ELECTRONIC DEVICE MOUNT

The present invention relates to an electronic device mount for a dashboard of a motor vehicle such as a car.

EP2070768 discloses an electronic device mount for a dashboard of a motor vehicle. It has a base for being mounted on the dashboard, and a console for being mounted in the base. The console has a mounting plate to which a portable electronic device can be mounted and the mounting plate is rotatable between a first position in which the electronic device is contained face down in the console and a second position wherein the mounting plate leans towards the windscreen of the vehicle.

A problem with this mount is that the windscreen may obstruct how far the mounting plate can be rotated.

It is an object of the present invention to provide an electronic device mount for a dashboard of a motor vehicle that alleviates the above-mentioned problem.

According to the present invention there is provided an electronic device mount for a dashboard of a motor vehicle, comprising: a housing arranged to be provided on the dashboard of the motor vehicle; a holder comprising first and second holder parts, the second holder part arranged to hold an electronic device and be detachably connected to the first holder part; an actuation mechanism configured to move the first holder part between a retracted position and a deployed position; and a first power transmitting connector in the first holder part and a second power transmitting connector in the second holder part, the first and second power transmitting connectors being interconnected when the first and second holder parts are connected together, and the first and second power transmitting connectors arranged to transmit power from a power source of the motor vehicle to an electronic device held in the second holder part when the first and second power transmitting connectors are interconnected.

~~According to one aspect of the present invention there is provided an electronic device mount for a dashboard of a motor vehicle, comprising: a housing arranged to be provided on the dashboard of the motor vehicle; a holder for holding an electronic device; and an actuation mechanism configured to move the holder between a retracted position and a deployed position, the movement of the holder between the retracted and deployed positions comprising translation movement relative to the housing and rotational movement relative to the housing, wherein the holder comprises first and second holder parts, the first holder part arranged to be moved between the retracted and deployed positions, and the second holder part arranged to hold the electronic device and be detachably connected to the first holder part.~~

The mount can be provided on the dashboard so that holder in the retracted position is closer to the windscreen of the vehicle than when the holder is in the deployed position so that the holder in its deployed position is not obstructed by the windscreen.

There can be different types of second holder parts for holding different types of electronic devices (e.g. smart phone, hand-held tablet PC such as iPad Mini, etc.) which may be GPS devices.

~~The electronic device mount may include power transmitting means for transmitting power from a power source of the motor vehicle to an electronic device in the holder.~~ The power source may be a cigarette lighter of the motor vehicle.

~~The power transmitting means may comprise a first power transmitting connector in the first holder part and a second power transmitting connector in the second holder part, the first and second power transmitting connectors being connected together when the first and second holder parts are connected together.~~ The <u>electronic device mount</u> ~~power transmitting means~~ may <u>include</u> ~~comprise~~ a third power transmitting connector in the second holder part for connecting to a power connector of the electronic device held in the second holder part, the third power transmitting connector being connected to the

second power transmitting connector.

The electronic device mount thus provides a universal docking console wherein different types of electronic devices can be powered by simply connecting the corresponding type of second holder part to the first holder part wherein all the different types of second holder parts have a second power transmitting connector that is able to connect to the first power transmitting connector of the first holder part. Power is able to be redirected to different types of electronic devices.

The first and second power transmitting connectors or further transmitting connectors in the first and second holder parts may be arranged to transmit at least one of audio and video signals from the electronic device held in the second holder part to at least one output in the vehicle when the first and second holder parts are connected together.

The electronic device mount ~~power transmitting means~~ may include ~~comprise~~ a cable connectable to said power source of the motor vehicle, the cable having adhesive to enable it to be fixed to inside surfaces of the vehicle.

The actuation mechanism may include translation means to translate the first holder part relative to the housing between the retracted position and the deployed position. The translation means may comprise a motor and a threaded shaft for translating the first holder part relative to the housing. The first and second power transmitting connectors ~~means~~ may be arranged to transmit power to the motor of the translation means.

The holder is preferably arranged to be rotatable relative to the housing between a first position in which it is orientated to hold an electronic device in a substantially parallel position relative to the housing and a second position in which it is orientated to hold an electronic device in a substantially perpendicular position relative to the housing.

The actuation mechanism may include rotation means to rotate the holder between the first and second positions.

