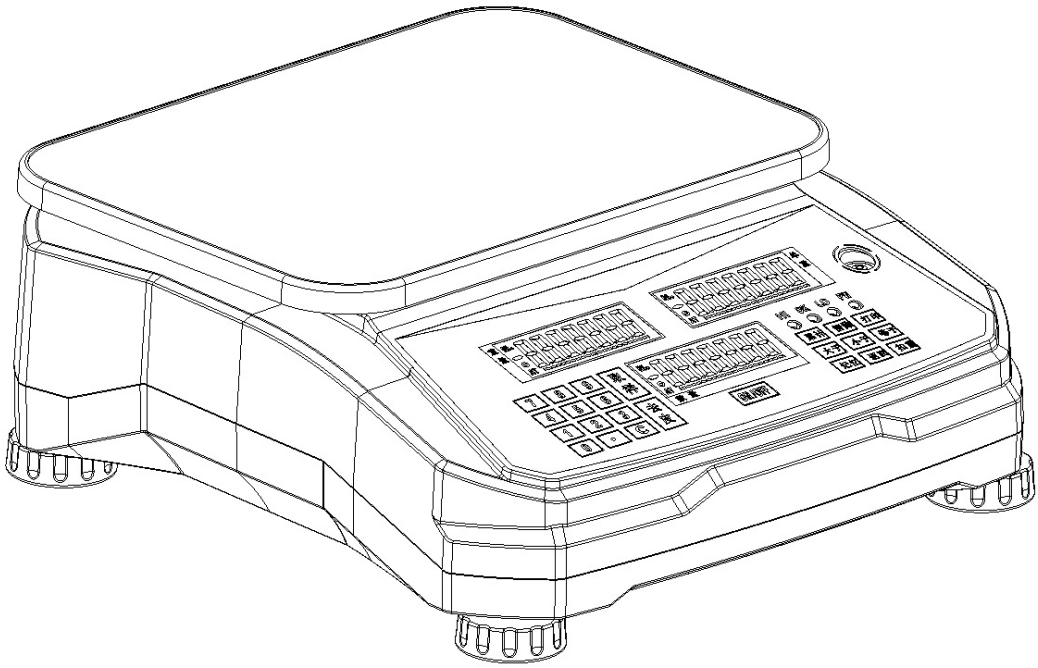
USA Measurements

"We Outmeasure the Competition"

Electronic Counting Scale Manual



Contents

First of all, thank you for purchasing the USA Measurements Army "iCount" US-iC series electronic counting scale from our company. The high quality and reliability of our products are the best in the measurements industry. There are specific methods of installation, operation, and maintenance in this manual that are very important to adhere to. In order for your scale to work well, you must read the manual carefully before using.

【1】 ATTENTION

- **Do not let anything drop onto the pan.**
- **Do put the scale in a dangerous enviornment.**
- **Keep the scale in a level area unobstructed by objects.**
- **Do not count pieces on the scale or move around the pan.**
- **Keep the scale clean. If the product is not going to be used for a long period of time recharge the battery once a month. When the scale has been inactive for a period of time it is necessary to charge the battery before using the scale again.**
- **We suggest all maintenance to be done by a technician.**

1.1 ATTENTION BEFORE USING

1. Place the scale on a clean, firm, flat surface without the pan on top and keep away from any kind of vibration, heat, or harsh changing temperatures. Adjust the 4 leveling feet so that the bubble is centered in the circle and be sure the scale is level each time you move the product.

2. Connect the AC adapter to an independent power supply to avoid interference from other equipment.

3. Scale pan must be empty when turning on the scale.

4. The first time setting up the scale wait 3-5 minutes for the scale to autocalibrate.

5. For best weighing accuracy, the center of gravity for an object should be placed in the center of the pan and not in the corner or edge of pan.

