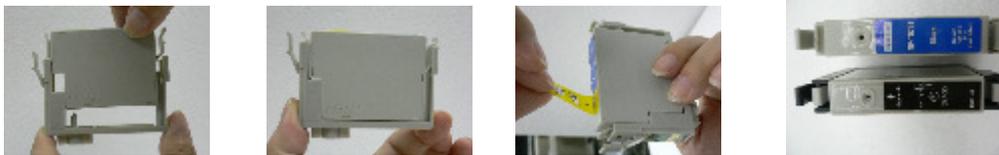


## Nippon-ink Epson's Cartridge Design Differences and Trouble-Shooting

### For Use on Epson's Printer – NP-73 N Series

Nippon-ink T073 Series is the same as 73N Series except the Chip Set version is different due to Original change the Driver Program.

T073 Series (old version Chip Set) - **can use on all C and CX Series** type of printer model only. The price is cheaper by \$1. **Do not use on T & TX Series.** T0731 (Black)- \$10; T0732 (Cyan)- \$9; T0733 (Magenta)- \$9; T0734 (Yellow)- \$9.



**T073 Series - 2 piece Design –Remove Yellow Label ensure Bleeding Hole Open**



**73N Series – 3 piece Design – Bracket Holder, Sub-Cartridge & Chip Set.**

**Note: Ensure Bleeding hole does not cover by any transparent tape left over by the Yellow Label after been removed.**

**73N Series (New Chip Set)** – Can use on all C, CX, T, TX, T103 & T105 Series type of printer model. The price is higher by \$1. 73N1 (Black) - \$11; 73N2 (Cyan) - \$10; 73N3 (Magenta) - \$10; 73N4 (Yellow) - \$10.

**Nippon-ink 73N Series of version 6 Chip set program can use on T103 and T105 cartridges. To prevent duplication of stock inventory, Nippon-ink encourages Users to use 73N Series to replace 91N Series, 73HN Series, T103 Series and T105 Series.**

**73N Series is the Standard cartridge model; 91N Series is the Low Capacity cartridge model; 73HN Series is the High Capacity cartridge model; T103 Series is the Extra High Capacity cartridge model; T105 Series is the Standard cartridge model as 73N Series.**

### For use on Epson's Printer – T0 63 Series, T0461 and T0 47 Series

This cartridge model can be open and separates into 2 pieces – The **Casing consist of Clip, Chip Set and it Holder and The Sub-Cartridge – Internally is transparent while the Top has a small Bleeding Hole.** Initially covered by “**Yellow Label**” to be removed before installation. Please open the Sub-Cartridge to remove “**Yellow Label**” to ensure label is properly and totally removed. **If the label is not properly removed upon installation into the printer, User will encounter False Alarm – No ink flow and nothing comes out.**

To solve this problem User must remove the Sub-Cartridge, locate the Bleeding Hole to check, verify and confirm the hole is open. In case after the “Yellow Label” been removed and the transparent tape still remain and covered the Bleeding Hole. Please use toothpick and/or any sharp pointer to poke it through before reinstalls the Sub-Cartridge into the Casing.

**How to remove the Casing from the Sub-Cartridge?** Use your Left hand to hold tightly on the Casing of the Cartridge with Nippon-ink label facing upward on top. Use your Right thumb to push the nozzle portion upward in order to separate the Casing and the Sub-Cartridge. Once it breaks open the cartridge will look as what it shown on the pictures below.



Left Hand Holding Cartridge Use Right Thumb Push Upward Bleeding Hole – Open

**Precaution and Preventive Measure** – Do not Refill Epson’s Cartridge unless User has the Chip Resetter Program otherwise even fully refilled the Chip set still shown “No Ink” and unable to operate or function.

**There is balance ink inside the cartridge when the printer shows “X” with “No Ink Status”.** User must replace with new cartridge before printer can operate. **The Chip set on the cartridge is to indicate the ink level only. The threshold level program to cut-off the operation (X) is control by the printer program.** Even using Original cartridge will encounter similar issues. For more detail explanation on the causes, please refer as shown below.

Epson’s explanation as follow: **The threshold level is set and control by the program written by the printer manufacturer. Quoted "Understand from consumer point of view that this is a technological disadvantage but it can be a technological advantage as it helps to protect the print head from been dried as most of the consumer does not replace the cartridge immediately once the printer stop printing. While the Chip set on the cartridge is used to determine the ink level only. The stoppage of printing and to indicate the cartridge is empty is control by the printer software program".**

Translated from the Press release dated 18 July 2003 which was extracted from the Epson web URL: [http://www.epson.co.jp/e/newsroom/news\\_2003\\_07\\_18.htm](http://www.epson.co.jp/e/newsroom/news_2003_07_18.htm). Under the Title: "**Advice against Epson’s Inkjet Printer Called off**" Epson encountered Class Action sued in USA for Ink “Empty” when there are still balance ink inside the cartridge but unable to print.

