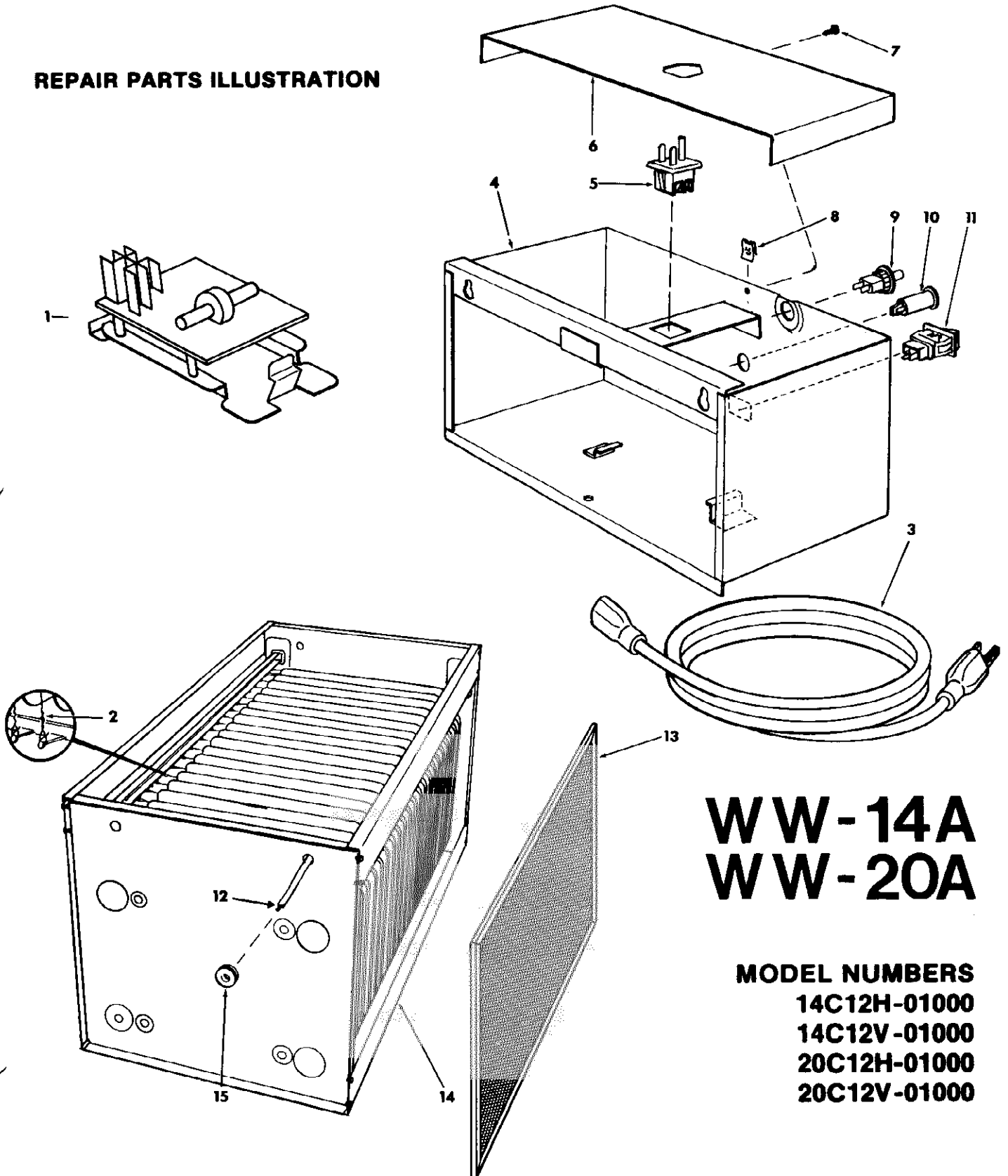


REPAIR PARTS ILLUSTRATION



WW-14A WW-20A

MODEL NUMBERS

14C12H-01000

14C12V-01000

20C12H-01000

20C12V-01000

INTRODUCTION

ELECTRO-AIR TECH REPAIR SHEET

WW14A - WW20A

MODEL NOS. 14C12H-01000
14C12V-01000
20C12H-01000
20C12V-01000

This sheet contains service checks to assist service personnel in locating and correcting any malfunction that might occur to render the air cleaner ineffective or inoperative. The air cleaner has been designed with replaceable components, such as the high-voltage transformer and high-voltage component board which allows the serviceman to simply replace a defective component rather than attempt repairs of such components in the field.

