



**United Air Specialists, Inc.**

a CLARCOR company

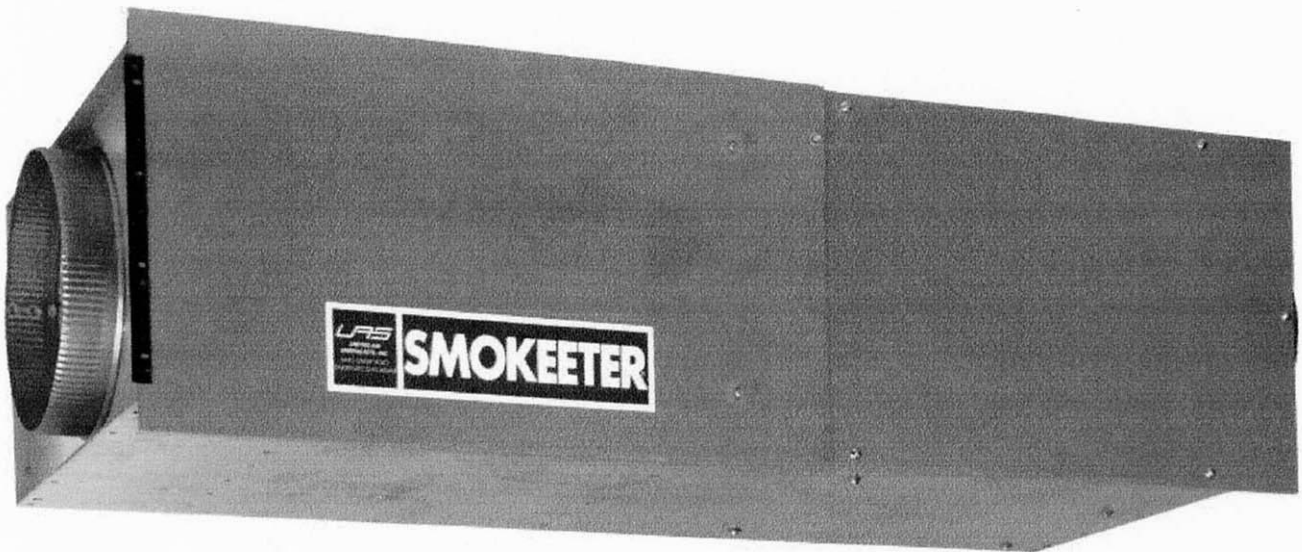
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# OWNER'S MANUAL

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**COMMERCIAL ELECTROSTATIC AIR CLEANER**

**SMOKEETER<sup>®</sup> MODEL:**

**FS**

## KNOW YOUR EQUIPMENT

READ THIS MANUAL FIRST.

Your SMOKEETER/CRYSTAL-AIRE system should provide many years of trouble-free service. This manual will help you understand the operation of your SMOKEETER/CRYSTAL-AIRE unit. It will also help you understand how to maintain it in order to achieve top performance. For quick future reference, fill in the system and filter information in the spaces below. Should you need assistance, call the United Air Specialists, Inc. customer service number shown below. To expedite your service, have the following information available when contacting UAS.

UAS ORDER #: \_\_\_\_\_

UNIT MODEL #: \_\_\_\_\_

UNIT SERIAL #: \_\_\_\_\_

CARTRIDGE FILTER PART #: \_\_\_\_\_

SYSTEM ACCESSORIES:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSTALLATION DATE: \_\_\_\_\_

**ACS, INC. CUSTOMER SERVICE**

**1-800-878-5030**

## SAFETY PRECAUTIONS

We have provided many important safety messages in this manual and on your SMOKEETER/CRYSTAL-AIRE® Electrostatic Oil Cleaner. Always read and obey all safety messages.



This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others. All safety messages will follow the safety alert symbol and the word “DANGER”, “WARNING”, or “CAUTION”. These words mean:



Indicates a hazardous situation which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

## IMPORTANT SAFETY INSTRUCTIONS



To reduce the risk of fire, electric shock, or injury when using your oil cleaner, follow these basic precautions:

- Use two or more people to move and install your SMOKEETER/CRYSTAL-AIRE® Oil Cleaner.
- The SMOKEETER/CRYSTAL-AIRE® must be properly grounded.
- Disconnect power before servicing.
- Replace all access panels before operating.
- Wear protective clothing and safety glasses when handling collection components or servicing the oil cleaner.
- Electrical connections should only be made by qualified personnel, and be in accordance with local and national codes and regulations.
- The SMOKEETER/CRYSTAL-AIRE® Oil Cleaner should be serviced by qualified and trained personnel only.
- The power supply output is 12,000 volts. Use caution when servicing.
- Do not use in explosive atmospheres.
- Use to clean approved oils only.
- Do not use to clean oils which are explosive or highly flammable.
- Keep flammable materials and vapors, such as gasoline, away from oil cleaner.
- Operate only in a safe and serviceable condition.
- Check all valve positions before operating to prevent pump cavitation, excess tank pressure or leakage.

# MODEL FS

## SPECIFICATIONS

### POWER REQUIREMENTS

115 VAC, 60 HZ,  
6 Amps (Max.)

### POWER CONSUMPTION

690 Watts (Max.)

### AIR HANDLING CAPACITY

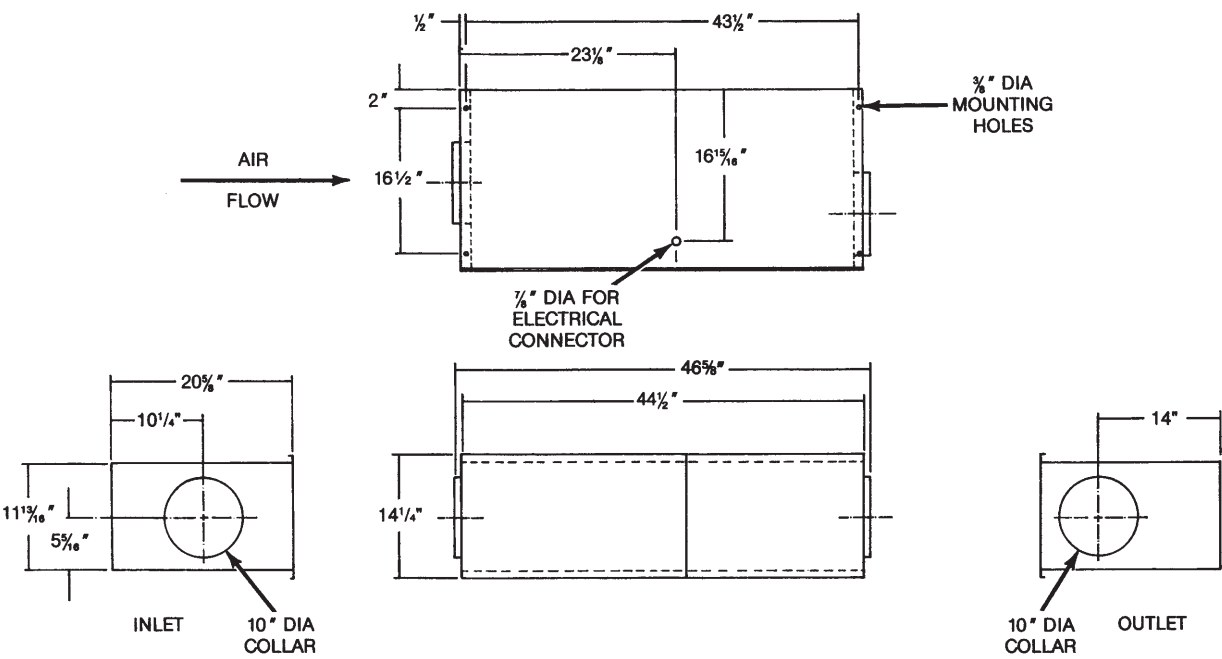
850 CFM  
(1450 M<sup>3</sup>H)

