

8500 Series
Articulator
and
QuickMount
Face-Bow
Instruction
Manual



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WHIP MIX 8500 SERIES ARTICULATOR



Model 8500

CONTENTS

INTRODUCTION.....	4
OBTAINING FACE-BOW REGISTRATION.....	5
I. Preparing Face-Bow.....	5
II. Preparing Face-Bow Fork.....	5
III. Positioning Face-Bow on the Patient	6
IV. Preparing Articulator for Mounted Casts.....	7
V. Placing Face-Bow Registration on Articulator	8
VI. Mounting Maxillary Cast	8
VII. Mounting Mandibular Cast.....	9
VIII. Setting Guidance of Articulator	10
FULL DENTURE TECHNIQUE.....	12
I. Use of Adjustable Incisal Guide Table #8560	12
II. Setting of Adjustable Incisal Guide	12
III. Registrations to Revise Articulator Settings	13
IV. Split-Cast Mounting	14
TRANSFER OF CASTS TO ANOTHER ARTICULATOR	15
REMINDERS AND SUGGESTIONS.....	16
ACCESSORIES.....	17
8500 Series Articulator Parts Lists and Diagrams	
Model 8500 Articulator	19
Face-Bow Parts Lists and Diagrams	
Model 8645 Face-Bow (for Direct Mounting)	20
Model 9195 Face-Bow (for Indirect Mounting)	21
Bibliography	22

INTRODUCTION

Whip Mix Articulators

Several models of Whip Mix articulators are now available which vary slightly in dimension and capability. However, all are operated by the procedures described in this manual and all accept the QuickMount Face-Bow and Whip Mix Articulator accessories. So the term, Whip Mix Articulator, has become universal in its acknowledgement of an entire family of articulators.

The Whip Mix Articulator and QuickMount Face-Bow are designed to enable the user to quickly and easily mount casts of patients' jaws on a mechanical likeness that will reproduce their natural relationship and movements to an acceptable degree of accuracy. The simplicity and speed with which the necessary registrations are obtained and transferred to the Whip Mix Articulator enable the operator to accomplish corrective and restorative dentistry with much greater precision than ever before has been possible without the use of very expensive equipment and more time consuming technics.

For those now using a fully adjustable instrument (such as the Stuart Articulator) the Whip Mix Articulator serves as an excellent auxiliary instrument for diagnostic and patient-education purposes, as well as for constructing the clutches and recording devices needed to secure the proper recordings for setting the more complex instrument. Furthermore, being an arcon type instrument, the Whip Mix Articulator is ideal for the study of occlusion and the movements of the temporomandibular joint. Should a student wish to progress to a fully adjustable articulator, it will not be necessary to alter his understanding of the movements of the mandible and the relation of the teeth and the condyles, as is the case for those using an articulator in which the movements are controlled from the lower frame.

As with all mechanical devices, the degree of perfection of the finished product depends to a great extent on the operator's comprehension of the results desired and on a complete understanding of the limitations of the machine being used. The instructions that follow in this booklet make no attempt to teach a desirable concept of occlusion and articulation. They simply outline a method to obtain a face-bow registration, itemize the other registrations needed and detail their use in setting the articulator.

These instructions will deliver the minimum amount of guidance that is considered necessary and do not exhaust the capabilities of the articulator. Therefore it is suggested that the user of this instrument refresh his knowledge and understanding of the principles of gnathology by reviewing one or more of the several excellent texts on the subject now available.

The Whip Mix Articulator is a sturdily constructed instrument that will give many years of service with reasonable care. Both the upper and lower frames are made of cast aluminum. The condyle elements and the condylar guidance assemblies are of stainless steel. All aluminum parts are anodized to prevent corrosion or staining. In case of accident, all parts are available separately, and are interchangeable between instruments except the #8502 and #8570 Uprights; the Condylar Guide Spacers, #8516 and #8518; and the parts of the Condylar Guide Assembly, #8521 Assembly.

OBTAINING FACE-BOW REGISTRATION

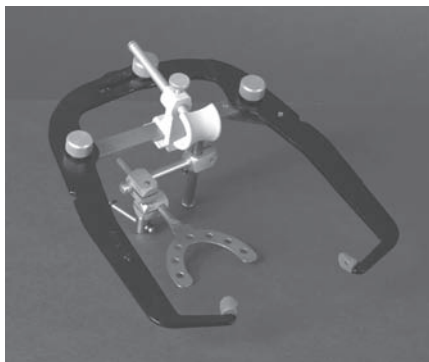


Fig. 1



Fig. 2

The following instructions describe the use of the Model 8645 QuickMount Face-Bow. When the Model 8645 Face-Bow with thumb screw is used, keep in mind that the thumb screws are tightened or loosened by hand.

I. Preparing the Face-Bow

Cleanse the plastic ear pieces thoroughly by scrubbing with soap and hot water before each use. When replacing them, make sure that the hole on the flat side of each earpiece is above the side arms and that the plastic is forced on until it touches the shoulder of the metal arm (Fig. 1).

Center the nasion relator assembly #8605A on the cross bar #8608 of the face-bow. An elastic band has been placed on the face-bow (Fig. 2) to aid in holding this assembly in place until tightened on the patient.

Loosen the 3 #8604 thumb screws on the upper surface of the face-bow and the thumb screws of the 2 toggles (#8641 and #8644).

II. Preparing Face-Bow Fork

Apply an elastomeric registration material to the top surface of the bite fork. You need only capture the cusp tips of the maxillary teeth. Remove the fork from the mount and trim away any excess compound or wax. Any registration of tissue must be entirely removed, and the cusp tips should not penetrate the registration material far enough to contact the metal. Cover the lower surface of the fork with firm wax to provide more comfort for the patient. It is now positioned in the patient's mouth and held in place by closing the mandible against it.

