marcus
Tech @ Germany

TD-P1

WEIGHING INDICATOR

Operation Manual

CONTENTS

1. INSTALLATION

Because of metrological legislation, installation/some metrological parameter settings are limited to be done by authorized personnel only. Do not attempt to change any of the built-in metrological parameters. Contact your dealer for more information and technical assistance.

To ensure performance accuracy, do not use the instrument in where or when the environment condition falls beyond as those listed on **SPECIFICATIONS**.

Do not attempt to open the instrument, no user serviceable parts inside.

2. SPECIFICATIONS

2.1 GENERAL SPECIFICATIONS

Maximum Capacity	Single Range Mode:- ● Max = 1 ~ 999,999 (kg or lb) Dual Range Mode: - ● Max_1 = 1 ~ 999,998(kg or lb) ● Max_2 = 2 ~ 999,999(kg or lb)
External Resolution	Single Range Mode:- ● Recommend = 15,000 ~ 30,000 ● High = 30,000 ~ 60,000 Dual Range Mode: - ● Recommend (Max_2 / d_1) = 15,000 ~ 30,000 ● High (Max_2 / d_1) = 30,000 ~ 60,000
Weight Units	Metric (kg) and Imperial (lb),g,oz
Min. Internal Count/d	15 Count
Offset Range	≥0.2mv (10000 Count)
Tare Range	- Max (Subtractive Tare)
Max. Measuring Range	15 mV
A/D Sampling Speed	15 times/ second
Power Voltage Requirements	Built-in Rechargeable Battery = 6V DC External Power Adaptor = 12V DC, 800mA
Load Cell Excitation Voltage	5 VDC
Minimum/Maximum Load Cell Impedance	350Ω/1000Ω
Load Cell Connection	Supports 4-wire and 6-wire Load Cell Connections
Maximum Load Cell Connection	8 x 350Ω Load Cells, or 16 x 700Ω Load Cells
Operation Environment	-10 ~ 40°C. Non-condensed. R.H.$\leqq$ 85%

Specifications subject to change prior to notice

3. KEYS, DISPLAY AND CONNECTIONS

1 **CNT**	**2** **UNIT**	**3** **WEIGH**	**CE**
4 **PRT**	**5** **MC**	**6** **CHK**	**ZERO**
7 **ANI**	**8** **PCENT**	**9** **PTARE**	**TARE**
	0 **SET**		**ON/ OFF**

1.CNT KEY

Press this key to enter counting function

Press this key as next parameter when setting

2. WEIGHT UNIT KEY

Press this key to shift among various weight units.

Press this key as previous parameter when setting

3. WEIGH KEY

Press this key to back weighing status after counting, checking, animal weighing, percentage function

4. PRINT KEY

Press this key to print the results to a computer or a printer through the RS-232 output. according to the parameter setting whether accumulate or not when printing

5.TARE KEY

Press this key to tare off the weight of a container.

Press this key to enter parameter setting when self-checking after power on

Press this key to confirm the parameter option

6. ZERO KEY

Press this key to set weight displayed to zero when an empty scale has drifted away from a true zero reading.
Cancel or quit from the operations

6. CHECK KEY

Press this key to start check weighing function and to enter value for HI and LO limit.

7. ANI KEY

Press this key to enter animal weighing function

8.PERCENTAGE KEY

Press this key to enter percentage weighing function

9.PTARE KEY

Press this key to enter pre-set tare value

10.MC KEY

Press this key to recall total stored transactions.

11.CE KEY

Press this key to clear value entered.

12. NUMERIC KEYS

Numeric keys 0 ~ 9 and decimal key.

13.ON/OFF

Power on /off the indicator

◆LED VERSION(HE200P) AS BELOW

14. CHECK SYMBOLS

- HI = Weight reading is higher than the HI limit entered,
- OK = Weight reading is in between than the low and HI limits entered,
- LO = Weight reading is lower than the LO limit entered.

