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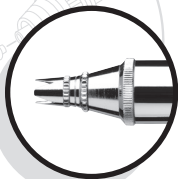


# Custom Micron

*Absolute Precision for the Elite Professional*

## CUSTOM MICRON SERIES MANUAL & PARTS GUIDE

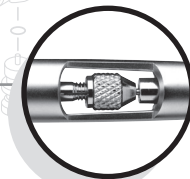
CM-B



CM-C



CM-C PLUS



CM-SB





Created for perfection; manufactured with quality; unparalleled in precision: the *Custom Micron™* delivers precise, accurate, controllable spray to you, the elite professional. Special tooling, precision processes, and meticulous attention to quality control create an unmatched airbrush capable of superb atomization, incredible control, and amazing detail.

**PRECISE, ACCURATE CONTROL  
FOR DETAILED SPRAYING**

*distinguish these airbrushes as Custom Microns!*



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 Custom Micron airbrush is spray-tested before shipment to assure maximum performance and adherence to Iwata's strict quality standards. To maintain your Custom Micron at its peak performance, proper care and attention must be observed.

## IWATA CUSTOM MICRON CM-B, CM-SB, CM-C AND CM-C PLUS

A highly polished, hardened stainless-steel needle provides exceptionally smooth transitions from areas small to mid-range. The Iwata Custom Micron matched-head system ensures superior atomization. The pre-set handle allows finely tuned paint flow adjustments.



### Iwata Custom Micron B

- The .18mm fluid nozzle is the smallest nozzle and needle combination Iwata offers for ultimate precision and accuracy.
- 1/16 oz. (1.8 ml) gravity-feed cup cleans up quickly allowing rapid color changes.



### Iwata Custom Micron SB

- The .18mm fluid nozzle is the smallest nozzle and needle combination Iwata offers for ultimate precision and accuracy.
- 1/8 oz. (3.5 ml) side-feed cup
- Repositionable side feed cup for left or right handed use.
- View the paint surface over the top of the airbrush.
- Add the 1/4 oz (7ml) side-feed cup, the 1/2 oz (14ml) side-feed cup, or the 1 oz (28ml) siphon bottle to increase the airbrush's versatility.



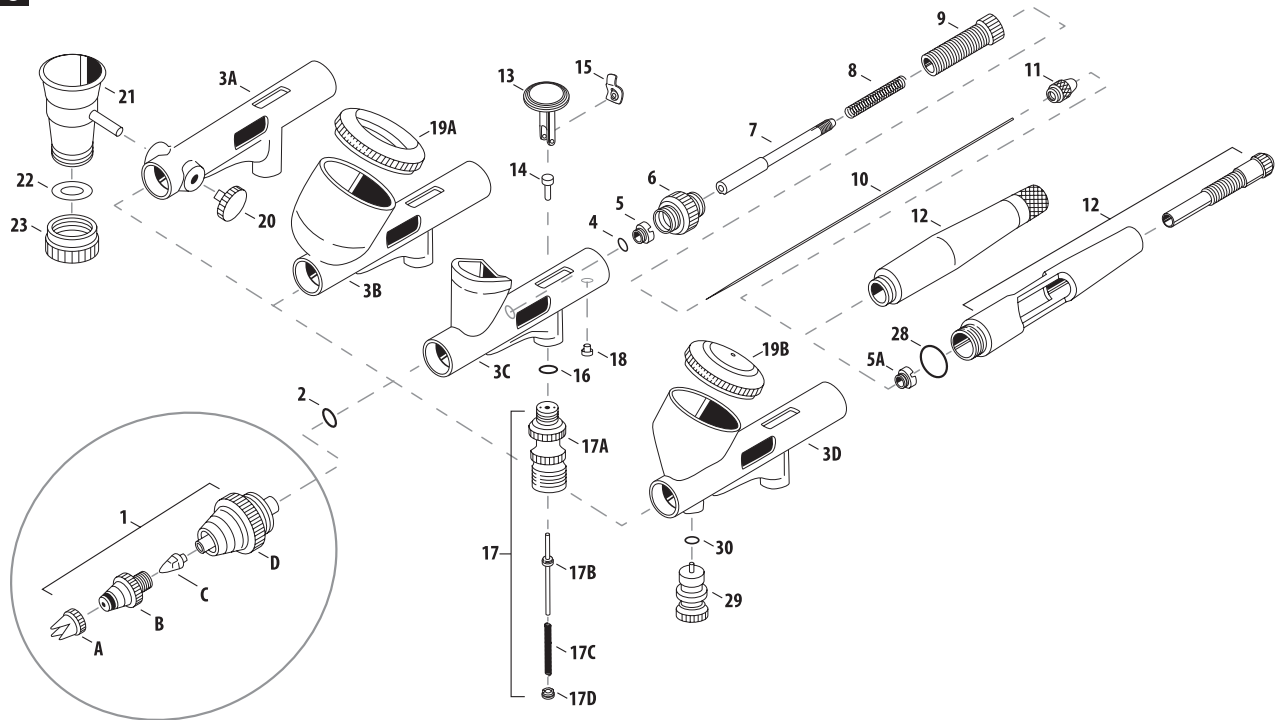
### **Iwata Custom Micron C**

- The .23mm fluid nozzle allows slightly heavier paint than the .18mm fluid nozzle.
- 1/3 oz. (9 ml) gravity-feed color cup allows you to spray large amounts of color.



