SMOKEETER®

ELECTRONIC AIR CLEANERS

INSTALLATION AND OPERATION MANUAL

MODEL SE 30

MODEL SE 40

MODEL SE 50

SPECIFICATIONS

POWER REQUIREMENTS

115 VAC, 60 HZ
3.2 Amps (max.)

POWER CONSUMPTION

370 Watts (max.)

AIR HANDLING CAPACITY **MODEL SE 30**

Low - 150 to 420 CFM*

WEIGHT

Hanging . . . . . 75 lbs. (34 kg)
Shipping . . . . . 82 lbs. (37 kg)

DIMENSIONS

Height	Width	Length
10 7/8"	20 1/4"	31"
(28 cm)	(51 cm)	(79 cm)

*CFM is variable

POWER REQUIREMENTS

115 VAC, 60 HZ
6.0 Amps (max.)

POWER CONSUMPTION

690 Watts (max.)

AIR HANDLING CAPACITY **MODEL SE 40**

Low - 450 to 950 CFM*

WEIGHT

Hanging . . . . . 113 lbs. (51 kg)
Shipping . . . . . 120 lbs. (54 kg)

DIMENSIONS

Height	Width	Length
12 7/8"	21"	40"
(33 cm)	(53 cm)	(102 cm)

*CFM is variable

POWER REQUIREMENTS

115 VAC, 60 HZ
7.0 Amps (max.)

POWER CONSUMPTION

800 Watts (max.)

AIR HANDLING CAPACITY **MODEL SE 50**

High speed tap - 1,060 to 1,500 CFM*
Low speed tap - 590 to 1,300 CFM*

WEIGHT

Hanging . . . . . 140 lbs. (63.5 kg)
Shipping . . . . . 151 lbs. (68.5 kg)

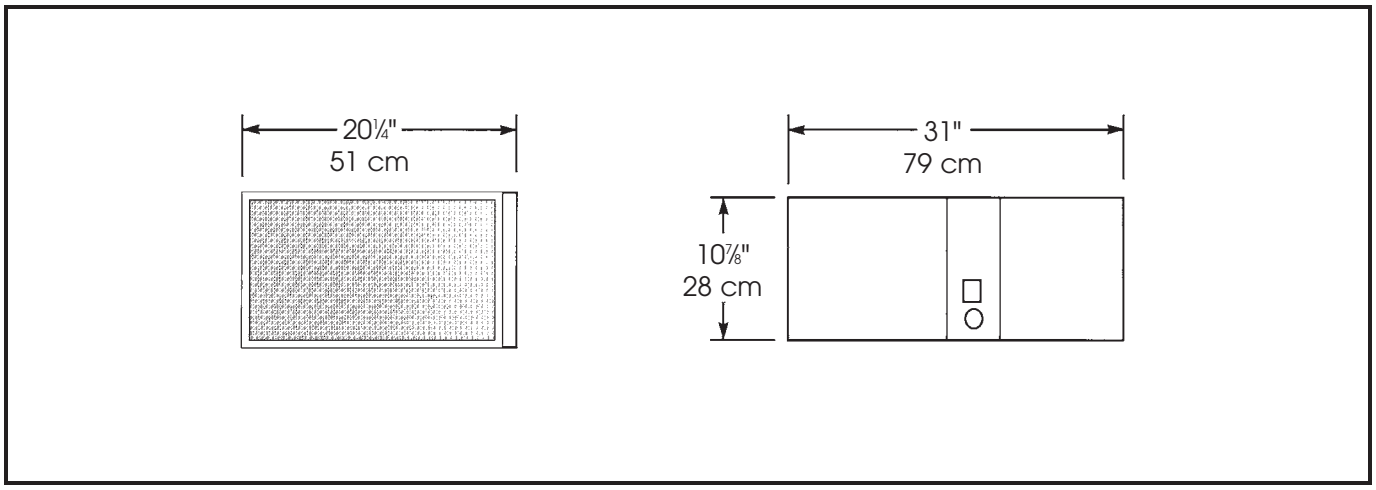
DIMENSIONS

Height	Width	Length
20"	19 1/2"	40"
(51 cm)	(50 cm)	(102 cm)

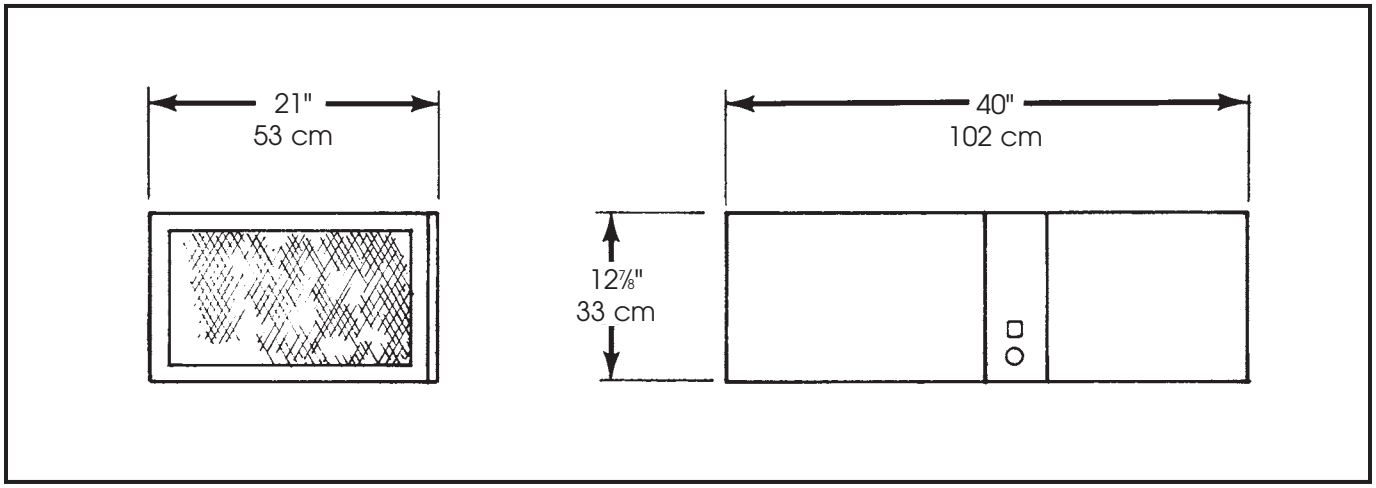
*CFM is variable

DIMENSIONS

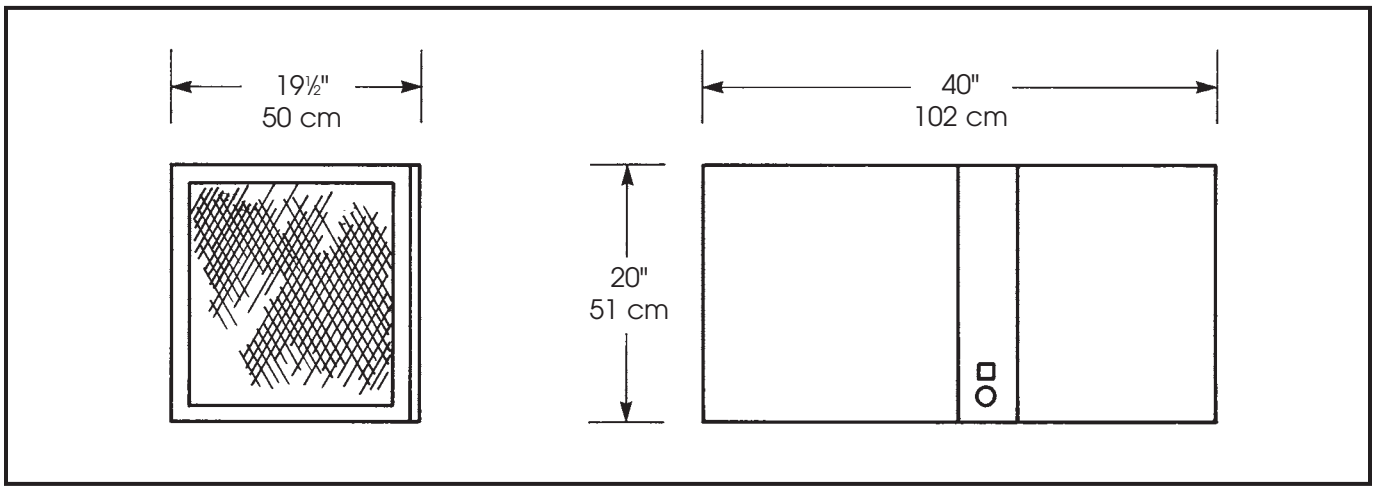
SE 30



SE 40



SE 50



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THE FOLLOWING INFORMATION IS PROVIDED FOR TRAINED SERVICE PERSONNEL ONLY.

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.

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. SMOKEETER 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, the unit is backed by a factory warranty as described on the back cover.

Second, like any piece of precision equipment, your SMOKEETER 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, Inc. (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 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.

III. HOW YOUR AIR CLEANER 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.

COMPONENTS THAT MAKE IT WORK

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

IONIZER 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.

COLLECTION CELL 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.

NOTE: The SE 40 contains an ionizer and collection cell as a one piece assembly known as a unicell.

SPEED CONTROL SWITCH allows you to adjust the airflow between 150 and 420 cubic feet of air per minute (CFM) on the SE 30 and 450 and 950 CFM on the SE 40. The switch on the SE 50 allows you to adjust the airflow between 1,060 and 1,500 CFM on the high speed tap and between 590 and 1,300 CFM on the low speed tap. The SE 50 is shipped on high tap.

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

IV. 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.

CAUTION: 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.

SMOKEETER 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 distributor or by United Air Specialists, Inc.

The unit can be installed by mounting on a wall or suspending from the ceiling joists/structure.

WALL MOUNTING

Level and securely attach the mounting cleat to the wall, ensuring given dimension from ceiling to bolt centerline as shown in Figure 1. Holes provided on wall mounting cleat are spaced 12", 16" or 24" on center mounting patterns. Use fasteners and anchoring devices to ensure support of the SMOKEETER.

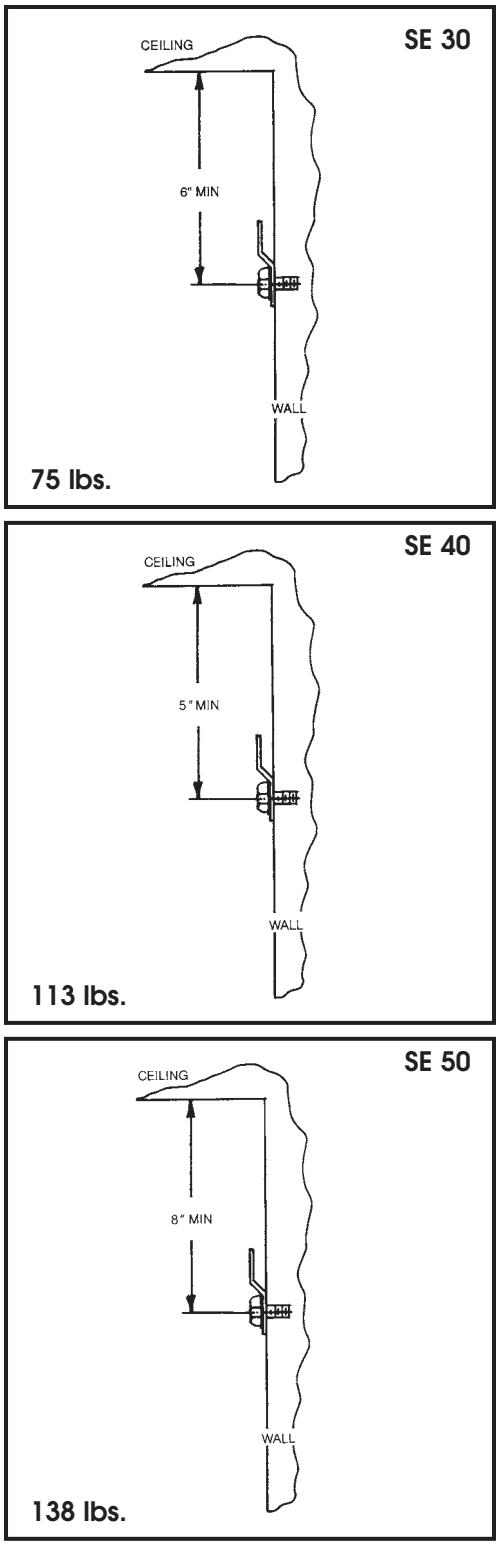


FIGURE 1

WARNING — ATTACH WALL MOUNT TO CLEAT TO WALL AND TEST LOAD CAPACITY AS SHOWN IN ILLUSTRATION.

