



USER MANUAL

















MS7800

Patient Transfer Scale



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

Explanation of Graphic Symbols on Label/Packaging

	<p>Caution, consult accompanying documents before use</p>		<p>Authorized representative in the European Community</p>
	<p>Manufacturer of medical device</p>		<p>Indicates that device conforms to International Organization of Legal Metrology (Class III) requirements</p>
	<p>Manufacturing year of medical device</p>		<p>Indicates that device conforms to 2014/31/EU Non Automatic Weighing Instruments Directive. Numerals change according to year of manufacture. (ex: "19" for 2019)</p>
	<p>Separate collection for waste of electrical and electronic equipment, in accordance with Directive 2002/96/EC</p>		<p>Indicates that device conforms to 93/42/EEC as amended by 2007/47/EC Medical Device Directive. Four digit number refers to Notified Body.</p>
	<p>Device catalogue number</p>		<p>Indicates that device conforms to 2014/31/EU Non Automatic Weighing Instruments Directive. Four digit number refers to Notified Body.</p>
	<p>Manufacturer's batch or lot number</p>		<p>Indicates that device is a medical device</p>
	<p>Serial number</p>		<p>Carefully read user manual before installation and usage, and follow instructions for use.</p>
	<p>Unique Device Identifier</p>		<p>Medical electrical equipment with Type B applied part</p>

Copyright Notice

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I. Safety Notes

A. General Information

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

Before beginning operation of the device, please read this user manual carefully, and keep it in a safe place for reference. It contains important instructions regarding installation, proper usage, and maintenance.

Intended Use

This device is intended to measure the weight of subjects with limited mobility, for professional diagnosis of weight-related issues.

General Handling

- Device should be placed on stable, flat, solid, non-slippery surface.
- Usage on soft surfaces (ex: carpet) may result in inaccurate results.
- Ensure all parts are properly locked and tightened before operating the device.

Safety Instructions

Before putting device into use, please read this user manual carefully. It contains important instructions for installation, usage, and maintenance of device.

The manufacturer shall not be liable for damages caused by failure to heed the following instructions:

- Batteries should be kept away from children. If swallowed, promptly seek medical assistance.
- Expected service life: 5 years.
- Always comply with appropriate regulations when using electrical components under increased safety requirements.
- Improper installation will render the warranty null and void.
- Ensure voltage marked on power supply matches mains power supply.
- The device is intended for indoor use only.
- Observe permissible ambient temperatures for use

- Device meets requirements for electromagnetic compatibility. Do not exceed the maximum values specified in the applicable standards.

Environmental

- All batteries contain toxic compounds; batteries should be disposed of via designated competent organizations. Batteries should not be incinerated.
- The optimum operating temperature for the device is 5°C to 35°C; although it will operate at higher and lower temperatures, battery life will adversely be effected.

Cleaning

- Device surface should be cleaned using alcohol-based wipes. Corrosive cleansing liquids should not be used. Pressure-washers should not be used.
- Do not use large amounts of water when cleaning the device, as it may cause damage to the internal electronics.
- Always disconnect device from mains power before cleaning.

Maintenance

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

Warranty/Liability

- If Charder is responsible for a fault or defect present upon receipt of the unit, Charder shall either repair the fault, or supply a replacement unit. Should the repairs or replacement delivery fail, 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.
- No responsibility shall be accepted for damage caused through any of the following reasons: unsuitable or improper storage or use, incorrect installation or commissioning by the owner or third parties, natural wear and tear, changes or modifications, incorrect or negligent handling, chemical, electrochemical, or electrical interference, unless damage is attributable to negligence on the part of Charder.
- This device does not contain any user-maintained parts. All maintenance, technical inspections, and repairs should be conducted

by an authorized Charder service partner, using original Charder accessories and spare parts. Charder is not liable for any damages arising from improper maintenance or usage. Dismantlement of the device will void the warranty.

