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Itaya et al.

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[54] INPUT SYSTEM INCLUDING RESISTANCE FILM TOUCH PANEL AND PUSHED POSITION DETECTING DEVICE

4,636,582 1/1987 Moriwaki et al. 178/18

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[57] ABSTRACT

[21] Appl. No.: 614,410

An input system including a resistance film touch panel and a pushed position detecting device for detecting two-dimensional coordinates of a pushed position of a touch panel based on surface resistance values of resistance films, the system comprising a pair of insulating base layers opposed to each other with a certain distance therebetween; a spacer provided between the insulating base layers for keeping the layers apart but for allowing the layers to approach each other when an external force is applied to one of the layers; a first resistance film extended in first and second directions and provided on an inner surface of one of the layers, the first and second directions crossing each other perpendicularly and the first resistance film having outer connecting electrodes on both ends thereof along the second direction; and a plurality of second resistance films provided on an inner surface of the other of the layers, the second resistance films each being a lengthy strip extended in a direction crossing the second direction and having first and second outer connecting electrodes at both ends thereof.

[22] Filed: Nov. 16, 1990

[30] Foreign Application Priority Data

Dec. 28, 1989 [JP] Japan 1-340758
Mar. 22, 1990 [JP] Japan 2-30219[U]

[51] Int. Cl.⁵ H03K 17/94

[52] U.S. Cl. 341/20; 178/18; 340/706

[58] Field of Search 341/20, 22, 24, 25, 341/26; 178/18, 19, 20; 340/706, 712; 338/99, 114; 382/3, 4

