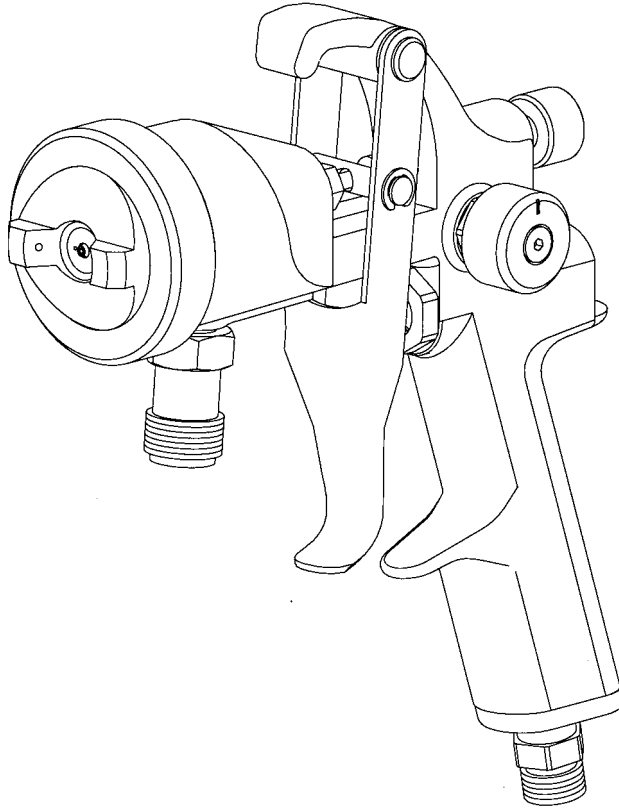




Series 19 HVLP Spray Gun
Owners Manual



Literature #SM-19-0803

This Manual Covers 19 and 19I Spraygun Models

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Gun Overview

Accuspray's Series 19 Gun was designed from the inside out for HVLP use to deliver performance without compromise. This means achieving compliance with environmental regulations and delivering the fastest production speeds; generating substantial paint savings and producing a first class finish.

The series 19 can connect directly to your high-pressure air hoses so set-up is fast and easy. With a reducer built right into the gun, high-pressure air is decompressed inside the gun. The series 19 has a 4.3:1 reduction ratio. This means that an inlet pressure of 43psi will deliver 10psi at the air cap. The 19 can be used with up to 43psi.

With proper use and maintenance, your Accuspray Gun will deliver long trouble-free life and first class results.

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Contents

Unpacking

Remove the components from the box. Inspect for concealed damage and missing items. If you discover any damage or missing pieces, contact your distributor immediately. Your Accuspray **19 Series** spray gun package should include:

- 19 Series Spraygun
- Gun Wrench
- Tube of Gun Lube
- Port Plug
- Cleaning Brush
- ½ Pint or 1 Quart Cup (Optional)

19 Series Spraygun

The 19 series spraygun is for use with compressed air system. This superior performing spraygun offer the ultimate in the ease of use. Simply connect the gun to your existing high-pressure regulator air hose, and cup or fluid hose.

19I Series Industrial Spraygun

The 19 series sprayguns offers the same features and benefits of the 19 series with the addition of an extended fluid tube. It is specifically designed for pressure fed applications from paint tanks and diaphragm pumps.

General Safety

Accuspray's HVLP equipment is for professional use only. Hazards can occur from equipment misuse. Any misuse of the equipment or accessories, such as over pressurizing, modifying parts, using incompatible chemicals and fluids, or using worn or damaged parts can cause serious bodily injury, fire, explosion or property damage. **Please read and follow all General Safety, Safety Precautions and User Instructions.**

Never point a spray gun at anyone or any part of the body. Never place your hand or fingers in front of a spray nozzle.

Never try to stop or deflect leaks with your hand or body.

Never alter or modify any part of this equipment. A malfunction could result.

Check your spray equipment regularly. Repair or replace worn or damaged parts immediately.

Always use Accuspray HVLP replacement parts. Only these parts were designed to work with your equipment.

Safety Precautions

Solvents and coatings can be highly flammable to combustible, especially when sprayed. Adequate exhaust must be provided to keep the air free of accumulations of flammable vapors. Smoking must never be allowed in spray areas. Fire extinguishing equipment must be present in the spray area.

Certain materials may be harmful if inhaled or if there is contact with the skin. Follow the requirements of the Material Safety Data Sheet supplied by the coating material manufacturer. Use a respirator whenever there is a chance of inhaling sprayed material. The mask must be compatible with the material being sprayed and its concentration. Safety equipment must be NIOSH approved.

Certain solvents containing Methylene Chloride and Trichloromethane are not chemically compatible with aluminum or zinc. The solvents reaction can become violent and explosive. If you are in doubt whether a coating or cleaning material is compatible, contact your material supplier.

Improper operation or maintenance may create a hazard. Personnel must be given training. Instructions and safety precautions must be read and understood. Comply with your local, state, and national codes governing ventilation, fire protection, operation, maintenance, and housekeeping.

Set-up

If you have a pressurized 1/2 pint or 1 quart cup, the sections on "Gun/Cup Installation" and "External Check Valve Assembly" below are very important for ensuring your gun operates efficiently.

Gun/Cup Installation

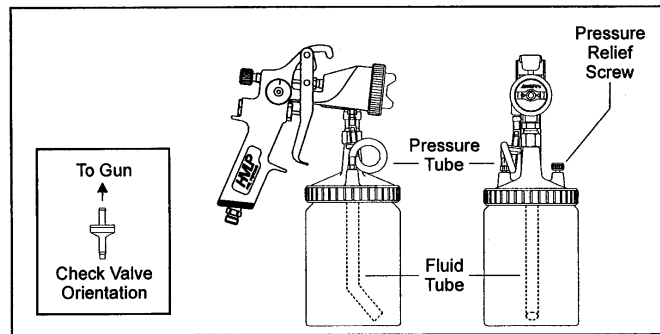
Thread the swivel nut of the cup lid onto the fluid inlet fitting of the spray gun. Tighten with an your gun wrench while applying counterforce with an 11/16" wrench on the fluid inlet fitting of the spray gun.

Before fully tightening, make certain that the fluid tube is pointed forward. Attach the pressure tube from the pressure stem on the gun head to the cup lid.

