XK3190-D18M2
Weighing Indicator

User Manual

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Shanghai Yaohua Weighing System Co., Ltd

XK3190－D18 Technical Parameters

Chapter 1 Technical Parameters

1. Model: XK3190-D18 Weighing Indicator

2. Accuracy: Grade III, n=5000

3. Analog part:

AD conversion method:	Σ-Δ conversion
Maximum conversion code:	24 bits
Conversion speed:	50 times/second ~ 200 times/second
Input signal range:	-20 ~ 20mV
Non-linearity:	≤0.0015%FS
Zero temperature shift:	≤0.05uV/℃
Load cell Excitation:	AC 5V, 250mA, available to connect with 12 load cells of 350Ω or 24 load cells of 700Ω
Maximum sensitivity:	0.5uV/d
Connecting method of load cell:	6-wire method, and automatic compensation for long wire

4. Display

D18M1 Indicator with single window	FSTN 240×64 Dot matrix LCD with high contrast
D18M2 Indicator with double windows	6-bit LED + 128×96 Dot matrix LCD

5. Keyboard

Number keys:	0 ~ 9
Function keys:	23 (among which 10 are overlapped with number keys)

6. Clock: available to indicate year, month, date, hour, minute and second as well as automatic leap year and leap month

Precision: ±5s/24h, not affected by power-off.

7. Scoreboard display interface

Transmission method:	serial output method, 20mA current loop signal (with constant current source output) (RS232 interface optional)
Transmission style:	11-bit binary number
Transmission baud rate:	600

Transmission distance: ≤2000m

8. Serial communication interface

Transmission method: RS232, RS422/RS485 (optional)

Baud rate: 600/1200/2400/4800/9600 optional

Data transmission style: 10-bit binary number, 1 start bit, 8 data bits (ASCII code) and 1 stop bit

Transmission distance: RS232 ≤15m RS422/RS485 ≤1000m

9. Printing interface

1) Panel-type microprinter

Printing paper: thermal paper with width of 57mm and roll external diameter less than 40mm

2) Standard parallel printing interface: available to connect with line printers such as ESPON LQ-300K, KX-P1131 and KX-P1121 etc.

10. Data memory

Available to store 1000 sets of vehicle number, tare weight, 1000 sets of cargo names, 1000 sets of weighing records and 50 sets of Overload RECs

11. Use Environment

Power supply: AC 110V~220V, 50~60Hz, Current: ≤0.3A

DC 6V-8V (optional), Current: ≤0.6A when not printing while ≤3A for printing

Use temperature: 0℃~ 40℃

Storage temperature: -25℃ ～+55℃

Relative humidity: ≤85%RH

Preheating time: 10～30min

12. Indicator features

●32-bit ARM processor with high speed and high performance, and built-in operating system are adopted to make real-time and correct accumulation, calculation, memory, inquiry and printing of the weight data;

●Humanized operating interface, two-dimensional rolling menu bar management, quick positioning of required parameters menu by directional keys, and abundant information of operation prompt;

●Integrated input of English/number/sign, similar to T9 input mode of mobile phone;

●Optimized digital filtering feature and good temperature feature, effectively assuring the stability and high precision of weighing data;

XK3190－D18　Technical Parameters

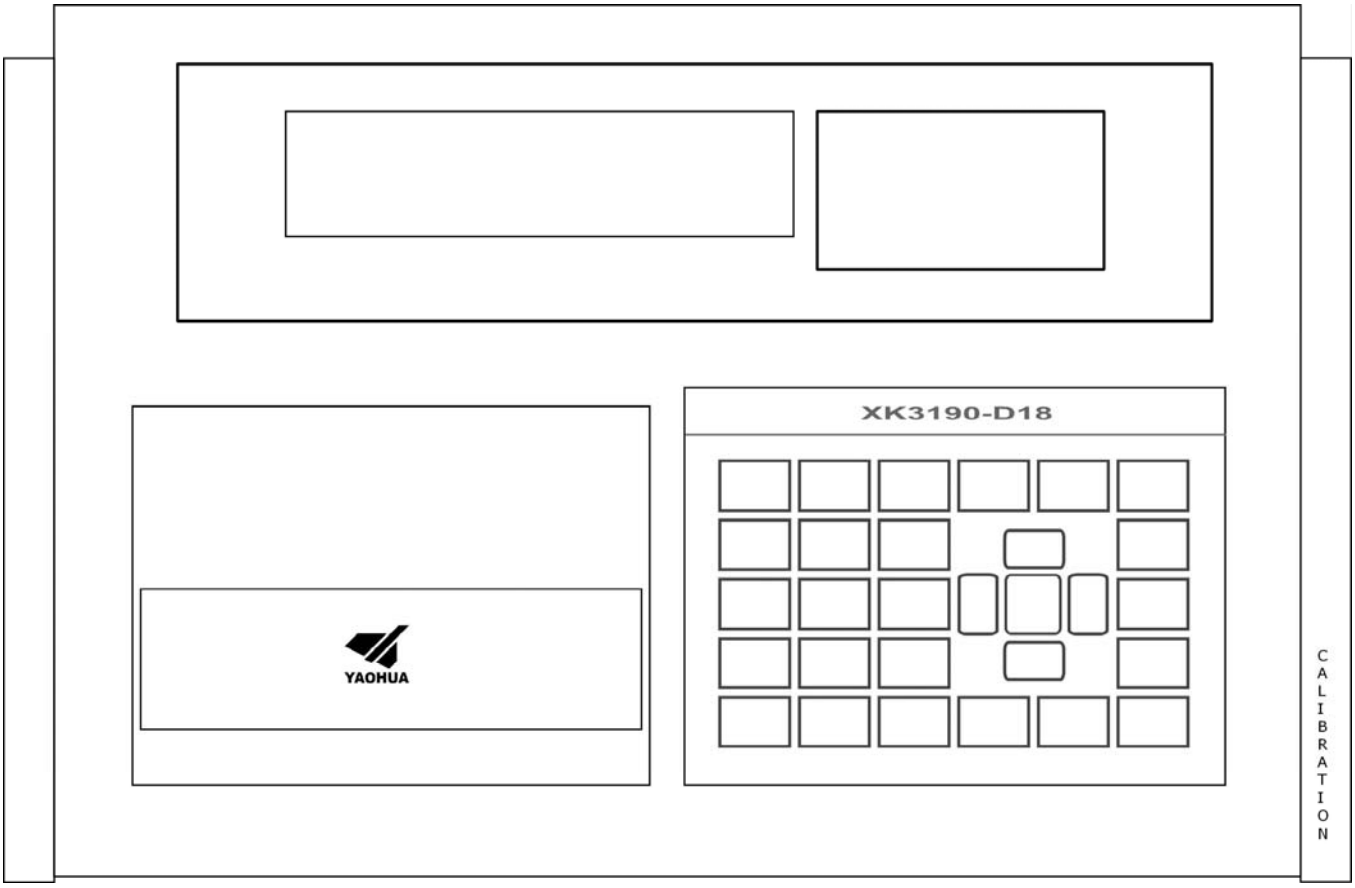
- ●Complete set functions of measured parameter for general truck weighing indicator;
- ●Available to store 1000 sets of vehicle number, tare weight, 1000 sets of cargo names, 1000 sets of weighing records and 50 sets of Overload RECs;
- ●Functions of storage, prompt intelligent inquiry and deletion for weighing records;
- ●Static weighing function per axle;
- ●Optional 10M/100M adaptive Ethernet interfaces, available for transmission and management of weighing records through LAN and Internet Net;
- ●Optional USB data interface, available for connection with computer via USB data wire;
- ●Optional PS/2 keyboard interface, available for indicator operation via general PS2 keypad of computer.

13. Differences on the models of XK3190-D18 series indicators

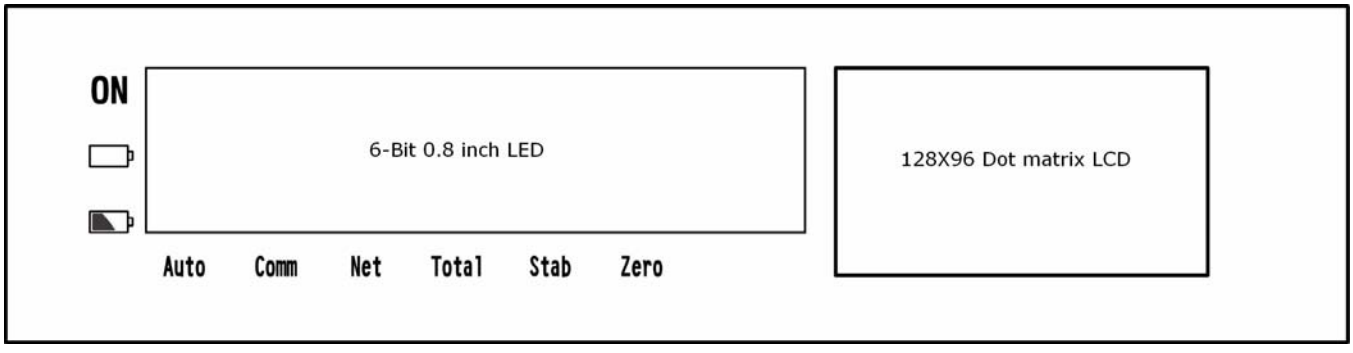
XK3190-D18m1	m-type cast aluminum housing, single-window indicator, Adoption of FSTN 240×64 Dot matrix LCD with high contrast, No PS/2 interface, Ethernet interface or USB interface.
XK3190-D18m1+	m-type cast aluminum housing, single-window indicator, Adoption of FSTN 240×64 Dot matrix LCD with high contrast, With PS/2 interface, Ethernet interface and USB interface.
XK3190-D18s1	s-type waterproof s/s housing, single-window indicator, Adoption of FSTN 240×64 Dot matrix LCD with high contrast, No PS/2 interface, Ethernet interface or USB interface.
XK3190-D18s1+	s-type waterproof s/s housing, single-window indicator, Adoption of FSTN 240×64 Dot matrix LCD with high contrast, With PS/2 interface, Ethernet interface and USB interface.
XK3190-D18m2	m-type cast aluminum housing, double-window indicator, Adoption of 6-bit & 0.8-inch LED display window + 128×96 Dot matrix LCD, No PS/2 interface, Ethernet interface and USB interface.
XK3190-D18m2+	m-type cast aluminum housing, double-window indicator, Adoption of 6-bit 0.8-inch LED display window + 128×96 Dot matrix LCD, With PS/2 interface, Ethernet interface and USB interface.

Chapter 2 Installation and Connection

I. Diagram for Indicator



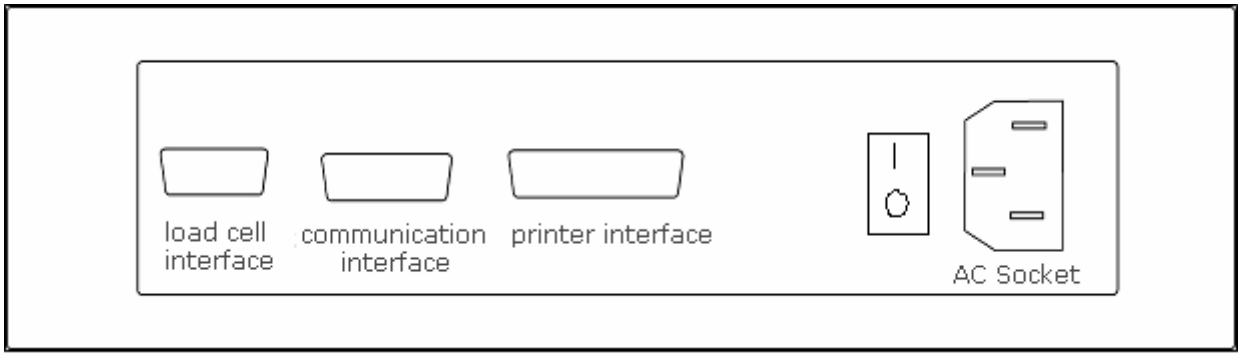
(Fig. 2-1) Diagram for Front Panel of Single-window Indicator



XK3190-D18 Diagram for Double- window Indicator

The signs and characters on the panel should be transparent with black base.

(Fig. 2-2) Diagram for Front Panel of Double-window Indicator



(Fig. 2-3) Diagram for Functions on Back Panel

II. Main Interface Display of Single-window Indicator (Weighing Interface)

VEH No.: 10 characters **CGO No.: 10 characters** **Time**

AA2006688	**Good-quality steel**	**15:31:20**

3190.00 kg

Automatic Communication Inner code Stability Net weight Zero

Weight value

Note: The main interface of double-window indicator is similar to that of single-window indicator, and only the layout of displayed information is different.

III. Connection between Load cell and Indicator

1. D-sub 9 pin socket socket is used for the connection of load cells. The meaning of each pin is listed in Fig. 2-4.
2. +E and +S, E and -S must be short connected if 4-core shield cable is used.

