

# Antistatic Ionizer

DJ-04 Ionizer  
DJ-05 Ionizer

## USER MANUAL

IMMU-48-08-05-23-EN



MAY 2023

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## 1. GENERAL INFORMATION

Antistatic ionizer is a device that removes excess of ions, both positive (cations) and negative (anions), from the sample, weighing device's components and the environment. Ionization is an operation aiming to neutralize electric charge of air molecules in order to restore quasi-balance of positive and negative ions.

Imbalance of cations and anions in the air causes unwanted electric interaction (attraction and repulsion) between objects located close one to another. This process is even more intense in case of non-conductive materials (plastic, glass). When it comes to the weighing device, its operation is affected by the said interactions due to the fact that some of the device components are made of the said non-conductive materials.

Affected operation as a result gives greater repeatability error, often also greater error of indication.

## 2. TECHNICAL SPECIFICATIONS

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|                                    |                 |
|------------------------------------|-----------------|
| 'Sample - ions source' distance    | about 5 ÷ 50 cm |
| Ions source                        | stainless steel |
| Net weight                         | 1.3 kg          |
| Ambient conditions:<br>Temperature | 0 ÷ 40 °C       |
| Humidity                           | 10 ÷ 80%        |
| Power supply                       | 15V DC / 2 W    |

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### 3. BASIC SAFETY PRECAUTIONS

Safety notes contain important information on safety issues.

Ignoring the safety notes may lead to personal injury, damage to the instrument or breakdown.

Safety notes are marked with the following signal words and warning symbols:



## WARNING

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Air ionizer must be operated as an accessory of electronic balances manufactured by Radwag, exclusively. The ionizer cannot be used with devices of other manufacturers.

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Under no circumstances should the ionizer be used in a hazardous area where there is any risk of explosion. The air ionizer is not intended to be operated in EX zones.

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Ionizer must work in an environment where it is not exposed to:

- high air humidity (humidity range guaranteeing correct operation is  $10 \div 80 \%$ ),
- corrosive fumes,
- high temperature (temperature range guaranteeing correct operation is  $0 \div 40 \text{ }^\circ\text{C}$ ),
- vibrations or heavy shocks.



Make sure that at the ionizer's workplace there is no water or oil. Due to the fact that in the course of ionizer's operation ozone is produced, the workroom where the ionizer is operated must be equipped with a valid air conditioning system.

If the ionizer had been stored in a place where the temperature is much lower than the temperature of the workroom, prior running the ionizer, it is necessary to let its temperature stabilize - leave the ionizer in the workroom for about 2 hours.

Otherwise humidity condensation may occur, which in turn may result with an electrocution.

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Nie dotykać!  
Urządzenie elektryczne

Do not touch ions source, this may cause either electric shock (in the course of operation) or injury (components generating ions are sharp).

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Should you notice any signs of incorrect operation (smoke, burnt material smell, irregular ionizer warming), disconnect the device from the power supply immediately. Should water or any foreign bodies get inside the ionizer, behave likewise, i.e. disconnect the ionizer from the power supply immediately.

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Nie dotykać!  
Urządzenie elektryczne

Due to high voltage, typical for the ionizer, remain extremely careful while operating it.

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NIE OTWIERAĆ

You are not allowed to either disassemble or modify the ionizer. Use the device only as intended.

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The ionizer must be connected to the mains only by means of an original power cord which comes standard with it. Rated voltage (specified on the device's data plate) must be compatible with the mains rated voltage.  
The power cord can be connected only to a socket with a ground contact.

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The ionizer when not operated must be disconnected from the mains.

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Any repairs to be done must be carried out by service authorized by RADWAG.



## CAUTION

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Nie dotykać!  
Urządzenie elektryczne

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It is forbidden to connect ionizer that is broken to the mains – this may result with either electrocution or fire.



It is not allowed to use ionizer outdoors or in vehicles, this will result with loss of warranty.

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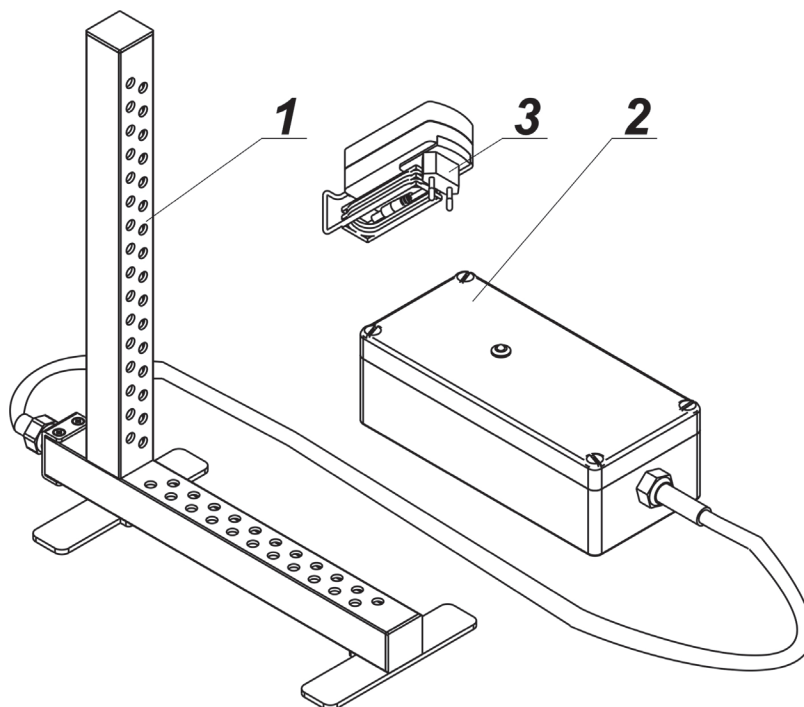


Be aware of the fact that the device in the course of regular operation may get warm.

