ACE
SURGICAL SUPPLY CO., INC.

LOCATOR®
ABUTMENT

Featuring products developed by
ACE and ZEST Anchors, LLC

ZEST ANCHORS

miniMARK
Dental Implant System

miniMARK™ 2.3mm | miniMARK™ 2.9mm | miniMARK™ 3.25mm

Minimum size.
Maximum Ease.

2012 Edition

Introduction

Minimum size.
Maximum Ease.

Now it's possible for you to offer reliable, predictable miniature implants to your patients who are denture wearers, right in your own office. The ***miniMARK™*** **Dental Implant System** is an affordable option for denture wearers. Precision engineered by ACE Surgical Supply, it features the renowned LOCATOR® Attachment by Zest Anchors, LLC — the world's most trusted name in securing implant-fixed dentures.

The miniMARK™ System enables you to care for your own patients easily and comfortably, in the familiar surroundings of the dental office they're used to. Our miniature implant means that you can restore dental function with a standard, minimally invasive procedure. No longer will it be necessary to refer denture wearers out of your practice.

At ACE, we've been leading the way in offering technical advances to the dental specialty market for over forty years. We've earned a solid reputation for the quality of our products, the reliability of our services, and our commitment to customer support. Our latest advance, the miniMARK™ System, offers a restorative dental solution that both you—and your patients—can count on.

Implant Features:

The ***miniMARK™*** Dental Implant System was designed and engineered to meet the demands of today's dental professional. Our system provides your practice with the ultimate in both convenience and practicality. Our range of implant sizes eliminates any guesswork, and gives you complete control and confidence. The **LOCATOR®** attachment that comes standard with the ***miniMARK™*** Dental Implant System allows for infinite retention between the implant body and the denture.

We believe that no two patients are ever the same. The ***miniMARK™*** System understands the importance of treatment planning. Giving you options is something that you will find with our system. Available as a mini-implant (Ø2.3mm and Ø2.9mm) or as standard body implant (Ø3.25mm), the ***miniMARK™*** Dental Implant will give you the flexibility and confidence of placement stability.

One of the best features of the ***miniMARK™*** Dental Implant System is that it allows the doctor to place the implants and obtain denture stability all in one visit.

miniMARK™ Implants

miniMARK™ *2.3mm LOCATOR®*

Ø2.3mm miniature dental implant with the Zest LOCATOR® head that can be placed in an easy two step procedure and allow for immediate chair side denture retention.

miniMARK™ *2.9mm LOCATOR®*

Ø2.9mm miniature dental implant with the Zest LOCATOR® head that can be placed in an easy two step procedure and allow for immediate chair side denture retention.

miniMARK™ *3.25mm LOCATOR®*

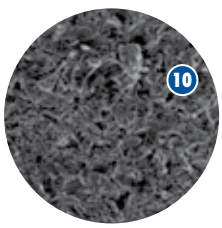
Ø3.25mm miniature dental implant with the Zest LOCATOR® head that can be placed using a standard surgical implant procedure while minimizing the number of implants needed for retaining the denture.

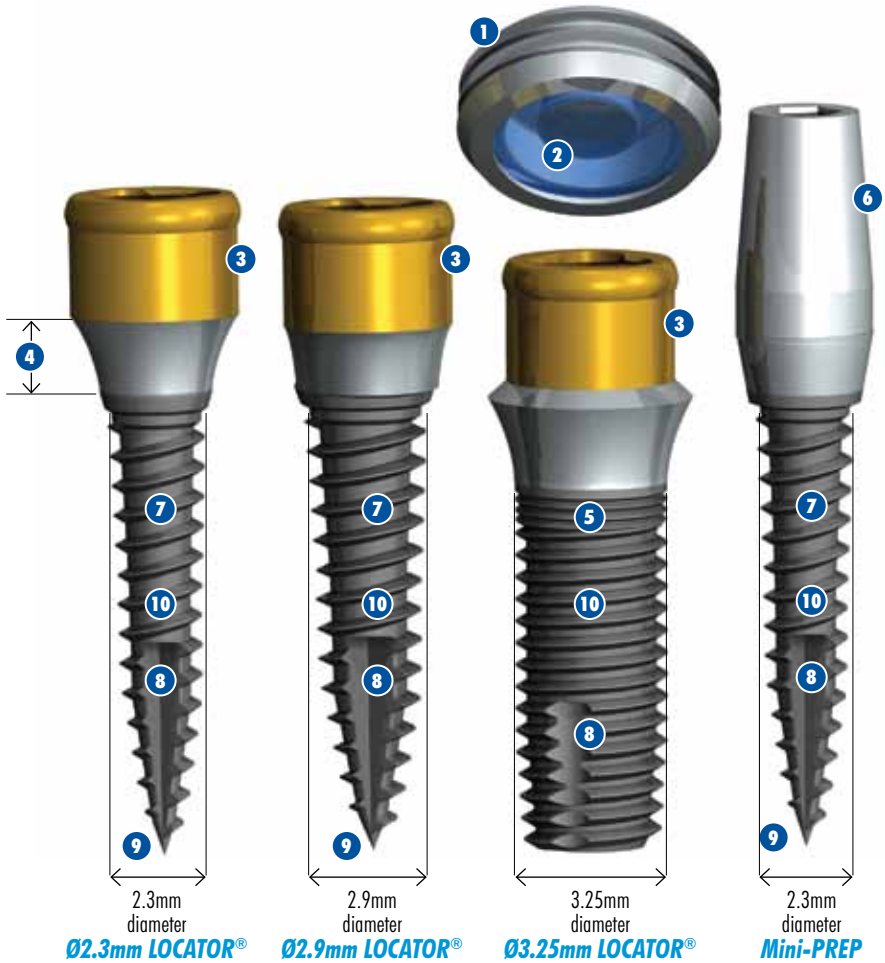
miniMARK™ *PREP*

Ø2.3mm one-piece dental implant with a Ø3.0mm prepable head that can be modified and used for mandibular anterior single tooth applications.

