Hi-Line

Hi-Control of Hi-Precision Work

iwata

HI-LINE SERIES MANUAL & PARTS GUIDE

Hi-Control of Hi-Precision Work

distinguish these airbrushes as Hi-Line!

ONLY FROM IWATA-MEDEA

Iwata airbrushes are designed for the demanding professional. Modern precision machining and carefully selected materials are used in the manufacturing process to ensure consistent high performance and long life. Each Iwata Hi-Line airbrush is spray-tested before shipment to assure maximum performance and adherence to Iwata's strict quality standards. To maintain your Hi-Line at their peak performance, proper care and attention must be observed.

NEED ASSISTANCE?

If you have any issues with this product,
call ANEST IWATA-MEDEA (U.S.A.) 503-253-7308 (M-F 8am-4:30pm Pacific Time)
or your local ANEST IWATA affiliate before returning to your place of purchase.

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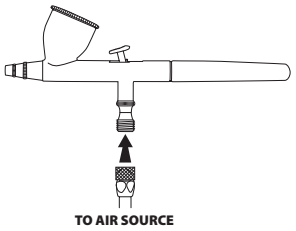
QUICK START GUIDE INCLUDED WITH YOUR AIRBRUSH

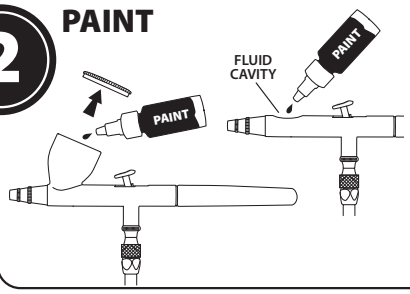
1 BEGIN



Begin by attaching the small end of an Iwata air hose (included with some models or sold separately) to your airbrush.

Attach the other end of your airbrush hose to your air source. (Compressor sold separately or included with kits.)

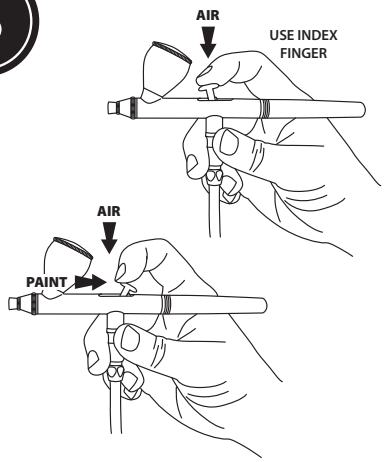
2 PAINT



If your airbrush has a cup with a lid, remove by pulling off. Put a few drops of paint into the color cup and push lid back on.

If your airbrush has no cup, then put a drop or two of paint directly into the fluid cavity found on top of airbrush.

3 START AIRBRUSHING



Turn your compressor on.

Using your index finger for control, push down on the trigger for air flow. With trigger pushed down, pull back to release paint flow. This is called dual-action.

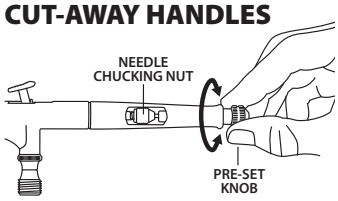
For finer lines, turn the air compressor pressure (psi) down, get close to paint surface then push down and pull back on trigger just a little.

Clean airbrush between color changes and at the end of your paint session.

CLEANING

To clean your airbrush, empty excess paint from cup or fluid cavity and wipe out as necessary. Flush out airbrush with the appropriate cleaner for your medium (such as airbrush cleaner) or use water (good for water-based mediums) and spray until airbrush sprays clear.

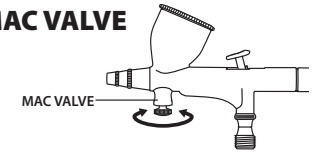
PRE-SET AND/OR CUT-AWAY HANDLES



Some Iwata airbrushes are equipped with a preset and/or cutaway handle. The knob on the pre-set handle limits how far back you can pull the trigger allowing you to set a specific line width each time you spray.

The cut-away handle reveals the needle chucking nut. Pull the needle chucking nut back and push trigger down and back when flushing cleaner through airbrush.

