
charder®



MS7800

移位秤

使用說明書

請妥善保存此說明書以供未來查閱之用

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前言

謝謝您選購啟德移位秤。

我們的產品的設計理念是希望能帶給使用者方便並且簡化您的工作流程。如果您有任何產品使用上的問題及疑問並且在本說明書中未能解決您的問題，請逕洽詢啟德醫療產品經銷商以協助您解決您的疑問。

使用注意

我們強烈建議您將產品放置在平面且堅硬的表面使用，否則會導致不準確的量測結果。

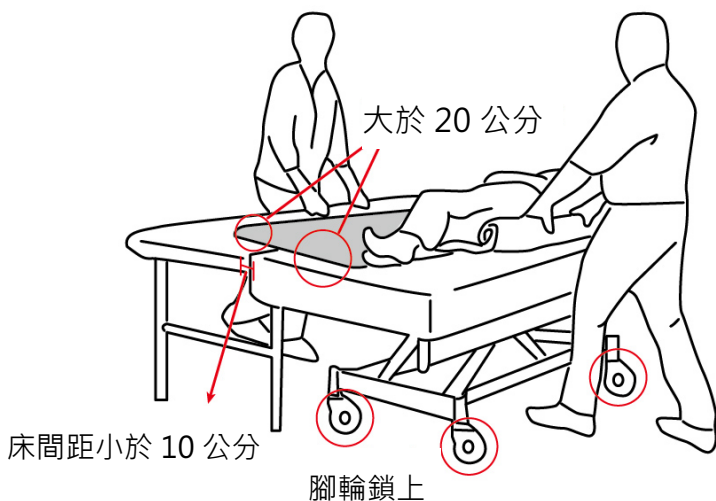
安全事項



使用前請詳細閱讀使用手冊。本使用手冊包含了初次安裝、使用說明及日常維護方式。

請注意並遵守以下使用事項，如未依照指示使用，導致人員受傷或損害權益，製造商概不負責。

- ✧ 錯誤的安裝所造成的損失不在保固範圍內
- ✧ 確保您正在使用的變壓器其電壓完全符合原廠提供之數據
- ✧ 此產品設計在室內使用
- ✧ 注意使用環境溫度在 **5°C** 到 **35°C** 之間
- ✧ 此產品完全符合電磁相容性測試
- ✧ 預期使用年限: 五年
- ✧ 內含充電電池應遠離孩童，如不幸誤食，請立即尋求專業醫療人員的協助
- ✧ 請注意，移位秤需要由專業醫療人員操作，不正確的操作可能導致意外受傷。
- ✧ 進行移位時，床腳輪需鎖上，避免操作時導致意外受傷
- ✧ 兩床間的距離需小於 **10 公分**
- ✧ 移位秤兩側覆蓋區域需大於 **20 公分**



進行移位時，床腳輪需鎖上，避免操作時導致意外受傷

如使用上有任何問題請洽詢全省經銷商。

環境安全

- ◆ 所有的電池都含有毒化合物，請尋找合格回收商及地點作適當的處理。
- ◆ 請勿燃燒電池。
- ◆ 使用環境的溫度高低會影響電池的使用壽命。

產品清潔

- ◆ 我們強烈建議使用酒精來擦拭磅秤。
- ◆ 請勿使用大量的清水清洗磅秤，可能會造成無法預期的損壞。
- ◆ 請勿使用含有腐蝕性的液體或洗淨液來清潔產品。
- ◆ 清潔前請務必拔掉變壓器插頭。

產品維護

- ◆ 本產品不需每日保養，然而我們建議您應定期檢視產品的精準度作為維護的參考。如您發現有任何問題需要進行產品維護，敬請聯絡啟德電子全省經銷商

操作注意事項

在實際進行操作之前，請閱讀以下部份：

- ◆ 請在每次秤重之前確認顯示幕出現歸零標示才開始進行秤重。
- ◆ 秤重完成後，顯示幕會出現穩定符號，這時可以進行重量紀錄。

產品責任與保固

當產品的設計及製造缺陷歸屬於製造商責任時，製造商負有更換或維修此產品的責任。產品保固期間由購買日 18 個月算起，請保留您的收據以證明您的購買日期；如收據遺失則由出廠日起算。

當發生下列損害，製造商不負有連帶責任：

- ◆ 不當的使用方式
- ◆ 不正確的儲存方式
- ◆ 由非經銷商不正確的安裝
- ◆ 修改
- ◆ 使用者的疏忽
- ◆ 如因操作、氣候或其它因素影響產品保存的狀態與材料的變異則屬製造商的責任。

