OPERATION

MANUAL

CONTENTS

I. Major Parameter

Division value:	1～75,000
Non-linearity:	≤0.01%F.S
Load cell bridge voltage:	DC +3V the max input signal about 10mV
Load cell:	350Ω
Operation keypad:	10 keys
Full capacity temp modulus:	≤8 PPM/℃
Display:	LCD, 6 digits, green backlight
Operating temperature:	0～40℃；≤85%RH
Power Source:	AC 110V/220V (±10%) + DC 4V/6V rechargeable battery

II. Special Remarks

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

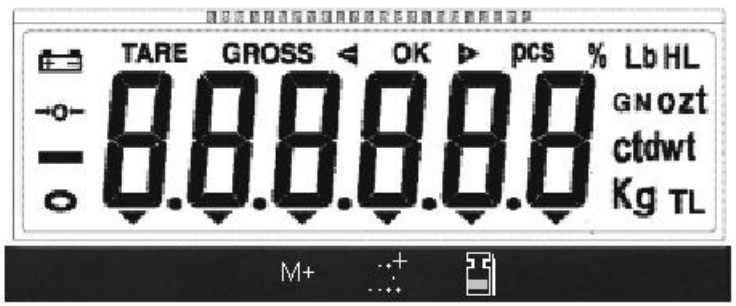
2.Please use independent AC outlet to avoid the interference of other electrical appliances, please don't place anything on the scale pan while power on.

3.Avoid the scale near the exhaust port of ventilating system.

4.Please warm up the scale15-20 minutes before operation.

5.All goods weighed should be placed in the centre of the scale pan for a accurate weighing. The overall dimensions of the goods being weighed should not exceed the dimension of the scale pan.

III. Display Explanation



 : Low battery indication : Zero indication

 : Stable indication  : Negative indication

TARE : the scale in tare model **Gross**: Gross weight

Pcs : Counting mode

OK : The range between high and low limit weight values

 : Accumulate  : Sample too small

 : Unit Weight too small

IV. Keyboard Function

UNIT SW : Convert the units.

COUNT : Enter the counting mode.

The digit will be added 1 when input number.

M+ : weight accumulation.

LIMIT : Preset high and low limit value for alarm function.

Remove to left digit when input number.

CAL : Calibration function. Confirmation function.

RE-CALL : Press this key to show the piece weight when in counting mode.

Remove to right digit when input number.

CE : Clear the readings entered.

BL : Select backlight model: ON, OFF, AUTO

The digit will be reduced 1 when input number.

ZERO : Turn the scale to zero. Range: 5%FS.

TARE : Tare function within full capacity.

V. Operation

1. Turn on

Please move the object from pan, turn on the power switch, the scale will show

self-check, and then return zero and enter into weighing mode.

2. Turn off

Please turn off the scale by the power switch in the "off " mode.

3.Backlight

Press [BL] key continuously to get into 3 backlight mode, it will be saved and exited if 3 secs. without operation.

● AUTO: Auto backlight mode. The backlight will be switched on when the weight value is over 5 divisions.

● ON: Display backlight is on all the time.

● OFF: Display backlight is off.

4.Calibration Function

Press and hold [CAL] key, turn on the scale until it shows "CAL-1". Press [COUNT] / [BL] key to select "CAL-1" / "CAL-3", "CAL-1" means single stage calibration, "CAL-3" means three stages calibration.

"CAL-1" steps:

(1) : Press [CAL] key to show “CAL”.

(2) : Press [CAL] key again to show “00.0000”.

(3) : Input the calibration value which should be equal to or more than 2/3 full capacity. Press [LIMIT] / [RE-CALL] key to remove the digit left / right, press [COUNT] key to input the digit add 1 or BL key to reduce 1, kg as unit. For example 2kg calibration value, we should input “02.0000”.

(4): Put on the standard weight with same value as display, press [CAL] key to confirm after stable, remove the weight, calibration finish and the scale turn back weighing mode.

"CAL-3" steps:

(1) : Press [CAL] key to show the inside zero code.

(2) : Press [CAL] key again to show the fist stage calibration value, g as unit.

(3) : Put on the standard weight with same weight value as display, press [CAL] key to confirm after stable to show the second stage

calibration value.

(4) : Put on the standard weight with same weight value as display, press [CAL] key to confirm after stable to show the third stage calibration value.

(5) :Put on the standard weight with same weight value as display, press [CAL] key to confirm after stable, remove the weight, calibration finish and the scale turn back weighing mode.

5.Units Selection

5.1: Press [UNIT SW] key to convert the units which we have opened.

5.2: Units selection

Press and hold [UNIT SW] key, turn on the scale, until it shows "ON" or “OFF” kg.

(1) Press [UNIT SW] key to convert the units, [COUNT] / [BL] key to select units on / off.

(2) Press [CAL] key to confirm the step (1) and shows “TL” unit, press [COUNT] / [BL] key to select 0 / 1, 0 means 台两单位 and 1 means 台斤台两单位.

(3) Press [CAL] key again to confirm the step (2) and shows “HL” unit, press [COUNT] / [BL] key to select 0 / 1, 0 means 港两单位 and 1 means 港斤港两单位.

Please note: we should select the unit TL HL on in step (1) if we want to open them.

