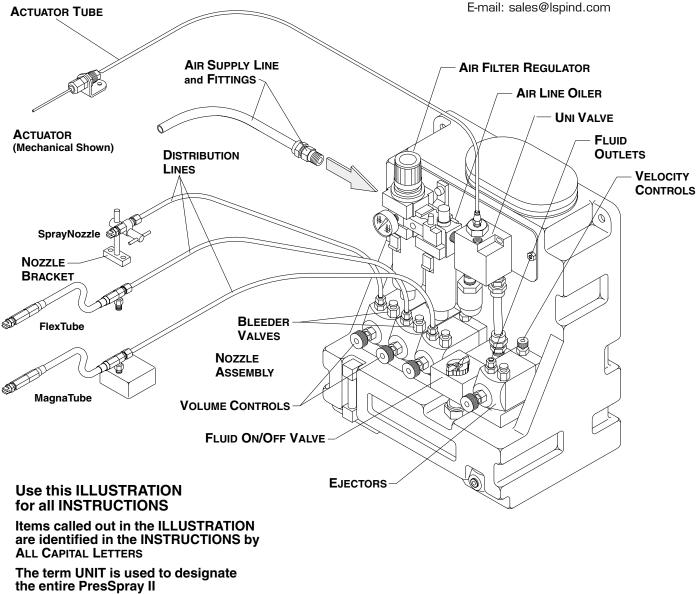
TROUBLESHOOTING INSTRUCTIONS					
PROBLEMS	SOLUTIONS				
A. Lubricant will not bleed through the BLEEDER VALVE when the button is held down.	 If none of the EJECTORS will bleed. a. The FLUID ON/OFF VALVE may be closed. Open by turning the knob counter-clockwise. b. The Lubricant Reservoir may be low or empty. Fill Reservoir until above top of EJECTOR. c. The lubricant may be too viscous to flow through. If one EJECTOR will not bleed. a. The INLET CHECK VALVE may be clogged or stuck closed. See "Inspecting an EJECTOR" on page 6. 				
B. UNIVALVE WIII not cycle when Actuator is tripped.	 Ascertain if the problem is with the UNIVALVE or ACTUATOR. a. Disconnect or turn off the AIR SUPPLY to the UNIT. b. Remove the ACTUATOR from the UNIT by disconnecting it at the RELIEF PORT of the UNIVALVE.				
C. The spray pattern from the Nozzle Assembly is unsatisfactory. EXAMPLE: Poor dispersion, after drip, etc.	 Prime the appropriate EJECTOR. See OPERATING INSTRUCTIONS at Step C. If this solves the problem; but it returns often, go to PROBLEM "D" below. The VELOCITY CONTROL and/or the AIR REGULATOR may be set too low. Open by turning the knobs of these controls counter-clockwise. Check per Inpsecting the DISTRIBUTION SYSTEM on page 7. Air may be "trapped" in the system. See OPERATING INSTRUCTIONS at Step H. Check the Inlet/Outlet Checks in the EJECTOR per Inspecting an EJECTOR on page 6. 				
D. The EJECTOR requires continual re-priming to maintain good performance. This is a sign that air is being drawn into the System.	 If the System has been newly installed, the fittings on the FLUID SUPPLY LINE may not have been made air tight. Check these connections. This is probably not the problem if the System has been in use for a while. The "O"Rings sealing the EJECTOR to the Manifold, or a seal inside the EJECTOR may be worn or contaminated. See Inspecting an EJECTOR on page 6. 				
E. Fluid is being expelled from the relief hole in front of the EJECTOR.	 The "O"Ring sealing the Ram inside the EJECTOR is worn or contaminated. See Inspecting an EJECTOR on page 6. 				
F. No fluid is ejected from the Nozzle	 If all the EJECTORS are failing to dispense fluid. a. Fluid may not be present. See PROBLEM "A" at Step #1 above. b. The UNIVALVE may not be operating. If not, see PROBLEM "B" above. If one of the EJECTORS is failing to dispense fluid. a. Prime the EJECTOR. See OPERATING INSTRUCTIONS at Step "C". b. The VELOCITY CONTROL and/or the VOLUME CONTROL may be shut down. Open by turning the knobs of these controls counter-clockwise. c. Ascertain if the problem is with the EJECTOR or the DISTRIBUTION SYSTEM. Remove the DISTRIBUTION LINE from the OUTLET PORT on the EJECTOR, and operate the UNIT. If an appropriate amount of fluid is forcefully ejected from the OUTLET PORT, there is probably a clog in the DISTRIBUTION SYSTEM. See Inspecting the DISTRIBUTION SYSTEM on page 7. If little or no fluid is ejected, or it is ejected with little force, the problem is with the EJECTOR. See Inspecting an EJECTOR on page 6. 				

