Weighing Indicator

Operation Instruction

Model:XK3119WL-II(LCD/LED)

Content

I. INSTRUCTION

XK3119WL-II (LCD/LED) indicator is an enhanced small indicator which consist of advanced microprocessor making it a more reliable, stable, faster weighing speed and easy to operate. With waterproof and insect prevention structure feature. The indicator is best used for industrial platform scales, floor scales and various weighing machineries and equipment.

II. TECHNICAL FEATURES

1. Accuracy class: III

2. Sampling rate:5~40 times/second

3. Max. division: n=15000

4. Load cell supply current:<200mA

5. Load cell input voltage: DC 0Mv~ DC 16mV

6. Load cell min. resolution: 0.1Uv

7. Communication interface: RS232 output & RS232 print-out interface

8. Communication interface: RS485 or bluetooth 2.0 out put (optional)

9. Optical isolation external control output: 3 road , 36v 100mV control switch

10.Time display: year/month/day/ & hrs/mins/second selectable.

11. Supply power: AC/DC 12V 500mA adaptor

DC 6V/1.2Ah rechargeable battery

12. Power dissipation:0.1VA

13. Working temperature: 0℃ ~ 40℃

14. Working humidity: ≤ 95%RH

15.Size: 208x108x78mm

16. Total weight(with rechargeable battery): 1.26kg
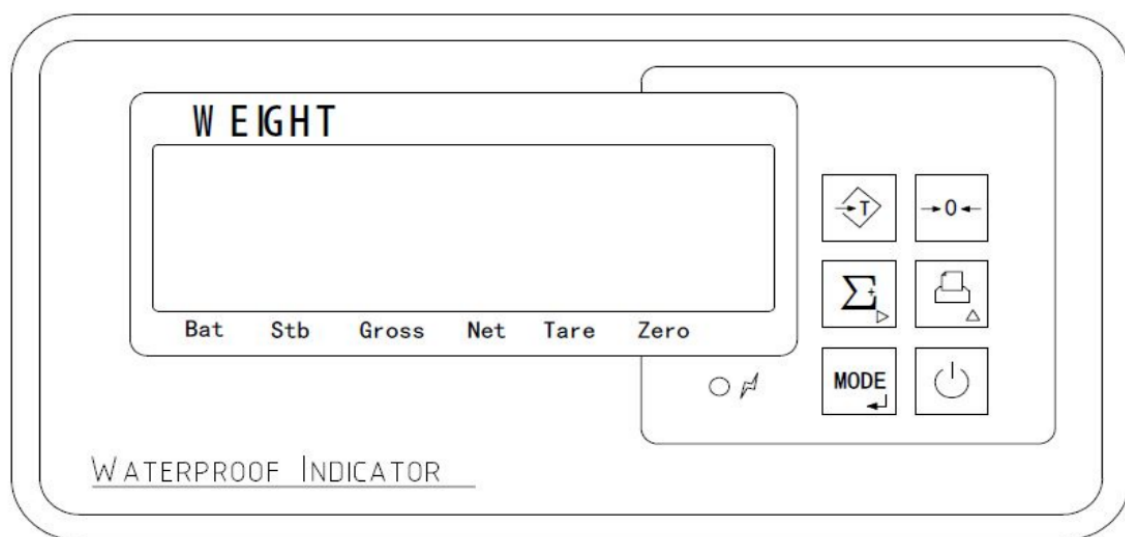
III. MAIN FUNCTIONS

1.Keyboard calibration by hand, capacity will be set automatically.

2.Error message will be shown automatically.

3.Auto power saving mode and auto power off mode.

4.Date and time display setting and multi saving power display.

5.Charging indication and auto-off when voltage is too low.

6.Multiple weighing units: kg, lb, Hl, t, g.

7.Selectable RS232 and RS485 serial port (Bluetooth 2.0, WIFI, 2.45G module selectable).

8.Vibration and shaking filtering mode.

9.Automatic recovery with data restore, strong anti-interference.

10.Able to set decimal position, max. capacity and division.

11.Auto zero tracking, zero error indication and overload warning.

12.Built-in weight alarm setting function.

