Value Each Gram A professional weighing products manufacturer and supplier

PHYSICIAN SCALE HH

User Manual

v.201811

HiWEIGH Weighing system & solution
An ISO9001 registered company
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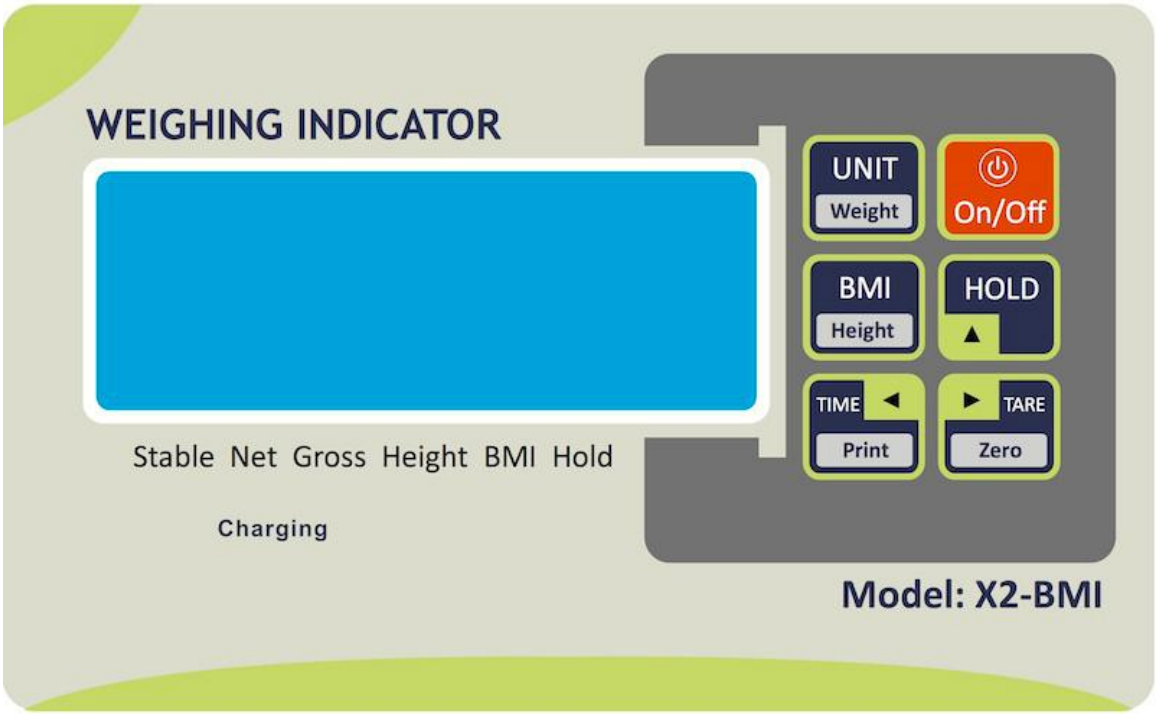
1. INTRODUCTION

- Max. A/D sampling speed: 120 times / second.
- Display resolution: from 1/3000 up to 1/30000
- Maximum A/D converting: 24bit
- Sensitivity: 0.6mv/V – 3mV/V
- Excitation voltage: DC 5V; up to 4 load cells 350 Ω, 8 load cells 700 Ω.
- Weight unit: Kg/Lb/Oz/Gr/Ton
- Communication interface: Optional RS232
- Rate continuous ASCII data output: 1200 / 2400 / 4800 / 9600 Baud.
- External power supply: 100-240V AC – 9V500mA
- Operating temperature: -10°C-40°C
- Storage temperature: -25°C-55°C.Introduction
- Relative humidity: ≤ 80 % non-condensing.
- Display: 23mm digits with backlight
- Rechargeable battery and operating life
  6V1.2Ah 40hrs
- Platform size: 400x400mm
- Capacity: 200Kg (300Kg on demand)
- Division: 50g

