

(12) **United States Patent**  
Nix

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(54) **METHOD, APPARATUS AND SYSTEM FOR RETROFITTING A VEHICLE**

USPC .. 455/404.1-2, 435.2, 435.3, 521, 445, 466, 455/527, 552.1  
See application file for complete search history.

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(73) Assignee: **Sucess LLC**, Birmingham, MI (US)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(65) **Prior Publication Data**

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**Related U.S. Application Data**

(63) Continuation of application No. 14/846,811, filed on Sep. 6, 2015, now Pat. No. 9,661,664, which is a continuation of application No. 11/742,574, filed on Apr. 30, 2007, now Pat. No. 9,161,195.

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(51) **Int. Cl.**

<b>H04W 4/22</b>	(2009.01)
<b>H04L 12/40</b>	(2006.01)
<b>H04W 76/00</b>	(2018.01)
<b>H04W 4/90</b>	(2018.01)
<b>H04W 76/50</b>	(2018.01)

(57) **ABSTRACT**

A system, apparatus, and method for retrofitting a vehicle are presented. The method relates to a vehicle with a factory-installed first apparatus which communicates with a factory-installed second apparatus through a vehicle data bus using a first message. The method includes electrically disconnecting the vehicle data bus between the first apparatus and the second apparatus and electrically connecting a retrofit apparatus to the vehicle data bus. The method further includes transmitting a second message from the retrofit apparatus to the first apparatus which is indistinguishable from the first message.

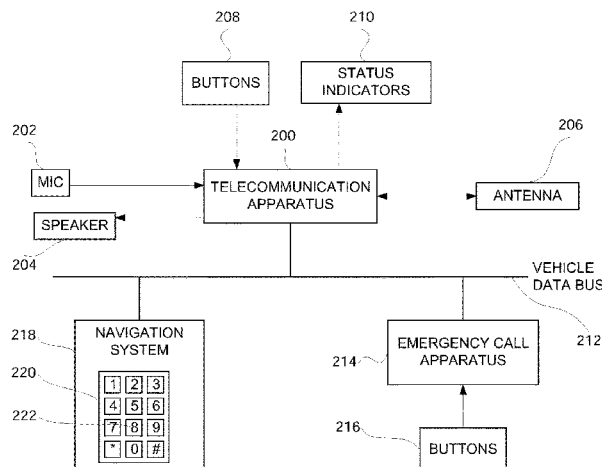
(52) **U.S. Cl.**

CPC ..... **H04L 12/40169** (2013.01); **H04W 4/22** (2013.01); **H04W 4/90** (2018.02); **H04W 76/007** (2013.01); **H04W 76/50** (2018.02); **H04L 2012/40215** (2013.01); **H04L 2012/40273** (2013.01)

