



OctoInkjet
(Web5nail.net)

Durchstich (German) Method

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Fig 1.

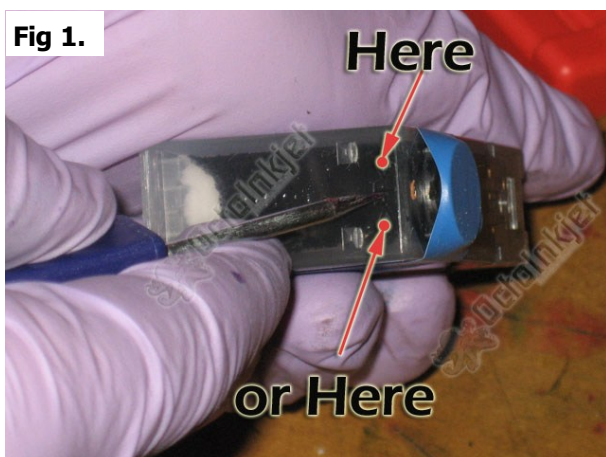


Fig 2.



Fig 3.



Fig 4.



This document provides a guide for the Durchstich or “German” refilling method for Canon inkjet cartridges.

Important: Requires 2” (inch) or longer needle(s)

If you are using a SquEasyFill system, use the separate instructions (provided with the kit) to prepare the ink bottle.

TIP: It's worth resetting your cartridge chips before you refill to reduce the potential for leaks or mess.

1. Using an awl, push pin or similar instrument, you need to create a small hole by carefully pushing it into the back of the cartridge, through either of the > or < parts of the >PP< markings (as shown fig 1). This helps avoid the central sponge running down into the outlet hole.

The hole will need be big enough for the needle to pass easily into the cartridge. So test with one of your needles to see if it's big enough and widen slightly if required.

2. Once you're happy with the hole size, use a sharp blade to remove any plastic waste/flakes created around your fill hole. This helps prevent ink from wicking out.

Now, gently insert the needle into the hole and slide it along/close to the bottom of the cartridge, towards the spongeless compartment. You may find that a gentle twisting/drilling movement of the needle, as you push it into the sponge, helps ease it forwards while avoiding displacement/damage to the sponge

3. Some gentle adjustment of the needle path may be required but eventually the needle will push almost all the way into the cartridge and reach the spongeless compartment.

IMPORTANT: The needle must go at least 5mm into the spongeless section of the cartridge before you start filling or you will create a complete mess!

4. Make sure the cartridge is orientated with the exit port pointing up (see Fig 4). You can now start to slowly fill the tank with ink until the spongeless section is around three quarters full.

Take care not to overfill the tank and remember to let the cartridge “rest” so the sponge can soak up its capacity in ink too. (See next page)



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Spongeless Section Full:
Without releasing bottle pressure
gently pull needle free



Fig 5.

Stand cartridge on end.
Sponge will soak up ink



Fig 6.



Fig 7.



Fig 8.

One of the key things to remember, when refilling, is that patience is a key ingredient. It helps avoid/reduce mess and other problems, so take your time.

5. DO NOT RELEASE THE PRESSURE ON THE BOTTLE
Instead, maintain the current pressure on the bottle and gently remove the needle before releasing.

This is necessary to stop the bottle drawing ink back into itself from the cartridge. Practice will be required but it is relatively easy to master.

Note: If you're using a syringe to refill you can leave the needle inserted and hold the cartridge upright while waiting until it is ready for a top-up.

6. Once you've removed the needle, put the cartridge down (on the end you created the fill hole in) and leave it to rest.

Observe the cartridge for 10-15 seconds to be sure nothing is leaking out of the fill hole (*just in case*). There shouldn't be a problem though.

7. The cartridge sponge will slowly absorb the ink into it, allowing air to replace it in the spongeless section so leave this to take place for a few minutes (*refill another cartridge while you wait or have a cup of tea*)

8. When the ink levels/bubbles have settled you can top up the ink levels in the spongeless section to around 75% full, using the same method (*described above*).

(*Note: the fill process for the PGI-520BK is shown left rather than topping up, but the premise is the same as the initial fill*)

You should now be ready to use your cartridge in your printer.

Note: You do not need to seal the fill hole (*yes, really!*) but you can if preferred or if the cartridge is going to be stored.

IMPORTANT: Always refill over a protected surface where any spills can be contained.



Cartridge Clip Usage

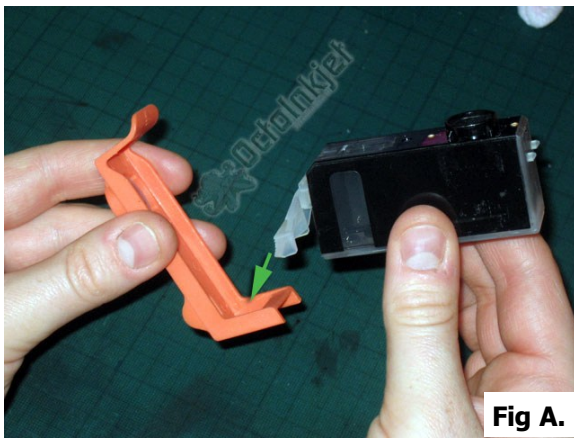


Fig A.

