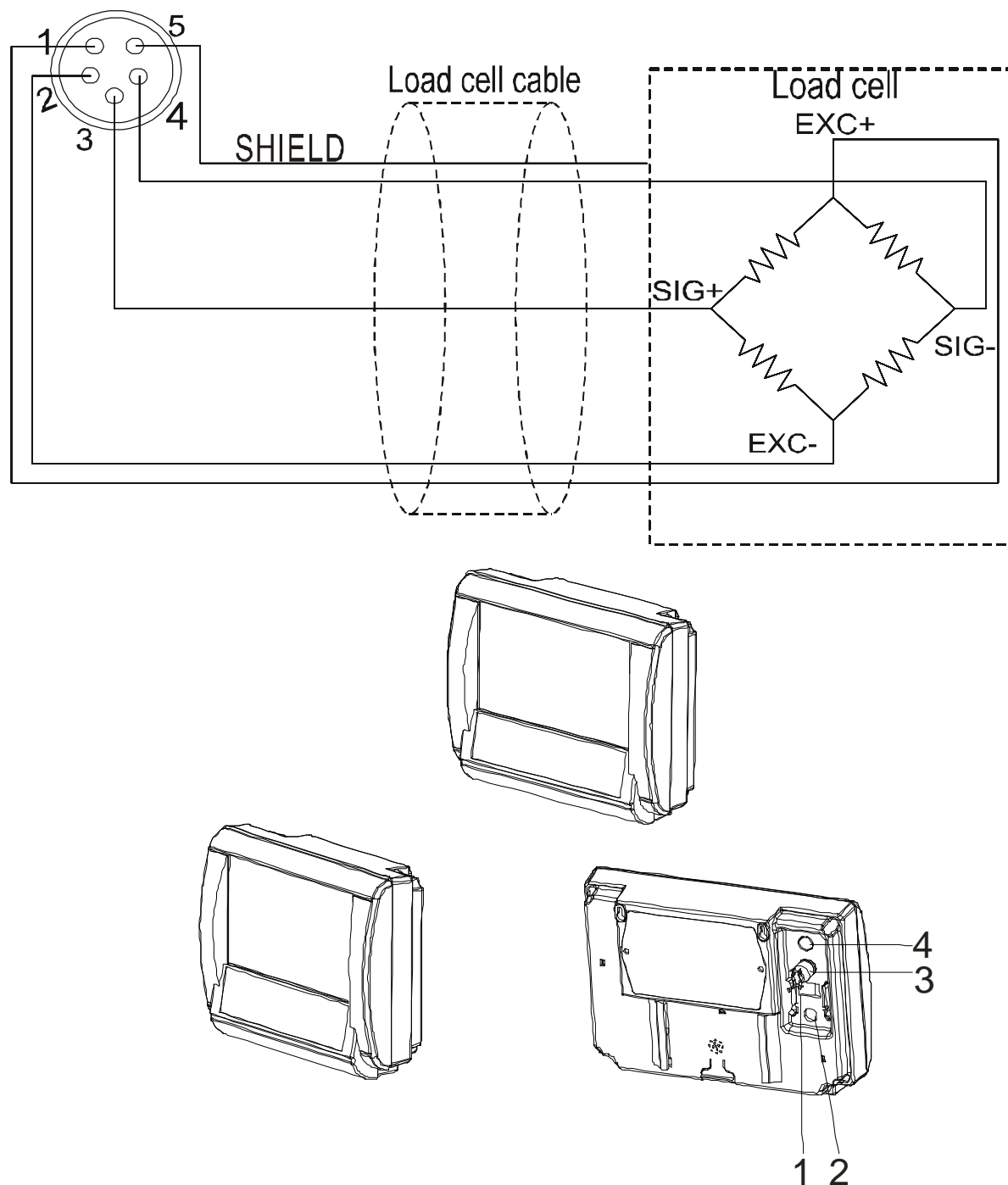


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1、 INTRODUCTION: ---

Thank 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 DRAWING: ---



3、 INSTALLATION: ---

- I 【1】 power switch
- I 【2】 DC power socket
- I 【3】 LOADCELL interface
- I 【4】 RS-232 standard 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 cord to charge the battery. The indicator of charge will light up in red. When it becomes green means charge completed(it takes about 8 hours 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.

