THEMIS-BP

Operation Manual

QHW

Weighing Scales

CONTENTS

1. INTRODUCTION

◆ The QHW series weighing scales are suitable for general weighing, check weighing, simple parts counting, percent weighing ,accumulation and units conversion.

◆ Capacities from 3kg to 30kg (6lb to 60lb).

◆ Rechargeable battery provide up to 70 hours of continues use (with out backlight).

◆ Large 24mm LCD with white LED back light display.

◆ 7 embossed membrane keys.

2. INSTALLATION

2.1 Unpacking
When you receive the scale, inspect it to make sure that it is not damaged and that all are parts are included:
- Remove the scale from the carton.
- Remove the protective covering. Store the packaging and to use if you need to transport the scale later.
- Inspect the scale for damage.
- Make sure all components are included.
  1. Scale
  2. Adaptor
  3. Manual
  4.Stainless steel pan

2.2 Installation

- Remove transport lock from bottom of the scale base
- Place the scale on a level surface
- Place the ABS plastic pan on top of the scale base
- Install the stainless steel pan on top of the plastic pan

2.3 Leveling

- The scale is equipped with a level indicator located left side of keyboard
- Use the adjustable leveling feet located on the bottom of the scale until the bubble appears in the center of the indicator.
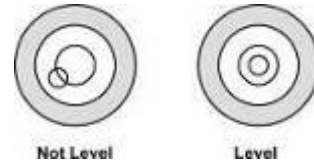
2.4 Power Connection

- Connect the adaptor pin in to the indicator adaptor jack. Adaptor jack is locating below the right side of the scale.
- Adaptor connects into your AC power socket. Plugable equipment must be installed near an easily accessible socket outlet with a protective ground/ earth contact.

2.5 Rechargeable battery operation
Note: Please charge the battery before using the scale for the first time.

- The symbol ▇ on the weight display indicates that the battery is getting low. It means that it's time to charge the battery with the AC power. If scale goes on being used without proper charging, <BAT-LOW> words will flicker on the display.
- Approximately 1 hours of instrument usage are left; afterwards it will shut off automatically.
- Please use the supplied battery charger for charging the battery immediately,or scale cannot be used.

2.5.1 Charging the battery

- Before the first use, the battery should be charged by connecting it to the mains power supply for at least 12 hours.
- When the scale is plugged into the mains power the internal battery will be recharged.
- Verify that the AC power socket outlet is properly protected.
- Right side of the display there is an LED to indicate the status of battery charging. When the scale is plugged into the mains power the internal battery will be recharged.
- If the LED is green, the battery has a full charge.
- If it is red, the battery is nearly discharged
- If it is yellow, the battery is being charged.

2.5.2 Battery maintenance

- Do not use any other type of power adaptor than the one supplied with the scale.
- Recharge battery should be changed in every three months when not in use.
- If the scale is not used for an extended period of time,remove the battery from the battery compartment to avoid leakage.
- Store the battery in a sealed bag or box in a dry, temperate environment.

3. KEYBOARD AND DISPLAY

3.1 Keyboard

Keys	Function	Function in menu
ZERO	**Zero key** ▪ Returns the display to zero	**Confirm key** ▪ To enter selected sub-menu in settings
TARE	**Tare key** ▪ Used to perform a tare function, Subtracts weights **Value increment key** ▪ Used to change the selected digit value	**Scroll up key** ▪ To change sub-menu in parameter settings
LIMIT	**Limit key** ▪ Set the limits for tolerance checking	**Right arrow key** ▪ Used to move the digit to the right ▪ Scroll up menu in parameter settings
%/U.W	**Percent key** ▪ Enters the percent weighing function ▪ To show weight, unit weight and counts when counting parts	**Left arrow key** ▪ Used to move the digit to the left ▪ Scroll down menu in parameter settings
PCS	**Function key** ▪ To switch from parts weighing to parts counting	**Clear key** ▪ Used to reset parameters or clear the total accumulated values **Escape key** ▪ To return to normal weighing mode in other operating mode or in parameter settings
ACC/TTL PRINT	**Print key** ▪ Used to send data to PC or printer **Accumulation key** ▪ To add the value to the accumulation memory, if the accumulation function is not automatic **Memory recall key** ▪ To show the stored values from	N.A

	the memory	
(UNIT)	**Units key** ▪ Used to select weighing units (kg/g/lb/oz)	N.A

