

# **EXHIBIT B**

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

(10) **Patent No.:** **US 7,479,949 B2**  
 (45) **Date of Patent:** **\*Jan. 20, 2009**

(54) **TOUCH SCREEN DEVICE, METHOD, AND GRAPHICAL USER INTERFACE FOR DETERMINING COMMANDS BY APPLYING HEURISTICS**

(65) **Prior Publication Data**  
 US 2008/0174570 A1 Jul. 24, 2008

**Related U.S. Application Data**

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(63) Continuation of application No. 11/850,635, filed on Sep. 5, 2007.  
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(51) **Int. Cl.**  
**G09G 5/00** (2006.01)  
**G06F 3/048** (2006.01)  
 (52) **U.S. Cl.** ..... **345/173; 345/169; 715/786; 715/784**  
 (58) **Field of Classification Search** ..... **345/156, 345/157, 173-181**  
 See application file for complete search history.

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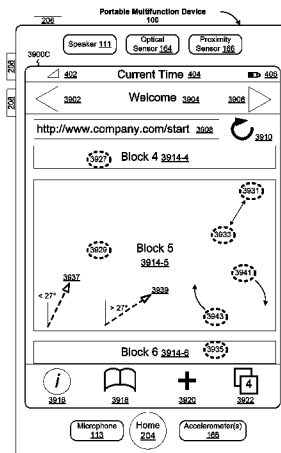
(73) Assignee: **Apple Inc.**, Cupertino, CA (US)

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

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **12/101,832**

(22) Filed: **Apr. 11, 2008**



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(74) Attorney, Agent, or Firm—Morgan, Lewis & Bockius LLP

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## ABSTRACT

A computer-implemented method for use in conjunction with a computing device with a touch screen display comprises: detecting one or more finger contacts with the touch screen display, applying one or more heuristics to the one or more finger contacts to determine a command for the device, and processing the command. The one or more heuristics comprise: a heuristic for determining that the one or more finger contacts correspond to a one-dimensional vertical screen scrolling command, a heuristic for determining that the one or more finger contacts correspond to a two-dimensional screen translation command, and a heuristic for determining that the one or more finger contacts correspond to a command to transition from displaying a respective item in a set of items to displaying a next item in the set of items.

20 Claims, 293 Drawing Sheets

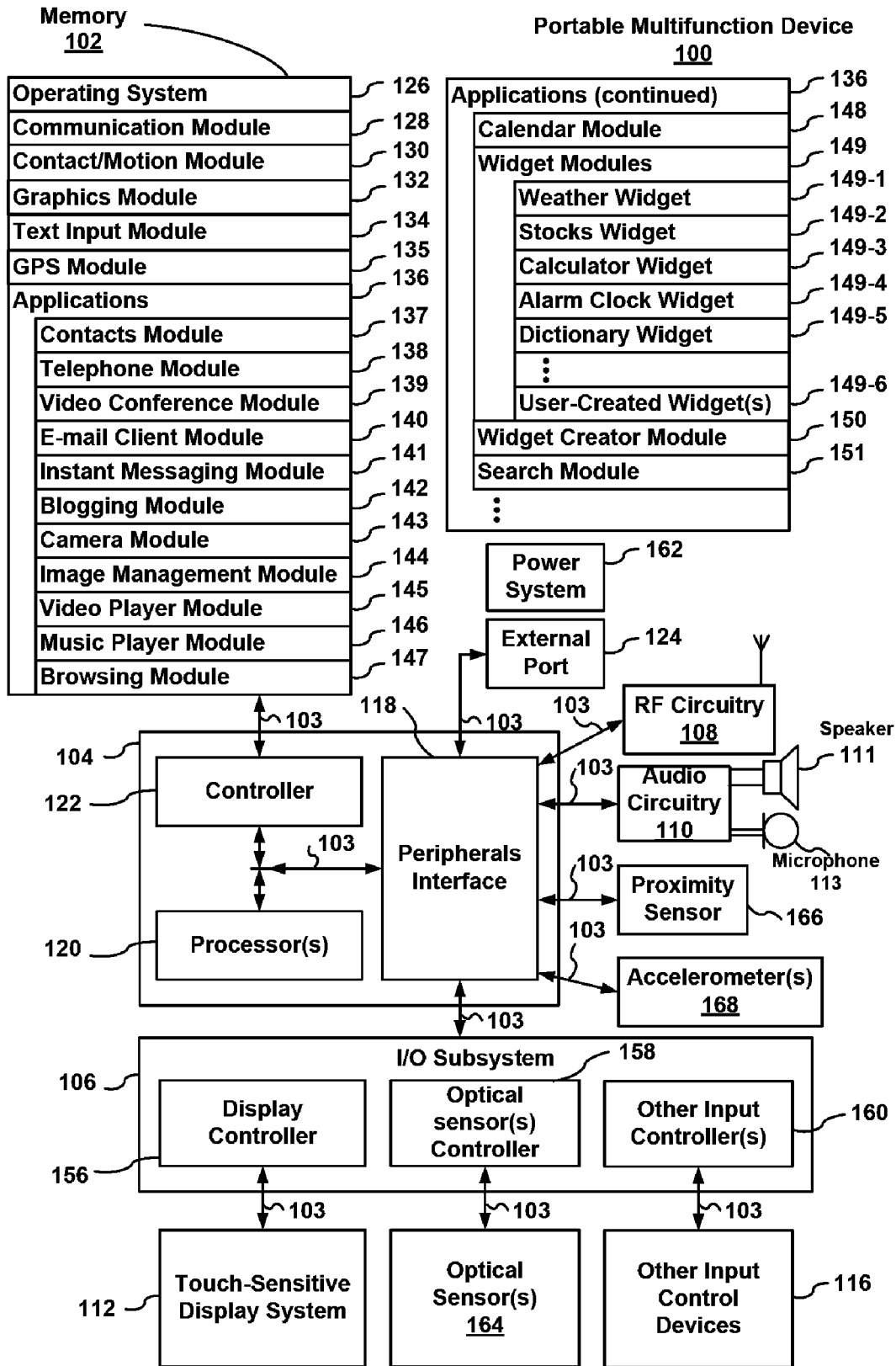


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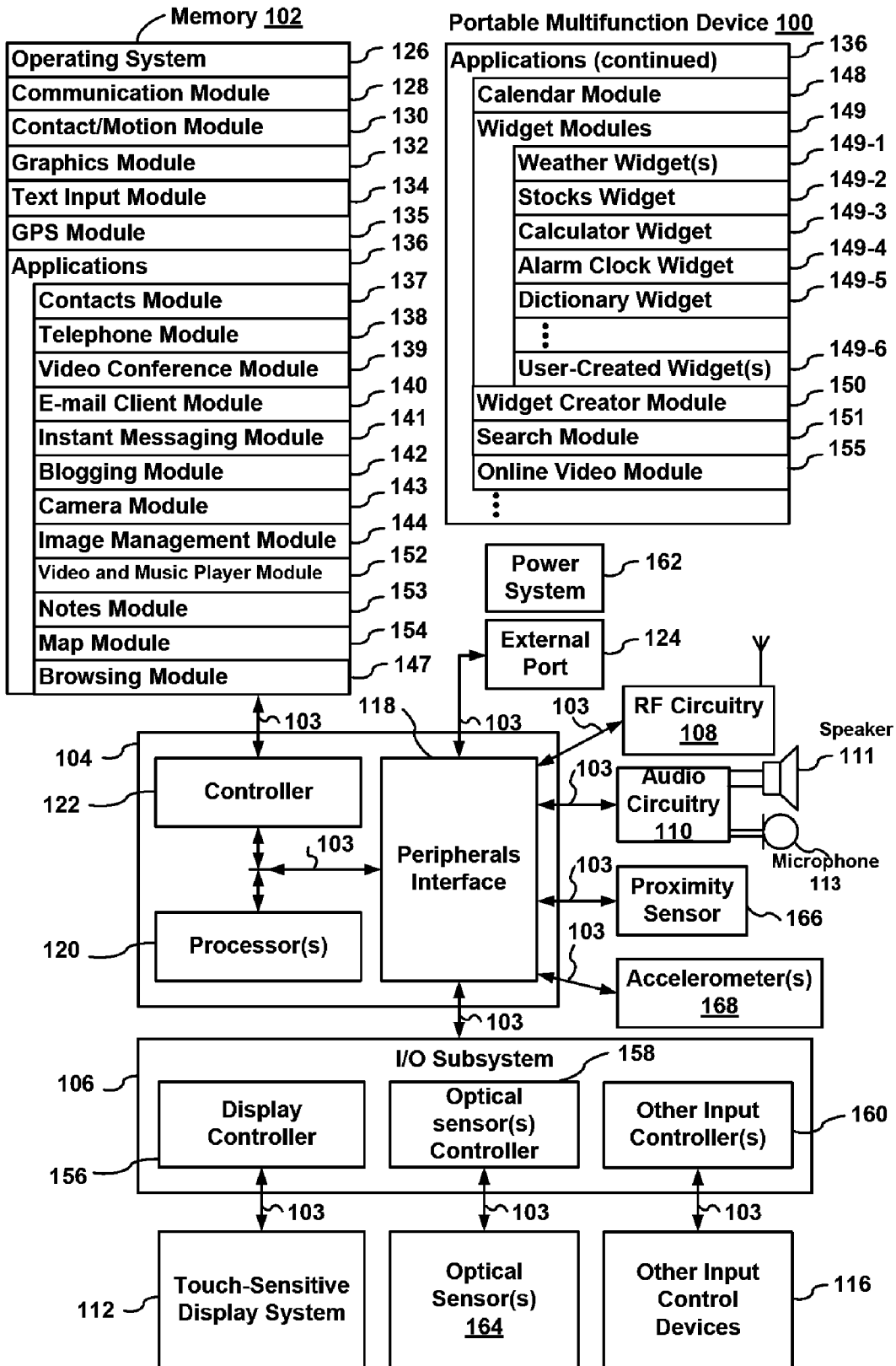


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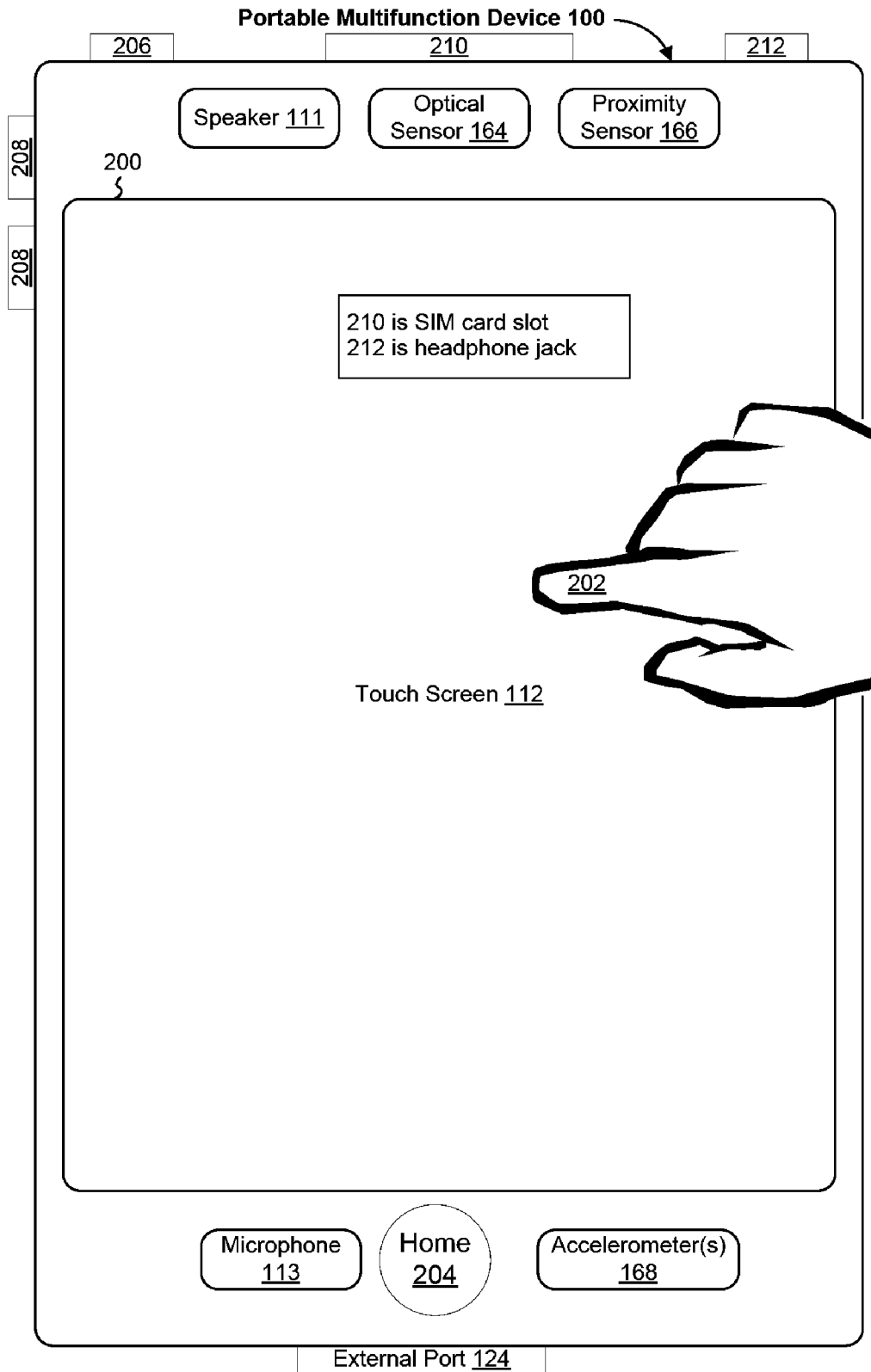


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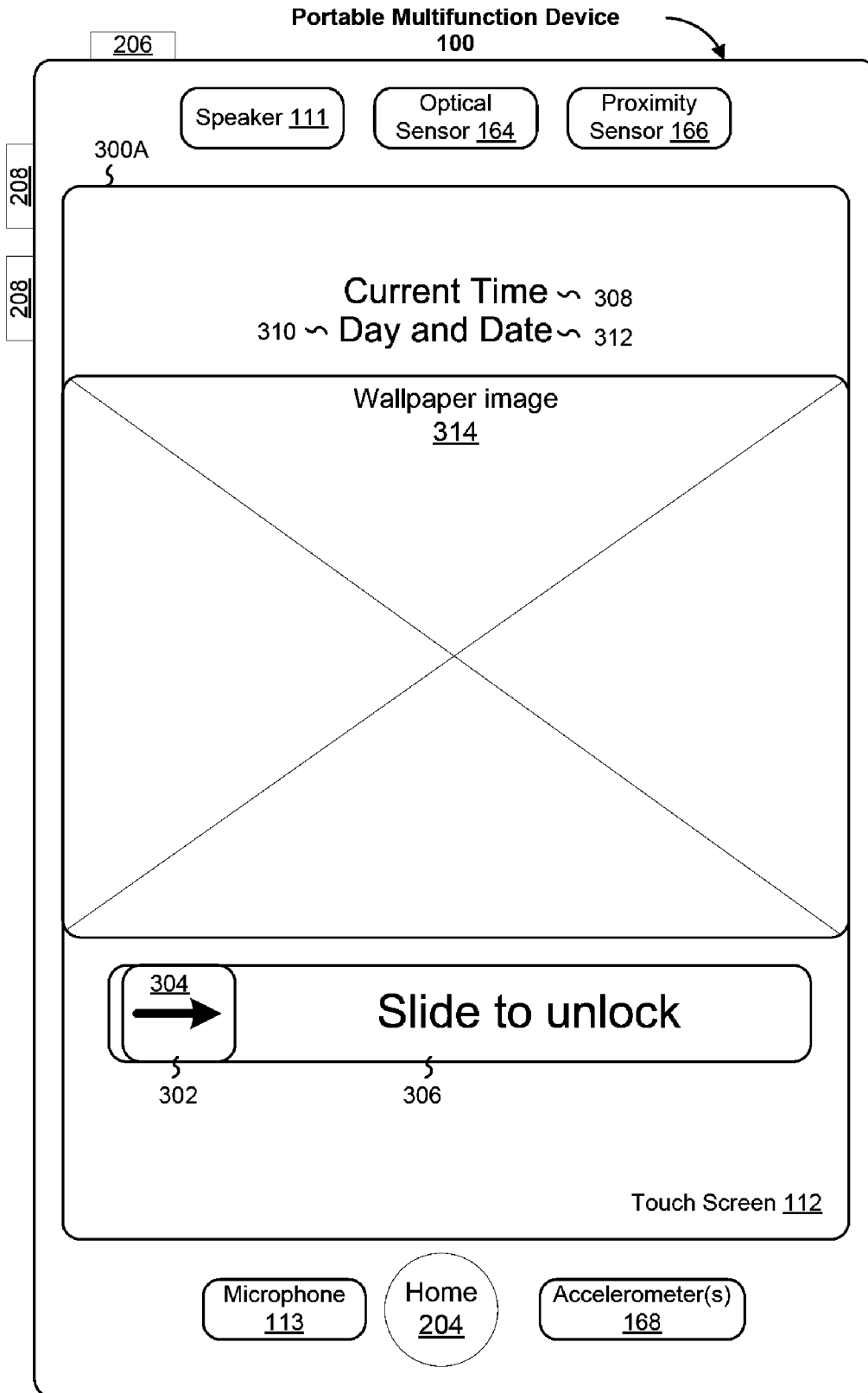