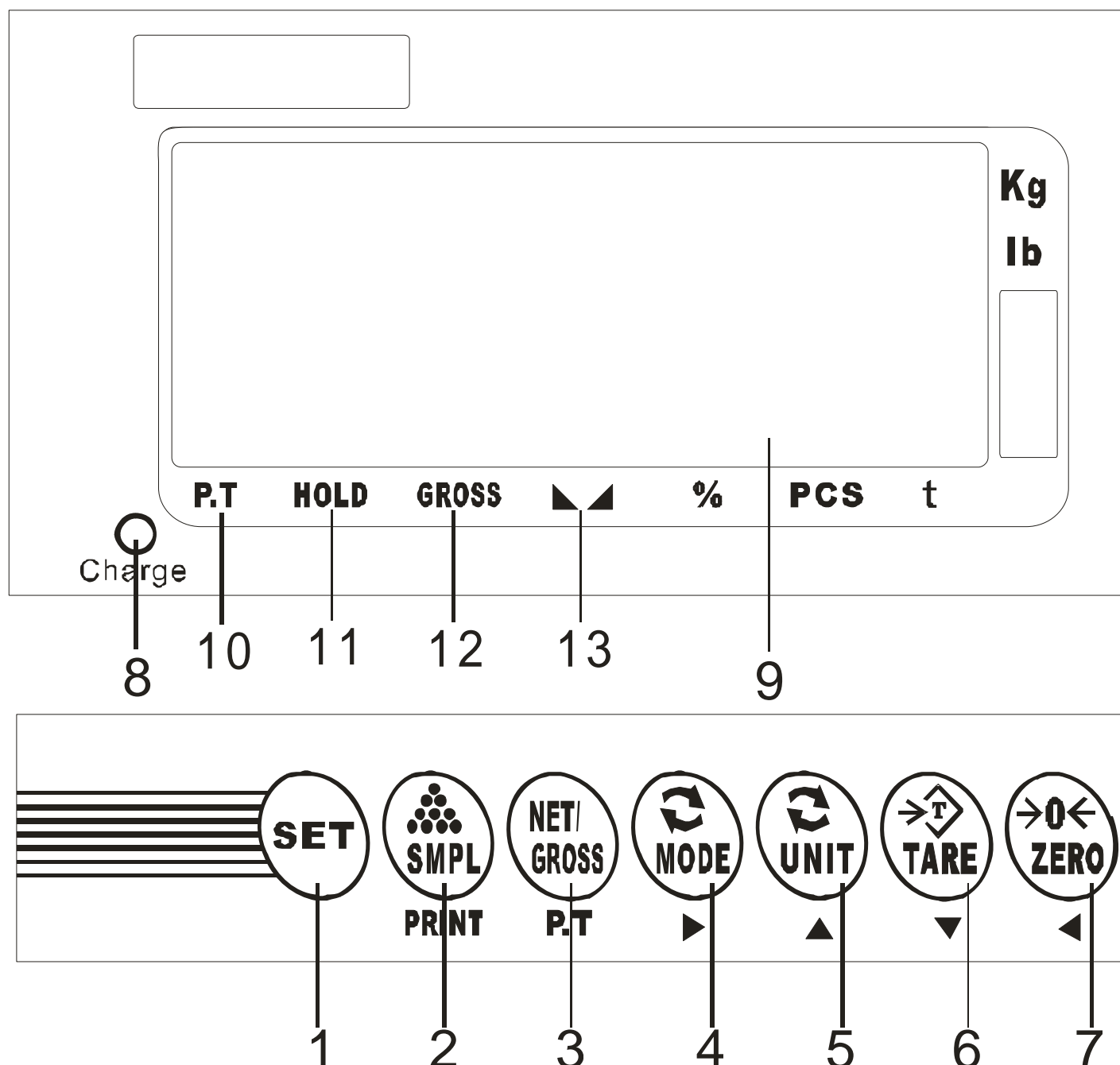
5、FEATURES: ---












1. the microprocessor in this scale features:
 - A. automatic zero point tracking function
 - B. pre-tare and tare function
 - C. max accumulation (10 sets)
 - D. accumulation value print
 - E. total accumulation print
 - F. backlight auto on
 - G. RS-232 output (optional)
 - H. Can connect with printer (optional)
2. LCD display, with 45mm digits
3. With backlight
4. ABS housing; stainless pan


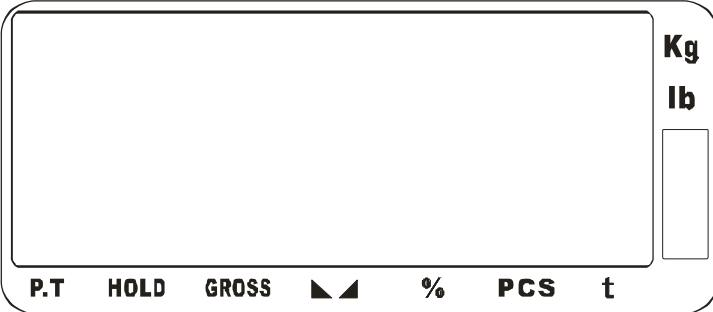

6、AVAILABLE UNITS: ---

1. 1 kg = 1000g
2. 1 t = 1000kg
3. 1 lb = 453.59237g
4. 1 tlt = 0.5999992kg
5. 1 tlh = 0.60479kg
6. PCS
7. %

















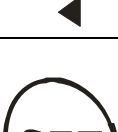












7、PANEL AND KEYPAD DEFINITION : ---






KEYPAD ILLUMINATE					
1		Print or pre-tare switch	5		Units switch (in pre-tare and calibration mode, press this key to add one digit)
2		In the counting mode, put samples onto the pan and input the sample quantity and press this key	6		Do tare while there are objects on pan(when there are no objects on pan, press    to load pre-tare value and  to do pre-tare(press this key can reduce the figure)
3		Net/gross weight switch	7		Back to zero mode. (in pre-tare or calibration mode, press this key make cursor move to left figure)
4		For % and pcs switch (in calibration mode, press this key to eliminate a figure)			

PANEL ILLUMINATE					
8	 Charge	Recharge instruction			
9					Weight display
10	P.T	Pre-tare	11	HOLD	HOLD function in using
12	GROSS	Gross weight	13		Stable symbol





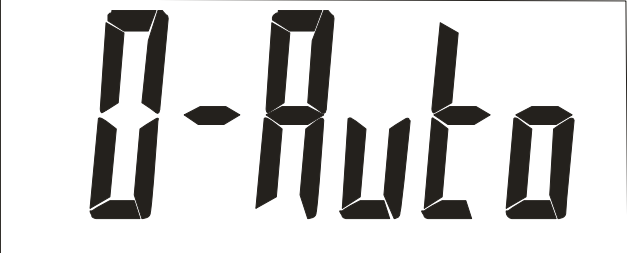
7、 1 Function setting

	KEYPAD	DEFINITION
		Parameter setting
ON/OFF +	 ▶	
	 	Keypad testing
ON/OFF +	◀ +  + 	
	  	Internal Count (OFFSET) value display
ON/OFF +	◀ +  +  + 	
	   	Normal weighing mode
ON/OFF +	◀ +  +  +  + 	
	 	Single point calibration
ON/OFF +	 +  	
	 	Capacity and resolution setting
ON/OFF +	 +  ▶	





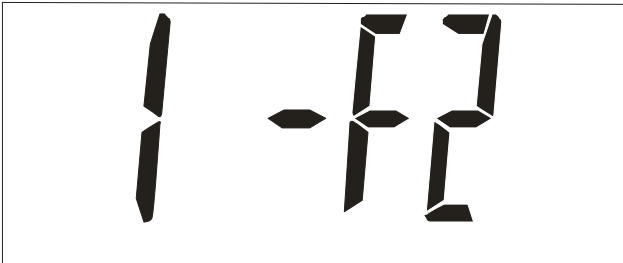
7、 2 Parameter setting(lineation words are initial setting)

OPERATION	LCD DISPLAY
 press  to switch on the machine:	





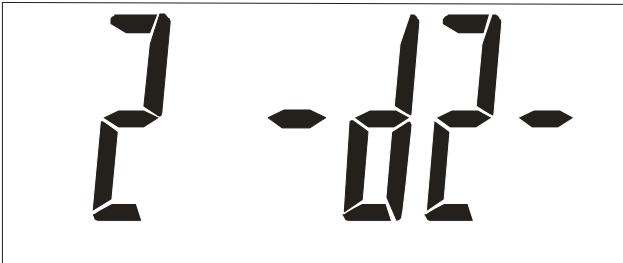
Backlight setting

 press  to enter backlight setting  press  to set in turn I 「Auto- the backlight will on when there is weight on it; oFF- means the backlight is turn down; ON- the backlight is always be light;」	
---	---



