

# Pro Arch IG

MEAN VALUE ARTICULATOR



**Instructions for Use**



# Shofu Pro Arch IG

## MEAN VALUE ARTICULATOR

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## Introduction

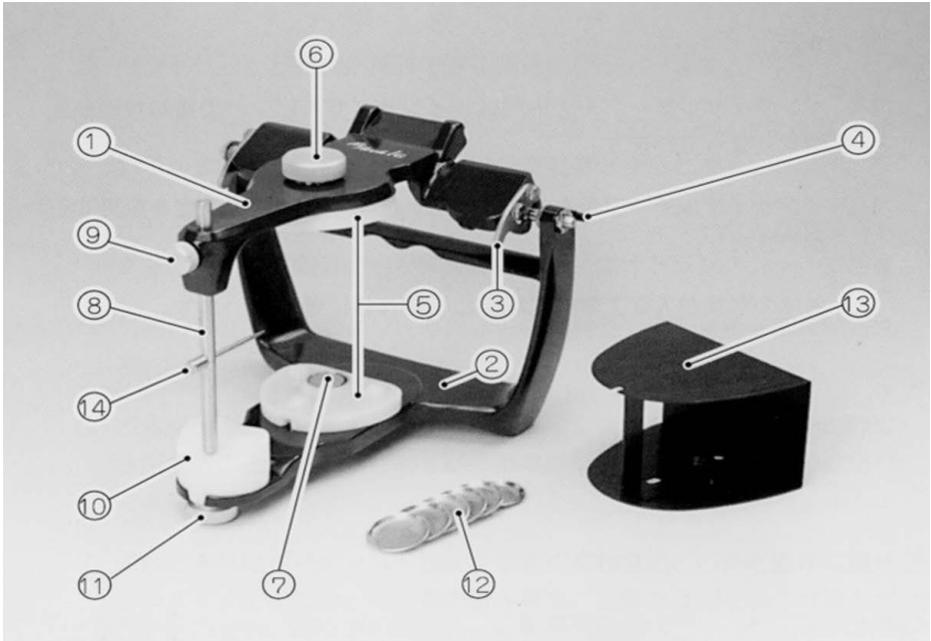
Shofu arcon-type articulators, Pro Arch series have been designed to facilitate fabrication of elaborate and accurate dental prostheses that match precisely with patient's natural jaw movement.

The mean value articulator, Pro Arch IG is the simplest model of our Pro Arch series, carefully designed based on the mean values of natural jaw movement to provide easy operation in a busy clinical practice.

# Features

- 1 This arcon-type articulator is similar to the human jaw structure, which provides easy comprehension of jaw movement and excellent handling properties.
- 2 Easy to obtain centric registration.
- 3 The Incisal pin has a notch that precisely stops at 0 position to reproduce accurate centric occlusal position.
- 4 The ear location pin and reference indicator enables accurate transfer of patient's natural head position using face bow.
- 5 The occlusal plate makes it easy to mount a cast using a mean value of head position.
- 6 A cast can be mounted easily using the occlusal plane as a reference. The guideline marked on the occlusal plate enables accurate positioning of the cast.
- 7 The die-cast framework is lightweight and designed with high precision. Its robust structure is free from flexure and the resin coating provides a durable surface finish.
- 8 A mounting plate for the lower jaw is 8mm behind the plate for upper jaw, which provides natural head position to mount a cast easily.
- 9 Precise remounting and easy removal of cast can be achieved with the powerful Magnetic Split cast Mounting Plate (MSMP). Ordinary mounting plates can also be used.
- 10 Releasing the Centric Lock Levers can separate upper and lower jaw.
- 11 Upper jaw can be opened up to 120° and stays in position for easy handling
- 12 The incisal indicator can also be used as a reference for tooth arrangement.
- 13 The shape of incisal table makes it easy to check the contact between incisal pin and table.
- 14 Incisal table is replaceable to change the incisal path angle.
- 15 Each part is ergonomically designed for easy handling.

