

**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 spray gun kit complies to ATEX regulations 94/9/EC, Protection level II 2G X. 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.

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 damage.

**△ CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

**Important**

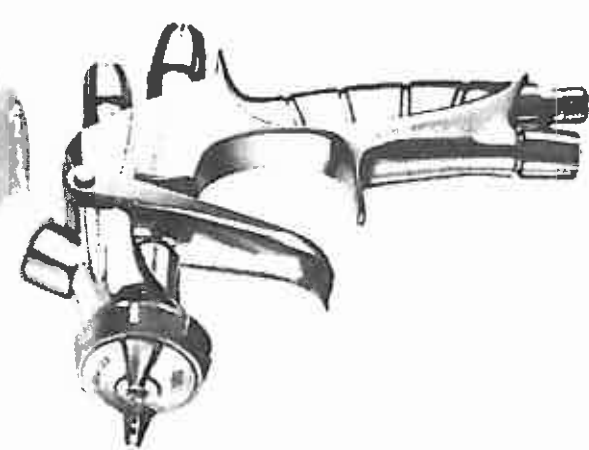
**Important specifications**

Max. Pressure	0.70MPa / 7.0 bar / 100 PSI	Mass g. (lbs)	475 (1.05)
Noise level	75.8 d B (A)	Max. Temperature	5°C~40°C
Spray condition	Recommended	Atmosphere	5°C~43°C
Measuring point	1m backwards from gun, 1.6m height	Air - Fluid	G1/4 F
Air connection	G1/4 M	Fluid connection	

**Main specifications**

Model	Type of feed	Nozzle size	Air cap Assy Mark	※1 Atomizing air pressure MPa (bar /PSI)	Fluid output ml/min	Recommended condition		
						Air Consumption l/min (cfm)	※2 Pattern Width mm (in)	※3 Pattern Width mm (in)
WS-400-1301B	Gravity	13 Base	WS-400-01	0.20 (2.029)	120	370 (13.0)	260(10.24)	365(14.37)
WS-400-1301C		13 Clear			140		260(10.24)	365(14.37)
WS-400-08S13		13 OBS			160		260(10.24)	365(14.37)
WS-400-1401B		14 Base			170		260(10.24)	365(14.37)
WS-400-1401C		14 Clear			190		260(10.24)	370(14.57)
WS-400-1301BH		13HD			220		265(10.43)	365(14.37)
WS-400-1401BH		14HD			240		270(10.63)	370(14.57)
WS-400-1401CH		15HD			260		275(10.83)	370(14.57)
WS-400-1501BH								
WS-400-1501CH								

※1 Atomizing air pressure means air pressure at gun inlet when trigger is pulled and air flows  
 ※2 Spray distance at 130mm  
 ※3 Spray distance at 200mm



## ■ Safety precautions

### 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. 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.)
3. Securely ground spray gun by using air hose with built-in ground wire.  
Ground wire: Less than 1 MΩ. 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 toward people or animal.  
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 cleaning liquid.  
In order to release pressure, first stop supply of compressed air, fluid and thinner to spray gun.  
Then remove trigger toward 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.
4. Noise level can exceed 80dB(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

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 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. 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 fit 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 tightly.  
Job2. Connect an applicable cup, PC-G600P-2, to fluid nipple tightly.  
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

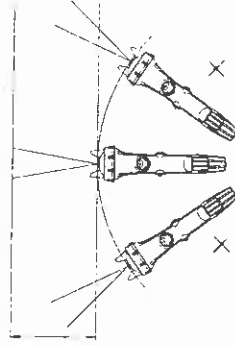
Suggested air pressure is 1.0 to 2.0bar (14 to 29 PSI).

Recommended paint viscosity differs according to paint property and painting conditions. 12 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 100-200 mm (3.9-7.9 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.



## ■ Maintenance and inspection

### WARNING

- First release air and pressure fully according to item No. 3 of "Improper use of equipment" of WARNING.
- 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.

## Manual cleaning procedure.

1. Drain remaining paint from spray gun and cup, into a suitable container.
2. Pour cleaner into cup.
3. Unscrew cap (1) by 2 turns, to allow atomizing air to back flush, fluid passages of the gun.
4. Pull trigger (16) and make sure that atomizing air enters cup.
5. Leave cleaner for a few seconds, then empty it into suitable waste container.
6. Repeat procedure above, until spray gun is clean.
7. Remove air cap (1) and cup from gun, then clean each section with brush soaked with cleaner and wipe out with waste cloth.
8. Dry all parts completely and apply spray gun lubricant to each thread.