Installing The Cartridge In The Clips/Holder:

- **Back the cartridge into the gap in the clip (fig.A)**
The retaining clip on the cartridge has to go through the gap in the back of the orange clip.

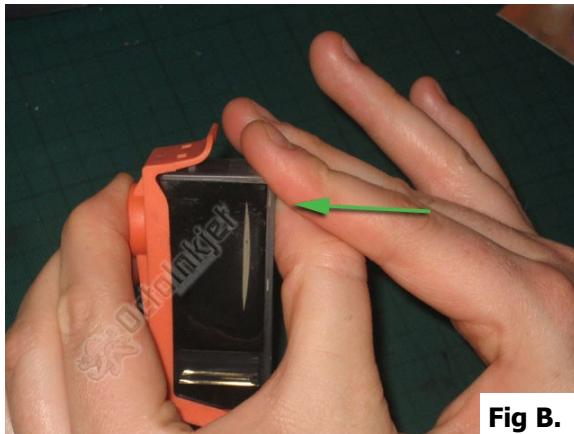


Fig B.

- **Push the cartridge down into the orange clip (fig B)**
With the cartridge retaining clip in position you can now push the top of the cartridge down so that the cartridge exit port pushes into the silicon disk in the orange clip and the retaining lugs snap into the holes.

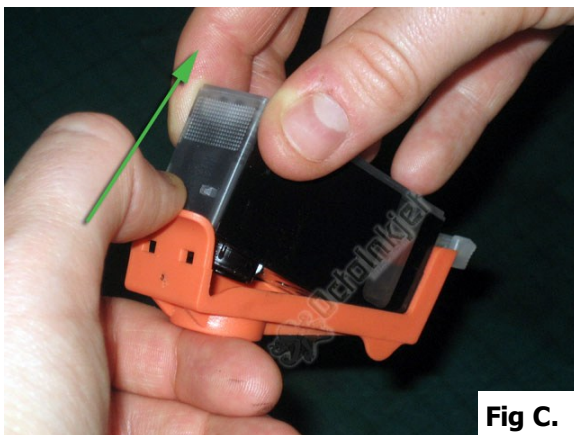


Fig C.

Removing The Cartridge From The Clip/Holder

- **Release the lugs from the orange clip (fig C)**
Pulling the front of the orange clip away from the cartridge front should free up the two lugs that hold the cartridge in position.

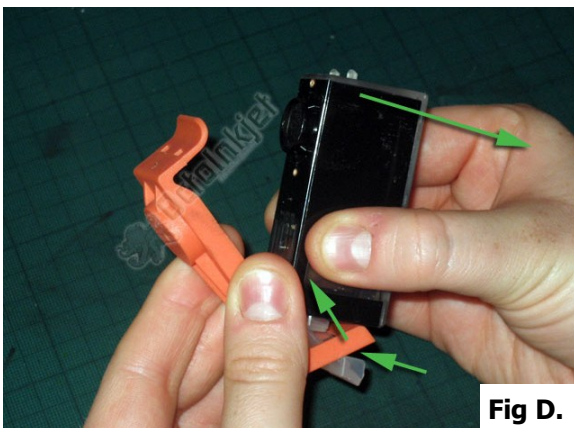


Fig D.

- **Reverse the process for remove the cartridge (fig D)**
Once the lugs are released you simply lift the front of the cartridge out of the orange clip, pivoting on the back until you can pull the cartridge retaining clip out of the hole in the back of the orange clip.



Tips/Troubleshooting

These are just some tips for when things go wrong or what to look out for...



Fig A.



Fig B.

- **Overfilled cartridge**

Don't panic. Overfilling is only a real problem if ink is coming out of the vent (if so, check the FAQ on the Octoinkjet website).

If you're not sure if you've overfilled, just hold the cartridge as if you are installing it (see left) and allow it to drip onto a tray and/or cloth until it stops. This allows the ink levels to reach a natural balance/pressure.

Alternatively you can give a small squeeze to your SquEasyFill bottle, then, holding the pressure, insert the needle it into the cartridge and gently release the pressure to draw some of the excess ink off.

- **Pressure released while needle inserted**

Again, nothing to panic about. This just means the cartridge will have less ink in it.

Just take a deep breath, leave the cartridge to settle for a couple of minutes and then top it up as if you would normally. This time take care to keep the pressure on the bottle as you withdraw the needle.

- **Ink bubbling through vent hole**

This is potentially quite serious, as it could result in ink drying and clogging in the vent hole, stopping air from getting in.

If in doubt it's worth purging the cartridge and starting again, this time with less speed and more patience.

You could reinsert the needle and suck out the ink first (saving it for later) by squeezing the bottle before insertion.

5. Anatomy of a Cartridge

Fig's A and B show the anatomy of a cartridge (PGI-520 shown but equally applicable to all Canon cartridges)

6. Other Tips

A FAQ/Knowledge Base section on refilling is being developed and will be added to as other tips or troubleshooting advice becomes available.

Just visit:

<http://www.octoinkjet.co.uk/squeasytips/>