

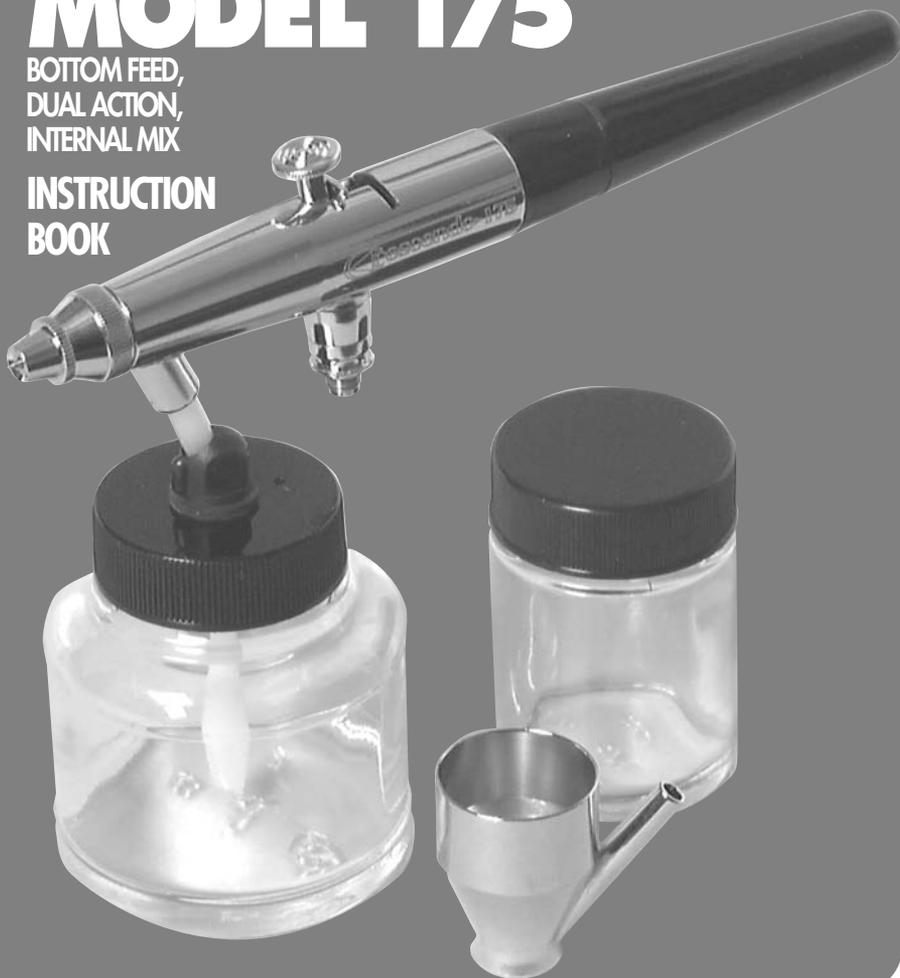
BADGER

 Crescendo™

MODEL 175™

BOTTOM FEED,
DUAL ACTION,
INTERNAL MIX

INSTRUCTION
BOOK



AIR-BRUSH



CAUTION Read instructions for proper care in handling and operation. Use in well ventilated area to remove fumes, dust or overspray. Always read and follow Cautions and Warnings on materials being sprayed. See back page for further information.

We at Badger Air-Brush Co. are extremely proud of our people and our products. Our continued growth and success is based upon stressing quality and craftsmanship in the manufacture of our products. At Badger Air-Brush Co. there is a sense of pride and dedication to *you* that extends throughout our entire organization.

Each airbrush is carefully machined, inspected, and assembled by hand, **then tested in actual use to be sure it matches Badger's high standards of quality.**

This dedication to excellence enables us to stand behind all of our products and offer the following warranty on all of our airbrushes.

WARRANTY

Your Badger airbrush is warranted against all manufacturing defects of both material and workmanship for a period of one year from the date of purchase. Any part or material that is defective or worn so as not to be useable within this period will be repaired or replaced at our expense. This warranty does not cover damage caused by negligence, accident or units which have been abused or altered in any way. The PTFE needle bearing carries a lifetime warranty and free replacement.

INTRODUCTION

The Model 175™ bottom feed is among the most versatile of airbrushes. It permits great flexibility in regulation of color and air without work stoppage. Different size spray regulators, tips and needles are quickly interchangeable to allow greater diversity in materials and coverage. It is used by Fine Artists, T-Shirt Artists, Illustrators, Fabric Designers, Custom Automotive Painters and Professional Model Makers.

It can spray properly reduced artist acrylics, acrylic enamel and lacquers, gouache, fabric colors, inks and dyes, ceramic colors and glazes, water colors and of course, Air-Opaque™, Air-TeX™, and ModelFlex™ paints.

