



v.201811



Hiweighing system & solution An ISO9001 registered company Weighing system & solution With the solution An ISO9001 registered company Weighing system & solution An ISO9001 registered company Www.hiweigh.com All rights reserved, specifications subject to change without notice

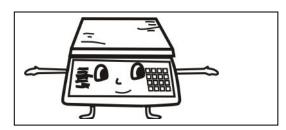
Value Each Gram



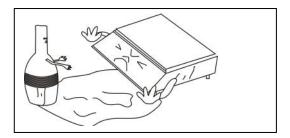
Important Safety And Operation Info



Please read the manual in details before operation



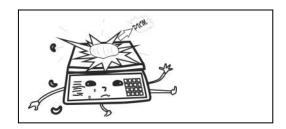
Adjust the bubble level on the balance position



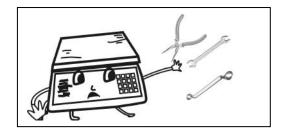
Don't put the chemical liquid or other Liquids to avoid damage to the scale



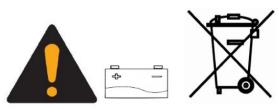
Please use the right plug and right voltage Be much attention of 110V or 220V!!!



Don't hit the platform rudely and overload



Don't open the scale by yourself and please call the service people or our distributor when you get the problem



Please recharge the scale on time to assure the health of the battery, and replace the battery if it runs out of life. The replaced battery must be handled correctly.

INDEX

| Specifications | 4 | | | | | | | | |
|-----------------------------|----|--|--|--|--|--|--|--|--|
| Power | 4 | | | | | | | | |
| Before using | | | | | | | | | |
| System power consumption | | | | | | | | | |
| Display description | | | | | | | | | |
| Basic function operation | 5 | | | | | | | | |
| Basic parameter setting | 5 | | | | | | | | |
| - A/D count | 7 | | | | | | | | |
| - High / Low limits setting | 7 | | | | | | | | |
| - Auto-power off | 8 | | | | | | | | |
| - Backlight setting | 8 | | | | | | | | |
| - Hold function | 8 | | | | | | | | |
| - RS-232 output | 9 | | | | | | | | |
| - RS-232 baud rate | 9 | | | | | | | | |
| - Communication protocol | 9 | | | | | | | | |
| - RS-232 speed setting | 9 | | | | | | | | |
| - Zero average | 11 | | | | | | | | |
| - G Value setting | 11 | | | | | | | | |
| Advanced function setting | 12 | | | | | | | | |
| - Check weighing (span) | 12 | | | | | | | | |
| - Zero Calibration | 12 | | | | | | | | |
| Guarantee | 12 | | | | | | | | |

SPECIFICATIONS

| Accuracy: | Class III |
|--------------------------|----------------------------------|
| Nonlinear: | ≤0.01%F.S |
| System working voltage: | DC:5V |
| Large display connector: | Sampling serial output way |
| Sample rate: | 20 times per second (can select) |

POWER

| Input: | 120~240V |
|-----------------------|----------|
| Output: | 12V/1A |
| Rechargeable battery: | 6V/4AH |

BEFORE USING

- 1) Place this product on a firm and smooth place, don't place it in vibration or shaking, use bench for use on four only adjust foot, adjust the balance using the bubble level.
- 2) Use independent source, avoid other electrical disturbance.
- 3) Don't put any object on the platter when turn on the balance.
- 4) Please, turn on 2-3 minutes before using.
- 5) Avoid temperature change too large and air flow strenuous sites.
- 6) Don't overload the balance, don't exceed the maximal capacity.

SYSTEM POWER CONSUMPTION

Main system power consumption: about 12mA Main system power consumption (with backlight): about 36mA Main system power consumption (with backlight and RS-232): a Battery life: none backlight, about 320 hours.

about 48mA

DISPLAY DESCRIPTION

WX | WXS Model:



CST | WTS Model:



BASIC FUNCTION OPERATION (WX | WXS)



Press and hold this key for 2 seconds to turn off the balance.



Press this key to turn on the balance



Function 1. To select the desired weight unit.Function 2. To exit from setup mode.



Function 1. To reset the weight to zero "0", but the display value has to be lesser than \pm 2% of maximum capacity. **Function 2.** To move one space to the left or downward in setup mode.



Function 1. To subtract the container's weight.Function 2. To move one space to the right or upward in setup mode.



Function 1. To view gross or net weight when the balance is on tare status. All other keys will be disabled when gross weight is activated. **Function 2.** To increase values upward in setup mode.



Function 1. Key of confirmation in setup mode. **Function 2.** Manually transmitting data through RS232 to computer or printer.

