

Canon iP4200 CFS Installation Installation Procedure



Canon Pixma iP4200 with MIS CFS Installed

Prerequisite -

Before starting this installation, you **MUST** test your printer to make sure it is printing 100% correctly. The best way to do this is to first print a Nozzle pattern, using the printer utility software provided by Canon. Once a perfect nozzle pattern is achieved, print 5 copies of the MIS purge4.tif image using the Plain Paper and Draft Quality settings on the printer, and 5 copies of the MIS purge4.tif image using the Photo Paper and Draft Quality settings on the printer. All 10 pages must print without banding or skipping (white spaces). If your printer can not do this, do not install the CFS. Run some cleaning cycles or get new cartridges. Do not proceed until you can pass these tests.

The Purge4 image can be found on the diskette included with your system. If you have a Mac you can download it from our website. You can also get it from the Helpdesk Download Library.

Tools & Materials Needed -

- MIS CFS System, ink, and a working Canon iP4200 printer
- Ruler or measuring tape
- Pair of scissors
- Alcohol and some paper towels
- Some paper to print on

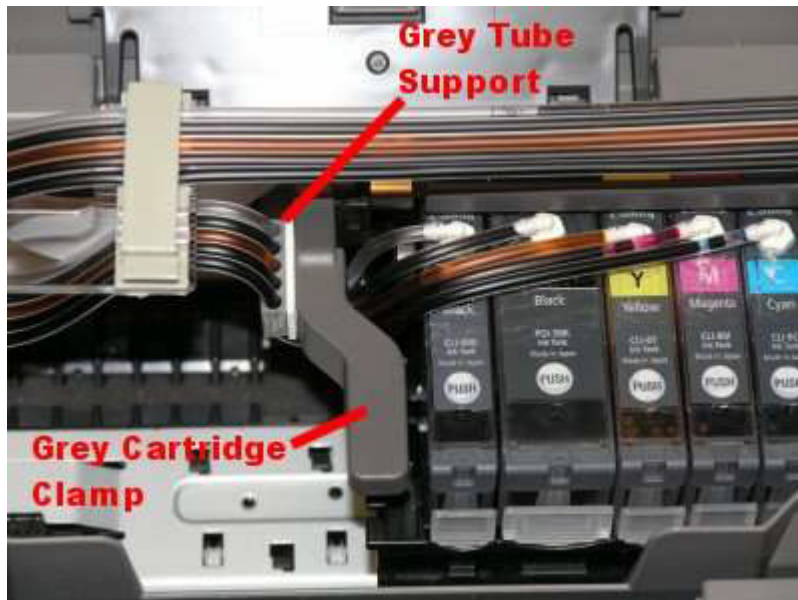
Items In This Kit You Will Need To Save -

- MIS iP4200 PIXMA Installation Instructions
- Silicone Port Seals
- White Tube Plugs
- Vacuum Pump Kit and Instructions

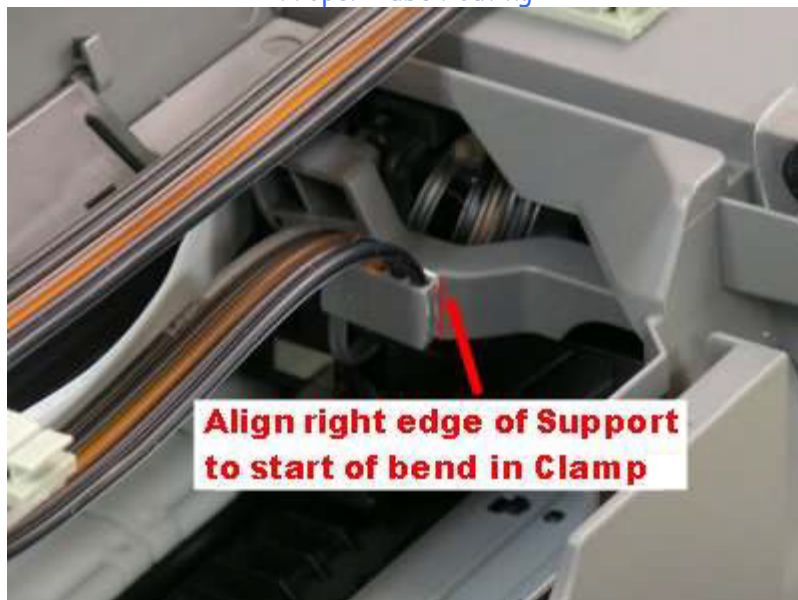
1. On the printer, with the power on, open the lid to move the cartridges to the **Replacement** position. While in this position, **pull the power plug out of the wall**. Next, remove the cartridges. The cartridges ride in a black cartridge carriage and are secured by a gray clamp. The clamp does not have to be lifted for removal of the cartridges, simply push in on each cartridge tab and remove them from the printer.
2. Lift the Grey Cartridge Clamp. Remove the orange caps and any other packaging material from the CFS cartridges. **PARTIALLY** install the CFS cartridges by placing them in their installed position but do not push the cartridges all the way down. Make sure that the tubing between the color cartridges and the Grey Tube Support is not twisted or pinched. Do not push the cartridges all the way down. We do not want the seals on the bottom to be pushed up until the tubes have been installed in the bottles. The tubing ends with the white plugs should be aligned to the right of the printer.

