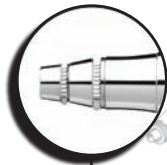


iwata *Revolution*

REVOLUTION SERIES MANUAL & PARTS GUIDE

AR



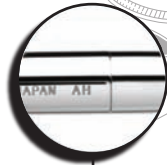
BR



CR



BCR



SAR



Congratulations on your purchase of an Iwata *Revolution*[™] airbrush, a versatile, reliable and dependable airbrush. The Revolution was designed for the new airbrush user or hobbyist seeking Iwata's famous superior spray quality combined with multi-purpose versatility.

**VALUE,
QUALITY & PERFORMANCE**

distinguish these airbrushes as Revolution!



ONLY FROM IWATA-MEDEA

Iwata airbrushes are designed for demanding professionals. Modern precision machining and carefully selected materials used in the manufacturing process ensure consistent high 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.

IWATA REVOLUTION AR, BR, BCR, CR

Start off airbrushing with the industry leader – Iwata. Made for users at all level, this top-of-the-line Revolution series brush is a great value. With breakthrough technology and performance, this airbrush outperforms all others in its price range.



Iwata Revolution HP-AR

- Internal mix airbrush
- Ergonomic handle
- Spray pattern from .75" down to hairlines
- Larger nozzle and needle combination (.3mm) allows easier spraying of heavier, thicker paints.
- Redesigned trigger mechanism and larger needle chuck nut for easy assembly
- Replaceable internal Teflon needle packing for use with solvent-base paints
- Gravity-feed airbrush designed for quick changes of custom mixed colors
- Versatile for moderate detail to background spraying
- Perfect for general-purpose art-and-craft projects, as well a model-railroad detailing, R/C car bodies, plastic kits and automotive painting



Iwata Revolution HP-BR

- Internal mix airbrush
- Ergonomic handle
- Spray pattern from .75" down to hairlines
- Larger nozzle and needle combination (.3mm) allows easier spraying of heavier, thicker paints.
- Redesigned trigger mechanism and larger needle chuck nut for easy assembly.
- Replaceable internal Teflon needle packing for use with solvent-base paints.
- Gravity-feed airbrush designed for quick changes of custom mixed colors.
- Versatile for moderate detail to background spraying
- Perfect for general-purpose art-and-craft projects, as well a model-railroad detailing, R/C car bodies, plastic kits and automotive painting



Iwata Revolution HP-BCR

- Internal mix airbrush
- Ergonomic handle
- Spray pattern from 1.5" down to fine lines
- Larger nozzle and needle combination (.5mm) allows easier spraying of heavier, thicker paints.
- Redesigned trigger mechanism and larger needle chuck nut for easy assembly.
- Replaceable internal Teflon needle packing for use with solvent-base paints.
- Siphon-feed model makes it easy to swap bottle of specific colors quickly.
- Useful for t-shirt painting, model-railroad landscapes, R/C car painting, airplane models and other general art, hobby, an craft projects.



Iwata Revolution HP-CR

- Internal mix airbrush
- Ergonomic handle
- Spray pattern from 1.5" down to fine lines
- Larger nozzle and needle combination (.3mm) allows easier spraying of heavier, thicker paints.
- Redesigned trigger mechanism and larger needle chuck nut for easy assembly.
- Replaceable internal Teflon needle packing for use with solvent-base paints.
- Gravity-feed airbrush designed for quick changes of custom mixed colors.
- Versatile for moderate detail to background spraying
- Perfect for general-purpose art-and-craft projects, as well a model-railroad detailing, R/C car bodies, plastic kits and automotive painting

GETTING STARTED

Compressor

Choose an appropriate compressor for your Revolution airbrush. The Iwata Sprint Jet and Smart Jet compressors are good beginner's choices and will provide approximately 30 psi of air pressure to the Revolution. 30 psi provides a finely atomized background spray in addition to controllable fine detail performance.

Assembly (BCR, SAR)

1. Screw the airhose onto the compressor.
2. Screw the airhose onto the airbrush.
3. If using a Power Jet, Power Jet Lite or Power Jet Pro compressor, adjust the pressure to between 30 and 45 psi.
4. Check for any air leaks in the compressor or airhoses.
5. Fill the bottle with Medea Airbrush Cleaner, or the appropriate solvent for your paint.
6. Attach the bottle to the airbrush by pushing the bottle stem into the bottle joint of the airbrush body.
7. Point the airbrush away from you.
8. Press down on the main lever (#10) to start the flow of air

through the airbrush.

