



3D Printed Denture

Impression **MAGIC Denture** Manual

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Contents

Requirements for Impressions

[Included in Starter Kit / Supplies Required by Doctor]

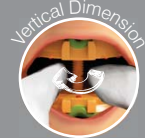
Complete Denture



P. 3



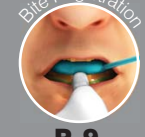
P. 4



P. 5

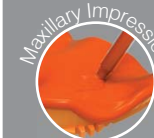


P. 6

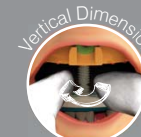


P. 9

Single Arch Maxillary Denture



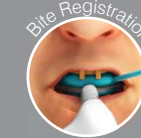
P. 13



P. 14



P. 15



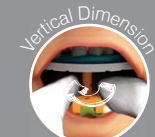
P. 18



Single Arch Mandibular Denture



P. 20



P. 21



P. 22

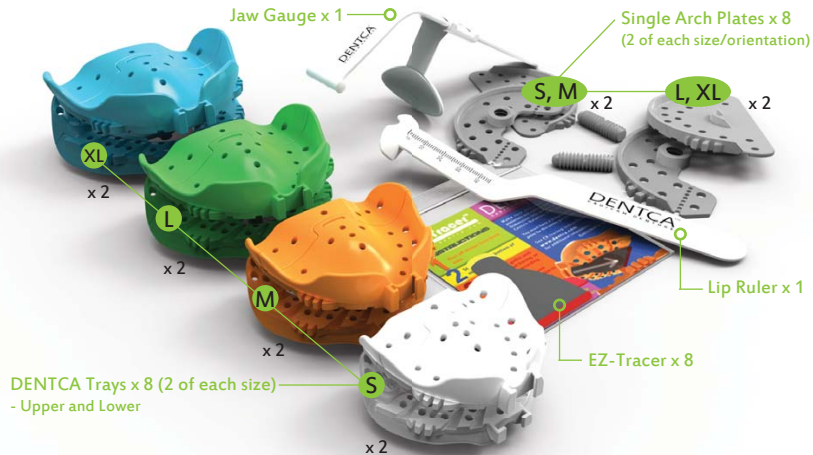


P. 25



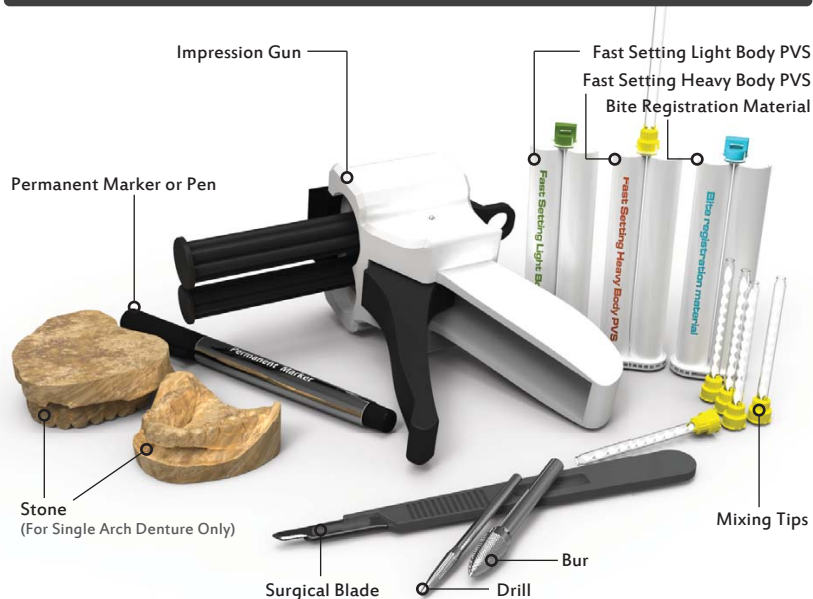
Requirements for Impressions

Included in Starter Kit

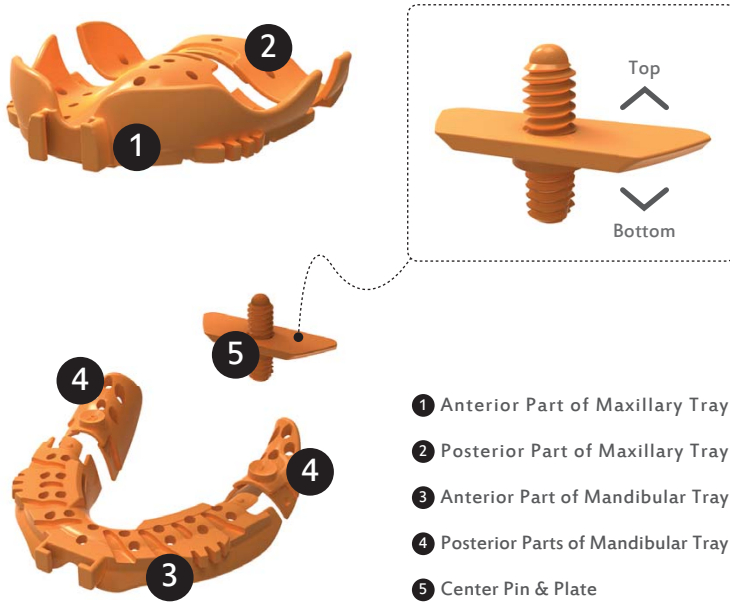


Complete Denture

Supplies Required by Doctor

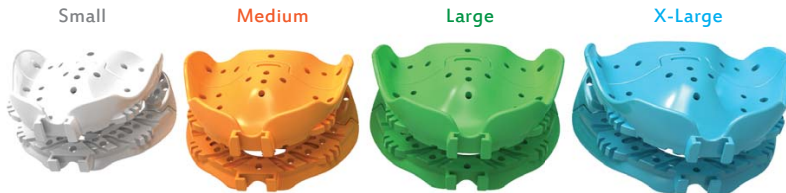


Components



- 1 Anterior Part of Maxillary Tray
- 2 Posterior Part of Maxillary Tray
- 3 Anterior Part of Mandibular Tray
- 4 Posterior Parts of Mandibular Tray
- 5 Center Pin & Plate