Next, carefully lower the Grey Cartridge Clamp while making sure to keep the tubes under the clamp as shown in the photo below. It is important that the tubes are not tangled or pinched as this may cause issues.

Now peel the protective tape from the Tube Support and adhere the Support to the Cartridge Clamp. The proper location of the Tube Support is on the left side of the Cartridge Clamp just behind the bend in the lever, as shown in the image below.

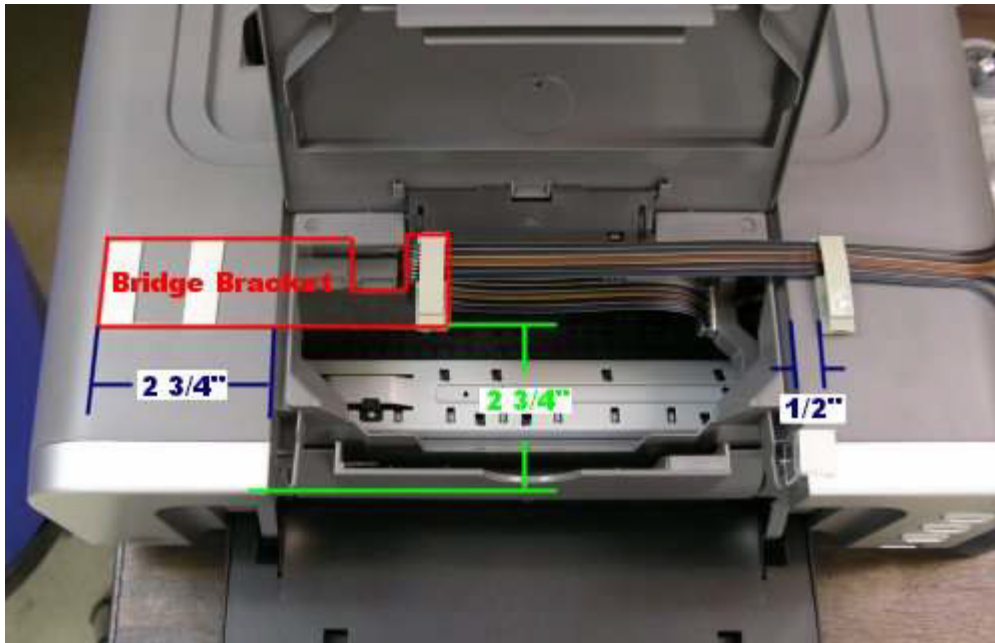


Proper Tube Routing



Grey Tube Support Installation

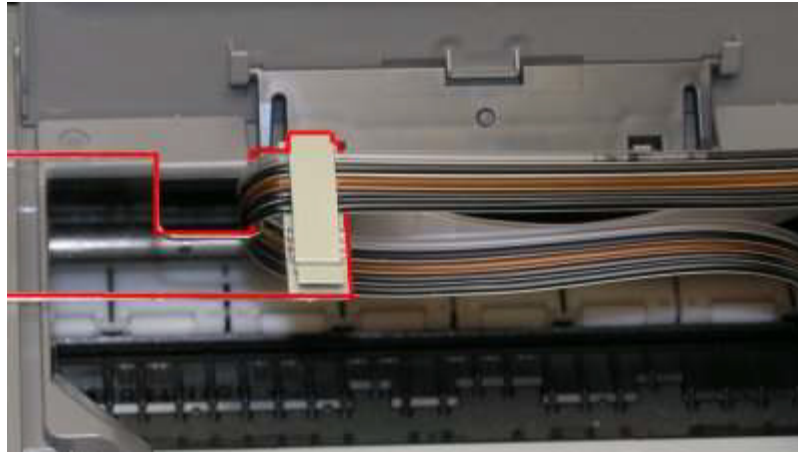
3. Install the Bridge Bracket as shown in the photo below. Clean and dry the printer housing with alcohol and place the Bracket 2 3/4" from the front of the printer housing and 2 3/4" from the left edge of the opening in the printer housing. Before securing the Bridge Bracket with the included double sided tape, ensure that the beige clip on the Bridge Bracket is on the right side of the Bracket.



