Hanau™ Series
H2 Articulator
technique for
full denture prosthodontics
HANAU™ SERIES H2 ARTICULATOR
technique for full denture prosthodontics

- This book contains detailed procedures for obtaining an Earpiece Facebow record, transferring the record to the Articulator, mounting casts, and the adjusting of the Articulator as applied to full denture prosthodontics.

- In principle, the outlined procedures apply to the individual requirement of all restorative dentistry with the casts and positional records of the natural dentition substituting for the edentulous casts, denture bases and occlusal rims.

- Centric and protrusive relation records are required to adjust the articulator to simulate individual jaw movements. A review of additional reference material dealing with techniques for obtaining accurate oral records is recommended.

- Your articulator is a precision instrument. Periodic care and maintenance will assure prolonged and reliable service. You will find a care and maintenance section on page 21.

- An illustrated parts list and optional accessories available for special applications begin on page 22.
1. The final impressions are beaded, boxed and poured with stone immediately upon their completion, keeping the casts as thin as good practice permits.

2. Extreme undercut areas of the master casts are waxed for relief and relief metal is applied where indicated over the hard palate area. The casts are then coated with a tinfoil substitute.

3. Base plates of self-curing acrylic are adapted over the casts and upon their cure are removed and trimmed to the desired contour.

4. Clean the casts thoroughly, removing the waxed relief areas, and re-apply a coating of tinfoil substitute.

   Flow an elastic stabilizing plastic over the entire tissue area of the base plates and press them firmly onto their casts. Remove the base plates after approximately 15 minutes and trim the excess.

5. Upon these stabilized base plates are formed occlusal rims, properly contoured and built to the height required for the desired vertical dimension and incorporating the markings of the median line, lip line, et cetera.

The complete occlusal rims are utilized for:

A. A Facebow record to locate the maxillary cast on the Articulator.

B. A centric relation record for mounting the mandibular cast on the Articulator.

C. A protrusive relation record for the adjustment of the condylar inclination on the Articulator.
**EARPIECE FACEBOW PREPARATION.**

The Hanau™ Earpiece Facebow 008824-000 serve to record the positional relation of the patient’s maxillary ridge and condyles and to transfer this relationship to the Articulator.

NOTE: Should the elected Facebow be a Hanau™ Style "C" or "SM", the patient application of the Condylar Rods shall be at the facia over the condyles and the Articulator application shall be over the Condylar Shafts.

6. The Biteplane or Bitefork is covered with compound or a material of choice to a thickness suitable for obtaining an imprint of the maxillary occlusal rim.

7. The softened material on the Biteplane or Bitefork is seated against the cold maxillary occlusal rim to create a distinct imprint, with the stem extending approximately parallel to the sagittal plane (Figure 1).

8. Slightly unturn the two Frame Thumbscrews and slide the Scales outward to abut the Nylon Earpieces with the Frames (Figure 2). The Nylon Earpieces are threaded into the Scales and may be removed for cold sterilization. Additional Nylon Earpieces, Item No. 008915-000 may be ordered through Whip Mix.
EARPiece FACEBoW APPLYCATioN.

9. The mandibular occlusal rim and the maxillary occlusal rim in its imprint on the Biteplane or Bitefork are seated in the patient's mouth.

The patient is directed to close gently against the Biteplane or Bitefork with enough force to hold it firmly in the maxillary imprint. This imprint of the maxillary occlusal rim will be used only to transfer the maxillary cast to the Articulator and no attention need be given to the mandibular relation when making this registration.

9A. The Facebow is then brought gently over the face with the stem of the Biteplane or Bitefork entering the loose Bite Clamp (Figure 3).

Hold both Frame Thumbscrews between the thumbs and middle fingers. Place the forefingers on the ends of, and slide the Scales to enter the Nylon Earpieces into the external auditory meatus of the ears.

Simultaneously slide the Frames laterally to symmetrically adjust the Scales while maintaining a comfortable, yet secure suspension of the Nylon Earpieces in the meatus. Tighten both Frame Thumbscrews to maintain this symmetry of suspension.

Grasp the frontal portion of the Facebow and tighten the Clamp Thumbscrew securely to lock this Bow to Biteplane or Bitefork relationship.

9B. The Orbital Pointer is inserted in the Orbital Clamp of Facebow 008824-000 and is then aligned with the infra-orbital notch on the patient... tightening the Clamp Thumbscrew to maintain this alignment (Figure 4).