### WEIGHT

Hanging.....102 lbs. (41 KG)  
Shipping.....129 lbs. (58.5 KG)

### DIMENSIONS

Height	Width	Length
14 <sup>1</sup> / <sub>4</sub> "	20 <sup>5</sup> / <sub>8</sub> "	46 <sup>5</sup> / <sub>8</sub> "
(35.56 cm)	(52.38 cm)	(118.26 cm)



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WARRANTY

### **IMPORTANT NOTICE**

BEFORE OPERATION, PLEASE REMOVE ALL PACKING MATERIAL FROM INSIDE UNIT. THIS CAN INCLUDE MARKED TIE DOWN SCREWS, CARDBOARD , STYROFOAM AND PLASTIC WRAP ON CARBON FILTER. MODELS VARY IN MATERIAL USED.

## 1. INTRODUCTION

### Now you can breathe a lot easier...

...you and everyone else who breathe the air cleaned electronically by SMOKEETER/CRYSTAL-AIRE Your new electronic air cleaner is the most advanced product of its type on the market today. As you begin its operation, we would like to remind you of a few important facts.

First, we appreciate your business. . .and because we appreciate your business, we have manufactured an electronic air cleaner worthy of your consideration. Your unit is designed and engineered to rigid specifications, incorporating the latest technological advances. It is built using the highest grade materials available. It is subjected to rigorous quality control checks before it leaves our factory. SMOKEETER /CRYSTAL-AIRE is backed by a factory warranty as described on the back cover.

Second, like any piece of precision equipment, your unit needs periodic maintenance. Properly cared for, it will operate at peak efficiency for many years to come.

Finally, while we hope you never have any problems, United Air Specialists is always ready to lend assistance. We have factory-trained distributors worldwide. Should you need information or service, contact your local distributor or SMOKEETER/CRYSTAL-AIRE Customer Service at United Air Specialists, inc. 4440 Creek Road, Cincinnati, Ohio 45242, 1-800-252-4647 ext 1.

## 2. INSPECTION OF EQUIPMENT

Upon receipt of your unit, check for any shipping damage. A damaged carton indicates that the equipment may have received rough handling during shipping that may have caused internal damage. Notify your delivery carrier and enter a claim if any damage is found.

## 3. HOW YOUR SMOKEETER/CRYSTAL-AIRE OPERATES

The motor/blower assembly draws air through an aluminum mesh filter which removes the larger particles in the contaminated air. As the particles pass through the ionizer section, they are given an intense positive charge. These charged particles are then collected on cell plates. The clean air is redistributed into the room by adjustable outlet diffusers. An optional activated carbon afterfilter aids in controlling odor.

## COMPONENTS MAKE IT WORK

PREFILTER traps the larger particles and evenly distributes the air across the ionizing section to maximize efficiency.

UNICELL is comprised of the ionizing section and the collecting section. The ionizing section is made up of fine tungsten wires supported between metal plates. When high voltage is applied to these parts a "corona" field is generated which imparts a high voltage charge on particles that pass through it.

The collection section is made up of a series of convoluted metal plates. These plates act like a magnet and attract the charged particles, removing them, from the air. The plates are alternately charged positive and ground. The positive plates repel the particles while the ground plates attract them, yielding a very high efficiency.

OPTIONAL ACTIVATED CARBON AFTERFILTER aids in the removal of odors from the air

POWER PACK is a dual high voltage power supply. It supplies 11,000 volts DC to the ionizer and 5,500 volts DC to the collection cell.

REMOTE ON/OFF CONTROL SWITCH allows you to control operation from a remote location.

MOTOR/BLOWER produces air movement by a low speed, dynamically-balanced, forward-curve blower. The direct drive motor is thermally protected.

## 4. INSTALLATION

**NOTE: This product has been designed specifically for commercial applications, such as offices, night-clubs, bowling centers and bingo halls. United Air Specialists assumes no responsibility for those applications unlike the aforementioned.**

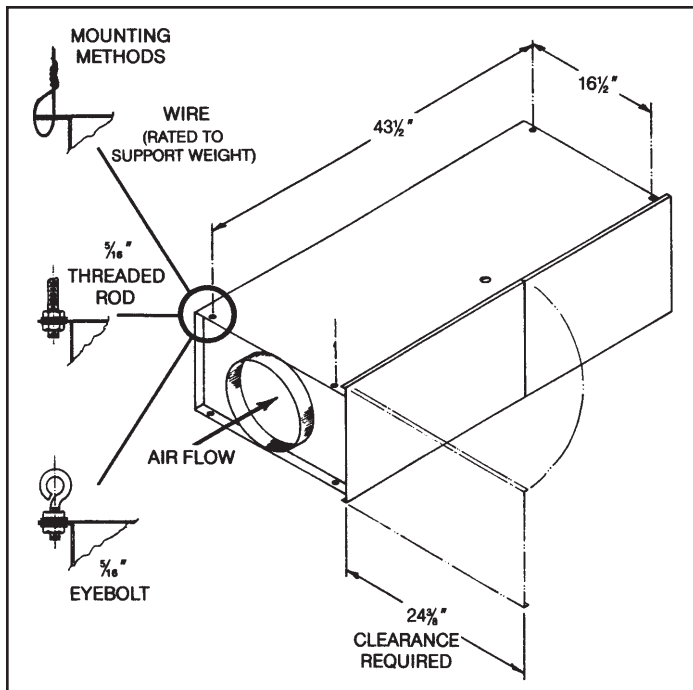
The SMOKEETER/CRYSTAL-AIRE is designed to draw the contaminated air through the unit and exhaust clean air back into the room. The clean air is used to push contaminated air around the room to the inlet of the unit. Directions of air patterns and proper placement of the unit should be established by your local SMOKEETER/CRYSTAL-AIRE distributor or by United Air Specialists, Inc.

Your product can be installed by suspending from the ceiling joists/structure.

Threaded rod, wire or eyebolts and chain may be used for hanging the unit.

It is recommended that a nut on the inside and outside of the cabinet be used to lock the fastener in place (see Figure 1).

Test SMOKEETER/CRYSTAL-AIRE for secure support. See page 15 for electrical wiring information.



**Figure 1**

## 5. OPERATION

For best results and to assure maximum air quality, your SMOKEETER/CRYSTAL-AIRE should be started before the air becomes contaminated. A remote indicator lamp indicates that high voltage to the components is on. A remote on/off control switch allows you to control operation.

**FOR YOUR INFORMATION** — The equipment has been thoroughly tested prior to shipment from the factory. Even so, there may be some initial arcing of the components at start-up. The noise should cease after a few minutes of operation.

