

# Illustrated Technique Guide Print to Finish for HeyGears® UltraCraft A2D

4K & UltraCraft A2D





Technical Support 800-243-1942 ext. 54212



dsdigitaldentures@ dentsplysirona.com

# Contents

- 1. Print
- 2. Recycle
- 3. Clean
- 4. Fuse
- 5. Cure
- 6. Finish

# **1.0 Print** 1.1 Denture Base and Try-In Support Strategy

• Refer to 1.2 for Denture Teeth Support Strategy

#### CAUTION:

- · Instructions and parameters are applicable to Lucitone Digital Print Denture System materials only.
- Design Requirement for Mandibular Dentures: Before printing, ensure all mandibular files include two (2) support bars and one (1) T-Bar on the lingual side of the denture. See the Digital Denture Design in 3Shape Illustrated Technique Guide for instructions.
- Designate a separate tray for each material type (e.g., one tray for Lucitone Digital Print and a separate tray for Lucitone Digital Value). Do not mix materials and trays.
- Refer to the printer manufacturer's Instructions for Use/User Guide for complete printer information.



2









Denture base/Try-In Material Selection (The following two steps will only need to be performed once - when setting up your Lucitone Digital materials as a favorite).

For denture bases, select "**Denture**" from the App dropdown Then, select either UltraCraft A2D, or UltraCraft A2D 4K from the Printer Dropdown, depending on which printer you plan to print from. Search for "Lucitone Digital Print" in the Material Dropdown and select.

For try-in(s), select **"Try-In"** from the App dropdown. Then, select either UltraCraft A2D, or UltraCraft A2D 4K from the Printer Dropdown, depending on which printer you plan to print from. Search for **"Lucitone Digital Value"** in the Material Dropdown and select.

Select the star in the top right of the icon. When it turns solid like the one on the left, it means it has been favorited, and will appear in the favorites page automatically when you open your "One Click Automation" in future print builds.

**NOTE:** Once added as a favorite, you will not need to perform this step. Lucitone Digital Materials will be on the material home screen.

Once this is done, select 'OK.' The image on the left is for denture base and the right is for try-ins.

## File Import

Select 'Import' (1), then select the files you want to upload (2) into the software for printing.

Select 'Open' when all files have been selected (3).

To delete the case you are working on select the trash icon (1).

To upload additional files select icon (2).

To remove individual files, select icon (3).

Once all files are correct, proceed by selecting the "Straighten" icon in the top right.

**NOTE:** Once "Straighten" is selected, no more files can be added to the job.





Before



After





# Part Orientation

**NOTE:** HeyGears' orientation algorithm is programmed to automatically orient the denture base to a 70° posterior orientation. However, if the imported dentures are oriented incorrectly, follow the steps below.

Select the denture in question, turning it blue (1), then use the Rotate X and Z fields in the top right (2) to orient the denture flat to the platform. Once flat, use the "X" axis to rotate the posterior of the denture base by either using  $-70^{\circ}$  or  $+70^{\circ}$ .

Once all dentures are oriented correctly in the 70° posterior down orientation, select the Layout Icon (3).

Make sure layout of the dentures looks normal, with all STLs within the bounds of the build plate. To move a specific part, follow directions at the bottom of the screen.

Once everything is aligned, select "Finish" in the top right.

Support Generation For denture bases/try-ins. Select "Add Support" in the top right corner.

Using the "Add Support" and "Delete Support" Icons on the right side of the screen, add and remove supports until there are only supports on the peripheral border and t-bars, and none on any intaglio surface.

To Add, select "Add Support," point and click any areas you need support, then select "Confirm." To remove, select "Delete Support," click any supports that need removed, then select "Confirm" to remove them.

## Part Placement and Z-Orientation

At this point, you will only be able to orient parts in the Z-axis, not the X or Y. To Orient in the Z, double click the part, then click and drag the yellow orb to orient. To finalize the new orientation, click off the part. To translate the part, click and drag it accordingly.