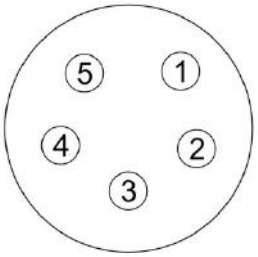
2. KEYBOARD FUNCTIONS



Back to weight display or change weight unit	【UNIT/Weight】
Switch on or off the scale	【On/Off】
Input the height and calculate the BMI	【BMI/Height】
Manual hold or increase the digit	【HOLD】
Print or display time or move digits leftward	【TIME/Print】
Tare or zero or move digits rightward	【TARE/Zero】

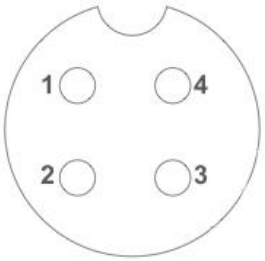
3. TECHNICAL DESCRIPTION

3.1 Connection of the load cell to indicator



INDICATOR		LOAD CELL
+E (1)	----------	+Excitation
-E (5)	----------	-Excitation
+S (7)	----------	+Signal
-S (8)	----------	-Signal
GND (3)	----------	(GND) shield

3.2 Connection of RS232 to PC or Printer



INDICATOR		PC/PRINTER
1	----------	TX
2	----------	SC
3	----------	GND
4	----------	SC

4. STANDARD OPERATIONS

Make sure the equipment connected correctly and parameters set well, and also the scale has already been calibrated correctly.
Configuration and Calibration - consult the authorized personnel.

4.1 On/Off

Press 【On/Off】to switch on the scale and it will display 0.00 after self-checking display
Press 【On/Off】for 2 seconds to turn off the indicator

4.2 Zero/Tare

4.2.1 If the display is not 0 after power on, press【TARE/Zero】to zero the scale (<2%F.S.)

4.2.2 Weighing with something on the platform together, put the chair or container on the scale (>2%F.S.) and press【TARE/Zero】to make a tare and get subtract of the weight of the container.
4.2.3 Remove the tare: remove the object and press 【TARE/Zero】to clear the tare value and zero the scale.
4.2.4 Long press 【TARE/Zero】to zero the scale is the scale not display zero after all removed from the platform.

4.3 Units Exchange

Press 【UNIT/Weight】for 2 seconds to exchange the weight units (Kg-lb or lb-Kg)

4.4 Height Input and BMI

Press 【BMI/Height】to enter height input, it display H 170 (default of cm and display A'BC.D" on lb unit), use the keys with arrows to input the height value.
Press 【BMI/Height】to confirm the height and it will display the BMI value, such as B 23.6.
Press 【UNIT/Weight】to return the weight display

4.5 Date/Time

Press 【PRINT/Time】for 2 seconds to enter date/time set and use the keys with arrows to modify it and press 【BMI/Height】to confirm

4.6 Print

Short press【PRINT/Time】to print the receipt (if the scale connected with a printer) and the format as below:

TICKET No.: 00005
G.W: 78.5Kg
T.W: 2.0Kg
N.W: 76.5Kg
H: 180cm
BMI: 23.6
29/10/2015 17:50

5. FURTHER OPERATIONS

Press 【M+】key and【ON/T】at the same time, it will display UF - 1 , press 【ON/T】or 【MR/MC】to shift it from UF - 1 to UF - 9 , press 【M+】to enter and configure it.

5.1 Internal A/D Value and Battery Volume

UF - 1

Press 【BMI/Height】to view the internal A/D value of the scale
Press 【BMI/Height】again to display the voltage of the battery.
Press 【BMI/Height】again to change for next set or press 【UNIT/ESC】to quit and back to normal weighing mode

5.2 Hi/Lo/Ok Checkweigh Function

For personal and household use, you can set a target weight as you want to reach, if the weight below or more than it, it will give an indication.

