ECLIPSE® junior

Step-by-Step-Anleitung

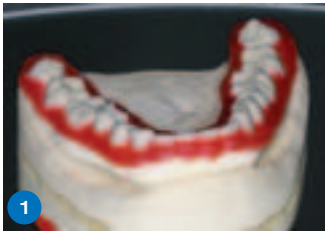
von Technikern für Techniker

Laboratory Procedures, Step by Step

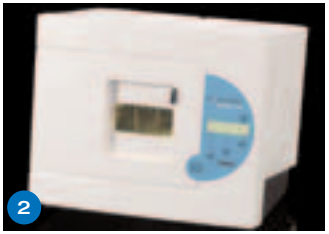
By technicians – for technicians

Eclipse® junior Laboratory Procedures, Step by Step*

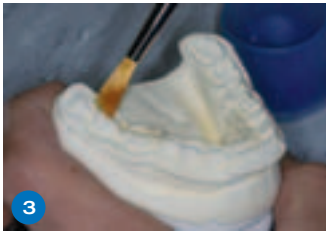
* This description does not replace the regular Directions for Use, but are solely intended to visualize individual procedural steps.



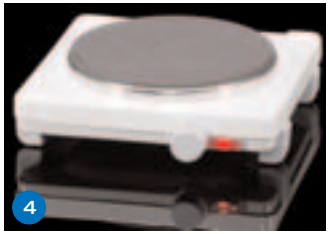
Survey the cast and indicate the tooth equator. In the anterior region, the margin of the splint should align with the tooth equator, while in the posterior region it should run approximately 1–2 mm below the tooth equator. Apply a wax cuff that follows this line exactly. Block out any undercuts.



Place model in the Eclipse® junior VLC Curing Unit. Make sure the top of the model is below the maximum height line (row of holes in the back wall of the chamber). If this is not the case, remove stone from bottom of the model until the entire model is below this line.



Duplicate the cast and apply Al-Cote separating agent.



Attach the temperature indicator and place the cast on the hot-plate (hot-plate needs 20 minutes pre-heating time; level 3 not higher; wear protective gloves) until the temperature indicator has turned black. Remove the cast from the hot-plate and immediately start applying the splint material.

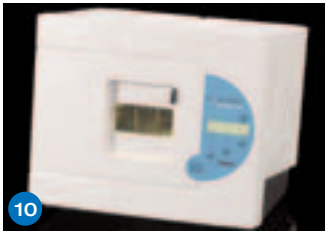
Place the splint material on the warm cast with the rounded side facing down. Wait briefly until the material has absorbed the heat of the cast, then adapt to the desired form by pressing with your fingers.

Splint material, completely adapted.

Isolate the opposing cast with MRA and lower according to the edge-to-edge relation of the splint. To avoid adhesion, press the opposing cast only briefly into the soft material and re-open the articulator immediately. As soon as the desired occlusal height and any impressions have been created, place the cast and splint in the refrigerator for 5–10 minutes. Perform the necessary movements and excursions on the articulator and check the splint accordingly.

The splint with impressions.

Paint the splint with ABC protective varnish.



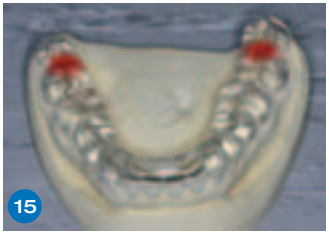
Light-cure immediately in the Eclipse® junior VLC Curing Unit (menu nightguard). Center the device on the turntable. After polymerization is complete, allow to cool to room temperature. Peel off or wash off the protective varnish.

Finish the splint on the articulator.

Determine the lateral extension of the splint. Leave the splint on the cast and place in a luke-warm water bath for 10–15 minutes.

Remove the splint from the cast and finish. Polish with pumice and regular polishing brushes. Use a buff wheel for high-lustre polish.

The completed splint on the master cast.

