

Electronic Air Cleaner MODELS CC & DC DIRECT DRIVE

INSTALLATION AND OPERATION MANUAL



SMOKEETER

MODELS CC/DC DIRECT DRIVE

TABLE OF CONTENTS

SECTION		PAGE
i	Specifications, Model CC	i
ii	Specifications, Model DC	i
l.	Introduction	1
II.	Inspection Note	1
III.	How Your SMOKEETER/CRYSTAL-AIRE Works	1
IV.	Installation	2
V.	Operation	4
VI.	Cleaning	4
	THE FOLLOWING INFORMATION IS PROVIDED FOR TRAINED SERVICE PERSONNEL ONLY	
VII.	Periodic Maintenance and Troubleshooting	7
VIII.	Parts Ordering	8
IX.	Illustrated Parts	10
	Wiring Diagrams	13

This manual is compiled for general information and does not necessarily represent all options or accessories. If you have a model which is not illustrated, contact UAS or your local distributor for service or parts.

- 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.

SPECIFICATIONS — SMOKEETER MODEL CC-DAO 24 MIN. **CLEARANCE** (DOOR OPENING) **ELECTRICAL OPTIONS** 1/2-18 → 11/2 MOTOR CURRENT PHASE 1/2 - 13 -**VOLTAGE** (60 HZ) H.P. DRAW (4 PLACES) 115 6.8 1 • SHIPPING WT. — 260 LBS., 118 K.G. HANGING WT. — 212 LBS., 96 K.G. POWER CORD 72 (9', 14 GA. WITH 72 39¾ • AIRFLOW AS SHOWN IS STANDARD (LEFT-TO-RIGHT) MOLDED PLUG) • AIR HANDLING CAPACITY: 1100 CFM – 19 📥 47 181/2 21 INSIDE AIR **FLOW** MOKEETER -11/4 DISCHARGE GRILLE **FLANGE** ON/OFF SWITCH <16½ ► (4 WAY DIFFUSION) SPECIFICATIONS — SMOKEETER MODEL DC-DAO - 38 **ELECTRICAL** 24 MIN. **CLEARANCE** 36 MOTOR CURRENT **PHASE** 1/2 - 13 **VOLTAGE** (60 Hz) H.P. DRAW -11/2 (4 PLACES) v 8.5 115 1/2 • SHIPPING WT. — 380 LBS., 179 K.G. • HANGING WT. — 319 LBS., 145 K.G. **POWER CORD** 39% • AIRFLOW AS SHOWN IS STANDARD (LEFT-TO-RIGHT) (9', 14 GA. WITH ₩ MOLDED PLUG) • AIR HANDLING CAPACITY: 2200 CFM - 37 -181/2 21 AIR INSIDE **FLOW** ON/OFF SWITCH **FLANGE** DISCHARGE GRILLE (4 WAY DIFFUSION) 341/2 -INSIDE

I. INTRODUCTION

NOW YOU CAN BREATHE A LOT EASIER... you and everyone else who breathe the air cleaned electronically by SMOKEETER. 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. And, SMOKEETER is backed by a factory warranty as described on the back cover.

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

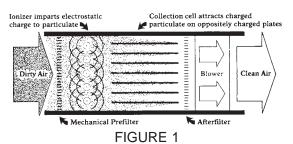
Finally, while we hope you never have any problems, United Air Specialists (UAS) is always ready to lend assistance. We have factory-trained distributors worldwide. Should you need information or service, contact your local distributor or Customer Service at United Air Specialists, Inc., 4440 Creek Road, Cincinnati, Ohio 45242, 1-800-252-4647, www.uasinc.com.

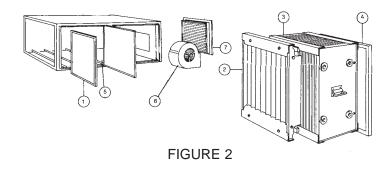
II. INSPECTION NOTE

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.

III. HOW YOUR SMOKEETER WORKS

The motor/blower draws the contaminated air through an aluminum mesh prefilter, trapping the larger particles. As the smaller particles enter the ionizer section, they are given an intense positive charge. Entering the cell section, they are collected by the charged plates. Clean air is exhausted and redistributed by adjustable diffuser vanes. An optional carbon afterfilter aids in controlling odor.





