

Europäisches Patentamt European Patent Office Office européen des brevets



(11) **EP 0 810 401 A2**

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:03.12.1997 Bulletin 1997/49

(51) Int Cl.6: **F21V 17/00**, F21V 21/04

(21) Application number: 97500097.7

(22) Date of filing: 27.05.1997

(84) Designated Contracting States: **DE FR IT**

(30) Priority: 28.05.1996 ES 9601457 U

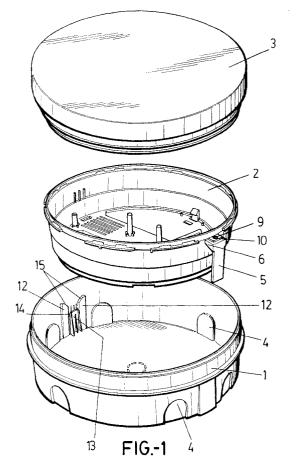
(71) Applicant: Daisalux, S.A.01195 Vitoria (Alava) (ES)

(72) Inventor: Fernandez De Arroyabe, Jose Antonio Ibarredi, 4, 01195 Vitoria (Alava) (ES)

(74) Representative: Carpintero Lopez, Francisco HERRERO & ASOCIADOS, S.L. Alcalá, 21 28014 Madrid (ES)

(54) Improved emergency luminaire

(57) The luminaire is made up of the three classic components, namely a built-in box, a components support fixable within the box and a frontal cover shade, and is particular in that the components support is mounted on or fixed to the box by means of elements that enable the positioning of the actual components support with respect to the box to be adjusted, offsetting the misalignments arising upon the built-in box being fitted, and the components support will therefore take up the most suitable relative position with respect to the box, in order that upon the shade being mounted no misalignments or clearances are visible between the shade and the wall.



10

35

40

Description

OBJECT OF THE INVENTION

The invention relates to a luminaire of the kind that may be built in and comprises a box, a support for components fixed within the box and a cover shade coupled to the mouth of the box, the box being the element that is built in such that only the cover shade as such remains in full view

The object of the invention is to obtain a luminaire in which fixing between the support for the components and the built-in box is such that the position of the support may be adjusted within the box in order to thereby offset possible misalignments arising upon the built-in box being fitted.

BACKGROUND OF THE INVENTION

There is a type of built-in luminaires that are made up of a box as the built-in element proper, which box houses in it the support to mount the various components, namely for instance starters, reactors, the lamp as such, etc., which assembly is covered by means of a frontal shade that is coupled to the mouth of the box.

The support is normally screwed to the box and as a result the position of the support relative to the box is always fixed.

It is frequently the case that when the box must be almost fully built into a wall, it is difficult to arrange the circumferential edge of its mouth entirely levelled with respect to the receiving wall, and therefore once the components support is mounted and screwed inside the box, and once the cover shade has been fitted or coupled to the mouth of said box, because of such presumed off-level of the circumferential edge of the mouth of the box, undesirable clearly visible misalignments and clearances result between the shade and the wall.

DESCRIPTION OF THE INVENTION

The luminaire disclosed herein is of the built-in kind comprising the three elements aforesaid, to wit a built-in box, a support for components fixable within the box and a frontal cover shade, and is particular in that the components support is fixed to or mounted on the box on the basis of elements that enable the positioning of the very components support relative to the box to be adjusted, to thereby offset possible misalignments arising upon the built-in box being fitted, which means that the components support will take up the most suitable relative position with respect to the box in order that no misalignments and clearances are visible, upon the shade being fitted, between the shade and the wall.

More specifically, the fixing or mounting means between the components support and the box actually consist of a pair of lugs releasably fixed on the outer side surface of the support, which lugs will work as if they were respective racks, for they are provided with saw-like ridges crosswise that play in an equal number of housings purposely made on the inner side surface of the built-in box, each housing being defined between two projections or extensions on the inner wall of the box and a flange projecting from the base of the box, which flange lies between such two extensions.

The flanges projecting from the base of the box have a spear-shaped rib crosswise on their inner face, situated close to their free edge, in order that upon the components support lugs penetrating the respective receiving housings provided between the extensions or projections on the inner wall of the box and the flanges proper, a rack-like effect comes about which allows an accurate positioning, causing each of the lugs to penetrate to a greater or lesser extent in their housing, thereby allowing existing misalignments upon the built-in box being fitted to be offset.

The resilience of the flanges allows the components support lugs to be released using a suitable implement in order to take the support off the box to which it is fixed by means of the lock established between the lugs and the flange. Another way of undoing the lock is to take off the lugs as such, for the latter are fixed to respective wings provided on the side surface of the actual components support.

It is noteworthy that the projections or extensions between which each flange is located have their top edges bevelled, the top edge of the respective flange being likewise bevelled, for ease of both guidance and penetration of the lug into its respective housing.

DESCRIPTION OF THE DRAWINGS

In order to provide a fuller description and contribute to the complete understanding of the characteristics of this invention, a set of drawings is attached to the specification which, while purely illustrative and not fully comprehensive, shows the following:

Figure 1.- Is a representation showing a perspective exploded view of the three parts or elements that make up the built-in luminaire subject of the invention.

Figure 2.- Is a quarter-sectional side elevation view of the mounted luminaire assembly shown in the previous figure.

