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## Operation Manual

### For Models:

JJ200A JJ300A JJ500A  
JJ600A JJ1000A JJ2000A  
JJ3000A JJ5000A JJ6000A  
JJ8000A



To guarantee the best performance of the device, please read this operation manual carefully before use.

**G&G GmbH**

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## Operating Manual for JJ-A Series of Electronic High Precision Balances

(for following models: JJ200A, JJ300A, JJ1500A, JJ600A, JJ1000A, JJ2000A, JJ3000A, JJ5000A, JJ6000A, JJ8000A )

### 1. Overview

Manufactured and well-designed by G&G GmbH, adopting industrial-class high precision sensors, measurement circuit, dedicated MPU system, and controlling system, JJ-A series electronic balances are high-quality electronic weighing machines. Advanced technology, well-selected, exquisite processing and strict testing make JJ-A series of electronic balances be possession of following strong points:

- 1.1 High precision, hypersensitivity and fast reaction speed
- 1.2 High quality, strong anti-interference capability, long life, long-term using stability, adapting to the adverse environment and long hours continuous work
- 1.3 With auto calibration
- 1.4 Unit conversion feature: in seven units between arbitrary conversions
- 1.5 Balance is targeting output data interface and can be connected directly to the printer and computer to collect and analyze the data. The balance can even remote controlled by computer.

In general, with high precision, high stability, high reliability and high efficiency, the “G&G” electronic balances has widely replace the traditional mechanical, tray balances. The “G&G” electronic balances have been widely used in all callings, in different kinds of measurement and test. Those have played an important role in improving products quality, cost-effectiveness and efficiency.

### 2. Specifications and Performance indexes

Depending on the difference of range and resolution, JJ-A series electronic scales are classified to 10 types as shown

Model	JJ200A	JJ300A	JJ500A	JJ600A	JJ1000A
Capacity	200g	300g	500g	600g	1000g
Resolution Ratio	0.01g	0.01g	0.01g	0.01g	0.01g
Calibration Graduation	10d	10d	10d	10d	10d
Tare Scope	200g	300g	500g	600g	1000g
Calibrating Weight	200g	200g	500g	500g	1000g
Dimension of Platform	Φ135mm				
Volume	325(W)X 211(D)X 110(H) mm				
Power Supply	AC Adapter (AC 230V 15V 300 mA 50Hz-60Hz)				
Use Temperature	0-40°C				
Use Humidity	≤80%R.H				

Model	JJ2000A	JJ3000A	JJ5000A	JJ6000A	JJ8000A
Capacity	2000g	3000g	5000g	6000g	8000g
Resolution Ratio	0.1g	0.1g	0.1g	0.1g	0.1g
Calibration Graduation	10d	10d	10d	10d	10d
Tare Scope	2000g	3000g	5000g	6000g	8000g
Calibrating Weight	2000g	2000g	5000g	5000g	5000g
Dimension of Platform	190X 205 mm				
Volume	325 (W)X 211 (D)X 110 (H) mm				
Power Supply	AC Adapter (AC 230V 15V 300 mA 50Hz-60Hz)				
Use Temperature	0-40°C				
Use Humidity	≤ 80% R.H				

P.S. Only use the provided adapter or the same specifications of the adapter, otherwise there will be dangerous.

### 3. Operational Method

- 3.1 Turn on the power. Open the switch. The displaying windows displays from “F---1” to “F---9” and after a certain time for stabilizing, “0 • 0” appears; Then preheats for 15 minutes. Instability of the displaying at every beginning is normal; after a certain time, the displaying will stabilize.
- 3.2 With empty scale platform, the displaying deviates from zero, pressing “TARE” key, then the displaying will return to zero.
- 3.3 If the scale has not been used for a long time or just bought, the scale should be calibrated. Firstly, the scale is fully preheated (over 15 min.) with empty scale platform. Then press “CAL”, the displaying window shows “C2000” and the balance will automatic calibrate. 2000g should be the weight of standard weights. At the same time, only place calibrating weights on the scale platform. After stabilizing, the scale displays the weight of the calibrating weights. The unit is “g”; till now the calibration is completely finished and the scale can be normally used. If press “CAL”, but display “C---F”, which indicates the Zero point is not stable. Then re-press “TARE” to make “zero” point stable; and re-press the “CAL” to carry out calibration.
- 3.4 If weight of a weighed article exceeding the scale measuring range, the scale will warn “F---H”.
- 3.5 If needs to tare, first place the container on the platform, after stabilizing, press “TARE” ;the scale displays ”zero”. Then place the article in container, at this time, it shows the net weight of the article. Remove the article and the container. The scale shows a negative value of container weight. Still press “TARE” to return to “zero”

3.6 The units can be changed between “g”, “ct”, “ozt”, “oz”, “GN”, “dwt”, “lb”. Press “Units” to change the units during weighting.