**NOTE:** If you think the program made a 2nd platform in error, and all parts can fit on one platform, select the platform on the left that contains the part that needs moved. Then click and drag the part you want to move, turning it blue. Then hover the part over the image of the platform you want to move it to on the left side of the screen.



The platform image will turn blue, at which point you can release the image, dropping it in onto that platform. Repeat until all files are on the desired platform. If you moved an entire platform's worth of parts to a different platform, leaving one entirely empty, be sure to select 'Delete Platform' before moving to the next step.

When all files are oriented and placed accordingly, select 'Finish' in the top right corner.



# Part Slicing/Export

Once complete on all dentures on platform, select the "Slice" icon in the top right corner.

Select "Go Back Production" to return to the main Home Page.

Use one of the following methods for file transfer:

- · Drag and drop file to the printer you wish to print on.
- $\cdot$  Download the file onto your laptop and transfer to the Printer via USB.



Select the appropriate shade of Lucitone Digital Print Denture denture base/try-in resin, and fill the vat with a minimum of **15mm** in resin depth.

NOTE: The 'MAX LEVEL' is marked with lines on the build tray.

Select your uploaded file on the printer screen, then select "Print".

#### CAUTION:

· Wear protective gloves, eye protection, and protective clothing.

# 1.2 Denture Teeth Support Strategy

#### CAUTION:

- · Instructions and parameters are applicable to Lucitone Digital Print Denture System products only.
- Designate a separate tray for each material type (e.g., one tray for Lucitone Digital Print and a separate tray for Lucitone Digital Value). Do not mix material types and trays.
- Refer to the printer manufacturer's Instructions for Use/User Guide for complete printer information.



Sort ● Failed ● Printed ● Atominal
Pr

 Sort ● Failed ● Printed ● Atominal
Pi

 Sort ● Failed ● Printed ● Atominal

 Site Library PTS NC ● More only

 Grave I ⊂ C +

 New ● Sort ● Failed ● Failed ● Agenc Pricess® ●

 I ♥ 00\_101365\_231206002.att 
 a .t

 I ♥ 00\_101365\_231206002.att 
 a .t



Log in to HeyGears Cloud Software, and Select "Print" at the top.

Select the "One Click Automation" button on the top right.

This screen shows your favorites tab, if you wish to add Lucitone Digital Materials to your favorites, select "All Solution" (1) on the lower right corner to set it up.

If they are already in your favorites tab, select the resin you wish to print with.

Select OK. (2)





# Tooth Material Selection

(The following two steps will only need to be performed once - when setting up your Lucitone Digital materials as a favorite).

For premium denture teeth, select "**Denture Teeth**" from the App dropdown Then, select either UltraCraft A2D, or UltraCraft A2D 4K from the Printer Dropdown, depending on which printer you plan to print from. Search for "Lucitone Digital IPN" in the Material Dropdown and select.

For economy denture teeth, select **"Denture Teeth"** from the App dropdown. Then, select either UltraCraft A2D, or UltraCraft A2D 4K from the Printer Dropdown, depending on which printer you plan to print from. Search for **"Lucitone Digital Value"** in the Material Dropdown and select.

## File Import

Select 'Import' (1), then select the files you want to upload (2) into the software for printing.

Select 'Open' when all files have been selected (3).





To upload additional files select icon (1).

S

NOTE: From this point forward, you won't be able to add or delete files without starting over.



Before





Before





Before





Before

After

After

# Part Orientation Segments: Orientation of Anterior Teeth

Using the global rotation tool as well as the rotation fields on the right hand side of the screen, rotate the anterior tooth segments to a 45° tilt towards the lingual.

#### Segments: Orientation of Posterior Teeth

Using the global rotation tool, rotate the posterior tooth segments to a 20° tilt towards the lingual.

NOTE: This typically requires an initial 15° z-axis rotation to line up the posterior segment with the y-axis prior to the final 20° tilt.