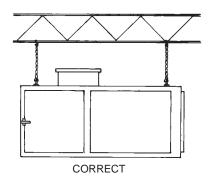
- 1. PREFILTER(S) evenly distributes the air across the ionizing section to maximize efficiency. It traps the larger particles that could short out the components.
- 2. IONIZER(S) is made up of fine tungsten wires supported between metal plates. When a high voltage is applied to these parts, a "corona" field is generated which imparts a high voltage charge on particles that pass through it.
- 3. COLLECTION CELL(S) is made up of a series of flat 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.
- 4. AFTERFILTER(S) aids in air distribution to help maintain high efficiency (carbon optional).
- 5. POWER PACK the energy limiting power pack provides 11,000 volts DC to the ionizer(s) and 5,500 volts DC to the collection cell(s) and is self-regulating for voltage input variations from -30% to +13% of nominal rating. In the event of an overload condition, the power pack automatically de-energizes then resets itself when the overload is corrected. Total current of the high voltages is limited to a maximum of 5 milliamperes to assure both equipment and personnel safety. An internal resistor bleeds off the residual charge on the cell(s) and ionizer(s) when power is removed from the power pack.
- 6. MOTOR/BLOWER air movement is produced by a direct drive, centrifugal-type blower. The blower is driven by a heavy-duty, thermally-protected $\frac{1}{2}$ horse-power motor.
- 7. DIFFUSER VANES four-way diffusers, standard equipment on every unit, allow the most effective clean airflow pattern possible.

IV. INSTALLATION

NOTE: This product has been designed specifically for commercial applications, such as autobody shops and welding facilities. United Air Specialists assumes no responsibility for those applications other than the aforementioned.

UNIT MOUNTING

Models CC and DC are designed for ceiling mount only. They are provided with eyebolts for chain hanging. The eyebolts can be removed if threaded rod is desired rather than chain. If chain is used, it should be welded link type with a 500 lb. test or better. "S" hooks used for connections should be closed. The chain should be hung vertically. If any angle is introduced, the chain and eyebolts should be sized to handle the added tension. Figure 3 shows the recommended method for ceiling mounting using chains.



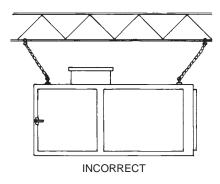


FIGURE 3

Mounting dimensions for Models CC and DC can be found on the specification sheet (see page i).

METAL TRUSS SUPPORTED CEILINGS

Figure 4 shows a Model DC unit suspended from a metal truss supported ceiling. As shown, 2" x 2" x $\frac{1}{4}$ " angle iron forms braces that are secured between two steel trusses; $\frac{1}{4}$ " threaded rods are inserted into the openings at the corner of the unit; and turnbuckles are used inbetween the rods to provide an easy method of unit leveling.

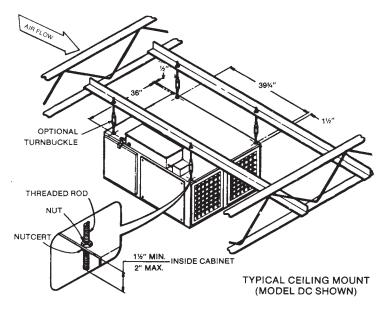
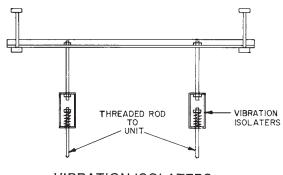


FIGURE 4

If preferred, vibration isolators can be substituted in place of the turnbuckles (refer to Figure 5).



VIBRATION ISOLATERS

FIGURE 5

CONCRETE SUPPORTED CEILINGS

One-half inch threaded rod is used for hanging the unit on concrete ceilings (refer to Figure 6). Metal fasteners must be used in the ceiling.

Special consideration must be taken when sizing the proper fastener. It is extremely important that a fastener rated at 1,000 lbs. safe working load is used (i.e. Star Double Expansion shield type - Cat. No. 7035-0000).

WARNING: The units are not to be used for support of personnel or material.

