NeuraJet17
User Guide

Guide for Printing Well Logs and other Continuous Form Documents on the NeuraJet17 Printer/Plotter

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NeuraJet 17 User Guide

Guide for Printing Well Logs and other Continuous Form Documents on the NeuraJet17 Printer/Plotter

This User Guide provides answers to many questions about setup, operation and troubleshooting for the NeuraJet17. Please contact Neuralog support if you need further assistance.

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Canon imagePROGRAF iPF510 Service Manual, April 2009, © 2009 Canon, Inc.
Canon Large Format Printer imagePROGRAF iPF510 User Manual, © 2008 Canon Inc.
NeuraLaserColor User Guide, January 2010, © 2009 Neuralog Inc.

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1 Getting Started

Congratulations on your purchase of the NeuraJet17 Well Log Printer/Plotter. NeuraJet17 has been jointly developed by Neuralog and Canon, Inc. to print high-quality well log documents. This continuous printer/plotter uses the latest generation of ink jet printing technology to produce crisp prints of well logs or other continuous documents.

1.1 A Printing Solution

Your NeuraJet17 is more than just a printer or plotter; it is a complete well log printing solution, printing logs up to 17 inches wide and 500 feet in length. This solution includes the continuous feed print engine, the continuous form feed attachment, an integrated paper stacker, certified printing consumables such as ink cartridges and paper, and a custom print driver developed specifically for printing well logs. NeuraView software completes this system to give you everything you need to print well logs in industry standard formats. Use the NeuraView application that ships with your printer, or you may use your own Windows printing software to send well log prints to NeuraJet17.

1.2 Commonly Used Terms

The following are commonly used terms related to NeuraJet17 that will be used throughout this document.

1.2.1 Continuous Form Printer/Plotter

NeuraJet17 Continuous Form Printer refers to the Print Engine with Continuous Form Attachment. The NeuraJet17 supports printing continuous paper documents from 8.5" to 17" wide and from 4 feet to 500 feet[1] long.

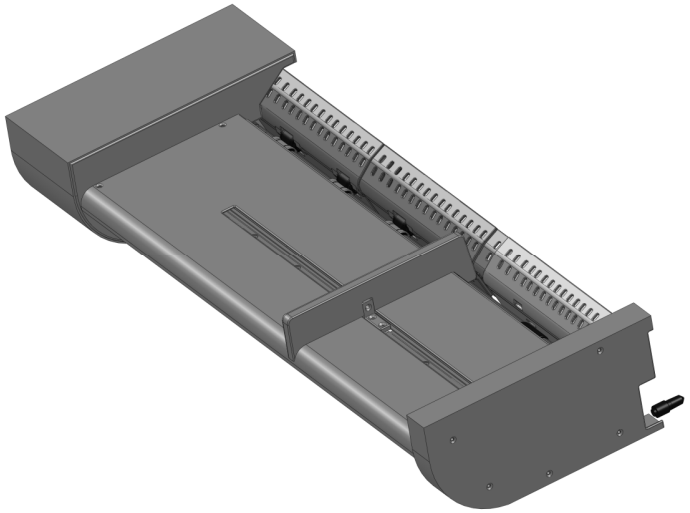
1.2.2 Continuous Form Attachment

The Continuous Form Attachment (CFA), Model NeuraJet17C, is the device that is attached to the NeuraJet17 print engine to load the continuous form paper. It must remain attached to the NeuraJet17 for the printer to properly function. The CFA receives both power and control signals from the print engine and sends the printer information about the position of the paper. It contains the following major components.

- **Power Box** – Box attached to side of device that converts the power signals sent from the printer to those needed by the CFA.

[1] While the printer may be capable of longer prints, Neuralog has tested and certified documents from 4 to 500 feet. Printing ability and performance is usually limited by electronic file size, rather than physical length.

- **LED** – Small green light on Power Box indicating paper mark signals are present in the CFA.
- **Control Connector** – Connects CFA to print engine for control and power signals.
- **Paper Sensor** – Senses Paper present and sends signal to the printer.
- **Paper Guide Slider** – Sliding lever that sets the width of the paper that the CFA will accept.
- **Case** – Housing for all components made from a combination of CAD-generated plastic and machined pieces as well as sheet-rolled metal.
- **Connector Pins (2)** – Pins on CFA that fit into printer and directly connect CFA to print engine
- **Attachment Screws** – Two screws that attach the CFA to the printer. May be tightened and loosened by hand.



NeuraJet17 Continuous Form Attachment

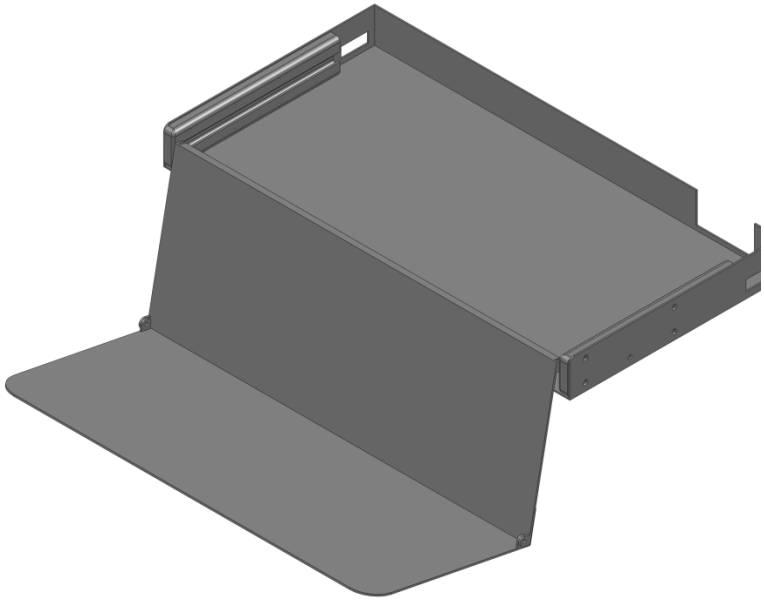
The Continuous Form Attachment NeuraJet17C is manufactured by Neuralog and comes attached to the NeuraJet17 print engine to allow for continuous form printing.

1.2.3 Paper Stacker

The Paper Stacker is attached to the front of the printer where the paper exits. It consists of a tray and a diverter. The tray catches the continuous paper and allows the paper to automatically fold into a stack. The diverters guide the paper into the tray. The paper stacker can fold away into the printer cavity.

Paper Tray – The black metal paper tray pulls out of the printer into a position that catches the paper.

Diverter Flap – The diverter flap guides the paper down into the tray and causes the paper to fold.



NeuraJet17 Paper Stacker

The photographs below show how to open the paper stacker the tray. The NeuraJet17 printer will have the paper stacker pre-installed.

NeuraJet17 Paper Stacker

1.2.4 Printer/Plotter Operator Panel

The Printer/Plotter Operator Panel is the control panel located on the front of the NeuraJet17. It is used to view and set printer functionality and check job status.

Online – Green light indicates the printer is ready to accept print jobs and begin printing. Flashing indicates the printer is recovering from Sleep mode.

Feeder Selection – NJ17 Feeder Selection will remain at Auto Feed.

Menu – Allows you to scroll through various printer options and make changes if needed.

Information – Provides various printer information such as ink levels and settings.

Stop/Eject – Cancels a print job. Clears a menu selection. Button must be held down for 1 full second to stop action or eject the paper.

Arrow/OK Buttons – Use these buttons to traverse the Menu selections.

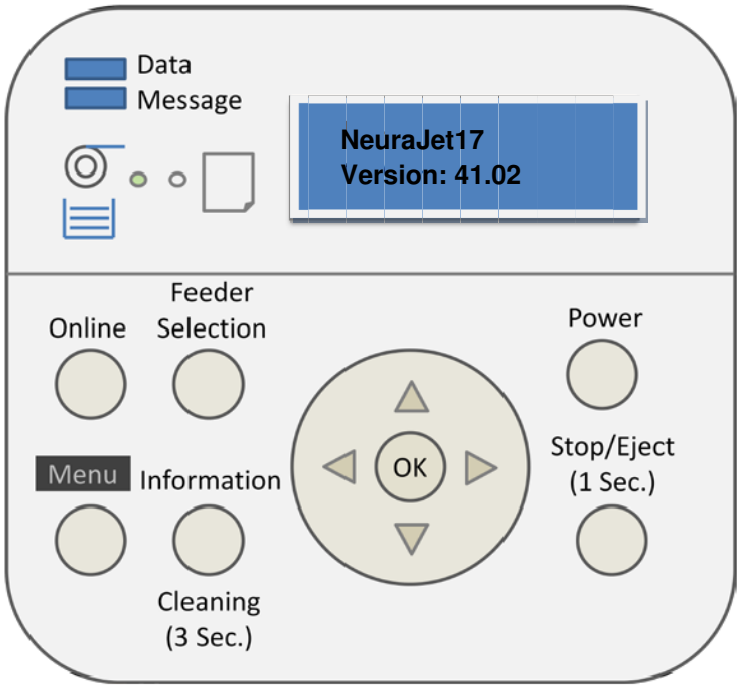
◄ Press to display the *previous menu* item or setting value.
▲ Press to display the *menu one level higher*.
► Press to display the *next menu* item or setting value.
▼ Press to display the *menu one level lower*.
OK Button Press to confirm or execute the selected item or setting.

NOTE: The following notation will be used to indicate the number of times a button should be pressed. Press Menu button; then press ► six times.

- **Menu ►►►►►►(6)**

Power – Turns the printer ON/OFF.

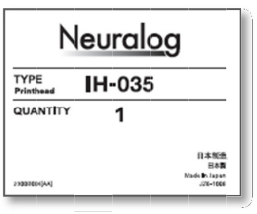
Sleep Mode - In Sleep mode, you can press any button except the **Power** button to bring the printer online again.



NeuraJet17 Operator Panel

1.2.5 Printhead Cartridge

A NeuraJet17 printhead cartridge controls the flow of ink on to the paper. Neuralog provides all printheads for the NeuraJet17.



1.2.6 Print Ink Cartridge

A NeuraJet17 print ink cartridge stores the ink. The printer contains six ink cartridges: yellow, magenta, cyan and 3 black cartridges. Neuralog provides all ink cartridges for the NeuraJet17.

NeuraJet17 color cartridges: Yellow, Magenta and Cyan

NeuraJet17 black cartridges: 2 Matte Black and Black

1.2.7 Continuous Form Paper

Continuous form paper is fan folded paper of “unlimited” or continuous length. One box of this paper is usually 4000 sheets. The continuous paper used by the NeuraJet17 is 17”, 14”, 11” or 8.75” wide. Neuralog provides premium high-resolution coated well log paper for the NeuraJet17.

1.2.8 Well Log Paper

Well log paper is continuous form paper used for well log printing.

1.2.9 Well Log

A well log is a graph where the vertical (long) axis or axes represent depth and the horizontal (short) axis or axes represent measured values. Well logs are typically 20-100 feet when printed, but may be any length.

1.2.10 Well Log Printing Application

A Well Log Printing Application can load and display well logs, as well as send these files to a well log printer for continuous form print. Well Log Printing applications should have the following features to work well with NeuraJet17.

- Windows based, Windows 7, VISTA or XP compatible
- Ability to load very large and very long documents in a timely manner

- Appropriate printer interface that allows the user to select a continuous form option
- Ability to size the document horizontally to fit on the continuous form page
- Additional features such as copies, color selection, etc.

2 NeuraJet17 Setup and Installation

2.1 Printer/Plotter Setup

NeuraJet17 setup is simple and should only take a few minutes. Before you begin, you will need to choose an easily accessible location and decide how the printer will be integrated into your network. You will need a physical network connection and a network address for your printer, or you may choose to connect to your printer using USB. The NeuraJet17 comes with a rolling printer stand. You will need to choose a location to fit the printer and stand.

2.1.1 Location

Printers should be set up in a cool (office-temperature) environment and on a sturdy table or stand. The printer weighs about 95 pounds. It is recommended that it be lifted and moved by at least two people. The printer has handholds which make moving it easier. Be sure to locate these handholds before attempting to move the printer.

The printer will need power and network/USB connections. Printers consume a significant amount of power and can significantly contribute to network traffic; make sure your facility is set up for office printing.

Make sure your printer has adequate space. You will want to access the operator panel at the FRONT of the printer. The prints will exit the printer at the front. You will load paper into the BACK of the printer. You will need space to stand behind the printer when loading paper.

Continuous form paper may be placed on a table next to the CFA or it may be kept in the box on the floor. The NeuraJet17 has been designed to pull continuous form paper directly from the box. However, it is important to make sure the paper flow is in no way restricted by the box lid, placement of the box, or by plastic in the box. Always make

sure the path from the paper box to the printer is unobstructed. Always make sure the paper flows straight with respect to the CFA. The paper should not twist as it enters the CFA. Load the paper directly from behind the printer to ensure that twisting does not occur.

The paper will exit the front side of the printer into the paper stacker. Be sure to have adequate table or floor space for the paper. Always make sure the paper exit path out of the printer is unobstructed.

2.1.2 Unpacking the NeuraJet17 Box

Setup sheets for the NeuraJet17 are provided with your equipment. If you are unable to locate the setup sheets, they can be downloaded in the PDF format from www.neuralog.com. We recommend that you save your boxes and packaging material.

The printer must be moved by two or more persons on both sides. Be careful not to injure yourself by incorrectly handling the printer.

The following components should be in your NeuraJet17 box.

- Setup sheets
- Printer
- Continuous Feed Unit (attached to printer)
- Paper Stacker (attached to printer)
- Cleaning sheet
- Sample paper
- Power Cord
- Network or USB Cable
- Printhead
- Starter ink tanks
- Cleaning brush
- Reference Guides
- CD ROM with software and documentation

To unpack the printer, take out the printer and accessories from the shipping box and remove cushioning materials.

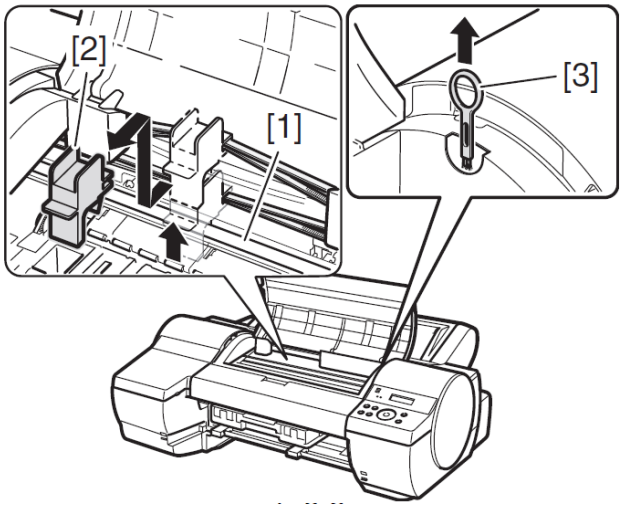
- First remove the cushioning materials at the top of the printer.
- Next, remove the cushioning materials by raising the left and right sides of the printer. Insert your hands in the clearance under each side of the printer to do this.
- Grasping the carrying handles on the left and right side of the bottom, place the printer on a level place such as a table.

The Continuous Form Attachment and Paper Stacker are preinstalled on the printer.

2.1.3 Initial NeuraJet17 Setup

Place the printer on a table or stand and unpack all packing materials.

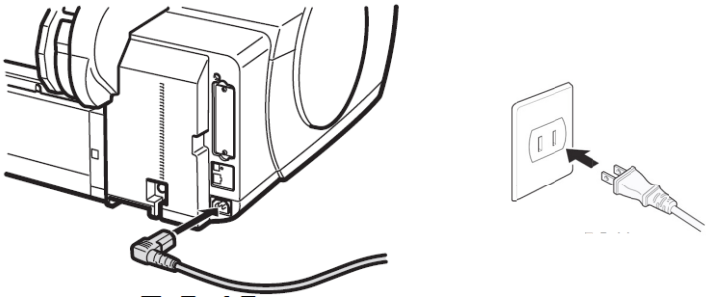
- Remove all cushioning materials and tape from the printer and accessories.
- Open the top cover, carefully raise the carriage shaft belt stopper and then pull it forward to remove. [1] → [2] The carriage shaft belt stopper is a bright orange plastic piece labeled with a red ribbon.
- When you open the Top Cover, you will also find a Cleaning Brush [3] on the right side.
- Remove all other packaging materials from the printer.



Note: You will need the Belt Stopper if you move the printer to another location. Do not discard the Belt Stopper you have removed.

Attach the Power Cord

- Plug the power cord into the Power Socket on the back of the printer.
- Connect the power cord directly to an outlet. Do not use a power strip.



Power on the Printer

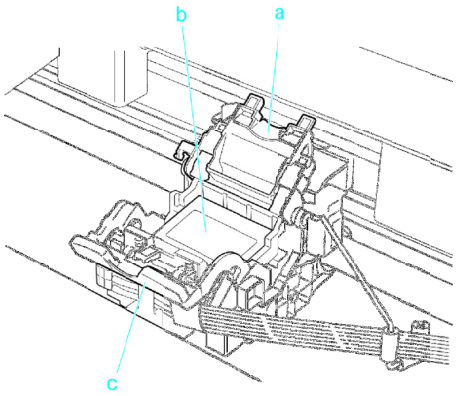
- Press the Power button to power on the printer.
- After all lamps are lit and then go off, the printer starts up.

- If your NeuraJet17 was shipped with pre-installed ink, “Initializing” will be displayed, followed by “NeuraJet17 Version 41.00.”
    - When the printer is ready it will say Online.
- If your NeuraJet17 was not shipped with pre-installed ink, you will need to install the printhead and ink cartridges.

Install the Printhead

If your NeuraJet17 did not come with a pre-installed printhead and ink cartridges the message "Open Top Cover" will be displayed on the operator panel. You will need to install the printhead that was shipped with your printer.

- Open the printer top cover.
- Pull the printhead fixer lever [c] forward and raise the printhead fixer cover [a] to open it fully.
- Carefully remove the printhead from its packaging.
- Remove the two orange protective caps. Be careful not to touch the metal contacts on the printhead.



Printhead Carriage

a. Printhead Fixer Cover *Holds the Printhead in place. Do not open this part except during Printhead replacement.*

b. Printhead *The printhead is equipped with ink nozzles. It serves a key role in printing.*

c. Printhead Fixer Lever *Locks the Printhead Fixer Cover. Do not open this part except during Printhead replacement.*

Insert the printhead in the carriage with the nozzles down and the contacts in the back. Insert it as far as it will go while taking care that the nozzles and contacts do not touch the carriage.

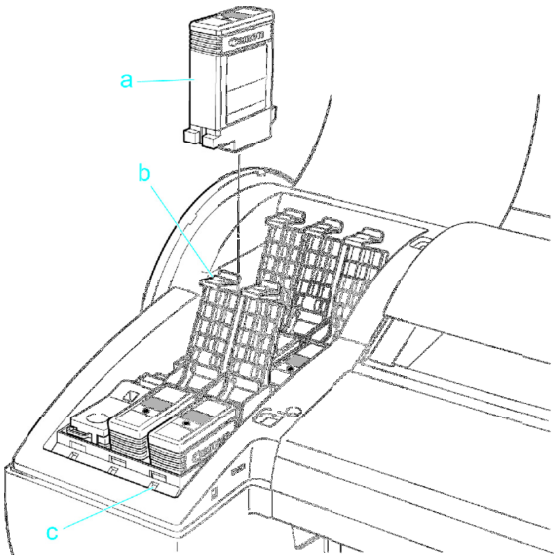
- Turn the printhead fixer cover [a] forward to lock the printhead.
- Turn the printhead fixer lever [c] backward unit it clicks.
- Close the top cover.

Install the Ink Tanks

There are six ink tanks that need to be installed for the printer to function. This ink is specific to the NeuraJet17 printer.

- Open the ink tank cover according to the message shown on the display.
- Press the stopper at the top the ink tank lock lever and then open the ink tank lock lever [b] upward.

- *Before unpacking the ink tank* you want to install, shake it slowly 7-8 times. Do not shake the ink after opening to avoid ink spills.
- Open the package and take out the ink tank by holding its knobs.
  - Never touch the ink port and contacts. The peripheral parts may become stained, the ink tank may become broken, or a printing failure may occur.
  - Be careful not to drop the ink tank once it is unpacked. The leaked ink may stain the peripheral area.
  - Do not remove and shake the ink once it is installed. Ink may spatter.
- Install the ink tank in the holder with the ink port facing down as shown.
- Close the ink tank lock lever until it clicks. Check that the Ink lamp is illuminated red.
- Repeat above steps to install all ink tanks.
- Close the ink tank cover.
- When the printhead and all ink tanks have been installed, the message "Do Not Open Cover" appears on the display. Initial ink filling requires about 14 minutes.



Ink Tank

a. Ink Tank *Cartridges of ink in various colors.*

b. Ink Tank Lock Lever *A lever that locks the Ink Tank in place and protects it. Lift and press down the lever when replacing an Ink Tank.*

c. Ink Lamp (Red) *Indicates the state of the Ink Tank as follows when the Ink Tank Cover is opened.*

• On - The Ink Tank is installed correctly.
• Off - No Ink Tank is installed, or the ink level detection function is disabled.
• Flashing Slowly - Not much ink is left.
• Flashing Rapidly - There is no more ink.

2.1.4 Network and USB Setup and OS Compatibilities

The NeuraJet17 has a sophisticated, yet easy to use setup panel and can be used over the network or with USB. The printer can be given a static or dynamic IP address and can be placed on your company's local area network or on a private network. It may run with a print server (a special computer that manages printing) or may be used without a print server (each user's computer manages its own prints).

There is no single right way to set up your printer on a network. Your IT administrator will know how to configure your printer for your company. The following table provides details of the NeuraJet17 setup options.

Interface Type	10BASE-T/100BASE-TX USB 2.0 Hi-Speed
Operating System Compatibility	Windows 8 / 7 / Vista / XP / Server 2012[2] / Server 2008 R2[2] / Server 2003[2] / Server 2008[2]
Network Protocol Print	LPD, RAW, WSD-Print (IPv4, IPv6)
TCP / IP Application Services	HTTP, HTTPS, POP3 (Authentication for SMTP), SMTP (IPv4), DHCP, BOOTP, RARP, ARP+PING, Auto IP, WINS (IPv4),
Management	SNMPv1, SNMPv3
Security	IEEE802.1X, SNMPv3, HTTPS, IPSEC

NeuraJet17 Setup Options

A basic network setup example is provided in the *Section 2.6 Setting up the Printer Network Connection*. The *Section 2.7 Setting up the Printer for USB* for will provides further details on USB setup.

