# FWN-V5L

**STAINLESS STEEL**

**WATERPROOF WEIGHING INDICATOR**
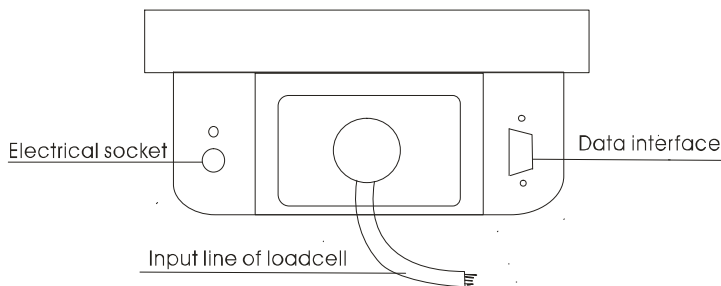
**USER'S MANUAL**

## 1．Technical Parameters

1.1 A/D Conversion principle：△-∑

1.2 Display accuracy：1/3000 ----1/30000

1.3 A/D Resolution：300000

1.4 Bridge voltage：DC 5V, could connect 4 pcs 350Ω loadcells

1.5 Capacity：15kg/33lb、30kg/66lb、60kg/132lb、100kg/220lb、150kg/330lb、300kg/661lb、600kg/1322lb、1000kg/2204lb、1500kg/3306lb、3000kg/6613lb

1.6 Serial communication interface：RS-232、Baud rate 1200、2400、4800、9600 optional

1.7 Print：RS-232 Serial print output

1.8 Output value amount of three-way switch

1.9 Power supply：AC 220V 50Hz / inner 6V4Ah sealed rechargeable battery

1.10　　Working temperature：-5～35℃/23～95°F

1.11 Storage temperature：-25～55℃/-13～131°F

1.12　　Size：212×136×105mm(8.3x5.3x4.1 inch)

1.13　　Weight：2.5kg/5.5lb

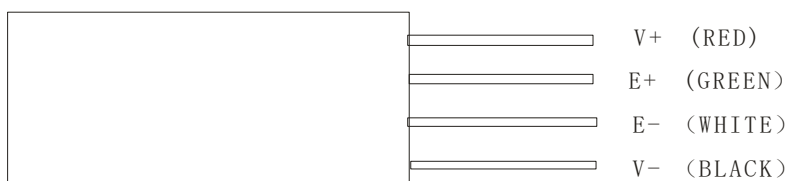## 2．Installation

### 2.1 Bottom schematic drawing of indicator



### 2.2 Connection between indicator and loadcell

2.2.1 Input signal line of loadcell：



V+　(RED)
E+　(GREEN)
E-　(WHITE)
V-　(BLACK)

2.2.2 Operation：Slip input line of loadcell on to waterproof heat pipe, slip four input signal line on to thinner heat pipe, then weld the corresponding four input signal lines and four output signal lines. Then, use heat dry to blow the pipe contraction.

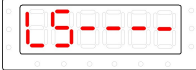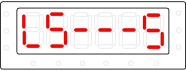　　**Note**: When install we must cut off the power supply of loadcell, must unite securely.
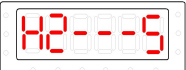
　　**Note**：Preventing static electricity, welding on platform is prohibited!

## 3．Calibration

3.1 Random point calibration.

3.2 Press[SET PRT]to turn on and not let off, till to hear a warning tone and now release[SET PRT], after zero, the same time press [SET PRT] + [TARE], enter to calibration.

3.3 when it displays `P 300`, repeat to press [TARE], it displays

`15->30->60->100->150->300->600->1000->1500->3000`（Means Max. capacity is：15kg/33lb、30 kg/66lb、60 kg/132lb、100kg/220lb、150 kg/330lb、300 kg/661lb、600 kg/1322lb、1000kg/2204lb、1500 kg/3306lb、3000 kg/6613lb），press [ZERO] to confirm.

3.4 when it displays `L5----` ,confirm no weight on plate and press [ZERO], display `L5---5`, the last number is `5 --> 4 -> 3--> 2 --> 1`, if the zero is stable, after display 1, now into next step.

