







# Analytical / Precision ELECTRONIC BALANCE SERIES KERES ERIES ERIES

## Manual

We ware try the best to ensure the veracity of operating manual, but we didn't take responsibility for printing or description mistake.

We has right to update the machine looking and performance without noticing the consumer.

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#### SAFETY

- \*\*For avoiding damage, please read all operating instructions carefully before use.
- ▲\*Cut off the power if machine will turn off for more than one week.
- ▲\*Strong magnetic field and static electricity can have an adverse effect on weighing sensor. When disturbance disappear, the machine will work well again.

#### Warning

- All our parts is the most suitable parts for machine.
   All modification or using unauthorized parts for machine need to be confirm before using.
  - All modification needs to be take responsibility.
- Do not open the machine housing. Machine will not have guarantee service if security label broken.

### 1. Unpacking

- \*\*After unpacking the machine, please check machine has any visible damage.
- $\ast\ast$  Please keep the original box and packing material for storing machine when
- \*\*not in use or send back for repairing.
- \*\*Before packing the balance, please cut off all power and cable.
- 2. Installation

When select the location for install machine, please keep these tips in mind:

- Do not put machine close to central heating or sunshine and airflow way.
   (Opening door or window)
- Do not exposure machine to extreme heat or cold. Keep scale in a clean, dry location. Dust, dirt and moisture can accumulate on the weighing sensor.
- Install machine on a flat and level surface, free from vibration and drafts, free from corrosive and strong magnetic field, as they can have an adverse effect on the weighing sensors.

#### 3. Warm up for machine adapt temperature

When move machine from high temperature place to low temperature place (or inversely), please keep machine in final place for two hours and then turn on to warm up (warm up time refer to the specification list), as the machine will proportion the room temperature.

### Summarize

#### 4. Key Explanation



A: Select Unit.

- B: Status 1: Move the flash on digit to left.
- C: Status 2: When all digit flash, press UNIT KEY and let single digit flash, enter into status 1. Press UNIT KEY again enter into status 2. It is circle. D: Status 3: When set parameter, press UNIT KEY can minus one. (At this moment)

#### MENU KEY MENU

- A: Press and Hold MENU KEY for 5 seconds will enter into system setting menu. B: Press and Hold MENU KEY for 1 second will save and quit system setting menu.
- C: Short press MENU KEY to alternately display system menu, but if only one parameter in this level, short press MENU KEY will return to previous menu.

#### CAL KEY (Enter Key) CAL

- Ü. A: When normal weighing, short press CAL KEY will zeroing.
  - B: Press and hold CAL KEY for 5 seconds will enter into calibration.
  - C: Enter into submenu.
  - D: At the bottom menu, press CAL KEY will confirm the present status and return to: (1) The previous menu
    - (2) Enter into a weighing function (such as density, dynamic)
  - E: Under COD STATUS (Engineer Parameter Setting Status) Input different code will enter into correspond parameter menu.

#### PRINT KEY (Cycle Key) PRINT

- A: When manual printing or communication available, press PRINT KEY will send weighing data to printer or other equipment.
- B: When one digit flash, press PRINT KEY will plus one.
- C: Cycle to next parameter when display flash.
- TARE TARE KEY (Return Key)
- Ĵ A: Tare.

₽

- B: Return to the previous menu without save.
- C: Press and hold PRINT KEY for 1 second will quit from a weighing function. (Such as density, dynamic)

Note: The buzzer sound different when long press or short press the key.

#### 5. Display Explanation

	Accumulate Signal
	Quantity Signal
	Current Signal
	Menu Level / Date / Number Signal
	Display Divider Line
	Unit Price
	Time / Number / Item Signal
t=ł         Σ         \$¥           G/N/T         Δ         φcs	8.8-8.8.8 UPW 8.8-8 8.8 0 单重价 8.0-8.8 0 0 单重价 8.0-8 0.8 0 0 单重价 8.0-8 0 0 0 9 T/A/R ct GN dr
	station oz ozt tis /b dwt tiT kg pcs tiH 8.8.8°c
	Many tam And Weighing Deput
	Pottory Signal
	Zeroing Signal
	- Minus Signal
	- Tare Signal
	- Peak Holding Signal
	- Gross / Net / Tare Weight Signal
	High Low Limit Signal
	Unit Signal
	Temperature Signal
	Filter Signal
	Sensitivity Signal
	Density Signal
	Dynamic Signal —



#### Assemble Machine

The machine with windshield

- Assemble each parts as following :
- Air-free loop
- Put weighing pan on the pillar which is in the middle of machine.

The machine with round weighing pan

- Put weighing pan on the pillar which is in the middle of machine.

- - Put the weighing pan on bracket.



Use dry battery / Rechargeable battery (Optional)

- \* The dry battery or rechargeable battery is not on machine's packing list.
- ▲ Only normal or universal 9V dry battery or rechargeable battery will be available for machine
- ▲ Only available for using adapter to recharge the rechargeable battery for machine.
- \* Lie down the machine at side.
- \* Open the battery box cover.
- \* Connect and put 9V dry battery or rechargeable battery in box.
- \* Confirm the positive and negative correctly.
- \* Close the battery box: Screw the battery box cover adown to the machine.
- ▲ The used battery is recycled. According to the waste disposal law, rechargeable battery to be used as a special garbage recycling and specialized handling.

Adjust Machine Level

The machine need to adjust the level ever time when change the install location. Moving the two back screw nuts slowing to adjust level.

- \* Counterclockwise rotate the two back screws to right posisition.
- \* Rotate the screws as the photo until the bubble is in the middle of level device.
- \* Clockwise rotate the two back screws until it touch the supporter.
- > Under normal circumstances, adjust level need several times to reach suitable position.



The machine with square weighing pan



## Third Part: Machine Detail Specification Cable

• Single Range, s: Factory standard with Automatic Internal Calibration, a: Factory standard with Internal Calibration

	Item No.	Weighing Range(g)	Readability (mg)	Repeat- ability(mg)	Linearity (mg)	Operate Temp(*)	Pan Size (mm)	Housing Size (LxWxH)(mm)	Warm-up Time (m)
		120 / 30							
		220 / 40		****	***	0.0 + 0 5	7.00		
	s	120 / 30	0.1 / 0.01	*0.1 /*0.01	*0.2 /*0.02	20*2.5	Ø 90	295x205x315	30-60
	S	220 / 50							
	s	120 / 220							
	s	220 / 320	0.1 / 0.5	*0.1 /*1	*0.2 /*2	20*2.5	Ø 90	295x205x315	30-60
	s	320 / 420		*0.2 /*1					
İ	s	220 / 320							
	s	320 / 420					Ø 90		
	s	420 / 520	1 / 2	*1 /*2	*2 /*4	20*2.5		007 007 017	
	s	520 / 620						295x205x315	30-60
	s 🖲	620	1	*1	*2		Ø 108		
	۲	1000	1	*2	*3				
	а	110							
	a	210	0.1	*0.1	*0.2	20*2.5			
	a	300					Ø 90		
		210						345x223x331	30-60
		510	1	*1	*2	20*7.5	<i>d</i> 100		
		1000					Ø 108		
İ	۲	2200							
	۲	3200		*10	*20				
	۲	4200	10			20*7.5	168 x 190	345x223x110	20-30
	۲	5200							
	۲	6200		*20	*30				
	s	220							
	5	520	1	*1	*2		Ø 90		30-60
	5	1000	-	-	-		7.00		50 00
	s	520				20*7.5		295x205x255	
	5	1000	10	*10	*10		Ø 108		20-30
		2000	10	*10	*20		7 100		20 00
		2000		10	20	1			

Item No.	Weighing Range(ct)	Readability (ct)	Repeat- ability(ct)	Linearity (ct)	Operate Temp(*)	Pan Size (mm)	Housing Size (LxWxH)(mm)	Warm-up Time (m)
s	550							
s	800	1	*1	*2	20*2.5	Ø 90	295x205x255	30-60
s	1100							
Item No.	Weighing Range(g)	Readability (mg)	Repeat- ability(mg)	Linearity (mg)	Operate Temp(*)	Pan Size (mm)	Housing Size (LxWxH)(mm)	Warm-uj Time (m
	120 / 220							
	220 / 320	1 / 5	*2 /*5	*2 /*5	20*7.5	Ø 90	295x208x305	10 - 20
	320 / 420							
۲	420	1	*2	*2				
Item No.	Weighing Range(g)	Readability (g)	Repeat- ability(g)	Linearity (g)	Operate Temp(*)	Pan Size (mm)	Housing Size (LxWxH)(mm)	Warm-uj Time (m
	220 / 620							
	320 / 620							
	520 / 1200		*0.01/*0.05	*0.02/*0.05		Ø 133		
	620 / 2200	0.01 / 0.05			10 - 35		295x208x305 (295x208x88)	10-20
	1200 / 2200							
	2200 / 3200		*0.02/*0.05	*0.02/*0.10		156 x 156		
	3200 / 4200		0.02/ 0.03	0.03/ 0.10		168 v 168		
۲	4000	0.01	*0.02	*0.03		108 x 108		
	1200 / 2200					Ø 133		
	2200 / 4200							
	3200 / 5200	0.1 / 0.2	*0.1 /*0.2	*0.2 /*0.2	10 - 35		295x208x88	10-20
	5200 / 10000					168 x 168		
	6200 / 10000							
Item No.	Weighing Range(kg)	Readability (g)	Repeat- ability(g)	Linearity (g)	Operate Temp(*)	Pan Size (mm)	Housing Size (LxWxH)(mm)	Warm-uj Time (m
	2/3	0.01 / 0.09	*0.01/*0.00	*0.09/*0.04				
	3 / 4	0.01 / 0.02	0.01/0.02	0.02/*0.04		180 x 255		
۲	4	0.01	*0.02	*0.02				
	10 / 20							
	15 / 30	0.1 / 0.5	*0.1/*0.5	*0.2/*1				
	20 / 30							
	30 / 40	0.1 / 0.2	*0.1/*0.2	*0.2/*0.4	10 - 35	205 x 295	320x310x120	10-20
	50 / 10	0.5 / 0.1	*0.5/*0.1	*1/*0.2				
	15 / 30							
	20 / 30	1/9	*1/*9	*9/*4				
	30 / 50	1/2	1/*2	. 2/ "4				
	50 / 70							

**Basic Weighing Function** 

#### Preparation

\* Turn on machine: Press [ ON/OFF ] Key

Warm up time:

 \* For making sure the weighing result correct, different type machine need different warm up time to reach the required operating temperature.
 Please refer the specification list to know the correct warm up time.

