



**USA Measurements**

"We Outmeasure the Competition"



# **US-PC60 “The Pricer”**

## **User/Technical Manual**

Contents subject to change without notice


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# 1. INTRODUCTION

## ▪ General and Safety Information

- For use in dry environments only.
- This product uses a lead-acid battery. Dispose of according to local laws and regulations.
- 
  - Read and understand all operating instructions before using this product. Keep this manual for future reference.
  - Allow sufficient warm up time. Turn the scale on and allow up to 10 minutes for internal components to stabilize before weighing.
- Record the weight shortly after placing a load on the platter. Leaving loads in place for extended periods may vary the load cell's output signature and may result in a less accurate reading.
- Avoid extended exposure to extreme heat or cold. Optimum operation is at normal room temperature. See operating temperature range in the specifications table. Allow the scale to acclimate to room temperature before using.
- When storing the scale for extended periods, the battery must be charged every 90 days to avoid premature performance degradation. Over time, the operating time per charge will degrade. If the operating time is no longer acceptable even after recharging, the battery must be replaced.
- Electronic scales are precision instruments. Do not operate near cell phones, radios, computers or other electronic devices that emit radio frequencies that may cause unstable readings.

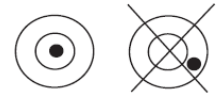
## ▪ Specification

Model No	US-PC12	US-PC30	US-PC60
FS_kg/lb/oz	6kg/12lb/200oz	15kg/30lb/500oz	30kg/60lb/1000oz
Division	0-3kg: 1g / 6-6kg: 2g	0-6kg: 2g / 6-15kg: 5g	0-15kg: 5g / 15-30kg: 10g
	0-6lb: 0.002lb/6-12lb: 0.005lb	0-15lb: 0.005lb/15-30lb: 0.01lb	0-30lb:0.01lb/30-60lb:0.02lb
	0-100oz: 0.05oz / 100-200oz: 0.1oz	0-200oz: 0.1oz / 200-500oz: 0.2oz	0-400oz: 0.2oz / 400-1000oz: 0.5oz
Max Display Weight	6.018kg/12.045lb/200.9oz	15.045kg/30.090lb/501.8oz	30.09kg/60.18lb/1004.5oz
Tare range	3kg / 6lb / 100oz	6kg / 15lb / 200oz	15kg / 30lb / 400oz
RS232	Included		
Max memory(PLU)	265 including 9 direct PLU (Addr: 1-9)		
Zero range	Power-on zero range: calibration zero point-3% to calibration zero point+10%FS; Zero Key range: power-on zero±2%FS		
LCD display	0.56",18 digits: 6 digit for weight reading, 6 digit for unit price, 6 digit for total price		
Unit price range	0.00 – 9999.99 \$/kg or \$/lb or \$/oz		
Total price range	0-999.99\$ (limited by bar code print function, otherwise, it can be up to 9999.99\$)		
Working temp.	0°C ~ 40°C		
Power	6V 4Ah rechargeable battery or 12V 500mA adapter with center positive		
Platter size	WxD: 295X225; 11.61"x8.86"		
Scale dimension	WxDxH: 295mmx340mmx110mm; 11.61"x13.4"x4.3"		

## 2. Unpacking and Setup

- Remove the scale from the box and place it on a firm, level surface. Avoid locations with rapid temperature changes, excessive dust, moisture, air currents, vibrations, electromagnetic fields, heat or direct sunlight.
- Adjust the leveling feet until the bubble is centered in the circle of the level indicator (located on the front panel).

**NOTE:** Ensure that the scale is level each time its location is changed.



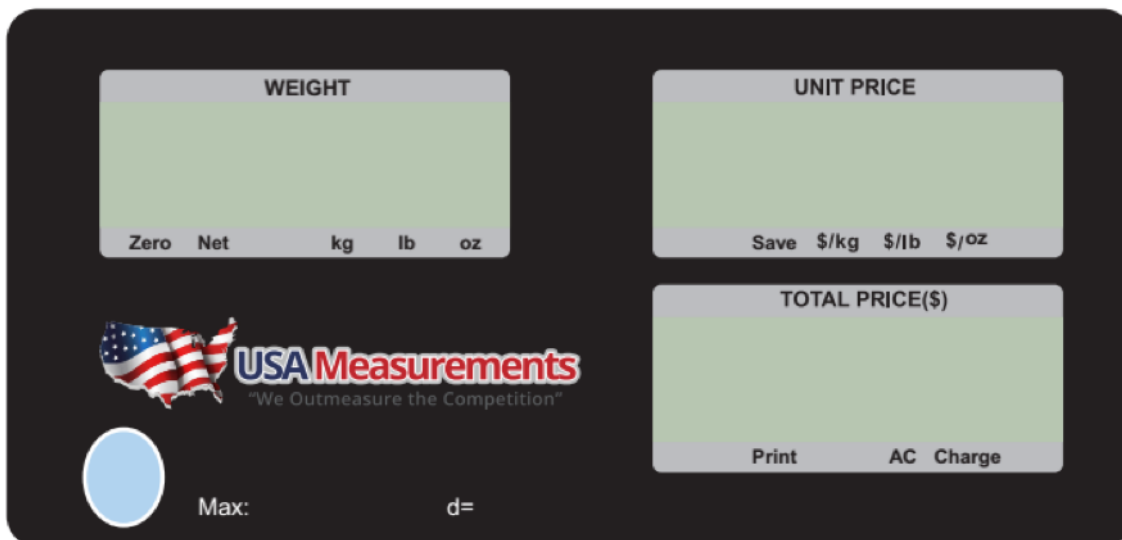
- The internal rechargeable battery should be fully charged for up to 12 hours before using the scale for the first time.
- Connect the supplied AC adapter to the power input receptacle underneath the scale. Plug the AC adapter into a properly grounded power outlet. The battery will begin charging.
- If the scale will be stored or transported in the future, save the packaging material to ensure the best possible protection for the scale.

