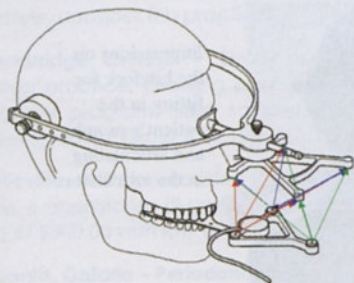


### ARCUSdigma – The measuring principle



- Each transmitter sends a signal to one receiver = 4 signals / transmitter = 12 signals / 3 transmitters

FIGURE 5

### ARCUSdigma – Articulator Adjustment: How does it work



ARCUSdigma records an individual reference plane for every patient

The position of the upper jaw recording ("Model Position") is used for calculating the articulator data.

The transfer stand positions the bitefork in a known position for the ARCUSdigma.

The impressions on the bitefork serve to articulate the upper jaw model.

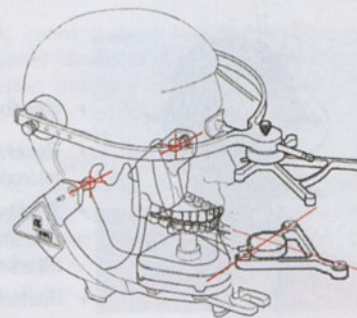
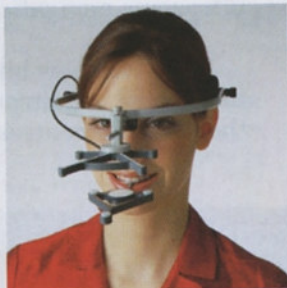


FIGURE 6

### ARCUSdigma – The components: Sensor System and Attachments



- Fitted on the patient within a few minutes.
- No mechanical adjustments or calibrations are necessary.
- The registration system on the lower jaw weighs only 22 grams.

FIGURE 7

using a smile back approach which uses the cant of the upper teeth to evaluate the occlusal plane. While the adjustable Protar is mandatory for extensive reconstructions its use in a single restoration is worthwhile if only to correctly develop tooth anatomy to harmonize opening and closing patterns and close cusp tip relations.

I encourage the constant use of the entire system in order for both the dentist and the technician to become comfortable and efficient in its use.

There are three steps needed to record the settings to program the Protar. The first step is to place a bitefork loaded with a fast setting registration paste into the mouth to capture an imprint of the upper teeth (Figs. 3 & 4). Next the head

frame is connected to the four receivers magnetically; the three transmitters are attached to the upper bitefork.

The receiver frame, which is now attached gently to the patient's head via the headbow, as opposed to the external auditory meatus, measures the spatial relation of the transmitter frame which is attached to the maxillary bitefork (Fig. 5).

This action transfers the condylar centres and the horizontal plane of the Protar which are virtually carried by the transmitter frame to the head of the patient (Fig. 6). The horizontal plane of the Protar serves as a maxillary reference plane to which jaw movements are related.<sup>1</sup>