



# United States Patent [19]

Sham et al.

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[45] **Date of Patent:** Apr. 6, 1999

[54] **FITNESS MONITORING DEVICE HAVING AN ELECTRONIC PEDOMETER AND A WIRELESS HEART RATE MONITOR**

5,456,262 10/1995 Birnbaum .  
5,491,474 2/1996 Suni et al. .  
5,539,706 7/1996 Takenaka et al. .

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### [57] ABSTRACT

[21] Appl. No.: **926,035**

[22] Filed: **Sep. 9, 1997**

[51] **Int. Cl.<sup>6</sup>** ..... **A61B 5/0205**

[52] **U.S. Cl.** ..... **600/483**

[58] **Field of Search** ..... 600/483, 503, 600/508, 509, 519, 520; 128/903

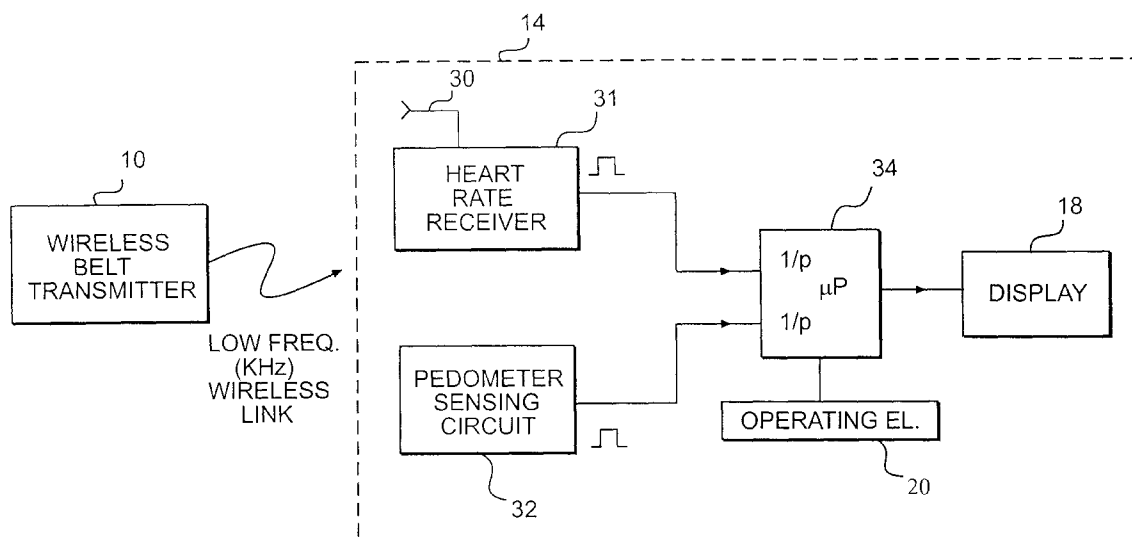
A fitness monitoring device includes an electronic pedometer which responds to a user's body motion at each step and a wireless heart rate monitor which is wirelessly coupled to the electronic pedometer. The wireless heart rate monitor provides a heart beat signal indicative of an exertion level of the user. A visual display is provided to display the pedometer functions and the heart rate signal. A microprocessor receives the pedometer output signal and the heart rate signal. The microprocessor is programmed to provide visual display data relating to the heart rate and pedometer functions.

### [56] References Cited

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**9 Claims, 5 Drawing Sheets**



