

iwata *Revolution*

Instruction Manual

Congratulations on your purchase of an Iwata Revolution airbrush; a versatile, reliable and dependable airbrush! The Revolution was designed for the new airbrush users or hobbyist who desires an Iwata quality airbrush that has superior spray quality coupled with being a multi-purpose and versatile airbrush.

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

— Getting Started —

Compressor

Choose an appropriate compressor for your Revolution airbrush. The Iwata Sprint Jet or Smart Jet Compressors are a good beginners choice and will provide approximately 30 psi of air pressure to the Revolution airbrush. At this air pressure, the versatility of the Revolution airbrush will provide a finely atomized, background spray as well as a controllable fine line and detail performance..

Assembly:

Screw the airhose onto the compressor and airbrush. Turn the compressor on and adjust the air pressure between 25 - 30 psi. Check for any air leaks in the compressor or airhoses. On the bottle feed Revolution (HP-BCR), fill the bottle with some Medea Airbrush Cleaner and then attach the bottle to the airbrush by pushing the bottle stem into the bottle joint of the airbrush body. Pointing the airbrush away from you, press down on the main lever (#8) to start the flow of air through the airbrush. At the same time, pull back on the main lever to open the nozzle of the airbrush to allow the cleaner to spray through the airbrush. This will clean out any residual pre-testing pigment that may still be in the airbrush. On the gravity airbrush (HP-CR), place a couple drops of cleaner into the bowl and spray it through the airbrush.

— GENERAL OPERATION —

Fine Line Spray

To spray a fine line, depress and pull the main lever (#8) back slightly while positioning the airbrush close to the surface (approximately 1/16 - 1/2 inch). The thickness of the line can be controlled by adjusting the distance of the airbrush from the surface and adjusting the amount of paint flow by the position of the main lever.

CAUTION: The needle and nozzle are very delicate. Even a slight bend on the tip of the needle can adversely affect the spray pattern.

Wide Line and Background Spraying

For wider lines and background spray, depress and pull the main lever further back to release more paint. Increase the distance between the airbrush and painted surface to control the width of line desired (from 1/2 - 6 inches is common). Increasing the air pressure will also affect the spray width. The Revolution will spray a background width of approximately 1 1/2 inches.

Ergonomic Handle

The ergonomic handle (#15) is a special feature on the Revolution. Its purpose is to aid in preventing fatigue from long periods of airbrush use and to provide a balance

feel in your hand.

Stippling

Iwata airbrushes are designed to produce a wide range of stippling textures. Stippling is achieved by removing the needle cap (#1) and nozzle cap (#2) and adjusting the air pressure adjusted to between 5 and 50 p.s.i. Lower air pressures will give you coarse stipples whereas a higher pressures will provide a fine stipple effect. Paint viscosity will also affect the stippling texture.

Air Pressure

Working pressures vary from between 20 and 40 p.s.i., depending on what textures are desired. The viscosity of the paint and your desired spray characteristics will also have an effect on which pressure is ideal. A good working pressure may average around 25 p.s.i. As a general rule, larger amounts of paint or thicker paints will be sprayed with higher pressures

Paint Preparation

Proper preparation and filtering of paint though a nylon mesh is recommended for best performance of the airbrush. Paint should be thinned with its proper solvent. It is best to prepare the paint relatively thin and make repeated passes across the work to achieve the desired shade. This will also improve the quality of your work and decrease the cleaning time of your airbrush.

— MAINTENANCE —

Cleaning the Airbrush Between Color Changes

On the bottle feed airbrush, replace the color bottle with a bottle containing the appropriate cleaning solution for your paint and spray until the solution is sprayed clear and clean. Replace the color bottle and spray the next color; when finished, repeat the cleaning procedure.

On a gravity feed airbrush, dump out the excess paint left in the bowl. Rinse the bowl with airbrush cleaner and use a paper towel to wipe out any left over paint. Fill the bottom of the bowl with cleaner and spray it through until the spray is clear. Now you are ready to use another color in the airbrush. When finished, repeat the cleaning procedure.

To Clean the Needle

Loosen the needle chucking nut (#14) and slowly pull the needle (#13) straight out. Wipe the residue off the needle by gently rotating it in a soft cloth folded over the needle. Carefully re-insert the needle into the airbrush near the back and push gently until it seats against the nozzle. Caution: The most probable time to damage the needle is when the needle passes through the main lever mechanism (#8) and needle packaging screw (#7). If the needle stops abruptly, retract and examine the trigger mechanism for proper assembly and re-insert the needle again. Tighten the needle chucking nut (#14).

Before Each Session

At the beginning of each session, spray water or appropriate paint solvent through the airbrush to make sure the airbrush is working properly.

