

Manual For T909 Plus Indicator

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FEATURES	
Dc power	AC power 110 VAC to 240 VAC, 50/60 Hz 9v DC input 50/60Hz 1.5A max
Excitation Voltage	+3.3V single sided Drives up to six 350Ω or ten 700Ω load cells
Display	6-digit LED display. 0.8 inch (20mm) digits
Keypad	17-key flat membrane panel (Piezo membrane panel)
LED annunciators	Center of zero, gross, net, stable, battery, kg, g, lb, oz
Sense Amplifier	Differential amplifier with 4- and 6-wire sensing
Environmental	Operating temperature: -13 °F to 158 °F Humidity: 0 - 95% relative humidity
Communications	Two communications ports with demand or continuous outputs
Battery	3.7v lithium battery , 2000mA (Standard)
Unit ID	Up to six numeric for operators
Options	Analog output module provides 4-20mA tracking of gross or net weight values Digital I/O card, four outputs/two inputs for setpoints and key functions

1. SAFETY PRECAUTIONS



Do not operate or work on this equipment unless this manual has been read and all instructions are understood.



WARNING

Failure to heed could result in serious injury or death

For safe operation of the weighing indicator, please follow these instructions:

Do NOT allow minors (children) or inexperienced persons to operate this unit.

Do NOT place fingers into slots or possible pinch points.

DO NOT exceed the rated load limit of the unit

DO NOT step on the unit

DO NOT jump on the scale

DO NOT use this product if any of the components are cracked

DO NOT use for purposes other than weight taking

Calibration inspection and maintenance of the indicator are prohibited by non-professional staff

Please ensure that the indicator rests on a stable surface

The indicator is a piece of static sensitive equipment; Please cut off power during electrical connections. Touching the internal components by hand is prohibited

To avoid damaging the battery do not keep charger plugged in once battery is fully charged

Make sure the weight is not over the Max capacity as it could damage the load cell inside

Material that has a static electric charge could influence the weighing. Discharge the static electricity of the samples, if possible. Another solution to the problem

2. INSTALLATION

Any precision instrument requires a suitable environment in which to operate as intended.

Please review

each of the following prior to installation:

Electrical Power

The 909PLUS indicator has been designed to operate from 100 to 240 VAC at 50/60 Hz. All units ship with the appropriate power plug for its area of intended use.

To avoid electrical noise interference and/or stray AC electrical transients, try to operate the indicator from a circuit separate from any equipment containing inductive devices such as a contactor coil, solenoid, relay coil, or motor. Be sure to use shielded cables for the load cell connections (ground shield wire at indicator) and run these cables away from your AC/DC power cables if possible.

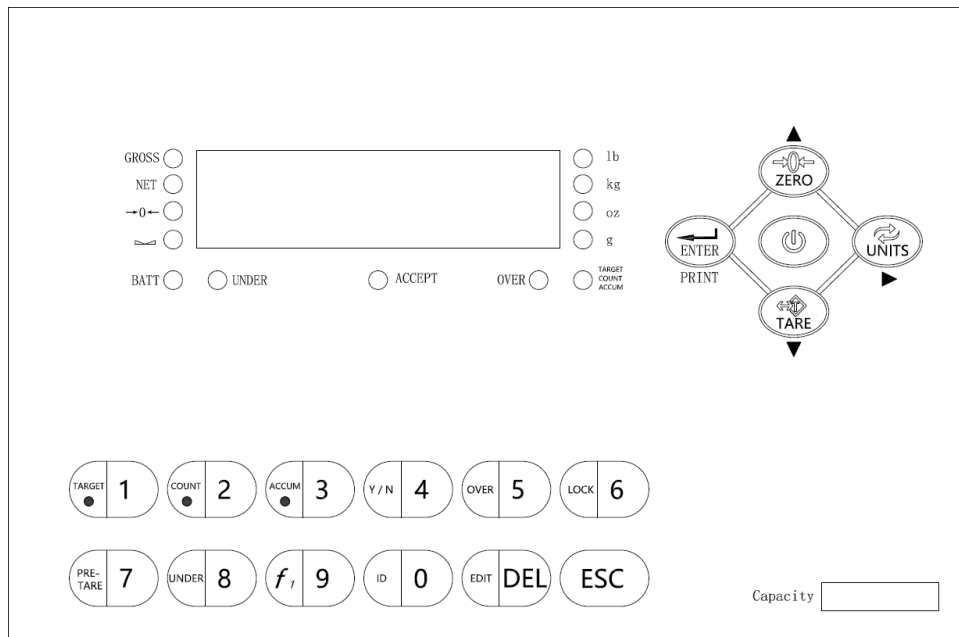
Environment

- Avoid installing the indicator in areas of direct sunlight or high humidity
- Avoid sudden temperature change – if this is unavoidable allow equipment to ‘soak’ at a constant temperature for at least three hours before use
- Ensure that steady, clean AC power is available to the unit