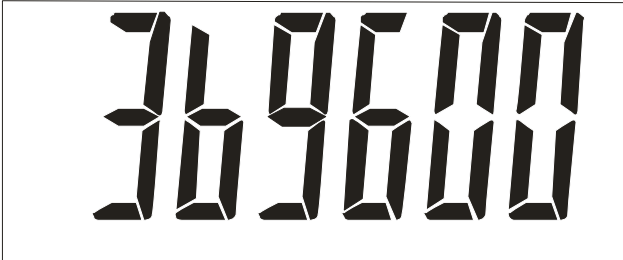
Filter setting

 press  to enter filter setting  press  to set in turn 『F1、 <u>F2</u> 、F4、F8』 (higher value, higher filter grade)	
---	---


Zero band setting


 press  to enter into zero band setting  press  to set in turn 『d0、d1、 <u>d2</u> 、d3、d4』 (higher value, bigger range of zero band)	
---	--


Band rate setting


 press  to enter into zero band setting. I zero band: 9600	
---	---

Hold time setting




 press  to enter into HOLD time setting

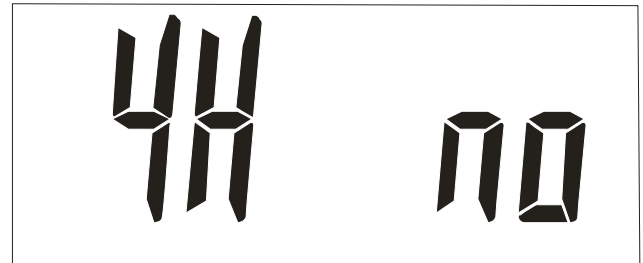


 press  to set in turn

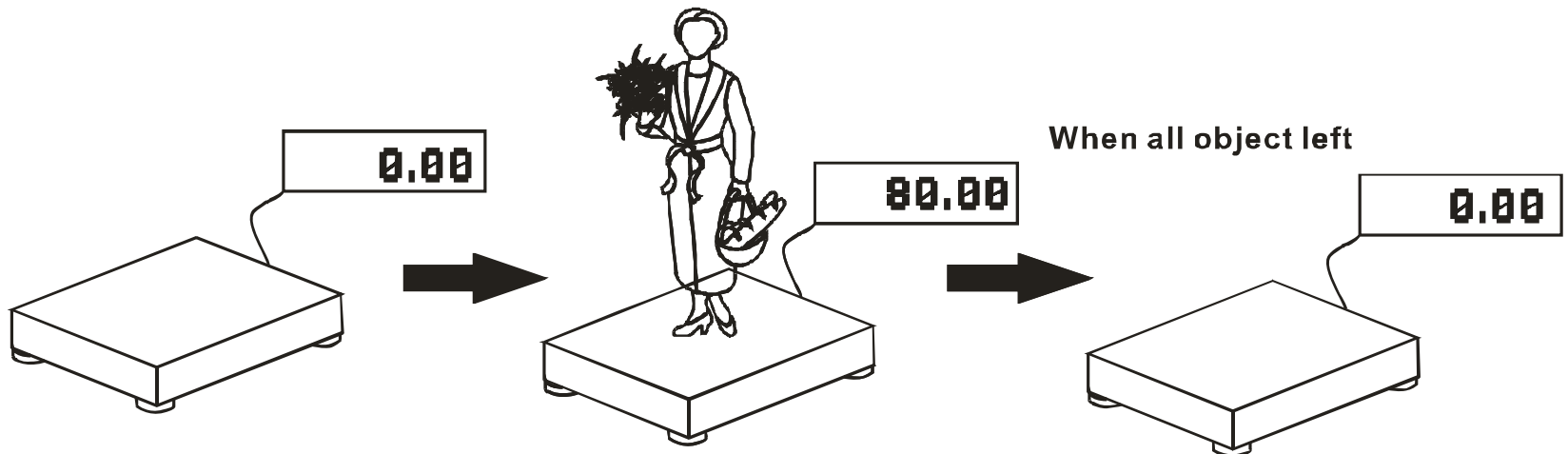
1 co5 (continuously hold for 5 seconds) /co10 (continuously hold for 10 seconds) /5 (hold for 5 seconds) /10 (hold for 10 seconds) /HO (manual) /No (hold closed)

- hold: when display reaches stability, the display value will hold until the time set ends; used for animal scale, such as human being or animal 's weight testing.
- continuously hold : when display reaches stability, the display value will hold until the time set ends; if the time set doesn't end, and there is a new weight greater than before, then the greater value will be held. Used for animal scale, such as human being or animal' weight changing curve.
- manual: when display reaches stability, the display value will be held until press  to cancel. Used for animal scales, such as human being or animal's weight testing

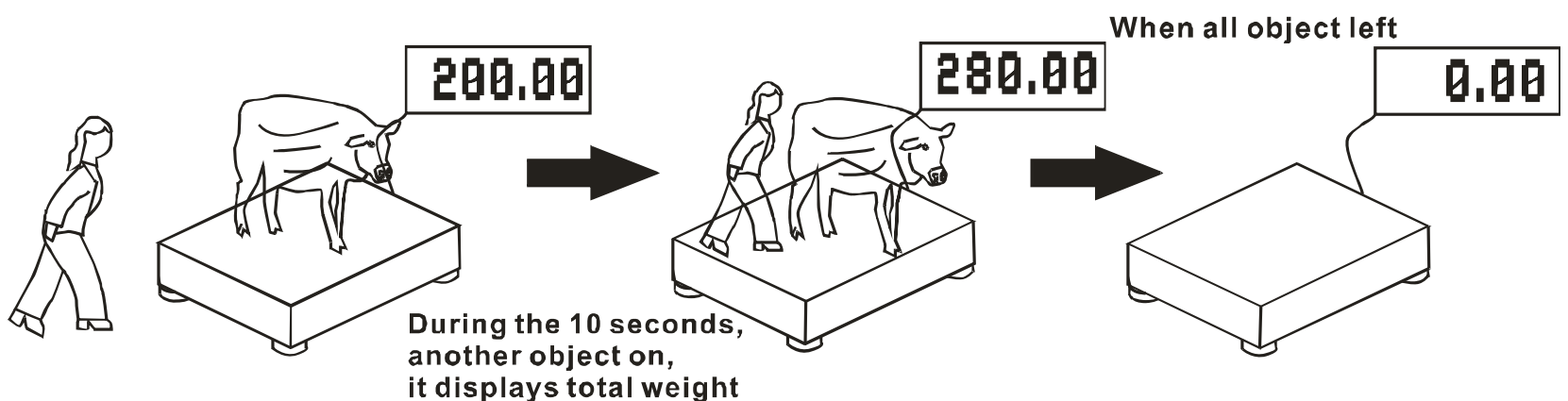
4、 units switch can't be used while in HOLD mode.