▲The connection between load cell and indicator must be reliable and the shield cable must be well grounded. The connecting line can not be plugged in and out when the indicator is powered on in order to prevent any damage to the indicator or load cell by static electricity.

▲ The load cell and indicator are both static sensitive equipments, so anti-static measures must be taken during the use. It is strictly forbidden to carry out welding operation or other operations with high current on the weighing platform. In the stormy season, lightening prevention measures must be taken reliably to prevent any damage to load cell and indicator caused by lightening stroke, and to guarantee the personal security of operators and safe running of weighing devices and relative equipments.

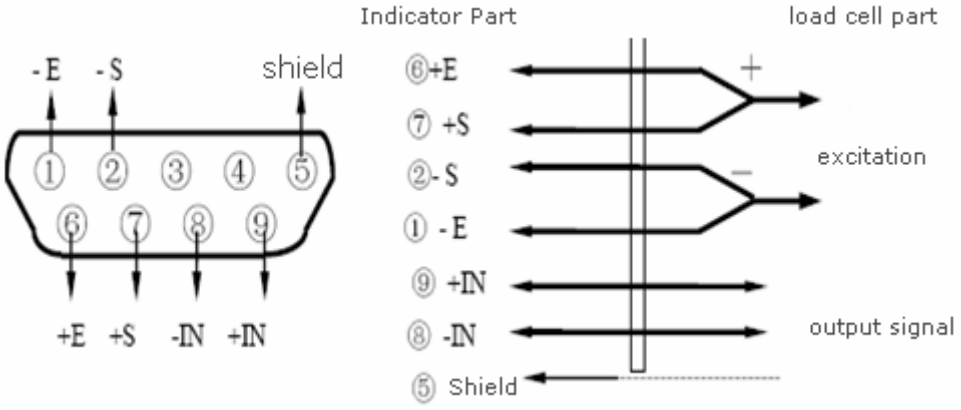
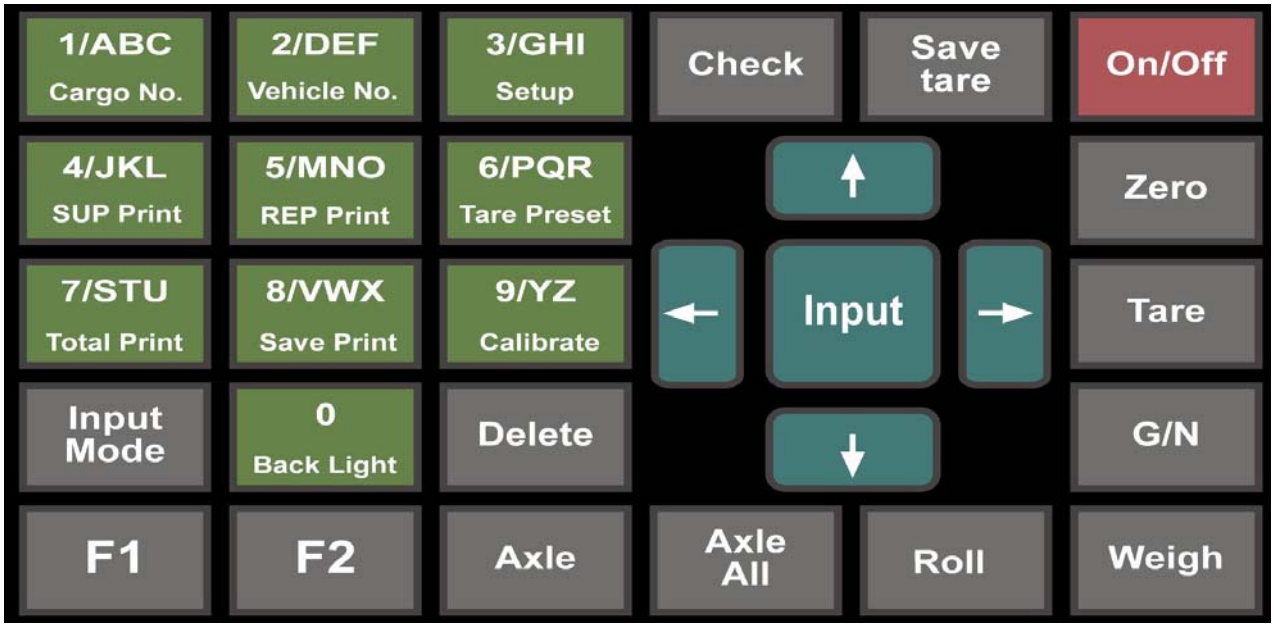


Fig. 2-4 Connecting Diagram of Load cell

Chapter 3 Measuring Operation

I. Keyboard Chart



II. Instruction of Keyboard

In this instruction, 【××】 【××】refer to the key-pushing sequence. For example, 【Set】【↓】【Input】 mean to push these keys 【Set】【↓】【Input】in sequence**. (【↑】【↓】 and 【←】【→】are exception, which refers to execution of selected operation according to the direction keys. And each arrow key may be pressed more than one time. Here it is just as an indication),** Under the operation status of main page, the functions under frequent use are realized via the operation of single key, while the functions under infrequent use are realized via the key-pushing sequence.

Key Name	Instruction
【1 / ABC CGO No.】	Input CGO No. setup in weighing mode; Input number 1 or letter ABC under setup status
【2/DEF VEH No.】	Input VEH No. setup in weighing mode; Input number 2 or letter DF under setup status
【3 / GHI Set】	Input function setup menu in weighing mode; Input number 3 or letter GHI under setup status
【4 / JKL Fill PRT】	Execute Fill PRT in weighing mode; Input number 4 or letter JKL under setup status
【5/ MNO Report Print】	Execute Report Print in weighing mode; Input number 5 or letter MNO under setup status
【6 / PQR Preset Tare】	Input Preset Tare set in weighing mode; Input number 6 or letter PQR under setup status
【7/STU Sum Print】	Execute Sum Print in weighing mode;

	Input number 7 or letter STU under setup status
Key Name	Instruction
【8/VWX Save Print】	Execute Save Print in weighing mode; Input number 8 or letter VWX under setup status
【9 / YZ Calibration】	Input calibration setup in weighing mode Input number 9 or letter YZ under setup status
【0 Back Light】	Turn on/off back light under non-setup status Input number 0 under setup status
【Tare】	Execute Tare operation in weighing mode
【Zero】	Zero operation in weighing mode
【Input mode】	Conversion input modes under setup status
【Check】	Input record check interface
【Input】	Save the input parameters
【Weighing】	Press this key to go back to main weighing interface.
【Clear】	Clear the records or clear one by one the input value
【On/off】	Realize reset function under AC power supply, and turn on/off the device under DC power supply
【Save Tare】	Input interface of storing tare weight
【↑】	Direction key for previous page of menu or record
【↓】	Direction key for next page of menu or record
【←】	Direction key, back to the previous menu or Input the left menu bar “Left sign” in the input mode of phoneticism and sign
【→】	Direction key, for the next menu or the right menu bar “Right sign” in the input mode of phoneticism and sign
【Axle】	Confirm axle measurement
【Axle All】	Completion of axle measurement and display of total weight
【Select】	Conversion display of gross weight / net weight
【Roll】	For printing roll
【F1】	When using PS2 keyboard, the conversion between keyboards can be realized. There will be a long prompting sound in the indicator if conversion is successful.
【F2】	Extension key for functions, temporary

III. Measuring Operation

1. Initialization and Auto Zero upon Start

(1) When power-on, the indicator indicates start image and then Inputs weighing status in several seconds automatically.

(2) When the device is turned on, if the weight deviates from zero but still within the zero parameter scope, the indicator will automatically return to zero. Please see the Chapter: Menu Operation for the details of parameter selection and setting method of zero scope upon start,

2. Manual Zero (Semi-automatic Zero)

(1) Push 【Zero】key and the indicator returns to zero. The zero sign is on at this time.

(2) When the indicating value deviates from zero but still within zero scope, the 【Zero】 key is enable, otherwise it is not. Please see the Chapter: Menu Operation for the details of parameter selection and setting method of zero scope upon start.

(3) Only when the stability sign is on, the zero operation can be executed.

(4) If the tare weight of the indicator is not zero, first press 【Preset Tare】 key and set the value as 0. Zero setting can't be performed until back to the weighing interface.

3. Operation of Tare Function

Three tare methods are provided by the indicator:

(1) General Tare:

In weighing mode, when the indicating weight is positive and stable, press the【Tare】 key, then the indicating weight will be deducted as tare weight. At this time, the indicator indicates the net weight as 0 with the weight sign on.

(2) Preset Tare:

Under the gross weight status of weighing interface, press the 【Preset Tare】 key and then the indicator Inputs interface of Preset Tare. At this time, the indicating tare weight value is the original tare value. If a new tare value is required to be set, use the number keys to input once again and then press the 【Input】key for confirmation. Press 【←】 key for back to weighing interface. As for detailed setting method, please see the Chapter: Menu Operation.

(3) Calling Tare Weight According to VEH No.:

In weighing mode, press the【VEH No.】key and the indicator inputs setting interface for VEH No./Tare. After inputting correct VEH No., press 【Input】 key to call the relative tare weight value of this VEH No. from the memory. If there is no need to revise the tare weight, press 【Tare】key to take the tare weight value as the current tare weight and meanwhile return to weighing interface.

4. Measuring Operation for Axle

D18 has the measuring function of axle.

First, set the parameters of "measuring function of axle" to "using measuring of axle" according to the method described in the chapter "Menu Operation", and set the "unblocking threshold of axle" to the required value. After pressing 【Weighing】 key for back to weighing status, the indicator Inputs axle measuring with the sign of "axle " on. The steps are as follows:

XK3190－D18　Measuring Operation

(1) The first group of axle is moved on the platform for measuring. After it stops, wait until the stability light of the indicator on. Then press 【Axle】key to lock and record the value;

(2) Remove the first group of axle from the platform and the axle locking is disable. The indicator returns to zero. Then put the second group of axle on the platform and repeat the operation of Step (1);

(3) After measuring all axles, press 【Axle All】 key. The indicator displays the 【Truck Weight】sign and the whole car load. Press【Save Print】key to save and print the weight. Pres【Weighing】key to Input new measuring status of axle again.

Chapter 4 Menu Operation

Among XK3190-D18 series, the menu items of double-window indicator are same as that of single-window indicator, so is the operation method. The only difference is the layout sequence on the display. The operation of menu items of single-window indicator is mainly described below.

I. General Menu List

Key　Operation	Menu Items	Sub-menu	Factory Default Setting
【CGO No.】		『Cargo Name』	-
【VEH No.】		『VEH No./Tare』	-
【Save Print】		『Save Print Set』	-
【Preset Tare】		『Preset Tare』	0
【Save Tare】		『VEH No./Tare』	-
【Report Print】	『Report by Time』	『Report Print』	-
	『Report 1』		-
	『Report 2』		-
	『Report 3』		-
	『Report 4』		-
	『Report 5』		-
	『Report 6』		-
【Calibration】	『CAL PWD』		888888
	『Calibration』	『Division』	1
		『Number of Decimal Point』	3
		『F.S』	3000
		『Zero』	
		『Loading』	3000
	『Zero Track Speed』		0
	『Zero Track Range』		0.5
	『Manu Zero Set』		4%
	『Initial Zero Set』		20%
	『Filter Degree』		2

	『Unit』		kg
	『A/D Ivert Rate』		50Hz
	『Signal Range』		10mV
	『Applicate Range』		Not for trade
	『Calibrate Para.』	『Zero Point』	99545
		『CAL Coefficient』	0.02094
		『Nonlinear』	1.00000
【Check】	『REC Search』	『Record Search』	-
	『VEH No. Search』		-
	『CGO No. Search』		-
	『Overload REC』		-
	『Scan Record』		-
	『Delete All』		-
	『Delete Overload』		-
【Set】	『Print Setup』	FUNC PWD	888888
		『Print Method』	Manual Print
		『Printer Type』	Microprinter
		『Back Zero Limit』	50
		『Print Format』	3Link Format
		『Min. PRT Weight』	0.010
		『Fill PRT Option』	Fill PRT is not applied.
	『Comm Setup』	『Comm Method』	Continuous mode
		『Comm Address』	1
		『Baud Rate』	1200
	『USB Setup』		USB function disable
	『Net Setup』	『Net Enable』	Net function disable
		『IP Address』	192.168.002.175
		『Subnet Mask』	255.255.255.000
		『MAC Address』	3190
		『Default Gateway』	192.168.002.001
	Date/Time Setup	『CAL PWD』	888888

		【Date/Time Setup】	08/01/01 1:30:30
	Date/Time Disp		Time Display
	CGO No. Enable		Use of CGO No.
	VEH No. Enable		Use of VEH No.
	Axle Mode Enable		Axle measuring is not used.
	Axle Lock Value		1%
	Display Contrast		5
	LED Brightness		4
	CAL PWD Change		888888
	Time PWD Change		99/99/99
	Company Name		Shanghai Yaohua Weighing System Co., Ltd.
	Inner Code		-
	System Test	Micropri Test	-
		Software	-

Note: 【***】 in the table refers to the corresponding push-key; 【***】 refers to the name of menu bar displayed on screen, belonging to the first-level menu; 【***】 refers to the set menu of parameter value, belonging to the second-level menu.

