Slidematic Facebow

Instruction Manual

ROHL1008 Rev B 06/2026

Table of Contents

DENAR SLIDEMATIC FACEBOW

I. Rationale for Development

Based on in-depth analysis of the facebows on the market engineers in conjunction with several leading clinicians and educators prepared a list of criteria for the development of this new facebow.

The Slidematic Facebow was designed to satisfy the following requirements:

- An accurate earbow that moves straight horizontally for different facial widths, unlike the caliper type that moves off the vertical axis.
- A minimal number of parts and finger screws to permit a facebow registration to be taken in less time.
- The ability to send the bitefork assembly (without the measuring bow) to the laboratory, preventing damage to the bow in transit.
- Ease of mounting the maxillary cast by not having to transfer the measuring bow to the articulator.
- The capability of taking multiple facebow records at the lowest possible cost using only one measuring bow and different bitefork assembly for each case.

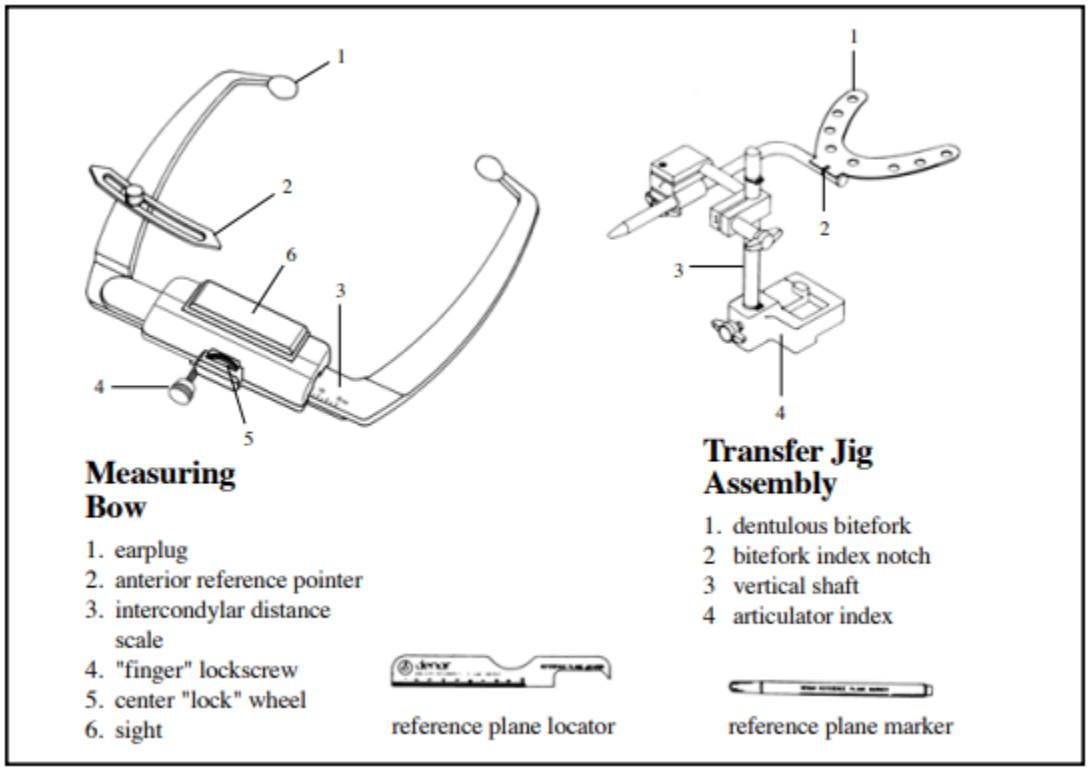
II. Benefits and Features

Facebow Transfer
The facebow transfer procedure establishes the relationship of the maxillary dentition to the horizontal reference plane so that the maxillary cast may be mounted on the articulator in the correct anatomical position. The Slidematic Facebow 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 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 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. It is also compatible with Whip Mix® and Hanau™ articulators with an adapter.
- 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 built-in sight can be used to view the anterior reference point.

