for 5 cycles 70% UT(30% dip in UT) for 25 cycles <5% UT(>95% dip in UT) for 5 s</p>	<p><5% UT(>95% dip in UT) for 0,5 cycle 40% UT(60% dip in UT) for 5 cycles 70% UT(30% dip in UT) for 25 cycles <5% UT(>95% dip in UT) for 5 s</p>	<p>Mains power quality should be that of a typical commercial or hospital environment. If the user of the MEDICAL SCALE MS4400 requires continued operation during power mains interruptions, it is recommended that the MEDICAL SCALE MS4400 be powered from an uninterruptible power supply or a battery.</p>
<p>Power frequency(50/60 Hz) magnetic field IEC 61000-4-8</p>	<p>3 A/m</p>	<p>3 A/m</p>	<p>The MEDICAL SCALE MS4400 power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</p>
<p>NOTE UT is the a.c. mains voltage prior to application of the test level.</p>			

Guidance and manufacturer's declaration-electromagnetic immunity

The MEDICAL SCALE MS4400 is intended for use in the electromagnetic environment specified below.
 The customer or the user of the MEDICAL SCALE MS4400 should assure that it is used in such and environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
<p>Conducted RF IEC 61000-4-6</p>	<p>3 Vrms 150 KHz to 80 MHz</p>	<p>3 Vrms</p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the MEDICAL SCALE MS4400 including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance: $d = 1,2 \sqrt{P}$ $d = 1,2 \sqrt{P}$ 80MHz to 800 MHz $d = 2,3 \sqrt{P}$ 800MHz to 2,5 GHz</p> <p>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey^a, should be less than the compliance level in each frequency range^b.</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p>

Radiated RF IEC 61000-4-3	3 V/m 80MHz to 2,5 GHz	3 V/m	
NOTE1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the MEDICAL SCALE MS4400 is used exceeds the applicable RF compliance level above, the MEDICAL SCALE MS4400 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the MEDICAL SCALE MS4400. b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

Recommended separation distance between portable and mobile RF communications equipment and the MEDICAL SCALE

The MEDICAL SCALE MS4400 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the MEDICAL SCALE MS4400 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the MEDICAL SCALE MS4400 as recommended below, according to the maximum output power of the communications equipment.

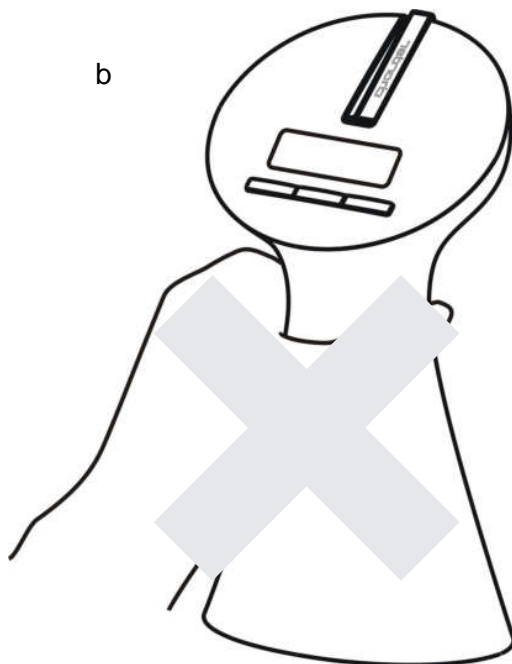
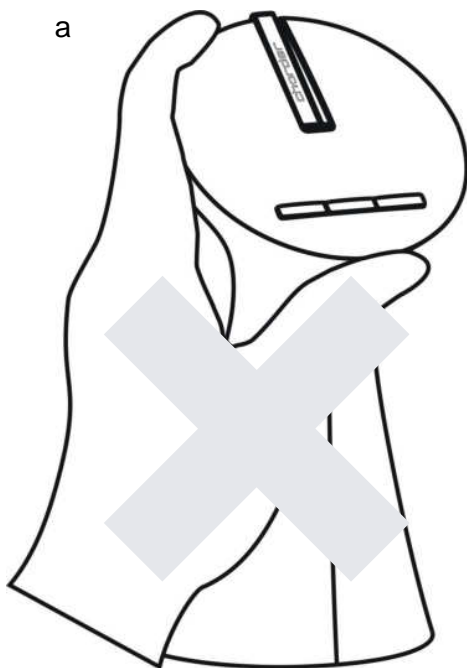
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2\sqrt{P}$	80 MHz to 800 MHz $d = 1,2\sqrt{P}$	800 MHz to 2,5 GHz $d = 2,3\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

