

# INSTRUCTION MANUAL

和文取扱法、裏面にあります

REGISTRED FROM  
**ISO 9001**  
**JISQ 9001**

**JAB**  
 OMS Accreditation  
 2005

## Spray gun Long nozzle option for W-101 **LW-10B/LW-18B**

### Important

This manual contains **IMPORTANT WARNINGS** and **INSTRUCTIONS**. Equipment in this manual is exclusively for painting purposes. Do not use for other purposes.

The operator shall be fully conversant with the requirements stated in this instruction manual including important warnings, cautions and operation and correct handling. Read and understand the instruction manual, before use and retain for reference.

Be sure to observe warnings and cautions in this instruction manual. If not, it can cause paint ejection and serious bodily injury by drawing organic solvent. Be sure to observe following  $\Delta$  marked items which are especially important.

- $\Delta$  **WARNING** Indicates a potentially hazardous situation which, if not avoided, may result in serious injury or loss of life.
- $\Delta$  **CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

**Important** Indicates notes which we ask you to observe. The safety precautions in this instruction manual are the minimum necessary conditions. Follow national and local regulations regarding fire prevention, electricity and safety as well as your own company regulations.

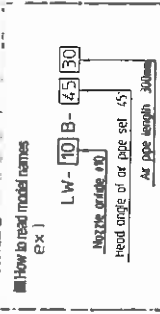
CE 01 2GX

This Anestiwata spray gun kit complies to ATEX Regulations 94/92EC.  
 Protection level: II 2 GX. Suitable for use in Zones 1 and 2.

X marking  
 Any static electricity discharge from the spray gun is to be diverted to the grounded the conductive air hose as stipulated.

### Important specifications

Max. Pressure	0.68MPa / 6.8 bar / 98 PSI
Nozzle level	72.3 ± 0.5 (A)
Spray condition	Recommended
Measuring point	1m backwards from gun, 1.6 m height
Max. Temperature	5°C ~ 40°C
Air + Fluid	5°C ~ 43°C



### Main specifications

Model	Type of feed	Nozzle orifice $\phi$ (mm) (in)	Air cap set Mark	Spray Pattern shape	※1 Adjusting air pressure MPa (bar) (PSI)	Fluid output ml/min	Spray distance mm (in)	Head Angle of air pipe set	Air consumption liter (dm <sup>3</sup> )	Pattern width mm (in)	Air & fluid connection	Mass g (lb)
LW-10B-0015	Pressure	1.0 (0.039)	W-101 E1	Only Fan pattern	0.3 (0.043)	150	200 (7.9)	0°	90 (0.2)	175 (6.9)	Air G1/4 (NPS1/4)	455 (1.00)
45°								505 (1.11)				
90°								575 (1.27)				
0°								455 (1.00)				
45°								505 (1.11)				
LW-18B-0015	Pressure	1.8 (0.071)	W-101 N1	Only Fan pattern	0.25 (0.35/50)	250	250 (9.8)	0°	210 (7.4)	185 (7.3)	Fluid G1/4 (NPS1/4)	455 (1.00)
45°								505 (1.11)				
90°								575 (1.27)				
0°								455 (1.00)				
45°								505 (1.11)				

※1. Adjusting air pressure means air pressure at gun inlet when trigger is pulled and air flows. ※2. Fan pattern application only.

### Safety precautions

#### WARNING

##### Fire and explosion

- Spark and open flames are strictly prohibited. Paints can be highly flammable and can cause fire. Avoid any ignition sources such as smoking, open flames, electrical goods, etc.
- Never use the following HALOGENATED HYDROCARBON SOLVENTS which can cause cracks or dissolution on gun body (aluminum) by chemical reaction.
  - unsuitable solvents: methyl chloride, dichloromethane, 1,2-dichloroethane, carbon tetrachloride, trichloroethylene, 1,1,1-trichloroethane
 (Be sure that all fluids and solvents are compatible with gun parts. We are ready to supply a material list used in the product.)
- Securely ground spray gun by using air hose with built-in ground wire. Ground wire: Less than 1M $\Omega$ . Check the earth stability periodically. If not, insufficient grounding can cause fire and explosion due to static electric sparking.

