

How to Save \$\$\$\$ on Printer Ink

Jere Minich

Program Director

Lake-Sumter Computer Society, Leesburg, Fl

APCUG

Board of Advisors - Region 5 – Florida

Overview.

- How do printers really work. ?
- What can I do to save money on Ink. ?
- What is the most Cost effective operation for my printer.?
- What are some trusted sites for Ink.?
- What is the recommended printer for home use.?
- Where to go for more info.?

Printer Terms to Understand

- **Ink cartridges** - ink cartridges come in various combinations such as:
 - separate black and color cartridges,
 - color and black in a single cartridge
 - a cartridge for each ink color.
 - CMYK = Cyan, Magenta, Yellow & Key color Black

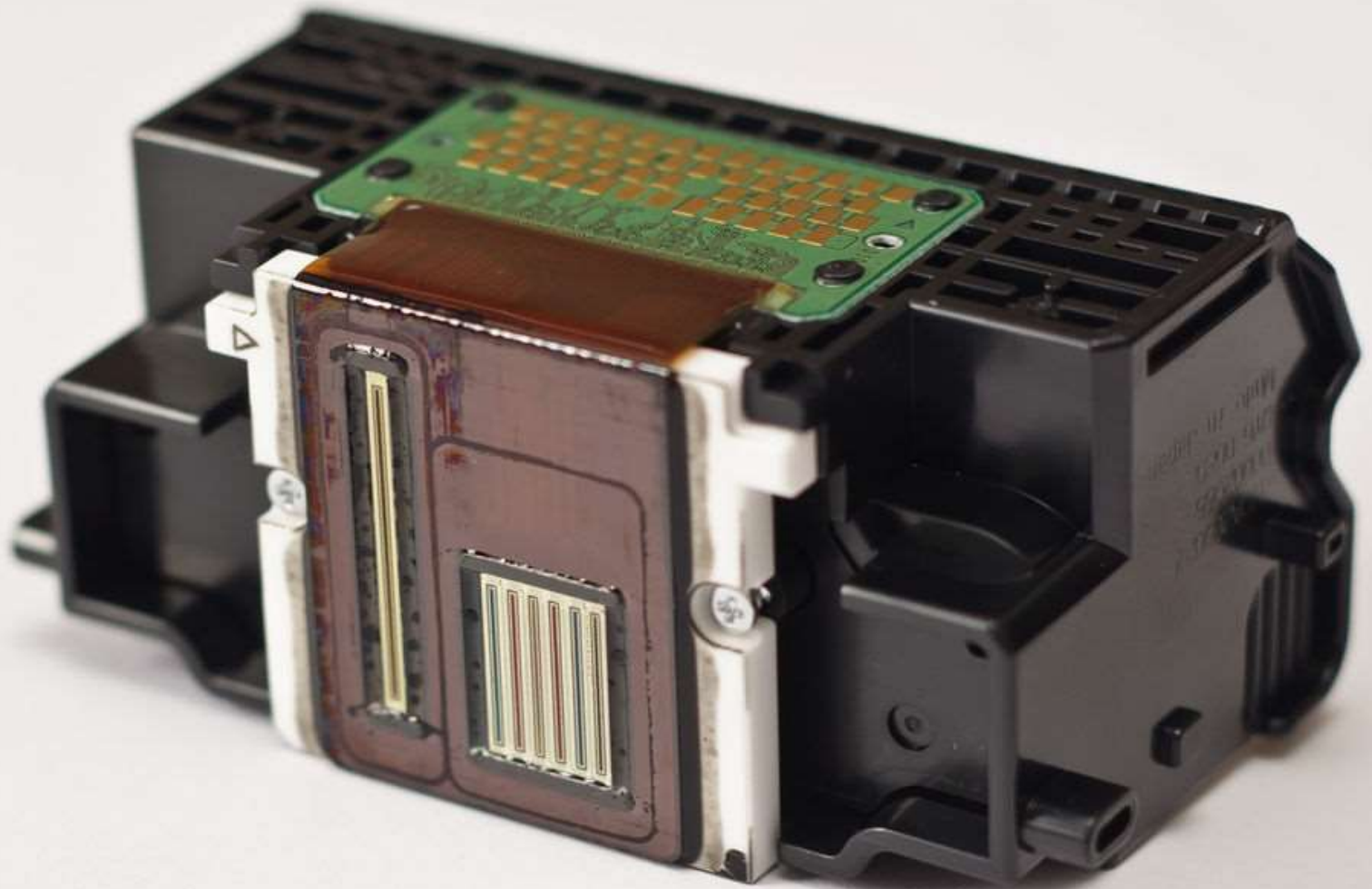
Printer Terms to Understand

- **Print head** - The core of an inkjet printer:
 - contains a series of nozzles that are used to spray drops of ink.
 - Print Heads **hold ink** from the Cartridges, until needed.
 - **The Print Head is separate from the ink storage vessel.**
 - Print Head is :
 - **On the cartridge**
 - **In the printer**

Print Head Design

Two Types = **Fixed Head** & **Disposable Head**

- The *fixed-head*:
 - is designed to last for the life of the printer.
 - is in the printer, **not** on the cartridge.
 - fixed-head are manufactured primarily by:
 - Epson
 - Canon
 - Hewlett-Packard



Fixed Head – 4-6 Cartridges
Bottom View

Disposable Head

- a print head which is supplied as a part of a replaceable ink cartridge.
 - May refill the cartridge
 - a cartridge is exhausted:
 - the entire cartridge and print head are replaced with a new one.
 - damaged or clogged print head is only a minor problem.
 - Throw away the cartridge