# Identification of Parts



- |  |   |
|--|---|
| ① Upper Jaw  | ⑧ Incisal Pin                             |
| ② Lower Jaw  | ⑨ Incisal Pin Screw                       |
| ③ Centric Lock Lever                                     | ⑩ Incisal Table 10°                       |
| ④ Ear Location Pin                                       | ⑪ Incisal Table Screw                     |
| ⑤ Magnetic Split cast<br>Mounting Plate (MSMP)<br>Single | ⑫ Cast Plate                              |
| ⑥ Mounting Ring Screw                                    | ⑬ Occlusal Plate<br>(for IG, IIG, III EG) |
| ⑦ MSMP Magnet  | ⑭ Incisal Indicator                       |

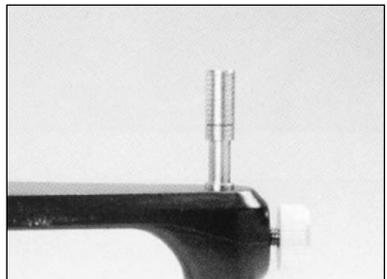
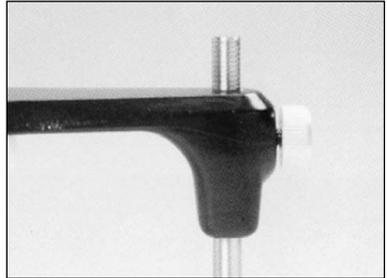
# Directions for Use

## STEP 1 Before mounting a cast

- 1 Lock in centric position using the Centric Lock Lever.



- 2 Check if the Incisal Pin scale is set to "0". A notch in the Incisal Pin helps the pin to stop precisely at the "0" every time to ensure accurate occlusal position.



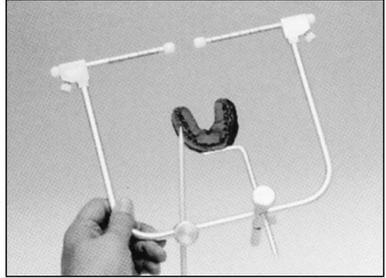
## STEP 2 Positioning the upper cast

### A. USING PRO ARCH FACE BOW

- 1 Each patient's unique maxillary dentition can be easily transferred with the use of Pro Arch Face Bow on the basis of patient's skull and temporomandibular joint.

(See the instruction manual for Pro Arch Face Bow for further details.)

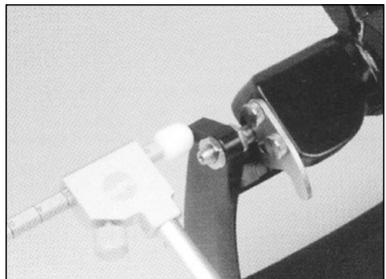
*Pro Arch IG does not require measurement with the Anterior Reference Pin.*



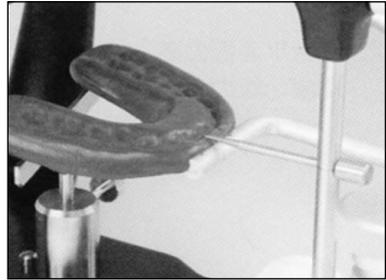
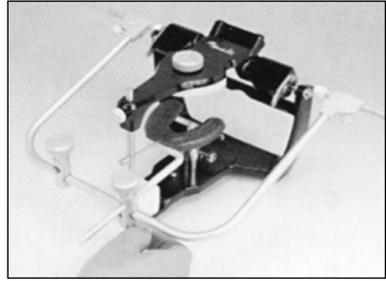
- 2 Remove the Magnetic Split Cast Mounting Plate (MSMP) on the lower jaw and replace it with the Cast Support (optional item).



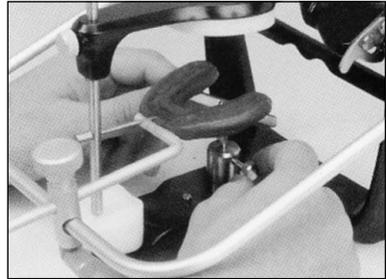
- 3 Attach the Face Bow's Ear Rods to the Ear Location Pins on the articulator. This gives the posterior reference points.



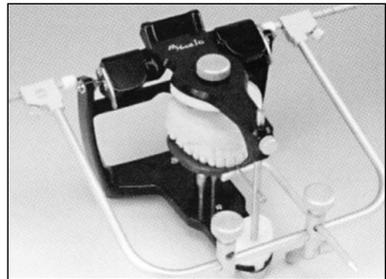
- 4 To obtain the vertical alignment at the front part of the Face Bow, adjust the maxillary central incisal edge at the height of Incisal Indicator. Then adjust the Elevating Rod and secure it with the Elevating Rod Screw.



- 5 Hold the bite fork of the Face Bow from below with the Cast Support.