10. Release the two Frame Thumbscrews and withdraw the Scales with Nylon Earpieces from the meatus.

Remove the entire Facebow Assembly from the patient. Do not disturb any adjustment or an accurate transfer to the Articulator will be impossible.

11. Two interocclusal records of a terminal relation are required... one of a centric and one of a straight protrusive approximately 6 millimeters anterior to centric
and are both made to the operator’s preference, using a method and material of choice.

Remove the occlusal rims from the patient’s mouth.

**ARTICULATOR PREPARATION**

12A. Adjust the horizontal inclination of both Condylar Guidances to 70 degrees and tighten the Thumbnuts.

12B. Adjust the lateral indication of both Condylar Posts to “zero” degree and tighten their Thumbscrews.

12C. Adjust the incisal Guide to “zero” degree and tighten the Locknut.

12D. Adjust the incisal Pin to align the median registration groove with the underside of the Upper Member and tighten the Thumbscrew.

12E. Tighten the Centric Locks to restrict the Articulator to opening and closing movements only.

NOTE: Articulator models with the Protrusive-Retrusive feature must be adjusted to a “zero” centric. A Spacer is fitted under the Centric Stop for convenience in adjusting the Condylar Element in the centric position (Figure 6).
This Spacer limits the Articulator to protrusive adjustments and must be removed for the retrusive adjustment. The Centric Stops have been individually fitted to their Condylar Guidances and each full turn is one millimeter and each line on the top surface indicates one-quarter millimeter.

The Articulator is in “zero” centric when the “0” notch on the edge of the Centric Stop coincides with the indicating line at the outer edge of the Condylar Guidance and the flat underside is aligned with the “0” calibration at the side of the Condylar Guidance. Lock this adjustment by the Thumbscrew at the inner surface of the Condylar Guidance.

Loosen the two Thumbscrews at the underside of the Upper Member and rotate the Condylar Shafts until they contact the flat of their respective Condylar Elements when they are at rest upon the “zero” centric position; without binding or perceptible sideshift. The spade end of the Incisal Pin must exactly coincide with the center table of the Incisal Guide. Tighten the Thumbscrews to retain the Condylar Shafts in position.

12F. Attach the Incisal Pin Extension.

12G. Apply a thin coating of petroleum jelly to all surfaces of the Articulator that will be exposed to the stone mounting media.

12H. Firmly attach Mounting Plates to the Upper and Lower Members.

**EARPIECE FACEBOW TRANSFER.**

13. Attach the Earpiece Facebow Assembly to the articulator by equally adjusting the Scales to suspend the Nylon Earpieces securely over the Auditory Pins on the Centric Locks.

14A. Facebow: Seat the maxillary occlusal rim into the occlusal imprint of the Biteplane or Bitefork and raise or lower the Facebow by adjusting the Elevating Screw to align the accepted incisal edge with the upper groove marked around the center of the Incisal Pin (Figure 7).

14B. Facebow 008824-000 only: With the maxillary occlusal rim located in the imprint of the Biteplane or Bitefork, the Facebow is raised or lowered by adjusting the Elevating Screw until the Orbital Pointer is on a level with the horizontally adjustable Orbital Indicator (Figure 8).
15. Support the Biteplane or Bitemark in this position to carry the additional weight of the maxillary cast and stone mounting media. The Hanau™ Cast Support, Item No. 003401-000, is designed for this express purpose, is optionally available and is illustrated in Figures 7 and 8.

16. The “split cast” method is applied to the maxillary cast to permit the operator to visually affirm the accuracy of Articulator adjustments during centric and protrusive relationships.

The maxillary cast is ground flat on its mounting side and is properly V-notched on the periphery of its mounting surface. The flat mounting surface and its notches are lubricated with a thin coating of petroleum jelly and tape is wrapped around to provide a form into which a counter section may be poured.
The cast is then securely seated in the denture base with the occlusal rim firmly resting in its Biteplane or Bitefork imprint and is luted thereto.

17. The Upper Member of the Articulator is swung back and a mixture of stone is placed on the cast. The Upper Member is then swung forward to embed the Mounting Plate and to bring the Incisal Pin into contact with the Incisal Guide.