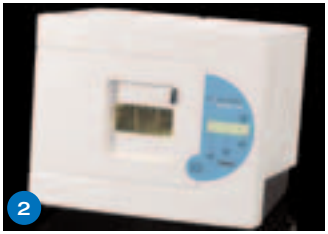


The completed splint on the duplicate cast.

For additional information see Section 6, “Frequently Asked Questions”.

Drilling Stents

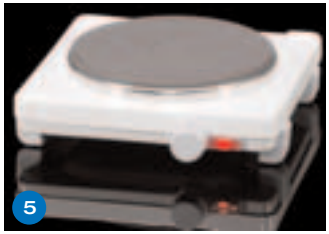
Create parallel bores in the model according to the dentist's instructions. Attach the temperature indicator.



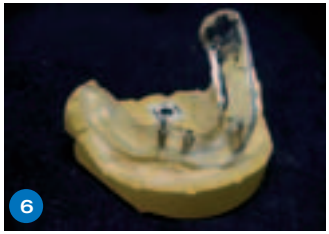
Place model in the Eclipse® junior VLC Curing Unit. Make sure the top of the model is below the maximum height line (row of holes in the back wall of the chamber). If this is not the case, remove stone from bottom of the model until the entire model is below this line.

Insert the analogues in the cast, then fit the bore guides over them.

Apply (two thin layers of) Al-Cote separating agent to the dry cast. Allow each separating layer to air-dry well.

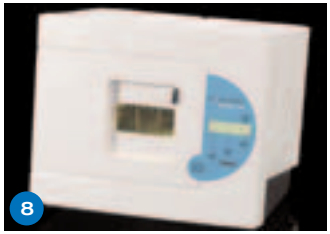


Place the cast on the hot-plate (hot-plate needs 20 minutes pre-heating time; level 3 not higher; wear protective gloves) until the temperature indicator has turned black. Remove the cast from the hot-plate and immediately start applying the transparent baseplate material.



Place the transparent base material on the warm cast with the rounded side facing down. Wait briefly until the material has absorbed the heat of the cast, then adapt to the desired form by pressing with your fingers.

Adapted drilling stent and paint the drilling stent with ABC protective varnish.

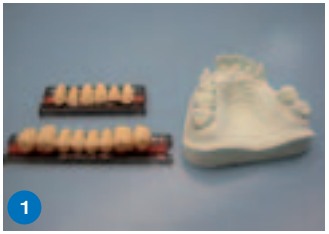


Light-cure immediately in the Eclipse® junior VLC Curing Unit (menu nightguard). Center the device on the turntable. After polymerization is complete, allow to cool to room temperature. Peel off or wash off the protective varnish. Leave the drilling stent on the cast and place in a luke-warm water bath for 10–15 minutes.

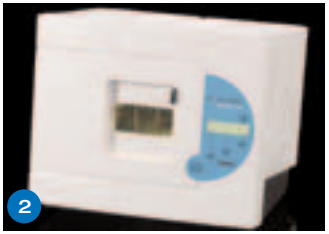
Remove the drilling stent from the cast and finish. Polish with pumice and regular polishing brushes. Use a buff wheel for high-lustre polish.

The finished and polished drilling stent.

For additional information see Section 6, “Frequently Asked Questions”.

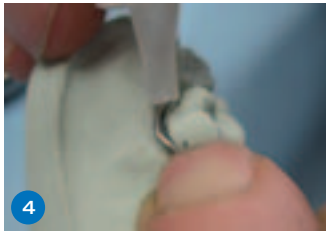


Baseline situation.



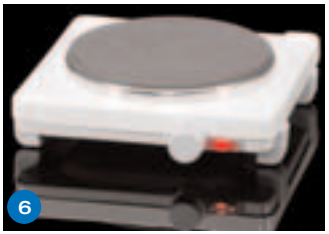
Place model in the Eclipse® junior VLC Curing Unit. Make sure the top of the model is below the maximum height line (row of holes in the back wall of the chamber). If this is not the case, remove stone from bottom of the model until the entire model is below this line.

Provisionals (1–3 teeth) can be fabricated without clasps due to their excellent fit. But clasps can be added if needed; bend them into the desired shape before adapting the baseplate material.



