



DENAR® ANAMARK FOSSAE

INSTRUCTION
MANUAL



How To Use This Manual

The following instructions were developed specifically for use of the Anamark Fossae. For complete instructions on use of the Anamark Articulator, including articulator manipulations, hand grasps, face-bow transfer procedure, and cast mounting, consult the Mark II Manual #8407-I. The same basic technique is employed for both styles of articulators.

Please check online at www.whipmix.com for the most current instructions and parts list.

Acknowledgements

The Anamark Fossae were designed to meet the needs of clinicians, dental educators, and practicing professionals seeking a simplified method of articulator adjustment. To accomplish this, the Anamark reduces the number of condylar control adjustments through the use of pre-programmed fossae.

In the process of the Anamark development, we have maintained the highest quality materials and given absolute attention to the details of precision manufacturing to ensure maximum benefit from the instrument.

During the development of the Anamark, we called upon the help of many professionals to whom we are most grateful for both their direction and assistance.

The specifications of the fossae were obtained primarily from Dr. Harry Lundeen and his colleagues at the University of Florida. Dr. Robert Chiappone was very supportive in the clinical evaluations and introduction of the concept to the profession.

Dr. Ron Roth's expertise of the TMJ and gnathological treatment procedures provided us with invaluable direction and input into the Anamark design criteria.

Dr. Peter K. Thomas provided us with the insight in designing the Anamark fossae to offer interchangeability between the Mark II and Anamark Articulators. Incorporation of this suggestion expanded the versa-

tility and potential use of the pre-programmed fossae concept.

Drs. Rex Ingraham and Albert Solnit of the University of Southern California were most helpful in developing a teaching slide series and outlining how to incorporate the DENAR® Mini-Recorder with the Anamark Articulator.

Drs. Eugene Williamson and Frank Curry were also instrumental in the Anamark's introduction. Their evaluation and input contributed greatly towards the refinement of the Anamark.

Whip Mix Corporation is most grateful to Drs. Paul Richardson, Robert Kinzer, and faculty at Loma Linda University. Their combined enthusiasm, support and evaluation assisted immensely in both actual application and the Anamark Fossae Manual.

Whip Mix Corporation is especially pleased to acknowledge these outstanding professionals and commends them for their interest and participation towards the advancement of TMJ and occlusal treatment.

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I. Introduction

Rationale for Development

The Anamark Fossae were designed for those seeking a more simplified method of articulator adjustment. Through the use of pre-programmed curvilinear fossae with built-in immediate and progressive sideshifts, the Anamark effectively reduces the number of necessary condylar control adjustments to provide a rapid, accurate means of setting the articulator.

The pre-programmed fossae concept is based on extensive research and computer analysis of actual condylar paths of movement. Results indicate that patients' condylar movements can be classified into groups by immediate sideshift. Based on this information, averages were established resulting in the formation of two basic fossae with immediate sideshifts of 0.5 mm and 1.0 mm. The progressive sideshift is anatomically averaged into each fossa at 6 degrees. Thus the immediate and progressive sideshifts are automatically set once the pre-programmed fossae are inserted onto the articulator.

Features and Benefits

Convenient

- Saves time in articulator adjustment by reducing necessary condylar adjustments
- Simple to use
- Excellent learning tool



Fig. 1

Versatile

- The Anamark Concept can be easily added to Mark II Articulators by simply inserting the pre-programmed fossae.



Fig. 2

- Anamark users desiring additional fossae adjustments may easily adapt Mark II fossae.

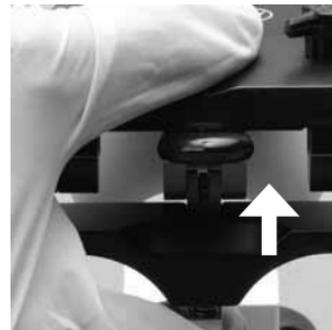
Functional

- The Anamark Fossae provide curvilinear condylar paths which closely simulate actual average anatomic movements.

Centric Latch

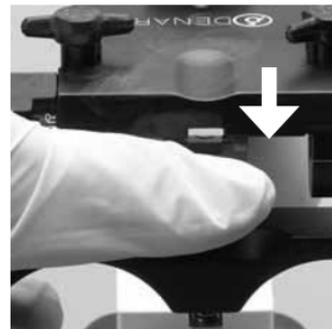
To Unlock:

Place thumb in groove as shown.
With forefinger, push up on latch release.