SPRAY CHARACTERISTICS OF HEAD ASSEMBLIES OF INTERNAL MIX AIRBRUSHES:

- **F** has the smallest opening for extra fine detailing. It is designed for use with materials of a low viscosity—very thin acrylics, water colors, inks and dyes.
- **M** has a medium opening for fine detailing. It will spray approximately twice the amount of materials as the F. This head will handle such viscosities as fabric paints, thinned down acrylics, gouaches, hobby lacquers, enamels, etc.
- **L** has the largest opening and will spray approximately four times the amount of fluid as the F. The L is designed to be used with materials of higher viscosity—automotive paint, ceramic glazes, acrylics, etc.

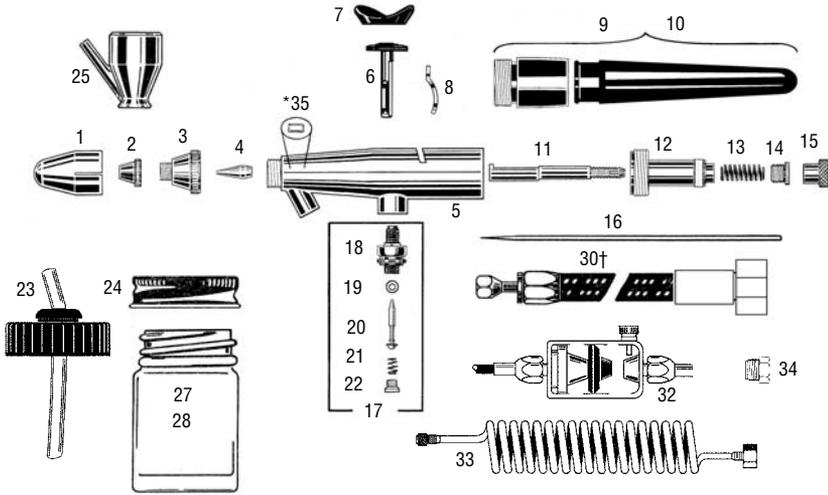
Only Model 175-7 contains all three head assemblies.

READ INSTRUCTIONS CAREFULLY BEFORE OPERATING

TO OPERATE

- 1) Attach hose to air supply (CO₂ tank, compressor or aerosol propellant can) then holding air hose in hand, attach airbrush to air hose by gently turning in clockwise motion on to fitting. Tighten air hose snugly into place.
- 2) When air is regulated, pressure should be between 15 to 50 p.s.i. Normal operating pressure is 30 p.s.i. We recommend a pressure gauge (No. 50-054) and/or water trap (No. 50-051) in conjunction with compressor where humidity is a problem. A compressor or CO₂ tank is more practical for larger jobs and prolonged spraying.
- 3) To attach jar or color cup, insert stem from jar into hold located in bottom of airbrush near head. Insert the stem into the airbrush and give a 1/4 counter clockwise.

CRESCENDO™ REPLACEMENT PARTS/MODEL 175™



No.							
1	Protective Cap		41-025	20	Plunger-includes "O" ring	50-014	
2	Spray Regulator	41-033 F	41-034 M	41-035L	21	Plunger Spring	50-020
3	Head			41-023	22	Valve Screw	50-015
4	Tip	41-003F	41-004 M	41-005L	23	Fastblast Adaptor (all plastic)	50-208
5	Shell-includes needle bearing			41-015	24	Gasket	50-0241
6	Trigger		41-018	Straight	25	1/4 oz. Color Cup	50-0482
7	Trigger Pad			51-087	27	3/4 oz. Jar & Cover	50-0052
8	Back Lever			41-013	28	2 oz. Jar & Cover	50-0053
9	Handle Adaptor				30	Braided Air Hose	50-2011
10	Handle, Quick Disconnect			41-021		†Hose can be used with compressor fitting or propel valve.	
11	Handle, Tube			41-016	32	Moisture Trap, in line	50-2014 (optional)
12	Tube Shank			41-014	33	Recoil Air Hose	50-4011 (optional)
13	Spring, needle tube			41-026	34	Badger Brush to Paasche Air line adaptor (optional)	50-090
14	Spring screw			41-039	35	PTFE Needle Bearing	41-012
15	Needle chuck			41-017		*PTFE Needle Bearing carries a Lifetime Warranty and Free Replacement at the Factory only.	
16	Needle	41-006F	41-007M	41-008L			
17	Valve Assembly	50-036	Complete (18, 19, 20, 21, 22)				
18	Valve Casing			50-013			
19	"O" Ring for Plunger			50-0141			

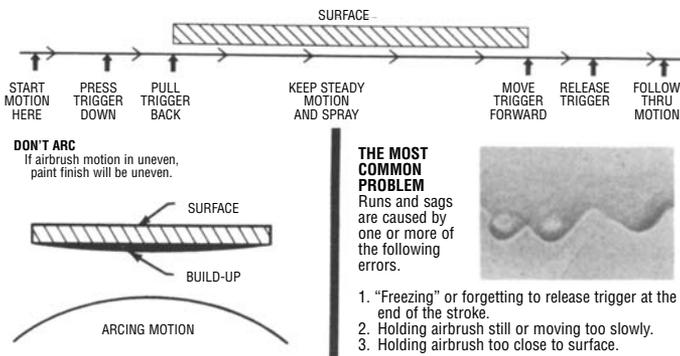
turn. This will snug your jar (bottle) or color cup assembly in place. To remove, pull down and rotate jar (or cup) assembly counter clockwise again.

