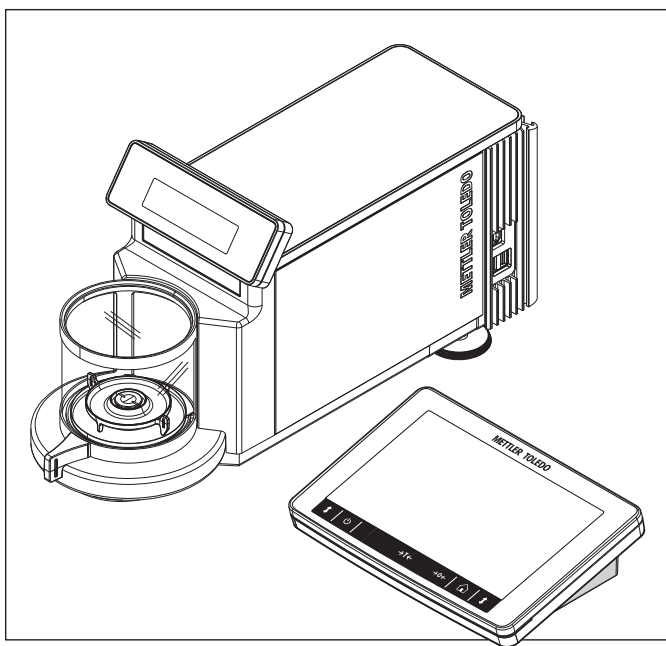


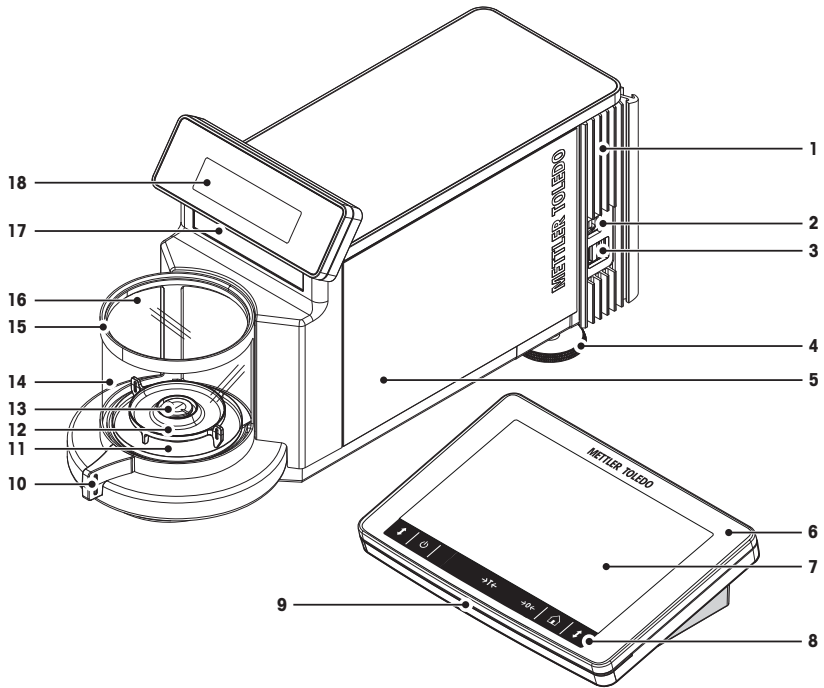
Microbalances

XPR2, XPR2U, XPR6U, XPR6UD5, XPR10



METTLER TOLEDO

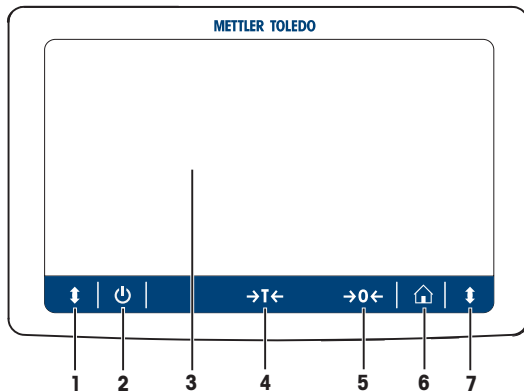
Overview Balance









Balance Table

1	Cooling element	10	Door handle
2	USB device	11	Weighing chamber plate
3	USB host	12	Drip tray
4	Leveling screw	13	Weighing pan
5	Weighing unit	14	Weighing chamber
6	Terminal	15	Glass draft shield
7	Capacitive color TFT touch screen	16	Glass draft shield cover
8	Terminal buttons	17	Model plate
9	Terminal StatusLight	18	Weighing display (SmartView)

Overview Terminal



Terminal Table

No.	Key	Name	Explanation
1		Door open	Opens the weighing chamber door to the left (default value).
2		ON/OFF	Switches the balance on and off
3		Capacitive TFT touch screen	General navigation
4		Tare	Tares the balance
5		Zero	Zeros the balance
6		Home	To return from any menu level to the main weighing screen.
7		Door open	Opens the weighing chamber door to the right (default value).

1 Disclaimer for comparators

In this document "balance" is a terminology preamble and stands for comparators.

Due to the high resolutions and differential weighing application, comparators are tested with differential measurement only. Therefore the specification values defined are to be tested with differential methods only.

This information is valid for models of the line/s:

- XPR6U

2 Safety Information

2.1 Definition of signal warnings and symbols

Safety notes are marked with signal words and warning symbols. These show safety issues and warnings. Ignoring the safety notes may lead to personal injury, damage to the instrument, malfunctions and false results.

WARNING for a hazardous situation with medium risk, possibly resulting in severe injuries or death if not avoided.

CAUTION for a hazardous situation with low risk, resulting in damage to the device or the property or in loss of data, or minor or medium injuries if not avoided.

NOTICE (no symbol)
for important information about the product.



General hazard



Electrical shock

2.2 Product safety information

Intended use

