



AD2 UPPER CAST MOUNTING MANUAL

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Upper Cast Mounting

Mounting the upper cast is a lab procedure that uses the bite-fork assembly used with the facebow for each patient and transfers the maxilla's spatial position to the upper member of the articulator.

The following materials are necessary for mounting the upper cast (Fig.1.):

- 1) Articulator
- 2) Upper cast and split cast
- 3) Mounting plates
- 4) Mounting fixture for the upper cast (black)
- 5) Bite fork assembly
- 6) Bite fork support (Fig.2)
- 7) Fast setting plaster (orthopedic plaster or Whip Mix Mounting stone)



Figure 1. Instruments for mounting the upper cast.

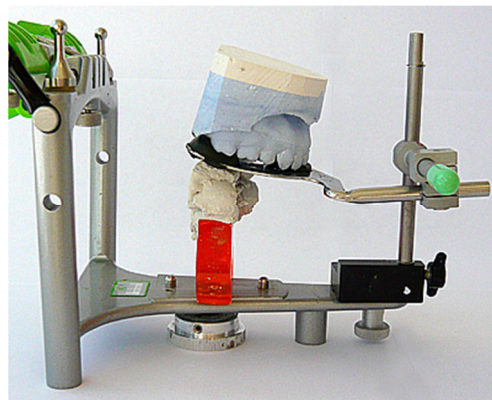
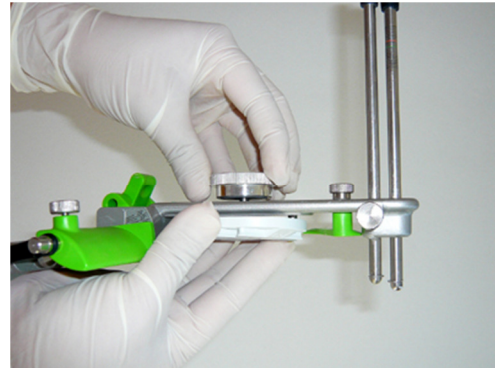


Figure 2. Bite fork support (left) and in position (right).

Steps for upper cast mounting.

Step 1.

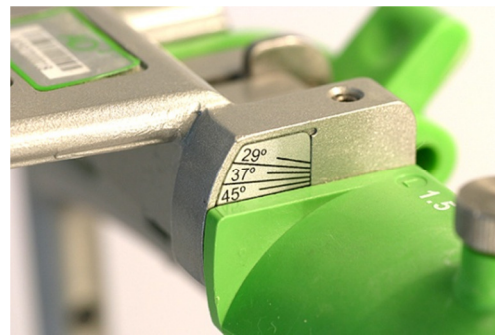
Place the mounting plate on the upper frame of the articulator.



Step 2.

Check that the analogs (green) contact with the upper frame of the articulator and are set at 45° of inclination.

If not, adjust the analogs loosening and tightening the manual screws on the upper left and right of the frame. (see Figure 8 of Chapter 1 –AD2 Articulator Components)



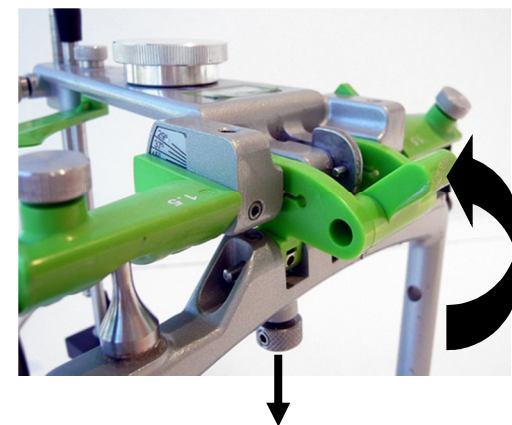
Step 3.

Lift the metallic centric lock until it is fixed in place.



Step 4.

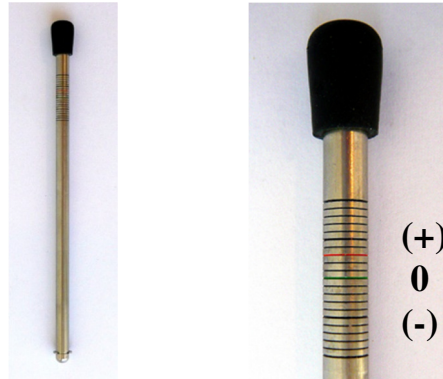
Close the centric latch. Push down on the centric latch and then pull down on the locking screw.