HP Style Cartridge

1 = Print Head 2 = Contacts for Printer & Chip

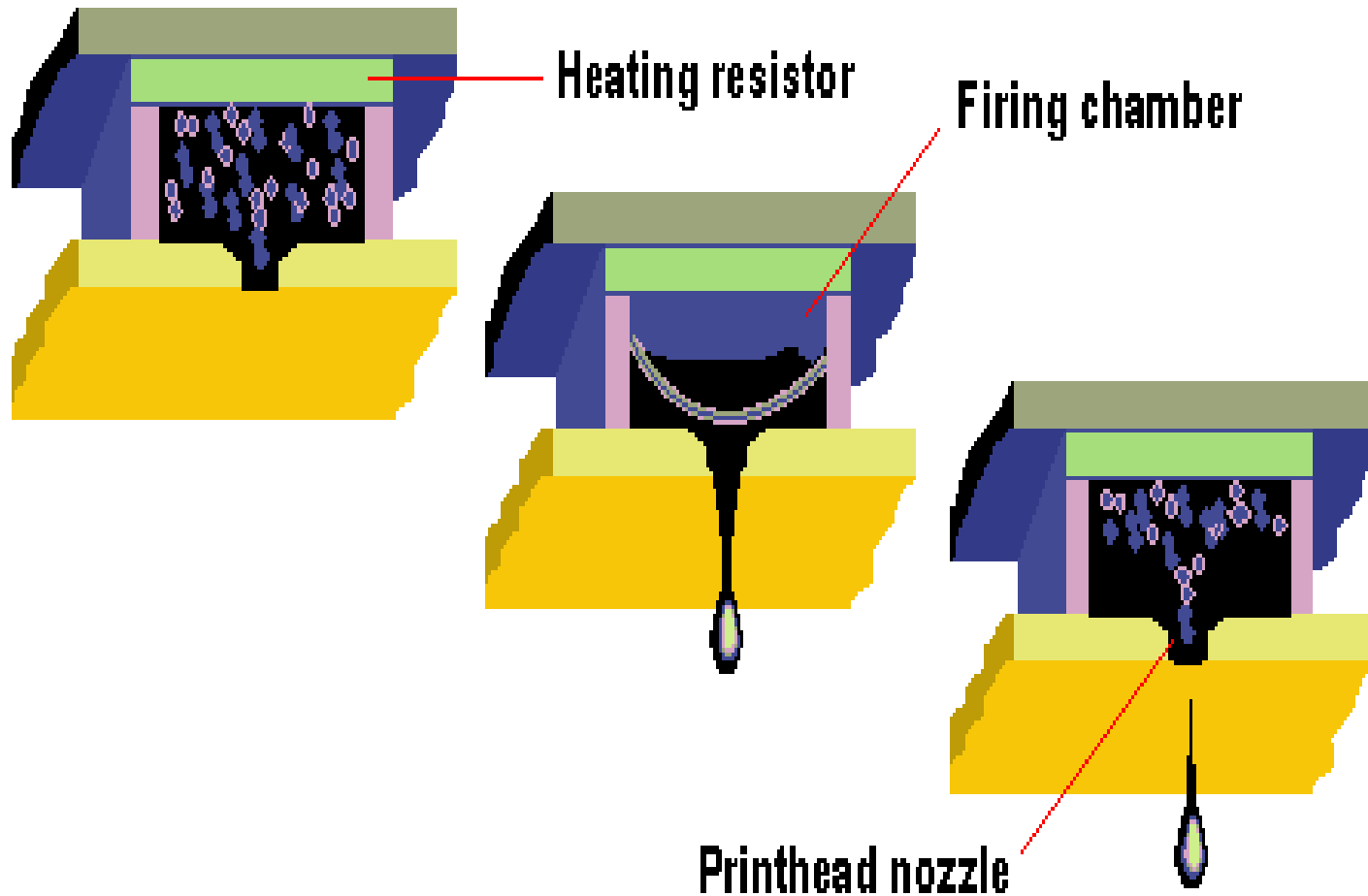


Thermal

“Bubble Jet” Printers

1. Called **bubble jet**.
 - a. tiny metal resistors create heat,
 - b. heat vaporizes ink to create a bubble.
 - c. bubble expands,
 - d. ink is pushed out of a nozzle onto the paper.
 - e. bubble "pops" (collapses),
 - 1.) a vacuum is created.
 - 2.) pulls more ink into the print head.

