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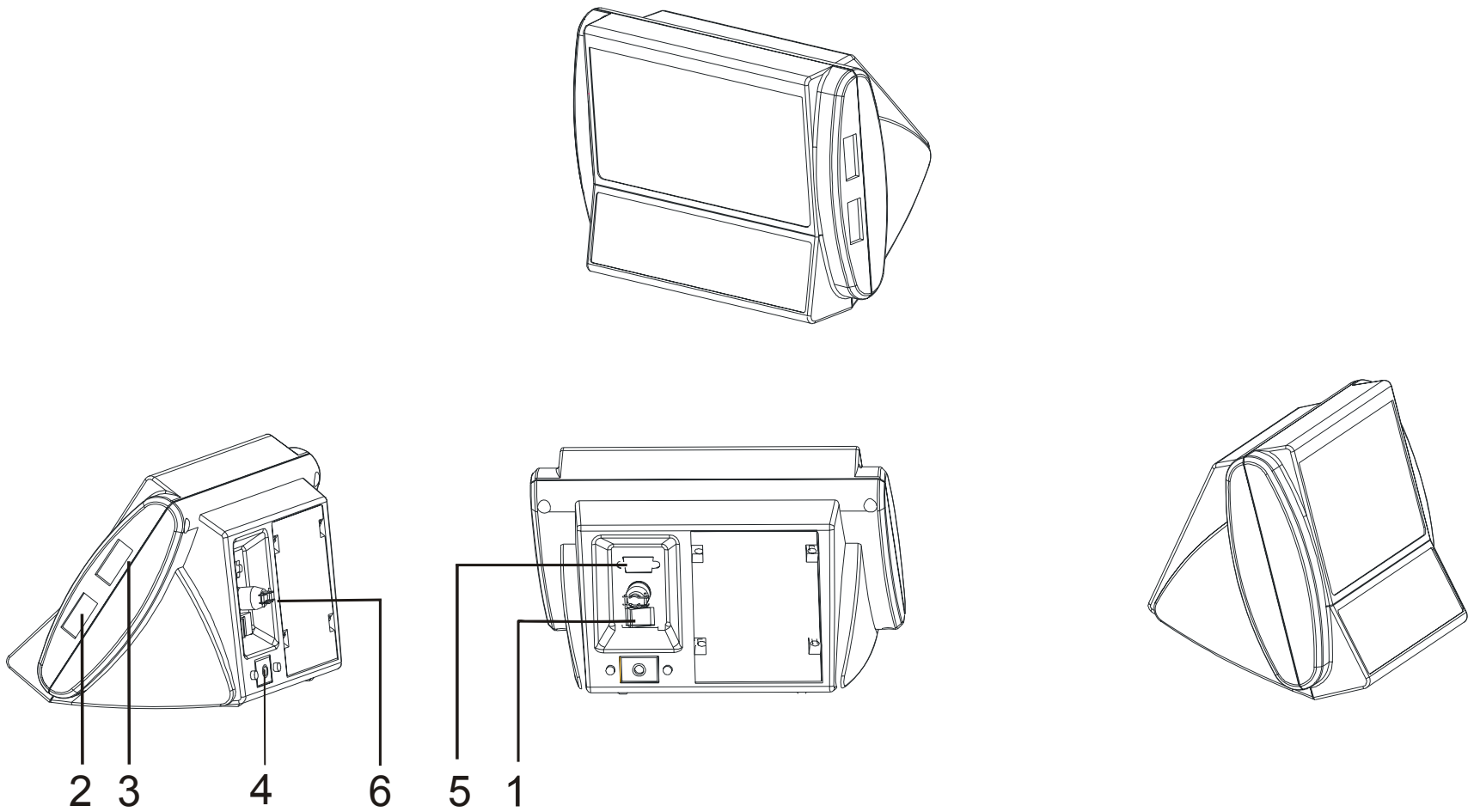
1、INTRODUCTION: ---

Tank your for your purchase of a Hengx high resolution electronic scale. This scale enables you to measure the quality and weight. The scale is easy to operate, precise, stable and with fast display reaction. It is applicable in the electronic, hardware, plastic, medicine, textile and various other industries. It is useful for packaging, inventory and various production and quality control cases.

2、ASSEMBLY: ---



3、INSTALLATION: ---

- Power switch【1】
- RS-232(single and dual) ouput【2】【3】
- DC power connector【4】
- 【5】RELAY check-weighing (output)
- 【6】LOAD-CELL interface

4、PRECAUTION: ---

1. full charge the battery after unpacking the scale
2. recharge the battery: when battery symbol appears on the LCD display, please plug in the power lord to charge the battery. The indicator of charge will light up in red. When it becomes green means charge completed(it takes about 8hours to full recharge the battery)*
3. install the equipment on a level and stable surface.
4. do not install the equipment near the air condition or a vibrating machine.
5. Please in the temperature of 0℃~ 40℃， prevent from rapid temperature changes
6. independent AC outlet for this equipment is recommended, check the voltage before plug in.
7. warm up the equipment for 15 minutes before use

5、FEATURES: ---

1. Load Cell have OIML approved, R60 test，
2. the microprocessor in this scale features：
   - A. automatic zero point tracking function
   - B. tare, pre-tare and auto tare function
   - C. ACAI function is applicable for the accuracy of unit weight
   - D. resample function
   - E. weight HI/LOW setting
   - F. counting HI/LOW setting
   - G. 10 sets unit weight memory

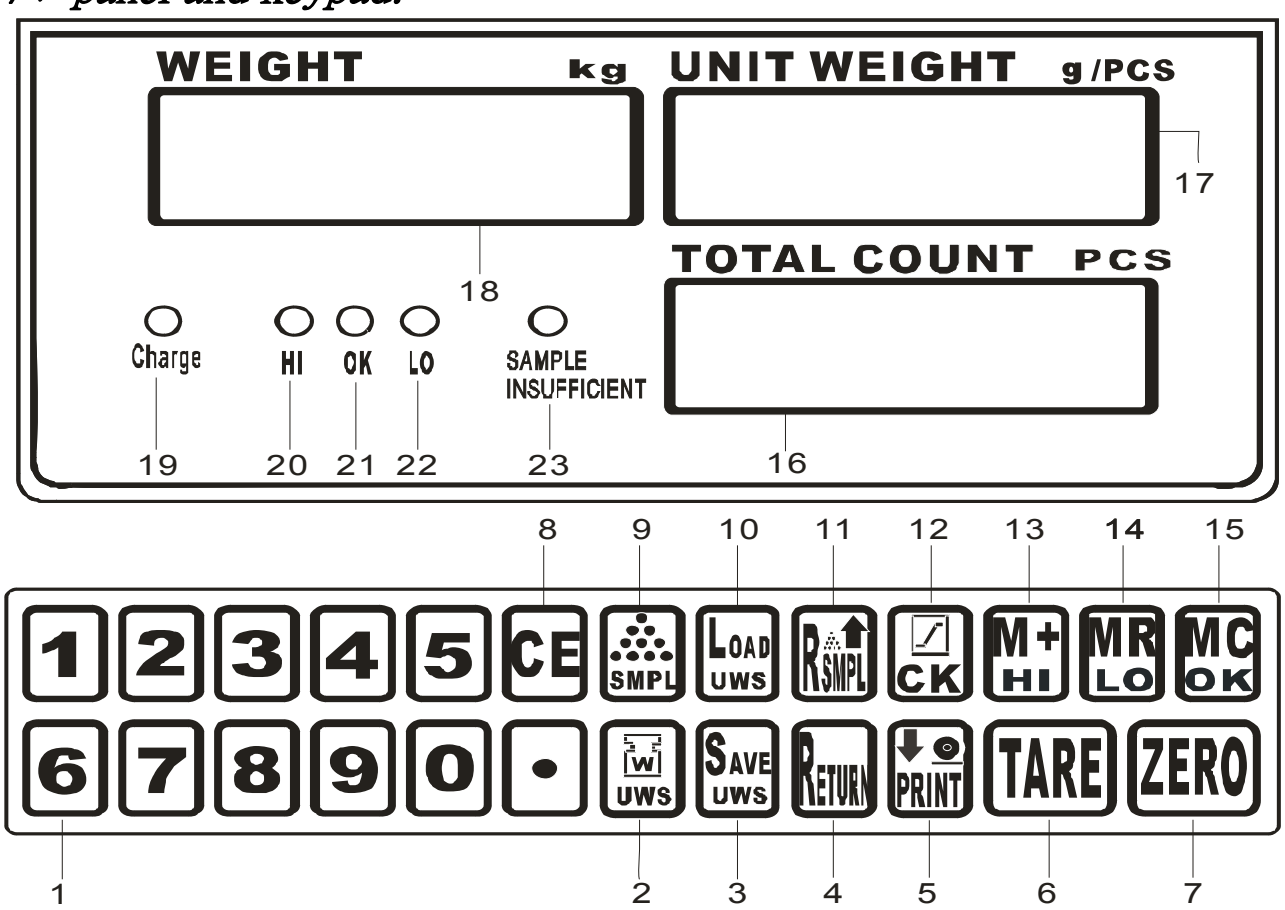
H. MAX accumulation (10sets)
I. Accumulation figures print
J. BACKLIGHT AUTO ON
K. 2 sets of RS-232 (option)
L. Relay output (option)
M. Mini printer（option）

1. clear LCD display, with 22mm digits
2. backlight function
3. over load and transportation protection
4. membrane keypad，easy operation and nice water-resistant function
5. stainless steel weighing pan

6、available units：---

1. kg
2. g
3. lb
4. oz

7、panel and keypad: ---



keypad						P2
1	0 ~ 9 & •	Used for inputting number data				
2	UWS	Input unit weight then press this key	3	SAVE UWS	Press to enter unit weight memory mode	
4	RETURN	Return	5	PRINT	For print (⇩used to check in unit weight warning and accumulation memory function)	
6	TARE	When some weight on the pan, Press “tare” to tare; if pan is empty, input *****， press “tare” to pre-tare	7	ZERO	To come into zero	

8	CE	To clear the input data	9	SMPL	Put samples onto the pan, and input the number, then press “sample”
10	LOAD UWS	Press to enter unit weight warning mode	11	R SMPL	For resample ⇧(used to check in unit weight warning and accumulation memory function)
12	CK	Press to enter weight, quantity and HI/LO/OK check-weighing setting	13	M+ HI	Press “accumulation” to accumulate(totally 10 times) (HIused for check-weighing)
14	MR LO	Press this key to enter accumulation display function,(LO used for check-weighing)	15	MC OK	Press this key to clear accumulation value (OKused for check-weighing)

Panel illuminate				
16	TOTAL COUNT PCS	Display unit weight or average weight		
17	UNIT WEIGHT g/PCS	Display weight		
18	WEIGHT kg	19	Charge	Recharge instruction
20	HI	Check-weighing bigger than instruction	21	OK	Check-weighing equals with instruction
22	LO	Check-weighing smaller than instruction	23	SAMPLE INSUFFICIENT	When the amount of sample is smaller than 10pcs or when unit weight ＜1d