Cup Warnings

1/2 Pint and 1 Quart Pressure Cup Do Not Exceed 10 psi
2 Quart Pressure Cup Do Not Exceed 50 psi
2.5 Gallon Paint Tank Do Not Exceed 80psi
Disconnect Atomizing Air Before Opening Cup
Open Pressure Relief Screw Before Opening Cup

Note: Spray solvent through the gun before using it for the first time



External Check Valve Assembly

To install the assembly, attach the short pressure tube hose from the check valve assembly to the gun. Loop the tube and attach it to the pressure stem of the cup. The loop plays an important role, which allows you to see any material that may be working its way back up the tube.

A properly working check valve is required for uninterrupted spraying. The advantage of the external check valve is that in its remote location (away from the paint) it is not prone to becoming jammed. The external check valve is a wear part and it will require replacement after it becomes contaminated. The normal life expectancy is from one week to three months, depending on its care.

Set-Up Continued

Attaching Your High-Pressure Air Hose When attaching your high pressure air hose (5/16" or larger) to the gun, use your gravity gun wrench, or a 9/16" open end wrench to apply counter force to the air inlet fitting while tightening (or removing) your high pressure air hose with a 5/8" open end wrench. This will prevent damage to the air inlet tube inside the gun.

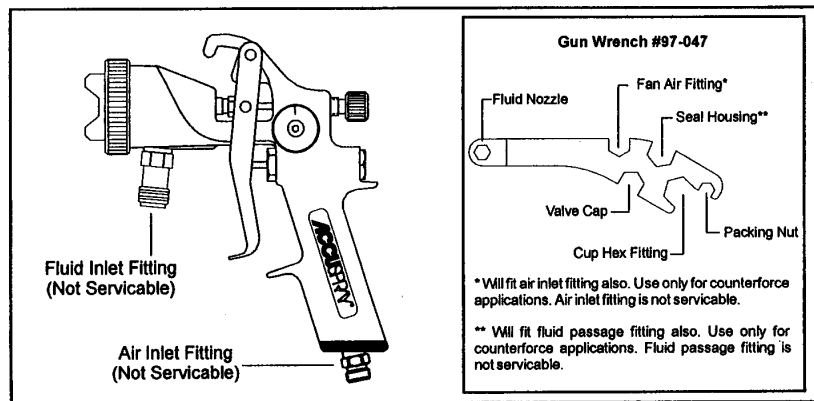
High-Pressure Air The high-pressure air into the gun is decompressed inside the gun on average, at approximately a 4.3 to 1 reduction ratio. The high-pressure regulator setting depends on the atomizing set and air cap selected, and the desired result. See **Guidelines for Setting Inlet Pressure** on page 8.

Caution:

The fluid inlet fitting, and the air inlet fitting are not removable components. **Do not** remove or attempt to service the fluid inlet fitting or the air inlet fitting. If you wish to change to a quick disconnect configuration at the air inlet, adapt to the air inlet fitting and always apply counterforce to the air inlet fitting while tightening (or removing) a fitting or hose.

First Time Use

Spray solvent through the gun before using it for the first time. This will remove any contaminants that may have entered the fluid passage.



Hand Gun Use

Gun Adjustments

The fan size is regulated by the fan adjustment knob located on the side of the gun. With the gun pointed at your target, turn the knob toward you until it stops. This is the fully closed position. Turning the knob away from you increases the fan air.

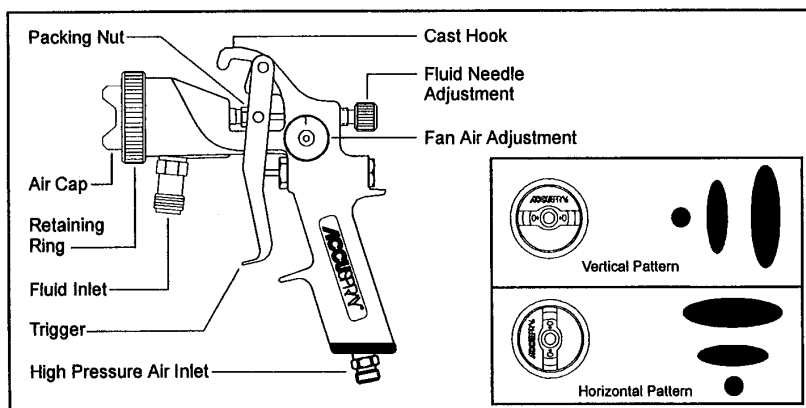
The fluid flow is controlled by the needle adjustment screw located at the rear of the gun. Turning the knob clockwise will close down the fluid flow, minimizing needle travel (trigger pull). Turning the knob counterclockwise will increase the fluid flow, maximizing needle travel (trigger pull).

With the first thread of the needle adjustment screw showing from the gun body (approximately 4 counterclockwise turns from closed) you will have full needle travel.

Please note that, when closing down the needle adjustment screw, when the needle travel has stopped, further tightening will damage the needle tip and will not aid in adjustment.

As a starting point, open the fan adjustment knob between 1/4 and 1/2 turn. Set the needle adjustment screw so that the first thread is showing from the gun body. This will give you approximately an 8 inch wide pattern, at 8 inches from your target (depending on air cap & pressure setting). Fine-tuning of these adjustments will be based on your material and technique.

A small round pattern can be achieved by closing down the fan air adjustment, triggering the gun lightly, and maintaining a distance of 2 to 4 inches from your target.



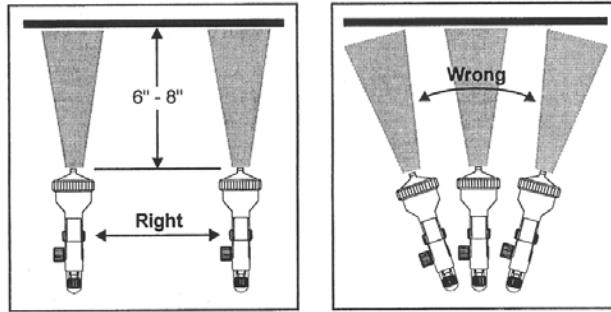
Gun Use - Continued

Spray Technique

Proper spray technique is very important to achieve a good finish. Always spray at a distance of 6 to 8 inches away from your target. Keep the gun parallel to your target throughout the entire pass. More detailed spraying can be done with the gun as close as 1 inch from the target. Make sure your wrist remains firm during each pass.

