

INSTRUCTION MANUAL

Airless Spray gun ALG-7/ALG-72/ALG-73

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.

CE II 2G X

This Anest-iwata airless spray gun kit complies to ATEX regulations 94/9/EC,
Protection level :
II 2 G X, Suitable for use in Zones 1 and 2.
X marking :
Any static electricity discharge from the airless spray gun is to be diverted to the grounded the conductive fluid hose as stipulated.

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 Δ 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	25MPa / 250 bar / 3600 PSI
Noise level	62.9 dB (A)
Spray condition	Used nozzle tip; NT-3005 Fluid pressure ; 10 MPa / 100bar / 1440PSI Tested with water.
Measuring point	1m backwards from gun, 1.6 m height

Max. Temperature	
Atmosphere	5°C~40°C
Air Fluid	5°C~43°C

Main specifications

Model	Max operating pressure MPa (bar / PSI)	Use	Fluid output ml/min	fluid hose connection	Filter	Mass g (lbs)
ALG-7	25 (250 / 3600)	General	Refer to 4.Selection of nozzle tip according to kind of paint	G 1/4	100 mesh (built-in)	440 (0.97)
ALG-72						415 (0.91)
ALG-73		High viscosity		G 3/8	100 mesh included (not built-in)	450 (0.99)

1. Safety precaution

WARNING

Fire and explosion

- 1. 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.
- 2. Securely ground airless spray gun by using fluid hose with built-in ground wire.**
Ground wire : Less than 1 MΩ. Check the earth stability periodically.
Securely ground pump, airless spray gun, workpiece and containers containing paint or solvent. Be sure to use fluid hose with built-in ground wire to have continuous grounding between pump and airless spray gun. Use conductive container containing paint or solvent. Insufficient grounding will cause explosion or fire by spark of electricit.
If not, insufficient grounding can cause fire and explosion due to static electric sparking.
- 3. 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)



Improper use of equipment

- 1. Never point airless gun toward people or animal.**
Never pull trigger of gun when human body or finger come near tip of nozzle tip. If done, it can cause inflammation of eyes and skin or bodily injury. If you feel any abnormality during operation, consult with a medical doctor immediately.
- 2. Never exceed maximum operating pressure and maximum operating Temperature.**
Usage at more than max. operating pressure can cause explosion of airless spray gun resulting in great danger.
- 3. Be sure to release 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 fluid and thinner to airless spray gun.



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. If you feel any abnormality during operation, consult with a medical doctor immediately.
- 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 85dB(A), depending on operating conditions and painting site.
- 4. Be sure to stop pump, reduce fluid pressure down to 0 pressure and securely apply safety lock of airless spray gun before you fit or remove nozzle tip.**
Emission of paint or solvent during operation can cause great danger.
- 5. Never try to stop leaks by hand, when paint leaks.**
In that case, stop pump immediately and reduce paint pressure down to 0 pressure. High pressure paint emitted through small hole can pierce an iron plate and can cause severe injury since paint can enter human body directly through eye, mouth or skin. It is very dangerous. If you feel any abnormality or receive any injury, consult with a medical doctor immediately
- 6. 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.
- 7. If operators feel the pulsations in the coating material flow long time during operation, it may cause carpal tunnel syndrome.**
Be sure to take a rest if you feel tired. Or damping of the pulsations in the coating material flow from paint pump by, for instance, the use of damping elements on the inlet connection(s) of the equipment or the use of pulsation damping hoses supplying the equipment.



Burst of fluid hose

- 1. Never use cracked, damaged, bent or crushed fluid hose.**
High pressure paint emitted at small hole can pierce an iron plate and cause great danger.
- 2. Never bend fluid hose with a radius of less than permitted bend radius.**
Contact the shop who sold the hose to you, or us, about permitted bend radius. Never put heavy things on it in order not to damage the hose. If done, hose can explode causing great danger.

