

PRODUCT USER GUIDE

English
French
Spanish



an **AIREX** product by ANEST IWATA



Manufactured for ANEST Iwata-Medea, Inc. by ANEST IWATA Industrial Machinery (Jiaxing) Co., Ltd.

Model	Type of Feed	Nozzle Orifice Ømm (in)	Applied Air Cap Model	Recommended Conditions			Air Consumption l/min (cfm)	Pattern Size mm (in)	Air & Fluid Connection	Gross Weight g (lbs.)	Cup/ Container Capacity mL
				¹ Atomizing Air Pressure MPa (bar/PSI)	Internal Cap Pressure MPa (bar/PSI)	Fluid Output ml/min					
KAT9000	Center Cup Gravity	1.3 (0.051)	KTN 13 HVLP	0.14 (1.40 / 20)	0.069 (0.69 / 10)	155	240 (8.48)	140 (5.5)	Air G1/4 (NPS1/4) Fluid G1/4 (NPS1/4)	420 (0.93) (Only Spray Gun)	600

¹Atomizing air pressure means air pressure (static pressure) at spray gun inlet when trigger is pulled and air flows. ²Spray distance: 150mm



GENERAL HAZARD WARNING

This manual contains important instructions for operating this product. For your safety, and the safety of others, be sure to read this entire manual thoroughly before operating the product.

Failure to properly follow all the instructions and precautions can cause you and others to be seriously hurt or killed.



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Creating start to finish solutions for over 90 years.

IMPORTANT SAFETY INFORMATION

Safety messages & Signal Words:

DANGER

Indicates an immediate hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

NOTICE

Indicates a situation which, if not avoided, may result in damage to product components or other property.

WARNING



EXPLOSION



FIRE

Never operate the spray gun around sparks, open flames or other ignition sources such as smoking, electrical goods, etc. Paints and other coatings can be highly flammable and cause fire.

Use caution when operating the spray gun near flammable gases or vapor.

Securely ground spray gun by using an air hose with a built-in ground wire with less than 1MΩ.

Periodically check ground for continuity.

Insufficient grounding near flammable vapor or gases can cause fire or explosion due to sparking from static electric discharge.

WARNING



RISK TO BREATHING

Paint and other coating materials can contain chemicals that may be harmful to people and animals in confined, poorly ventilated spaces.

Always spray in a well-ventilated area. Remove children and pets.

Always wear a NIOSH / MSHA approved respirator when painting.

WARNING



FLYING OBJECTS

Air-powered equipment and power tools are capable of propelling items (metal chips, fasteners and particulates) at high speed into the air and could result in injury.

Always wear ANSI Z87.1 approved eye protection.

Never point the air stream at any part of your body, or at another person or animal.

When operating the air compressor and spray gun, make sure all other people and animals maintain a safe distance.

Be sure to release all air pressure before cleaning, disassembling or servicing the spray gun.

Never operate the spray gun over the max operating pressure of 101 PSI (0.7Mpa).

Never operate the spray gun if the ambient temperature is outside a range of 41° - 105°F (5° - 40°C).

Never operate the spray gun if the material liquid or air temperature is outside a range of 41° - 109.4°F (5° - 43°C).

⚠ CAUTION

Paint and coatings can cause irritation to eyes and skin. Always use gloves and eye protection marked to comply with ANSI Z87.1. If skin or eye irritation occurs, contact a doctor immediately.

Hearing protection should be used when the noise level exposure equals or exceeds an 8 hour time-weighted average sound level of 85dBA.

The tip of the fluid needle and nozzle have sharp points. Avoid touching these during maintenance to prevent injury.

Repeated pulling of the trigger may cause carpal tunnel syndrome. Take breaks if you feel tired or experience discomfort.

Not for use with food decoration or production.

If any damage or abnormality with the spray gun is observed, immediately stop using the product until the problem is resolved.

Do not customize or modify any original components of the product. Use only genuine replacement components provided by the manufacturer or an authorized dealer.

NOTICE

Not for use with Halogenated Hydrocarbon Solvents: methyl chloride, dichloromethane, 1,2 dichloroethane, carbon tetrachloride, trichloroethylene, 1,1,1-trichloroethane, chloroethane. Use may cause cracks or degradation of the spray gun.

