

operated in this state, a vicinity of the light source is heated by heat generated from the light source, so that the light guiding plate and the housing start to thermally expand according to respective thermal expansion coefficients different from each other. And, when a difference in an amount of thermal expansion in a direction substantially parallel to the adhesive surfaces between the light guiding plate and the housing increases with an elapse of time to a state in which the adhesive state of the adhesive surfaces is not maintained, the adhesive surfaces are separated and disagreeable crack occurs consequently. The fact that separating noise is also caused by thermal contraction by turning off the light source helps examine the cause thereof.

[0013] And, in order to achieve the above-described object, a lighting unit according to the present invention comprises a light guiding plate for guiding light entering from an end face thereof along a principal surface thereof, a light source disposed along the end face of the light guiding plate, and a reflector configured to enclose the light source to reflect the light emitted from the light source toward the end face of the light guiding plate, a housing disposed to enclose at least the reflector and configured to hold the light guiding plate, wherein at least one contact surface of a predetermined region at which the housing and the light guiding plate contact each other is roughened.

[0014] As used herein, the wording "contact" means that the housing and the light guiding plate directly contact each other, and that the housing and the light guiding plate contact each other with another member or the like interposed therebetween.

[0015] In such a configuration, since at least one contact surface of the predetermined region at which the housing and the light guiding plate contact each other is formed to increase roughness degree, the light guiding plate and the housing do not adhere to each other at the contact portion, and therefore, the separating noise generated between the light guiding plate and the housing is inhibited even when the light guiding plate and the housing thermally expand by heat generated from the light source and thermally contract by turning off the light source. So, cushioning is exercised between the light guiding plate and the housing.

[0016] In this case, lubricant may be applied to the predetermined region at which the housing and the light guiding plate are opposed to each other.

[0017] In such a configuration, since the lubricant is applied to the predetermined region at which the housing and the light guiding plate are opposed to each other, the light guiding plate and the housing do not adhere to each other at the contact portion. Therefore, the separating noise generated between the light guiding plate and the housing is inhibited even when the light guiding plate and the housing thermally expand by heat generated from the light guiding plate and thermally contract by turning off the light source.

[0018] In this case, a sliding member may be disposed on the predetermined region at which the housing and the light guiding plate are opposed to each other. The sliding member having a sliding characteristic may be made of polycarbonate resin or the like, synthetic resin such as transparent acrylic plate, polyacetal, fluorine-based material, and the like. This may also be formed by a light correction sheet for uniformizing and amplifying the light emanating from the light

guiding plate and entering the liquid crystal display device. The sliding member having the sliding characteristic is not always required to be transparent, but the sliding member disposed along the front surface of the light guiding plate, such as the light correction sheet, is required to be transparent so as not to adversely affect the optical characteristics of the light guiding plate.

[0019] In such a configuration, since the sliding member is disposed on the predetermined region at which the housing and the light guiding plate are opposed to each other, the light guiding plate and the housing do not adhere to each other at the contact portion, and therefore, the separating noise generated between the light guiding plate and the housing is inhibited even when the light guiding plate and the housing thermally expand by heat generated from the light source and thermally contract by turning off the light source. So cushioning is exercised between the light guiding plate and the housing. In addition, since a sliding member having the sliding characteristic, which is different from the housing and the light guiding plate is interposed therebetween, it is not required to provide contact holding portion by processing the conventional housing.

[0020] A lighting unit according to the present invention comprises a light guiding plate for guiding light entering from an end face thereof along a principal surface thereof, a light source disposed along the end face of the light guiding plate, a reflector configured to enclose the light source to reflect the light emitted from the light source toward the end face of the light guiding plate, and a housing disposed to enclose at least the reflector and configured to hold the light guiding plate, wherein a transparent sheet is disposed on the principal surface of the light guiding plate, and the transparent sheet is disposed on a predetermined region at which the housing and the light guiding plate are opposed to each other.

[0021] In such a configuration, since the transparent sheet is superposed on the principal surface of the light guiding plate, and an end portion thereof is interposed between the housing and the light guiding plate, the light guiding plate and the housing do not adhere to each other at the contact portion, and therefore, the separating noise generated between the light guiding plate and the housing is inhibited even when the light guiding plate and the housing thermally expand by heat from the light source and thermally contract by turning off the light source. So, cushioning is exercised between the light guiding plate and the housing. Since the sheet is transparent, this does not adversely affect the optical characteristics of the lighting unit.

[0022] A liquid crystal display device according to the present invention comprises a lighting unit according to claim 1 or 4, and a liquid crystal display panel configured to display an image by variation of transmissivity of light according to an input image signal, wherein the liquid crystal display panel is disposed on a front surface of the lighting unit.

[0023] In such a configuration, the separating noise generated between the light guiding plate and the housing is inhibited even when the light guiding plate and the housing thermally expand by heat generated from the light source and thermally contract by turning off the light source, and the liquid crystal display device using a quiet lighting unit can be obtained.