



PC IP67 Waterproof Counting Indicator User Manual



© Excell Precision Limited 2006. All rights reserved Worldwide.

The information contained herein is the property of Excell Precision Limited and is supplied without liability for errors or omissions. No part may be reproduced or used except as authorised by contract or other written permission. The copyright and the foregoing restriction on reproduction and use extend to all media in which the information may be embodied.



TABLE OF CONTENT

INDICATOR HOUSING 3

BEFORE USING THE SCALE..... 4

 INSTRUCTIONS FOR USE 4

 PREPARING TO USE THE SCALE 4

CHAPTER 1 INTRODUCTION 5

 1-1 FEATURES..... 5

 1-2 POWER SUPPLY 6

 1-3 POWER CONSUMPTION 6

 1-4 LOW BATTERY WARNING..... 6

CHAPTER 2 DISPLAY AND KEYBOARD..... 7

 2-1 DISPLAY 7

 2-1-1 *Digital Display* 7

 2-1-2 *Symbol Icons “3”* 7

 2-2 KEYBOARD TYPES 8

 2-3 KEY FUNCTION 10

CHAPTER 3 OPERATION..... 11

 3-1 SWITCH SCALE ON 11

 3-2 SWITCH SCALE OFF 11

 3-3 BACKLIGHT SETTING 11

 3-3-1 *Auto Backlight*..... 11

 3-3-2 *Backlight On* 11

 3-3-3 *Backlight Off* 11

 3-4 ZERO FUNCTION 12

 3-5 COUNTING 12

 3-5-1 *The Unit Weight of the Object is known.* 12

 3-5-2 *The Unit Weight of the Object is Unknown.* 13

 3-6 DEDUCTION OF THE CONTAINER WEIGHT 14


 3-6-1 *The Weight of the Container is Unknown (Tare)* 14

 3-6-2 *Clear Tare Value* 14

 3-6-3 *The Weight of the Container is Known (Pre-set Tare)*..... 14

 3-6-4 *Clear the Pre-tare Value* 16

 3-7 TOTALISING..... 18

 3-7-1  *Key Setting*..... 18

 3-7-2 *Quantity Totalising* 20

 3-7-3 *Recall Quantity Totalised* 21

 3-7-4 *Clear Quantity Totalised*..... 21

 3-7-5 *Weight Totalised* 22

 3-7-6 *Recall Weight Accumulation Value* 22

 3-7-7 *Clear Weight Total* 22

 3-8 SAMPLING SPEED SETTING 23


CHAPTER 4 KEYBOARD TYPES FUNCTION 24

 4-1 STANDARD TYPE 24

 4-1-1 *Quantity Preset*..... 24

 4-1-2 *Set the Hi Limit Alarm Value for Quantity Preset* 24



4-1-3 Clear the Hi Limit Value for Quantity.....	24
4-2 ADDITIONAL FUNCTIONS TYPE I ⇒ DUAL WEIGHING UNIT.....	25
4-2-1 Unit Selection	25
4-2-2 Quantity Preset.....	25
4-2-3 Weight Preset.....	26
4-2-4 Clear the Hi Limit Value Preset.....	27
4-3 ADDITIONAL FUNCTIONS TYPE II ⇒ UNIT WEIGHT PRESET	28
4-3-1 Unit Weight Preset.....	28
4-3-2 Quantity Preset.....	29
4-3-3 Weight Preset.....	30
4-3-4 Clear the Hi Limit value Preset	30
4-4 COMBINATION TYPE ⇒ DUAL WEIGHING UNITS + PRESET UNIT WEIGHT STORES.....	31
4-4-1 Unit Selection	31
4-4-2 Unit Weight Preset.....	32
4-4-3 Quantity Preset.....	33
4-4-4 Weight Preset.....	34
4-4-5 Clear the Hi Limit Value Preset.....	34
CHAPTER 5 USER INTERFACE SETTINGS.....	35
5-1  KEY FUNCTION	36
5-2 TOTALISING OPERATING CONDITIONS.....	37
5-3 THE CONDITION TO ALLOW THE NEXT TOTALISING OPERATION	38
5-4 PRE-SET TARE OPERATING CONDITIONS	39
5-5 COMBINE KEY OPERATING MODE	40
5-6 BAUD RATE SETTING	41
5-7 TRANSMIT MODE SELECTION.....	42



INDICATOR HOUSING

Before opening the stainless steel indicator housing, make sure it is dry. If necessary wipe the housing dry, paying particular attention to the joint between the front panel and rear housing.

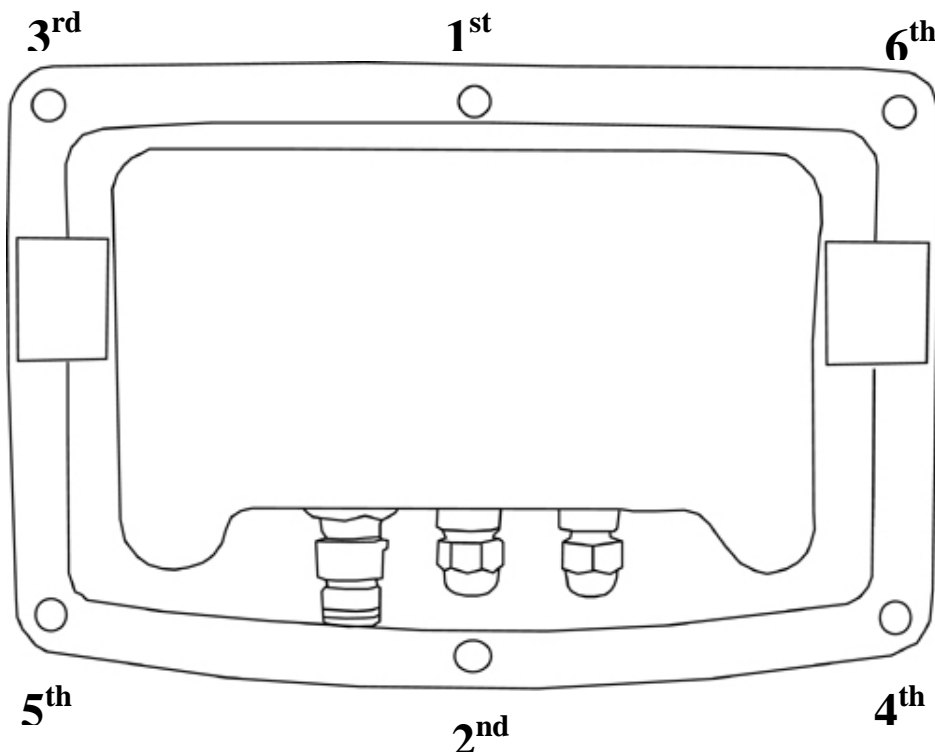
The re-assembly instructions should be accurately followed to ensure the IP rating is maintained in service. NOTE: There are no user serviceable parts inside the indicator and all service work should be carried out by the technical staff of your supplier.

RE-ASSEMBLY INSTRUCTIONS:

If the desired steps are all done, please screw the case loosely in the following order. After all the screws are in their positions, tighten each of them with 12 kgf-cm torque by sequence.

PS: Please use the adjustable torque screwdriver.

Tightening order:






BEFORE USING THE SCALE

To enable you to use this scale correctly, we suggest that you read this manual carefully.

INSTRUCTIONS FOR USE

1. The load placed on the weigh pan must NOT exceed the maximum weighing capacity of the scale.
2. Protect the scale from high temperatures.
3. Avoid objects impacting with the scale. Do not drop loads onto the scale or subject the weigh pan to any strong shock loads.

