

# Faults on Black and White Prints

Reproduced from 'The Essential Darkroom Data Guide' by Peter Jones

The full text is available to purchase for £9.99

Tel: 01449 673883 Email: pmjco@tiscali.co.uk

Fault	Cause	Cure	Prevention
Print overall not sharp / blurred	<ol style="list-style-type: none"> <li>1. Enlarger not focused properly</li> <li>2. Focus has slipped.</li> <li>3. Negative has 'popped'.</li> <li>4. Vibration.</li> </ol>	None.	<ol style="list-style-type: none"> <li>1. Focus more carefully. Use focus finder. Check own eyesight.</li> <li>2. Check and tighten focusing mechanism.</li> <li>3. Tighten enlarger head.</li> <li>4. Refocus after enlarger has warmed up.</li> <li>5. Use firmer support for enlarger. Don't move around during exposure.</li> </ol>
Not sharp at top or bottom, or on one side of print	<ol style="list-style-type: none"> <li>1. Negative incorrectly positioned in carrier.</li> <li>2. Negative carrier not parallel to baseboard.</li> <li>3. Lens board not parallel to baseboard.</li> <li>4. Enlarger head not parallel to baseboard.</li> </ol>	None.	<ol style="list-style-type: none"> <li>1. Check negative is supported properly.</li> <li>2. Check negative carrier is correctly inserted and positioned.</li> <li>3. Check lens board being level. Tighten lens board screws.</li> <li>4. Adjust head to 0 position, tighten lock screw.</li> </ol>
Not sharp at the centre while edges are sharp - or vice versa.	<ol style="list-style-type: none"> <li>1. Negative has 'popped'.</li> <li>2. Lens aperture too large giving insufficient depth of field to cover curvature of negative.</li> <li>3. Negative incorrectly held in carrier.</li> </ol>	None.	<ol style="list-style-type: none"> <li>1. Refocus after enlarger has warmed up.</li> <li>2. Stop down lens 2 or 3 stops more.</li> <li>3. Check negative is properly held in carrier.</li> </ol>
Fuzzy, double or multiple image in some areas. Other areas sharp.	<ol style="list-style-type: none"> <li>1. Focus has moved during exposure.</li> <li>2. Negative has 'popped'.</li> </ol>	None.	<ol style="list-style-type: none"> <li>1. Refocus, check and tighten head and focus controls.</li> <li>2. Refocus after enlarger head has warmed up.</li> </ol>

<b>Fault</b>	<b>Cause</b>	<b>Cure</b>	<b>Prevention</b>
Double or multiple image	<ol style="list-style-type: none"> <li>1. Enlarger head has slipped.</li> <li>2. Focus has slipped.</li> <li>3. Negative accidentally moved during exposure.</li> <li>4. Negative has 'popped'.</li> <li>5. Printing paper has been moved during exposure.</li> </ol>	None	<ol style="list-style-type: none"> <li>1. Tighten enlarger head lock.</li> <li>2. Tighten focussing mechanism.</li> <li>3. Don't touch negative during exposure.</li> <li>4. Refocus after enlarger has warmed up.</li> <li>5. Use proper masking frame.</li> <li>6. Don't touch paper during exposure.</li> </ol>
Print too light.	<ol style="list-style-type: none"> <li>1. Underexposure</li> <li>2. Underdevelopment</li> </ol>	None	<ol style="list-style-type: none"> <li>1. More exposure required: <ul style="list-style-type: none"> <li>• Increase time or</li> <li>• Increase lens aperture</li> <li>• Use proper test strip method to obtain correct exposure</li> </ul> </li> <li>2. Check for correct development time/temperature. Developer may be exhausted or contaminated.</li> </ol>
Print too dark.	<ol style="list-style-type: none"> <li>1. Overexposure</li> <li>2. Negative density range too great</li> </ol>	It may be possible to lighten the print by using a chemical reducer.	<p>Less exposure required:</p> <ul style="list-style-type: none"> <li>• Decrease time or</li> <li>• Reduce lens aperture</li> <li>• Use proper test strip method to obtain correct exposure.</li> </ul>
Print correct but with some areas too light		None	Reprint and 'burn in' light areas.
Print correct but with some areas too dark		Use chemical reducer on print locally in dark areas	Reprint and 'shade' or 'dodge' dark areas.

