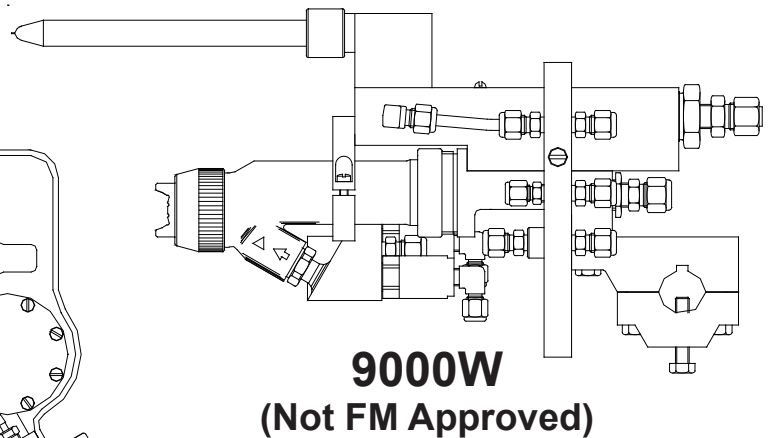
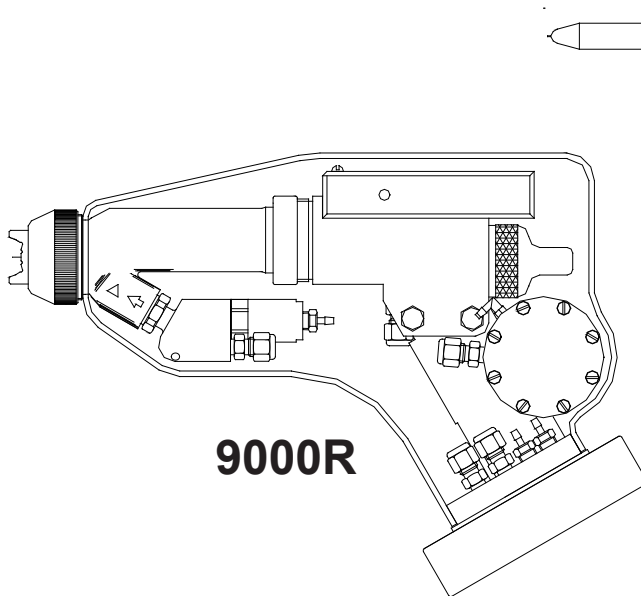
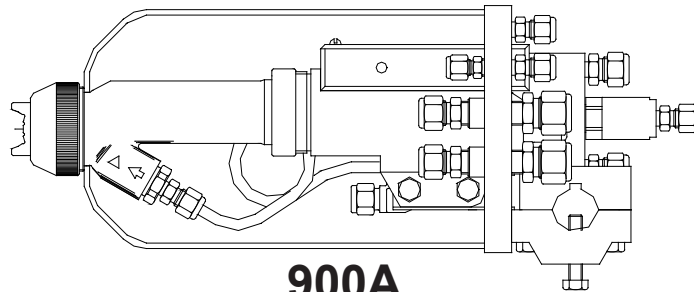

REA AUTOMATIC APPLICATORS



MODELS: 77359 and 76110
77140 (Not FM Approved)



IMPORTANT: Before using this equipment, carefully read **SAFETY PRECAUTIONS**, starting on page 1, and all instructions in this manual. Keep this Service Manual for future reference.

NOTE: This manual has been changed from revision **AA-99-02.4** to revision **AA-99-02.5**. Reasons for this change are noted under “Manual Change Summary” inside the back cover of this manual.

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SAFETY

SAFETY PRECAUTIONS

Before operating, maintaining or servicing any Ransburg electrostatic coating system, read and understand all of the technical and safety literature for your Ransburg products. This manual contains information that is important for you to know and understand. This information relates to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the following symbols. Please pay particular attention to these sections.

A WARNING! states information to alert you to a situation that might cause serious injury if instructions are not followed.

A CAUTION! states information that tells how to prevent damage to equipment or how to avoid a situation that might cause minor injury.

A NOTE is information relevant to the procedure in progress.

While this manual lists standard specifications and service procedures, some minor deviations may be found between this literature and your equipment. Differences in local codes and plant requirements, material delivery requirements, etc., make such variations inevitable. Compare this manual with your system installation drawings and appropriate Ransburg equipment manuals to reconcile such differences.

Careful study and continued use of this manual will provide a better understanding of the equipment and process, resulting in more efficient operation, longer trouble-free service and faster, easier troubleshooting. If you do not have the manuals and safety literature for your Ransburg system, contact your local Ransburg representative or Ransburg.



WARNING


- The user **MUST** read and be familiar with the Safety Section in this manual and the Ransburg safety literature therein identified.



- This manual **MUST** be read and thoroughly understood by **ALL** personnel who operate, clean or maintain this equipment! Special care should be taken to ensure that the **WARNINGS** and safety requirements for operating and servicing the equipment are followed. The user should be aware of and adhere to ALL local building and fire codes and ordinances as well as **NFPA-33 SAFETY STANDARD, LATEST EDITION**, prior to installing, operating, and/or servicing this equipment.

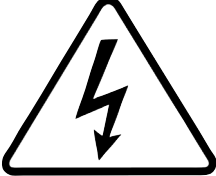





WARNING

- The hazards shown on the following pages may occur during the normal use of this equipment. Please read the hazard chart beginning on page 2.

AREA Tells where hazards may occur.	HAZARD Tells what the hazard is.	SAFEGUARDS Tells how to avoid the hazard.
<p>Spray Area</p> 	<p>Fire Hazard</p> <p>Improper or inadequate operation and maintenance procedures will cause a fire hazard.</p> <p>Protection against inadvertent arcing that is capable of causing fire or explosion is lost if any safety interlocks are disabled during operation. Frequent Power Supply or Controller shutdown indicates a problem in the system requiring correction.</p>	<p>Fire extinguishing equipment must be present in the spray area and tested periodically.</p> <p>Spray areas must be kept clean to prevent the accumulation of combustible residues.</p> <p>Smoking must never be allowed in the spray area.</p> <p>The high voltage supplied to the atomizer must be turned off prior to cleaning, flushing or maintenance.</p> <p>When using solvents for cleaning:</p> <ul style="list-style-type: none"> • Those used for equipment flushing should have flash points equal to or higher than those of the coating material. • Those used for general cleaning must have flash points above 100°F (37.8°C). <p>Spray booth ventilation must be kept at the rates required by NFPA-33, OSHA, country, and local codes. In addition, ventilation must be maintained during cleaning operations using flammable or combustible solvents.</p> <p>Electrostatic arcing must be prevented. Safe sparking distance must be maintained between the parts being coated and the applicator. A distance of 1 inch for every 10KV of output voltage is required at all times.</p> <p>Test only in areas free of combustible material. Testing may require high voltage to be on, but only as instructed.</p> <p>Non-factory replacement parts or unauthorized equipment modifications may cause fire or injury.</p> <p>If used, the key switch bypass is intended for use only during setup operations. Production should never be done with safety interlocks disabled.</p> <p>Never use equipment intended for use in waterborne installations to spray solvent based materials.</p> <p>The paint process and equipment should be set up and operated in accordance with NFPA-33, NEC, OSHA, local, country, and European Health and Safety Norms.</p>

<p>AREA Tells where hazards may occur.</p>	<p>HAZARD Tells what the hazard is.</p>	<p>SAFEGUARDS Tells how to avoid the hazard.</p>
<p>Spray Area</p> 	<p>Explosion Hazard</p> <p>Improper or inadequate operation and maintenance procedures will cause a fire hazard.</p> <p>Protection against inadvertent arcing that is capable of causing fire or explosion is lost if any safety interlocks are disabled during operation.</p> <p>Frequent Power Supply or Controller shutdown indicates a problem in the system requiring correction.</p>	<p>Electrostatic arcing must be prevented. Safe sparking distance must be maintained between the parts being coated and the applicator. A distance of 1 inch for every 10KV of output voltage is required at all times.</p> <p>Unless specifically approved for use in hazardous locations, all electrical equipment must be located outside Class I or II, Division 1 or 2 hazardous areas, in accordance with NFPA-33.</p> <p>Test only in areas free of flammable or combustible materials.</p> <p>The current overload sensitivity (if equipped) MUST be set as described in the corresponding section of the equipment manual. Protection against inadvertent arcing that is capable of causing fire or explosion is lost if the current overload sensitivity is not properly set. Frequent power supply shutdown indicates a problem in the system which requires correction.</p> <p>Always turn the control panel power off prior to flushing, cleaning, or working on spray system equipment.</p> <p>Before turning high voltage on, make sure no objects are within the safe sparking distance.</p> <p>Ensure that the control panel is interlocked with the ventilation system and conveyor in accordance with NFPA-33, EN 50176.</p> <p>Have fire extinguishing equipment readily available and tested periodically.</p>
<p>General Use and Maintenance</p> 	<p>Improper operation or maintenance may create a hazard.</p> <p>Personnel must be properly trained in the use of this equipment.</p>	<p>Personnel must be given training in accordance with the requirements of NFPA-33, EN 60079-0.</p> <p>Instructions and safety precautions must be read and understood prior to using this equipment.</p> <p>Comply with appropriate local, state, and national codes governing ventilation, fire protection, operation maintenance, and housekeeping. Reference OSHA, NFPA-33, EN Norms and your insurance company requirements.</p>

<p>AREA Tells where hazards may occur.</p>	<p>HAZARD Tells what the hazard is.</p>	<p>SAFEGUARDS Tells how to avoid the hazard.</p>
<p>Spray Area / High Voltage Equipment</p> 	<p>Electrical Discharge</p> <p>There is a high voltage device that can induce an electrical charge on ungrounded objects which is capable of igniting coating materials.</p> <p>Inadequate grounding will cause a spark hazard. A spark can ignite many coating materials and cause a fire or explosion.</p>	<p>Parts being sprayed and operators in the spray area must be properly grounded.</p> <p>Parts being sprayed must be supported on conveyors or hangers that are properly grounded. The resistance between the part and earth ground must not exceed 1 meg ohm. (Refer to NFPA-33.)</p> <p>Operators must be grounded. Rubber soled insulating shoes should not be worn. Grounding straps on wrists or legs may be used to assure adequate ground contact.</p> <p>Operators must not be wearing or carrying any ungrounded metal objects.</p> <p>When using an electrostatic handgun, operators must assure contact with the handle of the applicator via conductive gloves or gloves with the palm section cut out.</p> <p>NOTE: REFER TO NFPA-33 OR SPECIFIC COUNTRY SAFETY CODES REGARDING PROPER OPERATOR GROUNDING.</p> <p>All electrically conductive objects in the spray area, with the exception of those objects required by the process to be at high voltage, must be grounded. Grounded conductive flooring must be provided in the spray area.</p> <p>Always turn off the power supply prior to flushing, cleaning, or working on spray system equipment.</p> <p>Unless specifically approved for use in hazardous locations, all electrical equipment must be located outside Class I or II, Division 1 or 2 hazardous areas, in accordance with NFPA-33.</p>

<p>AREA Tells where hazards may occur.</p>	<p>HAZARD Tells what the hazard is.</p>	<p>SAFEGUARDS Tells how to avoid the hazard.</p>
<p>Electrical Equipment</p> 	<p>Electrical Discharge</p> <p>High voltage equipment is utilized in the process. Arcing in the vicinity of flammable or combustible materials may occur. Personnel are exposed to high voltage during operation and maintenance.</p> <p>Protection against inadvertent arcing that may cause a fire or explosion is lost if safety circuits are disabled during operation.</p> <p>Frequent power supply shut-down indicates a problem in the system which requires correction.</p> <p>An electrical arc can ignite coating materials and cause a fire or explosion.</p>	<p>Unless specifically approved for use in hazardous locations, the power supply, control cabinet, and all other electrical equipment must be located outside Class I or II, Division 1 and 2 hazardous areas in accordance with NFPA-33 and EN 50176.</p> <p>Turn the power supply OFF before working on the equipment.</p> <p>Test only in areas free of flammable or combustible material.</p> <p>Testing may require high voltage to be on, but only as instructed.</p> <p>Production should never be done with the safety circuits disabled.</p> <p>Before turning the high voltage on, make sure no objects are within the sparking distance.</p>
<p>Toxic Substances</p> 	<p>Certain material may be harmful if inhaled, or if there is contact with the skin.</p>	<p>Follow the requirements of the Material Safety Data Sheet supplied by coating material manufacturer.</p> <p>Adequate exhaust must be provided to keep the air free of accumulations of toxic materials.</p> <p>Use a mask or respirator whenever there is a chance of inhaling sprayed materials. The mask must be compatible with the material being sprayed and its concentration. Equipment must be as prescribed by an industrial hygienist or safety expert, and be NIOSH approved.</p>
<p>Spray Area</p> 	<p>Explosion Hazard – Incompatible Materials</p> <p>Halogenated hydrocarbon solvents for example: methylene chloride and 1,1,1,-Trichloroethane are not chemically compatible with the aluminum that might be used in many system components. The chemical reaction caused by these solvents reacting with aluminum can become violent and lead to an equipment explosion.</p>	<p>Aluminum is widely used in other spray application equipment - such as material pumps, regulators, triggering valves, etc. Halogenated hydrocarbon solvents must never be used with aluminum equipment during spraying, flushing, or cleaning. Read the label or data sheet for the material you intend to spray. If in doubt as to whether or not a coating or cleaning material is compatible, contact your coating supplier. Any other type of solvent may be used with aluminum equipment.</p>

EUROPEAN ATEX DIRECTIVE 94/9/EC, ANNEX II, 1.0.6

The following instructions apply to equipment covered by certificate number Sira 08ATEX5040X:

1. The equipment may be used with flammable gases and vapors with apparatus groups II and with temperature class T6.
2. The equipment is only certified for use in ambient temperatures in the range +12.8°C to +40°C and should not be used outside this range.
3. Installation shall be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. EN 60079-14:1997.
4. Inspection and maintenance of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. EN 60079-17.
5. Repair of this equipment shall be carried out by suitable trained personnel in accordance with the applicable code of practice e.g. EN 60079-19.
6. Putting into service, use, assembling, and adjustment of the equipment shall be fitted by suitably trained personnel in accordance with the manufacturer's documentation.

Refer to the "Table of Contents" of this service manual:

- a. Installation
- b. Operation
- c. Maintenance
- d. Parts Identification

7. Components to be incorporated into or used as replacement parts of the equipment shall be fitted by suitably trained personnel in accordance with the manufacturer's documentation.

8. The certification of this equipment relies upon the following materials used in its construction:

If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection provided by the equipment is not compromised.

Aggressive substances: e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.

Suitable precautions: e.g. regular checks as part of routine inspections or establishing from the material's data sheets that it is resistant to specific chemicals.

Refer to "Specifications" in the "Introduction" section:

- a. All fluid passages contain stainless steel or nylon fittings.
- b. High voltage cascade is encapsulated with a solvent resistant epoxy.

9. A recapitulation of the certification marking is detailed in the "Atex" section, on the next page, drawing numbers: 72562, 76858, 78974, and 79648.

10. The characteristics of the equipment shall be detailed e.g. electrical, pressure, and voltage parameters.

The manufacturer should note that, on being put into service, the equipment must be accompanied by a translation of the instructions in the language or languages of the country in which the equipment is to be used and by the instructions in the original language.

REA 900 and 9000 Automatic Applicators 77539 and 76110 ATEX Product Marking Definitions

Ex Certificate Number: Sira 08ATEX5040X

Sira = Notified Body performing EC-type examination

08 = Year of certification

ATEX = Reference to ATEX Directive

5 = Protection Concept Code (code 5 is titled Encapsulation)

040 = Document serial number

X = Special conditions for safe use apply

Special conditions for safe use: The REA 77359 and 76110 Automatic Applicators shall only be used with associated 76580-XX Control Unit.

Product Marking



Ex = Specific marking of explosive protection
 II=Equipment Group hazardous area characteristics
 2 = Equipment Category
 G = Type of explosive atmosphere (gases, vapors, or mists)

EEx 0.24mJ = The REA Automatic Applicators 77359 and 76110 are suitable for use in automatic spraying installations complying with EN 50 050 as they are a Type A class with a discharge energy limit of 0.24mJ.

Label 72562

Ransburg, Angola, IN, USA

WARNING
 FAILURE TO OBSERVE THE FOLLOWING PRECAUTIONS MAY RESULT IN AN ELECTRICAL DISCHARGE CAPABLE OF STARTING A FIRE.

1. THE ARTICLE BEING COATED MUST BE GROUNDED.
2. ALL OTHER ELECTRICALLY CONDUCTING OBJECTS WITHIN ABOUT TEN FEET OF THE OPERATING SPRAY GUN MUST BE GROUNDED.
3. THIS CONTROL UNIT/POWER SUPPLY MUST BE INTERLOCKED WITH THE SPRAY BOTH VENTILATORS SO AS TO PREVENT OPERATION OF THE POWER SUPPLY UNLESS VENTILATING FANS ARE IN OPERATION.
4. SERVICE WARNING- ENCLOSURE PROTECTS AGAINST SHOCK AND INJURY. SERVICE TRAINING REQUIRED.
5. KEEP POWER SUPPLY OUTSIDE THE HAZARDOUS AREA.
6. DO NOT ATTEMPT OPERATION OR REPAIR BEFORE READING SERVICE MANUAL.
7. FOR ELECTROSTATIC PAINT FINISHING APPLICATIONS.

CONTROL UNIT/POWER SUPPLY

PART No.		SERIAL No.	
VOLTS	115/220	"C"	AMPERES
HERTZ	50/60	"D"	WATTS
OUTPUT VOLTAGE	"F"	"E"	OUTPUT CURRENT

THIS POWER SUPPLY TO BE USED ONLY WITH THE FOLLOWING ITW RANSBURG SPRAY GUNS.

