

LOCTITE®

Loctite® EQ PR10.1 DLP 3D Printer



Operating Manual

IDH 2416987



Contents

1	Please observe the following	4
1.1	Emphasised Sections	4
1.2	Items Supplied.....	4
1.3	Field of Application (Intended Usage).....	4
1.4	For Your Safety	5
2	Technical Data	6
3	Description	6
3.1	Theory of Operation.....	6
3.2	Machine Overview	7
3.3	Machine Connections.....	8
3.4	Touchscreen Menus	9
4	Installation	12
4.1	Environmental and Operating Conditions	12
4.2	Levelling the Printer	12
4.3	Connecting the Supplies.....	12
4.4	Removing the Projector Cap	12
4.5	Assembling the Build Platform	12
4.6	Assembling the Basins.....	13
4.7	Installing the Safety Basin	14
4.8	Installing the Resin Basin.....	16
4.9	Run the Diagnostics Check	17
4.10	Positioning the Build Platform	19
4.11	Alligning the Build Platform	20
5	Loctite Operator Station PC Software	23
5.1	Installing the Software	23
5.2	Main Screen.....	24
5.3	Adding a Printer	31
6	Calibration	32
6.1	Create a Calibration Print.....	32
6.2	Print a Calibration Print.....	32
6.3	Measure the Calibration Values.....	33
7	Operation	34
7.1	Create a Print Job	34
7.2	Preperations Before Printing.....	34
7.3	Printing	34
7.4	Remoiving the Build Platform	35
7.5	Cleaning the Build Platform	36

7.6	Cleaning the Basin	36
7.7	Removing a Failed Print.....	37
8	Troubleshooting.....	38
9	Care and Maintenance	39
10	Spare Parts and Accessories	39
11	Warranty	40

1 Please observe the following



For safe and successful operation of the unit, read these instructions completely. The manufacturer cannot be held responsible for damage or injury of any kind because of misuse or improper application or because of failure to observe safety instructions or warnings. Be sure to retain this manual for future reference.

1.1 Emphasized Sections



Warning!

Refers to safety regulations and requires safety measures that protect the operator or other persons from injury or danger to life.



Caution!

Emphasizes what must be done or avoided so that the unit or other property is not damaged.



Notice

Gives recommendations for better handling or adjustment of the unit during operation as well as for service activities.

1.2 Items Supplied

1 EQ PR10.1 DLP 3D Printer

1 Base Frame or Cabinet

1 Safety Basin

1 Starter kit – Including:

- 1 Spatula
- 1 Resin Puller
- 1 Resin Curing Flash Light
- 1 Resin Basin
- 1 Build Platform
- 1 Nitrile Gloves
- 1 Spray bottle
- 1 Funnel with filter

1 Operating Manual

1 PC Software on USB flash drive.

1 Power cord

1 Lens Cap



Notice

Illustrations and descriptions in this instruction manual can deviate in detail from the actual unit delivered, due to ongoing upgrades.

1.3 Field of Application (Intended Usage)

The Loctite PR10.1 DLP 3D Printer is designed for use with Loctite 3DP resins.

The Loctite PR10.1 can print parts with complex geometries which would be impossible using traditional manufacturing techniques.

1 Please observe the following

1.4

For Your Safety

Request the technical data sheet and the safety data sheet for the LOCTITE® product used at www.loctite.com.

FOLLOW UNCONDITIONALLY THE INSTRUCTIONS OF THESE DATA SHEETS!



WARNING!

For safe and successful operation of the unit, read these instructions completely. If the instructions are not observed, the manufacturer can assume no responsibility.

Removing, bypassing or putting out of operation safety devices can result in damage to persons and damage to the unit and is therefore prohibited!

Damage to the power cord or the housing can result in contact with live electrical parts. Check the power cord and the unit before each use. If the power cord or the unit is damaged, do not operate! Replace a damaged power cord with a new one.

The unit may be opened and repaired only by authorized service personal.

Avoid contact with chemicals and wear protective clothing, gloves and goggles.

Do not look directly at Projector-UV light, or at projector-UV light reflected by a reflective surface. Doing so could cause eye damage.

Always wear UV blocking eye protection when operating this machine.

Never operate this product any way other than described in this manual. Doing so risks exposure to LED-UV light.

Any defects found must be reported immediately! Remedy any defects immediately!

Use only original replacement and spare parts. Henkel cannot be held responsible for damage or injury of any kind because of failure to observe the instructions in this Operating Manual.

Mechanical parts are moving slowly but with high forces and rigidity. Keep hands out of the printer when the axis is moving.

The printer is a tall and heavy part. Make sure it stands well and cannot fall over. Take care when installing or transporting it. Make sure it is well fixated on the base cabinet with the included screws.

2 Technical Data

Power supply	110 V AC 60 Hz - 240 V AC 50 Hz
Projector	Full HD 1920 x 1080 pixels
Build Volume W x D x H	192mm x 108mm x 250 mm
Print Resolution X and Y Axis	100µm
Print Resolution Z axis (Layer Thickness)	12 µm - 100 µm Resin dependent
Overall Dimensions W x D x H (mm)	490 x 420 x 1700
Weight	Approx. 56 kg
Optimal Operating Temperature	22° C (71°F)
Build Platform	Anodized aluminum
Resin Basin	Exchangeable basin glass bottom coated with ultra-high chemical resistance PTFE.

3 Description

3.1 Theory of Operation

The operator loads resin into the resin basin and selects a print job which has been prepared on the supplied printer PC software. The software requires a Windows 10 operating system.

The build platform then lowers into the resin and the projector projects an image of the part layer by layer as the build platform is raised to create a complete part.

Once the print is completed the operator removes the build platform from the printer and the printed part is detached from the build platform.

3 Description

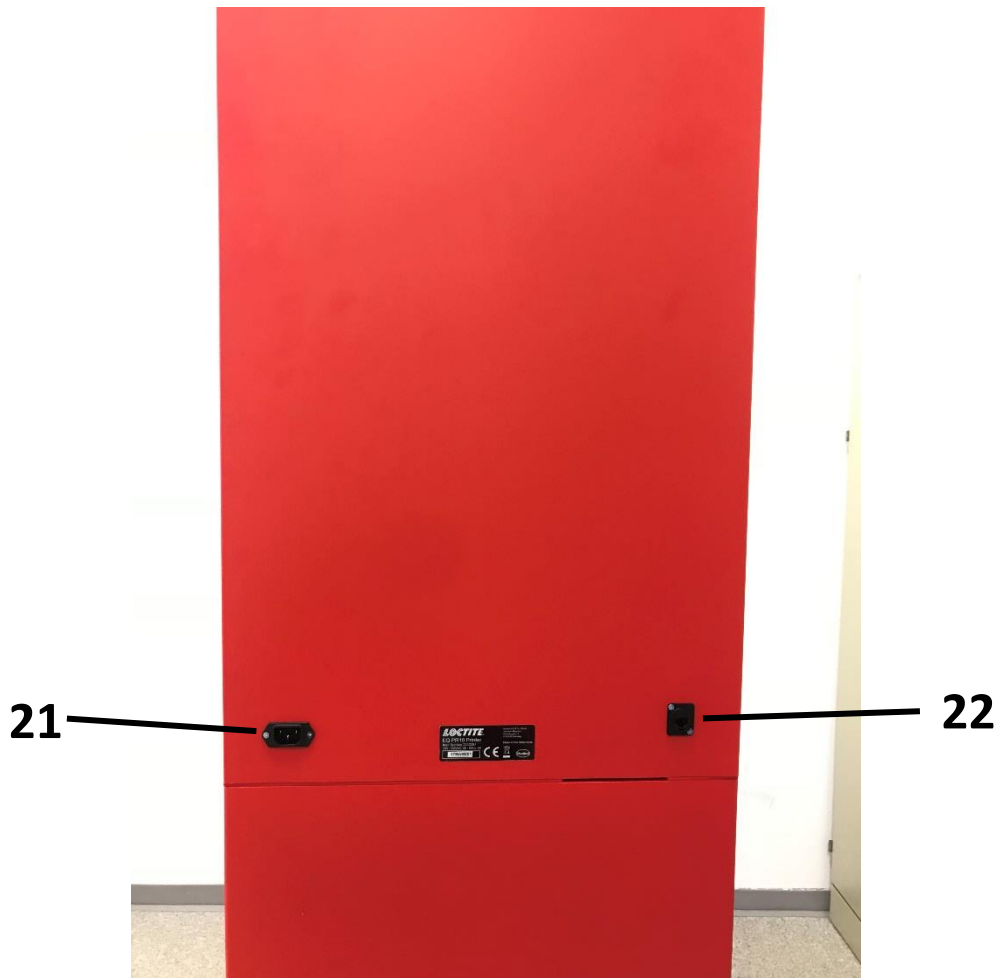
3.2 Machine Overview



- 1 Protective Cover (UV blocking)
- 2 Build Platform
- 3 Resin Basin
- 4 Touch Screen
- 5 On/Off Switch – located on the underside of the touch screen.
- 6 DLP Projector Housing
- 7 Storage Cabinet
- 8 USB Connection – located on the right-hand side of the touch screen.

3.3

Machine Connections



- 21 Power Connector
- 22 Ethernet Connector

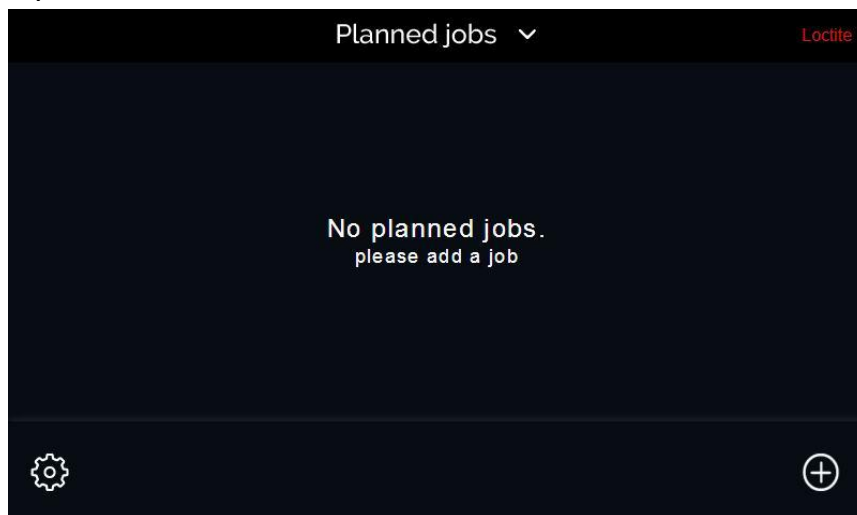
3 Description

3.4 Touchscreen Menus

3.4.1 Menu Overview

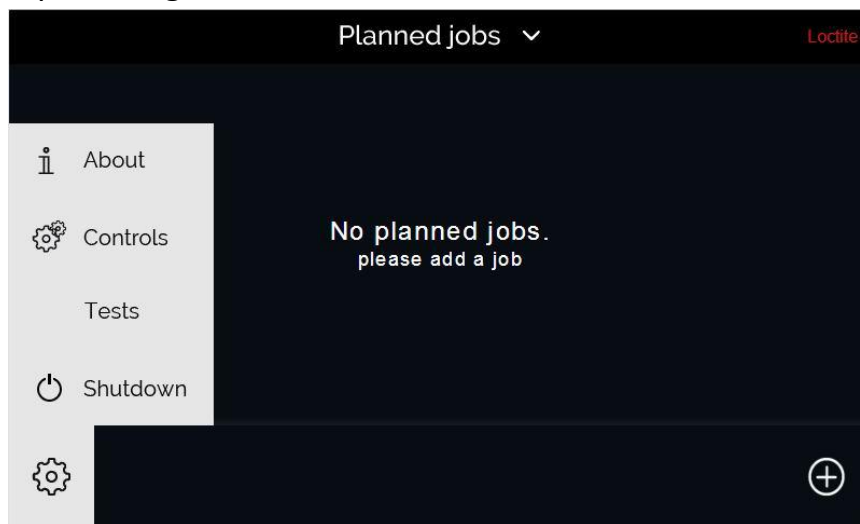
Menus include text, making them largely self-explanatory. The most important points are described in the following.

