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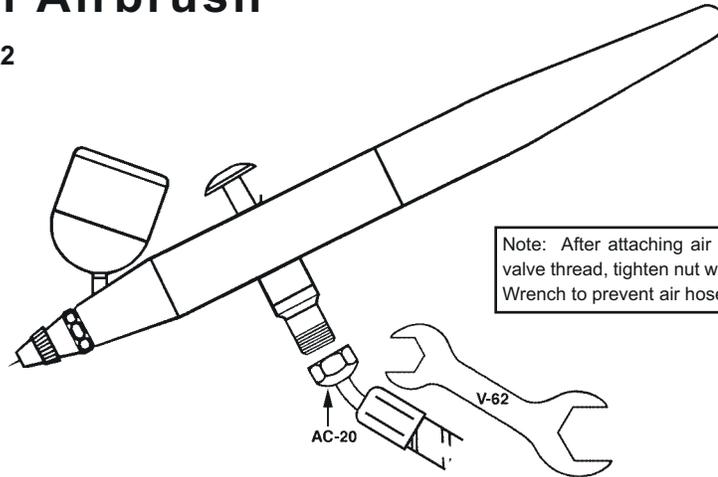
INSTRUCTIONS & PARTS LIST VSR90#1-5/2002
Supersedes Instructions & Parts List VSR90#1-3/2002

VSR90#1

Gravity Feed - Internal Mix- Double Action Airbrush

PATENT NUMBER: 4,978,072

WARNING: Spray materials may be harmful if inhaled or allowed to come into contact with the skin or eyes. Consult the product label and Material Safety Data Sheet supplied for the spray material. Follow all safety precautions.
CAUTION: Well Ventilated Area Required to remove fumes, dust or overspray. Secure airhose to Airbrush with V-62 Wrench for safety and to prevent air leaks.
Maximum Air Pressure 75 P.S.I.



INTRODUCTION

Prime Characteristics of the VSR90#1 Airbrush include the ability to spray fluids requiring gravity feed as well as make quick color changes with the three (3) different size color cups supplied with each set. This unique three in one design allows the user choice of cup size while using only one shell.

These color cups enable the user to swivel each cup right, left or in alignment with the shell to allow an unobstructed view of their efforts. The Double Action, Internal mix feature permits flexibility in regulation of color and air without work stoppage. The two different size Multipleheads, Tips and Needles are quickly interchangeable to allow greater diversity in materials and coverage.

AIRCAP, TIP AND NEEDLE SIZES

<u>Very Thin to Light Fluids</u>	<u>Light to Medium Fluids</u>
VM-1 Multiplehead	VM-2 Multiplehead
VA-1 Aircap	VA-2 Aircap
VT-1 Tip	VT-2 Tip
VN-1 Needle	VN-2 Needle

PRESSURES

- 20 lbs. or less, for stipple and granulated effects.
- 30 lbs. for medium consistency water colors, inks & dyes.
- 35 lbs. for heavier fluids, reduced lacquers, varnishes, or paints.

OPERATING INSTRUCTIONS

The Airbrush is held in the same manner as a pen, with the index finger comfortably over the Finger Button.

1. Attach Hose to air supply and allow to blow a few seconds. Shut off air supply before attaching to Airbrush. This procedure will remove dirt from airline and Hose.
Caution: Hold hose firmly and point away from face.
2. Attach Air Hose Coupling to Airbrush with V-62 Wrench to prevent leaks.
3. Remove Head Protecting Cap.
4. Attach one of the three Color Cups to color socket with firm motion, then add desired fluid to attached cup.
5. Press down on Finger Button to release air and draw back on button to control quantity of fluid.
6. To spray a fine line without heavy ends, start moving the Airbrush without release of color. Then start the color at the beginning of the line and stop the color at the end, but continue the motion of the Airbrush after the color has stopped.
7. Practice this movement until you can spray a fine line or a broad pattern without heavy build up at the beginning or end of your strokes.
8. Speed of movement controls density of color and fading effects at beginning and end of strokes.
9. For detail, hold the Airbrush close to the surface push down for air and pull back very slowly on the Finger Button.
10. For background work and broad effects, hold the Airbrush away from work and pull back on Finger Button to release required amount of color.