4) When the trigger of the airbrush is depressed air is released. As the trigger is drawn back (while still depressed) fluid is released. The further the trigger is pulled back, the larger the volume of paint is sprayed. A fine line or

small dot is achieved by working very close to the work surface with the trigger drawn back slightly. A broad pattern is achieved by moving the airbrush away from the work surface and pulling the trigger all the way back. The proper triggering of the airbrush is down for air movement, back for paint flow, and forward to stop paint flow and up to stop the air.

LEARN TO TRIGGER

Best results are achieved by a good constant motion. Start motion before pressing trigger, follow through motion after releasing trigger. Do not hesitate while spraying or you will create what is called the Barbell Effect. See Figure 3 pg. 9.



MAINTENANCE AND CLEANING OF YOUR AIRBRUSH

Careful cleaning and maintenance of your airbrush is essential if it is to continue to work effectively. The small passages inside the airbrush can become blocked easily by dried paint if the airbrush is not cleaned after each use. If there is still a useable amount of color in the color cup or reservoir when you have finished spraying, pour the remainder back into the original paint bottle. Operate the airbrush, spraying on a scrap piece of paper until the color is gone and only air is sprayed. Take a clean color cup or jar full of appropriate cleaner. Insert it into the airbrush, spray some cleaner through the airbrush at broad and small patterns until it comes out colorless. After removing color cup or jar, turn brush upside down and press trigger. This will remove any material still in the brush. Always clean the airbrush every time you finish spraying as some types of paint can dry remarkably fast, and may cause your airbrush to clog if not cleaned properly.

Another method of cleaning the airbrush is back flushing using a closed container such as a jar assembly. Take a soft cloth and cover the spray regulator—depress and pull back on the trigger (6). This will cause back pressure which induces a bubble action inside the airbrush and in the container which helps to clean the fluid passages. Never use an open color cup for this procedure as color will blow out. Take away the cloth and spray and repeat this procedure several times. After this is done you should remove the needle for cleaning.

If the paint is allowed to dry inside the airbrush you may not be able to dissolve it with clean water. Cleaning with solvent is the next step. If cleaning

with solvent does not dissolve the blockage, you will have to disassemble the airbrush, by first removing the needle and then the head. Soak the tip in warm soapy water or appropriate solvent for ten minutes. Then take a tooth pick and gently remove the dried paint from inside the fluid tip. This procedure may have to be repeated. Be careful during disassembly not to lose any small parts.

Replacing the Tip

- 1) Remove Handle (10) by unsnapping the quick disconnect handle, (See figure 1). Loosen Needle Chuck (15) and withdraw Needle (16) about one inch. If the needle is stuck—see "Removing the Needle," step 7. If the Needle Chuck (15) is too tight and the Tube Shank Assembly turns, unscrew the Handle Adaptor (9). Hold the Tube Shank (12) between your fingers and loosen the Needle Chuck counterclockwise.
- 2) Unscrew the Spray Regulator (2) Unscrew Head (3). See Manufacturer's Note Below.
- 3) Remove tip (4) from body. If tip is lodged in the head (3), place the tip in angled hole at end of handle (9) and gently press the tip out of the head. See figure 2.

MANUFACTURER'S NOTE: Although the nozzle and needle assemblies of this airbrush are manufactured to easier maintenance "finger tight" tolerances, the initial removal of some components may require the use of a small pliers. If a pliers is necessary for initial component disassembly, just finger tighten it when reassembling and the pliers should not be required for assembly/disassembly thereafter.

- 4) Make sure that no paint is located on the angled portion of the shell (5) where the tip rests (4) or on the paint tip itself. The dried paint can cause misalignment of the tip and a poor spray pattern may develop. It may also allow air to enter into paint passage and cause a pulsating spray. Clean this dried paint with a soft bristle brush or cotton tip swab.
- 5) New tip (4) can then be placed into position in airbrush shell (5), tighten head (3) and screw on spray regulator (2)—place needle (16) to forward position and tighten needle chuck (15). **Do Not Overtighten. It is normal to have a small space between the head and the body.** Replace the quick disconnect handle (10).

Removing or Replacing the Needle

It is not necessary to completely disassemble the needle assembly.