### **Iwata Custom Micron C Plus**

- The .23mm fluid nozzle allows slightly heavier paint than the .18mm fluid nozzle.
- The Micro Air Control (MAC) Valve enables infinite airflow control at the airbrush's head providing control between stipple, fine detail, and background spray effects.
- Solvent-proof PTFE needle packing allows extended solvent-based paint usage, including automotive paints.
- A redesigned, funnel shaped gravity feed cup allows greater paint efficiency and ensures a faster, more thorough clean up.
- The cutaway, pre-set handle allows quick flushes and rinses.



See diagram with Parts Listing on Pages 20 and 21.

## GETTING STARTED

### Compressor

The Custom Micron does not require a high pressure air source for most applications because lower pressures are best suited for ultra-fine, slow, high-detail spraying, ideally between 5 and 20 psi. Any Iwata Studio Series compressor will operate the Custom Micron efficiently. But realizing the Custom Micron's full benefits 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 (#13) 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.

### Fine-Line Spray

1. Depress the main lever (#13) to start airflow.
2. Position the airbrush close to the surface, between 1/16 and 1/2 inch.
3. Pull the main lever back slightly to start paint flow.
  - 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 smallest lines are determined by skill and practice.

**CAUTION: The needle and nozzle are very delicate. Even a slight bend on the needle's tip adversely effects the spray pattern.**





## Wide-Lines and Blending

1. Depress the main lever (#13)
  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 Custom Micron's maximum usable line width is approximately 1-1/2 inches.

## Pre-Set Handle (#12)

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 (CM-C Plus Only, Optional for CM-B, CM-C and CM-SB)

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

1. Grip the exposed needle chuckling nut (#11) with your fingers.
  2. Pull it back while simultaneously depressing the main lever (#13).
  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 (CM-C Plus Only)**

The MAC Valve 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 crown cap (#1A).
  2. Unscrew the nozzle cap (#1B).
  3. Adjust the air pressure between 5 and 30 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. Try using 14 psi or below to take full advantage of the Custom Micron's unique, spray characteristics.

- 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**

### **Crown Cap**

The crown cap physically protects the needle while spraying very fine lines. When spraying larger areas with the Custom Micron, we suggest removing the crown cap.

### **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.

- Custom Microns spray very thin paint best.
- 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

### 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 leftover 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

1. Unscrew the handle (#12) from the airbrush body.
2. Loosen the needle chucking nut (#11).
3. Gently pull the needle (#10) 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 (#1C). You should feel a positive stop. If you feel a spongy 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 (#13) 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 (#10)**

To ensure smooth main lever (#13) action lubricate the needle when the trigger won't respond properly.

1. Unscrew the handle (#12).
2. Loosen the needle chucking nut (#11).
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 (#14)**

To ensure smooth main lever (#13) action, lubricate the air piston when the trigger won't respond properly.

1. Unscrew the handle (#12).
2. Unscrew the needle chucking nut (#11).
3. Remove the needle (#10).
4. Unscrew the needle spring adjuster (#9).
5. Remove the needle spring (#8).
6. Remove the needle chucking guide (#7).
7. Pull the main lever up and out.
8. Turn the airbrush body over your hand and jiggle out the auxiliary lever (#15).
9. Use tweezers to pull out the air valve piston.

10. Clean the valve piston with a cotton swab.
11. Clean the hole at the bottom of the trigger housing with a cotton swab.
  - a. Clean until a Cotton Swab comes back clean.
12. Dab a very small drop of Super Lube on the valve piston shaft.
13. Insert the valve piston back into the hole at the bottom of the trigger housing.
14. Place the main lever back into the trigger housing.
15. Press the main lever up and down a few times.
  - a. it should spring back up smoothly when depressed.
16. Place the auxiliary lever back into the trigger housing behind the main lever.
  - a. Check the parts guide for the auxiliary lever's proper orientation.
  - b. Grab the small tab on the auxiliary lever from the side.
  - c. Insert the auxiliary lever sideways into the trigger housing.
  - d. Twist the auxiliary lever into the proper orientation.
  - e. Hint: Hold the airbrush body with the front slightly dipped down to let gravity help your efforts.
17. Place the needle chucking guide into the airbrush body.

