XK3118K9 Weighing Indicator Calibration Manual

I. Main Technical Parameters:

Load cell excitation: DC +5V, can connect 1～12 pieces of 350 ohm strain gauge type load cells

Minimum input voltage of each calibration division value: ≥1.5uV/e

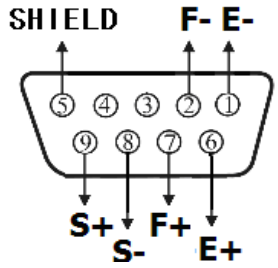
Error Distribution coefficient: p_i =0.5

Load cell connection mode: 6 wires (long wire auto compensation), compensation distance ≤50 meter

Power supply: AC 110-220V, 50-60Hz,

DC 6V/10Ah free maintenance lead-acid battery, can be charged by the indicator

II. Analog Load Cell Connection:



Specification		
Pins	Name	Code
1	Excitation -	E-
2	Feedback -	F-
6	Excitation +	E+
7	Feedback +	F+
8	Signal -	S-
9	Signal +	S+
5	Shield	SHIELD

E+ with F+, E- with F- must be short connected if you use 4 wire shield cable.

III. Calibration

Indicator enters weighing status after self-check. When calibration is needed, open the cover of calibration case on the back side of indicator, press the calibration touch switch. Then the beep sounds and calibration lamp lights up, which indicates that the calibration mode can be entered. Then press the calibration button on the front panel. Then the calibration lamp goes out and enters calibration mode. Detailed calibration steps are as below:

Step	Operation	Display	Remarks
1	Press【Calibration】	【d *】	After calibration is finished or interrupted, if need to calibrate again, the calibration switch should be pressed one more time.
2	Press【1】【0】 Press【Input】	【d 10】	Input division, 1/2/5/10/20/50/100 optional, **(factory default setting: 10)** **<u>If need compensation calibration, press 【0】press【Input】enters to step 7, indicator displays 【AdloAd1】, input weight value of weights loaded, press 【Input】to confirm</u>**
3	Press【 0 】 Press【Input】	【dC 0 】	Input decimal bits (0～4), default setting: no decimal 0
4	Press【1】【2】【2】【4】 Press【Input】	【Pn 01224】〖0 1 2 2 4 Corresponding VWXYZ 〗	Input system parameter (details reference to the table below) **(factory default setting: 01224)** V: application (0: non-business scale 1: business scale) W: stability range X: zero tracing range Y：manual zero-setting range Z：power on zero-setting range
5	Press【3】【0】【0】【0】【0】 Press【Input】	【F 30000】	Input full capacity value **(factory default setting:3000)** If need calibration, input F value，then press 【Input】;if press【input】directly then it enters to step 8；if press【weight】,return back to weighing status. （note：full capacity value add 9 division value equals to system preset overload alarming value.）
6	Press【Input】	【 noLoAd】	Zero position confirmation，no object on the scale, press 【Input】after stability symbol light becomes bright
★★★!!! When indicator displays 【noLoAd】, **press 【Weigh】button, skip zero calibration, enters to compensation calibration directly**			
7	Press【2】【0】【0】【0】【0】 Press【Input】	【AdloAd1】【 20000】	Add weights, not less than 50% of full capacity, more accurate when it is near full capacity. e.g.：20000

			Press【Input】to confirm after the stability symbol light becomes bright
8	Press【1】 Press【Input】	【Adr 01】	Communication address (01～26) **(factory default setting: 1)**
9	Press【1】 Press【Input】	【bt 1】	Serial communication baud rate (0～4), respectively corresponds to baud rate: 600/1200/2400/4800/9600 bps **(factory default setting: 1)**
10	Press【0】 Press【Input】	【tF 0】	Serial communication mode: 0—continuous sending, 1—command response **(factory default setting: 0)**
11	Press【2】 Press【Input】	【Flt 2】	Filter strength （0～6）: 0: weakest, 6: strongest **(factory default setting: 2)**
12	Press【0】【0】【1】【1】	【Y XYZ】 【Y 011】	Special parameter setting **(factory default setting: 0011)** X: 0 Power saving mode OFF 1 Power saving mode ON X: 0 weight unit is kg; 1 weight unit is ton Y: 0 data record not use cargo number; 1 data record use cargo number Z: 0 data record not use vehicle number; 1 data record use vehicle number
13	Press【Input】	【L 0】	Three section division displays lower limit, the division value will switch downwards to next part when the gross weight is less than this value, if calibration division value is 1, it will not switch **(factory default setting: 0)**
14	Press【Input】	【H030090】	Three section division displays upper limit, the division value will switch upwards to the next part when the gross weight is more than this value, if calibration division value is 100, it will not switch **(factory default setting: division value switch not valid)**
15		【 20000 】	Calibration finishes, return back to weighing status

Note 1: in step 6 and step 7, if press 【Weigh】, it means this step does not work, it enters to the next step directly

Note 2: in the calibration process, press 【Weigh】in other steps, it will return back to weighing status