INSTALLATION, OPERATION, and TROUBLESHOOTING

with REPLACEMENT PARTS LISTING for PresSpray II Models P-152 and P-154



P.O.Box 5303, Rockford, IL • 61125 5060-27th Ave, Rockford, IL ● 61109 Tel: 815-226-8090 • Fax: 815-226-9250



INSTALLATION INSTRUCTIONS

A. Installing the PresSpray II

1. Locating the UNIT Locate the UNIT closer to the ACTUATOR for best response. Locate the UNIT closer to the Nozzle Assembly for better spray quality. Locate the UNIT lower than the level of the Nozzle Assembly for easier start-up.

2. Mounting the UNIT

The UNIT can be simply set in place, or be mounted on a wall or side of a machine using the holes provided.

B. Installing an Actuator

You must have an **ACTUATOR** to operate the **UNIT**. If you do not have one, see the **ACCESSORIES** area for a listing of the types of ACTUATORS available.

Install the ACTUATOR in accordance with the OPERATING INSTRUCTION supplied with the chosen ACTUATOR. For fastest response and cycling, have the ACTUATOR located at or on the UNIT.

11/24/13

OPERATING INSTRUCTIONS

C. Installing the DISTRIBUTION SYSTEM

This system consists of Nozzle Assemblies, Distribution Line, and their connections with the **UNIT**.

1. Items required for the System

a. Nozzle Assemblies

Consist of SprayNozzles, FlexTubes, Magnatubes, NPT Noz-ZLES, or INDIENOZZLES. Use one Nozzle per EJECTOR.

b. DISTRIBUTION LINE

Carries lubricant to be sprayed to the Nozzle Assemblies. Tubing must be 1/4" in diameter. For best spray quality, use metal tubing. Soft copper is the easiest to handle.

For flexible **DISTRIBUTION LINE**, use only **HyPressure Tubing** (see ACCESSORIES). Any other flexible tubing will give poor spray quality and/or may burst.

c. LINE FITTINGS

Nozzles and Ejectors have built-in connections of the "Compression Fitting" type. Use the same type fittings for running DISTRIBUTION LINES.

2. Mounting the Nozzles Assemblies

a. SprayNozzles

Require support. Metal DISTRIBUTION LINE can be used for this if anchored close to the SPRAYNOZZLE. With flexible LINE, a NOZ-**ZLEBRACKET** will be required for support.

b. FLEXTUBES

Install into a tapped hole. Drill and tap for 1/8-27 pipe thread at the desired location. Screw FLEXTUBE into hole.

c. MagnaTubes

Simply set in place on an iron surface. A powerful magnetic base is used to hold the MAGNATUBE in place.

d. InDieNozzle

These Nozzles require special attention. Call L.S.P. or our representative for advice if planning to use INDIENOZZLES.

e. NPT Nozzles

These Nozzles thread directly into a 1/8-27 NPT tapped hole or fitting. Use thread sealant when installing.

3. Installing the Distribution Lines

- a. Keep length of all LINES to a minimum. Run each LINE as directly as possible, use no slack unless necessary.
- **b.** Use metal tubing wherever possible. If flexible **LINE** must be used, use metal as far as possible and continue with flexible LINE, using it only where needed.
- c. Keep contamination out of the LINES. Have the tubing clean on the inside before installing.
- **d.** Make all connections properly. **LINE** must be bottomed in fittings while nut is tightened to hand-tight and then one full turn further.

D. Installing the Air Supply

The **UNIT** operates on compressed air in extremely fast bursts. The line supplying this air must not restrict its flow. The chart below gives the minimum air passages for the AIR SUPPLY LINE & FITTINGS depending on how many **EJECTORS** are on the **UNIT**.

No. of Ejectors	Tube I.D. (not O.D.)	Pipe Size & Fittings
1 or 2	3/16" (.187)	1/8" N.P.T.
3 or 4	1/4" (.250)	1/4" N.P.T.
5 to 6	5/16" (.312)	3/8" N.P.T.

NOTE: ncrease passage by one size if using an elbow fitting, or ine is over 10 feet

Run the appropriately sized AIR SUPPLY LINE from your compressed air supply and connect it to the open port in the AIR REQULATOR on the UNIT.

Fill the AIRLINE OILER with light machine oil.

A. Supply the Fluid to be Sprayed

Fill the RESERVOIR with the lubricant to be sprayed. Fill until fluid level is higher than the top of the **EJECTOR**.

B. Open the Fluid ON/OFF VALVE

Turn the knob of On/OFF VALVE counter-clockwise to full open.

C. Prime the EJECTORS

Press down on **BLEED VALVE** located on top of each **EJECTOR**. Hold down until the fluid flowing from the hole in the side of this VALVE is void of air bubbles.

D. Supply Operating Air

Connect or turn on the AIR SUPPLY to the UNIT.

E. Open the Controls

Fully open the VELOCITY CONTROL and VOLUME CONTROL by turning their knobs counter-clockwise. Fully open the AIR REGULATOR by turning its knob clockwise.