#### Calibration

 $^{\ast}~$  The machine need calibration before using. For the calibrations step, please refer to 43-46 pages in detail.

#### INSTANCE

<b>Basic Weighing</b>	(The machine was warm up)	
Key (Order)	Step Explanation	LCD Screen Display
	1. Zero Stable	
	2. Put container on weighing pan (Example: 100g)	<b>100.00</b> g
[TARE]	3. Press Tare key for tare the container we	<sup>ight</sup> 0.00 g
	4. Put sample in container (Example: 200g)	$200.00 \mathrm{\ g}$

### Unit Switching

Press [UNIT] Key, the weighing unit will cycle between the different weighing units with each press of the button. The balance will default t the last unit used when turned on the next time.

Unit S	Signal	Unit	Unit Exchange Rate
	g	Gram	1
C	ct	Carat	5
0	z	Ounce	0.03527396200
OZ	zt	Troy Ounce	0.03215074700
dw	/t	Pennyweight	0.64301493100
GI	N	Grains	15.43235835000
	b	Pound	0.00220462260
1	N	Newton	0.00980654189
d	lr	Dram	0.56438222222
tl	Т	Taiwan Tael	0.02666666000
tl	S	Singapore Tael	0.02645544638
tlł	4	Hong Kong Tael	0.02671725000
-	Т	Tola	0.08573532418
T/A/F	R	tola / anna / rati T.A.R	0.01.2.23
/A/F	R	tola / Mna / rati T.M.R	0.01.0.23
m	S	Mesghal	0.21700000000
ba	at	Baht	0.06578947437
mon	n	momme	0.26670000000
///	b	Parts per pound	1.12876677120
k	g	Kilogram	0.0010000000

Application Setting (Menu Code: 1)

Counting (Menu Code: 1.1.)

### Purpose

Use this function can calculate the quantity with total weight divide by signal weight.

(1) Counting Instance: with known the sam	's quantity but unknown the unit weight
---	---

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>
Press and Hole [MENU] Key	1. Enter Into Menu	nodE-	I.
Short Press [CAL] Key	2. Display Counting Mode	-[000	I.I.
Short Press [CAL] Key	3. Enter into Counting Program	SRAPLE	I. I. I
Short Press [CAL] Key	4. Flash the sample quantity 20pcs(Example)	0000020 p	cs I.I.I.I
	<ul> <li>* Press [PRINT] key to cycle the sample quanti</li> <li>* User can set the quantity manually: Press [UNIT] key to move the cursor and press</li> </ul>	ity and select ss [PRINT] key to incr	ease the number.
	5. Put 20 pieces to platform or container (Exa	mple: 20pcs, unit we	eight:0.11g).
Short Press [CAL] Key	6. The display will show the result	<u>، ۵ ° ° ۵ ا</u>	<u>1000</u>
	* Three position to display the result as: Upper left display quantity: 20pcs, Upper rig Main window display total weight 2.200g	<b>C.CUI</b> ht display unit weight:	<b>J</b> g 0.11g,
	7. Take samples away	<b>0000</b> g	
<b>♣</b> ────	8. Put any unknown numbers of pieces on pa (Example: put 100pcs, total weight 11g)	n and will display a ( 	count. <u>1000</u>
	* Three position to display the result as : Upper left display quantity: 100pcs, Upper th Main window display total weight 11.000g	ght display unit weigh	g t: 0.11g,
Press and Hole [TARE] Key	9. Exit the counting function.		
* Quick restart: exit the	e present counting and restart a new counti	ng, Press and hold	[MENU] key

can restart the step 1, short press [CAL] to enter into step 3.

Note: The grey color words explain the signal's meaning which flash on the window.

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Enter Into Menu	- Joon -	I.
Short Press [CAL] Key	2. Display Counting Mode	-[0006-	Ι.Ι.
Short Press [CAL] Key	3. Enter into Counting Program	SRAPLE	I. I. I
Short Press [MENU] Key	4. Display Setting Menu	i npur	I.I.2.
Short Press [CAL] Key	5. Flash Sample Quantity (Example: 20pcs)	0000020 po	s I.I.2.I
	<ul> <li>* Press [PRINT] key to cycle the sample quantit</li> <li>* User can set sample quantity manually: Press [UNIT] key to move the cursor and press</li> </ul>	ity setting ss [PRINT] key to incre	ease the number.
Short Press [CAL] Key	6. Flash Sample Unit Weight	0002000 g	I.I.2.2
	* User can set sample unit weight: Press [UNIT] key to move the cursor and pres	ss [PRINT] Key to incre	ease the number.
Short Press [CAL] Key	7. The display will show the result	<u>ه، ۵۱٬۳۵۱</u>	<u>0000</u> <b>1</b>
	* Three position to display the result as: Upper left display quantity, Upper right displa Main window display total weight 0.000g	ay unit weight: 0.1g,	<b>j</b> g
•••• +	8. Put any unknown numbers of pieces on pa	n and will display a c	ount.
	(Example: 300pcs)	<u>,</u>	<u>0000</u>
	* Three position to display the result as: Upper left display quantity 300pcs, Upper rig Main window display total weight 30.000g	<b>JUJUU</b> ght display unit weight:	g : 0.1g,
Press and Hole [TARE] Key	9. Exit the counting function.		

can restart the step 1, short press [CAL] to enter into step 3.

Computing Price Function (Menu Code: 1.2.)

#### Purpose

Count total amount according to the known price and quantity.

#### Instance

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level</i> and Code
Press and Hole [MENU] Key	1. Enter Into Menu	nodE-	I.
Short Press [CAL] Key	2. Display Counting Mode	-[0006-	I.I.
Short Press [MENU] Key	3. Display Computing Price Function Mode Flash the signal of total and unit price on win	-Pr [[E- dow upper side	I.2.
Short Press [CAL] Key	4. Setting sample's pricing weight (Example:	1g)	I. 2 . I
	* Setting Way: Press [UNIT] key to move digit, press [PRINT] key to increase the number a	and press [CAL] key to	o confirm.
Short Press [CAL] Key	5. Setting sample's unit price (Example: 3us o	dollar)	I.2.2
	* Setting Way: Press [UNIT] key to move digit, press [PRINT] key to increase the number a	<b>DODO 300</b> and press [CAL] key to	o confirm.
Short Press [CAL] Key	6. Confirm the sample's pricing weight and us	nit price <u>* 0.00 <sup>vr</sup> 3.0</u>	0000
	* Three position to display as: Upper left display total amount \$0.00, Uppe Main window display total weight 0.000g	r right display unit pric	<b>g</b> cce: \$3.00,
	7. Put products on pan and machine will disp (Example: 20g)	lay result. <u>* 60.00 ** 3.0</u>	<u>0000</u>
	* Three position to display as: Upper left display total amount \$60.00, Upp Main window display total weight 20.000g	er right display unit pr	g ice: \$3.00,
Press and Hole [TARE] Key	8. Exit the computing price function.		
* Quick restart: exit the	e present computing price and restart the n	new one, Press and	hold [MENU]

key can restart the step 1, short press [CAL] to enter into step 3.

Note: The grey color words explain the signal's meaning which flash on the window.

High Low Limit Alarm Function (Menu Code: 1.3.)

#### Purpose

Weighing the target sample's weight or quantity in or out the setting limit and alarm.

#### Instance

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Enter Into Menu System	nodE -	Ι.
Short Press [CAL] Key	2. Display Counting Mode	-2007-	I.I.
Short Press [MENU] Key Two Times	3. Display High Low Limit Mode Flash the signal of High Low Limit at the lea	<b>-RLArñ-</b> ft side of window	I.3.
Short Press [CAL] Key	4. Display ALR and flash IN or OUT	8Lr - 885	I.3.I
	* Press [PRINT] key to set machine alarm in (IN) of Setting IN, the machine will beep if the san Setting OUT, the machine will beep if the sa	or out (OUT) the limit ,pres nple's weight is within th ample's weight is withou	s [CAL] to confirm te setting limit. tt the setting limit.
Short Press [CAL] Key	<ol> <li>Setting the High Limit (Example : 200g)</li> <li>Three position to display as: Upper left display menu code:1.3.2, Uppe Main window display the High Limit value Input way: Press [UNIT] key to move the f the number and press [CAL] key</li> </ol>	1.3.2   H CONTRACTOR HIGH, Hash digit, press [PRINT Pay to confirm.	<u>G H</u> g [] key to increase
Short Press [CAL] Key	<ul> <li>6. Setting the Low Limit (Example: 180g)</li> <li>* Three position to display as: Upper left display menu code:1.3.3, Uppe Main window display the Low Limit value Input way: Press [UNIT] key to move the fu- the number and press [CAL] key</li> </ul>	t 33   to T 180000 er right display LOW, dash digit , press /PRINT ey to confirm.	g g l key to increase
	<ul> <li>7. Put samples on pan and machine will dis (Example: 186g)</li> <li>* Three position to display as : Upper left display high limit 200g, upper rig display the samples weight and been to mention</li> </ul>	splay result. 200.000  18 1850000 ht display Low limit 180g, n that sample's weight is	0.000 g the main window in the setting limit.
Press and Hole [TARE] Key	8. Exit the high low limit alarm function.	1	0 -

\* Quick restart: exit the present high low limit alarm and restart the new one, Press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

Gross / Net / Tare Weight Weighing Function (Menu Code:1.4. )

#### Purpose

To weigh and display the sample's gross weight, net weight and tare weight intuitively.