Disposal

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



Warning

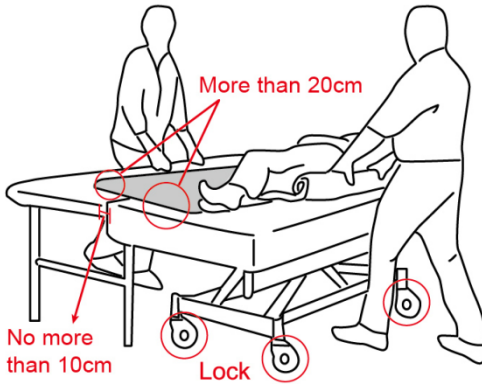
- Only the original adapter should be used with the device. Using an adapter other than the one provided by Charder may cause malfunction.
- Do not touch the power supply with wet hands.
- Do not crimp the power cable, and avoid sharp edges.
- Do not overload extension cables connected to the device.
- Route cables carefully, to avoid tripping.
- Keep device away from liquids.
- Do not remove the plug by yanking on the cable.
- Use only a correctly wired (100-240VAC) outlet, and do not use a multiple outlet extension cable.
- Do not under any circumstances dismantle or alter the device, as this could result in electric shock or injury as well as adversely affect the precision of measurements.
- Do not place the device in direct sunlight, or in close proximity to an intense heat source. Excessively high temperatures may damage the internal electronics.



Warning

Proper usage of the Patient Transfer Scale.

- The device should only be used by professionals trained in proper usage. Bed castors should be locked before usage. Distance between beds should be no more than 10cm. At least 20cm of the device should be on trolley and bed.



- Transfer between surfaces of similar height
- Inspect device for damage before use
- Do not overload. Maximum capacity: 250 kg / 550 lb

Incident Reporting

Any serious incident that has occurred in relation to the device should be reported to the manufacturer, EU representative (if device is used in EU member state), and competent authority of user/subject's member state.

B. EMC Guidance and Manufacturer's Declaration

Guidance and manufacturer's declaration-electromagnetic emissions		
The MS7800 Patient Transfer Scale is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The device 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 device 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 MS7800 Patient Transfer Scale is intended for use in the electromagnetic environment specified below. The customer or the user of the device 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	<u>± 8 kV contact</u> <u>± 2 kV, ± 4 kV,</u> <u>± 8 kV, ± 15 kV</u> <u>air</u>	<u>± 8 kV contact</u> <u>± 2 kV, ± 4 kV,</u> <u>± 8 kV, ± 15 kV</u> <u>air</u>	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 + 1kV for input/output lines	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 line(s) to line(s) + 2kV line(s) to earth	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	<u>0% UT for 0,5 cycle</u> <u>0% UT for 1 cycle</u> <u>70% UT(30% dip in UT) for 25 cycles</u> <u>0% UT for 5 s</u>	<u>0% UT for 0,5 cycle</u> <u>0% UT for 1 cycle</u> <u>70% UT(30% dip in UT) for 25 cycles</u> <u>0% UT for 5 s</u>	Mains power quality should be that of a typical commercial or hospital environment. If the user of the device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency(50/60 Hz) magnetic field IEC 61000-4-8	<u>30 A/m</u>	<u>30 A/m</u>	The device 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

The MS7800 Patient Transfer Scale is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment-guidance
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 KHz to 80 MHz</p> <p><u>6 V in ISM bands between 0,15 MHz and 80 MHz</u> <u>80 % AM at 1 kHz</u></p> <p>3 V/m 80MHz to 2,7 GHz</p>	<p>3 Vrms 150 KHz to 80 MHz</p> <p><u>6 V in ISM bands between 0,15 MHz and 80 MHz</u> <u>80 % AM at 1 kHz</u></p> <p>3 V/m <u>80MHz to 2,7 GHz</u></p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the device 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> <div style="text-align: center;">  </div>

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 device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.
- 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 MS7800 Patient Transfer Scale