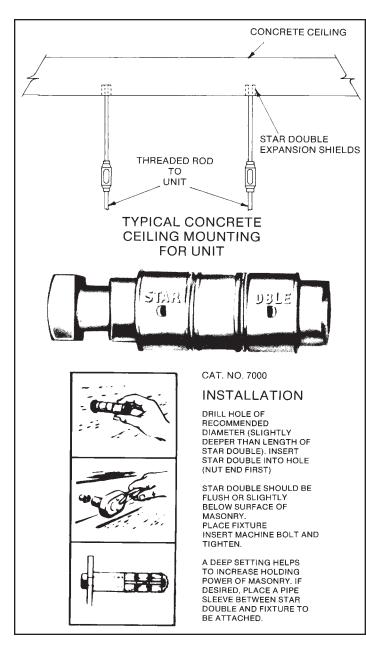


FIGURE 6

WARNING: Test installation to support 212 lbs. for Model CC and 319 lbs. for Model DC.

ELECTRICAL REQUIREMENTS

The Model CC and DC Direct Drive units (115V) are provided with a 9' power cord with a three prong plug for connection to a 115V grounded outlet. An on/off switch is provided on the unit (refer to Figure 7).

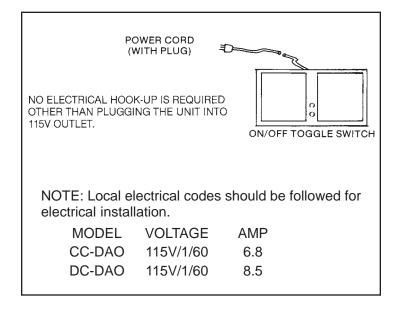


FIGURE 7

CAUTION: Power connection — the power cord on this product should be used in connection with a properly sized and appropriately located 115 VAC grounded outlet receptical. No alteration of the power cord should be attempted nor should

extension cords be used.

To reduce the risk of electric shock, this equipment has a grounding type plug that has a third (grounding) pin. This plug will only fit into a grounding type power outlet if the plug does not fit into the outlet contact qualified personnel to install the proper outlet do not alter the plug in any way.

V. OPERATION

For best results, your SMOKEETER should be started before the air becomes contaminated, ensuring clean air all the time.

The indicator light shows that your power supply is operating properly. As momentary shorts occur, the light will indicate a loss of voltage by flickering. If it fails to illuminate, the components may need cleaning (refer to cleaning instructions) or may need servicing (call your local distributor).

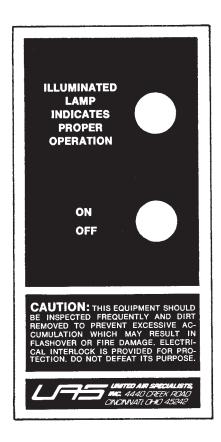


FIGURE 8

FOR YOUR INFORMATION — The unit 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.

VI. CLEANING

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

WARNING: Servicing this product for purposes other than routine cleaning of the collection components 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.

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.

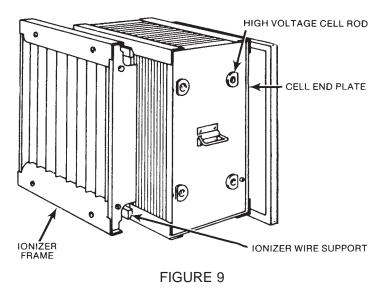
Periodic cleaning is necessary to maintain efficiency and is confined to the ionizer(s), collection cell(s) and mesh filter(s). A regular cleaning schedule is suggested. Frequency of cleaning depends upon the concentration of the contaminants and the type of contaminants. Your local distributor will be able to help you set up a schedule based on your requirem entry suggested. If a distributor is not available in your area, please contact. United Air Specialists, SMOKEETER Customer Service, 1-800-252-4647.

CLEANING INSTRUCTIONS

 Turn off unit, open door and wait 15 seconds for high voltage charge to bleed down from the ionizer(s) and collection cell(s).

WARNING: Follow grounding procedure before

GROUNDING PROCEDURES



removing components.

When the 115V power is removed from the power pack circuit, an internal resistor bleeds off the residual charge on the ionizer and collection cell. As a precaution when the access door is opened, the ionizer and collection cell should be grounded. Using an insulated handle screwdriver, touch the blade across high voltage cell rod (insulated post) and cell end plate and touch the blade across ionizer wire support and ionizer frame.

