NEU MASTER

Electric Spray Gun

Model: NSG0110-US500

MANUAL OF INSTRUCTIONES

Contents Page

WARNING: READ INSTRUCTIONS MANUAL BEFORE USING PRODUCT.

SAFETY INSTRUCTION

SAFETY GULDELINE - DEFINITIONS

It is important for you to read and understand this manual. The information it contains relates to protecting **YOUR SAFETY** and **PREVENTING PROBLEMS**. The symbols below are used to help you recognize this information.

⚠ **Danger!** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ **Warning!** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ **Caution!** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Notice! Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

The following are explanations of important safety hazard pictorials in this manual.

 Read and understand the instruction manual.

 Fire hazard.

 Explosion hazard.

 Respiratory hazard

 Electric shock hazard.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS: To reduce the risks of fire or explosion, electrical shock and the injury to persons, read and understand all instructions included in this manual. Be familiar with the controls and the proper usage of the equipment.

This product is intended for household use only.

⚠ **Warning! Fire or explosion hazard.**
Solvent and spray material fumes can explode or ignite. Severe injury or property damage can occur.

To avoid these risks, take the following preventions:

- Exhaust and fresh air introduction must be provided to keep the air within the spray are free from accumulation of flammable vapors.
- Avoid all ignition sources such as static electricity sparks, open flames, pilot lights, hot objects, lit tobacco products, and sparks from connecting and disconnecting power cords or working light switches.
- Fire extinguisher equipment shall be present and working.
- Keep area clean and free of paint or solvent containers, rags, and other flammable material
- Follow the material and solvent manufacturer's safety precautions and warnings.
- Do not spray flammable or combustible materials near an open flame or sources of ignition such as lit tobacco products, motors, and electrical equipment.
- Know the contents of the spray materials and their cleaning solvents. Read all Material Safety Data Sheets (MSDS) and container labels provided with the spray materials and solvents. Follow the spray material and solvent manufacturer's safety instructions.
- Do not smoke in spray area.
- Do not use materials with a flashpoint below 21°C (70°F). Flashpoint is the temperature (see coating supplies). Flashpoint is the temperature that a liquid can produce enough vapors to ignite.

 **Warning! Explosion hazard due to incompatible materials. Severe injury or property damage can occur.**

To avoid these risks, take the following preventions:

► Do not use bleach.

► Do not use halogenated hydrocarbon solvents such as methylene

chloride and 1,1,1 Trichloroethane
They are not compatible with aluminum and may cause an explosion. If you are unsure of a material's compatibility with aluminum, contact your coating supplier.

GENERAL SAFETY WARNINGS

Warning! Hazardous vapors. Spray materials, solvents, and other materials can be harmful if inhaled or come in contact with the body. Vapors can cause severe nausea, fainting, or poisoning.

To avoid these risks, take the following preventions:

- Use a respirator or mask if vapors can be inhaled. Read all instructions supplied with the mask to be sure it will provide the necessary protection.
- Wear protective eyewear.
- Wear protective clothing as required by coating manufacturer.

Warning! Electric shock hazard. May cause severe injury.

To avoid these risks, take the following preventions

- Keep electrical cord plug and sprayer trigger free from spray material and other liquids. Never hold cord at plug connections to support cord. Failure to observe may result in an electrical shock
- Never immerse electrical parts in water or any other liquid. Wipe the exterior of the sprayer with a damp cloth for cleaning. Always make sure the sprayer is unplugged before taking it apart for cleaning.
- Do not expose unit to rain or wet conditions.
- Do not abuse the cord. Never use the cord to carry the unit or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts.
- Replace damaged cords immediately.

Warning! General. To reduce the risk of severe injury or property damage.