miniMARK™ Implant Callouts

1. **Zest LOCATOR® Denture Cap** – the industry standard for overdenture attachment.
2. Zest **LOCATOR® Retention Male** – with either the **Dual** or **Single Surface Retention Rings** depending on the angle of insertion and desired retention.
3. Unique infinite **LOCATOR® Head Attachment** design allows for infinite life to LOCATOR® Abutment feature.
4. miniMARK LOCATOR® Implants are available in multiple size soft **Tissue Cuffs**.
5. **Micro-Grooves** at the implant neck for maintaining crestal bone.
6. 3mm Diameter **Prepable Abutment Head** designed for Maxillary Lateral Incisors and Mandibular Central and Lateral Incisors.
7. **Tapered 2.3mm and 2.9mm Thread** provides for improved insertion and immediate fixation.
8. **Sharp Cutting Flutes** for easy implant insertion.
9. **Sharp Pin-Point Tack Tip** allows for soft tissue penetration and insertion.
10. **Resorbable Blast Media** (RBM) **Surface Texturing** provides for improved osseointegration.





miniMARK™ Implant System

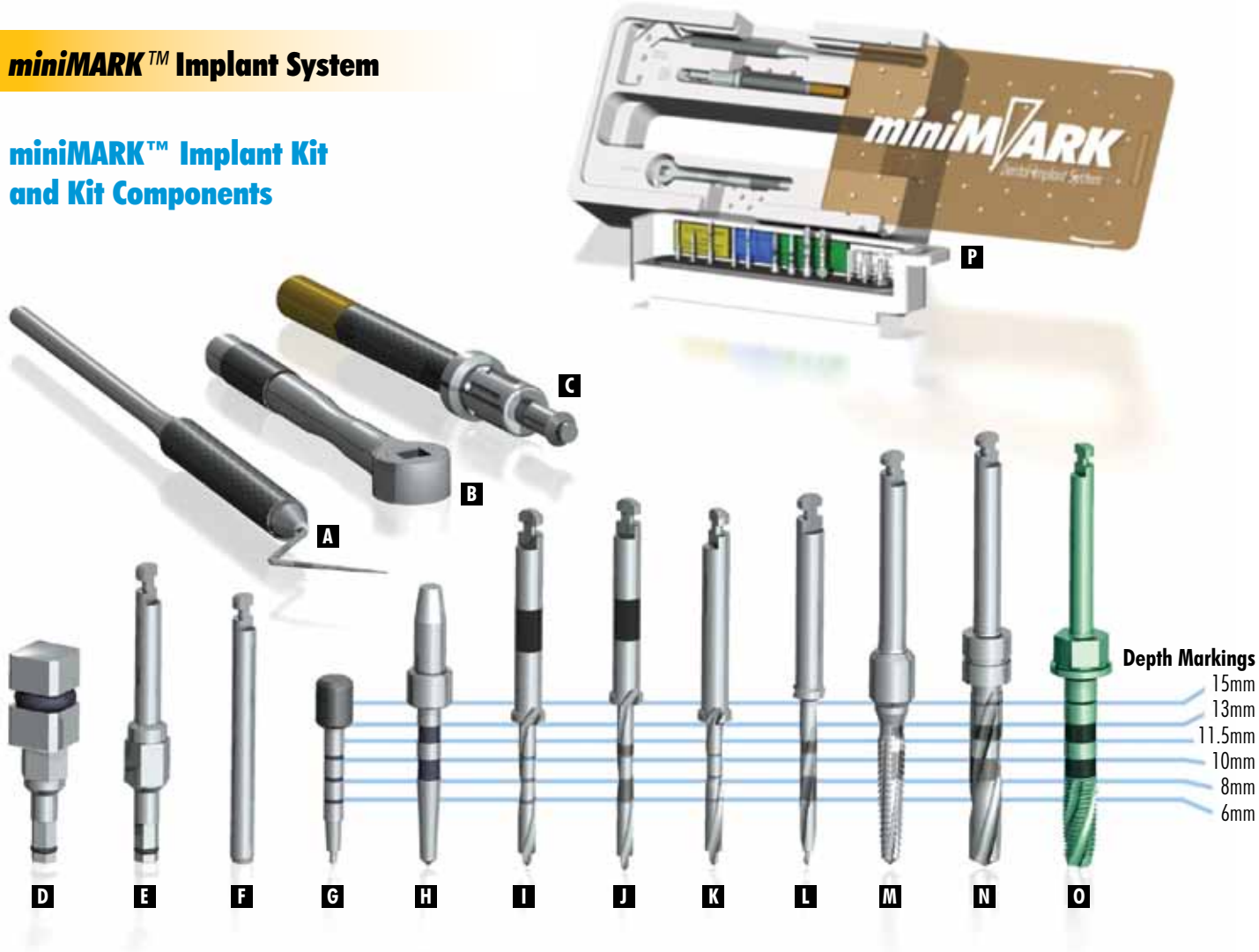
Implant Sizes and Offerings

	LOCATOR	LOCATOR	PREP	LOCATOR	LOCATOR	LOCATOR	LOCATOR	LOCATOR
Diameter	**2.3mm**	**2.3mm**	**2.3mm**	**2.9mm**	**2.9mm**	**3.25mm**	**3.25mm**	**3.25mm**
If tissue depth is...	2-3mm	4-5mm	NA	2-3mm	4-5mm	.5-1.5mm	2-3mm	4-5mm
Cuff Height	2mm	4mm	NA	2mm	4mm	.5mm	2mm	4mm
8mm length	NA	NA	NA	10-29-0820	10-29-0840	10-32-0805	10-32-0820	10-32-0840
10mm length	10-23-1020	10-23-1040	11-23-1000	10-29-1020	10-29-1040	10-32-1005	10-32-1020	10-32-1040
11.5mm length	10-23-1120	10-23-1140	11-23-1100	10-29-1120	10-29-1140	10-32-1105	10-32-1120	10-32-1140
13mm length	10-23-1320	10-23-1340	11-23-1300	10-29-1320	10-29-1340	10-32-1305	10-32-1320	10-32-1340
15mm length	10-23-1520	10-23-1540	11-23-1500	10-29-1520	10-29-1540	10-32-1505	10-32-1520	10-32-1540

See illustration on page 7 to determine which implant is best suited for certain locations.

miniMARK™ Implant System

miniMARK™ Implant Kit and Kit Components



Complete Kit:

09-2949-76	***miniMARK***™ Dental Implant System

Kit Contents:

A	630-1106	Stainless Steel Tissue Probe, 1-12mm Markings
B	96-002-28	Ratchet
C	206-8393	Zest LOCATOR® Male Install/Remove Tool
D	20-1519-11	miniMARK™ Hand Driver