Never exceed maximum operating pressure or temperature.

Altering the spray gun may result in poor performance or failure.

SPRAY GUN COMPONENTS & ACCESSORIES

CHECKING OF THE PRODUCT

⚠ **WHEN RECEIVING THE SPRAY GUN, MAKE SURE THAT IT HAS NOT BEEN DAMAGED DURING TRANSPORT OR STORAGE AND ALSO CHECK THAT ALL THE FOLLOWING CONTENTS ARE INSIDE THE BOX.**

STANDARD SPRAY GUN SET INCLUDES:

Spray Gun and Cup



Cleaning Brush



Thread Sealant Tape



Spray Guide



Viscosity Cup



Paint Strainers, Quantity 5



Gun Wrench



PRE-OPERATION SETUP





NOTICE

It is optimal to supply the spray gun with dry air. Use of a moisture trap or filter is recommended.
Before first use, flush spray gun by slightly filling cup and spraying an appropriate cleaner until empty.
Be sure gravity cup is firmly attached to the spray gun body.

1. Sizing An Appropriate Air Compressor

A spray gun's magic happens in the air cap. An air cap has a required amount of air volume and air force needed to atomize a liquid correctly and efficiently.

The Katana Plus's air cap requires a minimum volume of 9.9 CFM (Cubic Feet per Minute) with an air force anywhere between 10-30 PSI (Pounds per Square Inch). All this jargon can be confusing, so we've included this helpful table to make things a little clearer.

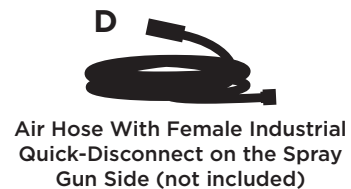
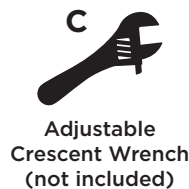
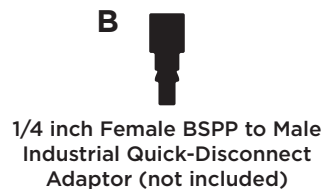
COMPRESSOR RECOMMENDATIONS FOR YOUR PROJECT:				
Project Scale	Small	Medium	Large	Extra Large
				
Average Size	4 sq. ft.	8 sq. ft.	12 sq. ft.	12+ sq. ft.
Horse Power (HP)	1 HP	2 HP	2+ HP	3+ HP
Tank Size	1-2 Gallon	2-4 Gallon	4-10 Gallon	25+ Gallon
Minimum CFM*	2.2 CFM @ 90 PSI	5.3 CFM @ 90 PSI	5.3 CFM @ 90 PSI	10.3 CFM @ 90 PSI

*CFM means "Cubic Feet per Minute" and refers to the volume of air the compressor can produce.

Important Note: Compressor ratings will typically show how much volume (CFM) is produced at 40 and 90 PSI. If you set the compressor to deliver 20 PSI to the spray gun, it will provide about double the CFM it would at 40 PSI.

2. Connecting Your Air Source

With the right size air source for your project selected, it's time to get the Katana Plus connected to the compressor so you can start spraying! You'll need the following:



Thread sealant tape (A) prevents air leaks. Wrap 2 inches of tape clockwise around air inlet of spray gun. Be sure the tape is flat, not bunched, and pulled just slightly taught.



Tighten your quick-disconnect adaptor (B) snug onto the spray gun's air inlet using an adjustable crescent wrench (C).



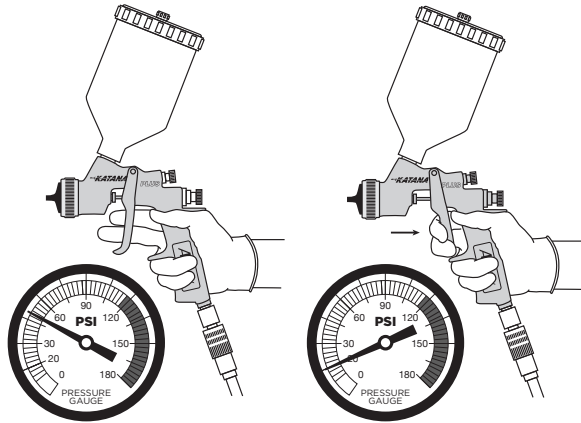
Firmly press the quick-disconnect of the air hose (D) onto the quick-disconnect adaptor (B) you attached to the spray gun.