Tray Selection



Select the correct DENTCA tray size (Small, Medium, Large, Extra-Large) that best fits the patient's mouth. Compare tray sizes against the patient's existing dentures or directly in the patient's mouth.

I. Maxillary Impression

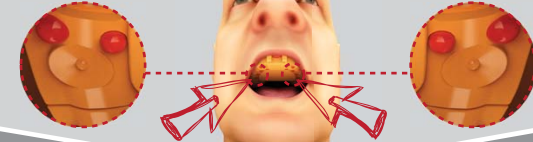
A Apply thick layer of fast-setting heavy body PVS (to create custom impression tray).



C **Layer 2 (Wash):** Apply thin layer of fast-setting light body PVS on top of entire heavy body impression.

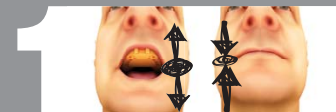


Seat firmly for 5 seconds using finger spots on bottom of tray.



BORDER MOLDING

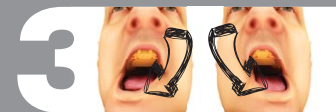
Pull, stretch and tug the patient's cheeks and mouth muscles forcefully to ensure proper border molding. Do not skip or neglect this procedure.



1. Have the patient open mouth wide then close.



2. Have the patient move jaw side by side.



3. Pull the patient's right cheek out and down. Then pull the patient's left cheek out and down.



4. Pull the upper lip down.

Repeat entire sequence 4 times (#1-4)

B Adjust any exposed tray areas with a bur.



D If there are any tray parts still exposed, adjust with a bur and go back to Step C.



II. Mandibular Impression

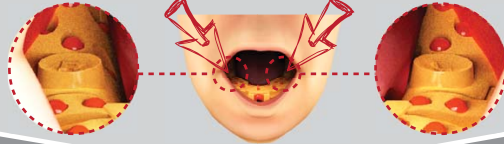
A Apply thick layer of fast-setting heavy body PVS (to create custom impression tray).



C **Layer 2 (Wash):** Apply thin layer of fast-setting light body PVS on top of entire heavy body impression.



Seat firmly for 5 seconds using finger spots on bottom of tray.

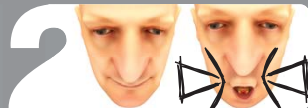


BORDER MOLDING

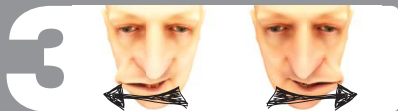
Pull, stretch and tug the patient's cheeks and mouth muscles forcefully to ensure proper border molding. Do not skip or neglect this procedure.



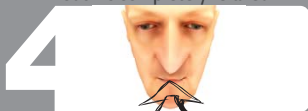
1. Have the patient stick his/her tongue out.



2. Squeeze in both cheeks while the mouth is completely relaxed.



3. Pull the patient's right cheek out. Then pull the patient's left cheek out.



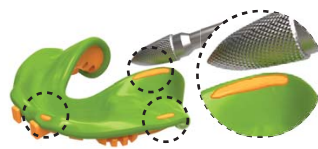
4. Pull the lower lip up.

Repeat entire sequence 4 times (#1-4)

B Adjust any exposed tray areas with a bur.



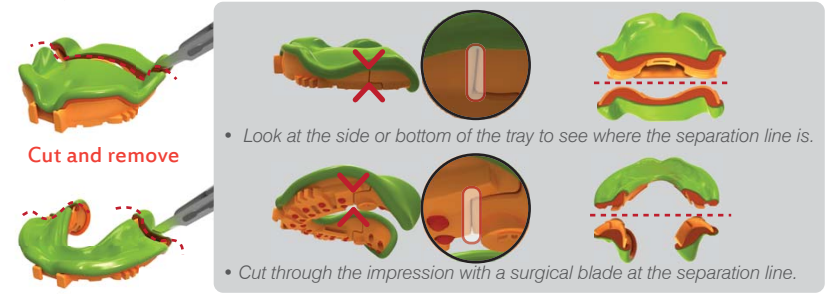
D If there are any tray parts still exposed, adjust with a bur and go back to Step C.



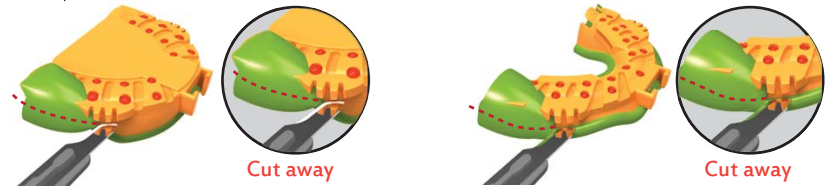
III. Vertical Dimension (VD)

You must find the correct VD before recording CR.