Trigger the gun only after your pass begins, and release the trigger before stopping your motion. Do not angle the gun upward or downward while spraying. Angled spraying will develop an uneven paint buildup. Overlap your passes approximately 50% for an even finish.

Always be certain to thin your material with the proper solvent, and to follow the recommendations of the material's manufacturer.



Guidelines for Setting Inlet Pressure Your 19 series spraygun requires lower than expected inlet pressures to produce excellent atomization and desired speed of application. The chart below shows recommended starting points for setting inlet pressures at the gun.

<u>Typical Application</u>	<u>Atomizing Set</u>	<u>Inlet Pressure (At Gun)</u>
Base Coats	.028/#5	25 - 30psi
Medium Solids Bases	.028/#5	25 - 30psi
High Solids Clears	.036/#6	35 - 43psi
Single Stages	.043/#7	30 - 35psi
Primers	.051/#9	25 - 30psi
Stains	.028/#5	25 - 30psi
Medium Solids Lacquers	.036/#6	35 - 40psi
High Solids Wood Finishes	.043/#7	35 - 43psi
High Solids Urethanes/Epoxies	.043/#7	30 - 35psi

Daily Maintenance

Gun Cleaning

Your gun is made from aluminum, and it contains aluminum components. Certain solvents containing Methylene Chloride and Trichloromethane are not chemically compatible with aluminum. If you are in doubt whether a chemical coating is compatible, contact your material supplier.

It is very important to clean your gravity gun and cup after every use. Adding a small amount of solvent to a clean cup and triggering the gun can clean the fluid passage. Do this with the air cap removed so you can recapture the spent solvent for proper disposal.

The air cap should be cleaned by soaking or by using a soft brush. Never use a hard tool that may damage the air cap holes. Clean the air cap holes with a wooden tooth pick or pipe cleaner. The smallest amount of damage to the air cap holes can affect the spray pattern.

Your gun and cup may be cleaned in a gun washer by removing the cup and filter, and inverting the gun. Limit the time in a gun washer to a maximum of 5 minutes. Some solvent may enter through the air inlet fitting. This will not damage the gun, and the excess solvent may be blown out with air.

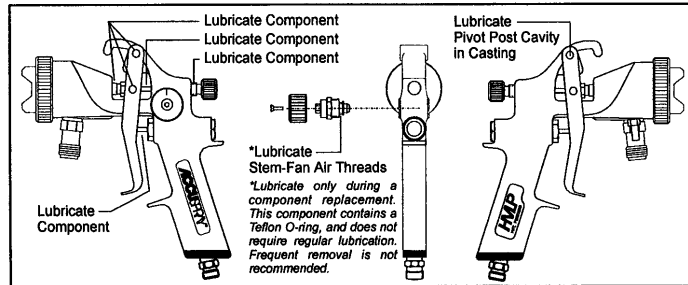
Cup Cleaning

It is also very important to clean your cup after every use. Before removing your cup lid from the cup, be sure to relieve the cup pressure through the relief valve. Unscrew the cup lid and remove the remaining material from the cup. Rinse the cup with a suitable solvent.

Gasket Replacement

Remember that the cup is a pressure cup. The gasket must be in good condition. The lid must be firmly seated to the cup to prevent air and fluid leakage. Inspect the gasket, lube the gasket channel, and pay attention to the fit with each use. Replace the gasket when necessary.

Lubrication After every cleaning of the gun, you must lubricate the moving components. Cleaning washes away the lubricants that protect the friction points.



Component Replacement

With regular cleaning and lubrication, complete disassembly of your spray gun should seldom be required. When it becomes time for a complete overhaul, or a part requires replacement, please follow these instructions.

General Close your high-pressure air source down. Remove your high-pressure air hose remembering to always apply counterforce to the air inlet fitting (see *Set-up, Attaching Your High Pressure Air Hose*). Dispose of any paint in your cup, and flush and clean your gun (see *Daily Maintenance, Gun Cleaning*).

Fluid Nozzle, Needle Tip & Needle Shaft

With the retaining ring and air cap removed, unscrew the fluid nozzle using your gun wrench #97-047. Pull and hold the trigger during this to retract the Delrin needle tip. Using the gun wrench prevents scoring of the fluid passage and gun body casting during replacement.

Release the trigger and unscrew the delrin needle tip. You can replace the needle tip at this point, remembering to retract the needle before reinstalling the fluid nozzle, or proceed with further disassembly.

To remove the needle shaft, unscrew and remove the needle adjustment screw and the needle adjustment spring. You may now pull the needle out of the gun with just your fingers. If the needle does not pull out freely, loosen the packing nut slightly. Your gun wrench will accomplish this with the trigger still attached to the gun.

Trigger Removal

To remove the trigger, you must have first removed the fluid needle as described above. With the fluid needle removed, locate the two E-rings on the right side of the trigger. Slide off the two E-rings with a small flat-blade screwdriver. The pivot pin (upper), and the trigger pin (lower) will now slide out to the left side of the gun, and the trigger is free to be removed. Note that left and right orientation is not critical at reassembly.

Packing Nut Spacer and Packing

Unscrew and remove the needle adjustment screw and the needle adjustment spring. Pull the needle out of the gun with your fingers. If the needle does not pull out freely, loosen the packing nut. Remove the packing nut with your gun wrench. The compression spring, spacer, needle guide, and seal should fall freely from gun. If you experience difficulty with removal, remove trigger pin and firmly tap the rear of the gun on a block of wood. Then remove the seal with an o-ring pick or similar narrow instrument. **See Figure 1.**

Component Replacement-Continued

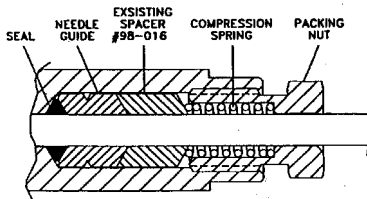


Figure 1

Fan Air Knob

To remove the fan air knob, and to lubricate the fan air stem threads, have ready a 3/64" hex key. Unscrew and remove the fan air adjustment screw using the hex key, and lift the fan air adjustment knob. Using your gun wrench, unscrew and remove the fan air fitting from the gun body. This will lift out from the gun body as an assembly. The threads of the fan air stem may now be lubricated with gun lube. **See Figure 2.**

