

# WA-1218 WA-0915 WA-0609 AUTOMATIC SPRAY GUN

**GB** Before use, adjustment or maintenance, it is important to read this instruction manual very carefully. This manual must be stored in a safe place for any future reference that may be necessary.

This **ANEST IWATA** spray guns kit complies to ATEX regulations 94/9/EC, protection level: II 2 G X Suitable for using Zones 1 and 2.



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

## IMPORTANT

This automatic spray gun should be operated only by an adequately trained operator for safe use and maintenance of the equipment. Any misuse or handling other than those indicated in this Instruction Manual is not covered by guarantee.

**ANEST IWATA** disclaims all responsibility for any accident or damage caused by failure observing the operational and safety procedures in this manual. In the interest of user friendliness, this manual contains information in a brief and concise form.

For any additional information you may require regarding the automatic spray gun operations, or if any missing parts or any damage during transportation is found, or details of training courses, please contact your nearest **ANEST IWATA Company** (see last cover page).

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 marked items which are especially important.

<b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, may result in serious injury or loss of life.
<b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.
<b>IMPORTANT</b>	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.

## IMPORTANT SPECIFICATIONS

Max. Pressure:	6.8 bar (98 PSI)	Max. Temperature:	
Spray conditions	Recommended	Atmosphere	5 ~ 40 °C
Measuring point	1m backwards from gun, 1,6 m height	Air and fluid	5 ~ 43 °C
Noise Level (LAeqT)	66.8 dB (A)	Air connection:	**2 G 1/4"
		Fluid connection:	G 1/4"

## TECHNICAL SPECIFICATIONS

Model	Nozzle Orifice ø mm (in)	Pipe diameter ø mm (in)	Pipe length cm (in)	Inner diameter of work piece ø mm (in)	Air consumpt. l/min (cfm)	Fluid output ml/min	Pattern width* mm (in)	Weight g	Air pressure at gun inlet bar (PSI)
<b>WA-1218 / WA-0915 / WA-0609 Pressure feed</b>									
WA-1218	0.6 (0.024)	12 (0.47)	18 (7.09)	15 ~ 30 (0.59 ~ 1.18)	73 (2.6)	17	48 (1.9)	555	3.0 (43)
WA-0915	0.5 (0.020)	9 (0.35)	15 (5.91)	12 ~ 25 (0.47 ~ 0.98)	55 (1.9)	9	36 (1.4)	510	
WA-0609	0.5 (0.020)	6 (0.24)	9 (3.54)	9 ~ 15 (0.35 ~ 0.59)	48 (1.7)	6	32 (1.3)	475	

**NOTE:** \* 2 Spray distance is 200 mm.

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## SAFETY WARNINGS



### FIRE OR EXPLOSION HAZARD

**1. Sparks 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.

**2. Never use the following HALOGENATED HYDROCARBON SOLVENTS**  
which can cause cracks or dissolution on gun body (aluminium) 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 can supply a list of materials used to manufacture the product.

**3. Securely ground spray gun.** Use air hose with built-in ground wire or use grounded gun stay.  
Ground resistance : Less than 1MΩ. Check the earth stability periodically.  
If not, insufficient grounding can cause fire and explosion due to static electric sparking.



### IMPROPER USE OF EQUIPMENT

**1. Never point gun towards people or animals.**  
If done, it can cause inflammation of eyes and skin or bodily injury.

**2. Never exceed maximum operating pressure and maximum operating Temperature.**

**3. 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 of cleaning liquid.  
In order to release pressure, first stop supply of compressed air, fluid and thinner to spray gun. Then remove fluid adj. knob and pull fluid needle set towards you.

**4. 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

**1. Use in a well-ventilated site by using spray booth.**  
If not, poor ventilation can cause organic solvent poisoning and catch fire.

**2. 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.

**3. Wear earplugs if necessary.**  
Noise level can exceed 85 dB(A), depending on operating conditions and painting site



### OTHER PRECAUTIONS

**1. Never alter this spray gun.**  
If done, it can cause insufficient performance and failure.

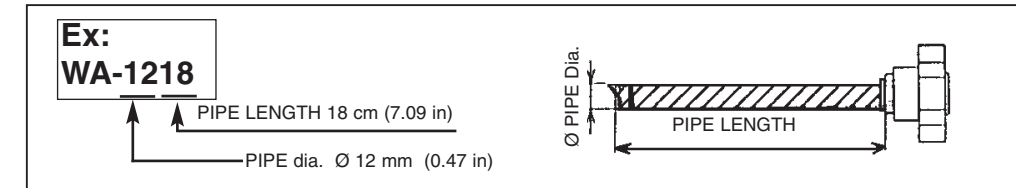
**2. Enter working areas of other equipment (robots, reciprocators, etc.) after machines have been turned off.**  
If not, contact with them can cause injury.