E	04-9741-11	miniMARK™ CA Driver
F	42-000-03	CA Tissue Punch
G	20-9005-01	miniMARK™ Mini Tissue Depth Gauge
H	20-9780-01	Parallel Pin/Depth Gauge
I	454-281001	2.3 Implant Starter Bur (0.8/1.6mm)
J	454-281201	2.3 Implant Dense Bone Bur (0.7/1.3mm)
K	454-281002	2.9 Implant Starter Bur (1.3/2.1mm)
L	454-281401	2.9 Implant Dense Bone Bur (1.2/1.8mm)
M	88-330009	3.25mm Implant Starter Bur (1.6-2.35mm)
N	04-9881-01	3.25mm Implant Twist Drill (2.8mm)
O	04-9561-01	3.25mm Implant Bone Tap
P	454-5211	Autoclavable Set Up Tray (insert shown removed)

Zest LOCATOR® Components

Zest LOCATOR® Nylon Replacement Male

Replacement Male

Two retention surfaces, the outer ring and the center nipple allows for maximum hold. Good for use with divergent implants up to 10° (accommodates up to 20° between 2 or more implants).

Extended Range Replacement Male

Single retention surface using only the outer ring with the inner nipple removed. Good for use with divergent implants up to 20° (accommodates up to 40° between 2 or more implants).

Each Set includes:

(1) Denture Cap with Black Processing Male
(1) White Block-Out Spacer
(3) Nylon Retention Males: 1 each of the Dual or Extended Range Nylon Retention Males

	Male Processing Pack			Male Processing Pack (Extended Range)		
Color	Clear	Pink	Blue	Green	Orange	Red
Item #	206-8524	206-8527	206-8529	206-8547	206-8915	206-8548
Retention	Standard	Light	Extra Light	Standard	Light	Extra Light
Lbs.	5 lbs.	3 lbs.	1.5 lbs.	3-4 lbs.	2 lbs.	0.5-1.5 lbs.
Grams	2268	1361	680	1361-1814	907	226-680
Qty/Pack	4/pack	4/pack	4/pack	4/pack	4/pack	4/pack

Replacement Male Sets

A 206-85192 Dual Retention.....2 sets / pkg
206-851910 Dual Retention.....10 sets / pkg

Extended Range Replacement Male Sets

B 206-85402 Angle Retention .....2 sets / pkg
206-854010 Angle Retention .....10 sets / pkg

Replacement Male Set

Extended Range Replacement Male Set

Zest LOCATOR® Lab Components

C 206-8514 Zest LOCATOR® White Block-Out Spacer 20/pkg

Note: These Spacers are frequently used items and should kept on-hand. You may use 1-3 for each implant being placed.

D 206-8505 Zest LOCATOR® Transfer 4/pkg
E 206-8516 Zest LOCATOR® Analog..... 4/pkg
F 206-8393 Zest LOCATOR® Male Installation / Removal Tool

