HIGH QUALITY SPRAY GUN INSTRUCTION MANUAL

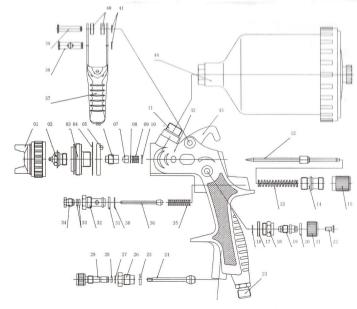
This manual contains IMPORTANT WARNINGS and INSTRUCTIONS Read and understand the instruction manual before use and retain for reference.

Main specifications			6.8 bar(98PSI) 74.8dB(A) 5-40		ISO9001 (€ 📠 💵				
Model	Model Capacity of cup		pe Air Inle	Air Consumption	Rated Pressure	Pattern Width	Choice Dia. Of Painting Nozzle (mm)		
H-891	125ml	Gravit	tv 1/4"	4.5-8.0cfm	22-45psi	about 13 cm			
	250ml	Gravit	y 174	(128-230L/min)	(1.5-3.0bar)		0.8-1.0-1.2		
LM-891	125ml	Crowit	1/4"	3.0-6.0cfm	29-45psi (2-3.0bar)	about 11 cm	0.0-1.0-1.2		
	250ml	Gravit	y 174	(85-170L/min)					
L-897	600ml	Gravit	y 1/4"	About10cfm (about280L/min)	22-29psi (1.5-2bar)	about 28 cm			
H-897	H-897 600ml		y 1/4"	About16cfm (about450L/min)	29-36psi (2-2.5bar)	about 27cm	1.0-1.3-1.4- 1.6-1.8-2.0		
LM-897	600ml	Gravit	y 1/4"	About12cfm (about330L/min)	36-43psi (2.5-3bar)	about 25 cm			

^{*}Atomizing air pressure means air pressure at gun inlet when trigger is pulled and air flows.

PARTS LIST

NO.	DESCRIPTION
1	Air cap set
2	Fluid nozzle
3	Front brass
4	Front brass washer
5	Atomolysis gasket
6	Packing screw
7	Needle plastic
8	Plate washer
9	Packing spring
10	Needle plastic
11	Fluid joint
12	Fluid needle
13	Needle spring
14	Needle adjust seat
15	Needle adjust knok
16	Hatching circle
17	Pattern washer
18	Pattern adjusting seat
19	Pattern adjusting valve
20	O-ring
21	Pattern adjusting knob
22	Cross bolt
23	Air inlet
24	Valve needle
25	O-ring
26	Air regulator seat
27	Hatching circle
28	O-ring
29	Air regulator screw
30	Valve washer
31	O-ring
32	Valve cover
33	Washer
34	Valve screw
35	Valve spring
36	Valve needle
37	Trigger
38	Trigger pin with hole
39	Trigger pin
40	Trigger washer
41	Hatching circle
42	Gun body
43	Hook
44	Cup
74	cup



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

SAFETY WARNINGS

♠ FIRE OR EXPLOSION HAZARD

- 1. 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.
- 2. 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.







- 1. NEVER point gun in the direction of human body.
- 2. NEVER exceed the maximum safe working pressure of the equipment.
- 3. 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.
- 2. 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.





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

I INSTALLATION

IMPORTANT

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.

- 1. Connect an air hose to air nipple tightly.
- 2. Connect an applicable cup, to fluid nipple tightly.
- 3. Flush the gun fluid passage with a compatible solvent.
- 4. 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.
- 1.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.
- 2.Clean other sections with attached brush soaked with thinner and waste cloth.
- 3.Clean paint passages fully before disassembly. Use ring spanner, box wrench or optional exclusive spanner to remove fluid nozzle.
- 4.Remove fluid nozzle after removing fluid needle set or while keeping fluid needle pulled,in order to protect seat section.
- 5.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 movment 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.
- 6. Turn pattern adj. knob counterclockwise to fully open. And then tighten pattern adj. guide into gun body.

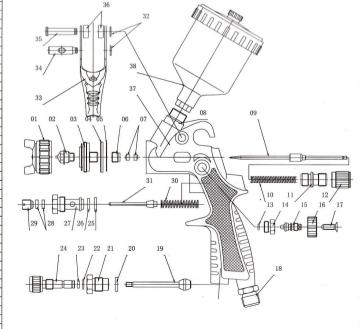
△ CAUTION

NO DESCRIPTION

- -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.

