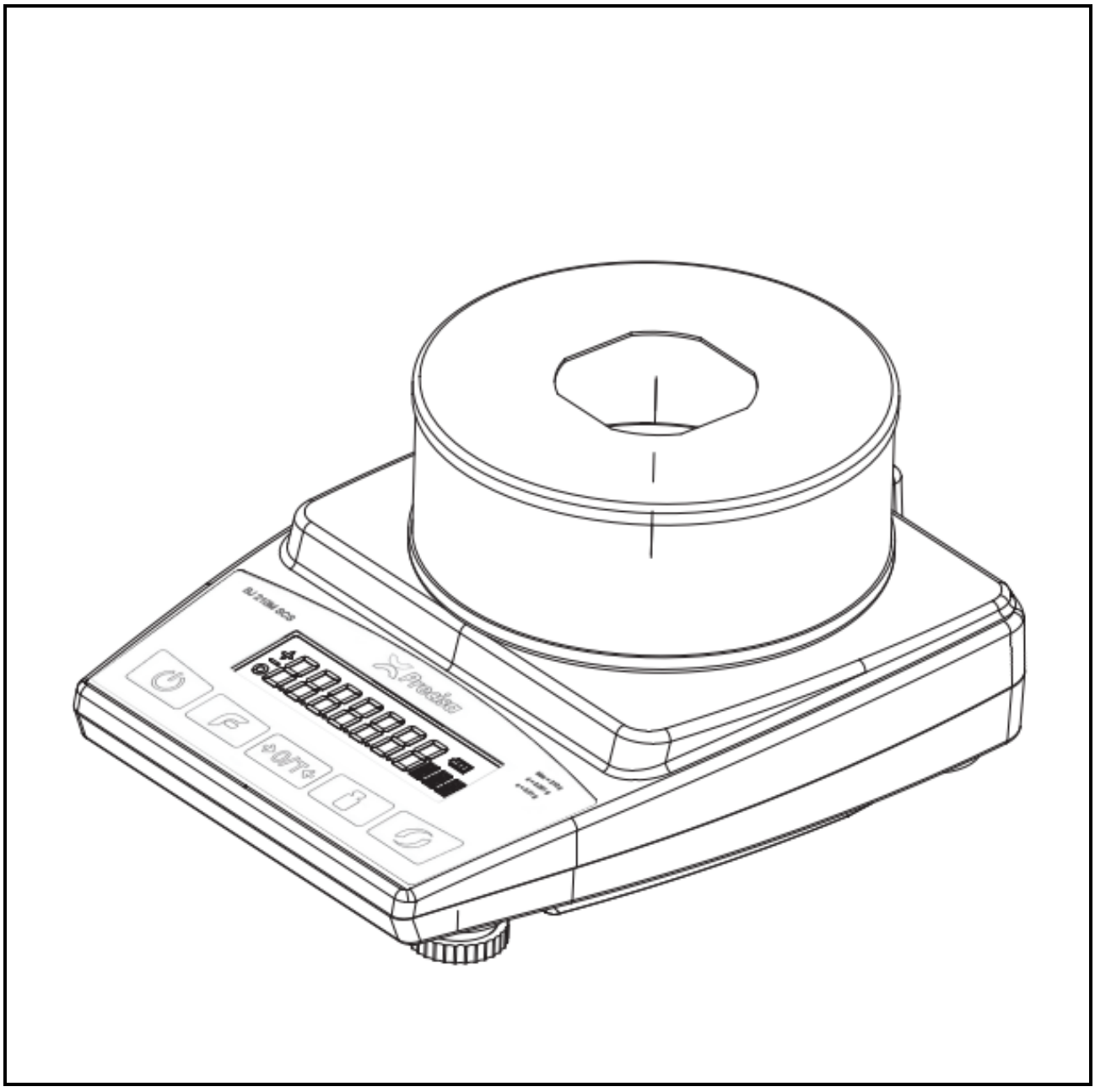
167 BJ



Operating Instructions

350-8195-000 a3

Precisa
THE BALANCE OF QUALITY

Conformity

Declaration of conformity

Declaration of conformity for apparatus with CE mark
Konformitätserklärung für Geräte mit CE-Zeichen
Déclaration de conformité pour appareils portant la marque CE
Declaración de conformidad para aparatos con disitintivo CE
Dichiarazione di cofnromitá per apparecchi contrassegnati con la marcatura CE

English	We hereby declare that the product to which this declaration refers conforms with the following standards.
Deutsch	Wir erklären hiermit, dass das Produkt, auf das sich diese Erklärung bezieht, mit den nachstehenden Normen übereinstimmt.
Français	Nous déclarons avec cela responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.
Español	Manifestamos en la presente que el producto al que se refiere esta declaración est´´a de acuerdo con las normas siguientes
Italiano	Dichiariamo con ciò che il prodotto al quale la presente dichiarazione si riferisce è conforme alle norme di seguito citate.