III. Positioning the Face-Bow on the Patient

The patient should be reminded that the plastic ear pieces in the auditory canals will greatly amplify noises caused by the following adjustments. Start the toggle (#8642) onto the shaft of the face-bow fork which is protruding from the patient's mouth. Ask the patient to grasp both arms of the face-bow and help guide the plastic ear pieces into the external auditory meatus. The patient should then hold them in place with a firm pressure forward while the operator tightens the 3 thumb screws (#8604) and centers the nose piece on the nasion and tightens it into place. Position the horizontal toggle bar above the face-bow fork shaft and push the toggle (#8642) back on the fork shaft until it is near (but not touching) the lips. Tighten it firmly using the #8640 thumb screw. Then the toggle (#8644) on the vertical bar is tightened firmly. Extreme care should be exercised that this tightening action does not tilt the face-bow out of position in any direction. The operator should use his free hand to steady the whole assembly while tightening these guides. The completed face-bow registration (Fig. 3).

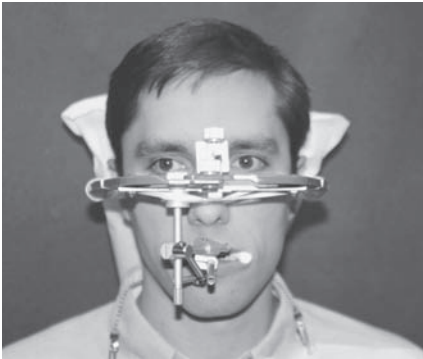


Fig. 3

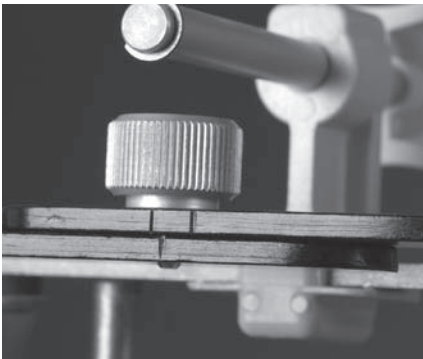


Fig. 4

On the Model 8500 Articulator, the clinician still has the capability to set the articulator at either the Small, Medium, or Large setting after determining intercondylar width. The patient's condylar width is determined by referring to the markings on the front of the face-bow (Fig. 4). Three graduations are marked (S,M,L) on the upper arm corresponding to condylar widths of Small, Medium and Large. The single line on the lower arm is the indicator. For example, Figure 4 indicates a "medium" condylar width. When the condylar width has been recorded on a Patient Registration Card, the nasion relator and the 3 thumb screws on the top surface of the face-bow are loosened and the entire assembly is carefully removed as the patient opens his mouth.

Now is a convenient time to secure the interocclusal centric registration and the right and left lateral checkbites required to program the articulator as well as full arch impressions for pouring model stones.

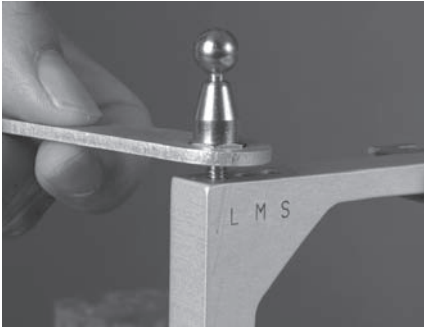


Fig. 5

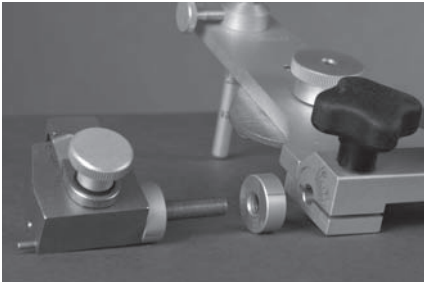


Fig. 6

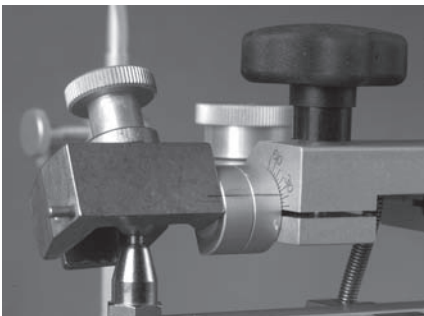


Fig. 7

IV. Preparing Articulator for Mounting Casts

The lower frame of the articulator has the letters L, M and S engraved on each of its corners on the back side (Fig. 5). Each of the two condylar elements should be screwed into one of the settings to correspond with the patient's condylar width of Large, Medium or Small as recorded on the face-bow. **It is important that the condylar elements be tightened firmly into place with the box wrench provided.**

Then set the upper frame of the articulator (Fig. 6) to the same width by removing or adding the correct number of spacers (#8516/18) on the shafts of the condylar guides. Use two spacers on each shaft for Large, one on each shaft for Medium and none for Small. Make certain the shafts are replaced so that the spacers are in tight contact on both sides between the articulator frame and the condylar guides. When spacers are used, always place those with the beveled sections closest to the condylar guides, with the bevels next to the guides. Also, be sure that the horizontal line on each spacer aligns with that on the back of the condylar guide (Fig. 7). These spacers are not interchangeable between articulators. When not in use they should be placed on the incisal guide pin to ensure that they remain with the same instrument.

The condylar guides should now be set at 30° angulation in preparation for attaching the face-bow assembly (Fig. 7). The side shift guide settings are irrelevant at this time. Firmly secure clean mounting plates on both the upper and lower frames of the articulator; be sure the plastic incisal guide (#8526) is in place on the lower frame, and remove the incisal guide pin (#8528).

V. Placing Face-Bow Registration on Articulator

The articulator is now ready to have the face-bow secured to its upper frame. Note that the QuickMount Face-Bow is designed so that neither side arm can be moved laterally without the other arm moving a corresponding distance.

First slide the nasion relator assembly (#8605A) away from the center of the cross bar of the face-bow and loosen the 3 thumb screws slightly. To secure the face-bow in place, hold it in one hand and with the other lift off the upper member of the articulator. Guide first one, then the other pin on the outer flanges of the condylar guides (#8521/2) into the holes on the medial side of the plastic ear pieces while holding one arm of the face-bow against one's body (Fig. 8). Allow the anterior end of the upper frame of the articulator to rest on the cross bar of the face-bow, then tighten the 3 thumb screws while still pressing the face-bow arms firmly against one's body (Fig. 9).

Now replace the upper frame with the attached face-bow onto the lower frame allowing the fork toggle of the face-bow to rest on the plastic incisal guide block (Fig. 10).

