
charder®



**MS 6000
BED SCALE
USER MANUAL**

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

TABLE OF CONTENTS

PREFACE.....	2
GENERAL INFORMATION	2
SAFETY INSTRUCTION	2
ENVIROMENTAL.....	3
CLEANING.....	3
MAINTENANCE.....	3
WEIGHING OPERATION	3
WARRANTY-LIABILITY	4
DISPOSING OF THE SCALE.....	5
EXPLANATION OF THE GRAPHIC SYMBOLS	6
EMC guidance and manufacturer's declaration.....	8
SPECIFICATION	13
POWER ADAPTOR STANDARDS.....	14
PREPARATION FOR MEASUREMENT	15
INSTALLING WEIGH BRIDGE	17
PANEL.....	18
KEY FUNCTIONS.....	18
LCD SYMBOL DESCRIPTION.....	19
DATE & TIME SETTING PROCEDURE.....	20
NORMAL WEIGHING PROCEDURE(patient on the bed).....	21
WEIGHT TRACKING PROCEDURE.....	22
USING HOLD FUNCTION.....	24
USING BMI FEATURE.....	25
USING TARE FUNCTION.....	26
STORING AND RE-CALLING PRE-TARE WEIGHT	26
SET UP YOUR DEVICE	29
PRINTING FUNCTION	30
INSTRUCTION FOR CHARGING AND CONNECTING	32
ERROR MESSAGE	36
TROUBLESHOOTING	37

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:

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.
- ◆ 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°C to +35°C; 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 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 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.

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

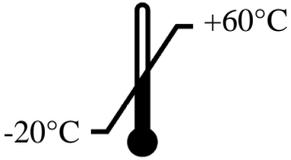


Dispose of old appliances separately from your household waste!!!

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		
<p>The MEDICAL SCALE MS6000 is intended for use in the electromagnetic environment specified below.</p> <p>The customer or the user of the MEDICAL SCALE MS6000 should assure that it is used in such an environment.</p>		
Emission test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The MEDICAL SCALE MS6000 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 MS6000 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 MS6000 is intended for use in the electromagnetic environment specified below.

The customer or the user of the MEDICAL SCALE MS6000 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.
Voltage Dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<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	<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	Mains power quality should be that of a typical commercial or hospital environment. If the user of the MEDICAL SCALE MS6000 requires continued operation during power mains interruptions, it is recommended that the MEDICAL SCALE MS6000 be powered from an uninterruptible power supply or a battery.

Power frequency(50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	The MEDICAL SCALE MS6000 power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration-electromagnetic immunity			
<p>The MEDICAL SCALE MS6000 is intended for use in the electromagnetic environment specified below.</p> <p>The customer or the user of the MEDICAL SCALE MS6000 should assure that is used in such and environment.</p>			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 KHz to 80 MHz	3 Vrms	<p>Portable and mobile RF communications equipment should be used no closer to any part of the MEDICAL SCALE MS6000 including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance:</p> $d = 1,2 \sqrt{P}$ $d = 1,2 \sqrt{P} \text{ 80MHz to 800 MHz}$ $d = 2,3 \sqrt{P} \text{ 800MHz to 2,5 GHz}$ <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>Radiated RF IEC 61000-4-3</p>	<p>3 V/m 80MHz to 2,5 GHz</p>	<p>3 V/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> 
<p>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.</p>			
<p>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 MS6000 is used exceeds the applicable RF compliance level above, the MEDICAL SCALE MS6000 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 MS6000.</p> <p>b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>			

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

The MEDICAL SCALE MS6000 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the MEDICAL SCALE MS6000 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the MEDICAL SCALE MS6000 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.

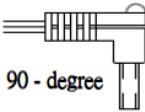
SPECIFICATION

Model	MS 6000
Capacity	500kg x 200g
Accuracy	±300g
Verification according to 2009/23/EC	Class III
Weight Unit	kg
LCD Display	1.0 inch LCD display with 5 and 1/2 digits
Dimension	Whole Dimension- 109 X 7.5 X 25.5 cm
	Weighing Area- 88 X 18 cm
Key Functions	ON/OFF, ZERO, HOLD/BMI , PRINT, PRE-TARE, CLEAR, ENTER, M1-10, MONITOR Weight, ALARM, 0~9 KEYS
Power Supply	<ul style="list-style-type: none"> ➤ 6-AA size batteries. ➤ Rechargeable battery pack (optional). ➤ 12V 2A switching adaptor.
Parts overview	Weigh bridge x 2 , connecting wire x 1 , DP3700 Indicator x 1 , Adaptor x 1 , User manual x 1 , RS232 cable , Bracket set for wall mount x 1
Operation Temperature	5°C ~ 35°C

POWER ADAPTOR STANDARDS

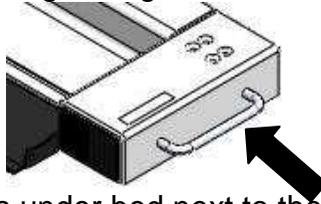


CAUTION: The device is only compatible with restricted power adaptors in dashed block below.