Your balance is used for weighing. Use the balance exclusively for this purpose. Any other type of use and operation beyond the limits of technical specifications without written consent from Mettler-Toledo GmbH, is considered as not intended.



It is not permitted to use the instrument in explosive atmosphere of gases, steam, fog, dust and flammable dust (hazardous environments).

General safety information

This balance complies with current industry standards and the recognized safety regulations; however, it can constitute a hazard in use. Do not open the balance housing: The balance contains no user-serviceable parts. In the event of problems, please contact a METTLER TOLEDO representative.

Always operate and use your instrument only in accordance with the instructions contained in this document. The instructions for setting up your new instrument must be strictly observed.

If the instrument is not used according to the Operating Instructions, protection of the instrument may be impaired and METTLER TOLEDO assumes no liability.

Staff safety

These operating instructions must be read and understood before using the balance. These operating instructions must be retained for future reference.

The balance must not be altered or modified in any way. Only use METTLER TOLEDO original spare parts and accessories.

Safety notes



CAUTION

Damage to the balance

- 1 Only use indoors in dry locations.
- 2 Do not use pointed objects to operate the touch screen!
The balance is of a very sturdy design, but is still a precision instrument. It must be handled with care.
- 3 Do not open the balance:
The balance contains no user-serviceable parts. In the event of problems, please contact a METTLER TOLEDO representative.
- 4 Only use METTLER TOLEDO original accessories and peripheral devices for the balance.
These are specifically designed for the balance.



WARNING

Risk of electric shock

Use only the original universal AC/DC adapter delivered with your balance, and check that the voltage printed on it is the same as your local power supply voltage. Only plug the adapter into a socket which is grounded.

3 Installation and Putting into Operation

This section describes how to set the new instrument into operation.

