BioBiteCorrector® TWIN

Functional appliance with biocompatible titanium hinge and titanium ball joints

Fabrication guide

Important information
for first-time users

Advantages

The BioBiteCorrector Twin with BioBiteCorrector MS/SP offers the following advantages:

- Does not cause any tongue space restriction
- Has no occlusal pads
- Allows for integration of active elements, such as expansion screws or protrusion springs
- Consists of two separate plates (Schwartz), with optimal stability thanks to retention elements
- Easy and quick to fabricate in the laboratory
- Hinges can be reused on the same patient as a fixed Class II appliance
- No need for a construction bite:
  - The ball joints of the BBC MS automatically parallelize the BBC telescope.
  - In the same way as in a multibracket appliance, the BBC MS/SP is attached to the removable plates of the BBC-Twin between the canine and the 1st premolar in the lower jaw, and between the 1st molar and the 2nd premolar in the upper jaw.
  - The lower jaw position is activated and adjusted using spacers.

Reuse on the same patient:

If the BBC-Twin cannot be used for the time necessary to achieve the desired treatment success, it can also be removed from the plates (Schwartz) and fixed to a multibracket appliance.

BBC Connection

Attach the BBC MS/SP between the canine and the 1st premolar in the lower jaw, and between the 1st molar and the 2nd premolar in the upper jaw.

To fabricate a BioBiteCorrector Twin appliance with BioBiteCorrector MS/SP, four BioBiteCorrector MS bodies (separate accessory 205-2018-11) are needed. Insert a .021 x .025 steel wire 12mm in length into each body and fasten it with the screw.

To further minimize the risk of wire fracture, a .025 x .025 high-density stainless steel wire (separate accessory 205-W025-18) has been developed. This is the highest wire size suitable for insertion into a BBC MS/SP body.

BBC Connection

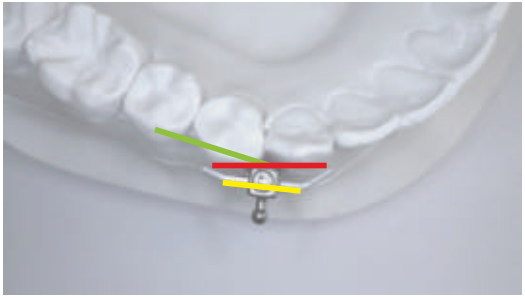
Bend the distal part of the square wire to the lingual side. This step is indispensable; it ensures that the wire will be properly embedded in the resin and the resin shield will not collide with the BBC telescope later on. The mesial part of the wire should be adapted to the tooth arch.

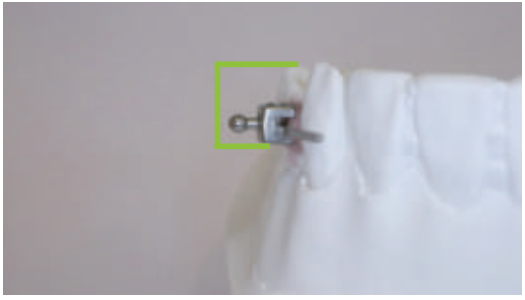
The BBC body with the wire should be positioned as follows:

- At right angles to the occlusal plane
- Parallel to the cusps of the posterior teeth if possible
- At the central level of the teeth

The square wire should not reach the contact point with the adjacent tooth. This can usually be achieved by selecting a maximum wire length of approx. 12mm.

BBC Connection





Positioning the BBC bodies – detailed instructions

In the occlusal view, the position of the BBC body (yellow line) will usually be a compromise between placement parallel to the posterior cusps (green line) and adaptation to the dental arch shape in the canine region (red line).

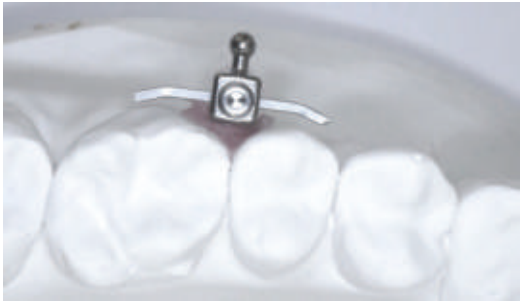
Concerning the vertical position, the BBC body should not be placed too far incisally, to avoid an early contact of the maxillary canine with the mandibular BBC body after completion. However, the BBC body should not be placed too far gingivally, either, because then the BBC telescope might not be positioned parallel to the occlusal plane any longer.