PREPARING TO USE THE SCALE

1. Put the scale on a firm level surface for accurate weight readings.
2. Protect the scale from direct sunlight and drafts.
3. Use a separate power socket, if possible, when re-charging the indicator.
4. For maximum stability and accuracy switch on the indicator for 15~20 minutes before operation.
5. Once the scale has been powered on, it will go through a LCD display test and re-zero, ready for use.
6. All goods weighed / counted should be placed in the centre of weigh pan for best accuracy. The overall dimensions of the goods being weighed / counted should not exceed the dimensions of the weigh pan.
7. Please note when  symbol appears on the display, the battery needs to be recharged.



CHAPTER 1 INTRODUCTION

1-1 FEATURES

1. Sealed to IP67, Waterproof and dust proof
2. Up to 1/15,000 display resolution and the internal resolution is 1/300,000. (Input voltage should be over 7mV)
3. Practical functions: Accumulations (weight and quantity), full range tare, pre-tare, kilogram (kg) and pound (lb) weighing modes, auto backlight
4. Others: Auto calibration, auto zero tracking, low battery and charging status indication
5. The weight calibration can be done in different temperatures, depending on users demand
6. Selectable sampling speed: speed 01-15
7. 25 key design: 10/20/50/100 pcs sampling keys included
8. Built-in RS-232 interface
9. Dimensions: 256 (W) × 170 (H) × 90 (D) mm
10. Analog input and A/D conversion: Input sensitivity 0.23 μ V/D or more
11. Input signal range: -1mV~12mV
12. Load cell excitation: 5V DC



1-2 POWER SUPPLY

Internal 6V / 4.5Ah rechargeable battery

AC 120 VAC to 9 VDC/ 1A plug top power supply


AC 230 VAC to 9 VDC/ 1A plug top power supply

1-3 POWER CONSUMPTION

Approximately DC 25 mA

Approximately DC 45 mA (with Backlight)

1-4 LOW BATTERY WARNING

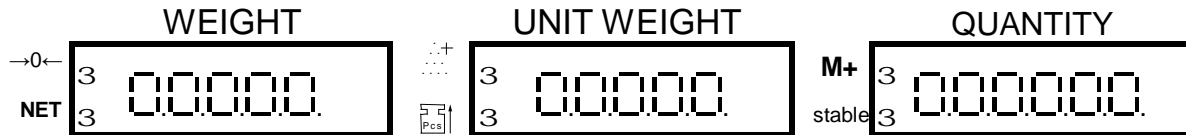
Please note when the  symbol appears on the display, the scale needs to be recharged.

- 4 If the battery is not recharged and the battery symbol appears, the indicator will switch off automatically after approximately 20 - 30 minutes of additional use.

CHAPTER 2 DISPLAY AND KEYBOARD

2-1 DISPLAY






All models have 3 LCD displays (the location of displays vary from model to model)



2-1-1 Digital Display

1. WEIGHT (5 digits): Weight of objects on the weigh pan or totalised weight.
2. UNIT WEIGHT (5 digits): Unit weight of objects on the weigh pan or number of weighings in the totaliser.
3. QUANTITY (6 digits): Quantity (count) of objects on the weigh pan or total quantity in the totaliser.

2-1-2 Symbol Icons “3”

1.  or Net or Tare: “Tare” displays the deduction of the container weight
2.  or Zero : “Zero” indication
3. + or M+ : “M+” Totaliser
4. Stable or ~ : “Stable” indication
5.  : If the piece weight is smaller than “Minimum Sampling Weight”, “3” will be displayed. In order to clear the symbol “3”, increase the size of the sample.
6.  : If the piece weight is smaller than “Minimum Unit Weight”, “3” will be displayed. The scale still weighs even though the piece weight is too small, this may affect the count accuracy.
7.  : “Low Power” warning.

NOTE:

- Non-approved models and OIML approved models: the minimum unit weight = 0.2d
 - Brazil approved model: the minimum unit weight = 0.1 d
- (When the unit weight is less than 0.1d, the display shows “-----” in QUANTITY display, and the count function is not available.)

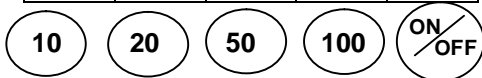


2-2 KEYBOARD TYPES

Standard Type

7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	PST CE
1	2	3	Z	M+
0	.	CE	T	MC

This is a "CLEAR" key to delete all the High Limit values. Please refer to page 22.



Additional Function Type I ⇒ Dual Weighing Unit

7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	lb/kg
1	2	3	Z	M+
0	.	CE	T	MC

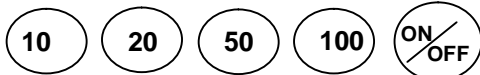
This Key is to select weight units of "lb" or "kg". Please refer to page 23.



Additional Function Type II ⇒ Unit Weight Preset

7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	U.W PST
1	2	3	Z	M+
0	.	CE	T	MC

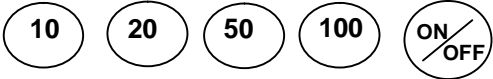
This key selects 10 sets of unit weight pre-set. Please refer to page 26.










Combination Type ⇒ Unit Weight Preset + Dual Weighing Units

7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	U.W PST
1	2	3	Z	M+
0	.	CE	T	MC

**This is a dual function key which selects:
Preset unit weight stores and dual weighing units selection.
Please refer to page 29.**





NOTE:

-  or  or  = ENTER
-  = CONFIRM
-  = SHIFT to LEFT
-  = SHIFT to RIGHT
-  = DELETE


2-3 KEY FUNCTION


 ~  ,  : Number key for setting the unit weight, quantity and etc.


 : Clear key to clear the digits on the display.


 : Sampling key to set the sample count.


 : Unit weight key for setting the unit weight of sample.


 : Press this key, the display will return to 0.

 : Press this key to deduct the weight of container.


 : Pre-setting the upper limit of count. If the calculated count is larger than the limit, the scale will send a warning sound.


 : Totalizing the quantity or weight.

 : Clearing the stored totalizing memory.

 : Turning on or off the instrument.

The following keys are available depends on the models:

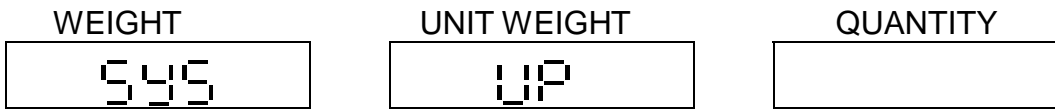
 : Press this key to choose the weighing units.

 : Press this key to preset the unit weight of sample.

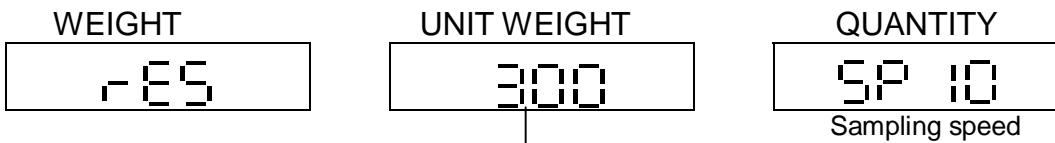
CHAPTER 3 OPERATION

3-1 SWITCH SCALE ON

1. To turn on the scale, press  key. 3 LCD displays show:-




2. Then the scale resets back to zero.



300 ⇒ Internal resolution: 1/300,000



3. When the scale is stable, it enters the counting mode.

3-2 SWITCH SCALE OFF



1. To turn off the scale, press  key again.

3-3 BACKLIGHT SETTING

3-3-1 Auto Backlight

1. Press  +  keys together.
2. When the weight is over 10 divisions or any key is pressed, the backlight is switched on.

3-3-2 Backlight On

1. Press  +  keys together.
2. Backlight is on all the time.


3-3-3 Backlight Off

1. Press  +  keys together.

NOTE:

- The backlight mode is stored in memory and will be restored when the scale is switched off and back on again.


