User Manual

Precision Balances and Comparators

XPR

METTLER TOLEDO

This User Manual provides brief instructions about the first steps to take with the instrument. This ensures safe and efficient handling. Personnel must have carefully read and understood this manual before performing any task.
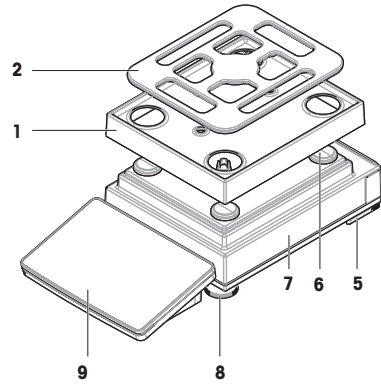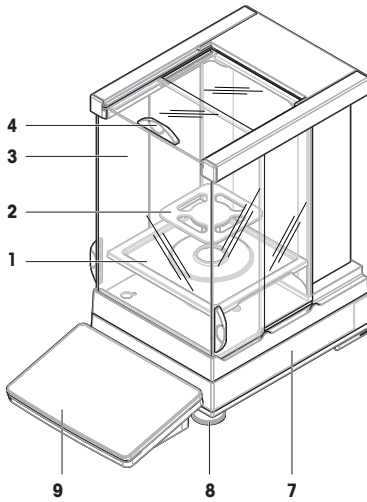
For full information, always refer to the Reference Manual (RM).

▶ www.mt.com/XPR-precision-RM

Overview balances with S weighing platform

0.1 mg   **5 mg / 10 mg**

1	DripTray	**6**	Weighing pan support cap
2	SmartPan Pro weighing pan	**7**	Weighing platform with protective cover
3	Pro draft shield	**8**	Leveling foot
4	Pro draft shield door handle	**9**	Terminal with protective cover
5	Safety foot		

Overview comparators with S weighing platform

0.1 mg / 1 mg
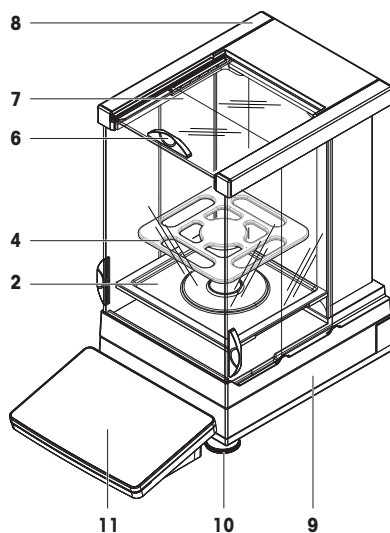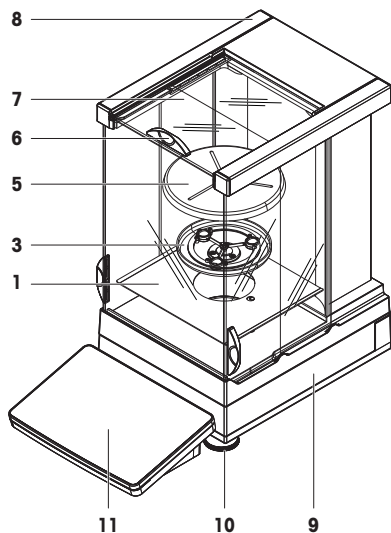
1	Bottom plate	**7**	Pro draft shield door
2	Drip tray	**8**	Pro draft shield
3	LevelMatic weighing pan holder	**9**	Weighing platform with protective cover
4	SmartPan Pro weighing pan	**10**	Leveling foot
5	LevelMatic weighing pan	**11**	Terminal with protective cover
6	Pro draft shield door handle		

Overview interface board S weighing platform
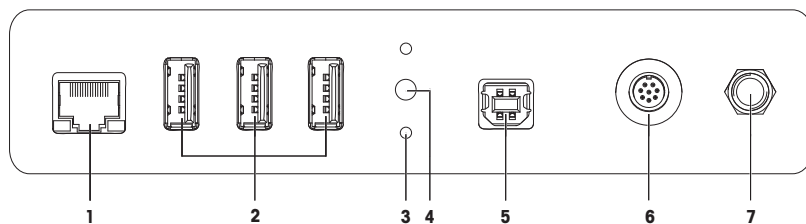
1	Ethernet port	**5**	USB-B port (to host)
2	USB-A ports (to device)	**6**	Socket for terminal cable
3	Fixations for optional terminal stand	**7**	Socket for AC/DC adapter
4	Service seal		

Overview balances with L weighing platform

10 mg   **100 mg / 1 g**
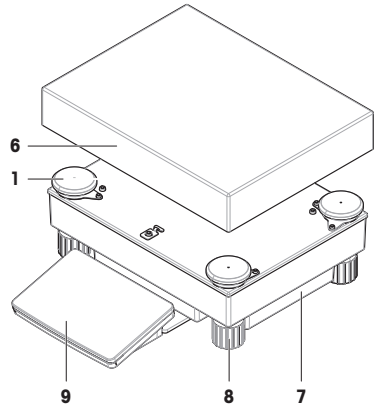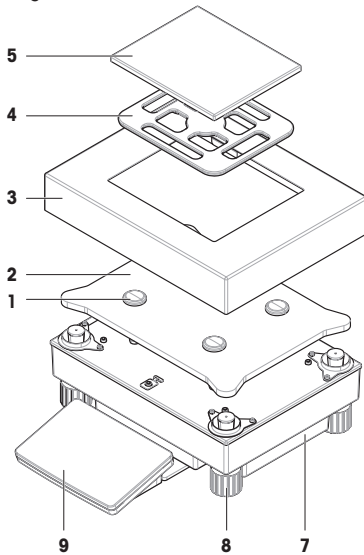
	1	Weighing pan support cap		6	Weighing pan
	2	Adapter plate		**7**	Weighing platform
	3	Draft shield element		**8**	Leveling foot
	4	SmartPan Pro weighing pan		**9**	Terminal with protective cover
	5	Weighing pan with protective cover			