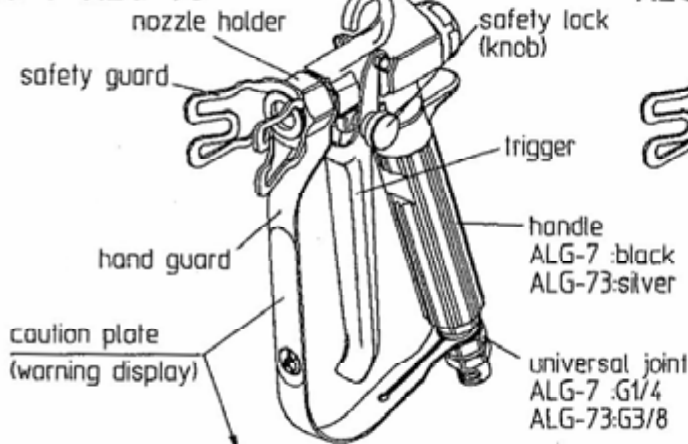
⚠ WARNING

Other precautions

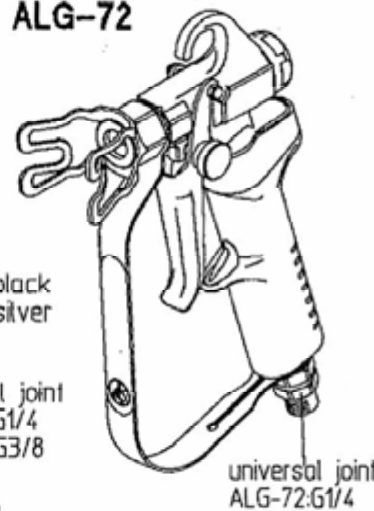
1. **Never alter this airless spray gun.**
If done, it can cause insufficient performance and failure.
2. **Enter working areas of other equipment (robots, reciprocators, etc.) after machines are turned off.**
If not, contact with them can cause injury.
3. **Never spray foods or chemicals through this gun.**
If done, it can cause accident by corrosion of fluid passages or adversely affect health by mixed foreign matter.
4. **Securely connect fluid hose.**
If hose is disconnected during operation, hazardous hose movement and paint ejection will cause severe bodily injury.
5. **If something goes wrong, immediately stop operation and find the cause. Do not use again until you have solved the problem.**

2. Name of components and checking the product

ALG-7, ALG-73



ALG-72



accessory



code No.03510171
Ref No.17 of Part list

- When you open the package, be sure to check that all goods are included and are in good condition.
- If there is any damage or missing components, do not use the product to avoid danger and immediately contact the distributor who sold it to you.
- Always keep caution plates (warning display) in good condition and clean.
If they are damaged or missing, replace with new ones.

3. Painting job

3-1 Connect fluid hose.

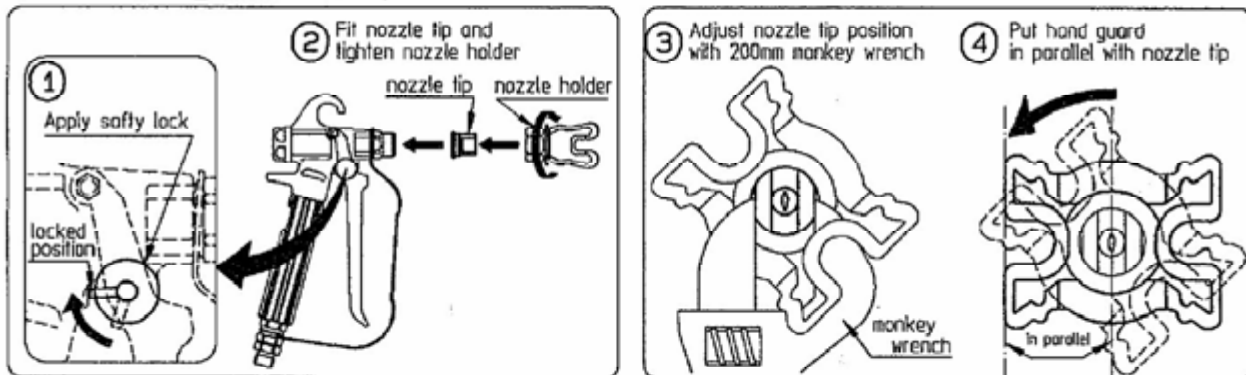
<p>⚠ WARNING</p>	<p>Securely connect fluid hose. When paint leaks, never try to stop it by hand / In that case, stop pump immediately and reduce paint pressure down to 0 pressure.</p> <p>Be sure to use fluid hose with built-in ground wire in order to connect ground.</p>
<p>⚠ CAUTION</p>	<p>Before using a new airless spray gun, clean inside of the new airless spray gun. If not, rust preventive inside airless spray gun can cause painting failure.</p>

3-2 Fitting or removing nozzle tip or free pattern tip (each tip optional).

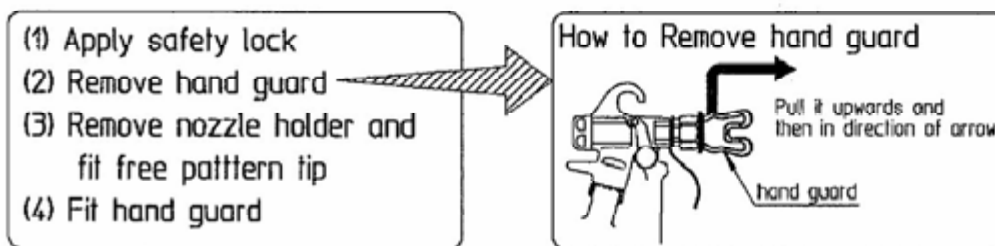
※ Refer to 4 and prepare nozzle tip separately.

