**JA Series Electronic Balance** 

**Operation Instruction** 

# Thank you for choosing JA Series Electronic Balance!

In order to avoid any unnecessary damages to the balance, please read this Operation Instruction carefully before using the balance!

### 1. General Information:

As an intelligent balance, JA series electronic balance is constituted by high stability transducer and single chip microcomputer. The balance has solved the problems of strain gauge type transducer like creep and linearity. The balance has the functions like tare removal, self-calibration, memory, count, malfunction displaying, suspend weighing, unit conversion, applicable for both AC and DC current and etc. With the features of high accuracy, high stability, quick weighting, user-friendly and complete function, the balance is widely used for quick measure the quality and quantity of material in industrial, agricultural, commercial, schools and scientific institutions.

## 2. Schematic Diagram of the Panel

Display Window; (2) On/Off Button; (3) Tare Removal Button; (4) Unit Conversion
Button; (5) Calibration Button; (6) Count Button; (7) Power Jack.



### I. Operation

1. Place the balance at the stable and flat working platform. It is necessary to avoid any vibration, direct sunshine, airflow and strong electromagnetic wave interference.

2. Working Environment: Temperature range:  $5 \degree C$  - $35 \degree C$ ; Temperature fluctuation range shall be within  $5\degree C/h$ . The relative humidity shall be between 50% and 85%.

### II. Startup

1. Connect to the external power source or install the 9V battery.

2. Press the "ON/OFF" button, the balance window will display "8.8.8.8.8.8", "maximum weighing value" and "---"in sequence. The displaying time of "---"depends on the stability

status of the transducer. Therefore, the balance shall not be placed at the air opening areas or on the unstable platform.

Finally, the balance will display the "0", "0.0" or "0.00", which indicates the balance has entered into the weighing mode. The flashing of the signal "0" on the left upper areas of the window represents the working environment is not stable. In such cases, below operations 5 to 9 shall not be conducted.

#### III. Calibration of the Balance

1. Place the balance at the stable and flat working platform. It is necessary to avoid any vibration, direct sunshine, airflow and strong electromagnetic wave interference. In order to guarantee the accuracy of the balance, it is necessary to give the balance 30 minutes' pre-heating time.

#### 2. Calibration Operation

**Single Point Calibration:** Keep pressing down the "CAL" button when there is no material on the weighing scale. The window will display "---CAL----"after about three seconds. Then release the button and window will display the flashing "standard weight value". Place the standard weight with the value of the flashing "standard weight value" onto the weighing scale. The window will display "-----", which means "waiting". Later the window will display "standard weight value". Take the weight away from the weighing scale and the display will change back to the waiting status of "-----". Later, the window will display "0", "0.0" or "0.00". Thus the calibration has completed. In case the weighing is still not accurate, please repeat the above calibration process for some times.

**Multi-point Calibration:** Keep pressing down the "CAL" button until the display "----CAL----"after about three seconds. Then release the button until the flashing "standard weight value" has been displayed on the window. Then keep pressing down the "PCS Count" button for two seconds and the window will display "----CAL----". Release the button, the window will display the flashing "the First Standard Weight Value". Place the standard weight with the same value of the above flashing "the First Standard Weight Value" onto the weighing scale. The window firstly shows "-----", which shall mean "please wait for a

moment". Then the value of the flashing "standard weight value" will be displayed on the window. The window will display "-----"again after taking away the standard weight from the weighing scale. Then operate with the same procedure as the first standard weight (just change the weight to the second standard weight value). Same procedure for the third standard weight shall be conducted. The calibration will be completed after the window has displayed "0", "0.0" or "0.00".

#### **IV. Weighing**

1. After the balance has been stable after pre-heating or after the calibration, the window will display "0", "0.0" or "0.00", which indicates the balance has entered into the weighing status.

2. Place the articles to be weighed onto the weighing scale and the window will display the weight of the articles.

#### V. Tare Removal

1. Place the container onto the weighing scale and the balance will display the weight of the container.

2. Press down the "Tare" button and the balance will display "0", "0.0" or "0.00", which indicates the tare has been removed.

3. Place the articles onto the weighing scale and then the balance will display the new weight of the articles.

#### VI. Count Operation of the Balance

#### 1. Enter into the setup of Average Piece Count Articles

Place the containers necessary for the count on the weighing scale. The unnecessary containers shall not be placed on the weighing scale. Press down the "TARE" button and the window will display "0", "0.0" or "0.00". Press down the button of "PCS Count" and the window will display the flashing "10". Meanwhile, the displaying on the right lower area of the window will change from "g" to "PCS". Then put the articles to be counted onto the weighing scale and press down the button of "PCS count". The window will display the signal of "-----". Later the display window will show "10" and the average count setup is completed. Then the balance could enter into the count operation (during this operation, the zero point must be "0", "0.0" or "0.00"). The weight for each

single article must heavier than the minimum readable value of the balance, which is the resolution of the balance).

## VII. Unit Conversion Operation of the Balance

1. Press down the "unit conversion" button to conduct the conversion. The unit "CT", "OZ", "LB", "g or kg" will be displayed in sequence upon one pressing down of the button. The balance could display the weight value according to the requirement of the customer. The default unit after startup is "g".

## VIII. Overloading Alarming

In case the weight of the articles to be weighed have exceeded the (1+2%) times of the displaying value after the startup of the balance, the balance window will display "-----", which indicates the accumulated weighed material have exceeded the regulated range of the balance. In such case, the user shall take the material off from the weighing scale immediately. Otherwise, the balance may be damaged.

## IX. Cautions during the Operation of the Balance

1. The balance shall be connected to the power supply and pre-heated according to the regulations.

2. The total weight of the tare and weighed material shall not exceed the maximum weighing range of the balance.

3. It is necessary to use the standard weights to calibrate the balance in case the weighing value is not accurate.

4. In case it is necessary to take the round weighing scale pan, please move it in the clockwise direction before taking it off from the balance. In order to avoid the damage of the transducer, please never pull it upward directly.

Error Information	Description	Solutions
Underline	Imbalanced loading of the material on the weighing scale	Use the standard weight to re-calibrate the balance.
Over line	Overloading alarming, refer to clause 10 of this instruction.	Use the standard weight to re-calibrate the balance.
ERR-1	Caused by frequent shut down and startup of the balance.	Shut down the balance and start the balance again after three seconds.

5 Please shock the below table in case or	w arrar information has displayed:
5. Please check the below table in case an	ly error information has displayed.

ERR-2	The weighing is unstable	Just wait for a few minutes
	Low capacity of the battery	Change the battery

## Cautions:

Strictly follow the instructions of this Operation Instruction when use the balance.

The balance shall be placed on stable working platform and avoid any vibration, direct sunshine and air current. The working environment and voltage shall meet the technical requirements of the balance.

It is highly prohibited to conduct any impacts to the balance or put any articles that have exceeded the maximum capacity of the balance onto the weighing scale.

It is highly prohibited to use solution to clean the outer cover of the balance. Users could use soft cloth to clean the cover.

## Warranty of the Product

The warranty period is one year commencing from the date of the sales. For the non-man-made faults of the balance, our factory will in charge of the repair or replacement.

Shipping List

- 1 set complete machine body
- 1 Piece of stainless steel weighing scale pan
- 1 Piece of power cord
- 1 piece of wind cap, not available for the one-tenth series products
- 1 piece of wind cover, not available for the one-tenth series products
- 1 set of Operation Instruction
- 1 set of Product quality certificate
- 1 set of the warranty card