

United States Patent [19]
Tsuchiyama et al.

[11] **Patent Number:** **5,548,271**
 [45] **Date of Patent:** **Aug. 20, 1996**

[54] DATA DISPLAY RADIO PAGER	4,868,563	9/1989	Stair et al.	340/311.1
	4,876,537	10/1989	Oyamada	340/825.44
[75] Inventors: Kinya Tsuchiyama; Masahiro Matai, both of Tokyo, Japan	4,945,350	7/1990	Kawamura	345/102
	5,087,906	2/1992	Eaton et al.	340/825.44
	5,185,604	2/1993	Nepple et al.	340/825.44
[73] Assignee: NEC Corporation, Japan	5,192,947	3/1993	Neustein	340/311.1

[21] Appl. No.: **265,668**

[22] Filed: **Jun. 24, 1994**

[30] **Foreign Application Priority Data**

Jun. 28, 1993 [JP] Japan 5-178529

[51] Int. Cl.⁶ **H04Q 1/30; G08B 5/22**

[52] U.S. Cl. **340/311.1; 340/825.44; 345/102; 368/227**

[58] **Field of Search** 340/311.1, 825.44,
340/825.45; 345/102, 4; 368/30, 83, 84,
226, 227, 241, 242

[56] **References Cited**

U.S. PATENT DOCUMENTS

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Attorney, Agent, or Firm—Ostrolenk, Faber, Gerb & Soffen, LLP

[57] **ABSTRACT**

In a data display radio pager, light emitting diodes (LEDs) for alerting the user of the pager to an incoming call are disposed in a backlight together with LEDs for backlighting a liquid crystal display (LCD) for message display. The alert LEDs effect an alert via the LCD and flash in a striking color different from the color of light to issue from the backlight LEDs. The radio pager is miniature despite that the LCD and alert LEDs are arranged on the front of the casing of the pager.

