Follow instructions before operating.

bestCode®

continuous innovations

Next Series 8 and Quantum CIJ Printer Commissioning and Final Assembly guide

Part Number: 49-0005-01 (Rev. G)

Software version 01.09.00.22+

Updated: March 2026

PERSONAL INJURY: ALWAYS WEAR RUBBER GLOVES AND SAFETY GLASSES WHEN HANDLING INKS AND SOLVENTS.

PERSONAL INJURY: ALWAYS WEAR RUBBER GLOVES AND SAFETY GLASSES DURING FLUIDIC MAINTENANCE.

PERSONAL INJURY: INKS AND SOLVENTS ARE POISONOUS, DO NOT INGEST.

PERSONAL INJURY: DO NOT USE SOLVENT TO WASH INK FROM SKIN. IF EXPOSED, GENTLY RINSE AREA WITH SOAPY WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

PERSONAL INJURY: BE AWARE OF DANGERS ASSOCIATED WITH FLUIDS. DO NOT USE A FLUID UNTIL YOU ARE FAMILIAR WITH THE SDS AND THE INGREDIENTS.

PERSONAL INJURY: FOLLOW ALL SAFETY GUIDELINES OUTLINED IN THE SDS OF THE FLUIDS BEING USED.
EQUIPMENT DAMAGE: DO NOT ADD FLUIDS UNLESS INSTRUCTED BY INDICATORS.

EQUIPMENT DAMAGE: THE PRINTHEAD MUST BE DRY BEFORE STARTING PRINTER.

EQUIPMENT DAMAGE: THE PRINTHEAD SHOULD NEVER BE COMPLETELY SUBMERGED IN SOLVENT.

EQUIPMENT DAMAGE: DO NOT ATTEMPT TO USE MULTIMETER TO TAKE MEASUREMENTS ON ANY COMPONENT WHILE THE MACHINE IS POWERED ON.

EQUIPMENT DAMAGE: DO USE MULTIMETER TO ATTEMPT TO MEASURE THE CHARGE VOLTAGE AT THE PRINTHEAD. THIS WILL PERMANENTLY DAMAGE THE MAIN BOARD

FIRE HAZARD: INKS AND SOLVENTS ARE HIGHLY FLAMMABLE. NO SMOKING OR OPEN FLAMES NEAR PRINTER OR FLUID STORAGE.

ELECTRICAL SHOCK: DISCONNECT MAIN POWER CABLE PRIOR TO SERVICING MACHINE.

ELECTRICAL SHOCK: NEVER RUN MACHINE WHILE ELECTRONICS COMPARTMENT DOOR IS OPEN.

CodeProtect™ BestCode Warranty and Support

BestCode products are delivered with a 2 Year Manufacturer's Limited Warranty.
Call or email your local distributor for detailed warranty information.

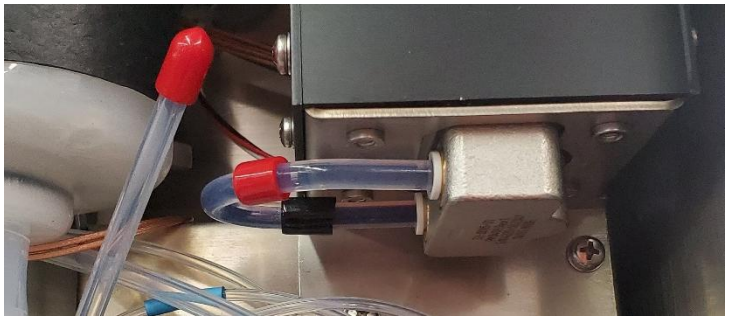
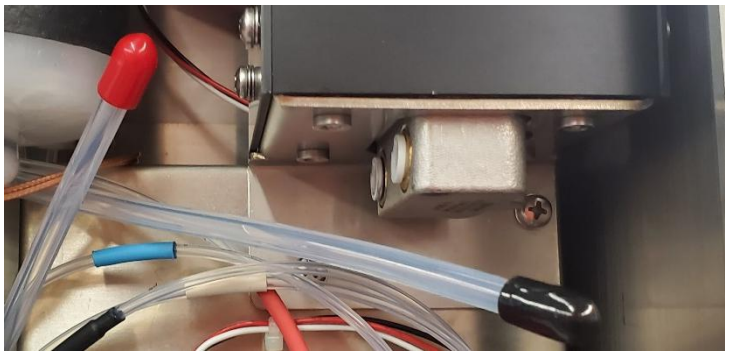
EQUIPMENT DAMAGE: Follow these instructions before powering on the machine. Failure to connect pump tubes may lead to permanent pump damage.