3.5 when it displays `H2----`, put any weight on centre of plate，press [ZERO], display `H2---5`, the last number is `5 --> 4 -> 3--> 2 --> 1`, if the data is stable, after display 1, now into next step.

3.6 For example when it displays `300.00`, it means 300kg（661.3lb) is Max. capacity, press [ZERO] into next step.

3.7 when it displays `00000`, input the value of weight on plate：press [SET PRT] to change the flashing digit，press [TARE] to change the number，press [ZERO] to choose. Now finish and show the weight value.
● Default unit is kg after into calibration.
●it could be most accurately when use a weight approach 1/2 Max. capacity.
●Please use a loadcell fit in the max. capacity.

## 4．Function and Operating
## 4.1 Button Function

[ON OFF]  Turn on/off.

[ZERO]  Confirm function while Setting and calibration.

[TARE]  Choose function while Setting and calibration.

[SET PRT]  Displace digital function while Setting and calibration.

[M+]  Add up current weight、times and total value.

**UINT MC** Change units；Clear total data while adding up；Quit function while setting.

**PCS** Enter and quit counting.

## 4.2 Zero

G.W. data is in zero range（±4% Max. capacity），press **ZERO** to zero. Cannot zero when there have a tare.

## 4.3 Tare

While stable, no Negative number and not at zero，press **TARE**， tare lamp lights. If it is zero and with a tare, press **TARE** to quit N.W.， tare is zero，tare lamp off.

## 4.4 Print

When data transmission is **EtB**（see 5.6），press **SET PRT** to send current data to PC or printer.

## 4.5 Add up

4.5.1When data is stable and stable lamp lights，press **M+** to add current data(weight or quantities) to memory，now display add up times and total value. Add up should at zero，Max. 255 times. Exceed Max. times it will show **N － OF**，Exceed Max. memory capacity it will show **C － OF.**

4.5.2At zero，press **M+** to show add up times and total value，return to zero after one second.

4.5.2 Press **UINT MC** to clear total data.

4.5.3While changing between weighing and counting or turn on scale again, auto clear total data.

## 4.6 Change unit

Under weighing state，press **UINT MC** to change units（see 5.2），under counting state，cannot change units.

## 4.7 Counting

4.7.1Press **PCS**， counting indicate lights, show sample number **SAP   10** ,press **TARE** to choose sample number **10->20->50->100->200->500->1000**, press **ZERO** to confirm，now show **LOAd   C**，now place the corresponding sample number，press **ZERO** to finish，now display the sample number.

4.7.2While counting，press **PCS** to quit counting and return to weighing.

●Cannot save sample data after quit counting.

●While sampling，press [PCS] to return to weighing.

## 4.8 Weight value alarm

4.8.1 When it displays 0，press [SET PRT]+ [ZERO] the same time, enter to set up weight value alarm.

4.8.2 Choose weight value alarm mode：press [TARE]， now repeat display **OFF ->In ->oUt**, press [ZERO] to confirm.

**oFF** ： close weight value alarm.

**In** ： **Open** weight value alarm function， alarm in the set range， it sounds di-di-di.

**oUt** ： **Open** weight value alarm function， alarm out of the set range， it sounds di-di-di.

4.8.3 Low limit indicate lights，enter to set up low limit，press [SET PRT]， change the flashing digit from left ->right->left， press [TARE] to choose **0->9**.Press [ZERO] to confirm and high limit indicate lights， enter to set up high limit（same as set up low limit）. After Setup completes, start alarming.

4.8.4 Weight ≤ low limit：Low limit indicate lights， output value of the Road：0；output value of other two Roads：High Resistance.
Low limit ＜ Weight ≤ high limit：Accept indicate lights，output value of the Road：0；output value of other two Roads：High Resistance.
Weight＞high limit：high limit indicate lights， output value of the Road：0；output value of other two Roads：High Resistance.

- High limit is equal or less than low limit, invalid.
- Data saves to next set.
- Data will change while unit changing.
- This function will be closed when close counting function.