<p>⚠ WARNING</p>	<p>Be sure to stop pump, reduce fluid pressure down to 0 pressure and securely apply safety lock of airless spray gun before you fit or remove nozzle tip.</p>
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When using nozzle tip



When using free pattern tip



※ Refer to instruction manual of free pattern tip.

3-3 Painting job

<p>⚠ WARNING</p>	<p>During painting, be sure to wear protective cover such as glasses, mask or gloves to avoid serious injury caused by paint or solvent which might enter your eyes or you might inhale.</p>
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<p>HINT!</p>	<p>As fluid pressure increases, paint mist becomes finer and finishing becomes better. But on the other hand, high pressure can be dangerous and precipitate corrosion of equipment and nozzle tip. Adjust pressure as low as possible as far as finish is satisfactory.</p>
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3-4 Cleaning and maintenance

Fully clean after job is finished in order to get longer lifetime and good performance at next job.

⚠ WARNING	During painting, be sure to wear protective cover such as glasses, mask or gloves to avoid serious injury caused by paint or solvent which might enter your eyes or you might inhale.
	Be sure to stop pump and reduce fluid pressure down to 0 pressure before disassembling airless spray gun.
	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.

Process	Where to clean	How to clean	Remarks
1	nozzle tip	Remove from airless spray gun and clean it.	
2	inside of gun body	Clean inside of airless spray gun with cleaning liquid which is compatible with paint being used.	
3	filter set (except ALG-73)	① Remove No.12 handle from gun body. ② Remove and clean No.11 filter set.	

4. Selection of nozzle tip according to kind of paint

HINT!	<p><Numbering system></p> <p>NT-25 07</p> <p>Use nozzle tip with large figures of last 2 digits when you spray paints of high viscosity or easily clogged.</p>
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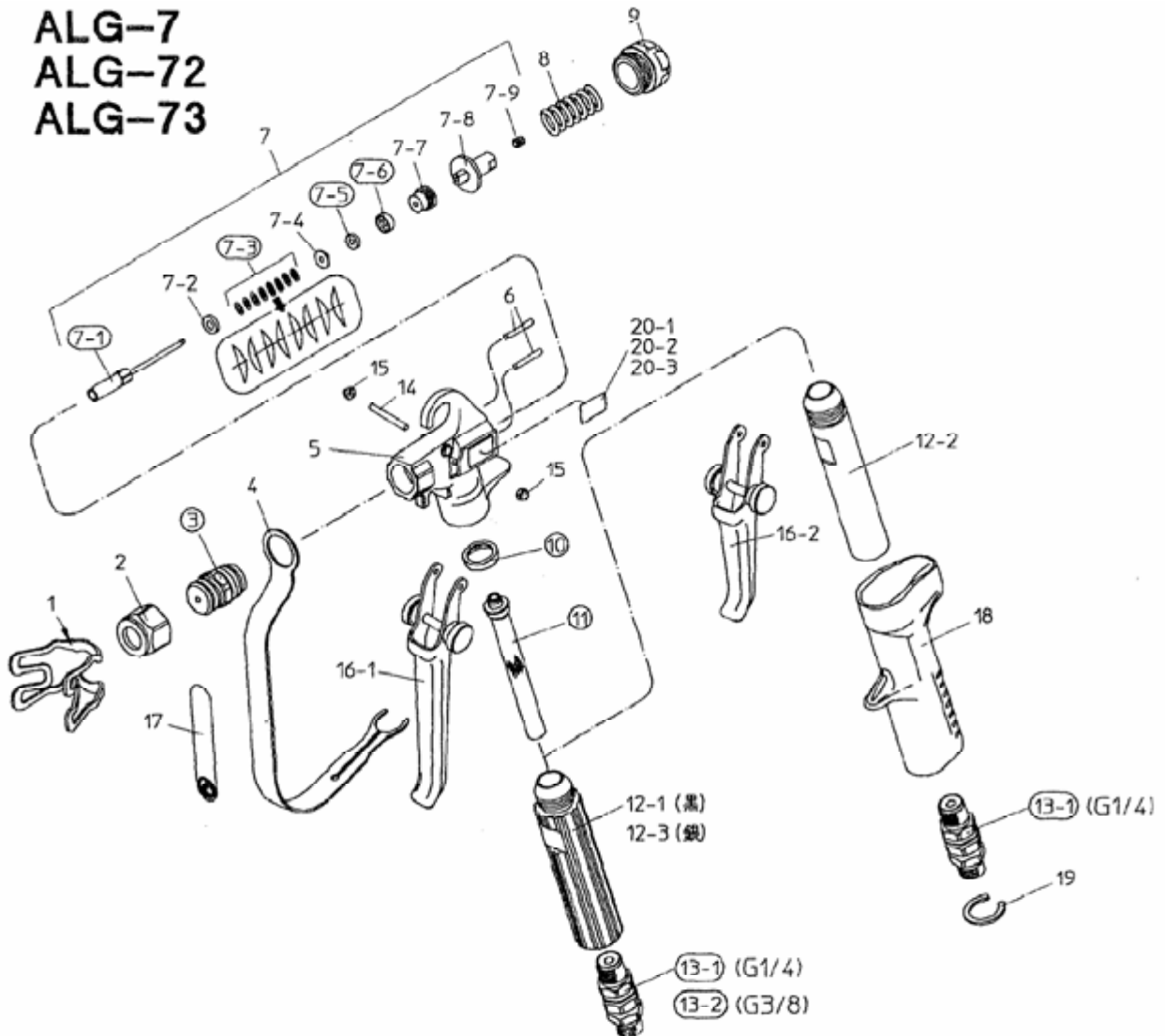
Usage	Kind of paint	Model (NT-□□□□)	Remarks
Shipbuilding	Rubber chloride paint, Ship-bottom paint	2507-4009	Commonly used
	Tar epoxy paint	3011-4013	Last two digits are large due to high viscosity.
	Zinc rich paint (organic)	2507-4009	Commonly used
	Zinc rich paint (non-organic)	3019-4016	Last two digits are large because it is easy to clog.
Construction	Water base (emulsion paint), Ready mixed paint	2505-4007	Commonly used
Steel frame	Anti-corrosive paint	1507-2513	First two digits are small, and last two digits are large, for angle iron.
Woodwork	Clear lacquer, Synthetic resin varnish	1503-3005	Commonly used
Common metal	Lacquer, Melamine	1504-4007	Commonly used