3.2 Display Symbols

▣	Battery indicator. When it's illuminated, battery should be recharge
HI OK LO	Indicate when the load above (**HI**), load below (**LO**) and with in the limits (**OK**) in check weighing mode.
Gross	Gross Weight
Net	Net Weight
O	Stable indicator. When it's illuminated, the scale is stable
Zero	Zero indicator. When it's illuminated, the scale is in Zero point
kg	Kilogram Mode
lb	Pound Mode
LED	Battery charging indicator

4. OPERATION

Initial Start-up

Warm-up time of 15 minutes stabilizes the measured values after switching on.

4.1 Power On/Off

Power switch is located below the right side of the scale.
1   Turn the scale ON; press the switch forward and hold. The scale will show the capacity and enter a self-test mode and follow to enter the weighing mode.
2   Turn the scale OFF, press the switch forward once again.

4.2 Zero

Environmental conditions can lead to the balance exactly zero in spite of the platform not taking any strain. However, you can set the display of your balance

to zero any time by pressing (ZERO) key and therefore ensure that the weighing starts at zero.

4.3 Tare

The weight of any container can be tared by pressing (TARE) button so that with subsequent weighing the net weight of the object being weighed is always displayed.
1   Load weight on the platform.

2   Press (TARE) key. Zero is displayed, and tare is subtracted.
3   Remove weight on the platform. Tared weight is displayed. It can set only one tare value. It will be shown with a minus value.

4   To clear the tare value, remove the load and press (TARE) key. Zero is displayed, tare weight is cleared.

4.4 Select Weighing Units

Press (UNIT) key.It can select to kg/g/lb/oz in the weighing mode.

	Unit mark	Unit name	Conversion（g）
1	G	gram	
2	HG	kilogram	=1000g
3	Lb	lb	=453.59237g
4	oz	ounce	=28.349523125g

4.5 Percent Weighing

The scale can set a sample weight to be shown as 100%. Then any other weights place on the scale, it will be displayed as a percentage of the original sample.

Operation:

1   350g weight place on the scale and follow by press the (% U.W) key is pressed the display will show 100.00%.
2   Remove the weight, and ensure display is zero
3   Place 300g weight on the platform, display will be show 85.71 % as per the percentage of 350g (100%)

4   Press (PCS) key to return the scale to weighing mode.

- The weighing may be amended on the basis of greater numbers of samples, improves the accuracy of percentage large quantities.

4.6 Parts Counting

In the weighing mode, it can enable scale to enter parts counting mode.

Operation:

1   Place the parts (pieces) items on the pan, items must be placed according to parts options.

2   Press the (PCS) key . Display shows P 10

3   It can select the parts options by pressing (TARE) key .
4   Parts options are P 10 / P 20 / P 50 / P 100 / P 200

5   Press (ZERO) key when the displayed number matches the number of items used in the sample.

6   Scale will store the pieces according to the items.
7   It can add more pieces on the pan, display will be show the pieces according
    to the stored items.

