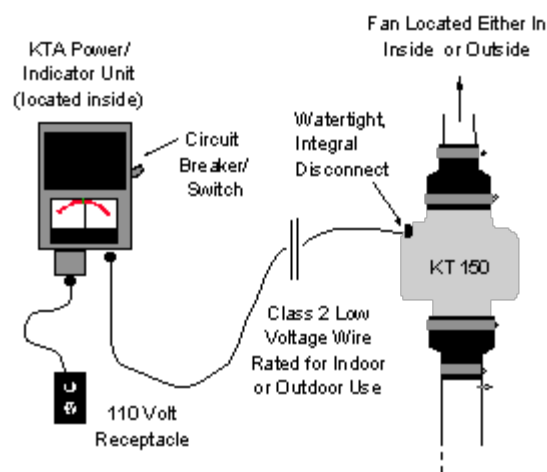




Orders Call: 1-800-688-5776

## INSTALLATION INSTRUCTIONS FOR KTA SYSTEM FAN POWER SUPPLY/INDICATOR PANEL WITH MATCHING 24-VOLT AC FAN



### Description of System:

The system consists of one (1) Power Supply/Indicator Box and one (1) matching 24 volt fan. This system is typically used in applications where low voltage Class 2 wiring from the power supply to a remotely located fan is advantageous. It is also used in applications where it is desirable to have an indication as to whether the fan is still performing in the manner in which it was originally installed. The KTA system provides both of these features.

The KTA Fan system is designed to be a part of a ventilation, depressurization, or exhaust system where non-explosive or non-flammable air mixtures will be encountered. The manufacturer cannot make any representations as to the entire system of which the KTA and fan are integral parts, since they are designed and installed by others.

THE PHYSIOLOGICAL EFFECTS REGARDING THE END USE APPLICATION OF THIS PRODUCT CANNOT BE DETERMINED, SINCE IT IS INTEGRAL TO A SYSTEM TO BE INSTALLED BY OTHERS.

The KTA is provided as a matched set consisting of a fan and a power supply/indicator panel. The two units are to be installed as a matched set. The use of this power supply or fan, in conjunction with any other fan or means of power, respectively; may be hazardous and will void all warranties. See installation precautions on the following page. The two matched components are as follows:

**POWER SUPPLY/INDICATOR BOX (KTA Box):** This is a wall mounted power supply for placement in non-hazardous environments. It receives power from a 120 volt power receptacle via the 6 foot grounded plug-in cord attached to the bottom of the box. The unit provides a 24-volt output for power to a matching 24 volt, input fan. It also has an analog indicator that is proportional to the airflow of the system.

**KT-150 TURBINE FAN:** This is a high efficiency 24-volt input, 1/20 hp., in-line fan. It is rated for placement in non-hazardous indoor or outdoor locations. The fan is nominally rated for 270 cubic feet per minute of air with no restrictions. Actual fan performance will depend upon the restrictions imposed by the duct or piping system. Its bearings are sealed thus eliminating routine maintenance.

### Installation and Use Precautions:

Should you have any questions on the safe installation or use of this system contact the manufacturer at (719) 444-0646.

**WARNING—TO REDUCE THE RISK OF ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:** The following precautions should be followed. The output of the power supply panel to the fan falls under Article 725 of the National Electric Code for Class 2 power limited circuits.

- Use this unit only in the manner intended by the manufacturer if you have questions, contact the manufacturer.
- Neither the KTA power supply box nor the fan have any user serviceable components. However, it may be necessary to remove the fan from its system to remove debris. In this case, the following precautions for safe disconnection of the system are to be followed.
- Before servicing or removing the fan, flip the switch on the right side of the KTA Box to OFF, disconnect the power from KTA box by unplugging the KTA from receptacle. Disconnect the cable at the FAN by twisting the cable connector on the side of the Fan ¼ turn to the left and pulling connector from the socket.
- After servicing the fan, reattach the cable to the side of the fan by plugging the cable connector into side of the FAN and twisting the cable connector collar ¼ turn to the right until it snaps tight. Plug the KTA box back into the wall receptacle and turn the switch on the side of the KTA box to ON.
- Do not reinstall the fan in any manner that will alter the disconnect devices. To avoid physical injury, do not handle the fan while it is operating
- CAUTION THIS FAN IS FOR GENERAL VENTILATING USE ONLY. DO NOT USE TO EXHAUST HAZARDOUS OR