7、1 FUNCTION SETTING: ---

P3

KEYPAD	FUNCTION
NO/OFF + ZERO	Parameter setting
NO/OFF + ZERO + ZERO	display COUNT（OFFSET）
NO/OFF + ZERO + ZERO + ZERO	weighing mode
NO/OFF + TARE	Linearity calibration
NO/OFF + SMPL	Single point calibration, units switch（lb、kg、g、oz）

7、2 PARAMETER SETTING：---(lineation words are the initiatory value)

OPERATION	LCD display
press ZERO to switch on：	WEIGHT: SCALE UNIT WEIGHT: FUnC TOTAL COUNT: SEt

Backlight setting：--

2	press 0： ● on / off / auto press 0 to change the setting	WEIGHT: FUnC0 UNIT WEIGHT: L iGH TOTAL COUNT: AUto

Resolution setting：--

press 1： ● 1 (6000/7500triple range resolution) 2 (3000 or 3750) 3 (6000 or 7500) 4 (15000)。 press 1 to select in turn in triple range resolution,press ZERO back to low division	WEIGHT: FUnC 1 UNIT WEIGHT: tYPE TOTAL COUNT: d iu2

Filter setting：--

press 2： ● 1 / 2 / 4 / 8 press 2 to select in turn	WEIGHT: FUnC2 UNIT WEIGHT: F iLt TOTAL COUNT: -2-

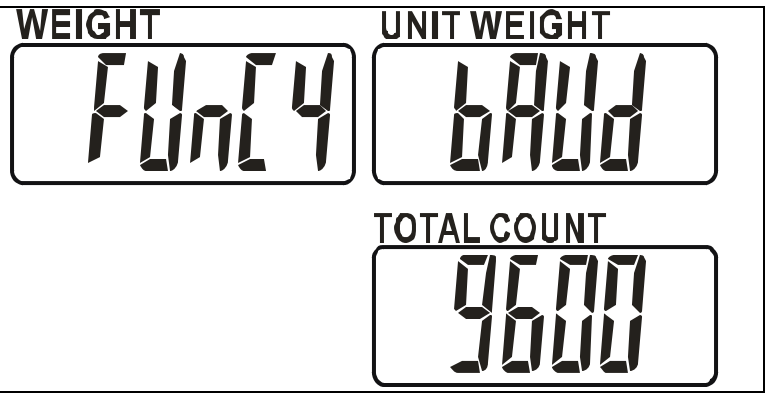
Zero band：--

press 3： ● d0 / d1 / d2 / d3 / d4 / d5 the bigger value setting, the bigger value display press 3 to select in turn	WEIGHT: FUnC3 UNIT WEIGHT: ZEro TOTAL COUNT: d2

Band rate setting：--

press 4：

- band rate setting： 9600

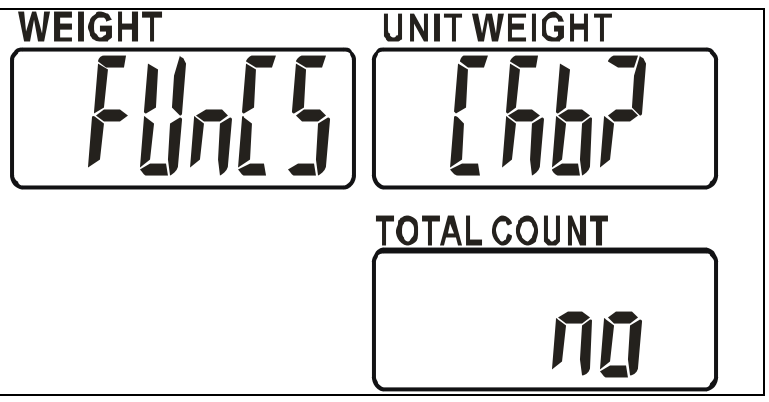


buzzer setting：--

press 5：

- on / oFF

press 5 to select in turn。



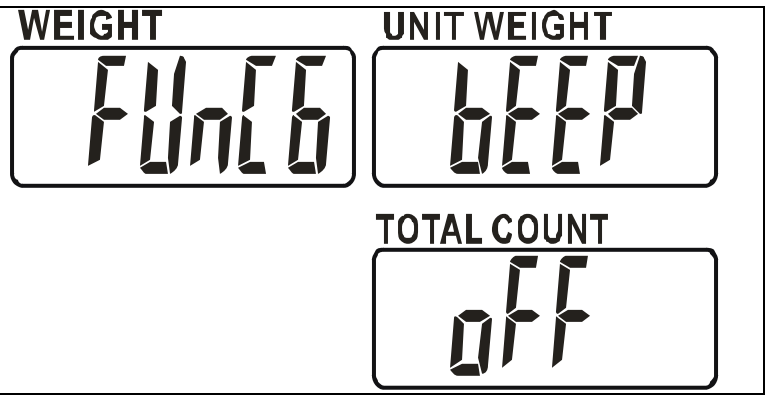
Check-weighing mode setting:--

P5

press 6：

- HI/ Lo/ In / un/ 3b/ oK / oFF

press 6 to select in turn

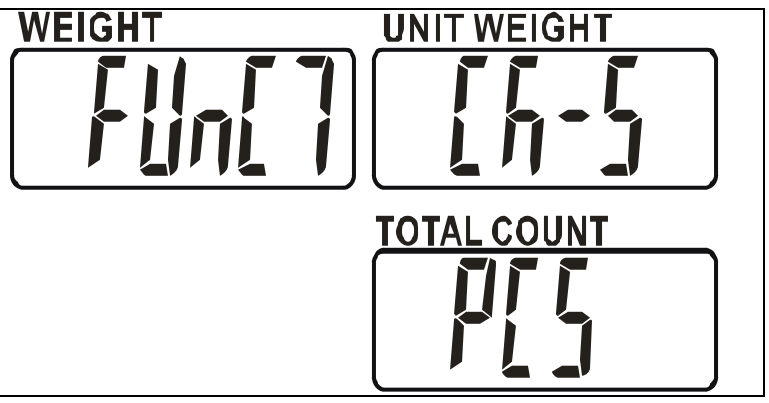


Check-weighing style setting：--

press 7：

- Weight/ PCS

press 7 to select in turn

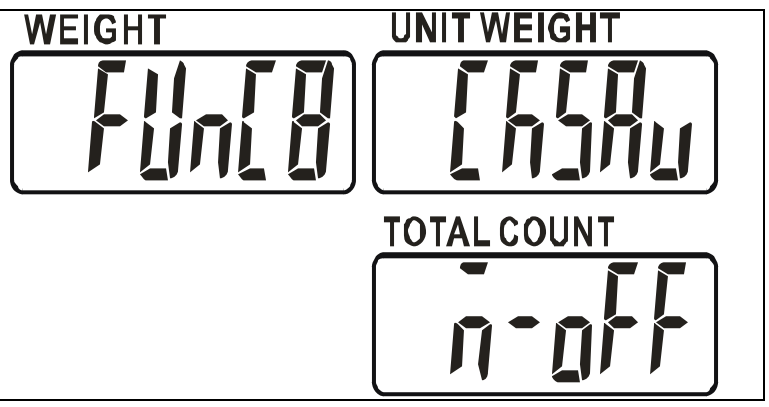


Check-weighing memory setting：--

press 8：

- M.On / M.oFF

press 8 to select in turn（check-weighing and counting each 1 set）

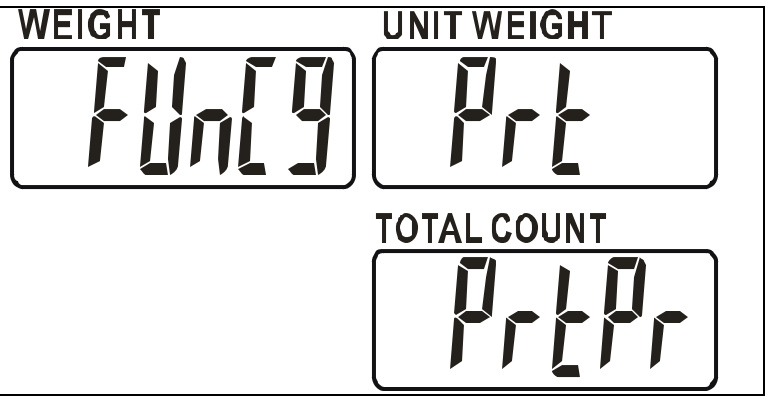


Printing mode setting： --

press 9 :

- Prt.Pr / Prt.Co/Prt.St-data

press 9 to select in turn

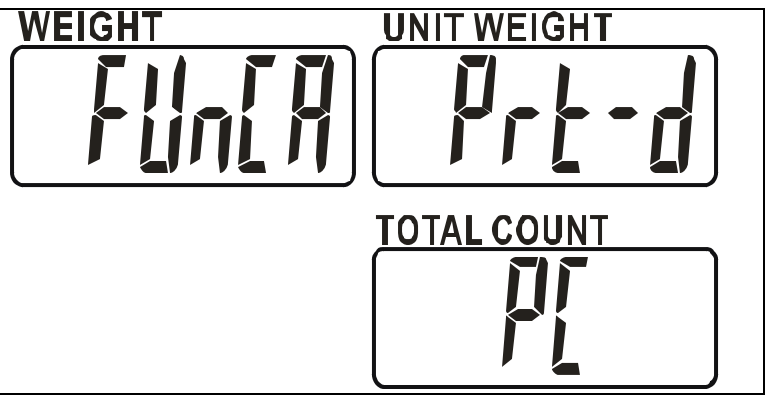


Printer setting： --

press ● :

- PC / SH / TDP

press ● to select in turn

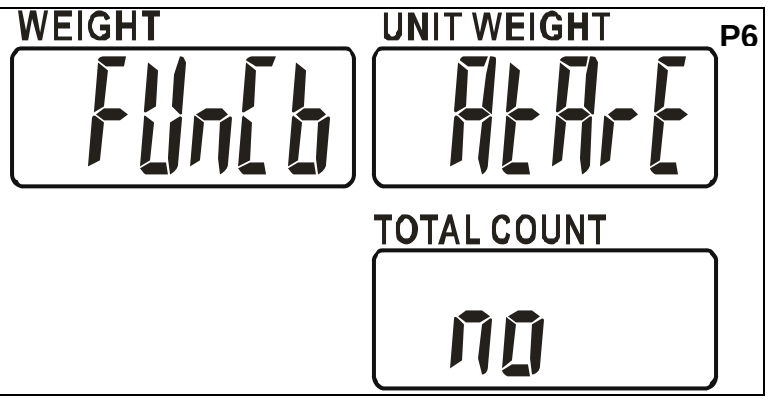


Auto- tare setting： --

press CE :

- YES / NO

press CE to select in turn



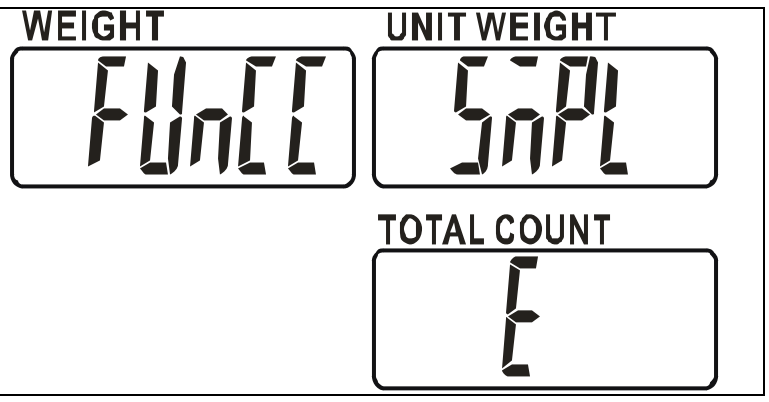
P6

internal resolution setting： --

press M+ HI :