15. TARE INDICATOR

Visible when the tare function is in effect. Weight reading shown is net value

16. STABLE INDICATOR

Visible when weight reading is stable.

17. ZERO INDICATOR

Visible when instrument is at true zero weight status.

18. WEIGHT UNIT

 LED indication as below:

 kg ="kg" on,   lb = "lb" on

 oz = both "kg" and "lb" on;   g= neither "kg " nor   "lb" on

19. CHARGE INDICATION

Flicker when charging ; invisible when full of charge

◆LCD VERSION (HC200P) AS BELOW

14. CHECK SYMBOLS

- ● HI = Weight reading is higher than the HI limit entered,
- ● OK = Weight reading is in between than the low and HI limits entered,
- ● LO = Weight reading is lower than the LO limit entered.

15. SPARE

W1/W2   ，if assigned , the scale are in dual range capacity status

Blank, no function assigned.

16. BATTERY POWER / LEVEL INDICATOR

Visible to show:-

- ● This instrument is being powered by the built-in rechargeable battery,
- ● Remaining battery level.

17. HOLD INDICATOR

(When under animal mode) Visible when weight reading being displayed is a frozen value.

18. AUTO INDICATOR

Visible when the instrument is in animal weighing function.

19. NET INDICATOR

Visible when the tare function is in effect. Weight reading shown is net value.

20. GROSS INDICATOR

Visible when gross weight reading is displayed.

21. STABLE INDICATOR

Visible when weight reading is stable.

22. ZERO INDICATOR

Visible when instrument is at true zero weight status.

23. CAPACITY TRACK BAR

The ratio (increment = 10%) of applied & remaining weighing capacities are shown here.

24. WEIGHT UNITS AND FUNCTIONS

- % = Percentage (when in Percentage Mode in function),
- kg = kilogram,
- PCS = Pieces (Piece Count Mode in function),
- kg/PCS and g/PCS = Weight per piece (when Piece Count Mode in function),
- lb = pound.

BACKSIDE INSTRUCTION
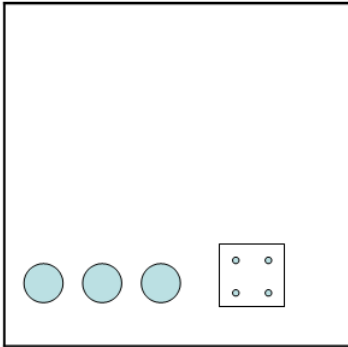
IF USE CABLE GLANDS,LOADCELL AND RS232 CABLE NEED TO GO THROUGH GLANDS   TO CONNECT ON THE PCB.

FOLLOW THE RIGHT POSITION SIGN OF CONNECTION PRINTED ON PCB

The recommend (from left to right):

1) power plug

2) Load cell

LOAD CELL CONNECTOR PIN #	ASSIGNMENT
1	EXCITATION +ve
2	SENSE +ve
3	EXCITATION -ve
4	SENSE -ve
5	SIGNAL +ve
6	SIGNAL -ve
7	GROUND

3) Com1 RS232

RS232 COMPORT ON INSTRUMENT
1 = GND
2 = TXD
3= RXD

4. GETTING STARTED

In order to obtain an accurate weighing result, the weighing platform, (***hereinafter referred as platform***) must be placed on a strong and level surface. Avoid using the platform and this instrument (**hereinafter collectively referred as scale**) in environment where excessive wind flow, vibration and extreme temperature change exist

General Warning: -
- **The instrument is not an explosion proof device.**
- **Do not open the instrument, no user serviceable parts inside. Always contact your dealer for service.**
- **The instrument not to be subject to shock, excessive vibration or extremes of temperature (before or after installation).**

4.1 BUILT-IN RECHARGEABLE BATTERY

The instrument is equipped with a built-in rechargeable battery. Before first time use, recharge it for at least 8 hours to ensure the best battery performance.