GUN MODEL	"A"	"B"	MAX PAINT PRESS
MAX APPRD CBL LENGTH	100 FT	100 PSI	MAX AIR PRESS

FLOW SWITCH

MAX AIR PRESS	FLOW PRESS
100 PSI	25 CFM @ 20 PSI

CE 0518 Ex II (2)G EN 50050 SIRA 08ATEX5040X

FM APPROVED

LABEL REMOVAL VOIDS WARRANTY

Label 76858

APPROVED FOR ELECTRO. FIN. APPL. CL. I, GP. D, SPRAY MATL. AIR ATOMIZING SYSTEM WHICH CONSISTS OF THE FOLLOWING:
 REA 9000R
 76110S(L)-00(36,37,50,51,75,76,98,99); 10(15,20,25); A(B,C,D,E,F,G,H); 1 APPLICATOR
 76580-5, 1(2), 0, 0(2), 1(2,3) LOW VOLTAGE POWER SUPPLY
 76222-36(36A,50,50A,75,75A,100,100A) REAR MOUNTING PLATE
 OR
 REA 9000A
 75795S(L)-36(50,75,100); 151 APPLICATOR
 76580-5, 1(2), 0, 0(2), 1(2,3) LOW VOLTAGE POWER SUPPLY
 FOR USE WITH ALL OF THE FOLLOWING:
 78084-36(50,75,100) LOW VOLTAGE CABLE

SIRA 08ATEX5040X APPROVED

FM APPROVED

Label 78974

APPROVED FOR ELECTRO. FIN. APPL. CL. I, GP. D, SPRAY MATL. AIR ATOMIZING SYSTEM WHICH CONSISTS OF THE FOLLOWING:
 REA 900A AUTOMATIC SOLVENT
 77359S(L)-36(50,75,101); 11(22,33); 1 APPLICATOR
 76580-B; 1(2); 0; 0(2); 1(3,4) LOW VOLTAGE POWER SUPPLY
 78084-36(50,75) LOW VOLTAGE CABLE

APPROVED FOR ELECTRO. FIN. APPL. MATL. WHICH DOES NOT SUSTAIN BURNING LONGER THAN SPECIFIED IN ACCORDANCE WITH ASTM D 4206.
 REA 900A AUTOMATIC WATERBORNE
 77359S(L)-36(37,50,51,75,76,101); 44; 2 APPLICATOR
 76580-C; 1(2); 0; 0(2); 1(3,4) LOW VOLTAGE POWER SUPPLY
 78084-36(50,75,100) LOW VOLTAGE CABLE
 78597-36(50,75) FLUID HOSE
 78602-36(50,75,100) FLUID HOSE

SIRA 08ATEX5040X APPROVED

FM APPROVED

Label 79648

Ransburg Angola, IN, USA

"REA 900 & 9000" MODELS-76110 & 77359

CE 0518 Ex II 2G S/N:

EEx 0,24 mJ
 SIRA 08ATEX5040X

WARNING
 SUBSTITUTION OF COMPONENTS MAY IMPAIR SAFETY RATINGS

FM APPROVED

1. THE SERIAL NUMBER INCLUDES THE DATE OF MANUFACTURE.

THE SPRAY GUN/CABLE ASSEMBLY IS ONLY 'FM' & 'SIRA' APPROVED WHEN USED WITH 76580-XX LOW VOLTAGE POWER SUPPLY.

LABEL REMOVAL VOIDS WARRANTY MADE IN U.S.A.

INTRODUCTION

DESCRIPTIONS

The **REA Automatic** processes are an air atomized method for electrostatically applying coatings to objects. The REA Automatics apply a high voltage DC charge to the applicator electrode, creating an electrostatic field between the atomizer and the target object. The target is electrically grounded through its support which may be either stationary or moving.

A regulated pressure fluid system delivers material to the atomizer. At the time of triggering the applicator's fan and atomization air is applied which atomizes the material forming a spray mist. The mist under the influence of the electrostatic field, becomes electrically charged. The charged particles of material are attracted to, and deposited on, the target. The forces between the charged particles and the grounded target are sufficient to turn most normal overspray around and deposit it on the back surface of the target. Therefore, a high percentage of the spray is deposited on the target.

One of the many features of the REA Applicator Automatic System is the electrical discharge which is available from the resistive charging electrode is limited to the optimum level of safety and efficiency.

As the applicator electrode approaches ground, the control unit and applicator circuitry shut down the high voltage and current to the applicator. The control unit must then be reset to continue to spray electrostatically.

The REA Automatic Electrostatic Spray Applicators are transformable between air spray and HVLP spray technology. By changing a select few parts, the applicator may be transformed to be operated in either spray mode. (See "Spray Technology Conversion Procedure" in the "Installation" section for details.)

The **REA 900A** Applicator is designed with a moving trigger (shaft), so no forward mounted trigger valve is required. The dump valve is mounted on the rear bulkhead plate for ease of maintenance. All fluid connections in this applicator use "AN" style fittings to eliminate "dead spots" in the fluid path for superior flushing.

The **REA 9000R** is a robot-mounted applicator for hollow wrist robots produced by either FANUC or ABB. The advantage of the REA 9000R applicator is that it can be removed quickly and easily from the robot mounting plate with the use of a threaded retaining ring.

The REA 9000R incorporates two important safety features. The first being a break-away design that will shear two (2) nylon mounting bolts if the applicator comes in contact with the object being sprayed. The second is the discharge which is available from the resistive charging electrode is limited to the optimum level of safety and efficiency.

The REA 9000W (Not FM Approved) is an external charge probe applicator designed to spray waterborne coatings in systems utilizing a grounded fluid supply. Applicator features include: Probe Shroud Air and Electrode Shroud Air. Low pressure air exiting around the probe body and electrode wire aid in keeping these components clean during operation. These features help to maintain maximum efficiency of the applicators over a longer period of time. The REA 9000W applicator also offers conventional "classiC" high voltage technology.

The REA 9000R and 900A Series of applicators apply -85kV DC charge to the coating materials at the point of atomization. This series of applicators is intended for use with grounded solventborne coating systems. The REA 9000W Series of applicators applies -70kV DC Charge. This electrostatic charge allows a more efficient, uniform application of coating material to the front, edges, sides, and back of products. It is highly suitable

for applying coatings to a variety of surface configurations: large targets, small parts, tubular wares, concave and recessed parts, etc. keeping these components clean during operation. These features help to maintain maximum efficiency of the applicators over a longer period of time.

These series of applicators include the automatic applicator, low or high voltage cable, control unit, fluid hose, and air tubing.

The control unit provides voltage output to the applicator and contains controls for AC on/off, high voltage adjust, kV/microamp meter and triple setpoint or analog input control.

NOTES

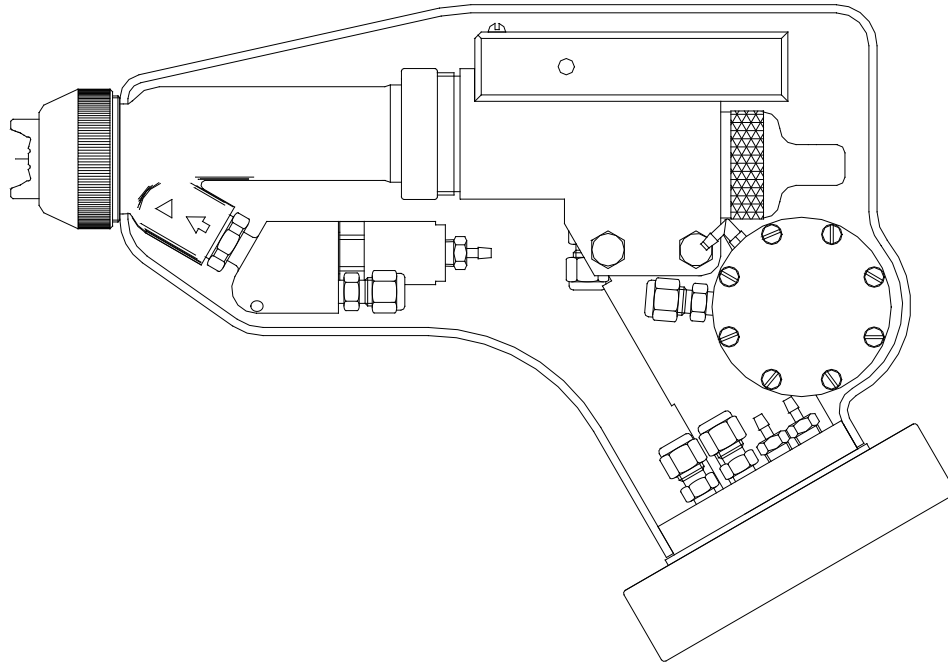


Figure 1a: REA 9000R Solventborne Electrostatic Spray Applicator

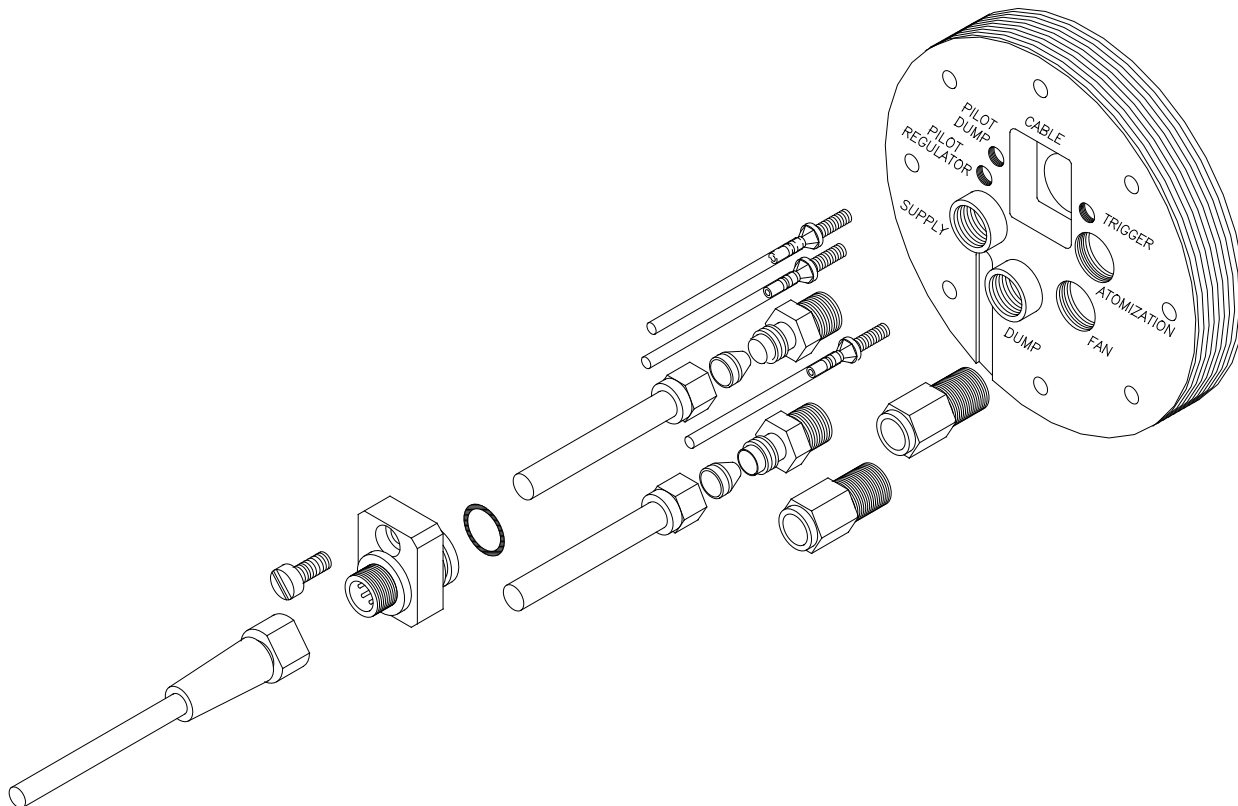


Figure 1b: View of Mounting Plate Assembly

NOTE

► To allow for ease of configuration, operation, and modification of robot teach patterns, the following X/Y vertices are provided (refer to Figure 2 for explanation of coordinates). Optimum spray pattern is achieved at a distance of 10 - 14 inches from tip.

		X	Y
76110	REA 9000R 60°	12.25	6.50
76110	REA 9000R 90°	10.00	7.50

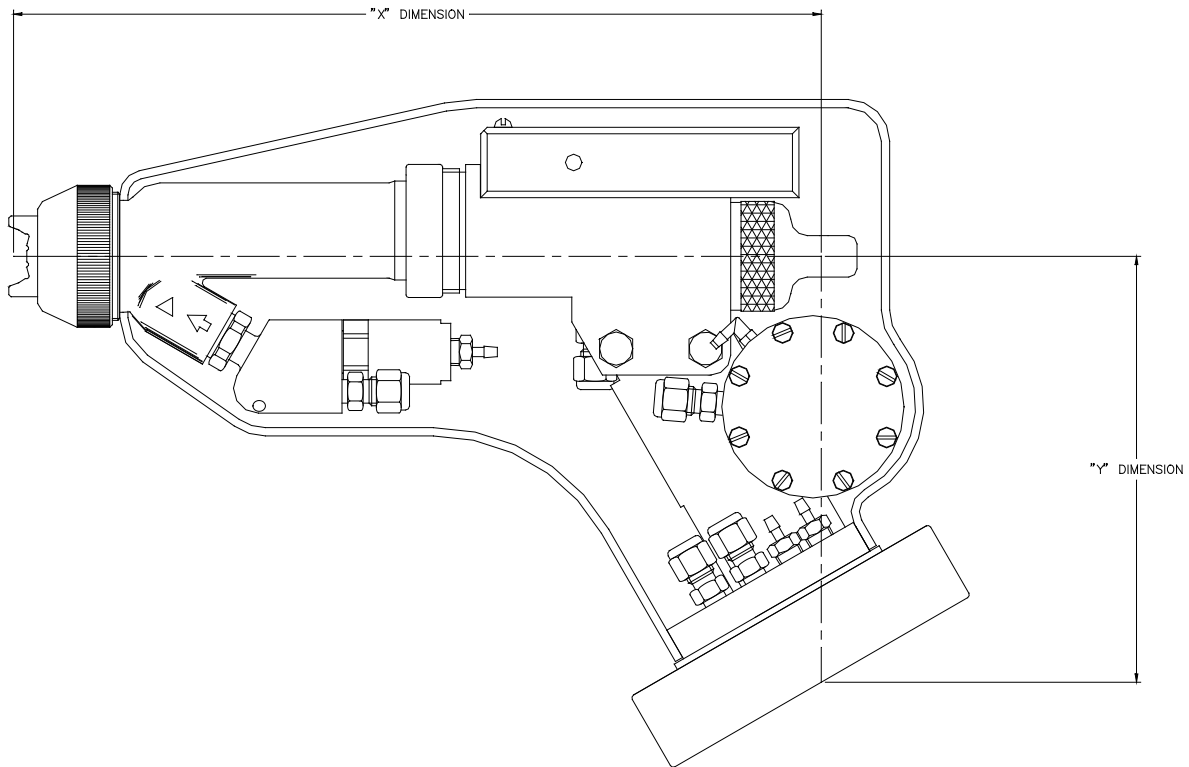


Figure 2: Applicator Tool-Point Representation REA 9000R Automatic

For use with Fanuc P-200 Robots, the following adapter plates must be used:

EO-3150-121-014 is for 100° wrist.

EO-3461-127-001 is for 140° wrist.