F. Operate the UNIT

Cycle the UNIT until the DISTRIBUTION LINES fill and the Nozzles begin to eject lubricant. The spray pattern will be of poor quality and will drip until all air is ejected from the System. Continue cycling until spray is a sharp burst with no drips. If there are problems, go to **step H.** below.

G. Make Adjustments

NOTE: Before making any adjustments, the SYSTEM should be operating at optimum or these adjustments may change.

1. Aim the Nozzles

Position Nozzle(s) to achieve the desired spray coverage.

2. Reduce the amount of Fluid used.

Turn the VOLUME CONTROL clockwise to reduce the amount of lubricant being sprayed to the amount desired.

3. Reduce the Operating Air Pressure.

Using the AIR REGULATOR, reduce pressure until:

- a. Spray quality deteriorates, then increase 10 PSI and
- b. Unit begins to malfunction, then increase 10 PSI and
- c. Air regulator shows 40 PSI. This is the minimum recommended pressure for the operation of this equipment. Operating under these conditions gives power with economical air consumption.

4. Set the VELOCITY CONTROL

Turn the VELOCITY CONTROL clockwise to reduce the intensity of the spray burst. Used to control lubricant over-spray and bounce.

5. Adjust the AIRLINE OILER

Turn knob at top of AIRLINE OILER to adjust its usage to one drop of oil every 10 to 15 cycles.

H. Purging the DISTRIBUTION LINES

If inferior spray or dripping from the Nozzles persists, one of the following situations may be the cause.

1. Incorrect Distribution Line

The problem may be due to using improper **DISTRIBUTION LINE**. If the LINE is too "soft", it will expand at ejection and absorb the burst of pressure required for a good spray. After the spray, the LINE contracts again to squeeze out a drip. The longer the LINE, the worse the effect. Even HyPressure Tube will do this if too long a length is used.

PARTS LIST "E"

USE THE APPROPRIATE FIGURE AT THE RIGHT TO IDENTIFY THE PART BY IT'S KEY NO.

USING THE KEY NO. AND TABLE BELOW, FIND THE PART NUMBER, NO. OF PIECES USED, AND THE DESCRIPTION OF THE PART NEEDED.

No. DESCRIPTION

KEYPART

NOZZLE, 110° FAN:	1	NOZ-101	
NOZZLE, 80° FAN:	1	NOZ-102	
NOZZLE, 65° FAN:	1	NOZ-103	1
NOZZLE, 25° FAN:	1	NOZ-104	
NOZZLE, 55° ROUND:	1	NOZ-105	
NOZZLE, SIDE FAN:	1	NOZ-106	
SPRING,CHECK:	1	SPG-005	2
EYELET,CHECK	1	EYE-001	3
BALL,CHECK:	1	BAL-021	4
SEAT,CHECK:	1	SET-019	5
SPRING ASSEMBLY:	1	280-SPG-01	6
BALL,CHECK:	1	BAL-022	7
HOUSING,CHECK	1	HSG-050	8
HOUSING,CHECK	1	HSG-020	9
FITTING,Nut:	1	FIT-017	10
BRACKET ASSY:	1	290-BRK-02	11
HOUSING, CHECK:	1	HSG-036	12
O-RING,SEAL:	2	RGO-006	13
RING,BACKUP:	2	RGB-006	14
FLEXTUBE ASSY:	1	281-TUB-01	15
TUBE,COPPER:	1	TUB-011	16
ADAPTER, MOUNTING:	1	ADP-041	17
BRACKET, MOUNTING	1	BRK-014	18
BRACKET, MOUNTING	1	BRK-014	18
MAGNETIC BASE	1		
SCREW, BUTTON HD: 10	1	SCR022	
MAGNETIC BASE	1	290BAS05	23
	NOZZLE, 65° FAN: NOZZLE, 25° FAN: NOZZLE, 55° ROUND: NOZZLE, SIDE FAN: SPRING, CHECK: EYELET, CHECK BALL, CHECK: SEAT, CHECK: SPRING ASSEMBLY: BALL, CHECK: HOUSING, CHECK HOUSING, CHECK FITTING, NUT: BRACKET ASSY: HOUSING, CHECK: O-RING, SEAL: RING, BACKUP: FLEXTUBE ASSY: TUBE, COPPER: ADAPTER, MOUNTING: BRACKET, MOUNTING BRACKET, MOUNTING MAGNETIC BASE	1 NOZZLE, 65° FAN: 1 NOZZLE, 25° FAN: 1 NOZZLE, 55° ROUND: 1 NOZZLE, SIDE FAN: 1 SPRING, CHECK: 1 EYELET, CHECK: 1 SEAT, CHECK: 1 SPRING ASSEMBLY: 1 BALL, CHECK: 1 HOUSING, CHECK: 1 HOUSING, CHECK: 1 HOUSING, CHECK: 2 O-RING, SEAL: 2 RING, BACKUP: 1 FLEXTUBE ASSY: 1 TUBE, COPPER: 1 ADAPTER, MOUNTING: 1 BRACKET, MOUNTING: 1 BRACKET, MOUNTING: 1 BRACKET, MOUNTING: 1 BRACKET, MOUNTING: 1 MAGNETIC BASE 1 SCREW, BUTTON HD: 10	NOZ-103 1 NOZZLE, 65° FAN: NOZ-104 1 NOZZLE, 25° FAN: NOZ-105 1 NOZZLE, 55° ROUND: NOZ-106 1 NOZZLE, SIDE FAN: SPG-005 1 SPRING, CHECK: EYE-001 1 EYELET, CHECK BAL-021 1 BALL, CHECK: SET-019 1 SPRING ASSEMBLY: BAL-022 1 BALL, CHECK: HSG-050 1 HOUSING, CHECK HSG-020 1 HOUSING, CHECK FIT-017 1 FITTING, NUT: 290-BRK-02 1 BRACKET ASSY: HSG-036 1 HOUSING, CHECK: RGO-006 2 O-RING, SEAL: RGB-006 2 RING, BACKUP: 281-TUB-01 1 FLEXTUBE ASSY: TUB-011 1 TUBE, COPPER: ADP-041 1 ADAPTER, MOUNTING: BRK-014 1 BRACKET, MOUNTING: BRK-014 1 BRACKET, MOUNTING: BRC-03