4.2 POWER ADAPTOR

Before plugging in the power adaptor, check and make sure the input voltage of the adaptor matches with output voltage of the electricity outlet. If not, contact your dealer immediately.

4.3 CONNECTING OTHER DEVICES[1]

4.3.1 Connection with Weighing Platform (Load Cell)

Connect this instrument with a weighing platform (load cell) through load cell connector located at the back according to the assignment table.

4.3.2. Connecting RS232 to computer, printer

5. INITIAL SETUP

5.1 INTERNAL SETTINGS

Application parameters can be checked and set through internal functions. Refer to **5.4** for description of all internal functions.

5.2 HOW TO ENTER AND SELECT INTERNAL FUNCTION

Follow the below steps to enter and select desired parameter of an internal function.

- a. Turn this instrument off and on again,
- b. Press **[TARE]** during countdown,
- c. Display **RS232**,
- d. This instrument is now in internal function,

5.3 KEY FUNCTION DURING INTERNAL FUNCTION MODE

- ● [TARE] = Go to internal function during power on countdown, or Enter, save and return,
- ● [ZERO] = Quit without saving,
- ● [1 CNT] = Go next,
- ● [2 UNIT] = Go previous,
- ● [CE] = Clear,

5.4 INTERNAK FUNCTION TABLE

<TARE >=enter parameter or exit with save;
<ZERO>=exit parameter without save;
<SET>= go to next parameter; Move the cursor to change the digit when setting parameters
<FUN>=go to previous parameter ; increase the active digit when setting value for parameters

FUNCTION SHOWN	TO CHECK AND SET	PARAMETERS/NOTE DEFAULT=**				
		Port 1 RS232 (RS485 optional) below parameter is same of port 1 and 2				Port 2 RS232
	Serial Mode (Set Output Mode)	**PC (Computer) (NOTE A)	manual (Printer) (NOTE B)	AUTO1 (NOTE C)	AUTO2 (NOTE D)	CMD (NOTE E)
	Baud(Set Baud Rate)	1200 / 38400	2400 / 57600	4800 / 115200	**9600	19200
	protocal	**1	2	3	4	

NOTE A:-if PC(output to computer) is selected,set also →protocal→int

→int=time delay interval between each data transmission.4 parameters are available for selection

    0=max transmission speed

    **0,5=0.5 second time delay interval between each transmission

    1.0=1.0 second time delay interval between each transmission

    2.0=2second time delay interval between each transmission

NOTE B: If Manual(output to printer),set also →AC→Stab Cont→Print From→label→Copy

→Copy=number of copy to be printed.8 parameter are available

    Copy 1=Send 1 copy

    **Copy 2=2 copies

    ...

    Copy 8=Send 8 copies

→Stab Cont=Stable Control

    OFF (data is sent to printer when <print> is pressed)

    **ON (Output to printer is sent only when weight is stable)

**ON(Output to printer is sent only when weight is stable)

→Printer Form=Minimum weight to be printed.21 parameters are available:
- 0d(Minimum weight to be printed disabled
- 1d(no printout if weight is below 1d)
- ...
- 20d(no printout if weight is below 20d)

Refer to SPECIFICATIONS for d value or contact your dealer for more information.

→Label   lab 1=print in Horizontal format   lab 2=print in Vertical format

→ACC MODE   on   **off
- on= Accumulate and print at the same time .
- off= only print without accumulate

NOTE C:if AUTO1 is selected, send out sigal once automatilly when weight is put on scale
NOTE D:if AUTO2 is selected, send out sigal once automaticlly when weight is moved away from scale
NOTE E:If CMD is selected, allow PC to send out command to indi

