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(54) **MOBILE CONTROL NODE SYSTEM AND METHOD FOR VEHICLES**

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(57) **ABSTRACT**

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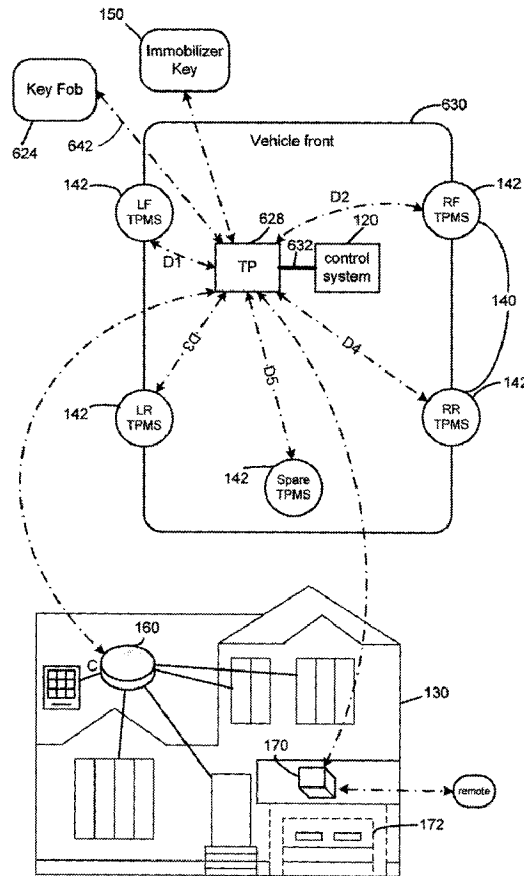
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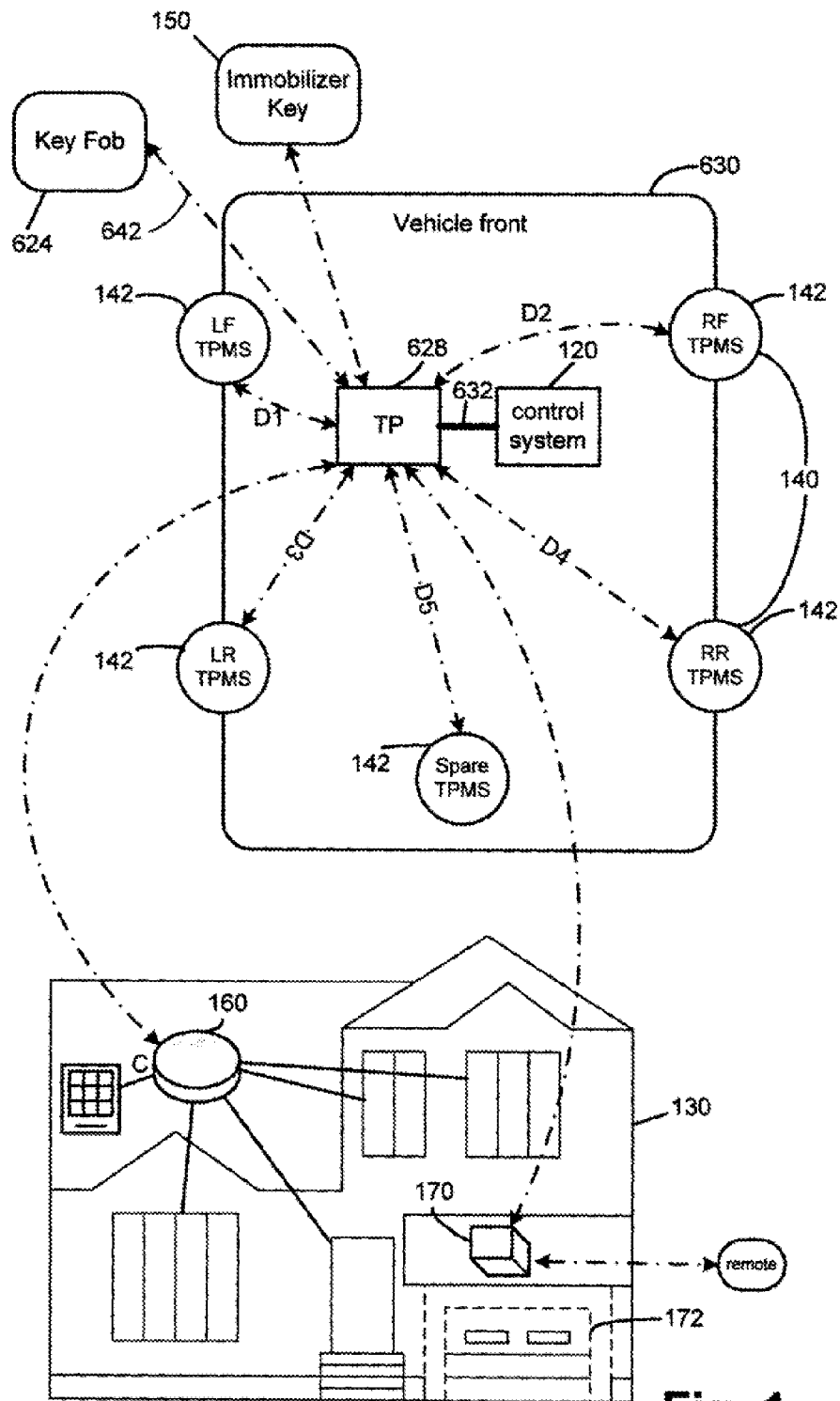
§ 371 (c)(1),  
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**Related U.S. Application Data**