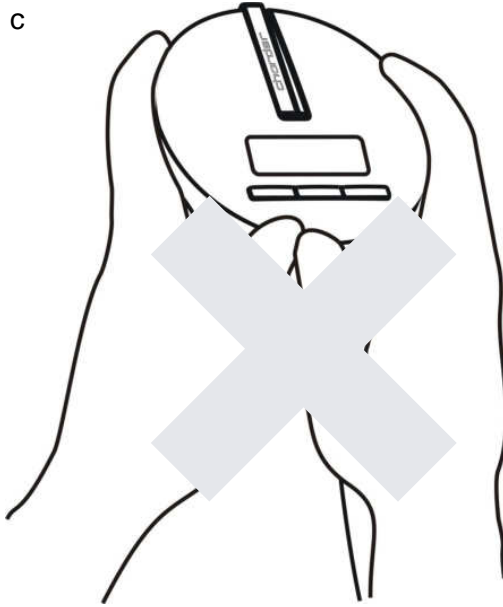
NOTE2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

INCORRECT POSTURE DURING WEIGHING-A

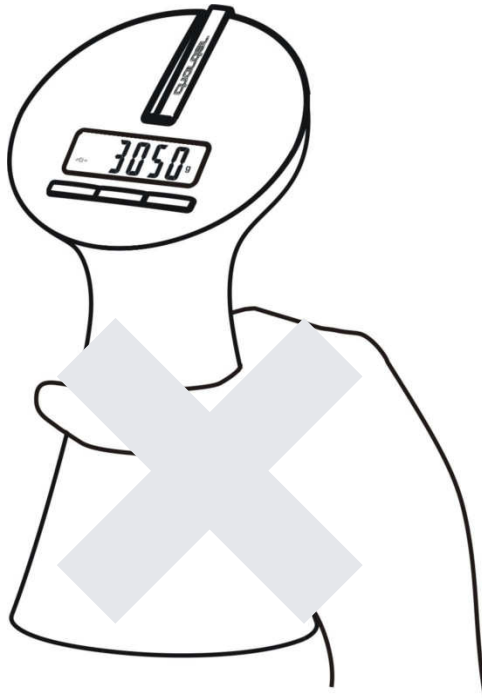


INCORRECT POSTURE DURING WEIGHING-B

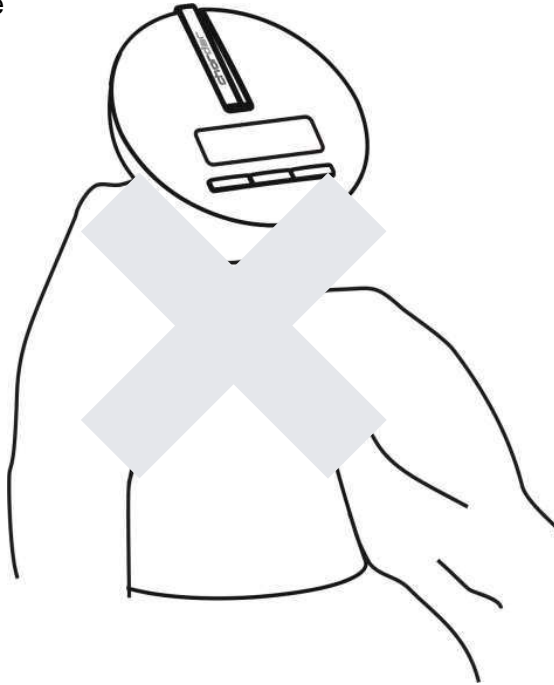
c



d

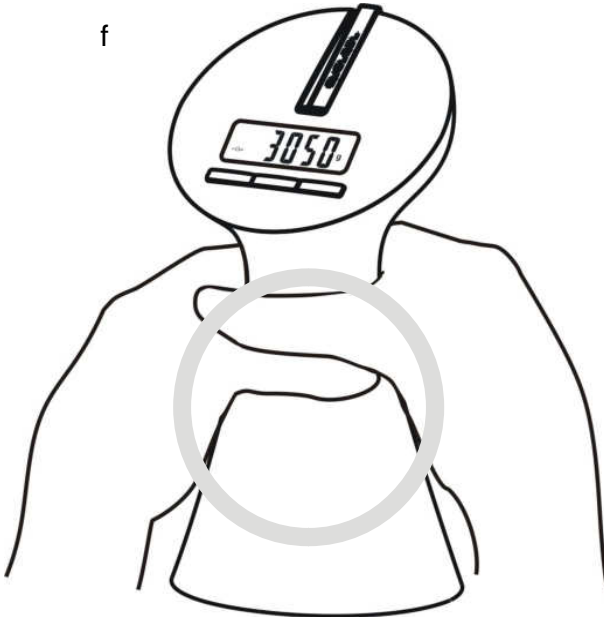


e



CORRECT POSTURE DURING WEIGHING

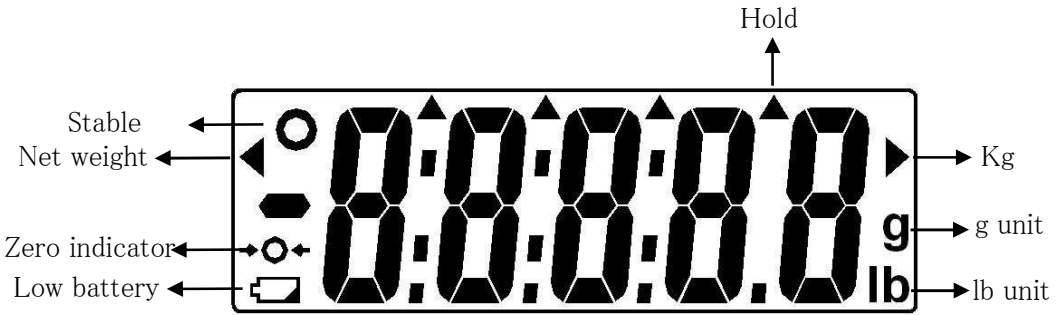
f



SPECIFICATION

Capacity	10kg	15kg
Division	10g	20g
Accuracy for OIML APPROVAL	±15g	±30g
Accuracy for Non-OIML APPROVAL	±20g	±40g
Operating Temp. and Humidity	5°C / 35°C 15% - 85% RH	
Transport and Storage Temp. and Humidity	- 20°C + 60°C 10% - 95% RH	
Unit	kg unit is approval of OIML	
Dimensions (including)	79 x 105 x 193(H) mm	
Keys	ON/OFF/ZERO ; HOLD ; TARE	