(58) **Field of Classification Search**

CPC ..... H04W 76/007; H04W 4/22; H04B 1/3822

**16 Claims, 7 Drawing Sheets**



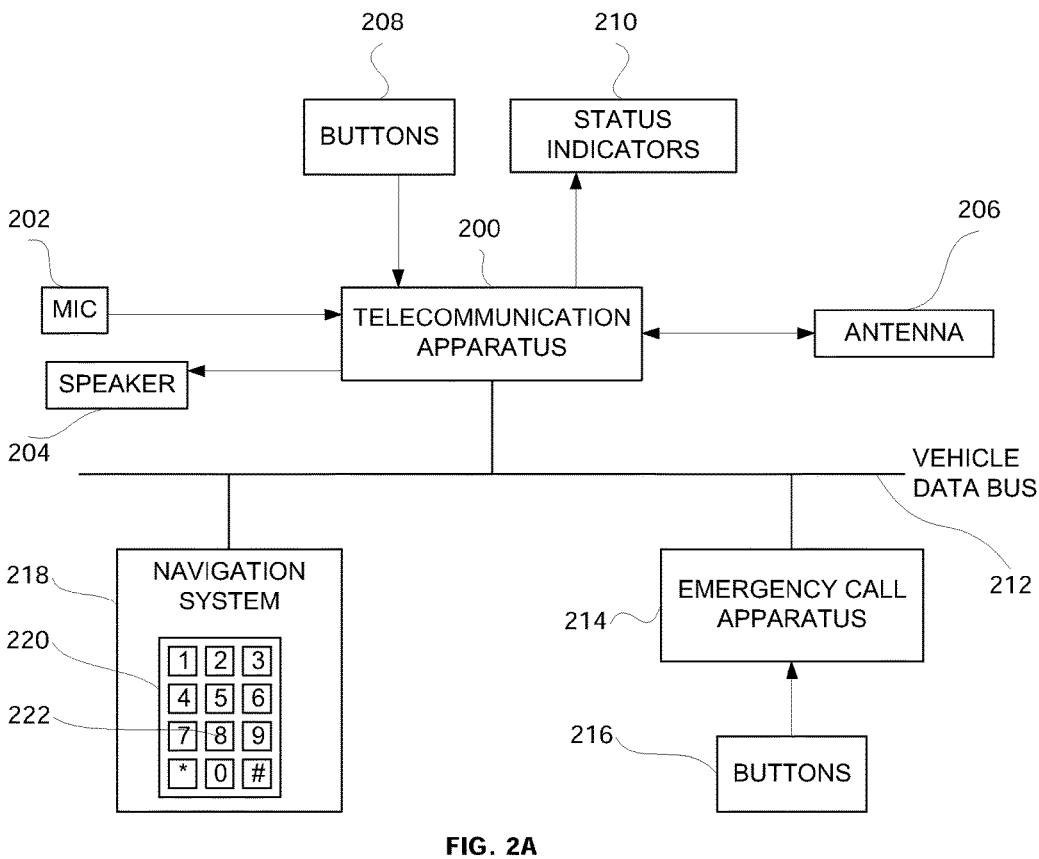
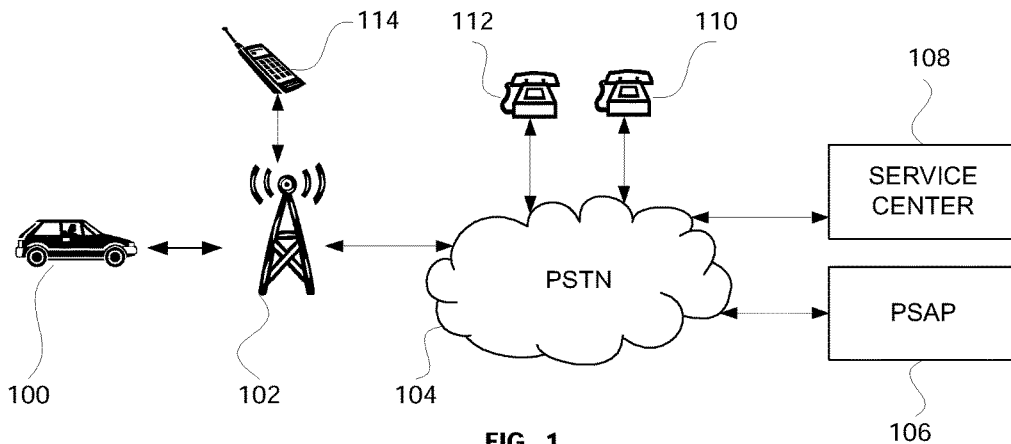
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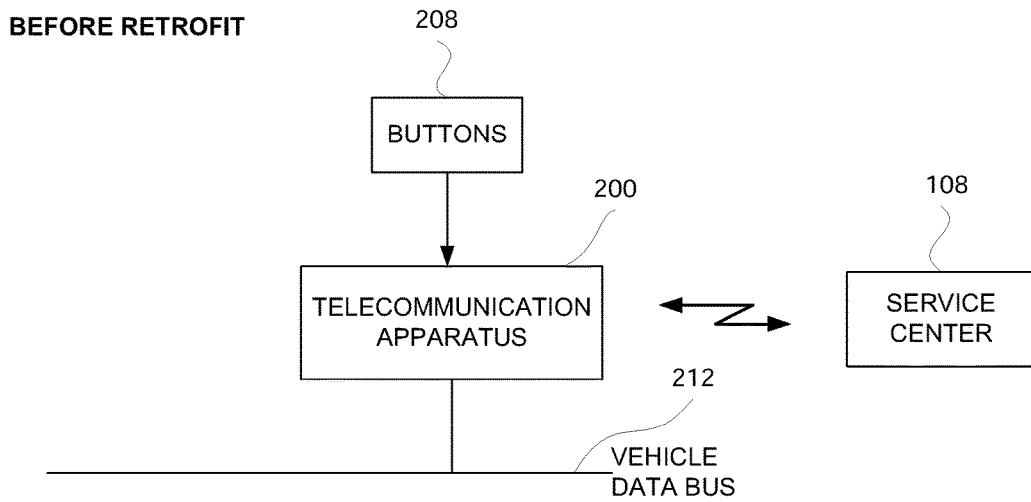


FIG. 2B (PRIOR ART)