- Slide components from the cabinet.
- If the particulate being collected is dry, gently tap the components to remove the loose particles.
- If a more thorough cleaning is required, the components can be cleaned by soaking in a hot solution of SMOKEETER brand detergent for 30 to 60 minutes followed by agitation in the solution to remove loosened dirt. If agitation is not possible, soaking time should be increased to compensate.

CAUTION: Do not use temperatures exceeding 160°F. Do not steam clean as this may warp the aluminum plates. If detergent other than SMOKEETER is used, care must be taken to ensure that it contains an aluminum inhibitor so that it does not attack the aluminum compo-

nents.

- After removing components from the detergent bath, immediately flush away any residue and rinse thoroughly with hot water.
- Shake off excess water and let components stand with the cell plates in a vertical position for 20 to 30 minutes or until they are dry to the touch.
- Reinstall components in the cabinet.

CLEANING INSULATORS

The unit is equipped with two ceramic insulators located on the rear wall of the cabinet.

To clean, use a soft cloth and wipe off any accumulated build-up on insulators and high voltage wires.

CAUTION: Do not use any abrasive cleaner or material which will harm the protective glazing of the insulator.

CLEANING THE CABINET AND BLOWER COMPARTMENT

Vacuum all loose dirt from interior of the cabinet.

INSTALLING COMPONENTS

CAUTION: Components must be properly installed as referenced in Figure 10. Failure to install as shown may cause loss of high voltage and loss of efficiency.

All contacts must be in their respective locations (i.e. interconnecting springs, acorn nuts, cell contact screws).

After installing all components, close access door and turn unit on. Indicator light should illuminate.

NOTE: If the unit crackles or snaps excessively, or if

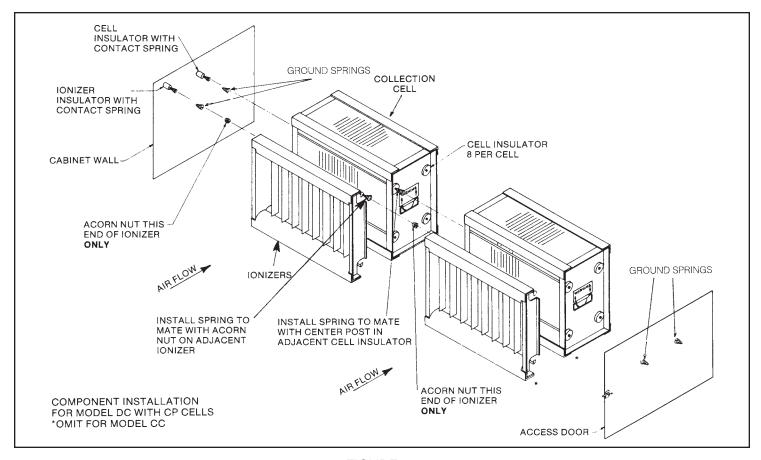


FIGURE 10

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.

VII. PERIODIC MAINTENANCE AND TROUBLESHOOTING

PERIODIC MAINTENANCE EVERY 3 MONTHS

 Clean the ionizer and collection cell contact springs and insulators located in the back of the SMOKEETER. (For reference to location, refer to Illustrated Parts.)

With the unit unplugged, clean all wiring connections at the power pack and switches.

TROUBLESHOOTING TOOLS REQUIRED

- Screwdriver 8" or longer with insulated plastic handle.
- High voltage probe used to check high voltage power supply. Minimum range from 0 to 15 KV DC.
- Volt-Ohm Meter used to check 115VAC input voltage.
- Amp Probe used to check motor current draw.

HIGH VOLTAGE COMPONENTS

POWER PACK — The electrical circuit is designed around the power pack which contains the necessary components to convert 115 volts, single-phase 60 hertz (115/I/60) AC to the high voltage DC required for the ionizer(s) and collection cell(s).

The total current in the secondary (high voltage) transformer winding is limited to a maximum of less than 5 milliamperes to assure both equipment and personnel safety.

In the event of a short circuit or other overload condition, the power pack is designed to cause the voltage to collapse. When the voltage collapses, the indicator light will not illuminate. When the overload is removed, the voltage automatically builds up to normal and the indicating light will illuminate. The power pack is thus self-protecting against overload.