<b>Fault</b>	<b>Cause</b>	<b>Cure</b>	<b>Prevention</b>
Print too light towards corners. Overall uneven density.	<ol style="list-style-type: none"> <li>1. Lamp to condenser distance wrong.</li> <li>2. Wrong condenser fitted.</li> <li>3. Wrong light box being used on diffuser enlarger.</li> <li>4. Wrong focal length lens being used.</li> </ol>	None	<ol style="list-style-type: none"> <li>1. Adjust to give even illumination.</li> <li>2. Use correct condensers.</li> <li>3. Use correct light box for format being used.</li> <li>4. Use correct focal length lens for format: 35mm f = 50mm 6x6 f = 80mm 6x7 f = 90mm</li> </ol>
Varying density especially in shadow areas.	<ol style="list-style-type: none"> <li>1. Developer exhausted, contaminated or too diluted</li> <li>2. Uneven development</li> </ol>	None	<ol style="list-style-type: none"> <li>1. Mix up fresh developer, check using correct strength.</li> <li>2. Use sufficient developer</li> <li>3. Immerse whole of print quickly. Agitate throughout development period.</li> </ol>
Density correct but print appears grey and lifeless. No pure whites or deep blacks. Flat or soft print.	<ol style="list-style-type: none"> <li>1. Wrong grade of paper being used</li> <li>2. Wrong filters being used with variable contrast papers</li> <li>3. Negative underexposed or underdeveloped</li> <li>4. Exhausted or contaminated print developer</li> <li>5. 'Snatching' print out of developer too early</li> <li>6. Paper fogged</li> </ol>	None	<ol style="list-style-type: none"> <li>1. Use harder grade of paper.</li> <li>2. Check that correct filters and exposure time have been used.</li> <li>3. Check manufacturer's film exposure and processing instructions.</li> <li>4. Use new developer</li> <li>5. Process print for full development time.</li> <li>6. Check for light leaks in darkroom; check safety of safelight.</li> </ol>
Density correct but print appears contrasty. Harsh blacks and whites with no midtones.	<ol style="list-style-type: none"> <li>1. Wrong grade of paper being used.</li> <li>2. Wrong filters being used with variable contrast papers.</li> <li>3. Negative contrast too great due to over development.</li> </ol>	None	<ol style="list-style-type: none"> <li>1. Use softer grade of paper.</li> <li>2. Check that correct filters and exposure times have been used.</li> <li>3. Use softer grade of paper. Check manufacturer's film &amp; processing instructions.</li> </ol>

<b>Fault</b>	<b>Cause</b>	<b>Cure</b>	<b>Prevention</b>
Overall density and contrast correct but some areas too flat (grey or soft)	Subject lighting range inconsistent, e.g. flat lighting in shadow areas while highlights are brightly lit.	None	Reprint with variable contrast paper. Expose print in separate stages, using a higher (harder) grade of filter for flat areas and the same filter to expose the correct density / contrast areas.
Overall density and contrast correct but some areas too hard (contrasty).	1. Subject lighting range inconsistent, e.g. dense / contrasty shadow areas.	None	Reprint with variable contrast paper. Expose print in separate stages, using a lower (softer) grade of filter for hard areas and the same filter to expose correct density / contrast areas.
White spots or squiggles sharply defined on print.	Hair, grit or fibre on the negative or printing paper.	If there are many blemishes, reprint. Otherwise retouch with spotting fluid.	<ol style="list-style-type: none"> <li>1. Use filtered water for mixing chemicals and washing.</li> <li>2. Hang film to dry in dust free area. Cut and store film after drying as quickly as possible.</li> <li>3. Blow negative with compressed air.</li> <li>4. Breathe on shiny side of negative and gently wipe clean with fibre-free tissue.</li> </ol>
Soft edged round areas of lighter tone on print.	Dirt, or particles on condensers in condenser enlarger.	Retouch or reprint.	Inspect and clean condensers before printing session.
Light parallel lines ending with 'tear drop'.	1. Drying marks – usually on base (shiny) side of film.	Retouch or reprint if excessive	<ol style="list-style-type: none"> <li>1. Wash and process film using filtered water.</li> <li>2. Use correct amount of wetting agent in final wash.</li> <li>3. Use pre-dampened squeegee to remove excess water from film before drying.</li> <li>4. For stubborn marks, breathe on shiny side of films and gently wipe clean with a fibre free tissue.</li> </ol>

<b>Fault</b>	<b>Cause</b>	<b>Cure</b>	<b>Prevention</b>
Round dark areas surrounded by a light line.	Drying marks on emulsion side of film	Retouch or reprint if excessive	<ol style="list-style-type: none"> <li>1. Wash and process film using filtered water.</li> <li>2. Use correct amount of wetting agent in final wash</li> <li>3. Use pre-dampened squeegee to remove excess water from film before drying.</li> <li>4. Note: blemishes cannot easily be removed from emulsion side of film without damaging film emulsion.</li> </ol>
<ol style="list-style-type: none"> <li>1. Black spots or squiggles</li> <li>2. Black parallel lines.</li> </ol>	<ol style="list-style-type: none"> <li>1. Dust in camera.</li> <li>2. Scratches on film from camera or by overuse of reloadable cassettes.</li> <li>3. Scratches on film caused by squeegee</li> </ol>	Retouch or reprint if excessive	<ol style="list-style-type: none"> <li>1. Clean camera interior with blower brush / compressed air or best of all with a photographic mini-vacuum cleaner</li> <li>2. Check film tracks and pressure plate in camera for rough edges and burrs.</li> <li>3. Pre-moisten squeegee and run fingers down rubber wiper blades to check for grit.</li> </ol>
Fine black lines with a random pattern.	Stress marks caused by emulsion surface of print being scratched.	Retouch if possible, otherwise reprint	Use rubber lipped print tongs.
Bands of concentric light / dark lines usually curved oval or roughly circular.	Newton rings, usually caused by glass negative carriers	Difficult to retouch Opt for reprinting	<ol style="list-style-type: none"> <li>1. Use anti-Newton glass in negative carrier.</li> <li>2. Try cleaning glass carrier thoroughly. Make sure film is pressed hard against glass.</li> </ol>
Large unevenly developed areas or mottled effect.	Emulsion surface of print has not been fully under developer.	None	Use sufficient developer. Immerse print quickly, face down. Agitate for full development period.