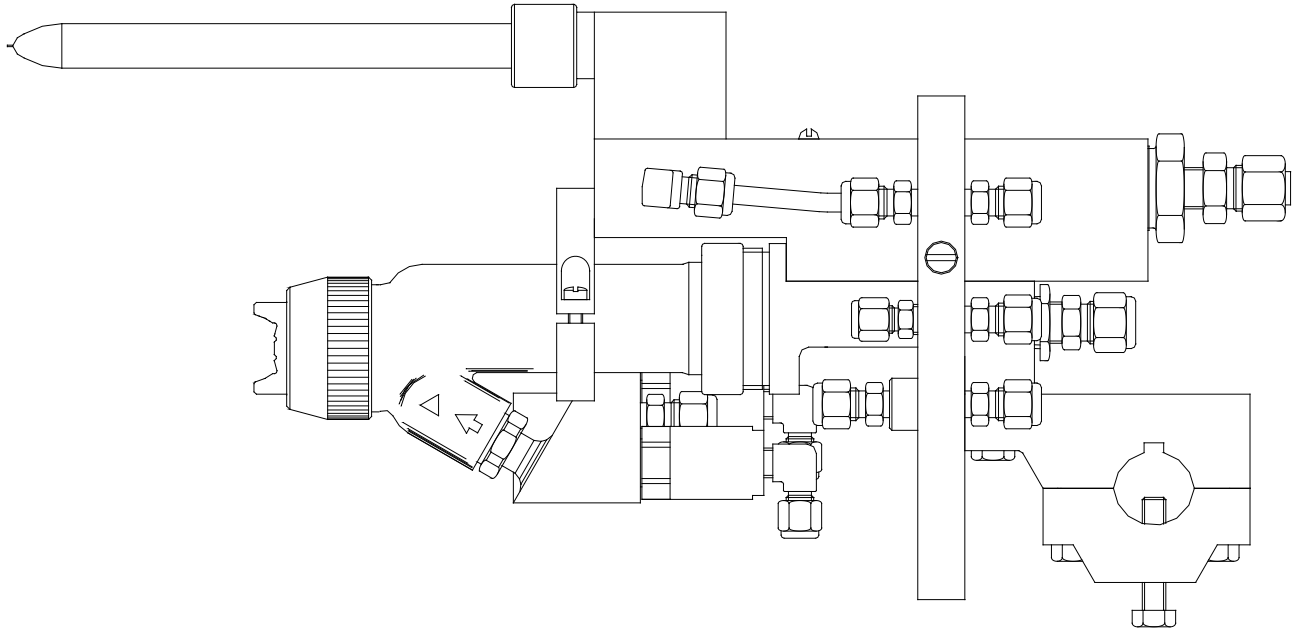


Figure 3a: REA 9000W Waterborne Electrostatic Spray Applicator

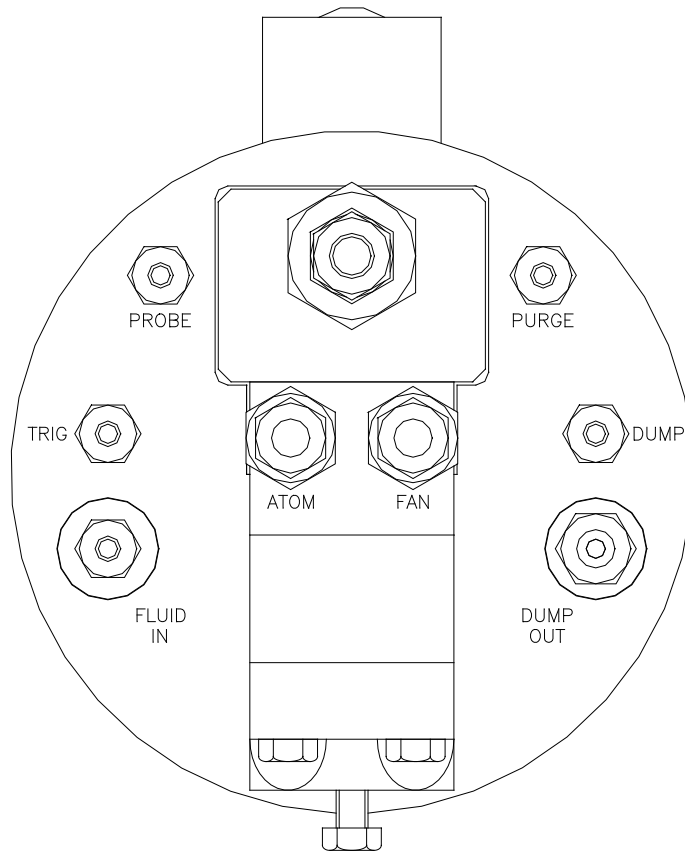


Figure 3b: View of Back Plate

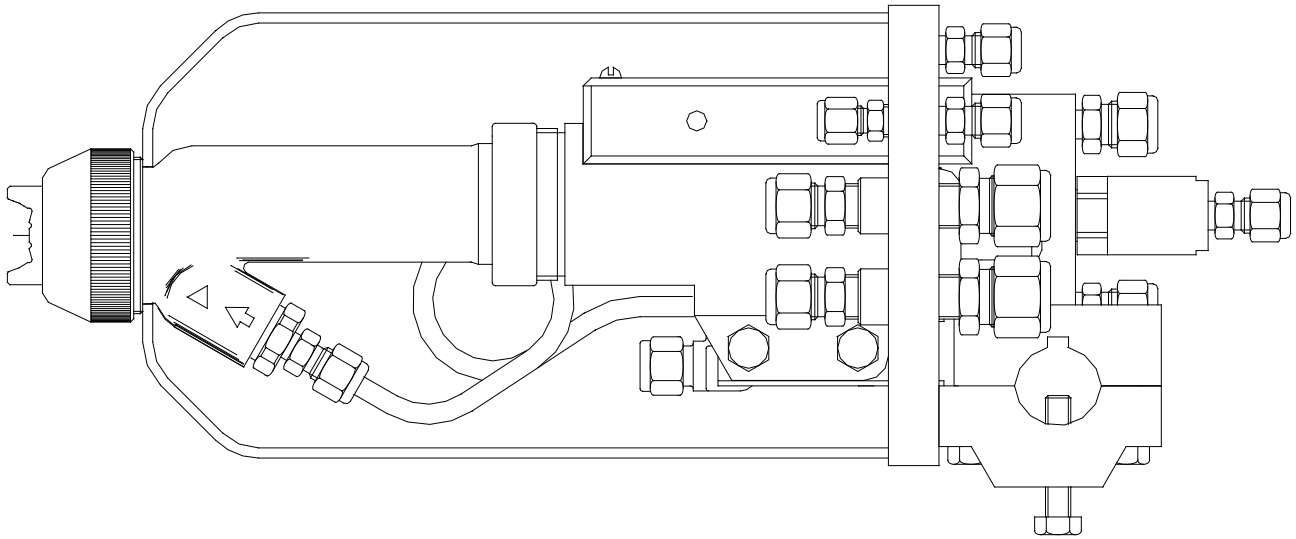


Figure 4a: REA 900A Solventborne Electrostatic Spray Applicator

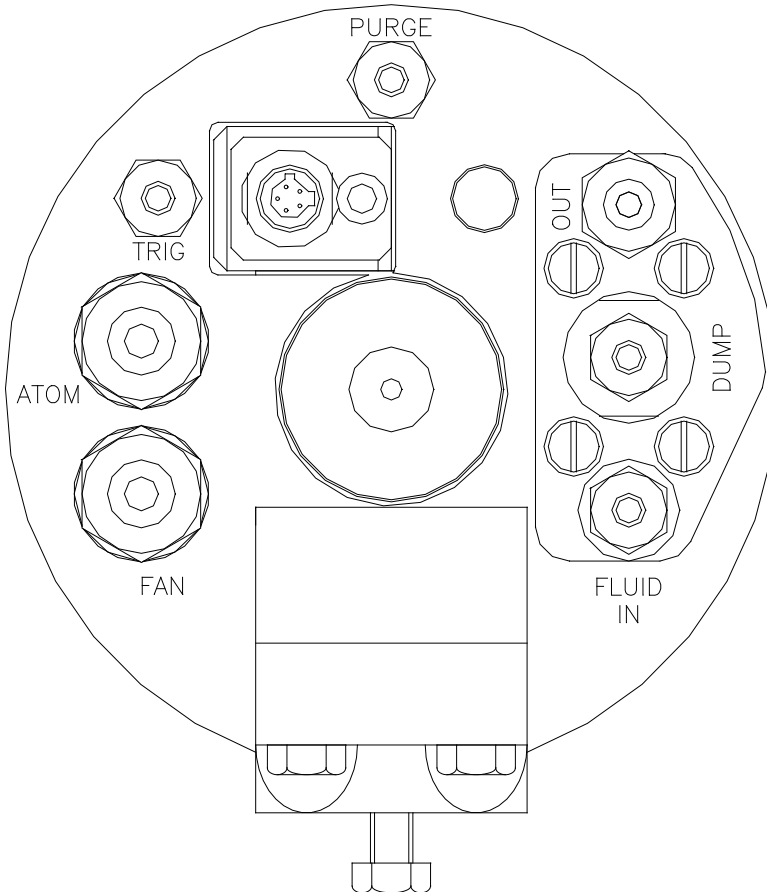


Figure 4b: View of Back Plate

SPECIFICATIONS - SOLVENTBORNE REA 9000R

Electrical / Physical

Operating Voltage:	85kV DC [-] max.
Current Output:	120 microamperes max.
Weight:	41 oz. (1,162g)
Applicator Height:	6.5-inch (33.66cm)
Applicator Length:	13.25-inch (33.66cm)
Applicator Width:	2-inch (5.08cm)
Cable Lengths:	36-ft. (Optional: 50, 75, and 100 ft.)
Atomizer Assembly:	4904-65R 4907-45 HVLP 75600-01 HVLP 75601-00
Fluid Flow Rate:	Variable to 1,000 cc/min.
Operating Pressure (Air Spray):	
Atomizing Air	0-100 psig (6.8 bar)
Fan Air	0-100 psig (6.8 bar)
Trigger Air	40 psig min. (2.7 bar) 100 psig max. (6.8 bar)
Fluid	0-100 psig (6.8 bar)
Operating Pressure (HVLP Spray):	
Atomizing Air	0-100 psig (6.8 bar)
Fan Air	0-100 psig (6.8 bar)
Trigger Air	40 psig min. (2.7 bar) 100 psig max. (6.8 bar)
Fluid	0-100 psig (6.8 bar)
Piston Air Inlet Size:	3/16" ODT
Atomization Air Inlet Size:	3/8" ODT
Fan Air Inlet Size:	3/8" ODT
Fluid Inlet Size:	1/4" ODT
Paint Resistance*:	.1 MΩ to ∞

*(Ransburg Meter)

SPECIFICATIONS - WATERBORNE REA 9000W

Electrical / Physical

Operating Voltage:	70kV DC [-] max.
Current Output:	120 microamperes max. (Classic)
Weight:	82 oz. (2,325g)
Bulkhead Diameter:	6.69-inch (16.9cm)
Max Applicator Height:	7.90-inch (20.0cm)
Applicator Length:	16.51-inch (33.0cm)
Center Distance from Mount to:	
Probe End	15.23-inch (38.6cm)
Nozzle End	11.80-inch (29.9cm)
Center Line of Nozzle	1.90-inch (4.8cm)
Center Line of Probe	5.92-inch (15.0cm)
Cable Lengths:	
Classic Version	100 ft. max. (SSW-1064 HVCable)
Atomizer Assembly:	4904-65R 4907-45 HVLP 75600-01 HVLP 75601-00
Fluid Flow Rate:	Variable to 1,000 cc/min.
Operating Pressure (Air Spray):	
Fluid	0-100 psi (6.8 bar)
Air	0-100 psi (6.8 bar)
Consumption	16 SCFM @ 50 psig
Operating Pressure (HVLP Spray):	
Fluid	0-100 psig (6.8 bar)
Air	0-100 psig (6.8 bar)
Consumption	22 SCFM @ 50 psig (input) for 10 psig nozzle output
Atomization Air Inlet Size:	3/8" NPT (F) 1/4" NPT (F) 3/8" ODT
Fan Air Inlet Size:	3/8" NPT (F) 1/4" NPT (F) 3/8" ODT
Fluid Inlet Size:	1/4" AN (F) 1/4" ODT
Dump Outlet Size:	1/4" AN(F) 3/8" ODT
Trigger Actuation:	1/4" ODT - 1/8" NPT (F)
Dump Actuation:	1/4" ODT - 1/8" NPT (F)
Probe Shroud/Knife Air:	1/4" ODT - 1/8" NPT (F)
Shroud/Applicator Cover Purge Air:	1/4" ODT - 1/8" NPT (F)
Applicator Mounting Stud Diameter:	.98" - 1.00"
Mount Woodruf Key Size:	1/4" Nominal

**SPECIFICATIONS -
SOLVENTBORNE REA 900A**

NOTES

Electrical / Physical

Operating Voltage:	85kV DC [-] max.
Current Output:	120 microamperes max.
Weight:	84 oz. (2,100g)
Applicator Diameter:	5.50-inch (13.9cm)
Applicator Length:	14.85-inch (37.6cm)
Center Distance from Mount to:	
Nozzle End	13.00-inch (32.9cm)
Center Line of Nozzle	1.90-inch (4.8cm)
Cable Lengths:	36 ft.(std) (Optional: 50, 75, and 100ft.)
Atomizer Assembly:	4904-65R 4907-45 HVLP 75600-01 HVLP 75601-00
Fluid Flow Rate:	Variable to 1,000 cc/min.
Operating Pressure (Air Spray):	
Fluid	0-100 psig (6.8 bar)
Air	0-100 psig (6.8 bar)
Consumption	16 SCFM @ 50 psig
Operating Pressure (HVLP Spray):	
Fluid	0-100 psi (6.8 bar)
Air	0-100 psi (6.8 bar)
Consumption	22 SCFM @ 50 psig (input) for 10 psig nozzle output
Atomization Air Inlet	
Size:	1/4" NPT (F) 1/2" ODT
Fan Air Inlet	
Size:	1/4" NPT (F) 1/2" ODT
Fluid Inlet Size:	1/4" AN (F) 1/4" ODT
Dump Outlet Size:	1/4" AN (F) 3/8" ODT
Trigger Actuation:	1/8" NPT (F) 1/4" ODT
Dump Actuation:	1/8" NPT (F) 1/4" ODT
Shroud Purge Air:	1/8" NPT (F) 1/4" ODT
Gun Mounting Stud	
Diameter:	.98" - 1.00"
Mount Woodruf Key	
Size:	1/4" Nominal
Paint Resistance*:	.1 MΩ to ∞

INSTALLATION

⚠ WARNING

- ▶ Install and route the hoses and cables so they are **NOT** exposed to temperatures in excess of 120°F and so that all hose and cable bends are **NOT** less than a 6-inch (15 cm) radius. Failure to comply with these parameters could cause equipment malfunctions that might create **HAZARDOUS CONDITIONS!**

⚠ WARNING

- ▶ The 9000W is intended for use with waterborne coating formulations only!

⚠ WARNING

- ▶ The control unit **MUST** be located at least three feet outside of the spray area. Install units in accordance with the code requirements (see NFPA-33, OSHA, and local codes).

TYPICAL REA AUTOMATIC APPLICATOR INSTALLATION

Connect the voltage cable to the control unit voltage socket. Gently hand tighten the cable retaining nut. Connect the other end of the voltage cable to the receptacle at the rear mounting plate of the applicator, using a wrench to tighten.

⚠ CAUTION

- ▶ **DO NOT** overtighten voltage cable connection to applicator, as damage to plastic parts may occur.

The control unit of cascade style applicators **MAY** be connected through conduit with an explosion-proof terminal on or near the spray booth where it will be convenient, or may be connected with a line cord depending upon application requirement.

⚠ WARNING

- ▶ The electrical discharge which is available from the charging electrode must not exceed 0.25 mJ of energy. To achieve this limit, any flow of energy from the paint supply through the paint line to the applicator electrode **MUST BE** prevented by grounding the paint line at the inlet.
- ▶ Verify that the paint inlet is actually grounded **BEFORE** operating it! This is done with a fully connected and operational system by placing one lead of an ohmmeter to the inlet fitting and the other to the building electrical ground (cold water pipe, building structure, etc.). The reading should be essentially zero.
- ▶ If a greater reading is obtained, check that the control unit is grounded. (See the Control Unit manual for "Grounding Procedure").

NOTE

- ▶ Refer to the Control Unit Service manual for the "Circuit Diagram and Instructions to Connect the Control Unit".

To Install the REA 9000W or REA 900A

1. Mount the applicator to the reciprocator bar. It is recommended to use a keyed bar with 1/4" Woodruff key. The applicator may be mounted on bars from the size .98-inch diam. (25 mm) to 1.00-inch diam. (27 mm). Tighten the five (5) mounting screws securely.
2. Run 1/4-inch ODT air line to the trigger line fitting.

NOTE

► All fittings may be replaced with alternate fittings, depending on your installation. (See "Specifications" previously discussed in the "Introduction" section, for female thread size.)

WARNING

► **ALL** fittings used must be nonconductive. The use of electrical conductive fitting may cause injury or fire.

3. Run 3/8-inch ODT or 1/2-inch ODT fluid line to the applicator.
4. Connect atomization air and fan air lines. Depending upon atomization technology used, size the line accordingly.

NOTE

► The atomization and fan air line should always lead the trigger signal when the applicator is on, and lag the trigger signal when the applicator is off. Failure to follow this procedure will cause applicator spits.

5. Install 1/4" ODT air line to shroud or probe purge air. Set pressure between 5-10 psig.

CAUTION

► Failure to connect the shroud purge air line on the REA 900A Gun can allow excessive corona to build up within the shroud and cause premature failure of the barrel and transformer assemblies.

6. Install 1/4-inch ODT air line for dump actuation.
7. Install 3/8-inch ODT fluid line to dump out.

CAUTION

► Failure to use dump line will degrade color change time and applicator performance.

WARNING

► Whenever the applicator is in the dump or flush mode, the electrostatics must be off.

Filters

NOTE

► For optimum finish quality use clean, dry filtered air.

1. Install a fluid filter on the output of fluid supply, as shown in Figure 5.
2. Detail depends on whether pressure tank, pump unit, recirculating system, etc., is used. The filter must be installed vertically with drain valve down and arrow pointing in direction of flow.

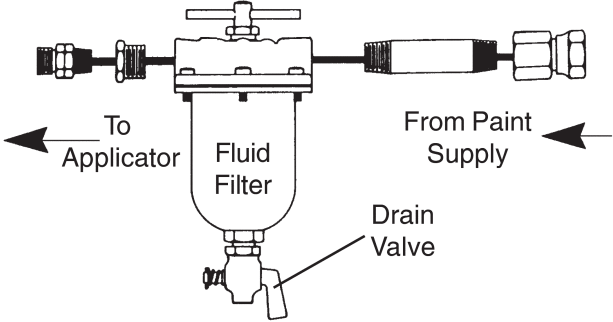



Figure 5: Typical Fluid Filter Installation

Paint Preparation

A proper paint mixture is essential to electrostatic operation. Paint test equipment may be obtained through your Ransburg representative. Consult Ransburg "Paint Related Information for REA and REM Applicators" manual, for paint formulation information. For further paint formulation and testing procedures, consult your Ransburg representative and/or your paint supplier.

Spray Technology Conversion Procedure

Remove existing retaining ring and air cap from end of applicator. Remove fluid nozzle using applicator wrench 19749-00.

 CAUTION	
▶	To avoid damage to the fluid nozzle and electrode, the paint pressure and trigger return spring tension MUST be released by triggering the applicator prior to removing the fluid nozzle.
▶	The applicator MUST be tilted front down to remove the fluid nozzle. Failure to do so may allow paint to enter the air passages, thereby reducing air flow and damaging the applicator barrel or cause electrical shorting. Applicators may be flushed in lieu of tilting, but they MUST be either flushed or tilted BEFORE removing the fluid nozzle!

With a bladed screwdriver, remove pressure reducers by turning counter-clockwise from barrel. Install the desired pressure reducer. Apply suitable liquid pipe thread sealant to threads. Install appropriate fluid nozzle, gently tightening into place using the applicator wrench 19749-00. Reinstall appropriate air cap and retaining ring. (See "Nozzle Selection Chart" later in this section, for proper combination of air caps, fluid nozzles and pressure reducers).


For remote HVLP fan air applications fan control, air pressure should not exceed 10 psi. Fan control pressure should be adjusted depending upon pattern size desired.

Atomizer Assembly Selection

The "Atomizer Assembly Selection Chart" is provided to give you a comparison of the air caps and fluid nozzles. **THE CHOICE OF ATOMIZER ASSEMBLY SHOULD DEPEND ON QUALITIES DESIRED AND MUST BE VERIFIED BY ACTUAL TRIAL.** See your authorized Ransburg electrostatic distributor for atomizer demonstration.

Spray Pattern Adjustment

The spray pattern of fan atomizers is adjustable from a small circle to an elongated oval, approximately 10 to 18-inches across the usable long axis at 8 to 12-inches from the target. The swirl atomizer assemblies produce a round pattern from 5 to 9-inches in diameter. To adjust pattern size, increasing fan air pressure will expand the pattern, a reduction will decrease it. To change the spray pattern axis of fan atomizers from horizontal to vertical, loosen retainer ring, rotate the air cap clockwise to the desired position and gently tighten the ring.

 CAUTION	
▶	A counter-clockwise turn of the air cap may loosen the fluid nozzle and cause air to get into the paint or paint to cross over into the air passages.


Applicator To Target Distance

Mount the applicator 6 to 12-inches maximum from the target for best operation. (A higher transfer efficiency will be achieved at the closer target distance).

Wiring The Unit

The REA 9000R comes with a complete cable from the mounting plate.

The cable from the control unit of the REA 9000R should be run through suitable conduit and connected at the robot explosion proof enclosure, if necessary.