### (1) G/N/T Weight Weighing Instance

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level</i> <i>and Code</i>
Press and Hole [MENU] Key	1. Enter Into Menu System	yoq£-	I.
Short Press [CAL] Key	2. Display Counting Mode	- 20005 -	Ι.Ι.
Short Press [MENU] Key Three Times	3. Display G/N/T weight weighing mode Flash the G/N/T signal on the left side of wind	[]][ low	I.4.
Short Press [CAL] Key	4. Enter into G/N/T mode	SRAPLE	I.4.I
Short Press [CAL] Key	5. The display flash to remind to put the tare weight of sample	SRAPLE	I. 4 . I. I
	6. Put tare weight of sample on pan	SRAPLE	
Short Press [CAL] Key	7. Confirm the tare weight (Example 200g)	200.000 20	<u>0.000</u>
	* Three position to display as: Upper left display gross weight 200g, Upper Main window display 0.000g	<b>LILIUI</b> right display tare wei	g ght 200g,
÷	8. Put samples on pan and machine will displ	ay result	
	(Example: 25.3g)	<u>05  006.255</u>	<u>0.000</u> <b>1</b>
	* Three position to display as: Upper left display gross weight 225.3g, Upp Main window display net weight: 25.300g	C J.JUU er right display tare w	<b>J</b> 9 eight 200g,
Press and Hole [TARE] Key	9. Exit G/N/T weight weighing function		

\* Quick restart: exit the present G/N/T weight weighing and restart the new one, Press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

Note: The grey color words explain the signal's meaning which flash on the window.

(2) To Input the Tare W	Veight Instance
-------------------------	-----------------

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>
Press and Hole [MENU] Key	1. Enter Into Menu System	nodE-	I.
Short Press [CAL] Key	2. Display Counting Mode	-[0007-	I.I.
Short Press [MENU] Key Three Times	3. Display G/N/T weight weighing mode Flash the G/N/T signal on the left side of wind	<b>[]]]</b> low	I.4.
Short Press [CAL] Key	4. Enter into G/N/T mode	SRAPLE	I.4.I
Short Press [MENU] Key	5. Enter into G/N/T mode of input tare weight manually	i npur	I.4.2.
Short Press [CAL] Key	6. Input the tare weight manually (Example: 200g)	0200000 g	I.4.2.I
	* Input way: Press [UNIT] key to move the flash press [PRINT] key to increase the number a	digit , nd press [CAL] key to	confirm
Short Press [CAL] Key	7. Confirm the entered tare weight	<u>05  0000</u> _	<u>0.000</u> <b>1</b>
	* Three position to display as: Upper left display gross weight 0.000g, Upp Main window display net weight: - 200.000g	er right display tare we	g eight 200g,
	8. If put the sample of tare weight	200.000 20	<u>0.0 0 0</u>
	* Three position to display as:	ÜÜÜÜ	g
	Upper left display gross weight 200g, Upper Main window display 0.000g	right display tare weig	ght 200g,
Ļ	9. Put samples on pan and machine will display result (Example: 309.3g)	<u> </u>	<u>0.0 0 0</u>
	<ul> <li>Three position to display as: Upper left display gross weight 509.3g, Upp Main window display net weight: 309.300g</li> </ul>	er right display tare we	g eight 200g,
Press and Hole [TARE] Key	10. Exit G/N/T weight weighing function		

\* Quick restart: exit the present G/N/T weight weighing and restart the new one, Press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

Accumulate Function (Menu Code:1.5.)

### Purpose

Weighing and accumulating the several sample's total weight and tracing the detail data.

#### Instance

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Enter Into Menu System	nodE-	I.
Short Press [CAL] Key	2. Display Counting Mode	-2000-	Ι.Ι.
Short Press [MENU] Key Four Times	3. Display Accumulate Menu The signal flash on the upper left of window	899	I.5.
Short Press [CAL] Key	4. Enter Into Accumulate Mode		0
	* Three position to display as : Upper left display present weight 0.000g, Uj Main window display total weight 0.000g	oper right display total	g time 0,
	<ul> <li>5. Put samples on pan and press [CAL] key to confirm weight</li> <li>* Three position to display as: (Example: 10g) Upper left display present weight 10g, Upper Main window display total weight 10.000g</li> </ul>	r right display total tin	 g ge 1,
	6. Put sample several times and press [CAL] key each time	<u> </u>	<u> </u>
	<ul> <li>* Three position to display as (example: sample Upper left display present weight 30g, Uppe Main window display total weight 60.000g</li> <li>* Under the accumulate mode, the accumulate can accumulate 9999 times.</li> </ul>	e's weight is 10g, 20g, r right display total tin weight can be 99999	30g): ne 3, 99g,
Press [MENU] Key and hold it, press [CAL] Key, release two key at the same time	<ul> <li>7. Enter into tracing data function, the machine show the last accumulate time's data</li> <li>* Three position to display as: Unper left display appeart weight 30g. Unper</li> </ul>	<u>30.000  no</u> <b>50.000 </b> r right display total tin	<u>}</u> ] g

Upper left display present weight 30g, Upper right display total time 3, Main window display total weight 60.000g

Short Press [UNIT] Key	8. Tracing the second last time's weighing data <u>20.000 no.</u>
	* Three position to display as: Upper left display present weight 20g, Upper right display total time 2.
	Main window display total weight 30.000g
Short Press [UNIT] Key	9. Tracing the first time's accumulate data for instance weighing
	* Three position to display as:
	Unner left display present weight 10g. Unner right display total time 1.
	Main window display total weight 10.000g.
* Press [UNIT] Key a of present weig	and [PRINT] Key can view the different accumulate time's result hing.
* Only can save a	nd trace 100 times accumulate weighing data. Machine can
not save and tra	ace if exit or restart the accumulate weighing.
Press and Hole	10. Quick restart way: exit the accumulate
[CAL] Key	weighing and restart the new one
	* Three position to display as:
	Upper left display present weight 0g, Upper right display total time 0,
	Main window display total weight 0.000g.
Press and Hole [TARE] Key	11. Exit the accumulate weighing

. . . .

\* Quick restart: exit the present accumulate weighing and restart the new one, Press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

Dynamic Measurement (Menu Code:1.6.)

#### Purpose

Operator can use this program to measure dynamic weight. The dynamic weighing way is summarize the weighing result from setting time and average it.

#### Instance

Set 10 seconds for the dynamic weight material or variable weight material.

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Enter Into Menu System	jodf-	I.
Short Press [CAL] Key	2. Display Counting Mode	- 2000 -	I. I.
Short Press [MENU] Key Five Times	3. Enter Into Dynamic Measurement The signal flash on the upper left of window	971891 (	I.6.
Short Press [CAL] Key	<ul> <li>4. Select Weighing Time</li> <li>* Press [PRINT] key can cycle and select differ</li> <li>* Operator can set the weighing time by: Press [UNIT] key to move cursor, press [PRJ]</li> </ul>	<b>fd []</b> ent weighing time. (Se INT] to select the targ	I.6.I econd) ret Number.
Short Press [CAL] Key	<ol> <li>Confirm the weighing time</li> <li>Three position to display as: Upper left display present weight, Upper right Main window display: Start</li> </ol>	0.000 55877 ht display the setting t	0.0 g ime,
	6. When display flash: START, put weighing sample on pan	SFRef	,
Short Press [CAL] Key	7. Start to weigh for 10 seconds	98423	g
Short Press [TARE] Key	<ul> <li>8. Average the weighing result automatically after 10 seconds.</li> <li>* Three position to display as (Example: 98.423 Upper left display the dynamic value, Upper Main window displays the average value.</li> </ul>	96.987 <b>989</b> gg): <b>989</b> right display the weig	100 g g
	9. Clear the weighing data	0000	g
Pross and Holo	* ( If need to measure different material, please	repeat step 7-9.)	
[TARE] Key	10. Exit the dynamic measurement		

\* Quick Restart: exit the present dynamic weighing and restart the new one, press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

Note: The grey color words explain the signal's meaning which flash on the window.

Peak Holding (Menu Code:1.7.)

#### Purpose

Sensing and saving the max weight during weighing, hold and display it.

### (1) CNT Mode Instance of pressing key to record

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Enter Into Menu System	nodE -	I.
Short Press [CAL] Key	2. Display Counting Menu	- [0006 -	I.I.
Short Press [MENU] Key Six Times	3. Display Peak Holding Menu The signal flash on the upper left of window	PERY-	I.7.
Short Press [CAL] Key	4. Display CNT Menu	REr [N]	I.7.I
Short Press [CAL] Key	5. Enter into CNT mode of pressing key		0
	* Three position to display as: Upper left display the present weight, Uppe Main window displays the max weighing we	er right display the num eight.	g ber of weighing,
	6. Put sample on pan and press [CAL] key to confirm it		<u>,</u>
	* Three position to display as (Example: 10g): Upper left display the present weight 10g, Upp Main window displays the max weighing we	ver right display the num eight: 10g	ber of weighing:1,
	7. Put samples on pan several times and press [CAL] key each time.	<u> 15.000  n.</u>	2 9 9
	* Three position to display as (Example: put th Upper left display the present weight 15g, Upp Main window displays the max weighing we	rree times with 10g, 18g per right display the num eight: 18g	g and 15g): ber of weighing:2,

\* The machine can operate 9999 times under Peak Holding mode

### **Operate Application**

Press [MENU] Key	8. Enter into tracing data function, the machine
and hold it, press [CAL] Key, release two key	show the last peak holding time's data
at the same time	* Three position to display as:
	Upper left display the weighing No.3, Upper right display the time of that weighing
	Main window displays the weight of that weighing: 15g
Short Press [UNIT] Key	9. Tracing the second last time's weighing data <u>R. 2  0.9-3.8-5.5</u>
	* Three position to display as:
	Upper left display the weighing No.2, Upper right display the time of that weighing
	Main window displays the weight of that weighing 18g.
Short Press [UNIT] Key	10. Tracing the first time's peak holding data <u>No. 1  119-38-51</u>
	* Three position to display as:
	Unner left display the weighing No 1 Unner right display the time of that weighing
	Main window displays the weight of that weighing 10g.
* Press [UNIT] Key	and [PRINT] Key can view the different peak holding time's
result of present	t weighing.
* Only can save as and trace if exit	nd trace 100 times peak holding data. Machine can not save t or restart the peak holding.
Press and Hole	11 Quick restart way: exit the present peak
[CAL] Key	holding and restart the new one
	* Three position to display as:
	Upper left display the present weight, Upper right display the number of weighing
	Main window displays the max weighing weight.
Press and Hole	12. Exit the peak holding function