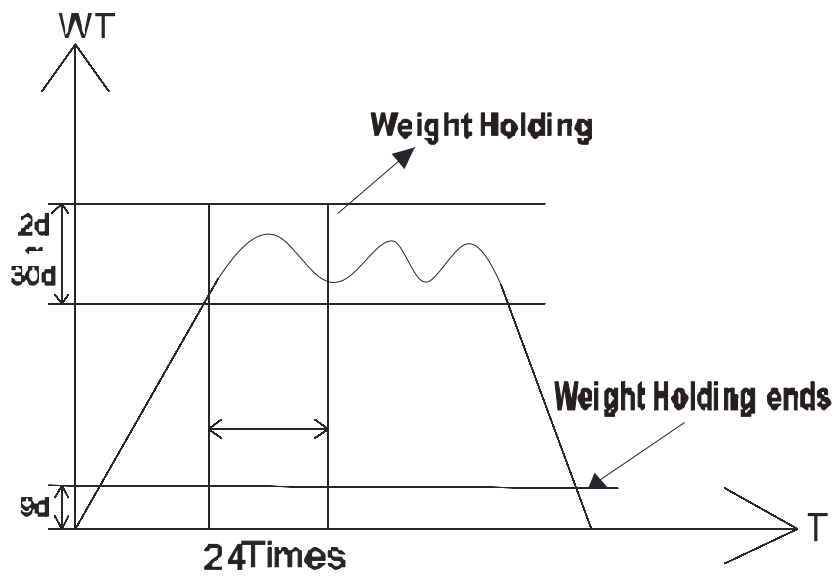
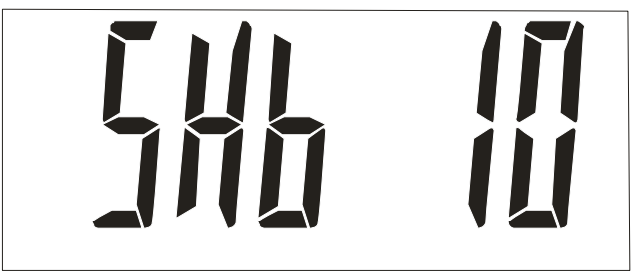
For example: When choose "hold for 5 seconds", Then the weight holds for 5 seconds







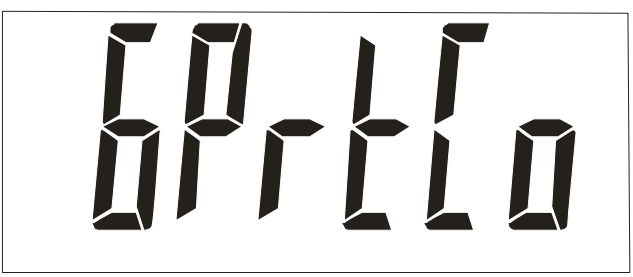
For example: When choose CO10"continuously hold for 5 seconds", Then the weight continuously hold 10 seconds.







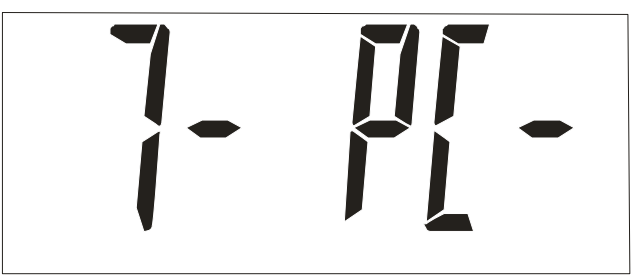
Weight hold setting

<p>  press  to enter into weight hold setting mode </p> <p>  press  to set in turn </p> <p> I 2/5/10/20/30/50 (bigger value, bigger range of hold) e.g.:SHb=30 </p> 	
--	---





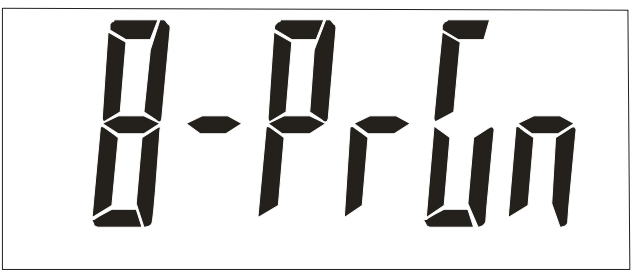
RS232 output format setting

<p>  press  to enter into print format setting </p> <p>  press  to set in turn </p> <p> [PrtCo- once you choose this mode it'll print continuously, PrtSt - once you choose this mode, it'll print when the display is stable., Prt Pr- only press PRINT key can do print] </p>	
--	---








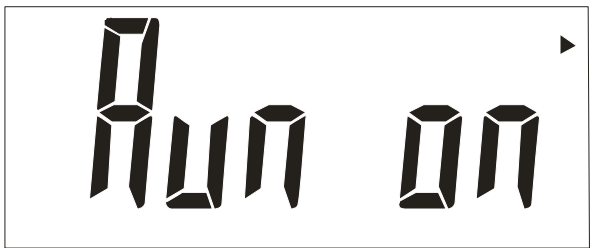
External device setting

<p>  press  to enter external device setting </p> <p>  Press  to set in turn </p> <p> I [PC-- connect to computer, SH-- connect to matrix printer, TDP-- connect to thermal printer, SCR--connect to large screen] </p>	
--	---








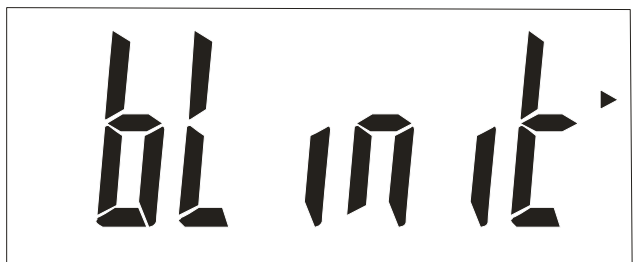
RS232 output content setting

<p>  press  to enter into print content setting </p> <p>  press  to set in turn. </p> <p> I Pr (print) / nP (not print) </p>	
---	---