Precision Balances and Comparators

Overview comparators with L weighing platform

1 mg / 5 mg / 10 mg
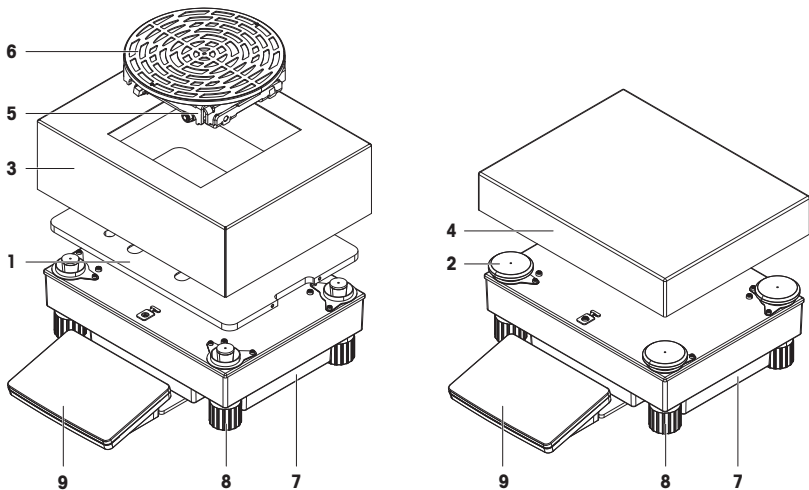
1	Adapter plate with LevelMatic base plate	**6**	LevelMatic weighing pan
2	Weighing pan support cap	**7**	Weighing platform
3	Draft shield element	**8**	Leveling foot
4	Weighing pan	**9**	Terminal with protective cover
5	LevelMatic weighing pan holder		

Overview interface board L weighing platform
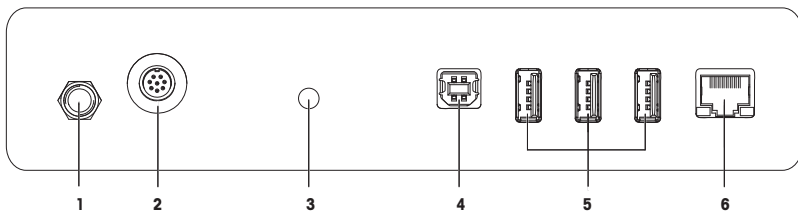
1	Socket for AC/DC adapter	**4**	USB-B port (to host)
2	Socket for terminal cable	**5**	USB-A ports (to device)
3	Service seal	**6**	Ethernet port

Overview terminal

	Standby	→T←	Tare
	Home screen	→O←	Zero

Precision Balances and Comparators

Table of Contents

1 Introduction

Thank you for choosing a METTLER TOLEDO balance. The balance combines high performance with ease of use.

Disclaimer for comparators

In this document, the term "balance" is used to describe both balances and comparators.

Comparators are characterized by their higher resolution compared to balances. They are mainly used for differential weighing applications, such as the calibration of standard weights. Beside standard balance tests, comparators have also been tested with differential repeatability (ABA repeatability) during production.

EULA

The software in this product is licensed under the METTLER TOLEDO End User License Agreement (EULA) for Software.

When using this product you agree to the terms of the EULA.

▶ www.mt.com/EULA

1.1 Further documents and information

This document is available in other languages online.

Product page:

▶ www.mt.com/XPR-precision

Instructions for cleaning a balance, "8 Steps to a Clean Balance":

▶ www.mt.com/lab-cleaning-guide

Search for software:

▶ www.mt.com/labweighing-software-download

Search for documents:

▶ www.mt.com/library

For further questions, please contact your authorized METTLER TOLEDO dealer or service representative.

▶ www.mt.com/contact

1.2 Acronyms and abbreviations

Original term	Explanation
AC	Alternating Current
ASTM	American Society for Testing and Materials
DC	Direct Current
EMC	Electromagnetic Compatibility
FCC	Federal Communications Commission
GWP	Good Weighing Practice
HID	Human Interaction Device
ID	Identification
LED	Light-Emitting Diode
LPS	Limited Power Source
MAC	Media Access Control
MT-SICS	METTLER TOLEDO Standard Interface Command Set
NA	Not Applicable
OIML	Organisation Internationale de Métrologie Légale (International Organization of Legal Metrology)
RAM	Random Access Memory
RFID	Radio-frequency identification
RM	Reference Manual

SELV	Safety Extra Low Voltage
SOP	Standard Operating Procedure
SQC	Statistical Quality Control
UM	User Manual
USB	Universal Serial Bus
USP	United States Pharmacopeia

1.3 Compliance information

National approval documents, e.g., the FCC Supplier Declaration of Conformity, are available online and/or included in the packaging.

▶ www.mt.com/ComplianceSearch

For further information, consult the Reference Manual (RM).

▶ www.mt.com/XPR-precision-RM

2 Safety Information

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.

2.1 Definitions of signal words and warning symbols

Safety notes contain important information on safety issues. Ignoring the safety notes may lead to personal injury, damage to the instrument, malfunctions and false results. Safety notes are marked with the following signal words and warning symbols:

Signal words

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

Warning symbols

General hazard   Notice

2.2 Product-specific safety information

Intended use

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

Any other type of use and operation beyond the limits of use stated by Mettler-Toledo GmbH without consent from Mettler-Toledo GmbH is considered as not intended.

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 GmbH assumes that the instrument owner trains users to safely use the instrument in their workplace and deal with potential hazards. Mettler-Toledo GmbH assumes that the instrument owner provides the necessary protective gear.

Safety notes

⚠ **WARNING**

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 METTLER TOLEDO power cable and AC/DC adapter designed for your instrument.

2 Connect the power cable to a grounded power outlet.

3 Keep all electrical cables and connections away from liquids and moisture.

4 Check the cables and the power plug for damage and replace them if damaged.

NOTICE

Damage to the instrument or malfunction due to the use of unsuitable parts

− Only use parts from METTLER TOLEDO that are intended to be used with your instrument.