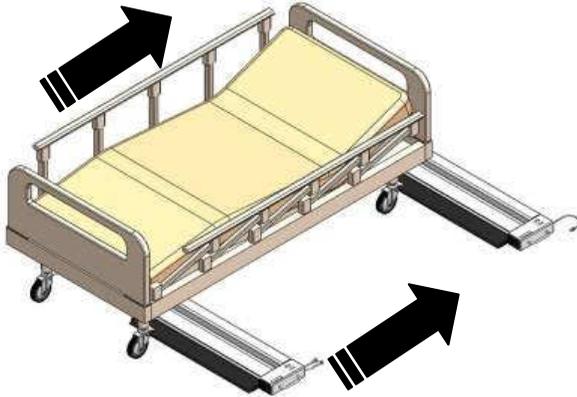
AMP VOLTAGE	DRAWING NO.:	CE APPROVED TYPE NO. / MODEL NO.:	TYPE	
9V DC 100mA	AD-0484	D35W090100-23/1	US	 90 - degree
9V DC 100mA	AD-038A	D41W1090100-13/1	EU	
9V DC 100mA	AD-037A	D41WK090100-23/2	UK	
9V 200mA	AD-8082(AD-0544)	UE05WCP-090020SPC	US	
9V 200mA	AD-8082(AD-0544)	UE05WCP-090020SPC	EU	
9V 200mA	AD-8082(AD-0544)	UE05WCP-090020SPC	UK	
9V 200mA	AD-8082A(AD-0544A)	UE05WCP-090020SPC	AU	
15V 300mA	AD-016D	D41W150300-13/1	US	
15V 300mA	AD-0420	D41WI150300-13/1	EU	
15V 300mA	AD-0370	D41WK150300-23/2	UK	
15V 300mA	AD-0482	D41WA150300-13/2	AU	
15V300mA	AD-8079D(AD-0536D)	UE05WCP-150030SPC	US	 180 - degree
15V300mA	AD-8079A(AD-0536A)	UE05WCP-150030SPC	EU	
15V300mA	AD-8079B(AD-0536B)	UE05WCP-150030SPC	UK	
15V300mA	AD-8079C(AD-0536C)	UE05WCP-150030SPC	AU	
12V 1A	AD-8095	UE24WCP1-120100SPA	US	
12V 1A	AD-8095	UE24WCP1-120100SPA	EU	
12V 1A	AD-8095	UE24WCP1-120100SPA	UK	
12V 1A	AD-8095	UE24WCP1-120100SPA	AU	
12V 2A	AD-8058(AD-0521)	UE24WU-120200SPA	US	
12V 2A	AD-8057(AD-0520)	UE24WV-120200SPA	EU	
12V 2A	AD-8056(AD-0519)	UE24WB-120200SPA	UK	
12V 2A	AD-8074(AD-0534)	UE24W4-120200SPAS	AU	
12V 1A	AD-8096	UE24WCP1-120100SPA	US	
12V 1A	AD-8096	UE24WCP1-120100SPA	EU	
12V 1A	AD-8096	UE24WCP1-120100SPA	UK	
12V 1A	AD-8096	UE24WCP1-120100SPA	AU	
12V 1A	AD-8084B	UE24WV-120100SPA	EU	
12V 1A	AD-8084	UE24WB-120100SPA	UK	
12A 1.5A	AD-8025A(AD-0527)	GFP181DA-120150B-2	US	
12A 1.5A	AD-8025D(AD-0529)	GFP181DA-120150B-2	UK	

PREPARATION FOR MEASUREMENT

1. Hold the handle of weigh bridge



2. Place weigh bridges under bed next to the bed casters.



3. Installing weigh bridges and power on the scale before pushing the bed on it. **Please refer to installing instruction.**
4. Set the unit on a stable, level surface. When the bubble indicator is in the centre of the circle, MS6000 is leveled correctly.

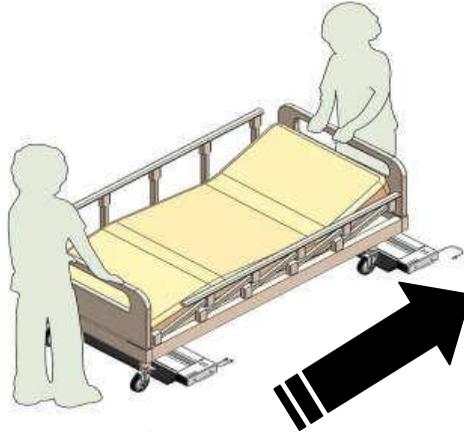


Bubble indicator: Good 

Wrong 

All four feet must touch the surface to make sure that MS6000 does not rock.

5. Push bed forward and move to the weigh bridges after assembly and power on the scale.



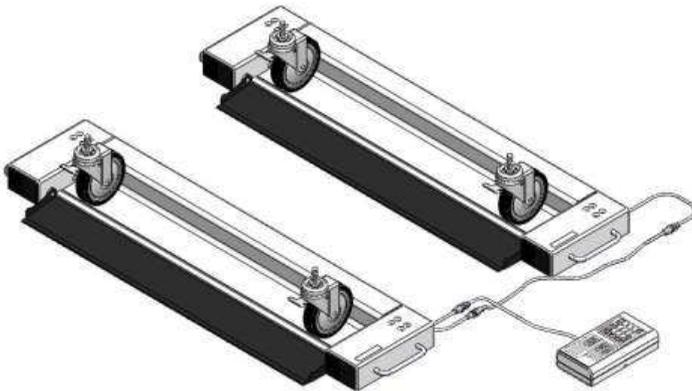
➤ We strongly recommend two people to operate the procedure.