FLEXTUBE NOZZLEBRACKET SPRAY NOZZLE 23 **NPT Nozzle**

MAGNATUBE

Inspecting the Distribution System Refer to PARTS LIST "E" for Key No's shown in parenthesis.

A. The DISTRIBUTION LINE

This LINE is very important to good performance. Check that it is of the proper type. See INSTALLATION INSTRUCTIONS at Step "D".

If this **LINE** is metal, check for kinks or crimping that may have closed it off. If it is flexible LINE, check it for cuts or cracks.

In either case, check all connections to insure they are air tight.

B. The Nozzle Tip

NOTE: Whenever a Nozzle Tip (#1) is removed, the Check Ball (#4, #7) should be replaced. In time, the Ball takes a "set" and will not seat properly once disturbed.

NOTE: Removing the Nozzle Tip (#1) is not necessary.

- 1. Unscrew the Nozzle Tip (#1). Caution, this Tip is spring loaded.
- 2. Inspect the Check Spring (#2, #6). Replace if broken or deformed
- 3. Clean the Nozzle Tip (#1) and blow dry. Inspect by looking through it. If you do not see a tiny, uniformly shaped hole, there is a clog.

Tips on unclogging a Nozzle Tip:

- ...Try to dislodge it with a high pressure stream directed backward to the normal flow through the Nozzle.
- ...If you must use a tool, use one as "soft" as possible (plastic, fiber)
- ...Apply no more pressure than necessary. The Tip is easily damaged.

Some clogs are impossible to get out without harming the Tip. Keep a spare Nozzle Tip handy for such cases.

At re-assembly, clean the Nozzle Tip of all residue and apply thread sealant Torque to 80-120 in.lbs.

C. The FLEXTUBE \ MAGNATUBE

A **FlexTube** or **MagnaTube** may be clogged or leaking. These problems are handled differently as described below.

1. Checking for a clogged FlexTube.

First do Step "B" above. Do no more dis-assembly. Check for the clog by running a wire or blowing through the Copper Tube (#16)

2. Repairing a leaking FlexTube.

a. Unscrew the Check Housing (#12) from the FlexTube (#15).

- b. Unscrew the FlexTube (#15) from the Mounting Adapter (#17).
- c. Remove the two small "O"Rings(#13) and Backup Rings(#14). See if they are dirty, cut, or deformed. Clean or replace as needed
- d. Check the surfaces where these "O"Rings seal. If scratched or marred, have smoothed or replace the part.
- e. Re-assemble in reverse order, and torque parts to 60-80 in.lbs.

NOTE: Do not remove the Copper Tube (#16) from FlexTube (#15) unless one or the other needs replacing. If it is necessary, be careful to not mar the soft Copper Tube which is easily scratched.

2

Removing an EJECTOR

A. Remove the AIR SUPPLY

For saftey sake, disconnect the AIR SUPPLY to the UNIT

B. Close the Fluid On/OFF Valve

Turn the Fluid On/Off Valve clockwise until shut down. If this is not done, fluid will spill out when the **EJECTOR** is removed.

C. Remove the EJECTOR

- 1. Disconnect **DISTRIBUTION LINE** from the **OUTLET** on the **EJECTOR**.
- 2. Remove two Screws on top of **EJECTOR** which hold it to the
- 3. Lift the **EJECTOR** from the Manifold. Be careful doing this, so as not to lose either of the "O" Rings that seal between the two.

D. Re-Placement of EJECTOR

- Replace the EJECTOR with another, or a CoverPlate (see ACCES-SORIES), or with the same EJECTOR after being repaired.
- Make sure the "O"Rings that seal between the EJECTOR and Manifold are clean, in good condition, and properly located into the grooves of the pilot bosses.
- Torque the Screws which hold the EJECTOR (or CoverPlate) to the Manifold to 80-100 in.lbs.

