



Next Series 8 and Quantum CIJ Printer Operators guide

Part Number: 49-0001-01 Rev G

Software version 01.06.00.10+, March 2023



PERSONAL INJURY: THE SAFETY DATA SHEETS (SDS) IS THE PRIMARY SOURCE OF SAFE HANDLING INSTRUCTION FOR THE USE OF INKS, MAKEUPS, AND CLEANERS ASSOCIATED WITH THE BESTCODE NEXT SERIES 8 CIJ PRINTER. FAILURE TO OFFER TRAINING IN COMPLIANCE TO 29 CFR 1926.59 IS IN BREACH OF THE REQUIREMENTS FOR THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS).

GHS TRAINING INFO:

<https://www.osha.gov/sites/default/files/publications/osha2254.pdf>

BESTCODE SAFETY DATA SHEETS:

<https://support.bestcode.co/safety-data-sheets/>

PERSONAL INJURY: FOLLOW ALL SAFETY GUIDELINES (P AND H PHRASES) OUTLINED IN SECTION 2 OF THE SDS FOR THE FLUIDS BEING USED.

PERSONAL INJURY: BE AWARE OF DANGERS ASSOCIATED WITH FLUIDS. DO NOT USE A FLUID UNTIL YOU ARE FAMILIAR WITH THE SDS AND THE INGREDIENTS AS LISTED IN SDS SECTION 3.

PERSONAL INJURY: ALWAYS WEAR SAFETY GLASSES WHEN HANDLING INK, MAKEUP, CLEANER, OR WHEN PERFORMING FLUIDIC MAINTENANCE. IF EYE CONTACT OCCURS, RINSE CAUTIOUSLY FOR SEVERAL MINUTES. REMOVE CONTACT LENSES. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

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

PERSONAL INJURY: ALWAYS USE GLOVES WHEN HANDLING INK, MAKEUP, CLEANER, OR WHEN PERFORMING FLUIDIC MAINTENANCE. DO NOT USE CLEANER PRODUCT ON SELF OR APPLY TO SKIN. IF EXPOSED TO INK, MAKEUP, OR CLEANER, GENTLY RINSE AREA WITH SOAPY WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

PERSONAL INJURY: THIS EQUIPMENT IS NOT SUITABLE FOR USE IN LOCATIONS WHERE CHILDREN ARE LIKELY TO BE PRESENT.

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 NOT 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.

FIRE HAZARD: ALL FRONT, BACK, AND AIR FILTER DOORS MUST REMAIN CLOSED WHILE THE DEVICE IS OPERATING. THIS HELPS PROTECT THE DEVICE FROM EXTERNAL IGNITION SOURCES AND IN THE EVENT OF A FIRE, THESE DOORS FORM THE FIRE BARRIER THAT PREVENTS FLAMES FROM EXITING THE DEVICE.



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

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

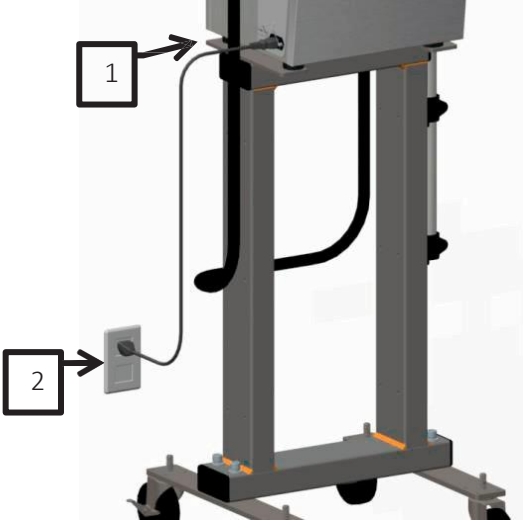



EQUIPMENT DAMAGE: The Next Series 8 CIJ must be Grounded/Earthed! Failure to provide adequate grounding/earthing will result in damage to the circuit board, printhead, and the power supply. This damage will occur over time. The Next Series 8 CIJ Power Supply generates a DC Ground to support the function of the Printer, but this does not protect from static or power surges.



PERSONAL INJURY & EQUIPMENT DAMAGE: Do not use any power cord that is not provided by BestCode. Power cords must have 3 prongs, live, neutral, and ground provided. Power socket-outlet must provide reliable earth ground. Power cord and outlet must remain clean and dry. The socket-outlet shall be installed near the equipment and shall be easily accessible. The Next Series 8 CIJ does not have a mechanical power off switch, so the power cord plug is to be considered the primary disconnect device. Do not use extension cords!

Follow all local safety regulations during installation and operation of the Next Series 8 CIJ.