Finding more information

<http://www.mt.com/xpr-microbalances>

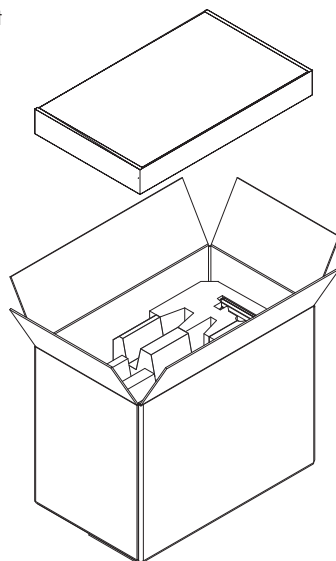
3.1 Unpacking the balance

Open the balance packaging and check the balance for transportation damages. Please inform a METTLER TOLEDO representative in the event of missing parts.

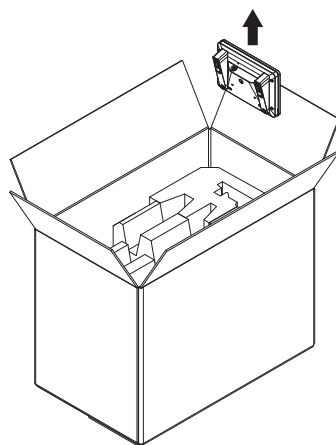
NOTICE

We recommend retaining all parts of the packaging. The packaging offers the best protection for transporting the balance over long distances.

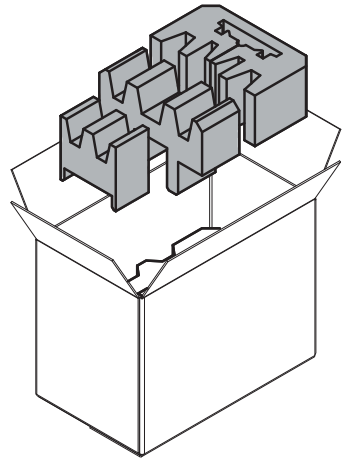
- 1 Open the packaging box and lift the inner cardboard box out of the packaging box. The cardboard box contains material that is used for setting up the balance.



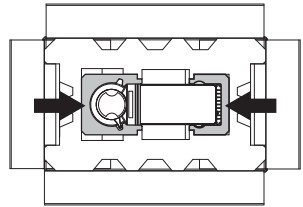
- 2 Remove the terminal from the box.



- 3 Remove the upper foam elements.



- 4 Remove the two foam elements around the weighing unit.
- 5 Remove the weighing unit from the package.

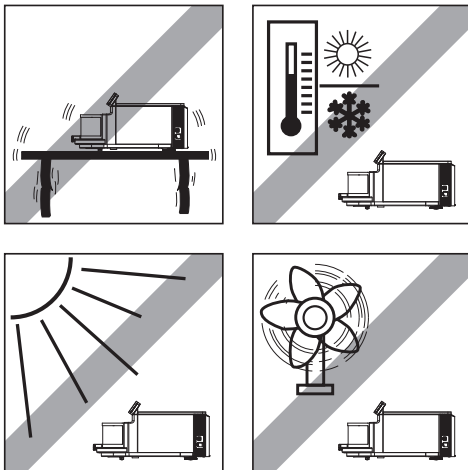


3.2 Scope of delivery

	XPR2	XPR2U	XPR6U	XPR6UD5	XPR10
Weighing unit	✓	✓	✓	✓	✓
Terminal	✓	✓	✓	✓	✓
Terminal connection cable	✓	✓	✓	✓	✓
Weighing pan (Ø 16 mm)	-	✓	✓	-	-
Weighing pan (Ø 27 mm)	✓	-	-	✓	✓
Hook weighing pan	-	-	✓	-	-
Drip tray XPR	✓	-	-	✓	✓
Drip tray XPRU	-	✓	✓	-	-
Weighing chamber plate	✓	✓	✓	✓	✓
Draft shield cover glass	✓	✓	✓	✓	✓
Table set with tweezers, cleaning brush, pen and USB storage device	✓	✓	✓	✓	✓
Universal AC adapter with country-specific power cable	✓	✓	✓	✓	✓
User Manual	✓	✓	✓	✓	✓
Operating Instructions printed or on CD-ROM (country-specific)	✓	✓	✓	✓	✓
EC declaration of conformity	✓	✓	✓	✓	✓
Production certificate	✓	✓	✓	✓	✓