CLEANING PROCEDURE

1. Pour remaining color back into its container.
2. Rinse and wipe Color Cup clean.
3. Spray a small amount of solvent through the Airbrush until it comes out clear.

Paasche Airbrush Company

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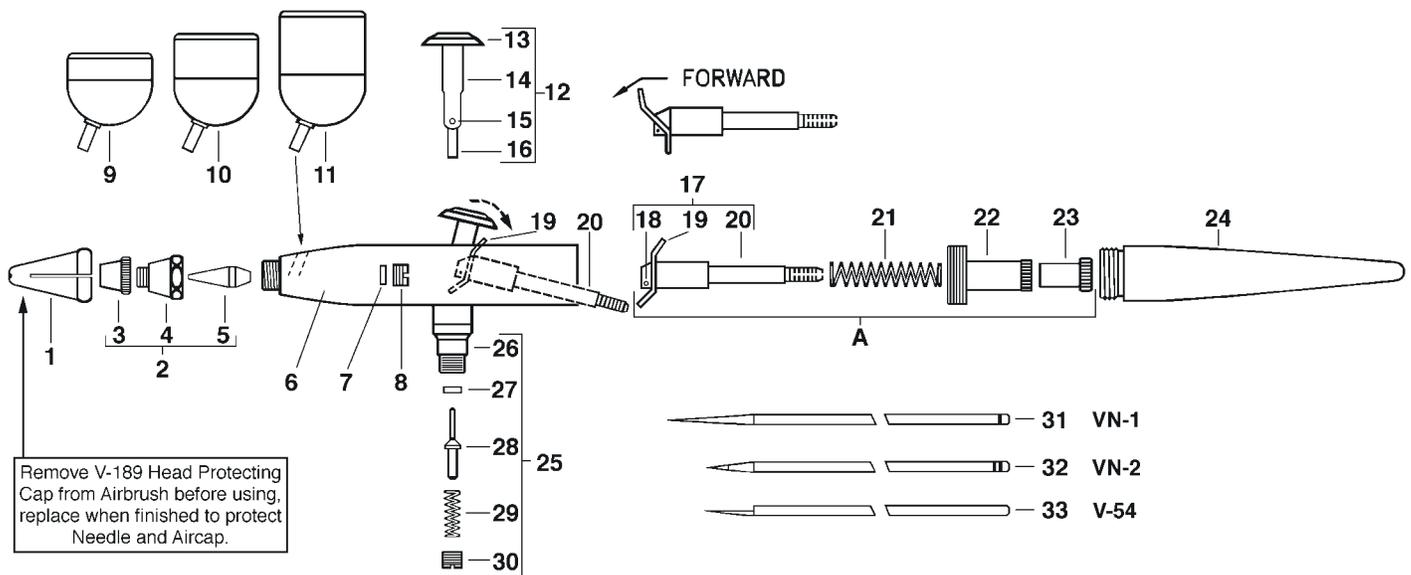
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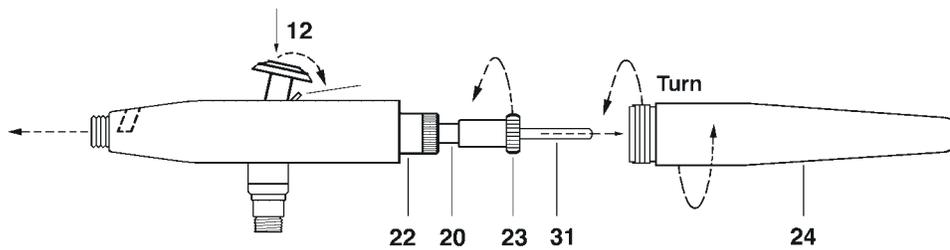
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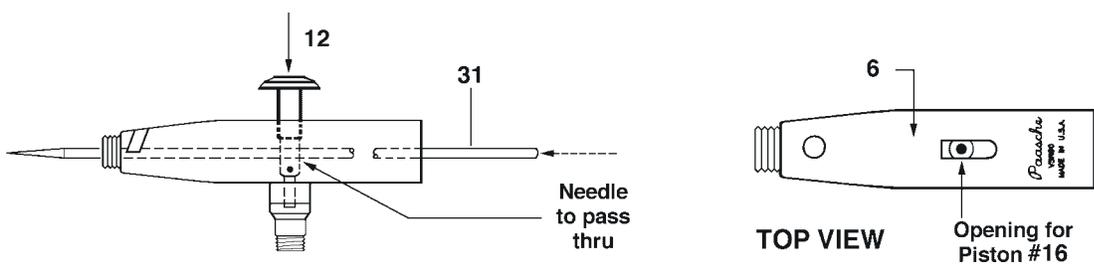
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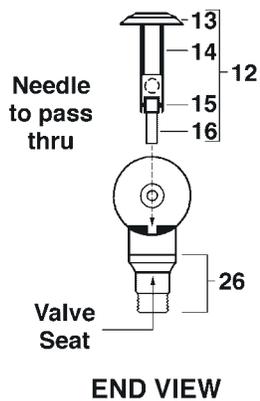
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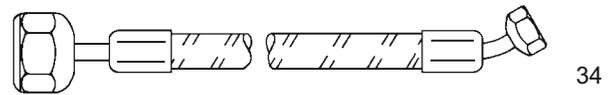
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NO.	PART	DESCRIPTION
1.	V-189	Head Protecting Cap
2.	VM-1 or 2	Multiplehead (Select Size)
3.	VA-1 or 2	Aircap (Select Size)
4.	VB	Aircap Body
5.	VT-1 or 2	Tip (Select Size)
6.	V-210	Shell Assembly W/V-20
7.	V-83	Packing Teflon®
8.	V-84	Nut
9.	VSR-1	Color Cup 1/8 oz. (3.5cc)
10.	VSR-2	Color Cup 3/16 oz. (5.25cc)
11.	VSR-3	Color Cup 1/4 oz. (7cc)
12.	V-174	Finger Lever Assembly
13.	VL-135A	Finger Button
14.	V-165A	Finger Lever
15.	VL-58	Lever Pivot
16.	V-59	Lever Piston
A.	V-186	Needle Valve Assembly L/Needle
17.	V-191A	Rocker Assembly
18.	V-144	Pin
19.	V-142	Rocker
20.	V-137A	Needle Support
21.	V-140	Spring
22.	V-136A	Needle Adjusting Sleeve
23.	V-141	Locknut
24.	AFV-143	Chrome Plated Metal Handle
25.	V-176	Air Valve Assembly
26.	V-20	Valve Casing
27.	A-52	Valve Washer (Price/Doz.)
28.	H-21A	Valve Plunger
29.	A-22	Valve Spring
30.	A-23A	Air Valve Nut
31.	VN-1	Needle
32.	VN-2	Needle
33.	V-54	Reamer