- 1) Remove the quick disconnect handle (10) from the back of the airbrush. *See figure 1.*
- 2) Turn the needle chuck (15) counter-clockwise.
- 3) Draw the needle (16) out and wipe it clean. (If stuck, see step 7).
- 4) Care should be taken that the needle point is not bent. A bent needle will damage the tip (4) and cause a rough spray pattern. If bent or damaged replace needle.
- 5) Slowly glide the needle (16) into the airbrush while holding the trigger (6) in place, until the needle stops. Do not apply pressure or force the needle.
- 6) Once the needle is in position, tighten the needle chuck (15), replace handle (10).
- 7) If in step 3 the needle (16) is stuck in the airbrush, carefully grasp the end of the needle with a pair of pliers and twist in a counter-clockwise direction to release the needle and remove.
- 8) Inspect the hardened paint, which causes the needle to bind. If there is a residual stain on the needle, it can be polished off using a pink eraser. Hold the needle flat on a worktable. Run the pink eraser slowly by rolling it towards yourself and repeat the process. Be careful not to be bend the tip. Remove all eraser particles by running the needle between your thumb and forefinger. Repeat steps 4 through 6.

Spray regulator (2) should be cleaned using a soft bristle brush. Insert into the cavity of the spray regulator and rotate until the paint is removed.

A bent needle (16) will prevent you from airbrushing a fine line and will cause an erratic direction of spray. A bent needle does not always have to be discarded. Place the needle on a firm surface at the angle of the tip. Straighten the bent needle by running your fingernail across it on a firm surface while you turn the needle slowly. Run your fingernail from the body of the needle outwards toward the tip.

Trigger Tension

Your airbrush has been set with maximum trigger tension. To adjust for less tension, turn the tube shank (12) counter clockwise to the desired tension. If the tube shank is backed up to where it is touching the needle chuck (15) it will begin to move the needle (16) back. If this occurs the needle will not be set properly and paint will come out when the trigger is depressed.

Removing the Tube Shank Assembly, Trigger and Back Lever

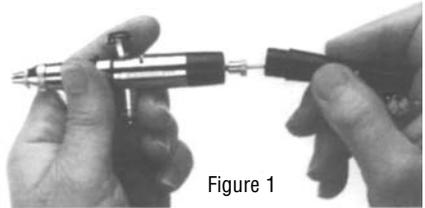
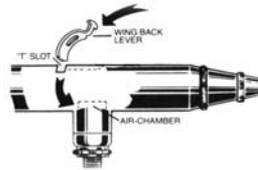
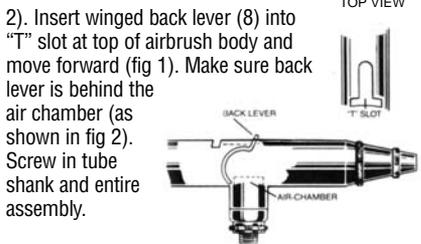


Figure 1

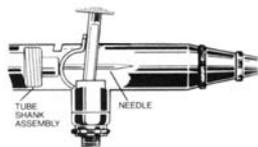
Removing the Tube Shank Assembly, Trigger and Back Lever



- 1). Remove handle, loosen the needle chuck (15), withdraw needle (16). Remove trigger (6), unscrew tube shank (12) assembly.



- 2). Insert winged back lever (8) into "T" slot at top of airbrush body and move forward (fig 1). Make sure back lever is behind the air chamber (as shown in fig 2). Screw in tube shank and entire assembly.

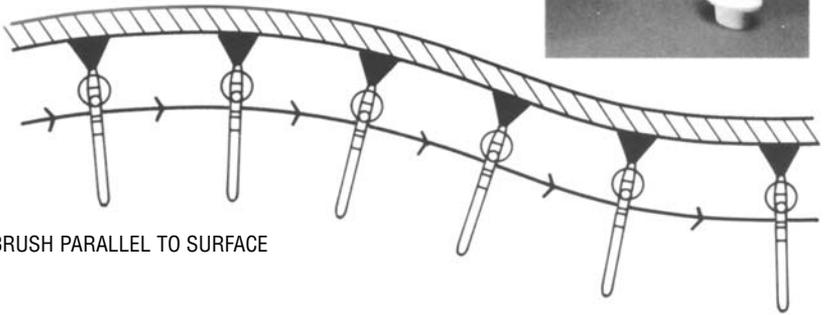


- 3). To reinsert trigger, pull back on winged back lever and insert trigger into place. Make sure the trigger is properly seated. After inserting trigger, insert needle by gently pushing forward with index finger until needle stops at the paint tip, tighten needle chuck (15), and replace handle (10) (19).

PAINTING PROCEDURE FOR THREE DIMENSIONAL OBJECTS

Prepare the object to be painted, masking off any area that should not be painted (be sure object is clean and free of dust, grease, etc.). Small objects such as models, etc. should be hung or placed on a pedestal so all areas to be sprayed can be easily reached (a stand may be fashioned from an ordinary wire coat hanger or bottle etc.). Hold the tip of the airbrush about 6 inches from the surface. Use short strokes, moving the airbrush constantly at a steady rate parallel to the surface. Don't spray too

heavily. Apply a light coat, let dry, then apply another coat and continue until the desired coverage is achieved.