3.3 Selecting the location

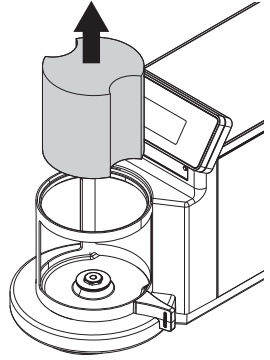
A Microbalance is a sensitive precision instrument. The location where it is placed will have a profound effect on the accuracy of the weighing results. Choose a stable surface that is as horizontal as possible. The surface must be able to safely carry the weight of a fully loaded balance.



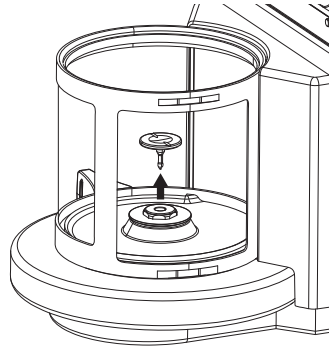
3.4 Assembling the balance

After checking the scope of delivery, unpacking the balance and after finding a proper location the balance must be assembled. The assembly parts described in this section can be found in the cardboard box at the top of the package.

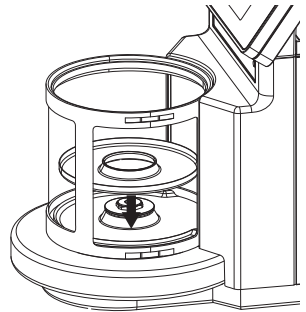
- 1 Remove the shipping lock from the weighing chamber.



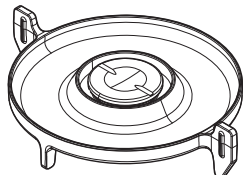
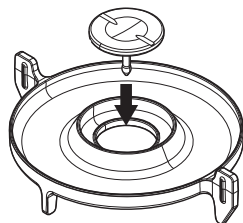
- 2 Open the weighing chamber door and remove the weighing pan from the weighing chamber.



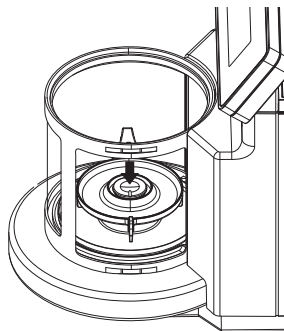
- 3 Place the weighing chamber plate into the weighing chamber.



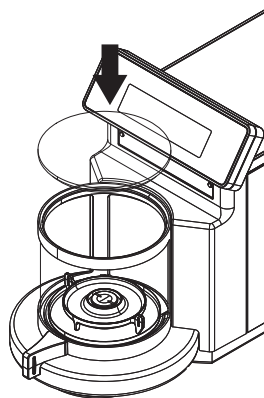
- 4 Place the weighing pan in the middle of the drip tray.



- 5 Center the drip tray with the weighing pan in the middle of the weighing chamber.

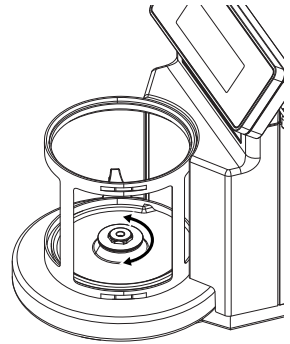


- 6 Close the weighing chamber and place the draft shield cover glass on top of the weighing chamber.