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9 Claims, 12 Drawing Sheets

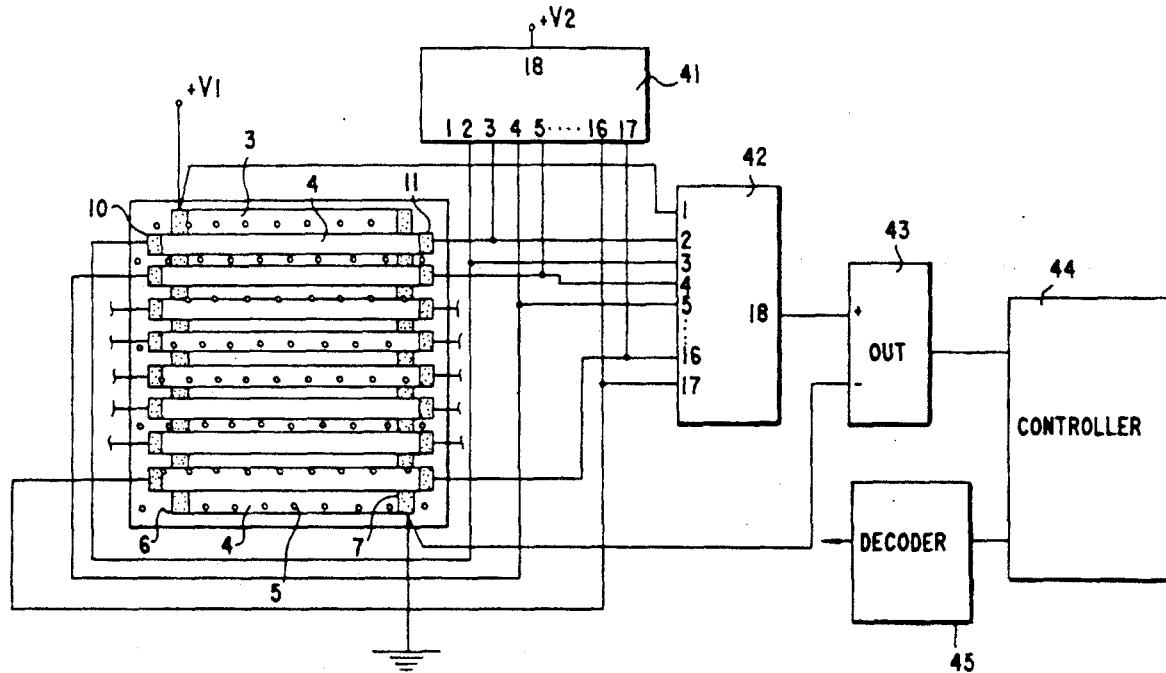


Fig. 1 PRIOR ART

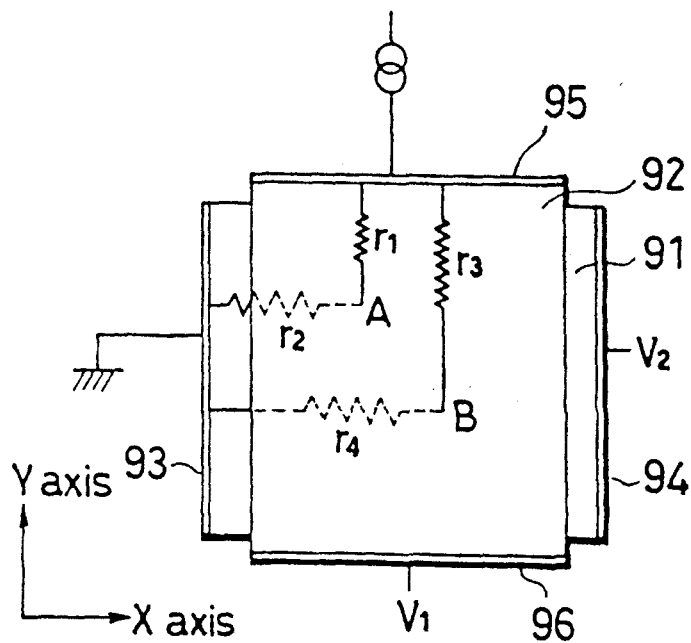


Fig. 2 PRIOR ART

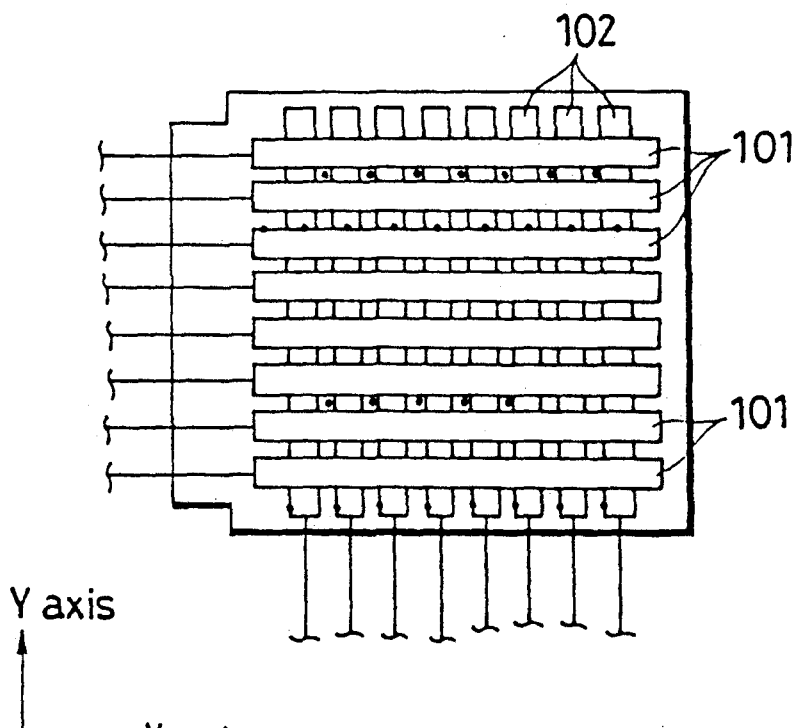


Fig.3

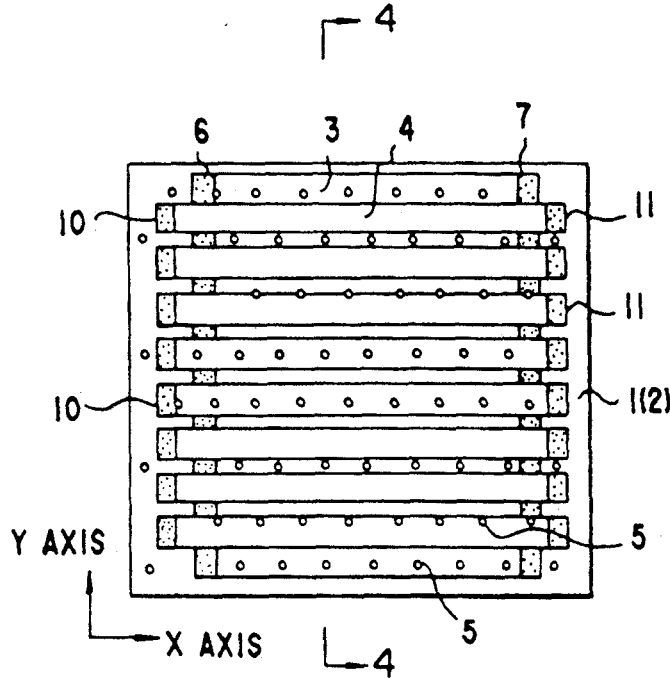


Fig.4

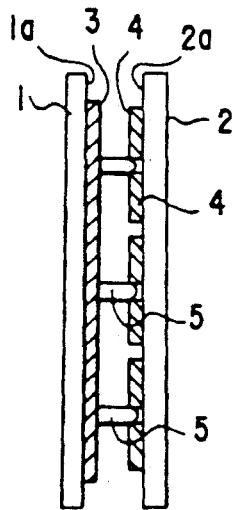


