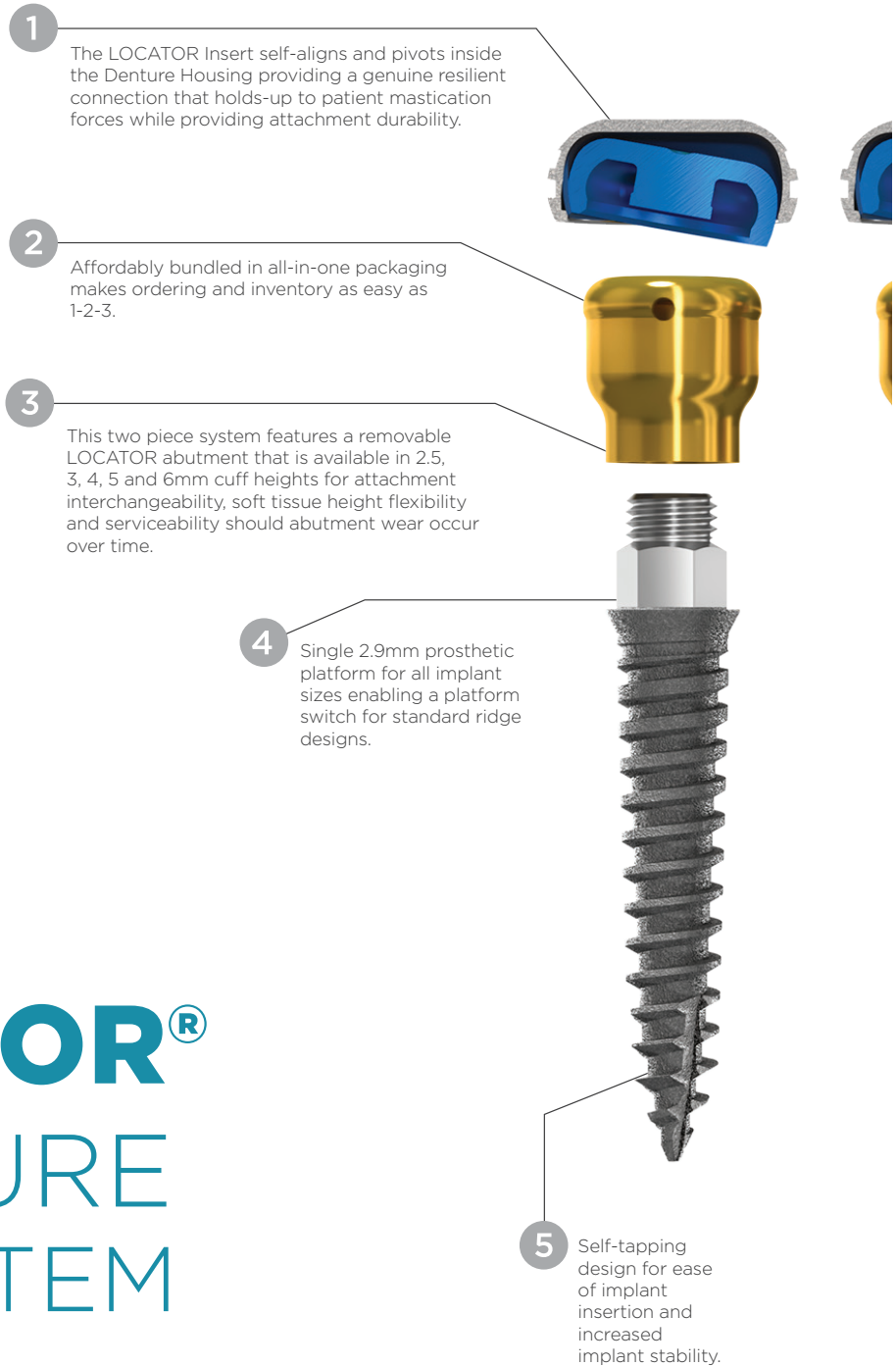




# LOCATOR® OVERDENTURE IMPLANT SYSTEM

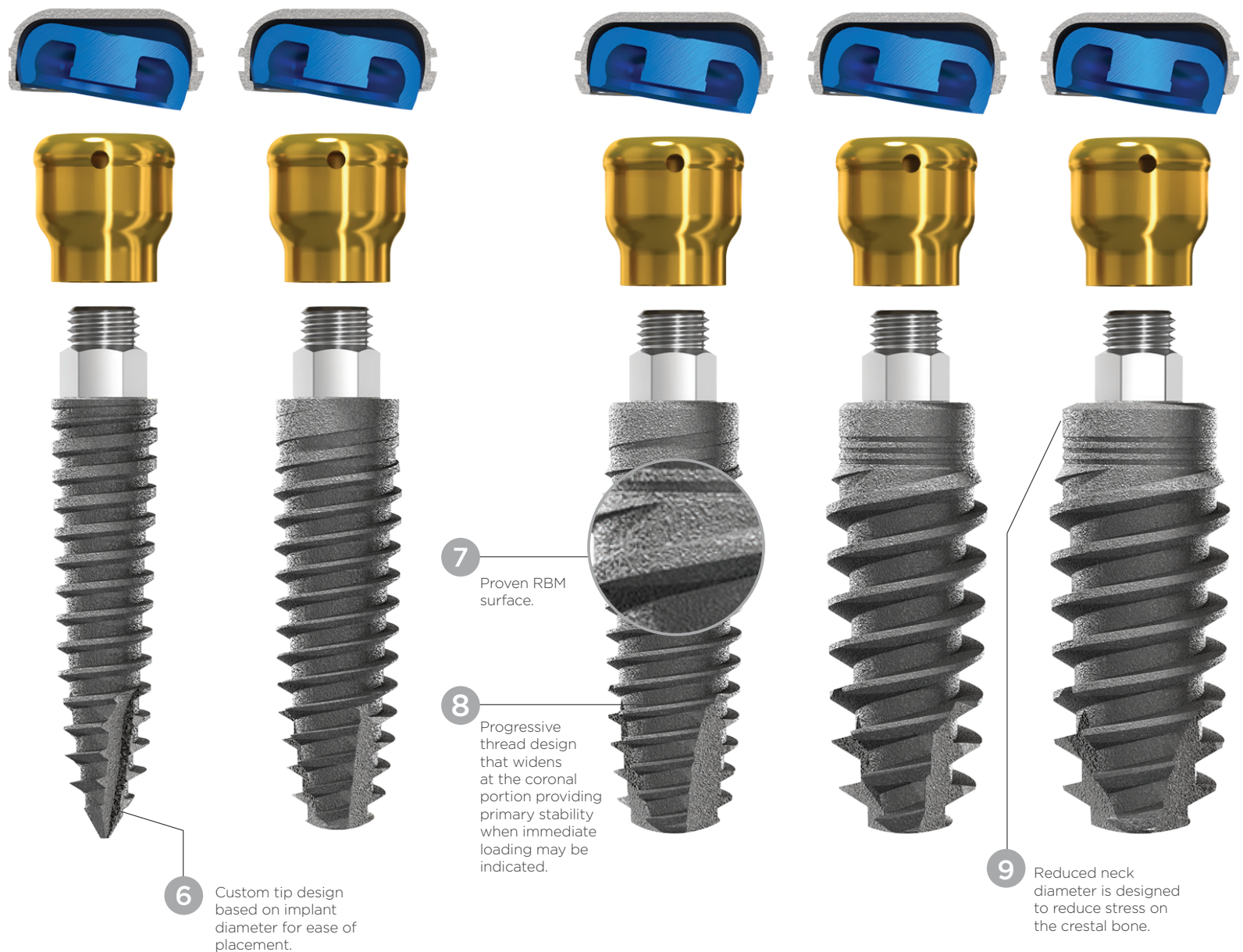
TECHNIQUE MANUAL





# THE LOCATOR® OVERDENTURE IMPLANT SYSTEM

Four decades of overdenture attachment knowledge now in overdenture implants.



The LOCATOR Overdenture Implant System is comprised of 2.4, 2.9, 3.5, 3.9, 4.4 and 4.9mm diameter dental implants (available in 8, 10, 12 and 14mm lengths) with a detachable LOCATOR Abutment that is available in a 2.5, 3, 4, 5, or 6mm cuff height. LOCATOR Implants are used to restore masticatory function for the patient and may be suitable for immediate load if sufficient primary stability of the implant is achieved at the time of placement. The final treatment option may be determined at the time of surgery as the clinician must consider the quality of supporting bone and initial insertion torque values of the implants. Immediate function is determined on a case-by-case basis and at the discretion of the clinician.

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**IMPORTANT:** THIS DOCUMENT CONTAINS THE MOST CURRENT  
TECHNICAL GUIDELINES. PLEASE READ AND RETAIN.

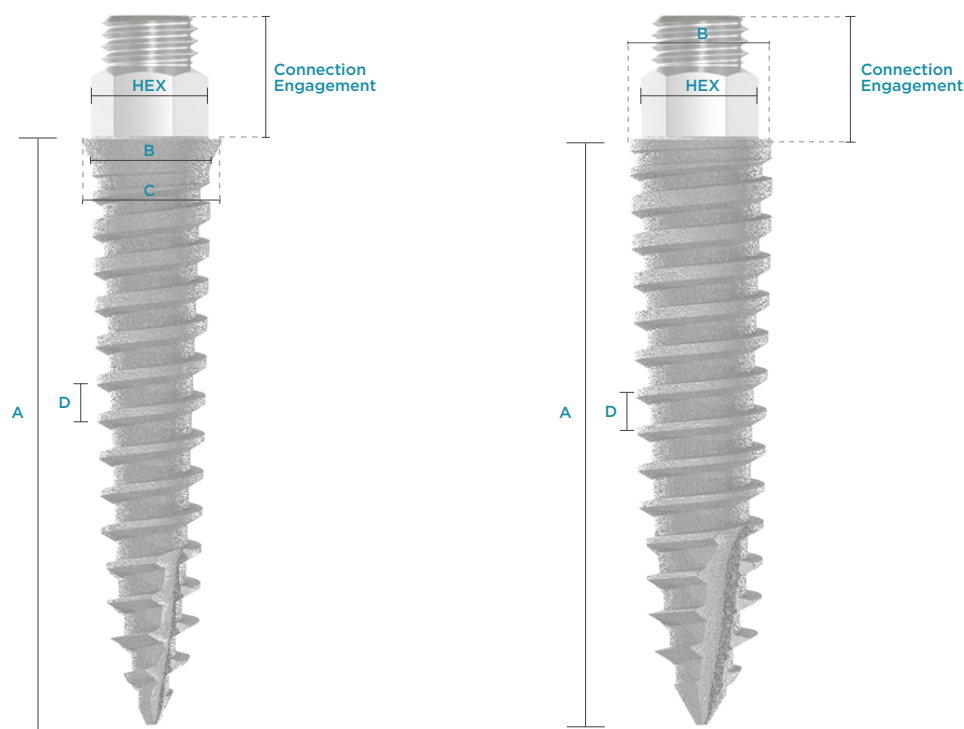


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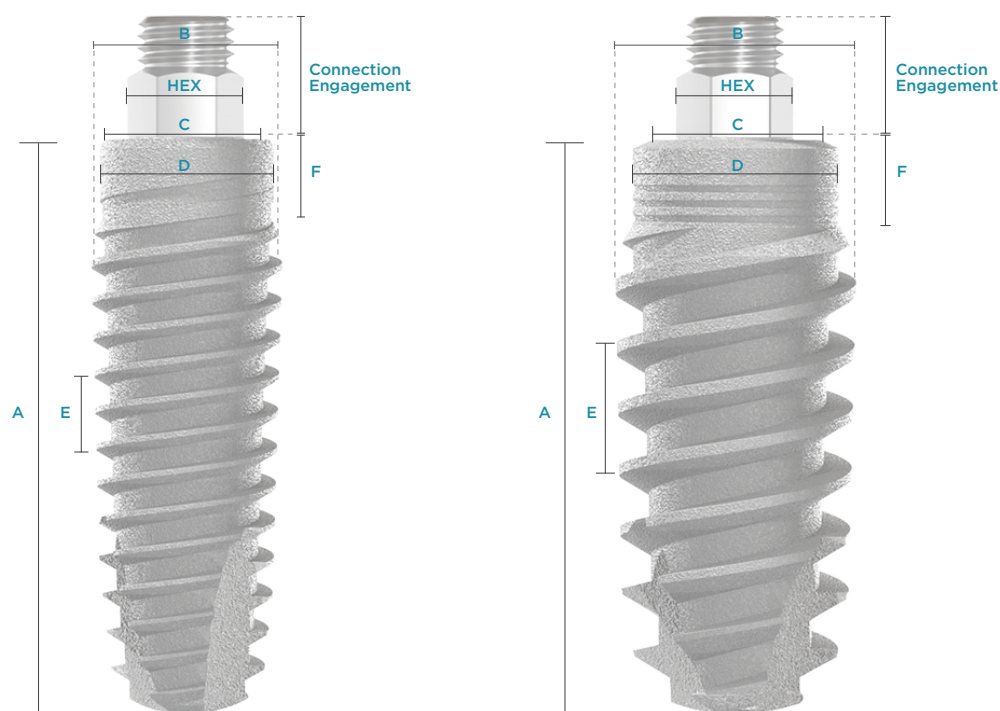
# LOCATOR® IMPLANT SYSTEM DIMENSIONS