When the 115 volt power is removed from the power pack circuit, an internal resistor bleeds off the residual charge on the cell and ionizer sections. As a precaution, when the access door is opened, the blade of an insulated handle screwdriver should be used to ground the charged cell plate section before components are removed (refer to Grounding Procedure.)

IONIZER — The ionizer supports thin tungsten wires which carry a positive charge of 11,000 volts direct current (11 KV DC). Its function is to electrically charge (ionize) the particles of contaminant passing through the unit.

COLLECTION CELL — The cell contains plates alternately charged to a positive voltage of 5,500 volts direct current (5.5 KV DC). Its function is to collect charged particles which have passed through the ionizer.

CAUTION: Normal good electrical practices should be followed when testing high voltage or line voltage.

The test for high voltage is made by opening the access door. This also shuts off power for the power pack and motor/blower by means of the door interlock switch.

Attach the alligator clip of the high voltage test probe to the cabinet. Turn the unit on and depress the door interlock switch, activating the power pack and motor/blower.

IONIZER CIRCUIT TEST

 Probe the ionizer at the ionizer wire support as shown in Figure 11. If ionizer voltage falls below 8 KV, the SMOKEETER is not operating efficiently.

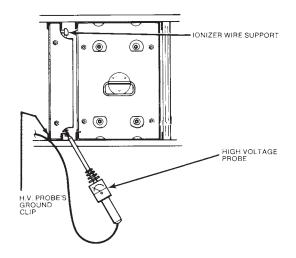
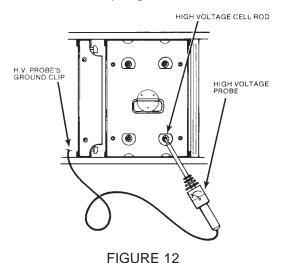


FIGURE 11

- Release door interlock switch, disconnect test probe and ground cell as outlined in Grounding Procedures.
- Remove ionizer and collection cell to allow access to the back of the cabinet.
- Attach test probe clip to cabinet and depress door interlock switch.
- Probe ionizer contact spring located in back of cabinet. If ionizer contact spring voltage is above 11 KV, the ionizer needs to be cleaned or repaired after ensuring that good contact is made between contact spring and ionizer.

CELL CIRCUIT TEST

- Probe the collection cell at the high voltage cell rod as shown in Figure 12. If collection cell voltage falls below 4 KV, the SMOKEETER is not operating efficiently.
- Release door interlock switch, disconnect test probe and ground cell as outlined in Grounding Procedures.
- Remove ionizer and collection cell to allow access to the back of the cabinet.
- Attach test probe clip to cabinet and depress door interlock switch.
- Probe collecting contact spring located in back of cabinet. If collection cell contact voltage is above 5 KV, the collection cell needs to be cleaned or repaired, after ensuring that good contact is made between contact spring and collection cell.



I IGUNE 12

POWER PACK TEST

If the contact spring for the ionizer and collection cell produce sub-par voltages as outlined in the ionizer test and collection cell test, check to make certain that insulators for the contact springs are clean and not damaged.

If the insulators are in good condition, check supply voltage to power pack. This should be between 110 volts and 125 volts.

If there is proper supply voltage, remove the two red high voltage lead wires from the power pack and measure the output voltage at connectors 7 and 8.

lonizer supply voltage should read 11 KV \pm 1,000 V DC. Cell supply voltage should read 7.3 KV \pm 1,000 V DC. If the voltages are below normal, replace the power pack.

CHECKING LIGHT TERMINAL OUTPUT

- 1. Light Disconnected should read 10 to 15 V DC.
- 2. Light Connected should read 3 to 5 V DC.

