

22 April 2002

Mr. M. H. Miller, Chairman, DVLA Vision Panel  
C/o David Jamieson MP  
Parliamentary Under-Secretary of State, Transport  
Zone 6J4  
Department for Transport, Local Government and the Regions  
Eland House  
Bressenden Place  
London Sw1E 5DU UK

Dear Mr. Miller:

I was asked to write to you because the minutes of your last meeting express an interest in the auto-focus telescope for driving. My father, Dr. William Feinbloom, was one of the pioneers in the field of bioptic driving. In fact, our 2.2X Bioptic Model I was the original telescope used in many of the early studies. The Department of Motor Vehicles in the USA actually uses the phrase "bioptic driver", so the word bioptic has become generic to driving.

It is important for you to understand that not all telescopes fall under this generic term. The bioptic that was originally used was of a Galilean optical design and comes in powers of 1.7X, 2.2X, 3.0X and 4.0X. It was determined after many conferences in the USA that the Eye doctor would attest to a person's vision and field of view, and the DMV would test and grant a driver's license based on a person's visual and motor skills.

In the 80's a new type of telescopes was developed. This is the Expanded Field bioptic telescope (Keplerian design). I have enclosed a copy of page 7 from our catalog. This shows the drilling position and angling of the Galilean bioptic telescope. Page 9 shows the Keplerian bioptic.

While driving, a person looks underneath with his normal vision and then drops his chin to view, or spot, through the bioptic telescope. When he wants to return to normal vision, he simply lifts his chin. My father made the analogy of spotting, with looking into the rearview mirror.

There are differences between the Galilean optics and Keplerian optics; exit pupil placement, field of view, alignment, etc. Both systems have been used successfully when properly fitted by a professional.

There are other telescope manufacturers, one of which has a telescope with auto-focus capabilities. I am not sure how this impacts on driving because of windshield reflections and focusing on other items such as roofline, dashboard, etc. The auto-focus telescope is designed with a horizontal transfer Keplerian optical system. This means that if the left eye is looking into the eyepiece, the object viewed is in front of the right eye. When one orders, you must specify which eye the system is for. This system does not have direct eye-hand alignment.

There have been many studies since my father's introduction of driving with bioptics. There are web sites, information, etc. If you need any help in accessing any of these, please let me know.

I hope I have been helpful. If you have any questions, please do not hesitate to contact me.

Sincerely,

Richard E. Feinbloom  
President