# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD

In re Patent of: Darbee

Patent No.: 5,414,761

Filed: Oct. 8, 1993

**Issued:** May 9, 1995

Assignee: Universal Electronics Inc.

Title: REMOTE CONTROL SYSTEM

Declaration of Stephen D. Bristow

In Support of the Petition for *Inter Partes* Review of U.S. Patent No. 5,414,761

Mail Stop PATENT BOARD Patent Trial and Appeal Board United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

# **DECLARATION OF STEPHEN D. BRISTOW**

### **Background and Qualifications**

1. My name is Stephen D. Bristow. I am a working consulting

engineer for consumer electronic devices.

2. I earned my Masters of Science in Electrical Engineering from

University of Santa Clara in 1985. I received my Bachelor of Science in

Electrical Engineering and Computer Science from the University of

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California at Berkeley, where I was a Regents Scholar.

3. I have worked as an engineer and supervised the engineering of consumer electronics products, such as interactive games, since 1973. In particular I have developed remote control products at Atari, Machina, Radica, and as a consultant for Worlds of Wonder (Lasertag).

4. I have authored a paper for IEEE on the history of video games. I am named inventor of over twenty patents in the consumer electronics fields.

5. My qualifications are further detailed in my latest curriculum vitae (C.V.), attached as Appendix A.

# Status as Independent Expert Witness

6. I have been retained in this matter by Universal Remote Control, Inc. ("Petitioner" or "URC") to provide an analysis of the scope and content of U.S. Patent No. 5,414,761 (hereinafter the "'761 patent") relative to the state of the art at the time of the earliest application underlying the '761 Patent. I have also been retained to provide analysis regarding what a person of ordinary skill in the art related to universal remote control devices would have understood at the time of the earliest application underlying the '761 patent.

7. I am being compensated at the rate of \$275 per hour for my work.My fee is not contingent on the outcome of any matter or on any of the

technical positions I explain in this declaration. I have no financial interest in Petitioner.

8. I have been informed that Universal Electronics Inc. (hereinafter referred to as "Patent Owner") is asserting claims 1, 9, 10, and 14-17 the '761 Patent. I have no financial interest in the Patent Owner or the '761 patent.

#### **Description of the Relevant Field and the Relevant Timeframe**

9. I have carefully reviewed the '761 Patent.

10. For convenience, all of the documents that I considered in arriving at my opinions is listed in Appendix B.

11. Based on my review of these materials, I believe that the relevant field for purposes of the '761 Patent is remote controls and consumer electronics. I have been informed that the relevant timeframe runs from around 1986 and through 1990.

12. As described in above, I have extensive experience in the relevant field, including experience relating to wireless communications, consumer electronics and remote controls. Based on my experience, I have an established understanding of the relevant field in the relevant timeframe.

# <u>The Person of Ordinary Skill in the Relevant Field in the Relevant</u> <u>Timeframe</u>

13. I have been informed that "a person of ordinary skill in the relevant field" is a hypothetical person to whom an expert in the relevant field could assign a routine task with reasonable confidence that the task would be successfully carried out. A person of ordinary skill in the art, at the time of the priority date of the '761 patent was filed would have a Bachelors degree in Electrical Engineering or Computer Science or the equivalent education, and training in consumer electronics and remote control systems including at least 2 years of practical experience. Alternatively, one of skill in the art would have 10 years of relevant experience in the design of remote control systems and their use in the consumer electronics industry with a lower degree level such as a technical school, AA degree or military training.

14. Based on my experience, I am at least a person of ordinary skill in the relevant field. I have also supervised, directed, and instructed many such persons over the course of my career.

### **Background of the Technology**

15. Remote control technology of consumer electronic devices was around for a long time, with the first wireless remote controls available in the late 1950s. A variety of technologies for communicating with devices such as televisions have been used, including ultrasonic sound, infrared light, radio frequency (RF).

16. The early remote controls were dedicated to control the particular devices. With the availability of low cost microprocessors the number of consumer electronic devices using remote control technology became common. This resulted in many consumers having a large number of dedicated remotes which cluttered the coffee table. By the mid 1980s universal remote controls which allowed a single remote to control multiple devices were marketed.

17. A universal remote needs to be programmed to work with the various devices. One way to program a universal remote is to have it learn the signals from the dedicated remote controllers of the devices to be controlled. The learned codes can be used later by the universal remote to reproduce the specific signal used by the dedicated remotes. Thus, the universal remote has to remember the learned codes, which was achieved by using non-volatile, read-write memory, such as a battery-backed RAM. If that battery fails, however, the data would be lost.

18. By the mid 1970s microprocessors became commonly available and cost effective. At the same time personal computers were also becoming available. For example, the microprocessor based Atari 400/800 Home Computer was introduced to the public 1979.

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