United States Patent [19]

Yamamoto et al.

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[54] **REMOTE CONTROL DEVICE THAT TRANSMITS SIGNALS INDICATING TERMINATION OF KEY PRESSING OPERATIONS**

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[73] Assignee: **Sony Corporation**, Tokyo, Japan

[21] Appl. No.: **271,277**

[22] Filed: **Jul. 6, 1994**

Related U.S. Application Data

[63] Continuation of Ser. No. 885,085, May 18, 1992, abandoned.

[30] **Foreign Application Priority Data**

May 20, 1991 [JP] Japan 3-143870

[51] **Int. Cl.^{6}** **H04Q 9/14**; H04Q 7/00
[52] **U.S. Cl.** **340/825.63**; 340/825.69; 340/825.24; 341/176; 359/148
[58] **Field of Search** 340/825.24, 825.25, 340/825.57, 825.69, 825.72, 825.63; 358/194.1, 86, 335; 360/14.1, 33.1; 369/24, 50; 359/148; 341/176

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[57] **ABSTRACT**

A remote control device controls an electronic system that has a number of functions. The remote control device has a limited number of function keys, and certain keys correspond to different functions of the electronic system. In order to permit discrimination of the function keys, the length of time during which the function key is actuated is employed in the electronic system. To prevent erroneous control caused by artificial interruption of the control signal, the remote control device appends one of two different time code signals to the key code corresponding to the actuated function key, whereby discrimination of the actuation time at the electronic system is made possible.
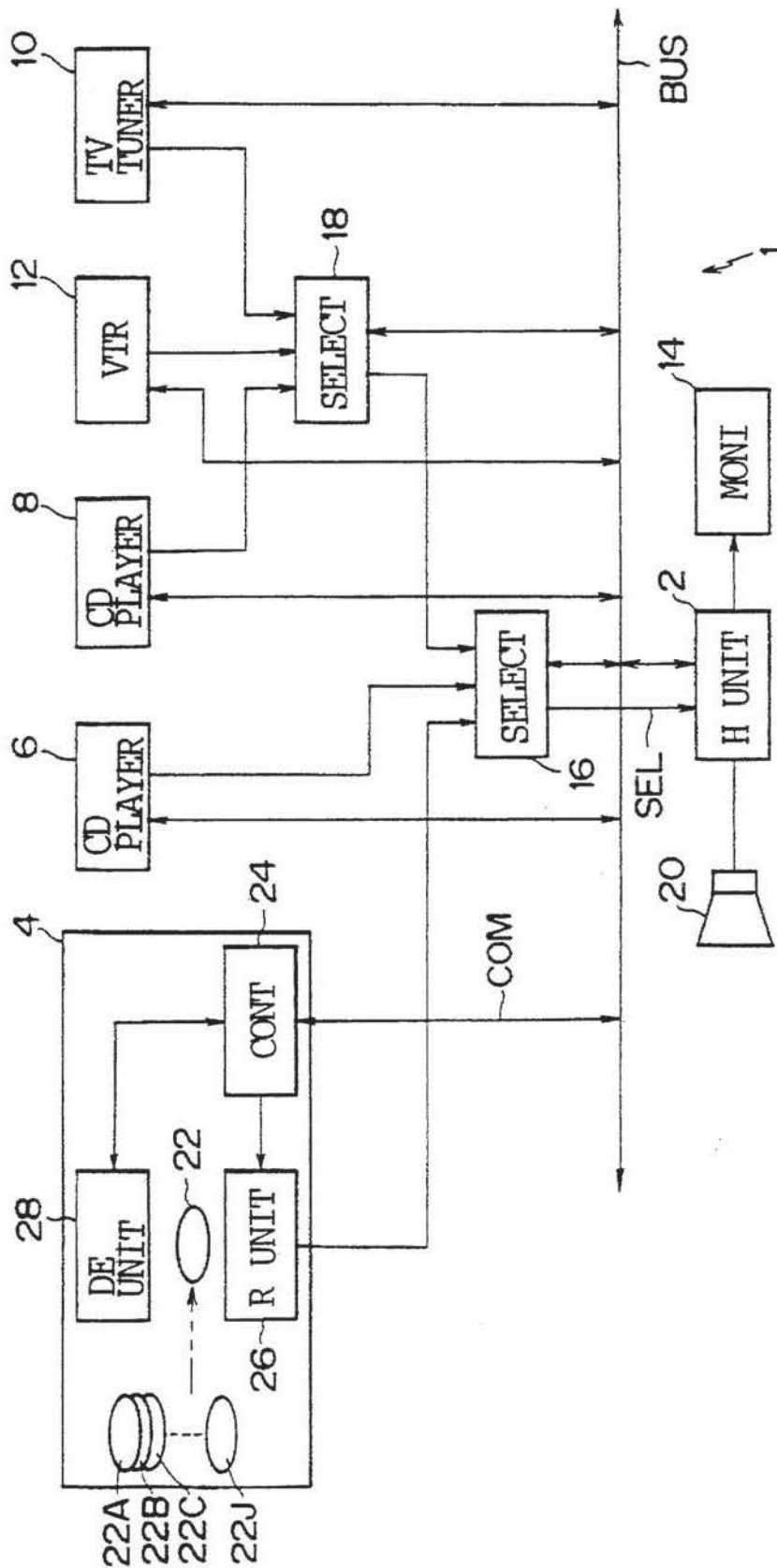
7 Claims, 7 Drawing Sheets
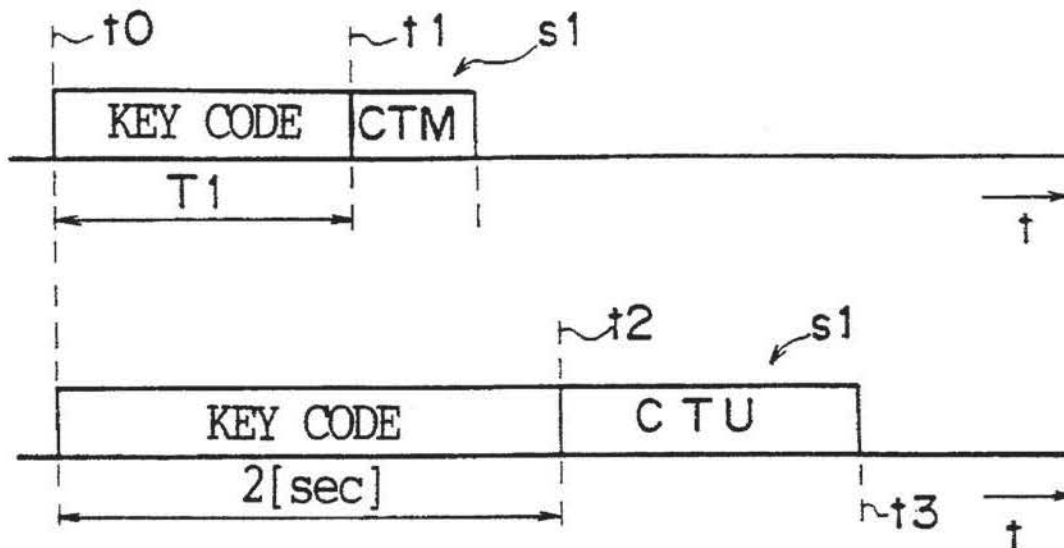
FIG. 1
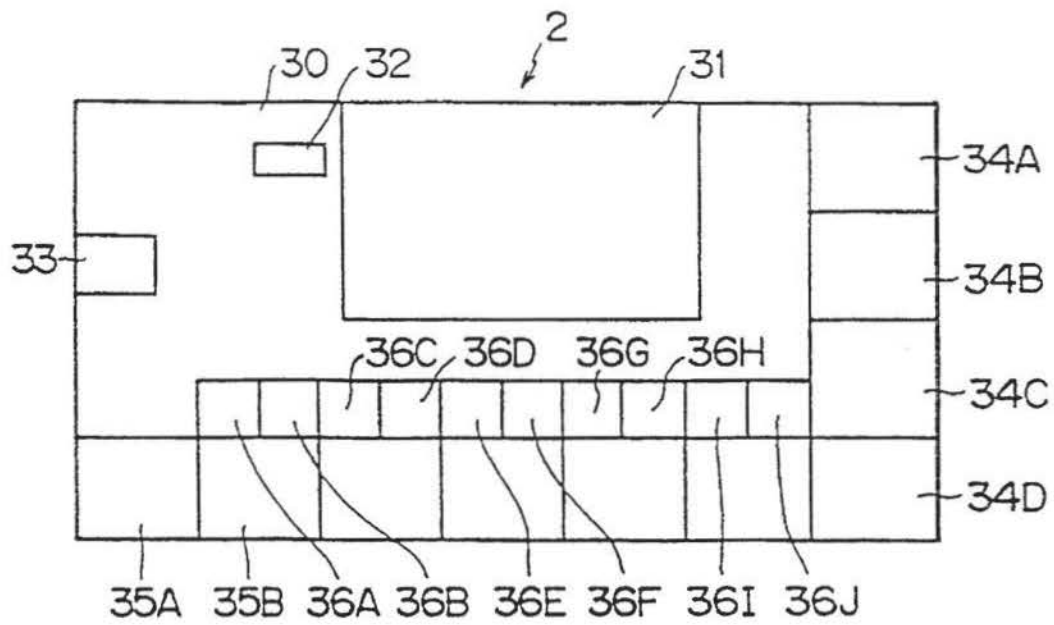
FIG. 2