The mounting is completed with a spatula and excess material is removed to expose the top surface of the Mounting Plate. This permits convenient removal and accurate re-attachment to the Articulator.

18. Upon complete set of the stone mounting, disengage the occlusal rim from the Biteplane or Bitefork and remove the Earpiece Facebow and the Incisal Pin Extension.

Trimming of the maxillary mounting is completed to expose a sharply defined line at the split cast and to eliminate any possible interference with the maxillo-mandibular function of the Articulator or proper re-location of the Mounting Plate.

MOUNTING MANDIBULAR CAST

19. Invert the Articulator and place the mandibular occlusal rim and cast onto the maxillary rim without the aid of a centric relation record (Figure 9). Measure and note the “X” dimension.

The Hanau™ Plastering Stand, Item No. 003368-000, is illustrated and is an accessory for stabilizing the Articulator in the inverted position.

20. The centric relation record is then interposed and luted to the maxillary and mandibular occlusal rims. The maxillary base is securely seated an luted to the maxillary cast and the mandibular base is seated and luted to the mandibular cast (Figure 10).
Place the maxillary cast onto the split cast, the seating of which is observed by the finely defined abutment of the V-notches and parting line of the mounting.

21. Adjust the Incisal Pin so that the “X” dimension is the same as that previously determined when the centric relation record was not in place (Figure 10). This measurement assures a parallelism of the Upper and Lower Members subsequent to the cast mounting and the removal of the centric relation record.

22. The Lower Member of the Articulator is swung back and a mixture of stone is placed on the mandibular cast. The Lower Member is then swung over to embed the Mounting Plate into the stone and to bring the Incisal Pin into contact with the Incisal Guide (Figure 10).

Complete the mounting with a spatula, making absolutely certain that the Condylar Elements are locked against their stops in a centric position.

23. Upon complete set of the mounting, the Articulator is placed in an upright position and the centric relation record is removed from between the occlusal rims.

ADJUSTMENT OF HORIZONTAL CONDYLAR GUIDANCE.

24. The Incisal Pin is raised out of contact with the Incisal Guide and the Incisal Pin Extension is replaced. Loosen the Centric Locks and the Thumbnuts for horizontal inclination, adjust and lock the lateral indication of the Condylar Posts at 15 degrees, and swing the Upper Member back and out of the functional area.
25. The protrusive relation record is then accurately interposed and luted between the maxillary and mandibular occlusal rims (Figure 11).

26. The Upper Member is swung back into the functional area and its split cast is engaged with the maxillary cast (Figure 11). The right and left Condylar Guidances are adjusted by manipulating back and forth until an accurate registration is evidenced by a precise fit of the V-notches and parting line at the split cast periphery.

One hand may rest lightly upon the Upper Member, directly over the maxillary cast and without deforming the protrusive record to produce a sense of feel during this adjustment.

27. The Thumbnuts for the horizontal inclination are then tightened to retain their protrusive adjustments and their angular inclines are noted on the cast or are otherwise recorded. The protrusive record is then removed.

28. The split cast mounting sections are now permanently luted together to maintain their accurately seated position.

ADJUSTMENT OF LATERAL CONDYLAR GUIDANCE.

Lateral adjustments are made at the operator’s option, whether they be arbitrary, determined by a formula as illustrated in Figure 12, or through the limited use of lateral relation records.

29. The formula appearing on the underside of the Lower Member is used for adjusting the lateral condylar guidance in lieu of lateral relation records.

EXAMPLE: The right protrusive inclination of 30° is divided by 8, and is accepted as 4, to which 12 is added, totaling 16 (Figure 12). The right Condylar Post is
then adjusted to a 16° lateral indication at its calibration on the Lower Member and is locked by the Thumbscrew.

The same method is used for the adjustment of the left Condylar Post—dividing the protrusive inclination by 8 and adding 12.

**ARRANGEMENT OF ANTERIOR TEETH.**

30. The six maxillary and six mandibular teeth are set up in the arrangement dictated by the patient’s esthetic and phonetic requirements.

The occlusal rims are then tried in and the teeth are rearranged if necessary.

**INCISAL GUIDE PREPARATION.**

31. The occlusal rims with their anterior teeth, are reseated on the casts in the established vertical and centric relation.

32. Lower the Incisal Pin into contact with the Incisal Guide, its spade end resting crosswise on the center table, and tighten the Thumbscrew in the Upper Member securely. Slightly loosen the Locknut (Figure 13).