### ▪ Contents

- Scale
- 12Vdc/500mA Power Adapter
- User Manual

## 3. OVERVIEW OF CONTROLS AND FUNCTIONS

### ▪ Front Display Panel



### ▪ Rear Display Panel



- **Zero** - Scale is zeroed, gross weight is 0, tare is 0



## USA Measurements

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- **Tare** - Display reading is net weight; tare is not 0
- **kg** - Overall unit of measure is kg
- **lb** - Overall unit of measure is lb
- **oz** - Overall unit of measure is oz
- **WEIGHT** - Weight display
- **Save** - Unit price fixing indicator
- **\$/KG、\$/LB、\$/oz** - Unit price per kg/lb/oz indicator, maybe only one or two units.
- **Unit Price** - Unit price display
- **Print** - Data output indicator
- **AC** - AC power is being used
- **Charge** - The battery is charged by power supply
- **Total Price** - Total price display

## Function Keys



- **0~9** - Short press for numeric keys for data entry; Long press for direct PLUs to directly recall the stored unit price.
- **ON/OFF EXIT** - Powers on the scale. Press for 4 seconds to power off the scale. In calibration, setup, and other modes, exits the current mode.
- **ZERO** - Set the zero point
- **Tare** - Tares the weight when the scale is stable
- **Print** - Outputs data via the RS232 port
- **Clear** - Clear data or accumulated values
- **Enter** - Confirms the operation or saves the data
- **Save** - Save the tare weight and unit price when input the unit price, so that the data will not be cleared after one weighing operation
- **Unit** - Toggles weight unit of measure
- **RC.PLU** - Recalls a stored unit price or tare weight and its unit
- **ST.PLU** - Stores a unit price or tare weight and its unit of measure

### Key combinations (Press for 4 seconds)

- **ON/OFF EXIT and 0** - Enters business's name setup mode
- **ON/OFF EXIT and 1** - Enters LCD's contrast setup mode
- **ON/OFF EXIT and 2** - Enters auto-off time setup mode
- **ON/OFF EXIT and 3** - Enters display ADC inner code or working voltage mode
- **ON/OFF EXIT and 4** - Enters RS232 parameter setup mode
- **ON/OFF EXIT and 5** - Enters date and time setup mode
- **ON/OFF EXIT and 6** - Enters ID setup mode
- **ON/OFF EXIT and 7** - Enters OS-2130D back feed setup mode
- **ON/OFF EXIT and 8** - Enters OS-2130D origin setup mode
- **ON/OFF EXIT and PRINT** - Enters LCD test mode



## 4. OPERATIONS

### ■ Normal Weighing Mode

1. Place the scale on a flat, stable surface. Level the scale using the leveling bubble at the lower left side of the display.
2. With the weighing platter empty, turn on power switch (located underneath on the left-hand side of the scale). Due to the high resolution of this scale, allow 10 minutes for the scale to warm up before use for optimum results.
3. Press the **ON/OFF EXIT** key to power on the scale. The self-check will run and the scale will display a zero reading. The scale is now ready for weighing.

Note: If the scale does not zero, an error code will be displayed. See **Troubleshooting** to resolve.

4. To change the weighing unit of measure, press the **Unit** key to toggle between kg, lb or oz.
5. Set the tare weight if desired.
6. Place objects on the scale platter and read the weight on the indicator.
7. When finished weighing, press the **ON/OFF EXIT** key for 4 seconds to power off the scale.

### ■ ZERO function

1. Under the normal weighing mode, press **Zero** key to set the scale to zero point when the scale reading is stable (the weighing unit light without shining).
2. When under the tare mode, **ZERO** key is invalid.

Note: If the scale cannot be zeroed, an error code will be displayed. See **Troubleshooting** to resolve.

### ■ Setting the Tare Weight

This scale allows for both a manually entered pre-set tare weight, as well as a “weighed” tare weight.

#### 1. To enter a weighed tare:

- a. Place an empty container on the platter and press the **Tare** key. The display will return to zero, eliminating the weight of the container. The **Zero** light will go off and the **Tare** light will be lit.

**Note:** The gross weight must be positive to enter a weighed tare.

- b. To clear the weighed tare, remove all weight from the scale. The display will show a negative weight. Press the **TARE** key to return the display to zero, eliminating the weight of the container. The **Tare** light will go off and the **Zero** light will be lit.

#### 2. To manually enter a known tare:

- a. Use the number keys to input the tare weight. Your entry will be displayed in the “WEIGHT” display window. Then press the **Tare** key to confirm or press the **ON/OFF EXIT** key to exit and not confirm.

**Example:** With the platter empty, entering 100g and pressing the **Tare** key will display “-0.100” kg.

- b. To recall the previously stored tare weight, press the **RC.PLU** key. Press the **ON/OFF EXIT** key to return to weighing.

**Note:** The previously stored tare weight can only be recalled with the **RC.PLU** key when in tare setting mode.

- c. To clear the manually entered tare weight, (enter “0” and) press the **Tare** key to confirm.
- d. If unit price is in un-saved mode, the tare weight and unit price will be auto cleared after transaction and objects being moved.

▪ **Save function**

- Under non-save mode, tare and unit price will be cleared automatically; Press **SAVE** key to enter save mode.
- Under save mode, tare and unit price will not be cleared automatically; Press **SAVE** key to exit save mode, if the gross weight is 0, clear tare weight and unit price.

▪ **Print function**

In normal weighing mode, when the scale reading is stable (The weighing unit light without flashing), press **PRINT** key to output the data via RS232 according to the set method. Print formats are as follows:

1. **Print Out format in HOST mode**

ID: xxxxxx  
 Date: yy-mm-dd  
 Time: hh:mm  
 Gross: xxxx.xxx kg/lb/oz  
 Tare: xxx.xxx kg/lb/oz  
 Net: xxxx.xxx kg/lb/oz  
 Unit Price: xxxxxx.xx \$/kg(\$/lb) (\$oz)  
 Total Price: xxxxxx.xx \$/kg(\$/lb) (\$oz)

=====

2. **Print out format when OS-2130D printer is connected (example):**

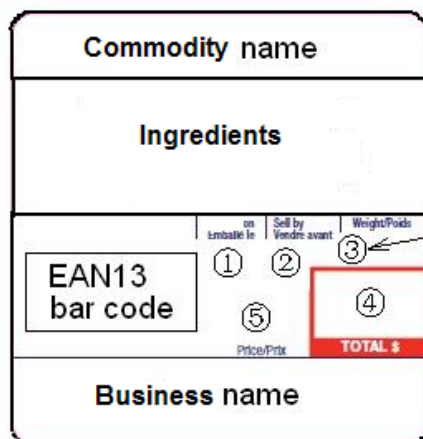


Label dimension is 58mm × 40mm



Label dimension is 58mm × 60mm

3. **Content of printed out:**



- ① Pack date
- ② Sell date
- LIFE = ② - ①
- ③ Weight
- ④ Total price
- ⑤ Unit price

▪ **Input the unit price**

1. Use numerical key to enter unit price (range: 0000.00~9999.99)
  2. Press **ENTER** key within 3s to confirm the unit price
  3. Press **CLEAR** key to remove the input number
  4. Put the weighing objects, the WEIGHT window will show its weight and TOTAL PRICE window will show its total value.
- Note: After unit price is entered, if there is no operation in 3s, the scale will automatically confirm the unit price and exit the mode. If under non-save mode, the unit price will be cleared automatically after weighing and removing the objects.