Battery	1.5V AAA batteries * 6	
Restriction of height of baby	55 cm	
Accessories	Scale * 1 / Sling * 1 / S Hook * 1 / User Manual * 1	

LCD DISPLAY



KEY FUNCTIONS



KEY DESCRIPTIONS

ON/OFF/ZERO

1. Press to turn the scale on.
2. Press this key and hold for 3 seconds to turn the scale off.
3. Press this key with the scale on to zero the scale.

HOLD

1. Press this key to release the HOLD function.

TARE

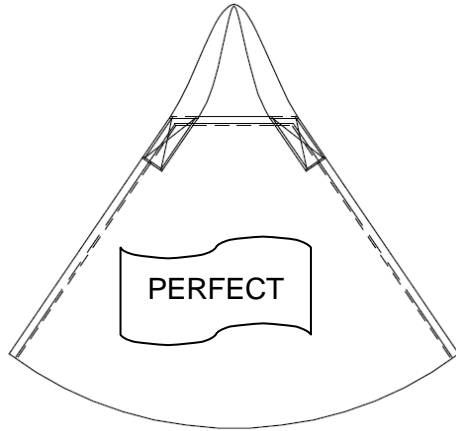
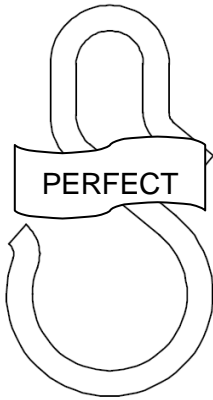
1. Press to tare the weight of subject such as diaper or clothes put in the sling.

When the power is on, the HOLD feature will automatically switch on and the arrow at Hold will flash. When the weight is greater than 10g and is stable, the arrow stops flashing and display locks.

