TECHNIQUE

LOCATOR® BAR ATTACHMENT SYSTEM

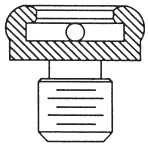
IMPORTANT: This document contains the most current instructions for use.
Please, read and retain.

CLASSIFICATION:

Universal hinge, resilient attachment for bar splinted endosseous implants.

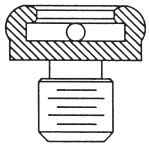
PARTS IDENTIFICATION

Locator Bar Female (2.0mm Thread) No. 8589



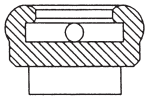
Titanium alloy with TiN coating

Locator Bar Female (2-56 Thread) No. 8587



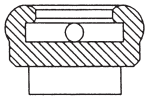
Titanium alloy with TiN coating

Locator Laser Bar Female (Titanium) No. 8588



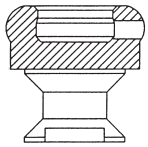
Titanium alloy with TiN coating

Locator Laser Bar Female (Stainless Steel) No. 8590



Stainless Steel with TiN coating

Locator Cast-To Bar Female No. 8586



Stainless Steel (**no** TiN coating)

Block Out Spacer No. 8514

Teflon (white)

Processing Cap Male/Pkg. No. 8519

Titanium Cap with black Low Density Polyethylene Male, Block Out Spacer, and Nylon Replacement Males (clear, pink)

5.0 lb. Replacement Male No. 8524

Nylon (clear)

3.0 lb. Light Retention Repl. Male No. 8527

Nylon (pink)

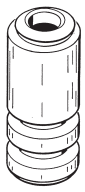
1.5 lb. Extra Light Retention Repl. Male No. 8529

Nylon (blue)

Impression Coping No. 8505

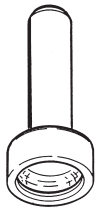
Aluminum housing with black Low Density Polyethylene Male

Female Analog (4mm) No. 8530



Aluminum

Parallel Post
No. 8517

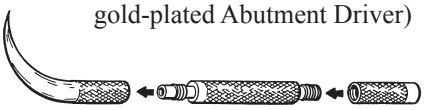


Low Density
Polyethylene (black)

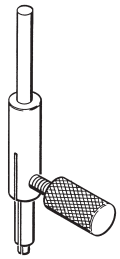
Black Processing
Replacement Male
No. 8515

Low Density
Polyethylene (black)

Locator Core Tool
No. 8393
(Male Removal Tool,
Male Seating Tool, &
gold-plated Abutment Driver)



Locator Paralleling
Mandrel No. 9107



1.7mm Bar Drill
(2.0mm Thread)
No. 9102

2.0mm Bar Tap
(2.0mm Thread)
No. 9104

1.8mm Bar Drill
(2-56 Thread)
No. 9103

2-56 Bar Tap
(2-56 Thread)
No. 9105

INDICATIONS
The Locator Bar Attachment System is designed for use with overdentures or partial dentures retained in whole or in part by bar splinted endosseous implants in the mandible or maxilla.

CONTRAINDICATIONS
Not appropriate where a totally rigid connection is required.

CAUTION
Federal (U.S.A.) law restricts this device to sale by or on the order of a licensed dentist.

STERILIZATION
All components and instruments are supplied **NON-STERILE.** Tools and metal instruments may be sterilized following standard clinical procedures, prior to use.

FEATURES
1. **LOWEST VERTICAL HEIGHT:** The total height of the Locator Bar Attachment (abutment plus male) is only 2.5mm on a cast alloy bar.
2. **LOCATING DESIGN:** Self-locating design allows a patient to easily seat their overdenture without the need for accurate alignment of the attachment components.
3. **RETENTION INSIDE AND OUT:** The patented *Dual Retention* innovation provides the Locator Attachment with greater retention surface area than ever before available with other attachments. A combination of inside and outside retention ensures the longest lasting performance.
4. **ROTATIONAL PIVOTING ACTION:** The design of the pivoting Locator Male allows a resilient connection for the prosthesis without any resulting loss of retention. The retentive nylon male remains completely in contact with the abutment socket while its metal denture cap has a full range of rotational movement over the male.
5. **CHOICE OF THREE TECHNIQUES:** The Locator Bar Attachment can be placed by any of the three popular techniques used by Dental Laboratories to fabricate an implant retained bar with attachments:
    1. Drill and tap the bar for a removable threaded Locator Bar Female connection.