Electronic Balance: Precisa Series 167 BJ

Mark applied	EU Directive	Standards
CE	2014/30/EU 2014/35/EU	EN 61326 EN 61010

Date: 01.02.2024

Signature:

S. Wander General Manager

Precisa Gravimetrics AG , Moosmattstrasse 32 , Postfach 352 , CH-8953 Dietikon

Safety Instructions

When the balance is used in environments with increased safety requirements, the relevant precautions must be taken.

- Before plugging in the power adapter, verify that the operating voltage stated on the power adapter is the same as the power supply voltage.
- The balance may only be operated with the power adapter and power cable supplied.
- Be sure to hold the plug, not the cable, when disconnecting the device from an electrical outlet.
- If the cable or the power adapter or its cable is damaged, unplug the device immediately from the electrical outlet and keep it from inadvertent operation.
- If safe operation of the balance is not possible, it must be disconnected from the power supply and secured against unintentional use.
- Do not operate the device in an area subject to explosion risks or caustic atmospheres.
- Take care when handling liquids, that no liquid is spilled into the inside of the balance, on connections of the device, on the power cable and the power adapter. Should this nevertheless happen, unplug the device immediately from the electrical outlet and keep it from inadvertent operation. The balance may only be operated again after a re-check made by a service technician.
- The device may only be used for weighing solid materials, liquids filled into secure containers, and for running applications designed especially for the device.
- Do not exceed the maximum permissible load of the balance.

When using the balance in combination with other appliances made by the original manufacturers as well as with appliances produced by other manufacturers, the current regulations for the safe use of the relevant attachments and their application in accordance with instructions must always be observed.

DANGER
Do not use this instrument in hazardous environments (e.g., the air, if the surrounding environment contains gases, water vapor, smoke, flammable dust, and other explosive and flammable substances). Use under these conditions may result in injury to personnel or damage to equipment.

DANGER
Before connecting the device to the mains, be sure that the operating voltage stated on the device and on the power adapter and power cable agrees with the local mains voltage. If it doesn't, the equipment must not be connected to the mains at all!

NOTE
If any damage or injury occurs, liability and responsibility rest with the user.

Identification, Support and Copyright

Subject to technical modifications.

Refer to our website for information about local customer service centers and details of their addresses. **www.precisa.com**

Table of Contents

1 Your New Balance

Thank you for purchasing a new Precisa balance from the 167 BJ Series.

1.1 About this manual

This manual has been written to help you working with your new balance. Read this manual thoroughly before use and keep it where all those who use the instrument will read it.

1.1.1 Symbols and conventions

DANGER
Warning of a possible danger which can lead to death or serious physical injuries.

WARNING
Warning of a possibly dangerous situation which can lead to less severe injuries or damage.

NOTE
Tips and important rules on the correct operation of the balance.

1.2 Unpacking

Our balances are delivered in packages which provide optimum protection during transportation. To avoid damage, attention must be given to the following points when unpacking the balance:

- Unpack the balance carefully. It is a precision instrument.
- When outside temperatures are very low, the balance should be first stored for some hours in the unopened transport package in a dry room at normal temperature, so that no condensation settles on the balance when unpacking.
- Check the balance immediately after unpacking for externally visible damage. Should you find transport damage, please inform your service representative immediately.
- If the balance is not to be used immediately after purchase, it should be stored in a dry place where fluctuations in temperature are as low as possible.

NOTE
Retain the original packaging in order to avoid damaging the balance during shipping or transport and to enable the balance to be stored in ideal conditions (5 .. 40°C / 41 .. 104°F) when out of use for long periods.

1.3 Transport and shipping

- Your balance is a precision instrument. Treat it with care.
- Avoid shaking, severe impacts and vibrations during transportation.
- Ensure that there are no significant temperature fluctuations during transportation and that the balance does not become damp (condensation).

NOTE
The balance should preferably be dispatched and transported in the original packaging to avoid transportation damage.