2.1.5 Troubleshooting NeuraJet17 Setup

When setup is complete, the NeuraJet17 should be in the Online state. The printer will not go online in the following situations. Take the appropriate action.

Symptom/Message	**Action**
The Top Cover is open	Close the Top Cover
The Ink Tank Cover is open	Close the Ink Tank Cover
The Printhead is not installed	Please see “Installing the Printhead”.
Ink Tank is not installed	Please see “Installing Ink Tanks”.
Power On Again…Feed Unit Error is shown on the Display Screen	The Continuous Form Attachment may not be properly installed. Cycle the printer’s power. Check if the LED on the CFA has power.
The Online lamp and Message lamp are not lit (even once), and nothing appears on the Display Screen	Make sure the printer is plugged in correctly. Check the connection at the plug and electrical outlet.
If ‘ERROR’ is shown on the Display Screen	Contact Neuralog Support

2.2 The Continuous Form Attachment

The Continuous Form Attachment (CFA)[2] is an accessory that comes pre-installed on the NeuraJet17. It guides the paper into the printer, keeps the paper straight, and allows the printer to start prints at Top of Form. It is unlikely that you will need to remove the device. If you should need to remove and/or attach the CFA follow the instructions below.

[2] The Continuous Form Attachment, or CFA, is a printer accessory, part name NeuraJet17C.

2.2.1 Uninstalling the Continuous Form Attachment

If you should need to remove the CFA from the printer follow these steps.

1. Eject/Remove any paper and turn the printer power OFF.
2. Unscrew the two grey attachment screws (by hand or with a screw driver). These screws are located underneath the CFA near the back. Keep the attach screws in a safe place.
3. With two hands gently pull the CFA off the back of the printer.
4. Place the CFA on the table.
5. You may wish to replace the attachment screws in the printer for safe keeping.

Caution: Do not attempt to remove or install the Continuous Form Attachment from the NeuraJet17 without powering OFF the printer.

Note: Do not attempt to power on the printer without the CFA attached. The NeuraJet17 will not function properly without the CFA attached.

2.2.2 Reinstalling the Continuous Form Attachment

If you should need to reinstall the CFA follow these steps. The CFA should always be handled with two hands. You should NOT attach or unattach the CFA to the printer unless the printer's power has been turned OFF.

1. With the printer power turned OFF, slide the CFA on to the back of the printer aligning the two connector pins. (Remove attachment screws if you have stored them on the printer.)
2. Make sure the CFA fits snugly onto the printer. When the screws are properly aligned, the power and signal connectors are also aligned.
3. Reattach the attachment screws and hand tighten.
4. Power ON the printer only after the CFA has been properly installed.

Once the CFA is in place you can power ON the printer and move on to the next step. Powering ON the printer without the CFA will result in an error state.

2.3 The Continuous Form (Well Log) Paper

Once the printer is setup and Online you can load paper. NeuraJet17 accepts the 4 standard sizes of paper provided by Neuralog, or it can print on your custom paper between 8.5" and 17". Follow these directions to load paper into NeuraJet17. Remember that the network/USB connections and print drivers will need to be setup before printing can actually begin.

Locate the paper that you wish to use; keeping in mind that continuous form paper is quite heavy. Use caution when moving these large boxes of paper. Paper can be completely removed from the box, or it can be pulled from the box it comes in, as long

as there is no plastic in the box and nothing such as the box lid can restrict the paper flow. The box must be aligned with respect to the CFA so that the paper does not twist.

2.3.1 Supported Paper Sizes

Neuralog provides premium high-resolution coated well log paper for the NeuraJet17. One box of this paper is usually 4000 sheets. The continuous paper used by the NeuraJet17 is 17", 14", 11" or 8.75" wide. NeuraJet17 paper has been engineered for optimal print quality.

Width	Page Size	# Sheets in Box
17"	8.5"	4000
14"	8.5"	4000
11"	8.5"	4000
8.75"	6.25"	4000

NeuraJet17 Paper Specifications

2.3.2 Loading the Paper

Loading paper into the NeuraJet17 is not difficult, but does require some patience with larger paper sizes. To load paper into the NeuraJet17, stand directly behind the printer. Do not stand to the side. Standing to the side will likely result in a load that is not straight.

NOTE: The printer must be Online to accept paper. The green Online button must be illuminated.

1. **Adjust paper slider**. When loading paper in to the NeuraJet17, the first step is to adjust the paper slider to fit the width of the paper.

The slider should fit snugly against the edge of the paper with a "hairline" gap. Do not make the paper too loose or it may load crooked. Do not make the paper too tight or it may bind.

2. **Load paper into printer rollers.**
   Once the slider is in place, place the edge of the paper under the four white rollers in the printer.

The printer will automatically grab the paper. The printer will move the paper back and forth to measure the paper width and further straighten the paper. When complete, the green online button will illuminate.

If the paper load was successful, the green Online button will illuminate. If the paper load was unsuccessful (the paper was loaded crooked), the printer will give a paper jam error. You will need to reload the paper.

2.3.3 Removing and Reloading the Paper

The printer moves the paper to straighten it. If the paper does not load straight, an error state will occur. Remove the paper as follows.

- Press the Stop/Eject button for one second, until the printer responds.
- Press the UP arrow to release the rollers. ▲
- Remove the paper from the printer
- Press the DOWN roller to re-engage the rollers. ▼
- Wait until the printer displays the green ONLINE button.
- Follow the paper *loading* steps in the previous section.

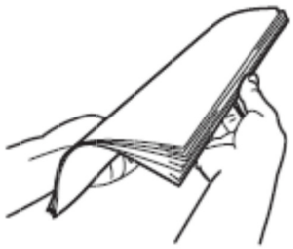
2.3.4 Troubleshooting Paper Loading

If the paper does not load correctly, it is likely that it is not properly aligned with the printer, or it may have become wrinkled during the load attempt. If the paper becomes wrinkled or damaged, remove any wrinkled sheets. Please check the following.

- You must stand directly behind the printer. It is very difficult to load the paper if you are not standing directly behind the printer. This is particularly true for the wider papers.
- The paper stack/box must be directly aligned with the printer. If the paper is not directly aligned with the printer, it may not load. Any twisting of the paper can cause incorrect loading.
- The sliding alignment bar must be in place. The paper must fit snugly, but not tightly against the alignment bar, with a "hairline" gap.
- The paper must not be wrinkled or damaged. This will cause the paper to jam inside the printer.
- The paper path must be clear and free. If the paper does not load and all steps have been followed, it may be that there is a paper fragment inside the printer prohibiting proper loading.

2.3.5 Static Electricity - Fanning the Paper

Paper should be fanned to remove static electricity. This can be done before or after loading and should be repeated if static electricity is a problem. For continuous paper reach into the box (or on table) on one side and flex the paper to loosen the sheets, similar to what is shown here for cut sheets. This procedure is particularly important for dry climates where static electricity is known to cause problems.



Fan continuous paper to remove static.

2.3.6 Choosing the Correct Start Page for Printing and Stacking

For proper paper stacking, NeuraJet17 paper should be loaded such that the first page is an "out-fold". This will allow the paper to immediately fold properly in the paper stacker.

The log print itself will always start on the desired paper fold. If the correct start page is not chosen when loading paper into the printer, the print will still start on the correct page regardless; however, the log print may not properly stack. Once the first print has occurred, all subsequent prints will start and fold on the correct page.

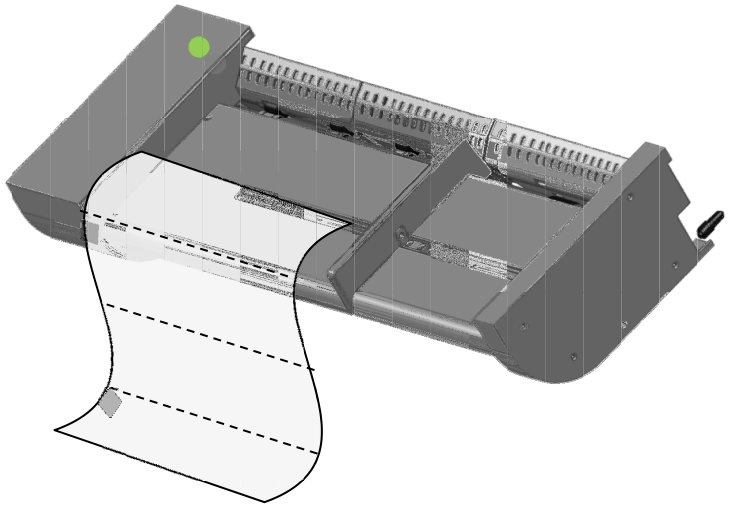
In order for the first print to fold correctly, be sure to load paper such that the first page is an "out-fold." Most continuous form paper has marks on the back of each "in-fold"

page[3]. You will want your first page to NOT have an “in-fold” mark. That is, looking at the back of the paper it should not have the mark.

The NeuraJet17 begins printing after 2 blank pages at the top of the paper you load. The two blank pages at the beginning of each print are necessary to protect the printhead. The end or tail cut is placed to minimize paper waste, while ensuring proper folding. The tail of the log will have no more than 1 blank page in order to align the paper correctly for the next print. In summary, once the paper has been properly loaded, NeuraJet17 prints should never have more than 3 blank pages at any time: exactly 2 at the start; and either one or zero at the tail of the print.

2.3.7 Paper Orientation

The NeuraJet17 printer prints on the TOP side of the paper. Be sure the marks on your NeuraJet17 paper face down. If you have correctly loaded paper from the box, the marks will be face-down and on the LEFT side, closest to the green LED on the CFA.



Marks are on underside of paper. Printing occurs on top side of paper. Load first page with no mark for proper fold.

Once you have loaded the paper, NeuraJet17 will begin each print on the correct page. It is only when manually loading paper that the operator needs to be mindful of the start page. Also if the wrong start page was chosen, the printer is self-correcting and subsequent prints will begin on the correct fold.

2.3.8 The Cut Placement

The NeuraJet17 cuts the continuous paper at the end of each print. The printer places the cut at the end of the print job on the last page at about 20 millimeters after the paper

[3] These marks appear on most continuous form paper; the industry standard is for the mark to be on the “in-fold”.

perforation. This ensures that there is no “chad” or “flap” at the beginning of a print. The cut is always placed after the final print page so that the next print begins on the proper page. The placement of the cut will be consistent for all prints and cannot be changed.

2.4 The Paper Stacker

NeuraJet17 comes with a built-in paper stacker. The stacker is made up of a tray to catch the paper and a diverter flap that guides the paper so it can properly fold. The tray is pre-installed in the printer and should be opened as part of printer setup. The diverters can easily be snapped into place.

2.4.1 Opening the Paper Stacker Tray

The paper stacker is pre-installed in your NeuraJet17. You will need to open the tray by pulling it out with the two attached handles and then unfolding it.

Pull out paper tray from printer. The tray has stoppers that will keep it from coming out of the printer.

Open the paper tray by unfolding it. The tray will unfold to a slight angled position.

2.4.2 The Paper Stacker Diverter

There is a flap along the top exit of the paper stacker that acts as a paper stacker diverter. This flap moves back and forth as the paper exits the printer and helps the paper to properly fold. Vertical plastic strips on the back of this flap help the paper to glide past this bar. Make sure this flap always moves freely in the printer.

2.4.3 Removing and Reinstalling the Paper Stacker

It is unlikely that you will need to remove the paper tray. However if you do need to remove the tray, then follow these instructions.

- Turn the printer OFF.
- Reach into the tray cavity inside the printer before closing the tray. There is a lever that keeps the tray from sliding out. You will need to depress this lever so that the tray can slide out of the printer.
- Once the tray is sliding out, close the tray and completely remove it.

To replace the tray:

- Make sure the printer is OFF.
- With the tray closed, slide it into the printer cavity. You will hear it click into place, once the lever catches.
- Open the tray (before attaching the diverters).

2.5 Turning the Printer/Plotter On and Off

The printer may be turned off by holding down the power button for 1 second. Make sure there are no print jobs in progress. If the Data lamp is flashing, the printer is receiving a job. Cancel the job or wait until it is finished before turning off the printer. Turning the printer off during a print could damage the printer.

The printer is turned on by holding down the Power button. Make sure the CFA is properly attached before turning the printer On, otherwise an error state will occur.

2.6 Setting up the Printer Network Connection

There are many options for setting up your printer on a network. For the most simple static address setup of your NeuraJet17 follow these steps. For other configurations, please see your system administrator.

2.6.1 Obtaining Network Information

Before you can add the printer to your office network, you will need to obtain basic network information.

- Connect the printer to your network with a network cable, if not already done.
- Obtain a static IP Address from your system administrator. Most companies have a local area network with dynamic and static addresses. A static address will insure there are no network conflicts with other devices. This can be done for your company's public network or you can create a private network visible only to your machine.
- Obtain your company's Default Gateway. The gateway is the computer used for DNS routing. (On some networks this step is optional. Ask your system administrator.)
- Obtain your company's Subnet Mask. This is often 255.255.255.0. (On some networks this step is optional. Ask your system administrator.)

2.6.2 Setting up the Printer/Plotter

Enter the static IP Address, Default Gateway and Subnet Mask into the printer by following these steps. Enter using the Operator Panel. Remember you can take the printer out of sleep mode by pressing any button. You can also press the Online button at any time to exit the current menu path.

- Assign the chosen IP Address to your printer.
    - **Menu ►►►►►►(6)[4] Interface Setup**
    - **▼ EOP Timer ►TCP/IP**
    - **▼ IP Mode ►IP Setting**
    - **▼IP Address ▼ __ __ __ __**
        - Enter the numbers for the IP Address[5]
        - **OK button** selects and unselects the slot
        - ◄► changes the number when selected
        - ◄►moves to the next slot
    - ▲ When Done

[4] This notation will be used to indicate number of times button should be pressed.
[5] Slots will hold numbers 0..255. Use the arrow keys to select the correct numbers.

- Enter the Subnet Mask into your printer.
  - ►**Subnet Mask ▼ __ __ __ __**
    - Enter the numbers for the Subnet Mask Address
    - **OK button** selects/unselects the slot
    - ◄► changes the number when selected
    - ◄►moves to the next slot
  - ▲ When Done

- Enter the Default Gateway into your printer.
  - ►**Default Gateway▼ __ __ __ __**
    - Enter the numbers for the Default Gateway Address
    - **OK button** selects/unselects the slot
    - ◄► changes the number when selected
    - ◄►moves to the next slot
  - ▲ When Done
  - **▲▲▲ Save Settings? OK**

Make sure you select OK on Save Settings, otherwise the data you entered will not be saved to the printer.

2.6.3 Using a Private Network

You can also set up a private network which means only included computers will be able to access the printer. Rather than using your company network (a cable coming out of the wall), you set up a stand alone set of network connections. Setting up a private network requires making sure the chosen address for the printer is accessible by the computer(s) you will use on the private network.

- View the network connections on your PC and make sure it has (or you assign) an address in the same network sequence
  - Use the TCP/IPv4 connection.
  - Please see your system administrator if you need help.
- Make sure the PC and printer are connected with either a network switch box or a crossover cable.

2.6.4 Verifying Network Connectivity

Whatever type of network you use, you will want to verify that the connectivity is successful. Verify that the network installation was successful by "pinging" the address you assigned from a network computer.

- Bring up a Command prompt (DOS) from a PC on the network
- Type in "ping printers-address"
  - *ping xxx.xxx.xxx.xx*

- You should see the following
  - *Reply from xxx.xxx.xxx.xx: bytes=32*
- An unsuccessful network connection gives the result
  - *Request timed out.*
- You can also enter the printers address into a browser window. A web-based program with the printer status will display if the printer was successfully installed on the network. This is discussed on the next page.

2.7 Setting up the Printer for USB

NeuraJet17 can also be used to print via USB. For best results, use a cable less than 10 feet in length. USB cables are limited by there their electrical design; longer cables may have data transmission problems.

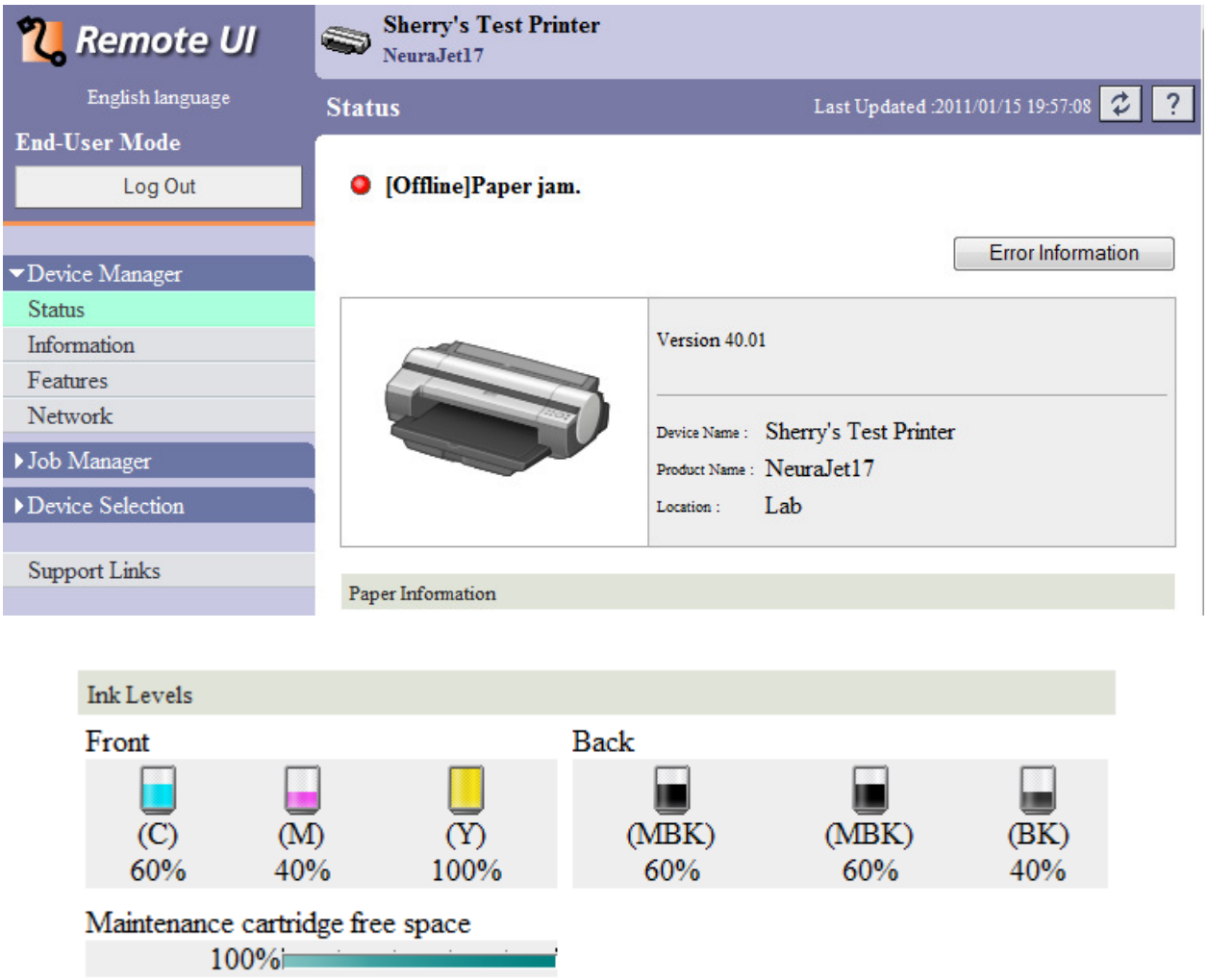
- Connect the printer to your PC with a USB cable, if not already done.
- There are no special USB instructions. When the print driver is installed, connectivity can be verified.

2.8 Using your Printer's Web Interface

A useful feature on your NeuraJet17 is the web server and pages it provides. Once your network is successfully set up, you can use these pages to access your printer. Much of the printer status accessed through the printer's operator panel can also be seen through these web pages.

- Bring up a web browser window, such as Internet Explorer.
- Type in the printer's assigned IP address in the browser address bar. It is not necessary to enter the http:// prefix.
- If your printer is turned ON and the network connection set up properly, you will see your printer's interface web page.

From these pages you can monitor ink levels, as well as monitor the life span of other printer parts. You can also set up contact and location information for your printer. A link to the Neuralog website is also available under *Support Links*.



Check Device Status from printer Web Pages.

2.9 Installing the Print Driver

NeuraJet17 includes a print driver that is recommended for continuous printing of well logs. The print driver can be found on a CD that shipped in the printer box, or it can be downloaded from www.neuralog.com. Print drivers are available for both 32-bit and 64-bit operating systems. Make sure you install the correct driver for your computer. Print drivers are also available in languages other than English. See the web site for a list of supported languages.

To install the print driver:

- Place the CD in your computer or download the driver from www.neuralog.com.
- From the control panel select Add a Printer[6].

[6] On some versions of windows you are instructed to install as a local printer if NOT using a print server. If this is the case choose install as local printer for the network installation.

- Network: Choose **Add a network printer** for network.
    - The program will search for the printer. If the printer is found select it; or you can click "the printer that I want isn't listed" and then type in the IP address.
        - If you choose to type in the IP address manually you will need to indicate that this is a TCP/IP device and enter the address. A "port" will be created through which your printer communicates.
        - You can optionally give this port a name, or let the program auto-name it.
        - DO NOT check Query the printer and automatically select the driver to use – You have a CD or download of the correct driver.
- USB: Choose **Add a local printer** for USB.
    - Choose an existing USB port
- In either case when you get to a screen asking you to find the driver, choose **Have Disk**.
- Select the location of the driver. The installation application will tell you the location. Find a file similar to
    - **2WQ512M.INF** (32 bit)
    - **6WQ512M.INF** (64 bit)
- Once your install or replace the driver, give your printer a name.
    - We recommend *NeuraJet17* or similar to readily distinguish it from other printers.
- For a network installation you can optionally share the printer and
- Print a test page to your NeuraJet17. You should see the standard Windows Test Page print on the continuous paper loaded in the printer.

The NeuraJet17 Print Driver will install ready to print continuous form. DO NOT change these default settings if you want to print continuous form.

2.10 Print Driver Setup

The NeuraJet17 will be ready to print with no changes to the printing preferences, except selecting the width of the paper you have loaded in the printer. However there are some settings the user should consider when printing logs.

