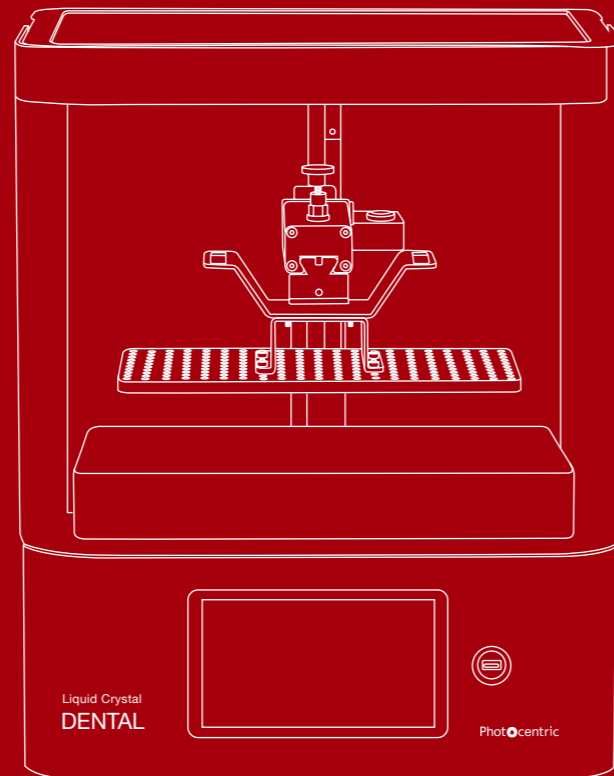
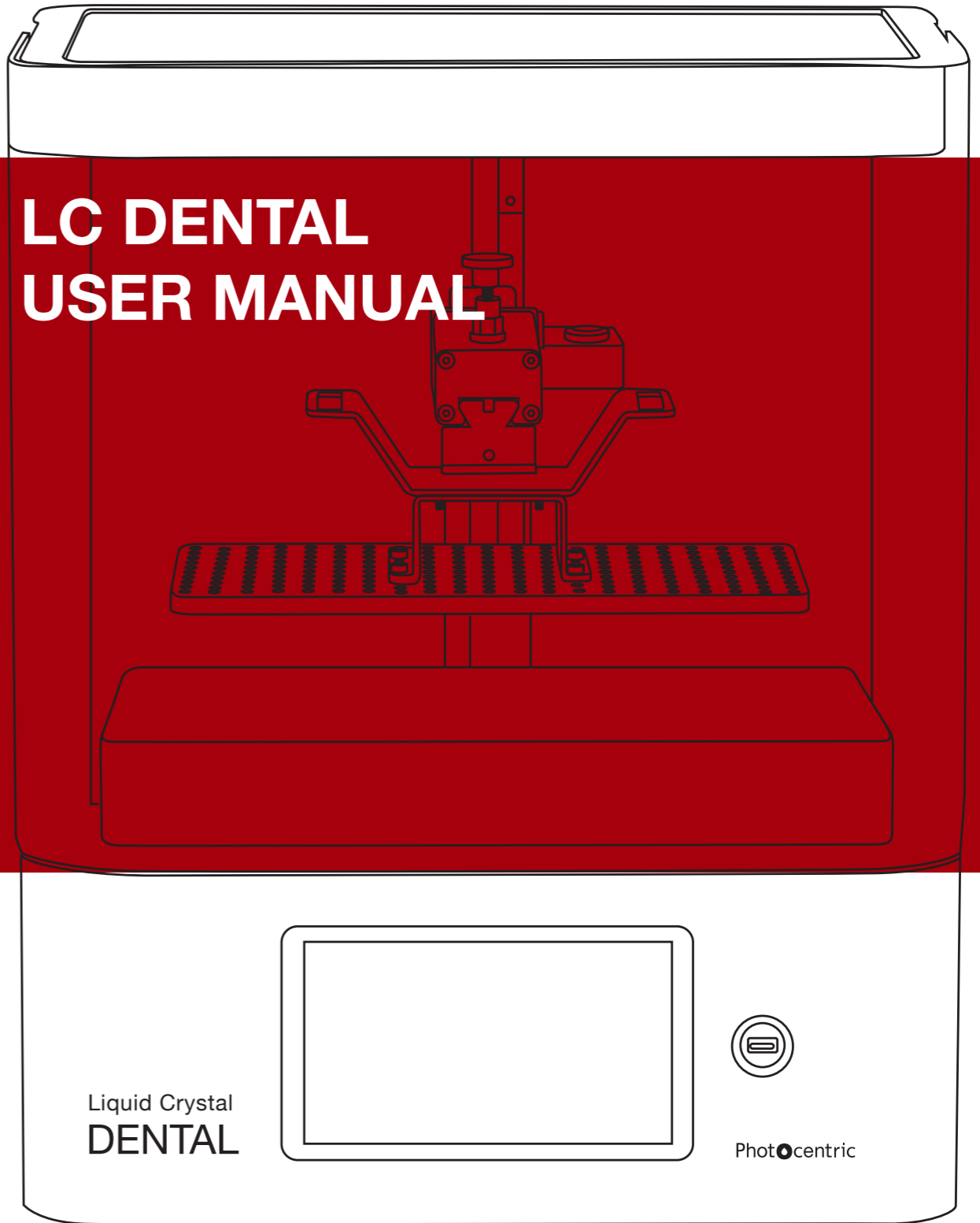


**THE NEXT GENERATION
OF 3D PRINTING
IS HERE**



**LC DENTAL
USER MANUAL**



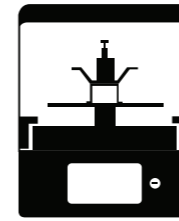
DISPOSAL INSTRUCTIONS

Do not throw this electronic device into the waste when discarding. To minimize pollution and ensure utmost protection of the global environment, please recycle or return to Photocentric for recycling.

Photocentric

UK
Cambridge House, Oxney Road
Peterborough PE1 5YW UK.
info@photocentric.co.uk
www.photocentricgroup.com

USA
2205 West Parkside Lane, Phoenix,
85027, AZ USA
www.photocentricgroup.us



Liquid Crystal
DENTAL

Contents

1. EU Declaration of Conformity	1
2. General Information	2
3. Safety Information	3
4. Box Contents	4
5. Installation	5-7
5.1 Printer Set-Up	5
5.2 Connecting to a Network	6-7
5.3 Photocentric Studio Setup	7
6. Printing	7-11
7. Cleaning Prints	11
8. Finishing Prints	12
9. Maintenance	12-16
9.1 Replacing the Resin Vat Film and Gasket	12-14
9.2 Print Platform and Resin Vat Re-Calibration	14-17
9.3 General Maintenance	17

1. EU DECLARATION OF CONFORMITY

1. Product model / product:

Product: 3D Printer
Model / type: Liquid Crystal Dental

2. Manufacturer:

Photocentric Ltd
Address: Cambridge House, Oxney Road, Peterborough, PE1 5YW

3. This declaration of conformity is issued under the sole responsibility of the manufacturer.

4. Object of the declaration:

Product: Liquid Crystal Dental 3D Printer for manufacturing plastic parts by curing layers of photopolymer resin, using UV light controlled by an LCD screen.

Screen: 4K, 14"

Build volume: 309 mm x 174 mm x 200 mm

Wavelength: 405 nm

5. The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

2014/35/EU Low Voltage Directive (LVD)

2014/30/EU Electromagnetic Compatibility (EMC) Directive

2011/65/EU Restriction of Hazardous Substances (RoHS 2) Directive

6. References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:

BS EN ISO 12100:2010 Safety of machinery. General principles for design.

Risk assessment and risk reduction.

BS EN IEC 61000-6-1:2019 Electromagnetic compatibility (EMC). Generic standards.

Immunity standard for residential, commercial and light-industrial environments.

BS EN 61000-6-3:2007+A1:2011 Electromagnetic compatibility (EMC).

Generic standards. Emission standard for residential, commercial and light-industrial environments.