1.4 Storage

When taking the balance out of service for an extended period, disconnect it from the mains, clean it thoroughly and store it in a place which meets the following conditions:

- No violent shaking, no vibrations
- No significant temperature fluctuations
- No direct solar radiation
- No moisture

1.5 Overview

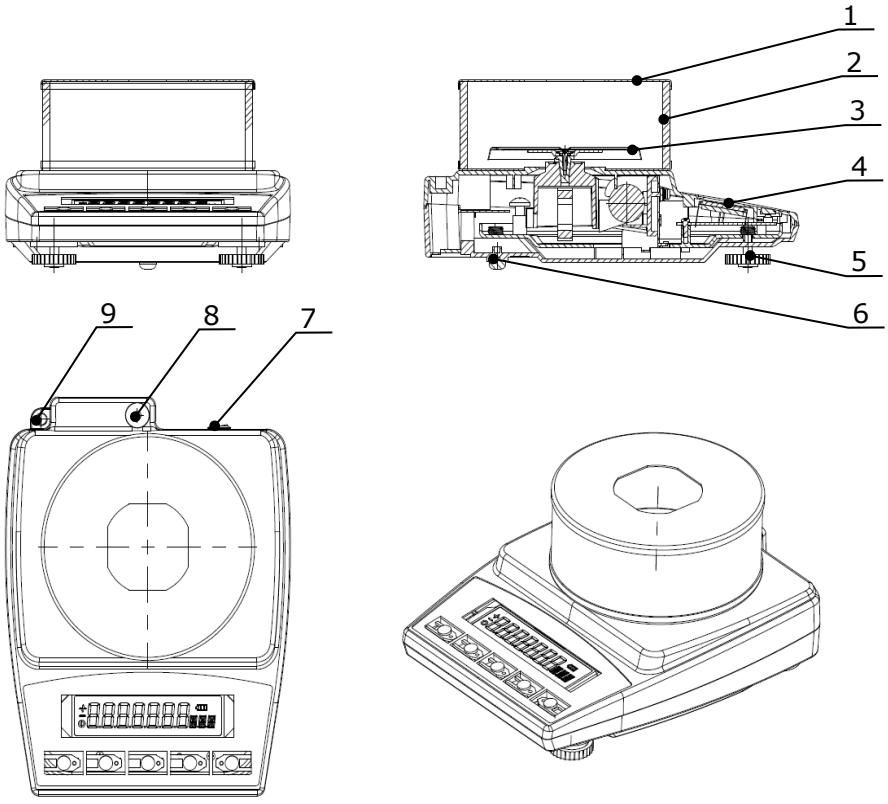
Founded 1935 in Switzerland, Precisa, manufacturer of high-precision laboratory balances, is one of the world's leading electronic balance brands. With its core weighing technology and the concept of "quality first" and "pioneering and innovation", Precisa provides high-precision weighing products and solutions to global customers and partners, including micro balances, analytical balances, precision balances, electronic balances, moisture analyzers and automatic moisture and ash analyzers.

The Precisa BJ Series of electronic balances are portable in design and are available in four models, namely BJ-M (0.001 g), BJ-C (0.01 g), BJ-D (0.1 g) and BJ-G (1 g), with weighing ranges from 110 g to 12’100 g.

1.6 Inspection and assembly

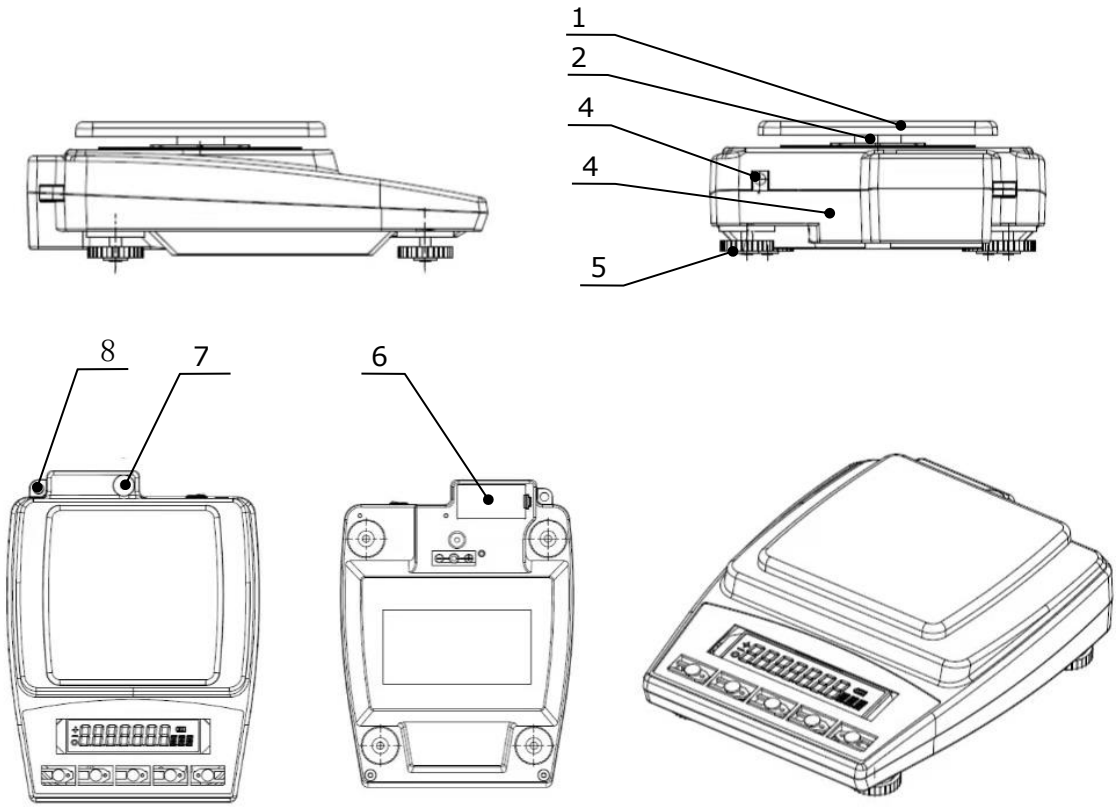
The BJ Series electronic balances are composed of weighing pan, compact casing, levelling bubble, adjusting feet and power adapter. The balances are shipped in one package. Put on the weighing pan, adjust the balance level, plug in the power adapter, and the balance installation is completed.

