

A SWITCH OR SOCKET WITH COVERED MOUNTING SCREW

The present invention relates to a switch or socket, especially to a switch or socket with covered mounting screw.

The switch or socket in prior art generally comprises a face plate and an electric device. The electric device is mounted on and fixed to the back of the face plate. Mounting holes are provided on the two sides of the face plate. The switch or socket is fixed on the wall by mounting screws which pass through the mounting holes. However, the mounting screws appear outside the switch after the switch or socket having been mounted, and the appearance of the mounting screws is not artistic. To solve this problem, a gel material is put into the mounting holes to cover the mounting screws. However, when the gel material is used, it is difficult to dismount the switch or socket since the removal of the gel material from the mounting holes is difficult, and the removal of the gel material is liable to damage the face plate.

The objective of the present invention is to provide a switch or socket with covered mounting screw. The switch or socket of the present invention has



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the advantages of having covered mounting screw, artistic appearance, convenient dismounting and no damage on the face plate.

The present invention is realized by the following technical solution: a switch or socket with covered mounting screw, said switch or socket comprises a face plate 1 and an electric device 2, said electric device 2 is mounted on and fixed to the back of said face plate 1, a mounting hole 3 is provided on said face plate 1, characterized in that:

an inlay 7 is mounted springily on said face plate 1, said mounting hole 3 is covered by said inlay 7.

According to the switch or socket with covered mounting screw of the present invention, a clamping hole (4) is provided on said face plate (1), a clamp foot (6) is provided on said inlay (7), said clamp foot (6) is clamped springily in said clamping hole (4) so as to fix springily said inlay (7) to said face plate (1).

According to the switch or socket with covered mounting screw of the present invention, two protrusions (5) are provided in said clamping hole (4).

According to the switch or socket with covered mounting screw of the present invention, two clamp slots (9) are provided on said face plate (1) and two clamp heads (10) are provided on said inlay (7), said inlay (7) is

clamped onto said face plate (1) by said clamp heads (10) which are clamped into said clamp slots (9).

According to the switch or socket with covered mounting screw of the present invention, said inlay (7) is a strip device and is clamped in the corresponding strip slot (11) on said face plate (1).

According to the switch or socket of the present invention, the inlay is mounted and clamped on the face plate to cover the mounting hole and the mounting screw in the mounting hole, so as to make the appearance of the switch or socket more artistically. When the switch or socket is to be mounted, the inlay is put on the face plate, and is pressed toward the face plate to mount the inlay onto the face plate by spring force. When the switch or socket is to be dismounted, the inlay is pulled outward to conquer the spring force, and the inlay can be fetched out from the face plate, and the mounting screw is then removed. The procedure for dismounting the switch or socket of the present invention is very convenient. To compare with the prior art, the switch or socket of the present invention has the advantages of not only saving the time of mounting or dismounting, but also having no damage on the face plate.

Referring to the drawings, the present invention will be further described.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is the front view of the switch or socket of the present invention.

Figure 2 is the back view of the switch or socket of the present invention.

Figure 3 is the A-A cutway view in Figure 1.

Figure 4 is the B-B cutway view in Figure 1.

Figure 5 is another construction of A-A cutway view in Figure 1.

The numerals in the drawings denote as follows:

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| 1. face plate | 2. electric device | 3. mounting hole |
| 4. clamping hole | 5. protrusion | 6. clamping foot |
| 7. inlay | 8. mounting screw | 9. clamping slot |
| 10. clamping head | 11. strip slot | 12. bottom |
| 13. plug | | |

Figure 1 shows the front view of the switch view of the switch or socket with covered mounting screw of the present invention, which comprises a face plate 1 and an electric device 2. The switching button or the jack for plug 13 is provided on the face plate 1. The electric device 2 is mounted on and fixed to the back of the face plate 1, two inlays 7 are mounted on the front of the face plate. In one embodiment, the inlays are strip devices, i.e., inlaid strips 7, the inlaid strips 7 are clamped in the corresponding strip slots 11 on the face plate 1, the mounting holes 3 and the clamping holes 4 are

positioned on the bottom 12 of the strip slots 11 (The jack for plug 13 or the on-off switch on the face plate 1 are not shown in the drawing).

