D12

Electronic Weighing Indicator

User Manual

Version: December. 2019

●Please read this manual carefully before using

●Please keep this manual properly for reference

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▲The connection between load cell and indicator must be reliable, load cell's shielding wire must be reliable grounding. Connection inserting or pull out is not allow when indicator is under the state of power, prevent electrostatic damage the indicator or the load cell .

▲ Indicator and load cell are static sensitive equipment,anti-static measure must be taken when using, the welding operation or other high voltage operation on the weighing pad is prohibited , at the thunderstorm season, the reliable avoid measures must be implemented to prevent the lightning strike the load cell and the indicator, ensure the security of the operating personne and running of the weighing equipment and related equipment.

▲ Can not use in the area of flammable gas or flammable vapor,also can not use in the tank weighing system with pressure.

▲Indicator and load cell must be away from the field with strong electric and magnet,and be away from strong corresive substance ,be away from inflammable and explosive materials.

▲Using strong solvents(such as benzene,nitro-class oil)to clean the housing is prohibited.

▲Can not inject the liquid or other conductive particle into indicator to prevent to damage and electronic shock.

1 Technical parameter

1.Type D12-B+、D12-BP+、D12-BP1+
D12-Y+、D12-YP+、 D12-YP1+
D12-R+、D12-RP1+

2.Digital load cell interface:

Communication mode RS485
Signal transmission distance 30M when connected with 12 load cells,pls contact us if you need further
Transmission baud rate 9600、19200bps
Excitation power DC12~14.8V
Digital interface ability ≤16 digital load cells

3.Display： 7 digits of LED，7 digits of status symbols

4. Keyboard

Number Keys 0 ~ 9
Function keys 24 pcs（10 of 24 are combined with Number keys）

5.Clock

display year, month, date, hour, minute and second, leap year and leap month automatically.

6.Scoreboard display interface (electric isolated with load cell interface)

transmission mode: current loop and RS232
Transmission baud rate: 600bps

7.Serial communication interface (electric isolated with load cell interface)

transmission mode: RS232
Baud rate: Options of 600/1200/2400/4800/9600/19200

8.Printing interface (electric isolated with load cell interface)

With standard parallel printing interface, which can be connected with the wide line printers , such as ESPON LQ-300K＋Ⅱ、ESPON LQ-300K、ESPON LQ-300K ,ESPON LQ-680K 、ESPON LQ-730K 、ESPON LQ-1600K（＋）、KX-P1131、KX-P1121、DS-300

9.Data storage

can store 1,000 groups of vehicle numbers and tare weight, 1500 groups new weighing records, 300 groups uncompleted weighing records, 6 groups overload records.

10. Operating environment

Power input : AC110~220V 50~60HZ
DC 12V
Operating temperature: 0℃ ~ 40℃
Storage temperature : -25℃ ~ 55℃
Relative humidity : ≤85%RH

2 Operation instructions

2.1 **Start-up and automatic start-up zero setting**

Connect to power supply and turn on the power switch. The indicator begins self-checking. After successful self-checking, the indicator enters the weighing status.
During the start-up, if the zero point is off-set but still in the range preset, the indicator will automatically.
Refer to manual of calibration for the range of start-up zero setting.

2.2 Manual zero setting

Zero setting function is only valid when stability light is on.
The key【**ZERO**】will not work when the off-set is over the range of manual zero setting. Refer to manual of calibration for the range of start-up zero setting.
Press the key【**ZERO**】and the indicator will return to zero and the zero light will be on.

2.3 Tare

D20 offers 2 types of taring.
Under the weighing status.
A: Common taring:
When the weight data is over 0 and stable, press the key【**Tare**】and the value displayed will be deducted as tare weight. At this time, the indicator will display value of net weight. Tare indicating light will be on and gross indication light will be off.
B: Preset the tare weight
Press the key【**Preset**】and the indicator will display【P*****】. Then input the tare weight, press【**ENTER**】and indicator will display original tare weight.

2.4 Zero tare

There are 2 modes:
A. Under the status of taring, press【**ZERO**】to clear the tare weight and the tare indicating light will be off. This operation will be limited by Pn parameter
B. Press 【**Preset**】**,**set the tare weight is 0.