To avoid these risks, take the following preventions:

- Do not aim the gun at, or spray any person, including self, or animal.
- Do not spray outdoors on windy days
- Wear protective clothing to keep spray material off skin and hair.
- Hose may become hot and cause skin burn.
- Follow all appropriate local, state, and national codes governing ventilation, fire prevention, and operation.
- Always use appropriate gloves, eye protection and a respirator or mask when spraying, thinning, mixing, pouring, or cleaning.
- Do not operate or spray near children. Keep children away from equipment at all times. Keep sprayer out of the reach of children.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing. Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Read all instructions and safety precautions for equipment and spray material before operating any equipment.
- Hearing protection is recommended for extended use.

ELECTRICAL SAFETY

This tool is double insulated, therefore no earth wire is required. Always check that the power supply corresponds to the voltage on the rating plate.

- If the supply cord is damaged, it must be replaced by the manufacturer or an authorized Service Centre in order to avoid a hazard.
- When using the tool outdoors, only use

extension cables intended for outdoor use. A suitable rated extension cable of up to 30 meters can be used without loss of power

- Electric safety can be further improved by using a high sensitivity.

TECHNICAL DATA

Flow Rate	**900 ml/min**
Max. Viscosity	**100 DIN-s (runout time: 100 seconds)**
Voltage	**120 V**
Current	**4.0 A**
Canister Capacity	**1200 ml**

EXTENSION CORD

When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

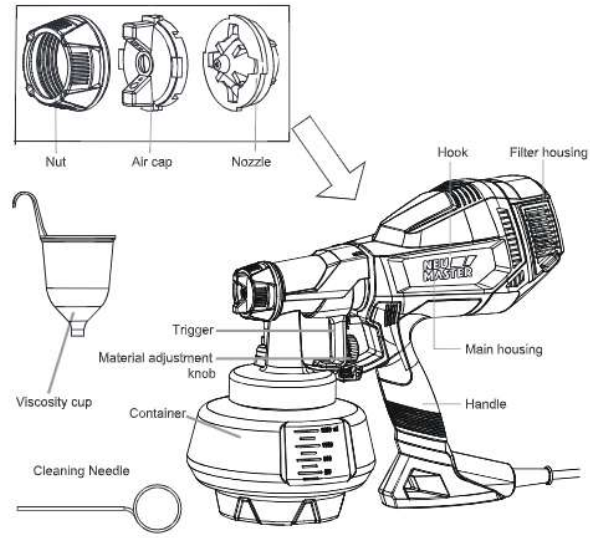
If an extension cord is to be used outdoors, it must be marked with the suffix W-A after the cord type designation. For example, a designation of SJTW-A would indicate that the cord would be appropriate for outdoor use.

For proper size cords see chart guide for extension cord usage.

Type of cable	Up to 5 meters	from 5 to 10 meters
Parallel	18AWG	16AWG

⚠ **Warning!** Some spray materials contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. To reduce your exposure wear appropriate safety equipment such as face masks, gloves, and other appropriate protective equipment. Please review and follow the safety precautions on the paint container.

PRODUCT INTRODUCTION



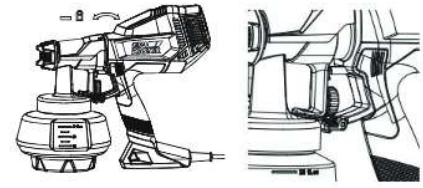
SET – UP

⚠ **Warning!** Be sure to use appropriate protective gear and unplug unit.

⚠ **Warning!** Make sure area is well ventilated and free of flammable vapors.

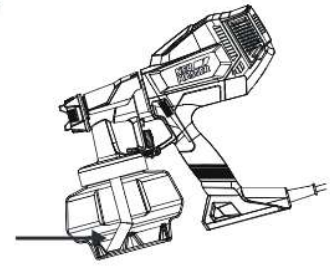
⚠ Never point the spray gun at any part of the body.

1. Find and aim at the “lock” position on the main housing assembly, and insert the spray gun into the main housing assembly into place. Then turn to the end as clockwise direction
2. Turn the buckle on main housing to lock the gun set into place.



