KING KING CANADA

ELECTRIC HVLP SPRAY GUN

MODEL: 8199N

INSTRUCTION MANUAL

IMPORTANT INFORMATION

2-YEAR LIMITED WARRANTY FOR THIS SPRAY GUN	**KING CANADA TOOLS** OFFERS A 2-YEAR LIMITED WARANTY FOR NON COMMERCIAL USE.

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

LIMITED TOOL WARRANTY

King Canada makes every effort to ensure that this product meets high quality and durability standards. King Canada warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. King Canada shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.

To take advantage of this limited warranty, return the product at your expense together with your dated proof of purchase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized service center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

We accept no responsibility for damage caused by the use of unsuitable substances, or paints that have not been thinned correctly, and any health hazards that arise from lack of adequate ventilation.

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GENERAL SAFETY WARNINGS FOR POWER TOOLS

WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference. The term "power tool" in the warnings refers to your mains-operated (corded) power tool.

1) Work area safety

a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.

b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

b) Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.
Damaged or entangled cords increase the risk of electric shock.

e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.
NOTE The term “residual current device (RCD)” may be replaced by the term “ground fault circuit interrupter (GFCI)” or “earth leakage circuit breaker (ELCB)”.

3) Personal safety

a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

b) Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.
Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.

d) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

3) Personal safety continued...

e) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

f) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

4) Power tool use and care

a) Do not force the power tool. Use the correct power tool for your application.
The correct power tool will do the job better and safer at the rate for which it was designed.

b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
Power tools are dangerous in the hands of untrained users.

e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

SPECIFIC SAFETY WARNINGS FOR SPRAY GUNS

SPECIFIC SAFETY INSTRUCTIONS FOR SPRAY GUNS

1) Keep area clean well lit and free of paint or solvent containers, rags, and other flammable materials. Spontaneous combustion may occur. Fire extinguisher equipment must be present and working at all times.

2) Provide for good ventilation in the spraying area and for sufficient fresh air in the complete room. Evaporating flammable solvents create an explosive environment.

3) Do not use materials with a flashpoint below 32° C for spraying and cleaning. Use water-based materials, non-volatile hydrocarbons or similar materials. Fast evaporating solvents create an explosive environment.

4) Do not spray in the vicinity of ignition sources, such as static electricity sparks, open flames, pilot lights, hot objects, engines/motors, cigarettes and sparks from plugging in or unplugging power cords or operating switches. Such spark sources can ignite the spraying vicinity/environment.

5) Do not spray any liquid of unknown hazard potential. Unknown materials can create hazardous conditions.

6) Wear additional protective equipment such as appropriate protective gloves and protective masks or respirators when spraying or handling chemicals. Wearing protective equipment for the appropriate conditions reduces the exposure to hazardous substances.

7) Never point the spray jet against yourself, towards other persons or animals. Keep your hands and other body parts away from the spray jet. If the spray jet should penetrate the skin, seek medical attention immediately. The material being sprayed can even penetrate the skin through a glove and be injected into your body.

8) Do not treat injection as a simple cut. High pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, seek medical attention immediately.

9) Always disconnect power cord from the power source before filling the paint container or cleaning the spray gun.

ELECTRICAL INFORMATION & SPECIFICATIONS

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
Note: Performance of this tool may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.

VOLTAGE WARNING

Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. If one says 120V and the other says 115V then there will be no complications. Never try to plug a 120V tool into a 240V outlet, or the other way around. The plug and outlet have completely different shapes. This is because a power source with a voltage greater than that specified on the tool can result in **SERIOUS INJURY** to the user, as well as damage to the tool. If in doubt, **DO NOT PLUG IN THE TOOL**.

EXTENSION CORDS

Your tool has a polarized, two-prong plug. Do not alter the plug in any way. Only use rounded jacket extension cords listed by the Underwriters Laboratories (UL). Improper use of extension cords may cause inefficient operation of your tool which can result in overheating. Be sure your extension cord is rated to allow sufficient current flow to the motor. If you are using the tool outdoors, use an extension cord rated for outdoor use (signified by “WA” on the jacket).

Tool’s Amperage Rating	Cord Size in A.W.G.			
	Cord Length in Feet			
	25	50	100	150
3-6	18	16	16	14
6-8	18	16	14	12
8-10	18	16	14	12
10-12	18	16	14	12
12-16	14	12	-	-

The extension cord must have a minimum wire size depending on the amperage of the tool and the length of the extension cord. This size is determined by its AWG (American Wire Gauge) rating. The smaller the gauge, the greater the cable’s capacity. The amount of cords used does not matter: Total length determines the minimum AWG rating. Every cord must meet the AWG rating. Use the chart above to determine what AWG rating is required for your situation. Cord length is rated in feet.