Code	Description	Settings
ADCnt	Internal Code	If two ports set to manual(printer),only port 1 will work. *Press<TARE> to zero the offsetvalue and to observe the span value of exact load added*
TIME	Time	To change time.enter a new time through numeric keys then press <TARE> HH/MM/SS
DATE	Date Format &Date Value	To change date.enter a new value through numeric keys then press <TARE> ** DD/MM/YY / YY/MM/DD / MM/DD/YYYY
BK	backlight Mode	select 1 to 9 (9 is most brightness)
POWER	Auto Power Off Time(Minutes)	**OFF / 1 / 2 / 5 / 10 / 15 Instrument remains powered on when powered by extern power adapter
Key bP	Keypad Buzzer	OFF / **ON
CHK bP	check buzzer mode	**in / out / off ir=buzzer when weighing value is within range; out=buzzer when weighing value is out of range; off=buzzer disable
UNIT		kg / g / Lb / oz Press <TARE> to shift every unit ON or OFF when weighing status

Filter	filter speed	select 1 to 6(1 for bad working enviroment where vibration,wind flow, 6 for good working enviroment where wind and vibration have no affect)				
CAL	calibration parameter setting	restricted functions which may request a password or hardware key to access. These functions are usually for dealer and authorized personnel only and all settings these functions are monitored and recorded. Do not change any setting of these functions to				

To access below function,either:
1) short circuit the enable pins of the ADJ located on main board with a jumper,or
2) enter a correct password when"P----" appears

Code	Description					
C-Unit	Calibration Weight Unit	**kg	lb			
	After changing calibration weight unit,Re-calibration after changing weight unit					
DESC	Decimal point	0	0.0	0.00	0.000	0.0000
CAPA1	Capacity1	Set max1 capacity of scale NOTE:Single range mode=enter capacity(Max) here; Dual range mode=enter Max1 here;				
Inc1	devision1	Set scale devision1 NOTE:Single range mode=enter division(d) here; Dual range mode=enter d1 here;				
CAPA2	Capacity2	Set max2 capacity of scale NOTE:Max1<Max2 capacity Dual range mode=enter Max2 here;				
Inc2	devision2	Set scale devision2 NOTE: Dual range mode=enter d2 here;				
Auto-Z	Auto zero tracking speed	0.25 / **0.5 / 1 / 1.5 / 2 / 2.5 / 3.0 / off (d/sec)				
P-Zero	initial Zero Range(%)	1 / 2 / 5 / **10 / 20 / 50 / 100 / off				
K-Zero	Manual Zero Range(%)	1 / **2 / 4 / 5 / 10 / 20				
Filter	filter speed	select 1 to 6(1 for bad working enviroment where vibration,wind flow, 6 for good working enviroment where wind and vibration have no affect)				
G1	Gravity Factor of Calibration Place	**9.7940	●For advance dealers only			

				●Voided if recalibrated
G2	Gravity Factor of operation Place	**g.7940		
Linear	Linearity Compensation On/Off	**ON	OFF	ON=Enable(Recommened) OFF=Disable
U-CAL	User Calibration	Suggested Calibration load > 50% of Max		
L-CAL	linearity Calibration	It is used to create new Linearity compensation co-efficient. Before calibration,Set Linear=ON ,and then complete all calibration steps for zero,LD1 and LD2. Suggested Calibration Load: Ld1=1/3 of Max Ld2=Max		
M-tare	repeated tare	Mode 1	Mode 1=repeated tare unavailable	
		**Mode 2	Mode 2=repeated tare available	
Count	calibration parameter setting way	count	will increase count number when power on indicator	
		jump	need jumper to set calibration parameter	
APPro	select the approval setting	OIML	NTEP	NONE
		NOTE: When set OIML and NTEP , the maximun resolution is 1/6000 If the parameter setttings are not legal for selected approval, indicator will ask for setting again		
PASS	passward setting	Enter new password for calibration parameter setting		
Reset	reset parameters	Reset all parameterd to initial		

6. INSTRUCTION FOR USE

6.1 POWER ON
Powered on this instrument, it will: -
  a. Display software number and revision (if any)
  b. Display all display segments,
  c. Display the calibration count value,
  d. Display the parameter set count value,
  e. This instrument is now ready for operation.

