



# TJERNLUND PRODUCTS, INC.

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## SANTEK

### Commercial Series Electronic Air Cleaners

Completely Self-Contained  
Electronic Air Cleaner System  
For Commercial Use

# OWNER'S MANUAL AND OPERATING INSTRUCTIONS DO NOT DESTROY

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## INTRODUCTION

Congratulations! We are proud that you have selected a SANTEK Electronic Air Cleaner to become an integral part of your breathing atmosphere.

Electronically cleaned air, free of dust, dirt, soot, smoke, bacteria, pollen, and other irritating airborne pollution, provides you, your clients, and your employees greater personal comfort...a dividend that cannot be measured in dollars.

Your SANTEK Electronic Air Cleaner is an advanced design electronic instrument built to give years of the finest service, providing Operating Instructions are carefully followed.

## CAUTIONS

1. SANTEK Air Cleaners, like most appliances are not designed to be explosion proof. It should not be used in an atmosphere containing explosive dust or gases.
2. Connect the electrical cord to a grounded power source only after the unit is mounted to avoid electrical shock and equipment damage.
3. Make sure the unit is installed securely using the Installation Instructions to avoid damage and injury from falling equipment.
4. Access doors and panels are connected to a safety switch that disconnects electrical power when the door or panel is opened. **WARNING:** Do not attempt to override this switch. Electrical shock may result.
5. Always turn Power Switch to the "Off" position prior to cleaning or servicing.
6. Never stick objects through inlet or discharge grilles. This can result in personal injury and equipment damage.
7. All wiring of electrical outlets to service power cords must comply with applicable codes and ordinances.

## MOUNTING LOCATION

Only air entering Air Cleaner will be cleaned, so place the unit where it will create free air movement around the room and recirculate the air back into the unit. See Installation Instructions for proper mounting location.

## OPERATION

Power to blowers and electronic collecting cell is controlled by the Fan Speed Switch. Turn the switch from "Off" to the desired fan speed. Occasional arcing "snapping" or "popping" sound caused by a larger-than-normal particle is normal. If the arcing does not stop, turn the Fan Speed Switch to "Off" and call Tjernlund Products, Inc. at 1-800-255-4208.

## FRESH AIR IS NECESSARY

Lack of adequate fresh, outside air can cause problems in any building. According to the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), fresh air requirements for commercial establishments should be a minimum of 7.5 CFM per person when using electronic air cleaners. This can be done either through the blower of the heating/air conditioning system or through a timer for economical operation. See Installation Manual for complete information.

## REGULAR MAINTENANCE

An electronic air cleaner will keep removing airborne particles efficiently provided its filter components are maintained on a regular basis.

### ELECTRONIC COLLECTING CELL

It is necessary to remove and wash an electronic collecting cell about every 1 to 5 weeks depending on the air pollution density. If a particularly "smokey", "sticky" or "greasy" atmosphere is present, for example, wash it more frequently.

The following steps should be followed to wash a collecting cell.

1. Unplug AC cord and turn fan speed switch to the "Off" position.
2. Open access door (Models XF, XC, XK) or hinged bottom panel (Model SL-1200), pull out collecting cell(s) .
3. For (Models XF, XC, XK) pull out collecting cell(s), noting how cell flanges ride in retaining grooves. For Model SL-1200, grasp cell handle. Slide retaining latches away from cell (2 per cell). Tip handle side of cell downward. Slide rear cell flanges out of flange channels. Remove cell.
4. Immerse cell in a solution of Santek Cell Brite and hot water for 30 minutes. Agitate cell up and down at a slight angle for better cleaning effect. Repeat above procedure if necessary for extremely dirty cells.

**CAUTION:** Avoid splashing the cleaning solution in eyes or prolonged contact with skin. Keep washing solution out of reach of children.

**CAUTION:** Do not poke any object between or through the cell plates. Damage to cell may result.

If a commercial dish washer is available, simply place dirty collecting cells in dishwasher for a complete wash cycle.

5. Stand Cell upright on dry surface with plates in vertical plane for good drainage. Allow to air dry thoroughly. REPLACING A WET CELL IN AIR CLEANER CAN RESULT IN EXCESSIVE ARCING . ALLOW SUFFICIENT DRYING TIME. DO NOT WIPE PLATES TO DRY THEM.

## **IONIZING WIRES**

Inspect Ionizing wires after cell is washed for any dirt build-up. If necessary, wipe wires gently with a rag soaked in Santek Cell Brite cleaning solution and rinse. USE CARE TO AVOID BREAKING WIRES.

## **ALUMINUM PRE FILTERS (MODELS XF, XC, XK)**

Slide Aluminum Pre-Filter from retaining channel. Wash accumulated particles from the surface in a solution of warm water and Santek Cell Brite. Agitate filter in the solution. Rinse thoroughly and stand upright to dry.

