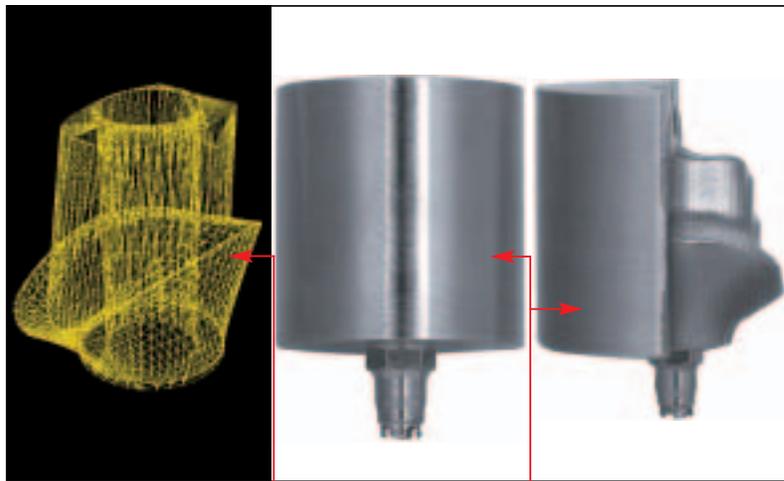


Encode™ Restorative System Procedure & Laboratory Manual



Encode Virtual Abutment

Encode Abutment
Blank

Encode Abutment
1/2 Milled

Encode Abutment
Completed



Encode™ Restorative System

Simply Impressive

With the introduction of the Encode Restorative System, **3i** has applied advanced technology to make implant dentistry more simple than ever before. This means more convenience for your patients and greater productivity for you.

Eliminating the need for an implant-level impression leading to less chairtime while also delivering an anatomically precise restoration—this is the essence of **3i's** Encode Restorative System.

You deliver a Patient Specific Restoration™ that has the ideal margin height and natural emergence contours from only an impression of a healing abutment.

Better For Your Patients. Better For Your Practice™

- Patient Specific Design
- Work Above The Tissue
- Margin Follows Gingival Contours For Aesthetics
- Available For OSSEOTITE® External Hex And OSSEOTITE Certain™ Implants

Better For The Laboratory

- CAD/CAM Precision
- No Capital Investment
- No Waxing And Casting
- No Additional Training



Product Description

It starts with the surgeon placing Encode Healing Abutments at Stage I or Stage II surgery. **3i** Encode Healing Abutments have codes embedded in the occlusal surface. These codes provide the information necessary for the ideal anatomical design of the final Encode Abutment. Laser optical scanning interprets these codes off of the stone cast and designs the ideal abutment in CAD software. The virtual abutment is then milled to the precise design from a solid piece of titanium alloy.

Indications

- Cement-retained restorations
- Single or multiple units
- Up to 30° angle correction
- Equal or greater than 0.5mm tissue depth
- Equal or greater than 6.0mm interarch space
- Minimum distance of 2mm between multiple implants
- Minimum margin height of 0.5mm measured from margin to implant interface
- Minimum abutment height of 4mm and a maximum of 12mm

Table Of Contents

Laboratory Work Order Form Instructions	2
Analog Placement Jig.....	4
Encode™ Healing Abutment Placement	5
Encode Healing Abutment Impressioning & Laboratory Procedures	6
Laboratory Procedure & Encode Abutment Fabrication	7
Laboratory Procedure & Encode Abutment Placement	8
Delivery Of The Provisional Or Final Restoration	9
Impressioning & Articulation Guidelines	10

Encode™ Restorative System

Laboratory Work Order Form Instructions


THE ENCODE™ RESTORATIVE SYSTEM

I. Account Information

Lab Name: ABC Dental Laboratory

Cust#: 123456789

Contact: John Doe

Phone: (800) XXX-XXXX

Email: Abc@Dentallab.com

Patient ID: Jones-123

II. Case Information

Teeth Position	Connection Type	Platform Diameter	EHA Emergence Profile	EHA Height
8	<input checked="" type="checkbox"/> Certain™ <input type="checkbox"/> ExHie	5	6	4
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			
	<input type="checkbox"/> Certain <input type="checkbox"/> ExHie			