Note: The factory default can be restored according to the following operation when the indicator runs abnormally because of the wrong set of parameter value or memory fault. Push 【Calibration】 in weighing mode and input password "100000", then push 【Input】 key. The indicator displays "Initialization" and this process begins. Do not push any key at this time and wait for about 2 minutes. The indicator parameters are then restored to default.

II. Instruction of Operational Mode of Indicator

The indicator provides three operational modes according to the spot operation of truck weighing in order to finish all operations more quickly, intelligently and conveniently.

1. Single-key Function Mode

Relative operation can be executed by directly pushing one function key.

Corresponding function keys: 【Fill PRT】, 【Zero】, 【Tare】, 【Back Light】, 【Axle】,【Tare All】, 【Select】, 【Roll】, 【Weighing】, 【Input mode】

For example: Push 【Zero】 key in weighing mode to execute zero operation.

2. Single-key Menu Mode:

For the operation requiring input parameters, just push one function key to Input the corresponding interface of parameter set.

Corresponding Function keys: 【CGO No.】, 【VEH No.】, 【Save Tare】, 【Preset Tare】, 【Save Print】

For example: Push 【CGO No.】 in weighing mode to directly Input the following interface of 『Cargo Name』 for setting. The input area highlighted and the input status is displayed in the upper right of the screen. Users can push 【Input mode】 to switch the method. And then input number/English/character/sign according to the input mode. Then push 【Input】key to keep the input content and then push 【←】key to the main interface.

Cargo Name	【123】
Val: Good-quality Steel	Code: 0
Input cargo name	
【←】Back	【Input】Confirm

3. Management Mode of Menu Bar

As for the setting of parameters which are not used often but complicated, unified management can be carried out through the menu bar, which shall be convenient for the users to search according to the parameter types. According to different functions, five function keys are set for menu management. See the above list for menu structure.

Corresponding Keys: 【Set】, 【Check】, 【Report Print】, 【Calibration】, 【Clear】

For example: Push 【Set】 key in weighing mode and input the password to Input the following menu structure. Similar to the interface of the mobile phone, the highlighted refers to the current selected menu item.

Push direction keys to move the optional bar and select the pre-set menu item according to the following operation prompts on the screen.

Print Setup	Date/Time Setup
Comm Setup	Date/Time Display
USB Setup	CGO No. Enable
Net Setup	【↑】Option 【Input】Confirm

And then push 【Input】 to Input the interface of menu setup or the next menu optional bar. If 『CGO No. Enable』 is required to be set, move the display bar to corresponding menu item. See the following chart:

Print Setup	Date/Time Setup
Comm Setup	Date/Time Display
USB Setup	CGO No. Enable
Net Setup	【↑】Option 【Input】Confirm

Then push 【Input】 and 【↑】【↓】 keys to select the VAL.

CGO No. used
CGO No. not used
【←】 Back 【↑】 Option 【Input】 Confirm

Push 【Input】 key to save and then push 【←】 key back to the previous menu or push【Weighing】 key to directly return to the weighing mode.

III. Instruction of Menu Operation

1. 「Cargo Name」 Setup

Under weighing interface, push 【CGO No.】, then the indicator displays:

Cargo Name	【123】
VAL: Good-quality Steel	Code: 1
Input cargo name	
【←】Back	【Input】Confirm

Push 【Input】 key,

Cargo Name	【123】
VAL: Good-quality Steel	Code: 1
Input code for cargo	
【←】Back	【Input】 Confirm

When the input area highlighted, it indicates that the value can be input here.

After inputting value in the set area and pushing 【Input】 key, the indicator shall automatically search whether there is corresponding code in the memory. If so, relative code will be indicated; if not, new code will be formed and indicated. If user knows the corresponding code of the VAL, he can directly input it in the code area. Then the indicator shall automatically search the corresponding VAL and indicate it, which will avoid relatively complex operation of input mode.

If the code is input and there is no corresponding CGO No. searched, the indicator shall indicate “fault”.

Push 【Input】 key for confirmation after input and then push 【←】 key for going back to the weighing interface.

Input Area	Input mode	Remarks
VAL	Number/English/Sign	10 characters can be input at most.
Code	Number	Three numbers can be input at most.

2. 「VEH No. / Tare」 Setup

Under weighing interface, push 【VEH No.】 or 【Tare　Memory】 keys and then the indicator displays:

VEH No./Tare	【123】
VEH: E A12345	Code: 0
Tare: 1000kg	
【←】Back	【Input】 Confirm

Push 【Input】 key,

VEH No./Tare	【123】
VEH: E A12345	Code: 0
Tare: 1000kg	
【←】Back	【Input】 Confirm

Push 【Input】 key,

VEH No./Tare	【123】
VEH: E A12345	Code: 0
Tare: 1000kg	
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VEH No.	Number/English/Sign	10 characters can be input at most.
Code	Number	Three numbers can be input at most.
Tare	Number	Six numbers can be input at most.

When the input area is highlighted, it indicates that the value can be input here. Either VEH No. or code can be input.

After inputting value in the VEH No. area and pushing 【Input】 key, the indicator shall automatically search whether there is corresponding code in the memory. If so, relative code will be indicated; if not, new code will be formed and indicated. If user knows the corresponding code of the VEH No., he can directly input it in the code area. Then the indicator shall automatically search the corresponding VEH No. and indicate it, which will avoid relatively complex operation of input mode.

If the code is input and there is no corresponding VEH No. searched, the indicator will indicate “fault”.

The VEH No. can be input with mixture of English and number. And input mode can be switched by pushing 【Input mode】 key.

After inputting the VEH No. and code, it is switched into tare weight setting automatically. The tare weight column indicates the corresponding value of the above saved VEH No. If there is no memory, the default tare weight is 0. If the tare weight value needs to be changed, input directly the new tare weight and push 【Input】 to keep the VAL and then push 【←】 back to the weighing mode.

If the code of VEH No. is 0, it indicates single cargo weighing and tare weight value can not be input.

3. Save Print Setup

Print Information	【123】
VEH: A12345	Code: 1
CGO: ---	Code: 1
【←】Back	【Input】 Confirm

Push 【Input】 key,

Print Information	【123】
VEH: A12345	Code: 1
CGO.: ---	Code: 1
【←】Back	【Input】 Confirm

Push 【Input】 key,

Print Information	【123】
VEH: A12345	Code: 1
CGO: ---	Code: 1
【←】Back	【Input】 Confirm

Push 【Input】 key,

Print Information	【123】
VEH: A12345	Code: 1
CGO.: ---	Code: 1
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VEH	Number/English/Sign	10 characters can be input at most.
Code (upper)	Number	3 characters can be input at most.
CGO No.	Number/English/Sign	10 characters can be input at most.
Code (lower)	Number	3 characters can be input at most.

When the input area is highlighted, it indicates that the value can be input here. Either VEH No. / CGO No. or code can be input.

After inputting value in the VEH No./CGO No. area and pushing 【Input】 key, the indicator shall automatically search whether there is corresponding code in the memory. If so, relative code will be indicated; if not, new code will be formed and indicated. If user knows the corresponding code of the VEH No./CGO No., he can directly input it in the code area. Then the indicator shall automatically search the corresponding VEH No. /CGO No. and indicate it, which will avoid relatively complex operation of input mode.

If the code is input and there is no corresponding VEH No. / CGO No. searched, the indicator shall indicate “fault”.

The VEH No. can be input with mixture of English and number. And input mode can be switched by pushing 【Input mode】 key.

After completion of switch in four input areas, push 【Input】 key to keep the VAL and execute Save Print operation; if pushing 【←】 key, the print shall be cancelled and return to weighing interface. For the detailed operating rules of Save Print, please refer to the chapter Printing & Records.

4.『Preset Tare』 Setup

In weighing mode, push 『Preset Tare』 to Input the following interface,

Preset Tare	【123】
VAL: 0.000kg	
Input preset tare value	
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Six numbers can be input at most.

After input Preset Tare value with number keys, push 【Input】 key to keep the VAL and then push 【←】 key for returning to weighing interface. If the Preset Tare is not 0, net weight value shall be indicated in the weighing interface with the sign for net weight on. If the Preset Tare is 0, the gross weight value shall be indicated. If the Preset Tare is not the integral multiple of the scale division value, the indicator will automatically round up to an integral multiple of the scale division value.

5. Report Print Setup

In weighing mode, push 【Report Print】key to Input the following interface:

Report by Time	Report 4
Report 1	Report 5
Report 2	Report 6
Report 3	【↑】 Option 【Input】 Confirm

VAL	Remarks
Report by time	Print the weighing record periodically and print total three reports in different formats.
Report 1	Print in queque as per the save time of records
Report 2	Print in queque as per VEH No.
Report 3	Print in queque as per CGO No.
Report 4	Print correspondent table between VEH No. and shortcut code.
Report 5	Print correspondent table between CGO No. and shortcut code.
Report 6	Print all Overload RECs.

Push 【↑】【↓】 keys to move the highlighted to select the report type.

(1) After choosing 『Report by Time』 and pushing 【Input】, the screen displays:

Report Print	【123】
From: 07 / 12 / 04	
To: 07 / 12 / 04	
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digit date value and display it while shifting towards left, with 2 digits respectively for year, month and day. For example: if the date is December 4, 2007, then input “071204”.

Input the period of print record, and print all correspondent records of this period after pushing 【Input】 key. Return to weighing interface after print; push 【←】 key to cancel the print operation, and directly return to the weighing interface.

(2) When choosing other report type, push 【Input】 key to print it in relative format. After print, it returns to weighing interface automatically; push 【←】 key to cancel the print operation and directly return to the weighing interface. See the appendix for the print format of reports.

6. Calibration Setup

First, turn the calibration switch to make it allow for calibration. In weighing mode, push 【Calibration】, the indicator displays:

CAL PWD	【123】
VAL: ******	
Input correct CAL PWD with number keys	
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digit password, with each ″*″ standing for 1 digit. Only the first 6 digits are defaulted when inputting more than 6 digits. The initial password is ″888888″

After inputting correct password, push 【Input】 key to Input calibration set interface. If the password is wrong, input it once again according to the requirement. If fault is made for three times, it will go back to weighing interface. Push 【←】 key to directly return to weighing interface.

Calibration setup interface is as follows:

Calibration	Zero Scope upon Initialization
Zero Track Speed	Filter Degree
Zero Track Scope	Unit
Zero Scope	
【↑】 Option	【Input】 Confirm

(1) Calibration

See the chapter 【Calibration】 for detailed calibration method.

(2) Zero Track Speed

Push 【↑】【↓】 keys to move the optional bar to 『Zero Track Speed』 and then push 【Input】 to display the following interface:

Zero Track Speed	【123】
VAL: 0	
(From 0 to 4)	
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	One number can be input at most. Only the numbers 0, 1, 2, 3 and 4 can be input; and fault will be caused if other number is input.

After inputting through number keys, push 【Input】 key to save and 【←】 key for going back to the function menu.

(3) Zero Track Scope

Push 【↑】【↓】 keys to move the optional bar to 『Zero Track Scope』 and push 【Input】 key to display the following interface.

Zero Track Scope	【123】
VAL: 0.5e	
(From 0.0 to 4.5, 0.5/Interval)	
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	2 numbers can be input at most. Only 0.0, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0 and 4.5 can be input, and fault will be caused if other number is input.

Push 【Input】 key to save after inputting through number keys . Push 【←】 key not to save and return to function menu.

(4) Manu Zero Set

Push【↑】【↓】keys to move the optional bar to 『Zero Scope』and then push【Input】key to display the following interface:

Zero Scope　　【123】
VAL: 20%
(0,2,4,10,20,40,100 select)
【←】Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	3 numbers can be input at most. Only 0, 2, 4, 10, 20, 40 and 100 can be input, and fault will be caused if other number is input.

Push【Input】key to save after input through number keys. Push【←】key not to save and return to function menu.

(5) Initial Zero Set

Push 【↑】【↓】 keys to move the optional bar to 『Zero Scope upon Initialization』and then push 【Input】 key to display the following interface:

Zero Scope upon Initialization　　【123】
VAL: 2%
(0,2,4,10,20,40,100 select)
【←】Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	3 numbers can be input at most. Only 0, 2, 4, 10, 20, 40 and 100 can be input, and fault will be caused if other number is input.

Push 【Input】 key to save after input through number keys. Push 【←】 key not to save and return to function menu.

(6) Filter Degree

Push 【↑】【↓】 keys to move the optional bar to 『Filter Degree』and then push 【Input】 key to display the following interface:

Filter Degree　　【123】
VAL: 2
From 0 to 4
【←】Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	One number can be input at most and the Filter Degree is limited between 0 and 4. The bigger the value, the more stable the weight value will be, but the reaction speed is lower; the faster the reaction speed, the worse the stability will be; so comprehensive consideration should be made according to the stability and reaction speed when setting the value.

