



<b>ATF-LS-QD4</b> <b>Photocopy Examinations</b>	Published Online: <b>March 2018</b>
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Unofficial Copy; May Not Be Most Current Version	Page: 1 of 3

**PRINCIPLE:**

To determine, if possible, whether a particular photocopier was used to produce a questioned photocopy.

**SPECIAL HANDLING:**

1. Evidence containing body fluids that is received in the Document Section should be dried under a hood and then repackaged in a paper box or envelope. Items should be handled in order to prevent examiner exposure and preserve DNA, if requested by the submitter. Contents should be documented on the front of the packaging.
2. When handling a contaminated document, the examiner must have on a lab coat and rubber gloves. The evidence should be opened and examined only under a biohazard safety hood. After examination the document should be heat sealed. The work area should be disinfected and the lab coat placed in a biohazard bag and sent to the laundry. The gloves must be placed in a properly labeled biohazard disposal after the examination is concluded.
3. Evidence submitted requesting a latent print examination should be placed in a plastic or mylar sheet protector covering the evidence. In this case, item and examiner identifying marks should be placed on the protective sheet.

**SPECIMEN(S):**

Questioned photocopied documents and/or standards from a suspect photocopy machine(s) or office machine(s).

**SUPPLIES REQUIRED:**

Paper, pen, photocopier

**APPARATUS REQUIRED:**

Stereoscopic microscope, hand magnifier, transmitted light box, ultraviolet illumination source, measuring devices, photocopier.

**CALIBRATION REQUIREMENTS:**

Microscope maintained in house.

No special calibration beyond routine maintenance is required.

**PROCEDURES:**

1. The evidence is marked in ink with the appropriate item number as it appears on the Laboratory transmittal sheet, the case number, and the examiner's initials or other mark. Identify which items are questioned and which are known. Items on the transmittal sheet may be amended by adding "Q" and "K" identifiers. Such amendments should be notated on a copy of the transmittal placed in the case jacket and the contributor should be notified via phone or email.
2. Examine the questioned photocopy using a stereoscopic microscope.
3. Examine the original document, if available, using a stereoscopic microscope.
4. Examine any known photocopies from a suspect machine.
5. Examine all documents utilizing the Paper Examinations Policy and Procedure Guideline, to include examination by ultraviolet illumination.
6. Identify class characteristics of the questioned photocopied document, and all known photocopies to include method application (dry toner, liquid toner, or color toner).
7. Compare the questioned photocopied document to the original document and then compare both to all known photocopies to determine similarities as well as dissimilarities to include roller bar marks, and picker bar marks, and trash/drum marks.
8. Examine color copies for an encoded pattern, which may be present and could be used to trace the serial number of the machine through the manufacturer.
9. Make written notes of the similarities and/or dissimilarities
10. Formulate a conclusion based on all the evidence examined.
11. A complete technical review is conducted by another qualified examiner and documented and initialed on Technical Case File Review Form.
12. Record findings in written form and have the results recorded on formal laboratory report forms.
13. The bases and reasons for the conclusion(s), opinion(s), or finding(s) should be included either on the examiner's worksheet or on photocopies and may be also included in the report.
14. Examination of original evidence both questioned and known is desired. However, if only a machine copy, facsimile copy, or microfilm copy exist, they may be submitted to the Laboratory for examination. All examinations based on machine, facsimile, and microfilm copies are subject to qualified opinions and may change based upon the examination of the original evidence.

**DOCUMENTATION:**

Work notes containing the similarities and dissimilarities together with the examiner's written observations. Measurements should be taken of the constellation of any noted trash, drum, or platen marks and noted on the worksheet or by a ruler accompanying the photocopies or photographs prepared. A Questioned Document Worksheet will accompany each case and should include the equipment and/or procedures used, the identifying or eliminating features, and the results of analysis.

**REFERENCES:**

SWGDOC Standard Guide for Examination of Documents Produced with Toner Technology

Canon Workshop materials, Copier Technology, Southeastern Association of Forensic Document Examiners April, 2010.

Kelly, JS, Lindblom, Brian, Scientific Examination of Questioned Documents Second Edition, CRC Press, Boca Raton, FL, 2006.

Hilton, Ordway, "Detecting Fraudulent Photocopies" Forensic Sciences International, Volume 13, 1979.

Kelly, James H., Classification and Identification of Modern Office Copiers, The American Board of Forensic Document Examiners, Inc., Colorado Springs, Colorado, 1983.

Various professional papers on aspects of photocopy examinations.