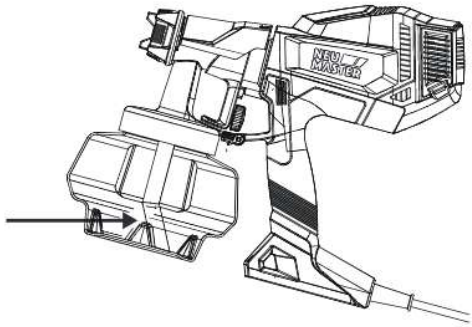
Aligning the pickup tube (Suction tube)

Note: By pointing the pickup tube in the proper direction, you will not have to refill the canister as often.



If you are going to be spraying in a downward direction, the angled end of the pickup tube

should be pointing toward the front of gun



If you are going to be spraying in an upward direction. The angled end of the pickup tube should be pointing toward the rear of the gun.

MATERIAL PREPARATION

Liquid material preparation Tip:

Make sure the type of material you use can be cleaned with either mineral spirits or paint thinner (for oil-based paints) or a warm water and soap solution (for water soluble paints like latex). Use drop cloths during pouring, mixing, and viscosity testing of materials to be sprayed to protect your floors and anything else in the spraying area that you wish to remain untouched.

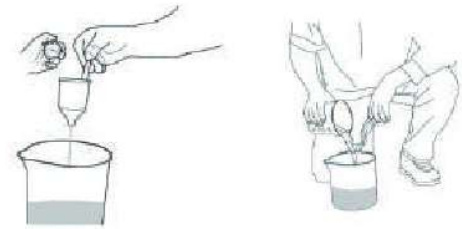
The liquid being sprayed may need to be thinned (diluted) before starting. When thinning, use the proper liquid thinner recommended on the container by the material Manufacturer.

⚠ **Warning!** Do not use materials with a flashpoint below than 21°C (70°F).

A viscosity test cup is provided to determine the "runout time" of the material being used.

1. Before measuring for the proper viscosity, stir the material thoroughly.

2. Dip the viscosity cup into the material being sprayed and fill the cup completely.
3. With the cup held over the material container, measure the amount of time it takes for the stream of material flowing out to "break" or stop being a constant stream out of the bottom of the cup (100 seconds or less).



This is the "runout time". Refer to the thinning table below for information on the thinning required for different materials. If material needs thinning, add the appropriate liquid thinning material recommended by the manufacturer.

Thinning table

Material		Runout Time
1	Oil Enamel	25-40
2	Oil based primer	30-45
3	Oil stain	No thinning required
4	Clear sealer	No thinning required
5	Polyurethane	No thinning required
6	Varnish	20-50
7	Lacquer sanding sealer	25-35
8	Lacquer	25-35
9	Automotive finishes	20-40
10	Latex paint	Follow manufacture's recommendations

Note: It is possible to spray latex paint with this unit, however, the required thinning may exceed material manufacturer's recommendation.
Thin latex paint so that it runs through viscosity cup within100 seconds. The operator should consider the type of application and final location of the project when spraying a material that requires more than 100 seconds to run through the viscosity cup.

OPERATION INSTRUCTION

Preparation tips

- Always stir and strain the material thoroughly before use. If need, please use the included paper filter to filter out the impurities.
- With any spraying job you should always ensure that you have properly prepared the surface to get the best finish. That is, all surface are free from dust, dirt, rust and grease. Lightly pressure wash decks or exterior surfaces and ensure that they are dry before spraying.
- Even though HVLP sprayers have very little overspray, it is recommended that you mask all edges and other areas and use drop cloths to protect your floors and anything else in the spraying area that you wish to remain

untouched.

- Skin that forms on the top of paint can clog the sprayer. Remove skin before mixing. Strain with a funnel with a filter attached or through hosiery to remove any impurities that could clog system.
- Before starting have gloves, paper towels, rags etc. available for unexpected spills.