Available units setting

<p>  press  to enter into units setting </p> <p>  press  to choose 5 units. when the symbol  on LCD </p> <p>  points to one unit, press  to set this unit closed or open. (ON/OFF switch) </p>	
---	--

Initial unit setting

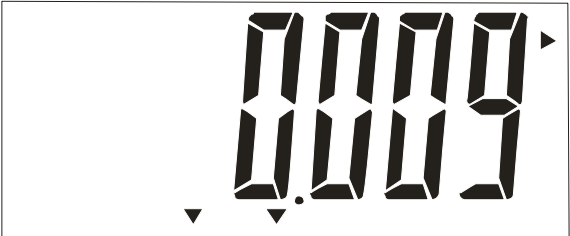


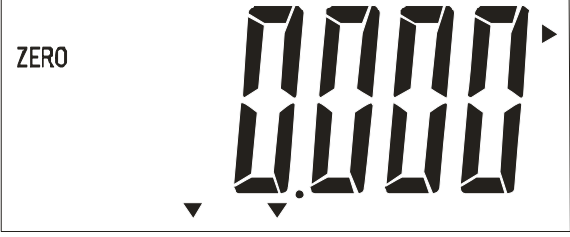
<p>  press  to enter initial unit setting </p> <p>  press  to choose. The unit that  pointed to is the initial unit. </p> <p>  press  to choose other parameter setting </p>	
--	---

Back to normal weighing mode




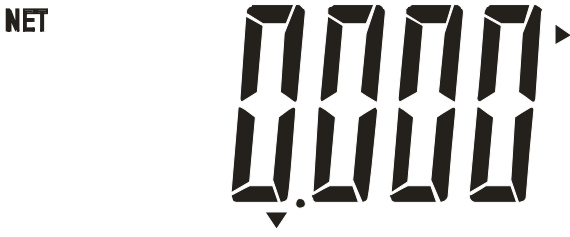
<p>  press  back to normal weighing mode </p>	
--	--

8、 keypad illuminate: ---

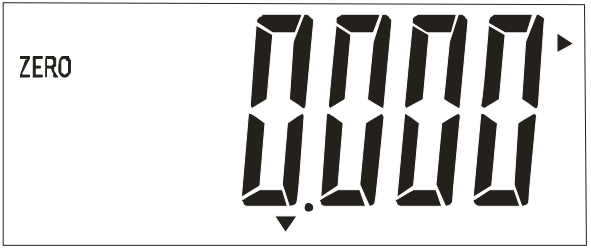

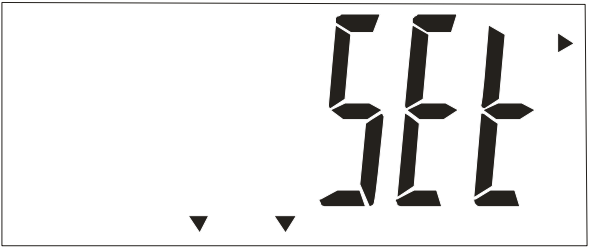

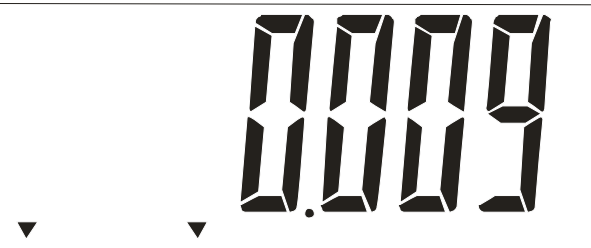



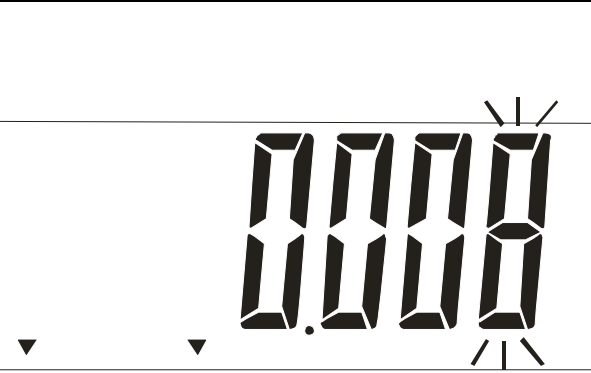

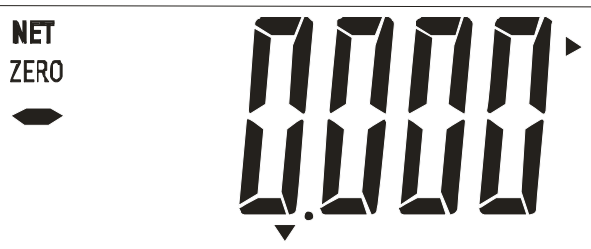
Back to zero

OPERATION	LCD DISPLAY
	
 I press  :	ZERO 



Tare :

	
 I press  : I tare condition: can not work below zero(minus value) nor above maximal capacity	NET 



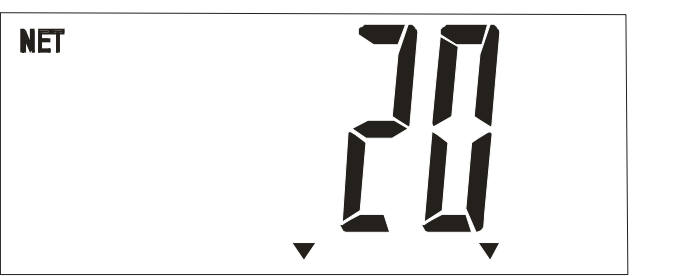
pre-tare

	
<p>press </p>	
<p>And press  P.T to enter pre-tare mode</p>	
<p>press  UNIT (press this key can increase the figure) and  TARE (press this key can reduce the figure) and  ZERO (press this key can make cursor move to left figure), load pre-tare figure in.</p>	
<p>press  P.T :</p> <p>I do pre-tare. (do not conflict with regulations)</p>	
<p>I when conflicts with regulations, do not implement the function</p>	