ZNF = Encode Healing Abutment

III. Screw Ordering

Gold-Tite™ Square Abutment Screws (UN1G0) Qty. _____

Gold-Tite Hexed Abutment Screws (UN1H0) _____

Titanium Hexed Abutment Screws (UN1H1) _____

Certain Gold-Tite Hexed Abutment Screws (UN1H2) 7

Certain Titanium Hexed Abutment Screws (UN1H1) _____

IV. Design Guidelines

Margin Style – Select One

Shoulder

Chamfer

Retrol Margin Location

Sub Gingival 7 mm

Interocclusal Distance 2 mm

Lingual Margin Location

Sub Gingival _____ mm

Flush with Gingiva

Supra Gingival _____ mm

Default = Non Sub Gingival

Type of Restoration

PFM

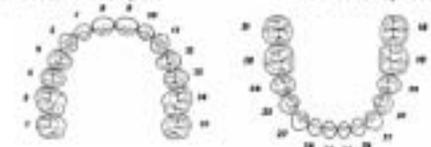
Metal Occlusal

All Ceramic

V. Parallelism Requirements

Please Circle the teeth positions requiring parallelism

No Parallelism Required Parallelism is Required



1. Account Information

Please complete this section clearly. All requested information is important to ensure the necessary communication of the desired abutment design. Clear and timely communication is important from receipt to the delivery of the finished product.

Please complete one form per case. Incomplete information on the work order form or missing case requirements may delay the delivery of the product.

2. Case Information

This section is important for the scanning and design process. Although most implant interfaces are recognizable to 3i's team of design technicians, providing accurate information regarding tooth position of implants, implant brand and size will expedite the process of order entry, design and completion.

3. Screw Ordering

Please select any screws you want to purchase for this case.

4. Design Guidelines

This section allows the technician to select the margin style and location. It also provides 3i with the desired interocclusal distance information for the type of final restoration.

5. Parallelism Requirements

Please use this section to indicate which abutments require parallelism for multiple-unit bridges.

6. Contour Guidelines

Please draw the approximate contour desired over the default images below. Note margin style. Please draw in tissue contour. (Minimum abutment height 4mm.)

Anterior	Buccal	Mesial
Posterior	Buccal	Mesial

7. Special Instructions

Please design the abutment following the above drawings.

See back or attached page.

8. Preparing Your Case for Shipment

- Mount casts on ARONTECH PSR™ Scanning Articulator **only**
- Use yellow die stone for the die
- Use articulated or non-articulated models will be returned to the lab
- Please **do not** send articulator model **only**

Following mounting on ARONTECH PSR Scanning Articulator please include the following:

Pinned & sectioned Encode die cast (do not trim the Encode die)

Opposing cast

Copy of this work order

9. Certification

I certify that the stated information is correct and that the submitted materials are accurate. All items that have contacted the oral environment have been disinfected. This form authorizes 3i to fabricate the patient specific abutment(s) using and consistent with the information provided on this work order.

Technician Signature: John Doe

Date: January 1, 2004

Internal Use Only	Serial #:
-------------------	-----------

3i Implant Innovations, Inc.
4935 Alameda Drive
Piper Beach Station, FL 32418
850-440-2100

ART851
REV C 09/04
G01 15 05 D1 Rev C

6. Contour Guidelines

Illustrations of both anterior and posterior abutments are provided. Please use this section to communicate any specific design instructions relating to margin position, angulation, etc. by sketching in the boxes.

7. Special Instructions

Please provide any special information necessary to ensure the proper design of the Encode™ Abutment. If additional space is needed, please use the back of the page and place a check in the box.

NOTE: Additional instructions do not replace the mandatory sections on the work order form.

8. Preparing Your Case For Shipment

This section serves as a checklist for the mandatory case requirements.