	A	B	C	D		
Part Number	Length	Diameter	Platform	Single Lead Thread Pitch	Hex	Connection Engagement
07341	10mm	2.4mm	2.9mm	0.79mm	2.11mm	2.51mm
07342	12mm	2.4mm	2.9mm	0.79mm		
07343	14mm	2.4mm	2.9mm	0.79mm		
07346	10mm	2.9mm	2.9mm	0.79mm		
07347	12mm	2.9mm	2.9mm	0.79mm		
07348	14mm	2.9mm	2.9mm	0.79mm		

**NOTE** Single 2.9mm prosthetic platform fits all implants.  
Zest recommends 7mm between implants.

# LOCATOR® IMPLANT SYSTEM DIMENSIONS CONT.



	A	B	C	D	E	F		
Part Number	Length	Diameter	Platform	Reduced Neck Diameter	Dual Lead Thread Pitch	Reduced Neck Height	Hex	Connection Engagement
07501	8mm	3.5mm	3.35mm	3.35mm	1.25mm	1mm	2.11mm	2.51mm
07502	10mm	3.5mm	3.35mm	3.35mm	1.5mm	1.75mm		
07503	12mm	3.5mm	3.35mm	3.35mm	1.5mm	1.75mm		
07504	14mm	3.5mm	3.35mm	3.35mm	1.5mm	1.75mm		
07505	8mm	3.9mm	3.40mm	3.55mm	1.25mm	1mm		
07506	10mm	3.9mm	3.40mm	3.55mm	1.5mm	1.75mm		
07507	12mm	3.9mm	3.40mm	3.55mm	1.5mm	1.75mm		
07508	14mm	3.9mm	3.40mm	3.55mm	1.5mm	1.75mm		
07509	8mm	4.4mm	3.40mm	3.70mm	2mm	1mm		
07510	10mm	4.4mm	3.40mm	3.70mm	2.5mm	1.75mm		
07511	12mm	4.4mm	3.40mm	3.70mm	2.5mm	1.75mm		
07512	14mm	4.4mm	3.40mm	3.70mm	2.5mm	1.75mm		
07513	8mm	4.9mm	3.40mm	4.20mm	2mm	1mm		
07514	10mm	4.9mm	3.40mm	4.20mm	2.5mm	1.75mm		
07515	12mm	4.9mm	3.40mm	4.20mm	2.5mm	1.75mm		
07516	14mm	4.9mm	3.40mm	4.20mm	2.5mm	1.75mm		

## NOTE

Deduct 0.25mm for actual full implant length (A).  
Single 2.9mm prosthetic platform fits all implants.

# PRODUCT ORDERING INFORMATION



## 2.4mm

Part	Length	Cuff
07450	10mm	2.5mm
07451	12mm	2.5mm
07452	14mm	2.5mm
07440	10mm	3mm
07441	12mm	3mm
07442	14mm	3mm
07455	10mm	4mm
07456	12mm	4mm
07457	14mm	4mm
07432	10mm	5mm
07433	12mm	5mm
07434	14mm	5mm
07381	10mm	Implant Only
07382	12mm	Implant Only
07383	14mm	Implant Only

## 2.9mm

Part	Length	Cuff
07460	10mm	2.5mm
07461	12mm	2.5mm
07462	14mm	2.5mm
07443	10mm	3mm
07444	12mm	3mm
07445	14mm	3mm
07465	10mm	4mm
07466	12mm	4mm
07467	14mm	4mm
07435	10mm	5mm
07436	12mm	5mm
07437	14mm	5mm
07386	10mm	Implant Only
07387	12mm	Implant Only
07388	14mm	Implant Only

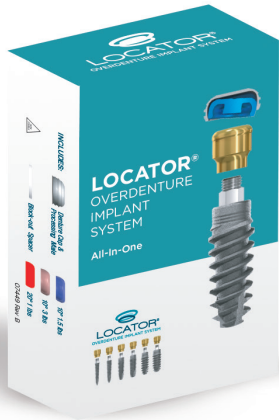
## 3.5mm

Part	Length	Cuff
07501-02	8mm	2.5mm
07502-02	10mm	2.5mm
07503-02	12mm	2.5mm
07504-02	14mm	2.5mm
07501-03	8mm	3mm
07502-03	10mm	3mm
07503-03	12mm	3mm
07504-03	14mm	3mm
07501-04	8mm	4mm
07502-04	10mm	4mm
07503-04	12mm	4mm
07504-04	14mm	4mm
07501-05	8mm	5mm
07502-05	10mm	5mm
07503-05	12mm	5mm
07504-05	14mm	5mm
07501	8mm	Implant Only
07502	10mm	Implant Only
07503	12mm	Implant Only
07504	14mm	Implant Only

## ALL-INCLUSIVE PACKAGE

1 Implant  
1 LOCATOR® Abutment  
1 Processing Pack

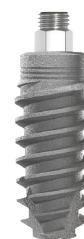
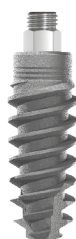
Each Processing Pack has what you need to select retention levels and address draw correction; improving ease of denture placement and removal



+



# PRODUCT ORDERING INFORMATION CONT.



3.9mm			4.4mm			4.9mm		
Part	Length	Cuff	Part	Length	Cuff	Part	Length	Cuff
07505-02	8mm	2.5mm	07509-02	8mm	2.5mm	07513-02	8mm	2.5mm
07506-02	10mm	2.5mm	07510-02	10mm	2.5mm	07514-02	10mm	2.5mm
07507-02	12mm	2.5mm	07511-02	12mm	2.5mm	07515-02	12mm	2.5mm
07508-02	14mm	2.5mm	07512-02	14mm	2.5mm	07516-02	14mm	2.5mm
07505-03	8mm	3mm	07509-03	8mm	3mm	07513-03	8mm	3mm
07506-03	10mm	3mm	07510-03	10mm	3mm	07514-03	10mm	3mm
07507-03	12mm	3mm	07511-03	12mm	3mm	07515-03	12mm	3mm
07508-03	14mm	3mm	07512-03	14mm	3mm	07516-03	14mm	3mm
07505-04	8mm	4mm	07509-04	8mm	4mm	07513-04	8mm	4mm
07506-04	10mm	4mm	07510-04	10mm	4mm	07514-04	10mm	4mm
07507-04	12mm	4mm	07511-04	12mm	4mm	07515-04	12mm	4mm
07508-04	14mm	4mm	07512-04	14mm	4mm	07516-04	14mm	4mm
07505-05	8mm	5mm	07509-05	8mm	5mm	07513-05	8mm	5mm
07506-05	10mm	5mm	07510-05	10mm	5mm	07514-05	10mm	5mm
07507-05	12mm	5mm	07511-05	12mm	5mm	07515-05	12mm	5mm
07508-05	14mm	5mm	07512-05	14mm	5mm	07516-05	14mm	5mm
07505	8mm	Implant Only	07509	8mm	Implant Only	07513	8mm	Implant Only
07506	10mm	Implant Only	07510	10mm	Implant Only	07514	10mm	Implant Only
07507	12mm	Implant Only	07511	12mm	Implant Only	07515	12mm	Implant Only
07508	14mm	Implant Only	07512	14mm	Implant Only	07516	14mm	Implant Only

## PROCESSING PACK



Denture  
Housing



Blue Standard  
Range Insert  
Low Retention



Pink Standard  
Range Insert  
Medium Retention



Red Extended  
Range Insert  
Low Retention



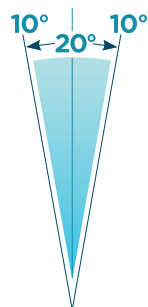
Block-Out  
Spacer



# LOCATOR® CORE TOOL & RETENTION INSERTS

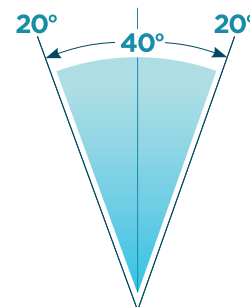
## STANDARD INSERTS

Dual retention to maximize stability and pivoting action that accommodates up to 20° of total divergence between two implants.



## EXTENDED RANGE INSERTS

Pivoting action accommodates up to 40° of total divergence between two implants.



Blue Low Retention



Pink Medium Retention



Clear High Retention



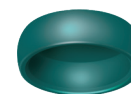
Gray Zero Retention



Red Low Retention



Orange Medium Retention



Green High Retention



### REMOVAL TOOL

Use the sharp edge on the end of the removal tool to engage and remove the insert from the Denture Housing.



### INSERTION TOOL

Use the tip of the insertion tool to seat the insert.



### ABUTMENT DRIVER & SLEEVE

Use the abutment drive with the abutment sleeve to carry and securely place your abutment onto the implant.



## 3-IN-1 CORE TOOL

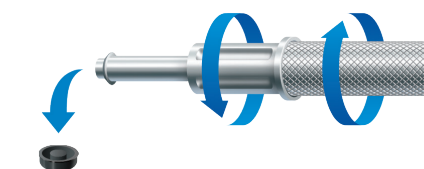
Loosen the Removal Tool a full 3 turns counter clockwise (you will see a visible gap).

To remove a LOCATOR Insert from the Denture Housing, simply insert the tip into the Housing/Insert assembly and push straight into the bottom of the Insert. Then, tilt the tool so that the sharp edge of the tip will grab hold of the Insert and pull it out of the Denture Housing.

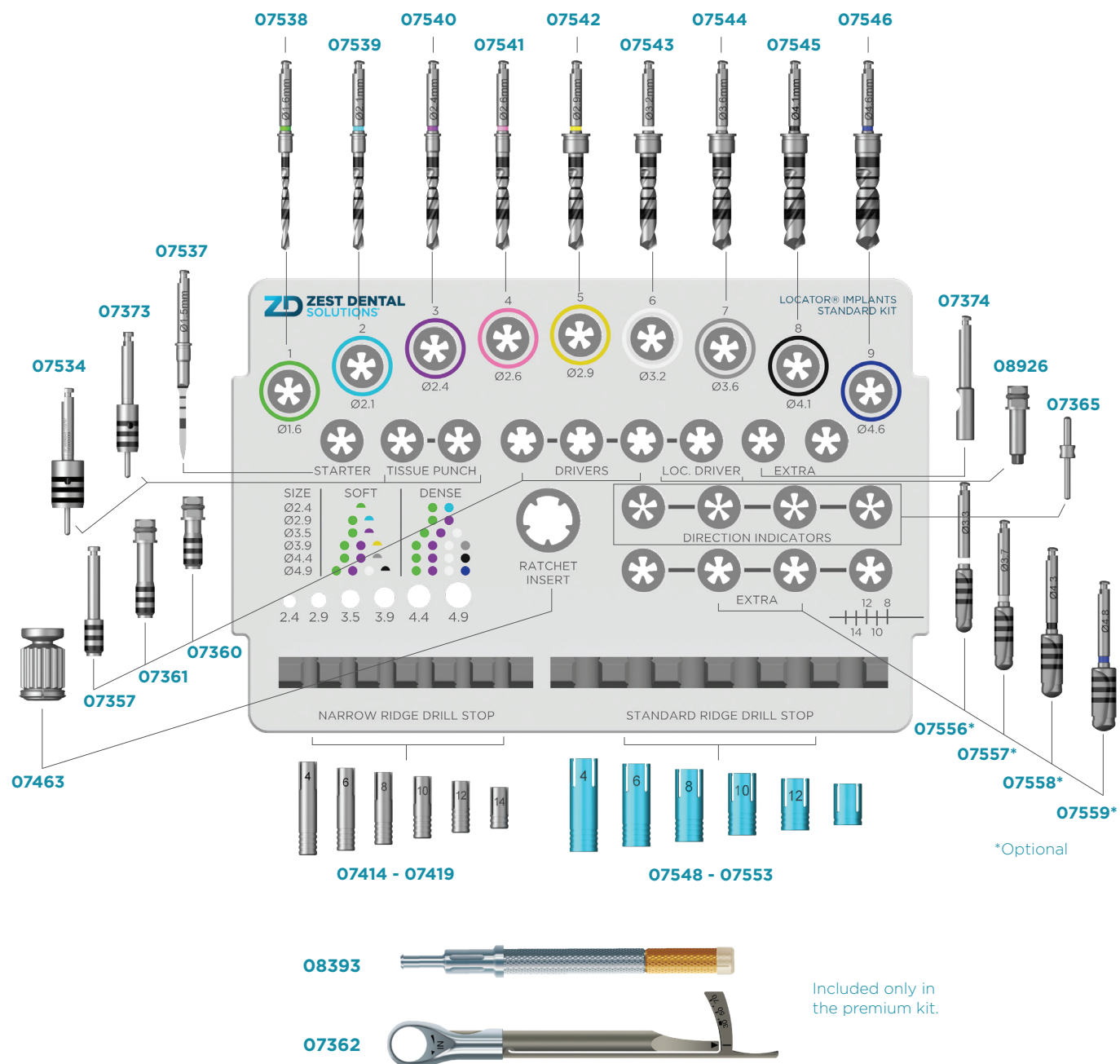
To disengage the Insert from the tip of the Removal Tool; point the tool down and away from you and tighten the Removal Tool clockwise back onto the Core Tool. This will activate the removal pin and disengage the Insert from the tip of the Removal Tool.

