

Title (en)
Light barrier for reopening elevator doors

Title (de)
Lichtschranke zum Wiederöffnen von Aufzugstüren

Title (fr)
Barrière optique pour réouvrir des portes d'ascenseur

Publication
EP 0818412 B1 20050316 (DE)

Application
EP 97110268 A 19970624

Priority
US 67760096 A 19960708

Abstract (en)
[origin: US5627439A] An apparatus for detecting an object adjacent an elevator door includes a housing (47) mounted at an upper edge of a car door opening (38) and in which are mounted a plurality of short range detector pairs (50) and a plurality of long range detector pairs (53). Each short range detector pair includes a transmitter (14,25,40) for generating a relatively short range infrared beam (18,27,42) toward a path of travel (16) of an elevator door (17) across the door opening and a short range receiver (15,26,41) for detecting a reflection (31) of the beam from a facing surface (17b) of the door and generating a short range beam detection signal. Each long range detector pair is positioned adjacent an associated one of the short range detector pairs and includes a transmitter (19,28,43) for generating a relatively long range infrared beam (21,30,45) across the path of travel and a receiver (20,29,44) for detecting a reflection (23) of the beam from an object (22) near the door opening and generating a long range beam detection signal. A control (11) is connected to each detector pair for turning on the transmitters and for reopening the closing door in response to the long range beam detection signal. The control responds to each short range detection signal during closing of the door to disable the associated long range transmitter and responds to termination of the short range detection signal during opening of the door to enable the associated long range transmitter to prevent detection of the moving door by the long range receivers from reopening the door.

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US 5627439 A 19970506; AT E290990 T1 20050415; AU 2847597 A 19980115; AU 719035 B2 20000504; BR 9703893 A 19980908; BR 9703893 B1 20110823; CA 2209543 A1 19980108; CA 2209543 C 20050920; CN 1123527 C 20031008; CN 1184768 A 19980617; DE 59712228 D1 20050421; EP 0818412 A1 19980114; EP 0818412 B1 20050316; ES 2238705 T3 20050901; JP 4194673 B2 20081210; JP H1067481 A 19980310; MX 9705097 A 19980630; NZ 328126 A 19980527; SG 80575 A1 20010522; TW 330223 B 19980421

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