

Verification Gage

for Whip Mix®
Articulators



Instruction Manual
Item No. 20011670



RESTORATIVE ORAL HEALTH

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Introduction

The purpose of this verification gage is to check the calibration of your instrument in your office or lab. It is also possible to do some calibration on specific models with this gage.

Components:

- Upper Verification Gage
 - Lower Verification Gage
 - 2 Dowel Pins
 - Verification Pin
 - 2 Extension Screws
 - 2 Thumbscrews (longer thumbscrew for attaching to lower member)
- (Figure 1)



Figure 1

Important Note:

Each Verification Gage pair is marked with a serial number. It is vital that the upper and lower gages match, otherwise the results may not be accurate.



Figure 2

Step 1: Cleaning Surfaces

Loosen the incisal pin and slide it up to around -5, with the goal being just to move the pin out of the way. (Figure 3)

Using a q-tip and alcohol, clean the mounting surfaces of the upper and lower members of your articulator, and both mounting surfaces of your gage. If you have an air nozzle, use it to blow dry all surfaces; taking care not to blow particles onto newly cleaned surfaces.

The fossae may be causing the articulator to be out of calibration due to dirt particles. Check to see if there are dirt particles on either fossa and clean if necessary. (Figure 4)

Neutralize the settings on the instrument by setting the Bennett side shift to zero and the condyle inclination to 30 degrees.

Step 2: Mounting the Gage

Magnetic Mounting:

Use blue wrench (part number 8727) on the thumbnut to remove the magnet and mounting plate from the upper and lower members of your articulator. (Figure 5)

Mount the upper and lower gage block to the articulator by locating them on the mounting plate locator pins. The flat side of the gage block sits to the back of the articulator. Using the included gage block thumbscrews, attach the gage blocks. Use the longer gage block thumbscrew for attachment to the lower member. (Figure 6)

Lock articulator in centric position.

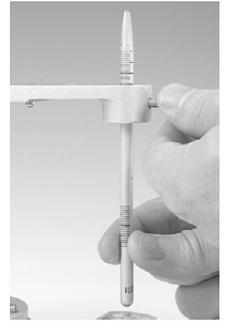


Figure 3

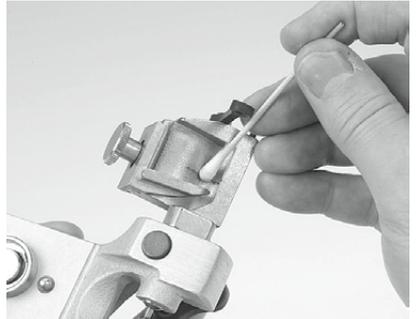


Figure 4

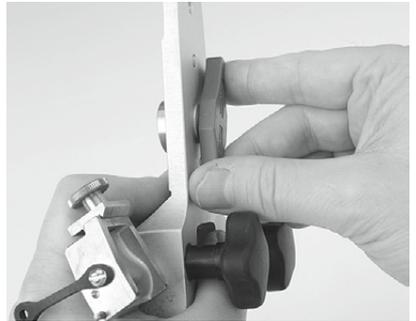


Figure 5



Figure 6

Traditional, Non-Magnetic Mounting:

Remove the mounting plates from the upper and lower members of your articulator. Add the extension screws to the upper and lower thumbscrews (the thumbscrews should rotate freely once extension screws are assembled). Mount the upper and lower gage blocks to the articulator locating on the mounting plate locator pins. The flat side of the gage block sits to the back of the articulator. Using the articulator thumbscrews, attach the gage block.

Lock articulator in centric position.

Step 3: Verification Process
Verifying Top to Bottom for Flat Plane

To ensure that the gage is sitting flat, check for gap around the 3" diameter of your gage. Using .002" shim, place it between the upper and lower gage and close the gage. Pulling on the shim, there must be some resistance to a tug. Check this four times at 1 o'clock, 5 o'clock, 7 o'clock, and 11 o'clock positions. (Figure 7) If you feel drag in all four positions, move to verifying side to side alignment. **If the shim pulls right out in any position with little or no drag, this instrument is out of calibration and needs to be sent to the factory for repair.**