Below message extracted from the web. Epson Inkjet Settlement Award Delayed – dated on January 21, 2007, By Heidi Turner. **Extracted from Lawyers and Settlement.com (Quoted): The appeal came in response to a settlement between consumers and Epson America, Inc. (EAI) involving early shutdown of Epson's ink cartridges. Plaintiffs alleged that Epson Inkjet cartridges were specifically designed to indicate that they are "empty" when in fact ink still remains in the cartridge. When the cartridge indicates that it is empty the printer function is suspended and will not work again until a full cartridge is inserted.**

Extracted from the web dated 15 December 2008 at URL:

<http://www.lawyersandsettlements.com/articles/00558/inkjet-delay.html>

**Quoted - Epson America claims it will make it clear on new products that even though the printer reports no ink, a "safety reserve" of ink still sits in the dispenser. (Unquote)**

Extracted from Lawyers and Settlements.com under the Title: "*InkJet Printer Frustration*" – dated December 13, 2006. By Jane Mundy URL:

<http://www.lawyersandsettlements.com/articles/00499/inkjet-frustration.html>

**Brother's FAQ explained as shown - Why does the LCD on my machine say 'INK EMPTY' when there is still Ink remaining? Answer stated - \* It is normal to have ink remaining in the cartridge when the MFC displays INK EMPTY. This is necessary to ensure good performance from the print heads and print quality of your work.**

**\* If an ink cartridge is allowed to run dry it could permanently damage the print head, Brother ink cartridges are designed to stop printing before this happens.**

**\* Brother ink cartridges are packaged to compensate for print head maintenance and it does not affect the amount of printed text you would expect to get from the ink cartridges.**

Information extracted on 30 October 2008 from Brother's web URL:

[http://welcome.solutions.brother.com/BSC/public/as/nz/en/faq/faq/000000/002000/000020/faq002020\\_000.html?reg=as&c=nz/ =enII=dcp110c eu as&Cat=16](http://welcome.solutions.brother.com/BSC/public/as/nz/en/faq/faq/000000/002000/000020/faq002020_000.html?reg=as&c=nz/ =enII=dcp110c eu as&Cat=16)

### **Common Problems encountered by Users in General**

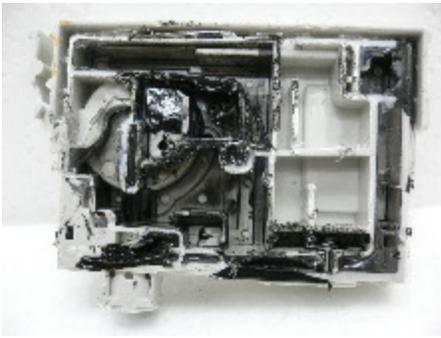
- 1) **Removal of Yellow Label Tape** – For T0 63 Series, T0 461 and T0 47 series please separate the Casing and Sub-Cartridge before removing the Yellow Label tape as shown above. For 73 N Series upon removal please check the hole is fully open and does not cover by any transparent tape left behind from the Yellow Label tape.

**Reason** – If the Bleeding Hole is still cover and/or Yellow Label tape not properly remove the **ink will not follow out from the nozzle causing false alarm that the cartridge is faulty.**

**Rectification** – **Use toothpick and/or any sharp object to poke through the Bleeding Hole** before reinstall into the printer as per normal.

- 2) **Red Light Indicator** – Check the computer screen on the "*Status Monitor Main Page*" to review the problem shown. If due to Cartridge problem the printer will not function –
  - a) **Indicator Ink Level shown full with "X"** – Remove the cartridge, **use tissue to clean and rub on the Chip set (Green Color)**. Later use the tissue to cover the Nozzle and Bleeding Hole then shake it hard for a few time before reinstall into the printer.
  - b) **Indicator Ink Level shown Low with either "X" or Yellow "?"** – indicate the cartridge has no more ink, need to replace by new cartridge.
  - c) **Indicator Ink Level shown without any Cross "X" sign but print copy with missing lines** – From the "*Status Monitor Main Page*" switch to "*Maintenance*" the icon is located at the top right hand corner (Last Item). **Do nozzle check to confirm the nozzle condition** either Dirty and/or Clog and Block by dirt. If necessary do Cleaning process to purge out the dirt from the nozzle. **Repeat the process stated for maximum of 3 times. If unable to improve, please leave it overnight for one day** because the ink solution will soak and soften the dirt after sometime before repeating the cleaning process. **Do not**