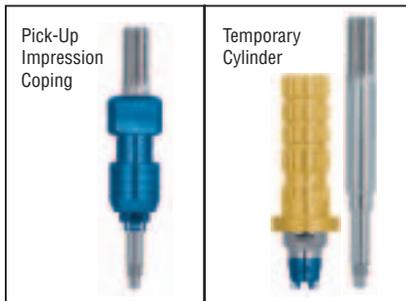
9. Certification

The technician's signature denotes that the abutment design on this Work Order has been communicated to the laboratory by the clinician and the team agrees to the design. 3i will not fabricate an Encode Abutment without this certification from the laboratory.

Encode™ Restorative System Analog Placement Jig



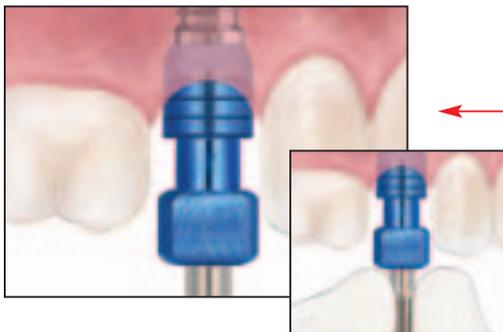
1. For surgical implant placement of a **3i** Implant, follow normal protocol as described in the **3i** Surgical Manual. **NOTE: Before beginning the next step, we recommend a reverse torque test be performed to establish implant stability.**



- Creating an Analog Placement Jig is strongly suggested. This provides the laboratory an option to create provisional or final crowns. This can be easily accomplished with a Pick-Up Impression Coping, or Temporary Cylinder with Retention, and a waxing screw.**

CREATING AN ANALOG PLACEMENT JIG

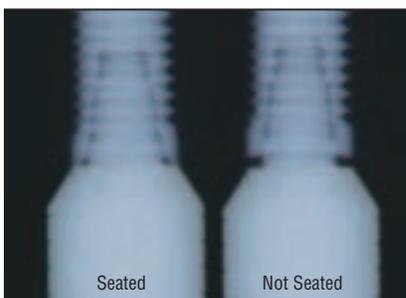
2. Select the proper Pick-Up Impression Coping or Temporary Cylinder by matching the diameter of the implant platform.



 Activate the fingers using the QuickSeat™ Activator Tool. Place the Pick-Up Impression Coping or Temporary Cylinder into the implant, line up the hex and press firmly until feeling the tactile click.

 Place the Pick-Up Impression Coping or Temporary Cylinder on the implant and engage the hex.

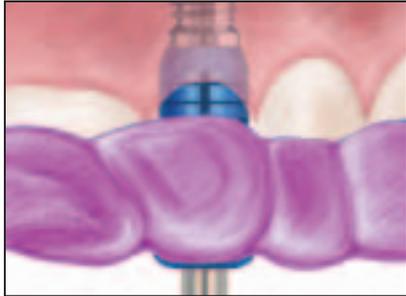
Thread the Pick-Up Impression Coping Screw or Waxing Screw into the implant until finger-tight. Tighten the screw using the Large Hex Driver.



3. If a flapless surgery is performed or if the index is made at Stage II surgery, radiograph the interface to verify complete seating of the component on the implant. Place the film perpendicular to the interface of the component on the implant.

Encode™ Restorative System

Encode Healing Abutment Placement



4. Syringe a medium to heavy body impression material around the impression coping or Temporary Cylinder and over the occlusal surfaces of the adjacent teeth approximately 1.5 teeth on either side. Allow the impression material to set, per the manufacturer's instructions. Once the material has set, remove the impression coping screw or Waxing Screw using the Large Hex Driver. Remove the Analog Placement Jig from the mouth and send it to the restorative clinician so it may be included in the package to the laboratory.



5. Select an Encode Healing Abutment by matching the implant platform, and selecting the appropriate EP® diameter and collar height. The collar height should be selected by measuring from the implant platform to the highest crest of the gingival tissue and add 1mm. Suture the tissue around the Encode Healing Abutment. Allow the tissue to completely heal.