Menu Group: Home Screen – No Planned Jobs



From this screen you can add print jobs, by pressing the 'plus' icon. You can also open the settings menu by pressing the 'gear' icon.

Menu Group: Settings Menu



The settings menu is accessed by pressing the 'gear' icon on the home screen. This menu allows you to access other screens which contain the following information:

ABOUT: Firmware for both the printer and the touchscreen. Print Information including number of items printed and total number of layers. Network information including Hostname and LAN information.

CONTROLS: Manually move the build platform up and down. Manually turn the projector on and off.

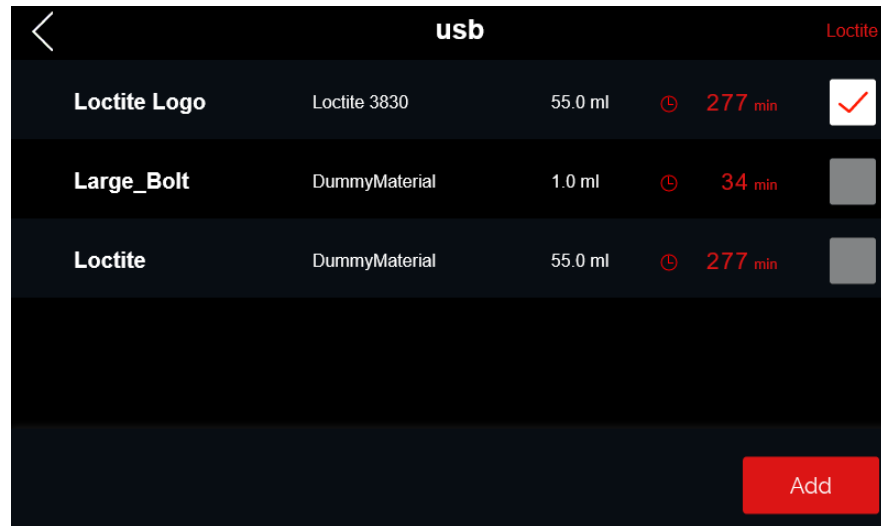
TESTS: Run a diagnostics test, or run a resin test

SHUTDOWN: Shuts down the system.



Always shutdown the system using the 'Shutdown' button. Do not just switch off using the On/Off switch as the integrated file systems could get damaged.

Menu Group: Add a Print

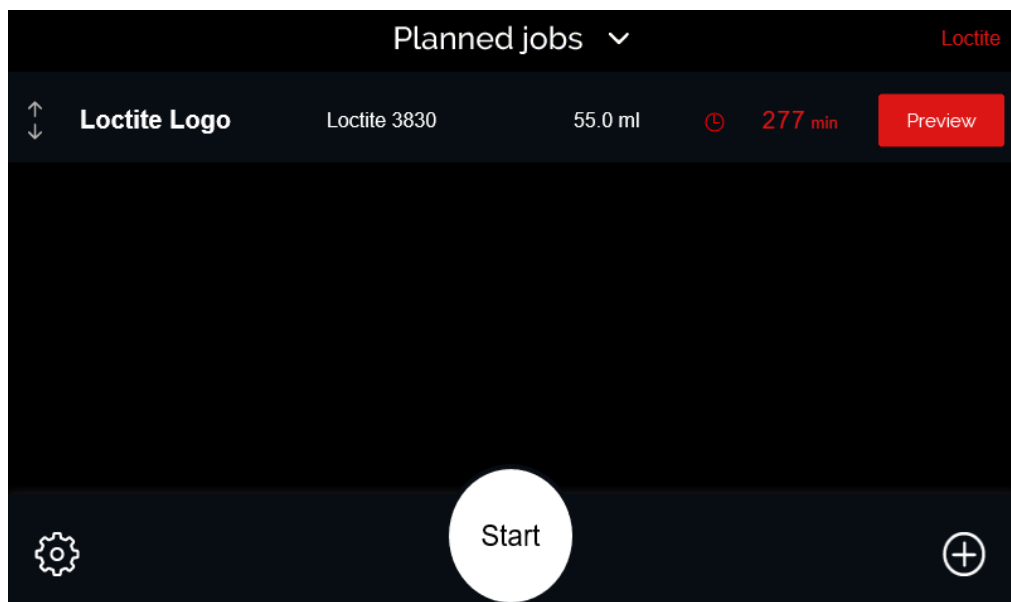


This menu is accessed by pressing the 'plus' icon on the home screen. From this menu you can select a print job for printing from a USB flash drive.

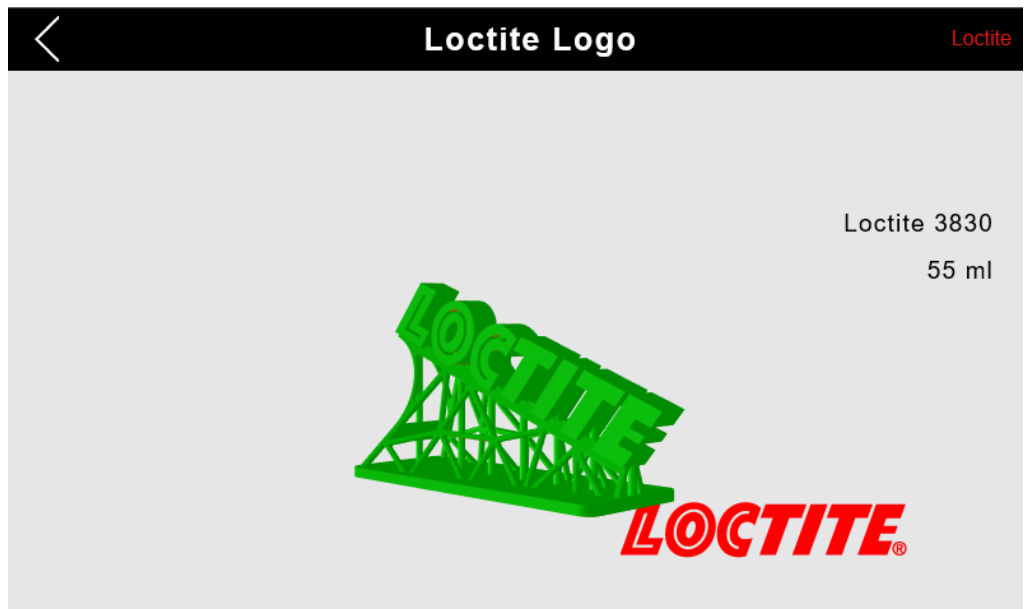
This displays each available print job on the USB flash drive and the corresponding approximate print times and the volume of resin required to print.

Print jobs are selected by pressing the 'tick' on the right-hand side, and then pressing the 'Add' button. Several print jobs can be copied at once on the printer.

Menu Group: Home Screen – Print Job Selected



Once a print job has been added it will display on the home screen. You can preview a 3D model of the print by pressing the 'Preview' button.



The job can be deleted by swiping left on the 'Planned Jobs' screen.
To begin printing press the 'Start' button.

4 Installation

4.1 Environmental and Operating Conditions

- Do not place in direct sunlight
- Do not place close to a heat source
- Recommended operating temperature range: 17° C to 27°C (63°F to 61°F)
- Ensure the printer is on stable, level ground.



The optimal operating temperature is 22° C (71°F)

4.2 Levelling the Printer

Before use it is required to ensure the printer is level in order to get accurate print results. Use a spirit level as an aid to level the printer by adjusting the feet on the printer. Ensure the base is bolted to the ground that the printer is bolted to the base.

4.3 Connecting the Power Cord

Connect one of the supplied power cords to the appropriate supply and connector (21).

4.4 Remove the Projector Protective Cap

The projector is shipped with the projector cap in place. This must be removed before use. It is possible to remove the cap by reaching inside the print station from above. If a safety basin should be preinstalled this has to be removed temporarily to access the cap. See 4.7



4.5 Assembling the Build Platform

The build platform comes pre-assembled but must be aligned to the resin tray, see section 4.10

4.6

Assembling the Basins

If the tilt blocks are not yet preassembled on the basins, the safety basin (white silicone used to bond the glass to frame) and the resin basins (black silicone used to bond glass to frame) must be assembled prior to use.

To assemble the basin:

1. Unpack the box containing the basin, tilt blocks, screws and pins.
2. Lift the basin from the box by holding the aluminum rim and place it down on a clean paper towel.
3. Screw the tilt blocks into the frame of the basin. Position the holes in the tilt blocks towards the back of the basin.



The basins are identifiable by the color of the anodization.

The clear anodization indicates it is a resin basin and has a PTFE coating.

The black anodization indicates it is a safety basin, with no PTFE Coating.

DO NOT INTERCHANGE THE BASINS.

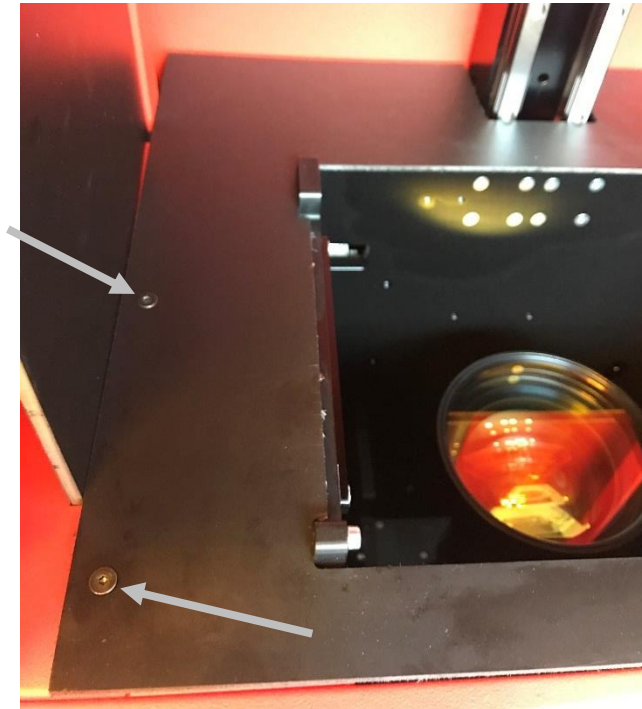


- Do not drop the box containing the basin.
- Do not drop the basin.
- Never touch the inside of the basin with your bare hands.
- Never touch the bottom of the basin with sharp or pointed objects.
- Do not place the basin with the glass flat on a surface. Always place it upside down or on a clean paper towel.
- Do not rub the bottom of the resin basin to clean it.