BS EN 62368-1:2014+A11:2017 Audio/video, information and communication technology equipment. Safety requirements.

7. The technical file is available from the manufacturer at the address above.

8. Additional information:

Signed for and on behalf of: Photocentric Ltd

Place of issue: Peterborough

Date of issue: 13th January 2020

Name: Paul Holt

Position: Managing Director

Signature:




2. GENERAL INFORMATION

Liquid Crystal Dental is an innovative 3D printer, designed and manufactured in the UK by Photocentric Ltd. It uses UV light to cure photopolymer resin and build up objects layer by layer. The shape of each layer is controlled by an LCD screen.

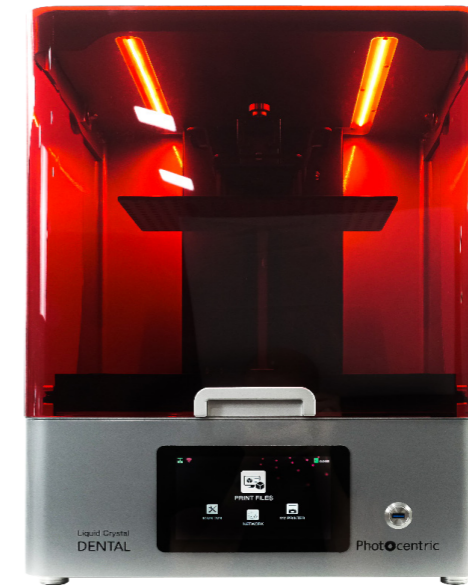
Liquid Crystal Dental has been designed specifically for the dental industry. It is a powerful tool for dental laboratories, practices and hospitals. 3D printing is now an integral step in many digital dentistry procedures.

MANUFACTURER
PHOTOCENTRIC

MODEL
LC DENTAL

BUILD SIZE
309 x 174 x 200mm

SOFTWARE
DEV_DE_1.1.0



FILE STORAGE
25Gb CAPACITY

RESOLUTION
3840 x 2160px

BACKLIGHT
405 UV

PIXEL PITCH
80 MICROMETER

For further information, please visit our website: <https://photocentricgroup.com/3d/>

On our website you can find:

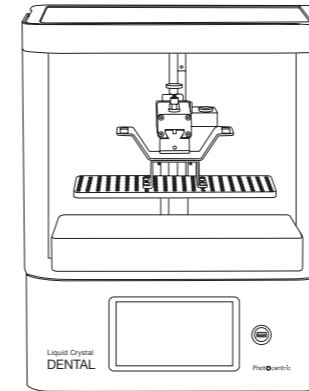
- Software downloads
- Comprehensive instructional videos
- Fully updated user manuals
- An online shop, for consumables, ancillary equipment and spares
- Contact details for our customer support team

3. SAFETY INFORMATION

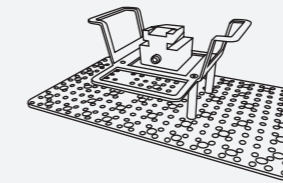


Read this Liquid Crystal Dental User Manual carefully and retain it for future reference.

- Take note of all warnings displayed on the 3D printer.
 - Follow all instructions displayed on the 3D printer.
 - Liquid Crystal Dental weighs 40 kg. At least two people are required to lift it safely.
 - Operate the 3D printer on a flat and stable surface that can safely support the weight.
 - Position the 3D printer at a height that allows a comfortable posture during operation.
 - Keep the 3D printer and photopolymer resin out of the reach of children.
 - Liquid Crystal Dental requires a mains power supply with a voltage of 100 VAC - 240 VAC and a frequency of 50 Hz - 60 Hz.
 - Liquid Crystal Dental has a maximum power consumption of 700 W. It will draw a maximum current of 3.0 A when connected to a 240 VAC supply, or 7.0 A when connected to a 100 VAC supply.
 - Only connect Liquid Crystal Dental to the mains socket using the power cable supplied.
 - Ensure that the total current draw of all items connected to the mains circuit does not exceed the capacity of the fuse or circuit breaker.
 - Always plug the power cable into the mains socket and the 3D printer before switching on the power at the mains socket.
 - Always switch off the power at the mains socket before unplugging the power cable from either the 3D printer or the mains socket.
 - Do not place anything on top of, or resting against, the power cable.
 - Do not position the power cable such that it causes a trip hazard, or is likely to be stepped on.
 - Disconnect the 3D printer from the mains socket when not in use.
 - Do not operate Liquid Crystal Dental outdoors.
 - Liquid Crystal Dental should not be operated in direct light from the sun or any UV light source.
 - Liquid Crystal Dental should be operated in an ambient temperature of 15 °C - 25 °C.
 - Liquid Crystal Dental should be operated in a well ventilated room.
- Do not operate Liquid Crystal Dental with the hood open as you may be exposed to crush hazards, harmful UV light or other hazards.
 - Photopolymer resin is an irritant. Always wear gloves and safety glasses when handling photopolymer resin.
 - Do not operate Liquid Crystal Dental if you display signs of sensitivity after exposure to photopolymer resin, such as skin or eye irritation.
 - Do not allow photopolymer resin or any other liquid to get inside the casing of the 3D printer. Clean up any spills immediately.
 - In case of malfunction, switch off the power at the mains socket and disconnect the 3D printer immediately.
 - Do not disassemble Liquid Crystal Dental as you may be exposed to electric shock hazards, harmful UV light or other hazards.
 - All repairs should be carried out by trained service personnel.
 - Discontinue 3D printer operation and contact your supplier if:
 - o The power cable or plug is damaged.
 - o Liquid has got inside the casing of the 3D printer.
 - o The 3D printer has been dropped.
 - o The 3D printer shows signs of damage.
 - o The 3D printer does not operate correctly after following the instructions provided in this user manual.
 - Dispose of waste photopolymer resin responsibly. Do not put photopolymer resin down the drain. Resin can be cured using any UV light source. Fully cured resin can be disposed of with normal waste.
 - Dispose of Liquid Crystal Dental responsibly. Please recycle where possible or return to Photocentric for recycling.



4. BOX CONTENTS



Print Platform



16 GB USB Flash Drive

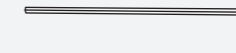


Resin Vat

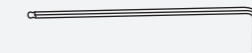
Liquid Crystal Dental User Manual
Photocentric Studio Licence Number
Resin Material Safety Data Sheet
CE Certificate



2x Vat Film



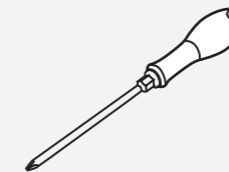
5mm Allen Key



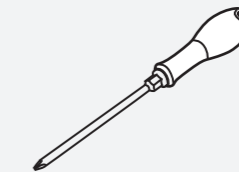
3mm Allen Key



2x Vat Gaskets



PZ1 Screwdriver



PZ2 Screwdriver



Soft Spatula



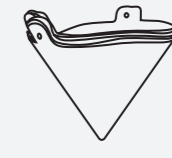
1kg Sample Resin



Spray Bottle



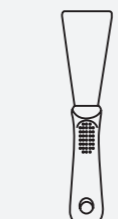
Funnel



5x Paper Resin Filters



2x Gloves



Scraper



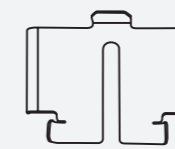
Power Cable



Vat Cleaning Tool



Wi-Fi Dongle



Platform Hanger



Silicone Mat

RECOMMENDED ADDITIONAL ITEMS

Safety Glasses

Paper Towel

Sink & Hot Water

Soap / Detergent

Cleaning Solvent
(eg Isopropyl Alcohol)

