Multi-Speed
Head Mounted Optics

◎ Head Mounted Optics

ASL's Multispeed head mounted optics are extremely light-weight (10 oz) and can be adjusted between 120, 240 and 360Hz. The speed is adjusted by switches on the cameral and there is no loss in resolution at any of the three speeds. The optics mount above the eye with a hot mirror monocle below the eye. The advantage to this is nothing interferes with the view of the wearer. This unique optics module can easily be mounted on other headgear, supplied by the customer.

◎ Additional Advantages to the ASL System

- The ASL interface software is compatible with DOS and Windows 95, 98 and NT, 2000 and XP.

- ASL offers true EYEHEAD integration:
  - → Computes the location of the gaze vector in true 3 dimensional space
  - → Determines intersection of gaze with multiple flat surfaces whose location, orientation and boundaries are known in true 3D space
  - → Surfaces are easily specified to system using a laser pointing device (3 points define a surface)
  - → Can accurately superimpose a point of gaze cursor on the image from a <u>stationary</u> (non-head mounted) scene camera. Most systems can only super impose a cursor on a <u>head mounted</u> scene camera image.
  - → Better image than head mounted camera
  - → Less to wear on the head
  - → One less thing to set up and adjust

- The ASL 6000 system is modular. This same eye tracker can be used with standard head mounted and remote optics, other high speed optics, both head mounted and remote, and several brands of magnetic head trackers.

- ASL is the only company offering a pan/tilt remote high speed option. The pan/tilt module will track even in the presence of head movement.

- ASL is the only company offering a high speed long range remote option for use in an fMRI.

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- Quick and easy calibration procedure including the following recalibration features:
  - ➤ Ability to introduce an offset if the optics are bumped
  - ➤ Ability to recalibrate a single point, or subset of points, out of order
  - ➤ Autocalibration

- ASL has variety of head mounting options, including custom mounting on your headgear.

SPECIFICATIONS

◎ **Control Unit:**   Dimensions (H/W/D): 3 in/9.75 in/10.25 in

Weight: 4.25 lbs
Power: 100-240 VAC
25 watts

◎ **Display:**   9 inch b&w monitors for eye and scene cameras or PC framegrabbers

◎ **Head mounted optics:**   Sampling and Output Rates: 120, 240 or 360Hz w/no loss
of resolution
Measurement principle: pupil-corneal reflection
System accuracy: 0.5 degree visual angle
Resolution: 0.10 degree visual angle
Head movement: unlimited
Visual range: 50 degrees horizontally, 40 degrees vertically
Weight (includes headband, optics module monocle and scene
camera assembly): 10 oz.

◎ **Included equipment:**   Series 6000 Control Unit
Headband Mounted Optics
Head Mounted Scene Camera (color)
Display Monitors (x2), black & white
EYEPOS operating software
EYENAL data analysis software