



# 247INK TECHNICAL SHEET

## REFILL INSTRUCTIONS

Please read these instructions carefully before using your Inkjet Cartridge Refill Kit. Select the model of your printer from one of the pages shown.

### GENERAL INFORMATION

Cyan = Blue, Magenta = Red/Pink, Yellow = Yellow,

Light Cyan / Photo Cyan = Light Blue, Light Magenta / Photo Magenta = Light Red/Pink.

Our simple to use refill kit, if used correctly, should provide top quality printed output & give you HUGE SAVINGS over the cost of buying a new cartridge.

### Before you start:

- Read the instructions carefully.
- Work over a sink or a surface covered in layers of newspaper (just in case).
- Only re-fill a cartridge that has just run out ~ generally, old dried out cartridges do not fill successfully.
- Even 30 minutes can ruin a cartridge if it dries out!
- Have your printer manual handy for instructions on inserting a “new” cartridge.
- Empty cartridges left for more than 2 days do not always give a successful refill.
- Always refill the cartridge as soon as the warning sign is shown.
- A leaking cartridge can damage your printer. Do not place a cartridge into your printer that is leaking.
- Change your cartridge after every 5 refills, if you do not, quality of printing will deteriorate noticeably.

THE SUPPLIER CANNOT BE HELD RESPONSIBLE FOR ANY DAMAGE CAUSED BY IMPROPER USE, OR FAILURE

**PLEASE NOTE:** Because of the lifecycle of inkjet printers and the speed with which manufacturers are bringing out new models, your printer/cartridge may not be listed. Please find the closest cartridge to yours and follow those instructions – for colour cartridges make sure you push a cocktail stick, cotton bud or something similar into the filling hole before injecting ink to determine which colour to inject. Injecting the wrong colour will render the cartridge useless!

## KEEP OUT OF REACH OF CHILDREN AND PETS!

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## CHIP RESETTER REQUIRED

The ink in this cartridge is retained through a complex siphon design. This cartridge is a little more challenging to refill than other Epson cartridges, read the instructions carefully and be patient, this is not a fun one to refill.

**T0321, T0322, T0323, T0324**

**T0331, T0332, T0333, T0334, T0335, T0336**

**T0341, T0342, T0343, T0344, T0345, T0346 T0347, T0348**

**T0422, T0423, T0424**

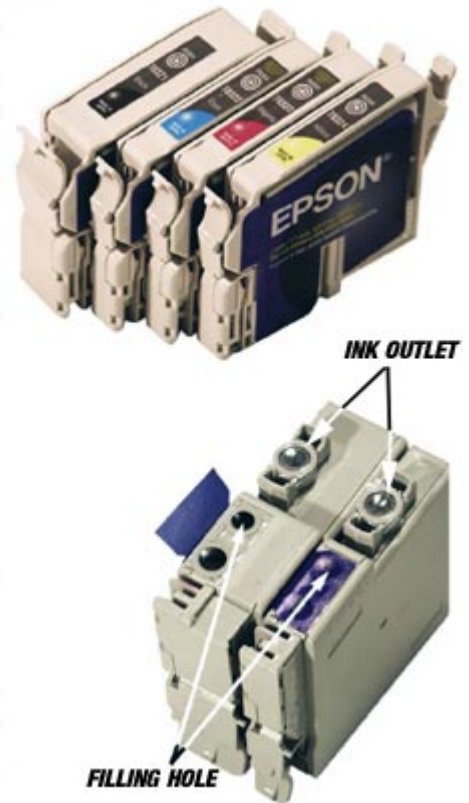
1. Turn the cartridge upside down and using a pointed object such as a paper clip, pierce through the label into the filling hole as shown in the diagram.
2. Attach the needle to the syringe and fill with the correct colour for the cartridge you are refilling.
3. Push the needle approximately 3/8" (10mm) through the hole you have made. Inject roughly 5-7ml of ink SLOWLY into the hole until the cartridge is almost full. Unused ink may be returned to the bottle.
4. Cover the hole you have made with some tape ensuring that it is completely sealed. This is EXTREMELY IMPORTANT, if the hole is not sealed the cartridge will leak.
5. Rinse the syringe thoroughly and dry between colours or for future use.
6. Follow the chip resetting instructions prior to manufacturers instructions for replacing cartridges.

### **IMPORTANT:**

Refilling chipped cartridges will only work with the proper use of a chip resetter.

For best results, cartridge should be refilled whilst some ink remains  
Empty cartridges should be refilled immediately.

This work is best done over the sink.





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**T0431**

**T0441, T0442, T0443, T0444**

**T0481, T0482, T0483, T0484, T0485, T0486**

For best results it is recommended you refill these cartridges whilst some ink remains in them.

