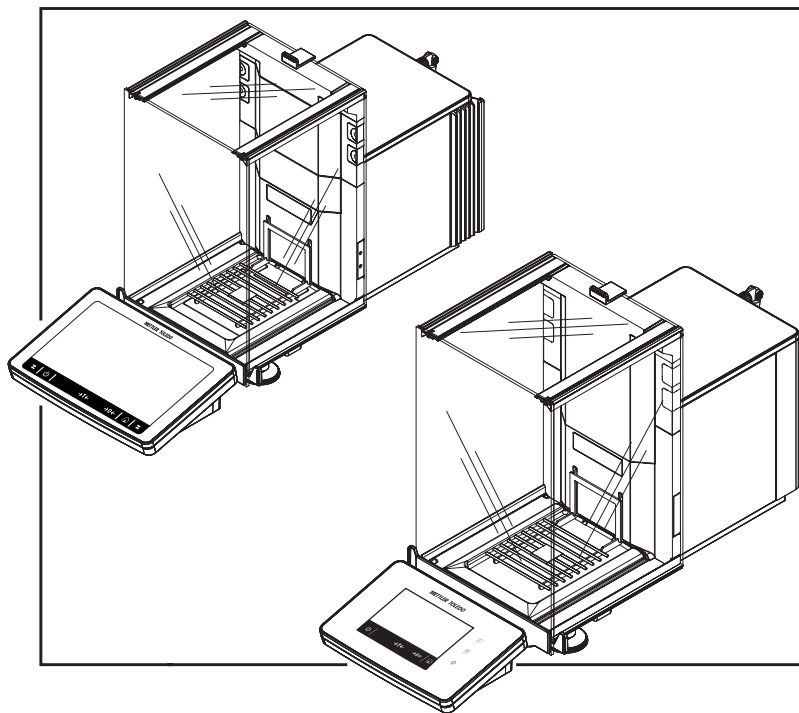


# Analytical Balances and Comparators

XPR / XSR



METTLER TOLEDO





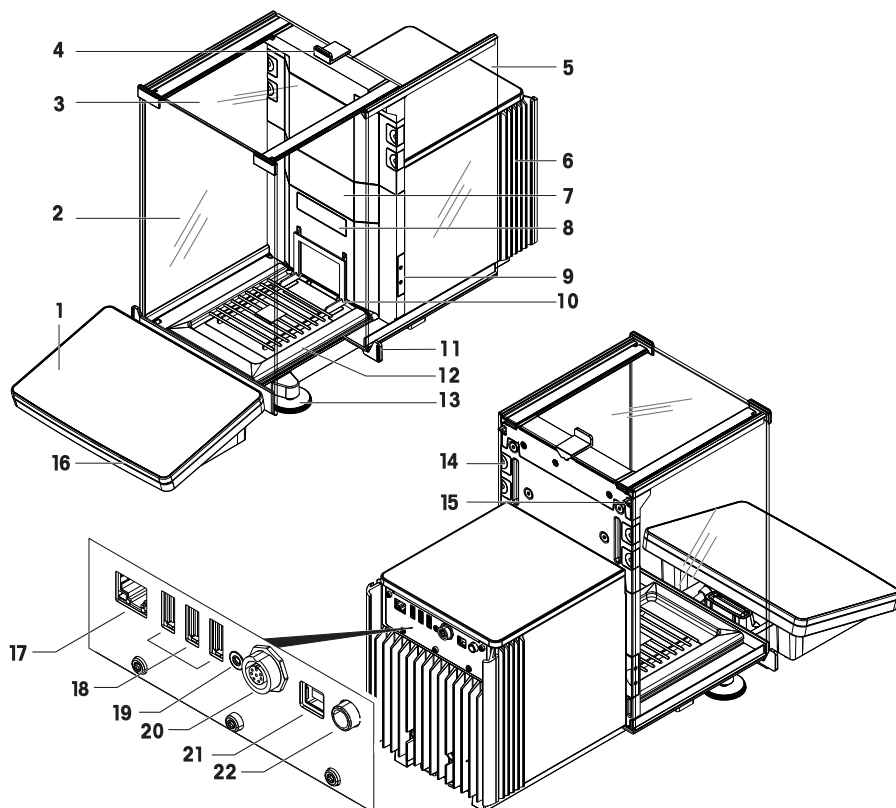
This User Manual is a brief instruction that provides information to handle with the first steps of the instrument in a safe and efficient manner. Personnel must have carefully read and understood this manual before performing any tasks.

For full information, always consult and download the Reference Manual (RM).

▶ [www.mt.com/XPR-analytical-RM](http://www.mt.com/XPR-analytical-RM)

▶ [www.mt.com/XSR-analytical-RM](http://www.mt.com/XSR-analytical-RM)

