



[54] BIOMETRIC CHARACTERISTIC VEHICLE CONTROL SYSTEM HAVING VERIFICATION AND RESET FEATURES

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[*] Notice: This patent is subject to a terminal disclaimer.

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[21] Appl. No.: 09/034,702

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[22] Filed: Mar. 4, 1998

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Related U.S. Application Data

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[63] Continuation-in-part of application No. 08/622,515, Mar. 25, 1996, which is a continuation-in-part of application No. 08/423,570, Apr. 14, 1995, Pat. No. 5,654,688.

[57] ABSTRACT

[51] Int. Cl.7 G08C 19/00

A control system for a vehicle includes a controller for learning a unique biometric characteristic of an individual to define a learned individual capable of causing performance of a function associated with the vehicle, for example. The controller performs biometric characteristic verification to generate an indication relating to whether a new individual has been learned by the controller. The control system is advantageously used, in one embodiment, for a vehicle security system. Biometric characteristic verification may also be incorporated in a remote keyless entry system, and remote engine starting system, for example. In one embodiment, the biometric characteristic verification is based upon the controller being recently entered into the biometric characteristic learning mode. According to another embodiment, the biometric characteristic verification is based upon a number of learned individuals, a change in that number, or a change in a learned biometric characteristic. The indication may be provided at the vehicle or remote therefrom by any of a light, a visual display, a vibration transducer, a speech message generator, and an audible signal generator, for example. A previous set of authorized biometric characteristics may be readily reset or restored to operate the system if unauthorized biometric characteristics have been more recently added.

[52] U.S. Cl. 340/825.69; 340/539; 340/426; 340/825.72; 340/825.31

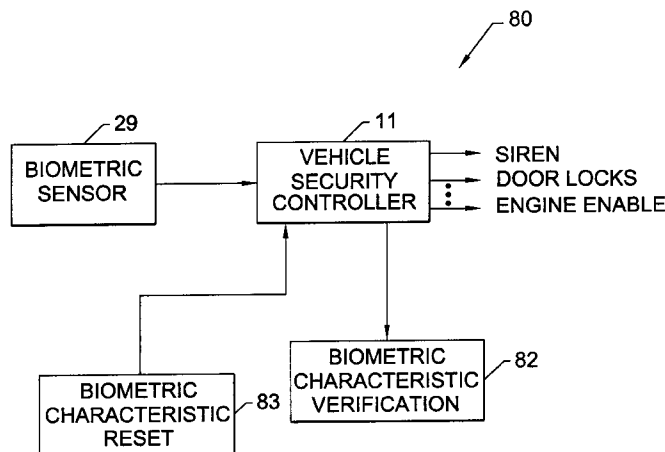
[58] Field of Search 340/825.69, 825.72, 340/825.37, 825.32, 426, 825.3, 539; 341/176, 174