Components supplied with 167 BJ-M balance



1. Draft shield cover
2. Draft shield
3. Weighing pan
4. Balance housing
5. Adjustable feet (2 pcs).
6. Fixed legs
7. Power adapter socket
8. Levelling bubble
9. Anti-theft protection

Components supplied with 167 BJ-C/D/G balance



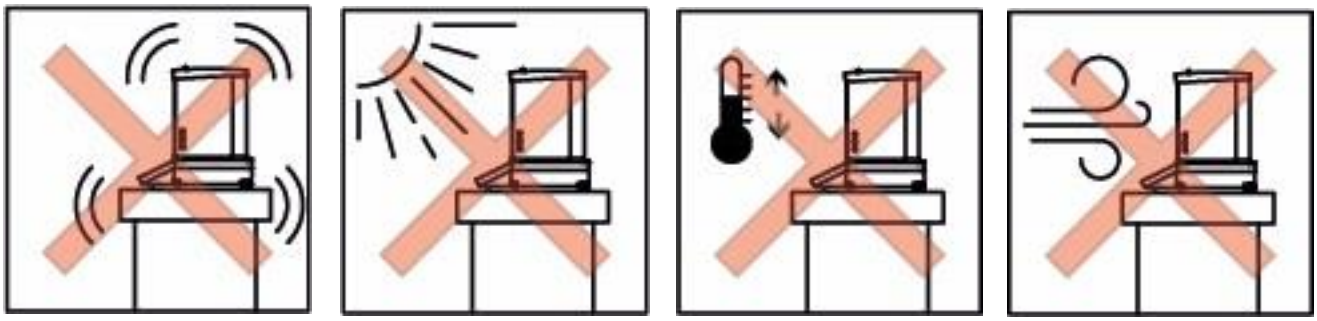
1. Weighing pan
2. Weighing pan bracket
3. Power adapter socket
4. Balance housing
5. Adjustable feet (4 pcs.).
6. Battery cover
7. Levelling bubble
8. Anti-theft protection

2 Basics

2.1 Choosing a suitable location

The balance location must be chosen in such a way as to guarantee perfect operation of your balance, so that the allowable ambient conditions and prerequisites are met and maintained:

- Place the balance on a solid, firm and vibration-proof, horizontal base.
- Protect the balance from direct solar radiation.
- Avoid drafts and excessive temperature fluctuations.
- Ensure the balance cannot be shaken or knocked over.



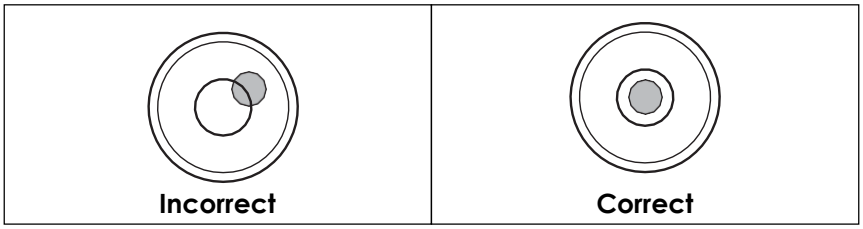
NOTE
With difficult conditions (where the balance may be easily shaken or subject to vibration) the balance can nevertheless provide accurate results through suitable adjustment of the stability control, see Error! Reference source not found.**.**

2.2 Levelling

To function properly, the balance must be precisely horizontal.