4.7

Installing the Safety Basin

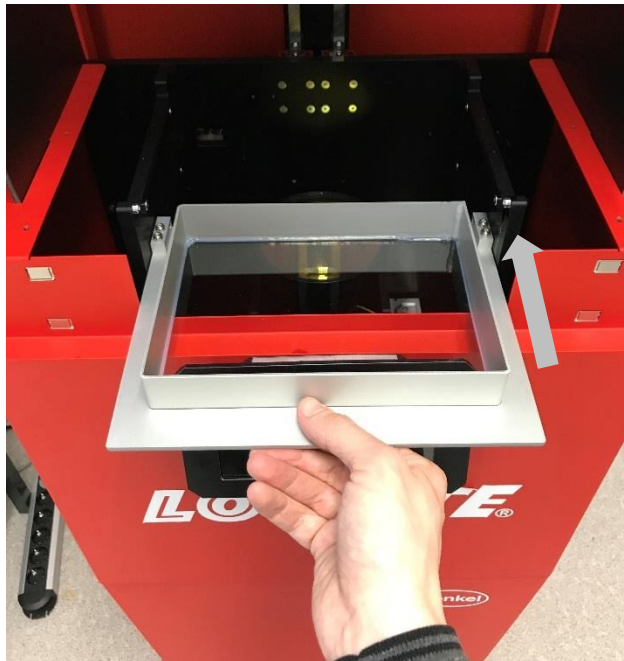
1. Remove the base plate of the printer by removing the four screws holding it in place.



2. Remove the front panel of the printer housing. This is magnetically held in place.



3. Carefully pick up the safety basin (white silicone), holding it gently by the frame.
4. Slide the safety basin into position above the projector, with the tilt blocks facing the rear of the printer.



5. Insert the pins through the tilt block to hold the safety basin in position. Ensure the rings are on the outside.



It is important the pins are inserted with the rings on the outside as shown below. Failure to do so could result in the inability to remove the pins.

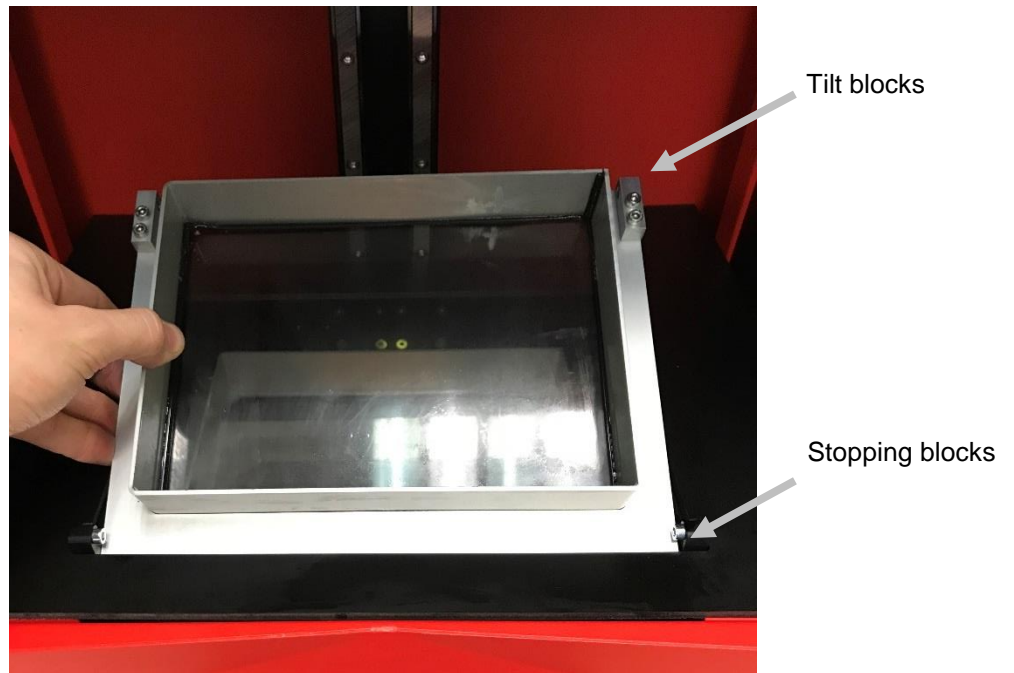


6. Replace the front panel.
7. Re-attach the base plate and secure into position with screws.

4.8

Installing the Resin Basin

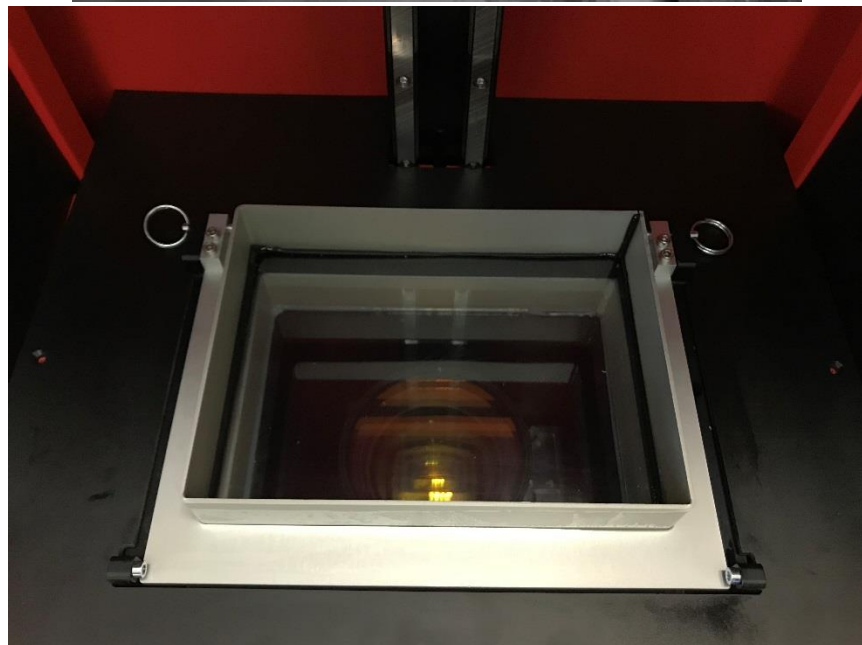
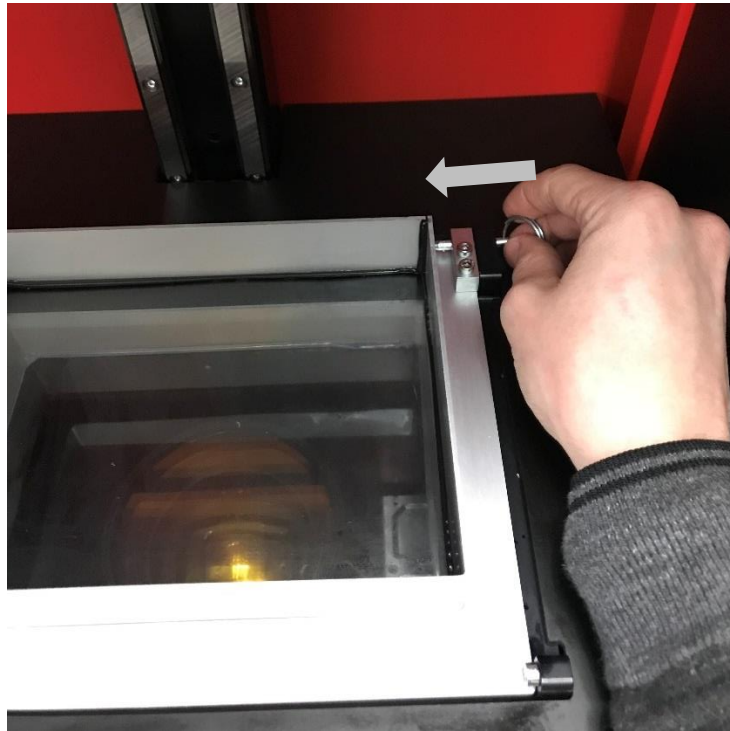
1. Ensure the build platform carriage (Z-axis) is in the top position. - this can be done by entering the 'Controls' screen from the settings menu and pressing the platform 'Up' button."
2. Check the correct basin is being installed – black silicone to indicate PTFE coating.
3. Pick up the basin, holding it by the aluminum frame
4. Move the basin into position above the projection hole, with the tilt blocks positioned towards the rear of the printer.
5. Tilt the basin downwards at the front and move into position under the stopping blocks.



6. Lower the basin so it is horizontal and resting in position.
7. Align the holes on the tilt blocks with the holes in the frame.
8. Insert the pins to hold the basin in place. Ensure the rings on the pins are on the outside.



It is important the pins are inserted with the rings on the outside, as shown below. Failure to do so could result in the inability to remove the pins.