Push 【Input】 key to save after input through number keys. Push 【←】 key not to save and return to function menu.

(7) Unit

Push 【↑】【↓】 keys to move the optional bar to 『Unit』and then push 【Input】 key to display the following interface:

kg
t
lb
【←】Back　　【↑】Option　　【Input】Confirm

VAL	Remarks
kg	"kg" unit for indicator display and weighing record.
t	"t" unit for indicator display and weighing record.
lb	"lb" unit　for indicator display and weighing record.

Push 【↑】【↓】 keys to select unit and 【Input】 key to save. Push 【←】 key for going back to the previous menu.

(8)　A/D Convert Rate

Push 【↑】【↓】 keys to move the optional bar to 『A/D Convert Rate』and then push 【Input】 key to display the following interface:

VAL	Remarks
50Hz	A/D convert rate is 50HZ.
100Hz	A/D convert rate is 100HZ.
150Hz	A/D convert rate is 150HZ.
200Hz	A/D convert rate is 200HZ.

Push 【Input】 key to save after input through number keys. Push 【←】 key not to save and return to function menu.

(9)　Signal Range

Push 【↑】【↓】 keys to move the optional bar to 『Signal Range』and then push 【Input】 key to display the following interface:

10mV
20mV
【←】Back　　【Input】 Confirm

VAL	Remarks
10mV	The signal source scope of load cell is -10mV～10mV.
20mV	The signal source scope of load cell is -20mV～20mV.

Push 【Input】 key to save after input through number keys. Push 【←】 key not to save and return to function menu.

(10) Applicate Range

Push 【↑】【↓】 keys to move the optional bar to 『Applicate Range』and then push 【Input】 key to display the following interface:

Not for Trade
Trade Purpose
【←】Back　　【↑】 Option　　【Input】 Confirm

VAL	Remarks
Not for Trade	Non-law related operations are allowed on non-trade occasions.
For Trade	Non-law related operations are invalid for trade.

Push 【Input】 key to save after input through number keys. Push 【←】 key not to save and return to function menu.

(11) Calibrate Para.

The parameter status after calibration can be examined or revised in this menu. Push 【↑】【↓】 keys to move the optional bar to 『Calibrate Para.』and then push 【Input】 key to display the following interface:

Zero	【123】
VAL: 2145	
(Input zero AD code)	
【←】Back	【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	6 digits can be input at most. The value can be modified only when replacement of indicator instead of re-calibration is made. The zero value must be set according to the parameter of the substituted indicator. **To assure the measuring precision of the indicator, it is better to re-label after indicator substitution.**

Press 【Input】 key,

CAL Coefficient 【123】
VAL: 0.44336
Input CAL coefficient of indicator
【←】Back 【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	6 digists can be input at most. The value can be modified only when replacement of indicator instead of recalibration is made. The CAL coefficient must be set according to the parameter of the substituted indicator. **To assure the measuring precision of the indicator, it is better to re-label after indicator substitution.**

Press 【Input】 key.

Non-lineary 【123】
VAL: 1.00000
(Input non-linearity)
【←】Back 【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	6 digits can be input at most with the scope between 0.99500～1.00500. Definition of non-lineary revised value: Revised value=1 + weight deviation of half F.S. / F.S. value For example: When the F.S. value is 30000, but the actual half F.S. is 1505, then Non-linear revised value=1 + 5/3000=1.00167; When the F.S. value is 30000, but the actual half F.S. value is 1495, then Non-linear revised value=1 - 5/3000=0.99833.

7. Function Parameter Setup

XK3190－D18　　Menu Operation

In weighing mode, push 【Set】 key and input correct FUNC PWD (888888) to Input menu bar of function parameter.

Print Setup	Date/Time Setup
Comm Setup	Date/Time Display
USB Setup	CGO Enable
Net Setup	【↑】 Option 【Input】 Confirm

Push 【↑】【↓】 keys for turning pages.

VEH No. Enable	LED Brightness
Axle Mode Enable	CAL PWD Change
Axle Lock Value	Time PWD Change
Display Contrast of	【↑】 Option 【Input】 Confirm

Push 【↑】【↓】 keys for turning pages,

Company Name	
Inner Code	
System Test	
PS/2 Enable	【↑】 Option 【Input】 Confirm

(1) Print Setup

Push 【↑】【↓】 keys to select 『Print Setup』 and then push【Input】to Input Print Function menu. Push 【←】 key to return to the previous menu.

Print Method	Min. PRT Weight
Printer Type	Fill PRT Option
Back Zero Limit	
Print Format	【↑】 Option 【Input】 Confirm

1) Print Method

Push【↑▌↓】keys to move the optional bar to『Print Method』and then push【Input】key to display the following interface:

Automatic Print		
Manual Print		
【←】 Back	【↑】 Option	【Input】 Confirm

VAL	Remarks
Auto Print	Automatically print and save the weighing data during the weighing process.
Manual Print	Push 【Save Print】 or 【Fill PRT】 during the weighing process print and save the weighing data.

Push【↑】【↓】keys to select relative setup and then push【Input】key. The indicator saves parameters automatically. Then push 【←】 key for going back to the previous menu. Push 【Weighing】 key to return to weighing interface. In this instruction, the method for optional parameter setup is same as the above.

2) Printer Type

Push 【↑】【↓】 keys to move the optional bar to 『Printer Type』 and then push 【Input】 key to display the following interface:

Print Invalid	EPSON LQ-1600K
Microprinter	
Psonic KX－P1131	
EPSON LQ-300K	【↑】 Option 【Input】 Confirm

VAL	Remarks
Print Invalid	Print function is invalid in this indicator.
Microprinter	Built-in micro microprinter is applied.
Psonic KX-P1131	Panasonic KX-P1131 model printer is used.
EPSON LQ-300K	EPSON LQ-300K model printer is used.
EPSON LQ-1600K	EPSON LQ-1600K model printer is used.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

3) Zero Limit for Print

Push 【↑】【↓】 keys to move the optional bar to 『Zero Limit for Print』 and then push 【Input】 key to display the following interface:

Zero Limit for Print	【123】
VAL: 0%	
(Input judging scope for zero: 0～100)	
【←】 Back	【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	3 digits can be input at most with the scope between 0-100. The indicator shall report fault if beyond this scope. 0 means printing available only when resetting to zero, while 100 refers to no limit.

After inputting by number keys, push 【Input】 key to save the parameters.

4) Option of Print Format

Push 【↑】【↓】 keys to move the optional bar to 『Option of Print Format』 and then push 【Input】 key to display the following interface:

	Record Format
1	Link format
2	Link draft format
3	Link Format　　【↑】Option 【Input】 Confirm

VAL	Remarks
Record Format	Weighing record is printed according to record format. See the appendix for relative format instruction.
1Link Format	Weighing record is printed according to one link format. See the appendix for relative format instruction.
2Link draft Format	Weighing record is printed according to link format. See the appendix for relative format instruction.
3Link Format	Weighing record is printed according to link format. See the appendix for relative format instruction.

Push 【↑】【↓】 keys to select relative setup and then push 【Input】 key. The indicator saves parameters automatically.

5) Min. PRT Weight

Push 【↑】【↓】 keys to move the optional bar to 『Min. Print Weight』 and then push 【Input】 key to display the following interface:

Min. PRT Weight	【123】
VAL: 0.010kg	
(VAL ≥10e)	

【←】 Back 【Input】 Confirmation

Input Area	Input mode	Remarks
VAL	Number	6 digits can be input at most and the maximum print weight must be not less than 10 divisions. Every time after completion of calibration, the indicator correct automatically the min. VAL of min. print weight as per the set scale division value.

After inputting via number keys, push 【Input】 key to save the parameters.

6) Fill PRT Option

Push 【↑】【↓】 keys to move the optional bar to 『Fill PRT Option』 and then push 【Input】 key to display the following interface:

Fill PRT not applied.
Fill PRT applied.
【←】 Back 【↑】 Option 【Input】 Confirm

VAL	Remarks
Fill PRT not applied	Fill PRT mode is not applied in printer. See appendix for relative print modes.
Fill PRT applied	Fill PRT mode is applied in printer. See appendix for relative print modes.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

(2) Comm Setup

Push 【↑】【↓】 keys to select 『Comm Setup』 and then push 【Input】,

Comm Method
Comm Address
Baud Rate
【←】 Back 【↑】 Option 【Input】 Confirm

1) Comm Method

Push【↑】【↓】keys to move the optional bar to 『Comm』 and then push【Input】key to display the following interface:

Command Mode

Continuous mode 【←】 Back 【↑】 Option 【Input】 Confirm

VAL	Remarks
Command mode	Command mode is adopted for the communication mode between the indicator and upper computer. See the chapter Communication for instruction of relative communication modes.
Continuous mode	Continuous mode is adopted for the communication mode between the indicator and upper computer. See the chapter Communication for instruction of relative communication modes.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

2) Comm Address

Push 【↑】【↓】 keys to move the optional bar to 『Comm Address』 and the push 【Input】 key to display the following interface:

Comm Address　　【123】 VAL: 1 (From 1to 26) 【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	2 digits can be input at most and the scope for communication address is limited between 1 and 26.

After inputting via number keys, push 【Input】 key to save the parameters.

3) Baud Rate

Push【↑】【↓】keys to move the optional bar to『Baud Rate』and then push【Input】key to display the following interface:

Baud Rate　　【123】 VAL: 1200 b/s (Input 600, 1200, 2400. 4800 and 9600) 【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	4 digits can be input at most. Only 600, 1200, 2400. 4800 and 9600 can be input and fault will be caused if other number is input.

After inputting via number keys, push 【Input】 key to save the parameters.

(3) USB Setup

Push 【↑】【↓】 keys to move the optional bar to 『USB Setup』 and then push 【Input】 key to display the following interface:

USB Disable
USB Disable
【←】 Back 【↑】 Option 【Input】 Confirm

VAL	Remarks
USB disable	Communication between USB and upper computer is allowed.
USB disable	Communication between USB and upper computer is forbidden.

Push【↑】【↓】keys to select relative set and then push【Input】key. The indicator saves parameters automatically.

(4) Net Setup

Push 【↑】【↓】 keys to move the optional bar to 『USB Setup』 and then push 【Input】 key to display the following interface:

Net Enable	Default Gateway
IP Address	
Subnet Mask	
MAC Address	【↑】Option 【Input】 Confirm

1) Push 【↑】【↓】 keys to select 『Net Function』 and then push 【Input】 key,

Net Disable
Net Disable
【←】 Back 【↑】 Option 【Input】 Confirm

VAL	Remarks
Net Disable	Communication through Ethernet is forbidden for the indicator.
Net Disable	Communication through Ethernet is allowed for the indicator.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

2) Push 【↑】【↓】 keys to select 『IP Address』 and then push 【Input】 key,

IP Address　　【123】
VAL: 192.168.002.175
(IP ADDR,range:000-255)
【←】 Back　　【Input】 Confirmation

Input Area	Input mode	Remarks
VAL	Number	Input IP address of the indicator with number keys and total 12 numbers are required to be input.

After inputting via number keys, push 【Input】 key to save the parameters.

3) Push 【↑】【↓】 keys to select 『Subnet Mask』 and then push 【Input】 key,

Subnet Mask　　【123】
VAL: 255.255.255.000
(Subnet Mask,range:000-255)
【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	The Subnet Mask is input with number keys and total 12 numbers are required to be input.

After inputting via number keys, push 【Input】 key to save the parameters.

4) Push 【↑】【↓】 keys to select 『MAC Address』 and then push 【Input】 key,

MAC Address　　【123】
VAL: 3190
(MAC Address:0-9999999)
【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	MAC address of the indicator is input with number keys.

After inputting via number keys, push 【Input】 key to save the parameters.

5) Push 【↑】【↓】 keys to select 『Default Gateway』 and then push 【Input】 key,

Default Gateway　　【123】
VAL: 192.168.002.001
(Gateway range:000-255)
【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Default gateway of the indicator is input with number keys and total 12 numbers are required to be input.

After inputting via number keys, push 【Input】 key to save the parameters.

(5) Date/Time Setup

Push 【↑】【↓】 keys to select 『Date/Time Setup』and push 【Input】 key to Input the password protection status. CAL PWD is required to be input.

FUNC PWD　　【123】
VAL
(Input correct FUNC PWD)
【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digit password “888888”, and each “*” stands for 1 number. The first 6 digits are defaulted if over 6 digits are input.

After inputting correct FUNC PWD, push 【Input】 key,

Date/Time Setup　　【123】
Date: 06 / 08 / 31
Time: 20 : 16 : 53
【←】 Back　　【Input】 Confirm

After inputting date, push 【Input】 key to save it and then display,

Date/Time Setup　　【123】
Date: 06 / 08 / 31
Time: 20 : 16 : 53
【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
Date	Number	Input 6-digit date value and display it while shifting towards left, with 2 digits respectively for year, month and day. For example: if the date is November 17, 2006, then input “061117”.
Time	Number	Input 6-digit time value and display it while shifting towards left, with 2 digits respectively for hour, minute and second. For example: if the time is 13:08:30, then input “130830”.