Only official BestCode trained personnel should commission BestCode printers.

WARNING

EQUIPMENT DAMAGE: Connect the pump fittings before powering on the machine for the first time. Failure to follow this instruction will cause permanent damage to the pump.

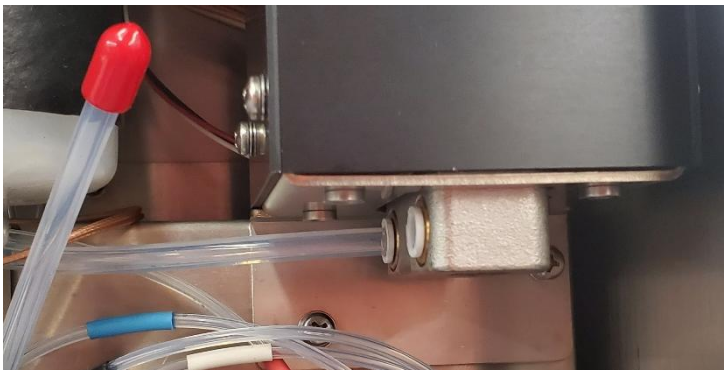
Pre-Power Up Guide

Pre-Power Up Guide	Procedure Time: 5 minutes
1. Locate the ¼" pump tubes with Red and Black coding. 2. Remove the Red and Black end from the pump.  The red tube is on the pressure side of the pump, and flows into the main ink filter. Verify the tube connects directly to the main BestCode Ink Filter.	 

3. Remove the Black cap from the tube.

4. Wet the pump fitting O-ring with cleaner and firmly press the black tube into the <u>rear</u> fitting on the pump.

Pull back on the tube to ensure that it is completed seated and sealed into the pump fitting.
Failure to check red tube will cause ink leakage.
Failure to check black tube will cause high RPS.

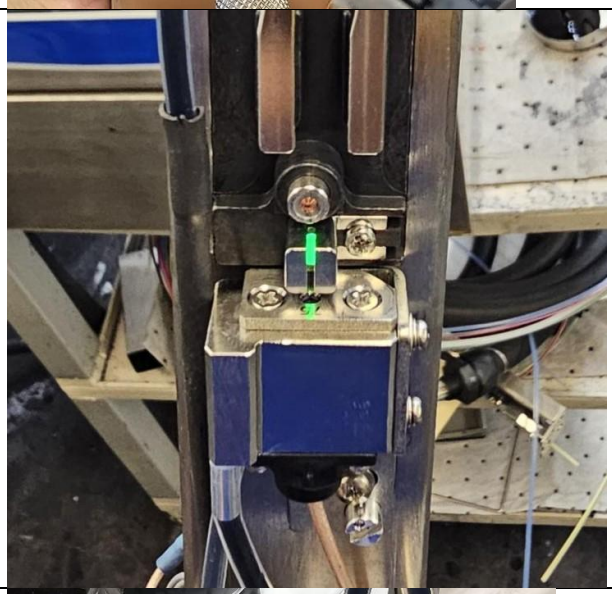


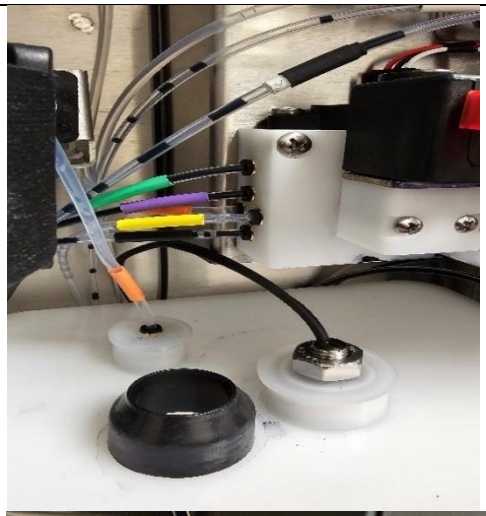
5. Repeat for the Red tube in the front Port.

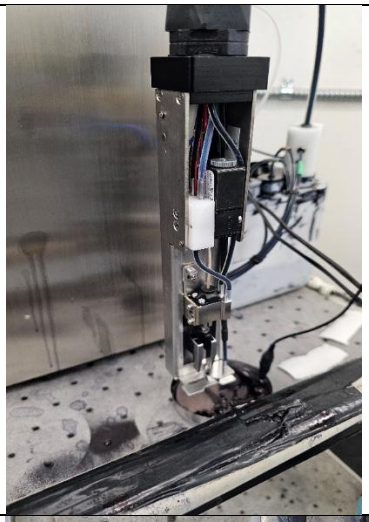
The black tube is on the vacuum side of the pump, ensure that it is connected to the Ink Pickup tube in the Ink Tank.