NOTE: If you use a Cover Plate, use the Screws supplied with it instead of those for an **EJECTOR**.

PARTS LIST "D" The Ejector (reference Fig #7)	23
Key Part No. Description No. Number Pcs -or- Part Name	22
1 BRL-026 1 BARREL, Ejector: * 2 RGO-059 1 "O" RING, Seal: * 3 RGB-014 1 RING, Backup: 4 202-SCR-02 1 VOLUME SCREW: * 5 CHK-008 1 CHECK, Inlet:	13 20 21
* 6 RGO-057 1 "O" RING, Seal: * 7 RGO-020 4 "O" RING, Seal: 8 INL-018 1 INLET, Fluid: * 9 BAL-022 1 BALL, Check: *10 EYE-004 1 EYELKET, Flanged:	7 14 15 25
★ 11 SPG-003 1 SPRING, Check 12 OUT-003 1 OUTLET, Fluid: ★ 13 FIT-017 1 FITTING, Nut: 14 202-VAL-04 1 BLEEDER VALVE: ★ 15 SPG-021 2 SPRING, Return:	10 24
* 16 RGB-005 1 BACKUP, Seal: * 17 202-GID-01 1 GUIDE ASSEMBLY: * 18 RGO-063 1 "O" RING: Seal: 19 202-PIS-01 1 PISTON ASSEMBLY: 20 CYL-034 1 CYLINDER, Air:	15
* 21 RGO-062 1 "O" RING, Seal: * 22 RGO-050 1 "O" RING, Seal: 23 202-SCR-01 1 VELOCITY SCREW: 24 INL-017 1 INLET, Air: 25 PLT-040 1 PLATE, End: 26 SCR-004 4 SCREW, Cap:	7 Figure #7
★ 202-ACY-05 Ejector Repair Kit	

Inspecting an EJECTOR

Refer to **PARTS LIST "D"** for Key No's shown in parenthesis.

A. Placing the EJECTOR into a Vise

Clamp only on sides of the Barrel(#1) that have no fittings protruding.

B. The Inlet Check Valve

Allows fluid in from the **FLUID SUPPLY**. Inspect it as follows.

- 1. Unscrew the Inlet Adapter(#8) from the Barrel(#1).
- Clean the Inlet(#8) and inspect the small "O"Ring(#6) inside. Do not remove this "O"Ring unless worn or broken. If it must be replaced, do not scratch the groove while removing it.
- 3. Check the movement of the Inlet Check. The Check Valve should fit closely in its cavity, yet move freely.
- 4. Inspect the rounded corners on the Check (the points at which it is guided in the cavity). These corners must be smooth and show no wear or deformation.
- 5. Inspect the Checks cavity for contamination or corrosion.

C. The Outlet Check Valve

Allows fluid out to the **DISTRIBUTION LINE**. Inspect it as follows.

- Unscrew Outlet Fitting(#12) from the Barrel(#1). Caution, this part is spring loaded.
- 2. Inspect the Spring(#11). Replace if broken or deformed.
- 3. Inspect the Check Ball(#9). Replace if worn or deformed.

D. The Piston & Ram Assembly (#19)

Piston seals air used. Ram ejects the fluid sprayed. Inspect as follows.

- 1. Remove the four Screws(#26) holding End Plate(#25) to the Barrel(#1). Caution, this Plate is spring loaded.
- The Return Springs may push the End Plate, Piston, and/or Cylinder from the Barrel. If not, remove by hand. If these parts are stuck, remove the Volume Control (#4) from the opposite end of the Barrel; this will allow access for pushing the parts
- Remove Piston & Ram Assy(#19), Cylinder(#20), and both Return Springs(#15). If a Spring is broken, be sure to remove all the pieces
- Remove the Guide Assembly (#17) using an LSP Tool #SP-935 or a very wide bladed screwdriver in the removal slot.
- Clean and inspect all parts and seals. Replace worn, broken, or deformed parts, and worn, cut, or nicked seals.

E. Re-Assembly of the EJECTOR

Reverse the process above. Check the following.

- If a new Guide Assembly (#17) is used it will come complete with the new O-Rings already installed and is ready for use. If the original Guide Assembly is re-installed make sure it is free of all residue and contamination.
- 2. Apply thread sealant before installing. Torque to 75-100 in.lbs.
- Insure the side pins on Piston & Ram Assy (#20) are inserted into the Return Springs(#15). And that the center pin (the Ram) aligns with and slides into the Guide Assembly (#17).

4. Torque Screws(#26) in End Plate(#25) to 50 to 70 in.lbs.

OPERATING (continued)

2. Drawn-In Air

During operation the **SYSTEM** sees a vacuum. Any connection that is not air tight may allow air in. Use pipe sealant on all threads, and make all tube connections properly.

3. Introduced Air

If your lubricant container is left to run dry it will allow air into the **SYSTEM**. Such air will need to be purged again. See **steps C. and F.** above.