MAC VALVE



Some Iwata airbrushes are also equipped with the MAC Valve (Micro-Air Control Valve). Turning the knob adjusts the air flow (psi) for fine control of paint spray.

HI-LINE SERIES AIRBRUSHES

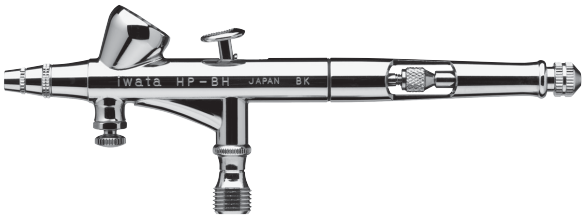
Obtain ultimate air control at your nozzle tip with Iwata's Micro Air Control (MAC) Valve Technology. The Hi-Line Series doesn't just change air pressure instantly - it changes the way you airbrush.

Designed for artists who need extremely controlled detailed spray, this series uses larger diameter threads on the nozzle than the High Performance Series. This makes the nozzle much stronger when tightening it onto the airbrush and ensures better centering of the nozzle when it screws onto the airbrush body.

- Solvent-proof PTFE needle packing
- Dual-purpose cutaway, pre-set handle
- One-piece auxiliary lever/needle chucking guide
- Micro Air Control Valve for instantaneous air flow adjustments
- Gravity-feed configuration allows the ability to spray on just one drop of paint
- Strengthened large diameter threads for better nozzle tip centering in the air stream

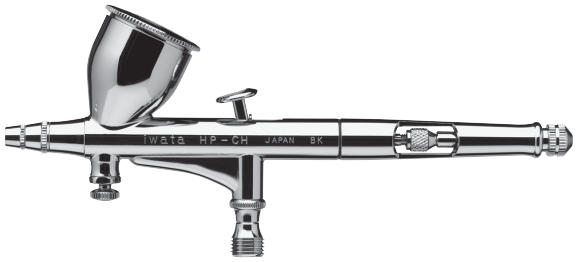
Iwata Hi-Line HP-AH

·0.2 mm nozzle
·1/32 oz (0.9 ml) fluid cavity



Iwata Hi-Line HP-BH

·0.2 mm nozzle
·1/16 oz (1.8 ml) fluid cup
·Funneled cup provides quick, easy clean ups



Iwata Hi-Line HP-CH

·0.3 mm nozzle
·1/3 oz (9 ml) fluid cup
·Funneled fluid cup provides quick, easy clean ups
·Ideal airbrush for spraying various paints from watercolors to solvent-based automotive paints

GETTING STARTED

Compressor
Though Hi-Line Series airbrushes can function on minimal amounts of air, their full versatility requires an adjustable or regulated air source with an air storage tank. Other compressor considerations include the length of use while spraying and the environment, or amount of space, you spray in.

These Iwata Studio Series models come equipped with an air regulator for precise air adjustment:
- Smart Jet Pro: Good for small studios and normal use.
- Power Jet Lite: Good for normal studios and extended use.
- Power Jet: Great for normal studios and great for extended use.
- Power Jet Pro: Great for normal studios and great for extended use. (Two regulators allow two airbrushes on same unit.)

Assembly
1. Screw the airhose onto the compressor.
2. Screw the airhose onto the airbrush.
3. If using a Smart Jet Pro, Power Jet, Power Jet Lite, or Power Jet Pro compressor, adjust the pressure to between 10 and 15 psi.
4. Check for any air leaks in the compressor or airhoses.
5. Place a few drops of cleaning solution or water into the airbrush's bowl.
6. Point the airbrush away from you.
7. Press down on the main lever (#7) to start airflow through the airbrush.
8. Pull the main lever back opening the airbrush's nozzle.
9. Spray water through the airbrush to see how it sprays.

GENERAL OPERATION

Wide-Lines and Blending
1. Depress the main lever (#7).
2. Position the airbrush from 1/2 to 6 inches away from the surface.
3. Pull the main lever back much further to release more paint to cover the bigger area.
- A longer distance to the paint surface produces wider lines.
- A shorter distance to the paint surface produces narrower lines.
- Increased air pressure increases spray width.
- Decreased air pressure decreases spray width.
- The maximum usable line width is approximately 2 inches.