Separate the Removal Tool section from the LOCATOR Core Tool and use the Seating Tool end to place a new Insert into the empty Denture Housing.

NOTE THE GAP ONCE TURNED COUNTER CLOCKWISE



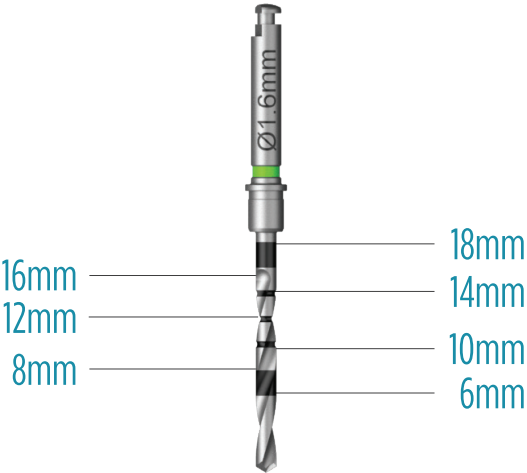
# LOCATOR® IMPLANT SURGICAL KIT



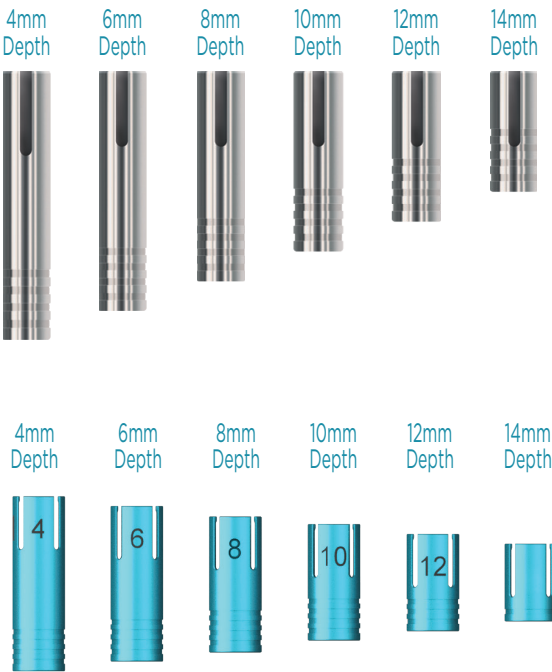
The LOCATOR Standard and Premium Implant Surgical Kits offer simplified surgical kit design with convenient color coded drill protocol for reference and ease-of-use during procedures. The LOCATOR Implants Surgical Kit makes implant procedures simpler, easier, and worry-free allowing clinicians to focus more energy on the clinical and esthetic goals of the case. With LOCATOR Implants you get everything that's expected from a premium system in a bundled solution at a value price that's affordable for clinicians and patients.

# DRILLING PROTOCOL

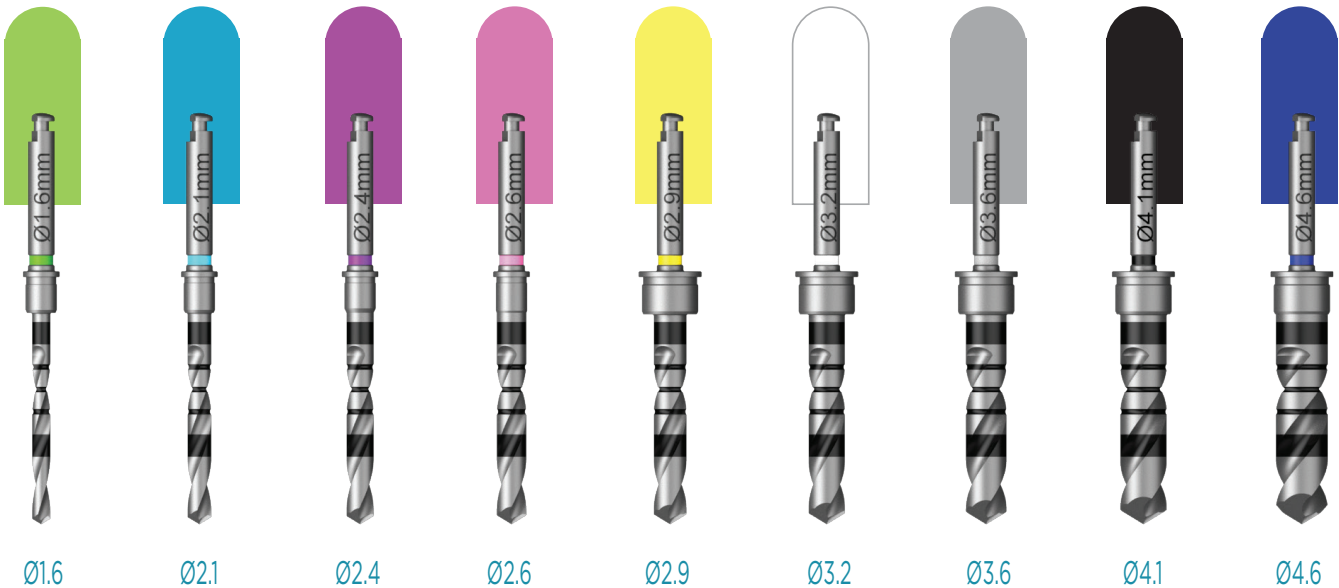
## DRILL LASER DEPTH MARKINGS





































## DRILL STOPS





## DRILL COLOR CODES



# DRILLING PROTOCOL CONT.

IMPLANT DIAMETER	SOFT	DENSE
Ø2.4mm		 
Ø2.9mm	 	 
Ø3.5mm	 	  
Ø3.9mm	  	   
Ø4.4mm	  	   
Ø4.9mm	   	   

 Full Circle  
Drill to full implant length.
  Half Circle  
Drill 4mm short of implant length.

## TIPS

Implant Insertion - A LOCATOR Overdenture Implant can be placed with a torque indicating ratchet or a surgical hand piece. The speed of insertion should not exceed 50rpm. Implant insertion torque should not exceed 70Ncm.

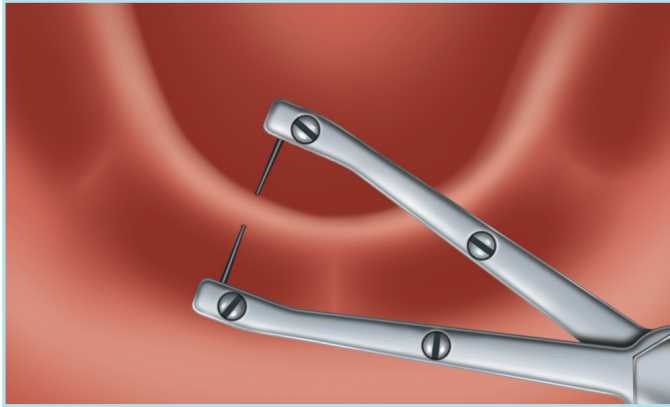
Follow the D2/D3/D4 drilling sequence prior to following the D1 drilling sequence. This offers the flexibility to adapt the drilling protocol to the patient's bone quality. For D1 bone density, an optional cortical drill may be used as the final drilling sequence step for the 3.5, 3.9, 4.4, or 4.9mm diameter implant.

If strong resistance occurs before the implant reaches its final desired position, rotate the implant counterclockwise and then continue to insert. Repeat until the final desired position is obtained. The next drill size up or cortical drill (if available) may also be used if strong resistance occurs before the implant reaches its final desired position.

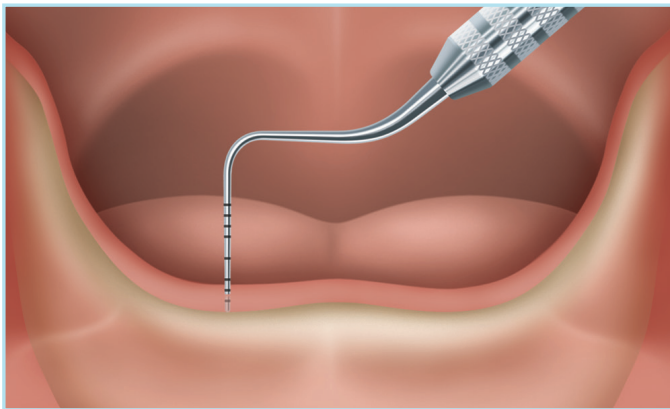
## NOTE

Recommended drilling speed is 800-1200RPM. Do not exceed a maximum of 800 RPM when utilizing tissue punch.

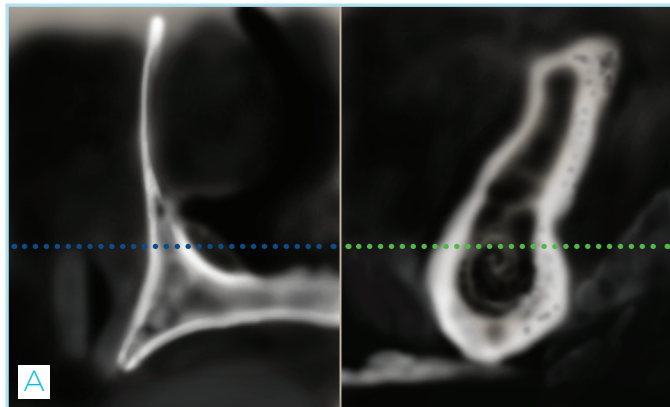
# PRE-OPERATIVE TREATMENT PLANNING



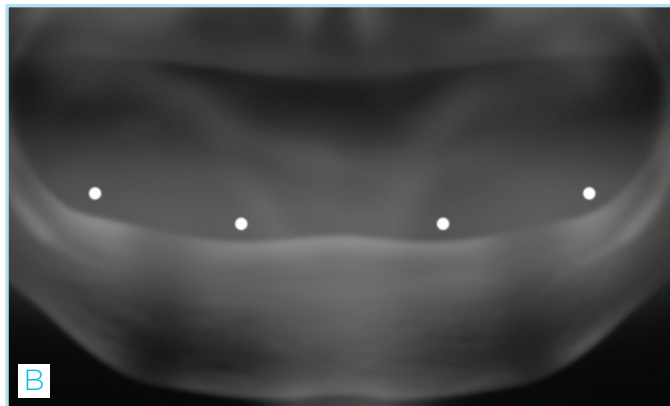
**1** Evaluate available bone width at desired implant positions by using the index finger/thumb technique or a ridge mapping instrument (which can be purchased through most dental instrument companies).



**2** Measure gingiva height at each planned implant location using a periodontal probe to determine the proper LOCATOR® Abutment cuff height.

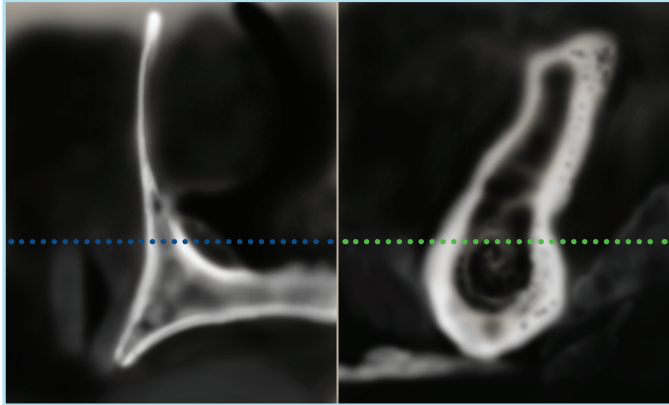


**3A-3B** A panoramic radiograph or CBCT with radiographic markers may be used to evaluate the bone topography and determine the appropriate implant positions.