■ **Set and Recall direct and indirect PLU:**

1. Under the normal weighing mode, press **ST.PLU** key, "St.PLU" will be shown in WEIGHT window and "Addr." (prompt to input PLU's address ) will be shown in UNIT PRICE window (The Address range is from 1 to 265, 1-9 is for direct PLUs). The UNIT PRICE window will display the input address.
2. Input the Address by numerical keys 0~9 and **CLEAR** key, use **ENTER** key for confirmation to go to the next step, or press **ON/OFF EXIT** key to exit this mode and return back to the normal weighing mode.
3. When the TOTAL PRICE window displays "NAME" (prompt to input trade name), the UNIT PRICE window shows empty or the last six characters of the trade name.
4. Use numerical keys and **CLEAR** key to input the trade name (the length of the trade name is 20 characters), use **ENTER** key to confirm the characters on flashed position or confirm the trade name, or use **ON/OFF EXIT** key to exit this mode and return back to the normal weighing mode.
5. When the TOTAL PRICE window displays "iNGrdt" (Ingredients, prompt to input ingredients, only available when 232.out is set to PRTd60), the UNIT PRICE window shows empty or the last six characters of the ingredients.
6. Use numerical keys and **CLEAR** key to input the ingredients (the length of the ingredients is 80 char), use **ENTER** key to confirm the char on flashed position or confirm the ingredients, or use **ON/OFF EXIT** key to exit this mode and return back to the normal weighing mode.
7. When the TOTAL PRICE window displays "LIFE" (prompt to input shell life), UNIT PRICE WINDOW shows input data.
8. Use numerical keys and **CLEAR** key to input the LIFE(<=253), use **ENTER** key to confirm, or press **ON/OFF EXIT** key to exit this mode and return back to the normal weighing mode.
9. When "Unit.0" or "Unit.1" is shown in the UNIT PRICE window, that means the weight unit of the stored unit price is per Kg (Unit.0) or per lb (Unit.1). The TOTAL PRICE window will show empty.
10. Use **UNIT** key to choose \$/kg or \$/lb, press **ENTER** to save the chosen unit and go to the next step, or press **ON/OFF EXIT** to exit the input and return back to the normal weighing mode.
11. The TOTAL PRICE window displays "UNit.P" (prompt to input unit price ), the UNIT PRICE window shows input data.
12. To press 0~9 and **CLEAR** key to input the unit price, press **ENTER** key to store and confirm, or press **ON/OFF EXIT** key to exit this mode and return back to the normal weighing mode.
13. The TOTAL PRICE window displays "tArE" (set the digit tare), the UNIT PRICE window displays the entered data.
14. Use the numerical keys 0-9 and **CLEAR** key to input the tare weight, use **ENTER** key to store and confirm, then go to the next store unit setting, namely, plus one to the last Address, then repeat the steps from 1-14; Or press **ON/OFF EXIT** key to give up input and back to the normal weighing mode;

■ **Recall direct PLU:**



Recall the stored direct unit price by pressing 1-9 key down more than 2.5s, the recalled unit price will be displayed in unit price window. The total price window will display "duP.xx", then followed by the actual total price.

### ▪ Recall indirect PLU

1. Under the normal weighing mode, press **RC.PLU** key to enter this mode, and display "rc.PLU" in WEIGHT window, display "Addr." (The Address range is from 1 to 265) in TOTAL PRICE window, the UNIT PRICE window will display the input address data.
2. Use the numerical 0~9 and **CLEAR** key to input the PLU's address, use **Enter** key to confirm and go to the next step or press **ON/OFF EXIT** key to exit this mode and return back to the normal weighing mode.
3. Then the UNIT PRICE window will display the recalled unit price, the TOTAL PRICE window displays "PLU.XXX" (XXX is the Address) and then will go back to the normal total price displaying mode later, and then use new unit price, tare weight, new weight unit trade name, shell life)

## 5. LCD contrast and Backlight mode setting

1. Under the normal weighing mode, press and hold down **ON/OFF EXIT** and **1** key at the same time until the WEIGHT window shows "SETUP", UNIT PRICE window shows "LCd.CST" (LCD contrast) and the TOTAL PRICE window shows the contrast level x (x=1-9, default is 9). Use the numerical keys to input the contrast level, and press **ENTER** key for confirmation. Press **ON/OFF EXIT** key to exit this mode and scale will automatically reset.
2. When WEIGHT window shows "BLGT.MD" (backlight mode) and the TOTAL PRICE window shows the backlight mode code x(x=0-2), use the numerical keys to input the backlight mode, and press **ENTER** key for confirmation. Press **ON/OFF EXIT** key to exit this mode and the scale will automatically reset.
  - x=0 – back light is always off
  - =1 – back light is always on
  - =2 – back light is automatically turns on or off

## 6. Auto-off time setting

Under the normal weighing mode, press and hold **ON/OFF EXIT** and **2** key at the same time until the scale displays "SETUP" in WEIGHT window, "A.OFF.t" (auto off time) in UNIT PRICE window and auto-off time xx (xx=00~30, when 00 is used that means no auto off function) in TOTAL PRICE window. Use numerical keys to input the auto-off time and press **Enter** key for confirmation. Press **ON/OFF EXIT** key to exit this mode and the scale will automatically reset.

## 7. Display A/D inner code and working voltage

When in normal working mode, press **ON/OFF EXIT** and **3** key at the same time till the UNIT PRICE window shows "code" to enter this mode. Now WEIGHT window will show "UoL.x.x" (Voltage x.x V), this means the inner working voltage is x.x V. If the scale uses AC power adaptor, the voltage is the power adaptor voltage after regulating. If AC adaptor is not used, this around voltage is battery's voltage. A/D internal code will be displayed in TOTAL PRICE window.

## 8. The details about RS232 communication

1. Under the normal working mode, press and hold **ON/OFF EXIT** key and **4** key at the same time until the WEIGHT

window shows "SETUP". Under this mode, you can set the RS232 baud rate, data format and communication format.