Step 5.

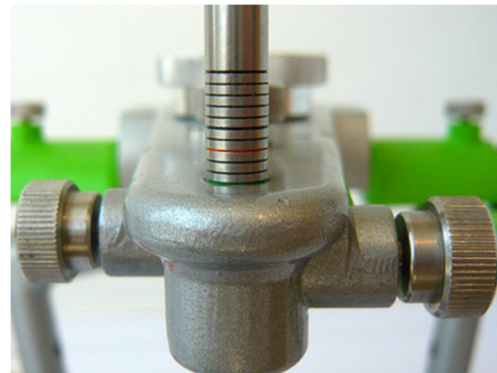
The front incisal pin has a rounded inferior end and a millimetered superior end. Every five divisions the line is darker and the central line (in green) is “zero”. Above this mark the values have a (+) sign and those below it have a (-) sign.

There is also a red line three lines (3 mm) above the green line.



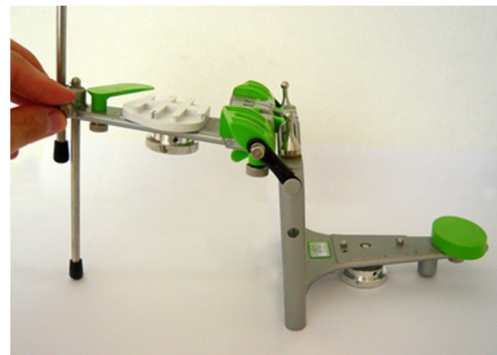
Step 6.

Set the incisal guide pin so that the green line (0 line) is flush with the top onf the articulator. This positions the top of the articualtor so it is parallel to the lower member. Tighten the screw to hold the position of the pin.



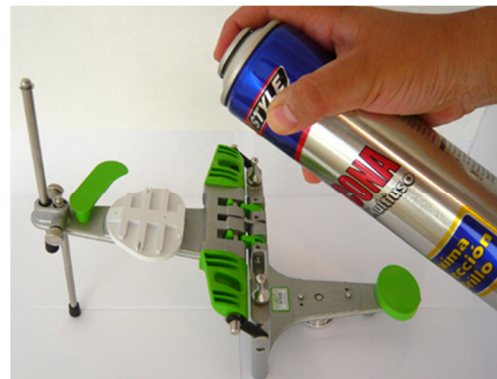
Step 7.

Rotate the upper frame towards the back at 180° and leave the upper frame parallel to the table top by adjusting the height of the posterior pin.



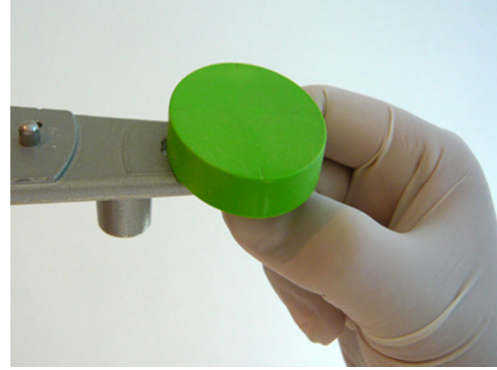
Step 8.

Spray the articulator (except the mounting plate) with silicone. Do this every time you find it necessary so that the plaster does not stick to or scratch the articulator.



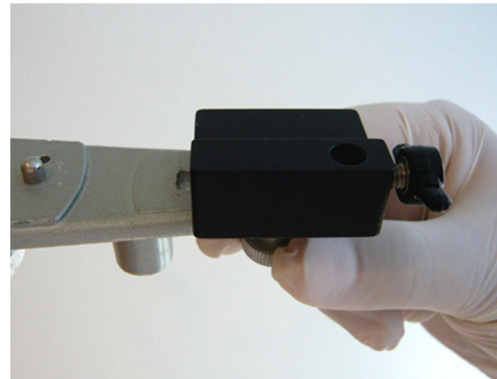
Step 9

Remove the green incisal table from the lower frame, loosening its screw and sliding it out. Place the black mounting fixture.



