

**XK3190-D2+P**  
**WEIGHING INDICATOR**

**MANUAL**

PLEASE READ THIS MANUAL VERY CAREFULLY  
BEFORE USE

Dec 2006

*Specifications subject to change without prior notice*

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## 1. GETTING STARTED

### CAUTION

- *This is not a toy. Keep out of reach of children;*
- *This indicator is not an explosion proof device;*
- *This indicator is not a water proof device;*
- *Do not open this indicator, no user serviceable parts inside. Always contact supplier for service.*

### 1.1 Introduction

Weighing indicator XK3190-D2+P adopts double integral A/D conversion technology with multi-functions and strong adaptability, widely applied in electronic floor scale、electronic truck scale、static railroad track scale and so on alike static weighing system equipped with 1~8 load cell.

### 1.2 Features

- High precision A/D conversion with readability 30000
- Able to setup zero-tracking range, zero(auto/manual) range
- Able to setup print function for auto/manual; no condition/under condition; daily/sorted statistics report printing
- Able to setup print function for fast filled weighing bill
- Able to save 255 vehicle ID and corresponding tare

weight, 100 cargo ID, 512 weighing records

- Weighing data save/check/delete/ protection in case of power off
- Linearity correction by manual calibration
- Max. 5-point nonlinearity correction manually
- Standard RS232 communication interface with selectable baud rate and communication method
- Standard scoreboard interface with 20mA current loop
- Standard parallel print interface, able to connect with 9-pin or 24-pin wide-line printer
- XK3190-D2+P with built in micro printer

## 2. TECHNICAL PARAMETERS AND SPECIFICATIONS

- Model: XK3190-D2+P
- Accuracy: Class III, N=3000
- A/D Conversion Method: Double integral
- Input Signal Range: 0mV ~ 30mV
- Max.net input signal range: 30mV
- A/D conversion speed: 50 times/sec.
- Nonlinearity: <0.01%FS
- Load Cell Excitation: DC15V; I:350mA
- Max. connection number of load cell: 8 at 350 ohm
- Load cell connection mode: 6 wire, auto compensation for long distance ≤ 50 meters
- Display: 6 bits VFD, 6 status indications
- Division: 1/2/5/10/20/50/100 optional
- Clock: real clock without effect on power off
- Scoreboard interface (Standard)

Serial sending signal by current loop with baud rate 600.

Transmission distance: Current loop ≤ 2000 meters;

- Communication interface( RS232 C standard; RS422 optional)

Serial communication interface, with selectable baud rate by continuous sending method or on command method

Transmission distance: RS232C ≤ 30 meters; RS422 ≤ 1200 meters

- Print interface (Standard)

Parallel sending, able to connect with wide-line printer model TM800、KX-P1121、KX-P1131、LQ300K、LQ1600K;

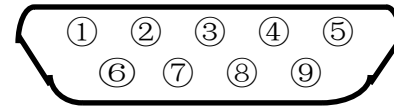
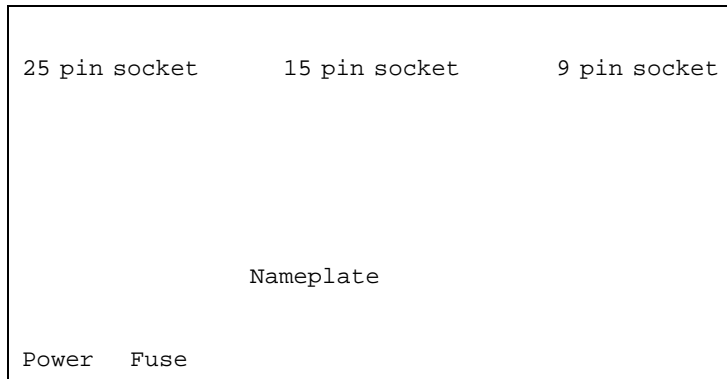
- Power supply: AC 187~242V, 49~51HZ;
- Fuse for AC: 200mA;

## 3. LAYOUT AT FRONT AND BACK

### 3.1 Front view of the indicator

UNIT: KG     AUTO DATE TIME  STABLE TARE ZERO	1 GOODS NO.	2 TRUCK NO.	3 CALIBRATE	CHECK
	4 SAVE PRINT	5 SUPPL PRINT	6 FORM PRINT	INPUT
	7 TOTAL PRINT	8 PRINT SET	9 TARE PRESET	WEIGH
	DELETE	0 F1	TARE	ZERO SET
	DATE	TIME	SAVE TARE	ON/OFF

### 3.2 Back view of the indicator



PIN #	ASSIGNMENT
1	E-
2	S-
5	SHIELD
6	E+
7	S+
8	IN-
9	IN+

Short connect PIN 1 AND PIN 2, PIN 6 and PIN 7 when connected to load cell with a 4-wire cable;

## 4. Connecting to Other Devices<sup>1</sup> through various interfaces

### 4.1 Connection to load cell

Connect this indicator to load cell through the 9-pin load cell connector located at the back. Refer to the below table for load cell pin assignment.