Figure 2, Figure 3 and Figure 4 show the mounting holes 3 and the clamping holes 4 which are positioned symmetrically on the two sides of the face plate 1. Through the mounting holes 3, the mounting screws 8 fix the face plate onto the wall. The clamp feet 6 are provided on the inlaid strips 7, the clamp feet 6 is inserted in the clamping holes 4 to fix the inlaid strips 7 onto the face plate 1. The diameter of the clamping holes 4 can be enlarged, and two protrusions 5 can be provided in the holes 4 so as to connect the inlaid strips 7 to the face plate 1 firmly. In this way, the inlaid strips 7 can be clamped springily in the clamping holes 4 of the face plate 1 by clamping feet 6.

When the switch or socket is to be dismounted, the inlaid strips 7 are pulled outwardly to leave the clamp feet 6 from the clamping holes 4, and the inlaid strips 7 are separated from the face plate 1. The mounting screws 8 appear, and then the mounting screws 8 can be dismounted. When the switch or socket is to be mounted, the face plate 1 is fixed to the wall by the mounting screws 8, the clamp feet 6 on the inlaid strips 7 is inserted into the clamping holes 4 of the face plate 1 to clamp the clamp feet 6 with the protrusions 5 in the clamping holes 4. In this way, the mounting holes 3 is

covered by the inlaid strips 7. Figure 5 shows another construction form of springily clamping, a clamp head 10 is provided with each end of the inlaid strips 7, and two clamp slots 9 are provided on the corresponding positions of strip slots 11 which are positioned on the face plate 1. The clamp heads 10 are clamped into the clamp slots 9 by the spring deformation of the inlaid strips 7.

As mentioned above, the switch or socket with covered mounting of the present invention adopts the method of spring clamp, makes use of spring deformation of inlay to clamp and fix the inlay on the face plate to cover the mounting screw. The inlay is clamped onto the clamp slot of the face plate by using the clamp head, or is clamped into the clamping holes of the face plate by using the clamping feet of the inlay, or is connected with the face plate by two protrusions which clamp the clamp feet. In these ways, the inlay is clamped and fixed onto the face plate under the force of spring deformation. The switch or socket having the construction of the present invention has the advantages of having covered mounting screw, artistic appearance, convenient mounting and dismounting, and no damage on the face plate.

CLAIMS

1. A switch or socket with covered mounting screw, comprising a face plate (1) and an electric device (2), the face plate (1) having a front side and a back side, said electric device (2) being mounted on and fixed to the back side of said face plate (1), a mounting hole (3) being provided on said face plate (1), characterized in that:

the switch or socket further comprising an inlay (7) having a dimension less than that of the face plate (1), the inlay is mounted springily on the front side of said face plate (1) for covering said mounting hole., and

the front side of the face plate (1) further comprising a recess for receiving the inlay (7).

2. The switch or socket with covered mounting screw as claimed in claim 1, characterized in that:

a clamping hole (4) is provided on said face plate (1), a clamp foot (6) is provided on said inlay (7), said clamp foot (6) is clamped springily in said clamping hole (4) so as to fix springily said inlay (7) to said plate (1).

3. The switch or socket with covered mounting screw as claimed in claim 2, characterized in that:

two protrusions (5) are provided in said clamping hole (4).

4. The switch or socket with covered mounting screw as claimed in claim 1, characterized in that:

two clamp slots (9) are provided on said face plate (1) and two clamp heads (10) are provided on said inlay (7), said inlay (7) is clamped onto said face plate (1) by said clamp heads (10) which are clamped into said clamp slots (9).

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5. The switch or socket with covered mounting screw as claimed in any one of claims 1 – 4, characterized in that:
said inlay (7) is a strip device and is clamped in the corresponding strip slot (11) on said face plate (1).