SPECIFICATIONS

Model	8199N
Voltage	120V, 1 phase, 60Hz
Rated power	600W
Amps.	4.5A
No load speed	30,000/min
Container capacity	1 L
Maximum flow rate	15 Gallons per hour
Weight of the tool	3.5 lbs

GETTING TO KNOW YOUR TOOL, PREPARATION & THINNING

GETTING TO KNOW YOUR TOOL

1. Width setting nozzle (2.6mm installed)
2. Spray pattern adjusting nozzle cap
3. Spray width adjusting lever
4. Nozzle cap locking nut
5. Spraying attachment
6. Attachment lock knob
7. Body/motor assembly
8. Air filter & cover
9. Flow rate adjustment dial
10. Trigger
11. Power cord
12. Paint container (1 liter)
13. Viscosity measuring cup
14. 1.5mm nozzle (white)
15. 1.8mm nozzle (black)
16. 2.2mm nozzle (red)
17. 2.6mm nozzle (blue-installed)
18. Cleaning brush

Figure 1

PREPARATION

CAUTION! Do not use textured wall paints or coatings as this will block the nozzle.

To obtain best results, it is important that you prepare the surface to be sprayed and thin the paint to the correct viscosity before you operate your spray gun. Surfaces must be free of dust, dirt and grease. Mask areas not to be sprayed using good quality masking tape. The paint or fluid to be sprayed must be thoroughly mixed and free of lumps or particles. Filter the paint before adding to paint container.

THINNING PAINT

WARNING! Always remember to disconnect the power cord from the power source before filling the paint container with sprayable material.

Most paints are supplied ready for brush application and will need to be thinned before they are suitable to be sprayed. Follow the manufacturer's advice on thinning the paint when used with a spray gun. The supplied viscosity cup will help you to determine the correct viscosity of paint to be used. To determine the correct viscosity, fill the cup to the brim with the paint. Measure the amount of time it takes for the cup to empty back into the can. The table below shows recommended times for different types of material.

Spray material	Runout Time in Seconds
Water based paint	20 - 45 seconds
Solvent based paints	45 - 50 seconds

If the paint takes longer than the recommended time to empty, then further thinning is required. Some sprayable materials contain lumps and particles, these materials should be strained before filling the paint container. To select the correct thinning agent, determine if the material is water based or solvent based. For water based paint use water based thinner. For solvent based paints use solvent based thinner.

FILLING THE PAINT CONTAINER

WARNING! Make sure the spray gun is unplugged.

1) Unscrew the container (A) Fig.2 from the spray gun attachment.
2) After the paint/material has been properly thinned, fill the container. Never fill over the max fill level of 1 liter (1000 ml).
3) Carefully screw the container back on to the spray gun attachment.

Figure 2

IMPORTANT: Make sure the gasket (C) Fig.2 is in place before screwing the container back onto the spray gun attachment. The gasket is located in the collar of the spray gun and is used to create an air-tight seal between the container and the spray gun.

ALIGNING THE SUCTION TUBE

The suction tube (B) Fig.2 inside the container must be in place each time you use the spray gun. If you are going to be spraying in a downward direction, the angled end of the suction tube should be pointing toward the front of the gun. If you are going to be spraying in an upward direction, the angled end of the suction tube should be pointing toward the rear of the gun. By pointing the suction tube in the proper direction, you will not have to refill the container as often.

NOTE: The spray gun is not suitable for painting ceilings and/or any surface where the spray gun requires more than a 45 degree angle for spraying.

IMPORTANT: Never tip the spray gun upwards at more than a 45 degree angle. Material could get into the turbine and damage the spray gun.

ASSEMBLING SPRAY GUN ATTACHMENT TO BODY/MOTOR ASSEMBLY

The spray gun attachment (A) Fig.3 and the body/motor assembly (B) need to be assembled. Insert the spray gun attachment into the opening of the body/motor assembly. Push as far as it will go, then turn the lock knob (C) clockwise to secure both parts together.

Figure 3

SETTING SPRAY PATTERN

This spray gun has 3 different spray patterns: horizontal, vertical and round. The vertical and horizontal patterns are recommended for larger surfaces. The round spray pattern is used for small objects or for areas, such as corners which are difficult to reach. Test each spray pattern to determine which is the most suitable for your spraying task.

SETTING SPRAY PATTERN continued...

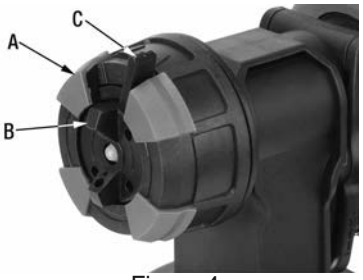

Figure 4

1) Make sure the spray gun is turned off.
2) Loosen the nozzle cap locking nut (A) Fig.4.
3) Adjust position of the nozzle cap (B) to obtain the vertical, horizontal or round pattern.
4) Once the desired spray pattern is obtained, retighten the nozzle cap locking nut.

Left to right position: Vertical spray pattern.
Top to bottom position: Horizontal spray pattern. Fig.4.
Diagonal position: Round spray pattern.