- d / e

press M+ HI to select in turn



Printing content setting： --

press MR LO :

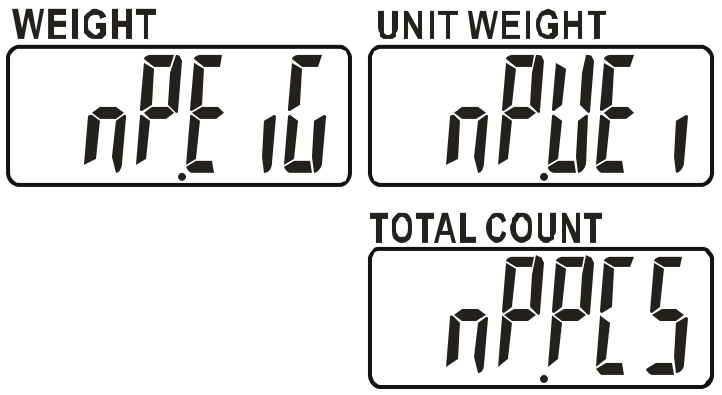
- Pr（print）/ nP（not print）

press R SMPL or SMPL or ZERO to select in turn

press R SMPL ： whether to print total weight

press SMPL ： whether to print unit weight

press ZERO ： whether to print total quantities



Printing content setting1.2： --

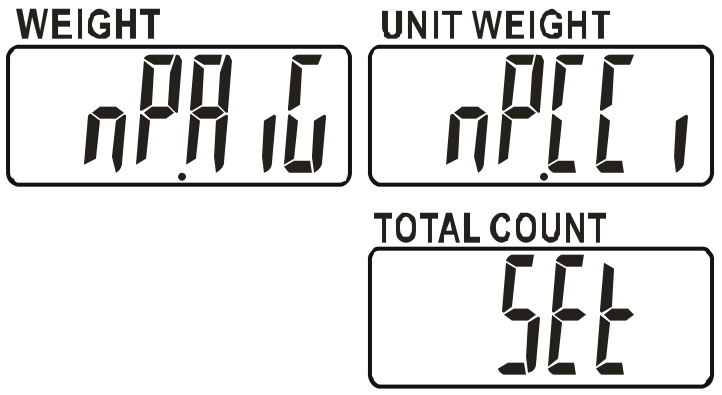
press CE :

- Pr（print）/ nP（not print）

press R SMPL or SMPL to select in turn

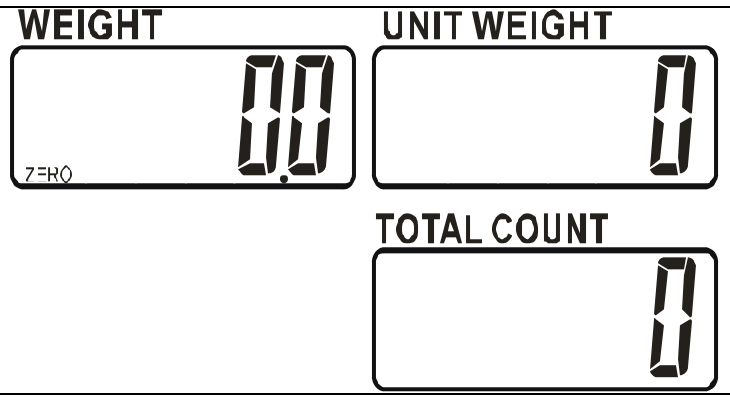
press R SMPL ： whether to print total accumulation value

press SMPL ： whether to print single accumulation value



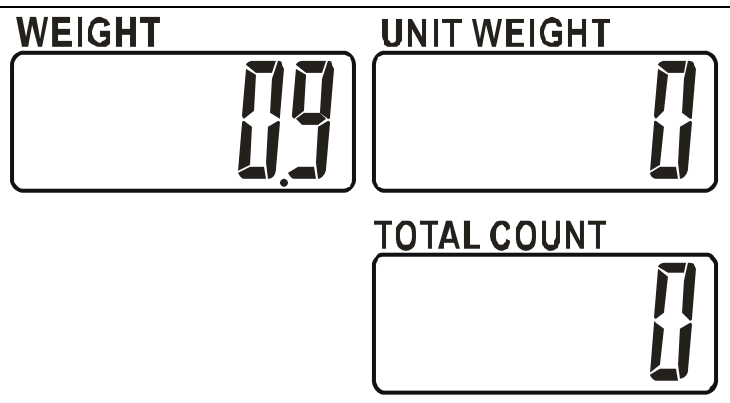
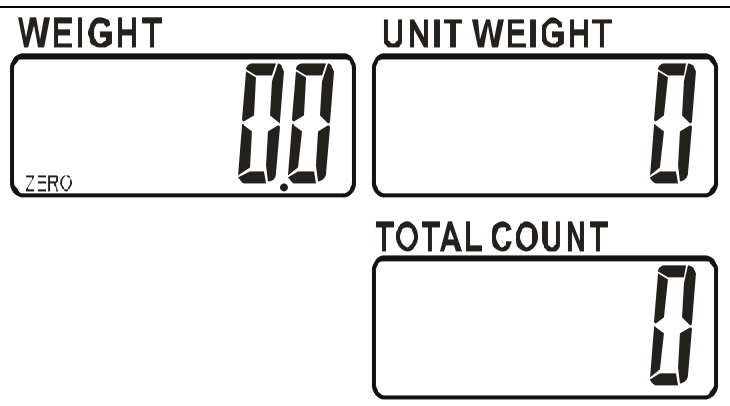
P7

press ZERO ： back to normal weighing mode

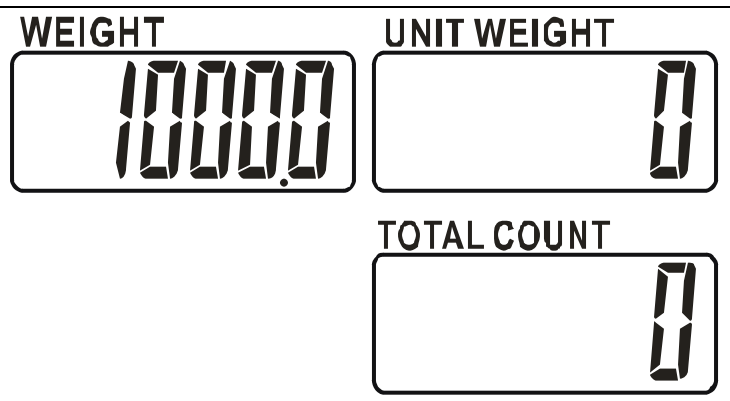
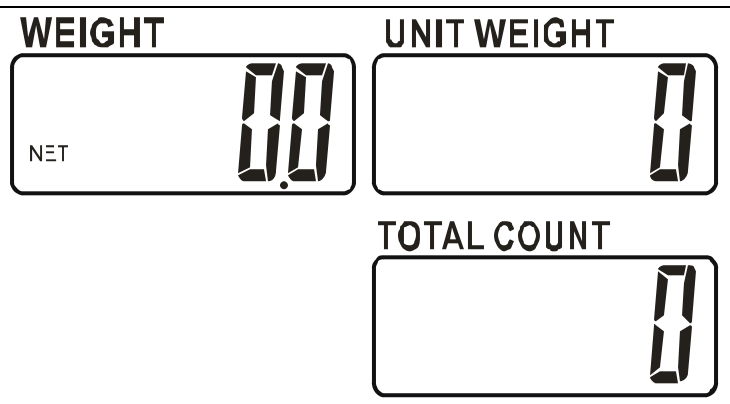


8、KEYPAD：---

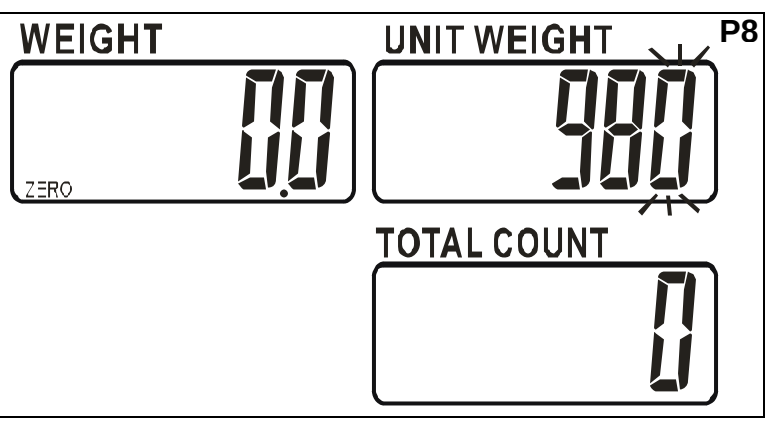
ZERO：--

<2% max	
● press ZERO :	

tare：--

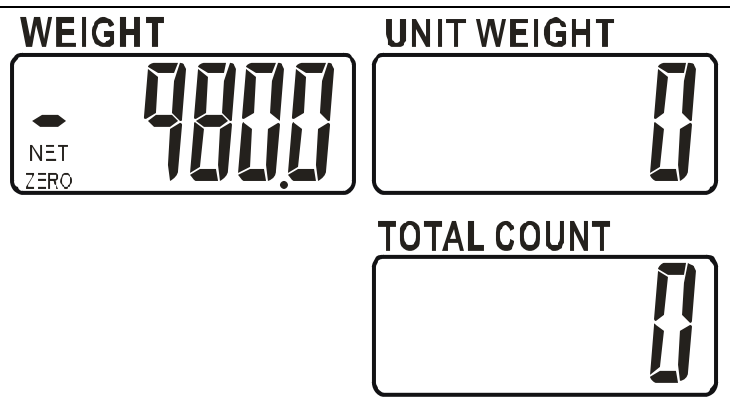
Any number	
● press TARE : ● tare：can't operate below zero or above max capacity	

Pre-tare：--

● press 0 ~ 9 and • to load the number	

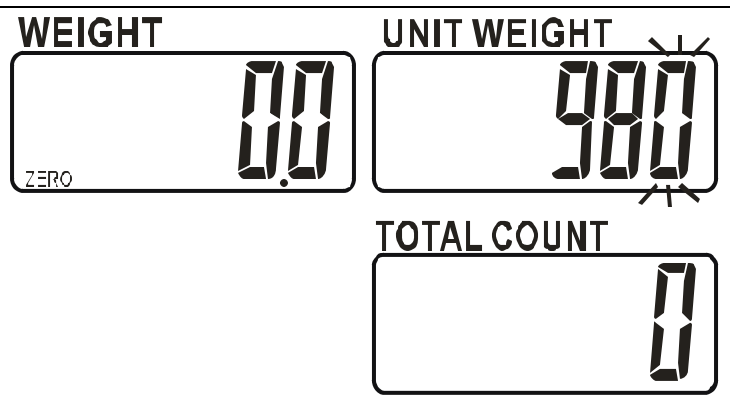
Pre-tare：

- press TARE：
- condition：zero symbol display(press TARE again to cancel pre-tare)