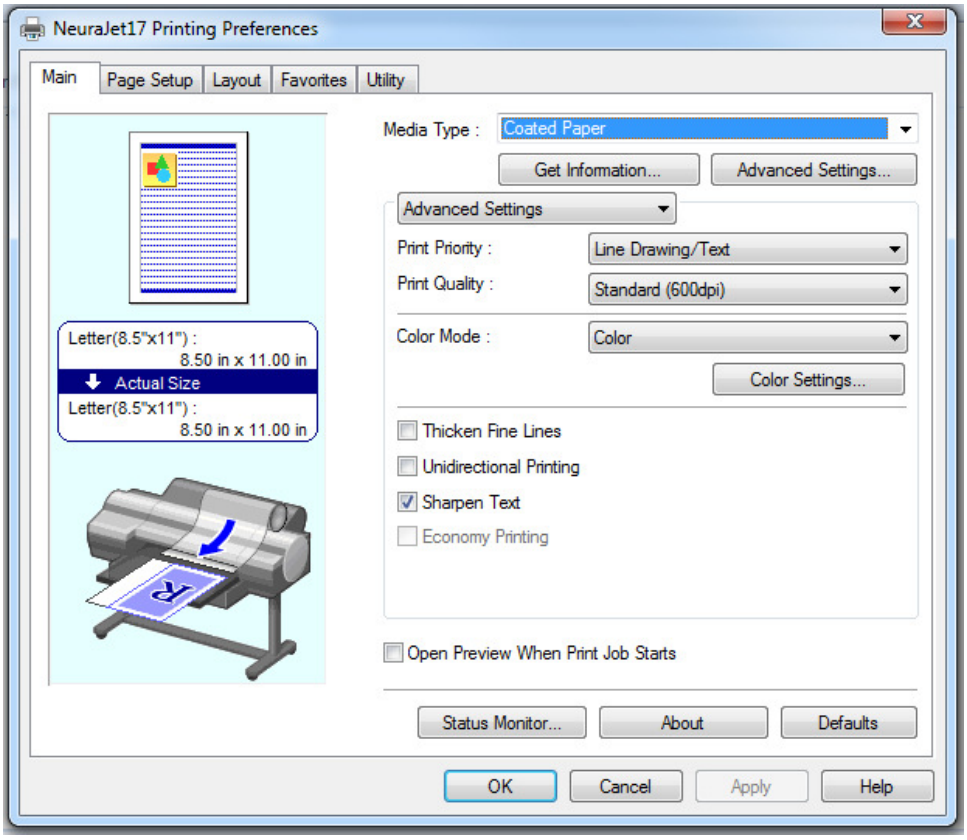
Access the Control Panel and the properties of the printer. Printing Preferences and Printing Defaults both have these values preset. Look over these settings. Except where specifically stated, these selections should NOT be changed for printing continuous form documents.

2.10.1 Printing Preferences Main Panel

Default settings are recommended for printing most well logs. The settings that may be adjusted will be explained, along with the expected results.

Media Type: May be Coated Paper or Plain Paper

The Coated Paper menu setting is recommended for the NeuraJet17 and should be used for the best quality prints.[7] The Plain Paper menu selection uses less ink, but produces lesser quality prints. However, the Plain Paper menu setting causes the printer to print at almost twice the speed of the Coated Paper setting. If speed is important, the Plain Paper selection may be used.



Print Priority: Leave at Line Drawing/Text

Print Quality: Leave at Default of Standard (600 dpi) for normal printing.

- High (1200 dpi)
- High (600 dpi)
- Standard (600 dpi)
- Draft (600 dpi)
- Draft (300 dpi)

[7] The paper Neuralog recommends and sells is coated paper.

The print quality settings affect both the speed and quality of printing. High 1200 dpi quality gives the best results, however High or Standard 600dpi give excellent results for most well log printing.

Draft modes give a lesser quality result but are a good choice if a draft print is needed or if speed is important. Printing speed is slightly faster with a draft setting.

Color: Leave at Default of Color for normal printing.

- Color
- Monochrome
- Color (CAD)
- Color (CAD) Light
- Monochrome BK Ink
- Monochrome Bitmap

The default Color setting is the recommended choice for NeuraJet17. Monochrome can be used if grayscale prints are needed. Color (CAD) can create a more detailed print because the colors appear to be more distinguishable. Color (CAD) Light is similar but is slightly lighter than Color (CAD).

Although the default of Color is recommended, we suggest you try the various settings to satisfy your own personal preferences for the types of logs you print.

Other Settings

Thicken Fine Lines - Choose this option to make fine lines clearer in CAD drawings or similar documents. This would only affect the prints from vector based software; that is, TIFF and other image formats would not be affected.

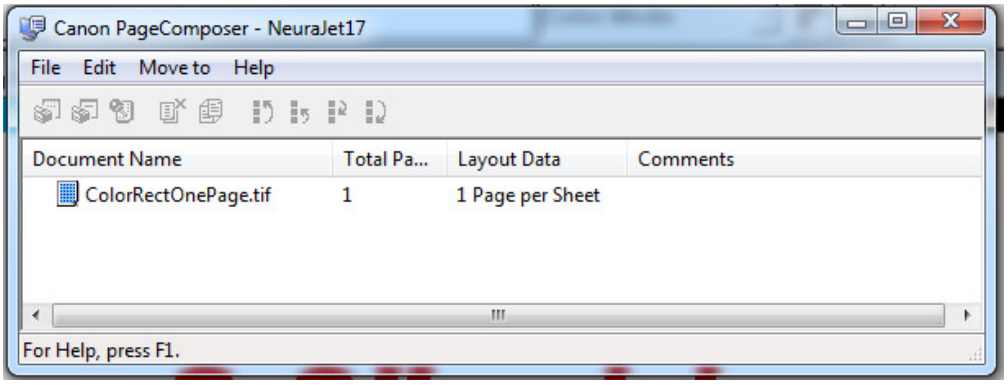
Unidirectional Printing - Choosing unidirectional printing can improve printing results if lines are printed crooked or images are uneven. However, this takes more time than regular printing.

Sharpen Text Choose this option to print intricate text more distinctly. This would only affect the prints from vector based software; that is, TIFF and other image formats would not be affected.

Economy Printing When this mode is selected, less ink is consumed than in regular printing, but the quality is diminished. Select this mode if you want to conserve ink. DRAFT mode and PLAIN paper must be selected to activate this mode. Print speed is also maximized in Economy Mode.

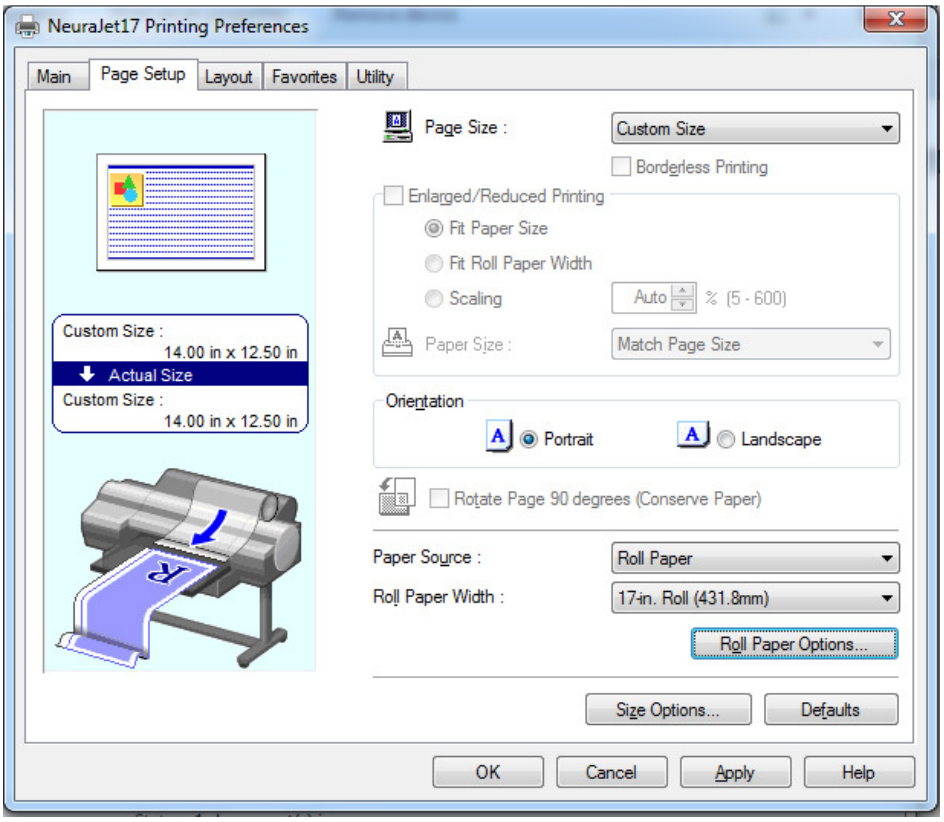
Open Preview When Print Job Starts – Activate this option to launch the PageComposer application which allows you to check on-screen previews before

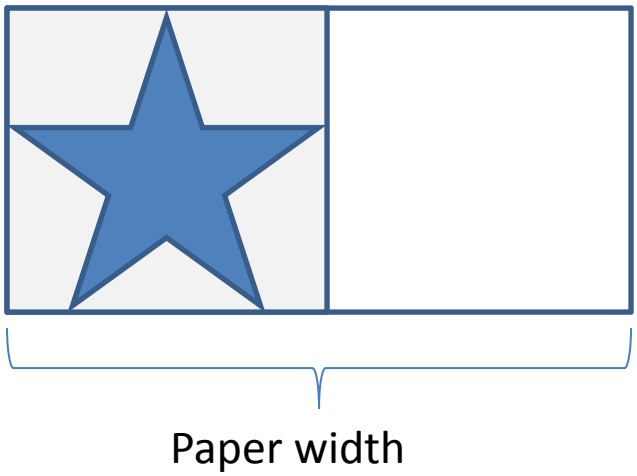
printing. PageComposer lets you inspect jobs before they are released to the printer. Duplicates of the print jobs can also be created in the PageComposer panel that appears. Jobs may also be deleted in this panel.



2.10.2 Printing Preferences Page Setup Panel

The only setting to change on the Page Setup panel is Page Size. You should set the page size width to match the actual width of the paper you have loaded in the printer. Other settings should not be changed.





Smaller print than paper width: Note that if you choose a larger paper size than your actual image, the complete print will appear on only part of the paper.

Larger print than paper width: If you choose a smaller paper size than your actual image, only a portion of the image will print. In either case no scaling is done by default. Scaling is possible through your well log printing application.

2.10.3 Printing Preferences Layout Panel: Important Settings

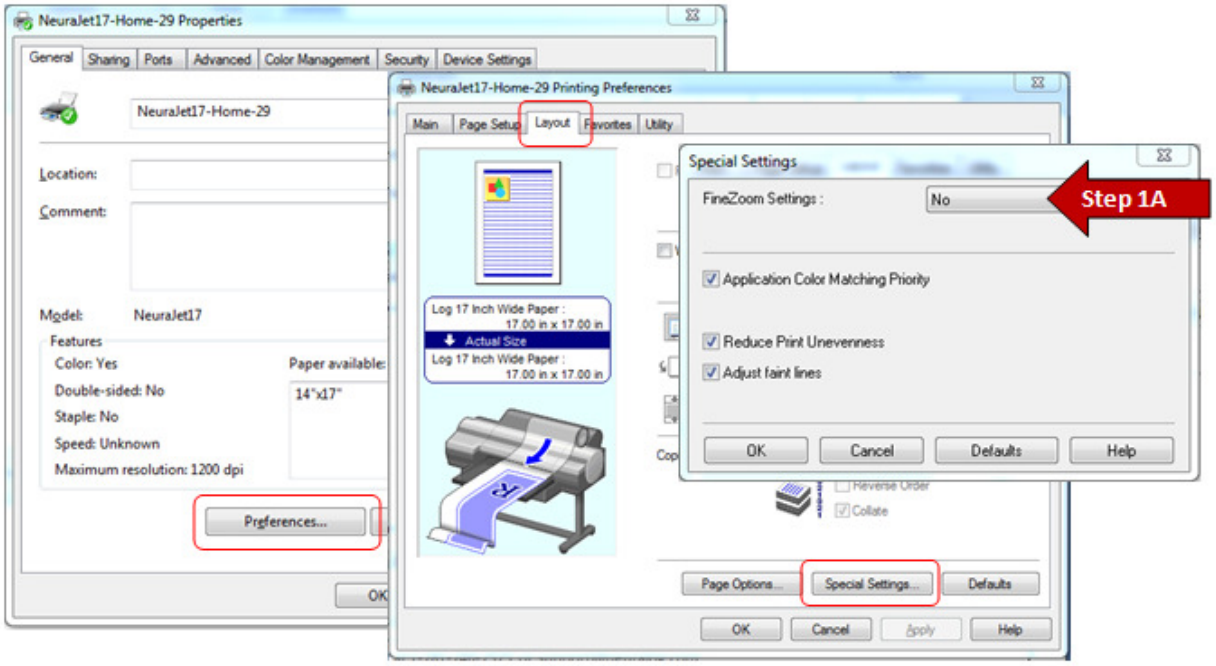
There are a couple of settings that should be changed on the Layout Panel for best printer performance. The default behavior of the NeuraJet print driver (V4.16 and V4.17) creates very large temporary files in a TEMP directory on the C drive. These files are not needed for well log printing. Problems can occur on computers with small C drive partitions. In addition, the creation of these files slows PC-printer communication, causing long pauses in printing. The recommended settings prevent these unnecessary temp files from being created and eliminate most of these printing pauses.

Recommended Settings: Set "Fine Zoom Settings" to NO and UNcheck "Enable advanced printing features".

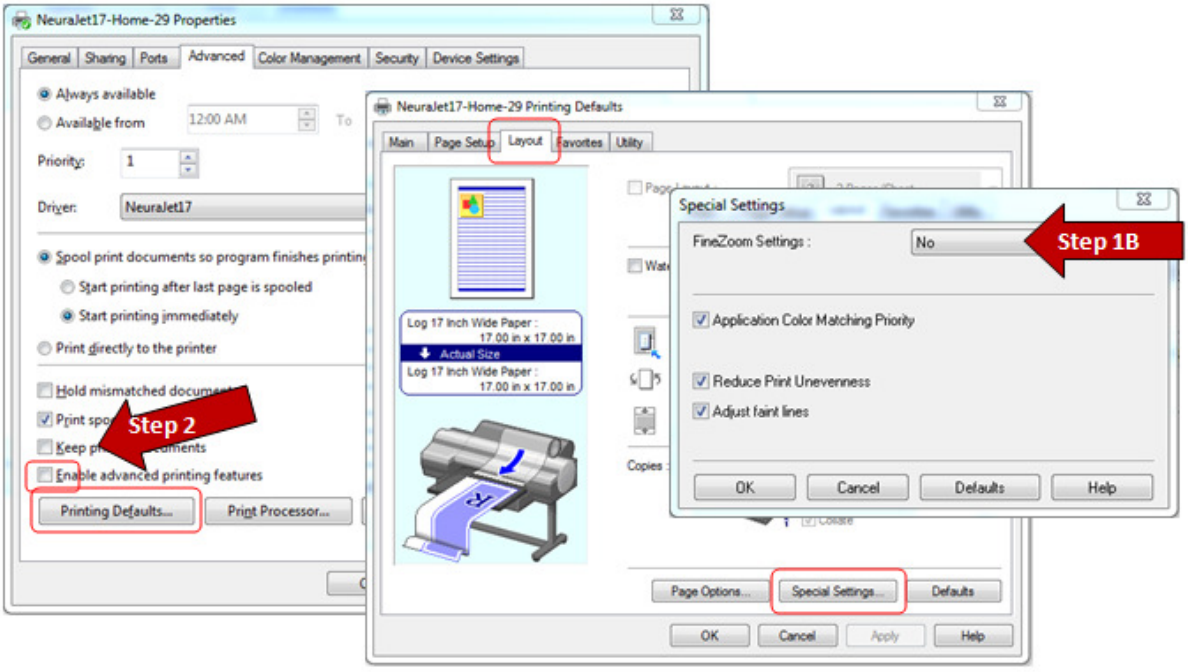
Important: Both settings must be changed or undesired results may occur. Fine Zoom Settings must be changed in both Printing Preferences and Printing Defaults.

STEP 1. Set Fine Zoom Settings in two places, (A) Printing Preferences and (B) Printing Defaults.

- 1A) Select General Tab, Preferences…, Layout Tab, Special Settings... , *Fine Zoom Settings: No*



- 1B) Select Advanced Tab, Printing Defaults…, Layout Tab. Special Settings. *Fine Zoom Settings: No*



STEP 2. UNcheck *Enable advanced printing features* on the Advanced Tab of the Printer Properties Panel.

- Select Apply/OK on all panels when done.

NOTE: These settings should be set from the control panel and implemented in every installation of the NeuraJet Print Driver to avoid problems with slow printing.

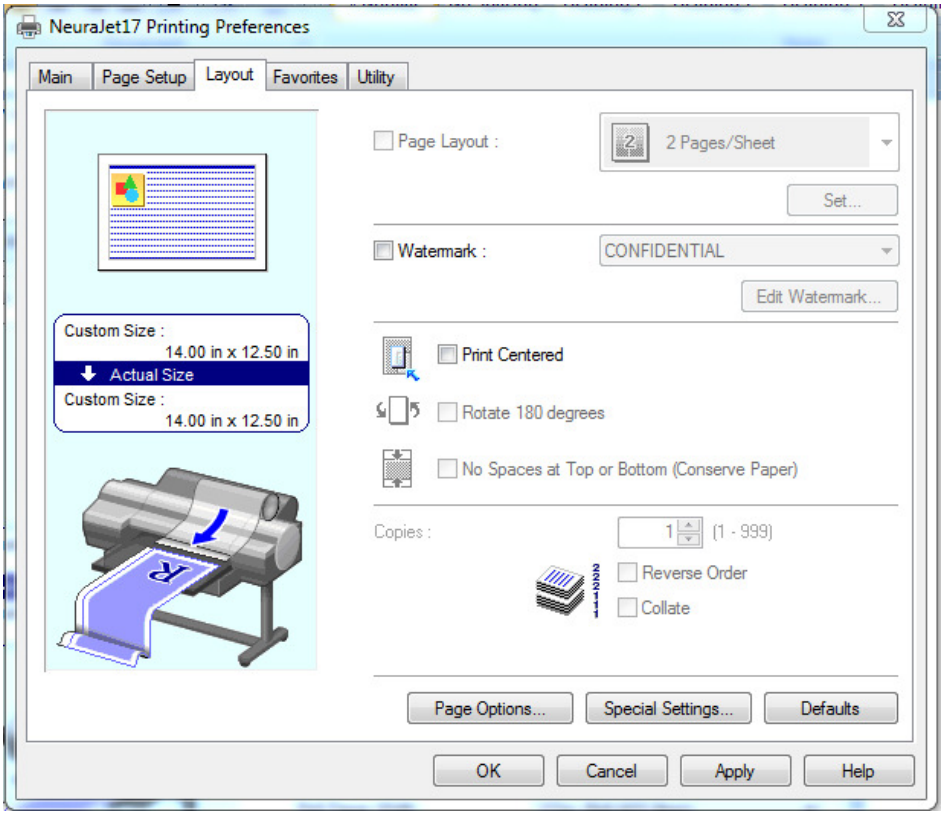
Other optional settings in the Preferences Layout panel that may be of interest to you are as follows.

Watermark - It is possible to add a Watermark such as your company name to your print.

Print Centered - If your print is narrower than the paper you have loaded, you may use this selection to center the print. This option does not work in some software packages. See Section 2.11 on Log Forms for alternative methods for centering a log print.

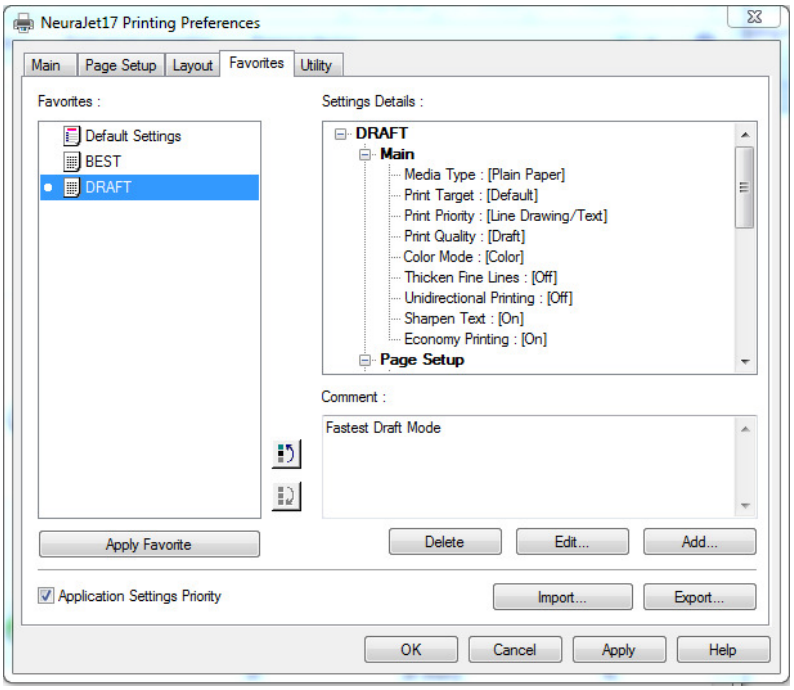
Page Options – This button allows you to add other information to your prints such as Date and time.

Other Layout options are not recommended for well log printing.



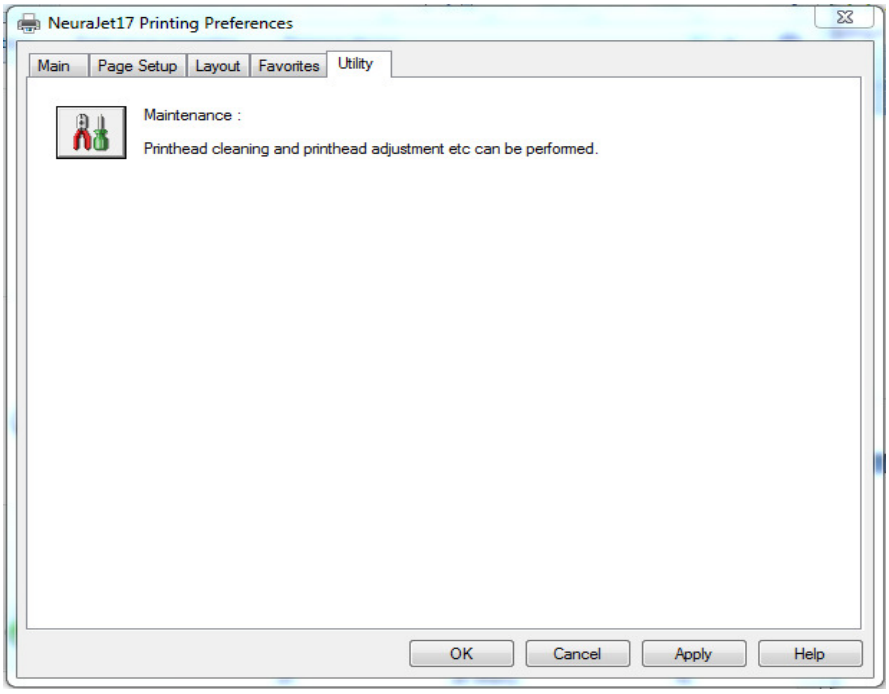
2.10.4 Printing Preferences Favorites Panel

The Favorites panel is an optional way to save your log settings. Select log settings and create a Favorites entry for quick access at later printing. You must select the Favorite and then click Apply Favorite for the settings to be set.