3-4 ZERO FUNCTION

Press  key to re-zero the display with no load on the weigh pan. When the zero is set correctly the “3” icon will be displayed adjacent to the (à 0.0) symbol on the weight display.

NOTE:

- The zero setting range is ± 2% of the capacity of the scale.

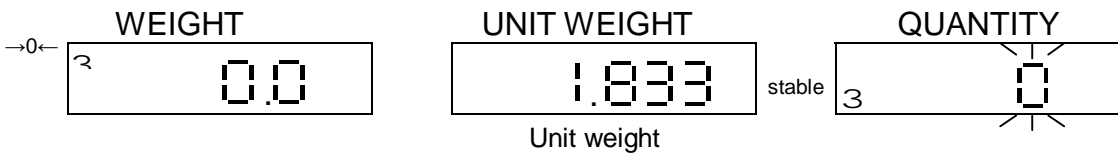
3-5 COUNTING


- Non-approved models and OIML approved models: the minimum unit weight = 0.2d
- Brazil approved model: the minimum unit weight = 0.1 d
(When the unit weight is less than 0.1d, the display shows “-----“ in QUANTITY display, and the count function is not available.)
- When the weight of object on the platter is lighter than the minimum unit weight, the  Indication shows on the display.

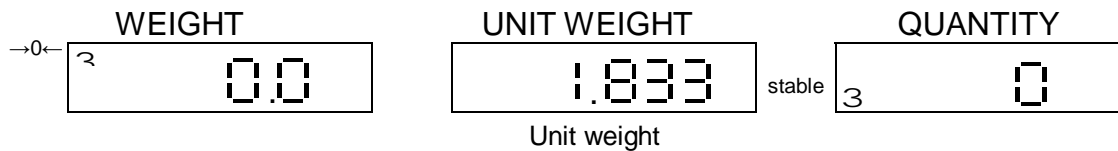
The piece weight of the items to be weighed must be established before counting operations are possible.

3-5-1 The Unit Weight of the Object is known.

1. Enter the known weight value

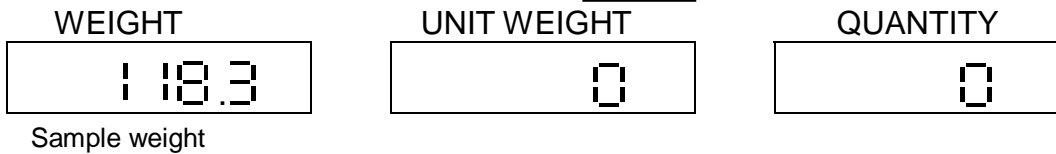


2. Press  key, the count is shown by on the quantity display.

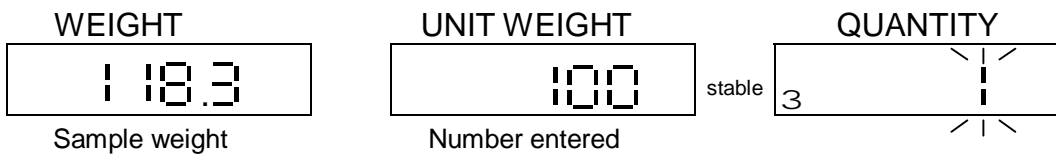



3-5-2 The Unit Weight of the Object is Unknown.


1. Place a sample quantity on the scale  

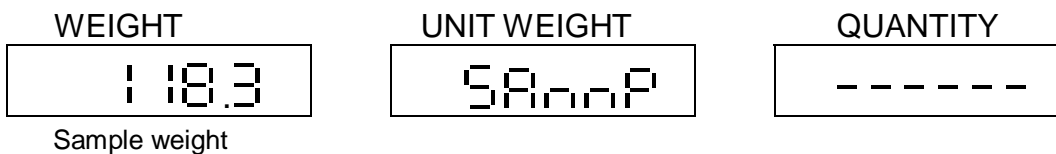


2. Enter the quantity in the sample placed on the scale

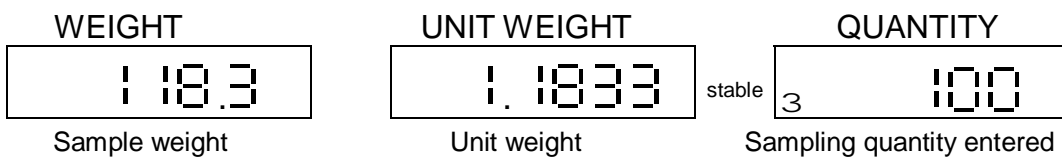
**NOTE:**

- The quantity display will flash for about 3 seconds, while it is flashing press  key to complete the sampling routine. Otherwise, the number entered and displayed by the unit weight display will be used as the piece weight when the display stops flashing

3. When the quantity display is flashing, press  key.





4. Once the scale stabilises, the scale is in the counting status.




5. Place the objects on weigh pan and the object quantity will show on the display.

NOTE:

- The larger the sample weight is, the more accurate the count will be.
- With both the “Unit weight” and “Quantity” displays showing zero, pressing  or  will recall the latest piece weight value.

3-6 DEDUCTION OF THE CONTAINER WEIGHT

3-6-1 The Weight of the Container is Unknown (Tare)

1. Place the container onto the scale. 

WEIGHT	UNIT WEIGHT	QUANTITY
6.8 Container Weight	0	0

2. Press  Key.


WEIGHT	UNIT WEIGHT	QUANTITY
- - - -	0	0

3. Once the scale stabilises, it displays the net weight and the “3” icon next to the NET symbol is displayed.

WEIGHT	UNIT WEIGHT	QUANTITY
<small>® 0</small> <small>NET</small> 3 0.0	0 stable	3 0


3-6-2 Clear Tare Value

When the container is removed from the scale, the weight display will show a negative sign. Press

 key again to clear tare value and the weight display will reset to zero, the “3” icon adjacent to the NET symbol will go off.

3-6-3 The Weight of the Container is Known (Pre-set Tare)



Pre-set Tare Operating Conditions

1. Press  key and the display shows “- - - -” followed by pressing  key.


WEIGHT	UNIT WEIGHT	QUANTITY
- - - -		
USER 1		

2. Press  key

WEIGHT	UNIT WEIGHT	QUANTITY
USER 1	PTEYP	X

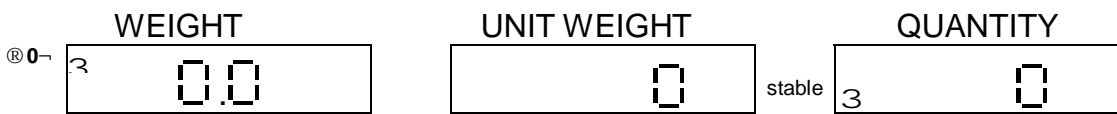
Use the number  ~  key to select 0 or 1

NOTES:

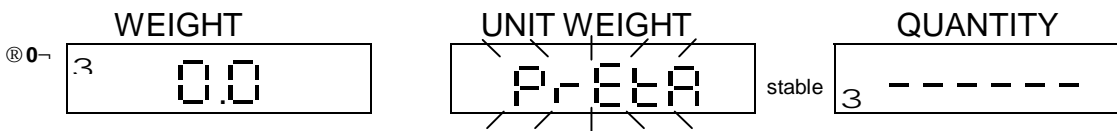
- 0 → Preset tare is not allowed if there is a weight on the scale.
- 1 → Preset tare operates at any point throughout the weighing range.
- Press  key to exit the setting mode and the scale returns to counting mode.

The User mode function to operate the “Pre-set tare” is to set “0” ⇒ The scale can not perform a pre-set tare when there is a weight on the scale.