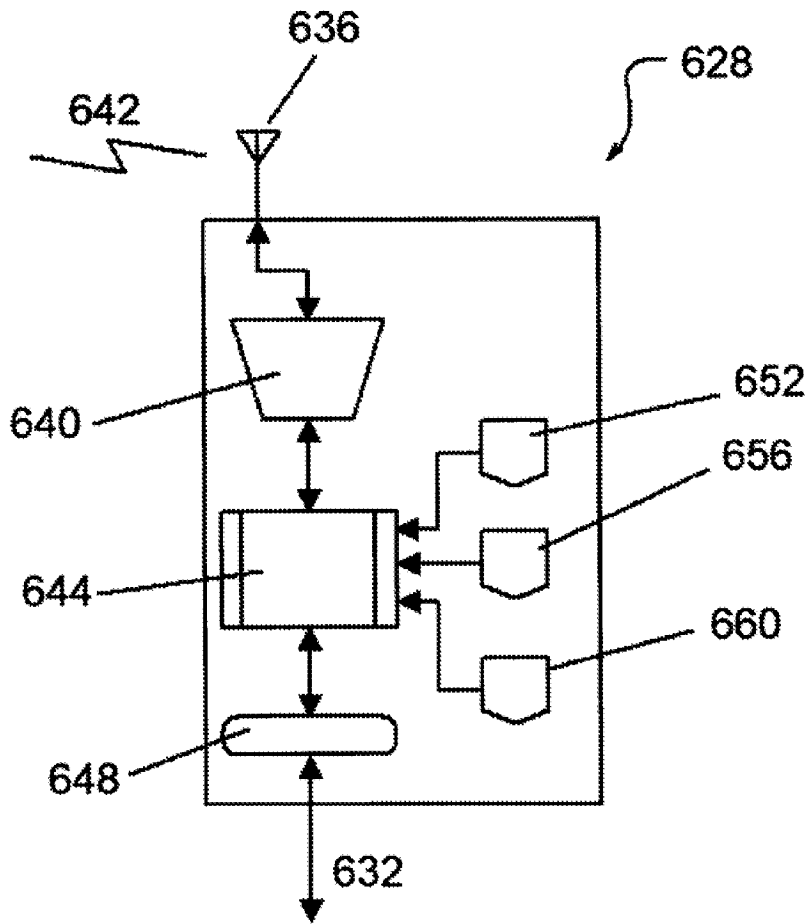
(60) Provisional application No. 60/944,917, filed on Jun. 19, 2007, provisional application No. 60/992,134, filed on Dec. 4, 2007, provisional application No.

In a mobile control node system and method for a vehicle (630), the mobile control node (624) can interact, via a bi-directional radio link (642), with a transceiver processor unit (628) in the vehicle. The transceiver processor unit (628) is connected to a vehicle control system (120) and allows the mobile control node (624) to function as an input and output node on a vehicle control network (632), allowing remote control of the vehicle and providing functions such as remote or passive keyless entry. Additionally, the system provides a vehicle location function wherein the range and bearing between the mobile control node (624) and the vehicle (630) can be determined and displayed on the mobile control node (624). The range and bearing are calculated by determining the range between the mobile control node (624) and vehicle (630), preferably using a time of flight methodology, and by processing the travel distance of the mobile control node and compass data in order to triangulate the position of the vehicle (630) relative to the mobile control node (624).