 WARNING
<p>► If the REA 9000R cable must be terminated at the robot, it must be done within a suitable explosion proof enclosure.</p>

ATOMIZER ASSEMBLY SELECTION				
REA NOZZLES (Conventional Spray)				
Air Cap Part Number	Fluid Nozzle Part Number	Oriface ID	Separate Retaining Ring	Pressure Reducer (Black)
70899-00	70898-00	Swirl	4903-00	74963-02
LREA0002	LREA0003	Round	73569-00	74963-02
4904-65R	4907-44	.055	73569-00	74963-02
4904-65R	4907-45	.070	73569-00	74963-02
4904-65R	4907-46	.042	73569-00	74963-02
4904-65R	4907-47	.028	73569-00	74963-02
4904-65R	4907-48	.047	73569-00	74963-02
4904-63	4907-44	.055	73569-00	74963-02
4904-63	4907-45	.070	73569-00	74963-02
4904-63	4907-46	.042	73569-00	74963-02
4904-63	4907-47	.028	73569-00	74963-02
4904-63	4907-48	.047	73569-00	74963-02
4904-98	4907-44	.055	73569-00	74963-02
4904-98	4907-45	.070	73569-00	74963-02
4904-98	4907-46	.042	73569-00	74963-02
4904-98	4907-47	.028	73569-00	74963-02
4904-98	4907-48	.047	73569-00	74963-02
REA NOZZLES (HVLP)				
Air Cap Part Number	Fluid Nozzle Part Number	Oriface ID	Separate Retaining Ring	Pressure Reducer (White)
75601-00	75600-01	.055	73569-00	74963-03
75601-00	75600-02	.070	73569-00	74963-03
75601-00	75600-03	.086	73569-00	74963-03

MAINTENANCE

WARNING

- ▶ The user **MUST** read and be familiar with the **SAFETY INSTRUCTIONS** in this manual.
- ▶ If compressed air is used in cleaning, **REMEMBER THAT HIGH PRESSURE AIR CAN BE DANGEROUS AND SHOULD NEVER BE USED AGAINST THE BODY.** It can blind, deafen and may even penetrate the skin. If used for cleaning equipment, the users should wear safety glasses.
- ▶ **ALWAYS** turn the control unit power off prior to cleaning or servicing equipment.
- ▶ Be **SURE** the power is **OFF** and the system is grounded **BEFORE** using solvent to clean **ANY** of the equipment.
- ▶ **DO NOT OPERATE A FAULTY APPLICATOR!**
- ▶ When using cleaning solvent, standard health and safety precautions should apply.

CAUTION

- ▶ **NEVER** remove the fluid nozzle assembly while paint is in the gun or paint may clog the air passages. Clogged air passages will cause poor atomization and electrical shorting. Air passages which are clogged with conductive material may lead to excessive current output levels and consequent low operating voltage and long range electrical damage. Before undertaking any atomizer assembly procedure, see "Atomizer Assembly Cleaning Procedure".
- ▶ The applicator **MUST** be tilted front down to remove the air cap and/or fluid nozzle. Failure to do so may allow paint to enter the air passages, thereby reducing air flow and damaging the applicator barrel/cascade. Applicators may be flushed in lieu of tilting. However, they must be either flushed or tilted down!
- Clean all insulating surfaces in the system. Remove paint accumulation from the exterior of the applicator, low voltage cable and air lines with a solvent dampened cloth. Use only non-polar (non-conductive) solvent.

ROUTINE SCHEDULE

Follow these maintenance steps to extend the life of the applicator and ensure efficient operation.

Several Times Daily

- Turn the control unit power to OFF!
- Inspect the air cap for paint accumulation. Clean as frequently as necessary with a soft bristled brush and a suitable solvent, and blow clean.

WARNING

- ▶ **NEVER** soak or submerge the electrical components of the applicator (i.e. barrel, transformer, cable). Damage and failure may occur.

Daily (at the start of each shift)

- Verify that ALL solvent safety containers are grounded!
- Check within 20 feet of the point of operation (of the applicator) and remove or ground ALL loose or ungrounded objects.

- Inspect workholders for accumulated coating materials, removing such accumulations.
- Check that atomizer assembly is clean and undamaged.
- Straighten the applicator electrode if necessary.

 CAUTION
<p>► When straightening the electrode, be careful not to distort the fluid nozzle orifice.</p>

- Clean the fluid filter, if used.
- Turn the control unit power ON. The applicator transformer light should light when triggered.
- Run a current/voltage output test.

Electrical Current Output Test

1. Turn the paint supply OFF.
2. Turn high voltage on at applicator.
3. Slowly approach the applicator electrode to any grounded object and make contact.
4. Monitor the current output reading on the voltage supply meter. As applicator approaches, ground current should increase near 100 mA overload current should “trip,” shutting “off” high voltage. Overload indication should come on.
5. Release the trigger and turn the control unit power OFF.


If the control unit does not trip, **DO NOT** use the applicator until the problem has been corrected. (See the “Troubleshooting Guide” in the “Maintenance” section of this manual).

**Shut-Down
(and at the end of each shift)**

1. Turn the control unit power OFF.
2. Turn the paint supply OFF.
3. Turn the atomizing air and fan air OFF.
4. Wipe the applicator, cable and hoses with a rag and a suitable non-polar (non-conductive) solvent.
5. Flush the lines and allow the solvent to remain in the lines unpressured. (See “Flushing Procedures” in the “Maintenance” section of this manual).

NOTE

► If the shutdown is to be short, the lines may not require flushing, depending on the coating material being used. If the solids in the material settle slowly, the lines will not need to be flushed as soon after shut-down as with fast settling solids. The paint being used and the length of time that the lines will be shut-down will determine the need for flushing. Metallic paint and primer will require flushing sooner than some other kinds of coating materials.

 CAUTION
<p>► If the coating material is fast settling and if the lines are not flushed soon enough, the applicator’s fluid passages as well as the lines may become clogged and cause excessive down time and/or service and repair.</p>


Weekly

- Check the entire system for damage, leaks and paint accumulation.
- Clean the atomizer assembly.

ATOMIZER ASSEMBLY CLEANING PROCEDURE

Routine Cleaning Equipment Needed

- An appropriate non-polar (non-conductive) solvent.
- A solvent safety container (grounded).
- A small soft-bristled brush.
- The Ransburg 19749-00 special Multi-Purpose Wrench from the Installation Kit.

 CAUTION
<p>► To avoid damage to the fluid nozzle, needle/electrode, the paint pressure MUST be released by triggering the applicator prior to removing the tip.</p> <p>► The applicator MUST be tilted front down to remove the air cap and/or fluid nozzle. Failure to do so may allow paint to enter the air passages, thereby reducing air flow and damaging the applicator barrel/cascade. Applicators may be flushed in lieu of removing nozzles. However, they must be either flushed prior to, or tilted down during nozzle removal!</p> <p>► The control unit power MUST always be off when removing the nozzles or any other service to the applicator.</p> <p>► Using any tool other than the Ransburg 19749-00 wrench to remove or reinstall the fluid nozzle may distort or damage it.</p>

For efficient operation, keep the applicator's exterior and the voltage cable clean and free of paint accumulation and dirt. This prevents the loss of voltage to ground with a resulting reduction in electrostatic effect. Paint accumulation at the air cap orifices reduces atomization quality and increases the potential for paint spits. Clean the air cap with a brush and solvent as often as needed to ensure good atomization.

 WARNING
<p>► NEVER wrap the applicator in plastic to keep it clean. A surface charge may build-up on the plastic surface and discharge to the nearest grounded object. Efficiency of the applicator will also be reduced and damage or failure of the applicator components may occur. WRAPPING THE APPLICATOR IN PLASTIC WILL VOID WARRANTY.</p>

Proceed as follows:

1. Turn the control unit power OFF.
2. Release the trigger.
3. Turn the paint flow OFF.
4. See "Disassembly Procedure" in the "Maintenance" section.

 WARNING
<p>► Any damage to the gun may result in UNSAFE operating.</p>

5. Clean the removed parts with a soft brush and suitable solvent.

 CAUTION
<p>► Metal tools and wire brushes must NEVER be used. NEVER use a cleaning tool that is harder than the plastic parts. If a deposit cannot be removed with solvent and a rag or soft brush, soak the part in the solvent ONLY until the deposit can be removed! NEVER SOAK THE APPLICATOR BODY, BARREL, OR TRANSFORMER!</p>

FLUSHING PROCEDURES

1. Turn the control unit power OFF.
2. Turn the paint supply OFF.
3. Turn the atomizing air supply OFF.
4. Activate dump air and flush with solvent until it is clear of paint. Air purge the dump line.
5. De-activate dump air and activate trigger air until the applicator fluid passage is clear.
6. Disconnect the solvent supply.
7. Activate the trigger valve until it is clear of solvent. After the preceding steps are complete, the applicator is ready for color change, storage or service.

NOTES

TROUBLESHOOTING GUIDE

General Problem	Possible Cause	Solution
DEFECTIVE SPRAY PATTERN		
Pattern will not shape	<ol style="list-style-type: none"> 1. Clogged or faulty fan valve remote fan air line 2. Air passages in applicator or air feed lines clogged 3. Worn, faulty or clogged air cap 	<ol style="list-style-type: none"> 1. Clean, replace or repair. 2. Blow out. 3. Clean or replace.
Pattern heavy at one end	<ol style="list-style-type: none"> 1. Clogged or faulty air cap 2. Clogged or faulty fluid nozzle 	<ol style="list-style-type: none"> 1. Clean or replace. 2. Clean or replace.
Extremely heavy spitting or severely deformed pattern.	<ol style="list-style-type: none"> 1. Wrong air cap/fluid nozzle combination 2. Timing of fluid on and air on is not adjusted 	<ol style="list-style-type: none"> 1. Ensure proper fluid nozzle/air nozzle pressure reducer combinations (see chart). 2. Check programming sequence.
DEFECTIVE DELIVERY		
Air	<ol style="list-style-type: none"> 1. Air passages in applicator or air feed lines clogged 2. Deficient source air 3. Paint in air passage 	<ol style="list-style-type: none"> 1. Blow out. 2. Increase. 3. Clean and blow out.
Fluid	<ol style="list-style-type: none"> 1. Clogged or faulty fluid nozzle 2. Clogged passages in applicator fluid tube or fluid feed lines 3. Insufficient needle/electrode travel 4. Low source pressure 5. Clogged fluid filter 6. Clogged or obstructed ball valve or fluid regulator 	<ol style="list-style-type: none"> 1. Flush or replace. 2. Flush. 3. Adjust (see "Trigger Nut Adjustment"). 4. Increase. 5. Clean or replace. 6. Clean as required.
LEAKAGE		
Air	<ol style="list-style-type: none"> 1. Loose or defective fittings 	<ol style="list-style-type: none"> 1. Tighten or replace.
Fluid (at rear of barrel)	<ol style="list-style-type: none"> 1. Packing, chevron seals and/or needle /electrode shaft defective 	<ol style="list-style-type: none"> 1. Tighten needle or replace.
Fluid (sight at nozzle when trigger is released)	<ol style="list-style-type: none"> 1. Nozzle not secure 2. Trigger valve closing before fluid nozzle valve 	<ol style="list-style-type: none"> 1. Tighten. 2. Check programming sequence.

TROUBLESHOOTING GUIDE (Cont.)


General Problem	Possible Cause	Solution
LEAKAGE (Cont.)		
Fluid (constant at nozzle)	<ol style="list-style-type: none"> 1. Worn or damaged fluid nozzle seat 2. Worn or damaged needle/electrode 3. Nozzle not secure 4. Trigger valve needle seat 	<ol style="list-style-type: none"> 1. Replace fluid nozzle. 2. Replace. 3. Tighten. 4. Rebuild valve.
ELECTRICAL		
Wrap Back	<ol style="list-style-type: none"> 1. Improper target ground 2. Improper booth exhaust 3. Excessive atomizing air 	<ol style="list-style-type: none"> 1. Trace and correct. 2. Trace and correct. 3. Reduce fan and atomization pressure.
Improper or No HV	<ol style="list-style-type: none"> 1. Faulty cable connections 2. Faulty transformer assembly 3. Improper or no ground 4. Faulty barrel/cascade assembly 5. Faulty low voltage cable 6. Faulty high voltage cable 7. Faulty control unit 8. Check fuses 9. ▶ IS THE POWER TURNED ON? ▶ IS THE ATOMIZING AIR TURNED ON? ▶ IS THE (RED LIGHT) TRANSFORMER ON? ▶ IS THE PAINT TOO CONDUCTIVE? 10. Paint in air passages 	<ol style="list-style-type: none"> 1. Check and secure at the applicator and at the control unit. 2. Replace. 3. Trace and correct. 4. Replace. 5. Replace. 6. Replace. 7. See the Control Unit manual. 8. Replace. 9. 10. Clean passages with soft bristled brush
High Current Draw	<ol style="list-style-type: none"> 1. Paint in air passages 2. Dirty dump line 3. Paint in dump line 4. Dirty applicator exterior 	<ol style="list-style-type: none"> 1. Clean passages with soft bristled brush 2. Clean or replace dump line; always use lines. 3. Review air push cycle 4. Clean with appropriate solvent and install new applicator cover.

SERVICE - REA 9000W SERIES

All repairs should be made on a clean, flat surface. If a vise is used to hold parts during service or repair, **DO NOT** clamp onto plastic parts and always pad the vise jaws!

The following parts should be thoroughly packed with LSCH0009-00 dielectric grease leaving NO air space or voids when assembling.

- All o-rings (o-rings do not need lubrication), chevron seals and all internal and external threads.

 CAUTION
<p>▶ Failure to pack the needle electrode/electrode shaft assembly and packing tube MAY CAUSE lower electrical output of the applicator.</p>

- Needle shaft LREA4005-00
- Transformer assembly LREA4004-00

EQUIPMENT REQUIRED (REA 9000R, 9000W and 900A)

- 19749-00 spanner (nozzle) wrench (3 in 1) for barrel nut, fluid nozzle, and needle shaft assembly
- Screwdriver (broad)
- Dielectric grease (59972-00) or LSCH0009-00
- 1/2-inch (13mm) nut driver
- 9/16-inch socket and handle
- Adjustable wrenches

REPLACEMENT PROCEDURE (REA 9000R, 9000W and 900A)

 CAUTION
<p>▶ ALWAYS remove the applicator from the work site for service or repair! DO NOT USE any silicone lubricants in order to avoid paint defects.</p>

 WARNING
<p>▶ PRIOR to performing a applicator removal, be sure ALL power to the control unit is turned off.</p>

TO REMOVE THE APPLICATOR FROM THE WORK SITE

1. Turn the control unit power OFF.
2. Detach voltage cable from applicator.
3. Turn the paint supply OFF.
4. Turn the atomizing air supply OFF.
5. Properly flush the applicator.
6. Remove air actuation fittings.
7. Remove fluid in and out lines.
8. Remove the applicator from the work site (and voltage cable, if necessary).

NOZZLE AND ELECTRODE CLEANING OR REPLACEMENT (REA 9000W)

CAUTION

- ▶ **NEVER** bend the electrode!

NOTE

- ▶ See "Atomizer Assembly Cleaning Procedure" previously discussed in this section.

WARNING

- ▶ **NEVER** shorten the electrode wire.

Air Cap

1. Unscrew retaining ring, remove air cap from barrel and clean using proper method or replace it.
2. Replace air cap and tighten retaining ring back onto the barrel.

Fluid Nozzle

CAUTION

- ▶ To avoid damage to the fluid nozzle, needle/ electrode, the paint pressure **MUST** be released by triggering the applicator prior to removing the tip.
- ▶ The applicator **MUST** be tilted front down to remove the air cap and/or fluid nozzle. Failure to do so may allow paint to enter the air passages, thereby reducing air flow and damaging the applicator barrel/cascade. Applicators may be flushed in lieu of removing nozzles. However, they **MUST** be either flushed or tilted down **BEFORE** removing the fluid nozzle!
- ▶ The control unit power **MUST** always be off when removing the nozzles.

CAUTION

- ▶ Using any tool other than the Ransburg 19749-00 wrench to remove or reinstall the fluid nozzle may distort or damage it.
- ▶ Over-tightening of plastic parts may cause breakage.

1. Remove air cap and retaining ring from barrel and clean or replace it.
2. With the nozzle wrench on wrench flats, remove fluid nozzle from barrel.
3. Clean or replace fluid nozzle using appropriate cleaning method.
4. Screw the cleaned or new fluid nozzle into barrel and secure with the nozzle wrench.
5. Screw retaining ring over the air cap onto barrel.

NOTE

- If the fluid nozzle is replaced, there is a good chance that the needle/electrode assembly will need to be replaced, too.

Needle / Electrode - REA 9000W Only

1. Unscrew probe retaining nut and pull probe straight out of the probe holder body.
2. Unscrew the rear plastic plunger nut of the probe assembly and remove.
3. Gently tap the probe body against your hand until the needle assembly falls loose. Pull the needle assembly out of the probe body.
4. By hand, unscrew (counter-clockwise) or where necessary gently use needle nose pliers on the needle/electrode ridges to remove it from the needle shaft assembly. Clean as necessary using appropriate cleaning procedure.
5. Inspect needle assembly components for signs of high voltage arcing. Replace if necessary.



CAUTION

- **DO NOT** use dielectric grease inside the probe assembly. Air must be able to flow freely through this assembly.

6. If LREA4001 Resistive Electrode is being replaced, it must be trimmed to the proper length. Reassemble the probe with the new electrode. Trim the electrode wire 1/16-inch from the end of the probe body.

To Test - (REA 9000W)

1. Install electrode on front end of an available 18865-04 needle shaft. Be sure that electrode is completely seated for proper contact between metal shaft and conductive threaded insert in rear of resistor.
2. Using a VOM meter that will read 15 megohms accurately, connect one meter lead to the metal needle shaft and the other lead to the wire at front of electrode. Electrode should be 14.5 to 19 megohms (nominal 15 megohms at 9 volts or 11 to 17 megohms at 1000 volts). Electrodes outside this range must be replaced (see Figure 6).

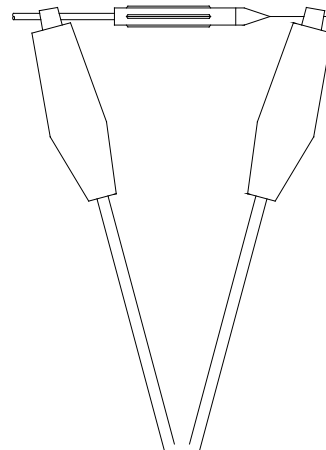


Figure 6: Testing Resistive Electrode

BARREL ASSEMBLY REMOVAL (REA 9000W)

1. Remove air cap retaining ring.
2. Pull shroud or applicator cover straight off the applicator exposing the trigger/dump and barrel assemblies.
3. REA 9000W ONLY- remove the high voltage module to barrel mounting bracket.
4. Loosen barrel nut with spanner wrench.
5. Pull barrel and automatic body **STRAIGHT** apart. Take extra care in handling barrel assembly to prevent damage.
6. Remove the color valve manifold assembly by turning the nut counter-clockwise until loose, then pull the manifold straight out of the barrel.
7. Remove the trigger valve. Remove the ferruled connector for the fluid tube. Remove the coiled fluid tube by removing the ferruled connector at the trigger valve manifold.

NOTE

- There is no need to remove retaining ring or barrel nut from barrel unless they are damaged. If they are to be removed, lift one end of ring out of its groove and spiral it off of the end of the barrel. The nut can be removed. To replace them on the barrel, slide nut onto the barrel, place ring against the back of the barrel, lift one end of it onto the barrel and spiral it on and into its groove.

CAUTION

- Firmly spreading the retaining ring may break it!

BARREL DISASSEMBLY (REA 9000W)

1. Remove needle shaft assembly from rear of the barrel with the 19749-00 spanner wrench.
2. Firmly pull the needle/electrode shaft assembly out of the packing chamber.



