MeterTo KF-10A

MeterTo KF-10A Benchtop ESD Ionizing Air Blower

Instruction Manual

1. Introduction

The MeterTo KF-10A is a benchtop intelligent ESD (Electrostatic Discharge) ionizing air blower designed to neutralize and eliminate static charges. This device is suitable for environments where static electricity can negatively impact delicate electronic products, manufacturing processes, and sensitive materials. It provides a balanced ion flow and wide coverage, making it an effective solution for static control in various industrial applications.

2. Safety Information

Please read and understand all safety instructions before operating the KF-10A ionizing air blower. Failure to follow these instructions may result in electric shock, fire, or damage to the product.

- Ensure the power supply voltage matches the device's requirements (DC24V).
- Do not operate the device in wet or damp conditions.
- Do not insert objects into the fan grille or internal components.
- Disconnect power before performing any maintenance or cleaning.
- Keep the device away from flammable materials.
- Only qualified personnel should attempt repairs.

3. Package Contents

Verify that all items are present in the package:

- KF-10A Benchtop ESD Ionizing Air Blower Unit
- DC24V Power Adapter (if included with purchase)
- Instruction Manual

4. Product Features

The MeterTo KF-10A offers the following key features:

- Rapidly neutralizes static charges.
- Continuously adjustable wind speed.
- Indicator lamp for ion production status.
- Equipped with a magnetic leakage transformer for long lifespan and short-circuit protection.
- Variable speed fan with a wide range of airflow.
- Inherently balanced ion output.
- Ionization indicator lamp.
- Integrated ion emitter cleaner for easy maintenance.

5. SETUP

Follow these steps for initial setup of your KF-10A unit:

1. **Unpack the Unit:** Carefully remove the KF-10A from its packaging. Inspect for any signs of damage during transit.

2. **Placement:** Place the unit on a stable, flat surface in the desired work area. Ensure there is adequate space around the unit for proper airflow.

3. **Adjust Angle:** Use the knobs on the sides of the unit to adjust the tilt angle of the fan to direct the ionized air towards the target area.

Figure 5.1: Angled view of the KF-10A, showing the adjustable stand.

4. **Connect Power:** Connect the DC24V power adapter to the power input port on the unit. Plug the adapter into a suitable electrical outlet.

Figure 5.2: Front view of the KF-10A unit, showing controls and indicators.

6. OPERATION

To operate the MeterTo KF-10A:

1. **Power On:** Press the power button (usually marked with a circle and vertical line symbol) on the control panel.

2. **Indicator Lights:**

   - A **green indicator light** signifies normal destaticizing operation.
   - A **red indicator light** (H.V. ALARM or FAN ALARM) indicates an abnormal condition. Refer to the Troubleshooting section if a red light appears.

3. **Adjust Air Volume:** Use the fan speed control (often marked with '+' and '-' buttons or a rotary knob) to adjust the airflow to the desired level. The KF-10A features continuously adjustable wind speed.

The unit will begin emitting ionized air to neutralize static charges in the designated area.

7. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your KF-10A ionizing air blower.

1. **Power Disconnection:** Always disconnect the power adapter from the unit before performing any cleaning or maintenance.

2. **Cleaning the Ion Emitter:** The KF-10A includes an internal ion emitter cleaner. Refer to the device's specific mechanism for activating this cleaner, which typically involves a simple external lever or button. Regular cleaning prevents ion output degradation due to dust accumulation on the emitter needles.

3. **Cleaning the Fan Grille:** Periodically remove the front grille to clean any dust or debris from the fan blades and the grille itself. This helps maintain optimal airflow.

Figure 7.1: KF-10A with the front grille removed for cleaning access.

4. **General Cleaning:** Wipe the exterior of the unit with a soft, dry cloth. Do not use abrasive cleaners or solvents.

8. TROUBLESHOOTING

If you encounter issues with your KF-10A, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Unit does not power on	No power supply; Faulty power adapter; Unit malfunction	Check power connection; Test power adapter; Contact support
Red H.V. ALARM light is on	High voltage circuit issue; Ion emitter contamination	Clean ion emitter; Power cycle the unit; If issue persists, contact support
Red FAN ALARM light is on	Fan obstruction; Fan malfunction	Check for obstructions in fan grille; Clean fan blades; If issue persists, contact support
Reduced static elimination effectiveness	Dirty ion emitter; Incorrect placement; Unit malfunction	Clean ion emitter; Adjust unit placement; Contact support

9. SPECIFICATIONS

Detailed technical specifications for the MeterTo KF-10A:

Parameter	Value
Model	KF-10A
Input Power Supply Voltage	DC24V
Destaticizing Time (200mm distance)	Approximately 1.3 seconds
Ion Balance	Automatic ion balance system 0±15V
Air Volume	0.82 - 1.52 m³/min (constant airflow)

Parameter	Value
Ozone Concentration (150mm distance)	Below 0.03 ppm
Applied Environmental Temperature	0°C to 40°C (no condensation)
Applied Environmental Humidity	30% to 70% RH (no water drop condensation)
Overall Size (excluding stents)	106 x 61 x 120 mm
Weight (excluding stents)	0.63 Kg

Anti-static Test Conditions:

- Operating Voltage: DC24V
- Test Voltage: ±1000V to ±100V
- Ambient Temperature: 23°C ±2°C

Destaticizing Performance:

Distance	Positive Destaticizing Time	Negative Destaticizing Time	Residual Voltage
200mm	1.5s	1.7s	<0±15V
300mm	2.1s	2.4s	<0±15V

10. Warranty and Support

For warranty information and technical support, please refer to the documentation provided at the time of purchase or contact your vendor directly. MeterTo is committed to providing quality products and customer service.