Before moving bed on the weigh bridge, please turn on the scale!!

You must make sure that the connecting cable is not caught under the measuring foot, otherwise faulty measurements may result.

6. Four bed casters are now placed well on weigh bridges.

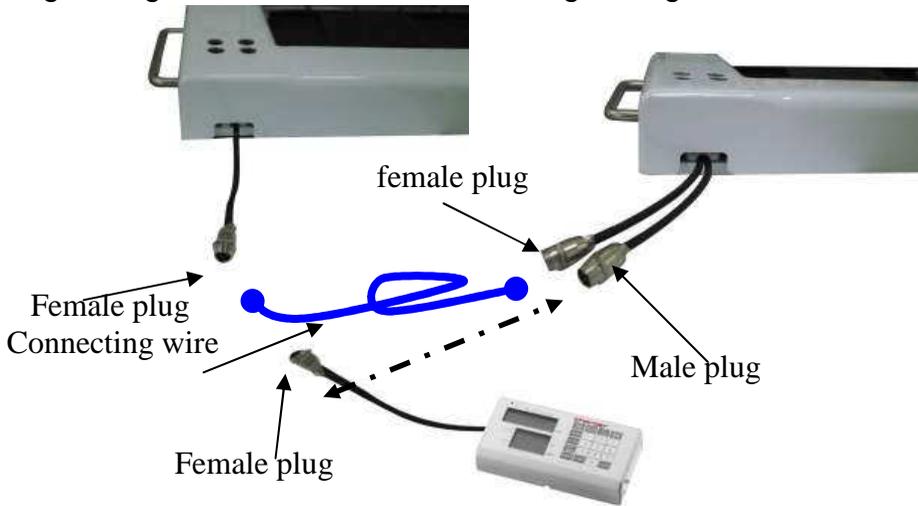


INSTALLING WEIGH BRIDGE

Charder Bed Scale has been properly labeled for easy assembling. The packing also includes Weigh Bridge, connecting wire and Indicator. Connect both the weigh bridges using Weigh Bridge connecting wire and then connect Indicator with “Weigh Bridge – 2”.

Weigh Bridge – 1

Weigh Bridge – 2



Note: Please connect all the Pins carefully with gentle hands and match with and push the wire connecting slot gently.



PANEL

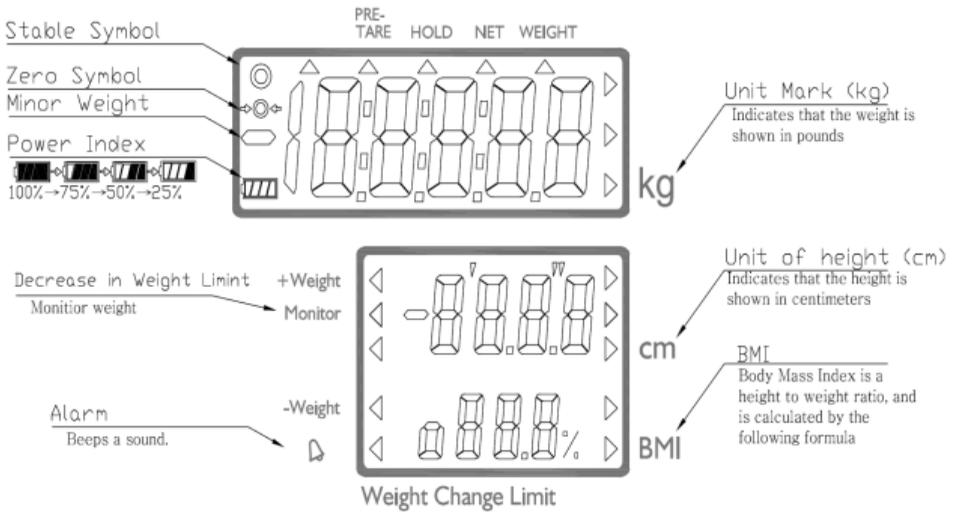


KEY FUNCTIONS

Key	Description
ON/OFF	To switch ON/OFF the scale
ZERO	To zero the system
M 1~10	To save 10 sets of PRE-TARE value
PRE-TARE & TARE	<ul style="list-style-type: none"> ➤ PRE-TARE function for subtraction of a known bed weight or any other object before weighing process. ➤ To Tare any unwanted weight.
HOLD/BMI	<ul style="list-style-type: none"> ➤ To weigh the patients who are unstable and to lock the weighing value on screen ➤ Long press for 3 seconds to calculate the BMI of patient
PRINT	To print out the results.

MONITOR WEIGHT	For tracking the change in weight of Patient.
ALARM	To turn ON/OFF and adjust volume level of Alarm function
CLEAR	To clear the wrong entry while entering digits.
ENTER	To confirm & apply.
0~9	Entering digits

LCD SYMBOL DESCRIPTION



Definitions

Stable symbol: To indicate that the weight is stable.

Minor weight: Weight under zero.

Zero symbols: Weight is at zero point.