The power source used for the indicator must be properly grounded to an acceptable earth ground. If the indicator is remotely mounted, the platform must be separately grounded from the chassis ground screw located on the bottom of the platform. Connect this screw wire to the same earth ground system as the AC power source. Failure to ground the base may cause static buildup and incorrect weights.

3. Keyboard instructions

The keyboard is composed of a total of seventeen (17) keys. There are five (5) function keys and twelve (12) numeric keypad keys



Power On

- Turn on the power by pressing the power button for 2 seconds. Once on, the scale will flash the voltage and then begin to auto-check and count down from 0-9 sequentially before entering the weighing mode



Note:

Anything on the scale before powering on will automatically be tared out.

Zero

- The zero function is used only when the scale is empty and is not at gross zero due to material build up
- Pressing the ZERO key will reset your scale to 0
- Depending on what your manual zero range para indicator is set to, you can zero out any number within your set selection, after that you will receive an error and will need to tare out the weight

Unit Selection

- To switch between measuring units (kg/g/lb/oz) press the UNITS key



Note: Details see <Unit Conversion Para indicator Settings table>

Tare Function

- The Tare function is used when you only wish to see the current change in weight, not the entire amount of weight that is on the scale
- When the indicator is in gross mode (gross light is shown) pressing the TARE key will Tare the current weight on the scale and enter the net mode (net light shown)
- For example if you are using a container add the container to the scale, press tare and the display will show the tare symbol →0← and reset back to 0
- Add your product to the scale to weigh without the weight of the container
- To exit Tare mode press the TARE key again to enter gross mode and you will see the total weight of the container and the product

Enter (Print) Function

- If the indicator is connected to a printer and the weight on the scale is stable press the ENTER (PRINT) key to print the current weight
- In the menu mode, select the para indicators and press ENTER

Numeric keys instruction

Each button comes with a command function on the left and a number on the right. In the weighing mode, the command function will be activated; In the menu mode, the number entering function will be activated.

Numeric key	In Menu mode	In Weighing Mode
TARGET/1	Number 1	TARGET Function
COUNT/2	Number 2	COUNT Function
ACCUM/3	Number 3	ACCUM Function
Y/N /4	Number 4	Switch Yes or No
OVER/5	Number 5	Set upper limit alarm
OVER/5	Number 6	Lock partial function
PRE-TARE/7	Number 7	Preset tare Function
UNDER/8	Number 8	Set lower limit alarm
f1/9	Number 9	f1 Function
ID/0	Number 0	Tare list
DEIT/DEL	Short press: delete one digit at a time Long press: delete all the digits	Edit
ESC	Exit and return to the previous option	

4. Command Functions

4.1 Target Function

Used to acquire a weight value and assign it as the desired target value.

Target have two modes: target weight and target percent.

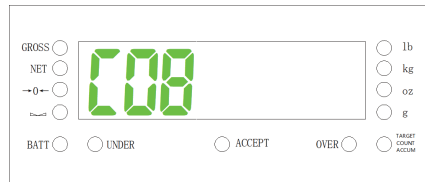
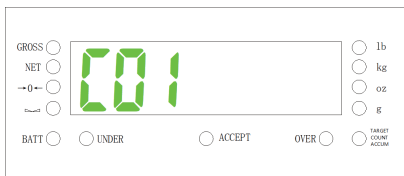
4.1 Target Weight Mode

In Target Weight mode, the over and under values can only be set by keying in the division value. The ACCEPT band is determined based on a desired target weight.

Value Set: Keyed

1. Press **ENTER/PRINT** and **UNITS** together to access the setup menu.

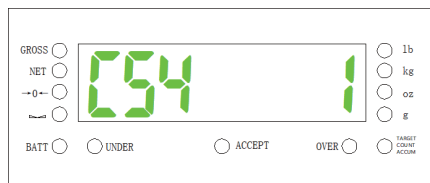
2. The display show "C01" or "C08".