Resin
(see website for details) *

Photocentric Resin Cleaner *

Photocentric Wash 15 *

Photocentric Cure M *

Liquid Crystal Dental
Vat Film and Gasket Pack *

Liquid Crystal
Dental Resin Vat *

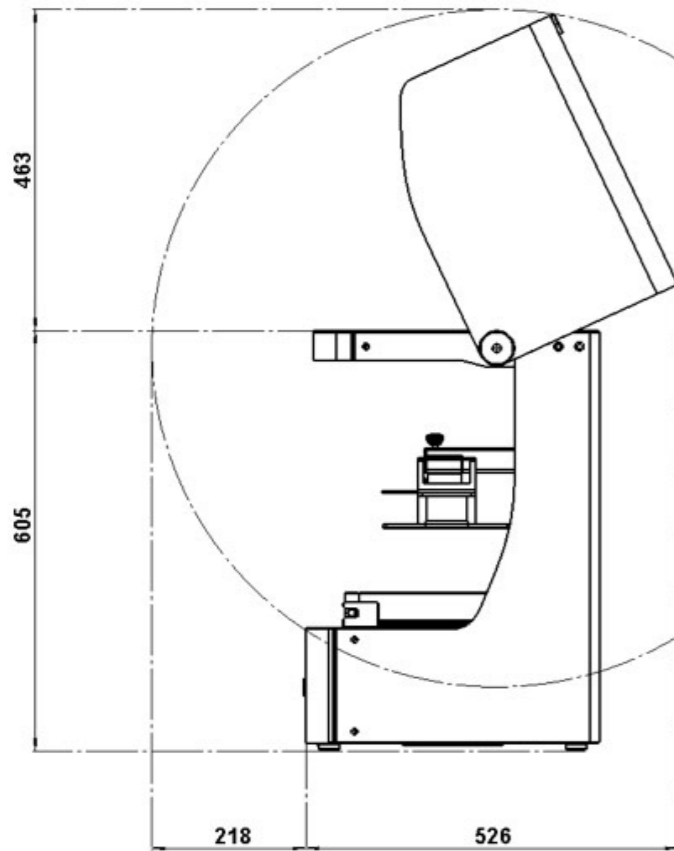
Liquid Crystal
Dental Print Platform *

* Available from Photocentric

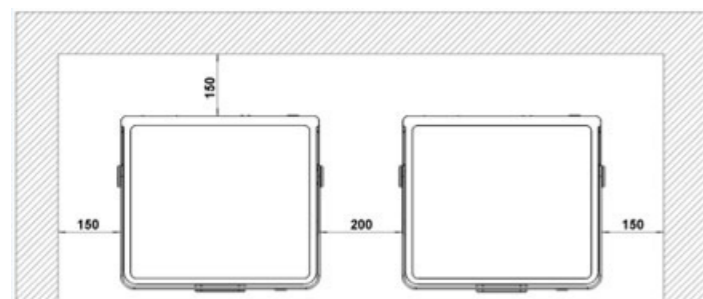
5 INSTALLATION

5.1 INSTALLATION SETUP

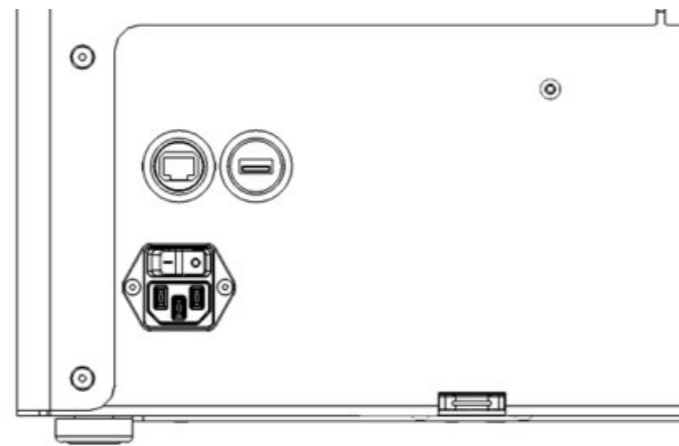
When choosing a location for your Liquid Crystal Dental, allow enough height for the hood to be opened fully. (All dimensions are in millimetres.)



Allow a minimum of 150 mm at the rear of the printer for the hood, power cable and network cable. Allow a minimum of 150 mm at the sides of the printer for proper ventilation and easy access to the power switch. If you are using more than one Liquid Crystal Dental, allow around 200 mm between machines for proper ventilation.



Liquid Crystal Dental requires a mains power supply with a voltage of 100 VAC - 240 VAC and a frequency of 50 Hz - 60 Hz. LC Dental has a power consumption of 700W and will draw a current of 3.0 A when connected to a 240 VAC supply; or 7.0 A when connected to a 100 VAC supply. The printer power socket is on the back of the machine, at the right side. Only connect Liquid Crystal Dental to the mains using the power cable supplied. Always plug the power cable into the mains socket, then the printer before switching on the power at the mains. Similarly, always switch off the power at the mains socket before unplugging the power cable from either the printer or the mains.

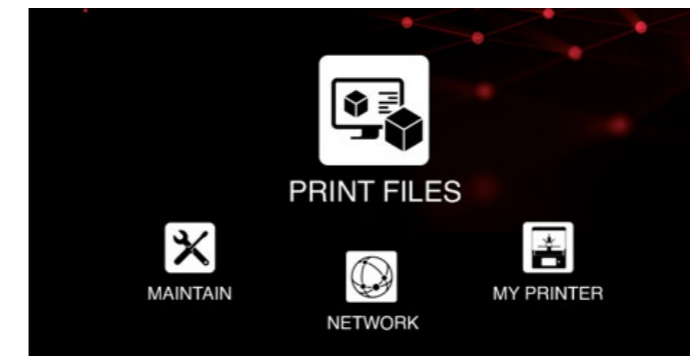


Liquid Crystal Dental has a USB port and an RJ45 network socket on the back. Plug the provided Wi-Fi dongle into the USB port for printer connection via a Wi-Fi network. Plug a network cable (eg CAT6) into the RJ45 socket if you would like to access your printer via a wired network connection. The rear SD card slot should only be used by trained service personnel.

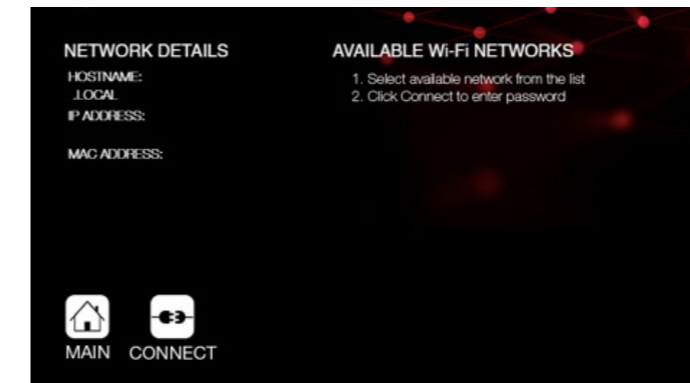
5.2 CONNECTING TO A NETWORK

Once your Liquid Crystal Dental is switched on, if you have plugged in a network cable or Wi-Fi dongle, you can connect it to a network. This allows print file uploads and print remote monitoring. These instructions are a guide to setting up the connection and uploading a print file.