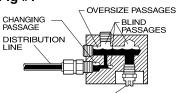
Example #1:

If a portion of the SYSTEM has been fabricated, configurations such as those shown at Fig #1 can trap air in the SYSTEM.

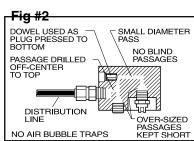
Fig #2 shows the same SYSTEM without the potential problems of the one above it.

NOTE: We recommend you contact L.S.P. or our representitive for suggestions before attempting to fabricate any part of the DISTRIBUTION SYSTEM, or use INDIE NOZZLES.

Fig #1



AIR BUBBLE TRAPS -IN-DIE NOZZLE



4. Trapped Air

The examples in Figs #1, 2, and 3 below, show how "pockets" can trap air in the SYSTEM. They do not show every possible situation, but give an idea of what to look for.

Example #2:

A high area in the **DISTRIBUTION LINE** can keep an air bubble from being ejected. See **Fig.#3**.

To cure the problem, Try cycling the **UNIT** as fast as possible at full volume to drive the bubble up to the **NOZZLE**.

If the above doesn't work, modify the LINE so travel is always "up" (hold the high area of the LINE down, or lift the Nozzle higher while cycling the UNIT).

AIR BUBBLE IN HIGH AREA OF DISTRIBUTION LINE AT REST BUBBLE MOVES TOWARD NOZZLE, BUT DOES NOT GET TO IT EJECTION POOR SPRAY PATTERN BUBBLE EXPANDS AND RETURNS TO HIGH AREA EJECTION DRIPPING AFTER THE SPRAY

ACCESSORIES

A. Nozzle Assemblies

There must be at least one of these items for each **EJECTOR** details on the **UNIT**.

1. P20X SPRAYNOZZLE

Consists of a **Nozzle Tip** and a **Check** to prevent after-drip.

2. P-21X FLEXTUBE

Consist of a SprayNozzle on a StaPut Flexible Tube.

3. P-22X MAGNATUBE

Consists of a **FLEXTUBE** mounted on a **MAGNABASE**.

4. P-24X INDIENOZZLE

Consists of only the Nozzle Tip with a built-in check.

5. P-25X NPT Nozzle

Consists of a SPRAYNOZZLE with male 1/8 NPT Thread connection.

Type of Spray Tip	SPRAYNOZ Number	FLEXTUBE Number			InDieNoz Number
110°Fan Spray	P-201	P-211	P-221	P-251	P-241
80° Fan Spray	P-202	P-212	P-222	P-252	P-242
65°Fan Spray	P-203	P-213	P-223	P-253	P-243
25°Fan Spray	P-205	P-215	P-225	P-255	P-245
55°Cone Spray	P-207	P-217	P-227	P-257	N/A
Rt.Angle Spray	P-209	N/A	N/A	P-259	N/A

B. P-940 HYPRESSURE NYLON TUBING

For use as flexible **DISTRIBUTION LINE**. L.S.P. supplies this tubing because it is the only type of flexible **LINE** found to give satisfactory performance. No other type works well enough.

C. P-925 NOZZLEBRACKET

Used to support **SPRAYNOZZLES**. Gives complete control of aiming the spray pattern. Moves up/down 5", rotates 360°, and tilts 180°. Adapts to the **MAGNABASES**.

D. P-903 COVER PLATE

Used to replace an **EJECTOR** when necessary. Acts as a seal-plate. Allows continued operation while **EJECTOR** is removed.

The following **ACCESSORIES** are available to enhance the performance of your **SYSTEM**. See L.S.P.'s Catalog for more details.

E. P902 Replacement Ejector

Is a direct replacement for any **EJECTOR**. Used as a spare to replace an **EJECTOR** should one go down.

F. ACTUATORS

Any **Actuator** listed below may be used to operate the

1. E-300 PresSpray Controller

Provides delay time, counter, and pulsator functions. Along with many others to give complete control of the **UNIT**'s application.

2. E-305 Pulsator Actuator

Provides a pulsator function for multiple ejections each cycle.

3. E-310 Counter Actuator

Provides a counter function to eject after a set number of cycles.

4. E-315 Timer Actuator

Provides a controllable cycle timer for independent cycling.

P-912 Solenoid Actuator Consists of a solenoid operated air valve for use as an Actuator.

6. P-908 AirTimer Actuator

7. P-901 Mechanical Actuator

Consists of a mechanically tripped valve for use as an Actuator.

Consists of an air operated cycling timer for use as an Actuator.