3. Use the number keys to key in 54, the display show "C 54", then press **ENTER/PRINT**.

4. The display show C54 - 0, use numbers to display the display as " C54-1", then press

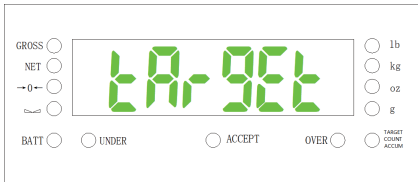
ENTER/PIRNT.



5. Press **ESC** to return weigh mode.

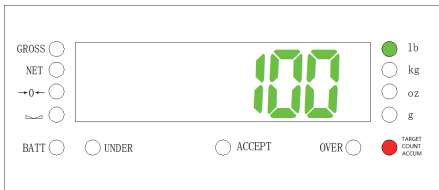
6. Place product on the scale.

7. Press **TARGET/1** , displays show “TAEGET” and flicker(60 seconds).

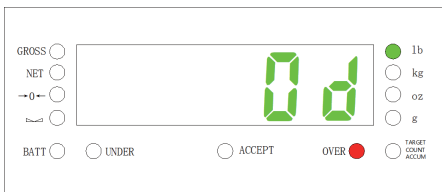


8. Press **ENTER/PRINT** to ascertained weight..

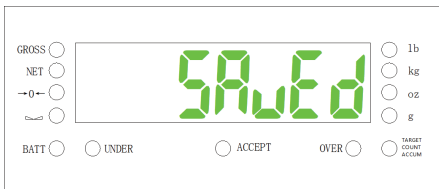
9. The display TARGET light(red) up.



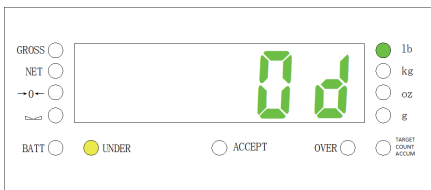
10. Press **OVER/5**, the display show “0d” and OVER light(red) up.



11. Press **EDIT/DEL**, display show “0d” flicker, input upper limit (1-9) , press **ENTER//PRINT**, display show “SAVED” and return weigh mode.



12. Press **UNDER/8**, the display show “0d” and UNDER light(yellow) up.



13. Press **EDIT/DEL**, display show “0d” flicker, lower input limit (1-9) , press **ENTER//PRINT**, display show ”SAVED” and return weigh mode.

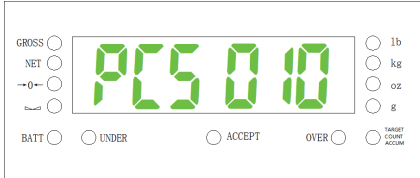
14. Setup complete.

For example: The target value is 100lb, division value is 0.5lb, upper limit is 102lb, lower limit is 96lb.

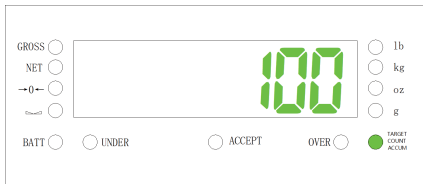
4.2 COUNTING FUNCTION

Counting function can determine the number of objects by measuring their weight. Steps to use the counting function:

1. Place a high volume of identical sample on the scale (Known sample quantity)
2. The indicator display shows the weight of the sample.
3. Press **COUNT/2** (hold 2 seconds) , display show “PCS 010”(010flicker).



4. Enter sample quantity using numeric keypad.(such as 100pcs)
5. Press **ENTER/PRINT**.
6. The display displays the number of inputs for step 4, The COUNT button will turn green, and the unit indicator light will be off.



7. Press **COUNT/2** to switch sample weight and quantity.
8. Place the remaining items on the scale. Quantity will be displayed.
- 9.(Optional) Press **ENTER/PRINT** to print out product weight and quantity.