Note 3: Pn parameter setting ways

Input value	0	1	2	3	4	5	6	7	8	9	Unit
W: Stability range	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	uV
X: zero tracing range	0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	E
Y: manual zero-setting range	0	2%	4%	10%	20%	No limit	——	——	——	——	F.S
Z: Start-up zero-setting range	0	2%	4%	10%	20%	No limit	——	——	——	——	F.S

IV. **Operation of Parameters Calibrated**

No.	Function	Operation
1	Inquire the recent date of calibration	Press【SET PRINT】, input【9】【0】→ Press【Input】to display“d**.**.**”(Date)→Press【Input】to display “t**.**.**”(Time)→Press【Input】to return to weighing status.
2	Backup the calibration parameters	Press the touch button (the beep sounds and calibration lamp fashes) → Press 【SET PRINT】and input 【9】【1】→ Press【Input】to display “blbc 0”→ Input【1】(any number except zero)→ Press【Input】to backup the calbiration parameters, and return to weighing status.
3	Recover the calibration parameters	Press touch calibration switch (the beep sounds and calibration lamp fashes)→Press【SET PRINT】 and enter【9】【2】→Press【Input】to display“blHF 0”→Enter【1】(any number except zero)→Press【Input】to recover the calibration parameters, and return to weighing status. The recovery of the calibration parameters is deemed as one complete calibration.
4	Inquire the date to backup the calibration parameters	Press 【 SET PRINT 】 and input 【 9 】【 3 】 →Press 【 Input 】 to display“d**.**.**”(Date)→Press【Input】to display “t**.**.**”(Time)→Press【Input】to return to weighing status.

V. Timing shut-down and random unlock

Press【PRINT SET】under weighing status. Input password【88】. Then press【INPUT】. The indicator displays【SECU 0】, which means that enters timing shut-down setting menu (the password and date of timing shut-down can be changed). **The password of timing shut-down should be kept carefully. The factory setting password is**

"888888". If the due period of use is expired and password is lost. The indicator can be unlocked by random password. Detailed operation is as below.

No.	Function	Operation
1	Set password of timing shut-down	Input【1】 to display【SECU 1】→Press【Input】to display【P000000】→Input【888888】→Press【INPUT】to display 【N888888】→ Input【123456】(Example: 123456. If don't need to revise password, press 【INPUT】) to display【N123456】→ Press【INPUT】to return to weighing status. Password of timing shut-down is finished setting.
2	Set date of timing shut-down	Input【2】to display【SECU 2】→Press【INPUT】 to display【t000000】→Input password 【888888】to display【t888888】→Press【INPUT】to display【L99.99.99】→Input【10.10.10】(Input the date of shut-down. Example: 10.10.10) to display【L10.10.10】→Press【INPUT】to return to weighing status. Then the revision of date of timing shut-down is finished.
3	Unlock with random password	Press【PRINT SET】→Input【3】【2】→Press【INPUT】to display【r******】("******"is the random password of the indicator. Write it down)→Press【INPUT】to diplay【U------】(Indicates to input corresponding unlocking password. Now please contact with our compnay to get the unlocking password. Input the unlocking password. Do the following steps and the indicator can be unlocked)→Press【INPUT】to return to weighing status.

Note 1: The default setting of date of shut-down is "99.99.99", which means the timing shut-down is not activated.

Note 2: After the date of timing shut-down is setted. The user can not revise the date and time again.

Note 3: To protect the authority of original user who setted the password, the random password unlocking can only unlock the indicator for the period agreed, and won't change the original password! The random password will be created again. If the indicator is locked, then the random password can only be inquird again.

VI. Overloading Record and Operation

1. Creation of overloading record: When the weight on the platform equals or is over the overloading alarm value, a set of overloading record is created (incluidng date, time, atual weight). The actual weight value in overloading record is the maximum overloading weight. After one time of overloading, only when the weight on the platform is less than 50% of the full capacity, the next overloading will be recorded as the second overloading. When number of the recoreds is over 20 times, and a new overloading is recorded, then the lightest overloading record will be deleted automatically and save the new overloading in the record.
2. Delete of overloading record: Overloading records can only be delted after a sucessful re-calibration.
3. Check the overloading record: Press【PRINT SET】and input 【66】→Press【INPUT】to display【no 01】(the first set of overloading record)→Press【INPUT】to display【d **.**.**】(Date of overloading)→Press【INPUT】 to display【t **.**.**】(Time of overloading)→Press【INPUT】to display【0 *****】(The actual overloading weight)→**……**(Press【INPUT】to display the second, third… until the last set of overloading record. Then press【WEIHGT】to return to weighing status)→Press【INPUT】to display【End】 and 【******】(Return to weighing status autamatically).
4. Print the overloading record
   Press【PRINT SET】and input password "67" to print the overloading record out.

VII. Error Information Indicate

Display	Remarks
Err 14	Division value setting is wrong, please make correction
Err 15	Decimal setting is wrong, please make correction
Err 36	Usage period is over
Ctnn 0	In calibration step 6 and step 7, if indicator can not collect stable data it considers within 15 seconds, it will display Ctnn 0. At this time, the user can input 0 or 1 or 2, the functions are: 0: return back to weighing status; 1: use these unstable data for calibration; 2: skip this step, and enters to next step