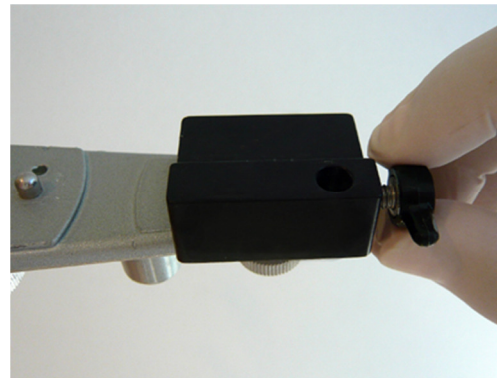
Step 10

Loosen the lower manual screw of the mounting fixture and slide it all the way in the slot and set it in place. The upper hole and thumb-screw must face the operator.



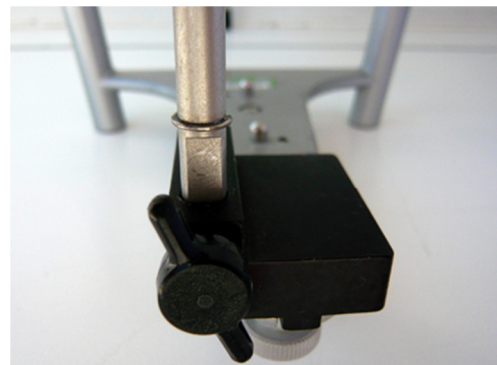
Step 11

Loosen the thumb-screw where the bite-fork assembly will be placed.



Step 12

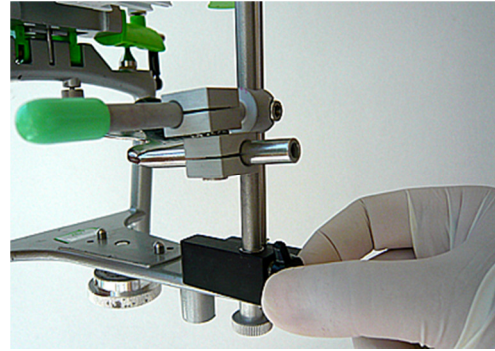
Insert the lower end of the bite-fork assembly until the C-ring touches the mounting fixture platform. Be sure that the flat surface of the stem is facing the operator.



Step 13.

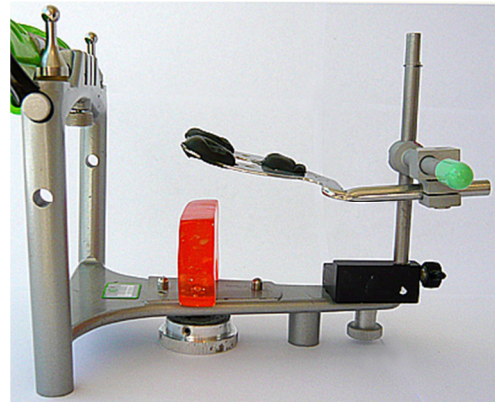
Tighten the mounting fixture screw to set the bite-fork assembly in place.

The assembly may rotate a little when tightening which is normal since it will automatically center the bitefork.



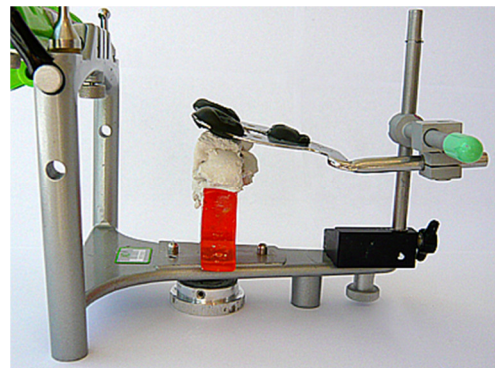
Step 14

Place the bite-fork support under the bite-fork, leaving a small separation between the two.



Step 15

Put some fast-setting orthopedic plaster of a creamy consistency between them until it contacts both **without lifting the bite-fork**. The purpose of this is to stabilize the bite-fork from lowering by the weight of the upper cast and/or the expansion of the plaster used to mount it.