Because the guidance of this instrument is part of the upper frame and the face-bow is, in effect, one piece with this frame, the face-bow fork is in fixed relation to the upper mounting plate. The relation of the upper frame and its face-bow fork registration to the lower frame and its condylar elements, is of no consequence at this point, since the lower frame serves merely as a convenient means of support during the mounting of the maxillary cast.

VI. Mounting Maxillary Cast

First seat the maxillary cast in the face-bow fork registration. Then lift the upper arm of the articulator and apply a mound of well-mixed, accurate, fast-setting mounting stone (Whip Mix

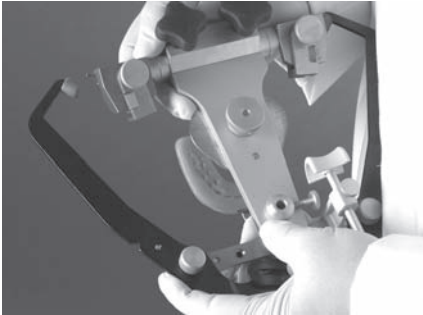


Fig. 8



Fig. 9



Fig. 10

Mounting Stone) to the base of the cast. Using one hand for support to prevent any movement of the face-bow fork or cast, close the upper arm of the articulator until it again touches the cross bar of the face-bow, forcing the mounting plate into the soft mounting stone. Hold the cast in position until the mounting stone has set, then remove the face-bow from the articulator.

When mounting casts, do not use too thick a mix of mounting stone or attempt to force the mounting plate into stone that has begun to set. This may force the fork away from the upper frame. A convenient Face-Bow Fork Support (#8585) is an available accessory to support the fork and maxillary cast firmly during this operation. This attachment replaces, temporarily, the mounting plate on the lower frame of the articulator. Its cross arm is raised to contact the under surface of the face-bow fork and locked into place, preventing any flexing of the fork during the mounting procedure (Fig. 10).

VII. Mounting Mandibular Cast

Replace the incisal guide pin in the upper frame, rounded end down. The upper and lower frames are made parallel by aligning the top of the pin boss with the line which completely encircles the pin. At this time, the pin should be adjusted several millimeters above the parallel mark to compensate for the thickness of the bite registration. When using a custom incisal guide table or anytime the vertical dimension of the instrument is changed (guide pin raised or lowered) the guide block must also be moved to accommodate the change. This adjustment compensates for the straight incisal guide pin.

Now place the upper frame upside down. This positions the mounted cast with its occlusal surfaces up. Place an interocclusal centric registration on the maxillary cast. The mandibular cast is now carefully positioned on the registration. Check closely that the teeth are fully seated.

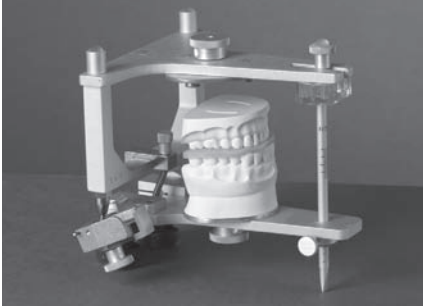


Fig. 11

Invert the lower frame of the articulator and **make sure the condylar elements will seat in their most retruded position in the condylar guides.**

Remove the lower frame and apply mounting stone to the base of the cast. Reposition the lower frame with the condylar elements seated in their **most retruded position** in the condylar guides as you hinge the lower frame into the soft stone, until the incisal guide pin meets the incisal guide block. Hold the cast in this position until the mounting stone has set (Fig. 11).

VIII. Setting the Guidance of the Articulator

After removing the centric registration, set both condylar guides at zero inclination and the side shift controls at their most open position (45°). Raise the incisal guide pin to prevent interference.

With the upper frame and its cast inverted, carefully seat the left lateral excursion interocclusal record on the upper cast. Holding the upper frame in one hand and the lower frame in the other, place the left rotating condylar element in the left condylar guide. Gently seat the lower cast into the lateral record and lightly hold the articulator and casts in position with one hand on the left side. Notice that the right condylar element has moved away from both the superior and posterior surfaces of the condylar guide and, in most all cases, toward the medial wall (Fig. 12).

To set the inclination of the right guide, loosen its holding screw (#8512) and rotate the guide until the superior wall again touches the condyle element (Fig. 13). Tighten the holding screw to fit the guide in this position. **Do not use excessive pressure.** It is advisable when making these adjustments, that contact be judged by sight, rather than the sense of touch. This helps to ensure that the casts are not forced out of position from the occlusal record.

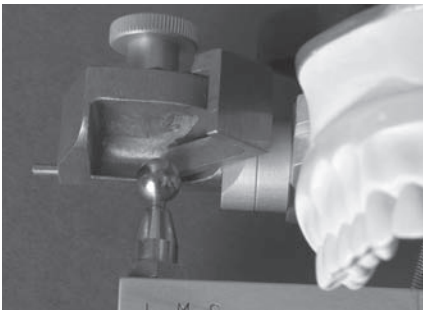


Fig. 12

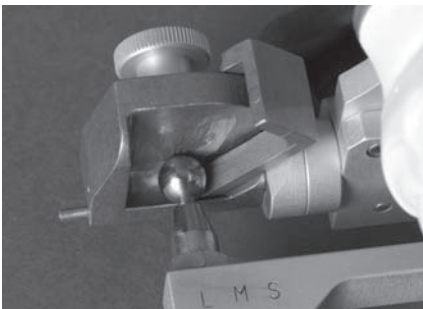


Fig. 13

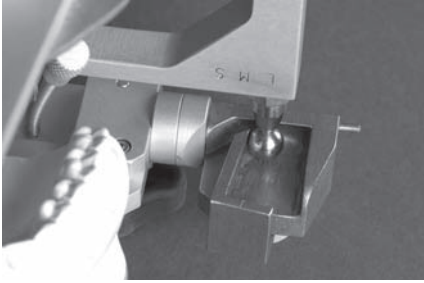


Fig. 14

Set the progressive side shift by loosening the side shift guide holding screws (#8520) and moving the guide until it touches the condyle element (Fig. 14). Retighten the holding screw. Return the articulator to its upright position and record the amount of condylar inclination and side shift found on that side on a Patient Registration Card (Fig. 15).