After inputting time, push【Input】key to save it and then the date is displayed cyclically. Push【←】for returning to the previous menu.

(6) Date/Time Display

Push 【↑】【↓】 keys to select 『Date/Time Display』and push 【Input】 key.

Time Display
Date Display
Neither displayed
【←】 Back 【↑】 Option 【Input】 Confirm

VAL	Remarks
Time Display	Display the current time under weighing interface
Date Display	Display the current date under weighing interface
Neither displayed	Neither time nor date is displayed under weighing interface

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

(7) CGO No. Disable

Push 【↑】【↓】 keys to select 『CGO No. Disable』and push 【Input】 key.

CGO No. not applied
CGO No. applied
【←】 Back 【↑】 Option 【Input】 Confirm

VAL	Remarks
CGO No. applied	Cargo name can be set in the indicator and CGO No. shall be displayed in the print.
CGO No. not applied	Cargo name is forbidden to set in the indicator and CGO No. shall not be displayed in the print. The【CGO No.】 key has no function of setting CGO No. in weighing mode.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

(8) VEH No. Enable

Push 【↑】【↓】 keys to select 『VEH No. Enable』and push 【Input】 key.

VEH No. not applied
VEH No. applied
【←】 Back　　【↑】 Option　　【Input】 Confirm

VAL	Remarks
VEH No. applied	VEH No. name can be set in the indicator and VEH No. shall be displayed in the print.
VEH No. not applied	VEH No. name is forbidden to set in the indicator and VEH No. shall not be displayed in the print. The 【VEH No.】 key has no function of setting VEH No. in weighing mode.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

(9) Axle Enable

Push 【↑】【↓】 keys to select 『Axle Enable』and push 【Input】 key.

Axle not applied
Axle applied
【←】 Back　　【↑】 Option　　【Input】 Confirm

VAL	Remarks
Axle not applied	The indicator Inputs normal measuring mode.
Axle applied	The indicator Inputs static axle mode.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

(10) Axle Lock Value

Push 【↑】【↓】 keys to select 『Axle Lock Value』and push 【Input】 key.

Axle Lock Value 【123】
VAL: 0%
(From 0 to 100)
【←】 Back 【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	3-digits can be input at most. The axle unlocking threshold is limited between 0-100%. The percentage refers to the proportion of locked axle value.

Push 【↑】【↓】 keys to select relative set and then push 【Input】 key. The indicator saves parameters automatically.

(11) Contrast of Display

Push 【↑】【↓】 keys to select 【Display Contrast】and push 【Input】 key.

Contrast of Display 【123】
VAL: 4
(From 0 to 9)
【←】 Back 【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	1- digit can be input at most and the contrast of display is limited 2- to 0-9; The number 0 means that the contrast of screen is the lowest; The number 9 means that the contrast of screen is the highest.

After inputting with number keys, push 【Input】 key to save the parameters.

(12) Display contrast

Push 【↑】【↓】 keys to select 『Display contrast』and push 【Input】 key.

Display contrast　　【123】 VAL: 4 (Input display contrast: 0-7) 【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	1-digit can be input at most and the display contrast is limited to 0-7; The number 0 means that the brightness of screen is the lowest; The number 7 means that the brightness of screen is the highest. This setup is only applicable for double-window indicator—D18!

After inputting with number keys, push 【Input】 key to save the parameters.

(13) CAL PWD Exchange

Push 【↑】【↓】 keys to select 『CAL PWD Change』and push 【Input】 key.

CAL PWD　　【123】 VAL (Input correct CAL PWD) 【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digit for password value and each "*" stands for one number. The first 6 digits are defaulted if over 6 digits are input.

Push【Input】key after inputting the CAL PWD. If it is correct, then Input the next step. Otherwise, there shall be fault reported and it needs to be input again. If three mistakes are made, the indicator will return to the previous menu. Push 【←】 key and the indicator directly return to the previous menu.

CAL PWD Change　　【123】 VAL (Input new CAL PWD) 【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digit for password value and each "*" stands for one number.

		The first 6 digits will be defaulted if over 6 digits are input.

Push 【Input】 key after inputting new CAL PWD,

CAL PWD Change 【123】
VAL
(Re-input the new CAL PWD)
【←】 Back 【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digits for password value and each "*" stands for one number. The first 6 digits are defaulted if over 6 digits are input.

Input the new password again. If the new password input between two times is consistent, then the indicator shall update the CAL PWD and then return back to the previous menu. Otherwise, revision of CAL PWD shall not be allowed and the indicator will directly returns to the previous menu. Push 【←】 key for going back to the previous menu.

(14) Time PWD Change

Push 【↑】【↓】 keys to select 『Time PWD Change』and push 【Input】 key.

CAL PWD 【123】
VAL:
(Input correct CAL PWD)
【←】 Back 【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digit for password value and each "*" stands for one number. The first 6 digits are defaulted if over 6 digits are input.

Push 【Input】 key after inputting the CAL PWD. If it is correct, then Input the next step. Otherwise, there shall be fault reported and it needs to be input again. If three mistakes are made, the indicator shall be back to the previous menu. Push 【←】 key and the indicator directly return to the previous menu.

Time PWD Change 【123】
VAL: 99/99/99

(Input timing power-off date) 【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number	Input 6-digit date value and display it while shifting towards left, with 2 digits respectively for year, month and day. For example: if the date is November 17, 2006, then input "061117". **When the input value is "999999", timing power-off function is cancelled automatically.**

After inputting for timing power-off date with number keys, push 【Input】 key to save while push 【←】 key for going back to the previous menu.

(15) Company Name

Push 【↑】【↓】 keys to select 『Company Name』and push 【Input】 key.

Company Name　　【123】 VAL: Shanghai Yaohua Weighing Company (Input the company name) 【←】 Back　　【Input】 Confirm

Input Area	Input mode	Remarks
VAL	Number/English Sign	23 characters can be input at most.

Input the company name and print it on the weighig list. Mixed input with English, number and sign is allowed. 23 characters can be input at most. Push 【Input】 key to save after inputting.

(16) Inner Code

Push 【↑】【↓】 keys to select 『Inner Code of Indicator』and push 【Input】 key. The indicator displays the current inner code.

VEH　CGO.　12:42:56 **250000** Inner Code　Stable

Push 【Weighing】 key and then the indicator is back to the weighing interface.

(17) System Test

Push 【↑】【↓】 keys to select 【System Test】and push 【Input】 key. The indicator displays:

Micpri Test

Software
【↑】 Option【Input】 Confirm

1) Micropri Test

Push 【↑】【↓】 keys to select 【Micropri Test】 and push 【Input】 key. If there is fault for the micro-print, the indicator displays fault prompt.

2) Software

Push 【↑】【↓】 keys to select 【Micropri Test】and push 【Input】 key. The indicator displays:

Software
VER　1.00
2008.01.01
【←】 Back

8. Check Record Setup

Under weighing interface, push 【Check】 to Input check record interface.

REC Search	Scan Record
VEH. Search	All Records DEL
CGO. Search	Overload RECs DEL
Overload REC	【↑】 Option　【Input】 Confirm

See the Chapter “Print and Record Processing” for detailed operation.

Chapter 5 Input mode

I. Profile of Input mode

This indicator adopts the input mode with number/English/Sign mixed. The operational way is similar to that of T9 input mode which is popular among mobile phones at present.

II. Operation of Input mode

When inputting the parameters of【VEH No.】,【CGO No.】, and【Company Name】, the input mode with number, English and Sign mixed can be used, while just number can be input for other parameters. When the mixed input mode is allowed, push 【Input mode】 key to switch the status. Push 【Clear】 key to clear the input characters one by one.

Display in the upper right corner of the screen	Input mode Status
【123】	Input Status of Number
【ABC】	Input Status of Capital English
【abc】	Input Status of Minuscule English
【.?!】	Sign Input Status

(1) Input Status of Number

Input the number according to the corresponding number on the keyboard.

(2) Input Status of Capital/Minuscule English

First push 【Input mode】to switch into capital/minuscule English input status and then push the corresponding keys of the letters. (For example, if letter C should be input, push 【Number 1/ABC】 key.)

1) Constantly push the same character key within 1 second, the input character shall be switched among the character groups corresponding with this key.

For example, constantly push 【1/ABC】 key within one second, then the input character shall be switched among A, B and C. Finally, one character is input.

2) Push the character key for over 1 second, the first character corresponding with this key shall be input. If other characters are required to input, repeat the operation in the above 1), i.e, push the character key within 1 second corresponding with the letter.

For example, if you want to input “hai”, constantly push 【3/GHI】 key twice for input of letter “h” (the interval shall be less than 1 second), push 【1/ABC】 key in one minute for once input of letter “a”, and then push 【3/GHI】 for three times input of letter “i” in one minute (the interval shall be less than 1 second). Then the input can be finished.

(3) Input Status of Sign

XK3190－D18　　Input mode

First push 【Input mode】to switch into sign input status.

1) All the optional signs are displayed in the screen below. After pushing 【←】【→】 keys to select the required sign, the chosen sign highlighted. Push 【Input】 key and the indicator shall list the chosen sign in the input area and then automatically switches into Pinyin input status to wait for the next character input.

2) If you want to continue to input sign, push 【Input mode】 key to switch into the sign input status and then select the optional sign. After input, push 【Input】 key to save it.

For example, if you want to input "?", push 【Input mode】to switch into sign input status. There shall be a series of signs displayed in the screen below. Push 【→】 for five times to select "?", and push 【Input】 key to list the "?" in the input area. Meanwhile, the input mode is back to Pinyin Input status

Chapter 6 Calibration

I. Calibration setup

First open the lead seal, toggle the calibration switch inside to enable it to allow calibration. In weighing mode, press 【Calibration】and the indicator will show as follows:

CAL PWD	【123】
VAL:	
Input right calibrate PWD	
【←】Back	【Input】Confirm

Input area	Input mode	Instructions
VAL	number	Input a 6- digit password. Each"*"stands for one digit The first 6 digits are defaulted if more than 6 digits are input. The default password is "**888888**"

After inputting the valid password, press 【Input】 to Input the calibration setup interface. If password is invalid, error report will appear to require another input. After three incorrect inputting, the indicator will return to weighing interface. Press 【←】to directly return to weighing interface.

Calibration setup interface is as follows:

Calibration	Manu Zero Set upon Initialization
Zero track speed	Filter degree
Zero track range	Unit
Manu Zero Set	【↑】Select 【Input】confirm

On the calibration setup interface, press 【↑】【↓】for video reversed bar to select 『Calibration』. Press 【Input】 to Input the setting process interface of calibration.

First appears the division value setting,

Division	【123】
VAL：1	
(1,2,5,10,20,50 select)	
【←】 Back	【Input】Confirm

Input area	Input mode	Instructions
VAL	Number	For division value, only 1，2，5，10，20，50 can be input. Error report will receive if other numbers are input.

After inputting division value, press 【Input】 to set decimal points.

Decimal point 【123】 VAL: 3 (Input: 0,1,2,3,4) 【←】Back 【Input】Confirm

Input area	Input mode	Instructions
VAL	Number	For scaling position, only 0，1，2，3，4 can be input. Error report will receive if other numbers are input.

After setting decimal point, press 【Input】 for full scale setting

F.S. 【123】 VAL: 3.000 kg (Input F.S. value) 【←】Back 【Input】Confirm

Input area	Input mode	Instructions
VAL	Number	At most 6 digits are accepted

After inputting F.S value, press 【Input】 for zero point confirmation

VEH. CGO 14:31:48 **1569** Calibration AD code Stable Zero point

Wait for ad code to stabilize in idling stage under no load statue. Press 【Input】, and the indicator will Input the load confirmation stage.

VEH. CGO 14:31:48 **298568** Calibration AD code Stable Zero point

To load standard weight, wait for AD code to stabilize, then press 【Input】to Input the interface for load value setup interface (if AD code jumps slightly, it can be considered stabilized)

Loading 【123】 VAL: 3.000 kg (Input loading value) 【←】Back 【Input】Confirm

Input area	Input mode	Instructions
VAL	Number	At most 6 digits are accepted

After inputting loading value, press 【Input】 key to finish calibration. The indicator indicates “Calibration End” and returns to weighing mode.

Generally speaking, calibration can be completed with the above-mentioned steps. The default values upon delivery from the factory can be adopted for other measuring parameters. To meet some special requirements, the operating procedures of *the* chapter M*enu* S*etup* can be followed to do the corresponding setting for the related parameters.

Chapter 7 Communication

I. Serial communication interface

Notes：

1． The connection of the output lead of communication interface with the computer must be correct. Or otherwise, the output terminal of indicator and the communication input terminal of computer will be damaged, even causing , severe damage of indicators, computer and corresponding peripheral equipments.

