

charder®



MS2500 / MS2501
Medical 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.....	2
CLEANING.....	2
MAINTENANCE	3
WEIGHING OPERATION.....	4
WARRANTY-LIABILITY	4
DISPOSING OF THE SCALE	5
EXPLANATION OF THE GRAPHIC SYMBOLS.....	5
EMC GUIDANCE AND MANUFACTURER'S DECLARATION	7
SPECIFICATION.....	12
MEDICAL SCALE MODELS APPROVAL LIST.....	13
POWER ADAPTOR STANDARDS	14
LCD DISPLAY	15
ASSEMBLY INSTRUCTION	16
KEY FUNCTIONS	21
SETTING UP YOUR DEVICE	23
SETTING UP YOUR DEVICE STEP BY STEP.....	24
USING SCALE – KEY FUNCTIONS	25
ASSEMBLE WITH HM201M	28
INSTRUCTION FOR CHARGE AND CONNECT.....	29
REPLACING BATTERY AND CHARGE	30
ERROR MESSAGE.....	31
TROUBLESHOOTING	32

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.
 - ♦ Expected Service Life: 5 years
 - ♦ These batteries should be kept away from small children. If swallowed, promptly seek medical assistance.

If you have any question, 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 an 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.

EXPLANATION OF THE GRAPHIC SYMBOLS

SN-T13000001

Designation of the serial number of every device, applied at the device.
(Number as an example)



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

“Please note the accompanying documents”
or “Observe operating instructions”
Identification of manufacturer of medical product including address



“Electro-medical appliance”
with attachment for type B



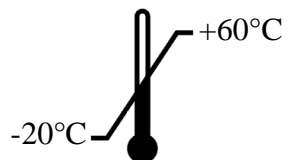
Device protection category II



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)



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

EMC guidance and manufacturer's declaration

Guidance and manufacturer's declaration-electromagnetic emissions		
<p>The digital weighing scale is intended for use in the electromagnetic environment specified below.</p> <p>The customer or the user of the digital weighing scale should assure that it is used in such an environment.</p>		
Emission test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	<p>The digital weighing scale 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.</p> <p>The digital weighing scale 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.</p>
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations /flicker emissions IEC 61000-3-3	Compliance	

Guidance and manufacturer's declaration-electromagnetic immunity			
<p>The digital weighing scale is intended for use in the electromagnetic environment specified below.</p> <p>The customer or the user of the digital weighing scale should assure that it is used in such an environment.</p>			
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	$\pm 2\text{kV}$ for power supply lines + 1kV for input/output lines	$\pm 2\text{kV}$ for power supply lines Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	$\pm 1\text{kV}$ line(s) to line(s) $\pm 2\text{kV}$ line(s) to earth	$\pm 1\text{kV}$ 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 digital weighing scale requires continued operation during power mains interruptions, it is recommended that the digital weighing scale 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 digital weighing scale 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 digital weighing scale is intended for use in the electromagnetic environment specified below.</p> <p>The customer or the user of the digital weighing scale 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 digital weighing scale including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance:</p> $d = 1,2 \sqrt{P}$ $d = 1,2 \sqrt{P} \quad 80\text{MHz to } 800 \text{ MHz}$ $d = 2,3 \sqrt{P} \quad 800\text{MHz to } 2,5 \text{ GHz}$ <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>
Radiated RF IEC 61000-4-3	3 V/m 80MHz to 2,5 GHz	3 V/m	<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>



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 digital weighing scale is used exceeds the applicable RF compliance level above, the digital weighing scale should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the digital weighing scale.
- 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 digital weighing scale

The digital weighing scale is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the digital weighing scale can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the digital weighing scale 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 2500	MS 2501
Capacity	300kg x 0.1kg 660lb x 0.2lb	300kg x 0.1kg
Accuracy	±0.2kg / ±0.4lb	±150g
Weight Unit	kg/lb	kg
OIML Classified	-	III
CE 0434	-	Certified
LCD Display	1.0 inch LCD display with 5 and 1/2 digits	
Dimension	Height: 1160 mm Platform size: 550 x 550 mm	
Operating Temp. & Humidity	+5°C - +35°C 15% - 85% RH	
Transport / Storage Temp. & Humidity	- 20°C ... + 60°C 10% - 95% RH	
Key Functions	MS2500:ON/OFF, UNIT, HOLD/BMI, TARE	
	MS2501 4key OIML CIII	
	ON/OFF,  (zero), HOLD , TARE	
	MS2501 20key OIML CIII	
	ON/OFF,  (Zero), PRINT, BMI, HOLD, PRE TARE, TARE, CLEAR, ENTER, 0~9.M1~M5	
Power Supply	MS2501 20key standard	
	ON/OFF, ZERO, PRINT, BMI, HOLD, PRESET TARE, SEMI AUTO TARE, UNIT, , CLEAR, ENTER, 0~9.	
	Battery : AAA Battery x 6 Adaptor : 15V 300mA OPTION: Rechargeable battery pack	

Medical Scale Models Approval List

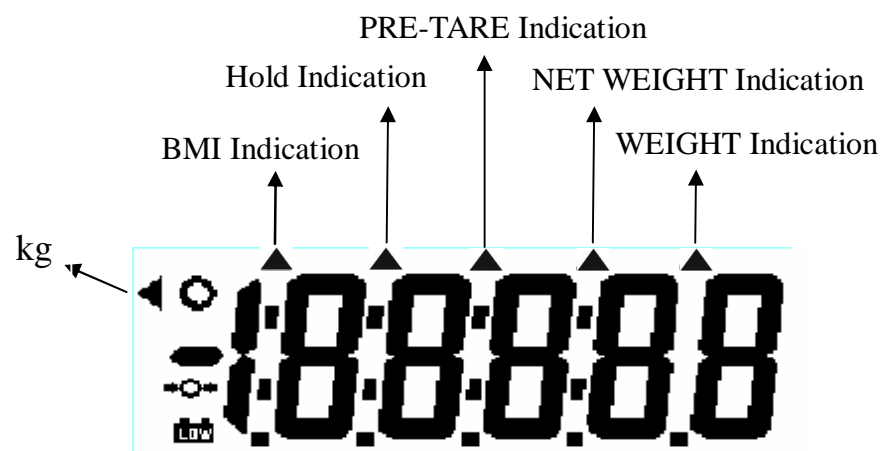
The Medical Scales listed below are the certified models under the Council Directive 93/42/EEC for standard of safety, health protection and accurate metrology characteristics of medical scales:

PRODUCT DESCRIPTION	PRODUCT MODEL NO.	CLASS
Medical Scale	MS21-NEO, MS-2320, MS-2501, MS-2514, MS-3800, MS-4610, MS-4940, MS-5410, MS-5710, MS-3400, MS-4510, MS-3400-1, MS-5800, MS-4900, MS-5810, MS-5811, MS-3900, MS-2350, MS-2504, MS-2515, MS-3830, MS-3910, MS-4640, MS-4910, MS-5440, MS-5730, MS-5840, MS-6001, MS-5010, MS-5200, MS-5900, MS-4200, MS-4202L, MS-4211, MS-2400, MS-3500, MS-4400, MHS-2200, MHS-2400, MHS-2500, MHS-2600, MHS-2510, MHS-2610, MS21-NEOV, MS-6000, MS-6111	Im
Height Measurement	HM-80P, HM-80M, HM-200M, HM-200PW, HM-200P	Im

POWER ADAPTOR STANDARDS

AMP VOLTAGE	DRAWING NO.:	CE APPROVED TYPE NO. / MODEL NO.:	TYPE
9V DC 100mA	AD-038A REV 007	D41W1090100-13/1	EU
9V DC 100mA	AD-0484 REV 001	D35W090100-23/1	US
9V DC 100mA	AD-0484 REV 001	SP35-90100	US
9V DC 100mA	AD-037A REV 003	D41WK090100-13/2	UK
9V 100-200mA	AD-8082A REV 001	UE05WCP-0900205PC	AU
12V 2A	AD-8057 REV 001 (AD-0520)	UE24WV-120200SPA	EU
12V 2A	AD-8058 REV 001	UE24WU-120200SPA	US
12V 2A	AD-8056 REV 001	UE24WB-120200SPA	UK
12V 2A	AD-8074 REV 001	UE24W4-120200SPAS	AU
12V 1A	N/A	UE24WV-120100SPA	EU
12V 1A	N/A	UE24WV-120100SPA	UK
12V 1.5A	AD-8025D	GFP181DA-120150B-2	UK
15V300mA	AD-8079A	UE05WCP-150030SPC	EU
15V300mA	AD-016D REV 001	D41W150300-13/1	US
15V300mA	AD-8064 REV 001	MTP121UL-120100A	US
15V300mA	AD-8079B REV 001	UE05WCP-150030SPC	UK
15V300mA	AD-8079C REV 001	UE05WCP-150030SPC	AU
15V 300mA	AD-0420 REV 004	D41WI150300-13/1	EU
15V 300mA	AD-0370 REV003	D41WK150300-13/2	UK
15V 300mA	AD-0482 REV 004	D41WA150300-13/2	AU

LCD DISPLAY



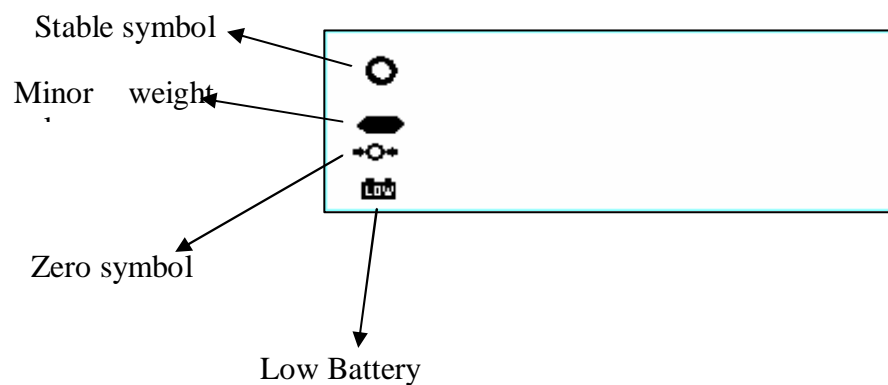
Definitions

Stable symbol: When user stands on scale and is stable.

Minor weight: Weight under zero.

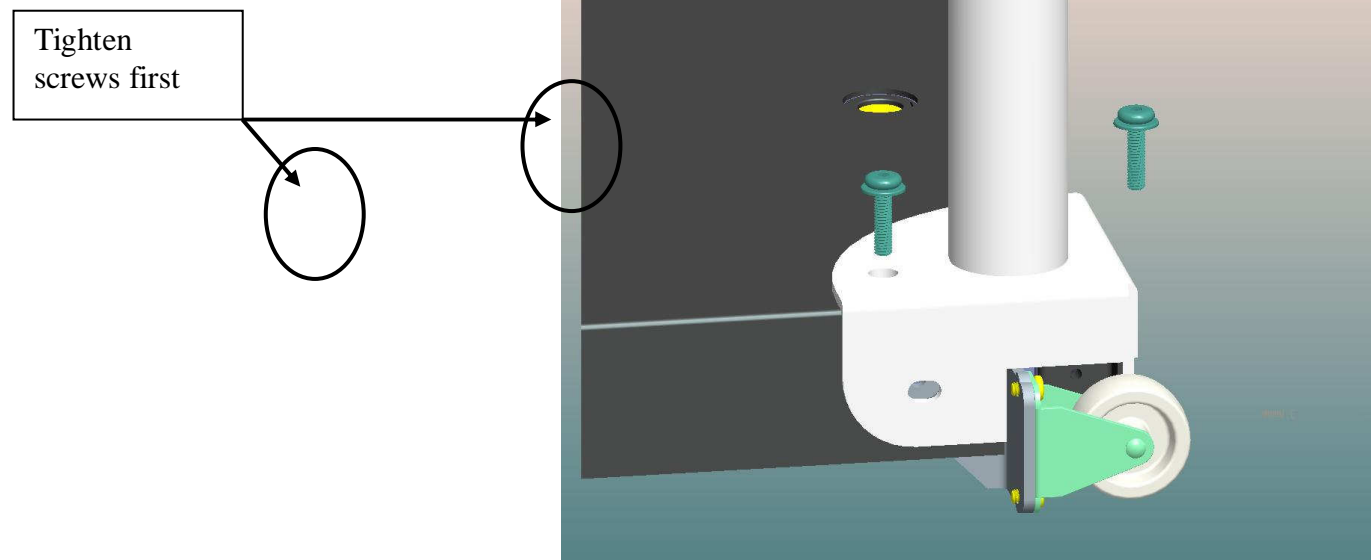
Zero symbol: Weight is at zero point.