After Each Session

At the end of an airbrush session or any time the airbrush becomes clogged, increase the air pressure and spray cleaning solution through the airbrush for a short period of time. Cleaning the needle and the high air pressure cleaning by this method will help to thoroughly clean the paint passage, nozzle, and needle.

Periodically

To insure smooth main lever action, lubricate the needle (#13) and main lever mechanism (#8) regularly. Periodically, remove the needle and coat it with a high-quality lubricant (like Medea Super Lube); then wipe the needle with a soft, clean cloth, leaving on a light coat of lube. Re-insert the needle into the airbrush and re-tighten the needle chucking nut (#14). A couple of drops of lube can also be placed into the main lever slot in the airbrush body to lubricate these moving parts.

NOTE: DO NOT over-lube the needle (#13) or main lever mechanism (#8), since it is possible to transfer the excess lube into the nozzle, causing severe paint flow problems. **DO NOT** use light machine oil or WD-40 for lubrication. This will cause the needle to stick as it moves through the needle packing.

CAUTION: If it becomes absolutely necessary to dismantle the airbrush, please note the following: DO NOT use pliers to assemble or disassemble the airbrush. In most cases, you do not need tools to dismantle the airbrush.

— REPLACEMENT PARTS AND ACCESSORIES —

Nozzle (#3)

In time, the nozzle may wear or be damaged and may need to be replaced. Before replacing the nozzle, you need to pull the needle back in the airbrush. Do this by removing the handle (#15, #16), loosening the needle chucking nut (#14), and gently pulling the needle back away from the nozzle. Remove the nozzle cap (#2) and use the small wrench packaged with the airbrush to unscrew the nozzle (#3). Caution: be sure to unscrew the nozzle in the proper direction. When looking at the front of the airbrush, turn the wrench in a counter-clockwise direction. Turning in the wrong direction will break the nozzle threads and damage the nozzle. Screw on a new nozzle and use the wrench to LIGHTLY tighten the nozzle. Do not overtighten the nozzle, only light pressure on the wrench is needed to seat and seal the nozzle.

Reseat the needle into the nozzle by gently pushing forward until it seats with the new nozzle. Re-tighten the needle chucking nut (#14) and re-assemble the rest of the airbrush. Note: To insure even wear, it is recommended that the needle be changed at the same time.

Needle (#13)

Iwata needles are made of hardened stainless steel and will withstand prolonged usage. They are, however, subject to easy physical damage because of their very long taper and extremely fine tip. If the needle point becomes severely bent, it must be straightened before being pulled back through the nozzle. If not, the bent needle might damage the nozzle as it is pulled through.

Crown Cap (Optional Accessory)

A crown cap can replace the needle cap (#1) and is used to protect the needle when spraying a fine line and to prevent pigment build-up and spattering when spraying large backgrounds.

Pre-Set Handle (Optional Accessory)

The pre-set handle replaces the handle (#16). A threaded adjusting screw on the back of the handle limits the amount of main lever pull-back movement providing accurate control of the paint being sprayed.

Quick Disconnect (Optional Accessory)

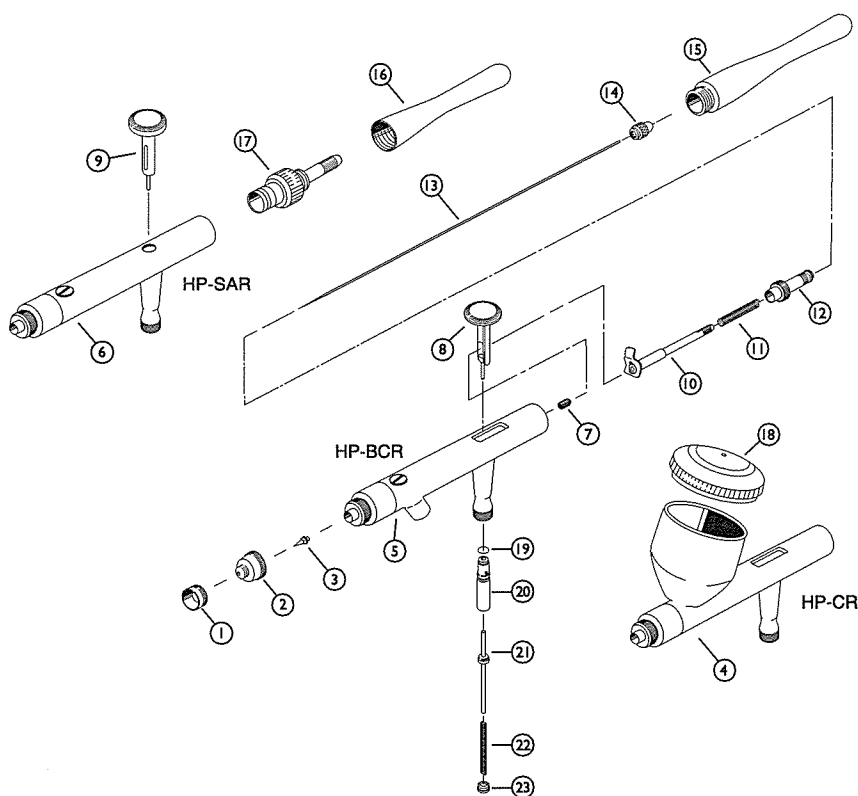
A quick disconnect joint is screwed onto the airhose and a quick disconnect adaptor is screwed onto each airbrush. The quick disconnect joint on the airhose is used to facilitate quick changing of the air hose from one airbrush to another when using multiple airbrushes.