Remove the components from the unit to lighten the weight and facilitate handling.

Attach the mounting cleat to the top back edge of the unit with two $^3/_8$-16 x $^3/_4$" hex head bolts and washers that are provided. Install two $^3/_8$-16 x $1^1/_4$" leveling screws in the bottom outside holes. Refer to Figure 2.

Place the unit on a lifting device. Position the lifting device under the wall mounting cleat. Raise the unit into position and engage the wall mounting cleat with cleat mounted to the unit. Ensure engagement by visually checking from the end.

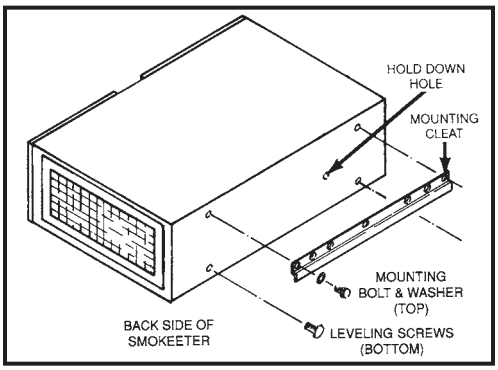


FIGURE 2

Check level and adjust leveling screws as needed. Mark location on hold-down fastener on the wall. Hole is located behind the collection cell and marked with a label.

Remove the unit from mounting and prepare wall for hold-down fastener.

Reinstall the unit as before and install hold-down fastener.

The fasteners should now be tested to support the weight previously mentioned.

Completed installation should be as shown in Figure 3, with mounting cleat fully engaged, leveling screw in position and hold-down bolt in wall.

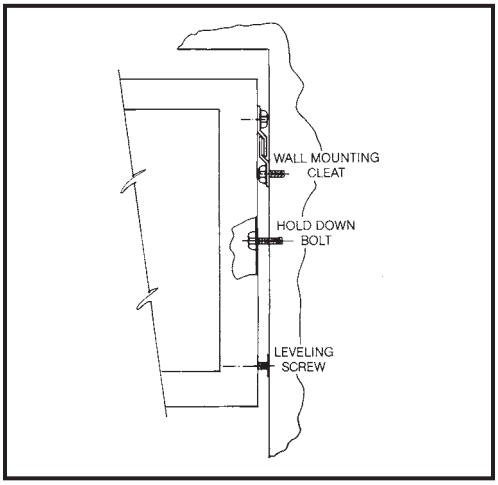


FIGURE 3

SUSPENSION

Threaded rod, wire or eyebolts and chain may be used for hanging the unit. Four "knockouts," located as shown in Figure 4, must be removed.

It is recommended that a nut on the inside and outside of the cabinet be used to lock the fastener in place. Refer to Figure 4.

Test the unit for secure support.

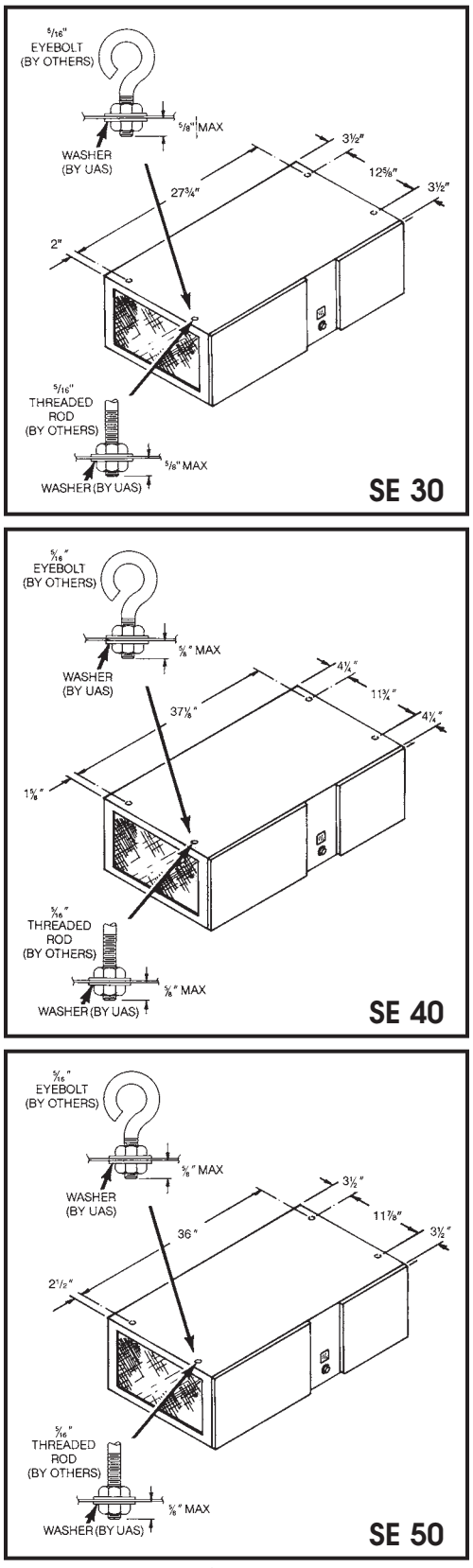


FIGURE 4

V. OPERATION

For best results and to assure maximum air quality, your SMOKEETER unit should be started before the air becomes contaminated. An indicator lamp indicates that high voltage to the components is on. A variable-speed control switch allows you to adjust the blower speed. If you notice a decrease of cleaning efficiency, increase the blower speed to increase effectiveness of the unit.

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.

VI. CLEANING

CAUTION: 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.

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

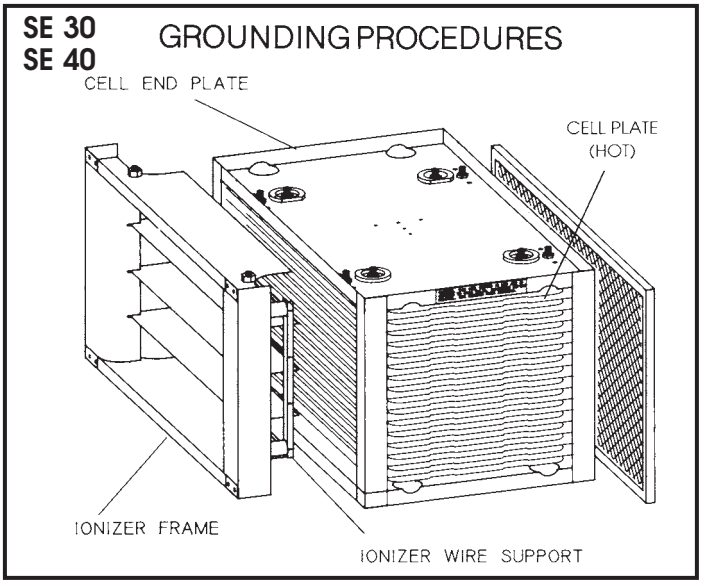
CAUTION: The unit should be inspected frequently and dirt removed to prevent excessive accumulation which may result in flashover or fire damage. An electrical interlock is provided for protection — do not defeat its purpose.

HOW TO REMOVE COMPONENTS

1 . Turn off the unit.

- Open the access door.
- For added safety, manually discharge the ionizer and collection cell/unicell in the following manner. Place the blade of a common screwdriver (with insulated handle) across the ionizer wire support and then the ionizer frame. Next, place the screwdriver blade across the cell end plate and then across a cell "hot" plate. This will remove any residual charge that may not have bled off. Refer to Figure 5.

2. Slide components from the cabinet.



NOTE: The SE 40 contains an ionizer and collection cell as a one piece assembly known as a unicell.

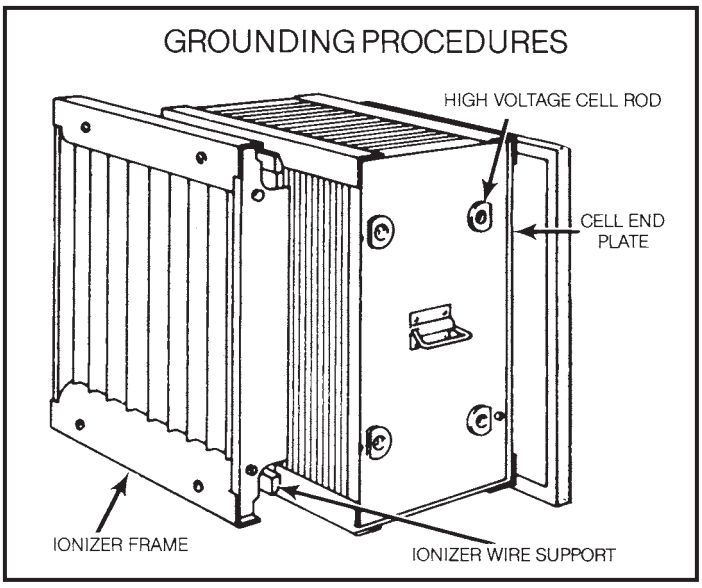


FIGURE 5

CLEANING

Major cleaning is confined to the prefilter, ionizer, collection cell and the inside cabinet. These 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 as required.

1. Disconnect power to unit and remove components.

2. The ionizer, collection cell/unicell and prefilter can be cleaned by soaking in a hot solution of SMOKEETER 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 160°F and do not steam clean as this may cause permanent damage to the components. If detergent other than SMOKEETER brand 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.

3. Remove the components from the detergent bath and immediately flush away any residue and rinse thoroughly with clear hot (less 160°F) 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.

4. Vacuum clean the interior of the cabinet and clean off all electrical connections before reinstalling the components.

5. Reinstall the components into the cabinet.

6. Apply power to unit and confirm indicator light is illuminated.

VII. 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 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*
- the power pack
- ionizer
- collection cell/unicell
- blower control switch
- safety switch
- indicator lamp

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

*These models are equipped with permanently lubricated motors. 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, single-phase, 60 hertz to the high voltage DC required for the components.

2. **Ionizer** - the ionizing section supports several tungsten wires charged positive to a nominal 11,000 volts DC. The baffle plates parallel to the wire are at ground potential. The ionizer's function is to electrically charge the contaminated particles as they pass through the ionizer.

3. **Collection Cell** - the collecting section consists of alternately charged plates. Plates are alternately charged with a nominal 5,500 volts DC positive. The field between the plates forces the charged particles to the ground plates removing them from the airstream.

NOTE: The SE 40 contains an ionizer and collection cell as a one piece assembly known as a unicell.

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 ionizer and collection cell 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.

TOOLS REQUIRED FOR TROUBLESHOOTING

- Screwdriver — (common type) 8" or longer with insulated handle.

- Volt-Ohm Meter — for measuring low voltage input (115 VAC), 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

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

MEASURING HIGH VOLTAGE

(Refer to Figure 6)

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.

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

   CAUTION: Be sure to disengage safety interlock switch after measuring voltages.

IONIZER VOLTAGE

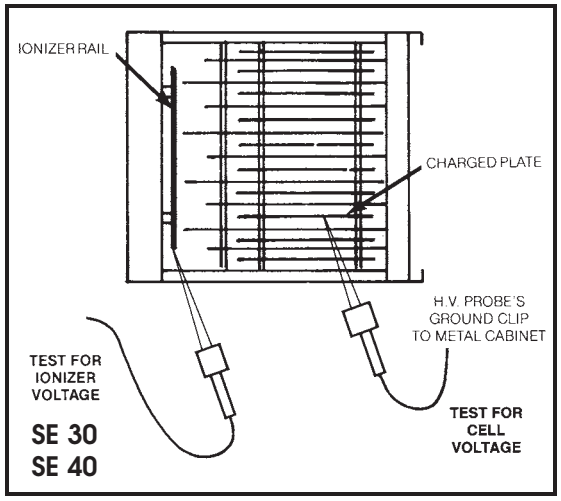
Place the probe's tip on the ionizer (refer to Figure 6) and measure the positive DC voltage. The voltage should read 10 to 11 KV DC.

- If measurements are abnormal, refer to the troubleshooting table (page 11) for cause and correction.

CELL VOLTAGE

Place the probe's tip on one of the charged plates. The voltage reading should be 4 to 6 KV DC.

- If measurements are abnormal, refer to the troubleshooting table (page 11) for cause and correction.