Besides, the BBC body should be positioned at right angles to the occlusal plane, which will be easy to achieve in all patient cases.

The square wire should not contact the teeth, since it needs to be completely embedded in resin later on.

Use wax to fix the BBC body in place.

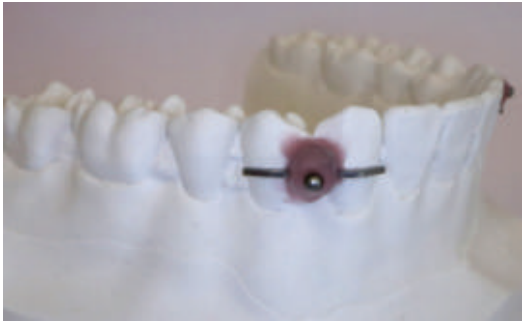
BBC Connection



Position the BBC bodies in the upper jaw in the same way as in the lower jaw.

In the frontal view, the maxillary BBC bodies should be located further buccally than the mandibular bodies. This arrangement will lead to a slightly inclined position of the BBC telescopes, which has a positive effect on the lateral mobility of the lower jaw.

BBC Connection

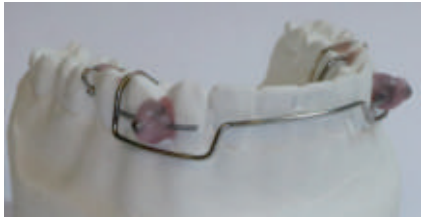


The four BBC bodies have been properly positioned and initially fixed with wax. Now also circularly cover the entire bodies with wax.

Importantly, the gingival/cervical base (surface) of the BBC body should be covered with a wax layer at least 0.8mm in thickness. This will allow you to easily remove the BBC body later. After loosening the screw, the BBC body needs to be moved cervically for removal from the wire.

The ends of the wire should not be covered with wax, since they will later be embedded in resin.

Wire elements



Then bend the wire elements or wire clasps. In the lower jaw, use triangular clasps or, as shown in this example, ball-end clasps between the 1st molar and the 2nd premolar.

Use 0.8mm wire to bend a box, crossing the occlusal plane between the canine and the lateral incisor, and between the 1st and 2nd premolars.

If you do not wish the wire to cross the occlusal plane between the canine and the lateral incisor, use 0.9mm wire to bend a labial bow crossing the occlusal plane only between the 1st and 2nd premolars (see illustration at the bottom).

The horizontal part of the wire (box) should be located 1mm below the wax-covered BBC body. The vestibular parts of the wire should not touch the teeth or the gingiva. This ensures that the wire will be properly embedded in the resin.

Wire elements

In the upper jaw, place triangular or ball-end clasps between the 1st and 2nd premolars.

Then use 0.8mm wire to bend a box, crossing the occlusal plane between the canine and the 1st premolar, and between the 1st and 2nd molars.

In addition, expansion screws or active wire clasp elements may be used if necessary.

Wire elements

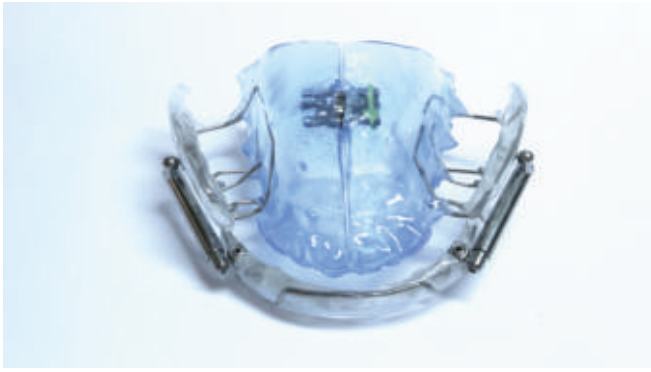
Then add sprinkled resin in one step to create the bases and pads.

The shape of the pads is largely determined by the shape of the retention wires.

After curing of the resin, remove any wax residues. Now you can unscrew the BBC bodies, and completely finish and polish the orthodontic plates.

Following the polishing step, screw the BBC MS/SP onto the plates. Then finally adjust the desired mandibular protrusion using spacers.

BBC-TWIN MS/SP



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