3. Setting Your Air Pressure

Next, you'll want to set the appropriate pressure. First, turn the compressor on.

Pull the Katana Plus trigger slowly until air begins to blow. While air is exiting the spray gun, use the regulator on the compressor to set your pressure (10-20 PSI). Turn clockwise to increase and counter-clockwise to decrease air pressure.

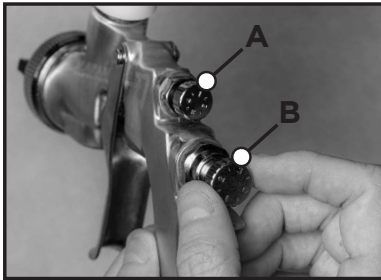
Depending on your spray material, 10-20 PSI is an ideal working pressure range for your spray gun. We recommend spray gun at 20 PSI for soft atomization and minimal overspray.



4. Dial It In

Next, you'll notice 2 round adjusting knobs on the rear of the spray gun; the top is your pattern adjustment knob and the next one down your fluid adjustment knob.

To start, tighten both knobs by turning clockwise until they stop. Then, loosen both by turning counter-clockwise 4 FULL rotations. Both adjusters are now considered to be wide open.



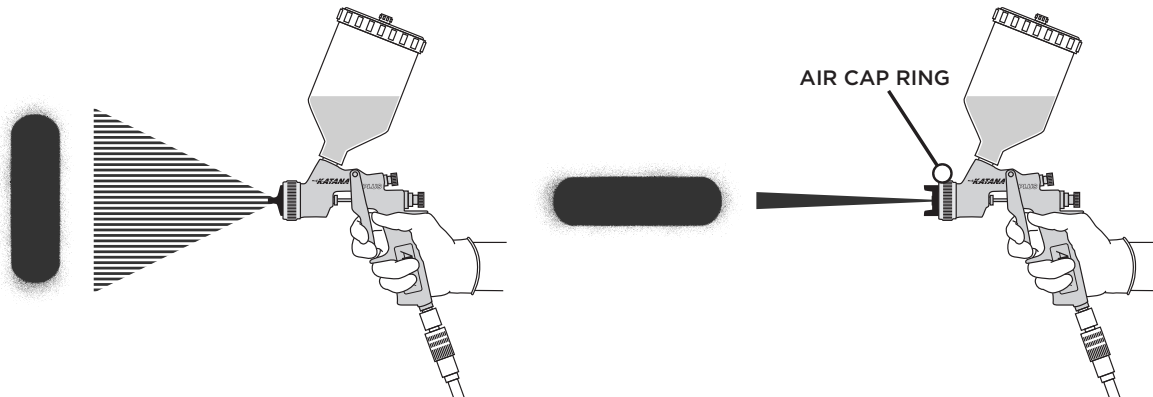
A. Wide Open Pattern Adjusting Knob

Sprays a large, 6-8 inch fan (oval) pattern ideal for covering large areas. Tightening (clockwise) will reduce the pattern to a round, directional pattern for smaller areas. Make minor adjustments and test to find the right size.

B. Wide Open Fluid Adjusting Knob

Provides maximum amount of fluid output through the spray gun, ideal for larger surfaces. Tightening (clockwise) will reduce the fluid flow, spraying less material for smaller spaces.

Note: You can change fan pattern from vertical to horizontal by loosening (counter-clockwise) the air cap ring, rotating the air cap 90° and re-tightening the air cap ring.



SURFACE PREP & USE

1. Prep Your Surface

The first step is always to prepare your surface for paint.

Scuff the surface using fine grit sandpaper or sanding sponge. Clean the surface using isopropyl alcohol or another household degreasing cleaner and a lint free cloth. Allow the surface to dry completely before applying any spray material.

