



Patent Drawing Primer

Drawings supplied by inventive clients should meet the following minimum requirements to make the most efficient use of everyone's time and resources.

Deliverables: (The four "C's")

1. **Complete drawings:** that show all claimed elements of the invention.¹
2. **Clean drawings:** without measurements, text, lead lines, drawing frames, part numbers, or other obscuring information.²
3. **Comprehensive views:** all parts with least overlap (exploded isometric)
4. **Crisp details:** must retain legibility with repeated faxing, scanning & copying, while fitting within the margins of 8.5 x 11 inch sized paper.³

Physical Elements of Client Supplied Line Drawings:

- Solid black** lines, **thick** enough to retain legibility, no axis or centerlines
- Text** (if necessary) size at least **32 cm (1/8 inch)** in height when printed
- Shading, gradients, large areas of solid black not allowed**
- Stippling, hatching, contour lines** allowed where necessary.
- No circled reference numbers (**no ref #s** at all, as they will be added later)
- If common **fasteners** are used in production drawings, but they obscure elements of patent drawings, they may be **omitted** in all but one drawing.

Symbolic/Reference Elements of Client Supplied Graphs/Plots/Schematics:

- Plotlines & waveforms** should be clearly **distinct** from gridlines and other plotlines. i.e. – use thicker lines, broken lines, etc. (but **no color**)
- Common symbols** (electronic, hydraulic, conduits, etc) may be used, but with only **minimal text** references. (i.e. schematics)
- Flowcharts/Block diagrams in Word OK, but **graphs legible and B&W only**.

Recommended File Types: (descending order of preference; vector graphic best)

1. **EPS** = Encapsulated PostScript (vector graphic) [use Save As...]
2. **AI** = Adobe Illustrator, version 10.0 (vector graphic)
3. **DWG, DRW** = AutoCAD version 14 (vector graphic format opens in AI)
4. **PDF** = only if drawings can be exported to vector graphic programs
5. **TIFF** = export highest resolution (each email < 9Mb or compress)
6. **EASM** = Solidworks eDrawings (creates bitmap drws = jagged lines)
7. **DOC** = Microsoft Word (graphics & graphs difficult to edit)

¹ It is easier and cheaper for a client to initially edit out unneeded information with original software than for Inventive Solutions to clean up drawings later with Photoshop.

² Use separate drawings to identify parts or for notes on parts to help with patent.

³ Use landscape orientation to maximize viewable area where appropriate.