G. MAGNABASES

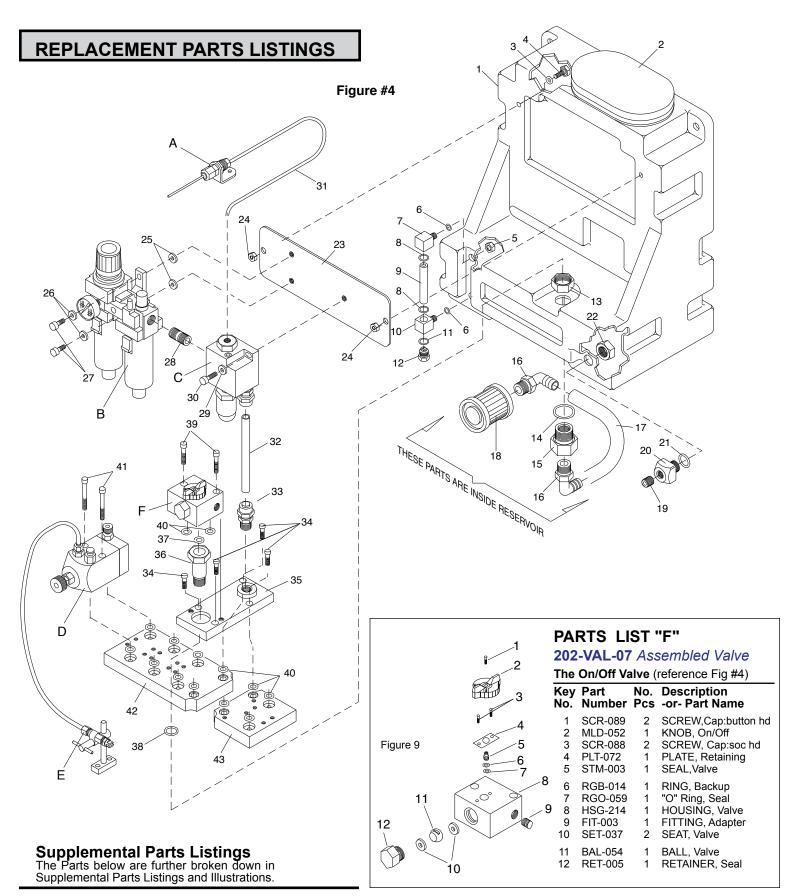
Holds the **NozzleBracket**, **Mechanical Actuator**, and other **ACCESSORIES** for easy positioning and adjustment.

1. P-905 MAGNABASE

Holds with a force of 100 pounds.

2. B-909 MAGNABASE

Holds with a force of 200 pounds.



Key Description References ACTUATOR See Parts Listing with Actuator used Refer to Parts List "B" & Fig. #5 AIR HANDLING Refer to Parts List "C" & Fig. #6 UNIVALVE Refer to Parts List "D" & Fig. #7 **E**JECTOR Nozzle Assy Refer to Parts List "E" & Fig. #8 On/Off Valve Refer to Parts List "F" & Fig. #9

PARTS LIST "C"

MAIN PARTS LIST

PresSpray II (reference Fig #4)

The Following are Common to All Models

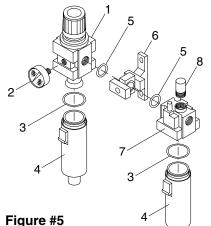
Key No.	Part Number	No. Pcs	Description -or- Part Name
1	RES-032	1	RESERVOIR, Fluid:
2	COV-019	1	COVER, Reservoir:
3	RGO-017	2	"O" RING, Seal:
4	BRK-026	2	BRACKET, Mounting:
_5	NUT-058	2	NUT, Hexagon: jam
6	RGO-030	2	"O" RING, Seal:
7	INL-026	1	INLET, Sight Glass:
8	RGO-013	2	"O" Ring, Seal:
9	PIP-008	1	PIPE, Sight glass:
10	OUT-009	1	OUTLET, Sight Glass:
11	RGO-034	1	"O" RING, Seal:
12	PLG-026	1	PLUG, Sight glass:
13	NUT-161	1	NUT, Jam: special
14	RGO-056	1	"O" RING, Seal:
15	ADP-048	1	ADAPTER, Bulkhead:
16	FIT-057	2	FITTING, Elbow: barbe
17	TUB-160	1	TUBE, Fluid:
18	FIL-018	1	FILTER, Fluid:
19	FIT-062	1	FITTING, Plug: pipe
20	OUT-010	1	OUTLET, Drain:
21	RGO-051	1	"O" RING, Seal:
22	NUT-062	1	NUT, Hexagon: jam
23	PLT-063	1	PLATE, Mounting:
24	NUT-104	2	NUT, Locking: jam
25	SPC-019	2	SPACER, Mounting:
26	WAS-015	2	WASHER, Plain:
27	SCR-028	2	SCREW, Cap: soc hd
28	FIT-063	1	FITTING, Nipple:
29	WAS-002	1	WASHER, Lock:
30	SCR-008	1	SCREW, Cap: soc hd
31	TUB-019	1	TUBE, Actuator:
32	TUB-218	1	TUBE, Air line:
33	FIT-025	1	FITTING, Adapter: tube
34	SCR-066	4	SCREW, Cap: soc hd
35	202MAN0	1 1	MANIFOLD, Air:
36	INL-044	1	INLET, FLuid
37	RGO-040	1	"O"Ring, seal
31			
38 39	RGO-012 SCR064	1 2	"O"Ring,seal SCREW, Cap:soc hd

