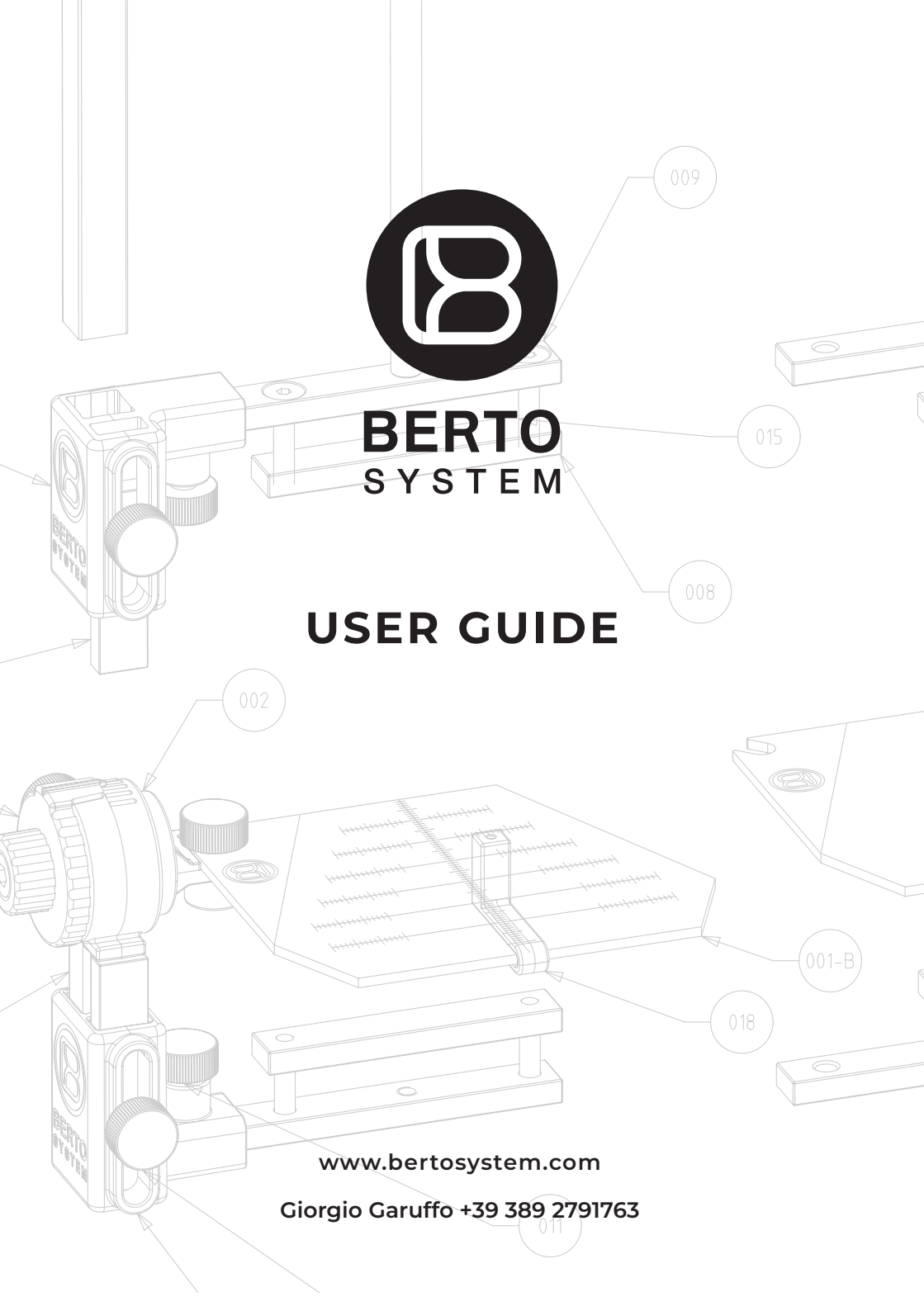




**BERTO
SYSTEM**

USER GUIDE



www.bertosystem.com

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DESCRIPTION

BERTO System is composed by a rigid transparent Plexiglas slab of a shape suitable to overcome the standard size of the models: it is parallel to the occlusal plane and anchored to a support so that it can slide vertically inside the articulator. The support flows in a vertical guide fixed to the side of the articulator at the bottom, allowing the Plexiglas slab to move on the lower model. If you look at the slab, notice that the support can rotate 180° and it fits into the vertical guide fixed at the top of the articulator, perfectly aligned with the lower one, allowing vertical movement on the upper model. In this way the slab always maintains the same trim and freedom of movement only vertically compared to the models in the articulator.