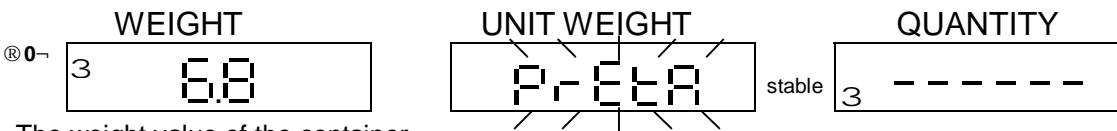
1. Nothing is placed on the scale.



2. Press  key.

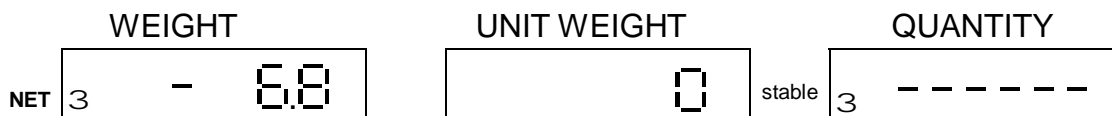


3. Enter the weight value of the container.

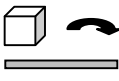


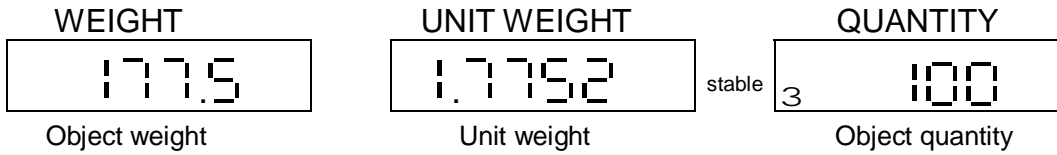
The weight value of the container

4. Press  key.

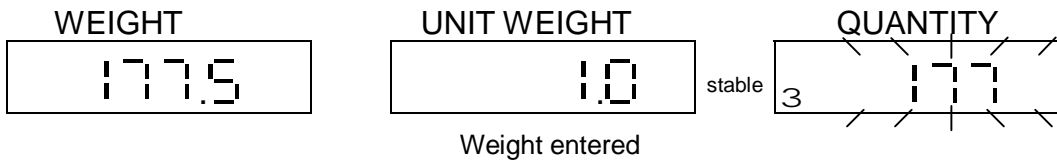


The User mode function to operate the “Pre-set tare” is to set “1” ⇒ The scale can perform a pre-set tare when there is a weight on the scale.

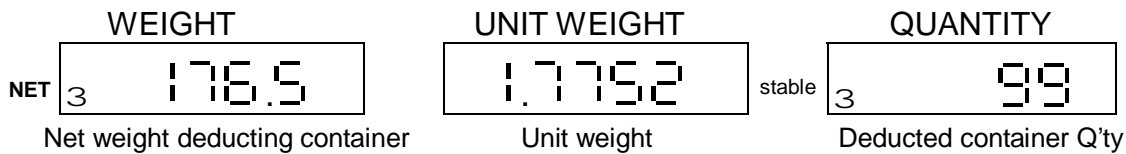
1. An object is placed on the scale. 



2. Enter the weight value of the container




3. Press  key.



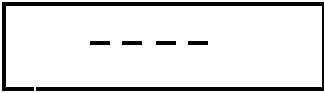
3-6-4 Clear the Pre-tare Value

When the container is removed from the scale, the weight display will show a negative sign. Press

 key to clear pre-set tare value and the weight display will reset to zero, the “3” icon adjacent to the NET symbol will go off.

3-6-5 Recall the Pre-tare Value

1. Press  key.



2. Press  key.



Pre-tare value



The display shows the pre-tare value for 3 seconds and automatically returns to the weighing mode.

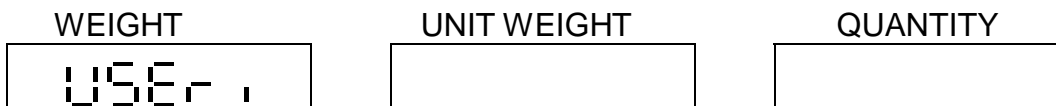
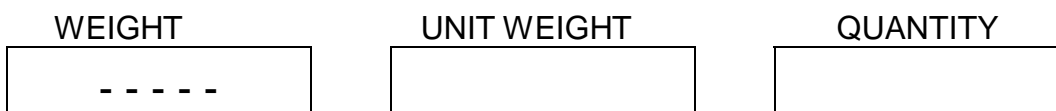
3-7 TOTALISING

The totalising function can be used up to a maximum of 99 times before it must be reset. The totalising display is limited to six digits maximum.

3-7-1 Key Setting




(This function is NOT available for OIML approved model, but available for Brazil and the none-approved model.)

1. Press   key and the display shows “- - - -” follow by pressing   key.













2. Press   key



Use the number , ,  key to select 0, 1, or 2

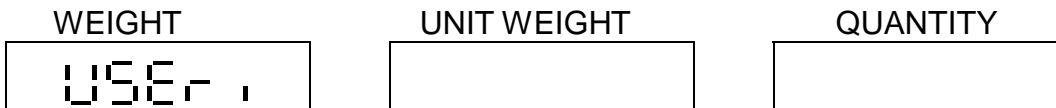
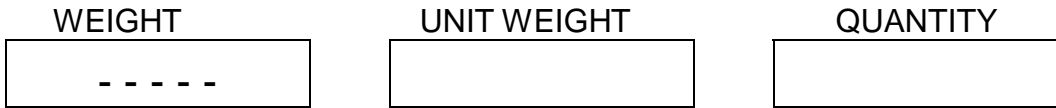
NOTES:





- 0 ⇒ Press   key and the display shows the totalised value. After 3 seconds, the scale returns to the counting mode.
- 1 ⇒ Press   key and the display shows the totalised value. Press   key and the scale returns to the counting mode.
- 2 ⇒ Press   key and the display will not show the totalised value, and the buzzer will sound.
- Press   key to exit the setting mode and the scale returns to the counting mode.

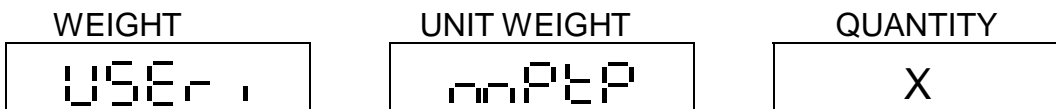
Totalising Operating Conditions



(This function is NOT available for OIML approved model, but available for Brazil and the none-approved model.)

1. Press   key until the unit weight display shows “- - - -” then press   key.





2. Press   key, then use the number ,  key to select 0 or 1





↓
Use ,  to select 0 or 1

NOTE:

- 0 ⇒ Totalising will only be carried out when the weight is stable.
- 1 ⇒ Totalising will be carried out irrespective of the stability of the weight.
- Press the   key to exit the setting mode and the scale returns to counting mode.

The Condition to Allow the Next Totalising Operation

(This function is NOT available for OIML approved model, but available for Brazil and the none-approved model.)

1. Press  key and the display shows “- - - -” followed by pressing  key.


WEIGHT - - - -	UNIT WEIGHT	QUANTITY
WEIGHT USER .	UNIT WEIGHT	QUANTITY

2. Press  key


WEIGHT USER .	UNIT WEIGHT nnPb0	QUANTITY X
------------------	----------------------	---------------

Use  ~  to select 0 or 1

NOTES:

- 0 ⇒ The weight needs to return to zero before the next totalising operation is allowed.
- 1 ⇒ Allow next totalising operation without returning to the zero interlock.
- Press  key to exit the setting mode and the scale returns to the counting mode.