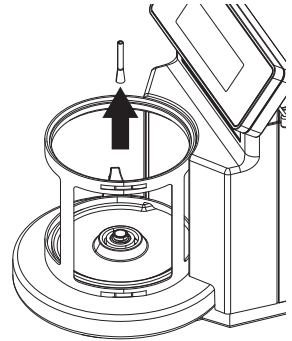


3.4.1 Installing the hook weighing pan (only for models XPR6U)

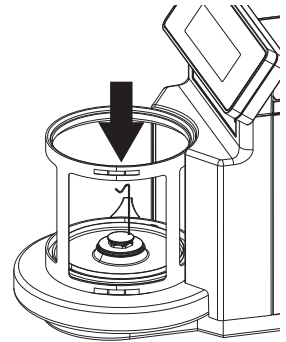
- Remove the draft shield nut and the reduction from the weighing chamber.



- 1 Use the tweezers to remove the weighing pan holder.
- 2 re-assemble the draft shield nut and the reduction in the weighing chamber.



- Install the hook weighing pan in the weighing chamber. Carefully turn the weighing pan until it drops slightly down into lock position.



3.4.2 Connecting the Terminal with the weighing unit

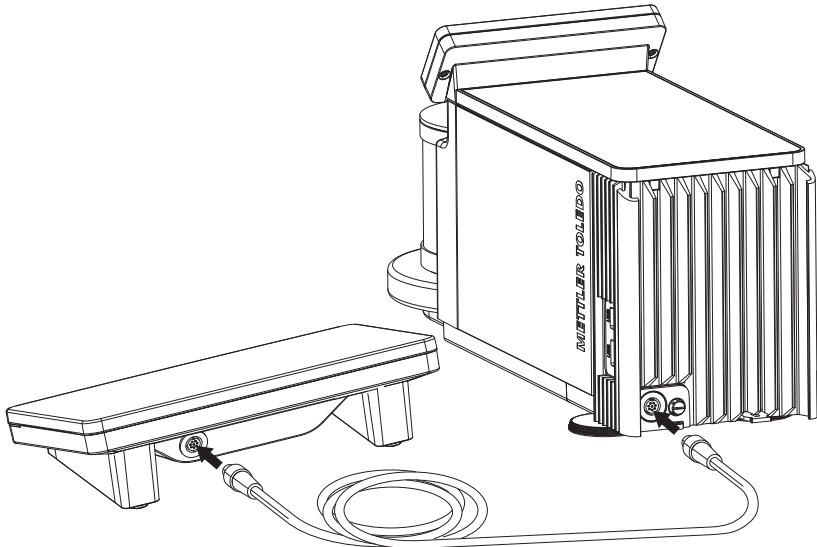
Use the connection cable for connecting the terminal with the weighing unit.



CAUTION

Don't unplug the terminal during operation.

Unplugging the terminal during operation can cause data loss and can affect the functionality of the balance.



3.5 Connecting the balance to the mains



WARNING

Risk of electric shock

- 1 To connect the balance, only use the supplied three-core power cable with equipment grounding conductor.
- 2 Only connect the balance to a three-pin power socket with earthing contact.
- 3 Only standardized extension cable with equipment grounding conductor must be used for operation of the balance.
- 4 Intentional disconnection of the equipment grounding conductor is forbidden.

The balance is supplied with an AC adapter and a country-specific power cable. The AC adapter is suitable for use with the following voltage range:

100 – 240 V AC, 50/60 Hz.

CAUTION

- Check whether your local power supply falls within this range. If this is not the case, under no circumstances connect the AC adapter to the power supply, but contact a METTLER TOLEDO representative.
- The power plug must be accessible at all times.
- Prior to use, check the power cable for damage.
- Route the cable in such a way that it cannot be damaged or cause a hindrance when working.
- Ensure that no liquid comes into contact with the AC adapter.

3.6 Setting up the balance

This section describes how to set up the balance.

3.6.1 Switching on the balance

When the balance is connected to the mains it starts automatically.

3.6.2 Switching off the balance

NOTICE

To completely switch off the balance it must be disconnected from the mains. By holding [⏻] the balance goes only into sleep mode.