It is possible to change the tilt of the occlusal plane while maintaining the 180° rotation on this setting. You can fix the stop of inserting the support into the top and bottom guides. The slab can be applied or removed by a quick-fix insertion.

BERTO System for any dental application allows to bring back on the transparent plate the references of a model in the articulator and to observe them on the antagonistic model.

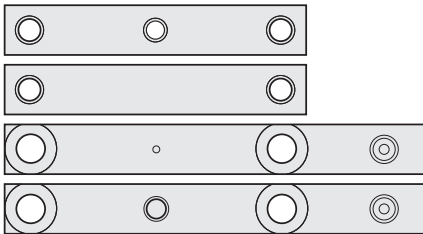
In edentulism cases with **BERTO System** it is possible to adapt the transparent slab to the occlusal waxes and fix the height in the guides, drawing with colored markers the references reported on the waxes and their profile. It is possible to draw the anatomical references of both lower and upper models with different colors. This allows a simple interpretation of the ratio of the ridges in each sector and for each element. You can easily and quickly verify the position of the teeth during assembly.

BERTO System can be fixed by stainless steel bars. These are permanently fixed to the articulator before the anchoring bases of the models. On the side of the articulator, the vertical guides are hooked with a quick coupling mechanism. Small or Large bar pairs are available as accessories, so you can use the system on multiple equipped joints.

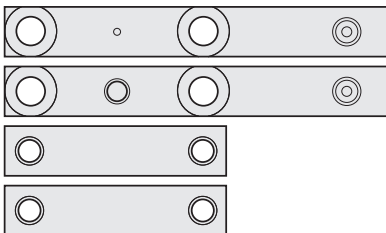
KIT COMPONENTS

- Upper and lower side guides;
- Plexiglas slab support;
- Small and Large steel bars;
- Counter bars including screws and Allen wrench;
- Anti-tipping rod for the upper branch of the articulator;
- Guide's alignment rod to fix the bars;
- Plexiglas plates;
- Plate with median and millimeter references;
- Plate with millimeter references;
- Optical aligner;
- Four colored markers.

FIXING THE BARS



LARGE bars



SMALL bars

The articulators on the market have different dimensions, both in the height between the lower and upper branches and in the width of the branches where the steel bars will be fixed. In the package there are pairs of Small and Large bars with their fixing counter bars. These bars differ in the distance between the screw holes. You may choose the most suitable pairs for the articulator to be equipped.

An excessive tightening with the screws far from the branch of the articulator might cause the bars to bend.

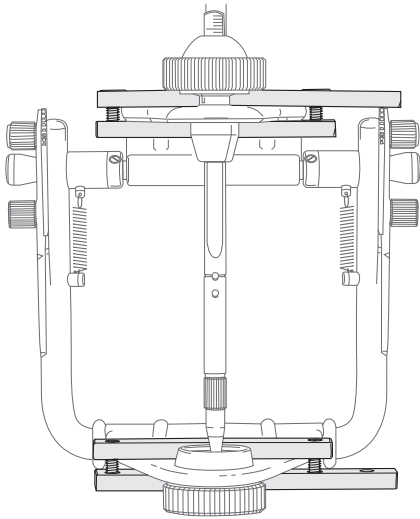


Fig. 1 - Articulator with external bars

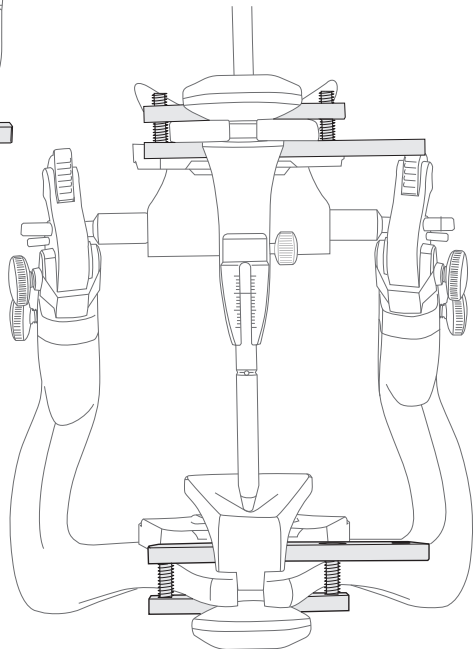


Fig. 2 - Articulator with inside bars

For the assembly of the bars, the incisal rod must be in position 0, the upper branch parallel to the lower branch. The articulators with an internal height of less than 11 cm, the bars must be fixed on the outside, under the lower branch and above the upper branch (Fig. 1).

