Weighing Indicator
(Big LCD Display)

Operation Instruction

Content

I. BEFORE USING THE SCALE

To enable you to use this scale correctly, we suggest you reading this manual carefully.

1. Do not use scale in areas with excessive water and don't spray the scale or indicator with water when cleaning. Erase all water from the scale and indicator with a clean dry duster cloth.

2. Load placed on platter must not exceed the maximum weighing capacity of the scale.

3. Keep the scale away from high temperature and damp conditions.

4. If the scale is not going to be used for some time, please clean and store it in a plastic bag under dry condition. A desiccant sachet is suggested to be included to prevent moisture build up. In addition, the internal rechargeable battery should be recharged very three months.

5. Before using the scale after a long period of storage, please ensure that the internal battery is fully charged. *Note :* Care should be taken not to leave the internal battery on charge for too long, as this may decrease life of battery.

II. PREPARING TO USE THE SCALE

1. Put the scale on a firm level surface from vibrations for accurate weight readings.

2. Adjust the four leveling feet to set the level of scale platform.

3. Avoid operating the scale in direct sunlight or drafts of any kind.

4. Take away any weight that might be on the platform before the scale is switched on.

5. Once the scale has been switched on, it will go through a LCD display test and then re-zero to be ready for use.

6. Please note when Battery capacity indication light shows red on the screen, the internal battery needs to be charged.

7. All goods weighed should be placed in the center of platform for accurate weighing. The footprint of the goods being weighed should not overstep the edges of platform.

III. INTRODUCTION

3.1 FEATURES

1. ABS plastic house case with plastic bracket.

2. Multiple weighing units: kg / lb / t / g / PCS

3. User-friendly function:
   ◇ Auto calibration
   ◇ 6 digits Big LCD display (72mm height).
   ◇ Date & time display.
   ◇ Wireless weighing (Option part).
   ◇ Simple counting function.
   ◇ Check weighing function with HI / OK / LO colorful LCD and alert buzz.
   ◇ Print function.
   ◇ Auto power-off design to ensure the performance stability.
   ◇ Full charging light changes green automatic.

4. High performance in A/D converter
   ◇ Conversion speed: up to 80 times / second
   ◇ Internal resolution: 400,000
   ◇ External resolution: 1/1000 ~ 1/30000

✦   Non-linearity: < 0.016% of full scale

✦   Input range of load cell: 1.0 ~ 20 mv/v

✦   Load cell excitation: + DC5V

✦   Load cell drive capacity: up to 8units 1000Ω load cell

5.   Option parts

✦   Wireless communication weighing module

✦   RS-232 or RS-485 interface,

✦   Bluetooth interface.

✦   0~20mA output

6.   Humidity: ≤ 85%

7.   External dimension: 258x154x90mm

8.   Gross weight: 2kg

9.   Packing: Single package / 5pcs in one carton

3.2 POWER SUPPLY

1.   Rechargeable battery: DC 6V / 4Ah

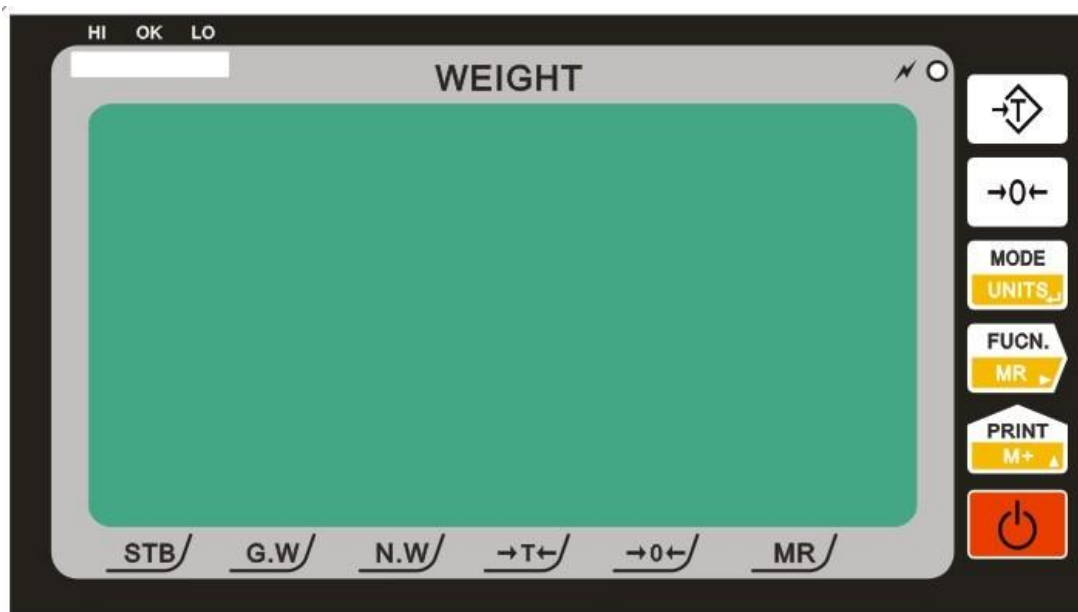2.   Adapter : AC100~240V 50HZ   / DC 12V 500mA

