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Suprun et al.

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- (54) **LOCATION TRACKING DEVICE**
- (75) Inventors: **Anton E. Suprun**, Novosibirsk (RU);
Dmitri V. Simonenko, Potomac Falls,
VA (US)
- (73) Assignee: **Innalabs Technologies, Inc.**, Dulles,
VA (US)
- (*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 689 days.

This patent is subject to a terminal dis-
claimer.

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Related U.S. Application Data

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filed on May 21, 2003, now Pat. No. 7,061,469, which
is a continuation-in-part of application No. 10/209,
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which is a continuation of application No. 09/511,
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G01C 21/00 (2006.01)
- (52) **U.S. Cl.** **345/156**; 701/213; 701/215;
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73/514.08
- (58) **Field of Classification Search** 345/156-169;
273/148 B; 463/37-38; 348/734; 73/514.01-514.08,
73/514.31; 701/79, 110, 213-216; 342/357.06,
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See application file for complete search history.

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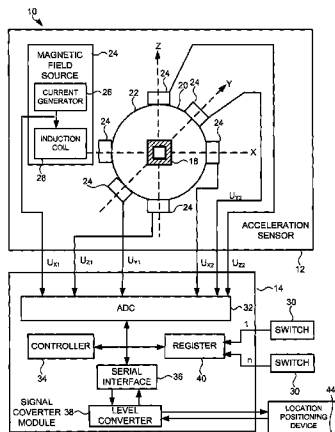
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Primary Examiner—Lun-Yi Lao
(74) *Attorney, Agent, or Firm*—Bardmesser Law Group

(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.

19 Claims, 3 Drawing Sheets



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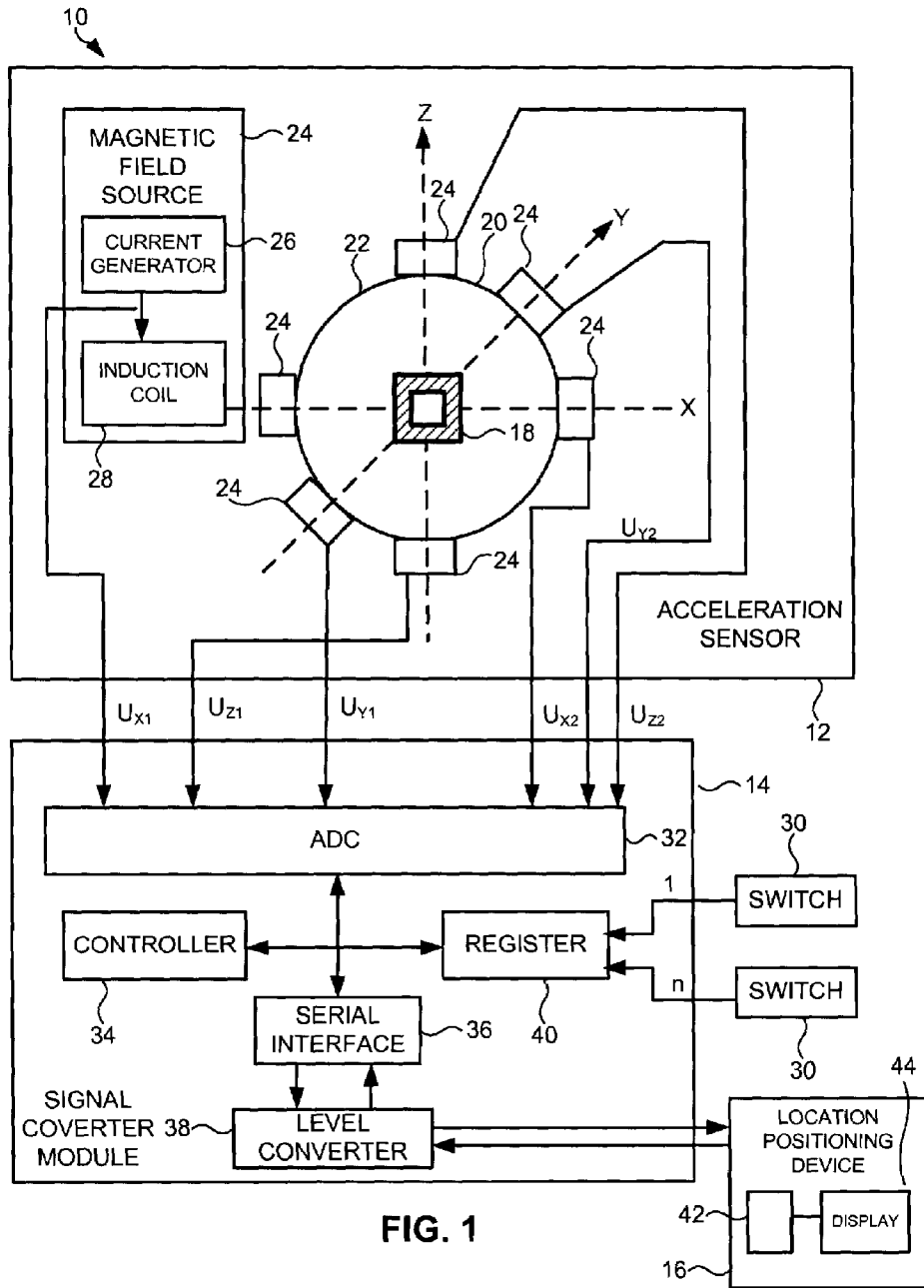


