



BENCH SCALE **KPC**

User Manual



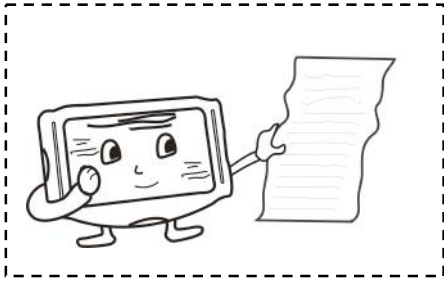
v.201811



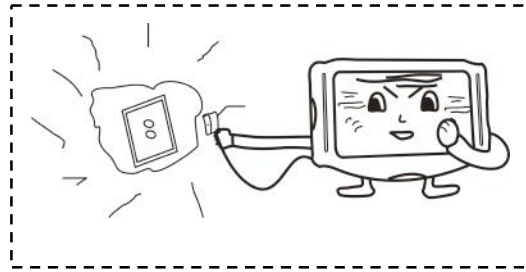
HiWEIGH
Weighing system & solution

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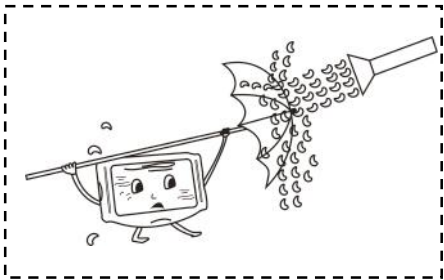
Value Each Gram



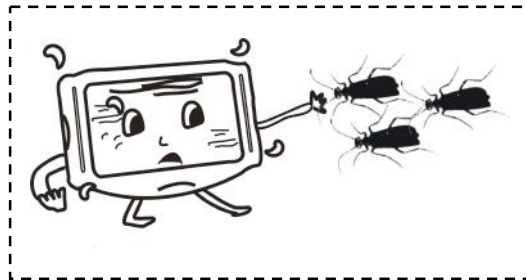
Please read the manual in details before operation



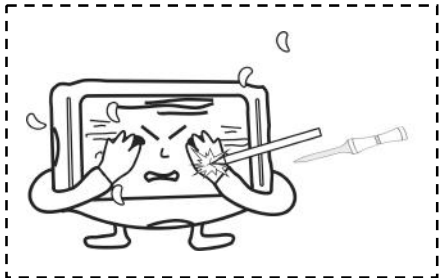
Please use the right plug and right voltage
Be much attention of 110V or 220V!!!



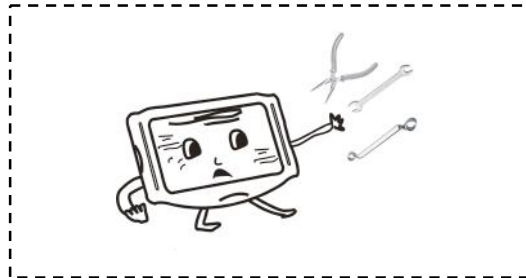
Don't clean the indicator with the
Flush water



Avoiding the insects in for protecting PCB
and other electronic components



Don't touch the keypad with the
Items with sharp end



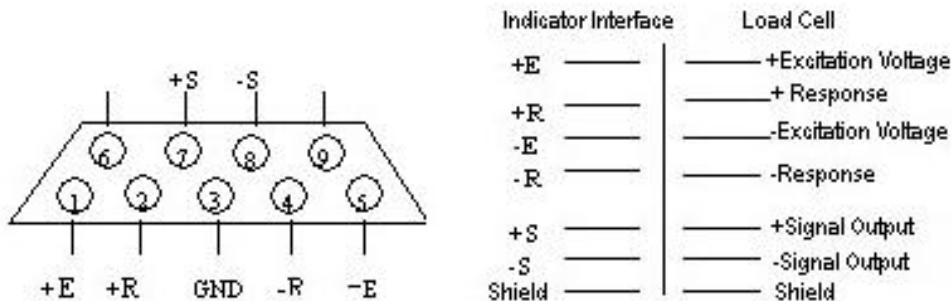
Don't open the indicator by yourself and
please call the service people or our distributor
when you get the problem with it