#### Full Arch: Orientation

Using the global rotation tool, rotate the full arches with the posterior closest to the platform to a 30° tilt towards the lingual.

To highlight all parts on the platform, hold the "Shift" key down and click on all parts, then select 'Adjust' (1) on the right toolbar. This will re-adjust all parts to be floating 3mm above the print platform.

Select 'Layout' in the upper right corner (2).







Select "Finish".

Select "Add Supports".

# Support Generation - Support Density

On the right toolbar, select the 'Normal' toggle icon (1), then 'Auto Support Density' (2) to generate supports on all parts.

Using the 'Add Support' and 'Delete Support' Icons (3) on the right side of the screen, add and remove supports until there are only supports on the basal surface of the teeth, and none on any other tooth surfaces.

To add, select "Add Support", point and click any areas you need support, then select "Confirm."

To remove, select "Delete Support," click any supports that need removed, then select "Confirm" to remove them.



Before

After



The images of segments and arches show before and after. The red circles show areas of low support density and the green circles show properly supported parts.

This should be repeated for all parts on the platform.

# Part Slicing/Export

Once completing supports on all parts, select the 'Slice' icon in the top right corner.

Select "Go Back Production" to return to the main Home Page.

Use one of the following methods for file transfer:

- $\cdot$  Drag and drop file to the printer you wish to print on.
- $\cdot$  Download the file onto your laptop and transfer to the Printer via USB.

# 2.0 Recycle

#### CAUTION:

- Follow the printer manufacturer's Instructions for Use.
- Do not leave resin in the cassette/vat for an extended period of time; minimize the exposure to ambient light with resin in the cassette/vat, and pour resin back into the bottle immediately after the print job is complete.
- Do not mix resin shades.
- · Wear protective gloves, eye protection, and protective clothing.

# Flash Process



The Flash Process removes any partially-cured resin, parts or misprints from the vat.

First navigate to the General tab marked by the red square on the left.

Then, select "Resin Tank Cleanse" on the bottom left of the screen.

୍ୱ	HEYGEARS				(	463RH%) (# 223	rc) 🛛 🛆 🕫	2024.06.10 13:55:16
E	Model Library	• Platfo Pla Plat	itform Control ase make sure the p		*2	Auto Reboot		Settings
∎   +†∔	Log General		II	Atte	ention of plate and forming platfo	orm! JAN ernet connecte	d,WiFi not connected	Settings
3	About	Co × S	mpensation Co- cale:1 Y Scale:1			yGears Clo	ud Settings	Connected
		88 Ba	seboard	Cancel	Confirm	ned Files D	eletion ne will be automatically	Settings
e	) Shutdown	Re Mal	sin Tank Cleanse we sure the printouts of oved.	on the print platform are	Clean	<ul> <li>Advanced</li> </ul>		Settings

(# 22.27°C) 🔛 🙆 HEYGEAR \* Auto Reboo Settings Platform Control Attention † II Settings łtł Ger 1 Sears Cloud Setting Files Deletion Confirm Settings Clean Settings Advanced

Select "Confirm".

Select "Confirm" again.



Filter Process

Repeat the flash process a second time prior to cleaning out the film on the base of the vat.

NOTE: One dose of light will yield the film on the left, two doses will add thickness and become easier to remove as seen on the right.

Remove the flashed/cured sheet. Dispose of the sheet in a hazardous materials container. Once removed, the vat will be ready for the next print.





Place a disposable paper filter in a lab stand with a metal ring. Pour the resin into the filter over the original container. Use a spatula to ensure complete resin removal from the vat.

NOTE: Reuse resins per the chart below.