5. Problems and remedies

Important		As for ☆ marked items, ask our distributor to remedy it for you. Incorrect remedy cannot achieve satisfactory performance.
Problem	Cause	Remedies
Paint does not come out.	Nozzle tip is clogged.	Clean nozzle tip and remove foreign matter from hole by needle.
	Paint is not fed.	Inspect pump.
	Filter set [11] is completely clogged.	Clean or replace.
Paint comes out weakly.	Pump pressure is low.	Increase pump pressure.
	Filter set [11] is clogged.	Clean or replace.
	Nozzle tip is worn or number of nozzle tip is too large. (Pump capacity is small compared with nozzle tip being used.)	Replace with new tip or proper sized tip.
Paint does not stop smoothly. (Paint leaks from the gun tip.)	Pump pressure is too high.	Reduce paint pressure down to 25 MPa (250bar 3,626PSI).
	Paint sticks to needle packing [7-9].	Disassemble, clean or replace parts. ☆
	Paint sticks to needle seat [6].	Disassemble, clean or replace parts. ☆
	Seat between needle bar set [7-11] and nozzle gland set [3] is worn.	Disassemble, clean or replace parts. ☆
Paint leaks from needle spring seat [9] or needle seat [6].	Needle packing seat [7-7] is loose.	Tighten needle spring holder [7-8].
	Wear or damage of needle packing [7-6]	Disassemble, clean or replace parts. ☆
	Wear or damage of needle bar set [7-1]	Disassemble, clean or replace parts. ☆
Paint leaks from universal joint [13-1] or [13-2]	Wear of packing in universal joint	Replace universal joint.

6. Parts list

ALG-7
ALG-72
ALG-73



※ ○ marked parts are consumable parts.

No.	Part name	Q'ty	Remarks
1	hand guard	1	
2	nozzle holder	1	
○ 3	nozzle gland set	1	
4	safety guard	1	
5	gun body	1	
6	needle seat	2	
7	needle set	1	
○ 7-1	needle bar set	1	
7-2	conical spring holder	1	
○ 7-3	conical spring washer	8	
7-4	packing holder	1	
○ 7-5	sub-packing	1	
○ 7-6	needle packing	1	
7-7	needle packing seat	1	
7-8	needle spring holder	1	
7-9	screw	1	
8	needle spring	1	
9	needle spring seat	1	

No.	Part name	Q'ty	Remarks
○ 10	packing	1	
○ 11	filter set (only 7, 72)	1	accessory in 73
12-1	handle (grooved, black)	1	for 7
12-2	handle (round, silver)	1	for 72
12-3	handle (grooved silver)	1	for 73
○ 13-1	universal joint (G 1/4)	1	for 7, 72
○ 13-2	universal joint (G 3/8)	1	for 73
14	trigger stud	1	
15	hex. cap nut	2	
16-1	trigger set	1	for 7, 73
16-2	trigger set	1	for 72
17	caution plate	1	
18	outer handle	1	for 72
19	snap ring	1	for 72
20-1	nameplate	1	for 7
20-2	nameplate	1	for 72
20-3	nameplate	1	for 73



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