Pre-Set Handle (#17)
A threaded adjusting screw mounted behind the handle limits the distance the main lever can be pulled back. This provides accurate paint volume control and is especially useful for repetitive, precision work.

Cutaway Handle
The cutaway handle allows quick paint clog removal without removing the handle or needle.

1. Grip the exposed needle chuckling nut (#16) with your fingers.
2. Pull it back while simultaneously depressing the main lever (#7).
3. Repeat this process several times until the airbrush is clog free and spraying normally.
- The increased paint flow past needle and nozzle tip removes many clogs.
- Don't let the needle "snap" back into place. This could damage the nozzle.

Micro Air Control (MAC) Valve
The MAC Valve (#29) enables infinite airflow control at the airbrush's head providing control between stipple, fine detail, and background spray effects.
- Spray coarse stippling effects and increase to full atomization in a quick turn.
- Fine tuned airflow.
- Maximized paint atomization control.
- Open the valve fully during cleaning. The higher pressure pulls more paint through the airbrush.

Stippling
Iwata airbrushes are designed to produce a wide range of stippling textures.
1. Unscrew the needle cap (#1).
2. Unscrew the nozzle cap (#2).
3. Adjust the air pressure between 8 and 60 psi.
   - Low air pressure creates coarse stipples.
   - High air pressure provides fine stipple effects.
   - Paint viscosity also effects stippling texture.

Air Pressure
Working pressures generally vary between 8 and 60 psi, depending on the type of surface, the desired spray texture, and the paint's viscosity.

Start spraying with 15 psi. If the spray is too grainy adjust the pressure up until the desired spray consistency is reached.
- Different colors will behave differently.
- Different paint lines will behave differently.
- Spray thick paint with greater pressure.
- Spray thin paint with less pressure.
- Spray large paint amounts with greater pressure.
- Spray small paint amounts with less pressure.

WARNING: Do not exceed 98psi.

Paint Preparation
For non-specific airbrush paints, proper preparation, including filtering the paint through a nylon mesh, is critical for best performance. Thin paint with its proper solvent, and make repeated passes across the work to build up the color. This improves your work's quality and decreases your airbrush's cleaning time.
- Airbrushes spray very thin paint easiest.
- Thin paint with its proper solvent.
- Filter paint through paint filters or mesh.

Safety Tips
- Always spray in well ventilated areas.
- Do not spray solvent based (flammable) paints around open flames.
- Use the appropriate respirator to safely filter out paint vapors particular to your specific paint type.
- Wear eye protection to prevent paint contact with eyes.
- Never exceed the airbrush's pressure limit (98 psi).

MAINTENANCE REFER TO MASTER PARTS LIST ON PAGE 7

Cleaning the Airbrush Between Colors
1. Dump out the color cup's excess paint.
2. Rinse the cup with the appropriate cleaning solution.
3. Use a paper towel to wipe out any left over paint.
4. Fill the bottom of the cup with cleaner.
5. Spray cleaner until the spray is clear.
6. Add the next color to the color cup.
7. Repeat cleaning procedure when finished.

Cleaning the Needle (#4)
1. Unscrew the handle (#17) from the airbrush body.
2. Loosen the needle chucking nut (#16).
3. Gently pull the needle (#4) straight out.
4. Fold a soft cloth damp with cleaner over the needle.
5. Rotate the needle to gently wipe the residual paint off.
6. Carefully insert the needle into the airbrush until it seats fully against the nozzle (#3). You should feel a positive stop. If you feel a spongey stop, you still have debris in your nozzle.

CAUTION: The most probable time to damage the needle is when the needle passes through the main lever (#7) and through the needle packing screw (#5).

If the needle stops abruptly, retract and examine the trigger mechanism for proper assembly and re-insert the needle.

7. Tighten the needle chucking nut finger tight.
   • Pull the main lever back and forth to visually confirm the needle's ability to move.
8. Screw the handle back onto the airbrush body.

Before Each Session
Spray water or the appropriate paint solvent through the airbrush to make sure the airbrush is working properly.