- The measuring bow should not be mounted on the articulator during the transfer procedure. The bow, when detached from the vertical shaft, can be used again immediately with the additional transfer jigs (vertical shaft, bitefork assembly and articulator index). In this manner, the maxillary cast may be mounted at any time.
- In one step the bitefork assembly is secured to the articulator index and 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.
- For a further breakdown, refer to Denar® Slidematic Facebow Parts List #8815-1.

A Slidematic Facebow parts are shown below:



Sterilize bitefork before each use.

III. Slidematic Facebow Procedure

Mark the anterior reference point on the patient's right side using the Reference Plane Locator and Marker. The point is 43 mm above the incisal edge of the right central or lateral incisors. (*Figure 1a and 1b*)

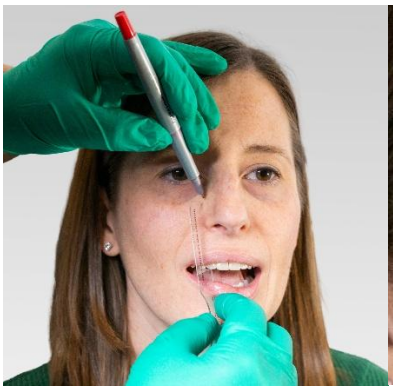


Figure 1a

Figure 1b

On an edentulous patient, measure up from the lower border of the upper lip when it is in repose.

Cover the metal prong with a ridged bite registration material. With the bitefork stem to the patient's right, place the fork in the mouth, aligning the patient's midline with the index notch, so that it is parallel with the patient's coronal and horizontal planes. (*Figure 2*)

Figure 2

Be certain to obtain a light indexing of the patient's maxillary arch.

In order to achieve minimal time to complete the facebow registration technic and for the patient's comfort, do some preliminary work before seating the patient. Assemble the parts for the registration and have them within easy access. (*Figure 3*)

Figure 3

Attach the transfer assembly ahead of time. Attach the vertical shaft to the measuring bow with the clamp marked #2 on the patient's right and tighten the finger screw (*Figure 4*). It is necessary to tighten this finger screw to secure the vertical shaft to the measuring bow and also to avoid movement. This same movement will occur after inserting the vertical shaft in the articulator index as shown in *Figure 14*. Be sure to tighten the finger screw.

Figure 4

Loosen the finger screws on the clamps marked #1 and #2 on the vertical shaft. (*Figure 5*)

Figure 5

With your thumb, loosen the center wheel on the top of the measuring bow and slide the bow open to accommodate the width of the patient's face. Assemble the facebow on the patient by sliding the bitefork stem through the hole in clamp #2 as the measuring bow's earpieces are placed in the patient's auditory meatus. (*Figures 6a and 6b*)

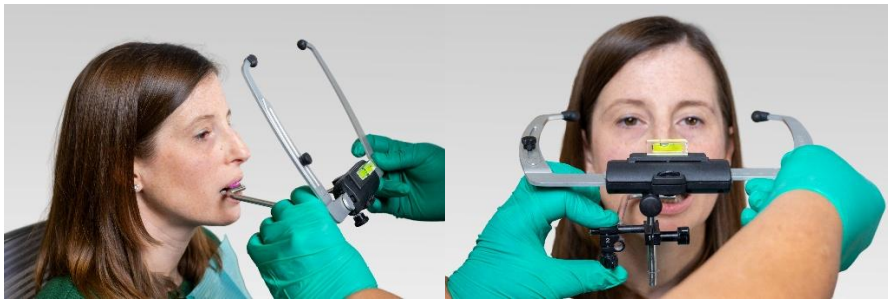


Figure 6a *Figure 6b*

Tighten the center wheel on the measuring bow and loosen the finger screw on the anterior reference pointer. (*Figure 7*)

Figure 7

Raise or lower the bow so that the pointer or sight aligns precisely with the anterior reference point, *Figure 8*, and tighten clamp #1, then clamp #2.

Figure 8

When tightening clamps #1 and #2, care must be taken not to displace the bow to either side by having the vertical shaft rest on the fingers as shown in *Figure 9*.