廢棄物處理方式

- ◆ 此產品不應被當作一般家庭廢棄物來處理，請依電子廢棄物回收條例作為處理的準則。您可以聯繫環境保護署以瞭解更多電子廢棄物的處理方式及回收地點或聯繫您當初購買的經銷商處理。

警告圖示及標示說明

SN-T13000001

產品序號



注意事項及警告項目



產品製造商符號

製造商: 啟德電子

台中市大里區國中路103號 41262



“B 類人體接觸設備”



請勿隨意丟棄在家用垃圾分類區，請聯絡當地回收單位進行回收

電磁相容性規範

| Guidance and manufacturer's declaration-electromagnetic emissions | | |
|---|------------|---|
| The MEDICAL SCALE MS7800 is intended for use in the electromagnetic environment specified below. The customer or the user of the MEDICAL SCALE should assure that it is used in such an environment. | | |
| Emission test | Compliance | Electromagnetic environment-guidance |
| RF emissions CISPR 11 | Group 1 | The MEDICAL SCALE MS7800 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 | |
| Harmonic emissions IEC 61000-3-2 | Class A | |
| Voltage fluctuations /flicker emissions IEC 61000-3-3 | Compliance | The MEDICAL SCALE MS7800 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. |

| Guidance and manufacturer's declaration-electromagnetic immunity | | | |
|--|----------------------|------------------|--------------------------------------|
| The MEDICAL SCALE MS7800 is intended for use in the electromagnetic environment specified below. The customer or the user of the MEDICAL SCALE MS7800 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 | ± 2 kV for power supply lines + 1kV for input/output lines | ± 2 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 | ± 1 kV line(s) to line(s) ± 2 kV line(s) to earth | ± 1 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 MEDICAL SCALE MS7800 requires continued operation during power mains interruptions, it is recommended that the MEDICAL SCALE MS7800 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 MS7800 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 MEDICAL SCALE MS7800 is intended for use in the electromagnetic environment specified below.

The customer or the user of the MEDICAL SCALE MS7800 should assure that is used in such and environment.

| 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 MS7800 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> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey^a, should be less than the compliance level in each frequency range^b.</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> |

| | | | |
|---|---------------------------|-------|---|
| Radiated RF IEC 61000-4-3 | 3 V/m 80MHz to 2,5 GHz | 3 V/m |  |
| <p>NOTE1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>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 MS7800 is used exceeds the applicable RF compliance level above, the MEDICAL SCALE MS7800 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 MS7800.</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 MS7800

The MEDICAL SCALE MS7800 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the MEDICAL SCALE MS7800 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the MEDICAL 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.

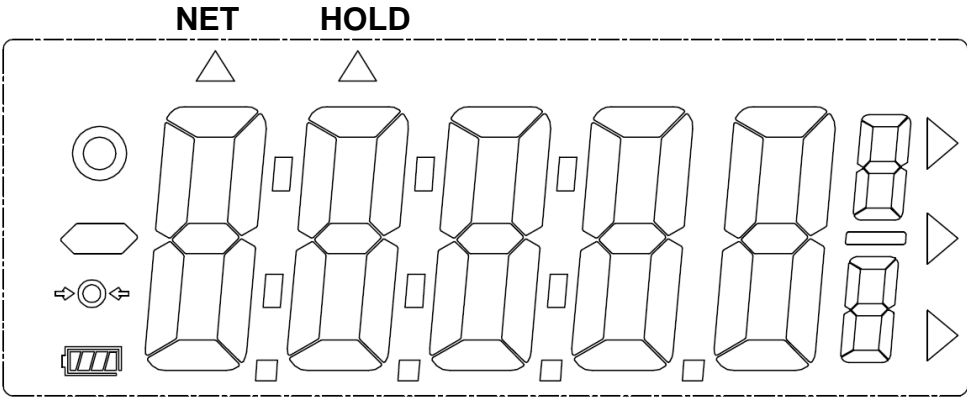
NOTE1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

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

產品規格

| | | |
|--------|--|---------------------------------------|
| 型號 | MS7800 | |
| 量程 | 250kg x 0.5kg 或 550lb x 1lb | 250kg / 0.5kg |
| 精準度 | ± 1.0 kg | ± 0.75 kg |
| 量測單位 | kg / lb | kg |
| 認證 | CE | OIML class III |
| 重量 | 11.4 kg | |
| LCD 尺寸 | 27.7 x 75.0 mm | |
| 產品尺寸 | 1805 x 700 x 30 mm | |
| 操作按鍵 | ON/OFF/ZERO, (開關機與歸零) UNIT/HOLD (單位切換與重量鎖定) | ON/OFF/ZERO (開關機與歸零) HOLD(重量鎖定) |
| 電源供應 | 內建充電電池包 , 變壓器 | |
| 操作溫度 | 5°C - 35°C | |