**3. 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.

**4. If something goes wrong, immediately stop operation and find the cause. Do not use again until you have solved the problem.**



## HOW TO READ MODELS NAMES



## TROUBLESHOOTING

Spray Pattern	Problems	Remedies
Fluttering	<ol style="list-style-type: none"> <li>Air enters between fluid nozzle and tapered seat of gun body.</li> <li>Air is drawn from fluid needle packing set</li> </ol>	<ol style="list-style-type: none"> <li>Remove fluid nozzle to clean seat. If it is damaged, replace nozzle.</li> <li>Tighten fluid needle packing.</li> </ol>
Spit	<ol style="list-style-type: none"> <li>Fluid nozzle and fluid needle set are not seated properly.</li> <li>The first-stage travel of trigger (when only air discharges) decreases.</li> <li>Paint buildup inside air cap set.</li> </ol>	<ol style="list-style-type: none"> <li>Clean or replace fluid nozzle and fluid needle set.</li> <li>Replace fluid nozzle and fluid needle set.</li> <li>Clean air cap set.</li> </ol>

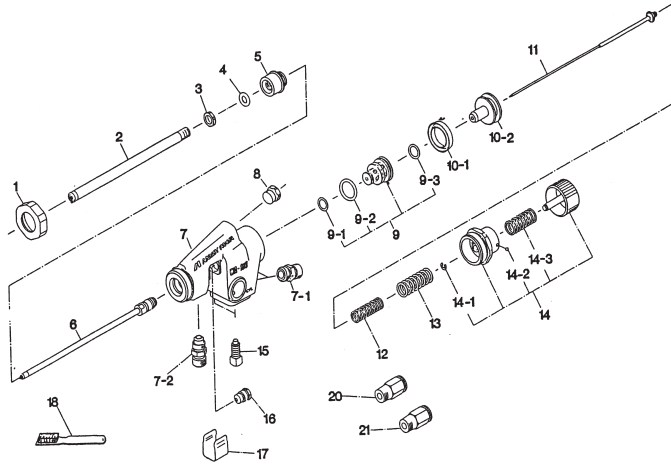
## PROBLEMS AND REMEDIES

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

Step-by-step procedure	Important
6. While keeping fluid needle set inserted, tighten fluid needle packing set by hand. Then tighten gradually by spanner. Adjust packing set while pulling piston 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.	6. If you tighten too much, turn fluid needle packing set counterclockwise to a proper position while turning operating air on and off.
Where to inspect	Parts replacement standard
1. Each hole passage of air cap and fluid nozzle 2. Packing and O ring 3. Leakage from seat section between fluid nozzle and fluid needle set fluid needle set.	Replace if it is crushed or deformed. Replace if it is deformed or worn out. Replace them if leakage does not stop after fully cleaning fluid nozzle and fluid needle set only, fully match them and confirm that there is no leakage.

## SPARE PARTS LIST

Mark on Fluid Needle set	
Model	MARK
WA-1218	WA1218
WA-0915	WA0915
WA-0609	WA0609



DESCRIPTION	REF.PART
COVER SET	1
AIR PIPE SET	2
NUT	3
O RING	4
AIR PIPE HOLDER	5
NEEDLE SCREW	6 ●
BODY SET	7
AIR NIPPLE	7-1
FLUID NIPPLE	7-2
PLUG SCREW	8
AIR VALVE SEAT	9
O RING	9-1
O RING	9-2
O RING	9-3 ●
PISTON	10-1 ●
PISTON	10-2
NEEDLE SET	11 ●
NEEDLE SPRING	12
PISTON SPRING	13
FLUID ADJ. SPRING	14
BOLT SET	15

DESCRIPTION	REF.PART
FLUID NEEDLE PACKING SET	16
COVER	17
BRUSH	18
INSTRUCTION MANUAL	19
HALF UNION FOR ø 8	20
HALF UNION FOR ø 6	21

● **Marked parts are wearable parts.**

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

## HOW TO CONNECT



### CAUTION

- Use clean air filtered through air dryer and air filter. If not, dirty air can cause painting failure.
- When you use this gun for the first time after purchasing, clean fluid passages spraying thinner and remove rust preventive oil.

