

SGA 101 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.

WARNING	Indicates a potentially hazardous situation which, if not avoided, may result in serious injury or loss of life.
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.

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)	67.4 dB (A)	Air connection:	G 1/4"
		Fluid connection:	G 1/4"

TECHNICAL SPECIFICATIONS

Model	Nozzle orifice ø mm(in)	Air cap set mark	Air pressure at gun inlet bar (PSI)	Fluid Output ml/min	Air consumption l/min (cfm)	Pattern width mm (in)	Weight g(lbs)
SGA-101 Pressure feed							
SGA-101	1.0(0.039)	W101 E1	3.0 (43)	95	80 (2.8)	250 (5.1)	270 (0.60)

ANEST IWATA Europe S.r.l.
Corso Vigevano, 46 - 10155, Torino (Italy)
Direct Tel. +39 011 - 22 74 402
Fax +39 011 - 22 74 000
info@anest-iwataeu.com
www.anest-iwataeu.com

ANEST IWATA Italia S.r.l.
Corso Vigevano, 46 - 10155, Torino (Italy)
Tel. diretto +39 011 - 24 80 868 - Fax: +39 011 - 85 19 44
info@anest-iwata.it www.anest-iwata.it

ANEST IWATA Iberica
Calle de Les Teixidores, 3-5
08918 - Badalona (Barcelona)
Tel. +34 93 32 05 993 - Fax: +34 93 32 05 965
info@anest-iwata.es www.anest-iwata.es

ANEST IWATA Deutschland
Mommensenstrasse 5
04329 Leipzig
Telefon: +49 (0)341 241 44 30 - Fax: +49 (0)341 252 55 95
info@anest-iwata.de www.anest-iwata.de

European Sales Branches:

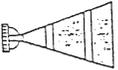
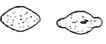
ANEST IWATA Scandinavia
Ögärdesvägen 6C, 433 30 PARTILLE - Sweden
Tel. +46 (0)31 - 340 28 60 - Fax +46 (0)31 - 340 28 69
info@anest-iwata.se www.anest-iwata.se

ANEST IWATA France
25 rue de Madrid - 38070 St Quentin Fallavier - France
Tél. +33 (0)4 - 74 94 59 69 - Fax +33 (0)4 - 74 94 34 39
info@anest-iwata.fr www.anest-iwata.fr

ANEST IWATA U.K.
Unit 10 Little End Road - Eaton Socon
St. Neots - CAMBRIDGESHIRE
PE19 8JH
Tel.: +44 (0) 1480 40 54 19 Fax: +44 (0) 1480 21 76 10
enquiries@anest-iwata.co.uk www.anest-iwata.co.uk

Manufactured by:
ANEST IWATA Corporation 3176, Shinyoshida-cho, Kohoku-ku, Yokohama, 223-8501 Japan

TROUBLESHOOTING

Spray Pattern	Problems	Remedies
 Fluttering	1. Air enters between fluid nozzle and tapered seat of gun body. 2. Air is drawn from fluid needle packing set 3. Air enters at fluid hose joint	1. Remove fluid nozzle to clean seat. If it is damaged, replace nozzle. 2. Tighten fluid needle packing. 3. Fully tighten joint section.
 Crescent	1. Paint buildup on air cap partially clogs horn holes. Air pressure from both horns differs.	1. Remove obstructions from horn holes with attached brush. But do not use metal objects to clean horn holes.
 Inclined	1. Paint buildup or damage on fluid nozzle circumference and air cap center. 2. Fluid nozzle is not properly fitted.	1. Remove obstructions. Replace if damaged. 2. Remove fluid nozzle, clean seated section
 Split	1. Paint viscosity too low. 2. Fluid output too high.	1. Add paint to increase viscosity. 2. Tighten fluid adj. knob to reduce fluid output or turn pattern adj. knob clockwise.
 Heavy Center	1. Paint viscosity is too high. 2. Fluid output is too low.	1. Add thinner to reduce viscosity. 2. Turn fluid adj. knob counter-clockwise to increase fluid output.

PROBLEMS AND REMEDIES

Problem	Where it occurred	Parts to be checked	Cause	Remedy			
				Retighten	Adjust	Clean	Replace
Paint leaks	Fluid nozzle	Fluid nozzle - fluid needle set	*Dirt, damage, wear on seat			x	x
			*Loose fluid needle adj. knob		x		
			*Wear on needle spring				x
	Fluid nozzle - gun body	*Insufficient tightening	x				
		*Dirt or damage on seat			x	x	
		*Wear on packing (1)				x	
Fluid needle packing set-	Fluid needle packing set-	*Needle does not return due to packing set too tight		x		x	
		*Needle does not return due to paint buildup on fluid needle		x	x		
Fluid needle	Needle packing set, needle set	*Wear	x			x	
	Packing seat	*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

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.