Color Bottles (Optional Accessory)

Several bottle sets and styles are available. From the Crystal Clear bottles and Jars for water based paints to the solvent impervious High Strength translucent bottles and jars, Iwata-Medea offers a wide assortment of bottles for every application.

— TROUBLESHOOTING —
Troubleshooting Procedures

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#	Item Description	Price Code	Item #	BCR	CR	SAR	Also Fits
1	Needle Cap	A	1701 1	•	•	•	
2	Nozzle Cap	C	1702 1	•	•	•	
3	Nozzle (0.50 mm)	E	1704 1	•	•	•	
4	Body HP-CR	J	1706 2		•		
5	Body HP-BCR	J	1706 1	•			
6	Body HP-SAR	J	1706 3		•		
7	Needle Packing Screw	B	1725 1	•	•	•	
8	Main Lever BCR, CR	C	1612 1	•	•		
9	Main Lever SAR	C	1612 2			•	
10	Needle Chucking Guide w/ Aux. Lever	C	1715 1	•	•		
11	Needle Spring	A	1135 1	•	•		HP-BS
12	Spring Guide	A	1770 1	•	•		
13	Needle	B	1717 1	•	•		HP-BCS
		B	1717 2			•	
14	Needle Chuck Nut	A	1120 2	•	•		HP-B,A
15	Handle BCR, CR	D	1719 1	•	•		
16	Handle SAR	D	1719 2			•	
17	Fluid Adjustment Knob	C	1722 1			•	
18	Lid CR	C	1718 1		•		
19	Packing Valve Piston (O-Ring)	B	1580 1	•	•	•	HP-BCS
20	Valve Guide w/ O-Ring	B	1608 1	•	•	•	HP-BCS
21	Valve w/ O-Ring	A	1609 1	•	•	•	HP-BCS
22	Valve Spring	A	1035 3	•	•	•	HP-BCS
23	Valve Guide Screw	B	1711 1	•	•	•	
	Spanner	A	1765 1	•	•	•	
	Pre-Set Handle	G	1155 2	opt	opt		
	Crown Cap	D	1105 0	opt	opt	opt	

Skipping:

- Dirty airbrush
 - refer to Maintenance Section
- Pigment too thick
- Air pressure too high
- Improper nozzle
 /body connection
- Cracked or damaged nozzle (#3)
- Dried Paint on tip of needle
 - Refer to Maintenance Section

Double line:

- Dirty airbrush
 - refer to Maintenance Section
- Bent needle
- Debris on tip of nozzle (#3)
 or in nozzle cap (#2)
- Cracked or damaged nozzle (#3)
- Dried paint on tip of needle
 - Refer to Maintenance Section

Spattering:

- Dirty airbrush
 - refer to Maintenance Section
- Pigment build-up in
 needle cap (#1)
- Pigment too thick
- Air pressure too low
- Dried paint on tip of needle
 - Refer to Maintenance Section

No Spraying:

- Clogged nozzle
 - refer to Maintenance Section
- Loose or clogged nozzle cap
- Loose needle chucking nut (#14)
- Improper air pressure
- Paint too thick
- Cracked or damaged nozzle (#3)
 - Refer to Maintenance Section
- Vent hole in bottle lid is plugged

Bubbling in fluid cup or bottle:

- Loose nozzle cap
- Improper nozzle/body seal
- Cracked or damaged nozzle (#3)
 - Refer to Maintenance Section

**Trigger sticks or does not
 move smoothly:**

- Use Medea Super Lube around
 the air valve piston packing
 (#19 o-ring) and/or in the
 main lever (#8, #9) slot in the
 body.
 - Refer to Maintenance Section

— 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 fluid needles or fluid nozzles since these parts need to be replaced occasionally due to normal wear. Any other part or material that is or becomes 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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