3-7-2 Quantity Totalising

1. Place a desired object onto the scale 

WEIGHT 1 18.3 Object weight	UNIT WEIGHT 1. 1833 Unit weight	QUANTITY 100 Object Q'ty placed on scale
-----------------------------------	---------------------------------------	--

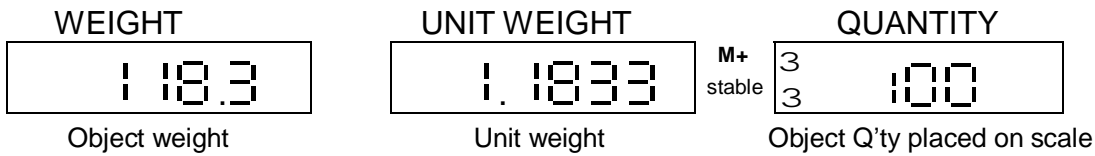
2. Press  Key

WEIGHT - - - -	UNIT WEIGHT Add	QUANTITY - - - - -
-------------------	--------------------	-----------------------


3. Once the scale is stabilised.

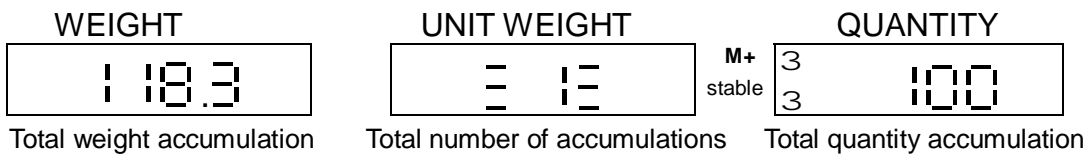
WEIGHT 1 18.3 Total weight accumulation	UNIT WEIGHT ≡ 1E Total number of accumulations	QUANTITY M+ stable 3 3 100 Total quantity accumulation
---	--	--

4. After 3 seconds, the scale returns to the counting mode.




3-7-3 Recall Quantity Totalised

1. With both the weight and the unit weight displays showing zero, press  key to recall the totalised value.



3-7-4 Clear Quantity Totalised

1. Press  key to clear the accumulated value and the “3” symbol is on and “+” is off.

3-7-5 Weight Totalised



1. When the unit weight display shows zero, place an object onto the scale.

WEIGHT 1 18.3	UNIT WEIGHT 0	QUANTITY 3 0
------------------	------------------	-----------------

Object weight

2. Press  key.

WEIGHT - - - -	UNIT WEIGHT Add	QUANTITY - - - -
-------------------	--------------------	---------------------

3. Once the scale is stabilised.

WEIGHT 1 18.3	UNIT WEIGHT = 1=	QUANTITY M+ stable 3 0
------------------	---------------------	------------------------------

Total weight accumulation

Total number of accumulations

4. After 3 seconds, the scale returns to counting mode.

WEIGHT 1 18.3	UNIT WEIGHT 0	QUANTITY M+ stable 3 0
------------------	------------------	------------------------------


Object weight

5. Remove the first object from the weight pan and place the second object on, then press .



key to totalize the second count. (Maximum is 99 times.)

3-7-6 Recall Weight Accumulation Value


1. With both the weight and the unit weight displays showing zero, press  key to recall the totalised value.

WEIGHT 1 18.3	UNIT WEIGHT = 1=	QUANTITY M+ stable 3 0
------------------	---------------------	------------------------------

Total weight accumulation

Total number of accumulations

3-7-7 Clear Weight Total


1. Press  key to clear all of the totalised values and the “3” symbol adjacent to the M+ icon on the overlay will switch off. The totals for weight, number of additions and quantity are all cleared back to zero.

3-8 SAMPLING SPEED SETTING

Sampling speed: 01 ~ 15 (01 = slow, 15 = Very fast)

The slower the sampling speed the more accurate the count will be. The faster the sampling speed the less accurate the count may be.



The default sampling speed is set at 05.


1. Press  key and the Unit Weight display shows “- - -” followed by pressing .

WEIGHT


UNIT WEIGHT
SPEED
Sampling speed

QUANTITY
02

(Press  to increment {up} or  to decrement {down} the sampling speed)

2. Press  key to exit and save the settings.



CHAPTER 4 KEYBOARD TYPES FUNCTION

4-1 STANDARD TYPE

Keyboard Illustration:

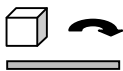
7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	PST CE
1	2	3	Z	M+
0	.	CE	T	MC

4-1-1 Quantity Preset

The scale can store a Hi Limit quantity value. The scale will make a warning beep and the unit weight window will display a blinking **-0.00-** if the quantity is over the Hi Limit alarm value set.

4-1-2 Set the Hi Limit Alarm Value for Quantity Preset

Method 1 :



Place the sampling object onto the weigh pan and increase the number of items gradually

until the quantity reaches the desired Hi Limit alarm level. Press key to store this “quantity preset” alarm value.

Method 2 :

Enter directly the number to set the Hi Limit value, and then press key.

4-1-3 Clear the Hi Limit Value for Quantity

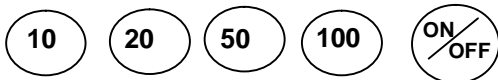
To clear Hi Limit value Preset, press key.



4-2 ADDITIONAL FUNCTIONS TYPE I P Dual Weighing Unit

Keyboard Illustration:

7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	lb/kg
1	2	3	Z	M+
0	.	CE	T	MC



4-2-1 Unit Selection

Press key to select the weighing units required “lb” or “kg”.

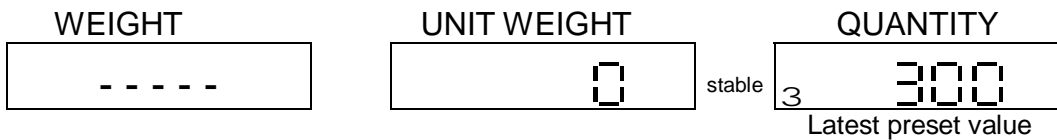
◆ The scale will save the current units when it is switched off and restore them when switched back on again.

4-2-2 Quantity Preset

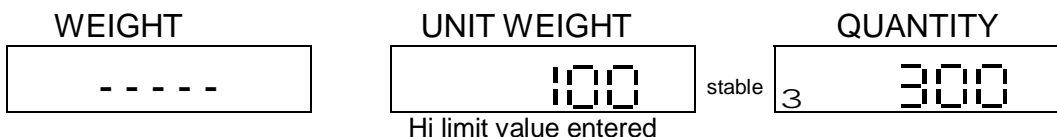
The scale can store a Hi Limit quantity value. The scale will make a warning beep and the unit weight window will display a blinking **-0.00-** if the quantity is over the Hi limit alarm value set.

Set the Hi Limit value for Quantity Preset

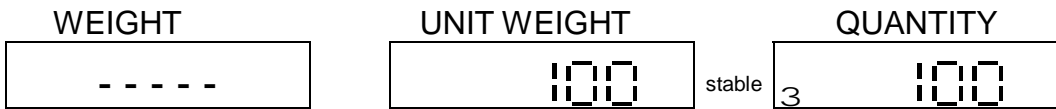
1. Press key whether the scale has object on the platter or not.




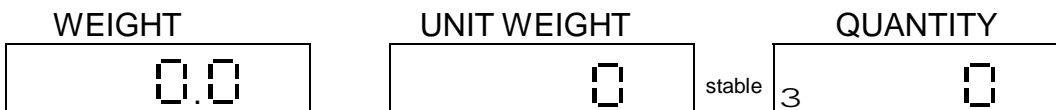
2. Enter a desired Hi Limit value. Use key to correct the value entered.