2.5 Date and time check and setting

steps	operation	display	explain
1	press【CLOCK】	**d12.05.13**	Display the date
2	press【number key】	**d12.05.13**	Modify the date
3	press 【120515】	**d12.05.15**	Enter current date
4	press【enter】	**d09.08.15**	Show current date
5	press【enter】	**t12.53.48**	Mark: if open the timing function, can not modify the date
6	press【number key】	**t12.53.30**	Show the time
7	press 【125345】	**t12.53.45**	Enter correct time
8	press【enter 】	**t12.53.45**	Show current time
9	press【weigh】	**Weighing interface**	

3. The save and print of weigh result

3.1. The save of weigh record

（1）This indicator asked the car No. is 5 digit(1~99999),Art.No.is 3 digit（0~200）,

(2) It can save 1500 group weigh records mostly, after full, will delete the earliest group result.

(3) There are 3 ways to save the data:

① weight directly(press key【save1】)save: When you make one weight, it can make the data as one group to save and print

②First preset or call the known tare weight when weighing, (press key [save1]) storage one time to constitute a complete set of records; or weighing cargo vehicles is only a cargo (the car number is00000 or do no use the number), (press [save 2] or [Save 1] key) one time and storage constitute a complete set of records.

③Weighing twice save(press [Save 2] key): the first empty (press the [Save 2] key) storage ,then full of cars (press 【 save 2】 key) storage, or the first full car (press 【save 2】 key) save and then empty (press [save 2] key) storage, which means that after two (press 【save 2】 key) save will constitute a complete set of records. Press [Save 2] key storage, in order to automatically identify the distinction between above ②, ③ two kinds of storage, especially for the following agreements:

▲! The vehicle's license plate number must be any number between 00001 and 99999. That is to say 00000 can not be used as a real vehicle license plate number. If the license plate number is set to 00000 when you come to weighing a vehicle loading a cargo. At this point the indicator will be stored in accordance with ② the way.

▲! If the sign of the indicator peeled is lighting, tare known storage time will constitute a complete record.

▲! If the license plate number is set to 00000 other than any 5-digit, peeled and indicator identifier does not shine (is Gross state) must be twice the storage operation can constitute a complete record.

▲! If you do not choose to use the license plate number, it is mean that do not weigh vehicles, one storage will constitute a complete record.

(4) Save operation method

Please check the appendix A detail for examples

(5) When the data is unstable, or gross weight ≤ 0 or gross weight ≤ net weight or does not meet the return to zero conditions, can not be stored, otherwise the indicator display [Err 19] in order to prompt the operator

(6) About auto save and print

① Please check the print setting chapter for the setting of Auto save print
② when auto save print, do not have 2 save ways.
③ when auto save, the saved car No., cargo No. is the setted well ones before saving
④ There are 3 conditions for the auto save tare weight value:
   a) When the peeled mark of indicator is lighting, store the group record as the tare weigh value
   b) When the peeled mark of indicator is not lighting, automatically find the tare weigh value below this car No. in ram, save this tare weigh value to this group record.
   c) When the peeled mark of indicator is not lighting, and there is no tare weight value in ram, will save in the group record as the cargo form.

3.2. The input method of tare weight save

The indicator can store 1500 tare values of vehicle number. There are 3 methods to input.

1. Input tare with number key: (*: original value)

Step	Operation	Display	Explanation
1	Press【V.N】	Under weighing status	
2	Input vehicle number Press【ENTER】	**o ***** **o 35790**	Input vehicle number. For example: 35790.
3	Input tare value Press【ENTER】	**P ***** **P 01000**	Input tare weight. For example: 1000(kg).
4		Return to weighing status	End

Mark:step 2:Press【CLEAN】,if has this vehicle number,when delate,will show”PASS”

2. Save tare by weighing:

Under the weighing status, place the empty vehicle on the scale. Wait until the scale is stable, press【V.N】 and input the vehicle number, and then press【PRESET】.