8   Press ⊘%/U.W key to display unit weight (g / pcs) , Total weight (kg) and
    quantity (pcs).

9   Press ⊘PCS key to return the scale to weighing mode.

4.7 Tolerance checking

The weighing scales allow weighing items according to a target quantity or target
weight or target percentage within specified tolerances. With this function one can
also check if the weighing good is within a defined tolerance range. Reaching target
quantity is indicated by an audio sound (if enabled in menu)
Note: Check weighing or counting available only when weight more than 20d

4.7.1 Limits setting for target weight

1   Press ⊘LIMIT key to set the check weighing function in weighing mode.

2   Display will be show the indicator 🏠 to set Hi-Limit and the first digit will be
    active. 000.000 kg

3   Use ⊘%/U.W and ⊘LIMIT keys to shift location and press ⊘TARE key to change the
    limit value, and press ⊘ZERO key to confirm.
4   Scale will be confirmed the Hi-Limit and display will be show the indicator
    🔽 to set Lo-Limit and the first digit will be active. 000.000 kg
5   Use ⊘%/U.W and ⊘LIMIT keys to shift location and press ⊘TARE key to change the
    limit value, and press ⊘ZERO key to confirm.

6   Limits setting completed and display will return to zero,Load the weight on
    platter,the check weighing control will start .

4.7.2 Limits setting for target quantity

1   Place the parts (pieces) items on the pan.

2   Press ⊘PCS key to display P 10 option.

3   Press ⊘ZERO key to confirm and display will be come to counting mode.

4 Press (LIMIT) key to set the check counting function.

5 Display will be show the indicator 🔴 to set Hi-Limit and the first digit will be active. 000000 pcs

6 Use (%/U.W) and (LIMIT) keys to shift location and press (TARE) key to change the limit value, and press (ZERO) key to confirm.

7 Scale will be confirmed the Hi-Limit and display will be show the indicator 🔽 to set Lo-Limit and the first digit will be active. 000000 pcs.

8 Use (%/U.W) and (LIMIT) keys to shift location and press (TARE) key to change the limit value, and press (ZERO) key to confirm.

9 Limits setting completed and display will return to zero,Load the weight on platter,the check counting control will start .

4.7.3 Limits setting for target percentage

1 Place the items on the pan.

2 Press (%/U.W) key ,it will display 100%

3 Remove the items,scale will be come to percentage mode.

4 Press (LIMIT) key to set the check counting function.

5 Display will be show the indicator 🔴 to set Hi-Limit and the first digit will be active. 0000.00 %

6 Use (%/U.W) and (LIMIT) keys to shift location and press (TARE) key to change the limit value, and press (ZERO) key to confirm.

7 Scale will be confirmed the Hi-Limit and display will be show the indicator 🔽 to set Lo-Limit and the first digit will be active. 0000.00 %.

8 Use (%/U.W) and (LIMIT) keys to shift location and press (TARE) key to change the limit value, and press (ZERO) key to confirm.

9   Limits setting completed and display will return to zero,Load the weight on platter,the check percentage control will start .

4.7.4 To set beep mode

The beep sound depends on the settings made in menu block
Options:

ЬEEP 0	Beep sound turned off
ЬEEP 1	Beep sound will ring out when load is within tolerance range
ЬEEP 2	Beep sound will ring out when load is beyond tolerance range

HI	When target quantity/target weight/target percentage is exceeds maximum tolerance limit
OK	When target quantity/target weight/target percentage is within tolerance range
LO	When target quantity/target weight/target percentage is below minimum tolerance limit

4.7.5 To disable check weighing mode

1   Press the **LIMIT** key to display current limits.

2   Press the **PCS** key to enter zero into both limits when the current limits are shown,

3   Press the **ZERO** key to store the zero values.

Notes
- **Check weighing available only when weight more than 20d**
- **The function is not valid when one enters a lower limit greater than the upper limit.**
- **When lower limits are the same with upper limits,display only shows one set value.**

4.8 Accumulation

QHW can set to accumulate manually by pressing **ACC/TTL PRINT** key or automatically.Before operation scale should be stable and return to zero, accumulation available only when weight more than 20d

To set the accumulation function to turn on, select the parameter ACC>ON
Note: Accumulation function can operate only in weighing mode.

4.8.1 Manual Accumulation

In the normal weighing mode, ensure display is zero and stable indicator is on.

