

# Instruction Manual

## FA series touch screen analytical balance



*Thank you for choosing our electronic balance.*

# 1.Outline

Thank you for purchasing a FA series electronic touch screen series balance.

The FA models are high performance electronic balances. While the models are of course capable of fast and accurate weighing, the FA models all use the high precision electromagnetic force balance sensor, improving the reliability of the balances still further.

The FA series balances also feature operation keys, improving operating convenience and making the balances easier to use.

These balances also feature a variety of other functions that make it more convenient for customers to use for their own applications, including the Window Direct communication function, which enables measuring results to be transferred to a PC without installing any software.

To ensure that you can make full use of the performance and function of your FA series balances, read this instruction manual carefully and use the balance correctly in accordance with the directions in the manual. When you have finished reading the manual, keep it in a safe place together with the balance so that you can refer to it at any time.

Model:	FA1004	FA1204	FA1604	FA2004	FA2104	FA2204	FA3004	FA3204
Accuracy Class	I							
Max.Capacity	100g	120g	160g	200g	210g	220g	300g	320g
Min.Capacity	10mg							
Division:	0.0001g							
Verificationscale value:	0.001g							
Repeatability:	±0.0002g							
±0.5e	0≤m≤50000							
±1.0e	50000<m≤200000							
±1.5e	200000<m							
Settling time	≤8seconds							
Operating temperature	17.5°C~22.5°C, fluctuation range<1°C/h							
Relative humidity(RH)	50%~75%							
Pan size	Φ80mm							
windshield(L*W*H)	225mm*220mm*265mm(L*W*H)							
Dimension(L*W*H)	340mm*215mm*350mm(L*W*H)							
Net weight	7.2kg							
Power supply	AC220V 50Hz DC9V-2.2A							

### Product Feature.

1. Electromagnetic Force Compensation Technology.
2. Aluminum Alloy die cast base and ss platter.
3. Super Bright 5 inch color LCD display with backlight.
4. RS232C Interface.
5. Clear Glass Windshield as standard.
6. Over load protection, Bubble Level Adjustment, Under hook
7. Full capacity Substraction.
8. Multi Weighing unit conversation g/mg/ct/oz.
9. Check Weighing, Parts counting, percentage weighing.
10. Universal power adaptorsupplied as standard.

