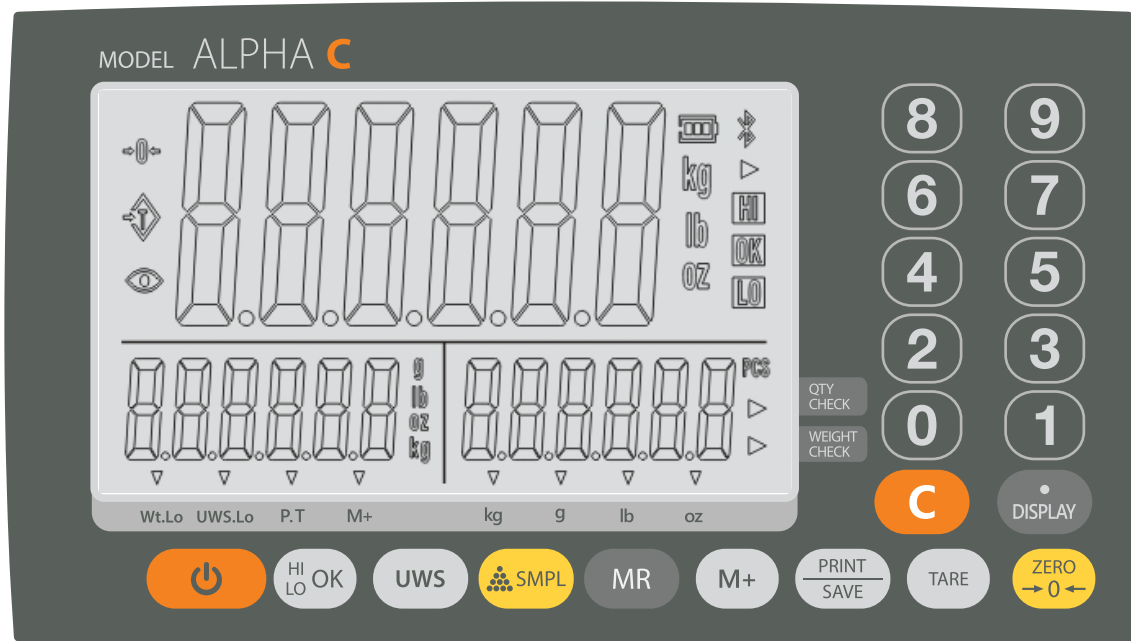


ALPHA C

Counting Indicator



Operation Manual



: ZERO is active.



: Indicator is in TARE mode



: Weighing is stable

M+

: Indicator is in ACCUMULATION mode. Alpha Count

Table of contents

1. General	1
2. Precautions before use	2
3. Connections : Loadcell and RS232	3
4. Relay connection	4
5. Display and keypad	5
6. Operating procedures	7
7. Communications	13
8. Battery care	17

1.General

1. AC or DC power supply; DC6V/4Ah rechargeable sealed lead-acid battery.
2. Preset count check feature. (3-color backlight indicates upper and lower limit alarm status)
3. Accumulation (weight or quantity). Cumulative single record viewing and clearance.
4. Unit Weight Sample counting - using know part weights.
5. Sample for counting and auto-averaging.
6. Auto Zero-tracking.
7. Manual input Tare
8. Selectable division value and free set calibration.
9. Store 20 sets of upper and lower limit alarm values and 20 sets of single weight values
10. Counting indicator mode or weighing indicator mode can be selected
11. Switchable window for displaying quantity and weight values
12. Battery level indication, error message indication, and self-check functions.
13. RS-232C interface
14. External optional connection of a three-colour alarm light and a relay (DC12V);
15. One external customizable shortcut button
16. Remote display connection
17. USB module for controlling printers and USB drives (optional extra)
18. Support for label editing, weighing display, SKU editing and downloading, and weighing record look up function (optional extra)