【2】 INSTALLATION

2.1 BODY INSTALLATION

1. Contents in Carton

No.	Name	Unit	Qty.
1	Body	pc	1
2	Pan	pc	1
3	Manual	pc	1

4	Calibration	pc	1
5	Inner Packing	pc	1
6	AC Adapter	pc	1

2. Put the scale on a firm and horizontal surface, adjust the feet to keep the scale stable and level the feet till the bubble is centered in the circle.

3. Put the pan on the body and press【ON/OFF】key to turn on the scale in weighing mode.

2.2 BATTERY REPLACEMENT

1. Take off the stainless steel pan, open the housing, and disconnect the battery connectors.

2. Install the new battery in same position and connect negative and positive poles correctly.

Warning：The positive and negative poles of lead-acid battery installed incorrectly can cause a short circuit or electrode reverse, which will damage the battery and may cause a fire.

Connection: Red wire to red pole and black wire to black pole.

3. Screw back in the housing and place the weighing pan on the scale. After that the battery replacement is complete.

【3】INSTRUCTION

3.1 PARAMETERS

Accuracy：III

Number of Division：(3000-300000）d，（3000d,dual range）approved

Working Voltage： 5V

Sample Rate: 20 times/Sec.

Resolution：1 million

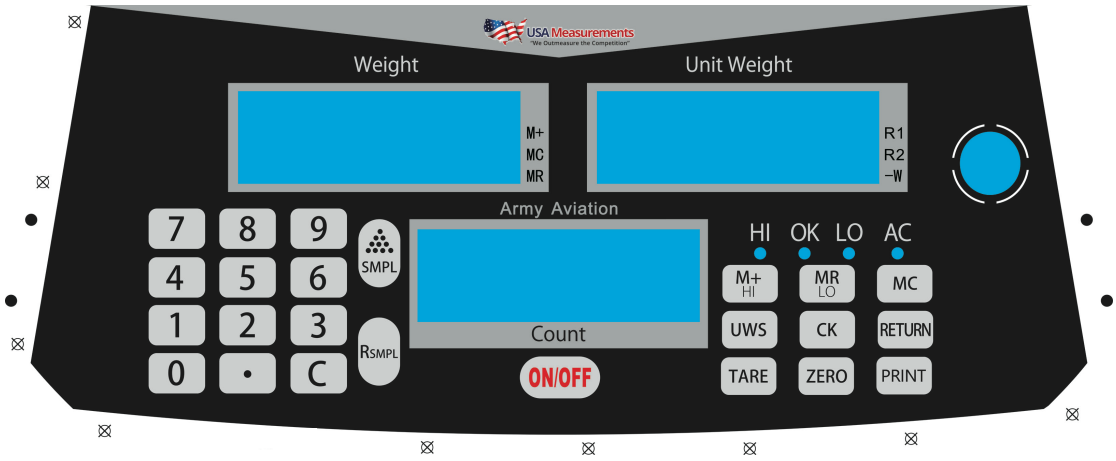
3.2 POWER SUPPLY

AC Adapter：Input 100V~240V，Output 12V/1A

Battery Specification: 6V4AH

【4】DISPLAY

4.1 PANEL DESCRIPTION



US-iC Panel

Description：HI (red light),OK (green light) and LO (yellow light) indicates when check weight function works.

4.2 KEY DESCRIPTION

【0~9】：The input number displayed on the screen

【 . 】：Decimal Point

【 C 】：Clear the displayed numbers on screen

【SMPL】：Calculate a new average unit weight

【R_{SMPL}】：Recalculate a new average unit weight

【ON/OFF】：Powers unit on or off

【TARE】：Perform Tare Function

【ZERO】：Perform Zero Setting Function

【PRINT】：Perform Print Function

【UWS】：Confirm the input unit weight value

【CK】：Cooperate with other keys to set the upper-lower limit

【R_{ETURN}】：Return to weighing interface when setting

【M+/HI】：1. Perform accumulation function in weighing mode, then the symbol M+ is bright 2. Cooperate with check weight key to input the upper limit.