Inside for taller articulators (Fig. 2). The bars protrude to the right (on the patient's left), it is possible to install the guides on the left.

The reference of the center between the screw holes must coincide with the median of the articulator. Tighten the screws for a light grip without screwing too much. For non-flat joints in the housing area, such as the Condylator in the lower branch, it is necessary to mill in the counter bar a seat for adaptation (Fig. 3), for others it is necessary to reduce the back of the incisal plate (Fig. 4).

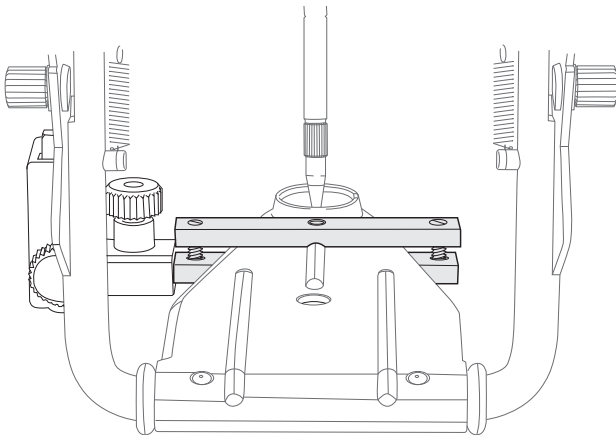


Fig. 3 - Articulator with modified counter bar

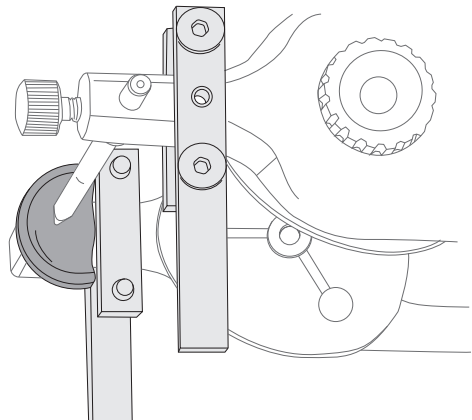
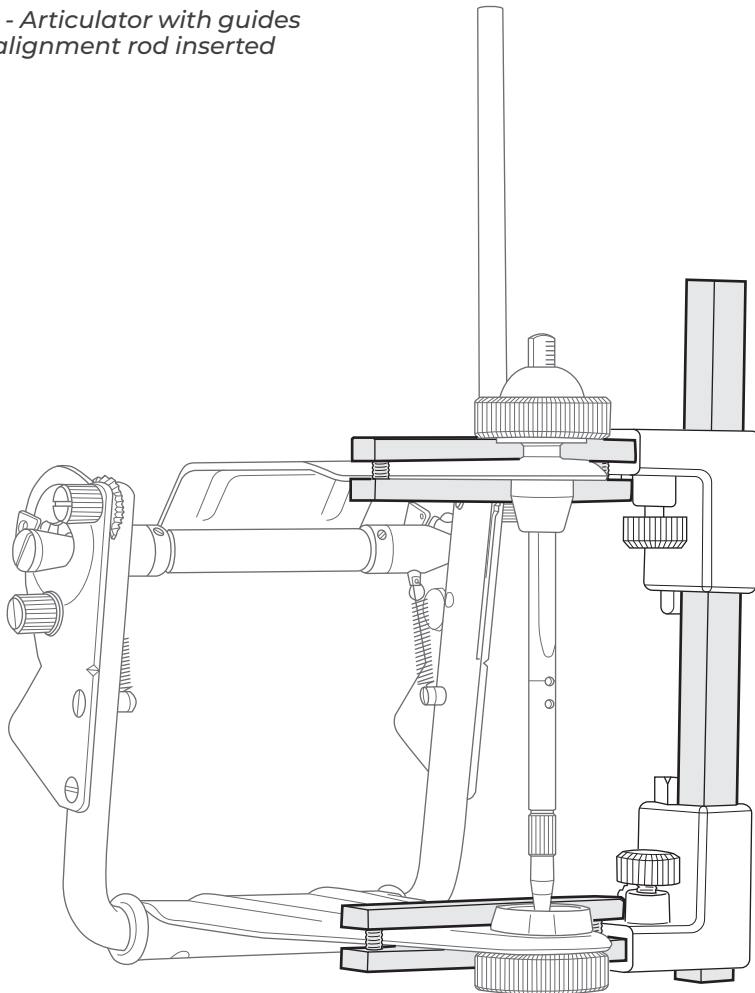


Fig. 4 - Articulator with reduced incisal plate

The position between the incisal plate and the lower model door plate should be chosen considering the possible position in the upper branch, between the support of the incisal rod and the upper model door plate, so that the side guides are columned together. The aluminum alignment rod fits between the guides to determine the correct position (Fig. 5). The plate with the midline and transversal confirms the correct assembly of the bars (Fig. 6).