After Each Session
Or any time the airbrush becomes clogged.
1. Increase the air pressure.
2. Spray cleaning solution for a short time.
3. Clean the needle if necessary

This cleaning method helps clean the paint passage, the nozzle, and the needle thoroughly.

Lubricating the Needle (#4)
To ensure smooth main lever (#7) action lubricate the needle when the trigger won't respond properly.
1. Unscrew the handle (#17).
2. Loosen the needle chucking nut (#16).
3. Remove the needle.
4. Coat the needle slightly with Medea Super Lube starting 1 inch behind the tip.
5. Wipe the needle with a soft, clean cloth, leaving a light coat of lube behind.
6. Re-insert the needle gently into the airbrush until you feel a positive stop.
7. Tighten the needle chucking nut.
8. Screw the handle onto the airbrush body.

DO NOT over-lube the needle; transferring excess lube into the nozzle may cause severe paint flow problems.

DO NOT use light machine oil or WD-40 for lubrication. These lubes cause the needle to stick when it moves through the needle packing o-ring and can also get into the air system.

CAUTION: If it becomes absolutely necessary to dismantle the airbrush remember that most situations do not require tools.

DO NOT use pliers.

Lubricating the Air Piston (#12)
To ensure smooth main lever (#7) action lubricate the air piston when the trigger won't respond properly.
1. Unscrew the handle (#17).
2. Unscrew the needle chucking nut (#16).
3. Remove the needle (#4).
4. Unscrew the spring guide (#11).
5. Remove the needle spring (#10).
6. Remove the needle chucking guide (#9).
7. Pull the main lever up and out.
8. Use tweezers to pull out the air valve piston.
9. Clean the air piston with a cotton swab.
10. Clean the hole at the bottom of the trigger housing with a cotton swab.
    a. Clean until a Cotton Swab comes back clean.
11. Dab a very small drop of Super Lube on the air piston shaft.
12. Insert the air piston back into the hole at the bottom of the trigger housing.
13. Place the main lever back into the trigger housing.
14. Press the main lever up and down a few times.
    a. It should spring back up smoothly when depressed.
15. Place the needle chucking guide into the airbrush body.
    a. Check the parts guide for proper orientation.
    b. Pull the small tab forward.
    c. Angle the needle chucking guide's tail end slightly up.
    d. Insert the needle chucking guide into the airbrush body.
    e. The small tab should stick up slightly behind the main lever.
16. Place the needle spring over the needle chucking guide.
17. Screw the spring guide into the airbrush body.
18. Push down on the main lever at least once.
19. Carefully insert the needle.
    a. Warning: This is the most probable time to bend the needle point.
20. Screw the needle chucking nut onto the needle chucking guide.
21. Screw the handle back into the airbrush body.

DO NOT over-lube the air piston; transferring excess lube into the air system may cause severe paint flow problems.

DO NOT use light machine oil or WD-40 for lubrication. These lubes cause the needle to stick when it moves through the needle packing o-ring.