##### Improper use of equipment

- Never point gun toward people or animal. If done, it can cause inflammation of eyes and skin or bodily injury.
- Never exceed maximum operating pressure and maximum operating Temperature.
- Be sure to release air and fluid pressures before cleaning, disassembling or servicing. If not, remaining pressure can cause bodily injury due to improper operation or scattering cleaning liquid. In order to release pressure, first stop supply of compressed air, fluid and thinner to spray gun. Then remove trigger toward you.
- Tip of fluid needle set has a sharp point. Do not touch the tip of fluid needle during maintenance for the protection of the human body.

##### Protection of human body

- Use in a well-ventilated site by using spray booth. If not, poor ventilation can cause organic solvent poisoning and catch fire.
- Always wear protective gear (safety glasses, mask, gloves). If not, cleaning liquid, etc. can cause inflammation of eyes and skin. If you feel something wrong with eyes or skin, immediately see a doctor.
- Wear earplugs if necessary.
- Noise level can exceed 85dB(A), depending on operating conditions and painting site. If operators pull the trigger many times during operation, it may cause carpal tunnel syndrome. Be sure to take a rest if you feel tired.

##### Other precautions

- Never alter this spray gun. If done, it can cause insufficient performance and failure.
- Enter working areas of other equipment (robots, reciprocators, etc.) after machines are turned off. If not, contact with them can cause injury.
- Never spray foods or chemicals through this gun. If done, it can cause accident by corrosion of fluid passages or adversely affect health by mixed foreign matter.
- If something goes wrong, immediately stop operation and find the cause. Do not use again until you have solved the problem.

### How to connect

#### CAUTION

-Use clean air filtered through air dryer and air filter. ... if not, dirty air can cause painting failure. -If you use this gun for the first time after purchasing, clean fluid passages spraying thinner and remove rust preventive oil. If not, remaining preventive oil can cause painting failure such as fish eyes. -Firmly fix hose or container to spray gun. ... if not, disconnection of hose and drop of container can cause bodily injury.

- Job1. Connect an air hose to air nipple lightly
- Job2. Connect a fluid hose or a container to fluid nipple lightly
- Job3. Flush the gun fluid passage with a compatible solvent.
- Job4. Pour paint into container, test spray and adjust fluid output as well as pattern width

## How to operate

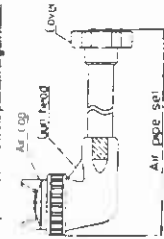
Suggested air pressure is 3.0 to 3.5 bar (43 to 50 psi).

Recommended paint viscosity differs according to paint property and painting conditions. 15 to 23 sec/Ford cup #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 work piece as near as possible within the range of 150-200mm (5.9-7.9 in).

Air cap set can rotate by 360°.  
Loosen cover on air pipe set, not air cap cover, then set the position of gun head.



## Maintenance and inspection

### WARNING

- First release air and pressure fully according to item No. 3 of "Improper use of equipment" of WARNING on page 2.
- Tip of fluid needle set has a sharp point. Do not touch the tip of needle valve at the maintenance for protection of the human body.
- Be careful not to damage the tip of fluid nozzle or must not put your hand on it.
- Only an experienced person who is fully conversant with the equipment can do maintenance and inspection.

### CAUTION

- Never use commercial or other parts instead of ANEST IWATA original spare parts.
- Never immerse the whole gun into liquid such as thinner.
- Never soak air cap set in solvent for extended period even if cleaning. It may cause defective pattern.
- Never damage holes of air cap, a fluid nozzle and fluid needle.