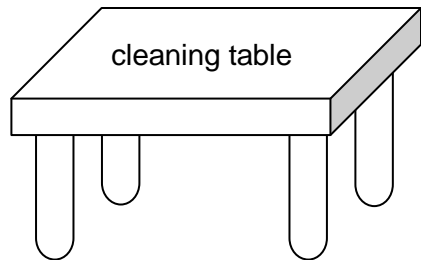
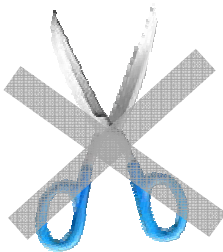
Press HOLD to release it

CAUTIONS BEFORE WEIGHING

VISUAL INSPECTING HOOK AND SLING ARE WITHOUT ANY BREAKAGE



CLEANING AND REMOVE ANY SHARP AND HARD OBJECTIVE NEAR BY WEIGHING TABLE.



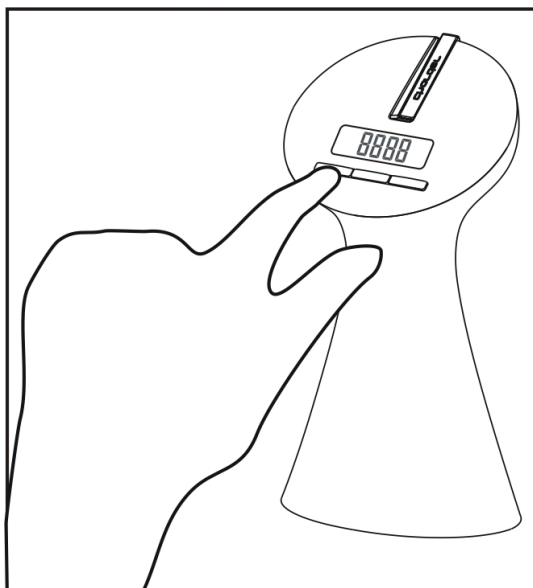
IT IS RECOMMENDED TO PLACE A CUSHION UNDER BABY SLING BEFORE WEIGHING TO MAKE BABY COMFORT AND SAFE.