Date:	08/11/2022
Time:	10:59:40
ID NO.:	00#
Tare:	0lb
Net:	250lb
Gross:	250lb
Qty:	100pcs
APW:	2.5lb

Example of Printout

NOTE:

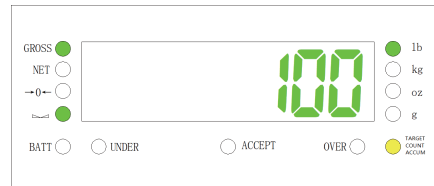
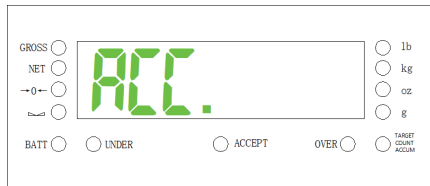
1. To count a different product, hold the **COUNT/2** key and the saved sample will be reset.
2. To exit counting mode, press the **ESC** key

4.3 ACCUM Function

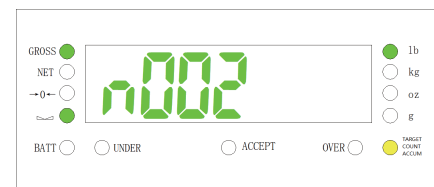
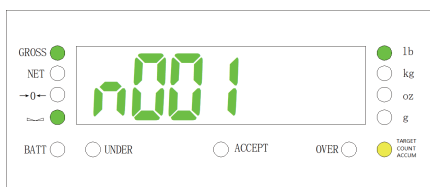
The accumulation function refers to recording the weight of multiple items and calculating the total weight.

Steps to use the ACCUM function:

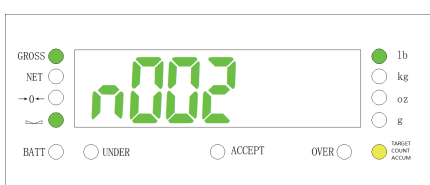
1. In weighing mode, press the **ACCUM/3** key to enter the accumulation mode. The display show “ACC”(flicker), then press **ENTER**, the “ACCUM”(yellow) light up.



2. Load the first weight and stable, then press **ACCUM/3**. The display will show “n001” to indicate the first weight has been saved, then indicator will return weigh mode.



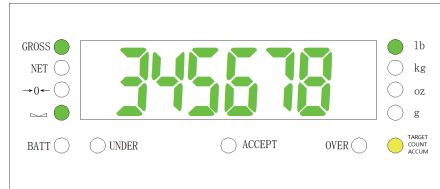
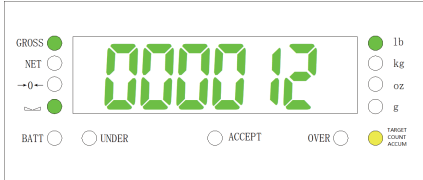
3. Remove the first weight and press the **ZERO** key to stabilize the scale
4. Add the second weight to the scale
5. Once stable press the **ACCUM/3** key to add the weight to the accumulated total
6. The display will show “n002” to indicate the second weight has been saved
7. Repeat previous steps until all desired weights have been added to the total (you can accumulate up to 999 different weights)
8. When you are done and want to display the accumulated total, press the **ENTER/PRINT** key, the accumulated number “n002” (the number of weights you are adding together) will flash on the display followed by the total.



4.3 ACCUM Function

9. The total will display by flashing between 2 sets of numbers

10. There are 8 digits in total, the display will flash 4 at a time, the first 4 on the left and the last 4 on the right. For example if the first 4 digits are “0012” and the last 4 digits are “345678” the actual weight is 12345678 lbs/kg.



11. If you want to print the accumulated total, hold the ENTER/PRINT key for one second while the last 4 digits of the total are shown.

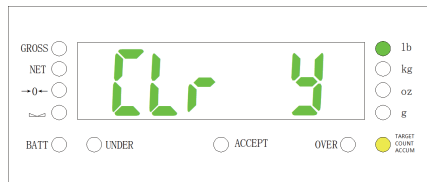
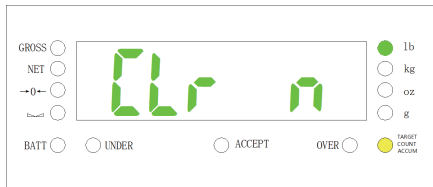
NOTE:

1. Only when the scale is stable, it can be accumulated
2. After the accumulation is successful, the next accumulation can be triggered only when the indicator returns to zero and stabilizes

Date:	08/11/2022	(start date)
Time:	10:59:40	(start time)
n001	100lb	
n002	120lb	
Date:	08/11/2022	(end date)
Time:	11:05:40	(end time)
Total:	002	
Total:	220lb	

Exit accumulation mode:

1. Press ESC, the display show total weight(flicker).
2. Press and hold ACCUM/3, the display show “CLr n”, asking you if you want to keep the data? If NO you do not want to clear the accumulated total, then keep “CLr n”. If YES you do want to clear the total, then use the Y/N 4 key to change to “CLr y”



3. Finally, press the ENTER/PRINT key to select exit accumulation mode, the display “ACCUM”(yellow) will light off.

4.4 Y/N Function (Switch function)

Switching indicator options(YES or NO)

4.5 OVER FUNCTION

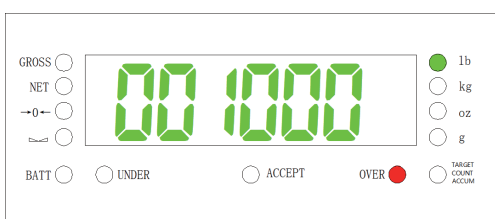
Sets the current over tolerance, or allows the over tolerance to be set.

Over function have two modes: target over(4.1) and tare list over(4.10).

Over step:

1. Press and hold **OVER/5**, the display show “XXXXXX”(flicker)

(XXXXXX representative upper limit, such as 001000)



2. Press **EDIT/DEL**, the display show “XXXXXX” (single-digit flicker)

3. Enter your password using numbers(such as 2000), press **ENTER/PRINT**.

4. Return weight mode.

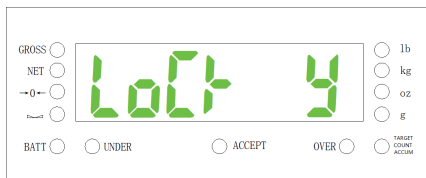
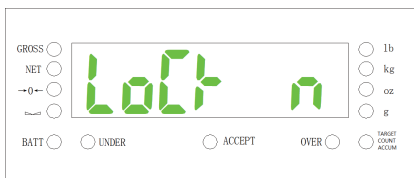
4.6 LOCK FUNCTION

Select Lock to disable the key(include over/5、PRE-TARE/7、UNDER/8、ID/0).

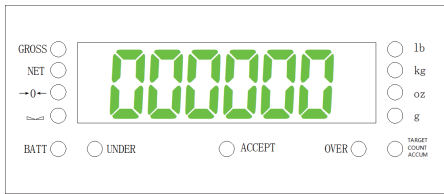
Unlock step:

1. Press **lock/6**, the display show “lock y”.

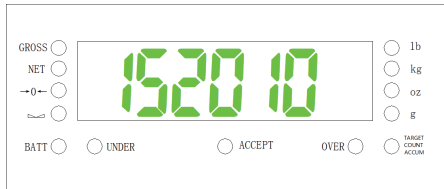
2. Press **Y/N 4**, the display show”lock n”.



3. Press **ENTER/PRINT**, the display show” 000000”(flicker).



4. Enter your password using numbers(152010), press **ENTER/PRINT**.



5. Return weight mode.

Lock step:

1. Press **lock/6**, the display show “lock n”.
2. Press **Y/N 4**, the display show”lock y”,
3. Press **ENTER/PRINT**, return weight m . o . d e.

4.7 PRE-TARE FUNCATION

Create a tare list in the indicator memory chip, include ID number、tare、upper net weight limit and lower net weight limit. (as shown in the following table)

ID No.	Tare	Upper net weight limit	Lower net weight limit
00#		n/a	
01#	Tare01	OVER01	UNDER01
02#	Tare02	OVER02	UNDER02
03#	Tare03	OVER03	UNDER03
04#	Tare04	OVER04	UNDER04
.....
98#	Tare98	OVER98	UNDER98
99#	Tare99	OVER99	UNDER98

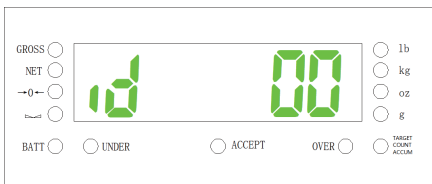
For example:

Product weight 100.0lb, tare 5.0lb, the product is required to have a net weight of 94.8lb to 95.5lb.