Filing the Canister

1. Unscrew the Canister. Stand the canister on a smooth and horizontal surface.
2. Pour the properly thinned and strained material to be sprayed into the canister.
3. Clean any residual liquid from the threads or sides of the canister and sprayer.
4. Starting the threads evenly, screw the lid, completely onto the top fill canister. Check the lid to make sure it is threaded on squarely and completely before picking up the sprayer.

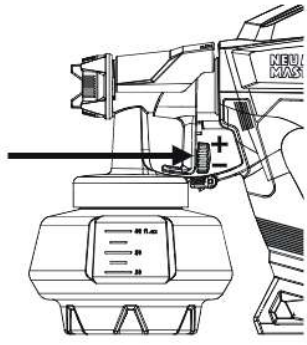
Adjust Spray Pattern

The spray pattern shape is adjusted by turning the ears of the air cap to either the vertical, horizontal, or diagonal position. The position of the air cap and the corresponding spray pattern shape are shown below.

Material Flow Adjustment

Set the material volume by turning the regulator on the trigger of the spray gun.

Turn to "+" mark direction increase the flow of liquid and turn to "-" direction decrease the flow of liquid.



For thicker materials, it is recommended that you start with the highest material flow setting and then gradually decrease the flow to suit your particular spraying needs.

For thinner materials, it is recommended that you start with a low material flow setting and then gradually increase the flow to suit your particular spraying needs.

Always test the spray pattern on scrap cardboard or similar material first, Begin with flow control knob on highest flow setting. If less flow is desired, dial the flow control knob to decrease the flow of liquid.

Heavier, thicker material should be sprayed with the flow control knob on high flow setting. Thinner material should be sprayed with the flow control knob on low flow setting.

Proper Spraying Technique

If spraying with an HVLP spray system is new or unfamiliar to you. It is advisable to practice on a piece of scrap wood or cardboard before beginning on your intended workpiece.

Surface Preparation

All objects to be sprayed should be thoroughly cleaned before spraying material on them. Areas not to be sprayed may, in certain cases, need to be masked or covered.

Spray Area Preparation

The spray area must be clean and free of dust in order to avoid blowing dust onto your freshly sprayed surface.

Nozzle size pickup

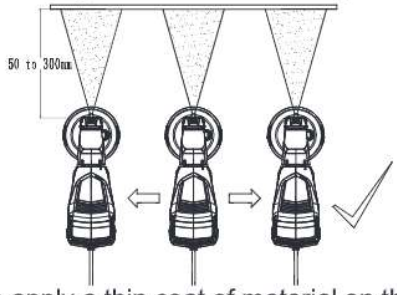
Select right size of nozzle base upon the material you are going to use and the surface targeting finishing. The small size of nozzle reflected to finer coating. Dilute material if needed for better quality of the coating

Nozzle size	Recommended material	Project Example
1.5mm (White)	sealers, stains, enamel, varnish, dyes	Table, chair, bicycle, shutter, cabinets, wooden toy, model
2.0mm (Red)	polyurethane, chalk and milk type paint	Railings, multi-frame window frames, heating pipes, boats, yard furniture, garage doors, metal garden fences.
2.5mm (Black)	low viscosity primer, wall paint	Internal wall, wooden garden fence, wooden pile, corridor
3.0mm (Grey)	Latex plus primers, primer, wall paint, latex, oil enamels	External walls, outdoor floors, deck

Never trying spray material which viscosity higher than the spray gun can withstand, NSG0110 viscosity spec at MAX 100-DINs

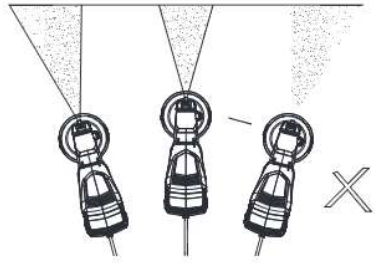
HOW TO SPRAY PROPERLY

- Position the spray gun perpendicular to and 2 or more inches from the spray surface, depending on the spray pattern size desired
- Spray parallel to the surface with smooth passes at a consistent speed as shown below. Doing this will avoid irregularities in the finish. (.i.e runs and sags)