Figure 3A

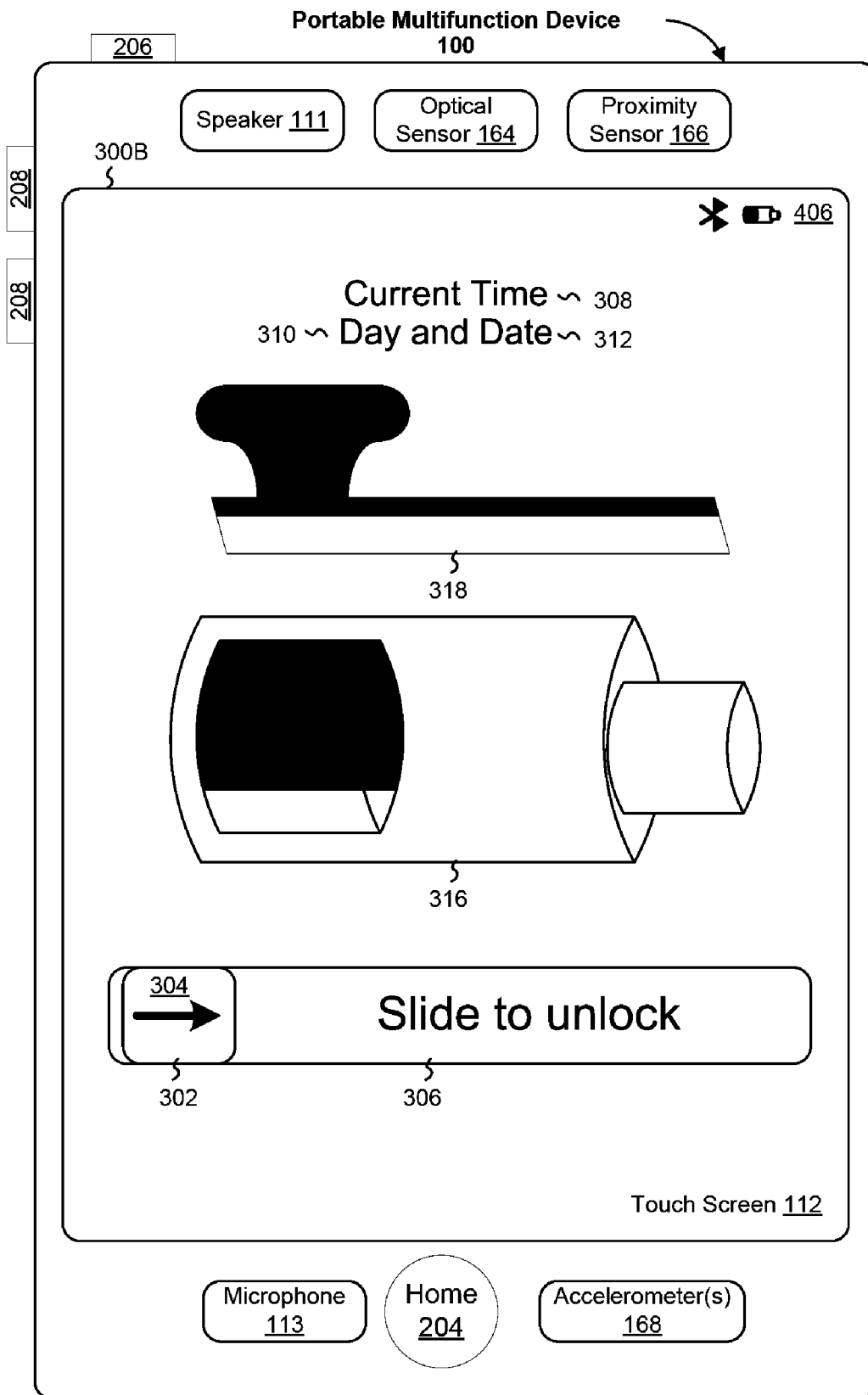


Figure 3B



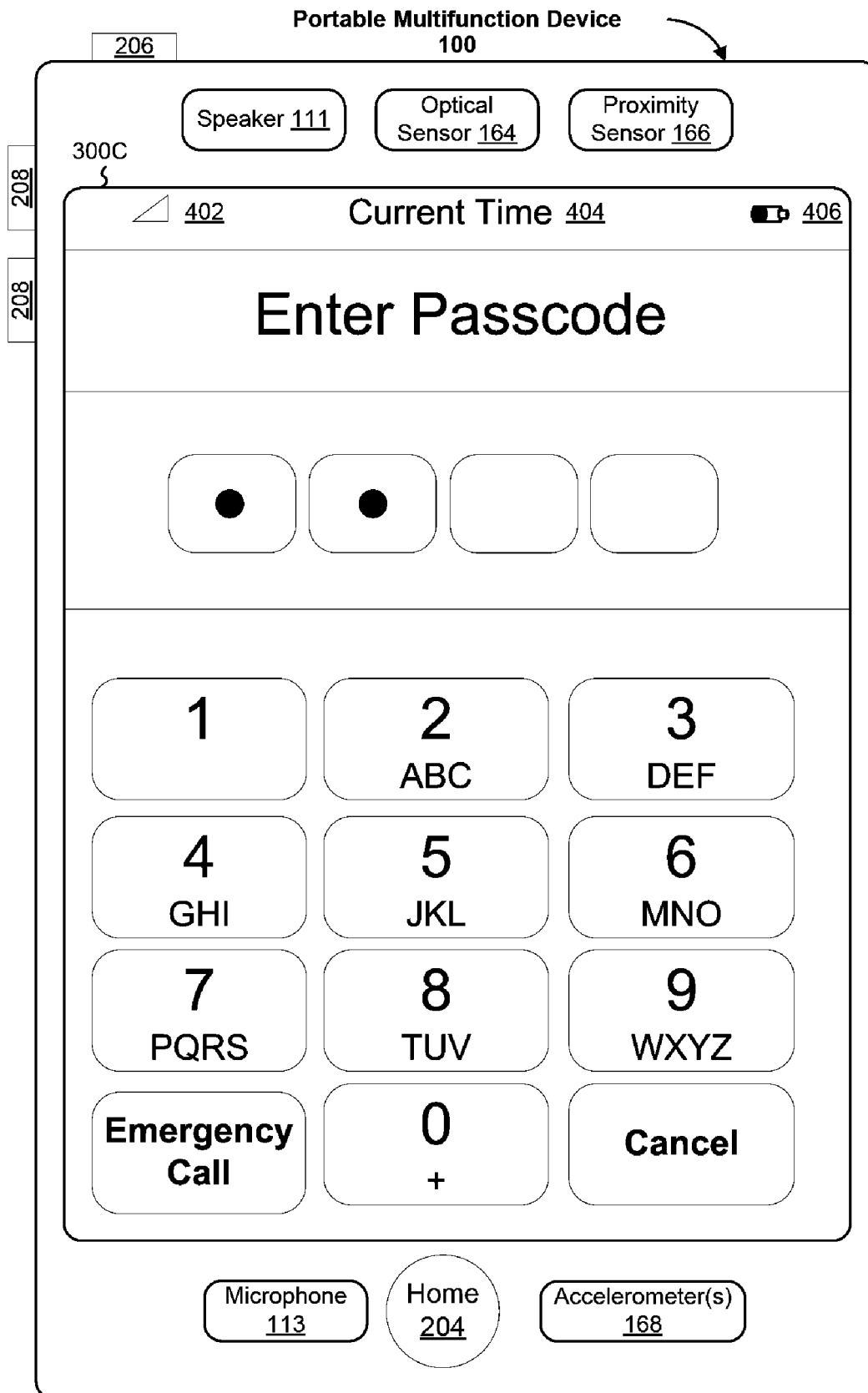


Figure 3C

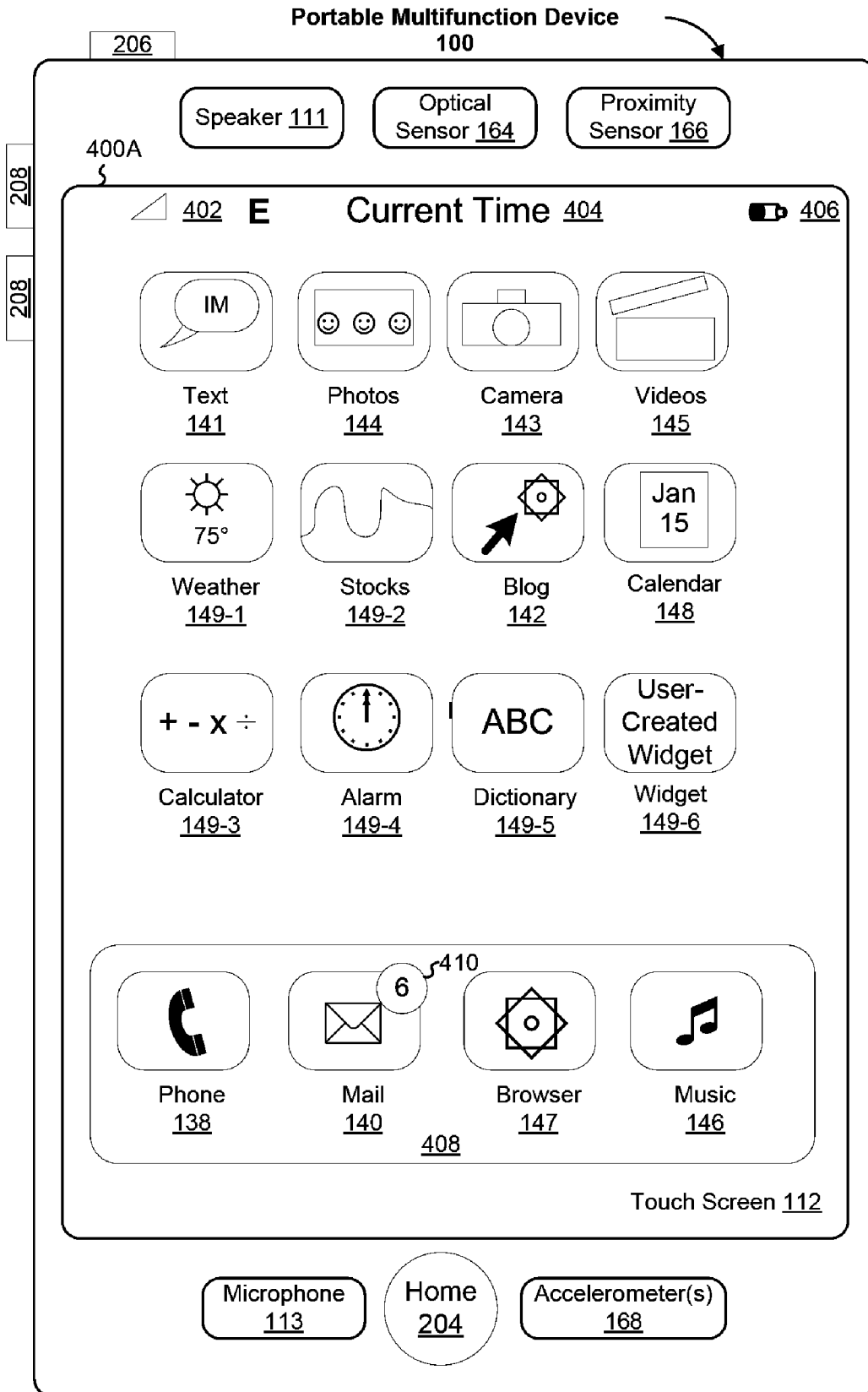


Figure 4A

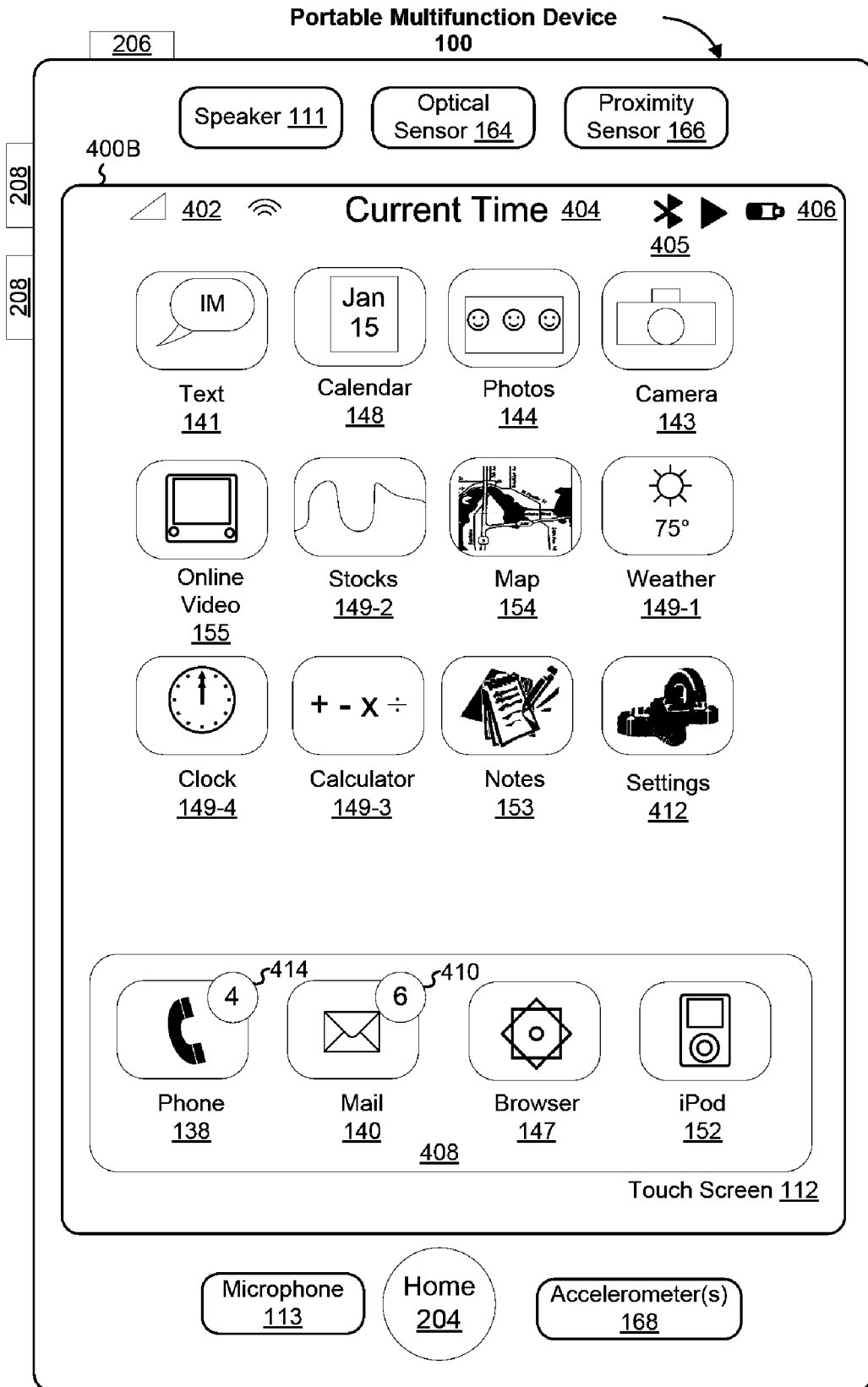


Figure 4B

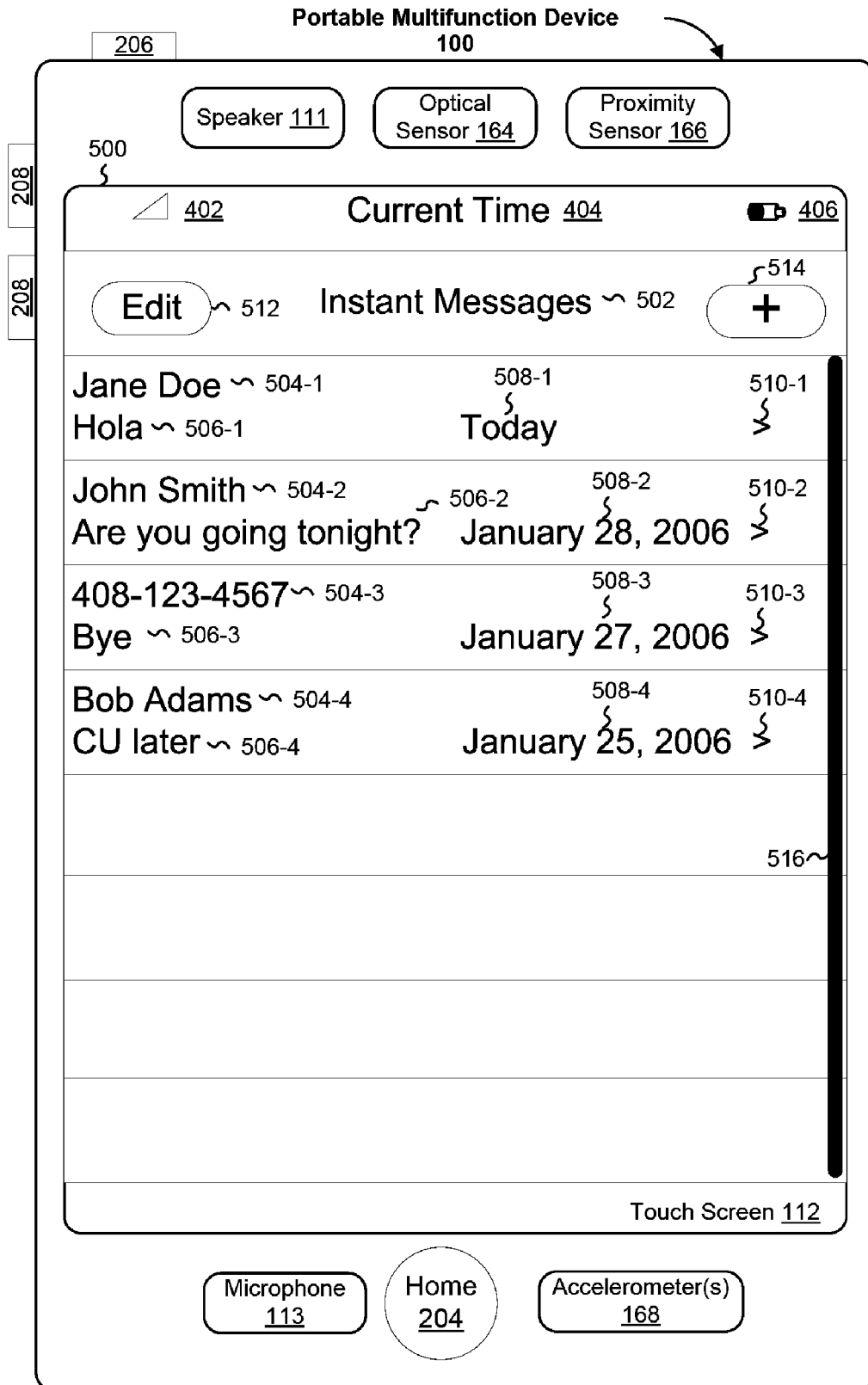


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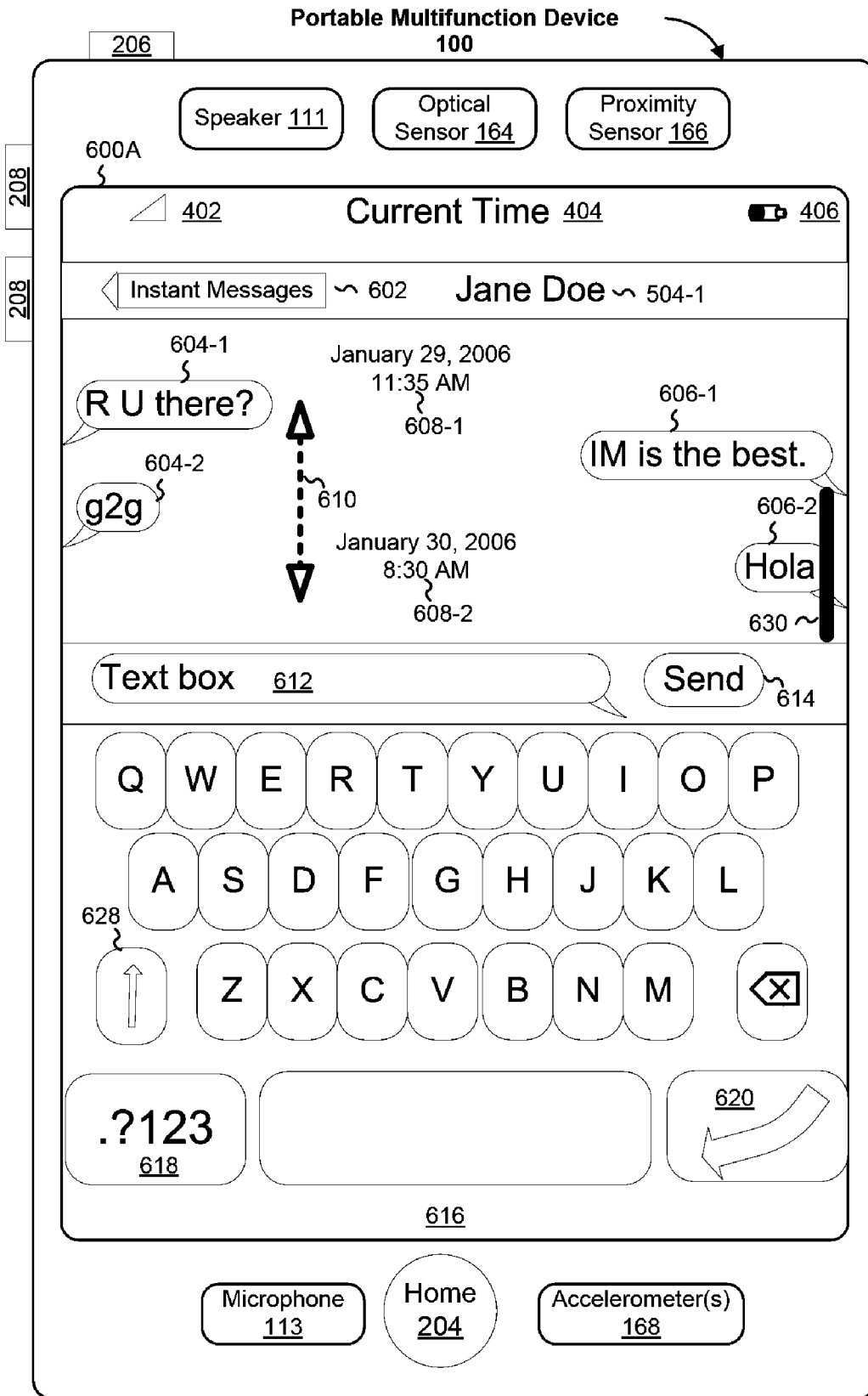


Figure 6A

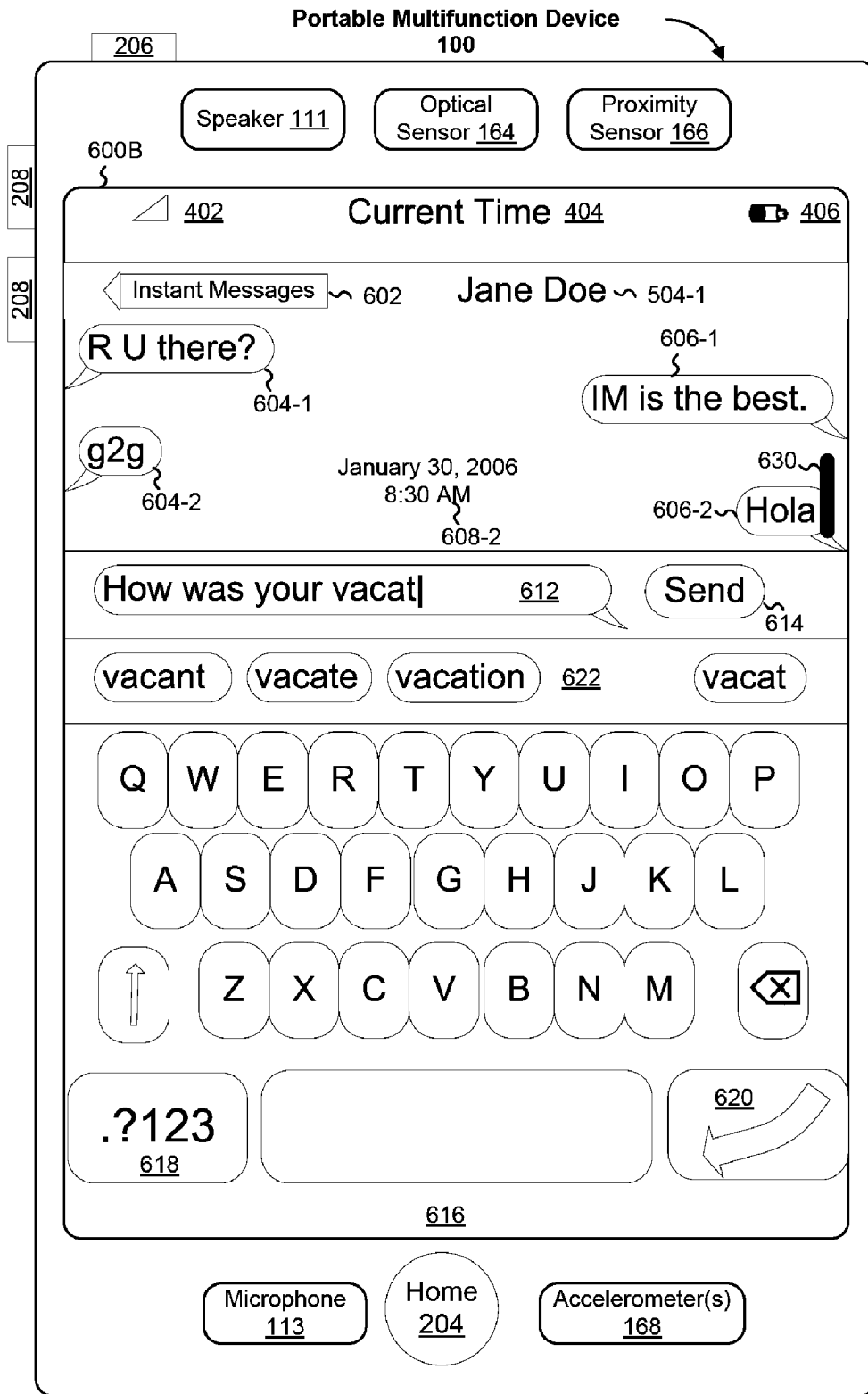


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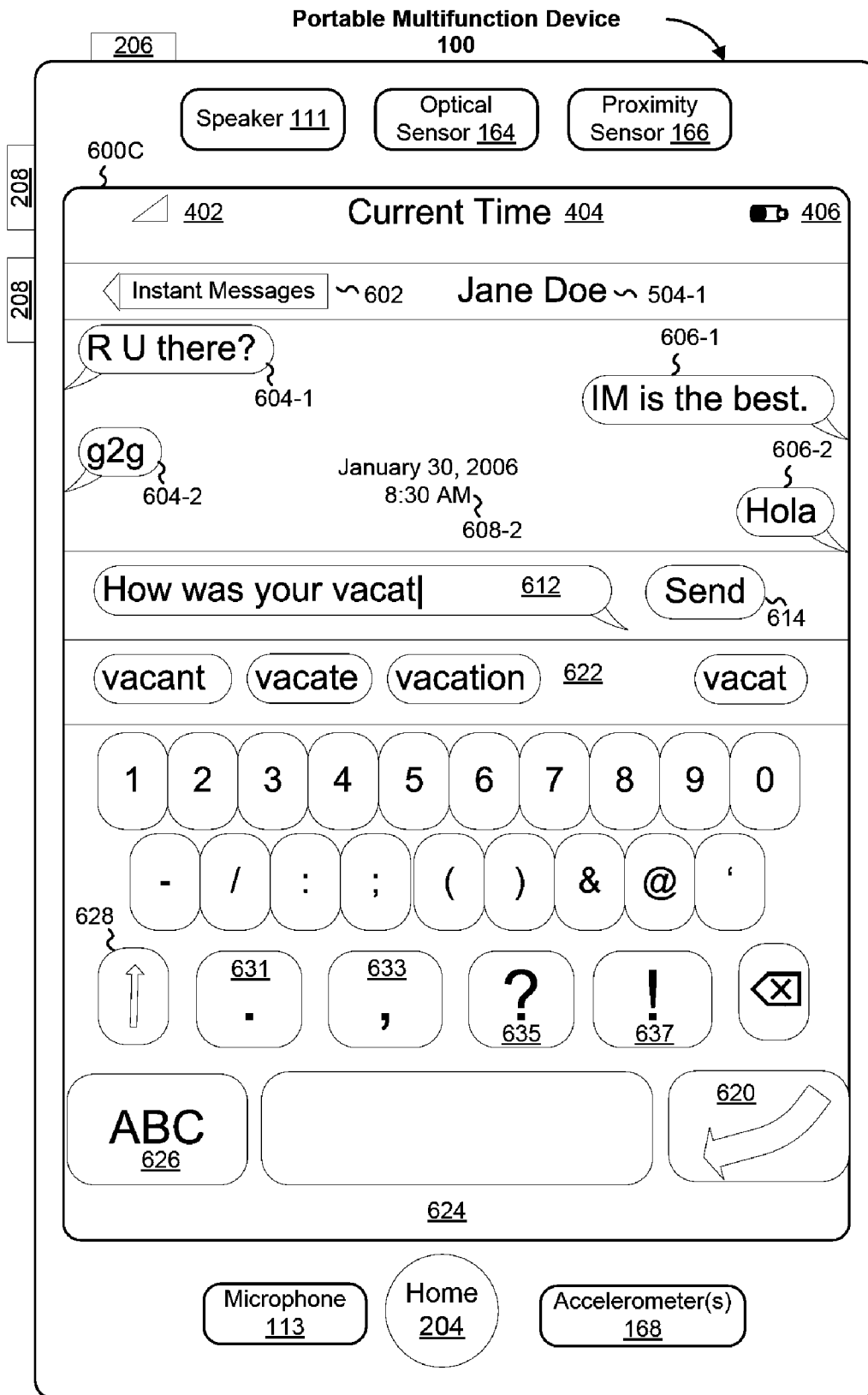


Figure 6C

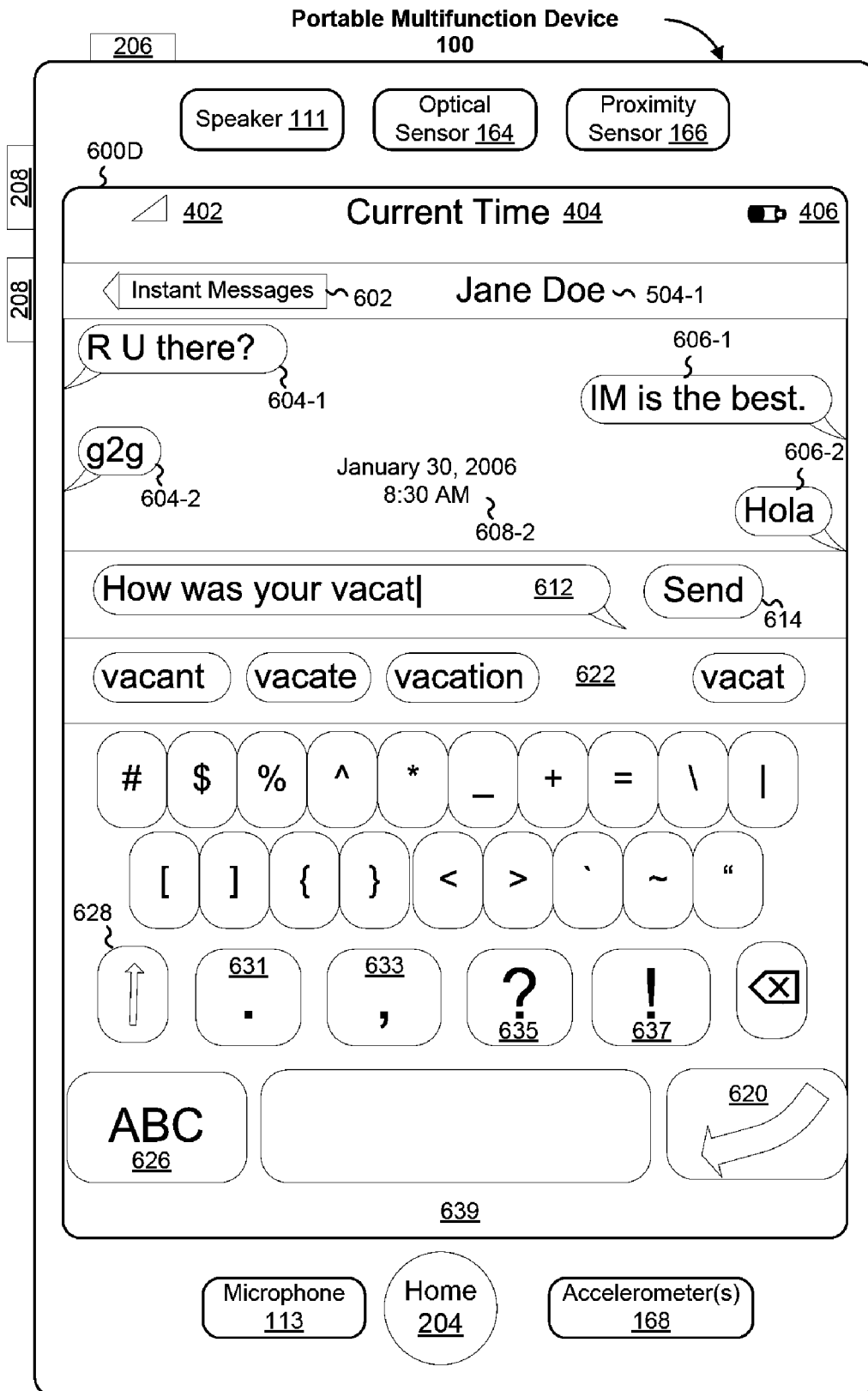


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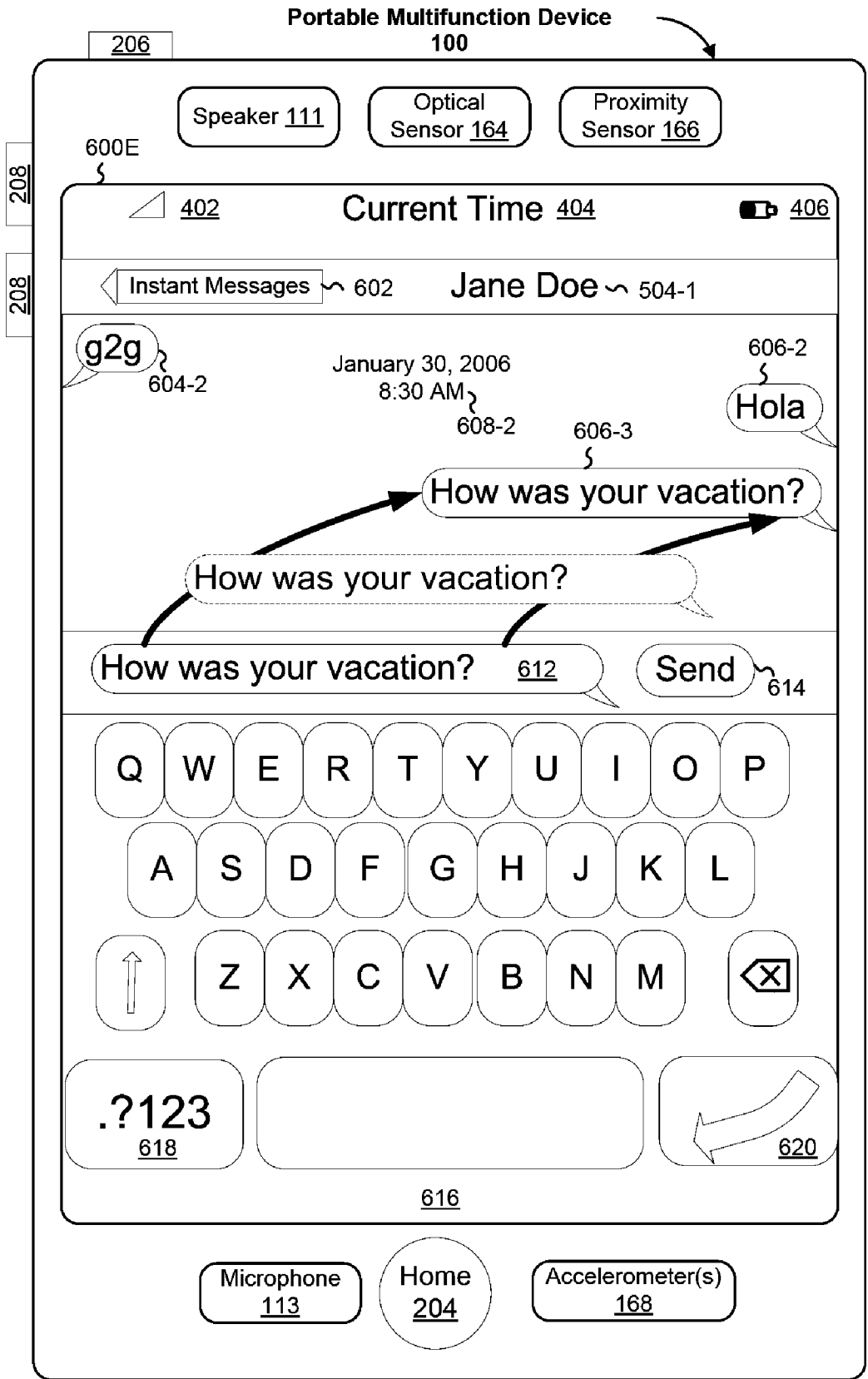


