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**8101
COUNTING SCALE
OPERATION MANUAL**



Caution

◆ The weighing scale with a maximum capacity of 6kg (8101-6) is shipped with shipping safety screws. Please remove the screws on the bottom before use, otherwise the sensor will be damaged.

Attentions

- ◆ Please read this instruction manual carefully before use.
- ◆ Please use only the power adapter approved by our company.
- ◆ Avoid extreme temperature. Do not place the scale in a location where the temperature changes greatly or the air flow is severe.
- ◆ Avoid unstable power sources. Do not use the scale near large users of electricity, such as welding equipment or large motors.
- ◆ Avoid unsuitable table. The table or floor must be rigid and not vibrate. Do not place the scale near vibrating machine.
- ◆ Avoid high humidity that might cause condensation. Avoid direct contact with water. Do not spray or immerse the scale in water.
- ◆ Do not stack stuff on the scale when it is not in use.
- ◆ Keep the scale clean.
- ◆ Disconnect this scale from the power source before cleaning or performing maintenance.
- ◆ Do not load stuff that exceed the maximum capacity. When “- - o L - -” is displayed, remove the stuff on the pan immediately to avoid damage to the load cell.

Introduction

The 8101 series of weighing scale are ABS plastic housing and stainless steel platform.
8101 series of economic weighing scales are for general & simple weighing operations. It's very compact, reliable, high accuracy and much stable.

Structure:



Power Supply Instructions

- ① Power adapter: 100-240V/50Hz input; 12V/500mA output.
- ② Rechargeable battery: 6V/3.2Ah (Full power for continuous 60h operation with no backlight).
- ③ If you use the internal battery for power supplying, please charge it immediately when the low battery indicator is on, otherwise the scale will automatically shut down after 30 minutes. To continue using it, you must charge it immediately.
- ④ The charge indicator lights up in orange when charging. When the charge indicator changes from orange to green, the battery is fully charged. It is recommended that you start using the internal battery after additional two hours of charging.
- ⑤ If it is not used for a long time, please charge it at least once every three months, otherwise the battery will be damaged.

Technical Parameters

Code	8101-6	8101-15	8101-30
Capacity (Max.)	6kg	15kg	30kg
Minimum capacity (Min.)	4g	10g	20g
Maximum tare weight (T)	-6kg	-15kg	-30kg
Readout (d)	0.2g	0.5g	1g
Resolution	30000d		
Unit	Weight: kg; Unit Weight: g; Count: pc(s)		
Operating temperature	-10~40°C		
Dimensions of pan	263×204mm		

Keys And Display Instructions

Power switch: At the bottom right of the scale, press the switch forward and hold this button to switch on or off.

- 0 ~ 9 : Numeric keys, Enter individual unit weights and counts.
 . : Decimal point key.
 M+ : Accumulation key, add the current data aggregated.
 MR : Recall the accumulator.
 PST : To set the limits of the number of items counted and weight.
 PRINT : The scale has no data interface, this key is invalid.
 U.Wt : Enter the numbers of items, used for the unit weight. Press and hold the key to switch weighing units
 SMPL : Manually enter the weight of sample.
 TARE : Storing the current weight as tare value. Subtracting the tare value from the total weight and displays the result as net weight. and clear the tare weight.
 ZERO : Returns the display to zero.

STABLE: Stable display

ZERO: Zeroing display

NET: Net weight display

BATTERY: Low battery

⬆️↑ : Insufficient number of unit weight

PRESET: To show preset count when stored

⬆️⬆️↑ : Insufficient number of samples

MEMORY: To show when value stored

Operation Instructions

1 Preparation:

Place the scale on a solid, flat, hard table and adjust the four support feet so that the level bubble is in the center of the circle. Need to re-adjust after each move.

The scale needs to be warmed up for 15 minutes before use.

2 Power ON/OFF:

Before startup, please confirm that the scale is in no-load state. After startup, the scale will show the capacity and enter a self-test mode (countdown to zero) and then enter weighing mode.

3 Zero:

Environmental conditions can lead to the scale exactly zero in spite of the pan not taking any strain. However, you can set the display of your scale to zero any time by pressing ZERO key and therefore ensure that the weighing starts at zero.

Zero-setting range: $\pm 2\%$ Max.; beyond the range, ZERO key is invalid;

Initial zero-setting range: $\pm 10\%$ Max.; When the load exceeds the range during the boot process, zero-setting is invalid and an error will be reported.

4 Tare:

The weight of any container can be tared by pressing TARE key so that with subsequent weighing the net weight of the object being weighed is always displayed.

- Load weight on the pan.
- Press TARE key. Zero is displayed, and tare is subtracted.
- Remove weight from the platform. Tared weight is displayed. It can set only one tare value. It can display with a minus value.
- Press TARE key. Zero is displayed, tare weight is cleared.