2.10.5 Printing Preferences Utility Panel

The Utility panel provides quick access to printer maintenance functions.



2.11 Setting up Standard Log Forms for Wide Printing

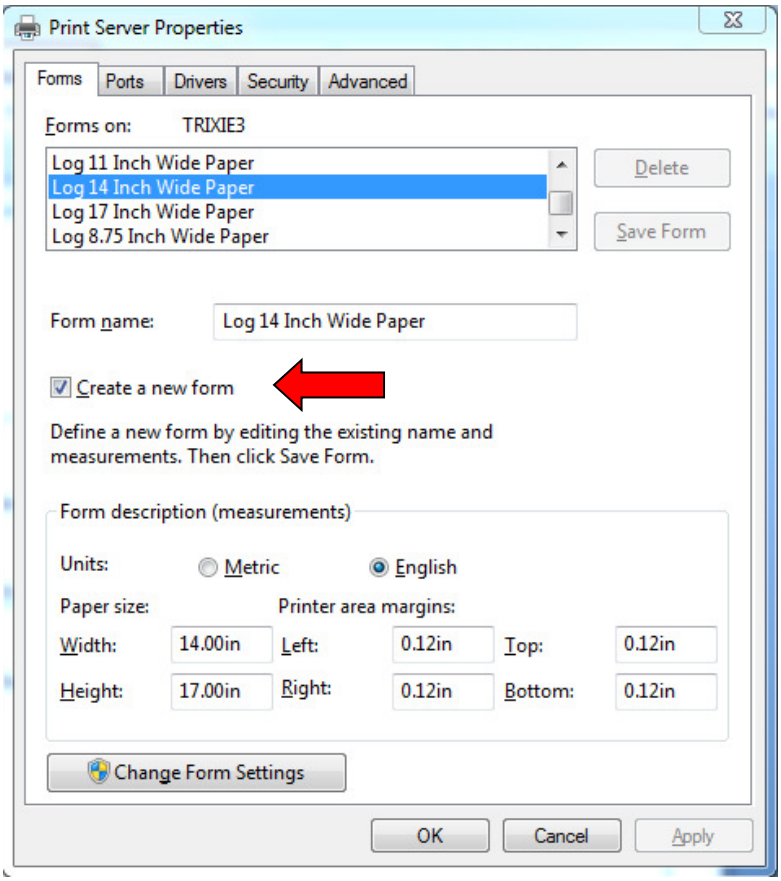
To print logs of different widths, log forms must be set up for the NeuraJet17 print driver to use to match the actual paper log size. This is easily done through the Windows Control Panel. The log forms you will want to create are given in the table below. This

is based on standard sizes of well log paper sold by Neuralog. We recommend using the following naming convention as it will simplify printer support.

Form Name	Width	Height	Left/Right/Top/Bottom Margin
Log 11 Inch Wide Paper	11 in	17 in	0.12 in
Log 14 Inch Wide Paper	14 in	17 in	0.12 in
Log 17 Inch Wide Paper	17 in	17 in	0.12 in
Log 8.75 Inch Wide Paper	8.75 in	12.50 in	0.12 in

To set up these forms, after Installing the NeuraJet17 Print Driver, select the NeuraJet17 printer through your Windows Control Panel Devices and Printers.

- With the printer selected, choose *Print Server Properties* (accessed either at the top of the window or through a right click menu).
- On the Forms tab, select *Create a new form*.



- Enter the Form name and enter values shown in the table.

- Select OK when done. These forms will now be selectable in the printer's page setup tab when you print. Select the correct form for *Page Size:* to match the width of the paper you have loaded into your NeuraJet17.

The Form Name table above contains the standard log forms that you will create to work with standard sizes of well log paper. It is also possible to create other sizes of custom log forms and to create custom forms that can be used for special layout situations such as centering a log print on a standard log paper size. For example, to center an 11 inch wide print on 17-inch wide paper, create a special version of **Log 17 Inch Wide Paper**, but provide margins of 3.12 in for the left and right Margin. If you need further help with custom log printing, contact Neuralog support.

NOTE: Once these Log forms are installed and shared on a print server, any clients accessing the shared printer will automatically have access to the forms.

2.12 Installing and Using the Status Monitor

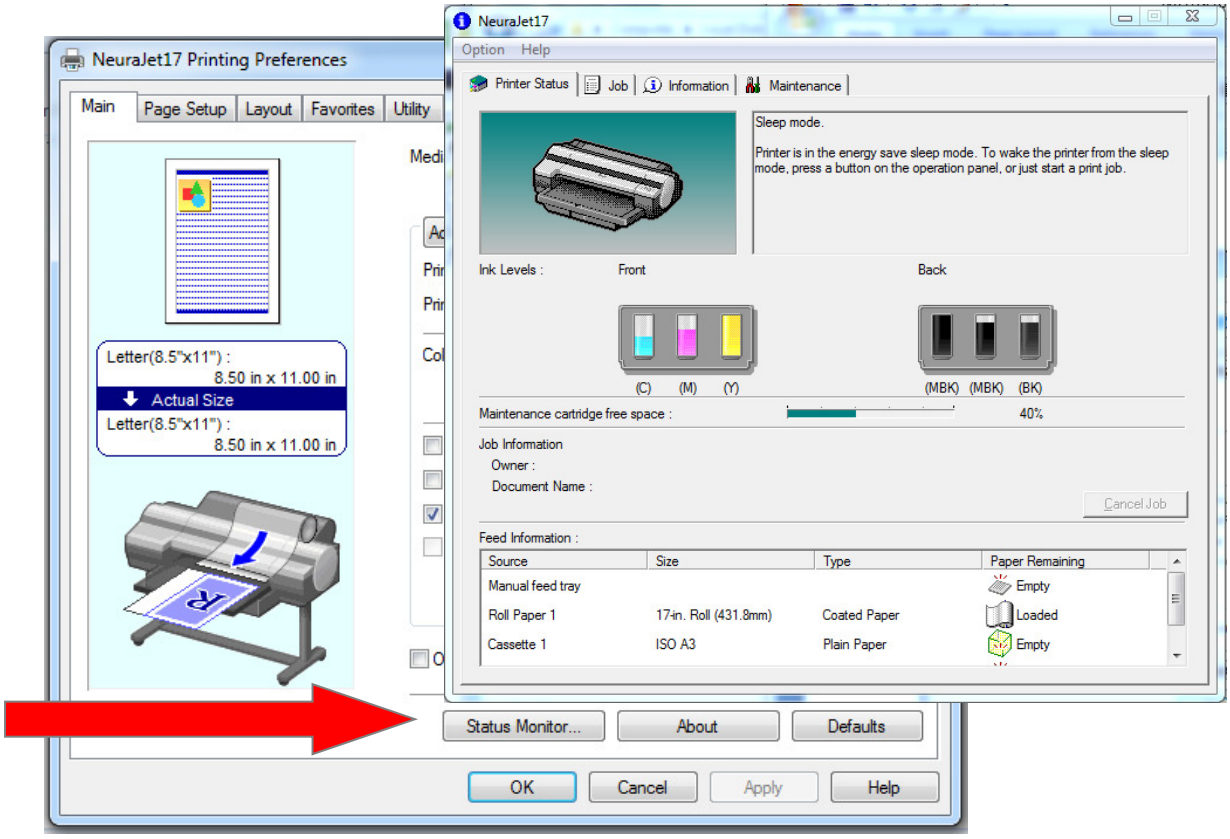
The NeuraJet17 printer also comes with a Status Monitor application which can be run on any PC to provide status information about the printer. The Status Monitor is particularly useful for USB installations where the Web Interface is not available.

Locate the status monitor on the installation CD or download from the Neuralog website. The containing folder will be similar to SM-V4430-FC1 or SM-V4430x64-FC1 for 32-bit or 64-bit installation, respectively. Run the Setup.exe installation program to install the Status Monitor.

Once installed, the status monitor can be launched directly from the NeuraJet17 print driver. To launch the Status Monitor:

- Open the Print Driver on the PC.
- From the Main Tab of the Print Driver, click the Status Monitor button.

The Status Monitor displays printer status, similar to the Printer's Web Interface. Information such as ink levels and job status can be obtained.



2.13 Power Saver Mode

The printer automatically enters a Power Saver or Sleep mode to conserve power if it is idle for a specific period (by factory default, five minutes), that is, if no print jobs are received or buttons are pressed while all covers are closed.

You can specify the period before the printer enters Sleep mode in the **Sleep Timer** menu. If any print jobs are received when the printer is in Sleep mode (after it was originally online), the printer goes online and prints the jobs.

- **Menu ►►►►►►►► (8) System Setup ▼**
- **►►►►► (5) Sleep Timer ▼**
  - ◄►to select the minutes
  - **OK** to enter
- Press **Online** to bring the printer back online.

The sleep timer may be set between 5 and 240 minutes. When in Sleep mode, you can press any button except the **Power** button to bring the printer online again.

3 Printing Applications

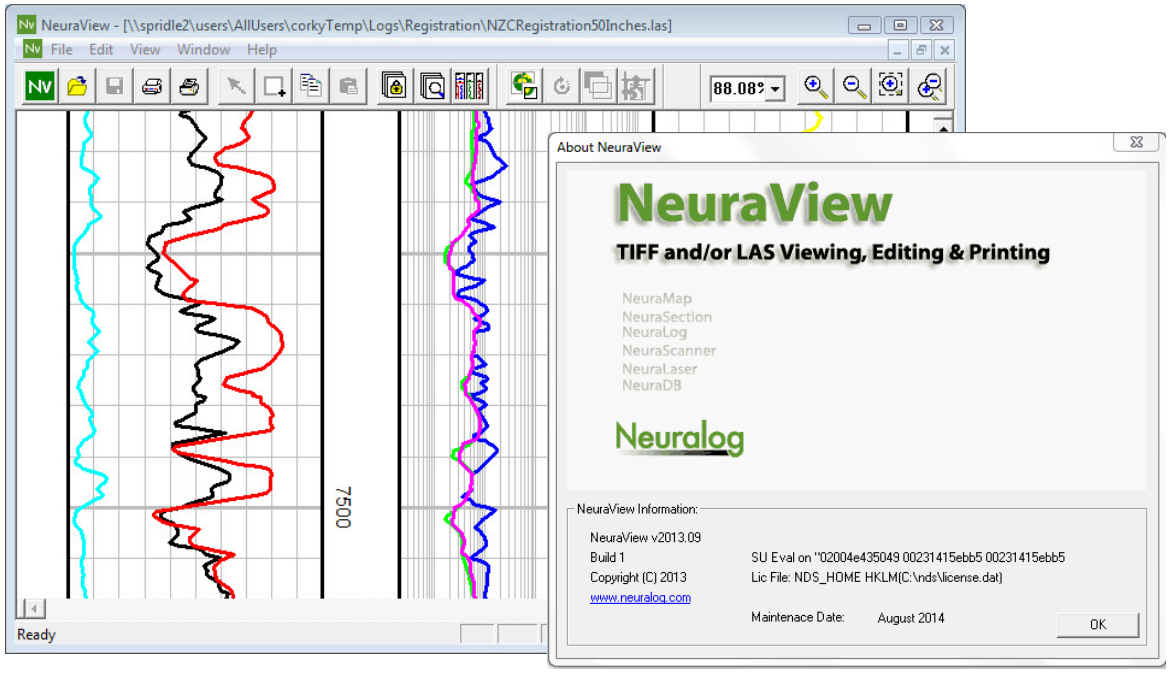
The NeuraJet17 uses a standard Windows interface for printing logs. Any well log viewing application that prints to a continuous printer can print to NeuraJet17. For best results applications should allow for horizontal scaling to fit a log onto a particular page width. If you would like to verify that your application can print to NeuraJet17, please contact us.

3.1 Neuralog Applications

Neuralog creates applications to work with well logs and other petroleum industry documents. Any Neuralog product that will load a well log, will print to NeuraJet17. In particular, NeuraView, an application for viewing, editing and printing large and/or long documents, is a good choice for printing logs to NeuraJet17.

3.1.1 NeuraView

A "Print Only" license of NeuraView was provided with your printer. We recommend printing well logs from NeuraView, but any other well log viewer that meets the continuous form requirements will work. Be sure to use NeuraView Version 2013.05 or later. A NeuraView user guide is available from www.neuralog.com.



NeuraView is provided with your NeuraJet17 and is an excellent choice for printing logs.

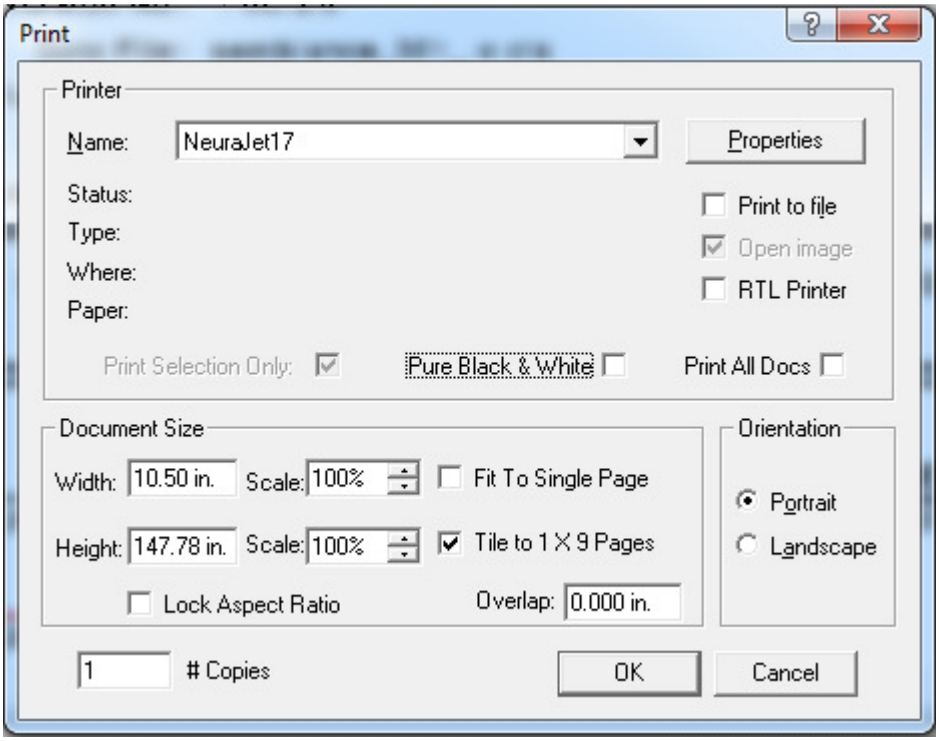
Here are some key features of NeuraView.

- Loads and prints very large and very long files.

- Supports a variety of industry standard formats for printing or file conversion.
  - TIFF
  - JPG
  - LAS – *Log ASCII Standard*
  - PDF - *Adobe Acrobat format*
  - PDS - *Schlumberger PDS format*
  - BMP - *Bitmap*
  - CGM – *Computer Graphics Metafile*
  - EMF – *Enhanced Meta File*
- Has editing and markup capabilities.
- Has cropping and stitching capabilities.

3.1.1.1 Printing Logs from NeuraView

Printing from NeuraView is simple, and logs, maps, cross sections, or any other document types can be printed.

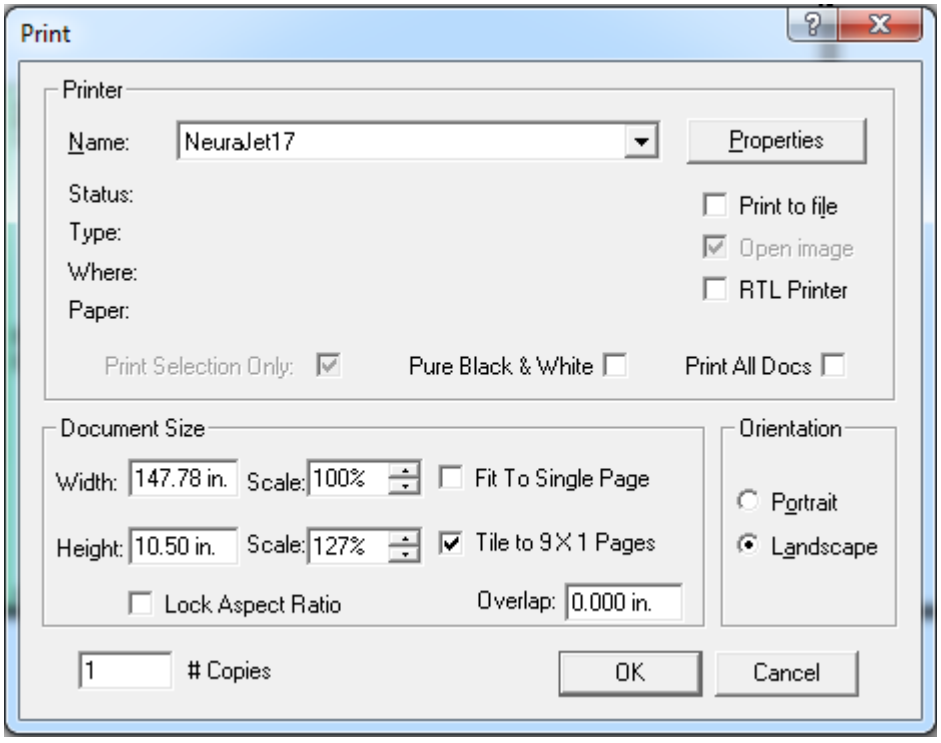


Logs and other vertical documents will be automatically tiled to print correctly. It may be necessary to adjust the width to fit the page. Normally Lock Aspect Ratio is turned off for Well Log printing.

3.1.1.2 Printing Horizontal Logs and Cross Sections from NeuraView

Horizontal logs and other documents such as cross sections require a few more steps. To print a horizontally oriented document in NeuraView carefully follow these steps.

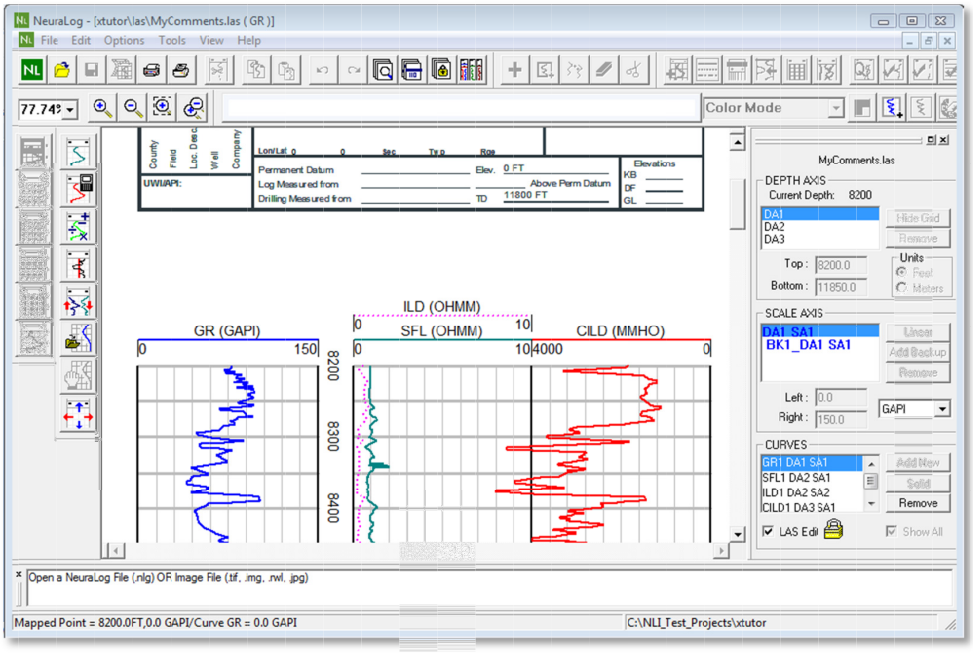
- Make sure you have the NeuraJet17 printer selected.
- Click the **Properties** button.
- Adjust the parameters on the **Main tab** or Keep the defaults.
- Set the actual paper Width.
    - Select the **Page Setup** tab
    - Select the appropriate log paper from the **Page Size width**.
    - Select **OK**.
- Now set up the Document Size.
    - Choose the **Landscape** Orientation. (horizontal documents only)
    - Choose Tile to a X b Pages (not Fit to Single Page)
    - Check **Lock Aspect Ratio** and set values to 100%. This will insure that the log scale is correct.
    - Next Uncheck **Lock Aspect Ratio**.
    - Set the **Height** value to the width of the paper, less margins.
        - Example: For 11” paper, choose 10.50 in print Height. This will give ¼ inch margins on each side.
        - The **Width** (actually the log length) will remain unchanged.



When these parameters have been correctly set, click OK. The horizontal document will print. See Chapter 4 Printing Well Logs for further in-depth information about printing logs.

3.1.2 NeuraLog

NeuraLog is an application for digitizing logs. It is also used for quality control of digitizing work and to edit LAS files. NeuraLog will print both TIFF images and LAS files to the NeuraJet17. For best results use NeuraLog Version 2013.x or later.