miniMARK™ Implant Placement

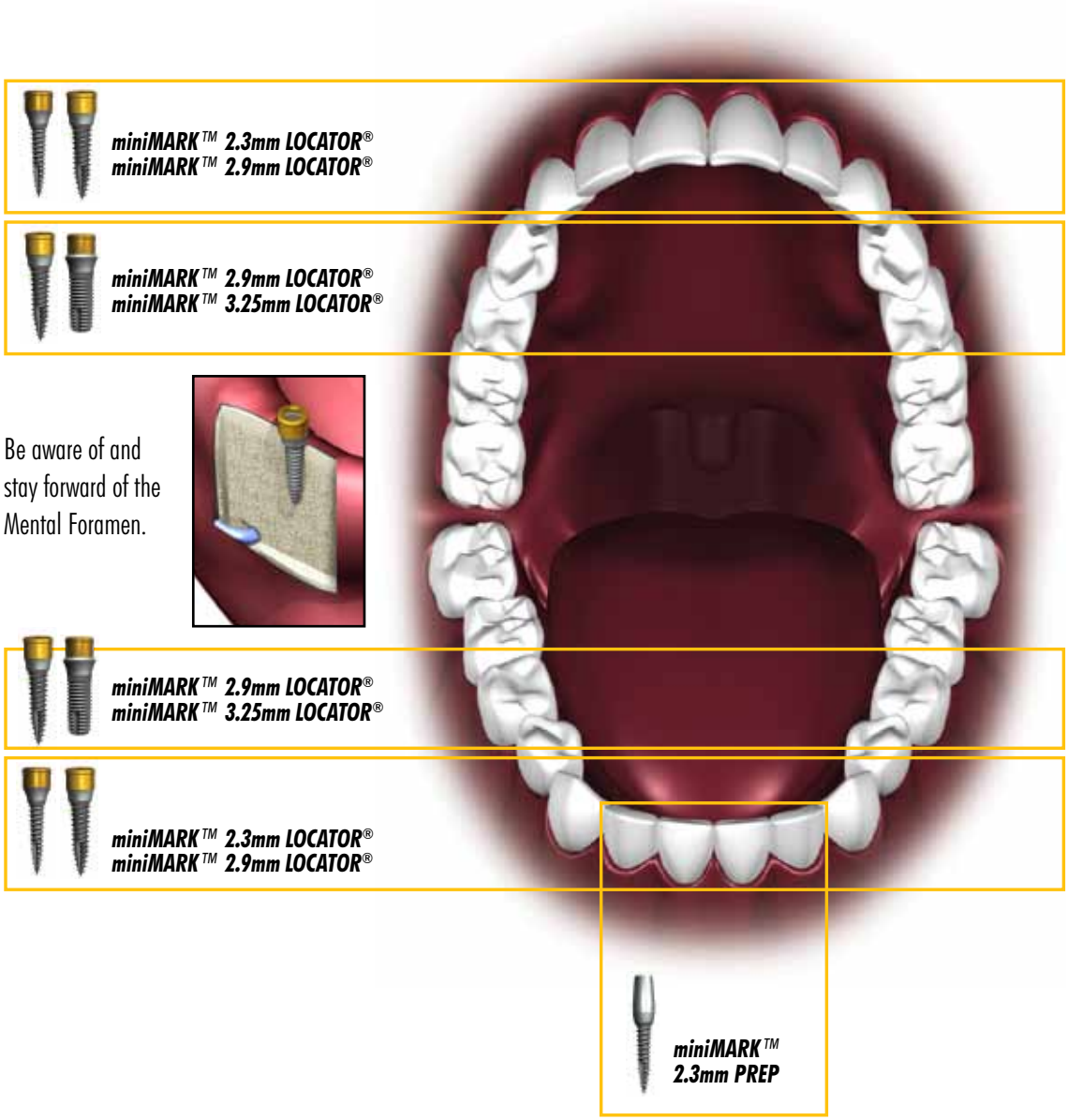
For Ideal Denture Stabilization:

Upper Arch

It is suggested that when placing ***miniMARK***™ Implants in the upper arch that four be used to maintain stability and security. It is recommended that two of the four implants should be ***miniMARK***™ 3.25mm implants.

Lower Arch

Research shows that two ***miniMARK***™ Implants can securely stabilize a lower denture. Under most conditions four implants should be installed to give added stability. It is recommended that two of the four implants should be ***miniMARK***™ 3.25mm implants.



miniMARK™ Drilling Sequence

	DRILLING	OPTIONAL	PLACEMENT
miniMARK™ 2.3mm LOCATOR® ***miniMARK™ 2.3mm Prep*** **Identifing Markings** Drills for the 2.3mm have a band on the shank	 Ø 0.8-1.6mm 2.3mm Implant Starter Bur	 Ø 0.7-1.3mm 2.3mm Implant Dense Bone Bur (Optional - for type I & II bone)	
miniMARK™ 2.9mm LOCATOR® **Identifing Markings** Drills for the 2.9mm have no band on the shank	 Ø 1.3-2.1mm 2.9mm Implant Starter Bur	 Ø 1.2-1.8mm 2.9mm Implant Dense Bone Bur (Optional - for type I & II bone)	
miniMARK™ 3.25mm LOCATOR®	 Ø 1.6- 2.35mm 3.25mm Implant Starter Bur  Ø 2.8mm 3.25mm Implant Twist Drill	 Ø 3.25mm Implant Bone Tap (Optional - for Dense Bone)	

STEP 1 SITE PREPARATION FOR 2.3mm or 2.9mm IMPLANTS

NOTE: **2.3mm** Laser marked Bur shanks distinguish these from 2.9mm Burs
2.9mm NO Laser mark on shank to distinguish these from 2.3mm Burs

1A – Prior to drilling, use the tissue probe to determine the soft tissue depth.

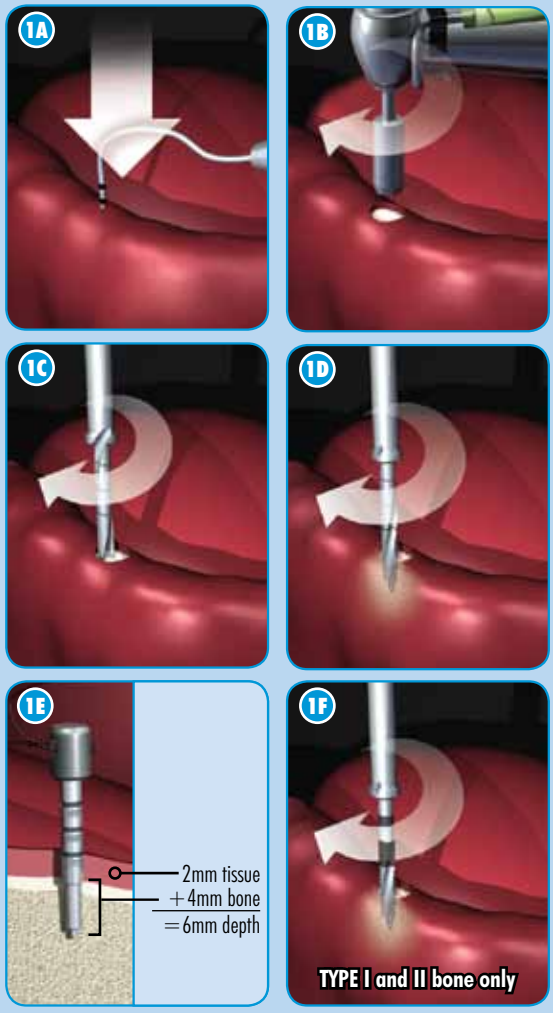
1B – Using the tissue punch, create initial opening.