**EXPLOSIVE MATERIALS AND VAPORS.**

- KTA power supply must only be plugged into 120 volt receptacle. System should be installed in accordance with local and national mechanical and electrical codes. "WARNING" To reduce the risk of fire or electric shock, do not use with any solid-state speed control device
- If the system is to be removed for warranty repairs, observe the methods described above for disconnection of both the KTA box and the KTA-150 fan. Both the KTA power supply box and the KTA-1 50 fan along with the cable are to be returned to the manufacturer as a unit. Prior to shipment call for Return Authorization Number.
- CAUTION—TO REDUCE RISK IF FIRE AND TO PROPERLY EXHAUST AIR, BE SURE TO DUCT AIR OUTSIDE—DO NOT VENT EXHAUST AIR INTO SPACES WITHIN WALLS OR CEILINGS OR INTO ATTICS, CRAWL SPACES, OR GARAGES.

**INSTRUCTIONS FOR INSTALLATION:**

DO NOT PLUG IN POWER SUPPLY UNTIL ALL STEPS ARE COMPLETED.

**1. INSTALLATION OF THE FAN IN THE SYSTEM:**

The fan should always be installed vertically to prevent condensation from accumulating in the fan housing. If attached ductwork will convey moist air and the ductwork passes through cool areas or outside, provisions should be made for the prevention of condensate accumulation in the ductwork. This may be accomplished by insulating the ductwork and installing a water separation device such as a KT Hydro-Sep™. Non-adherence to these provisions may affect the life expectancy of this product and will void manufacturer's warranties. The fan may be located inside or outside a building, but not in a hazardous environment. Flexible PVC pipe-to-fan inlet or outlet adapters are available for ease of installation and for noise attenuation. The fan and associated ductwork should be secured so that the ductwork does not enter the fan housing and cause damage.

**2. MOUNTING THE KTA BOX:**

- The KTA box is designed to be mounted in an INTERIOR, NON-HAZARDOUS location only.
- The KTA box should be located so that the 6 ft. grounded power cord can easily reach a 120 volt grounded receptacle.
- The KTA box should be located in an area where the indicator can be easily seen and periodically monitored.



The KTA box should be within 50 feet of fan. A maximum of 50 feet of cable is provided with the KTA box. Do not extend low voltage power cable beyond 50 feet, or cut cable less than 10 feet. A mounting template and 2 mounting screws for the KTA box are included in the envelope. The template provides the correct 4 7/8 inch spacing for the mounting screws for the KTA box. Use the template to position the screws on the wall or fasten the foam template to the wall to let it function as a pad. Do not tighten the screws fully into the wall. Allow room for the keyholes on the backside of the KTA box to slide over the screw heads.

Mount KTA box on screws by placing keyholes in brackets at back of box over screws and pulling down. If box is not firmly seated on screws, remove box and turn screws further into wall.



### 3. ROUTING CABLE FROM FAN TO KTA BOX

Either 25 or 50 feet of two conductor cable is supplied as part of the packaged system. This cable is to be used to supply the low voltage power to the fan. One end has a quick connect cable attached to it - this end is to be connected to the panel mounted socket on the side of the fan.



Route the cable from the fan to the location where the KTA box is to be located. Support cable with tie-wrap fasteners, cable fasteners, or within conduit, depending upon building type and local code requirements. Do not use metal staples to secure cable. If mounting brackets are to be used for cable, use clip types that are suitable for securing television or VCR coaxial cable, such as GC Electronics #H7. Do not bury cable. The cable supplied with the unit is suitable for indoor and outdoor routings. After the cable has been routed to the KTA box cut the excess cable with a pair of wire cutters (it is advisable to leave some extra cable that would allow the KTA box to be set on a table or the floor to allow for easier connection of the cable.)

### 4. CONNECTING WIRE TO KTA BOX

*Before connecting the wire to the KTA box make sure that the box is not plugged in and the switch on the side of the box is OFF.*

After cutting off any excess cable, remove 2 inches of the cable jacket from the end of the cable. Be careful not to strip the insulation from the two wires inside of the cable jacket. Remove the foil wrap around the two exposed wires (if an un-insulated wire strand is inside the cable, cut this unnecessary wire at the point it is exposed at the jacket).