3.3 The mothed for Vehicle tare checking and clear

step	operation	display	explain
1	press【check】	**S-CodE**	Enter password
2	press【111111】	**S- - - - - -**	fixed password“111111”
3	press【ENTER】	**rEAd 00**	Choose function number
4	press【6】	**rEAd 06**	choose 6to check vehicle tare
5	press【ENTER】	**PEr *****	show store space usage percentage(store number/1000)
6	press【ENTER】	**o *****	show first vehicle number
7	press【ENTER】	**P********	show the checked vehicle tare
9	press【ENTER】	**o *****	still show first vehicle number

Mark:step 6 and 7:Press【CLEAN】,clear this vehicle tare; Press【←/→】,check the front and back vehicle tare.

3.4. Print of weighing record

1. Printing parameter must be set correctly before printing. (Refer to the part of printing parameter setting of technical manual)

2. The storing and printing of the indicator are simultaneous. At the same time when a group of complete record is stored with【SAVE1】or【SAVE2】, it will be printed out. (If the printing setup is effective, namely the model of the printer is non-zero and printing while storing is selected)

3. If the weighing record is not printed successfully because of some reason (ex.: printer fault), after the fault is eliminated, press【REPRINT】and print the record stored currently.

4. In the end of a period of weighing, may press【A.P】to print out the accumulated value.

5. If press【SAVE2】and use the two-time storage (loaded after empty, or empty after loaded), during the first storing, because the record is not completed, the indicator displays【LoAd】for 1.5 seconds but does not print. However, if press【REPRINT】at this time, the incomplete record can still be printed out. The printing result is as below:

① Serial number is 0;

② Gross weight and net weight are all 0;

③ Tare weight is the weight value displayed currently.

3.5 Statistical form printing

Parameter or Function Code	Paremeter or Function Type
00	General Form
01	Detail Form in Certain Date
02	Detail Form during Certain Period
03	Detail Form for Certain Vehile No.
04	Detail Form for Certain Cargo No.

1. Total detail list Form

Steps	Operation	Display	Explanation
1	Press【Form】	**Pb 00**	Choose total list form
2	Press【Enter】	**Print**	Begin printing the form. Back to the weighing status after printing

2.Some day detail list form

Steps	Operation	Display	Explanation
1	Press【Form】	**Pb 00**	
2	Press【01】	**Pb 01**	press“01”, choose some day detail list form
3	press【ENTER】	**d00.00.00**	Enter date
4	press【120520】	**d12.05.20**	For example 2012-05-20
5	Press【Enter】	**Print**	Begin printing the form. Back to the weighing status after printing

3.Some time detail list form

Steps	Operation	Display	Explanation
1	Press【Form】	**Pb 00**	
2	press【02】	**Pb 02**	press“02”，choose some time detail list form
3	press【ENTER】	**d00.00.00**	Enter start date
4	press【40101】	**d12.05.20**	For example 2012-05-20
5	press【ENTER】	**d00.00.00**	Enter end date
6	press【40101】	**A12.05.20**	For example 2012-05-20
7	Press【Enter】	**Print**	Begin printing the form. Back to the weighing status after printing

4.Vehicle No. detail list form

Steps	Operation	Display	Explanation
1	Press【Form】	**Pb 00**	
2	press【03】	**Pb 03**	press“03”，choose vehicle NO. detail list form
3	press【ENTER】	**o 00000**	Enter Vehicle number
4	press【00123】	**o 00123**	Vehicle number is“00123”
5	Press【Enter】	**Print**	Begin printing the form. Back to the weighing status after printing

5.Cargo No. detail list form

Steps	Operation	Display	Explanation
1	Press【Form】	**Pb 00**	
2	press【04】	**Pb 04**	press“04”，choose cargo NO. detail list form
3	press【ENTER】	**hn ****	Enter cargo number
4	press【123】	**hn 123**	Cargo number is“123”
5	Press【Enter】	**Print**	Begin printing the form. Back to the weighing status after printing

3.6. Inquiry and clear weighing record

3.6.1 Press【Check】to check the memory contents in the indicator by different modes. Operation method are as follows:

Press【Check】under weighing status (If check encrypt is selected, the indicator will display【**S-CodE**】to ask to input the password. After the password is passed) the indicator will display【**rEAd 00**】to ask to enter the inquiry mode.

rEAd 1	Check by Date	**rEAd 2**	Check by Vehicle No.
rEAd 3	Check by Cargo No.	**rEAd 6**	Check/clear vehicle No.’s tare
rEAd 11	check imperfect record by date	**rEAd 12**	check imperfect record by vehicle number

Press【Enter】after enter the inquiry mode and the indicator will prompt to enter the required conditions for the inquiry such as date, vehicle no., cargo no., customer no., remarks no. etc. After that it will display the required records one by one. when check the complete and uncomplete record, the newest record will be displaied.