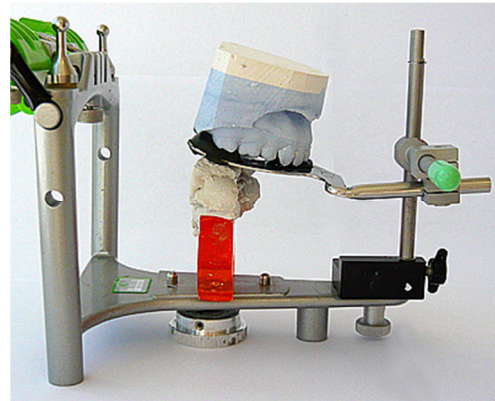
Step 16

Make retention grooves on the split cast of the upper cast. Check that the occlusal and incisal surfaces of the cast are free of excess plaster and irregularities.



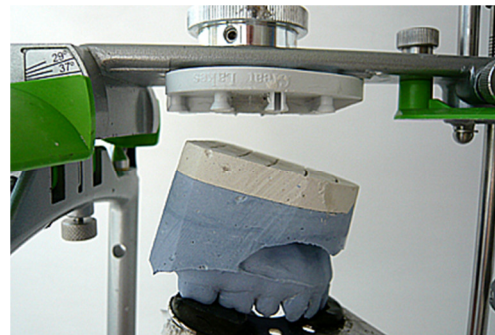
Step 17

Moisten the split cast and carefully place the upper cast on the green compound indentations. Check for stability and correct placement.



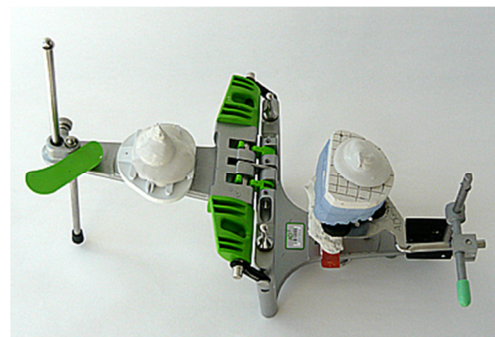
Step 18

Close the upper frame of the articulator until the incisal pin touches the mounting fixture. Check that the mounting plate does not touch the upper cast. If there is not enough space then trim the split cast in the lab and repeat step 16. Reposition the cast on the bite-fork. Determine how much mounting plaster is needed to mount the cast.



Step 19

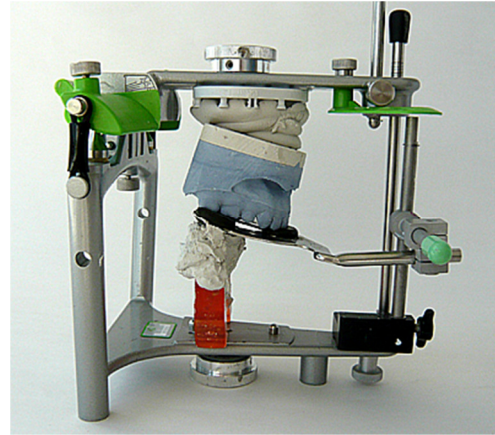
Rotate the upper frame back 180°. Mix mounting plaster until creamy (to avoid movement of the bite-fork) and put some on the mounting plate and on the split cast.



Step 20

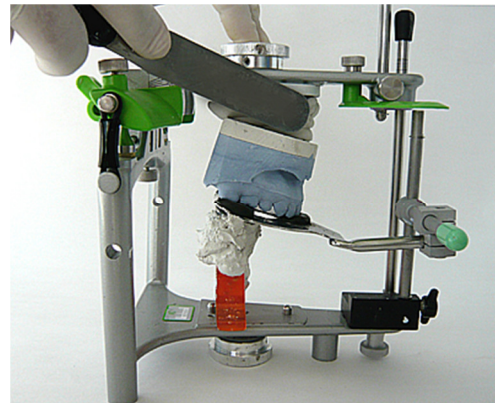
Close the upper frame until both plasters, that are still soft are joined. Check that the articulator closes completely and that the incisal pin contacts with the mounting fixture.

Also check that the pin is at zero. Maintain this position until the plaster has set.



Step 21

Carefully remove any excess mounting plaster. Now wait. Do not touch the plaster until it has set completely (around 20 minutes). Open the articulator and make sure the upper model is seated in the bitefork. The split cast wafer is attached to the articulator. Close the upper member of the articulator until it seats in the split cast grooves. If the model moves there was an error in the mounting. The upper cast must be removed from the mounting plate and repeat the entire procedure.



Step 22

Once set, open the articulator, remove the bite-fork assembly and replace the mounting fixture with the green incisal table.

At this stage only the split cast wafer is attached to mounting plate.