FIG. 3

FIG. 4

FIG. 5

DOCKET ALARM
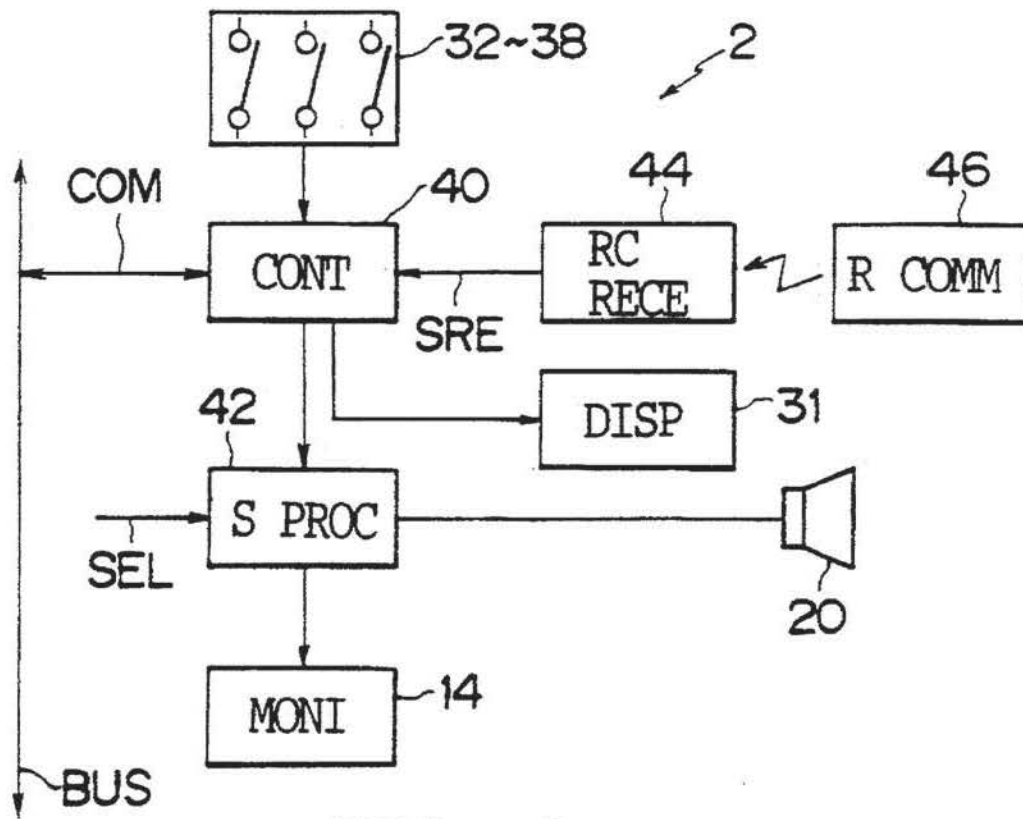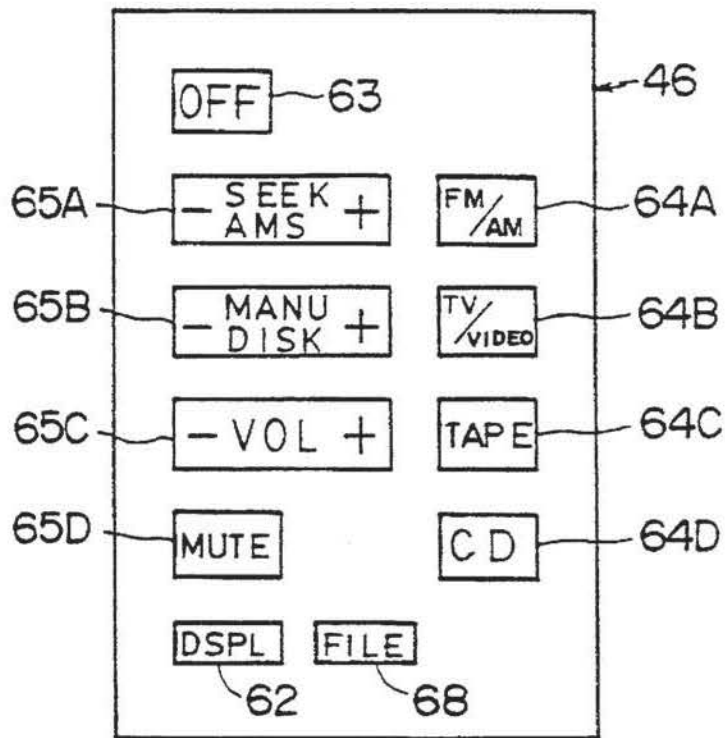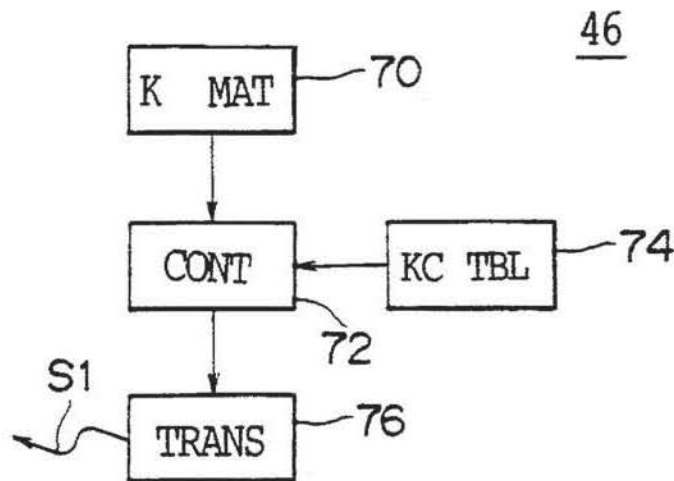
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