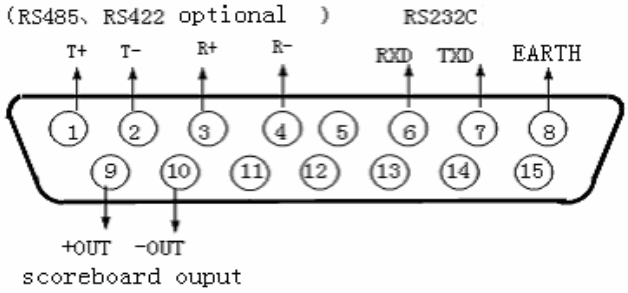
2． Computer communication requires certain computer skill and programming ability of the operator, who must be accompanied or led by some professional technicians. Non-professionals are not supposed to connect without authorization.

Xk3190－d18 type weighing indicator can realize data communication with upper computer through Comm Setup Two communication manners are selectable: continuous mode and instruction mode. In the instruction manner, one upper computer can work with multiple indicators. （rs422/rs485）

1． **Comm Method**

(1) Communication interface of this indicator adopts a D-sub 15 pin socket. Signals of each pin are shown as 6-, 7-, 8-pin （rs232）, or 1-, 2-, 3-, 4-, 8-pin （rs422/rs485），in Fig.（7-1）. Serial communication and scoreboard display share one socket.

This only applies to Yaohua Communication Interface Protocol. For any special requirements, users can make connection according to the leading wire definition.



Display output of scoreboard

Fig. (7-1) Serial communication and scoreboard display output interface signal

(2) For connecting wire, 4-pin shielded cable is recommended, whose shield layer should be grounded at the host computer side.

2． Interface signal parameters

(1) Signal: rs232/rs422/rs485 rs232/rs422/rs485 signal

(2) Baud rate: 600/1200/2400/4800/9600 is selectable for setting

(3) Address range: 26 locations（a～z）

3. Continuous transmission manner of serial communication

The data transmitted are the weighing result displayed on the indicator of the current load (gross weight or net weight). Each frame contains 12 groups of data in the following form:

x-th byte	Content and explanation
1	02 (xon) begin
2	+or- Sign bit
3	Weighing value High-Command bit
x-th byte	content and explanation
:	Weighing data
:	Weighing data
8	Weighing data low-Command position
9	Decimal digits from right to left（0～4）
10	XOR Calibration high 4-digit
11	XOR Calibration low 4-digit
12	03 (x0ff) end

xor＝2⊕3⊕ ……8⊕9

4． Command mode of serial communication

The indicator outputs corresponding data as per the command of upper computer. Every time when the upper computer gives out an instruction, the indicator should output 1 frame of data.

Commands from upper computer

n-th group	Content and explanation
1	02（xon） Begin
2	A～z Location code
3	A～i Command a: handshake
	Command b: read gross
	Command c: read tare
	Command d: read net
	Command e: access VEH No.
	Command f: access CGO No.
	Command g: Delete All
	Command h: set to zero
	Command i; tare
4	XOR Calibration high 4-digit
5	XOR Calibration Low 4-digit
6	03（xoff） end

Output content of indicator:

x-th group	Content and explanation
1	02（xon） Begin
2	A～z Location number
3	A～i Command a：handshake
	Command b：transmit gross weight
	Command c：transmit tare
	Command d：transmit net weight
	Command e：transmit VEH No..
	Command f：transmit CGO No...
	Command g: no data
	Command h：no data
	Command i：no data
4	Output corresponding data as per the command content
x-th group	Content and explanation
5	Output corresponding data as per the command content
6	Output corresponding data as per the command content
7	Output corresponding data as per the command content
8	Output corresponding data as per the command content
	Output corresponding data as per the command content
	Output corresponding data as per the command content
N-1	Output corresponding data as per the command content
N	Output corresponding data as per the command content
N+1	XOR Calibration high 4-digit
N+2	XOR Calibration low 4-digit
N+3	03（xoff） End

The content of 4～n are as follows when the indicator is outputting data:

Command a	no data	Each frame consists of 6 groups of data
Command b	as gross weight form：	Each frame consists of 14 groups of data
	4： sign（＋or－）	
	5～11： gross weight value（6 digits and one decimal digit）	
Command c	as tare， form：	Each frame consists of 14 groups of data
	4： sign（＋or－）	

	5～11： tare value（6 digits and one decimal digit）	
Command d	as net weight form：	Each frame consists of 14 groups of data
	4： sign（＋or－）	
	5～11： net weight value（6 digits and one decimal digit）	
Command e	VEH No.. form： 4 ～13: 10 characters	Altogether 16 characters are transmitted. Chinese characters are allowed (one Chinese ideograph takes space of two characters). When VEH No. Is shorter than 10 characters, use space to fulfill.
Command f	CGO No.. form： 4 ～13: 10 characters	Altogether 16 characters are transmitted. Chinese characters are allowed (one Chinese ideograph takes space of two characters). When CGO No. Is shorter than 10 characters, use space to fulfill.

xor＝2⊕3⊕……10⊕11

Note: definition of XOR Calibration of high & low 4 digits:

1. If the XOR Calibration sum of high & low 4 digits are less than or equal to 9, then it is transmitted as ascii code number after adding add 30h.

   For example: if the high 4 digit of XOR Calibration is 6, 36h is obtained after adding 30h, i.e., 6 in ascii code is then transmitted.

2. If the XOR Calibration sum of high & low 4 digits is more than 9, then it is transmitted as ascii code number after adding 37h. .

   For example: the high 4 digit of XOR Calibration is b, 42h is obtained after adding 37h, i.e. b in ascii code is then transmitted.

II. Connection and usage of scoreboard with indicator

The connection of the output lead of large screen with the display must be correct. Or otherwise, the output terminal of indicator and the input port of display of large screen will be damaged, even causing severe damage of indicators, display of large screen. Self-contained exclusive wires are required for the connecting.

1． **Scoreboard display interface adopts 15-pin D-sub socket (share one socket with serial communication interface). Functions of its pins are shown as** 9-, 10-pin **in Fig.** (7-1). (This is an output manner of current loop, a standard connection manner of wires on departure from factory)

2 . **Scoreboard signal is** current loop, serial output by binary code, with baud rate of 600. Each frame has 11 bits, 1

start bit (0), 8 data bits (low bits come first), 1 flag bit, and 1 stop bit (1).

3. One group of data is transmitted per 100ms. Each group contains 3 frames. See Fig (7-2) for its meaning.

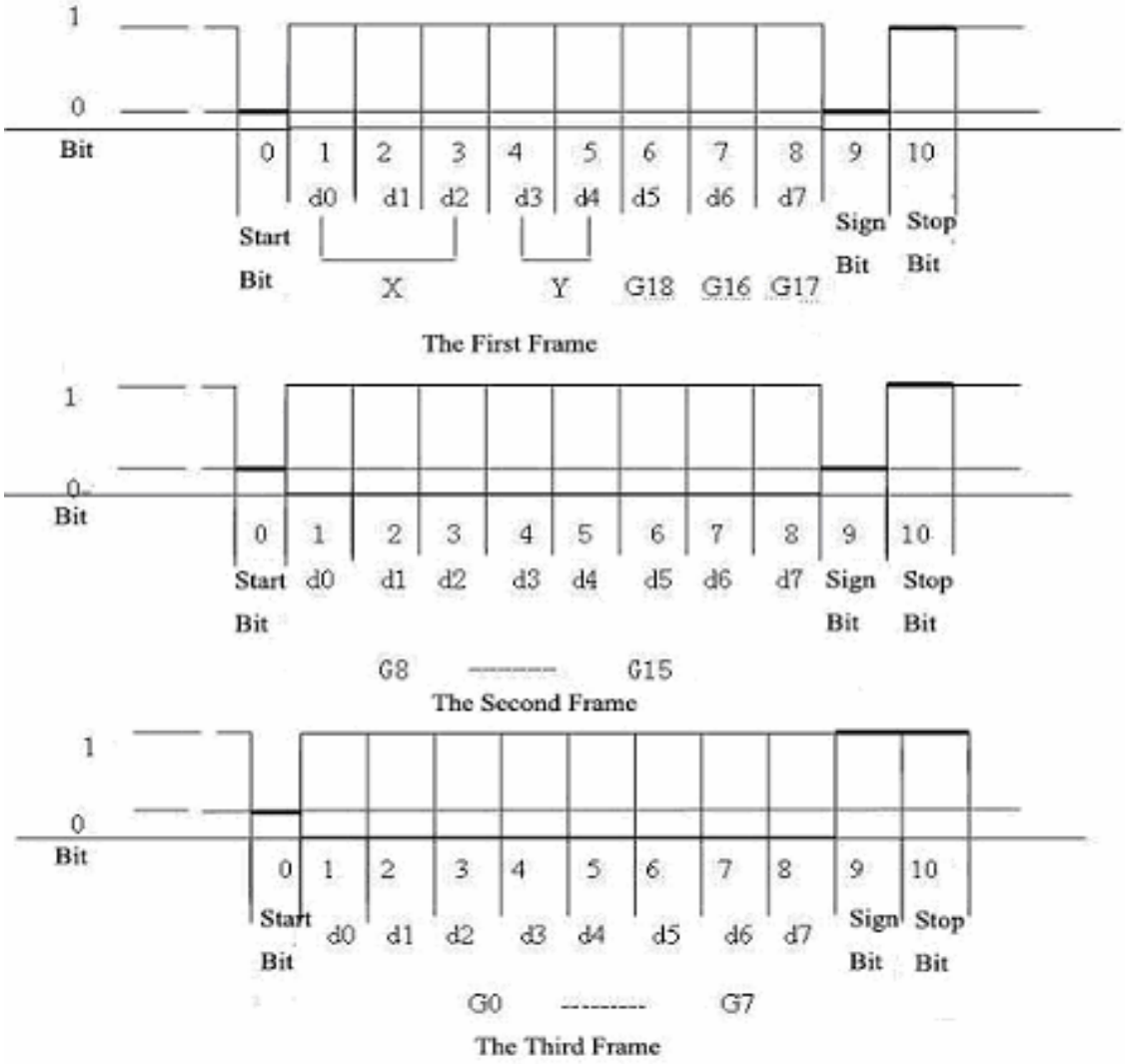


Fig. (7-2) Oscillogram of data format

The first frame: the flag bit is 0

x : d0, d1, d2 –are decimal bits (0～4)

y : d3 — is weight sign (1－negative, 0－positive)

d4 —spare

G: 18～g16：weight data

The second frame: the flag bit is 0

G:15～g8：are weight data

The third frame: the flag bit is 1

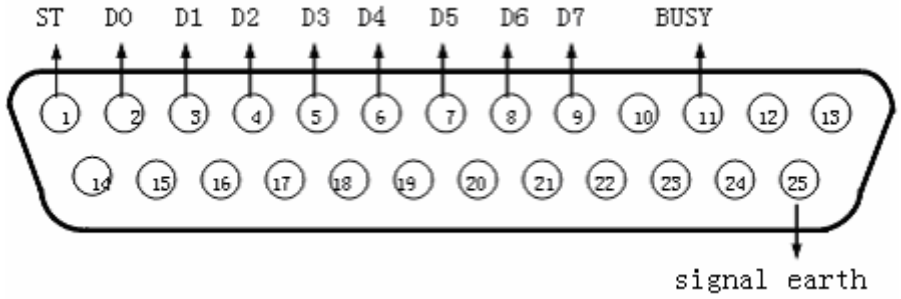
G:7～g0 ： are weight data

G0～g18： from low to high to form the 19-bit binary code for the (net) weight

Chapter 8 Print and Record Processing

I. Connection of the indicator with printer

The printer interface adopts standard parallel output. Socket connector uses 25-pin rs232 socket. Definition of each pin is as follows in Fig.（8-1）



(Fig.8-1) Interface signal of printer

Notes for printing:

1． Printing function comes into normal use only after setting.

2． The connection of the printer output lead of the indicator with the printer must be correct. Self-contained exclusive wires are required for the connecting. Or else wrong connection will injure the indicator output port and input port of the printer, even severely damage the indicator and the printer.

3．To use the printer, the wires must be connected before the indicator is powered on. Then the printer can be turned on. After the use of printer, turn off the printer first, then cut off the indicator power, finally take off the connecting wires. If theses procedures are performed in a wrong order, the indicator and printer can possibly be damaged. Please pay attention!

4．The printers have large variety, with different properties. Some are incompatible with the indicator. So please select the recommended printer.

5．The grounding of printer signal is forbidden to connect with that of power supply. This will cause damage to both **the indicator and printer**

II. Storing and printing of the weighing records

1． The indicator specifies 10 characters both for VEH No. and CGO No. (1 Chinese ideograph takes space of two characters). At most 1000 VEH No and CGO No. can be stored.

2． Each group of data is printed out every time when a complete group of records is stored. (if the printer is set valid)

3. There are three manners of data storage:

(1) No load data storage before full load data, or full load data before no load data. That's to say, such two data are required to form a set of record.

(2) When tare is known for a full load truck, one storage operation will make a complete record.