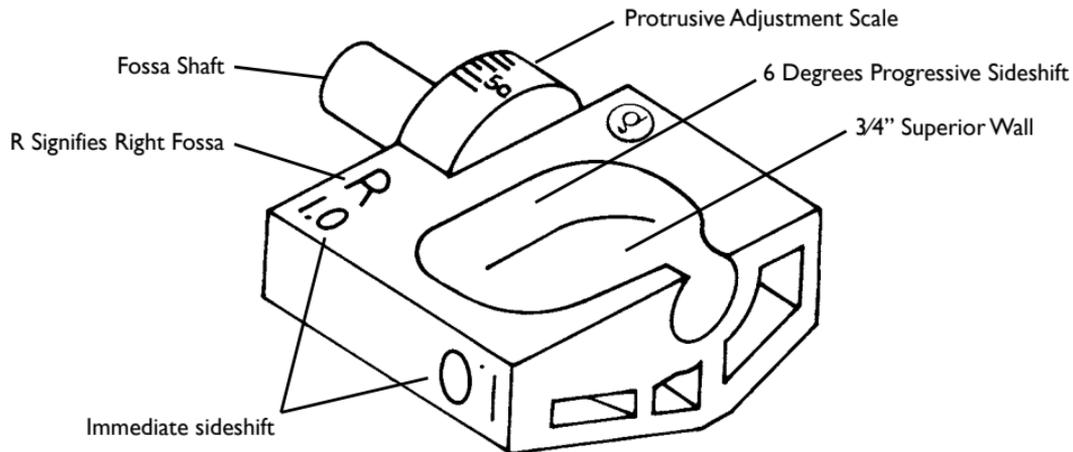
To Lock:

Push latch lever down with thumb.
(Hinging the articulator open will automatically lock the latch.)



II. Diagram of Terms

Before reading the instruction manual, it is a good idea to become familiar with the diagram pictured below.



Enlarged diagram of fossa

III. Utilizing The Anamark Fossae

The Anamark Fossae were designed to provide a simplified method for setting condylar controls. Only the amount of immediate sideshift and the angle of protrusive inclination are needed to set the articulator.

The method that is used to obtain the measurements needed to adjust the condylar controls is to use checkbite records. Details on how to obtain the necessary measurements using checkbite records are described in Chapter IV of this manual. This section describes some general information about fossae selection, as well as instructions for inserting and removing the fossae from the articulator.

Fossae Selection

The amount of the patient's immediate sideshift determines which fossae are to be used. The amount of immediate sideshift is labeled on each fossa (see Fig. 3). It is recommended to select a fossa which has at least the same or more immediate sideshift than the patient. For example, if the patient's immediate sideshift is 0.7 mm, the 1.0 mm fossa should be used. Accordingly, a recording between zero and 0.5 mm would require the 0.5 fossa.



Fig. 3

The larger fossa provides more tolerance in eccentric movements, reducing the chance of balancing interferences.

In some instances, the right and left condyles may have different immediate sideshift measurements. In such cases, different fossae corresponding to the different sideshift may be required. The immediate sideshift recorded on the patient's left side would then be transferred to the left side of the articulator and vice versa.

Once the fossae have been selected, the progressive sideshift angle has automatically been set

as this angle is anatomically averaged into the pre-molded fossae.

Fossae Insertion

Remove the upper bow of the articulator. Then loosen the protrusive adjustment lockscrew by turning the thumbscrew counterclockwise until the fossa moves freely (Fig. 4).

To remove the fossa, grasp the fossa and pull outward while simultaneously rotating the fossa in an up and down motion (Fig. 5).