Figure 6E



Figure 6F

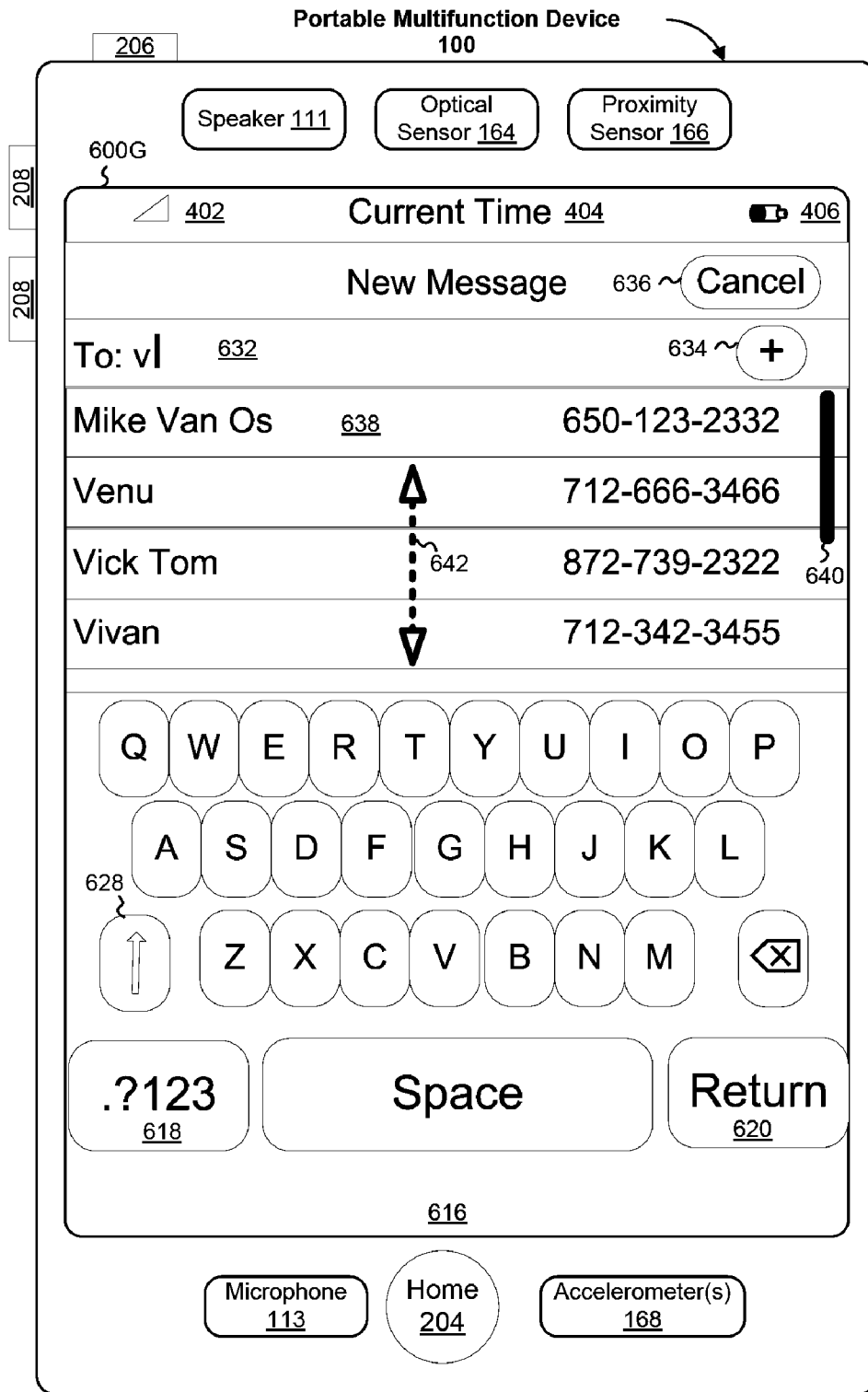


Figure 6G



Figure 6H

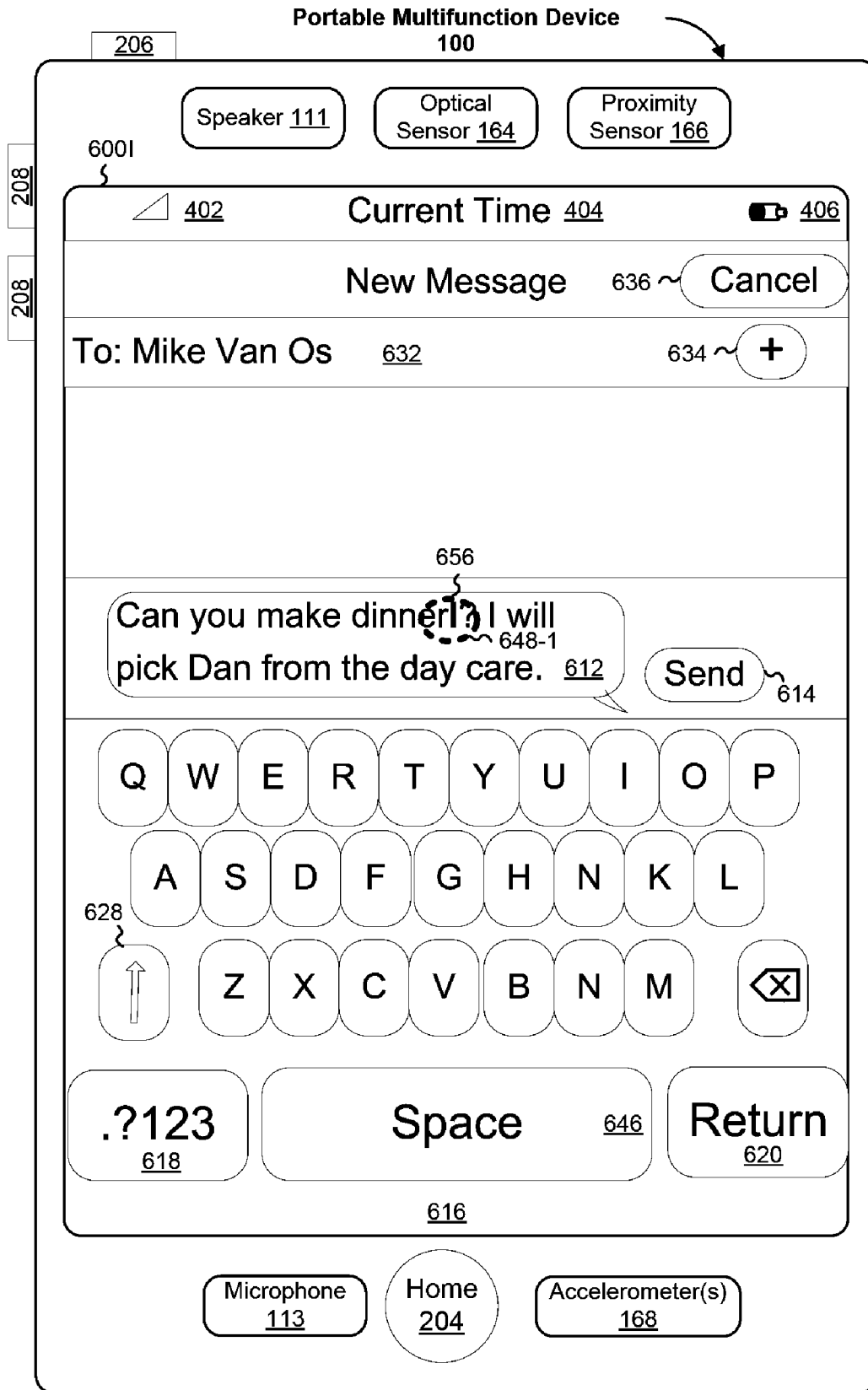


Figure 61



Figure 6J



Figure 6K

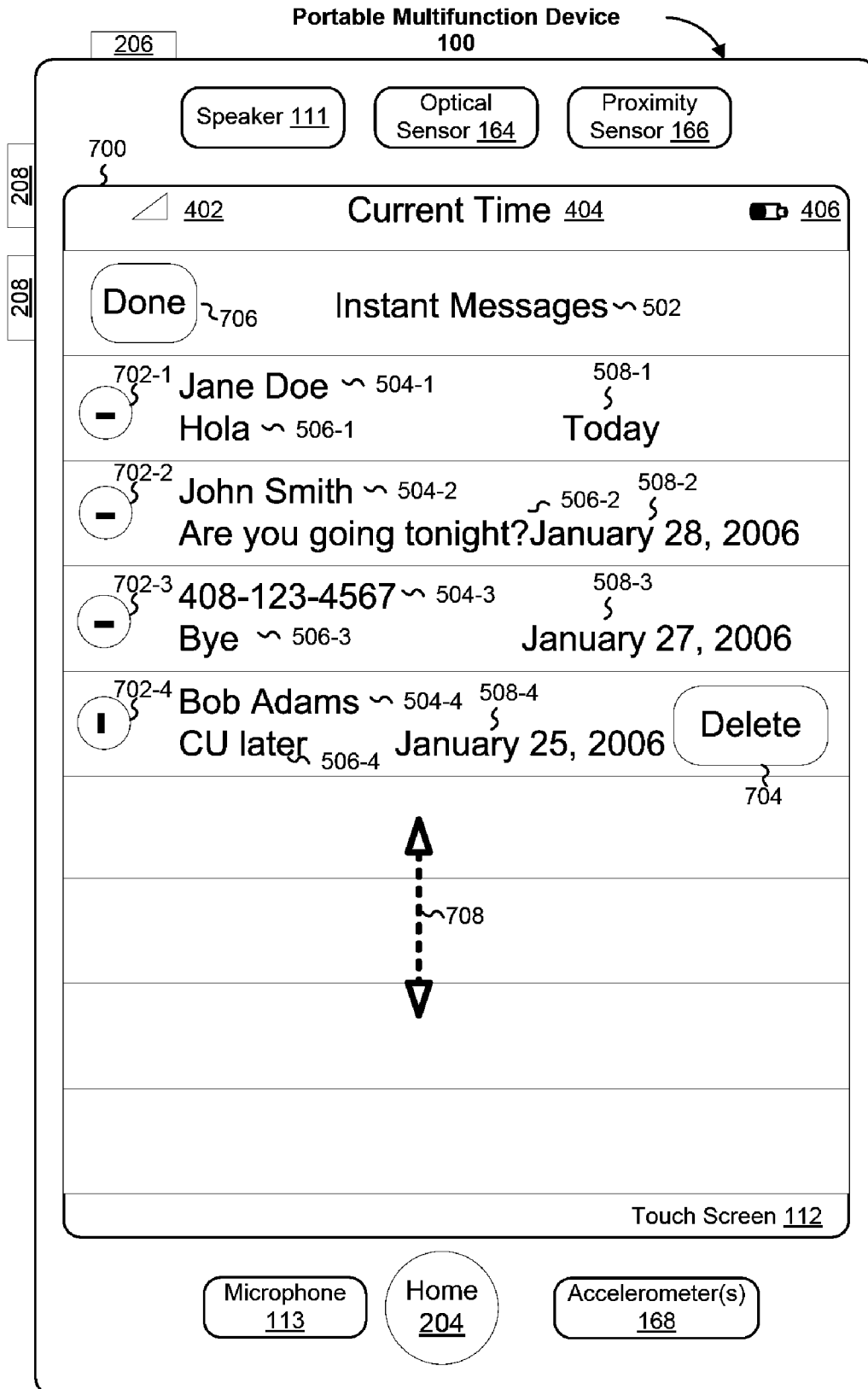


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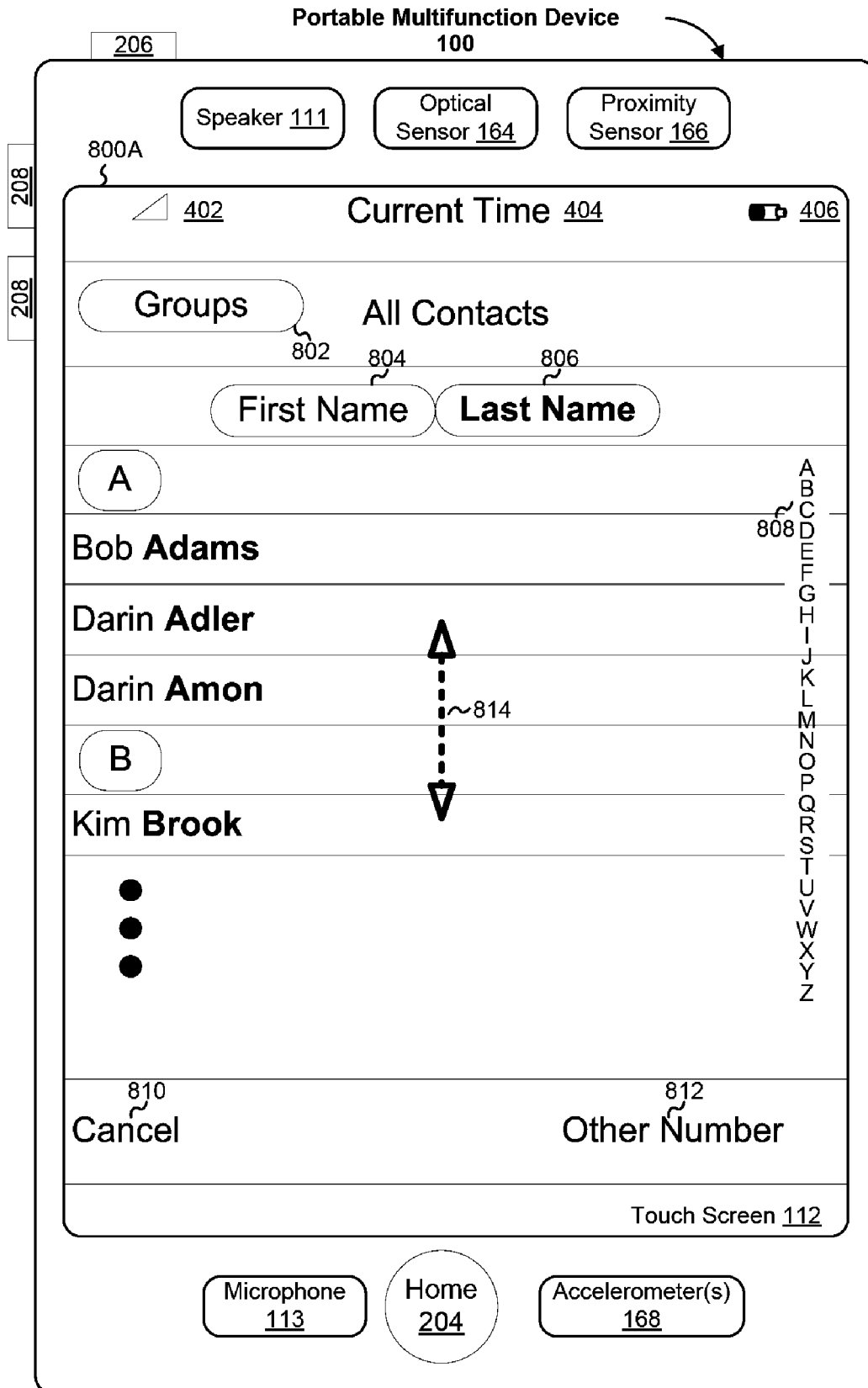


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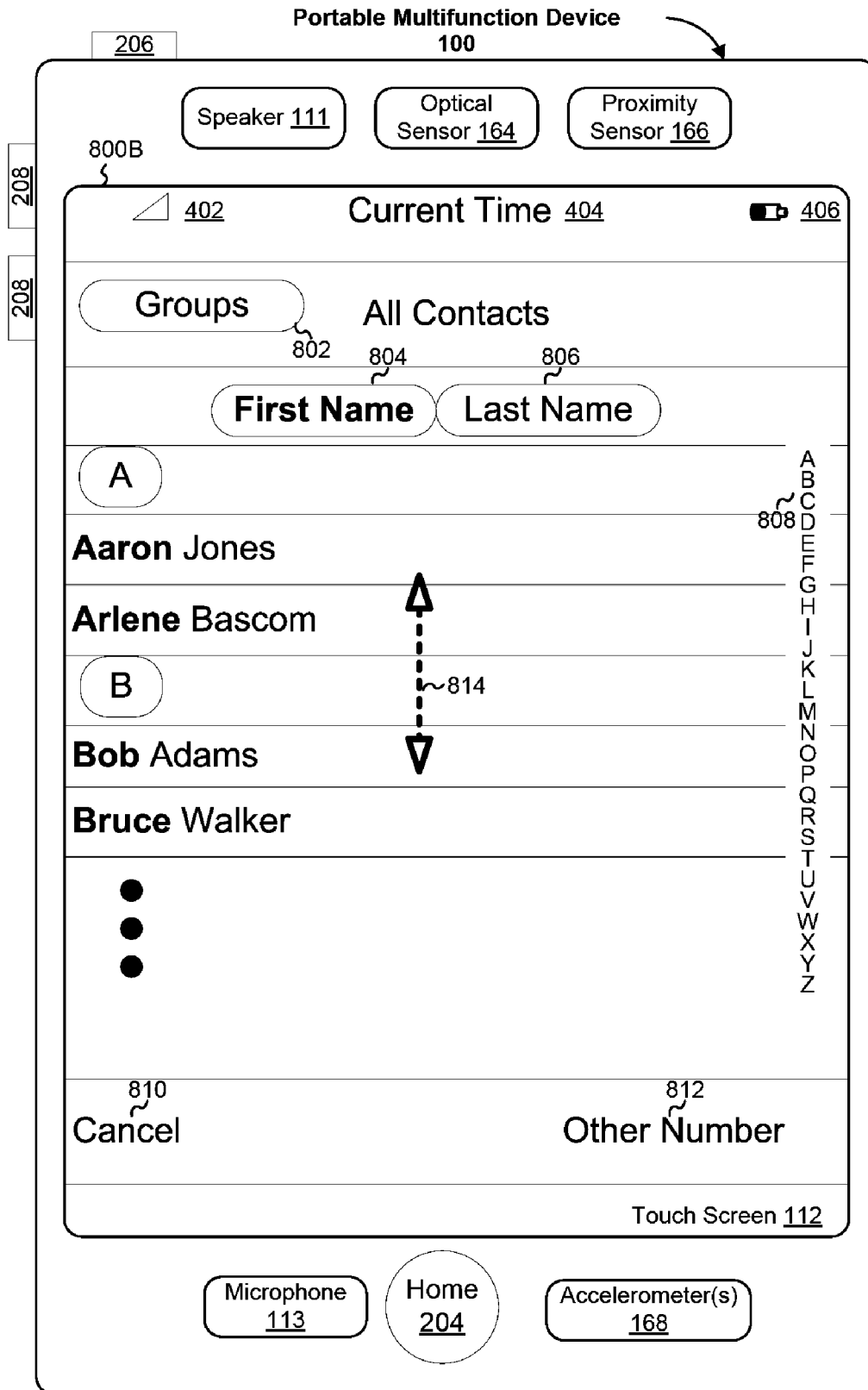


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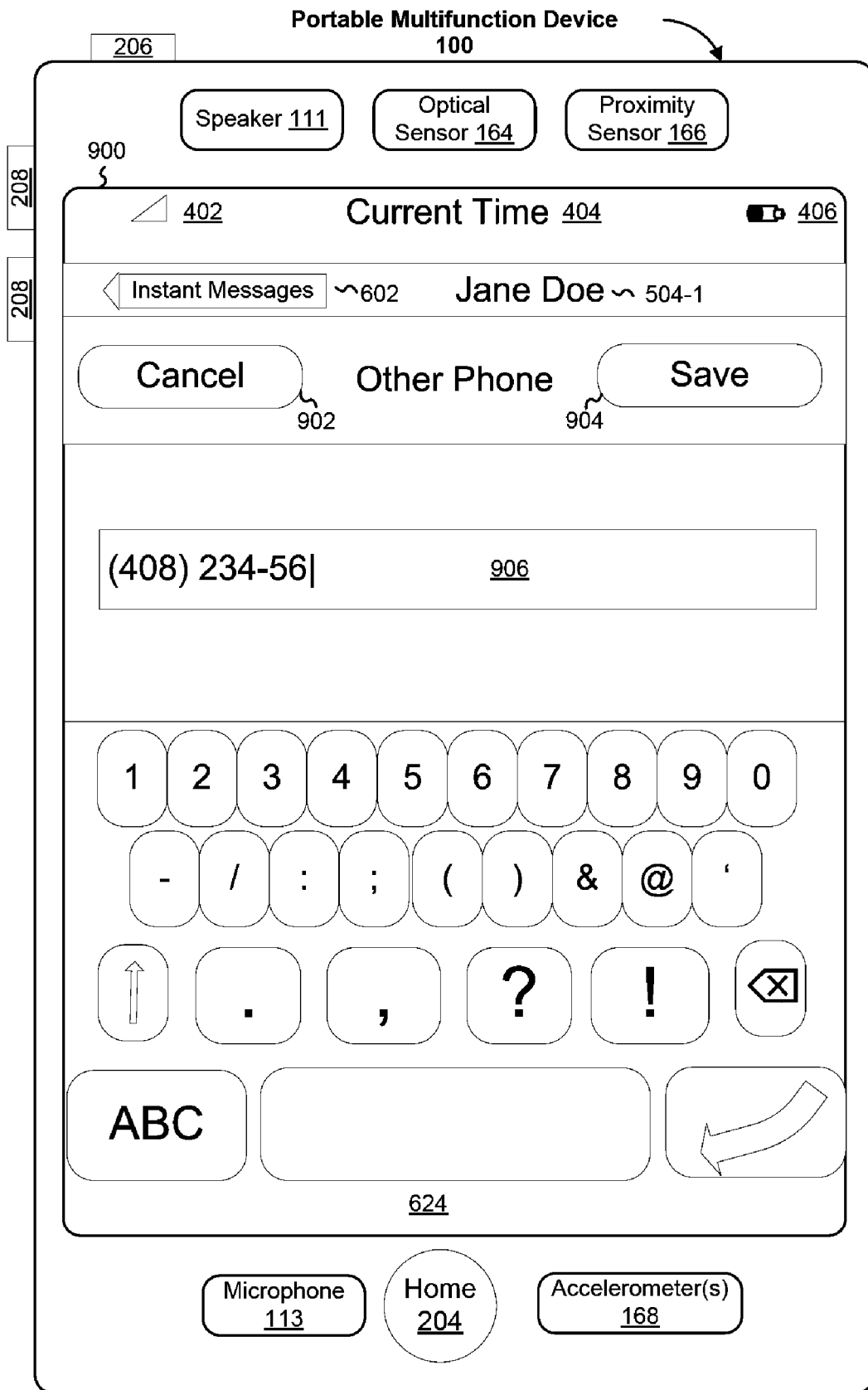


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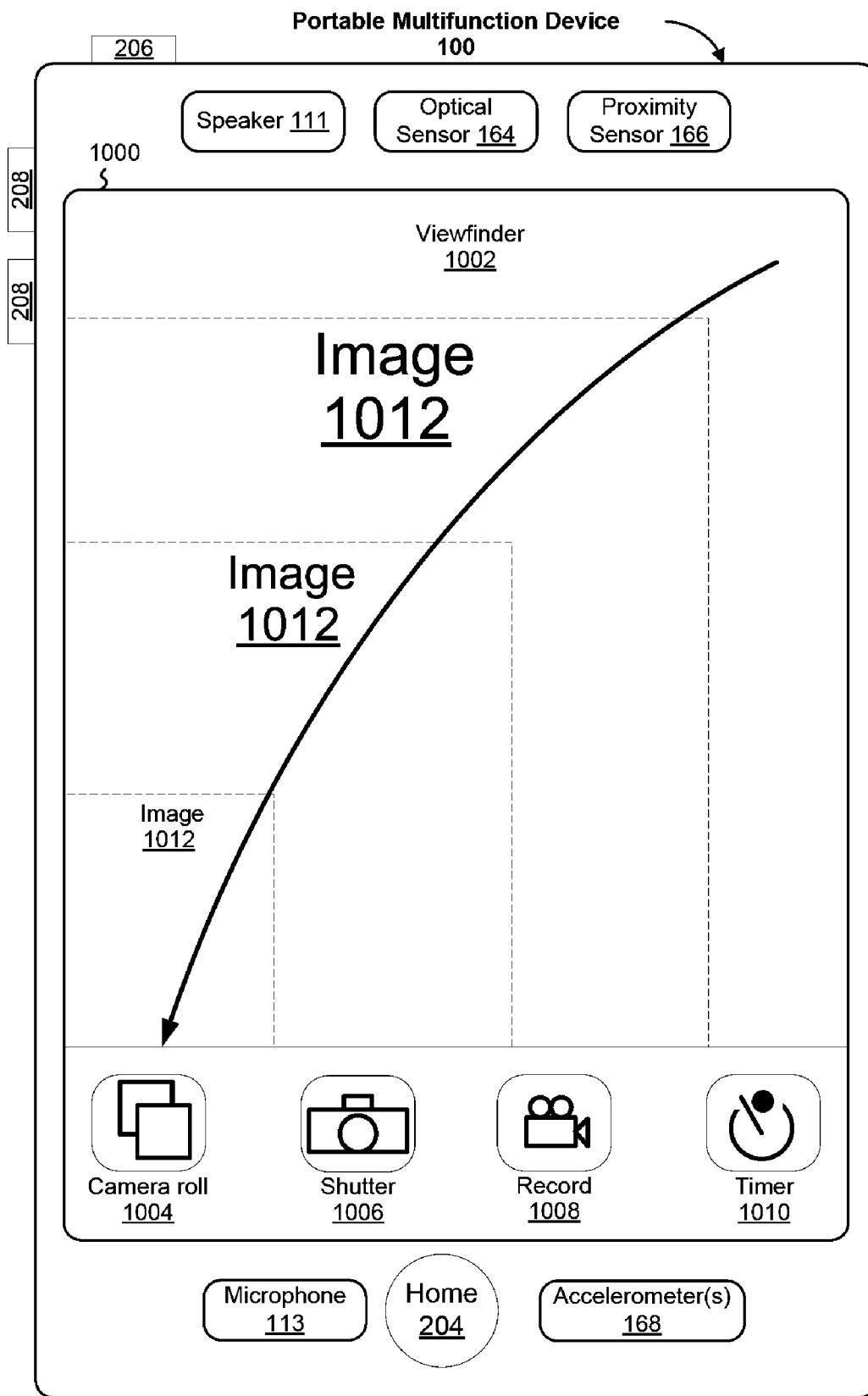


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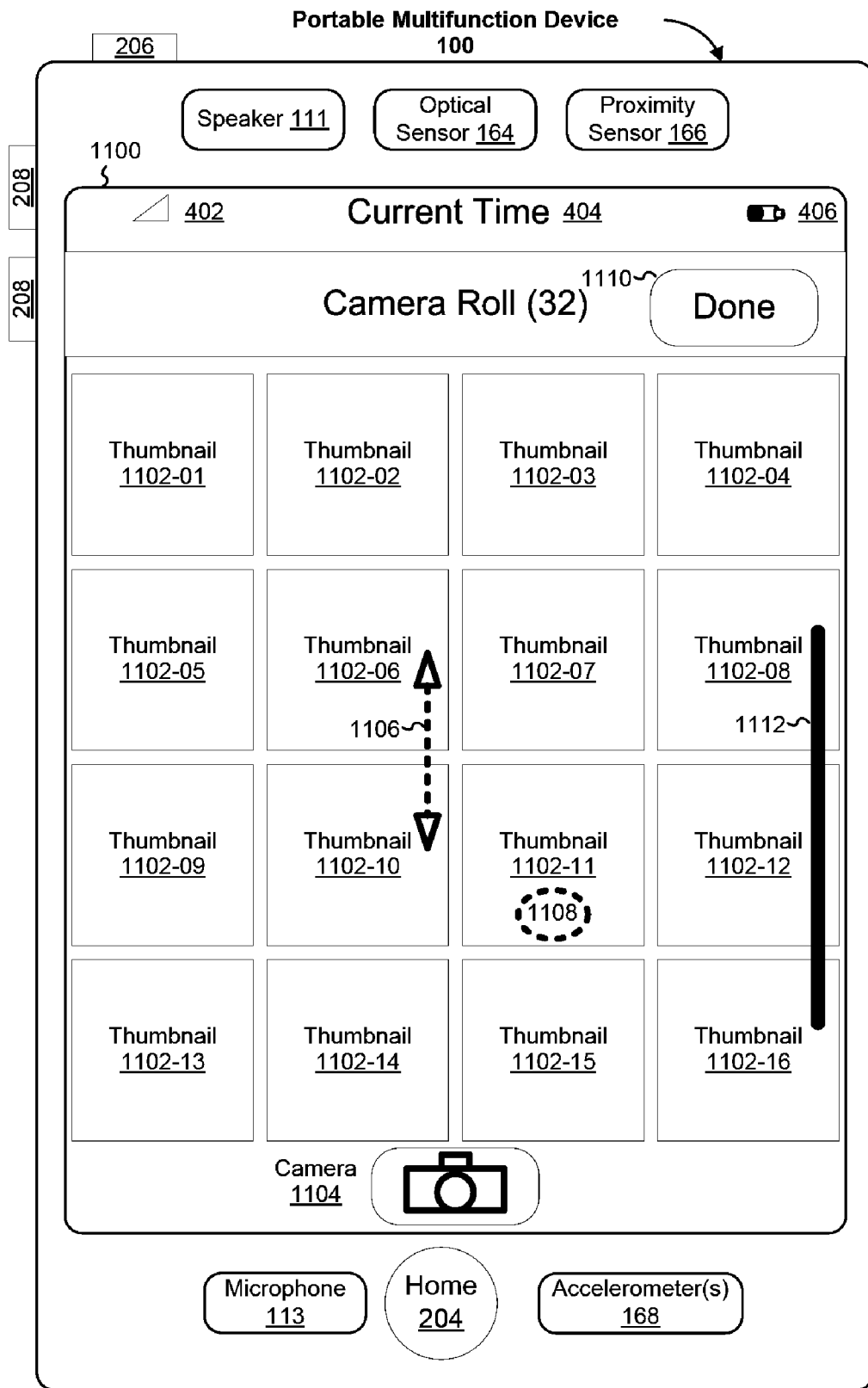


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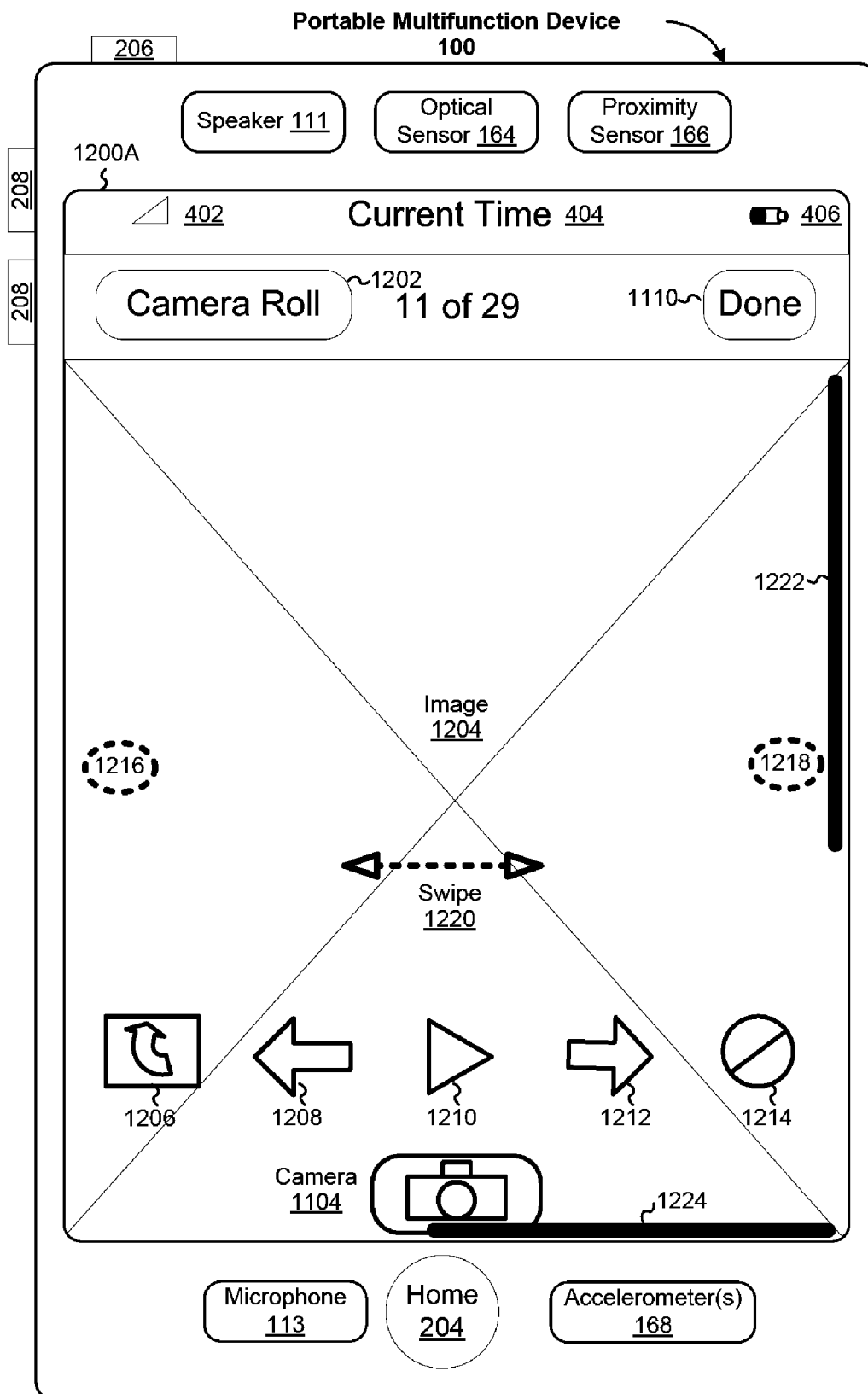


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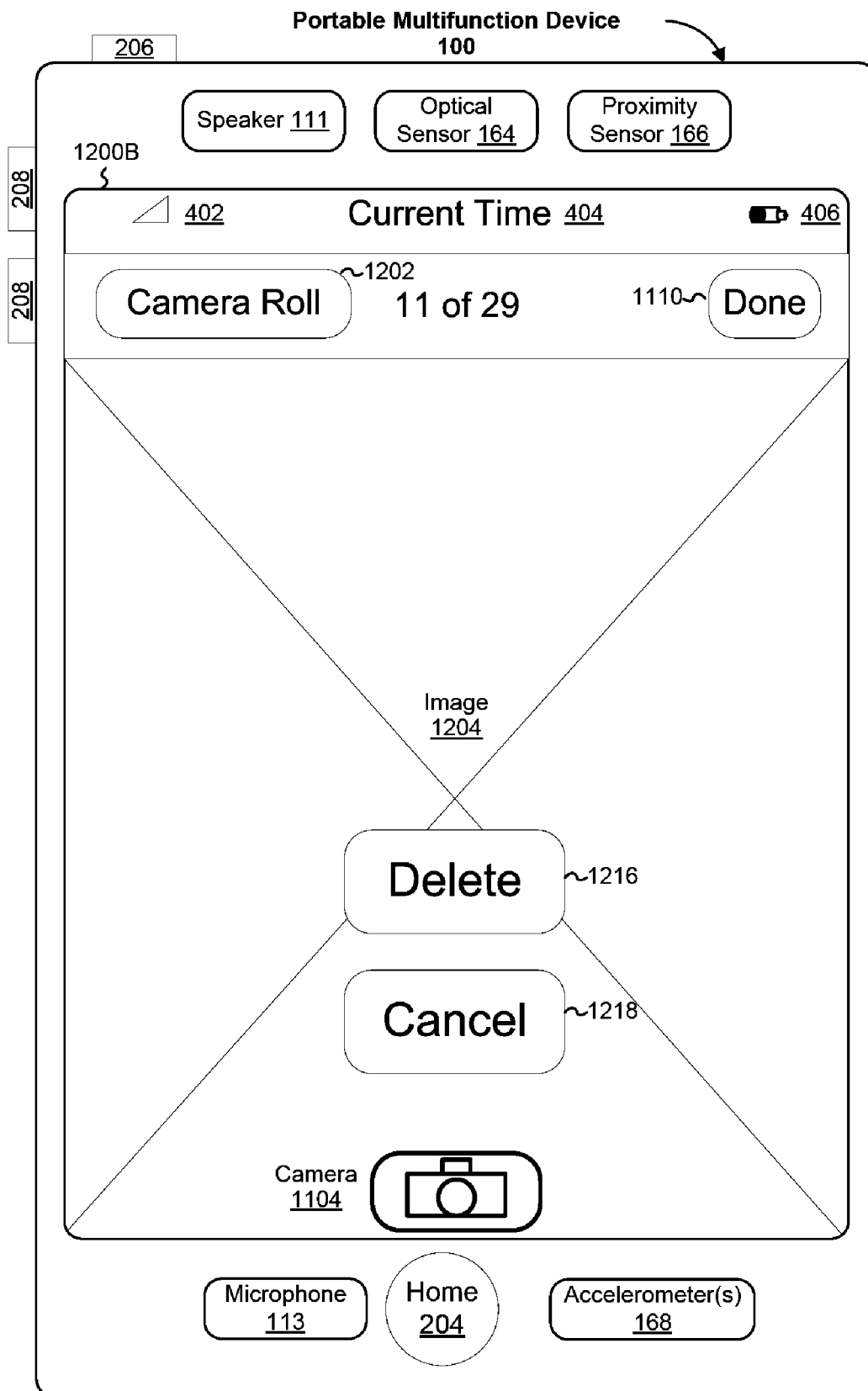


