

BADGER

TM

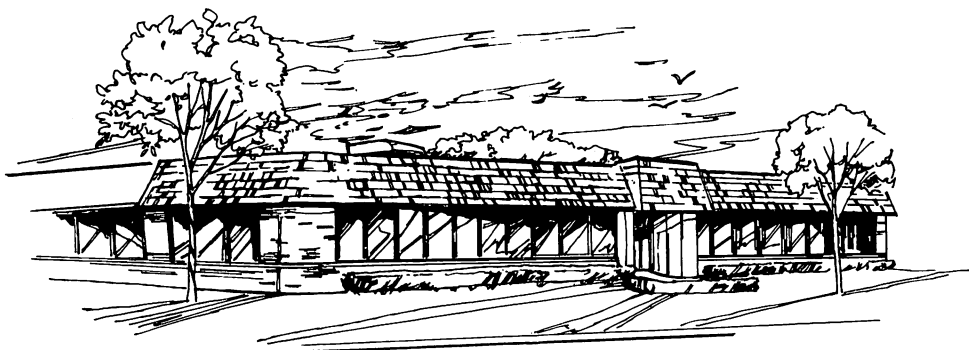
GRAVITY FEED MODEL 200 SERIES

SINGLE ACTION
INTERNAL MIX

INSTRUCTION
BOOK



AIR-BRUSH



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 air-brush part is carefully machined, inspected, assembled carefully 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 air-brushes:

WARRANTY

Your Badger Air-Brush 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 Teflon® needle bearing carries a lifetime warranty and free replacement.

The Badger Gravity Feed series Air-brushes are designed for use by Fine Artists, Illustrators, Photo-Retouchers, Toile and Decorative Painters, Advanced Modelers and many others.

It can spray properly reduced artist acrylics, inks and dyes, ceramic colors and glazes, water colors and of course, Air-Opaque™ Air-brush colors.

SPRAY CHARACTERISTICS OF HEAD ASSEMBLIES OF INTERNAL MIX AIR-BRUSHES:

- **F** has the smallest opening for extra fine detailing and will spray from a pencil line thickness to 1" (25.4 mm) wide. It is designed for use with materials of a low viscosity—very thin acrylics, water colors, gouaches, inks and dyes.
- **M** has a medium opening for fine detailing and will spray a line from 1/16" (1.55 mm) to 1 1/2" (38 mm) wide spray pattern. It will spray twice the amount of materials as the F. This head will handle such viscosities as thinned down acrylics, hobby lacquers, enamels, etc.

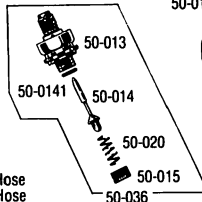
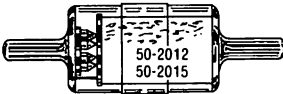
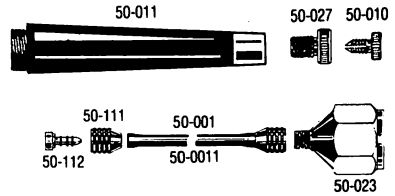
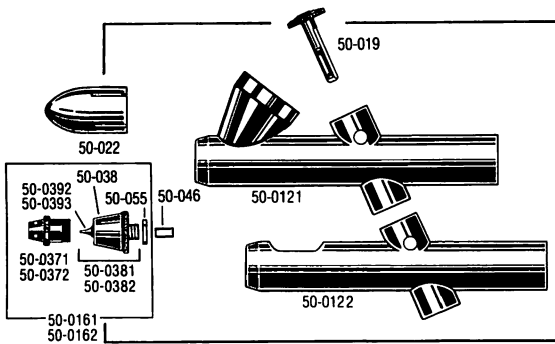
READ INSTRUCTIONS CAREFULLY BEFORE OPERATING

TO OPERATE

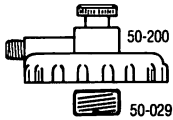
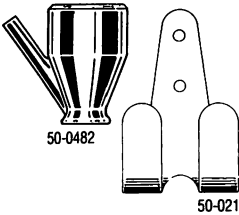
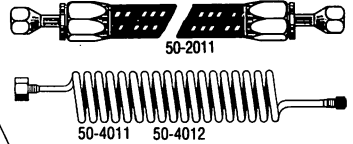
Attach hose to air-supply (CO₂ Tank, compressor or aerosol propellant can), then holding air hose in hand, attach air-brush to air-hose by gently turning in clockwise motion on to fitting. Tighten air-hose snugly into place with wrench provided in set.