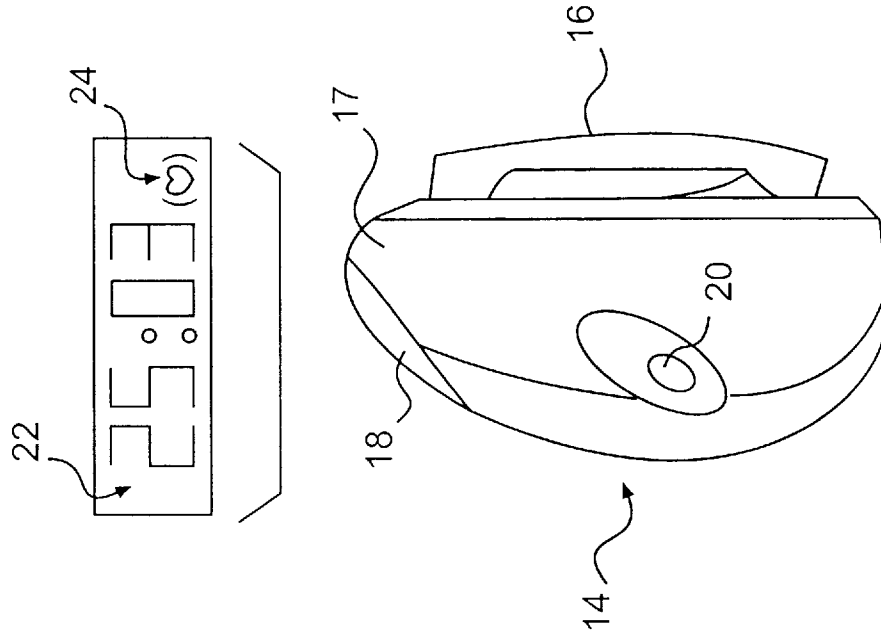


FIG. 1

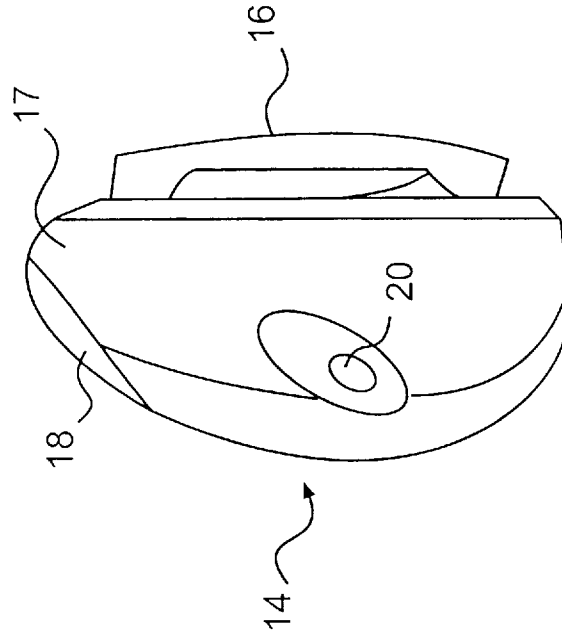
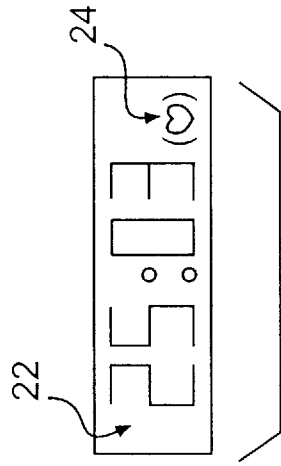