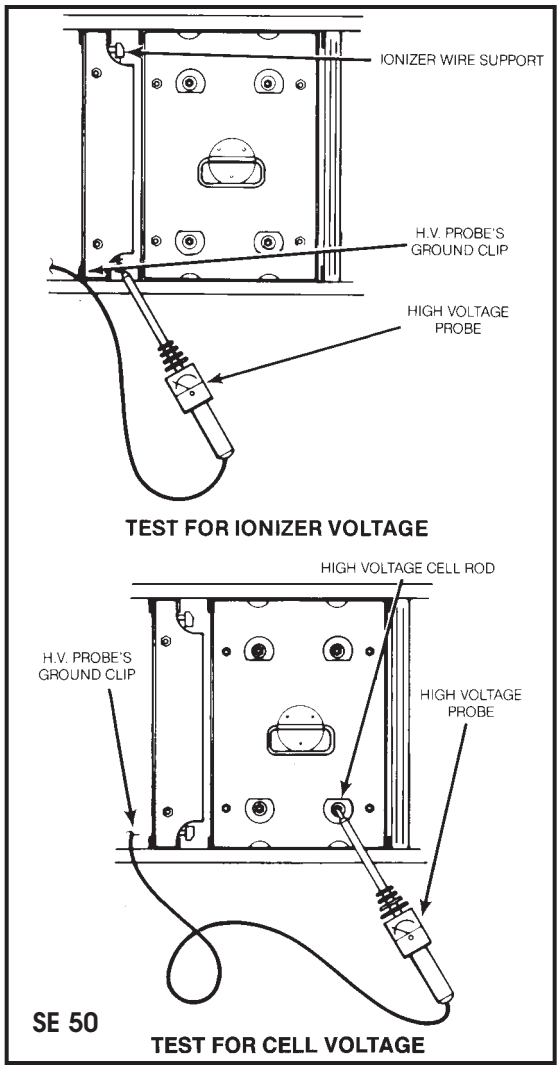


FIGURE 6

CHECKING THE POWER PACK OUTPUT
(Refer to Figure 7)

1. Remove the components 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 located on inside back wall of cabinet (follow #8 wire).

   • Output reading without the components should read 10 to 12 KV DC positive.

3. To measure the collection cell output voltage, place the probe's tip on the cell high voltage contact (follow #7 wire).

   • Output without the components should read 5 to 7 KV DC positive.

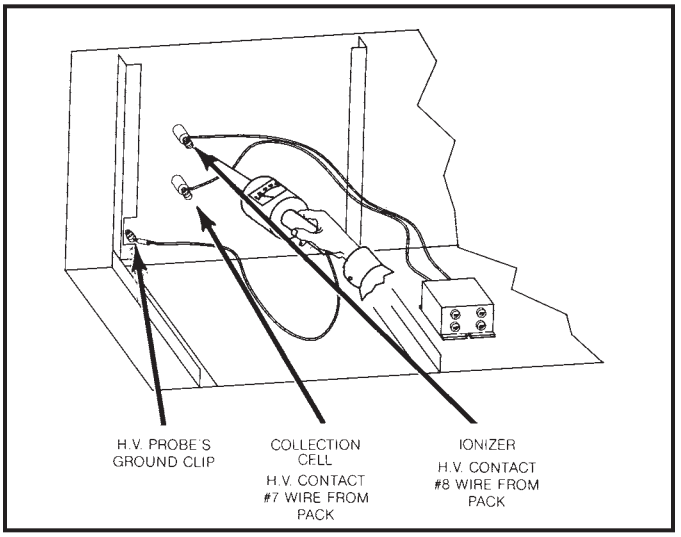


FIGURE 7
(Contact point locations may vary)

CHECKING LAMP TERMINAL OUTPUT
(Refer to Figure 8)

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.

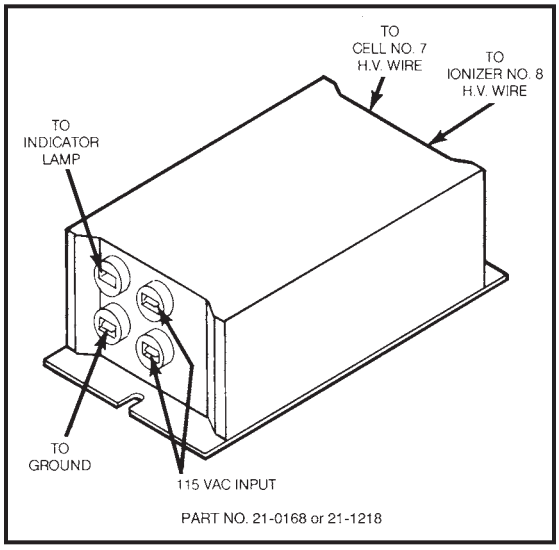


FIGURE 8

CHECKING MOTOR CAPACITOR (SE 40 & SE 50)
(Refer to Figure 9)

The motor capacitor located on the side of the blower is designed to start and run the motor when 115 VAC is supplied (refer to wiring diagrams, page 30).

1. Disconnect power to the unit.

2. Using a volt meter with a scale of 120 VAC minimum, place the two leads of the meter across the two connections at the top of the capacitor to ensure no voltage is present.

3. Remove the two brown 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.

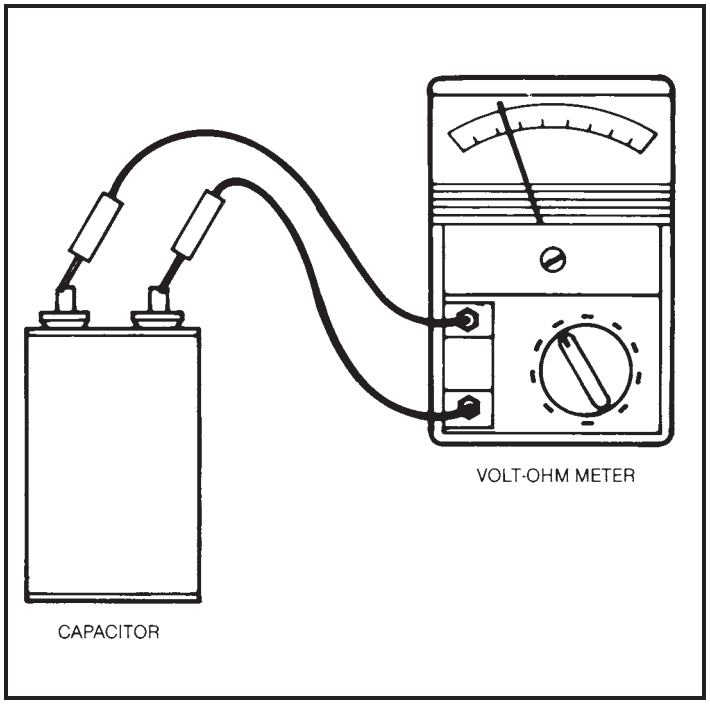


FIGURE 9

VIII. PARTS ORDERING

Replacement parts can be ordered from your local distributor or from UAS. For information on your local distributor, call or write:

UNITED AIR SPECIALISTS, INC.
4440 CREEK ROAD
CINCINNATI, OHIO 45242
TEL. (513) 891-0400
1-800-252-4647
www.uasinc.com

ATTN: CUSTOMER SERVICE DEPARTMENT

The following information will be required for prompt service:

1. Unit model number inside access door.
2. Unit serial number inside access door.
3. Part number of part (refer to Illustrated Parts).

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 you will receive prompt service. You can also return defective parts to your local distributor.

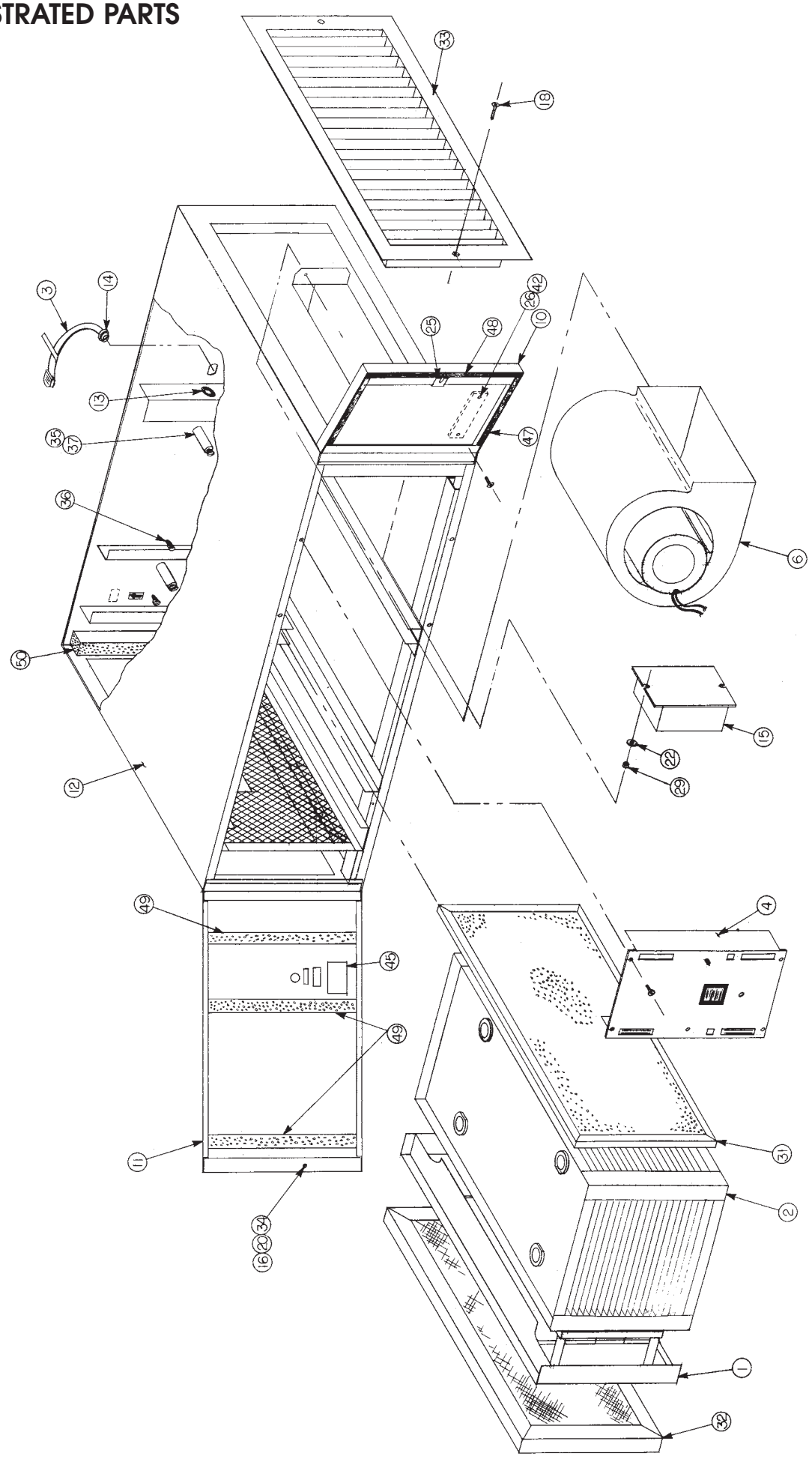
TROUBLESHOOTING TABLE*

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
A. Control switch on, indicator lamp off, blower operates.	1. Defective lamp. 2. Faulty connection to lamp. 3. Loss of high voltage. 4. Loss of continuity of high voltage.	1. Replace lamp. 2. Check connection to lamp. 3. Check power pack. 4. Refer to Problem "E." Follow steps 1-4.
B. Control switch on, indicator lamp on, blower does not operate.	1. Motor faulty. 2. Foreign object blocking motor. 3. Faulty control switch. 4. Connector not properly connected at control switch.	1. Replace motor. 2. Clean foreign object from motor. 3. Replace control switch. 4. Check connection at control switch.
C. Control switch on, motor and lamp off.	1. Loss of input 115 VAC. 2. Safety interlock switch not engaged. 3. Safety interlock switch defective. 4. Control switch defective.	1. Determine loss of input voltage. 2. Engage safety interlock switch. 3. Replace safety interlock switch. 4. Replace control switch.
D. Motor operates on low or high speed only.	1. Control switch defective.	1. Replace control switch.
E. Poor air quality.	1. Ionizer/collection cell/ unicell dirty. 2. Ionizer/collection cell/ unicell malfunctioning. 3. Components installed backwards or upside down. 4. High voltage contacts dirty. 5. Unit being operated on too low of a speed. 6. Placement of unit not creating a good air pattern.	1. Clean components. 2. Check for: A. Foreign matter between plates. B. Ionizer wire loose or broken. C. Defects in insulators. 3. Install components as shown in Section IX. 4. Clean high voltage contacts. 5. Increase blower speed. 6. Contact your local distributor or United Air Specialists.
F. Loss of high voltage output.	1. Loss of input 115 VAC. 2. Ionizer/collection cell/ unicell malfunctioning. 3. Power pack defective.	1. Determine loss of input voltage. 2. Check for: A. Foreign matter between plates. B. Ionizer wire loose or broken. C. Defects in insulators. 3. Replace power pack.