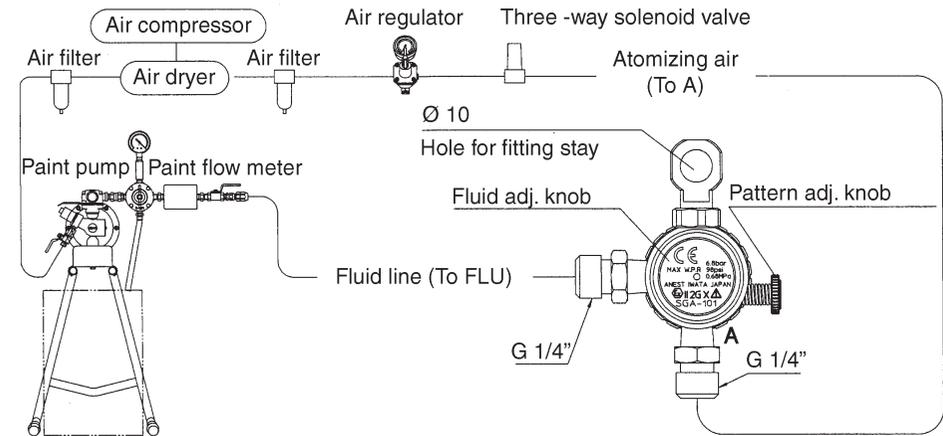
If not, remaining preventive oil can cause painting failure such as fish eyes.

-Use three-way solenoid valve of more than $\phi 4$ inner dia. cross-sectional area and air hose of over $\phi 6$ 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 fixing bolts.
2. Connect atomizing air hose to atomizing air nipple (A marked side) tightly.
3. Connect a fluid hose to fluid nipple tightly.
4. Flush the gun fluid passage with a compatible solvent.
5. Pour paint into container, test spray and adjust fluid output as well as pattern width.

CONNECTION EXAMPLE OF AIR HOSE AND FLUID HOSE



HOW TO OPERATE

Suggested air pressure is 2.5 to 3.5 bar (36 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.

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.

Set the spray distance from the gun to the work piece as near as possible within the range of 150-200 mm (5.9-7.9 in).

IMPORTANT: In case of the SGA 101 gun, both the atomizing and piston operating air are supplied to the gun by one air hose. An improper setting of the air pressure will malfunction the piston operation.

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

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.

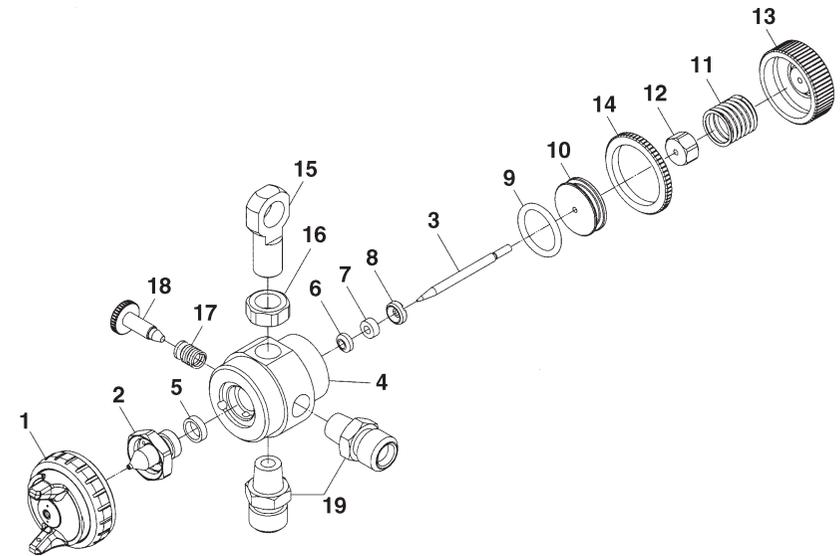
CAUTION



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

Step-by-step procedure	Important
1. Clean fluid passages and air cap set. Spray a small amount of thinner to clean fluid passages.	1. Incomplete cleaning can fail pattern shape and uniform particles. Especially clean fully and promptly after use with two-component paint.
2. Clean each section with brush soaked with thinner and wipe out with waste cloth.	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. Before disassembly, fully clean fluid passages. (1) Disassemble fluid nozzle. Use ring spanner, box wrench or optional exclusive spanner to disassemble fluid nozzle. (2) Disassemble fluid needle set. Remove fluid adj. knob set and pull out fluid needle set from gun body. Pay attention so that spring does not suddenly fly out since fluid adj. knob set is strongly pushed by fluid needle spring and piston spring.	3. During disassembly, do not scratch seat section. (1) Remove fluid nozzle after removing fluid needle set or while keeping fluid needle pulled, in order to protect seat section. (2) Pull fluid needle set after loosening fluid needle packing set to protect fluid needle packing set. Be careful when handling tip of fluid needle set since it is sharp.
Where to inspect	Parts replacement standard
1. Each hole passage of air cap and fluid nozzle.	Replace if it is crushed or deformed.
2. Packings and O rings.	Replace if it is deformed or worn out.
3. Leakage from seat 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 only, fully match them and confirm that there is no leakage.

SPARE PARTS LIST



DESCRIPTION	REF. PART
AIR CAP SET	1
FLUID NOZZLE	2 ●
FLUID NEEDLE	3 ●
GUN BODY	4
PACKING (1)	5 ●
FLUID NEEDLE PACKING	6 ●
AIR VALVE PACKING	7 ●
AIR VALVE PACKING SEAT	8
O RING	9 ●
PISTON	10
SPRING	11
NUT	12
FLUID ADJ. KNOB	13
NUT	14
BOLT	15
HEX. NUT	16
NEEDLE SPRING	17
PATTERN ADJ. KNOB	18
JOINT	19

● 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 and/or fluid needle please order nozzle needle set.