6.Counting function

Press [COUNT] key into counting model, it shows "Sxxxxx", input sample piece, press [LIMIT] / [RECALL] key to remove the digit left / right, press [COUNT] key to input the digit add 1 or [BL] key to reduce 1, put the sample piece on the top tray, and press [CAL] when it stable, the screen shows the quantity. Press [RE-CALL] key to show the sample piece weight when the scale in counting model, it will return to counting model after 2 seconds. Press [COUNT] key again to return back weighing mode.

NOTE：

(1). Sample too small: Sample is less than 10d.

(2). Unit weight too small: Unit weight is less than 1d.

(3). Under such conditions, the scale can still work, but may result in deviation.

(4). Counting function will be more accurate if taking more sample piece.

7. Accumulating Function

Place the object on the top tray, press [M+] key when it stable, it will show the accumulate number and accumulated weight, later it will return to weighing model, and show accumulating symbol.

7.1: Recall the accumulated value

When the screen shows 0, press [M+] key, it will show the accumulate number and accumulated weight.

7.2: Clear the accumulated value

Press [CE] key, then press [M+] key to show "-2-OK", the accumulated value and symbol will be cleared, it will return back to weighing mode after few seconds.

NOTE：The accumulation function can be used up to amaximum of 99 times with 6 digits maximum. If the accumulated value over the range, it will show "over" , press CE key to exit.

8. External Parameter Setting

Press and hold [TARE] key, turn on the scale to get into external parameter setting, press [COUNT] key or [BL] key to change the parameter and [CAL] key to confirm and get into next step.

8.1: “nb x”, Filtering grade, x=0, 1, 2, 3, 0 means minimum speed, use for high precision scale, 3 means max speed, use for low precision scale. Defaults to nb2.

8.2: “x d”, Zero-tracking, x=0, 0.5, 1, 1.5, 2, 3. Defaults to 1.5d.

8.3: “ZEro-x”, Zero display, x= S, L, S means invalid, L means displaying 0 within ±3d. Defaults to ZEro-S

8.4: “d x”, division setting.

9. Alarm Parameter Setting

We can install Three-color light alarm device on scale for better visual and auditory effects of alarm.

9.1: Press and hold [LIMIT] key, turn on the scale to get into alarm parameter setting. [COUNT] / [BL] key for selecting, [CAL] key to confirm.

(1) “r on” / “r off”, means alarm function on / off.

(2) “OUT x”, x=0, 1, 2, 3, 4, here we select OUT 0.

(3) “b on” / “b off”, means buzzer on / off.

(4) “bEE x”, means buzzing in different weighing range, x=0, 1, 2, 3

x	Alarm Mode	Low Limit Value	High Limit Value	Indicator
0	Weight value higher than high limit (>A)	0	A	
1	Weight value lower than low limit (<B)	B	0	
2	Weight value between high and low limit(>=B & <=A)	B	A	OK
3	Weight value out of high and low limit(<B & >A)	B	A	

9.2: Limit weight value presetting

Preset the limit weight value for scale alarm function when we select OUT 0.

(1) Press [LIMIT] key to display “--Lo--”, press [LIMIT] key again to display xxxxx.x, input the low limit value, press [LIMIT] / [RECALL] key to remove the digit left / right, press [COUNT] / [BL] key to input the digit add 1 / reduce 1. Press [CAL] key to confirm and display “--Hi--”, same way to input the high limit value, press [CAL] key to finish.

(2) Press [CE] key to clear the limit value as 0 if needed during presetting.

10. Communication Setting

Press [RE-CALL] key, then press [BL] to get into communication parameter setting, [COUNT] / [BL] key for selection and [CAL] key for confirm.

10.1: “bAUd xx”, xx=96, 48, 24, 12, means Baud rate 9600bps, 4800bps, 2400bps, 1200bps

10.2: Sending mode, CO=Sending continuously, ST=Sending after stabilization, PR=press [RE-CALL] key for sending

RS232 transmission (only for units g and Kg) Continuous transmission format description:

Start (1 byte)	Stable or No (3 bytes)	Gross or Net (3 bytes)	Data (8 bytes)	Unit (4 bytes)	End (2 bytes)
0x20	ST, US,	OL, NT, GS	xxxxxxxx	xxxxx	0x0d,0x0a

ST-Stable US-Unstable OL-Overweight NT-Net Weight GS-Gross Weight

ST, GS, + 1.9360 kg

ST, GS, + 1936.0 g

ST, GS, +4.268 Lb

ST, GS, + 68.30 oz

ST, GS, + 9680 ct

ST, GS, + 62.24 ozt

ST, GS, + 165.98 t

ST, GS, + 29875 GN

ST, GS, + 1244.8 dwt

ST, GS, + 51.63 TL or ST, GS, + 3. 3.TL

ST, GS, + 51.22 HL or ST, GS, + 3.32HL

VI. Power Source Illustration

1. Low battery warning

When  symbol appears in the lower left hand corner of the LCD display, the battery needs to be recharged. Without charging and the battery symbol flicker, the scale will switch off automatically after approximately 2 minutes.

2. Charging reminder

The LED light turn red when charging start, it will turn green up to 80% charged, then charging more 1~2 hours to make sure the battery charging full.