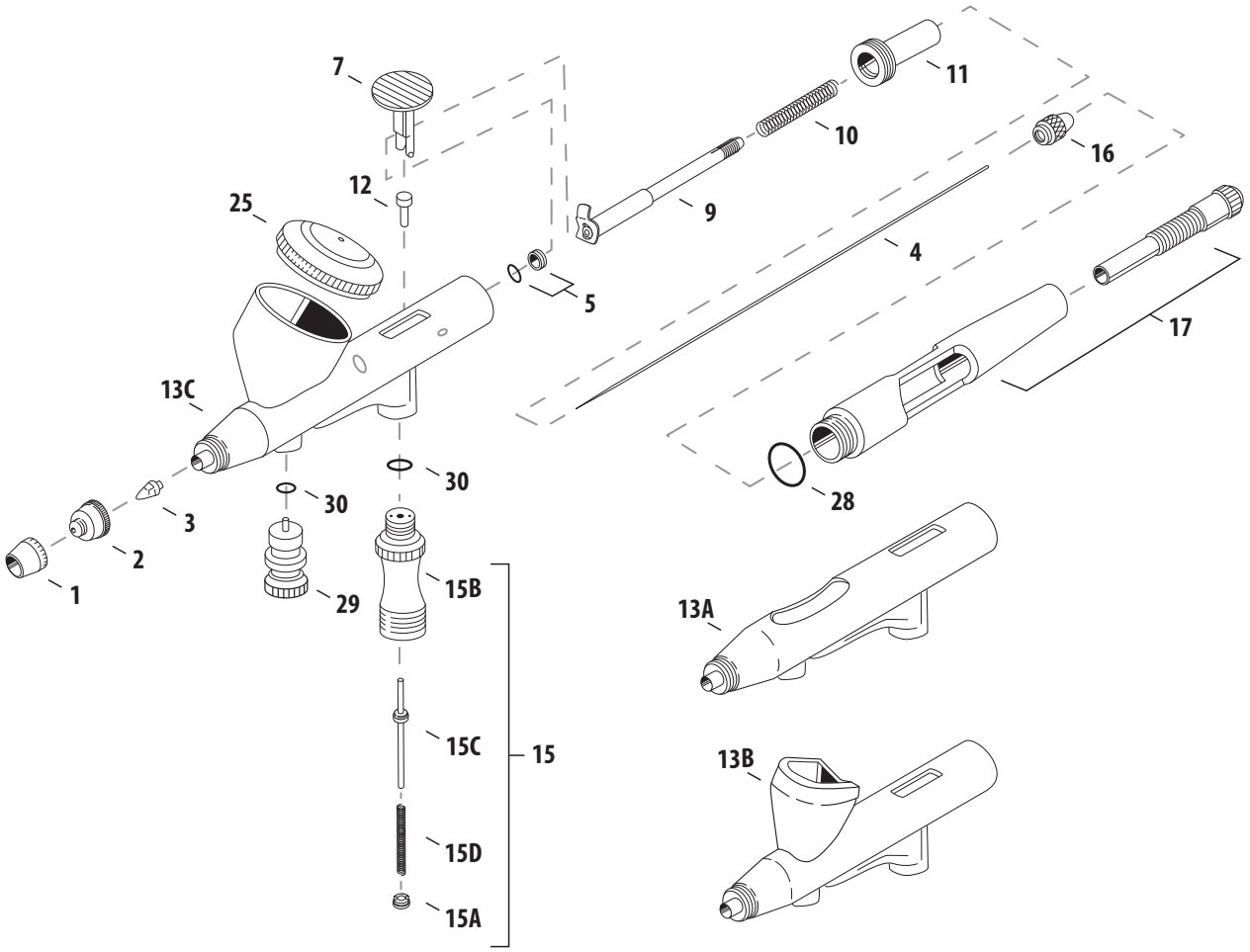
CAUTION: If it becomes absolutely necessary to dismantle the airbrush remember that most situations, unless otherwise directed, do not require tools.

TROUBLESHOOTING PROCEDURES

Symptom	Problem	Solution
Bubbles in Color Cup or Bottle	Loose nozzle cap	•Tighten (#1B) finger tight
	*Improper nozzle to head system base connection	•See Head System (#1) to reseat the nozzle
	Cracked or damaged nozzle	•See Head System (#1) to replace the head system
Double Line	Dried paint on needle tip (Tip-Dry)	•See Cleaning the Needle
	Dirty airbrush	•See Cleaning the Airbrush Between Colors •See Cleaning the Needle
	Debris on nozzle tip	•See Head System (#1) and clean nozzle (#1C) with toothpick
	Bent needle	•See Needle (#10) to replace needle
	Cracked or damaged nozzle	•See Head System (#1) to replace the head system
Not Spraying	Loose needle chucking nut	•Finger tighten (#11)
	Needle stuck	•Pull out/Break-free Needle (#10)
	Improper air pressure	•See specific compressor instructions to raise or lower the air pressure
	Paint too thick	•See Paint Preparation
	Clogged nozzle	•See Head System (#1) and clean nozzle (#1C) with toothpick
	Cracked or damaged nozzle	•See Head System (#1) to replace the head system
Skipping	Dried paint on needle tip (Tip-Dry)	•See Cleaning the Needle
	Paint too thick	•See Paint Preparation
	*Improper nozzle to head system base connection	•See Head System (#1) to reseat the nozzle
	Dirty airbrush	•See Cleaning the Airbrush Between Colors •See Cleaning the Needle
	Cracked or damaged nozzle	•See Head System (#1) to replace the head system
Spattering	Dried paint on needle tip (Tip-Dry)	•See Cleaning the Needle
	Paint build-up in crown cap	•Unscrew (#1A) and clean with cotton swab
	Air pressure too low	•See specific compressor instructions to raise the air pressure
	Paint too thick	•See Paint Preparation
	Dirty airbrush	•See Cleaning the Airbrush between Colors •See Cleaning the Needle
Trigger Sticks (back and forth)	Dirty airbrush	•See Cleaning the Airbrush between Colors •See Cleaning the Needle
Trigger Sticks (up and down)	Paint on air valve packing o-ring	•See Lubricating the Air Piston

