Drill and Tap ERA Instructions for Use

1. Secure the model, including the bar to the base of the parallelometer/milling unit and set to the desired path of insertion.
2. Select the desired sites for the attachments. Using a #6 or #8 round carbide bur grind a shallow dimple on the occlusal surface of the bar at each desired site.
3. Insert the 1.7mm Bar ERA Drill, #811221, into the handpiece and drill a hole at least 3 mm deep, ensuring that all holes are approximately parallel to each other and perpendicular to the surface of the bar. In most cases you will drill through the bar. The length of the screw on the attachment is 2.7 mm.
4. Insert the 2mm Bar ERA Tap, #811222, into a Pin Vice, #905215 or into a tap holder and hand tap threads into the side wall of the hole. The use of a light milling oil will help to tap the threads into the bar. To limit breakage of the tap, make sure to screw the tap straight into the hole, without side movement. Back the tap out and remove any metal chips.
5. Tighten the Drill and Tap Micro ERA female, #811219, into each threaded hole using the Micro ERA Socket, #905276, and a torque wrench set to 20Ncm.
6. Any remaining holes in the gingival aspect of the bar may be filled with a composite or acrylic material.

Laboratory Placement of the Males

1. The model for processing of the fabrication males can be completed in two ways:
   A. Duplicating the master model with the black ERA male attachments or,
   B. The doctor picks up the black fabrication males in a passive impression

   A. Duplicating the master model-
   Block out all undercuts in the bar and place black fabrication males on the ERA attachments. Take care to also block out the top of the bar. If the top of the bar is not blocked out; the top of the bar will come into contact with the intaglio surface of the denture and negate any vertical resiliency created with the ERA black fabrication male. Duplicate the model using whatever materials and methods you usually use in the lab. Pull the master model out of the duplicating material or off the bar if they stayed on the bar. Ensure that an accurate impression of the black fabrication males was taken. Snap the ERA processing jigs into the black fabrication males and reinsert both into the impression. Pour the processing model.

   B. Passive impression by the doctor-
   The doctor carefully blocks out the bar and places black fabrication males on the ERA attachments. If the top of the bar is not blocked out at the time of the impression, then you must do so sometime before processing. A light-bodied polyvinyl impression material and a custom tray should be used in order to ensure a passive impression. The black fabrication males will probably not come out in the impression. As long as the impression of the black fabrication males is accurate, that is fine. If the black males remain in the impression, they must be removed to insert the processing jigs and then both can be reinserted into the impression. Pour the processing model.

2. Set the teeth and wax the appliance. Be sure to account for the block out you will be doing on top of the bar when setting the teeth.
Note: If you are using metal jacketed males, substitute those for the black fabrication male before setting the denture teeth.

3. Proceed with the processing technique of your choice through the boil-out step. After the boil-out, check that the black fabrication males (or metal jackets) are properly seated and block out the remaining exposed surfaces of the bar. Make sure you block out the top of the bar (if this was not already done) to allow for the vertical movement of the ERA attachment.

4. Process and finish the acrylic.

5. Deliver the appliance, master model and all the color-coded final males.

6. Insert or remount the appliance and make any necessary occlusal adjustments. Next, remove the black fabrication males and replace them with the white final males (see "How to Change the ERA Males"). In this way vertical resiliency and hinging are activated. If the black males are not replaced the prosthesis will not be resilient.

If the prosthesis does not demonstrate adequate retention in the mouth, the dentist can easily remove the white males as described in the "How to Change the ERA Males" section, and replace them with other more retentive males. Different colored males can be used on the same appliance without compromising function.

How to Change the ERA Males

1. Place the core cutter into a straight handpiece.

2. Cut out the core of the males at slow RPM, using a short cutting cycle and an in-and-out motion. Push in for about one second at a time, checking to see if the core has been removed. The core will remain in the Core Cutter and should be ejected by sliding a thin blade along the cutter's side slot.

3. Using a blade or explorer-like instrument, collapse the remaining ring into the open space created by removal of the core and lift it out.

4. Put a new male on the seating tool. Place the tool with the new male into the recess in the acrylic, or ERA metal jacket, and firmly push it in until it snaps securely into position.

Servicing
Reline and Rebase

1. Remove the existing males as outlined above and replace them with the black fabrication males. The built-in spacer of the black fabrication males will hold the overdenture in the upper limit of its 0.4mm vertical resiliency.

2. Carefully block out any undercuts around the bar.

3. Lubricate the attachment (male and female with petroleum jelly).

4. Take a wash impression.

5. Snap processing jigs on the fabrication males in the impression and pour a stone model.

6. Before processing, apply a spacer on the top and sides of the exposed surfaces of the bar to allow for the 0.4mm vertical resiliency in the appliance.

7. Process the rebase using your preferred method.

8. After processing, replace the black fabrication males with the final males utilizing the core cutter and seating tool as described above.