#### CAUTION

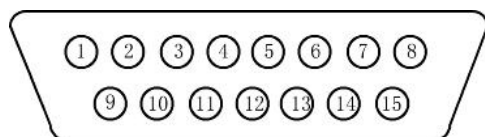
- *Connection between load cell and indicator must be reliable; shield-wire must be connected to ground reliably;*
- *Load cell and indicator are all static-electricity-sensitive devices, measures must be taken to ensure safety.*

### 4.2 Connection to PC or SCOREBOARD

From the 15-pin interface located at the back, you could

- Connect indicator to computer via RS232 output or RS422 output (optional);
- Connect indicator to scoreboard via 20mA current loop output;

<sup>1</sup> Turn scale off and cut off power before making any connections or disconnections.



15-pin connector

PIN #	ASSIGNMENT	PIN #	ASSIGNMENT
1	RS422 OUTPUT+	9	SCOREBOARD OUT+
2	RS422 OUTPUT-	10	SCOREBOARD OUT-
3	RS422 IN+		
4	RS422 IN-		
6	RS232 RXD		
7	RS232 TXD		
8	GND		
Note1: RS422 output is optional;			

#### 4.2.1 Connect to PC

Data format for RS232 or RS422 is the same. Data is transmitted in ASCII code. Data format is as listed below(one group):

1	2	3	4	5	6	7	8	9	10
START	DATA								STOP

There are two modes to communicate with PC:

- Continuously send, and
- Command mode.

#### A. Continuously send

Data transmitted is tare weight from the display of the indicator. Each time it sends one frame data to pc, one frame consists of 9 groups while the data format of one group is as listed above. Below is the content for one frame:

For example,

GROUP NO.	CONTENT	NOTES
1	=	START SIGNAL
2	WEIGHING DATA	High digit
3		
4		:
5		Low digit
6		
7		If decimal point is 3, then this group is "."
8		If decimal point is 2, then this group is "."
9		If decimal point is 1, then this group is "."

Now the indicator displays 70.15KG, then the frame indicator sends to PC is : =51.07000

#### B. Command mode

Indicator will act according to instruction from PC, one instruction from PC will trigger one act from indicator.

◆Format of instruction from PC is as followed:

GROUP NO.	CONTENT	NOTE
1	02(XON)	START
2	ADDRESS	From A~Z
3	COMMAND (FROM A~I)	A:For SHARKE
		B:For GROSS W
		C:For TARE W
		D:For NET W
		E:FOR TRUCK NO.
		F:FOR CARGO NO.
		G:FOR DELETE ALL RECORDS
		H:FOR ZERO
		I:FOR TARE
4	Verify	XOR HIGHT 4 BITS
5		XOR LOW 4 BITS
6	03(XOFF)	STOP
NOTE: $XOR = 2 \oplus 3$		

◆Format of data from indicator is as followed:

GROUP NO.	NOTES	
1	START XON (02)	
2	ADDRESS: A~Z	
3	A~D	A:TO SHARKE
		B:To send GROSS W
		C:To send TARE W
		D:To send NET W
		E:TO send TRUCK NO.
		F:To send CARGO NO.
		G:No data
		H:No data
		I:No data
4	COORESPONDING DATA ACCORDING TO COMMAND	
...		
N-1		
N		
N+1	Verify HIGH 4 BITS OF XOR	
N+2	Verify LOW 4 BITS OF XOR	
N+3	03(XOFF) STOP	
XOR= 2 ⊕ 3 ⊕ ..... ( n-1 ) ⊕ n		

Content of 4~N is as followed table according to different command:

COMMAND A	NO DATA	ONE FRAME (6 GROUPS)
COMMAND B :TO SEND GROSS WEIGHT	A: Sign bit(+/-)	ONE FRAME (14 GROUPS)
	B: Highest bit (6 BITS)	
	...(from high to low)	
	G: H:DECIMAL POINT(0~4)	
COMMAND C :TO SEND TARE WEIGHT	A: Sign bit(+/-)	ONE FRAME (14 GROUPS)
	B: Highest bit (6 BITS)	
	...(from high to low)	
	G: H:DECIMAL POINT(0~4)	
COMMAND D :TO SEND NET WEIGHT	A: Sign bit(+/-)	ONE FRAME (14 GROUPS)
	B: Highest bit for g.w	
	...(from high to low)	
	G: H:DECIMAL POINT(0~4)	
COMMAND G	NO DATA	ONE FRAME (6 GROUPS)
COMMAND H	NO DATA	ONE FRAME (6 GROUPS)
COMMAND I	NO DATA	ONE FRAME (6 GROUPS)

Note: For verify of XOR

High 4 bits and low 4 bits of XOR is defined: if high 4 bits or low 4 bits of XOR is  $\leq 9$ , then add 30h and transmit in ASCII code; if high 4 bits or low 4 bits of XOR is  $>9$ , hen add 37h and transmit in ASCII code

### C. Parameter setting at indicator for communication with PC

There are mainly three parameters to be set for communication with PC, they are address, baud rate and communication method.Refer to parameter setting for how to set these parameters.

#### 4.2.2 Connect to Scoreboard

Data is transmitted serially in binary code with baud rate 600. Data format is as listed below (one group):

0	1	2	3	4	5	6	7	8	9	10
START	DATA(Low is prior to high)								SIGN	STOP

Indicator sends one frame data to scoreboard per 100ms, one frame consists of 3 groups while the data format of one group is as listed above. Below is the content for one frame:

Group 1	0	1	2	3	4	5	6	7	8	9	10
	Start	D0	D1	D2	D3	D4	D5	D6	D7	SIGN	STOP
		X			Y		G16	G17	G18	0	1
Group 2	0	1	2	3	4	5	6	7	8	9	10
	Start	D0	D1	D2	D3	D4	D5	D6	D7	SIGN	STOP
		G8	G9	G10	G11	G12	G13	G14	G15	0	1
Group 3	0	1	2	3	4	5	6	7	8	9	10
	Start	D0	D1	D2	D3	D4	D5	D6	D7	SIGN	STOP
		G0	G1	G2	G3	G4	G5	G6	G7	1	1

For group one, Sign bit is 0; X(D0,D1,D2)means decimal point (0~4); Y (D3) means sign(1 for negative while 0 for positive);

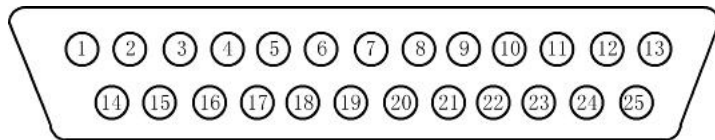
Y (D4) for weight type(1 for net weight and 0 for gross weight);D5 for weight unit(0 for ton and 1 for kg) G18,G17 and G16 is binary code;

For group two, Sign bit is 0; G15~G8 is binary code;

For group three, Sign bit is 1; G7~G0 is binary code;

From G0~G18 consists of 19 bit binary code, low prior to high. with content of weighing data

#### 4.3 Connection to Printer



25-pin interface

PIN #	ASSIGNMENT	PIN #	ASSIGNMENT
1	ST	7	D5
2	D0	8	D6
3	D1	9	D7
4	D2	11	BUSY
5	D3	25	GND
6	D4		

Description for each pin is as listed in above table. Before print operation, first set up parameter for print function, then connect indicator to printer with printer cable. Please refer to followed table for parameter setting:

Step	Operation	Display	Note
1	Press [print set] Press [9] [7] Press [Input]	[P 00] [P 97]	Input Password 97
2	Press [1] Press [Input]	[Auto *] [Auto 1]	Select Auto/Manual Print 0- Manual 1- Auto
3	Press [3] Press [Input]	[Type *] [Type 3]	Select printer type: 0-Print invalid 1-TPup16(micro-printer] 2-TM800 printer 3-Panasonic KX-P1121 4-Epson LQ-1600K 5-Built in printer(For A9P)
4	Press [3] Press [Input]	[Arr *] [Arr 3]	Select Print format: Arr= 0: record format 1: 1-page linked format 2: 2-page linked format 3: 3-page linked format



