

89747 & 90221 Self-Contained Portable Airbrush Instructions

Specifications

Dual action, gravity feed airbrush

Power: Built-in lithium battery

Power rating: 6 – 7.4 Volts, 0.5 – 0.6 Amps

Charge time: 1.0 to 1.5 hours

Work time: 40 minutes

Airbrush nozzle & needle: 0.5 mm diameter (for #90221) and 0.3 mm diameter (for #89747)

Airflow: 25 psi (pounds per square inch) at 7L/min (litres per minute)

Included Items

- Paint cups: 7 ml (chrome), 20 ml (plastic), and 40 ml (plastic)
- Wrench: 1/16" (1.5 mm)
- Air cylinder
- USB to barrel jack charging cable
- Pipette
- Airbrush
- Optional 3-piece set for alternative air supply hook ups for the airbrush other than the air cylinder provided. (1/8 NPT barbed airline fitting with knurled collar, and 1/8 NPT adapter).

Charging the Air Cylinder

Using the provided USB charging cable, connect the charging cable to a computer's USB port or use a USB wall outlet charger. Locate the barrel jack receptacle near the bottom side of the air cylinder, then plug the barrel jack plug into the barrel jack receptacle to begin charging the air cylinder battery.

- When the USB charging cable is plugged into a power source, a green light will light at the USB connector side of the cable.
- When the charging cable is plugged into the air cylinder, the light will turn from green to red when the battery is being charged.
- When the battery inside the air cylinder is charged, the light will change from red to green.

Airbrush Setup Instructions

Attaching the air cylinder:

- The air inlet connection for the airbrush is located on the bottom of the airbrush under the trigger.
- Thread the airbrush onto the air cylinder by rotating the airbrush clockwise until the base of the airbrush air inlet is flush with the air cylinder's top and is snug.
- The paint cup caps can be pulled or pried off the cup bodies by slipping your fingernail under the lip of the lids and lifting upward. Add the desired amount of prepared paint into the cup. Lids can then be placed back onto the cup if desired.
- If this is your first time using this airbrush, we recommend using water for the first use to gain a feel for spray patterns produced at different distances from scrap paper, cardboard or wood and to gain a feel for the trigger action of this airbrush.
- When filling with paint, be sure to thin paint to a milk-like consistency. Most paint brands will provide directions on their bottles for the appropriate paint thinners and ratios of paint-to-thinner or paint-to-water mix for use in an airbrush.

Operation

Understand that air passes from the air cylinder up into the airbrush when the trigger is depressed. The tool is designed to have the airbrush allow air to exit out the front of the tool. This is where the air valve screw (25), located forward and underneath the paint cup, comes into use. By turning and opening the valve, it allows the forward progress of the air to exit the front and it is during this process that the paint is picked up and atomized for flow when the trigger is pushed rearward, withdrawing the needle and opening the tip of the tool. The more that you open the valve, the more air passes through. Using water first through the airbrush will give you a better understanding of how your tool performs.

- Press down on the trigger to activate the air cylinder, allowing airflow through the nozzle at the front of the airbrush.
- To add paint into the airflow, pull back on the trigger.

Operation (continued)

- The needle will draw back into the airbrush allowing paint to flow out the nozzle. The more you pull back on the trigger, the more paint you will allow into the flow.
- To control the spray pattern / spray diameter of the paint, move the airbrush closer or farther away from the object you are painting.
- You can also adjust the needle stop, found at the rear of your airbrush, to further control the airbrush's spray pattern.
- Tightening in the needle stop will limit the movement of the needle and control the spray diameter or pattern of the sprayed paint. Loosening the needle stop will increase the range of motion of the needle, allowing for a wider spray pattern. Be careful not to fully unscrew the needle stop from the airbrush body.

Essential Cleaning of Your Airbrush

Your airbrush requires a cleaning after you have finished spraying paint. Without cleaning, the airbrush will fail to function properly and void any warranty of the airbrush. Quick cleaning by running water or solvent through the airbrush can be performed during use when taking a break from painting, or when changing colors in the airbrush. More thorough cleaning should be performed when finished painting and preparing to store the airbrush.