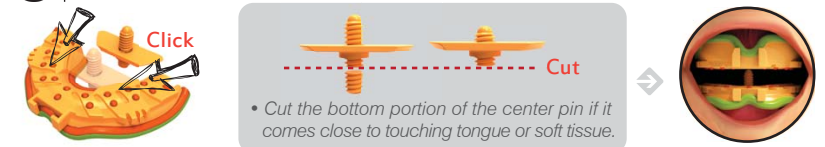
A Separate the tray posteriorly to avoid interference when measuring VD.



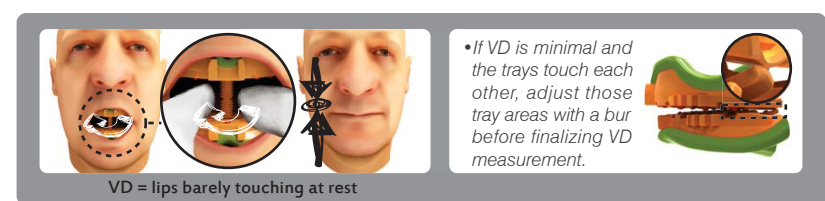
B Remove impression overflow on cameo side.



C Attach center pin to mandibular tray.



D **VD** Adjust (rotate clockwise) center pin with fingers or tweezers to reach **VD**. Remove and adjust extraorally if needed.



IV. Centric Relations (CR)

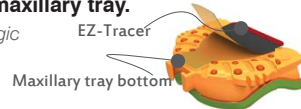
Accurate CR recording is essential to accurate denture setup.

Choose one of three CR recording methods:

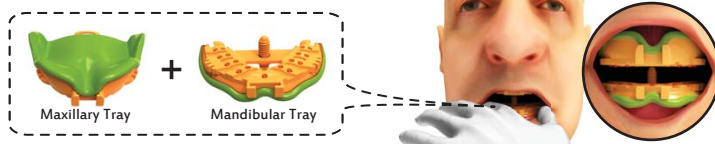
1. Simplified Tracing
2. Gothic Arch Tracing
3. Direct Check Bite

Prepare for CR recording: Attach EZ-Tracer™ to maxillary tray.

- If the EZ-Tracer is not available, apply tracing material or magic marker on the maxillary tray bottom for CR tracing.

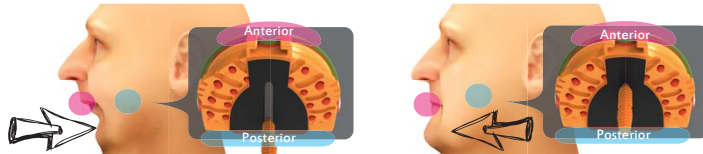


Seat trays back in patient's mouth with center pin attached to the mandibular tray.



Option 1. Simplified Tracing

A | Have patient move their mandible from the most anterior to the most posterior position.

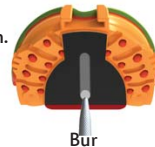


- Position your finger to where the patient should move their jaw. Instruct the patient to move their jaw to that position.
- If this is challenging, guide the jaw with your hand to follow the CR capture movements.

Repeat Step A multiple times
to trace a line segment between the most anterior and posterior point on the maxillary tray.

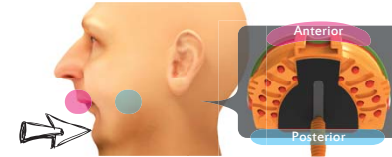
B | The most posterior point of the line segment is the CR position.

- Record the CR position by drilling a small dimple at this point (for the center pin knob to snap into during bite registration.)



Option 2. Gothic Arch Tracing

A | Have patient move their mandible from the most anterior to the most posterior position.

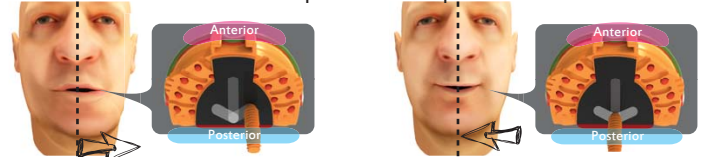


- Position your finger to where the patient should move their jaw. Instruct the patient to move their jaw to that position.
- If this is challenging, guide the jaw with your hand to follow the CR capture movements.

B | Move the mandible from the most posterior center position laterally to the right. Move the mandible back to the posterior center position.



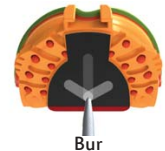
C | Move the mandible from the most posterior center position laterally to the left. Move the mandible back to the posterior center position.



Repeat Steps A-C several times
to trace a precise arrow that points to the posterior center position on the upper tray.

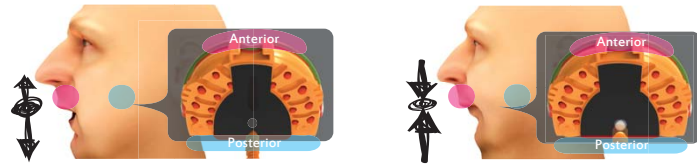
D | The apex of the arrow is the CR using Gothic Arch Tracing.

- Record the CR position by drilling a small dimple at this point (for the center pin knob to snap into during bite registration.)



Option
3. Direct Check Bite

A | Hold the patient's mandible in the most posterior position and have them bite down numerous times. Take the trays out of the mouth to examine the direct check bite points.