5	Press [1] [0] [0] Press [Input]	[L *****] [L001.00]	Set min. weight for auto print function It must be larger than 10d for example: 1.00	<p>is needed;</p> <p>Note 4, For print format example, please refer to appendix;</p> <p>Note 5, If print parameter set is valid, press [save print] could both trigger save and print operation, that is to say, save one weighing record while print;</p> <p>Note 6, If a weighing record isn't printed out due to problem of printer or other, press [Suppl print] could print out the last saved weighing record after problem is solved.</p> <p>Note 7, Print [Total print], then accumulation for weighing records within a period could be printed out;</p> <p>Note 8, Press [Form print], indicator could print out weighing records group by date, truck no. and cargo no. and records for truck no. and corresponding tare weight, and parameter value and calibration value(See below table for operation)</p> <p>Note 9, If indicator is set as two times weighing mode, no matter first loaded, then unloaded or first unloaded then loaded, for the first time save, indicator just display [LoAd] for 1.5 seconds to indicator operator due to uncomplete weighing data, but not print. But press [Suppl print] could print out the uncomplete weighing record as followed:</p> <p>1, Serial no.: blank;</p> <p>2, Gross W, net W: 0</p> <p>3, Tare W: Current display</p>
6	Press [0][5] Press [Input]	[b **] [b 05]	Rows for printer(0~30)	
7	Press [5] [0] Press [Input]	[HL **] [HL 50]	Print only when: 00-Back to zero 25-Back to <25% F.S. 50- Back to <50% F.S. 75- Back to <75% F.S. 99- Even it's F.S.	
8	Press [1] Press [Input]	[Ode *] [Ode *]	Select filled-in print: 0-Not select 1-Select	
9	Press [1] Press [Input]	[Dct *] [Dct 1]	Select discount rate at filled-in print form: 0-Not use discount rate 1-Use discount rate	
10			Finish	
<p>Note 1: For D2+ model, printer type could only be type 1,2,3,4;</p> <p>Note 2: Step 8,9 is only valid when printer type is 2,3;</p> <p>Note 3: Only when the print format is filled-in, discount rate</p>				

Instruction for Form print:

Step	Operation	Display	Note
1	Press[Form print]	[d **. **]	Display current date, you could input the date for form you want:  Example:08-25
	Input date(Note1)	[d 08.25]	
	Press [INPUT]		
2		[Print]	begin to print form for 08-25
3		[d **. **]	Print finish, press [weigh] to exit, or operate as above for more form print
For format of the form, please refer to Appendix			

## 5. Calibration

First connect indicator to load cell properly so that indicator will work properly. Then open the calibration board at the back of indicator, you will see the calibration switch, turn the switch to right, then you could calibrate as followed table:

step	Operation	Display	Note
1	press [ Calib] press[888888] press [input]	[c00000] [888888]	888888 is password for calibration,you could change refer to followed table
2	press [5] press [Input ]	[d *** ] [d 005 ]	Enter division: 1/2/5/10/20/50/100 Example: 5
3	press [ 2 ] press [Input ]	[ dc * ] [ dc 0 ]	Enter decimal point (0-4) Example: without Decimal point 2
4	press [ 6 ] [ 0 ] [ 4 ] [ 5 ]	[F ***.** ] [ F 060.45 ]	F value is full capacity plus 9d If need calibration, enter F value, then press [ Input ]; Directly to step 7 if press [ Input ];back to weighing status if press[weigh ]
5	press [ Input ]	[ noLoad n] [----]	Zero point calibration, press [input] when the stable light is on and assure it's unloaded,wait for 5~10 seconds
6	press [6] [ 0 ] [ 0 ] [0 ]	[ Aload1 ]	Load the weight, no less than 50% Max,the closer to F.S, the

	press [ Input ]	[ 0060.0 0] [----]	better it is. Press [input] for confirm when stable light is on. For example:20000
7	press [ Input ] ... press [ Input ]	[ tt*** ] ... [h4***]	Calibration finish here.Left parameters are calibration rate. Press [weigh] to exit calibration status or continue set for other parameter
8	press [ 1 ] [ 2 ] [ 2 ] press [ Input ]	[ponXYZ [pon 122 ]	Enter Parameters value: <sup>2</sup> X: Zero track range (0~9) Y:Manual zero range(1~5) Z:Auto zero range(1~5)
9	press [ 0 ] [ 1 ] press [ Input ]	[ Adr ** ] [ Adr 01]	Communication Address (01-26) for example 01
10	press [ 3 ] press [ Input ]	[bt * ] [bt 3 ]	Band rate : (0-5) in for 300,600,900,1200,2400,4800, For example: 3 for 1200