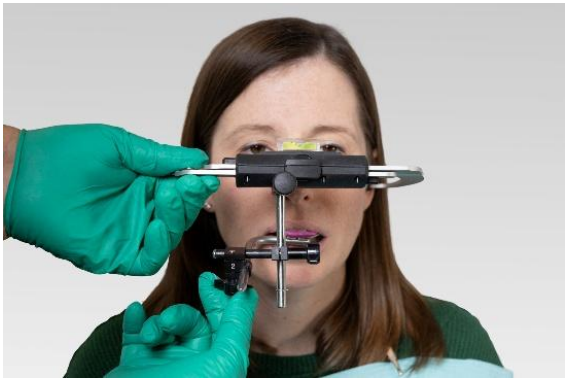


Figure 9

NOTE: If using a fully adjustable articulator, (Denar D5A), the patient's inter-condylar distance can be determined by using the measurement scale located on the top side of the facebow arm. Record this measurement.

The completed facebow registration: (*Figure 10*)

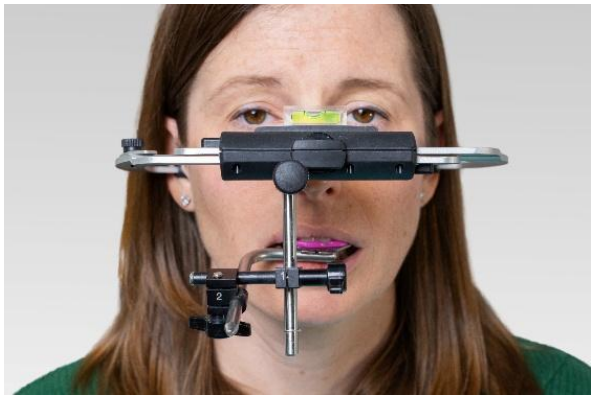


Figure 10

Removing the facebow registration:

Loosen the finger screw on the measuring bow, slide the bow open, and remove the entire facebow from the patient.

Detach the measuring bow from the transfer jig by loosening the finger screw. (*Figures 11a and 11b*)

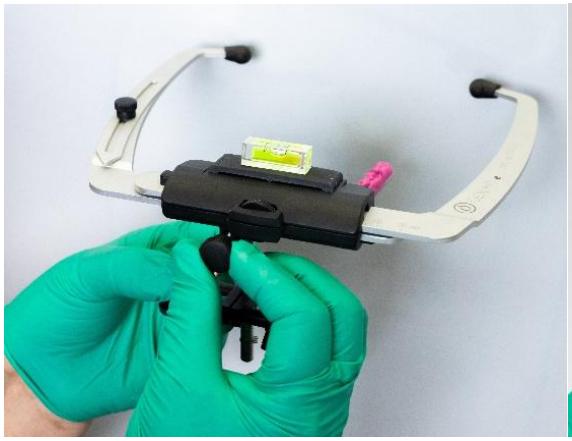


Figure 11a

Figure 11b

To prevent accidental movement of the completed registration during shipping or mounting procedures, it is recommended that you provide additional tightening of the transfer assembly. **NOTE:** This should be accomplished before the patient is dismissed. (*Figures 12a and 12b*)

Figure 12a

Figure 12b

Having completed the procedures involving the patient, the bitefork assembly may be labeled with the patient's name and set aside while the measuring bow portion can be used with an additional bitefork assembly for the next patient.

NOTE: The metal bitefork, vertical shaft and earpieces can be sterilized in an autoclave EXCEPT for the black finger screws on the #1 and #2 clamps. Remove the finger screws (and spacers) before autoclaving or use cold sterilization.

Sterilize bitefork before each use.

IV. Mounting Procedure:

A benefit of using the Denar® Slidematic Facebow is that multiple transfer jigs may be used with only one measuring bow. In some cases, the mounting of the maxillary cast can be delegated to the laboratory, involving no loss of accuracy and no period of time without facebow transfer capability in the dental office. The laboratory can attach an articulator index to its own Denar® articulator and mount the maxillary cast using only the bitefork assembly from the dental office. Each articulator index positions the bitefork assembly on any Denar® articulator so that the relationship with the condyles recorded on the patient is accurately reproduced on the articulator.