2. Laser weld a Locator Laser Bar Female to the bar.
3. Cast-to the stainless steel Locator Cast-To Bar Female with gold alloy.

A. PLACEMENT OF THE LOCATOR BAR ATTACHMENT

The Locator Bar Attachment can be placed by any choice of the three following techniques used by a Dental Laboratory to fabricate a bar with dental attachments. **CAUTION: The most critical consideration in the proper placement of the Locator Bar Attachment on a milled or cast bar is that a minimum of 1.0mm of bar material remains between the edge of a UCLA type screw retaining the bar and the Locator Bar Female, or a minimum of 5.0mm between the edges of multiple placed Locator Bar Females that is required to avoid interference of the Locator Titanium Denture Caps. (Locator Bar Female = 4.0mm Diameter, Locator Denture Cap = 5.5mm Diameter).**

Technique to drill and tap a bar for a removable threaded Locator Bar Female

1. A) Parts needed – New Case:
   (8589) Locator Bar Female (2.0mm Thread)
   (9102) 1.7mm Bar Drill (2.0mm Thread)
   (9104) 2.0mm Bar Tap (2.0mm Thread)

   B) Parts needed – Replace TSB Ball Attachment:
   (8587) Locator Bar Female (2-56 Thread)
   (9103) 1.8mm Bar Drill (2-56 Thread)
   (9105) 2-56 Bar Tap (2-56 Thread)

2. The 1.7mm Bar Drill (Zest order #9102) and a 2.0mm Bar Tap (Zest order #9104) are used for creating the threaded site in a titanium bar or cast alloy bar. First use a round carbide bur to create a dimple into the top of the bar at the exact site of the planned preparation.
3. Use the 1.7mm Bar Drill in a precision drilling device to create the exact size diameter hole to a depth of 2.8mm that is needed for tapping the site. **The use of tapping fluid while cutting the threads is required to reduce the chance of breaking the tap off in the preparation.**
4. Place the 2.0mm Bar Tap into a drill chuck or tap handle to create internal threads within the drilled site.
5. A special Locator Gold-Plated Abutment Driver (contained in the Locator Core Tool, Zest order #8393) is designed to engage the inside diameter of the threaded Locator Bar Female and thread it into the bar.
6. Final torque tightening of the Locator Bar Female to prevent screw loosening is achieved using the 20Ncm Torque Wrench (Zest order #4391 Kit). In addition, Locator Torque Wrench Drivers that fit directly into the Locator Bar Female are available for most brands of torque wrenches.

Technique to laser weld a Locator Laser Bar Female on top of a bar

1. A) Parts needed – Laser welding to a titanium bar:
   (8588) Locator Laser Bar Female (Titanium)
   (9107) Locator Paralleling Mandrel

   B) Parts needed – Laser welding to a cast gold alloy bar:
   (8590) Locator Laser Bar Female (Stainless Steel)
   (9107) Locator Paralleling Mandrel

2. Use the Locator Paralleling Mandrel (Zest order #9107) in a surveyor to place the Laser Bar Female into position. Insert the split end of the Paralleling Mandrel into the socket of the Laser Bar Female and tighten the knurled set screw to spread the split portion of the mandrel that will secure the Laser Bar Female to the mandrel.
3. Tack the Laser Bar Female into place on top of the bar by placing a spot of laser weld on opposite sides of the female.
4. Remove the Paralleling Mandrel by loosening the knurled set screw. Form a bead of weld around the entire base circumference of the Laser Bar Female, welding the attachment to the top of the bar.
5. Snap a Locator Processing Cap Male onto the welded Laser Bar Female to make sure the laser weld does not interfere with the seating of the Locator Denture Cap Male.