<sup>2</sup> X	1	2	3	4	5	6	7
	0.5e	1.0e	1.5e	2.0e	2.5e	3.0e	3.5e
Y,Z	1	2	3	4	≥5		
F.S	2%	4%	10%	20%	100%		

11	Press [0] Press [input]	[Flt * ] [Flt 0]	Flt for filter intensity(0~5) Normally, choose 0, more serious the weighing environment it is, the bigger value it should be
12	Press [1] [1] Press [input]	[y*****] [y00011]	Parameter Y <sup>3</sup>
13	Press [input]	[b00000] [b00000]	Compensation calibration
13		Weigh status	Calibration over Note: Turn the calibration switch to left to forbidden calibration, then indicator could work in weighing status.

<sup>3</sup>For parameter Y, there are 5 bits, from left to right, it corresponds 1~5, definition for each bit is as followed:

Bit 1 for communication mode: 0 on command; 1 continuously sending

Bit 2 for display type for scoreboard: 0 gross weight; 1 net weight

Bit 3 for weight unit: 0 KG; 1 Ton

Bit 4 for choice for cargo no.: 0 not use; 1 use

Bit 5 for choice for truck no.: 0 not use; 1 use

Note:

#### 1, The method of compensated calibration

This method applies to scale calibration with small load. It's specially designed for modification when error occurs in the course of MAX weighing. For example, a set of scale with 80 tons is calibrated only with 20 tons of weight. It's found that the linearity from 0 to 30 ton is excellent and the tolerance is just within the limit. However, the scale would display "50.10" when you load 50 tons of goods. You could compensate in this way. Detailed procedures. When displaying "b 00000", you can input the actual value i.e. "b 50.00" then press INPUT. The indicator will display 50.00. Now the tolerance of the weighing range has disappeared, the linear setup code from 0 to 20 is still the same. If it's not required to calibrate, you can press INPUT to exit while displaying "b 00000".

#### 2, The method of nonlinear modification

-In step 5 of calibration mentioned above, nonlinear modification can be obtained through several additions to the load.

-After each addition, input the additional value with digit keys then press CHECK key. After the last addition, press INPUT instead.

-Five addition points are allowed at most.

3, All the parameters can't be checked or modified before it enters into calibration mode except the last parameter Y, it could be modified as followed:

-In the weighing display mode, press and hold CALIBRATE about 2 seconds.

-Input password 03190 when displaying "C \*\*\*\*\*". Then the

indicator will display "C 03190", press INPUT again.

-Now it will display "y \*\*\*\*\*". The "\*\*\*\*\*" is the original value of y, which can be modified by digit keys. Finally press INPUT to end.

4, If the overload alarm limit is more than 65535, the division must be set not less than 5. Otherwise, the indicator will select 5 automatically as the division.

Operation for change calibration password:

step	Operation	Display	Note
1	Press [ cali]		Turn calibration switch to right
2	Press[3][1][9][0] Press [input]	[ c00000] [003190]	Input password for change calibration password
3	Press [...] Press [input]	[0p0000] [ *****]	Input old calibration password
4	Press [...] Press [input]	[np0000]	Input new calibration password
5		[d***] Weighing status	Change finish

◆Be sure to keep the calibration password you set. Lost of calibration password will lead no way to calibrate.

## 6. Operation

### 6.1 Power on and auto zero

A, Turn on , indicator will perform "999999-000000" self check and come into weighing status.

B, When power on, if weighs on platform deviates from zero point but within auto zero range, indicator will perform auto zero.

### 6.2 Manually zero

A, Press [Zero], indicator will be back to zero, and zero light will be on;

B, Zero key will only be valid when weighs on platform is within manual zero range;

C, Zero operation is valid only when stable light is on

### 6.3 Tare operation

There are three methods to tare:

Method 1, Normal tare

Press [tare] key when weighing data is positive and stable, the displayed weighing data will be regarded as tare weight, then indicator will display 0 and tare light is on

Method 2, Pre-tare

Press [Pre tare] key at weighing status, indicator will display [P \*\*\*\*\*], the displayed data is the former tare weight. If need

to set new tare weight, just input by numeric key, press [input] to confirm.

Method 3, Call tare weight according to truck no.

Press [truck no.] at weighing status, indicator display [0 \*\*\*\*\*], input truck no. by numeric key, press [tare] key, then indicator will find the corresponding tare weight of the truck no. for use.

Press [tare] to switch between gross weight display mode and net display mode.