3.   Transformer: AC110 Or 240V with earth wire. (Selectable)

3.3 BATTERY CAPACITY DISPLAY

The scale will power off automatically without recharging after the capacity blank of battery shows empty. As a recommendation, the scale should be fully recharged and change green light before using the scale again.

IV. LCD DISPLAY SYMBOLS

STB	Stable indication	PCS	Counting function
G.W	Gross weight	HOLD	Animal weighing
N.W	Net weight	HI/OK/LO	Check weighing indication
→T←	Tare mode		Wireless working
→0←	Zero indication.	Kg,lb,t, g	Weigh units
⚡	Charging light		Battery Capacity
MR	Memory record		

V. KEYBOARD FUNCTION

⏻	Power switch key. The indicator will be turned on or off when pressing the key. Press and hold the key for 1.5 seconds, it will test-self until it is zero.
→T⟩	Deduct the container weight. Press this key to deduct container weight and net weight indication will display.
→0←	To re-zero the scale. Range of re-zero is ±2% of full scale.
MODE UNITS	* Weigh units switching while in weighing mode. * Press to confirm the setting when it is in setting menu or calibration mode.
FUCN. MR	* For recalling the memory of accumulative weight. Accumulative time and weight will display on the screen. Press [→0←] to clear accumulative weight and time. * Press and hold for 3 seconds, it will enter [**GENERAL FUNCTION**] menu. * Selective key when in setting menu.

PRINT M+	* Press the key to print out the current weight and the weight will be added up to accumulative weight. * Print out the memory while in accumulative mode(Press MR key first). * Selective key when in setting menu.

VI. GENERAL FUNCTION

* Plug the circuit breaker JP1 into 'off', and the following operation can be performed.

Press and hold **[FUCN./MR]** key for 3 seconds, the screen will display ⬚ Fn0 ⬚ . It enters the menu of general function setting. There are 8 kinds of function can be set. Press **[PRINT/M+]** & **[MODE/UNITS]** keys to select the code from "0~7". Each code represents a function. Belows is the list of function.

FUCN. code	Functional Description
Fn 0	SETTING OF AUTOMATIC POWER OFF
Fn 1	SETTING OF BUZZER
Fn 2	SETTING OF POWER SAVING MODE
Fn 3	SETTING OF CHECK WEIGHING FUNCTION
Fn 4	SETTING OF AUTO SHUTDOWN PROTECTION FOR BATTERY
Fn 5	SETTING OF DATE AND TIME
Fn 6	SETTING OF DEFINITION OF LCD DISPLAY
Fn 7	SPECIFIC FUNCTION

6.1 SETTING OF AUTOMATIC POWER OFF

Set "Fn = 0", it is parameter of automatic power off function.

It displays ⬚ OFF 0 ⬚ . There are 7 choices for preset shut down time: 10, 20, 30, 50, 60 and 0. Choices 10~60minutes denotes respectively that indicator will power off automatically if there is no changes on weighing value and no operation on keyboard. Choice 0 denote that automatic power function is not available.

Press **[PRINT/M+]** to select then press **[MODE/UNITS]** to confirm and exit to weighing mode.

6.2 SETTING OF BUZZER

Set "Fn = 1", it is parameter of Buzzer function.

It displays ⬚ bP On ⬚ or ⬚ bP OFF ⬚.

Press **[PRINT/M+]** to select "on" or "off" to turn on/off the buzzer. Non-buzzing mode will help decreasing power consumption.

Press **[MODE/UNITS]** to confirm and exit to weighing mode.