Bubble Jet Printers



Piezo

Piezoelectric Print Head

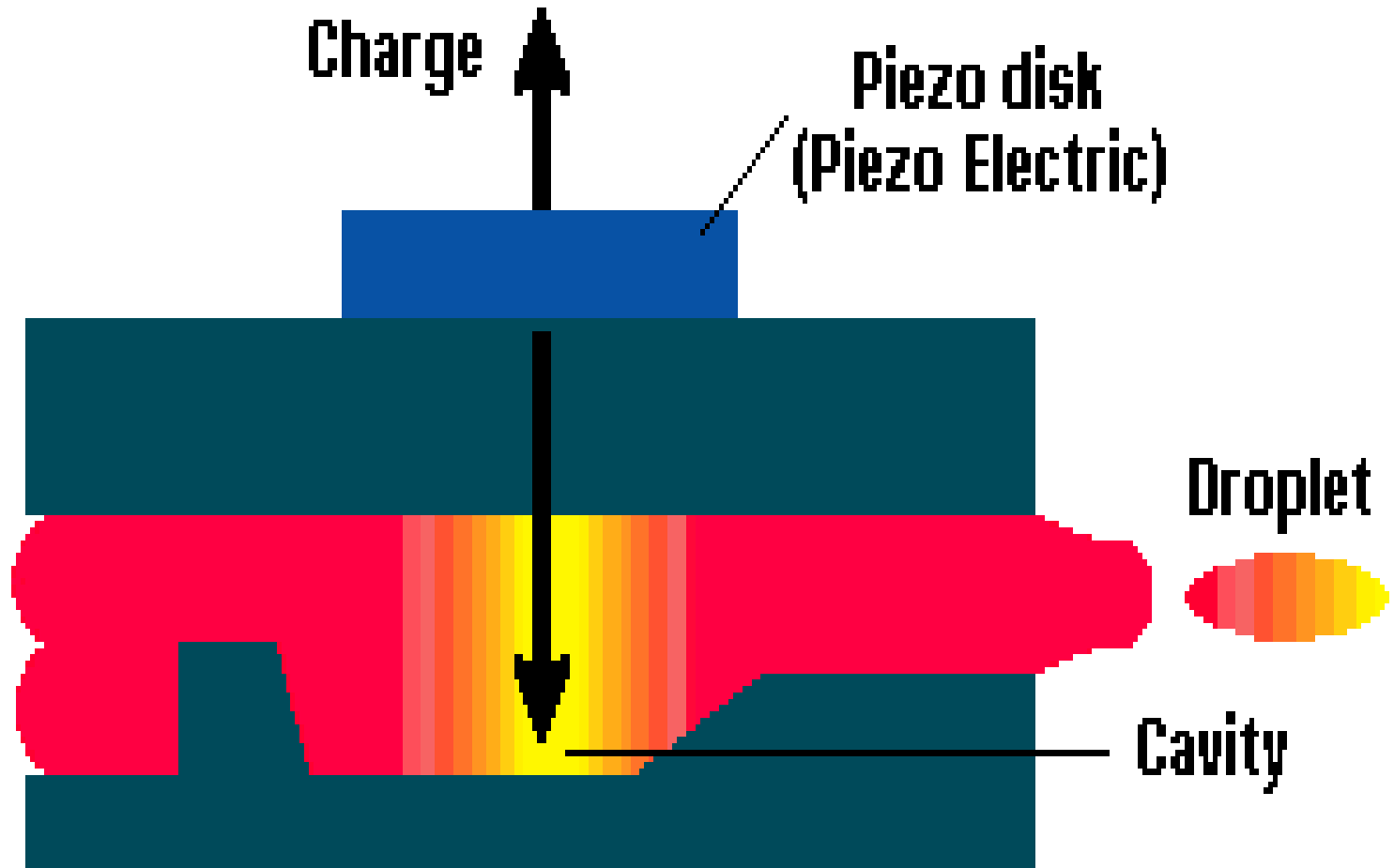
Patented by 'Epson'

Technology uses **piezo crystals**.

Crystal receives a tiny electric charge that causes it to vibrate.

- a. vibrates inward = forces a tiny amount of ink out of the nozzle.
- b. vibrates out = it pulls ink into the print head