## Product Overview

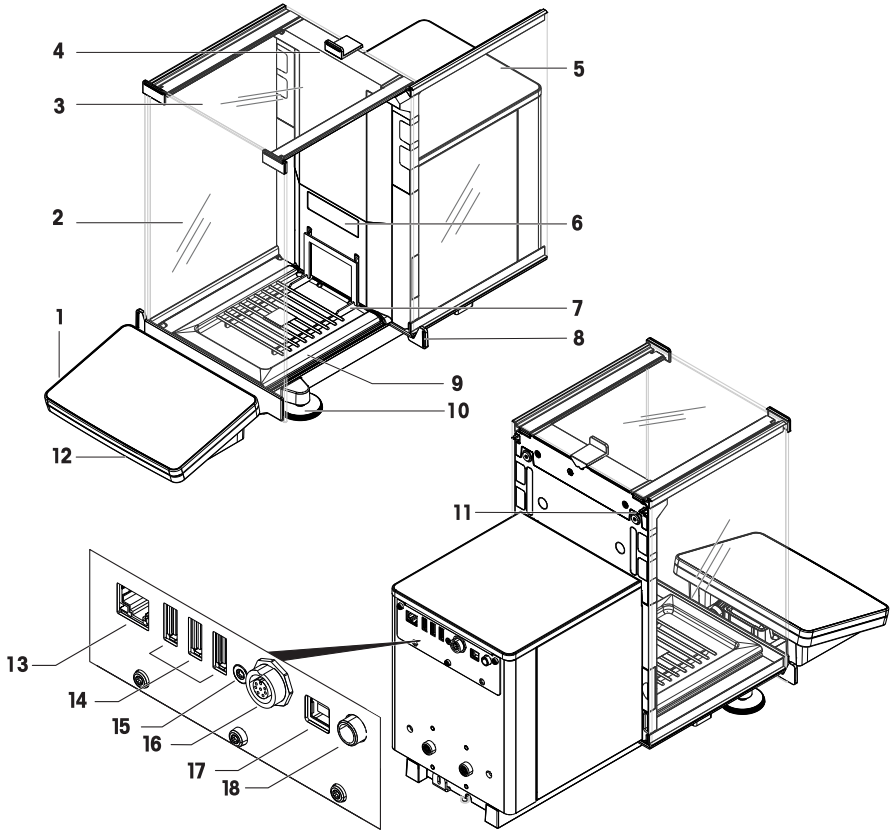


### Legend XPR Analytical Balances

1	Terminal	12	Drip tray
2	Front panel draft shield	13	Leveling feet
3	Top door draft shield	14	Removable clips
4	Handle for top door	15	Side door release lever
5	Side door draft shield (right/left)	16	Status light
6	Cooling unit	17	Ethernet port
7	Slot for the installation of an internal module e.g. ionizer module	18	USB host port
8	Balance type designation plate	19	Service seal
9	Optical sensor SmartSens	20	Socket for terminal connection cable
10	Weighing pan	21	USB device ports
11	Door handle	22	Socket for power adapter



## Product Overview

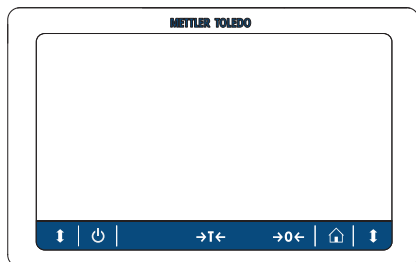


### Legend XSR Analytical Balances

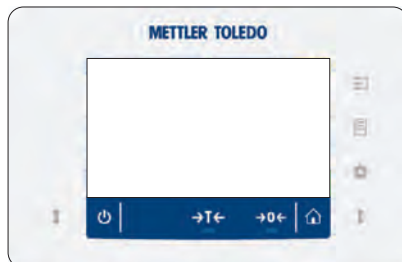
1	Terminal	10	Leveling feet
2	Front panel draft shield	11	Side door release lever
3	Top door draft shield	12	Status light
4	Handle for top door	13	Ethernet port
5	Side door draft shield (right/left)	14	USB device ports
6	Balance type designation plate	15	Service seal
7	Weighing pan	16	Socket for terminal connection cable
8	Door handle	17	USB host port
9	Drip tray	18	Socket for power adapter

## Terminal Overview

XPR



XSR



ON/OFF	Tare	Zero	Home	Door open

### Only for XSR-Terminal

Methods	Protocol	Balance menu

## 1 Safety Informations

Two documents named "User Manual" and "Reference Manual" are available for this instrument.

- The User Manual is printed and delivered with the instrument.
- The electronic Reference Manual contains a full description of the instrument and its use.
- Keep both documents for future reference.
- Include both documents if you transfer the instrument to other parties.

Only use the instrument according to the User Manual and the Reference Manual. If you do not use the instrument according to these documents or if the instrument is modified, the safety of the instrument may be impaired and Mettler-Toledo GmbH assumes no liability.

### 1.1 Further applicable documents



This User Manual is a brief instruction that provides information to handle with the first steps of the instrument in a safe and efficient manner. Personnel must have carefully read and understood this manual before performing any tasks.

For full information, always consult and download the Reference Manual (RM).

► [www.mt.com/XPR-analytical-RM](http://www.mt.com/XPR-analytical-RM)

► [www.mt.com/XSR-analytical-RM](http://www.mt.com/XSR-analytical-RM)

Search for software downloads

► [www.mt.com/labweighing-software-download](http://www.mt.com/labweighing-software-download)

### 1.2 Definition of signal warning 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.



General hazard



Electrical shock

#### WARNING

A hazardous situation with medium risk, possibly resulting in death or severe injury if not avoided.

#### CAUTION

A hazardous situation with low risk, resulting in minor or moderate injury if not avoided.

## NOTICE

A hazardous situation with low risk, resulting in damage to the instrument, other material damage, malfunctions and erroneous results, or loss of data.

### Personal protective equipment



Chemical resistant safety gloves are intended to protect hands against aggressive chemicals.



The protective goggles protect the eyes from flying parts and liquid splashes.

## 1.3 Product specific safety notes

### Intended use

This instrument is intended to be used by trained staff. The instrument is intended for weighing purposes. 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.

Intended use also includes compliance with all the instruction in this User Manual and the Reference Manual (RM).

### Responsibilities of the instrument owner

The instrument owner is the person holding the legal title to the instrument and who uses the instrument or authorizes any person to use it, or the person who is deemed by law to be the operator of the instrument. The instrument owner is responsible for the safety of all users of the instrument and third parties.

METTLER TOLEDO assumes that the instrument owner trains users to safely use the instrument in their workplace and deal with potential hazards. METTLER TOLEDO assumes that the instrument owner provides the necessary protective gear.

### Trained personnel

Persons performing weighing processes must fulfill the following basic knowledge requirements regarding the handling of METTLER TOLEDO instruments and associated software:

- Are able to complete the tasks entrusted to them and independently detect and avoid any possible dangers.
- Have expertise and experience as well as their familiarity with all applicable regulations.
- Able to prove that they have undergone training.

### 1.3.1 Safety notes



#### **⚠ WARNING**

##### **Risk of death or serious injury due to electric shock**

Contact with parts that carry a live current can lead to death or injury.

- 1 Only use the approved METTLER TOLEDO power supply cable and AC/DC adapter with a current-limited SELV output.
- 2 Connect the power cable to a grounded power outlet, ensure correct polarity.
- 3 Keep all electrical cables and connections away from liquids and moisture.
- 4 Check the cables and power plug for damage and replace damaged cables and power plugs.

