

Installation Instructions: Epson 1270/1280/1290/2000p CFS (Prefilled, AR)



Preparation:

Below are the instructions for installing a prefilled CFS for an Epson 1270 / 1280 / 1290 / 2000P printer. On the prefilled unit, the cartridges come full. If you ordered a system that is not prefilled please use the vacuum fill kit to fill your cartridges before continuing. If the tubes are empty on your prefilled unit do not worry, the empty tubes will fill with ink as you begin to use the system. Do not try to force or put any ink in the tubes. Please read each step fully before beginning the procedure.

Materials:

- Continuous Flow Cartridge set with Tubes attached
- MIS 1280 SLC Bridge Bracket (1) for 1270/1280/1290/2000P
- MIS Tube Guide (1)
- MIS Accessory Group MIS-AG1270A
- Small amount of Silicone lubricant.
- MIS Caps w/Fittings (6)
- Ruler or tape measure
- Black Felt Marker
- Small thin screwdriver, not phillips.
- Scissors
- Alcohol or Alcohol swabs

- Pen or Pencil

Get everything together in one place so you can do this all at the same time. It will take about 15 minutes of your time. It is not difficult if you have the right tools. Of course the second time you do it, it will be a lot easier.

Validate Your Printer Performance and Set Up USB Cable:

1. Before you begin installing the CFS, make sure your printer is working perfectly. If you don't do this and you have problems later on, you will never know if it is the CFS or your printer. So, **DO NOT SKIP THIS STEP.**

Use your Epson cartridges, and check your nozzle pattern, if it looks good, then print 5 copies of the PURGE6.TIF image (found on the disk provided or our web site.) The prints must not have any banding or skipping on them. Make sure you print using 360 DPI, PLAIN PAPER settings. If either the purge6 prints or your nozzle pattern tests have problems, then run cleaning cycles in groups of 3. Print a copy of purge6 after 3 cleanings. Always check your nozzles before and after each cleaning. If you cannot get a perfect print or nozzle pattern, then **DO NOT PROCEED WITH THE INSTALLATION OF YOUR CFS.**

Remove Cartridge Hold Down Clamps:

2. Remove the cartridge clamps next. Remove both the black clamp and the color clamp. With the power on and with the printer idle, push the Orange button under the printer lid. The cartridges will slide to the left, to the cartridge removal position. Remove both of the cartridges. Then, use your flat screwdriver to remove the clamps that were holding the cartridges in place. Put the screwdriver blade in between the blue and black plastic parts where the clamps are hinged, and twist. The clamps will pop right off. With the cartridges in the left position, pull the power cord for the printer out of the wall, disconnecting the printer power.

"At this point, disconnect the printer power by pulling the plug out of the wall"

Install the CFS Cartridges:

3. With the power disconnected, remove the old cartridges and insert the new CFS color cartridges. There should be 4 felt pads on each cartridge. You may have to guide these felt pads into the cartridge holder, it is a tight fit. Push the cartridge all the way down, so the poppet valves are actuated and the contacts touch the chip. Make sure it is seated at the bottom of the cartridge holder. If it is not seated all the way down, the chip may make partial contact causing it to become **unusable**. Do the same with the black cartridge. Both should now be firmly in place. You don't want them to be lifted by accident or by the tubes pulling on them.

Next, install the nylon tie wrap and hold down strap as shown below. It is important to get it in the exact position as shown in the photo, so it will be in the depressed area of the chassis. See photo. This is your insurance that the cartridges will not pop up and cause damage to the electronic chips on the front of the cartridges. If you have "red light" problems after installing your CFS, it is due to the chips on the carts being damaged. Careful here, they are delicate electrically. Do not use pliers or any tools to tighten the tie wrap, just your hand strength. If it is pulled too tight, it will cause the black cartridge to lift up.



Tie Wrap Installation

Install Tube Bracket:

4. Clean the housing surface where the bracket will attach with alcohol. Clean the top edge of housing. Wipe dry with a paper towel or clean cloth. The tube clip on the bracket should be on the right side. Remove the paper backing from the foam tape and place the bracket 6 1/2" from the right inside edge of the printer housing, as shown below.



Attach the small tube bracket on the top of the printer to the right edge.

