

Title (en)

Floor treating apparatus and method for recognizing a state of floor respectively for aligning the drive movement

Title (de)

Bodenpflegegerät sowie Verfahren zur Erkennung eines Bodenzustandes bzw. zur Ausrichtung der Verfahrbewegung

Title (fr)

Appareil d'entretien de sol ainsi que procede pour reconnaitre un etat du sol respectivement pour aligner le mouvement de conduite

Publication

EP 1136027 A3 20030305 (DE)

Application

EP 01106284 A 20010315

Priority

DE 10013183 A 20000317

Abstract (en)

[origin: EP1136027A2] The floor cleaning head (1) of a vacuum cleaner has a motor driven rotary carpet brush (3) and a linear hard floor brush (6) which are automatically raised or lowered by a control system using an ultrasonic transmitter (9) and receiver (10) according to the type of floor surface.

IPC 1-7

A47L 9/04; **A47L 11/40**

IPC 8 full level

A47L 9/04 (2006.01); **A47L 9/06** (2006.01); **A47L 9/28** (2006.01)

CPC (source: EP)

A47L 9/0411 (2013.01); **A47L 9/06** (2013.01); **A47L 9/0633** (2013.01); **A47L 9/2826** (2013.01); **A47L 9/2842** (2013.01); **A47L 9/2847** (2013.01); **A47L 9/2852** (2013.01); **A47L 9/2857** (2013.01); **A47L 9/2894** (2013.01)

Citation (search report)

- [XY] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 04 30 April 1996 (1996-04-30)
- [Y] PATENT ABSTRACTS OF JAPAN vol. 015, no. 344 (P - 1245) 30 August 1991 (1991-08-30)
- [A] PATENT ABSTRACTS OF JAPAN vol. 018, no. 662 (C - 1287) 14 December 1994 (1994-12-14)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 06 28 June 1996 (1996-06-28)
- [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 318 (C - 0738) 9 July 1990 (1990-07-09)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1995, no. 08 29 September 1995 (1995-09-29)

Cited by

DE102016100429A1; GB2405576A; EP1997412A3; CN106037582A; EP2893861A3; EP1639934A3; EP1642522A3; CN112704437A; EP2759242A3; DE102007061146A1; WO2007025906A1; DE102015100353A1; DE102015100483A1; DE102015100483B4; DE102015117552A1; DE102015117552B4; US9399284B2; DE202016107207U1

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DOCDB simple family (publication)

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DOCDB simple family (application)

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