The actuation mechanism may include a first cooperating part forming

part of the holder and a second cooperating part forming part of the housing, the first and second cooperating parts being arranged to cooperate during translation of the holder and thereby to activate the rotation means to cause the holder to rotate. The first cooperating part may comprise a protrusion and the second cooperating part may comprise a stop. Alternatively, the first cooperating part may comprise one of a cog and a rack and the second cooperating part the other of the cog and rack.

The holder may be arranged to be rotated through an angle in the range of 80° to 120° between the first and second positions.

The first holder part in the retracted position may be contained within the housing. Preferably, the first holder part in the retracted position is contained within the housing, together with any electronic device held by the holder. The mount provides a convenient safe storage for an electronic device when the holder is in its retracted position, particularly when the first holder part and electronic device are contained within the housing. A user of the electronic device can thus leave the vehicle without the need to or hassle of removing or demounting the electronic device which may be a GPS device.

The housing may be arranged to be removably fixed to the dashboard of the motor vehicle. The housing may be arranged to be fixed to the dashboard by adhesive. Alternatively, the housing may be arranged to be fixed to the dashboard by at least one suction cup.

The housing may include a detachable base part having a shape which conforms to the shape of the dashboard of the motor vehicle.

A motor vehicle may include an electronic device mount as previously described. The housing of the mount may be an integral part of a dashboard of the motor vehicle.

~~According to another aspect of the present invention there is provided an electronic device mount for a dashboard of a motor vehicle, comprising: a housing arranged to be provided on the dashboard of the motor vehicle; a holder comprising first and second holder parts, the second holder part arranged to~~

~~hold an electronic device and be detachably connected to the first holder part; an actuation mechanism configured to move the first holder part between a retracted position and a deployed position; and a first power transmitting connector in the first holder part and a second power transmitting connector in the second holder part, the first and second power transmitting connectors being interconnected when the first and second holder parts are connected together, and the first and second power transmitting connectors arranged to transmit power from a power source of the motor vehicle to an electronic device held in the second holder part when the first and second power transmitting connectors are interconnected. The first and second power transmitting connectors or further transmitting connectors in first and second holder parts may be arranged to transmit at least one of audio and video signals from the electronic device held in the second holder part to at least one output in the vehicle when the first and second holder parts are connected together.~~

Embodiments of the present invention will now be described, by way of

CLAIMS:

3.~~1.~~ The ~~An electronic device~~ mount as claimed in claim 1 or 2, wherein ~~for a dashboard of a motor vehicle, comprising:~~

~~a housing arranged to be provided on the dashboard of the motor vehicle;~~

~~a holder for holding an electronic device; and~~

~~an actuation mechanism configured to move the holder between a retracted position and a deployed position,~~ the movement of the first holder part between the retracted and deployed positions comprises ~~comprising~~ translation movement relative to the housing and rotational movement relative to the housing~~, wherein~~

~~the holder comprises first and second holder parts, the first holder part arranged to be moved between the retracted and deployed positions, and the second holder part arranged to hold the electronic device and be detachably connected to the first holder part~~.

~~2. The mount as claimed in claim 1, including power transmitting means for transmitting power from a power source of the motor vehicle to an electronic device in the holder.~~

~~3. The mount as claimed in claim 2, wherein the power transmitting means comprises a first power transmitting connector in the first holder part and a second power transmitting connector in the second holder part, the first and second power transmitting connectors being interconnected when the first and second holder parts are connected together.~~

4. The mount as claimed in claim 3, including ~~wherein the power transmitting means comprises~~ a third power transmitting connector in the second holder part for connecting to a power connector of the electronic device held in the second holder part, the third power transmitting connector being connected

to the second power transmitting connector.

~~5. The mount as claimed in claim 3 or 4, wherein the first and second power transmitting connectors or further transmitting connectors in the first and second holder parts are arranged to transmit at least one of audio and video signals from the electronic device held in the second holder part to at least one output in the vehicle when the first and second holder parts are connected together.~~

5.~~6.~~ The mount as claimed in claim 3 or 4 ~~any one of claims 2 to 5~~, wherein the power source is a cigarette lighter of the motor vehicle.

6.~~7.~~ The mount as claimed in claim 3, 4 or 5 ~~any one of claims 2 to 6~~, including ~~wherein the power transmitting means comprises~~ a cable connectable to said power source of the motor vehicle, the cable having adhesive to enable it to be fixed to inside surfaces of the vehicle.