**ADJUSTMENT OF INCISAL GUIDE.**

33. Gently guide the maxillary cast to bring the anterior teeth into a straight protrusive edge-to-edge contact (Figure 14).

The Incisal Guide is then rotated antero-posteriorly to make contact with the end of the Incisal Pin and the Locknut is tightened to maintain the angulation.

NOTE: Upon returning to centric, a change in the vertical dimension may be evident should the
Incisal Pin have been anterior or posterior to the rotational center of the Incisal Guide.

The optionally available Adjustable Incisal Pin for the H2 Series corrects for this possible vertical dimension loss. It will remain on the exact rotational center of the Incisal Guide, permitting the increasing or decreasing of the inclination of incisal guidance without altering the vertical dimension.

34. The maxillary cast is then guided into a full right lateral relation by thumb pressure at the right side of the cast to ensure the Bennett Shift (Figure 15). The Lateral Wing is elevated to contact the corner of the Incisal Pin and the locknut is tightened to maintain this adjustment.

35. Apply thumb pressure at the left side of the maxillary cast and guide it into a left lateral excursion (Figure 16). Adjust the remaining Lateral Wing to contact the Incisal Pin and secure the adjustment by tightening the Locknut.

NOTE: Incisal Guide adjustments for natural dentition as in periodontic or orthodontic studies, occlusal correction, diagnosis, et cetera are made in the same way.

SETTING-UP OF TEETH.

36. The remaining teeth are set into occlusion, the articulation completed, and the gingival and palatal form is waxed.
37. Unless the “split cast” mountings are to be preserved or have been used, a “Remounting Record” is necessary for the ultimate “grinding in” of the finished dentures. In lieu of this, a second Facebow transfer is required for remounting the maxillary cast on the Articulator.

The Hanau™ Remounting Record Jig, Item No. 003101-000, provides an adjustable platform to receive a layer of plaster sufficiently thick to register the occlusal surfaces of the maxillary waxed denture (Figure 17). With the Articulator locked in centric, the Upper Member with the attached maxillary denture is lowered into the soft plaster and the Incisal Pin is brought into contact with the Incisal Guide.

38. Disengage the maxillary and mandibular casts from their Tapered Pins of the Split Mounting Plates.

Do not disturb or readjust any settings or adjustments on the Articulator. Process the dentures.

REMOUNTING.

39. The dentures must remain on their casts after processing and deflasking.

The casts are then reattached to their Articulator mountings by their split-casts or by the Tapered Pins engaging the Split Mounting Plates.

Should a remounting record have been made, the maxillary denture is replaced in the mounting record and the cast mounted by stone to the Upper Member of the Articulator. The mandibular denture is then remounted into occlusion with the upper.

PROTRUSIVE-RETROSIVE.

The Protrusive-Retrusive feature on Articulator Model 003298-000 and 003400-000 is primarily used for achieving a freedom in centric.

Release the Centric and Protrusive-Retrusive Locks and adjust the Centric Stop counter-clockwise to the desired millimeter protrusion or clockwise for retrusive millimeter requirements.
The Condylar Shafts may require readjustment to maintain the Condylar Elements in contact with the adjusted Centric Stops as well as to maintain the Incisal Pin centrally on the center table of the Incisal Guide. See NOTE of Step 12 for detailing of this readjustment.

**CENTRIC OCCLUSION.**

With the dentures in place and the Articulator at centric, the Incisal Pin must be in contact with the Incisal Guide.

If the Incisal Pin does not contact the Incisal Guide, the vertical dimension has been opened and the centric occlusion must be restored through the use of articulating paper and judicious selective grinding. The vertical dimension will have been restored when the Incisal Pin once again rests on the Incisal Guide in a centric relation.

Do not discount the possibility that the Incisal Pin may contact the Incisal Guide, but that the teeth are not in occlusion. This indicates a decrease in the vertical dimension due to a processing error and the extent of closure and acceptability can only be determined by you. Release the Incisal Pin to occlude the dentures and retighten the Incisal Pin when it rests on the Incisal Guide.

**MILLING-IN.**

In executing lateral excursions during the milling-in phase, it is vital that constant “toward the operator” pressure is exerted by the hand lightly holding the Incisal Pin. This ensures that the shoulder of the Condylar Shaft remains in contact with the flat of the balancing Condylar Element while the working Condylar Element rests against its centric stop. The Condylar Shaft in the working Condylar Element slides laterally, thereby simulating the Bennett movement (Figure 18).