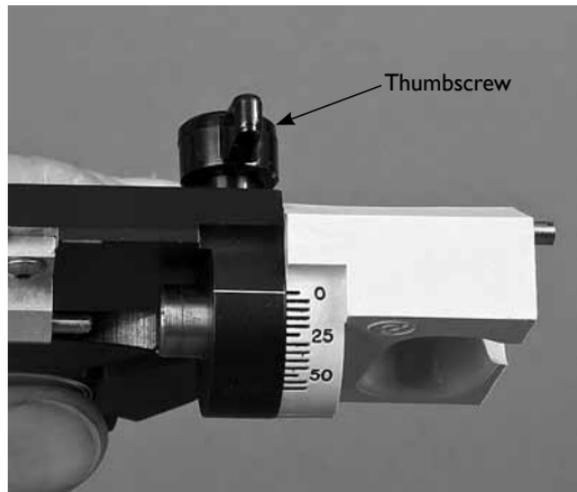


Fig. 4

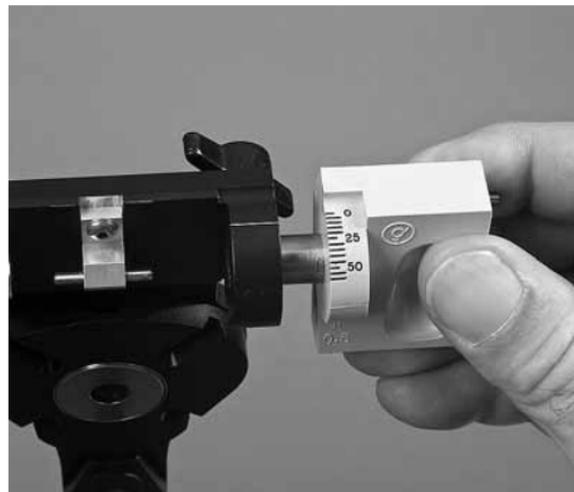


Fig. 5

Then grasp the desired fossa by holding the fossa so that the fossa shaft is facing inward toward the articulator (Fig. 6).



Fig. 6

The fossa should slide easily into the fossa shaft opening with a small amount of rotating movement (Fig. 7). In some instances, there may be difficulty

inserting the pre-programmed fossa into a standard Mark II Articulator and factory adjustments may be necessary. In such cases, please contact Whip Mix Corporation for additional information.



Fig. 7

Make sure that the fossa is flush against the articulator. Do not tighten the lock screw. Repeat this process to insert the second fossa. (When inserting the fossae, remember that the left fossa corresponds to the patient's left and vice versa).

Protrusive Adjustment

Now that the fossae have been inserted and the immediate and progressive sideshifts are automatically set, it is simply a matter of adjusting the protrusive setting. To set the protrusive adjustment, rotate the protrusive degree scale on the fossa until the index mark is opposite the desired degree angle (Fig. 8). Then, tighten the protrusive adjustment lock screw to secure the fossa in place.

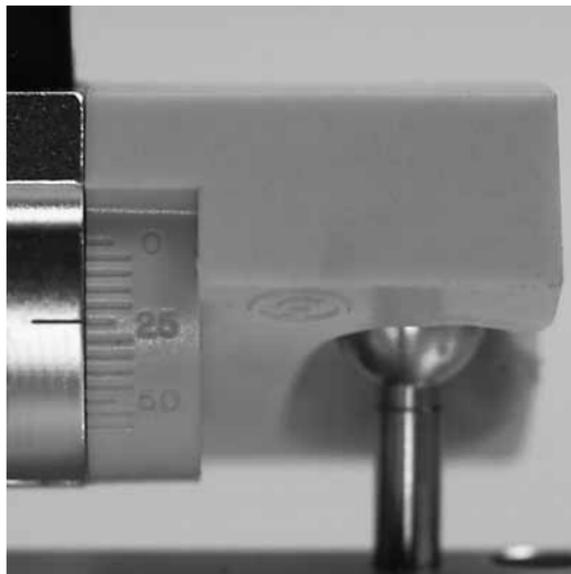


Fig. 8

IV. Setting Condylar Controls to Checkbite Records

To set the articulator to checkbite records, both the maxillary and mandibular casts must be mounted onto the articulator (see Chapter VI of Mark II Manual). Right and left lateral checkbite records and a protrusive checkbite are also needed.

Immediate Sideshift

Fossae Selection

To determine the correct fossae to be used in the checkbite method, first insert the 1.0 mm fossae on both sides of the articulator. These fossae are used as a starting point.

Next, set the protrusive condylar path on both sides to 0° by rotating the degree scale on the fossae until the 0° mark is lined up with the index mark opposite the scale (Fig. 9). Do not tighten the lockscrew.