18. Place the needle spring over the needle chucking guide.
19. Screw the needle spring adjuster into the airbrush body.  
The more you screw it in, the greater the trigger resistance.  
The looser it's adjusted, the smoother the trigger feel (your personal preference).
20. Push down on the main lever at least once.
21. Carefully insert the needle.
  - a. Warning: This is the most probable time to bend the needle point
22. Screw the needle chucking nut onto the needle chucking guide
23. 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 reseal 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

*\*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".*

## TROUBLESHOOTING PROCEDURES

Symptom	Problem	Solution
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 reseal 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

**\*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".



## TROUBLESHOOTING PROCEDURES

Symptom	Problem	Solution
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

## REPLACEMENT PARTS AND ACCESSORIES

### Head System (#1)

A matched head system consists of four parts hand matched together. These components and this matching process create the Custom Micron's exacting performance.

Though engineered to last decades the components may still wear or become damaged and need replacement. If this happens, we recommend replacing the whole head system to keep the airbrush's exquisite performance at peak levels. However, replacing only the nozzle can be done by Iwata-Medea's highly trained technical department.

The set includes: the needle cap (#1A); the nozzle cap (#1B); the fluid nozzle (#1C); and the head system base (#1D).

1. Unscrew the handle (#12).
2. Loosen the needle chucking nut (#11).
3. Gently pull the needle (#10) part way back. It doesn't need to be fully pulled out.

4. Simply unscrew the entire head system.

**NOTE: Removing the head system the first time requires a good grip and some torque. Wrap a rubber band around the gnarled base of the head system and use a pair of standard pliers to unscrew it.**

- After removing the head system the first time the plastic cap functions as a wrench to help remove the head system base from the airbrush body as needed.

5. Screw the new head system onto the airbrush body until finger tight.

- Hand tighten head system.

6. Push the needle all the way forward until it seats in place.

7. Tighten the needle chucking nut.

8. Screw the handle onto the airbrush body.

TIP: Keep a spare head system on hand for unforeseen accidents.

### **Needle (#10)**

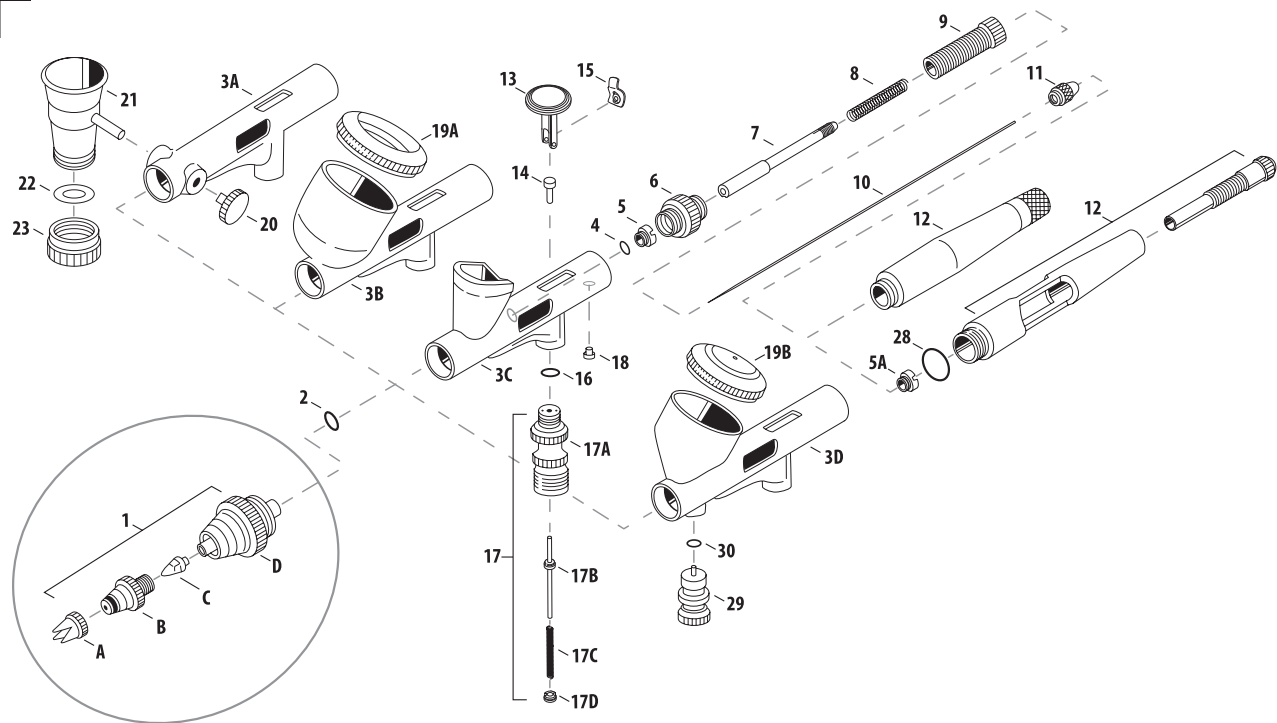
Iwata needles are precision ground, hardened stainless-steel capable of withstanding prolonged use. They are, however, easily physically damaged because of the long, tapered, extremely fine tip. If the needle point becomes severely bent, it must be straightened before pulling it back through the nozzle. 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.