Low battery: Voltage is too low to operate.

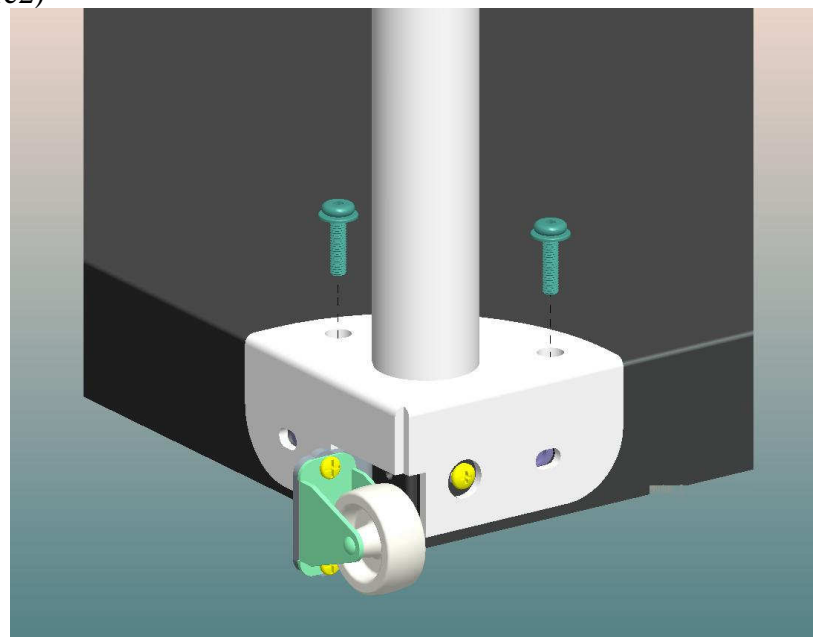


ASSEMBLY INSTRUCTION

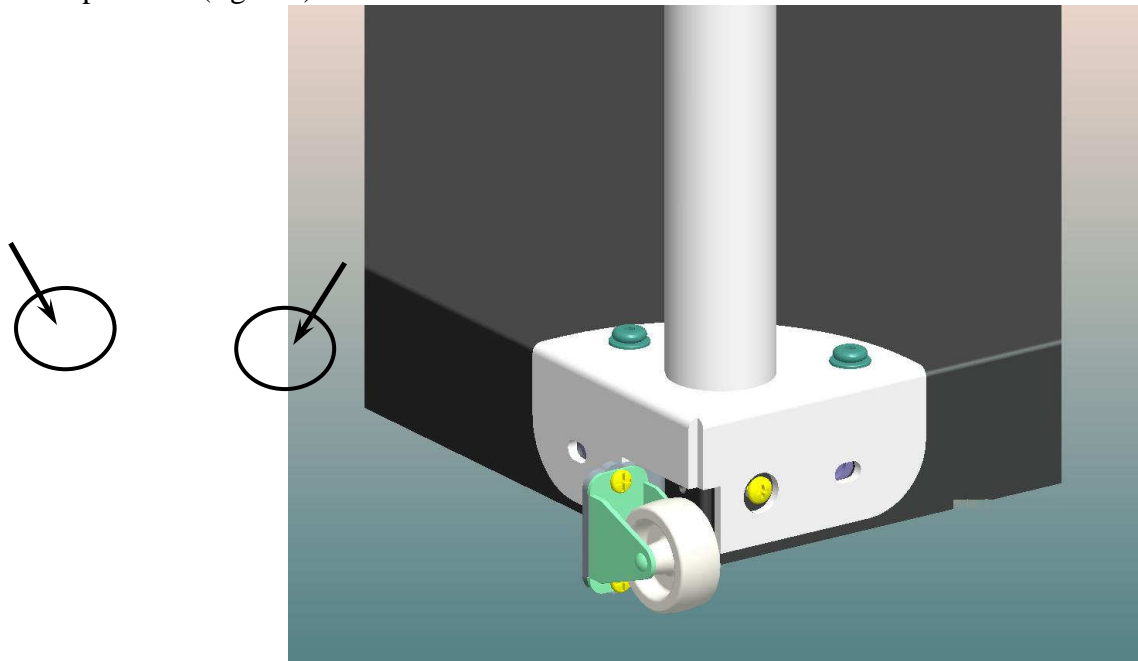
Step1. Fixing first handrail column on platform (figure1)