*Refer to wiring diagram and illustrated parts.

IX. ILLUSTRATED PARTS

SE 30 FINAL ASSEMBLY
02-2620

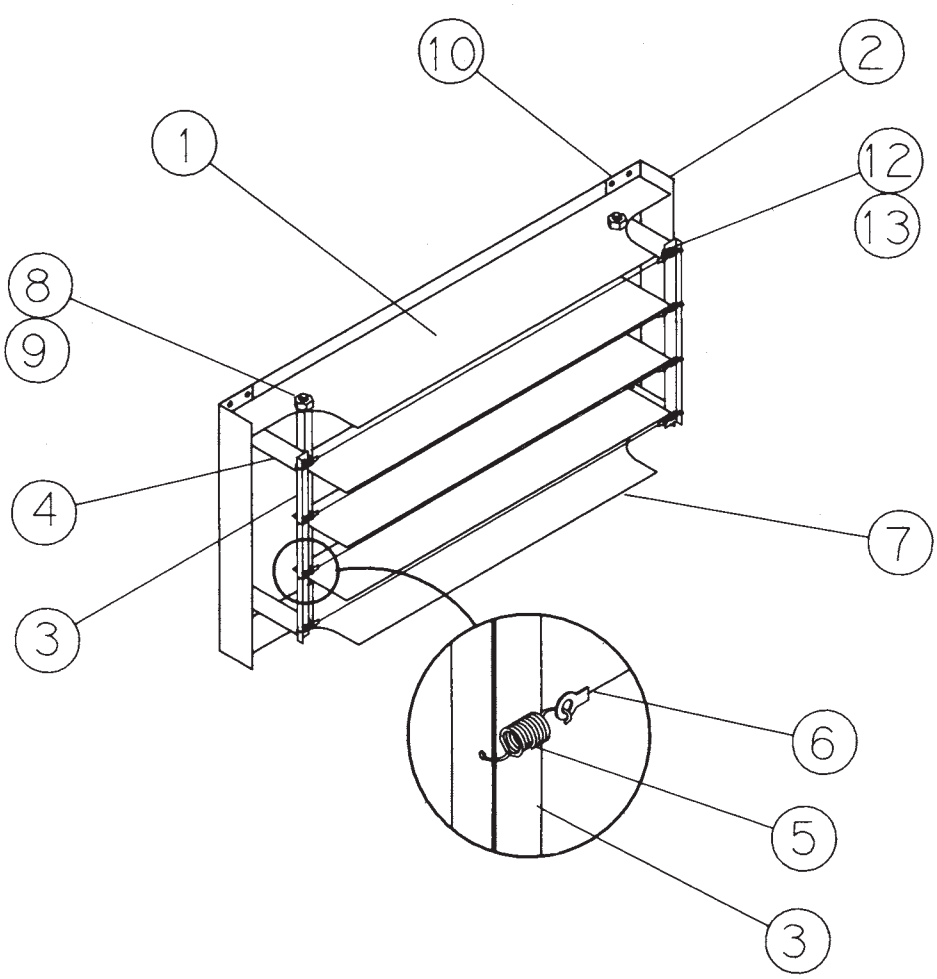


SE 30 FINAL ASSEMBLY
02-2620

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	02-0090	IONIZER ASSEMBLY+	1
2	02-0522	COLLECTION CELL+	1
3	20-2922	CORD-IEC, 90 DEG.	1
4	02-2608	CENTER POST ASSEMBLY+	1
6	02-2662	MOTOR/BLOWER ASSEMBLY+	1
7*	03-1076	WIRE KIT (HIGH VOLTAGE)	1
8A*	30-0496	LEVELER, FOOT	2
8B*	39-0120	KNOB-SWITCH	1
9*	10-2571	HANGING BRACKET	2
10	10-2711	MOTOR/BLOWER ACCESS DOOR	1
11	10-2712	COMPONENT ACCESS DOOR	1
12	18-0763	CABINET	1
13	20-0155	BUSHING	2
14	20-2921	IEC 30 POWER INLET	1
15	21-1218	POWER PACK (GREY PLASTIC CONSTRUCTION)	1
16	30-0015	SCREW, HEX HEAD	1
18	30-0031	SCREW, OVAL HEAD	2
20	30-0038	LOCKWASHER	1
22	30-0049	WASHER-FLAT	2
25	30-0163	CLIP (DOOR FASTENER)	1
26	30-0202	FASTENER LOGO	2
29	30-0030	LOCKNUT	2
31	33-0006	FILTER-CARBON	1
32	33-0017	FILTER- ALUMINUM MESH	1
33	33-0156	DISCHARGE GRILLE	1
34	35-0191	ACTUATOR ROD FOR SWITCH	1
35	36-0008	HIGH-VOLTAGE CONTACT SPRING	2
36	36-0016	GROUND SPRING	2
37	37-0013	INSULATOR-CERAMIC	2
42	41-0674	NAMEPLATE	1
45	41-1136	LABEL, WIRING DIAGRAM	1
47	42-0156	GASKET-NEOPRENE	1.5 ft.
48	42-0158	GASKET-NEOPRENE	0.9 ft.
49	42-0176	GASKET, $^{1}/_{2}$" POLYESTER FOAM	2.7 ft.
50	42-0206	GASKET - 1" X 1"	0.9 ft.

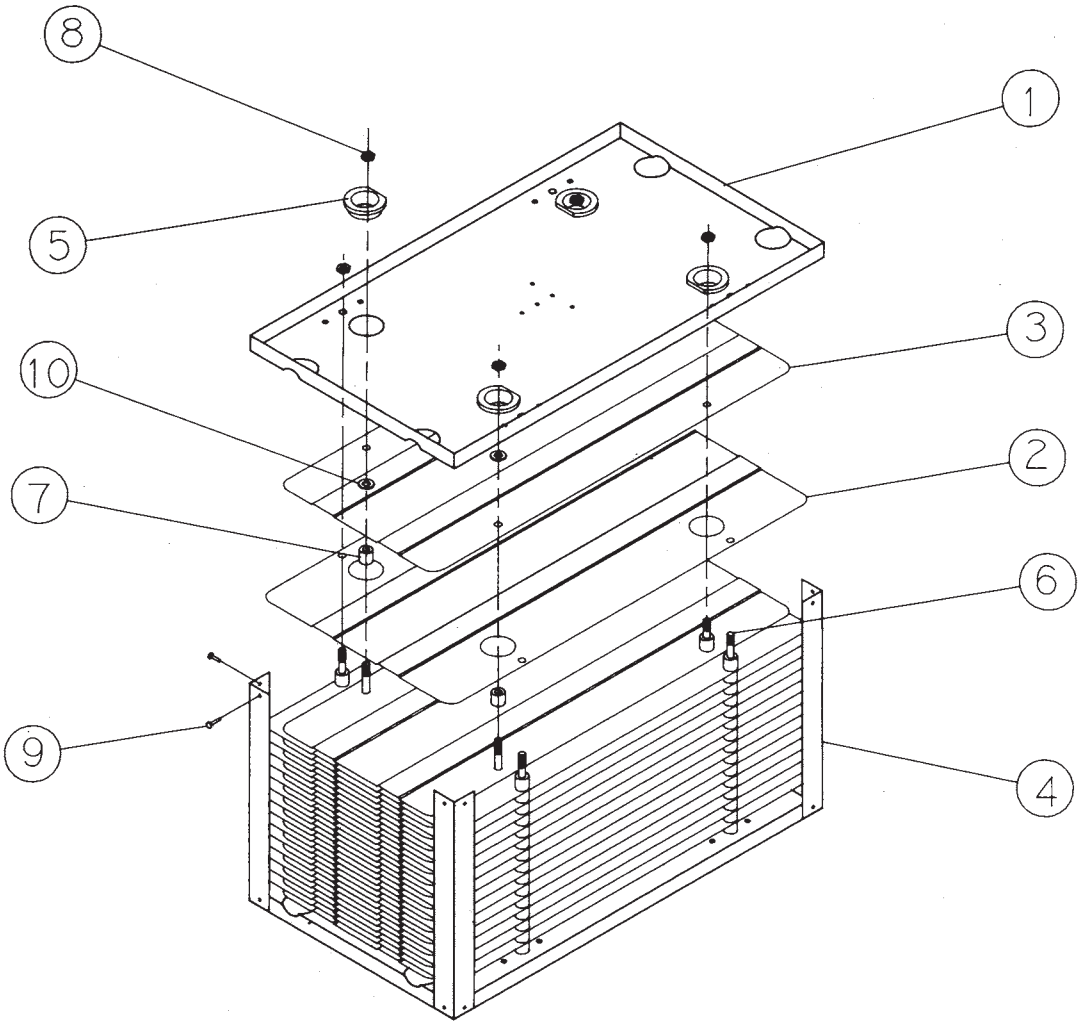
* NOT SHOWN

\+ SEE DETAIL PARTS LIST ON THE FOLLOWING PAGES



SE 30 IONIZER ASSEMBLY
02-0090

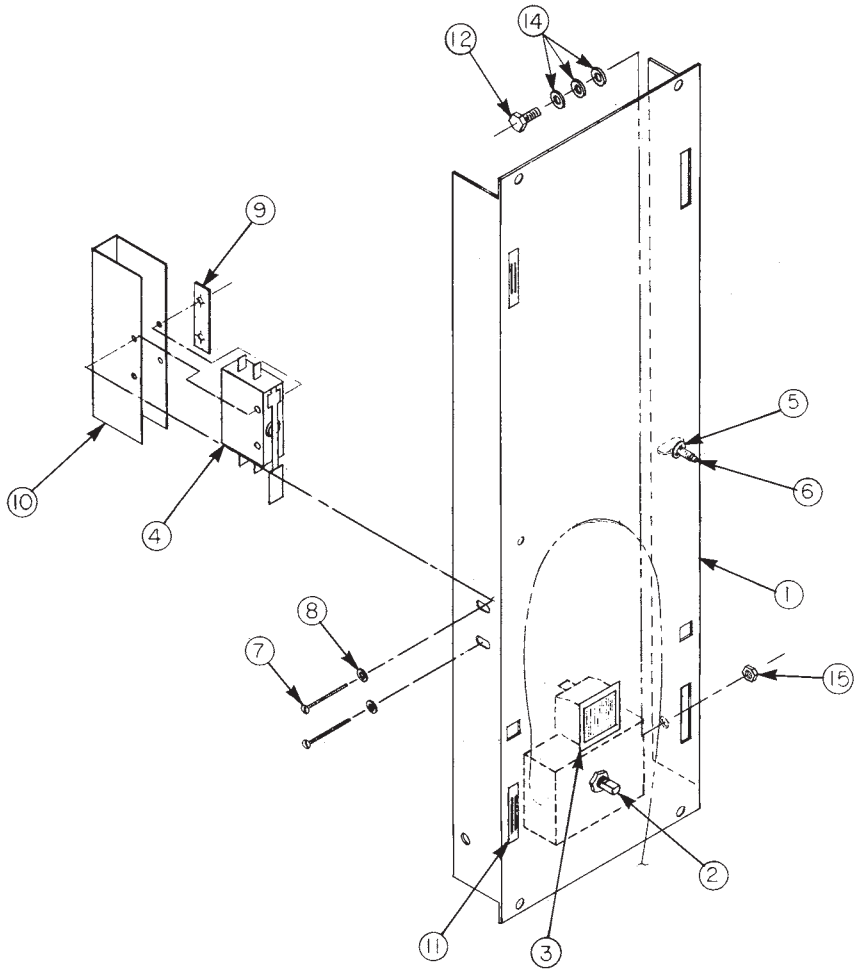
ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	10-0421	END PLATE	2
2	10-0367	CORNER CHANNEL	2
3	10-0368	SUPPORT	2
4	37-0004	INSULATOR, $^1/_2$" X 2$^1/_2$"	4
5	36-0004	SPRING	8
6	02-6274	WIRE-IONIZER W/LOOPED END 10M	4
7	10-0420	PLATE	3
8	30-0030	LOCKNUT, $^1/_4$-20	4
9	35-0061	ROD	2
10	30-0315	RIVET, SEMI-TUBULAR	8
12	30-0142	PAN HD. SCREW, #8-32 X $^1/_2$" L	8
13	30-0081	FLATWASHER, #8	4