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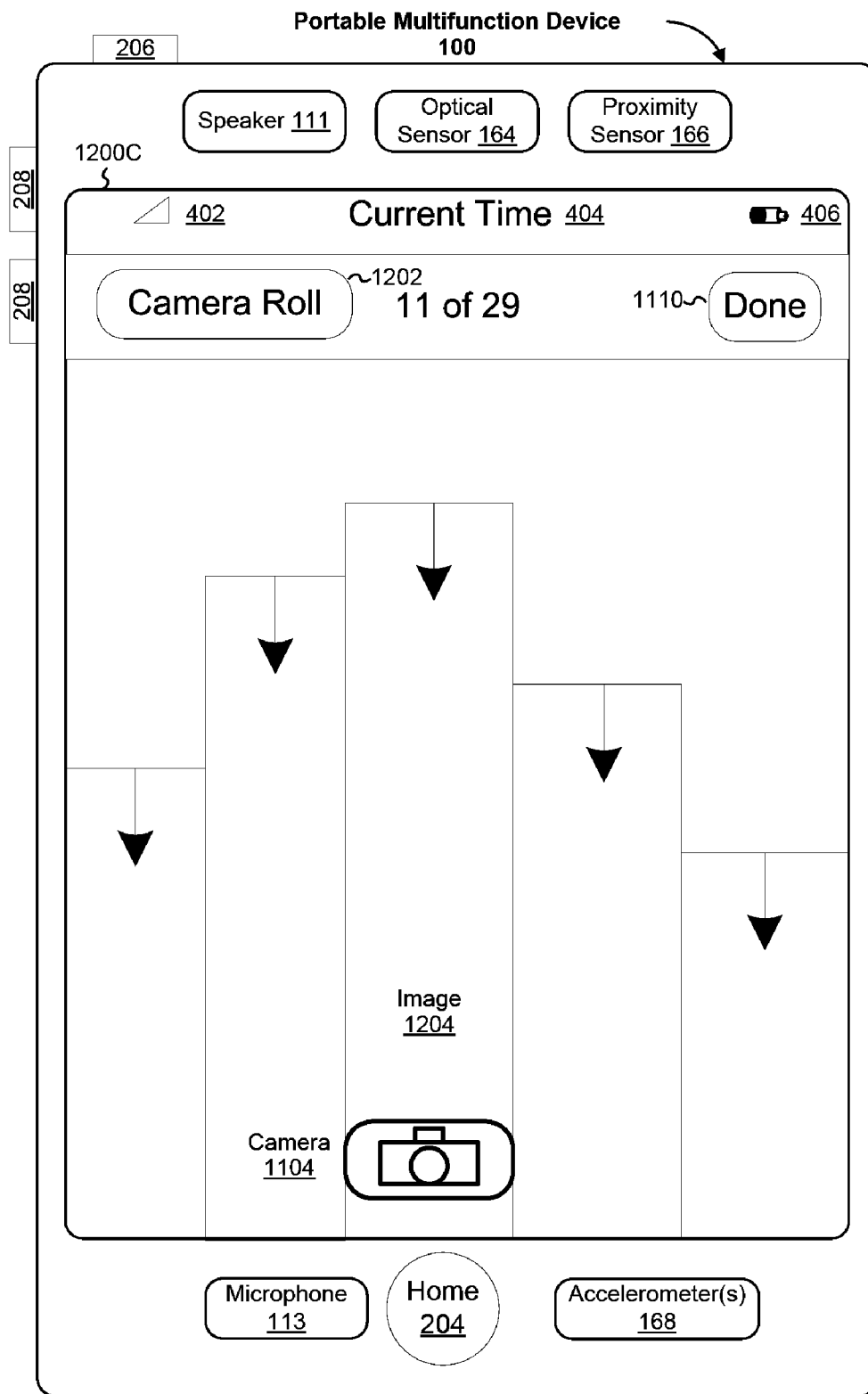


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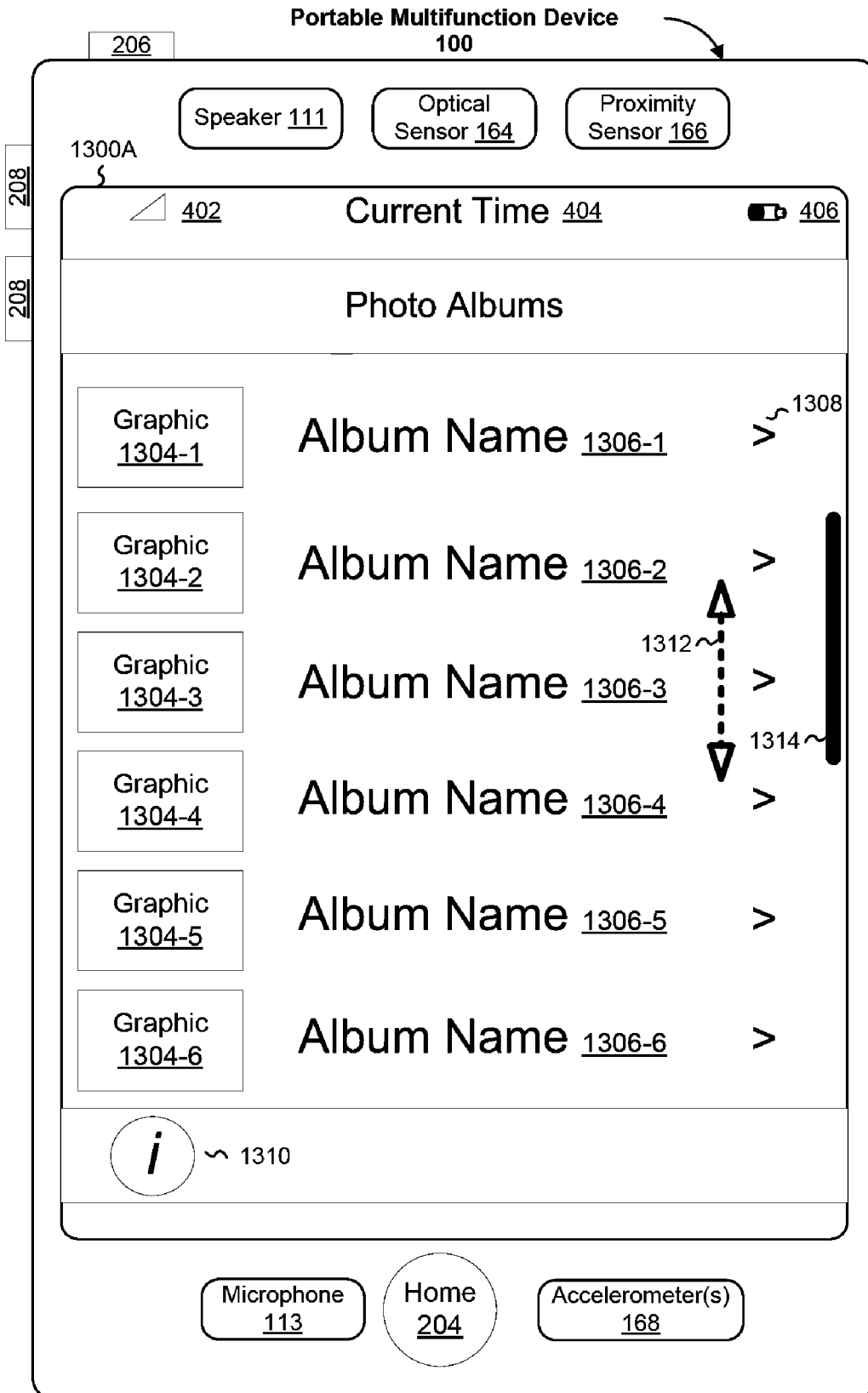


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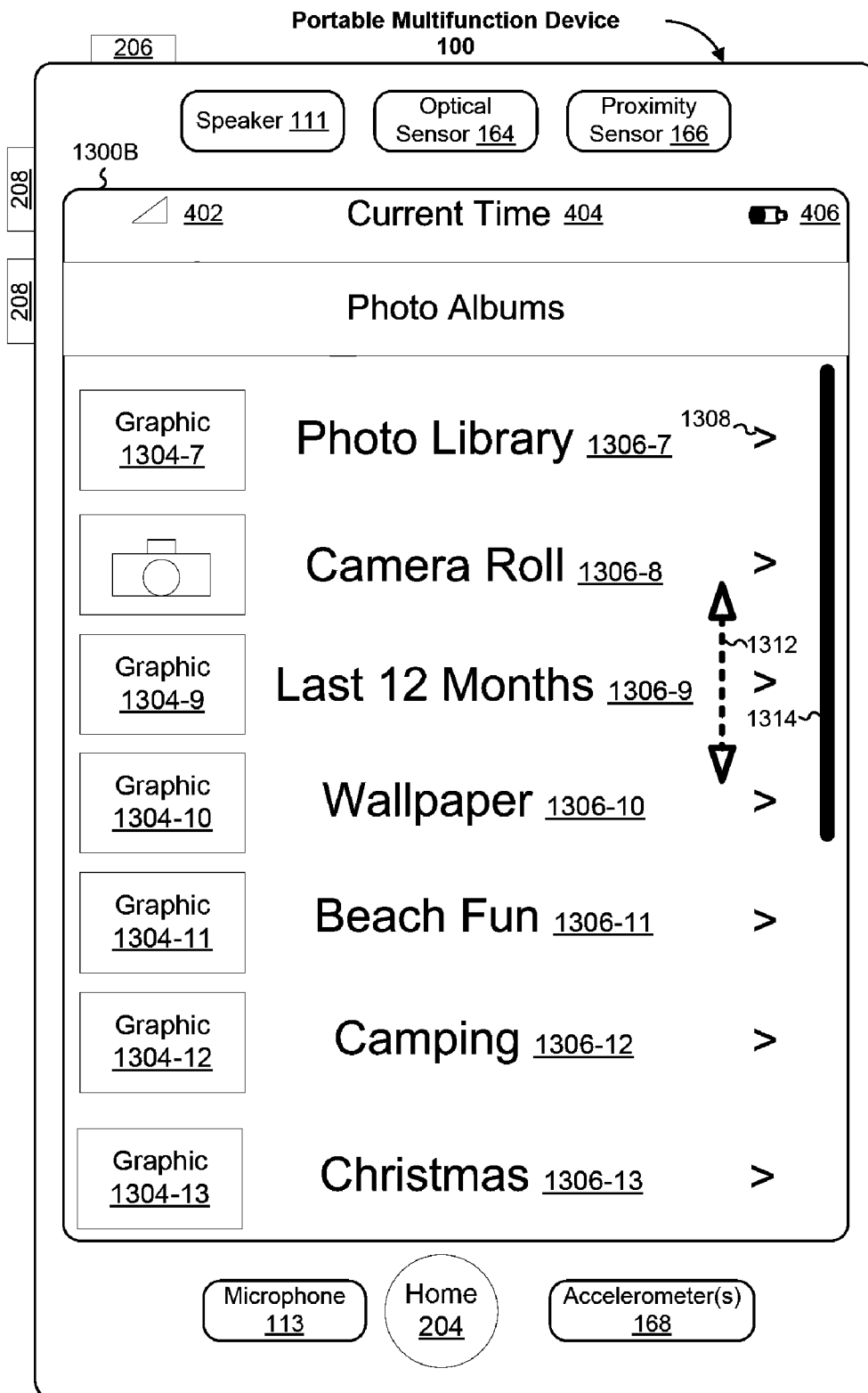


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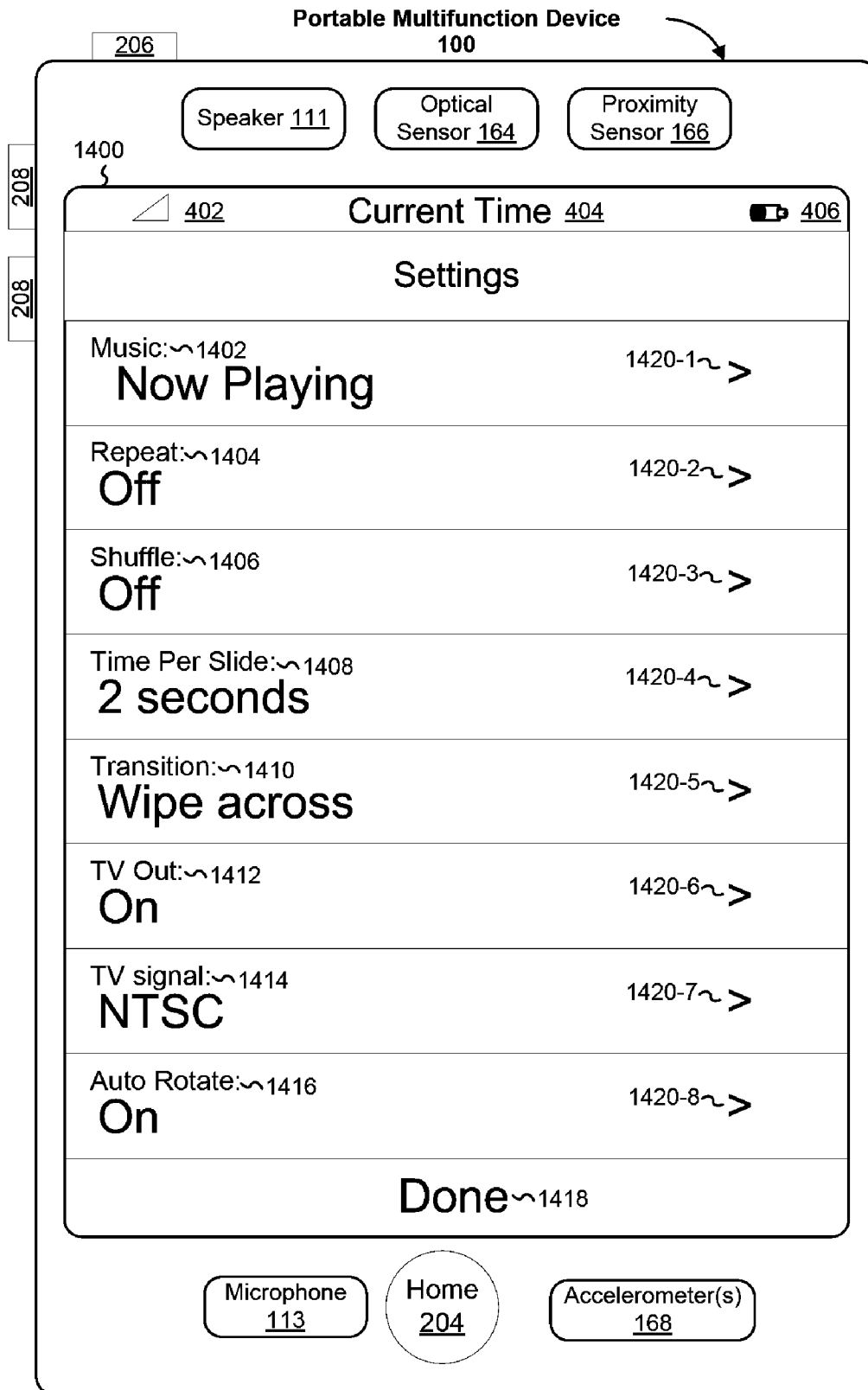


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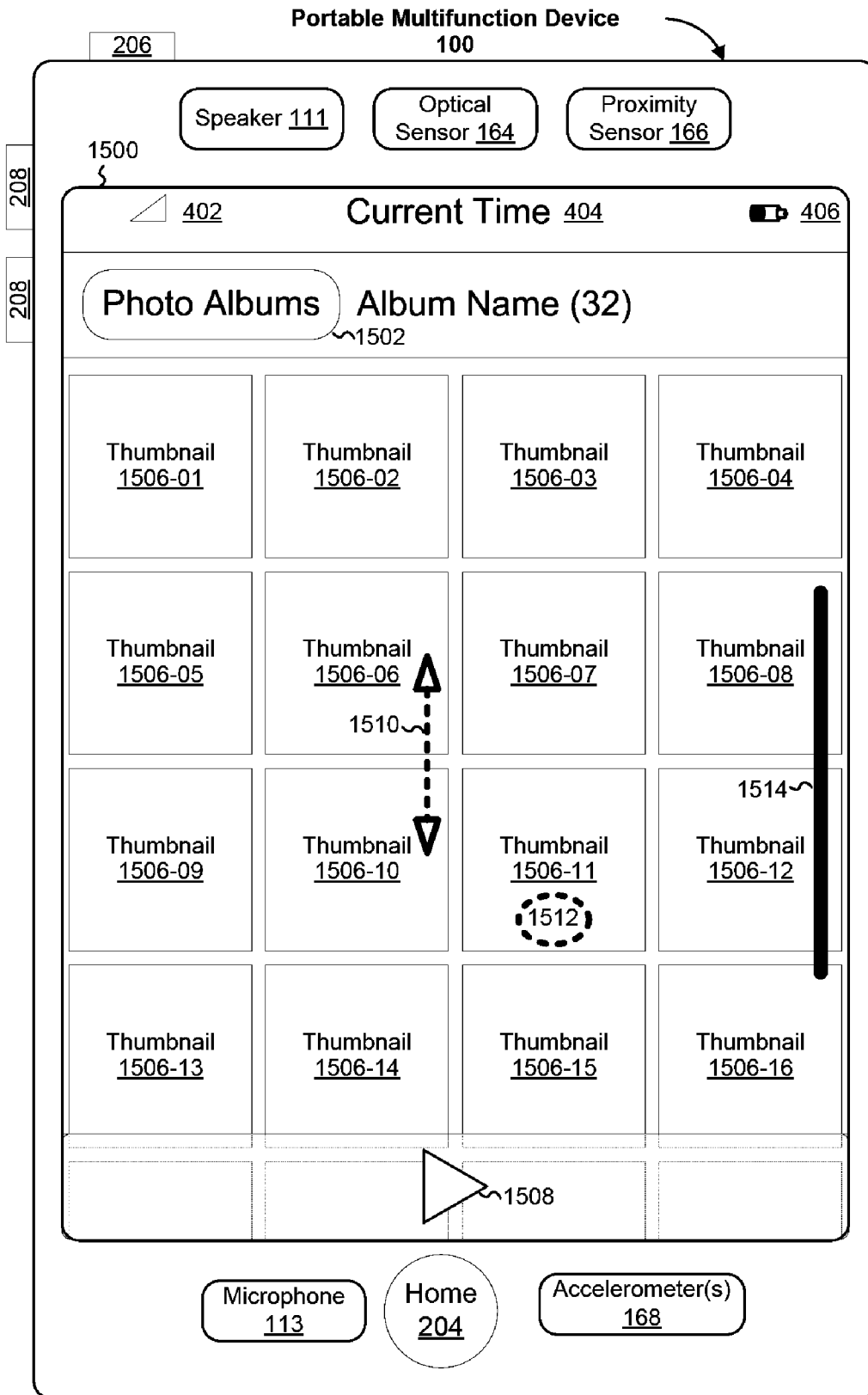


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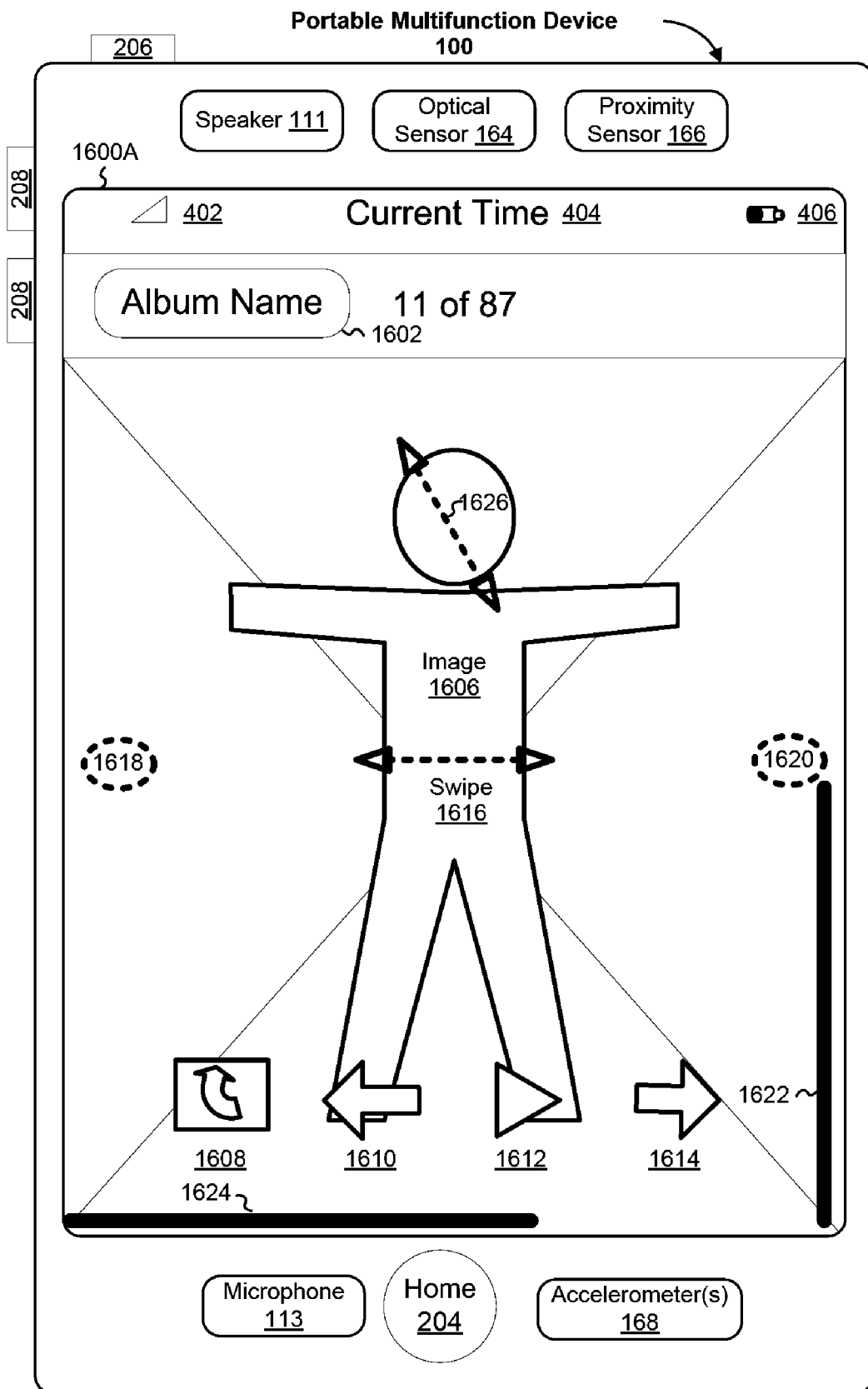


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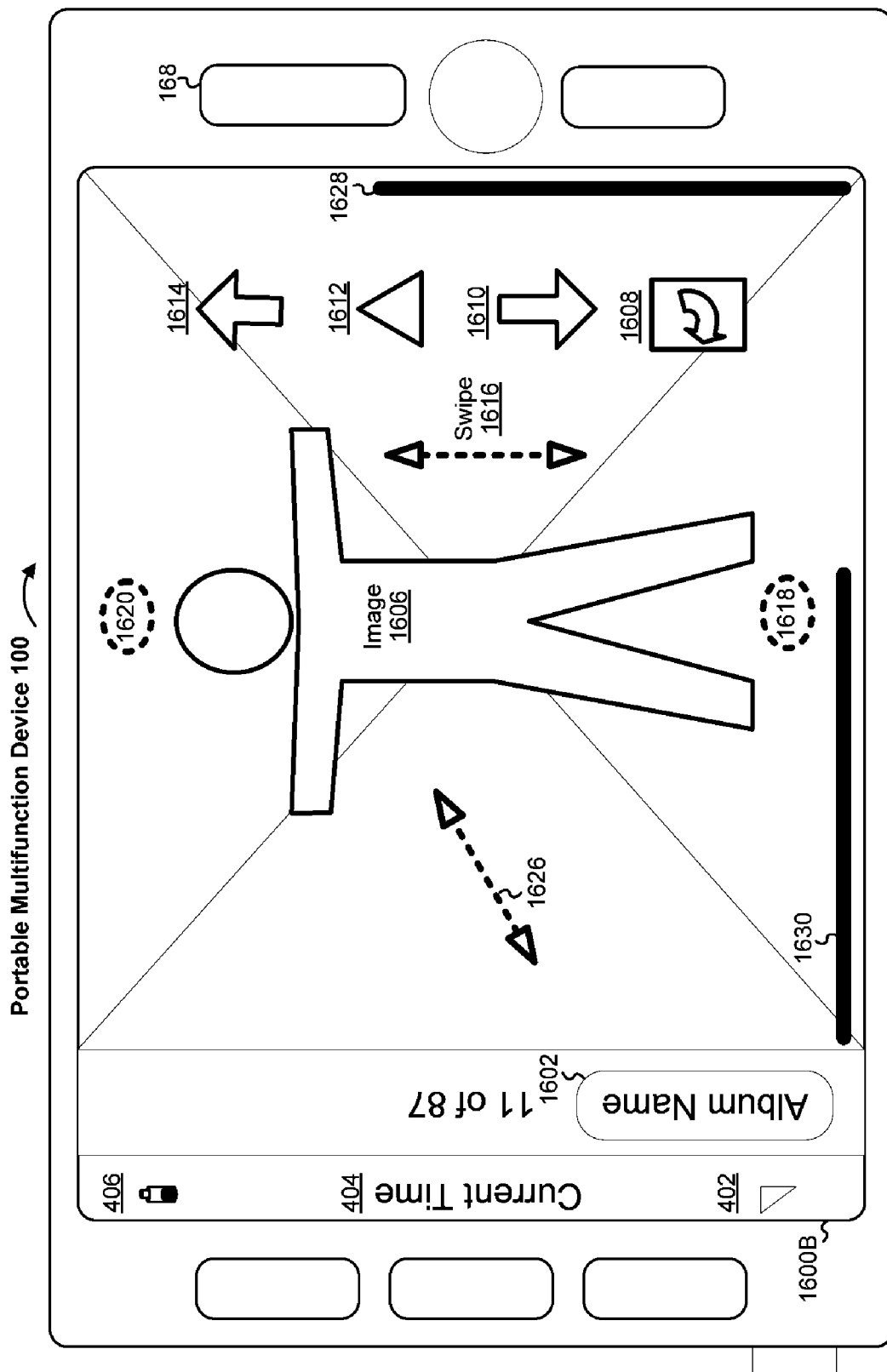


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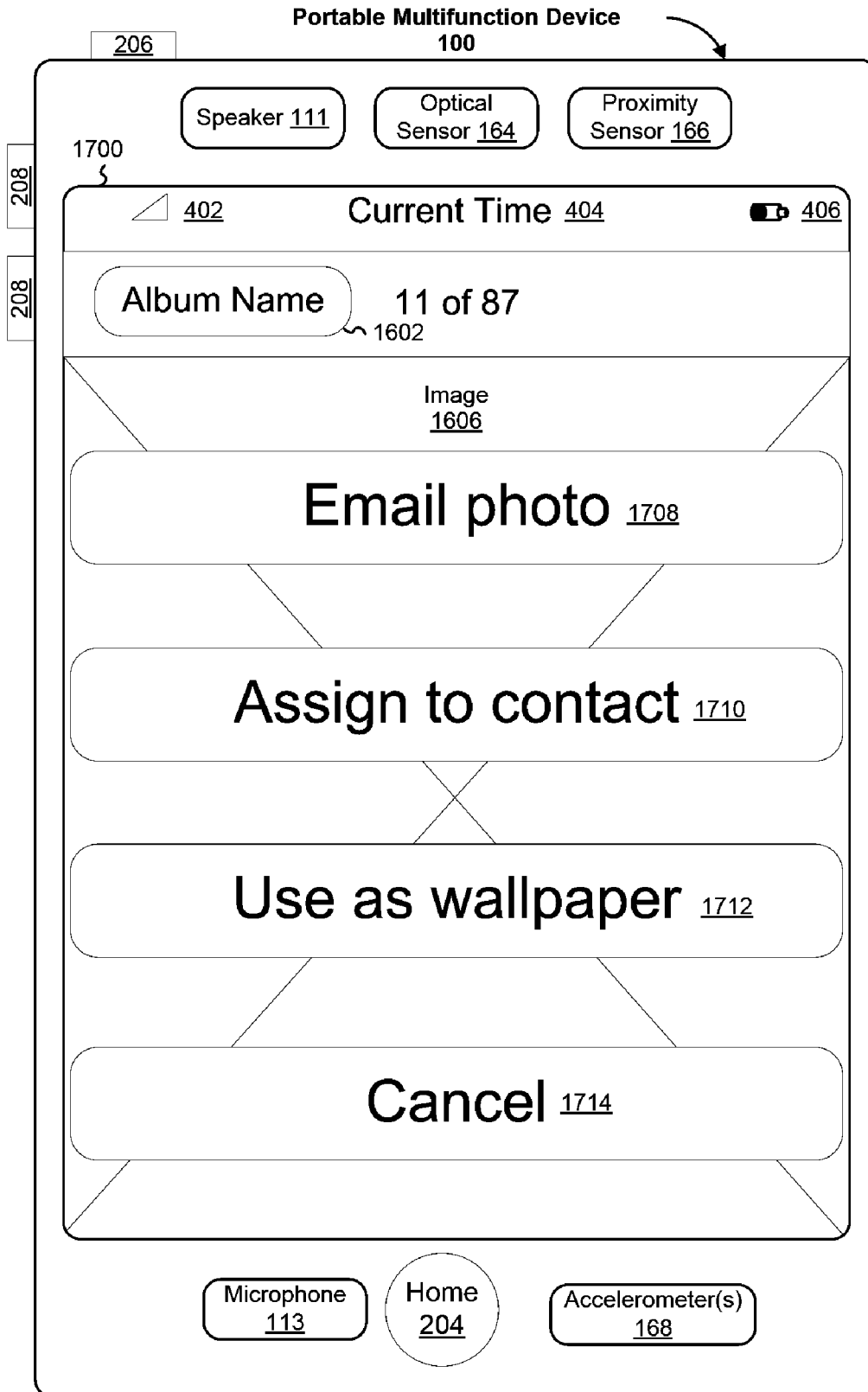


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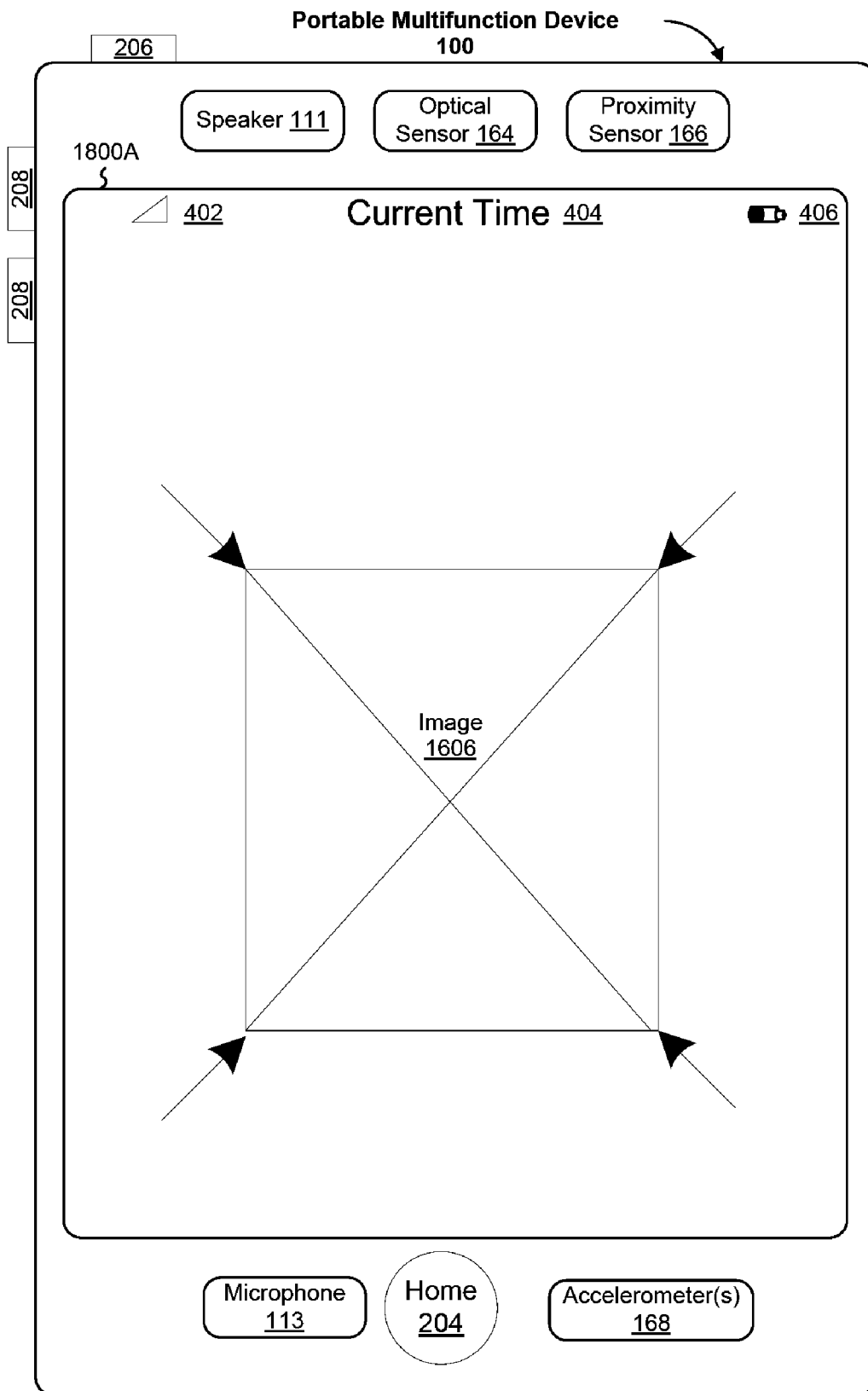