Strip  $\frac{1}{4}$  inch of the insulation from the two exposed wires.



Loosen the nut on the strain relief attached to the terminal block cover.



Remove the terminal block cover on the bottom of the KTA box by unscrewing the four sheet metal screws that hold it in place.



Thread the cable through the strain relief. Insert the bared ends of the two wires of the cable into either one of the slots on the terminal block and secure by tightening the screws in each slot. Slide the terminal block cover into place and secure with four sheet metal screws. Tighten nut on strain relief securely to jacket of cable.



#### **5. FAN WIRING:**

Push cable connector end over pins of socket on side of fan. There is an alignment guide within the two connectors. Slide the locking ring on the cable side of the connector over the fan socket and rotate to the right until it snaps into place.

#### **6. INDICATOR ADJUSTMENT**

After final installation of system ductwork, fan, power supply, and wiring, the system should be ready to turn on. Plug in the 6 foot electrical cord directly into a 120 volt AC wall socket, and turn on the switch on the right side of the KTA box.



When the fan is energized, the needle of the indicator on the face of the KTA box will move to the right. After the fan has come up to speed (30 seconds), and the system has come to equilibrium, the needle should be adjusted so that it is centered on the line saying "Initial Installation" located on the face of the meter. The needle is adjusted by rotating the screw on the face of the meter with a screwdriver. Look at the needle after adjustment to make sure that any magnetism in the screwdriver has not affected the needle position. If so, readjust until the needle is centered when the screwdriver is removed. Deviations in the airflow of the system will cause the needle to move to either side of the centerline of the indicator, which will alert the building occupant to a potential problem.



It is important to note that the system should be fully installed prior to indicator adjustment. If modifications are made to the system that would affect the "normal" system airflow, the meter can be re-adjusted as described above. To prevent unauthorized adjustment of the needle position, a black paper, self adhesive dot has been provided in the envelope to cover the adjustment screw. A second dot has been provided for future adjustments.



## 7. DOCUMENTATION:

A space has been provided on the front panel of the KTA box for placing a label which includes system identification, the installer's name and a phone number. The installer should leave a description of the system installed along with any appropriate warranty and maintenance information with the client. The KTA system has the unique feature of an easy to read indicator that shows when the amount of air going through the fan has changed from the time of the original installation. The interpretation of this indicator is summarized in the trouble-shooting guide that follows. This guide should be left with the homeowner.

## READ AND SAVE THESE INSTRUCTIONS

### KTA - FAN & POWER SUPPLY/INDICATOR TROUBLE SHOOTING GUIDE

#### If the Indicator needle moves to the right of center "Initial Installation Line":

This is caused when more air is being handled by the fan than it did when it was originally installed. Check for leaks in the ductwork system.

#### If Indicator needle moves to the left of center "Initial Installation Line":

This is caused by less air being handled by the fan than it did when it was originally installed

- Check for any restrictions to air flow in the suction and discharge ductwork
- Check for obstructions in the fan ( see Safety Caution below).

#### If Indicator needle is far to the left and not moving:

This is caused by a disruption in the power to the fan:

- Check to see that KTA box is plugged into The 120 volt receptacle.
- Check the switch on side of the KTA box. This is a combination switch and circuit breaker. If this is in the OFF position this could be caused by unintentional turning off of the system, or a current overload situation has occurred. Reset the breaker by turning the switch to ON. If the switch flips immediately to the OFF position, unplug the unit and call the installer for service. If the switch flips to the OFF position, after a few minutes, unplug the KTA box, and disconnect the cable at the fan. Remove and inspect the fan for obstructions such as debris or ice. If ice is entering the fan contact the installer about installing a Hydro-Sep™ device.
- Check wiring between the KTA box and the fan. If broken, contact installer.
- Check the fan to see if it is turning. if not, the fan may be non-functional Contact the installer or manufacturer. If the system is to be removed for warranty repairs, disconnect both the KTA box and the KTA-150 fan. Both the KTA power supply box and the KTA-150 fan, along with the cable, are to be returned to the manufacturer as a unit. Call for a return authorization number.