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.

REPLACEMENT PARTS LIST



50-0173 50-0174



Part No.			
50-001	Six Foot Air Hose	50-0173	F Needle
50-0011	Ten Foot Air Hose	50-0174	M Needle
	(Includes 50-023)	50-019	Trigger
50-2011	10 Ft. Braided Air Hose	50-020	Plunger Spring
	<small>Sweel connection both ends (includes 50-023)</small>	50-022	Air-Brush Protective Cap
50-2012	Moisture Filter	50-023	1/4" Pipe Thread Fitting
	<small>With 10 Ft. 50-2011 Hose</small>	50-027	Needle Adjusting Screw
50-2015	Moisture Filter (only)	50-029	Tire Adaptor
50-010	Needle Chuck	50-036	Valve Assembly
50-011	Handle		<small>Complete (50-013-014-0141-015-020)</small>
50-012	Shell (w/Needle Bearing)	50-0371	M Spray Regulator
50-013	Valve Casing	50-038	Head Only
50-014	Plunger & "O" Ring	50-0381	F Head & Tip
50-0141	"O" Ring	50-0382	M Head & Tip
50-015	Valve Screw		
50-0161	F Head Assembly		
	<small>Complete (50-0271-0381-0391-50-085)</small>		
50-0162	M Head Assembly		
	<small>Complete (50-0372-0382-0392-50-055)</small>		
		50-0391	F Tip
		50-0392	M Tip
		50-046	Teflon Needle Bearing
		50-050	Prepared Beewax
		50-055	Teflon Head Washer
		50-111	Coupling Nut
		50-112	Coupling Nipple
		50-200	Propel Regulator Valve
		50-0122	Shell (w/Needle Bearing)
		50-4011	10 Ft. Re-Coil Air-Hose for Badger/Thayer Chandler
		50-4012	10 Ft. Re-Coil Air-Hose for Paache/Binks

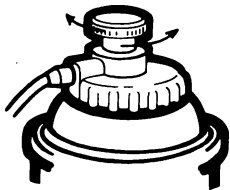
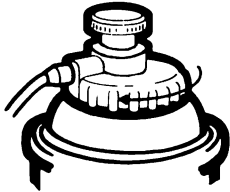
READ INSTRUCTIONS CAREFULLY

TO ATTACH

1. Attach air-regulator to air-hose.
2. Attach air-regulator to propel can.
3. Attach other end of air-hose to air-brush by turning in a clockwise motion onto fitting.

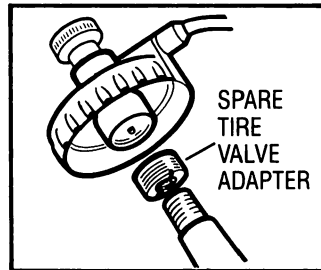
TO TURN ON AIR

1. Turn adjusting screw clockwise to desired pressure.
2. For less pressure or to turn off, turn adjusting screw in counter-clockwise direction.



The air-regulator valve is designed for propellant cans. It will adjust pressure from 15 to 50 PSI. For larger jobs and prolonged spraying a compressor or CO₂ tank is recommended.

When air is regulated, pressure should be between 15 to 50 PSI. Normal operating pressure is 30 PSI.

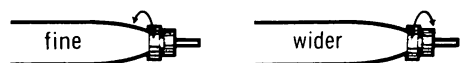


SPARE TIRE VALVE ADAPTER

A spare tire from the family car can be used as a power source in place of a can of propellant. Simply inflate tire (must be on a rim) to 40 lbs. of air. Adapter screws are sold through dealers.