Patient Mr. J. Robinson
 Articulator No. 258174 Date Aug 10, 2005
 Condylar Width — Small, Medium, Large
 Progressive Side Shift
 Right 20 Left 25
 Condylar Inclination
 Right 35 Left 40
 Patient Record Card For Models 8500, 9800, 2340, 3040, 3140
 MPX, 30200 09/98

Fig. 15

The left condylar guidance is adjusted using the right lateral excursion record and repeating the above procedure.

To prevent possible wearing away of the stone casts during manipulation of the articulator, or to make a permanent record of a specific case, the natural incisal guidance may be recorded. This is done by adding a layer of self-curing resin to the plastic guide block and forming the guidance path into the resin as it cures (Fig. 16). Lubricating the end of the incisal guide pin with petroleum jelly is recommended.



Fig. 16

The upper and lower frames of the articulator are held tightly together by the Spring Latch which returns the upper frame to the centric position when released from an excursion. For separation of the two members, the Spring Latch is easily released.

Occlusion rims should be formed on well adapted base plates for the upper and lower arches. After examination of the upper base plate in the patient's mouth, adjust the base plate if necessary and then scrape the upper cast in an appropriate manner to establish the posterior palatal seal.

Contour the upper and lower occlusion rims, establish vertical dimension, apply the customary markings to the wax rims and establish a centric jaw relation record. This should be done using that procedure with which one is most familiar. Seat the base plates on the master casts and check to make sure there are no cast interferences which would prevent the casts from meeting properly.

After lubricating the upper occlusion rim place it into a suitable recording medium on the face-bow fork. Make sure the midline of the palate and the stem of the bite fork are properly aligned. Place the occlusion rim and attached bite fork in the patient's mouth and have the patient hold it firmly in place. Then follow the same procedure described earlier (Page 6) to obtain a face-bow registration for mounting the maxillary cast.

The articulator is now prepared for receiving the casts in the same manner as described earlier, with the exception that the side shift guides are now set to follow a 15° movement.

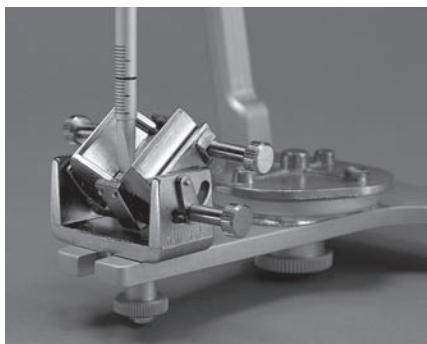


Fig. 17

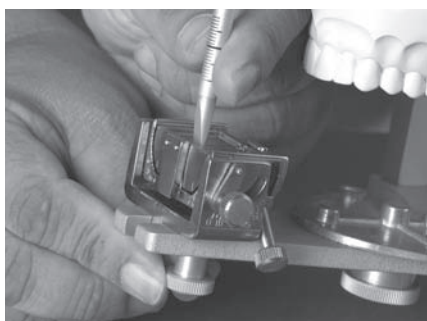


Fig. 18

I. Use of Adjustable Incisal Guide Table #8560

Many operators prefer to replace the plastic incisal guide block with an adjustable metal table (Fig. 17) at this point. Loosen the thumb screw on the underside. Remove the plastic table and adjust the metal one to a level position and tighten the thumb screw (Fig. 18).

Follow the same procedure for mounting casts as outlined earlier (Pages 8 and 9) for dentulous casts, with one exception: When replacing the incisal guide pin in the upper frame, the chisel end should be positioned down and set at the zero mark. Move the table until the pin rests on the small indentation at its center, then tighten the thumb screw.

II. Setting of Adjustable Incisal Guide

Loosen the thumb screw of the incisal guide table and bring the anterior teeth into edge to edge contact. Now tilt the table until the incisal pin contacts it, and retighten the thumb screw. Next, move the teeth into a right lateral relation, raise the left wing of the table until it touches, and lock this wing into position. Perform the same operation for the right wing with the teeth

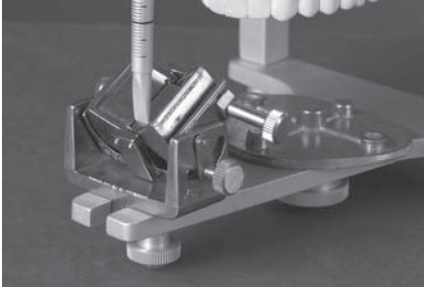


Fig. 19

in left lateral relation (Fig. 19). Finally, set the posterior teeth into occlusion and refine the wax-ups so they may be placed in the patient's mouth.

III. Registrations to Revise Articulator Settings

With the trial dentures in place in the mouth, verification of the correct vertical dimension and esthetics should be made. Any necessary rearranging of the anterior teeth should be done at this time. Take right and left lateral interocclusal records, being careful that the trial dentures remain firmly in place during this procedure.

Return the dentures to the articulator and use these records to reset the condylar angulation and side shift, using the technique described previously (Page 10). The incisal guide should likewise be reset to accommodate any rearrangement of the anterior teeth. The posterior teeth are now reset to the new guidance path that has been fixed into the articulator. They may be retried in the patient's mouth at this point if desired.

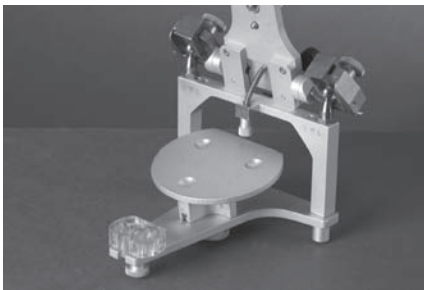


Fig. 20

The trial dentures are now invested and processed in the customary manner. Many operators prefer to first process the upper denture only, and after returning it to the articulator, the lower teeth are reset to it before processing the lower denture. A Remounting Jig #8575 is available as an accessory for this articulator (Fig. 20). Mounted on the lower frame, it allows a permanent plaster index to be made of the maxillary teeth from the wax try-in. This eliminates the need for a second face-bow record and transfer.