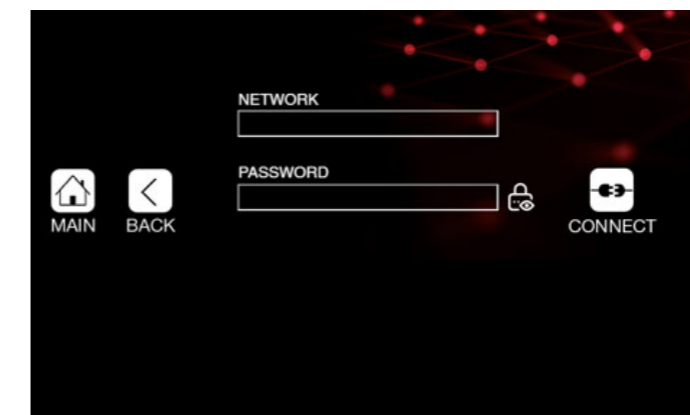
1. On the 'MAIN' screen, select 'NETWORK'
2. Select your preferred network from the list



3. Select 'CONNECT'



4. Select the text frame labelled 'PASSWORD', an on-screen keyboard will appear



5. Enter the password for your chosen network, you can display the password characters by selecting the lock icon to the right of the text frame

6. Select 'CONNECT' and wait for the connection to be established

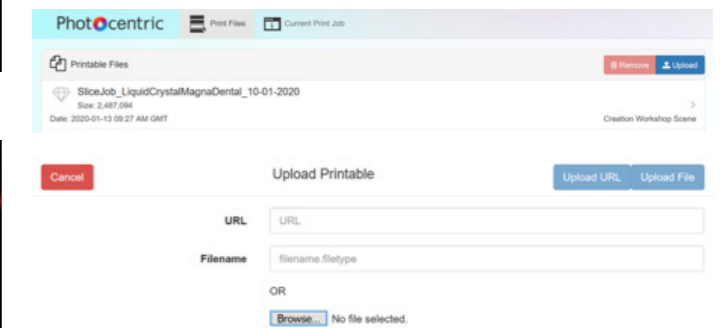
7. Select 'MAIN'

8. The Wi-Fi icon at the top left of the 'MAIN' screen should now be green, and an IP address should be displayed next to it

For uploading a file

9. Open a web browser on your PC

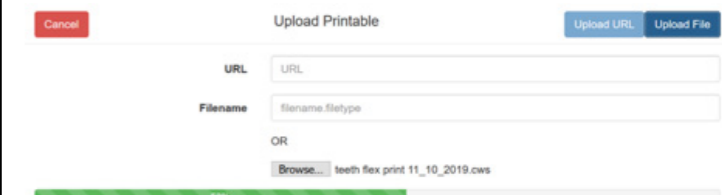
10. Type the printer's IP address into the address bar
11. Select 'Upload'



12. Select 'Browse...'
13. Locate the print file on your PC, the name of the file will appear to the right of the 'Browse...'

NOTE:
See section 5.3 for guidance on preparing a print file.

14. Select 'Upload File', a progress bar will appear
15. Once complete, the 'Print Files' list will be updated to include the new file



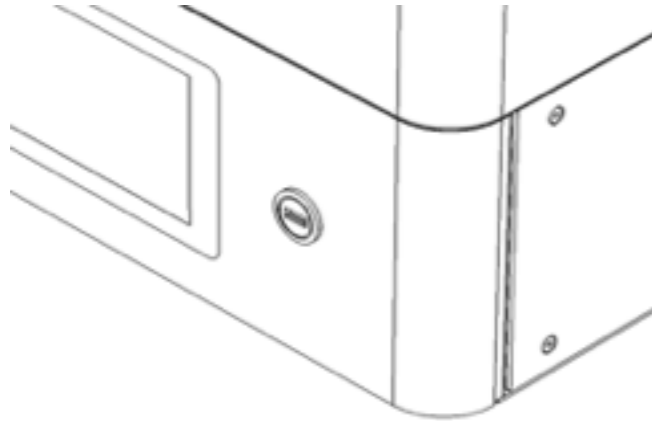
6 PRINTING

16. On your LC Dental, go to 'MAIN' screen, and select 'PRINT FILES'

off-line file transfer

17. If you need to transfer a new print file to your Liquid Crystal Dental, copy it onto the USB flash drive, then plug the drive into the USB port on the front of the machine

18. Select 'REFRESH', your new print file should appear



NOTE:
See section 5.2 for instructions on transferring print files via a network connection.

5.3 PHOTOCENTRIC STUDIO SETUP

A 16 GB USB flash drive is supplied with your Liquid Crystal Dental. On this drive you can find a license number for Photocentric Studio. This allows you to activate a perpetual license for up to two PCs.

Photocentric Studio can be downloaded from this webpage:

<https://photocentricgroup.us/support-photocentric-studio/>

On this page, you can also find guidance on the following:

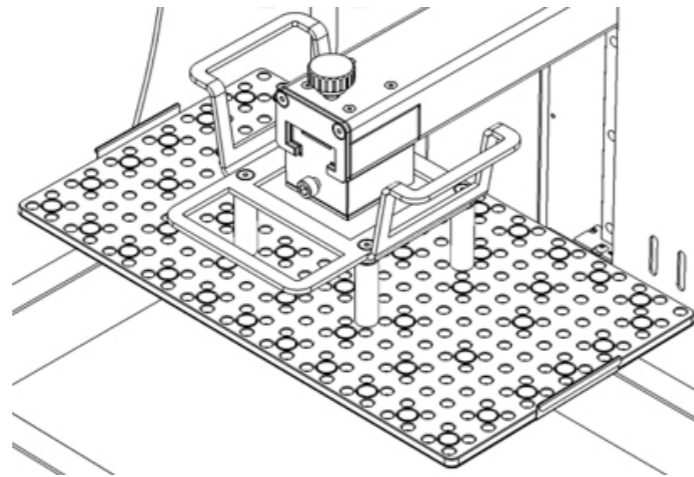
[The minimum system requirements for Photocentric Studio](#)

- Installing the software
- Getting started
- Adding supports and slicing files
- Updating the software

1. Ensure that your Liquid Crystal Dental is positioned on a stable, level surface where it will not be subject to movement or vibrations during the printing process

2. Ensure that the print platform is completely clean and dry, failure to do so may result in damage to your vat film or a failed print

3. Load the print platform into the printer, you should feel a positive click



4. Tighten the turn knob firmly to lock the print platform in place

5. Ensure that the resin vat is completely clean and dry to avoid print failures or damage

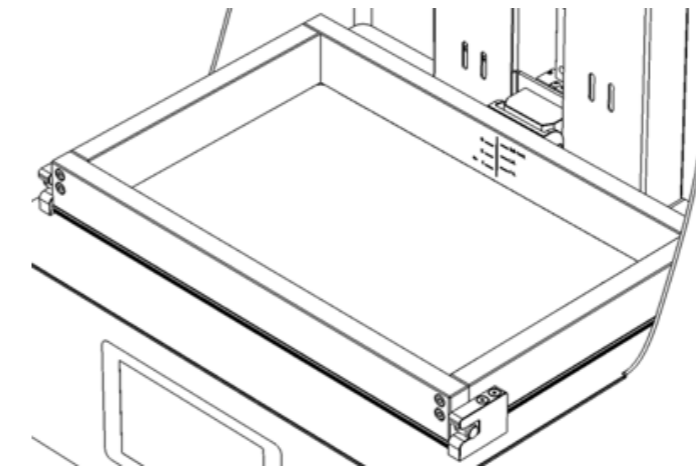
6. Check the vat film for signs of damage or wear, if you have any doubt about the condition of the vat film, refer to section 9.1

NOTE:
Printing with a damaged vat will cause failures and leaks causing permanent damage to the printer

7. Load the resin vat into the printer, you should feel a positive click

WARNING:
Photopolymer resin is an irritant. always wear PPE. See Pg 4

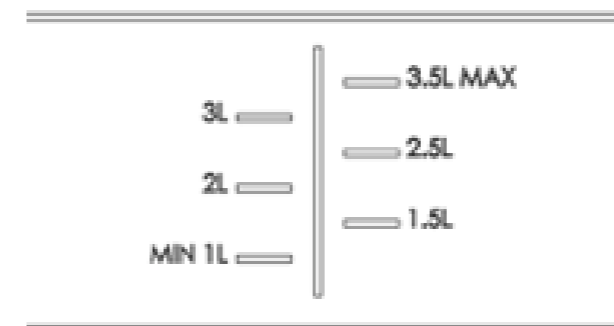
8. Select the correct resin for the file you wish to print



NOTE:
Correct resin is based on profile selected in Photocentric Studio. If correct resin is not used the print will fail.