- keep on cleaning it as the clog is hard and take time to soften it.** User will feel frustrated without any progress and improvement.
- d) **Any Ink Cartridge Level below Half Mark might have difficulties to purge the dirt from the Nozzle** – Preferable to use a new cartridge if the clog is very serious. The Print Head is Built-in and located below the Ink Container for the Cartridges to be mounted.
  - e) **Might cause by others** – Like paper jam onto the roller, paper misalign, loose connection, Cable and/or Port issue that the signal unable to transfer over etc.
- 3) **All Indicators Light Up (Green and Red Lights)** – **Suspect the Ink Wastage is Full**, printer need to send to Service Center to clear off and reset the program before using.
  - 4) **Indicator shown “End of Life” or “E”** – **The printer life span is over** as it operation was cut-off by the printer program. Need to send to Service Center to reset the program before using it otherwise it consider as scrap. Same as Ink Wastage Full situation.
  - 5) **Optional Cartridge Number** – Example for printer CX 5500, User can use T0 91 Series; T40, T40W, TX550W &TX600FW for T103 Series and T20, TX110, TX210 & TX550W for T105 Series can use Nippon-ink 73N Series. **Purpose** - To prevent stock inventory duplication. User should compare apple to apple to prevent bias decision, false alarm, misleading interpretation and mindset.



**Original 73 N Cartridge Internal Structure**  
Ink restricted to certain compartment other empty.



**Nippon-ink Cartridge Internal Structure**  
Ink contains whole area inside the cartridge.

### **FAQ on Epson Printer for User Reference as guideline.**

#### **Q1) Only the green power light is on, but nothing prints. What should I do?**

A1) The problem could be due to a cabling issue, software setting or the printer's condition.

#### **Information extracted on 30 October 2008 from Epson's web URL:**

[http://files.support.epson.com/htmldocs/sc66\\_/sc66\\_rf/wwhelp/wwhimpl/common/html/wwhelp.htm?context=EpsonHelp&file=probsol3.htm#wp1020304](http://files.support.epson.com/htmldocs/sc66_/sc66_rf/wwhelp/wwhimpl/common/html/wwhelp.htm?context=EpsonHelp&file=probsol3.htm#wp1020304)

#### **Q2) The printer is out of color ink even though I print in black only. Why does this happen?**

A2) To keep the print head clear, the printer uses a small amount of ink from all the cartridges whenever it prints. Even if you select Black Only, some color ink is still being used.

**Information extracted on 30 October 2008 from Epson's web URL:** [http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV\\_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46250](http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46250)

**Q3) I installed new ink cartridges and the printer is now doing continuous cleaning cycles. Is this normal?**

A3) When an ink cartridge is installed in the printer, it will take about a half a minute to charge the ink system and initialize the printer. While the ink is charging the power light flashes. Never turn off the printer while the power light is flashing (unless the printer hasn't moved or made noise for more than 5 minutes). This initialization is a normal and necessary process. If the printer initialization does not stop after 5 minutes turn the printer off and contact Epson technical support for assistance.

**Information extracted on 30 October 2008 from Epson's web URL:** [http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV\\_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46251&cat=30942&subcat=30923](http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46251&cat=30942&subcat=30923)

**Q4) Since I upgraded to Windows Vista, the Status Monitor showing printer ink levels no longer works. What's wrong?**

A4) Because your printer driver is included as part of Windows Vista, Status Monitor is not available for your printer. However, you can check the printer's ink levels in the Printing Preferences window of the printer driver. Follow either set of instructions below to view the ink levels. To view the ink levels from an application:

1. Select Print from your application's File menu.
2. Make sure your printer is selected in the Print window.
3. Click the Preferences or Properties button.
4. The Printing Preferences window appears showing your printer's ink levels. (Your printer's Printing Preferences window may look different from the example shown below).

*Note: If the ink levels are greyed out, click Get Ink Levels to refresh the driver. The printer must be directly connected to the computer in order to show ink levels.*

To view the ink levels through the Control Panel:

1. Click Start and open the Control Panel.
2. In the Control Panel window, click Printer under Hardware and Sound.
3. Make sure your printer is highlighted and click Select printing preferences. (If you do not see Select printing preferences, right-click on your printer and select Printing Preferences from the menu.)
4. The Printing Preferences window appears showing your printer's ink levels. (Your printer's Printing Preferences window may look different from the example shown below).

*Note: If the ink levels are greyed out, click Get Ink Levels to refresh the driver. The printer must be directly connected to the computer in order to show ink levels.*

**Information extracted on 30 October 2008 from Epson's web URL:** [http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV\\_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=104459&cat=30942&subcat=30923](http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=104459&cat=30942&subcat=30923)

**Q5) The quality of my printed output is unacceptable. What can I do to improve it?**

A5) Make sure you're using the correct driver for your printer. If that doesn't help, the problem could be due to software setting or the printer's condition. See Print Quality Problems.

**Information extracted on 30 October 2008 from Epson's web URL:** [http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV\\_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46258&cat=30942&subcat=30926](http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46258&cat=30942&subcat=30926)

**Q6) What should I do if my printed image has lines running through it?**

A6) The problem could be due to software setting or the printer's condition. See banding.

