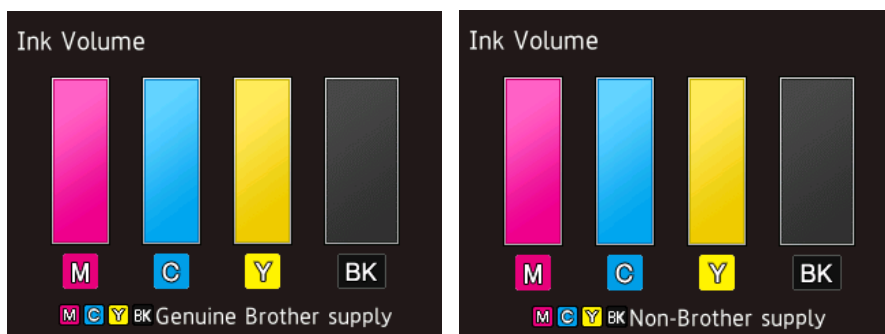


Technical white paper

Aftermarket Chips for Brother Inkjet Printers

Introduction

In 2015, we have launched a new series of inkjet printers which contain a new cartridge authentication function. These printers can provide a message to customers stating whether the ink cartridge installed is a Brother branded ink cartridge manufactured by Brother (“**Brother Genuine Ink Cartridge**”) or a non-Brother ink cartridge manufactured by others. The message shown on the printer display would be either “Genuine Brother supply” or “Non-Brother supply” as indicated below:



However, the cartridge authentication message will not be accurate unless the chip manufacturer has properly programmed the data field on the chip of the cartridge. Please refer to the instructions (the “**Instructions**”) in the “**Instruction**” section of this Whitepaper on how to properly program the data field on the chip.

If you are a supplier of ink cartridges, please instruct your chip manufactures to follow the Instructions in order to allow accurate display of the cartridge authentication message and avoid causing confusions to customers. If you are a chip manufacturer, please follow and comply with the Instructions and do not attempt to use any programs to circumvent this cartridge authentication function. For the purpose of this Whitepaper, “you” refers to both suppliers of ink cartridges and chip manufacturers.

Background & Benefits

We believe every customer has a right to be properly informed of the brand of the cartridges that they are using. However, we recognize there were cases where cartridges misidentified themselves as Brother Genuine Ink Cartridges when they are actually not. As a result customers, without knowing the reason, suffered from using certain low-quality alternatives or counterfeit products (or products using deceptive brand identification) that may cause malfunctions or damages to their printers. We have therefore introduced this cartridge authentication function that aims to prevent such misidentifications and provide better transparency to customers to make an informed choice – we believe this will be beneficial to everyone concerned in the ink cartridge market.

It is important to note that proper programming of the chip and identification of the cartridge as “non-Brother supply” will not result in any loss to features or quality in printing. Instead, it will be beneficial for you to properly identify your cartridges so that you can demonstrate to your customers that your products are respectful of registered trademarks and are not used to facilitate any counterfeit products. We therefore strongly advise you to follow our Instructions and cooperate with us in this respect.

Instructions

To ensure accurate messaging, Brother’s printer firmware reads and reacts on messaging based on a single data field on the chip of the cartridge. Programming the data field on the chip correctly will enable the printer to identify non-Brother cartridges and display the correct message to customers. Please follow the following instructions:

- i) Please change the string ASCII characters from “brother” to some other value. Any value is acceptable but we recommend manufacturers to use their own brand identifiers.
- ii) Please change “Field X” following the ASCII characters to “0x01”. Please note that the value “0x00” for Field X should only be used for Brother Genuine Ink Cartridge.

For illustration purpose, please also refer to the following diagrams:

Brand name							Types of cartridge
b	r	o	t	h	e	r	Field X

Field X	Indication
0x00	Genuine Brother supply
0x01	Non-Brother supply
0x10	(Reserved)
0x11	(Reserved)

Example

Initial data

Brand name							Types of cartridge
b	r	o	t	h	e	r	0x00

After modified

Brand name							Types of cartridge
a	b	c	C	o	r	p	0x01

Please note that putting any value other than “brother” as ASCII characters and putting “0x01” in Field X will only change the display message that the customer sees, and it will not affect print speed or other functionality of the printer.

Schedule

Brother Inkjet series with 2.7 inch or larger size LCD display launched from 2015 summer onwards are expected to have this authentication messaging function. You are therefore prompted to properly and consistently program the existing chips of your cartridges by following the Instructions.

The following list shows the current models of inkjet cartridges that support this authentication messaging function. Note that models of inkjet cartridges that have been newly-added in this revision appear at the bottom of the list, in bold font.

Cartridge Model	Examples of Applicable Printer Model
LC201, LC203	MFC-J680DW, MFC-J880DW, MFC-J885DW

Updates

This Whitepaper may be updated in the future. The latest version is available at:

http://update.brother.co.jp/pbj/pdf/en/Brother_White_Paper_Genuine_Authentication_Inkjet_EN

Contacts

For more information on this Whitepaper, please contact:

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