CAUTION

- During this operation, be **CAREFUL** that the interior surface of packing chamber is **NOT** damaged (marred or scratched)! This chamber is a seal area and the barrel assembly will have to be replaced if it is damaged.

3. Unscrew needle/electrode from shaft and slide parts off of the shaft (see Figure 7).
4. Inspect and replace parts as necessary. Since the needle shaft in the REA 9000W does not move, the packing wear should be minimal.

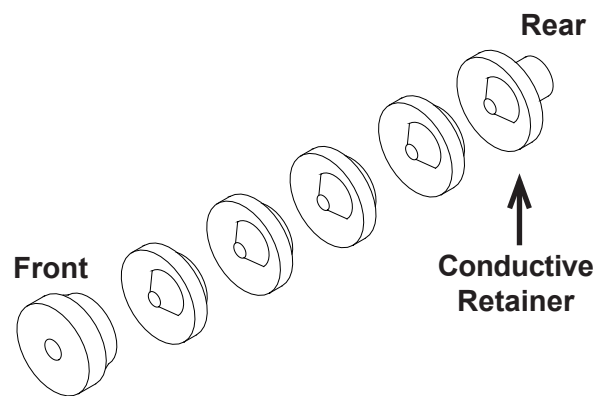


Figure 7: Chevron Seal Assembly


BARREL REASSEMBLY (REA 9000W)

- Clean all parts with a suitable non-polar (non-conductive) solvent.
- If the electrode wire is bent, straighten it CAREFULLY by hand or use needle nose pliers.
- Check all parts for damage or wear. Replace those that are damaged or worn with new parts.
- Replace chevron seals with new parts.
- From time to time it is desirable to test the electrical integrity of the LREA4001-00 resistive electrode (see "To Test" in the "Service for 9000W" in the "Maintenance" section).

 **CAUTION**

► To avoid damage to the chevron seals, they **MUST** be installed from the rear of the barrel.

1. Place conductive female chevron adaptor onto the front of shaft with the concave side toward the front.
2. Screw the four (4) new chevron seals onto shaft, concave sides forward.

 **CAUTION**

► **DO NOT** push the chevron seals straight onto the shaft. The shaft threads may damage the chevron bore and cause the applicator to leak fluid.

► Inspect needle/electrode shaft sealing surface for wear. If it is rough or uneven, replace it.

3. Place male nonconductive chevron adaptor onto shaft with the convex end rearward.


NOTE

► The chevron adaptors and chevron seals should seat together to form an unbroken seal.

4. Screw needle/electrode onto shaft and hand tighten.
5. When replacing the needle/electrode on the needle shaft of the REA 9000W applicator ONLY, the electrode wire **MUST** be trimmed OFF flush with the electrode body. Failure to do so may allow the fluid supply line to become charged, thus reducing available voltage at the external probe electrode.


NOTE

► Apply a coating of dielectric grease to the chevron seals and needle shaft.

 **CAUTION**

► **FAILURE** to coat the needle shaft assembly MAY CAUSE lower electrical output of the applicator.


6. Insert the assembled items through the rear barrel packing chamber of the barrel/cascade assembly.

 **CAUTION**

► **DO NOT** over-tighten. Over-tightening may result in stripped threads or cracked barrel.

BARREL TO BODY ASSEMBLY (REA 9000W)

1. Slide gasket over the rear end of the barrel assembly. Lightly coat cascade high voltage connections with LSCH0009-00 dielectric grease.
2. Tighten retaining ring with 19749-00 spanner wrench.

 CAUTION
▶ Nut should be secured hand tight only. NEVER apply more than 10 lb•ft torque.

HIGH VOLTAGE MODULE ASSEMBLY REPLACEMENT (REA 9000W Only)

 WARNING
▶ Turn OFF all power, air and fluid at the source.

 CAUTION
▶ The voltage cable MUST be removed before removing the high voltage module.

1. Remove the voltage cable from the rear of the high voltage module assembly.
2. Remove the high voltage module to barrel mounting bracket.
3. Remove the four (4) 1/4-20 flat head screws in the top of the probe holder body assembly. Remove the probe AND body as ONE assembly.

4. Remove module retaining screw from the top of the module.
5. Remove the two (2) 1/4-20 screws that attach the rear bulkhead plate to the high voltage module. These screws are accessed through holes in the sides of the bulkhead plate.
6. Pull the high voltage module **STRAIGHT** out through the bulkhead plate.
7. Install new high voltage module and assembly in reverse order.

NOTE
▶ Generously lubricate probe body metal plunger and high voltage module contact bore with LSCH0009-00 dielectric grease.

LOW VOLTAGE CABLE REPLACEMENT (REA 900A Only)

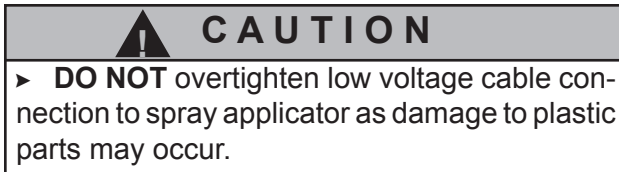
 WARNING
▶ Ensure control unit power is OFF before disconnecting cable from applicator or control unit.

Disassembly:

1. Using wrench on connector flats, disconnect low voltage cable from connector assembly.
2. Disconnect other end of low voltage cable from control unit and remove cable from system.

Assembly:

1. Connect low voltage cable to control unit; hand tighten.
2. Connect other end of low voltage cable to connector assembly using a wrench on the connector flats to tighten.



VALVE BODY SERVICE (REA 9000W)

When service is performed on any of the body elements, it is best to remove the barrel and high voltage module / transformer assembly to avoid damage to the nozzle, electrode or any of the plastic parts.

After the disassembly of any body element:

- Clean all parts with a suitable clean solvent.
- Check all parts for damage or wear. Replace those that are damaged or worn with new parts.

AIR VALVE BODY DISASSEMBLY (REA 9000W)

1. Remove barrel assembly (see “Barrel Removal for the 9000W”, previously discussed in this section).
2. Remove high voltage module/transformer assembly (see “Transformer Assembly Replacement, for the 9000W”, previously discussed in this section).
3. Remove two (2) back plate screws.

TO RETURN THE SPRAY APPLICATOR TO THE WORK SITE

1. Attach applicator to mounting bar and secure screws.
2. Attach the air line to applicator air fittings.
3. Attach fluid hose to fluid hose fitting.
4. Attach and secure the low/high voltage cable to the spray applicator.
5. Turn the power, air and fluid on at the source and return the applicator to service.

SERVICE - REA 9000R AND REA 900A SERIES

BARREL ASSEMBLY REMOVAL

(REA 9000R & 900A)

 CAUTION
► Firmly spreading the retaining ring may break it!

1. **REA 900A ONLY** - Remove pneumatic and fluid lines from the front of the bulkhead plate. Remove the bulkhead plate.
2. Remove rear housing and two (2) springs.
3. Using an adjustable wrench on the flats of the valve rod extension, remove the air valve adjusting, and air valve lock nut.
4. Disconnect coiled fluid tube at the fluid inlet fitting.
5. Loosen barrel nut with 19749-00 spanner wrench.
6. Pull the barrel and automatic body **STRAIGHT** apart. Take extra care in handling barrel assembly to prevent bending of the extension valve rod.

NOTE
► There is no need to remove retaining ring or barrel nut from barrel unless they are damaged. If they are to be removed, lift one end of ring out of its groove and spiral it off of the end of the barrel, then barrel nut can be removed. To replace them on the barrel, slide nut onto the barrel, place ring against the back of the barrel, lift one end of it onto the barrel and spiral it on and into its groove.

NOZZLE AND ELECTRODE CLEANING OR REPLACEMENT (REA 9000R & 900A)

 CAUTION
► NEVER bend the electrode!


NOTE
► See “Atomizer Assembly Cleaning Procedure” previously discussed in this section.

 WARNING
► NEVER shorten the electrode wire.

Air Cap

1. Unscrew retaining ring, remove air cap from barrel, and clean using proper method or replace it.
2. Replace air cap and tighten retaining ring back onto the barrel.


Fluid Nozzle

 **CAUTION**

► To avoid damage to the fluid nozzle, needle/ electrode, the paint pressure **MUST** be released by triggering the applicator prior to removing the tip.

► The applicator **MUST** be tilted front down to remove the air cap and/or fluid nozzle. Failure to do so may allow paint to enter the air passages, thereby reducing air flow and damaging the applicator barrel/cascade. Applicators may be flushed in lieu of removing nozzles. However, they **MUST** be either flushed or tilted down **BEFORE** removing the fluid nozzle!

► The control unit power **MUST** always be off when removing the nozzles.

 **CAUTION**

► Using any tool other than the Ransburg 19749-00 wrench to remove or reinstall the fluid nozzle may distort or damage it.

► Over-tightening of plastic parts may cause breakage.

1. Remove air cap and retaining ring from barrel and clean or replace it.
2. Prior to removing the fluid nozzle from the applicator barrel, the trigger must be actuated by applying air pressure to the trigger port or by removing the rear piston housing and pulling back on the needle shaft assembly. This will prevent damage to the inside sealing surface of the fluid nozzle or the sealing taper of the electrode.
3. With the nozzle wrench on wrench flats, remove fluid nozzle from barrel.
4. Clean or replace fluid nozzle using appropriate cleaning method.

5. Screw the cleaned or new fluid nozzle into barrel and secure with the nozzle wrench.

6. Screw retaining ring over the air cap onto barrel.

NOTE

- If the fluid nozzle is replaced, there is a good chance that the needle/electrode assembly will need to be replaced, too.

BARREL DISASSEMBLY (REA 9000R and 900A)

1. Remove packing nut from rear of the barrel with the 19749-00 spanner wrench.

2. Firmly pull the needle/electrode shaft assembly using the extension valve rod out of the packing chamber:

- Resistive Electrode Accessory
- Male Chevron Adapter
- Chevron Seals (4 required)
- Female Chevron Adapter (conductive)
- Needle/Electrode Shaft
- Packing Tube
- O-Ring
- Rear Seal Retainer
- U-Cup (spring loaded)
- Spacer and (Belville) Spring Washers (6 required)

3. Remove extension valve rod and adjustin nut with two (2) 3/8" wrenches.

- Check all parts for damage or wear. Replace those that are damaged or worn with new parts.
- Replace chevron seals, o-ring and u-cup with new parts.

- From time to time it is desirable to test the electrical integrity of the 70430-00 resistive electrode (see “To Test” in the “Service for 9000W”, previously discussed in the “Maintenance” section of this manual).

CAUTION

- ▶ To avoid damage to the chevron seals, they **MUST** be installed from the rear of the barrel.

BARREL REASSEMBLY (REA 9000R and 900A)

1. Place conductive female chevron adaptor onto the front of shaft with the concave side toward the front.
2. Screw the four (4) new chevron seals onto shaft, concave sides forward.

CAUTION

- ▶ **DO NOT** push the chevron seals straight onto the shaft. The shaft threads may damage the chevron bore and cause the applicator to leak fluid.
- ▶ Inspect needle/electrode shaft sealing surface for wear. If it is rough or uneven, replace it.

3. Place male non-conductive chevron adaptor onto shaft with the convex end rearward.

NOTE

- ▶ The chevron adaptors and chevron seals should seat together to form an unbroken seal.

4. Screw needle/electrode onto shaft hand-tighten.

NOTE

- ▶ Apply a light coating of dielectric grease to the chevron seals. The packing tube 18842-02 should be thoroughly packed with LSCH0009-00 dielectric grease leaving no air space or voids when assembling.

CAUTION


- ▶ Failure to pack the needle electrode/electrode shaft assembly and packing tube may cause lower electrical output of the applicator.

5. Place packing tube over the end of shaft.
6. Place the new u-cup into rear retainer with the open side out.

NOTE

- ▶ Seat the u-cup into the rear retainer very carefully with the eraser end of a pencil or a wood or plastic dowel rod.

7. Place new o-ring onto rear retainer.
8. Place rear retainer over shaft with the open end toward the rear.
9. Place the spacer over shaft, flanged end first.
10. Place the six (6) (Belville) spring washers onto shaft with the first, third, and fifth ones with the cupped side facing the electrode (front of shaft), and the second, fourth and sixth ones with the cupped side facing the rear of shaft (see Figure 8).

 CAUTION
<p>► There MUST be six (6) spring washer (alternately faced) or the applicator will malfunction!</p>

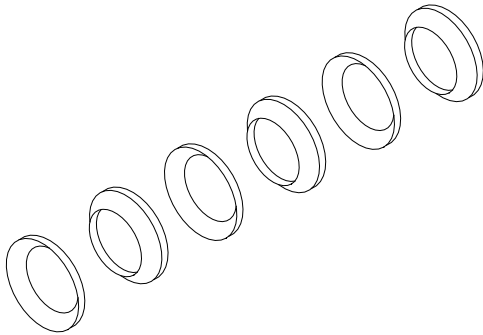



Figure 8: Spring Washer Assembly

11. Place packing nut onto shaft.
12. Place adjustment nut onto shaft.
13. Insert fluid nozzle into front of barrel and secure it firmly with the 19749-00 spanner (nozzle) wrench.

 CAUTION
<p>► DO NOT over-tighten. Over-tightening may result in stripped threads or cracked barrel.</p>

14. Insert the assembled items through the rear packing chamber of the barrel/cascade assembly.
15. Screw packing nut into rear of barrel and secure it with the 19749-00 Spanner Wrench.

NOTE
<p>► The packing nut should be tight enough that the needle shaft moves in and out with firm resistance.</p>

16. Place the extension valve rod onto shaft and align the nuts.
17. To adjust 3/8-inch hex nut and extension valve rod:
 - a. Push shaft fully forward until needle/ electrode seats in the fluid nozzle.
 - b. Screw nut clockwise until it runs out of thread on end of needle shaft.
 - c. Screw the valve extension rod until the faces of the nuts are seated against each other.


P-EXTENSION REMOVAL (REA 9000R)

1. Remove transformer connecting screw and remove plug from transformer.
2. Remove two (2) P-extension screws from bottom mounting plate. Pull P-extension away.
3. Remove two (2) nylon screws from body.
4. Gently pull P-extension from body locating the two (2) spacers.

P-EXTENSION REPLACEMENT (REA 9000R)

1. Locate two (2) spacers in the counter bores of the body.
2. Locate the two (2) spacers in counter bores of the P-extension.
3. Secure the two (2) nylon screws in the body.
4. Locate the P-extension into the bottom plate and fasten using two (2) screws.
5. Reinstall P-extension plug in transformer using screw.

AIR BUSHING / BODY DISASSEMBLY

 CAUTION
<p>► The piston housing is spring loaded. Use care in disassembly.</p>

(REA 9000R and 900A)

1. Remove piston housing from body.
2. Remove adjustment hex nut and air valve adjustment nut from extension rod.
3. Remove retaining ring from body and pull the

 CAUTION
<p>► Pull barrel STRAIGHT out from body or bending of extension valve rod may occur.</p>

barrel **STRAIGHT** out.

4. Using pliers, grab the piston nut and pull the piston o-ring, shaft valve piston, piston washer, packing cup, piston and hex nut **STRAIGHT** out of the body.
5. Using the 20049-00 special wrench, remove the bushing nut.
6. Remove the extension rod from the needle shaft or use an extra extension rod. Insert the hex end of the extension rod into a slot of the bushing and pull straight out.
7. Using a 3/8-inch nut driver, remove the valve seal retaining nut and o-ring.

AIR BUSHING / BODY ASSEMBLY (REA 9000R and 900A)

1. Insert a new o-ring into the valve seal retaining nut.
2. Using a 3/8" nut driver, tighten the valve seal retaining nut into the body.
3. Insert a new o-ring into the groove on the front of the bushing.
4. Place a new o-ring onto the o-ring groove on the outside of the bushing.
5. Insert the bushing into the rear of the body and firmly press into position.

NOTE
<p>► The bushing has a locator pin pressed into the front. This pin must align with the receptacle hole in the body (see Figure 9).</p>

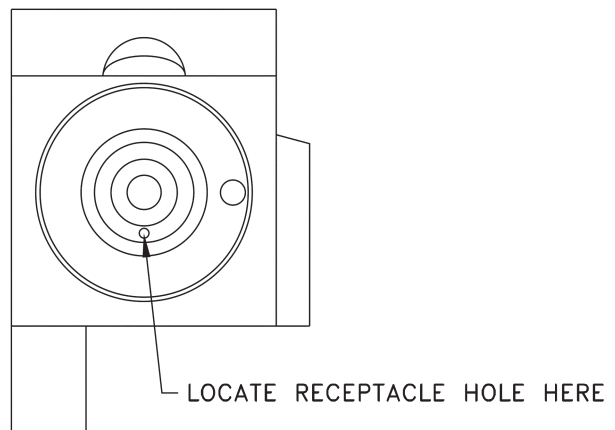


Figure 9: View of Rear Body

6. Insert the bushing nut into the rear of the body. Using the 20049-00 Spanner Wrench securely tighten the bushing nut into the body.
7. Pull the needle shaft back into an actuated position. Screw the trigger adjustment nut onto the needle shaft until there are no more threads.
8. Screw the extension rod on the needle shaft until the hex of the extension rod is flush against the hex of the trigger adjustment screw. (Using T-Shaped Gauge on 19749-00, adjust to the 11/16-inch maximum dimension shown in Figure 10.)
9. Using two (2) 3/8" wrenches, tighten the two (2) hexes against each other to prevent movement of the parts.
10. Lubricate the piston assembly with LSCH0009-00 dielectric grease.
11. Insert the piston assembly into the rear of the body, through the bushing nut.
12. Slide the gasket onto the barrel assembly.
13. Place the barrel assembly onto the front of the body. Making sure that the extension rod slides STRAIGHT through the body.
14. Tighten the retaining ring to the body using the 19749-00 Spanner Wrench.

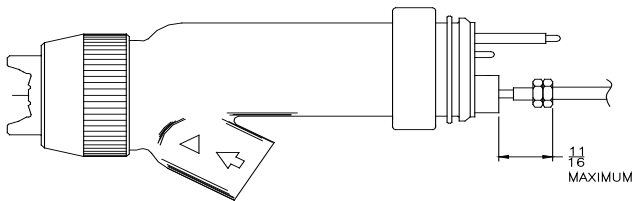


Figure 10: Rod and Trigger Adjustment Nuts
(Do not exceed the 11/16 maximum dimension shown in this figure)

17. Push the extension rod fully forward to seat the electrode into the fluid nozzle.
18. Screw onto the extension rod jam nut and the air valve adjusting nut.
19. Position the jam nut 1/16-inch from the end of the piston assembly.
20. Tighten the nuts against each other to prevent movement (see Figure 11).
21. If the extension rod rotates while you are tightening the nuts, hold it using an adjustable wrench on the flats.