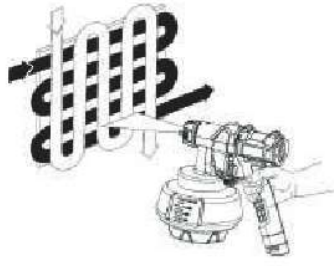


- Always apply a thin coat of material on the first pass and allow to dry before applying a second, slightly heavier coat.
- Keep stroke smooth and at an even speed
- Always spray area from a minimum of 50mm (2 inches) to a maximum of 300mm (12 inches).To get an even spray distribution. Always keep your arm at the same distance from the surface you are spraying and avoid flex wrist while spraying
- When spraying, always trigger the spray gun after spray pass has begun and release trigger before stopping the pass. Always keep the gun pointed squarely at the spray surface and overlap passes slightly to obtain the most consistent and professional finish possible.

Light coat Heavy coat light coat



- When you quit spraying for any length of time, turn the power unit OFF and place the spray gun into the built-in dock on the power unit.
- A commonly used method for spraying a large surface is the “crisscross” pattern. This is done by spraying in horizontal strips and then crossing over these strips with vertical strips.



- Avoid spraying too heavily in any one area. Several lighter coats are better than one heavy coat which can lead to running and dripping. Remember that the flow control knob regulates the amount of liquid that can be sprayed. If runs or drips do occur, have a dry paint brush on hand to smooth them out.

CLEAN AND MAINTENANCE

Before you begin:
When cleaning, use the appropriate cleaning solution (warm, soapy water for water-based material like latex; mineral sprits for oil-based material)

Special cleanup instruction for use with flammable solvents (must have a flashpoint above 70°F (21°C)

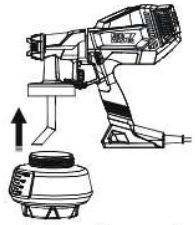
- **Always flush spray gun outside**
- **Area must be free of flammable vapors**
- **Cleaning area must be well-ventilated**
- **Do not submerge power unit**

1. Unplug tool. Trigger the spray gun so that the material inside the spray gun flows back into the canister

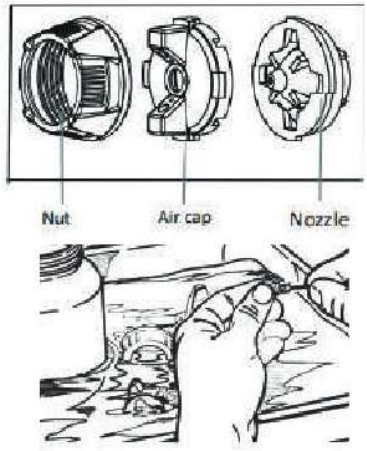
2. Unscrew the canister. Empty any remaining material back into the material container.

3. Pour a small amount of the appropriate cleaning solution into the canister. Clean canister and pickup tube and properly dispose of cleaning solution. Refill the canister with NEW cleaning solution.

4. Attach the canister to the gun, plug in the cord.



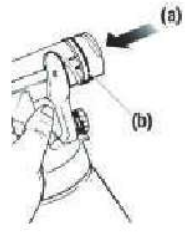
5. Spray the solution through the gun for 2 or 3 seconds in a safe area. Unplug tool and trigger the spray gun so that the material inside the spray gun flows back to canister. Wipe the exterior of the cup and gun until clean.
6. Unscrew nut, air cap, nozzle, pickup tube. (If there is any paint within the see-through check valve tube, teardown the check valve for cleaning.)



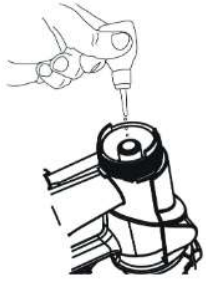
7. Clean the canister, pickup tube, air cap, nut and nozzle with a cleaning brush and appropriate cleaning solution.

IMPORTANT: Never clean nozzle or air channel in the spray gun with sharp metal objects. Do not use solvents or lubricants containing silicone.

