

# HIGH QUALITY SPRAY GUN INSTRUCTION MANUAL

This manual contains IMPORTANT WARNINGS and INSTRUCTIONS Read and understand the instruction manual before use and retain for reference.

Main specifications	Maximum Working Pressure	6,8 bar (98PSI)
	Nosie level (LAeqT)	74.8dB(A)
	Temperature range	5-10

ISO9001 CE SLG

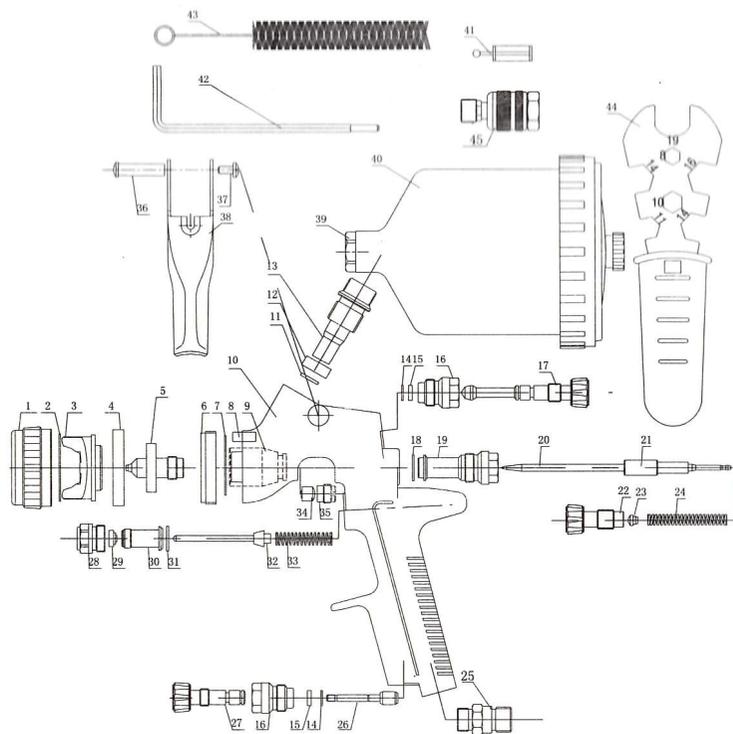
Model	Type of feed	Capacity of cup (ml)	Technology	Air pressure	Nozzle orifice $\phi$ mm	Air consumption	Pattern width (cm)
H-923	Gravity	600	H.V.L.P	2.0-2.5 bar (29-36psi)	1.3-1.4-1.6 1.8-2.0-2.5	about 4.6cfm (about 220ml/min)	27
LM-923		600	L.V.M.P	2.5-3.0 bar (36-43psi)	1.3-1.4-1.6 1.8-2.0-2.5	about 5.0cfm (about 260ml/min)	27
H-923S	Suction	1000	H.V.L.P	2.0-2.5 bar (29-36psi)	1.3-1.4-1.6 1.8-2.0-2.5	about 4.5cfm (about 200ml/min)	25
LM-923S		1000	L.V.M.P	2.5-3.0 bar (36-43psi)	1.3-1.4-1.6 1.8-2.0-2.5	about 4.8cfm (about 230ml/min)	25

\*Atomizing air pressure means air pressure at gun inlet when trigger is pulled and air flows.