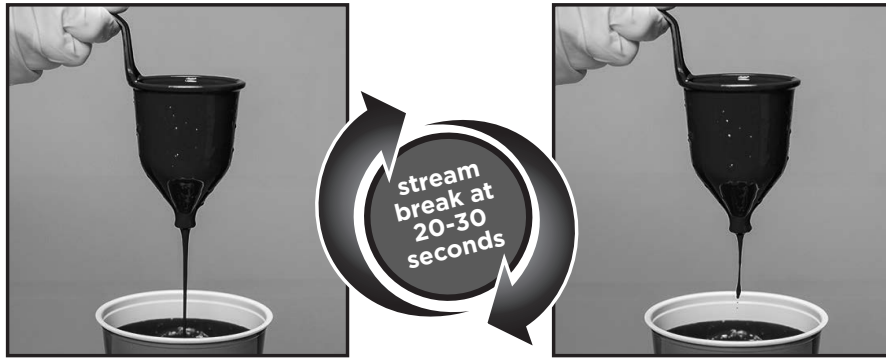
2. Prep Your Paint

Now that your surface is prepped and ready to paint, make sure your spray material is at the right consistency before you make your first pass. We've included a handy viscosity cup to help you out.

Pour 1 liter of paint into the container and dip the viscosity cup fully into the material so it is completely filled. (We recommend using a container that will hold at least 1 liter of paint.)

Raise the viscosity cup above and fully out of the material so the stream leaving the cup is visible and start a timer or stopwatch. Stop the timer or stopwatch the instant you notice a break in the stream (not waiting for the cup to completely empty) and note the result.

The Katana Plus will spray best when a noticeable break in the stream appears between 20 and 30 seconds after you start. If your result is at 40 seconds or higher you may need to thin the material.



You must always thin using the same substance found in the base of your material. Water for water-based paints or white spirit for oil-based sealers for instance. If in doubt, check the label or contact the material manufacturer to confirm proper thinning for use in a spray gun.

To thin, start with diluting the material using the appropriate substance by 10%. To do this, simply block the hole of the viscosity cup and fill with your thinning agent, as the viscosity cup holds 1/10 of a liter. Add the thinning agent to your liter of material, stir well to combine and re-test. If it needs further thinning, add 5% more (about half a viscosity cup) of the thinning agent and repeat the above. Continue to dilute in 5% increments and re-test until the desired viscosity (20 to 30 seconds) is achieved.

3. Strain Your Paint For Less Clogging



With your cup securely attached to the spray gun, pour your paint into the cup through one of the provided paint strainers. Once filled, be sure to tighten the cup lid and remove the breather cap to maintain consistent paint flow and spray.

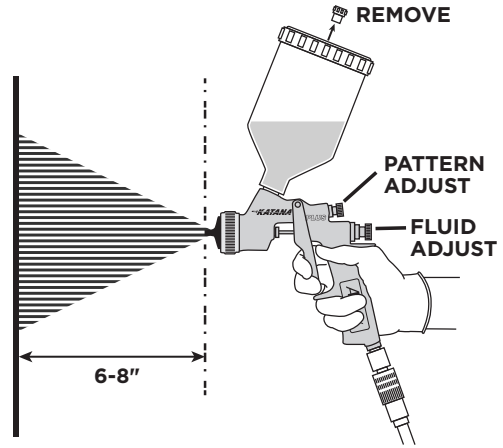
IMPORTANT: Spray gun passageways and nozzles are very small, narrow and can clog easily from dried or used (contaminated) spray material. We highly recommend pouring your material into the Katana Plus's paint cup through a strainer. Included are 5 paint strainers to get you started.

4. Test Your Spray

Remember to do test sprays on something like paper or cardboard before moving over to your project so you can get it right the first time!

To test your spray, pick up the spray gun with your dominant hand. Grip the handle loosely while resting your index and middle finger on the trigger. The trigger should always be parallel to the surface, with your thumb pointing in the direction you're spraying. Always keep the nozzle about 6 to 8 inches from the surface.

Pull the trigger to release air and paint in one spot to see if your spray gun and spray material are adjusted properly. You may need to adjust your spray pattern or fluid output with the knobs on the back of the spray gun if you don't get a good test spray.