KEEP AIRBRUSH PARALLEL TO SURFACE

EXERCISE ONE/FREE HAND CONTROLLED EFFECT



FIG. 1



FIG. 2

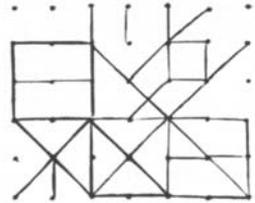


FIG. 3

This exercise shown in fig. 1, will enable you to draw straight lines without forming dots or puddles at the beginning and end of each line. This is triggering again, see page 3. Fig. 2 is parallel line graduating from narrow to broad. These are made by releasing more color and at the same time, lift-

ing the airbrush away from the surface. Practice daily to develop trigger action control. Fig. 3, layout in pencil 1/2 inch squares. Airbrush the dots as small as possible and connect dots with straight lines of even tone. Practice every lesson carefully before proceeding to the next one.

EXERCISE TWO

On a board or paper, lightly pencil in a number of 1/2 inch squares. Hold the airbrush about 1/2 inch from the surface and spray paint small dots on the intersecting lines, as shown in fig. 4. Use liq-

uid food coloring. When you are able to place the dots accurately, begin enlarging the size of the dots (fig. 5) by allowing more color to flow through the airbrush. At the same time increase

the distance between the airbrush and the paper or board. If the airbrush is held too closely to the paper with the trigger pulled all the way back and down, "puddles" will form and spread (as in figs. 6 and 7). Aim for accuracy not speed and continue

practicing until you can spray paint any size dot exactly where you want it. This simple lesson will give you control of position and density of dots or shapes you require, which are important for touch-ups and fill-in work.



FIG. 4



FIG. 5



FIG. 6

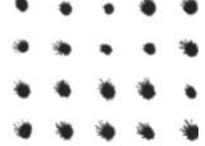


FIG. 7

MASKING OFF

In the next several exercises you will need to mask off a square area. Make a mask from 4 pieces of scrap paper (fig. 8). These masks are held in place by masking tape, keeping the atomized material from creeping into the margins around the area. When using masks spray over the edge.

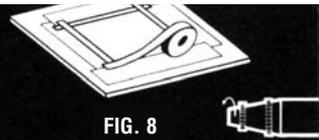


FIG. 8

EXERCISE THREE/EVEN TONES

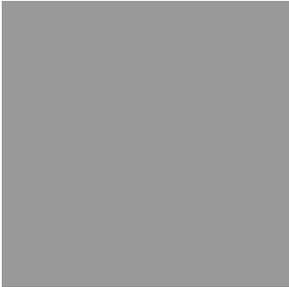


FIG. 9



FIG. 10

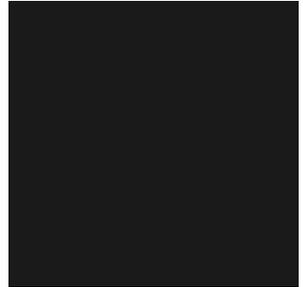


FIG. 11

To accomplish a flat tone, we will airbrush a fine consistency of paint from left to right at the top of the taped area. Hold the airbrush about four inches from the surface of the sheet. Be sure to spray a portion of the tape so that no light line shows when the masking tape is removed. Use the trigger technique on page 3 throughout this lesson. Now airbrush from right to left, overlapping the previously airbrushed strokes. Continue down the entire sheet, trying not to create a line pattern with the airbrush. Overspray the tape, both right and left and top and

bottom. Begin at the top again and do the entire page. Repeat the exercise until you reach the desired smooth coverage of the entire area. Do not attempt to cover the entire sheet with a heavy tone at one time. Build the tone gradually (figs. 9-11). Make sure the work and tape are dry before removing the masking tape. This should be done carefully to avoid tearing the surface of the paper it is adhered to. If your first results are not satisfactory, repeat the lesson until you are satisfied.

EXERCISE FOUR/VARYING SHADES

This lesson is similar to the previous one. This time you will start at the top and gradually fade into white (fig. 12). Do not fade abruptly and do not carry the tone further than 2/3 or 3/4 of the page. Remember, you must stop your tone shorter each time, since the overspray will build up. Fig. 13 is a combination of masking and varying shades. The important thing in this exercise is to train your eye so that all the small squares have the same tone value.



FIG. 12

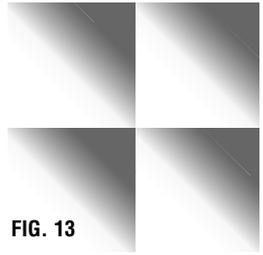


FIG. 13

TECHNIQUES TO USE

Masking or frisket is used mostly when more than one color is applied. A new frisket is cut for each color and covers any area that should not be sprayed. Badger's Foto/Frisket™ Film is specially formulated for use on all surfaces commonly used for airbrushing.