If some form of split cast mounting has been used (Page 14), recover the dentures from the processing flask with the cast intact, remove any resin flash, and return the dentures to the articulator for spot grinding to correct any tooth shifting that occurred during processing. If split

cast mounting has not been used, one of several remounting technics can be followed. The most satisfactory consists of seating the finished dentures in the mouth and securing a face-bow registration and a new centric registration for remounting. Another convenient, but arbitrary method is as follows: After the final try-in, cover a face-bow fork with a fast-setting stone (Whip Mix Bitestone) and take a shallow impression of the maxillary tooth cusps and incisals. Return the trial denture to its cast on the articulator and replace the face-bow on the upper frame. Then, holding the bite fork impression in place against the maxillary denture, lock the fork into place on the face-bow. When the processed dentures have been recovered, this face-bow registration can be used to remount the maxillary denture on the articulator. Care must, of course, be taken in reseating the processed dentures; the cusp impressions of any teeth that have moved are trimmed away so that the denture will seat properly. The lower denture may then be mounted in occlusion with the upper.

IV. Split-Cast Mounting

A method of split-cast mounting is as follows: Cut five or six V notches on the edges of the mounting side of the cast. Be sure they are truly wedge-shaped, and are made as large as possible without marring the periphery of the impression as registered on the cast. Fill any bubbles in the cast with wax so that no undercuts are present in the mounting surface. Apply a separating medium to the surface to facilitate easy removal later. During the mounting procedure, the mounting stone is forced into the V notches to form an accurate index so that the cast may later be removed from its mounting base and replaced accurately whenever desired. When it is necessary to secure the cast to its mounting base, apply sticky wax over the joint between the two.

TRANSFER OF CASTS TO ANOTHER ARTICULATOR

It is often desirable to remove the casts from the Whip Mix Articulator on which they were originally mounted and to place them on another Whip Mix instrument. This is a great convenience when the casts are to be forwarded to an out-of-town laboratory.

The only change from customary procedure for mounting is the method of mounting the mandibular cast. The Split-Cast Mounting Technic using notches (Page 14) is followed OR, the cast is attached lightly to its mounting plate so that it can easily be removed later without danger of damage.

The following are sent to the laboratory (Fig. 21):

- 1 – The mounted maxillary cast
- 2 – The mandibular cast (removed from its mounting)
- 3 – A duplicate patient registration card
- 4 – The interocclusal centric registration used in the original mounting
- 5 – The plastic incisal guide table on which the incisal guidance has been recorded

The technician places the mounted maxillary cast on his articulator after adjusting it for the indicated condylar width. Using the centric registration, the mandibular cast is then mounted to the lower frame of the second articulator. The incisal guide table is positioned and the incisal pin is adjusted to the correct vertical height. The condylar guidance is set from the notations on the patient's record card and the transfer is complete.

If the Split Technic was used on the first mounting of the mandibular cast, this original mounting should be saved. When the casts are returned, they can be quickly replaced on the original articulator.



Fig. 21

REMINDERS AND SUGGESTIONS

1. When securing interocclusal records to be used in mounting casts and setting the articulator, never allow the teeth to penetrate the recording material (impression compound, wax, gypsum, impression paste, etc.) too deeply. They should never contact the opposing teeth, the metal face-bow fork or any firm material that may be used as a carrying tray or handle. Any record showing evidence of this should be discarded and remade.
2. The more firm a recording material is, the more it will resist distortion during its later use. However, any such material should be in a very soft state during the initial recording procedure (Whip Mix Alminax).
3. To secure interocclusal records of partially edentulous patients, where insufficient natural dentition is present to obtain these records, the following technic may be used:

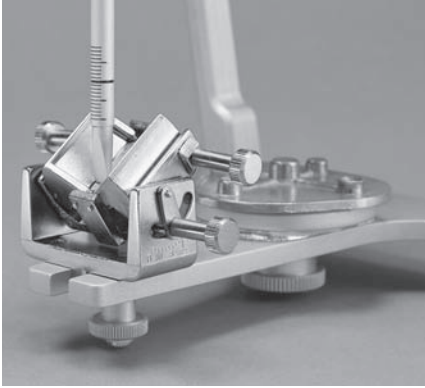
If natural dentition opposes the edentulous space, the partial occlusion rim is built up to near, but not touching, the opposing teeth. Zinc oxide and eugenol impression paste is then added to the surface of the occlusion rim of sufficient depth to register the tips of the opposing teeth when brought into the desired relationship.

When the opposing spaces are both edentulous, one occlusion rim is built up in the customary manner to near the occlusal plane, while the opposing rim is built near this plane with small cones of hard wax (or plastic) to indicate the registration in the impression paste.

When absence of teeth makes it necessary to obtain interocclusal records on partial occlusion rims, these records must be made with the supporting soft tissue in as near a static condition as is possible; some combination of these ideas can be planned to accomplish this with acceptable accuracy.

4. With casts of unusually thin vertical dimensions, which would necessitate the use of a great bulk of mounting stone, it is suggested that the mounting plate be built up to near the correct thickness with a mix of mounting stone and be allowed to set for twenty minutes or longer before the actual mounting procedure is performed.
5. Mounted casts that have been attached to their mounting plates on one instrument cannot be transferred to another. Should it be necessary to remove the mountings from an articulator before completion of the case, it is advisable to clearly mark the serial number of the instrument on the casts so they may be returned to the correct instrument when desired.
6. A thin film of lubricant (Whip Mix Lubriplate) applied occasionally to the surfaces upon which the condylar elements move will provide a smooth action of these parts.

ACCESSORIES



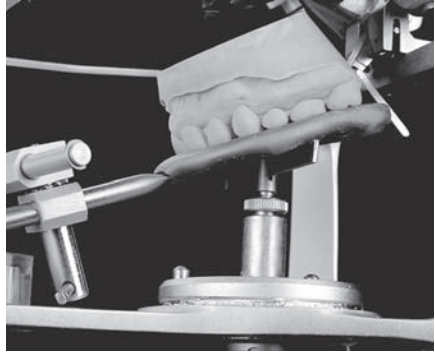
#2460 Adjustable Incisal Guide



#8631 Offset Face-Bow Fork



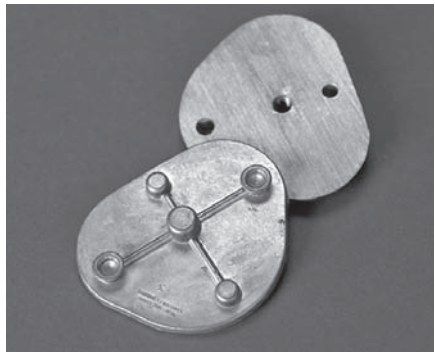
**#8780B Articulator Carrying Case
(Not for shipping mounted casts)**