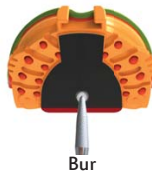


- Stand behind the patient to hold their jaw in the most posterior position while they bite down multiple times.
- The center pin should mark a series of points at the posterior of the EZ-Tracer as the patient bites down.

Repeat Step A multiple times to find the CR point.

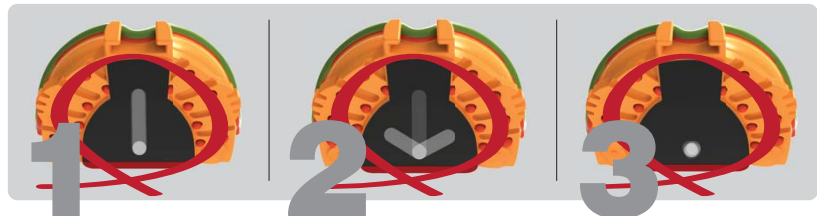
B | The most posterior point where the highest concentration of points are gathered is the CR using direct check bite.

- Record the CR position by drilling a small dimple at this point (for the center pin knob to snap into during bite registration.)



CR Summary - Choose any of these three methods:

1. Simplified Tracing 2. Gothic Arch Tracing 3. Direct Check Bite



V. Bite Registration

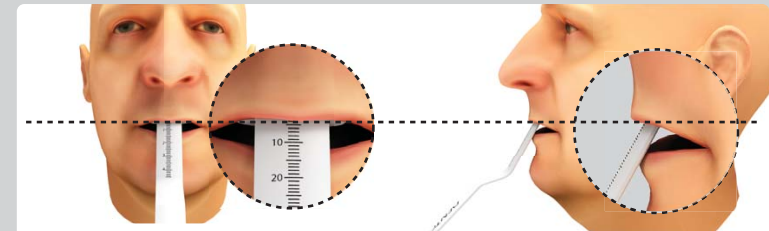
VERY IMPORTANT:

Hold the lower tray firmly in place while recording bite registration to prevent slipping or tilting.

1. Seat trays back in the mouth. Make sure the center pin locks into the CR point dimple.
 2. Inject bite registration material between the trays to record.
- Once the bite registration material hardens, remove the trays from the patient's mouth.



Using the lip ruler, measure the upper lip length from the incisive papilla to upper lip line.



- View the lip ruler straight on for correct measurement. Viewing the ruler from an upward or downward angle will show an inaccurate measurement.

Finished! You're all done with the impression visit.

Ordering / Shipping >

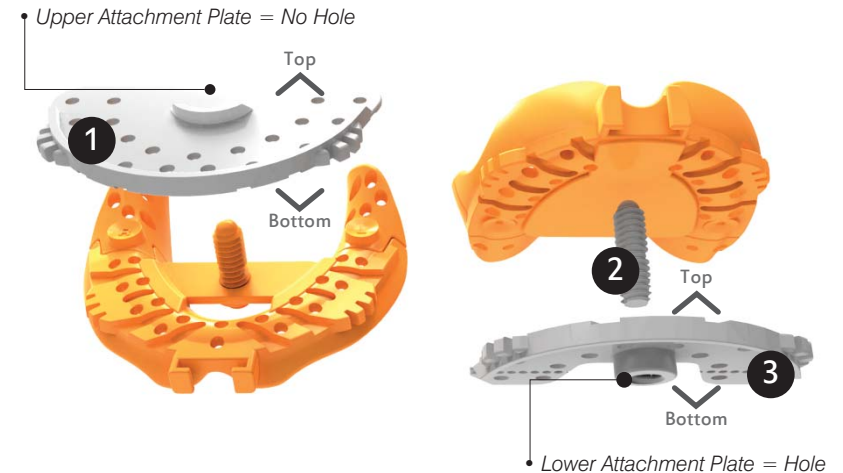


1. Order form download available WWW.HIOSSEN.COM - Digital Center
2. Package, Label and ship the impression part (including detached posteriors) and the printed denture order form to HIOSSEN Digital Center.

Single Arch Maxillary Denture

Mandibular Denture

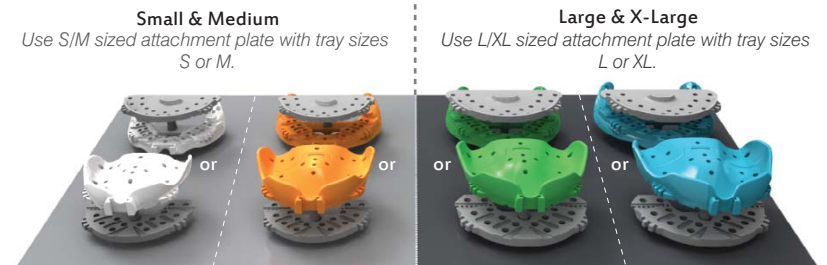
Components



- 1 Upper Attachment Plate
- 2 Center Pin
- 3 Lower Attachment Plate

Tray Selection

DENTCA trays must be used for all impressions.



Select the correct DENTCA tray size (Small, Medium, Large, Extra-Large) that best fits the patient's mouth. Compare tray sizes against the patient's existing dentures or directly in the patient's mouth.



Single Arch Maxillary Denture

I. Maxillary Impression

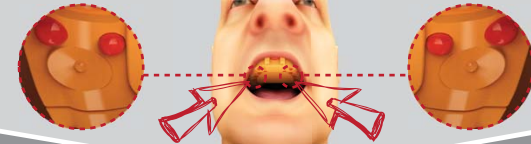
A | Apply thick layer of fast-setting heavy body PVS (to create custom impression tray).