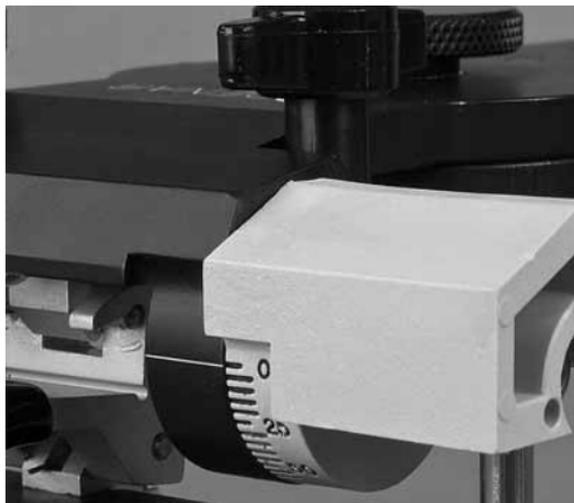


Fig. 9

Seat the right lateral checkbite record on the mandibular cast. Firmly seat the maxillary cast in the checkbite record by grasping the maxillary cast as illustrated in Fig. 10 or by applying pressure to the top of the upper bow to immobilize the maxillary cast (due to the fact that the articulator has the rotating condylar paths built to average anatomic dimensions, impingement of the rotating condyle against its rear and

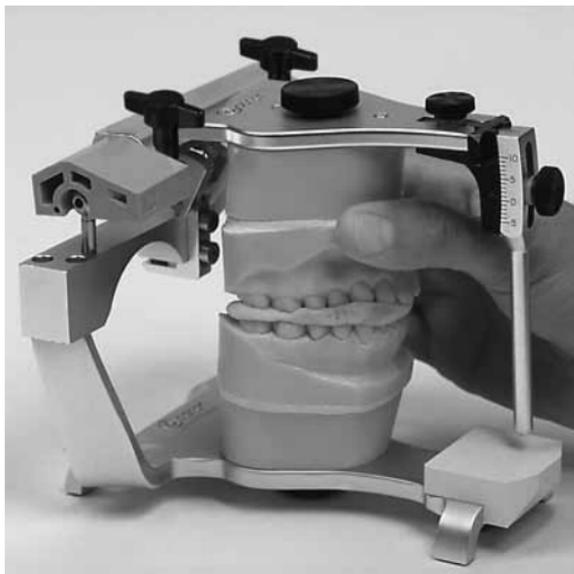


Fig. 10

superior fossa walls may sometimes prevent complete seating of the maxillary cast in the checkbite record). At this time the left condyle is positioned inward, downward, and forward from its centric related position (Fig. 11). Increase the inclination of the left protrusive condylar path until the superior wall of the fossa contacts the top of the condyle (Fig. 12). Record the number of degrees of this fossa inclination.



Fig. 11

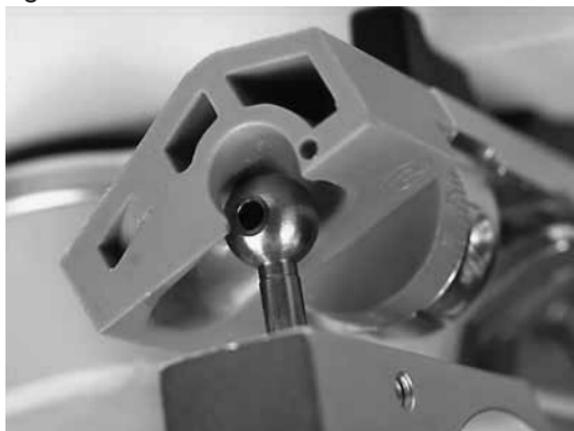


Fig. 12

The next step is to determine the amount of immediate sideshift and to select the correct fossae. With the right lateral checkbite record firmly in place and the left protrusive adjustment lock screw loose, rotate the left fossa back and forth and pull out laterally until the medial wall just touches the condyle (Fig. 13). (Note: The fossa inclination just recorded should be maintained when the medial wall touches the condyle).