1C – Using a handpiece at 900 to 1200 rpm, gently drill into the bone through the punched soft tissue with the [2.3 or 2.9mm] Implant Starter Bur
2.3mm 2.3mm Implant Starter Bur (0.8/1.6mm)
2.9mm 2.9mm Implant Starter Bur (1.3/2.1mm)

1D – **FOR ALL BONE TYPES**: Create an osteotomy by drilling **only 4mm deep** into the cortical plate using the soft tissue reference markings on the bur at 6, 8 and 10mm. **NOTE:** Avoid drilling more than 4mm deep into the cortical plate.

1E – Insert the ***miniMARK***™ Tissue Depth Gauge to confirm the soft tissue depth and evaluate the osteotomy insertion angle.
For **TYPE III-IV BONE:** The 4mm deep osteotomy is completed, with a soft tissue penetration of 2mm by drilling to the 6mm marking line.

1F – **FOR TYPE I–II DENSE CORTICAL BONE ONLY**: In dense bone, an additional step is required. Use the [2.3 or 2.9mm] Dense Bone Bur,
2.3mm 2.3mm Implant Dense Bone Bur (0.7/1.3mm)
2.9mm 2.9mm Implant Dense Bone Bur (1.2/1.8mm)
and drill the entire length of the defined implant body by following the score lines marked on the bur. **NOTE:** While drilling through the punched soft tissue, be sure to accommodate for the tissue height as the bur marking lengths correspond only to the implant lengths.



minis

STEP 2 LOAD THE 2.3mm or 2.9mm IMPLANT ONTO DRIVER

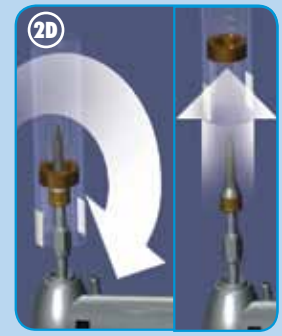
SAME FOR ALL miniMARK™ IMPLANTS

2A – Open the sterile implant vial by breaking the tamper tape and removing the cap using a twisting and pulling motion.

2B – **For handpiece motor insertion:** assemble the contra-angle driver tool to the handpiece.
For hand ratchet insertion: assemble the hand driver tool to the ratchet handle.

2C – Using the contra-angle or hand driver tool setup, push and engage the hexagon tip of the tool into the mating female hexagon in the implant in a straight downward motion. When correctly engaged, the o-ring at the tip of the driver will be completely recessed inside the head of the LOCATOR.
Note: Be sure the small hexagon that is used to drive the implant is completely seated. If seated correctly you should not be able to visually see the small hexagon exposed.

2D – Rotate the driver and the vial. Raise the vial off the implant. Avoid jarring while transferring the implant to the surgical site, as the o-ring provides only a minimal holding force.



LOCATOR

STEP 3 PLACEMENT OF 2.3mm or 2.9mm IMPLANT INTO THE OSTEOTOMY

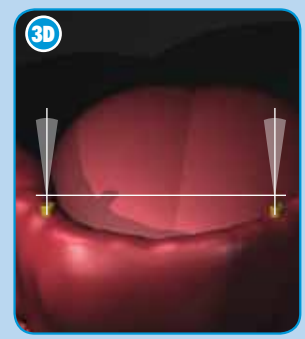
3A – Insert the implant through the punched soft tissue and into the prepared osteotomy using an implant placement speed (20 rpm) and
2.3mm maximum insertion torque of 30 N-cm.
2.9mm maximum insertion torque of 40 N-cm.
External irrigation may be used to minimize heat generation.

Tapered tip of the implant will fit approx. 2mm deep into osteotomy before engaging.

3B – Continue insertion of the implant until the threads are completely seated in the surgical bony site and the implant's tissue cuff is correctly located.

3C – After placement, disengage the driver tool from the implant by pulling the tool off in a straight upward direction.

3D – When placing multiple implants, assure that the angle and height of the implant heads align to achieve the optimal denture attachment.
Note: When implants are 10-20° divergent, use the Extended Range - Angle Retention LOCATOR Males (accommodates up to 40° between 2 or more implants).



FOR PLACEMENT OF *miniMARK™ PREP* IMPLANT

STEP 1 (see page 9) **SITE PREPARATION FOR 2.3mm or 2.9mm IMPLANTS**

STEP 2 (see page 10) **LOAD THE 2.3mm or 2.9mm IMPLANT ONTO DRIVER**

STEP 3 PLACEMENT OF *miniMARK™ PREP* IMPLANT INTO THE OSTEOTOMY

prep

3A – Insert the implant through the punched soft tissue and into the prepared osteotomy using an implant placement speed (20 rpm) and maximum insertion torque of 30 N-cm. External irrigation may be used to minimize heat generation.