2. After entering into this mode, the WEIGHT window will show “Setup”, the UNIT PRICE window will show “232.out” (RS232 output content format) and the TOTAL PRICE window shows one of following content:
  - 2.1 **HOST** (US-MP-60-xxxx is connected with host device, e.g. a PC)
  - 2.2 **PrtNd40** (US-MP-60-xxxx is connected with the OS-2130D, label dimension is 58mmx40mm, date will be printed on label)
  - 2.3 **PrtNd60** (US-MP-60-xxxx is connected with the OS-2130D, label dimension is 58mmx60mm, date will be printed on label)
  - 2.4 **PrtNd4** (US-MP-60-xxxx is connected with OS-2130D, label dimension is 58mmx40mm, no date will be printed on label)
  - 2.5 **PrtNd6** (US-MP-60-xxxx is connected with the 2130D, label dimension is 58mmx60mm, no date will be printed on label)
  - 2.6 Use numerical keys **0,1,2,3,4** to choose RS232 output content format (0-HOST, 1-PrtNd40, 2- PrtNd 60, 3- PrtNd 4, 4- PrtNd 6), use **ENTER** key for confirmation to go to the next step, or **ON/OFF EXIT** key to exit this mode.
3. Then, the WEIGHT window will show “Setup”, the UNIT PRICE window will show “232.bPS” (RS232 band rate: bit per second) and the TOTAL PRICE window shows baud rate xxxxx. Use numerical keys 1,2,3,4,5 to choose RS232 baud rate:
  - 1--1200bps
  - 2--2400bps
  - 3--4800bps
  - 4--9600bps
  - 5--19200bps
 Press **Enter** key for confirmation to go to the next step, or **ON/OFF EXIT** key to exit this mode.
4. Then, the WIEHGT window will display “232.dFt” (data format), the UNIT PRICE window will display data format xxx. Use 1, 2, 3 key to select data format:
  - 1—8N1      8 bits data, no odd or even , 1 start bit, 1stop bit
  - 2—7O1      7 bits data, 1 even , 1 start bit, 1stop bit
  - 3—7E1      7 bits data, 1 odd, 1 start bit, 1stop bit,
 Press **Enter** key to confirm the input and go to the next step, or use **ON/OFF EXIT** key to exit this mode.
5. Then, the WIEHGT window will display “Prtd.dt” (OS-2130D print date format), the UNIT PRICE window will display data format xxx. Use 0, 1, 2 key to select data format:
  - 0—CANADA      Candadian format: YY MM DD
  - 1—USA          USA format: DD-MMM-YY
  - 2—Numerical      Numerical format
 Press **Enter** key to confirm the input and go to the next step, or use **ON/OFF EXIT** key to exit this mode.
6. Then, the UNIT PRICE window shows “Urt.CFt” (communication format), the TOTAL PRICE window shows communication format xxx. Use the numerical keys 0, 2 to select the communication format:
  - 0—Non communication
  - 2—When the scale becomes stable, the data will be output after pressing **PRINT** key, the format when “232.out” is set to “0-HOST” is as follows. The format when “232.out” is set to “1- PrtNd40”, “2- PrtNd 60”, “3- PrtNd 4” or “4- PrtNd 6 ” can refer to 8.2

<LF>ID:                           xxxxxx<CR><EXT>

<LF>Date:                   YY-MM-DD<CR><EXT>  
 <LF>Time:                   hh:mm<CR><EXT>  
 <LF>Gross:                  xxx.xxx kg(or lb)<CR> <EXT>  
 <LF>Tare:                   xxx.xxx kg(or lb)<CR> <EXT>  
 <LF>Net:                    xxx.xxx kg(or lb)<CR> <EXT>  
 <LF>Unit price: xxxxxx.xx \$/kg(or \$/lb)<CR><EXT>  
 <LF>Total price: xxxxxx.xx \$<CR> <EXT>

NOTE: The ID information can only be printed out after setting.

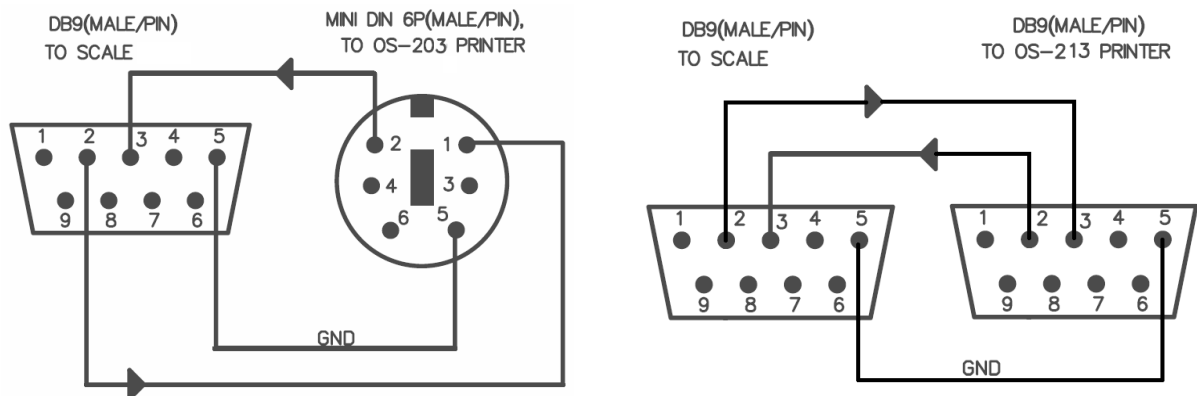
Press Enter key to confirm the input and go to the next step, or use ON/OFF EXIT key to exit this mode.

7. RS-232 connects between scale and host:

SCALE(Indicator)	-----	CABLE (9 pins)	-----	HOST
DB9(Female)	-----	DB9(Male)	-----	DB9(Female)
PIN2 TXD	-----	2	-----	2
PIN3 RXD	-----	3	-----	3
PIN5 GND	-----	5	-----	5
PIN4 DSR	-----	4	-----	4
PIN6 DTR	-----	6	-----	6
PIN7 CTS	-----	7	-----	7
PIN8 RTS	-----	8	-----	8
PIN1 NC	-----	1	-----	1
PIN9 NC	-----	9	-----	9

Note: PIN4 and PIN6, PIN7 and PIN8 are shorted in the scale!

8. RS-232 cable connects between scale and OS-2130D:



## 9. Date and time setting

- Under the normal working mode, press and hold 5 and ON/OFF EXIT key for more than 3s to enter into this mode. In this mode, you can set the system date and time. ( Note: the date and time in scale will be lost after the scale



power off if no RTC module is installed )

2. After entering into this mode, the WEIGHT window will display “Setup”, the UNIT PRICE window will display “dAtE”(date, prompt to input date) and the TOTAL PRICE window will display the current date xx.xx.xx. Use the numerical keys to input the date (format: YY.MM.DD), use **Enter** key to confirm and go to the time setting mode.
3. When the WEIGHT window displays “SETUP”, the UNIT PRICE displays “time”(time, prompt to input time) and the TOTAL PRICE window displays the current time xx.xx.xx, Use the numerical keys to input the time (Format: hh.mm.ss), press **Enter** key to confirm the input and exit this mode.


















































## 10. Business name setting

1. Under the normal working mode, press and hold **0** and **ON/OFF EXIT** key for more than 3s to enter. In this mode, you can set the business name.
2. The weight window displays “bUSI.N1” (prompt to input “business name” in first line ), the unit price window and the total price window display the last 12 char of the business name.
3. Use numerical keys and **CLEAR** key to input the business name (the max length of the business name is 20 char), use **ENTER** key to confirm the business name and exit this mode.
4. The weight window displays “bUSI.N2”(prompt to input “business name” in second line business name), the unit price window and the total price window display the last 12 char of the business name.
5. Use numerical keys and **CLEAR** key to input the business name (the length of the business name is 20 char), use **ENTER** key to confirm the business name and exit this mode.