SE 30 COLLECTION CELL ASSEMBLY
02-0522

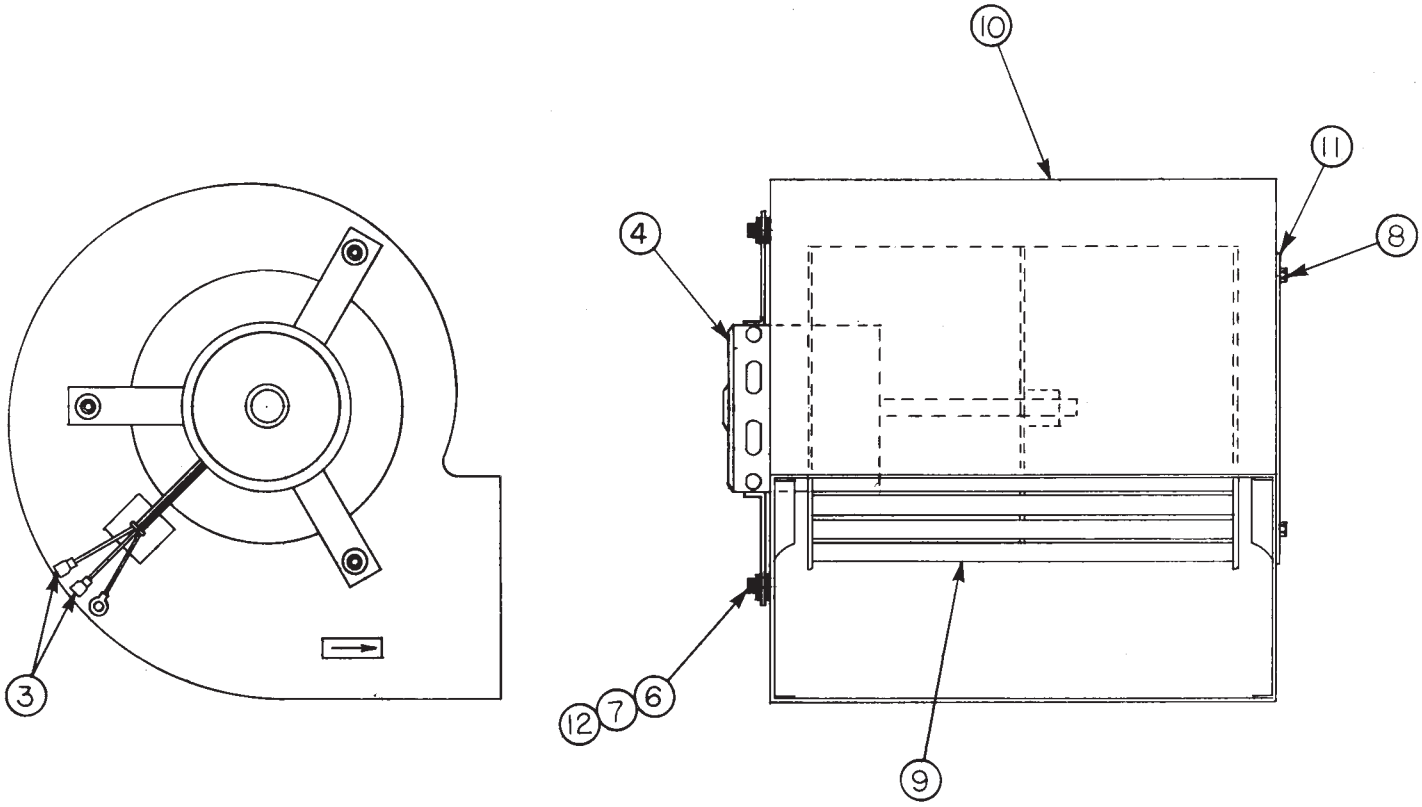
ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	10-0348	END PLATE	2
2	10-0158	CELL PLATE, HOT	10
3	10-0157	CELL PLATE, GROUND	10
4	35-0064	CORNER ANGLE	4
5	37-0008	INSULATOR	8
6	35-0072	ROD, THREADED	8
7	35-0067	SPACER-PLAIN	124
8	30-0030	LOCKNUT, $^1/_4$-20	16
9	30-0316	RIVET, SEMI-TUBULAR	16
10	30-0283	WASHER, SPACER-CELL	8
11	10-0779	CELL PLATE, GROUND NOTCHED	5
12*	10-0778	CELL PLATE, HOT NOTCHED	6

* NOT SHOWN



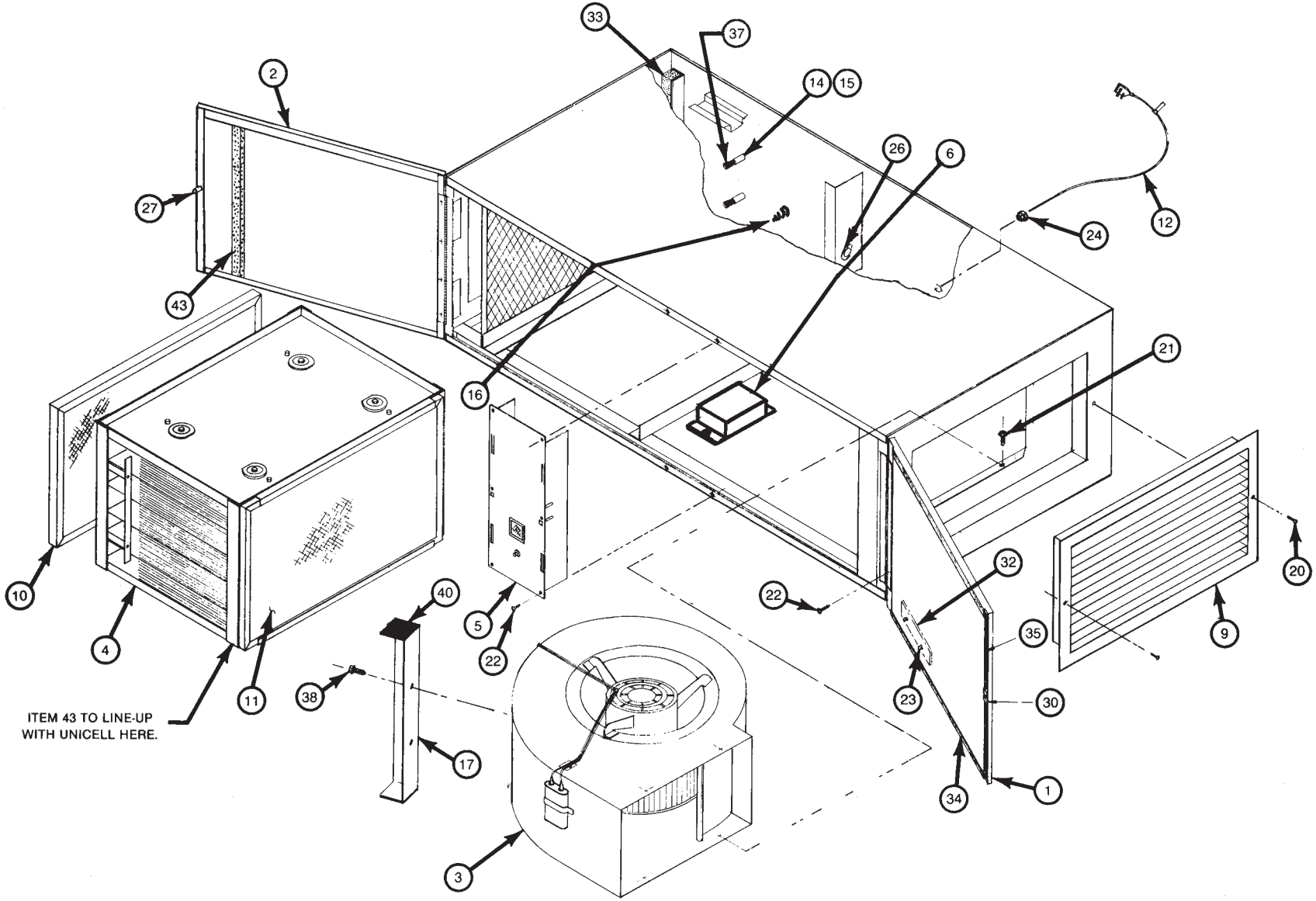
SE 30 CENTER POST ASSEMBLY
02-2608

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	10-2708	CENTER POST	1
2	02-1326	SPEED CONTROL ASSEMBLY	1
3	20-0229	PILOT LIGHT	1
4	20-0560	INTERLOCK SWITCH	1
5	30-0164	RETAINER	1
6	30-0165	SCREW, WING HEAD	1
7	30-0301	SCREW, PAN HD, #6-32 X $1^{1}/_{4}$" L	2
8	30-0038	LOCKWASHER, #6 INT TOOTH	2
9	30-0345	DOUBLE SPEEDNUT, #6	1
10	37-0055	LIMIT SWITCH INSULATION	1
11	39-0105	LATCH, MAGNETIC	2
12	30-0076	GROUND SCREW, #10-32 X $^{3}/_{8}$"	1
14	30-0036	LOCKWASHER, #10 EXT TOOTH	3
15	30-0003	NUT, #10-32	1



SE 30 MOTOR/BLOWER ASSEMBLY
02-2662

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
3	20-0323	WIRE TERMINAL	2
4	22-0176	MOTOR, 115/1/50-60	1
6	30-0049	WASHER-FLAT, 1/4" DIA.	3
7	30-0441	SHOULDER SCREW	3
8	30-0443	SCREW	4
9	32-0157	BLOWER WHEEL	1
10	32-0158	BLOWER HOUSING	1
11	32-0159	INLET FLANGE	1
12	32-0013	GROMMET	3