2.Precautions before use

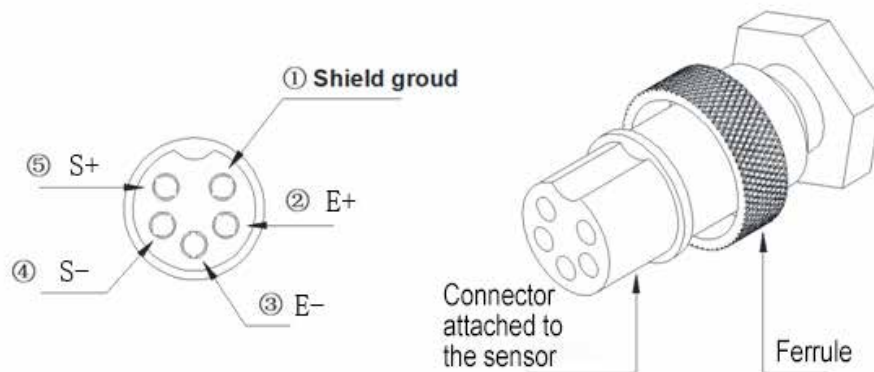
Environment

The indicator should always be used in an environment which is free from excessive drafts, corrosive materials, vibration, and temperature or humidity extremes. These factors will affect displayed weight and counting accuracy.

1. Do not let the indicator get wet and do not place it in an environment with extreme temperature or humidity.
2. Do not shock the indicator and do not exceed the capacity. Permanent damage can occur.
3. If the power is low or the indicator automatically powers off, please charge the battery for a minimum of 12 hours before use. Over or under charging will damage the battery.
4. If the indicator is not used for a long time, please turn power off and recharge the battery at least once every three months.

3.Connections : Loadcell and RS232

Loadcell : 5 pin connector as shown below:



Pin description:

E+: Excitation positive

E-: Excitation negative

S+: Positive signal

S-: Negative signal

Shield

RS232 : DB9 male

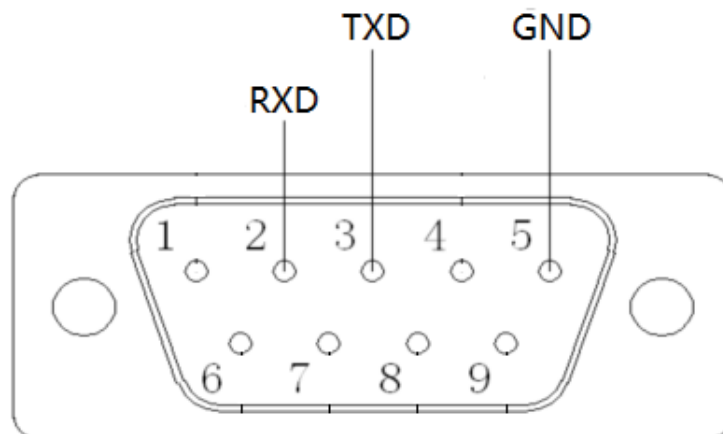


Fig.4

RXD: Receive

TXD: Transmit

GND: Ground

4. Relay connection - optional

DB15 male

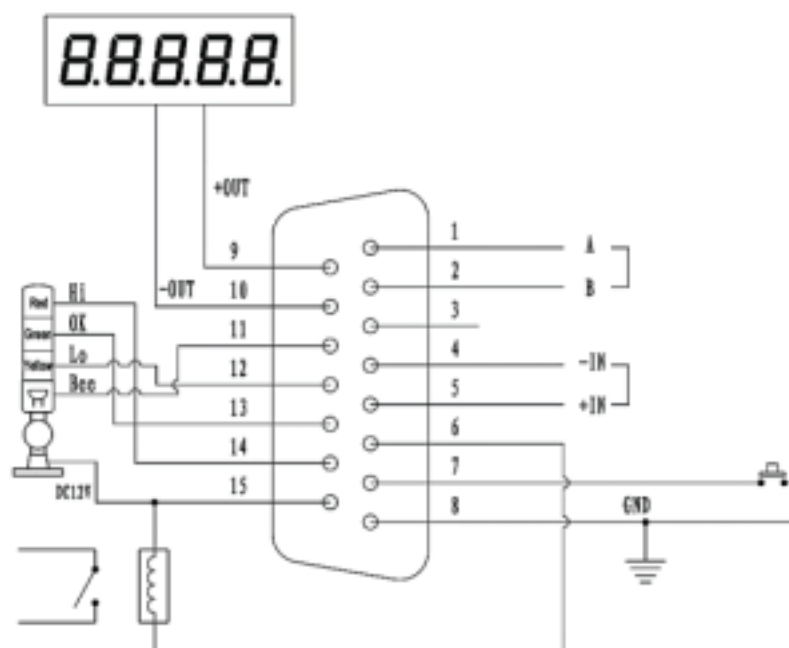
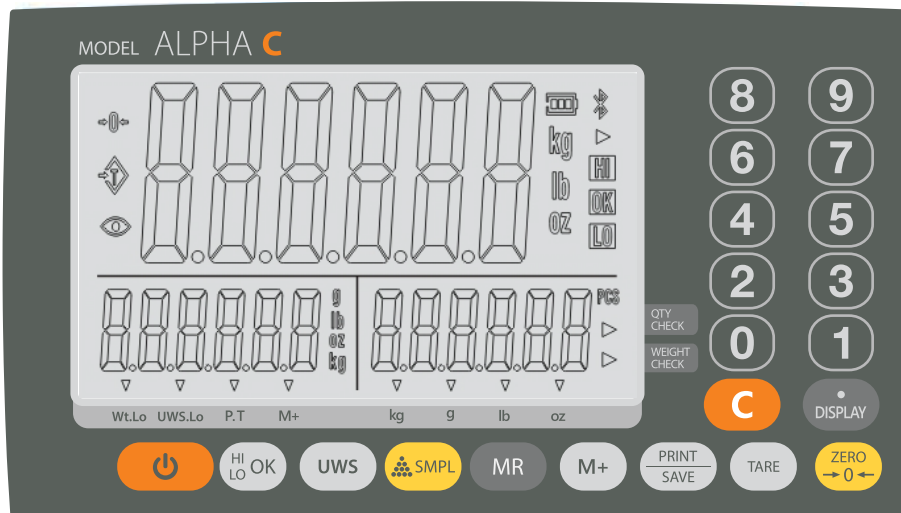