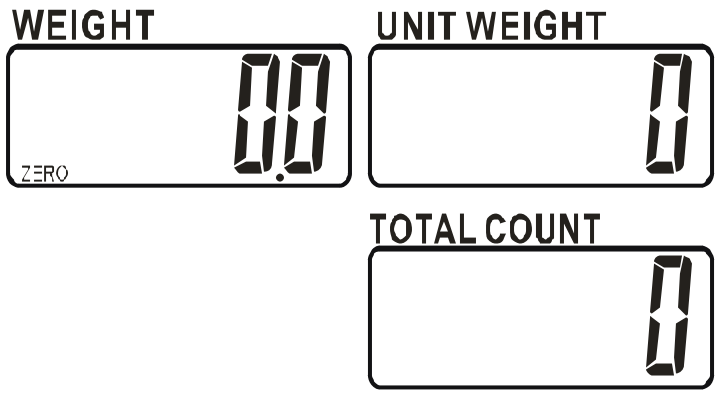
0~9 and ●： --

- 0 ~ 9 and •
- *to load the pre-tare value and unit weight*



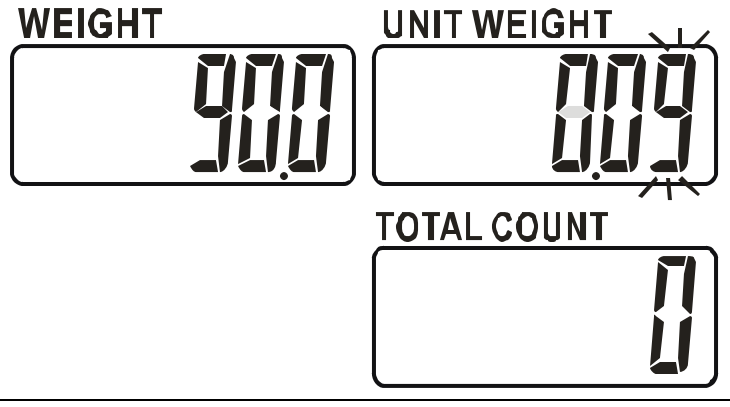
Input eliminate： --

- press CE
- in the unit weight loading, sample, check-weighing and unit weighing memory mode



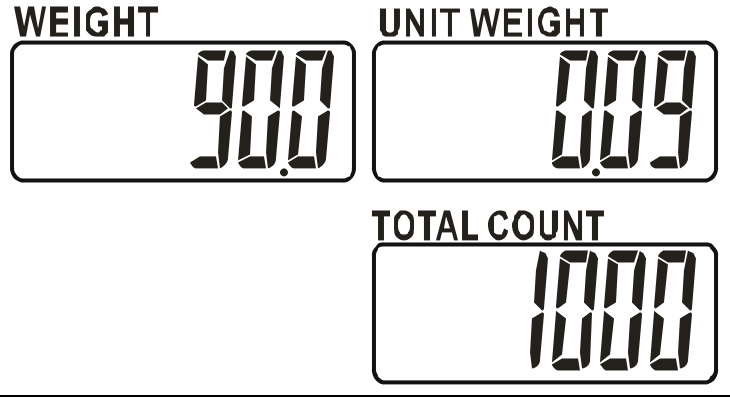
Unit weight lmput： --

- press 0 ~ 9 and •

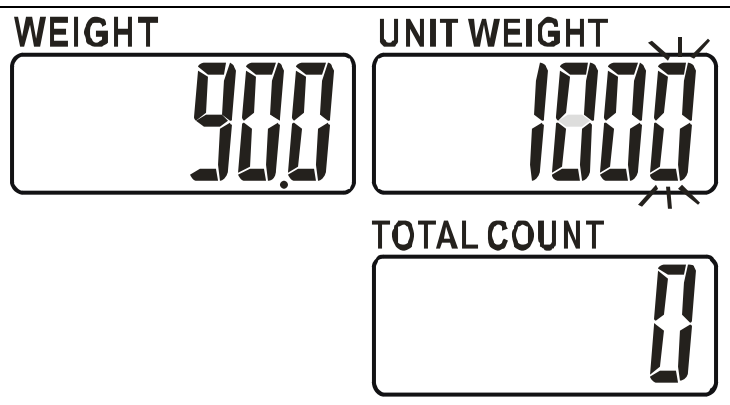
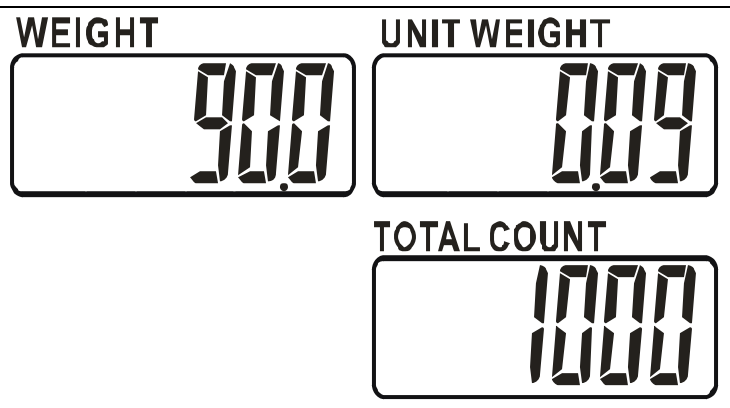


P9 W UWS

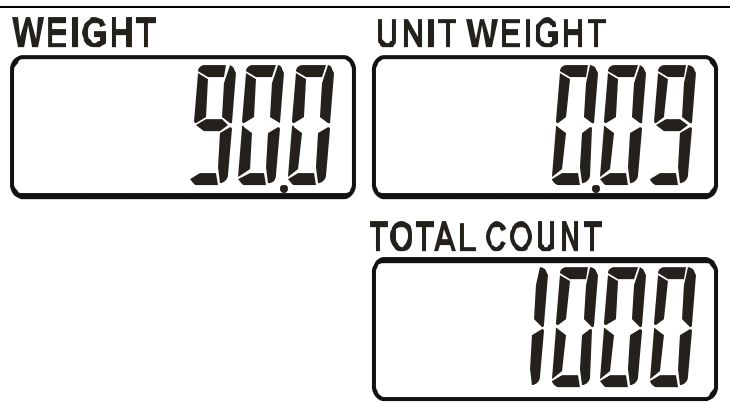
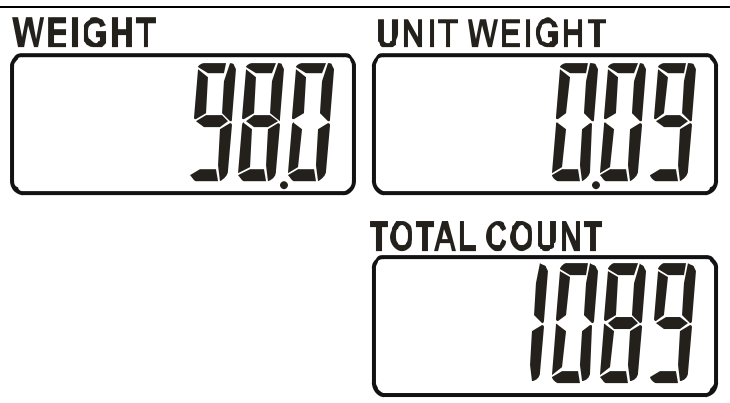
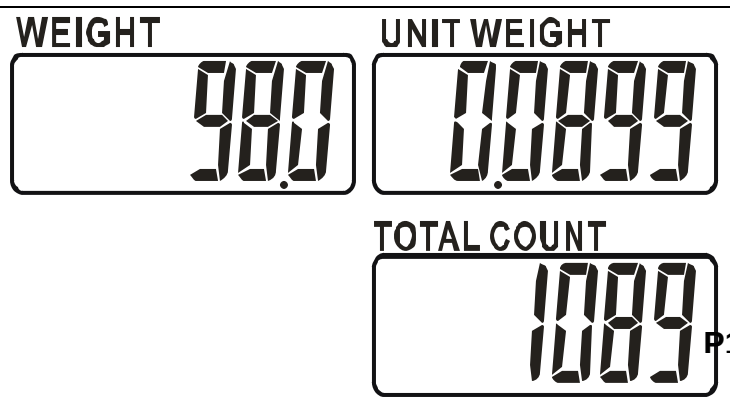
- press
- load unit weight
- condition of loading unit weight：unit weight ≥e，or show, Sample Insufficient。



sample：--

● press 0 ~ 9	
● then press SMPL，load the number ● condition of sample：sample number must ⩾ 10pcs, or it will show, Sample Insufficient。 ● only can load interger in the stable condition	

resample：--

● after sample，	
● place more than 3 pcs onto the pan	
● press RSMPL to resample ● condition of resample: after sample, place more than 10pcs onto the pan（±0.1e）。	