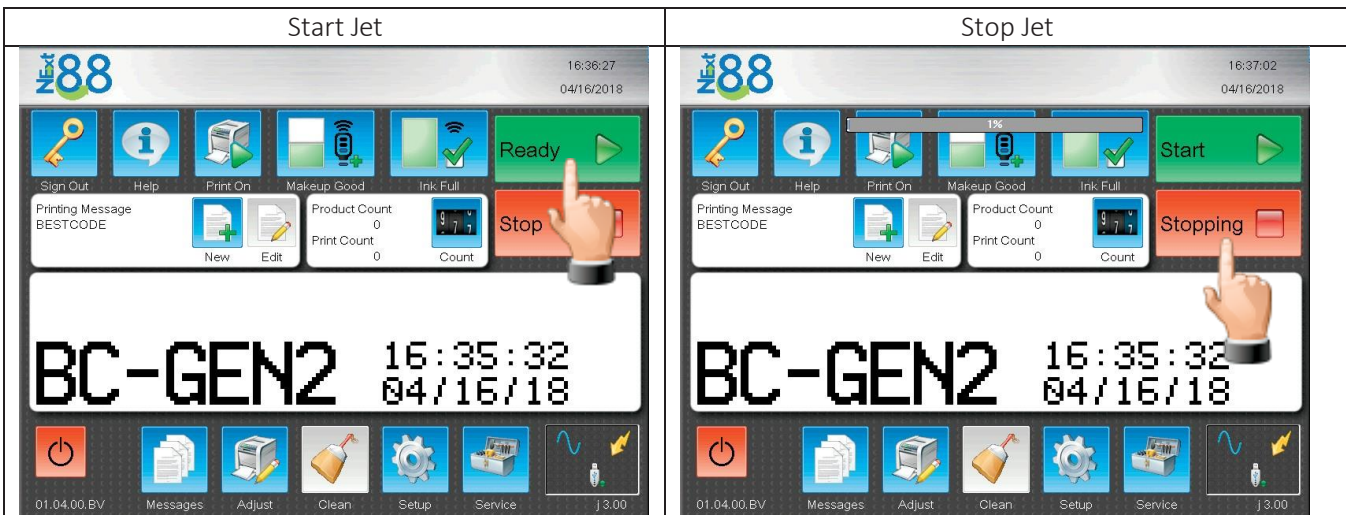
Ideal Mounting	Setup Time: 30 minutes
<ol style="list-style-type: none"> 1. Follow instructions included with 40-0019-01 Controller Stand. 2. Plug the attached power cord into the power socket. <p><i>The socket-outlet shall be installed near the equipment and shall be easily accessible.</i></p>	

Printhead mounting	Setup Time: 15 Minutes
<ol style="list-style-type: none"> 1. Secure the printhead into the printhead clamp. Clamp is included with: Kit 40-0003-01 Printhead Floor Mount Kit 40-0004-01 Printhead Conveyor Mount 2. The gutter should always be towards the floor. 3. Keep the gap between the product and the print slot at 1/16"-1/2" inch. 4. Keep printhead square to the product to prevent print distortion. <p>A 5°-10° angle between head and product may be necessary in high static environments.</p>	

Power On / Off



Start / Stop Jet





Clean Start & Clean Stop are the normal production starts and stops. These use a small amount of makeup per routine. The software will automatically protect the operator from adding too much makeup.




Selecting a message for print


<ol style="list-style-type: none"> 1. Press the Messages Button. 2. Select the desire message. 	 <div style="display: flex; justify-content: space-between;"> <div style="text-align: right;"> <p>BC-GEN2 18:56:49 04/26/18</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 70%;">Name</th> <th style="width: 20%;">ID</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"></td> <td>BESTCODE</td> <td style="text-align: center;">-</td> </tr> <tr style="background-color: #00a0e3; color: white;"> <td></td> <td>BESTCODE-AUTO</td> <td style="text-align: center;">-</td> </tr> </tbody> </table> </div> </div>		Name	ID		BESTCODE	-		BESTCODE-AUTO	-
	Name	ID								
	BESTCODE	-								
	BESTCODE-AUTO	-								
<ol style="list-style-type: none"> 3. Press the Select button. 4. The selected message will now be the actively printed message. 	 <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p>Printing Message BESTCODE-AUTO</p> </div> <div style="display: flex; gap: 20px;">   </div> </div>									