Before you begin cleaning your airbrush, here are items you will need:

- A large basin, preferably glass, especially if you are using any solvents for oil-based paints.
- Warm water and airbrush cleaner solution for water-based paints, or appropriate solvent for oil or lacquer-based paints.
- Be sure to read and follow manufacturer's instructions for the solvent or cleaning solution being used.
- Pipe brushes, preferably soft and hard nylon type.
- Long cotton swabs.
- Round toothpicks.
- Micro Mark #83046 Airbrush Cleaning Kit is an excellent option for the cleaning supplies that you can use.
- The parts diagram on the last page of this manual for reference to the various parts descriptions of the airbrush.
- Paper towels or an old cotton t-shirt.
- A small plate or parts pan to prevent parts from rolling away.
- Prepare a clean workspace as you will be taking your airbrush apart to clean out residual paint inside the airbrush.

Disassembling the Airbrush

- Drain any remaining paint in the paint cup from the airbrush.
- At the front of the airbrush, remove the air cap (1) and nozzle cap (2). Once you have removed the air cap, the tip of the needle (26) is exposed. Be extremely careful not to damage the needle in any way. If it gets bent, it will require replacement.
- Unscrew the nozzle (3) using the 1/16 wrench provided with the airbrush set. Locate the 2 opposing "flat" sides at the base of the nozzle in front of the brass body tip. Rotate the nozzle counter-clockwise until the threads disengage and then pull the nozzle with the black nozzle O-ring (4) over the needle and place into your parts tray. Again, be careful not to damage the needle when handling. After removing the nozzle, turn your attention to the back of the airbrush.
- Unscrew and remove the handle (20) behind the knurled section of the body by rotating it counterclockwise and set aside. This portion of the airbrush should not need to be cleaned since it does not contact paint.
- Unscrew and remove the needle collet (24) by rotating it counterclockwise. This too should not need to be cleaned. Set it to the side with the handle.
- Push the now free blunt end of the needle (26) through and towards the front of the airbrush. When enough of the needle is exposed at the front end, you can grab the round part of the needle and pull it out. Understand that the needle passes through a slot in the trigger, and while you are pulling the needle out, you need to keep downward pressure on the trigger to keep it in place. The spring (22), located in the body behind the rear of the trigger, will help keep it in place until assembly is ready.
- Remove the paint cup cover (11) and cup (12) by rotating the cup body counterclockwise and set in your tray. Note the rubber gasket at the bottom of all the paint cups provided so as not to lose them.
- Remove the air valve screw (25) by using a wrench on the nut above the knurled screw turning counterclockwise and place in your parts tray for cleaning. Note the rubber gaskets that make up this valve so as not to lose them.
- You now have the following parts that need cleaning: the cap (1), the air cap (2), the nozzle (3), paint cup and cup top (11, 12), the needle (26) and lastly, the airbrush body (6). There is no further disassembly of the airbrush required.

Cleaning

Different producers of airbrush cleaning solutions, thinners, solvents, and paints provide instructions with their products on how to best use them, and the lengths of time they recommend soaking your airbrushes in their cleaning, thinner, or solvent solutions. We recommend following their instructions and or adding them to the steps below to clean and maintain your airbrush where applicable.