3.6.3 Setting the balance to sleep mode

After the balance has been connected to the mains, the balance can be set to sleep mode by holding [⏻]. The sleep mode can be finished by holding [⏻] again.

3.6.4 Leveling the balance

When the balance is switched on for the first time or when it is switched on after the location of the balance has changed, the message **Balance is out of level** appears. By tapping on [▶] the function **Leveling aid** opens. Follow the instructions on the screen to level the balance.

NOTICE

The balance must always be levelled. Exact horizontal positioning and stable installation are prerequisites for accurate weighing results.

Navigation:

[▶] **Balance menu** > [☉] **Leveling aid**



When the balance is leveled the background becomes green, the terminal status light becomes green as well.

3.6.5 Performing a simple weighing

After commissioning the new balance, the first weighing can be carried out. This will also familiarize you with the operation of the balance.

When the balance is switched on for the first time, the method work screen of the method **General Weighing** opens (the elements of the method work screen are being described in the section Method work screen).

Zeroing

- 1 Clear the weighing pan.
- 2 Close the weighing chamber.
- 3 Tap [→0←] to zero the balance.

Taring

If a weighing container is used, the balance must be tared.

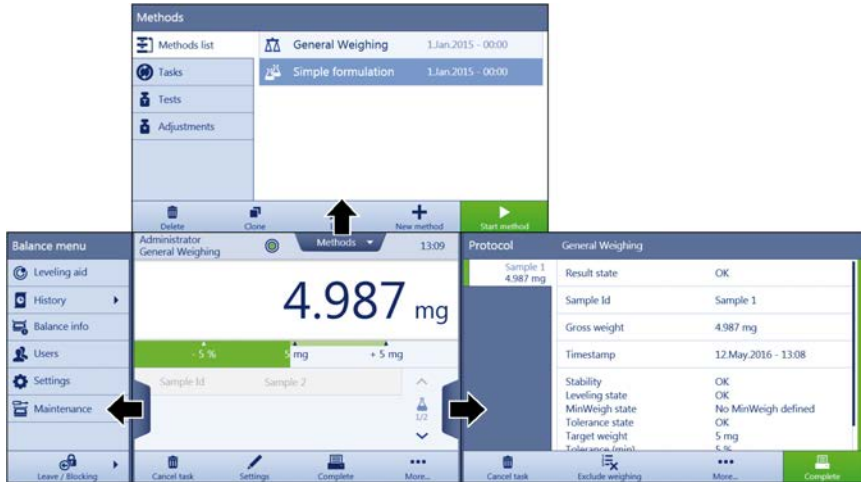
- 1 Clear the weighing pan.
- 2 Close the weighing chamber.
- 3 Tap [→T←] to tare the balance.

4 Basic navigation

This section describes, how to navigate on the touch screen.

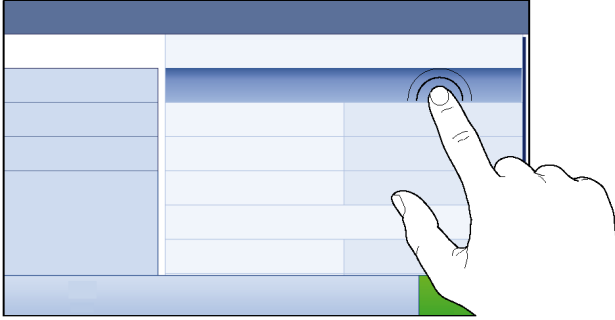
4.1 Main sections at a glance

The method work screen is the central navigation point where all the menus and settings can be reached (the picture shows the method work screen of the method **General Weighing**). The sections **Balance menu**, **Methods** and **Protocol** can be opened by tapping on the drawers along the method work screen.