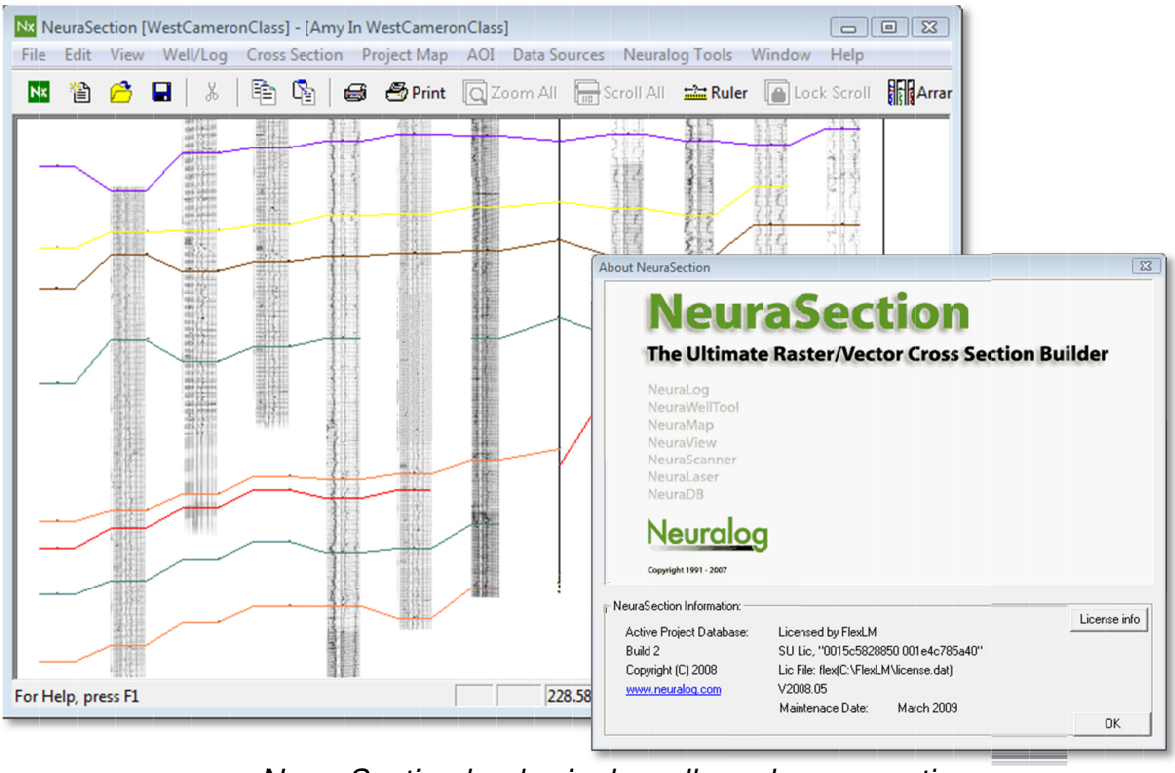
NeuraLog Digitizing System will also print TIFF and LAS well logs.

NeuraLog uses the same printing interface as NeuraView. Please see the previous sections for details printing instructions.

3.1.3 NeuraSection

NeuraSection is an application for log correlation, construction of cross section, geologic analysis and simple mapping. NeuraSection will print individual logs to the NeuraJet17 as well as printing all logs within a cross section. The prints will have marks such as depth registration and tops. Color fills will also be printed.

In addition to logs presentation, cross sections, maps or montages can be created in NeuraSection and printed on the NeuraJet17. For best results use NeuraSection Version 2013.x or later.

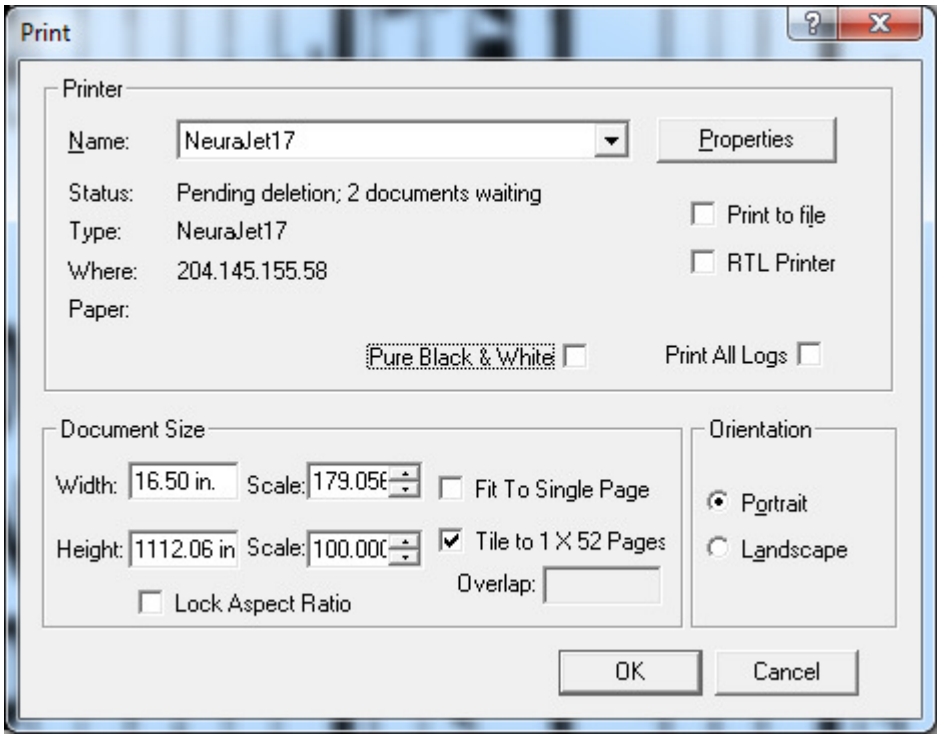


NeuraSection loads single wells and cross sections.

3.1.3.1 Printing Logs from NeuraSection

Logs can be printed from NeuraSection to the NeuraJet17. Before you print, you will want to know which size paper is loaded into the printer. Select a Log window and choose Print and then follow these steps.

- Make sure you have the NeuraJet17 printer selected.
- Click the **Properties** button.
- Adjust the parameters on the **Main tab** or Keep the defaults.
- Set the actual paper Width.
    - Select the **Page Setup** tab
    - Select the appropriate log paper from the **Page Size width**.
    - Select **OK**.
- Now set up the Document Size.
    - Keep the **Portrait** Orientation.
    - Keep the Tile to a X b Pages (not Fit to Single Page)
    - Keep **Lock Aspect Ratio** UNchecked..
    - Change the **Width** value to better fit the width of the paper. (optional)



- When all parameters are set, click OK to send the cross section to the printer.

The log is printed. See Chapter 4 Printing Well Logs for further in-depth information about printing logs.

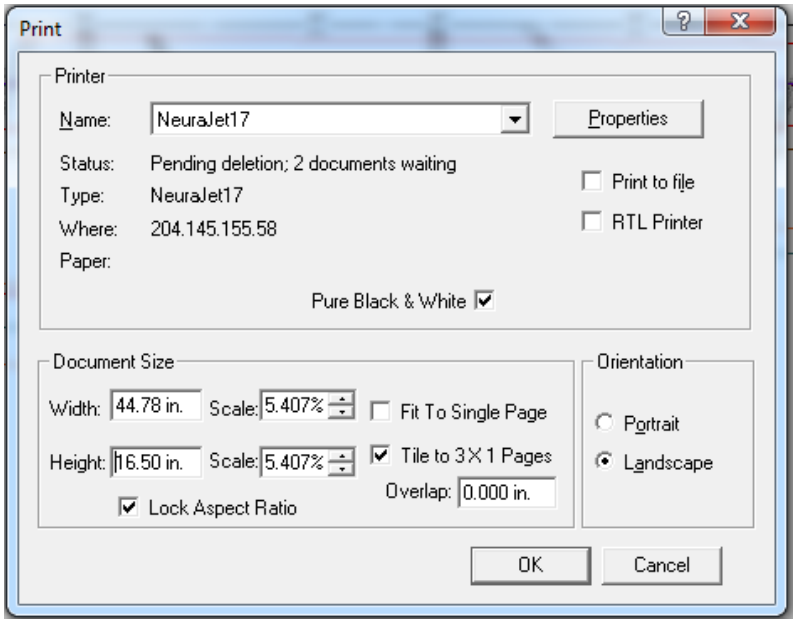
3.1.3.2 Printing Cross Sections from NeuraSection

Cross Sections can be printed from NeuraSection to the NeuraJet17. Before you print, you will want to know which size paper is loaded into the printer. Select the cross section window and choose Print and then follow these steps.

- Make sure you have the NeuraJet17 printer selected.
- Click the **Properties** button.
- Adjust the parameters on the **Main tab** or Keep the defaults.
- Set the actual paper Width.
    - Select the **Page Setup** tab
    - Select the appropriate log paper from the **Page Size width**.
    - Select **OK**.
- Now set up the Document Size.
    - Choose the **Landscape** Orientation.
    - Choose Tile to a X b Pages (not Fit to Single Page)
        - Example: 3 X 1 Pages
    - Keep **Lock Aspect Ratio** checked.
    - Set the **Height** value to the width of the paper, less margins.

- Example: For 17” paper, choose 16.50 in print Height. This will give ¼ inch margins on each side.
- The **Width** will be scaled. This is the Width of the cross section, or the length of the physical print itself for Landscape mode.

- Optionally Uncheck **Lock Aspect Ratio** and adjust the Width of the Cross Section Print if desired.



- When all parameters are set, click OK to send the cross section to the printer.

The cross section should be printed such that its height fits across the width of the paper.

3.2 Other Well Log Viewing Applications

The applications listed below are mentioned because they are popular software for viewing and printing well logs. Some are downloadable at no cost. Neuralog does not promote any particular choice of these applications. Many other applications exist and work well. The ones we list are easily accessible and/or well known.

3.2.1 Adobe Acrobat

Any file of the PDF format will print to NeuraJet17. However PDF well logs can be formatted in a variety of ways, leading to incorrect prints. Adobe Reader is a free and ubiquitous application and is available at www.adobe.com; however, it may not correctly print all well logs. Adobe Acrobat Pro may be needed to print some logs. For best results, we recommend using NeuraView for PDF file printing.

3.2.2 PDSView

PDSView is a freeware software utility for viewing Schlumberger oilfield graphic PDS files. PDSView allows you to display, annotate, print and convert Schlumberger PDS files[8]. PDSView 3.5 is downloadable from Schlumberger's web site www.slb.com. Note that NeuraJet17 must be set to the default printer to work with PDSView.

3.2.3 BlueView

BlueView is a Schlumberger application that displays, annotates, edits, splices and prints log images on a Windows system. With the BlueView application, Schlumberger PDS files can be converted and saved as TIFF files. BlueView is a freeware software utility, and Version 1.0.64 is downloadable at www.slb.com[9]. It does not seem to be actively updated.

3.2.4 PreView

PreView is an application designed to provide client access to all Wireline data produced by Weatherford, for the purposes of viewing and plotting logs as well as exporting LAS files…PreView allows well logs to be viewed, edited, plotted and distributed while preserving the fidelity of the original data[10]. PreView 13.08.1505 is downloadable from Weatherford's web site www.weatherford.com.

3.2.5 LogView Pro

Halliburton LogView Pro or HalViewPro is another application that will load and print well logs. However the application is licensed only for use with Halliburton log data. We have found that this application will successfully print certain well log formats. HalViewPro 9.7 is available for licensed users.

3.2.6 Atlas MetaFile Viewer

Baker Atlas MetaFile Viewer will load and print files in Baker Atlas CGM and META formats to NeuraJet17. MetaWin Version 5.22 or higher should be used to print NeuraJet Well Logs. It is downloadable from www.bakerhughes.com.

3.2.7 WellSight

WellSight is a Windows-based application for viewing and printing logs. WellSight Systems Inc. is a software company based in Calgary, Alberta, Canada. This company supplies a free viewer, as well as other function-specific software. Visit www.wellsight.com. Version 6.5.0 is currently available for download.

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[8] Taken from www.slb.com/content/services/evaluation/software/pdsview.asp.
[9] Taken from http://www.slb.com/content/services/evaluation/software/blueview.asp
[10] Taken from www.weatherford.com/weatherford/groups/public/documents/evaluation/eds_downloadpreviewsoftware.hcsp.

3.2.8 MainLog

MainLog is software that provides a full featured Windows mudlogging program, improving the accuracy and quality of the finished log. MainLog is available for the field on an annual lease basis only, and as a free download for the office. For more information visit www.mainlog.com.

3.2.9 Snagit

Snagit, by TechSmith is a simple imaging application that is able to print long images such as well logs. Neuralog had tested Snagit V10.0.0.788 for continuous printing.

3.2.10 Other Applications

There are many other applications that work with NeuraJet17. If you know of an application that needs to be added to this list or tested with the printer, please contact support at support@neuralog.com.

4 Printing Well Logs

Once your NeuraJet17 print driver is installed and application selected, it is time to print some logs. This section gives some tips on how to get the best log prints for your particular needs.

4.1 Handling Well Log Paper

NeuraJet17 will work best with Well Log Paper certified by Neuralog. Different papers can vary in width, thickness, perforation, fold and overall quality. Neuralog has extensively tested specific papers that work well with the NeuraJet17 and selected the best paper to provide to the end user. Our testing has shown that other papers can lead to prints of inferior quality and possibly even printer jams.

When opening a box of paper, make sure the correct side is pointing up. Remove any plastic inside the box[11]. If you are going to leave the paper in the box, make sure the box is centered directly under the CFA. That is, make sure the paper will not twist as it enters the device. Fan the first 100 or so sheets of paper to remove any static electricity. Make sure the printer is turned on and load the paper. See *Section 2.3.2 Loading the Paper*.

The NeuraJet17 paper that Neuralog sells can be recycled and/or shredded. Please dispose of excess paper properly.

4.1.1 17 Inch Wide Paper

The widest prints possible on NeuraJet17 are 17 inches wide. This paper is very heavy and can be somewhat difficult to handle. Be sure to use proper caution when moving these boxes of paper.

For a successful print load of 17 inch paper, it is important that the paper box is aligned with the printer and that you are standing directly behind the printer. Make sure the paper in not crumbled and feed the paper evenly into the printer. Once loaded subsequent prints will load automatically.

4.1.2 14 Inch Wide Paper

14 inch paper is probably the most common for printing imaging well logs. Use the same precautions and techniques when loading this paper. As with the other paper, once the paper is loaded, subsequent prints should auto load with no problems.

[11] Paper supplied by Neuralog will not have plastic in the box.

4.1.3 11 Inch Wide Paper

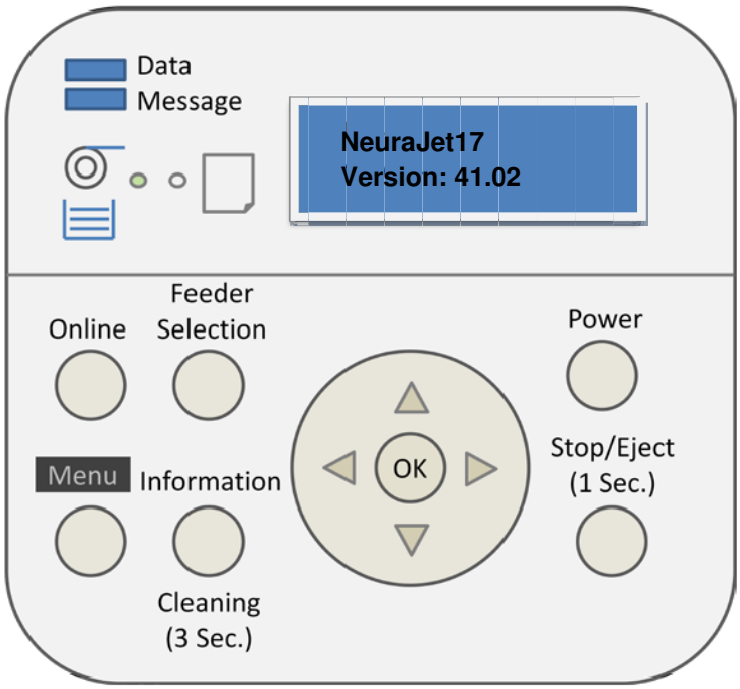
11 inch paper is somewhat easier to handle than the wider papers. Use the same precautions and techniques when loading this paper. As with the other paper types, once the paper is loaded, subsequent prints should auto load with no problems.

4.1.4 8.75 Inch Wide Paper

8.75 inch paper is rather easy to handle and is treated like the other papers. 8.5 inches is an industry standard for many log prints. If your prints are primarily 8.5 inches wide, you may want to investigate the NeuraLaserColor, Neuralog's Color Laser printer. The NeuraLaserColor has unsurpassed printing speed and is an excellent choice for these narrower prints. NeuraJet17 is still the best choice if print width flexibility is important. Both devices offer excellent quality color prints.

4.1.5 17 Inch Wide x 6.25" Specialty Paper

There is a specialty paper used by some clients that use 17" wide x 6.25" page, rather than the standard 8.5" page size. The printer requires a special configuration for proper folding and mark detection of this paper. This configuration sets the distance between perforations or forms. A firmware version of 41.01[12] or later is required for this feature.



[12] Firmware V41.01 was released August 19, 2011. If you received your printer after this date, you should have this version of firmware. V41.02 is the latest firmware release.

To select 17" x 6.25" sheet paper:

Press the **Menu** button on the NeuraJet operator panel.

- ◄ ◄ ◄ (Left arrow 3 times) System Setup
- ▼(Down arrow 1 time) Warning
- ◄ ◄ (Left arrow 2 times) perf-perf dist
- ▼and then ► or ◄ to select [**6.25"**, 8.5" or Auto]
- Press **OK** button to actually set it.

Press **Online** button to exit.

To reselect "standard" sized paper, repeat the above steps and select "Auto".

Use caution when switching back and forth between these settings. If the printer has been set to the incorrect paper size (perf-perf dist), the prints will not start at the top of the page. Auto gives the same result as 8.5".

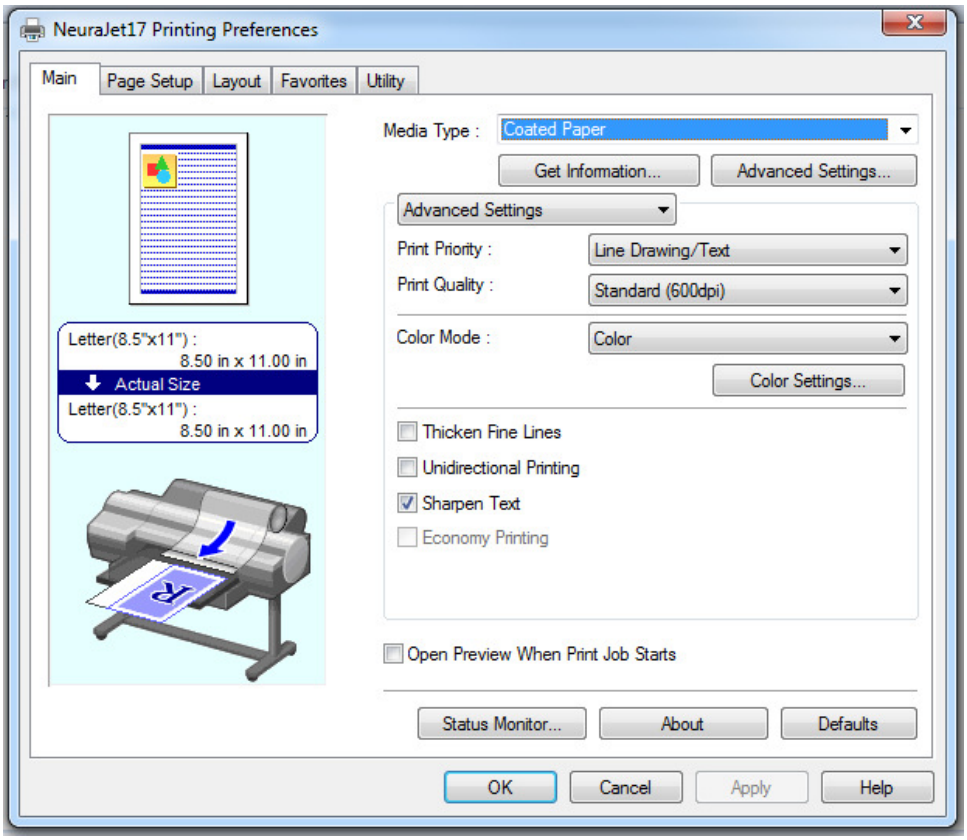
4.2 Copies

The NeuraJet17 will print copies of any continuous form document. For each copy of the document, the paper will be correctly positioned to Top of Form. Default behavior is for the printer to cut between each copy. Note that if paper runs out during a copy, that copy is not reprinted.

4.3 Print Quality

The print driver provided with NeuraJet17 provides quality log prints through a variety of features.

Coated or Plain paper and High, Standard or Draft Quality are the most significant settings. Economy mode is also useful for draft printing. Following are our printing recommendations to achieve the print quality you desire.



Main Printing Preferences Panel contains Print Quality settings.

4.3.1 Recommended Standard Quality Log Prints

High quality prints for every day professional use. Prints at about 0.6 inches per second.

- Media Type: Coated Paper
- Print Quality: Standard 600 dpi

4.3.2 Highest Quality Log Prints

Best possible quality presentation prints. Prints at about 0.3 inches per second.

- Media Type: Coated Paper
- Print Quality: High 1200 dpi
- Unidirectional printing should be used if lines appear to be crooked. (Not normally needed.)

4.3.3 Good Quality Fast Log Prints

Good quality prints for everyday use. Prints at about 1.4 inches per second.

- Media Type: Plain Paper
- Print Quality: Draft 600 dpi

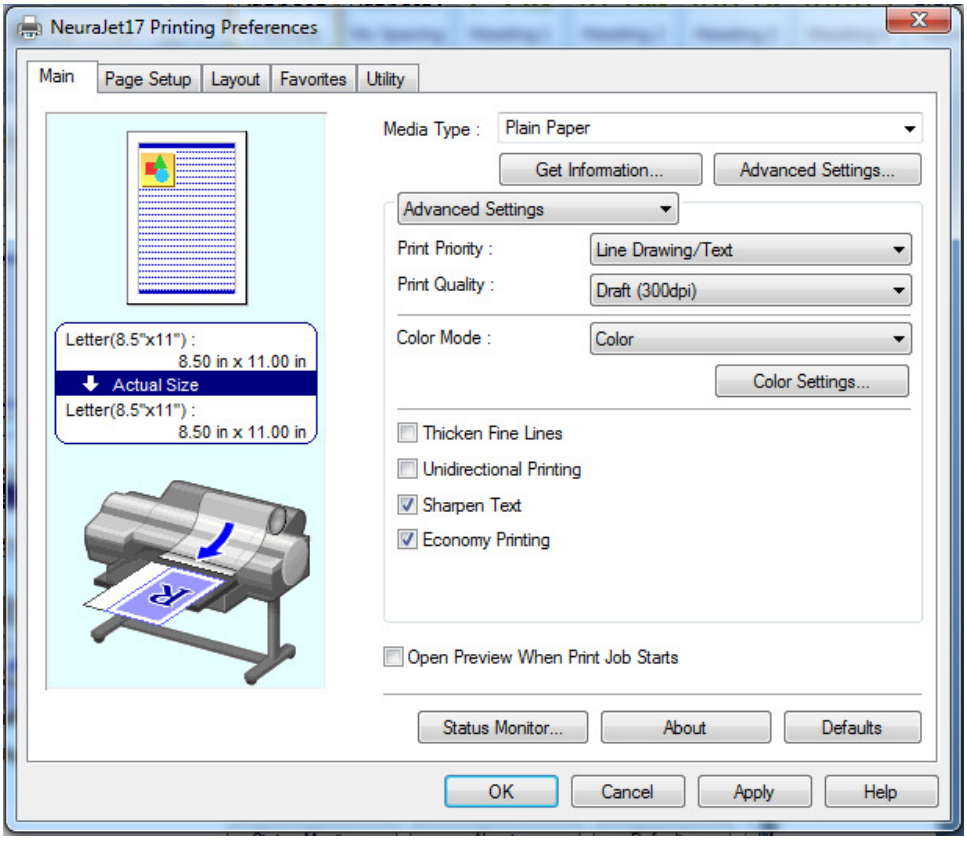
4.3.4 Draft Log Prints (fastest)

Draft prints. Prints at about 1.7 inches per second.