5) It is also possible to quickly switch between wide and compact spray pattern width by simply adjusting the spray width adjusting lever (C) Fig.4.

SETTING WIDTH OF SPRAY PATTERN (NOZZLES)

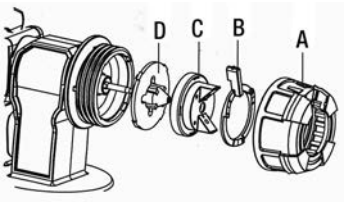

Figure 5

This spray gun comes with 4 different sized nozzles (1.5mm, 1.8mm, 2.2mm and 2.6mm). These nozzles determine the width of the spray, the smaller the nozzle size the more narrow the spray width.

1) Loosen and remove the nozzle cap locking nut (A) Fig.5 and spray width adjusting lever (B).
2) Remove the nozzle cap (C).
3) Remove nozzle (D) and replace it with the desired nozzle. Reinstall all parts in reverse order.

FLOW RATE ADJUSTMENT

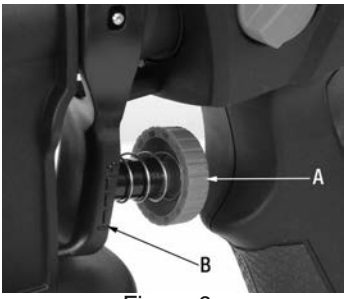

Figure 6

This spray gun comes with an adjustable paint flow rate control dial (A) Fig.6 located on the rear of the trigger (B). To adjust: Simply turn the paint flow rate control dial clockwise to increase (+) or counterclockwise to decrease (-) the flow.

SPRAYING TIPS

Make sure you hold the spray gun vertical and parallel to the target area, at a distance of between 2" - 10" (5 - 25.5cm). Always begin spraying outside of the target area to prime the trigger. Move the spray gun evenly cross-wise or up and down, depending on the spray pattern. To ensure a complete even finish, you may need to spray over the edge of the target area. This will avoid a thin coat around the edges of the target area.

NOTE: An even movement of the spray gun results in an even spray.

Keep your wrist straight and parallel to the surface. If you bend your wrist or arm while painting, the angle of the spray may lead to a heavy paint formation in certain areas, resulting in an uneven finish.

Note: Never spray while the container is almost or completely empty, when the suction tube no longer immerses in the spray material, air bubbles will be created causing a break in the flow, resulting in an uneven spray pattern.

CLEANING & MAINTENANCE

CLEANING

Turn off and unplug the spray gun, and press the trigger so any painting material inside the spray gun flows back into the container. Unscrew the container. Empty any remaining paint back into its original container.

NOTE: Do not return any paint that has been diluted/thinned back into its original container, dispose of in the correct manner or store in a separate sealed container.

Pour a small amount of appropriate cleaning solution into the container. Clean the container and dispose of the cleaning solution in an appropriate manner. Refill the container with a small amount of new cleaning solution. Re-attach the container to the spray gun attachment, plug in the spray gun and turn it on. In an empty container, spray the solution through the gun for approximately 2 seconds, release the trigger and spray again for approximately 2 seconds. Repeat this process until clear cleaning solution emerges from the spray gun.

Unplug the spray gun and then pull the trigger so the remaining material flows back into the container. Unscrew the container again. Empty the container of any remaining cleaning solution and dispose of the liquid in the correct manner. Wipe the exterior of the paint container and the spray gun attachment until clean.

Unscrew the nozzle cap locking nut and clean it, then remove the nozzle cap and nozzle and clean them also. Remove the suction tube and clean it, use an appropriate cleaning solution. Check the container seal and clean with water if required. Reassemble all parts once they are completely clean.

MAINTENANCE

You should inspect the air filter (A) Fig.7 at the back of the body/motor assembly regularly to see if it is excessively dirty. If it is dirty, clean it as follows.

1) Unplug the power cord from the power source.
2) Unclip and remove the filter cover (B) Fig.7.
3) Remove and check the filter (A) for dirt. If the filter is dirty, rinse in clean water and leave to air dry.

IMPORTANT: Never operate the spray gun without the air filter in place. Dirt could be sucked into the turbine and may interfere with the operation of the spray gun.

AIR RELIEF VALVE

1) Remove paint container. Remove feed tube and gasket by pulling the feed tube.
2) Remove diaphragm (C) Fig.7 from ventilation hose (D), clean all parts and reinstall in reverse order.

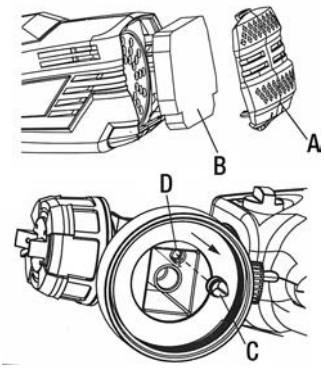

Figure 7

PARTS DIAGRAM & PARTS LISTS

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.