Use an instant adhesive to attach the clasps on the vestibular aspects of the clasp tooth.

Apply (two thin layers of) Al-Cote separating agent to the dry cast. Allow each separating layer to air-dry well.



Attach the temperature indicator and place the cast on the hot-plate (hot-plate needs 20 minutes pre-heating time; level 3 not higher; wear protective gloves) until the temperature indicator has turned black. Remove the cast from the hot-plate and immediately start applying the baseplate material.

Remove all residual wax from the tooth. Roughen the basal surface and create V-shaped undercuts using the diamond cutter that is part of the set.

Prepare the denture teeth for setup. Create a collar groove around the base of the teeth. Make sure the groove marks the end of the gingiva modellation (even interdentally).

Heat the fracture area with a hot-air gun before applying the baseplate material.

Measure out the Eclipse® baseplate material as needed. Hint: Place the baseplate material in the refrigerator for a few minutes. The colder the material the easier it is to break into pieces.

Apply the baseplate material (rounded side down) in the desired position.

Push baseplate material forward to the edentulous areas.

Heat the basal surfaces of the teeth with a hot-air gun.

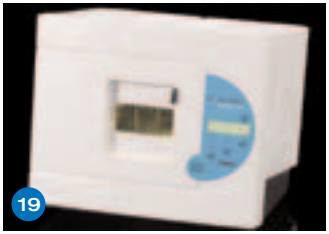
Press the tooth into the baseplate material, moving it into the desired position. A silicone index can be used if desired, as long as these are removed before polymerization (important!).

Position the teeth.

Remove any excess material with a cold instrument.

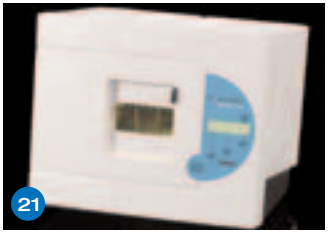
A regular wax knife can be used for shaping the gingiva.

Paint the provisional with ABC protective varnish.

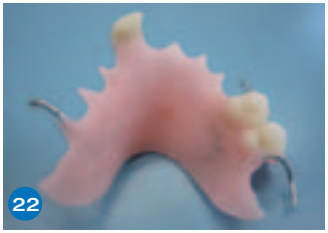


Light-cure immediately in the Eclipse® junior VLC Curing Unit (menu Flipper/Base). Center the device on the turntable. After polymerization is complete, allow to cool to room temperature. Peel off or wash off the protective varnish. Leave the provisional on the cast and place in a lukewarm water bath for 10–15 minutes.

Carefully lift the provisional off the cast.



If tissue side shade is slightly orange, apply ABC protective varnish to the tissue side. Cure again, tissue side up (menu: BP tissue side). Center the device on the turntable.

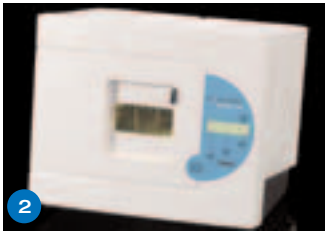


After polymerization is complete, allow to cool to room temperature. Peel off or wash off the protective varnish. Finish the provisional. Polish with pumice and regular polishing brushes. Use a buff wheel for high-lustre polish.

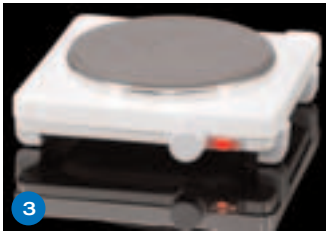
The completed provisional.

For additional information see Section 6, “Frequently Asked Questions”.

In case of undercuts, duplicate the cast first. Reduce any reflection folds that are deeper than 2 mm to a maximum of 2 mm. Fabricate the baseplate on the duplicate cast (which is subsequently destroyed, with the base then being adapted to the modified master cast). Apply retention holes on the dorsal aspect of the mandibular cast.