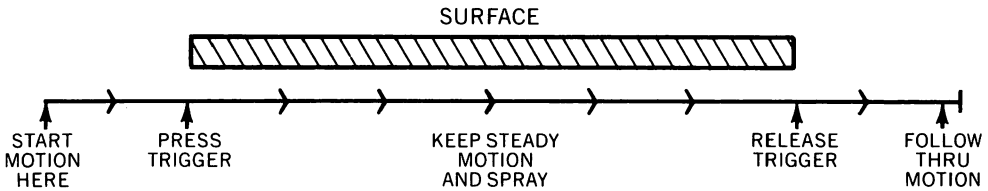
TO ADJUST PAINT FLOW

Paint flow controlled by moving needle adjusting screw forward for fine spray, back for wider spray. NOTE: NEEDLE IS PRE SET.



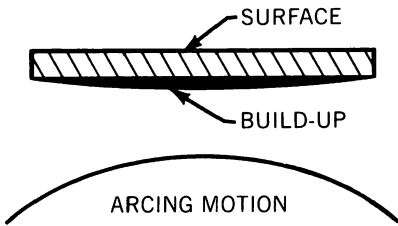
LEARN TO TRIGGER

Best results are achieved by a good constant motion. Start motion before pressing trigger, follow through motion after releasing trigger.



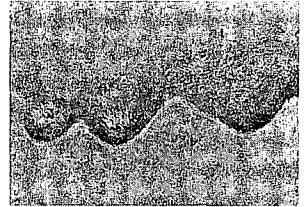
DON'T ARC

If air-brush motion is uneven, paint finish will be uneven.



THE MOST COMMON PROBLEM

Runs and sags are caused by one or more of the following errors.



1. "Freezing" or forgetting to release trigger at the end of the stroke.
2. Holding air-brush still or moving too slowly.
3. Holding air-brush too close to surface.

MAINTENANCE AND CLEANING OF YOUR AIR-BRUSH

Careful maintenance of your air-brush is essential if it is to continue to work effectively. One of the most important factors that affect the performance of the air-brush is cleanliness. The small passages inside the air-brush can become blocked easily by dried paint if the air-brush is not cleaned after each use. If there is still a useable amount of color in the reservoir when you have finished spraying, pour the remainder back into the bottle. Operate the air-brush, spraying on a scrap piece of paper until the color is gone and only air is sprayed. Spray with clean water, Air-Opaque™ Cleaner, or an appropriate solvent until the spray is colorless. Always clean the air-brush every time you finish spraying. Some types of paint can dry remarkably fast. If the paint is allowed to dry inside the air-brush you may 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 dis-assemble the air-brush.

Replacing the Tip

Begin by removing head (50-038) from the body of the brush. Place 3-cornered reamer (50-061) through center post of head as you would position the needle. Grasping head, turn reamer

counter-clockwise to remove damaged tip. Place new tip on pointed end of reamer. Place a small amount of beeswax (50-050) to threads of tip. Hold tip in palce with index finger while gently pushing head up to meet tip. Slowly turn head counter-clockwise until tip is seated firmly in head and there is no visible gap between head and tip. With a lighted match melt wax while turning head so as to seal the joint. After wax has hardened (approximately ten seconds), gently remove excess with fingertips. Remove 3-cornered reamer. Return head to body of brush.

CLEANING OF YOUR AIR-BURSH

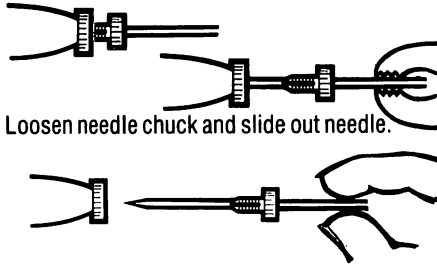
To clean the air-brush, take cleaner and place it into the paint reservoir, spray some cleaner through the air-brush at broad and small patterns. Be sure that you have sprayed out all of the cleaner.

Another method of cleaning the air-brush is back flushing. Take a soft cloth and cover the spray regulator-depress the trigger. This will cause a bubbling in the paint reservoir. Take away the cloth and spray and repeat this procedure several times. After this is done you should removed the needle for cleaning.

Spray regulator should be cleaned using a soft bristle brush. Insert into the cavity of the spray regulator and rotate until the paint is removed. Be sure the four vent holes are clear.

If the needle is stuck in the air-brush, carefully loosen the needle chuck, then grasp the end of the needle with a pair of pliers and twist in a counter-clockwise direction to release the needle. Inspect for 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 the full length of the needle, turn the needle slowly by rolling it towards yourself and repeat the process. Be careful not to bend the tip. Remove all eraser particles by running the needle between your thumb and forefinger.