8. Twist and separate the spray gun from the handle. Clean the rear of the spray gun (a) with the appropriate cleaning solution. Use a thin layer of petroleum jelly to lubricate the O-ring (b).

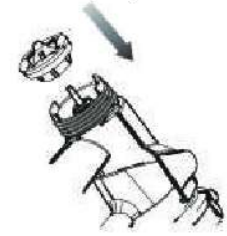


9. Dry all parts thoroughly.
10. Place a drop of household oil into the inside of the sprayer from the hole for assembling the spray tip.



11. Reassemble spray gun

Note: Spray nozzle can only be assembled in one direction that the notch of the nozzle must align with the skirt on spray unit housing.

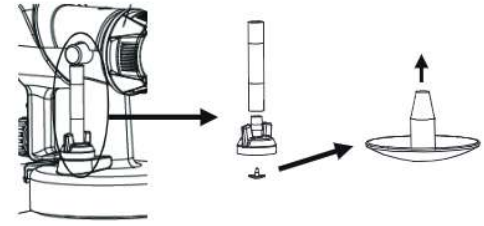


Note: The spray tip must be assembled in the sprayer with the bumps on the spray tip in vertical direction.

Note: Assemble the pickup tube by firmly pushing them onto the inlet in the spray.

Attention!

The check valve muse be put back in place by right direction with nipper point upward. Otherwise, tool might get slog very easily. If check valve is damaged or missing, please replace with new one （3x included）



MAINTENANCE

Use only mild soap and damp cloth to clean the power unit.

Never let any liquid get inside the power unit. Never immerse any part of the power unit into a liquid.

Important! To assure product **SAFETY** and **RELIABILITY**, repairs, maintenance and adjustment (other than those listed in this manual) should be performed by authorized service centers or other qualified service personnel, always using identical replacement parts.

The power unit contains washable / reusable filter. Check the filter before and after each use. If dirty, wash with warm water and allow to air dry before re-installing or replace it if it is excessively dirty by below two steps.

1. Press at the middle tap area on each side of filter cover as arrow pointed to

remove the filter cover.

2. Replace the dirty filter from the power unit and replace with new ones.
3. Secure the covers back onto the power unit.

IMPORTANT: Never operate your unit without the air filter. Dirt could be sucked in and interfere with the function of the unit.

STORAGE

Make sure unit is clean and dry before storing. Store unit indoors in a dry location, to prevent damage, wrap the electrical cord so that it is not crimped during storage.

CUSTOMER SERVICE & GUARANTEE

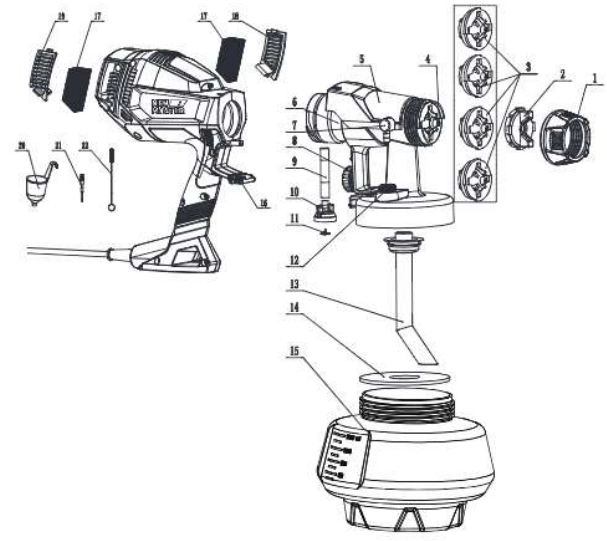
ACCESSORIES

Recommended accessories for use with your product are available from your local dealer or authorized service center.

⚠ **Warning:** The use of any accessory not recommended for use with this product could be hazardous.