A list of spare parts and accessories can be found in the Reference Manual.

3 Design and Function

For further information, consult the Reference Manual (RM).

▶ www.mt.com/XPR-precision-RM

3.1 Overview

See the sections "Overview" (graphics and legend) at the very beginning of this manual.

3.2 User interface

3.2.1 Main sections at a glance

The main weighing screen (**1**) is the central navigation point where all the menus and settings can be found. The **Balance menu** (**2**), **Methods** (**3**) and **Results** (**4**) open when tapping the tabs along the sides of the main weighing screen.

See also

🔗 Main weighing screen ▶ Page 6

3.2.2 Main weighing screen

	Name	Description
1	**User name**	Shows the name of the current user.
2	Weighing value field	Shows the current weighing value.

	Name	Description
3	Level indicator	Indicates if the balance is leveled (green) or not (red).
4	**Methods** menu	Accesses the user-defined list of methods, tests, and alignments.
5	**Info weight**	Shows the current weighing value in another unit.
6	Warning and error message area	Shows current warning and/or error messages.
7	**Results list**	Shows the weighing results saved for this task.
8	Sample status **OK**	Result status indicator green: indicates that the result fulfills a set of criteria. For example: • The balance is in level. • The internal adjustment was performed and ok. • The weighing result is within the defined tolerance range (only if tolerance is defined).
9	Sample status **Excluded**	Result status indicator black: indicates that the result was excluded from the **Results list**.
10	Sample status **Not OK**	Result status indicator red: indicates that the result criteria are not fulfilled, e.g., "The weighing result was out of the defined tolerances".
11	Button **Add result**	Adds the result to the **Results list**. Depending on the selected method, the button can have different functions.
12	Action bar	Contains actions referring to the current task.
13	**Balance menu**	Accesses the balance properties.
14	Method information area	Contains information about the sample, method or task IDs.
15	SmartTrac	Used as a weighing aid to define a target weight with upper and lower tolerances.
16	Weighing value area	Shows the results of the current weighing process.
17	**Method name**	Shows the name of the current method.

4 Installation and Putting into Operation

4.1 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.
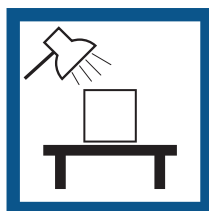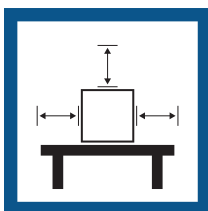
Requirements of the location

Place indoors on stable table	Ensure sufficient spacing	Level the instrument	Provide adequate lighting

Avoid direct sunlight	Avoid vibrations	Avoid strong drafts	Avoid temperature fluctuations
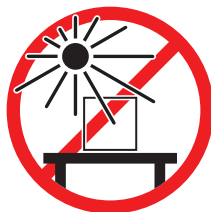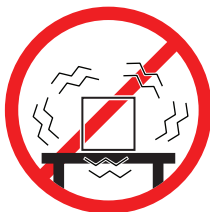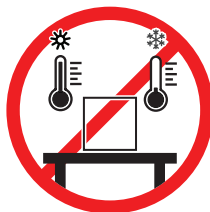
Sufficient spacing for balances: > 15 cm all around the instrument

Take into account the environmental conditions. See "Technical Data".

4.2 Unpacking the balance

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

METTLER TOLEDO recommends retaining the original box with its packaging elements. Use the packaging elements to store and to transport the balance.

Precision Balances and Comparators

4.3 Scope of delivery

4.3.1 Balances with S weighing platform

Components	0.1 mg with Pro draft shield	0.5 mg / 1 mg with Pro draft shield	1 mg without Pro draft shield	5 mg / 10 mg	100 mg
Weighing platform with protective cover	✓	✓	✓	✓	✓
Terminal with protective cover	✓	✓	✓	✓	✓
Terminal holder	✓	✓	✓	✓	✓
Terminal cable (pre-assembled)	✓	✓	✓	✓	✓
Pro draft shield	✓	✓	–	–	–
Weighing pan 128 × 128 mm	–	✓ [1]	–	–	–
Weighing pan 172 × 205 mm	–	–	–	✓ [1]	–
Weighing pan 193 × 223 mm	–	–	–	–	✓
SmartPan Pro / SmartPan weighing pan 90 × 90 mm	✓ [2]	–	–	–	–
SmartPan Pro / SmartPan weighing pan 127 × 127 mm	–	✓ [1]	✓ [2]	–	–
SmartPan Pro / SmartPan weighing pan 170 × 203 mm	–	–	–	✓ [1]	–
Weighing pan support	–	–	–	–	✓
Drip tray	✓	✓	✓	✓	–
Seal for Pro draft shield	✓	–	–	–	–
Weighing hook for below-the-balance weighing	✓	✓	✓	✓	✓
AC/DC adapter	✓	✓	✓	✓	✓
Power cable (country-specific)	✓	✓	✓	✓	✓
User Manual	✓	✓	✓	✓	✓
Production certificate	✓	✓	✓	✓	✓
Declaration of Conformity	✓	✓	✓	✓	✓

1) Depending on the status of the approval in your country, your product is delivered either with a SmartPan and a flat weighing pan or with a SmartPan Pro.

2) Depending on the status of the approval in your country, your product is delivered either with a SmartPan or with a SmartPan Pro.