To replace a bent needle, set needle adjusting screw all the way forward.

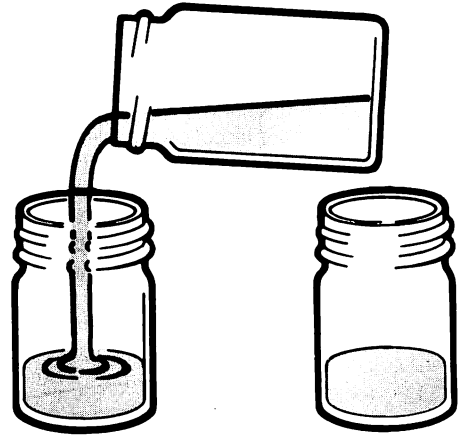


Loosen needle chuck and slide out needle.

Insert new needle. Slide it forward with slight pressure from index finger until the needle stops. Do not push forward with great pressure, as the needle may split the delicate paint tip and also damage the needle point. To lock the needle in place tighten needle chuck into needle adjusting screw. Turn needle adjusting screw to desired spray pattern.

A bent needle will prevent you from air-brushing a fine line and will cause an erratic direction of spray. A bent tip does not always have to be discarded. Place the needle on a firm surface at the angle of the tip. Straighten the bent tip by running your fingernail across it on the tabletop while you turn the needle slowly. Run your fingernail from the body of the needle outward towards the tip.

MIXING PAINT



You can custom mix any color combination you wish. **REMEMBER:** Paints must be compatible ... that is, mix enamels with enamels, lacquers, etc. Mix thoroughly. Make sure paint is free of lumps ... strain if necessary.

THINNING

Most jar paints are too heavy to spray. Enamels should be thinned approximately 1 part paint to 1 part thinner. To thin automotive lacquers, consult the spraying directions on the side of the paint container.

WHEN USING LACQUER

Lacquer dries very quickly. For best results the operation should be continuous, that is, the air-brush should not be set down for more than a few moments before resuming spray.

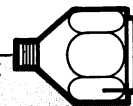
TO SPRAY

After mixing and thinning paint, fill paint reservoir, turn air on and press trigger. Test your spray on old newspaper or other material, make any necessary spray adjustments, and get the "feel" of your air-brush. **(Be sure that paint or fumes cannot reach any flame. Also make sure that there is adequate ventilation).**

MANUFACTURERS NOTE

For larger jobs and prolonged spraying, a compressor or CO₂ tank is recommended. A 1/4" pipe thread fitting (50-023 sold separately) is needed to adapt air-hose to air-supply. When using a non tank mounted diaphragm compressor, a small bleeder hole must be drilled in adaptor to prevent back pressure. Drill hole on flat surface just behind the taper, using a number 72 or 1/32" drill. If you should change to a tank mounted compressor, the hole on the adaptor must be sealed. Masking or duct tape (not included) may be used or a small drop of solder.

1/4" PIPE
ADAPTOR

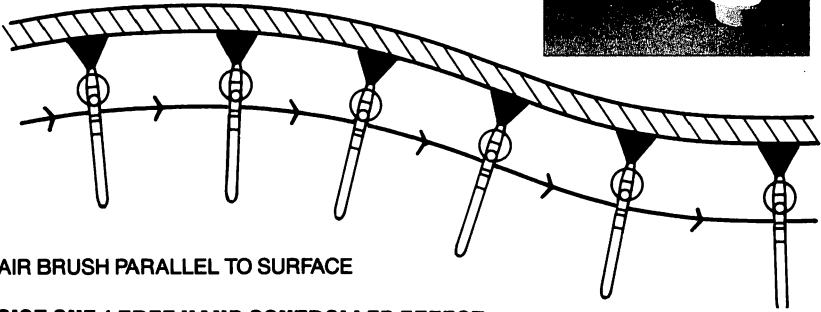


NO. 72 OR
1/32" DRILL

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 air-brush about 6 inches from the surface. Use short strokes, moving the air-brush 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 AIR BRUSH PARALLEL TO SURFACE

