

Washdown weighing checkweighing user manual

Model: SWT



GRAVITY MEASUREMENT, INC.

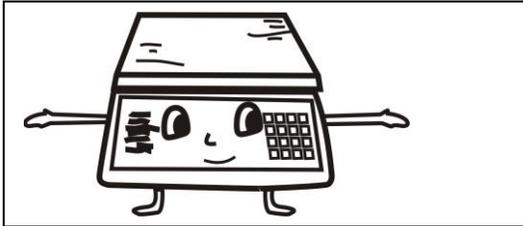
Please read this manual carefully before operation
---Important safety info
---Operating condition and other attentions
---Guarantee info



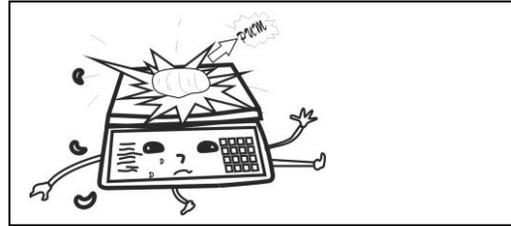
Please read the manual in details before operation



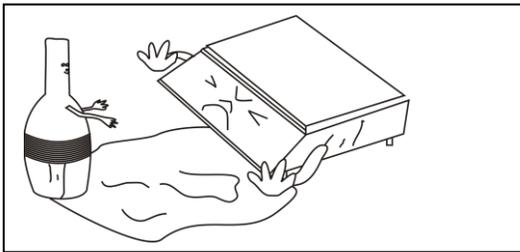
Please use the right plug and right voltage (110 V)



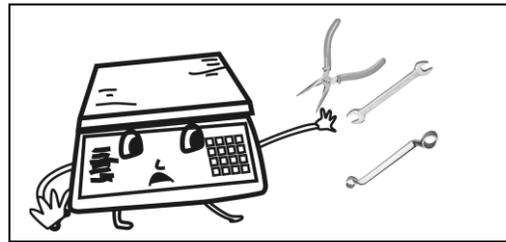
Adjust the bubble level on the balance position



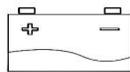
Don't hit the platform rudely and overload



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



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.

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SPECIFICATIONS

Accuracy: Class III
Nonlinear: $\leq 0.01\%F.S$
System working voltage: DC:5V
Maximum A/D converting: 24bit
Sample rate: 30 times per second (default)

POWER

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

BEFORE USING

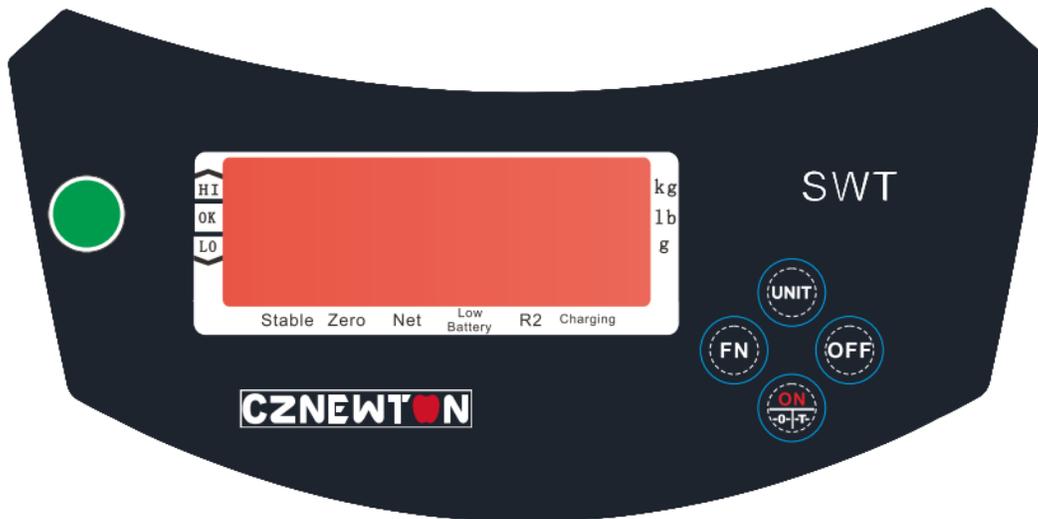
- 1) Place this product on a firm and smooth place, don't place it in vibration or shaking, use bench for use on four only adjust foot, adjust the balance using the bubble level.
- 2) Use independent source, avoid other electrical disturbance.
- 3) Don't put any object on the platter when turn on the 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 20mA
Battery life: about 200 hours.