9. Pull back on the main lever to open the nozzle of the airbrush.

10. SAR only: Unscrew the fluid adjustment knob (#19) to open the airbrush nozzle.

11. Spray cleaning solution through the airbrush to rinse out any residual pre-testing pigment.

(AR, BR, CR)

1. Screw the airhose onto the compressor.
2. Screw the airhose onto the airbrush.
3. If using a Power Jet, Power Jet Lite or Power Jet Pro compressor, adjust the pressure to between 30 and 45 psi.
4. Check for any air leaks in the compressor or airhoses.
5. Place a few drops of cleaner into the bowl.
6. Point the airbrush away from you.
7. Press down on the main lever (#10) to start the flow of air through the airbrush.
8. Pull back on the main lever to open the nozzle of the airbrush.
9. Spray cleaning solution through the airbrush to rinse out any residual pre-testing pigment.

GENERAL OPERATION

Fine-Line Spray (AR, BR, BCR, CR)

1. Depress the main lever (#10) to start airflow.
2. Position the airbrush close to the surface, between 1/16 and 1/2 inch is common.

Wide-Line and Background Spraying (AR, BR, BCR, CR)

1. Depress the main lever (#10).
2. Position the airbrush further away from the surface, from 1/2 to 6 inches is common.

3. Pull the main lever back slightly to start the flow of paint. Line thickness can be controlled by adjusting the distance between the airbrush and the surface and also by varying the paint flow by manipulating the main lever's position.

An extremely narrow line can be obtained by carefully removing the needle cap (#1) and positioning the airbrush closer to the surface.

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

(SAR)

- 1.** Depress the main lever (#11) to start airflow.
- 2.** Position the airbrush close to the surface, between 1/16 and 1/2 inch is common.
- 3.** Unscrew the fluid adjustment knob (#19) slightly to start the flow of paint.

Line thickness can be controlled by adjusting the distance between the airbrush and the surface and also by varying the paint flow by manipulating the fluid adjustment knob's position.

An extremely narrow line can be obtained by carefully removing the needle cap (#1) and positioning the airbrush closer to the surface.

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

3. Pull the main lever back much further releasing more paint to cover the bigger area.

Increase the distance between the airbrush and painted surface to control the line's width. Increasing the air pressure will also effect the spray width. The Revolution's maximum usable line width is approximately 2½ inches.

(SAR)

- 1.** Depress the main lever (#11).
 - 2.** Position the airbrush further away from the surface, from 1/2 to 6 inches is common.
 - 3.** Unscrew the fluid adjustment knob (#19) back much further releasing more paint to cover the bigger area.
- Increase the distance between the airbrush and painted surface to control the line's width. Increasing the air pressure will also effect the spray width. The Revolution's maximum usable line width is approximately 2½ inches.

Ergonomic Handle

The ergonomic handle (#17) is a special feature on the Revolution. It helps prevent fatigue from extended airbrush use and provides a balanced feel in your hand.

GENERAL OPERATION

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 5 and 50 psi.

Lower air pressure will give you coarse stipple whereas higher pressure will provide a fine stipple effect. Paint viscosity will also effect the stippling texture.

Air Pressure

For the Revolution, working pressures generally vary between 20 and 60 psi, depending on what type of work is being done and what textures are desired. A good working pressure may average around 25 psi. The viscosity of the paint and your desired spray characteristics will also effect your ideal pressure. As a general rule, larger amounts of paint, or thicker paints, will be sprayed with higher pressures.

WARNING: Do not exceed 100psi.

GENERAL OPERATION

Paint Preparation

For non-specific airbrush paints proper preparation, including filtering the paint through a nylon mesh, is recommended for best performance. Paint should be thinned with its proper solvent. It is best to prepare 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.

Safety Tips

- Always spray in a well-ventilated area.
- Do not spray solvent-based (flammable) paints around open flames.
- Use the appropriate respirator to safely filter out the paint vapors particular to the kind of paint you are using.
- Wear eye protection to prevent paint contact with eyes.
- Never use air pressure that exceeds the airbrush's limit. (98 psi)

MAINTENANCE

Cleaning the Airbrush between Colors (BCR, SAR)

1. Remove the paint bottle.
2. Attach a bottle containing the appropriate cleaning solution.
3. Spray until the solution sprays clear.
4. Remove the bottle of cleaning solution.
5. Spray air until the airbrush sprays dry.
6. Attach a bottle containing the next color.
7. Repeat cleaning procedure when finished.