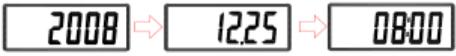
Low battery: Battery need to charge or replaced.

DATE & TIME SETTING PROCEDURE

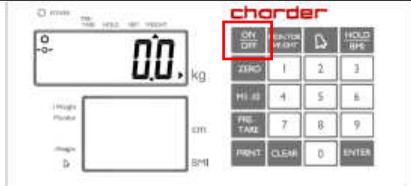
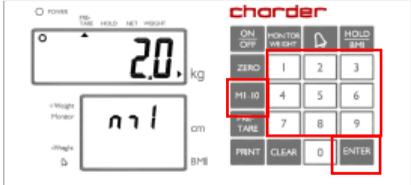
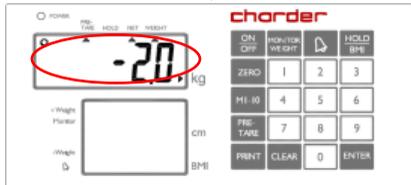
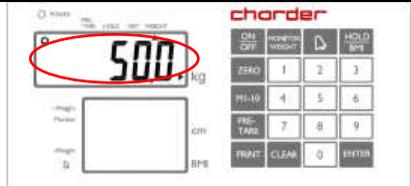
Switch ON the scale using ON/OFF key and then long press 

key for 3 seconds to enter the TIME SETTING mode. Press 
key after successful change to move to next step.

EX: To input Dec 25, 2008, 8:00am.

	<p>Enter year using 0~9 keys. Press  key after successful entry to move to next.</p>
	<p>Enter date. Ex: 12/25 enter "12.25" using 0~9 keys Press  key after successful entry to move to next.</p>
	<p>Enter time using 0~9 keys and then again press  key.</p>
<p>Display Format YYYY→MM.DD→TT:SS</p> 	<p>First 'Year' then 'Date.Month' and then 'Time' will display and then the scale will automatically come to weighing mode.</p>

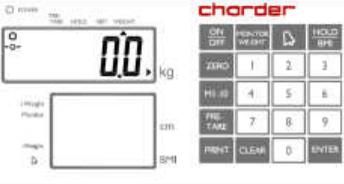
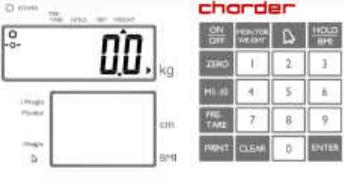
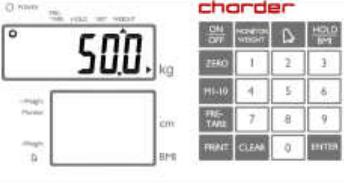
NORMAL WEIGHING PROCEDURE(patient on the bed)

<p>Turn On the scale using ON/OFF key. ** (before moving bed on the weigh bridge)</p>	 <p>The image shows the Chorder scale interface. The top display shows '0.0' kg. The 'ON/OFF' key on the keypad is highlighted with a red box. Other keys include 'ON/OFF', 'MONITOR WEIGHT', 'HOLD/BMI', 'ZERO', '1-3', 'HI-ID', '4-6', 'PRE-TARE', '7-9', 'PRINT', 'CLEAR', and 'ENTER'.</p>
<p>Call the PRE-TARE value (bed weight) from memory (refer Recall PRE-TARE value section) and then press Enter, scale will automatically perform Tare function and the minus (-) sign will appear in front of Pre-Tare value.</p>	 <p>The image shows the scale with '20.0' kg on the top display. The 'PRE-TARE' key on the keypad is highlighted with a red box. An arrow points down to the next image.</p>
<p>Place both the weigh bridges under the bed and push the bed on the scale.</p>	 <p>The image shows the scale with '-20.0' kg on the top display. The '-20.0' value is circled in red.</p>
<p>The upper display will show the net weight of the patient.</p>	 <p>The image shows the scale with '50.0' kg on the top display. The '50.0' value is circled in red.</p>
<p>Now if you want BMI also, simply long press HOLD/BMI key for 3 seconds, the middle display will show the last height of the patient and extreme digit will blink. Key in the height measurement of patient using 0~9 key and press ENTER key. The third display will show the BMI of the patient</p>	 <p>The image shows the scale with three displays: '50.0' kg (top), '170.0' cm (middle), and '17.3' BMI (bottom). The '50.0', '170.0', and '17.3' values are circled in red.</p>

To print out the weighing result, press PRINT key.

GROSS WEIGHT	52.0kg
PRE-TARE WEIGHT	2.0kg
NET WEIGHT	50.0kg
PATIENT HEIGHT	170.0cm
PATIENT B.M.I	17.3
10/09/10 09:15	

WEIGHT TRACKING PROCEDURE

<p>Prepare the bed; place pillow cushion or any other necessary things on the bed.</p>	
<p>Switch on the scale use ON/OFF key</p>	
<p>Push the bed on the scale, the display will show total bed weight on upper LCD.</p>	
<p>Press Pre-Tare key to tare the weight of the bed, the scale will return to '0.0' reading.</p>	
<p>Move the patient on the bed, the upper display will show net weight of patient. (*)</p>	
<p>Long press 'Monitor Weight' key; the patient weight will lock and the middle display will display '0.0' reading and the arrow will point to + weight.</p>	

Use 0~9 keys to set the increase in weight limit and press ENTER.