DISPLAY DESCRIPTION

SWT Model:



BASIC FUNCTION OPERATION

OFF

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

Function 1. Press this key to turn on the balance.

Function 2. To reset the weight to 0, but the displayed weight value has to be less than $\pm 2\%$ of maximum capacity.

ON
-0-T-

Function 3. To subtract the container weight, tare range is 2% of full capacity till full capacity.

Function 4. Enter in setup mode.

Function 5. To move to the right space in setup mode.

UNIT

Function 1. To select the desired weight unit (depending on setting, display kg, g, lb.)

Function 2. To exit from setup mode without saving.

FN

Function 1. In weighing mode, press this key to setup UF functions

Function 2. In weighing status, press this key for more than 2 seconds in external calibration function setup mode ECF-1.

Function 3. To change/increase values upward in setup mode.

BASIC PARAMETER SETTING

To access to functions setting, press the **FN** key in weighing mode. Press the **FN** key to select the parameter (**UF-1** ~ **UF-7**)

UF-1 Internal value and battery voltage

1. Press the  key to view the A/D count, such as **14299**.
2. Press the  key to view the the battery voltage, such as **BAT632**.
3. Press the  key to return back to **UF-1**.
4. To move to next parameter press the **FN** key.
5. To exit and return to normal weighing press the **UNIT** key.

UF-2 High / Low limits setting

1. Press the  key to enter.
2. The display will show **00.0000** (set low limit).
3. Use the  key to move cursor and press the **FN** to select number.
4. Press the  key to move to the end and press again to confirm.
5. The display will show **00000H** (set high limit).
6. Use the  key to move cursor and press the **FN** to select number.
7. Press the  key to move all the way to right and press again confirm.
8. The display will show **0.000**. Refer to the remarks below.
9. Use the  key to move cursor and press the **FN** to select number.
10. Press the  key to confirm.

Remarks: 0 0 0
 A B C

A --- Buzzer on: 0= Stable not required 1= Stable required

B -- LED indicator: 0= Stable not required 1= Stable required

C : Buzzer beeps when: 0= Buzzer off 1= OK 2= LO or HI

Please note that low limit set as 0 will clear all check weigh values, even there is a high limit set.

UF-3 Auto-power off

Modes:  :Auto-turn off disable.

 : The balance will automatically turn off after 1 minute of non use.

This time can be set up to 99 minutes.

1. Press the  key to access to auto-power configuration.
2. Use the  key to move cursor and press the  to select number.
3. Press the  key to confirm.

UF-4 Standby time setting

Modes:  : The balance will standby time 10s.

1. Press the  key to access to standby time configuration.
2. Use the  key to move cursor and press the  to select number.
3. Press the  key to confirm.

UF-5 Speed setting

Modes: SPEED1 : High speed

SPEED2 : Standard speed

SPEED3 : Low speed

1. Press the  key to access to enter.
2. Use the  key to select number.
3. Press the  key to confirm.

UF-6 Zero tracking

Modes: ZP 0 : OFF

ZP 1 : One division tracking at zero

ZP 2 : Two division tracking at zero

ZP 3 : Three division tracking at zero

ZP 4 : Four division tracking at zero

ZP 5 : Five division tracking at zero

1. Press the  key to access to enter.
2. Use the  key to select number.
3. Press the  key to confirm.

UF-7 G Value setting

1. Press the  key to display the G value of manufacture place.
2. Use the  key to move cursor and press the  to select number.
3. Press the  key to confirm.