C | **Layer 2 (Wash):** Apply thin layer of fast-setting light body PVS on top of entire heavy body impression.



Seat firmly for 5 seconds using finger spots on bottom of tray.

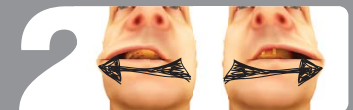


BORDER MOLDING

Pull, stretch and tug the patient's cheeks and mouth muscles forcefully to ensure proper border molding. Do not skip or neglect this procedure.



1. Have the patient open mouth wide then close.



2. Have the patient move jaw side by side.



3. Pull the patient's right cheek out and down. Then pull the patient's left cheek out and down.



4. Pull the upper lip down.

Repeat entire sequence 4 times (#1-4)

B | Adjust any exposed tray areas with a bur.



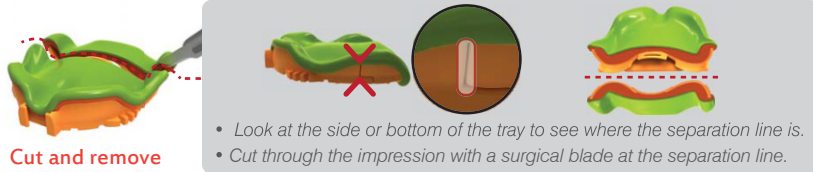
D | If there are any tray parts still exposed, adjust with a bur and go back to Step C.



II. Vertical Dimension (VD)

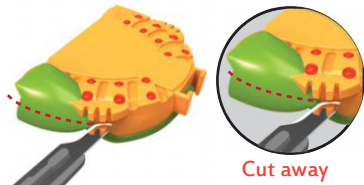
You must find the correct VD before recording CR.

A | Cut through and detach the posterior part of the maxillary tray and impression to avoid interference when measuring VD.



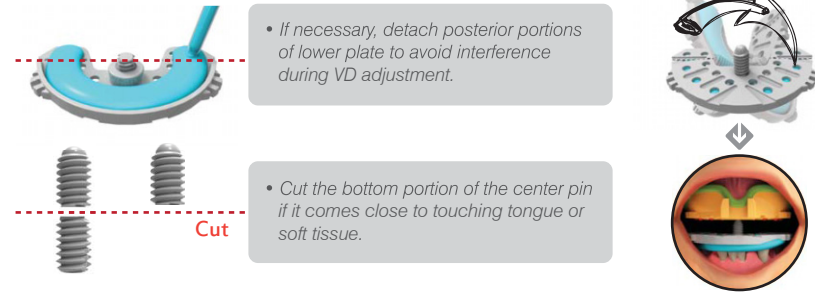
Cut and remove

B | Remove impression overflow on cameo side.

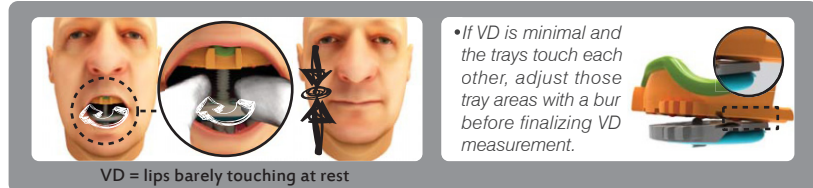


Cut away

C | Attach center pin to Lower Attachment Plate. Attach Lower Attachment Plate to existing lower dentition with bite registration material.



D | **VD** Adjust (rotate clockwise) center pin with fingers or tweezers to reach **VD**. Remove and adjust extraorally if needed.



III. Centric Relations (CR)

Accurate CR recording is essential to accurate denture setup.

Choose one of three CR recording methods:

1. Simplified Tracing 2. Gothic Arch Tracing 3. Direct Check Bite

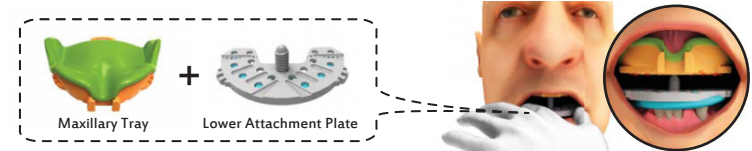
Prepare for CR recording: Attach EZ-Tracer™ to maxillary tray.

- If the EZ-Tracer is not available, apply tracing material or magic marker on the maxillary tray bottom for CR tracing.



Seat Maxillary Tray back in the patient's mouth.

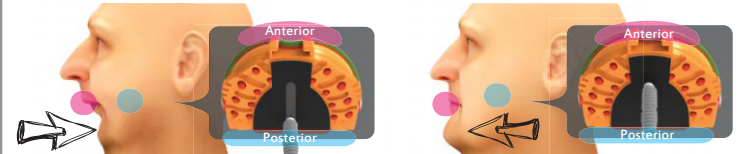
Insert center pin to Lower Attachment Plate pinhole. Then attach Lower Attachment Plate to existing lower dentition with bite registration material.



Option

1. Simplified Tracing

A | Have patient move their mandible from the most anterior to the most posterior position.

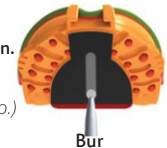


- Position your finger to where the patient should move their jaw. Instruct the patient to move their jaw to that position.
- If this is challenging, guide the jaw with your hand to follow the CR capture movements.