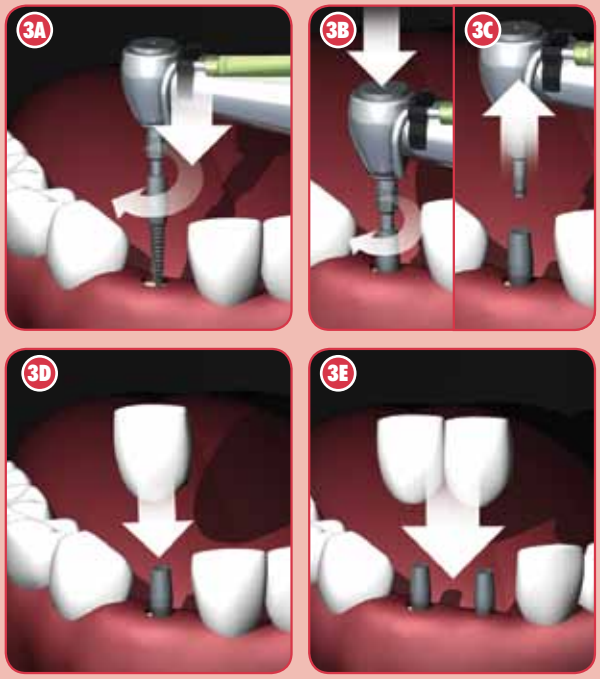
3B – Continue insertion of the implant until the implant threads are completely seated in the surgical bony site and the implant's tissue cuff is correctly located.

3C – After placement, disengage the driver tool from the implant by pulling the tool off in a straight upward direction.

3D – Once the appropriate location and geometry of the prepable post is achieved, the final crown or restoration can be cemented into place.

3E – When placing multiple implants, take care to assure the appropriate axial and height alignments are achieved for optimal crown or restorative attachments.

Tapered tip of the implant will fit approx. 2mm deep into osteotomy before engaging.



STEP 1 SITE PREP FOR *miniMARK™ 3.25mm LOCATOR®*

3.25mm

1A – Prior to drilling, use the tissue probe to determine the soft tissue depth.

1B – Using standard surgical implant procedure, reflect the soft tissue.

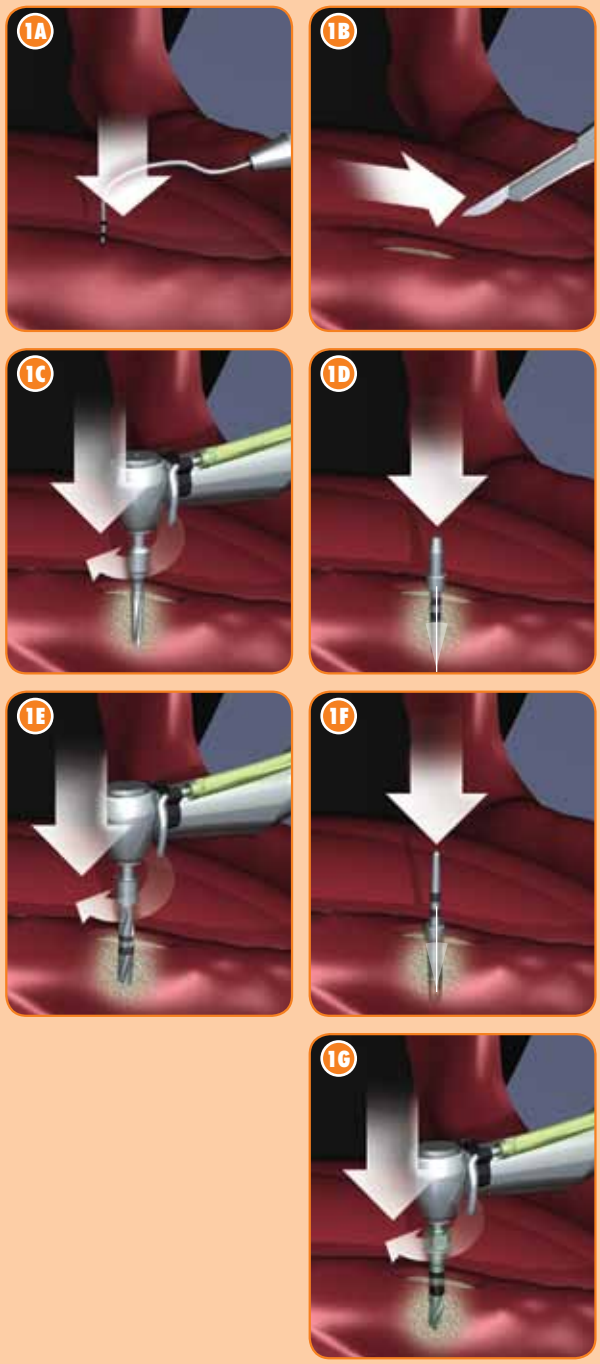
1C – Using a handpiece at 900 to 1200 rpm, start the initial osteotomy using the 3.25 Implant tapered Starter Bur (1.6-2.35mm). Drill to the implant length score line.

1D – Insert the small tapered side of the Parallel Pin/Depth Gauge into the osteotomy to confirm the appropriate osteotomy depth and to determine if any parallel drilling corrections need to be made at this time.

1E – Use the 3.25 Implant Twist Drill (2.8mm) to correctly size the osteotomy hole for the miniMARK™ 3.25mm LOCATOR® Implant. The osteotomy angle corrections can be made during this drilling process. Drill to the implant length score line as shown.

1F – Flip over the Parallel Pin/Depth Gauge to the short 2.8mm diameter side and confirm the parallelism and hole size of the osteotomy.

1G – **(Optional)** In dense cortical bone, a 3.25mm bone tap that replicates the thread geometry of the miniMARK™ 3.25mm LOCATOR® Implant can be used. The marking score lines of the tap match the implant lengths. Use the tap at the SLOW handpiece motor setting (20rpm).