FIG. 2

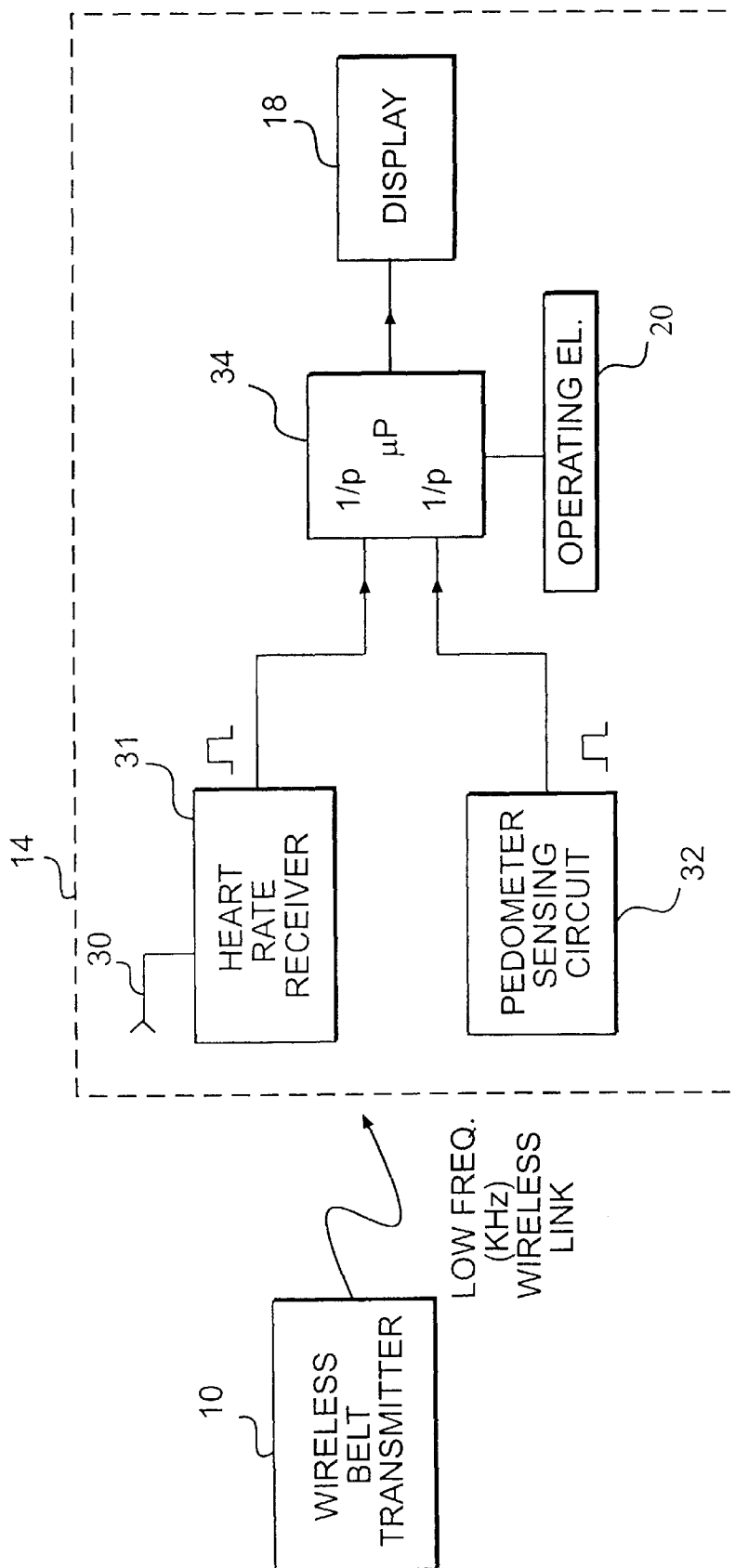


FIG. 3

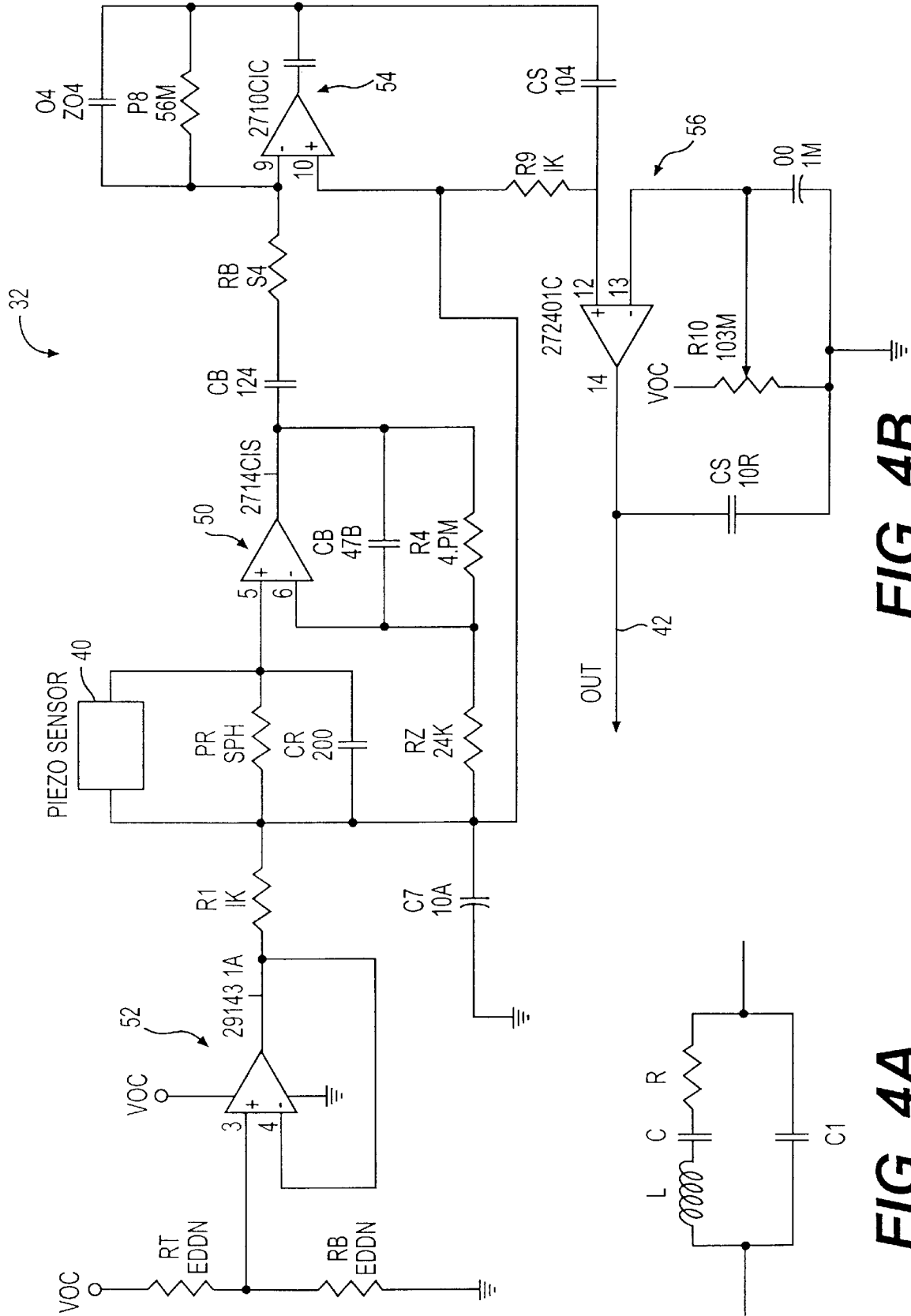
