

CLAIMS

1. A keyboard structure for improved illumination characteristics, the structure comprising:
 - a substrate having a reflective surface; and
 - a key switch assembly disposed adjacent the substrate, the key switch assembly comprising:
 - a keycap;
 - a contact assembly; and
 - a light emitting means, the light emitting means disposed adjacent the contact assembly,wherein light emitted from the light emitting means is incident on the reflective surface of the substrate and is reflected to areas surrounding the key switch assembly.
2. The structure of claim 1, wherein the substrate comprises perforations shaped and dimensioned to accommodate the key switch assembly therethrough.
3. The structure of claim 1, wherein the reflective surface being formed by a reflective paint layer.
4. The structure of claim 3, wherein the reflective paint layer being in at least one of blue, green, red, orange and yellow colour.
5. The structure of claim 1, wherein at least a portion of the keycap is optically transmissive.
6. The structure of claim 1, wherein the substrate comprises a top surface and a bottom surface, the bottom surface opposite the top surface, wherein the top surface and the bottom surface are substantially planar.
7. The structure of claim 6, wherein the contact assembly is disposed between the keycap and the substrate.

8. The structure of claim 1, wherein the light emitting means is disposed between the keycap and the substrate.
9. The structure of claim 1, wherein the light emitting means is electrically coupled to the contact assembly.
10. The structure of claim 1, wherein the light emitting means includes a light emitting diode.
11. The structure of claim 1, wherein the light emitting means is characterized by at least one of blue, green, red, orange and yellow colour.
12. The structure of claim 1, wherein the substrate and the light emitting means have identical colour characteristic.
13. The structure of claim 1, comprising a first zone and a second zone, wherein the first zone and the second zone have different colour characteristics.

CLAIMS

1. A keyboard structure for improved illumination characteristics, the structure comprising:

a substrate having a reflective surface; and

a key switch assembly disposed adjacent the substrate, the key switch assembly comprising:

a keycap;

a contact assembly; and

a light emitting means, the light emitting means disposed adjacent the contact assembly,

wherein light emitted from the light emitting means is incident on the reflective surface of the substrate and is reflected to areas surrounding the key switch assembly; and

wherein the substrate comprises perforations shaped and dimensioned to accommodate the key switch assembly therethrough.

2. A keyboard structure for improved illumination characteristics, the structure comprising:

a substrate having a reflective surface; and

a key switch assembly disposed adjacent the substrate, the key switch assembly comprising:

a keycap;

a contact assembly; and

a light emitting means, the light emitting means disposed adjacent the contact assembly,

wherein light emitted from the light emitting means is incident on the reflective surface of the substrate and is reflected to areas surrounding the key switch assembly; and

wherein the reflective surface being formed by a reflective paint layer.

3. The structure of claim 2, wherein the reflective paint layer being in at least one of blue, green, red, orange and yellow colour.

4. The structure of any one of claims 1 to 3, wherein at least a portion of the keycap is optically transmissive.
5. A keyboard structure for improved illumination characteristics, the structure comprising:
 - a substrate having a reflective surface; and
 - a key switch assembly disposed adjacent the substrate, the key switch assembly comprising:
 - a keycap;
 - a contact assembly; and
 - a light emitting means, the light emitting means disposed adjacent the contact assembly,wherein light emitted from the light emitting means is incident on the reflective surface of the substrate and is reflected to areas surrounding the key switch assembly; and
 - wherein the substrate comprises a top surface and a bottom surface, the bottom surface opposite the top surface, wherein the top surface and the bottom surface are substantially planar.
6. The structure of claim 5, wherein the contact assembly is disposed between the keycap and the substrate.
7. The structure of any one of claims 1 to 6, wherein the light emitting means is disposed between the keycap and the substrate.
8. The structure of any one of claims 1 to 7, wherein the light emitting means is electrically coupled to the contact assembly.
9. The structure of any one of claims 1 to 8, wherein the light emitting means includes a light emitting diode.
10. A keyboard structure for improved illumination characteristics, the structure

comprising:

- a substrate having a reflective surface; and

- a key switch assembly disposed adjacent the substrate, the key switch assembly comprising:

 - a keycap;

 - a contact assembly; and

 - a light emitting means, the light emitting means disposed adjacent the contact assembly,

wherein light emitted from the light emitting means is incident on the reflective surface of the substrate and is reflected to areas surrounding the key switch assembly, and

, wherein the light emitting means is characterized by at least one of blue, green, red, orange and yellow colour.

11. A keyboard structure for improved illumination characteristics, the structure comprising:

- a substrate having a reflective surface; and

- a key switch assembly disposed adjacent the substrate, the key switch assembly comprising:

 - a keycap;

 - a contact assembly; and

 - a light emitting means, the light emitting means disposed adjacent the contact assembly,

wherein light emitted from the light emitting means is incident on the reflective surface of the substrate and is reflected to areas surrounding the key switch assembly; and

wherein the substrate and the light emitting means have identical colour characteristic.

12. A keyboard structure for improved illumination characteristics, the structure comprising:

- a first zone;

- a second zone,

wherein the first zone and the second zone have different colour characteristics;
a substrate having a reflective surface; and
a key switch assembly disposed adjacent the substrate, the key switch assembly comprising:

- a keycap;

- a contact assembly; and

- a light emitting means, the light emitting means disposed adjacent the contact assembly; and

wherein light emitted from the light emitting means is incident on the reflective surface of the substrate and is reflected to areas surrounding the key switch assembly;