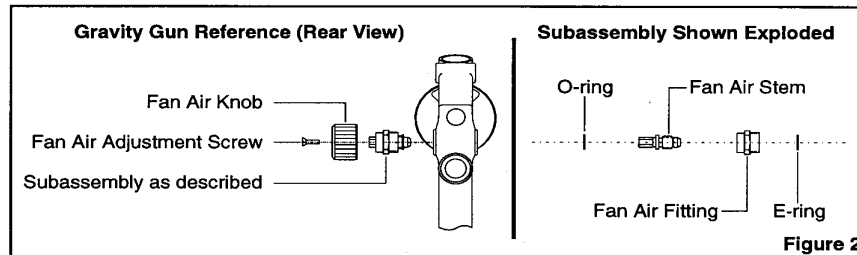


Figure 2

The subassembly may now be disassembled by first removing the E-ring from the fan air stem with a small, flat-blade screwdriver. With the E-ring removed, back out the fan air stem from the fan air fitting. The O-ring may now be removed and replaced, and the sub-assembly can be reassembled and placed back into the gun body.

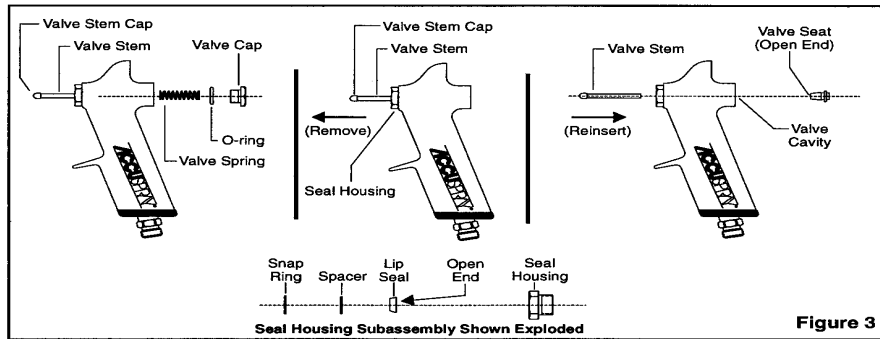
Valve Rebuild

Valve rebuild is a 2 step procedure. Step one involves removal and replacement of the valve spring. You would wish to do this if you were experiencing a sluggish trigger return. To remove the valve spring, unscrew and remove the valve cap with your gun wrench. At this stage you can also remove and replace the o-ring for the valve cap.

Step two involves completely removing the valve from the gun body. Before you can proceed, the needle shaft and trigger must be removed. We will assume that the valve cap, valve spring, and the o-ring have already been removed.

Component Replacement-Continued

Grasp the valve stem and pull it forward. Note the removal of the valve stem cap is not required. The valve stem will pull out from the valve seat and out of the gun through the seal housing. The valve seat can be removed from the gun by gently reinserting the valve stem into the seal housing to “unseat” the valve seat. The valve seat will drop out of the valve cavity. **See Figure 3.**

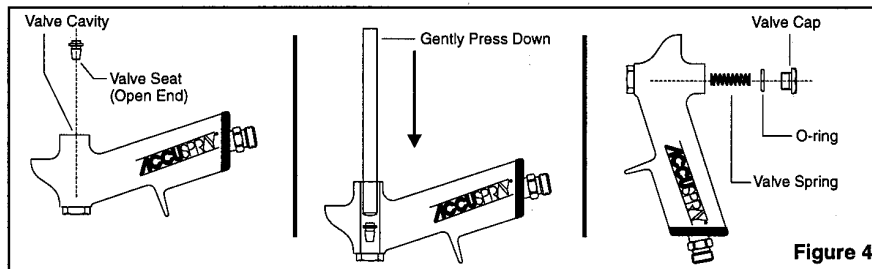


Seal Housing Replacement

Using your gun wrench, unscrew and remove the seal housing. The seal housing subassembly contains a snap ring. This is the only area that a special tool is required. The snap ring requires a size 100 tool. With the snap ring removed, lift out the spacer, lip seal, and clean the seal housing cavity.

Note the orientation of the lip seal, the open end of the lip seal is to be placed into the seal housing. Pack the seal housing with petroleum jelly. The lip seal will be properly installed when you feel a positive lock, and its resting level. Reinstall the spacer and snap ring. **See Figure 3.**

Drop a new valve seat into the valve cavity open end down. Gently press down on the valve seat to align it in the cavity. A long thin object such a pen works well for this. Next re-install the o-ring, valve spring, and valve cap. **See Figure 4.**



Component Replacement-Continued

Next, gently push the valve stem back into the valve seat through the seal housing. You will know that the installation is correct and complete when the spring return action is smooth. As a final seating procedure, depress the valve stem as far back as it will go, and then release it. Lubricate the valve stem with gun lube.

Overview Series 19 Propack

The Series 19 system was designed for maximum operator flexibility in adjusting pressure where coatings are frequently changed and slight variations in atomizing pressures are used. The mini-regulator and gauge assembly provides precision control of low pressure atomizing air.

Series 19 Propack Includes:

- 93-103 Mini-regulator and gauge assembly
- Series 19 Gun
- 1 quart pressure cup
- Extra Atomizing Set

Atomizing Pressure

Set the **atomizing pressure** on the mini-regulator **before** spraying. Always set atomizing pressure with the gun trigger pulled so air is flowing out the air cap.

Note: Increasing the air pressure will give finer atomization. Decreasing the air pressure will give less atomization. However, before increasing the atomizing pressure, work with the fan and fluid controls. This will insure maximum paint savings and highest quality finishes.

If you feel the gun is spraying too much material, try closing down the fluid adjustments a little at a time to achieve the desired finish. Do this before increasing air pressure. *Increasing the air pressure increases the airflow.*

*When using a remote 2-quart cup or paint tank, set fluid flow to 0-20psi. Fluid atomizes best within this range. Some special applications may require over 20psi. Using fluid pressures over 20psi may create "heavy center" effects in the spray patterns. Changing the fluid nozzle to the next larger size, then reducing the fluid pressure will reduce "heavy center" effects in the spray patterns

Needle Tips/Nozzles and Air Caps

Why change needle tips/nozzles and air caps?