Now the lower display will start blinking and point to (-) weight limit. (**), press 0~9 keys to set the decrease in weight limit, the minus (-) sign will appear in front of the weight decrease value, after setting the values press ENTER. (**), the scale will return to '0.0' reading.



Press **MONITOR WEIGHT** key to turn on the alarm, the blinking arrow pointing to  sign means the Alarm volume is maximum. To decrease the volume level, press  key again the blinking arrow will stop blinking, and to turn off the alarm press the  key once the pointing arrow will disappear.



***NOTE-** As the 'Weight Tracking Function' is activated the original Patient Weight (patient weight in Step-4) will lock and saved in memory. And this function can be activated only after moving the bed on the bed scale and placing the patient on the bed.

****NOTE-** The weight change range starts from 500gm/- 500gm and then can be increased/ decreased by every 100gm.

USING HOLD FUNCTION

Charter Bed Scale is provided with the integrated hold function to determine the average weight. It enables people to be weighed accurately although they are not still on the bed.

Note: *Determining average weight is not possible in case of big fluctuation between weight.*

- Switch 'ON' the scale using **[ON/OFF]** key. The diagnostic self-check will be performed and after that „**0.0 kg**” will display on the screen with 'stable' and 'zero sign'.
- Call the bed weight from Memory (*Refer- Re-calling Pre-tare weight section*) and press ENTER key, the scale will Pre-tare the bed weight and (-) sign will appear in front of bed weight.
- Move the bed (Patient is in bed) on the scale platform.
- Press the **[HOLD]** key. The 'HOLD' will display on the screen with blinking triangle and after few seconds the average of fluctuating weight will display on the screen and will lock on the display.
- To release the locked weight on display simply press the **[HOLD]** key again or remove the object/ person from the scale platform and make sure there is no weight on platform: the display will return to „**0.0 kg**” display automatically.
- HOLD key function can be activated before or after putting the weight on the tread platform. But in case of weighing unstable person it is recommended to press HOLD key after the person moves on the tread platform.

USING BMI FEATURE

1. Follow the normal weighing procedure.
2. Long press BMI key for 3 seconds, after the weight stabilizes and the stable sign displays on the LCD, the middle LCD will display previous height value.
3. Key in the height of the patient using 0~9 key. The BMI value will also change as the height value will increase or decrease.
4. At this stage, the weight and height can be changed, and the bed scale will automatically calculate the BMI value according to the changed weight and height.
5. HOLD feature can also be used if the weight is unstable.
6. Press BMI button to return normal weighing mode.

Body Mass Index Categories

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

USING TARE FUNCTION

Tare allows the user to zero the instrument to cancel the weight of a bed/ clothes from the reading of the instrument, thus giving the true weight of the person/patient being tested.

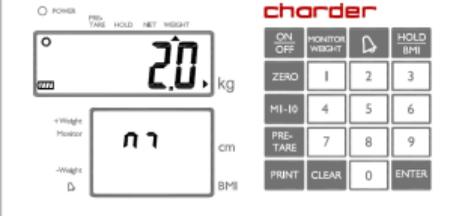
- Place the bed scale under the bed and push it on the scale.
- Press PRE-TARE key after the weight stabilizes and stable sign displays. The display will become zero.
- Move the patient need to be weighed on the bed, the display will show the net weight of the patient.

To delete the saved tare value, remove the tare object from the tread platform and press [PRE-TARE] key.

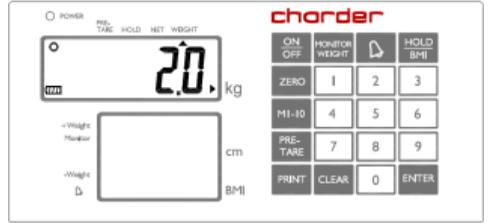
STORING AND RE-CALLING PRE-TARE WEIGHT

Charder Bed Scale can store 10 sets of pre-tare values, and there are two methods to store pre-tare value – *Using Dead Weight or Enter weight using 0~9 keys:*

A. Using Dead Weight:

DESCRIPTION	EXAMPLE
<p>Press M1-10 key after loading the weight on the platform; the display shows blinking m sign.</p>	
<p>Press 0~9 keys to assign the position to pre-tare weight.</p>	

Press ENTER key to store pre-tare weight; the instrument will make double beep sound.

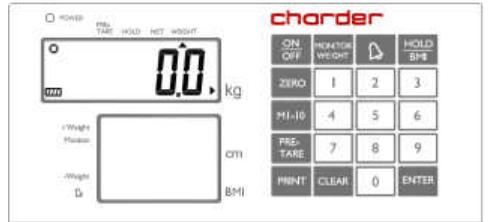


B. Enter Weight Using 0~9 Keys:

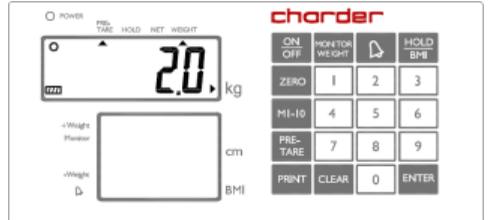
DESCRIPTION

EXAMPLE

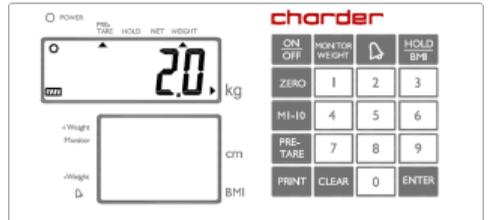
Long press PRE-TARE key for 3 seconds, the extreme left digit will blink.



