# Digital Weighing Scale HAIW-519 Series

User's Manual

#### **BEFORE USING THE SCALE**

Thank you for purchasing High Precision Electronic Weighing Scale. In order to use the scale properly, please read this User Manual carefully before use. If you have any problem with scale, please contact your supplier.

#### INSTRUCTION FOR USE

- 1) Please keep the scale in a cool dry place. Do not store it at high temperature.
- 2) Do not allow any liquids to come into contact with the scale. If necessary wipe the scale with a dry soft cloth.
- 3) Avoid objects impacting with the scale. Do not drop loads onto the scale or subject the weighing pan to any strong shock loads.
- 4) The load placed on the weigh pan must not exceed the maximum weighing capacity of the scale.
- 5) If the scale is not going to be used for some time, please clean it and store it in a plastic bag in dry conditions. A desiccant sachet may be included to prevent any moisture build up.

#### PREPARING TO USE THE SCALE

- 1. Locate the scale on a firm level surface free from vibrations for accurate weight readings.
- 2. Adjust the four leveling feet (if fitted) to set the scale pan level using the spirit level bubble located at the front of the scale.
- Avoid operating the scale in direct sunlight or drafts of any kind.
- 4. If possible avoid connecting the scale to ac power outlet sockets which are adjacent to other appliances to minimize the possibility of interference affecting the performance of the scale.
- 5. Remove any weight that might be on the weigh pan before the scale is switched on and avoid leaving weight on the pan for long periods of time
- 6. All goods weighed should be placed in the center of the weigh pan for accurate weighing. The overall dimensions of the goods being weighed should not exceed the dimension of the weigh pan.
- 7. Once the scale has been powered on, it will go through an LCD display test and it is ready for use when the display shows zero.
- 8. The scale requires 15~20 minutes warm up before operation to ensure best accuracy.
- 9. Please note when the battery symbol keeps on the screen, the batteries need to be charged.

# **CHAPTER I INTRODUCTION**

## 1.1 FEATURES AND SPECIFICATION

#### Features:

- Large LCD display (digit height 30mm x 13mm) with LED backlight
- Kilogram (kg), gram (g) and pound (lb) weighing modes
- Application include: check-weighing, simple counting, accumulation, Animal weighing Low power indication and auto power off

#### **Options:**

■ RS-232 or Serial printer output

#### Specifications:

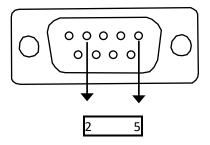
Load Cells	Minimum 70 ohm load cells Maximum 1200 ohm (Up to 4 load cells of 350 ohm)			
	(Op to 1 load cond of coo chair)			
Readability	Selectable, 0.00			
Tare Function	Full			
Units of measure	Kg , g, lb			
Power supply	supply Rechargeable battery or AC adaptor DC 9V			
Connector	5 pin d socket			

#### 1. Load cell connection:

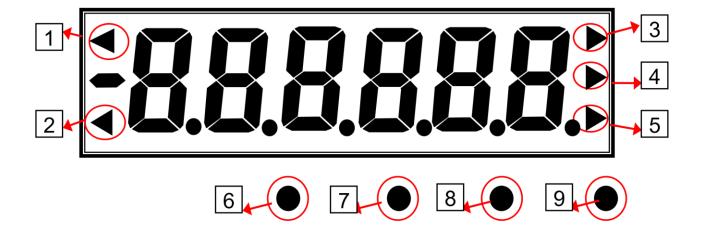
<b>2</b> 000 00:::00:::0	
Pin 1 connects with EXC+	
Pin 2 connects with EXC-	3 4
Pin 3 connects with SIG+	
Pin 4 connects with SIG-	2 5
Pin 5 connects with GND	

#### 2. RS-232 connection:

- Second pin = Data output (TXD)
- Fifth pin = Grounding (GND)



#### 1.2 DISPLAY



- 1. Zero status indication, Displayed when the scale is at the center of its zero band.
- 2. Tare status indication, Displayed when the weight has been tare.
- 3. Simple counting indication, Displayed when the scale is in simple counting mode.
- 4. Unit indication, Displayed when the scale is in g or lb unit.
- 5. Kg indication, Displayed when the scale is in kg unit.
- 6. Lo indication, Displayed when the scale is in check-weighing mode and the weight on pan is below the low limit.
- 7. OK indication, Displayed when the scale is in check-weighing mode and the weight on pan is between the high and low limit.
- 8. Hi indication, Displayed when the scale is in check-weighing mode and the weight on pan is below the high limit.
- 9. Charging indication, Displayed then the scale is under charging.