### 3.7 Count

3.7.1 Choose samples. To precisely count the articles, firstly the quantity of samples for counting should be chosen in according with the weights of the articles. The quantity of samples can be chosen from “1-10-20-50-100”. For a small number of articles, the larger quantity of samples, the more precise.

3.7.2 Place the samples on the pan, the balance will show the total weights of samples. Then press “Count”, balance will show “1”, and unit will show “pcs”, which indicate that balance is now counting. And all the samples are one unit. Then press “Count”, the displaying will show between 1-10-20-50-100. The quantity of articles must be the same with the quantity of samples, and place the similar articles. The total amount of objects is showed. Press the “Count” again back to the normal situation.

### 3.8 Data Output

Balance is targeting data output interface RS232C and can be directly connected to the printer. The following soft wares are needed, when connects to computer:

3.8.1 Transmission format: serial asynchronous

3.8.2 Serial communication protocol:

Baud rat: 600,  
data: 8 units,  
starting: 1 unit,  
ending: 1unit

3.8.3 Data format:

starting	data	symbol	ending	enter
2unit	7units	3unit	1 unit	1 unit

3.8.4 Calibration: no calibration

3.8.5 Output pins content (9-core socket): 2 pins: RXD      3 pins: TXD  
5pins: GND

3.8.6 Computer can control balance though RS232. The orders to balance are:

1BH+70H: sending data  
1BH+71H: calibration (like “CAL”)  
1BH+72H: Counting

1BH+73H: Units change

1BH+74H: Tare

Sampling demo, connection method of balance and computer, please download from our website: [www.gandg.de](http://www.gandg.de)

### 3.9 Attachment: settings and meanings

Start the unit by holding down the “CAL” key till it comes to “F----3” and you are in the setting mode..

And pressing “CAL” can change the parameters; pressing “TARE” can change the values of parameters.

3.9.1 C1----- sensitivity setting 0 1 2 3 4, the larger number is, the less sensible but the better stable. Default setting is 2 or 1

3.9.2 C2-----filtering strength setting 0 1 2 3, the larger number is, the lower reaction speed, but the better stable. Default setting is 2 or 1

3.9.3 C3-----Baud rate setting 2(600) 3(1200) 4(2400) 5(4800) 6(9600). Default setting is 2

3.9.4 C4-----communication setting. “TARE” changes the lower unit. “COUNT” changes the higher units. This is the first data during communication. Default setting is 27.

3.9.5 C5----- Set the function of “UNIT” key. 0 is for units changing function and 1 for printing function. 2 is for counting function. Default setting is 0.

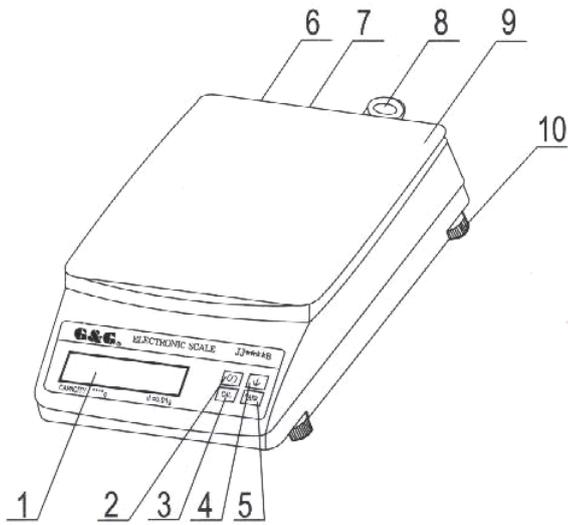
3.9.6 Re-pressing “CAL” after setting. Then the balance is auto calibrated to 0.