### Step-by-step procedure

1. After removing paint to another container, clean fluid passages and air cap set.  
Spray a small amount of thinner to clean fluid passages.
2. Clean each section with brush soaked with thinner and wipe out with waste cloth.
3. Before disassembly, fully clean fluid passages.  
(1) Disassemble fluid nozzle.  
(2) Disassemble fluid needle.  
You do not need to remove fluid set, guide set from gun body. Remove fluid set, knob and fluid needle spring, and then pull out fluid needle set from back of fluid set, guide set.
4. When you want to adjust fluid needle packing set, first tighten it by hand, while fluid needle set remains inserted. Then tighten it further about 1/8 turn (90-degree) by spanner.  
When you remove needle packing set, do not leave plastic pieces of needle packing set in the gun body.  
5. In order to assemble air valve, first assemble air valve & air valve spring & fluid set, guide set together. Next, insert fluid needle set into fluid set, guide set, then fit it to gun body set and screw fluid set, guide set.
6. Turn air set, knob counterclockwise to fully open. And then tighten air set, guide into gun body.
7. Grasp following A part on gun head spanner, then remove fluid nozzle.



### Where to inspect

1. Each hole passage of air cap and fluid nozzle.  
Replace if it is clogged or deformed.
2. Packing and O-ring.  
Replace if it is deformed or worn out.
3. Leakage from seal section between fluid nozzle and fluid needle set.  
Replace them if leakage does not stop after fully cleaning fluid nozzle and fluid needle set. If you replace fluid nozzle or fluid needle set only, fully match them and confirm that there is no leakage.

## Parts list

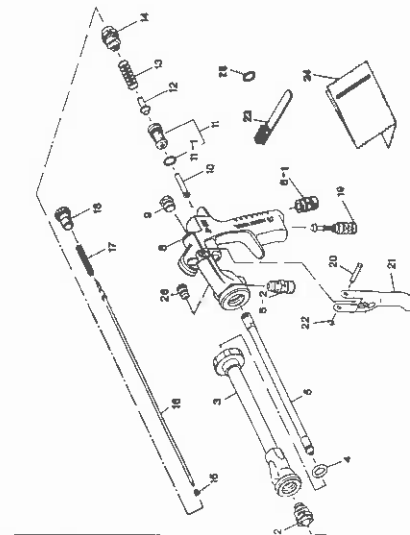
Fluid needle guide (No.15) is equipped only 500 mm long nozzle models with.  
When ordering parts, specify gun's model, part name with the No. and material No. of air cap set, fluid nozzle and fluid needle.  
When replacing fluid nozzle and fluid needle for pressure feed application, please order nozzle needle set.

Fluid nozzle-needle set combination		
Air pipe length	Mark	
150 mm (5.9in)	LW10-15	
300 mm (11.8in)	LW10-30	
500 mm (19.7in)	LW10-50	

## Parts List

No.	Description	Qty
1	Air cap set	1
2	Fluid nozzle	1
3	Air pipe set	1
4	O-ring	1
5	Fluid pipe set	1
6	Needle packing set	1
7	Needle packing seat	1
8	Body set	1
9	Plug	1
10	Air valve spring	1
11	Air valve seat set	1
12	O-ring	1
13	Air valve	1
14	Fluid set, knob	1
15	Fluid needle guide	1

◆ Marked parts are wearable parts.



## Troubleshooting

Spray Pattern	Problems	Remedies
Flaring	1. An air leak between fluid nozzle and tapered seat of gun body. 2. Air is sucked 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 from holes. Air pressure from both horns differs.	1. Remove obstructions from horn holes. But do not use metal objects to clean horn holes.
Inched	1. Paint buildup on air cap partially clogs from 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 sealed section.
Split	1. Paint viscosity too low. 2. Fluid output too high.	1. Add paint to increase viscosity. 2. Adjust fluid set, knob or pattern set, knob.
Heavy Center	1. Paint viscosity too high. 2. Fluid output too low.	1. Reduce viscosity. 2. Increase fluid output.

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