

Title (en)
VEHICLE-INTERIOR SOUND-ADJUSTMENT APPARATUS

Title (de)
VORRICHTUNG ZUR SCHALLANPASSUNG IN FAHRZEUGINNENRAUM

Title (fr)
APPAREIL DE RÉGLAGE ACOUSTIQUE INTÉRIEUR DU VÉHICULE

Publication
EP 4033482 A1 20220727 (EN)

Application
EP 21212453 A 20211206

Priority
JP 2021008050 A 20210121

Abstract (en)
[Problem to be Solved] To efficiently suppress an operating sound of an accessory being heard by an occupant while suppressing discomfort and a strange feeling of the occupant.[Solution] The present invention relates to a vehicle-interior sound-adjustment apparatus capable of suppressing an operating sound of an accessory being heard by an occupant in a vehicle interior. The apparatus includes: a sound output unit capable of outputting a sound to the vehicle interior; a masking sound generation unit capable of generating a masking sound of the operating sound of the accessory; a startup sound generation unit capable of generating a startup sound of a vehicle; and a control unit that causes the startup sound to be output from the sound output unit. The startup sound generation unit is configured to generate a first startup sound composed of a first sound, and a second startup sound composed of a second sound having a higher frequency than the first sound, and the masking sound. The control unit causes the first startup sound to be output from the sound output unit in a state in which the accessory is set so as not to perform an operation that emits the operating sound, and causes the second startup sound to be output from the sound output unit in a state in which the accessory is set to perform an operation that emits the operating sound.

IPC 8 full level
G10K 11/175 (2006.01)

CPC (source: EP)
G10K 11/1752 (2020.05)

Citation (applicant)
JP 2017154712 A 20170907 - NIPPON SEIKI CO LTD

Citation (search report)
• [YA] JP 2005278301 A 20051006 - TOYOTA MOTOR CORP
• [Y] DE 102014220600 A1 20160414 - BROSE FAHRZEUGTEILE [DE]
• [A] US 2005261815 A1 20051124 - COWELCHUK GLENN A [US], et al
• [A] US 2011282654 A1 20111117 - TAKECHI YOHEI [JP], et al
• [A] US 2014067217 A1 20140306 - STARES PETE [GB]
• [A] WO 2019158387 A1 20190822 - AUDI AG [DE]

Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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