### 1.3.2 Accessories and spare parts



#### NOTICE

**Risk of damage in due to the wrong parts are used.**

Through the use of the wrong or defective parts, dangers for personnel can occur and damage, malfunction or total instrument failure can occur.

- 1 Use only original parts supplied or approved by the manufacturer.
- 2 Always contact the manufacturer if there are questions.

---

Only purchase parts from Mettler-Toledo GmbH. A listing of all parts can be found in the Reference Manual (RM).

## 2 Installation and Putting into Operation

### 2.1 Scope of delivery

The delivery contains the following components:

Balance	Documentation
<ul style="list-style-type: none"> <li>• Weighing unit</li> <li>• Draft shield</li> <li>• Drip tray and weighing pan</li> <li>• Terminal with terminal holder and terminal connection cable</li> <li>• AC/DC adapter with country-specific power cable</li> <li>• MC Link Software (only Comparators)</li> </ul>	<ul style="list-style-type: none"> <li>• User Manual</li> <li>• Production certificate</li> <li>• CE declaration of conformity</li> </ul>
Table set	Accessories
<ul style="list-style-type: none"> <li>• 1 pair of tweezers</li> <li>• 2 spatulas</li> <li>• 1 brush</li> </ul>	<ul style="list-style-type: none"> <li>• 1 ErgoClip basket</li> <li>• 2 SmartPrep</li> </ul>

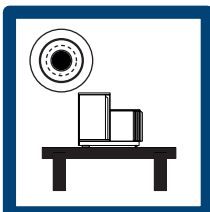
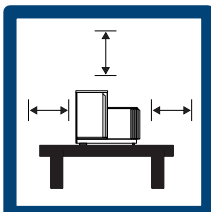
### 2.2 Selecting the location

A balance is a sensitive precision instrument. The location where it is placed will have a profound effect on the accuracy of the weighing results.

#### Requirements of the location

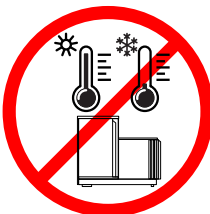
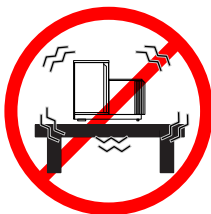
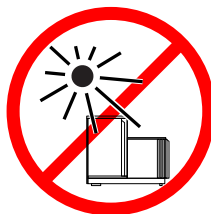
Ensure there is:

- indoor on stable table
- with sufficient distance (> 15 cm)
- in level
- adequately lit



Avoid:

- direct sunlight
- vibrations
- strong drafts
- temperature fluctuations



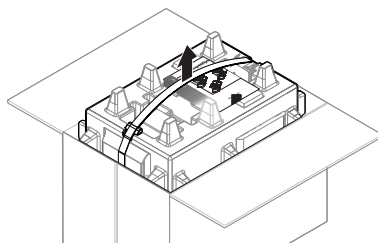
### 2.3 Unpacking the balance

Check the package, the packaging elements and the delivered components for damages. If any components are damaged, please contact your METTLER TOLEDO service representative.

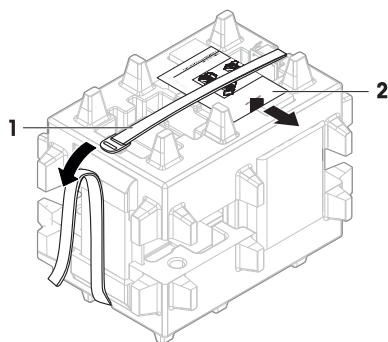
 **Note**

Depending on the balance model, the components may look different. The procedures are always the same.

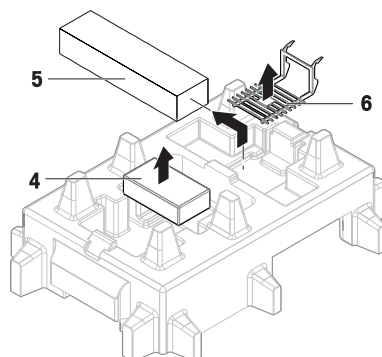
- 1 Open the box and lift the package out.



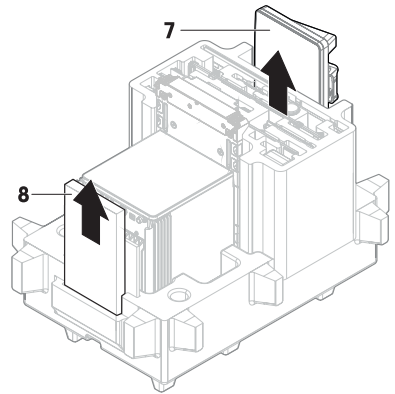
- 2 Open the lifting strap (1) and remove the user manual (2).



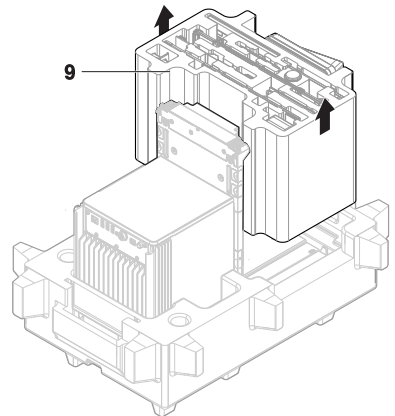
- 3 Remove the upper part of the package and remove the set with the AC adapter with power cable (4), the box of several accessories (5) and the weighing pan (6).



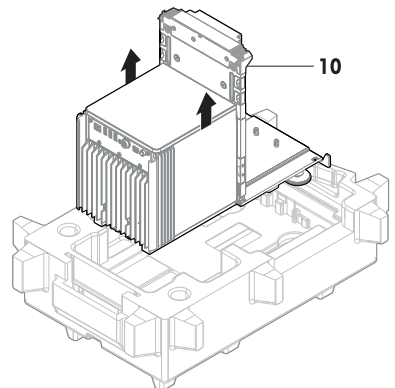
- 4 Carefully remove the terminal (7) on the table set (8).