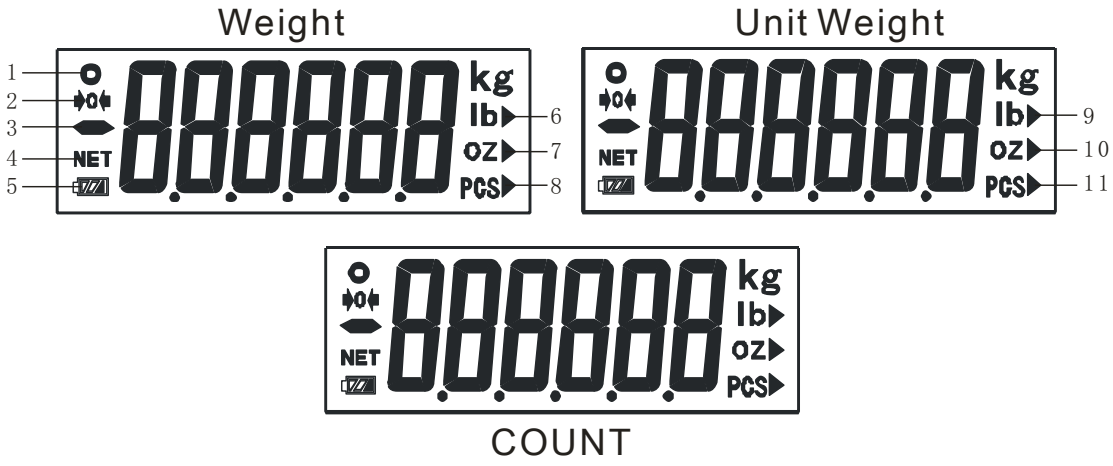
【MR/LO】：1. Perform to redisplay function in weighing mode, then the symbol MR is bright

2.Cooperate with check weight key to input the lower limit.

【MC】：Press to clear accumulated value , then the symbol MC is eluminated.

Notice:：The time for pressing any key is less than 1 second.

4.3 DISPLAY DESCRIPTION



No.	Description	No.	Description
1	Stable Symbol	7	MR Symbol
2	Zero Symbol	8	MC Symbol
3	－ Symbol	9	R1 cap. Symbol
4	NET Symbol	10	R2 cap. Symbol
5	Battery Symbol	11	Samples Lack
6	M+ Symbol		Input Unit Weight Lack

【5】OPERATION

5.1 TURN ON/OFF

ON：Press 【ON/OFF】key to display the maximum capacity and software version on the display, scale will perform a self-inspection, and then enter into the weighing mode.

OFF：Press【ON/OFF】key to turn off the scale.

5.2 COUNTING MODE

There are three display windows in the US-iC series scale, in which weight, unit weight and count are displayed.

5.3 AVERAGE UNIT WEIGHT SETTING

If average unit weight was not set beforehand, "0" will be displayed in the unit weight and count screen.

Sampling：

1. **Place a samples onto the weighing pan.**
2. **Input the number of samples by numeric keyboard, and then input numbers are displayed on unit weight screen .**

3. **Press【SMPL】key to display the unit weight value on unit weight screen and the sampling value on count screen.**
4. **The set average unit weight and number are displayed on the screens.**

Sampling After Tare:

1. **Put a container on the pan**
2. **Press【TARE】key to display "0" on weight screen. and NET symbol is displayed.**
3. **Put samples inside the container**
4. **Input the number of samples by numeric keyboard and the number is displayed on unit weight screen.**
5. **Press【SMPL】key to display the unit weight value on unit weight screen and sampling value on count screen.**

Input a known average unit weight:

1. **A known unit weight is input, then press【UWS】key to display " unit weight value" on unit weight screen.**
2. **Put entire sampled units onto the pan**
3. **Count and get the result**

5.4 ACCUMULATED MODE

Perform accumulation function by pressing 【M+/HI】key, and accumulative operation can be performed at most 10 times as well as rechecking or by printing each time.