## 11. Key function in the trade name or business name setting mode

0	0 space ( ) ÀÂÆÇÈÉÊË Ì Î Ï Ò Ù Ò Ù	1	1ABC
2	2DEF	3	3GHI
4	4JKL	5	5MNO
6	6PQRS	7	7TUV
8	8WXYZ	9	9

## 12. The meaning of the special displayed character

Symbol	7-segments digit	Symbol	7-segments digit	Symbol	7-segments digit
0		A		N	
1		B		O	
2		C		P	
3		D		Q	
4		E		R	
5		F		S	
6		G		T	
7		H		U	
8		I		V	
9		J		W	
(		K		X	
)		L		Y	
		M		Z	
À		Â		Æ	
Ç		È		É	
Ê		Ë		Ï	
Ï		Ô		Ù	
Ù		Û			

### 13. ID setting

1. Under the normal working mode, press and hold **6** and **ON/OFF EXIT** key for more than 3s to enter this mode. In this mode, you can set ID code. (Note: the data will be lost after the scale reset)
2. The WEIGHT window displays "SETUP", the UNIT PRICE window displays "Id" and the TOTAL PRICE window displays Id code xxxxxx (the default Id code is 000000).
3. Use the numerical keys to input ID code, then press **Enter** key to confirm the input and exit this mode.

### 14. OS-2130D Back Feed setting

Note: Make sure that "232.out" under RS232 communication setting is not set to 0-HOST, or below process is disabled.

1. Under the normal working mode, press and hold **7** and **ON/OFF EXIT** key for more than 3s to enter this mode. In this mode, you can set the back feed (OS-2130D).
2. The WEIGHT window displays "SETUP", the UNIT PRICE window displays "bAK.FEd"(Back Feed), and the TOTAL PRICE window displays "diSAbI"(Disable).
3. Use **1** key to select "ENABLE" (OS-2130D will feed about one more inch so that the user can see the whole label.), use **0** to select "DISABLE", use **ENTER** key to confirm and exit this mode.

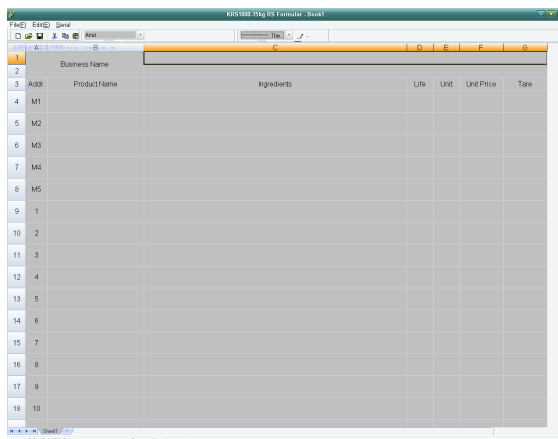
### 15. OS-2130D Origin setting

Note: Make sure that "232.out" under RS232 communication setting is not set to 0-HOST, or below process is disabled.

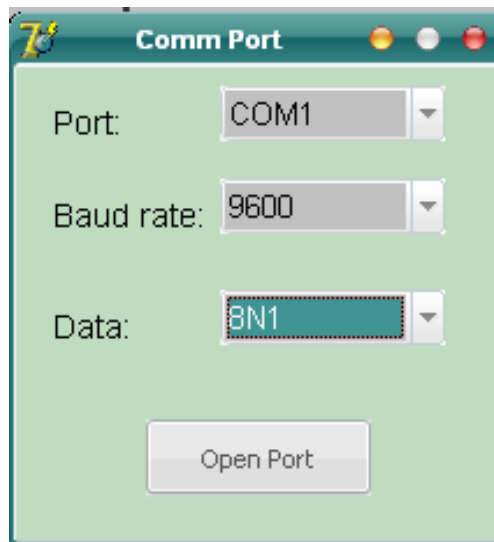
1. Under the normal working mode, press and hold **8** and **ON/OFF EXIT** key for more than 3s to enter this mode. In this mode, you can set the origin point (OS-2130D).
2. The WEIGHT window displays "SETUP", the UNIT PRICE window displays "orG.X"(Origin.X), and the TOTAL PRICE window displays the X direction offset number.
3. Use numerical keys and **Clear** to input X offset (0-255), press **Enter** key to confirm the input and go to the next step.
4. The WEIGHT window displays "SETUP", the UNIT PRICE window displays "orG.Y"(Origin.Y), and the TOTAL PRICE window displays the Y direction offset number.
5. Use numerical keys and **Clear** to input Y offset (0-255), press **Enter** key to confirm the input and the OS-2130D will print out a new blank label sample using new start position, and then exit this mode

### 16. PLU upload and download

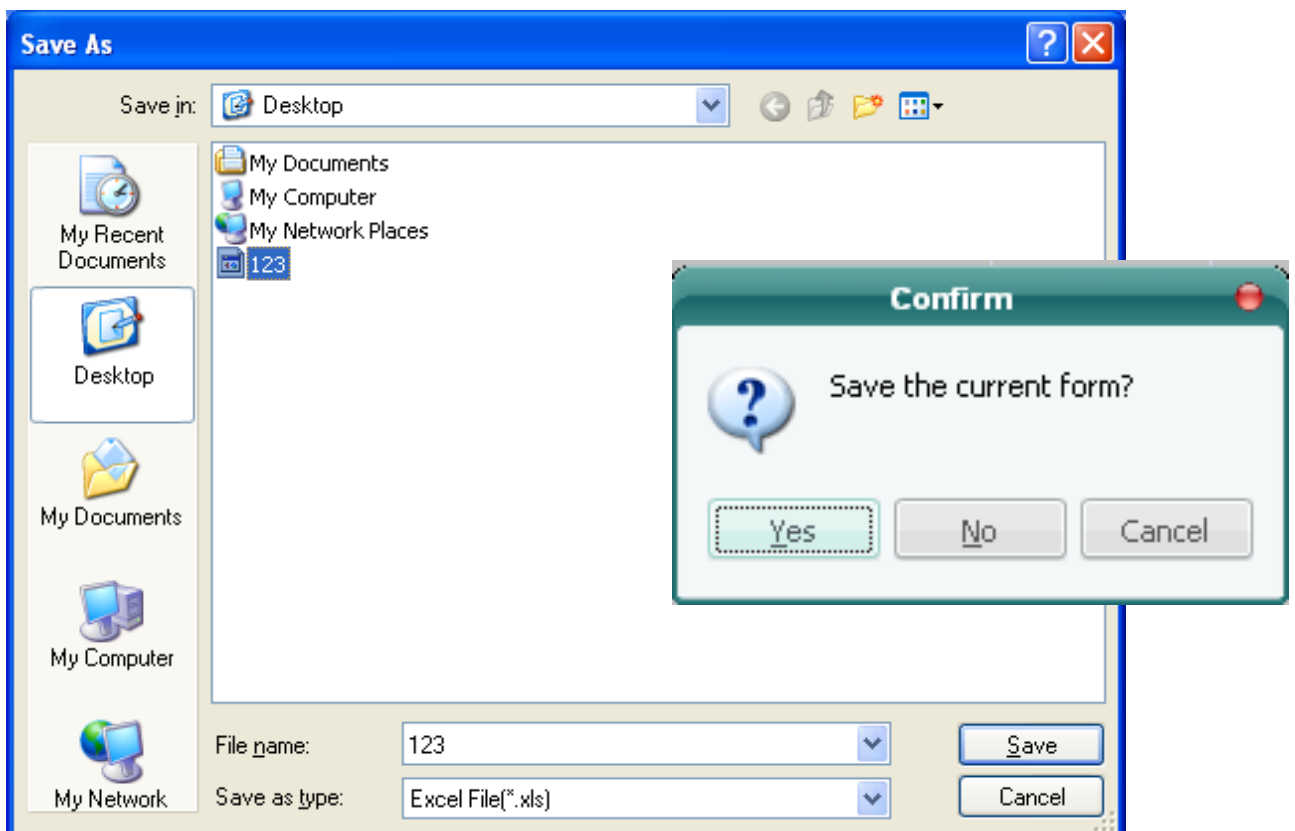
1. Connect the scale to PC through RS232 interface, run US-MP-60.exe, this software can only process \*.xls files. (The following is Example for US-MP-60-1530)