## 4. MECHANICAL DESIGN OF DJ-04 and DJ-05 IONIZERS

The ionizer comprises two modules (see the figure below) and power supply:

- 1 – ionizing unit,
- 2 – high-voltage generator,
- 3 – power supply.



## 5. UNPACKING

### 5.1. Unpacking

Unpack the device, remove protective foam, next carefully remove the antistatic ionizer from the box and place it at its workstation.

## 6. START-UP

The ionizer must be connected to the mains by means of power supply that comes standard with it. Ionizer activation is signalled with diode placed on the housing, when the ionizer is on the diode emits light

### 6.1. Operation

Ionizer operates with positive and negative polarization in turns. This enables effective removal of electric charges regardless of the sign.



## 7. MAINTENANCE, SERVICE, RECYCLING

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Electric shock.

Nie dotykać!  
Urządzenie elektryczne

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1. The device must be disconnected from the mains before maintenance.
2. Ensure that no liquid comes into contact with the power supply.
3. Never open the ionizer or power supply – they contain no internal components that can be cleaned, repaired or replaced by the user.
4. Do not connect the balance to the mains until the cleaned parts are dry.
5. Any maintenance activities (cleaning) must be performed 5 minutes after disconnection of the device from the mains.
6. The emitter pins are sharp. Do not touch them directly as this may cause body injury.

### 7.1. Maintenance

The power supply housing and the ionizing unit have to be cleaned at least once a month using a lint-free cloth soaked with alcohol-based substance.

### 7.2. Service

Only authorized RADWAG service points are allowed to disassembly, repair and modify the ionizer.

### 7.3. Recycling

The device and the packaging must be recycled in accordance with valid state regulations.

## 8. DECLARATION OF CONFORMITY



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### EU DECLARATION OF CONFORMITY (No. J/1/23/EN)

| 1   | Anti static ionizer<br>Instrument model: <b>DJ – 04 ; DJ – 05</b>   |           |                      |            |                     |            |                 |   |  |
|---|---|-----------|----------------------|------------|---------------------|------------|-----------------|---|--|
| 2   | Manufacturer: RADWAG WAGI ELEKTRONICZNE<br>Witold Lewandowski<br>Address: POLAND, 26-600 Radom, 5 Toruńska Street   |           |                      |            |                     |            |                 |   |  |
| 3   | This declaration of conformity is issued under the sole responsibility of the manufacturer  |           |                      |            |                     |            |                 |   |  |
| 4   | -   |           |                      |            |                     |            |                 |   |  |
| 5   | The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:   |           |                      |            |                     |            |                 |   |  |
| 6   | <table border="1"> <thead> <tr> <th>Directive</th> <th>Harmonised Standards</th> </tr> </thead> <tbody> <tr> <td>2014/30/EU</td> <td>EN IEC 61326-1:2021</td> </tr> <tr> <td>2014/35/EU</td> <td>EN 61010-1:2010</td> </tr> <tr> <td colspan="2">REGULATION OF MINISTER OF FAMILY, LABOUR AND SOCIAL POLICY of 12 June 2018, on the maximum permissible concentration and intensity of harmful factors in the working environment.</td> </tr> </tbody> </table> | Directive | Harmonised Standards | 2014/30/EU | EN IEC 61326-1:2021 | 2014/35/EU | EN 61010-1:2010 | REGULATION OF MINISTER OF FAMILY, LABOUR AND SOCIAL POLICY of 12 June 2018, on the maximum permissible concentration and intensity of harmful factors in the working environment. |  |
| Directive   | Harmonised Standards  |           |                      |            |                     |            |                 |   |  |
| 2014/30/EU  | EN IEC 61326-1:2021   |           |                      |            |                     |            |                 |   |  |
| 2014/35/EU  | EN 61010-1:2010   |           |                      |            |                     |            |                 |   |  |
| REGULATION OF MINISTER OF FAMILY, LABOUR AND SOCIAL POLICY of 12 June 2018, on the maximum permissible concentration and intensity of harmful factors in the working environment. |   |           |                      |            |                     |            |                 |   |  |
| 7   | -   |           |                      |            |                     |            |                 |   |  |
| 8   | -   |           |                      |            |                     |            |                 |   |  |

Signed for and on behalf of:  
The Managing Director of RADWAG WAGI ELEKTRONICZNE – *Dr. Witold Lewandowski*

Radom 05.05.2023

.....  
*Place and date of issue*

Rafał Pijarski, Head of Engineering Dept.

.....  
*Name, Position*

.....  
*Signature*



**RADWAG BALANCES AND SCALES**  
ADVANCED WEIGHING TECHNOLOGIES