The atomizing set in your gun was selected for its performance with many frequently used coatings. At the same time, different sizes of needle tips/nozzles or air caps can improve the results with coatings of different viscosities. To extend the versatility of your Accuspray gun, please see general guidelines for needle tips/nozzles and air caps.

General Guidelines

- Light viscosity coatings will usually require a smaller nozzle.
- To adjust speed of application, the nozzle size can be changed. Smaller nozzles-slower. Larger nozzles-faster
- To adjust the degree of fine finish, the air cap size can be changed. Smaller Air Caps-Finer finishes.

Prokits:

These atomizing sets combine popular tip/nozzle and air cap sizes. *

Prokit-10: Includes: .036(0.9mm) Delrin tip and Nozzle; #8 Delrin Air Cap
Lighter viscosity materials such as acrylic lacquers, waterborne lacquers, shellacs, stains, wood sealers. Also most automotive finishes.

Prokit-11: Includes: .043(1.1mm) Delrin Tip and Nozzle;#9 Delrin Air Cap
Medium viscosity materials, such as waterborne clears, epoxies, polyurethanes, acrylic urethanes, and enamels. Also most automotive finishes.

Prokit-12: Includes: .051(1.3mm) Delrin Tip and Nozzle; #10 Delrin Air Cap
Heavier viscosity architectural and maintenance materials, such as full-bodied stains, waterborne and acrylic enamels, latexes, and adhesives.

Prokit-30: Includes: .036, .043, .061Delrin Tip and Nozzle; #8 & #9 Delrin Air Caps
Various coatings with low medium and heavier viscosities.

I Kits:

These atomizing sets combine popular *high-solids* tip/nozzle and air cap sizes.

I Kit-31: Includes: 736(0.9mm) Delrin Tip and Nozzle; 725 Aluminum Air Cap
High Solids Automotive Bases and Clears.

I Kit-32: Includes: 743(1.1mm) Delrin Tip and Nozzle; 726 Aluminum Air Cap
High Solids Production Fleet painting.

***Prokits can also be ordered with an aluminum air cap. To order, add an "A" to the Prokit part number.**

Needle Tips/Nozzles and Air Caps

Recommendations and ordering information for architectural, maintenance, and production applications:

91-143-xxxDT.....Delrin tip and nozzle set.

Replace the xxx to specify size:

- .021(.5mm) or .028(.7mm) for very light viscosity coatings; low fluid flow
- .036(.9mm) for light /medium viscosity coatings; low fluid flow
- .043(1.1mm) for medium viscosity coatings; medium fluid flow
- .051(1.3mm) for heavier viscosity coatings; medium fluid flow
- .061(1.5mm) -.110(3.0mm) also available for the heaviest materials; high fluid flow

Recommendations and ordering information for automotive applications:

91-143-xxxDT.....Delrin tip and nozzle set.

Replace the xxx to specify size:

- .021(.5mm) or .028(.7mm) for spot repairs; exceptional material control; slow speed.
- .036(.9mm) for spot, panel and completes; excellent for bases; medium speed.
- .043(1.1mm) for panels and completes; excellent for single stage colors and clears; fast speed.
- .051(1.3mm) for high viscosity materials; great for primers; very fast speed.

91-009-yy.....Delrin Air Cap

A delrin air cap provides a smooth non-stick surface for easy cleaning and quality finishes. The smaller the air cap, the finer the finish.

Replace the yy to specify size: 8,9,10,11,11.5,12,13

91-071-yy.....Aluminum Air Cap

Aluminum air caps are machined at slightly higher tolerances and are usually used in automotive refinishing where a very fine finish is needed. The smaller the number air cap, the finer the finish. Replace the yy to specify size.

#5 air cap. No orange peel. For a mirror like finish with high solids and clears.

#6 air cap. No orange peel. For completes on single-stage solid colors, candies and clears.

#7 air cap. Almost no orange peel. For panels and completes on single-stage solids, candies and clears.

#8 air cap Little orange peel. For spot, panel and completes on single stage finishes, candies and clears.

#9 air cap. Some orange peel. Will duplicate most O.E.M. finishes. For spot, panel, and completes on single stage finishes, basecoats and clears.

#10 air cap. Will leave some orange peel. For primers, sealers, and some undercoatings.

Maintenance Kits and Accessories

19 Series Maintenance Kit #98-049

Mini-Regulator #93-103
½ Pint Cup Assembly #41-11
Standard 1 Quart Cup #41-22
Premium 1 Quart Cup #41-42

Delrin Retaining Ring #91-043
Cup Gasket #UH-1377/3
Cup Lid Diaphragm #94-021/3
Serviceable Check Valve Assembly #94-601
Spring Clip for Diaphragm #94-064/3
Gun Wrench #97-047
Gun Lube #91-170
Brush #SH-480
Complete Brush Cleaning Kit #91-470

Gun Conversions for Fluid Handling Options

Attached Cup to Pressure Feed

When using your gun with a 2 quart cup or paint tank, rather than with an attached ½ pint or 1 quart cup. Install the pressure stem cap (#91-109) by pushing it over the air pressure stem (#LFG-465) to prevent loss of atomizing pressure.

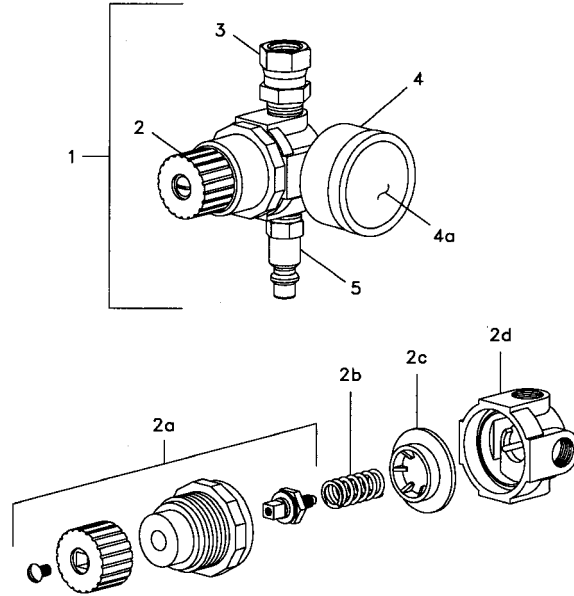
For permanent use of your gun with 2 quart cup or paint tank, remove the pressure stem (#LFG-465) and replace it with a port plug (#UH-694).