The first chart "Basic Service Guide" will probably cover many owner complaints. If after checking the items listed, the air cleaner still fails to operate properly, continue with the second chart "Complete Checkout Procedure" until the trouble has been located. (See wiring diagram)

CAUTION:

This Tech Sheet was designed to be used only by personnel qualified to recognize shock hazards and those trained in the repair of electronic air cleaners. These instructions are not implied to be adequate to ensure safe usage by non-qualified personnel.

NORMAL OPERATION

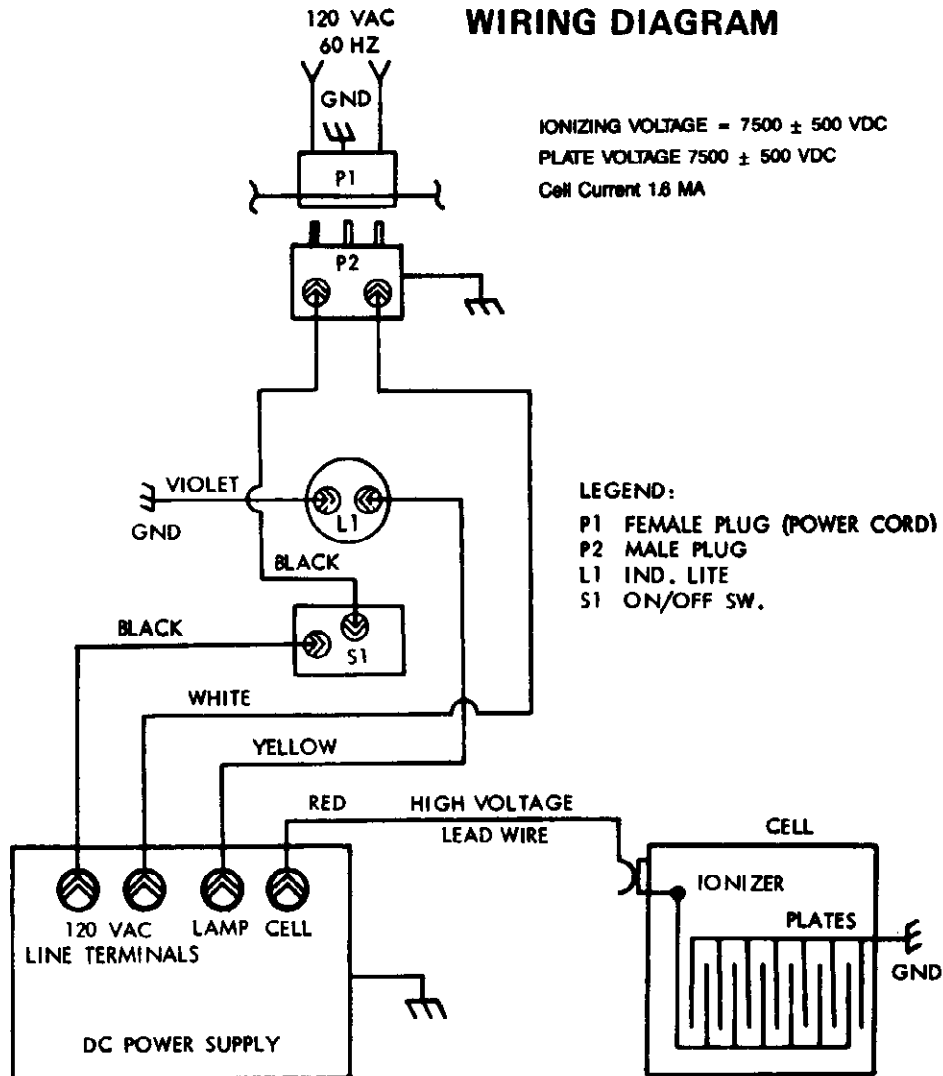
ON/OFF switch "ON"; Operating Light "ON"

- Voltage on air cleaner cell either ionizer or plates 8000 VDC \pm 500 volts.
- Voltage at power pack cell contact with no cell attached (open circuit) 9500 VDC \pm 750 volts.