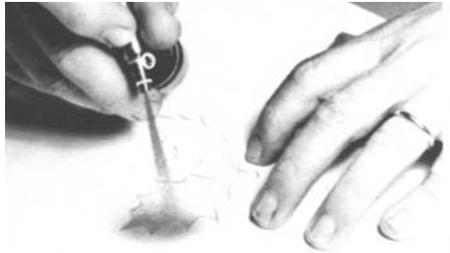


A flat surface mask can be cut from Foto/Frisket™ Film. For a sharp edge, hold the mask flat in position. For a softer edge, elevate the mask slightly by resting on a ruler or other flat object.



For contour masking (models, ceramics, etc.) use masking tape, scotch tape or Foto/Frisket™ Film and cut to desired shape. Make sure the edges are pressed firmly against surface to prevent underspray.

STENCILS



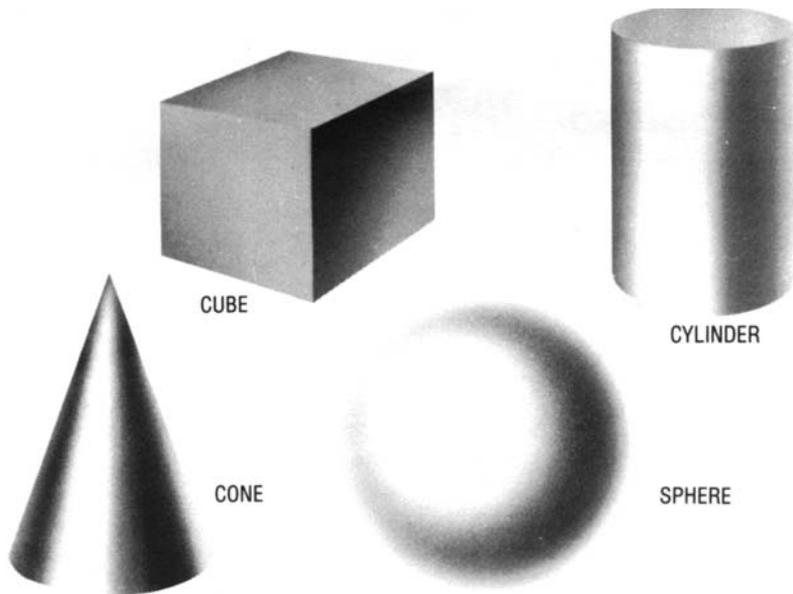
POSITIVE



REVERSE (negative)

Stencils are used when a design needs to be duplicated, as in posters and decorating. Cut from stiff paper, FOTO/FRISKET™ FILM or NO-TACK Stencil Film, hold the stencil firmly in position and spray starting with the edges and work inward. A reverse stencil can also be used, spray along the stencil edge.

EXERCISE FIVE/THREE EFFECTS USING MASKS OR FRISKETS



Rendering these basic forms will provide instruction and sequence in shading these shapes, which comprise all of the shapes you will encounter. Combinations of these forms make up all of the various products, etc. In airbrushing these shapes, it is a general rule to have the light source coming from the upper left hand corner at about a 45 degree angle.

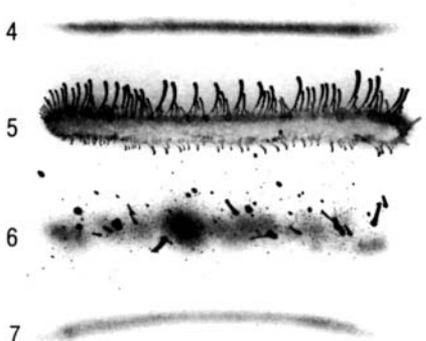
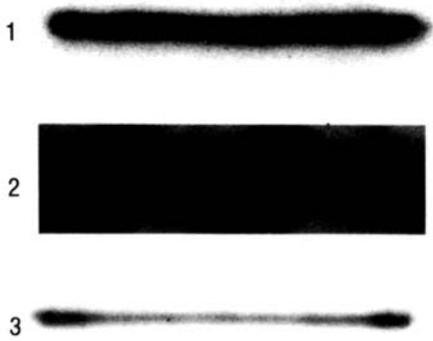
CUBE Make a line drawing lightly about twice the size of the above illustration. Cut a frisket for the outline and dividing lines of the separate sides. At this time remove the frisket from the side farthest from the light source. Gradually airbrush a tone from the upper left corner to the lower right hand corner. Repeat the gradual dark tone as necessary, then remask the finished side and start the other sides until the desired effect is achieved.

CYLINDER Note how the light varies on the cylinder and makes the top flat surface different from the curved area. The frisket is cut along the curved line and while the top is masked, the side is sprayed. Then the side is masked and the top is sprayed.

Only practice will enable you to know how dark to paint one side of the subject while the other is masked.

CONE Again cut a frisket of a cone shape. Remove the cone shape from the frisket. Start airbrush action from the top. Paint and flair slightly towards the curved base. Repeat the action on the right side until you achieve the tapered appearance as illustrated above.