SE 40 FINAL ASSEMBLY
02-2724

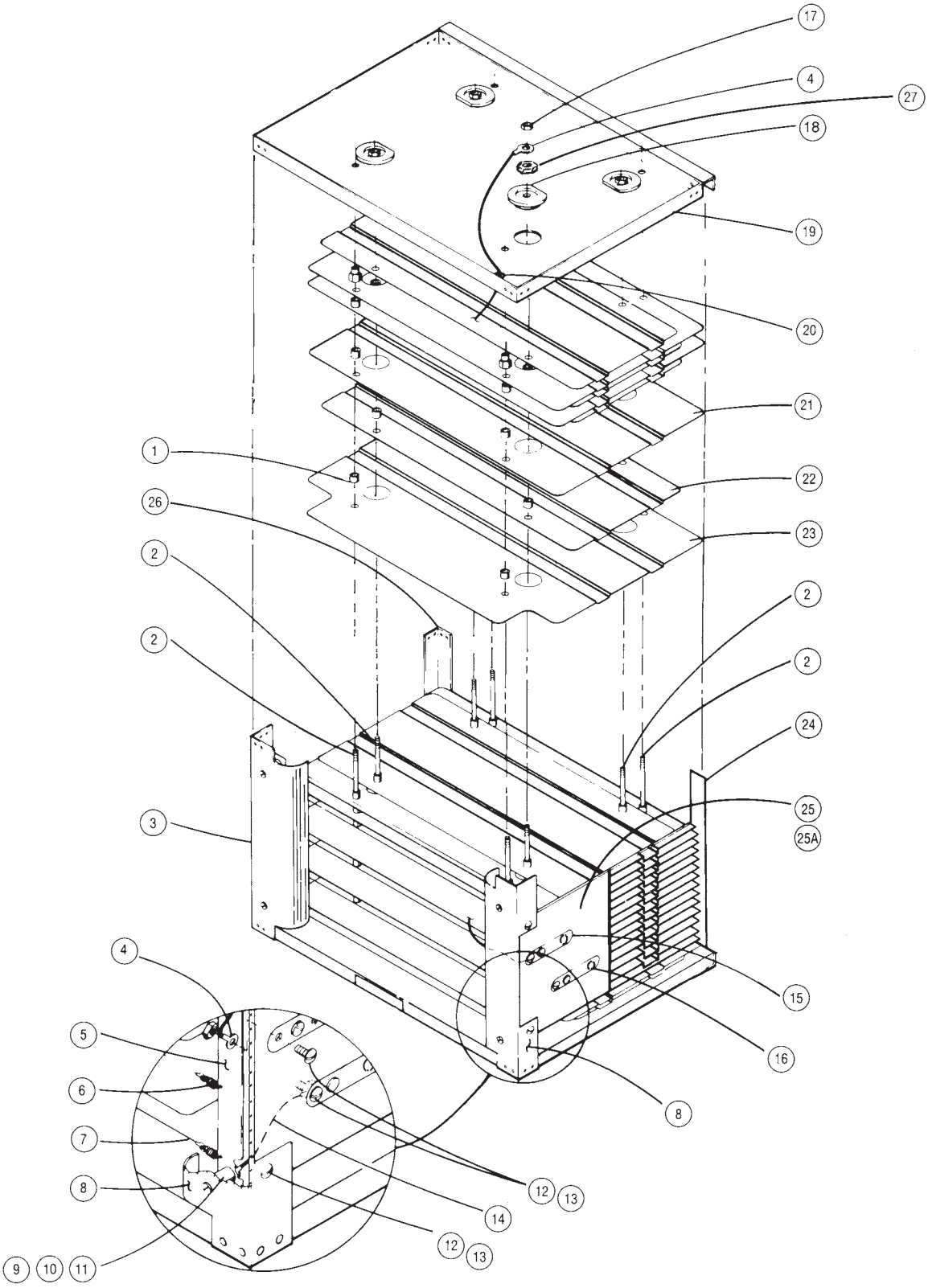
SE 40 FINAL ASSEMBLY
02-2724

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	10-2820	MOTOR/BLOWER ACCESS DOOR (WG)	1
2	10-2821	COMPONENT ACCESS DOOR (WG)	1
3	02-2544	MOTOR/BLOWER ASSEMBLY +	1
4	02-1321	UNICELL ASSEMBLY +	1
5	02-2725	CENTER POST ASSEMBLY +	1
6	21-1218	POWER PACK (GREY PLASTIC CONSTRUCTION)	1
7*	03-1078	WIRE KIT HV	1
8*	03-0667	INSTALLATIONS PARTS KIT	1
9	33-0156	GRILLE	1
10	33-0054	FILTER — MESH	1
11	33-0053	FILTER — CARBON	1
12	20-2922	CORD-IEC, 90 DEG.	1
13*	10-2799	HANGING BRACKET	2
14	37-0013	INSULATOR	2
15	36-0014	CONTACT SPRING	2
16	36-0077	GROUND SPRING	1
17	10-2574	BLOWER SUPPORT	1
20	30-0031	SCREW OVAL HD #8-32 X $^{3}/_{4}$" L	2
21	30-0335	SCREW, HEX HD #8-32 X $^{3}/_{8}$" L	4
22	30-0206	SCR, FL HD #8-32 X $^{3}/_{8}$" L	12
23	30-0202	FASTENER	2
24	20-2921	IEC 320 POWER INLET	1
26	20-0155	BUSHING, $^{1}/_{2}$" DIA.	1
27	35-0191	ACTUATOR INTLK SWITCH	1
30	30-0163	CLIP SOUTHCO	1
32	41-0674	NAMEPLATE	1
33	42-0206	GASKET — 1" X 1" POLYESTER	.83 ft.
34	42-0156	GASKET — NEOPRENE $^{1}/_{16}$" X $^{3}/_{8}$"	2.6 ft.
35	42-0158	GASKET — NEOPRENE $^{1}/_{8}$" X $^{1}/_{2}$"	1.0 ft.
37	30-0119	SCR, PAN HD. #8-32 X $^{5}/_{16}$"	2
38	30-0363	SCR, TEK #10-16 X $^{3}/_{4}$"	3
40	42-0149	GASKET — BUNA-N $^{3}/_{16}$" X $1^{1}/_{2}$"	.25 ft.
43	42-0176	GASKET — $^{1}/_{2}$" X 1" POLYESTER	1.0 ft.

* NOT SHOWN

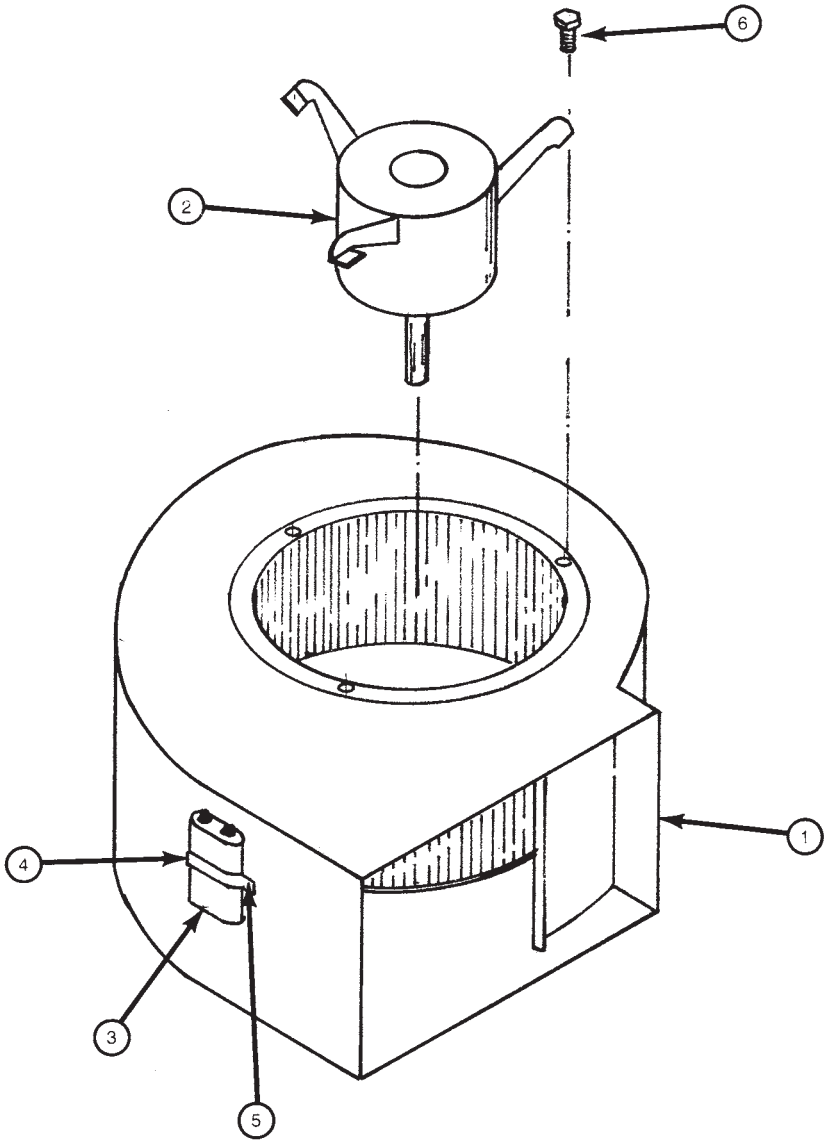
\+ SEE DETAIL PARTS LIST ON THE FOLLOWING PAGES

SE 40 UNICELL ASSEMBLY
02-1321



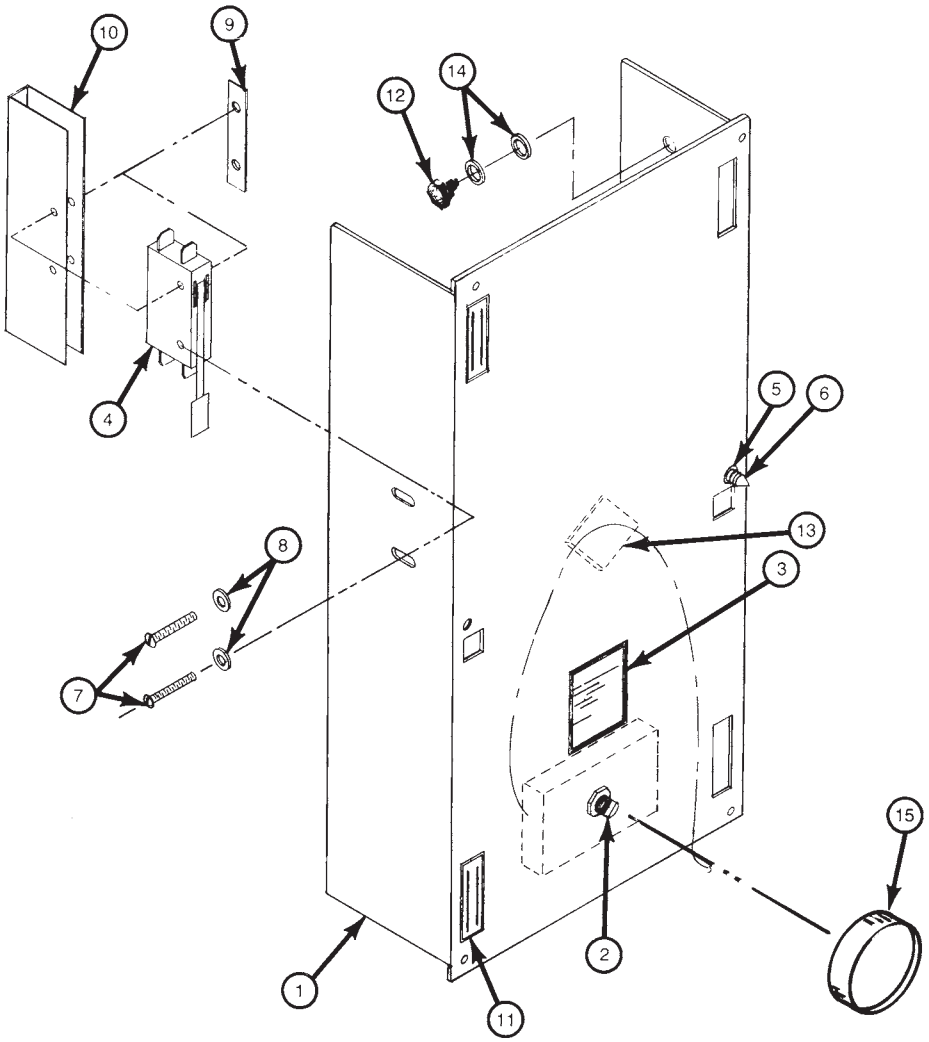
SE 40 UNICELL ASSEMBLY
02-1321

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	35-0067	CELL SPACER	156
2	35-0175	CELL ROD	8
3	10-1373	AIR FOIL CORNER CHANNEL	1
4	02-1318	CELL ROD TO CONTACT WIRE ASSEMBLY	1
5	10-1375	IONIZER SUPPORT	2
6	36-0004	IONIZER SPRING	10
7	03-0393	IONIZER WIRE ASSEMBLY, SET OF 5	1
8	10-1374	AIR FOIL CORNER CHANNEL	1
9	37-0014	INSULATOR, IONIZER STAND OFF ($^1/_2$" DIA. 2"L)	4
10	30-0142	#8-32 x $^3/_8$" PAN HEAD SCREW	8
11	30-0081	#8 FLAT WASHER	4
12	30-0520	#10-32 x $^1/_2$" HEX HEAD SCREW	4
13	30-0500	#10-32 HEX NUT, LOCKING	4
14	02-1318	IONIZER TO CONTACT WIRE ASSEMBLY	1
15	35-0174	CELL HIGH-VOLTAGE CONTACT	1
16	35-0194	IONIZER HIGH-VOLTAGE CONTACT	1
17	30-0449	$^1/_4$-20 HEX LOCK NUT	1
18	37-0008	INSULATOR, CELL (DISC TYPE)	8
19	10-1372	END PLATE	2
20	20-0155	HOLE BUSHING	1
21	10-0158	CELL PLATE (GROUND)	15
22	10-0157	CELL PLATE (HOT)	20
23	10-1376	IONIZER/CELL PLATE	4
24	10-2283	CELL CORNER STRAP	1
25	03-0306	CONTACT KIT, UNICELL HIGH-VOLTAGE	1
25A	37-0042	CELL HIGH-VOLTAGE CONTACT MOUNT PLATE	1
26	10-1378	CELL CORNER ANGLE	1
27	30-0030	$^1/_4$-20 LOCKNUT (NYLON INSERT)	15



