

# 3000 Series Articulator System



Models 3040 and 3140 Instruction Manual

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Parts List available at www.whipmix.com

#### Introduction

Whip Mix articulators are designed to enable the user to quickly and easily mount casts of a patient's dentition on a mechanical device that will reproduce their natural relationship and movements with an acceptable degree of accuracy. The simplicity and speed with which the necessary registrations are obtained and transferred to a Whip Mix articulator enable the operator to accomplish corrective and restorative dentistry with much greater precision than has ever before been possible without the use of expensive equipment and time consuming techniques.

Being arcon type instruments, Whip Mix articulators are ideal for the study of occlusion and the movements of the temporomandibular joints. With the condyle located on the lower member and the guidance on the upper member, Whip Mix semi-adjustable articulators have become the preferred choice of many teaching institutions.

#### **Features**

#### The 3000 Series Articulator System Features:

**Protrusive Condylar Inclination:** 

Model 3040 Model 3140 adjustable 0 – 70 degrees

**Progressive Side Shift:** 

Model 3040 Model 3140 adjustable 0 – 25 degrees

Immediate Side Shift:

Model 3040 Model 3140 fixed 0 degrees

Fossa:

Model 3040 Closed tracking fossa

Model 3140 Modified tracking fossa

#### Condyle Release Mechanisms:

Model 3040 Condyle release mechanisms to prevent accidental separation of the condyles from the tracking condylar guidance



Closed tracking fossa



Modified tracking fossa

#### Fixed intercondylar distance:

110 mm (the same as the M setting found on Whip Mix Model 8500 articulators)

"Accumount" system of interchangeability which allows accurate transfer of casts between articulators

Ergonomic design with wide lingual access and ample interframe distance

Positive centric latch provides a quick way to return to centric position

Elastics provide positive tracking of the condyles during excursive movements if secured

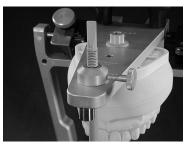
Non-skid rubber feet for stabilizing articulator when open



## 3000 Series Articulator System

### **Articulator Manipulations**

Loosen the incisal guide pin screw to attach or remove the incisal guide pin.



The upper and lower frames are made parallel by aligning the top of the pin boss with the dark line which completely encircles the pin.



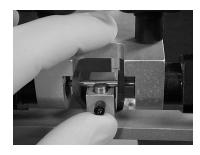
To assemble the articulator, hold the upper member approximately parallel to the lower member and ensure the elastics are in front of the upright frame.



Model 3040 Press the tab on each fossa to allow the condyle to seat, and place the upper member on the lower member.

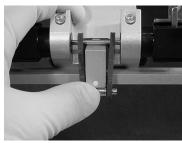


**Model 3140** Place the upper member on the lower member.



#### **Centric Latch Operation**

When the articulator is closed it can be locked in the centric position by pushing the centric latch up.



#### **Elastics**

Attach the elastics by sliding over the latch block.

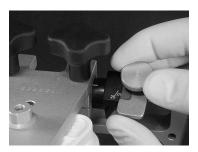


#### **Articulator Adjustments**

**Protrusive Condylar Inclination:** the angle of the fossa in relation to the occlusal plane.

Model 3040 Model 3140 The inclination of the protrusive condylar path can be adjusted by loosening the large black clamp knob. The protrusive condylar path inclination scale is on the side of the upper member and is calibrated in increments of 5 degrees. The protrusive adjustment range is 0 – 70 degrees.

**Progressive Side Shift:** the path the orbiting condyle follows on the medial wall of the fossa as it orbits around the rotating condyle.



Model 3040 Model 3140 To set the progressive side shift, loosen the side shift guide locking screw and move the side shift guide until it touches the side of the condyle element. The scale for the progressive side shift adjustment is located on top of the fossa element and is calibrated in 5 degree increments. The progressive side shift range is 0 – 25 degrees.

## Mounting Casts on the 3000 Series Articulators

In addition to a facebow record, the only records needed for complete programming of the 3000 series are:

- · Lateral bite records
- · Protrusive bite record



### Indirect Mounting the Maxillary Cast

Place the Transfer Base Assembly on the articulator. Secure the Transfer Base Assembly with the mounting plate screw, or metal disc if using magnetic mounting system.

**Note:** A fork support may be used to secure the transfer assembly.



**Note:** All transfer base assemblies now have four holes. The extra set of holes allows the transfer base assemblies to be used on Hanau Wide-Vue articulators with the appropriate Whip Mix adaptor.



Place the vertical rod of the transfer assembly into the transfer base and lower it until the bottom of the vertical rod contacts the transfer base. Tighten with clamp screw.