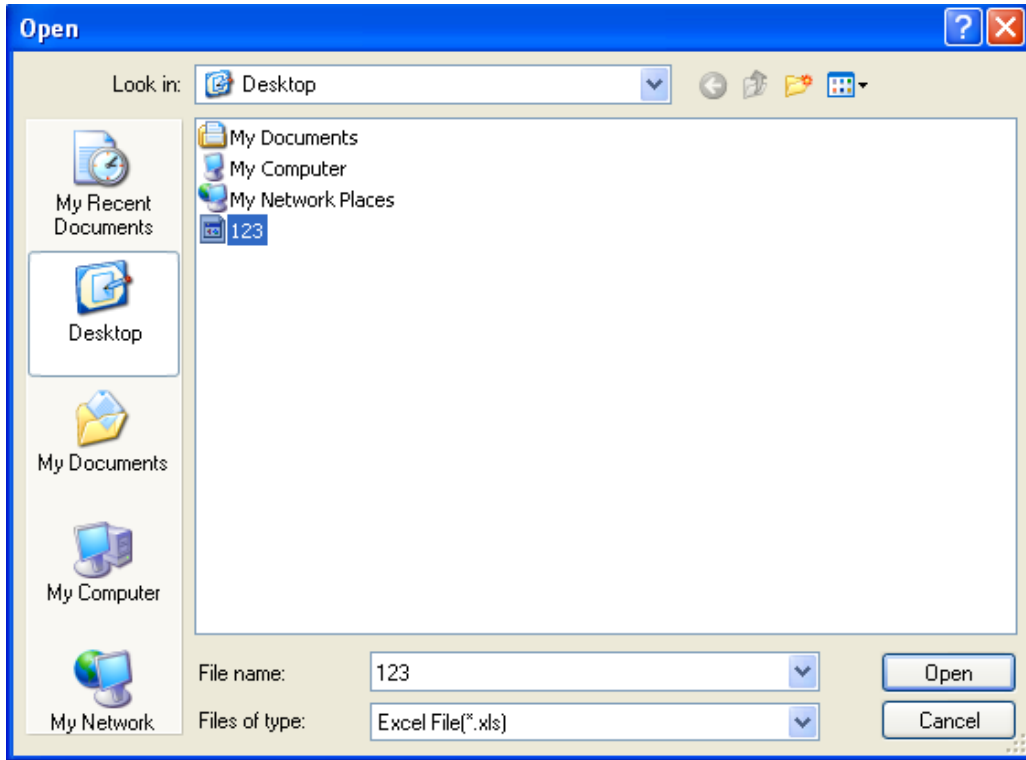


2. Software searches all serial ports on PC, and tries to connect with the scale. In the Status bar, it will separately display present serial port, baud rate, data format. Take the following figure for example, "COM2,2400,8N1" refers to the present serial port COM2, baud rate 2400, data format 8N1. If the connection status displays "Connecting the scale", it means the Software is searching US-MP-60 scale, if it displays "The scale is connected", it means the Host has been connected with the scale.
3. The Software can search all the present serial ports automatically, until connect with the scale. Manual connection is also available by use "Serial Set" in "Serial" menu.



4. Press "Open" or "open file" button in "File" menu, it will first remind you whether to save the current file, and then open the file and dialogue box to choose and open the right file.





KRS1000-15kg RS Formular - C:\Documents and Settings\user1\桌面\123.xls

File(E) Edit(E) Serial

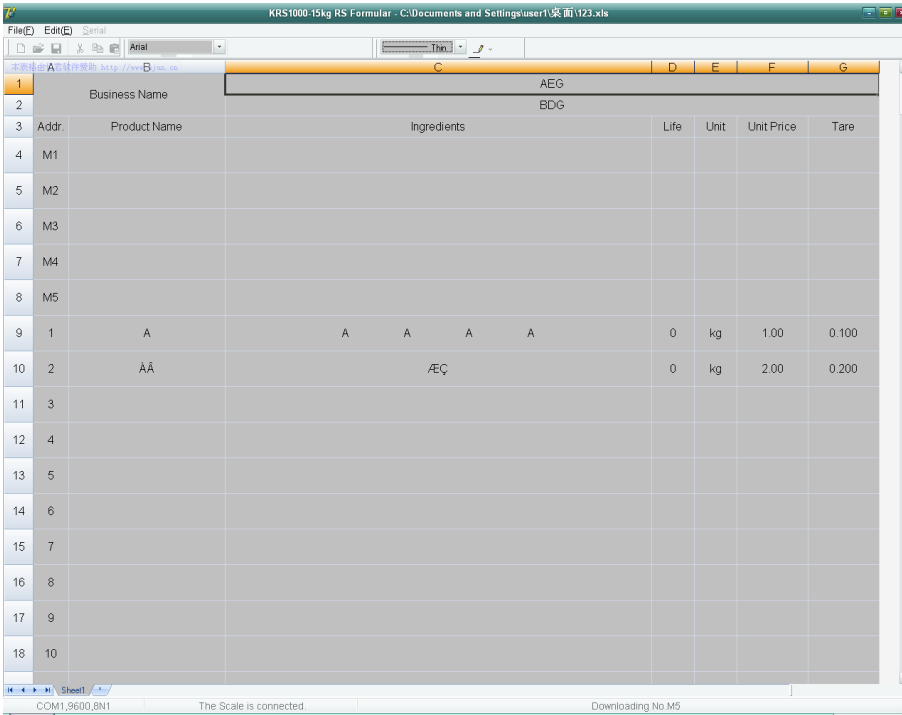
本表格由 A 的统计软件 http://www.B.com.cn

1	Business Name		AEG							
2			BDG							
3	Addr.	Product Name	Ingredients				Life	Unit	Unit Price	Tare
4	M1									
5	M2									
6	M3									
7	M4									
8	M5									
9	1	A	A	A	A	A	0	kg	1.00	0.100
10	2	ÅÅ	AEG				0	kg	2.00	0.200
11	3									
12	4									
13	5									
14	6									
15	7									
16	8									
17	9									
18	10									

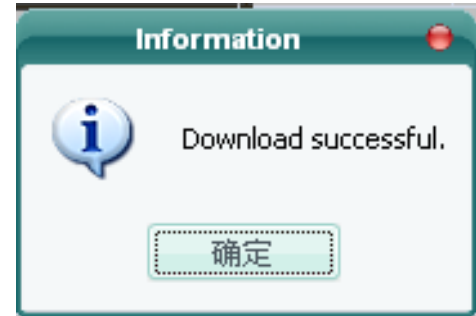
COM1,9600,8N1 The Scale is connected.