The Following is Common to Model P-152 (Units with 2 Ejectors)

Key No.	Part Number	No. Pcs	Description -or- Part Name
"D"	202-EJT-0	1 2	EJECTOR, Lubricant:
40	RGO-032	10	"O" RING, Seal:
41	SCR-036	4	SCREW, Cap: soc hd
42	MAN-011	1	MANIFOLD, Mounting
43	MAN-011	1	MANIFOLD, Mounting

The Following is Common to Model P-154 (Units with 4 Ejectors) **Key Part** No. Description

No.			-or- Part Name
"D"			EJECTOR, Lubricant:
40	RGO-032	14	"O" RING, Seal:
41	SCR-036	8	SCREW, Cap: soc hd
42	MAN-013	1	MANIFOLD, Mounting:
43	MAN-011	1	MANIFOLD Mounting:



PA	PART LIST "B"					
Air	Handling	g (re	ference Fig #5)			
REC	G-016 Inc	clude	s all except GAU-001			
			Description			
No.	Number	Pcs	-or- Part Name			
1	ACY-028	1	REGULATOR, Bonnet:			
2	GAU-001	1	GAUGE, Pressure:			
3	RGO-074	2	"O" RING, Seal:			
4	ACY-026	2	BOWL, Filter/Oiler:			
5	RGO-067	2	"O" RING, Seal:			
6	ACY-030	1	BRACKET, Filter/Oiler:			
7	ACY-029	1	OILER, Bonnet:			
8	ACY-022	1	DOME, Sight:			

Inspecting a UNIVALVE
Refer to PARTS LIST "C" for Key No's shown in parenthesis.

A. Remove the AIR SUPPLY

Turn off the AIR SUPPLY to the UNIT.

B. Disconnect the ACTUATOR TUBE

Unlock Tube by pushing down on the collar around it where it enters Fitting(#10). While this collar is held down, the Tube can be pulled from the Fitting.

C. Dis-assemble the UNIVALVE

- 1. Remove Cylinder(#9) from on top of the
- 2. Remove Muffler(#12) from bottom of the UniValve.
- 3. Insert a small tool up into the hole the Muffler came from and push Spool(#7) out the top of the UNIVALVE. Be careful, don't get too rough doing this.

- **D. Inspect the Parts**1. Remove the "O"Rings (#4,5,6) from the Spool (#7).
- 2. Clean and inspect all parts and seals. Replace broken or deformed parts, and worn, cut, or nicked seals.
- 3. With no "O"Rings on it, the Spool (#7) should move freely in the Valve Housing (#1) with no sticking or forcing. If not, check for deformation of the Spool or of the seats in the Housing.
- 4. Inspect the tiny (.031 Dia.) hole located at the bottom of the counter-bore in the end of the Spool. It must be through (to the hole in the side of the Spool) and unobstructed for the **UniValve** to function properly.

E. Re-Assemble the UNIVALVE

- 1. Replace all "O"Rings(#4, 5, 6) onto Spool(#7) and apply a light coat of oil to
- 2. The Spool(#7) should be pre-assembled into the Cylinder(#9) before installing them into the Valve Housing(#1). This done to insure "O"Ring (#6) is installed without
- 3. Install the parts as pre-assembled above, and torque the Cylinder (#9) until tight with the Valve Housing (#1).
- 4. Re-install the Muffler (#12). Torque to

F. Re-connect the ACTUATOR TUBE.

Re-connect by simply pushing the Tube into the Fitting (#10) until it bottoms.

Check this connection after turning the AIR SUPPLY back on again, it must not leak.

Figure #6

PARTS LIST "C" The UniValve (reference Fig #6) 202-VAL-05 Assembled Valve

Koy Dart

rait	NO.	Description
Number	Pcs	-or- Part Name
202-HAS-0	01 1	HOUSING, Valve
FIT-058	1	FITTING, Plug
FIT-003	1	FITTING, Plug
RGO-059	1	"O" RING, Seal
RGO-065	1	"O" RING, Seal
RGO-069	1	"O" RING. Seal
SPL-024	1	SPOOL, Valve
RGO-066	1	"O" RING, Seal
CYL-037	1	CYLINDER, Valve
FIT-020	1	FITTING, Adapter
FIT-045	1	FITTING, Nipple:
MUF-002	1	MUFFLER, Exhaust
FIT-025	1	FITTING, Adapter
	Number 202-HAS-0 FIT-058 FIT-003 RGO-059 RGO-065 RGO-069 SPL-024 RGO-066 CYL-037 FIT-020 FIT-045 MUF-002	Number Pcs 202-HAS-01 1 FIT-058 1 FIT-003 1 RGO-059 1 RGO-065 1 SPL-024 1 RGO-066 1 CYL-037 1 FIT-020 1 FIT-045 1 MUF-002 1

No Description

* REPAIR KIT 202-ACY-07