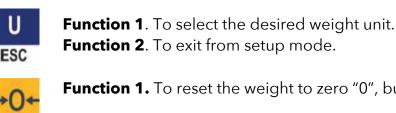
BASIC FUNCTION OPERATION (CST | WXS)



Press and hold this key for 2 seconds to turn off the balance.



Press this key to turn on the balance



Function 1. To reset the weight to zero "0", but the display value has to

lesser than \pm 2% of maximum capacity. **Function 2.** To move one space to the left or downward in setup mode.



Function 1. To subtract the container's weight. **Function 2.** To move one space to the right or upward in setup mode.



Function 1. To view gross or net weight when the balance is on tare status. All other keys will be disabled when gross weight is activated. **Function 2.** To increase values upward in setup mode.



Function 1. Key of confirmation in setup mode. Function 2. Manually transmitting data through RS232 to computer or printer.



If you know the weight of the container, press this key and input the container weight value, then put the goods into the container, the display will show the net weight only.



To set the value of high limit



To set the value of low limit.



To program check weighing High / Low conditions (remark -)



To accumulate weights, the max of the weight times is 9999



To introduce sample value.



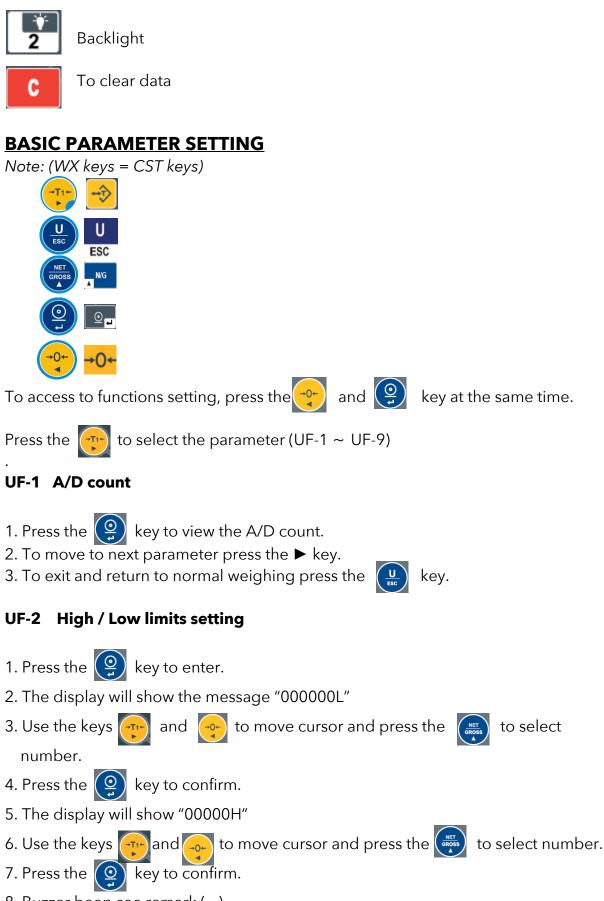
To recall accumulations



To enter in counting pieces function.



To view the total accumulation weighings



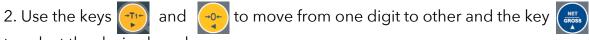
8. Buzzer beep see remark (-)

UF-3 Auto-power off

Modes:

- AoFF 00 Auto-turn off disable.
- **AoFF 01** The balance will automatically turn off after 1 minute of non use.

1. Press the 😢 key to access to auto-power configuration.



to select the desired mode.

3. Press the 💿 key to confirm.

UF-4 Backlight setting

Modes:

- A: Automatic
- ON: Backlight on
- **OFF:** Backlight off

1. Press the 😰 to access to backlight configuration.

2. Use the key to select the desired mode.

3. Press the 👰 key to confirm.

UF-5 HOLD function (keeps the reading fixed on display for few seconds after removing the load from the platter)

Modes:

- HOLD 0 : Disable.
- **HOLD 1** : Weighing animals mode.