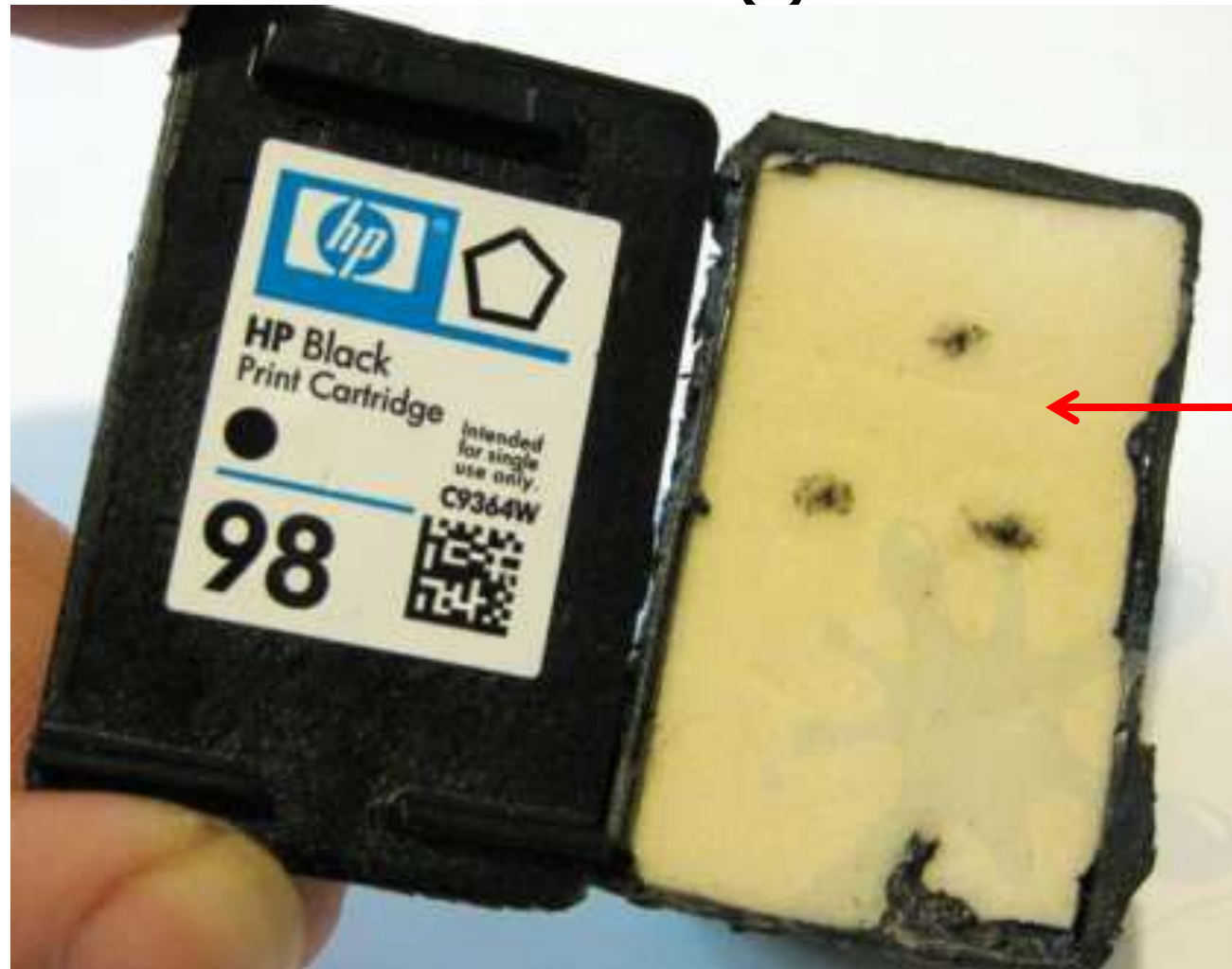
Piezoelectric Printers



Types of Inkjet Ink Cartridges

- Sponge cartridges
 - Single color
 - 3 colors
- Single-color individual cartridges
- Multi-color cartridges
- Reservoir cartridges

