iwata

by ANEST IWATA

和文取説は、裏面にあります

This manual contains IMPORTANT WARNINGS and INSTRUCTIONS.
Read and understand the instruction manual, before use and retain for reference.

INSTRUCTION MANUAL (For Overseas Sales)

■PROFESSIONAL AIRBRUSH

Hi-Line
Hi-Control of Hi-Precision Work
iwata

HP-TH.TH2

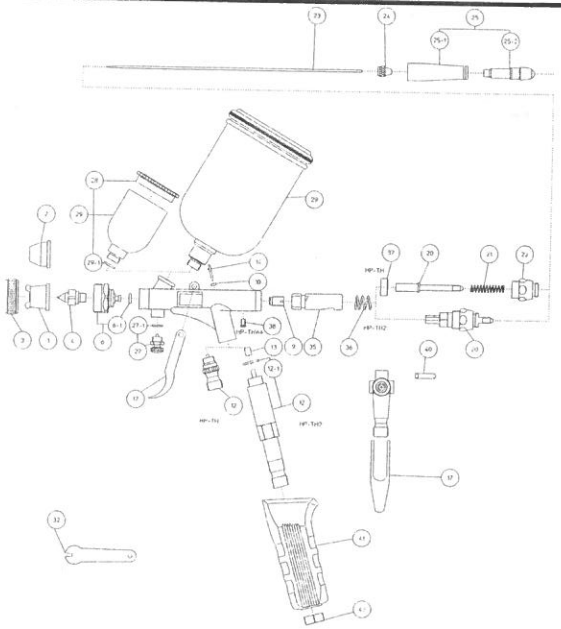
Be sure to observe warnings, cautions and instructions in this instruction manual. Inadvertent jetting of paint or inhalation of organic solvents can cause serious bodily injury. Be sure to observe important items especially those shown by the marks below.	
⚠ WARNING	Indicates a potentially hazardous 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. They are helpful to achieve full performance and functions of the equipment.

■ Specifications

MODEL	TYPE OF FEED	PATTERN	FLUID NOZZLE φ【mm】	CUP 【ml】	MAX AIR PRESSURE 【MPa】	NOTE
HP-TH	GRAVITY	Flat(Round) Pattern	0.5	15	0.2	
HP-TH2			0.6	130		

Air adjusting valve controls the amount of air flow.

■ PARTS LIST



No.	品名	TH	TH2
1	Air cap (Flat Pattern)	□	■
2	Air cap (Round Pattern)	□	■
3	Cover	□	■
◆ 4	Nozzle	□	■
6	Head	□	■
◆ 6-1	Head O Ring	△	△
◆ 9	Needle packing Screw	△	△
◆ 10	Piston O ring	□	■
12	Air Valve Set	□	■
13	Joint Sleeve		■
14	Valve Rod	□	■
17	Trigger	△	△
20	Needle Chuck	□	■
21	Needle Spring	□	
22	Spring Guide	□	
◆ 23	Needle	□	■
24	Needle Chucking Nut	△	△
25	Preset Cap Set	△	△
25-1	Preset Cap	△	△
25-2	Preset handle	△	△
27	Air Adjusting Valve Set	△	△
27-1	O ring	△	△
28	Lid for Cup	□	
29	Center bottle	□	■
29-1	O ring	□	
32	Spanner	□	■
35	Slide Cam	△	△
36	Slide Cam Spring	△	△
37	Main Body Ring	□	
38	Main Body Ring Screw	□	
40	Trigger Screw	△	△
41	Grip		■
42	Grip Screw		■

When ordering parts, specify gun's model, part name with Reference number.

No. and marked No. of air cap set, fluid nozzle and fluid needle.

◆ Marked parts are wearable parts.

△ marked parts are common parts.

□■marked parts are model specific parts.

■ Warnings for safe operation

⚠ WARNING

Fire or explosion hazard

1. Painting job site must be free of open flames.
   *Paint is flammable and combustible (organic solvent base paints such as lacquer or ceramic varnish).
   *Never expose to flammable materials such as cigarettes or electrical equipment .
2. Never use the following halogenated hydrocarbon solvents which can cause cracks or dissolution on airbrush body.
   *Improper solvents: methyl chloride, ethyl chloride, ethylene dichloride, methyl dichloride, carbon tetrachloride, trichloroethylene, 1.1.1 trichloroethylene, etc .(Be sure that all fluids and solvents are compatible with airbrush parts. We are ready to supply details of materials used in the airbrush on request.).

Misuse hazard

1. Never point airbrush in the direction of people body or animals except when using exclusive fluids such as body painting or nail art. If done, it can cause inflammation of the eyes or skin, or cause other physical injury.
2. Never exceed max. operating pressure of airbrush. If done, airbrush can explode and cause injury or physical injury or death.
3. Always release air pressure before cleaning, disassembling or servicing. If not, remaining pressure can cause injury by the splashing of cleaning liquid or other misuse. In order to release pressure, stop supply of compressed air to airbrush and slightly Pull the trigger.

Hazard to human body

1. Use airbrush in areas which are well-ventilated by an exhaust fan. If not, injury will occur through the inhalation of fluid, and danger of ignition will increase.
2. Always wear protective clothing or gear (eyewear, gloves, respirator, etc.). If not, cleaning liquid, etc., will come into contact with your eyes or skin and cause inflammation. If you feel something is wrong with your eyes or skin, see a doctor immediately.

Other hazards

1. Never alter airbrush. If done, it can cause failure and poor performance.
2. Never use for food industry or chemicals. If done, it can cause an accident due to corrosion of paint passage or health problem due to inclusion of foreign matter.