3.9.7 Start the unit by holding down the “TARE” key till it comes to “F----3” and All the parameters can be reset to default settings. Re-calibration before using.

## 4 Structure and Buttons

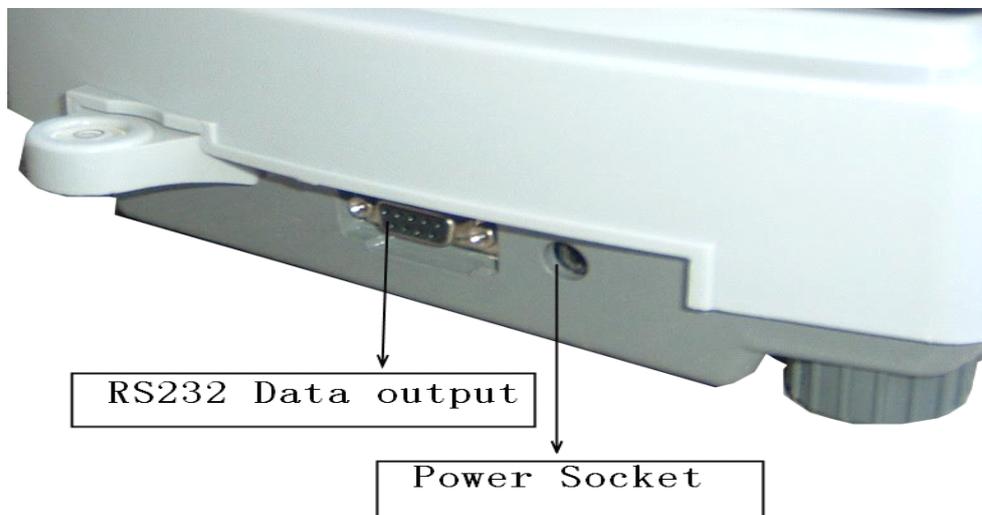
### 4.1

(1)Display



- (2) UNIT
- (3) CAL
- (4) ON/OFF Switch
- (5) TARE
- (6) Power
- (7) Data output
- (8) Water level
- (9) Scale pan
- (10) Adjustment

#### 4.2 Installation



## **5. Cautions for operation**

- 5.1 Using environment: indoor, max. Altitude: 2000m, temperature: 0-40°C, humidity  $\leq 80\%$ , Power fluctuations less than  $\pm 10\%$
- 5.2 The electronic scale is a precision instrument which needs to be gently handled during the weighing of articles. Avoid impact and heavy load on top (never exceed its max. weighing limit). Any forms of impact or overloading may cause permanent damage to the electronic balance, even in the use of electronic balance without power supply.
- 5.3 Place the scale on a firm table for operation, and make sure that the operating environment of the balance is free of great vibration and interference of power supply, and of corrosive gases and liquids.
- 5.4 Ensure the warm-up time after power-on.
- 5.5 Warning: If the equipment is used in a manner not specified by this instruction the projection provided by the equipment may be impaired
- 5.6 Gentle handling in daily using, with dry and clean cotton cloth cleaning.

## **6. The Warranty**

- 6.1 We provide warranty within the scope of the statutory regulations, however we are entitled to either repair or replace the defective product.
- 6.2 Within two years after purchase, the producer offers a free repair service to all G & G Product, which become defect under proper usage without human damage. The customers are kindly requested to mail the product as well as its original proof of purchase to the producer. Notification of defects and complaints shall be made in writing after the delivery has been received at the point of delivery. For legitimate notifications of defects and warranty cases we are entitled at our own discretion to either replace the delivery at the prices which were valid at the time of the complaint or to rectify the defect.
- 6.3 We have the right to try to replace the defective product at most twice. There will be a slight charge for the repair service of those products, by which the warranty period expires. Defective goods may only be returned to us by the customer with our express approval and at the customer's cost and risk. The notification of the defect does not release the customer from his obligation to pay.
- 6.4 Please attach the address, postal code and telephone number of the buyer, so that we can mail the repaired product back in time.

## 7. Trash



Meaning of crossed –out wheeled dustbin:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact you local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposals at least free of charge.

## 8. Contact

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41460 Neuss  
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