Notice: The accumulative operation can only be performed when the stable symbol appears, then M+ symbol will be displayed after performing accumulative operation.

1. **Sampling and count according to the item 5.3**
2. **Press 【M+/HI】 key to display " present accumulated times" for short time on unit weight screen, and one second later, automatically return in counting interface.**
3. **The multiple accumulative operation can be performed by the step 2**

5.5 REDISPLAY FUNCTION

The redisplay function can be used to check accumulated results and to examine accumulated information line by line. After performing redisplay operation, MR symbol will then be displayed.

1. **One or more times accumulative operation can be performed according to item 5.4**
2. **Press【 MR/LO 】key to display "weighing value of accumulative total" on the weight screen, "MR-ALL (times of accumulative total)" on the unit weight screen, "the number of accumulative total" on count screen. Press the print key to print the accumulative total.**
3. **Press continuously【 ZERO 】key to examine the information of 10 times accumulated results in descending order.**
4. **Press continuously【 TARE 】key to examine each information of 10 times accumulated results in ascending order.**
5. **Press【RETURN】key to return in counting interface.**

5.6 CLEAR ACCUMULATION FUNCTION

Clear Accumulation Function can be used to clear the accumulated results and the accumulated value each time. MC symbol will be displayed after clearing accumulation.

1. **One or more times accumulated operation can be performed according to item 5.4**

2. **Press 【 MC 】 key to display "weighing value of accumulative total" on weight screen, "MR-ALL(times of accumulative total)" on unit weight screen, "the number of accumulative total" on count screen. Press 【MC】key again to clear all the accumulated information and cancel accumulation operation.**

3. **Press continuously 【 ZERO 】 key to examine each information of 10 times accumulated results in descending order and press【MC】key to clear the present accumulated information.**

4. **Press continuously 【TARE】key to examine the information of 10 times accumulated results in ascending order and press【MC】key to clear the present accumulated results.**

5. **Press【RETURN】 key to return to counting interface.**

5.7 CHECK WEIGHT

Check Weight mode and check weight alarm range function can be set under function setting mode. The setting instructions are shown in the chapter of function settings.

Notice: the operation can only be performed when LO is less than HI and more than 9d.

1. **In counting interface, press【CK】key to display “check weight alarm range” on weight screen, “unit weight value” on unit weight screen, “LIMIT” on count screen.**
2. **Press 【MR/LO】 key to display “check weight alarm range” on weight screen, “lower limit weight” on unit weight screen, “LO” on count screen. Change the lower limit weight by numeric keyboard, press 【SMPL】key to confirm the lower limit weight.**
3. **Press 【M+/HI】 key to display “check weight alarm range” on weight screen, “upper limit weight” on unit weight screen, “HI” on count screen. Change the upper-limit weight by numeric keyboard, press【SMPL】key to confirm the upper limit weight.**
4. **Press【RETURN】key to return in counting interface.**
5. **Press 【CK】 key and press【RSMPL】key again to open check weight function.**
6. **Press 【CK】key and press【RETURN】key again to close check weight function.**

5.8 CHECK COUNT

Check Count mode and check count alarm mode can be set to function setting. The setting instructions are shown in the chapter of function settings.

Note: the operation can only be performed when LO is less than HI, integer number and more than 9d

1. **In counting interface, press【CK】key to display "check count alarm range" on weight screen, " unit weight" on unit weight screen, "LIMIT" on count screen.**
2. **Press 【MR/LO】key to display "check count alarm range" on weight screen, "lower-limit count" on unit weight screen, "LO" on count screen. Change the lower-limit count by numeric keyboard, press【SMPL】key to confirm the lower-limit count.**
3. **Press【M+/HI】key to display "check count alarm range" on weight screen, "upper-limit count" on unit weight screen, "HI" on count screen. Change the upper-limit count by numeric keyboard, press【SMPL】key to confirm upper-limit count.**
4. **Press【RETURN】key to return in counting interface.**
5. **Press【CK】key and press【RSMPL】key again to open the check count function.**

6. **Press【CK】key and press【RETURN】key again to close the check count function.**

5.9 SINGLE POINT CALIBRATION (unapproved)

Single Point Calibration can be used to calibrate the deviation of gravity when the scale is first used to calibrate the scales inaccuracy.