1. Turn the cartridge upside down and using a pointed object such as a paper clip, pierce through the top and bottom chamber filling hole as shown in the diagram.

2. Trim as much of the label away from the holes as possible. Enlarge the top chamber fill hole. *Important: When enlarging this hole, make sure you angle the tool as shown in the diagram right.*

3. Attach needle and fill syringe with the correct colour ink. Insert the needle into the top chamber refill hole as shown in the diagram, making sure it goes in at the same angle used when enlarging the hole. There is a cellophane seal inside, make sure you don't damage this with the needle.

4. Inject approximately 12ml of ink SLOWLY into the filling hole until the cartridge is almost full.

5. Ensure the area surrounding the fill hole is dry and clean, then seal both of the holes, they must be airtight or the cartridge will leak.

6. Follow the chip resetting instructions prior to manufacturer's instructions for replacing cartridges.

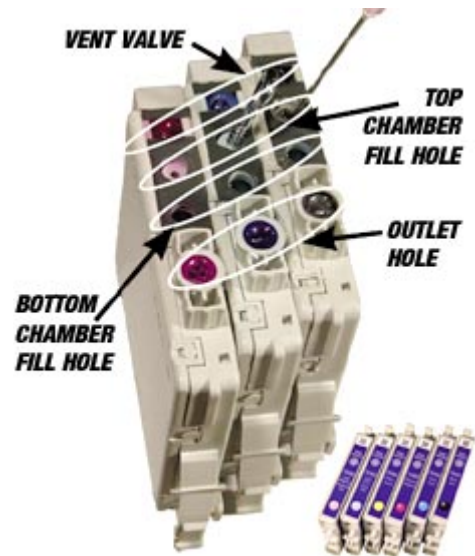
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## ALTERNATIVE METHOD – T03.... / T04....

1. Put the cartridge on some paper towels in an area where you can tolerate a spill. You may wish to wear the rubber gloves provided if you don't wish to temporarily stain your fingers.

2. Reset the Chip using the chip resetter.

3. Drill a refill hole with the thumb drill provided in the area indicated by the picture. Drill a second hole in front of the first. You will inject ink into one of the holes and the other hole is to allow air to escape as ink fills the chambers. (Make the hole toward the Epson label otherwise you will create a permanent leak.) If you notice, looking from the side of the cartridge, there are two layers of plastic that you will need to penetrate.

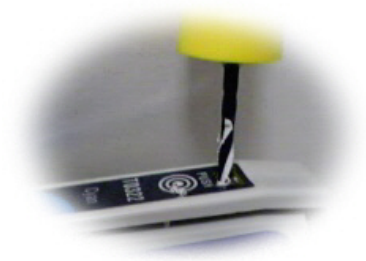


4. Keep a tissue ready to catch any overflow. Fill your syringe with the appropriate amount of ink. Put the needle into the hole which you have made. It will only penetrate about 1/4" (1 cm) before it hits another baffle.

5. The black cartridge (T0321) will accept up to 25ml of ink. The colour cartridges (T0322/3/4) will accept up to 10ml of Ink.

6. Fill your cartridge very s-l-o-w-l-y. The ink has to have time to run into the various internal chambers. Air and ink bubbles will come out of the other hole. This is normal. Do not overfill. If the ink starts to bubble out of the hole then just use that amount.

7. Replace the cartridge and if possible let the cartridge sit in the printer for 24 hours. This will give the ink time to settle down to the bottom and the air pockets to rise to the top. Run 1 - 3 cleaning cycles as per printer instructions.



8. The next time you refill do it when the ink level gauge reads ½ or ¼ full. Remember, you reset the chip back to full but you stopped refilling when ink bubbles started coming out of the filling hole, this means that the cartridge was not exactly full and you want to do your next refill before it runs empty.

Sealing the filling hole is optional and only necessary if you plan to transport the cartridge or if you have extremely dry air. If you decide to seal the hole, we suggest some hot glue, aluminium tape, black electrical tape, or candle wax.



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**S020089, S020093, S020097, S20108, S020138\*\*, S020187, S020189, S020191, S020193, T001, T003, T005, T007\*, T008\*, T009\*, T013, T014, T015\*, T016\*, T017\*, T018\*, T019, T020, T026\*, T027\*, T028\*, T029\*, T036\*, T037\*, T040\*, T041\***

\* DENOTES CHIP RESETTER REQUIRED TO REFILL

\*\* S020138 COLOUR ORDER IS: BLACK, CYAN, MAGENTA, YELLOW

IDENTIFY CARTRIDGE FROM IMAGE BELOW AND FOLLOW INSTRUCTIONS CAREFULLY. IF YOU ARE UNSURE WHICH ORDER THE COLOURS ARE IN FOR 3 COLOUR CARTRIDGES, YOU MAY TEST BY INSERTING A TOOTHPICK OR SOMETHING SIMILAR INTO THE FILL HOLES.