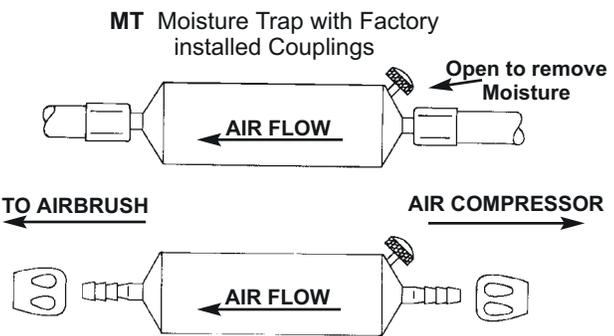
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MT Moisture Trap with Factory installed Couplings

Open to remove Moisture

TO AIRBRUSH

AIR COMPRESSOR

MT Moisture Trap with "Do-it-yourself" field installed couplings

AIRHOSES W/FACTORY INSTALLED COUPLINGS

34.	A-1/8"	Braided Airhose W/Couplings
35.	HP-1/8"	Red-Plastic Airhose W/Couplings

COUPLINGS-OLD STYLE REPLACEMENTS

36.	AC-1/8"	-1/4" Coupling (To Compressor)
37.	AC-20	1/8"-1/4"-40 Coupling (To Airbrush)

ACCESSORIES

38.	A-34	Hanger
39.	V-62	Wrench
40.	MT	Moisture Trap W/Factory Installed Couplings Moisture Trap W/ "Do-It-Yourself" Couplings

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MT MOISTURE TRAP WITH COUPLINGS

Do-It-Yourself Installation: The Moisture Trap is designed for use with all Airbrushes to remove water from the Airhose. To Install-cut the airhose about 18" from the Airbrush coupling and insert as illustrated above..