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70 Claims, 8 Drawing Sheets



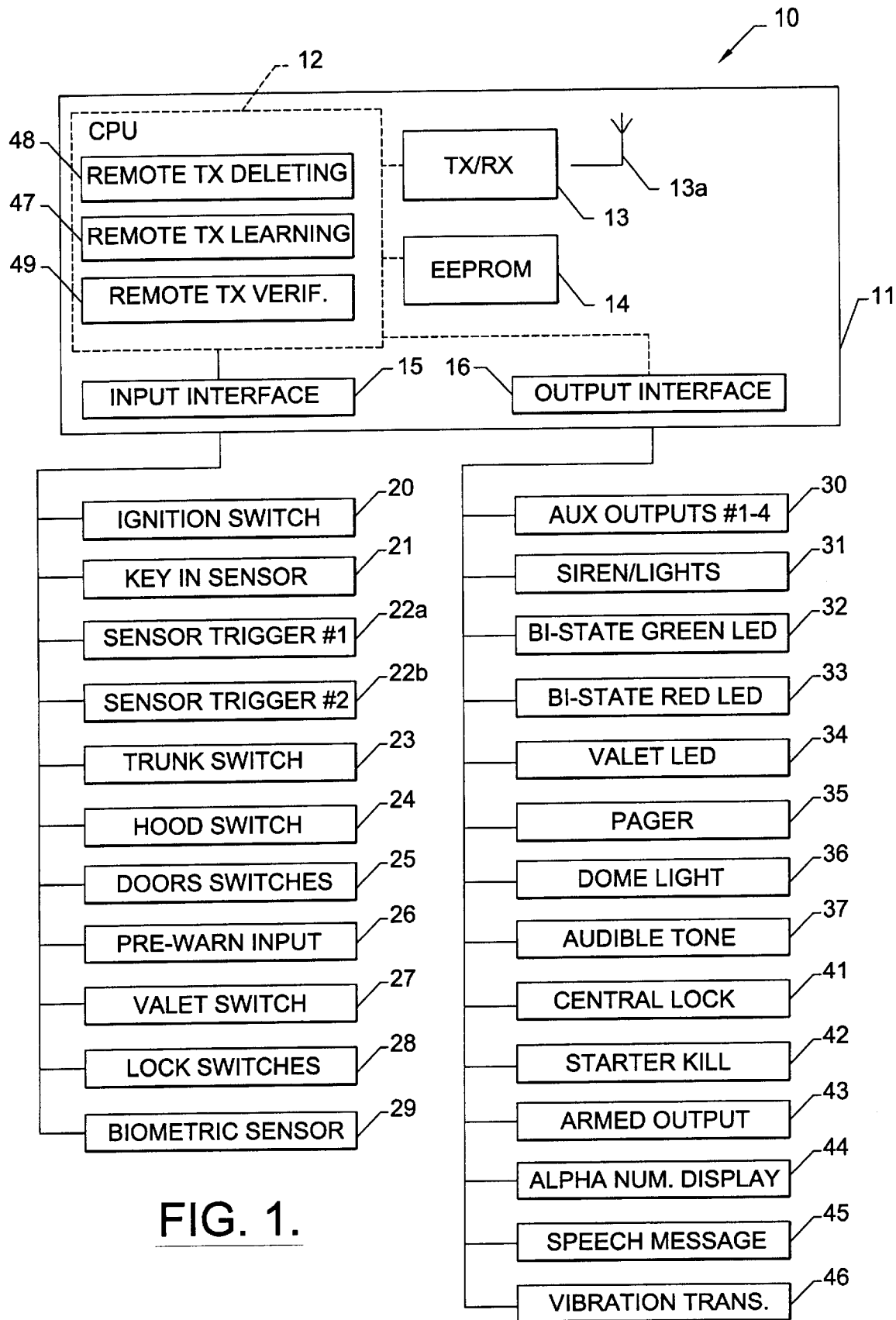


FIG. 1.