Black Cartridge w/ Sponge Single Color



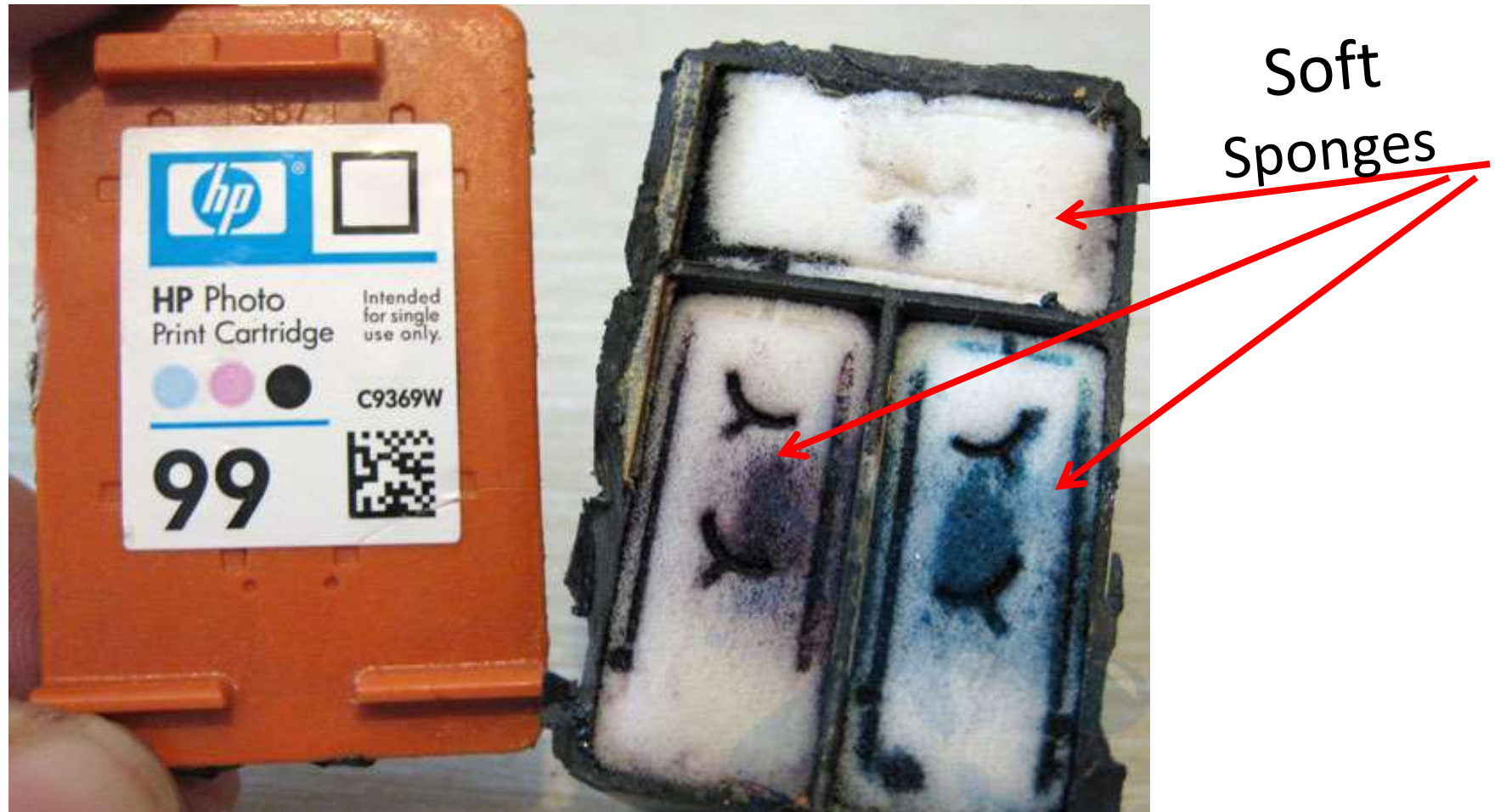
Soft Sponge
Material



Another View – Foam removed from the Cartridge

Color Cartridge w/ Sponges

3 colors



Over-filling one color can bleed into another chamber

Sponges

- Some cartridges contain sponges,
 - ink remains behind in the sponge.
- Printer reports that the cartridge is empty:
 - there is still 10-35% of the ink left.
- The printer only estimates ink remaining.
 - **Print Chip** does the estimating .
 - Some Cartridges stop working on a specific date.
 - Change the year on your computer = working again
- Many Cartridges contain only
 - **7 ML of Ink.**

7 ML of Ink on a Paper plate



The ink consumed in the **Cleaning Process** needs to be:

- Collected
 - to prevent ink from leaking inside the printer.
- The collection area is called the spittoon,
- This can be an open plastic tray underneath the cleaning/wiping station.
- In Epson printers, there is typically a large absorption pad in a pan underneath the paper feed platen.
- Dried ink in the spittoon can form a pile that can stack up and touch the printheads, jamming the printer.