6.2 START WEIGHING
  a. If zero weight cannot be obtained when unloaded, press **[ZERO]**. After **[ZERO]** is pressed, the **ZERO INDICATOR** will appear. Refer to **SPECIFICATIONS** for maximum zero range,
  b. Always place an object onto platform gently. Excessive force applied to platform may cause damage to the weight sensor,
  c. The weight of the object is displayed on thus unit automatically,
  d. It is a good practice to remove all loads from platform after weighing. It will prolong the life of the weight sensor.

6.3 ABOUT WEIGH UNIT CONVERSION
Depends on the internal settings, this instrument supports kg , g, lb and oz
And can convert when weighing status by the setting of **UNIT(on)**

When a 3 or 4 place (0.000 or 0.0000) decimal place is selected, reading in g is possible during normal operation by the setting of **UNIT(on)**

The weight unit employed before power off will be employed when this instrument is turned on again.

6.4 TARE OFF THE WEIGHT OF A CONTAINER
Tare function is used to temporarily set the scale to zero (such as cancelling the weight of a box or a container) in order to get the net weight result

6.4.1 Manual Tare
When a container is used, follow the below steps to tare the weight of the container off to get a net weight result.
   a. Remove all loads from platform,
   b. Make sure that the **ZERO INDICATOR** is on. If not, press **[ZERO]**,
   c. Place container on platform,
   d. Press **[TARE]** ,
   e. **NET INDICATOR** appears to indicator tare is in effect and weight displayed display is net result. To cancel tare effect, remove all loads from platform and press **[TARE]** ,
   f. **NET INDICATOR** disappears. **GROSS INDICATOR** appears to indicator tare effect has been removed and weight displayed display is gross result.

6.4.2 **Repeated Tare**
When M-tare is set to Mode 1, this instrument does not permit multiple tare operation. Tare effect can only be cancelled when container is removed and gross weight = zero.

When M-tare is set to Mode 2, this instrument will permit multiple tare operations provided that both of the below requirements are met: -

   a. The tare operation does not permit a reduction of the value of the tare;
   b. The tare effect can only be cancelled when there is no load on the platform.

6.4.3 Preset Tare
A pre-determined tare weight can be entered via keyboard.

During normal operation, press **[PTARE],**
enter the pre-determined tare weight through numeric keys ,then press
[TARE]to confirm. This pre-determined tare value will be deducted.
"NET" and "PT" indicator will be shown on
To cancel the preset tare effect, remove all loads from platform then press
[ZERO].

NOTE: -

  1) The pre-determined tare weight entered must be equal to the multiple of d. While this multiple factor must be an integer. Thus, in case the exact tare weight is not equal to the multiplied value, maximum possible error of the preset tare function is ±0.5d.
  2) Manual tare is possible when preset tare is in function.
  3) Preset Tare is also governed by Repeated Tare

6.5   MEMORY ACCUMULATION FUNCTION
6.5.1 To Accumulate a Transaction to Memory[2] [3]

  a. Press **[Prt]**[4] to save and accumulate data of current transaction to memory,
  b. This instrument returns to normal display status after 2 seconds,
  c. Repeat **a** to **c** for subsequent transactions[5],

NOTE: -

  1. Unstable weight will not be accumulated to memory. If **Prt** is pressed when weight is unstable, this instrument will reject this command and response with beeps.

6.5.2 Memory Recall and Clearance

  a. Press **MC** to recall total accumulated weight from memory,
  b. After **MC** is pressed, This instrument displays "≡ n" (**n** means the number of transactions accumulated) follow by the total accumulated weight stored in memory,
  c. At this point: -
  ● Press **[ZERO]** to quit, or
  ● Press **[ZERO]** followed by **[Weigh]** to clear memory and return operation.

6.6 FUNCTION MODES

Besides weighing function, this instrument is equipped with the below supplementary function modes: -

---

[2]   Memory Accumulation Function support weighing function only.

