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(12) **United States Patent**  
**Suprun et al.**

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(54) **LOCATION TRACKING DEVICE**

(56) **References Cited**

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patent is extended or adjusted under 35  
U.S.C. 154(b) by 689 days.

This patent is subject to a terminal dis-  
claimer.

(Continued)

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is a continuation-in-part of application No. 10/209,  
197, filed on Aug. 1, 2002, now Pat. No. 6,731,268,  
which is a continuation of application No. 09/511,  
831, filed on Feb. 24, 2000, now Pat. No. 6,466,200.

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(57) **ABSTRACT**

A location tracking device utilizing an acceleration sensor is described. The acceleration sensor includes an inertial body in magnetic fluid that is contained in a closed volume vessel. The tracking device may be used for tracking objects, people, animals, and the like. The tracking device may be utilized as a back-up system to a GPS system such that when signal from a GPS receiver are unavailable, the location tracking device may provide positional information about the location of the object.

(51) **Int. Cl.**

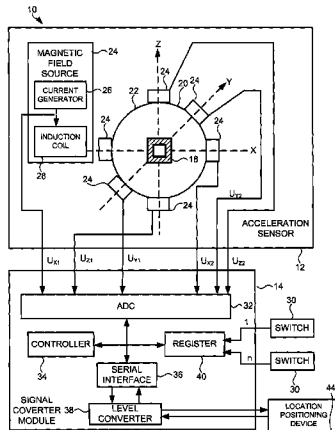
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701/216; 342/357.06; 342/357.08; 342/357.12;  
73/514.08

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See application file for complete search history.

**19 Claims, 3 Drawing Sheets**



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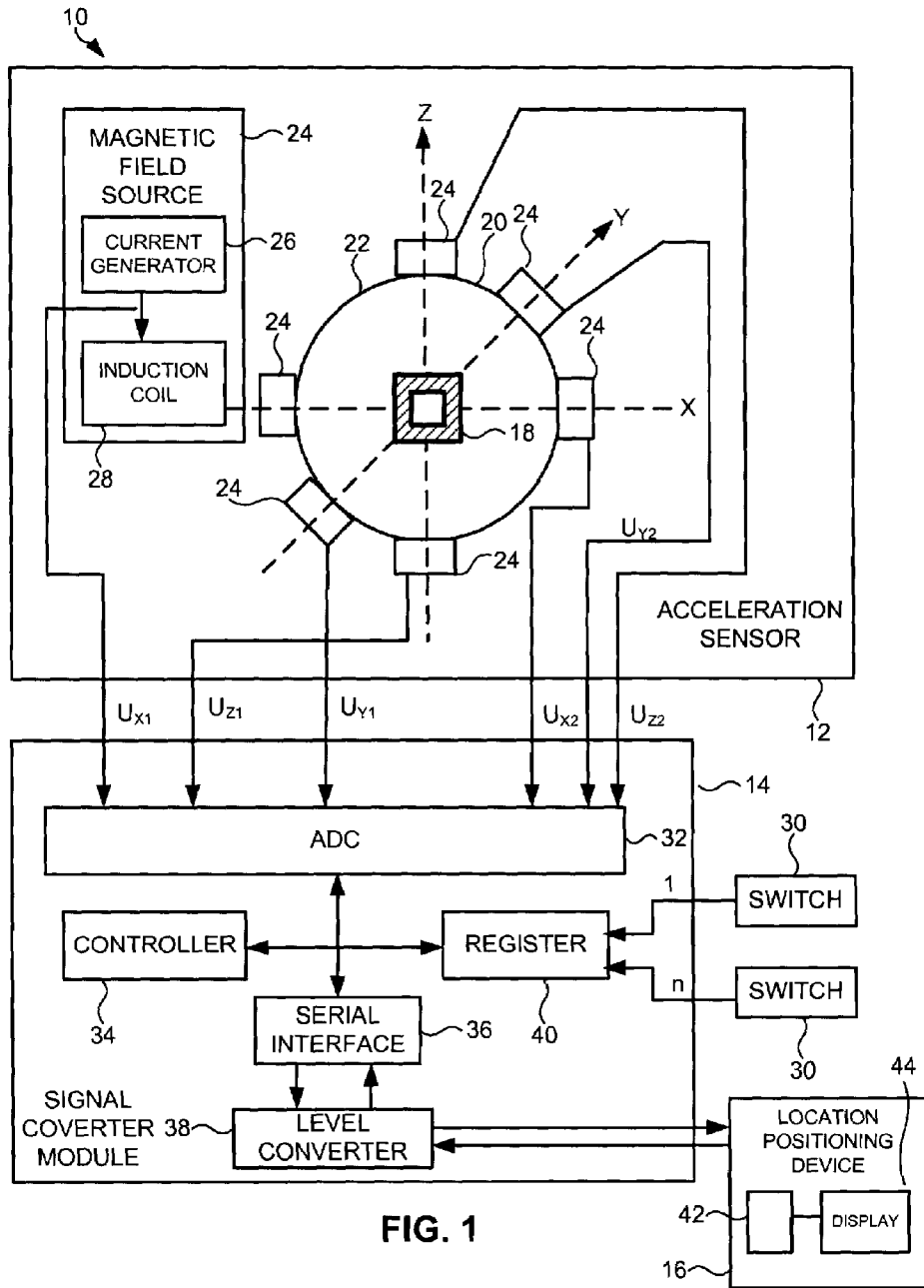