7.~~8.~~ The mount as claimed in any one of claims 3 to 6 ~~preceding claim~~, wherein the actuation mechanism includes translation means to translate the first holder part relative to the housing between the retracted position and the deployed position.

8.~~9.~~ The mount as claimed in claim 7 ~~8~~, wherein the translation means comprises a motor and a threaded shaft for translating the first holder part relative to the housing.

9.~~10.~~ The mount as claimed in claim 8 ~~claims 2 and 9~~, wherein the first and second power transmitting connectors are ~~means is~~ arranged to transmit power to the motor of the translation means.

10.~~11.~~ The mount as claimed in any one of claims 3 to 9 ~~preceding claim~~,

wherein the holder is arranged to be rotatable relative to the housing between a first position in which it is orientated to hold an electronic device in a substantially parallel position relative to the housing and a second position in which it is orientated to hold an electronic device in a substantially perpendicular position relative to the housing.

11.~~12.~~ The mount as claimed in claim 10 ~~11~~, wherein the actuation mechanism includes rotation means to rotate the holder between the first and second positions.

12.~~13.~~ The mount as claimed in claim 11 ~~12~~, wherein the actuation mechanism includes a first cooperating part forming part of the holder and a second cooperating part forming part of the housing, the first and second cooperating parts being arranged to cooperate during translation of the holder and thereby to activate the rotation means to cause the holder to rotate.

13.~~14.~~ The mount as claimed in claim 12 ~~13~~, wherein the first cooperating part comprises a protrusion and the second cooperating part comprises a stop.

14.~~15.~~ The mount as claimed in claim 12 ~~13~~, wherein the first cooperating part comprises one of a cog and a rack and the second cooperating part the other of the cog and rack.

15.~~16.~~ The mount as claimed in any one of claims 10 ~~11~~ to 14 ~~15~~, wherein the holder is arranged to rotate through an angle in the range of 80^{o} to 120^{o} between the first and second positions.

16.~~17.~~ The mount as claimed in any one of claims 3 to 15 ~~preceding claim~~, wherein the first holder part in the retracted position is contained within the housing.

17.~~18.~~ The mount as claimed in claim 16 ~~17~~, wherein the first holder part in the retracted position is contained within the housing, together with any electronic device held by the second holder part.

18.~~19.~~ The mount as claimed in any one of claims 3 to 17 ~~preceding claim~~, wherein the housing is arranged to be removably fixed to the dashboard of the motor vehicle.

19.~~20.~~ The mount as claimed in claim 18 ~~19~~, wherein the housing is arranged to be fixed to the dashboard by adhesive.

20.~~21.~~ The mount as claimed in claim 18 ~~19~~, wherein the housing is arranged to be fixed to the dashboard by at least one suction cup.

21.~~22.~~ The mount as claimed in claim 18, 19 or 20 ~~19, 20 or 21~~, wherein the housing includes a detachable base part having a shape which is conformed to the shape of the dashboard of the motor vehicle.

22.~~23.~~ A motor vehicle including an electronic device mount as claimed in any one of claims 3 to 21 ~~preceding claim~~.

23.~~24.~~ The motor vehicle as claimed in claim 22 ~~23~~, wherein the housing is an integral part of a dashboard of the motor vehicle.

1.~~25.~~ An electronic device mount for a dashboard of a motor vehicle, comprising:

a housing arranged to be provided on the dashboard of the motor vehicle;

a holder comprising first and second holder parts, the second holder part arranged to hold an electronic device and be detachably connected to the first

holder part;

an actuation mechanism configured to move the first holder part between a retracted position and a deployed position; and

a first power transmitting connector in the first holder part and a second power transmitting connector in the second holder part, the first and second power transmitting connectors being interconnected when the first and second holder parts are connected together, and the first and second power transmitting connectors arranged to transmit power from a power source of the motor vehicle to an electronic device held in the second holder part when the first and second power transmitting connectors are interconnected.

2.~~26.~~ The mount as claimed in claim 1 ~~25~~, wherein the first and second power transmitting connectors or further transmitting connectors in first and second holder parts are arranged to transmit at least one of audio and video signals from the electronic device held in the second holder part to at least one output in the vehicle when the first and second holder parts are connected together.