Enter pre-tare weight using 0~9 keys. For example- 2kg.



Press ENTER key to confirm the pre-tare weight; the display will show the minus sign on left of the pre-tare weight value.



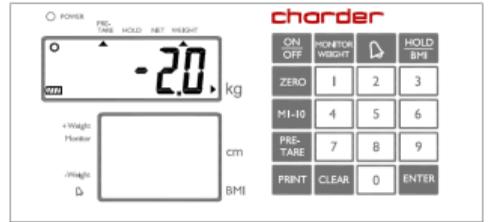
Press M1-10 key; the blinking m sign will appear on the display.



Press numeral key 0 ~ 9 to assign the position to pre-tare weight.



Press ENTER key to store pre-tare weight; the instrument will make double beep sound.



C. RECALL PRE-TARE VALUE

DESCRIPTION

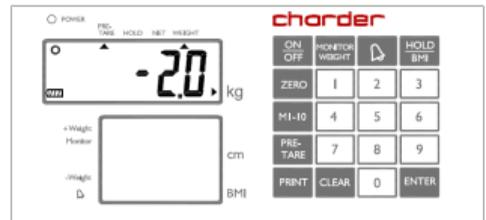
Long press M1~10 key for 3 seconds; the display will show pre-tare value- m1 firstly. The pre-tare value will blink.

EXAMPLE

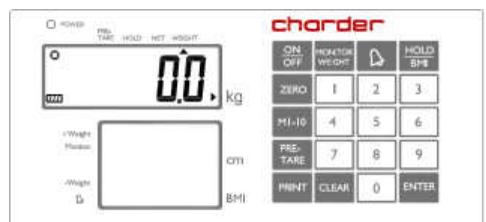


Press numeral key 0 ~ 9 to choose pre-tare value

Press ENTER key to confirm the pre-tare weight; the instrument will automatically perform tare function.



Press PRE-TARE key to return to Normal Mode.



SET UP YOUR DEVICE

Switch ON the scale and long press [ZERO] key for 3 seconds, first "SETUP" and then "A.OFF" will display successively.

AUTO-OFF TIME SETUP

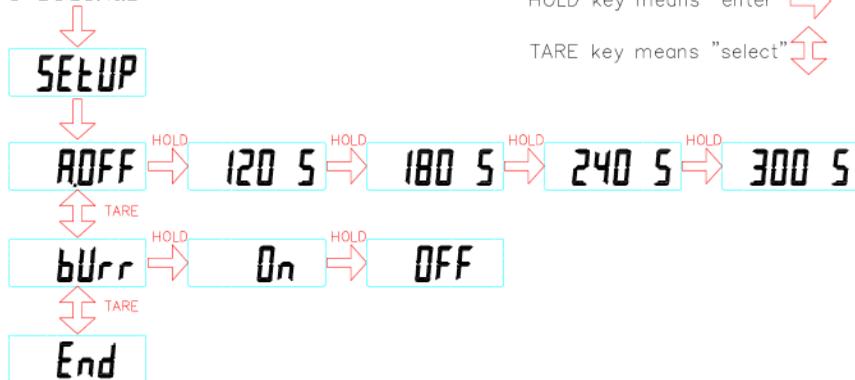
This enables operator to select the auto turn OFF time of the device.

BUZZER ON/OFF SETUP

This enables operator to select beep sound ON/OFF.

- Auto off time: 120 sec/180 sec/240 sec/300 sec/off
- Buzzer: On/Off

Press ZERO key
3 seconds



*Please Press 'Pre-Tare' key to confirm the setting. If you want to select as auto off time, press 'Tare' key when displays on the screen.

** To apply the changes proceed till END displays on the screen.

PRINTING FUNCTION

Weight, BMI and Height results can be printed for records using RS232 interface cable (included in accessory kit).

After weighing and calculating BMI simply press **PRINT** key to print out the results.

The format presented below is the standard format of results print-out and cannot be changed.

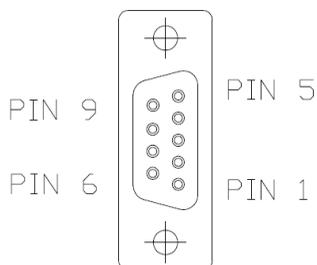
GROSS WEIGHT	52.0kg
PRE-TARE WEIGHT	2.0kg
NET WEIGHT	50.0kg
PATIENT HEIGHT	170.0cm
PATIENT B.M.I	17.3
10/09/10 09:15	

Parameters of RS232 interface

Set parameters of the scale interface on the connected device. It is not possible to change the scale parameters.