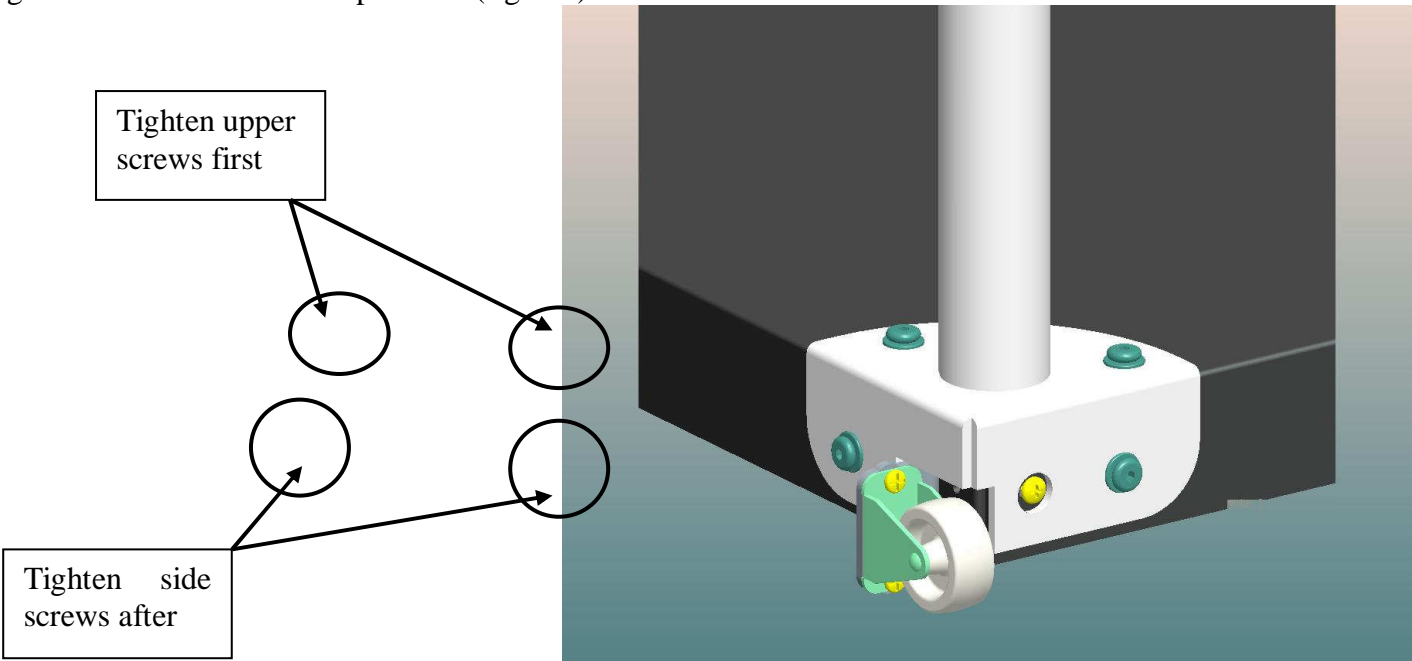
Fixing second handrail column on platform (figure2)



Fixing third handrail column on platform (figure3)



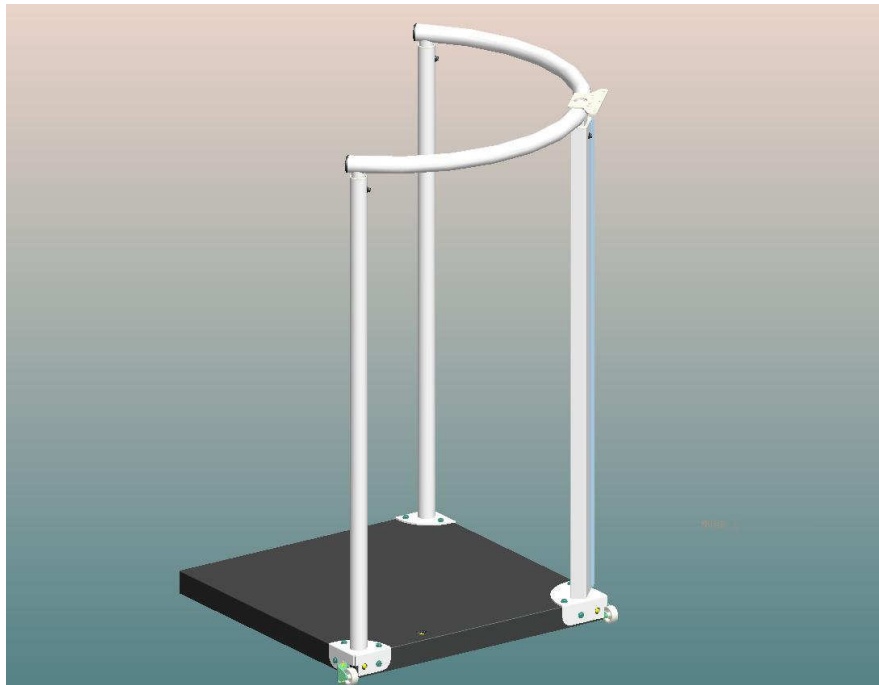
Fixing third handrail column on platform (figure4)



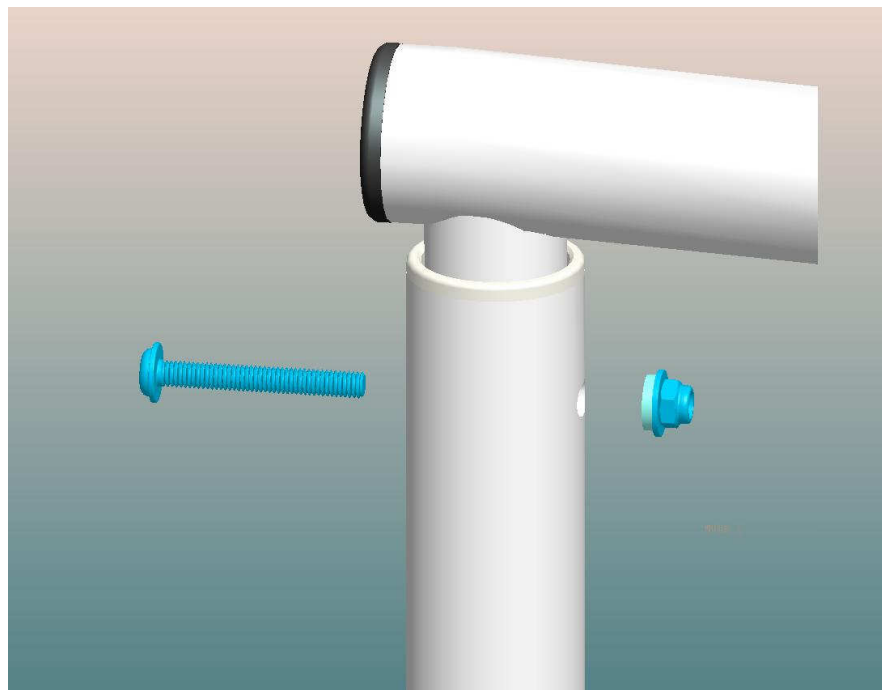
Step2.Fixing handrail.