**NOTE:** For proper operation and safety compliance, the unit must be properly grounded.

## 6. CLEANING

### ! CAUTION

Servicing this product for purposes other than routine cleaning of the collection components (unicell) should be performed by trained authorized service personnel. Any effort to exceed this service (by non-qualified personnel) may lead to bodily injury and/or equipment failure.

This section is defined for cleaning and periodic maintenance. The internal components must be removed prior to cleaning.

### ! CAUTION

The unit should be inspected frequently and dirt removed to prevent excessive accumulation which may result in flashover or fire damage. An electrical interlock is provided for protection — do not defeat its purpose.

### HOW TO REMOVE COMPONENTS

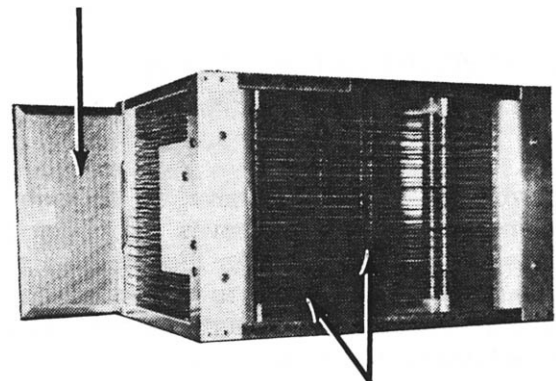
1. Turn off the unit.

Open access door.

For added safety, manually discharge the unicell in the following manner: Place the blade of a common screwdriver (with insulated handle) across the ionizer wire and ionizer fin. Next, place the screwdriver blade between any two cell plates. This will remove any residual charge that may not have bled off (see Figure 2).

2. Slide components from the cabinet.

### CARBON AFTERFILTER



DISCHARGE FROM BOTH CELL  
AND IONIZER POINTS TO GROUND

**Figure 2**

## CLEANING

Major cleaning is confined to the prefilter, the unicell and the inside cabinet. The unicell, prefilter and cabinet should be cleaned periodically to assure continued efficiency. Cleaning may be required from once a month to once every four months depending on the air quality.

**NOTE: The carbon filter cannot be cleaned and needs to be replaced once every 3 to 6 months.**

1. The unicell and prefilter can be cleaned by soaking in a hot solution of SMOKEETER/CRYSTAL-AIRE brand detergent for 30 to 60 minutes. If possible, agitate the solution to aid in dirt removal. If agitation is not possible soaking time should be increased.

### CAUTION

Do not use temperature exceeding 150°F and do not steam clean as this may cause permanent damage to the components. If detergent other than SMOKEETER/CRYSTAL-AIRE is used, care must be taken to assure that it contains an aluminum inhibitor so that it does not attack the aluminum components. Be sure to follow manufacturer's cleaning instructions.

Remove the components from the detergent bath and immediately flush away any residue and rinse thoroughly with hot water. Shake off excess water and let components dry for 30 to 60 minutes. Set the cell so that its plates are in a vertical position for drainage.

2. Vacuum clean the interior of the cabinet and clean off all electrical connections before reinstalling the components.
3. Reinstall the components into the cabinet.

## 7. PERIODIC MAINTENANCE AND TROUBLESHOOTING

The following sections are for the use of trained service personnel only.

### WARNING

THE FOLLOWING PROCEDURES WILL EXPOSE HAZARDOUS LIVE AND MOVING PARTS. DISCONNECT AIR CLEANER BEFORE PROCEEDING.

All SMOKEETER/CRYSTAL-AIRE air cleaners are manufactured to give years of trouble-free performance. As with any piece of equipment,

however, breakdowns can occur. Due to the simplicity of design, breakdowns are restricted to these components:

- the motor/blower\*
- motor capacitor
- the power pack
- unicell
- blower control switch
- safety switch
- indicator lamp

This section covers the troubleshooting procedure and includes a table which will enable you to determine the cause of most problems. Refer to Section VIII for replacement parts.

\*This model is equipped with a permanently lubricated motor and no further oiling is required

## COMPONENT FUNCTION

1. Power Pack – the electrical circuit is designed around the power pack which contains the necessary components to convert 115 volts, singlephase, 60 hertz to the high voltage DC required for the unicell.
2. Unicell Ionizing Section — the ionizing section supports five tungsten wires charged positive to a nominal 11,000 volts DC. The baffle plates parallel to the wire are at ground potential. The ionizing section's function is to electrically charge the contaminated particles as they pass through it.
3. Unicell Collection Section—the collection section consists of plates alternately charged positive and ground. Positive plates are charged with a nominal 5,500 volts DC. The field between the plates forces the charged particles to the ground plates. The particles adhere to the ground plates, removing them from the airstream.
4. Motor/Blower — draws in contaminated air and exhausts clean air through the outlet.

## HOW THE HIGH VOLTAGE IS SUPPLIED TO THE COMPONENTS

The power pack supplies high voltage DC to the ionizing and collection sections of the unicell by the use of high voltage lead wires. Two separate terminals are used on the output side of the pack. Terminal #8 supplies nominal 11,000 volts DC positive to the ionizer. Terminal #7 supplies 5,500 volts DC to the cell. The copper contacts located on the side of the cabinet feed

the voltage to the cell and ionizer through contacts on the side of the unicell (see Figures 3, 4 and 5).

#### TOOLS REQUIRED FOR TROUBLESHOOTING

- Screwdriver—(common type) 8" or longer with insulated handle.
- Volt-Ohm Meter—for measuring low voltage input (115 VAC) and continuity (OHMS) and low voltage DC.
- High Voltage Probe (DC) positive polarity—for checking the high voltage power supply (minimum range from 0 to 15 KV DC).

#### HOW TO MEASURE HIGH VOLTAGE

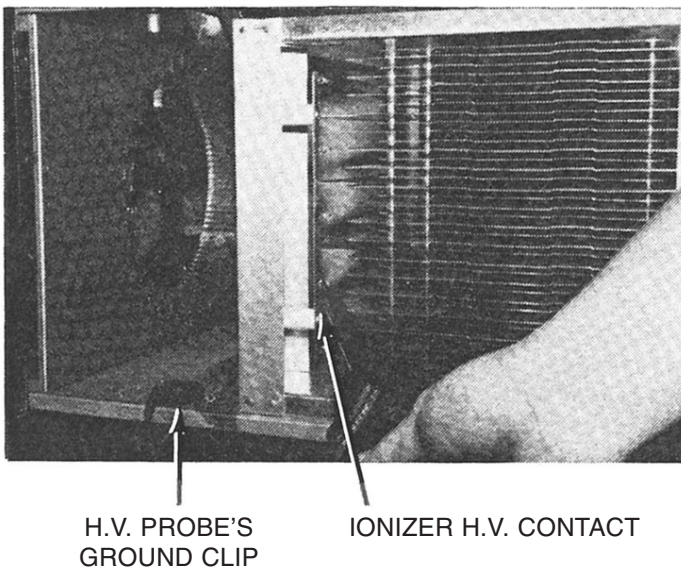
For accurately measuring the high voltage, a 0 to 15 KV minimum scale high voltage probe capable of measuring positive polarity is required.