Notice: please calibrate the scale in working conditions.

1. **In the power off mode, hold on 【SMPL】key and press 【ON/OFF】 key to enter in function setting and display "set" on weight screen , "0" on unit weight screen.**
2. **Input "1139" by pressing numeric keys and press 【SMPL】 key to display "CAL" on weight screen, "1Point" on unit weight screen, "C-ZEro" on count screen.**
3. **Confirm there is no load on the pan and press【TARE】key to perform single point calibration ,display "value of weight to load" on count screen.**

4. If“ value of weight to load” needs to be changed, respectively press【TARE】【ZERO】keys to change the value of weight to load.
5. Put required weight on the pan for 3-5 seconds and press 【SMPL】 key to display “pass”, then take off the weight, press【SMPL】key again to return to function setting interface.
6. Press【RETURN】key to count backwards to return in weighing interface.

5.10 UNIT SETTING（unapproved）

In general, the unit will not need to be reset because they were already set before delivery. If setting up is needed, the steps are shown in –g.kg,1b,oz

Notice: The units kg and g are only allowed by rules to be legal measure unit.

1. In the of power off mode, hold down【SMPL】key and press 【ON/OFF】 key to enter in function setting, display “set” on weight screen and “0” on unit weight screen.
2. Input“1132” by numeric key, and press【SMPL】key to display “UNIT” on weight screen, “1132” on unit weight screen, “Unit” on count screen.

3. **Press【1】key to change the units and select required unit ,press【SMPL】key to return in function setting interface.**
4. **Press【RETURN】key to count backwards again to return in weighing interface.**

5.11 MINIMUM ZERO DISPALY SETTING

Minimum Zero Display need not reset in general and was set before delivery, if need, the steps are shown as the followings:

Notice: Minimum Zero Display "0" is only allowed to be set on rules.

1. **In the condition of power off, hold on【SMPL】key and press【ON/OFF】key to open function setting ,display "SET" on weight screen and "0" on unit weight screen.**
2. **Input"1136" by numeric keys and press【SMPL】key to display "Auto-Z" on weight screen, "1136" on unit weight screen, "Minimum Zero Display" on count screen.**
3. **Press【1】key to change the different minimum zero display (0-1-2-3), and select the required one, then press【SMPL】key to return in function setting interface.**

4. Press【RETURN】key to count backwards, and return in weighing interface.

5.12 LINEAR CALIBRATION（unapproved）

There are three portions for linear calibration in the range of scale capacity. The incorrect linear calibration method will make errors so that the measured value will be influenced each time. Therefore, the linear calibration done by user are not suggested. The linear calibration was done before delivery.

Notice: please calibrate the scale in working conditions.

1. **In the condition of power off, hold on【TARE】key and press【ON/OFF】key to enter in linear calibration interface, and display "CAL" on weight screen, "LinE" on unit weight screen, "C-ZEro" on count screen.**
2. **Confirm no load on the pan, press【TARE】key to set zero point calibration, display "1/3 maximum capacity" on count screen.**
3. **Put the required weights on the pan for 3-5 seconds, press【TARE】key to enter in next portion linear calibration interface, display "2/3 maximum capacity" on count screen.**

4. Put the required weights on the pan for 3-5 seconds, press 【TARE】key to enter in third linear calibration interface, display "3/3 maximum capacity" on count screen.

5. Put the required weight on the pan for 3-5 seconds, press 【TARE】key to display "PASS" on count screen.

6. Press【TARE】key to count backwards to return in weighing interface.

【6】FUNCTION SETTING

In the condition of power off, hold on【ZERO】key and press 【ON/OFF】key to enter in function setting interface and display "SCALE" on weight screen, "FunC" on unit weight screen, "SET" on count screen.