- Baud rate: 9600 bps
- Parity check: None
- Data length: 8 bits
- Stop bit: 1 bit
- Handshake: RTS/CTS
- Data code: ASCII

RS232 Pin out



PIN OUT FOR DB9P (F)

TXD	-----	2
RXD	-----	3
GND	-----	5

Connecting with PC

1. Start Hyper Terminal

Start Hyper Terminal program from clicking Start Menu → Programs → Accessories → Communication → Hyper Terminal.

2. New Connection Description

Give new connection a name then click OK.

3. Select Your COM Port

Click Connect to select your COM port. Usually there's only one option for select. Then click OK.

4. Port Settings

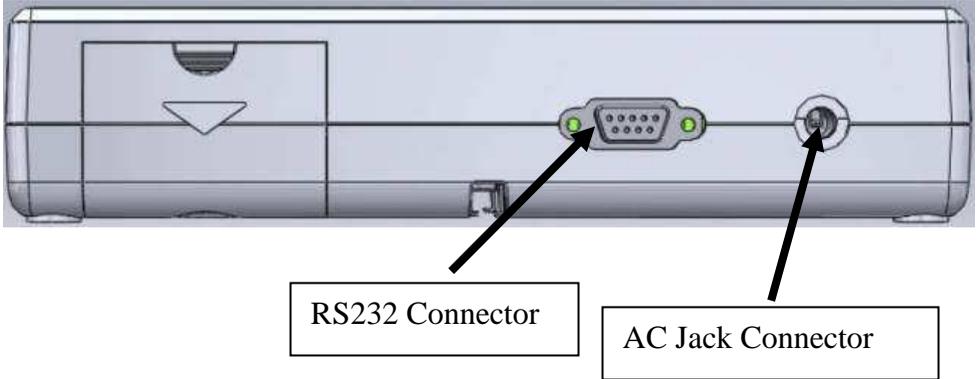
Click Bits per second to set up rate at 9600, Data bits at 8, Parity at None, Stop bits at 1 and Flow control at Hardware. Then click OK to complete your setting.

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 CHARGING AND CONNECTING

If **Lo** prompt displays on the LCD, please change the scale batteries or use exclusive adaptor to operate the scale.
Locate adaptor plug on the right side of indicator.

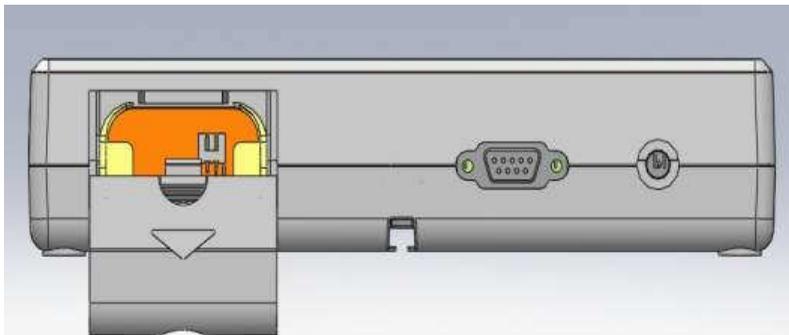


CAUTION:

- Always connect the AC adaptor with the indicator before connecting to the mains power supply.
- Please disconnect the adaptor from main power supply before taking out the AC adaptor pin from indicator.

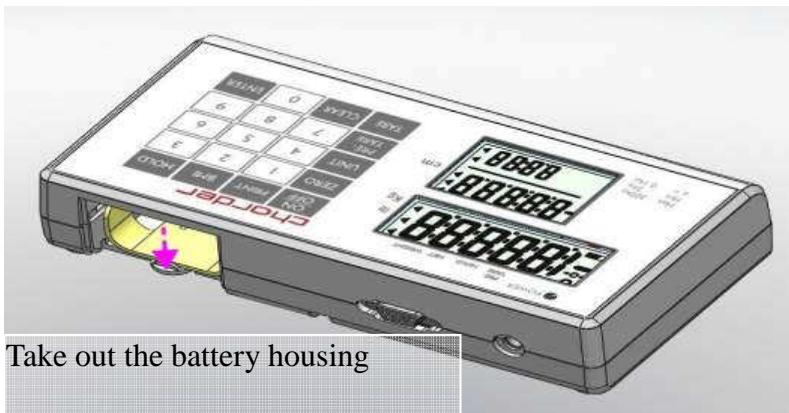
INSTRUCTION FOR REPLACING BATTERIES

1.



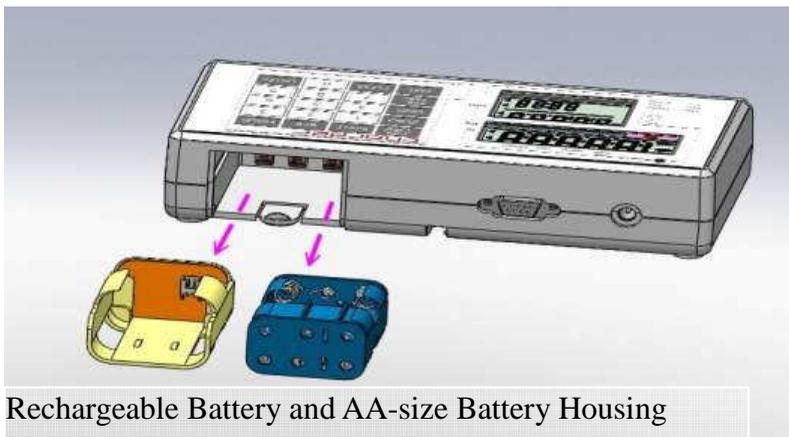
Open the battery housing cover

2.