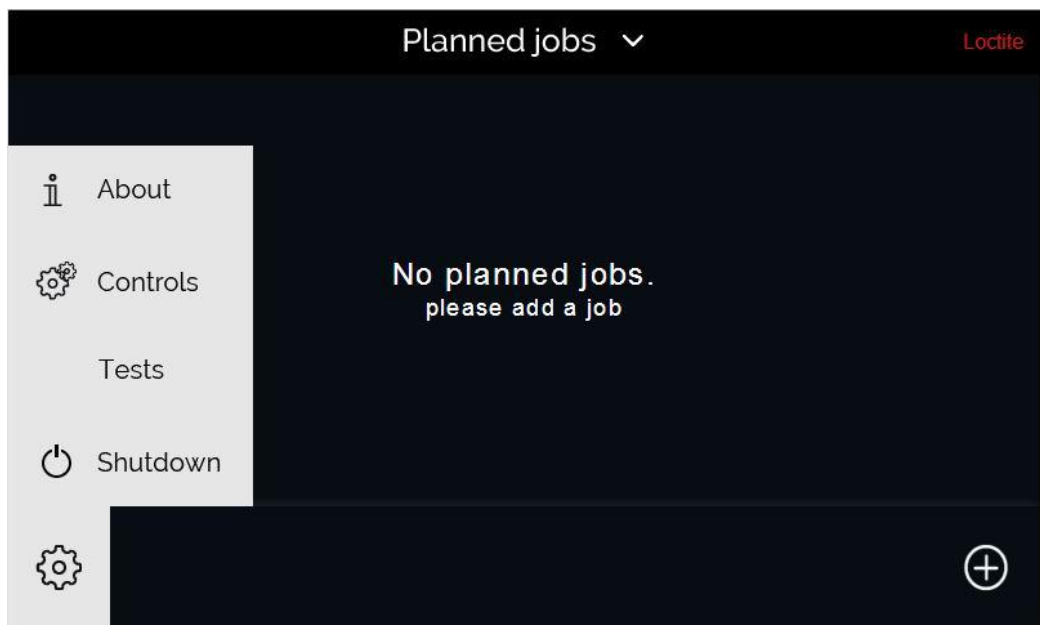
4.9

Run Diagnostics Check

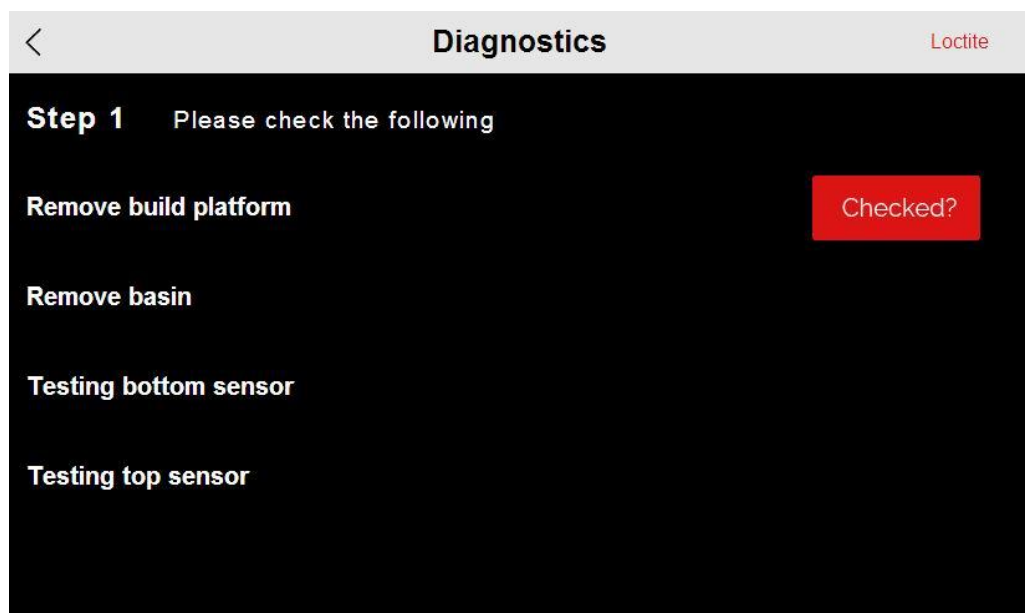
The diagnostics check is a built-in function which tests the different functionalities of the printer, including the projector and z-axis motor. Ensure a USB flash drive is connected prior to running the diagnostic checks.

To carry out the diagnostics check:

1. Power on the printer using the on/off switch located on the underside of the touchscreen.
2. Wait for the printer to boot up.
3. Open the settings menu from the home screen by pressing the 'gear' button.
4. Select 'Tests'



5. Select 'Diagnostics'
6. Complete the checklist as directed on the touchscreen. Press the 'Checked?' button to confirm each action.



7. The diagnostic checks finish with a test print. During the test print the Z axis carriage lowers to the basin and gradually travels upwards, while the projector flashes the Loctite logo
8. Once this has completed press 'Done' to finish.



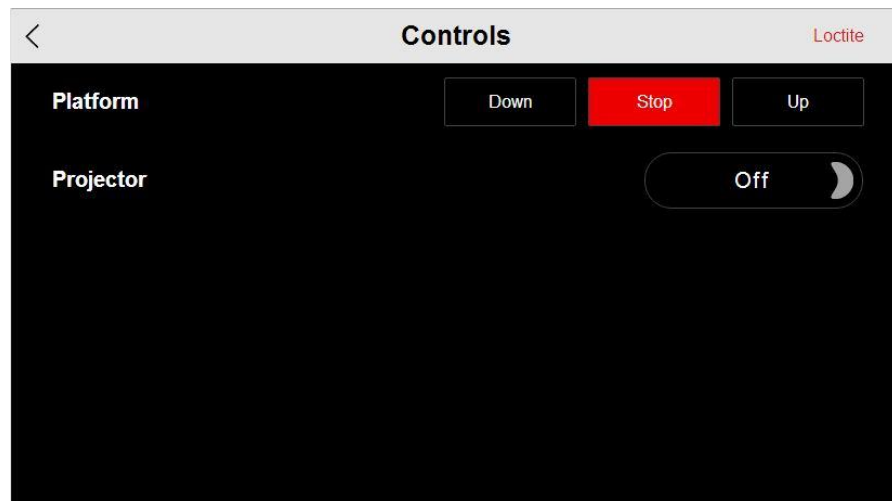
Always wear UV blocking safety glasses when the projector is on



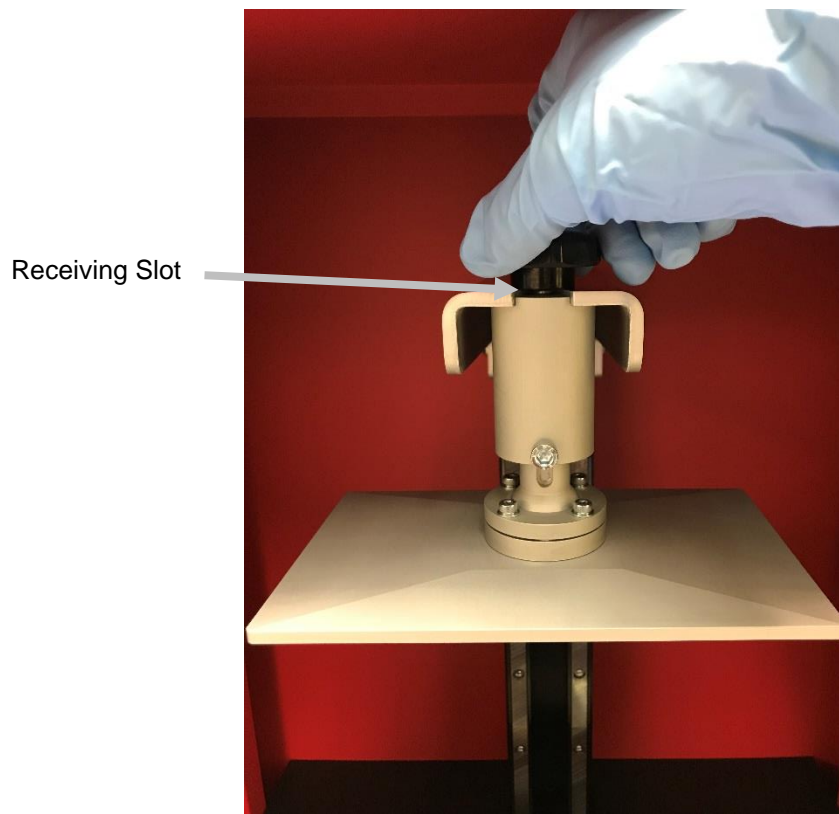
Please note the z axis carriage will move up and down and the projector will turn on during the diagnostics checks.

4.10 Positioning the Build Platform

1. Move the z axis carriage to the top position - this is done by entering the 'Controls' screen from the settings menu and pressing the platform 'Up' button.



2. Set the build platform so that the groove is matching the receiving slot.
3. Ensure it is facing the correct direction and push into position.
4. Screw the manual top screw down and tighten into position.



5. The assembly is now in position. With one hand, raise the build platform up to the top position and tighten the front facing allen key screw. Do not tighten the build platform in the extended position, it must be at minimum extension for the calibration of the print tray that follows.



4.11

Aligning the Build Platform

To produce accurate prints, the build platform needs to be aligned with the basin.

To align the build platform:

1. Ensure that the build platform and basin are clean.
2. Move the build platform the top position – this is done by entering the 'Controls' screen from the settings menu.
3. Loosen the 4 screws holding the ball joint so the build platform can freely move in an angular direction.



4. Lower the build platform into the lowest position - this is done by entering the 'Controls' screen from the settings menu. By pressing the 'down' button for three seconds the build platform will automatically lower to the low limit position and stop.
5. Slowly loosen the set screw on the front of the build platform while holding the platform to stop it from dropping.



6. Move the build platform so that it lies flat and is squarely aligned with the basin. Hold the build platform with light (gentle) pressure inside the basin and tighten the set screw on the front of the build platform to fix the vertical movement of the build platform.



Be careful not to apply much pressure as this will cause Z axis misalignment.

7. Finally tighten the small Allen screws evenly around the ball joint parallel plates. The tray and build platform are now paired and ready for printing. Check that they are aligned on all corners and there is no rocking movement possible.



A tray must be paired to the build platform that it will be used with. This is a procedure that must be completed each time a new tray or build platform is used.

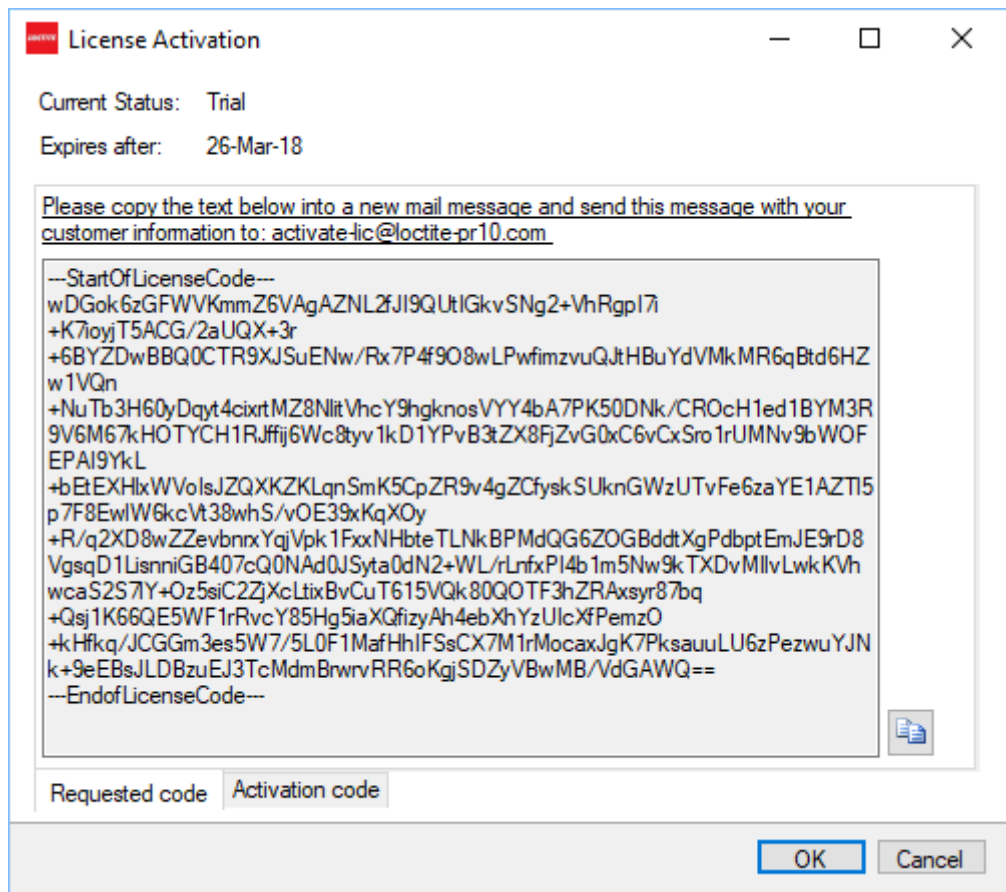
5 Loctite Operator Station PC Software

The Loctite Operator Station PC software is used to create print job files to be used for downloading to your Loctite PR10.1 Printer.