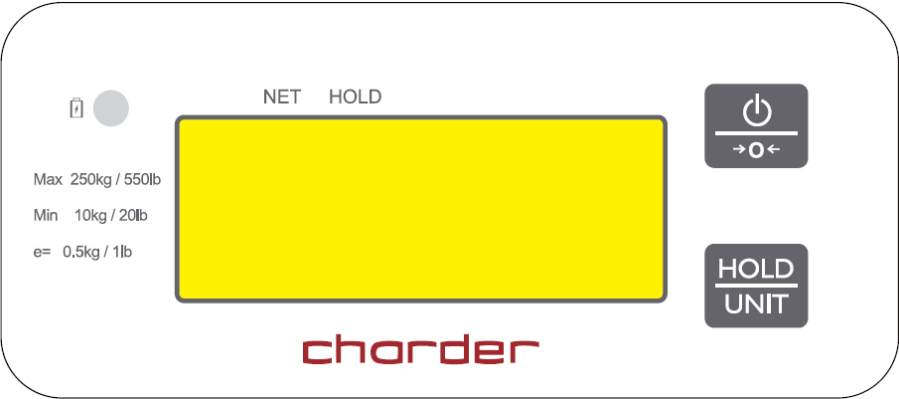
LCD 顯示器



標示說明

| | |
|------|--|
| | 穩定顯示：當重量穩定後，穩定顯示出現。當重量持續變動，穩定顯示消失。 |
| | 負值符號：當重量出現負值時，顯示負值符號 |
| | 歸零顯示：如果開機後磅秤未顯示零 [→0←]，請按下[→0←]按鍵讓磅秤歸零，如此量測才會準確。 |
| | 電池電力多寡表示，當剩最後一格電源時，請接上原廠電源供應器充電 |
| NET | 表示現在顯示重量為淨重 |
| HOLD | 表示目前正在重量鎖定模式中 |

產品面板

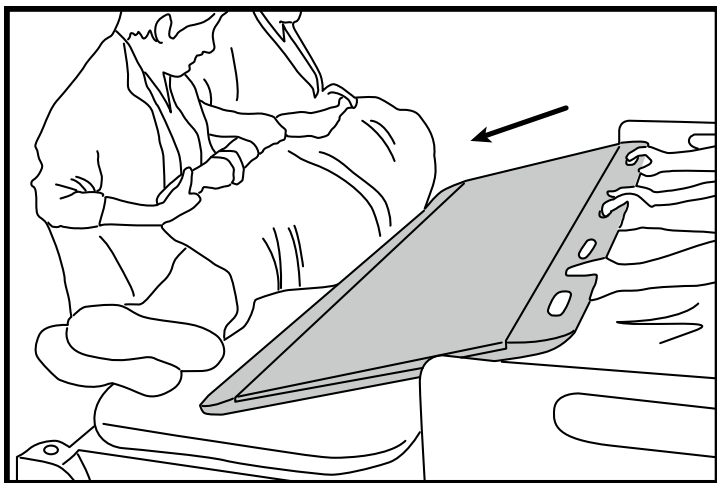


按鍵功能

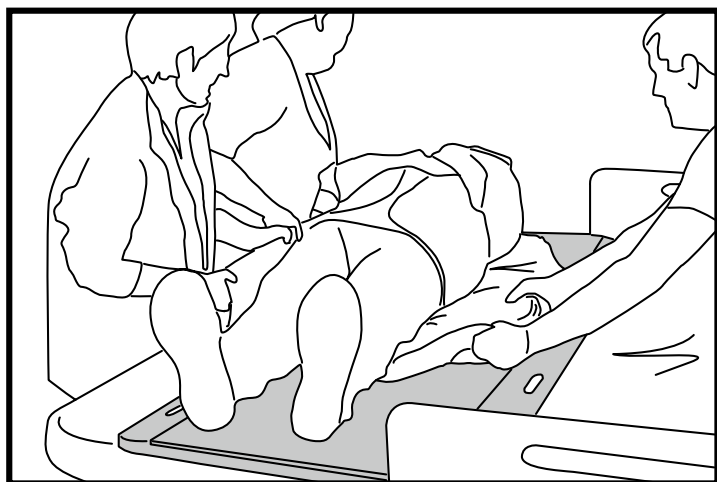
| 按鍵 | 功能說明 |
|----|-----------------------------------|
| | 開機與關機，按一下開機，長按三秒關機 |
| | 開機狀態按一下歸零 (歸零必須為載重重量小於全量程的 2%) |
| | 按一下為重量鎖定，再按一下為解除鎖定 |
| | 長按三秒為切換秤重單位為 kg(公斤)或是 lb(磅) |