The balance is fitted with one spirit level and two adjustable feet for level-control, with the aid of which it is possible to compensate for small height differences and/or unevenness of the surface on which the balance is standing.

The two screw feet must be adjusted so that the air bubble is precisely in the centre of the sight glass of the bubble level.



NOTE
To get exact measurements, the balance must again be carefully levelled after each relocation.

3 Discover the Balance

The balance is equipped with a well readable backlight display and five operation keys. These provide tactile feedback during operation.

3.1 Keypad

The five operation keys serve to perform the most used operations as:

Keys	Designation	Function in programming mode
	On/Off	• Power on/off
	Settings	• Set parameters (Press long) • Print (Press quickly)
	Zeroing / Taring	• Zeroing/taring • Enter/Exit Function
	Calibration	• External calibration (press quickly), Press long if balance features SCS • Internal calibration (short press)
	Change units	• Change units • Parameter adjustments

3.2 Display (Basic Weighing Mode)

Display Instructions:

1. Weighing status indication "+" (normal weighing), "-" (weight loss), "O" (reading stabilized)
2. Weight
3. Range utilization indication
4. Range markers ("0%" and "100%")
5. Weighing speed indication (>>>)
6. Application icons (animal weighing "mouse", peak hold "P", etc.)
7. Weighing unit indication
8. Automatic calibration interval (BJ-M SCS type only)
9. Weighing Sensitivity Indication "SSS"

3.3 Turning on the balance

Press  to turn on the balance. The balance performs a self-diagnosis to check the most important functions. After the start-up process (about 10 s), "0.000" is displayed and the balance is warmed up according to the technical specifications.

The balance needs to be calibrated before operation, as described in Section 3.4.

The following safety recommendations must be observed when connecting the balance to the mains:

DANGER
The balance may only be operated with the power adapter and power cable supplied.
Before connecting the device to the mains, be sure that the operating voltage stated on the device and on the power adapter and power cable agrees with the local mains voltage. If it doesn't, the equipment must not be connected to the mains at all!

- Connect the balance to the mains with the supplied power adapter and power cable.
- Turn on the balance by pressing  . The balance starts and halts at the user screen.

NOTE
To get exact measurements, ensure the balance has reached its operating temperature.

3.4 Adjusting the balance

Due to the different gravitational forces in various parts of the earth, each electronic balance must be adjusted to compensate for the gravitational forces. This process must be conducted after the initial installation and after each subsequent relocation. To get exact measurements and to follow Good Laboratory Practice (GLP), it is recommended that the balance should also be adjusted periodically.

The calibration of BJ Series balances usually uses an external single-point calibration, but if required an external three-point calibration can also be selected. At the same time, the "BJ-M SCS" electronic balance with an internal calibration function is also available with internal calibration and internal weight correction functions.

3.4.1 Single-point external calibration

Press and hold the calibration button to enter the single-point external calibration mode. Follow the steps below:

1. The balance is turned on and the weighing pan is emptied.
2. Press  and the balance shows "0.000".
3. Press and hold  (about 4 s), the balance will display "CAL----" and indicate the required mass of the calibration weight "xxxx" and flash.
4. Place the weight as indicated and the balance displays "-------".
5. After a short beep is heard, the balance is calibrated, and the current weight is displayed.
6. The weight is removed, the balance returns to zero and displays "0.000". The calibration is complete.

3.4.2 Three-point external calibration

In the shutdown state, press and hold the calibration button. Then also press the power switch to turn on the power to enter the three-point external calibration interface. Follow the steps below:

1. The balance is turned off, and the weighing pan is emptied.
2. Press and hold  . Also press  and release both at the same time, the balance displays "CAL----" and indicates the mass of the calibration weight 1 to be placed "xxxx" and flashes (see Table 3).
3. Place the weight according to the prompt weight 1, and after the display of "-------", the mass of the calibration weight 2 "xxxx" is prompted, and the weight 2 "xxxx" starts to flash when the weight is removed.
4. Place the weight according to the prompt weight 2, and after displaying "-------", the weight of the weight 3 "xxxx" is prompted, and the weight 3 "xxxx" starts to flash when the weight is removed.
5. Place the weight according to the indicated weight 3, display "-------" and then "CAL-".
6. After the three-point calibration is completed, the "BJ-M SCS" electronic balance automatically enters the internal weight calibration, displaying "CAL-Int" and "------".
7. When a long beep is heard, the balance displays the boot version number and the maximum capacity.
8. The balance returns to zero and displays "0.000", and the calibration is complete.