Fig.5

5.Display and keypad



: ZERO is active.



: Indicator is in TARE mode



: Weighing is stable
: ZERO is active.



: Indicator is in ACCUMULATION mode.
: Indicator is in TARE mode



: Battery level status, or charging status



: Weighing is stable



: Indicates the current alarm mode

M+

QTY'CHK

: Indicator is in ACCUMULATION mode.
: Count check mode



WT'CHK

: Battery level status, or charging status
: Weight check mode



: Sample quantity used is insufficient
: Indicates the current alarm mode

UWSLo
QTY'CHK

: The UWS weight value used is less than 1/8d, which means that the unit weight of the item is too light, and although the quantity can still be calculated, it will cause counting errors. It is recommended to only count parts which are equivalent to the scale's division size or higher. If

WT'CHK

: Weight check mode

WtLo

: Sample quantity used is insufficient.
lighter parts need to be counted, please purchase a more sensitive and lower capacity scale.

UWSLo
T.P

: The UWS weight value used is less than 1/8d, which means that the unit weight of the item is too light, and although the quantity can still be calculated, it will cause counting errors. It is recommended to only count parts which are equivalent to the scale's division size or higher. If lighter parts need to be counted, please purchase a more sensitive and lower capacity scale.

Keypad functions:

[ON/OFF]	: Power on/off;
[0]~[9]	: Numeric keys;
[▢/DISPLAY]	: Decimal point key; Press and hold in counting mode to switch between weight and quantity display windows
[ZERO]	: Zero key. Press the key to re-zero the indicator.
[TARE]	: Tare key. Press the key to subtract the weight of container. Or convert the input value to a preset tare
[UWS]	: Used when manually keying in the Unit Weight Sample weight.
[SAMPLE]	: Sample Key, Used when keying in a sample amount.
[Hi/Ok/Lo]	: Use this key to confirm the check weigh/count value. Press and hold to enter the check number storage function
[MR]	: View accumulation records. Press Clear to delete a single record.
[C]	: Use this key to clear the readings entered. Press and hold to clear the accumulated value
[M+]	: Used for weight or total count accumulation.
[PRINT/ SAVE]	: Press to output weight once when communication is set to PR. Print labels once when connected to a USB printer, and save weighing records once

6. Operating procedures

1. Turn the indicator ON

Remove all the objects on the scale platform; Press the [ON/OFF] key. The indicator will self-test and zero, then turn to weighing mode.

2. Turn the indicator OFF

Press the [ON/OFF] key to turn the indicator OFF.

3. Zero function

Please press [ZERO] key to re-Zero the scale and the zero symbol will be displayed. This key will not function if the weight displayed is outside the range of $\pm 2\%$ of Max. Capacity or the indicator is in tare mode.

4. Tare function

Place the container onto the platform; press [TARE], the weight will display "0", and the tare indicator is shown; place the objects needed to weigh/count on into the container, the net weight of the objects is shown; take both container and objects off, the weight will display in the negative.