Verifying Side to Side and Front to Back Alignment

The verification pin will be used to slide through the holes on each side of the gage. Set the pin on one of the holes. (Figure 8) The pin will slide all the way through the hole on its own if the articulator is in calibration. (Figure 9) If the pin doesn't fall immediately, it may be caught on the lip of the gage. (Figure 10) Wiggle the pin side to side slightly to see if the pin will fall. **Do not push down on the pin.** If you have to force the pin through the hole on either side of

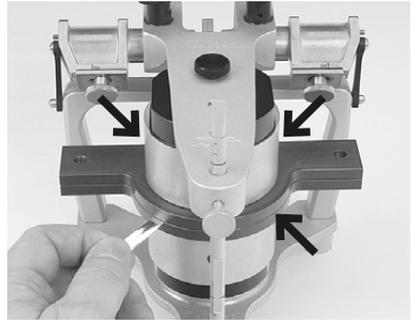


Figure 7



Figure 8



Figure 9



Figure 10

the gage, the articulator is out of calibration. If the pin falls freely, your articulator is within factory calibration and you can move to Step 4 on removing the verification gage.

Calibrating Side to Side and Front to Back Alignment

Invert the instrument to set upside down. You may choose to remove the incisal pin so that articulator sits better.

If present, loosen the two cap screws inside the rubber feet with an allen wrench. (Figure 11)



Figure 11

Using the dowel pins provided, place one in each hole. These pins will stay in the hole, not dropping through freely. (Figure 12)



Figure 12

Holding the allen wrench vertically, slightly wiggle the wrench as you slowly begin to tighten each cap screw. Wiggle and tighten a cap screw until the screw comes in contact with the lower member, and then do the same with the other cap screw approximately 2 times. Repeat this until the cap screws begin to feel tight. (Figure 13)

Check at this point to see if you can still rotate the dowel pins on each side. If not, loosen the cap screws enough to rotate the dowel pins, and begin the process to wiggle and tighten each cap screw. We are attempting to create the spot of comfortable fit between the arms of the articulator and the lower member.



Figure 13

Once you have each cap screw at the point where it feels tight and you can rotate each dowel pin, use the allen wrench horizontally and tighten each cap screw with a tenth of a turn at one time. Tighten in this manner until the cap screws are tightened as much as possible.

Remove the dowel pins, and use the verification pins to see if they will now drop freely on each side. If the pins drop freely, your instrument is now in calibration and you can move to Step 4 on removing the verification gage. If the pins still do not drop freely, loosen the two cap screws again and repeat the procedure with the dowel pins.

Once the cap screws are securely tightened, invert the articulator and use the verification pins to see if they will now drop freely on each side. **If not, remove the verification gage and send the instrument in for factory repair.**

Step 4: Removing the Gage

To remove the verification gage, loosen the thumbscrew enough to create a gap between the articulator member and the base of the gage. (Figure 14)

Tap on the top of the thumbscrew or rock the verification gage to slightly separate the gage from the member. This should create a small gap between the base of the gage and the articulator member. Once the gap is visible, push the gage back up flush against the articulator member (removing the gap you just created). This will release the collets from the locator pins.

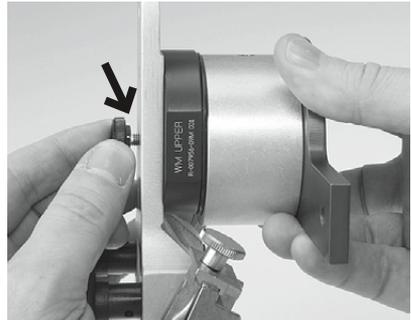


Figure 14

For Magnetic Mounting:

Finish removing the thumbscrew and then, with a side to side rocking movement, remove the verification gage. Screw the original articulator thumbnuts along with the magnet and mounting plates back on to your upper and lower members of the articulator. Use the blue wrench to tighten.

For Traditional, Non-Magnetic Mounting:

With a side to side rocking movement, remove the verification gage. Next remove the extension screws. Reattach mounting plates.

To return for repair, call (800) 626-5651
Once you have an RMA number, return to:
Whip Mix Corporation
1730 E. Prospect Rd., Ste 101
Fort Collins, CO 80525



RESTORATIVE ORAL HEALTH

Whip Mix Corporation
361 Farmington Avenue
Louisville, KY USA 40209
Toll-Free: 800-626-5651
Fax: 502-634-4512

www.whipmix.com

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