4.3.2 Comparators with S weighing platform

Components	0.1 mg	1 mg
Weighing platform with protective cover	✓	✓
Terminal with protective cover	✓	✓
Terminal cable (pre-assembled)	✓	✓
Pro draft shield (not for XPR10003SC)	✓	✓
Draft shield XP W12 (only for XPR10003SC)	–	✓
SmartPan Pro 3-place	✓	✓
LevelMatic weighing pan ø 130 mm (not for XPR2003SC)	✓	✓
Bottom plate	✓	✓
Seal for Pro draft shield	✓	–
Weighing hook for below-the-balance weighing	✓	✓
AC/DC adapter	✓	✓
Power cable (country-specific)	✓	✓
User Manual	✓	✓
Production certificate	✓	✓
Declaration of Conformity	✓	✓

4.3.3 Balances with L weighing platform

Components	10 mg	100 mg / 1 g
Weighing platform	✓	✓
Terminal with protective cover	✓	✓
Terminal holder	✓	✓
Terminal cable	✓	✓
Draft shield element	✓	–
Weighing pan 172 × 205 mm	✓	–
Weighing pan 280 × 360 mm	–	✓
SmartPan Pro 2-place	✓	–
AC/DC adapter	✓	✓
Power cable (country-specific)	✓	✓
User Manual	✓	✓
Production certificate	✓	✓
Declaration of Conformity	✓	✓

4.3.4 Comparators with L weighing platform

Components	1 mg	5 mg	10 mg
Weighing platform	✓	✓	✓
Terminal with protective cover	✓	✓	✓
Terminal holder (not for XPR64002LC-T)	✓	✓	✓
Terminal cable	✓	✓	✓
Draft shield element XP W64 (only for XPR26003LC and XPR64003LD5C)	✓	✓	–
Weighing pan 280 × 360 mm (not for XPR64003LD5C and XPR64002LC)	–	✓	✓
LevelMatic weighing pan ø 220 mm with draft shield element and weighing pan holder (not for XPR32003LD5C)	✓	✓	–
Fixed weighing pan ø 220 mm (only for XPR64002LC-T)	–	–	✓
AC/DC adapter	✓	✓	✓
Power cable (country-specific)	✓	✓	✓
Transport case (only for XPR64002LC-T)	–	–	✓
User Manual	✓	✓	✓
Production certificate	✓	✓	✓
Declaration of Conformity	✓	✓	✓

4.4 Installation

4.4.1 Balances and comparators with S weighing platform

4.4.1.1 Attaching the terminal to the weighing platform

The terminal is usually placed in front of the weighing platform on the terminal holder. Alternatively, the terminal can be placed next to the weighing platform, or attached to an additional terminal stand.

ⓘ **Note**

Comparators with S weighing platform are used without a terminal holder.

> **NOTICE**
>
> **Damage to the balance**
> The weighing platform and the terminal are not safely fixed by the terminal holder and may fall off when carrying.
> – Remove the terminal from the weighing platform and place it on the weighing pan when carrying the balance.

1　Place the weighing platform on a flat surface.

2　Place the protection cover (**1**) on the weighing platform.

3　Position the terminal holder (**2**) in front of the weighing platform. The plug of the pre-mounted terminal cable (**3**) must lie between the terminal holder (**2**) and the weighing platform.

4　Push the terminal holder (**2**) towards the weighing platform until the terminal holder locks under the weighing platform.

5　Connect the terminal cable to the terminal.
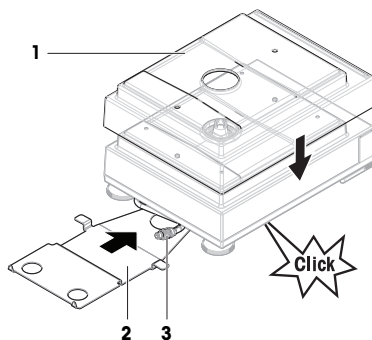
6　Place the protection cover (**4**) on the terminal (**5**).

7　Place the terminal on top of the terminal holder.

8　Push the terminal towards the weighing platform until the terminal locks into the terminal holder.
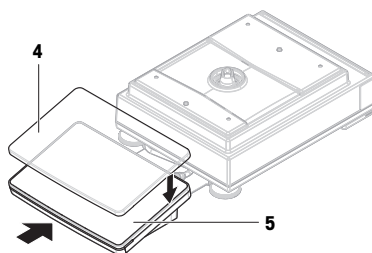
4.4.1.2　Assembling the Pro draft shield for 0.1 mg balances and comparators

1　Turn the Pro draft shield carefully sideways into horizontal position.

2　Push the seal (**2**) through the opening (**1**) on the bottom of the Pro draft shield.
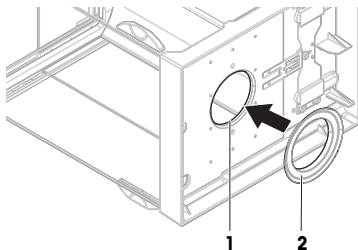
3　Fix the seal in the opening of the Pro draft shield. The seal (**2**) must be properly fixed into the opening. The upper edge (**3**) of the seal must lay all around the bottom of the Pro draft shield.

4　Turn the Pro draft shield carefully back into vertical position.
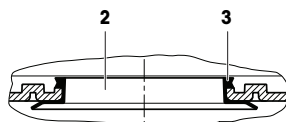
4.4.1.3 Assembling the Pro draft shield on the weighing platform

1　Open the Pro draft shield with the door handles on both sides.

2　Hold the Pro draft shield on the top bars (**1**) on both sides and place it on top of the weighing platform.
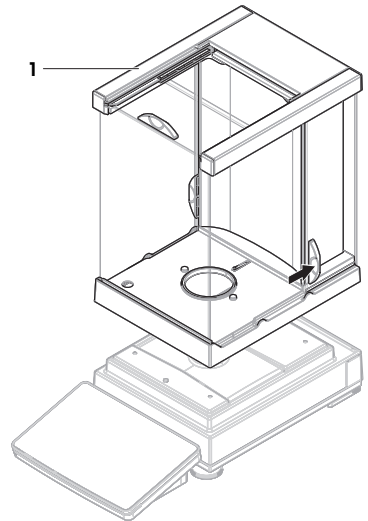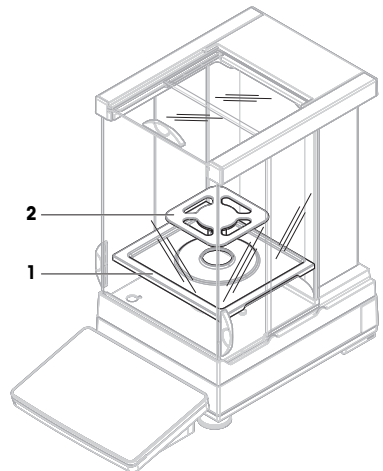
4.4.1.4 Assembling balances 0.1 mg with SmartPan Pro weighing pan

ⓘ **Note**

The 0.1 mg balances with Pro draft shield are equipped with a seal. The aim of the seal is to isolate the weighing chamber from draft. The seal must always be correctly installed at the bottom of the Pro draft shield, as described in [Assembling the Pro draft shield for 0.1 mg balances and comparators ▶ Page 12].