NOTE

- ▶ The hex nut and air valve adjust nut control your air before fluid adjustment.

22. Install the two (2) springs.
23. Install the rear piston housing.

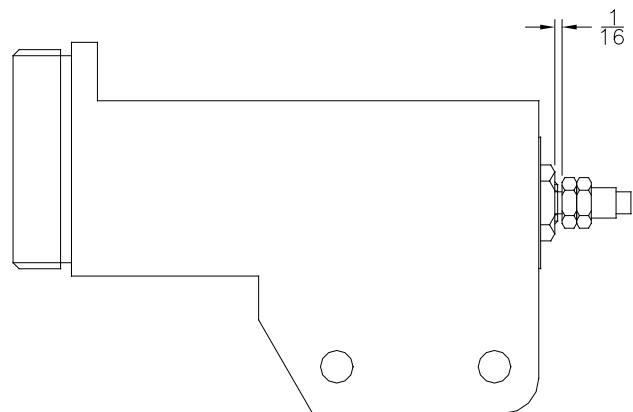



Figure 11: Air Before Fluid Adaptor
(Piston Housing not shown for clarity)

TRANSFORMER ASSEMBLY REPLACEMENT (REA 9000R AND 900A)

	WARNING
<p>► Turn OFF all power, air, and fluid at the source.</p>	

	CAUTION
<p>► The low voltage cable MUST be removed before removing the transformer assembly.</p>	

1. Remove the low voltage cable connector from the transformer by removing the screw and pull **STRAIGHT** out of the chamber.
2. Remove the barrel/cascade assembly. (See “Barrel Assembly Removal” in the “Maintenance” section.)
3. Remove the fiberglass screw.
4. Slide transformer backward and upward out of body channel.

NOTE
<p>► Generously lubricate transformer assembly base and body channel with LSCH0009-00 dielectric grease.</p>

5. Slide replacement transformer into channel of automatic body.
6. Place gasket in position.
7. Replace the barrel/cascade assembly. (See “Barrel Assembly Removal in the “Maintenance” section.)

8. Install low voltage cable connector by matching the hole on the connector and the transformer, and pushing the connector **straight** into the chamber.
9. Secure in place with screw.

LOW VOLTAGE CABLE REPLACEMENT (REA 9000R)

1. Remove applicator from robot.
2. Remove rear mounting plate from robot.
3. Using a wrench on connector flats, disconnect low voltage cable from connector assembly.
4. Replace cable in robot arm.
5. Connect new cable to connector assembly using a wrench on the connector flats to tighten.

	CAUTION
<p>► DO NOT overtighten low voltage cable connection to spray applicator, as damage to plastic parts may occur.</p>	

LOW VOLTAGE CABLE CONNECTOR ASSEMBLY (REA 9000R)

1. Remove applicator from robot.
2. Remove rear mounting plate from robot.
3. Using a wrench on connector flats, disconnect low voltage cable from connector assembly.
4. Remove screw from rear mounting plate.
5. Pull connector assembly out of mounting plate.

6. Install new connector assembly in rear mounting plate and secure with screw.
7. Reconnect low voltage cable to connector assembly using a wrench on connector flats to tighten.
8. Reinstall mounting plate and applicator to robot.

LOW VOLTAGE CABLE PLUG ASSEMBLY (REA 9000R)

1. Remove applicator from robot.
2. Thread screws into threaded hole in plug assembly.
3. Pull on screw to remove plug assembly from P-extension.
4. Insert female end of new plug assembly into P-extensions. Push plug assembly in until completely seated.

NOTE

- It does not matter which receptacle of the plug assembly is connected to which pin of the P-extension.

5. Reinstall applicator to robot.

NOTES

PARTS IDENTIFICATION

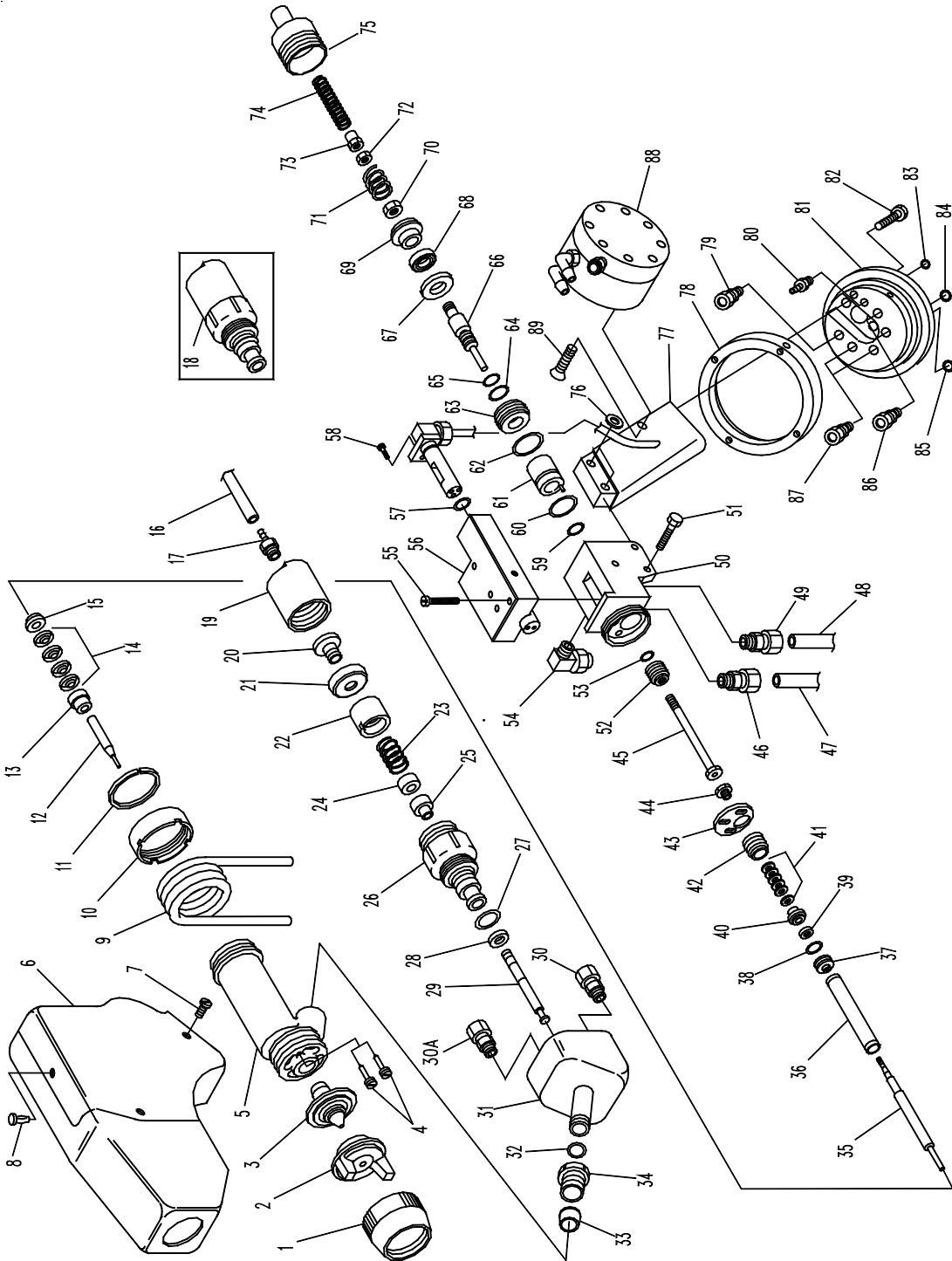


Figure 12: REA 9000R Solventborne Assembly

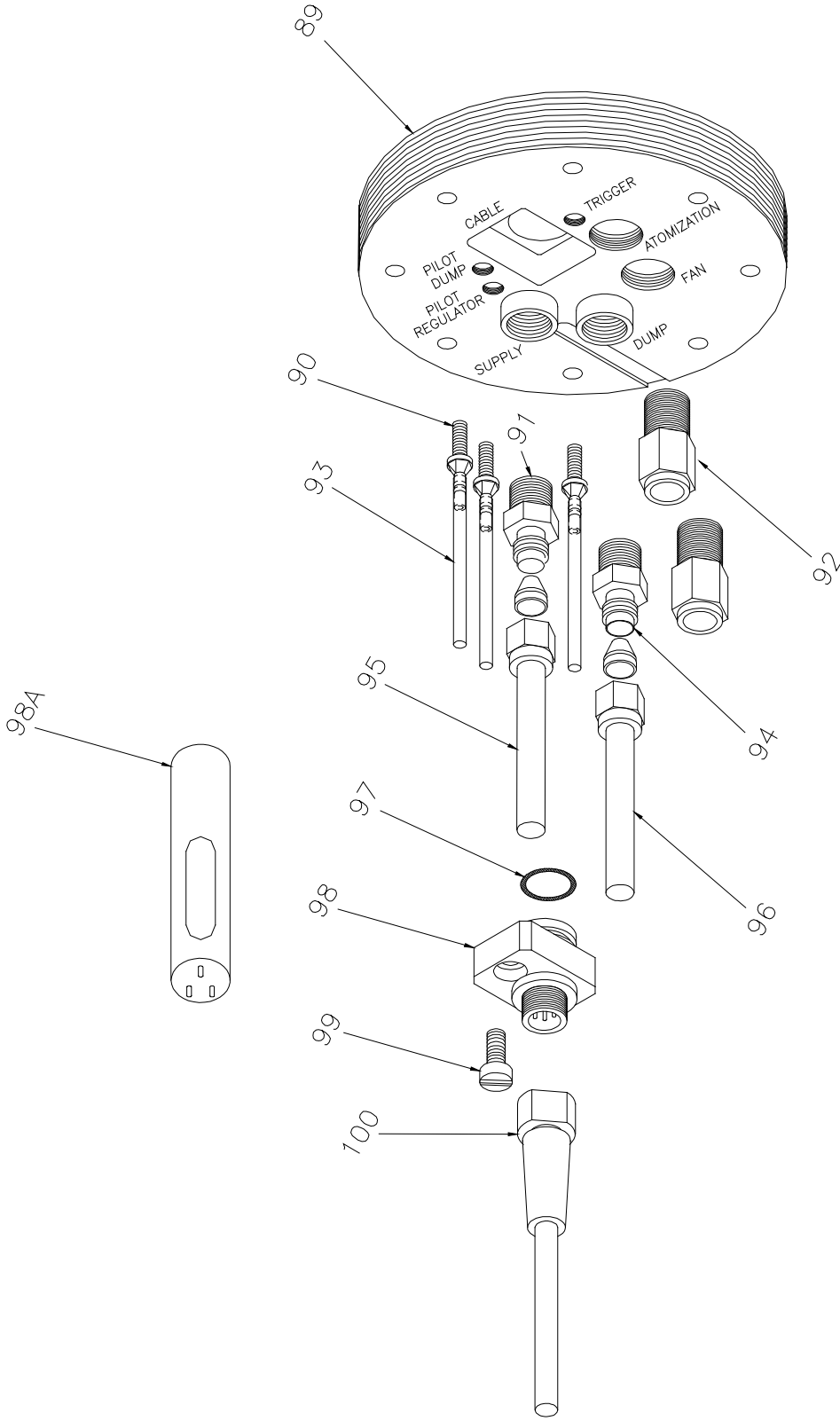


Figure 13: REA 9000R Rear Mounting Plate Assembly

**REA 9000R SOLVENTBORNE - PARTS LIST (Model No. 76110)
(Figures 12 and 13)**

Item #	Description	Part #
REA 9000 Robot:	Complete Assembly (Air Spray)	76110S-XXXX1
REA 9000 Robot:	Complete Assembly (HVLP)	76110L-XXXX1
1	Retaining Ring	73569-00
2	Air Cap:	
	Flat Pattern (Air Spray) (Standard)	4904-65R
	Flat Pattern (HVLP) (Standard)	75601-00
3	Fluid Nozzle:	
	Flat Pattern (Air Spray) (Standard)	4907-45
	Flat Pattern (HVLP) (Standard)	75600-01
4	Standard Pressure Reducer	74963-02
	HVLP Pressure Reducer	74963-03
5	Barrel Replacement Kit [Includes the Following:]	75038-06
	(1) Barrel	N/A
	(1) HVLP Pressure Reducer	74963-03
	(1) Standard Pressure Reducer	74963-02
	(1) Male Chevron Adapter	74653-00
	(4) Chevron Seals	14323-00
	(1) Packing Tube	18842-01
	(1) Dielectric Grease	LSCH0009-00
	(1) Spray Technology Instruction Sheet	75739-00
(1) Delta Series Instruction Sheet	74956-00	
6	Shroud:	
	60°	76363-00
	90°	76396-00
7	Screw, #8 - 32" x .5" (2 Required)	8350-16C
8	Retaining Pins (5 Required)	76650-01
9	Coiled Fluid Tube	LREA0023-00
10	Barrel Retaining Ring	LREA0021-00
11	Barrel Snap Ring	75326-00
12	Electrode	70430-00
13	Male Chevron Adapter	74653-00
14	Chevron Seal (4 Required)	14323-00
15	Female Chevron Adapter, Conductive	18821-00
16	Tubing, 1/8" ID x 3/16" OD	75949-01
17	Fitting, 1/8" T x 1/8" NPT Barb	75951-02
18	Valve Assembly [Includes Items 19 - 29:]	76917-00
19	Valve Cap	76925-00
20	Clamping Nut	76926-00
21	Piston Cup	VA-246
22	Piston Nut	76919-00
23	Valve Spring	76928-00
24	Spring Washer	76927-00
25	Needle Seal	76920-00
26	Valve Body	76918-00
27	O-Ring, .426" ID x .070" CS, Solvent Proof	SSG-8136
28	Needle Seat	75960-00
29	Valve Needle	76921-00
30A	Fitting, 5/16" T x 5/16" AN	LSFI0022-05

**REA 9000R SOLVENTBORNE - PARTS LIST (Model No. 76110) (Cont.)
(Figures 12 and 13)**

Item #	Description	Part #
30	Fitting, 1/4" T x 1/4" AN	LSFI0022-04
31	Manifold	76922-02
32	O-Ring, .364" ID x .070" CS, Solvent Proof	SSG-8137
33	Ferrule	18844-00
34	Nut	18843-00
35	Needle Shaft Assembly	18865-04
36	Packing Tube	18842-01
37	Rear Retainer	18836-00
38	O-Ring .301" ID x .070" CS, Solvent Resistent	7554-08
39	U-Cup Seal	10051-05
40	Spacer	18837-00
41	Spring Washer (6 Required)	17390-04
42	Packing Nut	18838-00
43	Gasket	72360-00
44	Nut	18859-00
45	Valve Rod Extension	76215-00
46	Fitting, 3/8" T x 1/4" NPT	LSF10025-21
47	Tubing, 3/8" OD	H-2338
48	Tubing, 3/16" OD	SSP-5014
49	Fitting, 3/16" T x 1/8" NPT	LSF10025-09
50	Body	76231-00
51	Screw, 5/16-18 x 1.50" LG (2 Required)	76198-48C
52	Retaining Nut	20053-00
53	O-Ring, .239" ID x .070" CS, Solvent Proof	13076-10
54	Elbow, 3/8" T x 1/4" NPT	14157-03
55	Screw, #10	LSFA0027-00
56	Transformer	LREA4004-00
57	O-Ring, .551" ID x .070" CS, Solvent Resistent	7554-12
58	Screws, M5	73490-01
59	O-Ring .426" ID x .070" CS, Solvent Proof	13076-13
60	O-Ring, .614" ID x .070" CS, Solvent Resistent	7554-42
61	Bushing	76216-00
62	O-Ring, .801" ID x .070 CS, Solvent Resistent	7554-33
63	Bushing Retainer	76200-00
64	O-Ring, .487" ID x .103" CS, Solvent Resistent	7554-28
65	O-Ring, .299" ID x .103" CS, Solvent Resistent	7554-111
66	Piston Shaft	76220-00
67	Piston Washer	20057-00
68	Piston Cup	7723-06
69	Piston	20056-00
70	Nut	7733-44
71	Spring	9334-00
72	Nut	7733-07
73	Air Valve Adjustment Nut	76199-00
74	Spring	17615-00
75	Piston Housing	76217-00
76	Spacer (2 Required)	76219-00

**REA 9000R SOLVENTBORNE - PARTS LIST
(Model No. 76110) (Cont.) (Figures 12 and 13)**

Item #	Description	Part #
77	P-Extension:	
	60°	76232-01
	90°	76232-02
78	Retaining Ring	76224-00
79	Fitting, 3/16" T x 1/8" NPT	LSF10025-09
80	Fitting, 1/8" T x 1/8" NPT (2 Required)	75951-02
81	Rear Plate	76229-00
82	Screw, 5/16"	LSFA0028-01
83	O-Ring, .208" ID x .070" CS, Solvent Proof (3 Required)	SSG-8163
84	O-Ring, .426" ID x .070" CS, Solvent Proof (2 Required)	SSG-8134
85	O-Ring, .301" ID x .070" CS, Solvent Proof (2 Required)	SSG-8134
86	Fitting (2 Required) (All Parts are Required to Make a Complete Fitting)	(1) EMF-201
		(1) EMF-202
		(1) EMF-203
		(1) 76223-00
		(1) SSG-8162
87	Fitting, 3/8" T x 1/4" NPT (2 Required)	LSF10025-21
	Rear Mounting Plate Assembly (Includes Items 89-100:)	
	36 Ft. of Cable and Hoses, Polyethylene Tube	76222-36
	50 Ft. of Cable and Hoses, Polyethylene Tube	76222-50
	75 Ft. of Cable and Hoses, Polyethylene Tube	76222-75
	100 Ft. of Cable and Hoses, Polyethylene Tube	76222-100
	36 Ft. of Cable and Hoses, Tube	76222-36A
	50 Ft. of Cable and Hoses, Tube	76222-50A
	75 Ft. of Cable and Hoses, Tube	76222-75A
100 Ft. of Cable and Hoses, Tube	76222-100A	
88	DR1 Regulator	76607-02
89	Rear Plate	76197-00
90	Barbed Fitting (3 Required)	EMF-82-1
91	Fitting, 1/4" T x 1/4" AN	LSF10033-03
92	Fitting, 3/8" T x 1/4" NPT (2 Required)	77947-00
93	Tubing, 3/16" OD	SSP-5014
94	Fitting, 5/16" T x 5/16" AN	LSF10033-02
95	Tubing, 1/4" OD	SSP-5012
96	Tubing, 5/16" OD	SSP-5011
97	O-Ring, 551" ID x .070" CS, Solvent Resistent	7554-12
98	Plut Connector (Includes Items 97 & 99) Low Voltage Plug	76873-01
98A	Extension Assembly Screw, M5	76871-00
99	Screw, M5	73490-01
100	Low Voltage Cable Assembly:	
	Cable (36 Ft.)	78084-36
	Cable (50 Ft.)	78084-50
	Cable (75 Ft.)	78084-75
	Cable (100 Ft.)	78084-100
	O-Ring Kit for Rear Plate	76527-00
	Dielectric Grease (1 oz.)	LSCH0009-00
	Dielectric Grease (4 oz.)	59972-00
	Special Multi-Purpose Wrench	19749-00
Spanner Wrench	20049-00	