3.6.2. Example for Inquiry Operation:

Example：Inquiry according to the date, i.e, inquiry the complete records in certain date

Step	Operation	Display	Explanation
1	Under Weighing Status Press【Check】	**S-CodE**	Enter code
2	press【111111】	**S- - - - - -**	Fix code“111111”
3	PRESS【ENTER】	**rEAd 00**	Choose function number
4	press【1】	**rEAd 01**	choose number 1,check the complete record

			as per date
5	PRESS【ENTER】	**no 0001**	Show first record
6	PRESS【ENTER/↓】	**d12.05.31**	show first record date
7	PRESS【ENTER/↓】	**t09.58.44**	show first record date
8	PRESS【ENTER/↓】	**o 12345**	show first record vehicle number
9	PRESS【ENTER/↓】	**hn 003**	show first record cargo number
10	PRESS【ENTER/↓】	**A001.200**	show first record gross weight
11	PRESS【ENTER/↓】	**t000.200**	show first record tare
12	PRESS【ENTER/↓】	**A001.000**	show first record net weight
13	PRESS【ENTER/↓】	**no 0001**	Back to first record

Note:step 5-step 12,if the current weigh record do not have【REPRINT】,it will display【Err 17】,otherwise, clear the weigh record. If press【←】will check the latest full weigh record, press 【→】will check before full weigh record.

Step6:if press【clean】,if the current weigh record still do not have【REPRINT】,it will display【Err 17】,otherwise will clean all weigh record for this date.

3.7 Delate operation for weighing record and vehicle number tare

Step	Operation	Display	Explanation
1	press【CLEAN】	**S-CodE**	Enter code
2	press【111111】	**S- - - - - -**	Fix code“111111”
3	press【ENTER】	**SurE 0**	Choose function number 1.Delate all complete record and uncompleted record 2.Delate all vehicle number tare 3.Delate all uncompleted record
4	press【1】	**SurE 1**	Choose to delete all complete record and uncompleted record
5	press【ENTER】	**----** **PASS**	Deleting…. finished, return to【weighing display】

3.8. Inquiry and print

The indicator can print out the record which is being inquiried, the operation is as below: during inquiring and when displaying any one record , press 【Reprint】 to print out this inquired record. The number is 0.

4. Information tips

4.1 normal information tips

number	display	Explanation
1	【 **-------** 】	please wait, the inner part of indicator is under calculating, don’t make any operation
2	【 **Print** 】	the data is connecting between indicator and printer.
3	【 **Load** 】	the first data storing between the 2 times of weighting
4	【 **End** 】	Operation end
5	【 **PASS**】	Setting changed successfully
6	【**Lo bAt**】	Low power, will power off
7	【 **-**】	Voltage is under 10.2V,please recharge in time
8	【 **SAVE** 】	Data saving

4.2.wrong operation information tips:

number	display	Explanation
1	【**Err 03**】	overloading warning, must unload all or part of loading.
2	【**Err 08**】	no record under this condition
3	【**Err 11**】	storing space is full with vehicle no., please delete part or all of stored tare
4	【**Err 12**】	can not print the form of record by mini printer.or POS

5	【Err 17】	Parameter setting does not meet requirements, please refer to the related parameters input range
6	【Err 19】	Zero negative weighing or instability cannot print, do not meet back to zero conditions don't print; Storage of input parameter not meets the requirement; Discrepancy zeros conditions; Do not conform to the skin condition: unstable negative; no tare information when check vehicle number
7	【Err 26】	time to power off
8	【Err 27】	The testing time is end
9	【Err 28】	Print date of the storage of weighing less than has the record date
10	【Err 30】	
11	【ECC 01~16】	N load cell’s communication wrong
12	【ECCP 01~16】	N digital load cell’s communication and security is not available
13	【Err P】	printer connection error, printer error or printer didn't have paper, please add paper or press weighing key to exit

4.3.Other information tips：

number	display	Explanation
1	【 --S-- 】	start work to zero
2	【S-CodE 】	code”111111”
3	【C-CodE 】	enter calibration code
4	【d-CodE 】	enter trial deadline code

Appendix A: print operation for example:

In printing in the control parameters choose not to input car number, and money order, for in the operation of the corresponding will print skip steps, use at the same time the current meter car number and money order memory unit original data storage. If in the storage projects choose not to use car number or money order, for in the print operation when also can skip the corresponding steps, and do not store and print the corresponding project (as shown in the technical specifications chapter 6 and 6 Settings).

