

# Instruction Manual Guide

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## High Frequency Air Ionizer

(KS10H)



Bondline Electronics  
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SN5 7EX

## Introduction

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Thank you for purchasing a high frequency air ionizer KS10H. Please read this instruction manual in great detail before operating the device. Keep this manual readily accessible for later reference.

## Description

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High frequency air ionizer KS10H is the most efficient static elimination (neutralisation) device that prevents parts and components of the electronic industry and precision instruments against ESD (Electro Static Discharge). Moreover, the device is widely used in plastic product, printing, spray coating, film product, medicine, packaging and so on. The device, with piezoelectric HV power unit, is light, small and free from EMI. It is equipped with auto-ion balance and abnormal HV monitoring system.

**This product is CE approved.**

## Features

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- 1) Being small and light, the device performs strong static elimination capability. It has various applications, including desktop use and product line use.
- 2) Excellent auto-ion balance and ionization performance; rapid ionization for both nearby and remote charged objects.
- 3) With ionization indicator light (green) and abnormal HV alarm (red).
- 4) Auto and stable ion balance. No periodical adjustment is necessary.
- 5) Special alloy discharge needle; more durable and wearable than tungsten ones.
- 6) Assembly and disassembly of the front louver is easy; maintenance and cleaning of the device can be performed with ease.
- 7) Adjustable blowing angle and air volume.

## Packing List

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Make sure each of the following items are included in the pack.

1) Main Unit.....	1
2) AC Adapter.....	1
3) Stand.....	1
4) Instruction Manual.....	1
5) Knob Bolt.....	2
6) Rubber Pad.....	2

## Operating Location

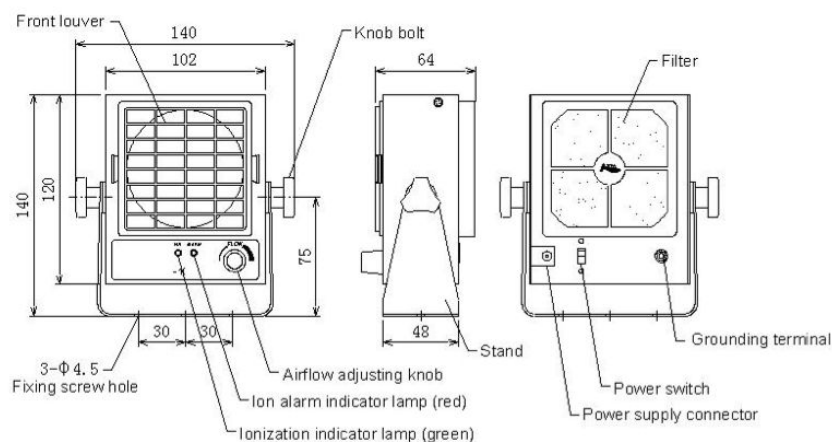
Please put the device in the place where the power switch and the indicator light are easy to be identified. Keep the device away from water, oil, high temperatures, high humidity and high density dust. Do not operate the device under inflammable or explosive atmospheres. In addition, do not insert any object through the air inlet louver. Keep it unobstructed.

## Usage

- 1) Install the main unit and the stand. Put the rubber pads between the main unit and the stand, then adjust the angle and tighten the knob bolt. The device can be used on desks or machines or product lines through the mounting holes (3- $\phi$ 4.5).
- 2) Connect the AC adapter output terminal to the main unit, and then plug it in a AC socket. (Caution: Do not use other AC adapter at will.)
- 3) Corona discharge occurs and a great amount of ions are emitted when the main unit is on. Meanwhile, ion flow is blown off through the front louver. Charged objects in the ionization area will be neutralised in no time.
- 4) The ion flow is adjustable through the airflow adjusting knob.
- 5) The device is mounted with auto-ion balance system. No adjustment is necessary.
- 6) The red alarm indicator light illuminates when the high voltage power supply abnormally outputs. Turn the power supply off and check the problem, and then turn the power on after debugging.
- 7) Turn the power switch off after operation.

## External Dimensions

**Note:** The outside drawing may change slightly due to improvement. They should comply with the real device.



## Abnormal HV Alarm

The device is equipped with abnormal HV alarm. The alarm indicator light illuminates when the following situations occur:

- 1) Low output HV;
- 2) Short circuit;
- 3) Abnormal HV discharge.

## Specifications

Technical information providing the specifications of the High Frequency Air Ionizer.

<b>Safety Performance</b>	Abnormal HV alarm system.
<b>Current Consumption</b>	10VA.
<b>Output HV</b>	AC2200V.
<b>Power Supply Volt</b>	DC24V.
<b>Air Volume</b>	0.47~1.18m <sup>3</sup> /min.
<b>Noise Level</b>	60dB(A) (Distance 1m).
<b>Weight</b>	0.65kg.
<b>Allowable Humidity</b>	25~70%RH.
<b>Ozone Density</b>	Less than 0.01ppm.
<b>Allowable Temperature</b>	0~40°C.

## Ionization Performance

The ionization performance is tested according to American EOS/ESD-STM3. 1-2000 standard. The performances of this device have been rectified before it goes out. References are as follows:

<b>Distance (mm)</b>	300
<b>Positive Decay Time (sec)</b>	2.2
<b>Negative Decay Time (sec)</b>	2.4
<b>Ion Balance (V)</b>	Within 0±5V.

**Note:** The test results will vary slightly due to different test conditions.

## Daily Maintenance

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**Cleaning of the front louver:** Disassemble the front louver by pressing the side wrench inwardly. Clean it with a cotton swab or water it with neutral washer. Assemble it when it is dry.

**Cleaning of the discharge needle:** Dust and contamination will drift around the tip of the discharge needle after long use. Clean the discharge needle with a cotton swab. Periodical cleaning is necessary (once every 100 hours). If the discharge needle is dusty, clean it with an included cotton swab and alcohol. Do not damage or loosen the discharge needle.

<b>Note</b>	<b>Periodical and timely cleaning of the discharge needle is necessary, otherwise ionization performance is affected. The tip of the discharge needle is pointed, please be careful with your fingers when cleaning. Make sure the device is well grounded.</b>
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