REA 9000R Spare Parts In Kit Form (Model No. 76110)

Item #	Description	Part #
Rebuild Kits:	For Dump Valve Only (76917-00) (Includes the Following:)	76931-00
	(1) Needle Seat	75960-00
	(1) Valve Needle	76921-00
	(1) O-Ring, .426" ID x .070" CS, Solvent Resistent	7554-10
	(1) Needle Seal	76920-00
	(1) Valve Spring	76928-00
	(1) Piston Seal	VA-246
	Soft Parts for the Applicator (Includes the Following:)	76526-00
	(1) Male Chevron Adapter	74653-00
	(4) Chevron Seal	14323-00
	(1) Female Chevron Adapter	18821-00
	(1) O-Ring, .301" ID x .070" CS, Solvent Resistent	7554-08
	(1) U-Cup	10051-05
	(1) O-Ring, .364" ID x .070" CS, Solvent Resistent	7554-09
	(1) Gasket, Barrel	72360-00
	(1) O-Ring, .239" ID x .070" CS, Solvent Proof	13076-10
	(1) O-Ring, .426" ID x .070" CS, Solvent Proof	13076-13
	(1) .614" ID x .070" CS, Solvent Resistent	7554-42
	(1) O-Ring, .299" ID x .103" CS, Solvent Resistent	7554-111
	(1) Packing, Cup	7723-06
	(1) Dielectric Grease (1 oz.)	LSCH0009-00
	(1) O-Ring, .801" ID x .070" CS, Solvent Resistent	7554-33
	For DR1 Regulator (Includes the Following:)	73913-00
	(1) Diaphragm	74157-03
	(1) Diaphragm	74157-04
	(1) Diaphragm	74273-00
	(3) O-Ring, .489" ID x .070" CS, Solvent Resistent	7554-11
	For DR1 Regulator (Needle and Seat)	74160-00
	Needle Shaft Assembly (Completely Assembled Needle Shaft, Less Grease)	75732-01
	(1) Electrode	70130-00
	(1) Needle Shaft	18865-04
	(1) Male Chevron Adapter	74653-00
	(4) Chevron Seals	14323-00
	(1) Female Chevron Adapter	18821-00
	(1) Packing Tube	18842-00
	(1) Retainer	18836-00
	(1) O-Ring, .301" ID x .070" CS, Solvent Resistent	7554-08
	(1) Spacer	18837-00
	(1) Packing Nut	18838-00
	(2) Nut	18859-00
	(1) U-Cup Seal	10051-05
	(6) Belleville Washer	17390-04

REA 9000R Recommended Spare Parts (Model No. 76110)						
Description	Part #	No. of Applicators				Notes
		1-2	3-4	5-6	7-8	
Rebuild Kit (Applicator Only)	76526-00	1	2	3	4	
Rebuild Kit (Cartridge Valve Only)	76931-00	1	2	3	4	
Regulator Rebuild Kit	73913-00	1	1	2	2	Only if DR1 Fluid Regulator is used.
O-Ring Mounting Plate Kit	76527-00	1	2	3	4	
O-Ring	SSG-8163	3	6	9	12	
O-Ring	SSG-8134	2	4	6	8	
O-Ring	SSG-8162	2	4	6	8	
O-Ring	SSG-8136	2	4	6	8	
Electrode	70430-00	2	2	4	4	
Needle Shaft	18865-04	1	1	2	2	
Packing Tube	18842-01	1	1	2	2	
Cartridge Valve	76917-00	1	1	2	2	
Transformer	LREA4004-00	1	1	1	1	
Barrel Assembly	75038-06	1	1	2	2	
Cable Assembly	76876-XX	1	1	2	2	XX must be replaced with desired length of 36', 50', 75', or 100'.
Screw	73490-00	1	2	2	3	
Wrench	19749-00	2	2	4	4	
Fluid Nozzle	4907-XX	2	2	4	4	Replace XX with 44, 45, 46, 47, or 48.
Air Cap	4904-XX	2	2	4	4	Replace XX with 63, 98, or 65R.
Cap Retaining Ring	73569-00	1	1	2	2	
High Voltage Test Probe Kit	76652-01	1	1	1	1	For Troubleshooting Complete Assembly.

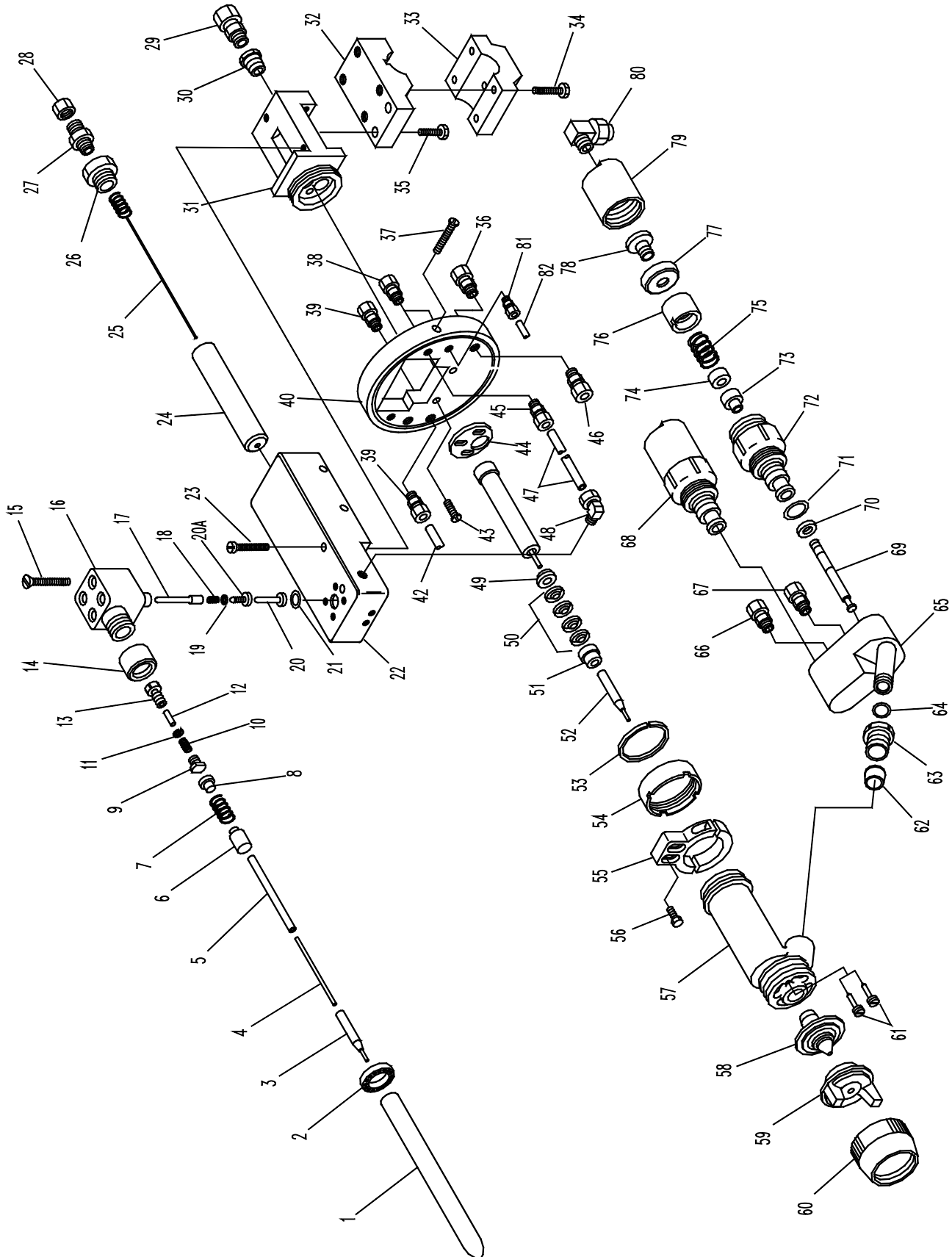


Figure 14: REA 900W Waterborne Assembly

REA 9000W WATERBORNE - PARTS LIST (Model No. 77140) (Figure 14)		
Item #	Description	Part #
REA 9000W	Complete Assembly	77140-01
	High Voltage Probe Assembly (includes items 1-13:)	77156-03
1	High Voltage Probe Body	77157-03
2	Air Knife	77172-00
3	Electrode	LREA4001-01
4	High Voltage Probe Needle Shaft	77167-03
5	Tubing, 1/4" OD x 3/16" ID, 4.25", Poly	9704-02
6	Coupling	77175-00
7	Compression Spring	75840-00
8	Contact Plug	A10123-00
9	Retaining Plug	75836-01
10	Compression Spring	75831-03
11	Retaining Ring, External	75832-05
12	Contact Pin	75833-02
13	Retaining Cap	75835-00
14	Retaining Nut	75847-01
15	Screw, 1/4-20 x 2" (4 Required)	9141-64C
	High Voltage Probe Holder Assembly (includes items 16-21:)	77177-00
16	Probe Holder Body	77158-00
17	Contact Rod	75830-02
18	Compression Spring	75831-03
19	Retaining Ring	75832-05
20	Contact Plunger	77163-00
20A	Retaining Cap	75884-00
21	O-Ring, .551" ID x .070" CS, Solvent Resistent	LSOR0007-05
	High Voltage Module Assembly (includes items 22, 24-28)	77301-01
22	Module Shell	77155-01
23	Screw, #10-32 x 2.0"	77302-65F
24	Cable Adapter	77168-01
25	Contact Assembly	77173-00
26	Nut	77170-01
27	Connector Body	18687-00
28	Tube Fitting Nut, 3/8" T	3587-03
29	Fitting, 3/8" T x 1/4" NPT (2 Required)	LSFI0025-21
30	Bushing, 3/8" NPT x 1/4" NPT (2 Required)	LSFI0069-00
31	Applicator Body	LREA0015-00
32	Mounting Bracket, Upper	LREA0019-00
33	Mounting Bracket, Lower	LREA0018-00
34	Screw, 5/16-18 x 1.50" (5 Required)	LSFA0028-01
35	Screw, 5/16-18 x 1" (2 Required)	LSFA0028-02
36	Fitting, 1/4" T x 1/4" AN	LSFI0022-04
37	Screw, 1/4-20 x 1.5" (2 Required)	LSFA0004-48C
38	Fitting, 1/4" T x 1/8" AN (4 Required)	LSFI0025-12
39	Fitting, 3/8" T x 1/4" AN (2 Required)	LSFI0022-06

REA 9000W WATERBORNE - PARTS LIST (Model No. 77140) (Cont.) (Figure 14)		
Item #	Description	Part #
40	Rear Bulkhead	77171-00
42	Tubing, 3/8" OD x 1/4" ID, FEP (12" Required)	SSP-5020
43	Screw, 8-32 x .5" (2 Required)	LSFA0026-00
44	Gasket	18872-00
45	Fitting, 1/4" T x 1/8" NPT	LSFI0025-12
46	Fitting, 1/4" AN x 1/4" OD	LSFI0022-04
47	Tubing, 1/4" OD	9704-02
48	Elbow, 1/4" T x 1/8" NPT	14057-04
49	Female Chevron Adapter	18821-00
50	Chevron Seal (4 Required)	14323-00
51	Fluid Spacer	76797-00
52	Electrode	70430-00
53	Retaining Ring	75325-00
54	Barrel Nut	LREA0021-00
55	High Voltage Module Bracket	77159-00
56	Screw, 10-32 x .5" (4 Required)	77302-16F
57	Barrel Replacement Kit (includes the following:)	75038-06
	(1) Barrel	N/A
	(1) HVLP Pressure Reducer	74963-03
	(1) Standard Pressure Reducer	74963-02
	(1) Male Chevron Adapter	74653-00
	(4) Chevron Seals	14323-00
	(1) Packing Tube	18842-01
	(1) Dielectric Grease (1 oz.)	LSCH0009-00
	(1) Spray Technology Instruction Sheet	75739-00
	(1) Delta Series Instruction Sheet	74956-00
58	Fluid Nozzle	4907-45
59	Air Cap	4904-65R
60	Air Cap Retaining Ring	73569-00
61	Pressure Reducer (Standard)	74963-02
62	Ferrule	18844-00
63	Nut	18843-00
64	O-Ring, .364" I D x .070" CS, Solvent Proof	SSG-8137
65	Trigger/Dump Manifold	76929-00
66	Fitting, 1/4" T x 1/4" AN	LSFI0022-04
67	Fitting, 3/8" T x 1/4" AN	LSFI0022-06
68	Valve Assembly (includes items 69-79:)	76917-00
69	Valve Needle	76921-00
70	Needle Seat	75960-00
71	O-Ring, .426" ID x .070" CS, Solvent Proof	SSG-8136
72	Valve Body	76918-00
73	Needle Seal	76920-00
74	Spring Washer	76927-00
75	Valve Spring	76928-00
76	Piston Nut	76919-00
77	Piston Cup	VA-246

REA 9000W WATERBORNE PARTS LIST (Model No. 77140) (Cont.)		
Item #	Description	Part #
78	Clamping Nut	76926-00
79	Valve Cap	76925-00
80	Elbow, 1/8 NPT x 3/16 T	14157-08
81	Fitting, 1/8 NPT x 3/16 T (2 Required)	LSFI0025-09
82	Tubing, 3/16 O.D. (20" Required)	SSP-5014
	Dielectric Grease (1 oz.)	LSCH0009-00
	Dielectric Grease (4 oz.)	59972-00
	Special Multi-Purpose Wrench	19749-00
	Applicator Cover	77342-00

REA 9000W SPARE PARTS IN KIT FORM (Model No. 77140)		
Item #	Description	Part #
	Rebuild Kit for Trigger and Dump Valves Kit includes:	76931-00
	(1) Piston Cup	VA-246
	(1) Needle Seal	76920-00
	(1) O-Ring	7554-10
	(1) Valve Spring	76928-00
	(1) Needle Seat	75960-00
	(1) Valve Spring	76928-00
	(1) Needle	76921-00
	(1) Instruction Sheet	76924-00
	(1) O-Ring	SSG-8136

RECOMMENDED SPARE PARTS FOR REA 9000W (Model No. 77140)						
Description	Part #	No. of Applicators				Notes
		1-2	3-4	5-6	7-8	
Rebuild Kit (Cartridge Valve Only)	76931-00	1	2	3	4	
High Voltage Probe Assy.	75156-03	1	1	2	2	
Electrode	LREA4001-01	1	2	3	4	Trim at assembly
Probe Holder O-Ring	LSOR0007-05	2	2	4	4	
Fluid Manifold O-Ring	SSG-8137	2	2	4	4	
Needle Shaft	LREA4005-00	1	1	2	2	
Fluid Cartridge Valve	76917-00	1	1	2	2	
Cartridge Valve O-Ring	SSG-8136	2	2	4	4	
High Voltage Module	77301-01	1	1	1	1	
Applicator Barrel Kit	75038-01	1	1	2	2	
High Voltage Cable	SSW-1064	Order Per Foot				
Fluid Nozzle	4907-XX	2	2	4	4	Replace XX with 44, 45, 46, 47 or 48
Air Cap	4904-XX	2	2	4	4	Replace XX with 63, 98, or 65R
Air Cap Retaining Ring	73569-00	1	1	2	2	
Disposable Applicator Covers	77342-00	1	1	2	2	Package of 5
Multi Tool Applicator Wrench	19749-00	2	2	4	4	
High Voltage Test Probe Kit	76652-01	1	1	1	1	For Troubleshooting complete assembly.