#### MEASURING UNICELL IONIZER VOLTAGE (See Figure 3)

1. Turn the unit off and open the access door. This will disengage the safety interlock.
2. Connect the ground clip of the positive polarity probe to the side of the cabinet.

### CAUTION

Always ground the high voltage probe to a solid ground connection on the metal cabinet.



**Figure 3**

3. Turn unit control switch on and cautiously engage the safety interlock switch.

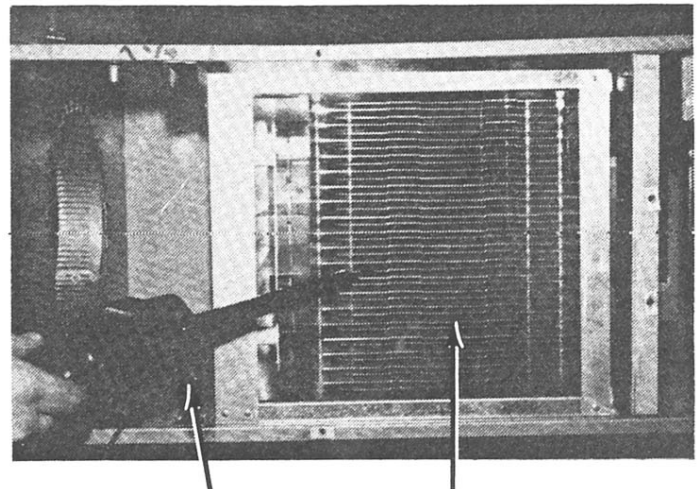
### CAUTION

Be sure to disengage safety interlock switch and discharge cell and ionizer after measuring voltages.

4. Place the probe's tip on the ionizer wire and measure the positive DC voltage. The voltage should read nominal 11 KV DC.
- If measurements are abnormal, refer to the troubleshooting table for cause and correction.

#### MEASURING UNICELL COLLECTOR VOLTAGE (See Figure 4)

1. Connect the ground clip of the positive polarity probe to the side of the cabinet.
2. Engage the safety interlock switch and measure the collector high voltage by placing the probe's tip on one of the charged plates. The voltage reading should be nominal 5.5 KV DC.



H.V. PROBE'S  
GROUND CLIP

CHARGED CELL PLATE

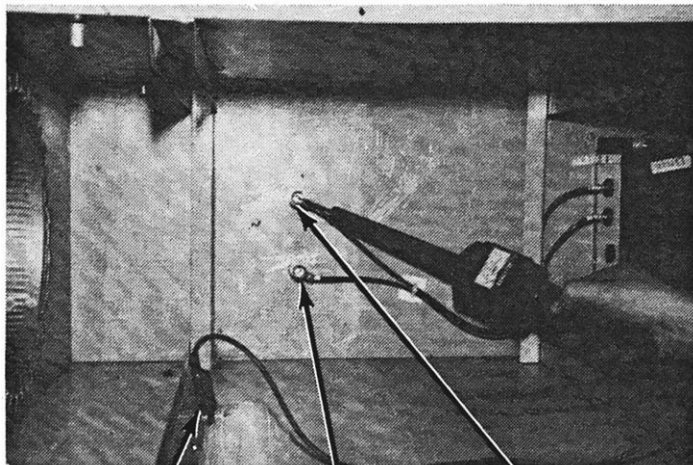
**Figure 4**

If measurements are abnormal, refer to the troubleshooting table for cause and correction.

#### CHECKING THE POWER PACK OUTPUT (See Figure 5)

1. Remove the prefilter and unicell from the cabinet.
2. Engage the safety interlock switch and measure the output from the ionizer terminal of the power pack by placing the probe's tip on the ionizer high voltage contact.

- Output reading without the unicell should read 11 to 12 KV DC positive.
3. To measure the collection cell output voltage, place the probe's tip on the cell high voltage contact.
- Output without the unicell should read 5.6 to 6.5 DC positive.



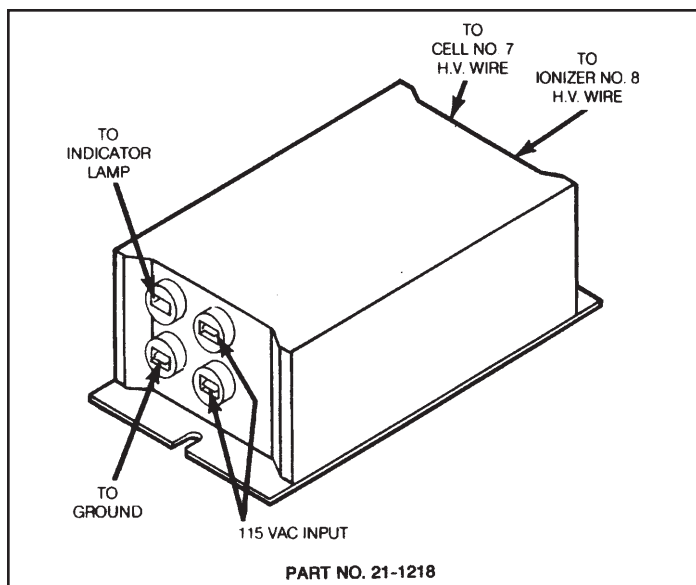
H.V. PROBE'S GROUND CLIP      COLLECTION CELL H.V. CONTACT #7 WIRE FROM PACK      IONIZER H.V. CONTACT #8 WIRE FROM PACK

**Figure 5**

### CHECKING LAMP TERMINAL OUTPUT

Disconnect unit indicator lamp (neon lamp).

Connect a good neon lamp to pack terminal "light" and to pack terminal "GND" or cabinet ground. If lamp does not light, replace pack. If lamp lights, check wiring and unit indicator lamp (see Figure 6).



**Figure 6**

### CHECKING MOTOR/CAPACITOR (See Figure 7)

The motor/capacitor located on the side of the blower is designed to start and run the motor when 115 VAC is supplied (see wiring diagram, page 15).

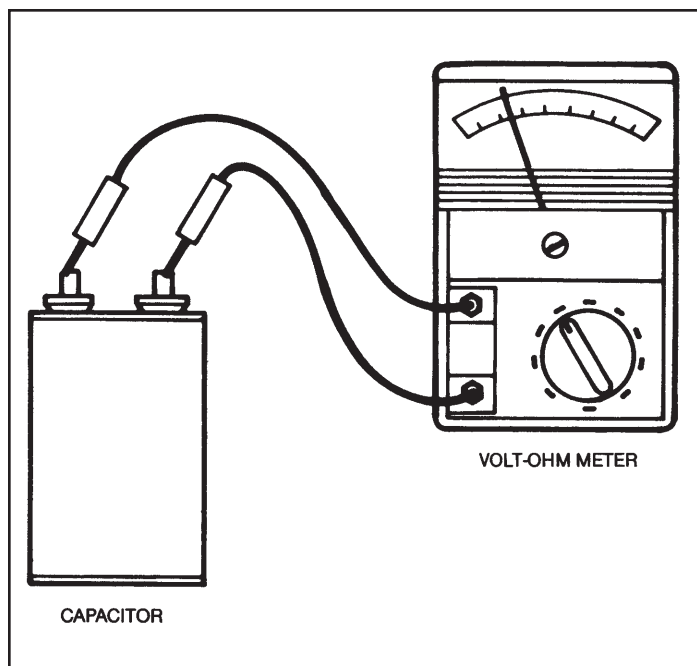
### PERFORM THE FOLLOWING STEPS:

1. Turn the unit off and open the access door. This will disengage the safety interlock.
2. Turn unit control switch on and cautiously engage the safety interlock switch.