STEP 2 LOAD THE *miniMARK™ 3.25mm LOCATOR®* IMPLANT ONTO DRIVER

3.25mm

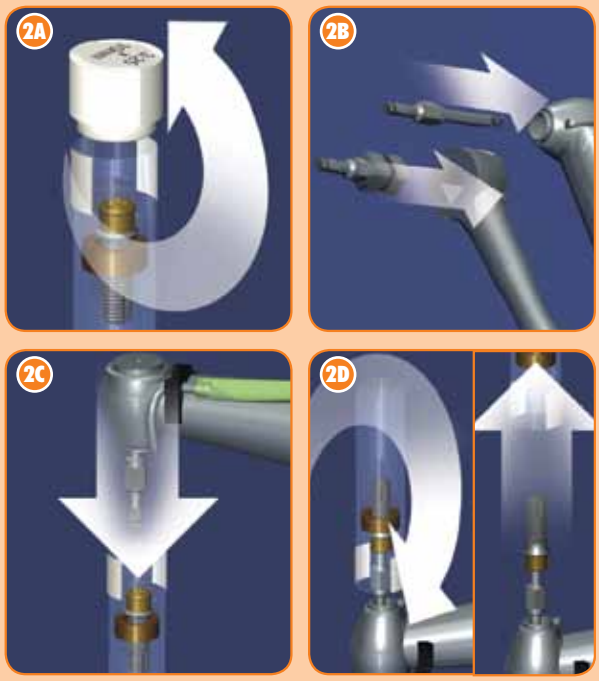
SAME FOR ALL miniMARK IMPLANTS

2A – Open the sterile implant vial by breaking the tamper tape and removing the cap using a twisting and pulling motion.

2B – **Motor insertion:**
assemble contra-angle driver tool to handpiece.
Ratchet insertion:
assemble hand driver tool to ratchet handle.

2C – Using the contra-angle or hand driver tool setup, push and engage the hexagon tip of the tool into the mating female hexagon in the implant in a straight downward motion. When correctly engaged, the o-ring at the tip of the driver will be completely recessed inside the head of the LOCATOR.
Note: Be sure the small hexagon that is used to drive the implant is completely seated. If seated correctly you should not be able to visually see the small hexagon exposed.

2D – Rotate the driver and the vial. Raise the vial off the implant. Avoid jarring while transferring the implant to the surgical site, as the o-ring provides only a minimal holding force.



STEP 3 PLACEMENT OF *miniMARK™ 3.25mm LOCATOR®* IMPLANTS INTO THE OSTEOTOMY

3.25mm

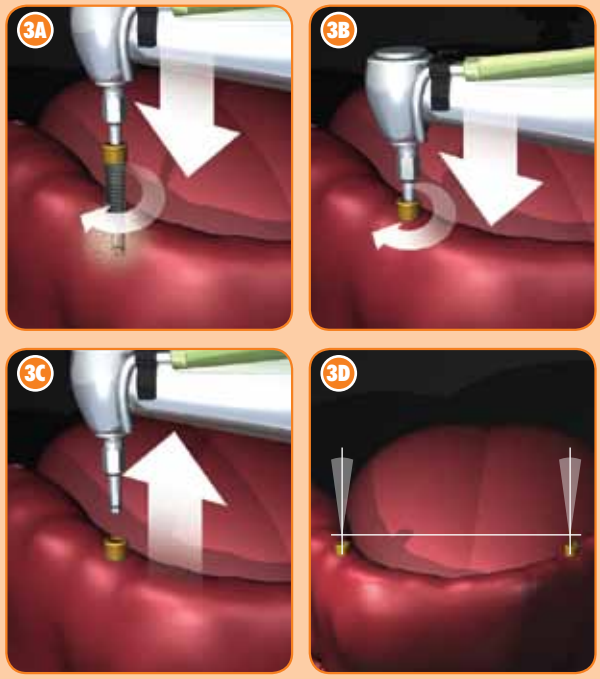
3A – Insert the implant through the soft tissue and into the prepared osteotomy using an implant placement speed (20 rpm) and maximum insertion torque of 40 N-cm. External irrigation may be used to minimize heating.

3B – Continue insertion of the implant until the implant threads are completely seated in the surgical bony site and confirm soft tissue collar height.

3C – After placement, disengage the driver tool from the implant by pulling the tool off in a straight upward direction.

3D – When placing multiple implants, assure that the angle and height of the implant heads align to achieve the optimal denture attachment.

Note: When implants are 10-20° divergent use the Extended Range - Angle Retention LOCATOR Males (accommodates up to 40° between 2 or more implants).



restore

STEP 4 LOCATOR® INSTALLATION: CHAIRSIDE

SAME FOR ALL LOCATOR® IMPLANTS

NOTE: It is recommended that you wait 12 weeks before restoring the 3.25mm LOCATOR® Implants.

4A – Place the white Block Out Spacer(s) over the head of the LOCATOR to prevent acrylic from attaching to the implant head. **Note: Confirm that none of the LOCATOR head is exposed for the acrylic to attach to.**

4B – Snap on the Denture Cap, with the black processing male, over the LOCATOR and apply any standard location indicator paste on top of the cap.

4C – Align and place the denture in the mouth picking up the indicator paste on the denture.