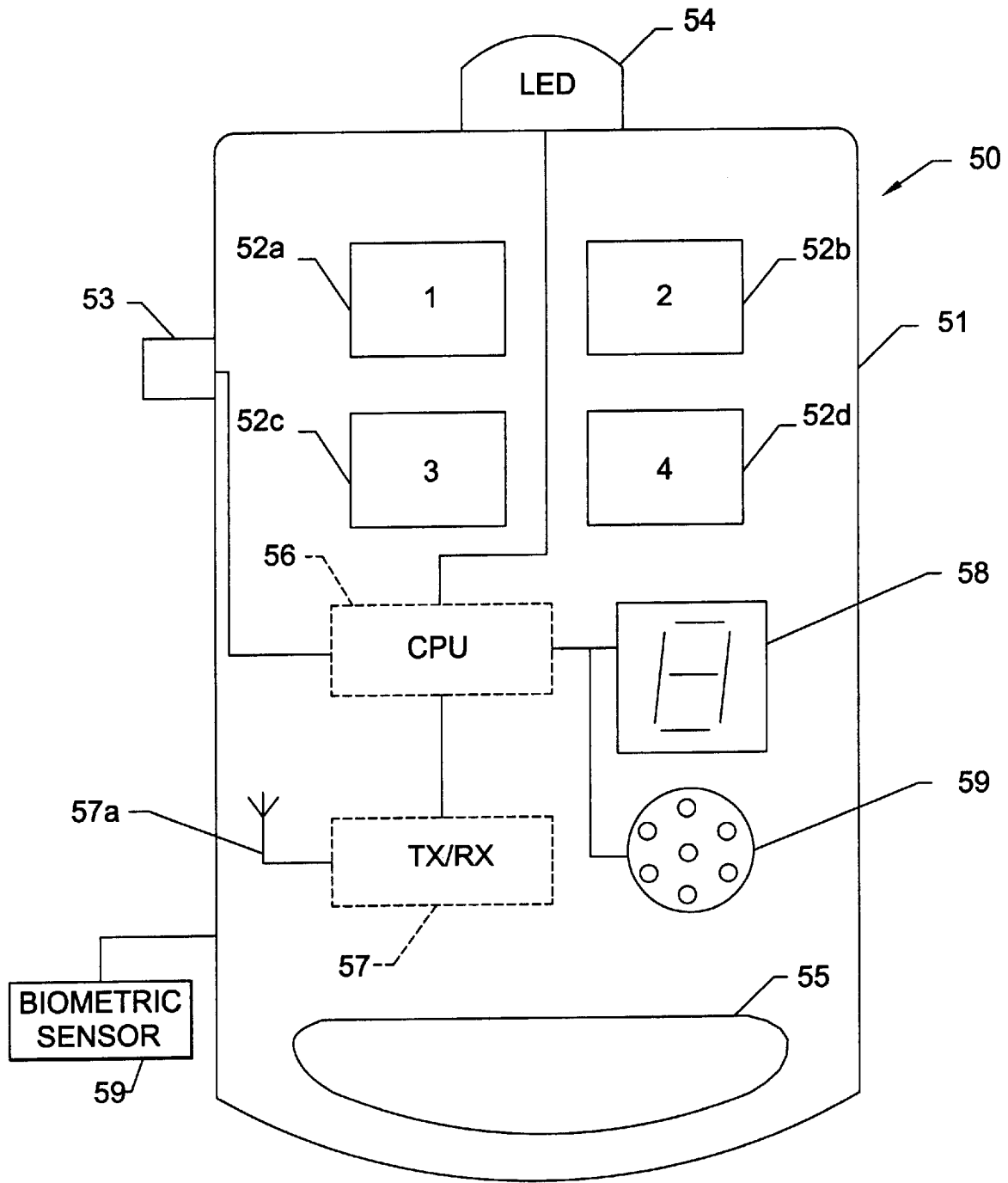


FIG. 2.

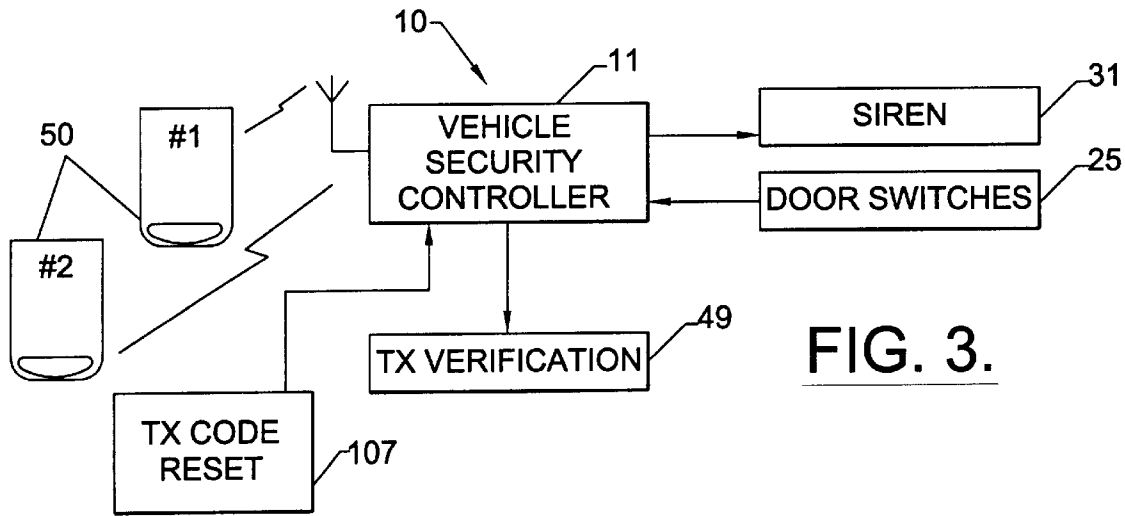


FIG. 3.