6. Locate the print head and remove the case. There you should find a bag with the nozzle, nozzle seal, and screws.

**Installing the nozzle without removing the Drop Generator should minimize the need to perform a jet alignment.*

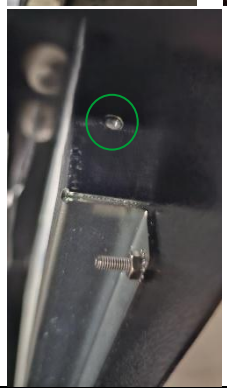
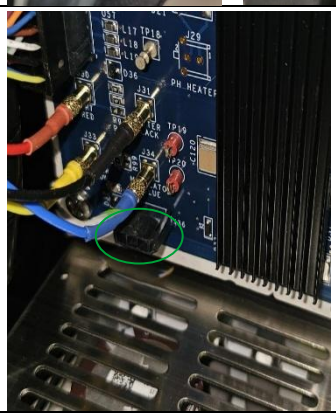
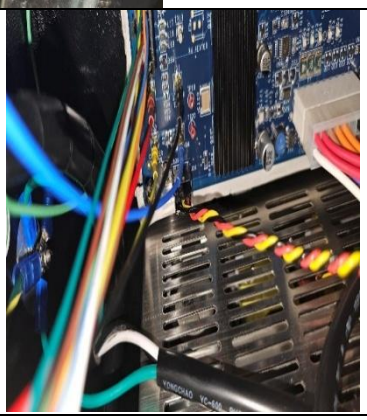
7. Once you confirm the correct nozzle and parts, install one nozzle seal. *Failure to install nozzle seal may cause clogs and poor breakup. Nozzle seals are 1 time use.*	
8. Install the nozzle.	
9. You will need to go through and make sure all tubs and fasteners are fully seated: Venturi Lines: Green- Venturi to Flush Valve Manifold Black- Gutter Valve Manifold to Venturi Black/White- Solvent Tank Valve Manifold to Venturi Ink tank lines: Brown line- Viscometer to Ink Tank Gray line- Viscometer to Ink Tank	

10. Manifold Lines. **Side:** Black- Gutter Valve Manifold to Venturi Yellow- Drop Generator to Bleed Valve Manifold Orange- Makeup Tank to Solvent Add Valve Manifold & Solvent Tank Valve Manifold Purple- Transducer to Viscometer Green- Venturi to Flush Valve Manifold **Top:** Red- Printhead Filter to Printhead Valve and Manifold Blue- Solvent Tank Valve Manifold to Printhead Valve and Manifold White- Gutter to Gutter Valve Manifold Black/White- Solvent Tank Valve Manifold to Venturi	 
11. Viscometer lines: Purple – Manifold to Viscometer Brown – Ink Tank to Viscometer Gray – Viscometer to Ink Tank	

12. Printhead Lines: Red- Printhead Filter to Printhead Valve and Manifold Yellow- Drop Generator to Bleed Valve Manifold Blue- Solvent Tank Valve Manifold to Printhead Valve and Manifold White/Green - Gutter to Gutter Valve Manifold	 
13. Last, you want to make sure the main filter and pre pump filter are properly tightened with a 5/8th wrench.	 

For Quantum Printers

For Quantum Printers:	
Locate the fan packaged with the printer and unwrap it.	  

Open the face of the printer and locate the filter on the right side of the cabinet	
Hook the fan housing at the bottom of the filter casing, then hand tighten the black screw at the top of the filter casing	   
Connect the cable to the bottom left of the PCB	 