(3) If the weighed material is goods instead of the loaded truck, one storage operations will make a complete record

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To distinguish three storage methods, XK3190－D18 stipulates as follows:

1． License code *zero* means the goods to be weighed; no tare is required, which is permanently set to be 0. The VEH No. can not be cleard either. During displaying and in printing, it reads "----------".

2． If the tare sign is on, it means the tare is known, so one storage operation will make a complete record.

3． If the License code isn't 0, nor the current tare is 0, two storing operations are required to make one complete record.

4. Operation manner of storing and printing

I& n the weighing state, press 【Save Print】, and the indicator displays the following,

Print Information	【123】
VEH: A12345	Code: 1
CGO: ---	Code: 1
【←】Back	【Input】Confirm

Press 【Input】 after inputting the VEH No..

Print information	【123】
VEH**:** A12345	Code: 1
CGO: ---	Code: 1
【←】Back	【Input】Confirm

The code is generated automatically as per the VEH No. If VEH No. is not put previously, input code hereby, then press 【Input】 key

Print information	【123】
VEH: A12345	Code: 1
CGO: ---	Code: 1
【←】Back	【Input】Confirm

Press 【Input】 key after inputting CGO No..

Print Information	【123】
VEH: A12345	Code: 1
CGO: ---	Code: 1
【←】Back	【Input】Confirm

The code is generated automatically as per the VEH No... If CGO No. is not input previously, input code hereby, then press 【Input】 key.

The indicator executes storage and printing operation

Input area	Input mode	Instructions
VEH No.	number/ English/sign	at most 10 characters are to be input
Code (upper)	number	at most 3 digits are to be input
CGO No.	number/English/sign	at most 10 characters are to be input
Code (lower)	number	at most 3 digits are to be input

Notes:

(1) When there is reverse video in the input area, it means value can be input hereby. Select any from **VEH No**./CGO No. and code area to fill

（2）If VEH No /CGO No. area is chosen for the input value; the indicator will retrieve the memory automatically after【Input】key is pressed, to see if there is any corresponding code. If so, the code is shown, if not, new code is generated automatically and displayed. If the corresponding code of VEH No./CGO No. is known before hand, input the code directly into the code area and the indicator will retrieve automatically the corresponding VEH No./CGO No. and they are displayed. By this way, the relative complicate operations can be avoided. The VEH No./CGO No. can be input with Chinese, English and numbers mixed. Press 【Input mode】 to switch over the input modes. After completion of switchover between the four input areas, press【Input】 to save the VAL and execute printing operation. Printing is canceled and return to the weighing interface if 【←】is pressed.

（3）The data storage adopts two manners, with or without VEH No. . (See the chapter Menu Operation for detailed setting). If VEH No. is not used for setting, the license code is fixed as 0 and unchangeable.

（4）The data storage adopts two manners, with or without CGO No. (See the chapter Menu Operation for detailed setting). If CGO No. is not used for setting, the item code is fixed as 0 and unchangeable.

（5）When the data is unstable or either the gross weight or the net weight is less than or equal to 0, records can not be stored.

5. About auto save and print

(1) The setting of automatic storage and printing is described in the chapter Menu Operation.

(2) There isn't twice-storage manner for automatic auto save and print.

(3) VEH No./CGO No. in the automatic storage is the VEH No./CGO No. already set before the storage.

(4) Tare value for automatic storage is classified into 3 situations:

① When the net weight sign is on , the current weighed tare value is stored in the group of records

②When the net weight sign is not on, the indicator searches the tare of this VEH No. in the memory, and stores it into the group of records

③When the net weight sign is not on, and there is no tare of corresponding to the VEH No. in the memory, 0 is stored as tare value into the group of records.

6. When there are more than 1000 VEH No**.**, a certain VEH No. or all of the records are to be cleard in a manner introduced in next paragraph. If there are more than 1000 groups of weighing records, the indicator will clear the

earliest record to make room for the current weighing result.

III. An example for print operation

1． Print the weighing sheet with tare manually preset for one time

Procedures	Situations	Operations	Display	Instructions
1	item loaded	press 【preset tare】	setup interface of preset tare	
2	input the preset tare	E.g. 1000	VAL: 1.000 kg	
3		press【Input】		Save the VAL. The preset tare comes into effect
4		press 【←】		Return to weighing interface
5		press【Save Print】	Interface of inputting VEH No. & CGO No.	
6	input VEH No.	e.g.: aa1245, press 【Input】to save	VEH No.: aa1245	If the previous VEH No. is required, directly press 【Input】 without changing VEH No.
7		press 【Input】		Input code area.
8	Input VEH No.	1． If no VEH No. Is input, the code must be input. 2． If the VEH No. has been input, input nothing here.	code: 1	1. If the VEH No. has been input already, the code will be automatically generated. Press【Input】to skip directly. 2. If no VEH No. is input, input the code here.
9		press 【Input】		Input the item setting
10	Input CGO No.	E.g.: rolled steel. Press【Input】to save.	CGO No.: rolled steel.	if the previous CGO No. Is wanted here , directly press 【Input】 to reserve and the CGO No. Needn't any change.
11		press 【Input】		Input code region
12	Input item Code.	1．If no CGO No. is input, here code must be input. 2．If CGO No. is already, input nothing here.	Code: 0	1. If the CGO No. has been input already, the code will be automatically generated. Press【Input】to skip directly. 2. If no CGO No. is input, input the code here
13		press 【Input】		Save the code. Begin the printing and weighing

2． Direct manual printing of the weighing sheet for one time

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Procedures	Situations	Operations	Display	Instructions
1		press 【Save Print】	interface of inputting VEH No./ CGO No.	Press keys in the weighing interface
2		press 【Input】		No need to input VEH No. Directly press 【Input】 to Input code area.
3	"0" input VEH. No. code 0	input 0	code: 0	License code 0 means item weighing permanently, which cannot be cleard
4		press 【Input】		Save the code and Input the setting of CGO No.
5	input CGO No.	E.g.. rolled steel. Press 【Input】 to save	CGO No.: rolled steel.	If the previous CGO No. is required, directly press 【Input】without changing the CGO No.
6		Press 【Input】		Input code area
7	input CGO Code	1. If no CGO No. is input, input code here. 2. If CGO No. is already input previously, it is not required to input here	code: 0	1．If CGO No. is already input, code will be produced automatically. Press 【Input】 to skip. 2． If no CGO No. is input yet, input the code here.
8		Press 【Input】		Save the code to begin to print the weighing sheet.

3． Print the weighing sheet (two times storage mode, first empty load then full load, or first full load then empty load)

Procedures	Situations	Operations	Display	Instructions
1	Empty truck is loaded (wait until the sign stabilize)	press【Save Print】	Interface of inputting VEH No. & CGO No.	Press keys on the weighing interface.
2	input new VEH No.	e.g. ： aa1245, press 【Input】to save	VEH No.: aa1245	If the previous VEH No. is required, directly press 【 Input 】 without changing the VEH No..
3		press 【Input】		Input code area
4	input license code	1. If no VEH No. is input, input code here. If VEH No.	code: 1	1. If the VEH No. has been input already, the code will be automatically generated. Press 【Input】 to skip

		is already input previously, no need to input it here		directly. 2. If no VEH No. is input, input the code here.
5		press 【Input】		Save the code and Input the setting of items no.
6	input CGO No.	E.g. rolled steel. Press 【Input】to save	CGO no.: rolled steel.	If the previous CGO No. is required, directly press 【Input】, without changing the CGO No...
7		press 【Input】		Input code area
8	input CGO No.. Code	1. if no CGO No.. Is input already, input code here. 2. if CGO No. is already input previously,. Needless to input anything here	code: 1	1. if CGO No. is already input, code will be produced automatically. Press 【Input】 to skip. 2. If no CGO No. is input yet, input the code here.
Procedures	**Situations**	**Operations**	**Display**	**Instructions**
9		Press【Input】	Record incomplete, not print right now!	Save the code and return to the weighing interface
10	heavy truck is loaded (wait until the stabilize sign on)	Press【Save Print】	interface of inputting VEH No. / CGO No.	Display the VEH No. and CGO No. previously input
11	VEH No. inputting state	press【Input】		no need to input anything
12	VEH No. inputting state	press【Input】		no need to input anything
13	VEH No. inputting state	press【Input】		no need to input anything
14	CGO No.. inputting state	press【Input】	Printing…	no need to input anything. Press 【Input】key to print out weighing sheet

Attention: if heavy load is weighed for the first time, the empty load should be weighed next time. Other operations are similar.

4. Automatic printing of the weighing sheet with tare preset

XK3190—D18 Print and Record Processing

Procedures	Situations	Operations	Display	Instructions
1				Set 『printing method』 as "automatic printing" according to the requirements of chapter Menu Operations , and press 【Weigh】to return to weighing interface
2	input the preset tare	E.g.: 100	VAL: 100 kg	
3		press【Input】		Save the VAL. The preset tare comes into effect
4		Press【←】		Return to weighing interface
5	heavy truck is loaded (wait until the stabilizing sign on)		The weight reads 400 kg	Heavy load is 500, with tare 100 to be reduced
6			Printing	**Print automatically the weighing sheet when the weight display stabilizes**

5. Print the weighing sheet while calling the tare as per VEH No.

Procedures	Situations	Operations	Display	Instructions
1	Tare of the VEH No. has been preset			Already stored in the indicator
2	Heavy truck is loaded (wait until the stabilize sign on)	Press 【VEH No.】	setting interface of VEH No. and tare	Display the previous license and tare
3	Input the required VEH No.	E.g. aa00123 press 【Input】to save	VEH No.: aa00123	If consistent with the previous VEH No., directly press 【Tare】. There is no need to input VEH No.
4		press【Input】		Input the setting of license code.
5	input the required VEH No.	press【Input】		1. If the license has been input, directly press 【Input】 without inputting anything. 2. If no VEH No. is input previously, input the VEH No. and press 【Input】 to save
6		press 【Tare】	return to the weighing interface and display the	The value after deducting the saved tare

			net weight value. Net weighing sign shines	
7		Press 【Save Print】	interface of inputting VEH No./CGO No.	press key under weighing interface

Procedures	Situations	Operations	Display	Instructions
8	input new VEH No.	E.g. aa1245 press 【Input】 to save	VEH No.: aa1245	If the previous VEH No. is required, directly press 【Input】 without changing the VEH No..
9		press【Input】		Input code area
10	input license code	1. If no VEH No. is input already, input code here. 2． If VEH No. is already input previously, no need to input anything here	code: **	1. If VEH No. is already input, code will be produced automatically. Press 【Input】 to skip. 2. If no VEH No. is input yet, input the code here.
11		press【Input】		Save the code and Input the setting of CGO No.
12	input CGO No.	e.g.: rolled steel press 【Input】 to save	CGO No.: rolled steel.	If the previous CGO No. is required , directly press 【Input】 without any need to change the CGO No.
13		press【Input】		Input code area
14	input item code	1. If no CGO No. is input, input code here. 2． If CGO No. is already input previously, no need to input anything here	code: 0	VEH No.
15		press【Input】		**Print the weighing sheet**
16				Return to weighing state

6． Print the weighing sheet manually with varied truck tares preset

XK3190—D18 Print and Record Processing

Procedures	Situations	Operations	Display	Instructions
1		press 【VEH No.】	interface of setting VEH No. / tare	Press keys on the weighing interface
2	Input new VEH No.	E.g. aa00123, press 【Input】to save		If the existing VEH No. is required, press 【Input】 without transmitting new VEH No..
3		press【Input】		Input code area
4		press【Input】		Code is automatically generated according to the previously input VEH No. No need to set it here. Press 【Input】to Input the tare input area
5	transmit the preset tare	e.g.: 100, Press 【Input】to save	Tare: 100 kg	
6	Store preset tare for varied truck	1. Press【Input】to input new VEH No. cyclically and input the setting of next vehicle 2. If VEH No./tare are all input, press 【←】to return to weighing. interface		
Procedures	**Situations**	**Operations**	**Display**	**Instructions**
7		**Continue the operations as per above table "Print the weighing sheet while calling the tare as per VEH No."**		

7. Periodic printing of reports (three copies)

Procedures	Situations	Operations	Display	Instructions
1		press 【Report Print】		on the weighing interface
2		press【Input】		select the report by time
3		press number keys to input starting date		input the starting date of the printed

				record
		press number keys to input finishing date		input the finishing date of the printed record
4		press【Input】		print the related three reports

8. Print general report

Procedures	Situations	Operations	Display	Instructions
1		press 【Report Print】	Report Type	in weighing mode
2		press 【↓】		select Report 1
3		press【Input】		Report Print 1
4	Report 2～6	press 【↓】 to select other types for the second step		print out the reports respectively

Note: See appendix for the style of report by time form and report form

IV. Enquiry of the weighing record

Press【check】in the weighing interface to Input record-checking interface

Record Search	Scan Record
VEH No. Search	Delete All
CGO No. Search	Delete Overload
Overload REC	【↑】select 【Input】Confirm

Press【↑】【↓】 keys to select the check mode. Press 【←】to return to the weighing interface

VAL	Instructions
Record Search	scan the weighing record as per record time
VEH No... Search	scan the weighing record as per the recorded VEH No.
CGO No. Search	scan the weighing record as per the recorded CGO No.
Overload REC	scan the past Overload REC
Scan Record	scan all the weighing record
Delete All	scan the valid CGO No. reserved
Delete Overload	scan the past Overload REC

（1）Scan Record

press 【↑】【↓】 keys to select the manner of scan record. Press【Input】

Scan Record 【123】
From 06/04/12 to 06/04/12
VEH: 555 Code: 0
CGO: 1111 Code: 1

Input area	Input mode	Instructions
Starting from to	number	Input 6-digit date value. Shift left to display. Two digits respectively for year, month and date. For example: for the date Nov17, 2006, "061117" is to be input.
VEH No.	English sign	10 characters are to be input
CGO No.	English sign	10 characters are to be input

Press【Input】after inputting the date

0001/0020 06/04/12 12：32 ： 30
VEH: A12345 CGO: high-quality rolled steel Gross: 2000 kg tare: 50 kg
Net: 1950 kg 【↓】Turn pages

Press【↑】【↓】 keys to turn pages and scan the record

0002/0020 06/04/12 12：40 ： 30
VEH: A12345 CGO: high-quality rolled steel Gross: 2050 kg tare: 50 kg
Net: 2000 kg 【↓】Turn pages

Under Scan Record status, press 【Clear】to clear this record.