EXERCISE ONE / FREE HAND CONTROLLED EFFECT

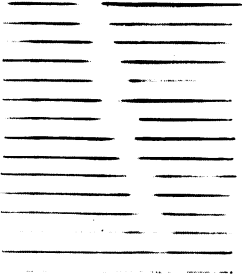


FIG. 1



FIG. 2

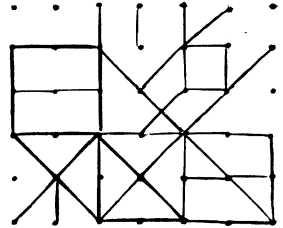


FIG. 3

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, lifting the air-brush away from the surface. Practice daily to develop trigger

action control. Fig. 3, layout in pencil $\frac{1}{2}$ inch squares. Air-brush 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.

NOTE: Adjusting screw may be set for desired width, thus you will be able to spray the same thickness of line over and over again.

EXERCISE TWO

On a board or paper, lightly pencil in a number of $\frac{1}{2}$ inch squares. Hold the air-brush about $\frac{1}{2}$ inch from the surface and spray paint small dots on the intersecting lines, as shown in fig. 4. Use liquid 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 air-brush. At the same time increase the distance between the air-brush and the

paper or board. If the air-brush is held too closely to the paper, "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.

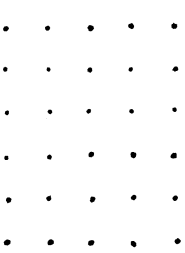


FIG. 4

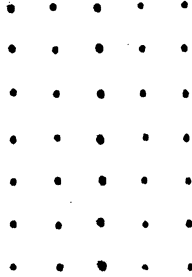


FIG. 5

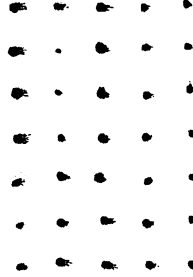


FIG. 6

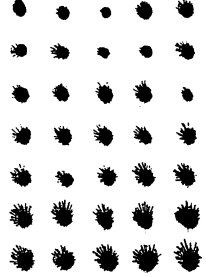


FIG. 7

MASKING OFF

In the next several exercises you will need to mask off a square area. From the drawing, (fig. 8) make a mask from 4 pieces of scrap paper. These masks are held in place by scotch or masking tape, keeping the atomized material from creeping into the margins around the area. When using masks do not spray under the edge. Spray over the edge.

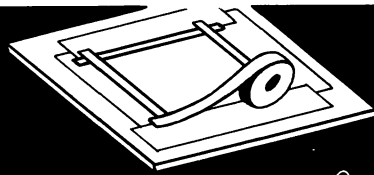


FIG. 8



EXERCISE THREE/EVEN TONES

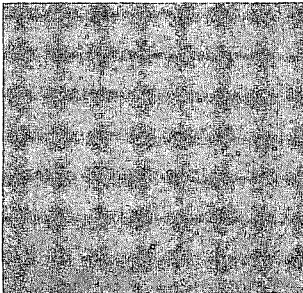


FIG. 9

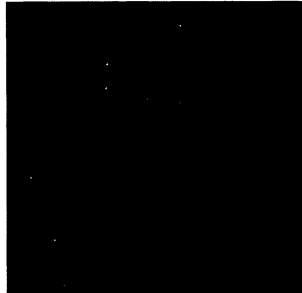


FIG. 10



FIG. 11

To accomplish a flat tone, we will air-brush a fine consistency of paint from left to right at the top of the taped area. Hold the air-brush 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 air-brush from right to left, overlapping the previously air-brushed strokes. Continue down the entire sheet, trying not to create a line pattern with the air-brush. 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



FIG. 12

This lesson is similar to the previous one (fig. 12). This time you will start at the top and gradually fade into white. Do not fade abruptly and do not carry the tone further than $\frac{2}{3}$ or $\frac{3}{4}$ of the page. Remember you must stop your tone shorter

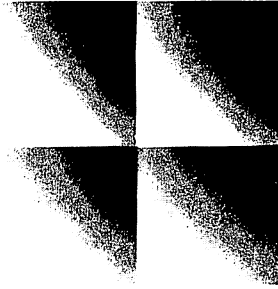
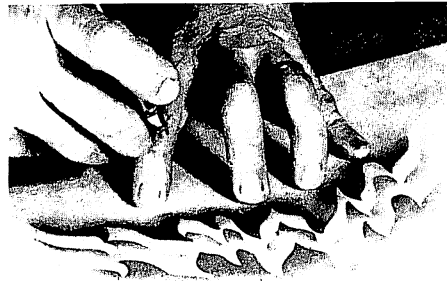