3. Press  **SMPL** key. Use  **CE** key to correct the value entered.




4. Press  **QTY PST** key and the scale returns to counting mode.

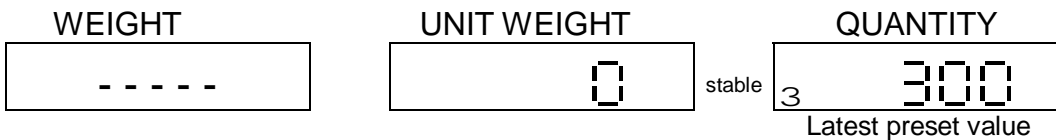


4-2-3 Weight Preset

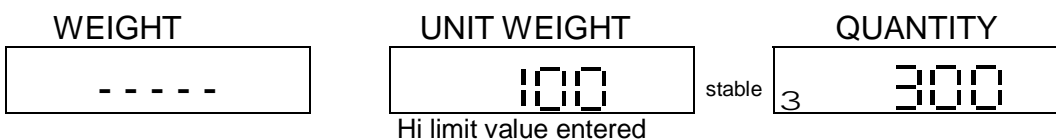
The scale can store a Hi Limit unit weight value. The scale will make a warning beep and the unit weight window will display a blinking **-LUPSE-** if the unit weight is over the Hi limit value stored.

Set the Hi Limit value for Weight

1. Press  **QTY PST** key whether the scale has object on the platter or not.




2. Enter a desired Hi Limit value. Use  **CE** key to correct the value entered.

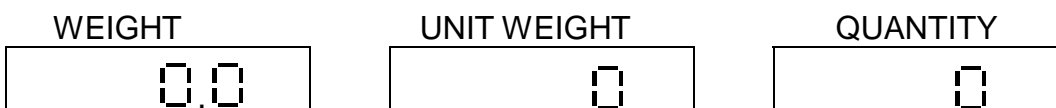


- 4 The unit and the decimal points for the high limit value entered are the same as the value previously preset on the weight display.

3. Press  **UNIT WT** key. Use  **CE** key to correct the value entered.




4. Press  **QTY PST** key, the scale returns to counting mode.





4-2-4 Clear the Hi Limit Value Preset

To clear the Hi Limit unit weight or Quantity preset enter  as the value in the appropriate entry field.



4-3 ADDITIONAL FUNCTIONS TYPE II ▢ Unit Weight Preset

Keyboard Illustration:

7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	U.W PST
1	2	3	Z	M+
0	.	CE	T	MC

4-3-1 Unit Weight Preset

The scale can store 10 sets of unit weight presets. The stores are accessed using the number keys (0 ~ 9). Press the number key required and the display will show the unit weight previously saved in that store.

Set Unit Weight Preset

- Use the number 0 ~ 9 to enter the unit weight value.

WEIGHT	UNIT WEIGHT	QUANTITY
0.0	100	3 0

- Press key.

WEIGHT	UNIT WEIGHT	QUANTITY
Pr SET		3

- Press key.

WEIGHT	UNIT WEIGHT	QUANTITY
Pr SET	SET	3



- Press any number 0 ~ 9 key to save the unit weight in this key.

WEIGHT	UNIT WEIGHT	QUANTITY
0.0	100	3 0

Recall the Unit Weight Preset

1. Press  key.

WEIGHT	UNIT WEIGHT	QUANTITY
PrSet		


2. Press any number  ~  key to recall the unit weight saved in this key.

WEIGHT	UNIT WEIGHT	QUANTITY
0.0	100	0 <small>stable 3</small>

4-3-2 Quantity Preset

The scale can store a Hi Limit quantity value. The scale will make a warning beep and the unit weight window will display a blinking **-0.04-** if the quantity is over the Hi limit alarm value set.

Hi Limit Value for Quantity Preset

1. Press  key whether the scale has object on the platter or not


WEIGHT	UNIT WEIGHT	QUANTITY
- - - -	0	300 <small>stable 3 Latest preset value</small>

2. Enter a desired Hi Limit value. Use  key to correct the value entered.

WEIGHT	UNIT WEIGHT	QUANTITY
- - - -	100 <small>Hi limit value entered</small>	300 <small>stable 3</small>

3. Press  key. Use the  key to correct the value entered.

WEIGHT	UNIT WEIGHT	QUANTITY
- - - -	100	100


4. Press  key, the scale returns to counting mode.

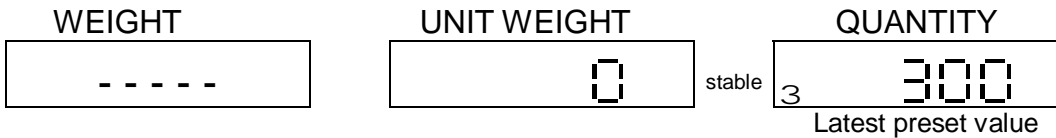
WEIGHT	UNIT WEIGHT	QUANTITY
0.0	0	0 <small>stable 3</small>

4-3-3 Weight Preset

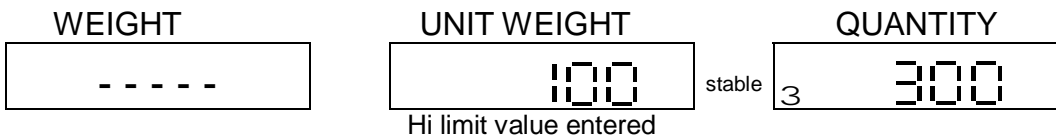
The scale can store a Hi Limit unit weight value. The scale will make a warning beep and the unit weight window will display a blinking **-LOPST-** if the unit weight is over the Hi limit value stored.

Hi Limit Value for Weight Preset

1. Press  key whether the scale has object on the platter or not.

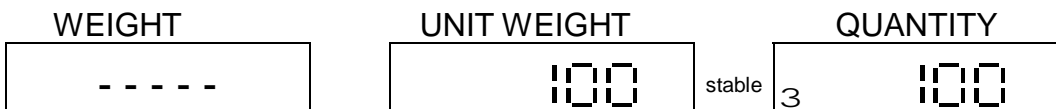



2. Enter a desired Hi Limit value. Use  key to correct the value entered.

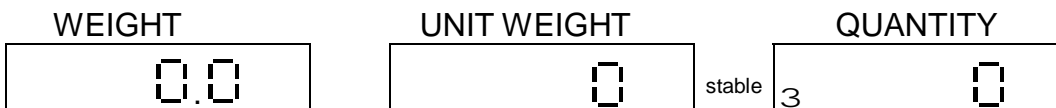


- 4 The unit and the decimal points for the high limit value entered are the same as the value previously preset on the weight display.


3. Press  key. Use the  to correct the value entered.



4. Press  key, the scale returns to counting mode.








4-3-4 Clear the Hi Limit value Preset

To clear the Hi Limit unit weight or Quantity preset enter  as the value in the appropriate entry field.


4-4 COMBINATION TYPE \bar{D} Dual Weighing Units + Preset Unit Weight Stores

Keyboard Illustration:

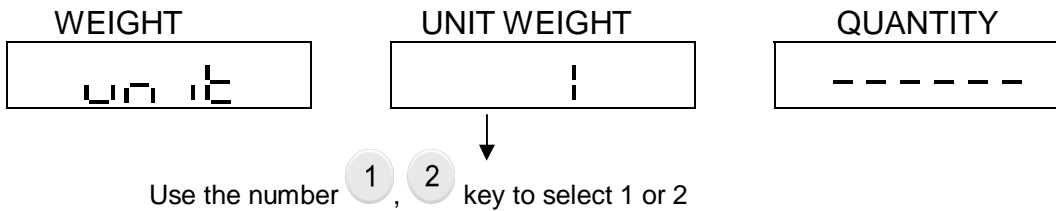
7	8	9	SMPL	Q'TY PST
4	5	6	UNIT W.T.	U.W PST
1	2	3	Z	M+
0	.	CE	T	MC

4-4-1 Unit Selection

1. Press the combination key. 

(If the unit selection setting is a secondary function, press the combination key for about 3 seconds and the display will show the following)



Remarks :

1 ⇒ First unit

2 ⇒ Second unit

- ◆ The scale saves the current unit in use. At power on the last units in use will be used



4-4-2 Unit Weight Preset

The scale can store 10 sets of unit weight presets. The stores are accessed using the number keys (0 ~ 9). Press the number key required and the display will show the unit weight previously saved in that store.