Press [TARE] again to cancel the tare mode.

5. Preset tare

Preset tare can be imputed by entering the value first then press [TARE]. If there is a preset tare, using the normal tare function or using the cancel tare function will clear the preset tare value

6. UWS setting

A known sample weight of a part can be imputed directly by entering the value first then followed by pressing [UWS] key.

7. Sampling

Put the objects intended for sampling on the scale.

Input the number of the objects.

Press [SAMPLE] Key, the calculated unit weight will then be shown in the unit weight display. The scale is now ready for counting.

8. Clear

Press [C] Key to clear input value and UWS weight.

9. Accumulation

Press [M+] key after total count has been calculated and displayed. An accumulation indicator is lit. The display will show the accumulated times in the Total Weight display and total quantity in the Quantity display.

Hold and Press [C] Key to clear the stored data.

10.Cumulative Record Search

In the case of normal weighing and accumulation, press [MR] key to enter the accumulated single record viewing. Press [TARE] key to go through the previous entries, [ZERO] key to go through the next entry, press [C] key to clear the single entry. Press [MR] key to exit.

11.Filter

You can change the STABLE time and the stability of the indicator by setting the filter parameter.

Press and hold [TARE] key, Turn the indicator ON and let it self-test. Now the display will show the current filter parameter. Press [TARE] and [MR] key to change. Press the key [ZERO] to confirm(there are “nb0”~“nb3” to be selected; nb0: the slowest, nb3: the fastest).

12.Zero display range

Press and hold [0] key, Turn the indicator ON and let it self-test. Selection of Zero display range. There are two ranges — Zero-S(invalid) and Zero-L (when the weight is within the range of $\pm 3d$, the display will “0”). Press [TARE] and [MR] key again to change. Press the key [ZERO] to confirm.

13.Setting backlight

Press and hold [1] key, Turn the indicator ON and let it self-test. The display will show “AUTO” (AUTO backlight when active weighing/counting) or “OFF” (Disable backlight) or “ON” (Backlight is always on). Press [TARE] and [MR] key to alternate; press [ZERO] to confirm.

14.RS232 (optional)

Press and hold [2] key, Turn the indicator ON and let it self-test. Select the serial port for subsequent parameter setting. There are 1~2 modes to be selected—RS232/USB optional; Press [TARE] and [MR] key to select and [ZERO] key to confirm. Press [C] key to exit the setup.

Then select baud rate. There are three speeds to be selected — 2400bps, 4800bps, 9600bps (Other speeds will not work on RS232); Press [TARE] and [MR] key to select and [ZERO] key to confirm. Press [C] key to exit the setup.

Then enter the data transmission mode. There are three kinds to be selected —Co (continuous output), St (output once when the reading is stable), Pr(output once when [PRINT] is pressed). Press [TARE] and [MR] key to select and [ZERO] key to confirm. Press [C] key to exit the setup.

Then enter the selection of data format. There are eight kinds to be selected—FORM 0~8. Press [TARE] and [MR] key to select and [ZERO] key to confirm. Press [C] key to exit the setup.

15.Counting and Auto-average

Press and hold [3] key, Turn the indicator ON and let it self-test.

Selection of counting mode. There are two kinds to be selected — “div ” (counting division) and “Code ”(counting ISN). Press [TARE] and [MR] key to select and [ZERO] key to confirm.

Auto-average. There are two kinds to be selected—“OFF”(turn auto-average off) or “ON”(turn auto-average on). Press [TARE] and [MR] key to select and [ZERO] key to confirm.

16.Unit switching function

Press and hold[■/DISPLAY]key, Turn the indicator ON and let it self-test.

the display will show “UNIT”. There are 4~6 units to choose from: kg, g, lb and oz (hl, tl). Press [TARE] and [MR] key to select and [ZERO] key to confirm.

17. Set and cancel checking number

Users can set a number for weighing or counting check mode, when the weight or number of objects on the scale is larger than the preset check number, the alarm will beep a warning.

Set: Enter in the desired check number, then press [Hi/Ok/Lo] key.

Note:

1. Mode Bee 0 can only set the upper limit value HI
2. Mode Bee 1 can only set the lower limit value LO
3. Mode Bee 2/3 setting value must meet $HI > LO > 0$, otherwise prompt “err a”
- 4.The relay works independently.