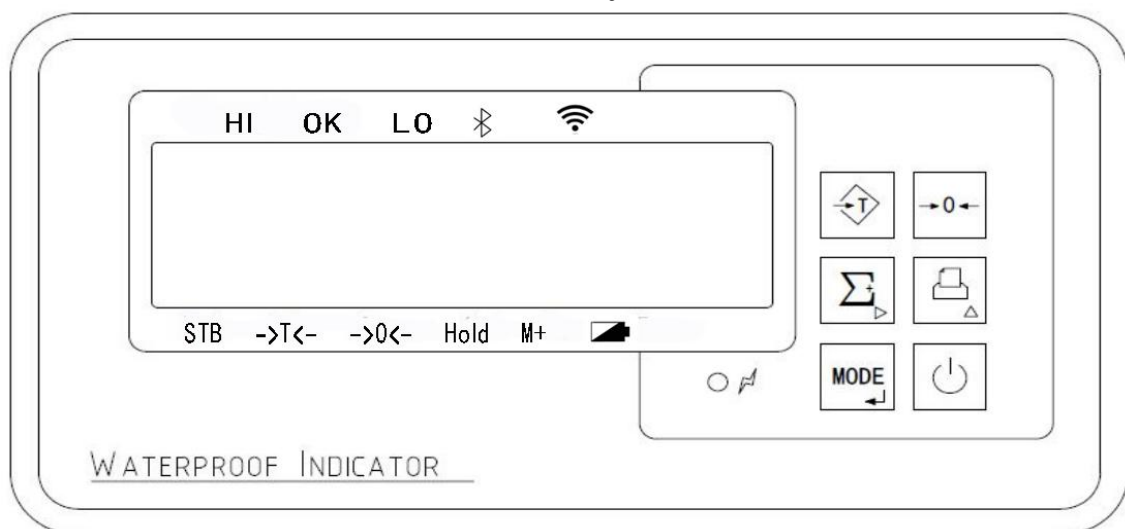13.Display of basic information while turning on the indicator (company name, time, version, power percent ect)
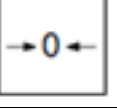
IV. KEYBOARD FUNCTION

Display symbol:

| ⬭	Stable indication	**Kg, lb, t, g**	Weigh units
TR⬯	Tare mode	◖	Gross weight
→**0**←	Zero indication	◗	Net weight
⚡	Charging light	🔋	Low Battery
HOLD	The reading is Freezing with animal weigh function	**HI/OK/LO**	Check weighing indication

LCD indicator Keyboard Panel

LED indicator Keyboard Panel

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|	
⏻	Power ON/OFF switch key. Press and hold the key for 1.5 seconds, it will self-test till weight zero appearance.
◇T	Deduct the container weight. Press this key to deduct the container weight and then display net weight, tare indication light on.
→0←	To re-zero the scale. Range of re-zero is ±2% of full scale.
MODE↵	* Weigh units switch while in weighing mode. Press to choose the desired weight units. * ON/OFF backlight key while in weighing mode (for LCD indicator), press and hold for 1.5 seconds to turn on /off the backlight . * Press to confirm the setting when it is in setting menu or calibration mode.
Σᵢ▷	* Recall the memory of accumulative counts and weights, accumulative counts and weights will display on the screen. Press →0← to clear accumulative weight and time. * Selective key when in setting menu.
🖨	* Press the key to print out the current weight (only allow one time to print out the current weights), accumulative counts and weights will be shown. Note: this function work while connecting printer. * Selective key when in setting menu.

V.BASIC INFORMATION SETTING

Please press and hold MODE↵ and Σᵢ keys together for 3 second until it displays "= = = = = =" then release, the parameter in the table below will display on the screen:

1.Press MODE↵ return back the to weight mode.

2.Press 🖨 enter into basic information setting.

Step	Operation	Screen Display	Remark
01		AV or DC =6.78	Display the current power supply.
02	Press 🖨	Apt 98%	Display current power percent.
03	Press 🖨	AAABBB	AAA = indicator category (000 = normal model, others for customize) BBB = version number, 020= VER2.0 version.
04	Press 🖨	XXXXX	Nameplate (number) high 5 digits.
05	Press 🖨	XXXXX	Nameplate (low) high 5 digits.
06	Press 🖨	4832	Display recently effective usage zero. Note: reference for identity load cell damage index.
07	Press 🖨	36125	Display recently effective using calibration rate. Note: used to identify whether calibration or not.

08	Press [printer]	AD XXXX	Display current AD inner code.
09	Press [printer]	AV = 6.78	Repeat setting above.
10	Press [MODE]	Return back to weight mode.	

VI. GENERAL PARAMETER SETTING

Please press and hold [MODE] and [→0←] keys together for 3 second until it displays "= = = = = =" then release,   the parameter in the table below will display on the screen:

1.Press [MODE] to confirm the previous parameter and enter into next step.

