



TRANSFORMING TECHNOLOGIES, LLC  
OUTSTANDING ALTERNATIVES IN STATIC CONTROL

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## *Ptec™* Static Eliminators

Overhead Ionizing Blower

Model IN5130

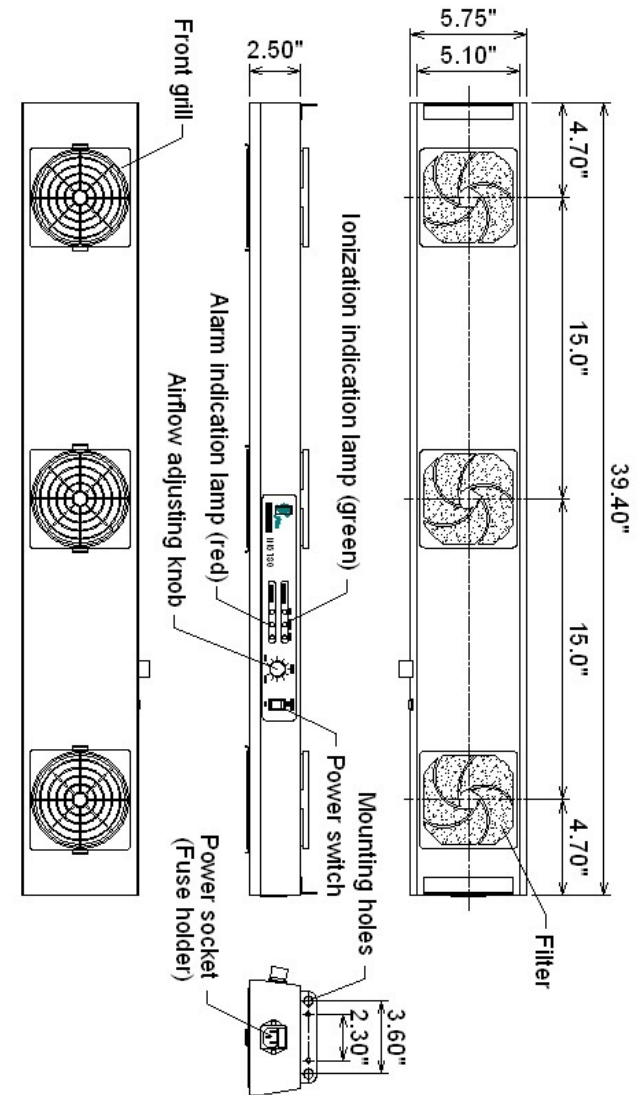


# Instruction Manual

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## IN5130 Line Drawing



## Service and Warranty

Transforming Technologies, LLC provides a limited warranty for the Model IN5130 overhead blower. All new products are guaranteed to be free from defects in material and workmanship for a period of one (1) year from the date of shipment. Liability is limited to servicing (after evaluating, repairing or replacing) any product returned to Transforming Technologies. The company does not warrant damage due to misuse, neglect, alteration or accident. In no event shall Transforming Technologies be liable for collateral or consequential damages.

To receive service under warranty, please contact Transforming Technologies Technical Support.

## About Transforming Technologies

Since 1998, Transforming Technologies has helped electronic manufacturing facilities to protect their products and processes from the many serious problems associated with static electricity.

Transforming Technologies offers a wide range of unique and outstanding products to detect, protect, eliminate and monitor electrostatic charges. Our products are integral components of an effective static control program.

## Description

### Overhead Blower Model IN5130

The Model IN5130 68KHz AC overhead air ionizer is designed to cover a complete workstation and to protect sensitive electronic components from damage due to electrostatic discharge (ESD). Using AC corona technology to make the air more conductive, Ptec™ ionizers produce a balanced stream of positive and negative air ions that never need calibration. These devices are used in many industries and manufacturing applications where static electricity is a problem.

### About *Ptec™* Technology

A specialized piezoelectric high voltage transformer makes Ptec™ ionizers among the most reliable products available. Ptec™ ionizers are designed to remain in balance and to alarm when the HV output affects performance. The model IN5130 overhead static eliminator produces a 68KHz AC output of approximately 2200V and a continuous stream of balanced air ions. Ionizers that use Ptec™ technology do not require calibration and only minimal maintenance.

### Features

On the front panel of the IN5130 are six LEDs. Three green LEDs indicate that power is applied to each of the three Ptec™ HV transformers. The red LEDs illuminate when an alarm condition occurs. A variable fan speed control and on-off switch are also on the front panel. The side panel of the ionizer has the IEC power input connector.

## Features cont'd.

- Complete workstation protection.
- Rapidly decays static charges. (1KV to 100V, < 6 sec. @ 24").
- Excellent ion balance,  $0 \pm 10V$ .
- Stable AC technology.
- Ionization indicator light.
- HV alarm (red) lights.
- No periodic adjustments.
- Durable, replaceable tungsten alloy emitter points.
- Removable front grill.
- Adjustable air volume.

## Power Requirements

The Model IN5130 High Frequency AC overhead air ionizer is powered by an internal DC switching power supply that operates from 100-240 VAC 50/60 Hz. The output of the supply is +24 VDC @ 1.5 AMP.


## Operation and Use

## Environmental Conditions

The IN5130 can be operated in areas where humidity is 20-70% RH (Non-condensing). Excess humidity may affect ionizer performance. The temperature range for the IN5130 is 65-78°F (18-25°C).