■How to operate

●Connection

⚠ CAUTION

* Use clean compressed air which is filtered through an air filter. Dirty air can cause painting failure.
* When you use for the first time after unpacking, clean inside with cleaning liquid in order to remove remaining anti-corrosive oil inside fluid passage. Remaining oil can cause painting failure such as fish eye (dented finishing).
* Firmly fasten air hose and fluid cup to airbrush.

If not done, disconnected hose or falling cup can cause physical injury.

1) Use slender and exclusive air hose for airbrush such as Ø 2 x 4mm tube, etc.
2) Use air pressure at around 0.10~0.20 MPa . Use air regulator to get stable air pressure. Use air filter to remove moisture, oil and dust in air.

※ HPA-LJ (Long Joint) maybe purchased as an optional parts for better grip of the airbrush.

•Spraying

- Filter color material with fine filter paper (cloth), or pigments may clog nozzle.
- Never damage nozzle cap or nozzle. If done, it will adversely affect atomization.
- Do not mix different color material (example: paint and dyestuff). If done, the viscosity will increase and cause malfunction.

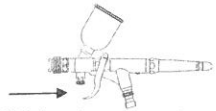
1) Before spraying, loosen needle chucking nut and gradually push needle inwards till needle touches nozzle, and then retighten needle chucking nut. Pour cleaning liquid into cup and clean fluid passage.

2) Pour small amount of paint material in the paint reservoir for test spraying. While testing, make adjustment to the material flow, air flow and a pattern size.

～How to Adjust～

① Set the operating air pressure to approximately 0.1～0.15MPa. or{1.0～1.5kgf/cm²}
The pressure setting may vary according to the viscosity of the paint material being used.

② Allow 100～200mm, from the surface while using a fan pattern cap. Allow 1～200mm. While Using a round pattern cap.



Pull the trigger. First only the air will flow and pull the trigger further for paint to flow.

■ Maintenance after Painting

•Maintenance

⚠ WARNING

* Always completely release pressure before maintenance in accordance with warning of safe operation on page 2. If not done, remaining pressure can cause injury by the splashing of cleaning liquid or other misuse.

* The operator must be fully conversant with the requirements in this manual and have sufficient knowledge and experience.

* Pay full attention to the sharp tip of needle in order to avoid injury.

Maintenance procedure	Important
1. After operation, be sure to empty fluid cup and spray water or cleaning liquid for cleaning. *Then close tip of nozzle cap with finger and pour water or solvent into cup. Then if you push main lever, air flows backward into nozzle which works like gargling.	1. Incomplete cleaning can cause adverse pattern shape and particles. *Be careful with handling of the tip of needle and nozzle since they are very weak.
2. Pull out needle and remove foreign matter. Clean needle and insert it till it touches nozzle. Clean other parts with attached brush soaked with cleaning liquid and waste cloth.	2. Never immerse the whole airbrush into liquid such as thinner. *Immersion for a long time can damage O ring or packing. *Never damage holes of nozzle cap, nozzle, or needle. If done, it can influence atomization adversely.
3. Fully clean fluid passage before disassembly.	3. Remove fluid nozzle while pulling needle with main lever pulled (toward you), in order to protect seat section.

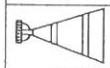
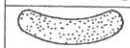
•Inspection

Where to inspect	When to replace parts
1. Each hole passage of cap and nozzle	*Replace if damaged or deformed.
2. Packing or o rings	*Replace if damaged or worn out.
3. Seat section between nozzle and needle for leakage	*Replace if there is still leakage even after you clean nozzle and needle. If you replace nozzle or needle only, first match up nozzle and needle to see if there is any leakage. *When replacing nozzle, use exclusive tool and gradually tighten. Use of other tools can cause breakage of thread or incomplete centering.

•R1: retighten R2: adjust R3: clean R4: replace parts

Problems	Place of problem	Where to check	Causes	Remedies R1	R1	R1	R1
Paint leaks	tip of brush	fluid nozzle～ fluid needle	dirt, damage, wear on seat			○	○
			insufficient nozzle tightening	○			
		needle spring～ needle spring case	wear on needle spring				○
			loose needle packing screw	○			
		needle～ fluid needle packing screw	needle does not return due to paint buildup on fluid needle.		○	○	
		need～needle chucking nut	loose needle chucking nut	○			
	main lever	needle packing	damage to or wear on fluid needle packing				○
		needle packing screw	loose needle packing screw	○			
Paint does not come out.	tip of air brush	fluid nozzle	clogged		○		
		needle chucking nut	insufficient tightening	○			
		needle cap~nozzle cap	dirty needle and nozzle cap			○	
		Needle	Clogged			○	

•TROUBLESHOOTING

Spray Pattern	Problems	Remedies
 Fluttering	1. Air enters between fluid nozzle and tapered seat of gun body. 2. Air is suctioned 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 horn holes. Air pressure from both horns differs.	1. Remove obstructions from horn holes. But do not use metal objects to clean horn holes.
 Inclined	1. Paint buildup on air cap partially clogs horn 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.
 Split	1. Paint viscosity too low. 2. Fluid output too high.	1. Add paint to increase viscosity. 2. Adjust fluid adj. knob or pattern adj.
 Heavy Center	1. Paint viscosity too high. 2. Fluid output too low.	1. Reduce viscosity. 2. Increase fluid output.
 Spit	1. Fluid nozzle and fluid needle set are not seated properly. 1. The first-stage travel of trigger (when only air discharges) decreases. 3. Paint buildup inside air cap set.	1. Clean or replace fluid nozzle and fluid needle set. 2. Replace fluid nozzle and fluid needle set. 3. Clean air cap set.

Please contact your local Anest Iwata agent for inquiries.

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