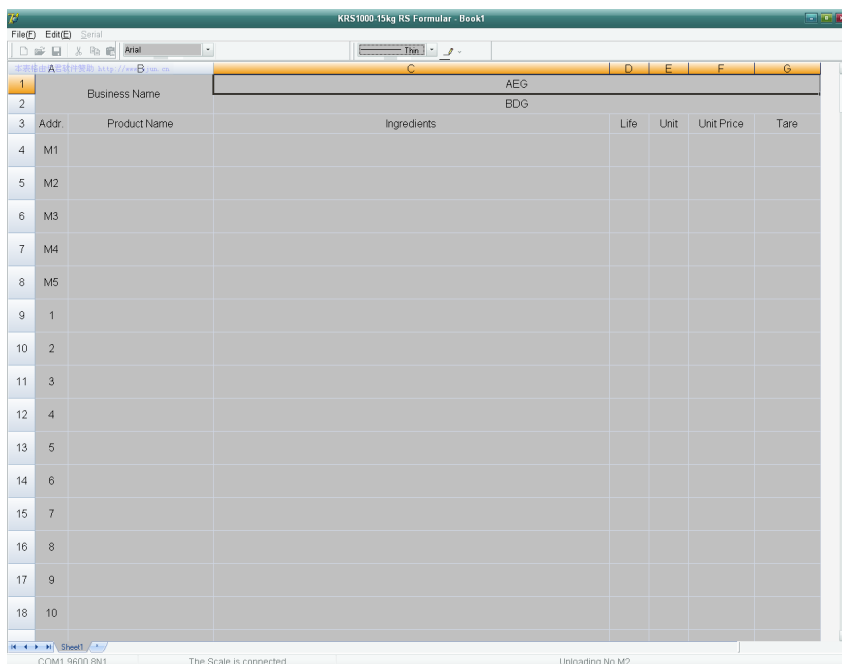
- Choosing "Down Load" in "Serial" menu, the scale will display "DNLOAD", the status bar will display the present download information, if it displays "downloading business name", it means it's downloading the store name. If it displays "Downloading Mxx", it means it's downloading the information of M1~M9 (direct unit price). If it displays "Downloading No. xxx", it means it's downloading the information of PLU1~265. "Download successful" will be displayed after downloading finished.



1	Business Name		AEG				D	E	F	G
2			BDG							
3	Addr.	Product Name	Ingredients			Life	Unit	Unit Price	Tare	
4	M1									
5	M2									
6	M3									
7	M4									
8	M5									
9	1	A	A	A	A	A	0	kg	1.00	0.100
10	2	AA	Æ	Ç			0	kg	2.00	0.200
11	3									
12	4									
13	5									
14	6									
15	7									
16	8									
17	9									
18	10									



- Choose "Upload" in "Serial" menu, the scale will display "UPLOAD". the status bar will display the present upload information, if it displays "uploading business name", it means it is uploading the store name. If it displays "uploading Mxx", it means it is uploading the information of M1~M9. if it displays "uploading No. xxx", it means it is uploading the information of PLU1~265. "Upload successful" will be displayed after uploading finished.

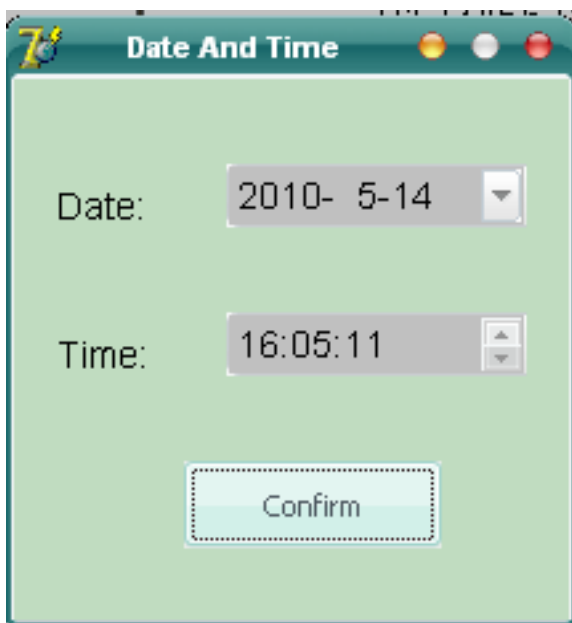


1	Business Name		AEG				D	E	F	G
2			BDG							
3	Addr.	Product Name	Ingredients			Life	Unit	Unit Price	Tare	
4	M1									
5	M2									
6	M3									
7	M4									
8	M5									
9	1									
10	2									
11	3									
12	4									
13	5									
14	6									
15	7									
16	8									
17	9									
18	10									



7. Date and Time setting

Choose "Pair" in "Serial" menu to open the date and time setting dialogue box, it will display the system clock of PC, press "Confirm" or exit the dialogue box directly. After the software send date and time setting data to the scale, it will display "Pair successful."



## 17. Calibration



The calibration switch is located underneath the scale base.  
When the switch is set towards the rear display, it means the CAL switch is on.  
When the switch is set towards the front display, it means the CAL switch is off.

1. When the calibration switch is ON, turn on the scale, the scale will enter the calibration mode automatically.
2. After entering into the calibration mode, the WEIGHT window will display CAL.ON, which means the calibration switch is on. The UNIT PRICE window displays "Unit.0" or "Unit.1", which means the chosen calibration weighing unit is kg(Unit.0) or lb(Unit.1).