****

6.0 BACKLIGHT SETTING

Press【0】key to display "FunC0" on weight screen, "LiGh" on unit weight screen, "backlight type" on count screen. Press【0】key to change backlight type.

"OFF"：No Backlight

"ON"：Backlight is bright

“Auto”:Automatic Backlight（No load, no backlight，as load greater than 9d，backlight is bright）

6.1 ANTI-VIBRATION SETTING

Press【1】key to display “FunC1” on weight screen, “FiLt” on unit weight screen, “Anti-Vibration Strength Value” on count screen. Press 【1】 key to change (1-5) anti-vibration level. The bigger the number is, the more vibration proof it is.

6.2 BAUD RATE SETTING

Press【2】key to display “FunC2” on weight screen, “bAud” on unit weight screen, “baud rate value” on count screen. Press 【2】key to change the different baud rate（9600-19200-4800）.

6.3 CHECK WEIGHT BUZZER SETTING

Press 【3】key to display “FunC3” on weight screen, “CK-bz” on unit weight screen, “ON or OFF” on count screen.

Press【3】key to change them.

6.4 CHECK WEIGHT ALARM RANGE SETTING

Press【4】key to display “FunC4” on weight screen, “Limit” on unit weight screen, “Range” on count screen.

Press【4】key to change them.

“in”：Regular range alarm（green light）

“un”: under lower-limit and over upper-limit alarm（yellow light, red light）

“Hi”：over upper-limit alarm（red light）

“Lo”：under lower-limit alarm（yellow light）

6.5 CHECK WEIGHT/COUNT SETTING

Press【5】key to display “FunC5” on weight screen, “CK-S” on unit weight screen, “WEiGH/PCS” on count screen.

Press【5】key to change them.

“WEiGH”：check weight mode

“PCS”：check count mode

6.6 PRINT SETTING

Press【6】key to display “FunC6” on weight screen, “Prt” on unit weight screen,“Print Pattern” on count screen.

Press【6】key to change them.

“PrtPr”：press【PRINT】key to print

“PrtCo”：continuous output print

“PrtST”：stable output print

“PrtMr”：accumulated output print

6.7 EXTERNAL DEVICE SETTING

Press【7】key to display “FunC7” on weight screen, “Prt-d” on unit weight screen,“Device name” on count screen.

Press【7】key to change them.

“K.P205”：connect to K.P205 printer

“SCr”：connect to large screen display

“PC”：connect to computer

“dot-MA”：connect to micro printer

6.8 LARGE SCREEN DISPLAY PATTERN SETTING

Press【8】key to display “FunC8” on weight screen, “SCrEEn” on unit weight screen,“Display Pattern” on count screen.

Press【8】key to change them

“PCS”：Large screen display PCS number

“WEiGht”：Large screen display weight value

6.9 AUTOMATIC TARE SETTING

Press【9】key to display “FunC9” on weight screen, “AtarE” on unit weight screen,“YES（open）/no（close）” on count screen. Press【9】key to change them.

6.10 COUNT ANALYSIS SETTING

Press【.】key to display “FunCA” on weight screen, “SMPL” on unit weight screen, “E/d” on count screen.

Press【.】key to change them.

“E”：count according to external weight.

“d”：count according to value of internal code.

6.11 RS232 OUTPUT ACCUMULATED MESSAGE SETTING

Press【R_{SMPL}】key to display “Pr-ALL” on weight screen,

“ ” on unit weight screen, “SET-MP” on count screen.

Press【M+/HI】key to change them.

“Pr-ALL”：in count interface, press【M+/HI】key to print and output every accumulated value, press【MR/LO】key to display the accumulated total message and press【PRINT】key to print and output the accumulated total message.

“nP-ALL”：in count interface, press【M+/HI】key not to print and output every accumulated value, but press【MR/LO】key to

display the accumulated total, then press【PRINT】key to print and output the accumulated total.