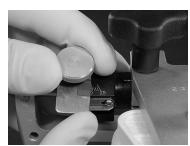
Place the upper member of the articulator onto the lower member with the incisal guide pin set to keep the members parallel.

**Note:** Set each condyle guide to 30 degrees on the inclination scale and each progressive side shift guide setting to the "0" mark.



Position the maxillary cast into the bite registration.

**Note:** A fork support may be used to steady the bite fork.



### **Mounting the Mandibular Cast**

Engage the Positive Centric Latch and secure the elastics to the lower member.

Set both progressive side shift guides to the "0" position.



Invert the articulator. Position the mandibular cast on the CR or MI bite registration.



Complete the mounting of the casts.



## **Direct Mounting the Maxillary Cast**

Remove or sufficiently raise the incisal guide pin so the upper member of the articulator will be able to rest on the horizontal crossbar of the facebow.

**Note:** Set each condyle guide to 30 degrees on the inclination scale and each progressive side shift guide setting to the "0" mark.



Hold the facebow in one hand and the articulator in the other. Position the brass mounting pin located on the outer edge of the upright on the lower member into the hole on the medial side of each plastic earpiece of the facebow.



Make sure the articulator with attached facebow is stable. You may want to use a facebow fork support to stabilize the maxillary cast during mounting procedures.



Position the maxillary cast into the bite registration.

### **Mounting the Mandibular Cast**

Follow procedure on page 7.



#### **Accessories**

## Whip Mix® Indirect Mounting Facebow

This facebow provides a convenient, quick and accurate method of securing an axis location without the use of expensive equipment and time-consuming techniques. Once the registration is obtained, the transfer assembly is removed for mounting, freeing the facebow for the next patient.



#### **Maxillary Fork Support**

The adjustable "T" supports the bitefork and maxillary cast when mounting the facebow recond on the articulator. Versions available for both magnetic and screw type mounting.



#### **Universal Occlusal Stand**

Allows you to mount the working casts at Bonwill's Equilateral Triangle. Includes two interchangeable tables – flat and curved. The flat table accepts the Kois index tray.



## FlexiMount™ Universal Mounting Support

Quickly and easily provide dynamic stability when mounting the lower cast without glue, paper clips or accelerants.



#### Whip Mix® Verification Gage

Verify and calibrate articulators in the field to factory settings. With articulators in calibration, transfer the casts between compatible articulators.



### **Adjustable Guide Table**

May be moved anteriorly or posteriorly which minimizes having to adjust for the "x" dimension. Incline may be adjusted and locked from 0 to 40 degrees protrusive. Adjustable lateral wings establish the degree of incisal freedom from 0 to 45 degrees.

### Interchangeability

All 3000 Series Articulators feature the Accumount Mounting System. The Accumount System makes it possible for the dental practitioner and the dental laboratory to interchange casts without exchanging articulators. This will reduce instrument damage caused by shipping the articulator.

#### **Care and Maintenance**

Your Whip Mix articulator is a sturdily constructed instrument that will provide many years of service with reasonable care. Both the upper and lower members are made of cast aluminum. All aluminum parts are anodized to prevent corrosion or staining. Each condyle element consists of a stainless steel shaft and a durable plastic condyle ball. The condylar guide assemblies are made of anodized aluminum.

- The sealing compound placed over the Latch Block Mounting Screw and Set Screws should not be disturbed.
- Do not attempt to remove the Screws holding each condyle release mechanism.
- Avoid getting wax or stone in the screw holes which may damage the threads.
- Tighten screws snugly, but not too tightly. Overtightening the retaining screws can strip the threads.
- It is a good idea to use a carrying case when the articulator is transported. Dropping the articulator may result in bent or broken parts which may affect the articulator's ability to accurately reproduce a patient's mandibular movements.
- A thin film of lubricant or silicone spray applied to the surfaces upon which the condylar elements move will provide a smooth action of these parts.
- Failing to remove excess stone, or not keeping the articulator clean may result in corrosion of articulator surfaces.
- Apply silicone spray to articulator frame to prevent plaster or stone from sticking to surfaces.

Failure to follow these instructions will void your warranty.

## Warranty

Whip Mix Corporation warrants the articulator system to be free from defects in material and / or workmanship for a period of one year. In the event of a defect, please notify the factory in writing prior to returning the instrument. Whip Mix Corporation will, at its option, either repair, replace or issue credit for such defects.

Because Whip Mix Corporation is continually advancing the design and manufacturing method of its products, it reserves the right to improve, modify or discontinue products at any time, or to change specifications or prices without notice and without incurring obligations.



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