Denar Articulator Index

Replace the incisal table on the articulator with the articulator index. Notice that the index does not slide all the way back in the slot of the lower articulator frame. (*Figure 13*)

Figure 13

With the numbers on clamps #1 and #2 in the upright position, secure the vertical shaft of the bitefork assembly in the hole of the articulator index. Make sure the vertical rod seats completely inside the hole of the articulator index. Tighten the finger screw on the front edge of the index. (*Figure 14*)

Figure 14

The incisal pin should sit on top of the slide insert on the articulator index. (*Figure 15*)
NOTE: With the newer design, the Denar Articulator Index is in a fixed position.

Figure 15

Hanau Articulator Index
Remove the mounting plate from the lower member. Using the lower member thumbscrew attach the Hanau index with the transfer assembly hole to the front of the articulator. With the numbers on clamps #1 and #2 in the upright position, secure the vertical shaft of the bitefork assembly in the hole of the Hanau index. Tighten the finger screw on the front edge of the index. (*Figure 16*)

Figure 16

If using a Whip Mix articulator, you will need the Whip Mix Screw-type Index (item #200088)
Remove the mounting plate from the lower member. Using the lower member thumb screw attach the Whip Mix screw-type index with the transfer assembly hole to the front of the articulator. With the numbers on clamps #1 and #2 in the upright position, secure the vertical shaft of the bitefork assembly in the hole of the Whip Mix screw-type index. Tighten the finger screw on the front edge of the index. (*Figure 17*)

Figure 17

If using a Whip Mix articulator with magnets, you will need the Whip Mix Quick Mount Index (item # 200088Q)
Remove the mounting plate from the lower member. Place the Whip Mix Quick Mount index over the magnetic mounting base with the transfer assembly hole to the front of the articulator. With the numbers on clamps #1 and #2 in the upright position, secure the vertical shaft of the bitefork assembly in the hole of the Whip Mix Quick Mount index. Tighten the finger screw on the front edge of the index. (*Figure 18*)

Figure 18

Mounting The Maxillary Cast

Attach a mounting plate to the upper member. Be sure that the incisal pin is at the zero position and that the upper member is level and parallel to the tabletop. (*Figure 19*)

Figure 19

Place the maxillary cast in the bite registration index on the bitefork and close the articulator to check for adequate clearance between the base of the cast and the mounting plate. (*Figure 20*)

Use a maxillary cast support to prevent accidental torquing of the bite fork. (*Figure 21*)

Figure 20 & 21

Apply Mounting Stone to the cast and mounting plate, *Figure 22*. We recommend using a 2-step mounting technique. Once the stone has set, remove the transfer jig and replace the incisal table in the articulator.

Figure 22

Mounting The Mandibular Cast
Attach a mounting plate to the lower member. A centric relation checkbite record is used to mount the mandibular cast.
NOTE: It is recommended to make a centric relation bite record for mounting upper and lower casts. (*see Dawson's Functional Occlusion textbook*)

Setting the incisal guide pin using a CR Bite Record.
Using a pen, draw a thin line on the base of the upper and lower casts directly above the central incisors.

Carefully hand articulate the cast into the MIP position.

Using a millimeter ruler or Digital Boley Gage, measure the distance between the two lines. (*Figure 23*)

Figure 23

Carefully place the CR bite record onto the upper cast. (*Figure 24*)
NOTE: If the doctor has provided you with a CR bite record using the Denar Bite Registration Wax, be cautious of its brittle nature.

Figure 24

Gently place the lower cast into the CR record. While holding the two casts together, measure the distance between the two lines. (*Figure 25*)

Figure 25

The difference between the two measurements will be the amount you will raise the incisal guide pin. (i.e. if the MIP measurement was 30 mm and with the CR Bite Record it was 32 mm, you would raise the pin 2 mm). Always raise the pin in a positive direction; above the zero mark. (*Figures 26a and 26b*)