移位秤使用流程

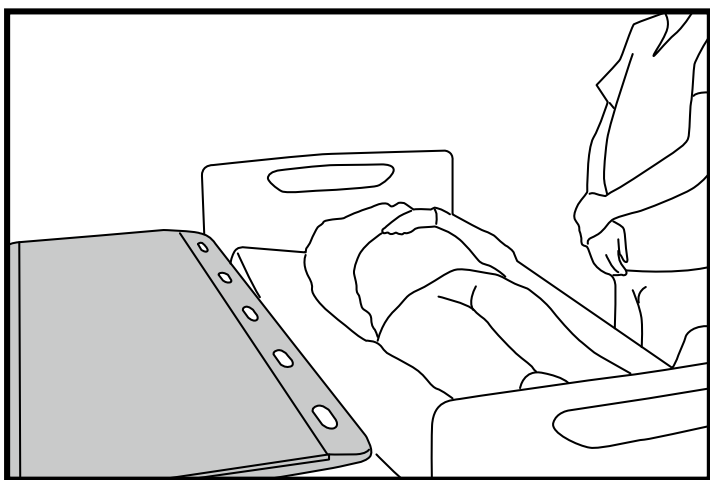
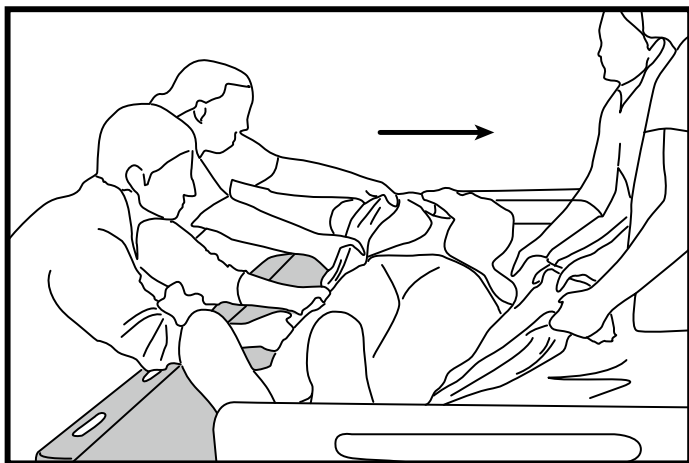
1. 將移位滑墊放置於病人的身體下方。
2. 將移位秤放到床上，按下 ON/OFF 鍵開機，待顯示器出現 0.0kg，雙手抓握移位滑墊將病人微翻身，將移位秤放入病人下方。
3. 按下 HOLD 鍵開啟重量鎖定功能。



4. 將病人的雙手交疊以便進行移位。



5. 請將兩張床的輪子鎖定，確保兩張床的高度一致，床間的距離小於十公分，移位秤覆蓋兩床的空間至少二十公分。
6. 利用移位滑墊將病人移位至移位秤上，待重量鎖定後出現重量，再將病人移到床上。



7. 此時病人的重量已量測完成，並顯示於 LCD 顯示器上。

使用重量鎖定HOLD功能

當重量鎖定功能啟動，只有當重量穩定後，才會被鎖定並顯示在LCD顯示器上。即使秤上的人離開，重量仍會顯示於LCD顯示器上。

注意:

- 不穩定的重量無法被鎖定
- 重量2kg以下無法被鎖定
- 按下ON/OFF開機後，機器將自動歸零，在此之前勿加載重量於秤上。
- 當LCD顯示0.0kg時，可以加載重量於秤上以獲得準確的數值。
- 當LCD顯示非0.0kg時，秤上無加載重量，請按下歸零鍵手動歸零。