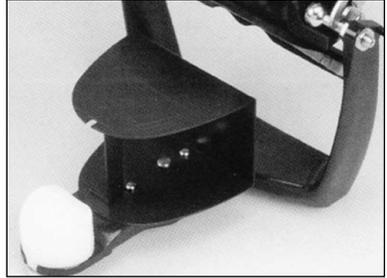
- 6 Match the registration on the upper surface of the bite fork with the occlusal surface of the upper cast for accurate positioning of the upper cast.



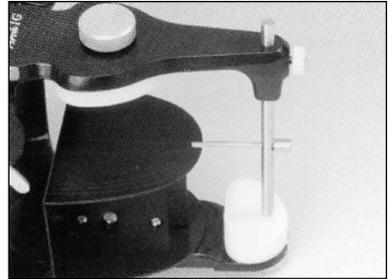
## STEP 2 Positioning the upper cast

### B. USING OCCLUSAL PLATE

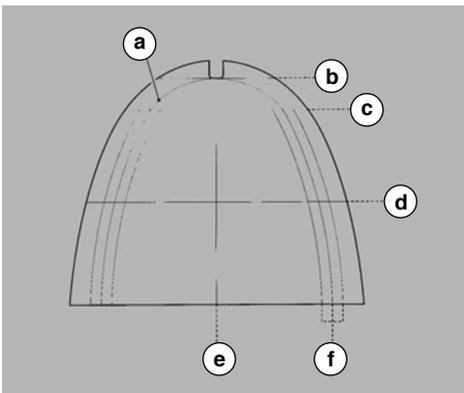
1 The use of an occlusal plate with a mean value is the easy alternative to the Face Bow. First, remove a Magnetic Split Cast Mounting Plate (MSMP) from the lower jaw and replace it with the Occlusal Plate provided.



2 The height of the Occlusal Plate is designed to be the average vertical position of the maxillary central incisal edge, which makes it easier to position the upper occlusal rim and cast.



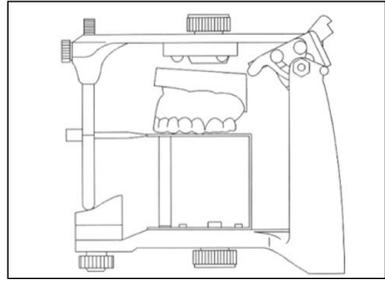
3 On the upper surface of the Occlusal Plate, the median line, ideal arch for the maxillary anterior dentition, the average anteroposterior position of the cuspids and the center of the first molars are indicated.



- a. Ideal arch for the upper anterior teeth
- b. Maxillary anterior incisal edge
- c. Cuspids
- d. Center of the first molars
- e. Median line
- f. Lines of reference for posterior wax occlusal rim (S, M, L)

**4 Using the occlusal plane as a reference plane**

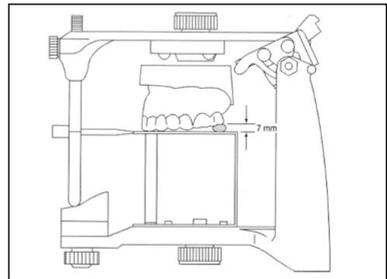
When positioning upper cast and wax occlusal rim with the occlusal plane as a reference plane, the ideal arch for the upper anterior teeth and the median line should be matched with upper labial side and midline of the wax rim.



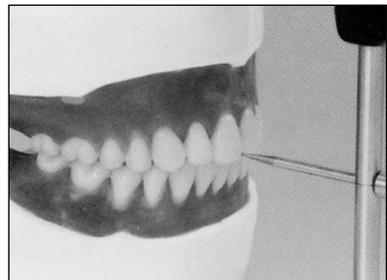
Based on one of the reference lines selected among S, M and L for posterior wax rim, the buccal side of wax rim should be symmetrically positioned. Check the position of the wax rim from above and behind.

**5 Positioning the wax rim based on the mean value of natural head posture**

When applying the mean value of natural head posture to position the wax rim, the Occlusal Plate will be used. In this case, using beading wax, raise the distobuccal cusps of the upper second molars about 7mm higher than the Occlusal Plate, so that the occlusal plane angle can become approximately 10 degree.