VIII. 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 TEL. 1-800-252-4647 Attn: www.uasinc.com

Customer Service

The following information will be required for prompt service:

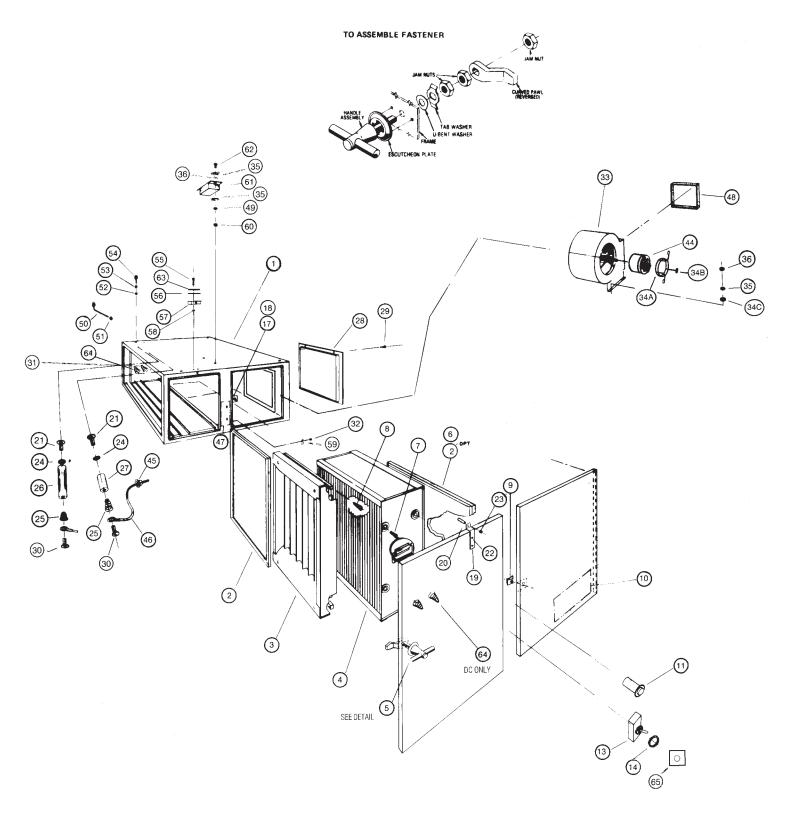
- 1. Unit model no.
- 2. Unit serial no.
- 3. Part no. (refer to Illustrated Parts breakdown)

When returning a defective part under warranty, you must call UAS for a customer return authorization number (RMA). 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.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
Continuous clicking noise.	Excessive dirt build-up or foreign matter causing arcing in ionizer or collection cell.	Isolate problem between ionizer and collection cell as outlined on page 7.
Indicator light flashing.	Excessive voltage to collection cell.	With ionizer and collection cell in place, check high voltage. Refer to page 7.
Scrapping or rubbing noise.	Blower wheel making contact with blower housing.	Loosen set screw on blower wheel and realign. Tighten set screw.
Hissing noise.	Poor contact between contact springs and ionizer or cell. Cracked or dirty insulator.	Check contact of ionizer and collection cell with contact spring in back of cabinet. Visually check insulators on ionizer, collection cell and back of cabinet for crack or excessive dirt.
The unit does not remove smoke or other particles any longer with light illuminted.	Blower not operating.	Check motor operation — and starting capacitor — replace if necessary.
Indicating light fails to illuminate.	 Components dirty. Light bulb failure. Defective insulators. Lack of voltage to power pack. Power pack failure. 	 Clean ionizer and collection cells as outlined in Cleaning Instructions, Section VI. Replace bulb. Check supply voltage to power pack. Check loose wires. Check high voltage.
Control switch turned on — nothing happens	Unit unplugged or circuit breaker turned off. Loose or broken wire at switch. Defective control, switch.	 Restore input power to unit. Check wiring at switch. Replace control switch.