FIG. 13

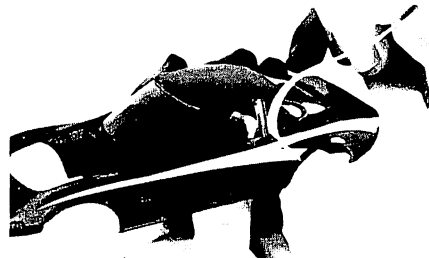
each time, since the overspray will build up. Fig. 13 is a combination of masking and varying shades. The important thing in this exercise is to train your eye so that all the small squares have the same tone value.

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 air-brushing.

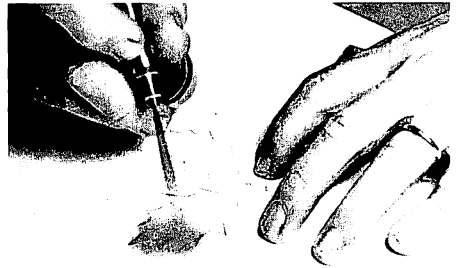


A flat surface mask can be cut from Foto/Frisket Film. For a sharp edge, hold the mask flat in position. For a softer edge, elevate the mask slightly by resting on a ruler or other flat object.



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



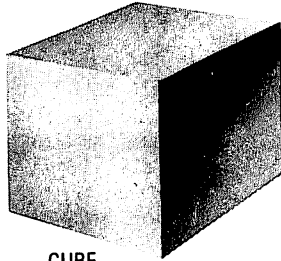
POSITIVE



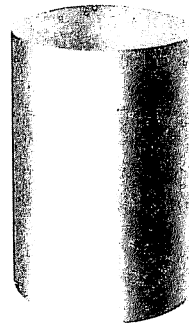
REVERSE

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.

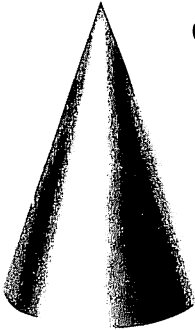
EXERCISE FIVE / THREE DIMENSIONAL EFFECTS USING MASKS OR FRISKET



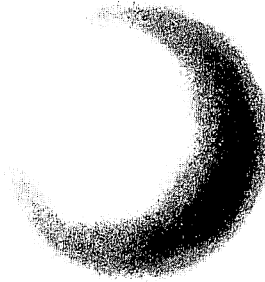
CUBE



CYLINDER



CONE



SPHERE

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 air-brushing 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 air-brush a tone from the upper left corner to the lower right hand corner. Repeat the gradual dark tone as necessary, the 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 air-brush 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 air-brushing overspray. Use a compass knife and cut your circle and remove. Gradually air-brush 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 air-brush 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 AIR-BRUSH

1) Grainy spray.

Caused by paint being too thick. Add water sparingly to the mixture and check the needle and regulator tip for dried paint. Also check the air supply.

2) Buckling paper.

Paint mixture may be too thin. Add pigment to thicken the mixture. Do not air-brush as heavily in one area. Move more rapidly or lessen your spray.

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) Flaired ends.

Caused by turning the wrist while air-brushing. The whole forearm should move horizontally 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 lever.

6) Splattering.

Caused by permitting the needle to snap back into tip. Always release the lever gently. Check for dried paint on needle or tip.

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) MANUFACTURER'S NOTE.

A Teflon® washer seal behind the air-brush head eliminates the need for waxing the head. Normal wear, loosening or damage can cause this teflon washer seal to leak air into the paint passages, creating a pulsating spray pattern. Replace the teflon washer seal when this spray pattern develops.

9) Bubbles through the color cup.

The spray regulator might be turned out too far. Turn it back in. Loose head or missing head seal.

10) 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

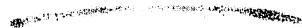
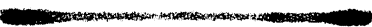
from the air-brush and gently insert cleaning reamer into the back of the head until it stops. Remove the reamer by gently turning and pulling it back from the tip—thereby removing the dry, gummy color. Run head under clean water. Take extreme care throughout this operation so as not to damage the tip.