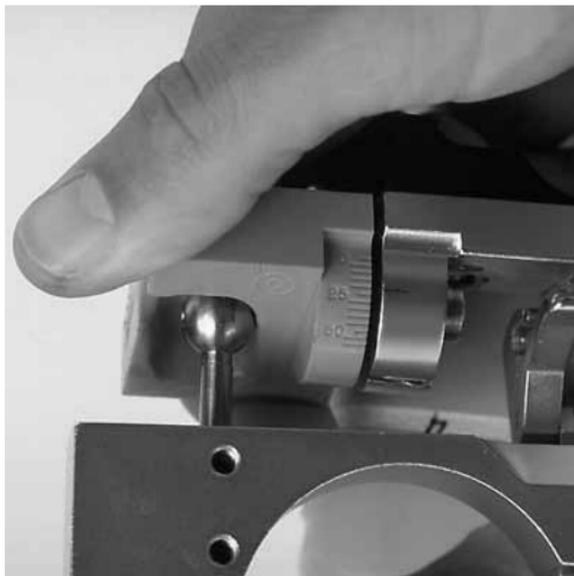


Fig. 13

If there is more than 0.5 mm of space between the fossa and the bow of the articulator, change to the 0.5 mm fossa and repeat the procedure. Once there is less than 0.5 mm of space, the proper fossa has been selected. Repeat the procedure for the left lateral checkbite to determine the immediate sideshift of the right condyle and the correct fossa to be used on the right side of the articulator.

Record the articulator settings on the patient's record.

Note: It is the adjustment of the right medial fossa wall medialward that allows for a mandibular sideshift to the left as the right condyle moves medially to bear and move against its medial fossa wall. Therefore, when the operator writes on the patient's record "right immediate sideshift 1.0" the reference is to the articulator and not to the side to which the mandible moves. The right articulator adjustment will allow for a mandibular sideshift to the left. The articulator's right side is the right side of the articulator as viewed from the rear of the articulator.

Protrusive Angle

To set the protrusive angle, again loosen the lock-screws of the protrusive adjustment on both sides of the articulator. Set the protrusive condylar path inclinations to zero degrees. Do not tighten the lock screws. Seat the protrusive checkbite record on the mandibular cast and seat the maxillary cast in the checkbite record. Apply downward pressure to the maxillary cast or upper bow to stabilize the maxillary cast in the record. Note that the condyles do not contact their superior fossa walls. Increase the inclination of the protrusive condylar path on both fossae until the superior fossa walls contact their respective condyles (Fig. 14). Lock the protrusive adjustment lock screws (Fig. 15).



Fig. 14

The inclinations of the patient's protrusive condylar paths have now been diagnosed. Record the protrusive condylar path settings on the patient's record.

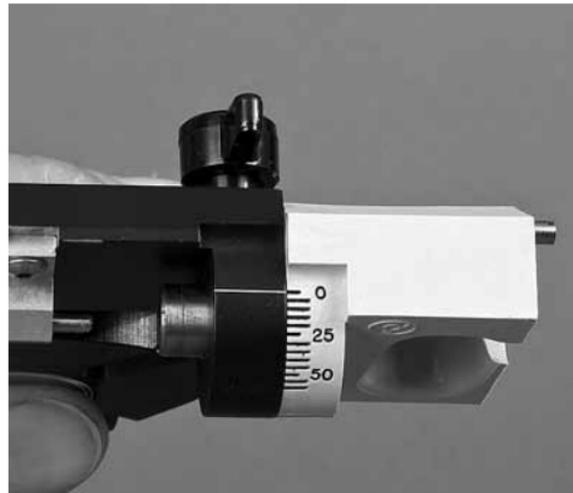


Fig. 15

Appendix A

The Denar® Slidematic Facebow

The Denar® Slidematic Facebow (Fig. 16) provides a fast, easy, and extremely accurate means of transferring the proper anatomical relationship to the articulator.

- The precision manufacturing of the unique “speed-slide” gear mechanism makes it very quick and easy to assemble the bow on the patient.
- The right and left arms of the measuring bow are geared to precise equidistant movement from the center of the bow.
- The scale on the measuring bow represents half of the patient’s intercondylar distance (not the interbow distance) for ease in setting articulators having this adjustment.
- The Slidematic facebow can be used on all Denar articulators.
- The bow uses the external auditory meatus reference point for determining the arbitrary hinge axis location.
- The built-in reference pointer aligns the bow with the horizontal reference plane.
- The measuring bow need not be mounted on the articulator during the transfer procedure. The bow, when detached from the reference pin, can be used again immediately with additional transfer jigs (reference pin, bitefork assembly and articulator index).

In this manner, the maxillary casts may be mounted at any time.

- In one step the bitefork assembly is secured to the articulator index and the maxillary cast can be mounted to the articulator.
- All finger screws are easily accessible from the front.
- The procedures can be readily delegated to auxiliary personnel.



Fig. 16

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 methods, 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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