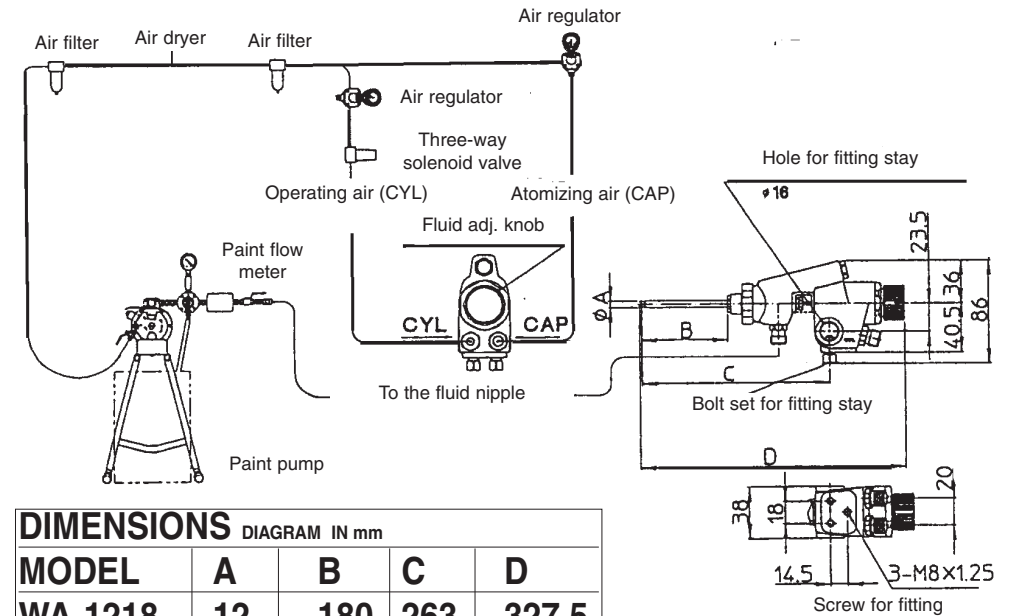
If not, remaining preventive oil can cause painting failure such as fish eyes.

-Use three-way solenoid valve of more than ø 4 inner dia. cross-sectional area and air hose of over ø 6 inner dia. and less than 10m length. If not, small dia. of solenoid valve and longer air hose between three-way solenoid valve and gun can cause delay in operation.

-Firmly fix hose to spray gun. If not, disconnection of hose can cause bodily injury.

1. Fit the gun to a stand or fitting stay, aim at spraying direction and secure it firmly with sitting bolt.
2. Connect atomizing air hose to atomizing air side (Cap marked side) and operating air hose to operating air side (CYL marked side).
3. Connect fluid hose to fluid inlet tightly.
4. Flush the gun fluid passage with a compatible solvent.
5. Pour paint into fluid container, test spray and adjust fluid output, air volume and pattern width.

### (CONNECTION EXAMPLE OF AIR HOSE AND FLUID HOSE)



### DIMENSIONS DIAGRAM IN mm

MODEL	A	B	C	D
WA-1218	12	180	263	327.5

### How to install half unions for atomizing air and operating air.

#### IMPORTANT

1. Remove air nipples for atomizing and operating from gun body.
2. Replace air nipples for atomizing (CAP marked side) and with and also replace air nipple for operating (CYL marked side) half unions for O.D.8mm air tube attached.
3. Be sure to correct half unions to gun body tightly.
4. Connect fluid hose to the joint.

# HOW TO OPERATE

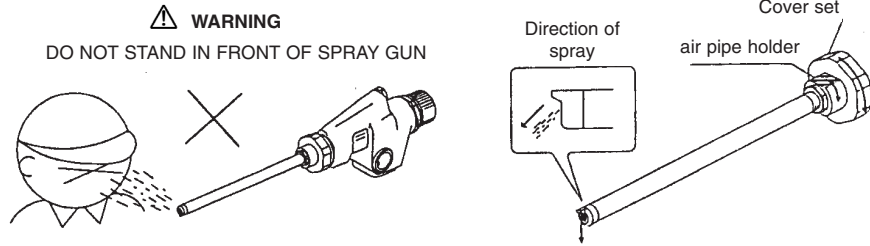
1. Adjust operating air pressure from 3 to 4 bar (45 to 57 PSI).

**NOTE:** Valve orifice inside three-way solenoid valve should be minimum  $\varnothing$  4 mm (0.157 in) and also operating air hose length should be within  $\varnothing$  10m (32.8ft) with the inner diameter more than 6 mm (0.236in) to avoid delayed operation and any kind of failure.