3.4.3 Internal calibration

For the "BJ-M SCS" with internal calibration function, press the calibration button to enter the internal calibration of the balance. Follow the steps below to perform the internal calibration operation:

1. The balance is turned on and the weighing pan is emptied.
2. Press  and the balance shows "0.000".
3. Press  and the balance will display "CAL---- and then "CAL. Int", which goes into the internal calibration (internal weights are raised and lowered).
4. When calibrated internally, the balance displays "------".
5. When a long beep is heard, the balance returns to zero and displays "0.000". The calibration is complete.

Furthermore

1. The internal calibration function can be set on or off. See Section 4.8.
2. The internal calibration can be started manually or automatically, automatically calibrating according to time intervals. See Section 4.9.

3.4.4 Internal weight correction

For "BJ-M SCS" balances with internal calibration, the internal weights can be corrected (/adjusted) by pressing the setting and unit switch keys at the same time. Follow the steps below:

1. The balance is turned on and the weighing pan is emptied.
2. Press 

and the balance shows "0.000".
3. Press  and  at the same time, and the balance prompts to place the weight "xxxx" and flashes.
4. Place the weights according to the indicated weight, and the balance will display "------" and "CAL----".
5. When the weights are removed, the balance displays "CAL----" and "CAL-Int" to automatically enter the internal calibration function, and the balance always displays "------" with the sound of the weights rising and lowering.
6. When a long beep is heard, the balance returns to zero and displays "0.000". The internal weight correction is complete.

4 Set Up

4.1 Entering and exiting the settings

The parameters that can be set for 167 BJ Series balances include UNIT, SPEED, STAB sensitivity, COU counting, PCT percentage weighing, PEAK peak hold, ANI animal weighing, BAUD baud rate, PRINT output mode, and E-CAL external calibration, INCAL-S internal calibration, AUTOCAL automatic calibration DATE, T time, START-D automatic zero clearance range, CREEP creep compensation and DEFAULT factory reset, etc.

Press and hold  (about 6 s) to enter the balance settings.

Press continuously  to switch to different settings to be adjusted.

Press 

to confirm the settings that need to be adjusted.

Press  to adjust the parameter values in the respective setting.

Press 

to confirm the parameter adjustment and return to the main display.

4.2 Unit of measure setting

Press directly  to select and set different units of measurement (UNIT), including g (gram), mg (milligram), ct (carat), oz (ounce), etc.

4.3 Weighing speed settings

There are four levels of weighing speed (SPEED), which are represented by the arrow ">", that is, "[ ]" (extra slow), ">" (slow), ">>" (medium speed) and ">>>" (fast). The weighing speed becomes faster and users can choose the setting according to their own weighing needs.
Select SPEED in Settings and confirm to set the corresponding weighing speed.

4.4 Weighing sensitivity settings

There are four levels of weighing sensitivity (STAB), which are represented by a wave "S", i.e. "[ ]" (very sensitive), "S" (sensitive), "SS" (sluggish) and "SSS" (very sluggish). The balances can thus be adjusted to potential interference factors (e.g. wind drafts) in the working environment according to weighing requirements.
Chose Weighing Sensitivity (STAB) and confirm in Settings to set the corresponding Weighing Sensitivity (STAB).

4.5 Counting and weighing settings

Chose Count Weighing (COU) in the setup and confirm to set the number of reference samples, including 5 pcs, 10 pcs, 20 pcs, 50 pcs, 100 pcs and 200 pcs.

Press  , the balance displays "WEIGHT", press 

to exit the counting and weighing settings, and return to the main weighing display.

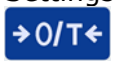
4.6 E-CAL external calibration settings

Chose External Calibration (E-CAL) in Settings and confirm to enter External Calibration.

If it is malfunctioning, you can press  . End Calibration to return to the main weighing display.

4.7 Percentage weight settings

Chose Percentage Weighing (PCT) in Settings and confirm to enter Percentage Weighting.

Put in 100% reference weight, press 

and the balance displays 100.00 PCT. Remove the reference weight, put the sample on the weighing pan and the balance will show the corresponding percentage.

Press  , the balance displays "WEIGHT", press 

to exit the percentage weighing, and return to the main weighing interface.

4.8 Internal calibration settings

In the settings, choose Internal Calibration (INCAL-S) and confirm, and you can choose to set the Internal Calibration function on (ON) or off (OFF).

4.9 Automatic calibration time setting

In the settings, choose internal calibration (AUTOCAL) and confirm to set the time interval of automatic calibration, including 10 min, 20 min, 30 min, 40 min, 50 min, and 60 min, 70 min, 80 min, or 90 min. You can also select OFF min to turn off the automatic internal calibration function.

The auto-calibration interval for this setting will be displayed at the bottom right of the display.