Epson - Felt pads



**5/16 Inches
Thick**

**Double
Layer**

05/03/2013 19:35

Felt Pads

How to save \$\$\$ on Ink.

1. Find Out How your Printer Works.?
2. What kind of Cartridges does your printer use.?
3. Where can you purchase the cartridges.?
4. How much Ink is in the Cartridge.?
5. What information is on the internet about your printer.?

How to Save \$\$\$ on Ink?

- Use Print Preview before you print.
 - See what your printout will look like.
- **Print in draft mode.**
 - **Grayscale printing.**
- **Printer settings**
 - are essential and will save you the most when done right.
 - make “low quality” the default.

How to Save \$\$\$ on Ink?

- Which **Font** Saves Ink and Money.??
- The winner: **Century Gothic**:
 - which delivered a 31 percent savings in printing costs over Arial.
- On a dollar basis:
 - the University Study projected that printing around 25 pages a week would save
 - **\$20 a year by using Century Gothic for all documents.**
- This Power Point Presentation is in **Century Gothic**

How to save \$\$\$ on Ink?

- Lets talk about Cartridges: **Not** OEM Cartridges.
- two options:
 - 1. purchase compatible cartridges
 - 2. refill them up to ten times.
 - **Fill the cartridge at the first sign that it's going dry.**

How to Save \$\$\$ on Ink?

- Must Do
- **Leave your printer **on**.**
- When you turn your printer **off**, or **ON** (depending on manufacture)
 - it will clean print heads.
 - It dumps the ink
 - from the Print Heads
 - to a absorbent material in the bottom of the printer.
 - To the Spittoon

Leave the printer ON.

- There no moving parts running in your printer.
 - Except when it is printing.
- Anything you print, including your nozzle check will use 1/50th of the amount of ink that is dumped in the bottom of your printer if you let the printer do the auto cleaning cycle.
- The auto cleaning cycle dumps both the black and all colors, and it dumps a LOT of ink.

Why Is So Much Ink Wasted?

Words from Consumer Reports magazine

- Whenever you power up your printer, it goes through a maintenance cycle that uses ink.
- That's what's happening when the printer head moves back and forth after your turn it on.
- This intermittent use can burn through more than half the ink in the cartridge.
- A few of the models “**Consumer Reports**” tested were so wasteful that only 20 percent to 30 percent of the ink in the cartridge **ended up on the paper.**

On-Off - Your Printer

1. Power down your printer properly, don't just unplug it.
 - ❖ You want the print head to move into a position that protects ink from drying out.
 - ❖ turn printer off from a power strip/ unplugging it leaves the heads exposed.
2. Power down your printer IAW the procedures of the printer.
(IAW= In accordance with)

Steps you can take:

Find a Internet Source

- You can purchase 'OEM' or refurbish printer ink cartridges for:
 - a fraction of the manufacturer brand cost
 - still experience the same quality of print outs.
- Google your Printer :
 - refill cartridges; refurbished cartridges; cheap ink.
 - **Example:** Epson WF500 refill cartridges
 - Epson WF500 refurbished cartridges
 - Epson WF500 cheap ink

Where to get Ink Cartridges ?

- The key is to:
 - try to find the best replacement inks for your printer model,
 - not necessarily the cheapest,
- try different suppliers,
 - on the internet
 - In your local area.
- Know the **“What if”** policy of your supplier.

What Make of Printers can I refill?

This changes constantly

- **Canon, Dell, HP, & Lexmark** cartridges are:
 - not difficult to refill,
 - some Lexmark cartridges employ a built-in counter chip that can't be reset.
- **Epson** cartridges also have a built-in counter chip,
 - however it is possible to purchase a chip re-setter.
- **Brother** cartridges generally lack any chip and consist of merely a sack of ink.
 - they can be readily refilled.