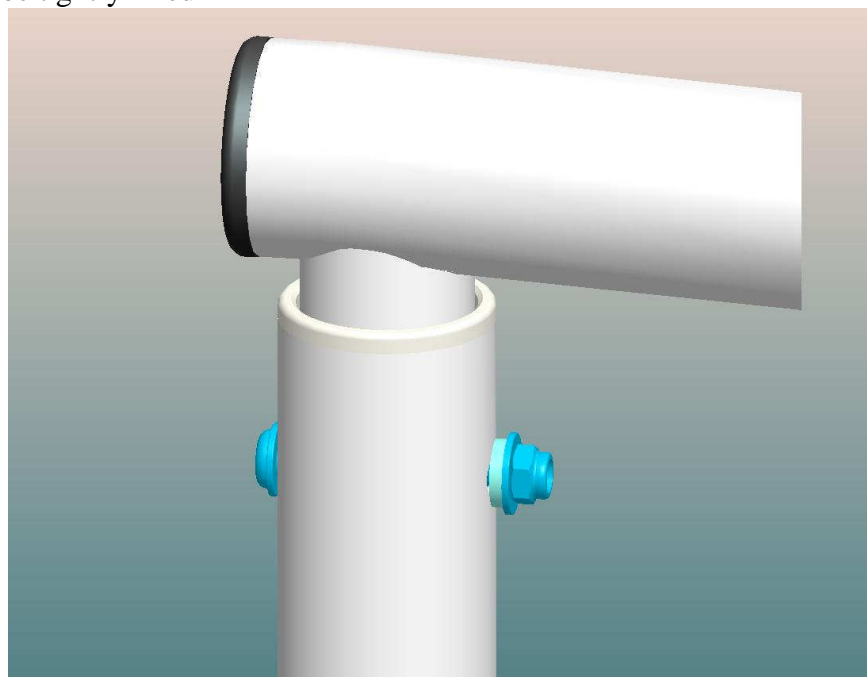
Assemble handrail and column.



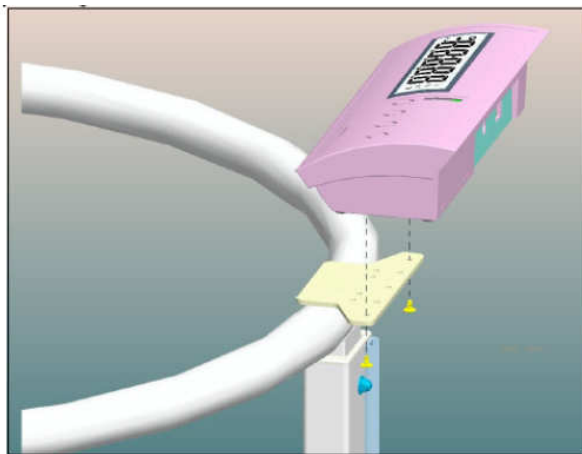
Fixing handrail and column with screw.



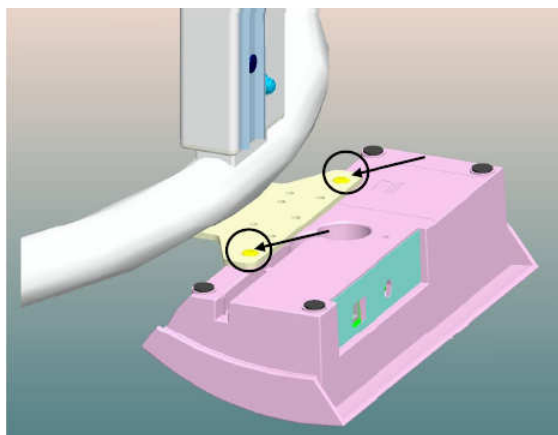
Attention : The screws to mount handrail must be tightly fixed



Step3. Fixing DP2701 indicator.