- 5 Carefully remove the package set with the draft shield doors and the display holder (9).



- 6 Carefully remove the weighing unit (10) from the bottom packaging.  
7 Remove any protective sheets.  
8 Store all parts of packaging in a safe place for future use.  
⇒ The weighing unit is ready for assembling.



 **Note**

Immediately inform a Mettler-Toledo GmbH representative in the event of complaints, damaged parts or missing accessories.

## 2.4 Installation

### 2.4.1 Attaching the terminal

The following procedure describes the assembling of the terminal.



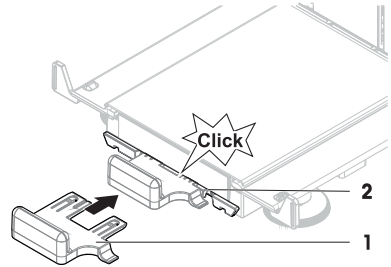
#### NOTICE

##### Risk of damage due to careless handling.

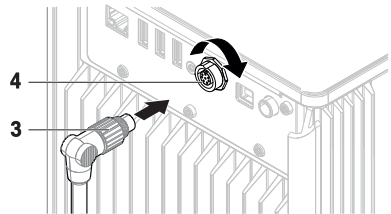
Careless proceeding can damage the connection cable.

- Do not kink or twist the cable!

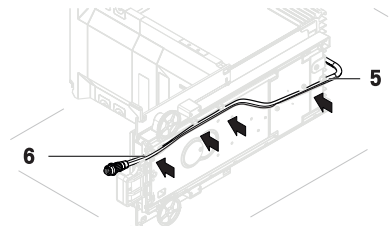
- 1 Insert the slides of the display holder (1) into the front of the weighing unit (2).



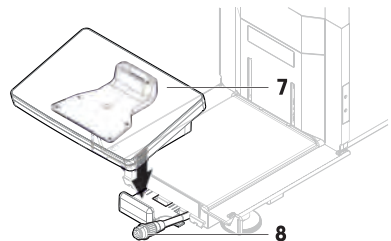
- 2 Insert the angle plug (3) into the socket of the weighing unit (4). Consider the pin assignment.
- 3 Carefully tilt the Weighing unit 90° leftwards.



- 4 Lead the cable (5) through the cable channel to the display holder (6) and tilt the weighing unit upwards again.



- 5 Place the terminal (7) onto the display holder.
  - 6 Insert the cable (8) into the socket. Consider the pin assignment.
- ⇒ The terminal is ready.





## 2.4.2 Assembling the balance



### CAUTION

#### **Risk of injury due to breaking glass.**

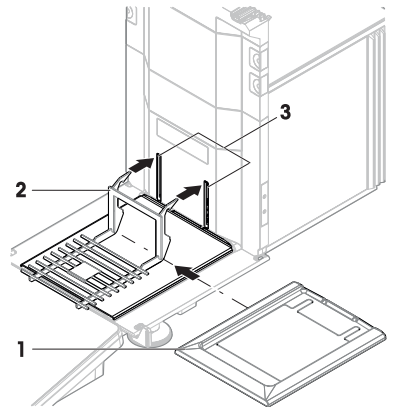
Careless handling with the glass components can lead to breakage of glass and damage cuttings.

- Always proceed focused and with care.

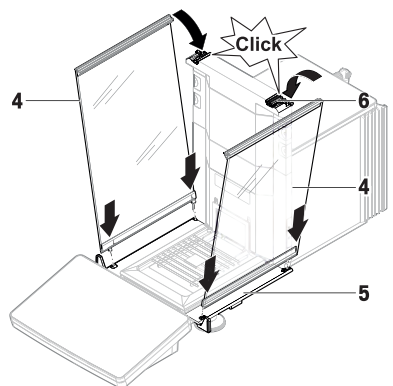
### Note

Depending on the balance model, the components may look different. The procedures are always the same.

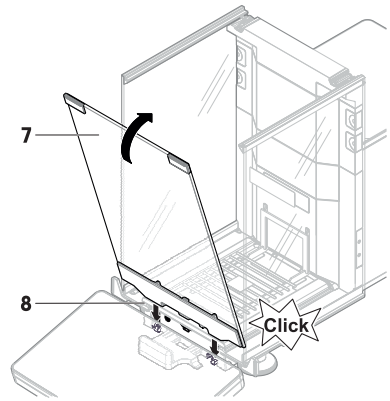
- 1 Insert the drip tray (1).
- 2 Carefully mount the weighing pan (2) onto the hooks (3).



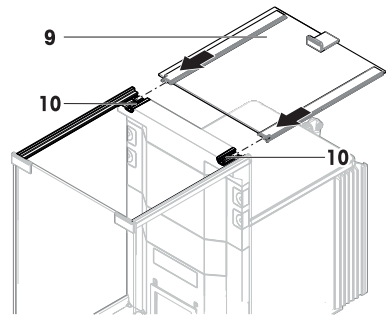
- 3 Place the side doors (4) into the grooves of the door slides (5) and tilt them up until the engage. Consider the marks on the frames below (L = left / R = right).
- 4 Tilt the side panels (4) towards the weighing platform until they engage with the door lever (6).



- 5 Insert the front panel (7) into the grooves (8) and tilt them up until it engage.
- 6 Fit the top door (9) into the slides (10) and push it in.



⇒ The balance is assembled and ready to put into operation.



## 2.5 Putting into operation

### 2.5.1 Connecting the balance



#### **⚠ WARNING**

##### **Risk of death or serious injury due to electric shock**

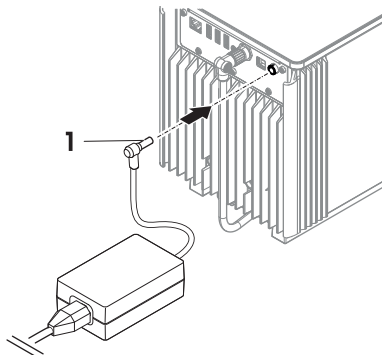
Contact with parts that carry a live current can lead to death or injury.