1. Use a piece of tape to seal the outlet hole(s) in the base of the cartridge.
2. Attach the needle to the syringe and fill with the correct colour for the cartridge you are refilling.
3. Push the needle through the label into the correct filling hole, push all the way into the cartridge. Inject approximately 7ml of ink per chamber SLOWLY into the hole until ink just begins to surface at the filling hole. **NOTE:** For 5 colour cartridges you will need the appropriate Photo Refill Kit which comes with the two extra colours required.
4. Cover the hole you have made with some tape ensuring that it is completely sealed.
5. Rinse the syringe thoroughly and dry between colours or for future use.
6. Follow the chip resetting instructions for cartridges fitted with a smart chip. This requires the purchase of a Chip Resetter.
7. Follow manufacturer's instructions for replacing cartridges. It may be necessary to leave cartridge in printer for up to 24 hours to allow ink to flow to the print head.

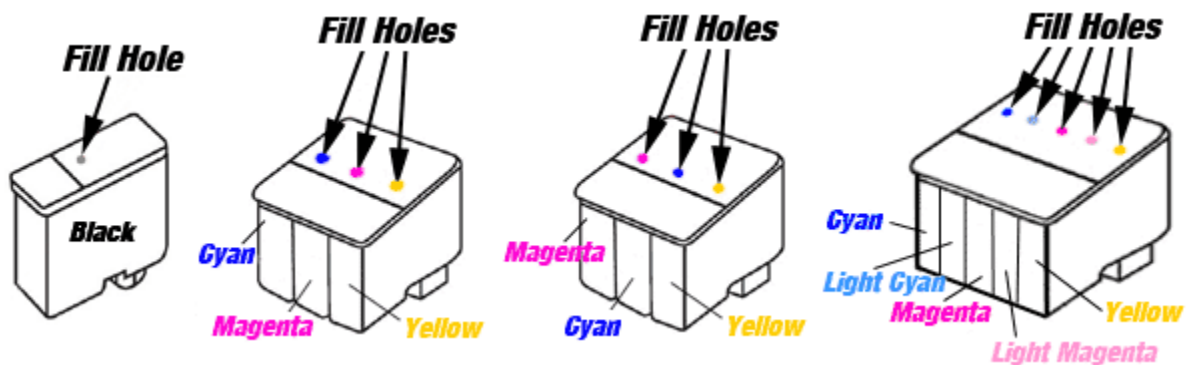
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## INK LEVEL CHIP RESETTING

Many original Epson branded cartridges use chips that disable them when a pre-set number of ink droplets have been printed. To refill and use one of these cartridges you must use a chip resetter.

1. Most of the cartridges with a 7 contact chip can be reset with a standard device.
  2. If your cartridge is tall and thin, use the adapter provided to make aligning the cartridge with the resetter easier.
  3. Align your cartridge with the resetter, make sure the pins align exactly with the contacts on your resetter or it will not work.
  4. Push the resetter and cartridge together so that the pins contact the cartridge chip. After a few seconds the LED light should show green which indicates a successful reset.
- \* If the light does not illuminate you haven't made a good enough contact with the chip. Try re-aligning the cartridge and apply again, if this is still unsuccessful you could try slight movement of the cartridge to make sure the contacts are aligned correctly.

**NEVER** reset the cartridge chip without refilling the cartridge first. Resetting the chip will make the cartridge tell the computer that it is full – if it is not then the cartridge could run out completely which may make it difficult to get the printer working correctly again.



**USE ADAPTER FOR THIN CARTRIDGES**





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## EPSON ~ Frequently Asked Questions

**VERY IMPORTANT** ~ Never leave your Epson Stylus printer without an installed cartridge (even an empty one) for more than a few minutes ~ ideally you should change the cartridge immediately with **NO DELAY** because the ink ~ either the original or compatible, will begin to thicken/gel very quickly to the consistency of honey, which will require multiple cleaning routines to clear. The higher the resolution of your printer the quicker this process will occur.