BASIC SERVICE GUIDE

SERVICE INDICATOR	SERVICE CHECKS
<p>ON/OFF switch "ON"</p> <p>Operating light "ON"</p>	<p>Power is being supplied to the air cleaner, unit functioning properly.</p>
<p>ON/OFF switch "ON"</p> <p>Operating light "OFF"</p>	<p>Power is not being supplied to air cleaner.</p> <ol style="list-style-type: none"> A. Make sure air system fan is operating. B. Check for voltage at air cleaner power receptacle. If none, check fuse or circuit breaker at 120 VAC input line. C. Check ON/OFF switch which must be in "ON" position. D. Remove power pack from air cleaner cabinet. Using a standard extension cord, apply 120 VAC to power pack. <ol style="list-style-type: none"> 1. If operating light comes "ON" problem is in collecting cell. Recheck. 2. If operating light remains "OFF" malfunction is in the power pack. Continue with "complete checkout procedure."
<p>ON/OFF switch "ON"</p> <p>Operating light "flickering"</p>	<ol style="list-style-type: none"> A. Remove cell and wash thoroughly. B. Check cell for any foreign object that might be lodged between plates of cell. C. Check cell for broken ionizing wires, cracked insulator, or bent plates. D. When replacing cell in cabinet ensure that the directional arrow on cell corresponds with direction of air flowing through air cleaner.
<p>ON/OFF switch "ON"</p> <p>Operating light "flickering." Cell "arcing" excessively.</p>	<ol style="list-style-type: none"> A. Check voltage at air cleaner junction box. Voltage should not exceed 120 VAC. Note: Air cleaner should not be wired to fan motor taps. B. Remove cell and wash thoroughly. IMPORTANT: All ionizing wires must be completely clean with no build-up on wires. Note: An occasional "arc" should be considered normal.

WIRING DIAGRAM



COMPLETE CHECKOUT PROCEDURE

If the malfunction has not been eliminated in the "Basic Service Guide" proceed to the "Checkout Chart" to locate the problem. When the defective component is discovered and replaced, the air cleaner will resume normal operation.

All voltage measurements indicated can be made with a high voltage D. C. probe and a general purpose volt-ohm meter. For example: Simpson 260 or equivalent.

CHECKOUT CHART

CONDITION I

- ON/OFF switch "ON." Operating light "OFF."
1. Check fuse or circuit breaker. Check for 120 VAC at air cleaner power receptacle.
 2. If air cleaner is equipped with a switching relay, sail switch or pressure differential switch the fan must be running and air moving through unit.
 3. Remove lid from power pack and then apply voltage to the power pack from 120 VAC source.
 4. Check the following points inside power pack for 120 VAC:

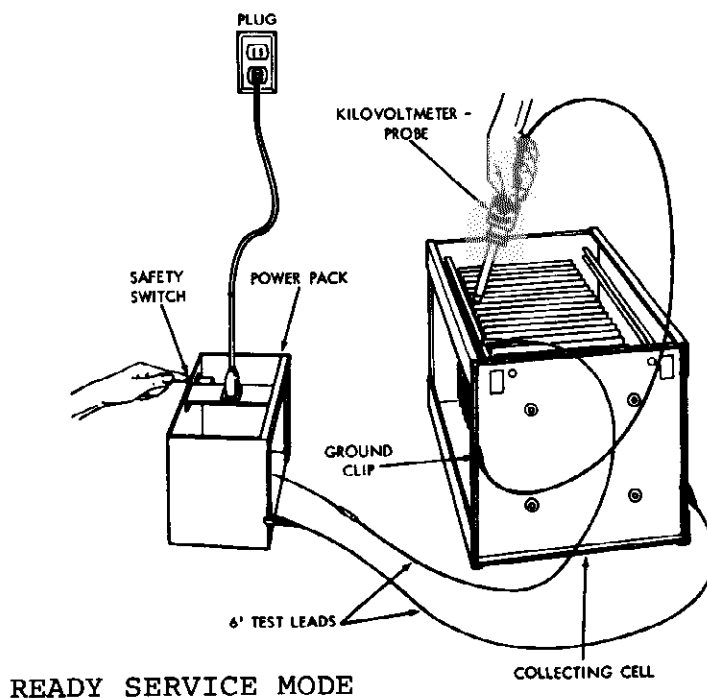
Safety switch - across black and white wires
ON/OFF switch - across black and white wires
Power supply - across terminal marked "line."
 5. If a reading of 120 VAC does not appear at all points (Step 4) check primary circuit wiring. If wiring is correct replace ON/OFF switch or safety switch.
 6. Check cell voltage at H.V. Component Board contact marked "CELL." Voltage should be 7500 VDC \pm 500 volts. If voltage is below 6500 VDC disconnect the collecting cell H. V. cable from "Cell" contact.
 7. Check voltage at H. V. Component Board contact marked "CELL." Open circuit voltage should be 8000 VDC \pm 750 volts.
 8. If voltage at "Cell" contact is 7500 VDC or above problem is in the collecting cell. Recheck cell in accordance with Section "CELL TEST."
 9. If voltage at "Cell" contact is below 6500 VDC, problem is in power pack. Turn off power and remove power pack from cabinet.
 10. Apply 120 VAC to power pack and measure voltage at terminals marked "LINE." Voltage should be the same as that applied.
 11. Check voltage output at terminal marked "light" (lamp) on D. C. Power Supply. DO NOT DISCONNECT LIGHT WIRE FROM TERMINAL. Voltage should be 60 to 100 VDC.
 - A. If voltage to light is 60 VDC or above, replace operating light.
 - B. If voltage to light is below 60 VDC, refer to Section "Power Supply Test."

