Thermal vs. Inkjet Printing

Why thermal technology?

- ***Low Cost of Ownership:*** No ink or toner, highly reliable, with a cost per page that remains constant regardless of how much print is on a page.
- ***Reliable:*** Thermal print technology is inherently reliable – using a very limited number of moving parts and operating under a wide range of environmental conditions.
- ***Print Quality:*** Thermal technology uses precise temperature and contact with the paper to place a pixel (printed dot) onto a page. This means precise placement of every dot producing high print quality character and graphic images.
- ***Easy to Maintain:*** There are no consumables such as ink, toners or drums to replenish. There are no scheduled maintenance parts.
- ***Easy to use:*** Once a printer has been configured, virtually the only steps are feeding paper and turning the printer on and off. Some thermal printers can be automated by using the Power-on / Auto-off features, and even the paper feeding can be automated using roll paper.
- ***Versatile:*** A thermal printer can be installed in a vehicle, on a cart, or be portable... even wearable. A thermal printer is not sensitive to orientation, performing as well upside-down as it does right-side-up.
- ***Supplies that meet the customer's needs:*** Paper, the only supply necessary, is available in cut sheet, fanfold, continuous-roll, perforated-roll, and weather-proof roll paper formats with archive-ability characteristics of up to 25 years.

Why inkjet printers are not mobile?

- Recommended uses of inkjet technology are generally limited to an office environment.
- Inkjet printers are known to have problems in mobile environments where temperature or pressure extremes occur. Cold ink or pressure variations can upset the printing process impacting print quality.
- The nozzles used in inkjet printers may become easily clogged in the extreme environments required for mobile printing.
- The many moving parts of the printer cannot withstand the harsh use environment of mobile users.
- Printer sizes have been reduced, but still do not lend themselves to a mobile form factor.
- Carrying and changing cartridges can be messy, if not challenging in mobile environments.
- Inkjet printer footprint (size) remains larger than thermal printers, making these challenging to carry and taking up significant space inside vehicles.
- Inkjet printers generally require AC power. This requires added expense for in-vehicle installations and limits mobility to locations near AC power outlets.

How are they being used in the field?

PocketJet® (Thermal)

MPrint (Thermal)

Inkjet

brother®
at your side

FAQ About Thermal Printers

Q ***How will thermal paper do in hot and cold environments?***

A Brother™ thermal paper is not affected by temperature until that temperature exceeds 140 degrees Fahrenheit. The head temperature required to make a solid dark mark is approximately 225 degrees Fahrenheit. That means if you leave thermal paper on your dashboard, with the windows rolled up, and the temperature is 100 degrees outside, it is likely that the thermal paper will begin to discolor. If the thermal paper was printed it should remain legible with only the background slightly discoloring.

Q ***How many years will thermal paper last when stored in normal environments?***

A Depending on the grade of Brother™ thermal paper selected the legibility of the paper in a normal storage environment is 5 to 25 years.

Q ***How easy is it to purchase thermal paper?***

A Brother™ thermal paper is available through the same resellers as the mobile printers and can be delivered as fast as the next day.

Q ***Does the paper curl?***

A Brother™ offers cut sheet, fanfold, and roll paper. Brother™ cut sheet and fanfold thermal paper is delivered in flat stacks. Cut sheet paper comes in boxes of 100 sheets, and fanfold paper in boxes of 1000 sheets. These papers do not curl.

The most popular paper is the Brother™ continuous perforated and non-perforated roll paper. When this paper is delivered on rolls with the paper wound around a ½ inch core, this paper does have curl. This curl is due to the "memory" the paper retains of being tightly wound around the small ½ inch core. For users that require roll paper, but cannot accommodate curl Brother™ offers roll paper on a 3 inch core that minimizes the curl by winding the paper around a larger core.

Brother™ Mobile Printer Paper Offerings

MPRINT™

MW-100, MW-120, MW-140BT

Paper Sizes:	*Paper Type:*
• Brother™ A7 paper: 4.1" x 2.9"	• Thermal Paper • Carbon Copy

MPRINT™

MW-260

Paper Sizes:	*Paper Type:*
• Brother™ A6 paper: 4.1" x 5.8"	• Thermal Paper • Carbon Copy

PocketJet® 6 PocketJet® 6 Plus

PocketJet® 6, PocketJet® 6 Plus

Paper Sizes:	*Paper Type:*
• Letter: 8.5" x 11" • Legal: 8.5" x 14" • A4: 8.27" x 11.69" • Roll Paper: 8.5" x 100"	• Cut Sheet • Continuous-or Perforated Roll • Fanfold

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