15 Claims, 4 Drawing Sheets

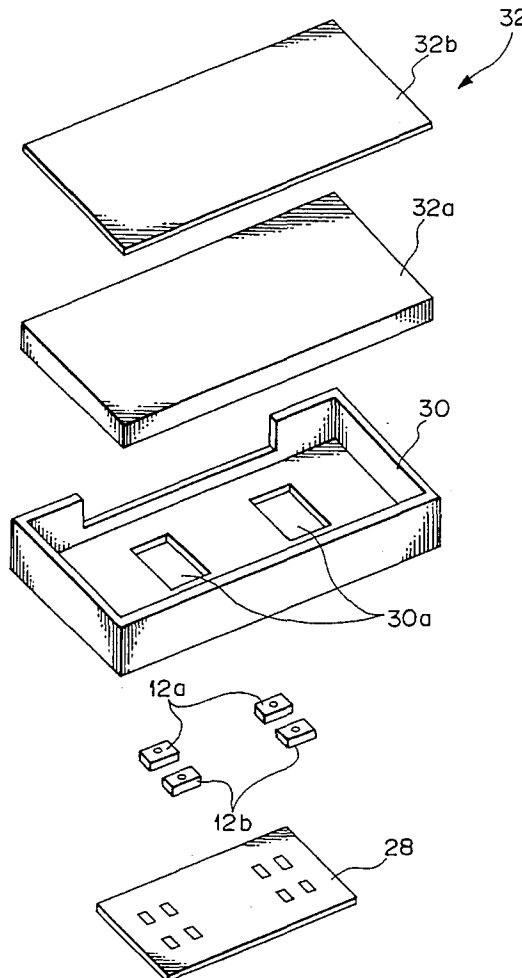


Fig. 1