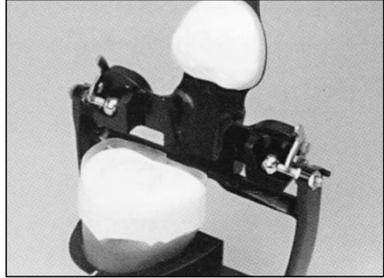


**6** When the median line of the articulator and the upper cast have been matched for mounting the cast, arrangement of the upper central incisors can be checked with the Incisal Indicator. Before checking, make sure the Incisal Indicator is pointed to the median direction using the Occlusal Plate.



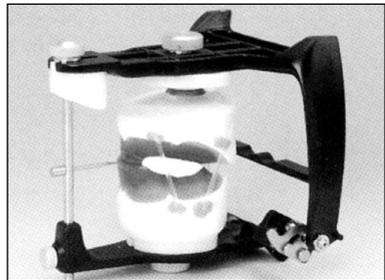
### STEP 3 Mounting the upper cast

- 1 When positioning of the upper cast is complete, sufficiently moisten the basal surface of the cast and place an adequate amount of plaster.
- 2 Place plaster at the undercut of the Cast Plate.
- 3 Close the upper jaw gently until the Incisal Pin comes in contact with the Incisal Table. Remove the excess plaster and let plaster set.



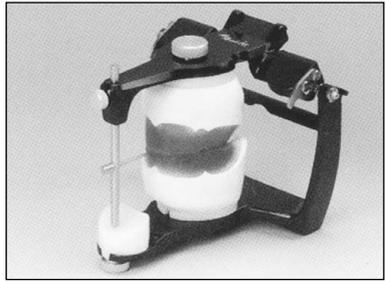
### STEP 4 Mounting the lower cast

- 1 With the Centric Lock Lever fastened, turn the articulator upside down, position the lower cast on the basis of centric occlusal registration.
- 2 Double investing technique is effective to minimize the distortion in centric occlusion due to expansion of cast during setting.
- 3 Close the articulator gently until the Incisal Pin comes in contact with the Incisal Table. Remove the excess plaster and let plaster cure. An elastic band can be used to minimize the expansion of cast during curing.



**Mounting of the upper/lower cast is complete...**

When mounting of both upper and lower casts are complete, put the articulator back in place and check if the Incisal Pin is in contact with the Incisal Table.

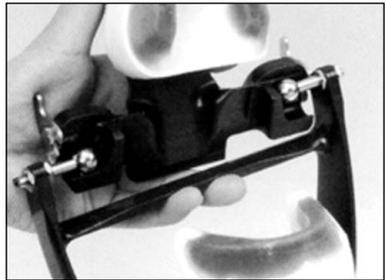
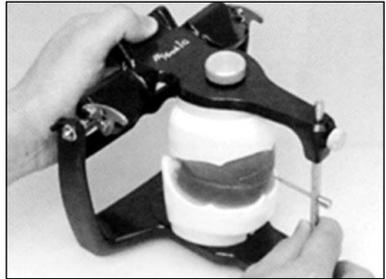


# Caution

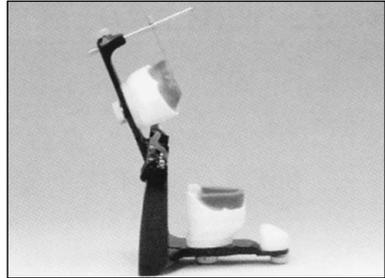
- 1 When releasing the Centric Lock Levers, make sure to release both left and right levers.



- 2 Lateral movement should be performed with the balancing side condylar ball coming in contact with the balancing side lateral condylar guidance.



- 3 When the articulator is open with the Centric Lock Levers released and condylar path facing down with Guide Plates (Twin Plates) unattached, rest the rear end of the upper jaw on the stabilizer bar of the lower jaw to prevent the upper jaw from falling back.



- 4 Avoid contact of wax or plaster with the Condyle or Condylar Guide. In case of accidental contact, remove the wax or plaster immediately. Spraying SHOFU HI-SOL on the working parts will prevent contact of wax or plaster. Regular cleaning and occasional lubrication on all the working parts are essential.