Material	Recycle Timeframe
Lucitone Digital Print - 3D Denture Base	
Lucitone Digital Value - 3D Economy Tooth & Trial Placement	up to 3 months
Lucitone Digital IPN - 3D Premium Tooth	

# 3.0 Clean

## CAUTION:

- Use proper ventilation. Wear protective gloves, eye protection, and protective clothing.
- Isopropyl Alcohol is highly flammable. Keep containers tightly closed and use/store away from sources of ignition.
- Carefully follow the clean time recommendations prolonged Isopropyl Alcohol (IPA) exposure may change appliance physical properties.



Remove the print job from the printer.

Detach the parts by hand, using moderate pressure, or use a spatula/scraper.

Remove the support structures using hand pressure or a cutting tool. Do not remove the bar supports (denture bases/ try-ins) - removal will occur after the post-cure step.



Part preparation is complete.







Place the part(s) in a plastic container. Add  $\geq$ 99% IPA to fully submerge the part(s) and then seal with the container lid.

#### IMPORTANT: Use new IPA for both cycles.

#### Cycle 1:

Place the container in an ultrasonic bath for **2 minutes**. Remove the container and clean the part(s) using a brush soaked with ≥99% IPA to remove the residual resin. Dispose of the IPA.

#### Cycle 2:

Using new IPA, return the part(s) in the sealed container to the ultrasonic bath for 1 minute. Once the cycle is complete, remove the container and check the part(s) for residual resin. Use a brush soaked with ≥99% IPA to remove any residual resin.

**IMPORTANT:** Ensure removal of all residual resin.



Use compressed air to thoroughly dry part(s) before the Fuse process.

Cover with a paper towel so that residual moisture can evaporate (do not place in plastic bag). Avoid sunlight.

# 4.0 Fuse

• For Try-In appliances, skip to 5.0 Cure

**IMPORTANT:** It is recommended to wait 30 minutes prior to fusing.

# Fuse Process by Tooth Material - Table Summary











	Process Steps	Lucitone Digital IPN	Lucitone Digital Value	DS Multilayer PMMA	IPN 3D
4.1	Tooth Preparation for Milled Denture Teeth	Not Applicable	Not Applicable	See Tooth Preparation for Milled Denture Teeth	Not Applicable
4.2	Tooth Preparation for Printed Denture Teeth	See Tooth Preparation for Printed Denture Teeth	See Tooth Preparation for Printed Denture Teeth	Not Applicable	Not Applicable
4.3	Dry Fit	See Single Teeth <u>or</u> Segments/ Full Arch	See Segments/ Full Arch	See Segments/ Full Arch	See Single Teeth
4.4	Lucitone Digital Fuse Step 1 - 3D Tooth Conditioning Agent	Not Applicable	Not Applicable	See DS Multilayer PMMA	See IPN 3D
4.5	Lucitone Digital Fuse Step 2 - 3D Denture Bonding Resin	See Single Teeth, Segments or Full Arch	See Segments or Full Arch	See Segments or Full Arch	See Single Teeth
4.6	Lucitone Digital Fuse Step 3 Total - 3D Sealer	See Lucitone Digital IPN / Lucitone Digital Value	See Lucitone Digital IPN / Lucitone Digital Value	See DS Multilayer PMMA/IPN 3D	See DS Multilayer PMMA/IPN 3D

# 4.1 Tooth Preparation for Milled Denture Teeth

• For Printed Denture Teeth skip to 4.2



Use a carbide bur to remove the tooth segments or full arch from the disc.



Remove the sprues using a carbide bur.



Use a cutting disc to open the interproximal areas.





Shape and contour the teeth as desired.

Polish per laboratory standards.



Clean the tooth segments or full arch using an ultrasonic bath.

# 4.2 Tooth Preparation for Printed Denture Teeth



Remove the printing supports using a carbide bur or a cutting disc.

Use a diamond disc to open the interproximal areas. Shape and contour the teeth as desired.



Remove any remaining debris using a small brush and  $\ge 99\%$  IPA.

# 4.3 Dry-Fit





Single Teeth (Lucitone Digital IPN and IPN 3D) Place each tooth into the respective denture base pocket to verify fit.