FIG. 1

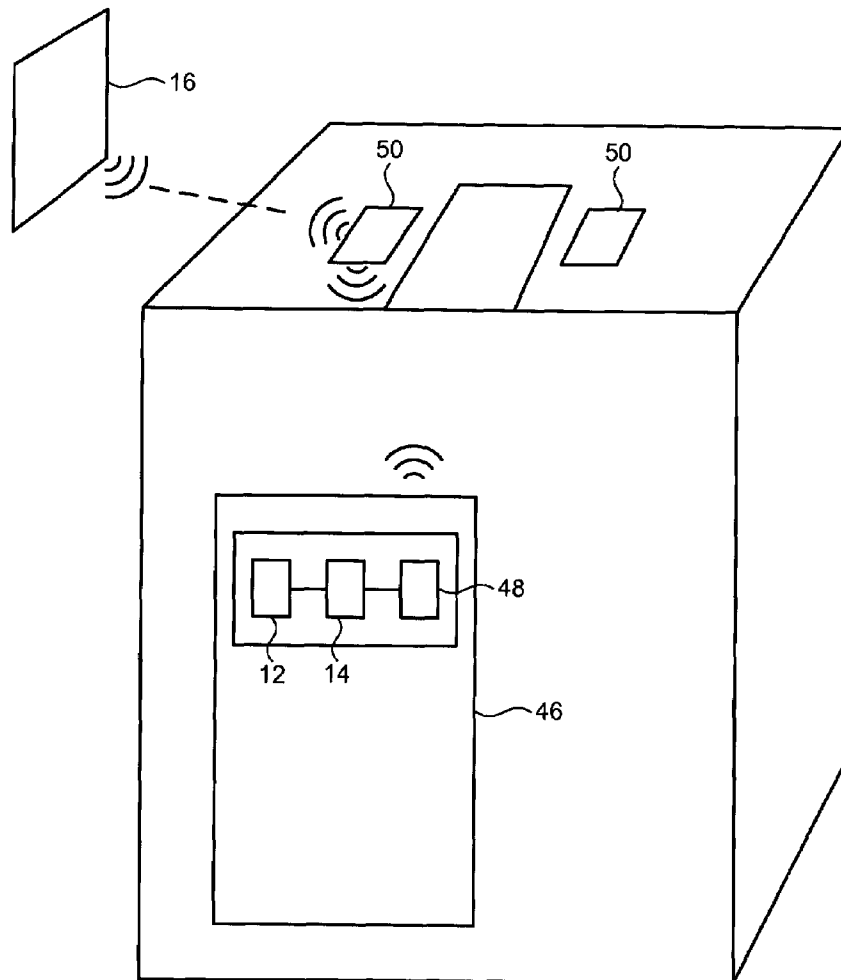


FIG. 2

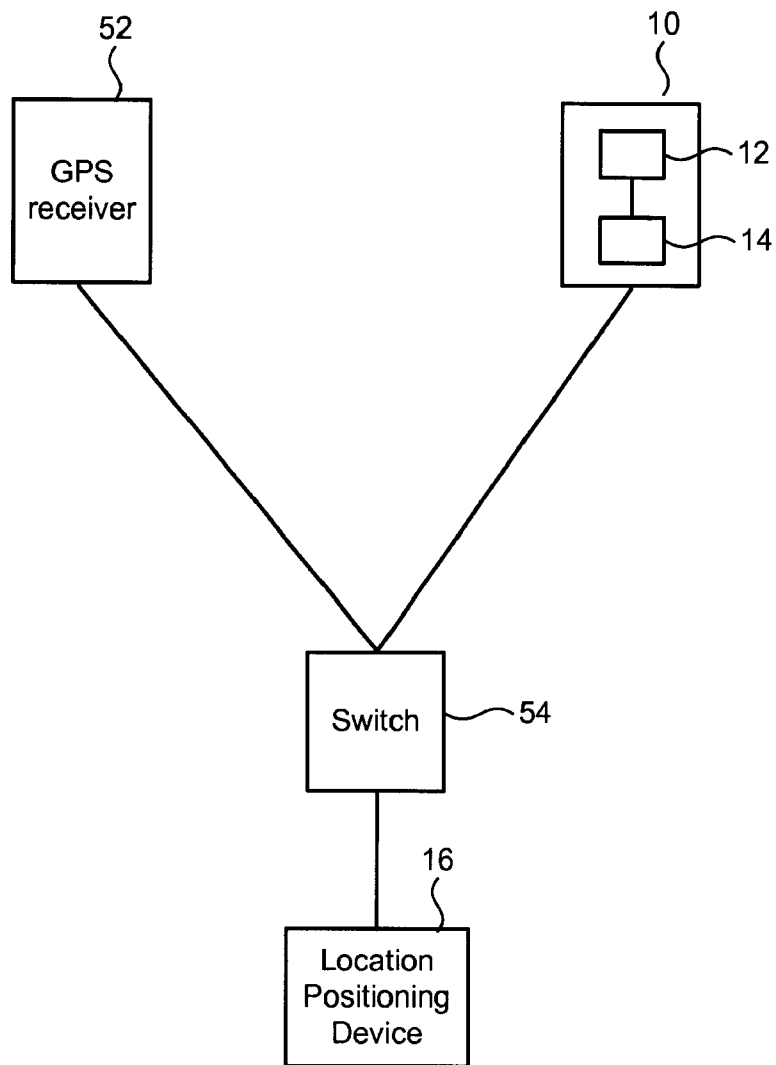


FIG. 3

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