UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Patent: 6,324,463

Filed: May 12, 1999

Issued: November 27, 2001

Inventor: C. Kumar N. Patel

Assignee: Cruise Control Technologies LLC

Title: CRUISE CONTROL INDICATOR

DECLARATION OF DAVID A. McNAMARA IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 6,324,463 UNDER 37 C.F.R. § 42.100

I, David A. McNamara, hereby declare, affirm and state the following:

I. Introduction

- 1. The facts set forth below are known to me personally, and I have firsthand knowledge of them.
- 2. I make this Declaration in support of a Petition for *Inter Partes* Review of U.S. Patent No. 6,324,463 (the "'463 Patent).



- 3. I have been retained by DLA Piper LLP (US) on behalf of Subaru Motor of America, Inc.
- 4. I have been asked to provide my technical review, analysis, insights, and opinions regarding the above-noted references that form the basis for the grounds of rejection set forth in the Petition for *Inter Partes* Review of the '463 Patent ("Petition").

II. Qualifications and Compensation

- 5. I am the founder, President, and a consultant for McNamara Technology Solutions LLC. I work with clients in the areas of active safety (*e.g.*, mmWave radar based systems), automotive electrical/electronics systems and their user interfaces, and automotive wireless technology.
- 6. Between 1995 and 2000, as the design manager, I launched the industry's first Adaptive Cruise Control (ACC) technology, the Jaguar ACC system in 2000, for which members of my team received the Henry Ford Technology Award.
- 7. In October 1998, I authored a paper that addressed, among other things, Human-Machine Interfaces (HMIs) for various automotive systems, including Adaptive Cruise Control systems. *See* Exhibit 3, David A McNamara et al., *A Survey of Design Requirements & Vehicle Integration Systems*, SAE Technical Paper Series, No. 98C021 (Oct. 19-21, 1998).



- 8. I am the author of several automotive related reports related to the automotive implications of the Consumer Electronics Show and reports for clients such as Telematics Update; *e.g.*, the Automotive Human-Machine Interface (HMI) Report (2012).
- 9. Throughout my career, which began in 1976, user interfaces have been a critical element of the design of automotive systems where the safety and ease of use of the interface has been paramount. Some of the products for which I was responsible as a design manager and as a product engineer include automotive instrumentation, audio systems, navigation systems, Adaptive Cruise Control, and digital connectivity products.
- 10. Examples of innovative user interface developments on which I worked as a product engineer and/or as a design manager include the following: (*i*) integrated control panel for the 1996 Ford Taurus, which integrated radio controls and climate controls in a single panel; (*ii*) voice controls for the (1999) Jaguar S-Type; and (*iii*) new digital media connectivity products, including, for example, the 2006 Jaguar audio connectivity module.
- 11. At Ford, I led a key project called MyConnected World for the Jaguar, Land Rover and Volvo brands from 2003-2005CY. The team conducted extensive market research and designed user interfaces, software and evaluation prototypes to explore approaches to seamlessly integrate iPod, MP3 and video players. This



project resulted in the infotainment product, the Jaguar "Audio Connectivity module." The connectivity module was launched in 2006 across all Jaguar/Land Rover brands as an option to allow drivers to, among other things, control an iPod using the vehicle's existing vehicles controls located in Jaguar's head unit. This new infotainment product, the "Audio Connectivity module," enabled drivers to bring the latest digital music and video media into their vehicle and is now deployed across all Jaguar/Land Rover brands as an option. The MyConnected World project was a forerunner of the current popular Ford SYNC product, first announced by Ford and Microsoft at the 2007 Consumer Electronic Show.

- 12. Cruise control system interfaces were widely available well before the early 1990s. These systems included well-known user interface design practices as well as design elements used in everyday automotive instrumentation.
- 13. Attached as Attachment A to this declaration is my *curriculum vitae*. As shown in my *curriculum vitae*, I have devoted my career to the field of automotive electronics. I earned my Bachelor of Science degree in Electrical Engineering from the University of Michigan in 1973 and my Master of Engineering degree in Solid State Physics from the University of Florida in 1976.
- 14. Further, as shown in my *curriculum vitae*, I have professional and academic experience in the field of automotive electronics and transportation systems acquired over a career spanning 37 years. In particular, during this period,



I worked and otherwise interacted with professionals and students of various experience and expertise levels in the automotive electronics field. For example, I have been involved in the development and integration of various motor vehicle technologies. I also have conducted extensive research on motor vehicle interfaces to permit the safe and easy integration of new electronic devices within a motor vehicle environment.

- 15. Recently, I worked on new active safety technologies to include vehicle-to-vehicle (V2V) wireless communications for collision warning. These new safety applications require new approaches to the user interface to warn the driver of collision in difficult conditions such as crossing intersections, okay-to-pass, and electronic brake lamp.
- 16. I also am an active member of the Society of Automotive Engineers and the Institute of Electrical and Electronics Engineers (IEEE), and I have been an invited speaker to various conferences, including the Telematics Update Events (www.telematicsupdate.com), at which I interact with various members of the technical community. I participate in the annual Telematics Update Events-sponsored conferences called "Insurance Telematics," during which I am apprised of recent developments in vehicle diagnostics, such as new monitoring approaches as applied to vehicle performance and driver behavior. I periodically publish reports on observed trends in automotive electronics, and also co-authored an



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