Segments/Full Arch (Lucitone Digital IPN, Lucitone Digital Value and DS Multilayer PMMA) Place the tooth segments or full arch into the denture base. Some gaps may be visible within the pockets - these gaps will be filled with Fuse Step 2 resin. (Lucitone Digital Value shown.)

# 4.4 Lucitone Digital Fuse Step 1 – 3D Tooth Conditioning Agent

• For Lucitone Digital IPN and Lucitone Digital Value printed teeth, skip to section 4.5

## CAUTION:

- Only use validated hotplates: VWR® Hotplates (REF #906235 and 906237) and OHAUS® Guardian™ 5000 Hotplates (REF #906236 & 906238.) [2,3]
- Use proper ventilation.
- Wear protective gloves, eye protection, and protective clothing.
- Keep the metal container and the foam insert free of any solid buildup. Buildup can compromise the tooth bond strength.



VWR

OHAUS





# Preheat

Plug in the hotplate and set the temperature per below. Preheat for 10 minutes.

VWR Hotplates: Temperature setting 90°C OHAUS Hotplates: Temperature setting 60°C

# Metal Container Placement IPN 3D

Shake the bottle and pour Step 1 into the Metal Container. Place the foam insert into the Metal Container. Use Tweezers to place the teeth into the insert holes - ridge lap down and complete submersion into the liquid. Place the lid on the container.

#### **DS Multilayer PMMA**

Shake the bottle and pour Step 1 into the Metal Container. Use Tweezers to place the tooth arch/segments into the Metal Container - ridge lap down and complete submersion into the liquid. Place the lid on the container.



VWR

OHAUS



Hotplate Warming Place the Metal Container (inside the metal ring for VWR models only) on the hotplate until the temperature strip reaches 40°C - approximately 4-6 minutes.

**IMPORTANT:** Failure to reach 40°C or using higher warming temperatures to accelerate the process will compromise the tooth bond strength.

# Removal and Air-dry

Remove the teeth (Tooth arch shown) from the Metal Container using Tweezers. Air-dry for **2 minutes**. Do not wipe.

# 4.5 Lucitone Digital Fuse Step 2 – 3D Denture Bonding Resin

# Single Teeth



Apply Step 2 resin to the tooth pockets two at a time avoiding adjacent pockets.



Insert teeth, fully seat, and clean excess resin with 4X4 gauze.



Tack cure the buccal and lingual surfaces with the UV Tack-Cure Light for ten seconds, two teeth at a time.

Repeat the above steps for the remaining teeth.

**IMPORTANT:** Fuse Step 2 is available in all Lucitone Digital Print 3D Denture Base shades. Use Original shade as a universal shade option, except for with dark reddish pink.

# Segments





Apply Step 2 resin to the tooth quadrant indentation on the denture base.

Insert a segment, fully seat, and clean excess resin with 4X4 gauze.



Tack cure the buccal and lingual surfaces with the UV Tack-Cure Light for ten seconds, two teeth at a time.

Repeat the above steps for the remaining tooth segments.

**IMPORTANT:** Fuse Step 2 is available in all Lucitone Digital Print 3D Denture Base shades. Use Original shade as a universal shade option, except for with dark reddish pink.

# Full Arch







Apply Step 2 resin to the full arch indentation on the denture base.

Insert the full arch, fully seat, and clean excess resin with 4X4 gauze.

Tack cure the buccal and lingual surfaces with the UV Tack-Cure Light for ten seconds, two teeth at a time.

**IMPORTANT:** Fuse Step 2 is available in all Lucitone Digital Print 3D Denture Base shades. Use Original shade as a universal shade option, except for with dark reddish pink.