- The seal is installed on the Pro draft shield.
- The Pro draft shield is installed on the weighing platform.

1　Place the drip tray (**1**) into the Pro draft shield.

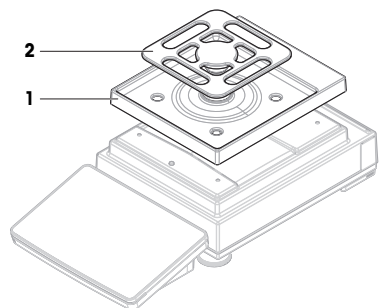2　Place the SmartPan Pro weighing pan (**2**) on top of the drip tray (**1**).

4.4.1.5 Assembling balances 1 mg with Pro draft shield

- The Pro draft shield is installed on the weighing platform.
1. Place the drip tray (**1**) into the Pro draft shield.
2. Place the SmartPan Pro weighing pan (**2**) on top of the drip tray (**1**).
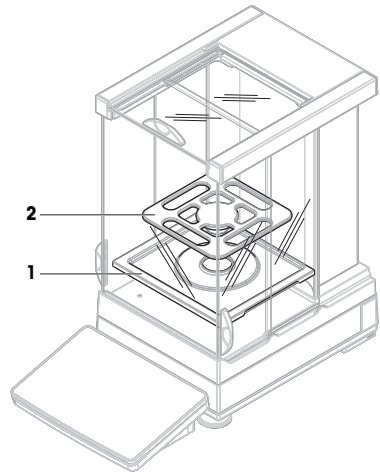

4.4.1.6 Assembling balances 1 mg with SmartPan Pro weighing pan

1. Place the drip tray (**1**) on top of the weighing platform.
2. Place the SmartPan Pro weighing pan (**2**) on top of the drip tray (**1**).


4.4.1.7 Assembling balances 5 mg and 10 mg with SmartPan Pro weighing pan

1. Place the four weighing pan support caps (**1**) on top of the weighing platform.
2. Place the drip tray (**2**) on top of the weighing platform.
3. Place the SmartPan Pro weighing pan (**3**) on top of the weighing pan support caps (**1**).
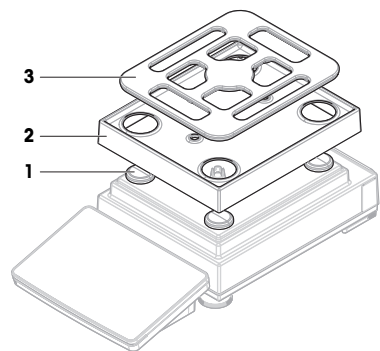
4.4.1.8 Assembling balances 100 mg

1   Place the four weighing pan support caps (**1**) on top of the weighing platform.
2   Place the weighing pan support (**2**) on top of the weighing pan support caps (**1**).
3   Place the weighing pan and the protective cover (**3**) on top of the weighing pan support (**2**).
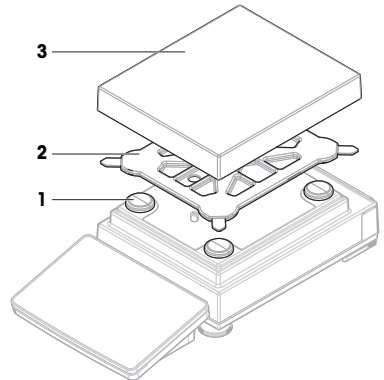
4.4.1.9 Assembling comparators 0.1 mg and 1 mg with LevelMatic weighing pan

ℹ️ **Note**

The 0.1 mg balances with Pro draft shield are equipped with a seal. The aim of the seal is to isolate the weighing chamber from draft. The seal must always be correctly installed at the bottom of the Pro draft shield, as described in [Assembling the Pro draft shield for 0.1 mg balances and comparators ▶ Page 12].

- The seal is installed on the Pro draft shield.
- The Pro draft shield is installed on the weighing platform.
1   Place the bottom plate (**1**) into the Pro draft shield.
2   Place the LevelMatic holder (**2**) on top of the bottom plate (**1**).
3   Place the LevelMatic weighing pan (**3**) on top of the LevelMatic weighing pan holder (**2**).
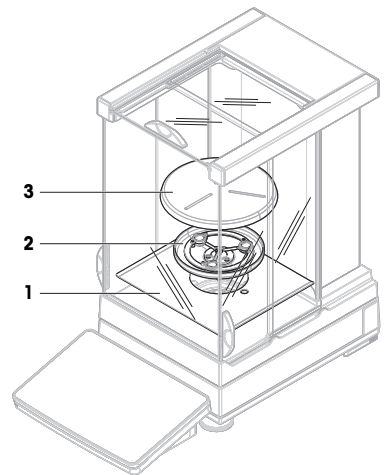
#### 4.4.2 Balances and comparators with L weighing platform

4.4.2.1 Attaching the terminal to the weighing platform

The terminal can be attached to the long side or to the short side of the L weighing platform.

ⓘ **Note**

On L weighing platforms, the terminal holder can be used with both balances and comparators.

