

# SCRATCH

# REMOVAL KIT

## For Acrylic Aquariums, Spas and Many Other Uses

Removes scratches from clear and colored acrylics such as Plexiglas, Acrylite, Lucite and Polycast. Restore surface finish and remove minor damage on fiberglass gelcoat, polyester, acrylic and other plastic surfaces, tubs, cultured marble, etc. Polished wood finishes, urethane and polyester: mahogany, teak, oak, ebony, etc.

## INSTRUCTIONS FOR USE - Read carefully before beginning.

**CRYSTAL PAD**, the sanding material in this kit, has been used to polish plastic surfaces for over 20 years in the aircraft industry. It has a thin layer of soft resilient material between the back and the abrasive crystals which provides a cushion for the abrasives.

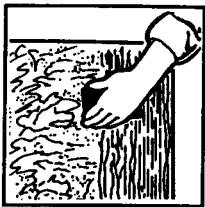
Using a cushion design allows the relatively large abrasive crystals to recede into the resilient layer and float to an even cutting plane. **CRYSTAL PAD** produces a fine, even scratch pattern. It does not leave deep, random scratches as with common abrasives. It cuts rapidly because of its large crystal design and because more of the abrasive is in contact with the workpiece.

**CRYSTAL PAD** outlasts common abrasives because the large abrasive crystals do not load up, generate heat, or fracture into the workpiece. In dry applications it outlasts common abrasives 5-7 times and when wet, 7-15 times, making it economical to use.

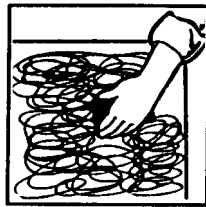
1. To avoid scratching the surface, do not wear watches, bracelets or rings. Long fingernails should be covered by gloves.
2. **CRYSTAL PAD** is graded with numbers. The higher the number the finer the cutting action. The following table will help you determine which numbered sheet to start with:

1500 - 1800	FINE SCRATCHES
2400 - 3200	HAIRLINES SCRATCHES AND LIGHT SCUFFS
4000 - 6000	VERY FINE SCRATCHES
8000 - 12000	FINAL POLISHING
FINAL POLISH liquid	FINAL POLISHING with 100% cotton flannel on dry surfaces only

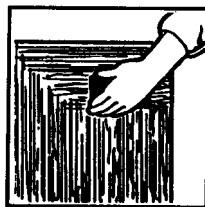
3. **CRYSTAL PAD** will remove surface tinting, but not the color that runs through the plastic. If there is doubt about the color, test a small area.
4. Wrap selected grade of **CRYSTAL PAD** tightly around the foam block and hold in palm of hand. Using without the block may produce a rippled or distorted surface.
5. Thin plastics ( $\frac{1}{8}$ " or less) may develop surface distortion when worked hot or if sanding the surface builds up heat. Work the surface slowly and work wet.
6. Select the proper numbered sheet based on the table. Use a straight line, even pressure stroke in one direction (horizontal or vertical) per grade. **NEVER** use a CIRCULAR MOTION. Cross your previous scratch pattern at right angles. For example: if you start with 1500 in a horizontal direction, change to a vertical direction with the 1800. Change back to a horizontal direction with the next grade of 2400. Do not bear down hard. Gradually lighten the pressure of your strokes as you near the end of each step. This will speed completion of the next step. Repeat this procedure up to the final polishing step.



Removing damage with vertical straightline scratch pattern.



Do not use circular pattern



Cross your previous scratch pattern at right angles (horizontal to vertical to horizontal, etc.).

7. Check your scratch pattern frequently. On transparent acrylics, set a light on the side opposite your restored side. For better viewing on non-transparent surfaces, shine a light in at an angle.

8. If you are trying to remove a single scratch or a small scratched area from a large area, do not sand only the damaged spot. This will create a wavy surface and will appear distorted. Work across the damaged area 4 to 5 inches each way from the damage. This may mean sanding the entire workpiece. Work an area slightly larger (at least 2 inches) with each step. In many cases you will sand the entire surface with the final steps. On small pieces it is probably better to start by sanding the entire surface.

9. For damage across the entire surface such as crazing, sanding the whole surface will be necessary. Crazing is a checking of plastic that is usually seen as a series of very fine shiny lines, stars or haze when viewed at an angle in bright light. Crazing removal is not different than other damage except it is usually deeper and will take more time.

10. Rinse **CRYSTAL PAD** pieces in clean, fresh water and air dry upon completion of your project. Use only 100% cotton flannel for wiping.

### You can use **CRYSTAL PAD** wet or dry.

**WET** - Clean fresh water is an excellent lubricant and coolant for **CRYSTAL PAD**. It can be sprayed or misted on the surface from a spray bottle or **CRYSTAL PAD** can be dipped in water occasionally during use.

Water hiding the scratch pattern is a concern since you will be working the surface in a crossing scratch pattern. You must sand out all of a horizontal scratch pattern with a vertical pattern. Water will fill and hide the horizontal scratch pattern.

Drying the surface between steps with clean flannel will make it easier to see if you have removed all the previous scratch pattern. All of the scratch pattern should be running in one direction. If not, re-wet the surface and continue with the same sanding step. **ONLY** then should you proceed to next step. Flush with clean fresh water after each step to be sure the surface is free of contamination.

**AQUARIUMS** - Scratches inside the acrylic aquariums can be removed under water. Follow same procedures outlined in the "Instruction for Use" section. The aquarium light should be left "on" to determine the work in progress. As a precaution, remove all fish during repair period. Return the fish to the aquarium once the repair has been completed and the abraded particles have settled. Use **CRYSTAL PAD 12,000** as the final polishing step. **Never** use FINAL POLISH liquid inside the aquarium.

**DRY** - **CRYSTAL PAD** is often used dry because of the simplicity in determining when damage or a previous scratch pattern has been removed. Some of the fine abraded particles settle into the scratches and accent the pattern. Lightly wipe the surface with a dry flannel cloth to remove excess particles before checking the scratch pattern. Do not go to the next step until all of the previous scratch pattern or the damage has been removed. You are looking for a uniform, one direction scratch pattern before going to the next grade of **CRYSTAL PAD**.

When **CRYSTAL PAD** is used dry, you must clear abraded particles frequently. This is best done by slapping the material, while still wrapped on the foam block, against the palm of your hand or on a clean surface nearby.

**CARE AND MAINTENANCE OF ACRYLIC AND PLASTIC SURFACES** - Use clean fresh water and a 100% cotton flannel for cleaning. Avoid paper towels, napkins and tissue. Keeping the surface clean and smooth prevents scratching and crazing.

Never use rubbing compounds, polishing cleaners or auto waxes on acrylic. These materials contain abrasives and solvents that damage the surfaces or accelerate crazing.

**FINAL POLISH Liquid polish and anti-static agent** will keep surfaces looking beautiful for a long time. Follow directions on label.

**Not recommended or intended for use on eye glasses, optical instruments or glass of any kind.**