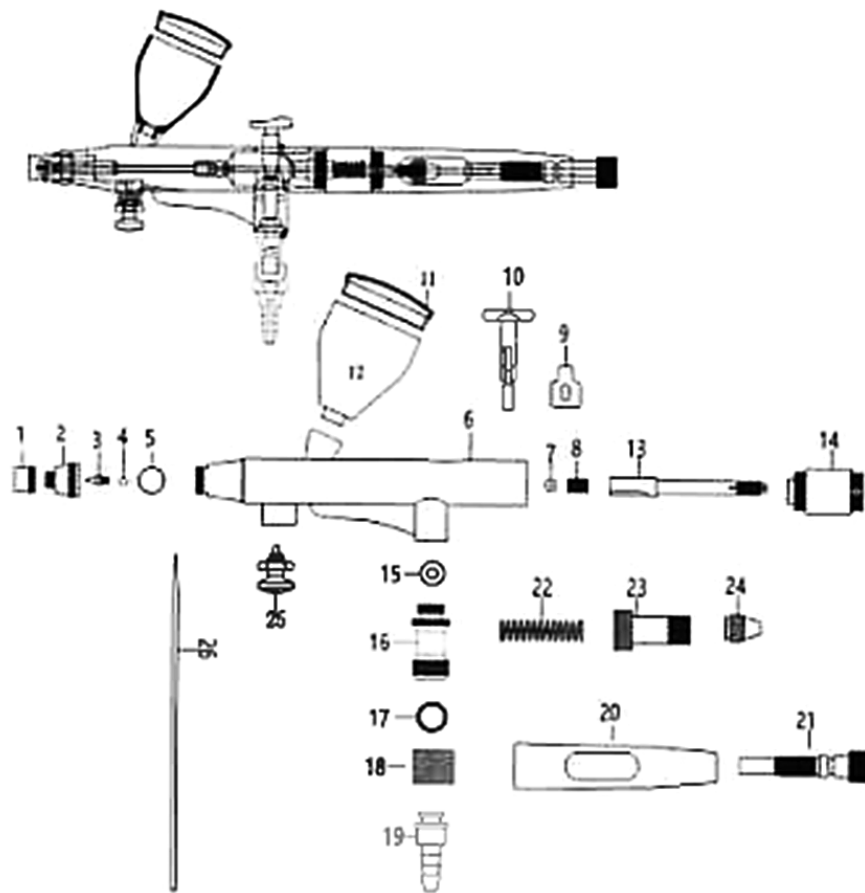
- Place your airbrush parts into a glass basin and fill with appropriate solvent or warm water and cleaning solution if you are using a water-based paint. Add warm water and an airbrush cleaner to the basin, enough to submerge all parts of the airbrush. If you have used oil-based paints, or a paint that requires a solvent or thinner other than water, we recommend using the paint manufacturer's recommended paint thinner, solvent or water to clean out the paint remaining inside the airbrush.
- Leave the airbrush in the solvent or cleaner for about 10 to 15 minutes.
- After soaking your airbrush, allow the airbrush to drain any excess liquids from inside.
- Take a pipe brush and insert it into the front of the airbrush while rotating, pushing any remaining paint into the paint chamber below where a paint cup attaches.
- After wirebrushing any remaining paint into this chamber, use a cotton swab to wipe up any paint from the paint chamber in the airbrush.
- Place the body of the airbrush back in the basin to soak again while using your brush and cotton swabs to clean all the components.
- Before cleaning the needle, run a fingernail along the length of the needle to feel if there are any bumps or high spots along the needle. These high spots are where paint has built up along the needle. We recommend using paper towels to clean the needle, as they can be abrasive but gentle enough to not damage the needle. Repeat until you can no longer feel high spots with your fingernail. If a paper towel is inadequate, use extra-fine steel wool (steel wool for polishing metals).
- Remove parts from the cleaning basin and place on paper towel. If the airbrush was cleaned using solvent, allow parts to air dry. If cleaned in water and cleaning solution, rinse basin and refill with clean water, then put parts back in for a final rinse. After rinsing, remove and allow to air dry on a paper towel.

Reassembling Your Airbrush

- Reinstall the air valve screw (25) until tight.
- Reinstall the nozzle (3) and snug down with the included wrench. This part is very delicate; do not overtighten.
- Reinstall the nozzle cap (2).
- Reinstall the front air cap (1) until tight.
- Reinstall the needle (26).
Note that the needle must pass through the center of the trigger. The trigger may need to be slightly raised or lowered to properly align for the needle to pass through.
- Carefully feed the needle into the airbrush from the rear of the airbrush with the pointed end going in first.
- Gently feed the needle through the trigger and continue pushing until it engages into the nozzle and can go no further.
- Reinstall the needle collet (24) and tighten to securely grip the needle.
- Reinstall the handle (20) to the back end of the airbrush while making sure that the back end of the needle enters the tube inside the handle and tighten.
- Install the paint cup and top (11 & 12) onto the top of the airbrush.

Important Note:

- If the airbrush trigger (10) comes out of the airbrush during cleaning, the trigger rocker (9) will push into a forward position blocking the trigger from being installed.
- Pulling back on the trigger rocker with your fingernail or a thin blade screwdriver will allow the trigger to be reinstalled into the airbrush.
- Note that the top surface of the trigger has grooves on half of it which should be facing towards the front of the airbrush.



Parts List

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| 1. Air cap | 14. Trigger tensioning adjustment |
| 2. Nozzle cap | 15. Air intake valve seat O-ring (silicone O-ring) |
| 3. Nozzle | 16. 1/8 NPT intake (air hose adapter) |
| 4. Nozzle O-ring | 17. O-ring 8*1.5mm (barbed airline adapter) |
| 5. Air cap seal O-ring 6.2*0.5mm | 18. 1/8 NPT knurled sleeve (barbed airline adapter) |
| 6. Airbrush body | 19. Barbed arline adapter |
| 7. M5 O-ring | 20. Handle |
| 8. M5 nylon needle seal | 21. Needle stop |
| 9. Trigger rocker | 22. Needle spring |
| 10. Trigger | 23. Spring housing |
| 11. Cup cover | 24. Needle collet |
| 12. Cup | 25. Air valve screw |
| 13. Needle chuck | 26. Needle |