PARTS LIST

1 Air cap set 2 Fluid nozzle 3 Nozzle seat 4 Nozzle seat washer 5 Atomolysis gasket 6 Packing screw 7 Needle plastic 8 Fluid joint 9 Fluid needle 10 Needle aplist seat 11 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve screw 30 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33	NO.	DESCRIPTION
3 Nozzle seat 4 Nozzle seat washer 5 Atomolysis gasket 6 Packing screw 7 Needle plastic 8 Fluid joint 9 Fluid needle 10 Needle adjust 11 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve spring 31 Valve pring 31 Valve pring 32 Trigger pin with hole <td< td=""><td></td><td>Air cap set</td></td<>		Air cap set
4 Nozzle seat washer 5 Atomolysis gasket 6 Packing screw 7 Needle plastic 8 Fluid joint 9 Fluid needle 10 Needle adjust seat 12 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger pin 37 Trigger pin 36 Trigger pin 37 Trigger pin 37 Trigger pin 38 Trigger pin 36 Trigger pin 37 Trigger pin 36 Trigger pin		Fluid nozzle
5 Atomolysis gasket 6 Packing screw 7 Needle plastic 8 Fluid joint 9 Fluid needle 10 Needle spring 11 Needle adjust seat 12 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger pin 37 Trigger pin 36 Trigger pin	3	Nozzle seat
6 Packing screw 7 Needle plastic 8 Fluid joint 9 Fluid needle 10 Needle spring 11 Needle adjust seat 12 Needle adjust sknob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger pin 36 Trigger washer	4	Nozzle seat washer
7 Needle plastic 8 Fluid joint 9 Fluid needle 10 Needle spring 11 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger pin 37 Trigger pin 36 Trigger pin 37 Trigger pin	5	Atomolysis gasket
8 Fluid joint 9 Fluid needle 10 Needle adjust seat 11 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger pin	6	Packing screw
9 Fluid needle 10 Needle spring 11 Needle adjust seat 12 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	7	
10 Needle spring 11 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger pin 37 Trigger pin 38 Trigger pin 38 Trigger pin	8	Fluid joint
11 Needle adjust seat 12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger pin	9	Fluid needle
12 Needle adjust knob 13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	10	Needle spring
13 O-ring 14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer		
14 Pattern adjusting seat 15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger washer	12	Needle adjust knob
15 Pattern adjusting valve 16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	13	O-ring
16 Pattern adjusting knob 17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	14	Pattern adjusting seat
17 Cross bolt 18 Air inlet 19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	15	Pattern adjusting valve .
18 Air inlet 19 Air needle 20 O'ring 21 Air regulator seat 22 Hatching licile 23 O'ring 24 Air regulator screw 25 Valve washer 26 O'ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer		Pattern adjusting knob
19 Air needle 20 O-ring 21 Air regulator seat 22 Hatching circle 23 O-ring 24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger washer	17	Cross bolt
20		Air inlet
24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	19	Air needle
24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	20	
24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	21	
24 Air regulator screw 25 Valve washer 26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	22	Hatching circle
25	23	
26 O-ring 27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer		Air regulator screw
27 Valve cover 28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	25	Valve washer
28 Washer 29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	26	O-ring
29 Valve screw 30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer		Valve cover
30 Valve spring 31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer		Washer
31 Valve needle 32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	29	Valve screw
32 Hatching circle 33 Trigger 34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	30	Valve spring
34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	31	
34 Trigger pin with hole 35 Trigger pin 36 Trigger washer	32	
35 Trigger pin 36 Trigger washer	33	
36 Trigger washer		
36 Trigger washer	35	
27 Gun body	36	
	37	Gun body
38 Cup	38	Cup



HOW TO OPERATE

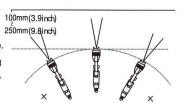
Suggested air pressure is 2.0 to 4.0 bar (28 to 60 psi).

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

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

Problem	Where it	Parts to be	Cause		Remedy				
1 TODIETTI	occurred	checked			R2	R3	R4		
Air leaks (from	Air valve set	Air valve	* Dirt or damage on seat			0	0		
tip of air cap)		Air valve seat set	* Dirt or damage on seat			0	0		
			* Wear on air valve spring				0		
		O ring	* Damage or deteriorated				0		
Paint leaks	Fluid nozzle	Fluid nozzle- fluid needle set	* Dirt, damage, wear on seat			0	0		
			* Loose fluid needle adj. knob		0				
			* Wear on needle spring	× 10.886.000.80			0		
		Fluid nozzle- gun body	* Insufficient tightening	0					
			* Dirt or damage on seat			0	0		
		Fluid nozzle- packing set	* Needle does not return due to packing set too tight		0		0		
			* Needle does not return due to paint buildup on fluid needle		0	0			
	Fluid needle	Needle packing set- needle set	* Wear	0			0		
		Packing seat	* Insufficient tightening	0			-		
Paint does not flow	Tip of gun	Fluid adj. knob	* Insufficient opening		0		- 20		
		Tip hole of nozzle	* Clogged			0			
		Paint filter	* Clogged			0	0		