- Media Type: Plain Paper
- Print Quality: Draft 600 dpi
- Economy Printing Checked

4.3.5 Helpful Hints for Quality Log Prints

- Coated paper gives better quality prints.
- Draft mode prints faster and uses less ink.
- Paper width does not affect print quality or significantly affect print speed.
- Thicken fine lines should only be used if thin lines are a problem.
- Sharpen text may be used if text seems difficult to read in vector formats.
- Color (CAD) setting may be used to make color differences more pronounced.



Economy printing is achievable when Plain paper and Draft modes are selected.

4.4 Color

The NeuraJet17 print driver was developed to achieve excellent color matching for well log prints. We recommend leaving the setting to the Default of “Color” for normal printing, but other settings are possible.

- Color - recommended
- Monochrome - greyscale
- Color (CAD) – sharpens/contrasts colors
- Color (CAD) Light – sharpens/contrasts color with lighter print
- Monochrome BK Ink
- Monochrome Bitmap

Although the default of Color is recommended, you may want to try the various color settings.

4.5 DPI

The default and recommended DPI for NeuraJet17 is 600 dots per inch. Although 1200 dpi is possible, it is not needed for most log prints. The highest quality presentation logs may benefit from the 1200 dpi setting. 300 dpi also provides a good quality log print and in fact may be adequate for many prints.

4.6 Print Length

The NeuraJet17 has been certified to print well logs with an accuracy better than 99.8% length accuracy. Length accuracy of 99.5% is an industry standard used by most energy companies. If your NeuraJet17 should be found to not meet this specification, contact Neuralog's technical support. A diagnostic routine is available to configure printer length accuracy.

4.7 Print Width

The NeuraJet17 will print documents from 8.75" up to a 17" width on continuous form paper. There should be both a left and right 1/8" margin with no more than 1/32" error. If your NeuraJet17 should be found to not meet this specification, contact Neuralog's technical support. A diagnostic routine is available to configure printer width accuracy.

Note that many documents have internal white space margins and may not seem to print to full specification. Be sure to verify your document has image elements in the full expected width of the print and be aware of document white space before attempting to adjust the printer margin. Also you will want to verify that the viewing application has the ability to set L/R margins if you want to adjust this value.

4.8 Print Speed

For normal continuous printing the NeuraJet17 moves paper speeds from about ½ inch per second to about 2 inches per second. To achieve the higher print speed, economy printing must be selected from the main panel. The highest quality prints will print at the slower speed.

The width of the paper does not significantly affect the print speed, however very narrow prints will print slightly faster. The complexity of the print does not significantly affect

print speed. The setting for paper type (plain or coated) does affect the speed. Plain paper setting is about twice the speed of coated paper setting because of the way the printer is placing the ink. Draft and Economy Mode settings also cause the printer to print at faster speeds.

NeuraJet17 prints will start almost as soon as the printer begins accepting data and the data light begins to flash. Thus the Time To First Print (TTFP) is very reasonable for the NeuraJet17. Document size is primarily controlled by the data file itself and the application creating the file. Some applications and file types create smaller files. Other factors include DPI and number of colors. Small files will spool most quickly to the printer.

A reliable low-traffic network is vital for printing continuous documents in a timely manner. If performance is critical, you may choose to install your NeuraJet17 on a private network to avoid unrelated network traffic.

The NeuraJet17 printer ships with the maximum memory of 192 MB. For larger files, this memory will result in faster prints. Do not replace or change this memory. Memory that is not fully compatible with the printer may seem to work but can create slower print times.

4.9 Cancelling a Print Job

Cancelling a print job can be done from the application, the printer's queue, or on the printer's operator panel. Any time the print has already started or is already partially spooled to the printer, a portion of the job is likely to print before the cancel occurs.

Cancelling a job from the application or the print queue will cancel the job, however the portion of the job already delivered to the printer may print. This is the expected behavior.

Cancelling a job from the printer's panel is as simple as pressing the stop/eject button. The printing will immediately stop and the job will cancel.

5 Maintaining the Printer/Plotter

The NeuraJet17 requires little manual maintenance; most maintenance is done automatically as needed. However at periodic intervals you will need to change the printhead cartridges, and ink cartridges. You may also need to clean your printer.

5.1 Cleaning Routines

The printer has automatic cleaning routines, or the user can run manual cleaning routines. A Test Pattern can be printed to see if cleaning has been successful.

5.1.1 Automatic Cleaning Routines

The printer has an automatic cleaning routine. It runs this routine periodically. No intervention is needed.

5.1.2 Manual Cleaning Routines

Printer maintenance routines can be accessed from the printer control panel. If printing is faint or streaked in different colors, make sure the Printhead nozzles are clear by printing a test pattern to check the nozzles. (See next section.)

Symptom	Action	Description
Printing is faint, oddly colored, or contains foreign substances.	Choose **Head Cleaning A.** You can start **Head Cleaning A** by holding down the **Information** button for three seconds or more.	This method of cleaning consumes the least amount of ink. It takes about four minutes to complete.
No ink is printed at all, or if printing is not improved	Choose **Head Cleaning B**	It takes about six minutes to complete. Repeat if needed.

To activate the manual printhead cleaning routines do either of the following.

- **Menu ►Head Cleaning ▼**
- **Head Cleaning A**
  - **OK** to enter
  - *The cleaning routine will begin.*

Menu ►Head Cleaning ▼

- **► Head Cleaning B**
  - **OK** to enter
  - *The cleaning routine will begin.*

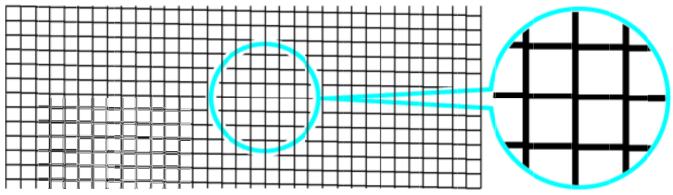
When the cleaning is finished, the printer will go online. If these cleaning routines do not solve the issue, the printhead may be at the end of its useful life.

5.1.3 Printing a Test Pattern

Print a test pattern to determine if the cleaning routines was successful.

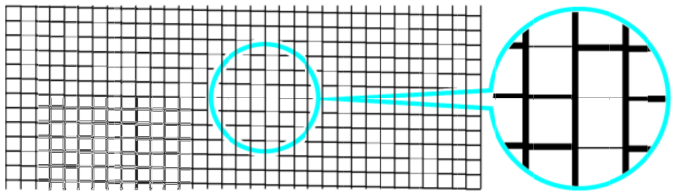
- **Menu ►►►►►►►►► (9) Test Print ▼**
- **►►►► (4) Nozzle Check**
  - **OK** to enter

The printer will go online and print a test pattern. The Printhead L prints the test pattern for nozzle checking on the top line for each color, and the Printhead R prints the test pattern on the bottom line. If the horizontal lines are not faint or incomplete, the nozzles are clear.



Good Test Print

If some sections of the horizontal lines are faint or incomplete, the nozzles for those colors are clogged.



Nozzles need to be cleaned

5.1.4 Capping

Printhead capping is the process by which caps absorb excess ink to help avoid clogging and insure proper printing.

- The printer will perform the capping operation when printing has ended or during standby due to an error, in order to protect the printhead and avoid ink leakage.
- If the power cord is accidentally unplugged, turn off the Power button, reconnect the power cord, and then turn on the Power button. Confirm that the printer starts up properly and enters to the "Online" or "Offline" status, and then power off the printer using the Power button.
- Improper "capping operation" may cause clogged nozzles due to dried ink or ink leakage from the printhead.

5.2 Changing a Printhead Cartridge

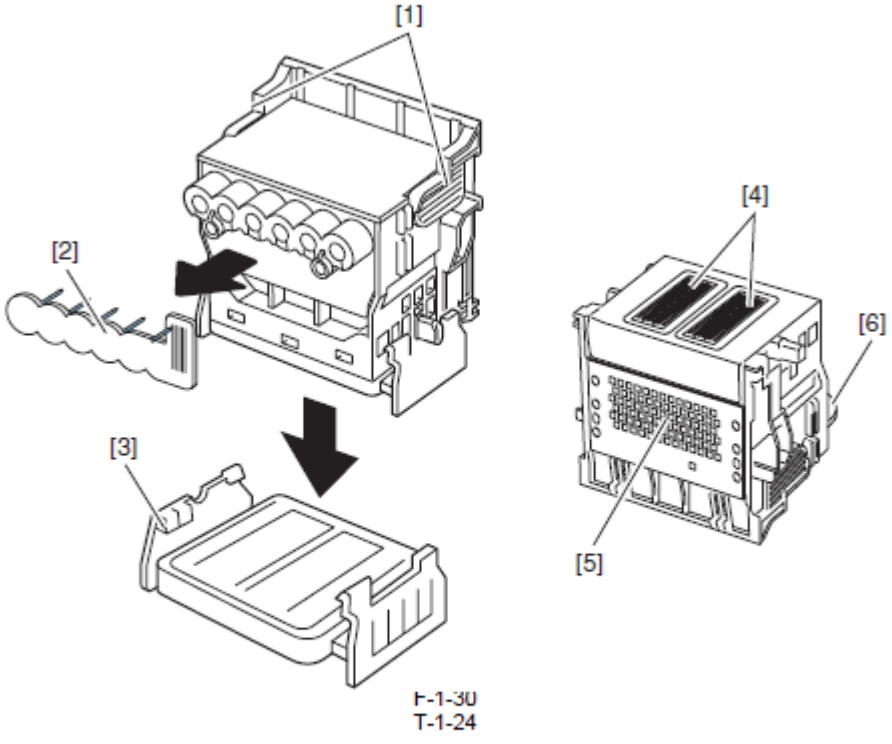
Print ink cartridge and printhead status can be monitored on the printer's web page or directly on the printer operator panel. This status will indicate when the printhead

cartridge is low and eventually empty and has reached the end of its useful life. When the cartridge status indicates empty, do the following to change the cartridge.

- Locate and open a new print cartridge box. This will be a Neuralog supplied cartridge labeled “NeuraJet17 ….” Only NeuraJet17 print cartridges will work in your NeuraJet17 printer.
- Open this box; remove the cartridge from box and set aside.
- Open the NeuraJet17 and remove the empty cartridge.

5.3 Printhead Care

Printheads should always be handled with care. Each print cartridge ships with more detailed installation instructions. If you need further information see these instructions. The figure below identifies the elements of the printhead.



Elements of the Printhead cartridge

5.3.1 How to Handle the Printhead

- Do not open the printhead package until you are ready to install the head.
- When installing the printhead in the printer, hold the knob and then remove the protective caps.

- Do not reattach the protective caps the printhead because the cap may damage the nozzles.
- To prevent the nozzles from getting clogged with foreign matter or dried ink, install the printhead immediately after you remove the protective caps.
- Also make sure to press down the locking lever of the printhead until you feel a click.
- In addition, to prevent clogging of the nozzles with foreign matter and improper supply of ink, never touch the nozzles or ink port or wipe it with tissue paper or anything else.
- Do not touch Electrical contact.
- Also, never attempt to disassemble/reassemble the printhead or wash it with water.

5.3.2 When the printer is not used for a long time

- Keep the printhead installed in the printer even when it is not used for an extended period of time.
- If the printhead is left uninstalled, a printing failure may arise from closed nozzles due to depositing of foreign matter or dried ink when it is reinstalled.
- Even if the head remains installed, the nozzle may dry out and cause a printing failure if the ink is drained for transport.

5.3.3 Conductivity of Ink

- The ink used in this printer is electrically conductive. If ink leaks to into the mechanical unit, wipe clean with a soft, well-wrung damp cloth. If ink leaks onto electrical units, wipe them completely using tissue paper. If you cannot remove ink completely, replace the electrical units with new ones.
- If electrical units are powered with ink leaked onto them, the units may damage.
- Never connect the power cord when ink has leaded onto the electrical units.

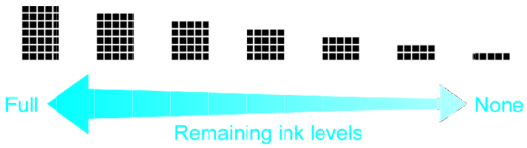
5.3.4 Precautions against Static Electricity

Certain clothing may generate static electricity, causing an electrical charge to build up on your body. Such a charge can damage electrical devices or change their electrical characteristics. In particular, never touch the printhead contacts.

5.4 Changing a Print Ink Cartridge

When an ink tank needs to be changed the printer will automatically alert the user. Ink can be changed even in the middle of a print. Once the ink has been changed, the print will continue.

The level of each ink is shown on the printer Display Screen bottom line at left. These levels shown on the Display Screen correspond to the inks identified by the Color Label below the Display Screen. Remaining ink is indicated in seven levels.

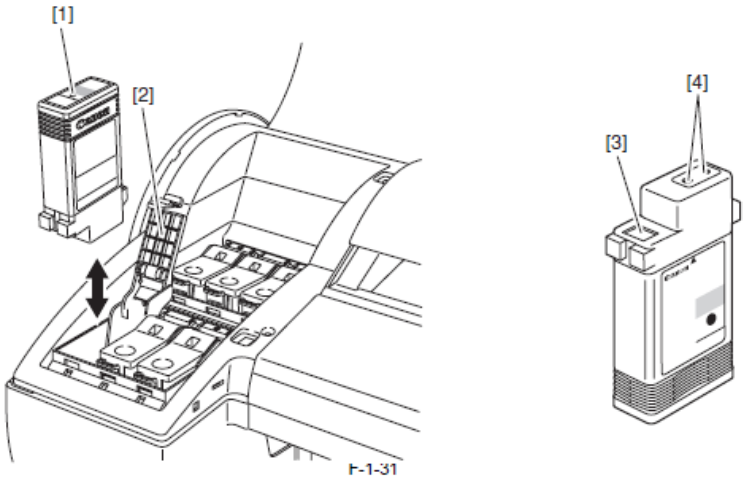


5.4.1 Unpacking the Ink Tank

- Do not unpack the ink tank until you are ready to install it.
- When installing the ink tank, shake it slowly 7 to 8 times *before unpacking it*. Otherwise, the ink ingredients may precipitate and degrade the print quality.
- To prevent foreign matter from entering the ink port, install the unpacked ink tank in the printer immediately.

5.4.2 Handling the Ink Tank

- To prevent foreign matter from entering the ink flow path and causing ink suction and printing problems, never touch the ink port and contacts of the ink tank.
- When you press down the ink tank lock lever, the needle enters the ink port, allowing ink to flow between the printer and ink tank.
- Do not raise or lower the ink tank lock lever except when replacing the ink tank.



[1] Ink tank
[2] Ink tank lock lever
[3] Contacts
[4] Ink port

5.4.3 Installing the Ink Tank

- Lower and press down the ink tank lock lever
- Close the printer doors and turn the printer ON.
- In a few moments the printer status will update and your printer will once again be ready to print.

Please dispose of used Ink Tanks properly.

5.5 Changing the Maintenance Cartridge

The maintenance cartridge stores waste ink. It is time to replace the cartridge if **Maint Cartridge** / **Replace Cart** is shown on the Display Screen. Replace the Maintenance Cartridge before transfer preparations. Do not replace during a print job. If you pause printing to replace the Maintenance Cartridge, it may cause the printed images to become blurry.

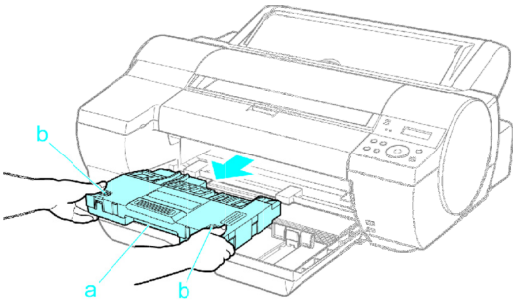
Cautions:

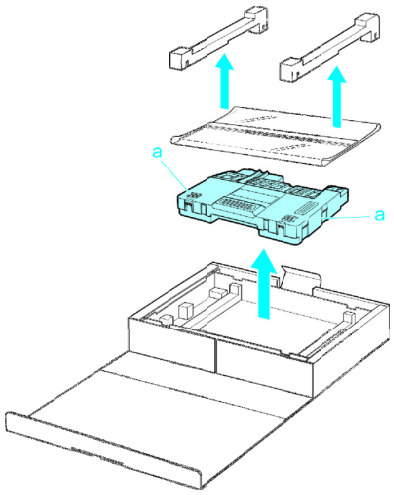
- Do not remove the Maintenance Cartridge except to replace it.
- Used Maintenance Cartridge is heavy. Always grasp the cartridge handles on both sides and deep the cartridge level during remove and storeage
- To prevent ink from leaking from a used Maintenance Cartridge, avoid dropping the cartridge or storing it at an angle. Otherwise, ink may leak and cause stains.
- Do not install a used Maintenance Cartridge in another printer.

5.5.1 Removing the Maintenance Cartridge Tray

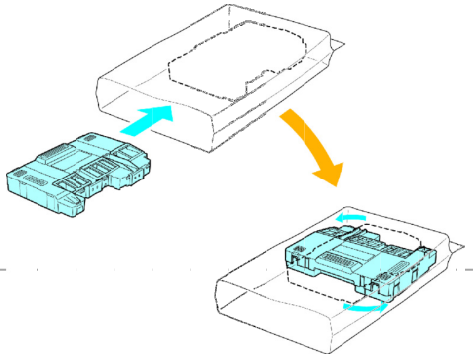
Follow these directions to remove the maintenance cartridge tray when it is full. Handle it carefully and store it in the plastic bag that ships with the new tray.

- Hold the handle (a) of the used Maintenance Cartridge and pull out the cartridge.
- Grasp the handles on both sides (b) and keep the cartridge level as you remove it.





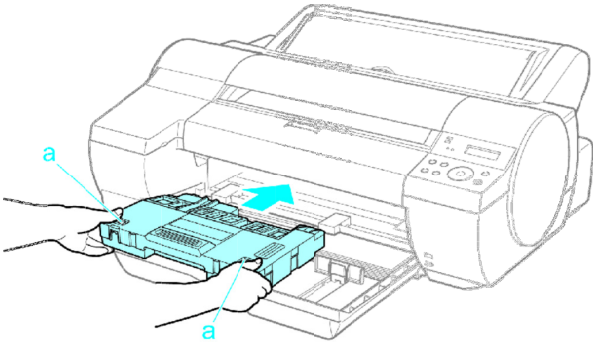
- Open the plastic bag of the new Maintenance Cartridge and remove the packaging material.
- Holding the handles on both sides (a), remove the cartridge.
- Never touch the metal contacts (a). This may damage the Maintenance Cartridge.



- Keeping the used Maintenance Cartridge level, put it in the plastic bag that was in the box, as shown.
- Expel air in the plastic bag and seal the zipper. Fold the plastic bag in half.

5.5.2 Installing the New Maintenance Cartridge Tray

Once the used cartridge has been properly removed, you should carefully install the new one using these steps.



- Holding the handles on both sides of the new Maintenance Cartridge (a), insert it completely, keeping it level.
- Initialization of the new Maintenance Cartridge takes about 5 seconds, after which the printer returns to the mode before replacement of the Maintenance Cartridge

Once installed you may resume other printing operations. Do not remove the Maintenance Cartridge during about the first five seconds after the printer goes back online. This may damage the Maintenance Cartridge. If you replace the Maintenance Cartridge when the printer is off, do not remove the Maintenance Cartridge during about the first 5 seconds after you turn the printer on again after replacement. This may damage the Maintenance Cartridge.

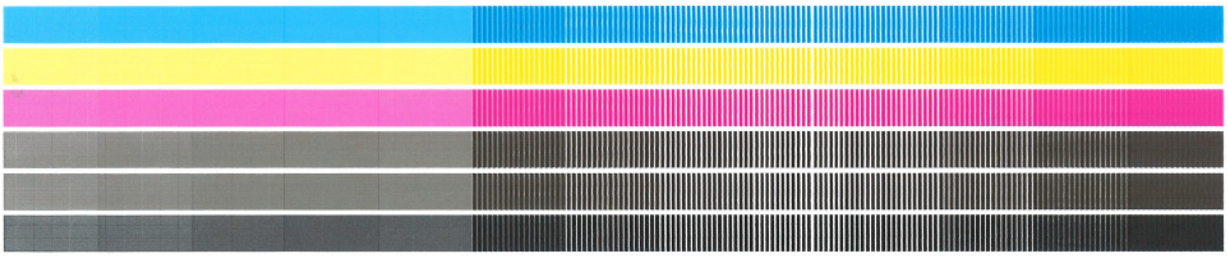
5.6 Adjusting the Printhead Alignment

If printed vertical lines are warped or colors are out of alignment, adjust the Printhead alignment. Adjust the Printhead alignment automatically by printing and reading a test pattern.

There are two modes for automatic adjustment: **Standard Adj.** and **Advanced Adj.** **Standard Adj.** will fix most slight image distortion or color misalignment, but if not, try **Advanced Adj.** Follow these steps for standard automatic adjustment of the Printhead.

- **Menu ►►►►►Adjust Printer ▼**
- **Auto Head Adjust▼**
- **► Advanced Adjust▼**

- ► **Yes**
  - **OK** to enter
  - *The test pattern(s) will be similar to the one shown below.*



Alignment and Banding Test Patterns

A test pattern is printed. After reading the pattern, the printer automatically adjusts the Printhead alignment. If automatic alignment is not sufficient manual alignment routines are available. Contact Neuralog support if needed.

5.7 Adjusting the Feed Amount (Banding Problems)

If printed images are affected by banding in different colors, that is, the contrast is uneven sideways across the paper, then the Feed needs to be adjusted.