1   Place the items on the platform and press ![ACC/TTL PRINT] key, when the display get stable
2   Display will be show   ACC 1 and will show the total of the accumulation
3   The data will be sent to printer or PC if connected with printer or computer
4   Remove the weight from the pan for to get display zero and stable for the next accumulation.
5   Scale should be get stable and zero for the next accumulation.

It can continue 99 operations or until to reach the maximum value of display.

4.8.2 Recall Memory

Press ![ACC/TTL PRINT] key, when the display in the normal weighing mode, display will be show the accumulation times and will show the total values. These display will be show only two seconds.

4.8.3 Memory Clear

To clear the memory, press ![ACC/TTL PRINT] key to view and press ![PCS] key during the accumulation displayed. Display will be show normal display , all accumulation memory cleared from the memory

4.8.4 Automatic Accumulation

To enable the automatic accumulation,please see parameter AU>ON
Scale will be do the accumulation automatically.

1   Place the items on the platform.
2   After stable, buzzer will be beep once.
3   Remove the weight from the pan .
4   Display will be show the accumulation times and total value, these display will be show only two seconds.
5   Display should be come to zero and stable for the next operation.

4.9 Printing

The weighing data can be printed out by pressing ![ACC/TTL PRINT] keys when connected with printer.To enable the printing function,please as per the following settings.

See detail parameters:
1.B9600
2.ACC ON
3.TP or LP-50,TP for receipt printer and LP-50 for label printer

4.10 Back Light Setting

1 Press (ACC:TTL PRINT) and (PCS) keys during that start up.

2 Press (LIMIT) key until display show *EL AU*

3 Press (TARE) key to select the sub menu options.

4 Press (ZERO) key to confirm.

| EL AU	To set auto option. When start to use back light will be on and when stop the operation back light also will off.
EL on	To set always on. After turn on the power, back light also will be on.
EL oFF	To set back light turn off. No back light in the operations

4.11 Power Auto Off

After scale operations, when scale is not in use, it can set to turn off automatically

1 Press (ACC:TTL PRINT) and (PCS) keys during that start up.

2 Press (LIMIT) key until display show *oF 0*

3 Press (TARE) key to select the sub menu options.

4 Press (ZERO) key to confirm.

oF 0	Set to turn off the auto off function
oF 3	Set to turn off three minutes later with no weight changes or key presses.
oF 5	Set to turn off five minutes later with no weight changes or key presses.
oF 15	Set to turn off 15 minutes later with no weight changes

	or key presses.
oF 30	Set to turn off 30 later with no weight changes or key presses.

4.12 Check Internal Counts

1   Turn on the scale and press (ZERO) and (%/U.W) keys during the self test. Display will be show internal counts.

2   Press [PCS] key to return the scale to weighing mode.

5. CALIBRATION

<u>Calibration in Pounds</u>

1   Turn on the scale.

Before enter the parameter,it's required to press calibration switch,switch is locating below the scale.or it should be short the Jump Pin K4 in the PCB.

2   Press (%/U.W) and (TARE) keys together during the self-test from 9 to 0 on the display.

3   Display shows CAL ᴴᴳ

4   Press (TARE) key to change the unit to "Lb"

5   Press (ZERO) key to confirm.

6   Display shows UnLoAd

7   Remove all weights from the platform.

8   Press (ZERO) key when show stable indicator.

9   Display will be show a calibration weight point. When the display is not 000.000, press (PCS) key to clear.If it is necessary, press (%/U.W) ,(LIMIT) and (TARE) keys to select desired calibration weight.

10 Press (ZERO) key, display shows "LoAd ".

11   Place the desired calibration test weight on the platform.

12   Press (ZERO) key when show stable indicator,display shows "*PASS* ".

13   Scale will be restart and will be ready for normal operation, during the self-test remove test weights from the platform.

    If showed any error, try to do again the calibration.

Pounds test weights

Model#	QHW-6	QHW-12	QHW-30	QHW-60
Maximum allowed	6lb	12lb	30lb	60lb