# 4.6 Lucitone Digital Fuse Step 3 Total - 3D Sealer

\*IMPORTANT: When using the Dentsply Sirona Digital Cure - Large Capacity Unit for post-processing, complete the following step <u>after the sealer application</u>: Tack cure the sealer for one (1) minute using the UV Tack-Cure Light. Rotate the arch ensuring light exposure to all tooth surfaces for a uniform tack cure. The sealer will be slightly sticky/tacky to the touch - avoid excess handling. Following the Cure step (5.0), the appliances will be fully cured and smooth to the touch. (The one (1) minute tack-cure step is not required when using the inLab Speedcure® Processing Unit.)





# Lucitone Digital IPN / Lucitone Digital Value

#### Lucitone Digital Fuse Step 3 - Total

Apply a thin layer of Total sealer to the entire tooth structures, including the cervicals, using a flat brush. Optional: Apply the sealer to all or part of the denture base surface (including the intaglio/tissue) per laboratory preference.

The appliance is now ready to cure.\*

## DS Multilayer PMMA/IPN 3D

Lucitone Digital Fuse Step 3 - Total

Apply a thin layer of Total sealer to the entire tooth structures, including the cervicals, using a flocked applicator tip. Optional: Apply the sealer to all or part of the denture base surface (including the intaglio/tissue) per laboratory preference.

The appliance is now ready to cure.\*

# 5.0 Cure

# 5.1 CURE UNIT OPTION 1: inLab Speedcure® Processing Unit

#### CAUTION:

- Only use validated post-processing units: inLab Speedcure® Processing Unit (REF # 9494800 and 9494801) and
- Digital Cure Large Capacity Unit (REF # 909170 and 909180). Read the curing unit User Manual prior to operating the unit.
- · Do not stack or position appliances in a way to allow for direct contact with post-processing unit bulbs.
- Do not cure more than two (2) appliances at one time or handle appliances before the 3-minute cooldown.
- Failure to follow specific cure instructions will result in poor appliance strength, bond, and accuracy.

# Cure Programs - Table Summary

Program (menu selection)	Cycle 1 (occlusal side up)	Cycle 2 (tissue side up)	Total Time
Try-In	10 minutes + 3-minute cooldown	10 minutes + 3-minute cooldown	26 minutes
Denture	10 minutes + 3-minute cooldown	10 minutes + 3-minute cooldown	26 minutes

The preloaded "Try-In" and "Denture" programs are validated for the following Lucitone Digital Print Denture System materials and appliances:

Application	Dentsply Sirona Digital Materials	Appliance Type
Denture Base	ture Base Lucitone Digital Print 3D Denture Base	
	Lucitone Digital IPN 3D Premium Tooth	Denture
Darsteine Taath	IPN 3D Digital Denture Teeth	
Denture leeth	DS Multilayer PMMA Disc	
	Lucitone Digital Value 3D Economy Tooth & Trial Placement	Denture/Try-In

**NOTE:** For repair and reline processing, reference the Lucitone Digital Print Denture Repair and Reline Illustrated Technique Guide (REF # DP-0000502).



# Appliance Placement

Place up to two (2) arches, occlusal side up, in the inLab Speedcure® Processing Unit. For two arches, position the anterior teeth towards the center of the turntable as shown.

# Program Selection and Cycles Try-In

**Cycle 1:** Select the menu option "Lucitone Digital" and then "Try-In." The program will run for ten (10) minutes, followed by a 3-minute cooldown.

Cycle 2: Flip the arch(es), tissue side up, and repeat the same menu option.

## Denture

**Cycle 1:** Select the menu option "Lucitone Digital" and then "Denture Base." The program will run for ten (10) minutes, followed by a 3-minute cooldown.

Cycle 2: Flip the arch(es), tissue side up, and repeat the same menu option.