2. Although atomizing air pressure varies according to spray conditions, pulling the piston of the gun with the pattern adj. set fully opened, adjust it normally 2 to 4 bar (28 to 57 PSI)

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

4. Air pipe set can rotate by 360°. Loosen cover set on air pipe holder, then set the position of air pipe set.



# MAINTENANCE AND INSPECTION

## WARNING



- First release air and fluid 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 during maintenance for protection of the human body.
- Be careful not to damage the tip of the fluid nozzle or 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 damage holes of air cap, fluid nozzle or fluid needle.

## Step-by-step procedure

1. Clean fluid passages and air cap set.

Spray a small amount of thinner to clean fluid passages.

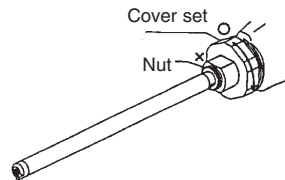
2. Clean each section with brush soaked with thinner and wipe out with waste cloth.

3. Before disassembly, fully clean fluid passages.

(1) Assemble or disassemble air pipe set.

When changing direction of spray or when cleaning air pipe set and fluid pipe set.

Loosen cover set on air holder, not the nut, disassemble air pipe set.



## Important

1. Incomplete cleaning can fail pattern shape and uniform particles. Especially clean fully and promptly after use with two-component paint.

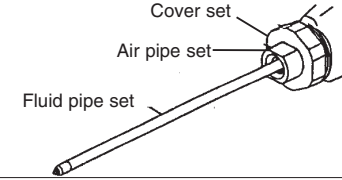
2. Do not immerse the whole gun in thinner. If done, it can damage parts. When cleaning, never scratch any holes of air cap set, fluid nozzle, or fluid needle set.

3. During disassembly, do not scratch seat section.

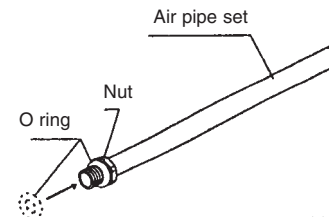
(1) If you loosen the nut, the screw length of air pipe set changes. It can fail coating or damage air pipe set and fluid pipe set.

## Step-by-step procedure

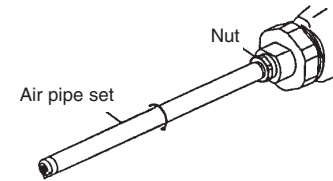
4. Setting the position of air pipe set and fluid pipe set or when the nut is loosened: (1) Set the air pipe holder with cover set.



(2) Screw nut on air pipe set, then set the O ring on air pipe set.



(3) Screw air pipe set into air pipe holder, as O ring goes into groove inside air pipe holder. Then tighten the nut with spanner.

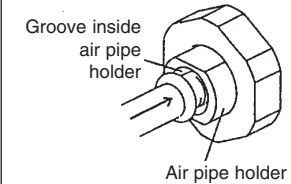


## Important

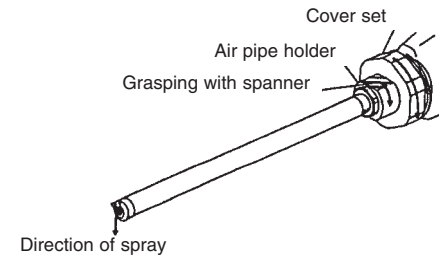
(2) When all parts are set directly without performing (1)-(3), it can fail coating or damage air pipe set and fluid pipe set since the air pipe set will not be set into the right position against fluid pipe set.

(2) When setting O ring, do not scratch O ring.

(3) When setting O ring into groove inside air pipe holder, do not scratch O ring.

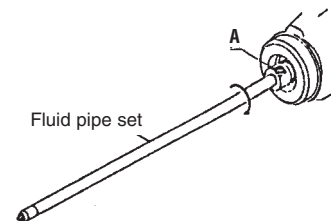


(4) Loosen cover set, not the nut, then set the piston of air set. Tighten again cover set.



(4) Refer to 4 how to operate on page 3 and pay attention to fluid emitting condition and spraying direction not to coat people and other products, other than work to be coated.

5. Assembly or disassembly of fluid pipe set. Remove fluid pipe set by grasping part A with spanner.



5. Remove fluid needle set or while keeping fluid needle pulled, in order to protect seat section. Be careful when handing tip of needle set since it is sharp. When disassembling air pipe set and fluid pipe set, be careful that the top old packing does not remain inside. When you disassemble an air pipe set and a fluid pipe set, check whether foreign matter clogs horn hole. When the hole is clogged refer to 2 on page 3; and clean it.