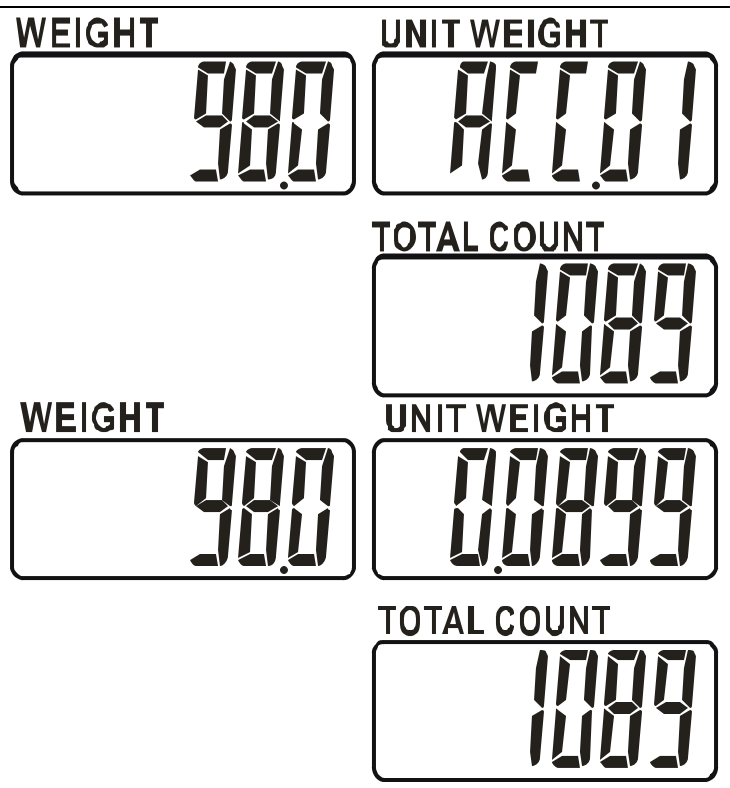
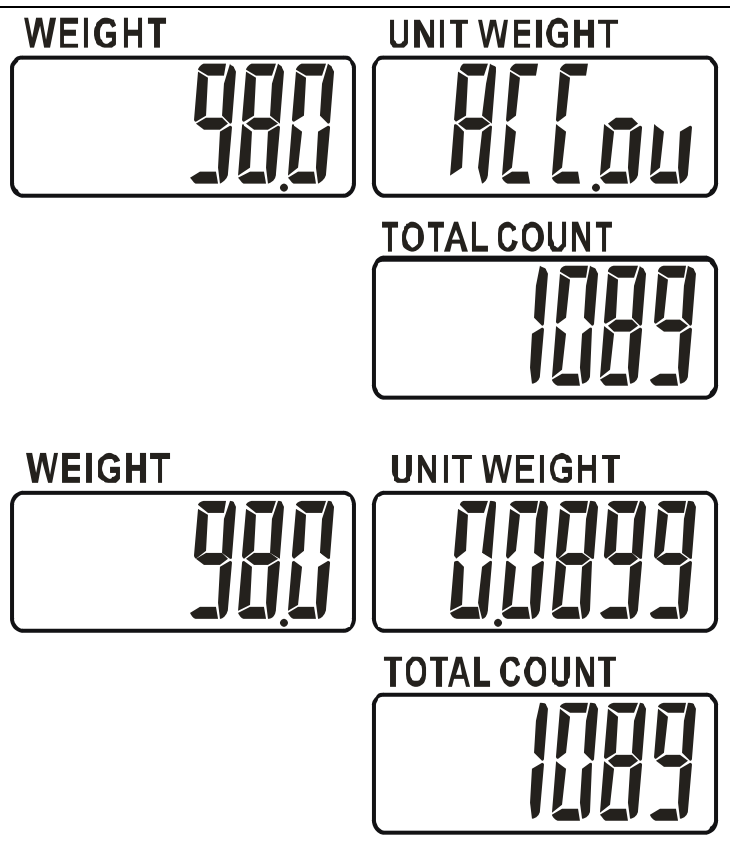
print：--

Condition of printing： must be stable. press PRINT： printing LCD display value.

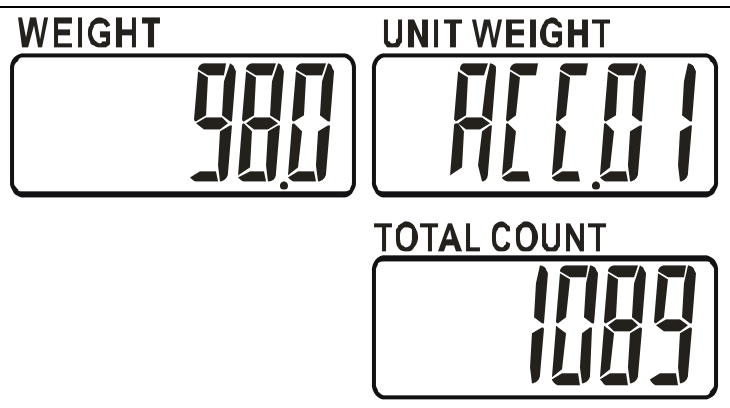
return--

press RETURN： return to weighing mode

accumulate：--

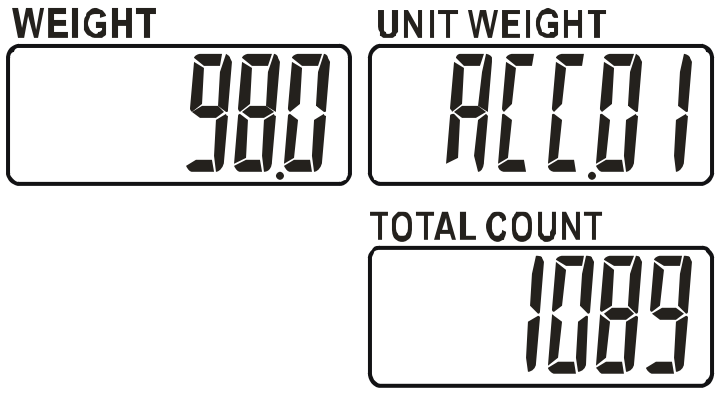
● press M+ HI， perform accumulation ● accumulation condition：in the stable conditon; only can accumulate once, remove objects on the pan and could accumulate once more; totally can accumulate for ten times. ● 1 sec later return to normal weighing mode	
● when accumulating more than 10 times， ● means: times of accumulation over range, 1sec later return to normal weighing mode	

Accumulate display：--

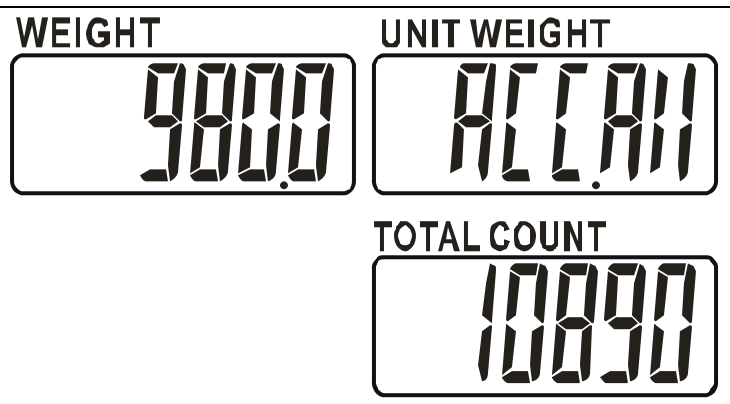
● press MR LO， perform accumulating display	

- press 0 ~ 9 or RSMPL or PRINT to select accumulation value

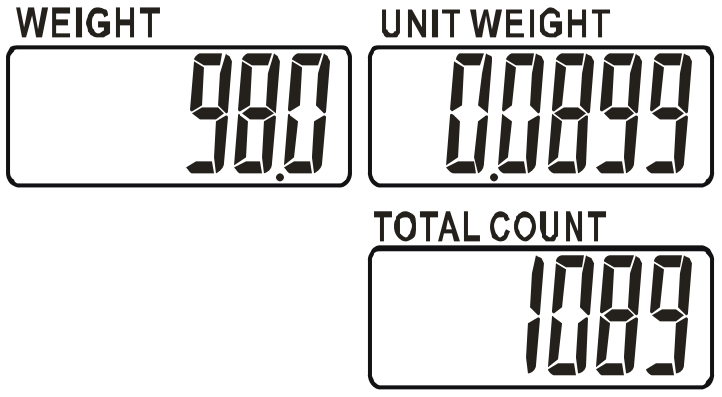
- press 1
- means: accumulate the first accumulation and quantities of individual accumulation



- press •
- means： total weight accumulation, times of accumulation and quantities of accumulation

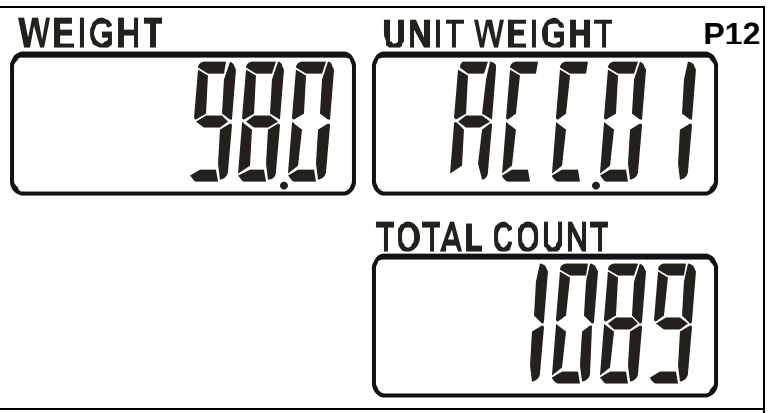


- press RETURN back to normal weighing mode
- when total value of accumulation over display range, it will show

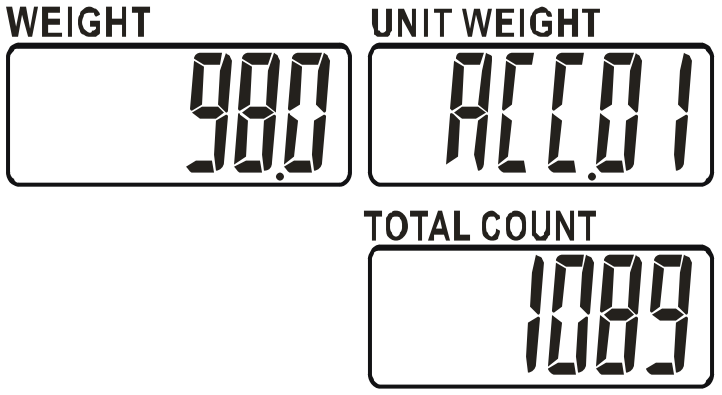
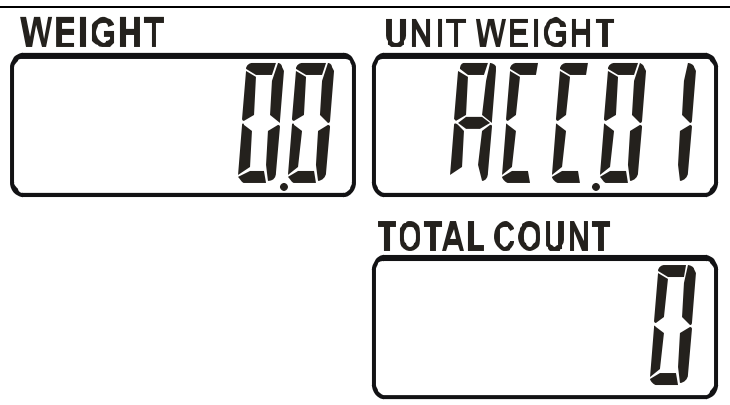
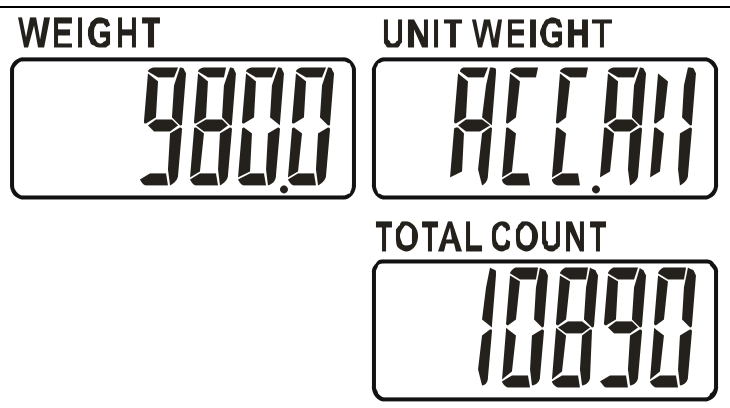
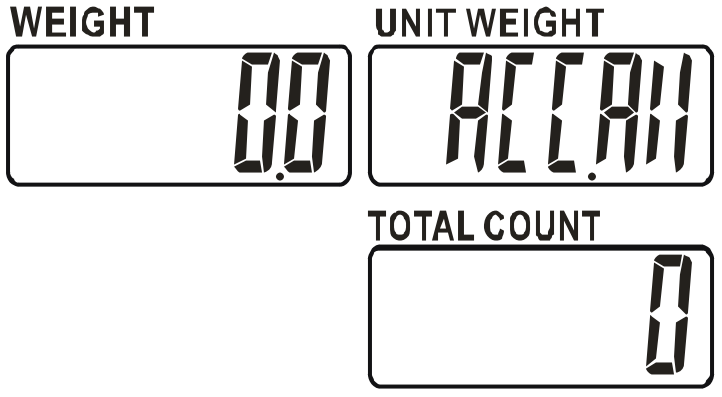


