Declaration of Conformity

Equipment:
Model: BMT-DAVINCI-01
Ionizer Module for XPR Analytical Balances

CE

Applicable Harmonised standards

EN 81000-6-2:2005

EU Council Directives

Electromagnetic Compatibility Directive 2014/30/EU (Technical File)

On behalf of the above named company, I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.

[Signature]
Jon Ferguson, Engineering Manager
Date of issue: 27/07/2018
1 Introduction
Your Ionizer Module is an accessory for METTLER TOLEDO analytical balances. The ionizer produces a corona of ionized air, providing ions of the opposite polarity to neutralize static charges in the object being weighed. The guidelines stated in the Reference Manual of the METTLER TOLEDO balance connected to your ionizer also fully apply to your Ionizer Module.

Conventions and symbols
Refers to an external document.

Key and/or button designations and display texts are shown in graphic or bold text, e.g., Edit.

Elements of instructions
- Prerequisites
  - Steps
  - Intermediate results
  - Results

2 Safety Information
2.1 Definition of signal warnings and 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
- 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: read the User Manual or the Reference Manual for information about the hazards and the resulting measures.

Electrical shock Notice

2.2 Product-specific safety notes
Intended use
Your ionizer is an accessory for METTLER TOLEDO analytical balances and is used to discharge electrostatically charged objects. Use the ionizer 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.

Intended use also includes compliance with all the instruction in this Reference Manual and the Reference Manual of your balance.

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.
CAUTION

Injury due to spiky emitters
- Do not touch the emitter pins directly.

NOTICE

Reduced performance due to inert gas
An inert gas atmosphere or an inert gas purging system influences the transfer of ions and will result in reduced ionization efficacy.
- Only use the Ionizer Module in air.

3 Installation and Putting into Operation

Note
Mettler-Toledo GmbH recommends that the Ionizer Module be installed by a METTLER TOLEDO service representative.

3.1 Scope of delivery
- Ionizer Module
- Wedge-shaped tool
- Reference Manual

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

3.2 Installing the Ionizer Module

NOTICE

Damage to the instrument due to the use of unsuitable tools
Using a screwdriver or the like to remove the module-compartment cover can damage the instrument.
- Use the wedge-shaped tool provided with the Ionizer Module to remove the module-compartment cover.

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

▶ www.mt.com/XPR-analytical-RM
Balance is disconnected from the power supply.
Front panel draft shield is removed, see Reference Manual of the balance.
Side and top panel draft shields are opened, see Reference Manual of the balance

1. Insert the wedge-shaped tool (1) provided with the Ionizer Module on either side of the module-compartment cover (2) and flip to lift the cover off.

2. Remove the module-compartment cover (2).

3. Insert the Ionizer Module (3).

4. Put back the top, side, and front draft shield.

5. Reconnect the balance to the power supply.

6. Switch the balance on.

The Ionizer Module is installed and ready to use.

4 Operation

The ionizer is controlled by the balance. When used, it is activated for a duration of 5 seconds and it is deactivated afterwards.

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

www.mt.com/XPR-analytical-RM
4.1 Methods compatible with ionization

- **General Weighing**
- **Simple formulation**
- **Titration**

4.2 Using the Ionizer Module with StaticDetect

For information about creating or editing methods, see Reference Manual of the balance.

1. Generate a new compatible method or select a compatible method from the list of existing methods.
2. Tap **Edit**.
3. Tap **Weighing**.
4. In the section **Electrostatic**, set the **Ionizer** to **Active**.
5. Set the **Detection** to **Active**.
6. Set the **Threshold** to the desired value.
7. Tap **Save**.
8. Tap **Start method**.
9. Open the door and place the weighing container on the weighing pan.
10. Close the door.

- When all doors are closed, static detection is performed, indicated by 📦.
- If the detected electric charges are lower than the defined **Threshold**, the icon 📦 is displayed. No ionization is necessary.
- If the detected electric charges are higher than the defined **Threshold**, the Ionizer Module is discharging ions for a duration of 5 s, indicated by 🌪. When done, static detection is started again 📦 and the icon corresponding to the outcome is shown, either 📦 or 🌪.
- If the detected electric charges are still higher than the defined **Threshold**, the ionization can be started manually (see [Triggering the Ionizer Module manually ➔ Page 7]).