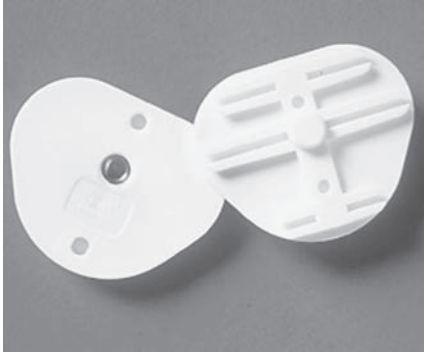
#8585 Face-Bow Fork Support



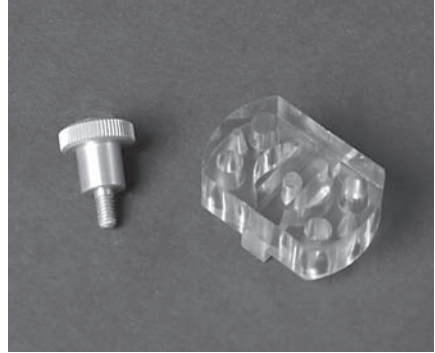
#8575 Remounting Jig



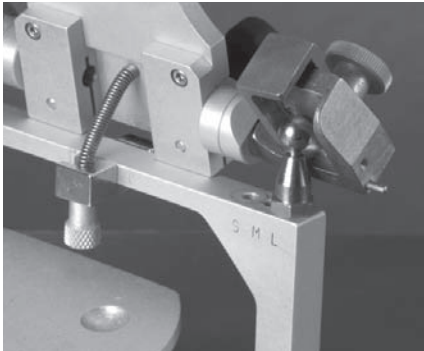
#8580 Metal Mounting Plate (Package of 2)



#8580B Plastic Mounting Plate



**#8526F (Flat) Plastic Incisal Guide,
#8527 Screw**



#8806B Spring Latch Assembly



Patient Record Cards (Package of 100)



Alminax Bite Registration Wax

Video Cassette Series

Available for purchase or rental.

**The Semi-Adjustable Articulator in
Dentistry: Whip Mix #8500 Articulator.**

Length: 26 minutes. VHS format.

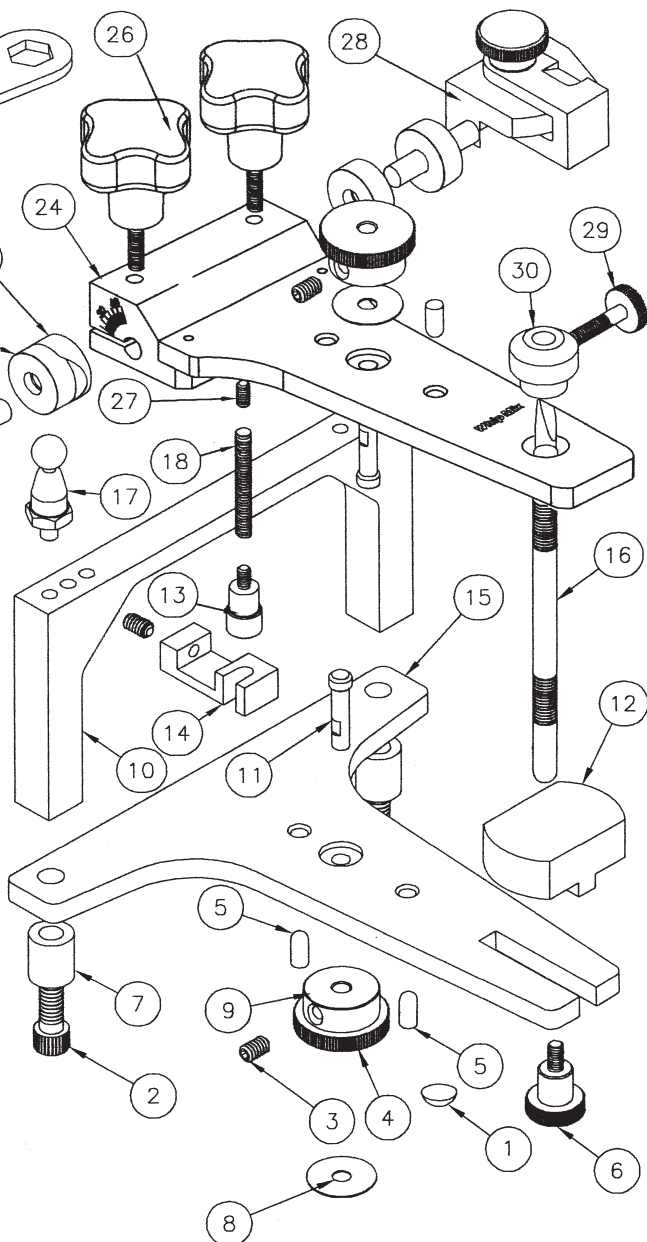
**The Face-Bow Transfer and
Mounting of Casts: Whip Mix
#8645 "Quick Mount" Face-Bow
and Model #8500 Articulator**

Length: 26 minutes. VHS format.

