The Protar articulator and face-bow system is comprised of four separate articulators and the Arcus face-bows. Casts are easily and accurately transferred from one articulator model to another. The Protar is 6.4" H x 6.6" W x 8" D and weighs 2.5 lbs. The Protar 3 has an upper member with curved sagittal and pre-set condylar guidance paths, a 45° horizontal condylar inclination, and a 15° fixed Bennett angle. The Protar 5 has an upper member identical to the one in the Protar 3 with the exception that it has an adjustable Bennett angle and an adjustable horizontal condylar inclination (from -15 through +75 relative to Frankfort Horizontal [FH] plane). The Protar 7 has an upper member with adjustable sagittal angle and horizontal condylar paths as well as immediate sideshift and retrusion with an adjustable shift angle. Two types of modular upgrades are available for the Protar 7: Shift Angle Inserts that provide latero-protrusive and latero-retrusive movements on the working side and PDR Inserts that provide protrusion, distraction (subluxation) and retrusion of the condyle. The Protar 9 has an upper member identical to that of the Protar 7 with adjustable protrusion, distraction, and retrusion. Each articulator comes with an incisal pin, mounting plates, plane incisal guidance, support pin, mounting plate screw, and magnet wrench.

**Manufacturer/Source:**
KaVo America
340 East Main Street
Lake Zurich, IL 60047
(800) 522-9525
(708) 550-6825 FAX

**Suggested Retail Price:**
- Protar 3 $749
- Protar 5 $1137
- Protar 7 $1498
- Protar 9 $1676
- Arcus face-bow $749
- Mounting plates $137

**Government Price:**
- Protar 3 $421
- Protar 5 $658
- Protar 7 $983
- Protar 9 $1092
- Arcus face-bow $421
- Mounting plates $102.75

**ADVANTAGES:**
+ Casts can be reliably transferred from one Protar articulator to another.
+ Casts are easily mounted on magnetically-retained split-mount rings.
+ Upper members with different features interchange with a universal lower member.
+ Articulator is designed in relation to Camper's plane which facilitates visibility and mounting.
+ Casts are mounted parallel to articulator frame; improves esthetic perception and eliminates space problems.
+ Face-bow ear pieces ensure accurate orientation to anatomical landmarks.
+ Arcus bite fork and transfer joint are stainless steel and sterilizable.
+ Bite fork is rigid and tightened using a single control.
+ Mounting face-bow record with transfer stand replaces incisal pin and face-bow; bite fork and joint
attaches to transfer stand which is the preferred method for the laboratory.
+ Articulator can be used with other types of face-bows (e.g., Whip Mix, Hanau, etc.).
+ Stable when inverted, does not require a support stand; rubber feet also stabilize the articulator in all positions.
+ Three condylar settings.
+ Lower member frame posts are curved and set wide apart for improved access to lingual areas.
+ Articulator can be set back at a 45° angle on rubber bumpers for better visualization.
+ Incisal guide pin can be placed on either the upper or lower member.
+ Five types of incisal guidance are available: 20°, 30°, 40°, 50°, and adjustable; a custom incisal guide table can also be made using a recessed tray.
+ Occlusal plane indicator and tooth setting template are available for complete dentures work.

DISADVANTAGES:
- Can not fabricate custom condylar guidance on the articulator.
- Face-bow is sold separately.
- Expensive; costs more than other popular articulators.

SUMMARY AND CONCLUSIONS:
The Protar II is an articulator and face-bow system that allows accurate transfer of casts from one articulator to another. Compared to other brands of articulator, the Protar provides improved access to casts and is easier to adjust. Casts are split-mounted on magnetically-retained plates. The Protar II can be tilted back at a 45° angle for easier viewing. Evaluators tested the accuracy of cast transfers between five different Protar II articulators and found that the test pieces held shim stock at three separate points on all five articulators which indicates excellent accuracy. An optional compensating curve template is available for complete dentures. The face-bow is easy to handle with a single knob for final adjustment on the patient. The government price of the Protar II is comparable to other fully-programmable articulators. The concept behind Protar II is to reduce the number of articulators in the treatment room and laboratory. For example, a dentist can have only one Arcus face-bow and several transfer joints and bite forks. The joint, fork and occlusal record are sent to the laboratory where it is articulated with a transfer stand on a Protar 3. The technician can then use a single Protar II for several cases at once. The Protar II and Face-Bow are rated Acceptable for use by the federal dental services.