Cleaning the Airbrush between Colors (AR, BR, CR)

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 (AR, BR, BCR, CR)

1. Unscrew the handle (#17) from the airbrush body.
2. Loosen the needle chucking nut (#16).
3. Gently pull the needle (#15) 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).

- **CAUTION:** The most probable time to damage the needle is when the needle passes through the main lever (#10) and through the needle packing set (#9).
- 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.

Cleaning the Needle (SAR)

1. Unscrew the handle (#18) from the airbrush body.
2. Loosen the needle chucking nut (#16).
3. Gently pull the needle (#15) 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. Screw the fluid adjustment knob (#19) fully into the airbrush body.
7. Carefully insert the needle into the airbrush until it seats fully against the nozzle (#3).
- **CAUTION:** The most probable time to damage the needle is when the needle passes through the main lever (#11) and through the needle packing set (#9).
- If the needle stops abruptly, retract and examine the trigger mechanism for proper assembly and re-insert the needle.
8. Tighten the needle chucking nut finger tight.
9. Screw the handle back onto the airbrush body.

MAINTENANCE

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

Cleaning the airbrush this way helps clean the paint passage, the nozzle and the needle thoroughly.

Periodically

To ensure smooth main lever action lubricate the needle (#15) and the main lever mechanism (#10 or #11) regularly.

1. Unscrew the handle (#17 or #18).
2. Loosen the needle chucking nut (#16).
3. Remove the needle.
4. Coat the needle lightly with a high-quality lubricant, like Medea Super Lube.
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.
7. Tighten the needle chucking nut.
8. Screw the handle onto the airbrush body.

Drip one drop of lube into the slot directly behind the main lever and as close to the main lever as possible.

DO NOT over-lube the needle or the main lever mechanism, since it is possible to transfer excess lube into the nozzle causing severe paint flow problems.

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

CAUTION: If it becomes absolutely necessary to dismantle the airbrush remember that in most situations tools are not needed.

DO NOT use pliers. If needed use the provided wrench to unscrew the head cap (#3).

TROUBLESHOOTING PROCEDURES

Symptom	Problem	Solution
•Bubbles in color cup or bottle	•Loose nozzle cap	•Tighten (#2) finger tight
	•Improper nozzle to body connection	•See nozzle (#3) to reseal the nozzle
•Double Line	•Cracked or damaged nozzle	•See nozzle (#3) to replace the nozzle
	•Dried paint on needle tip (Tip-Dry)	•See cleaning the needle
•Not Spraying	•Dirty airbrush	•See cleaning the airbrush between colors
		•See cleaning the needle
	•Debris on nozzle tip	•See nozzle (#3) and clean nozzle with toothpick
	•Bent needle	•See needle (#15) to replace needle
•Not Spraying	•Cracked or damaged nozzle	•See nozzle (#3) to replace the nozzle
	•Loose needle chucking nut	•Finger tighten (#16)
•Not Spraying	•Needle stuck	•Pull/break-free needle (#15)
	•SAR only: Reset needle	•See cleaning the needle (SAR)
	•Improper air pressure	•See specific compressor instructions to raise or lower the air pressure
	•Paint too thick	•See paint preparation
	•Bottle vent hole is plugged	•Use pushpin to unclog vent hole
	•Clogged nozzle	•See nozzle (#3) and clean nozzle with toothpick
	•Cracked or damaged nozzle	•See nozzle (#3) to replace the nozzle

TROUBLESHOOTING PROCEDURES

Symptom	Problem	Solution
•Skipping	<ul style="list-style-type: none"> •Dried paint on needle tip (Tip-Dry) •Pigment too thick •Air pressure too high •Improper nozzle to body connection •Dirty airbrush •Cracked or damaged nozzle 	<ul style="list-style-type: none"> •Clean with cotton swab dipped in cleaner •See paint preparation •See specific compressor instructions to lower the air pressure •See nozzle (#3) to reseal the nozzle •See cleaning the airbrush between colors •See cleaning the needle •See nozzle (#3) to replace the nozzle
•Spattering	<ul style="list-style-type: none"> •Dried paint on needle tip (Tip-Dry) •Pigment build-up in needle cap •Air pressure too low •Pigment too thick •Dirty airbrush 	<ul style="list-style-type: none"> •Clean with cotton swab dipped in cleaner •Unscrew #1 and clean with cotton swab •See specific compressor instructions to raise the air pressure •See paint preparation •See cleaning the airbrush between colors •See cleaning the needle
•Trigger sticks (back and fourth)	•Dirty airbrush	<ul style="list-style-type: none"> •See cleaning the airbrush between colors •See cleaning the needle
•Trigger sticks (up and down)	•Dried out air valve packing o-ring	•Lube trigger shaft