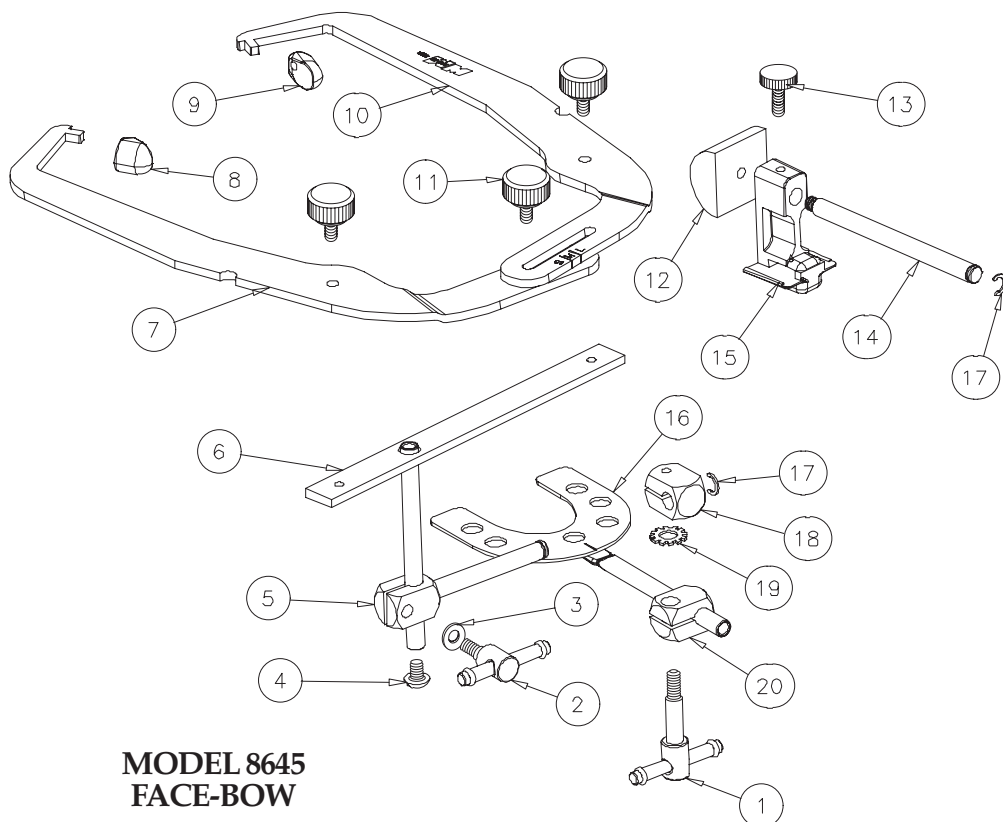
8500 SERIES ARTICULATOR PARTS LISTS

#	PART#	QTY.	DESCRIPTION
1	MA8543	3	FOOT BUMPER
2	MA8506	2	SCREW, SOCKET CAP
3	MA8548	3	SCREW, SOCKET SET
4	MA8508	2	MOUNTING PLATE KNOB
5	MA8509	4	PIN
6	MA8527	1	INCISAL BLOCK SCREW
7	MA8505	2	LEG
8	MA8546	2	WASHER
9	MA8545	2	WASHER
10	MA8502	1	UPRIGHT
11	MA8507	2	MOUNTING PLATE SCREW
12	MA8526F	1	INCISAL BLOCK
13	MA8808	1	SPRING BOTTOM SCREW
14	MA8809	1	SPRING LATCH BRACKET
15	MA8503	1	BOTTOM PLATE
16	MA8528-SS	1	GUIDE PIN, STAINLESS STEEL
17	MA8504	2	CONDYLE ELEMENT
18	MA8807A	1	DETENT SPRING
19	MA8521A	1	CONDYLAR GUIDE ASSEMBLY, RIGHT
20	MA8516A	2	SPACER WITH O-RING
23	MA8518	2	SPACER WITH O-RING
24	MA8501A	1	TOP PLATE
26	MA8530	2	CLAMP KNOB
27	MA8532	1	SET SCREW
28	MA8522A	1	CONDYLAR GUIDE ASSEMBLY, LEFT
29	MA8511	1	INCISAL PIN SCREW
30	MA8510	1	BOSS
31	MA8550	1	HEX WRENCH
32	MA8580	4	MOUNTING PLATE (NOT SHOWN)
33	MA8614	1	HEX DRIVER (NOT SHOWN)