NOTE: 1mm of the collar portion of the healing abutment, not including the dome portion, must be supragingival for proper scanning.

Encode™ Restorative System

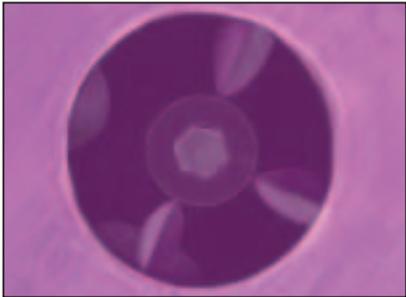
Encode Healing Abutment

Impressioning & Laboratory Procedures

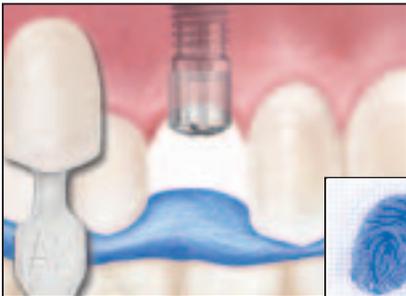


CLINICAL PROCEDURE

1. After tissue maturation, the Encode Healing Abutment is ready for impressioning. Using a medium body elastomeric impression material (polyether or polyvinyl), syringe around the healing abutment. Load the impression tray and seat in the mouth. Allow the impression material to set per the manufacturer's instructions.

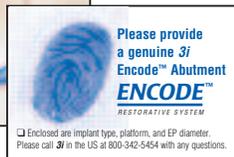


2. After the impression material has set, remove the tray from the mouth. Verify that a clear impression has been made of all the occlusal markings, the entire circumference of the Encode Healing Abutment and the tissue contours.



3. Make an impression of the opposing arch, a bite registration and select a shade for the crown. Disinfect and package the impressions and the bite registration. Place an "Ask For It" sticker on the lab prescription form with any other instructions including the shade. Ship to your ARCHITECH PSR™ dental laboratory.

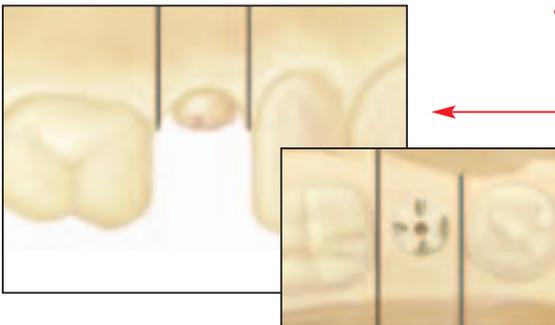
NOTE: Larger cases of 3 or more units should include a stone model of the diagnostic wax up.



LABORATORY PROCEDURE

4. Inspect the case for an accurate impression of the Encode Healing Abutment. Pour the casts in **yellow** die stone. If utilizing the Analog Placement Jig, pour a second cast of the healing abutment impression. Pin the first pour Encode Cast. The pinned sections must be easily removed and replaced. For proper scanning, the cast must provide the following: visibility of the Encode Healing Abutment showing 1mm of the collar, a defect free occlusal surface and a clear view of the surrounding tissue.

NOTE: Yellow die stone must be used for lab scanning purposes to eliminate glare caused by imperfections. There can be no voids or bubbles in the stone.



Encode™ Restorative System

Laboratory Procedure & Encode Abutment Fabrication



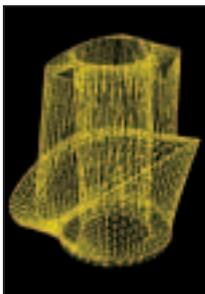
5. Mount the casts on the **3i** recommended articulator (Stratos™, Ivoclar) using the bite registration. The recommended articulator and mounting plates must be used.

NOTE: Make sure the casts are centered on the articulator. The incisal edge of the maxillary teeth must be aligned with the horizontal pin on the incisal guide pin. See reference on back cover.