11) Pulsating.

The most common reason for pulsating is the teflon head washer (50-055). If this part is missing, the brush will either pulsate or not spray at all. The brush will pulsate if this washer is there, but has worn down or has been bent or crimped in any way. Because the material is so soft, dropping it on the floor may alter the size and shape of the part. If the brush pulsates very rapidly, it may be the tip (50-0391 F, 50-0392 M). When the air-brush is originally assembled, a small amount of prepared beeswax (50-050) is placed on the threads of the tip before being inserted in the head (50-038). This may wear off after frequent cleaning. If so, place a small amount of wax (50-050) on joint of tip and head. With lighted match, melt wax and turn head so as to seal completely. Through repeated use, the tip may have worked itself loose from the head. Carefully tighten the tip to the head either by hand or with a 3 cornered reamer the head (50-061). Reapply a small amount of wax to reseal.

Overzealous cleaning of the tip may damage this part also. Increased amounts of pressure when inserting the needle will result in *splitting the tip*. A small hairline crack may be visible in the end. The tip may also become fluted due to pressure with the needle. This may result in the brush back flushing (i.e. blowing back into the jar or cup). In both cases, the tip must be replaced. Follow tip replacement instructions.

The only other reason that the brush may begin to spit is if the needle bearing (50-046) wears down or falls out. There is a life-time warranty on this part because the owner cannot replace this part himself.



Air-Opaque™ the ready to use Air-brush colors.

Offers you a choice of 35 colors plus 8 pearlescent colors. All 43 are pre-reduced for instant use, colorfast, waterproof, vibrant, quick drying, non-bleed paints. They are formulated for use with air-brushes, 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 8½"x11" 10-sheet pack, 12"x15" roll, 24"x15" roll.

Brite-White™ Air-brush Paper

Designed for air-brushing 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 air-brushed colors. Brite-White will not buckle when sprayed on. Both sides can be used. Brite-White will accept all air-brush media and is available in 10-sheet, 18"x24" packages.

AIR-BRUSHING FOR FINE AND COMMERCIAL ARTISTS

By Robert Paschal

128 page with tear out exercise sheets.

AIR-BRUSHING GUIDE FOR CERAMICS

By Ron Staples

32 full color pages.

VOLUME II AIR-BRUSHING TECHNIQUES FOR CUSTOM PAINTING

By Carl Caiati

48 full color pages.

HOBBY AND CRAFT GUIDE TO AIR-BRUSHING

By Carl Caiati

32 page book.

STEP-BY-STEP MODELER'S GUIDE TO AIR-BRUSHING

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.

DA 201 Vol. 1 Intro. to Air-Brushing, equipment, basic exercise by Robert Paschal

DA 202 Vol. 2 Value exercises and geometric shapes by Robert Paschal

DA 203 Vol. 3 Frisket cutting techniques by Robert Paschal

DA 204 Vol. 4 Rendering with the air-brush by Robert Paschal

DA 206 Intro to Airbrushing T-Shirts by Tim Mitchell

DA 207 Airbrushing T-Shirts (3 designs) by Tim Mitchell

DA 208 Intro to Photo Retouching (b/w) by Robert Paschal & Al Grove

DA 209 Intro to Photo Retouching (color) by Robert Paschal & Al Grove

LS 108 Special Effects I by Peter Stallard

LS 109 Special Effects II by Peter Stallard

LS 110 Compatible Materials by Robert Paschal

LS 111 Photo Realism by Robert Paschal



AIR-OPAQUE



FOTO-FRISKET



BRITE WHITE



Available in VHS

PLEASE READ CAREFULLY BEFORE USING YOUR BADGER AIR-BRUSH

Your new BADGER air-brush should provide you with many hours of enjoyment. However, because of the nature of air-brushing and of the composition of materials which you may use in your air-brush, 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 air-brush, 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 AIR-BRUSH OR ART MATERIALS** (unless the materials have been certified by the Crayon, Watercolor and Craft Institute). An air-brush 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 air-brushing.
- 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 factors 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.

BA 313 Made and Printed in U.S.A 11/90

©BACo. 1988



BADGER AIR-BRUSH CO.

9128 W. BELMONT AVE. FRANKLIN PARK, IL 60131