Technique for casting-to a Locator Cast-To Bar Female into a gold alloy bar

1. Parts needed – New Case:
   (8586) Locator Cast-To Bar Female
   (9107) Locator Paralleling Mandrel

2. Use the Locator Paralleling Mandrel (Zest order#9107) in a surveyor to place the Cast-To Bar Female into the waxed bar in a position that is parallel with other Locator Bar attachments. Insert the split end of the Paralleling Mandrel into the socket of the Cast-To Bar Female and tighten the knurled set screw to spread the split portion of the mandrel that will secure the Cast-To Bar Female to the mandrel.
   Note: For accurate positioning of the Cast-To Bar Female the Locator Paralleling Mandrel is preferred to be used in place of the plastic Parallel Post that comes with the attachment, and is removed to use the Paralleling Mandrel instead.
3. Wax the Cast-to Bar Female directly into the bar. The wax should be built up to the bottom outside corner on the base of the female, leaving the majority of the outer surface on the base above the top level of the bar.
4. Remove the Paralleling Mandrel by loosening the knurled set screw, leaving the stainless steel attachment open for investment material to flow into.
5. Spruing. Run the sprue at a 45 degree angle to the Cast-To Bar Female so the molten gold will flow down along one side of the female, around and up to the other side. The sprue should not be directed at the female that could possibly dislodge it when casting.
6. It is recommended to use debubblizer to reduce surface tension during investing procedures.
7. Investing. The most successful castings have been accomplished by using Ceramigold Investment by Whip Mix Corp. or an equivalent High Heat Investment. Use a casting ring at all times. **(Do not use the ringless technique of investing and casting for the Cast-To Bar Female.)**
8. Mix a liquid/powder ratio of Ceramigold using 12ml to 60 grams of powder for each packet of mix needed. Hand mix for 15 seconds and vacuum mix for 90 seconds at 350-450 RPM. The investment material should be carefully painted into each attachment cavity to avoid trapping bubbles and to prevent gold from going inside the female. The remainder of the investment poured into the ring will stabilize the female during burnout. Place the ring in a water bath for one hour, then bench set for a half hour.
9. Burnout. Place ring in a cold furnace (sprue side down) and raise the temperature to 1500° F maximum. Use a rate of climb of 0° F to 1500° F maximum over a time period of one hour. Hold at 1500° F maximum until burnout is complete. (Refer to investment manufacturer's instructions for suggested burnout duration.)
10. Casting. Use only precious or semi-precious alloys for casting the stainless steel female into a bar. Non-precious alloys should not be used. Cast the bar using recommended temperatures of the alloy

manufacturer. The stainless steel Cast-To Bar Female will withstand a temperature of up to 2000° F without any dimensional change. **Do not allow casting temperature to raise above 2000° F which will melt the stainless steel Bar Female!**

11. Divesting. After casting, allow the casting to bench cool for 20 minutes. Be careful to push out the casting and investment with proper tools. It is not recommended to hammer or bang on rings that may distort the castings. To remove the investment material from the Cast-To Bar Female without damage to the stainless steel, use an acid-free investment and porcelain remover solution in an ultrasonic unit for a period of 30-45 minutes. **(Do not use a bur to remove the investment, sandblasting with aluminum oxide, or an acid pickling solution, all of which can damage the retention surfaces of the Bar Female attachment.)** Clean the bar containing the Locator Cast-To attachment in an ultrasonic cleaner solution.
12. Finishing and Polishing. When polishing with a rubber wheel, use caution not to damage the Cast-To Bar Female attachment. Polish the surface of the bar to make a smooth surface. The Locator Parallel Post can be placed on the female to protect the attachment while polishing. [If additional polishing of the female attachment is required, it is recommended to only use glass beads at a low pressure (40 PSI) or a fiberglass or bristle polishing brush.]
13. After polishing the bar, place a Locator Processing Cap Male onto each Cast-To Bar Female and check for proper fit. Clean again in an ultrasonic solution and deliver to the dental office.