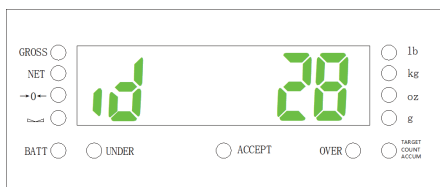
PRE-TARE step:

1. Place the product on the scale, the display show “100.0 lb”

2. Press **PRE-TARE/7**, the display show “id 00”



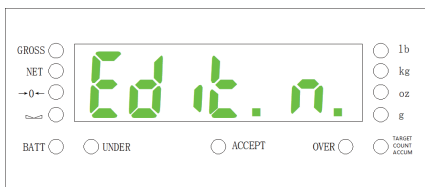
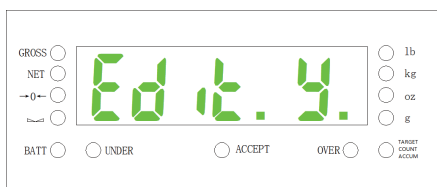
3. Enter tare numbers using numeric keys (such as 28)



4. Press ENTER/PRINT, the display show “Edit y”.(the tare number is not created)

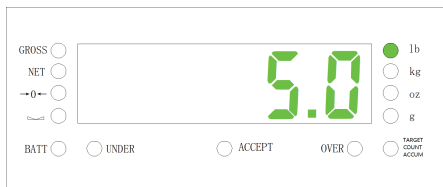
If tare has been created, the display show “Edit n”. If you want to change the para

indicators, press **Y/N 4**,go to step 5. Or not, return to step 2 and enter the new tare number.

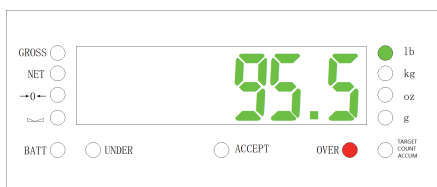


5. Press **ENTER/PRINT**, the display show “000000”(flicker), the “1b” light up.

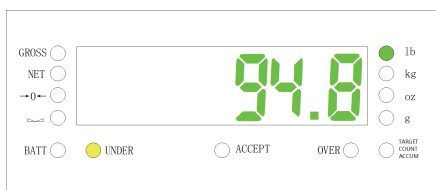
6. Enter tare weight using numeric keys(such as 50lb)



7. Press ENTER/PRINT, the display “OVER” (red) and “1b” light up, enter the upper limit of net weight(such as 95.5lb).

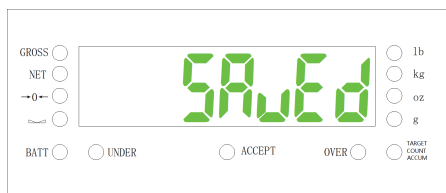


Press **ENTER/PRINT**, the display “UNDER” (yellow) and “lb” light up, enter the upper limit of net weight(such as 94.8lb)



8. Press **ENTER/PRINT**, display show “saved”, press ENTER/PRINT return weight mode.

Setup complete



4.8 UNDER FUNCTION

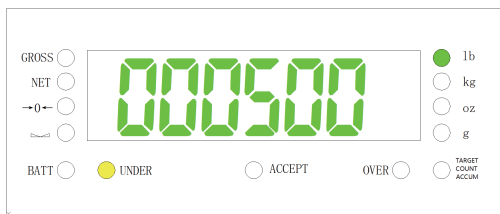
Sets the current under tolerance, or allows the under tolerance to be set.

Under function have two modes: target under(4.1) and tare list under(4.10).

Under step:

5. Press and hold **UNDER/8**, the display show “XXXXXX”(flicker)

(XXXXXX representative lower limit, such as 000500)



6. Press **EDIT/DEL**, the display show “XXXXXX” (single-digit flicker)

7. Enter your password using numbers(such as 1000), press **ENTER/PRINT**.

8. Return weight mode.

4.9 F1 FUNCTION

The F1 button is reserved for adding new functions, it is currently available with x10 resolution and hold function .

4.9.1 x10 resolution function:

By pressing the F1 button, you can enlarge the resolution of the indicator by ten times.

For example, the division value of the indicator is 1lb, the display show “200 lbs”. If you press F1, indicator display will show one of the values between 199.6lb and 200.4lb and hold 5 seconds, then return weight mode.

4.9.2 hold function

By pressing the F1 button, you can hold indicator weight.(see detail 5.2)

4.10 ID/0 FUNCTION

The ID/0 button have two function.