Fig. 5 - Articulator with guides and alignment rod inserted



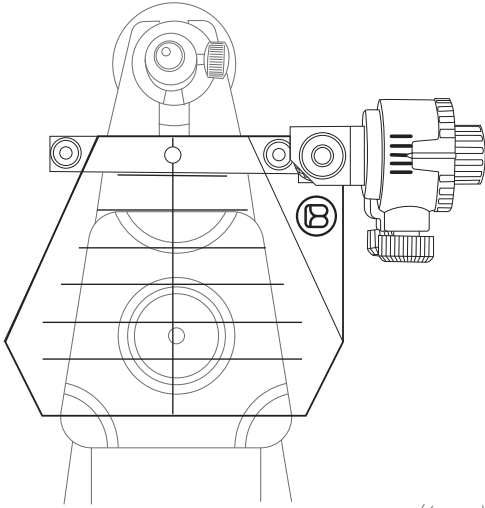
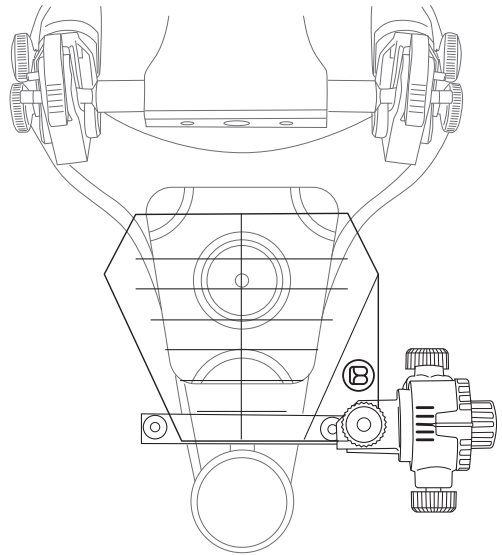


Fig. 6 - Plates with median and parallel lines



Tighten the screws holding the bars with your hand, and not the articulator, to keep the bar parallel with the counter bar. Once the correct position of the bars has been verified, the protrusions of the screws can be cut flush, and the gaps between bars and counter bars can be filled with hard silicone, particularly useful to increase fastening and avoiding displacements.

The optical aligner allows you to frame perpendicularly the plate. It is applied in the center crest area near a point drawn on the edge of the model and you orient yourself, with only one eye open, so that you can completely see the light inside the hole.

Then you draw a small circle on the plate around the model point.

These circles serve as a viewfinder to orient themselves perpendicularly to the plate when reporting references and when they are subsequently observed (Fig. 7).

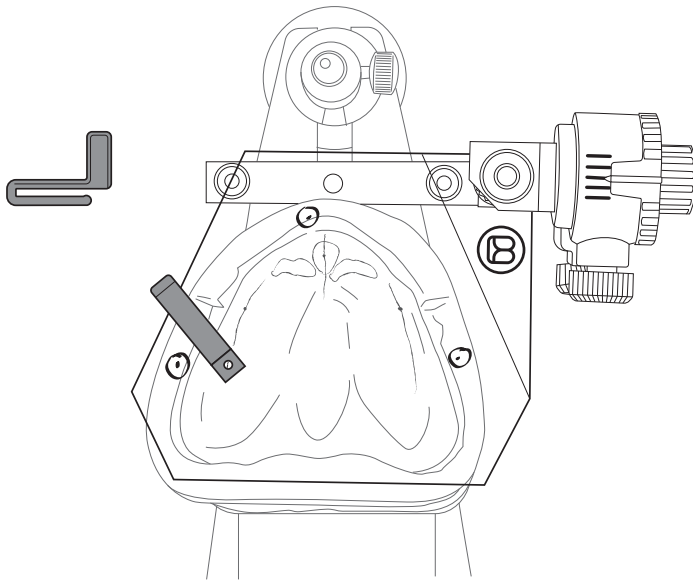


Fig. 7 - Optical aligner for perpendicular orientation

For some settings may be useful the plate with the references of the midline and oblique lines, or the plate with millimeter references. These plates may be coupled to the neutral plate in the stand and on this you may draw the project.