PART LIST

Part #	Part Description	Quantity
1	Nut	1
2	Air Cap	1
3	Nozzle (Φ1.5, 2.0, 2.5, 3.0 mm)	4
4	Spray tip	1
5	Power unit housing	1
6	Trigger	1
7	Check valve tube seat	1
8	Material flow adjust knob	1
9	Check valve tube	1
10	Check valve seat	1
11	Check valve	1
12	Check valve sleeve	1
13	Suction tube	1
14	Sealing cup	1
15	Canister	1
16	Quick release lock	1
17	Filter	1
18	Left filter cover	1
19	Right filter cover	1
20	Viscosity cup	1
21	Cleaning needle	1
22	Cleaning brush	1



TROUBLESHOOTING

TROUBLE! MATERIAL RUNS OR DRIPS.	
WHAT'S WRONG?	**WHAT TO DO…**
Spraying too much material.	Reduce paint flow by turning material adjustment knob.
Spraying too slowly.	Increase speed of application.
Spraying too close.	Increase distance from surface.
Viscosity too thin.	Check dilution recommendation.
TROUBLE! MATERIAL DRIPS FROM NOZZLE	
WHAT'S WRONG?	**WHAT TO DO…**
Nozzle loose.	Screw nozzle tight.
Nozzle breaks.	Change.
Material accumulated /clog inside nozzle.	Clean.
TROUBLE! TOO MUCH OVER SPRAY.	
WHAT'S WRONG?	**WHAT TO DO…**
Sprayer too far from surface.	Reduce distance to surface.
Too much material being sprayed.	Reduce paint flow by turning material knob.
TROUBLE! LITTLE OR NO MATERIAL BEING RELEASED.	
WHAT'S WRONG?	**WHAT TO DO…**
Spray nozzle/tip clogged.	Clean nozzles.
Pickup tube loose or clogged.	Check tube.
Canister loose.	Screw canister tightly in place.
Flow control knob setting too low.	Increase flow control setting.
Air inlet blocked.	Clean or changer air filter.
Material too thick.	Thin material per manufacturer recommendation.
TROUBLE! PAINT LEAKAGE FROM CONTAINER TIP	
WHAT'S WRONG?	**WHAT TO DO…**
Container loose.	Tight up container firmly.
Container sealing cup improperly set or deformed.	Reset container sealing cup or replace with new one.

TROUBLE! MATERIAL BEING SPRAYED IS SPLATTERING	
WHAT'S WRONG?	**WHAT TO DO…**
Viscosity of material is too high.	Thin material per manufacturer recommendation.
Set at too high volume at very beginning.	Set flow rate at lower as start.
Paint not been stirred thoroughly.	Stir the material thoroughly.
TROUBLE! ATOMIZATION IS TOO COARSE	
WHAT'S WRONG?	**WHAT TO DO…**
Viscosity of material too high.	Thin material per manufacturer recommendation.
Flow control knob setting too high.	Decrease flow control setting.
Material accumulated /clog inside nozzle.	Clean.
Air inlet blocked.	Clean or change air filter.
Canister loose.	Screw canister tightly in place.
TROUBLE! SPRAYER PULSATES.	
WHAT'S WRONG?	**WHAT TO DO…**
Air filter clogged.	Clean or change air filter.
Material in canister almost empty.	Refill canister.
Canister loose.	Screw canister tightly in place.
TROUBLE! SPRAY MATERIAL DOES NOT COVER PROPERLY	
WHAT'S WRONG?	**WHAT TO DO…**
Flow control knob setting too low.	Increase flow control setting.
Clearance to target area too large.	Reduce spray distance.
Too few spray paths sprayed over target area.	Apply more spray paths sprayed over target area.
Viscosity of material too high.	Thin material per manufacturer recommendation.

Have you tried the recommendations above and are still having problems?
In the United States,please call Neumaster (+1 833-271-1088) for instructions or to contact to a customer service representative,mail our Technical Service at spartartool@gmail.com 24/7 or Facebook Page NEU MASTER TOOL.We will get back to you within 24 hours.