9. Check the volume of resin required for the file (Photocentric Studio will provide this figure), add an extra 300 ml to make sure there is enough

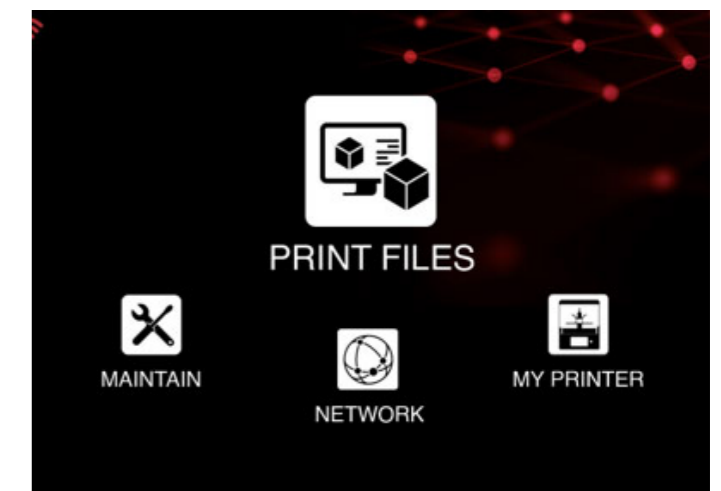
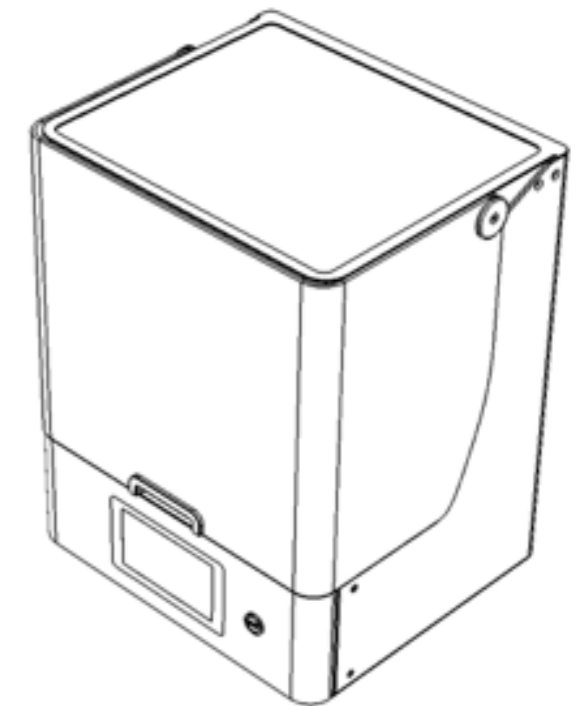
10. Pour the resin into the vat, for smaller files top up to a minimum of 1 litre



NOTE:
You can ensure your printer is level at this point by pouring a small amount of resin into the vat and checking that it sits in an even layer over the vat film.

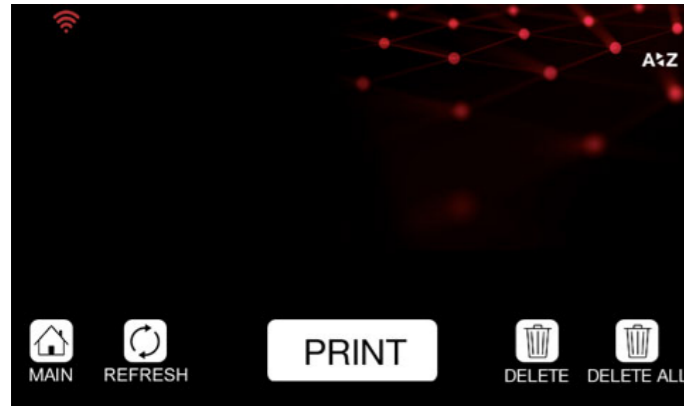
11. Close the printer hood, the icon in the top right of the touchscreen should show a green closed door

12. On the 'MAIN' screen, select 'PRINT FILES'

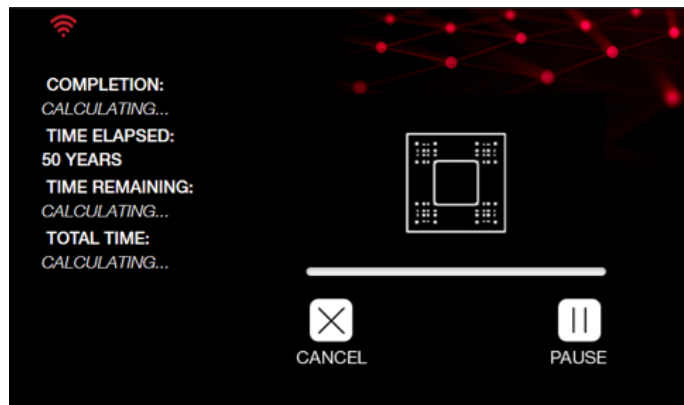


13. 'PRINT'
14. Your Liquid Crystal Dental will start the printing process

WARNING:
Do not open the printer hood during the printing process



15. At any time during the printing process, you can cancel or pause the print by making the relevant selection, you will be asked for confirmation in both cases



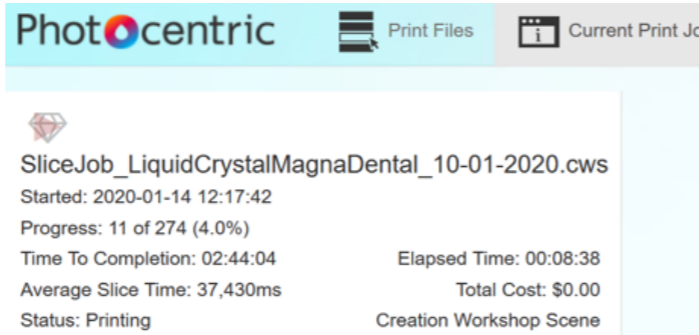
WARNING:
When a print is cancelled or paused, the printer will not stop moving immediately. Do not open the hood until the printer has completely finished moving.

NOTE:
Do not pause your print unless absolutely necessary. If needed, only pause for a short time to avoid discrepancies in printing

16 The touchscreen will display information about the progress of your print, the 'TIME REMAINING' estimate will be more accurate after the first few layers are complete

NOTE:
If your printer is connected to your network (see section 5.2) you can monitor print progress via your web browser.

17. Liquid Crystal Dental does not need monitoring or supervision during the printing process, you do not need to be present when the print is due to finish



18. Leaving a finished print inside the printer for a time will allow excess resin to drip back into the vat

19. When you are ready to clean your print, open the hood

20. Loosen the turn knob to free the print platform

21. Grip the handles of the print platform securely and gently pull it towards you to remove it

NOTE:
After removing the print platform from the printer, it can be helpful to tilt it and hold it over the vat to drain off excess resin. When you carry a finished print to your cleaning station, use paper towel or a suitable tray to catch any drips.

22. Clean the print (see section 7)

23. Rinse the print thoroughly in hot water to remove any residual cleaning product

NOTE:
Handle the parts with care as they are more fragile before post-exposure

25. Finish your printed parts (see section 8)

26. Take the resin bottle that you used earlier when filling the vat, remove the cap

27. Set up a funnel and filter in the neck of the bottle

NOTE:
With some resin bottle sizes, you will need to remove both parts of the cap in order to make room for the funnel.

28. Carefully remove the resin vat from the printer

29. Tilt the vat towards one corner and pour the left-over resin through the filter and back into the bottle, be careful not to allow the filter paper to overflow

30. Once most of the resin has poured away, use the vat cleaning tool to guide remaining resin towards the corner of the vat

31. Clean off any resin drips on the outside of the vat with paper towel

32. Place the vat on a suitable clean smooth surface (eg the silicone mat from the top of your Liquid Crystal Dental)

33. Use paper towel to soak up the last of the resin in the vat

34. Use a small amount of a suitable cleaning solvent such as IPA, along with paper towel, to clean the vat film and vat walls, dry them thoroughly

35. Check for any fragments of cured resin remaining on the vat film, dislodge them carefully with the soft spatula provided, any loose pieces can be removed using a small piece of sticky tape

36. Give the outside of the vat a final clean and check the film for signs of damage or wear, if you have any doubt about the condition of the vat film, refer to section 9.1

NOTE:
Printing with a damaged vat will cause failures and leaks causing permanent damage to the printer

37. Check the screen of your Liquid Crystal Dental for any sign of resin contamination or damage

38. If resin is present, clean it up thoroughly with paper towel, this is a sign that the film on your resin vat most likely needs replacing

NOTE:
If you believe your printer's screen may be damaged, contact your supplier or visit the support pages of the Photocentric website.