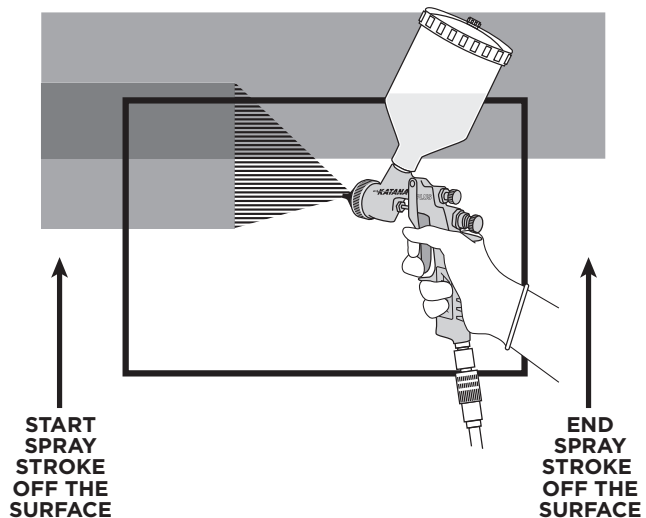
GOOD TEST SPRAY	OVERSPRAY	UNDER SPRAY	DRIP MARKS
No more adjusting needed to start spraying!	If excessive paint is floating around in the air, you may need to decrease pressure on your compressor, or the spray gun is too far away from your surface (more than 6 inches).	If your paint seems to be spraying out in a spatter-type texture, you may need to increase the air pressure on your compressor.	If your paint seems to be consistently running, you may need to move your spray hand a little faster or the spray gun is too close to the surface (closer than 6 inches).

5. One Coat at a Time

When spraying liquid, always apply in one consistent direction (from left to right, for instance). Hold the spray gun with the trigger parallel to the surface and the nozzle 6 inches away. Start spraying just outside of the area you want to coat and move the gun across the length of the surface.

When applying the next pass of material, overlap the first section by about 50% to ensure even coverage.

Continue this practice until the area is fully coated. Depending on the material used, you may need multiple passes to achieve full coverage of the area.



6. Wait

It is important to follow material's manufacturer guidelines on dry times and applying additional coats. Apply additional coats as directed until desired finish is achieved.

REMEMBER

- **ALWAYS** brush the air cap off periodically using the cleaning brush throughout the painting process to keep it free of paint build up.
- **NEVER** remove the needle while there is paint in your cup as doing so will allow paint to leak from the spray gun.
- **ALWAYS** have fun with it!

Just like any tool, you want to get familiar and comfortable with your spray gun. Once you do, you'll find this tool an essential addition to your arsenal and a great way to save time and materials on all kinds of projects while getting a beautiful, smooth finish.

CLEANING AND MAINTENANCE

⚠ WARNING

Release all air pressure and disconnect spray gun from air source before disassembling, or servicing the spray gun.

⚠ CAUTION

The tip of the fluid needle and nozzle have sharp points. Avoid touching these during maintenance to prevent injury.

NOTICE

Never use a cleaner with a PH level below 6.0 or above 8.0.

Never use any cleaning products that contain the following chemicals:

- **DICHLOROMETHANOL**
- **AMMONIUM BIFLORIDE**
- **HYDROGEN PEROXIDE 130 vol.**
- **NITRIC ACID**
- **TRIPOTASSIUM HEXACYANOFERRATE**

Never submerge the spray gun body in any liquid or cleaning products.

Never submerge any spray gun components in an liquid or cleaner for longer than a few seconds.

After each use and prior to any cleaning or maintenance you MUST follow the below guidelines:

The best thing you can do for your spray gun is keep it clean. Dried paint build up can lead to issues later, so take the time to make sure the material you used is fully expressed from the spray gun each time you're finished spraying.



1. When finished, pour out the remaining paint material from your cup. Refer to paint manufacturer for storage and re-usage information. Be sure to check your local regulations for paint disposal and recycle or donate when you can!



2. Add the manufacturer recommended cleaner or thinning agent into the cup and use a clean cloth to wipe the cup out well.