6.12 RS232 OUTPUT MESSAGE SETTING

Press【UWS】 key to display "Pr-Wt" on weight screen, "Pr-UWt " on unit weight screen,"Pr-PCS" on count screen，at the moment, weight, unit weight and count can be printed and output.

1. **Press【M+/HI】key to change the display "nP-Wt"on weight screen(Don't output weight message）**
2. **Press【MR/LO】key to change the display "nP-UWt" on weight screen（Don't output unit weight message）**
3. **Press【MC】key to change the display "nP-PCS" on weight screen（Don't output count message）**

****

To set above function as requirement and press【SMPL】key to confirm the setting, then to count backwards to return in weighing interface.

【7】RS232 OUTPUT FORMAT

7.1 RS232 CONNECTION

DB9 joint is for the connection with other communication equipment

Connect pins are assigned as the followings:

PIN2=TXD，PIN3=RXD，PIN5=GND

Setting Pattern:

Data bits 8, without odd-even check, stop bit 1, baud rate is adjustable

7.2 RS232 FORMAT

Three print formats-Continuous, pressing key and stable ：

G/W: 92.6 g	**G/W gross weight, T/W net weight**
U/W: 0.92625 g	**U/W unit weight**
QTY: 100 PCS	**QTY quantity**

Accumulated Print Format：

No.01	**The first accumulated total**
G/W: 92.7 g	
U/W: 0.92658 g	

QTY: 100 PCS

No.02 The second accumulated total

G/W: 92.7 g

U/W: 0.92658 g

QTY: 100 PCS

No.03 The third accumulated total

G/W: 92.7 g

U/W: 0.92658 g

QTY: 100 PCS

TOTAL03 Times of accumulated total

G/W: 278.1 g Weight of accumulated total

U/W: 0.92658 g

QTY: 300 PCS Count of accumulated total

【8】ERROR MESSAGE

Symptom	Possible Reason	Solution
Unable to boot	No power or dead battery	Check power and battery connection
Can't be calibrated	Hostile working condition Unsuitable weight	Working condition Suitable weight
W-over	Exceed maximum capacity+9d	Lessen objects
LOW-BAT	Dead battery	Charge battery
Battery	Battery is low	Charge battery

symbol		
P2-Err	**Exceed 20% max. capacity**	**Take down the load**
AC-Err	**The accumulated times exceed 10 .**	**Clear the accumulated times**
Not Zeroing	**Hostile working condition** **Touch the pan** **Load cell damaged or PCB problem**	**Working condition** **Eliminate objects** **Repair in factory**

【9】SPECIFICATIONS

Common Specifications:

Capacity	**3kg**	**6kg**
Division	**0.05/0.1/0.2/0.5/1g**	**0.1/0.2/0.5/1/2g**
Capacity	**15kg**	**30kg**
Division	**0.2/0.5/1/2/5g**	**0.5/1/2/5/10g**

Precision Specifications (on demand):

Capacity	**3kg**	**6kg**
Division	**0.01g**	**0.05g**
Capacity	**15kg**	**30kg**
Division	**0.1g**	**0.1g**

【10】Warranty

Thank you for purchasing and using our products. You can count on us to be there for you when that time comes for service and we do it in a timely manner. Our two year warranty period covers two years on the structural frame and one year on electronics excluding the battery from date of purchase. Under the warranty we offer replacement parts with one year for any defective components (excluding the battery). Parts that prove to be defective will be covered under the warranty at no extra charge unless damage is caused by misuse of product. To make a warranty claim for replacement parts the customer must submit the original invoice, along with pictures and / or a video of the problems. In the following situation, you must pay for the item in advance for repair if:

1.The damage was caused by misuse

2.Damage was by nature or man made disaster

3.The user's own disassembly or unauthorized maintenance

4.The battery in the scope of the warranty is good for 60 days from date of purchase.

Version：VER-1.0

Subject to change without notice