- **Menu ►►►►►Adjust Printer ▼**
- **Auto Band Adjust▼**
- **Standard Adjust▼**
- ► **Yes**
  - **OK** to enter
  - *The test pattern(s) will be similar to the one shown above.*

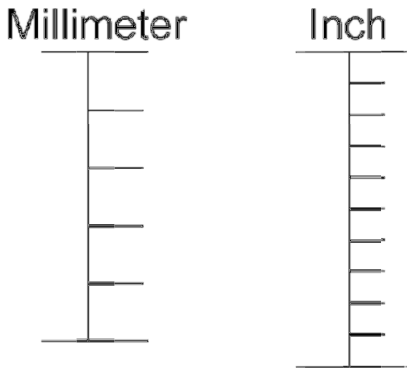
A test pattern is printed for band adjustment. After reading the pattern, the printer automatically adjusts the feed amount and returns to online mode. If printed documents are still affected by uneven contrast or banding in different colors at regular intervals after this adjustment, additional adjustments can be made. Contact Neuralog support.

5.8 Adjusting the Length Accuracy

The print length can be adjusted on the NeuraJet17 to insure length accuracy of prints. The NeuraJet17 can be adjusted to a length accuracy of about 99.8%. Length accuracy of 99.5% is an industry standard. To adjust the measurement scale and ensure length accuracy, you will specify the amount of paper stretching or shrinkage when adjusting the feed amount.

- **Menu ►►►►►Adjust Printer ▼**
- **►►►►► Adjust Length▼**
- **► Yes**
    - **OK** to enter

A test pattern is printed for adjustment based on the amount of paper stretching or shrinkage. The scale bar shows “Millimeter” in 50 mm units and “Inch” in 1 inch units. The actual printed length should be exactly 20 inches.



Print Length Test Pattern.

Measure the length of the adjustment pattern. Calculate the difference between the measured length and actual length.

- After the print completes a prompt will appear. At the prompt, enter the measured difference as a percentage.
    - Adjust the value in 0.02 Increments. Press ◄ to increase the value and ► to decrease it.
    - Press the **OK** button.
- Repeat these steps to obtain another test print to measure the printer’s accuracy.

If the scale is printed shorter than actual size, set the value toward the positive side; if it is printed longer, set the value toward the negative side.

The setting for the amount of paper stretching or shrinkage is relative. If you access it again later, it will be displayed as 0.00%.

The measured test print should be within 99.8% of true scale once the printer length accuracy is possible. If this cannot be achieved, contact Neuralog support.

5.9 Cleaning the Printer and CFA

You may want to periodically clean your printer to remove paper dust. To clean the printer and CFA we recommend using a dry cloth to gently wipe the outside of the device. You should turn the printer OFF, but there is no need to remove printer components. Compressed or “canned” air can also be used to remove paper dust from the blade area.

5.10 Moving the Printer/Plotter

If you need to move your NeuraJet17 to another location, make sure it has been properly shut down to protect the internal parts during transit. Do not tilt the printer in transit. Ink inside the printer may leak and cause stains.

Also, you cannot prepare to transfer the printer if **MTCart Full Soon** or **Maint Cartridge / Replace Cart** is shown on the Display Screen. Replace the Maintenance Cartridge before transfer preparations. See *Section 5.5 Changing the Maintenance Cartridge*. Follow these steps to prepare the printer for shipment to another location.

1. Remove the paper. (*Section 2.3.3* 2.3.3*Removing and Reloading the Paper*)
2. Run the Move Printer Routine. This routine will automatically drain the ink and prepare the printer for transport.

- **Menu ►►►►►►►Maintenance ▼**
- **► Move Printer ▼**
- **► Yes**
    - **OK** to enter

  Ink Draining... is shown on the Display Screen, and when complete **Open InkTankCvr** is shown.

3. Remove the Ink.
    - Open the Ink Tank Cover. **Remove Ink Tank** is shown on the Display Screen.
    - Open the Ink Tank Lock Lever and remove each Ink Tank.
    - Place the Ink Tank(s) in a plastic bag and seal it.
    - Store the Ink Tank with the holes facing up so that it does not leak.
    - Close every Ink Tank Lock Lever and close the Ink Tank Cover.
    - After **Please Wait..** is shown on the Display Screen, **Ink Draining..** is displayed as ink in the printer tubes is absorbed.
4. After **Completed! Turn Power Off!!** is shown on the Display Screen, turn off the printer.

   Turn off the printer before you unplug it. It may damage the printer if you unplug it before it is off and transfer it in that state.

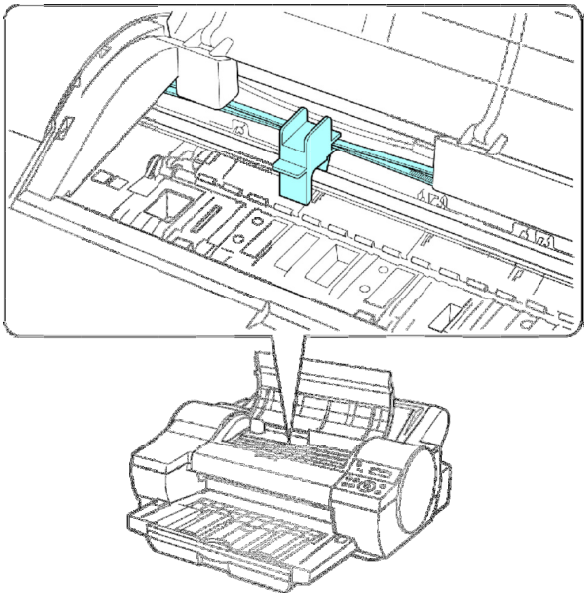
   If you accidentally unplug the printer, plug it in again, reinstall the Ink Tanks, wait until the printer comes online, and follow this procedure again.

5. Disconnect the power cord and interface cable.

6. Secure the Inkhead Carriage

a. Open the Top Cover

b. Grasp the Belt, insert it between the Belt Stopper, and afix the Belt Stopper to the Carriage Shaft.

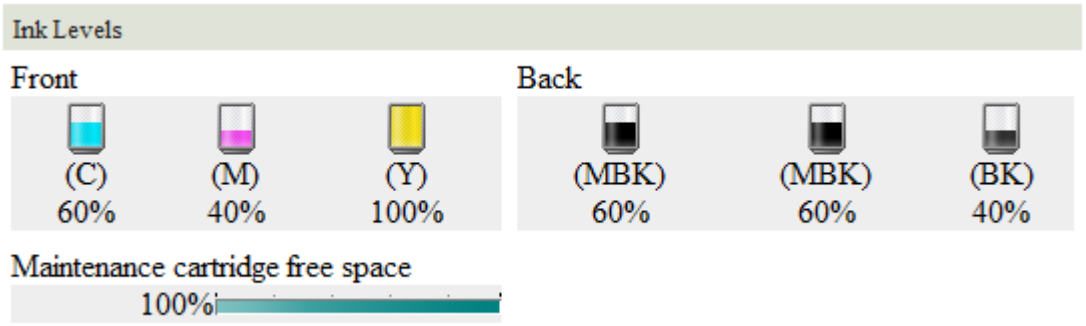


7. Close the top cover and tape down printer covers to secure them.

Be sure to use the original packaging when shipping the NeuraJet17 printer. If you are packaging the printer for return to Neuralog, please see *Chapter 7 NeuraJet17 Support*.

5.11 Managing and Ordering Supplies

Supplies for your NeuraJet17 can be ordered by visiting www.neuralog.com or calling 1-800-364-8728. Be sure to allow for adequate shipping time when placing orders. Neuralog accepts credit cards and other standard means of payment. To monitor supply status, open the NeuraJet17 Web page by typing your printer's IP address into a web browser or run the NeuraJet17 Status Monitor program.



NeuraJet17 Device Status Web Page

6 Troubleshooting Continuous Form Printing

The NeuraJet17 has proven to be a robust and reliable well log printing solution. If you do have trouble, please see this troubleshooting guide and contact Neuralog Support for help.

6.1 Ink Runs Out During Print

If ink runs out during a print the printer will stop printing and sound an alarm to indicate the ink is out. Simply replace the ink tank. When the ink tank is replaced and the cover closed, the print will resume.

6.2 Paper Runs Out During Print

If the paper runs out during a print, the print will need to be resent to the printer. Follow the paper loading steps provided in *Section 2.3.2 Loading the Paper.*

6.3 Incorrect Prints

6.3.1 Print is faint or oddly colored

If printing is faint, oddly colored, or contains foreign substances you may need to choose Head Cleaning A. See *Section 5.1 Cleaning Routines.*

6.3.2 No ink is printed at all

If no ink is printed at all, or if printing is not improved, you may need to choose Head Cleaning B. See *Section 5.1 Cleaning Routines.*

6.3.3 Print does not complete

- The printer has run out of paper.
- The printer has run out of ink – change ink and continue.
- Print may have been cancelled.
- Print file may be too large to fit in queue or printer memory.

6.3.4 Log does not fold correctly

If you manually loaded the paper, you may have started on the incorrect sheet. The printer is self-correcting and the next print should start on the correct fold.

Wide logs with full coverage logs will not fold as easily due to heavy ink. Printing at slower speed may allow from more drying time and product better folding.

6.3.5 Paper does not load

The following can keep the paper from loading into the Continuous Form Attachment.

- Paper is crooked or has a crooked cut.
- Paper is wrinkled and not crisp.

- Paper box is not directly behind the printer or the person loading the paper is not directly behind the printer.

6.3.6 Paper fragment stuck in printer

A printer error may indicate there is something obstructing an internal paper sensor in the printer. This usually means a paper fragment has torn off and is stuck in the printer. If you see this jam, carefully remove the CFA and look for paper near the entrance of the printer. If nothing is obvious and the Error message continues, contact Neuralog support for help.

6.4 Blank pages at beginning of print

It is normal for the NeuraJet17 to have 2 blank pages at the beginning of each print. These are necessary to protect the printhead.

6.5 Blank pages at end of print

NeuraJet17 may include a blank page at the end of each print. End pages are a necessary part of producing prints that fold properly and start on the correct page.

6.6 Incorrect Configuration Problems

If the proper steps are not followed at printer setup, the following errors will occur.

6.6.1 Feed Unit Missing

If the Continuous Form Feed Unit is missing the printer will give this error. Turn the printer OFF. Make sure the CFA is properly attached. Turn the printer ON. If the error persists, contact Neuralog Support.

6.6.2 Ink Cartridge Missing

If this error is seen open the ink tank door and replace the ink. The error will identify which ink cartridge to remove. The printer should return to its normal state as soon as the ink is replaced. Contact Neuralog Support if the problem persists.

6.7 Printing is Very Slow

If the printer seems to be printing very slowly, for example, you see pauses during the print, it is likely a print driver configuration issue. In some cases the print driver may be creating large temporary files on your computer, causing your computer to run out of memory. This problem is easily corrected. See *Section 2.10.3 Printing Preferences Layout Panel* to read about the printer driver configuration to alleviate this problem.

6.8 Continuous Form Attachment Problems

For any of the problems below observe the green LED on the CFA. This light will flash each time it detects a paper mark on the continuous form paper. If the light does not flash, it may be that the CFA is not detecting the paper marks. This can contribute to loading or cutting problems. If this is the case, contact Neuralog support.

6.8.1 Paper does not load

Paper should automatically load into the CFA as soon as the operator places the edge of the paper against the white drive rollers. The printer must be in the Online state for paper to load. If the paper does not automatically load, check to see that the CFA is turned on. Cycle the power on the printer and reload the paper.

6.8.2 Paper does not load in correct position

The paper should load into the CFA such that the edge of the paper is just inside the printer. Contact Neuralog Support for help if the paper does not load correctly.

6.8.3 Cut is in the wrong location

The NeuraJet17 places the cut at the end of the print job at about 20 millimeters after the paper perforation. If the cut is off, it may be that the CFA is not properly functioning. Other causes may be that the paper is not properly loaded into the printer. Or paper not certified by Neuralog may not function properly in the NeuraJet17 printer.

7 NeuraJet17 Support

Neuralog takes pride in providing excellent support to its clients. Any clients under a current support contract can receive technical support. There are a variety of ways to obtain support.

7.1 On-Site Support

In some parts of the world, your NeuraJet17 printer will come with an On-Site Support contract. Contact Neuralog if you need information about on-site support or if your printer needs service.

7.2 Contacting Neuralog

7.2.1 Phone Support:

Phone support is available at 1-281-240-2525 Monday-Friday 9AM-5PM Central Time. A support technician is usually available to take your call.

7.2.2 Email Support

Email support is available at support@neuralog.com

7.2.3 Support Portal

A support portal is available for the logging and tracking of support incidents. Create an account and enter specific questions and issues about your printer at support.neuralog.com. This web site has a searchable knowledge base, videos, and corporate ticket tracking.

7.2.4 GoTo Meeting Support

GoTo Meeting or "over the web" support is available by appointment. Contact Neuralog to arrange for an on-line meeting.

7.2.5 www Support

There is a variety of information and downloads available for Neurajet17 at www.neuralog.com. These include electronic copies of documentation, Frequently Asked Questions, Driver updates and release notes. Also available here is a file exchange service that allows you to get and receive files from Neuralog.

7.3 Downloading the latest NeuraJet17 Driver and Documents Release

The latest NeuraJet17 Firmware, Drivers and Documentation can be found in the support section of the Neuralog web site. Go to the **Support and Downloads** tab and select **NeuraJet17 Printer Support**.

The following are available for download from www.neuralog.com; however these files are password protected. Authorized NeuraJet17 users should contact Neuralog support for passwords and installation help.

- Latest NeuraView release
- NeuraJet17 Documentation
- NeuraJet17 FAQ (Frequently Asked Questions)
- NeuraJet17 Release Notes

7.4 Packaging the Printer/Plotter for Return

Any packaging materials for NeuraJet17 and the Continuous Form Attachment have been custom made for these products. You should save these materials so that in the event that you should need to ship your product (to Neuralog or to another location), your printer and CFA will be properly protected. Neuralog cannot be responsible for damages done to products that have been improperly shipped by the end user. DO NOT attempt to ship these products without proper packaging.

8 Appendix – Example of Setting up a Private Network

The following instructions provide an example of setting up your NeuraJet17 on a private network. Your setup will be similar to this.

Required items:

- NeuraJet17 with CFA
- Computer with print driver installed
- Crossover Cable[13], *or*
- Network switch box with cables
  - Network cable from printer to switch box
  - Network cable from computer to switch box

Setup instructions:

- Plug computer and printer into port switch or use crossover cable.
- Set up a Static IP on printer, FOR EXAMPLE:
  - IP: 192.168.155.70
  - Netmask: 255.255.255.0
  - Gateway: 0.0.0.0

PC Setup Instructions for Vista static IP:

- Start > Control Panel > Network and Internet
- Network and Sharing Center
- Manage Network Connections
- Right Click on the Local Area Connection > Click on properties
- Go to Networking Tab > Highlight Internet Protocol Version 4 (TCP/IP v4)
- Click properties
- Click Use the following IP address, FOR EXAMPLE
  - IP Address: 192.168.155.71 (for the computer)
- Click in the Subnet Mask field > it auto fills a mask
- Click Use the following DNS server addresses
- Click OK
- Click OK/close again
- Now the computer is setup on its own private network

[13] A crossover cable is a special type of network cable that allows this type of communication. A "regular" network cable will NOT work.

Setup instructions for XP static IP:

- Start > Control Panel >Network Connections
- Right click on the local area connection > Click on properties
- Go to General Tab >Highlight Internet Protocol (TCP/IP)
- Click properties
- Click Use the following IP address, FOR EXAMPLE
    - IP Address: 192.168.155.71 (for the computer)
- Click in the Subnet Mask Field > it auto fills a mask
- Then click Use the following DNS server addresses
- Click OK
- Click OK/close again
- Now the computer is setup on its own private network

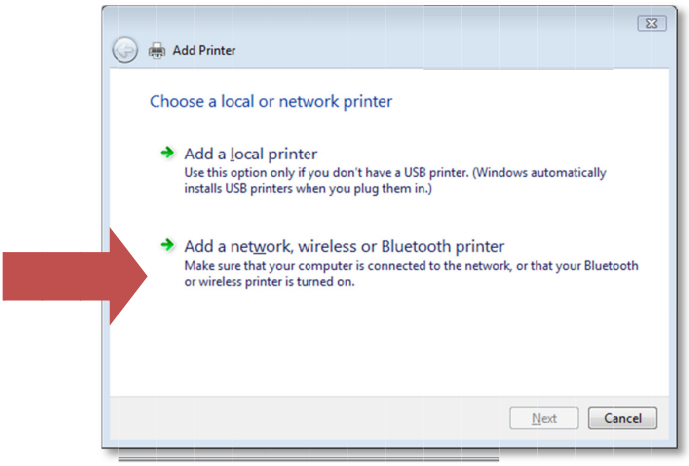
Then, from the cmd window or the internet explorer window try to ping the printer. Or, enter the printer's IP Address in your browser window. Once you see the printer, you know that the network setup has been successful.

9 Appendix – Example of Setting up the Print Driver

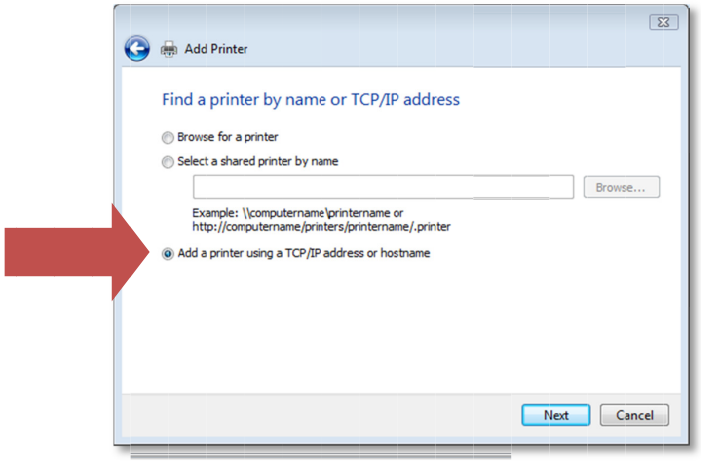
When you install the NeuraJet17 print driver CD it should auto run. Select **32-Bit Driver Installation** or **64-Bit Driver Installation** and follow the instructions.

The following are some of the critical screens you will see when installing a NeuraJet17 driver on various versions of Windows: Windows XP, Vista, 2000, W7 and W8. These operating systems may have slightly different steps. We recommend using the latest Windows versions whenever possible.

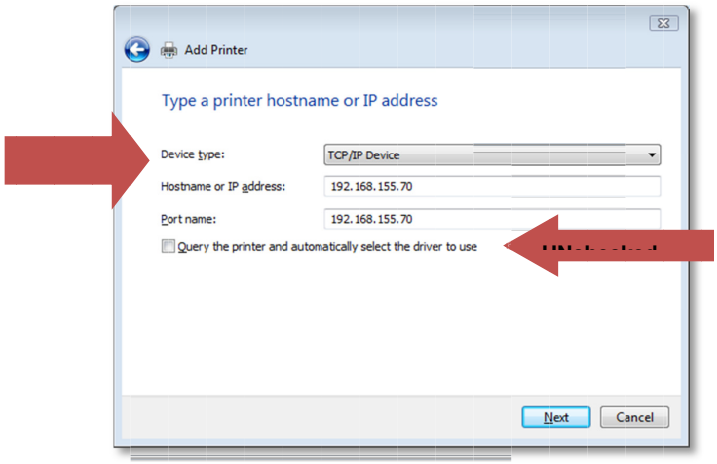
Setting up the Port



Make sure you select Add a network…printer. Your NeuraJet17 *will run over a network. It requires a network connection.*



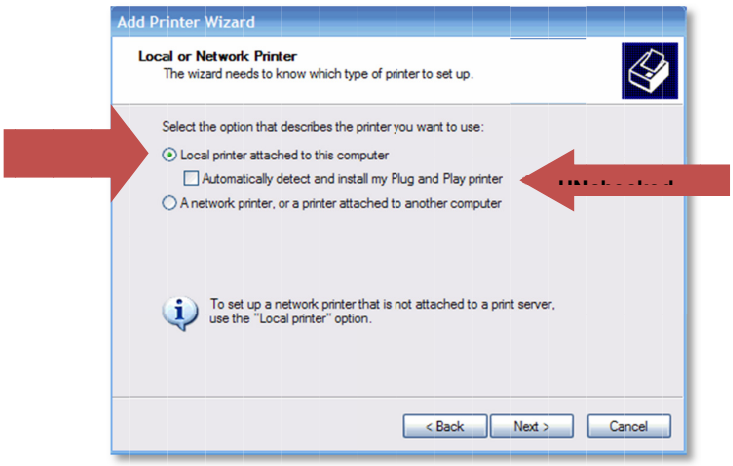
Add a printer using a TCP/IP address or hostname. You should have already assigned an address to the printer through the operator panel on the printer itself. See your system administrator if you need to install your printer a different way.



Select TCP/IP Device type and enter the Hostname (if set up) or IP address (address recommended). DO NOT Query the printer.

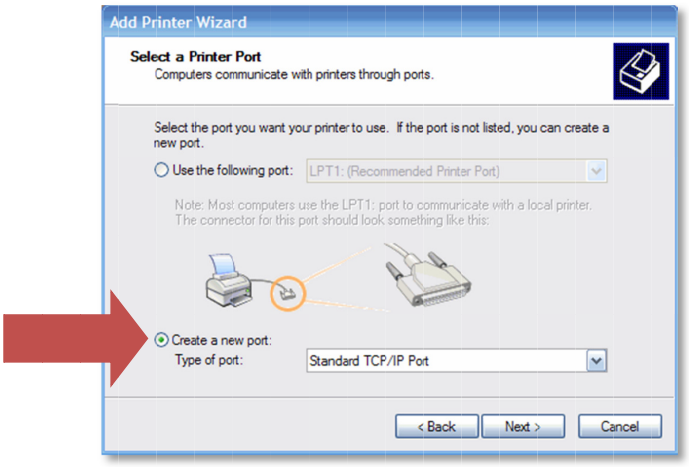
At this point the port is created and printer connection is set up.