I. Technical Parameter

- 1.A/D Conversion: $\Sigma-4$
- 2.Input Signal Range: 0-10mv
- 3.A/D Resolution: 1,000,000
- 4.A/D Conversion Speed: 10times/second
- 5.Excitation Voltage: DC5V
- Excitation Current: (4) 350 Ohm load cells or (8) 700 Ohm load cells
- 6.Display: 18 digits LCD 0.8"
- 7.Divisions:
1/2/5/0.1/0.2/0.5/0.01/0.02/0.05/0.001/0.002/0.005/10/20/50/100/200/500
- 8.Serial Output Interface: RS—232 continuous transmitting,
Baud Rate 1200 2400 4800 9600 optional
RS—485 optional
- 9.Printing: RS232 printing output
- 10.A.C Power: AC110/220V (AC/DC built-in battery 6V 4Ah)
- 11.Operating Temperature: 0°C~40°C
- 12.Storage Temperature: -25°C~55°C
- 13.Relative Humidity: $\leq 85\%$ RH
- 14.Exterior Size: 220mm×140mm×130mm
- 15.Weight: Around 2 Kg

II. Connection

1.The load cell adopts D 9-pins socket as follows:



(Note: If using 4-wire shielded cable, short connected +E with +R, and -E with -R.)

2.Communication Connection (D-SUB-9-pins):

3rd pin: TXD (RS-232C continuous transmitting)

5th pin: GND

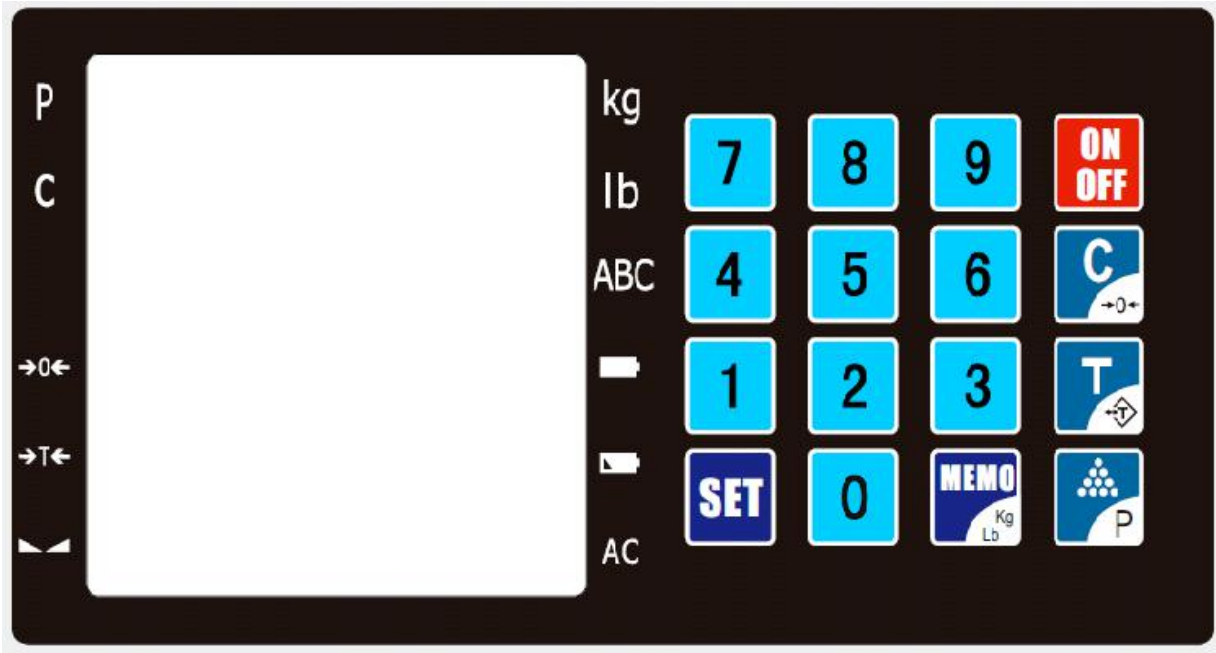
3.Communication Data Format (RS-232C continuous transmitting)

The communication address X = 0 in continuous transmitting and the format is =,X1,X2,X3,X4,X5,X6. The transmitting X1,X2,X3,X4,X5,X6 is displaying data, and " = " is the list separator.

Example: weight: 100.00kg, transmitting: = 00.001 =00.001.

