CROSS-ARCH ROACH

Summary
- Intracoronal precision attachment. Specifically for cross-arch stabilizing Kennedy Class II cases restored using resilient attachments.
- Adjustable frictional retention.
- Gold alloy male (OSV) and female (Ceramicor).
- Female is set in the lingual surface of a pontic or large molar crown.
- Male rotates and moves vertically as the contralateral attachment functions.

Fixation: Male - soldered to removable partial denture framework.
Female - soldered, or cast to with most precious alloys.

Minimum Space Required:

<table>
<thead>
<tr>
<th>Height</th>
<th>FC width</th>
<th>Prep depth</th>
<th>RC width</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0mm</td>
<td>4.5mm</td>
<td>4.5mm</td>
<td>NA</td>
</tr>
</tbody>
</table>

Indications
- Cross arch stabilization of resilient, free end, unilateral partial dentures. Highly recommended for use in conjunction with resilient attachments.
- Requires a bridge pontic or molar crown for setting the female.

Contraindications
- Should never be used in conjunction with non-resilient attachments such as the Stern Latch.

ATTACHMENT DESCRIPTION

<table>
<thead>
<tr>
<th>Scale</th>
<th>Overall Height</th>
<th>Female Diameter</th>
<th>Ball Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1</td>
<td>4.8mm</td>
<td>3.7mm</td>
<td>2.5mm</td>
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</table>

Order Numbers

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>Cross-Arch Roach</td>
<td>96-640250</td>
</tr>
<tr>
<td>Female</td>
<td>96-640252</td>
</tr>
<tr>
<td>Male</td>
<td>96-640253</td>
</tr>
</tbody>
</table>
TOOLS LIST

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paralleling mandrel</td>
<td>97-640251</td>
</tr>
<tr>
<td>Retention adjusting tool</td>
<td>97-640255</td>
</tr>
</tbody>
</table>

FABRICATION INSTRUCTIONS

1. The Cross Arch Roach female is set in the lingual or the lingual interproximal of the crown or pontic wax pattern using the female paralleling mandrel. Parallelism must be maintained with the attachment retaining the unilateral partial denture (Fig. 1, 2).

2. After positioning in the wax, the Roach female will often extend above the occlusal surface. This extension will be reduced after casting (Fig. 3).

3. The Roach ball is lubricated and placed in the female approximately 1.5mm below the occlusal surface. Additional wax is flowed into the space below the Roach ball to create a positive vertical stop and eliminate an open gingival surface (Fig. 3).

4. The Roach ball is removed.

5. The wax crown or pontic pattern containing the Roach female is sprued, removed from the model, and invested in high heat investment material. A burn out mold temperature of at least 1350°F (730°C) is essential for the proper metallurgical bond of the Roach female with the precious metal casting alloy. This is achieved by heat soaking a single mold at this temperature or higher for at least one hour.

Cast and finish in precious or semi-precious alloy.

6. After casting, the crown or bridge incorporating the Roach female is finished and reseated on the master model and dies.

7. Although a direct casting technique is strongly recommended, the Roach female may be soldered into the cast pontic or crown. If the castings are fabricated from regular crown and bridge alloy use 615 or 650 pre-flux solder. A high temperature pre-solder, should be used if the castings are fabricated from a ceramic alloy.
8. It is necessary that the occlusal surface immediately surrounding the attachment be made in metal to prevent porcelain fracture.

9. The metal partial denture framework with a lingual or palatal connector is fabricated in a conventional manner in any alloy. The lingual bar should be relieved up to a maximum 0.3mm to allow for movement of the prosthesis.

10. The completed framework is placed on the master model. The male split adjustable Roach ball is positioned inside the female approximately 1.0mm below the occlusal surface, leaving approximately 0.5mm space between the gingival seat and the bottom of the ball. The retention adjustment slot in the ball MUST BE VERTICAL. The arm extension of the ball is marked and reduced to the desired length. The Roach male is luted to the cross arch connector with wax or self-curing acrylic (Fig. 4).

   **Note:** A small piece of nickel matrix band material (Crescent) may be placed in the adjusting slot of the male before investing to protect the ball slot from the solder. If the nickel foil cannot be removed with a pair of pliers, it may be dissolved in nitric acid.

11. The framework is removed from the model with the Roach male attached, invested in soldering investment and soldered with 615 or 650 pre-flux solder. Heat treatment of 15 min. at 752°F (400°C) is recommended.

   The case is reassembled on the model and finished in a routine manner (Fig. 5).

**SERVICING**

1. The patient should be instructed to periodically clean the inside of the female, (brush, water pick, etc.).

2. To increase the retention, place the ball between the two points of the adjusting tool and tighten the screw. Make only very slight adjustments at a time. When an adjustment tool is not available, use a blade to make adjustments.