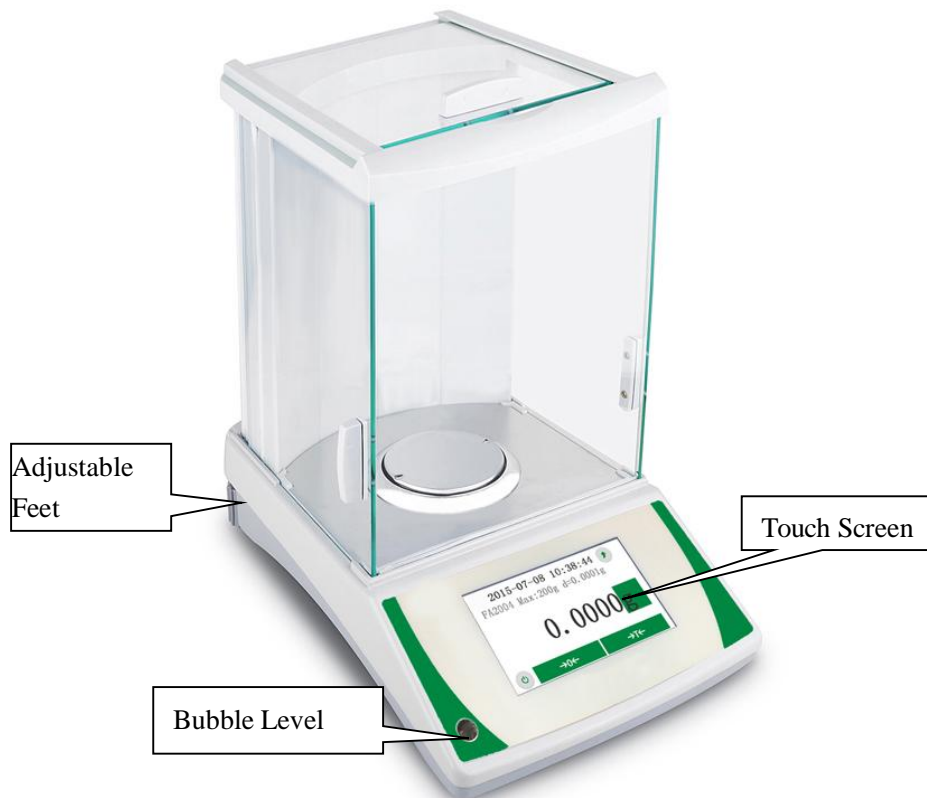
# Setting

## 1. Assembling

Please open the packaging carefully, take out the balance and other articles lightly. Keep the packing material so as to reuse.

Components in the box:

- 1) Balance Body
- 2) Stainless steel pan
- 3) Power wire(AC adapter)
- 4) Product manual
- 5) Weight
- 6) Textile protection.





## 2. Working condition

When FA series multifunctional electronic balance is used under routine test lab or Industrial measuring room, the weighing speed will be much quicker and the result more accurate. If the condition does not suit, the working condition should be chosen as bellow:

- 1) The working room should be clean and dry.
- 2) The balance should be placed on the steady, fixed table.
- 3) Better to place the table far away from the door and window in order to avoid the influence of airflow.
- 4) The table should be put at a place with less vibration such as the corners in the room.
- 5) The balance should be put far away from sunlight and radiation.
- 6) Put the balance far away from magnetism.
- 7) Don't use the balance in dangerous place of explosion.
- 8) Don't use the balance under the condition of high humidity and high dust for long.

- 9) When moved from a colder place to a warmer place, the accuracy and reliability of the scale will be influenced by the moisture condensed inside the balance. In order to eliminate the influence, it's better to put the scale in the working place without power supply for 2 hours.
- 10) Avoid extremes of temperature. Do not place in direct sunlight or near air conditioning vents. 20°C-25°C for the analytical with a fluctuation of temperature not greater than 1°C/h.
- 11) Keep the balance clean. Do not stack material on the balances when they are not in use. .
- 12). Working voltage: 220-240V, 50Hz or 110-127V, 60Hz.

## Operating

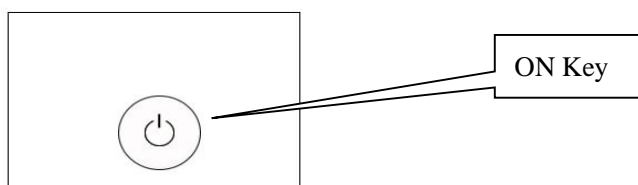
### A. Adjustment

- Check the level meter before operation, if the bubble is not in the center, adjust the adjustable feet to make the bubble in the center.

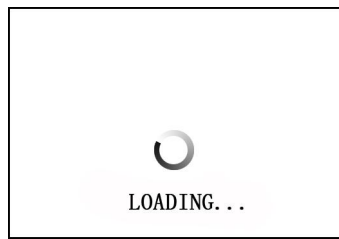
### B. Start

- Select an appropriate line voltage and set the voltage switch to the corresponding position.
- For best performance, let the balance warm up for 30-60 min. and calibrate it before using.