Warning: The most likely time to damage the nozzle (#1C) is upon removal from the airbrush. Because the Head System can be removed entirely the nozzle does not need to be removed at all. If the nozzle is never removed you do not have to worry about "improper nozzle to head system base connections".

IWATA HI-LINE SERIES



#	ITEM DESCRIPTION		PRICE CODE	ITEM #	HP-AH	HP-BH	HP-CH	ALSO FITS
1	Needle Cap		B	I 110 1	■	■	x	HP-A/+
			B	I 110 2	x	x	■	HP-C/+
2	Nozzle Cap		D	I 140 7	■	■	opt	
			D	I 140 3	opt	opt	■	HP-C/+
3	Fluid Nozzle	0.20 mm	G	I 080 7	■	■	opt	HP+
		0.30 mm	G	I 080 8	opt	opt	■	HP+
4	Fluid Needle	0.20 mm	C	I 075 1	■	■	opt	HP-A/+
		0.30 mm	C	I 075 3	opt	opt	■	HP-C/+
5	Needle Packing Screw		B	I 125 7	■	■	x	
	w/PTFE Needle Packing		B	I 725 1	x	x	■	REV
7	Main Lever		D	I 100 2	■	■	■	HP-C/+
9	Needle Chucking Guide		C	I 115 7	■	■	x	
	w/Auxiliary Lever		C	I 715 1	x	x	■	REV
10	Needle Spring		A	I 135 2	■	■	x	HP-A/+
			A	I 135 1	x	x	■	ECL/REV
11	Spring Guide		A	I 770 1	■	■	■	REV
12	Valve Piston	CA PROP 65	A	I 175 1	■	■	■	HP-A/+
13A	Body*				■	x	x	
13B					x	■	x	
13C					x	x	■	
14	Packing Valve Piston (O-Ring)		A	I 145 1	■	■	■	HP/+

#	ITEM DESCRIPTION		PRICE CODE	ITEM #	HP-AH	HP-BH	HP-CH	ALSO FITS
15	Air Valve Set	CA PROP 65	G	I 030 1	■	■	x	HP-A/+
		CA PROP 65	G	I 030 4	x	x	■	HP-C/+
15A	Air Valve Guide	CA PROP 65	A	I 025 1	■	■	■	HP/+
15B	Air Valve Body		D	I 020 1	■	■	■	HP/+
15C	Air Valve	CA PROP 65	B	I 015 1	■	■	x	HP-A/+
			B	I 015 4	x	x	■	HP-C/+
15D	Air Valve Spring		A	I 035 1	■	■	■	HP/+
16	Needle Chucking Nut		A	I 120 1	■	■	■	HP/+
17	Pre-Set Handle Set		G	I 155 6	■	■	■	
25	Fluid Cup Lid		C	I 618 1	x	x	■	HP-C/+
28	Packing Handle (O-Ring)		A	I 605 1	■	■	■	CM-C+
29	Micro Air Control (MAC) Valve		D	I 190 1	■	■	■	**CM-C+**
30	Packing MAC Valve (O-Ring)		A	I 190 2	■	■	■	CM-C+
	Spanner (Nozzle Wrench)		A	I 165 1	■	■	■	HP/+
	Quick Fit Set (QD Screws Onto Airhose and Adaptor Screws Onto Airbrush)			I 160 3	opt	opt	opt	
	Quick Fit Adaptor (Adaptor Screws Onto Airbrush)			I 160 4	opt	opt	opt	
	Adaptor (Iwata Airbrushes to Paasche Air Hose)			J 001	opt	opt	opt	
	Adaptor (Iwata Airbrushes to T & C/Badger Air Hoses)			J 002	opt	opt	opt	