Description of working status:

W: weight/count X:off O: on

BEE0	BEEP	LIGHT ORANGE (LO)	LIGHT GREEN (OK)	LIGHT RED (HI)
W=0	X	X	X	X
HI>=W>0	X	X	O	X
W>HI	O	X	X	O
BEE1				
W=0	X	X	X	X
LO>W>0	O	O	X	X

W>LO	X	X	O	X
BEE2				
W=0	X	X	X	X
LO>W>0	X	O	X	X
HI>=W>=LO	O	X	O	X
W>HI	X	X	X	O
BEE3				
W=0	X	X	X	X
LO>W>0	O	O	X	X
HI>=W>=LO	X	X	O	X
W>HI	O	X	X	O

Note: The alarm function will only be triggered when the net weight is greater than 9d or the quantity is greater than 9PCS

18. Unit weight storage function (up to 20 memories)

- 1) READ: When the unit weight value is 0. Hold and press the key [UWS], "G --" "xxxxxxx" will be displayed, press the numeric keys "0~9" to input the unit weight storage recall number to be read, Press [C] to clear the input recall number, "G xx" "xxxxxxx" "LOAD" will be displayed. Press [ZERO] to Load the unit weight.
- 2) SAVE: When the unit weight value is not 0, press and hold key [UWS], the display will show "G --" "xxxxxxx", press the number key "0~9" to input the storage recall number to be stored, press [C] to clear the input recall number, the display will show "G xx" "xxxxxxx" "SAVE", Press [ZERO] to save the unit weight .

Notes:

- 1) "G --" indicates that no recall number has been selected; "G xx" indicates the recall number currently selected (from 1 to 20).
- 2) When "LOAD" is displayed, "xxxxxxx" indicates the value to be loaded; at other times, it indicates the current single weight in use.

19. Alarm value storage recall switch (up to 20 groups)

Hold and press [Hi/Ok/Lo]. The display shows "G xx" "xxxxxxx" "xxxxxxx", press the number keys "0~9". Enter the recall number of the alarm value to be used, press [C] to return to 0. Press [ZERO] to confirm.

Notes.

- (1) "G xx" indicates the currently selected recall number (optional 0~19).
- (2) "xxxxxxx" in the unit weight window indicates the upper alarm value of the current recall number.
- (3) "xxxxxxx" in the quantity window indicates the lower limit alarm value of the current recall number.
- (4) In this menu, you can set the upper and lower alarm limits of the currently displayed recall number by directly pressing key [Hi/Ok/Lo], which will return to the recall number selection interface after setting, and you can set other recall number alarm values after switching numbers, so that you can quickly save multiple sets of alarm values.

20. Print label templates and SKU (only if optional USB module is purchased)

In Normal weighing status, press and hold the [PRINT] key to enter.

- 1) Printer mode, displays "PTR PR/ST/OK/OFF". Press [TARE] and [MR] key to select and [ZERO] key to confirm.

PTR PR: Prints when the print key is pressed

RTR ST: Prints once when weight is stabilized

RTR OK: Print once when the alarm status is OK and the weight is stabilized

RTR OFF: Printer disabled

- 2) Print template selection, displays "PLAB 0~10", select keys "0~10" to enter the template number to be re-called, press [ZERO] to confirm the current template. When 0 is selected, it will not print.

In normal weighing, Press key "0~9" to enter the SKU number (1~1000). Press [MR] key to recall the current SKU.

"ERR": Input number is out of the available range.

"E SKU": The contents of the currently selected SKU is empty.

21. Record Clearance and Export (only with optional USB module)

Normal weighing status, press and hold the [MR] key to enter.

1) Clear weighing record, display shows "Rxxxxx", xxxxx is the current number of records. Press [Tare] to display "RD-C". Press [Zero] while "RD-C" is displayed to clear all weighing records, otherwise, no clearing will take place.

Export Language Selection, display "EN"(English) or "CN"(Chinese), Press [TARE] and [MR] to select. Press [Zero] to confirm.

Weighing Record Recording Method. Display "R PR/ST/ST1/OFF". Press [TARE] and [MR] key to select and [ZERO] key to confirm.

R PR: Record storage when the print key is pressed

R ST/ST1: Record storage once when weight is stabilized

RTR OFF: No record storage

2) Export of weighing records to USB disk (only available for optional USB module)

When weighing records are saved and in the normal weighing interface.