39. Store the resin vat inside the printer when not in use

40. Check the screen protector.

41. If any Photocentric Resin Cleaner is left on the print platform, clean it off with a suitable solvent such as IPA, dry it thoroughly

NOTE:
A residue of Photocentric Resin Cleaner on the print platform may prevent the next print from adhering properly.

NOTE:
If you have a supply of compressed air available, this can help with cleaning and drying the print platform. Always wear safety glasses and take the proper precautions when using compressed air.

42. Store the print platform inside the printer when not in use

7 CLEANING PRINTS

We recommend using Photocentric Wash 15, and Photocentric Resin Cleaner, to clean your prints. Wash for 10-15 minutes then rinse with warm water. Use compressed air if available to dry parts. Thorough cleaning is necessary to prevent tacky feeling after post-exposure.

NOTE

Wear gloves and safety glasses when working with Photocentric Resin Cleaner.



Photocentric Wash 15 and Photocentric Resin Cleaner can be purchased on this webpage:

<https://photocentricgroup.us/support-wash-15/>

The user manual for Wash 15 can be downloaded from this webpage:

<https://photocentricgroup.com/3d-support/>

Here you can also browse guidance on the following:

- Using your cure unit
- Adjusting settings
- Maintenance
- Safety compliance
- Warranty

8 FINISHING PRINTS

All parts produced using Liquid Crystal Dental will need to be finished using UV light and heat to fully cure the resin and achieve the correct material properties.

We recommend using your Photocentric Cure M+. Post-exposure for LC Dental Model Resins is 60 minutes at 60-80°C. If parts are still tacky place in Cure M+ for further 20 minutes.



NOTE

Wear gloves when handling printed parts prior to finishing. There may still be traces of liquid resin or cleaning product on the surface. Handle the parts with care.

Photocentric Cure M+ can be purchased on this webpage:

<https://photocentricgroup.com/cure>

The user manual for Cure M+ can be downloaded from this webpage:

<https://photocentricgroup.com/curem-support/>

Here you can also browse guidance on the following:

- Using your cure unit
- Programs
- Maintenance
- Environmental Operating Conditions

9 MAINTENANCE

9.1 REPLACING THE RESIN VAT FILM AND GASKET

In normal operation, you should replace the resin vat film and gasket after approximately 50 hours of printing. You should immediately replace the film and gasket if you detect any sign of leaking resin or any visible damage.

Replacing the vat film and gasket will take approximately 40 minutes if the correct procedure is followed and the correct tools are used. It is important to clean the vat body thoroughly to avoid fragments of cured resin or other contaminants damaging the newly fitted film.

You will need:

- Silicone Mat
- Paper Towel
- Cleaning Solvent (eg Isopropyl Alcohol)
- PZ1 Screwdriver
- PZ2 Screwdriver
- Vat Film
- Vat Gasket

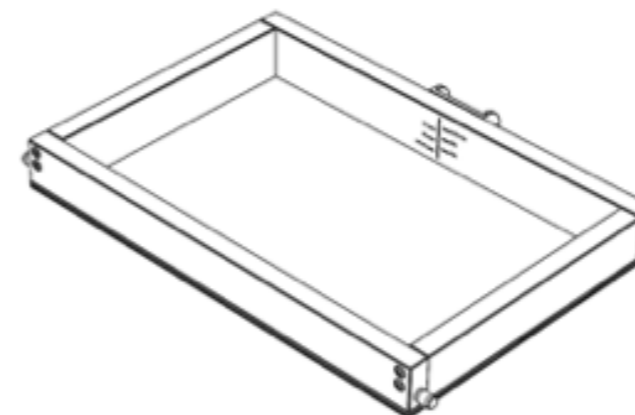
1. Find a clean, flat surface to work on.

2. Use the silicone mat from the top of the printer to cover the surface and protect the vat from damage

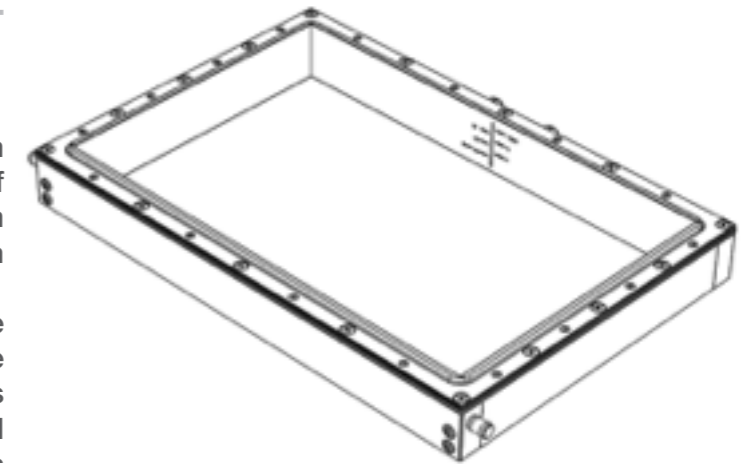
3. Clean the vat thoroughly to avoid dripping resin when the vat is turned over

4. Turn over the vat

5. Remove the large screws using the PZ2 screwdriver, keep them to one side



6. Lift off the vat ring assembly



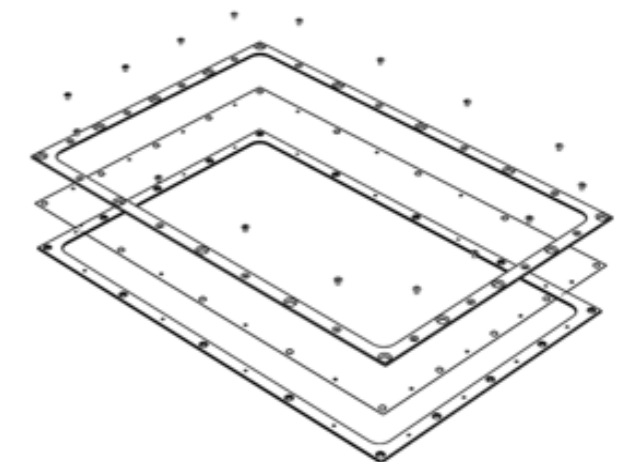
7. Lift off the vat gasket and dispose of it

8. Clean the vat body thoroughly, ensuring that no cured resin or other contamination is present on the surfaces that will contact the new film

9. Remove the small screws using the PZ1 screwdriver, keep them to one side

10. Lift off the top vat ring

11. Lift off the vat film and dispose of it



12. Clean both vat rings thoroughly

13. Ensure the silicone mat is clean

14. Lay the bottom ring down with the countersinks facing upwards

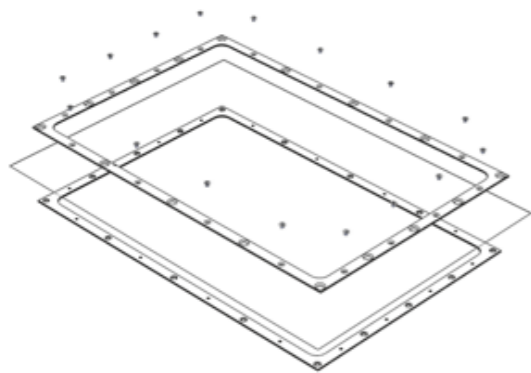
15. Take a new piece of vat film from the pack and lay it centrally over the ring

16. Place the top ring onto the film with the countersinks facing upwards, aligning the holes with those on the bottom ring

17. Secure the two rings together using the small screws

NOTE

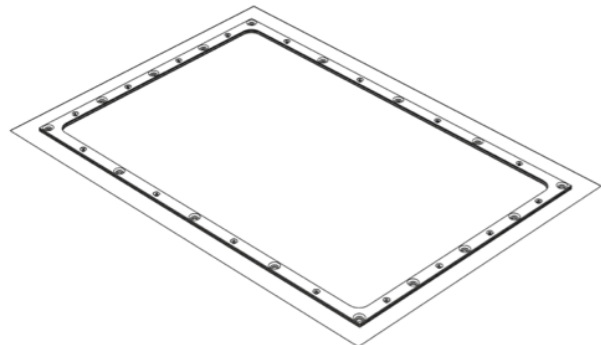
The screws should pierce the film as you begin to tighten them. The film must be kept flat at all times. It should not be under tension but there must be no creases. There should be excess film on all sides of the rings.