3. Use **[Unit]** key to choose the calibration weighing unit to kg or lb (the corresponding unit indicator will be lightened on), use **[ENTER]** key to confirm the unit and go to the next step.
4. The WEIGHT window still displays CAL.ON, UNIT PRICE window displays "UNLOAD"(this means that the scale is ready to calibrate the zero point position, please remove any weight on the scale), the TOTAL PRICE window displays the output inner code of A/D. When the scale is stable and the unit indicator stops flashing, press **[ENTER]** key to confirm the zero point calibration. After the scale is stable and gets the zero point, the scale will go to the next step automatically.
5. The WEIGHT window remains the same, the UNIT PRICE window displays "LOAD", which means the scale is ready to calibrate the standard weight. The display of the WEIGHT and TOTAL PRICE window remain the same. Place a standard weight between 25%-100% FS on the center of the scale, press **[ENTER]** to confirm the standard weight calibration after the scale is stable and the unit indicator stops flashing. When the scale gets the stable data, it will go to the next step automatically.
6. The display of the WEIGHT window remains the same, the UNIT PRICE window displays "InP.Ld" (Input Load Weight), the TOTAL PRICE window displays "0.000", use 0-9 numerical key or **[CLEAR]** to input loaded standard weight, then press **[ENTER]** key for confirmation, the input data will be shown on the total quantity window, and then please remove any weight on the scale.
7. When the WEIGHT window displays "unLoad" again, the scale is ready to re-confirm the zero point, remove any weight on the scale, after the scale is ready and unit indicator stops flashing, press **[Enter]** to confirm.
8. After calibration finishes, UNIT PRICE window displays "CAL.END" and TOTAL PRICE window displays current weight.
9. If there's an error occurred in calibration, the scale will display CAL.ERR; It usually means incorrect data input or loading weight, and please try to return back to the last step to disposal.
10. Once the calibration switch is changed to OFF, the scale will exit the calibration mode.

Note: Once the **[ON/OFF EXIT]** key is pressed, the scale will exit the calibration mode. After the calibration completes, the scale will re-initialize to be ready for normal weighing.

## 18. LCD test mode

1. Long press the **[ON/OFF EXIT]+[PRINT]** key, until all segments of LCD are displayed.
2. (a) Press 0 key --- all segments are shown;  
(b) Press 1 key --- different segments will be shown;  
(c) Press 2 key --- segments on different COMs will be shown;  
(d) Press **[ENTER]** key ---segments will be shown in turn of above a-b-c steps
3. Press **[EXIT]** key --- exit this mode

## 19. The meaning of some displayed symbols

1. **Err01:** Weight signal is too large
2. **Err02:** No proper data can be displayed
3. **Err03:** Weight signal is too small
4. **Err04:** Zero point is over the setting range
5. **Err05:** Zero point is below the setting range
6. **Err06:** Error in unit key operation
7. **Err10:** the EEPROM can't be accessed

8. **Err11:** The parameters are not same with backup data
9. **Err12:** The setting parameter(s) is not in normal range
10. **Err20:** There is an error in calibration
11. **Err30:** ADC is over max. range
12. **Err31:** ADC is below min. range
13. **Err40:** Recall error, no content stored.
14. **CAP:** Capacity
15. **UOL:** Voltage
16. **St.PLU:** To set and store the indirect unit price
17. **Addr:** PLU address
18. **Unit:** Weighing unit selecting
19. **Rc.PLU:** Recall indirect unit price
20. **UnLoAd:** To unload the weight
21. **LoAd:** To load the weight
22. **InPLd:** To input load weight
23. **CAL.oN:** Calibration enable switch is ON
24. **CAL.oFF:** Calibration enable switch is OFF

## 20. Troubleshooting and Battery charging

### Troubleshooting

Troubleshooting		Possible causes	Solution
Power-on problem	No display after press the button	Not well load with the batteries or no electricity or not well insert with adapter or plug.	Check if the batteries have been load with the wrong connection, if well connection with batteries; Replace new batteries; Check the power supply with the adapter
		there is something wrong with the electric components of power on PCB, crystal-oscillator or IC	Replace with new PCB
		Key button not work	Replace with new key button
	Display irregular character after press button	there is something wrong with the crystal-oscillator on PCB, or MCU not well insert	Replace the crystal-oscillator; well insert the MCU.
	Display 888888, not back to 0	Something wrong with the keys, or faulty PCB board	Check the key button; Replace the PCB
Err	Err04	0 point exceed the 10% of the data when calibrating; There are objects on the platform; Load cell 0 point changes;	Remove the objects on the platform; calibrate again.
	Err05	0 point exceed the 10% of the data when calibrating; There is one foot not stand on the solid base; Load cell 0 point changes;	Lay the foot in the same level; Calibrate again.

Err	Err20	Calibration doesn't work; Load cell with no signal; Load cell with too weak or too strong signal; 0 point position inner code is not the same when twice sampling; Inner code twinkles too much.	Load cell signal wire break; Load cell broken; Load cell 0 point changes; Calibrate the PCB with 0 regulation-resistance; PCB broken
	Err01	The weight exceed 9d of the max capacity; or the load cell output signal is too strong	Remove the object; Or change the load cell; Calibrate the PCB with 0 regulation-resistance
	Err31; Err30	The load cell signal is too small or too big.	Calibrate the PCB with 0 regulation-resistance and set the inner code at about 5000-10000, calibrate again; Or replace the load cell; Replace PCB
	Err11	EEPROM on the PCB broken	Replace with new PCB
	Display Lo.bAt	Voltage lower than 5.7V	Replace with new batteries
Capacity not accurate or calibration can't be finished	Linearity is not good	The platform is not laid in level; Four feet are not laid in level; Moveable leg lock the seal cover of the foot; Load cell broken; There are some objects between load cell and scale.	Lay the platform in the same level; Set the four feet in the same level; Check the moveable foot; Clear the objects; Replace the load cell.
	Big tolerance with full corner	The platform is not laid in level; Four feet are not laid in level; Moveable foot lock the seal cover of the foot; Load cell broken; There are some objects between load cell and scale.	Lay the platform in the same level; Set the four feet in the same level; Check the moveable foot; Clear the objects; Replace the load cell.
	There is some problem with repeating function	The platform is not laid in level; Bottom dust proof wash lock the bottom bolt; Broken load cell; Aging problem with PCB; There is some objects between load cell and scale.	Lay the platform in level; Calibrate four feet; Check the dust proof wash; Clear the objects; Replace the load cell.
	Calibration can't be finished	Inner code at 0 point is too small or too big; not enough with the full capacity inner code; not stable; there is some objects between load cell and scale body; broken load cell.	Calibrate the inner code at around 10000 on PCB and calibrate again; Replace PCB; Clear the objects; Replace the load cell.
Function problem	No function with key button	Key button not work; aging problem of the apparatus on PCB	Check the button; Replace PCB
	Not smoothly communicating	Communication wire broken; or the interface apparatus broken	Replace communication wire; Replace PCB

## Battery and Charging

Power is supplied by an internal rechargeable 6V 4Ah rechargeable battery. When "Lo.bAt" is displayed, the battery must be recharged. Plug in the AC power adapter to recharge the battery. The scale may continue to be used on AC power during charging. Full charging time is approximately 10-12 hours.

Battery life and recharge time will vary with use. Over time, the operating time per each full charge will degrade. If the operating time is no longer acceptable, the battery must be replaced. When storing the scale for extended periods, the battery must be charged every 90 days to avoid premature performance degradation.