

Title (en)
LIGHT SOURCE ASSEMBLY FOR VEHICLE EXTERNAL LIGHTING

Title (de)
LICHTQUELLENANORDNUNG FÜR FAHRZEUGAUSSENBELEUCHTUNG

Title (fr)
ENSEMBLE D'ECLAIRAGE DESTINE A L'ECLAIRAGE EXTERNE D'UN VEHICULE

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Application
EP 03713438 A 20030213

Priority

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- US 35685402 P 20020213

Abstract (en)
[origin: CA2476234A1] An aircraft light assembly comprises a light apparatus configured to be supported in a space on the body of an aircraft. The apparatus has one or more light emitting diodes (13) generating visible light and an outer structure overlying the LEDs. The outer structure includes a light transmission portion through which visible light from the LEDs can pass, and a metallic portion with an outer surface exposed to the external airflow. A heat-transmitting connection thermally links the LEDs to the metallic portion so that heat from the LEDs flows to the outer surface and is dissipated to the external airflow. The light assembly is configured to be secured in a conventional socket for an incandescent navigation light bulb and to receive the electrical current supplied thereto by the aircraft electrical system. Civilian applications of the unit have only visible LEDs. When the unit is for a military aircraft, it has electric circuitry connected with a visible light source and an IR light source, and the electric circuitry is configured to process the input current from the socket and based thereon operate in either a visible mode or covert IR mode. Where the current is in one electrical state, such as for example a certain voltage, the electric circuit sends power only to the visible light source. When the current is in a different electrical state, e.g., a different voltage level, the circuitry sends power only to the IR source, and no visible light is emitted. Different input current voltages or characteristics are also used to cause the IR emitter to flash in various patterns that can be programmed into the unit. All control may be accomplished over a single pair of wires, as in existing systems that do not have IR mode capability. To upgrade existing aircraft, light source units are shaped to fit in the apertures for existing lenses over incandescent navigational fixtures.

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