FIG. 1

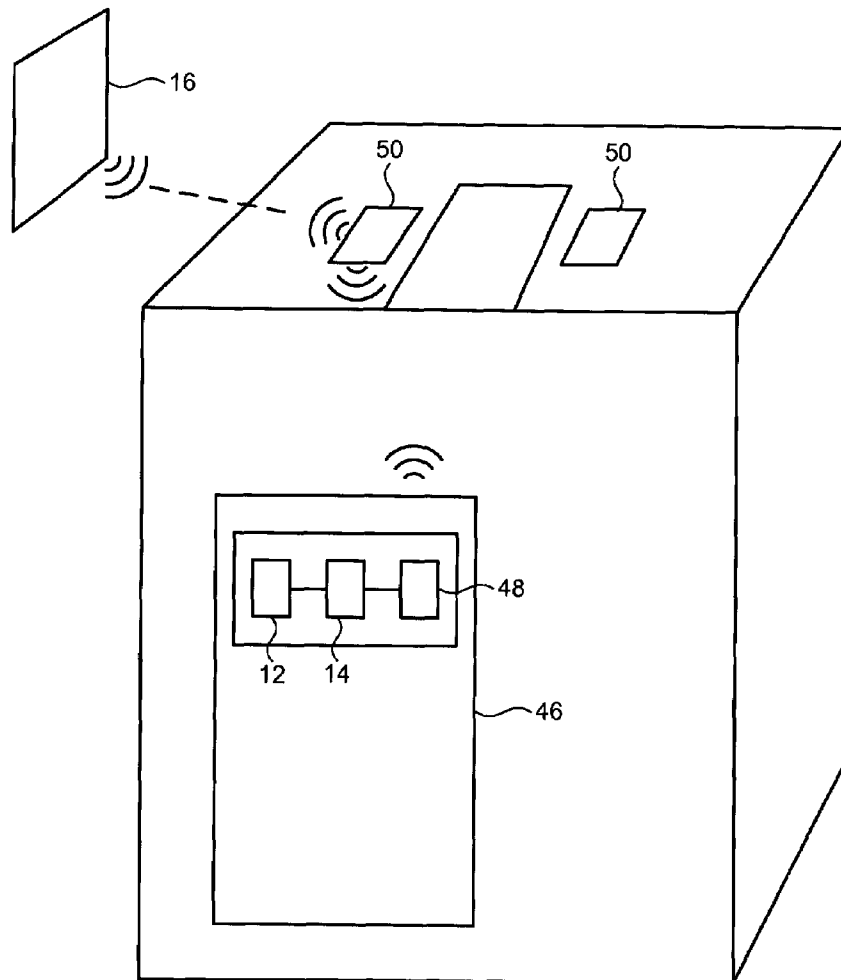


FIG. 2

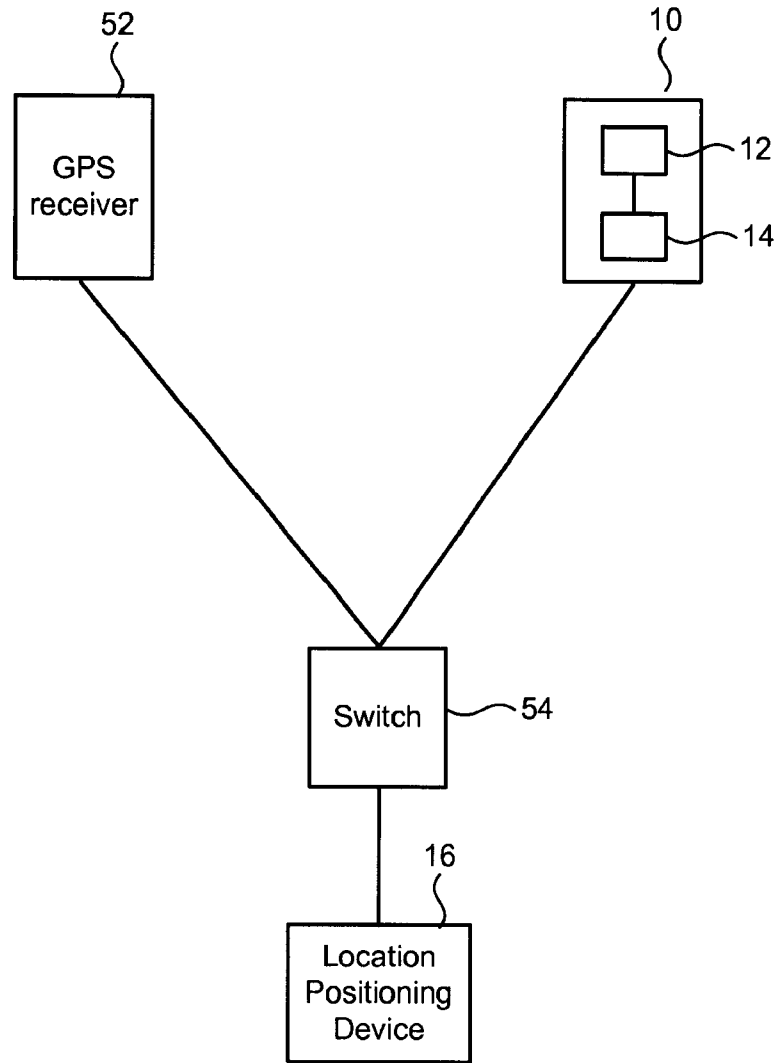


FIG. 3

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