**You will be able to convert back to a cup set-up by removing the plug and re-installing the pressure stem.*

Pressure Feed to Attached Cup

When the gun is purchased as a pressure feed gun and you want to convert it to a pressure gun, the pressure stem (#LFG-465) must replace the plug (#UH-694). After the pressure stem is installed in the gun, the easiest way to change to pressure feed is through installing the air stem cap (#91-109). To install, simply push over the stem.

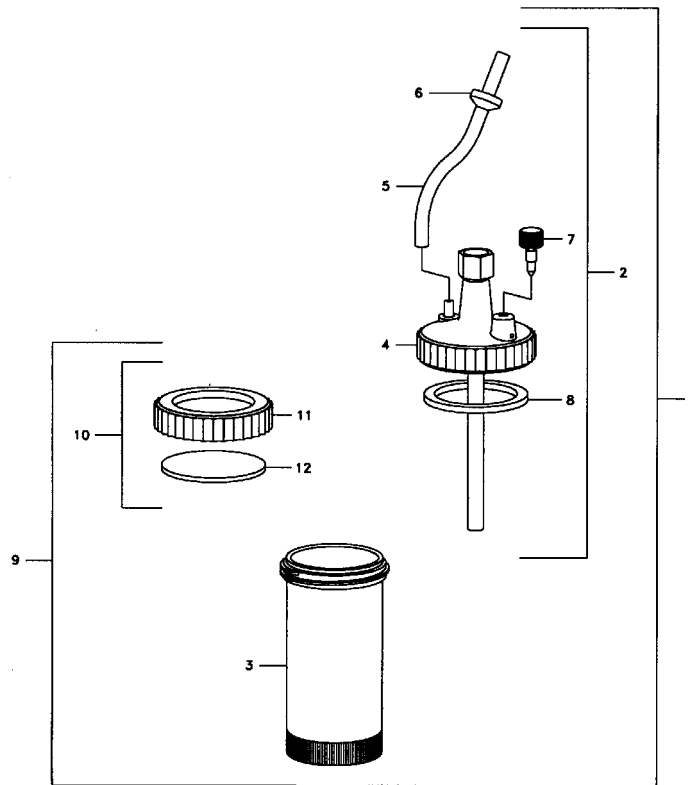
Parts Identification Mini-Regulator/Gauge (93-103)



ITEM	PART No.	DESCRIPTION
1	93-103	AIR REGULATOR ASSEMBLY
2	93-101	0-125 PSI AIR REGULATOR
2a	93-026	BONNET ASSEMBLY
2b	93-073	ADJUSTMENT SPRING
2c	93-028	DIAPHRAGM
2d	93-104	AIR REGULATOR BASE
3	UH-1032	SWIVEL FITTING
4	93-102	0-160 PSI AIR GAUGE
4a	93-036	REPLACEMENT GAUGE LEN
5	80-936	AIR INLET QUICK-DISCONNECT

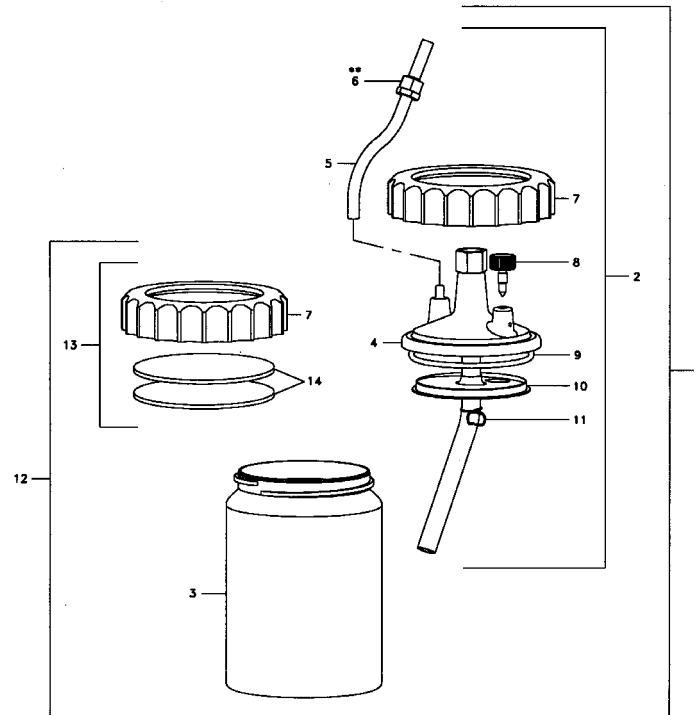
Caution: Use of wall mount and coalescing filters are highly recommended so that only clean air is delivered to the 93-103 and the gun.

Parts Identification ½ Pint Cup Assembly (41-11)



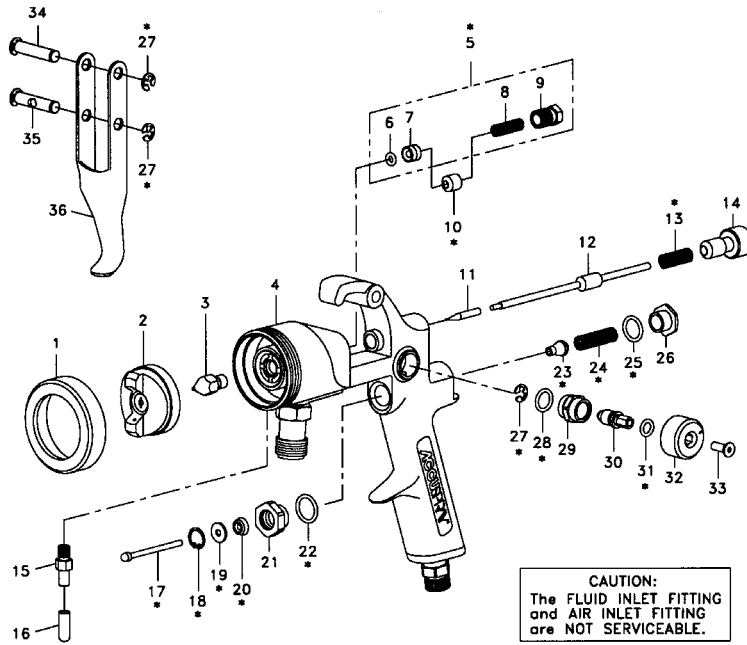
Item	P/N	Description
1	41-11	½ Pint Cup Assembly
2	94-101	½ Pint Cup Lid Assembly w/ Ck. Valve
3	94-082	½ Pint Cup (Cup Only)
4	94-087	Cup Lid Sub-Assembly
5	94-049/3	Check Valve Assembly (Pack of 3)
6	91-129/4	Check Valve (Pack of 4)
7	94-035A	Pressure Relief Screw
8	94-084/4	Gasket (Pack of 4)
9	94-232	Storage Cap/Cup Assembly
10	94-231	Storage Cap Assembly
11	94-226	Storage Cap
12	94-227/4	Storage Cap Gasket