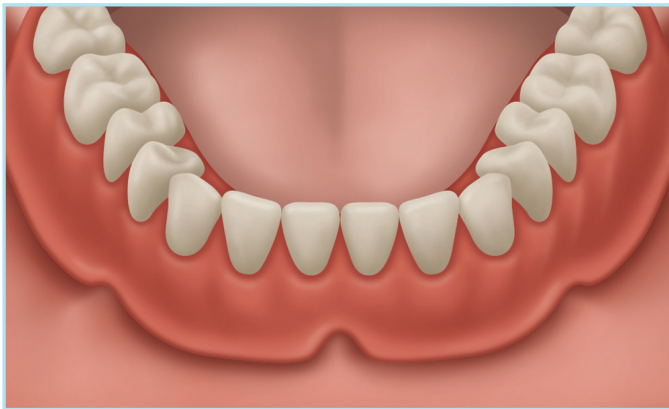


## PRE-OPERATIVE TREATMENT PLANNING CONT.

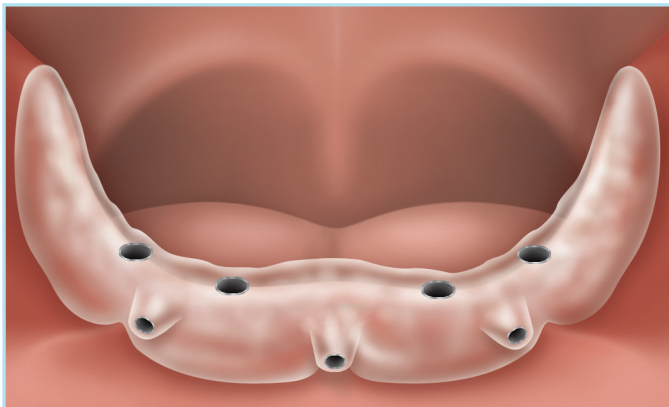


**4** Choose the appropriate implant size for the patient. Zest recommends placement of the LOCATOR® Overdenture Implants where patients have at least 1mm of available bone around the circumference of the implant.

**TIP:** Digital implant libraries are available. For more information, contact a Zest Dental Solutions representative or visit [www.zestdent.com](http://www.zestdent.com).



**5** Determine if the patient's existing overdenture(s) will be used or if new ones will be fabricated. If a new overdenture is fabricated, follow the standard overdenture fabrication protocols.



**6** Optional: A surgical guide for implant placement may be fabricated prior to surgery.

# MANDIBULAR IMPLANT PLACEMENT

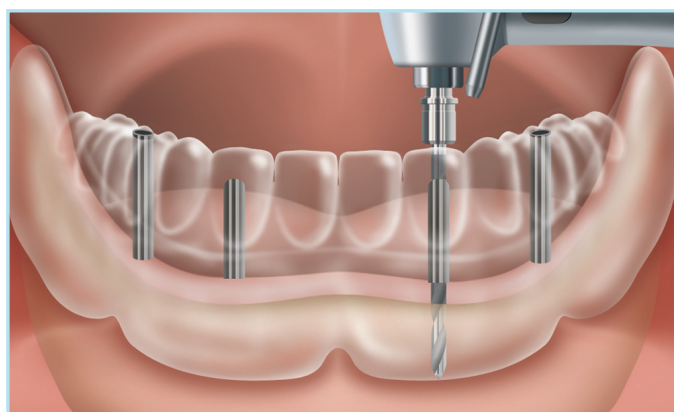
After patient selection and evaluation protocols have been completed, determine the number of implants required and discuss all treatment options with the patient. Zest Dental Solutions® recommends a minimum of four implants to be placed in the mandible (option of two implants when all standard ridge implants are placed) and up to six in the maxilla for optimal retention.

## TIPS

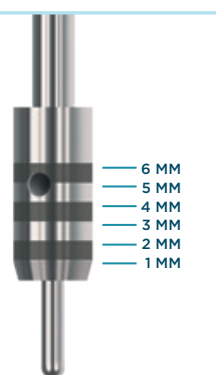
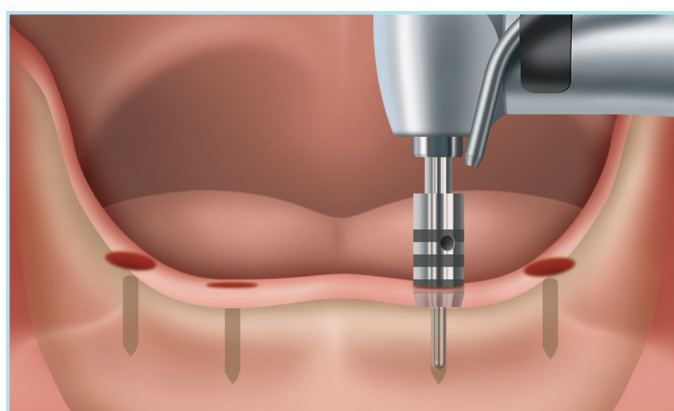
It is recommended to follow the D2/D3/D4 drilling sequence prior to following the D1 drilling sequence. This offers the flexibility to adapt the drilling protocol to the patients bone quality.

For D1 bone type, an optional cortical drill may be used as the final drilling sequence step. The cortical drill may be used to a depth of 2-4mm.

## MANDIBULAR PLACEMENT OF FOUR **2.9MM X 12MM** IMPLANTS

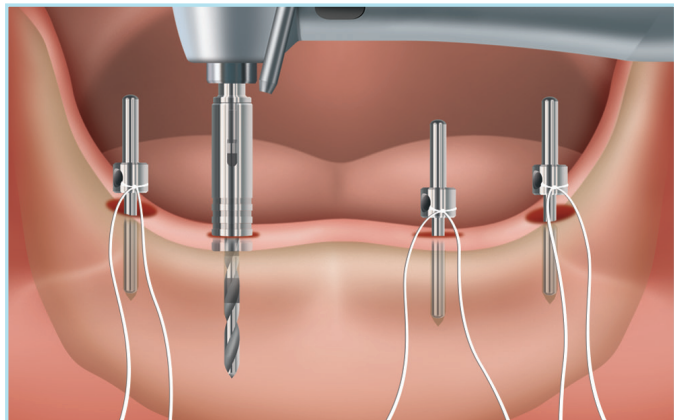


**1** Using a surgical guide or by free hand, mark the implant osteotomy locations using the Starter Drill to drill through the gingiva and into the bone crest 6mm. Note the gingival height. The recommended drilling speed is 800-1200rpm.



**2** Remove the gingival cores at each site using the appropriate Rotary Tissue Punch (07373, 07534). Place the guide pin portion of the Rotary Tissue Punch into the Pilot Drill osteotomy and advance the drill unit to cut away the gingiva. Advance the Rotary Tissue Punch to the laser depth mark corresponding to the gingival height measurement. The recommended drilling speed is between 200-500rpm.

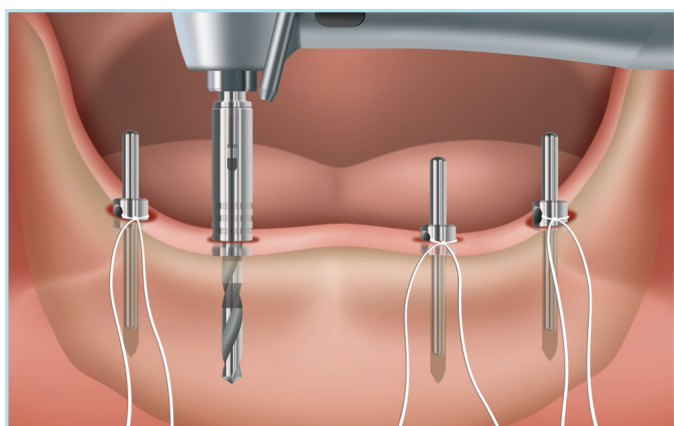
# MANDIBULAR IMPLANT PLACEMENT CONT.



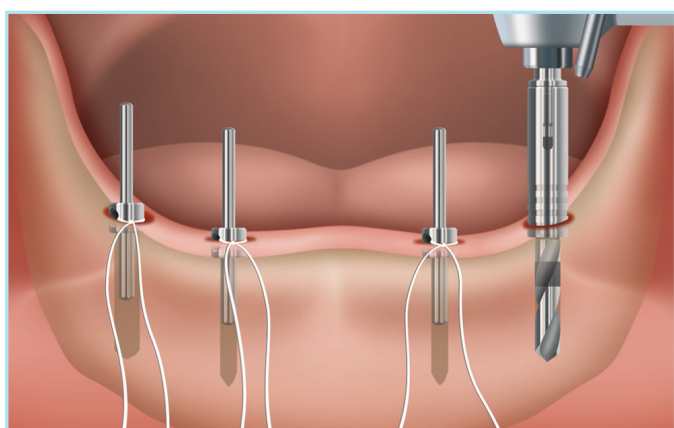
**3** Place the large diameter end of the Direction Indicator (07365) into the Starter Drill osteotomies to verify the proper alignment. Attach the proper length Drill Stop onto the Starter Drill according to the desired drilling depth. The recommended drilling speed is 800-1200rpm. Continue osteotomy preparation to the desired depth at each implant site.

## TIPS:

- Alternatively, drill to the proper laser depth marking on the drill calculated by adding the implant length plus the gingival tissue height.
- If divergence is shown to be undesirable based on the Direction Indicator, use a tool, such as a Lindemann drill, to correct.

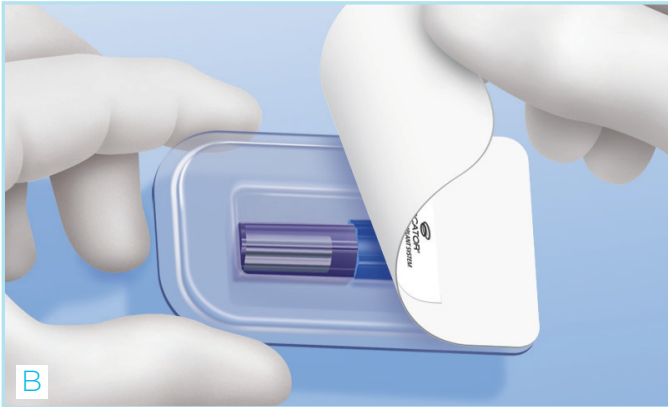


**4** Place the proper length Drill Stop onto the 1.6mm drill according to the desired drilling depth. The recommended drilling speed is 800-1200rpm. Continue osteotomy preparation to the desired depth at each implant site.

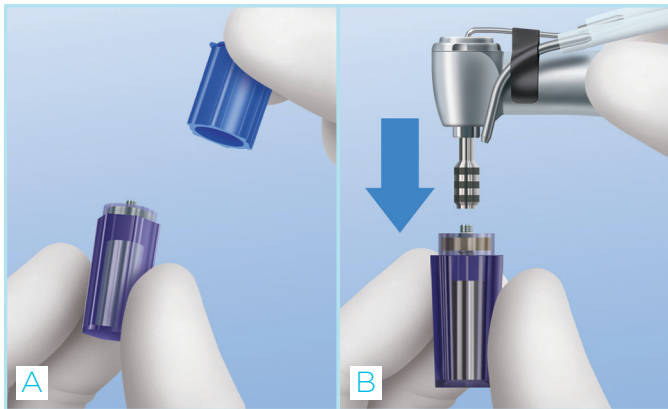


**5** Place the 1.6mm diameter (large) end of the Direction Indicator into the osteotomies to verify proper alignment. Place the proper length Drill Stop onto the 2.1mm drill (07539) according to the desired drilling depth. Drill 4mm short of the full implant length. The recommended drilling speed is 800-1200rpm. Continue osteotomy preparation to the desired depth at each implant site.