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

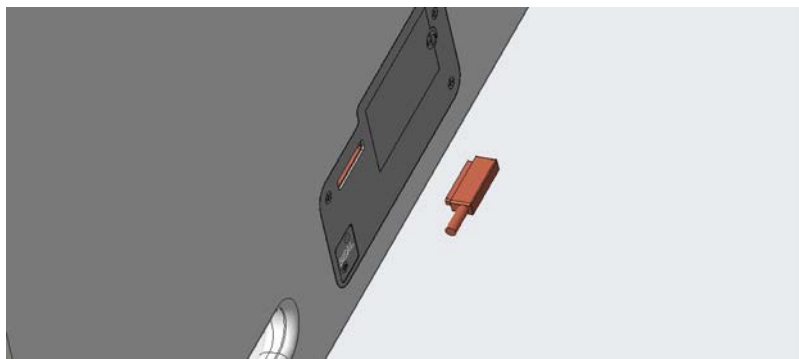
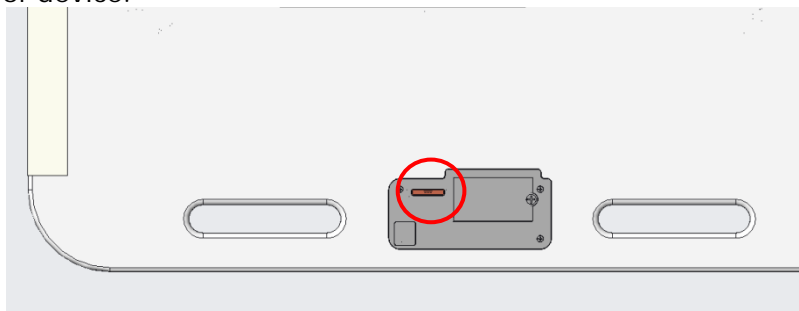
NOTE2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

II. Preparing to use Device

A. Charging Device

Device should be fully charged before first use. Please allow 8 hours for full charge.

When low battery indicator on display appears, please charge battery promptly to avoid battery damage. Charging port is located on underside of device.



The port for the charging cable is magnetic. Clip end of cable in place, and plug other end of cable into power mains. Device cannot be used while charging. Do not use any form of charging cable other than the one supplied with the device.

B. Standard Procedure

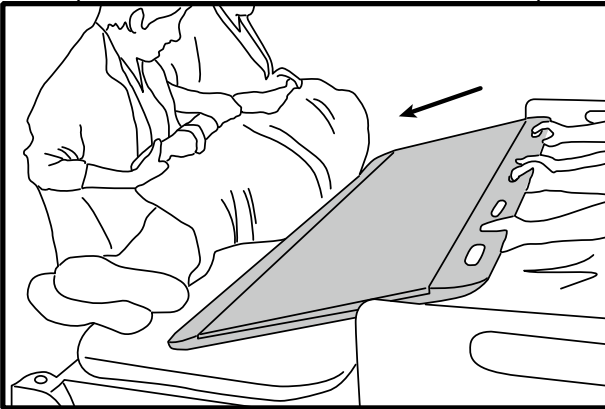
The device should be used in accordance with standard medical moving and handling procedure. It should be used in the same way as a transfer board, with a short period of time reserved in process to allow device to measure subject weight.

SAFETY RULES

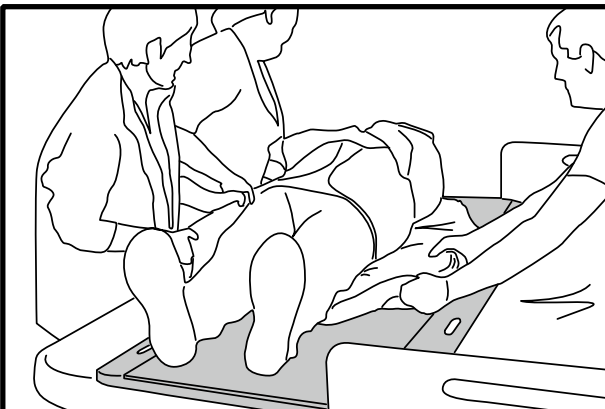
1. Device should only be used by trained professionals
2. Castor wheel brakes on beds should be applied before transfer.
3. Trolley/bed frames should be touching before transfer.
4. There should be no more than 20 cm between beds. At least 20 cm of the device should be on each bed or trolley before transfer.
5. When transferring, two surfaces should be of similar height. A tilt exceeding 3% will affect accuracy. (indicator will display an error if tilt exceeds 3%).
6. Do not overload. Maximum capacity: 250 kg / 550 lbs.

INSTRUCTIONS

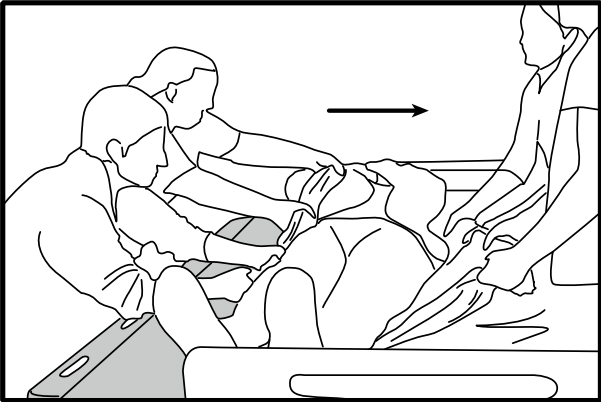
1. Prepare slide sheet with handles and put under subject.