18. Carefully pierce holes for the large screws using the tip of the PZ1 screwdriver

19. Take a new vat gasket from the pack and lay it onto the vat body, aligning the holes

20. Place the vat ring assembly onto the vat with the countersinks facing upwards



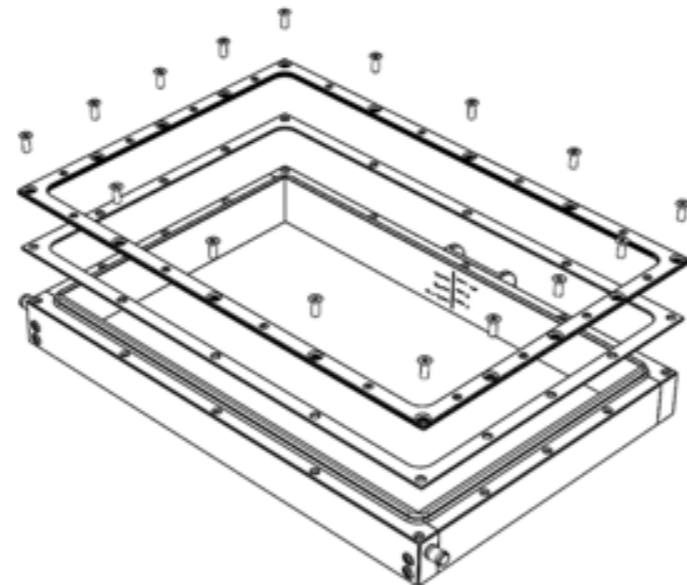
21. Secure the vat ring assembly to the vat body using the large screws

NOTE

Tighten the screws in two phases. Fit all screws loosely before fully tightening any. In both phases, start with the corners, then the middle of each edge. Finish the remaining screws in opposite pairs.

22. Carefully cut away the excess film

23. Check that the vat ring assembly sits flat against the vat body with no visible gaps



24. Check that no damage has been caused to the new film during the assembly process

25. Your vat is ready to use.

NOTE

You can gently tap on the vat film with a fingertip (not a fingernail) to check the tension. There should be a high-pitched, resonant sound like a small drum. If the film feels loose, the vat will not function properly.

9.2 PRINT PLATFORM AND RESIN VAT RE-CALIBRATION

The print platform has been pre-calibrated on our production line according to strict QC procedures. This ensures that the bottom surface of the print platform is parallel with the LCD screen. The resin vat is also calibrated for the print platform, vat film and LCD are all in contact once the platform reaches the end of its movement to the bottom. The platform and vat should not become mis-aligned during your time using Liquid Crystal Dental. However, mis-alignment can happen if the print platform is dropped, specific bolts are loosened etc.

The following will allow you to reset the printer platform and vat to their correct positions.

You will need: 3 mm Hex Key
5 mm Hex Key

1. Ensure that the vat and print platform are completely clean, failure to do so could result in damage to your vat film or inaccurate print platform homing leading to print failures

2. Load the vat and print platform into the printer in the normal way, tighten the turn knob that secures the print platform

3. Turn on the printer and wait for the touchscreen to display the 'MAIN' screen

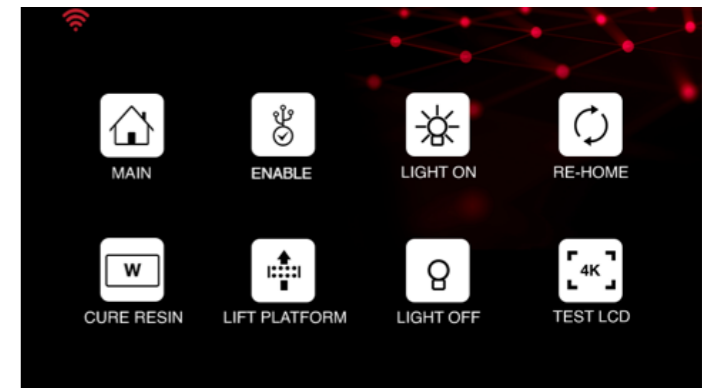
4. Select 'MAINTAIN'

5. Select 'RE-CALIBRATE'

6. Select 'PLATFORM'

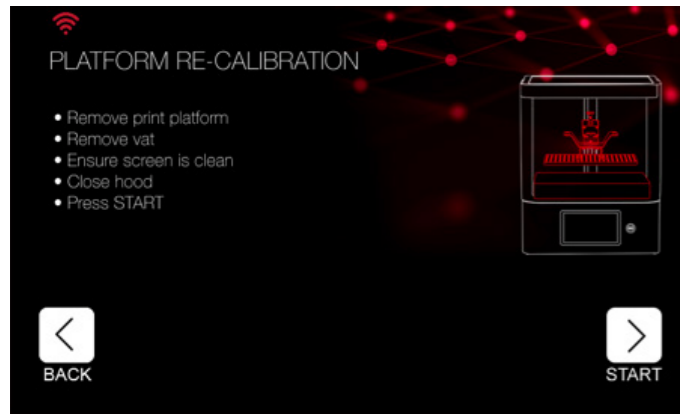
7. Remove the print platform and vat from the printer, ensure that the screen is clean

8. Close the printer hood and select 'START', the z axis will move to the top of its travel



9. Once the printer has stopped moving, open the hood

10. Take the weight of the print arm in one hand



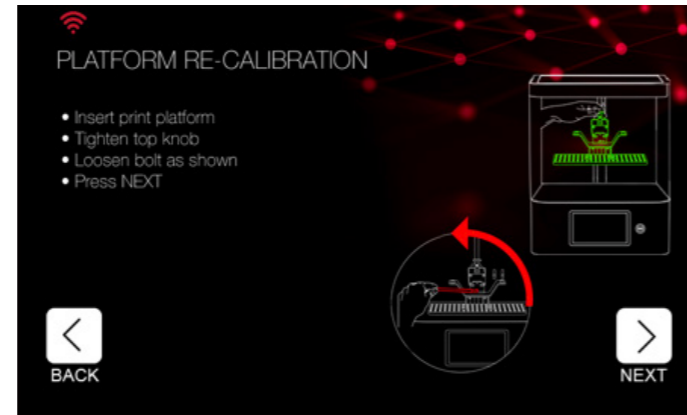
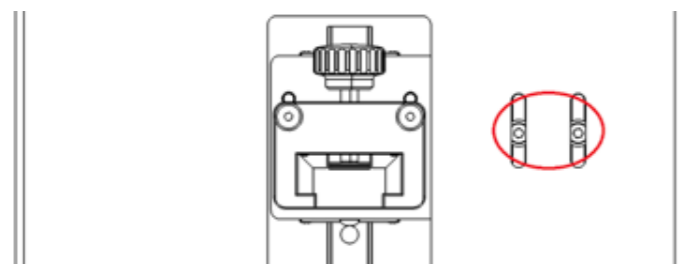
11. Lower the print arm until the bolts hit the bottom of their slots, select 'NEXT'

