

TROUBLESHOOTING GUIDE

Use this guide to look for solutions to potential problems. The guide includes seven common problems. Listed below each problem is the fault and its solution.



WASHOUT BREAKDOWN (LOSS OF ADHESION DURING DEVELOPING)

Problem	Type of Stencil	Solution
Contaminated mesh	ALL	Degrease properly with Chroma/Clean™ degreaser.
Inadequate or inconsistent exposure	ALL	Use Chromaline Exposure Calculator to determine proper exposure time and light source performance.
Excessive water pressure and/or washing	ALL	Decrease water pressure and/or time of washout.
Water temperature range too hot	ALL	90° to 100° F (32° to 38° C) optimum water temperature.
Improper adhesion of capillary film	CAPILLARY FILM	Degrease properly with Chroma/Clean™. Use wetting agent, such as Chroma/Wet™.
Transfer emulsion has inadequately sensitized film	DIRECT/INDIRECT	After coating with transfer emulsion, allow about 10 minutes to elapse (dwell time) before placing sensitized film screen into dryer or in front of a fan.
Screen not dry enough for exposure	ALL	Follow drying directions. Dehumidifier recommended in drying area.
Pre-exposed or outdated film or emulsion	ALL	Use yellow or subdued lighting in screen making area; dry screen in total darkness. Check lot number on packaging.
Poor coating methods	EMULSION DIRECT/INDIRECT	Check user's guide for coating instructions. Use proper scoop coater that has a straight edge.

SCUMMING OR HAZE

Problem	Type of Stencil	Solution
Incomplete washout and/or under exposure	ALL	Increase exposure and/or washout until foaming stops. Use a wet vac to suck out the water and scum (a major common problem).
Excess moisture in screen making area	ALL	Use dehumidifier to maintain relative humidity below 50 percent.
Poor positive and/or contact with coating	ALL	Check quality of positive. Check vacuum frame and blanket for leaks, which may prevent complete contact in all areas of screen.
Pre-exposure of film or emulsion	ALL	Use yellow or subdued lighting in screen making area; dry screen in total darkness. Do not try to develop in or around natural sunlight.
Light scatter	ALL	Use dyed or tinted fabric or reduce exposure. Replace scratched glass.

WEAK STENCIL

Problem	Type of Stencil	Solution
Underexposure	ALL	Increase exposure time. **Use Chromaline Exposure Calculator to determine proper exposure time. The most common cause of stencil failure is light source performance. Feel squeegee side of stencil during washout. If it feels slimy or you get color on your fingers, screen is underexposed.
Film too thin for mesh count	DIRECT/INDIRECT CAPILLARY FILM	Check user's guide for recommended film thickness per mesh count.
Emulsion coating too thin	EMULSION	Apply additional coats on print side after initial drying; or use higher solids emulsion; or use rounded edge of coater.
Screen not fully dry during exposure	ALL	Follow drying instructions. Dehumidifier recommended in drying area. Maintain below 50 percent relative humidity in screen drying area.
Stencil too thin for mesh	ALL	Check user's guide for film/emulsion recommended for mesh count.

**Always use fresh emulsion and film. Check the lot number and date of manufacture.

WASHOUT DIFFICULT (DURING DEVELOPING)

Problem	Type of Stencil	Solution
Overexposure	ALL	Shorten exposure; run an exposure test.
Excessive heat used in drying screen	ALL	Do not exceed 110°F (43°C). Chromaline recommends 85° to 95°F (30° to 35°C). A dehumidified drying cabinet is best.
Pre-exposed or outdated film or emulsion	ALL	Use yellow or subdued lighting in screen making area; dry screen in total darkness. Do not use outdated material.
Poor positive	ALL	Check density or image quality; emulsion of positive should be in contact with stencil emulsion.

POOR IMAGE (SAWTOOTH)

Problem	Type of Stencil	Solution
Incorrect exposure	ALL	Use Chromaline Exposure Calculator to determine proper exposure time and light source performance.
Inconsistent light exposure	ALL	Use point light source with light integrator for best results. Check bulb age.
Stencil too thin	ALL	Film Users: use thicker film. Emulsion Users: use more coats or thicker emulsion on the print side.
Incorrect drying of emulsion	EMULSION	When drying, place coated screen in horizontal position, print side down.
Undercutting	ALL	Use dyed or tinted fabrics. Decrease exposure time.
Poor positive to screen contact	ALL	Check vacuum frame for complete contact in all areas of screen.

PINHOLES

Problem	Type of Stencil	Solution
Dust and shop dirt	ALL	Shop cleanliness. Clean artwork, film and vacuum frame glass prior to use. An anti-static brush or cloth is recommended.
Underexposure	ALL	Use Chromaline Exposure Calculator to determine proper exposure time and light source performance. Feel squeegee side of stencil during wash out. If it feels slimy or you get color on your fingers, screen is underexposed.
Dirt or grease on mesh	ALL	Degrease mesh properly by using Chroma/Clean™ degreaser.
Air bubbles in emulsion	EMULSION DIRECT/INDIRECT	Allow emulsion to settle a minimum of two hours after sensitizing; allow additional settling time if emulsion is re-blended.
Poor positive	ALL	Check photopositive for image quality and cleanliness.
Film too thin for mesh	CAPILLARY FILM	Check user's guide for correct film thickness and mesh selection.
Emulsion coating too thin	EMULSION	Apply additional coats on print side after drying; and/or use higher solids emulsion; and/or use rounded edge of coater.
Powdered sensitizer	EMULSION	Be sure powder is completely dissolved before mixing with emulsion.

UNDERCUTTING

Problem	Type of Stencil	Solution
Poor contact of positive to screen	ALL	Check vacuum frame for complete contact in all areas of screen.
Improper exposure	ALL	Use Chromaline Exposure Calculator to determine proper exposure time and light source performance.
Inconsistent exposure to light	ALL	Use point light source with light integrator for most uniform exposure.
Light scatter within mesh	ALL	Use dyed or tinted fabrics. Increase exposure time 25 - 100 percent.
Placement of positive	ALL	Emulsion of positive should be in contact with print side of screen.



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