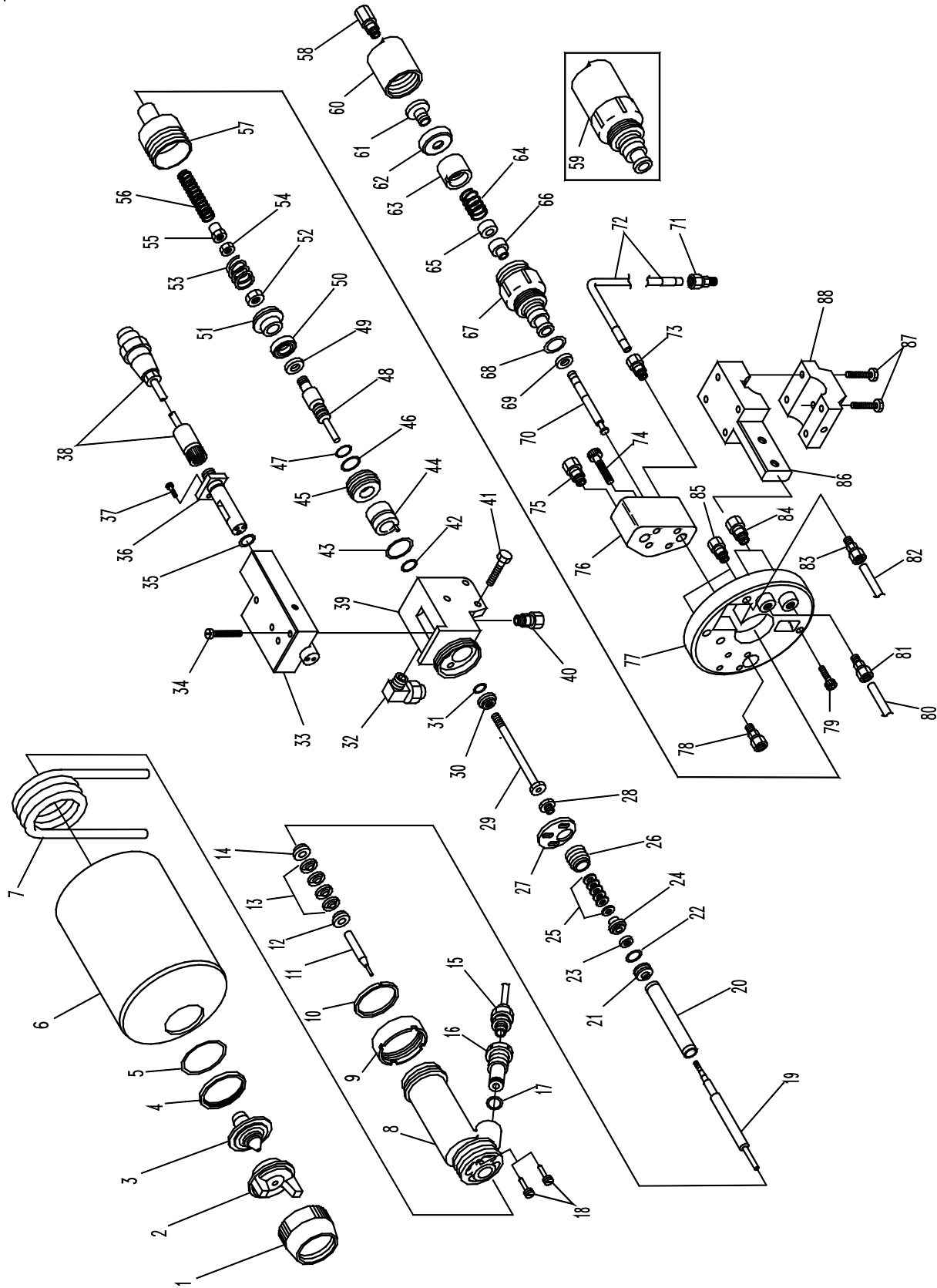


Figure 15: REA 900A Solventborne Assembly

REA 900A SOLVENTBORNE - PARTS LIST (Model No. 77359) (Figure 15)		
Item #	Description	Part #
REA 900A Automatic	(Air Spray):	
	Assembly, Complete without Dump Valve	77359S-BB111
	Assembly, Complete with Dump Valve	77359S-BB221
REA 900A Automatic	(HVL P):	
	Assembly, Complete without Dump Valve	77359L-BB111
	Assembly, Complete with Dump Valve	7359L-BB221
1	Air Nozzle Retaining Ring	76936-00
2	Air Cap:	
	Flat Pattern (Air Spray) (Standard)	4904-65R
3	Fluid Nozzle:	
	Flat Pattern (HVL P) (Standard)	75601-00
3	Flat Pattern (Air Spray) (Standard)	4907-45
	Flat Pattern (HVL P) (Standard)	75600-01
4	Seal Nut	76935-00
5	O-Ring, 1.612" ID x .103" CS, Solvent Resistent	7554-85
6	Shroud	77554-00
7	Coiled Fluid Tube (route on right side)	LREA0023-00
8	Barrel Replacement Kit (includes the following:)	75038-06
	(1) Barrel	N/A
	(1) HVL P Pressure Reducer	74963-03
	(1) Standard Pressure Reducer	74963-02
	(1) Male Chevron Adapter	74653-00
	(4) Chevron Seals	14324-00
	(1) Packing Tube	18842-01
	(1) Dielectric Grease (1 oz.)	LSCH0009-00
	(1) Spray Technology Instruction Sheet	75739-00
	(1) Delta Series Instruction Sheet	74956-00
9	Barrel Nut	LREA0021-00
10	Retaining Ring	75326-00
11	Needle Electrode	70430-00
12	Male Chevron Adapter	74653-00
13	Chevron Seal (4 Required)	14323-00
14	Female Chevron Adapter	18821-00
15	Fitting, 1/4 T x 1/4 AN	LSF1022-04
16	Adapter Fitting	77556-00
17	O-Ring, .364" ID x .070" CS, Solvent Proof	SSG-8137
18	Standard Pressure Reducer	74963-02
	HVL P Pressure Reducer	74963-03
19	Needle Assembly	18865-04
20	Packing Tube	18842-01
21	Rear Needle Retainer	18836-00
22	O-Ring, .301" ID x .070" CS, Solvent Resistent	7554-08
23	Spring Loaded U-Cup Seal	10051-05
24	Seal and Spring Spacer	18837-00

REA 900A SOLVENTBORNE - PARTS LIST (Model No. 77359) (Cont.) (Figure 15)		
Item #	Description	Part #
25	Spring Washer (6 Required)	17390-04
26	Packing Nut	18838-00
27	Barrel Gasket	72360-00
28	Trigger Adjust Lock Nut	8859-00
29	Valve Rod Extension	76215-00
30	Valve Seal Retaining Nut	20053-00
31	O-Ring, .239" ID x .070" CS, Solvent Proof	13076-10
32	Elbow, 1/4" NPT x 3/8" T (2 Required)	14157-03
33	Transformer Assembly	LREA4004-01
34	Screw, #10-32 x 1.5"	LSFA0027-00
35	O-Ring, .551" ID x .070" CS, Solvent Resistent	7554-12
36	Low Voltage Cable Plug Assembly (Includes item 35)	74191-01
37	Screw, M5	73490-01
38	Low Voltage Cable Assembly:	
	Cable (36 ft.)	78084-36
	Cable (50 ft.)	78084-50
	Cable (75 ft.)	78084-75
	Cable (100 ft.)	78084-100
39	Applicator Body Assembly	76231-00
40	Fitting, 3/16" T x 1/8" NPT	LSF10025-09
41	Screw, 5/16-18 x 1.50" LG (2 Required)	76198-48C
42	O-Ring, .426" ID x .070" CS, Solvent Proof	13076-13
43	O-Ring, .614" ID x .070" CS, Solvent Resistent	7554-42
44	Bushing Assembly	76216-00
45	Bushing Retainer	76200-00
46	O-Ring, .487" ID x .103" CS, Solvent Resistent	7554-28
47	O-Ring, .299" ID x .103" CS, Solvent Resistent	7554-111
48	Piston Shaft	76220-00
49	Piston Washer	20057-00
50	Packing Cup	7723-06
51	Piston	20056-00
52	Jam Nut 3/8-24	7733-44
53	Spring	9334-00
54	Hex Nut 10-32	7733-07
55	Air Valve Adjust Nut	76199-00
56	Spring	17615-00
57	Piston Housing	76217-00
58	Fitting, 1/8" NPT x 1/4" T	LSFI0025-12
59	Valve Assembly (Includes items 60-70:)	76917-00
60	Valve Cap	76925-00
61	Clamping Nut	76926-00
62	Piston Cup	VA-246
63	Piston Nut	76919-00
64	Valve Spring	76928-00

REA 900A SOLVENTBORNE - PARTS LIST (Model No. 77359) (Cont.) (Figure 15)		
Item #	Description	Part #
65	Spring Washer	76927-00
66	Needle Seal	76920-00
67	Valve Body	76918-00
68	O-Ring, .426" ID x .070" CS, Solvent Proof	SSG-8136
69	Needle Seat	75960-00
70	Valve Needle	76921-00
71	SS Male Connector, 3/8" Tube x 1/4" NPT	41-FTC-1002
72	Tubing, 3/8" OD x 1/4" ID (6ft. Required), FEP	SSP-5020
	Label, Grounded Fluid Supply (2 Required)	77557-00
73	Fitting, 1/4" AN x 3/8" T	LSFI0022-06
74	Screw for use with:	
	Assembly Without Dump Valve (2 Required)	LSFA0004-40C
	Assembly With Dump Manifold (4 Required)	LSFA0004-64C
75	Fitting, 1/4" AN x 3/8" T	LSFI0022-06
76	Manifold Assembly Without Dump Valve	77550-01
	Manifold Assembly with Dump Manifold	77550-02
	Manifold Assembly with Dump Manifold	77550-03
77	Rear Bulkhead Plate	77553-00
78	Fitting, 1/4" AN x 1/4" T	LSFI0022-04
79	Screw, 3/8-16 x .75" LG	LSFA0021-24C
80	Tubing, 3/8" OD x 1/4" ID (7.25" Required)	H-2338
81	Tube Fitting, 1/4" NPT x 3/8" OD (2 Required)	LSFI0025-21
82	Tubing, 3/16" OD x .025" Wall (10.5" Required)	SSP-5014
83	Tube Fitting, 1/8" NPT x 3/16" OD	LSFI0025-09
84	Tube Fitting, 1/4" NPT x 1/2" OD (2 Required)	LSFI0025-26
85	Tube Fitting, 1/8" NPT x 1/4" OD (2 Required)	LSFI0025-12
86	Applicator Bar Bracket (Upper)	77161-02
87	Screw, 5/16-18 x 1.50" LG (5 Required)	LSFA0028-01
88	Applicator Bar Bracket (Lower)	LREA0018-00
	Dielectric Grease (1 oz.)	LSCH0009-00
	Dielectric Grease (4 oz.)	59972-00
	Special Multi-Purpose Wrench	19749-00
	Spanner Wrench	20049-00
	Nut Tool	77558-00

REA 900A SPARE PARTS IN KIT FORM (Model No. 77359)		
Item #	Description	Part #
	Rebuild Kit for Trigger and Dump Valves (Includes the following:)	76931-00
	(1) Piston Cup	VA-246
	(1) Needle Seal	76920-00
	(1) O-Ring	7554-10
	(1) Needle Seat	75960-00
	(1) Valve Spring	76928-00
	(1) Needle	76921-00
	(1) Instruction Sheet	76924-00
	(1) O-Ring	SSG-8136
	Soft Parts for the Applicator (Includes the following:)	76526-00
	(1) Male Chevron Adapter	74653-00
	(4) Chevron Seal	14323-00
	(1) Female Chevron Adapter	18821-00
	(1) O-Ring	7554-08
	(1) U-Cup	10051-05
	(1) O-Ring	7554-09
	(1) Gasket, Barrel	72360-00
	(1) O-Ring	13076-10
	(1) O-Ring	13076-13
	(1) O-Ring	7554-42
	(1) O-Ring	7554-111
	(1) Packing, Cup	7723-06
	(1) Dielectric Grease (1 oz.)	LSCH0009-00
	(1) O-Ring	7554-33
	Needle Shaft Assembly (Completely Assembled Needle Shaft, Less Grease)	75732-01
	(1) Electrode	70130-00
	(1) Needle Shaft	18865-04
	(1) Male Chevron Adapter	74653-00
	(4) Chevron Seals	14323-00
	(1) Female Chevron Adapter	18821-00
	(1) Packing Tube	18842-00
	(1) Retainer	18836-00
	(1) O-Ring	7554-08
	(1) Spacer	18837-00
	(1) Packing Nut	18838-00
	(2) Nut	18859-00
	(1) U-Cup Seal	10051-05
	(6) Belville Washer	17390-04

RECOMMENDED SPARE PARTS FOR REA 900A (Model No. 77359)						
Description	Part #	No. of Applicators				Notes
		1-2	3-4	5-6	7-8	
Rebuild Kit (Applicator Only)	75778-00	1	2	3	4	
Rebuild Kit (Cartridge Valve Only)	76931-00	1	2	3	4	
Electrode	70430-00	2	2	4	4	
Needle Shaft	18865-04	1	1	2	2	
Packing Tube	18842-01	1	1	2	2	
Cartridge Valve	76917-00	1	1	2	2	
Transformer	LREA4004-00	1	1	1	1	
Barrel Replacement Kit	75038-06	1	1	2	2	
Cable Assembly	76876-XX	1	1	2	2	XX must be replaced with desired length of 36, 50 or 75.
Screw	73490-01	1	2	2	3	
Wrench	19749-00	2	2	4	4	
Fluid Nozzle	4907-XX	2	2	4	4	Replace XX with 44, 45, 46, 47, or 48.
Air Cap	4904-XX	2	2	4	4	Replace XX with 63, 98 or 65R.
Cap Retaining Ring	73569-00	1	1	2	2	
High Voltage Test Probe Kit	76652-01	1	1	1	1	For Troubleshooting Complete Assembly.
Nozzle Nut Tool	77558-00	2	2	4	4	

MISCELLANEOUS KITS FOR REA 9000R, REA 9000W AND REA 900A			
Part #	Description	Part #	Description
74035-10	Air Cap Test Kit for #63 Air Cap Includes the following items:	76816-05	Atomization Kit Includes the following items:
EMF-126	(2) Gages	4904-63	(1) Air Cap
EMF-127	(1) Bracket	4907-45	(1) Fluid Nozzle
7113-09	(16") Tubing 1/8" OD	70430-00	(1) Electrode
SSP-8201	(2) Fittings	76816-06	Atomization Kit Includes the following items:
74061-10	(1) #63 Air Cap Modified	4904-63	(1) Air Cap
73569-00	(1) Retaining Ring	4907-46	(1) Fluid Nozzle
74035-11	Air Cap Test Kit for #65R Air Cap Includes the following items:	70430-00	(1) Electrode
EMF-126	(2) Gages	76816-07	Atomization Kit Includes the following items:
EMF-127	(1) Bracket	4904-98	(1) Air Cap
7113-09	(16") Tubing 1/8" OD	4907-44	(1) Fluid Nozzle
SSP-8201	(2) Fittings	70430-00	(1) Electrode
74061-12	(1) #65R Air Cap Modified	76816-08	Atomization Kit Includes the following items:
73569-00	(1) Retaining Ring	4904-98	(1) Air Cap
74035-12	Air Cap Test Kit for #98 Air Cap Includes the following items:	4907-45	(1) Fluid Nozzle
EMF-126	(2) Gages	70430-00	(1) Electrode
EMF-127	(1) Bracket	76816-09	Atomization Kit Includes the following items:
7113-09	(16") Tubing 1/8" OD	4904-98	(1) Air Cap
SSP-8201	(2) Fittings	4907-46	(1) Fluid Nozzle
74061-13	(1) #98 Air Cap Modified	70430-00	(1) Electrode
73569-00	(1) Retaining Ring	76816-01	Atomization Kit Includes the following items:
76816-01	Atomization Kit Includes the following items:	4904-65R	(1) Air Cap
4904-65R	(1) Air Cap	4907-44	(1) Fluid Nozzle
4907-44	(1) Fluid Nozzle	70430-00	(1) Electrode
70430-00	(1) Electrode	76816-02	Atomization Kit Includes the following items:
76816-02	Atomization Kit Includes the following items:	4904-65R	(1) Air Cap
4904-65R	(1) Air Cap	4907-45	(1) Fluid Nozzle
4907-45	(1) Fluid Nozzle	70430-00	(1) Electrode
70430-00	(1) Electrode	76816-03	Atomization Kit Includes the following items:
76816-03	Atomization Kit Includes the following items:	4904-65R	(1) Air Cap
4904-65R	(1) Air Cap	4907-46	(1) Fluid Nozzle
4907-46	(1) Fluid Nozzle	70430-00	(1) Electrode
70430-00	(1) Electrode	76816-04	Atomization Kit Includes the following items:
76816-04	Atomization Kit Includes the following items:	4904-63	(1) Air Cap
4904-63	(1) Air Cap	4907-44	(1) Fluid Nozzle
4907-44	(1) Fluid Nozzle	70430-00	(1) Electrode
70430-00	(1) Electrode		

Miscellaneous Kits for REA 9000R, REA 9000W and REA 900A			
Part #	Description	Part #	Description
73570-01	Conversion Kit Includes the following items:	73570-09	Conversion Kit Includes the following items:
4904-65R	(1) Air Cap	4904-98	(1) Air Cap
4907-44	(1) Fluid Nozzle	4907-47	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring
73570-02	Conversion Kit Includes the following items:	73570-10	Conversion Kit Includes the following items:
4904-65R	(1) Air Cap	4904-98	(1) Air Cap
4907-45	(1) Fluid Nozzle	4907-48	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring
73570-03	Conversion Kit Includes the following items:	73570-11	Conversion Kit Includes the following items:
4904-65R	(1) Air Cap	4904-63	(1) Air Cap
4907-46	(1) Fluid Nozzle	4907-44	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring
73570-04	Conversion Kit Includes the following items:	73570-12	Conversion Kit Includes the following items:
4904-65R	(1) Air Cap	4904-63	(1) Air Cap
4907-47	(1) Fluid Nozzle	4907-45	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring
73570-05	Conversion Kit Includes the following items:	73570-13	Conversion Kit Includes the following items:
4904-65R	(1) Air Cap	4904-63	(1) Air Cap
4907-48	(1) Fluid Nozzle	4907-46	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring
73570-06	Conversion Kit Includes the following items:	73570-14	Conversion Kit Includes the following items:
4904-98	(1) Air Cap	4904-63	(1) Air Cap
4907-44	(1) Fluid Nozzle	4907-47	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring
73570-07	Conversion Kit Includes the following items:	73570-15	Conversion Kit Includes the following items:
4904-98	(1) Air Cap	4904-63	(1) Air Cap
4907-45	(1) Fluid Nozzle	4907-48	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring
73570-08	Conversion Kit Includes the following items:	73571-00	Conversion Kit [HVLV] Includes the following items:
4904-98	(1) Air Cap	75601-00	(1) Air Cap
4907-46	(1) Fluid Nozzle	75600-01	(1) Fluid Nozzle
73569-00	(1) Retaining Ring	73569-00	(1) Retaining Ring

WARRANTY POLICIES

LIMITED WARRANTY

Ransburg will replace or repair without charge any part and/or equipment that falls within the specified time (see below) because of faulty workmanship or material, provided that the equipment has been used and maintained in accordance with Ransburg's written safety and operating instructions, and has been used under normal operating conditions. Normal wear items are excluded.

THE USE OF OTHER THAN RANSBURG APPROVED PARTS, VOID ALL WARRANTIES.

SPARE PARTS: One hundred and eighty (180) days from date of purchase, except for rebuilt parts (any part number ending in "R") for which the warranty period is ninety (90) days.

EQUIPMENT: When purchased as a complete unit, (i.e., guns, power supplies, control units, etc.), is one (1) year from date of purchase. **WRAPPING THE APPLICATOR, ASSOCIATED VALVES AND TUBING, AND SUPPORTING HARDWARE IN PLASTIC, SHRINK-WRAP, OR ANY OTHER NON-APPROVED COVERING, WILL VOID THIS WARRANTY.**

RANSBURG'S ONLY OBLIGATION UNDER THIS WARRANTY IS TO REPLACE PARTS THAT HAVE FAILED BECAUSE OF FAULTY WORKMANSHIP OR MATERIALS. THERE ARE NO IMPLIED WARRANTIES NOR WARRANTIES OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. RANSBURG ASSUMES NO LIABILITY FOR INJURY, DAMAGE TO PROPERTY OR FOR CONSEQUENTIAL DAMAGES FOR LOSS OF GOODWILL OR PRODUCTION OR INCOME, WHICH RESULT FROM USE OR MISUSE OF THE EQUIPMENT BY PURCHASER OR OTHERS.

EXCLUSIONS:

If, in Ransburg's opinion the warranty item in question, or other items damaged by this part was improperly installed, operated or maintained, Ransburg will assume no responsibility for repair or replacement of the item or items. The purchaser, therefore will assume all responsibility for any cost of repair or replacement and service related costs if applicable.

MANUAL CHANGE SUMMARY

This manual was published to replace Service Manual **AA-99-02.4** REA Automatic Applicators, to make the following changes:

1. Change logo.

Service Manual Price: \$50.00 (U.S.)

Manufacturing

1910 North Wayne Street
Angola, Indiana 46703-9100
Telephone: 260/665-8800
Fax: 260/665-8516

Technical/Service Assistance

Telephone: 800/ 233-3366
Fax: 419/ 470-2071
www.ransburg.com

Technical Support Representative will direct you to the appropriate telephone number for ordering Spare Parts.