(2) Other Peak Holding record way Instance

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Enter Into Menu System	nodE-	I.
Short Press [CAL] Key	2. Display Counting Menu	-[000-	I.I.
Short Press [MENU] Key Six Times	3. Display Peak Holding Menu The signal flash on the upper left of window	PERY-	I.7.
Short Press [CAL] Key	4. Display CNT peak holding	86r [11]	I.7.I
Short Press [PRINT] Key	4. Display TKEY peak holding	REFEREN	I.7.2
Short Press [PRINT] Key	4. Display TST1 peak holding	RErisei	I.7.3
Short Press [PRINT] Key	4. Display TST2 peak holding	86c55b2	I.7.4
Short Press [PRINT] Key	4. Display TCON peak holding	RErlion	I.7.5
Short Press [CAL] Key	5. Enter into corresponding peak holding mode		<u>13950</u>
	* Three position to display as: Upper left display the present weight, Upper Main window displays the max weighing weight wei	right display the wei ght.	ghing time,
	6. Put samples on pan several times and	10.000  09	-3 9-5 2
	press [CAL] key.	innni	Ū
	* Three position to display as (Example: 10g):	<b>UUU</b> U	g time of maishing
	Main window displays the max weighting weighti	pper ngni uispiay uie ight: 10g	ume of weigning,
_		<u> </u>	<u>-3 9-5 9</u>
	7. Put samples on pan several times and press [CAL] each time to confirm		
	<ul> <li>Three position to display as (Example : put the Upper left display the present weight 15g, Up Main window displays the max weighing weight The machine can operate 9999 times under F</li> </ul>	ree times with 10g, 1 pper right display the ight: 18g Peak Holding mode.	<i>8g and 15g):</i> <i>time of weighing,</i>
* TKEY mode is by p. time, upper right	ressing [CAL] Key to record the peak h window display the peak holding tim	nolding value an ne.	nd weighing

TST1 mode is record the peak holding value and time automatically when weighing result very stable, upper right window display the peak holding time.

TST2 mode is record the peak holding value and time automatically when weighing result a little stable, upper right window display the peak holding time.

TST2 mode is record the peak holding value and time continuously, upper right window display the peak holding time.

\* Tracing or Exit the peak holding function is the same in page 21~22, step 8~12.

Note: The grey background part is the step of 1-4 setting information after CNT mode, select any one mode, the mode will work at once. The grey color words explain the signal's meaning which flash on the window.

Percentage Measurement (Menu Code:1.8.)

#### Purpose

Operator place the reference sample that corresponds to 100% onto weighing pan, the other samples will display the weighing result as %. Operator can input the sample value or weighing the sample value and input it.

(1) Instance of Percentage Measurement with Sample

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>
Press and Hole [MENU] Key	1. Enter Into Menu System	- JoodE -	I.
Short Press [CAL] Key	2. Display Counting Menu	- 20005 -	I.I.
Short Press [MENU] Key Seven Times	3. Enter Into Percentage Measurement Display signal "%" on window	PEr[EN[%	I.8.
Short Press [CAL] Key	4. Select percentage weighing mode with (SAMPLE	SRAPLE%	I.8.I.
Short Press [CAL] Key	5. Mention to start	SRAPLE	I. 8 . I. I
	6. Put sample	SRAPLE	I. 8 . I. I
Short Press [CAL] Key	7. Confirm the sample is 100%	200.000 201	<u>0.000</u> <b>1</b> ~
	* Three position to display as: (Example:200g) Upper left display the present weight, Upper Main window displays 100%.	tight display the samp	g ole's weight,
	8. Take sample away and put any other sample on pan	<u> </u>	<u>0.000</u> ] ~ g

- \* Three position to display as: (Example:158g) Upper left display 158g, Upper right display the sample's weight 200g, Main window displays 79%.
- \* Remove the reference sample and add the unknown sample to determine its relative weight and percentage.
- Press and Hole [TARE] Key

9. Exit the percentage measurement

\* Quick Restart: exit the present percentage measurement and restart the new one, press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

Note: The grey color words explain the signal's meaning which flash on the window.

(2) Instance of Percentage Measurement with Input Weight

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Enter Into Menu System	nodE -	I.
Short Press [CAL] Key	2. Display Counting Menu	- 20006 -	I.I.
Short Press [MENU] Key Seven Times	3. Enter Into Percentage Measurement Display signal "%" on window	PEr[EN[%	I.8.
Short Press [CAL] Key	4. Display Percentage Measurement Menu	SRAPLE%	I.8.I
Short Press [MENU] Key	5. Select percentage weighing mode with (Input)	<b>i NPut</b> %	I.8.2.
Short Press [CAL] Key	6. Input the percentage sample's weight manually (Example: 200g)	200000g	I.8.2.I
	* Setting Way: Press [UNIT] key to move digit, press [PRINT] to increase the number and pu	ress [CAL] key to con	firm.
Short Press [CAL] Key	7. Confirm the sample is 100%	0.000 20	<u>0.0 0 0</u>
	* Three position to display as: (Example: 200g) Upper left display the present weight, Upper Main window displays 0%.	right display the settin	g ng weight 200g,
	8. Take sample away and put any other sample on pan	<u> 158.000  20</u> <b>100001</b>	<u>0.0 00</u> <b>]</b>
	* Three position to display as: (Example: 158g) Upper left display 158g, Upper right display t Main window displays 79%.	he setting weight 200	g g,
	* Remove the reference sample and add the unk weight and percentage.	nown sample to deter	mine its relative
Press and Hole [TARE] Key	9. Exit the percentage measurement		

\* Quick Restart: exit the present percentage measurement and restart the new one, press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

### **Operate Application**

Density Measurement Function (Menu Code: 1.9.)

#### Purpose

Use this function can calculate the solid or liquid material's density. (Need to fit with our company's hydrostatic sets)

Solid Material Density Measurement (Menu code:1.9.1, operating step page No.25)

Step One: Use Density kit to measure the sample weight in air.

Step Two: Measure the sample weight in water. (The liquid's density should be known)

Liquid Material Density Measurement (Menu code:1.9.2, operating step page No.26)

The standard sample's cubic meter should be known if using density kit to measure the liquid's density.

U need to input the sample's volume into machine. The machine can save the lately sample data and ready for ser using any time.

Step One: Measure the sample weight in air. Step Two: Measure the sample weight in water.

Saving standard liquid's density previously (Menu code: 1.9.3.1.01~10)

Machine can save 10 kinds of standard liquid's density value.

Saving way: Press [UNIT] Key to move cursor, press [PRINT] to cycle and select value. Press [MENU] Key to save another value.

Density Kit (optional) assemble step





Step Two

Basket Supporter





Basket Glass

Step Three

(1) Solid Density Measurement Instance

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>
Press and Hole	1. Enter Into main menu	nodE-	I.
Short Press [CAL] Key	2. Display Counting Menu	-[0007-	Ι.Ι.
Short Press [MENU] Key Eight Times	3. Display Density Menu The signal flash on the upper left of window	<b>ብይሀኒያ፣                                    </b>	I.9.
Short Press [CAL] Key	4. Enter into Solid Density Measurement program	-Solid-	i.9.I.
Short Press [CAL] Key	5. Start the solid density program and select a density value of standard liquid.	00.99988	i.9.I.I
	* User can set liquid density: Press [UNIT] key to move cursor, press [PRI	NT] to cycle and sele	ct value.
	* Select the 10 previous set liquid densities: Short press [UNIT] 7 times, all digits will flas select 10 liquid densities which were set pre	h. Press [PRINT] key viously.	can cycle and
Short Press [CAL] Key	6. Machine will clue user to measure sample in air	. <u>- 817  09</u> <b>AAA</b>	<u>-3 9-0 8</u>
	* Three position to display as: Upper left display Air, Upper right display the	time, Main window di	g splays the weight
Short Press [CAL] Key	7. Weight sample in air. (Example: The weight result is 118.45g in a	ur)	<b>45</b> g
Short Press [CAL] Key	8. Machine will record the air weighing data	LI9UIA 09	<u>-39-58</u>
	* Three position to display as: Upper left display Liquid, Upper right display th	e time, Main window d	g isplays the weight
	9. Take the sample away, Machine will clue user to measure material in water	ه ۱۱۹۱۱ <b>لا</b>	<b>DD</b> g
	10. Put sample in water and weigh it. (Example: the weight result is 20.70g in w	rater)	<b>10</b> g
Short Press [CAL] Key	<ol> <li>Machine will record the water weighing da calculate the sample's density and display density value at the same time</li> </ol>	ta; d <sup>9-c</sup> c y the <b>C</b>	58
	* ( If need to measure density again, please rep	oeat step 6-11 )	
Press and Hole [TARE] Key	12. Exit the Solid Density Measurement		

\* Quick Restart: exit the present density measurement and restart the new one, press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