# 5.2 CURE UNIT OPTION 2: Digital Cure - Large Capacity Unit

#### CAUTION:

- Only use validated post-processing units: inLab Speedcure<sup>®</sup> Processing Unit (REF # 9494800 and 9494801) and Digital Cure - Large Capacity Unit (REF # 909170 and 909180). Read the curing unit User Manual prior to operating the unit.
- · Do not stack appliances correct positioning is a requirement for a proper cure.
- Appliance quantity per cure cycle varies by appliance sizes. Appliances must fit within the defined cure zone and have correct positioning. Regardless of the appliance quantity, only cure the appliance(s) in the defined cure zone.
- · Allow appliances cleaned with Isopropyl alcohol to dry completely before post-processing due to flammability.
- Once the program cycle starts do not stop and restart, open the door, or add appliances; a complete, uninterrupted program run is required.
- Regardless of the appliance quantity, always use the Lucitone Digital Appliances menu selection (preset). Do not use the custom menu selection to process Lucitone Digital Print Denture appliances.
- · Failure to follow specific cure instructions will result in poor appliance strength, bond, and accuracy.

# Cure Program - Table Summary

Program (menu selection)	Cycle	Total Time
Lucitone Digital Appliances	The automated program cycle includes a 30-minute preheat (80°C) and a 60-minute cure (80°C).	90 minutes

The preloaded "Lucitone Digital Appliances" program is validated for the following Lucitone Digital Print Denture System materials and appliances:

Application	Dentsply Sirona Digital Materials	Appliance Type
Denture Base	nture Base Lucitone Digital Print 3D Denture Base	
	Lucitone Digital IPN 3D Premium Tooth	Denture
	IPN 3D Digital Denture Teeth	
Denture leeth	DS Multilayer PMMA Disc	
	Lucitone Digital Value 3D Economy Tooth & Trial Placement	Denture/Try-In

**NOTE:** For repair and reline processing, reference the Lucitone Digital Print Denture Repair and Reline Illustrated Technique Guide (REF # DP-0000502).

## Prior to denture curing, ensure the sealer tack-cure process is complete (not applicable for try-in appliances):

Tack cure the Lucitone Digital Fuse Step 3 Total for one (1) minute using the UV Tack-Cure Light. Rotate the arch ensuring light exposure to all tooth surfaces for a uniform tack cure. The sealer will be slightly sticky/tacky to the touch - avoid excess handling. Following the 5.0 Cure step (this section), the appliances will be fully cured and smooth to the touch.



## **Appliance Placement**

Place the appliance(s) in the **cure zone**, occlusal side up, and the posterior facing the center of the turntable.

**Cure zone:** The Digital Cure turntable has a diameter of 39.5cm (15.6in). The cure zone is limited to the area between 5cm and 12cm as measured from the center of the turntable, and defined by the grey lines.

Ensure the appliance(s) do not overlap or extend beyond the cure zone. Regardless of the appliance quantity, only cure the appliance(s) in the defined cure zone as shown.

See next page for placement examples.





Incorrect appliance placement shown.

Correct appliance placement shown.

Program Selection and Cycle Select the "Lucitone Digital Appliances" menu selection. The program cycle will automatically run for 90 minutes -"HEATING" will display on the screen when the cycle starts.

NOTE: The unit may require warming prior to the cycle start - "PRE-HEATING" will display on the screen until the unit reaches temperature. Do not stop and restart or add appliances after the start of the program (including preheating).

Wait until the temperature indicator in the upper right corner of the home screen reaches **50°C** before removing and finishing the appliance(s).

# 5.3 CURE UNIT OPTION 3: Dentsply Sirona Digital Cure

#### CAUTION:

- Only use validated post-processing units: inLab Speedcure<sup>®</sup> Processing Unit (REF # 9494800 and 9494801), Digital Cure - Large Capacity Unit (REF # 909170 and 909180), and Digital Cure (REF # 909188). Read the curing unit User Manual prior to operating the unit.
- Do not stack appliances correct positioning is a requirement for a proper cure.
- Appliance quantity per cure cycle varies by appliance sizes do not exceed five (5) appliances per cure cycle. Regardless of the appliance quantity, always place appliances with the anterior facing the center of the turntable.
- · Allow appliances cleaned with Isopropyl alcohol to dry completely before post-processing due to flammability.
- Once the program cycle starts do not stop and restart, open the door, or add appliances; a complete, uninterrupted program run is required.
- Regardless of the appliance quantity, always use the Lucitone menu selection (preset). Do not use the custom menu selection to process Lucitone Digital Print Denture appliances.
- Failure to follow specific cure instructions will result in poor appliance strength, bond, and accuracy.