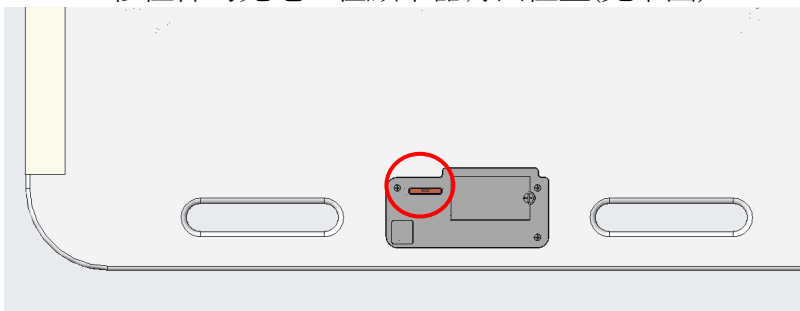
充電電池注意事項

注意:

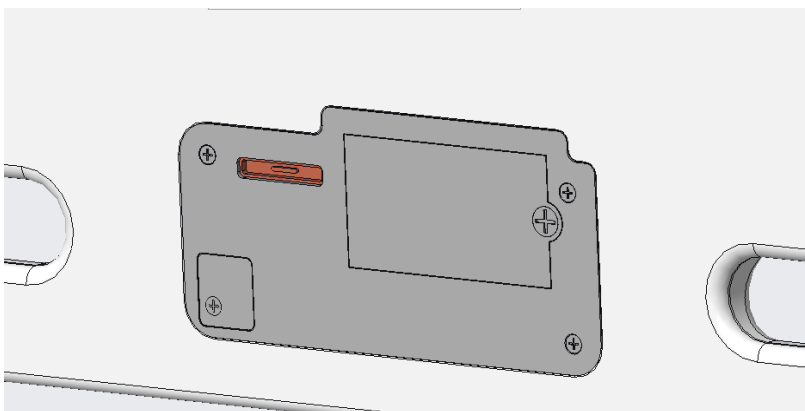
- ✧ 當充電時請勿使用移位秤
- ✧ 充電口位於顯示器背面位置
- ✧ 請使用原廠電源供應器為電池充電

為 MS7800 移位秤進行充電

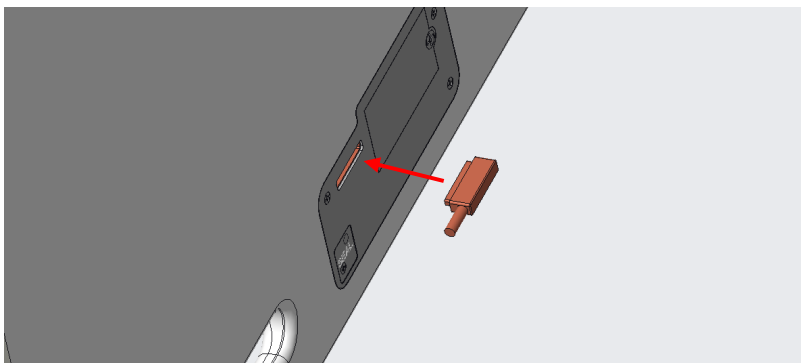
1. MS7800 移位秤的充電口在顯示器背面位置(見下圖)







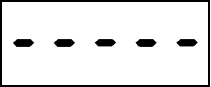
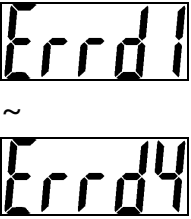
2. MS7800 內建充電鋰電池並使用電源供應器充電



3. 連接上原廠電源供應器後即會自動充電




錯誤訊息處置方式

| 錯誤訊息 | 定義 | 說明 | 處置方式 |
|--|--------|------------|---|
|  | 電力不足 | 鋰電池儲存的電力不足 | 使用電源供應器充電 |
|  | 上零 | 開機載重超過預設範圍 | a. 移除秤上載重物後，再重新開機。 b. 重新校重 |
|  | 上零 | 開機負值超過預設範圍 | a. 移除秤上載重物後，再重新開機。 b. 重新校重 |
|  | 無法讀取重量 | 開機無法讀取重量數值 | 1. 檢查內部接線 2. 檢查感測器是否正常 3. 更換損壞零件 4. 重新校重 |
|  | 無法顯示重量 | 重量為負值 | 重新放置移位秤於平面上，再重新開機 |
|  | 無法開機 | 無法讀取電路板訊號 | 內部電路板無法正常傳輸訊號，更換感測器或電路板 |

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 |
|--|---|

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

Authorized EU Representative:



Obelis s.a.

Bd Général Wahis, 53
B-1030 Brussels
Belgium

Manufactured by:



Charder Electronic Co., Ltd.

No.103, Guozhong Rd., Dali Dist.,

Taichung City 41262, Taiwan (R.O.C.)

台灣專利字號: M593536

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