## 1.3 KEYPAD



#### ZERO KEY:

This key is **ZERO** key; in the menu use as "UP" key

• When the weigh pan is empty (free of load) and the display is not showing zero, press the "ZERO" key to zero the scale. (The weight can be zero is only at the 2% of Max. capacity)



#### TARE KEY:

This key is **TARE** key; in the menu use as "**RIGHT**" key ● The tare function will not operate during the following conditions:

- (1) When the scale powers on if the weight is negative and after a container is placed on the weigh pan if the weight is still below zero.
- (2) The tare value is over the full scale capacity.



#### **UNIT KEY:**

This key is **UNIT** key

Use this key to switch between kg and g or lb units.



#### **FUNCTION KEY:**

This key is **FUNCTION** key

• Use this key to choose the functions: Simple counting, Check weighing, Accumulation and Animal weighing.



#### PRINT KEY:

This key is **PRINT** key; in the menu use as

"CONFIRM" key ● Use this key to print data when the printer is

connected.

## 1.4 FOPERATING THE SCALE

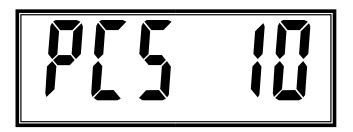
# 1.4.1 Simple Counting Mode

1. Press **FUNCTION** key once, LCD shows:

Press **ZERO** key to choose sample numbers

from 10, 20, 50 to 100 pcs, then place the number

of samples on the weighing pan. The number



should match the options for parts counting. i.e., 10, 20, 50, 100, 200 pieces.

Then press **PRINT** key to start the simple counting mode.

- 2. Press **UNIT** key to check the unit weight and total weight, LCD will shows unit weight and shows total weight then back to simple counting mode.
- 3. After LCD shows unit weight and total weight the scale back to simple counting mode, user can continuo use this mode or press **UNIT** key move back to weighing mode.



• Press FUNCTION key to exit simple counting mode and move back to weighing mode.

## 1.4.2 Check Weighing Mode

1. Press **FUNCTION** key twice, LCD shows:

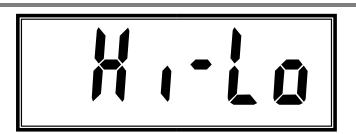
Press **UNIT** key to enter the beeper setup

press **TARE** key to choose the beeper

sounds press **UNIT** key to confirm after

chooses the beeper sounds then enter to the

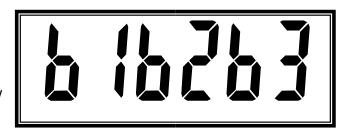
Hi limit setup.



B1 beeper sounds is disable

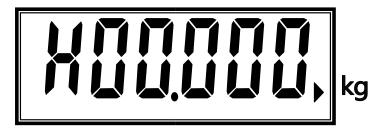
B2 beeper sounds at the OK range

B3 beeper sounds above the Hi limit and below Lo limit



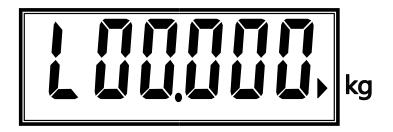
2. Hi limit setup, LCD shows:

Press **TARE** key to move the flashing digits, then use **ZERO** key to increase the number, until the desire number shows on the LCD, then press **UNIT** key to confirm and enter to the Lo limit setup.



3. Lo limit setup, LCD shows:

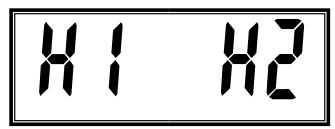
Press **TARE** key to move the flashing digits, then use **ZERO** key to increase the number, until the desire number shows on the LCD, then press **UNIT** key to confirm.