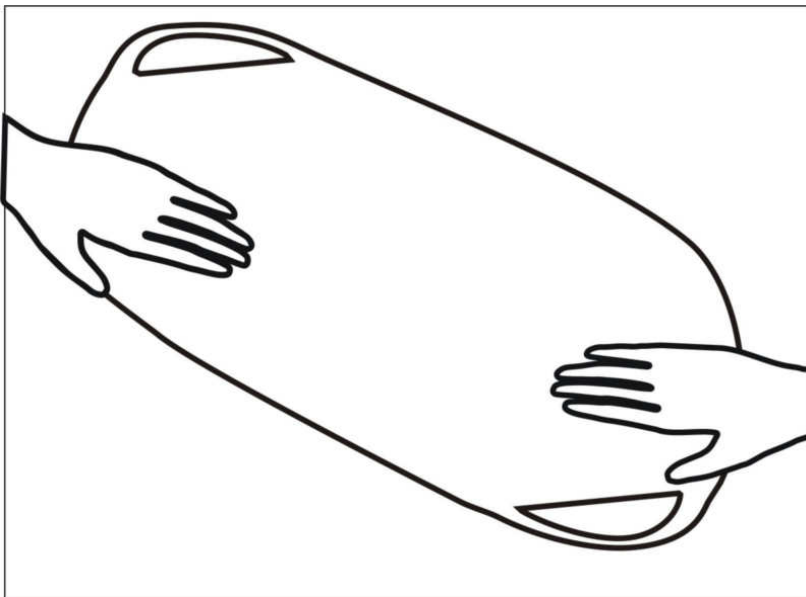
HOW TO WEIGH YOUR BABY CORRECTLY



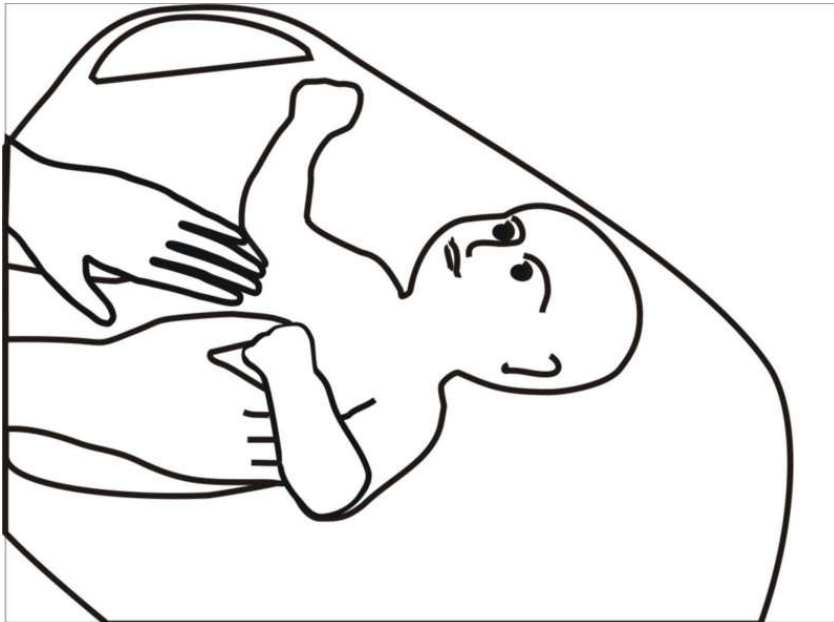
1. Preparing your MS-44 baby scale.



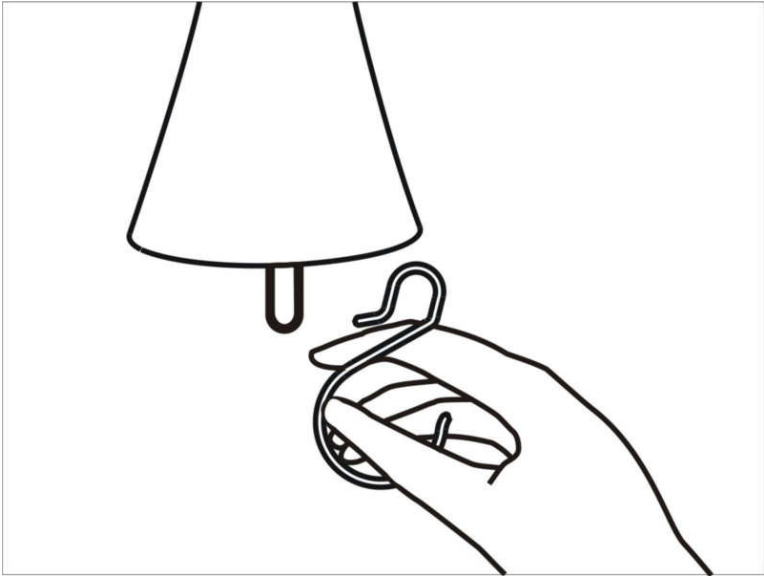
2. Press on/off button to turn the scale on.



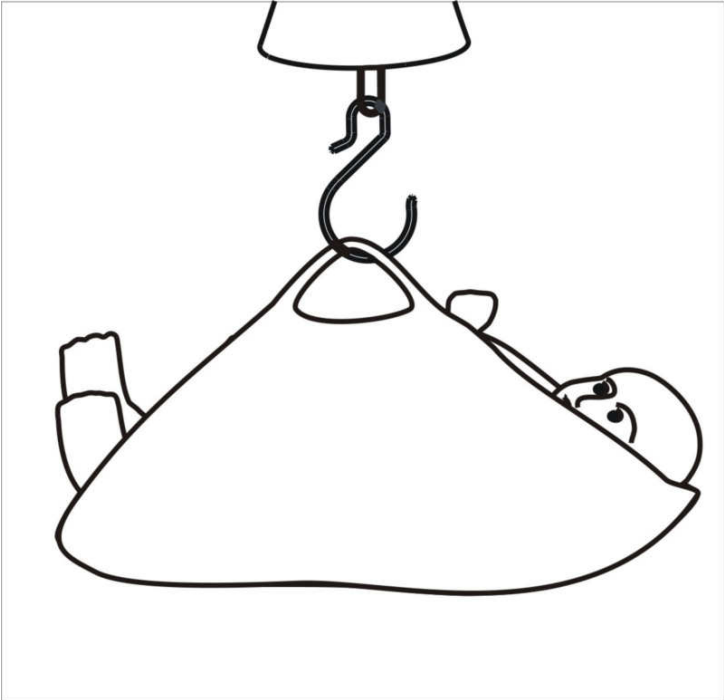
3. Smoothing out your sling.