1　Turn the weighing platform upside down.
2　Dismantle the screws (1) on the long side or the screws (2) on the short side of the weighing platform.
3　Connect the terminal to the weighing platform with the terminal connection cable.
4　Attach the terminal holder to the long side or to the short side of the weighing platform. Fix the terminal holder with the screws from the weighing platform.
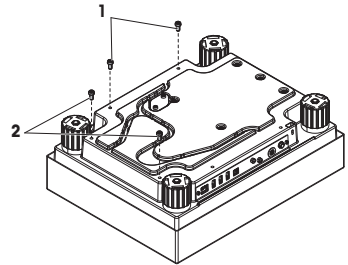
5　Insert the terminal connection cable (3) into the cable channel.
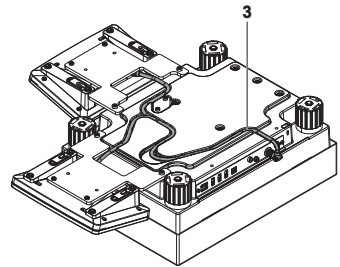
ⓘ **Note**

When inserting the terminal connection cable into the cable channel, the terminal connection cable must be inserted simultaneously from both directions. The terminal connection cable must not have any play between the plug and the cable channel (see picture).

6　Turn the weighing platform.

4.4.2.2 Assembling balances 100 mg and 1 g

1　Place the weighing pan support caps (1) on top of the weighing platform.
2　Place the weighing pan (2) on top of the weighing pan support caps (1).
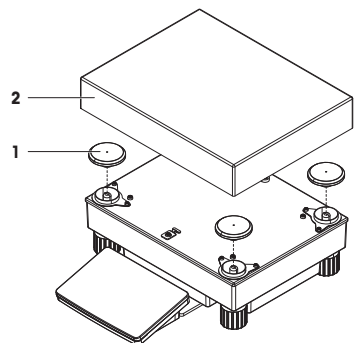
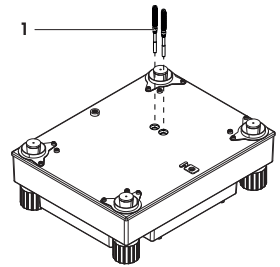### 4.4.2.3 Assembling balances 10 mg with SmartPan Pro weighing pan

1 Place the adapter plate (1) on top of the weighing platform.
2 Place the weighing pan support caps (2) on top of the adapter plate.
3 Place the draft shield element (3) on top of the adapter plate (1).
4 Place the SmartPan Pro weighing pan (4) on top of the weighing pan support caps (2).
5 Place the weighing pan (5) on top of the SmartPan Pro weighing pan (4) if needed.
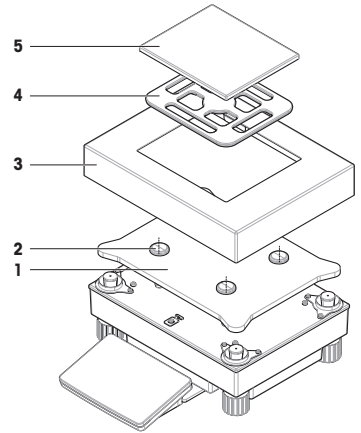
4.4.2.4 Removing and installing the transport safety screws (only for comparators)

Transport safety screws are used to prevent damaging the load cell during transport. Before installing the weighing pan, the transport safety screws on top of the weighing platform must be removed. Keep the transport safety screws for transporting the comparator.

1 Unscrew and remove the transport safety screws (1) from the top of the weighing platform.
2 Close the openings with the enclosed plastic covers.
3 Before transporting the comparator, reinstall the transport safety screws.

4.4.2.5 Assembling comparators 1 mg / 5 mg with LevelMatic weighing pan

1. Place the adapter plate with the LevelMatic base plate (1) on top of the weighing platform.
2. Place the draft shield element (2) on top of the adapter plate (1).
3. Place the LevelMatic weighing pan holder (3) on top of the LevelMatic base plate (1).
4. Place the LevelMatic weighing pan (4) on top of the LevelMatic weighing pan holder (3).
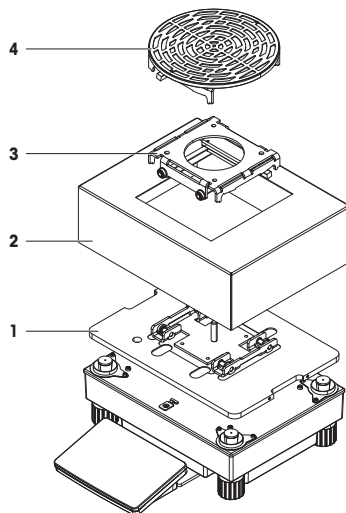
4.4.2.6 Assembling the comparator XPR64002LC-T

 For instructions on how to assemble the comparator model XPR64002LC-T, refer to the Installation Instructions delivered with the comparator.

## 4.5 Putting into operation

4.5.1 Connecting the balance

 ⚠ WARNING

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 METTLER TOLEDO power cable and AC/DC adapter designed for your instrument.
2. Connect the power cable to a grounded power outlet.
3. Keep all electrical cables and connections away from liquids and moisture.
4. Check the cables and the power plug for damage and replace them if damaged.

1. Install the cables in such a way that they cannot be damaged or interfere with operation.
2. Insert the plug of the AC/DC adapter (2) into the power inlet of the instrument (1).
3. Secure the plug by firmly tightening the knurled nut.
4. Insert the plug of the power cable into a grounded power outlet that is easily accessible.
   ➡ The balance automatically switches on.
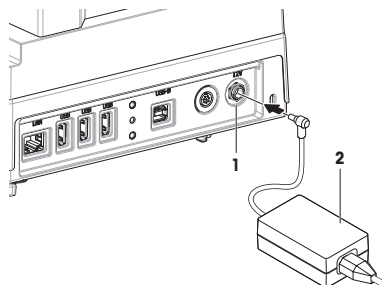
Do not connect the instrument to a power outlet controlled by a switch. After switching on the instrument, it must warm up before giving accurate results.

See also

🔗 General data ▸ Page 24

4.5.2 Switching on the balance

When connected to the power supply, the balance automatically switches on.

EULA (End User License Agreement)

When the balance is switched on the first time, the EULA (End User License Agreement) appears on the screen.

1 Read the conditions.
2 Tap **I accept the terms in the license agreement.** and confirm with ✓ **OK**.
   ➡ The main weighing screen appears.

Acclimatization and warm up

Before the balance gives reliable results, it must:
• acclimatize to the room temperature
• warm up by being connected to the power supply

The acclimatization time and warm-up time for balances and comparators are available in "General data".