(2) Liquid Density Measurement Instance

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level</i> <i>and Code</i>
Press and Hole [MENII] Key	1. Enter Into main menu	nodE-	I.
Short Press [CAL] Key	2. Display Counting Menu	-[0UNF-	I. I.
Short Press [MENU] Key Eight Times	3. Display Density Menu The signal flash on the upper left of window	dEUZI FA	I.9.
Short Press [CAL] Key	4. Display Solid Density Menu	-Soli d-	i.9.I.
Short Press [MENU] Key	5. Enter into Liquid Density Measurement program	-11 901 9	i.9.2.
Short Press [CAL] Key	6. Input the standard sample's volume	1000000	i.9.2.I
	* Input way: Press [UNIT] key to move cursor, pr and select. Press [CAL] key to confirm it.	ess [UNIT] key to cyc	le the number
Short Press [CAL] Key	7. Machine will clue user to measure material in air		<u>3 9-08</u> <b>7</b>
	* Three position to display as: Upper left display Air, Upper right display the t	time, Main window dis	<b>)</b> g splays the weight
	8. Measure Liquid container in air. (Example: 118.45g)		<b>{\$</b> g
Short Press [CAL] Key	9. Machine will record the air weighing data and clue user on that measure containerl weight in water	LIQUIA 09-	<u>3 9-5 8</u>
	* Three position to display as: Upper left display Liquid, Upper right display the	e time, Main window di	splays the weight
	10. Take the sample away and then machine will clue user to measure sample in water	ل ۱۹۱۱ ال	<b>30</b> g
	11. Measure Liquid container in water (Example : 20.70g)	۱۹۳۱ م <b>20</b>	<b>10</b> g
Short Press [CAL] Key	12. Machine will record the water weighing dat calculate the liquid's density and display th density value at the same time.	la; d <sup></sup> 9.cc le <b>9.773</b>	00
	* (If need to measure different material's density	v, please repeat step	7-12)
Press and Hole [TARE] Key	13. Exit the Liquid Density Measurement		

\* Quick Restart: exit the present density measurement and restart the new one, press and hold [MENU] key can restart the step 1, short press [CAL] to enter into step 3.

Note: The grey color words explain the signal's meaning which flash on the window.

Basic Function Setting (Menu Code: 2)

#### Purpose

Operator can set machine basic function by selecting parameter in Menu.

Automatic Double Weighing Rang, Dual Precision Function Setting (Menu Code: 2.1.)

This series machine has automatic double weighing range and dual precision. (some type didn't has this function). The machine default set the weighing range and precision. Please refer to Page 8~9 to know more detail specification of second weighing range and precision.

For the temporary needs of user, the machine will switch to second weighing range and precision automatically when the weighing sample's weight over the max capacity of machine.

Instance

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>
Press and Hole [MENU] Key	1. Display Menu	- JoodE -	I.
Short Press [MENU] Key	2. Enter Into Setting Menu	6826-	2.
Short Press [CAL] Key	3. Display weighing range and precision menu	-5[8[E-	2.I.
Short Press [CAL] Key	4. Display the code of first weighing range and precision	<b>r</b> 3203	2.I.I
	* Example: the display flash: 3203, among then 320g, last number 3 means machine's precis ( 0.001g )	n, 320 means first wer ion is three zero after	ighing range is the decimal point
	* The machine will switch to second weighing ra the weighing sample's weight over the max ca range and precision also mention on the lab	nge and precision aut pacity of machine. The el which at side of ma	omatically when e second weighing achine.
Short Press [TARE] Key Three Times	5. Exit the checking menu and return to stand	lby	

Turn On/Off the Units (Menu Code: 2.2)

Operator can turn on or off the unit to display or hide the relative weighing units.

Instance

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hold [MENU] Key	1. Display Menu	- JoodE -	I.
Short Press [MENU] Key	2. Enter Into Setting Menu	6826-	2.
Short Press [CAL] Key	3. Display weighing range and precision menu	-SERLE-	2.I.
Short Press [MENU] Key	4. Enter Into Unit Turn ON/OFF Mode		2.2.
Short Press [CAL] Key	5. Display Unit ct and flash "ON" (Turn on)	<u>-90   101.55</u>	<u>2 0-0 8</u>
	* Three position to display as: Upper left display the menu code, Upper rigi Main window displays the unit status.	tt display the time,	ļ
Short Press [PRINT] Key	6. Display Unit ct and flash "OFF" (Turn off)	ct-0FF	<b>2.2.i</b> .0i
Short Press [MENU] Key	7. Cycle to another unit oz and flash "ON"	og. 00	<b>2.2.i.</b> 02
Short Press [PRINT] Key	8. Display Unit oz and flash "OFF"	o2-0FF	<b>2.2.i.</b> 02
	* Repeat Step 7-8 can change unit on/off one b ct, oz, ozt, dwt, GN, lb, N, dr, tlT, tls, tlH, T, T	y one as follow : [/A/R, /A/R, ms, bat, n	nom, /lb, kg
	* The default setting is all units was turn on.		
Short Press [CAL] Key	9. Confirm that turn on or off the units	:::::::::::::::::::::::::::::::::::::	2.2.

Short Press [TARE] 10. Setting Finished and return to Standby Key Two Times

Date Setting (Menu Code: 2.3.)

Operator can setup machine date by setting menu.

Instance (Example: 2015Year-05Month-10Day)

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>
Press and Hold [MENU] Key	1. Display Menu	ñodE-	I.
Short Press [MENU] Key	2. Enter Into Setting Menu	6856-	2.
Short Press [CAL] Key	3. Display weighing range and precision menu	-SERLE-	2.I.
Short Press [MENU] Key Two Times	4. Enter Into Date Setting	9825-	2.3
Short Press [CAL] Key	5. Display Year	988r - 15	2.3.i
	* Operator can set year by : Press [UNIT] key to move cursor and press	[PRINT] to cycle and	select number.
Short Press [MENU] Key	6. Display Month	70005	2.3.2
	* Operator can set month by : Press [UNIT] key to move cursor and press	[PRINT] to cycle and	select number.
Short Press [MENU] Key	7. Display Day	887 10	2.3.3
	* Operator can set day by : Press [UNIT] key to move cursor and press	[PRINT] to cycle and	select number.
Short Press [CAL] Key	8. Confirm the date and return to previous menu	4RF E -	2.3.
Short Press [TARE] Key Two Times	9. Finish Setting and return to Standby		

Time Setting (Menu Code: 2.4.)

Operator can setup machine date by setting menu.

Instance (Example: 20:15:50)

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level</i> and Code
Press and Hold [MENU] Key	1. Display Menu	yoq£-	I.
Short Press [MENU] Key	2. Enter Into Setting Menu	6858-	2.
Short Press [CAL] Key	3. Display weighing range and precision menu	-SERLE-	2.I.
Short Press [MENU] Key Three Times	4. Enter Into Time Setting Mode	[] [[	2.4
Short Press [CAL] Key	5. Display Hour	Kour - 20	2.4.i
	* Operator can set hour by : Press [UNII] key to move cursor and press [	[PRINT] to cycle and s	select number.
Short Press [MENU] Key	6. Display Minutes	āl A 15	2.4.2
	* Operator can set minutes by : Press [UNIT] key to move cursor and press [	[PRINT] to cycle and s	select number.
Short Press [MENU] Key	7. Display Second	58650	2.4.3
	* Operator can set second by : Press [UNIT] key to move cursor and press [	[PRINT] to cycle and s	select number.
Short Press [MENU] Key	8. Display Time Mode	824	2.4.4
	* Operator can press [PRINT] key to select 24 h	ours or 12 hours.	
Short Press [CAL] Key	9. Confirm the Time and return	[] [[	2.4.
Short Press [TARE] Key Two Times	10. Setting finished and return to standby		

\* The menu code: 2.4.5 can set the time goes fast or slow. Press [UNIT] key to move cursor and press [PRINT] to cycle and select number.

Note: The grey color words explain the signal's meaning which flash on the window.

Correct Temperature (Menu Code: 2.5.)

Operator can set the display temperature by setting menu.

Instance

	ispiay and Code
ss and Hold NU] Key	noder I.
rt Press [MENU] Key	<b>6856 -</b> 2.
rt Press [CAL] Key	<b>[RLE-</b> 2.I.
rt Press [MENU] Four Times	Image: Constraint of the select number of the select numbe
rt Press [MENU] Four Times	OJU. [] to cycle and send adjustment range i

Short Press [CAL] Key 5. Confirm the temperature and return

••**b85E**• 2.

Short Press [TARE] Key 6. Finish the setting and return to standby

.. . .

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Backlight On/Off Setting (Menu Code:  $2.6\,$ )

Operator can turn on/off/auto backlight by setting menu.

Instance

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Display Menu	nodE-	I.
Short Press [MENU] Key	2. Enter Into Setting Menu	6826-	2.
Short Press [CAL] Key	3. Display weighing range and precision menu	-SERLE-	2.I.
Short Press [MENU] Kev Five Times	4. Enter into backlight setting and flash "ON"	82 ON	2.6
Short Press [PRINT] Key	5. Backlight turn on/off automatically and flash "AUT"	<b>67 Y</b> of	2.6
Short Press [CAL] Key	6. Confirm the backlight setting and return	6858-	2.
Short Press [TARE] Key	7. Finish the setting and return to standby		

Buzzer On/Off Setting (Menu Code: 2.7)

Operator can turn on/off the buzzer sound by setting menu.

#### Instance

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level</i> <i>and Code</i>
Press and Hole [MENU] Key	1. Display Menu	yoqf-	I.
Short Press [MENU] Key	2. Enter Into Setting Menu	6826-	2.
Short Press [CAL] Key	3. Display weighing range and precision menu	-SERLE-	2.I.
Short Press [MENU] Kov Siv Timos	4. Enter into buzzer setting and flash "ON"	6666 ON	2.7
Short Press [PRINT] Key	5. Turn off buzzer and flash "OFF"	666600FF	2.7
Short Press [CAL] Key	6. Confirm the buzzer setting and return	6858-	2.
Short Press [TARE] Key	7. Finish the setting and return to standby		

Note: The grey color words explain the signal's meaning which flash on the window.

Language Setting (Menu Code: 2.8)

Operator can set some function's interface with Chinese or English language by setting this menu.