## CAUTION

Be sure to disengage safety interlock switch after measuring OHMS.

3. Remove the two black wires from the top of the capacitor.
4. Using a Volt-Ohm Meter with the scale on 10,000 (10K) OHM, place the two leads of the meter across the two connections at the top of the capacitor.
5. Read the VOM scale. The meter should deflect to 0 and slowly rise to infinity. (NOTE: This indicates that the capacitor will charge and discharge.)
6. If the capacitor does not charge, replace the capacitor.



**Figure 7**

**TROUBLESHOOTING TABLE**

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>CORRECTION ACTION</b>
A. Control switch on, indicator lamp off, blower operates.	<ol style="list-style-type: none"> <li>1. Defective lamp.</li> <li>2. Faulty connection to lamp.</li> <li>3. Loss of high voltage.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace lamp.</li> <li>2. Check connection to lamp.</li> <li>3. Check power pack.</li> </ol>
B. Control switch on, indicator lamp on, blower does not operate.	<ol style="list-style-type: none"> <li>1. Motor faulty.</li> <li>2. Foreign object locking motor.</li> <li>3. Faulty control switch.</li> <li>4. Connector not properly connected (at control switch).</li> <li>5. Motor starting capacitor faulty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace motor.</li> <li>2. Clean foreign object from motor.</li> <li>3. Replace control switch.</li> <li>4. Check connection at control switch.</li> <li>5. Replace motor starting capacitor.</li> </ol>
C. Control switch on, motor and lamp off.	<ol style="list-style-type: none"> <li>1. Loss in input 115 VAC.</li> <li>2. Safety interlock switch not engaged.</li> <li>3. Safety interlock switch defective.</li> <li>4. Control switch defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Determine loss of input voltage.</li> <li>2. Engage safety interlock switch.</li> <li>3. Replace safety interlock switch.</li> <li>4. Replace control switch.</li> </ol>
D. Poor air quality.	<ol style="list-style-type: none"> <li>1. Unicell dirty.</li> <li>2. Unicell malfunctioning.</li> <li>3. Unicell installed backwards or upside down.</li> <li>4. High voltage contacts dirty.</li> <li>5. Placement of unit not creating a good air pattern.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean unicell.</li> <li>2. Check unicell for: <ol style="list-style-type: none"> <li>a. Foreign matter between plates.</li> <li>b. Ionizer wire loose or broken.</li> <li>c. Defects in insulators.</li> </ol> </li> <li>3. Install unicell as shown on page 13.</li> <li>4. Clean high voltage contacts.</li> <li>5. Contact your local distributor or United Air Specialists.</li> </ol>
E. High voltage output low or zero.	<ol style="list-style-type: none"> <li>1. Loss of input 115 VAC.</li> <li>2. Unicell malfunctioning.</li> <li>3. Power pack defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Determine loss of input voltage.</li> <li>2. Check unicell for: <ol style="list-style-type: none"> <li>a. Foreign matter between plates.</li> <li>b. Ionizer wire loose or broken.</li> <li>c. Defects in insulators.</li> </ol> </li> <li>3. Replace power pack.</li> </ol>

\*REFER TO WIRING DIAGRAM AND ILLUSTRATED PARTS

## 8. PARTS ORDERING

Replacement parts can be ordered from your local distributor or from UAS. To order parts from UAS, call or write:

UNITED AIR SPECIALISTS, INC.  
4440 CREEK ROAD  
CINCINNATI, OHIO 45242  
1-800-252-4647

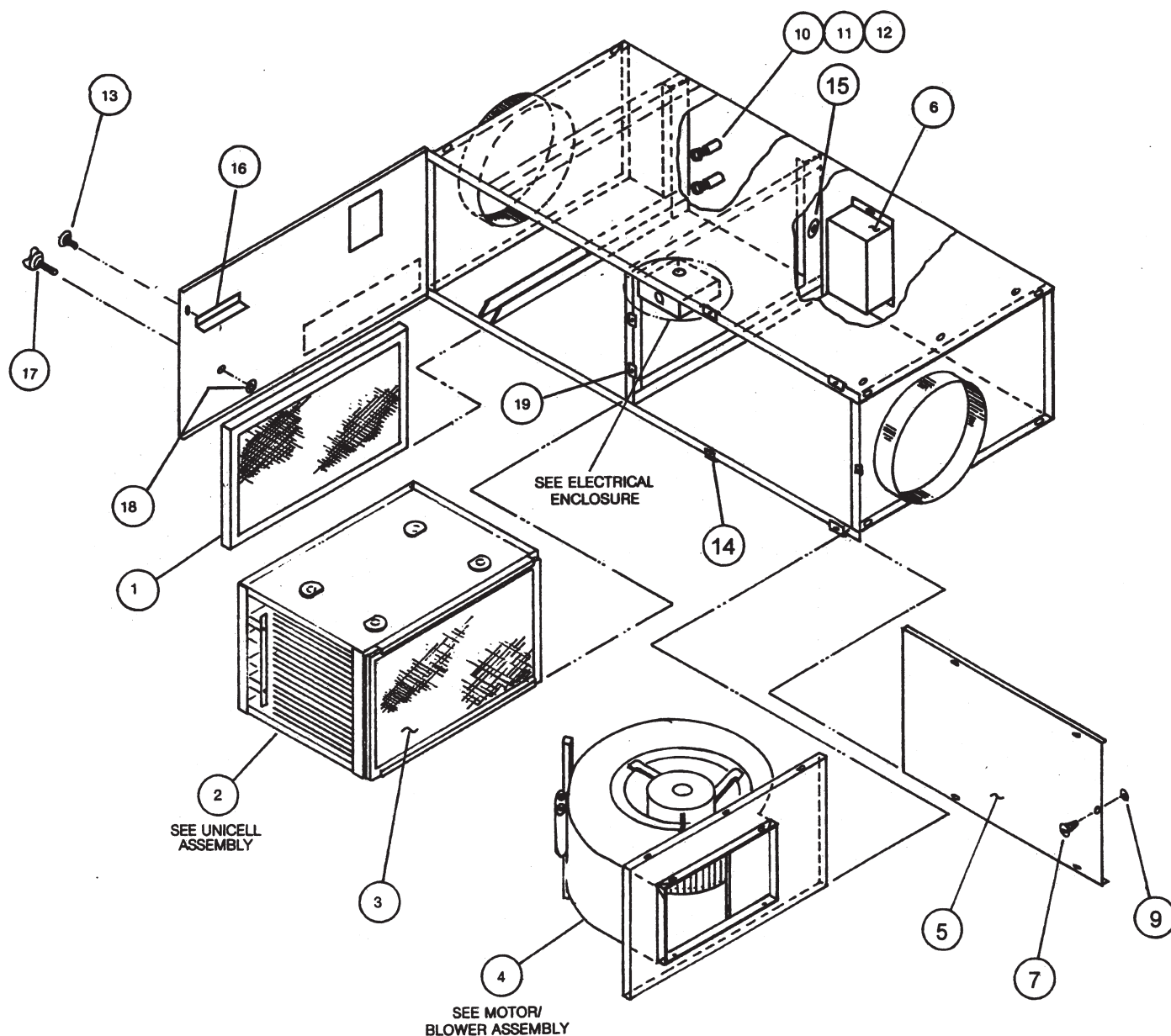
ATTN: SMOKEETER/CRYSTAL-AIRE  
CUSTOMER SERVICE

The following information will be required for prompt service:

1. Unit Model No. inside access door.
2. Unit Serial No. inside access door.
3. Part No. of part (see illustrated parts breakdown).