### 6.4 Set for date and time

A, Indicator displays the present date and "date"

light is on if you push [Date ] key at weighing status.

If the date is correct, you can exit by pressing

[Input] or [weigh ] key. If the date is not correct, Input the correct date by numerical key, then press [Input ] key for confirm.

B, Indicator displays the present time and "time"

light is on if you push [time ] key at weighing status.

If the time is correct, you can exit by pressing

[Input ] or [weigh ] key. If the time is not correct,

Input the correct time by numerical key, then press  
[Input] key for confirm.

### 6.5 Save operation

A,For truck no.,it's 5-bit number while for cargo no.,it's 2-bit number. Max. truck no. is 255 while max. cargo no. is 100

B,Each time one weighing record is saved, then indicator will print out one weighing record(when print set up is valid)

C,Three are three methods to save

- Method 1,two times weighing to consist of one weighing record
- Method 2,one time weighing to consist of one weighing record when tare weight is known
- Method 3,what weighs is just cargo,then one time weighing consist of one weighing record.

Rule for differ for above 3 methods is as followed:

- When truck no. is 00000, then save method is 3
- When tare light is on,then save method is 2
- When truck no. is any no. except 00000 and tare weight is off, then save method is 1

D,Save operation is as followed table:

step	Operation	Display	Note
1	Press [save print]		Weighing status
2	Input truck no. Press [input]	[ o *****] [ o 03217]	Input truck no.:03217
3	Input cargo no. Press [input]	[hn **] [hn 35]	Input cargo no.: 35
4	Input [10] Press [input]	[BFL **] [BFL 10]	Input discount rate in pertentage:10%
			Save finish
Note1: When weighing data is unstable, or gross weight is $\leq 0$ or net weight is $\leq 0$ , data can't be saved Note2,When truck no. is more than 255, indictor will display [err10]			

### 6.6 Delete operation

A,There are following methods for delete:

- Method 1,delete all records(include truck no. and tare weight)
- Method 2,delete one truck no. and corresponding tare weight, and all weighing records related to this truck no.
- Method 3,Delete the last saved records
- Method 4,Delete records related to a certain date
- Method 5, Delete weighing records related to one certain truck no.,but save record for truck no. and tare weight of it

-Method 6, Delete weighing records related to one certain cargo no.

Method 7,Delete any record

B, Operation

-Press [delete] at weighing status,it directs to method 1 for delete;

-Press [Truck no.],input the truck no. at weighing status, press [delete],it directs method 2 to delete;

-Press [F1] at weighing status,it directs to method 3 for delete;

-Operation for other method, refer to followed in Date Check section

During the course of delete, indicator will display [sure 0] to indicate operator whether to delete or not, press any key except 0 and [input] for confirm, press 0 and [input] to exit

## 6.8 Check operation

Press [check] to view various saved date, detailed operation is as followed:

-Method 1, Check by date

step	Operation	Display	Note
1	Press [check] Press [1] Press [check]	[rEAd 1]	Weighing status rEAd=check records 1,for one date 2,for one truck no. 3,For one cargo no. 4,for truck no. Example:1
2	Input date Press [check]	[ d **. **] [ d 08.25]	Date for 08-25
3	Press [check] Press [check] Press [check] Press [check] Press [check] Press [check] Press [check]	[ no 001] [ t- **. **] [ o *****] [ hn **] [ A *****] [ t *****] [ n *****]	First record: Serial no. time truck no. cargo no. gross w tare w net w
4	Press [check] Press [check] Press [check] Press [check] Press [check] Press [check] Press [check]	[ no 002] [ t- **. **] [ o *****] [ hn **] [ A *****] [ t *****] [ n *****]	Second record: Serial no. time truck no. cargo no. gross w
		...	...
	Press [check]		Finish

Notel,At step 2,press [delete] key,it directs to method 4 for delete as listed above

Note2,At step 3 or after step 3,press [delete] key,it directs to method 7 for delete as listed above

-Method 2, Check by truck no.

step	Operation	Display	Note
1	Press [check] Press [2] Press [check]	[rEAd 1] [rEAd 2]	Weighing status rEAd=check records 1,for one date 2,for one truck no. 3,For one cargo no. 4,for truck no. Example:2
2	Input truck no. Press [check]	[ o **.**] [ o12345]	Truck no.:12345
3	Press [check] Press [check] Press [check] Press [check] Press [check] Press [check] Press [check]	[ no 001] [t-**.**] [o*****] [hn **] [A*****] [t*****] [n*****]	First record: Serial no. time truck no. cargo no. gross w tare w net w
4	Press [check] Press [check] Press [check] Press [check] Press [check] Press [check] Press [check]	[ no 002] [t-**.**] [o*****] [hn **] [A*****] [t*****] [n*****]	Second record: S
		...	...
	Press [check]		Finish