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hole [MENU] Key	1. Display Menu	ñodE-	I.
Short Press [MENU] Key	2. Enter Into Setting Menu	- <i>-</i> 6858-	2.
Short Press [CAL] Key	3. Display weighing range and precision menu	-SERLE-	2.I.
Short Press [MENU] Key Seven Times	4. Enter into Language setting and flash "Cn" ( Chinese )	L806-En	2.8
Short Press [PRINT] Key	5. Flash "En" and language switch to English	LRNG-En	2.8
Short Press [CAL] Key	6. Confirm the setting and return	6858 -	2.
Short Press [TARE] Key	7. Finish the setting and return to standby		

## Eighth Part: Communication Setting

	Instance (Menu	Code: 3.1~3.6 )			
Communication Function Setting (Menu Code: 3)	Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>	
Operator can select the communication way by setting the menu.	Press and Hold [MENU] Key	1. Display Menu	nodE-	Ι.	
Baud Rate Setting (Menu Code: 3.1)	Short Press [MENU] Key Two Times	2. Enter into Communication Setting	[onn-	3.	
Select different baud rate for different output required.	Short Press [CAL] Key	3. Enter into Baud rate Setting * Press [PRINT] key and select different baud 12:1200hrs 24:2100hrs 49:4900hrs	rate in turns:	3.I	
Machine ID No. Setting (Menu Code: 3.2)		<i>12: 12000ps, 24: 24000ps, 48: 48000ps,</i>	90: 9000 <i>ps</i>		
For recognize each machine by different ID No.	Short Press [MENU] Key	4. Enter into Machine ID Setting	1 d 255	3.2	
FMT Setting (Data Frames Format) (Menu Code: 3.3)		* Operator can set Machine ID from 001 to 25 Press [UNIT] key to move the cursor and p	5, ress [PRINT] key to s	elect the number.	
Select different data format for different output required.	Short Press [MENU] Key	4. Enter Into Data frames format Setting	Fit-850	3.3	
COM Setting (Communication Way) (Menu Code: 3.4)		* Press [PRINT] key can select ASC (ASCII f	ormat) or ATU ( Modl	bus ATU ).	
Select different communication way for output different signal.	Short Press [MENU] Key	4. Enter Into Communication Way Setting	[on YEY	3.4	
PRT Setting (Print Way) (Menu Code: 3.5)		* Press [PRINT] key can select : NON: turn of CON: communicate continuously. STY: con	lv.		
Select different printing way for different output.		KEY: communicate only press [PRINT] key, SOFT: con Txxx: communicate every XX seconds (Can set time n		with software,	
KEY Setting (Transfer the Signal) (Menu Code: 3.6)	Short Press [MENU] Key	4. Print Way Setting	<b>0.</b> , 454	3.5	
Select the menu and switch the signal from computer to other equipment ( such		* Press [PRINT] key can select :			
as printer ), or send signal to both at the same time.		NON: turn off print, KEY: print only press [P Txxx: print every XX seconds (Can set time	RINT] key, SOFT: print e manually).	int by software order;	
COM ITEM (To Turn On/Off the Communication Data) (Menu Code: 3.7)	Short Press [MENU] Key	4. Peripheral Equipment Setting	YEY-P-F	3.6	
Operator can turn on or off the any out put RS232 data.		* Press [PRINT] key can select : KEY.PRT, K	EY.COM, KEY.ALL,	KEY.NON	
		* Short Press [CAL] key to select KEY.PRT an	nd return:		
PRT ITEM (To Turn On/Off the Printing Data) (Menu Code: 3.8)		Machine send signal to printer when press Short Press [CALL key to salect KEY COM	[PRINT] key.		
Operator can turn on or off the any out put printing data.		Machine send signal to computer when pr Short Press [CAL] key to select KEY.ALL a	and return. ess [PRINT] key. nd return:		
		Machine send signal to printer and comput Short Press [CAL] key to select KEY.NON Press [PRINT] key NO SIGNAL CAN SEN.	er both when press [F and retum: D OUT.	'RIN1'  key.	
	Short Press [CAL] Key	5. Confirm and return to previous menu	Eonn-	3.	
	Short Press [TARE] Key	6. Finish Setting and return to standby			
	* The grew color parts	is the following operation after Step 1-3 b	aud rate Setting.		

COM ITEM Instance (Menu Code: 3.7)

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level and Code</i>
Press and Hold	1. Display Menu	- Jood -	I.
[MENU] Key Short Press [MENU]	2. Enter into Communication Setting	[onn-	3.
Key Iwo Imes Short Press [CAL] Key	3. Enter into Baud rate Setting	68. d - 96	3.I.
Short Press [MENU]	4. Enter into output data turn On/Off menu	Eoni tEn	3.7.
Short Press [CAL] Key	5. Enter into turn On/Off output data of Type	3.1.10   09	- <u>5 8-0 8</u>
	<ul> <li>* Three position to display as: Upper left display the menu code, Upper right display the time, Main window d * The default setting is turn ON and output all n Operator can press [PRINT] to turn OFF each</li> </ul>	isplays the data's stat nachine's data. ch output data.	us.
Short Press [MENU] Key	6. Enter into turn On/Off output data of ID	1d 00	3.7.i.02
Short Press [MENU] Key	7. Enter into turn On/Off output data of Date	4866 00	<b>3.7.i</b> .03
Short Press [MENU] Key	8. Enter into turn On/Off output data of Time	FT 76 - 00	3.7.i.04
Short Press [MENU] Key	9. Enter into turn On/Off output data of Temperature	reap on	3.7.i.05
Short Press [MENU] Key	10. Enter into turn On/Off output data of Battery Status	P05 00	3.7.i.06
Short Press [MENU] Key	11. Enter into turn On/Off output data of Weighing Mode	NO 360N	3.7.i.07
Short Press [MENU] Key	12. Enter into turn On/Off output data of Reference Weight Mass	r88 00	3.7.i.08
Short Press [MENU] Key	13. Enter into turn On/Off output data of Weighing Status	srar on	3.7.i.09
Short Press [MENU] Key	14. Enter into turn On/Off output data of Weighing Step	SEEP ON	3.7.i.IO
Short Press [MENU] Key	15. Enter into turn On/Off output data of Tare Status	f Ar ON	3.7.i.I I
Short Press [MENU] Key	16. Enter into turn On/Off output data of Zero Status	26ro 00	3.7.i.I2
Short Press [MENU] Key	17. Enter into turn On/Off output data of Weight	00 33 <b>0</b>	3.7.i.I3
Short Press [CAL] Key	18. Confirm the setting and return	Eoni tEn	3.7.
Short Press [TARE] Key Two Times	19. Finish the setting and return to standby		

Note: The grey color words explain the signal's meaning which flash on the window.

PRT ITEM Instance (Menu Code: 3.8)

Key (Order)	Step Explanation	LCD Scr Displa	een ny	Menu Level and Code
Press and Hold	1. Display Menu	ño	£-	I.
Short Press [MENU]	2. Enter into Communication Setting	[o/		3.
Short Press [CAL] Key	3. Enter into Baud rate Setting	bRud	- 96	3.I.
Short Press [MENU]	4. Enter into output data turn On/Off menu	Prtil	:En	3.8.
Short Press [CAL] Key	5. Enter into turn On/Off output data of Type	3.8.1.0 1	09-9	<u>8-0 8</u>
	<ul> <li>* Three position to display as: Upper left display the menu code, Upper right display the time, Main window dis * The default setting is turn ON and output all m Operator can press [PRINT] to turn OFF eace</li> </ul>	splays the dat achine's dat h output dat	ata's statu 'a. a.	S.
Short Press [MENU] Key	6. Enter into turn On/Off output data of ID	1 d	00	3.8.i.02
Short Press [MENU] Key	7. Enter into turn On/Off output data of Date	9 <i>3</i> 86	00	<b>3.8.i.</b> 03
Short Press [MENU] Key	8. Enter into turn On/Off output data of Time	F1 7E	00	3.8.i.04
Short Press [MENU] Key	9. Enter into turn On/Off output data of Temperature	l Eub	00	<b>3.8.i.</b> 05
Short Press [MENU] Key	10. Enter into turn On/Off output data of Battery Status	P05	00	3.8.i.06
Short Press [MENU] Key	11. Enter into turn On/Off output data of First Dividing Line			<b>3.8.i</b> .07
Short Press [MENU] Key	12. Enter into turn On/Off output data of Weighing Mode	<u>2007</u>	00	3.8.i.08
Short Press [MENU] Key	13. Enter into turn On/Off output data of Reference Weight Mass	r{F	00	3.8.i.09
Short Press [MENU] Key	14. Enter into turn On/Off output data of Weighing Status	SFRF	00	3.8.i.IO
Short Press [MENU] Key	15. Enter into turn On/Off output data of Weighing Step	SEEP	00	3.8.i.∏
Short Press [MENU] Key	16. Enter into turn On/Off output data of Tare Status	ſ Rr	00	3.8.i.I2
Short Press [MENU] Key	17. Enter into turn On/Off output data of Zero Status	28ro	00	3.8.i.I3
Short Press [MENU] Key	18. Enter into turn On/Off output data of Weight	ūΕŁ	00	<b>3.8.i.</b> I4
Short Press [MENU] Key	19. Enter into turn On/Off output data of Second Dividing Line		00	3.8.i.I5
Short Press [MENU] Key	20. Enter into turn On/Off output data of Signature	S ilin	00	3.8.i.I6
Short Press [CAL] Key Short Press [TARE] Key Two Times	<ul><li>21. Confirm the setting and return</li><li>22. Finish the setting and return to standby</li></ul>	[on] l	:En	3.8.

