

[54] AUTOMATIC CALIBRATION OF A CAPACITIVE TOUCH SCREEN USED WITH A FIXED ELEMENT FLAT SCREEN DISPLAY PANEL

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[51] Int. Cl.<sup>5</sup> G09G 5/00

[52] U.S. Cl. 345/168; 345/156

[58] Field of Search 340/706, 712; 178/18, 178/19, 20; 341/32, 33

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[57] ABSTRACT

A touch screen display is automatically calibrated during periods of active use or extended periods of non-use. Calibration contacts are cemented or embedded to the surface of a touch sensitive panel, and electrically connected to a reference during calibration. The reference is either electrical ground or a resistive, capacitive, or inductive load.

19 Claims, 5 Drawing Sheets

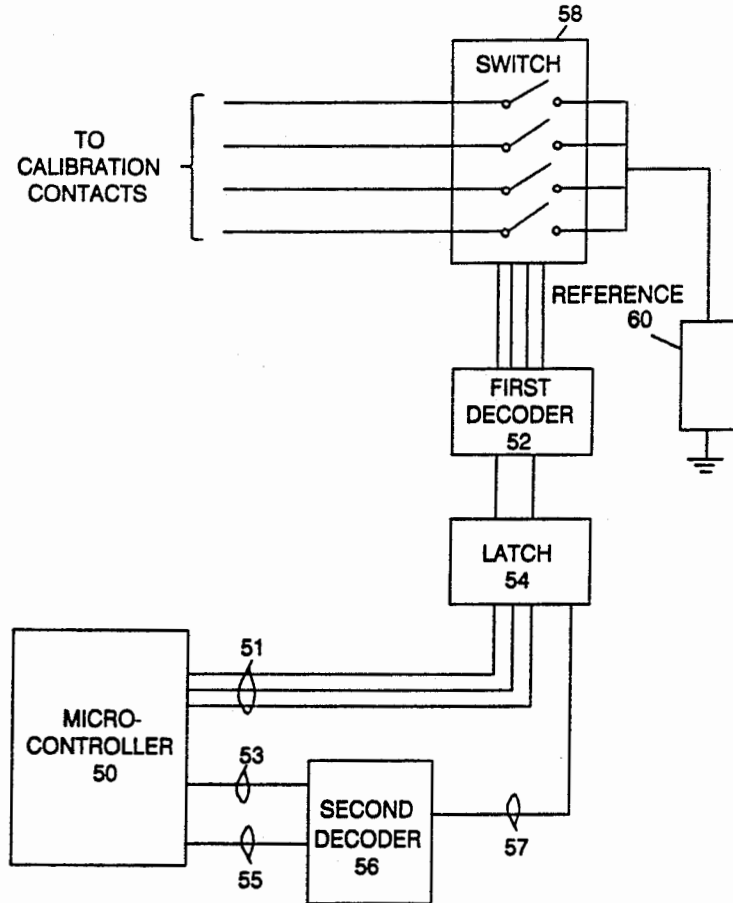


FIG. 1

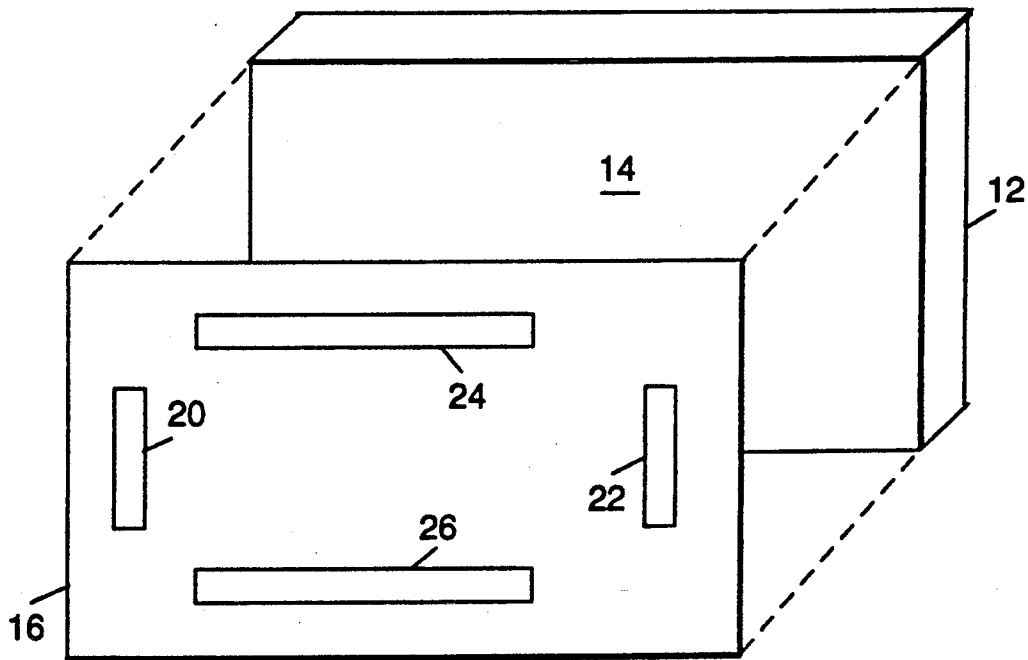


FIG. 2

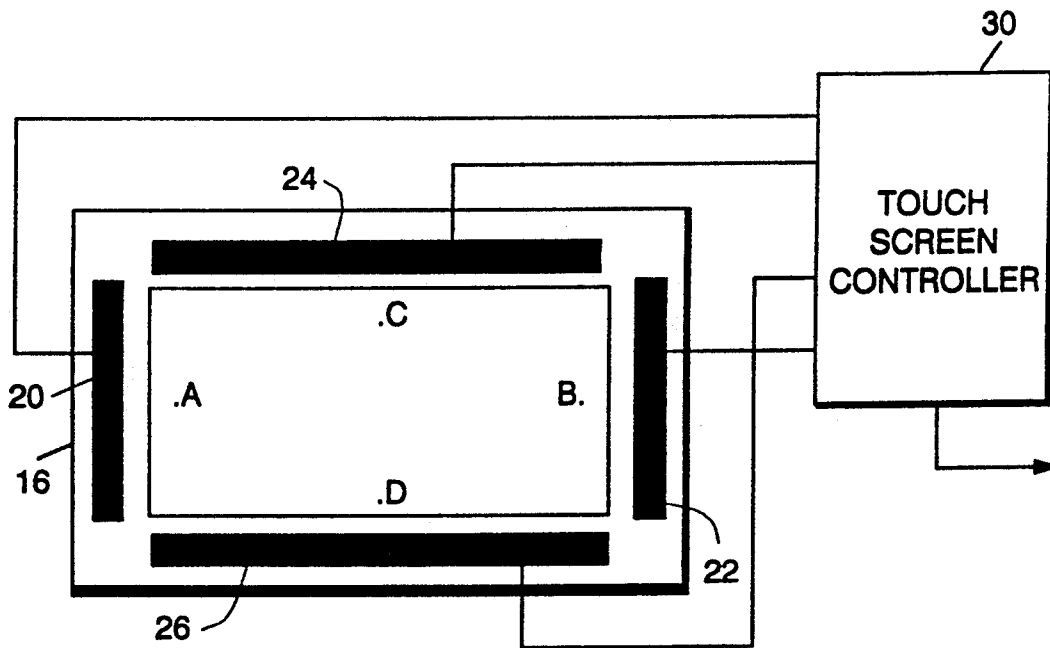


FIG. 3

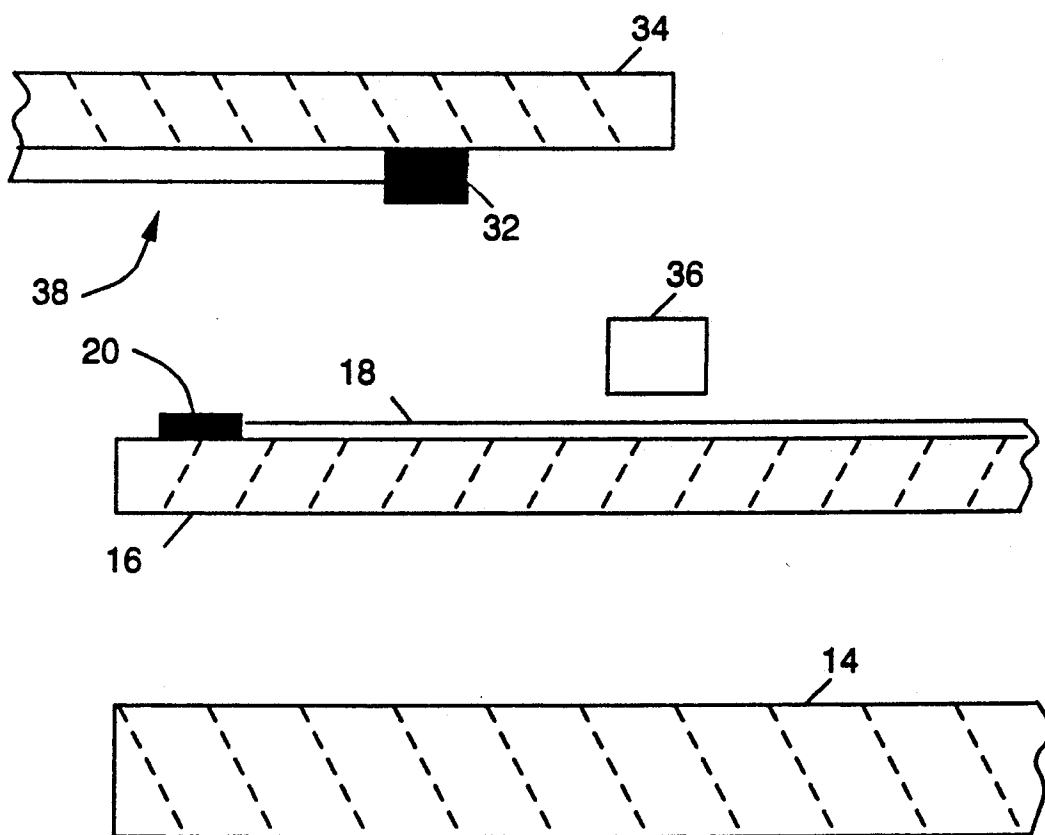
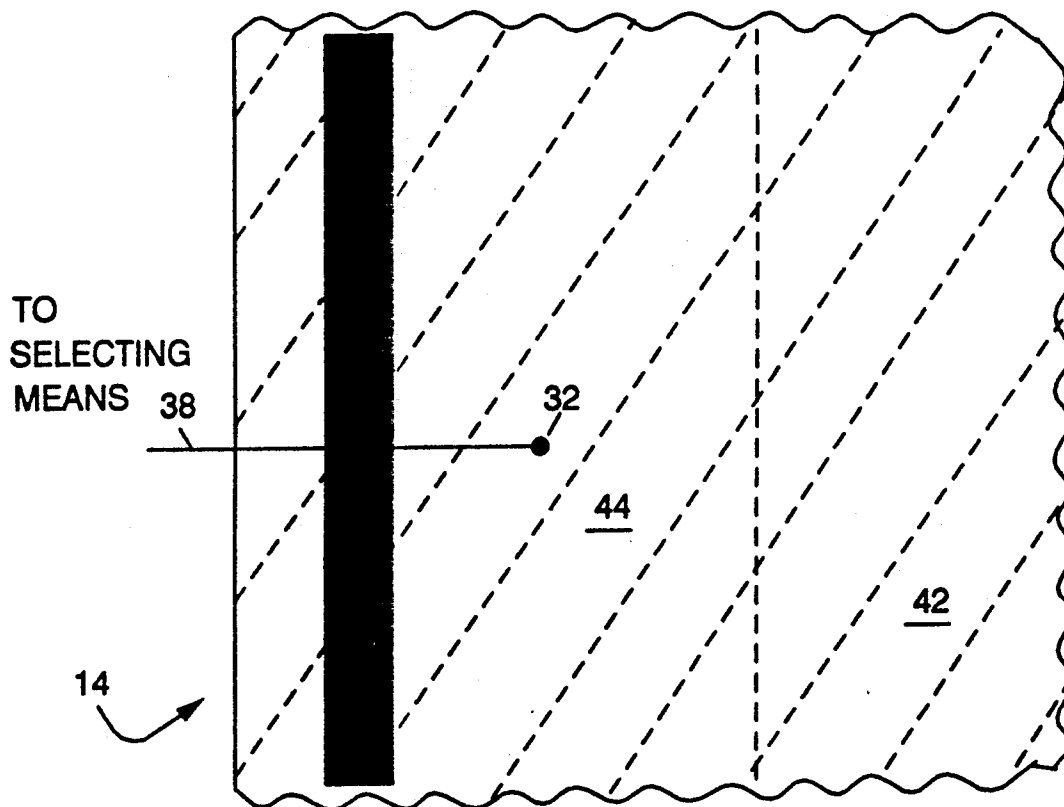


FIG. 4



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