Bridge Bracket and Beige Clip Locations

The included Beige Clip installs on the right side of the printer housing 1/2" from the right side of the opening in the printer housing. It should align with the clip on the bridge bracket so that the tubes will run parallel with the print carriage between the clip on the Bridge Bracket and the clip you are installing on the printer housing. See photo below. Affix the clip so that it opens from the front side of the printer. This placement is critical and must be done correctly in order to align the tubing.

4. Starting at the Grey Tube Support, slowly guide the tubes so that they hang over the left side of the printer housing. To do this you will have to route the tubes up through the recess in the Bridge Bracket. Next, pick up the tubes and drape them over the right side of the printer housing so that they now feed through the Bridge Bracket. The tubes should be positioned in the Bridge Bracket clip first, and the tubing should be marked where it will be placed clip. This position should allow enough length of tubing so that the cartridge carriage can slide the full length of the printer from right to left and back again without pulling the tubes and without being restricted by the tubes when they are placed in the clip on the Bridge Bracket. The clip will need to be pried open and the tubing inserted so as not to damage the tubing. Checking this process will be a bit difficult as the cartridges should not yet be fully locked into the carriage. When clipped into the Bridge Bracket the tubes should be draped over the right hand side of the printer housing. The routing of the tubes is shown in the photo below.



Proper Tube Routing

5. Once the tubes are securely inserted into the beige clip on the Bridge Bracket and you can allow the remaining tube length to feed to the right hand housing beige clip, and clamp the tubing. This will leave the remaining tube length at the right side of the printer ready to be trimmed for insertion into the bottles.

Un-web the tubes from the right end beginning at the white plug up to the right hand side of the printer housing, so that each tube can be independently installed into its bottle. The tubes are easily un-webbed by just pulling them apart, no tools are required. Don't go too far. You can now align the bottles on the right hand side of the printer. The order of the ink bottles from front to back are,

Cyan - Magenta - Yellow - Black - Photo Black



Bottle Positions



Velcro attachment

6. Installing the tubing on the bottles is easy. In the CFS kit you received a set of bottle caps with tubes attached. Remove the caps that came on the ink bottles and replace them with the caps that have the tubes installed. Be careful not to spill the ink. After prepping the ink bottles you will begin attaching the tubes to the bottles. To do this test the length of the cyan tube by placing it next to the cyan bottle, on the outside, and see if it is going to reach the bottom of the bottle cap. It should not be too short. If it looks like it is going to be too long, then mark the tube with a ball point pen at the spot you think it should be cut. Keep in mind that the tubes should be cut so that they will approximate the length in the bottle position image above. If the tubes are too long you will run into air bubbles forming in the lines if the printer sits, and if the tubes are too short they will not be able to reach the bottles.

Remove and save the white plug from the end of the tube and cut the tube with scissors where you placed the mark. After cutting the tube immediately connect it to the bottle by pushing the tube onto the fitting on top of the cyan ink bottle so the tube reaches the bottom of the fitting. **Do not put the wrong color tube on the wrong ink bottle.**

Repeat this process for each of the colors.

7. You can now press the cartridges down into the correct positions. You may hear them click into place, it is okay if you do not hear the click. Just be certain they are securely seated making certain the cartridges are properly aligned and down all the way in the carriage.

Clamp the CFS system in place by locking the gray print head clamp down. Push the cartridge carriage **all the way to the right hand inside of the printer**.

8. You will now need to install the included velcro square that will activate the cover switch in the location indicated below. When applying the vecro square, use the square to push the switch down before sticking the velcro to the printer housing.



Velcro Switch Activator attachment

9. Close the printer's lid ensuring the tubes are not pinched between the lid and the housing (the Bridge Bracket is designed to hold the lid slightly open to prevent this). Plug the printer back in and **turn on the power**. Run a few cleaning cycles until you have a perfect nozzle pattern. The printer is now ready to use. If you have problems getting a perfect nozzle pattern, let the printer rest overnight, and try again in the morning.

The Care and Feeding of a CFS -

There are a couple of things you should know that will keep your system running trouble free.

Every time the Canon iP4200 CFS system is removed from the printer the prime (ink in the tubes) will drain back to the bottles. After a few installations and removals the ink in the cartridge reservoirs will deplete making it necessary to Vacuum Fill the CFS using the Vacuum Pump Kit CFS-VP.

These systems work best if they are used frequently, daily is best, but use every few days is important. If you are an infrequent printer or only print once or twice a week, then you should install our AUTOPRINT program (download it for free from our CFS page).