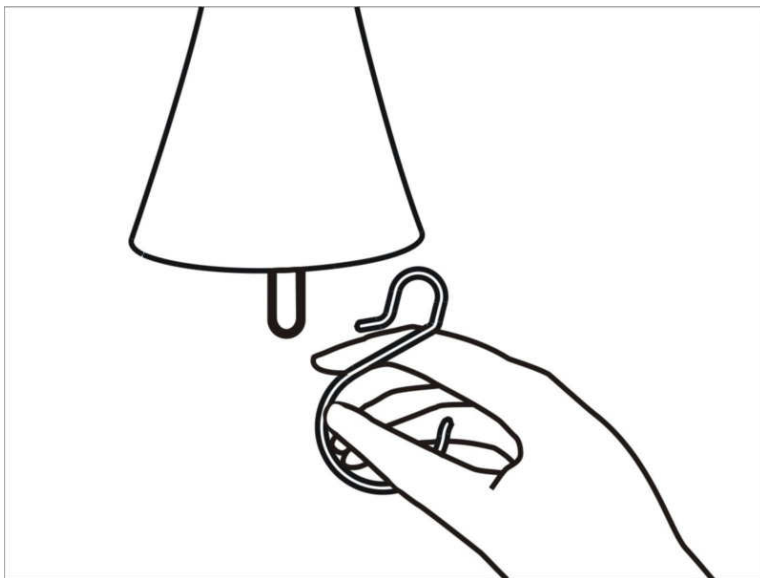
4. Gently pose the baby comfortable on the sling.



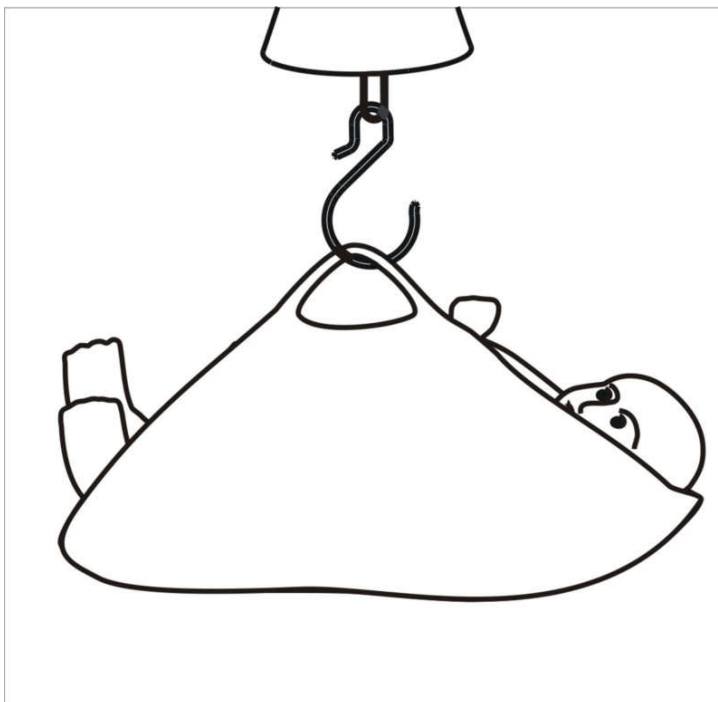
5. Hanging S hook on the scale before weighing.



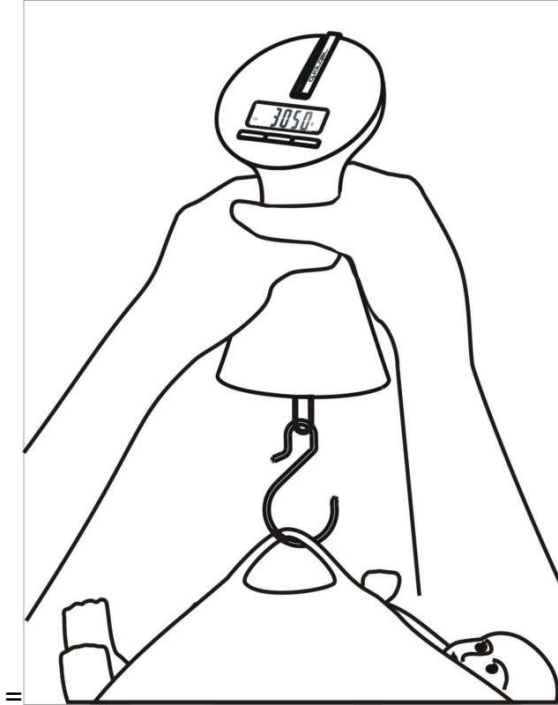
6. Hook the sling and lift the baby gently.



