



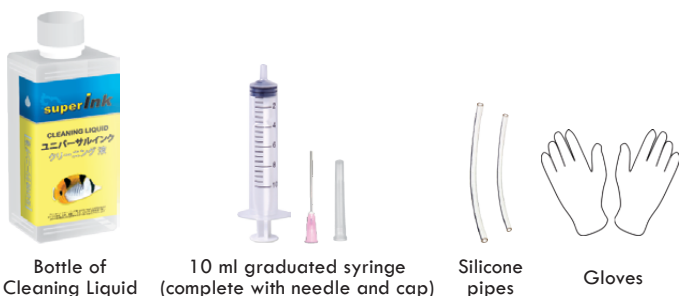
super^{ink} CLEANING LIQUID

UNIVERSAL CLEANING LIQUID - INSTRUCTIONS FOR USE

Cleaning Liquid is a liquid designed for removing ink residue and impurities from print head nozzles, to restore their proper functioning and ensure their durability over time.

The product is compatible with all inkjet printers: Brother, Canon, Dell, Epson, HP, Lexmark, Ricoh etc.

Package Contents



Bottle of
Cleaning Liquid

10 ml graduated syringe
(complete with needle and cap)

Silicone
pipes

Gloves

RECOMMENDATIONS

- Use the cleaning liquid at room temperature to facilitate the melting of impurities on the print head (dried ink, micro-paper residues)
- Prepare a work space to avoid any unwanted stains
- Wear a pair of gloves
- Use only good quality paper towels (paper that is too fine could wear and disperse into the printer and/or print-head)
- Always perform one or more cleaning cycles after the product has been used to completely eliminate any residual liquid on the print head
- If the print quality is not optimal after cleaning, perform another cleaning cycle and consider waiting for a longer period between cleaning and reactivating the printer (dry ink may take hours before dissolving completely). Please keep that in mind if you need to print.

Cleaning a FIXED print-head



Place paper towel(s)
under the print head



Head cleaning
("Canon" and "HP" type)



Head cleaning
("Epson" type)

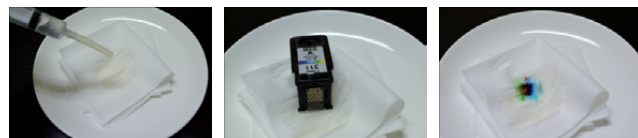


Head cleaning
("Brother" type)

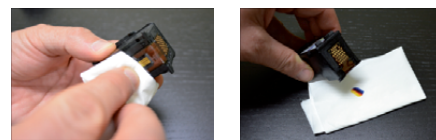
- Put the printer in "cartridge replacement" mode
- Disconnect the power supply cord from the printer
- Remove all cartridges from the holder
- Insert two or more layers of paper towel(s) underneath the cart, near the print head (to absorb the impurities and liquid that will come out the head during the cleaning process)
- Attach the silicone pipe (2 sizes available, choose the one that best suits the printer) or the needle (supplied with the package) to the syringe
- Repeat the following steps for each color:
 - ➡ take 2 ml of cleaning liquid
 - ➡ place the silicone pipe (or needle) at the base of the ink inlet
 - ➡ slowly press the syringe and inject 2ml of liquid
- Wait a few minutes to allow the cleaning liquid to dissolve the impurities and dry ink on the print head
- Remove the paper towel(s) from beneath the cart, taking care not to drip ink/liquid
- Insert all cartridges into their housings
- Reconnect the power cord and wait for the printer to become ready
- Perform a cleaning cycle with the printer utility
- Print the nozzle check pattern using the printer utility and check the results

Cleaning a MONO-BLOCK head

- Remove the cartridge to be cleaned from the printer
- Prepare a container of a suitable size to clean the cartridge
- Place paper towels in the container and pour 2-3 ml of liquid on them
- Place the cartridge head on the wet paper towels
- Wait a few minutes to allow the cleaning fluid to dissolve any impurities and the dry ink on the cartridge head
- Take the cartridge and gently wipe the print head with a paper towel (same ink might spill in the process)
- Reinstall the cartridge into the printer
- Wait for the printer to become ready
- Perform a cleaning cycle with the printer utility
- Print the nozzle check pattern using the printer utility and check the results



Cleaning a mono-block cartridge Canon, HP, Lexmark type...