SPHERE Place a frisket on the board making sure the remaining portion of the board is not exposed to airbrushing overspray. Use a compass knife and cut your circle and remove. Gradually airbrush lightly around the entire edge of the circle in a curved, rocking, back and forth motion. Next, start from the bottom right hand portion of the circle and airbrush upwards towards the center not quite reaching the center. Allow a high lighted circular portion of the sphere near the upper left hand portion. Continue until the sphere takes on a three dimensional appearance.



TROUBLESHOOTING YOUR AIRBRUSH

- 1) Grainy spray.** Caused by paint being too thick. Add thinner sparingly to the mixture and check the needle and regulator tip for dried paint. Also check the air supply to make sure airbrush is being operated at the proper pressure.
- 2) Buckling paper.** Paint may be too thin or you may be applying paint in too heavy a coat.
- 3) Paint blobs at the ends of the stroke.** You are spraying paint before moving your hand and stopping the movements before shutting off the paint flow.
- 4) Flared ends.** Caused by turning the wrist while airbrushing. The whole forearm should move evenly across the paper.
- 5) Centipedes.** Caused by spraying too much paint too close to the paper. If a fine line is desired, lightly pull back on the front trigger.
- 6) Splattering.** Caused by permitting the needle to snap back into tip. Always release the trigger gently. Check for dried paint on needle or tip. Also may be

- caused by triggering, see page 2 for proper triggering.
- 7) Curved stroke.** Caused by arcing arm too close to the paper. Arm should always be parallel to the work, unless this effect is desired.
- 8) Bubbles through the color cup.** The spray regulator might be turned out too far, or the head may be loose. Check both and tighten if necessary.
- 9) Color spray cannot be shut off.** Tip may be clogged. This is recognized by a "spongy" feel when needle is set into tip. Remove the head from the airbrush and clean the tip—see Maintenance and Cleaning, page 3.
- 10) Pulsating.** This is caused by the head being loose or the tip not seated properly. See page 3, Replacing the Tip.
The only other reason that the brush may begin to pulsate is if the needle bearing wears down or falls out. There is a life-time warranty on this part because the owner cannot replace this part. If this occurs send back to factory for no-charge service.

AIR-TEX™ Ready-To-Use Fabric Airbrush Colors
 Choose from 20 regular plus 6 neon colors. All colors are permanent, washable and colorfast. All Air-Tex™ colors are non-toxic, intermixable and can be used on a variety of materials.

Airbrush Holder
 The Model 125 holds two airbrushes of almost any make or model. It clamps securely to any drafting table, desk or taboret edge (up to 2" thick) and swivels for easy handling.

Airbrush Templates
 These templates are laser cut for accuracy and include both negative and positive shapes. These templates are thinner, flexible, washable and durable. They can be held in place with spray adhesive, weights or magnets. The airbrush templates come in a set of four 8-1/2" x 11" with varying sizes of ellipses, circles and odd shapes.

Miniature Stencils
 Laser cut for accuracy, these miniature stencils are

thin, washable and durable. Four stencils are included in each package with numerous designs: zodiac, stars, birds, hearts and teardrops, etc. Good for airbrushing fingernails.

COMPRESSORS
Cyclone I Model 180-1
 Portable 1/12 HP oil-less diaphragm type compressor has internal bleed allowing use of any make or model airbrush. Develops .80 at 25 PSI.

Cyclone II Model 180-11
 Same as above but with automatic shut-off. By releasing the trigger of your airbrush, the compressor automatically shuts off, until the trigger is depressed again.

Silent Compressors
 Badger has a complete line of silent, portable compressors to meet the needs of the artist or hobbyist who requires a quiet working environment. For more information write for catalog BA2000.

Air-Opaque™ the ready to use airbrush colors.

Offers you a choice of 35 colors plus 8 pearlescent colors. All 43 are pre-reduced for instant use, color-fast, waterproof, vibrant, quick drying, non-bleed paints. They are formulated for use with airbrushes, technical pens or artist brushes. All Air-Opaque™ colors are non-toxic and completely intermixable.

FOTO/FRISKET™ FILM

Foto/Frisket™ Film is a transparent self-adhering masking and stenciling material which is cut directly on your work. It is available in both matte and gloss finish. Both matte and gloss are available in 8-1/2" x 11" 10-sheet pack., 12" x 15' roll, 24" x 15' roll.

Brite-White™ Airbrush Paper

Designed for airbrushing techniques, it is a super, strong surfaced 50% rag, 145 pound sulfite paper. Brite-White™ holds up extremely well to frisketing material, drafting tape and adhesive. This paper has an extremely bright white surface which adds vividness and life to airbrushed colors. Brite-White™ will not buckle when sprayed on. Both sides can be used. Brite-White™ will accept all airbrush media and is available in 10-sheet, 18" x 24" packages.

VOLUME II AIRBRUSHING TECHNIQUES FOR CUSTOM PAINTING

By Carl Caiati - 48 full color pages.

HOBBY AND CRAFT GUIDE TO AIRBRUSHING

By Carl Caiati - 32 page book.