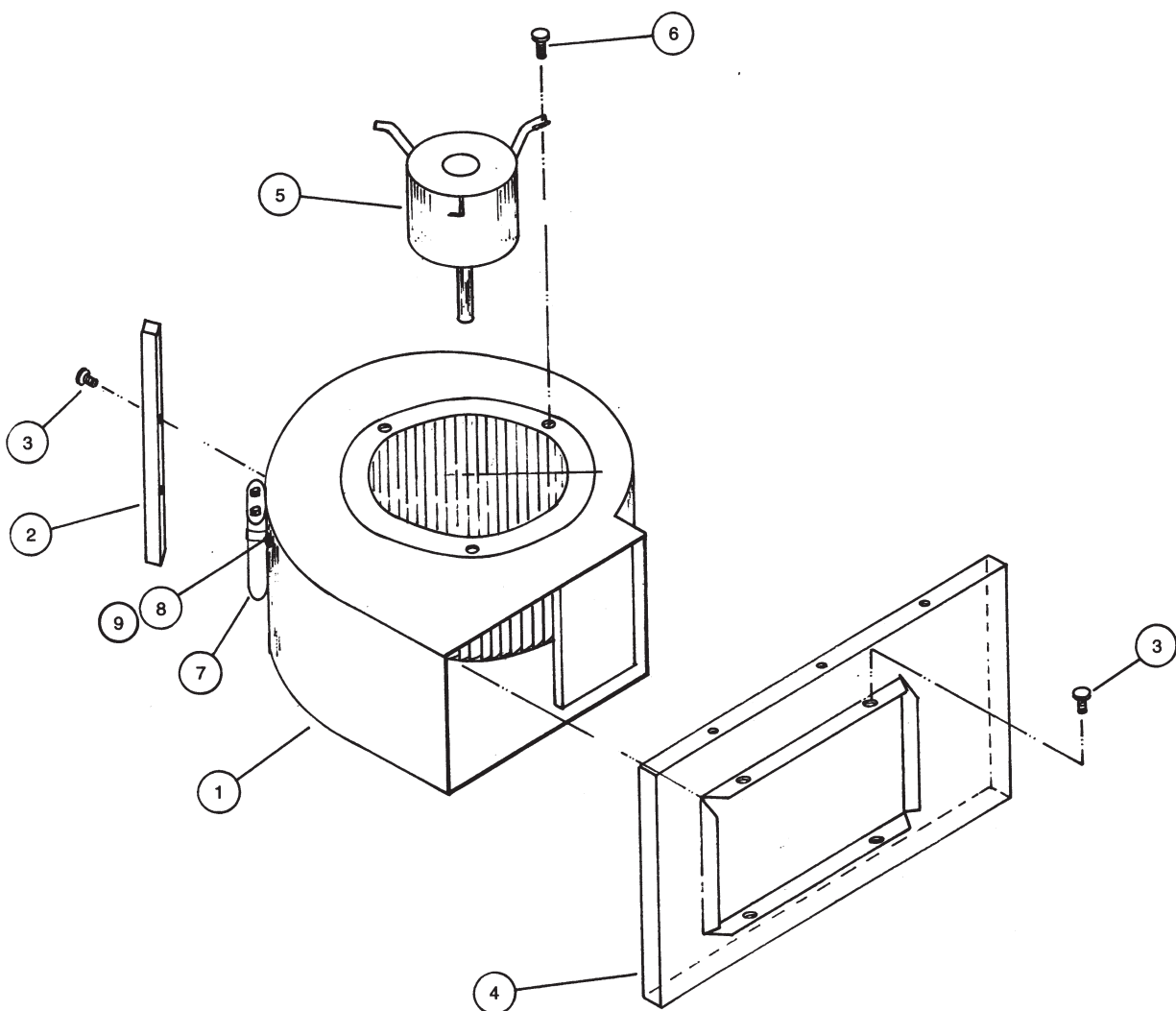
When returning a defective part under warranty, you must call UAS for a customer return authorization number. This number should appear on the package that is being returned. With this control number, we can assure that you will receive prompt service. You can also return defective parts to your local distributor.

## 9. ILLUSTRATED PARTS



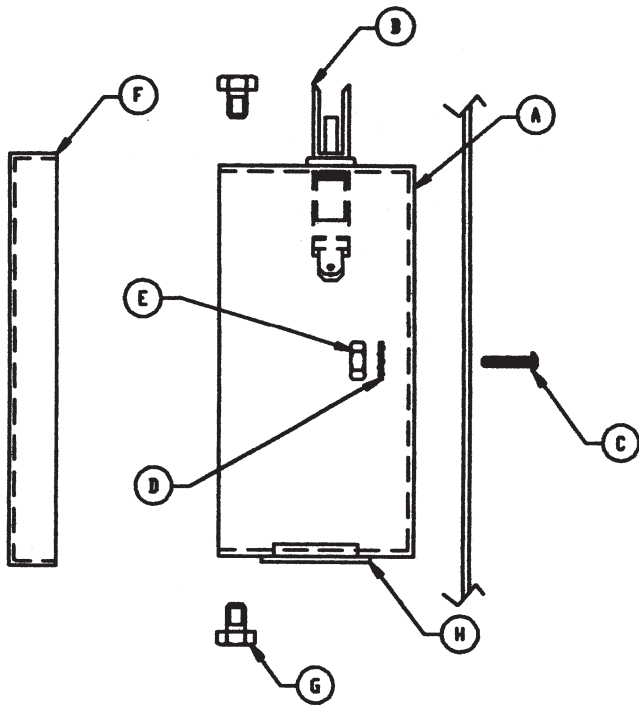
**FS ASSEMBLY**

<b>ITEM NO.</b>	<b>PART NO.</b>	<b>PART DESCRIPTION</b>	<b>QTY.</b>
1	33-0054	Aluminum Mesh Filter	1
2	02-1321	Unicell Assembly	1
3	33-0053	Carbon Filter	1
4	02-2141	Motor/Blower Assembly	1
5	10-2372	Access Panel	1
6	21-1218	Power Pack (Gray Plastic)	1
7	30-0142	Screw-Truss HD #8-32 x 1/2	5
9	30-0533	Retainer, Push-On	5
10	37-0013	Insulator	2
11	36-0014	Spring	2
12	30-0119	Screw-Rnd HD #8-32 x 5/16	2
13	30-0105	Rivet	1
14	30-0455	Nut, #8-32	5
15	20-0155	Bushing	1
16	10-9397	Switch Actuator	1
17	30-0503	Screw-Wing	2
18	30-0504	Retainer	2
19	30-0505	Receptacle	2
Not Shown	03-0702	H.V. Lead Assembly (Power Pack #21-1218)	1
	41-2370	Unit Wiring Diagram	1
	41-2371	Remote Switch Wiring Diagram	1