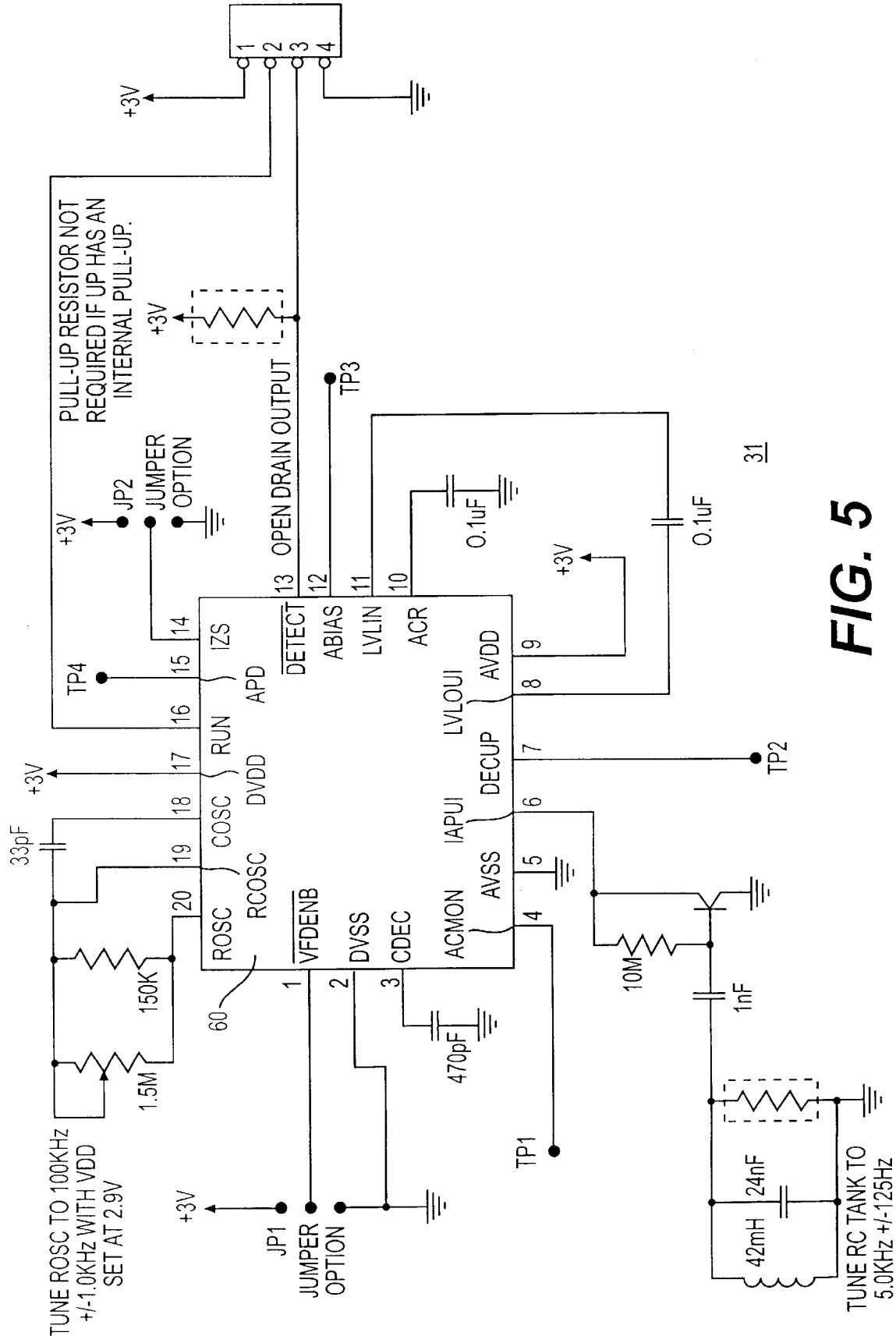


FIG. 4B

FIG. 4A



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