（2 ）VEH No. Search

Press【↑】【↓】 keys to select VEH No. and press【Input】

0001/0009
VEH: AA13355 Code: 001 Tare: 0.000 kg
【←】Back 【↓】Turn pages

Press【↑】【↓】 keys to turn pages and scan record. Press 【←】to return previous menu

（3）CGO No. Search

Press【↑】【↓】 keys to select CGO No. Then press【Input】

0001/0004
CGO: Rolled steel Code: 001
【←】Back 【↓】Turn pages

Press【↑】【↓】 keys to turn pages and scan record. Press 【←】to return to previous menu

（4）Overload REC

Press【↑】【↓】 keys to select the Overload REC and press【Input】

0001/0002
Date: 06/11/13 Time：15：26：48
Gross: 223.394 kg
【←】Back【↓】Turn pages

Press【↑】【↓】 keys to turn pages and scan record. Press 【←】to return to previous menu

（5）Scan Record

Press 【↑】【↓】 keys to select the 『Scan Record』manner, press【Input】

0001/0020 06/04/12 12：40 ： 30
VEH: A12345 CGO: high-quality rolled steel Gross: 2050 kg Tare: 50 kg
Net: 2000 kg 【↓】Turn pages

Press【↑】【↓】 keys to turn pages and scan record.

0002/0020 06/04/12 12：45 ： 30
VEH: A12345 CGO: high-quality rolled steel Gross: 2050 kg Tare: 50 kg
Net: 2000 kg 【↓】Turn pages

Under scan record. status, press 【Clear】to delete this record.

(6) Delete All

Press 【↑】【↓】 keys to select 『**Delete All**』. Press【Input】to Input the confirmation prompt for deletion. Press【Input】to clear all the records. Press【←】to return to the previous menu.

Delete All?
【←】 Back 【Input】Confirm

(7) Overload DEL

Press【↑】【↓】keys to select『Overload DEL』. Press【Input】to Input the confirmation prompt for deletion. Press【Input】to delete all the overloads. Press【←】to return to the previous menu. **Overload DEL** requires the correct input of CAL PWD

Chapter 9 Info prompts

No.	Indicator prompts	Explanation	Solutions
1	Time REC DEL?	Record the confirmation operation before deletion to prevent any wrong deletion.	Select whether to clear according to the prompts
2	VEH No. Rec DEL?	Record the confirmation operation before deletion to prevent any wrong deletion.	Select whether to clear according to the prompts
3	CGO No. Rec DEL ?	Record the confirmation operation before deletion to prevent any wrong deletion.	Select whether to clear according to the prompts
4	No CGO No. Rec.!	Prompt of no corresponding record	
5	No VEH No. Rec.!	Prompt of no corresponding record	
6	No Eligible Rec.	Prompt of no corresponding record	
7	No Overload REC	Prompt of no corresponding record	
8	REC DEL! Wait!	Prompt of deletion process by indicator	Wait for the completion of deletion
9	Time power-off!	It's time to turn off. The indicator is locked	Re-input the timing power-off time as per the set password
10	Overload!	the indicator is overloaded	Unload the whole or partial weight
11	Printing...		
12	Not meet print!		Follow the standard Save Printing specifications ●Not print when unsteady ●Resetting to zero is not made after previous printing. The indicator must be reset to zero. ●Not print when the weight is below zero
13	Not complete!		Second weighing is needed
14	EEPROM ERROR!	Parameter save by EEPROM is wrong, possibly due to the first use of indicator or damage of EEPROM	For delivered indicators, maybe EEPROM is damaged. A new chip is required.
15	Printer error!	Printer not connected or damaged; or printer model not compatible with the indicator	Check the connection of printer and indicator, or change for a compatible printer.
16	Upgraded	Prompt that data is saved	

XK3190—D18 Info prompts

17	Invalid	The inputed data is beyond the range	Input data correctly as per the prompt of the indicator parameter range
18	Records full	Memory of weighing records is full	1. All or part of the records need deleting to make room for later records 2. Memory needs initializing
19	No record	No weighing record in the memory	
20	Deleted	Prompt of records deletion	

Chapter 10 Maintenance & Notes

I. To ensure the clarity and service life of the indicator, it must be kept away from direct sunlight during using, and the ground where the indicator stands must be smooth.

II. It is improper to use this indicator in a dustful or vibrant or damp environment.

III. The load cell and indicator need good connection. System must have a good ground connection, and kept away from strong electric field, strong magnetic field. The load cell and indicator must be kept away from strong corrosive substances and inflammable& explosive materials.

▲！ Do not use it where inflammable gases or steams exist. Don't use it for canning system of compressive container.

▲！ In the area where lightning and thunder happen frequently, reliable lightning arrester should be installed to ensure the personal safety and to prevent any damage to the indicator and relative equipment caused by lightning stroke.

▲！ The load cell and indicator are both static sensitive equipments, so anti-static measures must be taken during the use. It is strictly invalid to carry out welding operation or other operations with high current on the weighing platform. In the stormy season, lightening prevention measures must be taken reliably to prevent any damage to load cell and indicator caused by lightening stroke, and to guarantee the personal security of operators and safe running of weighing devices and relative equipments.

IV. Strong solvents such as benzyl and nitro oils are forbidden for cleaning the housing

V. Don't inject any liquid or other conductive particles so as to avoid any damage of indicator and electric shock

VI. Before plugging in or out of the connecting line between indicator and external equipment, the power of both indicator and equipment should be cut off

▲！ Before plugging in or out of the connecting line of load cell, the power of indicator should be cut off!

▲！ Make sure that the indicator and the printer are powered off before inserting the connection line of printer.

▲！ Make sure that the indicator and the scoreboard are powered off before plugging in or out of the connection line of the scoreboard!

▲！ Make sure that the indicator and the upper computer are powered off before plugging in or out of the communication connection line.

VII. **Advice of the company: our company is responsible for the indicator quality, but not responsible for the problems of the system where the indicator locates. Your attention is required when making purchase.**

VIII. Please use the indicator outward interfaces strictly as per the operating instruction manual. Do not change the connection at random. If failure occurs in the using process, draw the plug immediately, and send it for professional factory for reparation. Non professional balance manufacturers are not supposed to do the repairing to avoid any worse damage. **It is not allowed to open the indicator at will, or else, repairing will be refused.**

IX. If non artificial defects and failures happen after normal use within one year after the sale date, the users can mail the product and guarantee repair card (with correct code) to the appointed reparation station or supplier. The manufacturer guarantees the life-time maintenance for the indicator

Appendix

1. Print Format

Report 1 by Time Date: 07/12/20 – 07/12/21

No	Date	Time	VEH No.	CGO No.	Gross weight (kg)	Tare (kg)	Net weight (kg)
1	07/12/20	11:26:16	AA000001	rolled steel	1000	100	900
2	07/12/20	11:29:16	AA000001	rolled steel	1200	100	1100
3	07/12/20	11:32:16	AA000001	rolled steel	1400	100	1300
Total Gross weight: 3600 kg Net weight: 3300 kg							

Note: Records in Report 1 by Time is to be listed in time order

Report 2 by Time Date: 07/12/20 – 07/12/21

No	VEH No.	Truck weight (kg)	Times	Grand gross weight (kg)	Grand net weight (kg)
1	---------	0	5	5000	5000
2	AA000001	0	3	3600	3300
3	AB000001	0	4	4000	3600

Note: Records in Report 2 by Time is to be listed in VEH No. order

Report 3 by Time Date: 07/12/20 – 07/12/21

No.	CGO No.	Time	Grand net weight (kg)
1	----------	5	4500
2	Rolled steels	3	3300
3	stone	10	5600

Note: Record in Report 3 by Time is to be listed in CGO No. order.

Report 1

No	Date	Time	VEH No.	CGO No.	Gross weight (kg)	Tare (kg)	Net weight
1	06-11-22	11:26:16	-------	-------	1200	0	1200
2	06-11-22	12:20:17	AA0001	oil	1500	200	1300
3	06-11-25	10:20:15	AB0001	Rolled steel	5600	600	5000
Total: Gross weight: 8300 kg Net weight: 7500 kg							

Note: Records in Report I is to be listed in time order

Report 2

No.	VEH No.	Truck weight (kg)	Times	Grand gross weight (kg)	Grand net weight (kg)
1	----------	0	5	2600	2600
2	AA000001	100	4	5600	5000
3	AB000001	100	4	6600	6100

Note: Record in Report 2 is to be listed in VEH No. order

Report 3

No	CGO No.	Times	）Grand net weight (kg)
1	----------	5	2600
2	rolled steel	4	5000
3	oil	4	6100

Note: Record in Report 3 is to be listed in CGO No. order

Report 4

No.	Code	VEH No.	Truck weight (kg)
1	0	----------	0
2	1	AA000001	100
3	2	AB000001	100

Note: Report 4 shows the code and truck weight corresponding with the VEH No.

Report 5

No	Code	CGO No.
1	0	----------
2	1	rolled steel
3	2	oil

Note: Report 5 shows the code corresponding with the CGO No.

Report 6

No.	Date	Time	Gross weight (kg)
1	06-11-21	10:14:20	2000
2	06-11-22	10:15:00	5600
3	06-11-23	12:17:30	4000

Note: Report 6 shows the Overload RECs

2. Expandable function instruntion

PS/2 keyboard

Summary

XK3190-D18 indicator can be added PS/2 keyboard interface. For the convenience of users to connect the indicator to popular key board, PS/2 interface adopts USB-A socket, which functions only as an interface. Insert the plugof the indicator to the PS/2 keyboard at the back pnel of the indicator, and the PS/2 keyboard is enabled to control the work of the indicator, Inputing all kinds of parameters.

Operation instructions

The function keys F1~F12, backspace key, cursor direction key of PS/2 keyboard correspond to the function keys of D18, see the table below for detailed correspondence relation:

Table Correspondence Relation between PS/2 Keyboard and XK3190-D18 Function Keys

XK3190-D18	F1	F2	CGO No.	VEH No.	Setup	Inspection	Save tare	Fill PRT
PS/2	F1	F2	F3	F4	F5	F6	F7	F8
XK3190-D18	Report Print	Preset tare	Zero Set	Sum Print	Save Print	Calibration	Input	Clear
PS/2	F9	F10	F11	F12	PrtScr	ScrollLock	Input	Backspace
XK3190-D18	Input mode	Back light	Axle	Axle All	Roll	Weighing	Select	Tare
PS/2	Insert	Break	Home	End	PgUp	PgDn	Tab	Del
XK3190-D18	←	↑	→	↓				
PS/2	←	↑	→	↓				

In the characters inputting status, the switchover of capitalization is same as that on the computers. When inputting Chinese characters, they appear in the Pingyin area. And the characters on the keyboard can be Inputed directly.

USB interface

USB interface of XK3190-D18 is a device interface, adopting USB-B socket, available for connection to the upper computer with the equipped USB cable, and to transmit weighing data and records to the upper computer. The data transmission format is same as RS-232C interface.

Ethernet interface

XK3190-D18 is an expandable Ethernet interface, with specifications of 10Base-T/100Base-TX. It can be connected to upper computer via LAN, and to internet by gateway, and transmit weighing data and records to the upper computer.

DC 6V Power Interface

XK3190-D18 is an expandable DC 6V direct current power interface, and accept 6V storage battery with an input voltage of 5.5~8V, which is displayed on the equipment. When the battery voltage is low, the running of microprinter is stopped. When the battery voltage is too low, the equipment powers off automatically.

Expand ABLE interface

On the Main board of XK3190-D18, there are expandable interfaces，through which, 4-20m electric current loop, CAN interface can be added