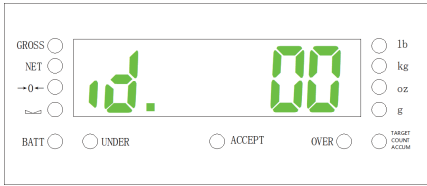
- Press ID/0 one second, view the current tare number.
- Press and hold ID/0, retrieve and use the tare number.

View the current tare number :

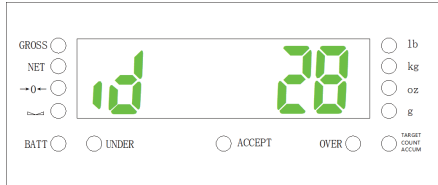
To avoid operation errors, check whether the current tare is the required tare. Press ID/0 one second, the display show “id XX” (XX indicates the current tare number)

Retrieve and use the tare number, ID/0 function step:

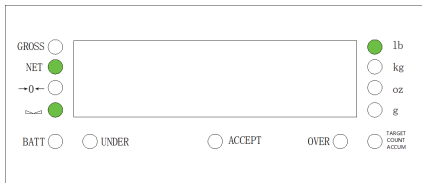
1. Press and hold **ID/0**, the display show “id 00”(00 flicker).



2. Enter tare numbers using numeric keys (such as 28)



3. Press **ENTER/PRINT**, return to weight mode, the display will show net weight.



4. Press **OVER/5** and **UNDER/8** to set the upper and lower limits of net weight.

(Reference 4.5 & 4.8)

5. Press **TARE** or **ESC** to exit the tare list.

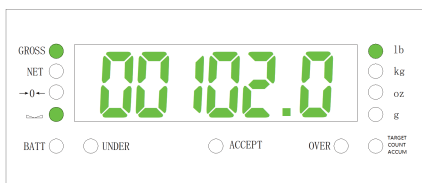
For example:

Product gross weight 102.0lb, the product is required to have a net weight of 94.8lb to 95.5lb.

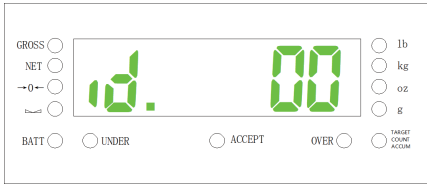
(For default tare Settings, reference 4.7)

Tare list NO.	Tare weight	Upper net weight limit	Lower net weight limit
28#	5.0lb	95.5lb	94.8lb

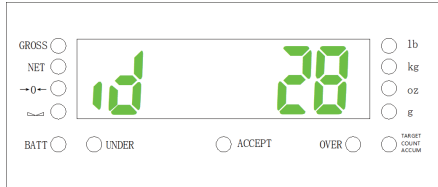
1. Put the product on the scale, show product weight.



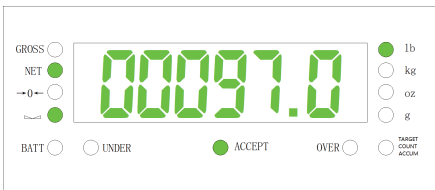
2. Press and hold **ID/0**, the display show “id 00”(00 flicker)



3. Enter tare numbers using numeric keys



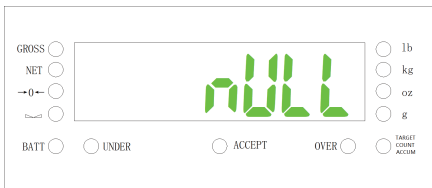
4. Press **ENTER/PRINT**, return to weight mode, the display will show net weight.



“NET” light up, if the weight is within the prescribed range, “ACCPET” light up.

 **NOTE:**

If tare numbers don't exist, the display show “null”, press **ESC/DEL** to return weight mode.



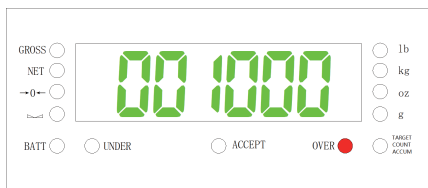
4.11 EDIT/DEL

The **EDIT/DEL** button have two function.

- In the menu, edit the para indicators.(Reference 4.5 & 4.8)
- When editing a para indicator value, the value is deleted.

For example:

1. When entering the upper limit, the indicator displays show 1000lb.



2. Press **EDIT/DEL**, the display will show “100”(every time you press, clear one)

 NOTE:

Press and hold **ID/0**, you will delete all the numbers.

4.12 ESC

Exit and return to the previous menu