[3]   All data stored will be erased when this instrument is powered off.

[4]   or press **[PRINT]** if   RS232 –Manual-ACC   = ON

6.   below how many d , can accumulate again

- Piece Count,
- Percentage,
- Animal weighing
- Check weighing (HI/LO check)

6.7 PIECE COUNT FUNCTION[6]
Follow the below steps to enter **Piece Count Function: -**
  a. select the desired weight unit,
  b. If a container will be used, place this container to platform and press **[TARE]** to tare off the weight of it,
  c. Press **[CNT]** to enter counting function
  d. Enter sample quantity through numeric keys,
  e. Place samples (with same quantity) on platform then press **[Tare]**,
  f. Now the indicator display the sample quantity
  g. Go to sampling process7 before start counting.
  h. Place the goods which desired to counting

Shift among Quantity, Average Piece Weight and Weight Info
  a. Press **[UNIT]** to shift among quantity, average piece weight and weight info,
  b. Quantity Display format = numeric numbers & PCS (e.g **1000 PCS**) ,
  c. Average piece weight display format = numeric numbers & weight unit & / (slash) & PCS (e.g. **499.960g/PCS**) ,
  d. Weight display format (when Piece Count Function is in effect) = numeric numbers & weight unit & PCS (e.g. **500 kg PCS**).

Press **[Weigh]** back weighing function.

6.8 PERCENTAGE FUNCTION[8]
Follow the below steps to enter **Percentage Function: -**
  a. select the desired weight unit,
  b. If a container will be used, place this container to platform and press **[TARE]** to tare off the weight of it,

---

[6] Piece Count Function Mode does not support memory accumulation function.

[7] Before this instrument starts counting, the average piece weight must be determined. The process of getting the average piece weight is called sampling.

[8] Percentage Function does not support memory accumulation (M+) function.

c. If a reference mass (as the 100%) is available, apply it on platform. **NOTE:** - If reference mass is not available or the reference mass will be entered through numeric keys, then ignore this step,
d. Press **[PCENT];**
e. Press [TARE] to enter,
f. Reference mass is obtained by either one of the below: -
   - By applying the reference mass is applied on step c, or
   - In case there is no reference weight applied to platform, the last reference mass used will be display. To confirm press [TARE]
g. This instrument is now ready for percentage calculation. Any other weight applied to the platform will be displayed as a percentage of the reference mass.

Press **[Weigh]** back weighing function.

6.9 ANIMAL WEIGHING FUNCTION[9] [10] [11]

Follow the below steps to enter **Animal Weighing Function: -**
   a. select the desired weight unit,
   b. If a container will be used, place this container to platform and press **[TARE]** to tare off the weight of it.
   c. Press **[ANI]** to **Animal Weighing Function (Ani)** appears,
   d. Now is ready to weighing animal
   e. Display **Ani. AUTO INDICATOR** appears to indicator Animal Weighing Function is in effect.

Set the Animal weighing parameter .
   f. **Press [SET],** Display **RS232 ,**shift to **Animal;** Press **[TARE]** to enter
   g. Display last filter (**FLt**) value applied. Select the preferred filter value[12]

---

[9] Animal weighing function of this instrument should not be used for trade purposes,

[10] Animal weighing function does not support memory accumulation (M+) function.

[11] Animal Weighing function will not operate when weight is less than 20d (or $20d_1$ for dual range).