12. Return the print platform to the printer and tighten the turn knob firmly

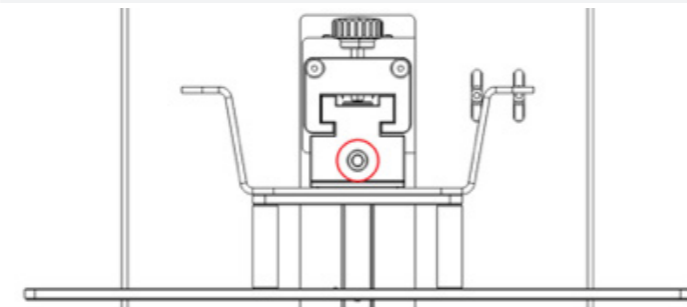
13. Use the 5 mm hex key to loosen the bolt shown, it should be easy to tilt the print platform from side to side

14. Select 'NEXT'

15. Place the calibration film (provided) over the screen

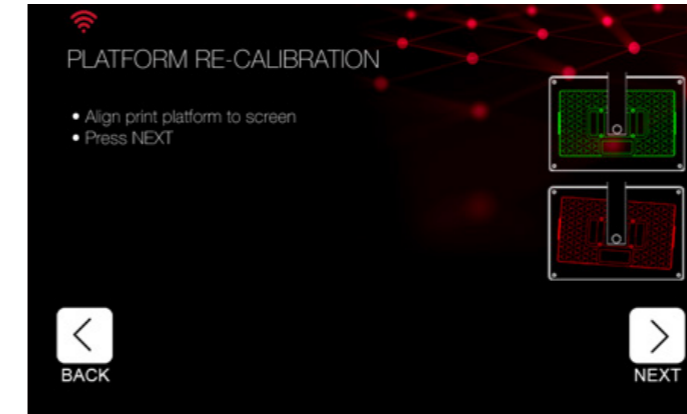


NOTE
The calibration film represents the resin vat film during the platform calibration process. A spare vat film can be used in its place.



NOTE
Make sure the print platform is approximately horizontal before proceeding. Failure to do so could result in damage to the screen.

16. Close the printer hood and select 'NEXT', the z axis will move to the bottom of its travel



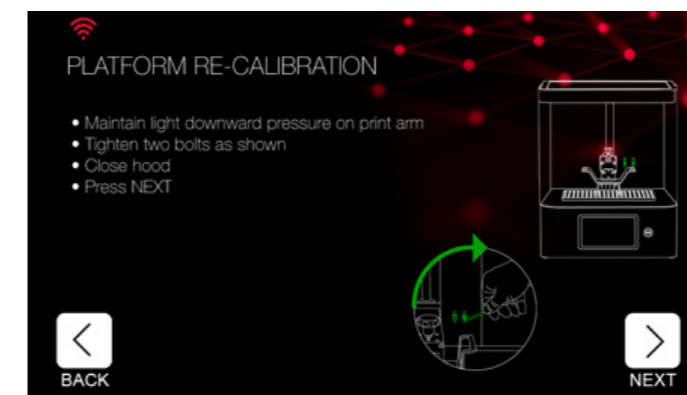
17. Ensure the print platform is sitting square in the machine, use the screen as a visual reference

18. Select 'NEXT'



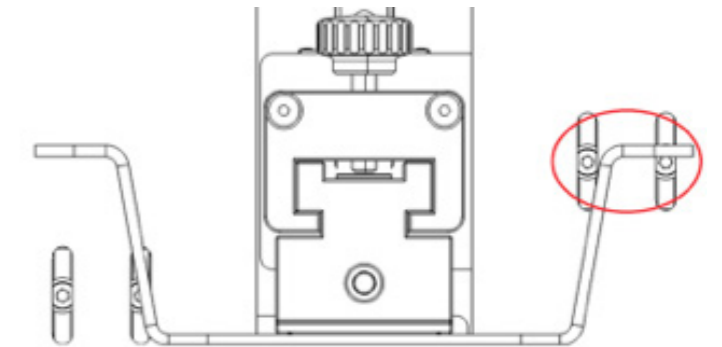
19. Whilst maintaining a light downward pressure on the print arm, finger-tighten the bolt shown

20. Keeping pressure on the print arm, use the 5 mm hex key to tighten the bolt



21. Select 'NEXT'

22. Keeping pressure on the print arm, use the 3 mm hex key to tighten the two bolts shown



23. Visually check that the print platform is in full contact with the screen



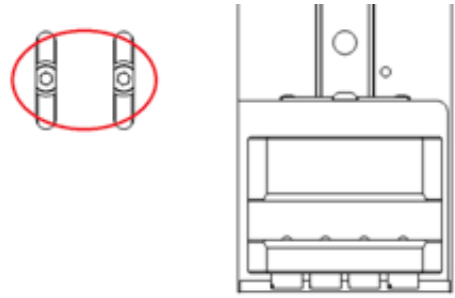
24. Close the printer hood and select 'NEXT', the z axis will move to the top of its travel



25. Remove the calibration film and select 'FINISH'

26. Select 'RE-CALIBRATE', then select 'VAT'

27. Ensure the resin vat is clean

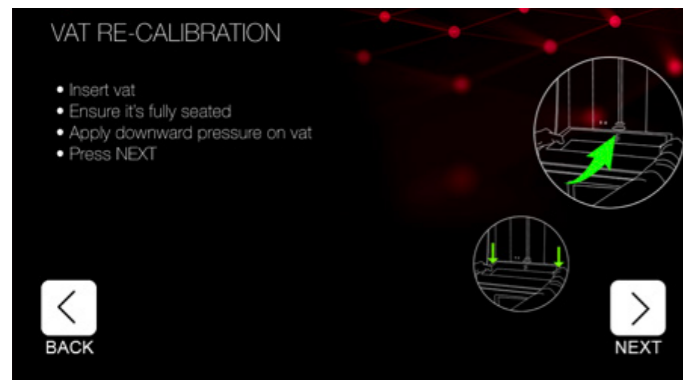


28. Use the 3 mm hex key to loosen the two bolts shown, it should be possible to manually move the vat lifter up and down



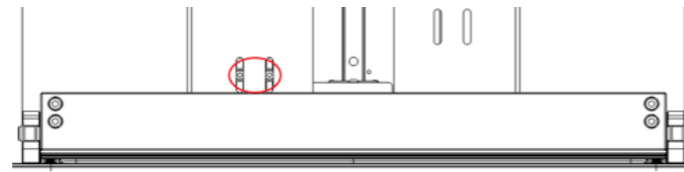
29. Close the printer hood and select 'START', the vat lift system will move to the bottom of its travel

30. Load the resin vat into the printer, you should feel a positive click as the vat engages



31. Press on the sides of the vat to ensure its seated against the screen, select 'NEXT'

32. Use the 3 mm hex key to tighten the two bolts shown



33. Select 'FINISH'

34. Your Liquid Crystal Dental is ready to print check that the print platform remains parallel to the screen

9.3 GENERAL MAINTENANCE

The main air intake for Liquid Crystal Dental's cooling system is on the base of the printer. Over time, dust will accumulate on the air filter. Excessive dust will reduce the air flow and could cause the printer to overheat. This will eventually trigger the thermal cut-out and cause a print failure. The LCD screen may also be permanently damaged.

Clean the fan filter at least once a month if the printer is in regular use. For printers in constant use or in dusty environments, clean the fan filter every two weeks. The filter is magnetic and can be pulled away from the base plate and replaced without tools. To get access, you will need to elevate the front of the machine. Always make sure the vat is empty and the hood is closed before lifting or moving Liquid Crystal Dental. Ask another person to help you and observe proper lifting practice. The printer weighs 40 kg.

Liquid Crystal Dental will work consistently as long as it is kept clean at all times. Any equipment to be used along side this printer e.g. resin bottles, gloves, tools etc should be kept clean.

For further information, please visit our website: <https://photocentricgroup.us/dental-resource-hub/>