Parts Identification 1 Quart Premium Cup (41-42)



Item	P/N	Description
1	41-42	Premium 1 Quart Cup Assembly
2	94-596	1 Quart Cup Lid Assembly w/ Check Valve
3	94-594	1 Quart Cup (Cup Only)
4	94-593	Cup Lid Sub-Assembly
5	94-601	Check Valve Assembly (Pack of 3)
6	91-225	Serviceable Check Valve
7	94-597	Retaining Ring
8	94-035A	Pressure Relief Screw
9	UH-13773	O-Ring Seal (Pack of 3)
10	94-021/3	Diaphragm (Pack of 3)
11	94-064/3	Spring Clip (Pack of 3)
12	94-634	Storage Cup/Cap Assembly
13	94-433	Storage Cap Assembly
14	94-230/4	Storage Cap Gasket
**	91-228/10	Check Valve Diaphragm (Pack of 10)

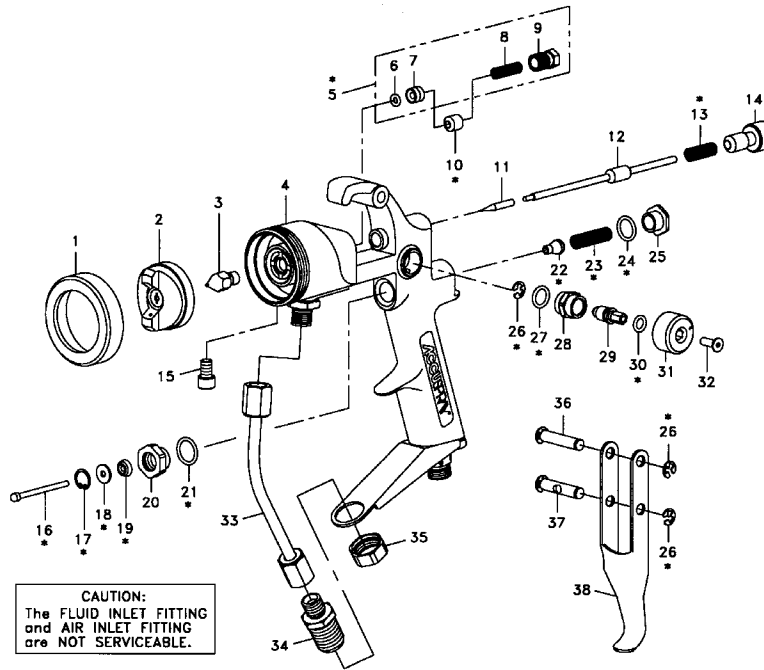
19 Series Hand Gun – Parts Identification



ITEM	PART No.	DESCRIPTION
1	91-043	RETAINING RING
2	91-071-xx	AIR CAP
3	91-008-xx	FLUID NOZZLE
4	98-018	SPRAYGUN SUB-ASSEMBLY
5	91-200	SELF-ADJUSTING PACKING KIT
6	UH-1405/10	O-RING (PACK OF 10)
7	91-202/2	NEEDLE GUIDE (PACK OF 2)
8	91-199/3	COMPRESSION SPRING (PACK OF 3)
9	91-201	PACKING NUT
10	98-016	SPACER
11	91-107-xxx/4	NEEDLE TIP (PACK OF 4)
12	98-009	NEEDLE SHAFT
13	LG-27/5	SPRING (PACK OF 5)
14	97-023	ADJUSTMENT SCREW
15	LFG-465	AIR PRESSURE STEM
16	91-109/10	AIR PRESSURE STEM CAP (PACK OF 10)
17	97-155	VALVE STEM ASSEMBLY
18	UH-1107/10	SNAP RING (PACK OF 10)
19	97-026/5	SPACER (PACK OF 5)

ITEM	PART No.	DESCRIPTION
20	97-027	LIP SEAL
21	97-029	SEAL HOUSING
22	UH-842/3	O-RING (PACK OF 3)
23	97-056	VALVE SEAT
24	97-032	VALVE SPRING
25	UH-1106/5	O-RING (PACK OF 5)
26	97-034	VALVE CAP
27	UH-1108/3	E-CLIP (PACK OF 3)
28	UH-647/10	O-RING (PACK OF 10)
29	97-043	FAN AIR HOUSING
30	97-041	VALVE STEM
31	UH-1111/5	O-RING (PACK OF 5)
32	97-040	FAN AIR KNOB
33	UH-831/6	SCREW (PACK OF 6)
34	97-038	TRIGGER PIVOT PIN ASSEMBLY
35	97-037	TRIGGER PIN ASSEMBLY
36	97-036	TRIGGER
*	98-049	SPRAYGUN REBUILD KIT