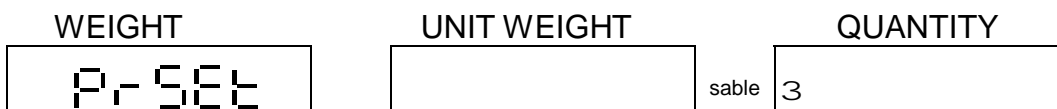
Set the Unit Weight Preset

1. Use the number 0 ~ 9 key to enter the unit weight value.



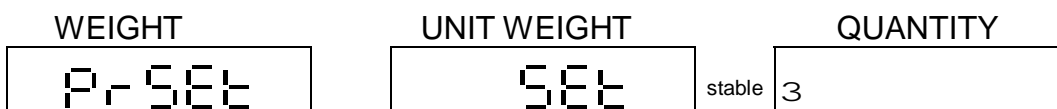
2. Press the combination key.

(If the unit selection setting is a secondary function, press the combination key for about 3 seconds and the display shows the following)



3. Press the combination key.


(If the unit selection setting is a secondary function, press the combination key for about 3 seconds and the display shows the following)



4. Press any number 0 ~ 9 key to recall the unit weight saved in this key.





Recall the Unit Weight Preset

1. Press the combination key. 

(If the unit selection setting is a secondary function, press the combination key for about 3 seconds and the display shows the following)

WEIGHT	UNIT WEIGHT	QUANTITY
PrSet		stable 3


2. Press the number  ~  key to recall the unit weight saved in this key.

WEIGHT	UNIT WEIGHT	QUANTITY
0.0	100	0

4-4-3 Quantity Preset

The scale can store a Hi Limit quantity value. The scale will make a warning beep and the unit weight window will display a blinking **-0.25-** if the quantity is over the Hi limit alarm value set.

Set the Hi Limit Value for Quantity Preset

1. Press  key whether the scale has object on the platter or not.


WEIGHT	UNIT WEIGHT	QUANTITY
-----	0 Latest preset value	stable 3 300

2. Enter a desired Hi Limit value. Use  key to correct the value entered.

WEIGHT	UNIT WEIGHT	QUANTITY
-----	100 Hi limit value entered	stable 3 300

3. Press  key. Use the  key to correct the value entered.

WEIGHT	UNIT WEIGHT	QUANTITY
-----	100	stable 3 100



4. Press  key, the scale returns to counting mode.

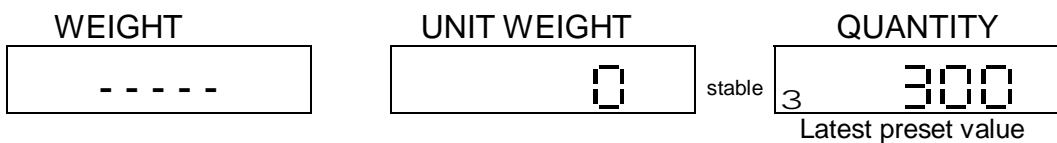
WEIGHT	UNIT WEIGHT	QUANTITY
0.0	0	stable 3 0


4-4-4 Weight Preset

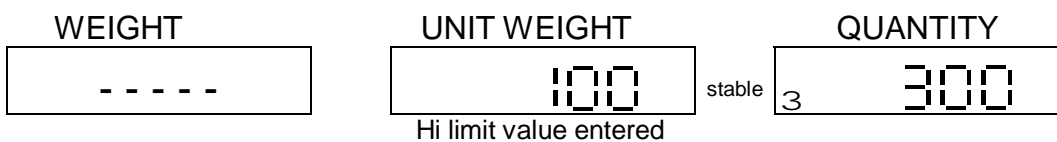
The scale can store a Hi Limit unit weight value. The scale will make a warning beep and the unit weight window will display a blinking **-LIMSE-** if the unit weight is over the Hi limit value stored.

Set the Hi Limit value for Weight

1. Press   key whether the scale has object on the platter or not.

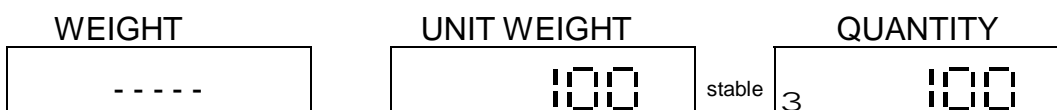




2. Enter a desired Hi Limit value. Use the  key to correct the value entered.

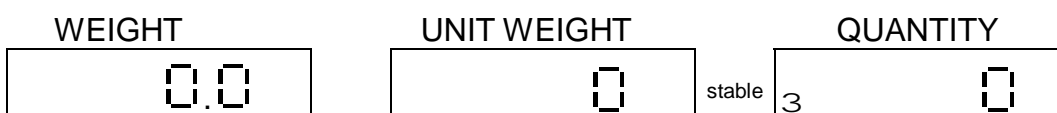


The unit and the decimal points for the high limit value entered are the same as the value previously preset on the weight display.

3. Press   key. Use the  key to correct the value entered.

























4. Press   key, the scale returns to counting mode.








4-4-5 Clear the Hi Limit Value Preset


To clear the Hi Limit unit weight or Quantity preset enter “0” as the value in the appropriate entry field.

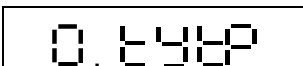
CHAPTER 5 USER INTERFACE SETTINGS


Functions	Sub Functions	Descriptions
Settings related to totalising	 Key function	Press  → Press  → Press 
	Totalising operating conditions	Press  → Press  → Press 
	The condition to allow the next totalising operation	Press  → Press  → Press 
Settings related to pre-set tare	Pre-set tare operating conditions	Press  → Press  → Press 
Settings related to RS-232	Combine key operating mode	Press  → Press  → Press 
	Baud rate setting	Press  → Press  → Press 
	Transmit mode selection	Press  → Press  → Press 

NOTE:


- Do NOT press  → Press  → Press . The setting is only available for the manufacturer. Changing the setting may result in the malfunction of the scale.
- If entering the setting accidentally, please remain the setting like below, and press   key to exit the setting mode and the scale returns to the counting mode

WEIGHT


UNIT WEIGHT


QUANTITY


5-1 KEY FUNCTION

The following procedures are the setting process of  key's motion.

1. Press  key and the display shows “- - - -” followed by pressing  key.






WEIGHT - - - -	UNIT WEIGHT	QUANTITY
WEIGHT USER 1	UNIT WEIGHT	QUANTITY

2. Press  key

WEIGHT USER 1	UNIT WEIGHT nPLU	QUANTITY X
------------------	---------------------	---------------

Use the number , ,  key to select 0, 1, or 2

NOTES:

- 0 ⇒ Press  key and the display shows the totalised value. After 3 seconds, the scale returns to counting mode.
- 1 ⇒ Press  key and the display show the totalised value. Press  key and the scale returns to counting mode.
- 2 ⇒ Press  key and the display shows the totalised value, as the buzzer beeps.
- To abandon the setting, press  key to exit the setting mode and the scale returns to the counting mode.