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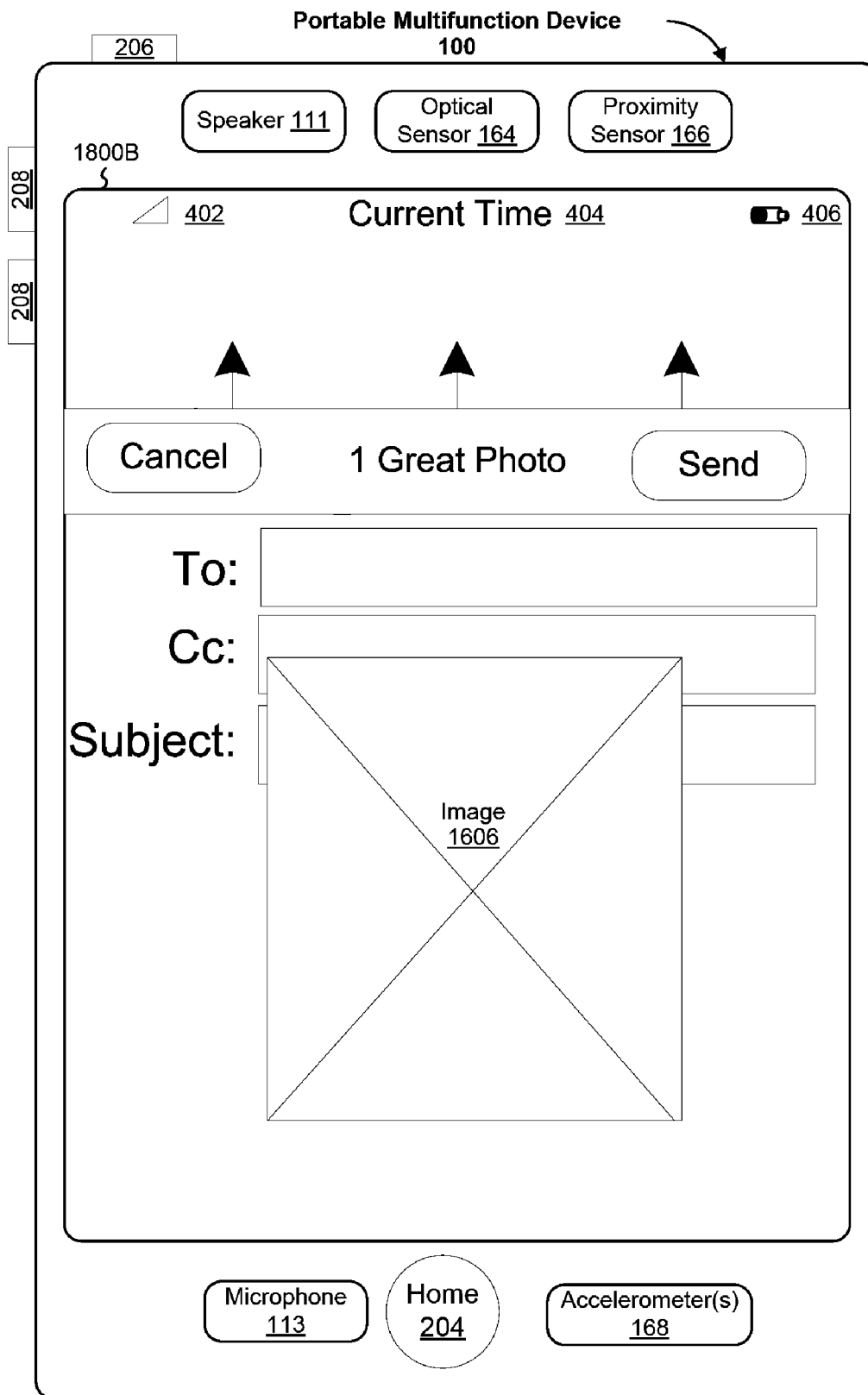


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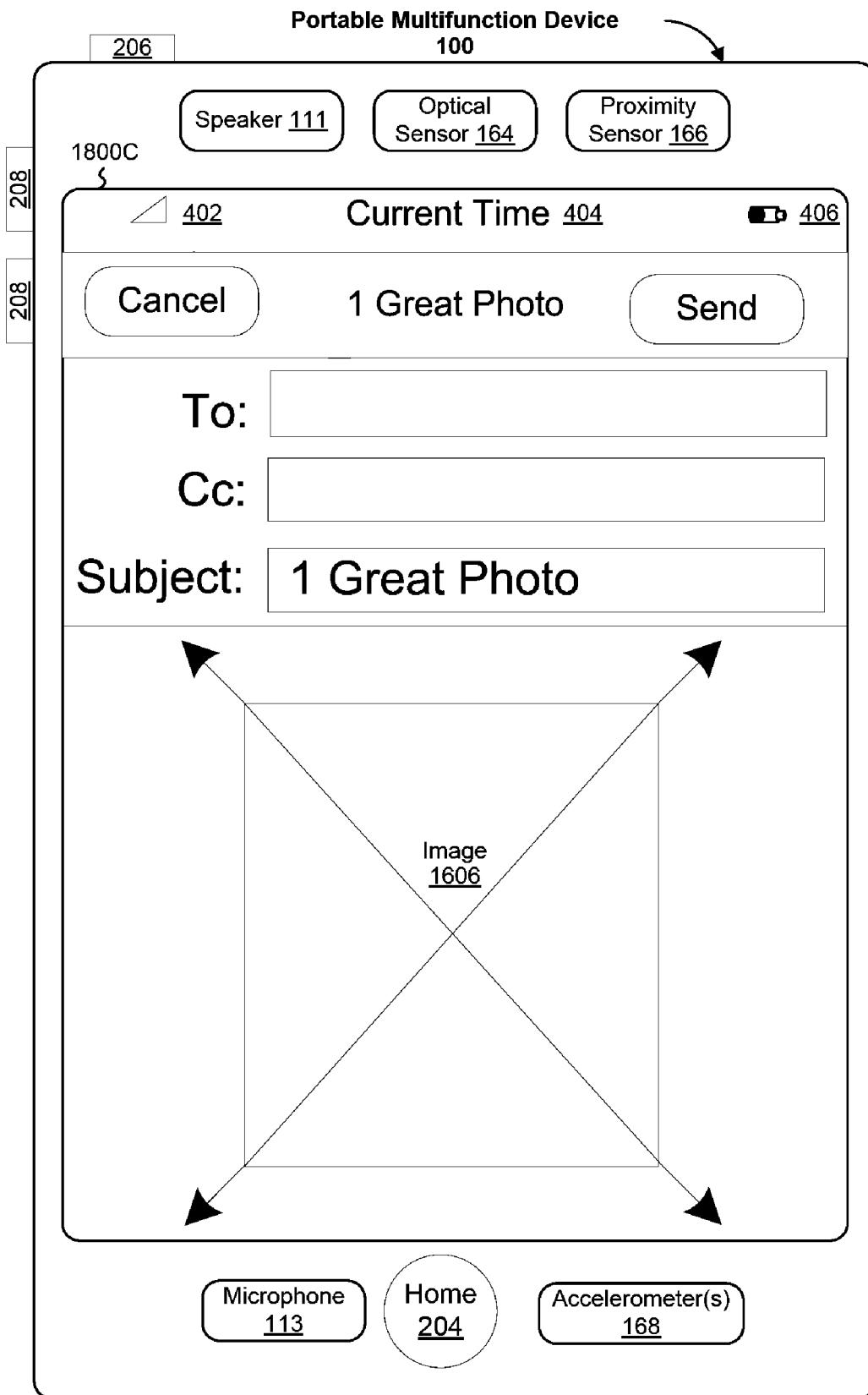


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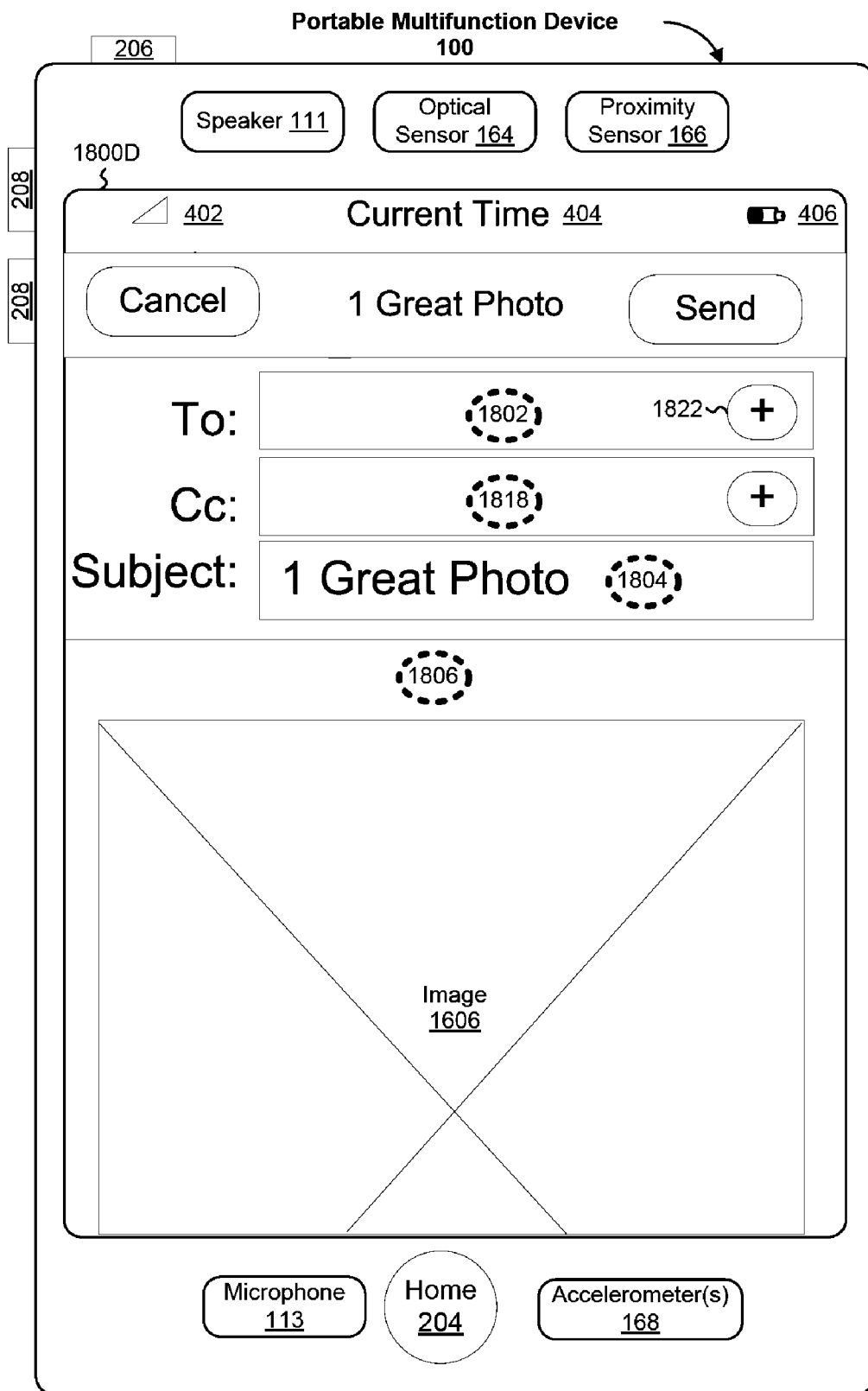


Figure 18D

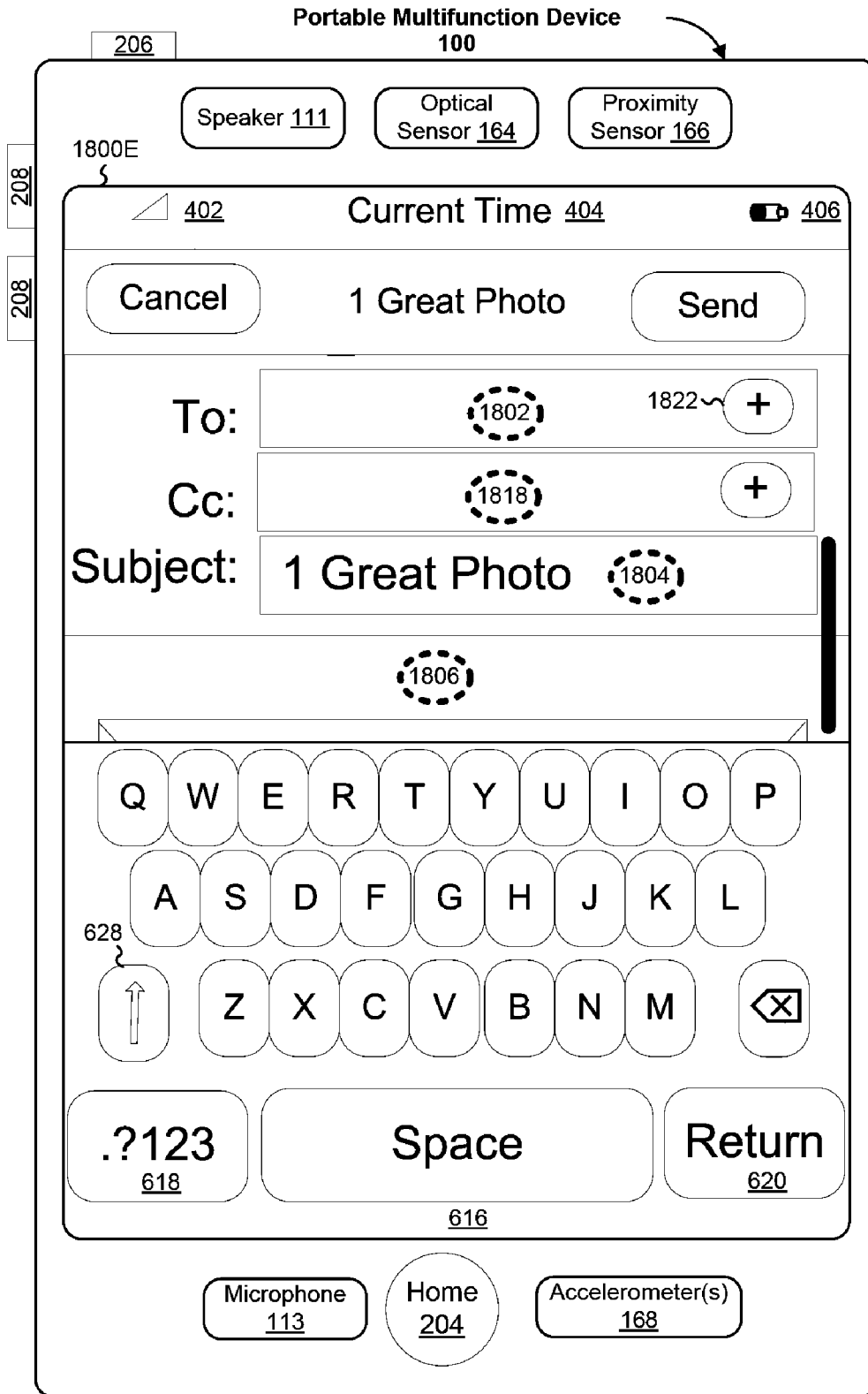


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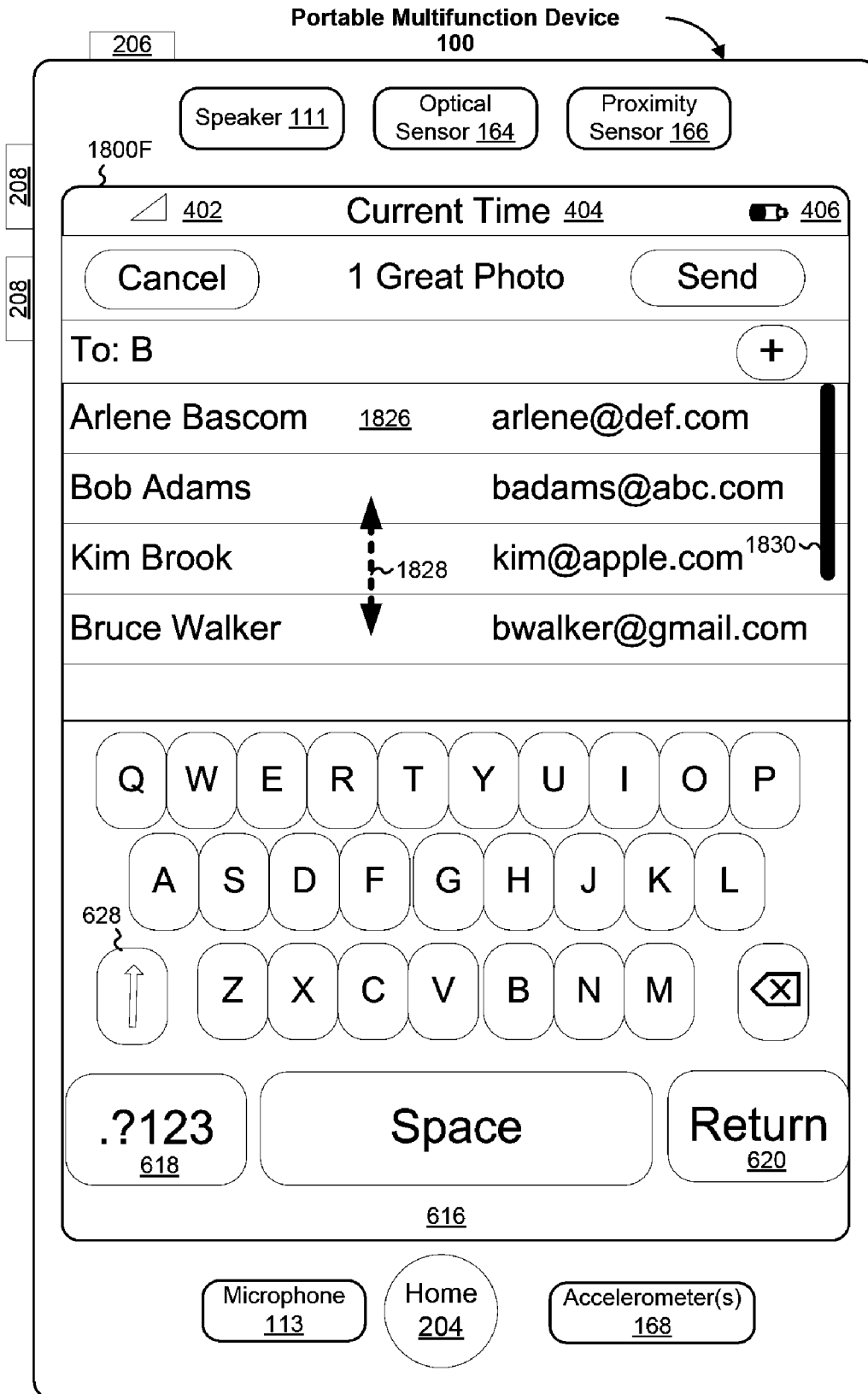


Figure 18F



Figure 18G

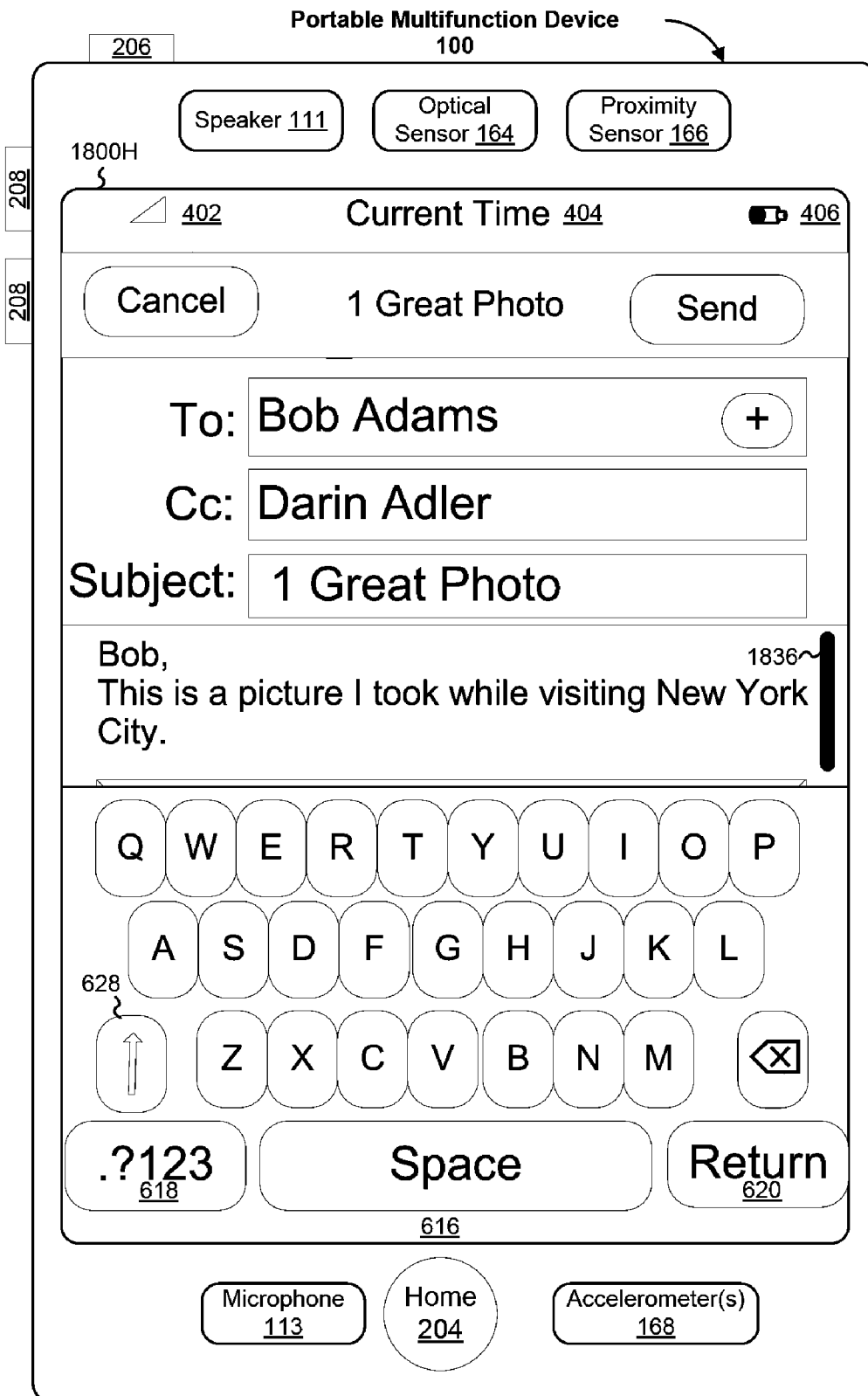


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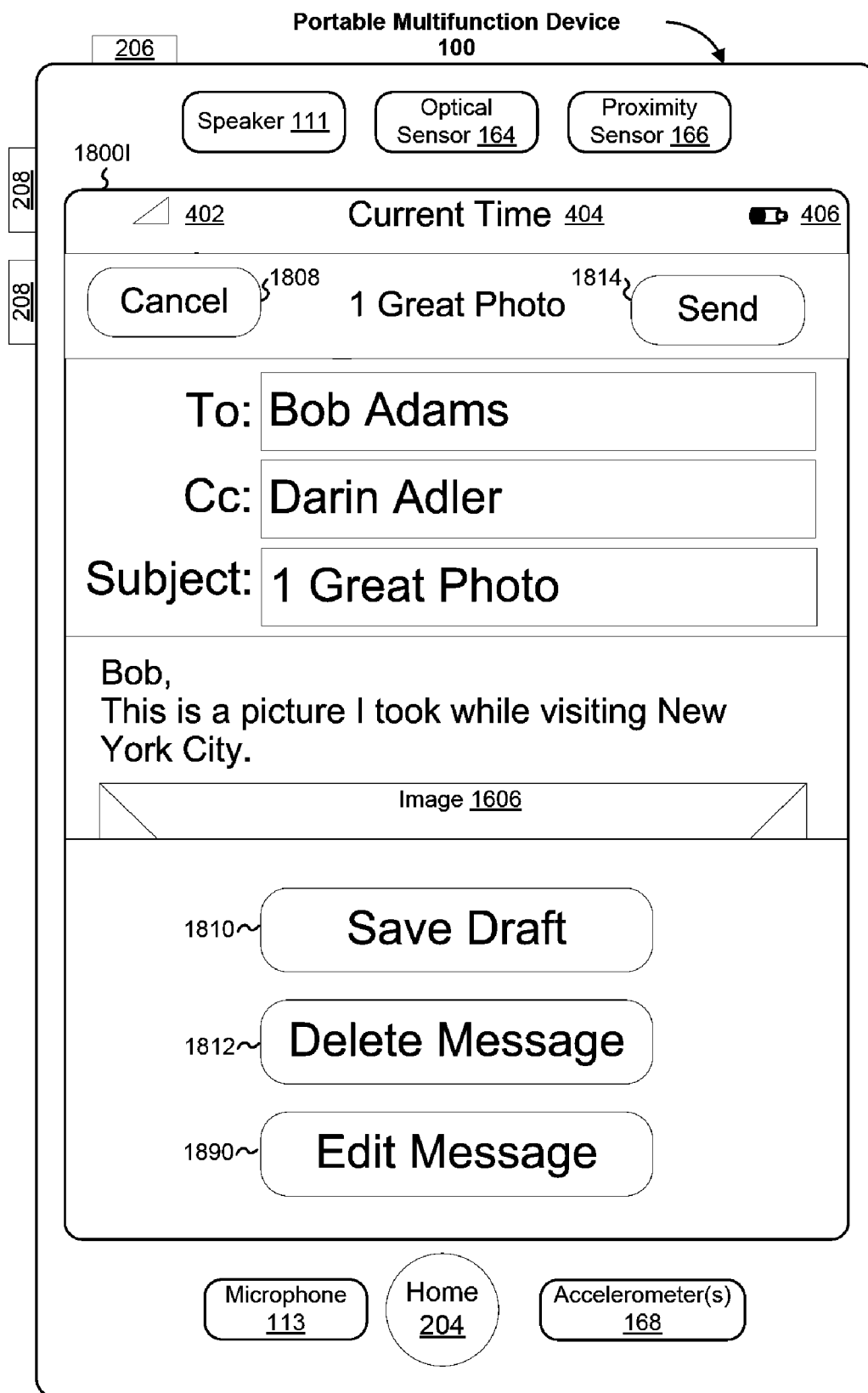


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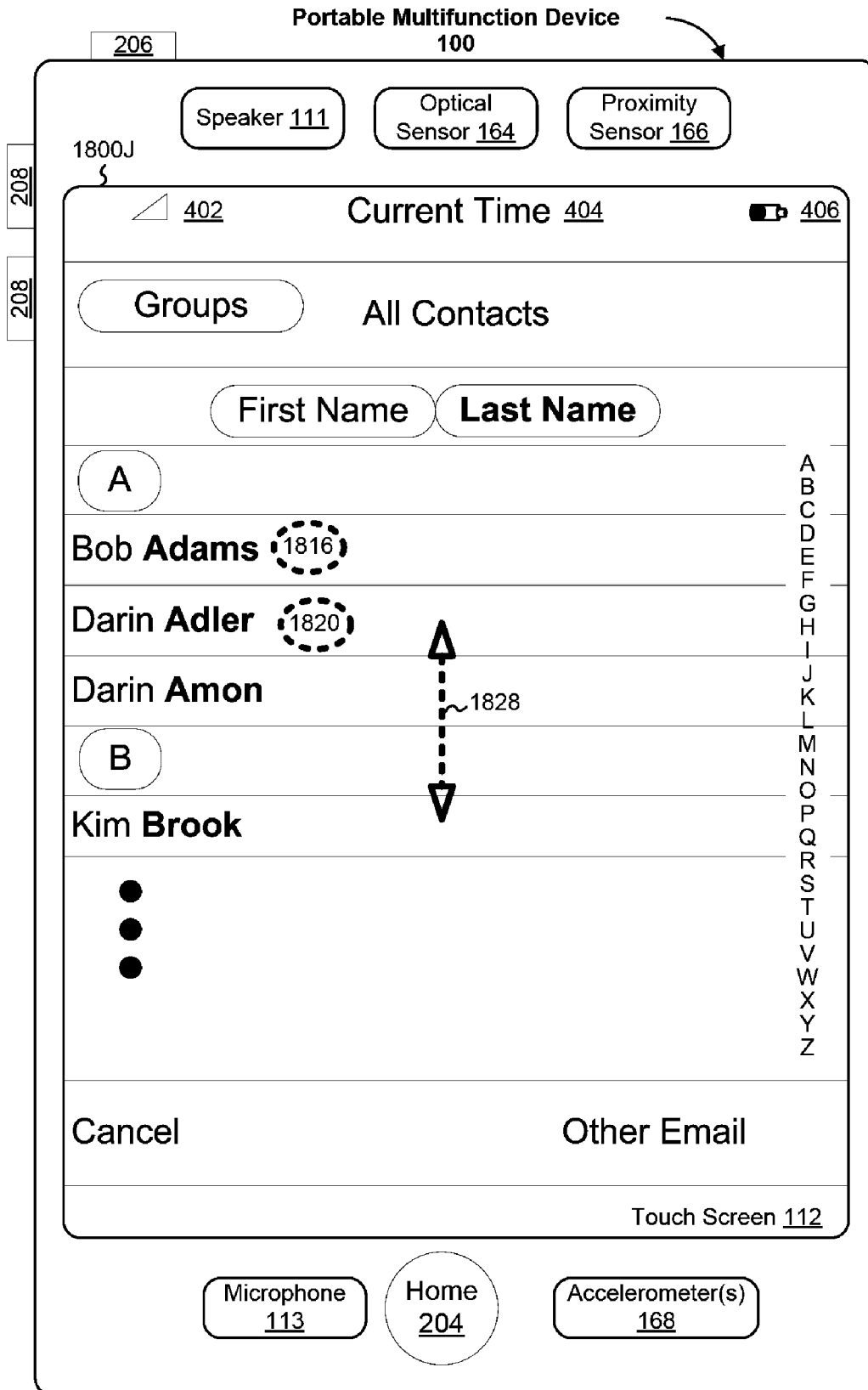