A. REMOVING/REPLACING THE NEEDLE AND HANDLE (Illustration A and B)

1. Unscrew the handle and loosen the Locknut-#23 by turning counterclockwise. Depress the Finger Lever Assembly-#12 and hold in down position while removing or inserting the needle. This assures the needle moves freely through the finger lever. Gently remove the needle, rotating if necessary, Do NOT force out!
2. A loose needle can cause sputtering if there is any air leakage around the Needle-#31 and Packing-#7. If there is no noticeable drag on the needle by the packing then tighten Nut-#8.
3. Inspect the condition of the needle. If it is bent or misshapen in any way, replace it with a new needle. A bent needle can damage or split the Tip-#5 causing bubbles or a rough spray pattern.
4. Hold Finger Lever Assembly-#12 in down position, insert the new needle into the Needle Support-#20 of the Rocker Assembly-#17. Gently push needle through, rotating if necessary, until the needle's point is visible through the Tip-#5 of the airbrush.
5. Release Finger Lever Assembly-#12 and tighten Locknut-#23 by turning clockwise.

6. Replace the Handle-#24. Slowly screw the handle into the airbrush shell counter-clockwise until you feel or hear a slight "click." Then rotate the handle clockwise a slight turn to meet the threads. Finish screwing the handle into the airbrush shell.

B. REMOVING THE ROCKER ASSEMBLY (Illustrations A and B)

1. Unscrew Handle-#24 from the end of airbrush shell.
2. Remove Locknut-#23 and Needle-#31 (see above-removing and replacing the needle and handle.)
3. Depress Finger Lever Assembly-#12 and pull back. Keep in down and back position, this secures Rocker Assembly-#17, while removing balance of parts.
4. Unscrew and remove Needle Adjusting Sleeve-#22 and Spring-#21.
5. Keep Finger Lever Assembly-#12 in down position, allow Finger Lever to go forward to release the Rocker Assembly-#17 for removal.
6. The Rocker Assembly-#17 should now be loose. Tilt the Needle Support-#20 portion of the Rocker Assembly-#17 upwards and gently remove from the back of the airbrush shell (see Illustration A).

DO NOT FORCE REMOVAL OF ROCKER ASSEMBLY-#17 !

C. REPLACING THE ROCKER ASSEMBLY (Illustration A)

1. Depress Finger Lever Assembly-#12 and hold in down position.
2. Insert Rocker Assembly-#17 into airbrush shell with Rocker-#19 portion in forward position. (Refer to Illustration A)
3. When the top of the Rocker-#19 is visible through the opening in the top of the airbrush shell (by finger lever), pull back on Finger Lever Assembly-#12 until it touches the Rocker-#19. Hold it there firmly, this secures the Rocker Assembly-#17 in place while re-assembling parts!
4. The Needle Support-#20 (part of the Rocker Assembly-#17) is visible through the end of the airbrush shell and will be loose (see A).
5. Keep Finger Lever Assembly-#12 with Rocker-#19 secured, in down and back position, while replacing the Spring-#21 and Needle Adjusting Sleeve-#22.
6. Screw-in Needle Adjusting Sleeve-#22 until desired tension on the Finger Lever Assembly-#12 is achieved.
7. Replace the needle, with the Finger Lever Assembly-#12 in the down position, then replace the Locknut-#23.
8. Release Finger Lever Assembly-#12. You should feel tension on the lever and it should spring-up if you depress and release it. If not, remove parts as above and repeat process.

D. REPLACING THE FINGER LEVER ASSEMBLY (Illustrations C and D)

If the Finger Lever Assembly-#12 is removed or dislodged, it must be replaced inside the airbrush shell, before the Rocker Assembly-#17 and needle are re-inserted.