Accumulation clear： --

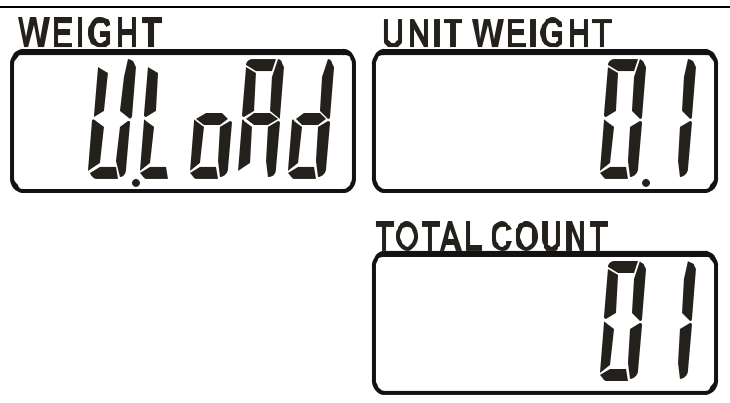
- press MC OK



- press 0 ~ 9 or RSMPL or PRINT to select time of accumulation

● press 1 ● means： accumulate value of the first time and individual quantities.	
● press MC OK to cancel the accumulation value	
● press . ● means： total weight, times and quantities of accumulation	
● press MC OK to cancel the accumulation value	
● press RETURN back to normal weighing mode	

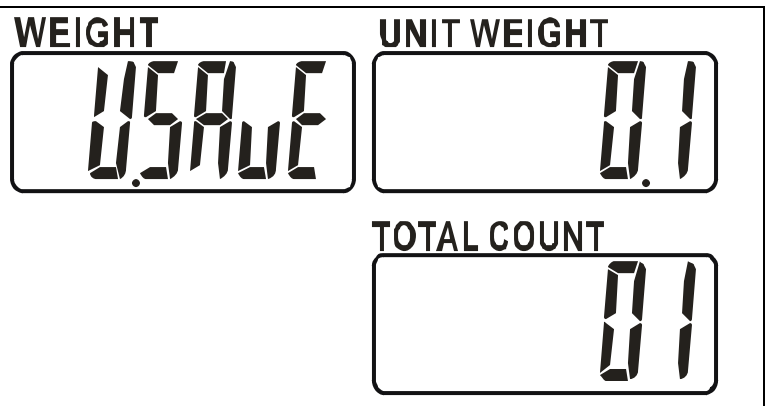
Unit weight warning： --

● *press* LOAD UWS ● unit weight load ● unit weight memory ● memory groups	
● press R SMPL or PRINT to select memory sets	

- press RETURN to load equivalent unit weight and back to normal weighing or counting mode.

Unit weight memory: --

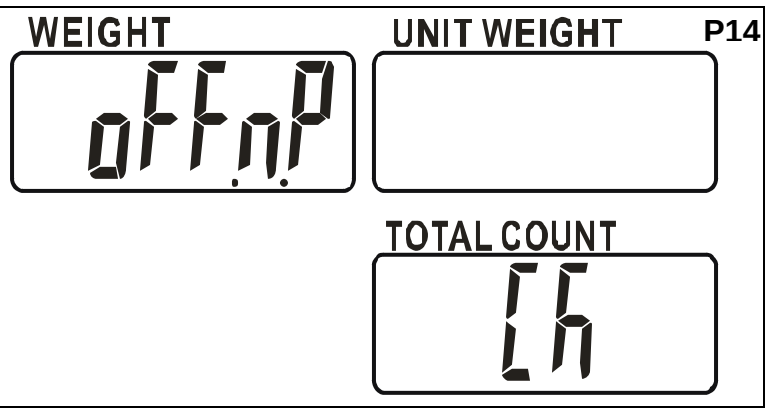
- press SAVE UWS
- unit weight load
- unit weight memory
- memory groups

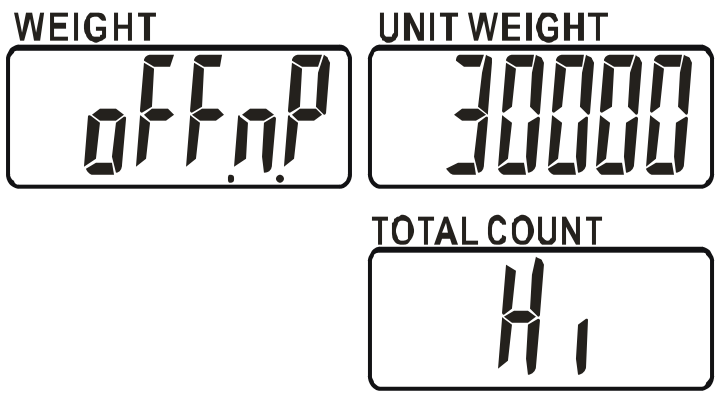


- press RSMPL or PRINT to select memory sets
- press 0 ~ 9 or • to load memory unit weight
- load unit weight, then press SAVE UWS
- press RETURN to load equivalent unit weight and back to normal weighing or counting mode

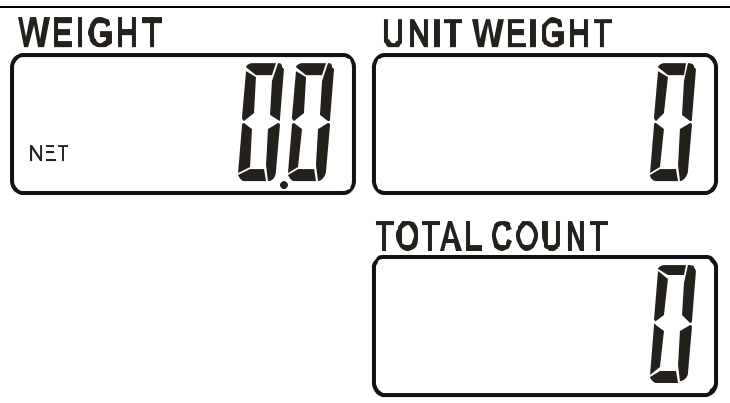
Check-weighing: --

- press CK
- HI、Lo、In、un、3b、OK、oFF。
- n（beep alert）、f（no beep alert）。

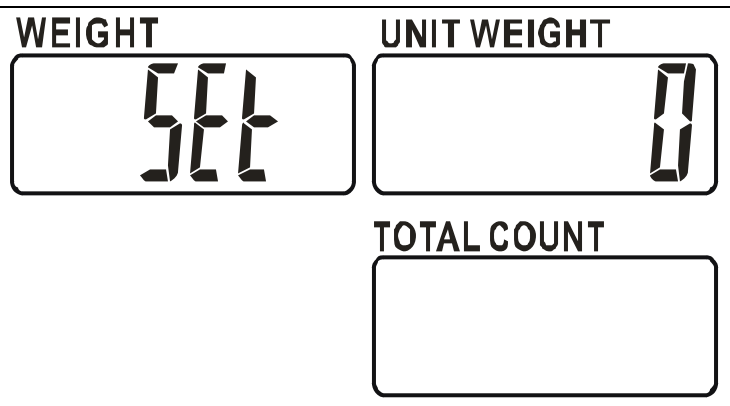


● press M+ HI 、 MR LO 、 MC OK to select the check-weighing value	
● select check-weighing condition then press 0 ~ 9, load check-weighing range ● press SAVE UWS to confirm the loading of check-weighing range ● then press RETURN back to normal weighing mode, when check-weighing wrong, it will show ●	
● press ZERO to cancel check-weighing and back to normal weighing mode	

Auto-tare： --

● auto-tare condition: cann't work below zero or above max capacity. In the stable condition, max≥2% ● Can not tare constantly (after auto tare, press "tare" to cancel pre-tare and get new tare value) ● if need another auto tare, clear the pan, press "zero" or "tare" to re-tare.	

9、units conversion： ---

P15 operation	LCD 显示内容
● press SMPL to switch on the machine	

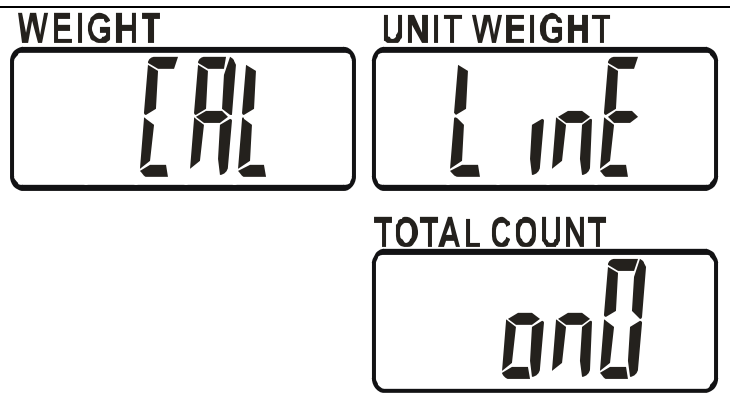
● press 1 1 3 2	WEIGHT: SEt UNIT WEIGHT: 1132 TOTAL COUNT:
● press SMPL	WEIGHT: Unit UNIT WEIGHT: SEt TOTAL COUNT: kG
● press 1 ● units conversion in turn： kg/ g / lb / oz	
● press SMPL：	WEIGHT: SEt UNIT WEIGHT: 0 TOTAL COUNT:
● press ZERO ： return to normal weighing mode	

10、CALIBRATION OPERATION： ---

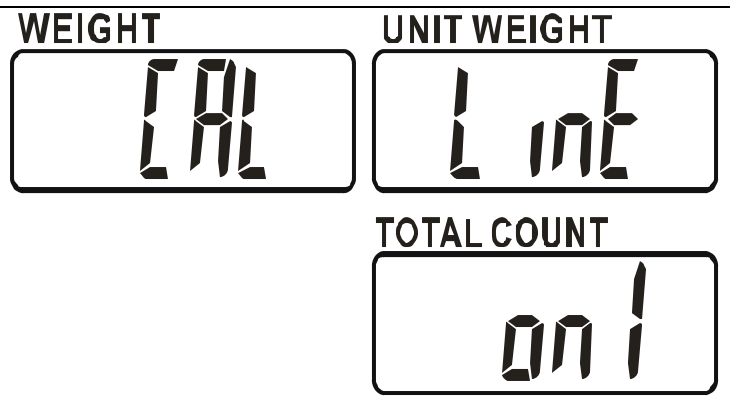
10.1 calibration（six point calibration）--

operation	LCD display
● press TARE to switch on the machine.	WEIGHT: CAL UNIT WEIGHT: LinE TOTAL COUNT: 6P