Install Tubing in Bracket and Adjust the Slack:

5. Put a little alcohol on the tubes at the position that will interface with the bracket. For the 1270/1280/1290 printers, do not rotate the tubing. Slide the tubing into the tube clip attached to the underside of the bridge bracket. This is the bracket you installed in step #4. With the cartridges still in the left hand position, make sure there is a little slack in the tubing, not a lot, but just enough. If you can't get the tubing into the bracket, use a little more alcohol on the tubing.

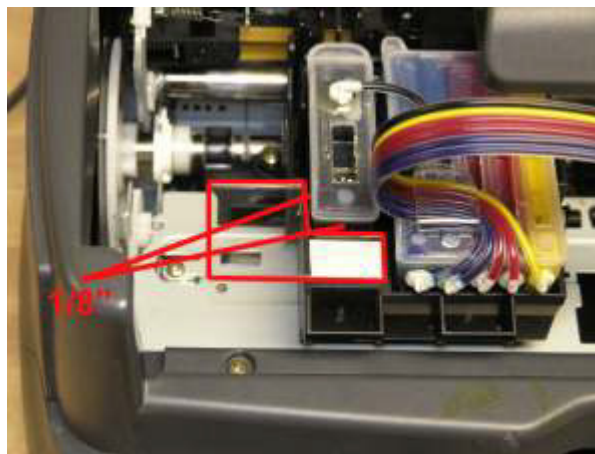
Move the cartridges, by hand, from far left to far right. Make sure there is sufficient slack in the tubing so that the cartridges can reach the far right and far left with out putting excess tension in the tubes. If you have too much slack in the tubes, then the tubing will touch the bottom of the printer. Adjust the tube position in the bracket so the tubes don't touch the bottom of the printer, and so the carts can reach far left and right with out the tubes stopping the motion. **This is important.**

With the new bridge bracket, the bottom of the printer chassis and the underside of the tubes must be coated with silicone lubricant. We have included a cotton pad containing the silicone lubricant. Wipe the silicone on the inside metal base or chassis (in the center) and on the bottom of the ink tubes. When the tubes touch the metal part of the printer, they will slide and not stick. **This is important.**

6. Clean the right section of the printer housing with alcohol, then install the second bracket on the right hand edge of the housing so the tubing is in a straight line. Put the tubing into this small bracket. Now you are ready to insert the tubes into the bottles. The position of the bracket opening can be either up or down. It does not matter.

7. Next, you must install the Tube Guide onto the carriage carriage. The Tube Guide is installed on the side of the carriage that has the black cartridge. Clean the area where the tube guide is to be installed with a small amount of alcohol. The bracket is installed in such a way that the edge of the bracket is 1/8 of an inch from the black cartridge on the left side and front. The Tube Guide position should be as shown in the picture below.

After installation, check to be sure that the Tube Guide does not hit the left hand side of the printer housing when the carriage is all of the way to the left side of the printer. Since this dimension is very close it is best to check this by sliding a business card between the Tube Guide and the printer housing with the carriage moved all of the way to the left. If the business card slides freely between the tube guide and the printer housing, it is installed correctly.



Set up the Bottles and Connect the Tubes:

Set up the bottles on the right side of the printer. The correct order from front to back is:

Yellow - Light Magenta - Magenta - Light Cyan - Cyan - Black

The cartridges come with extra tube length. Some of the tubing must be cut off of each tube. Un-web the tubes all the way back to the small tubing bracket on the right hand edge of the printer. Trim each tube length so that the tube will make a turn into the bottle with out rising up. There must be 3- $\frac{3}{4}$ inch of tubing inside the bottle. You just want to have a neat orderly tube arrangement. Cut the ends of the tubes on a 45-degree angle so they have a point on them. After you cut the tubes to length, use a black marker and make a mark on each tube 3- $\frac{3}{4}$ inch from the end of the tube. Insert the tubes through the larger hole in the center of the cap until the black mark is just inside the cap. Don't cut the tubes too short.



Ready to Turn Power On:

8. Move the cartridges, by hand to the far right side of the printer until they stop. Plug the printer power plug back into the wall. If the power light on the front panel is not on, press it in to turn on the power. The printer should make some quiet noises and the cartridges may move left to right. There should NOT be a red light on the front panel. **THIS IS IMPORTANT.** If there is a red light, this means the chips on the front of the cartridges are not making contact with the printer. See the troubleshooting section of our website if this happens. Look for the CFS TROUBLESHOOTING GUIDE on the CFS web page link found on our home page.