- 1 Only use the approved METTLER TOLEDO power supply cable and AC/DC adapter with a current-limited SELV output.
- 2 Connect the power cable to a grounded power outlet, ensure correct polarity.
- 3 Keep all electrical cables and connections away from liquids and moisture.
- 4 Check the cables and power plug for damage and replace damaged cables and power plugs.

The balance is supplied with a universal AC/DC adapter or an AC/DC adapter with a country-specific power cable.

- Insert the power cable in a grounded power outlet that is easily accessible.
- Install the cables so that they cannot be damaged or interfere with operation.

- 1 Connect the AC/DC adapter (1) to the socket.
- 2 Connect the power plug to the power outlet.



## 2.5.2 Switching on the balance

### EULA (End User License Agreement)


When the balance is switched on for the first time, the EULA appears on the screen. Read the conditions and tap **I accept the terms in the license agreement.** and tap **✓ OK**. If you agree, then tap **OK**.

### Warming up

Before the balance give reliable results, it must warm up first. This takes at least 120 minutes after connecting the balance. When the balance is switched on from standby it is ready immediately.

#### Note


Do not use a multiple switched socket outlet.

- The balance has warmed up.
- Press .
- ⇒ The home screen will appear.

When the balance is switched on for the first time, home screen will appear. However, it will always start with the screen of the application last used before switching it off.

## 2.5.3 Leveling the balance

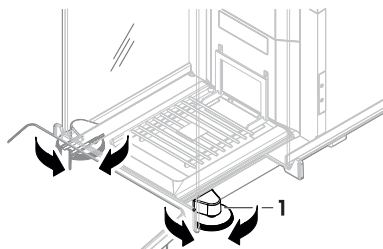
Exact horizontal and stable positioning are essential for repeatable and accurate weighing results.

If the message **Balance is out of level** appears. Tap . The **Leveling aid** opens. Follow the instructions on the screen to level the balance.

Find the leveling aid also in the menu:

**Navigation:** ► **Balance menu** >  **Leveling aid**

- Turn both leveling feet (1) until the point is in the center of the level indicator



## 2.5.4 Internal adjustment

- 1 Tap **⋮ More** on the main Screen.

- 2 Tap **Start**.
    - ⇒ **Internal adjustment** is being executed.
    - ⇒ When the adjustment has been completed, an overview of the adjustment results appears.
  - 3 Tap **Print** if you want to print the results
  - 4 Tap **Finish adjustment**.
- The balance is now ready to use.



For full information, always consult and download the Reference Manual (RM).

▶ [www.mt.com/XPR-analytical-RM](http://www.mt.com/XPR-analytical-RM)

▶ [www.mt.com/XSR-analytical-RM](http://www.mt.com/XSR-analytical-RM)

## 2.6 Transport, packaging and storage

### 2.6.1 Transporting the balance over short distances

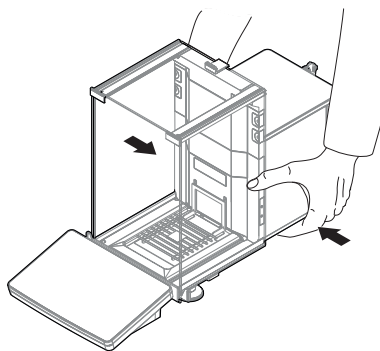
- 1 Switch off the balance and unplug all interface cables.
- 2 Hold the weighing platform with both hands and carry the balance in horizontal position to the target location.  
Consider the requirements of the location.

If you want the balance put into operation proceed as the following:

- 1 Connect in reverse order.
- 2 Level the balance.
- 3 Perform an internal adjustment.

#### See also

- 📖 Selecting the location ▶ Page 9
- 📖 Leveling the balance ▶ Page 15
- 📖 Internal adjustment ▶ Page 15



### 2.6.2 Transporting the balance over long distances

For transporting the balance over long distances, always using the original packaging.

#### See also

- 📖 Unpacking the balance ▶ Page 9
- 📖 Installation ▶ Page 12

### 2.6.3 Packaging and storage

#### Package

Store all parts of packaging in a safe place. The elements of the original packaging are developed specifically for the balance and its components and ensure maximum protection during transportation or storage.

#### Storage

Only store the balance under the following conditions:

- Indoor and in the original packaging
- according to the environmental condition, **see** chapter "Technical data"
- When storing for longer than 6 months, the rechargeable battery may become empty (only Date and Time get lost).

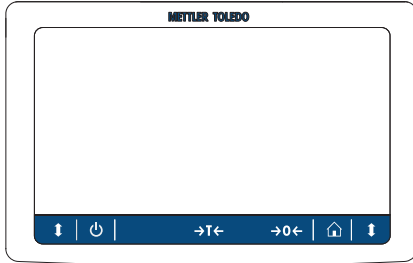
**See also**

📖 General technical data ▶ Page 26

### 3 Operation

#### 3.1 Operating elements

XPR



XSR



Key	Designation	Description
	ON/OFF	Switches the balance in standby. To switch the balance completely off, it must be unplugged from the power supply.
	Tare	Tares the balance. This is used when the weighing process involves containers. After taring the balance, the screen shows <b>Net</b> which indicates that all displayed weights are net.
	Zero	Zeros the balance. The balance must always be zeroed before starting a weighing process. After zeroing, the balance sets a new zero point.
	Home	To return from any menu level to the home screen.
	Door open	Opens the weighing chamber door to the left or to the right (default value).