UF - 2 Press buttons with arrow to move and change the digits.

Press 【BMI/Height】to set the Lo value (the lower limitation) - 000.00L
Press 【BMI/Height】to set the Hi value (the top limitation) - 000.00h
Press 【BMI/Height】to change the working mode of buzzer of Hi/Lo/Ok - o 000

Remark

o 0 0 0
o A B C

A=0 Stable but no need to buzz
A=1 Stable to buzz
B no function, keep it as default and no change
C=0 Buzzer off

C=1 It beeps when the weight is ok (Lo<weight<Hi)
C=1 It beeps when the weight is out of limitation (Lo>weight or weight>Hi)

5.3 Auto Power Off

UF – 3 Press buttons with arrow to move and change the digits.

Press 【BMI/Height】to enter the set of automatic off function– AoFF 00
00 Auto off deactivated
01-99 Auto off activated in 01-99 minutes, you can change it from 01 minute to 99 minutes

5.4 Backlight

UF – 4 Press【HOLD】to change the digits.

Press 【BMI/Height】to enter the set of backlight function– Lit A
A Automatic
ON Backlight On
OFF Backlight Off

5.5 Auto Hold Function

UF – 5 Press【HOLD】to change the digits.

Press 【BMI/Height】to enter the set of auto hold function– hoLd 0
0 Deactivated
1 dynamic weighing (refer to below remark)
2 Peak hold (press any key to exit except for【BMI/Height】 key)
3 Stable hold (press any key to exit except for【BMI/Height】 key)
4 Stable hold (exit automatically when the weight is removed)

Remark
When choose hold = 1, it need to set the following two parameters
1. *PCt xxx the number is from 001-100, the bigger number means the more accurate weight, but the weighing time is longer, the smaller number means fast weighing (shorter stabilizing time) but not so accurate result, it can be chosen depends on the weighing condition of the scale.*
2. *TinE x the number it can repeat during the range of hold, it can choose 1/2/4/8/16/32/64*

5.6 RS232 Interface (Optional)

UF – 6 Press【HOLD】to change the digits.
Press 【BMI/Height】to enter the set of RS232 format– 232 0

Format 1		Format 2	
232 1	Stable Output	232 4	Stable Output
232 2	Stream Output	232 5	Stream Output
232 3	Keyboard Output	232 6	Keyboard Output

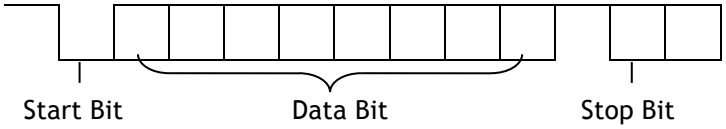
Format 1 2 3 4

Communication Protocol

UART signal of EIA-RS232 C

Data Format：

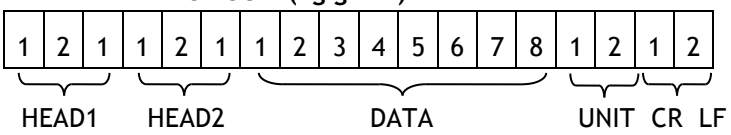
1. Baud Rate : 2400 / 4800 / 9600/19200/38400 BPS
2. Data Bit : 8 BITS
3. Parity Bit : None
4. Stop Bit : 1 BIT



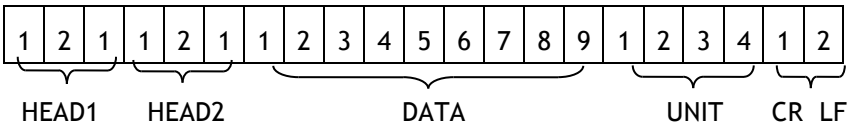
Format 1 (232 1 ~ 3) :

HEAD1 (2 BYTES)	HEAD2 (2 BYTES)
OL - Overload	
ST - Stable	NT - Net Weight
US - Unstable	GS - Gross Weight