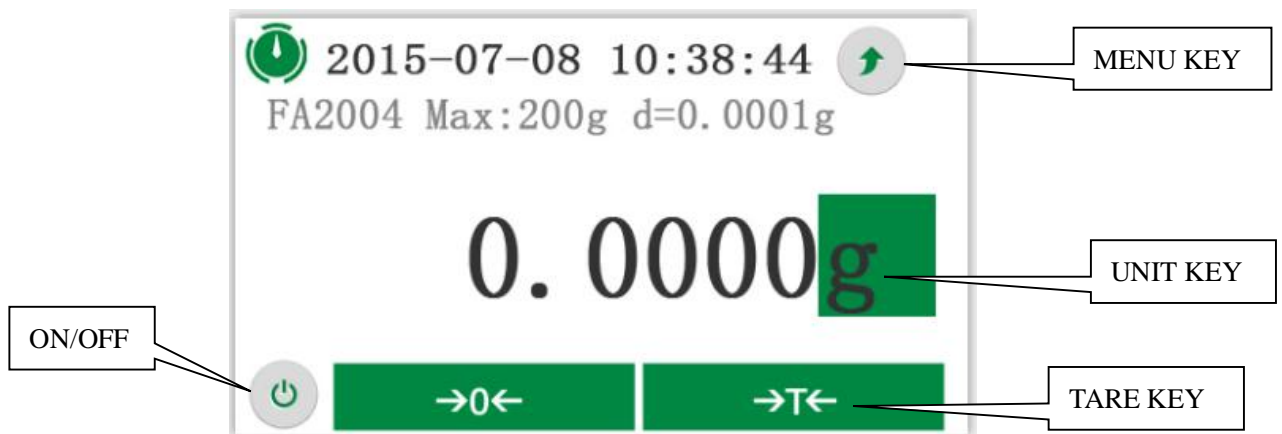
1. After plugging in.



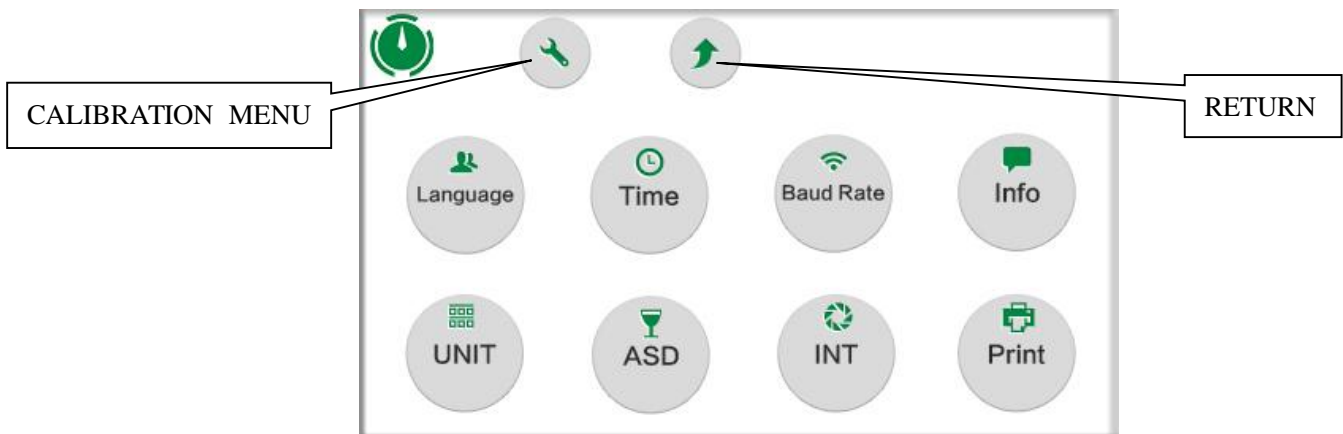
2. Wait 1 min to enter the programs.