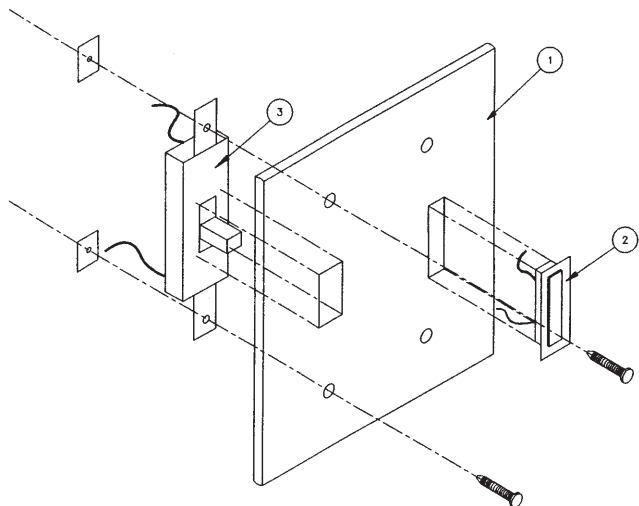


**MOTOR/BLOWER ASSEMBLY**  
(02-2141)

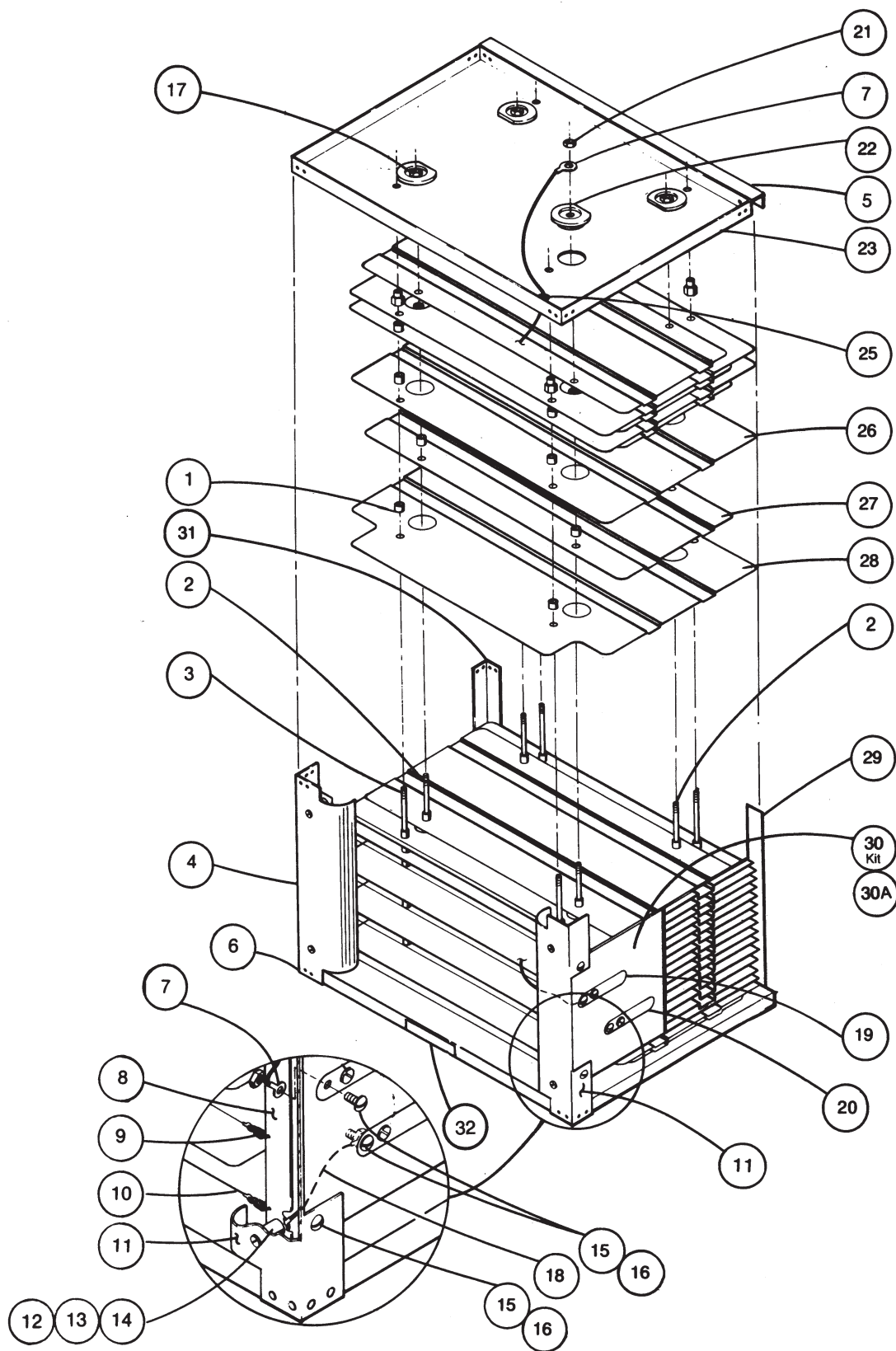
ITEM NO.	PART NO.	PART DESCRIPTION	QTY.
1	02-2090	Blower	1
2	10-2374	Blower Strut	1
3	30-0363	Screw-Tek #10-16 x $\frac{3}{4}$ w/Washer	6
4	10-2375	Blower Mounting Plate	1
5	02-1327	Motor, 115V/1/60	1
6	30-0058	Screw-Hex $\frac{1}{4}$ -20 x 1 Self Tap	3
7	20-0569	Capacitor	1
8	30-0335	Screw-Hex HD #8-32 x $\frac{1}{2}$ Self Tap	2
9	20-1298	Capacitor Bracket	1

**ELECTRICAL ENCLOSURE**

ITEM NO.	PART NO.	PART DESCRIPTION	QTY.
A	10-9395	Electrical Enclosure, 4x4	1
B	20-2907	Switch, Interlock, Fingersafe	1
C	30-0381	Screw, 10-32 x 1/2	2
D	30-0036	Washer, Lock, #10	2
E	30-0003	Nut, Hex, 10-32	3
F	10-9396	Lid, Elec. Enclosure	1
G	30-0328	Screw, 8-32 x 3/8, Self Tap	1
H	20-1242	Bushing, Black	2

**REMOTE  
SWITCH ASSEMBLY  
(02-6411)**


ITEM NO.	PART NO.	PART DESCRIPTION	QTY.
1	20-2865	Toggle Switch	1
2	20-0556	Pilot Light – Red	1
3	02-6412	Switch Plate – Lettered	1

