

Subaru of America, Inc., *et. al*
v.
Cruise Control Technologies LLC

IPR2014-00289
Patent 6,324,463

Trial Hearing

Petitioner Subaru of America, Inc.'s Demonstrative
Exhibits DX-1 through DX-43 for March 24, 2015 Oral Argument

Brief Overview of the '463 Patent

U.S. Patent No. 6,324,463

(12) **United States Patent**
 Patel

(10) **Patent No.:** US 6,324,463 B1
 (45) **Date of Patent:** Nov. 27, 2001

(54) **CRUISE CONTROL INDICATOR**

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(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** 09/310,527
 (22) **Filed:** May 12, 1999

Related U.S. Application Data

(60) Provisional application No. 60/085,183, filed on May 12, 1998.

(51) **Int. Cl.7** G06F 7/00; B60K 31/00
 (52) **U.S. Cl.** 701/93; 701/70; 180/170; 362/459; 362/489

(58) **Field of Search** 701/93, 96, 70, 701/301; 340/438, 441, 815.4; 180/170; 345/30; 362/23, 482, 489, 459

(56) **References Cited**

U.S. PATENT DOCUMENTS

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World Wide Web document: Andre, Anthony and Asaf Degani, "Do You Know What Mode You're In? An Analysis of Mode Error In Everyday Things," Interface Analysis Associates, San Jose, CA, San Jose State University, CA, posted at least as early as Jul. 30, 1996.
 * cited by examiner

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(57) **ABSTRACT**

A system for indicating the operational status and parameters of a cruise control system for use in a human operated vehicle. The system includes apparatus for storing and recalling a preset speed for the cruise control system. The system further includes apparatus for indicating this preset speed to the operator, along with apparatus configured to indicate to the user whether or not the cruise control system is engaged. One embodiment is a system for use with vehicles with digital speedometers. In this embodiment, the system includes digital memory for storing the preset speed, and a digital display configured to show the preset speed and the operational status of the cruise control system. Another embodiment is for use with vehicles having analog speedometers. The analog system includes an array of LEDs and detectors arranged around a speed indicating dial and under the speedometer needle. The LEDs and detectors are arranged so that a preset speed may be stored into the system by detection of light reflected from one of the LEDs off a reflective surface on the back side of the needle, and onto one of the detectors. The LEDs of the analog system are further configured to indicate the preset speed and the operational status of the system.

36 Claims, 3 Drawing Sheets

The diagram shows two displays, 'MAIN DISPLAY' (3) and 'PRESET SPEED DISPLAY' (16), both showing the number '65'. Below them is a 'CLOCKING MECHANISM' (10) and a 'MEMORY' (12) block. Arrows indicate data flow: from the clocking mechanism to both displays, and from the main display to the memory block. A lightning bolt symbol is next to the clocking mechanism, and a vertical line connects it to the memory block.

Ex. 1001, '463 Patent

Filed:

- May 12, 1999

Issued:

- November 27, 2001

Claims at issue:

- Independent: 1-2, 12-13, 18, 25-26, 34
- Dependent: 3-5, 14-15, 19-20, 27-28, 35-36

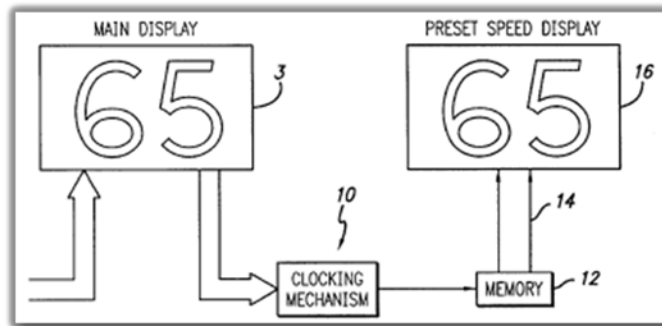
U.S. Patent No. 6,324,463

'463 Patent File History

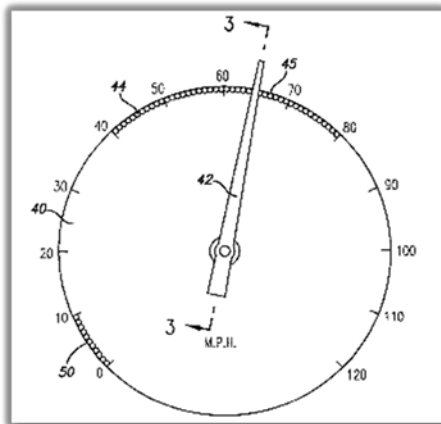
Applicant's inventive system and every system and method claim in the pending application, on the contrary, are directed only to the specific problem of providing preset cruise control speed information to the driver of a vehicle. The claims do not address the display information that corresponds to the actual driving speed of the vehicle. The pending claims only address the display of the speed of the vehicle as it was when the cruise control was set as a constant indicator/reminder to the driver of the speed to which the vehicle will resume after the cruise control speed is temporarily overridden (i.e. due to acceleration or deceleration).

Ex. 1003, '463 patent file history, at 105 (annotated); Pet. at 6-7

U.S. Patent No. 6,324,463



Ex. 1001, '463 Patent, Fig 1



Ex. 1001, '463 Patent, Fig 2

- “Figure 1 illustrates a digital speed display, while Figure 2 illustrates an analog speedometer.”
- “When a cruise control set button . . . is pressed, the vehicle speed is stored in digital memory . . . as a preset speed.”

Paper 19, Board Decision, at 2-3

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