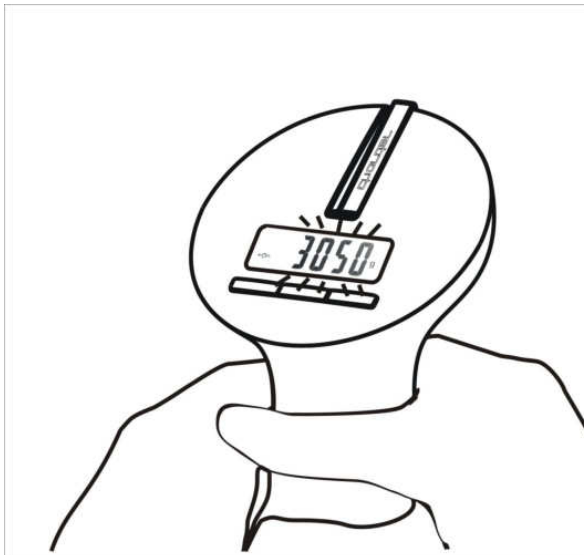
7. Hanging S hook on the scale before weighing.



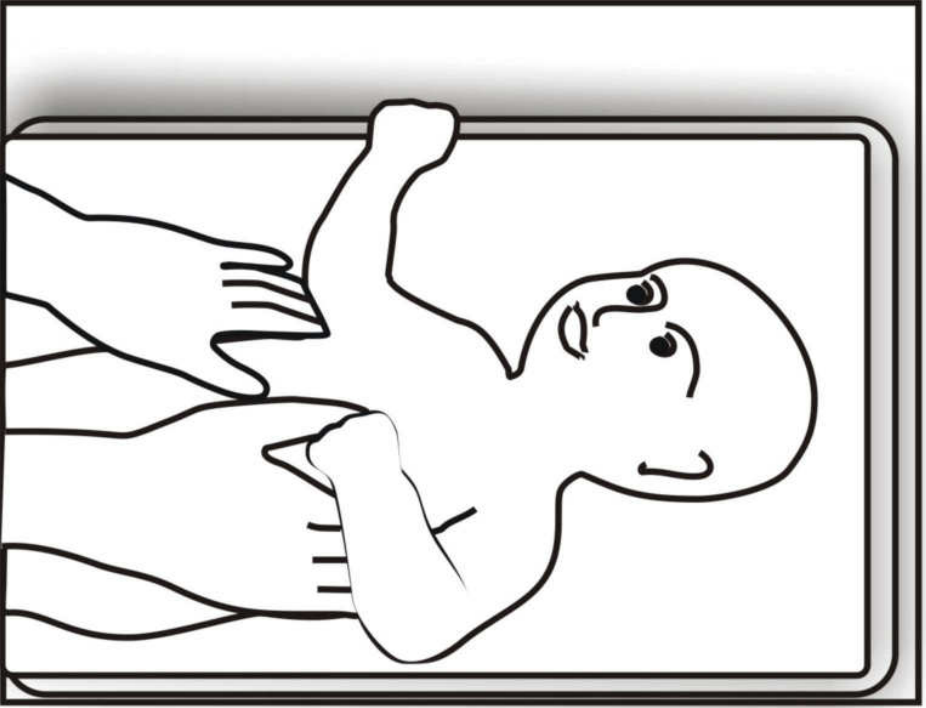
8. Hook the sling and lift the baby gently



9. Check the result while lifting baby.

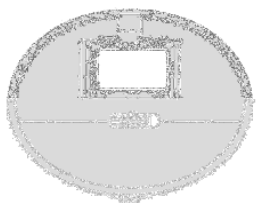


10. If reading is flashing means the result has been locked.

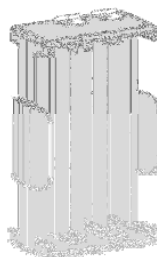


Gently lay the baby down and check the result on scale

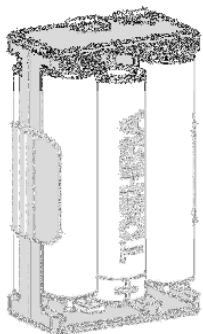
INSTRUCTION FOR BATTERY INSTALLATION



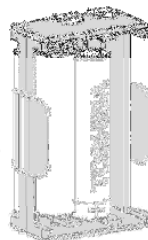
1.
Locating battery cover at the bottom of the scale and open it.