5 Set Count:

Weigh a sample to calculate the unit weight to determine the average weight of items to count, put a known number of pieces

on the scale and insert their content. The balance of the total weight divided by the number of samples and displays the unit weight.

- ① Zero the scale by pressing the zero if necessary. If you use a container, put it on the scale and the tare weight gain by following the steps above.

- Place a known amount of pieces on the platform.

2.812 0 0

- When the viewer "Weight" is stable, enter the quantity of pieces by using numeric keys.

2.812 30 0

- Press SMPL key.

2.812 58.8P -----

- Unit weight display will show the unit weight and count display will show pcs of the sample.

2.812 33.72 30

- Adding pieces on the scale, increase the weight and count.

3.316 33.79 36

- ② Remove the sample, place the good, and start counting.

- ③ Press C key to clear the data and return to the weighing mode.

Note:

1. The weighing may be amended on the basis of greater numbers of samples improves the accuracy of counting large quantities.
2. When the total weight is less than 20d, the  indicator is on. Please place more samples and resample.

6 Set Unit Weight:

- Place the goods on the platform.

0.500 0 0

- Enter the unit weight by using numeric keys. Press U.Wt key.

0.500 50 0

- Unit weight display will show the entered value and count display will show pcs.

0.500 50 10

- Press C key to clear the unit weight and return to the weighing mode.

Note: When the unit weight is less than 0.5d, the  indicator is on. Please re-enter unit weight.

7 Check alarm:

- ① There are three warning modes: weight warning, count warning, no warning. Press and hold C key to switch the warning mode.

- Press and hold C key, display will show

- To turn on checking alarm into weighing operations

CHECK nEt

- To turn on checking alarm into counting operations

CHECK PCS

- To turn off the checking alarm in the operations

CHECK OFF

Note: At time only one function can set to turn on.

- ② Pressing PST key can select counting or weighing limits.

- Press PST key, display will show

PCS Hi 0

- Press the numeric keys to set the counting Hi Limits and confirm by pressing TARE key.

PCS Lo 0

- Display will show

- Press the numeric keys to set the counting Lo limits and confirm by pressing TARE key.

nEt Hi 0.00

- Display will show

- Press the numeric keys to set the weighing Hi limits and confirm by pressing TARE key.

nEt Lo 0.00

- Display will show

- Press the numeric keys to set the weighing Lo limits and confirm by pressing TARE key.

- Return to weighing mode.

Note:

1. For check limits, just one limit value can be set for operations.
2. The check mode will be deactivating, if both values are set to zero.
3. The beep sound will be worked as per described in the beep settings.
4. Check weighing available only when weight more than 20d.

8 Accumulation:

- ① Prepare for accumulation.
 - Before accumulation, ensure the platform is empty.
 - If necessary, press ZERO key to make display zero.
 - Display should be stable.
- ② Accumulate Operation: Place the goods on the platform. When STABLE indicator displays, press M+ key to enter accumulation. Weight Display will show total weight and Unit Weight Display will show the total times of accumulation.
- ③ Recall Memory: To check the total value stored, press MR key when the scale is in zero. The total and number of times will be displayed 2 seconds.
- ④ Memory Clear: To delete the saved data, press MR key to recall the stored data and press C key to clear all values.

Note:

1. Accumulation operation can continue up to 99 entries or reach maximum displayed values.
2. Weight Display should be want to get zero for the next accumulate operation.
3. Loaded weight should be more than 20d of the scale.

9 Set Back Light:

In the weighing mode, press and hold Decimal Point key.

Display will show "bLSEt 0000 0000". Press M+ key to change back light to auto/on/off.

auto	Back light will turn on when operating, and turn off when no operation.
on	Once the power is on, back light is always on.
off	No back light.

Parameter Settings

To set parameters, first turn on the weighing scales, press and hold TARE key during self-check, display will show "Pn", enter "9999" by pressing numeric key 9 four times. Press TARE key to confirm, it will enter into the parameter settings and show "F0 CL". Press M+ key to select other settings. The following operations are all performed in this mode.

1 Units Setting:

Press M+ key until "F2 UNIT" is displayed.

- Press TARE key to enter setting.
- Press M+ key to switch unit setting: kg/g/lb/tj/hj/lb-oz.
- Press TARE key to choose to open or close the parameter.
- Press ZERO key to return weighing mode.

2 Resolution Setting:

Press M+ key until "F3 RES" is displayed.

- Press TARE key to enter setting.
- Press M+ key to select resolution (dual - 1, dual - 2, 3000, 6000, 15000, 30000, 60000).
- Press TARE key to confirm and back to setting mode.
- Press ZERO key to return weighing mode.

3 Capacity Setting:

Press M+ key until "F4 CAP" is displayed.