MODEL 8500 ARTICULATOR



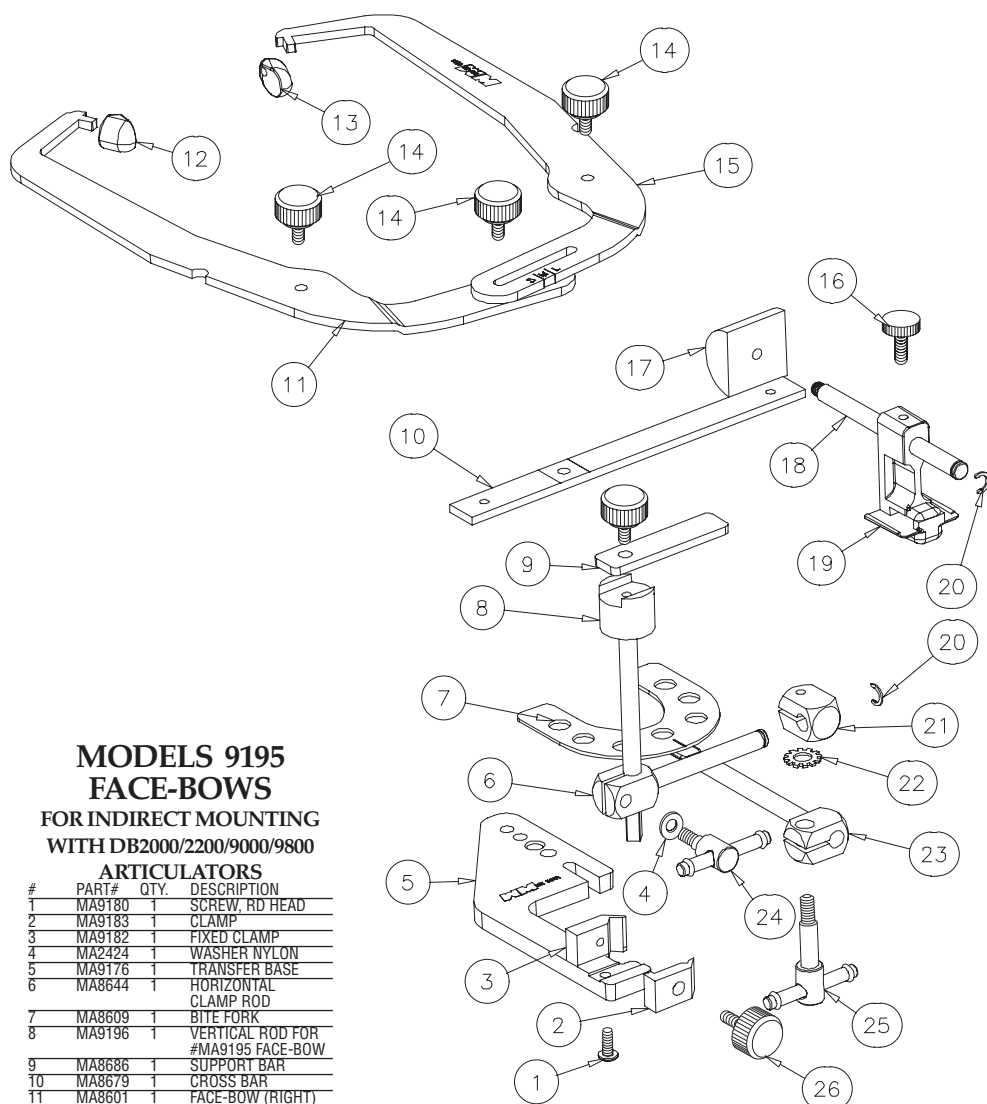
WHIP MIX FACE-BOW PARTS LISTS



MODEL 8645 FACE-BOW

FOR DIRECT MOUNTING

#	PART#	QTY.	DESCRIPTION
1	MA8640	1	THUMB SCREW
2	MA8643	1	THUMB SCREW
3	MA2424	1	WASHER NYLON
4	MA8617	1	SCREW
5	MA8644	1	HORIZONTAL CLAMP ROD
6	MA8608	1	SLIDE BAR ASSEMBLY
7	MA8601	1	FACE-BOW (RIGHT)
8	MA8603R	1	EAR PIECE (RIGHT)
9	MA8603L	1	EAR PIECE (LEFT)
10	MA8602	1	FACE-BOW (LEFT)
11	MA8604	3	LOCKING SCREW
12	MA8607	1	NOSE BLOCK
13	MA8622	1	SCREW FOR UPRIGHT POST
14	MA8606	1	NOSE PIECE SHAFT
15	MA8605	1	UPRIGHT POST
16	MA8609	1	BITE FORK
17	MA8619	2	RETAINING RING
18	MA8641	1	TOGGLE
19	MA8616	1	LOCK WASHER
20	MA8642	1	TOGGLE
NOT SHOWN	MA8549		PKG. OF 6 RUBBER-BANDS



**MODELS 9195
FACE-BOWS
FOR INDIRECT MOUNTING
WITH DB2000/2200/9000/9800**

ARTICULATORS

#	PART#	QTY.	DESCRIPTION
1	MA9180	1	SCREW, RD HEAD
2	MA9183	1	CLAMP
3	MA9182	1	FIXED CLAMP
4	MA2424	1	WASHER NYLON
5	MA9176	1	TRANSFER BASE
6	MA8644	1	HORIZONTAL CLAMP ROD
7	MA8609	1	BITE FORK
8	MA9196	1	VERTICAL ROD FOR #MA9195 FACE-BOW
9	MA8686	1	SUPPORT BAR
10	MA8679	1	CROSS BAR
11	MA8601	1	FACE-BOW (RIGHT)
12	MA8603R	1	EAR PIECE (RIGHT)
13	MA8603L	1	EAR PIECE (LEFT)
14	MA8604	4	LOCKING SCREW
15	MA8602	1	FACE-BOW (LEFT)
16	MA8622	1	SCREW FOR UPRIGHT POST
17	MA8607	1	NOSE BLOCK
18	MA8606	1	NOSE PIECE SHAFT
19	MA8605	1	UPRIGHT POST
20	MA8619	3	RETAINING RING
21	MA8641	1	TOGGLE CLAMP
22	MA8616	1	LOCK WASHER
23	MA8642	1	TOGGLE CLAMP
24	MA8643	1	THUMB SCREW
25	MA8640	1	THUMB SCREW
26	MA9184	1	CLAMP SCREW
NOT SHOWN	MA8549		PKG. OF 6 RUBBER- BANDS

BIBLIOGRAPHY

The following bibliography gives more background on this instrument system.

- Bates, Robert E., Welsch, Boyd B., and Stewart, Carol M.:
Temporo Mandibular Joint Disk Position as Determined by a Simple Recorder.
J. Pros. Dent., Vol. 56 No. 2, 221-224, 1986.
- Cowan, Robert D., Sanchez, R.A., Chappell, R.P., Glaros, A.G., Hayden, W.J.:
Verifying the Reliability of Interchanging Casts with Semi-Adjustable Articulators.
Inter. J. Pros. Dent., Vol. 4, No. 3, 260-264, 1989.
- Lee, Robert L.:
Law Movements Engraved in Solid Plastic for Articulator Controls. Part 1,
Recording Apparatus, J. Pros. Dent., 22:209, 1969.
- Lee, Robert L.:
Jaw Movements Engraved in Solid Plastic for Articulator Controls. Part II,
Transfer Apparatus, J. Pros. Dent., 22:513, 1969.
- Loos, Larry:
Clinical Criteria Used to Select an Articulator, Compendium, Vol. XIV,
No. 1, 80-82, 1993.
- Lundeen, Harry C., Wirth, Carl G.:
Condylar Movement Patterns Engraved in Plastic Blocks. J. Pros. Dent.,
30:866, 1973.
- Lundeen, H.C.:
An Evaluation of Mandibular Border Movements: Their Character & Significance.
J. Pros. Dent., 40:4424-452, 1978.
- Lupkiewicz, S.M., Ariet, M., Fujimoto, J., Gibbs, C.H., Lundeen, H.C., & Mahan, R.E.:
Reproducibility of Border Movements, Part 1, 2 & 3. IADR Progr. & Abst. 57:
No. 367 & 368, 1978.
- McCoy, R.B., Shyrock, E.F., & Lundeen, H.C.:
A Method of Transferring Mandibular-Movement Data to Computer Storage.
J. Pros. Dent., 36:510, 1976.
- Sokolow, Stanley M.:
Interchangeable Quick-Mounted Study Models. J. Clinical Orthodontics,
Vol. XX, No. 11:779-781, 1986.
- Welsch, Boyd B.:
The Distribution of the Radius of the Curve Scribed During Protrusion.
J. Pros. Dent., Vol. 51, No. 4:518, 1984.
- Special thanks to the Postdoctoral Prosthodontics Program at the
University of Texas Health Science Center at San Antonio.

This image shows a single page of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page, leaving small margins at the top and bottom. There are no vertical margin lines, text, or other markings on the page.



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