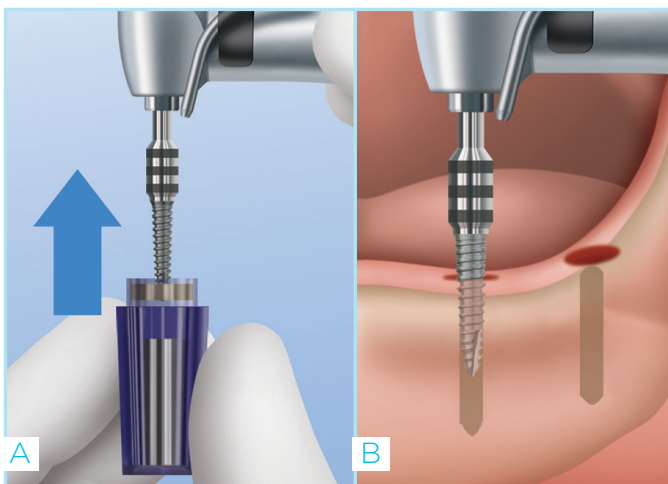
# MANDIBULAR IMPLANT PLACEMENT (FLAPLESS)



**6** Remove the implant package from the box and peel back the seal from the plastic tray. Place the sterile implant vial on the sterile surgical tray. The contents of the plastic tray are sterile and should only contact components within the sterile field.



**7A-7B** Remove the Housing from the implant vial and **do not discard**. The LOCATOR® Abutment is included in the Housing. Set the drilling unit speed at 30rpm and the placement torque at 35Ncm. Place the Implant Latch Driver (O7357) in the handpiece. Seat it onto the hex on the top of the implant and press down to engage securely. The bottom of the driver should contact the abutment seating surface and fully engage the entire length of the implant hex.

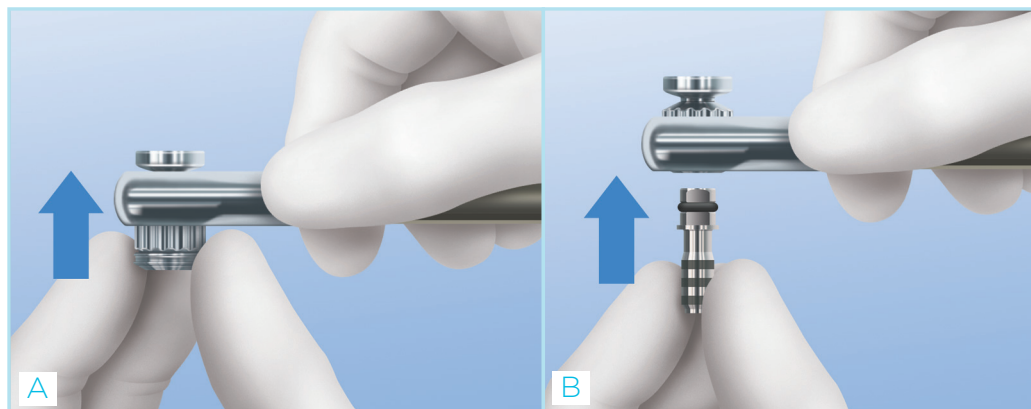


**8A-8B** Remove the implant from the vial. Carry the implant to the mouth, place it into the osteotomy and insert at 30rpm. Use the Latch Driver to drive the implant three quarters (3/4) of the way into the osteotomy and finalize insertion with a Torque Indicating Ratchet Wrench (O7362).

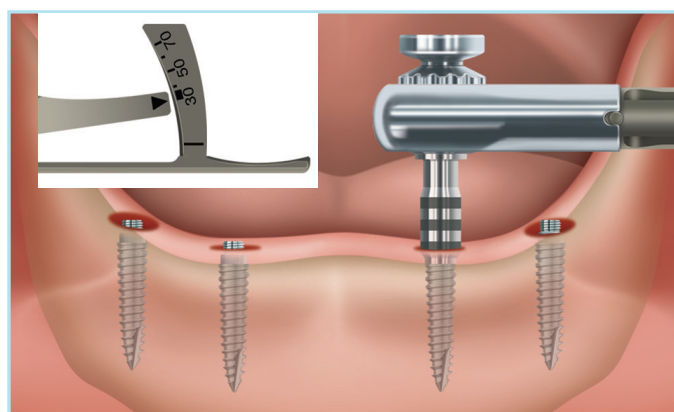
**TIP:** Do not use an implant that comes into contact with any non-sterile area. Replace with a new sterile implant.



# MANDIBULAR IMPLANT PLACEMENT CONT.



**9A-9B** Assemble the Ratchet Insert and the Torque Indicating Ratchet Wrench (07362) to finalize seating. Short and Long Implant Drivers are available in the surgical kit (07360, 07361).



**10** Engage the Implant Driver onto the hex on the top of the implant and verify that it is fully engaged. Slowly ratchet the implant to full depth. If final seating torque measures 30Ncm or above, the implant may be placed into immediate function at the discretion of the clinician, with the patient adhering to recommended post-surgical hygiene and care protocols.

If the final seating torque measures below 30Ncm, relieve the overdenture acrylic and place a soft liner in the overdenture around the LOCATOR® Abutments during the implant integration period. If 70Ncm of torque is reached prior to full seating, rotate the implant counterclockwise and then continue to insert.

Repeat until the final desired position is obtained. The next drill size up may also be used if strong resistance occurs before the implant reached its final desired position.

## NOTE

Immediate load protocol is not recommended unless all implants achieve at least 30Ncm of torque. Implant insertion torque should not exceed 70Ncm.

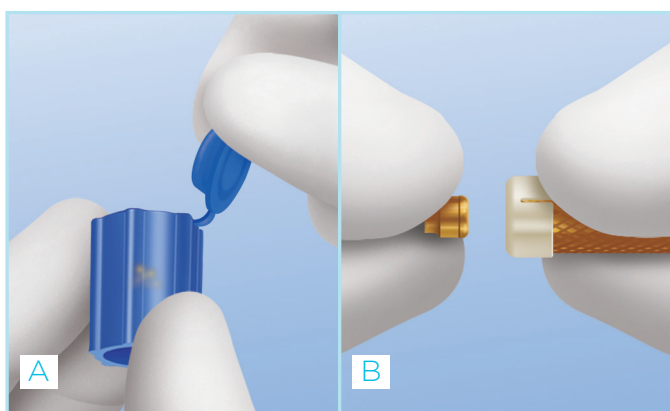


# LOCATOR® HEALING ABUTMENT & LOCATOR ABUTMENT PLACEMENT



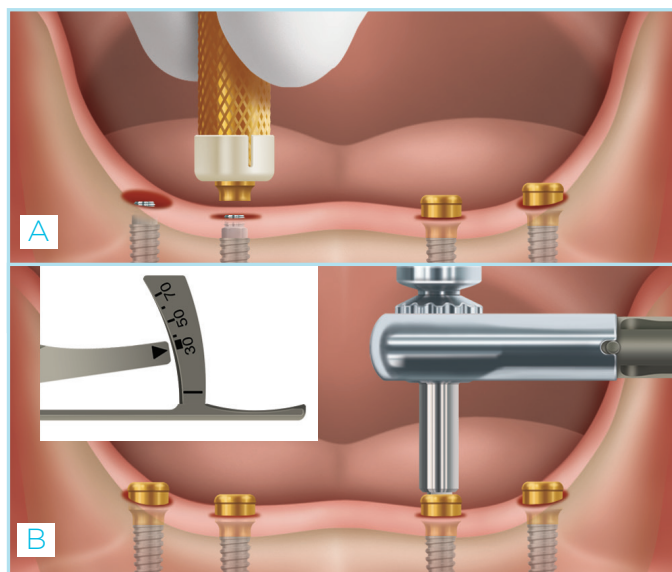
## HEALING ABUTMENT PLACEMENT

**1 Optional:** If the implant does not reach a final seating torque of 30Ncm, a LOCATOR Healing Abutments (07339 or 07340) are available. Use a 0.050 inch (1.25mm) Hex Driver and thread the Healing Abutment with the appropriate cuff height on the implant until finger tight. Relieve the overdenture acrylic and place a soft liner in the overdenture around the LOCATOR Healing Abutments during the implant integration period.

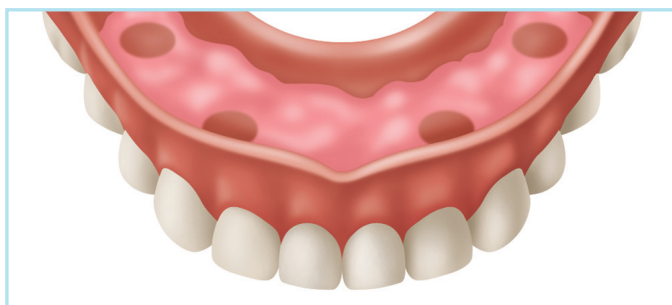


## LOCATOR ABUTMENT PLACEMENT

**2A-2B** Open the flip Housing on the top of the vial Housing and remove the LOCATOR Abutment. Place the Abutment Holder Sleeve onto the LOCATOR Abutment Driver and insert into the triangular channel of the LOCATOR Abutment.



**3A-3B** Thread the LOCATOR Abutment onto the implant until finger tight. If the implant placement torque was 30Ncm or greater, the Abutments may be tightened to the recommended torque level of 30Ncm. If the implant placement torque did not reach 30Ncm, the Abutment should only be hand tightened. Assemble the LOCATOR Abutment Ratchet Insert and the Torque Indicating Ratchet Wrench (07362) with LOCATOR Square Torque Driver (08926) to torque the attachments to 30Ncm.



**4** If the implant placement torque was less than 30Ncm, relieve the overdenture acrylic and place a soft liner in the overdenture around the LOCATOR Abutments during the implant integration period.

## FOR IMMEDIATE LOADING

**Proceed with proper precautions:** If the implant placement torque was 30Ncm or greater for all implants, follow the steps for processing the LOCATOR Denture Housing and Inserts into the overdenture.

# IMMEDIATE LOADING PROTOCOLS

During the placement of LOCATOR® Overdenture Implants, a clinician may wish to utilize the implants for immediate function. Immediately after placement of the implants, the Abutment may be connected to the prosthesis by embedding the Housing within the prosthesis. This process results in converting a complete dental prosthesis into an implant-retained, tissue-supported prosthesis and will result in the dental implants in immediate function.

While there are many factors involved with successful immediate loading, the overriding concern is to ensure minimal functional and parafunctional forces are present. Minimizing these forces, known as micromovement, is critical to the long-term health and success of LOCATOR® Overdenture Implants.<sup>1-2</sup>

Un-splinted, free-standing implants with LOCATOR® abutments have shown a high success rate when used immediately after placement in short-term and long-term studies.<sup>3-4</sup> A prospective clinical study show LOCATOR® Overdenture Implant System implants used in immediate function shows a high degree of success.<sup>5</sup>

Immediate function results in instant gratification and improvement in masticatory function, enhanced retention of the prosthesis, and improvement in patient quality of life.<sup>6</sup> When possible, flapless implant placement can greatly further enhance patient comfort, enhance blood supply to the implant site, and is successful long-term.<sup>2, 7-9</sup>

## NOTE

Immediate loading of implants should be done with caution and proper evaluation as immediate loading can increase the rate of implant failure.

1. Esposito M, Grusovin MG, Maghaireh H, et al. Interventions for replacing missing teeth: different times for loading dental implants. Cochrane Database Syst Rev. 2013;3:CD003878.  
2. Scherer MD, Ingel AP, Rathi N. Flapped or flapless surgery for narrow diameter implant placement for overdentures: advantages, disadvantages, indications, and clinical rationale. Int J Periodontics Restorative Dent. 2014;34(suppl 3):s89-s95.  
3. Roe P, Kan JYK, Rungcharassaeng K, Lozada JL. Immediate loading of unsplinted implants in the anterior mandible for overdentures: 3-year results. Int J Oral Maxillofac Implants. 2011;26(6):1296-1302.  
4. Kappel S, Giannakopoulos NN, Eberhard L, Rammelsberg P, Eiffler C. Immediate loading of dental implants in edentulous mandibles by use of locator® attachments or older® bars: two-year results from a prospective randomized clinical study. Clin Implant Dent Relat Res. 2016;18(4):752-761.  
5. Amato F, Polara G. The use of narrow-diameter dental implants to support mandibular overdentures: A prospective clinical study. J Implant Recon Dent 2015;6(1):1-9.  
6. Borges Tde F, Mendes FA, de Oliveira TR, et al. Mandibular overdentures with immediate loading: satisfaction and quality of life. Int J Prosthodont. 2011;24:534-539.  
7. Sunitha RV, Sapthagiri E. Flapless implant surgery: A 2-year follow-up study of 40 implants. Oral Surg Oral Med Oral Pathol Oral Radiol 2013;116:e237-e243.  
8. Elsyad MA, Gebreel AA, Fouad MM, Elshoukoui AH. The clinical and radiographic outcome of immediately loaded mini implants supporting a mandibular overdenture. A 3-year prospective study. J Oral Rehabil 2011;38:827-834.  
9. Shatkin TE, Petrotto CA. Mini dental implants: A retrospective analysis of 5640 implants placed over a 12-year period. Compend Contin Educ Dent 2012; 33:2-9.