Setting up the Port – Some Operating Systems such as Windows XP

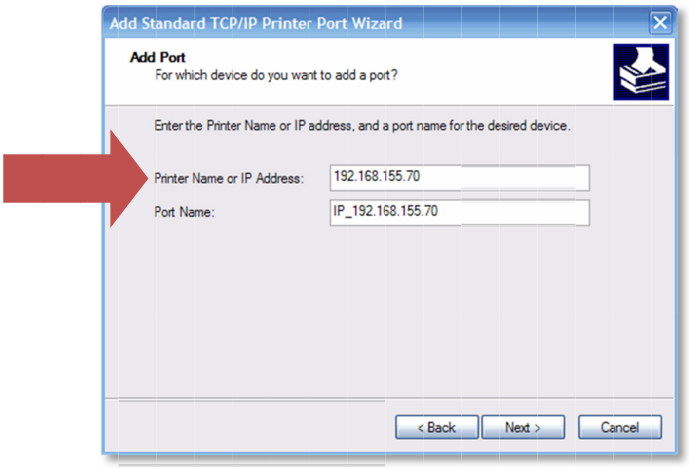


When setting up on XP, if there is no print server, select Local printer attached to the computer. This leads to setting up a network connection.

*Make sure "Automatically detect and install my Plug and Play printer" is **UNchecked**. You will select the printer driver manually.,*



Create a new port of type Standard TCP/IP Port. (If you are installing a second instance of the driver, you may select an existing port.)

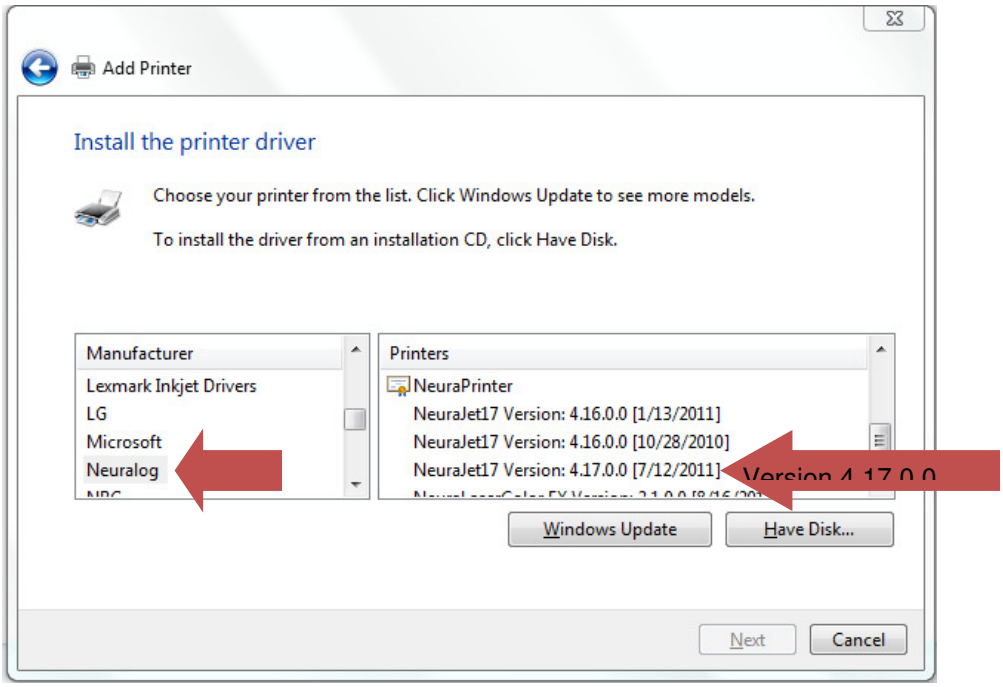


Enter the Printer IP Address. You should have already assigned an address to the printer through the operator panel on the printer itself. See your system administrator if you need to install your printer a different way.

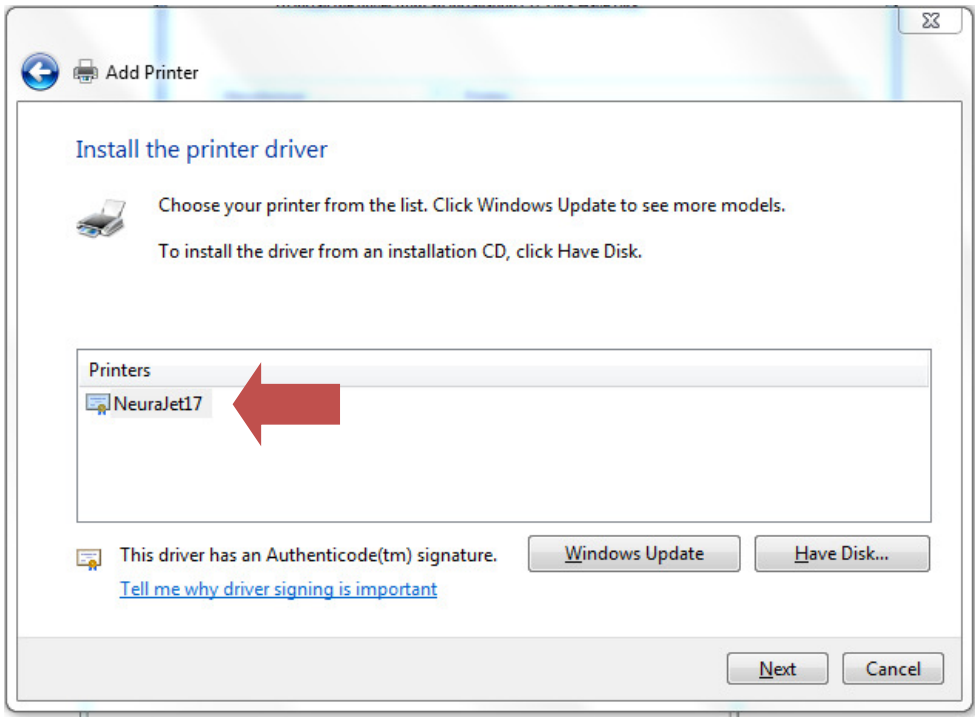
At this point the port is created and printer connection is set up. Continue with the screens that follow.

Finishing the Driver Installation

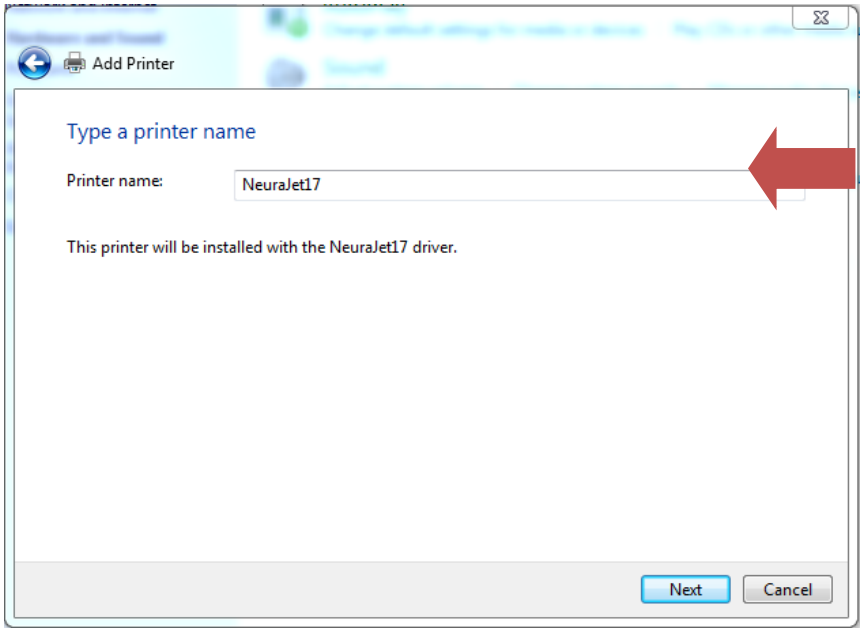
Now that the port is established the driver software installation can continue. These screens are basically the same for various versions of Windows. Your next screen will look like one of the next two screens shown below.



You will see one or the other of these two screens. Select **NeuraJet17** and then **Next**.



Next you will give your NeuraJet17 printer a name.



Once these steps are done, your NeuraJet17 printer will be available to use.

Using *Add a Printer* from the Control Panel

You may choose to install the printer using the *Add a Printer* Wizard from your Windows Control Panel. Follow the directions from the wizard, similar to those discussed in the previous section. You will go through the steps of creating or selecting a printer port.

When the **Install Printer Software** screen appears choose **Have Disk**.

For 32-bit Installation browse for the file on the CDROM

Printer→Drivers→Neuralog_X32→drivers→**2WQ512M.INF**

For 64-bit Installation browse for the file on the CDROM

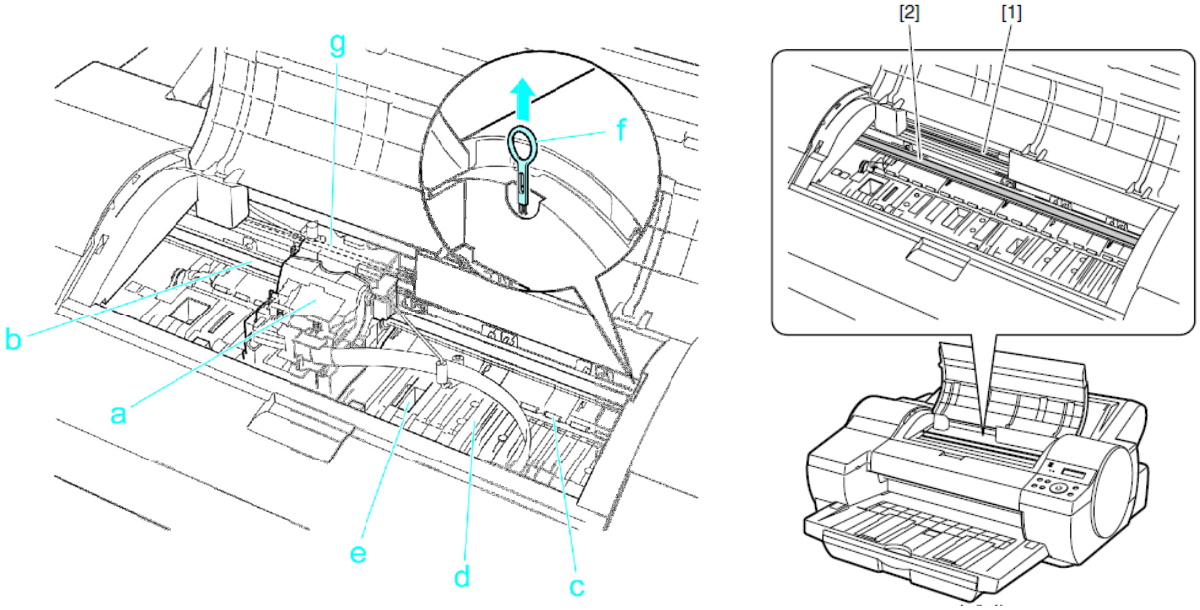
Printer→Drivers→Neuralog_X64→drivers→**6WQ512M.INF**

If you do not have or cannot find the NeuraJet17 Printer Driver CD, go to www.neuralog.com to download these drivers.

10 Appendix – Inside the Printer/Plotter

The following sections provide graphics and descriptions of various printer components.

10.1 Top Cover (Inside)



a. **Carriage** - Moves the Printhead. The carriage serves a key role in printing.

b. **Carriage Shaft** - The Carriage slides along this shaft. [2]

c. **Paper Retainer** - Important in supplying the paper. This retainer holds paper as it is fed.

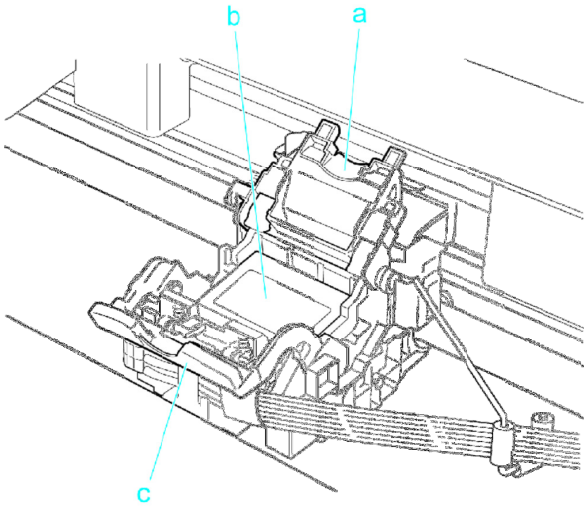
d. **Platen** - The Printhead moves across the platen during printing. The Vacuum holes on the platen holds paper in place.

e. **Borderless Printing Ink Grooves** - For catching ink outside the edges of paper during borderless printing.

f. **Cleaning Brush** - When cleaning inside the printer under the Top Cover, use this brush to sweep away paper dust on the Platen.

g. **Linear Scale** - The linear scale serves a key role in detecting the Carriage position. Be careful not to touch this part when cleaning inside the Top Cover or clearing paper jams. [1]

10.2 Carriage

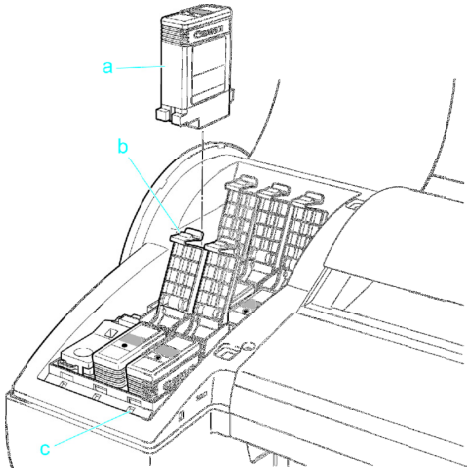


a. **Printhead Fixer Cover** - Holds the Printhead in place. Do not open this part except during Printhead replacement.

b. **Printhead** - The printhead is equipped with ink nozzles. It serves a key role in printing.

c. **Printhead Fixer Lever** - Locks the Printhead Fixer Cover. Do not open this part except during Printhead replacement.

10.3 Ink Tank Cover

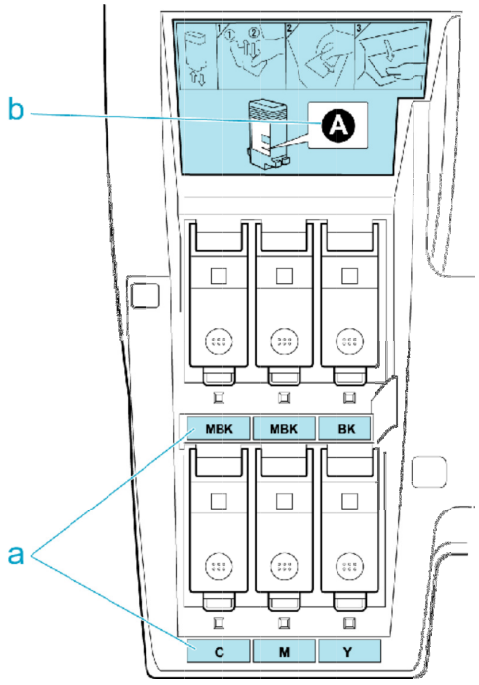


a. **Ink Tank** - Cartridges of ink in various colors.

b. **Ink Tank Lock Lever** - A lever that locks the Ink Tank in place and protects it. Lift and press down the lever when replacing an Ink Tank.

c. **Ink Lamp (Red)** - Indicates the state of the Ink Tank as follows when the Ink Tank Cover is opened.

- **On** The Ink Tank is installed correctly.
- **Off** No Ink Tank is installed, or the ink level detection function is disabled.
- **Flashing Slowly** Not much ink is left.
- **Flashing Rapidly** There is no more ink.

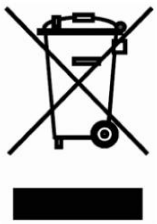


a. **Ink Color Label** - Load an Ink Tank corresponding to the color and name on these labels.

b. **Ink Set** - An Ink Tank that can be used in the printer is labeled with a white letter “A” in a black circle on the side. When purchasing Ink Tank, make sure an “A” is printed on the label.

11 Appendix – Compliances and Certificates

11.1 Waste from Electrical and Electronic Equipment (WEEE) Directive



The WEEE logo signifies specific recycling programs and procedures for electronic products in countries of the European Union. We encourage the recycling of our products. If you have further questions about recycling options, please contact Neuralog Support.

11.2 Electromagnetic Compatibility Test Report

File Number E343082 *EMC Directive 2004/108/EC* CE
Identification: NeuraJet17C *Date tested:* 2011-02-15 *Testing location:* Underwriters Laboratories Inc. 1285 Walt Whitman Rd Melville, NY 11747 Tel: (631) 271-6200 *Product standards:* CFR47, Part 15, Subpart B; EN55022; EN55024; EN61000-3-2; EN61000-3-3
Test Result: **The above product was found to be Compliant to the above test standard(s) January 20, 2011.**

11.3 FCC Compliance Declaration

The NeuraJet17C complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Manufactured by: *Neuralog*
4800 Sugar Grove Suite 200
Stafford, TX 77477

11.4 CB Test Certificate from Underwriters Laboratory

The NeuraJet17 Continuous Form Attachment accessory (NeuraJet17C) has been testing by Underwriters Laboratory, Inc. for safety and found to meet CB Test requirements.

Ref. Certif. No.

US/16554/UL

IEC SYSTEM FOR CONFORMITY TESTING AND CERTIFICATION OF ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

SYSTEME CEI D'ESSAIS DE CONFORMITE ET DE CERTIFICATION DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC

CB TEST CERTIFICATE

CERTIFICAT D'ESSAI OC

Product *Produit*	Accessory - Continuous Feed Attachment
Name and address of the applicant *Nom et adresse du demandeur*	NEURALOG INC #200, 4800 SUGAR GROVE BLVD STAFFORD TX 77477-2635, USA
Name and address of the manufacturer *Nom et adresse du fabricant*	NEURALOG INC #200, 4800 SUGAR GROVE BLVD STAFFORD TX 77477-2635, USA
Name and address of the factory *Nom et adresse de l'usine*	NEURALOG INC #200, 4800 SUGAR GROVE BLVD STAFFORD TX 77477-2635, USA
Rating and principal characteristics *Valeurs nominales et caractéristiques principales*	Operating Voltage 26 Vdc. (Not required to be marked, not for direct connection to the mains supply).
Trademark (if any) *Marque de fabrique (si elle existe)*	Neuralog
Type of Manufacturer's Testing Laboratories used *Type de programme du laboratoire d'essais constructeur*	Not applicable
Model / Type Ref. *Ref. de type*	NeuraJet17c
Additional information (if necessary) *Information complémentaire (si nécessaire)*	This CB Test Report comprises 2 enclosures.
A sample of the product was tested and found to be in conformity with *Un échantillon de ce produit a été essayé et a été considéré conforme à la*	**IEC 60950-1 (2006) Second Edition,** Additionally evaluated to EN 60950-1 (2006) with Am. 11 (2009) to include Group and National Differences for European countries; other National Differences also specified in the CB Test Report.
as shown in the Test Report Ref. No. which forms part of this Certificate *comme indiqué dans le Rapport d'essais numéro de référence qui constitue partie de ce Certificat*	E343082-A1-CB-1

This CB Test Certificate is issued by the National Certification Body
Ce Certificat d'essai OC est établi par l'Organisme National de Certification

Underwriters Laboratories

Underwriters Laboratories Inc. / GMA Certification Department, US
333 Pfingsten Road, Northbrook, IL 60062-2096
United States of America
TEL INT° +1 847 664 3008, FAX INT° +1 847 313 3008
email: jolanta.m.wroblewska@us.ul.com

Date: Issued: 2011 February 4

Signature:

Jolanta M. Wroblewska

Issued 03.2010

12 Appendix - Warranty

Seller warrants and represents the NeuraJet17 Printer/Plotter (the "Printer") furnished under this Agreement will be free from failures due to defects in workmanship for a period of twelve (12) calendar months from the invoice date, "Warranty Period". Further, with respect to services supplied under this Agreement, Seller warrants and represents any services furnished in connection with the Printer will be free from defects in workmanship for the Warranty Period (collectively, with the warranty regarding the Printer, the "Warranty"). SELLER SPECIFICALLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES, REGARDING THE PRINTER OR SUCH SERVICES. EXCEPT AS EXPRESSLY PROVIDED ABOVE, THE PRINTER AND ACCOMPANYING WRITTEN MATERIALS ARE PROVIDED 'AS IS' WITHOUT WARRANTY OF ANY KIND, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EVEN IF NEURALOG HAS BEEN ADVISED OF THAT PURPOSE.

The Warranty shall be voided by any use of the Printer for purposes or in a manner other than normal operation. This Warranty shall be non-assignable, non-transferable, and shall be valid only between Seller and Buyer. Notwithstanding any provision to the contrary contained herein, and without intending to limit the generality of the foregoing, the Warranty does not cover: (1) any unit without a valid serial number; (2) any expendable parts such as the printer cartridge; (3) page yield; (4) damage resulting from shipment, mishandling, misapplication, faulty installation, incompatible network setup, improper maintenance, line power faults, products not supplied by Neuralog, maladjustment of consumer controls, customer instruction, installation or set-up adjustments; (5) cosmetic damage; (6) damage due to acts of God, accident, negligence, misuse or abuse; or (7) modification of the Printer by anyone other than Seller Support. In the event Seller determines the failure to arise as a result of the breakdown of, or wear and tear to, any part deemed expendable by the manufacturer, Buyer shall be required to bear the expense of any repair or replacement of the Printer or the part. Buyer shall comply with all terms contained in the NeuraJet17 Operator's Manual for normal printer operation.

In the event of breach of any of the foregoing warranties, Seller will, at its sole option or discretion, repair or replace any part or parts of the Printer. Buyer's sole remedy in the event of any breach of the foregoing warranties shall be the repair or replacement of the Printer as provided for herein. Seller shall not be liable for any defects, damages, claims, or injuries caused by, arising out of or related to, the Printer or the services provided in relation thereto, except and only to the extent Seller may be liable for actual damages in an amount not to exceed the amount Buyer paid for the Printer at the time of its original purchase. Under no circumstances, will Seller be liable for any indirect, consequential, incidental, exemplary or other special damages arising out of or related to the Printer, its use, its failure to operate and its related service. Such limitation on liability shall apply even if Seller has been advised of the possibility of such damages.

In the event of non-performance of the Printer, and as Buyer's remedy under the warranties provided for herein, Buyer shall contact Seller by calling Seller's Support Line at 1-281-240-2525, or by sending email to Support@Neuralog.com. Seller will engage in troubleshooting related to the Printer based on Buyer's report, and may require Buyer provide additional information regarding product failure or make simple repairs.

In some cases, Seller may elect to undertake repair or replacement of the repair on-site. On-site support shall include the provision of labor and travel expenses by Seller, and will be provided normally within eight (8) business hours from the dispatch of a support team, but not more than 72 hours. On-site support will be provided during normal business hours, and excluding normal holidays. On-site services provided by Seller during other than normal business hours, if possible, will incur charges separate and exclusive from this Warranty to be paid by Buyer.

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