ℹ️ **Note**

When the balance is exiting standby, it is ready immediately.

See also

🔗 General data ▸ Page 24

🔗 Entering / Exiting standby mode ▸ Page 20

4.5.3 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:

1 Tap ▶ **Level the balance**.
   ➡ The **Leveling aid** opens.
2 Follow the instructions from the wizard.

The leveling aid can also be accessed through the **Balance menu**:

≡ **Navigation: ▶ Balance menu > ⊚ Leveling aid**

4.5.4 Performing an internal adjustment

≡ **Navigation: ▼ Methods > ⚖ Adjustments**

■ The adjustment **Strategy** is set to **Internal adjustment**.

1 Open the **Methods** section, tap ⚖ **Adjustments**, select the adjustment, and tap ▶ **Start**
   - or -
   from the main weighing screen, tap ••• **More** and tap **Start adjustment**.
   ➡ **Internal adjustment** is being executed.
   ➡ When the adjustment has been completed, an overview of the adjustment results appears.
2 Tap 🖨 **Print** if you want to print the results.
3 Tap ✓ **Finish adjustment**.
➡ The balance is ready.

4.5.5 Entering / Exiting standby mode

1 To enter standby mode, hold ⏻.
   ➡ The display is dark. The balance is still switched on.
2 To exit standby mode, press ⏻.
   ➡ The display is turned on.

4.5.6 Switching off the balance

To completely switch off the balance, it must be disconnected from the power supply. By holding ⏻, the balance goes only into standby mode.

ⓘ **Note**

When the balance was completely switched off for some time, it must warm up before it can be used.

See also

∅ Switching on the balance ▸ Page 19

4.6 Performing a simple weighing

4.6.1 Zeroing the balance

1 Open the draft shield, if applicable.
2 Clear the weighing pan.
3 Close the draft shield, if applicable.
4 Press →0← to zero the balance.
➡ The balance is zeroed.

4.6.2 Taring the balance

If a sample vessel is used, the balance must be tared.

1 Open the draft shield, if applicable.
2 Clear the weighing pan.
3 Close the draft shield, if applicable.
4 Press →0← to zero the balance.
5 Open the draft shield, if applicable.
6 Place the sample vessel on the weighing pan.
7 Close the draft shield, if applicable.
8 Press →T← to tare the balance.
➡ The balance is tared. The icon Net appears.

4.6.3 Performing a weighing

1 Open the draft shield, if applicable.
2 Place the weighing object into the sample vessel.
3 Tap ➕ **Add result** if you want to report the weighing result.
➡ The result is added to the **Results list**.

4.6.4 Completing the weighing

1 To save the **Results list**, tap 🖫 **Complete**.
   ➡ The window **Complete task** opens.
2 Select an option to save or print the **Results list**.
   ➡ The respective dialog opens.
3 Follow the instructions from the wizard.
4 Tap ✓ **Complete**.
➡ The **Results list** is saved/printed and then cleared.

4.7 Transporting, packing and storing

NOTICE

Damage to the draft shield, terminal or additional terminal stand

Do not hold the balance only by the glass draft shield, by the terminal or by the terminal stand when carrying the balance.

− Remove the terminal of the S weighing platform from the terminal holder and place the terminal on top of the weighing pan. Always hold the weighing platform with both hands when carrying the balance.

4.7.1 Transporting the balance over short distances

1 Disconnect the balance from the AC/DC adapter.

2 Unplug all interface cables if necessary.

3 Remove the terminal from the terminal holder and place the terminal on top of the weighing platform (only for S weighing platform).
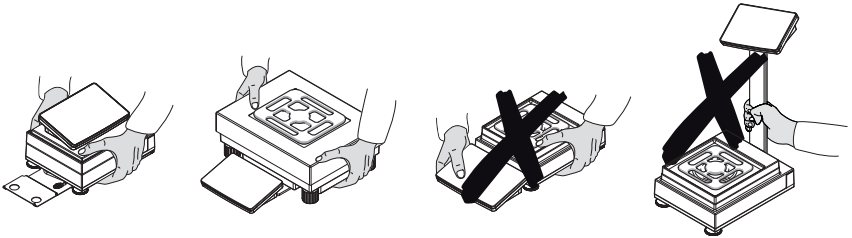
4 Hold the weighing platform with both hands and carry the balance in horizontal position to the target location. Consider the requirements of the location.

See also

⊘ Selecting the location ▸ Page 7

⊘ Leveling the balance ▸ Page 19

⊘ Performing an internal adjustment ▸ Page 19

4.7.2 Transporting the balance over long distances

METTLER TOLEDO recommends using the original packaging for transportation or shipment of the balance or balance components over long distances. The elements of the original packaging are developed specifically for the balance and its components and ensure maximum protection during transportation.

NOTICE

Damage to the comparator

Always install the transport safety screws on top of the weighing platform when transporting the comparator over long distances.

See also

⊘ Removing and installing the transport safety screws (only for comparators) ▸ Page 17

4.7.3 Packing and storing

Packing the balance

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 ensures maximum protection during transportation and storage.

Storing the balance

Only store the balance under the following conditions:

- Indoor and in the original packaging
- According to the environmental conditions, see "Technical Data"

ⓘ **Note**

When storing for longer than 6 months, the rechargeable battery may become empty (only date and time get lost).

See also

5 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.

For further information, consult the Reference Manual (RM).

▶ www.mt.com/XPR-precision-RM

5.1 Maintenance tasks

| Maintenance action	Recommended interval	Remarks
Performing an internal adjustment	- Daily - After cleaning - After leveling - After changing the location	see "Performing an internal adjustment"
Performing routine tests (eccentricity test, repeatability test, sensitivity test). METTLER TOLEDO recommends to at least perform a sensitivity test.	- After cleaning - After assembling the balance - After a software update - Depending on your internal regulations (SOP)	see "Tests" in the Reference Manual
Cleaning	- After every use - After changing the substance - Depending on the degree of pollution - Depending on your internal regulations (SOP)	see "Cleaning"
Updating the software	- Depending on your internal regulations (SOP). - After a new software release.	see "Software update" in the Reference Manual

See also

5.2 Cleaning

5.2.1 Disassembling the Pro draft shield for cleaning

⚠ **CAUTION**

Injury due to sharp objects or broken glass

Instrument components, e.g., glass, can break and lead to injuries.