6.3 SETTING OF BACKLIGHT MODE

Set "Fn = 2", it is parameter of Power saving mode select.

It displays $\boxed{\text{bAn} \quad \text{XY}}$.

X means backlight modes selectable.

X=0, means backlight is off.

X=1, means backlight manual mode, press **[MODE/UNITS]** key to open or close backlight.

X=2, means auto openning backlight when weighing.

X=2, means auto openning backlight for 10 seconds when weighing.

Y means time and date display mode

Y=1,means normal status.

Y=2, means auto display time and date when in zero situation.

Press **[PRINT/M+]** to select then press **[MODE/UNITS]** to confirm and exit to weighing mode.

6.4 SETTING OF CHECK WEIGHING FUNCTION

Set "Fn = 3", it is parameter of Check weighing function.

The indicator has a check weighing function which allows scale to check weigh, making the set point weight quick and accurate.

Step 1: When $\boxed{\text{XXXX kg}}$ & $\boxed{\text{- HI -}}$ indication is shining, please to set the highest weight. If scale is over this weight, " **HI** " LCD indication shows and alert buzzing.

Press **[FUCN./MR]** & **[PRINT/M+]** key to set the point weight, then press [MODE/UNITS] to confirm and next to step 2.

Step 2: When $\boxed{\text{XXXX kg}}$ & $\boxed{\text{LO}}$ indication is shining, please to set the lowest weight, if scale is under this weight, " **LO** " LCD indication and alert buzzing.

Press **[FUCN./MR]** & **[PRINT/M+]** key to set the point weight, then press **[MODE/UNITS]** to confirm and exit to weighing mode.

For example: For one 150kg scale, desired weight is 100kg, deviation value is ±0.2kg.

Step 1: Pressing**[FUCN./MR]** & **[PRINT/M+]** key to set highest weight 100.20kg, the screen will display $\boxed{\text{100.20 kg} \quad \text{HI}}$, then press **[MODE/UNITS]** to confirm and next to Step 2.

Step 2: Pressing **[FUCN./MR]** & **[PRINT/M+]** key to set the lowest weight 100.10kg, the screen will display $\boxed{\text{100.20 kg} \quad \text{LO}}$, then press **[MODE/UNITS]** to confirm and exit to weighing mode.

Step 3:   After back to normal weighing, load the goods in scale, if over or under this two points weight, the "HI" or "LO" LCD indication will be shinning with alert buzz to annunciate to user. But the weight is in the range of setting, the "OK" LCD will shows without alert buzz.

Remark: With this function, the indicator can connect to a overlay control system with 0~20mA output, such as Alert tower or PLC system. This is a option part with output that need to order.

6.5 SETTING OF AUTO SHUTDOWN PROTECTION FOR LOW BATTERY

Set "Fn =4 ", it is parameter of Auto shutdown protection function.

It will display $\boxed{\textbf{PLO   XX}}$. **"XX"** means Percentage of battery capacity. When the capacity of battery is lower than the setting value, the indicator will be shutdown and need to be charged. It is very helpfully to increase the life of battery. Default is "20%".

Press **[PRINT/M+]** to select from "0~30" and press **[MODE/UNITS]** to confirm and exit to weighing mode.

6.6 SETTING OF DATE AND TIME

Set "Fn =5 ", it is parameter of Date & time setting.

It displays the last preset date & time.

Press **[FUCN./MR]** & **[PRINT/M+]** key to input the date, then press **[MODE/UNITS]** to confirm and next to set Time. Same operation as above. Then exit to weighing mode.

6.7 SETTING OF DEFINITION OF LCD DISPLAY

Set "Fn =6 ", it is parameter of definition of LCD display.

It displays $\boxed{\text{LCd - 5}}$. It can be adjusted the definition of LCD display for saving power.

There are 0~8 degrees of Brightness, increases by number. "5" is default value.

Press **[PRINT/M+]** key to select the value. Press **[MODE/UNITS]** to confirm value and exit to weighing mode.

6.8 SPECIFIC FUNCTION

Set "Fn =7 ", it is without any setting before customer demands.

VII. COUNTING FUNCTION OPERATION

Attention: In counting mode, the indicator isn't allowed for weight unit switching function. The function must be set in "CONFIGURATION SETTINGS" (refer to Step 4).

This mode is used to indicate the number of pieces of an item that placed on the pan. To ensure accuracy, the parts that counted must be consistent in weight.