Fig.5a

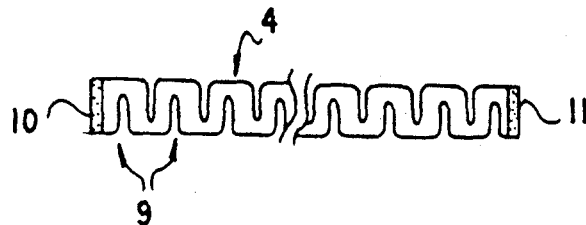
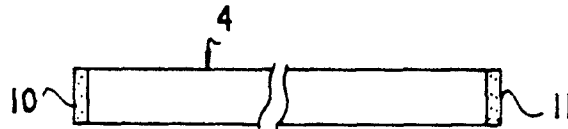


Fig. 5b

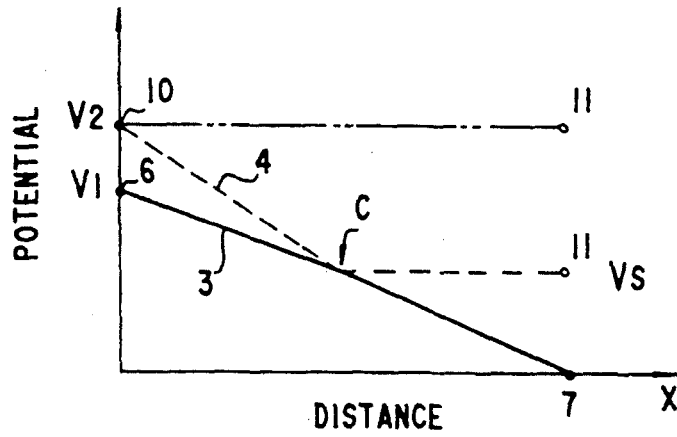


Fig. 7a

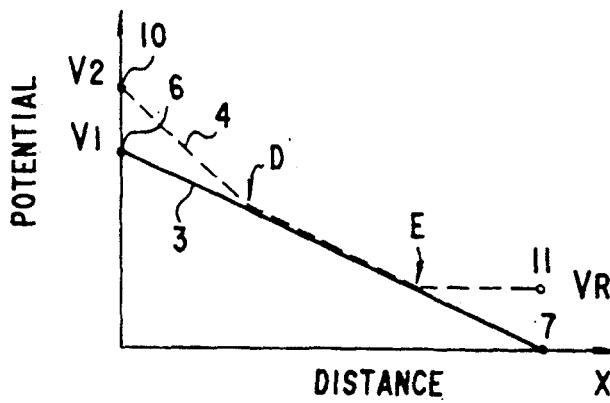


Fig. 7b

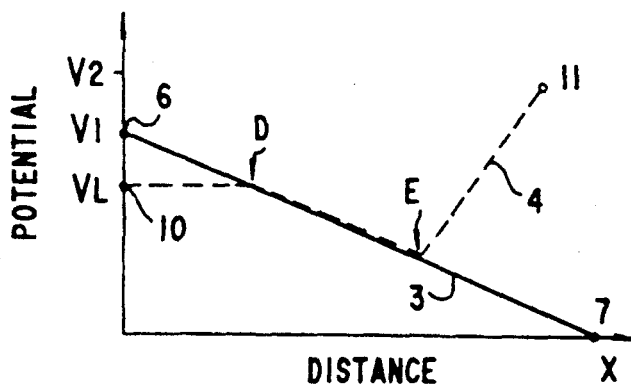


Fig. 7c

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