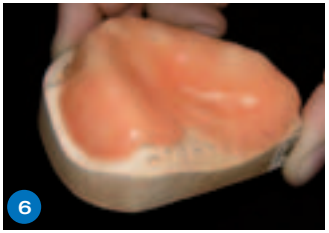
Place model in the Eclipse® junior VLC Curing Unit. Make sure the top of the model is below the maximum height line (row of holes in the back wall of the chamber). If this is not the case, remove stone from bottom of the model until the entire model is below this line.



Apply (two thin layers of) Al-Cote separating agent to the dry cast. Allow each separating layer to air-dry well. Attach the temperature indicator and place the cast on the hot-plate (hot-plate needs 20 minutes pre-heating time; level 3 not higher; wear protective gloves) until the temperature indicator has turned black. Remove the cast from the hot-plate and immediately start applying the baseplate material.

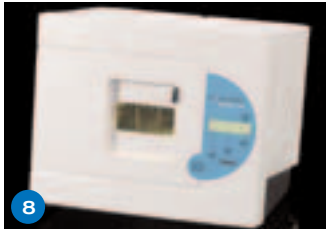
Place the baseplate material on the warm cast with the rounded side facing down.

Wait briefly until the material has absorbed the heat of the cast, then adapt the baseplate material. Begin adapting in the vestibular region and then cover the palatal region.



Displace any excess material dorsally and adapt it to the dorsal holes. This minimizes the A line from lifting during polymerization.

Coat the baseplate with ABC protective varnish. Light-cure immediately in the Eclipse® junior VLC Curing Unit (menu Flipper/Base). Center the device on the turntable. After polymerization is complete, allow to cool to room temperature. Peel off or wash off the protective varnish. Leave the base on the cast and place in a luke-warm water bath for 10–15 minutes.



Trim the dorsal excess with a separating disk. Lift off the baseplate. If tissue side shade is slightly orange, apply ABC protective varnish to the tissue side. Cure again, tissue side up (menu: BP tissue side). Center the device on the turntable.

After polymerization is complete, allow to cool to room temperature. Peel off or wash off the protective varnish. Then finish the baseplate.

For additional information see Section 6, “Frequently Asked Questions”.

Repairs (small voids)*

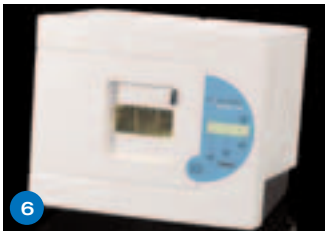
Widen the fracture. Grind a border/termination resembling a chamfer. Clean the fragments first with water and then with alcohol. Check height of model in the Eclipse® junior VLC Curing Unit (according picture 2 Provisionals).

Apply Al-Cote separating agent onto the cast. Attach the temperature indicator and place the cast on the hot-plate (hot-plate needs 20 minutes pre-heating time; level 3 not higher; wear protective gloves) until the temperature indicator has turned black.

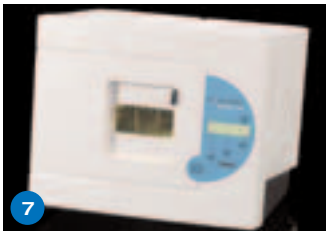
Measure out the Eclipse® baseplate material as needed. Hint: Place the baseplate material in the refrigerator for a few minutes. The colder the material the easier it is to break into pieces.

Heat the fracture area with a hot-air gun. Adapt baseplate material to the fracture area and smoothen out the baseplate material.

Paint the denture body with ABC protective varnish.



Light-cure immediately in the Eclipse® junior VLC Curing Unit (menu BP Repair). Center the device on the turntable. After polymerization is complete, allow to cool to room temperature. Peel off or wash off the protective varnish. Remove from the model.



Apply ABC protective varnish to the tissue side. Cure again, tissue side up (menu: BP tissue side). Center the device on the turntable. After polymerization is complete, return the provisional immediately to the cast. Allow to cool to room temperature and remove ABC protective varnish.

Finish the denture. Polish with pumice and regular polishing brushes. Use a buff wheel for high-lustre polish.