Repeat Step A multiple times to trace a line segment between the most anterior and posterior point on the maxillary tray.

B | The most posterior point of the line segment is the CR position.

- Record the CR position by drilling a small dimple at this point. (The dimple should be large enough for the center pin knob to snap into.)

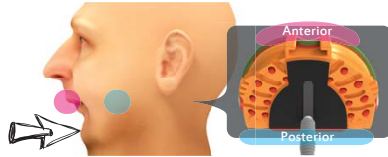


Bad (re-do)



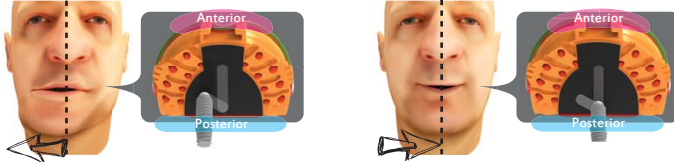
Option
2. Gothic Arch Tracing

A | Have patient move their mandible from the most anterior to the most posterior position.

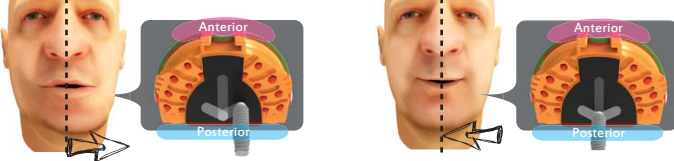


- Position your finger to where the patient should move their jaw. Instruct the patient to move their jaw to that position.
- If this is challenging, guide the jaw with your hand to follow the CR capture movements.

B | Move the mandible from the most posterior center position laterally to the right. Move the mandible back to the posterior center position.



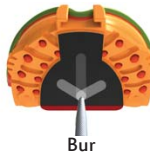
C | Move the mandible from the most posterior center position laterally to the left. Move the mandible back to the posterior center position.



Repeat Steps A-C several times
 to trace a precise arrow that points
 to the posterior center position on the upper tray.

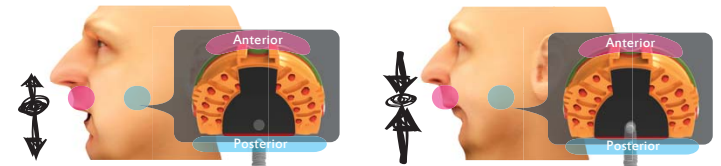
D | The apex of the arrow is the CR using Gothic Arch Tracing.

- Record the CR position by drilling a small dimple at this point (for the center pin knob to snap into during bite registration.)



Option
3. Direct Check Bite

A | Hold the patient's mandible in the most posterior position and have them bite down numerous times. Take the trays out of the mouth to examine the direct check bite points.

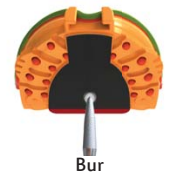


- Stand behind the patient to hold their jaw in the most posterior position while they bite down multiple times.
- The center pin should mark a series of points at the posterior of the EZ-Tracer as the patient bites down.

Repeat Step A multiple times
 to find the CR point.

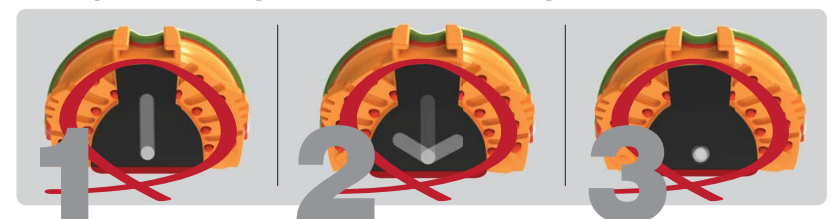
B | The most posterior point where the highest concentration of points are gathered is the CR using direct check bite.

- Record the CR position by drilling a small dimple at this point (for the center pin knob to snap into during bite registration.)



CR Summary - Choose any of these three methods:

1. Simplified Tracing 2. Gothic Arch Tracing 3. Direct Check Bite

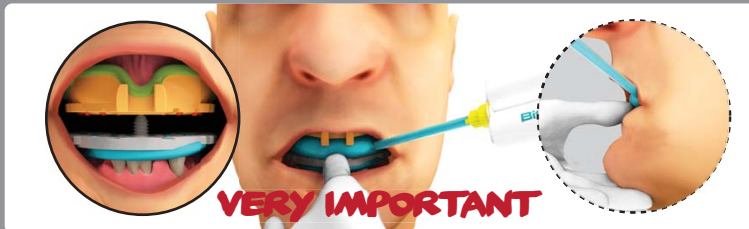


IV. Bite Registration

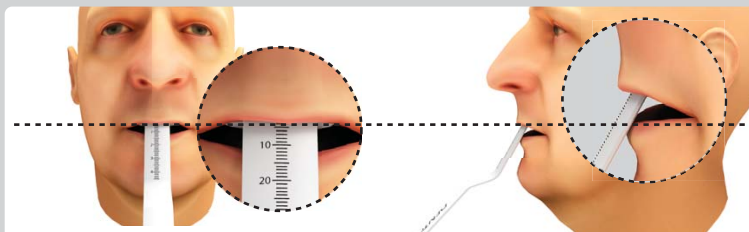
VERY IMPORTANT:

Hold the lower attachment plate firmly in place while recording bite registration to prevent slipping or tilting.

1. Seat trays back in the mouth. Make sure the center pin locks into the CR point dimple.
 2. Inject bite registration material between the maxillary tray and lower attachment plate to record.
- Once the bite registration material hardens, remove the trays from the patient's mouth.