If your cartridge is not printing, or printing poorly, the most common problem is that you have an air bubble in the exit tube of your cartridge. Remember that the absence of ink is the same as an air bubble. You can confirm that this is the problem if the print head cleaning routine actually makes the problem worse. For cartridges without chips attached to them it is rarely/never the cartridge that is at fault as they are just simple tanks with sponges and ink in them. Therefore to solve this problem that usually occurs after printing 1 or 2 good pages (What is happening is that a small air bubble expands under the vacuum of printing to form a large air bubble, which blocks the flow of ink to the print head) you need to let the printer sit without printing for several minutes, while tapping on the top of the cartridge. This may get the air bubble to move to the top of the cartridge but it may not. If it does not, remove the cartridge and try again. This time though carefully squeeze the cartridge to get a very small amount of ink (a drop!) that should be put directly into the point where the cartridge is plugged into. But be very careful not to squeeze too hard!

If your cartridge contains a printer chip and is not working after having tried the above then there is either a problem with the chip or a software conflict. If you have touched the contacts on the chip (even slightly) the cartridge will not work. If you have not touched the contacts, then switch off your PC and re-install the cartridges into the printer without using the software installation routine. In other words, install the cartridges with the computer turned off. Only switch it on after the printer is ready to print. In most instances this will sort the problem that arises from inconsistencies in the Epson printer driver software.

### **Colour and/or black sections are missing from my print.**

We manufactured ENHANCED QUALITY™ Inkjet cartridges. Occasionally when installing them for the first time you get a chemical interaction between them and lower grade cartridges. If the printer is printing blank pages, make sure you are using the correct printer driver (you can get the latest drivers from [www.epson.com](http://www.epson.com)) and make sure the paper size is correctly selected in the driver (A4 for Europe Letter for USA). If the printer is printing black only, the "Ink" option in the printer driver may be set to "Black" instead of "Colour" or a setting in the software (such as MS Word) may be set to print black only. Also, the print head nozzles may be clogged. From the Utility section found in the EPSON printer driver, clean the print heads by performing a head cleaning followed by printing a nozzle check pattern. A head cleaning and nozzle check MUST be performed as a cycle, if not the process has no real effect. After printing a nozzle check, examine the printed pattern. Each coloured section should be solid, with no gaps or lines. If there are stripes or gaps, continue with another cycle. Perform 4-6 cycles if necessary.

### **Vertical banding is appearing and vertical lines are simply not lining up.**

This section is taken straight from the EPSON manual ~ If your printouts contain misaligned vertical lines, you may need to align the print head. Your printer must be connected to a local port, not on a network, to use the Print Head Alignment utility. Follow the steps, which are located in the printer utilities menu:

1. Turn on the printer. Then load plain, A4 paper.
2. Follow the directions for your operating system.

### **Why does my printer print out blank pages?**

Many of the answers for this can be found in your Epson printer manual however assuming that your printer is correctly set up on your system as the default printer utilizing the latest printer driver and you have selected the correct paper size such as A4 (many software packages default to LETTER which sometimes throws the printer into a spin (Also check orientation, printable area etc) then having discounted all of the

print head nozzles may be clogged. Perform a nozzle check and clean the print head if necessary (see above for details).



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## The Quality of my printing is “Not Good”.

If you are using coated inkjet paper, check that the printable side of the paper is face up, and check the type of paper being used. For the best quality output always use ENHANCED QUALITY™ Inkjet Paper. If your output is faint, check the printer driver to make sure you have selected a print resolution other than Economy. Make sure the Media Type setting matches the paper or media loaded ~ if you are printing a high resolution photograph onto sub standard non-photo paper the quality will always be poor. Also, the Colour Adjustment Mode options may be set incorrectly for your document type Very Important ~ Verify that you are using the correct printer driver for your printer model e.g. the driver for the C42 is NOT the same as that for the C40.

## The colours of my images on my screen are different from the output from my printer.

The screen/monitor produces colours in different ways. A monitor displays colour by transmitting Red, Green and Blue (RGB) light into your eyes. A printer uses existing light to reflect Cyan, Magenta, Yellow and Black (CYMK) light into your eyes. It is virtually impossible to match these two different colors types, transmissive and reflective, perfectly. Also, due to its transmissive nature, the monitor is able to display a much wider range of colours than a reflective product.

## My image has horizontal banding.

Make sure you are using the correct paper type. Verify the printable side of the paper is face up in the sheet feeder. Select your paper type in the printer driver menu and let the driver automatically set the print settings. Make sure the paper thickness lever is in the correct position for your paper type. Make sure your ink cartridges are not outdated. They should be replaced six months after installing them in the printer to ensure the ink is fresh whether they are empty or not ~ this is a recommendation of EPSON. If you are still having problems then send our Technical Support Department an email to support@247ink.com quoting your invoice number, date of purchase, what printer you have and what the problem is.

