

Guidelines to fabricate a custom made SomnoGuard® AP Pro Mandibular Adjustable Positioner



Fig. 1) Master models with stainless steel made attachments to adjust the lower jaw advancement. Incl. adjusting screws, counternut to fix protrusion, socket screw key, counternut key

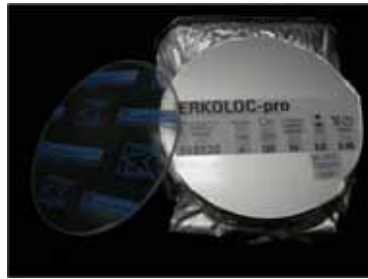


Fig. 2) Perform the thermoforming process preferably with the „Erkoloc Pro" thermoforming discs made by Erkodent GmbH with a recommended thickness of 3 mm. Comparable thermoforming materials may also be used.



Fig. 3)
 • Dentist takes construction bite registration, e.g. by using the George gauge, and thereby defines initial protrusion for the lower jaw.
 • Fabrication of a plaster grade 4 quality model by a dental lab.
 • Use average movement articulator to establish construction bite.



Fig. 4) Models with blocked-out undercuts prepared for duplication.



Fig. 5) Duplicated forms (pink) and duplicated models (blue)



Fig. 6) Models with thermoforming discs. Models should be watered for about 10 minutes if plaster is desiccated.



Fig. 7) Thermoforming machine, e.g. Erkopress/Erkodent GmbH



Fig. 8) Appliance under construction. Before starting trimming the thermoform and cutting edges, it is recommended to draw in the boundary lines.



Fig. 9) Completed and polished appliances; to finish thermoforming results we recommend the Finishing-Set Quick from Erkodent containing all needed instruments such as drills, burrs and special scissors.



Fig. 10)

- Insert smallest adjusting screw (12 mm) with counternut into the thread of the lower jaw tray attachment and connect lower and upper tray attachments
- Block-out both ends of the C-channel with wax regarding the upper tray attachment and make sure that both retention plates are in a parallel position to each other
- Fixation of metal attachments with a cyanoacrylate adhesive.



Fig. 11) For protection purposes a wax layer is put on the metal components (i.e. to prevent adherence of polymeric residues at the screw thread.



Fig. 12)

- Trim thermoform trays at the area of the metal components.
- Shot-blasting both trays in the area of molars and incisors.
- Check mandibular opening between the incisors, and change opening if necessary
- Shot-blast basally metal attachments and set additional retention with cut-off wheel if necessary and as displayed above.
- Add metal primer to the attachments (e.g. Targis Link from Ivoclar Vivadent GmbH).



Fig. 13) Fixation of the metal components with crystal clear, cold polymerising acrylic. Recommended primer: Targis Link / Ivoclar Vivadent GmbH. Apply acrylic in the molar area to assure distal support.



Fig. 14) Finished appliances in the articulator.



Fig. 15) Mandibular adjustable positioner SomnoGuard AP Pro with storage case