## **POLYESTER PRE-FILTER (MODEL SL-1200)**

Remove Pre-Filter from inner side of hinged bottom panel by pulling filter off velcro tabs. Filter (available from Santek Distributor) should be replaced if dirt accumulation has significantly discolored white polyester material.

## **CHARCOAL FILTERS (OPTIONAL WITH MODEL SL-1200)**

Charcoal filters control odors. Replace charcoal filters when room odor becomes noticeable or approximately every 4 months. Excess dirt may be vacuumed from surface between replacement cycles. DO NOT WASH CHARCOAL FILTER.

## **UNIT CABINET**

With the Fan Speed Switch in the "Off" position and collecting cells removed, wipe accumulated dirt from cabinet interior and exterior as necessary. Use a mild soap solution or spray type household cleaner. DO NOT SPRAY CABINET WITH HOSE OR PRESSURE WASHER.

## **RE-INSTALL COMPONENTS**

Re-install collecting cell(s) and other filters into cabinet using the reverse of disassembly instructions listed above.

1. Collecting cell Ionizing wires must always face direction that dirty air enters unit.
2. Collecting cell must rest securely against copper colored electrical contact attached to inner cabinet.

3. Thoroughly engage Access Door cam locks (Models XF, XC, XK) or Bottom Panel latches (Model SL-1200). AN UNSECURED ACCESS OR BOTTOM PANEL WILL NOT ENGAGE THE INTERLOCK SAFETY SWITCH AND UNIT WILL NOT OPERATE.

## MOTOR MAINTENANCE

(Models XF & SL) Motors are permanently lubricated and need no oiling.

(Models XC & XK) MOTOR MUST BE OILED EVERY 6 MONTHS; TO OIL:

1. Turn Fan Speed Switch to "Off" and unplug power cord.
2. Open access door, remove collecting cell(s), pre-filter(s) and charcoal filter(s).
3. Oil tubes are located near top of motor. Use only 2 or 3 drops of SAE 20 non-detergent oil in each oil tube hole. DO NOT OVERFILL.

## TROUBLESHOOTING

Santek units are designed to give years of trouble-free operation. It is possible, however, that the unit may require some minor service.

You may call your Santek dealer or call Santek for the location of the nearest dealer. This is definitely recommended if the unit blower does not work when the Fan Speed Switch is in the operating position and the unit is plugged in.

In some cases you may be able to detect the trouble and correct it yourself, fairly quickly. If the blower is working and the unit makes continuous arcing "snapping" or "popping" noises, remove the collecting cell(s) and inspect them for foreign material between the aluminum plates. Remove material carefully to avoid plate damage.

Observe the green LED light which will be "On" when Santek power supply (one-piece electrical system) is operating properly. The LED will shut off briefly when the collecting cell arcs.

If the LED is not "On" when the blower is running, a problem with the collecting cell(s) or the power supply is indicated. Turn the fan speed switch "Off". Remove collecting cell(s). Close access doors and turn the fan speed switch to "On".

If the LED is "On", inspect the collecting cell(s) for objects between the aluminum plates in the collecting section. Also inspect the ceramic insulators on the ionizing section and replace any that are broken or cracked.

If the LED fails to light when the air cleaner is running and the cell(s) have been removed, contact your dealer or Tjernlund Products, Inc. at 1-800-255-4208.

## WARRANTY

### TJERNLUND LIMITED TWO YEAR WARRANTY

Tjernlund Products, Inc. warrants to the original purchaser of this product that the product will be free from defects due to faulty material or workmanship for a period of (2) years from the date of original purchase or delivery to the original purchaser, whichever is earlier. Remedies under this warranty are limited to repairing or replacing, at our option, any product which shall, within the above stated warranty period, be returned to Tjernlund Products, Inc. at the address listed below, postage prepaid. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, AND TJERNLUND PRODUCTS, INC. EXPRESSLY DISCLAIMS LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT. THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND NO AGENT IS AUTHORIZED TO ASSUME FOR US ANY LIABILITY ADDITIONAL TO THOSE SET FORTH IN THIS LIMITED WARRANTY. IMPLIED WARRANTIES ARE LIMITED TO THE STATED DURATION OF THIS LIMITED WARRANTY. Some states do not allow limitation on how long an implied warranty lasts, so that limitation may not apply to you. In addition, some states do not allow the exclusion or limitation of incidental or consequential damages, so that above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state. Send all inquiries or products requiring warranty work to Tjernlund Products, Inc. 1601 9th Street, White Bear Lake, MN. 55110-6794 (651) 426-2993.