# IMMEDIATE LOADING PROTOCOLS CONT.

General patient recommendations should be considered for every patient including a thorough review of their medical history. Patients should be healthy with minimal metabolic disease and refrain from smoking and/or tobacco use. Patients also should have minimal to no parafunctional/bruxism habits.

## IMPLANT PLANNING

- Mandibular Arch: A minimum of four 2.4mm implants; at least two 2.9mm, 3.5mm, 4.4mm, or 4.9mm implants
- Maxillary Arch: A minimum of six implants

## SURGICAL FACTORS

- Copious irrigation of osteotomy during site preparation
- All implants in arch should reach full seating torque of 30Ncm or above for immediate loading
- Implants ideally should be placed in native, non-grafted bone

## PROSTHETIC FACTORS

- Sufficient restorative space within prosthesis to accommodate Implant, Abutment, and Housing
- Housings attached to prosthesis after sutures placed with adequate protection/block-out of the surgical site
- Light to Medium insert in Housing
- Optional: Processing inserts can be left within Housings to minimize micromovement during integration period

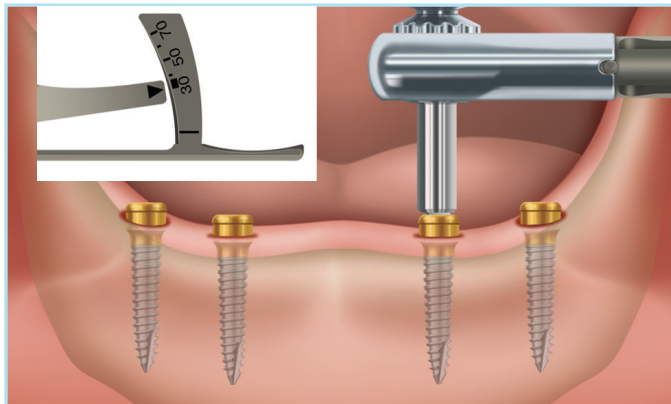
## PATIENT USE AND CARE

- Thorough instruction provided to patient on how to insert and remove prosthesis with patient demonstrating prior to dismissal
- Leaving prosthesis inserted with Housings fully adapted to Abutments as often as possible during integration period
- Liquid or soft food diet during integration period

### NOTE

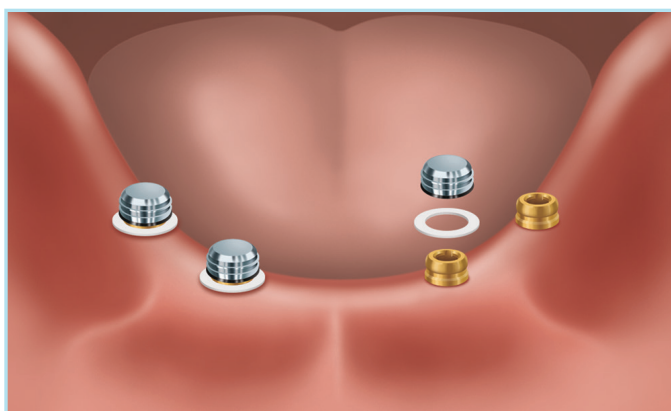
It is important that each implant torque is verified with a torque wrench to confirm primary stability.

# PROCESSING LOCATOR® DENTURE HOUSING & INSERTS

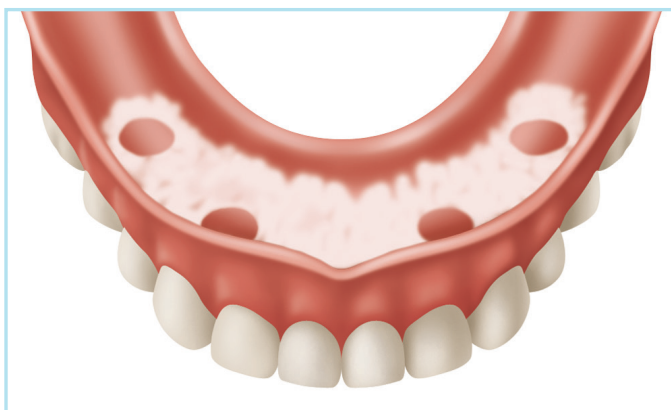


## DIRECT TECHNIQUE: CHAIRSIDE PROCESSING (NEW OR EXISTING OVERDENTURE)

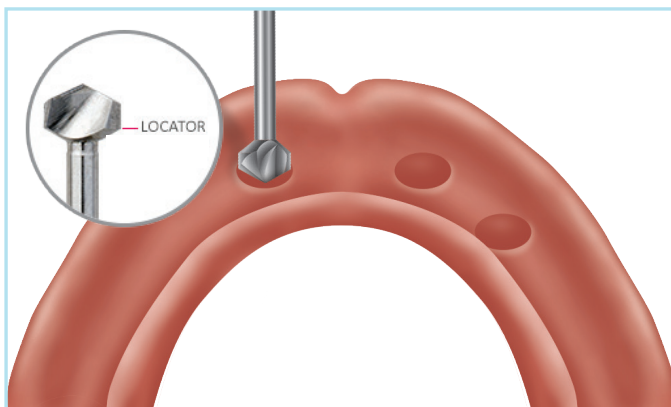
**1** Torque the LOCATOR Abutments to 30Ncm using an assembled Torque Indicating Ratchet Wrench and Insert.



**2** Place a White Block-Out Spacer Ring around each Abutment and press it down to the tissue. Place a Denture Housing/Black Processing Insert assembly onto each Abutment, pressing down firmly.

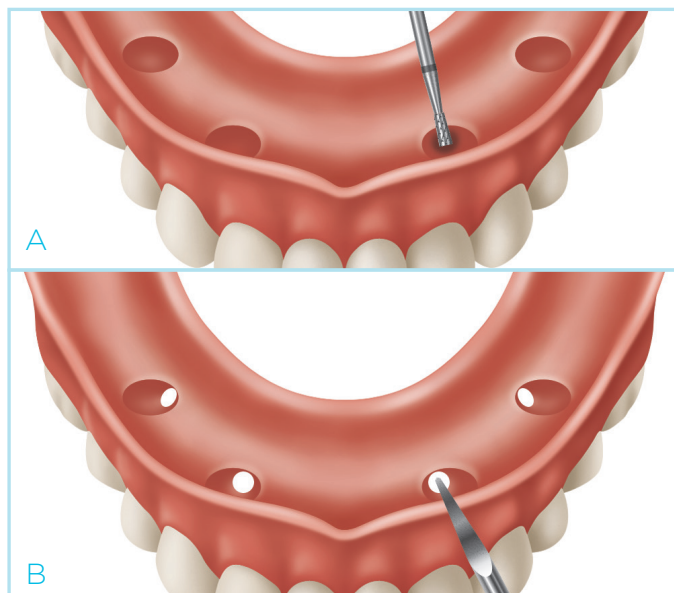


**3** Apply fit check marking paste inside of the overdenture. Insert it into the mouth in position over the Denture Housings to mark areas where the overdenture will need to be relieved to allow space for the Denture Housing to be picked up.



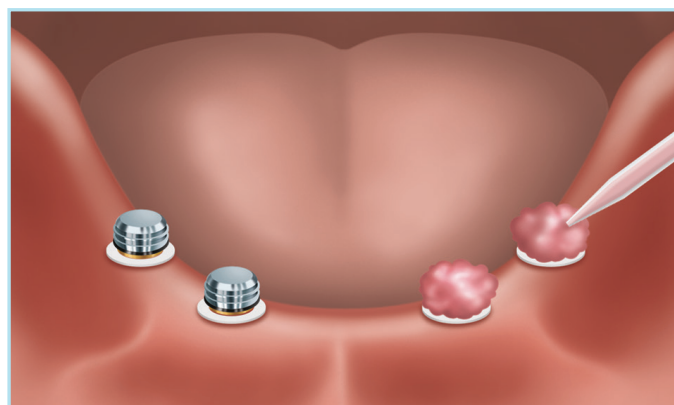
**4** Relieve the areas marked with a CHAIRSIDE® Recess Bur (09576). Zest recommends using slight pressure to get the tip of the Bur started followed by a straight downward motion to create the desired recess site. This efficient Bur has distinct depth landmarks which indicate where to stop when drilling for the Denture Housing.

# PROCESSING LOCATOR® DENTURE HOUSING & INSERTS CONT.

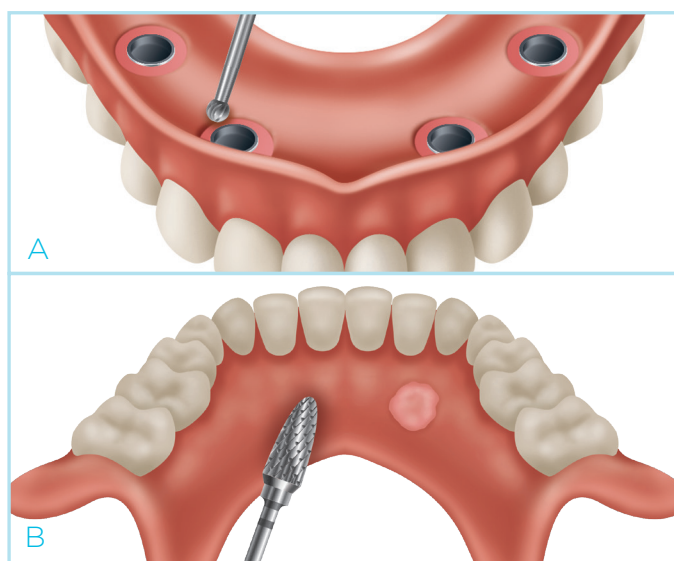


## DIRECT TECHNIQUE: CHAIRSIDE PROCESSING (CONTINUED)

**5A-5B** Use the CHAIRSIDE® Undercut Bur (09577) to cut an undercut around the circumference of the relief areas for mechanical retention. Cut lingual/palatal vent windows in the denture with the CHAIRSIDE Vent Bur (09578) to visualize full seating and for excess material to vent.



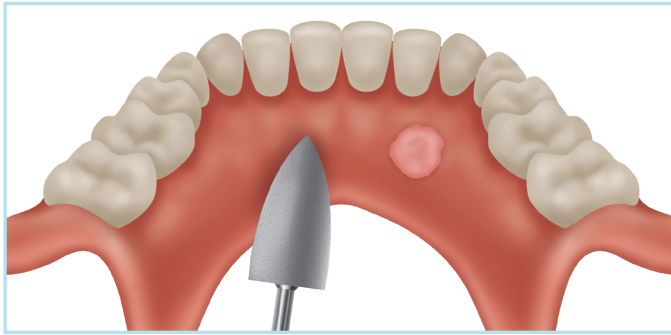
**6** Dry the Denture Housings. Apply a small amount of CHAIRSIDE® Attachment Processing Material (Normal Set 09566 or Fast Set 90-00130) around the circumference of each Housing. Place CHAIRSIDE Material into the relief areas of the overdenture and seat it over the Housings and onto the tissue. Ensuring the denture is fully adapted to the tissues, lightly hold the denture with your fingers until fully polymerized. Excessive occlusal pressure during the setting time may cause tissue recoil against the overdenture base and could contribute to dislodging and wear of the Inserts.



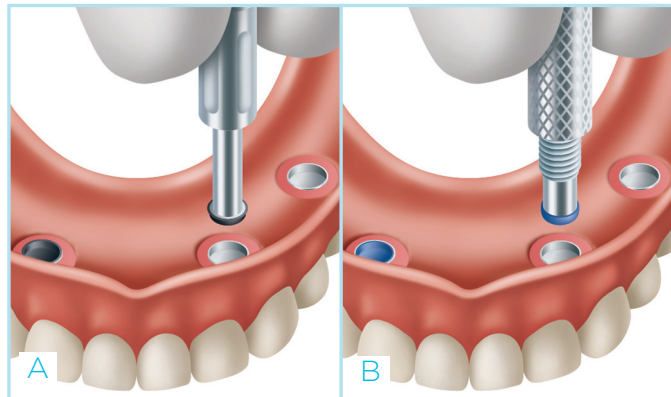
**7A-7B** Disengage the overdenture from the Abutments and remove from the mouth. Verify that the Denture Housings have been securely processed into the overdenture. Fill any voids with CHAIRSIDE Attachment Processing Material and light cure. The material will bond to itself and will cure within 30 seconds with light application. Use the CHAIRSIDE Trim (09579) and Grind Burs (09583) to remove any excess acrylic material remaining in the overdenture.