[12] It is a trade off between motion filtering and accuracy. The faster the filter, the shorter the amount of time over which the averaging is taken. The slower the filter, the longer averaging time will take before a reading is displayed. It is recommended that FLt 3 should be applied first. Should situation requires, change to a lower FLt number.

by pressing **[CNT] or [UNIT]** key, 3 filer values are available: -
- **FLt 1** = Fast
- **FLt 2** = Normal (For human weighinge, select this parameter),
- **FLt 3** = Slow

h. Display last weight release variation value (**rE**) applied. Under the animal weighing function, this instrument will hold a weight result until a pre-defined weight release variation value is achieved,

i. Select the preferred weight release variation value by pressing **[CNT]** or **[UNIT]** key. 5 auto release range values are available: -
- **rE 1** = auto release disabled,
- **rE 2** = auto release when weight varies ≥2% of rate capacity
- **rE 3** = auto release when weight varies ≥5% of rate capacity
- **rE 4** = auto release when weight varies ≥10% of rate capacity
- **rE 5** = auto release when weight varies ≥20% of rate capacity
- Press **[TARE]** to enter,

Weighing Animal
a. Get animal on platform,
b. This instrument will calculate the mean weight of an animal or a group of animals. The result obtained will be displayed.

  HOLD (charging) INDICATOR appears to indicate that this weight value is being held (frozen)[13],and at the same time , indicator sounds 2beeps

c. Get other animals on platform in case more animals have to be weight in the same transaction,
d. An updated weight will be calculated and displayed[14] as above step **b**.

Press **[Weigh]** back weighing function.

6.10 CHECKWEIGHING MODE[15] [16]
This instrument is equipped with check weighing mode. Check-weighing mode is used to compare the value obtained meets with the preset limits

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[13] When weight value is being frozen, weight unit conversion is not possible.

[14] Provide that extra weight added fulfill the weight release variation value listed on **6.8** step **g**.

[15] Check weighing mode will not operate when weight is less than 20d (or $20d_1$ for dual range).

[16] Set also CHK Bp for desired Check weighing buzzer output.

(high and LO limit) set to this instrument. The comparison result (HI, OK or LO) will then be displayed with or without buzzer[17].

If a relay board is installed, the comparison results are also sent through the relay output at the back of this instrument.

Follow the below steps to trigger check weighing mode: -
   a. During normal operation (of a function), press **[CHECK]**.
   b. The current HI limit is displayed with the **Hi symbol** on, press **[TARE]** to confirm, or
   c. Enter a new HI limit through the numeric keys and then press **[TARE]**,
   d. Display current LO limit with the **Lo symbol** on, press **[TARE]** to confirm, or
   e. Enter a new HI limit through the numeric keys and then press **[TARE]**
   f. Check weighing function is now enabled. The check is result is shown by one of the HI/OK/LO symbols,
   g. The same result will be sent to the relay output (if ordered) together with the buzzer signal (if ordered).

NOTE: -
1. For normal comparison, set both HI and LO limits,
2. To check only if result is lower or equal to LO (result ≤ LO?), set HI limit = 0,
3. To check only if result is higher or equal to HI (result ≥ HI), set LO limit = 0,
4. To check if result is equal to a specified value, set both HI limit and LO limit = the specified value

To quit check weighing mode, set both HI and LO limits to zero.

6.11. Quick setting
Press [SET] to get quick setting parameter ,Press **[TARE]** to enter and
**[CNT] and [UNIT] to shift : PARA,CHECK,ANIMAL,RS232, and
RECHARGE** : To check the currency when charging(mA)
Count : Display the calibration count value, and   the parameter set count value, (press**[ZERO]or [TARE] for 3secs to exit**)

---

[17]   Set CHK Bp to obtain the required buzzer output configuration.

7. RS232 DATA OUTPUT MODE

7.1 AUTO WEIGHT FORMAT STRING

Data is transmitted in ASCII code. Data format is listed on below table.

DATA BIT	DESCRIPTION
1~2	**MOTION STATUS** US = UNSTABLE ST = STABLE
3	**COMMA SEPARATION**
4~5	**NET/GROSS** NT = NET WEIGHT GS = GROSS WEIGHT
6	**SIGN** (Sign of weight reading) Positive = space. Negative = minus (-)
7~13	**WEIGHT VALUE** 7-character string containing the current weight including location of decimal point. If there is no decimal point, then the first character is a space.
14	**COMMA SEPARATION**
15~16	**UNIT** **kg = kilogram** **lb = pound** **oz=** ounce **g=gram**
17	**Cr**
18	**LF**

7.2 STANDARD PRINT OUTPUT FORMAT

When the manual print or automatic print is triggered, depends on the setting, the standard or the pre-defined custom output print format will be transmitted.

