Refill Instructions: Canon CLI-8 and PGI-5 Cartridges

MIS Associates, Inc. has complied detailed instructions here for the Canon printer line that includes the series of Pixma printers, some which are multi-function printers. This refill procedure is written for the virgin empty Canon cartridges that we sell. Other procedures may also work. The method we have tested and found to be successful is detailed below and used on the printer models listed above.

Please note: This is not a Canon approved procedure. Do not put anything other than our recommended ink into the cartridges.

This is the cartridge refill procedure for the following line of Canon Pixma printers, the iP3000, iP4000, iP6000, and iP8500. We used the magenta color to illustrate in these instructions. They all filled the same way. Each refill uses about 15 cc of ink or 1/2 ounce of ink except for the High Capacity black cartridge that uses 25 cc.

Preparation:
Here is what you will need to do this refill...

- MIS Refill Kit, which includes: syringe, needle, inks (Plus kit includes cartridges and plugs.)
• Empty Canon Cartridge, either used or a virgin empty from MIS
• Newspaper and some paper towels
• A bench to work on where no damage will be done if you spill some ink
• Rubber gloves are optional (bleach and water will take ink off your hands)
• Follow along carefully, as the instructions for filling a virgin empty cartridge are a
  bit different than those for refilling a used cartridge.

**Virgin Empty Filling:**
1. To begin the project, be sure you have an adequately large work space and protect it by covering it with old newspaper in case of an ink spill. Having some paper towel near by is always a good idea. You will need some to dab up any ink overflow when refilling cartridges.

2. Rubber gloves should be included in the kit and can be used to prevent ink stains on the hands. The ink can be washed from skin with warm soapy water, and in extreme cases a small amount of bleach.

3. Note the following characteristics of the cartridge. One, the plug port for filling, locate the plug for sealing this port. Two, the orange cap covering the dispensing port for the print head; this is located on the bottom of the cartridge. Three, the
breather hole, initially covered by the foil pull-tab. Four, the open ink chamber side of the cartridge. And five, the sponge filled side of the cartridge.

4. Foam is your enemy, if at any time foam begins to form to the point that it obstructs filling. Set the cartridges down and allow a few hours for the foam to dissipate.

5. The orange cap must be on the cartridge for all filling procedures. You should also retain this cap for future use in the refilling procedure. The orange cap and plugs for the fill port are NOT replaceable; if lost, you must purchase a replacement virgin empty cartridge.

6. Starting with the virgin empty cartridge, begin with the sponge side downward and the filling port toward you. Fill your syringe with 12 cc of ink.

7. Inject the ink slowly into the fill plug port opening. Allow the ink to soak into the sponge before attempting to fill the reservoir chamber portion of the cartridge.
8. Once the sponge appears to be 80% soaked, complete the filling of the reservoir. You may need to add additional ink to the syringe.

9. Insert the plug into the fill plug port opening to seal it. If at all possible, allow the cartridge to settle any foam build up remaining from the fill process. Some foam may not dissipate.
10. Remove the foil protecting the breather and the orange cap and install the cartridge as usual to begin printing.

**Refilling:**

1. Upon removing an exhausted ink cartridge, replace the orange cap over the dispensing port before beginning any refilling steps. Then remove the plug from the fill port.

2. Next locate the correct inkbottle supply and the syringe and blunt needle.

3. Before putting ink in the syringe, check to fit the needle into the breather port on the sponge side of the cartridge. You should be able to insert the needle portion entirely into the sponge until the plastic portion of the needle touches the cartridge.
4. Next pull 10 cc of ink into the syringe from the correct bottle.

5. This step will cause ink spill if not done carefully. Begin injecting ink into the breather port side of the cartridge to fill the sponge side first. This must be done very slowly to avoid any foam build up and prevent spillage. At the first sign of ink or foam leaking back out of the breather port, stop. You may see ink beginning to fill the reservoir side of the cartridge, this is okay. Continue to fill the sponge side until ink begins to leak from the breather port, and then stop.

6. Next inject ink into the reservoir side until it is full.

7. Reinstall the fill port plug.
8. If at all possible allow the cartridge to settle any foam build up remaining from the fill process. Some foam may not dissipate.

**CHIP REPLACEMENT INSTRUCTIONS:**

*WARNING:* DO NOT PUT A CARTRIDGE WITHOUT A CHIP ON IT INTO THE PRINTER - IT WILL CAUSE FATAL DAMAGE TO PRINTER!!!