# Cure Program - Table Summary

Program (menu selection)	Cycle	Total Time
Lucitone	The automated program cycle includes a 12-second tack cure, 10-15 minute heat (preheat), 25-minute cure, and up to a 30-minute cooldown.	Approximately 60 minutes (maximum 70 minutes)"

The preloaded "Lucitone" program is validated for the following Lucitone Digital Print Denture System materials and appliances:

Application	Dentsply Sirona Digital Materials	Appliance Type
Denture Base	enture Base Lucitone Digital Print 3D Denture Base	
	Lucitone Digital IPN 3D Premium Tooth	Denture
	IPN 3D Digital Denture Teeth	
Denture leeth	DS Multilayer PMMA Disc	
	Lucitone Digital Value 3D Economy Tooth & Trial Placement	Denture/Try-In

**NOTE:** For repair and reline processing, reference the Lucitone Digital Print Denture Repair and Reline Illustrated Technique Guide (REF # DP-0000502).



## **Appliance Placement**

Place the appliance(s) on the turntable, occlusal side up, and the anterior facing the center of the turntable.

Load multiple appliances using the power button to the right of the menu dial. Hold the power button to rotate the turntable and place the appliances.

Ensure the appliance(s) do not overlap or extend beyond the turntable. Do not load more than five appliances per cycle. See next page for placement examples.

**IMPORTANT:** When curing one appliance, do not place the appliance in the center of the turntable covering the turnable spindle. Ensure the appliance is facing anterior towards the center and approximately 1 cm from the turntable spindle/ center.



Incorrect appliance placement shown.

Correct appliance placement shown.

# Program Selection and Cycle

In the home menu screen, use the menu dial to toggle and select (push menu dial) the "Preset Cycles" setting and then the "Lucitone" program. Hold the power button until the unit beeps to start the program.

The program will automatically run and advance through the following steps: LED Test Cycle - 20 seconds, Tack curing - 12 seconds, Heating - 10 to 15 minutes, Curing - 25 minutes, and Cooling - up to 30 minutes. Synchronous dots will appear behind the step name on the menu screen indicating the program operation. Note: the chamber is lit during the Tack Curing and Curing steps only.

Following the final step, the menu screen "Program Complete" will appear indicating the program completion. The appliances are ready for removal.

# 6.0 Finish

# CAUTION:

- Use proper ventilation and personal protective equipment when grinding appliances.
- Do not steam clean Lucitone Digital Print Denture appliances.



Remove bar supports using a cut-off disc or similar tool. Grind away any remaining support structure.

# Posterior Orientation

Manually remove any supports on the intaglio/tissue surface.

Finish, festoon, stipple, and polish as desired.

Dentures sealed with Lucitone Digital Fuse Step 3 - *Total* require minimal polishing.

**IMPORTANT:** Avoid extensive polishing for dentures designed with the Dentsply Sirona Highly Characterized Denture Tooth Libraries to preserve the premium features and characterization.



Lucitone Digital Value Try-In Appliance



Lucitone Digital IPN Denture using Digital HC Genios Tooth Library



Lucitone Digital Value Denture using Digital Portrait Tooth Library

Dentsply Sirona | 800-243-1942 | dentsplysirona.com DP-0000726 Rev. 06/24

HeyGears<sup>®</sup> UltraCraft A2D and UltraCraft A2D 4K are trademarks of HeyGears<sup>®</sup>, Inc.
 VWR is a registered trademark of VWR International, LLC.
 OHAUS and Guardian are trademarks of OHAUS Corporation.