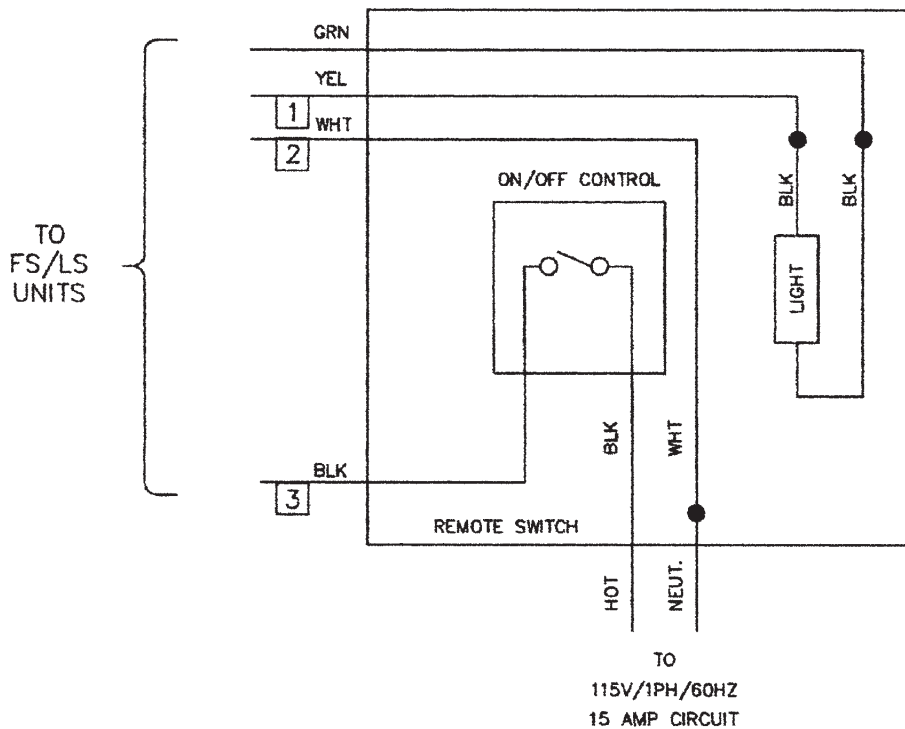
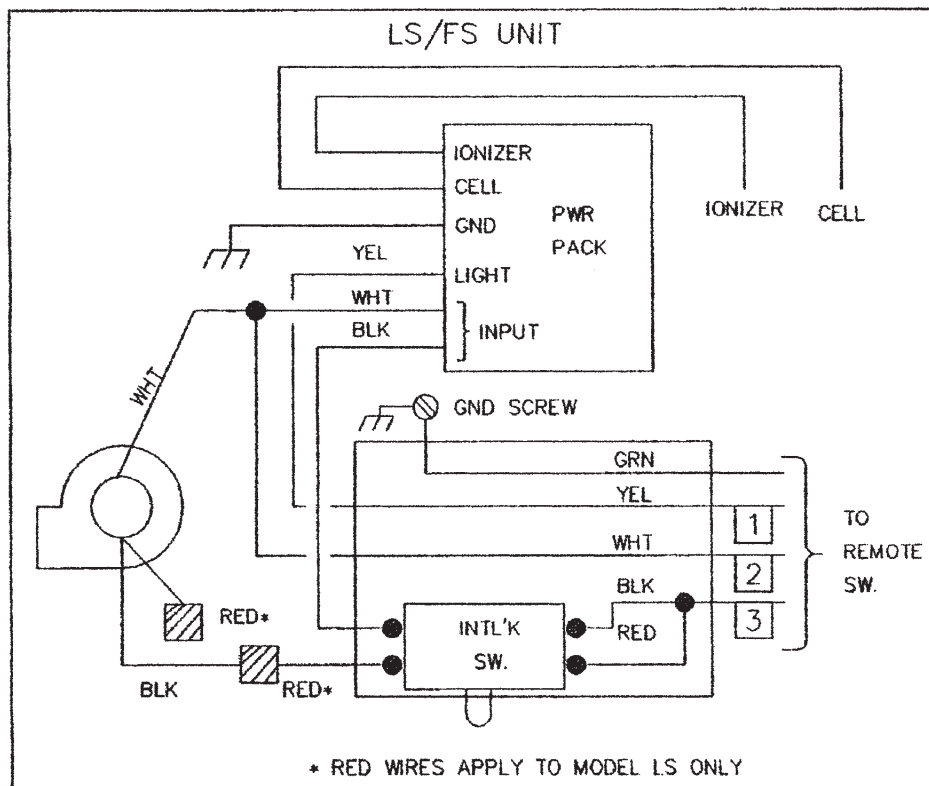


**UNICELL ASSEMBLY**  
**PART NO. 02-1321**

**UNICELL ASSEMBLY (02-1321)**

ITEM NO.	PART NO.	PART DESCRIPTION	QTY.
1	35-0067	Cell Spacer	136
2	35-0175	Cell Rod (Positive)	8
3	30-0283	1/4" Washers	8
4	10-1373	Air Foil Corner Channel	1
5	10-1383	Filter Track	2
6	30-0316	Rivets	22
7	02-1318	Cell Rod To Contact Wire Assembly	1
8	10-1375	Ionizer Support	2
9	36-0004	Ionizer Spring	10
10	02-1320	Ionizer Wire Assembly	5
11	10-1374	Air Foil Corner Channel	1
12	37-0014	Insulator, Ionizer Stand Off (1/2" Dia. x 2" L)	4
13	30-0142	#8-32 x 3/8" Pan Head Screw	8
14	30-0081	#8 Flat Washer	4
15	30-0520	#10-32 x 1/2" Hex Head Screw	4
16	30-0500	#10-32 Lock Nut	4
17	30-0030	#1/4-20 Lock Nut	15
18	20-0936	Ionizer To Contact Wire Assembly	1
19	35-0174	Cell High Voltage Contact	1
20	35-0194	Ionizer High Voltage Contact	1
21	30-0449	1/4-20 Hex Lock Nut	1
22	37-0008	Insulator, Cell (Disc Type)	8
23	10-1372	End Plate	2
25	20-0155	Hole Bushing	1
26	10-0158	Cell Plate (Ground)	15
27	10-0157	Cell Plate (Hot)	20
28	10-1376	Ionizer/Cell Plate	4
29	10-2283	Cell Corner Strap	1
30	03-0306	Contact Kit – Unicell High Voltage	1
30A	37-0042	Cell High Voltage Contact Mount Plate	1
31	10-1378	Cell Corner Angle	1
32	41-0356	Cell Label	2

## WIRING DIAGRAM MODEL FS



UNITED AIR SPECIALISTS, INC.  
LIMITED WARRANTY

UAS warrants all equipment manufactured and sold by UAS against defective parts and workmanship for one year from date of shipment to Purchaser, except that commercial or non-industrial air cleaners (other than engineered systems) are warranted for three years from such date. This warranty is subject to the limitations in UAS' standard terms and conditions provided to Purchaser. Any unauthorized repairs or modifications or abnormal use or misuse of equipment will void all warranties. In no case will UAS' responsibility or warranty extend to equipment not manufactured by UAS.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

As Purchaser's exclusive remedy for any defects in the equipment, UAS will exchange or repair any defective parts during the warranty period, provided such parts are returned, prepaid, to UAS' factory. The obligation of UAS is limited to furnishing replacement parts F.O.B. UAS' factory or making repairs at UAS' factory of any parts which are determined, upon inspection by UAS, to be defective. UAS is not responsible for labor or transportation charges for the removal, reshipment or reinstallation of the parts.

IN NO EVENT WILL UAS BE RESPONSIBLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES.



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