1. One manual operation preset tare print weighing list

Step	Status	Operation	Display	Explanation
1	Vehicles to weigh in	Press【preset】	**P000.000**	Tip input tare weight values
2	Input tare weight value	If the input [1000]	**P001.000**	
3		Press【enter】	**- 1.000**	Show the scale gross/net weight value, to skin FuLiang logo. Note: at this time to switch to display meter net state (according to the net/gross 】 can switch over the show state).
4	Waiting for stability	Press【Save 1】 OR Press【Save 2】	**o *****	Display the original car number. Hint user input new car number. Note: if user storage projects choose not to use the car number or in print control parameters choose not to enter in the car number (see

				chapter 3 "print parameter Settings" part), this step is not in the show car number and suggests the new car number input, directly to step 6
5	Input vehicle number	FOR Press【00123】	**o 00123**	
6		Press【enter】	**HN *** **	Display the original cargo no. ask to user enter new cargo number
7	Input money order	FOR input【001】	**HN 001**	Cargo number 001
8		Press【enter】	**PriNt**	Print weighing list.

Note:when the tare light is on,can go the step 4.do not need operate step1-3 each time.

2.One manual operation print weighing list

Step	Status	Operation	Display	Explanation
1	The goods pounds, for stability	Press【Save 1】	**o *****	Display the original car number. Ask user input new vehicle number。
2	Input vehicle number	input【00123】	**o 00123**	Enter vehicle number,such as 00123
3		Press【enter】	**HN *** **	Display the original cargo no. ask to user enter new cargo number
4	Input money order	FOR input【001】 Press【enter】	**HN 011**	
5			**PriNt**	Print weighing list.

Note: when no this vehicle number tare, indicator will imprint the GW is current value, tare is 0.

3.two weighing print weighing list (namely first after the first car or empty car heavy weight after car, here to the former empty car for example)

Step	Status	Operation	Display	Explanation
1	The empty vehicle is on weighing, for stability	Press【Save 2】	**o *****	Display the original vehicle number. ask user input new number.
2	Input car number	input【00123】	**o 00123**	If the new number is the same with before vehicle number, do not need to enter new one.
3		Press【enter】	**HN *** **	Display the original cargo no. ask user input new cargo no.
4	Input money order	FOR input【001】	**HN 011**	
5		Press【enter】	**LoAd**	back to weighing state after 1.5 seconds
6	Heavy vehicle is on weihging, for stability	Press【Save2】	**o *****	Display the original car number. ask user input the vehicle number the same as "step 2"
7		Press【enter】	**HN *** **	Display the original car number. ask user input the vehicle number the same as "step 4"
8		Press【enter】	**PriNt**	Print weighing list

Before use configuration for Auto print weigh list

The detail please check the 《calibration manual》 Chapter 6,section 6.,set Quto, Return to zero HL and minimum print weigh L.

Appendix B：Examples of breakdown and statistic form

Breakdown (total)

No.	Date Time	Vehicle No.	Cargo No.	G.W. (t)	Tare (t)	N.W. (t)
0001	05 20：06	00001	003	2.003	1.000	1.003
0002	05 20：21	00123	004	1.000	1.000	0.000
0003	05 20：41	00001	010	1.000	0.100	0.900
0004	05 20：44	00001	001	1.000	0.100	0.900
0005	05 20：45	00001	050	1.000	0.100	0.900
0006	05 20：45	00002	06	1.000	0.100	0.900
Total：			G.W.： 7.003 t		N.W.： 4.603	

Applicable model：D12-B+、D12-BP+、D12-BP1+
D12-Y+、D12-YP+、 D12-YP1+
D12-R+、D12-RP1+