THE ENCODE™ RESTORATIVE SYSTEM	
<i>Account Information</i>	
Lab Name:	ABC Dental Laboratory
Cust#:	123456789
Contact:	John Doe
Phone:	(800) XXXX-XXXX

6. Complete the work order form following the instructions on pages 2 and 3. Package the case securely in bubble wrap, without the articulator. Using the provided UPS Airbills, ship the case to **3i**, Attention: ARCHITECH PSR™. You may call UPS for pick up at 1.888.PickUps.

Send to: In USA:*
3i ARCHITECH PSR
 4555 Riverside Drive
 Palm Beach Gardens
 Florida 33410
 1.800.342.5454



Virtual Abutment



Solid Blank

7. **3i** will design and create an Encode Abutment using the input from your work order and the codes on the healing abutment cast. The casts are scanned with a state-of-the-art laser optical scanner. The CAD technician designs the virtual abutment with uniquely designed software. The final abutment is then milled from a solid blank. After final polishing, your patient specific abutment is complete.



1/2 Milled



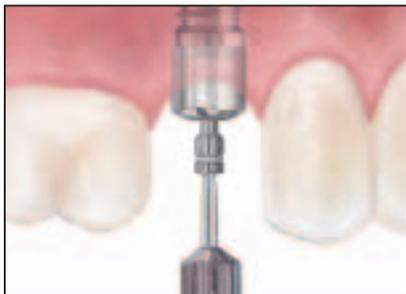
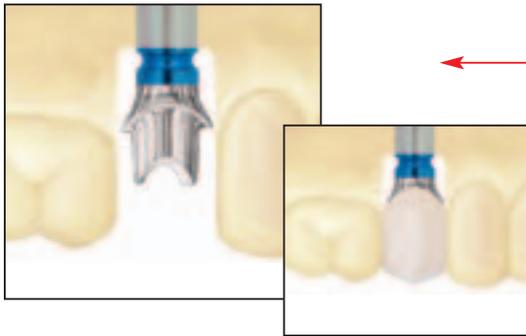
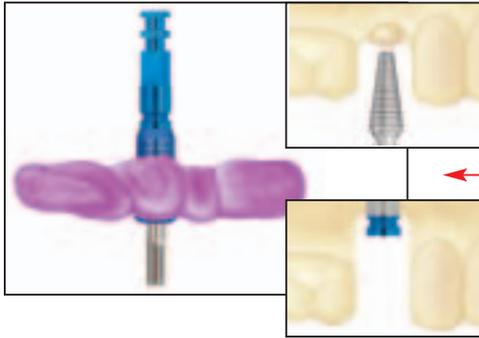
Completed Abutment

8. **3i** packages and returns the abutment(s) and case items to the laboratory. The turn-around time from receipt at **3i** to the laboratory is 4 working days including shipping.

*Preprinted UPS® forms are enclosed in the ARCHITECH PSR Start Up Kit. Call 1-800-PICKUPS to schedule case pick up.

Encode™ Restorative System

Laboratory Procedure & Encode Abutment Placement



LABORATORY PROCEDURE

9. A working cast may be created for fabrication of a provisional crown using the Analog Placement Jig. Grind out the area of the healing abutment on the second pour of the healing abutment cast using a lab bur. Grind down to allow for the depth of the analog or grind through the bottom of the cast. Place the proper diameter implant analog onto the pick-up coping or temporary cylinder and tighten the screw. Seat the Analog Placement Jig assembly over the occlusal surfaces of the adjacent dentition and into the hole in the cast. Pour stone or add acrylic to secure the analog in place. Unthread the impression coping or waxing screw and remove the jig.
10. Attach the final Encode Abutment to the analog using a try-in screw. Fabricate the provisional crown on the Encode Abutment following the margins and the emergence profile and CEJ's of the adjacent teeth on the cast.

Optional: You may also choose to fabricate the final crown at this time if you and the restorative clinician are comfortable with the accuracy of the contacts.