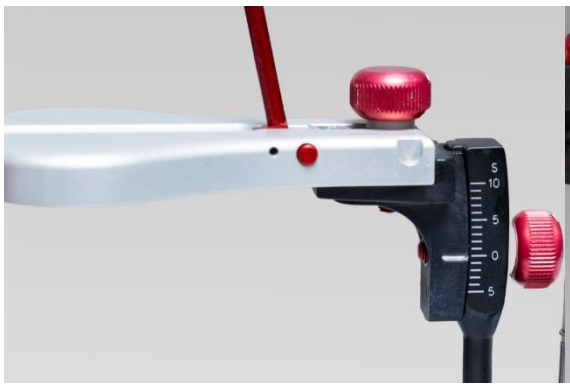


Figure 26a

Figure 26b

Stabilize the position of the casts with non-flexible rod (ex: heavy duty paper clip or coat hanger wire) Secure the two casts together with the CR record in place, and complete mounting. The casts can be carefully repositioned to the upper member to complete the mounting. (*Figures 27a and 27b*)

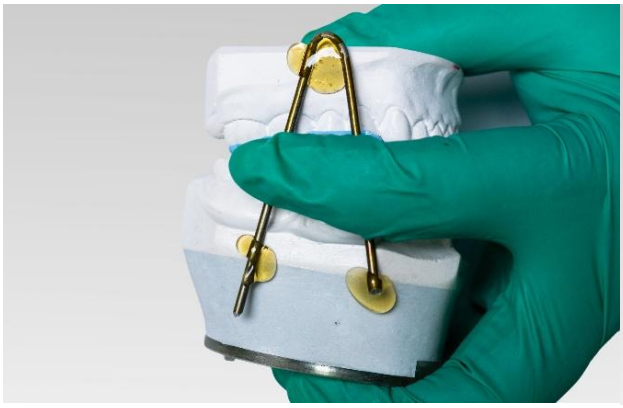


Figure 27a

Figure 27b

Engage the centric latch to be ensure that the condyles are seated against the rear and tops of the fossae. Use a recommended mounting stone to mount the mandibular cast to the mounting plate on the articulator.

The completed mounting permits closure of the casts to contact in centric relation. (*Figure 28*)

Figure 28

V. Slidematic Accessories:

The Slidematic uses either a dentulous or edentulous bitefork. The Slidematic Facebow can be used with other articulators and indexes are available for the Hanau™ and Whip Mix® models.

VI. Reordering

Standard Biteforks

Part No. 200029 Dentulous
200030 Edentulous

Articulator Indexes

Part No. 200080 Denar®
200082 Hanau™
200088 Whip Mix®
200088Q Whip Mix® QuickMount

Other

Part No. 200009-1 Transfer Jig Assembly
200007 Bitefork/Shaft Assembly
101217 Maxillary Cast Support

Cleaning Procedure:

If there is any debris on the device, be sure to remove debris before the cleaning process. Use a soft bristle brush and cold running water to remove any debris. After debris removal follow the guidelines below.

- Clean the face-bow apparatus before each use.
- A finger cot can be placed over each earpiece, or use an alcohol wipe to clean earpieces and nasion support (if included).
- Use lint-free cloth to dry

Sterilization of Bite Fork and Shaft:

Sterilization of equipment, methods, and parameters vary greatly from facility to facility therefore Whip Mix Corporation cannot guarantee sterility of our dental devices, but using the below guidelines should provide sterility for the bite fork and shaft.

If there is any debris on the bite fork, be sure to remove debris before the sterilization process using the cleaning guidelines described above.

- The bite fork and shaft should be sterilized before each use.
- Do not autoclave the Face-bow or Transfer Jig.

Sterilize the Metal bite fork and shaft using the following parameters and following the autoclave manufacturer's instructions.

Bite fork and shaft Sterilization parameters

Type of Sterilizer	Load Configuration	Exposure time at 132°C (269°F)	Exposure time at 134°C (270°F)	Drying Time
Vacuum or Gravity Displacement	Nonporous items only	≥ 4 Minutes	≥ 3 Minutes	15- 30 minutes

VII. Warranty:

Refer to the website: www.whipmix.com

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

Symbols and Their Descriptions:

SYMBOL	DESCRIPTION
	Manufacture by
CE	CE marking
MD	Medical Device
	Importer
EC REP	EU Authorized Representative
LOT	Lot number
REF	Item Number or Model Number
	eIFU- Electronic Instruction For Use
UDI	Unique Device Identifier

Whip Mix Corporation, 361 Farmington Avenue, Louisville, Kentucky, USA, 40209
Phone: 502-637-1451, www.whipmix.com