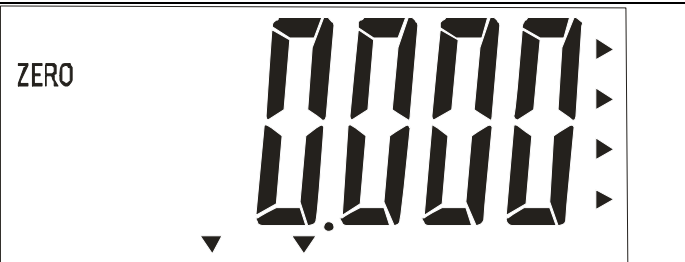
Weighing function switch

<p>I press  MODE for weighing function, pcs and % function switch</p>	
---	---


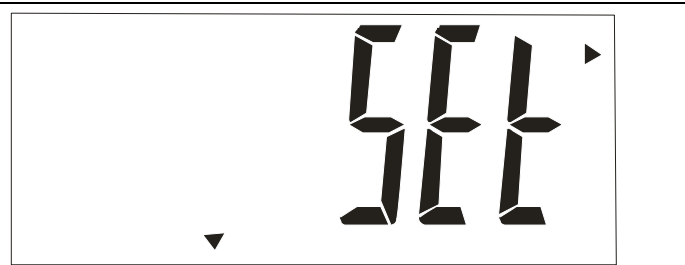

Sample

In pcs or % mode	
 <p>press PRINT to choose sample I 20 / 50 / 100 / 200 / 500 auto-sample while stable</p>	


Units switch

 <p>I in weighing mode, press  to switch units I Kg / ton / lb / tlt/ tlh</p>	
---	--

Print



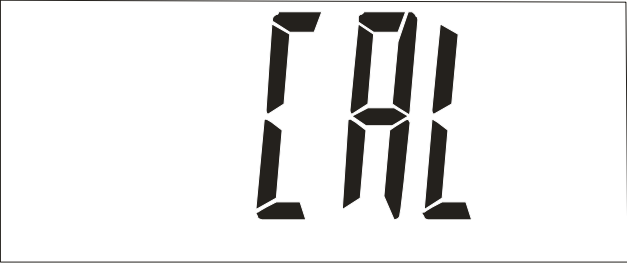

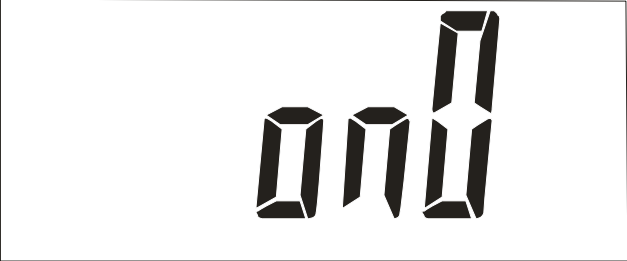
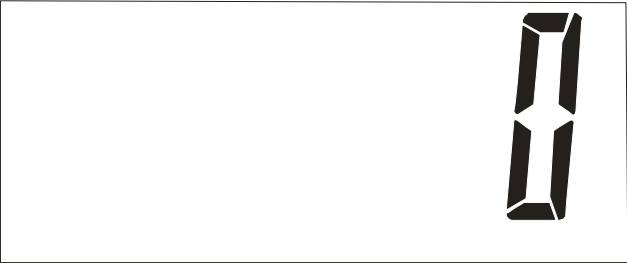










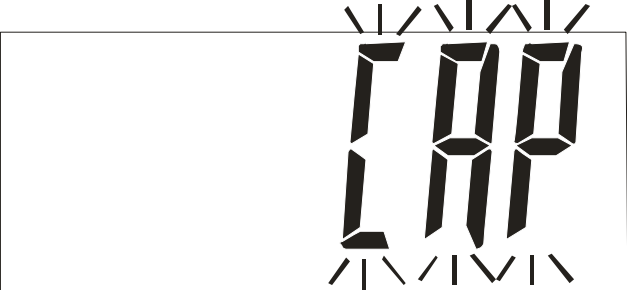
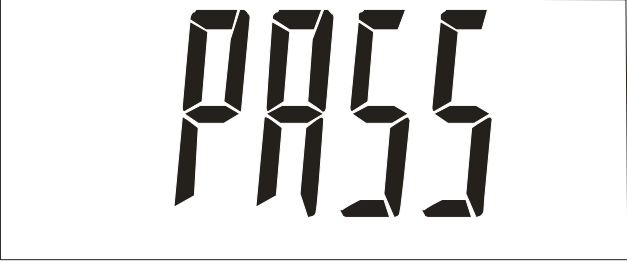