**Only for XSR-Terminal**

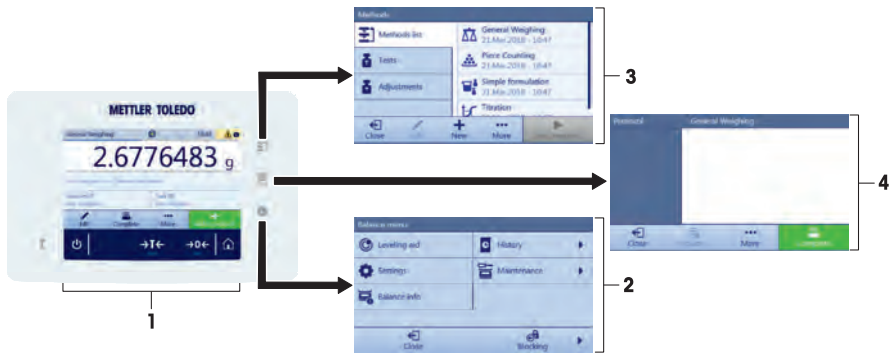
	<b>Methods</b>	Opens the menu <b>Methods</b> .
	<b>Protocol</b>	Opens the menu <b>Protocol</b> .
	<b>Balance menu</b>	Opens the <b>Balance menu</b> .

### 3.2 Main section at a glance

The home screen **General Weighing** (1) is the central navigation point where all the menus and settings can be found. The **Balance menu** (2), **Methods** (3) and **Protocol** (4) opens when tapping the drawers along the home screen (XPR) or the symbols on the Terminal (XSR).



Main section XPR



Main section XSR

### 3.3 Surface navigation of the touch screen

The surface navigation of the touch screen works like a common touch screens.

#### For selecting or activation an icon or a function

- Tap it.

#### For scrolling a screen or a scroll bar

- Move it up/down.

#### For using a drawer

- Drag it.

### 3.4 Perform a simple weighing



For full information, always consult and download the Reference Manual (RM).

▶ [www.mt.com/XPR-analytical-RM](http://www.mt.com/XPR-analytical-RM)

▶ [www.mt.com/XSR-analytical-RM](http://www.mt.com/XSR-analytical-RM)

## 4 Maintenance

To guarantee the functionality of the balance and the accuracy of the weighing results, a number of maintenance actions must be performed by the user.

### 4.1 Maintenance table

Maintenance action	Recommended interval	Remarks
Performing an internal adjustment	<ul style="list-style-type: none"><li>• Daily</li><li>• After cleaning</li><li>• After leveling</li><li>• After changing the location</li></ul>	<b>see</b> chapter "Internal adjustment"
Performing routine tests (eccentricity test, repeatability test, sensitivity test). METTLER TOLEDO recommends to perform at least a sensitivity test.	<ul style="list-style-type: none"><li>• After cleaning</li><li>• After a software update</li></ul>	<b>see</b> below
Cleaning	Depending on the degree of pollution or your internal regulations (SOP), clean the instrument: <ul style="list-style-type: none"><li>• After every use</li><li>• After change of sample</li></ul>	<b>see</b> chapter "Cleaning the balance"

### 4.2 Performing routine tests

There are several routine tests. Depending on your internal regulations, specific routine test must be performed by the user.

Mettler-Toledo GmbH recommend to perform a sensitivity test after cleaning and reassembling the balance or after updating the software.

Mettler Toledo can help you to define the routine tests to be performed based on your process requirements. Please contact your local METTLER TOLEDO representative for additional information.



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► [www.mt.com/XSR-analytical-RM](http://www.mt.com/XSR-analytical-RM)

### 4.3 Cleaning

#### 4.3.1 Disassembling for cleaning



#### CAUTION

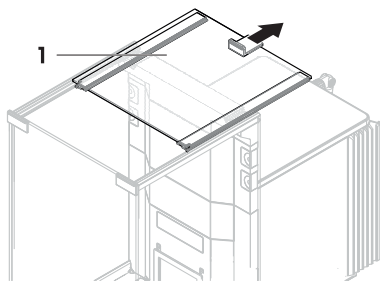
##### **Risk of injury due to breaking glass.**

Careless handling with the glass components can lead to breakage off glass and damage cuttings.

- Always proceed focused and with care.

- 1 Press  to set the balance into stand-by mode.

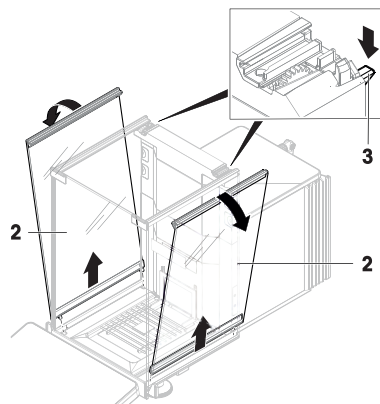
- 2 Pull the top panel (1) from the slides of the side doors. Shortly before the top panel dropped out you can feel a slightly resistance. Just keep pulling a little bit tighter.



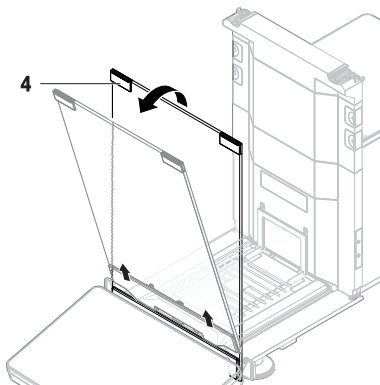
- 3 Hold the side doors (2) and push down the lever (3) to release them.

⇒ The side doors are unlocked.

- 4 Carefully remove both side doors (2).

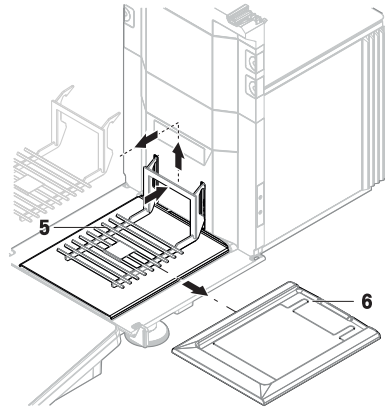


- 5 Tilt the front panel (4) to the front and remove it.





- 6 Carefully lift the weighing pan (5) to unhook it and pull it out.
  - 7 Remove the drip tray (6).
  - 8 Unplug and remove the terminal from the weighing platform.
- ⇒ The balance is disassembled and ready for cleaning.



### 4.3.2 Cleaning the balance



For full information, always consult and download the Reference Manual (RM).