Drying and "visual" testing



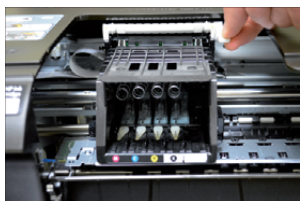
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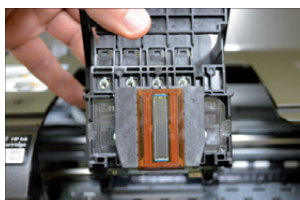
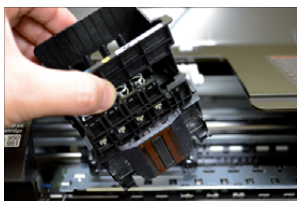
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Cleaning a REMOVABLE head



Cartridge removal and (after) print head removal ...



Cleaning of removable print head for Canon, HP...

- Put the printer in "cartridge replacement" mode
- Disconnect the power supply cord of the printer
- Prepare a container of suitable size to clean the print head
- Place paper towels in the container and pour 2-3 ml of liquid on them
- Remove all ink cartridges and the print head from the printer
- Place the print head on the wet paper towels
- Wait a few minutes to allow the cleaning fluid to dissolve the impurities and dry ink on the print head
- Take the print head and gently wipe it with a paper towel (same ink might spill in the process)
- Reinstall the print head in the printer with all the cartridges
- Reconnect the power cord and wait for the printer to turn on
- Perform a cleaning cycle with the printer utility
- Print the nozzle check pattern using the printer utility and check the result



WIKI-PRINT

pl (picoliter)

It is the unit of measurement used that defines the size of a single drop of ink ejected from a single print nozzle.

1pl = 1/1,000,000,000,000 liters

Print head

The print head is the heart of the printer. It physically "sprinkles" tiny drops of ink that will form the final print.

The latest generation of inkjet printers can spray droplets as small as 1.5 pl through over 1,000 tiny nozzles!!! These 1,000+ nozzles form the "print head".

Therefore, it is important that you choose a high quality ink that will not damage the printable print head over time (or after many recharges) when refilling the cartridges.

superink is here for this with its latest line of inks!

Printing technology

There are essentially two technologies used for the operation of the print heads:

• Thermal (or Bubble-Jet)

At each nozzle a resistor is positioned through which current pulses are passed; at each impulse the resistor warms up to a few hundred degrees in a few microseconds and generates a vapor bubble on contact with the ink.

Expansion of the latter causes the expulsion of the drop by the nozzle above; this is the most widespread technology in the Home/Office field and is mainly used by HP (Hewlett-Packard), Canon and Lexmark.

• Piezoelectric

Below each nozzle there is a channel surrounded by a piezoelectric crystal; an electric impulse causes the crystal to change shape and consequently cause pressure in the duct and forces the ejection of the ink. This is the technology used principally by Brother and Epson for their inkjet printers.

Differences between "FIXED", "MONO-BLOCK" and "REMOVABLE"

The **fixed head** is inserted directly into the printer and is designed to last for the entire life cycle of the printer.

This considerably reduces maintenance costs since the head does not have to be replaced each time the ink runs out. In addition, printing quality is generally better and does not require any calibration.

Unfortunately, in case of head damage, the replacement cost (if replacement is possible) makes the operation extremely costly, forcing the user to be more likely to buy a new printer.

The **mono-block** head is supplied as part of a replaceable ink cartridge.

Each time a cartridge (ink cartridge) is exhausted, the entire cartridge and print head are replaced with a new one. This increases the cost of consumables and makes it more difficult to make a high-precision head at a reasonable cost, but also means that if the print head is damaged or clogged, the problem can be solved easily: you buy a new cartridge (complete with head) and the printer will print as good as new!

Finally, the **removable head** is a combination of the two previous techniques: the print head can easily be removed from the printer (usually by lifting a lever/hook) and the ink cartridges can be changed when needed.

Many Canon printers and some HP printers use this kind of mixed technology. In this case, the print heads are designed to last for the entire life of the printer, but can be replaced more easily by the user (and more economically) if they are clogged.