4. RS-485 optional

III. Keypad & Signs



: ON, Keep pressing for OFF



: Clear, Keep pressing for ZERO



: SET, Memory unit set



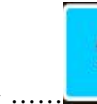
: Memory retrieve, Keep pressing Kg/Lb



: M+(accumulation), printing



: Tare, Keep pressing for preTare set



: digits

Display: The 1st line---weight value
 The 2nd line----unit price or unit weight
 The 3rd line----total amount or quantity

Sign lights:

P---price computing

C---counting function

→0← Zero Point

→T← ---Tare , Net weight

▲ ---Stable

kg--- unit is kg

lb---unit is lb

ABC---Input letters

☐ ---No power

☐ ---Power shortage










AC---AC power supply








IV. Parameter Setting

1. Connecting the load cell well before parameter setting
2. Set parameters as following steps:

(Attention: calibration plug must be pushed on the position ON)



3. Press  P. to confirm and enter next step ◦




Step	Operation	Display	Note
1	Press 	[[UEr10.0]] [[EnSEt]] [[CLoCK]]]]	Switch on and then press  EnSEt Means parameter setting and calibration allowed (CLoCK is plus model with clock)
2		[[000000]] ... [[999999]]	Self-Checking
3	Press 	[[-----]] [[SEt]] [[-----]]	Needs password Input 2003 and press  P to enter parameter setting
		[[1]] [[-d-]] [[1]]	Division chose
4	Press   	[[2]] [[5]] [[0.1]]	0.001-0.002-0.005-10-20-50-100-200-500-0.10-0.20-0.50-1-2 -5-0.1-0.2-0.5-0.01-0.02-0.05 Press C to choose, example of 0.1
5	Press  Press [3] Press [0] Press [0] Press [0]	[[6000]] [[-FS-]] [[6000]] [[3]] [[30]] [[300]] [[3000]]	Full Scale setting Example : 3000
6	Press  Press [1]	[[0]] [[-FLt-]] [[0]] [[1]]	0—2 filtering chose, the value smaller, speed faster, value bigger, the more stable, so choose smaller value if the weighing condition good, if not, choose the big value Example: FLt =1

7	Press  Press [1] Press [1]	<p>[[10]]</p> <p>[[AutP]]</p> <p>[[10]]</p> <p>[[1]]</p> <p>[[11]]</p>	<p>Ones place digit (the 0 of 10) represents the option of automatically power off function or not.</p> <p>Ones place=0:No automatic power off function Ones place=1:Automatic power off</p> <p>Tens place digits (the 1 of 10) represents zero tracking range (1~9):</p> <p>1:0.4 d 2:0.8 d 3:1.2 d 4:1.6 d 5:2 d 6:2.4 d 7:2.8 d 8:3.2d 9:3.6 d</p> <p>Also Tens place represents the zero range upon power on:</p> <p>Tens digit=0 not zero when power on Tens digit>0 zero rang is 20□F-S when power on Eg : AutP=11</p>
8	Press 	<p>[[01]]</p> <p>[[-Adr-]]</p> <p>[[01]]</p>	<p>Communication address chose, serial continuous output format</p> <p>Adr = 00 (weight sending from end, 100.0 = 0.001) Adr=99 (weight sending from beginning, 100.0 =100.0) Adr=98 (Amount/Quantity) Adr=01-97 (serial printing ouput)</p>
9	Press  Press 	<p>[[2400]]</p> <p>[[bAud]]</p> <p>[[2400]]</p> <p>[[4800]]</p>	<p>Baud Rate chose : 2400□4800□9600</p> <p>Eg: b=4800</p>
10	Press 	<p>[[0]]</p> <p>[[P-c]]</p> <p>[[0]]</p>	<p>Mode chose when power on :</p> <p>0--Price computing 1--Counting Eg: 0</p>
11	Press 	<p>[[2]]</p> <p>[[P-Pt]]</p> <p>[[2]]</p>	<p>Decimal point (in total amount window) chose : 0-4</p> <p>0---none 1-4---0.0 0.00 0.000 0.0000 Eg: 2</p>
12	Press 	<p>[[0]]</p>	<p>End of parameter setting</p>

V. Calibration



After parameter setting, you can start to do calibration according to following steps:

Step	Operation	Display	Note
1	Press 	<p>[[-----]]</p> <p>[[SET]]</p> <p>[[-----]]</p>	<p>Needs password, input 8888 and press  Enter calibration mode</p>

2	Press 	[[n LOAd]] [[CAL 0]] [[xxxxxx]]	Zero Calibration xxxxxx : A/D internal code
4	Make sure no object on platform and then press 	[[-----]] [[CAL 0]] [[-----]]	Displays the full scale value after several seconds of finish of zero calibration
3	Put the full scale weight on the platform	[[LOAd]] [[CAL]] [[003000]]	Prepare for full scale calibration (If 60% calibration or other mode, please change the weight value according to the weights you are using)
4	Press 	[[-----]] [[CAL]] [[-----]]	Displays full scale value (or the weight value as you input) after several seconds
5		[[3000]] [[0.00]] [[0.00]]	End of calibration