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 or #18).
2. Loosen the needle chucking nut (#16).
3. Gently pull the needle (#15) part way back. It doesn't need to be fully pulled out.
4. SAR Only: Screw the fluid adjustment knob fully into the airbrush body.
5. Unscrew the nozzle cap (#2)
6. Unscrew the nozzle counter-clockwise with the provided wrench.
7. Screw the new nozzle into the airbrush body with your fingers.
8. Slightly tighten the nozzle with the provided wrench.
- **DO NOT OVER TIGHTEN!**
9. Screw the nozzle cap onto the airbrush body.
10. Push the needle all the way forward until it seats with the new nozzle.
11. Tighten the needle chucking nut.
12. Screw the handle onto the airbrush body.

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

Needle (#15)

Iwata needles are made of precision ground and hardened stainless steel that will withstand prolonged usage. They are, however, subject to easy physical damage 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.

Pre-Set Handle (Optional Accessory for AR, BR, BCR, and CR)

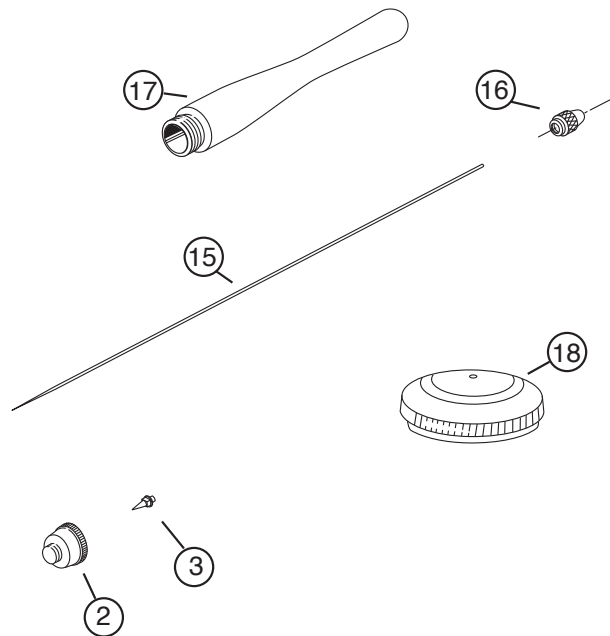
The pre-set handle replaces the handle (#15). A threaded adjusting screw mounted behind the handle limits the distance the main lever can be pulled back. This provides accurate control of paint volume and is especially useful when doing repetitive, precision work.

Quick Disconnect (Optional Accessory)

A quick disconnect joint is screwed onto the air hose and a quick connect adapter is screwed onto each airbrush. When using multiple airbrushes the quick disconnect joint facilitates changing airbrushes on the same air hose quickly.

Color Bottles (Optional Accessory for BCR and SAR)