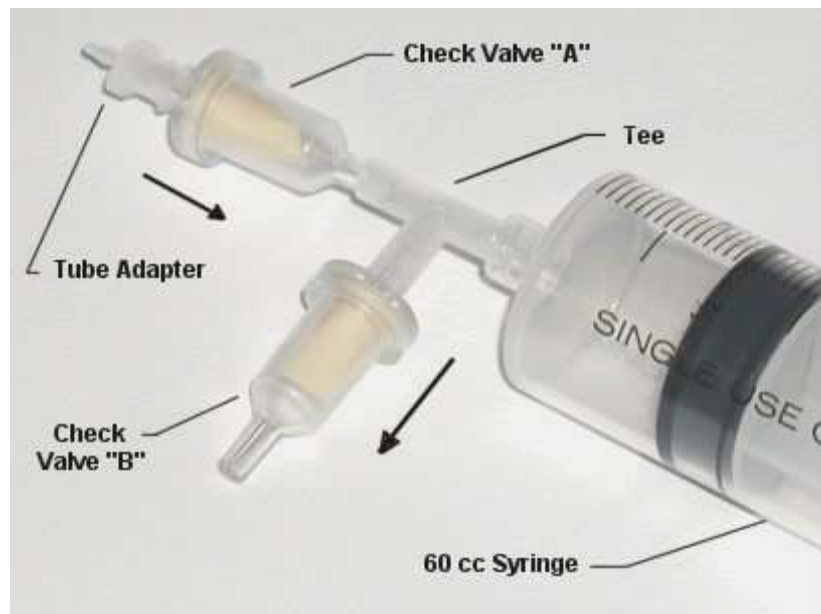
Autoprint will make a printout using our Purge4 image everyday as long as you leave your computer and printer turned on.

If you have to do cleaning cycles, do them in groups of 3 and be certain to print something, we recommend a copy of the Purge4 pattern after every 3 cleaning cycles. The Canon software will allow you to run cleaning cycles on the color cartridges or black cartridge individually. If only one of the cartridges is problematic limit the cleaning cycles to include the fewest number of cartridges possible. If you are still having problems after about 3 or 4 sets of 3 cleanings, then let the printer rest for a few hours or overnight and try again later. This has worked on many Canon printers in the past. It gives the air bubbles in the ink a chance to rise to the surface and get out of the printhead.

Don't let your ink bottles get empty. Refill them when they are at the 1/4 full level. Before pouring new ink into your bottle, transfer the ink that is left into a clean glass or jar. Then wash out the CFS ink bottle with soap and water. Then refill with leftover ink and new ink. This keeps algae from building up on the walls of the bottle and causing premature ink failure. An easier method is to order a spare set of empty bottles, and keep them on hand, clean and ready to use.

For additional technical assistance please read our CFS Troubleshooting Guide or visit our online HelpDesk

Vacuum Fill Procedure



The vacuum pump must be assembled as shown in the above photo. Check valve direction is critical.

- If you are refilling a Canon CFS, install the orange caps that originally came with the CFS over the cartridge ink supply ports.
- Make sure to not twist the tubing between the color cartridges and the clip on the black cartridge as this will cause issues with filling and installation.
- Attach the tube from the chamber that is going to be filled.
- Pull back on the plunger, all the way. It takes a fair amount of force.
- Push the plunger back down to the bottom to expel air.
- Pull back on the plunger again, all the way and push down to expel air.
- After 3 or 4 pulls, the plunger should snap to the bottom if let go.
- Let the vacuum pump rest for about on minute. This is a leak test.
- After one minute, pull back on the plunger and let go. It should snap to the bottom on its own.
- If it does not go all the way down, then there may be a leak in one of the check valves or CFS carts.
- Do not proceed until you can pass the leak test.
- Note, at no time does ink ever enter into the vacuum pump, only air.
- With the vacuum pump fully pumped up and maximum vacuum achieved, do the following to fill cartridge.
- Grab the tube, about 1 inch up from the vacuum pump and fold it in half and pinch it.
- This traps the vacuum in the tube and CFS. Now remove the tube from the vacuum pump without letting the tube unfold. Keep pinching the tube. This is important.
- Plug the tube into the fitting on the top of the correct ink bottle for the position being filled.
- Release the fold in the. Ink should rush up the tube and into the cartridge.

- The ink level in the bottle should go down about 1/2 inch or more depending on cartridge size.
- After about 30 seconds the cartridge will be full.

When the process is complete, fill the next chamber following the same procedure, but with a different color. Needless to say, that if you put the wrong color ink in the wrong chamber you will ruin the CFS cartridge.

After all chambers have been filled, let the cartridge set on your bench, in its installed position, for about 2 hours before installing into printer. If you lose some of the ink from the lines after they are filled, this is not a problem. As long as there is ink in the cartridge, the lines can be full or empty, it does not matter.