2.Press [Σ] to operate previous parameter and [printer] to change setting.

Step	Operation	Screen Display	Remark
01		OFF 0	Auto power off function: The preset shut down time from 0~60 minutes means indicator will auto power off if there is no changes on weighing value and no operation on the keyboard. Choice 0 means auto power off function is not available. Press [printer] to select digit from 0~60.
02	Press [MODE]	bd ON	Buzzer function: ON = turn on buzzer; OFF = turn off buzzer. Press [printer] to select.
03	Press [MODE]	Pr AB	Power saving mode: A for power saving mode; B for the effective time. For LCD indicator: A=0 means switching back light by hand, press and hold [MODE] for 1.5 seconds to turn on/off the back light. A=1 means light-off while reading is stable; A=2 means light-off while it is in zero status; A=3 means light-off after date & time display; A=4 means light-off after company name, date & time display; B=1~9 means the effective time 1~9 minutes, after the time, the backlight mode work. For LED indicator: A=0 means no saving mode setting; A=1 means display shut off, stable indication light on; A=2 means display shut off, zero indication light on; A=3 means date & time display; A=4 means company name, date & time display; B=1~9 means the effective time 1~9 minutes work. Press [Σ] to select digit position and press [printer] to set the digit.
04	Press [MODE]	- HOL -	High & low limit setting: Press [MODE] skip previous step and enter into next step. Press [Σ] enter into high & low limit setting.

	Press $\Sigma_\triangleright$	-HI- / -00000-	When the "-HI- " and "00000kg" indication is shining, please set the highest weight. Once the loaded weight is over the setting highest weight, "HI" symbol indication (default red color) will display. Press $\Sigma_\triangleright$ to select digit position and press $\boxminus$ to set the digit.
	Press MODE	-LO- / -00000-	When the "-LO- " and "00000kg" indication is shining, please set the lowest weight. Once the load weight is under the setting lowest weight, "-LO-" symbol indication (default purple color) will display. Note: OC=010 means standard weight (default green color)
	Press MODE	SPt X	Effective term of check weighing mode: X=0 means keep checking and alert, even if the reading is unstable. X=1 means the indicator will alert after reading is stable. X=2~9 means the indicator will alert when the reading appear same times as preset the number, it happens in reading is unstable. Press $\boxminus$ to set the digit.
05	Press MODE	S-C1	Date & time setting.
	Press $\Sigma_\triangleright$	18.05.29	year/month/day Press $\Sigma_\triangleright$ to select digit position and press $\boxminus$ to set the digit.
	Press MODE	13.01.50	hour/minute/second
06	Press MODE	PLO 0	Auto shutdown protect battery function. When the capacity of battery is lower than the setting value (0~40), the indicator will shutdown, it is very helpfully to increase the life of battery. Press $\Sigma_\triangleright$ to select digit position and press $\boxminus$ to set the digit.
07	Press MODE	LCD/LED	LCD/LED backlight/light brightness display, increase by number(0~9 selectable), the larger number, the shorter lifetime. Press $\boxminus$ to set the digits from 0~9
	Press MODE	0.0	return back to weight mode, LED indicator setting finished.
LCD indicator continue setting as below:			
08	Press MODE	- reg -	Backlight color setting. Press MODE skip previous setting and enter into next step.
	Press $\Sigma_\triangleright$	C = 111	C=111 means normal backlight color is light white. Press MODE confirm current setting and return back to weight mode.
	Press →0←	r = XXX	Red color brightness adjustable. r = 0 means red color closed, r = 255 means max. red brightness.
	Press MODE	g = XXX	Green color brightness adjustable. g=0 means green color closed, g=255 means max. green brightness.
	Press MODE	b = XXX	Blue color brightness adjustable. b=0 means blue color closed, b=255 means max. blue brightness.

09	Press MODE	- USB -	USB output serial port, press Σ enter into USB setting or press MODE skip current step and enter into next setting.
	Press Σ	U1=X	X=0 means USB disk storage function not work. X=1 means USB disk storage work, Chinese format. X=2 means USB disk storage work, English format. Press to select digit and press MODE to confirm
	Press MODE	U2=X	X=0 means high speed USB disk (USB 3.0 or new model USB 2.0). X=1 means normal USB disk (USB 2.0). X=2 means low speed USB (USB 1.0 or old model USB 2.0). Press to select digit and press MODE to confirm
	Press MODE	P = XX	XX means employee number. Press Σ to select digit position and to set the digit.
10	Press MODE	0.0	return back to weight mode, LCD indicator setting finished.