PREFERRED EMBODIMENT OF THE INVENTION

With reference to the aforesaid figures, the luminaire of the invention is of the kind of luminaire made up of three interconnectable elements, one of which defines a box as a built-in element proper, which is generally designated (1), another being a support (2) for the respective components, which support (2) will be duly fixed and mounted within the box (1), whereas the third element is a frontal cover shade (3) that is coupled to the mouth of the actual box (1).

The box (1) may be circular in shape, as shown in

the figures, or polygonal, with recessed areas (4) on its side surface that may be severed at will by pressing at any time to define openings for the passage of leads to supply the electric components fixed to and mounted on the support (2), the latter being therefore purposely provided with respective means for such components to be mounted and fixed.

For its part, the frontal cover shade (3) will have suitable means to be coupled to the mouth of the built-in box (1) and/or on the support (2), which coupling elements may be bayonet type or other conventional projections.

Now then, starting from these characteristics, the novelty of the invention lies in the means for mounting and fixing the support (2) within the box (1), to enable the relative position of such support (2) to be adjusted with respect to the box (1), and therefore the shade (3), thereby to offset possible misalignments arising upon the built-in box (1) being fitted.

These mounting and fixing means consist of a pair of lugs (5) that are releasably fixed onto the outer side surface of the actual components support (2), each of such lugs (5) comprising a rectangular body the top end of which leads into a wing (6) between which and the inner surface of the lug (5) there is a projection (7) with an axial through bore (7), through which the said lug (5) is fixed with a screw (9) to a wing (10) projecting from the side surface of the actual support (2), thereby for the lugs (5) to be easily taken off, for the screw (9) fixing each of them faces the top or front upon the support being mounted within the built-in box (1).

The lugs (5) are provided on their inner face with saw-like ridges (11) whose function shall be described hereinafter

For its part, the built-in box (1) is provided at two diametrically facing areas of its inner surface with pairs of projections or extensions (12) running in the direction of respective generating lines, between which a flange (13) is situated which projects from the very bottom of the box (1), a housing being defined between the former extensions or projections (12) and the actual flange (13) for each lug (5), upon the support (2) being mounted within the box (1).

Each flange (13) is provided close to its free upper edge with a spear-shaped rib (14) to be locked in any of the projections making up the transverse racking (11) of the lugs.

Now therefore, once the box (1) is built into the respective wall, a poor levelling thereof may be offset by the adjustable mounting of the support (2) within the box (1), for the support lugs (5) shall be inserted in the housings defined between the projections or extensions (12) and the flanges (13) of the box (1), and thus since each lug (5) has the racked sector (11), a rack effect will come about which will allow each of the lugs to be accurately positioned as required. Naturally, by having each of the lugs (5) penetrate into their respective housing to a greater or lesser extent, the misalignments resulting up-

on the built-in box (1) being fitted may be offset, for the components support (2) will take up the most suitable relative position with respect to the box (1) in order that no misalignments or clearances are observed, upon the shade (3) being mounted, between the latter and the actual wall

The ends of the projections or extensions (12) of the box (1) have an inclined plane (15) defining, together with the bevelled end (16) of the flanges (13) and even the bevelled edge or end of the lugs (5), means for ease of guidance and penetration of such lugs (5) into their respective housings.

We feel that the description need not be extended any longer for any expert in the art to have grasped the full scope of the invention and the advantages it offers.

The materials, shape, size and layout of the elements may be altered provided that this entails no modification of the essential features of the invention.

The terms used to describe the invention herein should be taken to have a broad rather than a restrictive meaning.

Claims

25

40

45

50

- 1. An improved emergency luminaire, being of the kind having a built-in box, a support for components mounted and fixed within the said box, and a frontal cover shade that is coupled to the mouth of the box, essentially characterised in that the components support is mounted and fixed within the box by means of pairs of lugs releasably fixed on the outer side surface of said components support, which lugs may be adjustably housed with a rack-like effect within housings purposely provided on the inner side surface of the box, each housing being defined between a pair of parallel projections or extensions between which a flange projecting from the bottom of the very box is situated.
- 2. An improved emergency luminaire, as in claim 1, characterised in that the lugs releasably provided on the side surface of the components support are rectangular and have a wing at one of their ends with a hole for the passage of a screw through which fixing takes place to awing projecting from the side surface of the actual components support, the inner face of said lugs being provided with saw-like ribs crosswise.
- 3. An improved emergency luminaire, as in claim 1, characterised in that the flanges projecting from the bottom of the built-in box and lying between the extensions or projections provided on the inner side surface of said box are provided close to their free edge with a spear-like rib to be locked in any of the saw-like ridges that are purposely provided on the lugs of the components support, thereby for a great-

er or lesser penetration of the latter within their respective housing to allow off-levels arising upon the built-in box being fitted to be offset.

4. An improved emergency luminaire, as in preceding claims, characterised in that the edges of each pair of projections or extensions provided on the inner side surface of the box, which define, together with the flange projecting from the bottom of the box, the housing for the respective components support lug, define inclined planes that assist in the guidance and penetration of the lugs into their respective housings, since the free edge of such lugs and even the edge of the flanges are bevelled for an easier penetration of the lug into the respective housing.

g *5* ir ir ir