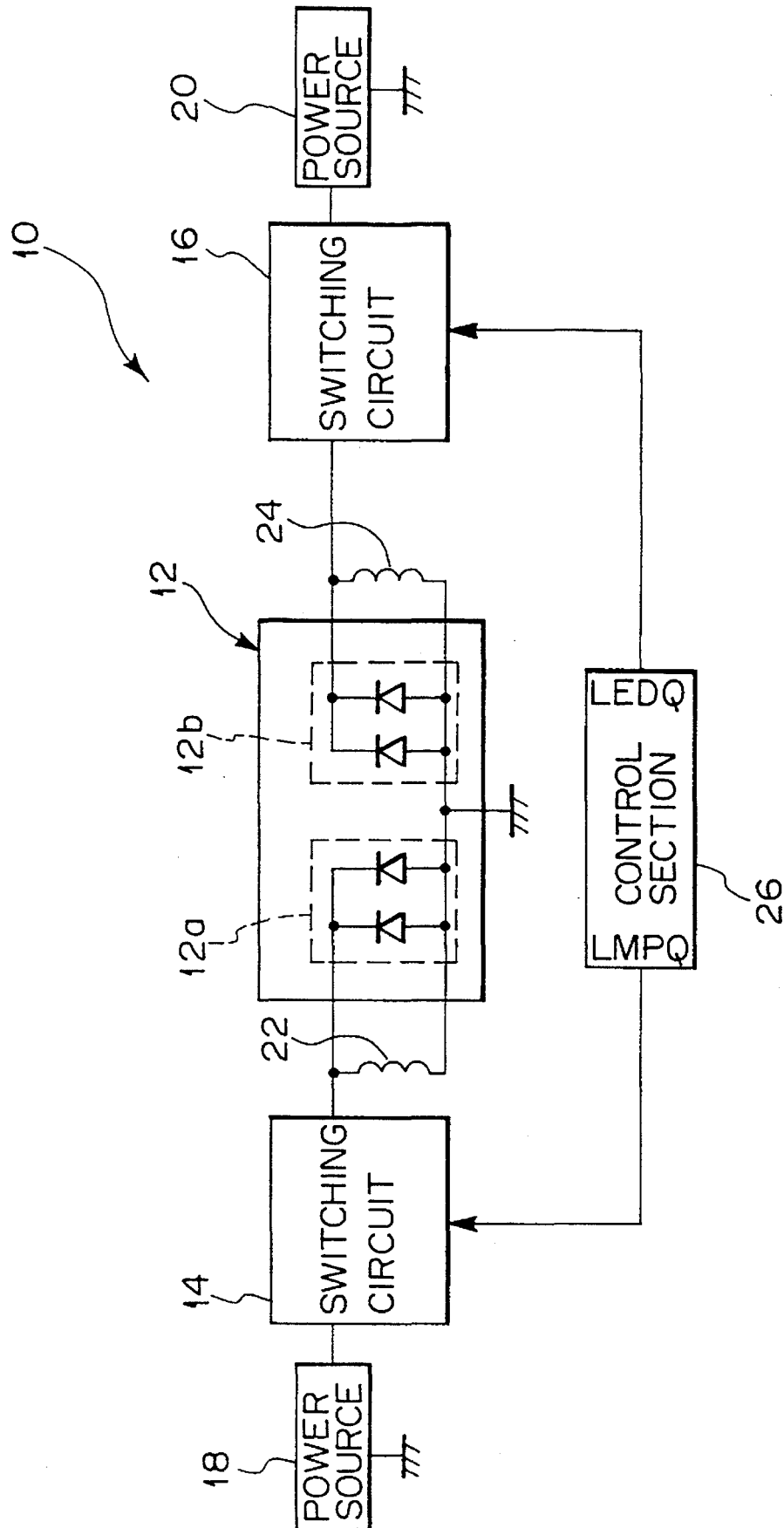


Fig. 2

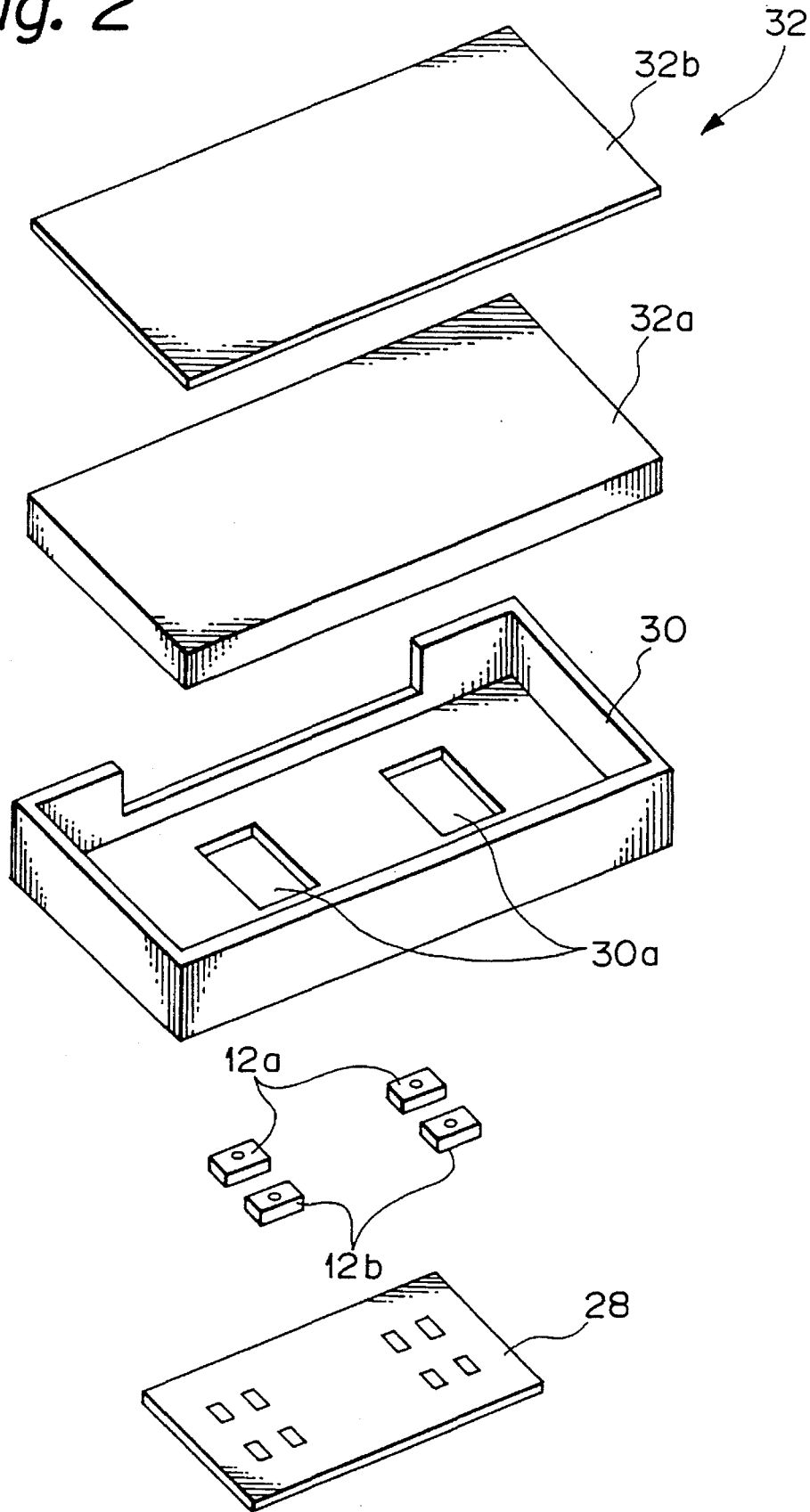


Fig. 3A