Quick Weight Calibrations (ECF1-ECF3)

1. In weight mode, press the **FN** key for more than 2 seconds, the display will show **ECF-1** .
2. Press the **FN** key to select **ECF-1**, **ECF-2** or **ECF-3** .

ECF-1 Zero and Span Calibration

1. Press the **ON** key to enter, display will show **CAL2** .
2. With nothing on the platter, press the **ON** key to calibrate zero point.
3. The display will show the calibration weight **060.000** .
4. Use the **ON** key to select the digit, press **FN** key to input the weight value.
5. Put the calibration weight on the platter and press the **ON** key to calibrate.

The scale will return back to weighing mode automatically.

ECF-2 Zero Calibration

1. Press the **ON** key to enter, display will show **CAL2** .
2. Press the **ON** key to calibrate zero point.
3. The scale will return back to weighing mode automatically.

ECF-3 Span Calibration

1. Press the **ON** key to enter, display will show the calibration weight **6.000** .
4. Use the **ON** key to select the digit,press **FN** key to input the weight value.
5. Put the calibration weight on the platter and press the **ON** key to calibrate.

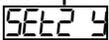
Advanced Function Operations

To get into locked functions (LF1-LF8), press and hold  until 100611 is shown and then release. Use  and  to Enter P0020

 Increase the values upward and then recycle the values.

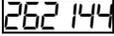
 Move the cursor to the right and confirm (Enter).

Table: Locked Functions for advanced operations

LF1	Weight calibration
LF2	Configurations for capacity, decimals and divisions. Check configurations
LF3	Linearity calibration. Use this to add 1-3 linearization points for the scale. equivalent to 0, 1/3, 2/3 and 3/3 of the max capacity. CAUTION! Perform the linearity procedure only if test weights applied to the scale between the zero and span calibration points are showing inaccuracies, such as \pm a few divisions. If large inaccuracies are recorded, this indicates a possible mechanical problem or possible load cell failure which linearity calibration may not be able to correct.
LF4	AD update Rate: use this to select the sampling frequency: 15 (1), 30 (2) or 7.5Hz (3). <i>Factory default: SPEEd 1 (standard 15Hz)</i>
LF5	Zero Tracking: use this to define a $\pm 0 / 5$ divisions range around zero. When scale weight is not at the center of zero but inside this range, $\frac{1}{2}$ of the weight will be subtracted until that the weight is inside the center of zero region. <i>Factory default: ZP 0 (off)</i>
LF6	Default to nonE. Do not change.
LF7	G-value: use this item to key in a G constant value: $9.78031 < G < 9.83217$. If the scale has been calibrated at a different location and it is not possible to re-calibrate with known test weights, the scale can be adjusted using this gravity factor.
LF8	Zero at every power up: use this item to set an auto zero at the power up. Factory default is 

Detailed steps to set up configuration (LF2)

Enter the function LF 2 to set the units, range mode, calibration units, decimal position of the separator and division size.

 Display internal values. Press  for the next screen

 Configurations: Press  to move cursor and confirm. Press  to change the values. Need to move the all the way to the right to confirm and go to next screen.

Description		Options
A	Metric units	0: disabled; 1: kg; 3: g
B	Imperial units	0: disabled; 1: lb
C	Other units	0: disabled
D	PCS	0: disabled
E	Multi-Range	0: disabled; 1: multi-range
F	Cal. unit	1: metric; 2: imperial

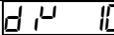
Examples:

 Use kg and lb as units with lb is used as calibration unit.

 Use g and lb as units with lb is used as calibration unit.

 Set up the capacity. This screen has to be combined with next screen (decimals) to determine the final capacity.

 Decimal points 0.00000/0.0000/0.000/0.00/0.0/0. The use of 3 decimals here and 60000 in the previous screen indicates the capacity of 60 lb.

 Divisions, choose from 01/02/05/10/20/50. Along with previous screen, the minimum division is 0.01 lb.

 After the setting, you need to recalibrate the weight.

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