1. Hold Finger Lever Assembly-#12 so the opening in the lever is in-line with the opening in the end of the airbrush shell (see D).
2. The Piston-#16, which pivots on the end of the Finger Lever-#14, must be kept in down position.
3. Insert Finger Lever Assembly-#12 with Piston-#16 straight down through the opening in the top of the airbrush shell (see C Top View). View your progress through the end of the airbrush shell. Make sure the Piston-#16 goes straight down into the base opening of the Valve Casing-#26 (inside shell - see D). Sometimes this takes several tries. Take your time.
4. Once the Piston-#16, of the Finger Lever Assembly-#12, has been inserted into the Valve Casing-#26, you will be able to press down on the Finger Button-#13 and it will not fall out. Proceed to replace Rocker Assembly-#17 and balance of parts as above.

E. REPLACING THE TIP (Illustration A)

1. Remove Handle-#24, loosen Locknut-#23 and withdraw needle about one inch.
2. Un-screw the Aircap Body-#4 and remove. The Tip-#5 is now exposed and should be easily removed by hand.
3. Place a new Tip-#5 into position and tighten Aircap Body-#4 to airbrush shell. Re-insert needle to forward position and tighten Locknut-#23.

F. ADJUSTING WORN PACKING WASHER (Illustration A)

1. If Packing Washer-#7 becomes worn or loose, refer to steps "A" and "B" for necessary parts removal.
2. Tighten Packing Nut-#8 with small screwdriver.
3. Replace needle and make sure Packing Nut-#8 is not too tight. A slight resistance to movement is needed when needle is passed through.
4. Completely re-assemble according to steps "C" & "D".

G. USING A REAMER

1. The Reamer-#33 is *Optional Equipment* for use in removing hardened color from inside tapered surface of the Tip-#5. It should be used only if color has become too hard for water or solvent to dissolve.
2. If it does become necessary to ream the Tip-#5, remove needle first. Insert Reamer-#33 into the large opening of tip and with slight pressure turn reamer slowly to remove hardened particles.
3. Remove reamer and flush water or solvent through the tip to thoroughly clean away any loose particles.

H. CLEANING THE AIRBRUSH

1. If Aircap-#3 is clogged with color, remove it from the Aircap Body-#4 and clean obstruction using a toothpick covered with cotton and saturated in water or solvent. Never use a sharp instrument or Reamer-#33 to clean the Aircap-#3.
2. It is not recommended to soak the entire airbrush shell in water or solvent. The Valve Washer-#27 can absorb the liquid, causing it to swell or dry out, resulting in air leakage inside the airbrush. Disassemble all parts before immersing in water or solvent.

I. TROUBLE SHOOTING

1. If paint bubbles appear in the color cup, try tightening the Aircap Body-#4 and the Aircap-#3 with the V-62 Wrench provided.
2. If paint is not spraying from the Airbrush check the color cup and color inlet of the airbrush shell. Make sure they are free from any dried color, dirt or foreign matter.
3. An uneven or sputtering emission of color from the Airbrush indicates an obstruction in the airline. An air leak, after the Finger Button-#13 has been released, indicates that foreign matter has worked into the Air Valve Assembly-#25 or Valve Washer-#27 and damaged them.

J. TO RESOLVE THIS PROBLEM:

1. Remove Airhose from Airbrush and blow out any accumulation in the Valve Casing-#26.
2. If the Airbrush has been used for some time it may be necessary to replace the Air Valve Washer-#27.
3. Using a small screwdriver, remove Valve Nut-#30, Valve Spring-#29 and Valve Plunger-#28.
4. The old Valve Washer-#27 can be removed by inserting blunt end of airbrush needle through the top of the Valve Casing-#26 and pushing down. To expose the top of the Valve Casing-#26, the Finger Lever Assembly-#12, Rocker Assembly-#17 and Needle-#31 must be removed.

NOTE: Cover sharp point of needle to avoid Injury.

5. Blow out dirt from the Valve Casing-#26 and check valve seat for dirt and nicks. Valve seat is located inside the Valve Casing where the Valve Washer-#27 rests. (Illustration D). If damaged replace Valve Casing-#26.
6. Install a new Valve Washer-#27 onto the long thin side of the Valve Plunger-#28.
7. Re-assemble Valve Plunger-#28 followed by Valve Spring-#29 and Valve Nut-#30.
8. The Valve Nut-#30 must be screwed to a depth below the surface of the Valve Casing-#26.
9. It is not necessary for the Air Valve Casing-#26 to be removed except to replace if damaged.