CA PROP 65 ***CALIFORNIA PROP 65 WARNING:*** *Certain products identified with this symbol and offered for sale in this catalog contain lead, a chemical known to the State of California to cause cancer, birth defects and other reproductive harm.*

■ = yes **x** = no **opt** = optional

**Replacement parts not available.*

REPLACEMENT PARTS AND ACCESSORIES

Nozzle (#3)
In time, the nozzle may wear or be damaged and may need to be replaced.
1. Unscrew the handle (#17).
2. Loosen the needle chucking nut (#16).
3. Gently pull the needle (#4) part way back. It doesn't need to be fully pulled out.
4. Unscrew the nozzle cap (#2)
5. Unscrew the nozzle counter-clockwise with the provided wrench.
6. Screw the new nozzle into the airbrush body with your fingers.
7. Slightly tighten the nozzle with wrench. DO NOT OVER TIGHTEN!
8. Screw the nozzle cap onto the airbrush body.
9. Push the needle all the way forward until it seats with the new nozzle.
10. Tighten the needle chucking nut.
11. Screw the handle onto the airbrush body.
TIP: Keep a spare nozzle on hand for unforeseen accidents.

Needle (#4)
Iwata needles are precision ground, hardened stainless- steel capable of withstanding prolonged use. They are, however, easily physically damaged because of the long, tapered, extremely fine tip. If the needle point becomes severely bent, it must be straightened before pulling it back through the nozzle. If not, the bent needle might damage the nozzle as it's pulled through.

TIP: Keep a spare needle on hand for unforeseen accidents.

- Needles are sharp.
- Needle tips are bent easily.

Crown Cap (Optional Accessory)
The crown cap physically protects the needle while spraying very fine lines. It also adds to pigment build-up and spattering when spraying large backgrounds.
- Protects the needle
- Replaces the needle cap (#1)
- Adds to pigment build-up and spattering effects over large areas

Quick Disconnect (Optional Accessory)
A quick disconnect joint is screwed onto the airhose and a quick disconnect adapter is screwed onto each airbrush. When using multiple airbrushes the quick disconnect joint facilitates changing airbrushes on the same airhose quickly.

Pistol Grip Moisture Filter
The Iwata-Medea Pistol Grip Moisture Filter delivers clean, dry air to your airbrush. Miniature in size, the super-fine, 5-micron filter element performs like a full-size filter separator.

The clear filter bowl allows visual inspection of built up moisture. Release the water by pulling the spring-loaded release valve.

Changing the Tip Size
To fully and completely change the airbrush's tip size and maintain performance switch out the needle, nozzle, and nozzle cap according to this chart.

Model	Tip Size	Setup	Needle	Nozzle	Nozzle Cap	PTFE O-Ring
HP-AH	0.2 mm	Standard	I 075 1	I 080 7	I 140 7	I 125 7
HP-AH	0.3 mm	Optional	I 075 3	I 080 8	I 140 3	I 725 1
HP-BH	0.2 mm	Standard	I 075 1	I 080 7	I 140 7	I 125 7
HP-BH	0.3 mm	Optional	I 075 3	I 080 8	I 140 3	I 725 1
HP-CH	0.2 mm	Optional	I 075 1	I 080 7	I 140 7	I 125 7
HP-CH	0.3 mm	Standard	I 075 3	I 080 8	I 140 3	I 725 1

WARRANTY

All Iwata airbrushes are *Warranted* against all manufacturing defects of material and manufacture or workmanship for a period of FIVE years from date of purchase. This warranty does not cover needles, nozzles, o-rings and internal packings since these parts need to be replaced occasionally due to normal wear. Any other parts or materials that are or become defective so as not to be usable within this period will be repaired or replaced. This warranty does not cover damage caused by negligence or airbrushes which have been altered or abused in any way. Call or e-mail Iwata-Medea before returning an airbrush for the appropriate procedure for warranty repairs.

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