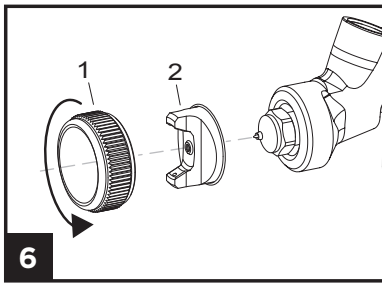


3. With your finger off the trigger, use your cleaning brush and some of the same cleaner to brush off the front cap on the spray gun. Any holes should be clean and clear of paint material.

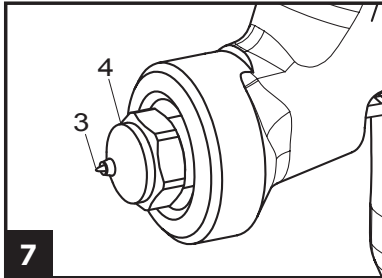


4. With the spray gun connected to the air source and in a well-ventilated area, add a generous amount of cleaner into the cup. Pull back on the trigger to spray the cleaner through. Repeat this step until the spray gun is spraying clear liquid. **NEVER spray any material near sparks or open flames.**

5. You **MUST** release all pressure from spray gun before continuing.
- If using a quick-disconnect, slide the release on the hose fitting toward the compressor to disconnect.
 - If no quick-disconnect is being used, switch compressor to off position. Depress the trigger on the spray gun and hold until all air is drained from the tank. This may take several minutes if using a larger capacity air tank.



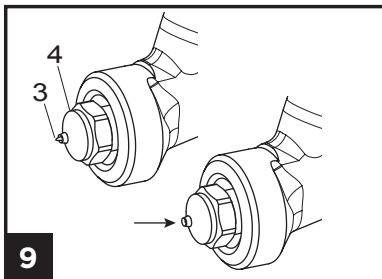
6. Completely remove the air cap ring (1) by unscrewing counter-clockwise and then remove air cap (2) from the gun body. If necessary, immerse it in appropriate cleaner to soften any residual paint on cap or in air holes. Blow compressed air through holes to remove any loosened material. Carefully use a cleaning needle to remove any additional from air holes avoiding scratching or creating divots in the air cap.



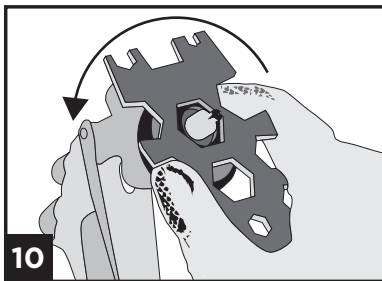
7. Inspect the needle (3) and nozzle (4) and remove any residual material by lightly scrubbing use the brush provided. Scrub lightly to not damage the nozzle or needle. TAKE CARE to not touch needle or nozzle tip as they are very sharp.

8. On the rare occasion that the nozzle needs to be removed for additional cleaning please refer to the following process for nozzle and air cap disassembly and reassembly.

NOTE: For continued optimal performance you must lubricate the nozzle threads, air cap friction points and air cap ring threads with an appropriate sealer (such as a petroleum and silicone-free lip balm) before reassembling.



9. Pull the trigger on spray gun to retract the needle (3) from the nozzle (4).

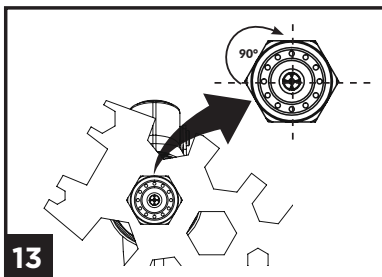


10. While keeping the trigger depressed, use the enclosed 19 mm cut-out on the spanner included with this spray gun to loosen the nozzle (4) from the spray gun body by rotating counter-clockwise.

Note: The nozzle is factory tightened and sealed and will be very difficult to remove the first time. It is recommended to wear gloves or wrap a towel around the spanner to protect your hand.

11. Once loosened, continue to unscrew the nozzle (4) by hand until it is completely removed.



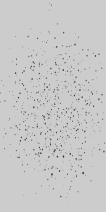


12. If necessary, immerse nozzle in appropriate cleaner to soften any residual paint in or around the orifice. Blow compressed air through nozzle and orifice to remove any loosened material.



