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[Continued on next page]

(54) Title: LIGHTWEIGHT AUDIO SYSTEM FOR AUTOMOTIVE APPLICATIONS AND METHOD

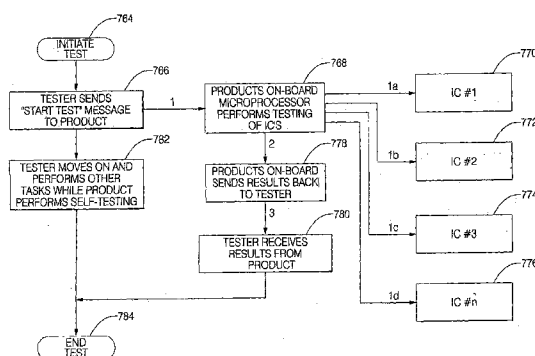


FIG. 56

(57) Abstract: A lightweight radio/CD player for vehicular application is virtually "fastenerless" and includes a case and frontal interface formed of polymer based material that is molded to provide details to accept audio devices such as playback mechanisms (if desired) and radio receivers, as well as the circuit boards required for electrical control and display. The case and frontal interface are of composite structure, including an insert molded electrically conductive wire mesh screen that has been pre-formed to contour with the molding operation. The wire mesh provides EMC, RFI, BCI and ESD shielding and grounding of the circuit boards via exposed wire mesh pads and adjacent ground clips. The PCB architecture is bifurcated into a first board carrying common circuit components in a surface mount configuration suitable for high volume production, and a second board carrying application specific circuit components in a wave soldered stick mount configuration. The major components and subassemblies are self-fixturing during the final assembly process, eliminating the need for dedicated tools, fixtures and assembly equipment. The major components and subassemblies self-interconnect by integral guide and connection features effecting "slide lock" and "snap lock" self-interconnection. The radio architecture includes improved push buttons employing 4-bar living hinge linkage and front loaded decorative trim buttons.

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B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 381/58, 86, 302, 77, 79; 455/345; 701/2, 29, 31 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched none Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) EAST search. Search terms: testing, vehicle/car/automobile audio system, assembly, code, remote, fault code.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,361,305 (EASLEY et al) 01 November 1994 (01.11.1994), see entirement document.	1-3
A	US 5,940,518 (AUGUSTYN et al) 17 August 1999 (17.08.1999), see entirement document.	1-3
A	US 6,950,525 B2 (HARRELL et al) 27 September 2005 (27.09.2005), see entirement document.	1-3
A	US 6,957,134 B2 (RAMSEYER et al) 18 October 2005 (18.10.2005), see entirement document.	1-3
A	US 2005/0036631 A1 (FEIT et al) 17 February 2005 (17.02.2005), see entirement document.	1-3
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