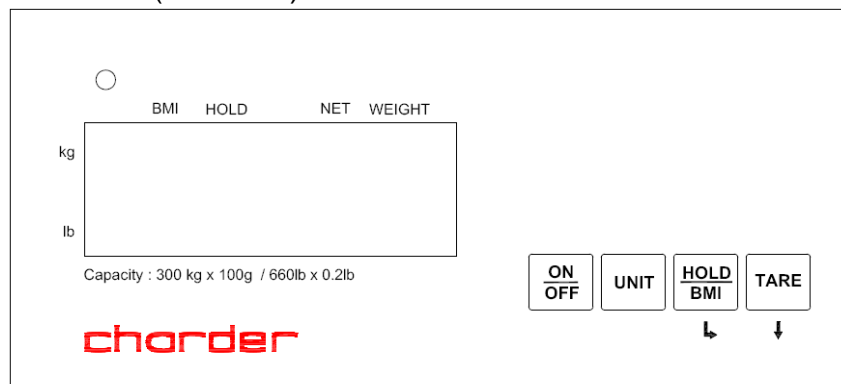


Make sure DP2701 is well fixed on column

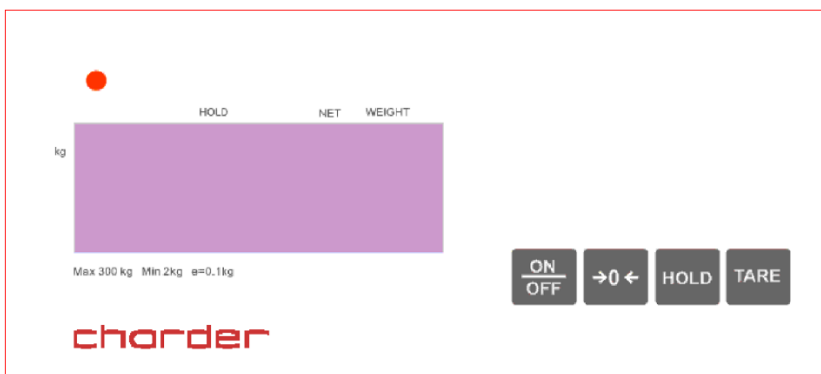


KEY FUNCTIONS

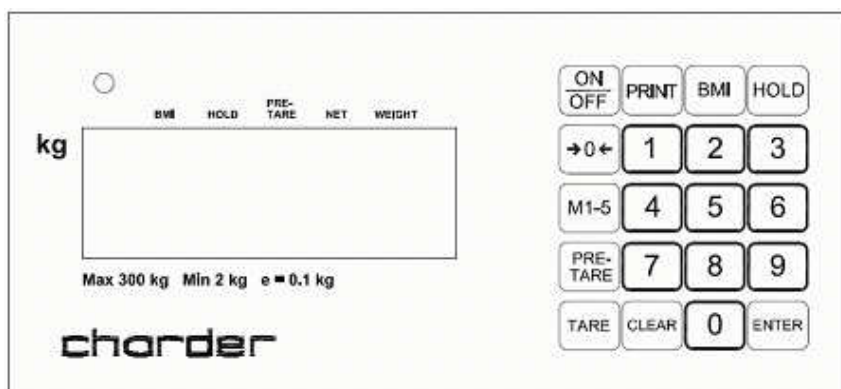
MS2500 (NP-4444)



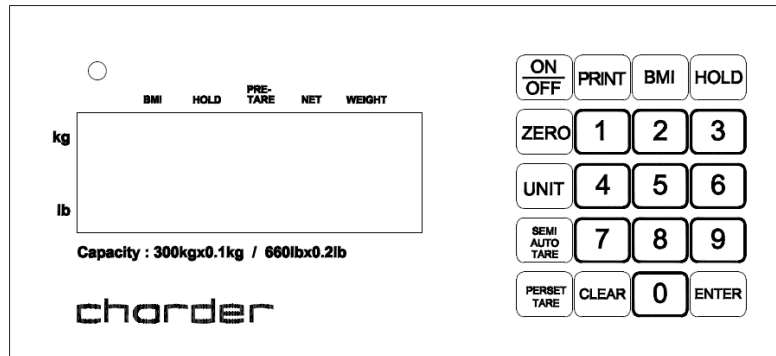
MS2501 4KEY OIML CIII VERSION



MS2501 20keys OIML CIII version



MS2501 20keys standard type(non OI ML)



Description:

- **ON/OFF**: Power on and power off. **[MS2500]**
- **ZERO**: To zero weight
- **→0←**: To zero weight
- **BMI**: To enable and disable Body Mass Index function.
- **HOLD**: To lock weight while weighing.
Remove weight and press HOLD again to disable hold function.
- **HOLD/BMI**: To lock weight and BMI function. **[MS2500]**
- **PRESET TARE**: To set target weight for tare before starting measurement.
- **PRE TARE**: To set target weight for tare before starting measurement. **[MS2501 OI ML type]**
- **SEMI AUTO TARE**: To tare weight.
- **TARE**: To tare weight **[MS2500] [MS2501 OI ML type]**
- **UNITS**: To select between metric and imperial measuring unit. **[MS2500]**
- **CLEAR**: To clear digits while wrong input.
- **ENTER**: Press to DECIDE or END your operation.
- **PRINT**: Press to print out patient's height, weight, and BMI on PC.
- **KEY PAD 0 ~ 9**: Input numeral keys 0~9
- **M1-5**: To recall 5 sets of tared weight memory.
- **[MS2501 OI ML type]**

SETTING UP YOUR DEVICE

➤ AUTO-OFF TIME SETUP

This enables operator to setup period to shut off device with no operation automatically.

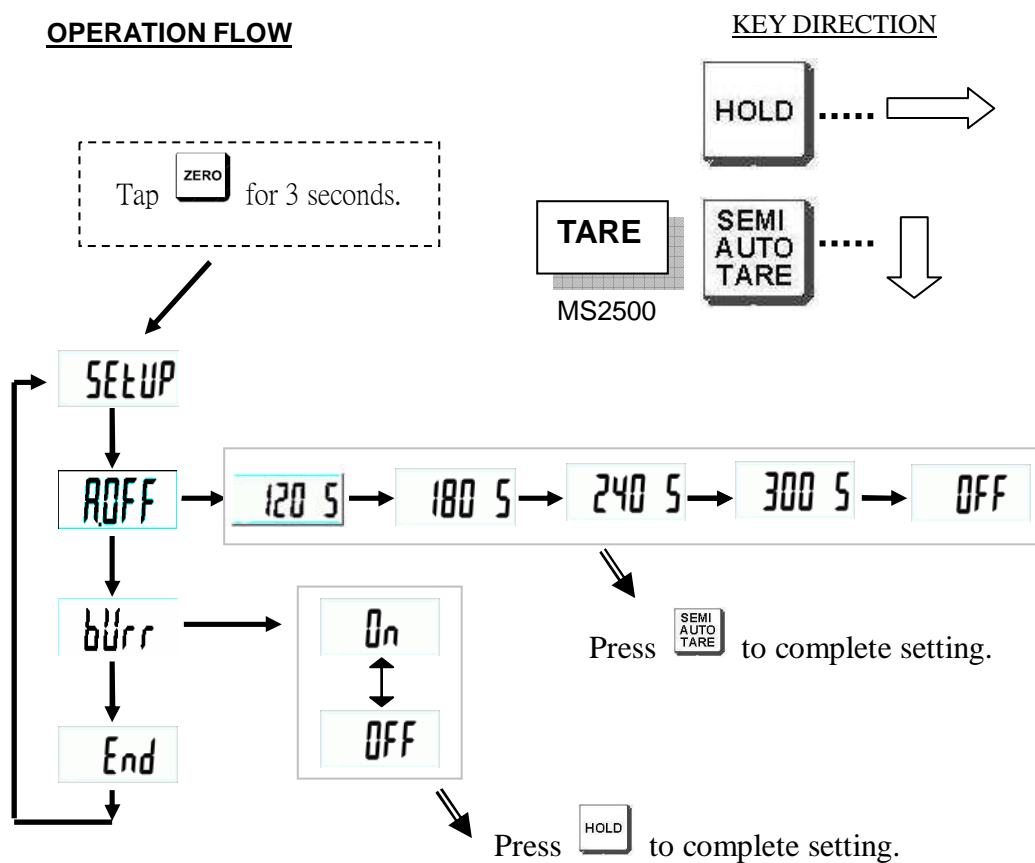
➤ BUZZER ON/OFF SETUP

This enables operator to setup ON/OFF to the buzzer.