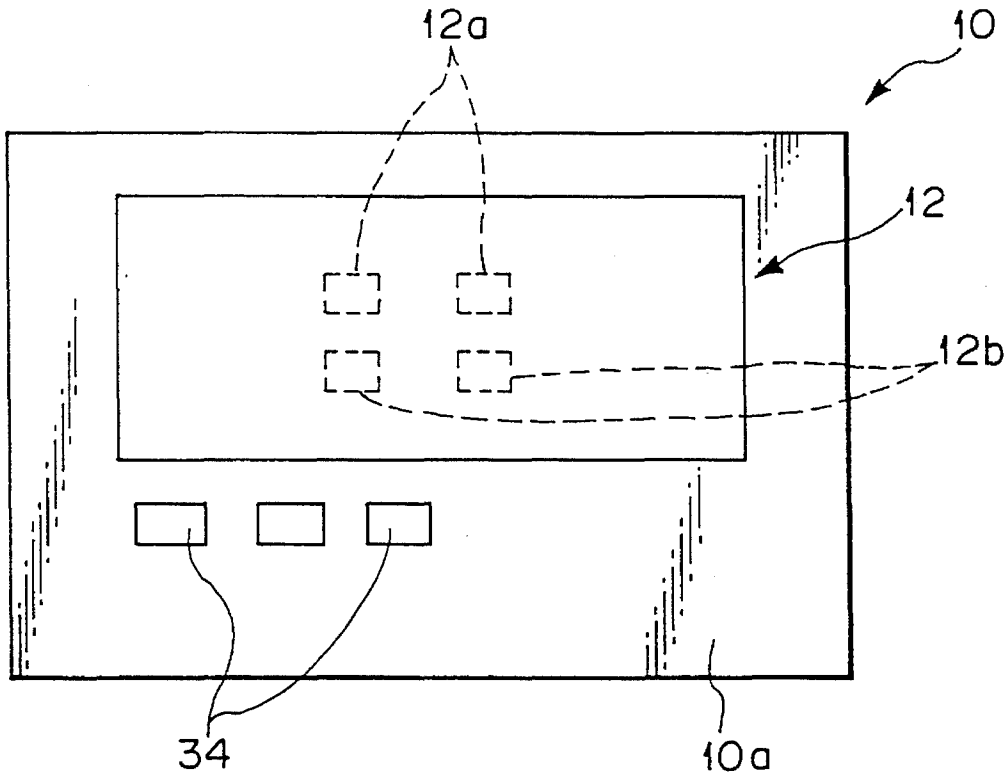


Fig. 3B

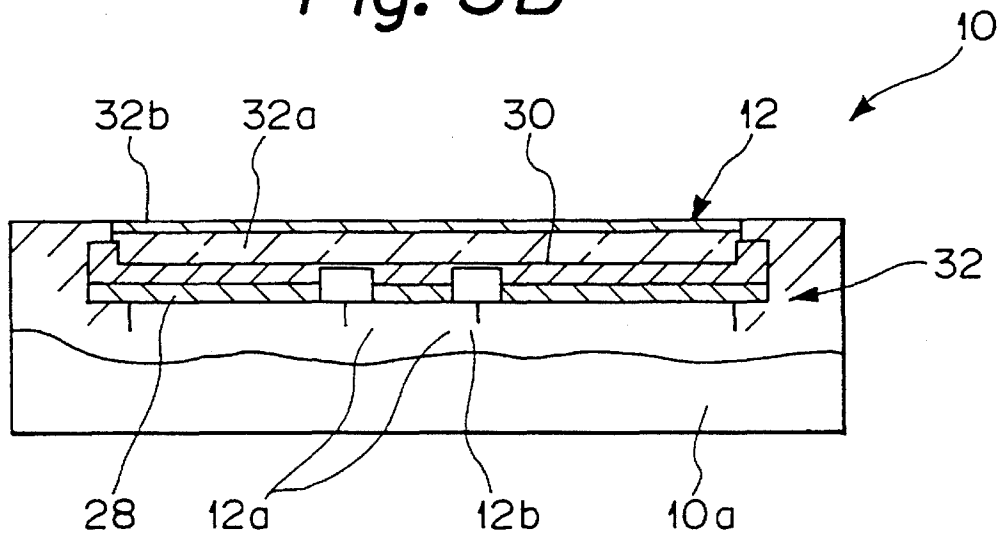