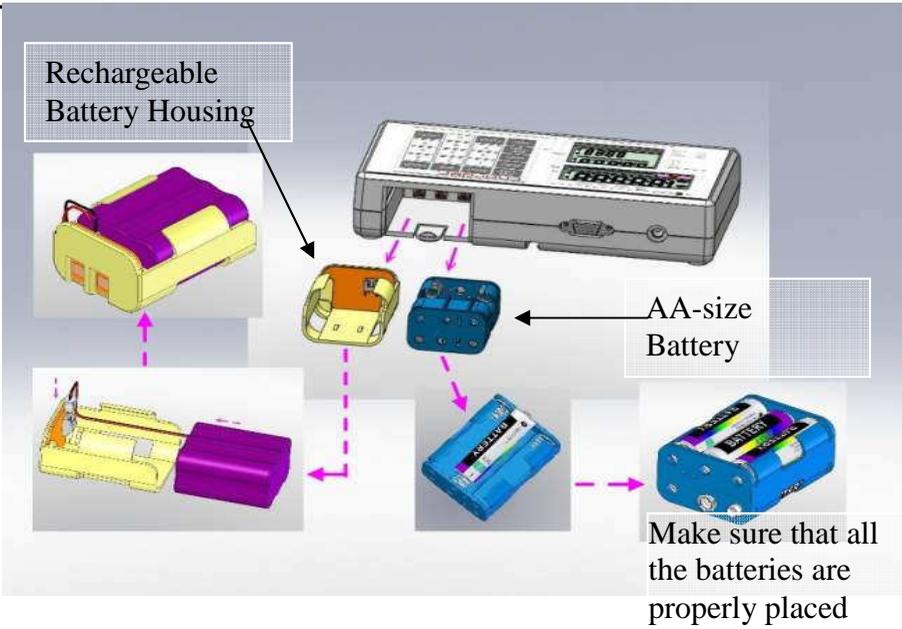
Take out the battery housing

3.

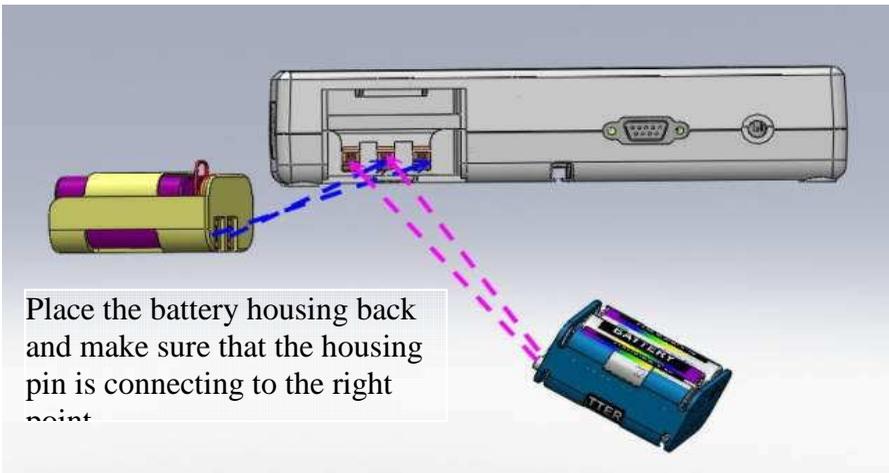


Rechargeable Battery and AA-size Battery Housing

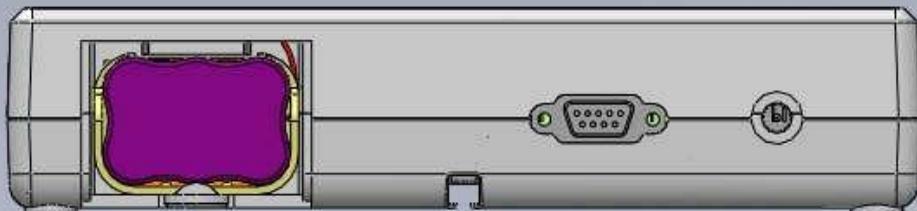
4.



5.



6.



Place the housing back

7.



Close the battery housing cover

ERROR MESSAGE

ERROR MESSAGE	REASON	ACTION
	Low Battery: This warning shows that the voltage of battery is too low to use	Please replace a new battery or plug the AC adaptor for operation.
	Overload: The total load exceeds the maximum capacity of scale	Please reduce the loading and try again.
	Counting error (too high): Indicates that the signal from the load cell/s is too height	This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.
	Counting error (too low): Indicates that the signal from the load cell/s is too low	This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.
	Zero count over calibration zero range +10% while power on	Please re-calibrate the instrument.
	Zero count under calibration zero range -10% while power on	Please re-calibrate the instrument.
	EEPROM Error: Indicates that there is a fault with the scales software	This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.

TROUBLESHOOTING

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 the yearly 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 - Replace with new batteries

2. Indicator showing “0000” ZERO SPAN 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 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

3. Buzzer malfunction

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

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-1224 [12185H] 11/2016