![Milling-in Diagram](MILLING-IN.png)
CORRECTION TECHNIQUE.

Provided the discrepancies in the finished dentures are not excessive and can be corrected by judicious grinding, the following procedure is employed. Gross interference in centric, protrusive or lateral occlusions are eliminated by "spot grinding" with the aid of articulating paper.

TO ELIMINATE INTERFERENCE OBSERVED IN MOUTH AT:

<table>
<thead>
<tr>
<th>Region</th>
<th>GRIND-IN WITH ABRASIVE PASTE WITH ARTICULATOR ADJUSTED AS FOLLOWS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire incisal region</td>
<td>Increase protrusive inclination 5° at a time on both sides.</td>
</tr>
<tr>
<td>Left incisal region</td>
<td>Increase protrusive inclination on right 10° and on left 5°.</td>
</tr>
<tr>
<td>Right incisal region</td>
<td>Increase protrusive inclination on left 10° and on right 5°.</td>
</tr>
<tr>
<td>Molar region, both sides</td>
<td>Decrease protrusive inclination equally both sides about 5° at a time.</td>
</tr>
<tr>
<td>Molar region, left side</td>
<td>Decrease protrusive inclination on left side and increase on right side until it bears in the left molar region only.</td>
</tr>
<tr>
<td>Molar region, right side</td>
<td>Decrease protrusive inclination on right side and increase on left side until it bears in the right molar region only.</td>
</tr>
<tr>
<td>Posterior region in lateral</td>
<td>Increase lateral indication of both Posts (sometimes decrease).</td>
</tr>
<tr>
<td>Both sides</td>
<td></td>
</tr>
<tr>
<td>Left working side</td>
<td>Increase lateral indication of right Post (sometimes decrease).</td>
</tr>
<tr>
<td>Right working side</td>
<td>Increase lateral indication of left Post (sometimes decrease).</td>
</tr>
<tr>
<td>Anterior region in lateral</td>
<td>Decrease lateral indication of both Posts (sometimes increase).</td>
</tr>
<tr>
<td>Both sides</td>
<td></td>
</tr>
<tr>
<td>Left working side</td>
<td>Decrease lateral indication of right Post (sometimes increase).</td>
</tr>
<tr>
<td>Right working side</td>
<td>Decrease lateral indication of left Post (sometimes increase).</td>
</tr>
</tbody>
</table>
This accessory Long Centric Adjustable Incisal Guide is designed to establish an adjustable degree of freedom of occlusal movements (LONG CENTRIC) in the centric relation position and thereby establishing an “area” of centric rather than a “point” of centric.

Freedom of movement in centric occlusion can be accomplished through the use of a vertically adjustable Horizontal Plane upon which the Incisal Pin functions. This Horizontal Plane has no influence upon the incisal guidance when it is lowered below the Incisal Guide table. When elevated above the surface of the Incisal Guide table, it introduces a horizontal area upon which the Incisal Pin functions before lateral or protrusive inclines are encountered. This degree of eccentric movement upon the horizontal can be controlled from zero to one-and-one-half millimeters, depending upon the elevation of the Horizontal Plane.

It is essential that the optionally available Adjustable Incisal Pin, Item No. 005053-000, be used as it permits the opening and closing of the vertical dimension without changing the relation of the Incisal Pin to the table of the Horizontal Plane area.

A. For the normal function of the Incisal Guide table it is necessary to lower the Horizontal Plane below the table by means of a small screwdriver inserted from the underside of the Lower member (Figure 19).

B. The inclination of the Incisal Guide table and Lateral Wings are set to the dictates of the protrusive and lateral guiding inclines of the six upper anterior teeth.

C. To introduce the desired freedom of movement in centric (LONG CENTRIC), slightly loosen the Locknut and elevate the Horizontal Plane with a screwdriver until the degree of eccentric freedom of movement on the Horizontal Plane is obtained and tighten Locknut (Figure 20). It will be noted, upon return to centric, that this has opened the vertical dimension. The Adjustable Incisal Pin is then adjusted to re-establish the correct vertical dimension.
In establishing or perfecting the occlusion of the full denture or the occlusal rehabilitation of the natural dentition, the Incisal Pin must be in functional contact with the Incisal Guide table at all times for smooth unrestricted freedom in centric.