When to Add Ink









<p>The BestCode Next Series 8 and Quantum CIJ will begin requesting an Ink bottle be added when the Float switch in the Ink Tank is in the low state. An on-screen pop-up Ink Warning, 10-0003 will occur every 6 minutes while the Ink Tank is in this State.</p>	 <div data-bbox="1105 149 1523 380" style="background-color: yellow; padding: 5px;"> <p>! Ink Warning</p> <p>Ink fluid level is low.</p> <p>Action Required: Add SmartFill Ink</p> <p>10-0003 OK</p> </div>
<p>After 250,000,000 drops have been printed while in the low state, the system will give the Empty warning 10-0002.</p> <p>A bottle of SmartFill Ink must be added to the machine before the Jet can be started.</p>	 <div data-bbox="1105 411 1523 642" style="background-color: orange; padding: 5px;"> <p>⊘ Ink Fault</p> <p>Ink fluid level empty.</p> <p>Action Required: Add SmartFill Ink</p> <p>10-0002 OK</p> </div>

How to Add Ink

<p>Next Series 8</p> <ol style="list-style-type: none"> Place 1 capped bottle of Ink in the Ink Smartfill Cup. Make sure the SmartFill symbols are aligned. <p>Quantum Printer</p> <ol style="list-style-type: none"> Place 1 capped bottle of ink in front of the Smartfill scanner. Make sure the Smartfill symbols are aligned. 		
<ol style="list-style-type: none"> Press the Ink Status button on the Screen. This process works for Low and Empty situations. 	<p>Low</p> 	<p>Empty</p> 
<ol style="list-style-type: none"> Wait for the pop-up (10-0001) DO NOT PRESS OK 	<div data-bbox="902 1549 1333 1791" style="background-color: green; padding: 5px;"> <p>✓ Success</p> <p>51 - 0001 - 01 Ink, MEK Black</p> <p>10-0001 OK</p> </div>	

 <p>Heavy Pigment fluids must be shaken for 1 to 2 minutes to ensure that the pigment is suspended in the fluid and not caked to bottle. Failure to shake the bottle will result in no pigment being added into the tank. This will make faint print that is not bright.</p> <p>7. Remove the Ink bottle, and remove the cap</p> <p>8. Insert the bottle and press firmly to break the foil seal</p>	
<p>9. Wait for 1-2 minutes for the bottle to drain</p> <p>10. Discard the empty ink bottle in accordance with local regulation.</p>	
<p>11. Press OK on the Success screen pop-up (10-0001)</p>	

When to Add Makeup



<p>Next Series 8 The BestCode Next Series 8 CIJ will allow a Makeup bottle to be added when the Float switch in the Makeup Tank is in the OK state or low state.</p> <p>Quantum The Quantum has a smaller Make-up tank and will only accept a single bottle when the low condition is displayed.</p>	<table border="0"> <tr> <td style="text-align: center;"> <p>SERIES 8 AND QUANTUM</p>  </td> <td style="text-align: center;"> <p>SERIES 8 ONLY</p>  </td> </tr> </table>	<p>SERIES 8 AND QUANTUM</p> 	<p>SERIES 8 ONLY</p> 
<p>SERIES 8 AND QUANTUM</p> 	<p>SERIES 8 ONLY</p> 		
<p>The BestCode Next Series 8 and Quantum CIJ will begin requesting a Makeup bottle be added when the Makeup float switch in the Makeup Tank is in the low state.</p> <p>An on-screen pop-up Makeup Warning, 11-0003 will occur every 6 minutes while the Makeup Tank is in this State.</p>	 <div style="border: 1px solid black; background-color: #ffff00; padding: 5px; margin-top: 10px;">  Makeup Warning Makeup fluid level is low. Action Required: Add SmartFill Makeup 11-0003 OK </div>		

When the Makeup float switch is in the low state, 15 Makeup Adds will be allowed, and then a Makeup Fault 11-0002 will occur.
The Jet cannot be started again until a new bottle of SmartFill Makeup is added.