11. Tap ➔ **T** ➔.

⇒ The weighing is ready to be performed.

**Note**
The static detection / ionization sequence is performed every time the door is opened and closed.

**Note**
If the detected charges are above the defined **Threshold**, the weighing value can still be added to the protocol.

4.3 Triggering the Ionizer Module manually

- A method with **Ionizer Active** is running.
1. Tap ➔ **Discharge**.

⇒ The ionizer is discharging ions for a duration of 5 s, indicated by 🌪.
2. If **Detection** is set to **Active** for this method, the user can perform static detection by tapping ➔ **Detect**.

⇒ If the detected electric charges are lower than the defined **Threshold**, the icon 📦 is displayed.
⇒ If the detected electric charges are higher than the defined **Threshold**, the icon 🌪 is displayed. The user can try to hold the object closer to the point electrodes and tap ➔ **Discharge** again.

⇒ The weighing is ready to be performed.

**Note**
The ionization is started every time the user taps ➔ **Discharge**.

**Note**
If an external ionizer is used simultaneously, both ionizers are started by tapping ➔ **Discharge**.

**Note**
If the detected charges are above the defined **Threshold**, the weighing value can still be added to the protocol.
5 Maintenance

5.1 Cleaning

**WARNING**

**Electric shock**

1. The balance must be disconnected from the power supply before maintenance.
2. Ensure that no liquid comes into contact with the AC adapter.
3. Never open the balance, terminal, ionizer or AC adapter – they contain no internal components that can be cleaned, repaired or replaced by the user.
4. Do not reconnect the balance until the cleaned parts are dry.

**CAUTION**

**Injury due to spiky emitters**

– Do not touch the emitter pins directly.

Clean the ionizer once a month with a soft brush or with ethyl alcohol and a lint-free cloth.
1. Clean the insulation, white PTFE, around the emitter pin and the emitter pin itself.
   - **Note** Avoid touching this area with fingers to prevent contamination.
   - PTFE is white again.
2. Check that no ethyl alcohol is left on the ionizer.
   - **Note** Please contact your METTLER TOLEDO service representative for details of the available service options.

5.2 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.

6 Troubleshooting

6.1 Error messages

<table>
<thead>
<tr>
<th>Error message</th>
<th>Possible cause</th>
<th>Diagnostic</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ionizer could not be found</td>
<td>Ionizer Module disconnected</td>
<td>–</td>
<td>Push the Ionizer Module in the module slot.</td>
</tr>
<tr>
<td></td>
<td>Ionizer Module defective</td>
<td>–</td>
<td>Contact your METTLER TOLEDO service representative.</td>
</tr>
</tbody>
</table>

6.2 Error symptoms

<table>
<thead>
<tr>
<th>Error symptom</th>
<th>Possible cause</th>
<th>Diagnostic</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Button ✰ Discharge does not appear on the display</td>
<td>Inappropriate method settings</td>
<td>Check the status of Ionizer in the method settings</td>
<td>Set Ionizer to Active</td>
</tr>
</tbody>
</table>
7 Technical Data

7.1 General data

Ionizer

Input voltage: 12 V DC +/- 10 %
Input current (operating): 175 mA
Weight: 260 g (complete with packaging)

Protection and standards

Overvoltage category: II
Degree of pollution: 2
Range of application: For use only in closed interior rooms

Environmental conditions

Height above mean sea level: up to 5000 m
Ambient temperature: 5-40 °C
Relative air humidity: Max. 80 % up to 31 °C, linearly decreasing to 50% at 40 °C, noncondensing
Atmosphere: Do not use under inert gas atmosphere

Ozone

All high-voltage ionizers produce a trace of ozone. The METTLER TOLEDO ionizer ozone level is considerably below the international safety limit of 0.1 ppm.

7.2 Dimensions

Dimensions in mm.

[Diagram of dimensions: 116 x 60 x 2 x 42]
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]