For additional information see Section 6, “Frequently Asked Questions”.

* Full denture repairs and large full baseplate fracture repairs are not recommended.

Frequently Asked Questions

ECLIPSE® junior

Problem	Possible Causes	Solution
Air bubbles in the baseplate or splint material	Baseplate material was adapted too quickly	Allow the baseplate material to rest on the cast so it can absorb the heat of the cast and is easier to adapt. Try adapting the baseplate material in only one direction.
Baseplate material cannot be adapted	Cast is too cold	Work on warm casts only. Wait for the temperature indicator to turn black.
Baseplate material is viscous and sticky as it is taken out of the packaging.	Incorrect storage (too hot)	Store the material at 17–21 °C.
Some of the baseplate material has not polymerized (in the reflection fold).	Shadow areas too large	Reduce the height of the reflection fold to 2 mm. When designing cast-metal frameworks, make sure that the shadow areas of the retentions do not exceed 2 mm^2.
Irregular baseplate surface (map-like)	Incorrect isolation	Use only Al-Cote separating agent.
Baseplate breaks as it is lifted off the cast	Undercuts.	Create a duplicate cast. Destroy the duplicate cast to lift off the baseplate and adapt the baseplate to the modified master cast.
White discolouration spots in the baseplate material	Heat was generated during roughening/grinding	Reduce instrument speed during roughening
A line lifts off	1. Baseplate material not adapted to the dorsal notches on the cast 2. Baseplate lifted off too soon after polymerization. 3. Baseplate material too thick in the area of the A line. 4. Conditioning time in the pre-heating oven too short.	1. Adapt the baseplate material to the dorsal notches on the cast. 2. The baseplate to remain on the cast 3. Make sure the baseplate material is not too thick in the area of the A line. 4. Extend the conditioning time in the pre-heating oven (at least 4 hours).
Teeth have broken out	Incorrectly designed or missing retentions	Always create a groove in the cervical area and V-shaped undercuts in the basal area. Make sure to fill the basal retentions with setup material.

Frequently Asked Questions

ECLIPSE® junior

Problem	Possible Causes	Solution
Difficulties lifting a polymerized item from the cast	Soaking omitted or incorrect or missing separating agent	Isolate casts before adapting the baseplate material. Use only Al-Cote separating agent. Soak casts in a hand-warm water bath for 10–15 minutes before lifting off the baseplate.
Problems while finishing the occlusal surface of a splint	Missing separating agent on the opposing cast. Occlusal check of the opposing cast took too long.	Always isolate using MRA. Use short, controlled movements to check the occlusion.
Flowout of the occlusal surface of a splint	Splint was not polymerized immediately after finishing the occlusal surface	Polymerize the splint immediately after finishing the occlusal surface.
Baseplate materials in a repair job do not fuse	Improper cleaning. Fracture surfaces were not heated before adapting the baseplate material.	Carefully clean the fracture surfaces with water and alcohol. Pre-heat the fracture surfaces with a hot-air gun.
Broken splint	Cast improperly blocked out or surveyed	Block out and survey the cast properly.
Insufficient lustre	Buff wheel dirty	Use a clean buff wheel.
Plaster particles in the baseplate material	Incorrect plaster used	Use only Class IV dental stone.
Bubble formation during polymerization	ABC protective varnish omitted	Paint with ABC protective varnish before each polymerization step.
Not completely polymerized	1. Two or more casts were placed into the polymerization unit. 2. Top of the model is above height line	1. Polymerize one item at a time. 2. Make sure that top of model is below the height line

Basic rules

1. Always work on a warm model.
2. For repairs, make sure to pre-heat the denture body as well (hot-air gun at level 2).
3. Always allow the cast to cool after polymerization.
4. Soak the cast before removing an item (for approximately 10–15 minutes).
5. Before measuring out the material, place it in the refrigerator for a few minutes. Otherwise, store at 17– 21 °C.

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Stand/Last revision:
03/2008

ECLIPSE® junior

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