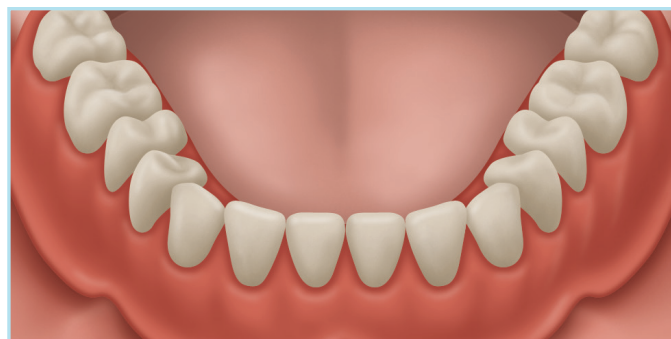
## PROCESSING LOCATOR® DENTURE HOUSING & INSERTS CONT.



**8** Use the CHAIRSIDE® Polish Bur (09580) to create a smooth finish in and around the overdenture.

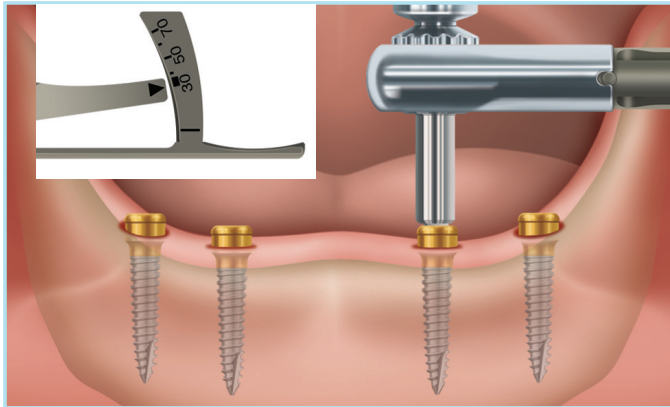


**9** See the LOCATOR 3-In-1 Core Tool instructions on page (8). Remove the Black Processing Insert using the Removal Tool. Place the selected final Insert into each Denture Housing using the Insertion Tool. Insert the lowest retentive option during try-in.



**10** Seat the overdenture and press down to engage the Insert on the LOCATOR Abutments and verify the occlusion. Instruct the patient on how to remove and insert the overdenture. If the retention is not satisfactory, remove the Inserts and replace with the next level of retention. See the Insert retention chart on page (7). Instruct the patient on proper home care maintenance and required recall visits.

# PROCESSING LOCATOR® DENTURE HOUSING & INSERTS CONT.

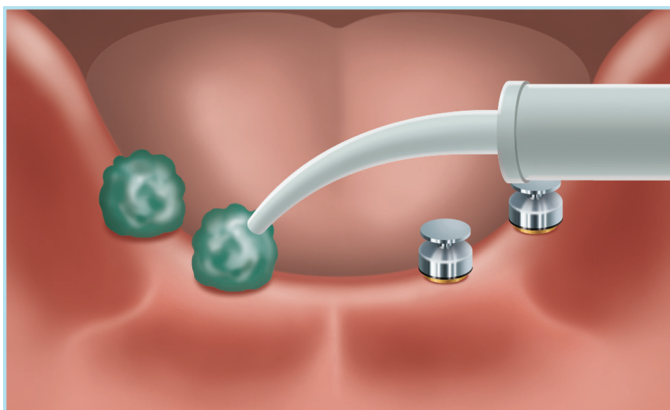


## INDIRECT TECHNIQUE: LABORATORY PROCESSING

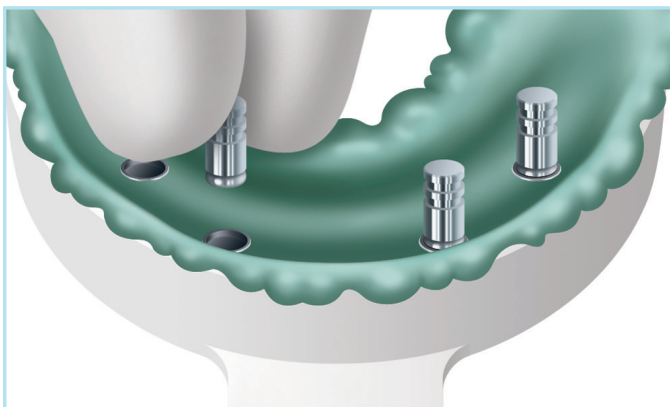
**1** Torque the LOCATOR Abutments to 30Ncm using an assembled Torque Ratchet Wrench and Insert.



**2** A stock or custom impression tray may be used. Ensure that each recess has enough space for the height of the LOCATOR Impression Copings (08505).

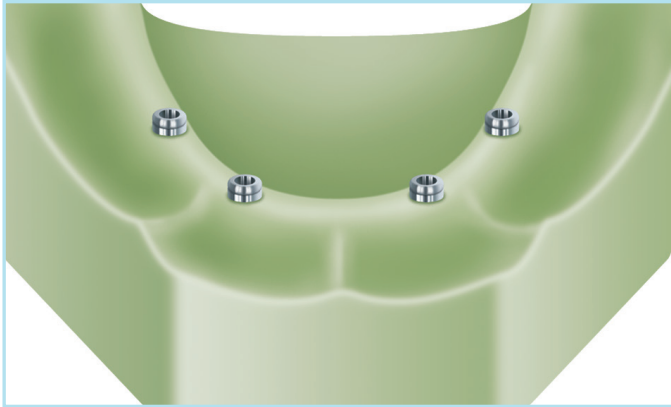


**3** Place a LOCATOR Impression Coping on each Abutment and press down firmly. Syringe a medium body impression material around the circumference of each coping. Fill the impression tray and insert it over the copings and onto the tissue. Allow the material to set. Remove the impression and verify that there are no draws in the impression.



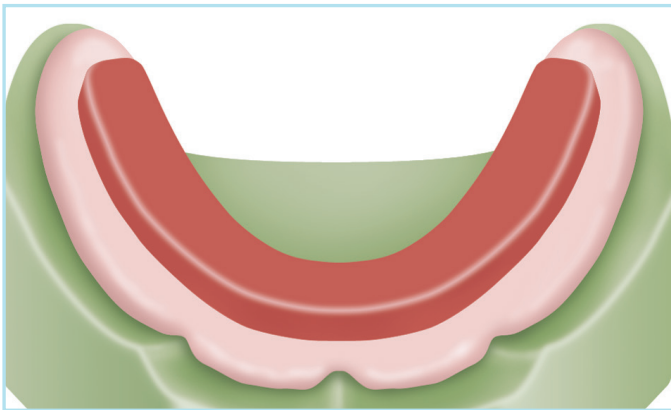
**4** Press the LOCATOR Analogs (08530) into each Impression Coping and send the impression to the laboratory.

# PROCESSING LOCATOR® DENTURE HOUSING & INSERTS CONT.

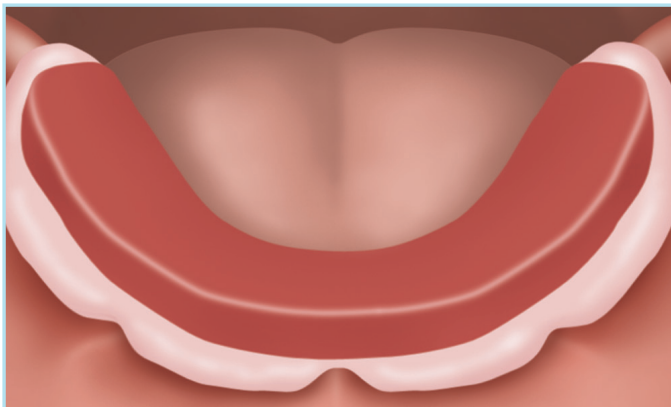


## INDIRECT TECHNIQUE: LABORATORY PROCESSING

**1** Verify that the Analogs are secure in the Impression Copings and pour a model.

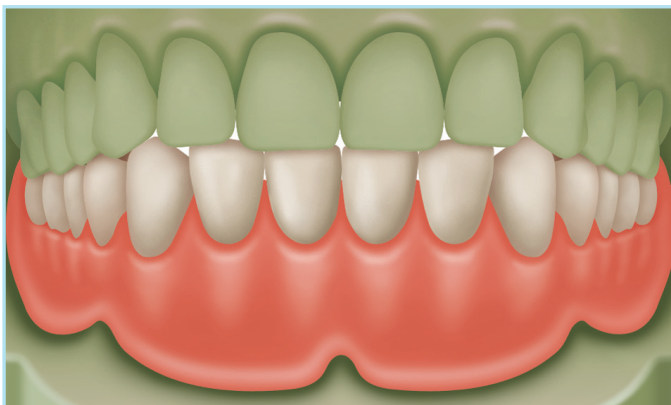


**2** Fabricate the baseplate and wax rim on the cast for the bite registration. The Denture Housings with Black Processing Inserts may be processed into the baseplate to provide stabilization during record making and try-in.



## BITE RECORDS

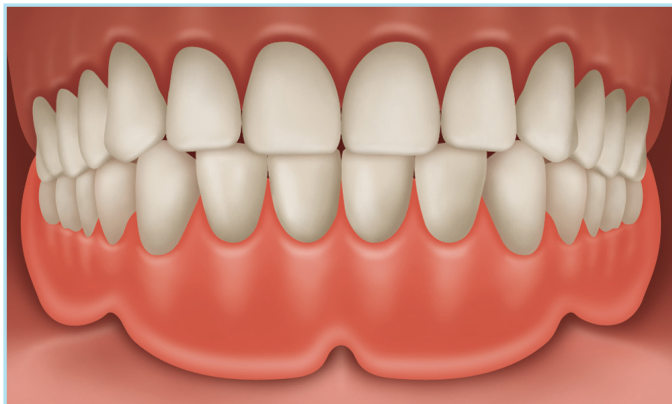
**1** Place the bite block into the mouth and record the jaw relation. Take an impression of the opposing arch and pour the cast. Select a shade for the overdenture teeth.



## LABORATORY STEP

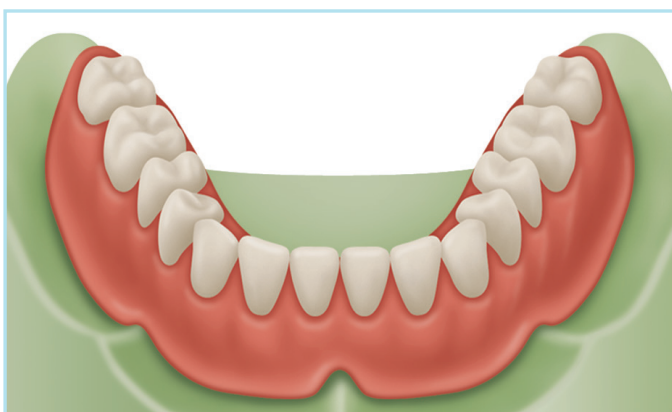
**1** Articulate the models and proceed with the overdenture teeth set up.

# PROCESSING LOCATOR® DENTURE HOUSING & INSERTS CONT.



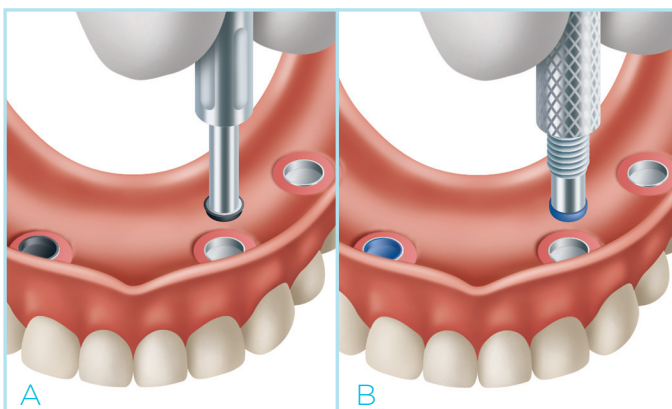
## OVERDENTURE TRY-IN

- 1** Place the try-in overdenture into the mouth and verify the fit, attachment engagement, esthetics, phonetics, and occlusion.