13. Re-attach nozzle (4) to spray gun body with the trigger depressed and tighten with the 19 mm cut-out on the included spanner. Re-install air cap (2) and position so cap rating is below the nozzle. Tighten cap ring (1) by hand to secure the air cap in place.

PARTS & TROUBLESHOOTING

With anything new, there may be a couple bumps in the road. Be on the lookout for any of the symptoms below and address as needed.

SYMPTOM	PROBLEM	SOLUTION
Split fan pattern (fan pattern is hollow in the center) 	Air pressure is too high and might cause the fan pattern to split.	Reduce air pressure gradually and test until you achieve desired results.
	Paint buildup on the center hole of the air cap.	Remove air cap and use cleaner and scrubbing brush to remove any paint buildup.
	Paint buildup on the nozzle.	Use cleaner and scrubbing brush or toothpick to remove any paint build up.
Restricted or decreased paint flow 	Paint buildup on the hole of the cup restricting paint flow.	Inspect hole in the center of paint cup lid for obstruction. Use cleaner and a scrubbing brush or toothpick to remove any paint build up.
	Paint viscosity too thick to flow properly through spray gun.	Remove paint from spray gun and dilute paint as needed. Spray gun may need cleaning before you add newly diluted paint.
	Air pressure too low.	Increase air pressure gradually and test until paint flows properly.
Spray gun clogged 	Paint may be clogging up nozzle.	Remove paint from spray gun and clean thoroughly. Strain your paint before adding it back in to spray gun to remove any large particles.
	Dried up paint on nozzle and air cap.	Using a scrubbing brush and recommended cleaning solution, clean off all dried up paint on the front of the spray gun.
	Compressor too small.	Your compressor may not allow enough CFM to run the spray gun properly. A larger air source may be needed.
Fan pattern not centered/shooting to one side 	Paint build up on air cap or nozzle.	Make sure air cap and nozzle are free from any paint build up. Use cleaner and a scrubbing brush to loosen and remove any buildup of paint on these areas.
Dripping paint 	Loose needle packing.	Hand tighten the needle packing. If dripping continues, tighten with appropriate sized wrench until dripping stops. DO NOT OVER TIGHTEN.

WARRANTY

ANEST Iwata-Medea, Inc. LIMITED WARRANTY:

This limited warranty is extended to the original purchaser of the KATANA Plus Spray Gun from an Authorized Iwata-Medea seller and warrants ONLY against defect in materials and/or workmanship for a period of twelve (12) months from the date of purchase. ANEST Iwata-Medea, Inc., at its option, will either provide replacement parts or replace the unit, when a valid claim is filed. A valid claim includes proof of purchase from an Authorized Iwata-Medea Seller.

Duties of the Owner:

This KATANA Plus Spray Gun must be operated in accordance with the written instructions furnished with this spray gun. This warranty shall not excuse the owner from properly maintaining this spray in accordance with the written instructions furnished with this spray gun. A bill of sale or payment record must be kept, to establish the purchase date and warranty period. The original carton should be kept in case of warranty return of unit.

What is NOT covered in this LIMITED WARRANTY:

1. Damage resulting from improper cleaning or soaking of the spray gun.
2. Damage caused by misuse or use contrary to the owner's manual and safety guidelines.
3. Damage caused by a lack of normal maintenance.
4. Needles, Nozzles, Internal Seal, Packings and O-Rings.
5. Use of non-standard Iwata-Medea replacement spray gun components.

This warranty does not cover claims which do not involve defective workmanship or materials.

FAILURE TO PERFORM GENERAL MAINTENANCE (INCLUDING CLEANING) WILL VOID THIS WARRANTY.

THIS LIMITED WARRANTY IS GIVEN TO THE PURCHASER IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY OR FITNESS ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. THE REMEDY PROVIDED IN THIS WARRANTY IS EXCLUSIVE AND IS GRANTED IN LIEU OF ALL OTHER REMEDIES. IN NO EVENT WILL ANEST IWATA-MEDEA, INC., BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.