- 4. Then press **PRINT** key to start check weighing mode.
- Press <u>FUNCTION</u> key to exit check weighing mode and move back to weighing mode.

## 1.4.3 Animal Weighing Mode

1. Press **FUNCTION** key three times, LCD shows: Press **TARE** key to select H1 or H2,



H1 means after hold the weight on the screen, must remove the animal wait the scale back to zero then place another animal on the scale to weight.

H2 means after hold the weight on the screen, the user can add other animal directly without wait the scale back to zero.

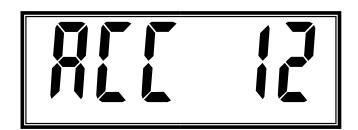
After selected H1 or H2, use **ZERO** key to increase the Difference D, until the desire number shows on the LCD, then press **UNIT** key to confirm.



- The temporary hold range can set from 2 divisions up to 50 divisions, depends to the user's requirement.
- 2. Then press **PRINT** key to start animal weighing mode; screen is flashing.
- Press FUNCTION key to exit animal weighing mode and move back to weighing mode.

#### 1.4.4 Accumulation Mode

Press FUNCTION key four times, LCD shows:
 Press TARE key to select the accumulation mode, then press UNIT key to confirm.



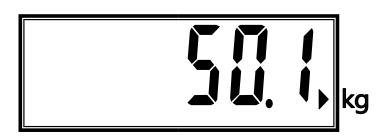
#### 1 Manual Accumulation

When choose this mode, user needs to press **PRINT** key after the objects are put on pan and the scale is stable to accumulate the data; take off the object and wait until zero, then put other object to continue accumulate data.

#### 2 Auto Accumulation

When choose this mode, scale will accumulate data after the objects are put on pan and the scale is stable to accumulate the data; take off the object and wait until zero, then put other object to continue accumulate data.

- 2. Press **UNIT** key to overview the total accumulated numbers and total accumulated weight; LCD will shows total accumulated numbers then shows the total accumulated weight.
- Scale will back to accumulation mode after shows the total accumulated numbers and weight.



• Press FUNCTION key to exit accumulation mode and move back to weighing mode.

#### 1.5 POWER SUPPLY

#### **POWER SELECTION**

- 1. 4V4Ah/6V4Ah rechargeable battery
- 2. 110V/220V AC/DC adaptor

#### POWER CONSUMPTION

- 1. Approximately DC 17mA (Scale)
- 2. Approximately DC 37mA (Scale + Display backlight)

#### CHARGING THE BATTERY

- When the low battery symbol is on, it means the power of scale is low needs to change the battery or plug-in the adaptor to recharge the battery.
- To the right of the display is a LED to indicate the status of battery charging. When the scale is plugged into the mains power the internal battery will be charged. If the LED is green the battery is being charged. If it is red indicates the battery is increasing the charge level. Continue to charge overnight for a complete re-charge.

## CHAPTER II ADVANCED FUNCTIONS

## 2.1 CHECKING BATTERY VOLTAGE

When scale is on and at zero and stable, long press **ZERO** key around 3-5 seconds(beeper sounds) then release the key, LCD sill shows the battery voltage for 3 seconds ten back to weighing mode.

Note: Long press the **PRINT** and the **TARE**, can modify the 4 v or 6 v battery voltage detection mode,

Shutdown restart to take effect. (Change does not display properly - LO -)

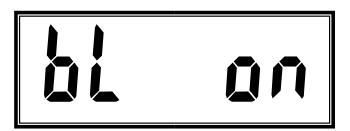
#### 2.2 AUTO BACK LIGHT SETUP

When scale is on and at zero and stable, long press

TARE key enter the auto back light setup, use

**ZERO** key to enable or disable, then press

**PRINT** key to confirm and back to weighing mode.



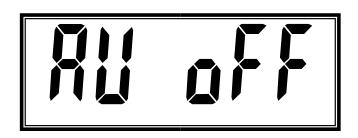
#### 2.3 AUTO OFF SETUP

When scale is on and at zero and stable, long press **UNIT** key enter the auto off setup, use

**ZERO** key to enable or disable, then press

**PRINT** key to confirm and back to weighing

mode.



on enable (scale will turn off after 10 mins haven't been use; to be able to use the scale, needs to turn on the on/ff switch) off disable

#### 2.4 DIVISION SETUP

When scale is on and at zero and stable, long press **FUNCTION** key enter the division setup, use **ZERO** key to select the divisions, then press **PRINT** key to confirm and back to weighing mode.