**BROADRICK OCCLUSAL PLANE ANALYZER**

Dr. Lawson K. Broadrick

The accessory Broadrick Occlusal Plane Analyzer, Item No. 006901-000, is used for analyzing the Curve of Spee and developing an acceptable curve of occlusion.

This text describes the mechanical function of the Broadrick Occlusal Plane Analyzer. We strongly urge the reader to refer to other textual material as well as classes devoted to the clinical application of this procedure in occlusal correction.

A Broadrick Occlusal Plane Analyzer (Figure 21) consists of (1) Card Index 006905-000 with Thumbnut 006917-000, (1) Bow Compass 006906-000 with graphite leads of varying hardness and extra center point, (1) Scribing Knife 006912-000, and (12) Plastic Record Cards 006916-000.

The maxillary cast will have been mounted to the Articulator by a Facebow transfer and the mandibular cast shall have been mounted in centric relation. The Articulator is then adjusted in compliance with the Articulator Technique.

It is pointed out that during the ensuing procedure, the maxillary cast must be removed from the Articulator during the survey and subsequently replaced in its centric mounting.

A. Insert the stud of the Card Index into the hole in the Upper Member of Articulator with the keyway portion straddling the Incisal Pin Extension (Figure 22). Firmly attach with Thumbnut from the underside. Should an Orbital Indicator be mounted in this hole, remove and replace with the Card Index.

B. Press a Plastic Record Card over the dowels on the right side of the Card Index. The Plastic Record Cards are matted finished on both sides and readily accept pencil or ink markings.
C. The relatively small divergence between arcs of 3-3/4", 4" and 5", radii over the functional occlusal surfaces on the lower posterior teeth is shown in Figure 24. An average of a 4" radius may be used in the majority of surveyed cases. Variation is only necessary when a pronounced curve of Spee may require a 3-3/4" radius or a flat curve of a Spee requiring a selection of up to a 5" radius.

A view through both lower second molars (Figure 24) illustrates the small divergence between arcs of the same three radii at the functional occlusal surfaces on the curve of Wilson.

D. Insert a piece of Lead into the Bow Compass, tighten the thumb screw and sharpen the Lead to a suitable point. Adjust the Bow Compass to the radius selected (in this instance 4") (Figure 25).

E. Remove the upper cast (Figure 26) without disturbing the Mounting Plate to Articulator relationship which must remain tightened throughout this procedure.
F. Position the center point of the Bow Compass, set at the 4” radius, on the anterior survey point (A.S.P.) which is usually the disto-incisal of the cuspid (Figure 26). If the cuspid is worn flat, the A.S.P. may be at the incisal edge. In any event, this point must be selected as the most desirable to “Beam” the line and plane of occlusion posteriorly. Once selected, it is marked on the cuspid and NOT CHANGED.

With the center point of the Bow Compass positioned on the A.S.P., apply a long arc (about 3”) on the Plastic Record Card. The occlusal plane survey center (O.P.S.C.) will ultimately be located on some point of this arc.

G. Select the posterior survey point (P.S.P.) at the distobuccal cusp of the last molar (Figure 27).

Should no molars exist, replace the upper cast and place soft modeling compound over the lower ridge, closing the Articulator until the Incisal Pin contacts the Incisal Guide in a centric relation. Chill the compound and carve away excess, leaving only compound contacting into the upper fossae (simulating the lower buccal cusp). Remove the upper cast and select a P.S.P. on the modeling compound in the same manner as the P.S.P. was selected on the last molar as described above.

H. Alternate to the molar P.S.P. is a position on the Condylar Element of Articulator at the anterior intersection with the Condylar Shaft (Figure 28). Position the center point of Bow Compass on this condylar posterior survey point (C.P.S.P.) and apply an arc to intersect the arc formed from the A.S.P.
I. Continue with Figure 27 or 28 by substituting the Needle Point for the graphite Lead. Place the center point of the Bow Compass, adjusted to the 4” radius, at the intersection of arcs on the Plastic Record Card (Initial occlusal plane survey center). Sweep the Needle Point over the occlusal surfaces of the lower posterior teeth to see how the arc conforms to the existing occlusal plane. Shift this occlusal plane survey center (O.P.S.C.) on the long arc on the Plastic Record Card, A.S.P. line, until the most acceptable line and plane of occlusion is found. To raise the line and plane of occlusion at the distal end, move the point anterior to the arc intersection. To lower the line and plane of occlusion, move the point posterior of the intersection. By trial and retrial, the ideal survey center forming the most acceptable line and plane of occlusion will be located.