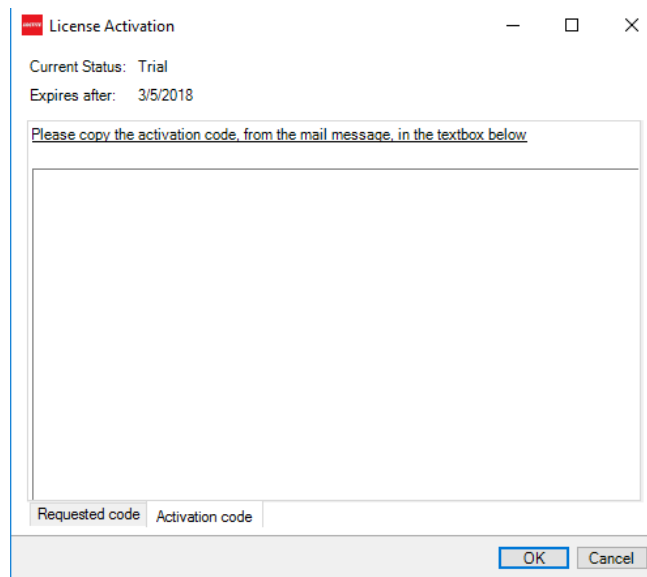
5.1 Installing the Software

To install the Loctite Operator Station PC software on a computer, follow the steps below: The computer requires a Windows 10 operating system.

1. Insert the supplied USB flash drive into your computer
2. Navigate to the USB flash drive
3. Open 'Setup.exe'
4. Follow the on-screen instructions on the installation wizard.
5. You will be prompted to request a license activation key to complete the installation. To do this copy the text in the box and email it to activate-lic@loctite-pr10.com



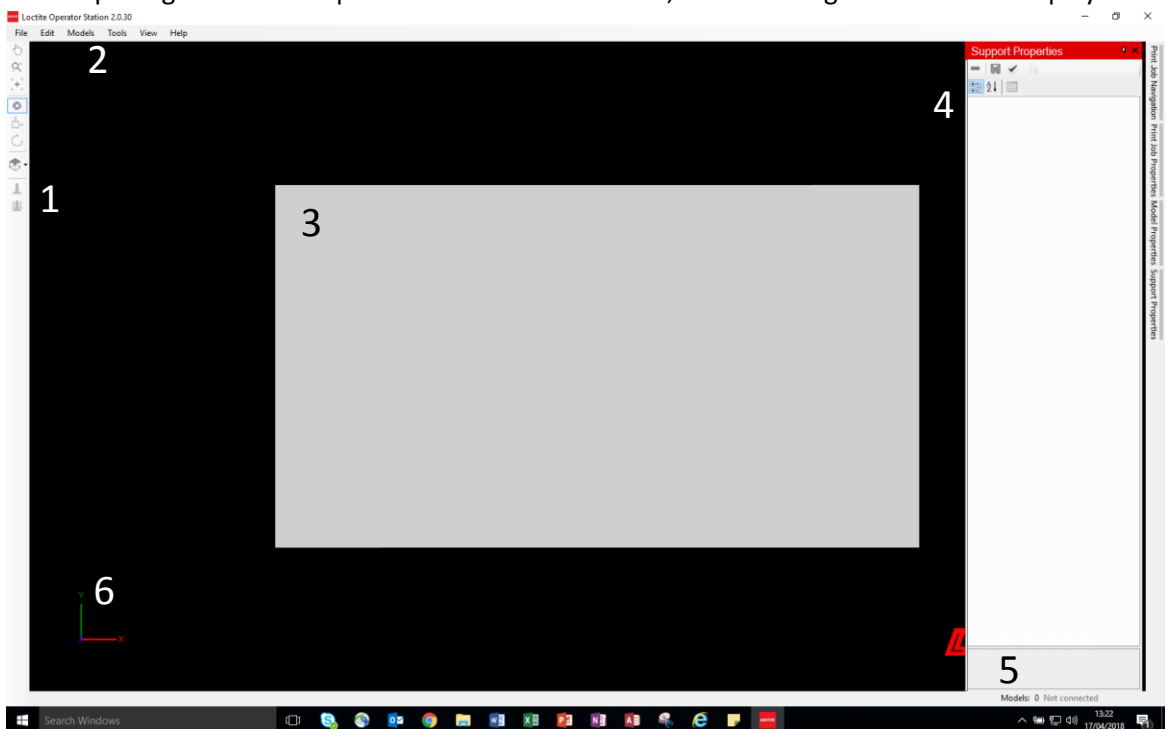
6. You will receive an email reply which will contain the activation code. Click on the 'Activation Code' tab at the bottom of this popup and copy the activation code into the box. Then press 'OK'



7. After installation it is possible to open the software. This will be found in the Programs menu on your computer.

5.2 Main Screen

After opening the Loctite Operator Station PC software, the following screen will be displayed.












1. Action bar
2. Menu bar
3. Work area
4. Property panels
5. Total number of models
6. XYZ orientation

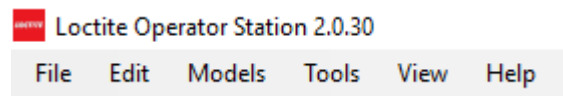
5.2.1 Action Bar

Use the action bar to perform actions in the work area.

Below is an explanation of all the icons and their application.

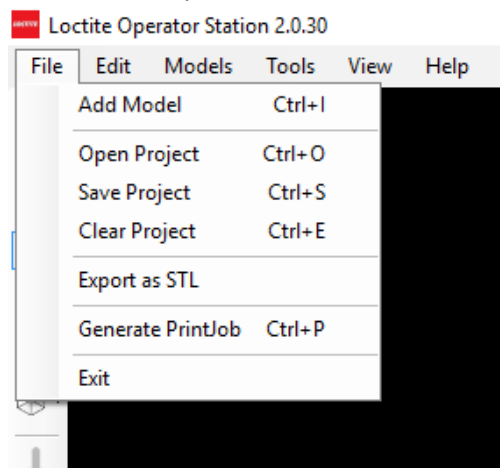
	Pan (shortcut: P)	In this mode click the left mouse button and move the mouse to pan the view in the direction of mouse movement
	Zoom	In this mode, click the left mouse button and move the mouse to zoom in and out
	Orbit (shortcut: O)	In this mode, click the left mouse button and move the mouse to orbit the view around the work area
	Select Item (shortcut: S)	In this mode, click the left mouse button to select a model in the work area for editing model properties and adding supports to your model.
	Move Item (Shortcut: M)	In this mode, click the left mouse button to select a model in the work area to move it in the X and Y and Z directions. Hold down the left mouse button to move the model to the desired location on the build platform. You can also enter a value for movement in the pop up box.
	Rotate Item (shortcut: R)	In this mode, click the left mouse button to select a model in the work area for rotating it in the X and Y and Z directions. You can also enter a value for rotation in the pop up box.
	Change Camera View	In this mode, click the left mouse button and move the mouse to change the camera view of the model.
	Add Manual Support	In this mode, click the left mouse button and move the mouse to add single support cones
	Add Grid Support	In this mode, click the left mouse button to add grid support cones.

5.2.2 Menu Bar



5.2.2.1 File Menu

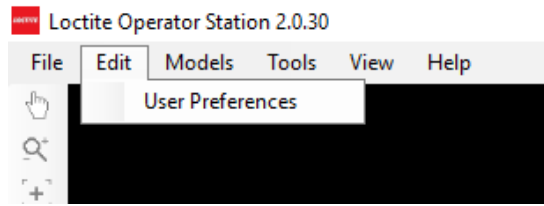
When opening the File menu, the below options are shown:



Add Model	Add a model to the project
Open Project	Open a recent project file
Save Project	Save the work area to project file
Clear Project	Clear all models in the work area
Export as STL	Export all models in the work area as an STL
Generate Print Job	Create the print job. When finished, the print view dialogue box appears
Exit	Exit Loctite Operator Station PC Software.

5.2.2.2 Edit Menu

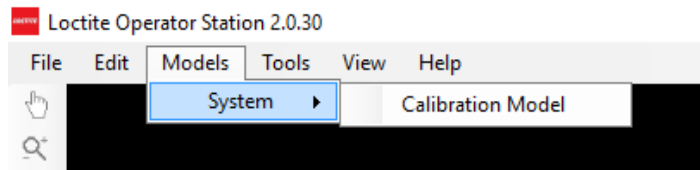
When opening the Edit menu, the below options are shown:



User Preferences	Display and selection options
------------------	-------------------------------

5.2.2.3 Models Menu

When opening the Models menu, the below options are shown:



Calibration Model	Add the default calibration model to the work area.
-------------------	---

5.2.2.4 Tools Menu

When opening the Tools menu, the below options are shown:

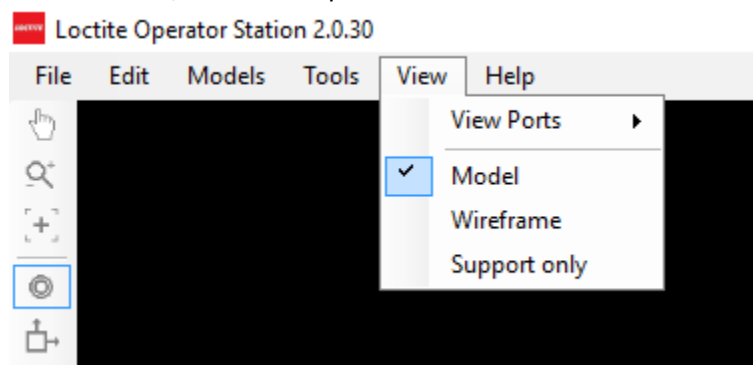


Material Manager	Open the Material Manager
------------------	---------------------------

Printer Manager	Open the Printer Manager
-----------------	--------------------------

5.2.2.5 View Menu

When opening the View menu, the below options are shown:



View Ports > Annotations	When selected, different viewpoints can be chosen
--------------------------	---

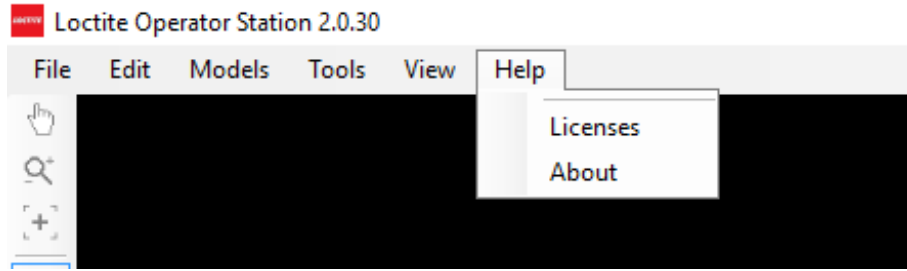
Model	View the model as a solid
-------	---------------------------

Wireframe	View the model as a wire frame
-----------	--------------------------------

Support Only	View the support cone(s) only
--------------	-------------------------------

5.2.2.6 Help Menu

When opening the Help menu, the below options are shown:



Licenses	View license information
About	View version information of Loctite Operator Station Software

5.2.3 Work Area

The work area is a 3D environment in which the print job is displayed. You can use the work area for the following functions:

- Align models on the build platform
- Clone models
- Add, modify or remove support cones.