Note: for step NO.09 above:

A.USB disk storage introduction:

1. The file's name of the USB storage file is the date of the day, CSV is the extension filename.(open with text or EXCEL).

2. Check whether the file's name is same as the indicator's time setting before storage, if different, please rebuilt.

3. When establish documents, type the company name in Chinese or English. type the item bar.

4. Press , when accumulation finished, the print content will be stored into the USB disk.

B.USB disk storage operation:

1. No matter what value is set by ADS, it only needs to enable USB storage function.

2. Press , after accumulation done,   then enter into USB storage operation.

3. When display "S1-USB" means checking and creating the file, the file's name according the indicator's time setting, CSV as the extension file, and write the unit and project information.

4. When display "S2-USB" means writing the current data, the content offered by the customer.

5. When display "S3-USB" means to verify and close the USB writing operation, writing process finished.

6. Storage unit fixed kg(kg) display.

Note: when symbol S1-USB ~ S3-USB display, cannot force to pull out the USB disk, that will damage the files and data writing will failed.

VII. CALIBRATION

* Plug the circuit breaker JP1 into "on", and the following operation can be performed.

Please press and hold MODE and keys together for 3 second until it displays "= = = = = =" then release,   the parameter in the table below will display on the screen:

1.Press MODE to confirm the previous parameter and enter into next setp.

2.Press Σ to operate previous parameter and to change setting.

Step	Operation	Screen Display	Remark
01		CAL SP	Enter into setting mode
02	Press $\Sigma_{\triangleright}$	CRL 0	Enter into calibration mode
03	Press MODE	- - - - - -	Entering auto zero calibration, after then indicator show the max. capacity
04		150.00	When Max. Capacity weight display, eg:150kg. Load the test weight (≥1/3 max. Capacity), eg:50kg. After stable symbol "○" display, Press $\Sigma_{\triangleright}$ to select digit position and press ⊿ to set the digits from 0~9.eg:50kg. Press MODE to confirm.
05	Press MODE	- - - - - -	Indicator is waiting to handle the related weight.
		150.00	If the weight shown is different to test weight, please repeat calibration according above steps.

VIII. CONFIGRATION SETTING

* Plug the circuit breaker JP1 into "on", and the following operation can be performed.

Please press and hold MODE and ⟨⊹⟩ keys together for 3 second until it displays "= = = = = =" then release, the parameter in the table below will display on the screen:

1.Press MODE to confirm the previous parameter and enter into next setp.
2.Press $\Sigma_{\triangleright}$ to operate previous parameter and ⊿ to change setting.

Step	Operation	Display	Remark
01		CAL SP	Calibration setting mode
02	Press MODE	- SET -	Enter into configuration setting.
03	Press $\Sigma_{\triangleright}$	d 0.001	Division selection. Eg.0.001=1g, 0.01=10g ect. Press ⊿ to choose the desired division value.
04	Press MODE	n 3000	Resolution display selection. Max. capacity = n x d (division). Press MODE to select digit position and press $\Sigma_{\triangleright}$ to set the digit.
05	Press MODE	Ut AB	A means zero range when power on, 1~9 means 10%~90% FS to zero. B= zero tracking range, 1~9 means 1~9x0.25d for tracking range. Press MODE to select digit position and press $\Sigma_{\triangleright}$ to set the digit.