J. Upon thorough and considered study, this will be the best possible line and plane of occlusion for the lower posterior teeth to harmonize with all other factors. The center point of the Bow Compass is now pierced into this ideal O.P. S.C. or the Plastic Record Card and circled with pencil or ink for subsequent relocation. It may be advantageous to mark “R” (right) in the upper corner of the Plastic Record Card for identification (Figure 29).

K. A Plastic Record Card is now placed over the dowels on the left side of the Card Index and marked “L”. Repeat the procedure, commencing with Figure 26 for the left survey.

L. The Scribing Knife, as furnished, is for placement into the Bow Compass for scribing or cutting stone, plaster, compound, or wax during the occlusal plane correction. The edge of the Scribing Knife may be sharpened to individual requirements as the edge supplied may not meet your preference.
CARE AND MAINTENANCE.

Your Whip Mix® articulator is a precision instrument and requires care and maintenance. Periodic cleaning and lubricating as described below will assure prolonged life and dependable service from the instrument. Failure to follow these instructions will void your warranty.

CLEANING- Use a mild soap and water solution with the aid of a brush to dissolve accumulations of wax and to wash away carborundum grit. Then air dry and lubricate. DO NOT use strong detergents, alkalies, gasoline or naphtha as cleaning agents.

LUBRICATION- Lubricate the working and bearing components with a thin film of sewing machine or high speed hand-piece type oil. Wipe off excess oil to prevent accumulation of dust or grit.

A thin coating of petroleum jelly must be applied to all articulator surfaces that will be contacted by the gypsum mounting material.

STORAGE- Store the articulator in a clean, dry atmosphere free of plaster and carborundum dust; away from acids, alkalies or corrosive medicaments. Wait a full day after mounting casts before storing the articulator in a carrying case or corrugated carton. Moisture dissipation from the stone in an enclosed area causes alkalinity of the stone mixture which can damage the articulator surface.

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 of the defect prior to returning the instrument. Whip Mix will, at its option, either repair, replace or issue credit for such defects.

Because Whip Mix is continually advancing the design of its products and manufacturing method, 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.
OPTIONAL ACCESSORIES

EARPIECE FACEBOW.

Utilizes the patient’s external auditory meatus in securing a Facebow record and permits the transfer of the maxillary cast to the Articulator. Item No. 008824-000 is illustrated.

Item No. 008824-000, for 96H2-0.

Item No. 003400-000, Hanau™ Style “C” and “SM” Facebows and the Hanau™ SpringBow are available and listed in our Catalog.

CAST SUPPORT,
Item No. 003401-000

Supports the Bitefork or Biteplane during a Facebow transfer and mounting of the maxillary cast to the Articulator.

PLASTERING STAND,
Item No. 003368-000

For stabilizing the Articulator in an inverted position during the mounting of the mandibular cast in a centric relation.
ADJUSTABLE INCISAL PIN,
Item No. 005053-000

May be adjusted through a 10 millimeter vertical range, while maintaining the precise Incisal Guide axis relationship.

BROADRICK OCCLUSAL PLANE,
ANALYZER, Item No. 006901-000

Used for analyzing the Curve of Spee and the Curve of Wilson and in developing an acceptable curve of occlusion.

REMOUNTING RECORD JIG,
Item No. 003101-000

For preparation of a permanent plaster record, used to accurately remount a maxillary case after processing. Precludes taking of a second Facebow record and transfer.

INSTRUMENT CASE,
Item No. 015601-000

This attractive and durable case has been constructed to protect the Articulator and casts during transfer to or from the laboratory or when in storage.
DISPOSABLE MOUNTING PLATES,  
Item No. 1100026

Holds models securely in place with threaded insert for on/off attachment to the articulator. Supplied for HANAU™/DENAR® ARTICULATORS

SPRING BOW, Item No. 010328-000

Easy to use, may be sterilized by steam autoclave, automatically centers. Captures the record of patient’s maxillary arch and its relationship to the external auditory meatus.