5.2.4 Property Panels

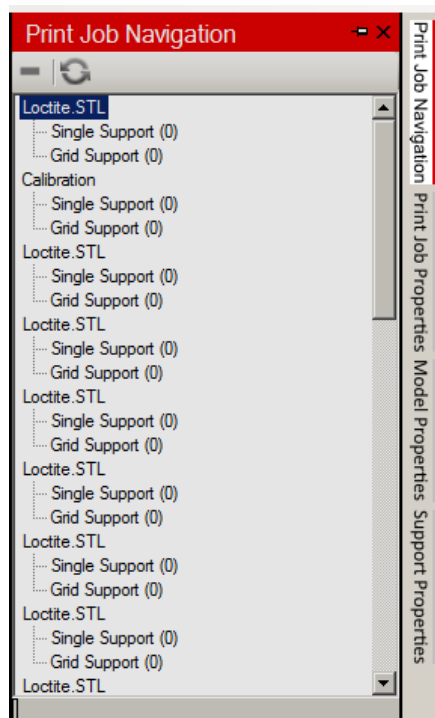
There are four property panels:



- Print job navigation
- Print Job properties
- Model properties
- Support properties

These are located on the right hand side of the home page and are accessed by clicking on them. The following sections describe the panels and their function.

5.2.4.1 Print Job Navigation

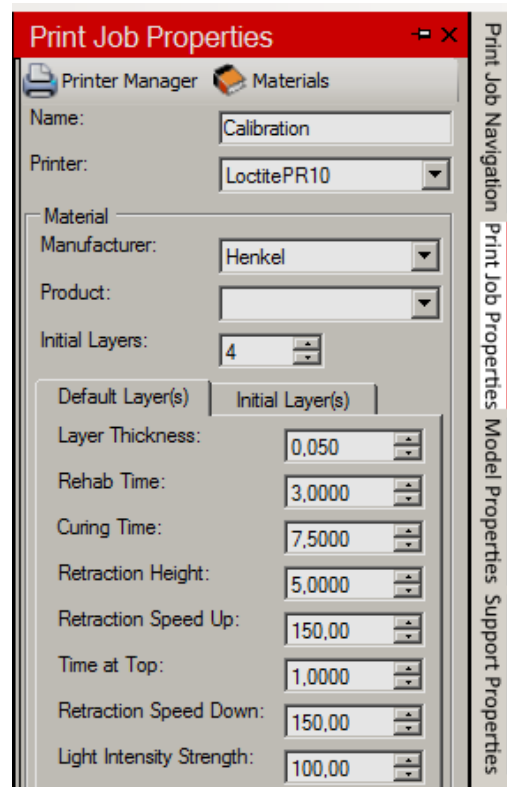
This panel allows you to navigate single supports and grid supports.



	Remove	Remove the print job navigation pane
	Refresh	Refresh the print job navigation pane
Single Support	Navigate the single support to find the best position to support the model	
Grid Support	Navigate the grid support to find the best position to support the model	

5.2.4.2 Print Job Properties

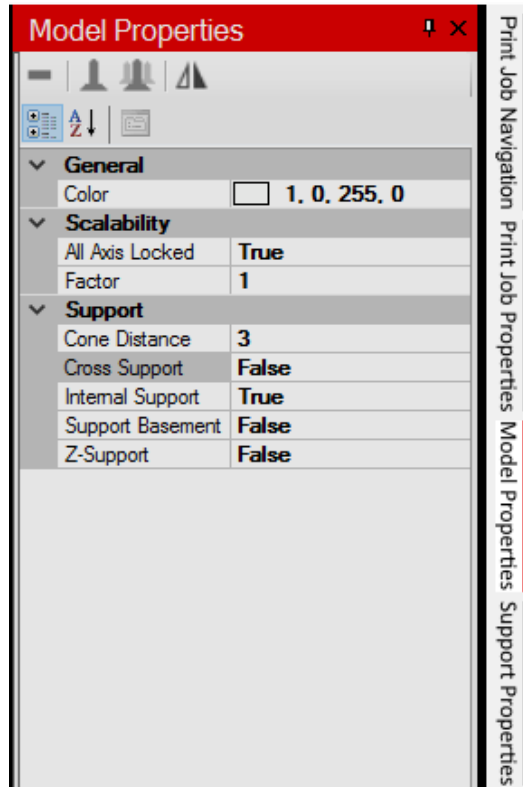
This panel gives you access to the printer manager and the resin material database. The material profile of the selected resin is displayed. The material profile shows pre-determined print parameters suitable for the selected resin. It may be required to change these parameters to optimise your build depending on the geometry of the printed part.










Printer Manager	Manage the available printers
Materials	Manage the available materials
Name	The print job name that will be displayed on the printer
Manufacturer	Select the manufacturer of the resin that will be used for the print job
Product	Select the resin product that will be used for the print job.
Initial Layers	Number of initial layers. The initial layers are used to bond the print job to the build platform.
Layer Thickness	The layer thickness (mm)
Rehab Time	The dwell time to allow the resin to level (seconds)
Curing Time	The cure time for each layer (seconds)
Retraction Height	The retraction distance required to release the layer from the basin (mm)
Retraction Speed Up	The speed that the build platform moves up (mm/s)
Time at Top	The dwell time to allow the material to flow under the last cured layer (seconds)
Retraction Speed Down	The speed that the build platform returns back to the basin after retracting (mm/s)
Light Intensity Strength	The intensity of the projector (%)

5.2.4.3 Model Properties

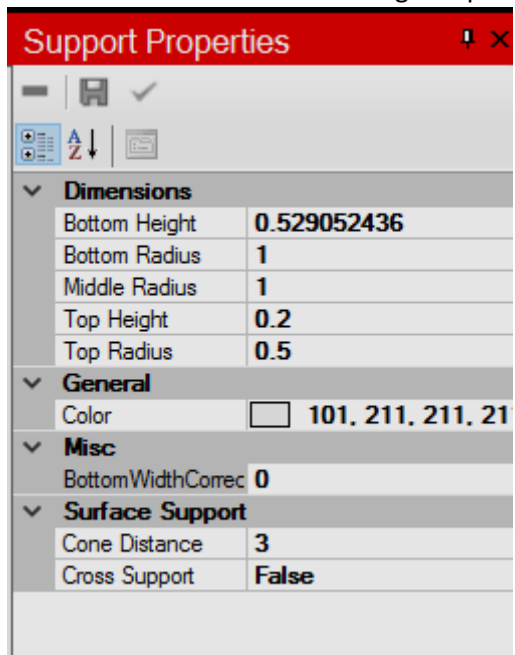
This panel gives you access to different functions and properties for modelling a print.









	Remove	Remove the model from the work area
	Support	Add manual support
	Grid Support	Add grid support
	Mirror	Mirror selected model
	Categorised	Categorise the models
	Alphabetical	Place the models in alphabetical order
	Properties Window	Show the properties of the models
Colour		<p>Change the colour of the model. The colour of the model also indicates the following:</p> <ul style="list-style-type: none"> • Red – Almost flat surface (between 175 and 185 degrees) • Orange – Small angled surface (between 150 and 210 degrees) • White – When placing a grid support a surface can turn white. The white overlay shows the area that will be filled with support cones.
All Axis Locked		When True, the model will be scaled by the same factor in all axis.
Factor		The scaling factor
Cone Distance		The distance between the grid support cones (mm)
Cross Support		Place the grid support in a square or as a cross grid
Internal Support		Generate support cone(s) that do not touch the build platform
Support Basement		Add a support basement. A support basement makes the model easier to release
Z – Support		Generate support cone(s) on the lowest points of the model.

5.2.4.4 Support Properties

This panel gives you access to different functions for creating and placing support cones.



	Remove	Remove the support cone from the work area
	Save	Save the support properties as the default properties. When new support cone(s) are added to the model, these settings will be used.
	Apply	Apply these support properties to the support cones
	Categorised	Categorise the support cones
	Alphabetical	Place the support cones in alphabetical order
	Properties window	Show the properties of the support cones
Bottom Height		Height of the bottom cone structure
Bottom Radius		Radius of the bottom of the cone structure
Middle Radius		Radius of the middle of the cone structure
Top Height		Height of the top of the cone structure
Top Radius		Radius of the top of the cone structure
Total Height		Total height of the support cone
Colour		<ul style="list-style-type: none"> • Grey – Non-selected support cone(s) • Selected/Highlighted single support cone • Selected grid support cone(s)
Bottom Width Correction		
Cone Distance		Gap between support cones in a grid support
Cross Support		Enable/Disable cross support

5.2.5 Total Number of Models

This shows the number of models in the work area.

5.2.6 XYZ Orientation

The XYZ orientation helps determine which axis to use when manipulating a model.

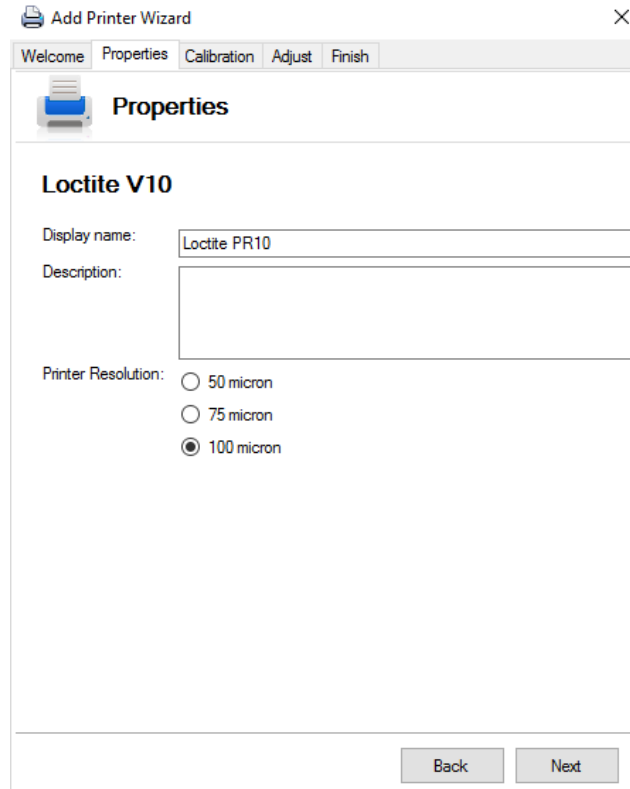
5.3

Adding a Printer to the Loctite Operator Station PC Software

Before creating a print job, the new printer needs to be added to the software.

To do this follow the below instructions:

1. Open Loctite Operator Station Software
2. Select **Tools > Managers > Printer Manager > Add**
3. Follow the instructions on the **Printer Connection Wizard**. Set the printer resolution to 100 micron.



4. Select '**next**' and follow the calibration instructions in section 6

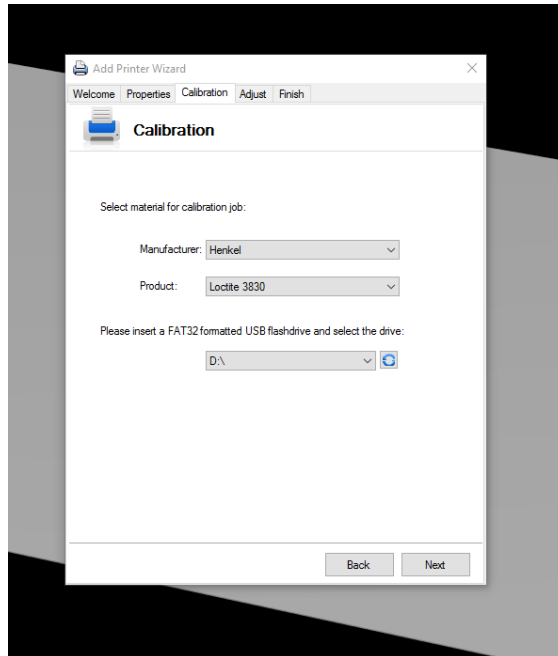
6 Calibration

Before the printer can be used for production it must be calibrated to ensure accurate prints.

