2. System Structure
The device is used by supplying 100 to 240V AC via the supplied power cable and compressed air via the supplied qill air tube.

3. Specifications

![Product Name PARTICLE TRAP](image)

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT Cube main unit</td>
<td>1</td>
</tr>
<tr>
<td>Instruction Manual</td>
<td>This document</td>
</tr>
<tr>
<td>Power cord</td>
<td>1</td>
</tr>
<tr>
<td>Work inlet covers</td>
<td>3</td>
</tr>
<tr>
<td>Replacement filter</td>
<td>1</td>
</tr>
</tbody>
</table>

4. Items Included with the Device
Check whether any of the following items are missing, whether there are any irregularities, and whether they have been damaged during transit before use.

5. Exterior and Names and Functions of Components

5-1 Explanation of Main Unit Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work inlet</td>
<td>Insert the work to eliminate static charges and dust.</td>
</tr>
<tr>
<td>Main unit central plate</td>
<td>Detach this when cleaning the inside of the main unit. When attaching, remove the knurled screws (one on each side) in the sides of the main unit for holding this plate in place.</td>
</tr>
<tr>
<td>Filter</td>
<td>A filter for filtering dust removed from the work. It is disposable.</td>
</tr>
<tr>
<td>Blow nozzle</td>
<td>Two blow nozzles are attached at the top and one at the bottom. The angles of the two blow nozzles at the top are adjustable, and their angles can be adjusted as desired to match the shape of the work pieces.</td>
</tr>
<tr>
<td>Ionizer</td>
<td>A static elimination ionizer. It is arranged separately to the main blow.</td>
</tr>
<tr>
<td>Regulator</td>
<td>Adjusts the air blow pressure. This device can be used when the range of 29 psi – 71 psi.</td>
</tr>
<tr>
<td>Setting/Display Panel</td>
<td>Displays the various settings and operations. Details are described below.</td>
</tr>
<tr>
<td>Power cord inlet</td>
<td>A connection for supplying AC power. Connect the supplied power cable here.</td>
</tr>
<tr>
<td>Ground terminal</td>
<td>A terminal for grounding. You can connect an M4 terminal.</td>
</tr>
<tr>
<td>Fuse box</td>
<td>The power supply fuse box.</td>
</tr>
<tr>
<td>quick connector</td>
<td>A coupling for connecting compressed air. Connect a qill air tube.</td>
</tr>
<tr>
<td>Optical sensor</td>
<td>For optional sensor connection</td>
</tr>
</tbody>
</table>

6. Installation, Wiring, and Air Ducting

6-1 Before installing
- Install the device in a rigid flat location such as a workbench etc. Avoid installing it in unstable locations.
- Be sure to connect the ground terminal of the power cord or the ground terminal of the main unit to ground.
- Use the device indoors, and do not use it in oil or wet locations, locations where flammable gases and solvents are handled or locations with such atmospheres, or hot or humid locations.
- Check that the power of the main unit is turned off or the regulator is closed when connecting the power supply and connecting air ducting.

6-2 Wiring
Supply 100 to 240V (50/60Hz) to the device with the supplied power cord.
When grounding from the ground terminal of the main unit of the device, use an M4 crimping terminal etc. and connect it firmly.

Select the internal sensor and optional optical sensor.
- The terminal “SensorSelect” as “Open”, it works in international sensor.
- The terminal “SensorSelect” as “Close”, it works on optional optical sensor.

Optional Sensor terminal
Connect D24V of sensor to the terminal “DC24V”.
Connect 0V of sensor to the terminal “0V”.
Connect a urethane or nylon tube with an outer diameter of φ8.

6-3 Air Ducting

Connect a urethane or nylon tube with an outer diameter of φ8.

6-4 Attaching the Work Inlet Cover

- Work inlet covers are included for preventing scratching when a work piece hits the work inlet of the device. Attach and use them as appropriate.
- Two types of black work inlet cover of different lengths (one long and one short) are provided. Fasten them at the attachment positions corresponding to their lengths.
- The work inlet covers are held between resin plates, but if these come off during use, reattach them using adhesive glue (supplied separately).