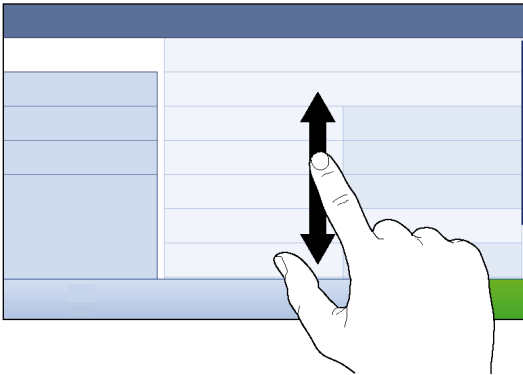
4.2 Opening a section/function

A menu item or a function can be selected or activated by tapping on it.



4.3 Scrolling

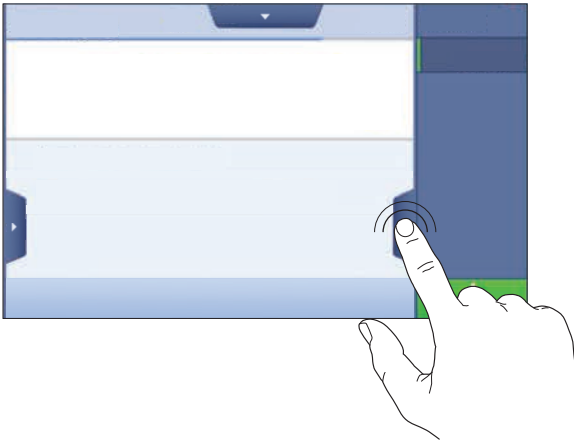
If a list of available options or results is longer than the size of the screen, a scroll bar appears on the right side of the list. Place the finger on the list and move the finger up and down to scroll through the list.



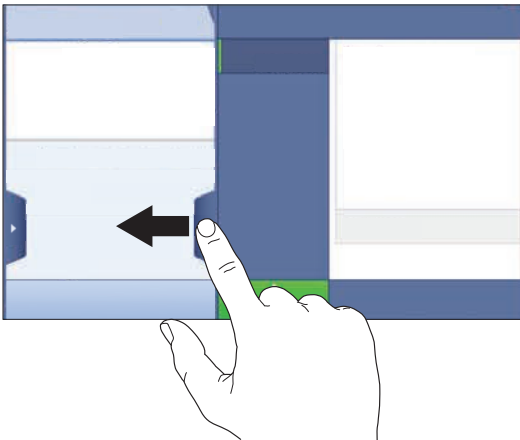
4.4 Using the drawer

This sections explains how to use the drawers. The drawers are placed along the sides of the method work screen.

- 1 Place the finger on the drawer [◀] along the right side of the screen.



- 2 Keep the finger on the drawer and move it to the left.



NOTICE

The sections can also be opened or closed by tapping on the drawer symbol.

5 Maintenance

5.1 Cleaning

Periodically clean the weighing chamber, the housing, and the terminal of your balance. For cleaning the weighing chamber use the brush supplied with it. The maintenance interval depends on your standard operating procedure (SOP).



WARNING

Risk of electric shock

- 1 Disconnect the balance from the power supply prior to cleaning and maintenance.
- 2 Only use METTLER TOLEDO power cords, if these need to be replaced.
- 3 Ensure that no liquid comes into contact with the balance, terminal or AC adapter.
- 4 Do not open the balance, terminal or AC adapter. These contain no user-serviceable parts.