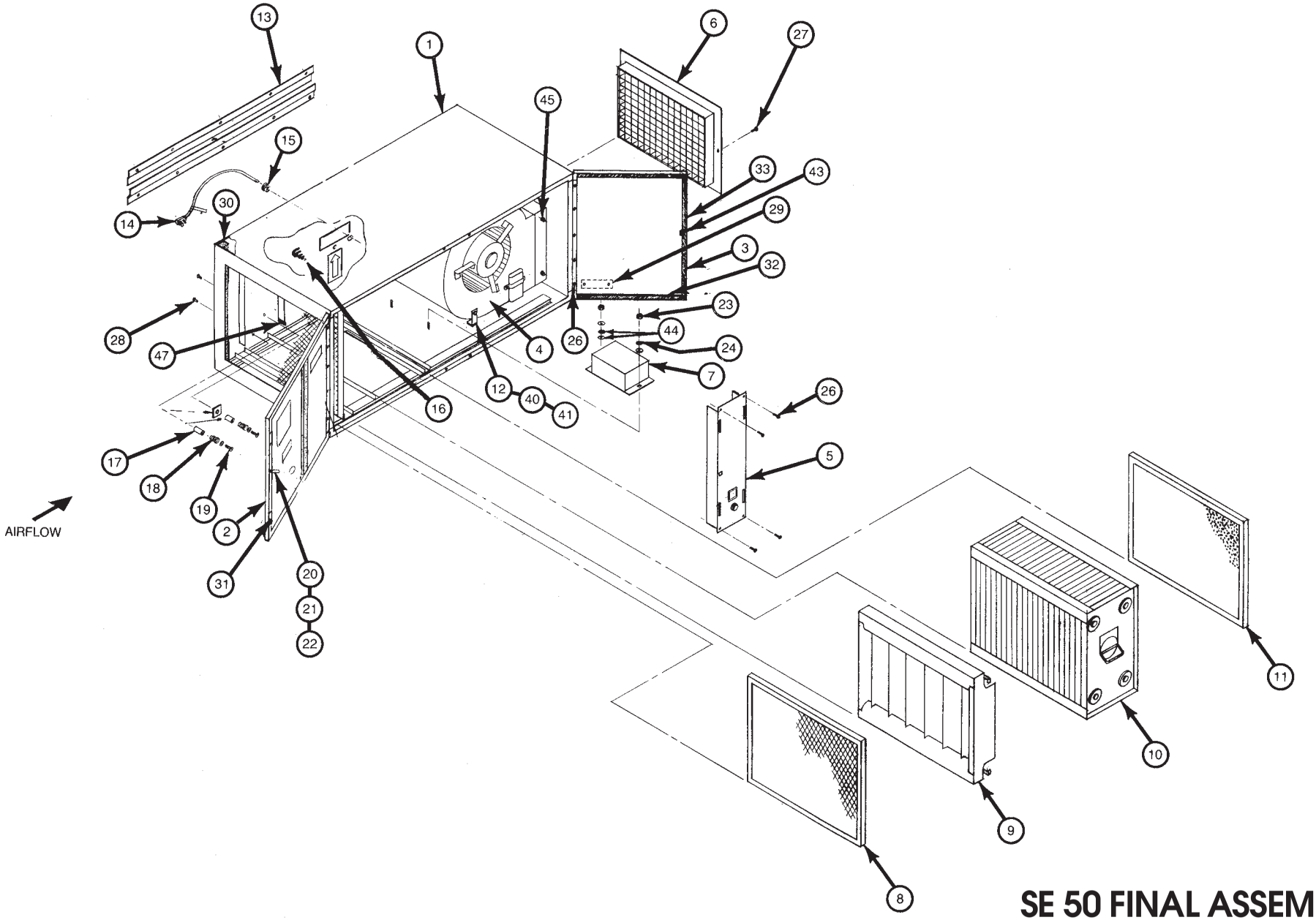
SE 40 MOTOR/BLOWER ASSEMBLY
02-2544

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	32-0083	BLOWER — DIRECT DRIVE	1
2	02-1327	MOTOR	1
3	20-0569	CAPACITOR	1
4	20-1298	CAPACITOR STRAP	1
5	30-0335	SCREW — HEX HD #8-32 x $^{1}/_{2}$" SELF TAP	2
6	30-0077	SCREW — HEX HD $^{1}/_{4}$" x $^{5}/_{8}$" SELF TAP	3



SE 40 CENTER POST ASSEMBLY
02-2725

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	10-2825	EXTRUSION, CENTER POST	1
2	02-1326	SWITCH — CONTROL VARIABLE SPEED	1
3	20-0229	LIGHT — PILOT, AMBER	1
4	20-0560	SWITCH — INTLK — DP NO	1
5	30-0164	RETAINER, SOUTHCO	1
6	30-0165	SCREW, WING HEAD	1
7	30-0301	SCREW — PAN HD. #6-32 x $1^1/_4$" L	2
8	30-0038	LOCKWASHER — #6 INT TOOTH	2
9	30-0345	TINNERMAN NUT — #6, DOUBLE	1
10	37-0055	INSULATION — SWITCH	1
11	39-0105	LATCH, MAGNETIC	2
12	30-0076	SCREW — #10-32 x $^3/_8$" GROUND (GREEN)	1
13	02-2598	WIRE HARNESS ASSEMBLY	1
14	30-0036	LOCKWASHER — #10 EXT. TOOTH	3
15	39-0120	SPEED CONTROL KNOB	1



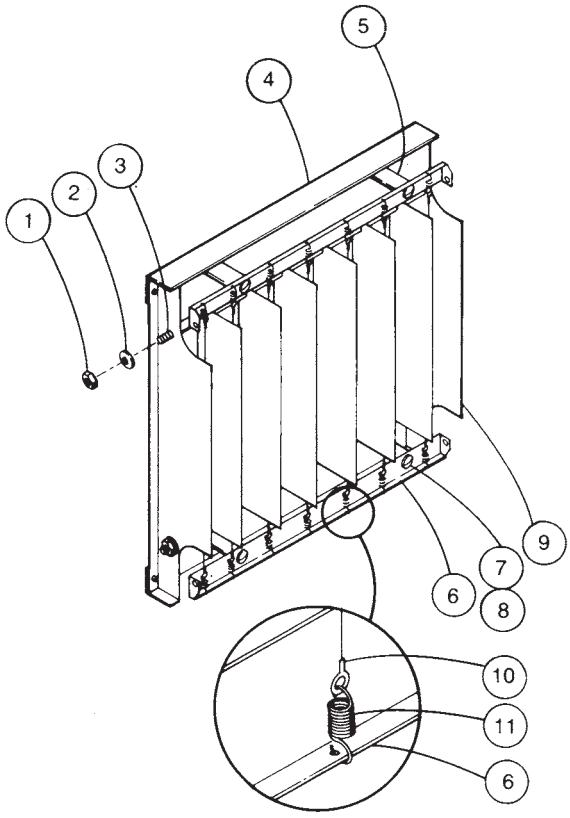
SE 50 FINAL ASSEMBLY
02-2726

SE 50 FINAL ASSEMBLY
02-2726

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	18-0800	CABINET WELDMENT	1
2	10-2823	COMPONENT ACCESS DOOR	1
3	10-2822	BLOWER ACCESS DOOR	1
4	02-2576	MOTOR/BLOWER ASSEMBLY +	1
5	02-2727	CENTER POST ASSEMBLY +	1
6	33-0039	DISCHARGE GRILLE	1
7	21-1218	POWER PACK (GREY PLASTIC CONSTRUCTION)	1
8	33-0001	MESH FILTER	1
9	02-0089	IONIZER ASSEMBLY +	1
10	02-0086	COLLECTION CELL +	1
11	33-0007	CARBON FILTER	1
12	10-2606	BLOWER SUPPORT ANGLE	1
13	10-2799	HANGING BRACKET	2
14	20-2922	CORD-IEC, 90 DEG.	1
15	20-2921	IEC 320 POWER INLET	1
16	36-0077	SPRING GROUND	2
17	37-0013 or	INSULATOR	1
	37-0063	INSULATOR	1
18	36-0008	CONTACT SPRING	2
19	30-0119	SCR, PAN HD 8-32 X $^{5}/_{16}$" THD-CUT	2
20	35-0191	ACTUATOR INTLK SWITCH	1
21	30-0015	SCR-HEX HD SLOTTED #6-32 X $^{3}/_{8}$"	1
22	30-0038	LOCKWASHER #6 INT TOOTH	1
23	30-0030	NUT HEX 10-32	2
24	30-0036	LOCKWASHER #10 EXT TOOTH	5
26	30-0206	SCR, FLT HD SELF-TAP 8-32 X $^{3}/_{8}$"	14
27	30-0031	SCR, OVAL HD #8 X $^{3}/_{4}$" LG #6 HD	4
28	30-0502	SCR, PAN HD #8-32 X $^{5}/_{16}$" THD CUT	2
29	41-0674	NAMEPLATE	1
30	42-0206	GASKET — 1" X 1" POLYESTER FOAM	1.5 ft.
32	42-0156	GASKET — NEOPRENE $^{1}/_{16}$" X $^{3}/_{8}$"	2.4 ft.
33	42-0158	GASKET — NEOPRENE $^{1}/_{8}$" X $^{1}/_{2}$"	1.6 ft.
35*	03-0030	HV LEAD ASSEMBLY	1
39*	30-0076	SCR, HEX HD (GREEN) 10-32 X $^{3}/_{8}$"	3
40	30-0063	BOLT, HEX HD THD-CUT 1/4-20 X $^{5}/_{8}$"	1
41	42-0149	GASKET — BUNA-N $^{3}/_{16}$" x $1^{1}/_{2}$"	.125 ft.
43	30-0163	CLIP	1
44	30-0049	WASHER, FLAT FOR #10 SCR	2
45	30-0363	SCR, TEK 10-16 X $^{3}/_{4}$" WISEAL WASHER	7
47	42-0063	GASKET — EDGE	.08 ft.
48*	30-0363	GROUND SPRING FAST	2
49*	36-0016	GROUND SPRING	2