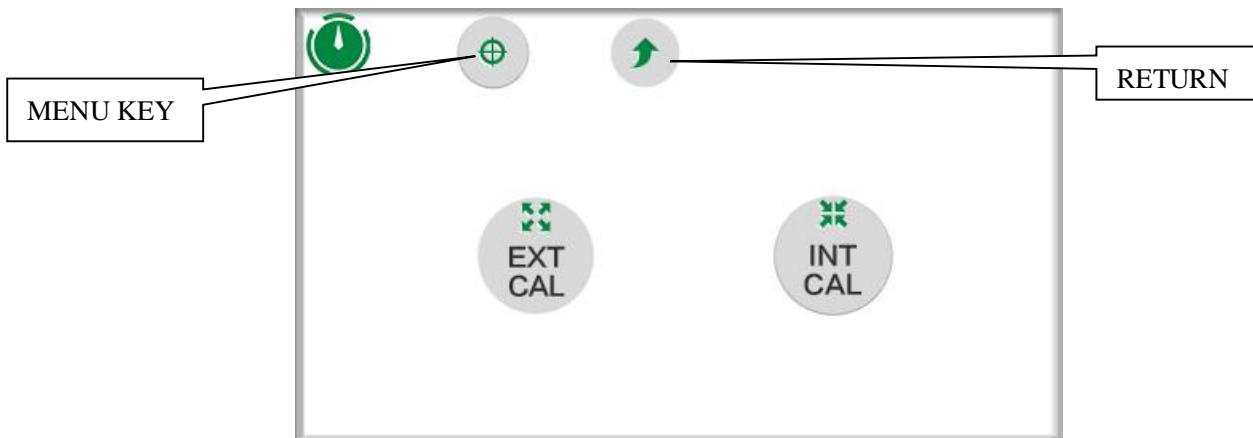
3. The working screen



4. Press **MENU** key to enter the setting screen.



5. Press **CALIBRATION** key to enter the calibration screen.



### C. Calibration

#### Standard weight

Choose standard weight ad requirement according to different types.

Model	Standard weight
FA1004 FA1204 FA1604 FA1003A	100g
FA2004 FA3104 FA3204 FA2003A FA3003A FA4003A FA5003A	200g
JT6003A JT10003A	500g

FA-0.1mg series balance should be warmed up for 0.5 hour

FA -1mg series balance should be warmed up for 1 hour.

For Internal Calibration,

Press "**INT-CAL**"

Calibration using the internal weight starts automatically.

For External Calibration

Press **EXT-CAL**,The weight value will flash.

The calibration record is being output. When the output has finished, span calibration will start automatically.

2. Place the calibration weight on the pan.

Open the glass door in the windshield, place the weight on the

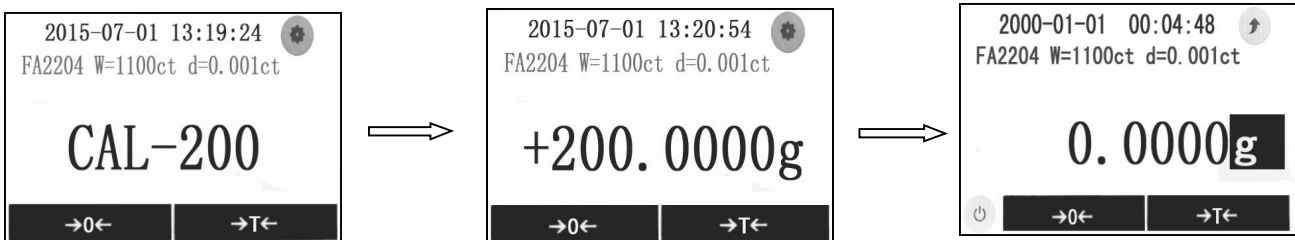


pan, and shut the glass door again. Wait until the flashing weight value display changes to “200.0000g”.

3 Take the weight off the pan.

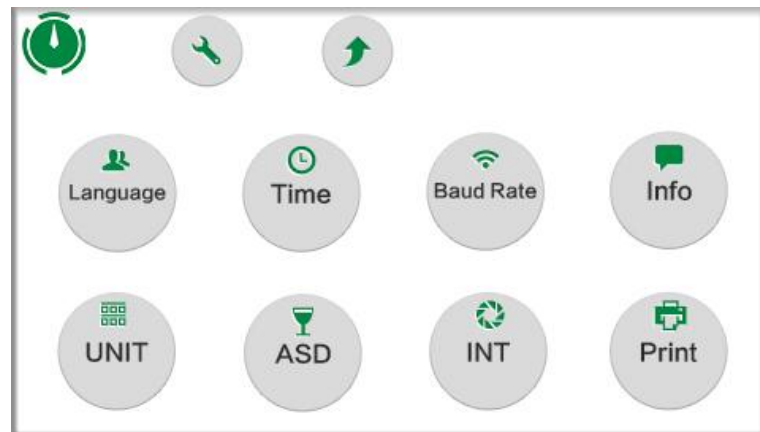
Open the glass door in the windshield, remove the weight from the pan and shut the glass door again.