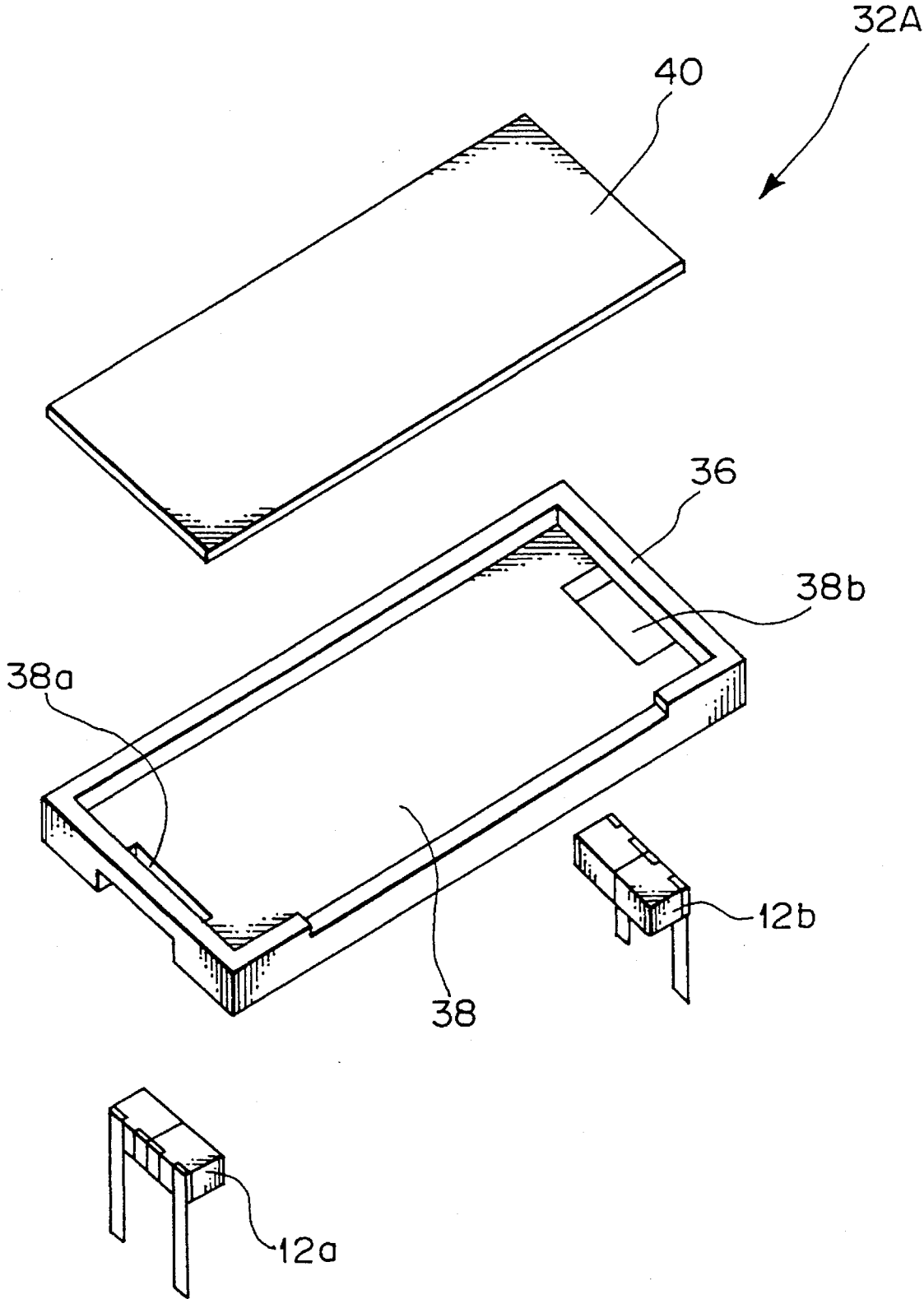


Fig. 4



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