## Set-up and Placement

## Specifications

<b>Power input</b>	100-240VAC, 50/60 Hz, 36W
<b>Power outlet</b>	Un-fused, 0.5A or 1.0A max.
<b>Ion Emission</b>	AC, 68KHz
<b>Balance</b>	+/- 10 volts, typical offset
<b>Decay Time</b>	1000V - 100V < 6 seconds at 24"
<b>Temperature</b>	66-78°F (19-25°C)
<b>Humidity</b>	20-60% RH (non-condensing)
<b>Airflow</b>	115 x 3 CFM, typical, high speed
<b>Noise level</b>	60dB(A) (Distance 1 meter)
<b>Indicators</b>	Power: green LED Alarm: red LED
<b>Controls</b>	On/Off rocker switch, fan speed knob
<b>Emitter points</b>	.036" dia. Tungsten alloy, etched
<b>Ozone</b>	<0.007 PPM
<b>Mounting</b>	4 "S" hooks provided
<b>Dimensions</b>	2.5"H x 39.4"W x 5.75"D, (64 x 1000 x 146 cm)
<b>Weight</b>	11.5lbs, (5.0kg)
<b>Certifications</b>	

6. Make certain the emitter points are straight and parallel to the plane of the fan.
7. Replace the front grill.

## Service

Ptec™ ionizers are reliable products with a long service life. If you feel your unit is not operating properly, turn off the unit and disconnect the power cord. Contact Transforming Technologies' Technical Support for repair assistance.

## Troubleshooting

The information below provides a reference for problems that may arise with your IN5130 overhead blower. If you have other problems not covered below, please contact Transforming Technologies' Technical Support for repair assistance

<u>Problem</u>	<u>Causes</u>
• Balance outside specifications.	Emitter points are dirty, damaged or not straight. Clean or replace
• Alarm light activated	Low HV output, call for repair Unit is arcing, call for repair Short circuit, call for repair

Use the IN5130 overhead blower in proximity to a static sensitive area or object. The unit can be mounted on the workstation or attached to a structure using the mounting holes provided.

<h3>Caution</h3> <p>!</p>	<p><b>Do not use this ionizer in an explosive environment! Corona ionizers produce a weak plasma that can cause ignition in explosive environments.</b></p>
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## Mounting

Install the overhead ionizer 24" (60.9 cm) above the work area to achieve the most uniform decay performance.


The IN5130 mounts easily using the S-hooks supplied. Chain or cable is not supplied and may be required. S-hooks attach to the unit. Chains can be easily attached and mounted to the ceiling or other structure.

## Power Connection

- Connect the IEC Cable to the main unit, and plug it in an AC socket. **(Caution: Use the appropriate IEC cable for the country of use).**
- Make certain the unit is grounded (Via IEC cable).
- Turn the unit on to start the corona process. The ionizer creates a continuous stream of positive and negative air ions. The ionized airflow is directed through the front grill. Charged objects in the ionization area are rapidly neutralized .
- The ion airflow is adjustable using the fan speed control knob.

- The red alarm indicator light illuminates in the event of a problem with the high voltage power output.
- Turn the power switch off after operation.

## Maintenance

<b>Caution</b>  	<p>The only serviceable parts inside the ionizer are the replaceable emitter points. Any unauthorized service will void the warranty and may result in additional repair fees.</p>
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## Periodic Maintenance

The only regular maintenance required for the IN5130 is the periodic cleaning of the emitter points and ionizer grills. Emitter point cleaning affects the static decay ability of the ionizer and is important for maintaining its optimal performance.

### Cleaning the front grill and external chassis

Disassemble the front grill by squeezing the grill side clips. Temporarily remove the grill. Clean it with a polyester wiper and a cleaning solution of 50% IPA (electronic-grade isopropyl alcohol) and 50% de-ionized water. Assemble it when it is dry. Use the same method to clean the exterior of the unit, including the inlet grill.

### Cleaning the emitter points

Contaminants will gradually accumulate on the tip of the emitter points with continuous use. Periodic cleaning of the emitter points is necessary to maintain the performance of the ionizer. If the emitter points are dirty, clean them with a polyester or cotton swab and IPA. Do not damage or loosen the emitter points.

### Follow these instructions to clean the emitter points:

1. Remove the front grill.
2. Moisten a swab or wiping cloth in the IPA solution.
3. Swab or wipe the emitter points until they are free of particles.
4. Make certain the emitter points are straight and parallel to the plane of the fan.
5. Replace the front grill.
6. Make sure the emitter points are dry before powering the ionizer again.

## Emitter Point Replacement

The IN5130 uses tungsten alloy precision etched emitter needles. Contact Transforming Technologies for information about ordering replacement emitters. The part number for emitters is listed below:

<u>Replacement part</u>	<u>Part Number</u>
Tungsten replacement emitters	22-6423

Because the IN5130 high voltage output is AC, emitter erosion from the ionization process on the electrodes is minimal. Unless physically broken or stressed, the IN5130 emitters should last the life of the ionizer.

### Follow these instructions to remove the emitter points:

1. Turn off and disconnect the unit from the AC power.
2. Remove the front grill.
3. Unscrew the threaded emitter point using a needle nose pliers.
4. Replace and tighten the new emitter using the same tool. Do not over-tighten.
5. Repeat steps 3 and 4 as required.