## Cleaning clogs

1. How to tell what the Nozzle test really showing you
2. How to tell the difference between a air pocket and a true clog

If you get a lot of random skips when doing a nozzle test you more that likely do not have a true clog you really have a few **air bubbles** in the print heads. Just doing clean cycle after clean cycle is not the best way to purge out the bubbles ~ you are far better off just letting the printer sit overnight or printing random test and a few pages of colour blocks.

If you still get random skips then it is time to re-seat the cartridge all you do is lift the blue cartridge locks and push them down.



Black / Cyan / Magenta / Yellow / Light Cyan / Light Magenta nozzle pattern

This will burp out those air pockets that

have been known to lock up a print head. In the worst case you can remove the cartridge and knock it on the table top yes ink will spill out but this is what you want to see ~ ink spilling out of those feed holes. Now once you do this the ink counter or ink low lights will not work so you have to keep a close eye on the printer when you see the ink stop flowing stop the printer!!! These print heads do not like to be run dry!! Now if you always have the same nozzle that skips then you may have a real clog. So now you need a 247ink Cleaning Kit. The kit really does blow out just about the worst clogs. This kit is inexpensive and can be used a number of times if this is a persistent problem with your printer and it will not hurt you or your printer.

The cleaning pads are those foam pads located under the print heads when they are in the parked position (power off). The pads are coloured with guess what ~ the ink you are using!!! They are about 1/2 x 1 inch and they are under the carriage or print heads when they are parked! But please be careful. *Do not touch those cleaning pads* ~ they are spring mounted and they can be knocked out of position very easy! Once you have knocked them out of position it is time to send in your printer to Epson (Very expensive!!)



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After trying cleaning cycles (Epson recommend up to 6 but sometimes up to 9 is better ~ make sure that they are full cycles ~ cleaning cycle PLUS printouts) you can try carefully dripping only 5 or so drops of 247ink Cleaning Fluid on the cleaning pads. Just drop about 5 to 6 drops (no more!!) of on the pads and then make sure you turn off the printer this will force the pads up to the print heads and the 247ink Cleaning Fluid will do its thing very quickly! About 1 hour works most of the time - overnight on the clogs from hell!!

You can also drop 247ink Cleaning Fluid on the ink inlets in the carriage, but try the pad thing first. After you tried the pads thing 2 times; you can drop 247ink Cleaning Fluid directly on the spikes in the bottom of the carriage. These will be seen when you take out the cartridge. You must remove the cartridges to see the spikes. Here is what you do:

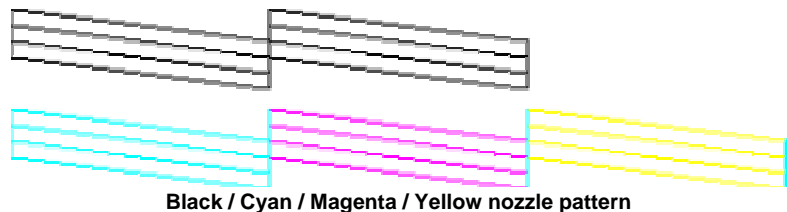
1. Make sure that you turn off the printer before you drip on the spikes!
2. Do not drop more than 7 drops!
3. Wait at least 10 minutes and drop 5 more drops on the spike, You also should put 2 drops on the other "good ink feed spikes" to prevent them from drying out (it happened to me!)

After this, install the cartridge making sure that when you install the cartridge the ink out light goes out!

You may have to run up to 2 to 4 clean cycles (Full cycles with print outs), this is normal in your situation Just make sure that you do not exit the clean menu and continue doing cleaning and nozzle checks

You must stay in the utility menu for the printer to use increased suction, you must also run a nozzle check between cleaning cycles, or the printer won't actually clean its self, just spin the roller. Each time you repeat a cleaning cycle without exiting the menu, the printer will use increased suction (contrary to popular belief, the print heads aren't actually spraying ink out during the cleaning cycle, rather ink is being sucked through the heads by a pump).

This works very well and should be tried before you go trying 247ink Cleaning Fluid! This not only will clean the heads but this will align the heads, it is a procedure I use for both cleaning & head alignment. Compare the test prints as you go to see if you are making any progress. Follow these closely:



1. While the printer is on hold down the button with the ink drop icons on it for 5 seconds. This will do a clean cycle by the printer. Do this a couple times.
2. Now shut off the printer and while holding down the paper advance button, turn on the printer (don't release the paper advance for at least 5 seconds) this will print a nozzle check pattern.

If you have a clog or head out of line, repeat the first procedure AT LEAST 3-4 times. Then repeat the second. If the heads are REALLY BAD you may have to keep going, as long as you can see that the heads are being moved or the test pattern changes with these cycles.