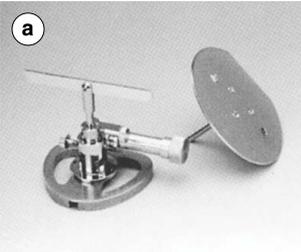
# Specifications

<b>Type</b>	Arcon type
<b>Distance between condyles</b>	110mm
<b>Distance between upper and lower jaws</b>	110mm
<b>Maximum opening angle</b>	120°
<b>Angle of sagittal condylar path</b>	30°
<b>Angle of lateral condylar path</b>	15°
<b>Incisal Table</b>	10° for anterior and lateral (0°, 5° and 15° available as optional)
<b>Incisal Pin</b>	with Incisal Indicator
<b>Mounting / removal of cast</b>	MSMP and Cast Plate (Mounting Ring can be also used)
<b>Face Bow transfer mechanism</b>	With Ear Location Pin Condylar ball rod with a hole on the front edge

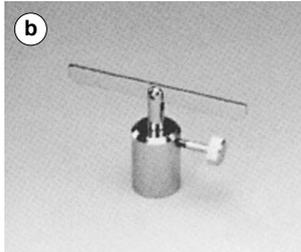
# Accessories

- Incisal Tables 10°
- Cast Plates (6 plates)
- Occlusal Plates (for IG, IIG, III EG)

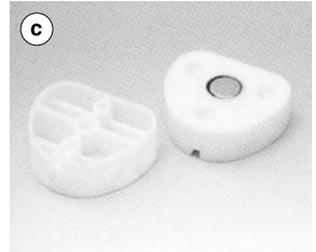
## OPTIONAL ACCESSORIES



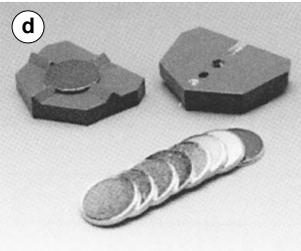
**a**  
Gear-type Cast Support  
/ with Occlusal Plate



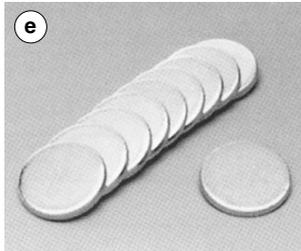
**b**  
Handy Cast Support



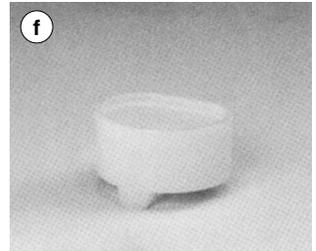
**c**  
MSMP Double



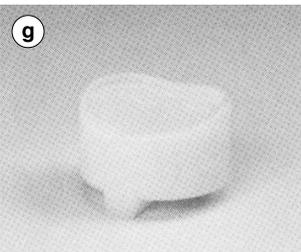
**d**  
Pro Arch Split Cast  
Plates



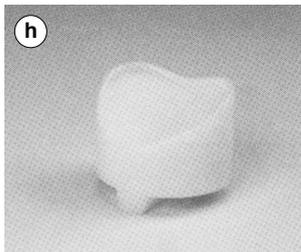
**e**  
Steel Plates (10 plates)



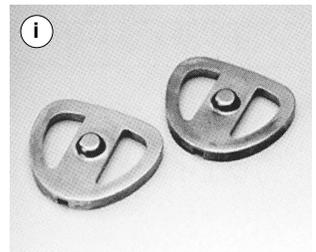
**f**  
Incisal Tables 0°



**g**  
Incisal Tables 5°

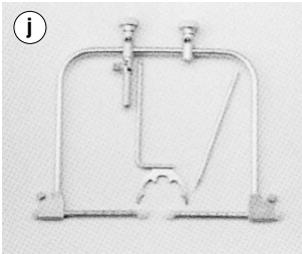


**h**  
Incisal Tables 15°

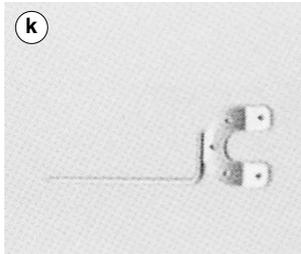


**i**  
Mounting Rings

## OPTIONAL ACCESSORIES

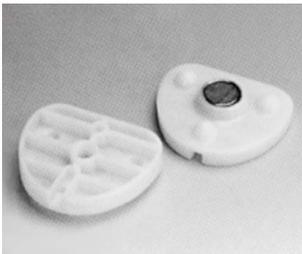


**j**  
Pro Arch Face Bow  
*(with Bite Fork for  
edentulous jaw and  
Anterior Reference Pin)*



**k**  
Bite Fork for edentulous  
jaw

## OPEN STOCK ITEMS



MSMP Single



Cast Plates (10 plates)



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