19I Series Hand Gun- Parts Identification



ITEM	PART No.	DESCRIPTION
1	91-043	RETAINING RING
2	91-071-xx	AIR CAP
3	91-008-xx	FLUID NOZZLE
4	98-118	SPRAYGUN SUB-ASSEMBLY
5	91-200	SELF-ADJUSTING PACKING KIT
6	UH-1405/10	O-RING (PACK OF 10)
7	91-202/2	NEEDLE GUIDE (PACK OF 2)
8	91-199/3	COMPRESSION SPRING (PACK OF 3)
9	91-201	PACKING NUT
10	98-016	SPACER
11	91-107-xxx/4	NEEDLE TIP (PACK OF 4)
12	98-009	NEEDLE SHAFT
13	LG-27/5	SPRING (PACK OF 5)
14	97-023	ADJUSTMENT SCREW
15	UH-694	AIR PRESSURE PORT PLUG
16	97-155	VALVE STEM ASSEMBLY
17	UH-1107/10	SNAP RING (PACK OF 10)
18	97-026/5	SPACER (PACK OF 5)
19	97-027	LIP SEAL
20	97-029	SEAL HOUSING

ITEM	PART No.	DESCRIPTION
21	UH-842/3	O-RING (PACK OF 3)
22	97-056	VALVE SEAT
23	97-032	VALVE SPRING
24	UH-1106/5	O-RING (PACK OF 5)
25	97-034	VALVE CAP
26	UH-1108/3	E-CLIP (PACK OF 3)
27	UH-647/10	O-RING (PACK OF 10)
28	97-043	FAN AIR HOUSING
29	97-041	VALVE STEM
30	UH-1111/5	O-RING (PACK OF 5)
31	97-040	FAN AIR KNOB
32	UH-831/6	SCREW (PACK OF 6)
33	98-119	FLUID TUBE ASSEMBLY
34	98-066	FLUID FITTING
35	98-064	LOCK NUT
36	97-038	TRIGGER PIVOT PIN ASSEMBLY
37	97-037	TRIGGER PIN ASSEMBLY
38	97-036	TRIGGER
*	98-049	SPRAYGUN REBUILD KIT

Troubleshooting

Problem	Cause	Remedy
Bad Spray Pattern	Air Cap Clogged	Soak in Thinner
	Nozzle Clogged	Appropriate Solvent
	Bent Fluid Needle	Replace Fluid Needle
Blistering	Moisture on Surface	Clean Surface
	Wrong Solvent	Check Solvent
	Coats Not Compatible	Check Compatability
	Insufficient Dry Time	Longer Dry Time
Fish Eyes	Surface Too Cold	Warm Surface
	Air Contamination	Add Air Filtration
Heavy Middle Pattern	Silicone Contamination	Clean Surface W/ Solvent
	Too Much Pot Pressure	Reduce Fluid Pressure
Intermittent, Pulsating Spray	Not Enough Atomizing Pressure	Increase Atomizing Pressure
	Worn or Loose Packing	Tighten or Replace
Insufficient Fluid Flow, Pressure Feed	Low Fluid in Cup or Pot	Add Fluid
	Restriction in Fluid Line	Use 3/8" Fluid Hose
	Blocked Hose	Flush or Replace Hose
	Fluid Nozzle Too Small	Use Larger Needle/Nozzle
Coarse or Lumpy Surface	Low Fluid Pressure	Increase Fluid Pressure
	Dirt or Dust on Surface	Tack Wipe Before Spray
Mottled Looking Surface	Material is Contaminated	Change or Strain
	Coating Too Thin	Use Less Thinner
	Coats Too Wet	Reduce Fluid Flow
No Paint Flow	Improper Spray Technique	Hold Gun Parallel to Work
	Clogged Fluid Nozzle	Clean Fluid Nozzle
	Loss of Air Pressure	Check Hose, Cup Gasket
	Loss of Fluid Pressure	Out of Paint
	Clogged Air Passage	Clean With Solvent
	Restriction in Mat'l Hose	Flush With Solvent
Orange Peel	Clogged Check Valve	Replace Check Valve
	Paint Drying Too Fast	Use Proper Solvent
	Gun Too Far From Target	6 - 8 Inches is Ideal
Overspray is Excessive	Viscosity Too Heavy	Reduce with Solvent
	Gun Too Far From Target	6 - 8 Inches is Ideal
Pin-holing, Solvent Pops	Too Much Atomizing Air for Coating Being Sprayed	Reduce Atomizing Air
	Trapped Solvent	Apply Lighter Coats
	Improper Solvent	Check Coating Mfg.
Paint Leak	System Contaminated	Clean all Parts
	Wrong Needle Size	Replace
	Damaged/Worn Needle	Replace
	Loose Fluid Nozzle	Tighten or Replace
	Worn/loose Packing Nut	Tighten or Replace
Tilted Gun	Needle Not Closing	Packing Too Tight. Broken or Missing Needle Spring. Dried Paint on Needle.
		Do Not Tilt While Spraying

Troubleshooting-Continued

Problem	Cause	Remedy
Runs and Sags	Material Too Thin	Add Product
	Moving Gun Too Slow	Speed up, Smaller Nozzle
	Surface Too Cold	Warm Up Surface
	Too Much Product	Reduce Fluid flow
	Gun Too Close To Target	6 - 8 Inches is Ideal

Troubleshooting for the 93-103 Mini-Regulator

Problem	Cause	Remedy
Air Pressure Too High	Regulator sticking caused by dirt on valve body or seat or piston seat or improperly lubricated parts	Clean, replace and lubricate parts Install good air filter before main regulator and maintain it
Not Enough Pressure	Dirty filter	Replace filter element
	Air hose too small from high pressure wall mount regulator to gun mount HVLP regulator	Install larger air hose (5/16") to eliminate the restriction. 85-125 psi should be kept at the regulator inlet for full efficiency
	Insufficient line pressure	Increase pressure delivered to gun or shorten hose length
Regulator Doesn't Hold Pressure	Dirt from contaminated air is making diaphragm stick or solvents have attacked the seals	Use only clean filtered air to the mini-regulator. Do not place mini-regulator in a gun washer

Some Reminders:

If correcting a problem involves changing the fluid nozzle:

- Be sure to squeeze the trigger to retract the needle. This will prevent damaging the needle tip.

If it necessary to remove cup lid from the cup:

- Be sure to relive cup pressure through the relief valve.

When using a cup gun and spraying a horizontal surface, the fluid may work itself into the tube. In order to reverse this flow, follow these instructions:

- Hold the gun upright
- Open the pressure relief valve screw (94-035A)
- Pull the trigger back just enough for air. This will push paint back into cup.
- When the tube is clear of fluid, re-close the pressure relief screw.
- If the tube has been coated, replace it before your next use.

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