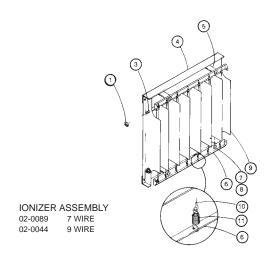
IX. ILLUSTRATED PARTS



FINAL ASSEMBLY
SMOKEETER MODELS CC & DC — DIRECT DRIVE

ASSEMBLY SMOKEETER MODELS CC AND DC DIRECT DRIVE

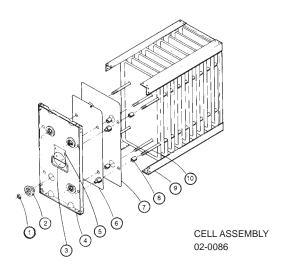
			QUAI REQI	NTITY JIRED					NTITY
ITEM NO.	PART NO.	DESCRIPTION	CC	DC	ITEM NO.	PART NO.	DESCRIPTION	CC	DC
1	_	CABINET	1	1	34	32-0013	GROMMET	4	4
2	33-0001	FILTER, ALUMINUM MESH	2	4	35	30-0049	WASHER, 1/4" FLAT	4	4
3 (SELECT)	02-0089	IONIZER, 7 WIRE	1	2	36	30-0030	LOCK NUT, 1/4" - 20	4	4
	02-0044	IONIZER, 9 WIRE	1	2	44 (SELECT)	22-0166	MOTOR, 115/1/60 1/2 H.P.	1	_
4	02-0086	COLLECTION CELL, CP	1	2		22-0161	MOTOR, 115/1/60 1/2 H.P.	_	1
5	39-0071	LATCH, DOOR	1	1	44A	20-0569	CAPACITOR 12-1/2 MRD	1	_
6 (OPTIONAL)	33-0007	FILTER, CARBON	1	2	(SELECT)	20-2640	CAPACITOR 20 MRD	_	1
7	36-0015	SPRING, CELL TO CELL INTERCONNECT	_	1	45	20-0155	BUSHING, H.V. WIRE	2	2
8	36-0016	SPRING, IONIZER TO IONIZER INTERCONNECT	_	1	46 (SELECT)	02-1225	LEAD ASSEMBLY, HIGH VOLTAGE (CC)	2	_
9	30-0062	RECEPTACLE WING HELD SCREW	1	1		02-1226	LEAD ASSEMBLY, HIGH VOLTAGE (DC)	_	2
10	41-0235	LABEL, SMOKEETER/CRYSTAL-AIRE	1	1	47	41-0384	LABEL, SWITCH/CONTROL	1	1
11 (SELECT)	02-0331	LIGHT ASSEMBLY (IND. P.P.)	1	1	48	42-0058	FELT STRIP	3 FT.	6 FT.
	02-0400	LIGHT ASSEMBLY (COMM. P.P.)	1	1	49	30-0051	LOCK WASHER 5/16	2	2
	20-0467	BULB 6V REPLACEMENT (IND. P.P.)	1	1	50	02-0288	POWER CORD ASSEMBLY	1	1
	20-0004	BULB 120V NEON (COMM. P.P.)	1	1	51	21-0157	BUSHING, STRAIN RELIEF	1	1
13	20-0326	SWITCH ON/OFF	1	1	52	30-0090	WASHER, 1/2" FLAT	4	4
14	30-0045	LOCK WASHER, 1/2"	1	1	53	30-0073	NUT, HEX 1/2 - 13	4	4
17	30-0061	SCREW, WING HEAD	1	1	54	30-0252	EYE BOLT, 1/2"	4	4
18	30-0063	RETAINER, WING HEAD SCREW	1	1	55	30-0301	SCREW, P.H. 6 - 32 x 1-1/4	2	2
19	35-0028	BRACKET, SWITCH ACTIVATING	1	1	56	37-0038	INSULATOR, SWITCH	1	1
20	35-0026	ROD, SWITCH ACTIVATING	1	1	57	20-0436	SWITCH, DOOR INTERLOCK	1	1
21	30-0371	SCREW, 8 - 32 x 3/8	2	2	58	30-0345	DOUBLE TINNERMAN NUT	1	1
22	30-0014	SCREW, 10 - 32 x 3/8	2	2	59	30-0036	#10 EXT. LCK. WASHER	4	4
23	30-0015	SCREW, 6 - 32 x 3/8	1	1	60	30-0004	NUT, HEX 1/4 - 20	2	2
24	30-0039	WASHER, #8 EXT. TOOTH	2	2	61 (SELECT)	21-1218	POWER PACK — COMMERCIAL	1	1
25	36-0014	SPRING, CONTACT	2	2		21-1216	POWER PACK — INDUSTRIAL	1	1
26	37-0013	INSULATOR, CAB. TO IONIZER	1	1	62	30-0058	BOLT, HEX HD. 1/4 - 20 x 7/8	2	2
27	37-0063	INSULATOR, CAB. TO CELL	1	1	63	37-0036	SPACER, INTERLOCK SWITCH	1	1
28 (SELECT)	33-0021	GRILLE, DISCHARGE (BLACK)	1	_	64	36-0016	GROUND SPRING	2	4
	33-0026	GRILLE, DISCHARGE (BLACK)	_	1	65	20-0085	SWITCH PLATE	1	1
29	30-0322	SCREW, O. H. (PHIL.) 8 x 3/4	4	8	(SELECT)	*03-0614	DC WIRING HARNESS	_	1
30	30-0119	SCREW - MCH. PHL. 8 - 32 X 5/16	2	2			(FOR POWER PACK 21-1218)		
31	30-0305	TEK SCREW	2	2		*03-0583	CC WIRING HARNESS (FOR POWER PACK 21-1216)	1	_
32	30-0076	SCREW, GROUNDING 10 - 32 x 3/8	2	2		*03-0574	DC WIRING HARNESS	_	1
33 (SELECT)	32-0150	BLOWER, SINGLE (9-7)	1	_			(FOR POWER PACK 21-1216)		
	32-0148	BLOWER, SINGLE (12-12T)	_	1	*NOT SHOWN				