7.2.1 Standard Output Print Format
How to change the paper of printer

7.2.1.1 Weighing function
7 lines will be transmitted as below: -

```
TIME        15:21:00
DATE        14.04.2009
NO.             1        (First transaction added to memory)
NET         500.0kg
TARE          0.0kg
GROSS       500.0kg
TOTAL       500.0kg   (Total accumulated net weight)
```

7.2.1.2 Piece count function
```
TIME        15:30:44
DATE        14.04.2009
NET         300.0kg
UNIT.W   599.949 g
COUNT      500PCS
```

7.2.1.3 Percentage function
```
TIME        15:39:13
DATE        14.04.2009
NET         699.0kg
REF %       200.0kg
PERCENT    350.00%
```

7.2.1.4 Animal weighing function
```
TIME        16:33:42
DATE        14.04.2009
HOLD.W       496.0kg
```

7.2.2 Standard Output Print Format of Check weighing Mode[18]
7.2.2.1 Weighing function with check weighing

```
TIME        17:39:05
DATE      14.04.2009
NO.             5
NET        200.0kg
TARE         0.0kg
GROSS      200.0kg
TOTAL      3799.0kg

HIGH       2000.0kg
LOW         500.0kg
LOWER     THAN LIMIT
```

```
TIME        17:39:15
DATE      14.04.2009
NO.             6
NET        500.0kg
TARE         0.0kg
GROSS      500.0kg
TOTAL      4299.0kg

HIGH       2000.0kg
LOW         500.0kg
ACCEPT
```

```
TIME        17:39:34
DATE      14.04.2009
NO.             7
NET        2500.0kg
TARE        200.0kg
```

---

[18] Standard output print format of check weighing mode does not support animal weighing function.

```
GROSS       2700.0kg
TOTAL       6799.0kg

HIGH        2000.0kg
LOW          500.0kg
HIGHER THAN LIMIT
```

7.2.2.2 Piece count function with check weighing

```
TIME        17:48:07
DATE     14.04.2009
NET         500.0kg
UNIT.W   1001.04 g
COUNT        499PCS


HIGH         1000PCS
LOW           500PSS
LOWER    THAN LIMIT
```

7.2.2.3 Percentage function with checkweighing

```
TIME        17:51:09
DATE     14.04.2009
NET         500.0kg
REF %      200.0kg
PERCENT    250.00kg


HIGH        1500.0 %
LOW          750.0 %
HIGHER THAN LIMIT
```

8. ERROR CODES

Error Code No.	Description
Err 1	Time value error
Err 2	Date value error
Err 3	Logic error. LO limit is higher than HI limit (and HI is not = 0)
Err 4	Not sense the loadcell signal
Err 5	Exceed maximum power on zero range
Err 6	Exceed maximum manual zero range
Err 7	Tare operation error
Err 8	Offset out of range / unstable during power on
Err 9	ERROR IN PERCENTAGE FUNCTION. INPUT VALUE = 0 or less than 50e
--oL--	Overload (Gross weight is more than Max plus 9d)
UndEr	Under load (Gross weight is less than minus 20d)

9. DAILY CARE AND MAINTENANCE

- Clean this unit with a soft, damp cloth. If necessary, use a mild detergent in water,
- Do not use any harsh, abrasive material, acetone, volatile solvent, thinner or alcohol for cleaning,
- Verify the accuracy of this unit periodically. Re-calibrate this unit if necessary. In some countries, calibration requires authorized / qualified agent. Contact your dealer for more information,
- Store this unit in a dry and clean place,
- Recharge battery before and every 2 months during long time storage.