## PARTS LIST

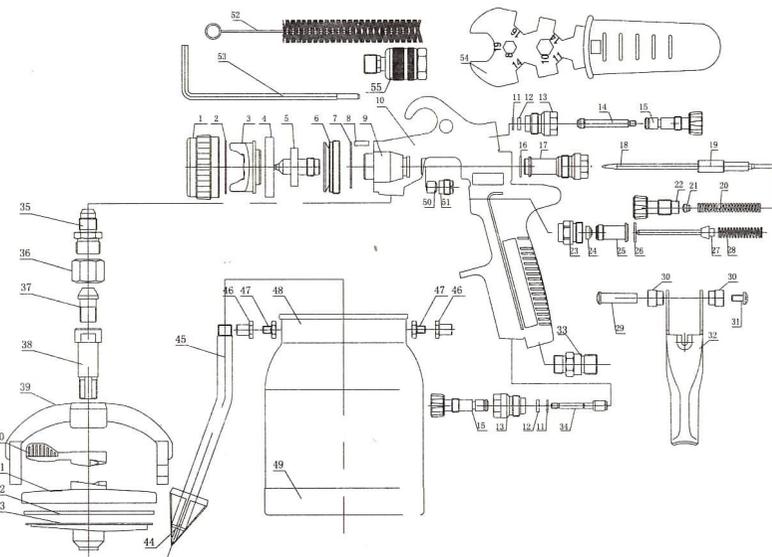
NO. DESCRIPTION

1	Air cap ring
2	Air cap ring gasket
3	Air cap
4	Air cap sealed washer
5	Nozzle
6	Atomolysis ring
7	Atomolysis ring washer
8	Vice airflow bush
9	Body insert
10	Gun body
11	Fluid joint pad
12	Fluid joint plastic
13	Fluid joint
14	Retaining ring
15	Sealed washer
16	Pattern adj. seat
17	Valve needle
18	Needle bushing washer
19	Needle bushing
20	Needle
21	Needle seat
22	Needle adj. screw
23	Needle spring washer
24	Needle spring
25	Air inlet
26	Air valve needle
27	Air valve adj. screw
28	Valve seat
29	Valve sealed screw
30	Valve
31	Valve washer
32	Valve needle
33	Valve spring
34	needle washer
35	Nozzle orientatong screw
36	Trigger pin
37	Cross spiral bolt
38	Trigger
39	Cup insert
40	Cup
41	Plastic filter
42	Hex wrench
43	Brush
44	Spanner
45	360° rotatable air connector



When ordering parts, specify gun's model, part name with ref. No. and marked No. of air cap set, fluid nozzle and fluid needle.

1	Air cap ring
2	Air cap ring gasket
3	Air cap
4	Air cap sealed washer
5	Nozzle
6	Atomolysis ring
7	Atomolysis ring washer
8	Vice airflow bush
9	Gun insert
10	Gun body
11	retaining ring
12	Pattern sealed washer
13	Pattern adj. seat
14	Valve needle
15	Air valve adj. screw
16	Needle bushing washer
17	Needle bushing
18	Needle
19	Needle seat
20	Needle spring
21	Needle spring washer
22	Needle adj. screw
23	Valve seat
24	Valve needle washer
25	Valve
26	Valve washer
27	Valve needle
28	Valve spring
29	Trigger pin
30	Trigger gasket
31	Cross spiral bolt
32	Trigger
33	Air inlet
34	Air valve needle
35	Paint inlet
36	Hex-nut
37	Cup connector
38	Pipe connector
39	Cover bridge
40	Lock wrench
41	Cup cover
42	Cover gasket
43	Plastic gasket
44	Fluid filter
45	Fluid pipe
46	Rivet
47	Rivet sheath
48	Cup
49	Cup seat
50	Needle washer
51	Needle orientation screw
52	Hex wrench
53	Brush
54	Spanner
55	360° rotatable air connector



## SAFETY WARNINGS

### ⚠ FIRE OR EXPLOSION HAZARD

- Fluid and solvents can be highly flammable or combustible.
  - Use in well-ventilated spray booth.
  - Avoid any ignition sources such as smoking, open flames, electrical hazard, etc.
- NEVER use HALOGENATED HYDROCARBON SOLVENTS (1.1.1 TRICHLORINE, ETHYL CHLORIDE, etc.), which can chemically react with aluminum and zinc parts and cause an explosion. Be sure that all fluids and solvents used are chemically compatible with aluminum and zinc parts.
- To reduce the risk of static sparking, grounding continuity to the spray equipment and object being sprayed must be maintained.



### ⚠ MISUSE HAZARD

- NEVER point gun in the direction of human body.
- NEVER exceed the maximum safe working pressure of the equipment.
- ALWAYS release air and fluid pressures before cleaning, disassembling or servicing. For emergency stop and prevention of unintended operation, a ball valve installed near the gun to stop air supply is recommended.



**HAZARD CREATED WHILE COATING MATERIALS ARE ATOMIZED AND SPRAYED**

- Toxic vapors produced by spraying certain materials can create intoxication and serious damage to health.
  - Use the gun in well-ventilated areas.
  - Always wear protective eyewear, gloves, respirator, etc., to prevent the toxic vapor hazard, solvents and paint from coming into contact with your eyes or skin.
- Noise level mentioned in main specifications was measured at 1.0 m behind the tip of the gun, 1.6 m height from floor.
  - Wear earplugs if required.



**OTHER HAZARDS**

- NEVER modify this product for any applications.
- NEVER enter working areas of robots, reciprocators, conveyors, etc., unless machines are switched off.
- NEVER spray foods or chemicals through the spray gun.
- If something goes wrong, immediately stop operation and find the cause. Never use till you have solved the problem.

**INSTALLATION**

<b>IMPORTANT</b>	This gun should be operated by adequately trained operators only. Ensure that the gun has not been damaged during transportation. Clean, dry air should be supplied to the gun.
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- Connect an air hose to air nipple tightly.
- Connect an applicable cup, to fluid nipple tightly.
- Flush the gun fluid passage with a compatible solvent.
- Pour paint into container, test spray and adjust fluid output as well as pattern width.

**MAINTENANCE AFTER PAINTING**

**WARNING**

- TURN OFF AIR AND COATING MATERIALS TO THE GUN AND RELEASE PRESSURE BY TRIGGERING THE GUN BEFORE DISASSEMBLING, CLEANING OR SERVICING.
- PAY ATTENTION WHEN DISASSEMBLING SPRAY GUN SINCE YOU MUST TOUCH SHARP PARTS.
- DO NOT DISASSEMBLE WITHOUT RECEIVING ENOUGH KNOWLEDGE AND EDUCATION.