- Press TARE key to enter the setting.
- Press M+ key to select capacity (3t, 6t, 15t, 30t)
- Press TARE key to confirm and back to setting mode.
- Press ZERO key to return weighing mode.

4 Check internal counts:

Press M+ key until "F5 IN" is displayed.

- Press TARE key to enter, display will show internal counts.
- Press ZERO key to quit. The scale will return setting mode.
- Press ZERO key to return weighing mode.

5 Checking Alarm:

Press M+ key until "F 10 BEEP" is displayed.

- Press TARE key to enter the setting.
- Press M+ key to select options (01 : alarm when the weight or count is between the limits. 02: no beep alarm. 03: alarm when the weight or count is out of the limits.)
- Press TARE key to confirm and return setting mode.
- Press ZERO key to return weighing mode.

Calibration

Attention:

If the product is weighed not accurately or after a long period of use, it needs to be calibrated. Please use weight calibration or weight linear calibration.

1 Weight Calibration:

Step	Operation	Display	Remarks
1	Turn on the power Press & Hold "TARE"Key during self-check	Pn	
2	Use the numeric keys to enter "9999" and press "TARE"Key to confirm	F0 CAL	
3	Press"TARE" Key	ULOAD	Scale should be with no load
4	Press"TARE"Key when STABLE mark on	LOAD	
5	Load calibration weights Press"TARE"Key to confirm when STABLE mark on	PASS	The integral weight between 1/3MAX and MAX will do
6	Remove calibration weights	F0 CAL	
7	Press"ZERO" Key	0.00	Enter a self-test state, and return weighing mode.

Warning:

When the screen displays LOAD / LOAD1 / LOAD2 / LOAD3, the corresponding weight must be put on. When the load is empty, pressing the "TARE" key to confirm will cause ERR 4.

2 Weight linear calibration:

Code	8101-6	8101-15	8101-30
LoAd1	2kg	5kg	10kg
LoAd2	4kg	10kg	20kg
LoAd3	6kg	15kg	30kg

Step	Operation	Display	Remarks
1	Turn on the power Press & Hold "TARE"Key during self-check	Pn	
2	Use the numeric keys to enter "9999" and press "TARE"Key to confirm	F0 CAL	
3	Press"M+" Key	F1 LCAL	
4	Press"TARE" Key	ULOAD	Scale should be with no load
5	Press"TARE"Key when STABLE mark on	CAP LOAD1	
6	Load calibration weights Press"TARE"Key to confirm when STABLE mark on	CAP LOAD2	
7	Change calibration weights Press"TARE"Key to confirm when STABLE mark on	CAP LOAD3	
8	Change calibration weights Press"TARE"Key to confirm when STABLE mark on	PASS	
9	Remove calibration weights	F1 LCAL	
10	Press"ZERO" Key	0.00	Enter a self-test state, and return weighing mode.

Gravitational acceleration setting

Step	Operation	Display	Remarks
1	Turn on the power Press & Hold "TARE"Key during self-check	Pn	
2	Use the numeric keys to enter "9999" and press "TARE"Key to confirm	F0 CAL	
3	Press "M+" Key	F6 GrA	
4	Press "TARE"Key	"g" value	Display will show a gravitational acceleration value
5	Use the numeric keys to set "g" value	"g" value	Display will show new gravitational acceleration value
6	Completing the setting bit by bit Press "TARE"Key to confirm	F6 GrA	
7	Press "ZERO" Key	0.00	Enter a self-test state, and return weighing mode.

Common Mistakes And Solutions

Error Message	Description	Solution
-----	Maximum load exceed	Unload or reduce weight.
Err 4	Zero setting error	Zero setting range exceeded (2%Max). Make sure platform empty and recalibrate.
Err 5	Key board error	Check the keys and connector.
Err 6	A/D value out of range	Make sure platform empty and check the pan is installed proper. Check the load cell connectors. the keys and connector.
Err 7	Percentage error	Please check input data, must >0.5d.
Err 8	Calibration weight error	Check the test weights for calibration or linear calibration
Err 9	Unstable reading	Check any air variation, vibration, RF noise and touching some where. Check the load cell and connectors.
Err 12	Accumulation error	Check accumulation times.
Err 13	Lack of unit weight	Check unit weight entry data, must be >0.5d.
Err 14	Lack of sample	Check counting samples entry, must be >20d.
Err 15	Gravity error	Check the gravity settings.
Err 17	Tare out of range	Minus weight or overload. Remove the load and restart scale again.
Err 19	Initialize zero error	Calibrate the scale.
--oL--	Over range	Remove the load. Re calibrate.
--Lo--	Underload	Minus weight, check the platform and restart or calibrate.
FR .L H/ FR .L L/ FR .L	Calibration error	Check the test weights & Re calibrate.
bA Lo/ Lo bA	Battery low	Re charge battery, check the voltages.