B. LOCATOR MALE PLACEMENT BY THE DENTIST

1. Placement of the desired type of Locator Bar Female into the bar (see Section A) and delivery of the bar to the patient must be completed before beginning the procedure for placement of the Locator Male.
2. Place a White Block-Out Spacer (Zest order #8519 Package) over the head of each Locator Bar Female. The spacer is used to block out the area immediately surrounding the attachment. The space created will allow the full resilient function of the pivoting metal denture cap over the Locator Male. **NOTE: Due to the additional height required for the Laser Bar Females (Zest order #8588 and #8590), they require the use of 2 White Block-Out Spacers stacked on top of each other for proper block out. It is also necessary to block out all undercuts beneath the bar to prevent the added acrylic resin from locking the denture onto the bar.**
3. Insert a Locator Titanium Cap with Black Processing Male (Zest order #8519 Package) onto each Locator Bar Female, leaving the White Block-Out Spacer beneath it. The Black Processing Male will maintain the overdenture in the upper limit of its vertical resiliency during the processing procedure.
4. Prepare a recess in the denture to accommodate the protruding Locator Male. There must be no contact between the denture and the titanium cap. If the denture rests on the metal cap, excess pressure on the implant will result.
5. Use the Chairside Dental Attachment Light Cure Kit (Zest order #9403) to light cure bond the Locator Denture Cap Male into the denture, or mix a permanent self-curing acrylic and place a small amount in the recess of the denture and around the metal cap of the Processing Cap Male.
6. Insert the denture into position in the oral cavity. Guide the patient into occlusion, maintaining a proper relationship with the opposing arch. **Maintain the denture in a passive condition, without compression of the soft tissue, while the acrylic sets. Excessive occlusal pressure during the setting time may cause tissue recoil against the denture base and could contribute to dislodging and wear of the nylon males.**
7. After the acrylic resin has cured, remove the denture and discard the white spacer. Use a bur to remove excess acrylic, and polish the denture base before changing to the final resilient nylon male.

8. Use the Locator Male Removal Tool (contained in Locator Core Tool, Zest order #8393) to remove the Black Processing Male from the metal denture cap. The hook on the end of the curved tool should be wedged tightly down into the bottom corner of the Black Processing Male so that it will catch the side of the black plastic material and pull it at an angle and out of the metal housing.
9. The Locator Male Seating Tool (contained in Locator Core Tool, Zest order #8393) is used to firmly push a Locator Replacement Male into the metal Denture Cap. The replacement male must seat securely into place, level with the rim of the cap. Use of multiple Locator attachments (3 or more) in the same dental arch may require use of the 3.0 lbs. (light retention) pink colored Replacement Male No. 8527, or 1.5 lbs. (extra light retention) blue colored Replacement Male No. 8529, for easier removal of the prosthesis by the patient.
   NOTE: The Replacement Male will not stay on the tool when it is turned upside down due to the varying sizes of males available. It is best to hold the denture with the base side down and snap the male into the metal denture cap.
10. Instruct the patient in the path of insertion. Have the patient insert and remove the appliance several times.

C. LOCATOR MALE PLACEMENT BY THE LABORATORY

1. Placement of the desired type of Locator Bar Female into the bar must be completed (see Section A) before beginning the procedure for placement of the Locator Male.
2. Place a Locator Impression Coping with Black Processing Male (Zest order #8505) onto each Locator Bar Female.
3. **Take an impression using a firm body impression material, exercising caution not to compress the soft tissue.** The Locator Impression Coping is designed with minimum retention to be picked up with the impression material.
4. Snap a Locator Female Analog (Zest order #8530) onto each Impression Coping in the impression. The analog female must not fall off when turned upside-down with vibration.
   NOTE: An alternative reline impression technique using the patient's prosthesis is possible with use of the Locator Black Processing Cap Male. When the impression is withdrawn, the Processing Cap Male will remain on the abutment. Remove the Processing Cap Male from each abutment and snap it onto a Locator Female Analog. Reposition this assembly back into the impression making sure it is fully seated.
5. Pour the master cast. Upon separation, the Locator Female Analog is a part of the master cast replicating the position of the Locator Bar Female on the bar.
6. Before waxing and processing the appliance, place a Locator Cap with Black Processing Male onto each Female Analog in the master cast. Make sure the male is fully seated.
7. Set the teeth and wax the appliance. Proceed with the processing technique of your choice through the boil-out step.
8. After the boil-out, remove the Processing Cap Male. Place a White Block-Out Spacer over the head of each Female Analog. The spacer is used to block out the immediate area surrounding the Locator Bar Female. The space created will allow the full resilient function of the pivoting metal denture cap over the Locator Male.
   NOTE: Due to the additional height required for the Laser Bar Females (Zest order #8588 and #8590), they require the use of 2 White Block-Out Spacers stacked on top of each other for proper black out.