AIRFOIL IONIZER ASSEMBLY*

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY REQUIRED
1	30-0030	1/4 - 20 LOCK NUT	4
3	35-0027	ROD	2
4 (SELECT)	10-0465	CORNER CHANNEL (7 WIRE)	2
	10-0426	CORNER CHANNEL (9 WIRE)	2
5 (SELECT)	37-0004	INSULATOR	4
	37-0028	INSULATOR (CONVOLUTED)	4
6 (SELECT)	10-0570	IONIZER SUPPORT (7 WIRE)	2
	10-0569	IONIZER SUPPORT (9 WIRE)	2
7	30-0142	#8 - 32 x 1/2" PAN HEAD SCREW	8
8	30-0081	#8 FLAT WASHER	4
9	10-0420	IONIZER PLATE	A.R.
10	03-0555	IONIZER WIRE ASSY. (TUNGSTEN)	A.R.
11	03-0559	IONIZER SPRING	A.R.

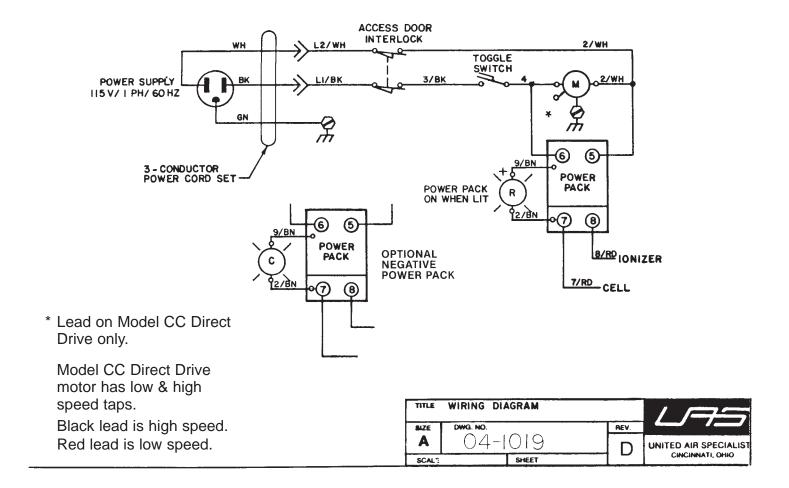
* 02-0089 - 7 WIRE IONIZER 02-0044 - 9 WIRE IONIZER



COLLECTION CELL ASSEMBLY*

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY REQUIRED
1	30-0030	1/4 - 20 LOCK NUT	16
2 (SELECT)	37-0008	INSULATOR (STD.)	8
	37-0007	INSULATOR (HORSESHOE)	8
3-A	10-0564	HANDLE	1
3-B	10-0559	COVER PLATE, HANDLE	1
4 (SELECT)	10-0348	END PLATE (GALVANIZED)	2
	10-0347	END PLATE (ALUMINUM)	2
5	41-0330	WARNING LABEL	1
6	10-0157	"HOT" CELL PLATE	33
7	10-0158	GROUND CELL PLATE	32
8	35-0067	SPACER	260
9	35-0049	CORNER ANGLE4	
10	35 0045	CELL ROD	8

* 02-0086 - CP CELL



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 nonindustrial 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.

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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.

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