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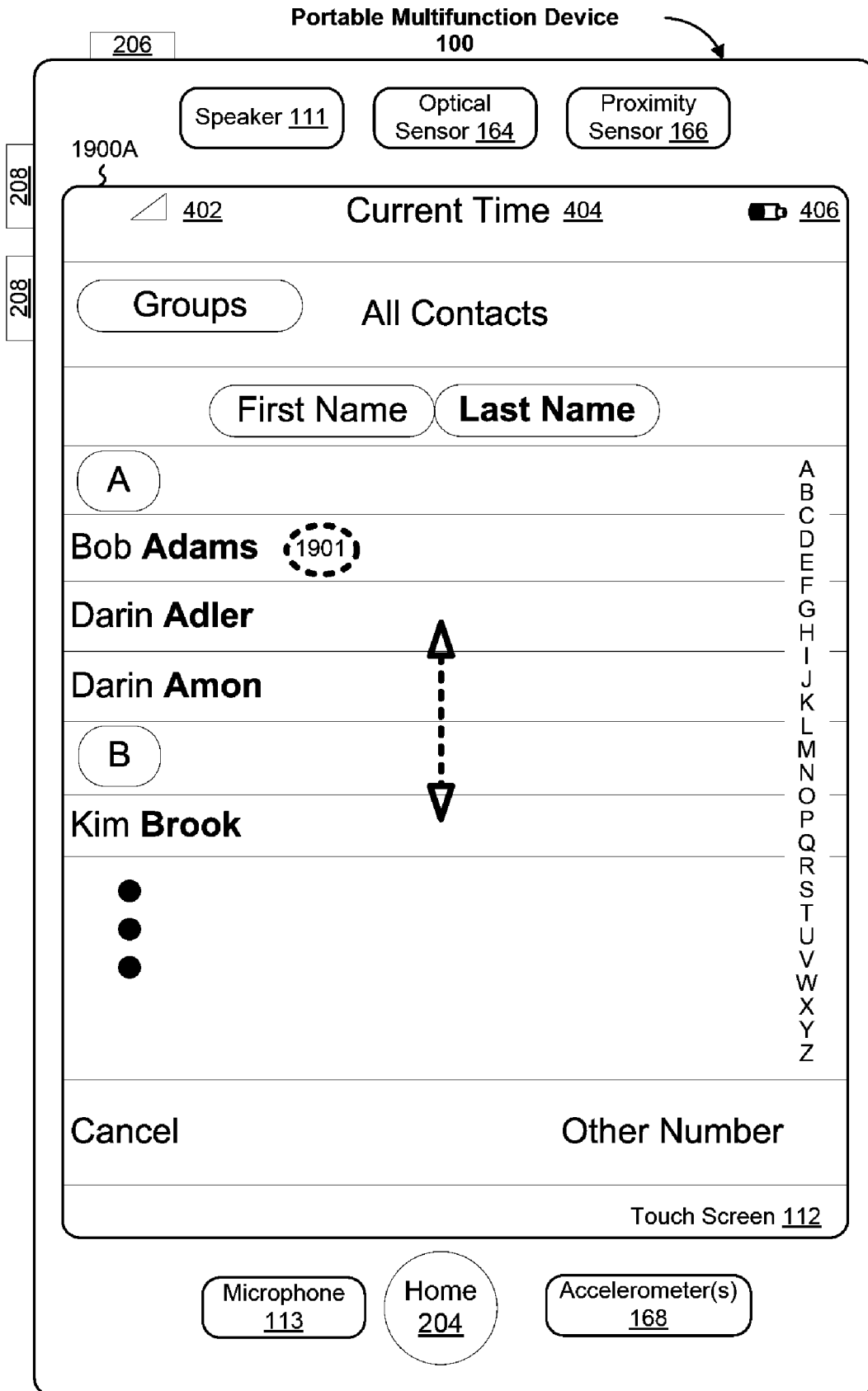


Figure 19A

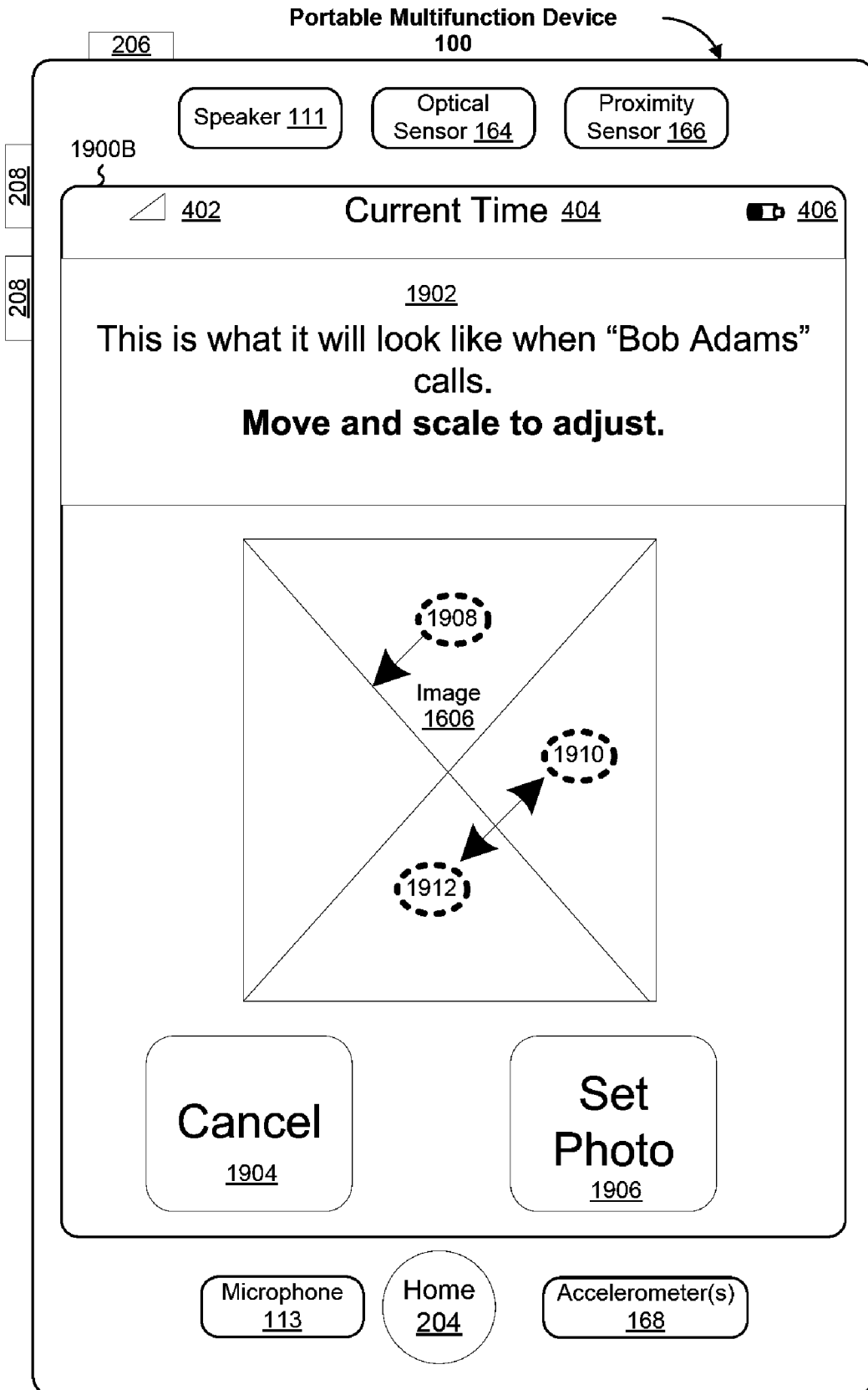


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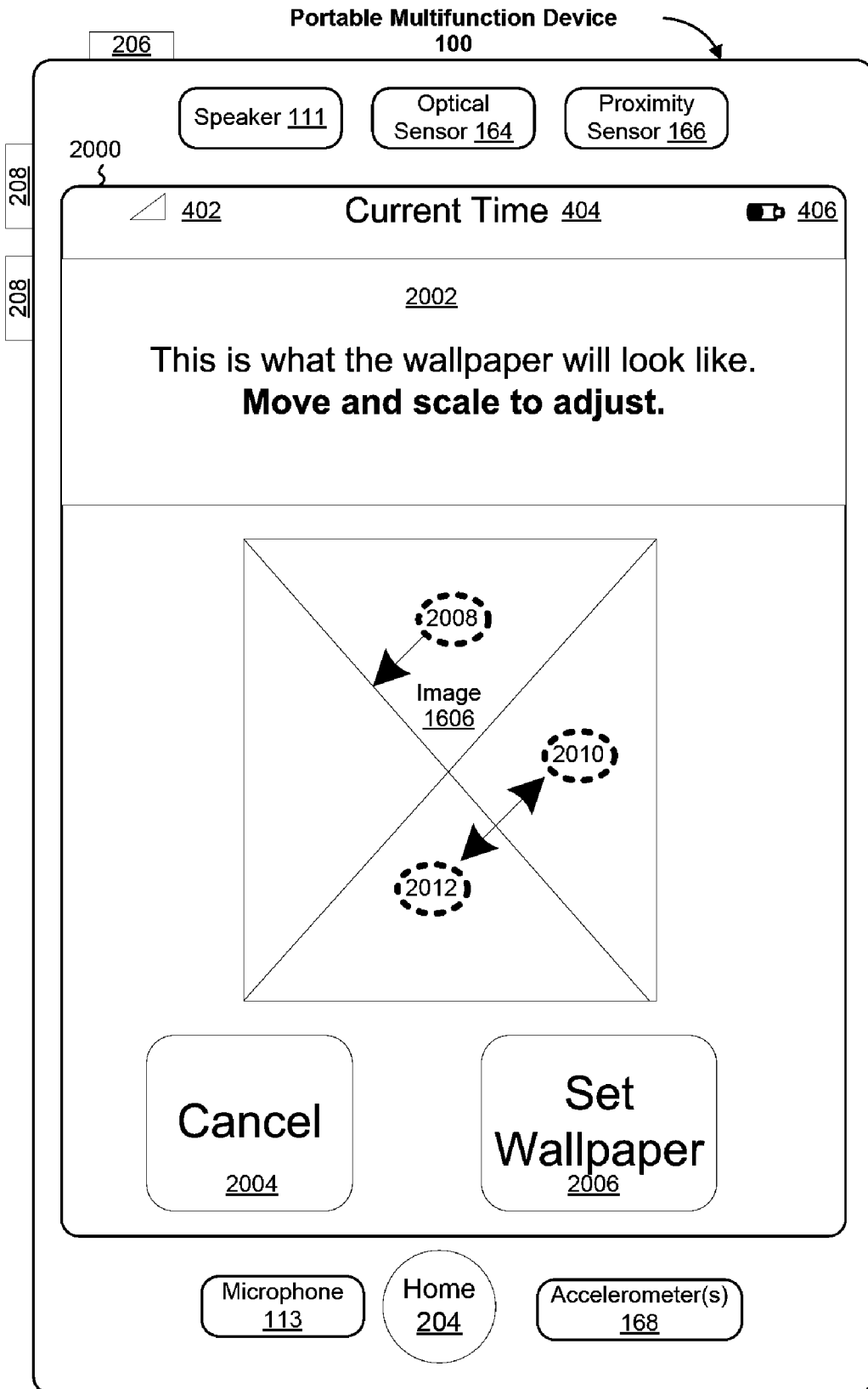


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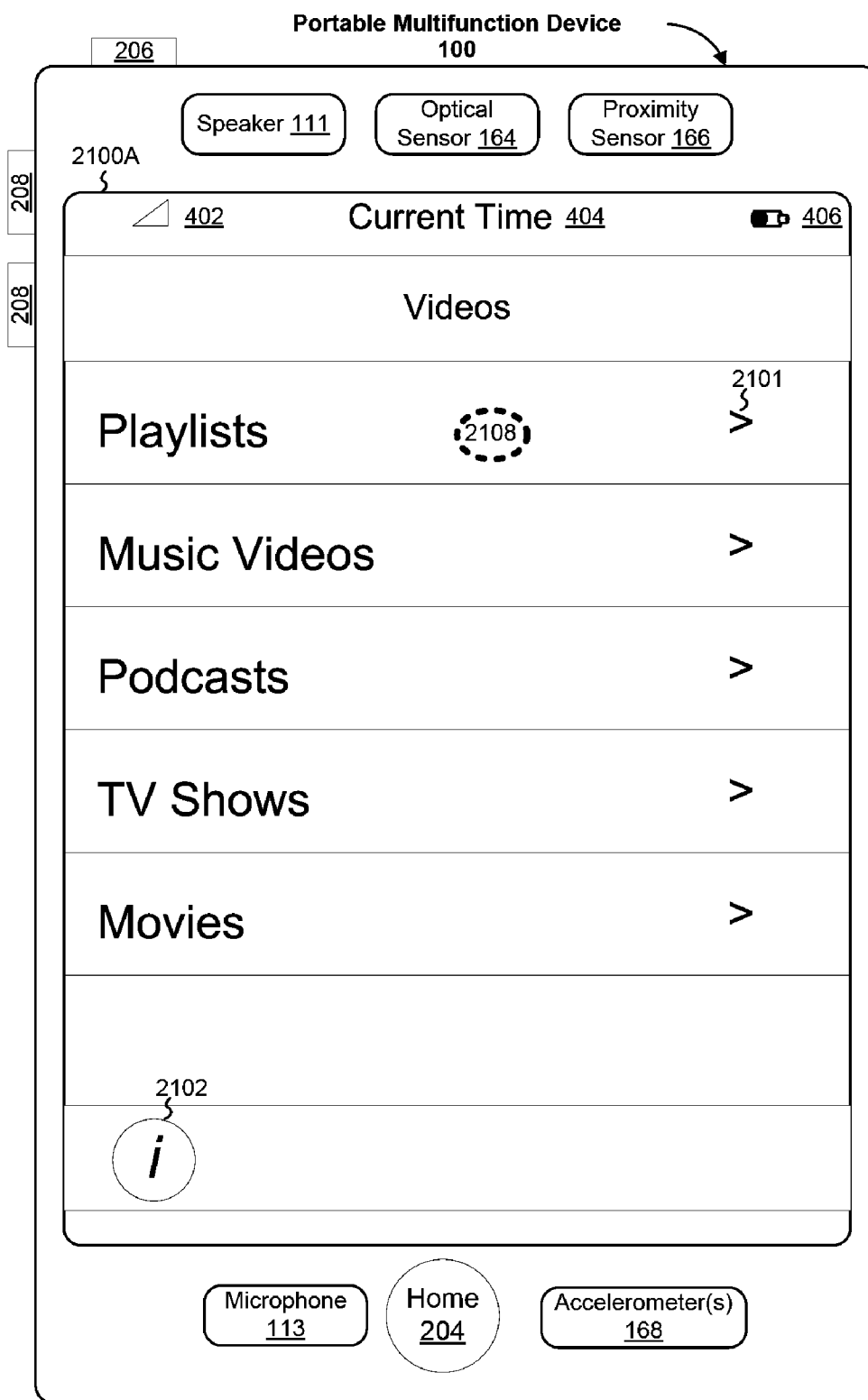


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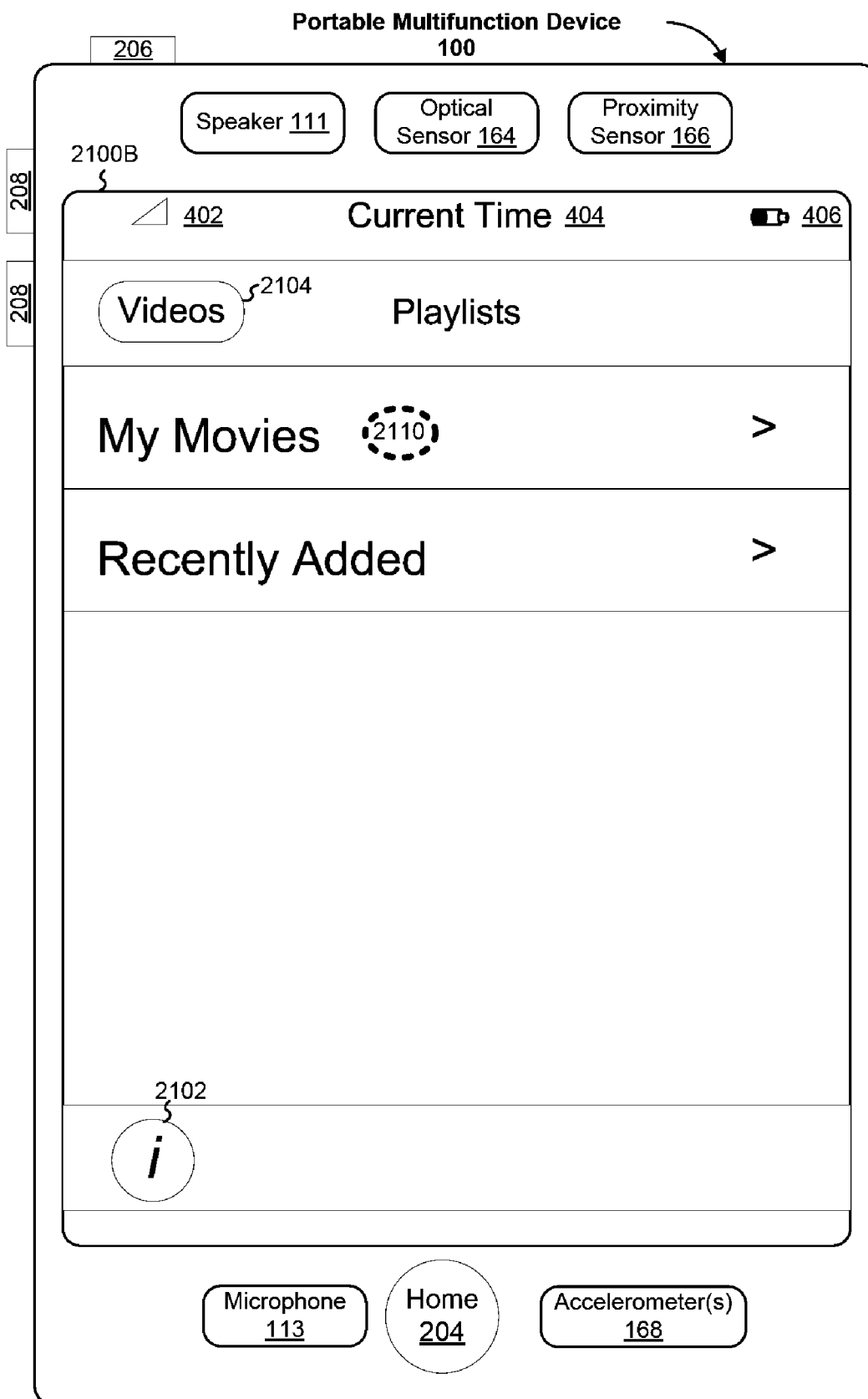


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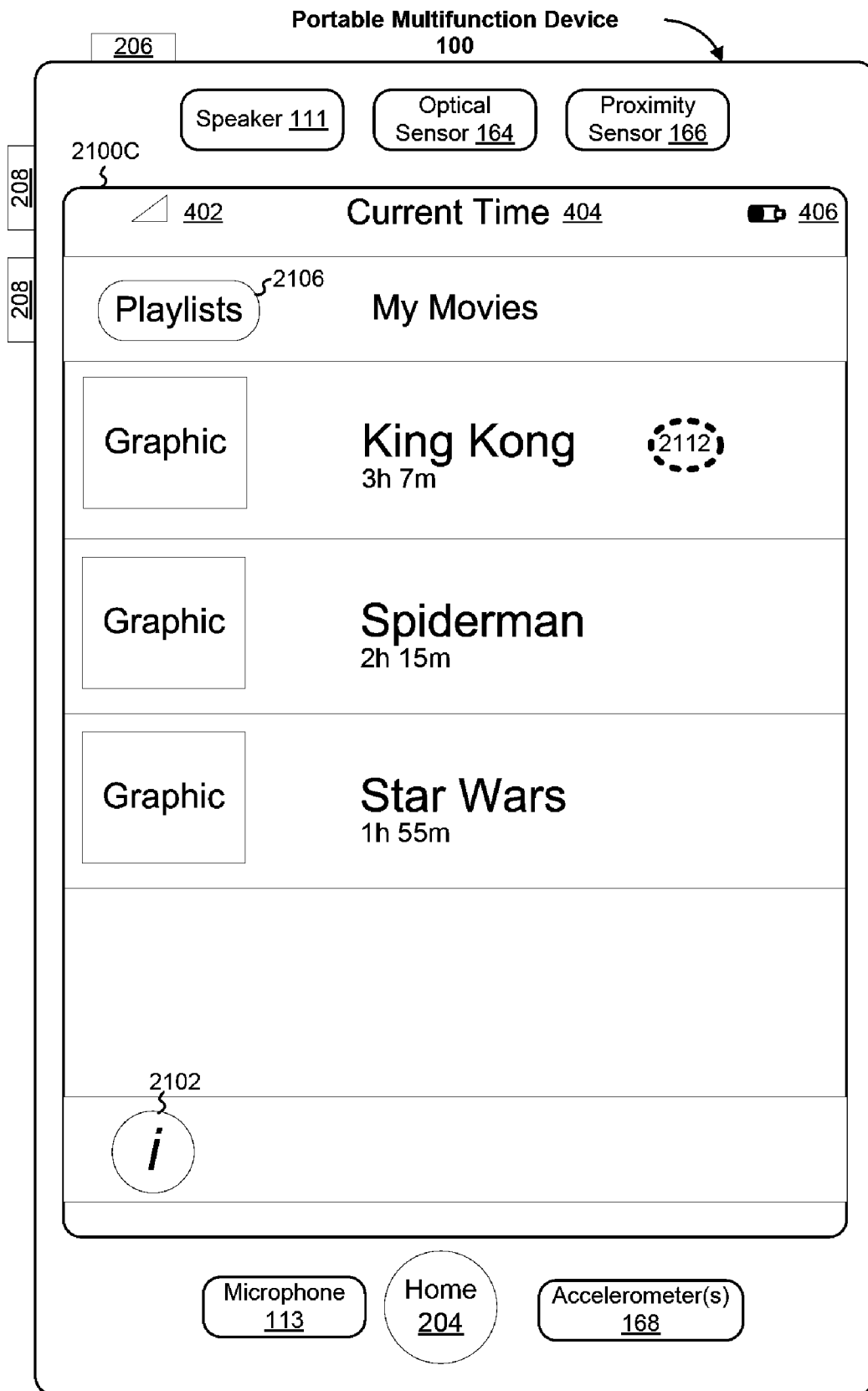


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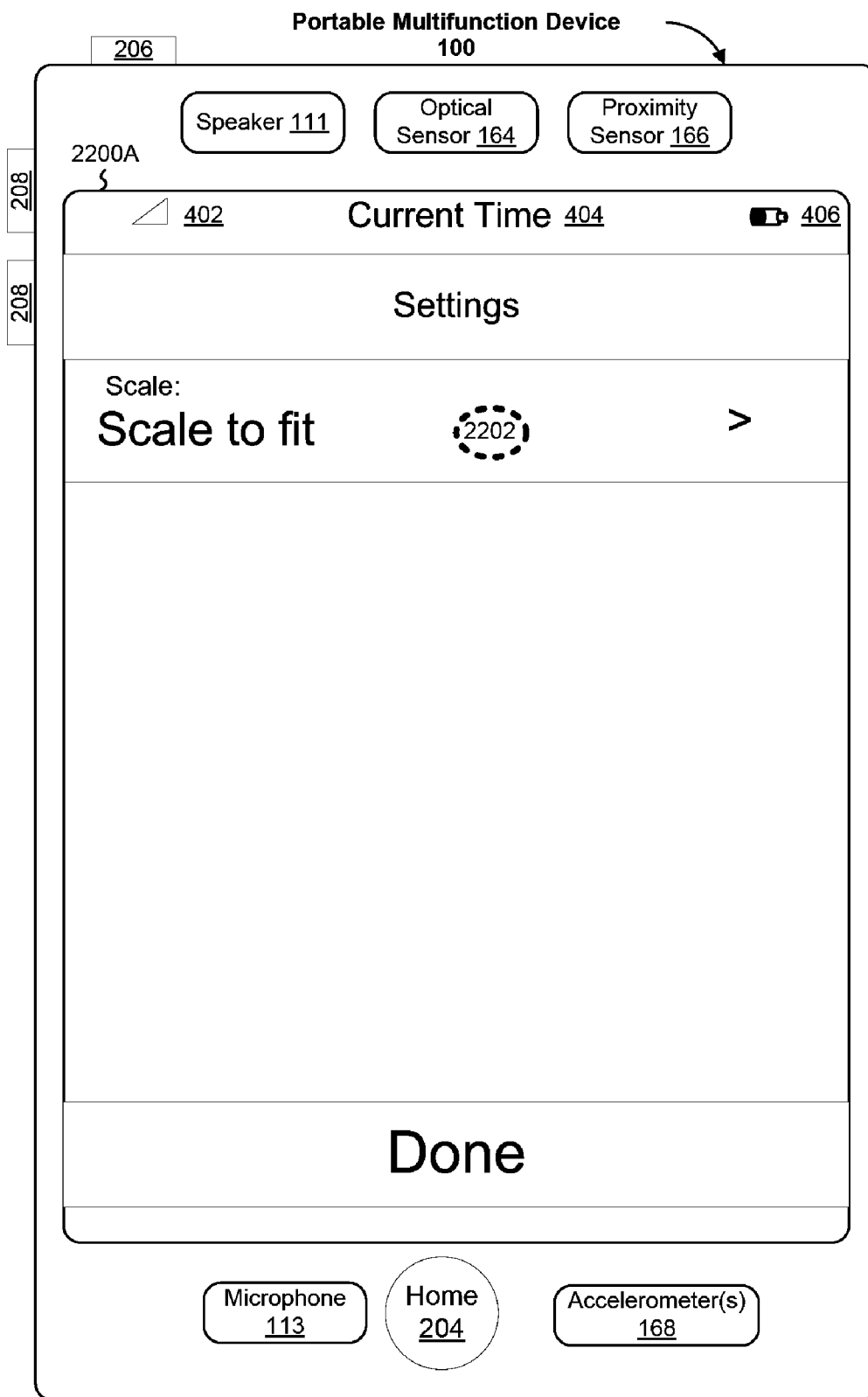