The new Canon cartridges have chips on them. To use an aftermarket cartridge, you must remove the chip from your OEM cartridge and install it on the aftermarket cartridge. Note that these chip are color position specific. If you have an old cartridge, you can reset the chip and return it to the Full condition. Use the SK155 chip resetter. The SK155 will only work on standard type chip, not on aftermarket chips.

**Procedure:**

1. To get the chip off, use a single sided razor blade and remove excess plastic from the side post holding the chip in place. Only remove the plastic from one post.
2. Use a knife blade or thin screwdriver blade to pry chip off of cartridge.

3. Slide new chip on to the posts on the new cartridge. Take advantage of the U channel in the chip. When the chip is in place, push the posts down to retain the chip.

4. If the chip is loose, remove it and then use a SMALL amount of super glue or equivalent on the backside of the chip to keep it in place. **CAUTION:** Do not get any glue on the gold pads. If the chip snapped in place you will not need any glue.

**WARNING:** If you insert a cartridge that does not have a chip on it down into the cartridge holder, the small metal fingers that normally make contact with the chip will get caught inside the cavity for the chip. Then when you pull the cartridge out, these fingers will get bent and the printer will be ruined. **DON’T DO THIS.**
OEM REFILL INSTRUCTIONS:

*Please note: This is not a Canon approved procedure. Do not put anything other than our recommended ink into the cartridges.

Procedure:
This is the procedure for all of the cartridges used in the Canon 3000, 6000, S400, S450, S600, S800 and BJC-8200. We used the yellow one to illustrate the instructions. They all fill the same way. Each refill uses about 15 cc of ink or 1/2 ounce.

Preparation:
- Here is what you will need to do this refill...
- MIS Refill Kit which includes; syringe, needle, ink, yellow drill tool, rubber balls
- Empty Canon Cartridge, either used or a virgin empty from MIS
- Small hammer
- Black electrical tape
- Newspaper and some paper towels
- A bench to work on where no damage will be done if you spill some ink
- Rubber gloves are optional (bleach and water will take ink off your hands)

Refill:
- Scrape away the thin plastic on top of the cartridge to reveal the ball in the reservoir section.
2. Use our black tool and a small hammer or equivalent device to push the ball into the reservoir. It does not take much, just one sharp blow right on the plastic ball. (See step 9 for alternative.)

3. Using our Yellow Drill Tool, make a hole in the top of the cartridge into the sponge area.
4. Use some black electrical tape and tape over the exit port on the bottom of the cartridge. This is so ink will not leak out when you fill the sponge section or the reservoir section.

5. Using the syringe, inject ink into the sponge area until full. Move the needle around into different spots in the sponge to get it totally saturated. Leave the hole into the sponge compartment open, do not cover or block. Next, inject ink into the reservoir area until almost full. Leave just a little air space, so it does not overflow. This is just to keep everything from getting messy.

6. Make sure the area where the ball was, is clean and free of any chips or plastic film. Press the black rubber replacement ball (MIS-HPBALL) into the hole where the original ball was located. Just use your finger nail to seat the ball so it is flush with the surface of the cartridge. Don't go too far or it will get pushed inside the cartridge. Do not cover or plug the hole you drilled in the sponge compartment. This is the air vent and it must be left open. Remove tape from bottom exit port.

Note: If the ball does not make a perfect air tight seal, then ink will drip out of the cartridge at the exit port until empty. If this happens, see step 7.

7. If the cartridge is dripping, let it drip into a cup or dish until it stops. Don't keep the exit area, where the ink comes out in contact with any paper or cloth because it will wick all of the ink out. If it has stopped dripping, put it back in the printer and run a cleaning cycle. If it continues to drip for a long time, you may have an air leak around the rubber ball. Make sure the ball is not damaged or gouged. Put a new one in if it is damaged. If you damaged the ball seat when pushing it in or cut it somehow, it will leak air. If you can't get a good seal with the ball, add some hot
melt glue around it to help the sealing process. If you need more of the rubber balls (MIS-HPBALL), you can order them from the accessory page.

8. The next time you are ready to refill you can reuse the rubber ball if you carefully spear it from the side and remove it with a bulletin board stick pin. Don’t push down on the ball or it will pop into the reservoir area. This is not a problem, it just means you will have to have another ball to seal the hole. If you are careful you can reuse the rubber ball 3 or 4 times.

9. As an alternate procedure you can drill into the reservoir area, inject the ink and then use hot melt glue to seal the hole AIR TIGHT. If you don’t like drilling, then try a heated paper clip to melt a hole in the reservoir. Hold it with pliers and heat with a lighter or torch.
   If your cartridge drips for a long time after refilling, this means there is an air leak in the reservoir section.