▶ [www.mt.com/XPR-analytical-RM](http://www.mt.com/XPR-analytical-RM)

▶ [www.mt.com/XSR-analytical-RM](http://www.mt.com/XSR-analytical-RM)



#### **WARNING**

##### **Risk of death or serious injury due to electric shock**

Contact with parts carrying a live current can lead to injury and death.

- 1 Disconnect the instrument from the power supply prior to cleaning and maintenance.
- 2 Prevent liquid from entering the instrument, terminal or AC/DC adapter.



#### **NOTICE**

##### **Risk of damage due to improper cleaning.**

Improper cleaning can damage the load cell or other essential parts.

- 1 Do not use any cleaning agents other than the ones specified in the Reference Manual or Cleaning Guide.
- 2 Do not spray or pour liquids on the balance. Always use a moistened lint-free cloth or a tissue.
- 3 Always wipe out from inside to outside of the balance.

#### **Protective equipment:**

- Gloves
- Goggles

The following procedures describes the cleaning of the weighing panel and all components.

#### **Around the balance**

- Remove any dirt or dust around the balance and avoid further contaminations.

#### **Cleaning the weighing unit**

- 1 Use a lint-free cloth moistened with a mild cleaning agent to clean the surface of the balance.
- 2 Remove powder or dust at first with a disposable tissue.

- 3 Remove sticky substances with a damp lint-free cloth and a mild solvent (e. g. isopropanol or ethanol 70 %).

### Cleaning all removable parts




- Clean all removed part with a damp cloth or a tissue and a mild cleaning agent or clean it in a dishwasher up to 80 °C.





#### Note

Useful details to avoid soiling are described in the Mettler-Toledo GmbH SOP for Cleaning a Balance.

### 4.3.3 Commissioning after cleaning

- 1 Reassemble the balance.
  - 2 Check the functionality of the draft shield.
  - 3 Check if the terminal is connected to the balance.
  - 4 Press  to switch on the balance.
  - 5 Check the level status, level the balance if necessary.
  - 6 Perform an internal adjustment.
  - 7 Perform a routine test due to the internal regulations of your company. METTLER TOLEDO recommends to perform a sensitivity test after cleaning the balance, **see** Reference Manual (RM).
  - 8 Press  **0**  to zero the balance.
- ⇒ The balance has been commissioned and is ready to use.

#### See also

-  Internal adjustment ▶ Page 15
-  Leveling the balance ▶ Page 15

## 5 Troubleshooting

Possible causes for faults and fault correction tasks are described in the following chapter. If there are faults that cannot be corrected through the instructions below, contact the Mettler-Toledo GmbH.



### NOTICE

#### Risk of damage due to improperly performed troubleshooting.

Improperly performed troubleshooting operations may result in damage of the instrument or false weighing results.

- 1 Only proceed how described in the fault table.
- 2 Observe the following before putting into operation:
  - ⇒ Make sure that all troubleshooting operations have been performed and completed following the instructions and information provided in this User Manual.
  - ⇒ Ensure that all components have been properly cleaned and the balance is leveled.

### 5.1 Error message table

Error message	Possible cause	Diagnostic	Remedy
Balance reset failure	Communication failure	–	Restart the balance.
The system has no valid date and time set	Low battery	–	Connecting to the main and let charge the battery for 2 - 3 days.
Weight cannot be determine	Data signal problems of electronics.	–	Unplug and re-plug the power cable.
	Bad connection between terminal an weighing unit.	<ol style="list-style-type: none"> <li>1. Check cables for damages</li> <li>2. Check cable pins for damage.</li> </ol>	Replace cables.

### 5.2 Error symptom table

Error symptom	Possible cause	Diagnostic	Remedy
The display is dark.	The instrument is on standby.	–	Switch on the instrument.
	No Power	–	Connect the power cable. <b>See</b> chapter "Connecting to the main"
	The terminal is not connected to the instrument.	Check the connection.	Connect the terminal cable to the instrument.
	The wrong "AC-adapter" is connected.	Check it with the help of the Reference Manual (Accessories).	Use the correct AC-adapter.
	The "AC-adapter" is defective.	The LED on the AC-adapter does not light.	Replace the AC-adapter.
	The "Terminal cable" is defective.	The cable is kink, twisted or the pins are twisted or broken.	Replace the terminal cable. <b>See</b> chapter "Attaching the terminal"
The keys on the display do not work.	The terminal is not connected.	Check the connection.	Connect the terminal cable to the instrument. <b>See</b> chapter "Attaching the terminal"


Error symptom	Possible cause	Diagnostic	Remedy
The value on the display is unstable. <ul style="list-style-type: none"> <li>Increasing and decreasing value</li> </ul>	Disturbing vibrations on the working desk (e.g. building vibrations, foot traffic)	Place beaker with water on the weighing bench. Vibrations cause ripples on the water surface.	Protect weighing location against vibrations (e. g. with absorber). Find a different weighing location.
	Draft due to untight draft shield and /or open window.	Check the draft shield for gaps.	Close the window. Fix the draft shield.
	The weighing sample is electrostatically charged.	Check if the weighing result is stable when using a test weight.	Increase the air humidity in the weighing chamber. Use a Ionizer, see "Accessories" in the Reference Manual (RM).
	The location is not suitable for weighing.	–	Check and observe the requirements for the location. <b>See</b> chapter "Selecting the location"
	Something is touching the weighing pan.	Check for touching parts or dirt.	Remove touching parts or clean the balance.
The value on the display is drifting. <ul style="list-style-type: none"> <li>The value drifts into plus or minus</li> </ul>	The weighing sample absorbs moisture or evaporates moisture.	Check if the weighing result is stable when using a test weight.	Cover the test weight.
	The weighing sample is electrostatically charged.	Check if the weighing result is stable when using a test weight.	Increase the air humidity in the weighing chamber. Use a Ionizer. <b>See</b> chapter "Accessories" in the Reference Manual (RM).
	The weighing sample is warmer or colder than the air in the weighing chamber.	Check if the weighing result is stable when using an acclimatized test weight.	Bring the sample to room temperature.
	Balance is not yet warmed up.	–	Warm up the balance. Observe the warming up time. <b>See</b> chapter "Selecting the location"
The display shows overload/ underload.	The wrong weighing pan is installed.	Slightly lift or press weighing pan > the weight display appears.	Install the proper weighing pan.
	No weighing pan is installed.	–	Install the weighing pan.
	Incorrect zero point at power on.	–	Disconnect and reconnect the power cable after some seconds.
	The balance is not adjusted.	The standard adjustment is lost.	Perform a internal adjustment. <b>See</b> chapter "Internal adjustment".
Draft shield front panel is not exactly at 90° to the weighing platform	Draft shield front panel is not exactly adjusted.	Draft shield front panel have to adjusted.	Contact METTLER TOLEDO representative to adjust the front panel.
Draft shield side doors are not exactly closed.	Draft shield side doors are not exactly adjusted.	Draft shield side doors have to exactly adjusted.	Contact METTLER TOLEDO representative to adjust the side doors.

