conditioning apparatus. In the indoor unit, there are no restrictions on the shape design of a remote-control communication unit at a lower position in the indoor unit.

Solution to Problem

[0006]

An indoor unit of an air-conditioning apparatus according to an embodiment of the present invention includes a back casing and a first top panel having a first pivot axis under the back casing, the first top panel being configured to be attached to the back casing. The first top panel is configured to be detached from the back casing by opening downward from the back casing around the first pivot axis. The indoor unit includes an electric component box. When the first top panel opens downward, a downward-opening pivot path region including a path along which the first top panel moves is shaped. An upper portion of the electric component box is formed to be disposed outside the downward-opening pivot path region such that a front portion of the upper portion is lower than a back portion of the upper portion. The first top panel further includes, in a lower portion of the first top panel, a bent portion that connects a first front portion and a bottom portion. The electric component box includes a remote-control communication unit in a lower portion of the electric component box. The remote-control communication unit is disposed inside the bent portion of the first top panel.

~~An indoor unit of an air-conditioning apparatus according to another embodiment of the present invention includes a back casing and a first top panel having a first pivot axis under the back casing, the first top panel being configured to be attached to the back casing. The first top panel is configured to be detached from the back casing by opening downward from the back casing around the first pivot axis. The indoor unit comprises a second top panel having a second pivot axis above the back casing, the second top panel overlapping an inside of the first top panel. The second top panel is configured to be detached from the back casing by opening upward from the back casing around the second pivot axis.~~

[0007]

An air-conditioning apparatus according to another embodiment of the present invention includes the indoor unit of an air-conditioning apparatus as described above.

Advantageous Effects of Invention

[0008]

In the indoor unit of an air-conditioning apparatus and the air-conditioning apparatus according to the embodiments of the present invention, the first top panel is configured to be detached from the back casing by opening downward from the back casing around the first pivot axis. The expression "downward-opening" means that the first top panel pivots downward from the back casing around the first pivot axis under the back casing. Thus, it is possible to make a shape design of the indoor unit such that a remote-control communication unit at a lower position in the first top panel is disposed outside the pivot path of the first top panel to be detached. As a result, the restriction on the shape design of the indoor unit may be eliminated.

Brief Description of Drawings

[0009]

[Fig. 1] Fig. 1 is a diagram of a refrigerant circuit illustrating an air-conditioning apparatus according to Embodiment 1 of the present invention.

[Fig. 2] Fig. 2 is an external perspective view illustrating an indoor unit of the air-conditioning apparatus according to Embodiment 1 of the present invention.

CLAIMS

[Claim 1]

An indoor unit of an air-conditioning apparatus, comprising:

a back casing; and

a first top panel having a first pivot axis under the back casing, the first top panel being configured to be attached to the back casing, wherein

the first top panel is configured to be detached from the back casing by opening downward from the back casing around the first pivot axis,

the indoor unit comprising an electric component box,

wherein

when the first top panel opens downward, a downward-opening pivot path region including a path along which the first top panel moves is shaped, and

an upper portion of the electric component box is formed to be disposed outside the downward-opening pivot path region such that a front portion of the upper portion is lower than a back portion of the upper portion,

the first top panel further includes, in a lower portion of the first top panel, a bent portion that connects a first front portion and a bottom portion,

the electric component box includes a remote-control communication unit in a lower portion of the electric component box, and

the remote-control communication unit is disposed inside the bent portion of the first top panel.

~~[Claim 2]~~

~~An indoor unit of an air-conditioning apparatus, comprising:~~

~~a back casing; and~~

~~a first top panel having a first pivot axis under the back casing, the first top panel being configured to be attached to the back casing, wherein~~

~~the first top panel is configured to be detached from the back casing by opening downward from the back casing around the first pivot axis,~~

~~the indoor unit comprises a second top panel having a second pivot axis above the back casing, the second top panel overlapping an inside of the first top panel, wherein~~

~~the second top panel is configured to be detached from the back casing by opening upward from the back casing around the second pivot axis.~~

~~[Claim 3]~~

~~The indoor unit of an air-conditioning apparatus of claim 2, further comprising an electric component box, wherein~~

~~when the first top panel opens downward, a downward-opening pivot path region including a path along which the first top panel moves is shaped, and~~

~~an upper portion of the electric component box is formed to be disposed outside the downward-opening pivot path region such that a front portion of the upper portion is lower than a back portion of the upper portion.~~

[Claim 42]

The indoor unit of an air-conditioning apparatus of claim 1~~ or 3~~, further comprising a heat exchanger, wherein

the electric component box is disposed parallel to one end in a left-right direction of the heat exchanger, and

the first top panel includes a plurality of first top portions outside a left-right width of the heat exchanger.

[Claim ~~5~~3]

The indoor unit of an air-conditioning apparatus of claim 42, wherein one of the plurality of first top portions is disposed above the electric component box.

[Claim ~~6~~4]

The indoor unit of an air-conditioning apparatus of claim ~~4 or 5~~2 or 3, wherein

the first top panel further includes a left side portion and a right side portion of a casing, and

each of the plurality of first top portions is continuous with a corresponding one of the left and right side portions.

~~[Claim 7]~~

~~The indoor unit of an air-conditioning apparatus of claim 2 or any one of claims 3 to 6 as dependent on claim 2, wherein~~

~~the first top panel further includes, in a lower portion of the first top panel, a bent portion that connects a first front portion and a bottom portion,~~

~~the electric component box includes a remote-control communication unit in a lower portion of the electric component box, and~~

~~the remote-control communication unit is disposed inside the bent portion of the first top panel.~~

[Claim ~~8~~5]

The indoor unit of an air-conditioning apparatus of ~~claim 1 or 7~~any one of claims 1 to 4, wherein the bent portion has an L shape.

[Claim 6]

The indoor unit of an air-conditioning apparatus of any one of claims 1 to 5, further comprising a second top panel having a second pivot axis above the back casing, the second top panel overlapping an inside of the first top panel, wherein

the second top panel is configured to be detached from the back casing by opening upward from the back casing around the second pivot axis.

[Claim ~~9~~7]

The indoor unit of an air-conditioning apparatus of claim ~~2 or any one of claims 3 to 8 as dependent on claim 2~~ 6, wherein a part at a position of the second pivot axis of

the second top panel is configured to be engaged with the back casing via a claw portion.

[Claim ~~10~~8]

The indoor unit of an air-conditioning apparatus of claim ~~2 or any one of claims 3 to 9 as dependent on claim 2~~ 6 or 7, wherein the second top panel includes a second top portion having a grid shape and to be an air inlet within the left-right width of a heat exchanger.

[Claim ~~11~~9]

The indoor unit of an air-conditioning apparatus of claim ~~10~~8, wherein the second top panel further includes a second front portion, and the second front portion has a left-right width equal to a left-right width of the second top portion and is continuous with the second top portion.

[Claim ~~12~~10]

An air-conditioning apparatus comprising the indoor unit of an air-conditioning apparatus of any one of claims 1 to ~~11~~9.