2. Help subject lie upon measurement platform. Conduct measurement (see Chapter V - Using Device).





3. After weight measurement, transfer subject and remove slide sheet.

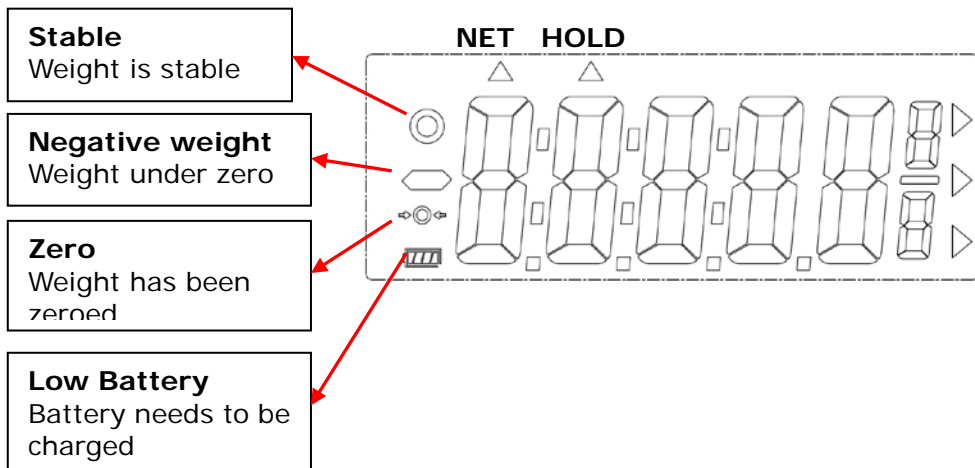


III. Indicator

A. Key Functions


Key	Description
	Power on or power off. When device is on, press and hold for 3 seconds to turn off.
	Reset the display to 0.0kg / Zero the scale (within $\pm 2\%$ of full capacity)
	Determine stable weighing value - used when weight is unstable.
	Press and hold for 3 seconds to switch the weighing units of the scale from kg to lb (CE model only)

B. Display layout



IV. Using Device

A. Basic Operation


Switch on the device using  key. The device will automatically perform self-calibration, displaying software version.

Once "0.00 kg" appears on indicator, device is ready for measurement.

Note: If "0.00 kg" does not display on indicator, press **[ZERO]** key to zero the device. This function can be used for weight within $\pm 2\%$ of full capacity.

Guide subject to lay upon measurement platform. After weight has stabilized, the "stable" symbol will appear on indicator.

Note: If subject's weight exceeds scale capacity (250 kg), indicator will display "Err" prompt due to overload.

Press and hold  key for 3 seconds to power off.

B. Hold


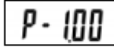
The hold function determines average weight, designed to be used if subject's weight will not stabilize (ex: an active child).

Note: if fluctuation is too severe, average weight determination will be difficult and hold may not function correctly. Hold cannot be used under 2 kg.

1. Switch on the device normally. Wait for "0.00 kg" to display on screen.
2. Guide subject to lie upon measurement platform.
3. Press the **[HOLD]** key. "HOLD" will be displayed on the indicator.
4. After a few seconds, the average weight will be displayed on the indicator. This weight will be locked - at this point, subject can leave measurement platform.
5. To release the locked weight, press the **[HOLD]** key again to return to the device to normal mode.

Note: Hold function can be activated before or after subject lies upon platform. However, if subject finds it difficult to hold still, we recommend activating Hold after subject is on platform.

V. Device Setup

When device is switched on, press and hold  key until  appears on display. Press **[HOLD]** 3 times to enter setup.

In device setup:

 **(ZERO)**: confirm

 **(HOLD)**: toggle



Auto Power-Off: Instruct device to shut off automatically after a certain period of time.

Auto off options: 30 min / 60 min / off

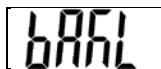
Press **[HOLD]** to toggle between time options, and **[ZERO]** to confirm selection.