### 5.3 Putting into operation after correction of fault

After correcting the fault, perform the following steps to put the balance into operation:

- Ensure that the balance is completely reassemble and cleaned.
- Reconnect the balance to the mains.


#### See also

 [Connecting the balance](#) ▶ Page 14

## 6 Technical data

### 6.1 General technical data

#### Power supply

AC/DC adapter:	Primary: 100 - 240 V~, 50/60 Hz Secondary: 12 V DC, 2.5 A, LPS (with electronic overload protection)
Cable for AC adapter:	3-core, with country-specific plug
Balance power consumption:	12 V DC, 2.25 A
Polarity:	 with a current SELV (Safety Extra Low Voltage) output

#### Protection and standards

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

The limit values applies when the balance is used within the following environmental conditions:

#### Environmental conditions

Height above mean sea level:	Up to 5000 m
Ambient temperature:	+5 – +40 °C
Temperature change, max.	< 5 °C / h
Relative air humidity:	Max. 70% up to 31 °C, linearly decreasing to 30% at 40 °C, non-condensing
Warm-up time:	At least <b>120</b> minutes after connecting the balance to the power supply; when switched on from standby, the balance is ready for operation immediately

The balance can withstand the following environmental conditions. However, the specifications of the balance may be outside the limit values:

Ambient temperature:	5 – 40 °C
Relative air humidity:	20 - 80%, non-condensing
Storage temperature (balance switched off and in packaging):	-25°C – 70°C
Relative air humidity (balance switched off and in packaging):	10 – 90%, non-condensing

#### Materials

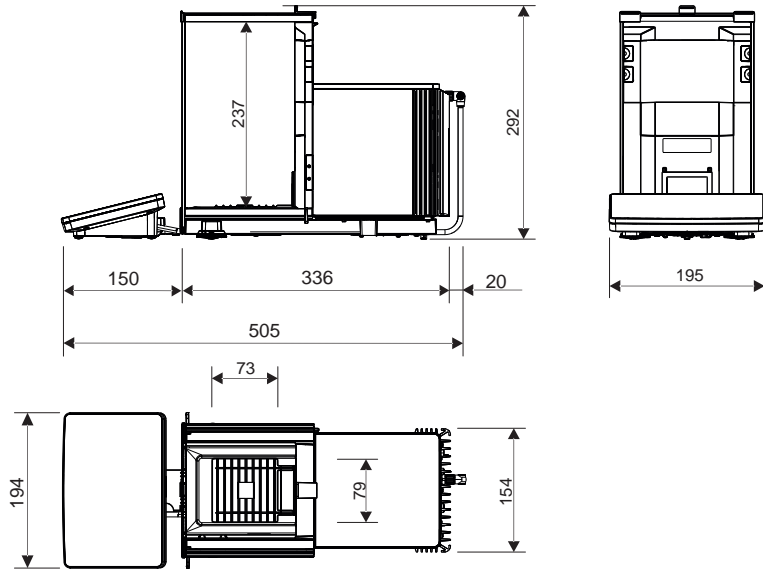
Housing:	Die-cast aluminum, plastic, chrome steel and glass
Terminal:	Die-cast zinc, chromed and plastics
SmartGrid:	Chrome-Nickel-Molybdenum steel X2CrNiMo17

### 6.2 Dimensions

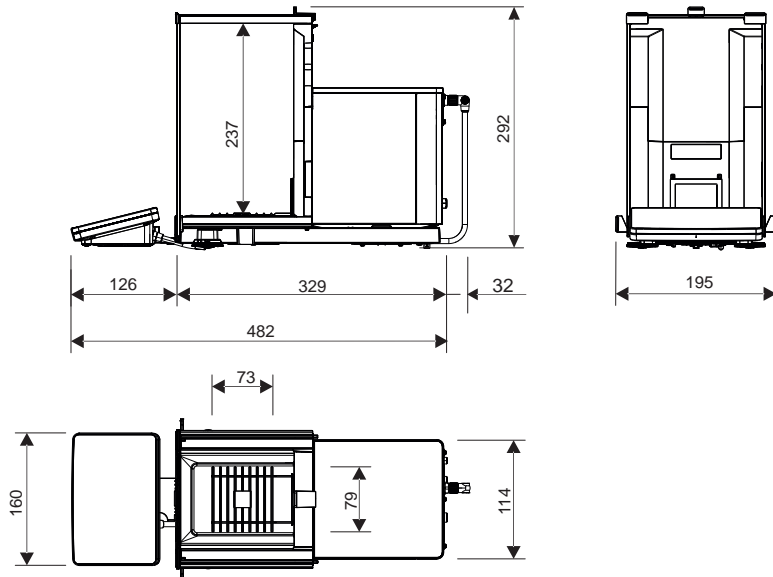
All dimensions in mm

The dimensions refer to the following models:

### XPR Analytical Balance



### XSR Analytical Balance



## 7 Information on Standards

### FCC Rules

This device complies with Industry Canada licence-exempt RSS standard(s) and part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## 8 Disposal

In conformance with the European Directive 2012/19/EU 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, the content of this regulation must also be related.









# GWP®

Good Weighing Practice™

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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](http://www.mt.com/GWP)

[www.mt.com/excellence-analytical](http://www.mt.com/excellence-analytical)

For more information

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