## W501\_Calibration

#### A. Setting up division, decimal point, max. capacity and calibration

Press and hold "**PRINT**" key, then turn on the scale, to enter division setting: C1 = single point of any calibration, C3 = two-point linear calibration; In kg for the calibration unit, do not accept other units;

#### 1. Division Setting:

LCD shows [d x] then press "**ZERO**" key to select 1, 2, 5, 10, 20, 50, and then press "**PRINT**" key to confirm, and enter the decimal point setting.

Ex. When display shows [d 5], Press "**PRINT**" key, the division set as 5, then enter the decimal point setting.

#### 2. Decimal point setting:

LCD shows [p x] then press "**ZERO**" key to select 0.0.0.0.0.00.0.000, 0.0000, and then press "**PRINT**" key to confirm, and enter the maximum capacity setting.

Ex. When display shows [p 0.000], Press "**PRINT**" key, the division set as 0.000, then enter the maximum capacity setting.

#### 3. Maximum capacity setting:

LCD shows [FULL] around 2-3 seconds then LCD shows [000.000] the decimal point was set as 3 decimal points, then press "TARE" key to move the flashing digits to the right in circle to select the digits that will increase the number, then press "ZERO" key to increase the number until the number appears, then repeat the above moves until LCD shows the maximum capacity then press "PRINT" key to enter calibration setting

Ex. LCD shows [50.000] then press "PRINT" key to enter calibration setting

#### 4. Zero point calibration:

LCD shows [CaL 0] Do not put any objects on the pan when display shows this, then scale will move to next calibration setting.

#### 5. Second point calibration: (unit is in kg)

LCD shows [00.000] the decimal point was set as 3 digits. (this depends on what user sets in the last moves). Put on the weights on the pan which will be calibrate as second point then use "TARE" key to move the flashing digits to the right in circle to select the digits that will increase the number, then press "ZERO" key to increase the number until the number appears, then repeat the above moves until LCD shows the numbers which is equal to the weights put on the pan, then wait until the scale is stable then press "PRINT" key to confirm, scale will move into the weighing mode automatically after calibration.

#### B. Fast calibration mode:

Press and hold "**PRINT**" key, then turn on the scale, then press "**FUNCTION**" key to enter calibration mode:

(the division, decimal point and max. point will remain the same)

## 1. Zero point calibration:

LCD shows [CaL 0] Do not put any objects on the pan when display shows this, then scale will move to next calibration setting.

#### 2. Second point calibration: (unit is in kg)

LCD shows [00.000] the decimal point was set as 3 digits. (this depends on what user sets in the last moves). Put on the weights on the pan which will be calibrate as second point then use "TARE" key to move the flashing digits to the right in circle to select the digits that will increase the number, then press "ZERO" key to increase the number until the number appears, then repeat the above moves until LCD shows the numbers which is equal to the weights put on the pan, then wait until the scale is stable then press "PRINT" key to confirm, scale will move into the weighing mode automatically after calibration.

#### **APPENDIX: Word Table**

0	1	2	3	4
5	6	7	8	9
<b>5</b> .			$\prod_{\sim}$	
Α	В	С	D	E
<b>A</b> .	G G	H.		<b>E</b> .
Г	3	11	1	J

K	L L	M N	N.	0
<b>F</b> .				
Р	Q	R	S	T
<b>F</b> .			<b>5</b> .	
U	٧	W	X	Y
₽. Z		<b>B</b> .		<b>B</b> .
Z	?/Others	-		