



TECHNICAL MANUAL

Chrome with Dual Head Chrome Gun (expanded instructions on next pages)

1. Apply the CB-5 basecoat catalyzed 15% with CCB-5 and diluted 30% with DS5 solvent. Dry in the oven 2.5 hours at 60°C, and let cool down before chroming
 2. Apply the Chrome following this process:
 - Preactivator (mix 40ml per 500ml DI water)
 - After application always inspect the surface for any dry spots, if detected re-apply more Pre-Activator until you have a glass-like finish
 - Activator (mix 30/40 ml of activator to 1000 ml of DI water, then let stand for 30 minutes or microwave it for 2-3 minutes for every 1 litre of mixture)
 - Rinse with DI Water
 - Chrome with the dual head chrome gun- A Solution mix 60ml to 1000ml DI water.
 - B Solution is a heavily concentrated mix 250ml to 1000ml of DI Water, it is now ready to spray. **(Note: when A and B solution are mixed with DI water shelf life only 24 HRS)**
 - Rinse with DI Water
 - Apply the HR Solution mixed 30ml to 1000ml of DI Water
 - Blow off with air thoroughly: leftover moisture will result in staining.
 - Oven dry it for 30-45 minutes at 30°C maximum and let cool down before top-coating or air-dry for a minimum of 12 hours.
 3. Apply the CF-4 topcoat catalyzed 20% with CCF-4 and 20% DS solvent. Can be oven dry it for 1 hour at 40° C only if you oven-dried the basecoat and the chrome, or let it dry for 48 hours at room temperature. Avoid handling parts for 7 days to allow full curing of surface.
 4. **Only pure DI water can be used in this process.** DO NOT USE TAP WATER because it will cause the chromium to appear yellow. A reading of 000 is the best with a TDS meter. The entire system is sensitive to contamination.
 5. The air supply must be completely dry. Water in the compressed air system and sprays contain contaminants which will ruin silver and chemicals. Filters are required, not only oil, but water from the air purifier too, we recommend an air dryer (dehumidifier)
- Do not touch** primed or chromed surfaces. Fingerprints will show up and ruin the appearance. **Gloves that are contaminated also leave marks.** Do not touch any primed or chromed surfaces! Always use a soap solution to clean surfaces - **do not use any chemical cleaners!**



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6. The base must be *completely* dry or solvents will cause a hazy layer of chromium. Allow primer to dry according to instructions. ***This is the most important.***

7. Extremely high or low temperatures or excessive moisture adversely affect the chrome. Room temperature is best set at 20-22 °C

Use only vinyl tape and non-absorbent materials. (Not masking tape)

8. Wear gloves and eye protection whenever you use chemicals and the system.

9. To prevent cross contamination of the deposits and products, NEVER fill 2 or more tanks at a time. Just a drop of product cross contamination ruins the products.

10. DI water should always be used (chemically pure triple 000, the purest)

11. ***Pressure adjustments*** Should be regulated at 6 bar/40psi pressure

12. ***Preparing to start spraying a piece***

Do not touch a prepared piece ever. Use only non-absorbent mask or tape (e.g. vinyl). The masking paper tape contaminates the process. The wooden sticks used for fixing should be completely covered with vinyl tape to prevent them from absorbing chemicals and thereby contaminating the chemical process. Metal parts and shelves should be fully primed to prevent metal contamination of the process. Sand uneven surfaces with 800 or 1.200 Sandpaper.

13. **IMPORTANT: YOU MUST CHROME ABOVE 22°C OR EVEN BETTER 30°C IN ORDER TO GET THE RIGHT COVERAGE, FAST CHROMING AND LOW WASTE**

14. The Activator guns are also recommended to be cleaned very well after each use (especially the nozzle and needle) as the product is corrosive and may damage the nozzle with use. We also recommend removing the needle and leave it off until the next use, so it will not corrode. Do not use soap or other detergents for cleaning

15. **RECOMMENDATIONS:** To wash the pieces is recommended with soap and water, ***never use chemicals.*** Avoid washing the vehicle in an automatic car wash.

16. Exterior parts that are exposed to the elements can be coated with a varnish or polyurethane (2 to 1 polyurethane clear coat on top of the CF-4)

17. ***You can bake the CF topcoat only if you baked the CB primer, but if you didn't, you cannot bake the CF in the oven, you must air dry it naturally.***



1) Basecoat application

- The CB-5 Clear basecoat is a paint and is applied with your normal spray equipment. We recommend HVLP guns, but you can use your favourite paint gun. We recommend 1.3 nozzle, and 3 bars pressure
- Shake the clear basecoat well
- The CCB-5 hardener is added in proportion of 15% + 30% of solvent DS-5. Mix well.
- Air Pressure: 4 bar
- Open the fan at maximum
- Open product 1.5 turns
- All parts must be mounted a minimum of 6 inches from a grated surface. AVOID HARD SURFACES AS THIS WILL CREATE SPLASH-BACK.
- Always apply piece by piece, avoid priming all the pieces at once, and always ensure optimal air extraction. Preferable to paint on a grid, not on paper. Apply the second or third coat, and allow the primer to evaporate 45 minutes before baking. The paint must be smooth and shiny. This is not a covering paint, so be sure not leave marks or scratches on the surface. • It is important to remember to apply the primer with minimum temperature of 20 Degrees C.