“0.0000g” will be displayed and the balance will return to the weighing mode.

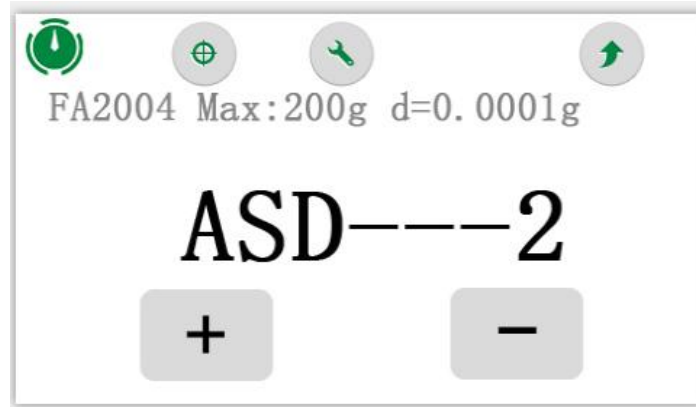


## D.Menu

1.Pls enter to setting screen.



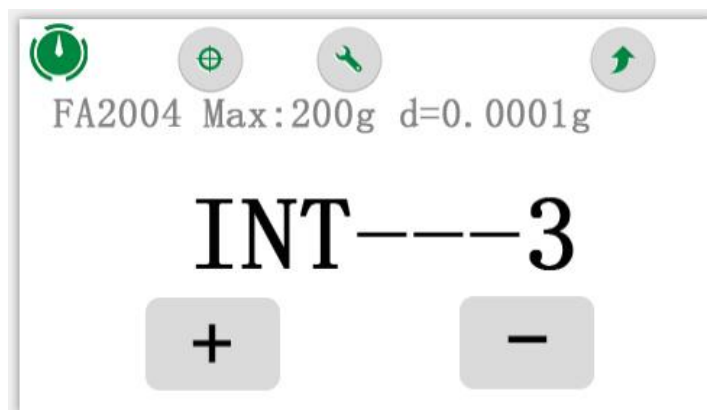
2. Press **ASD** to set the sensitivity.



Pls press "+" or "-" to choose the sensitivity to match the environment,

- ASD-0 The highest sensitivity
- ASD-1 The high sensitivity
- ASD-2 The normal sensitivity
- ASD-3 The poor sensitivity for bad environment.

3. Press Int to set the speed.



Pls press "+" or "-" to choose the speed.

- INT-0-----Highest Speed
- INT-1-----High Speed
- INT-2-----Normal Speed
- INT-3-----Low Speed

## Trouble shooting and solutions

Malfunction	Cause	Elimination
No display	No power supply; Something wrong with fuse; Power transformer is broken;	Plug in adapter; Change the fuse; Change the power transformer; If it is broken again, please send it to the maintenance department to repair'
Unstable display	Bad working condition; The windshield is open; Something between the scale pan and working table. The power exceeds its permissible value and is unstable; Unstable goods (moisture evaporation)	Improve the working condition, avoid vibration and airflow; Close the windshield; Take out eyewinker; Connect 220V AC power supply;
Difference between displayed value and actual value	The scale hasn't been calibrated;	Calibration
	Not turn to zero; Not horizontal;	Tare; Adjust level;

## Maintenance

FA/DT-A series multifunctional electronic balance is an exact intelligent measured instrument, it needs maintenance.

- 1 ) Press the keys with hands other than sharp objects(such as pencils and ball-point pen);
- 2) Don't let the goods fall from high to the scale pan.
- 3) Don't expose the scale under high humidity and high dust.
- 4) Cover the scale with hood after use.
- 5) Keep the scale clean and dry.

### Attention:

Before cleaning, pull out the power supply;

Don't use caustic cleanser (such as solvent).

Add some neutral detergent to gentle cloth to clean the scale.

Don't drop the water into the scale.

Dry the scale after cleaning.

## Components

Serial No.	Content	No.
1	Main scale	1
2	Scale pan	1
3	Adapter	1
4	Product manual	1
5	Calibrated weight	1
6	Cleaning cloth	1