Note1,At step 2,press [delete] key,it directs to method 5 for delete as listed above

Note2,At step 4 or after step 4,press [delete] key,it directs to method 7 for delete as listed above

-Method 3, Check by cargo no.

step	Operation	Display	Note
1	Press [check] Press [3] Press [check]	[rEAd 1] [rEAd 3]	Weighing status rEAd=check records 1,for one date 2,for one truck no. 3,For one cargo no. 4,for truck no.
2	Input cargo no. Press [check]	[ hn **.**] [ hn0023]	Cargo no.:23
3	Press [check] Press [check] Press [check] Press [check] Press [check] Press [check] Press [check]	[ no 001] [t-**.**] [o*****] [hn **] [A*****] [t*****] [n*****]	First record: Serial no. time truck no. cargo no. gross w tare w net w
4	Press [check] Press [check] Press [check] Press [check]	[ no 002] [t-**.**] [o*****] [hn **] [A*****] [t*****] [n*****]	Second record:
		...	...
	Press [check]		Finish



Note1,At step 2,press [delete] key,it directs to method 6 for delete as listed above  
 Note2,At step 3 or after step 3,press [delete] key,it directs to method 7 for delete as listed above

-Method 4,check truck no.

step	Operation	Display	Note
1	Press [check] Press [4] Press [check]	[rEAd 1] [rEAd 4]	Weighing status rEAd=check records 1,for one date 2,for one truck no. 3,For one cargo no. 4,for truck no.
2	Press [check]. Press [check]	[ no 001] [o*****]	First record for truck no.
3	Press [check]. Press [check]	[ no 002] [o*****]	Second record for truck no.
	...	...	
		[no nnn]	
N	Press [check]. Press [check]	[o*****]	Last record for truck no.
	Press [check]		Finish

Note1,At above step when it displays truck no.,press [delete] key,it directs to method 2 for delete as listed above

## 6.9 Save tare weight

A, There are three methods for save tare weight:

-Method 1

step	Operation	Display	Note
1	Press [ truck no.]		Weighing status
2	Input truck no. Press [input]	[ o *****] [ o 35790]	Example: 35790
3	Input tare weight Press [input]	[ p *****] [ p 01000]	Example: 1000
			Save finish

-Method 2,Press [tare save] when unloaded truck is on and stable light is on, input truck no. then press [input] to save tare weight

-Method 3,When save a weighing record,if the tare weight for the truck no. isn't saved before, then regard tare weight at this record as the tare weight of the truck.

## 7. Code display

### 7.1 Normal information

-.....

Wait a moment, and this is a normal display;

- Prnt

Wait a moment, data transmitted between indicator and printer

- LoAd

Storing data

- no

No related data

- End

Finish sign in data check status

7.2 Error code display

- Err 02

Indicator hasn't been calibrated

- Err 03

Overload warning

- Err 08

Operation error

- Err 09

Not exit this truck no.

- Err 10

Truck no. number more than 255

- Err 11

Can't be saved due to zero or negative data

- Err 17

Without limit for the value

7.3 Code for wrong set up

- Err 12

Arr set wrong,corret it

- Err 13

Print type set wrong, corret it

- Err 14

Division set wrong, correct it

- Err 15

Value for DC should be less than 5, correct it

- Err 16

Overload warning set wrong, reset it

7.3 Code for wrong connection

- Err P

Printer has trouble or is wrongly connected,press any key to exit

- **Err 01**

Load cell connection or load cell signal has problem

- **Err 06**

Load cell connection or load cell signal exceeds A/D range

#### 7.4 Code for components error

Err 18

Key board has problems

Err 20

Data partly lost in RAM

- **Err 21**

Calibrating data lost in RAM and EPROM

- **Err 22**

EPROM has been damaged

- **Err 23**

RAM has been damaged

- **Err 25**

Illegal software, or E<sup>2</sup>PROM was damaged

#### 7.5 Code for others

-Sure

Confirm or not during delete mode

## 8. Appendix(For printer type 2,3)

-Linked format(3 page)