 <p>press</p>	
 <p>press PRINT , RS232 interface outputs display value</p>	

GROSS/NET switch



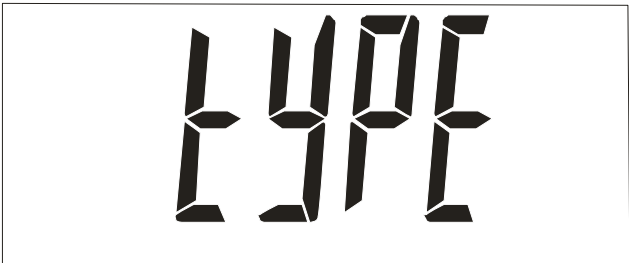




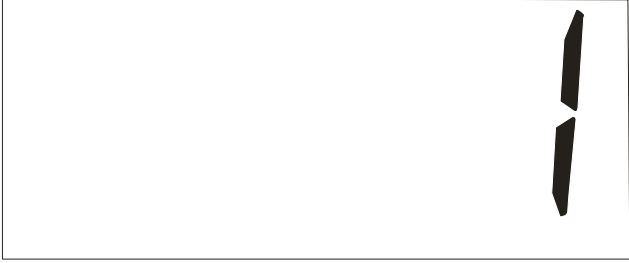

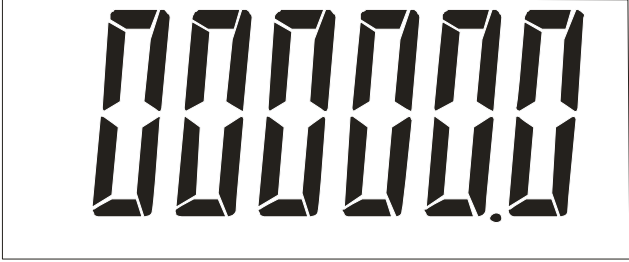


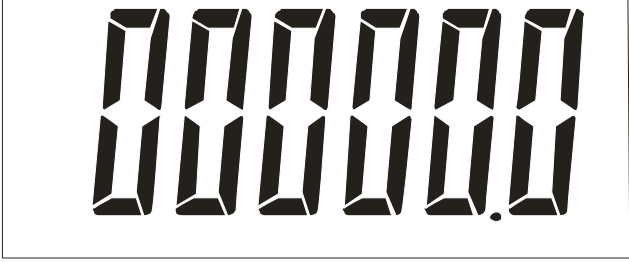

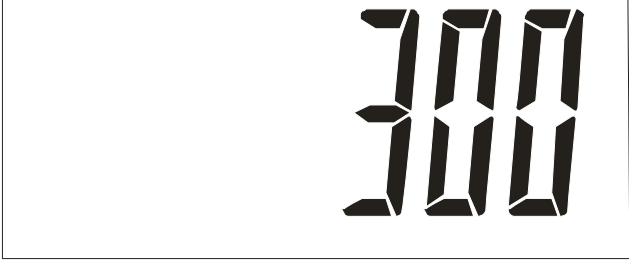


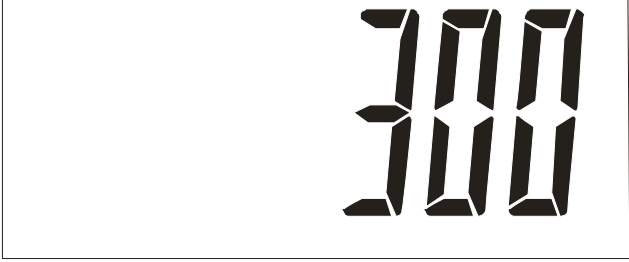


 <p>press P.T to do gross/net weight switch</p>	
---	--

9、 CALIBRATION:




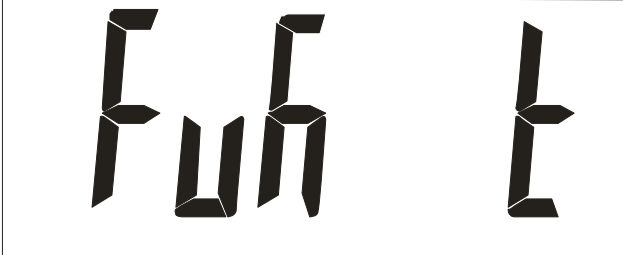

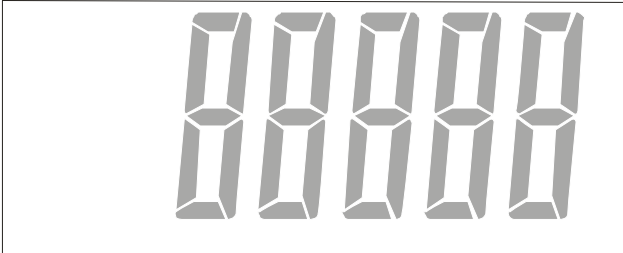

Single point calibration

OPERATION	LCD DISPLAY
<p>I press   PRINT to switch on the machine</p>	
<p>I press </p>	
<p>wait</p>	
<p>I put weights on pan</p> <p>I press   (press this key can increase the figure) and    (press this key can reduce the figure) and   (press this key can eliminate a figure) and  (press this key make cursor move to left figure) to load relevant weight in.</p>	
<p>press  PRINT</p>	
<p>I wait</p>	
<p>I press  back to normal weighing mode</p>	

Capacity and resolution setting(see page 15)

<p>press  and  to switch on the machine</p>	
<p>press </p>	
<p>press   to choose min. division</p> <p>I 1 / 2 / 5 / 10 / 20 / 50</p>	
<p>press </p>	
<p>press   to set decimal point position.</p>	
<p>press </p>	
<p>press   to set max. capacity</p>	
<p>I press  to confirm I back to normal weighing mode</p>	

Internal COUNT value display

 press ◀ to switch on the machine	
 press ◀	
 press ◀ again	
 I press ◀ I back to normal weighing mode	

10、 ERROR MESSAGE:

10.1 error message:

Error message	problem	
Err2	Initial zero over +/-20%	
Err5	Over load (max. capacity +9e)	
Err7	Min. division, decimal point position or max capacity setting wrong	
Battery symbol	Low battery	
LOBAT	Low voltage	

10.2 error message shooting:

When	Error message	Trouble shooting
Switch on	Err2	Check if there is object on the pan or load cell trouble
Switch on	Battery symbol	recharge
Normal weighing operation	Err5	Check if over max capacity+9e,Err
Model setting	Err7	Setting again
Normal weighing operation	LOBAT	Plug in alternating current to switch again

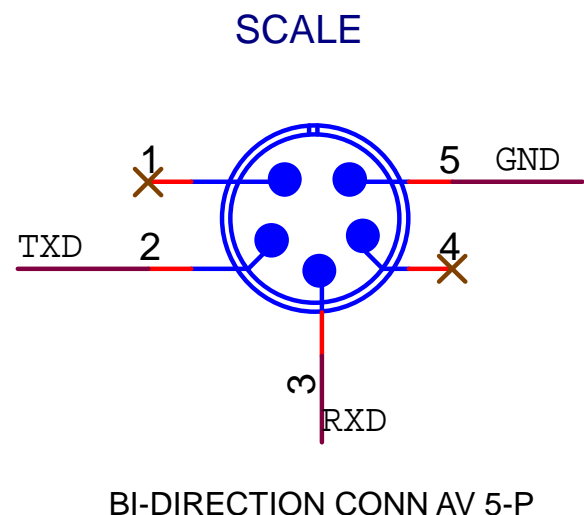
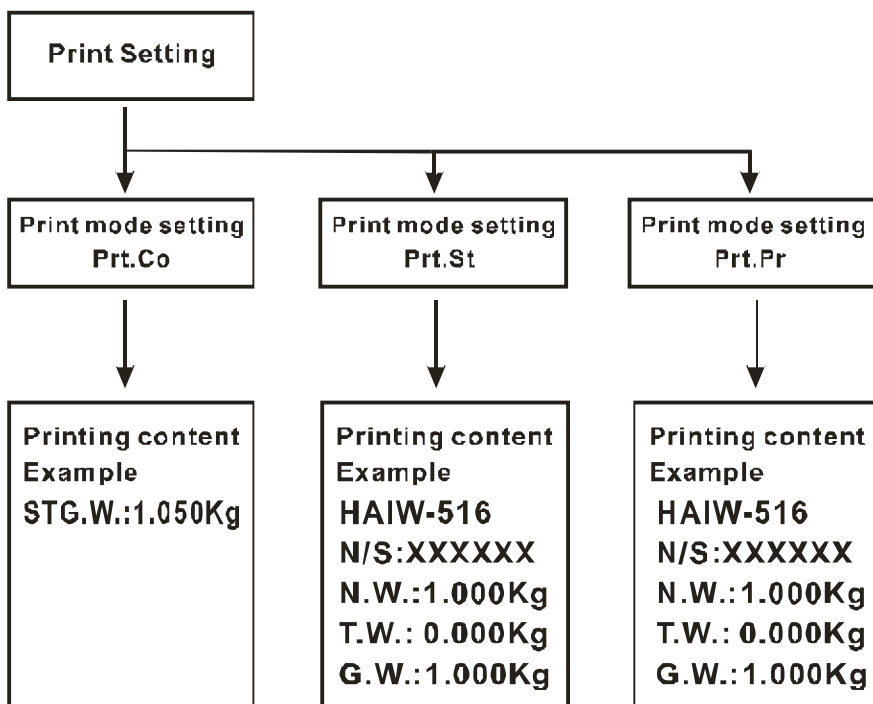
11、 Specification