Auto off time: 120 sec/180 sec/240 sec/300 sec/off

Buzzer: On/Off


OPERATION FLOW





SETTING UP YOUR DEVICE STEP BY STEP

For Example: Setup 180s AUTO-OFF time and Buzzer OFF

1.

Press  for 3 seconds to enter setting mode.

2.

Press  to enter Auto-Off menu when you see  symbol.


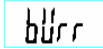
3.

Press  to select  which means Auto-Off time is 180s.

4.

Press  to confirm and return to  menu.

5.

Press  to jump to  menu.

6.

Press  to enter Buzzer menu.

7.

Press  to select buzzer  or .

8.

Press  to confirm ON/OFF setting.

9.

Press  to jump to  and press  to save settings.

USING SCALE – Key Functions

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

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]** 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]** key again to return the scale to the normal weighing mode.
- ♦ Pressing the **[HOLD]** key makes it possible to activate the function at any time.

How to measure Body Mass Index(BMI)

Step 1: Switch on the scale and wait for the LCD screen to display **0,0 kg**, then place the person onto the middle of the scale platform. Wait until the weighing value is stable. Then press the **BMI** key

☞ (For MS2500 model, long press **[HOLD/BMI]** key for 3 seconds to enter BMI mode)

LCD will then display a preset height value.

☞ (Please make sure the person for weighing must reach at least 100cm in height and at least 10kg in weight for accurate BMI index calculations.)

Step 2: A preset height value will blink in the LCD screen for the user to change the digits of a known height value by pressing numerical keys from 0~9 to be entered into the display head for calculations of an individual BMI value. Different weighing users may enter different value of height by using the numerical keypad on MS2510 model.

☞ (For MS2500 model, press **[ON/OFF]** key to increase the numerical value of height and press **[TARE]** key to decrease the numerical value of height).

Step 3. Confirm the entered numerical value by press **[ENTER]** key to perform calculations of BMI value during weighing.

☞ (For MS2500 model, press **[HOLD/BMI]** key to confirm changes of height value), and the BMI index will be displayed on the LCD screen during weighing.)

Step 4. When the BMI index value is displayed, it is operating under the BMI MODE with an arrow signal pointing to the **BMI** texts on the panel. To return to the normal weighing mode, press the **BMI** key one more time and the arrow signal pointing to the **BMI** texts on the panel will be disabled.

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

PRE-TARE

When a tare weight (rubber mat, clothes, ...) is known, this value can be entered manually.

If the **PRE-TARE** key is pressed shortly, the flashing display will be shown.

The PRE-TARE function is active as long as the small arrow is pointing the "**PRE-TARE**" symbol on the display.

The value used as the last one will be displayed. If a different value is required, a new weight value can be entered with the numerical keypad. By pressing the **ENTER** key, the new value is confirmed and used. Then the entered value with minus sign will be shown on the display.

When a person is placed on the scale plate, the display will show a weight value less the value entered previously.

Pressing the **PRE-TARE** key again will return the scale to the normal weighing mode.

PRE-TARE WITH M1-M5

Owing to this function it is possible to store 5 Pre-Tare values (e.g. for different wheelchairs), and then call up them if necessary.

Saving PRE-Tare values:

To enable a later calling up values from the memory, they are to be entered into the memory first. It is carried out in the following way:

The scale plate is unloaded, and the scale display is showing **0,0 kg**.

Put a weight, whose value is to be saved (e.g. an empty wheelchair), on the scale plate and wait until a stable weight display is shown.

Press the **M1-5** key repeatedly until the display will show the „ni" (**M**) symbol.

Press the **key with digit (1..5)** shortly to indicate which number a value is to be saved under. The previously displayed weight value is flashing for 3 seconds.

When the flashing is finished, press again the **key with digit** previously pressed and the weighing value is saved in the memory (short audible signal).

By pressing the **CLEAR** key, the scale will return to the weighing mode without saving the value.

The display will show the real value of the weight placed on the scale plate. When the weight is removed, the display will show **0,0 kg**.

Calling up the PRE-Tare value from memory:

Press the **PRE-Tare** key repeatedly until the display will show the „ni" (**M**) symbol.

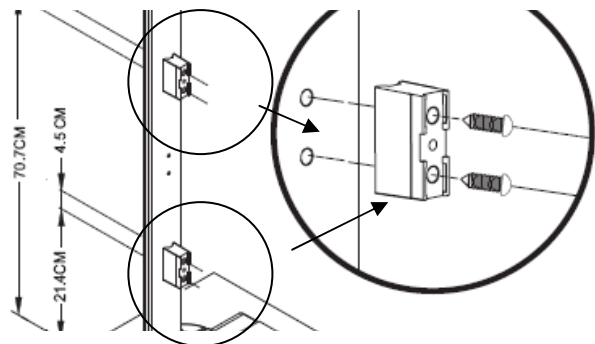
Pressing the **key with digit (1..5)** will display the flashing weight value saved there. The small arrow, additionally shown on the display, is pointing to the „**PRE-TARE**" symbol. By pressing another **key with digit (1..5)**, the appropriate also flashing weight value will be displayed. Press the **ENTER** key and the value will be accepted and shown on the display as the PRE-Tare value with minus sign.

Now you can place e.g. a person in a wheelchair on the scale, and only a person's weight will be displayed.

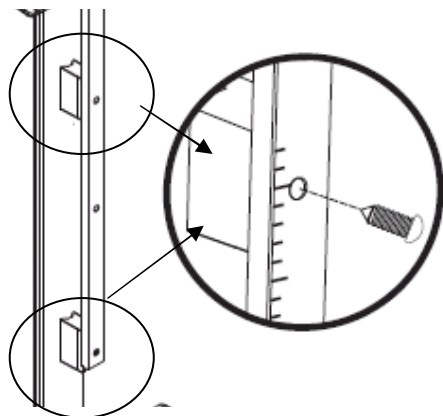
To return to the normal weighing mode when the scale plate is unloaded, press the PRE-Tare key shortly again. This will also result in disappearing the small arrow pointing the „**PRE-TARE**" symbol.