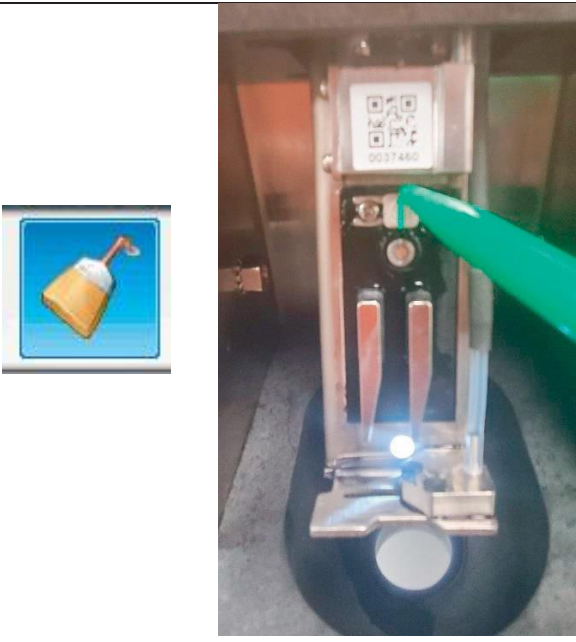


How to Add Makeup

<p>Next Series 8</p> <ol style="list-style-type: none"> Place 1 capped bottle of Makeup in the Makeup Smartfill Cup. Make sure the SmartFill symbols are aligned. <p>Quantum Printer</p> <ol style="list-style-type: none"> Place 1 capped bottle of Make-up in front of the Smartfill scanner. Make sure the Smartfill symbols are aligned. 			
<ol style="list-style-type: none"> Press the Makeup Status button on the Screen. This process works for Low, Empty, and OK situations. 	<p>Empty</p>	<p>Low</p>	<p>OK</p>
<ol style="list-style-type: none"> Wait for the pop-up (11-0001) DO NOT PRESS OK 			
<ol style="list-style-type: none"> Remove the Makeup bottle, and remove the cap Insert the bottle and press firmly to break the foil seal. 			

<p>9. Wait for 1-2 minutes for the bottle to drain</p> <p>10. Discard the empty Makeup bottle in accordance with local regulation.</p>	
<p>11. Press OK on the Success screen pop-up (11-0001)</p>	

Backflush Nozzle

<ol style="list-style-type: none"> Place the Printhead into the Printhead Clean Station (P/N 40-0020-01) Press the Back Flush button (Service screen OR Clean screen). Using the cleaner for the ink type of the machine, immediately spray makeup directly onto the nozzle plate for 10 seconds. (50-100ml of cleaner). Focus on cleaning the Drop Generator Nozzle, Phase Detector, Charge Electrode Slot, High Voltage Plates, Gutter, and Print Slot. Allow the head to completely dry before starting the jet. 	
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Operator Maintenance Items

CIJ Printers Require General Maintenance to maintain production uptime.

The system operators should perform the following upkeep tasks to ensure proper machine function. This does not replace the necessity of main ink filter replacements, as they require a trained technician to perform the maintenance duty.

Daily	Inspect surrounding area for leaks. Clean up small spills to prevent build up.
Weekly	Inspect Printhead for build-up. Clean and perform backflush if necessary. Inspect power cord connection and connections to peripheral devices such as alarm beacons, photocells, PLC devices, or shaft encoder.
Monthly	Clean exterior of cabinet and printhead cover. Apply oil (such as Mineral Oil) to the stainless steel if the environment is acidic or salty to preserve the life and appearance of the enclosure.
3-6 months	Replace air filter.

How to Replace the Air Filter

Next Series 8

1. Review Safety Warning in door
2. Review Safety Instructions on Page 2 and 3 of this manual.
3. Power off the Next Series 8 CIJ Printer.
4. Open the Air Filter access door.
5. Push down on the spring wire clip and hinge down.
6. Remove and discard the dirty filter and replace. Reassemble filter frame and spring wire.
7. FIRE HAZARD FIRE HAZARD: AIR FILTER DOOR MUST REMAIN CLOSED WHILE THE DEVICE IS OPERATING TO PROTECT THE DEVICE FROM EXTERNAL IGNITION SOURCES. THIS DOOR FORMS PART OF THE FIRE BARRIER THAT PREVENTS FLAMES FROM EXITING THE DEVICE.



⚠ DANGER	⚠ DANGER
Hazardous Voltage Contact may cause electric shock or burn. Turn off and lockout system power before servicing.	Haute Tension Le contact peut provoquer un choc électrique ou une brûlure. Éteignez et la puissance du système de verrouillage avant l'entretien.
⚠ PELIGRO	⚠ GEFAHR
Alto Voltaje El contacto puede causar una descarga eléctrica o quemadura. Apague y energía del sistema de bloqueo antes de dar servicio	Gefährliche Spannung Kontakt kann zu Stromschlag oder Verbrennungen verursachen. Schalten und Aussperren Systemleistung vor der Wartung.



How to Replace the Air Filter

Quantum

1. Review Safety Warning in door
2. Review Safety Instructions on Page 2 and 3 of this manual.
3. Power off the Quantum CIJ Printer.
4. Open the electronics access door.
5. Locate the filter cover on the right side and remove using the single thumb screw on top.
6. Remove and discard the dirty filter and replace. Install the filter cover and make sure the cabinet door is secure and closed before turning power back on.
7. FIRE HAZARD FIRE HAZARD: ELECTRONICS DOOR AND FILTER COVER MUST REMAIN CLOSED WHILE THE DEVICE IS OPERATING TO PROTECT THE DEVICE FROM EXTERNAL IGNITION SOURCES. THIS DOOR FORMS PART OF THE FIRE BARRIER THAT PREVENTS FLAMES FROM EXITING THE DEVICE.



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BestCode product and fluids are available through distribution around the globe.
Contact your local BestCode distributor for ordering information.



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