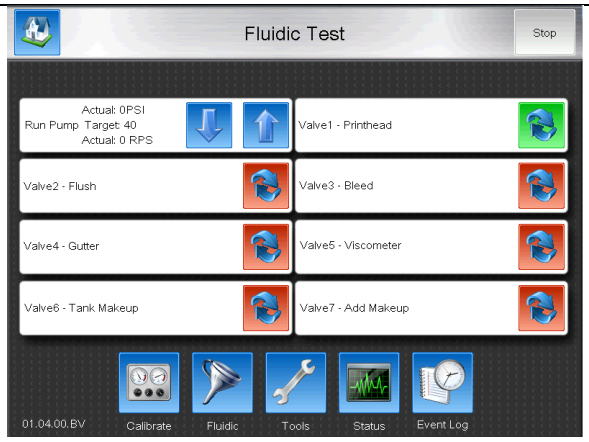
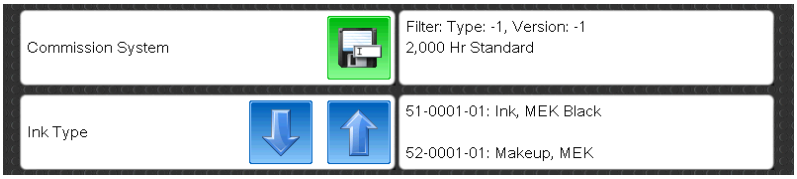
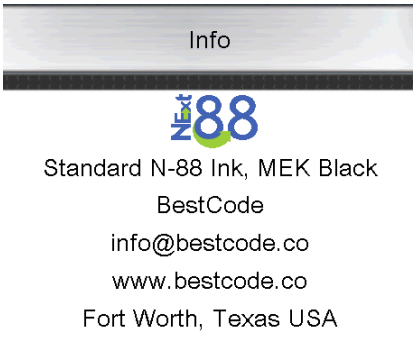
Commissioning

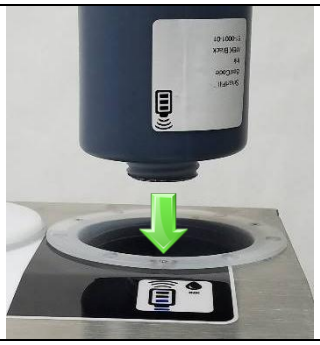
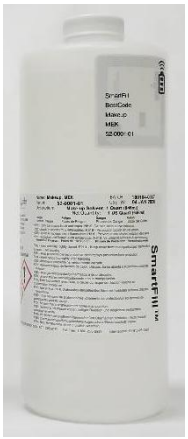
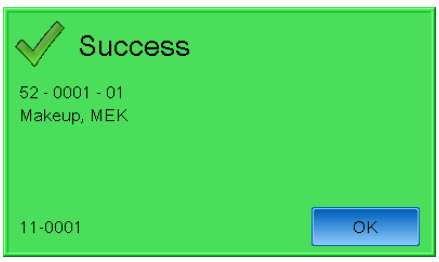
The commissioning process is a 90–120-minute step by step guide for installing and preparing the Next Series 8 CIJ for production operation. A video guide is available here: https://youtu.be/fLm1R5ERwo8

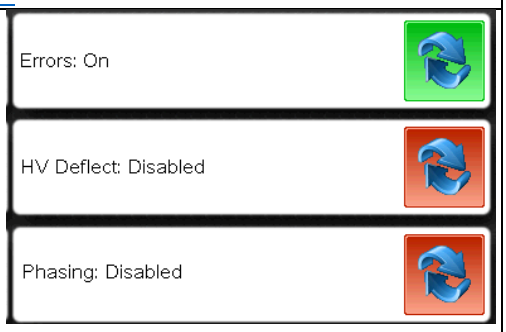
Make sure the Next Series 8 Controller is properly mounted. See here for instructions.

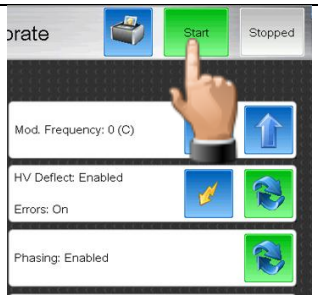
WARNING

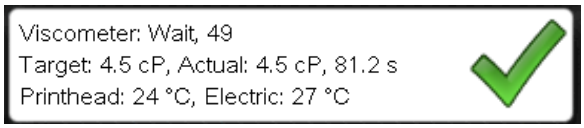
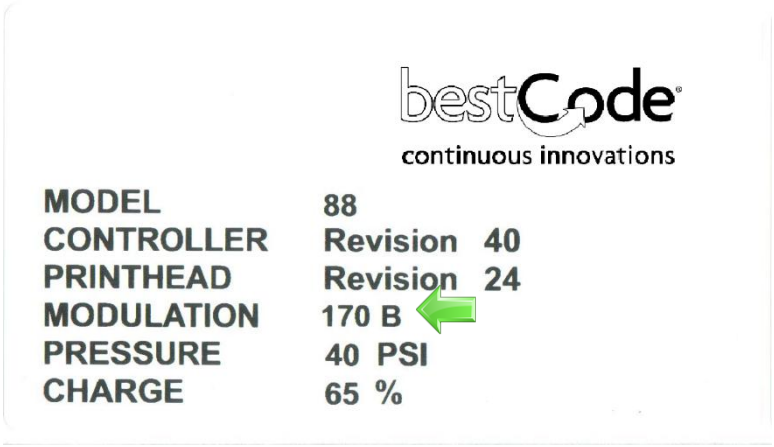
EQUIPMENT DAMAGE: Do not run the pump until the Pre-Power Up Guide is completed.