## Automatic cleaning procedure

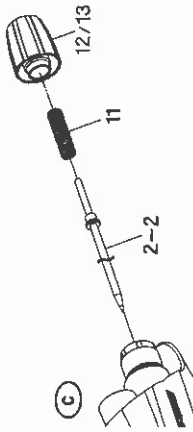
- When using automatic spray gun washer, follow the instruction on manual provided with it.
- Before cleaning, make sure air is released from air passages.
- Only use suitable cleaner designed for your spray gun washer.
- Make sure that the equipment is dried immediately after cleaning.
- Do not leave spray guns inside spray gun washer, after cleaning.
- Cleaner vapour can damage packings and cause corrosion inside gun body.
- Do not leave spray guns soaking in cleaner.
- Securely ground washer equipment
- Use of cleaner with waterborne coatings, can increase PH level, especially after several cleanings. Please, replace the cleaner regularly in order to always ensure the best spray gun performance
- Make sure that the PH level of cleaner does not exceed the limit.
- PH level:6.0-8.0 (but only during cleaning)

## DISASSEMBLY PROCEDURE

- Before disassembly, fully clean fluid passages.



- Disassembly fluid nozzle (2-1).  
While keeping fluid needle (2-2) pulled (engaging) in order to protect its seat section.
- Disassembly fluid needle set (2-2). (only when strictly necessary)
- Remove fluid adj. knob (13), fluid adj set (12), and needle spring (11), extracting the spring and fluid needle set (2-2), from the back of fluid adj. guide set (10) still assembled on the gun body (4).



## d. Fluid needle packing set(3)

Must always be adjusted while fluid needle set(2-2) is inserted and in the following way:  
Tighten it by hand (about a 60 degree turn) and then with spanner. When you remove needle packing set(3), do not leave plastic piece of needle packing set(3) in the gun body.

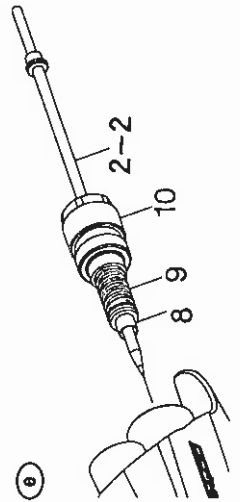


- If you tighten fluid needle packing set (3) too much, fluid needle set(2-2) will not move smoothly, resulting in paint leakage from tip of fluid nozzle(2-1).
- Try to adjust it carefully while pulling trigger and confirming movement of fluid needle set (2-2).
- If you tighten it too much, repeat operation.

## e. Air valve assembly(8)

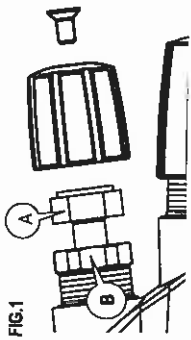
Assemble air valve(8), air valve spring(9) and adj. guide set(10) together. Next, insert fluid needle set(2-2) into fluid adj. guide set(10), fit it to gun body set(4) and screw fluid adj. guide set(10).

-If you try to fit air valve spring(9) and air valve(8) to gun body set (2-2), air valve (8) will not be fitted correctly and the packing in the fluid adj. guide set (10) will be damaged.



## r. Disassembly of pattern adjustment set (5) and/or air adjustment set (15).

In order to disassemble pattern adj. set (5) and/or air adj. set (15), first of all remove, adjustment knob (6) and Torr socket countersunk head screws (19) carefully as illustrated in Fig. 1.



Then manually turn the hexagon knob (A) of the adjustment counterclockwise to open it completely and unscrew the hexagon face (B) with a spanner turning it counterclockwise -To reassemble pattern adjustment set (5) and/or air adjustment set (15), reverse the procedure.

## Important

Before reassembling pattern adjustment set and/or air adjustment set, make sure that these operations are carried out with the adjustment fully open.(Fig1)

## Troubleshooting

Problem	Where it occurred	Parts to be checked	Cause	Remedy
Air leaks (from tip of air cap)	Air valve set	Air valve	• Dirt or damage on seal	R1 R2 R3
		Air valve seat set	• Dirt or damage on seal • Wear on air valve spring	R1 R2 R3
		O ring	• Damage or deteriorated	R1 R2 R3
Paint leaks	Fluid nozzle	Fluid nozzle ~ fluid needle set	• Dirt, damage, wear on seat • Loose fluid needle set. knob • Wear on needle spring	R1 R2 R3
		Fluid nozzle ~ gun body	• Insufficient tightening. • Dirt or damage on seat	R1 R2 R3
		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	R1 R2 R3
		Needle packing set ~ needle set	• Wear	R1 R2 R3
Paint does not flow	Tip of gun	Packing seal	• Insufficient tightening	R1 R2 R3
		Fluid adj. knob	• Insufficient opening	R1 R2 R3
		Tip hole of nozzle	• Chipped • Clogged	R1 R2 R3
Spit	Air cap	Paint filter	• Chipped	R1 R2 R3
		Paint filter	• Clogged	R1 R2 R3