2.
Taking out battery case from bottom of the scale.



4.
Attaching six AAA batteries on the battery case.



3.
Align the battery front edge with the + mark on the case.









5.



- Installing battery case with six AAA batteries.

ERROR MESSAGE

Low battery indication This warning show that the voltage of battery is too low for operation, please replace battery.	
Overload / Zero counting value high Please remove subject on the scale and restart again if the problem still exists, please contact your local CHARDER MEDICAL service partner for service.	
Zero counting value low Internal zero counting value is too low for operation. Please contact your local CHARDER MEDICAL service partner for service.	
Zero counting value error This warning show that the device detected the zero counting value fluctuates exceed $\pm 10\%$ as default setting. If the message comes out please contact your local CHARDER MEDICAL service partner for service.	 
EEPROM Error The program has encountered internal error; please contact your local CHARDER MEDICAL service partner for service.	

TROUBLE SHOOTING

Troubleshooting for defective modes:

Original purchaser can enjoy the benefits under the effective Warranty against functional defects in material and workmanship subject to the terms and conditions listed in our Warranty Program & Return Policy.

Our warranty service program includes the following:

1. Technician repair service under warranty or at a service maintenance charge depending on the workmanship for the defective functionality or cause of damage covered by the warranty.
2. Parts replacement from the manufacturing factory under the warranty or at a certain cost for the replaced parts plus the workmanship charge if not covered under the warranty.

Before you contact our Authorized Dealer in your country for technician repair service, please read through the following section carefully:

Self-checking Tips:

Some functional defects can be identified and maintained by users as listed below:

1. Power-on failure

- Check if the main power adaptor has not plugged onto the scale properly
- Check if the battery power is running low - Recharge of battery power
- Please use power switch to reset the scale when meeting any trouble.
- Removing the AC JACK from indicator and plug in again for reset.

2. Indicator showing ZERO SPAN "0000" out of range

- Incorrect weighing result - Avoid damages by external environment force such as free-drop to the ground, collision by external objects, etc.
- Proper re-calibration procedure required to correct the setting of weighing accuracy.
- Interference due to RF disturbance, ground vibration...etc.

- Unstable platform feet adjustments according to bubble level indication
- Incorrect position or other external objects within weighing area
- The weighing-scale is not put in a solid & firm ground area, such as carpet floor or lawn.

3. Connection failure for data transmission to PC or printer

- Wrong connection wires or faulty wires for transmission between the digital indicator & load cells.
- Wrong indicator models
- Wrong internal wiring or wire broken

In case of the following defective mode occurs, it is suggested to contact your nearest Charder Authorized Dealer for further technician service & repair:

1. Power switch-on failure :

- Push-button faulty
- Short circuit wires - Wire broken
- Safety fuse burnt out
- Wire connection problem
- Main power adaptor faulty – Parts Replacement

2. LCD display faulty

- Possible hardware defects include: Uneven brightness in the LCD display screen & texts color blurred, smeared rainbow screen, incorrect decimal display
- LCD PIN broken or short circuit
- PCB cooper foil broken & loosed welding
- Unable to save or read data – IC or transistor faulty, internal parts broken.
- LCD showing “ERRL” after switch on - Load cell damaged
- Overload may cause the weigh to malfunction.
- Software system crash
- Resonator faulty
- Load cells with faulty grinding standard.

-
- Key buttons failure - Front key panel damaged or disconnected
 - If scale does not running Auto-Zero properly, please call for service from your Charder Authorized Dealer for service maintenance.

3. Buzzer malfunction



- Wrong welding of PVC wire
- Key buttons & control panel damaged or disconnected.

NOTE

NOTE

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:

	93/42/EEC as amended by 2007/47/EC Medical Device Directive
	2014/31/EU Non-automatic Weighing Instruments Directive

Please see separate document showing on sticker of device for above CE marking.

Authorized EU Representative:



Wellkang Ltd
Suite B, 29 Harley Street
LONDON, W1G 9QR, U.K.

Manufactured by:



Charder Electronic Co., Ltd.
No.103, Guozhong Rd., Dali Dist.,
Taichung City 412 ,Taiwan (R.O.C.)

FDA no.: D072479

IN-1034 8001M 11/2016