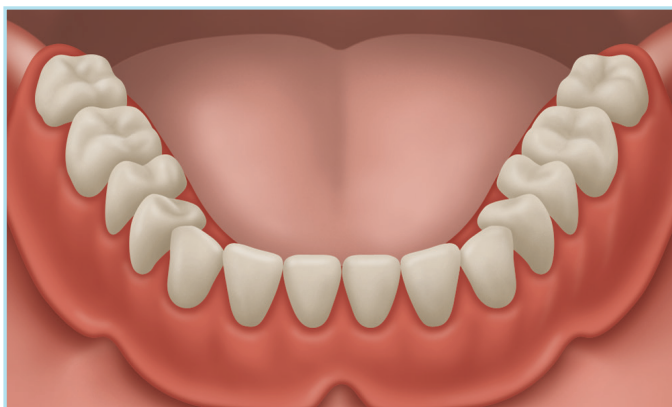


## LABORATORY STEP

- 1** Finalize and flask the overdenture for processing. Separate the flask and boil away all wax. Place the Denture Housings with Black Processing Inserts on the Analogs and press down firmly. Place the cast back into the flask and verify that there is no contact with the teeth. Close the flask and process the overdenture. Remove the overdenture from the flask, finish, and polish.



- 2A-2B** See the LOCATOR 3-In-1 Core Tool instructions on page (8). Remove the Black Processing Insert using the Removal Tool. Place the selected final Insert into each Denture Housing using the Insertion Tool. Insert the lowest retentive option during try-in. See the Insert retention chart on page (7).



## PROSTHESIS DELIVERY

- 1** Seat the overdenture in the mouth and press down to engage the Inserts on the LOCATOR Abutments and verify the occlusion. Instruct the patient on how to remove and seat the overdenture. If the retention is not satisfactory, remove the Inserts and replace with the next level of retention. See the Insert retention chart on page (7). Instruct the patient on proper home care maintenance and required recall visits.



# TISSUE MANAGEMENT RECOMMENDATIONS

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It is up to each clinician to decide what is the best hygiene protocol for their patients. Proper tissue management strategies can contribute to the success of the implant procedure. Below are some possible strategies to recommend after full integration of the implant.

## USE OF AN ELECTRIC TOOTHBRUSH

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- 1** Using an electric toothbrush in daily clean mode, place the bristles directly over the abutments. Apply gentle pressure while cleaning. Maintaining a vertical position over the abutment will ensure the bristles fall into the abutment opening and remove any debris.
- 2** Clean each abutment pausing to allow the brush heads unique movement to work.
- 3** Next begin to rotate the brush with gentle pressure to thoroughly clean the tissue surfaces.
- 4** Continue to gently brush along the upper or lower arch while the electric toothbrush pulses and/or oscillates. This will help stimulate the soft tissues around the dental implants.
- 5** It is also important to also clean the prosthesis as debris can accumulate in and around the abutment causing improper fit. Pass the brush over the housings in a rocking manner then apply vertical pressure to remove any debris collected inside. The process is the same if the overdenture is fitted with LOCATOR retention inserts. Proper hygiene may help to extend the longevity of the overdenture and the health of the implants.

## USE OF A WATER SPRAYING DEVICE

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- 1** Use a water-jet device with interchangeable tips to irrigate the inside and outside of the LOCATOR abutments daily.
- 2** It is recommended to begin using the lowest power setting with any jet tip that is comfortable to use and slowly increase water pressure strength over time. Direct water spray at an oblique angle and move the tip in a semi-circular rotation around the abutment until clean.
- 3** Proper hygiene may help to extend the longevity of the overdenture and the health of the implants.

# OVERDENTURE INSERTION, REMOVAL, AND CLEANING GUIDELINES

To reduce wear on LOCATOR® Abutments it is critical that clinicians and patients perform routine maintenance on both the LOCATOR Abutment, the Denture Housing and the Nylon Insert. It is also important that patients understand the proper overdenture maintenance that should be performed at home to guard against retention loss of the Inserts within the Denture Housing.

**The following are guidelines to consider.**

## INSERTING AND REMOVING AN OVERDENTURE

To insert the overdenture, the patient should ensure he/she can feel that it is properly positioned above the LOCATOR Abutments prior to applying pressure. The patient should use both hands and simultaneously press down on each side to firmly snap the overdenture into place.

The patient should avoid biting the overdenture into place as this force will result in improper wear of the LOCATOR Abutment and may affect the longevity of the prosthesis.

The patient should remove the overdenture by placing one thumb under the left edge and one finger under the right edge of the overdenture rim and pull one side upward and the other side downward, simultaneously. They may also use their tongue to aid in removal of the lower overdenture. Once the overdenture is removed, a thorough cleaning is recommended.

## CLEANING AN OVERDENTURE

Maintaining proper hygiene is vital to the success of an overdenture, helping it last longer and function properly. Similar to natural teeth, dental plaque will also form on the surface of an overdenture. If the plaque is not removed it will continue to accumulate. It is for this reason that the overdenture should be taken out for cleaning daily. Patients should follow this simple step daily for cleaning an overdenture.

**1** Fill a washing basin with warm water to prevent fracture of the overdenture.

**2** Apply detergent onto a soft bristle toothbrush and thoroughly clean every surface of the overdenture.

## ADDITIONAL NOTES OF CAUTION

Failure of the patient to follow oral hygiene protocols and appropriately care for the overdenture may also result in inflamed tissue around the implant, leading to the development of peri-implantitis. Over time, peri-implantitis may cause the implant to become mobile and fail. Please ask patients to consider the following when caring for their overdentures:

- Avoid using abrasive toothpaste to clean the overdenture. The coarse particles in the toothpaste may scratch the surfaces of the overdenture, enhancing the potential for plaque accumulation.
- Chewing tobacco will get caught in the Retention Inserts and scratch the Abutments, considerably reducing the life of the Abutments, retentive features of the Inserts and ultimately may affect the dental implants.
- Do not soak the overdenture in bleach or any other products not designed for use with denture cleaning as these can harm the retentive feature of the Insert, which may ultimately cause additional wear on the Abutment.
- If a denture cleaning solution such as Polident® and Efferdent® must be used, it is recommended that the denture be soaked for fifteen minutes or less.
- Refrain from picking at the Abutments or Inserts with toothpicks or other foreign objects.
- Refrain from eating without the overdenture in place as food will scratch the Abutment or Insert and may result in failure of the dental implant. Food trapped in the Abutment's drive cavity can also result in improper seating.
- Oral rinse such as Listerine® mouthwash can be used safely without any poor effect on the Abutments or Inserts but should not be utilized as a soaking solution for the denture.
- Do not wash the overdenture in the dishwasher.

# THE ZEST DENTAL SOLUTIONS® 10 YEAR WARRANTY



## THE ZEST DENTAL SOLUTIONS NARROW AND STANDARD RIDGE IMPLANT WARRANTY: LOCATOR® OVERDENTURE IMPLANT SYSTEM ("LODI").

Zest Dental Solutions ("Zest") is committed to providing quality products and dedicated to gathering feedback about its products. Zest actively collects and reviews the feedback of users of our products in compliance with regulatory reporting requirements and to better help us understand market expectations and validate our products' performance. The collection method Zest utilizes for such feedback is the Zest Product Experience Report ("PER") form. The PER form is to be completed from information provided by the attending clinician to share their Zest product experience.

Pursuant to the Zest implant warranty, Zest will replace covered LODI implants such qualifying covered implant is returned (as such terms are defined below). Upon a request for replacement under the Zest warranty, Zest will send a replacement product once Zest receives the returned product and completed PER form and confirms that the returned product is covered under the Zest warranty.

ONLY DIRECT ZEST CUSTOMERS MAY MAKE A WARRANTY CLAIM. In order to make a claim under the Zest warranty please return the items mentioned below in protective packaging and send these via a shipping method which enables the package to be tracked:

Printed copy of PER form completed from information provided by the attending clinician.

Explanted product(s) in sterile condition (NON-STERILE products will not qualify for replacement)

If a product failure or loss of integration has occurred, please additionally send relevant radiographs (these will not be returned unless specifically requested, please send copies)

Send shipment to: Zest Dental Solutions  
ATTN: Customer Service (US customers) or Wholesale Distribution  
(Distributors/OEM Partners)  
2875 Loker Ave East Carlsbad, CA 92010

If using the electronic form, please include the Tracking Number for the returned product package.

For any issues, contact Zest Dental Solutions Customer Service Support.  
WWW.ZESTDENT.COM

Zest Dental Solutions ("Zest") IMPLANT WARRANTY (Valid as of May 1, 2015)

**1. Warranty beneficiary and scope:** Zest Dental Solutions ("Zest") hereby warrants to the direct Zest customer purchasing the implant from Zest ("Customer") that the Zest LOCATOR Overdenture Implant ("LODI"), when implanted according to the respective Zest LODI Technique Manual and other written instructions provided by Zest by a clinician (the "User"), will be free from any loss or lack of integration, fracture or other structural failure for the period of 10 years ("Warranty Period") from the time of treatment by the User (collectively, the "Zest Warranty"). This warranty only applies to the Customer. Third parties, particularly patients, are not covered by the Zest warranty and have no rights hereunder. Customers' sole remedy and Zest's sole liability under this Zest warranty is the replacement of the LODI implant by Zest as set forth herein. The Zest implant warranty only covers the replacement of the LODI implant and not any associated costs or expenses, including, but not limited to, chair time, laboratory fees and any other associated treatment.

**2. Zest Warranty conditions:** In the event that any request for warranty service for an implant is made by a Customer under the Zest warranty during the Warranty Period, Zest will replace such implant with the same or substantially equivalent product subject to the terms and conditions herein. The replacement product will be sent upon receipt of the returned product and the completed PER form and confirmation that the product is covered under the Zest warranty. To qualify for coverage under the Zest warranty, the claim must be made within the applicable Warranty Period by a Customer and all conditions below must be met. Once these requirements are satisfied, Zest will send the replacement part(s). The following REQUIRED conditions must be met and documented in order for coverage of a returned implant under

this Zest implant warranty:

- 1.** The LODI was used exclusively with all components, connections, attachments and other technology provided by Zest and not in combination with any other manufacturer's products or technology;
- 2.** The LODI is returned in sterile condition (or disinfected if delivered as such);
- 3.** The LODI was implanted by a User and inspected and maintained in full compliance with the respective Zest LODI Technique Manual valid at the time of treatment and all other Zest written instructions as well as recognized dental procedures, during and after the treatment;
- 4.** The patient had good oral hygiene which was monitored and documented by the User
- 5.** The LODI was not subjected to damage caused by misuse, misapplication, accident, trauma or any other damage caused by external factors or the User, the patient or a third party;
- 6.** A completed and signed PER was completed and submitted no later than 10 days after the complaint is made. Customer is responsible to ensure that the PER is completed and submitted from information provided by the applicable User. Details of the incident are imperative to determine whether vigilance reporting is required to regulatory authorities.

**3. Limits and limitations:** This Zest implant warranty is the only guarantee provided by Zest and shall apply in addition to any warranty rights conferred under any written sales agreement executed by Zest. The User remains free to claim rights against his supplier. EXCEPT AS SET FORTH HEREIN AND IN A WRITTEN SALES AGREEMENT EXECUTED BY ZEST, ZEST HEREBY DISCLAIMS ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO LODI/SNDI OR ANY OTHER ZEST PRODUCTS, SERVICES OR INFORMATION, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF FITNESS FOR PURPOSE OR MERCHANTABILITY, OR NON-INFRINGEMENT OF THIRD PARTY RIGHTS, OR ANY WARRANTY BY COURSE OF PERFORMANCE OR OTHERWISE.

ZEST SHALL NOT BE LIABLE TO THE CUSTOMER, THE USER, THE PATIENT, OR ANY THIRD PARTY, FOR LOST EARNINGS OR PROFITS, DIRECT OR INDIRECT DAMAGES AS WELL AS COLLATERAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, DIRECTLY OR INDIRECTLY RELATED TO LODI OR ANY OTHER ZEST PRODUCTS, SERVICES OR INFORMATION.

**4. Zest Warranty territory:** This Zest implant warranty applies worldwide to LODI implants sold by Zest, a Zest affiliated company or an official distributor of Zest on or after the validity date stated above.

**5. Modification or termination:** Zest may modify or terminate this Zest implant warranty at any time in whole or in part. Changes to, or the termination of the Zest implant warranty, will not affect the warranty given for LODI installed prior to the date of the change or termination.

### LOCATOR OVERDENTURE IMPLANT (LODI) PRODUCT EXCHANGE POLICY

Zest Dental Solutions understands that customers may need to adjust inventories of LOCATOR Overdenture Implant System (LODI) Products in order to achieve the correct mix of sizes to treat their patients. Zest Dental Solutions will waive normal restocking fees (1:1 or greater) for exchanges during the first six months following the original purchase. Packaging cannot be written on or in any way adulterated. Shipping will still be the responsibility of the customer requesting the exchange.



# NOTES

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2875 LOKER AVENUE EAST  
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USA

TEL: 800.262.2310  
FAX: 760.743.7975  
EMAIL: [SALES@ZESTDENT.COM](mailto:SALES@ZESTDENT.COM)  
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