LCD:	LCD display, with backlight, 6 segments, with 45mm digits
adaptor:	300mA DC12V adaptor、 6V4A rechargeable battery
resolution:	1/15,000
Keypad:	ZERO、 TARE、 UNIT、 MODE、 GROSS / NET、 SAMPLE、 SET
units:	kg , lb ,ton ,tlt, tlh, %, PCS
function:	Gross/new weight switch、 weight hold、 pre-tare、 filter function(4 grades)、 units switch、 print setting、 sample、 auto-average
temperature:	-10℃~40℃
RS-232:	Dual、 can connect with SH-24、 TDP-643 matrix printer or thermal printer, computer, large screen

12. Internal resolution table

Max.capacity	Internal resolution					
	1d	2d	5d	10d	20d	50d
300	1/300					
400	1/400					
500	1/500					
600	1/600	1/300				
800	1/800	1/400				
1,000	1/1000	1/500				
1,200	1/1200	1/600				
1,500	1/1500	1/750	1/300			
2,000	1/2000	1/1000	1/400			
2,500	1/2500	1/1250	1/500			
3,000	1/3000	1/1500	1/600	1/300		
4,000	1/4000	1/2000	1/800	1/400		
5,000	1/5000	1/2500	1/1000	1/500		
6,000	1/6000	1/3000	1/1200	1/600	1/300	
8,000	1/8000	1/4000	1/1600	1/800	1/400	
10,000	1/10000	1/5000	1/2000	1/1000	1/500	
12,000	1/12000	1/6000	1/2400	1/1200	1/600	
15,000	1/15000	1/7500	1/3000	1/1500	1/750	1/300
20,000	1/20000	1/10000	1/4000	1/2000	1/1000	1/400
25,000	1/25000	1/12000	1/5000	1/2500	1/1250	1/500
30,000	1/30000	1/15000	1/6000	1/3000	1/1500	1/600
40,000		1/20000	1/8000	1/4000	1/2000	1/800
50,000		1/25000	1/10000	1/5000	1/2500	1/1000
60,000		1/30000	1/12000	1/6000	1/3000	1/1200
80,000			1/16000	1/8000	1/4000	1/1600
100,000			1/20000	1/10000	1/5000	1/2000
120,000			1/24000	1/12000	1/6000	1/2400
150,000			1/30000	1/15000	1/7500	1/3000
200,000				1/20000	1/10000	1/4000
250,000				1/25000	1/12000	1/5000
300,000				1/30000	1/15000	1/6000
400,000					1/20000	1/8000
500,000					1/25000	1/10000
600,000					1/30000	1/12000
700,000						1/14000
750,000						1/15000

13. RS-232 output format : ---

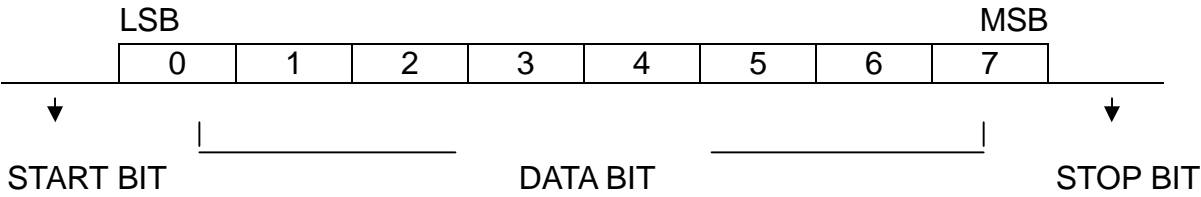


RS-232 serial interface

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(ONE)** STOP BIT: **1** CODE: **ASCII**

BIT FORMAT:



DATA FORMAT: (Prt.Co)

S/U	T	G/N	•	W	•	:	+/-											k	g	LF	CR				
-----	---	-----	---	---	---	---	-----	--	--	--	--	--	--	--	--	--	--	---	---	----	----	--	--	--	--

e.g.

ST G.W.: 1.050 kg

DATA FORMAT: (Prt.Co)

S/U	T	G/N	•	W	•	:	+/-												l	b	LF	CR				
-----	---	-----	---	---	---	---	-----	--	--	--	--	--	--	--	--	--	--	--	---	---	----	----	--	--	--	--

e.g.

ST G.W.: 1.050 lb

DATA FORMAT: (Prt.Co)

S/U	T	G/N	•	W	•	:	+/-												T	-	J	i	n	g	LF	CR
-----	---	-----	---	---	---	---	-----	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---	---	---	----	----

e.g.

ST G.W.: 1.050 T-Jing

DATA FORMAT: (Prt.Co)

S/U	T	G/N	•	W	•	:	+/-												H	-	J	i	n	g	LF	CR
-----	---	-----	---	---	---	---	-----	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---	---	---	----	----

e.g.

ST G.W.: 1.050 H-Jing

DATA FORMAT: (Prt.Co)

S/U	T	G/N	•	W	•	:	+/-												P	C	S	LF	CR			
-----	---	-----	---	---	---	---	-----	--	--	--	--	--	--	--	--	--	--	--	---	---	---	----	----	--	--	--

e.g.

ST G.W.: 1050 PCS

DATA FORMAT: (Prt.Co)

S/U	T	G/N	•	W	•	:	+/-												%	LF	CR				
-----	---	-----	---	---	---	---	-----	--	--	--	--	--	--	--	--	--	--	--	---	----	----	--	--	--	--

e.g.

ST G.W.: 1050 %

DATA FORMAT: (Prt.St Prt.Pr)

N	•	W	•	:	+/-									X	X	X	X	X	X	LF	CR
T	•	W	•	:	+/-									X	X	X	X	X	X	LF	CR
G	•	W	•	:	+/-									X	X	X	X	X	X	LF	CR

e.g.

HAIW-516

N/S:XXXXXX

N.W.: 1.000 XX

T.W.: 0.000 XX

G.W.: 1.000 XX