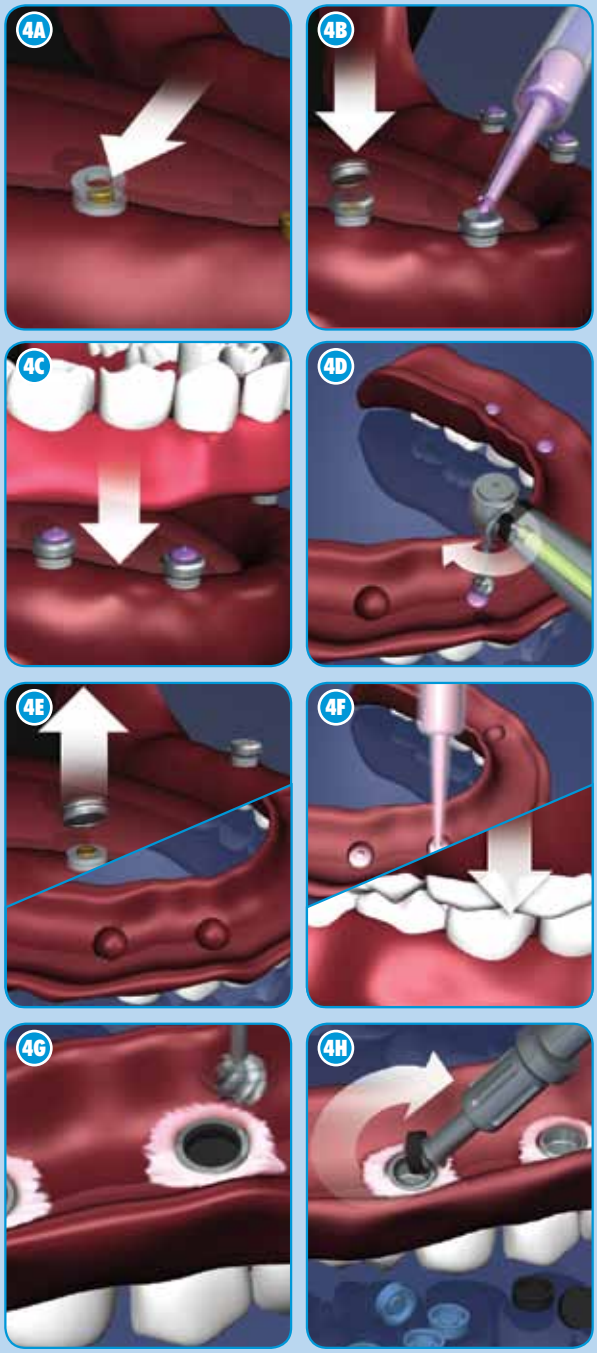
4D – Ream out the denture where the indicator paste has marked. Repeat step C and D until the denture seats passively in the mouth.

4E – Rinse, clean & dry denture and Denture Cap before proceeding.

4F – Apply acrylic into reamed out areas of denture and insert denture back into the patient. Have the patient bite together until the acrylic has set.

4G – After the acrylic has set, remove the denture with the LOCATOR caps, now attached, from the mouth and trim off any excessive acrylic from the denture and the Denture Caps.

4H – After determining that the denture is seated correctly with the LOCATORs, remove the black processing male from the Denture Caps and replace them with the desired color retentive attachments. **Note:** Use the LOCATOR Male Installation/ Removal Tool to remove and insert the plastic male parts from the LOCATOR Denture Caps (clear – most retentive, blue – least retentive). Plastic male parts are also available without a nipple to accommodate the increased divergent implant (see page 6 for part number listing and additional colors).



restore

STEP 5 LOCATOR®- LABORATORY MODEL

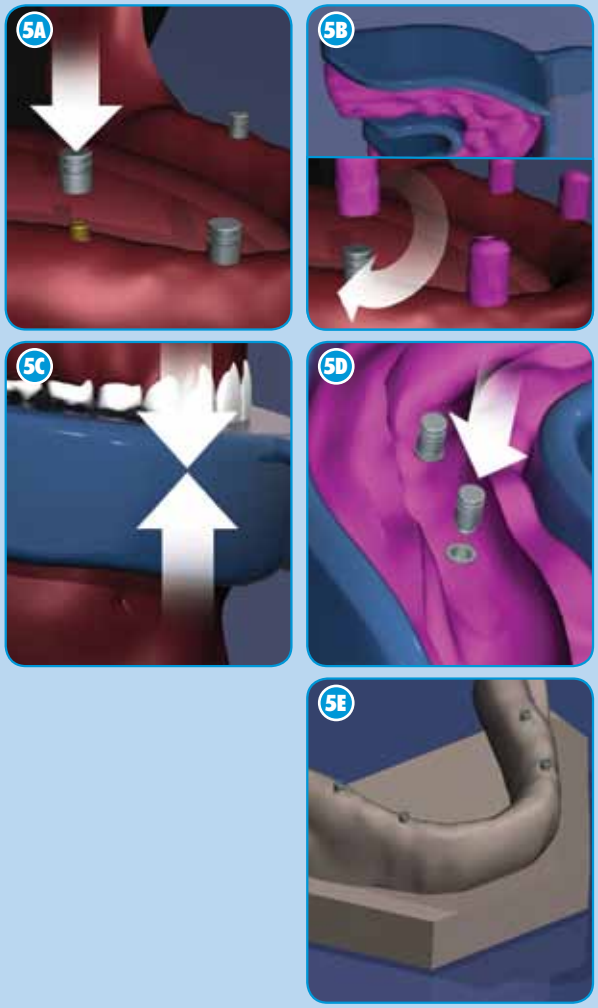
5A – Insert the LOCATOR Transfer onto the installed implant.

5B – Apply impression material around the transfer and into the impression tray.

5C – Tray is placed following impression material manufacturer guidelines.

5D – Once tray is removed, LOCATOR® Analog is attached to the LOCATOR® transfer.

5E – Stone model is poured and is now ready for denture preparation. Refer to Step 4 to attach LOCATORs to denture.



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800.441.3100 9am-8pm (et)

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