Using the lip ruler, measure the upper lip length from the incisive papilla to upper lip line.



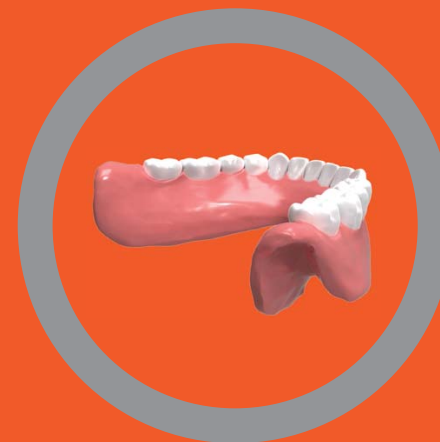
- View the lip ruler straight on for correct measurement. Viewing the ruler from an upward or downward angle will show an inaccurate measurement.

Finished! You're all done with the impression visit.

Ordering / Shipping >



1. Download order form available at WWW.HIOSSEN.COM - Digital Center
2. Package, label and ship the impression parts (including detached posteriors, lower attachment plate, bite registration), the mandibular stone cast and the printed denture order form to HIOSSEN Digital Center.



Single Arch Mandibular Denture

I. Mandibular Impression

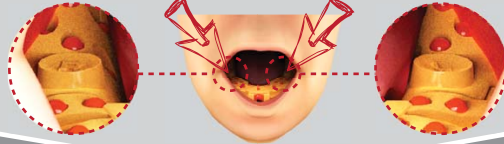
A Apply thick layer of fast-setting heavy body PVS (to create custom impression tray).



C **Layer 2 (Wash):** Apply thin layer of fast-setting light body PVS on top of entire heavy body impression.

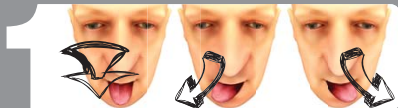


Seat firmly for 5 seconds using finger spots on bottom of tray.

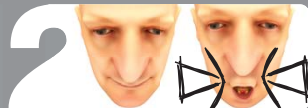


BORDER MOLDING

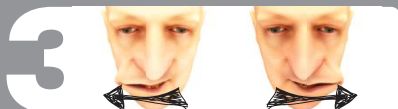
Pull, stretch and tug the patient's cheeks and mouth muscles forcefully to ensure proper border molding. Do not skip or neglect this procedure.



1. Have the patient stick his/her tongue out.



2. Squeeze in both cheeks while the mouth is completely relaxed.



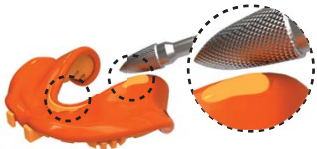
3. Pull the patient's right cheek out. Then pull the patient's left cheek out.



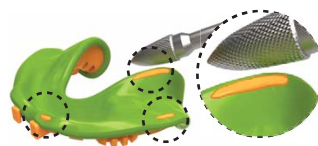
4. Pull the lower lip up.

Repeat entire sequence 4 times (#1-4)

B Adjust any exposed tray areas with a bur.



D If there are any tray parts still exposed, adjust with a bur and go back to Step C.



II. Vertical Dimension (VD)

You must find the correct VD before recording CR.

A Separate the tray posteriorly to avoid interference when measuring VD.

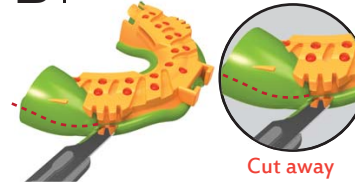


Cut and remove



- Look at the side or bottom of the tray to see where the separation line is.
- Cut through the impression with a surgical blade at the separation line.

B Remove impression overflow on cameo side.



Cut away

C Attach Upper Attachment Plate to existing upper dentition with bite registration. Attach center pin to Mandibular Tray.



Click



Cut

- Cut the bottom portion of the center pin if it comes close to touching tongue or soft tissue.

D | VD Adjust (rotate clockwise) center pin with fingers or tweezers to reach **VD**. Remove and adjust extraorally if needed.



VD = lips barely touching at rest

- If VD is minimal and the trays touch each other, adjust those tray areas with a bur before finalizing VD measurement.



III. Centric Relations (CR)

Accurate CR recording is essential to accurate denture setup.

Choose one of three CR recording methods:

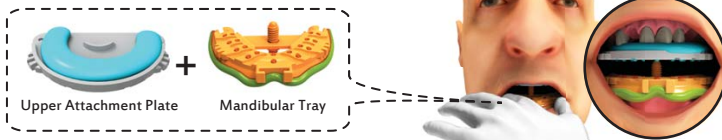
1. Simplified Tracing
2. Gothic Arch Tracing
3. Direct Check Bite

Prepare for CR recording: Attach EZ-Tracer™ to upper attachment plate.

- If the EZ-Tracer is not available, apply tracing material or magic marker on the upper attachment plate bottom for CR tracing.



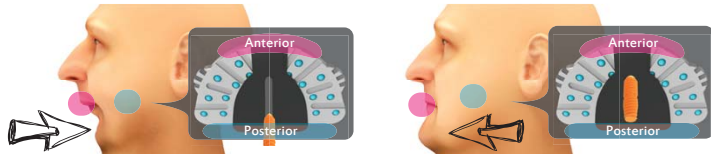
Attach Upper Attachment Plate to existing upper dentition with bite registration material. Seat mandibular tray back in patient's mouth with center pin attached.