CAUTION

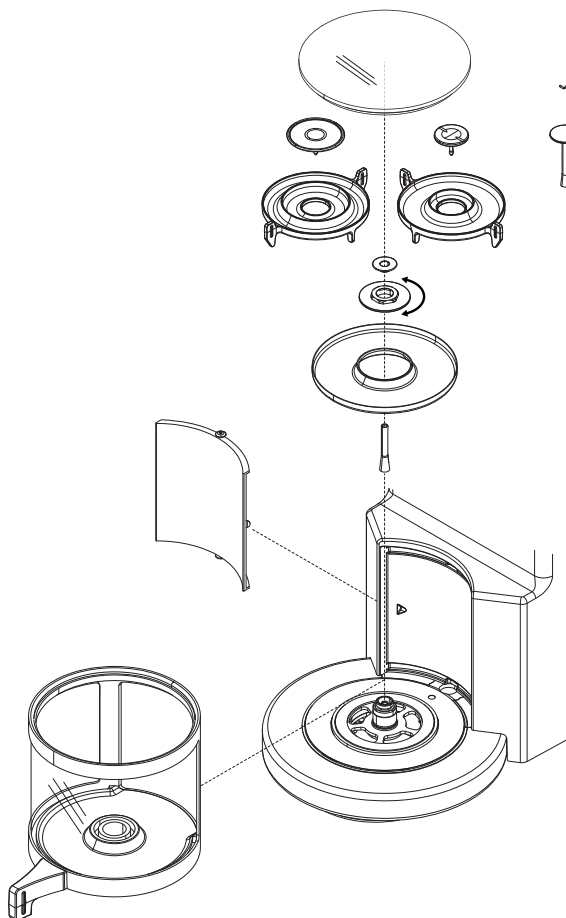
Damage of balance

On no account use cleaning agents which contain solvents or abrasive ingredients, as this can result in damage to the terminal overlay.

NOTICE

The balance is made of high quality, resistant materials and can therefore be cleaned with a commercially available, mild cleaning agent.

- 1 To clean the weighing chamber thoroughly, remove the weighing chamber plate with the weighing pan and the drip tray from the weighing chamber, unscrew the draft shield nut and remove the weighing chamber.
- 2 For re-assembling these parts make sure that they are in the same order.



NOTICE

Please contact your METTLER TOLEDO dealer for details of the available service options. Regular servicing by an authorized service engineer ensures constant accuracy for years to come and prolongs the life of your balance.

5.2 Disposal

In conformance with the European Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE) this device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements.

Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment. If you have any questions, please contact the responsible authority or the distributor from which you purchased this device. Should this device be passed on to other parties (for private or professional use), the content of this regulation must also be related.

Thank you for your contribution to environmental protection.



6 General data

Power supply

AC adapter:	Primary: 100 – 240 V AC, -15%/+10%, 50/60 Hz Secondary: 12 V DC $\pm 3\%$, 2.5 A (with electronic overload protection)
Cable for AC adapter:	3-core, with country-specific plug
Balance power supply:	12 V DC $\pm 3\%$, 2.25 A, maximum ripple: 80 mVpp

Protection and standards

Overvoltage category:	II
Degree of pollution:	2
Standards for safety and EMC:	See Declaration of Conformity
Range of application:	For use only in closed interior rooms

Environmental conditions

Height above mean sea level:	Up to 4000 m
Ambient temperature:	10–30 °C
Relative air humidity:	Max. 80% up to 31 °C, linearly decreasing to 50% at 40 °C, noncondensing
Warm-up time:	24 hours after connecting the balance to the power supply; when switched on from standby-mode, the balance is ready for operation immediately.

Environmental conditions for XPR6U

Ambient temperature:	18 - 27 °C ± 0.3 °C / 1h; ± 0.5 °C / 12h
Relative air humidity:	40% up to 60% $\pm 5\%$ / 4h
Maximum air speed	0.15 m / sec

Materials

Housing:	Die-cast aluminum, plastic, chrome steel and glass
Terminal:	Die-cast zinc, chromed and plastics
Weighing pan:	Aluminum, chromed (AlMgSi1 coated chem Ni 15 μm , Cr 0.3 – 0.5 μm)

GWP®

Good Weighing Practice™

GWP® is the global weighing standard, ensuring consistent accuracy of weighing processes, applicable to all equipment from any manufacturer. It helps to:

- Choose the appropriate balance or scale
- Calibrate and operate your weighing equipment with security
- Comply with quality and compliance standards in laboratory and manufacturing

 www.mt.com/GWP

www.mt.com/xpr-microbalances

For more information

Mettler-Toledo GmbH
Im Langacher 44
8606 Greifensee, Switzerland
www.mt.com/contact

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