Buzzer/Beep:

When function is turned on, beeping noise will be made when buttons are pressed..

Press **[HOLD]** to toggle between on/off, and **[ZERO]** key to confirm selection.



Backlight On/Off: When function is turned on, indicator screen will be backlit.

Press **[HOLD]** to toggle between on/auto. When "on" is selected, the backlight will always be on. When "Auto" is selected, backlight will be activated when there is a change in weight, or buttons are pressed.

Press **[ZERO]** key to confirm selection.

To confirm all setting changes, press **[HOLD]** key when  appears on display.

VI. Troubleshooting

Product Defects

Charder's warranty is effective for the original purchaser of this device, subject to the terms and conditions listed in the Warranty Program & Return Policy.

1. If Charder is responsible for a fault or defect present upon receipt of the unit, Charder shall either repair the fault, or supply a replacement unit. Should the repairs or replacement delivery fail, 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.
2. No responsibility shall be accepted for damage caused through any of the following reasons: unsuitable or improper storage or use, incorrect installation or commissioning by the owner or third parties, natural wear and tear, changes or modifications, incorrect or negligent handling, chemical, electrochemical, or electrical interference, unless damage is attributable to negligence on the part of Charder.

If device is not covered under warranty, a service maintenance charge will apply, plus cost of replacement parts.

Before contacting your local Charder distributor for repair service, we recommend considering the following troubleshooting procedures:

Self-inspection

1. Device will not power on

- If battery power is depleted, replace with new batteries
- If batteries are not used, check if the power adapter is plugged into the device properly. Check if power adapter is plugged into mains properly

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

- Interference due to factors such as RF disturbance or ground vibration. Relocate device to location without interference and try again
- External objects interfering with measurement platform. Clear platform of objects and try again
- Device may not function properly on soft surfaces. Relocate device to location with solid, stable platform
- If the steps above cannot resolve the problem, re-calibration may be required to correct weighing accuracy

Distributor support required

If the following errors occur, we recommend contacting your local Charder distributor for repair or replacement services:





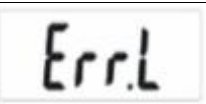



1. Device will not power on

- Faulty on/off key
- Broken or damaged wires causing short circuit or faulty connection
- Safety fuse burnout
- Faulty Adapter

2. Indicator damage

- Possible hardware defects include: uneven brightness in LCD screen, blurred text, smeared rainbow screen, incorrect decimal display
- Unable to save or read data
- Indicator shows "ERRL" after device is switched on
- Keys not responding
- Buzzer malfunction

Error Messages



Error Message	Reason	Action
	Tilt Error Device is tilted by 3 degrees or more	Ensure device is as level as possible before use
	Low battery warning Voltage of battery is too low to operate device	Plug in charger or replace battery
	Overload Total load exceeds device's maximum capacity	Reduce weight on measurement platform and try again
	Counting Error (too high) Signal from loadcells too high	Error normally caused by faulty loadcell or wiring. Please contact distributor
	Counting Error (too low) Signal from loadcells too low	Error normally caused by faulty loadcell or wiring. Please contact distributor
	Zero count over calibration zero range +10% while power on	Re-calibration required. Please contact distributor
	Zero count under calibration zero range -10% while power on	Re-calibration required. Please contact distributor
	Program Error Fault with device software	Error normally caused by faulty loadcell or wiring. Please contact distributor

VII. Product Specifications

Model		MS7800	
Weight Measurement	Capacity	250 kg x 0.5 kg / 550lb x 1lb	250 kg x 0.5 kg
	Accuracy	± 1.0 kg / 2.2 lb	±0.75 kg
	Unit	kg / lb	kg
	Class	CE	OIML Class III
	LCD Screen	27.7 x 75.0 mm	
Dimensions	Overall	1805(W) x 700(D) x 30(H) mm	
Device Weight		11.4 kg	
Key Functions		On/Off/Zero Unit/Hold	On/Off/Zero/Hold
Power Supply		Rechargeable battery pack	
Operation Temperature & Humidity		5°C~35°C 15% / 85% RH	
Standard Accessories		User manual x 1 Charging cable x 1	

VIII. 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:



Obelis s.a.

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B-1030 Brussels
Belgium



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