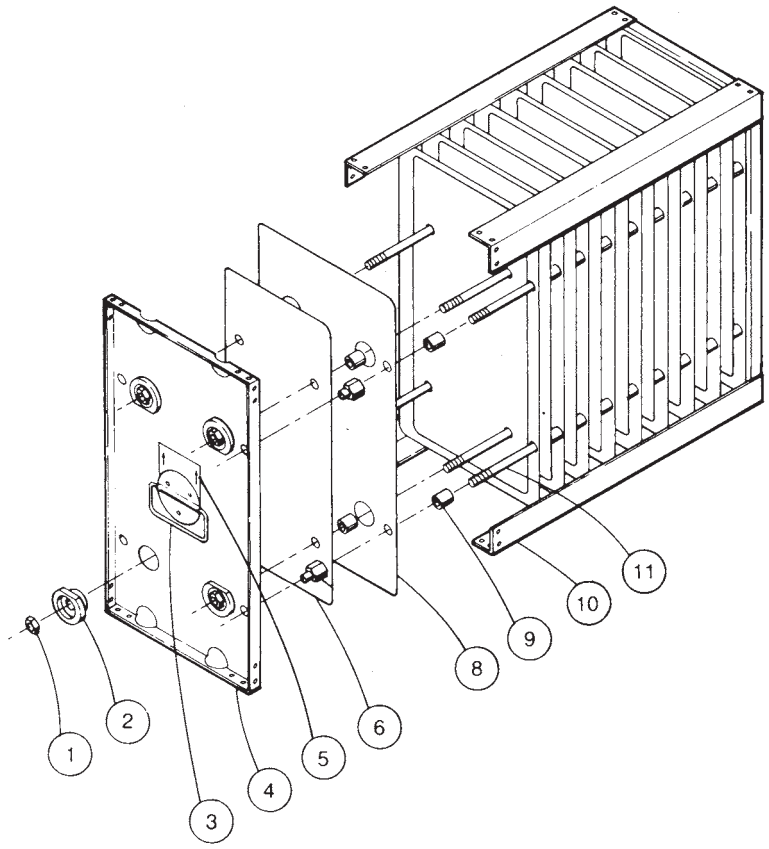
* NOT SHOWN

\+ SEE DETAIL PARTS LIST ON THE FOLLOWING PAGES



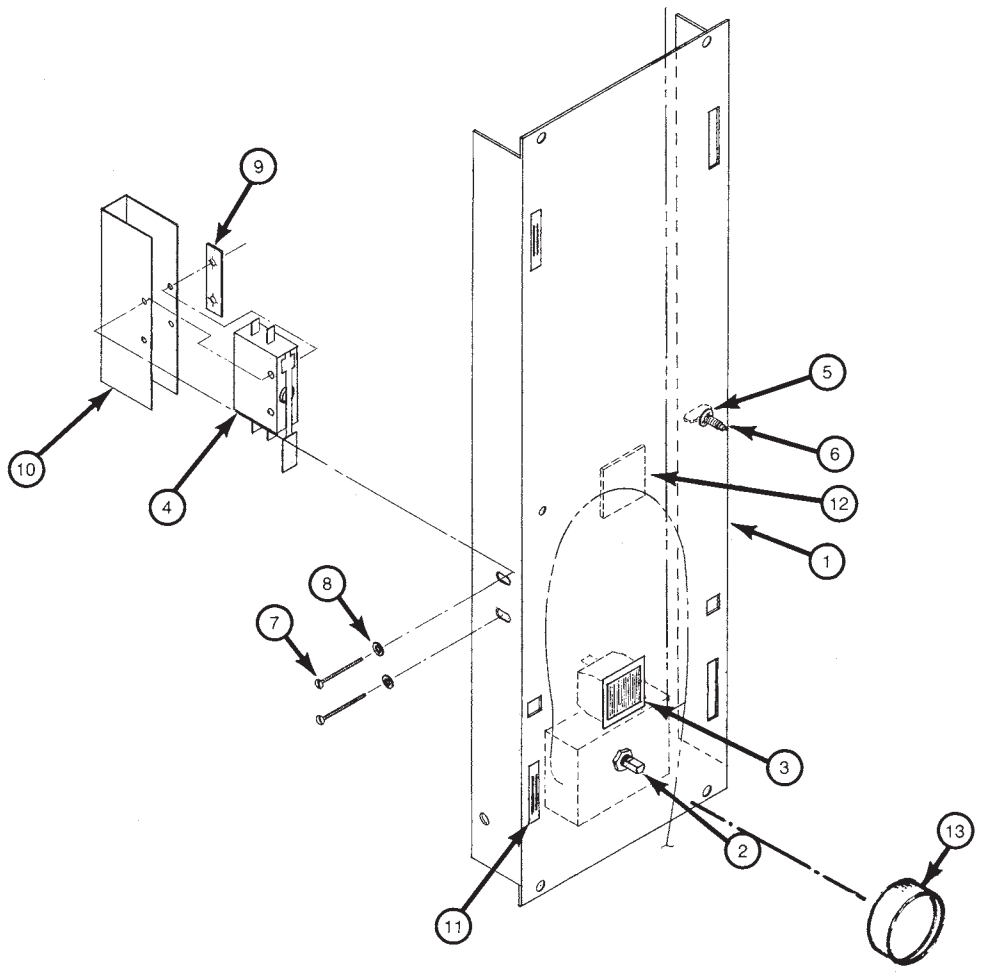
SE 50 IONIZER ASSEMBLY/AIRFOIL IONIZER
02-0089

ITEM NO.	PART PART NO.	DESCRIPTION	QUANTITY
1	30-0030	1/4-20 LOCK NUT	4
2	30-0049	1/4" FLAT WASHER	4
3	35-0027	ROD	2
4	10-0465	CORNER CHANNEL	2
5	37-0004	INSULATOR	4
6	10-0570	IONIZER WIRE SUPPORT RAILS	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	6
10	02-6274	WIRE-IONIZER W/LOOPED END 10M	7
11	36-0004	IONIZER WIRE SUPPORT SPRING	14



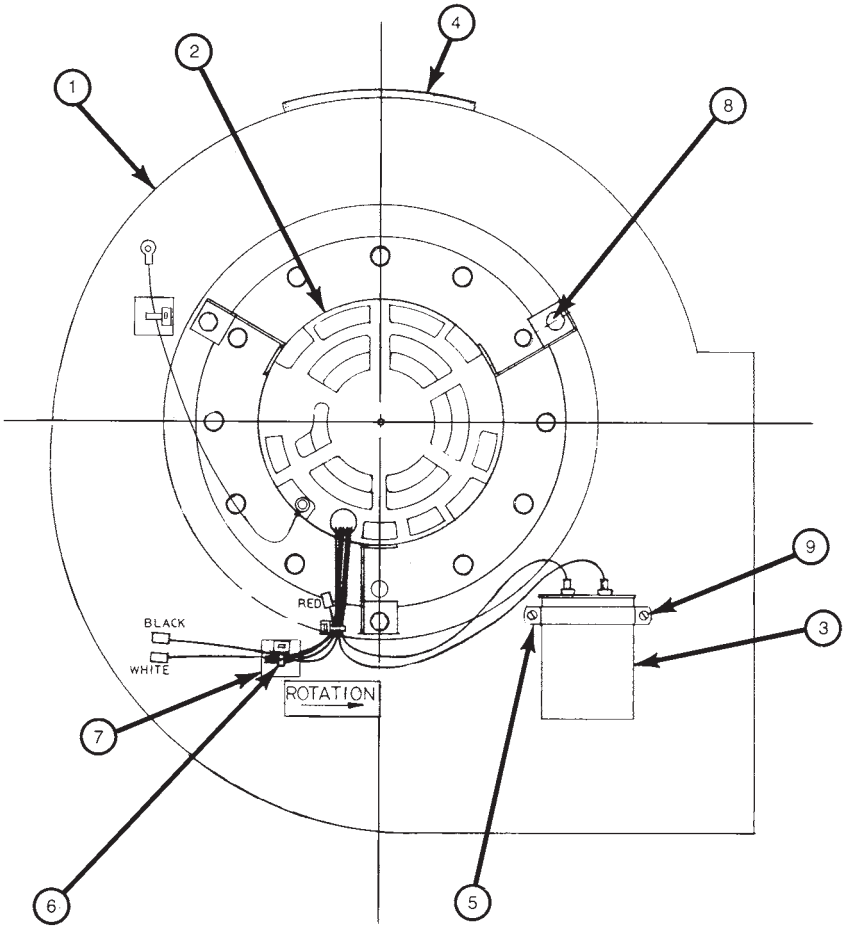
SE 50 CELL ASSEMBLY/CP COLLECTION CELL
02-0086

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	30-0030	1/4-20 LOCK NUT	16
2	37-0008	INSULATOR	8
3-A	10-0564	HANDLE	1
3-B	10-0559	COVER PLATE, HANDLE	1
4	10-0348	END PLATE	2
5	41-0330	WARNING LABEL	1
6	10-0157	HOT CELL PLATE	33
8	10-0158	GROUND CELL PLATE	32
9	35-0067	SPACER	260
10	35-0049	CORNER ANGLE	4
11	35-0045	CELL ROD	8



SE 50 CENTER/POST ASSEMBLY
02-2727

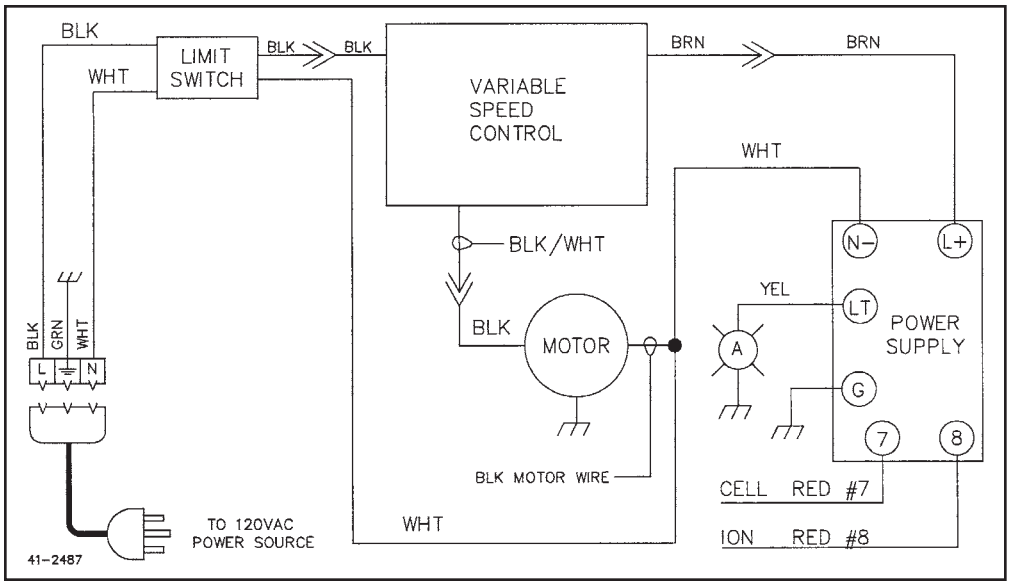
ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	10-2826	EXTRUSION, CENTER POST	1
2	02-1326	SWITCH — CONTROL VARIABLE SPEED	1
3	20-0229	LIGHT — PILOT, AMBER	1
4	20-0560	SWITCH — INTLK - DP NO	1
5	30-0164	RETAINER, SOUTHCO	1
6	30-0165	SCREW, WING HEAD	1
7	30-0301	SCREW — PAN HD. #6-32 x $1^1/_4$" L	2
8	30-0038	LOCKWASHER — #6 INT. TOOTH	2
9	30-0345	TINNERMAN NUT — #6, DOUBLE	1
10	37-0055	INSULATION — SWITCH	1
11	39-0105	LATCH, MAGNETIC	2
12	02-2542	WIRE HARNESS ASSEMBLY	1
13	39-0120	KNOB-SWITCH	1



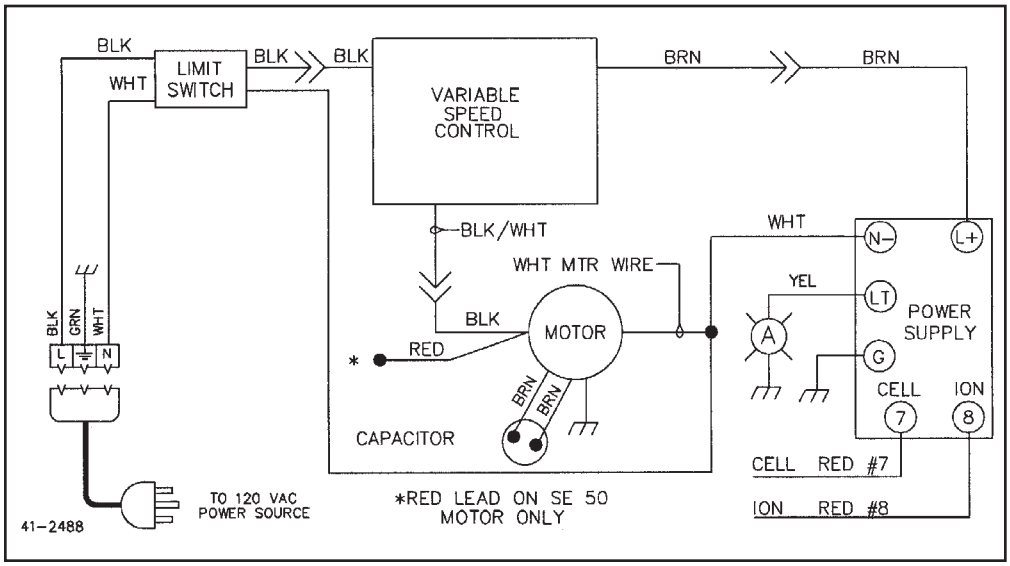
SE 50 MOTOR/BLOWER ASSEMBLY
02-2576

ITEM NO.	PART NO.	DESCRIPTION	QUANTITY
1	32-0085	BLOWER — DIRECT DRIVE 10-10	1
2	02-1357	MOTOR	1
3	20-0569	CAPACITOR	1
4	42-0153	GASKET	1 ft.
5	20-1298	CAPACITOR MOUNTING BRACKET	1
6	20-0138	WIRE TIE	2
7	20-0290	CABLE TIE MOUNTING DEVICE	2
8	30-0233	BOLT, HEX HD $^1/_4$ -20 x 1" L	3
9	30-0335	DRILL SCREW #8-32 x $^1/_2$" L	2

WIRING DIAGRAM
MODEL SE 30
41-2487



WIRING DIAGRAM
MODEL SE 40
MODEL SE 50
41-2488



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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.

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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