Figure 22A



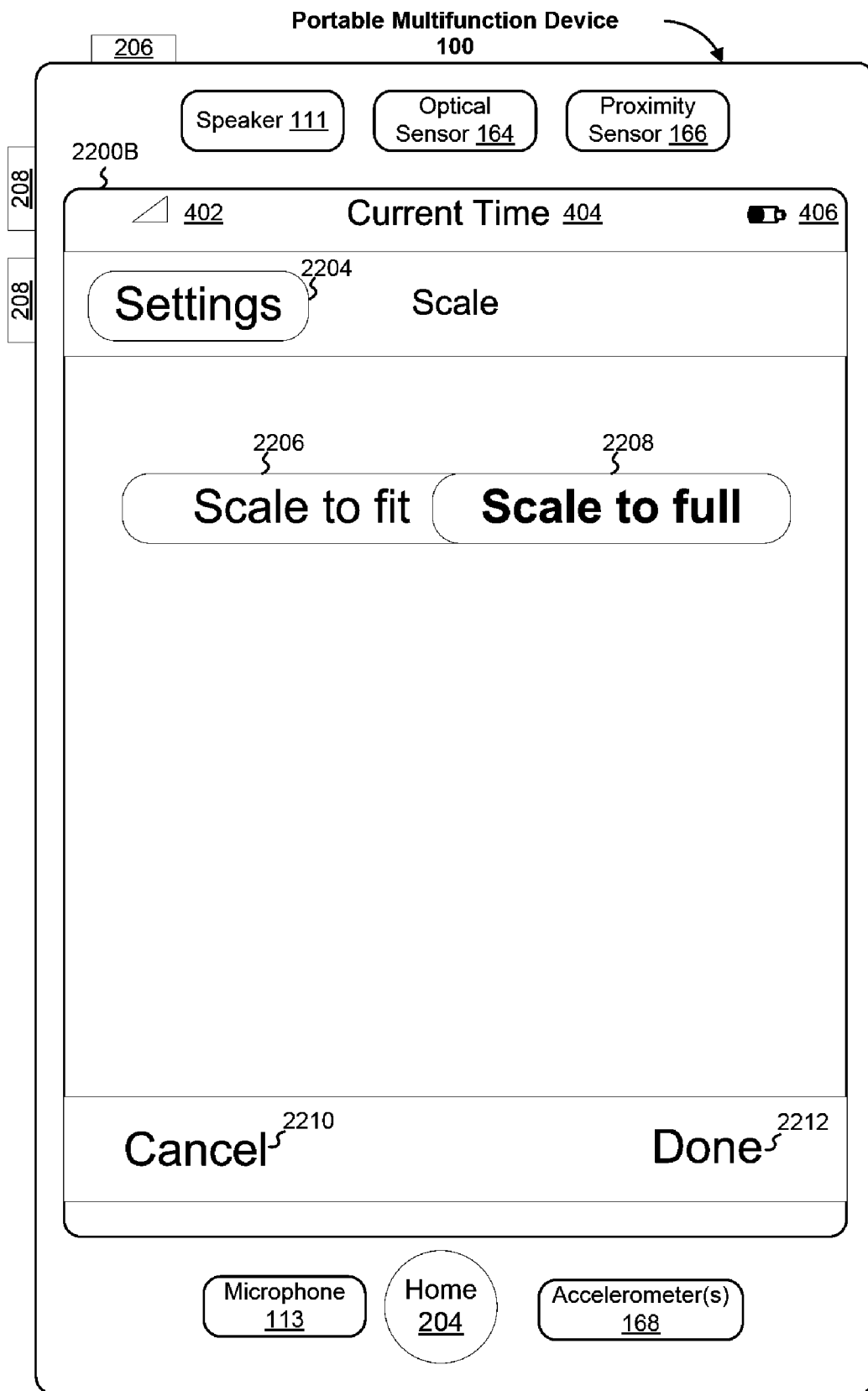


Figure 22B

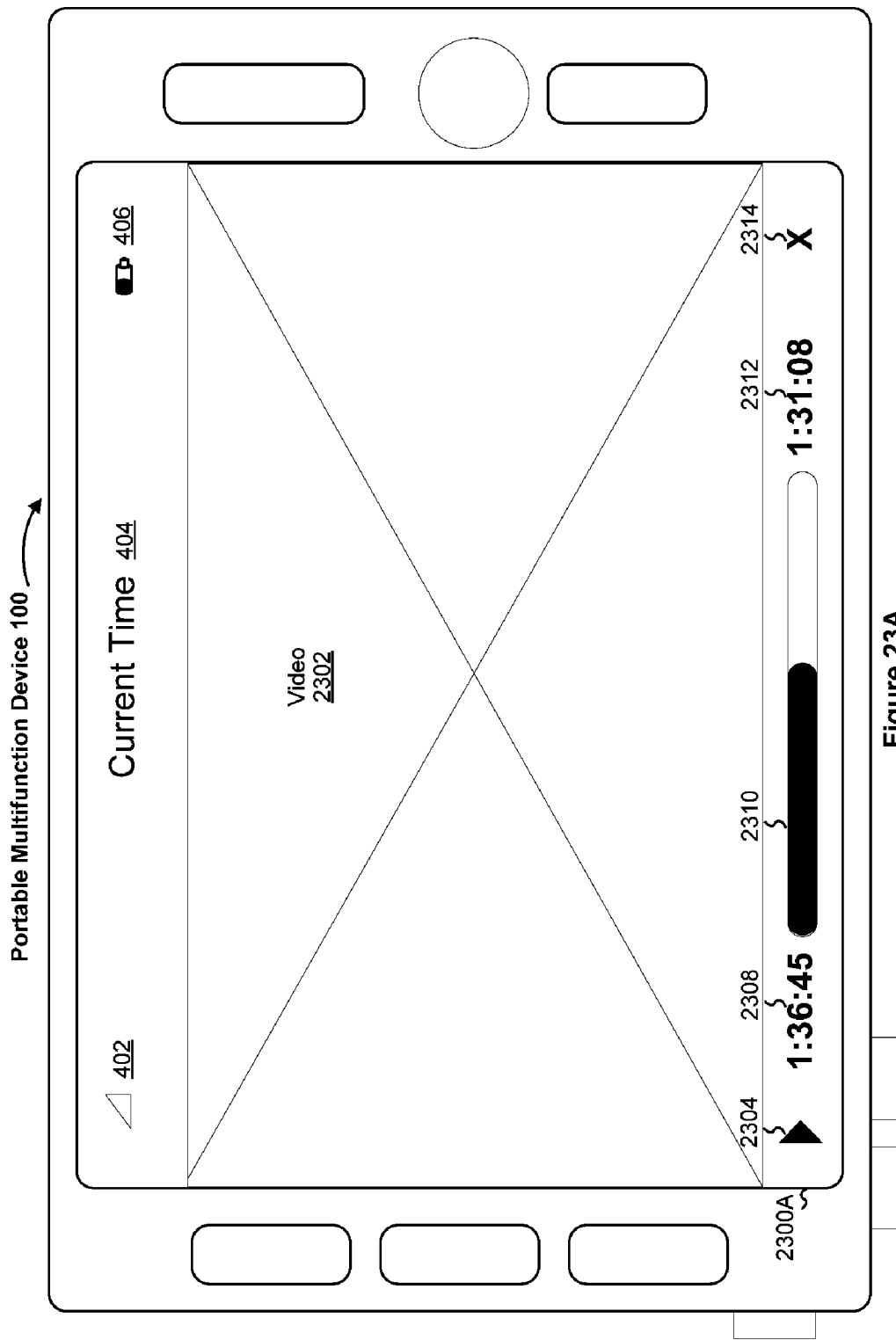


Figure 23A

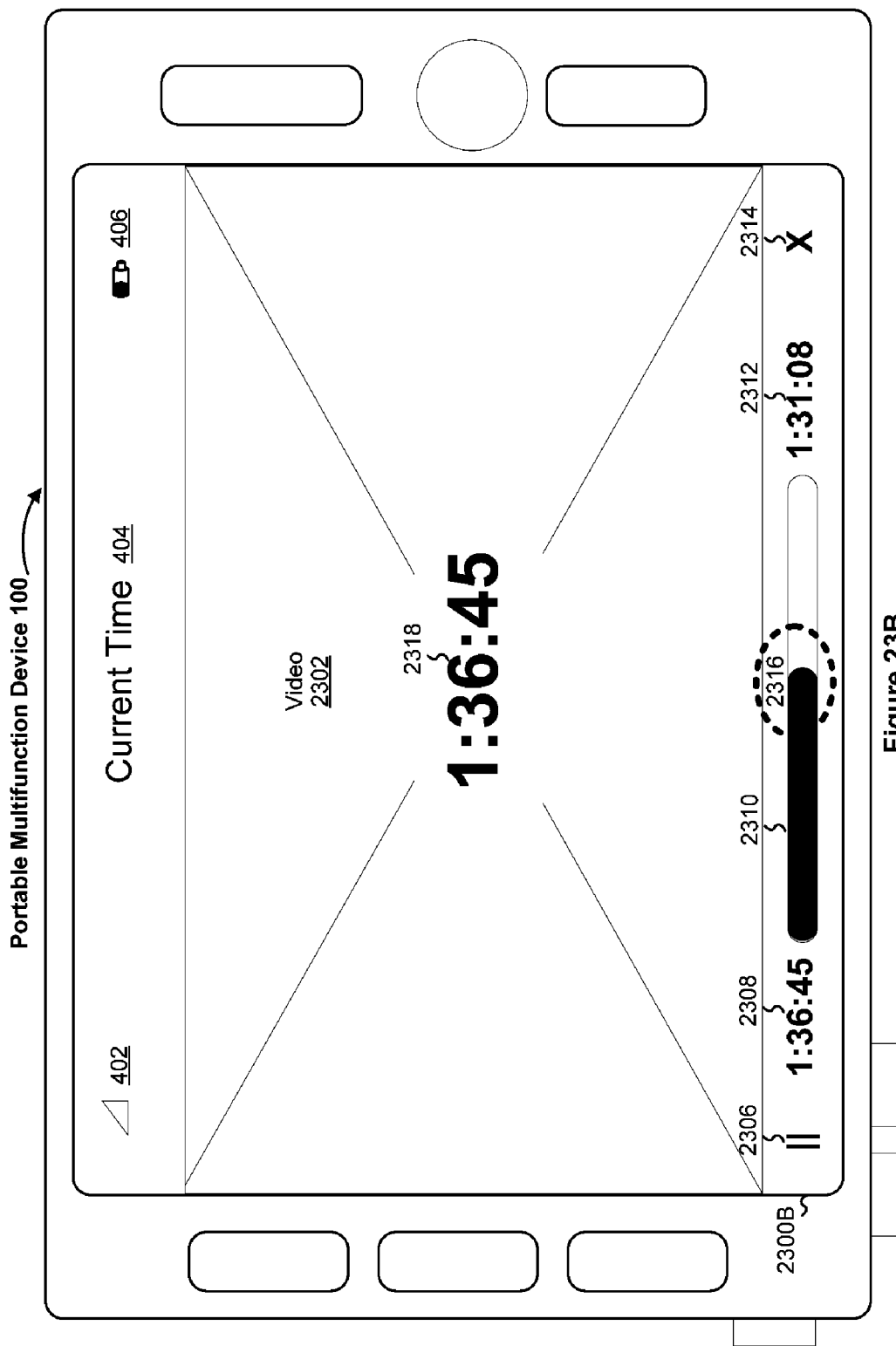


Figure 23B

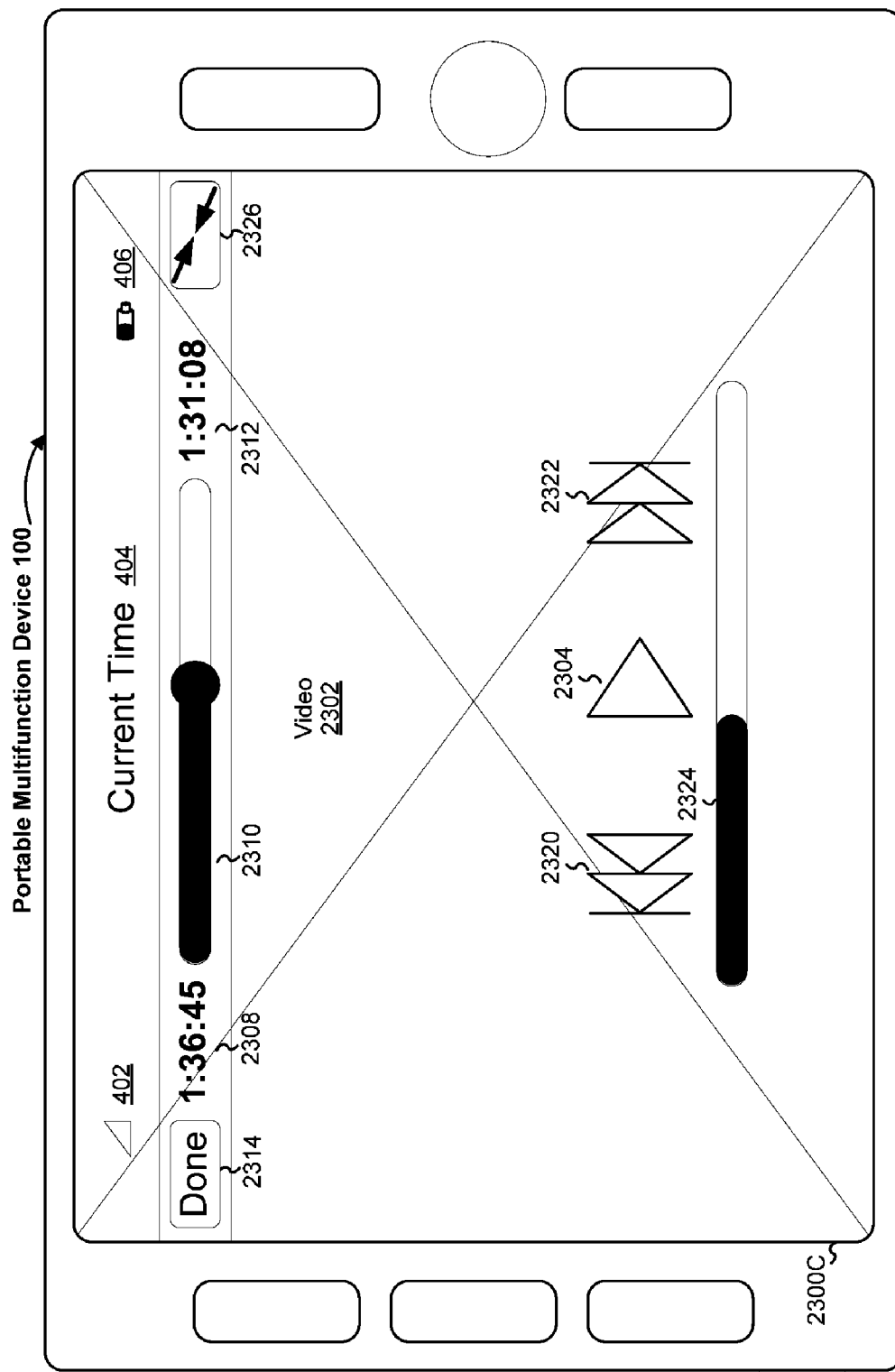


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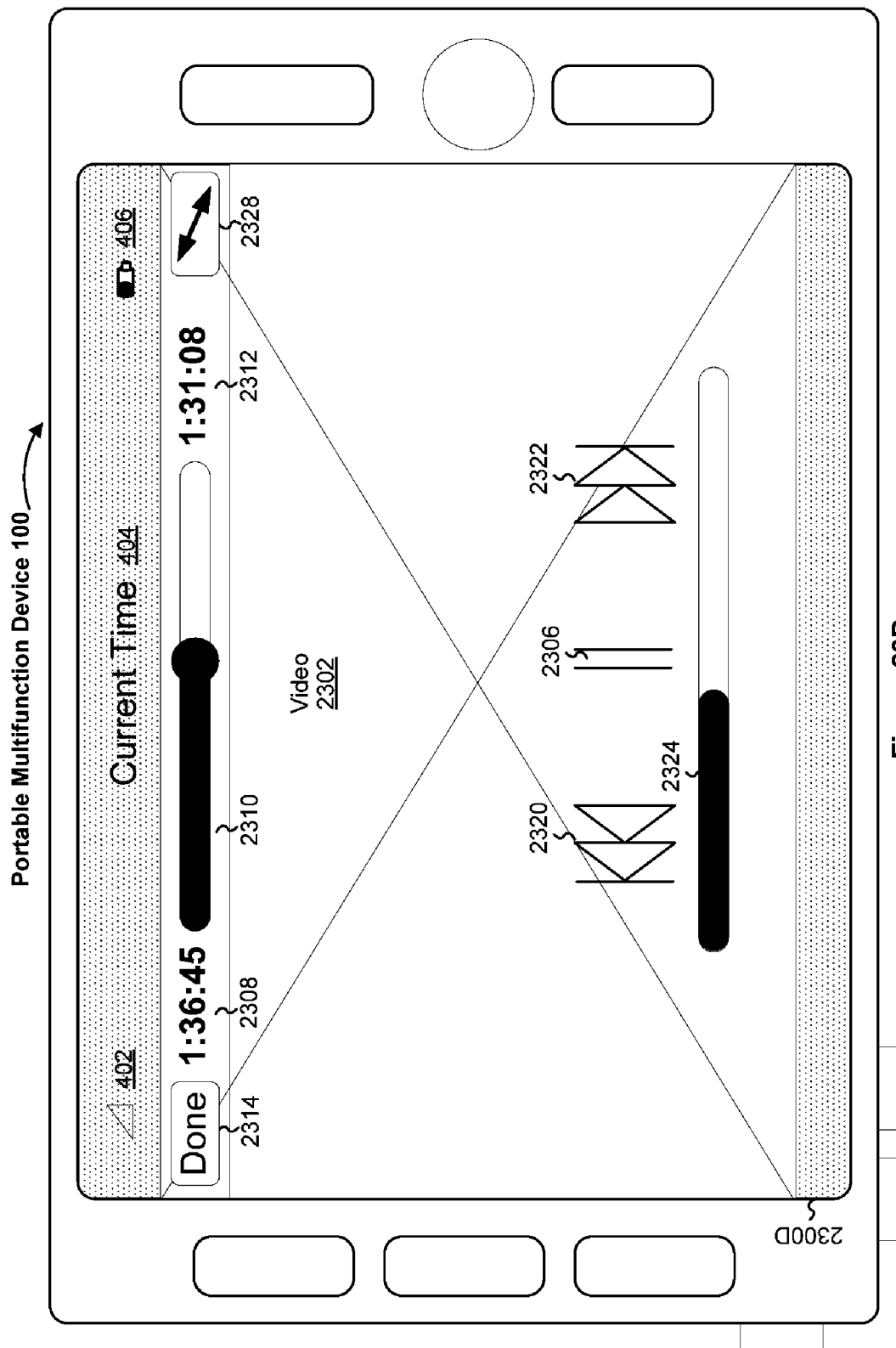


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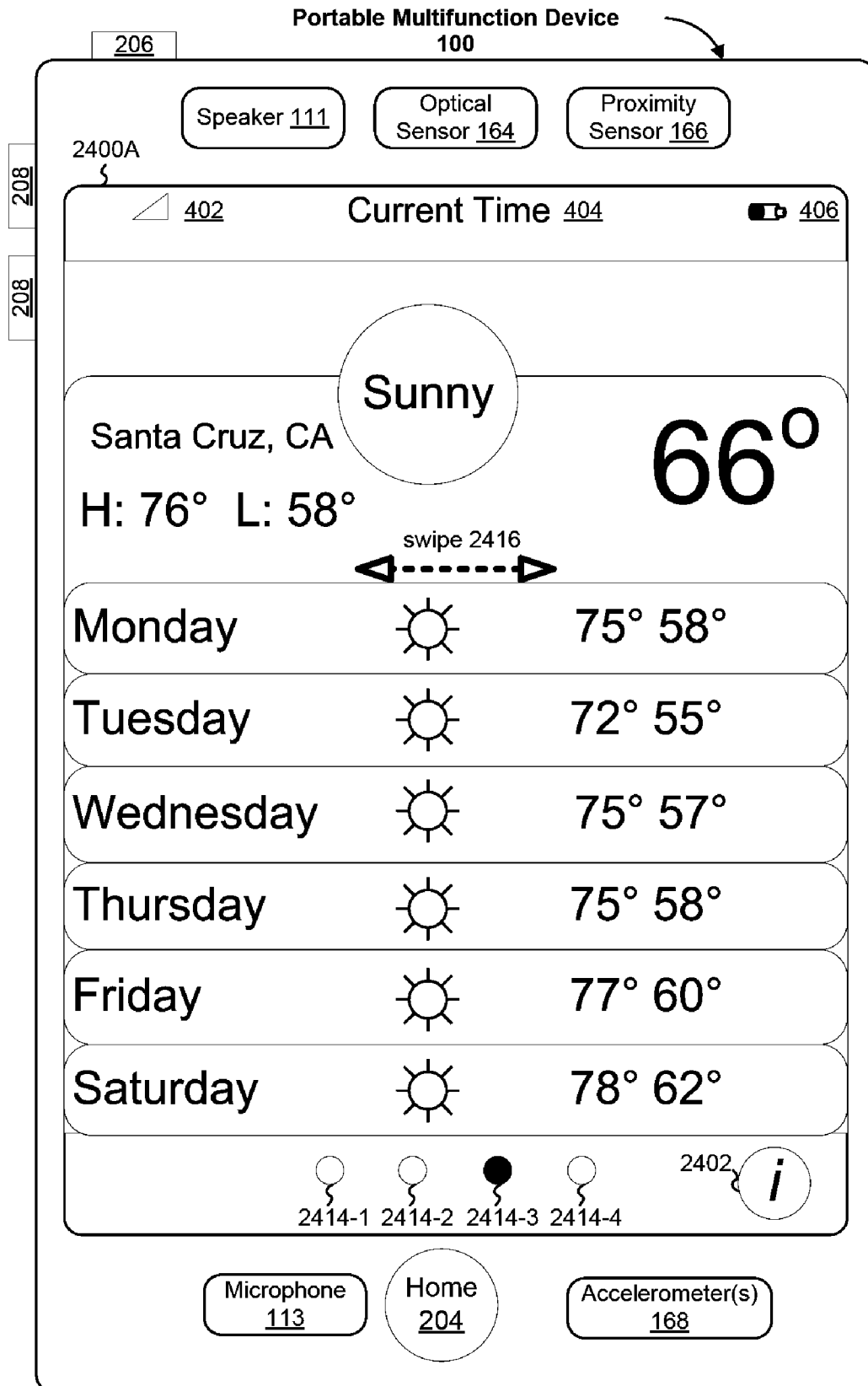


Figure 24A

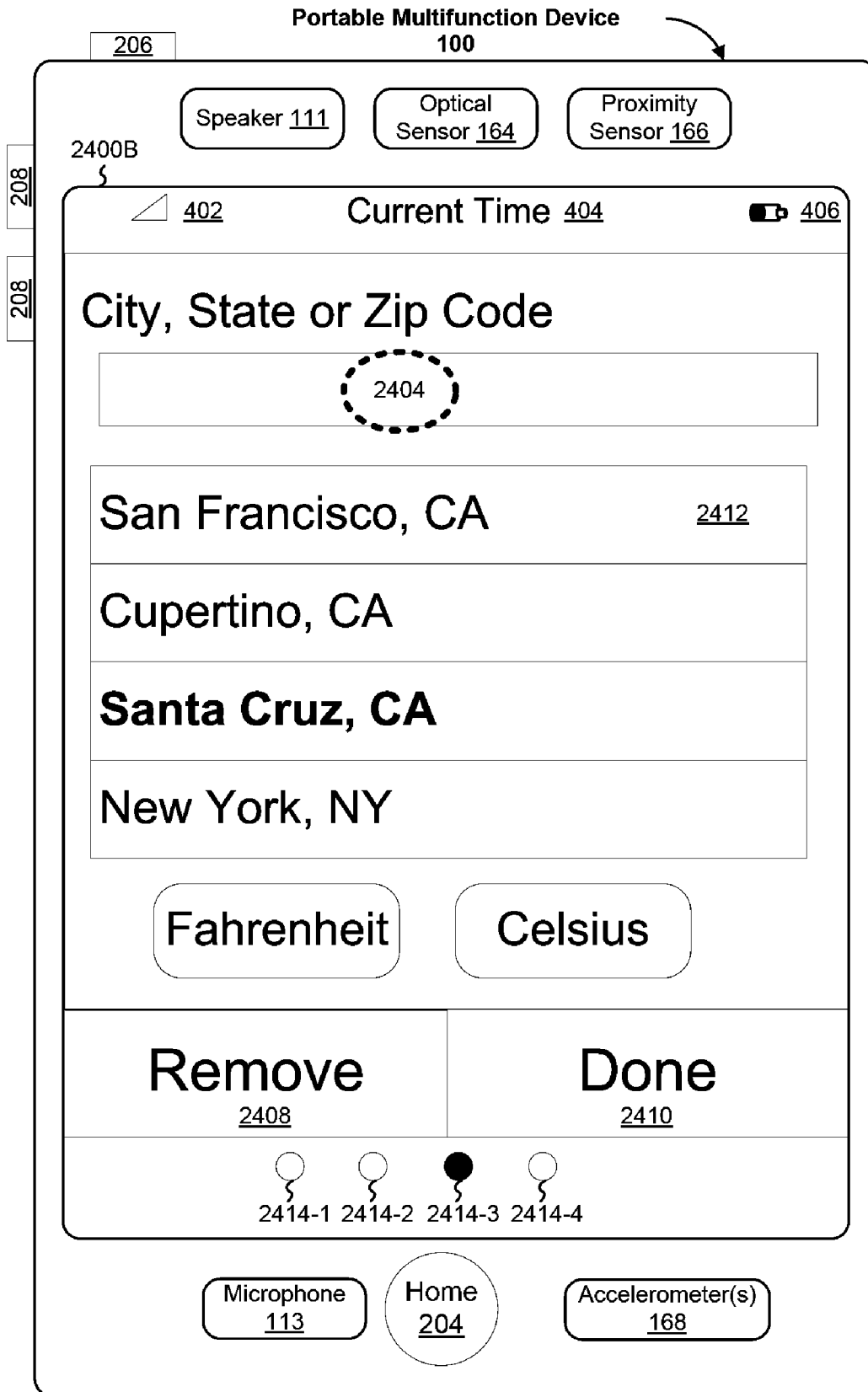


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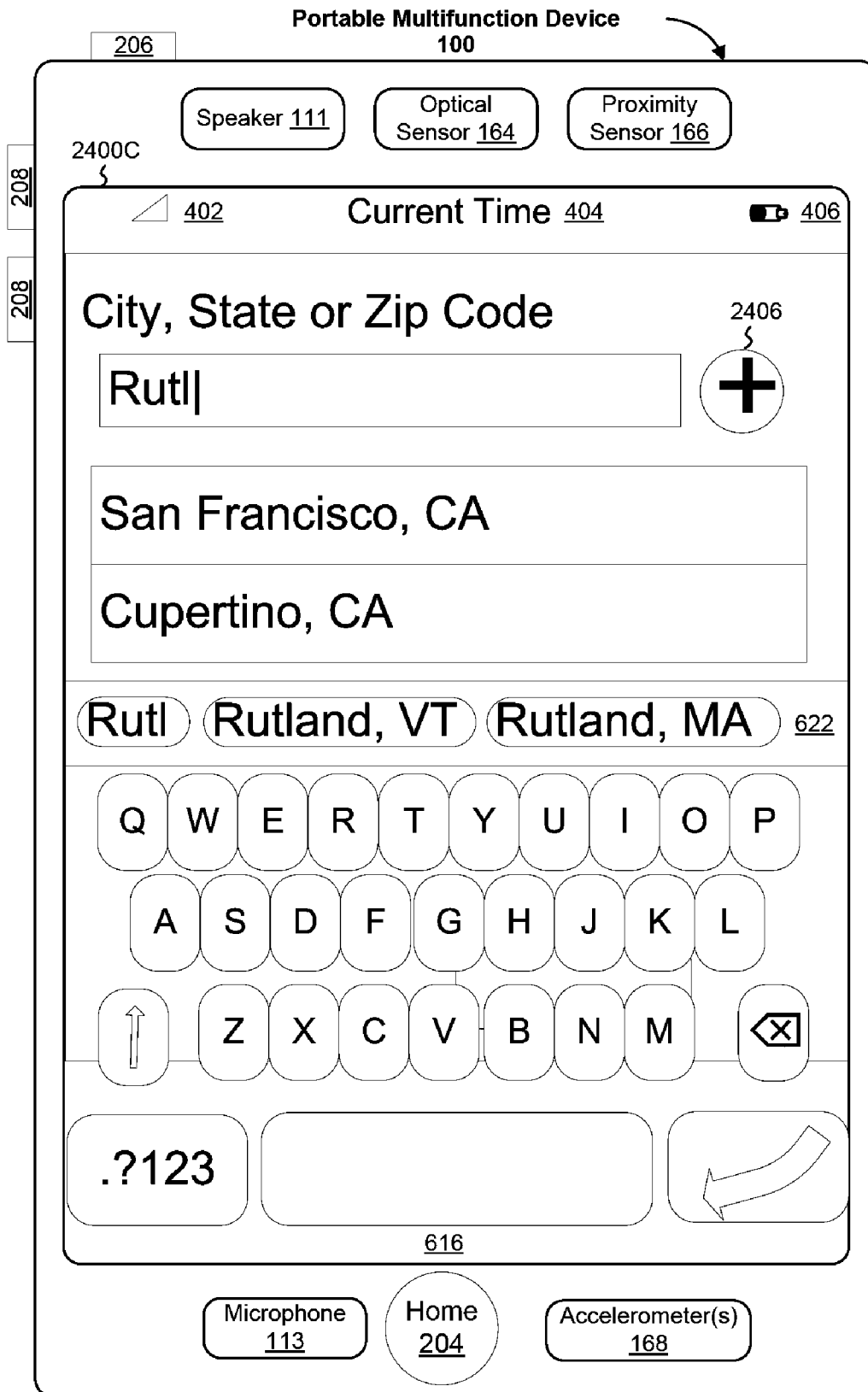