Print Data of Weighing Mode (Example: 2000g/0.01)		Machine Weighing Configuration Setting (Menu Code: 4)	
TYPE: 20002 ID: 1	Machine Type Identification	Purpose Operator can set the machine basic weighing config to change the weighing capability to reach different required.	
DATE: 15-05-16 TIME: 00-08-08 TEMP: 20.8C	Date Time ( From measuring ) Room Temperature	Zeroing Range Setting (Menu Code: 4.1) Operator can increase or decrease the zeroing range for they need. Tracking Range Setting (Menu Code: 4.2)	
BAT: FULL(EXT) MODE: NORMAL	Power Status Broken Line Mode	Operator can increase or decrease tracking range for they need. Sensitivity Level Setting (Menu Code: 4.3) Operator can adjust the sensitivity by increase or decrease the level. Level 1 is the lowest sensitivity and level 6 is the highest.	
STATUS: STEADY STEP: NONE TARE: NONE ZERO: NATURAL	Present Status Present Step Tare Status Zero Status	Speed Level Setting (Menu Code: 4.4) Operator can adjust the weighing response time by increase or decrease the level. Level 1 is the slowest weighing response speed and level 3 is the fastest (Default and recommend setting: Level 2)	
WT: 0.00g COMPLETE SIGNATURE:	Weighing Result END Signature Blank	Anti-Vibration level Setting (Menu Code: 4.5) Operator can adjust the weighing response time and anti-vibration strength by increase or decrease the level. The higher level comes with higher anti-vibration. Level 1 has fast weighing speed and weak anti vibration. Level 7 has strong anti vibration and low weighing speed.	

Instance (Menu Code: 4.1~4.5)

Key (Order)	Step Explanation	LCD Screen Display	<i>Menu Level</i> <i>and Code</i>
Press and Hold [MENU] Key	1. Display the Menu	yoqg -	I.
Short Press [MENU] Key Three Times	2. Enter into Configuration Setting	-58289-	4.
Short Press [CAL] Key	3. Enter into Zeroing Range Setting * Press [PRINT] key can set Zeroing Range from	<b>2Ero-00</b> n 0.0 to 6.0	4.I
Short Press [MENU] Key	4. Enter into Tracking Range Setting * Press [PRINT] key can set Tracking Range from	<b>52 dy - 05</b> m 0.0 to 6.0	4.2
Short Press [MENU] Key	4. Enter into Sensitivity Level Setting * Press [PRINT] key can set Sensitivity Level from	<b>SENS</b>   om 1 to 6	4.3
Short Press [MENU] Key	4. Enter into Speed Level Setting * Press [PRINT] key can set Speed Level I from	<b>59556-2</b> 1 to 3	4.4
Short Press [MENU] Key	4. Enter into Anti-Vibration Level Setting * Press [PRINT] key can set Anti-Vibration level	<b>F¦\\+\</b> from 1 to 7	4.5
Short Press [CAL] Key	5. Confirm the setting and return	-582UP-	4.
Short Press [TARE] Key	6. Finish the setting and return to standby		
* The grew color parts	is the following operation after Step 1-3 Zer	roing Range Setting	

 $\ast\,$  The instance of how the automatic calibration analytical balance start to calibrate itself. ( Menu Code: 5 )

The requirement of start up the machine's automatic internal calibration. First: Nothing on weighing pan, no operation and stable on the zero. Second: The machine will start up the automatic internal calibration function base on the factory default (or user-set) time and temperature range.

If machine not reach above requirements, it will pause or stop the automatic internal calibration.

Third: When machine start up the automatic internal calibration function, the screen will display " $R_{uLo}[R_L"$  (AutoCAL), the calibration device which inside the machine will activate to calibrate the machine and motor will sound "zizizi" (IT'S NORMAL). During the calibration precess, the machine's screen will display build-in weight mass's weight. And then the system will self-test scale and screen will display "------". The whole calibration over when zero display on screen.

#### INSTANCE (Example: Y-124/223)

(1) The instance of setting automatic internal calibration parameter.

Key (Order)	Step Explanation	LCD Screen Display	Menu Level and Code
Press and Hold [MENU] Key	1. Display Menu	ñodE-	I.
Short Press [MENU] Key Four Times	2. Display the menu of Automatic Internal Calibration Setting	Ruto[RL	5.
Short Press [CAL] Key	3. Enter into Automatic Internal Calibration Setting	RERL ON	5.I
	<ul> <li>* The factory default setting is Turn on it (ON). T internal calibration function base on the factor</li> <li>* Press [PRINT] to turn off it (OFF) and then machine</li> </ul>	he machine will start u ory default time and te e will come with internal	ip the automatic mperature range. calibration status.
Short Press [MENU] Key	<ul> <li>4. Enter into Manual Internal Calibration Setting</li> <li>* Press [PRINT] to select manul External Calibration</li> </ul>	<b>YEY-Rut</b> (Hnd) or manual Intern	5 . 2 al Calibration.
Short Press [MENU] Key	<ul> <li>4. Enter into Automatic Internal Calibration's Weight Deviation</li> <li>* Press [PRINT] and [UNIT] can circle from 0d initial zero tracking. (Example: if set 5d, the particular set of the</li></ul>	<b>ERL2N3d</b> to 50d of the maximum machine will still caliba	5 . 3 m deviation of ate itself evenif

Short Press [MENU] Key	4. Enter into Automatic Internal Calibration Delay Time Setting	2028.J36	5.4
	<ul> <li>* The Automatic Internal Calibration Delay Fun reach the requirement of time, temperature,</li> <li>* Press [PRINT] key and [UNIT] key can circle</li> </ul>	ction only workable when weight deviation range. and select from 0.1 to 5 m	machine inutes.
Short Press [MENU] Key	<ul> <li>4. Enter into the Boot Automatic Calibration Setting</li> <li>* The factory default is turn on (ON), press [PR And then machine will not calibrate itself automatic</li> </ul>	<b>boot</b> ON 2INT] can turn off (OFF) it. tomatically when turn on.	5.5
Short Press [MENU] Key	<ul> <li>4. Enter into Automatic Internal Calibration Time Setting</li> <li>* Press [PRINT] key and [UNIT] key can circle and set</li> </ul>	<b>L BD</b> <sup>-</sup> lect from 5 to 300minuts or turn	5 . 6 n it off (OFF).
Short Press [MENU] Key	<ul> <li>4. Enter into Enter into Automatic Internal Calibration Temperature Setting</li> <li>* Press [PRINT] key and [UNIT] key can circle and a</li> </ul>	<b>F 0.5 °C</b> select from 0.5 to 3.0 * turn	5.7 it off (OFF).
Short Press [MENU] Key	<ul> <li>4. Enter into Build-in Weight mass Adjustment Setting</li> <li>* Press [PRINT] key can circle and select from build-in weight mass's weight.</li> <li>* Press [UNIT] key to move the flash, press [PI "+" or "-" (Positive or Negative).</li> </ul>	<b>rEF 000</b> * 0.01mg to 19.99mg of ac RINT] key to circle the setti	5 . 8 ljust the ing value,
Short Press [CAL] Key Short Press [TARE] Key	<ul><li>5. Confirm the setting and return</li><li>6. Finish the setting and return to standby</li></ul>	-5EŁUP-	5.

\* The grew color parts is the following operation after Step 1-3 Automatic Internal Calibration Setting.

(2) The Instance of Automatic Internal Calibration machine operate manual Internal Calibration.

Key (Order)	Step Explanation	LCD Screen Display
Short Press [TARE] Key	1. Machine tare the weight	<b>0.0000</b> g
Press and Hold [CAL] Key	2. Display internal calibration signal, flash Aut.CA	r Anflat
Release [CAL] Key	3. After several seconds, the machine display zer then the calibration finished	<sup>o,</sup> 0.0000 g

Note: The grey color words explain the signal's meaning which flash on the window.

(3) The Instance of Automatic Internal Calibration machine operate External Span Calibration.

Key (Order)	Step Explanation	LCD Screen Display
Short Press [TARE] Key	1. Machine tare	0.0000 g
Synchronous Press and Hold [MENU] [CAL] Key	2. Display span calibration signal Flash the required weight mass value: 100g	$100.0000 \mathrm{\ g}$
	3. Put required weight mass on pan. After 5 seconds, display the weight of it.	$100.0000\mathrm{g}$
	4. Take the weight mass away ( Span calibration finished )	<b>0.0000</b> g

(4) The Instance of Automatic Internal Calibration machine operate External Linearity Calibration. ( Please DO NOT linearity calibrate the machine if you don't have match weight mass )

Key (Order)	Step Explanation	LCD Screen Display
Short Press [TARE] Key	1. Machine tare	<b>0.0000</b> g
Synchronous Press and Hold [MENU] [CAL] Key	2. Display Span CAL signal Flash 100g signal	$100.0000 \mathrm{\ g}$
Press and Hold [MENU] Key	3. Display Linearity CAL signal Flash 120g signal	$120.0000 \mathrm{\ g}$
	4. Put required weight mass on pan Display 120g after 5 seconds	$120.0000 \mathrm{\ g}$
<u> </u>	5. Take weight mass away Linearity calibration step Flash 100g signal	<b>100.0000</b> g
	6. Put required weight mass on pan Display 100g after 5 seconds	$100.0000 \mathrm{\ g}$
	* The balance is preset to four internal linear	calibration: 120g, 100g, 50g, 20g
	7. Take weight mass away ( Linearity calibration finished )	$0.0000~\mathrm{g}$

\* External Calibration Machine operate calibration function (no menu code) Only when machine reach following requirements can operate the calibration.

 First: Nothing on Weighing Pan. Second: Machine was Tare. Third: Machine is stable on Zero.

The machine will show ERROR if do not reach the above conditions. The machine will show the needed weight mass value if reach the above conditions.

## (1) Instance of External Span Calibration $V_{2} = C_{2} + C_$

Key (Order)	Step Explanation	LCD Screen Display
Short Press [TARE] Key	1. Machine tare	0.0000 g
Press and Hold [CAL] Key	2. Display span calibration signal Flash the required weight mass value: 100g	$100.0000 \mathrm{\ g}$
	3. Put required weight mass on pan. After 5 seconds, display the weight of it.	$100.0000\mathrm{g}$
	4. Take the weight mass away ( Span calibration finished )	$0.0000\mathrm{g}$

(2) Instance of External Linearity Calibration (  $\mbox{Please}$  DO NOT operate the Linearity Calibration if you don't have matched weight mass )

Key (Order)	Step Explanation	LCD Screen Display
Short Press [TARE] Key	1. Machine tare	<b>0.0000</b> g
Press and Hold [CAL] Key	2. Display Span CAL signal Flash 100g signal	$100.0000 \mathrm{~g}$
Press and Hold [MENU] Key	3. Display Linearity CAL signal Flash 120g signal	$120.0000 \mathrm{\ g}$
	4. Put required weight mass on pan Display 120g after 5 seconds	$120.0000 \mathrm{~g}$
	5. Take weight mass away Linearity calibration step Flash 100g signal	$100.0000 \mathrm{\ g}$
	6. Put required weight mass on pan Display 100g after 5 seconds	$100.0000 \mathrm{\ g}$
	* The balance is preset to four internal linear	r calibration: 120g, 100g, 50g, 20g
	7. Take weight mass away ( Linearity calibration finished )	<b>0.0000</b> g

Note: The grey color words explain the signal's meaning which flash on the window.