CELL TEST

1. Place collecting cell on a well insulated work bench with the ionizing section pointing upward.
2. Select a W/W-A Power Pack that reads between 8,000 and 10,000 VDC at the high voltage lead in an open circuit mode (no cell attached).
3. Connect cell and power pack in the "Ready Service Mode." (See diagram) Note: Grounding lead must be connected between frame of power pack and frame collecting cell.
4. Using a standard extension cord apply 120 VAC to power pack. Turn ON/OFF switch "ON", depress safety switch.
5. Measure voltage at collecting cell ionizer or cell hot plates. Voltage should be 7000 VDC \pm 500 volts.
 - A. If voltage is 7000 VDC or above the cell is functioning normally.
 - B. If voltage is below 7000 VDC check cell as prescribed in Section # 3, "Basic Service Guide".

USING THE KILOVOLTMETER

1. Attach ground clip on kilo-volt meter to cell frame.
2. Energize power pack and read the voltage at the ionizing bar by touching the metal tip of the probe to the ionizing bar.



POWER SUPPLY TEST

1. Check power supply input voltage at terminals marked "LINE." Voltage should be 120 VAC. If there is no voltage at "LINE" terminals, problem is in primary voltage circuit.
2. Remove power supply from power pack. Check all terminals and wires for tightness.
3. Test transformer by either or both methods.

In the event that the problem has not been corrected by using the procedures outlined on this Tech Repair Sheet, then contact

Emerson Electric Company
9797 Reavis Road
St. Louis, Missouri 63123
Attention: Customer Service Department

or:

To call our Technical Service Department: (8:00 a.m. - 4:30 p.m. CST)

Dial 1-314-577-1300 or Dial Toll Free 1-800-876-TECH

**REPLACEMENT PARTS FOR MODEL NO. 14C12H-01000, 14C12V-01000,
20C12H-01000 AND 20C12V-01000
ELECTRONIC AIR CLEANERS**

Always Order by "Part Number" . . . Never by "Item No."

Item	Description	Usage	Part No.
1	Power Supply Assembly	All	F858-0475
2	Ionizing Wire	All	F843-1020
3	Power Cord	All	F848-0128
4	Power Pack, Complete (Includes Items 1 thru 12)	All	F858-0469
5	Male Plug	All	F818-0038
6	Cover	All	F820-0219
7	* Screw	All	
8	* Nut	All	
9	Safety Switch	All	F876-0118
10	Light	All	F844-0105
11	On-Off Switch	All	F876-0093
12	H.V. Lead Wire	All	F843-1021
13	After Filter	14C12H	F825-0133
	After Filter	14C12V	F825-0132
	After Filter	20C12H	F825-0135
	After Filter	20C12V	F825-0047
14	Collecting Cell	14C12H and 14C12V	F811-0309
	Collecting Cell	20C12H and 20C12V	F811-0310
15	Grommet	All	F888-0089
**	Water Manifold	14C12H	F887-0014
**	Water Manifold	14C12V	F887-0015
**	Water Manifold	20C12H	F887-0016
**	Water Manifold	20C12V	F887-0017
**	Spray Nozzles	All	F821-0032
**	Plastic Drain Assembly	All	F801-0038
**	Manual	All	846-0153

*Standard Hardware Item

**Not Shown

WHITE-RODGERS

White-Rodgers Division, Emerson Electric Co.
9797 Reavis Road, St. Louis, MO 63123
(314) 577-1300



PART No. 846-0518 - A