1. Attach the work inlet cover to the transparent resin portion of the main unit inlet.

7. Operation

7-1 Procedure When Starting Operation

1. Install the device in a location with a flat top and carry out wiring and air ducting.
2. Open the main valve from the compressor to supply air to the device, and adjust the pressure with the regulator of the device to the air pressure to be used (between 29 psi – 87 psi).
3. Turn the power switch of the device on, check that the 'IONIZER' – 'Ready' lamp on the main unit display panel is on, and insert a work piece. The sensor will detect the work piece and operation will begin.
4. There is a warm up time of about 5 seconds from when the power switch of the device is switched on, during which time all of the lamps in the display panel of the main unit are illuminated.
5. The fan usually runs when the power switch of the device is switched on.
6. When blowing, the 'Work' lamp is illuminated in conjunction with the blow pulse. The ionizer also works in conjunction with the blow and runs until 3 seconds after the blow is turned off. The 'RUN' lamp is illuminated while the ionizer is running.
7. Set the fan speed and pulse of the device to match the amount of dust attached to the work piece etc.
8. Although the device has a built-in photoelectric sensor, it also has 'Time' settings for blowing continuously for 3 seconds, 5 seconds, 10 seconds, and 15 seconds after the sensor activates once, for when work detection is difficult due to the work material (transparent work pieces etc.) or you want to manage the blowing time. Configure these settings accordingly.
9. When the fan speed setting is fast, the suction capability increases greatly and the operating noise becomes correspondingly loud. The recommended setting is within the blue zone of the fan speed knob. Sufficient suction power also is exhibited with the main unit regulator setting at 87 psi.

7-2 Procedure When Finishing Operation

1. Turn the power switch of the device off.
2. Close the regulator of the main unit, and close the main valve from the compressor.

7-3 Alarm Cancellation Procedure

The device has a function for displaying on the main unit display panel when fan rotation stops or there is an irregularity in the ionizer. If the 'ALARM' display is illuminated, you can refer to 9. Troubleshooting of this manual and reset the main unit by turning the power on again after resolving the irregularity.

- While the 'ALARM' display is illuminated, all of the operations of the device are stopped and remain stopped until reset.

8. Maintenance

- The filter is disposable. Since the rate at which the performance of the filter decreases varies according to frequency of use and the amount of dust on work pieces, replace it appropriately according to the state of usage. If clogging becomes severe, suction capability will decrease.
- Be sure to use the PTCFLT replacement filters, 5 pack.
- If by chance water or oil lands on the device despite having installed it in a water- and oil-free location, switch off the power as soon as possible and wipe it down with a dry rag or cloth. Take care particularly around high voltage areas and their peripheries.
- If dirt adheres to the discharger of the ionizer or its periphery, the neutralizing effect is reduced. To prevent reduction of the neutralizing effect, regularly clean the discharger and its periphery (discharger nozzle).
- When carrying out maintenance, be sure to do so after stopping the power supply and confirming that the regulator pressure of the device is 0 Mpa. Unintended operation can cause injuries, electrical shock, or damage to the main unit.

8-1 Filter Replacement Procedure

1. Check that the power switch is turned off and the regulator pressure is 0 psi.
2. Detach the filter in the work entrance direction and replace it with a new one.
3. After inserting the filter between the main unit central plate and the metal mesh on the far side, pull the tab at the top of the main unit and insert it so that it firmly attached to the metal mesh portion on the far side.
4. The side of the filter that is not glossy is the front. The front is the workspace side.

8-2 Discharger Cleaning Procedure

- Although a cover is attached so that the discharger cannot be touched, the tip portion of the discharger is very sharp, therefore take sufficient care when handling it. It may result in injury.
- Check that the power switch is turned off and the regulator pressure is 0 psi.
- Wipe off the inside of the discharger nozzle and the tip of the discharger, and any other dirty parts with a Q-Tip etc. containing dehydrated alcohol.
- Dry the alcohol sufficiently after cleaning.

8-3 Workspace Cleaning Procedure

1. Wipe off any dirt on the workspace with a rag etc. containing alcohol.
2. If you cannot remove the dirt, you can also blow it clean with compressed air etc.
3. Re-attach the main unit central plate (the side with black rubber attached should face toward you).
4. Insert the knurled screws in the sides of the main unit.
5. If you do not reinsert the knurled screws the photoelectric sensor may not operate correctly.

9. Troubleshooting

- The power will not turn on.
- Check that the wiring and power supply are set up correctly.
- The fuse may be blown. Check the fuse box in the rear side of the main unit.
- "Compatible fuses are Φ6.4 x 1.18", 250V, 10A.
- Air blow doesn't occur.
- Check that the compressor air is being supplied correctly.
- Check that the regulator of the device is adjusted correctly.
Check whether the 'ALARM' – 'ION' or 'FAN' lamp is illuminated.

• The neutralizing effect is unsatisfactory.
  → Check whether the discharger or its surroundings are dirty.
  → Check that the ground of the device is reliably grounded.
  → Check that there is no water or oil in the compressed air being supplied to the device. (Check that conditioners such as an air filter and dryer are attached.)

• 'ALARM' – 'ION' is illuminated.
  → Check whether the discharger or its surroundings are dirty.
  → Check that the ground of the device is reliably grounded.
  → Check that there is no source of noise in the vicinity of the device.

• 'ALARM' – 'FAN' is illuminated.
  → Check that no foreign objects are in the fan portion of the main unit.

10. Options

• Replacement filters (5 PER PACK): PTCFLT

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www.staticclean.com