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

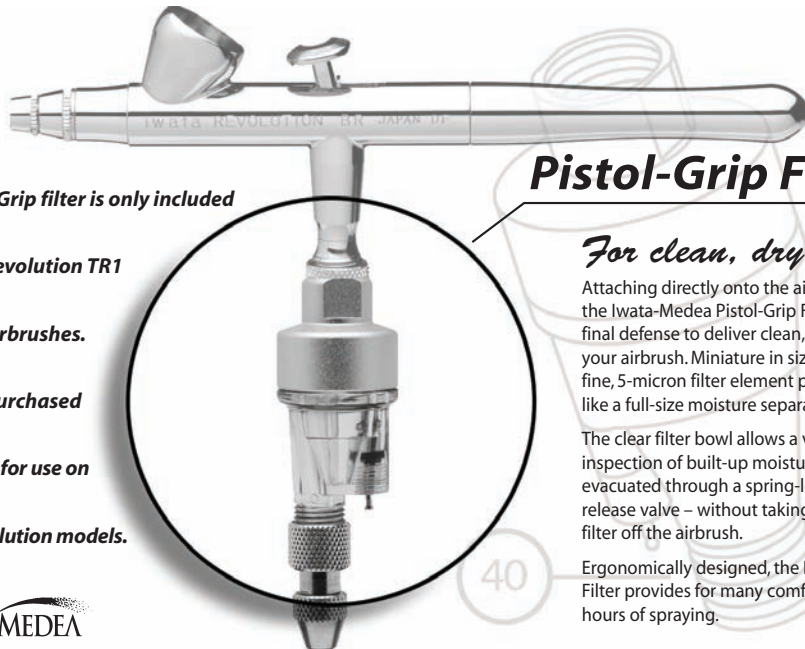


All Iwata airbrushes are *warranted* against all manufacturing defects of material and manufacture or workmanship for a period of FIVE years from the date of purchase. This warranty does not cover fluid needle or fluid nozzles since these parts need to be replaced occasionally due to normal wear. Any 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 that have been altered or abused in any way. Call or email Iwata-Medea before returning an airbrush for the appropriate procedure for warranty repairs.



Genuine Iwata

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The Pistol Grip filter is only included

with the Revolution TR1

and TR2 airbrushes.

It can be purchased

separately for use on

other Revolution models.

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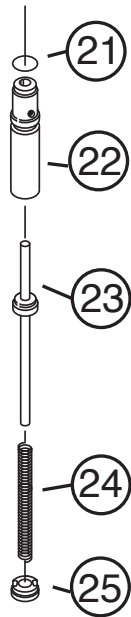
Pistol-Grip Filter

For clean, dry air-flow.

Attaching directly onto the airbrush, the Iwata-Medea Pistol-Grip Filter is the final defense to deliver clean, dry air to your airbrush. Miniature in size, the super-fine, 5-micron filter element performs like a full-size moisture separator.

The clear filter bowl allows a visual inspection of built-up moisture and is evacuated through a spring-loaded release valve – without taking the filter off the airbrush.

Ergonomically designed, the Pistol-Grip Filter provides for many comfortable hours of spraying.



#	Code #	Part Name	AR	BR	BCR	CR	SAR
1	1701 1	Needle Cap	O	O	■	■	■
1	1701 2	Needle Cap	■	■	O	O	O
2	1702 1	.5mm Nozzle Cap	O	O	■	■	■
2	1702 2	.3mm Nozzle Cap	■	■	O	O	O
3	1704 1	.5mm Nozzle	O	O	■	■	■
3	1704 2	.3mm Nozzle	■	■	O	O	O
4-8		Airbrush Body	7	8	5	4	6
9	1725 1	.5mm Teflon Needle packing Set	O	O	■	■	■
9	1125 7	.3mm Teflon Needle packing set	■	■	O	O	O
10	1612 1	Main Lever (Trigger)	■	■	■	■	×
11	1612 1	Main Lever (Trigger)	×	×	×	×	■
12	1715 1	.5mm Needle Chucking Guide with Auxiliary Lever	O	O	■	■	×
12	1715 1	.3mm Needle Chucking Guide with Auxiliary Lever	■	■	O	O	×
13	1135 1	Needle Spring	■	■	■	■	×
14	1770 1	Spring Guide	■	■	■	■	×
15	1617 1	.5mm Needle	×	×	■	■	■
15	1617 2	.3mm Needle	■	■	O	O	O
16	1120 2	Needle Chucking Nut	■	■	■	■	■

#	Code #	Part Name	AR	BR	BCR	CR	SAR
17	1719 1	Ergonomic Handle	■	■	■	■	×
	1155 2	Pre-Set Handle	O	O	O	O	×
	1155 6	Pre-Set Cut-Away Handle	O	O	O	O	×
18	1719 2	Ergonomic Handle	×	×	×	×	■
19	1722 1	Fluid Adjustment Knob	×	×	×	×	■
20	1718 1	Lid, Revolution CR	×	×	×	■	×
21	1580 1	Packing Valve Piston O-Ring	■	■	■	■	■
22	1608 1	Air Valve Guide Body	■	■	■	■	■
23	1609 2	Air Valve	■	■	■	■	■
24	1035 1	Air Valve Spring	■	■	■	■	■
25	1611 1	Air Valve Guide Screw	■	■	■	■	■
	1765 1	Spanner (The Iwata Wrench)	■	■	■	■	■
	1405 2	.75 oz. Glass Bottle	×	×	■	×	■
	1420 2	1.5 oz. Glass Bottle	×	×	■	×	■

■ = Standard
 × = No
 O = Optional



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