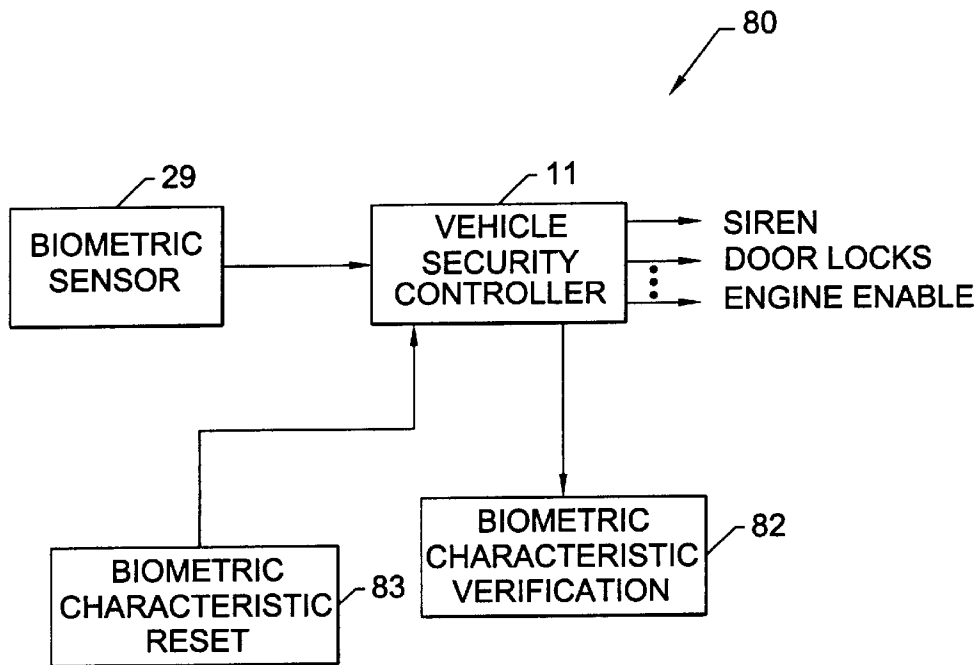


FIG. 4.