STEP-BY-STEP MODELER'S GUIDE TO AIRBRUSHING

By Susan Harris and Evan Roark

32 full color pages. Subjects include: Military Modeling, Figures, Diagrams and Scale Modeling of '69 Camaro.

VIDEOTAPES

30 minute tapes, perfect for classroom teaching

BV-001 Introduction to Airbrushes, Accessories, and Airbrushing Mediums by Robert Paschal

BV-002 Vol. I The Fundamentals of Airbrush Technique: Basic Exercises by Robert Paschal

BV-003 Vol. II Intermediate Airbrush Technique: Working in Color by Robert Paschal

BV-004 Vol. I The Art of Airbrushing Fingernails: A Basic Course by Elizabeth Anthony

BV-005 Vol. II The Art of Airbrushing Fingernails: Advanced Design Techniques by Elizabeth Anthony

BV-006 Vol. I T-Shirt and Fabric Airbrushing: Techniques for Getting Started by Tim Mitchell

BV-007 Vol. II T-Shirt and Fabric Airbrushing for the Intermediate Artist by Tim Mitchell

BV-008 Cake Decorating with the Airbrush by Jerry Manderfield

BV-011 Aging & Weathering (& Stuff) with an Airbrush by Mac McCalla

BV-020 The Art of Airbrushing Wildfowl Carvings by George Krath

22-425 Tanning Application Instruction Video

BV-009 Basic Model Painting with the Airbrush by John Lee & Dan Osborn Available Soon

BV-010 Tips, Tricks, and airbrush techniques for superdetailing models by Joe Porter Available Soon



AIR-OPAQUE™ AND AIR-TEX™ COLORS



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AIRBRUSH HOLDER



COMPRESSOR

PLEASE READ CAREFULLY BEFORE USING YOUR BADGER AIRBRUSH

Your new BADGER airbrush should provide you with many hours of enjoyment. However, because of the nature of airbrushing and of the composition of materials which you may use in your airbrush, we are providing you with information about potential hazards.

Many materials commonly used in arts and crafts projects (such as lacquers, varnishes, adhesives, fixatives, powders, acrylics and solvents) can be extremely hazardous. Not all of these materials will be used in your airbrush, but may be used in some other phase of your project. We recommend that you always find out what is in the material you use. We suggest that when using **any** chemical substance that you request a copy of the manufacturer's **Material Safety Data Sheet** from your art supply dealer. This will give you some indication of the dangers posed and some of the precautions you need to take.

ALWAYS READ AND FOLLOW LABEL DIRECTIONS CAREFULLY.

CHILDREN Hazardous materials pose an even greater risk to children due to their lesser body weight and frequent lack of care in following directions. CHILDREN SHOULD ALWAYS BE SUPERVISED WHEN USING AN AIRBRUSH OR ART MATERIALS (unless the materials have been certified by the Crayon, Watercolor and Craft Institute). An airbrush is not a toy. It should not be pointed at anyone or at oneself.

GOOD HYGIENE IS IMPORTANT ANYTIME YOU ARE WORKING WITH ART MATERIALS.

- Do not smoke, eat or drink while airbrushing.
- Avoid putting your fingers in your mouth while working on art projects.
- Be sure to clean your fingernails and wash your hands when you are finished.
- Be especially careful of the materials you use if you have cuts or open sores.
- STOP WORK AT THE FIRST SIGN OF DIZZINESS, NAUSEA, HEADACHE, BLURRED VISION, OR SKIN IRRITATION. Seek fresh air immediately, and call a doctor if the symptoms persist or are severe.

VENTILATION An open window does **not** provide adequate ventilation when working with hazardous art materials. When working with these materials, you should have an exhaust ventilation system (one which removes vapors, dusts, etc., from the area in which you are working and vents to the outside). A general ventilating system dilutes toxic vapors with fresh air to lower their concentration to a safer level.

Many factories have to be considered to determine the kind of ventilating system you should have. We suggest that you contact the National Institute for Occupational Safety & Health, (NIOSH), Robert A. Taft Laboratories, 4676 Columbia Parkway, Cincinnati, Ohio 45226 for publications which they have dealing with ventilating systems.

RESPIRATORS A respirator may pose more of a hazard than a help unless:

- you get one designed to filter out the specific hazardous substance you are working with
- one that fits properly
- you keep it properly cleaned and maintained.

We suggest you buy only a NIOSH* approved respirator and read and follow carefully the instructions which come with it.

A respirator may not be suitable for some people with heart or breathing problems. Information on respirators is also available from NIOSH at the address above.

RESOURCES In addition to NIOSH, you might want to read **Health Hazards Manual for Artists** by Michael McCann, PhD (published by the Foundation for the Community of Artists, 280 Broadway, Suite 412, New York, New York 10007) or contact the Consumer Products Safety Commission, Washington, D.C. 20207.

BA327 Made and Printed in U.S.A. 10/05

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