06	Press MODE	- UnIt -	Weight units switch. Press MODE skip current setting and enter into next step.
	Press Σ	Un 1 X	First unit:0=kg; 1=Lb; 4=g.
	Press MODE	Un 2 X	When first unit=kg to switch, 1=LB; 2=t; 3=HI; 4=g; 5= PCS (counting). When first unit=Lb to switch, 0=kg; 1=Lb; 5= PCS (counting). When first unit=g to switch, 0=kg; 5= PCS(counting).
07	Press MODE	rs - 0	Output serial port 0; Press MODE skip current setting and enter into next step.
	Press Σ	bo 9600	baud rate setting:2400/9600/14400/19200 selectable Default data position: N, 8, 1
	Press MODE	ADS. XX	r0～r9=RS232 single way transmit data format label.
	Press Σ	C X	C0～C9: Chinese print out format.
	Press Σ	E X	E0～E9: English print out format.
	Press MODE	rS= HI	L0；HI
	Press MODE	rA= X	0= continue out put; 1= one time per second; 2= stable output; 3= out put three times after stable.
	Press MODE	UOP0.X	0= printer model (default: RD-TH32-SC printer)
	Press MODE	UOP1.X	0=56mm width thermal paper; 1=32mm width label paper.
	Press MODE	UOP2.AB	00~99 selectable, default:10; A=paper advance; B=paper return back.
	Press MODE	UOP3.X	0~9, Print font color; 0=the lightest color, 9=the darkest color.
	Press MODE	UOP4.X	X=0 means after stable, press 🖨 key to print out and accumulative data. X=1 means after stable auto print out and accumulative data.
Press MODE to confirm; Press Σ select position or set digit ; Press 🖨 to set digit.			
08	Press MODE	rs - 1	Output serial port 1; Press MODE skip current setting and enter into next step.
	Press Σ	b1 9600	baud rate setting:2400/9600/14400/19200 selectable Default data position: N, 8, 1
	Press MODE	ADS. XX	r0～r9=RS232 single way transmit data format label.
	Press Σ	C X	C0～C9: Chinese print out format.
	Press Σ	E X	E0～E9: English print out format.

	Press [MODE]	rS= HI	L0；HI
	Press [MODE]	rA= X	0= continue out put; 1= one time per second; 2= stable output; 3= out put three times after stable.
	Press [MODE]	UOP0.X	0= printer model (default: RD-TH32-SC printer)
	Press [MODE]	UOP1.X	0=56mm width thermal paper; 1=32mm width label paper.
	Press [MODE]	UOP2.AB	00~99 selectable, default:10; A=paper advance; B=paper return back.
	Press [MODE]	UOP3.X	0~9, Print font color; 0=the lightest color, 9=the darkest color.
	Press [MODE]	UOP4.X	X=0 means after stable, press [🖨] key to print out and accumulative data. X=1 means after stable auto print out and accumulative data.

Press [MODE] to confirm;   Press [Σ] select position or set digit ;   Press [🖨] to set digit.
Recommend to re-start the indicator after rs − 1 setting finished.

09	Press [MODE]	UoP4. X	X=0 means after stable, press [🖨] key to print out and accumulative data. X=1 means after stable auto print out and accumulative data.
09	Press [MODE]	ID XX	Indicator ID code (selection range 0~99). Press [Σ] and [🖨] to change the value.
10	Press [MODE]	buf AB	Weighing display stable parameter A means response speed when weighing (0~5 selectable) A=0 means the fastest response speed, A=2: platform scale using response speed; A=3: floor scale using response speed; A=5 means the lowest response speed. B means weighing stability, (0-3 selectable) Stability increase by number. Press [Σ] to change value A, and press [🖨] to change value B.
11	Press [MODE]	-HoLd-	Lock the weight, press [MODE] to skip the current setting.
12	Press [MODE]	- PASS -	Press [→0←] save the setting above and return back to weight mode. Press [⟳] not save the setting above and return back to weight mode Press [MODE] repeat the setting above.

IX. COUNTING FUNCTION

Attention: In counting mode, the indicator isn't allowed for weight unit switching function.

The indicator uses a sampling method to calculate the average weight of the test item, the larger sample value, the more accurate calculation.

1.How to enter the counting mode?

When in weighing mode, press [MODE] key, screen display "n   0" means enter into counting function.

2.How to operation?

Step 1: Load the sample items on the scale, after stable symbol "○" display press [Σ▷] three seconds and the " n 00000" will shinning.

Step 2: Press [Σ▷] & [△] key to input the sample number, then press [MODE] to confirm.

Step 3: Upload more test item which needed to be counted, the screen displays that total pieces of items and "XXXXX   PCS" indication is on.

*Step 4:* Press [MODE] to exit and return back to weight mode.

If needed to test new sample, do same operation as above again.

For example: *sample item weight 200g, total 100pcs:*

When in weighing mode, press [MODE] key, screen display "n   0" means enter into counting function.

Step 1: Load the sample items on the scale, after stable symbol "○" display press [Σ▷] three seconds and the " n 00000" will shinning.

Step 2: Press [Σ▷] & [△] key to input the sample number, " n 00100", then press [MODE] to confirm.

*Step 3:*Upload more test item which needed to be counted, said 400g, the screen displays will "00200 PCS" indication is on.

Press [MODE] to exit and return back to weight mode.