- press TARE
- zero point calibration

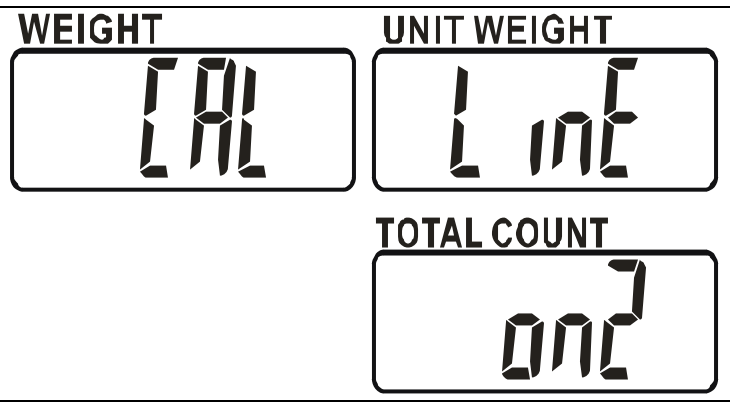


- waiting



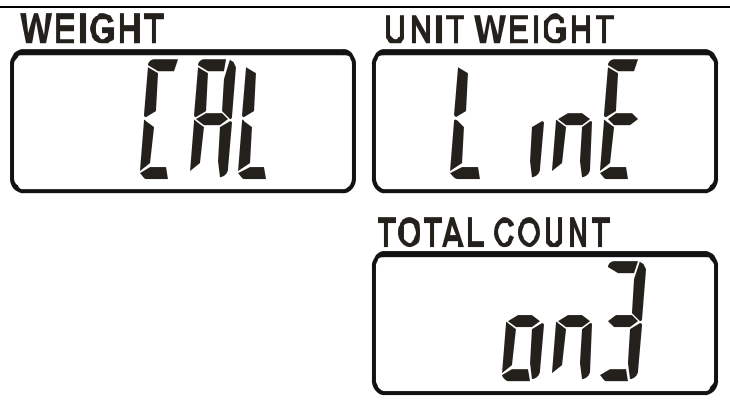
- place 1/6 of load on ， press TARE ， to perform 1/6 load calibration

- waiting



- place 2/6 of load on， press TARE ， to perform 2/6 load calibration

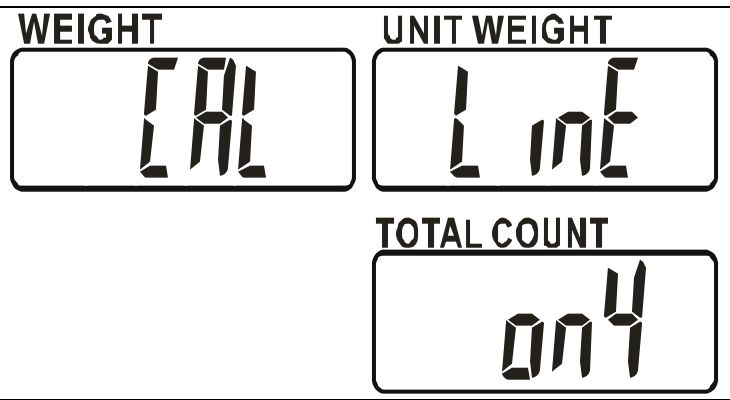
- waiting



continuous 10.1 calibration（six point calibration）

- place 3/6 of load on， press TARE ， to perform 3/6 load calibration

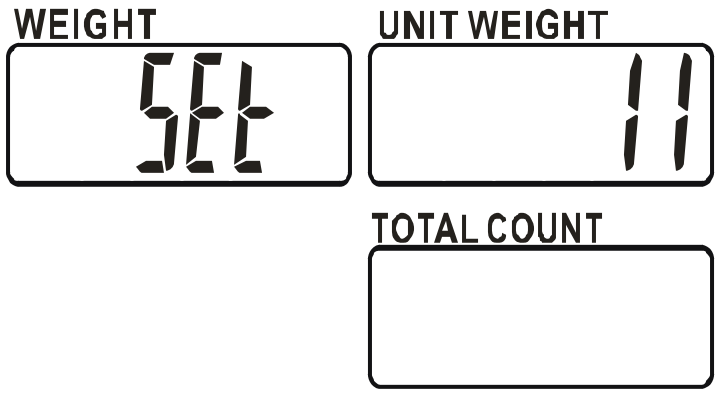
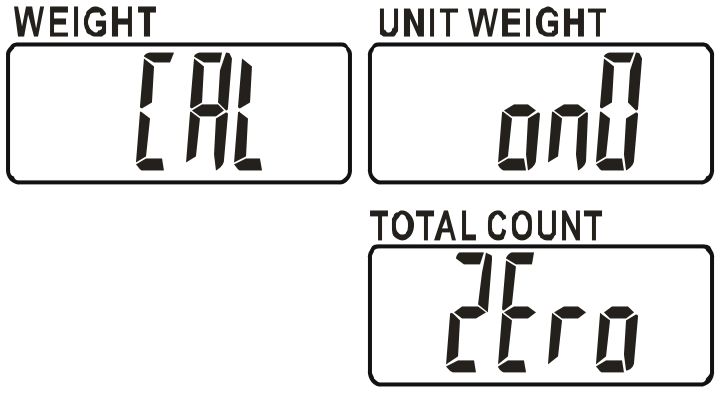
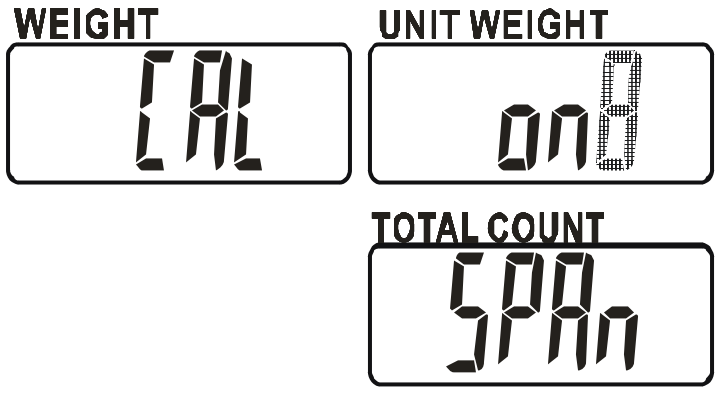
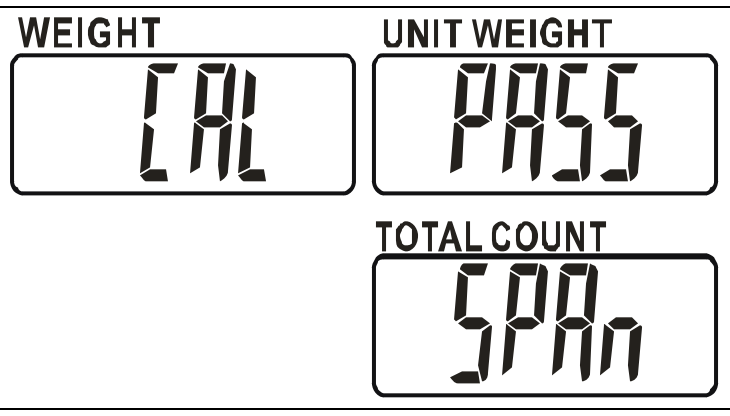
- waiting

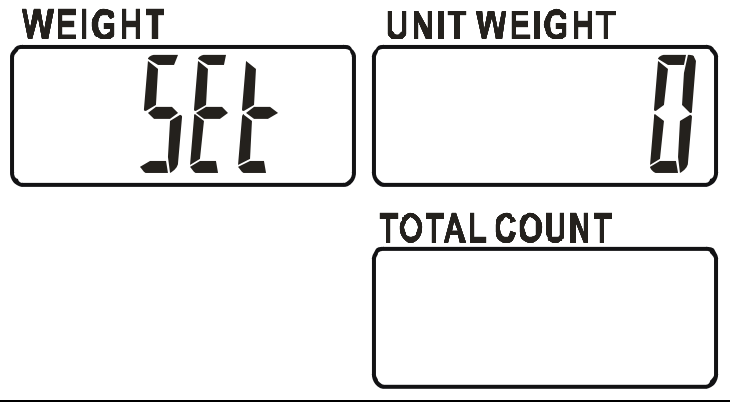


● place 4/6 of load on，press TARE，to perform 4/6 load calibration	
● waiting	WEIGHT [AL UNIT WEIGHT L inE TOTAL COUNT on5
● place 5/6 of load on，press TARE，to perform 5/6 load calibration	
● waiting	WEIGHT [AL UNIT WEIGHT L inE TOTAL COUNT on6
● place full load on，press TARE，to perform full load calibration	
● waiting	WEIGHT [AL UNIT WEIGHT L inE TOTAL COUNT PASS
● press TARE to return normal weighing mode	

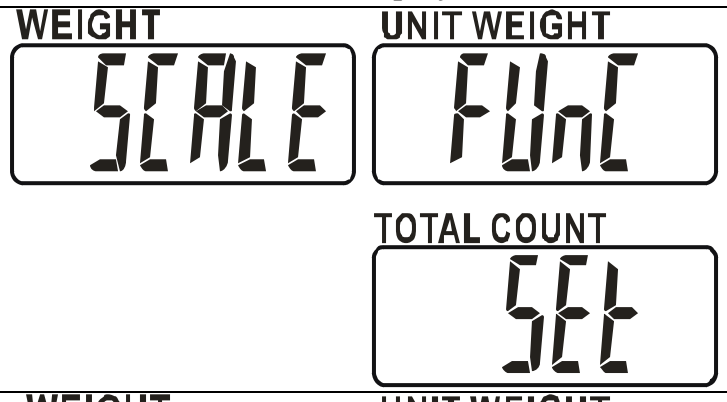
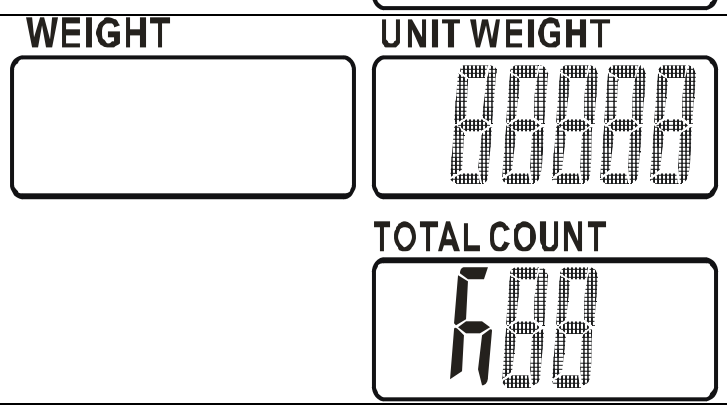
10.2 single point calibration：--

operation	LCD display
● press SMPL to switch on the machine	WEIGHT SEt UNIT WEIGHT 0 TOTAL COUNT

• press 1 1	
• press SMPL, enter zero point calibration	
• place weights of equivalent weight • place 1/6 load on and press 1 • place 2/6 load on and press 2 • place 3/6 load on and press 3 • place 4/6 load on and press 4 • The rest can be deduced accordingly to full load.	
• waiting	