VI. Normal Operation

(Attention: Calibration plug must be at position of OFF)


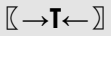
1. **On/OFF:** Switch on and press  to power on the indicator and Press  for 2 seconds more to power off the indicator

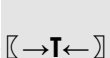

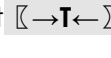
(Another function of ON/OFF: pressing  can abort any present operation to back to weighing mode)

2.Zero: Weight < 2% F.S press  for 2 seconds or more, display ZERO and  light on

3.Tare:

a. Tare: on the state of  light off , weight is above 0 and stable  light on,

press  to tare and the  light on

b. Tare clearance: When the  light on, press  key to clear the tare value and the light  off







c. PreTare: Pressing  for 2 seconds or more it displays "-----" to input the tare value and

then press 

4.Letter Input It can store 4 sentences and 30 letters for each sentence

On the weighing mode, keep pressing **【0】** -- **【3】** key for 2 seconds more to input four sentences by ASCII code, numbers input just with digits keys, example of A7B input with

following steps (ASCII code table refer to appendix at last page)

Step	Operation	Display	Note
1	Pressing [1] for 2 seconds more	[[] [[] [--]	Input start
2	Press [6] [5]	[[] [[] [65]	The ASCII code of A is 65
3	Press 	[[A] [[] [--]	A entered
4	Press [7]	[[A] [[] [7]	
5	Press 	[[A7] [[] [--]	A7 Input
6	Input B according to above steps again	[[A7b] [[] [--]	Press  to backwards and input again
7	Press 	[[A7b] [[] [[]	If letters is more than 12, press  to display all the letters and press  again to back to the input mode, If the letters is more than 30, the first letter will be deleted automatically
8	Keep pressing [1] again for 2 seconds more	[[A7b] [[] [--]	The words/sentence are stored in position of 1 and back to weighing mode

5.Words/Sentence use:

Keep pressing **[0] -- [3]** key to display words/sentence in position of 0-3 and press **[0] -- [3]** key again to quit display and then the words/sentence which pressed just now can be used.

Example: to use the words/sentence on [2], keep pressing [2] to display the words/sentence stored in [2] and press [2] again to choose it and start to use it.

6.Words/sentence printing set:

Keep pressing **[9]** to display PtF mode and input 0-2 and press 

PtF :

0--The present chosen words/sentence printing at head


- 1-- The present chosen words/sentence printing at end
- 2-- The present chosen words/sentence printing at head, the following sentence printing at end (such as words/sentence chosen of [2] now, the words/sentence of [2] will be printed at head and the sentence/words of position [3] will be printed at end.

7. Accumulation operation: When the weight is above 20d and stable, press  key to

accumulate the displayed value, and the first display window display the accumulated weight, and the second display window display the accumulated times and the third window display the total amount accumulated. It will back to normal weighing mode after one second.








It displays the accumulated weight, accumulated times and accumulated quantities in the counting mode

(Note: one weighing operation can do accumulation once time only, next accumulation must be operated when the weight display less than 20d and weigh something again.)

8.Printing: When weight value above 20d and stable, keep press  for twice times, it will accumulate the value and also if the ADR= set with 01-97 (**printing allowed**), it will print the following receipt:

Price computing mode : (PtF=0)	Counting mode : (PtF=2)
A7B (example only)	A7B (example only)
No : 0016	No : 0012
G: 10.00Kg	G: 52.01Kg
T: 3.00Kg	T: 2.01Kg
N: 7.00Kg	N: 50.00Kg
P: 1.23\$	U: 21.322Kg
S: 8.61\$	C: 2345p

9. Accumulation retrieve, printing and clearance:

Press   the 1st line display the accumulated times, 2nd and 3rd line display the accumulated amount or quantities , press  to display the accumulated weight and press  again to back to weighing mode. During it displays the accumulated data, press  can print the accumulated data as following format, and at this time, press  can clear the accumulated data. During it displays the accumulated amount/quantities; press  can back to weighing mode

Example:

The accumulated amount	Accumulated quantity	Accumulated Weight
[[n 123]]	[[n 102]]	[[n 102]]
[[S 2]]	[[C 1]]	[[23]]
[[2301.20]]	[[021389]]	[[0012.85]]