- Pour remaining paint into another container and then clean paint passages and air cap. Spray a small amount of thinner to clean paint passages. Incomplete cleaning will cause adverse pattern shape and particles. Clean fully and promptly two-component paint after use.
- Clean other sections with attached brush soaked with thinner and waste cloth.
- Clean paint passages fully before disassembly. Use ring spanner, box wrench or optional exclusive spanner to remove fluid nozzle.
- Remove fluid nozzle after removing fluid needle set or while keeping fluid needle pulled, in order to protect seat section.
- While keeping fluid needle set inserted, tighten fluid needle packing set by hand. Then tighten gradually by spanner. Adjust packing set while pulling trigger and watching movement of fluid needle set since too much tightening will slow down movement of fluid needle and result in leakage from tip of nozzle. If tightened too much, turn counterclockwise to the sufficient position without stuck needle and fluid leakage.
- Turn pattern adj. knob counterclockwise to fully open. And then tighten pattern adj. guide into gun body.

**CAUTION**

- NEVER USE COMMERCIAL OR OTHER PARTS INSTEAD OF THE ORIGINAL SPARE PARTS.
- NEVER IMMERSE THE WHOLE GUN INTO LIQUID SUCH AS THINNER.
- NEVER DAMAGE HOLES OF AIR CAP, FLUID NOZZLE AND FLUID NEEDLE.

**HOW TO OPERATE**

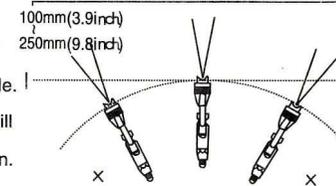
Suggested air pressure is 2.0 to 3.0 bar (28 to 43 psi).

Recommended paint viscosity differs according to paint property and painting conditions. 15 to 23 sec. / Ford #4 is recommendable.

Keep fluid output as small as possible to the extent that the job will not be hindered. It will lead to better finishing with fine atomization.

Set the spray distance from the gun to the workpiece as near as possible within the range of 100-250 mm (3.9-9.8 in).

The gun should be held so that it is perpendicular to the surface of the work piece at all times. Then, the gun should move in a straight and horizontal line. Arcing the gun causes uneven painting.



**TROUBLESHOOTING**

Spray Pattern	Problems	Remedies
Fluttering	1. Air enters between fluid nozzle and tapered seat of gun body. 2. Air is suctioned from fluid needle packing.	1. Remove fluid nozzle to clean seat. If it is damaged, replace nozzle. 2. Tighten fluid needle packing.
Crescent	1. Paint buildup on air cap partially clogs horn holes. Air pressure from both horns differs.	1. Remove obstructions from horn holes. But do not use metal objects to clean horn holes.
Inclined	1. Paint buildup on air cap partially clogs horn hole or air cap center hole, or causes damage. 2. Loose fluid nozzle.	1. Remove obstructions. Replace if damaged. 2. Remove fluid nozzle and clean seated section.
Split	1. Paint viscosity too low. 2. Fluid output too high.	1. Add paint to increase viscosity. 2. Adjust fluid adj. knob or pattern adj. knob.
Heavy Center	1. Paint viscosity too high. 2. Fluid output too low.	1. Reduce viscosity. 2. Increase fluid output.
Spit	1. Fluid nozzle and fluid needle set are not seated properly. 2. The first-stage travel of trigger (when only air discharges) decreases. 3. Paint buildup inside air cap set.	1. Clean or replace fluid nozzle and fluid needle set. 2. Replace fluid nozzle and fluid needle set. 3. Clean air cap set.

R1: retighten R2: adjust R3: clean R4: replace parts

Problem	Where it occurred	Parts to be checked	Cause	Remedy			
				R1	R2	R3	R4
Air leaks (from tip of air cap)	Air valve set	Air valve	* Dirt or damage on seat			○	○
		Air valve seat set	* Dirt or damage on seat			○	○
		O ring	* Wear on air valve spring				○
Paint leaks	Fluid nozzle	Fluid nozzle- fluid needle set	* Dirt, damage, wear on seat			○	○
			* Loose fluid needle adj. knob		○		
			* Wear on needle spring				○
	Fluid nozzle- gun body	* Insufficient tightening	○				
		* Dirt or damage on seat			○	○	
		* Needle does not return due to packing set too tight		○		○	
Fluid nozzle- packing set	* Needle does not return due to paint buildup on fluid needle			○	○		
Paint does not flow	Fluid needle	Needle packing set- needle set	* Wear	○			○
		Packing seat	* Insufficient tightening	○			
Paint does not flow	Tip of gun	Fluid adj. knob	* Insufficient opening		○		
		Tip hole of nozzle	* Clogged			○	
		Paint filter	* Clogged			○	○