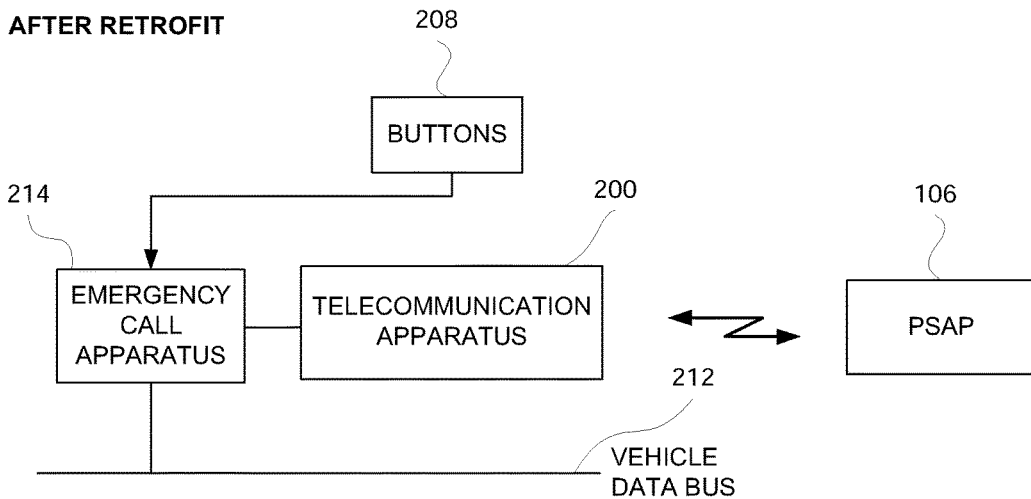


FIG. 2C

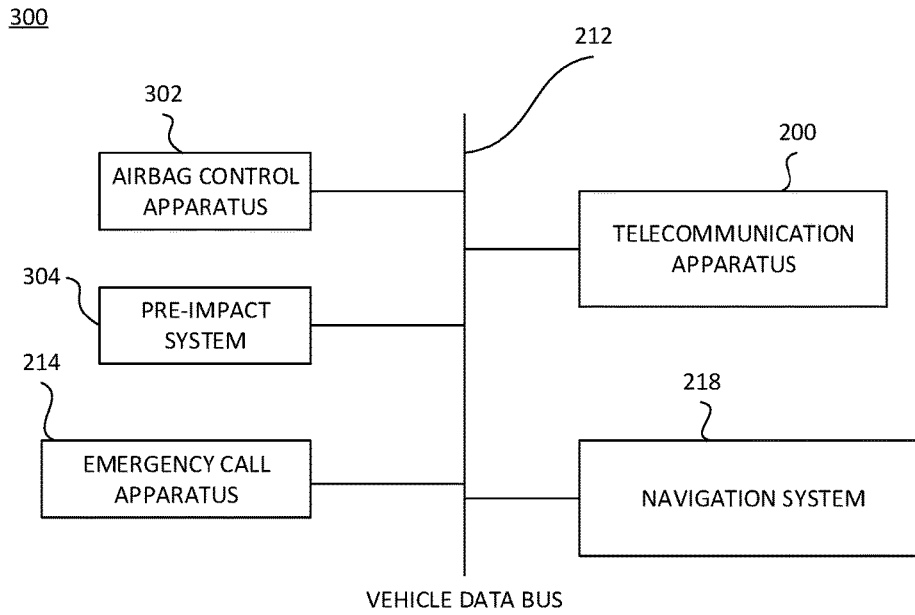


FIG. 3

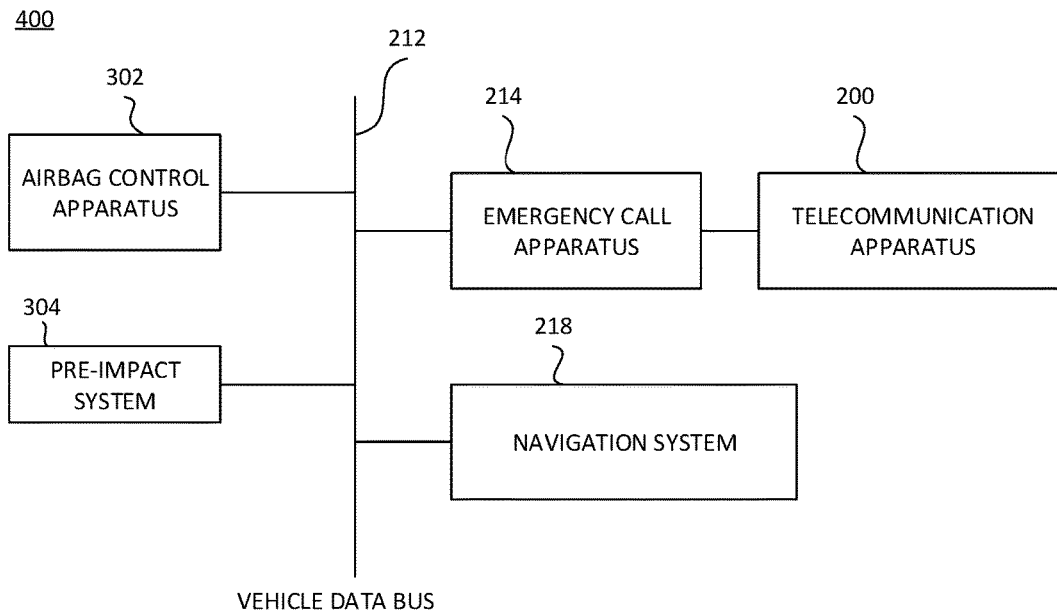


FIG. 4

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