– Always proceed with focus and care.
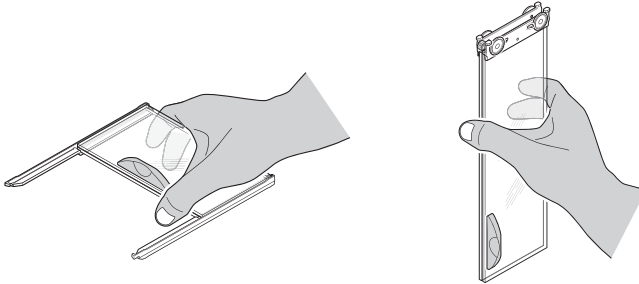
1 Remove the weighing pan.
2 Lift the Pro draft shield off the weighing platform and place it on a clean surface.
3 Remove the drip tray.
4 Turn the cover (1) to the front.
5 Pull the top glass back and out of the housing.
6 Pull the side glasses back out of the housing.

➡ The Pro draft shield is ready for cleaning.
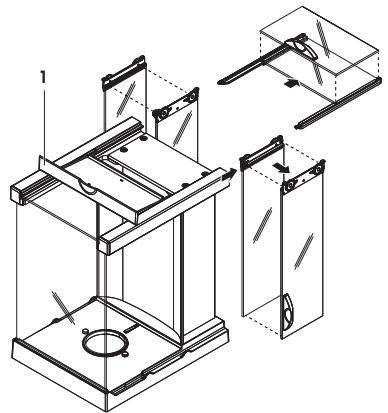
5.2.2 Cleaning the balance

NOTICE

Damage to the instrument due to inappropriate cleaning methods

If liquid enters the housing, it can damage the instrument. The surface of the instrument can be damaged by certain cleaning agents, solvents, or abrasives.

1 Do not spray or pour liquid on the instrument.
2 Only use the cleaning agents specified in the Reference Manual (RM) of the instrument or the guide "8 Steps to a Clean Balance".
3 Only use a lightly moistened, lint-free cloth or a tissue to clean the instrument.
4 Wipe off any spills immediately.

For further information on cleaning a balance, consult "8 Steps to a Clean Balance".

▶ www.mt.com/lab-cleaning-guide

Cleaning around the balance

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

Cleaning the terminal

– Clean the terminal with a damp cloth or a tissue and a mild cleaning agent.

Cleaning the removable parts

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

Cleaning the weighing unit

1. Disconnect the balance from the AC/DC adapter.
2. Use a lint-free cloth moistened with a mild cleaning agent to clean the surface of the balance.
3. Remove powder or dust with a disposable tissue first.
4. Remove sticky substances with a damp lint-free cloth and a mild solvent, e.g., isopropanol or ethanol 70%.

5.2.3 Putting into operation after cleaning

1. Reassemble the balance.
2. Check that the draft shield doors (top, sides) open and close normally.
3. Check if the terminal is connected to the balance.
4. Reconnect the balance to the AC/DC adapter.
5. Check the level status, level the balance if necessary.
6. Respect the warm-up time specified in the "Technical Data".
7. Perform an internal adjustment.
8. Perform a routine test according to the internal regulations of your company. METTLER TOLEDO recommends performing a sensitivity test after cleaning the balance.
9. Press →0← to zero the balance.
➡ The balance is ready to be used.

See also

6 Technical Data

6.1 General data

Power supply

AC/DC adapter (model no. FSP060-DHAN3):	Input: 100 – 240 V AC ± 10%, 50 – 60 Hz, 1.8 A
	Output: 12 V DC, 5 A, LPS, SELV
AC/DC adapter (model no. FSP060-DIBAN2):	Input: 100 – 240 V AC ± 10%, 50 – 60 Hz, 1.5 A
	Output: 12 V DC, 5 A, LPS, SELV
Cable for AC/DC adapter:	3-core, with country-specific plug
Balance power consumption:	12 V DC ± 10%, 2.25 A
Polarity:	◇—◉—◇

Protection and standards

Overvoltage category:	II
Degree of pollution:	2
Standards for safety and EMC:	See Declaration of Conformity
Range of application:	Use only indoors in dry locations

Environmental conditions

The limit values apply when the balance is used under the following environmental conditions:

Height above mean sea level:	Up to 5000 m
Ambient temperature:	+10 – +30 °C
Temperature change, max.:	5 °C/h
Relative humidity:	30 – 70%, non-condensing
Acclimatization time:	At least **4 hours** after placing the instrument in the same location where it will be put into operation.
Warm-up time:	At least **30 minutes** after connecting the balance to the power supply. When switched on from standby, the instrument is ready for operation immediately.

The balance can be used under the following environmental conditions. However, the weighing performances of the balance may be outside the limit values:

Ambient temperature:	+5 °C – +40 °C
Relative humidity:	20% to max. 80% at 31 °C, decreasing linearly to 50% at 40 °C, non-condensing

The balance can be disconnected and stored in its packaging under the following conditions:

Ambient temperature:	-25 – +70 °C
Relative humidity:	10 – 90%, non-condensing

Environmental conditions for comparators

Comparators need to be used under the following environmental conditions to reach the specified performances:

Acclimatization time:	At least **8 hours** after placing the instrument in the same location where it will be put into operation.
Warm-up time:	At least **60 minutes** after connecting the balance to the power supply. When switched on from standby, the instrument is ready for operation immediately.
Air speed, max.:	0.15 m/s

7 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.

To protect your product's future:
METTLER TOLEDO Service assures
the quality, measuring accuracy and
preservation of value of this product
for years to come.

Please request full details about our
attractive terms of service.

▶ **www.mt.com/service**

www.mt.com/XPR-precision

For more information

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