1. Press the or key to access to HOLD function configuration.

2. Use the key to select the desired mode.

3. Press the 👰 key to confirm.

RS-232 Output (optional) **UF-6**

- 2320 -RS-232 disable
- 2321 -Stable output - Format 1
- 2322 -Stream output - Format 1
- 2323 Manual output - Format 1 -
- 2324 -Stable output - Format 2
- 2325 -Stream output - Format 2
- 2326 -Manual output - Format 2

RS232 Baud rate

- b 1200 Baud rate 1200
- b 2400 Baud rate 2400
- b 4800 Baud rate 4800
- b 9600 Baud rate 9600
- b 19200 Baud rate 19200
- Baud rate 38400 b 38400
- 1. Press the 🙆 to enter

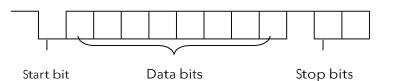
2. Press the is select the baud rate

3. Press the 🧕 key to confirm.

Communication Protocol

UART signal of EIA-RS232 C Format:

- 1. Serial output: 1200/2400/4800/9600/19200/34800 BPS
- 2. Data bits: 8 bits
- 3. Parity bits: None
- 4. Stop bits: 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) 1 2 1 1 2 1 1 2 3 4 5 6 7 8 1 2 1 2 HEAD1, HEAD2, DATA UNIT CR LF |
|--|
| Fixed 21 BYTES ASCII (tl.T lboz) 1 2 1 1 2 1 1 2 3 4 5 6 78 9 1 2 3 4 1 2 HEAD1, HEAD2, DATA UNIT CR LF |
| Fixed 19 BYTES ASCII (pcs) 1 2 1 1 2 3 4 5 6 7 8 1 2 3 1 2 HEAD1, HEAD2, DATA UNIT CR LF |
| 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 I b 0D 0A 3. Example -20. 5.40 lb oz unstable gross weight : S T , G S , - 1 0 . 0 5 . 4 0 I b o z 0D 0A 4. Example +1000 pcs stable net weight : S T , N T , + 0 0 0 1 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) |

Output examples :

| _ | 1. Example +0.876 kg stable net weight : | | | | | | | | | | | | |
|---|--|---|---|---|--|---|---|---|---|---|----|----|--|
| | + | 0 | 0 | 0 | | 8 | 7 | 6 | k | g | 0D | 0A | |

| 2 | . E> | kam | ple | -1.5 | 68 II | b ur | nstal | ole | gros | ss w | veigh | nt: |
|---|------|-----|-----|------|-------|------|-------|-----|------|------|-------|-----|
| | | | | | | | | | | | | |

| - 0 0 1 . 5 6 8 I 6 0D 0A | | ~ | ~ | 1 | | F | , | 0 | 1- | | 0.4 |
|---------------------------|---|---|---|---|---|---|---|---|----|----|-----|
| | - | 0 | 0 | | • | 5 | 6 | 8 | b | UD | UΑ |

| 3. Example -20. 5.40 lb oz unstable gross weight : | | | | | | | | | | | | | | |
|--|---|---|--|---|---|--|---|---|--|---|---|---|----|----|
| - | 1 | 0 | | 0 | 5 | | 4 | 0 | | b | 0 | Z | 0D | 0A |

| | | | | | | | | | | ght | | |
|---|---|---|---|---|---|---|---|---|---|-----|----|----|
| + | 0 | 0 | 0 | 1 | 0 | 0 | 0 | р | с | s | 0D | 0A |

UF-7 RS-232 Speed setting

- 1. Press the key 👰 to enter.
- 2. Press the key is select the desired mode.
 - Mode 1: Normal
 - Mode 2: Fast
 - Mode 3: Slow

3. Press the key 🚇 to confirm.

UF-8 Zero average

- 1. Press the key 😢 to enter.
- 2. Press the key to select.
- 3. Press the key 😰 to confirm.

UF-9 G Value setting

- 1. Press the key 😢 to display the G value of manufacture place.
- 2. If set the G value of local press the 😢 key and then the ᅷ or 🐺 keys

and key (Ress) to input the new G value.



1. In weight mode, press the \bigcirc and \bigcirc keys, the display will show ECF - 1. 2. Press the 😲 or 😲 keys to select ECF-1, ECF-2 or ECF-3 * ECF-1 **Check weighing (SPAN)** Press the 😢 to enter, display will show CALZ. Press the 🧕 to zero the display. Use the keys and to select the digit. Press key to input the weight value. Put the calibration weight on the platter and press the (2) key to calibrate. * ECF-2 **Zero Calibration** Press the 😢 key to enter. The display will show CALZ.



ADVANCED FUNCTION SETTING

Press the or key to calibrate.

GUARANTEE

This scale is guaranteed for one year from the delivery date. The guarantee covers any fabrication defect of the material.

During this period, we cover the labour cost and the spare parts necessary for the reparation of the scale.

This guarantee does not cover the failures caused by an inappropriate use or overcharge.

The guarantee does not cover the freight cost (transport) necessary to repair the scale.





v.201811 User Manual WX(S)-CST-WTS



Hiweighing system & solution An ISO9001 registered company Weighing system & solution Weigh.com All rights reserved, specifications subject to change without notice