Now the tubes are all attached and inserted into the bottles. Make sure the tubes are not restricting the motion of the cartridges. Add more slack if they are. When the printer stops making noise, you are ready to start printing.

Let Ink Begin to Fill Tubes:

9. Run 3 cleaning cycles. Print a couple of copies of purger6.tif, found on the diskette. The inks should begin to climb up the tubes. They will not all rise at the same rate. If you have banding or incomplete printing, run 3 more cleaning cycles and nozzle checks. As soon as you have a good nozzle check, you are ready to start using the system. As you print, the inks will continue their climb until they reach the cartridge. Don't worry if the inks seem to be moving slowly, they will all get to the cartridge eventually. It is not necessary to wait until the inks have filled the tubes. You can begin printing as soon as you have a good nozzle check.

Understanding the Auto Reset Chips:

10. Your CFS cartridges have Auto Reset chips on them. Each time the printer power is turned on the chips will reset themselves to full. If you need to reset the ink levels, simply turn off the printer power, wait 10 seconds, and turn the power back on. This resets the chips. The actual ink level inside the cartridges is kept full by the CFS unit. The ink level displayed on your screen by the Epson monitoring system is not the true ink level inside the cartridges. It is what the monitoring system and chips are indicating.

Troubleshooting:

Our website, www.inksupply.com, has an excellent section on CFS troubleshooting. If you are having problems with your CFS, then this is the place to go for assistance. Carefully read the symptoms of the various problems and determine which solution you need. You can email or call us for tech support if needed.

Don't let your CFS go for several days without printing. They tend to develop problems if left idle. Try to make a print each day, or at least once per week. This is especially true if you live in a hot dry climate. If you are not there to make a print, use our Autoprint program contained on the MIS diskette. See the Readme file for installation instructions. If you have missing nozzles, they must be recovered within 24 hours. If you wait to take corrective action you are putting your printer at risk. Use Epson cartridges to recover nozzles if our troubleshooting tips do not solve the problem.

Most Common Problem:

The chips on the cartridge must remain in contact with the 7 small fingers in the printer that touch the chip. If just one of them loses contact, a red light will come on preventing further printing. When you are pushing the cartridge down into the cartridge holder, it must go down ALL THE WAY. Contact with the chip is only made in the last 1/32 of an inch. If the cartridge moves up just slightly, contact with the chip is lost and a red light comes on. Or if the tubes have too much tension when the cartridges move to the far left, it will pull the cartridge (black) up, causing a red light. If you do not think the cartridges are secure, then add shims, tape or what ever you can devise to keep them in place. Release some of the tension on the tubes by moving the tube in the bracket to the left. Don't put too much slack in the tubing or it will interfere with the cartridges moving back and forth. This adjustment is critical and best done by disengaging the white lever under the cartridge holder with the power off. Then slide the cartridges back and forth by hand while adjusting tubing tension. Be sure to put the carts all the way to the right before turning the power back on.

If you have a premature red light on, when it is not supposed to be on this is a serious problem. Try turning the printer power off for 10 seconds, and then turn it back on again.

If this does not work, new chips may be needed for the CFS carts. Call us for technical support.

Ink Foam Accumulation:

Some where between 6 months and 18 months of operation, you will have to do some preventive maintenance on your CFS. Ink foam gets trapped in the sponge inside the cartridge. This ink foam will accumulate and reach an intolerable level after many, many prints. We don't know the exact number, but it usually occurs somewhere between 6 months and 18 months. It depends how heavily you use your printer. The symptoms of "Ink Foam Build Up" are missing nozzles or the disappearance of an entire color. Normally a few cleaning cycles will bring your printer back to normal, but when excessive ink foam has accumulated, cleaning cycles will not bring it back. Correcting the problem is not difficult. It amounts to flushing out the foam by drawing fresh ink out of the bottom of the cartridge. The details of the procedure are described on the CFS troubleshooting page on the website. Keep your original Epson cartridges as they are needed for this procedure. They can be used several times for revalidation of printer performance.