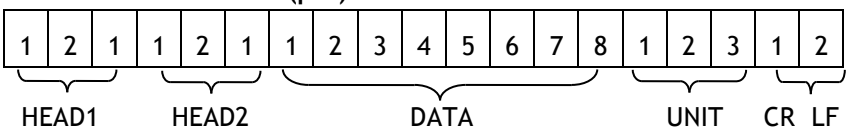
Fixed 18 BYTES ASCII (kg g t lb)



Fixed 21 BYTES ASCII (tl.T lboz)



Fixed 19 BYTES ASCII (pcs)



Output examples :

1. Example +0.876 kg Stable net weight :

S	T	,	N	T	,	+	0	0	0	.	8	7	6	k	g	0D	0A

2. Example -1.568 lb unstable gross weight :

U	S	,	G	S	,	-	0	0	1	.	5	6	8	l	b	0D	0A

3. Example + 1.15.40 Taiwan Jin Stable net weight :

S	T	,	N	T	,	+	0	1	.	1	5	.	4	0	t	l	.	T	0D	0A

4. Example -20. 5.40 lb oz unstable gross weight :

S	T	,	G	S	,	-	1	0	.	0	5	.	4	0	l	b	o	z	0D	0A

5. Example +1000 pcs stable net weight :

S	T	,	N	T	,	+	0	0	0	1	0	0	0	p	c	s	0D	0A

Format 2 (232 4 ~ 6) **:**

Fixed 12 BYTES ASCII (kg g t lb)

1	2	3	4	5	6	7	8	1	2	1	2
DATA								UNIT		CR	LF

Fixed 15 BYTES ASCII (tl.T lboz)

1	2	3	4	5	6	7	8	9	1	2	3	4	1	2
DATA									UNIT				CR	LF

Fixed 13 BYTES ASCII (pcs)

1	2	3	4	5	6	7	8	1	2	3	1	2
DATA								UNIT			CR	LF

Output examples :

1. Example +0.876 kg stable net weight :

+	0	0	0	.	8	7	6	k	g	0D	0A

2. Example -1.568 lb unstable gross weight :

-	0	0	1	.	5	6	8	l	b	0D	0A

3. Example + 1.15.40 Taiwan Jin Stable net weight :

+	0	1	.	1	5	.	4	0	t	l	.	T	0D	0A

4. Example -20. 5.40 lb oz unstable gross weight :

-	1	0	.	0	5	.	4	0	l	b	o	z	0D	0A

5. Example +1000 pcs stable net weight :

+	0	0	0	1	0	0	0	p	c	s	0D	0A

※ *Factory default : 232 0 - RS232 OFF*

5.7 Weighing Speed

UF - 7 Press【HOLD】to change the digits.

Press 【BMI/Height】to enter the set of weighing speed - SPEEd 3

1 Standard speed (normal speed)
2 Fast response
3 Slow response
** the faster response, the more time for stability, the more slow speed, the shorter time for stability*

5.8 Zero Track

UF – 8 Press【HOLD】to change the digits.

Press 【BMI/Height】to enter the set of weighing speed - ZP 1

1 = 1e
2 = 2e
3 = 3e
4 = 4e
5 = 5e

** Example: for 1e zero track (if e=20g), the scale will show 0 until it's more than 20g (1e).*

5.9 Gravity Adjusting

UF – 9 Press buttons with arrow to move and change the digits

Press 【BMI/Height】to enter the set of local gravity and change it accordingly- 9.79423

7. GUARANTEE

This scale has a warranty against all manufacture and material defects, for a period of a year starting with the delivery date. During this period, we will be in charge of the repairing of the scale. This warranty does not include the damages done by overload or wrong use. The warranty does not cover the delivery expenses necessary for the repair of the scale.
** The rechargeable battery is not within the range of guarantee period*

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