NO.	001	NO.	001	NO.	001
Date	1999-07-28	Date	1999-07-28	Date	1999-07-28
Time	12.02.31	Time	12.02.31	Time	12.02.31
Tr no	12345	Tr no	12345	Tr no	12345
Ca no	022	Ca no	022	Ca no	022
Gross	2.000(kg)	Gross	2.000(kg)	Gross	2.000(kg)
Tare	0.3000(kg)	Tare	0.3000(kg)	Tare	0.3000(kg)
Net	1.7000(kg)	Net	1.7000(kg)	Net	1.7000(kg)

-Record format

Weighing bill				Date:1999-07-28		
NO.	Time	Truck no.	Cargo no.	Gro W(kg)	Ta W(kg)	Net W(kg)
0002	12.03.24	12345	033	2.000	0.300	1.700
0003	12.03.24	00888	033	2.000	0.300	1.700
0004	12.04.11	00888	022	2.000	0.300	1.700
Accum: Gross W:8.000(kg) Net W: 6.800(kg)						

**-Filled-in format**

WEIGHT BILL	
Fist bill for operator	
SERIAL No.	123
DATE	1999-07-28
TIME	12.35.28
VEHICLE No.	
CARGO No.	
GROSS	1580 kg
TARE	80 kg
DISCOUNT	10 %
NET	1350 kg
REMARK	

**-Report print (only for one certain date,three copies group by time, truck no. and cargo no.)**

A,Press [formprint],indicator display [d\*\* \*\*] to show current date, press [input] and indicator show [prnt] to print 3 kinds of report,report date is current date of indicator. To print report for other date, just input the date you want. The three reports are as followed:

B,Report

Report 1(by time)				Date:1999-07-28		
NO.	Time	Truck no.	Cago no.	Gro W(kg)	Ta W(kg)	Net W(kg)
0001	12.02.24	12222	022	2.000	0.300	1.700
0002	12.03.24	12345	033	2.000	0.300	1.700
0003	12.03.24	00888	033	2.000	0.300	1.700
0004	12.04.11	00888	022	2.000	0.300	1.700
Accum: Gross W:8.000(kg) Net W: 6.800(kg)						

Report 2(by truck no.)			Date:1999-07-28		
NO.	Truck no.	Ta W(kg)	Time	Gro W(kg)	Net W(kg)
0001	12222	0.300	0002	4.000	3.400
0002	12345	0.300	0002	4.000	3.400
0003	00888	0.300	0002	4.000	3.400

Report 3(by cargo no.)			Date:1999-07-28	
NO.	Cargo no.	Time	Net W(kg)	
0002	022	0002	3.400	
0003	033	0002	3.400	

**-General report print (for all records in memory, four copies group by date, truck no. cargo no. and the other just for truck no. and its tare weight)**

A,Press [formprint],indicator display [d\*\* \*\*] to show current date, press[1] and [input],indicator show [d0001] and [prnt]

to print out general report 1. If press [2] and [input], indicator show [d0002] and [prnt] to print out general report 2. If press [3] and [input], indicator show [d0003] and [prnt] to print out general report 3. If press [4] and [input], indicator show [d0004] and [prnt] to print out general report 4.

B,General Report

General Report 1(by date)

NO.	Date	Time	Truck	Cago	Gro W(kg)	Ta W(kg)	Net W(kg)
0001	1999-05-28	12.02.24	12222	022	2.000	0.300	1.700
0002	1999-06-28	12.03.24	12345	033	2.000	0.300	1.700
0003	1999-07-28	12.03.24	00888	033	2.000	0.300	1.700
0004	1999-08-28	12.04.11	00888	022	2.000	0.300	1.700
Accum: Gross W:8.000(kg) Net W:7.800(kg)							

General Report 2(by truck no.)

NO.	Truck no.	Ta W(kg)	Time	Gro W(kg)	Net W(kg)
0001	12345	0.300	0002	4.000	3.400
0002	00888	0.300	0002	4.000	3.400

General Report 3(by cargo no.)

NO.	Cargo no.	Time	Net W(kg)
0001	022	0002	3.400
0002	033	0002	3.400

General Report 4(Turck no.)

NO.	Truck no.	Net W(kg)
0001	12345	3.400
0002	00888	3.400

-Linked-in format(1 page, only for printer type 5)

No.:0001

Date:02-03-14

Time:10.57.27

Truck no:00001

Cargo no:001

Gross W:10.00kg

Tare W:1.00kg

Net W:9.00kg

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-----

Tot G.W:

10.00kg

Tot N.W:

9.00kg