Option

1. Simplified Tracing

A | Have patient move their mandible from the most anterior to the most posterior position.



- Position your finger to where the patient should move their jaw. Instruct the patient to move their jaw to that position.
- If this is challenging, guide the jaw with your hand to follow the CR capture movements.

Repeat Step A multiple times
to trace a line segment between the most anterior and posterior point on the maxillary tray.

B | The most posterior point of the line segment is the CR position.

- Record the CR position by drilling a small dimple at this point. (The dimple should be large enough for the center pin knob to snap into during bite registration.)



Bad (re-do)



Option

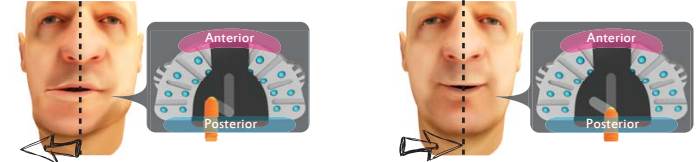
2. Gothic Arch Tracing

A | Have patient move their mandible from the most anterior to the most posterior position.



- Position your finger to where the patient should move their jaw. Instruct the patient to move their jaw to that position.
- If this is challenging, guide the jaw with your hand to follow the CR capture movements.

B | Guide mandible from the most posterior center position laterally to the right. Guide mandible back to the posterior center position.



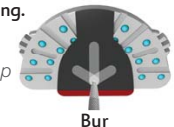
C | Guide mandible from the most posterior center position laterally to the left. Guide mandible back to the posterior center position.



Repeat Steps A-C several times
to trace a precise arrow that points to the posterior center position on the upper tray.

D | The apex of the arrow traced is the CR using Gothic Arch Tracing.

- Record the CR position by drilling a small dimple at this point. (The dimple should be large enough for the center pin knob to snap into during bite registration.)

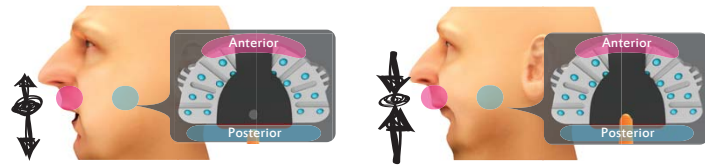


Bad (re-do)



Option
3. Direct Check Bite

A | Hold the patient's mandible in the most posterior position and have them bite down numerous times. Take the trays out of the mouth to examine the direct check bite points.

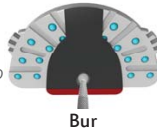


- Stand behind the patient to hold their jaw in the most posterior position.
- The center pin should mark a series of points near the posterior of the mouth as the patient bites down.

Repeat Step A multiple times to find the CR point.

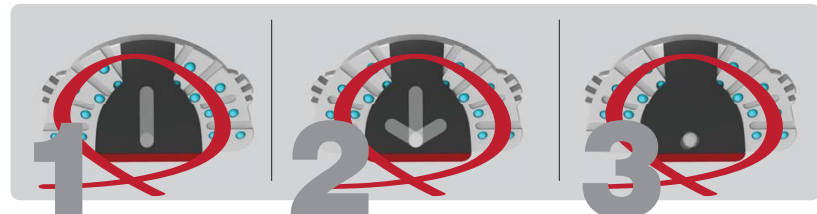
B | The most posterior point where the highest concentration of points are gathered is the CR using direct check bite.

- Record the CR position by drilling a small dimple at this point. (The dimple should be large enough for the center pin knob to snap into during bite registration.)



CR Summary - Choose any of these three methods:

1. Simplified Tracing 2. Gothic Arch Tracing 3. Direct Check Bite



IV. Bite Registration

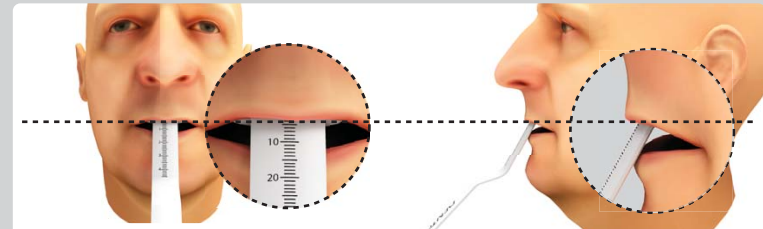
VERY IMPORTANT:

Hold the lower tray firmly in place while recording bite registration to prevent slipping or tilting.

1. Seat trays back in the mouth. Make sure the center pin locks into the CR point dimple.
2. Inject bite registration material between the mandibular tray and upper attachment plate to record.
- Once the bite registration material hardens, remove the trays from the patient's mouth.



Using the lip ruler, measure the upper lip length from the incisive papilla to upper lip line.



- View the lip ruler straight on for correct measurement. Viewing the ruler from an upward or downward angle will show an inaccurate measurement.

Finished! You're all done with the impression visit.

Ordering / Shipping



1. Download order form available at WWW.HIOSSEN.COM - Digital Center
2. Package, label and ship the impression parts (including detached posteriors, upper attachment plate, bite registration), the maxillary stone cast and the printed denture order form to HIOSSEN Digital Center.

Impression Manual Summary

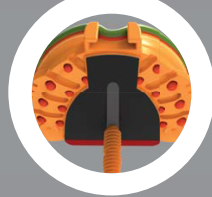
I
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S
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VD
&
CR



B
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