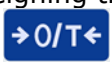
4.10 Peak hold setting

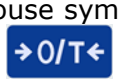
In the settings, select Peak Hold (PEAK) and confirm. Here you can choose to set the Peak Hold function on (ON) or off (OFF).

4.11 Animal weighing settings

Select Animal Weighing (ANI) in Settings and confirm to enter. The animal weighing function can be selected to be on (ON) or off (OFF).

When the Select Animal Weighing function is turned on, in the lower right side of the balance display the mouse symbol appears.

In the state of animal weighing, press and hold  and  at the same time and select the animal weighing time. Push  to shift the cursor and  to increment the value. Finally, press  to confirm to adjust and exit.

In the animal weighing state (the mouse symbol appears), the animal is placed on the weighing pan for 2 s, and then press and hold  (the mouse symbol flashes) to select the animal weighing time lock.

After the weighing is completed, you can turn off (OFF) the animal weighing mode in the settings to return to the normal weighing state.

4.12 Baud rate setting

Select “Baud Rate” in Settings and confirm, you can choose to set the Baud rate, including 9600, 4800, 2400 or 1200.

4.13 Printout settings

In the settings, select "PRINT" and confirm to set the printout method, including CO-R (continuous real-time), CO-S (continuous stability), or ONCE (single print).

4.14 Date setting

Select DATE in the settings and confirm to set the day/month/year, press  to adjust the corresponding number, press  to confirm and move the cursor, and finally press  to confirm the day/month/year settings.

Press and hold  to view current settings, long press  to exit.

4.15 Time setting

Select the time (T) in the settings and confirm, you can set the seconds/minutes/hour. Press  to adjust the corresponding number, press  to confirm and move the cursor. Finally press  to confirm the seconds/minutes/hour settings.

Press and hold  to view current settings, and press and hold  to exit.

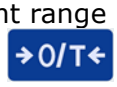
4.16 Set the range of automatic clearing when the power is turned on

In the settings, select "START-D" and confirm to set the start-up auto-zero range, and select 1d, 2d, 3d, 4d, 5d, or 10d.

4.17 Creep compensation settings

Select Creep Compensation (CREEP) in Settings and confirm to set the creep compensation factor and select 0d, 5d, or 10d.

4.18 Volume adjustment

In the shutdown state, press  and press  at the same time, and enter the range adjustment option after briefly displaying the current range (RANGE), press  to switch the range, press  to confirm the adjustment, and  to automatically enter the main weighing interface.

4.19 Factory reset

In the settings, press Factory Reset (DEFAULT) and confirm to restore all factory settings.

5 Working with the Balance

5.1 Overview

Precisa 167 BJ Series electronic balance, portable design, AC and DC dual-purpose, using LCD liquid crystal display, more functions, including basic weighing and counting, percentage, peak hold, animal weighing, etc.

1. Basic weighing: basic weighing and clearing, peeling, calibration, unit of measurement conversion, etc.
2. Counting: Take a part of the test sample for reference, define the weight and number of the reference samples, and weigh the total number of samples to obtain the total number of pieces.
3. Percentage Weighing: Set the current reference weight to 100%. Reload with any sample to automatically display the percentage of the measured sample relative to the reference weight.
4. Peak holder: The electronic balance records the peaks that occur during the weighing process.
5. Animal weighing: The electronic balance takes a sample and derives the final weight within a set sampling interval (typically 3 s to 10 s).

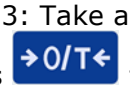
5.2 Basic weighing

Basic weighing includes basic weighing, as well as clearing, peeling, unit of measurement conversion, external calibration (single point, three points), internal calibration (optional for some models), etc.

5.3 Counting and weighing

Step 1: Continuously press  select the Count Weighing (COU) function, press  to confirm.

Step 2: Set the number of sample pieces (5 pcs, 10 pcs, 10 pcs, 50 pcs, 100 pcs or 200 pcs), press  to confirm.

Step 3: Take a reference sample (corresponding to the number of samples selected), weigh it, press  to confirm. The balance displays the number of samples set.

Step 4: Remove the reference sample and the balance shows "0 pcs".

Step 5: Weigh the sample to be measured to get the number of samples - ----- count.

Exit counting function: press and hold  , the balance will display "WEIGHT", exit the count mode by pressing  and return to the main weighing interface.

5.4 Percentage weighing

Step 1: Continuously press  to select the Percentage (PCT) function, press  to confirm.

Step 2: Put on the reference sample, press  and the balance shows "100.00 PCT".

Step 3: Remove the reference sample and the balance shows "0.00 PCT".

Step 4: Place any sample to be measured and the balance will automatically display the sample as a percentage of the weight relative to the reference sample.

Exit the percentage weighing function: press and hold  the balance will display "WEIGHT", exit the count mode by pressing  and return to the main weighing interface..