Drying:

- In oven: Wait 45 minutes. Bake the piece at 60C for 2.5 hours maximum and let cool about 30 minutes. It is important to cool down the piece well. • Metal surfaces used for hanging or holding the pieces, must be completely painted, front and rear, to prevent the metal from contaminating the chrome paint.
- If the paint is not completely dried it will cause a hazy appearance when plating Do not touch the primed part! Gloves or fingers will leave marks



2) Pre-activator and Activator

Mix - Shake the bottle before using Activator! Add 40mL of concentrated activator per 500ml of DI water. The product must be freshly mixed everyday, only mix enough to cover the number of parts to be chromed.

Let it sit at least 10 min at 20-22 °C before use to ensure proper mixing. Always mix in hard plastic containers or glass containers (do not use plastic polyethylene), NEVER IN METAL CANS. Clean the container where you mixed the activator with DI water, and replace container every 1 to 2 months for a new one if it was plastic. We recommend to keep the product in the fridge to preserve it better. We highly recommend to cook the mixture in the microwave for 3 min. per liter of mixture, use glass container. Product life is 1 year when closed, and opened around 9 months at temperatures of 20-22 °C, and 6 months if temperature reaches 30 °C.

3) Rinse the entire piece with DI water.

Activator - Shake concentrate well and add 30 ml of concentrations to 1000 ml of DI water. Only mix the quantity needed every day. Mix well and wait at least 10 minutes before using, at room temperature (20-22°C). The Activator will last up to 12 hours at room temperature (20-22°C). The hot summer weather can ruin the activator within 12 hours. The Activator has a half life of about 9 months without mixing. It is recommended to heat the water with the activator 3 minutes per liter in a Microwave, in a glass container.

Spray the entire piece until the surface area is completely wet, without leaving any spots uncovered. Wait a few seconds to check that the layer does not open and sits perfectly on the primed piece. If there is an area on the part where the Activator is not fully seated, spray more product until it completely covers the surface. **NOTE: Activator gun must be thoroughly cleaned after each use.**

Rinse - Rinse the entire piece with DI water. Do not be afraid to rinse too much. If there are any dry places or spots, reactivate the area (apply more Activator) and rinse the entire piece again.



4) Chrome (Silver)

- Make sure you are spraying with 50% with each of the 2 nozzles from the Chrome Gun. Test this by using two measuring cups and spray dual-nozzle into each cup and inspect volume which **MUST** be equal. **THIS IS EXTREMELY IMPORTANT!**

- Add 60ml of A solution to 1000ml of DI Water. This only has a 24-hour shelf life, so only prepare enough solution for 1-day's work.

- B Solution is heavily concentrated, mix 250ml of concentrate to 1000ml of DI water, creating 1250ml of sprayable solution. This only has a 24-hour shelf life, so only prepare enough solution for 1-day's work.

- Start spraying at the bottom of the piece, **QUICKLY** moving upwards, while turning continuously. At this point the piece will look stained and black/gray. Continue spraying until it appears shiny and has a nice chrome look. Always spray away from the piece (not too close, minimum 24 inches). Where there are places the solution can pool spray from a greater distance. Stop a moment to verify the progress. The chemical reaction will continue while spraying.

Additional chrome spray may be necessary to get a brighter color. If the piece looks too yellow, this means you need to spray more silver. Do not worry about applying too much!

Once the piece looks like a mirror, stop applying and rinse with DI water!

Then apply HR Solution mixed 30ml to 1000ml of DI water.

Rinse with DI water again. (Ensure the surface grate and mount are cleansed thoroughly to avoid splash-back contaminates when drying in the next step.)

Blow off the water

Using an air gun, starting from top to bottom, dry the piece thoroughly, including the under-surface of the part. It is very important to dry the water evenly and ensure that the dry surface is not contaminated with any other liquid.



5) TOPCOAT Application

Before applying the topcoat, make sure that the silver has dried and all water and moisture have evaporated. We recommend drying at a temperature of 30-40°C for 40 Minutes.

CF-4 topcoat is applied with your normal spray gun. You can use the same one recommended for the base coat.

Add 20% of CCF-4 catalyst and 20% of DS-311 (medium) or DS-312 (slow) solvent. Apply using the same method of applying the base coat. 2-3 coats will be needed to get the chrome look. The first layer will appear slightly yellow. Do not apply it too heavily!

WAIT 10 MIN. The second layer will cover the yellow and will produce a true chrome. You can apply a third if you want after waiting another 10 minutes.

Application in remote areas and confined spaces can be difficult. Reduce the range and increase pressure in these areas. Too much chrome will look too blue. If the piece does not have enough chrome after it has dried, more can be applied to correct the color.

Allow the layer to evaporate for 40 minutes before baking (only if you baked first the Basecoat). Bake at 60°C for 1 hour then allow to air dry overnight. Complete curing may take up to 28 days. For air drying, place the part in an area free of dirt and dust for 24 hours. The complete curing is achieved in 7 days but you can handle the piece after 24 hours. Remember that if you apply 3 coats of clear coat, allow more than 24 hours before handling, to achieve effective drying. Avoid exposure of parts to sunlight within 7 days.

For items that need to be exposed to the extreme weather conditions, or continuous rubbing or friction, we recommend to recoat the part with a 2K topcoat