NOTE: If an Analog Placement Jig is not supplied, the laboratory has the option to fabricate a crown coping on the Encode Abutment. The clinician may then pick up the coping from the Encode Abutment in an impression. The clinician may also place the Encode Abutment and make a direct crown and bridge impression using retraction cord. These options would require the clinician to fabricate a chairside provisional restoration after impressioning.

CLINICIAN PROCEDURE

11. The laboratory returns the Encode Abutment, the provisional or final crown and all other materials to the restorative clinician. Remove the Encode Healing Abutment using the Large Hex Driver.

 Activate the fingers using the QuickSeat™ Activator Tool. Locate the tooth number on the buccal to orient the abutment position. Place the Encode Abutment into the implant, line up the hex and press firmly until feeling the tactile click. Thread a Certain™ Gold-Tite™ Hexed Screw into the implant until finger-tight.

 Locate the tooth number on the buccal to orient the abutment position. Place the Encode Abutment onto the implant, engaging the hex. Thread a Square Gold-Tite Screw into the implant until finger-tight.

NOTE: If there is not enough material to create a number, a line will be placed on the buccal surface of the Encode Abutment for orientation purposes.

Radiograph the interface to verify an accurate fit.

Encode™ Restorative System

*Delivery Of The Provisional
Or Final Restoration*



12. Try in the provisional or PFM crown on the Encode™ Abutment and check the occlusion, marginal fit and interproximal contacts. Remove the crown.

 Torque the Certain™ Gold-Tite™ Screw to 20Ncm using the Large Hex Driver Tip and a torque device.

 Torque the Square Gold-Tite Screw to 32–35Ncm using the Square Driver Tip and torque device.



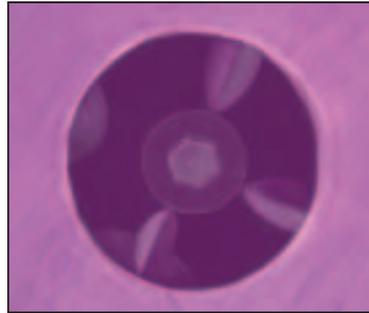
13. Place a protective material over the screw head. Seal the access hole with temporary filling material. Cement the crown on the Encode Abutment using a temporary or permanent cement.

Encode™ Restorative System

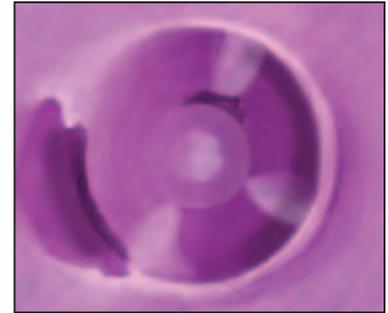
Impressioning & Articulation Guidelines

Impressions Of Encode Healing Abutments

The impression of the Encode Healing Abutment must be clearly visible. The total circumference must be 1mm above the tissue for proper scanning.



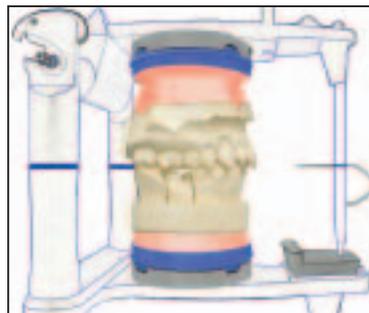
Correct



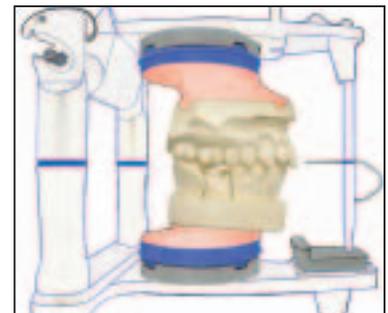
Incorrect

Cast Placement On Mounting Plates

Casts must be centered on mounting plates. The scanners read where the plates are located. If the cast is off the plate, the cast will not be correctly scanned.



Correct



Incorrect

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Global Headquarters
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Palm Beach Gardens, FL 33410
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ART924

REV A 09/04

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