9. Re-insert the Locator Black Processing Cap Male onto each Female Analog, leaving the White Block-Out Spacer beneath it. The Black Processing Male will maintain the overdenture in the upper limit of its vertical resiliency during the processing procedure.
10. Complete the processing and discard the white spacer. Avoid damage to the final male by polishing the denture base before changing to the final resilient nylon male.
11. Use the Locator Male Removal Tool (contained in Locator Core Tool, Zest order #8393) to remove the Black Processing Male from the metal denture cap. The hook on the end of the curved tool should be wedged tightly down into the very bottom corner of the Black Processing Male so that it will catch the side of the black plastic material and pull it at an angle and out of the metal housing.
12. The Locator Male Seating Tool (contained in Locator Core Tool, Zest order #8393) is used to firmly push a Locator Replacement Male into the empty metal denture cap. The replacement male must seat securely into place, level with the rim of the cap. Use of multiple Locator attachments (3 or more) in the same dental arch may require use of the 3.0 lbs. (light retention) pink colored Replacement Male No. 8527, or 1.5 lbs. (extra light retention) blue colored Replacement Male No. 8529, for easier removal of the prosthesis by the patient.
    NOTE: The Replacement Male will not stay on the tool when it is turned upside down due to the varying sizes of males available. It is best to hold the denture with the base side down and snap the male into the metal denture cap.

D. HOW TO CHANGE THE LOCATOR MALE

1. The Locator Core Tool, (Zest order #8393) which contains a Locator Male Removal Tool and Locator Male Seating Tool is used to remove the nylon male from the metal denture cap and replace it with a Locator Replacement Male.
2. Use the Male Removal Tool to remove the nylon male from the metal denture cap. The hook on the end of the curved tool should be wedged tightly down into the very bottom corner of the resilient nylon male so that it will catch the side of the plastic material and pull it at an angle and out of the metal housing.
3. The Male Seating Tool is used to firmly push a Locator Replacement Male into the empty metal denture cap. The replacement male must seat securely into place, level with the rim of the cap. Use of multiple Locator attachments (3 or more) in the same dental arch may require use of the 3.0 lbs. (light retention) pink colored Replacement Male No. 8527, or 1.5 lbs. (extra light retention) blue colored Replacement Male No. 8529, for easier removal of the prosthesis by the patient.
    NOTE: The Replacement Male will not stay on the tool when it is turned upside down due to the varying sizes of males available. It is best to hold the denture with the base side down and snap the male into the metal denture cap.

E. RELINE AND REBASE

1. Remove each existing nylon male from its metal denture cap following the steps in HOW TO CHANGE THE LOCATOR MALE (Section D). Replace them with Black Processing Replacement Males (Zest order #8515). The built-in spacer of the Black Processing Male will maintain the overdenture in its upper level of vertical resiliency during the reline process.
2. Take a reline impression using the existing overdenture as a tray.

3. The Black Processing Males will engage the Locator Bar Females and hold the prosthesis in place while the impression material sets. When the impression is withdrawn, the Black Processing Replacement Males will remain in the metal denture caps.
4. Snap a Locator Female Analog (Zest order #8530) into each Black Processing Male in the impression and pour a master model.
5. After processing the reline and polishing the denture base, replace the Black Processing Males with the final resilient nylon Locator Replacement Males.

F. PATIENT CARE

Good oral hygiene is vital to implant bar success. The Locator Bar Females must be thoroughly cleaned daily. The use of a soft nylon bristle or end-tufted toothbrush to clean the attachment, and superfloss to keep the bar clean of plaque should be taught. A non-abrasive gel toothpaste, and an irrigation system is recommended to keep the socket of the Locator Bar Female clean.

RETURN POLICY
Check with your Distributor for their policy on returns.

WARRANTY
Zest Anchors, Inc. provides a limited warranty for its products, to the original purchaser, to be free from defects in workmanship and materials under normal use for a period of one year from the date of purchase. Zest Anchors, Inc. will, at its option, substitute the returned product that proves to be defective with a similar product, free of charge.

Zest Anchors, Inc. continually strives to improve its products, and therefore, reserves the right to improve, modify or discontinue products and components at any time without notice or incurring obligation. Purchaser assumes all risks and liability resulting from the use of Zest Anchors, Inc. products, whether used separately or in combination with other products not of Zest Anchors, Inc. manufacture.

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