• press SMPL **P19**	
• press ZERO : back to normal weighing mode	

11、COUNT DISPLAY，testing：---

operation	LCD display
● press ZERO to switch on the machine	
● press ZERO ● then press Other, display total weight	
● press ZERO：back to normal weighing mode	

12、ERROR MESSAGE:---

message	problem	
Err2	Initial zero point over ＋/-20%	
Err5	Over load（max capacity +9e）	
ACC.ov	Times of accumulation over 10 times	
over	Display value over range	
Battery symbol	Low battery	
LOBAT	low voltage	

13、trouble shooting：---

when	Error message	Trouble shooting
Power on	Err2,	Check and remove the object from weighing pan or malfunction of LOAD CELL
Power on	Battery symbol appear	Charge the battery
Normal weighing mode	Err5	Check if weighing object over the capacity +9e,Err
Normal weighing mode	LOBAT	Plug in the AC power and switch on the machine

14、specifications：---

(triple range resolution type)

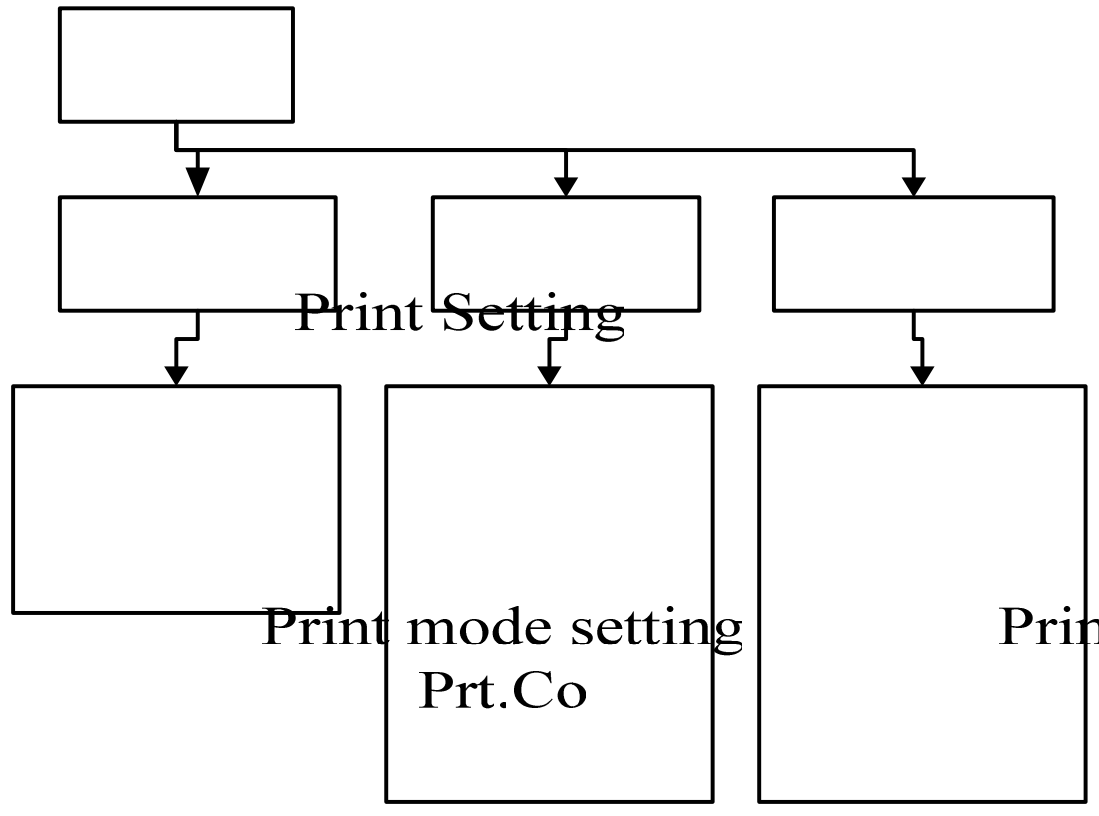
產品型號：	30			75			150			300		
Max. Cap：kg	0~6kg	6~15kg	15~30kg	0~15kg	15~30kg	30~75kg	0~30kg	30~75kg	75~150kg	0~75kg	75~150kg	150~300kg
Resolution：kg	0.001kg	0.002kg	0.005kg	0.002kg	0.005kg	0.01kg	0.005kg	0.01kg	0.02kg	0.01kg	0.02kg	0.05kg
Resolution：g	1g	2g	5g	2g	5g	10g	5g	10g	20g	10g	20g	50g
Resolution：oz	0.05oz			0.1oz			0.2oz			0.5oz		
Resolution：lb	0.002lb			0.005lb			0.01lb			0.02lb		
Linearity：	±2d			±2d			±2d			±2d		
Repeatability：	0.001kg	0.002kg	0.005kg	0.002kg	0.005kg	0.01kg	0.005kg	0.01kg	0.02kg	0.01kg	0.02kg	0.05kg
Internal resolution：	0.1g			0.2g			0.5g			1		
LCD：	LCD Display　LED backlight　5 1/2、5、5 Digits。 With 22mm digits											
adaptor：	DC12V 300mA Adaptor、6V4A rechargeable battery											

resolution	1/7,500　1/6,000				
Key size：	numbers	RSMPL	ZERO	Unit weight memory	UWS
	Check-weighing	sample	Unit weight warning	print	TARE
	RETURN	CE	decimal	M＋	MR
	MC				
Weighing units：	kg / g / lb / oz				
Unit weight units：	g / g / lb / oz				
Protect device：	yes				
function	Check-weighing, counting,　quantities accumulation（10times）,weighing accumulation（10times） Pre-tare、linearity calibration,（six point　1/6 max、2/6 max、3/6 max、4/6 max、5/6 max、max） Soft-ware filtering, units conversion, printing setting, resample, auto average, unit weight memory				
temperature：	0˚c~40˚c				
RS-232：	Bi-direction and dual-direction, could connect　SH-24、TDP-643 printer				
RELAY	HI、 LO 、OK RELAY output module				

(1/15000 type)

mode：	30	75	150	300
Max. Cap：　kg	30kg	75kg	150kg	300kg
Resolution：kg	0.002kg	0.005kg	0.01kg	0.02kg
Resolution：g	2g	5g	10g	20g
Resolution：　oz	0.05oz	0.1oz	0.2oz	0.5oz
Resolution：　lb	0.002lb	0.005lb	0.01lb	0.02lb
Linearity：	±2d	±2d	±2d	±2d
Repeatability：	2g	5g	10g	20g
Internal resolution：	0.1g	0.2g	0.5g	1
LCD：	LCD Display　LED backlight　5 1/2、5、5 Digits。 With 22mm digits			
adaptor：	DC12V 300mA Adaptor、6V4A　rechargeable battery			
resolution	1/30,000			
Key size：	numbers　RSMPL　ZERO　Unit weight memory　UWS Check-weighing　sample　Unit weight warning　print　TARE RETURN　CE　decimal　M＋　MR MC			
Weighing units：	kg / g / lb / oz			
Unit weight units：	g / g / lb / oz			
Protect device：	yes			
function	Check-weighing, counting,　quantities accumulation（10times）,weighing accumulation（10times） Pre-tare、linearity calibration,（six point　1/6 max、2/6 max、3/6 max、4/6 max、5/6 max、max） Soft-ware filtering, units conversion, printing setting, resample, auto average, unit weight memory			
temperature：	0˚c~40˚c			
RS-232：	Bi-direction and dual-direction, could connect　SH-24、TDP-643 printer			
RELAY	HI、 LO 、OK RELAY output module			

15、RS-232 output format：---



The 9PIN interface in the right back is the standard interface of RS-232, 3rd PIN is output, 5th PIN is grounded，the rest is useless.

BAUD RATE：9600 bps　DATA BIT：8　PARITY BIT：N〔NONE〕　STOP BIT：1　CODE：ASCII

BIT FORMAT：

Printing content

Example

G..W.: 1.000 kg
U.W.: 0.050 g/Pcs
Count: 20000 Pcs

Printing content

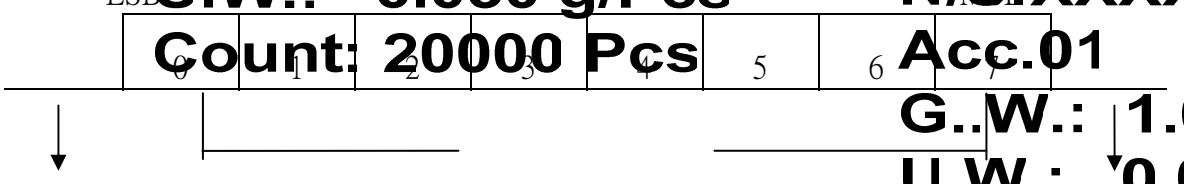
Example

HACXXXX
N/S:XXXXXX
Acc.01
G..W.: 1.000 XX
U.W.: 0.050 XX/ Pcs
Count: 20000 Pcs
Acc.ALL01
Count: 20000 Pcs

Prin

Example

HACX
N/S:XX
Acc.01
G..W.:
U.W.:
Pcs
Count:
Acc.Al
Count:



DATA FORMAT：(Prt.Co)

G/N	●	W	●	:	+/-								k	g	CR	LF			
U	●	W	●	:									g	/	P	c	s	CR	LF
C	o	u	n	t	:							P	c	s	CR	LF			

範例
G..W.: 1.000 kg
U.W.: 0.050 g/Pcs
Count: 20000 Pcs

DATA FORMAT：(Prt.Co)

G/N	●	W	●	:	+/-									g	CR	LF			
U	●	W	●	:										g	/	P	c	s	CR	LF
C	o	u	n	t	:								P	c	s	CR	LF			

範例
G..W.: 1.000 g
U.W.: 0.050 g/Pcs
Count: 20000 Pcs

DATA FORMAT：(Prt.Co)

G/N	●	W	●	:	+/-									l	b	CR	LF			
U	●	W	●	:										l	b	/	P	c	s	CR	LF
C	o	u	n	t	:								P	c	s	CR	LF			

範例
G..W.: 1.000 lb
U.W.: 0.050 lb/Pcs
Count: 20000 Pcs

DATA FORMAT：(Prt.Co)

G/N	●	W	●	:	+/-									o	z	CR	LF				
U	●	W	●	:										o	z	/	P	c	s	CR	LF
C	o	u	n	t	:									P	c	s	CR	LF			

範例

G..W.: 1.000 oz
U.W.: 0.050 oz/Pcs
Count: 20000 Pcs

DATA FORMAT：(Prt.St Prt.Pr)

A	c	c	●	X	X																
G/N	●	W	●	:	+/-									X	X	CR	LF				
U	●	W	●	:										X	X	/	P	c	s	CR	LF
C	o	u	n	t	:									P	c	s	CR	LF			
A	c	c	●	A	I	I	X	X													
C	o	u	n	t	:									P	c	s	CR	LF			

範例

HACXXXX
N/S:XXXXXX
Acc.01
G..W.: 1.000 XX
U.W.: 0.050 XX/Pcs
Count: 20000 Pcs
Acc.ALL01
Count: 20000 Pcs