5.5 Peak hold

Step 1: Continuously press  to enter the Peak Hold (PEAK) function, select "ON" and press  to confirm, "P" appears at the bottom right of the balance display.

Step 2: The sample is weighed and the balance continuously shows the peaks that occur during the weighing process. Press  to cancel the peak display.

Exit the peak hold function: Press and hold  to the peak hold, select "OFF" and press  to confirm to exit the peak hold and return to the main weighing interface.

5.6 Animal weighing

Step 1: Hold and press  to enter the Animal Weighing (ANI) function, select "ON" and press  to confirm. The "Little Mouse" symbol will be displayed at the bottom right of the balance display.

Step 2: While the animal is weighed (a mouse symbol appears), press and hold  and  to set the sampling time for the animal to weigh (usually 3 s to 10 s). Push  to shift the cursor and  to increment the value. Finally, press  to confirm the adjustment of the "Sample Time".

Step 3: In the animal weighing state (the "little mouse" symbol appears), press and hold  (the "little mouse" symbol flashes), and select the animal weighing time lock.

To exit the animal weighing function: Hold and press  to the animal weighing application (ANI), select "OFF" and press  to confirm and to exit the animal weighing, returning to the main weighing display.

6 Common Faults and Troubleshooting

If your balance has one of the following faults, you can analyze the cause according to Table 4 and troubleshoot them step by step.
Once the fault cannot be eliminated, please contact the Precisa after-sales service engineer or its authorized agent as soon as possible.

Fault phenomenon	Possible causes	Exclusion scenarios
The display is not working	1. The power supply is abnormal. 2. The fuse is broken. 3. The power adapter is damaged. 4. The chip is damaged, and the memory is lost. 5. The display cable is loose.	1. Eliminate power outages, reconnect to the power supply, and better new batteries (if battery powered). 2. Replace the fuse. 3. Replace the power adapter (original factory configuration). 4. Return to the factory to replace the motherboard. 5. Check the cable connecting the motherboard to the display.
Weighing data is unstable	1. Harsh working environment. 2. There is a foreign object either under the balance or between the chassis and the weighing pan. 3. Mechanical stagnation inside the scale body. 4. The power supply voltage is unstable. 5. Load cell failure.	1. Eliminate airflow, vibration interference and temperature changes. 2. Check the balance and the weighing pan to eliminate foreign objects and level the balance. 3. Open the balance lid and check and rule out stuttering. The upper cover screws do not have to be overtightened. 4. Check the power supply voltage and grounding.
The weighing data is inaccurate	1. The balance has not been calibrated for a long time. 2. The balance is not level. 3. The plastic foil is not peeled off before weighing.	1. To recalibrate the balance, a three-point external calibration is recommended (see 3.4.1, 3.4.2, weight class: F1 and above). 2. If the balance has SCS internal calibration function, make sure to turn on and set the appropriate automatic calibration time interval. External weights are often used to check and correct internal weights (see 3.4.3). 3. Check the balance level to make sure the bubble is centered within the black circle. 4. Weigh after peeling the plastic foil.
Overload tips	1. The sample weight exceeds the maximum capacity. 2. The balance has not been calibrated for a long time.	1. Make sure that the weighing range is not exceeded. 2. Recalibrate the balance.
Load alarm	1. After zeroing, the load is weighed. 2. The weighing pan is not placed or is incorrect.	1. Re-weigh after peeling the plastic foil. 2. Place the correct weighing pan/weighing pan bracket.

7 Maintenance, Repairs

Your balance is a precision instrument that should be treated with care and cleaned and maintained regularly.

DANGER
To clean and maintain the balance, the balance must be powered off (unplugging the power adapter from the outlet).
At the same time, make sure that the balance will not be reconnected to the power supply due to a third-party during maintenance.
When cleaning, be careful not to allow liquids to flow into the device.
If liquid is spilled on the balance, the balance must be disconnected from the mains immediately. It can only be used again after inspection by a maintenance engineer.
Neither the connections on the back of the device nor the power adapter can come into contact with liquids.

Regularly remove the weighing pan and weighing pan support, remove dirt or dust under the weighing pan and inside the balance with a soft brush, and wipe the balance housing with a soft lint-free cloth dipped in mild detergent.
The weighing pan and supports can be rinsed in running water. It must be determined before re-following it.

NOTE
Do not use solvents, acids, alkalis, paint thinners, scrubbing powders, or other corrosive chemicals.
These substances can damage the surface of the balance housing and cause hazards.

Precisa and its authorized agents regularly and professionally maintain and the balance to ensure the accuracy and integrity and extend the service life of your electronic balance.