X.ERROR SIGNAL

There will shows error signal when the scale have some problem.

Error 1: means calibration isn't workable, weight is too light or division is too high.

Error 2: means wrong zero, check the load cell if it is damaged.

Error 3: means displayed value exceed display range after unit change.

Error 4: means ISN=0.

Error 5: means overload, loaded weight exceed the full range.

Error 6: means cannot zero.

Error 7: means cannot tare.

Error 8: means cannot accumulate

Error 9: means cannot unit conversion.

Error 10: means not connect the battery or battery damage.

Error 11: means count value division is too high.

XI. PRINTER FORMAT

There are two kinds of print out format with the external printer

Format A: (print out setting E0)

```
2015-08-16   13:38
NO：001
Weight：    10.00 kg
```

```
2015-08-16   13:40
Add：003
Total：    30.00 kg
```

Format B: (print out setting E0)

```
2015-08-16   13：38
NO：001
G.W：       10.00 kg
N.W：       10.00 kg
T.W：        0.00 kg
```

```
2015-08-16   13:40
Add：003
Total：      30.00 kg
```

XII. INTERFACE CONNECTION

1.Connection of load cell signal wire:

For better performance of the electronic scale, make sure to connect the 5 round pin plug to the 5 pin socket firmly and tighten the screw up. Please see figure 1:

1: Pin +IN   +signal
2: Pin -IN   -signal
3: Pin AGND   shield
4: Pin +E, +S   +excitation, +feed back
5: Pin -E, +S   -excitation, -feed back

Figure 1: Diagram of 5 round pin plug of the load cell

NOTE: For 6 pin load cell, please connect +E, +S and –E, -S in short circuit.

2. Connection of load cell signal wire (For 6 cores load cell only) :

While order with D-SUB-9 needle slot as figure 2 shows:

1 Pin : +Excitation   4 Pin: - Excitation
2 Pin : + Feed back   5 Pin : - Feed back
3 Pin : AGND
7 Pin : +Signal   8 Pin : - Signal

Figure 2: Diagram of D-SUB-9 needle slot

3 .CONNECTION OF RS-232 :(Please specify in the order if needed)

RS-232 serial interface is a D-SUB-9 needle slot as figure 2 shows:

2: Pin RXD

3: Pin TXD 1   9: Pin TXD 2

5: Pin GND

Figure 3: Diagram of RS-232 slot

XIII.MAINTAINS AND NOTES

1. Please use the original adapter, when the indicator is not used, please unplug the adapter. If the indicator is not used for a long time, please ch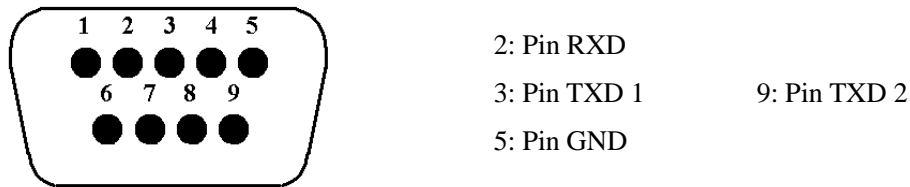arge it at least once every two months or remove the battery to ensure the battery service life. (For first use, please charge more than 12 hours to ensure the battery has enough power to enter a safe and stable mode).

2.To ensure more clear display and longer service lift, do not put the indicator under the sunlight or the place where the vibration is strong.

3.To ensure the accuracy, do not overload (the weight should be under the max. capacity).

4. If the indicator continuously be used for more than 24 hours, please charge for 10 hours to ensure the battery life, indicator can work while charging battery.

5.Avoid any liquid or conductive particle enter into the indicator, in case to damage the internal parts and electric shock.

6.If any malfunction occurred while using the indicator, please turn off the indicator immediately and send back the indicator to our company for repair. Please do not repair it by yourself in case any happen.

7. The indicator connect the adapter to charge the battery, the end of red line is positive pole and the black line is negative pole, if wrong connection, that will cause serious damage.

8.When the voltage is over low, indicator can still work about 10 minutes and then power off. If the battery has not been charged and continue to turn on, the indicator will be forced to shut down after turn on.

XIV. WARRANTY

We guarantee one-year of maintenance for free since the date of purchase for any non-man-made faults in normal working conditions. For maintenance, please send the equipment with the guarantee card to our sales service.

Attention: we are always improving the machine, there is not pre-notice if there are something different comparing with the precious ones.