Refill Cartridges.

- refilling makes good sense.
- **But there are a few things to be aware of:**
 - Make sure the refill kit is for your printer model.
 - If the wrong type of ink is used, it can
 - degrade the output
 - damage the printer.
 - Virtually all desktop inkjets for home or office use have water-based ink.

Refill Cartridges

- While you can refill cartridges,
 - be very careful of the print head built into the cartridge.
 - You do not want to refill these more than two or three times,
 - the print head will begin to deteriorate
 - could damage your printer.
 - Go to this web site: info about Refill
 - http://en.wikipedia.org/wiki/Inkjet_refill_kit

Trusted Suppliers I use.

(Good Prices and Trustworthy, both take PayPal)

— www.ccs-digital.com

- Has: Email, Phone #, Mailing Address.
- ‘What If’ Policy = Excellent
- Average Price = \$5 per cartridge
- Only Covers: Epson, HP, Brother, Canon
- If It does not work let ccs-digital know.
- Izzy

CCS

CCS-Digital.com

sales & service since 1983

Complete Computer Services

email sales@ccs-digital.com

[Contact Us](#)

Sun-Thur 9AM-9PM

Fri 9AM-3PM



[View Shopping Cart](#)

[Bonuses w](#)
[Refer friends, r](#)
[reseller or a](#)
flat shipping

[New: shipping re](#)

We will be closed Sun

HOME: Ink and toner cartridges

Epson Ink



HP Ink Cartridges



Brother ink cartridges



Canon ink cartridges



HP Laser Toner



Brother laser toner



Canon/Samsung toner



Free Ink Cartridges

Epson printer head cleaning kit

R

R

C

Cartridge photos are a representative sample. There may be variations in de

Would you pay \$5,000 f
Printer ink is now ove

Save up to 100% on ink

Step One: Choose the manufacturer of your printer on the up

Step Two: Choose your printer model or cartridge.

*after [\\$2 rebate](#) from Staples, C

CCS-digital Web Page



NEED HELP?

Our expert staff is standing by



1-888-4INKOWL

1-888-446-5695

1-888-446-5695

[Brother](#) | [Canon](#) | [Epson](#) | [HP](#) | [Lexmark](#) | [Samsung](#)

home

 Keyword Search [GO!](#)

Inkjet

- [Ink Refill Kits](#)
- [Bulk Refill Inks](#)
- [Ink Refill Tools](#)
- [Refillable Cartridges](#)
- [Compatible Cartridges](#)
- [Chip Resetters](#)
- [Wide Format Refilling](#)
- [Wide Format Cartridges](#)
- [Maintenance Tanks](#)

Laser

- [Black Refill Kit](#)

***** Free Shipping anywhere in the USA for all orders over \$50 *****

[View our shipping policy.](#)

WELCOME

Thank you for visiting our website! We seek to provide our customers the best available inkjet and laser needs. We understand how expensive OEM cartridges and supplies are, so we have dedicated this site to providing quality solutions at only a fraction of the cost.

You will find compatible cartridges, refill kits, bulk ink, toner, refillable cartridges, smart tools that can be used to lower your printing costs. We have excellent customer support to ensure that our customers succeed in finding the best suited solutions for their needs.

We invite you to call 1-888-446-5695 (1-888-4-INKOWL) for our expert advice. Our staff is pleased to help you find the best solution for your printing needs.

Trusted Suppliers- www.inkowl.com

Bottom Line.

1. Find out more about your printer.
 - A. Google the make and model for detailed information.
2. Find a supplier for your cartridges.
 - A. Local Store Front.
 - B. Internet Supplier.
3. Find out the suppliers “What if” policy.
4. Buy small amount on first purchase.

Almost Final Word

- If you have a Question:
 - Email me@: jminich@apcug.org
 - Jere Minich
 - Make sure you include a Subject Line in your email.