6.1 Creating a Calibration Print

Follow the steps below to create a calibration print:

1. Following adding a printer as described in section 5.3, the following screen will be visible.



2. Select a resin for the calibration print
3. Insert a USB flash drive
4. Select the USB flash drive as 'Drive'
5. Select 'Next'

The calibration print will be saved to the USB flash drive. Leave the calibration window on the software open.

6.2 Printing a Calibration Print

Once the print job has been saved onto a USB flash drive it is ready for printing.

Before printing ensure the printer is prepared. See section 7.2 Preparation Before Printing

1. Insert the USB flash drive into the printer
2. Select the print job from the Add a Print Menu on the touchscreen.
3. Ensure there is enough resin in the basin.



Always wear gloves and safety glasses when handling resin or IPA



A minimum resin volume of 100ml is recommended for any print

4. Close the protective cover.
5. Select 'Print'. The print job will start.

The remaining print time will be displayed on the touchscreen.

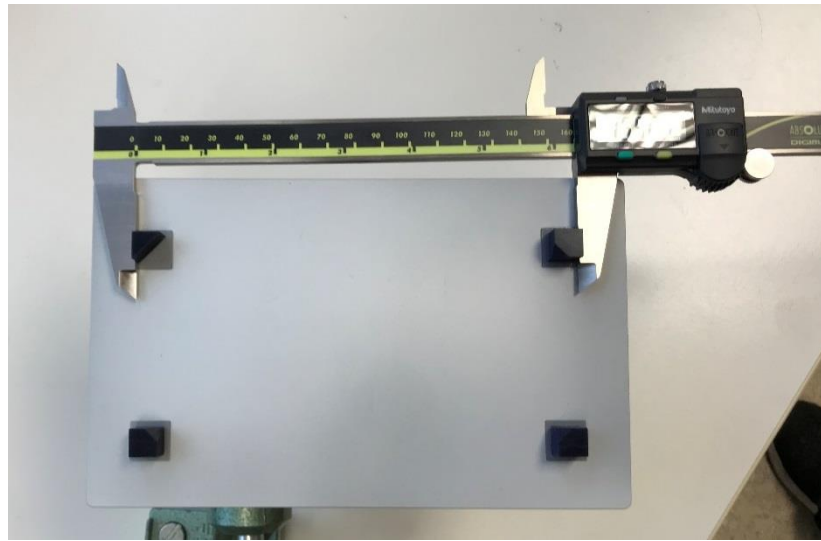
6.3

Measuring the Calibration Values

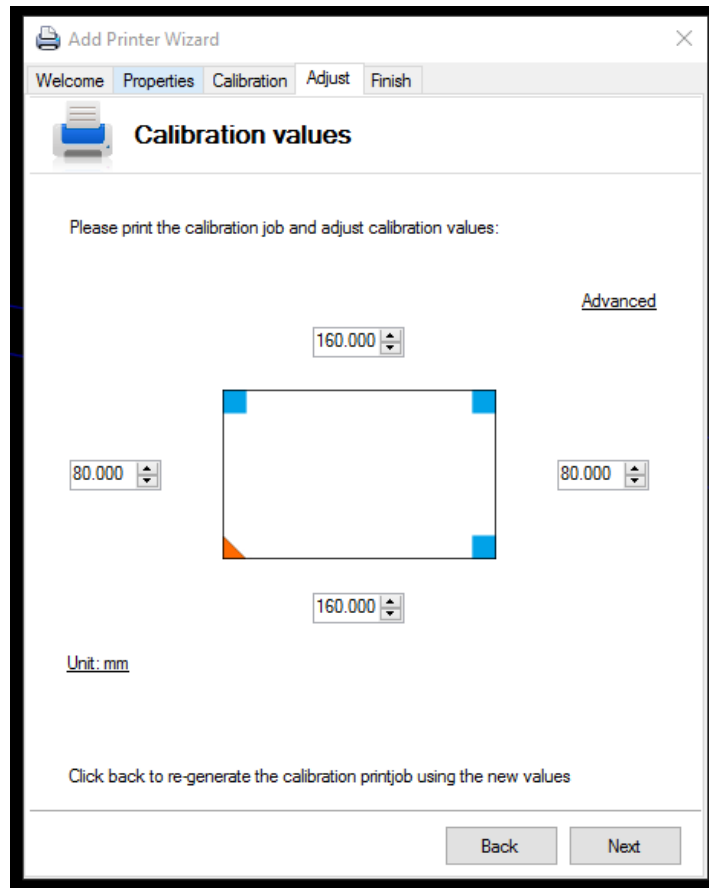
When the print job has finished, the build platform is removed and the distance between the printed columns is measured.

For how to remove the build platform see section 7.3 Removing the Build

Ensure the build platform is free of resin and the operator is wearing the correct PPE.



1. Record the 4 measurements between the blocks.
2. Enter these measurements in the software.



3. Select 'back' to regenerate the calibration print using the new values. Repeat the previous steps.



Carry out this procedure 3 times to fully calibrate the printer. Or once the measured values are $160 \pm 0.2 \text{ mm}$ and $80 \pm 0.2 \text{ mm}$



Ensure the previous build is removed from the build platform before creating another print. For information how to do this see section 7.3 Removing the Build

7 Operation

Once the printer has been calibrated it is possible use the printer for production.

7.1 Creating a Print Job

1. Add a model(s) to the work area (the *.stl model file size can be limited depending on the PC hardware or memory availability. The max. recommended filesize is 40MB. Position the model(s) as required
2. Select the appropriate **Print Job Properties**
3. Select the appropriate **Model Properties**
4. Select the appropriate **Support Properties**
5. Select 'Generate Print Job'. This will show a preview of the print. It is recommended to use preview to view each layer of the print and check it looks OK.
6. Save the print to a USB flash drive

7.2 Preparation before Printing

Before printing the following checks should be made:

1. Ensure the basin and build platform have been installed and aligned correctly.
2. Ensure the printer has been calibrated
3. Check the basin is not damaged and that it is clean
4. Check the build platform is not damaged and that it is clean

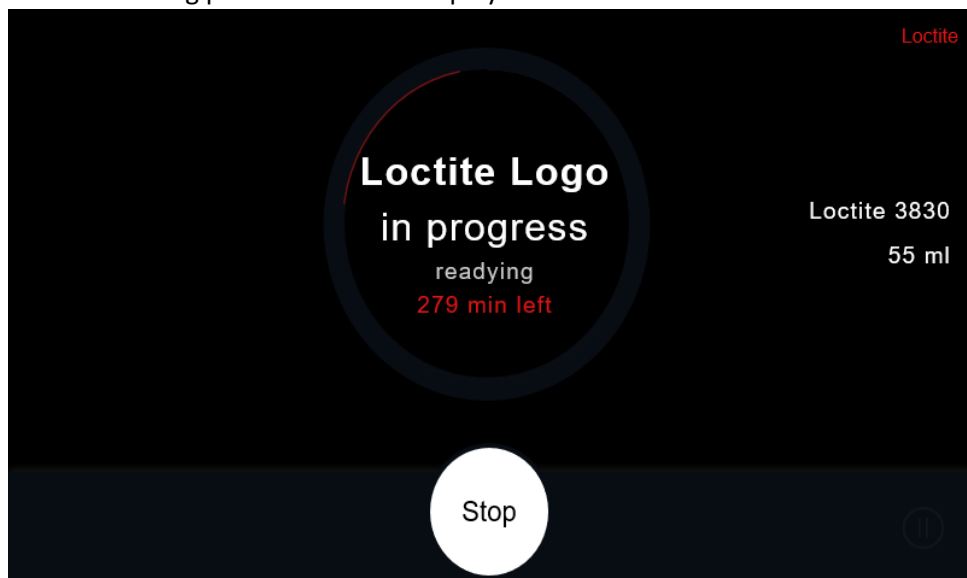
7.3 Printing

1. Insert the USB flash drive to the printer
2. Select the job you wish to print.
3. Preview the model to ensure it is correct.
4. Shake the resin before adding it to the basin
5. Add the resin to the basin. Ensure enough resin has been added to complete the build.

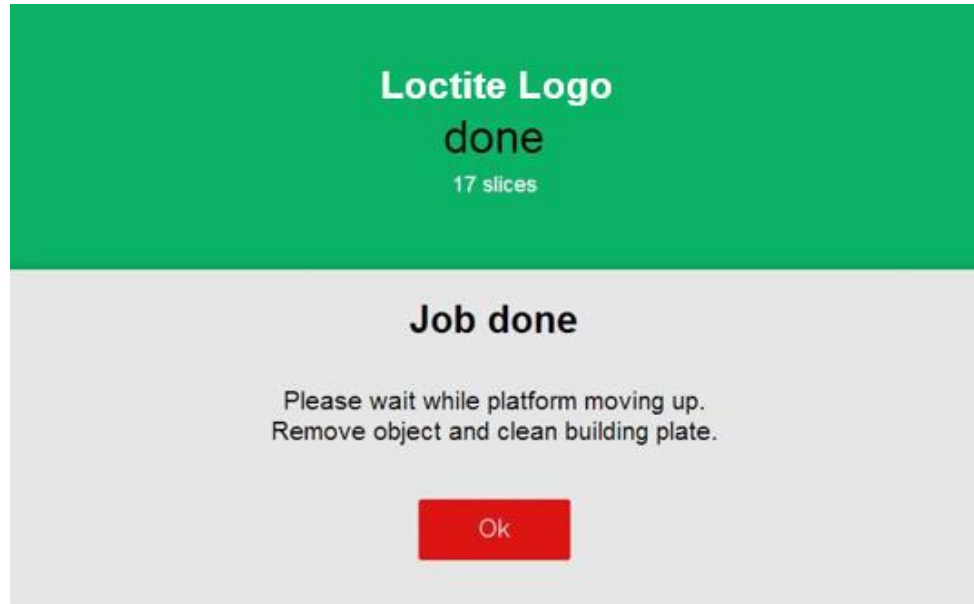


**The minimum recommended resin volume is 100ml.
Take care when adding the resin to ensure the printer area is kept clean.**

6. Close the protective cover
7. Start the print
8. The remaining print time will be displayed on the touch screen.



9. Once the print is completed, this will be displayed on the touch screen and the build platform will return to the up position.