5-2 TOTALISING OPERATING CONDITIONS

The following procedures are the setting process of the totalising function.


1. Press   key until the unit weight display shows “- - - -” then press   key.

WEIGHT	UNIT WEIGHT	QUANTITY
- - - -		



WEIGHT	UNIT WEIGHT	QUANTITY
USER ,		

2. Press   key, then use the number  ,  key to select 0 or 1





WEIGHT	UNIT WEIGHT	QUANTITY
USER ,	nnPbP	X

Use  ,  to select 0 or 1

NOTES:

- 0 ⇒ Totalising will only be carried out when the weight is stable.
- 1 ⇒ Totalising will be carried out irrespective of the stability of the weight.
- To abandon the setting, press   key to exit the setting mode and the scale returns to the counting mode.

5-3 THE CONDITION TO ALLOW THE NEXT TOTALISING OPERATION

1. Press   key and the display shows “- - - -” followed by pressing   key.

WEIGHT	UNIT WEIGHT	QUANTITY
- - - -		



WEIGHT	UNIT WEIGHT	QUANTITY
USER .		

2. Press   key



WEIGHT	UNIT WEIGHT	QUANTITY
USER .	nnPb0	X

Use  ~  to select 0 or 1

NOTES:

- 0 ⇒ The weight needs to return to zero before the next totalising operation is allowed.
- 1 ⇒ Allow the next totalising operation without returning to the zero interlock.
- To abandon the setting, press   key to exit the setting mode and the scale returns to the counting mode.

5-4 PRE-SET TARE OPERATING CONDITIONS


1. Press  key and the display shows “- - - -” followed by pressing  key.

WEIGHT	UNIT WEIGHT	QUANTITY
- - - -		


WEIGHT	UNIT WEIGHT	QUANTITY
USER .		

2. Press  key


WEIGHT	UNIT WEIGHT	QUANTITY
USER .	PtTYP	X



Use the number  ~  key to select 0 or 1

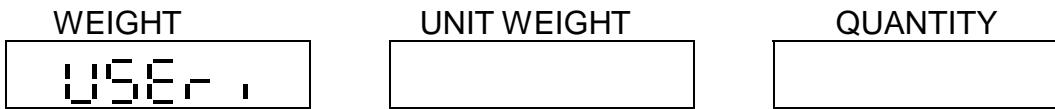
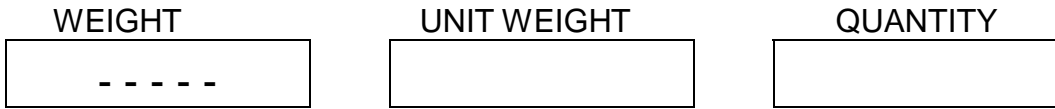
NOTES:




- 0 ⇒ Preset tare is not allowed if there is a weight on the scale.
- 1 ⇒ Preset tare operates at any point throughout the weighing range.
- To abandon the setting, press  key to exit the setting mode and the scale returns to the counting mode.

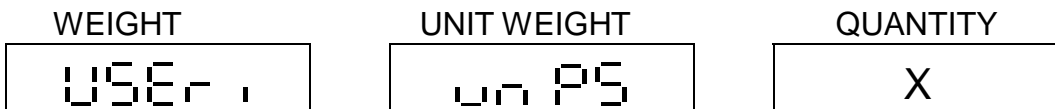
5-5 COMBINE KEY OPERATING MODE

The setting is only available for the COMBINATION KEYBOARD TYPE model. The following procedure is set for the function of the  key.

1. Press  key and the display shows “- - - -” followed by pressing  key.




2. Press  key, then use the number  ,  key to select 0 or 1







Use the number  ~  key to select 0 or 1

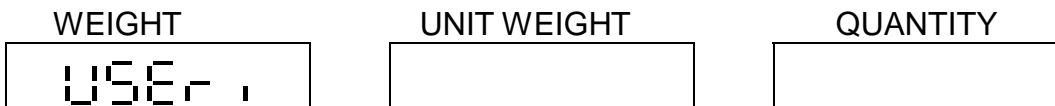
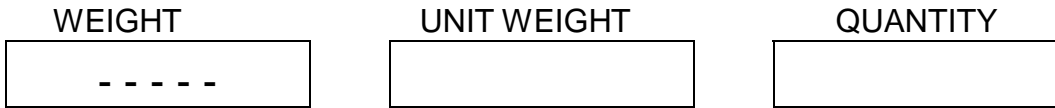
NOTES:

- 0 ⇒ Press "Unit Selection" function key (main function) and hold it down for 3 seconds, the function of the key becomes "Unit Weight Preset" (secondary function).
- 1 ⇒ Press "Unit Weight Preset" function key (main function) and hold it down for 3 seconds, the function of the key becomes "Unit Selection" (secondary function).
- To abandon the setting, press  key to exit the setting mode and the scale returns to the counting mode.

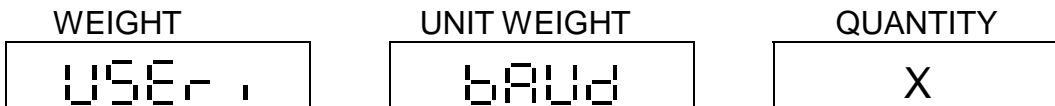
5-6 BAUD RATE SETTING

Please refer to page 41 for RS-232 communication protocol.

1. Press   key and the display shows “- - - -” followed by pressing   key.







2. Press   key



Use  ~  key to select 0~3

NOTES:

- 0 → 1200, 1 → 2400, 2 → 4800, 3 → 9600
- To abandon the setting, press   key to exit the setting mode and the scale returns to the counting mode.
- Once the configuration is complete, re-start the scale by pressing   key.

5-7 TRANSMIT MODE SELECTION

1. Press  **Z** key and the display shows “- - - -” followed by pressing  **1** key.

WEIGHT	UNIT WEIGHT	QUANTITY
- - - -		




WEIGHT	UNIT WEIGHT	QUANTITY
USER ,		



2. Press  **8** key

WEIGHT	UNIT WEIGHT	QUANTITY
USER ,	SET C	X



Use  **0** ~  **3** to select 0~3











NOTES:

- 0 ⇒ Press  **M+** key to transmit
- 1 ⇒ Continuous transmission
- 2 ⇒ Stable transmit
- 3 ⇒ EZ-2 printer only
- To abandon the setting, press  **ON/OFF** key to exit the setting mode and the scale returns to the counting mode.
- Once the configuration is complete, re-start the scale by pressing  **ON/OFF** key.
- The weight must be greater than a positive value to transmit the record information.
- Example: Transmit mode data (Next page)

Data format, pressing  		
key to transmit		
NO.	3	
G	2.480	kg
T	0.080	kg
PT	0.400	kg
N	2.000	kg
U/W	1.6003	g
PCS	1250	pcs

The data format of continuous transmission / Stable transmission		
G	2.480	kg
T	0.080	kg
PT	0.400	kg
N	2.000	kg
U/W	1.6003	g
PCS	1250	pcs

Data format, pressing  		
Key to transmit		
T/N	3	
T/W	1500	g
T/A	300	pcs

- NO.**  **Totalised value**
- G**  **Gross Weight**
- T**  **Tare**
- PT**  **Pre-tare**
- N**  **Net Weight**
- U/W**  **Unit Weight**
- PCS**  **Piece**
- T/N**  **Total no. of Accumulations**
- T/W**  **Total Weight**
- T/A**  **Total Amount**

Communication Protocol

I . UART signal of EIA-RS232 C

II . Format:

1. Baud rate: 1200,2400,4800,9600 BPS
2. Data: 8 BITS
3. Parity bit: none
4. Stop bit: 1 BIT