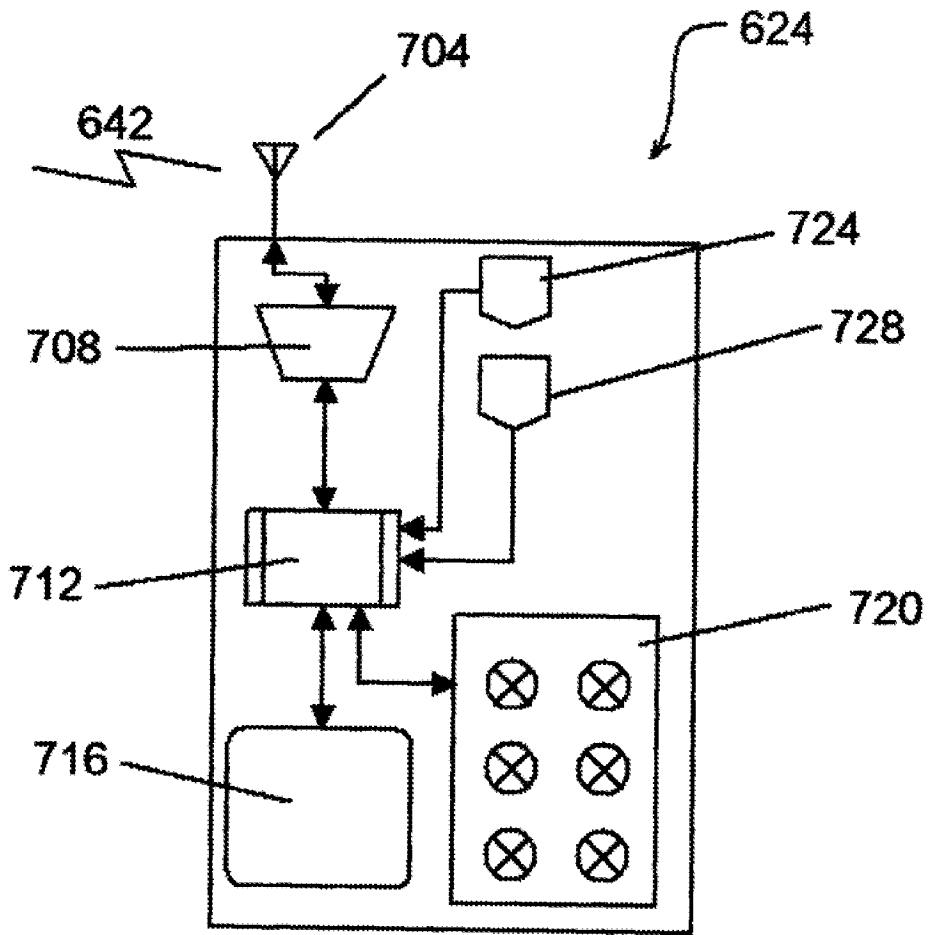




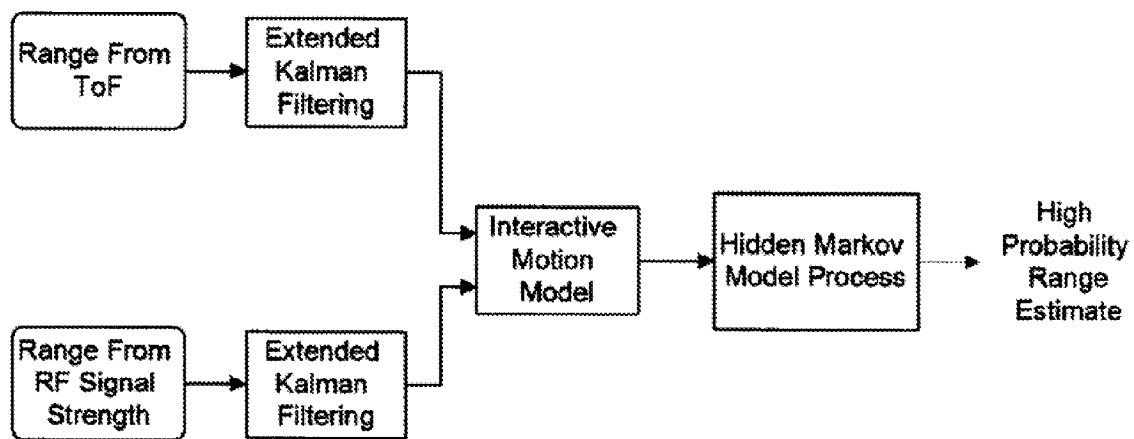
**Fig. 1**



**Fig. 2**



**Fig. 3**



**Fig. 4**

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