The scale uses a sampling method to determine the average pieces weight of the items that counted. For example, 30kg scale, sample weight is 200g, it is 100pcs sample units.

7.1 **How to enter in Counting weighing mode.**

Press **[MODE/UNITS]** to switch between standard weighing mode and counting mode.

7.2 **How to operation**

Step 1: Place the sample items on the pan/container all at once.

Step 2: When the weight display stable with STB indication.

Step3: Press **[MODE/UNITS]** enter to Counting Mode. The screen displays $\boxed{\text{n} \quad \text{XXXXX}}$.

    "XXXXX" means the number of items that placed in the pan. Press **[→0←]** for 3 seconds until the display shining.

Step 4: Press **[FUCN./MR]** & **[PRINT/M+]** to input the sample number, then press **[MODE/UNITS]** to confirm.

Step 5: Upload the sample unit and place the item in the pan that need to be counted. The screen displays the total pieces of items. If need to set new sample, do same operation as above again.

For example: said 30kg scale, sample weight is 200g, it is 100pcs sample units.

Step 1: Place the 200g sample unit in the pan.

Step 2: Press **[MODE/UNITS]** enter to Counting Mode, then press and hold **[→0←]** for 3 seconds until it displays $\boxed{\text{n} \quad \text{XXXXX}}$.

Step 3: Press **[FUCN./MR]** & **[PRINT/M+]** to input the sample number, and it displays $\boxed{\text{n 00100}}$.

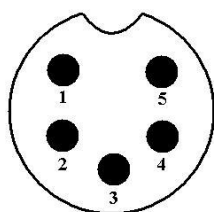*Step 4*: Press **[MODE/UNITS]** to confirm and upload the sample unit.

Step 5: Loading the weight, said to "400g", the screen will be display ⌈ **200pcs** ⌉.

S*tep 6*: Press **[MODE/UNITS]** to switch to between normal weighing mode and counting mode.

VIII. CONNECTION OF INTERFACE

8.1 CONNECTION OF LOAD CELL SIGNAL WIRE (For 4 cores load cell only.)

For better performance of the electronic scale, make sure to connect the 5 round pin plug to the 5 pin socket firmly and tighten the screw up. Please see figure 1:
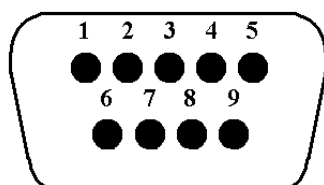
1: Pin +IN   +signal
2: Pin -IN   -signal
3: Pin AGND   shield
4: Pin +E, +S   +excitation, +feed back
5: Pin -E, +S   -excitation, -feed back

Figure 1: Diagram of 5 round pin plug of the load cell

8.2 CONNECTION OF LOAD CELL SIGNAL WIRE (For 6 cores load cell only.)

While order with D-SUB-9 needle slot as figure 2 shows:
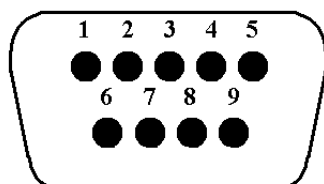
1 Pin : +Excitation   4 Pin: - Excitation
2 Pin : + Feed back   5 Pin : - Feed back
3 Pin : AGND
7 Pin : +Signal   8 Pin : - Signal

Figure 2: Diagram of D-SUB-9 needle slot

8.3. CONNECTION OF RS-232 (Please specify in the order if needed)

RS-232 serial interface is a D-SUB-9 needle slot as figure 3 shows:

2: Pin RXD
3: Pin TXD 1   9: Pin TXD 2
5: Pin GND

Figure 3: Diagram of RS-232 slot

XII. ERROR SIGNAL

There will shows error signal when the scale have some problem.

Error 1: means calibration isn't workable, weight is too light or division is too high.

Error 2: means wrong zero, check the load cell if it is damaged.

Error 3: means displayed value exceed display range after unit change.

--- H---: means overload, loaded weight exceed the full range.

XIII. WARRANTY

We guarantee one-year of free maintenance since the date of purchase for any non-manmade faults in normal working conditions. For maintenance, please send the equipment with the guarantee card to our sales service.

Attention: we are always improving the machine, there is not pre-notice if there are something different comparing with the precious ones.

(*For products updates or program updates, operating manual has differences with actual product, will not notice, thanks!)