ASSEMBLE WITH HM201M

1. Fix two fixing block on the column.



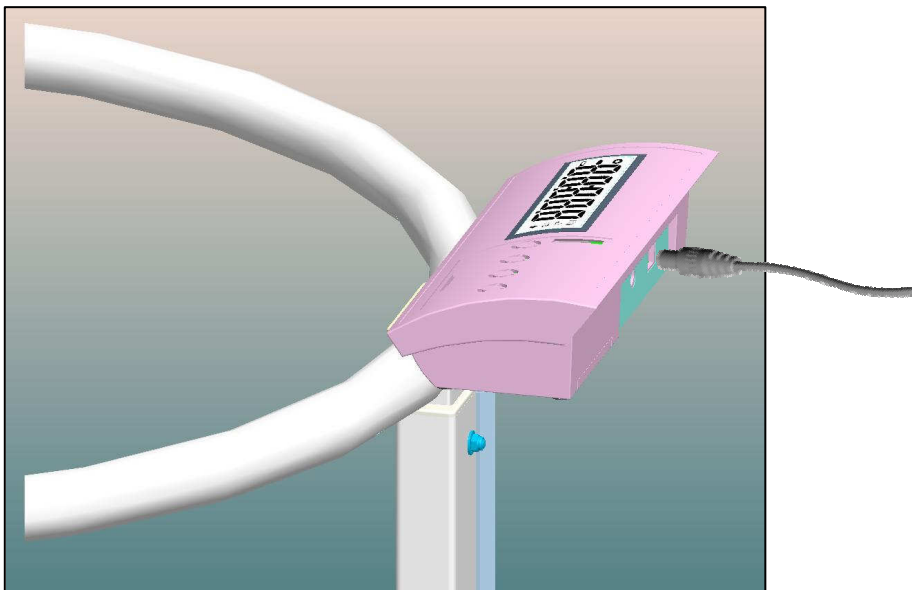
2. Fix height rod on the fixing block with two screws.



INSTRUCTION FOR CHARGE AND CONNECT

If Lo is displayed on the LCD, you should charge scale with exclusive adaptor for MS 2500

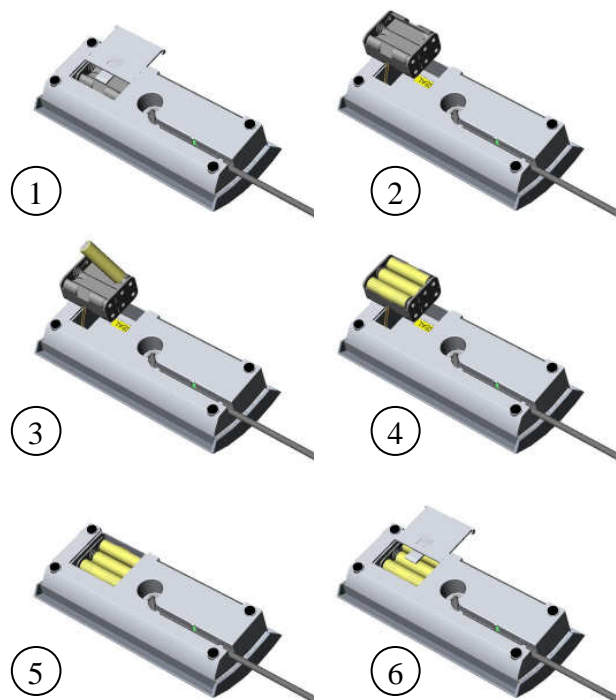
Located AC jack at the rear of indicator.



CAUTION:

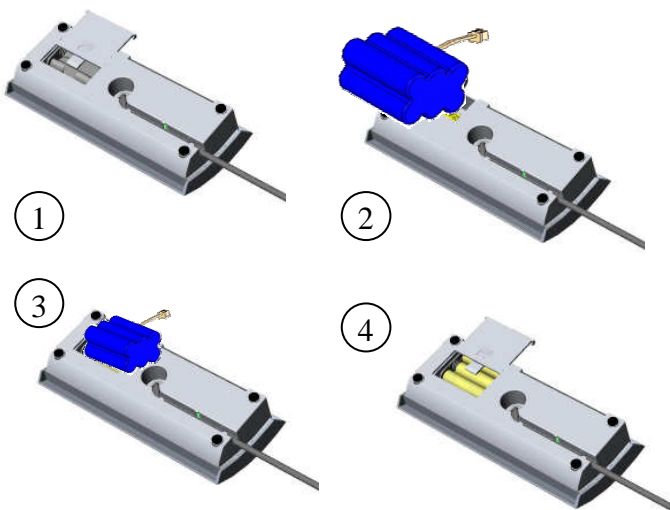
Always connect the AC adaptor to the indicator before connecting to the mains power supply. Please disconnect the adaptor from main power supply before indicator.

REPLACING BATTERY AND CHARGE



Replacing
battery for
operation

Replacing
rechargeable
battery pack
for operation
[OPTION]



ERROR MESSAGE

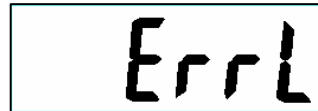
■ Low battery :

This warning shows that the voltage of battery is too low to use. Please replace new batteries or plug the AC adaptor for operation.



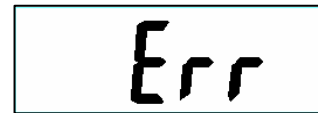
■ Counting error(too low):

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.



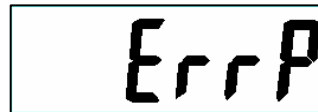
■ Overload or counting error(too high):

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.



■ EEPROM Error :

The program of the scale has error, please call your local service partner.



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
	2009/23/EC 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.: D051882 / 3007074192