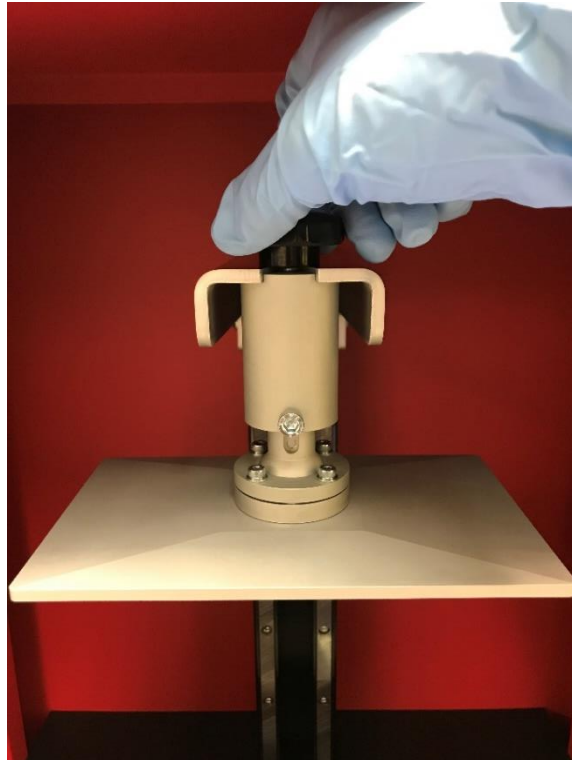


Always wear UV blocking safety glasses when the projector is on

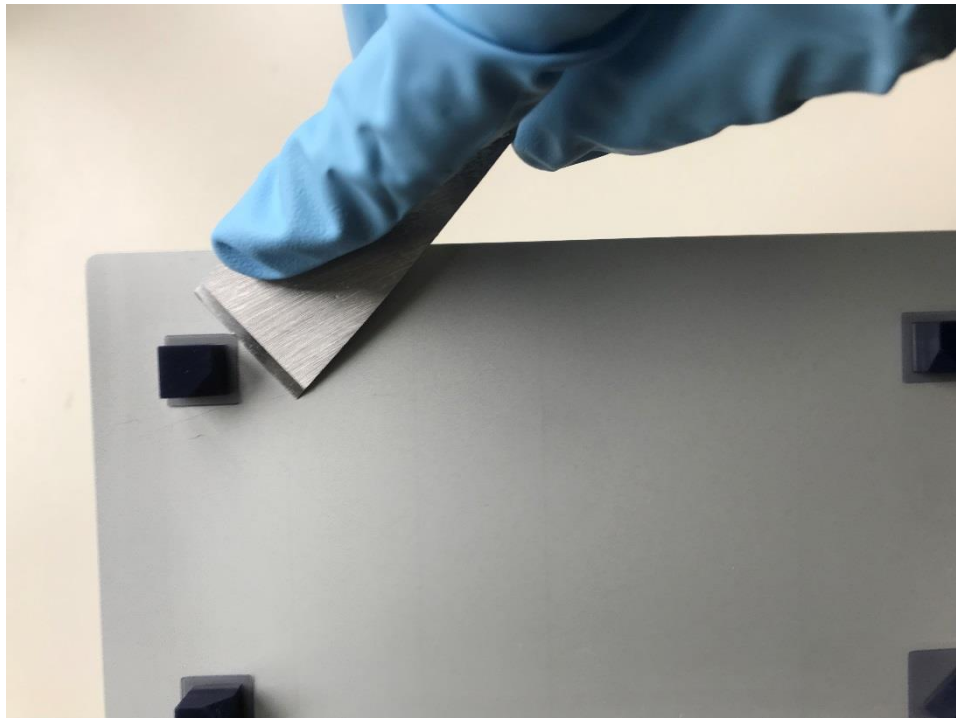
7.4

Removing the Build

1. Ensure the build platform is in the up position.
2. Allow the excess resin to drip into the basin.
3. Unscrew the black knob and slide the build platform out



4. Wipe the build platform carefully with a paper towel so the excess resin does not drop on the printer
5. Place the build platform on a flat surface.
6. Use the included sharp metal scraper to slide under the model and remove it from the build platform.



Be careful when using the scraper as not to slip and injure yourself



Take care when using the scraper so you do not damage the build platform. Ensure the scraper is used with the beveled face upwards.

7.5 Cleaning the Build Platform

1. Wipe any excess resin away with a paper towel
2. Use the supplied plastic scraper to remove any cured resin on the build platform.
3. Wipe the build platform with a paper towel
4. Wet the build platform with Isopropanol Alcohol (IPA)
5. Use the supplied plastic scraper to scrape the build platform again
6. Wipe the build platform to remove any remaining resin.



Always wear gloves and safety glasses when handling resin or IPA

7.6 Cleaning the Basin

1. Remove the two pins holding the resin basin to the frame of the printer
2. Carefully remove the resin basin, keeping it as level as possible while doing so
3. Pour the resin back into the container using a funnel. Use a filter to remove any contamination.
4. Spray the resin basin with Isopropanol Alcohol (IPA) and gently wipe residual resin away with a paper towel.
5. Ensure the basin is clean before re-using.



Always wear gloves and safety glasses when handling resin or IPA



Do not rub the bottom of the basin to clean it. This will damage the basin. Do not place the resin bottom flat on a surface. Always place a paper towel underneath the glass.

7.7

Removing a Failed Print

If a print job has failed and resin has cured on the bottom of the resin basin, follow the instructions below to clean the basin:

1. Remove the basin from the printer
2. Carefully pour the remaining resin from the tray into a bottle
3. Soak the failed print in IPA for 5 minutes.
4. Drain the excess IPA and dry using soft tissue.
5. Put a drop of resin as close as possible to the cured resin
6. Place the resin puller on the liquid resin. Make sure the resin puller is in contact with both the liquid and the cured resin
7. Place the UV flashlight below the resin puller and shine upwards for 20 seconds



Do not look directly at the UV light, doing so could damage your eyes. Always use UV blocking safety glasses.

8. Carefully pull on the resin puller until the cured resin releases from the basin
9. Remove the resin from the resin puller and dispose of it.
10. Repeat the steps above until the basin is free of resin.



Always wear gloves and safety glasses when handling resin or IPA



Do not use the scraper to remove a failed print. Doing so will damage the basin.

8 Troubleshooting

Error	Correction
The Printer does not start	<ul style="list-style-type: none">• Connect the printer to the power supply• Switch on the Printer• Check all internal cables
The touchscreen does not work while printing	<ul style="list-style-type: none">• Wait until the print job is finished
The build platform stops, and the motor can be heard.	<ul style="list-style-type: none">• Place the spindle parallel to the linear guide of the Z-axis
The print is not successful	<ul style="list-style-type: none">• Make sure the build platform and tray are properly aligned• It is recommended to use fresh resin, if reusing resin ensure it is filtered• Make sure the correct material is selected and check the settings• When preparing the print job on the software ensure it is located on the platform/bed• Print job slicing are sometimes generated with defects coming from the file. Do a scroll through check of the slices paying attention that the image is complete.• Check level of the printer.• Many resins need to be shaken before use, make sure to agitate the resins before printing starts

If this troubleshooting table does not help to find a solution, please contact Henkel service.

9 Care and Maintenance

Below are guidelines that should be followed as best practices:

Daily

- Check the printer is clean and free of excess/spilled resin.
- Always turn off the printer using the 'Shutdown' button

Weekly

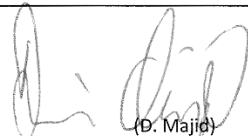
- Carry out a diagnostic check to check the functionality of all components of the printer.

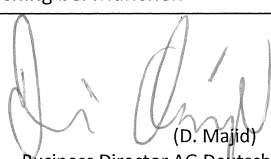
Monthly

- Inspect the build platform for any damage such as marks or scratches
- Inspect the resin basin for any damage such as marks or scratches.

10 Spare Parts and Accessories

Description	Item No.
Starter kit – Including: <ul style="list-style-type: none">• Spatula• Resin Puller• Resin Curing Flash Light• Resin Basin• Build Platform• Nitrile Gloves• Spray bottle• Funnel with filter	2312295
Build Platform	2312293
Resin Basin	2312291
EQ PR10 Starter Kit	23122 95

Declaration of Conformity	
The Manufacturer according to the EC regulations	Henkel AG & Co. KGaA Standort München Gutenbergstr. 3 D-85748 Garching bei München
declares that the unit designated in the following is, as a result of its design and construction, in accordance with the European regulations, harmonized standards and national standards listed below.	
Designation of the unit	EQ PR10.1 DLP Printer
Unit number	2416987
Applicable EC Regulations	EC Directive of Machinery 2006/42/EC EC Directive for Electro-Magnetic Compatibility 2014/30/EU EC Directive of Low Voltage 2014/35/EU EC Directive of RoHS 2011/65/EU EC Directive of WEEE 2012/19/EU
Applicable harmonized standards	EN ISO 12100:2010 EN 55032:2012/AC:2012, EN 55024:2010, EN 62368-1:2014 EN 60204-1; VDE 0113-1 EN 50581: 2010
Authorized person for technical files	Henkel AG & Co. KGaA Site Munich Gutenbergstr. 3 85748 Garching bei München Germany
Garching, 2018-09-04	 (D. Majid) Business Director AG Germany/Switzerland Site Manager Munich

Konformitätserklärung	
Der Hersteller gemäß der EU-Richtlinien	Henkel AG & Co. KGaA Standort München Gutenbergstr. 3 D-85748 Garching bei München
erklärt, dass das nachfolgend bezeichnete Gerät auf Grund seiner Konzipierung und Bauart den unten aufgeführten europäischen Richtlinien, harmonisierten Normen und nationalen Normen entspricht.	
Bezeichnung des Gerätes	EQ PR10.1 DLP Printer
Gerätenummer	2416987
Einschlägige EU-Richtlinien	EU-Maschinenrichtlinie 2006/42/EG EU-Richtlinie Elektromagnetische Verträglichkeit 2014/30/EU EU-Richtlinie Niederspannung 2014/35/EU EU-Richtlinie RoHS 2011/65/EU EU-Richtlinie WEEE 2012/19/EU
Angewandte harmonisierte Normen	EN ISO 12100:2010 EN 55032:2012/AC:2012, EN 55024:2010, EN 62368-1:2014 EN 60204-1; VDE 0113-1 EN 50581: 2010
Bevollmächtigter für die technischen Unterlagen	Henkel AG & Co. KGaA Standort München Gutenbergstr. 3 D-85748 Garching bei München
Garching, 2018-09-04	 (D. Majid) Business Director AG Deutschland/Schweiz Standortleiter München

11 Warranty

Henkel expressly warrants that all products referred to in this Instruction Manual for (Loctite® EQ PR10.1 DLP 3D Printer) (hereafter called “Products”) shall be free from defects in materials and workmanship. Liability for Henkel shall be limited, as its option, to replacing those Products which are shown to be defective in either materials or workmanship or to credit the purchaser the amount of the purchase price thereof (plus freight and insurance charges paid therefor by the user). The purchaser’s sole and exclusive remedy for breach of warranty shall be such replacement or credit.

A claim of defect in materials or workmanship in any Products shall be allowed only when it is submitted in writing within one month after discovery of the defect or after the time the defect should reasonably have been discovered and in any event, within (12) months after the delivery of the Products to the purchaser. This warranty does not apply to perishable items, such as fuses, mix nozzles, vents, adhesive, etc. No such claim shall be allowed in respect of products which have been neglected or improperly stored, transported, handled, installed, connected, operated, used or maintained. In the event of unauthorized modification of the Products including, where products, parts or attachments for use in connection with the Products are available from Henkel, the use of products, parts or attachments which are not manufactured by Henkel, no claim shall be allowed.

No Products shall be returned to Henkel for any reason without prior written approval from Henkel. Products shall be returned freight prepaid, in accordance with instructions from Henkel.

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