The export of all the weighing records (up to 10000 records) starts automatically by inserting a USB disk (FAT 32 format, 8G or more memory).

During the export process, it will quickly display "Rxxxxx" (xxxxx is the current exported record number). And when the display returns to the normal weighing value, the data export is completed. The exported data is recorded on a USB stick and a table file (.CSV) named after the internal time of the instrument is automatically generated.

22. USB printer (only with optional USB module)

The USB printer must be used in conjunction with the supporting APP. The APP edited print label template will be downloaded to the instrument. And then through the instrument settings after calling the template to be used. Finally, connect the USB printer to the USB port of the instrument. Press [PRINT] and the printer will print out a label

7. Communications

1.Communication commands

Commands sent from the host computer to the instrument

‘R’: Output gross weight data;

‘N’: Output net weight data;

‘T’: Perform tare function;

‘Z’: Perform tare function

2.Communication Format

Baud Rate : 2400、4800、9600、19200

Data Bit : 8

Parity : N(None)

Stop Bit : 1

Code : ASCII

FORM 0(COUNT MODE):

G=GROSS N=NET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
HEAD						DATA								UNIT			
G/ N	.	W	.		:	+/-								(K)	g	CR	LF

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
HEAD						DATA								UNIT						
U	.	W	.		:	+								g	/	p	c	s	CR	LF

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
HEAD						DATA								UNIT				
T	o	t	a	l	:	+								p	c	s	CR	LF

Ex.: (weight:100g, unit weight: 0.2g, count: 500pcs)

G.W. :+ 100g

U.W. :+ 0.2g/pcs

T0tal :+ 500pcs

FORM 0(WEIGH MODE):

HEAD 1				HEAD 2				DATA										UNIT						LF CR	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

HEAD1: ST – stable US – unstable

HEAD2: NT– net weight GS– gross weight OL –weight overflow

Ex.: stable, net weight 0.168 kg

ST, NT , + 0.168 Kg LF CR

FORM 1:

DATA											UNIT							LF CR	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	

Ex.: + 0.168 Kg LF CR

FORM 2:

DATA	LF
Length N is determined by the number of digits displayed	N+1

Ex.: 0.168 LF

FORM 3:

DATA	LF	CR
Length N is determined by the number of digits displayed	N+1	N+2

Ex.: 0.168 LF CR

QTY'CHK :Count check mode

FORM 4:
WT'CHK : Weight check mode

DATA(Reverse order)								=
1	2	3	4	5	6	7	8	

WtLo : Sample quantity used is insufficient.

Ex.: -1.55kg display: 30: The UWS weight value used is less than 1/8d, v
unit weight of the item is too light, and although
be calculated, it will cause counting errors. It is
count parts which are equivalent to the scale's c
lighter parts need to be counted, please purcha

FORM 5:

0x0 2	/-	DATA(No decimal point)						Decimal point	XOR check high 4 bits	XOR check low 4 bits	0x0 3
1	2	3	4	5	6	7	8	9	10	11	12

T.P : Manually set tare value, cumulative.

Ex.: -1.55kg display: - 155208£

5

FORM 6

N.W.: (NET)					DATA FORM 6:									UNIT			LF CR	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
T.W.: (TARE)					DATA									UNIT			LF CR	
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
G.W.: (GROSS)					DATA									UNIT			LF CR	
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	

Ex.: (net weight0.168 kg tare weight 1.000kg)

N.W.: 0.168kg LF CR

T.W.: 1.000kg LF CR

G.W.: 1.168kg LF CR

FORM 7

N.W.: (NET)					DATA										UNIT					LF CR	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
T.W.: (TARE)					DATA										UNIT					LF CR	
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
G.W.: (GROSS)					DATA										UNIT					LF CR	
43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	
LF CR																					
64	65																				

Ex.: (net weight0.168 kg tare weight 1.000kg)
N.W.: 0.168 kg LF CR
T.W.: 1.000 kg LF CR
G.W.: 1.168 kg LF CR
LF CR

7. Battery care

When the battery voltage is low, none of the power indicator segments on the battery symbol will be lit.

Please turn the indicator off and fully recharge it, otherwise the indicator will automatically turn off.

When recharging, the power indicator segments will light up one by one and then cycle. Cycling of the battery symbol will stop when fully charged.

It takes minimum 12 hours to fully charge the battery. To ensure the battery voltage is full, we recommend charging an extra 3~4 hours.