You may have accidentally used the Mirror Image or Flip Horizontal option in the printer software or a similar feature in your software application. Turn off the setting in the printer driver and/or application and try printing again

**Information extracted on 30 October 2008 from Epson's web URL:** [http://files.support.epson.com/htmldocs/sc66\\_/sc66\\_rf/wwhelp/wwhimpl/common/html/wwhelp.htm?context=EpsonHelp&file=probsol3.htm#wp1014846](http://files.support.epson.com/htmldocs/sc66_/sc66_rf/wwhelp/wwhimpl/common/html/wwhelp.htm?context=EpsonHelp&file=probsol3.htm#wp1014846)

**Q7) My printer is suddenly printing slowly after heavy use. Is something wrong?**

A7) If the printer becomes overheated after excessive use, it will slow down to prevent damage. If you notice this, please wait until the green power light is on solid and not flashing. Then, turn off the printer and allow it to cool. Normal speed should resume after cooling.

**Information extracted on 30 October 2008 from Epson's web URL:** [http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV\\_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46264&cat=30942&subcat=30928](http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV_UseBVCookie=yes&infoType=FAQ&oid=41662&prodoid=46048264&foid=46264&cat=30942&subcat=30928)

**Q8) How long should an ink cartridge remain in the printer if it's not used often?**

A8) When an installed ink cartridge is more than six (6) months old, you may need to replace it if you notice that your printouts don't look as good as they used to. If print quality doesn't improve after cleaning and aligning the print head, you should replace the ink cartridges.

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**If printer able to print but nothing appear, with missing color, faded and/or blurs image etc. Highly and most likely it due to Nozzle Dirty, blockage and/or Clog problem. Please clean and perform Nozzle Check to confirm the causes.** The explanation is shown on the screen when User does the Nozzle Check. Every dotted line represents one hole whichever line found missing mean that particular hole is block and clog.

**Any cartridge ink level below the threshold level stated by the Printer Drive Program shall consider as "No Ink Level". In such situation the machine will not function till new cartridge been replaced or refill the ink above more than half the level. The ink solution in each cartridge cannot and unable to be consumed fully. The threshold cut-off level is perform by the Printer Driver Program base on estimated number of pages and number of cleaning process been performed, estimated about 20% to 25% balance residue ink.**

**Epson's explanation as follow (Quoted)** - "Understand from consumer point of view that this is a technological disadvantage but it can be a technological advantage as it helps to **protect the print head from been dried** as most of the **consumer does not replace the cartridge immediately once the printer stop printing**. While the **Chip set on the cartridge is used to determine the ink level only**. **The stoppage of printing and to indicate the cartridge is empty is control by the printer software program**". (Unquote)

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Epson encountered Class Action sued in USA for Ink "Empty" when there are still balance ink inside the cartridge but unable to print. Message extracted from the web as shown.

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The lawsuit was filed in California and other state courts claiming Epson committed several offences including breach of contract, breach of implied warranties, unjust enrichment, and fraudulent concealment. Epson America, Inc. denies any wrongdoing but decided to settle the lawsuit to avoid the cost of litigation. (Unquoted)

Extracted from the web dated 15 December 2008 at URL:  
<http://www.lawyersandsettlements.com/articles/00558/inkjet-delay.html>

**Void on Nippon-ink Cartridge Warranty** - Any cartridge found without Nippon-ink Name and Logo stated and pasted on each individual cartridge, both by removal and/or missing label, shall considered null and void unless proven, verify and confirm by Nippon-ink staff.

*Note: All Nippon-ink Cartridges had Nippon-ink Name and Logo labels stated and pasted on each individual cartridge inclusive the Box design.*

**Nippon-ink Limited Warranty** – Nippon-ink supply the Cartridges and the limited warranty cover the cartridge supplied by Nippon-ink to user within 12 months from the date of purchased.

**Original Claim to Void User's Warranty for using Nippon-ink Cartridges** – Refer to Case, MTI and/or CCS for clarification, verification, investigation and confirmation. Nippon-ink unable to provide any legal advice. User can review the Anti-Competition Acts 2004 on MTI web.

## **Support – Purchase – Use - Nippon-ink Cartridge**

**Disclaimer Clause:** All brand name, logo, trademark, part number, picture, patent, design, copyright and technology belong to the respective owners. It uses for description, illustration, comparison and explanation purpose only. Nippon-ink cartridge is not genuine original cartridge. All remanufacture cartridges are collected, recycle, reassemble and recondition before retest from the open market. Nippon-ink does not belong, supported, associated, related nor endorsed by any other OEM brands, like Brother, Canon, Dell, Epson, HP, Lexmark, Samsung etc. All other rights reserved.