Restore the machine Config (Menu Code: 6)

#### Purpose

Operator can restore the machine to factory setting by input the code in menu.

#### Instance LCD Screen Menu Level Key (Order) Step Explanation Display and Code --nodE-Press and Hold 1. Display Menu I. [MENU] Key -EonFLG Short Press [MENU] 2. Enter Into restore factory setting function 6. Key Five Times Cod0000 Short Press [CAL] Key 3. Enter Into the input code 6.I \* Press [UNIT] key to move the cursor and press [PRINT] key to select the number. THE CODE IS: 8888 -Conft G Short Press [CAL] Key 4. Confirm and return to previous menu 6.

Short Press [TARE] Key 5. Finish Setting and return to standby

▲ For the convenience of operator remember the code, the restore factory setting code all is: 8888. Operator can not set other code.

welfth: Operating Menu		* Factory Settings
Menu Level One Menu Level Two	Menu De Level Sei Three	fault Menu Items
ble 1. Application 1.1. Counting		* Sample's quantity 20pcs
	1.1.2	Set sample's quantity manually
		Set sample's weight manually
— 1.2. Computing Price —	1.2.1	Set sample's unit weight
	1.2.2	Set sample's unit price
— 1.3. High-Low Limit Weighi	ng — 1.3.1 ×	* OUT ( Out the limit )
— 1.4. Gross/Net/Tare	1.4.1	* Set sample's tare weight
Weight Weighing -	1.4.2	Set sample's tare weight manually
— 1.5. Accumulating —		Accumulate weight and tracing records
— 1.6. Dynamic Weighing	1.6.1	* Dynamic weighing with 10 seconds
— 1.7. Peak Holding —	1.7.1 *	<sup>k</sup> Count the peak holding data
	1.7.2~ 5	Other ways of record peak holding
— 1.8. Percentage Weighing	g — 1.8.1 *	* Percentage weighing with sample
	1.8.2	Percentage weighing with set weight
1.9. Density Measurement	t — 1.9.1 *	* Density of Solid Sample
		Density of Liquid Sample
	1.9.3	List of saved standard liquid density
2. Basic Function 2.1. Automatic Dual		
Weighing Range —	2.1.1	* First Weighing Range
2.2. Tum On/Off Units –	2.2.1	* Turn ALL unit ON
2.3. Date Setting	2.3.1	* Year
	2.3.2	* Month
	2.3.3	* Date
2.4. Time Setting —	2.4.1	* Hour
	2.4.2	* Minute
	2.4.3	* Second
	2.4.4	* 24 hours mode
	2.4.5	Modify time speed
2.5. Temperature Setting		Correct Temperature
2.6. Backlight Setting	×	* Turn On backlight
2.7. Buzzer Setting —		* Turn On buzzer
0		

	Menu Items Explanation
Menu Level Four	Menu Items Explanation
1.1.1.1	Operator can select 10, 20, 50, 100, 150, 200, 250, 500, 1000pcs in turns or any other number.
1.1.2.1	Operator can select 10, 20, 50, 100, 150, 200, 250, 500, 1000pcs in turns or any other number.
1.1.2.2	Flash the sample's quantity of last time or set the sample's quantity manually.
	Input the known sample's unit weight.
	Input the known sample's unit price.
	Operator can set the buzzer alarm terms: OUT ( out the limit ) or IN ( in the limit ).
1.4.1.1	Notice to put the tare weight's sample.
1.4.2.1	Notice to input the tare weight manually.
	Machine can accumulate the max weight up to 99999999g and trace the recent 100 times of weighing records.
	Operator can set 01, 02, 05, 10, 15, 20, 30, 40, 50, 60 seconds or any numbers from 0-99.
	Machine can record peak holding weighing time for 9999 times and trace the recent 100 times of weighing records.
	Peak Holding Weighing way with Time, TKEY ( Press Key), TST1 ( Very Stable ), TST2 ( Little Stable ), TCON ( Continuing )
1.8.1.1	Percentage weighing with sample.
1.8.2.1	Percentage weighing with set weight of sample.
1.9.1.1	Setting standard liquid's density. Operator can select the previously saved liquid density.
1.9.2.1	Machine can set a standard weight mass's density.
1.9.3.1	Can save the 10 groups different standard liquid's density.
	The machine will switch to second weighing range and precision automatically when the weighing sample's
	weight over the max capacity of machine.
2.2.1.01	Machine has 20 units available. They are: g, t, oz, ozt, dwt, GN, lb, N, dr, tlT, tls, tlH, T, T/A/R, /A/R, ms, bat, mom, /lb, k
	Operator can set 12 hour mode or 24 hour mode.
	Operator can modify time speed to quicker or slower within*59
	Operator can modify the machine temperature when different with room's, the modify range within*1.9
	Operator can set backlight with turn on, turn off or automatically.
	Operator can set to turn on or turn off the buzzer.
	Operator can set to display with CN ( Chinese ) or FN ( Fnolish ) for some functions



	Menu Items Explanation
Menu Level Four	Menu Items Explanation
	Operator can select baud rate from 12 ( 1200bps ), 24 ( 2400bps ), 48 ( 4800bps ) and 96 ( 9600bps ).
	Operator can set ID from 001- 255.
	Operator can set weighing data output format with ASC ( ASCII ) or ATU ( Modbus ATU ).
	Operator can set communication way of NON, CON, STY, KEY, SOFT, Txxx ( 001- 999 second ).
	Operator can set print way of NON, KEY, SOFT, Txxx ( 001- 999 second ).
	Operator can select RS232 data output way of KEY.COM ( Computer ), KEY.PRT ( Printer ),
	KEY.ALL ( Computer and Printer ), NON ( No data output ).
3.7.1.01	Operator can turn off the output data of type, ID, date, time, temperature, battery, mode, weight mass, status,
	step, tare, zero and weight in turns.
3.8.1.01	Operator can turn off the output data of type, ID, date, time, temperature, battery, fist dividing line, mode,
	weight mass, status, step, tare, zero, weight, second dividing line and signature in turns.
	Operator can set zeroing range: 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0 in turns.
	Operator can set tracking range: 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0 in turns.
	Operator can select sensitivity level with 1-6 level in turns. The higher level comes with higher sensitivity.
	Operator can select 1-3 speed level in turns. The higher level comes with faster speed.
	Operator can select anti-vibration level with 1-7 level. The higher level comes with higher anti-vibration.
	User can select ON ( turn on ), OFF ( turn off ).
	User can select Hnd ( Manual External Calibration ), Aut ( Manual Internal Calibration ).
	User can select the deviation of initial zero tracking parameter from 0, 1, 2, 4, 5, 6, 8, 10, 12, 15, 20, 25, 30, 35, 40 to 50d in turns.
	User can select the time from 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.8, 1.0, 1.2, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0 to 5.0 minutes
	in turns.
	User can select ON ( turn on ) OFF ( turn off ).
	User can select the time from 5, 10, 15, 20, 30, 45, 60, 75, 90, 120, 150, 180, 210, 240, 270, 300 minutes or
	OFF ( turn off ) in turns.
	User can select the time from 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.2, 1.5, 1.8, 2.0, 2.5, $3.0^*$ or
	OFF ( turn off ) in turns.
	User can adjust the build-in weight mass's weight from $*0.01$ mg to 19.99mg.
	Restore the factory setting code is 8888. Operator can not set other code.

#### Repair

Only trained technician was authorized to repair the problem machine.

#### Clean

- $\ast\,$  Pull out the adapter from electrical outlet and cable from machine.
- \* Use soft cloth with neutral cleanser to clean the machine housing.
- \* Dry the housing with soft cloth and then take out the weighing pan and wash it.
- \* When take up the weighing pan and bracket, make sure that don't broken the weighing system.
- ${\rm \AA}\,$  Do not let the liquid flow into machine.
- ▲ Do not use the caustic cleanser.

#### Wash stainless steel surface

Use soft cloth or sponge to clean all stainless steel parts need to clean often and completely. Only home appliances cleanser available for clean the stainless parts. Wipe up the stainless steel parts surface first, wash up all leftover second and then dry it. Oil the stainless steel surface if necessary.

#### Guarantee

Do not ignore your warranty rights.

If machine have problem in guarantee period, please contact local distributor.

- We carry out The Guarantees strictly according to national regulation
- The guarantee period is one year from the date of sell. The guarantee machine is with correct install and usage, not man-made problem. Send back machine to local distributor or seller with proper packing (include warranty card). We will exchange a new one or repair and return machine to you within one week from we receive it.
- Battery, load cell and Magnetic cylinder is not including in guarantee range.
- If the problem machine exceed the guarantee time limit or was damage by man-made, we will charge the reasonable labor and material cost, delivery cost and any other possible cost.

### Product Guarantee Elucidation

We guarantee that under proper using situation, We provide one year repairing service include material and technical support after selling date.

In Guarantee period, if machine broken or damage because of material or techniques, We will repair or replace the problem parts which has been proved. Please contact our Local office when machine need repairing.

The Guarantee Card will be inefficacy with wrong operating and not according as the operating manual. The Guarantee Card will be inefficacy with any damage or broken by unauthorized person's repairing or replacement.

We are not in charge with apparent or intentional disobeying the guarantee rule which cause machine any relevant or accidently broken.