## 4.9 Save power（see 5.5）

4.9.1 XK-3108A：More than 5 seconds at zero or 30 seconds at any other value, display is dimming；When Indication changes, the brightness is back to normal. After 10 minutes after indication is stable, auto power off.

4.9.2 XK-3108B：More than 5 seconds at zero or 30 seconds at any other value， backlight will close；When Indication changes, the backlight is opening. After 10 minutes after indication is stable, auto power off.

## 4.10 Charge

4.10.1 This indicator is supplied power by built-in 6V4Ah non-maintaining sealed lead-acid battery. When voltage is lower than 5.8V, charge indicate is flicking（XK-3108A）or battery indicate is flicking（XK-3108B）, please charge immediately. When voltage is lower than 5.5V, it will be auto-off.

4.10.2　XK-3108A：When charging，charge indicate is flicking（flicking frequency is slower than low voltage flicking）；When fully charging， charge indicate is always lighting.

XK-3108B：When charging, Battery graphics within the square circulation changes. When fully charging，Battery graphics within blocks all light.

4.10.3  Please charge in time while loss power，try to charge full to save battery life.

**4.11 Extra Function**

When it displays 0：

Press [M+] to turn on，enter to relative zero-source display mode，

Press [UINT MC] to turn on，enter to absolute zero-source display mode，

Press [SET PRT] ＋ [M+] to display voltage.

Under the above three status，press [UINT MC] to return weighing or counting.

**5．Set up Parameters**

When it displays 0，press [SET PRT] ＋ [TARE] the same time，enter to set up parameters.

Press [TARE] to choose parameter，press [ZERO] to confirm and enter to next step.

5.1 **PrE** (Display Accuracy)  **1** means n=3000  **2** means n=6000  **3** means n=15000  **4** means n=30000 default is **2**

5.2 **ZEr** （Zero range）  **0～4.5** （**0～4.5** display division），default is **2**

5.3 **Unt** （units）  **1** means kg  **2** means kg 、lb.lb  **3** means kg 、lb.oz  **4**

means kg、lb.lb 、lb.oz，default is **1**.**(** The default boot unit is pounds）。

5.4 **brt** (Display brightness)  **1～4**，default is **2** （**XK3108B has no this function**）

5.5 **SAU** （Save power ）  **OF** is close，**On** is open，default is **On**

5.6 **FILT** （Filter coefficients）：**1～3**，different display speed and stability. default is **2**

5.7  **U** (Data transmission)  **SHUt** is close，**SEr**  is continuous Send，**Stb** is send after stable，**Etb** is press [SET PRT] to send，default is **SHUt**

5.8  **b** (Baud rate): **1200、2400、4800、9600**，default is **9600**

After setting，return to normal status.

● During set up，press [UINT MC] could quit set.

**6．Character Prompt**

**PP-8.0.1**      Software version

**- OF -**     Overload

**Er Sen**     Not place weight on plate while calibrate or no output of loadcell.

**LOYC C**     Not enter the calibration state（Lock code is not short-circuit）

**SLAC**     Count sampling is underweight

**CSL**     Count sampling is serious underweight

**Print**     Send data

**ER-OUT**     Zero is higher while calibrate（There have weight on plate or loadcell Zero is higher.）

**LOAD**     Load weight.

**P -OFF**     Power off.

## 7．Maintenance notice

7.1 Before reading this manual, please don't turn the indicator on.

7.2 The indicator is a measuring apparatus assayed by force, should assay regularly, to ensure its accuracy.

7.3 The environment for use and method of keeping have a certain influence to life-span and dependability of this product, please avoid using and keeping in the following environments ：

● Outside the high, low-temperature place where the technical indicator stipulates (temperature - 10 ℃- +40 ℃/14-104°F) ；

● Place of strong vibration, easy to be knocked into ；

● Temperature changes too fast or air flow in the violent place, such as the sunlight penetrates the air outlet of the air conditioning directly.

●  You must charge the battery at least per 3 months when you don't use the scale for a long time.