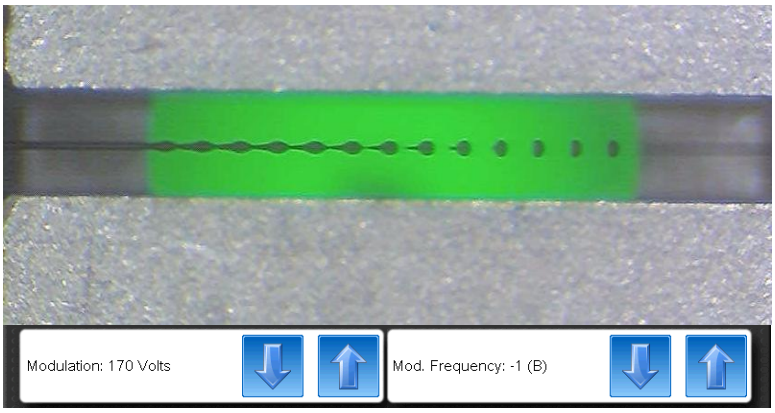
Pre-fluid test	Procedure Time: 5 Minutes
1. Navigate to the fluidic screen. Home > Service > Fluidic 2. Press each valve button one at a time and listen for the click. Note: Valve 1 – Printhead will click when activated and de-activated since it is a 3 way. Listen for a Click-Clack when cycling the valve on and off. Valve Troubleshooting Here	 
Commission the Ink Type	Procedure Time: 5 minutes
1. Navigate to the SmartFill Technician Screen Login as Technician >Service>Tools>Technician>Smartfill 2. Select the ink type that matches the ink to be installed and saved. 3. Press the Commission System button to save. 4. Check the Help Screen to confirm	 

Adding Fluids	Procedure Time: 5 minutes
Video for Adding Ink and Makeup: https://youtu.be/X0NadNkWcAU	
1. Place one un-opened bottle of Ink in the Ink Smartfill Cup then press the Ink Level button on the Home Screen. Leave the Ink Cap on!	  
2. After the Success prompt, remove the cap and press the bottle firmly into the Ink Smartfill Cup. 3. Press OK after the bottle has completely drained.	 
4. Place one un-opened bottle of Makeup in the Makeup Smartfill Cup then press the Makeup Level button on the Home Screen. Leave the Ink Cap on!	  
5. After the Success prompt, remove the cap and press the bottle firmly into the Makeup Smart Fill Cup. 6. Press OK after the bottle has completely drained.	 

First time jet Start	Procedure time: 15 minutes
A video guide is available here: https://youtu.be/e2N_05D5yVE?t=1035	
1. Secure the printhead into the Printhead Clean Station (40-002-01). 2. Disable the High Voltage and Phase.	 
3. Go to the Fluidic Screen and turn the Actual up to 10 PSI to fill the lines with ink and make sure there are no leaks at any of the connection areas for the tubes at the back of the system.	 
4. Increase the Actual PSI to forty then turn on the Gutter (Orange) valve first and then the Printhead valve to fill with ink as well. 5. After ink makes it through the printhead, press the Stop button in the top right corner	 
6. Press the Start Button on the Service Screen. 7. Clear any errors that appear, clean, and dry the printhead if needed, then try to start again.	
8. Stop the Jet, then perform the backflush nozzle routine as needed.	 

9. Dry the printhead, then start the Jet normally with Errors, High Voltage and Phase enabled.	 

Verify the Modulation	Process Time: 30-75 minutes (depending on ink viscosity)
A video guide is available here: https://youtu.be/2pgOsCyQHSA	
1. Run until the Viscosity is within range of the Target Viscosity. (4.0-5.0cP).	
2. Locate the Calibration label inside the Air Service Entry Door. Note: These values are generated by evaluating the machine at 20C controlled environment. Different temperatures and ink types will vary the modulation set point.	
3. Decrease modulation to 30V below the set point and evaluate the print.	 
4. Increase the modulation to 30V above the set point and evaluate the print. a. If the print is not acceptable, perform a modulation calibration: Guide Here	 

5. Return the Modulation to the set point and inspect the drop breakup.	

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