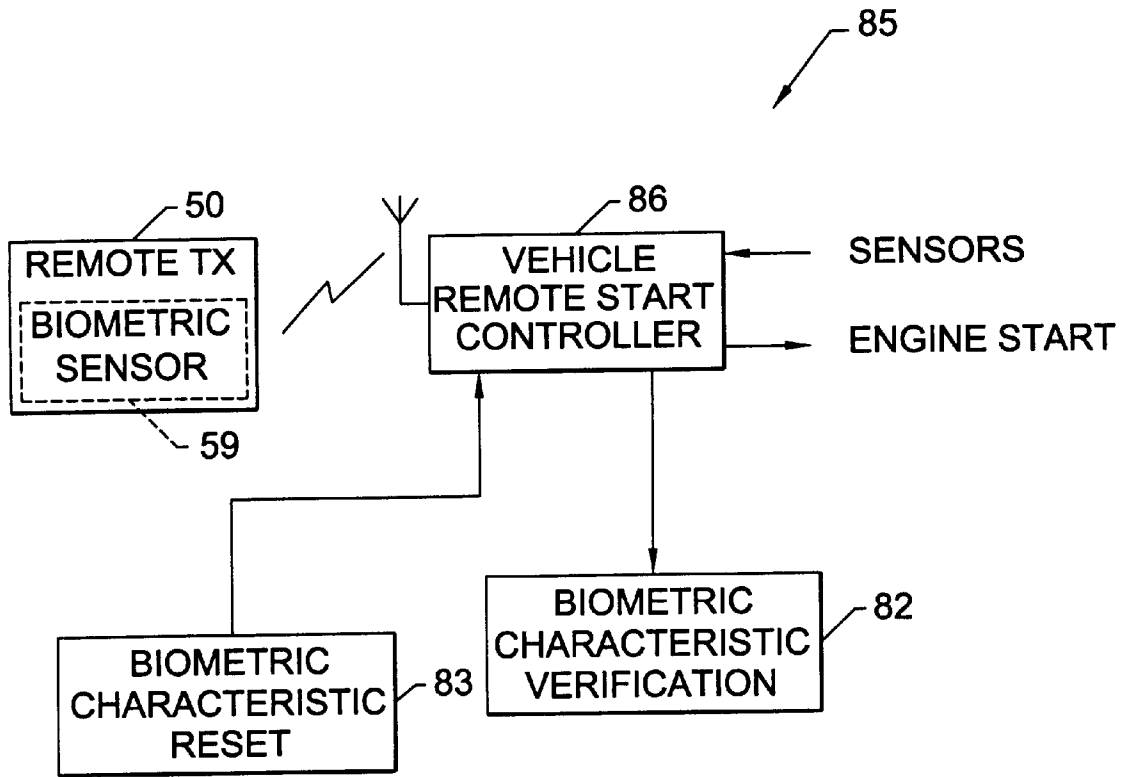


FIG. 5.

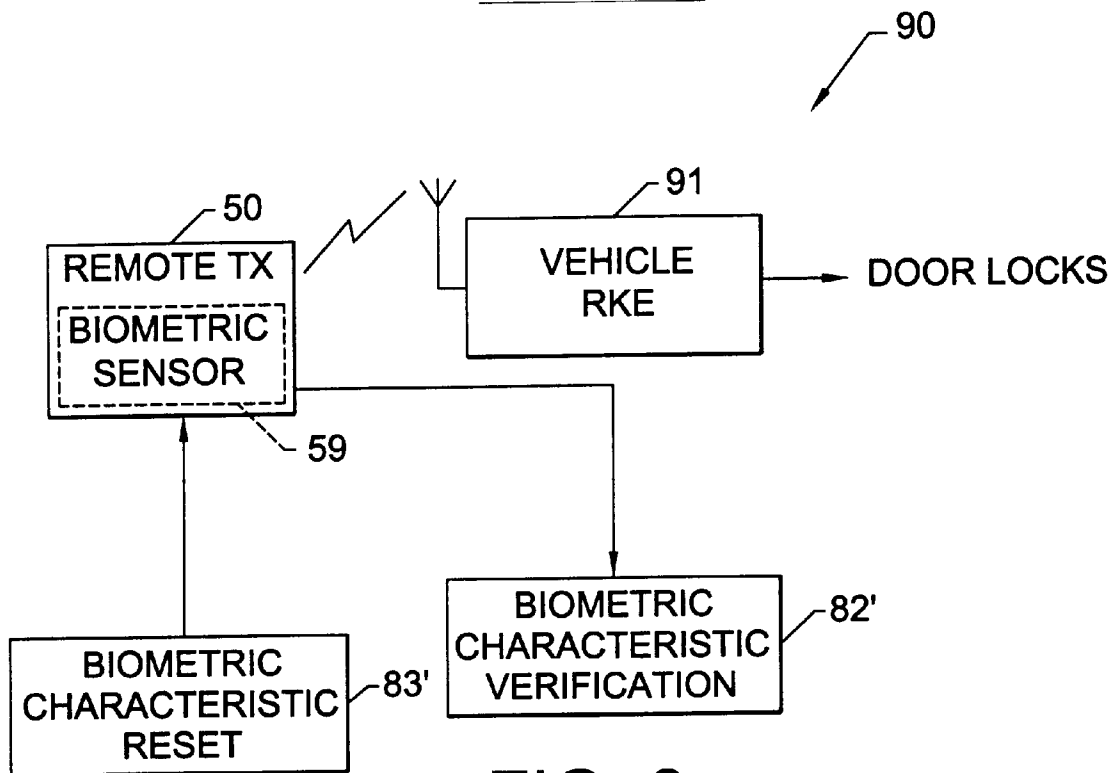


FIG. 6.

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