### **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.



# — IWATA CUSTOM MICRON SERIES AIRBRUSHES • MASTER PARTS LIST —

#	Code#	Part Name	B	SB	C	C+
1	I 535 1	Fluid Head System 0.18 mm	■	■	opt	opt
	I 535 2	0.23 mm	opt	opt	■	■
1A	I 535 1D	Fluid Head-Needle Crown Cap	■	■	■	■
1B	I 535 1C	Fluid Head-Nozzle Cap	■	■	opt	opt
	I 535 2C		opt	opt	■	■
1C	I 535 1B	Fluid Head-Nozzle 0.18 mm	■	■	opt	opt
	I 535 2B	0.23 mm	opt	opt	■	■
1D	I 535 1A	Fluid Head Nozzle Base	■	■	■	■
2	I 580 2	Packing Fluid Head (O-ring)	■	■	■	■
3A	I 525 2	Body - SB*	x	■	x	x
3B	I 525 3	Body - C*	x	x	■	x
3C	I 525 1	Body - B*	■	x	x	x
3D	I 525 6	Body - C+*	x	x	x	■
4	I 580 3	Packing Fluid Needle (O-ring)	■	■	■	x
5	I 565 1	Needle Packing Screw	■	■	■	x
5A	I 590 2	Packing Fluid Needle SET (PTFE)	opt	opt	opt	■
6	I 590 1	Spring Guide	■	■	■	■
7	I 550 1	Needle Chucking Guide	■	■	■	■
8	I 570 1	Needle Spring	■	■	■	■
9	I 575 1	Needle Spring Adjuster	■	■	■	■
10	I 540 1	Fluid Needle 0.18 mm	■	■	opt	opt
	I 540 2	0.23 mm	opt	opt	■	■
	I 540 3	0.23 mm	x	x	x	■
11	I 560 1	Needle Chucking Nut	■	■	■	■
12	I 585 1	Pre-Set Handle Set	■	■	■	opt
	I 585 2	Pre-Set Handle (Single Cut)	opt	opt	opt	■
13	I 545 1	Main Lever	■	■	x	x
	I 545 2		x	x	■	■

\*Replacement parts not available.

■ = yes x = no opt = optional

#	Code#	Part Name	B	SB	C	C+
14	I 500 1	Air Piston	■	■	■	■
15	I 515 1	Auxiliary Lever	■	■	■	■
16	I 580 1	Packing Air Piston (O-ring, 2pcs)	■	■	■	■
17	I 510 1	Air Valve Set	■	■	■	■
17A	I 510 2	Air Valve Body	■	■	■	■
17B	I 505 1	Air Valve	■	■	■	■
17C	I 510 4	Air Valve Spring	■	■	■	■
17D	I 510 3	Air Valve Guide	■	■	■	■
18	I 555 1	Needle Chucking Guide Screw	■	■	■	■
19A	I 530 1	Fluid Cup Lid	x	x	■	opt
19B	I 618 1	Fluid Cup Lid	x	x	opt	■
20	I 045 2	Blanking Cover	x	■	x	x
21	I 070 3	Fluid Cup 1/8 oz.	x	■	x	x
	I 070 4	1/4 oz.	x	■	x	x
22	I 150 5	Packing Lower Lid (Gasket)	x	■	x	x
23	I 095 6	Lower Lid 1/8 oz.	x	■	x	x
	I 095 7	1/4 oz.	x	■	x	x
28	I 605 1	Packing Handle (O-ring)	x	x	x	■
29	I 190 1	Micro Air Control Valve	x	x	x	■
30	I 190 2	Packing Mac Valve (O-ring)	x	x	x	■
	I 165 1	Spanner (nozzle wrench)	■	■	■	■
	I 160 1	Quick Fit Set (QD and Adaptor)	opt	opt	opt	opt
	I 160 2	Quick Fit Adaptor (Adaptor only)	opt	opt	opt	opt
	J 001	Adaptor (Iwata airbrushes to Paasche airhose)	opt	opt	opt	opt
	J 002	Adaptor (Iwata airbrushes to T & C/Badger airhoses)	opt	opt	opt	opt

■ = yes x = no opt = optional

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 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 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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