Printing example:

Price computing :

No : 0018

W : 1926.72Kg

S: 2369.87\$



Counting :

NO : 0018

W: 6215.72Kg


C: 891213p


10. Price computing/Counting exchange:


Press  and then keep pressing  for 2 seconds or more can exchange the mode of price computing or counting, the P light means price computing and C light means counting



11. Price computing operation:

a. Unit price input: Input the digits: example of 1.23, input **[1] [2] [3]**, if no input operation for 5 seconds, next input will be taken as the new unit price input. Press

 to clear the unit price

b. Unit price store: Press  +2 digits (01-28, totally 28 memories) can store the present


unit price, **such as the present unit price of 1.23, now press**  and (0) (3), it store in 03 unit price memory;


c. Unit Price retrieve: Press  and memory numbers, such as pressing  and **[0] [3]** to use the 03 Memory unit price



12. Counting operation

a. unit weight input: Put the samples on the platform (the more, the better) and then input

the quantity of samples, and then press  to confirm, such as


123pcs, input **[1] [2] [3]** 

b. Unit weight store: Press  +2 digits (01-28) can store the present unit weight,


c. Unit weight retrieve: Press  and memory numbers, such as pressing  and **[0] [3]** to use the 03 Memory unit price

13. Battery volume: on weighing mode, press   to display battery volume and press

 to back

14. Charging notice: when battery volume < 12% the  light on, please recharge in time

15. Low battery protection:

When the battery is too low and  light on, the beeper will sound di—di---di, please recharge in time to protect the battery.

When the battery is over, the 1st window displays [Lo] and 2nd window displays [bAtt], the indicator will power off automatically

16. Power saving:

When the automatic power off function work, it will display [-]only to save power if 5 minutes no operation

17. Automatic power off:

When the automatic power off function work, it will power off automatically if 30 minutes no operation

18. Working time: it last for 20 hours more with full charge

V. Maintenance and Notices:

1. Do not use the indicator under strong sunlight for protecting the using life of it. Keep it on flat while using.
2. Do not use it in the places full with dust and strong vibration.
3. Do not overload (including the tare weight) (more than full scale is prohibited.).
4. Do not cleanout the case with strong impregnant (such as, benzene, nitric acid oil, etc.)
5. Keep the interior part of indicator away from the water for avoiding the damage to the electrical components and electronic shock to people.
6. Switch off the power when some problem happened while in operation. The user (non-manufacturer of scales) please send the indicator to our company for repair, and it is not allowed to repair at will for avoiding more damage to the indicator.
7. The indicator will charge the battery automatically while the AC power being connected.

VI. Repair Guarantee & Service

The repair guarantee time is 1 year from the selling date of this indicator, and the problem should be happened due to the problem of the indicator itself while in right operation (not due to wrong operation). We supply the service to the indicator for life. (**Battery exclude the repair guarantee**)

Note: The repair guarantee not responsible for all problem of the weighing system while our indicator only act as a part of this system, we only take charge of the problem caused from the indicator itself.

VII. Abnormal Display

- [OUE r] -----weight value > 100 % F.S + 9 d
- [-OUE r] -----weight value negative overflow
- [Err--1] -----weight not stable while calibration
- [Err--2] -----calibration wrong
- [Lo]
- [bAtt] ----battery over, power off automatically

APPENDIX (ASCII CODE)

LETTER	A	B	C	D	E	F	G	H	I
display	<i>A</i>	<i>b</i>	<i>C</i>	<i>d</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>
ASCII	65	66	67	68	69	70	71	72	73
LETTER	J	K	L	M	N	O	P	Q	R
display	<i>J</i>	<i>K</i>	<i>L</i>	<i>M</i>	<i>N</i>	<i>O</i>	<i>P</i>	<i>Q</i>	<i>R</i>
ASCII	74	75	76	77	78	79	80	81	82
LETTER	S	T	U	V	W	X	Y	Z	
display	<i>S</i>	<i>T</i>	<i>U</i>	<i>V</i>	<i>W</i>	<i>X</i>	<i>Y</i>	<i>Z</i>	
ASCII	83	84	85	86	87	88	89	90	
LETTER	()	,	-	.				
display	<i>(</i>	<i>)</i>	<i>,</i>	<i>-</i>	<i>.</i>				
ASCII	40	41	44	45	46				

Number digits can be input by number keys and also can be input by ASCII code 0-9 with ASCII code of 48-57

Value Each Gram



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