SAFETY CAUTION: Before servicing or removing fan, disconnect cable at fan. Read safety instructions above.

## KT SYSTEM WARRANTY

Congratulations. You are the owner of a KT 150 from KT Ventures, a pioneer in the packaged fan industry. KT Ventures is proud of this system and its durability. KT Ventures warrants the packaged fan against defects in workmanship which existed when the packaged fan was manufactured which result in failure of the fan to operate for a period of three years from the date of manufacture noted on the front of the power supply panel provided that it

has been installed according to the instructions included with the system. The holder of this warranty should verify that the system has been installed correctly by reading the installation instructions.

THIS WARRANTY APPLIES ONLY IF THE FOLLOWING PRECAUTIONS ARE TAKEN:

- Packaged fan must be installed in strict compliance with the installation instructions, including vertical mounting of fan.
- If the duct system (to which the fan is attached) is exhausted outside, a screen of no larger than ¼ inch must be installed on the exhaust to prevent entry of extraneous materials and small animals.
- The fan must be powered by the KT power supply provided as part of this system. The use of any other power supply will void warranties and can result in serious injury and damage.
- The KTA power supply panel should never be opened. There are no user serviceable parts inside.
- The KTA Power supply box must not be installed in a damp, or hazardous environment
- The warranty registration card must be returned to KT Ventures no later than 60 days from the date of installation of the unit. This warranty further does not apply to damage that may have occurred during the shipping of this system. claims due to this type of damage should be made directly to the shipper
- If the fan is mounted outside in climatic conditions where freezing condensation would result in ice entering the system ductwork, a means for condensation removal should be included in the system installation.

## RETURN POLICY

Should a defect occur within the warranty period of this system, the warranty holder may return the unit in its entirety to the address shown below at holders cost. KT Ventures will repair or replace the system after a determination has been made that the above exceptions to warranty coverage do not apply. Once KT Ventures has determined that the unit is under warranty, it shall repair or replace the equipment and ship the functioning unit to the warranty holder. KT Ventures is not responsible for the cost of reinstallation of the repaired unit. The returned unit may either be the original unit (repaired), or another unit with a similar manufacturing date. The original three-year warranty period will remain in force from the date of manufacture of the originally purchased system. The warranty holder should contact KT Ventures to obtain a return authorization prior to returning the packaged unit to the address shown below.

## LIMITATION OF LIABILITY

The return policy described above is the sole and exclusive remedy for any defect in the packaged fan. EXCEPT AS

EXPRESSLY SET FORTH HEREIN, THE PACKAGED FAN IS SOLD ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL KT VENTURES BE LIABLE FOR DAMAGES, INCLUDING ANY LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES, ARISING OUT OF THE USE OR CONSEQUENTIAL DAMAGES, ARISING OUT OF THE USE OR CONSEQUENTIAL DAMAGES, ARISING OUT OF THE USE OR INABILITY TO USE THE PACKAGED FAN, EVEN IF KT VENTURES HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. KT Ventures is not responsible for the effectiveness of any system in which the packaged fan is a component Neither will KT Ventures be responsible for any damages resulting from the misuse or the improper installation of this system. IN ANY EVENT, ANY DAMAGES FOR WHICH KT VENTURES MAY BE LIABLE SHALL NOT EXCEED THE COST OF THE PACKAGED FAN TO WHICH THIS WARRANTY APPLIES.

## KTA WARRANTY

### KTA CONTROL BOX

- 90 DAY - PARTS LABOR AND RETURN SHIPPING STANDARD GROUND
- 90 DAYS TO 1 YEAR - PARTS AND LABOR
- 1 YEAR TO 5 YEARS – PARTS

### KTA FAN

- 90 DAY – PARTS LABOR AND RETURN SHIPPING
- 90 DAYS TO 1 YEAR – PARTS AND LABOR
- 1 YEAR TO 5 YEAR – FAN ONLY

LABOR CHARGES ARE AS FOLLOWS

STANDARD LABOR FOR 1 YEAR TO 5 YEARS \$55.00  
RETURN SHIPPING - APPLICABLE CHARGES



PROFESSIONAL DISCOUNT SUPPLY WILL NOT ACCEPT CHARGES FOR RETURN TO PLANT SHIPMENTS VIA THIRD PARTY BILLINGS.