Figure 24C



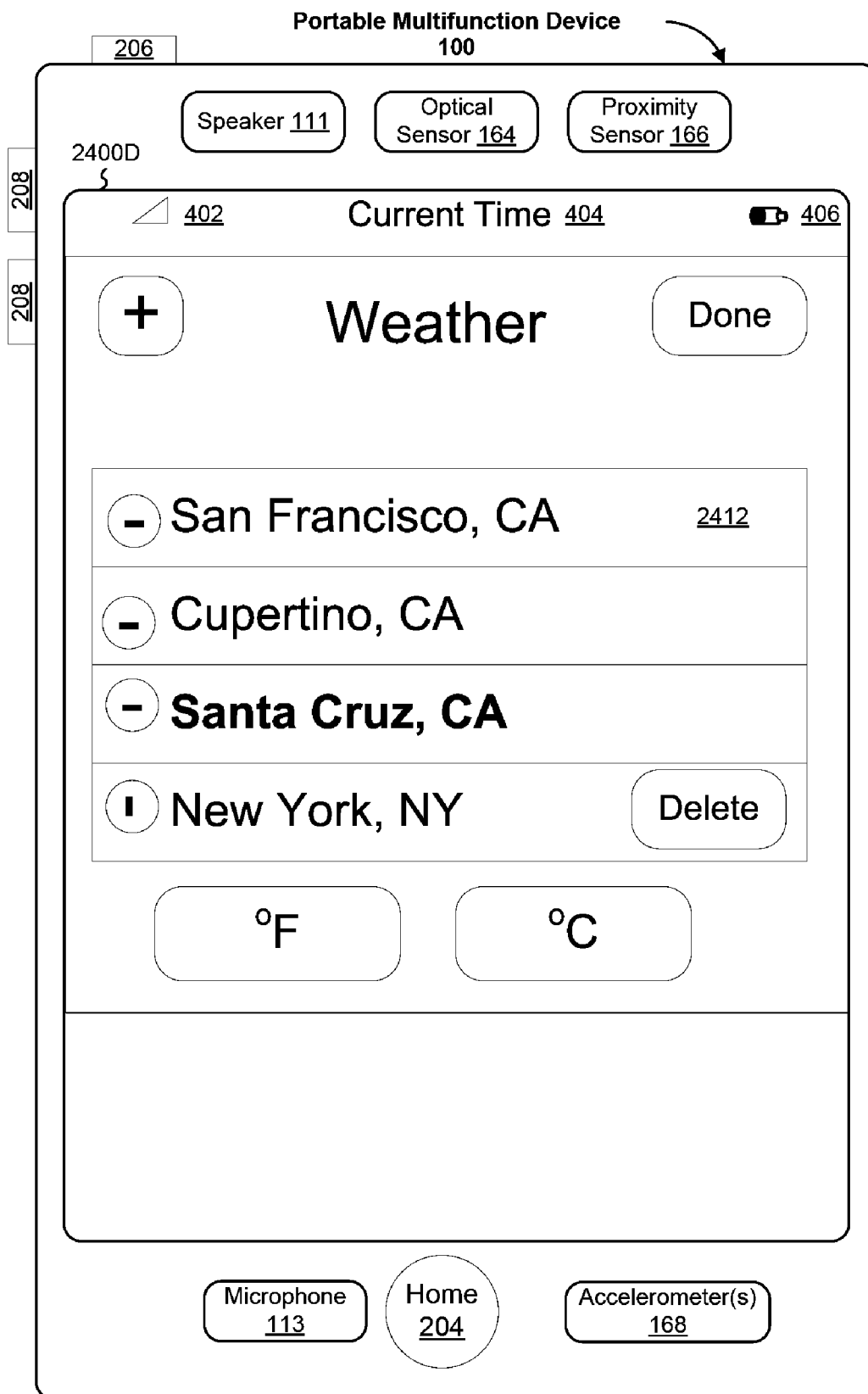


Figure 24D

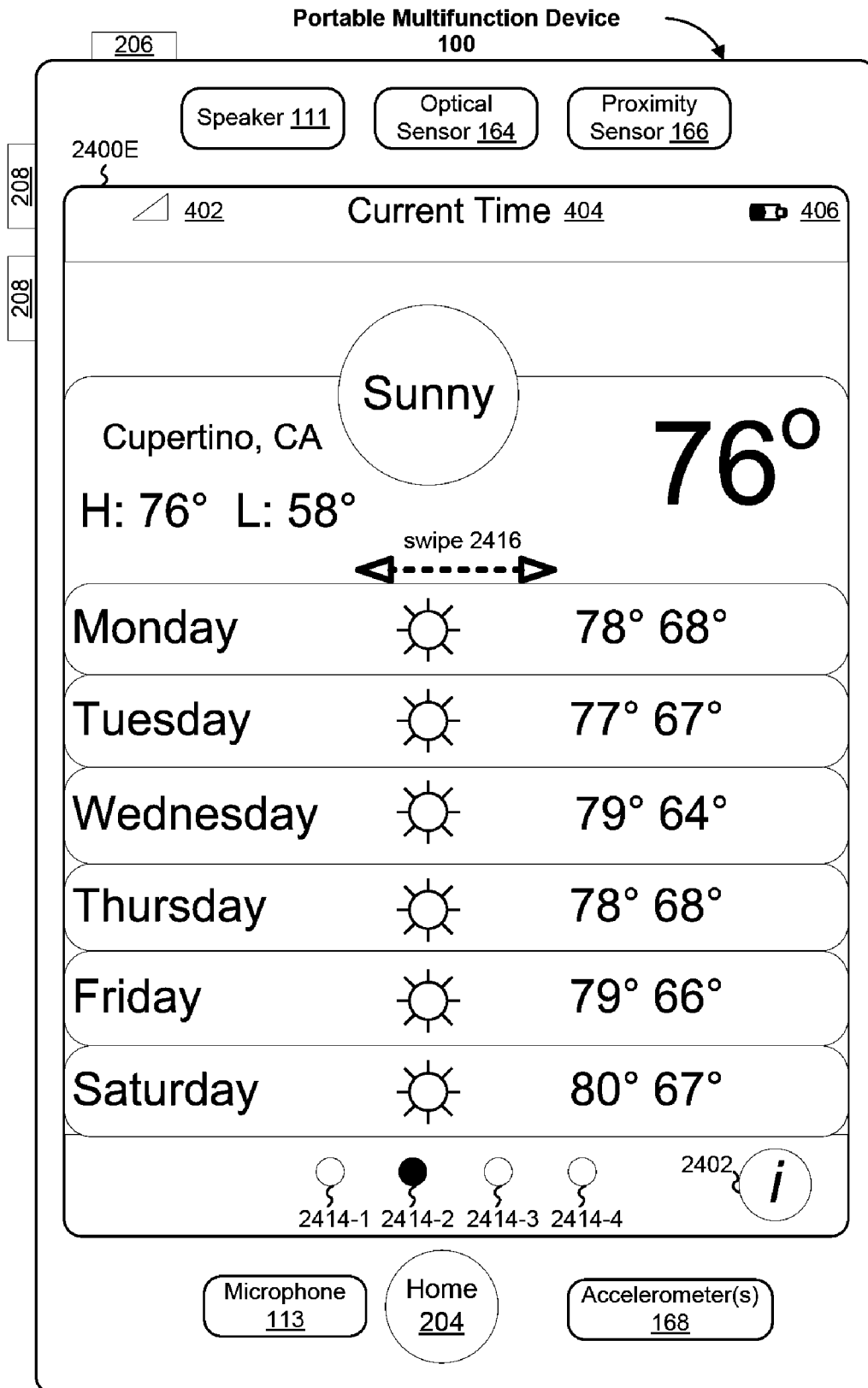


Figure 24E

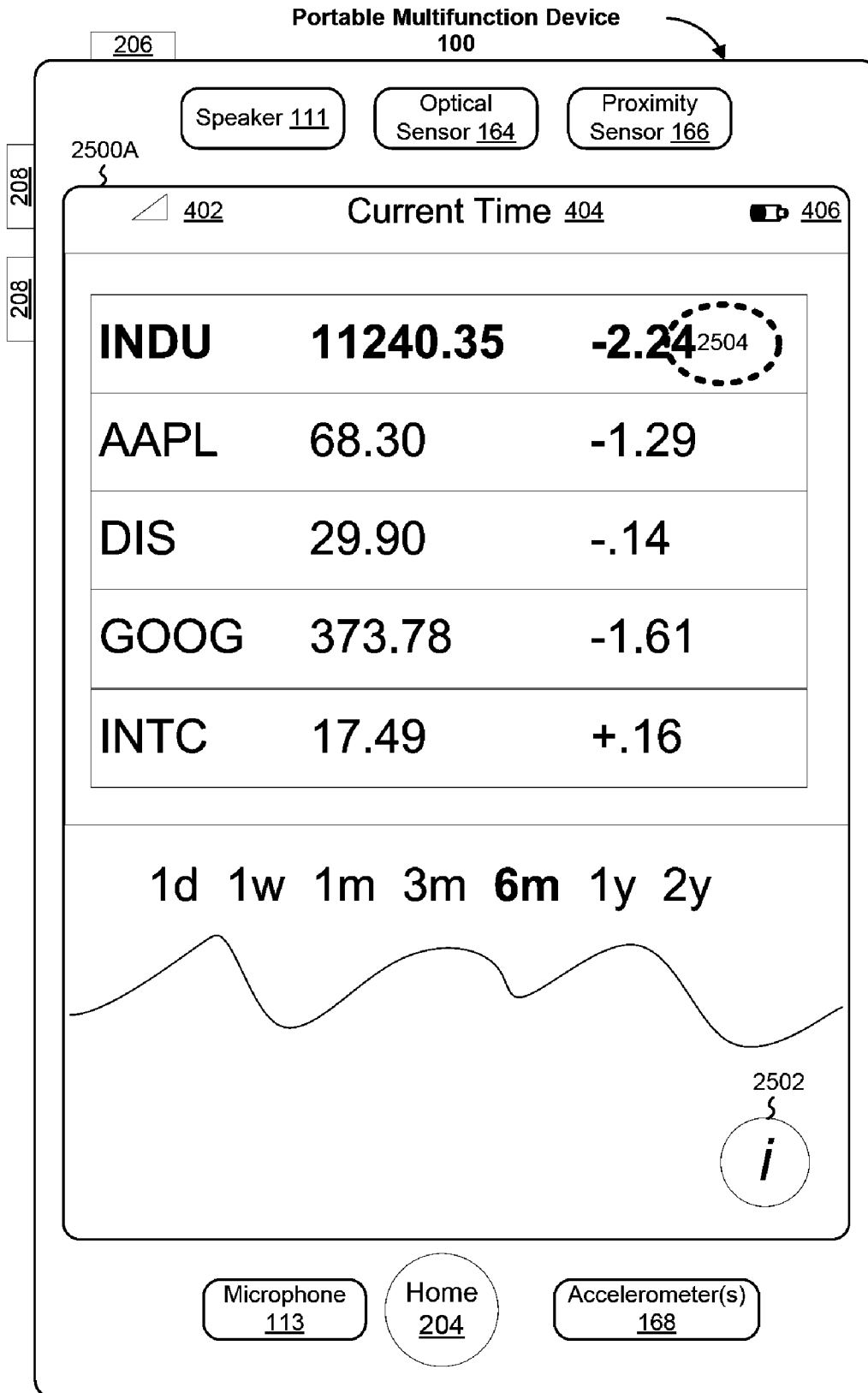


Figure 25A

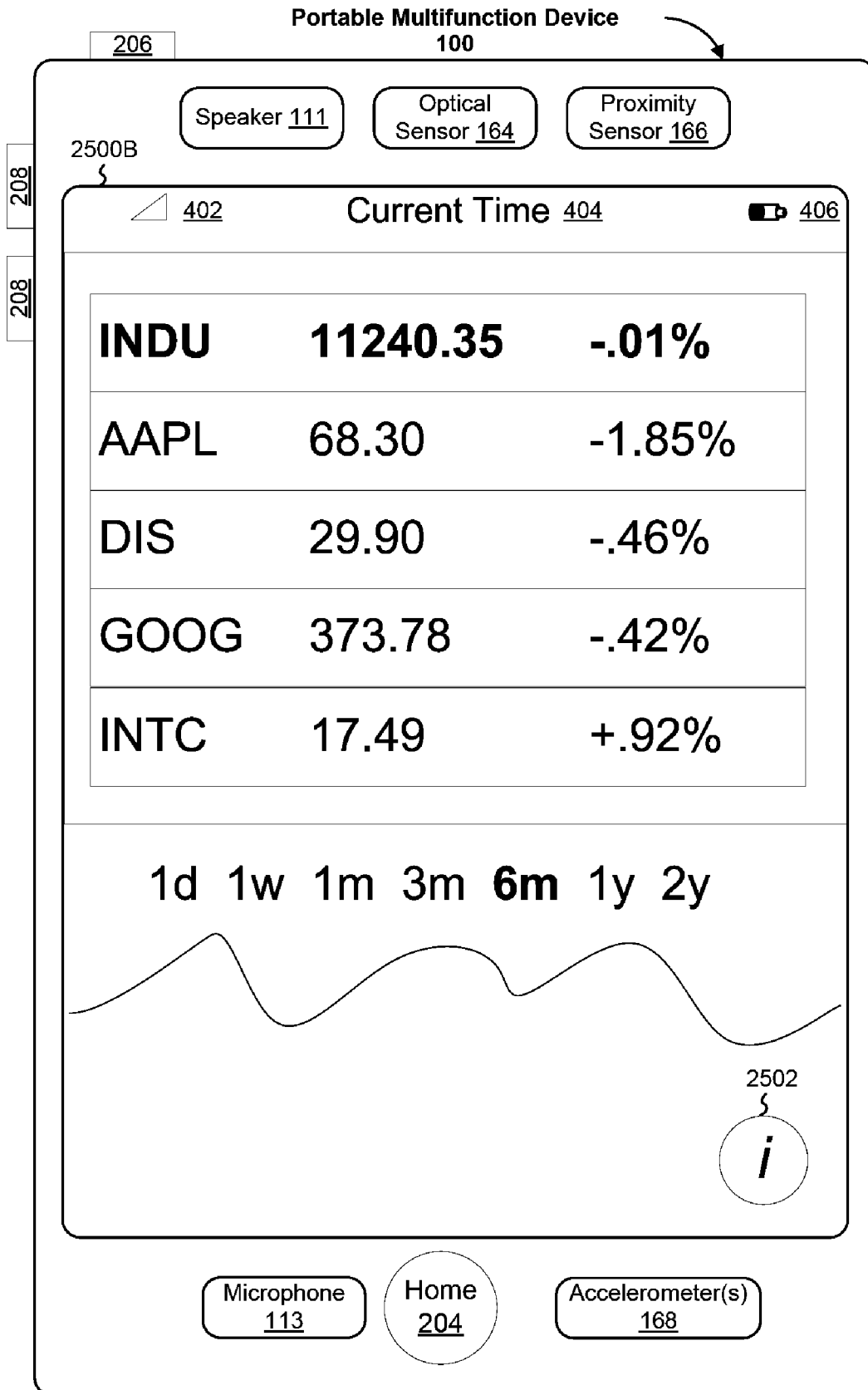


Figure 25B

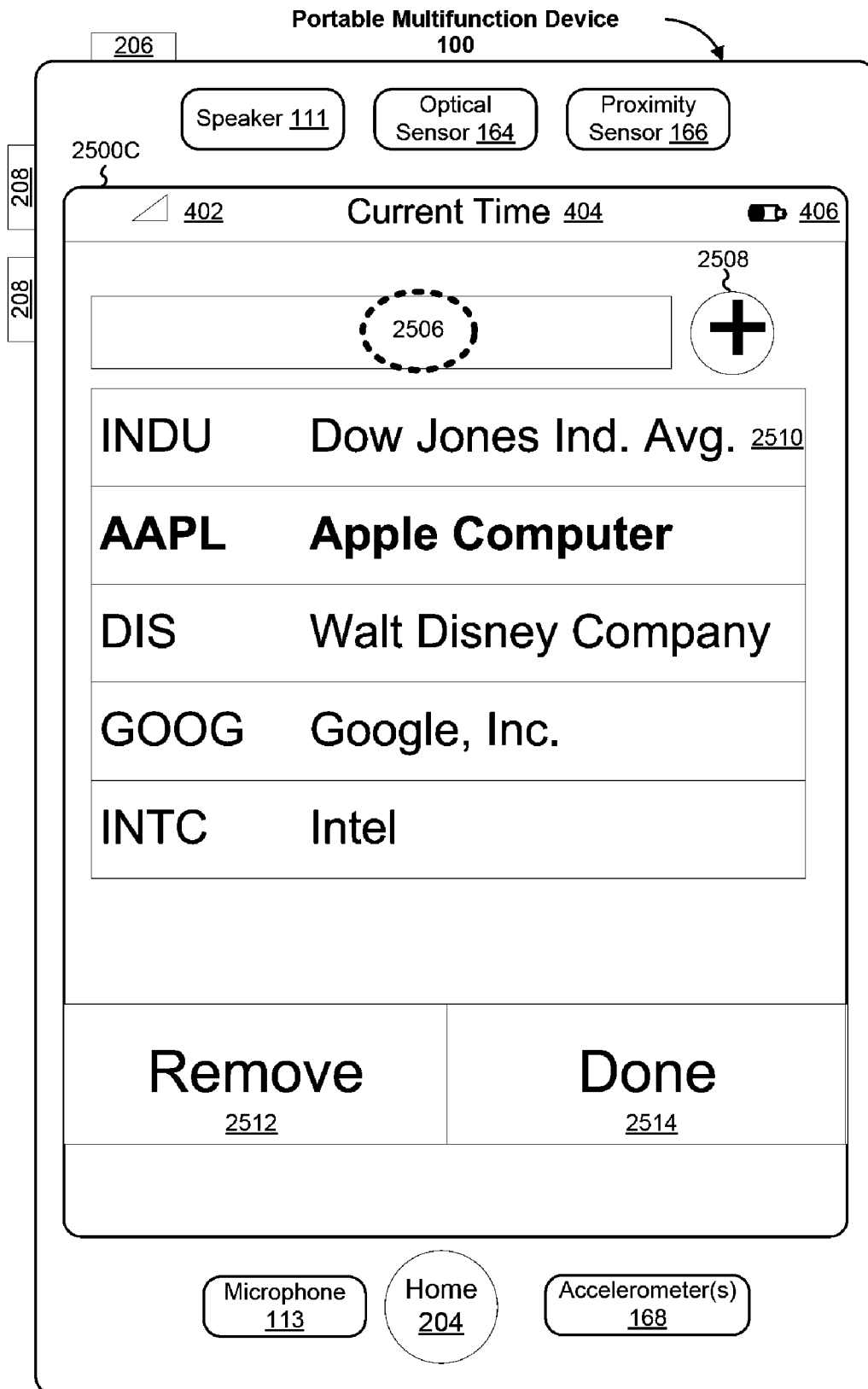


Figure 25C

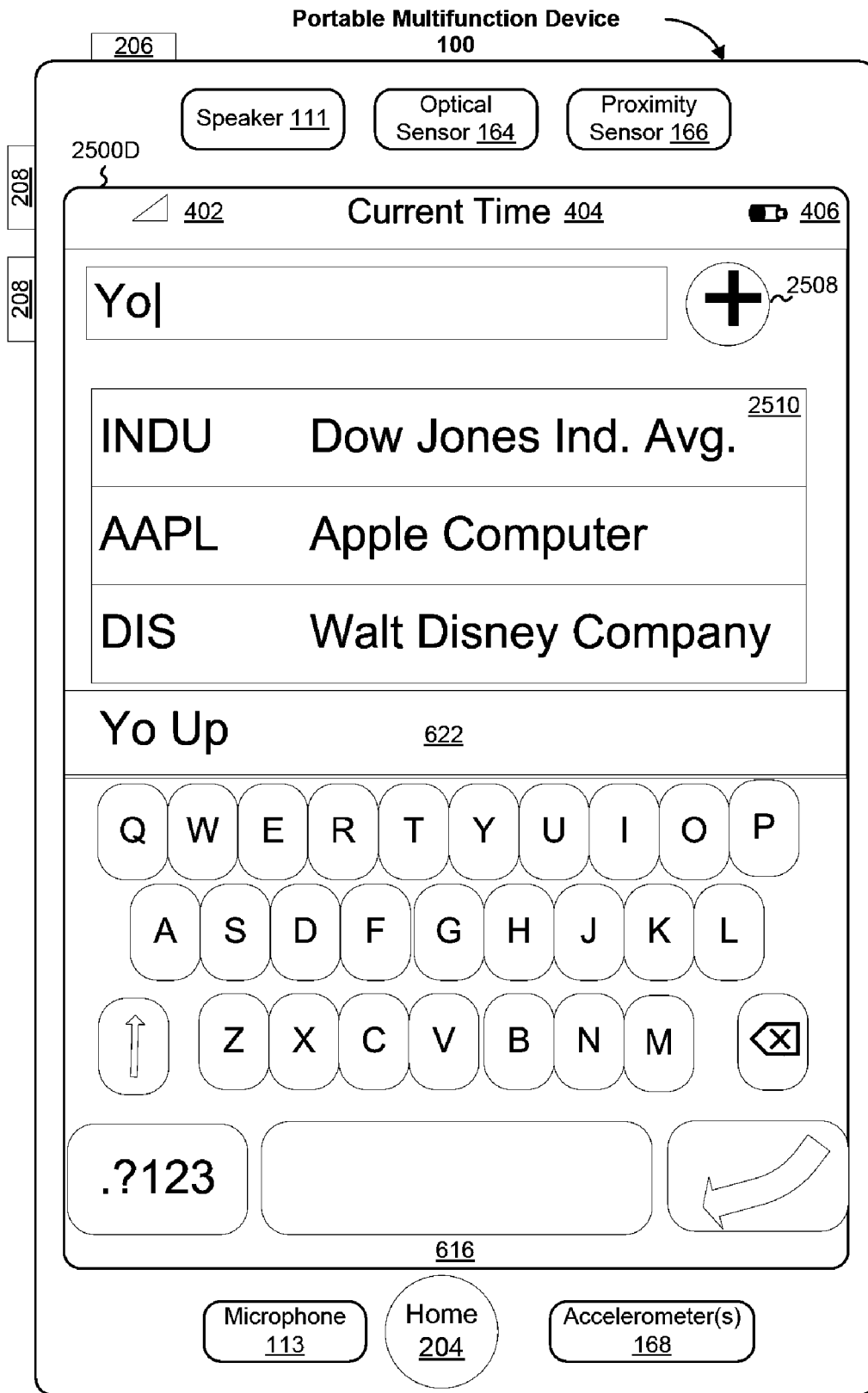


Figure 25D

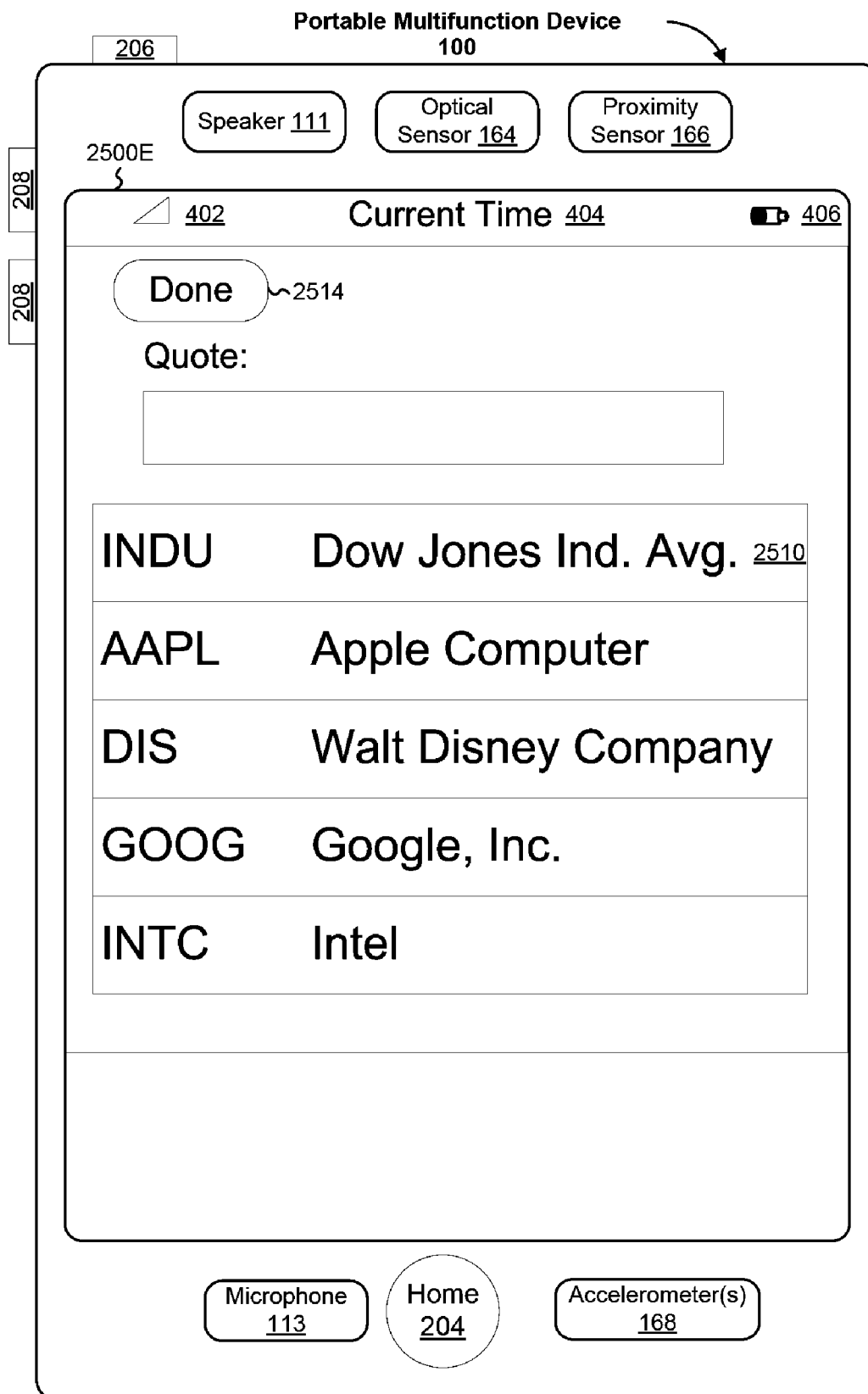


Figure 25E

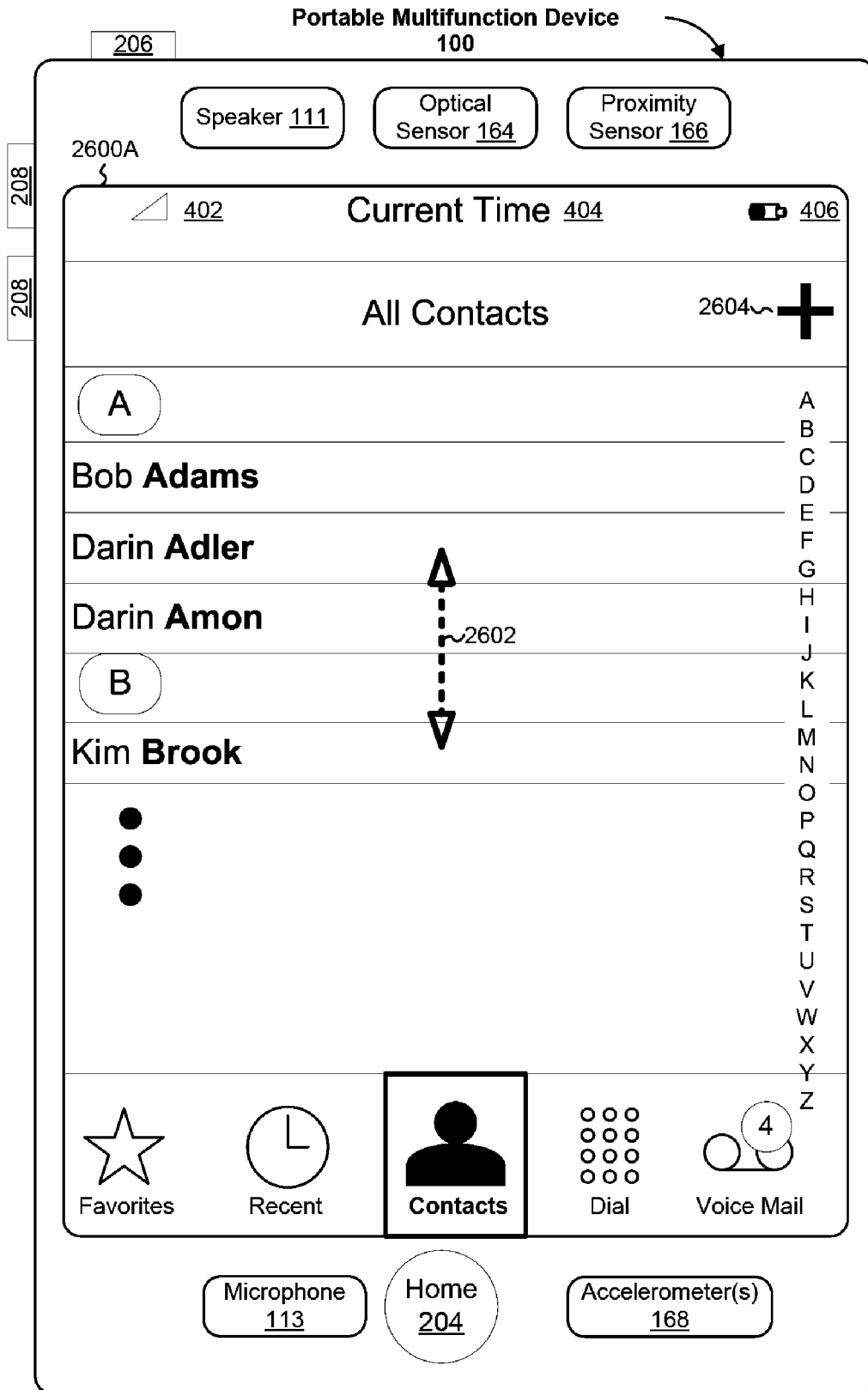


Figure 26A



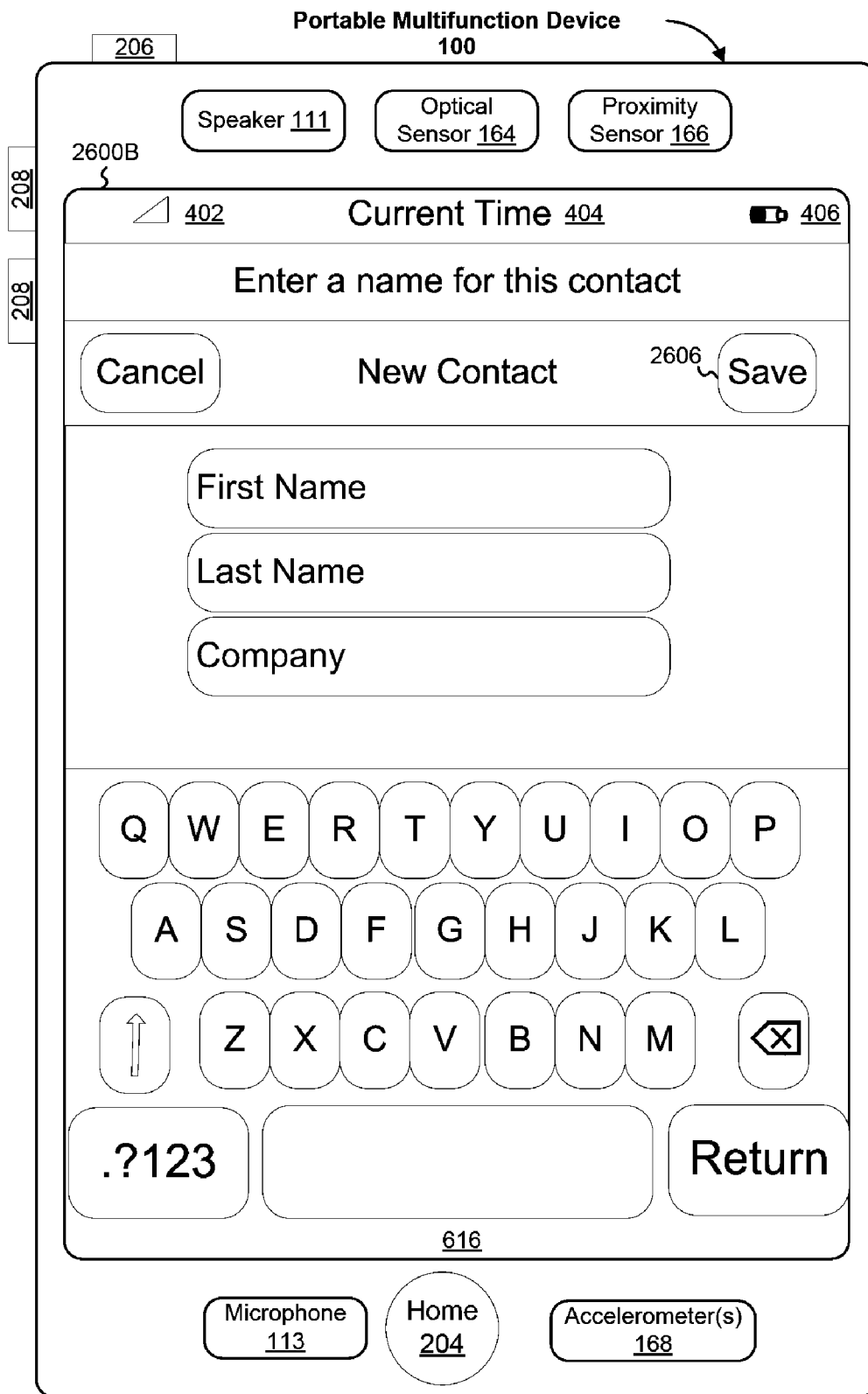


Figure 26B

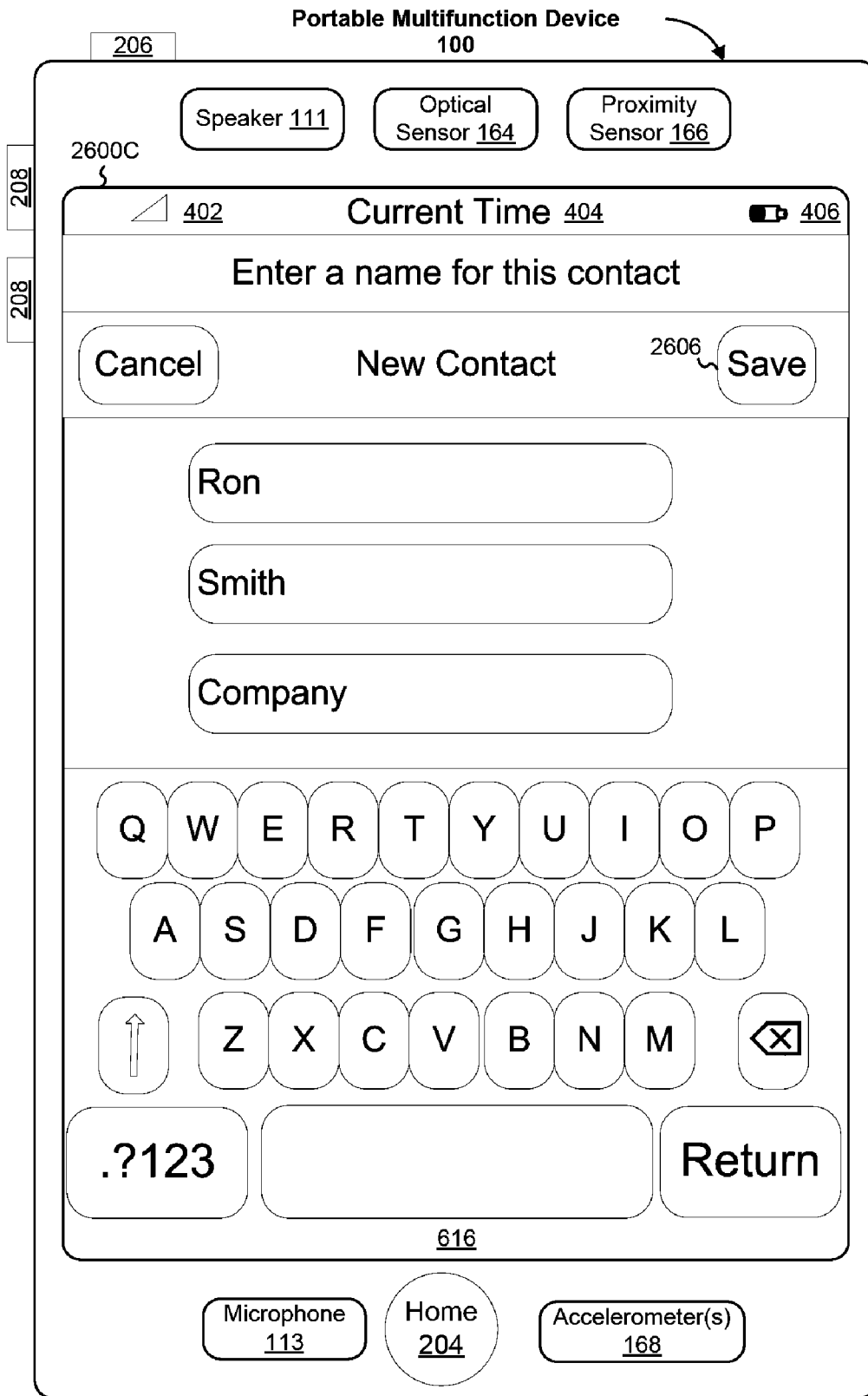


Figure 26C



Figure 26D

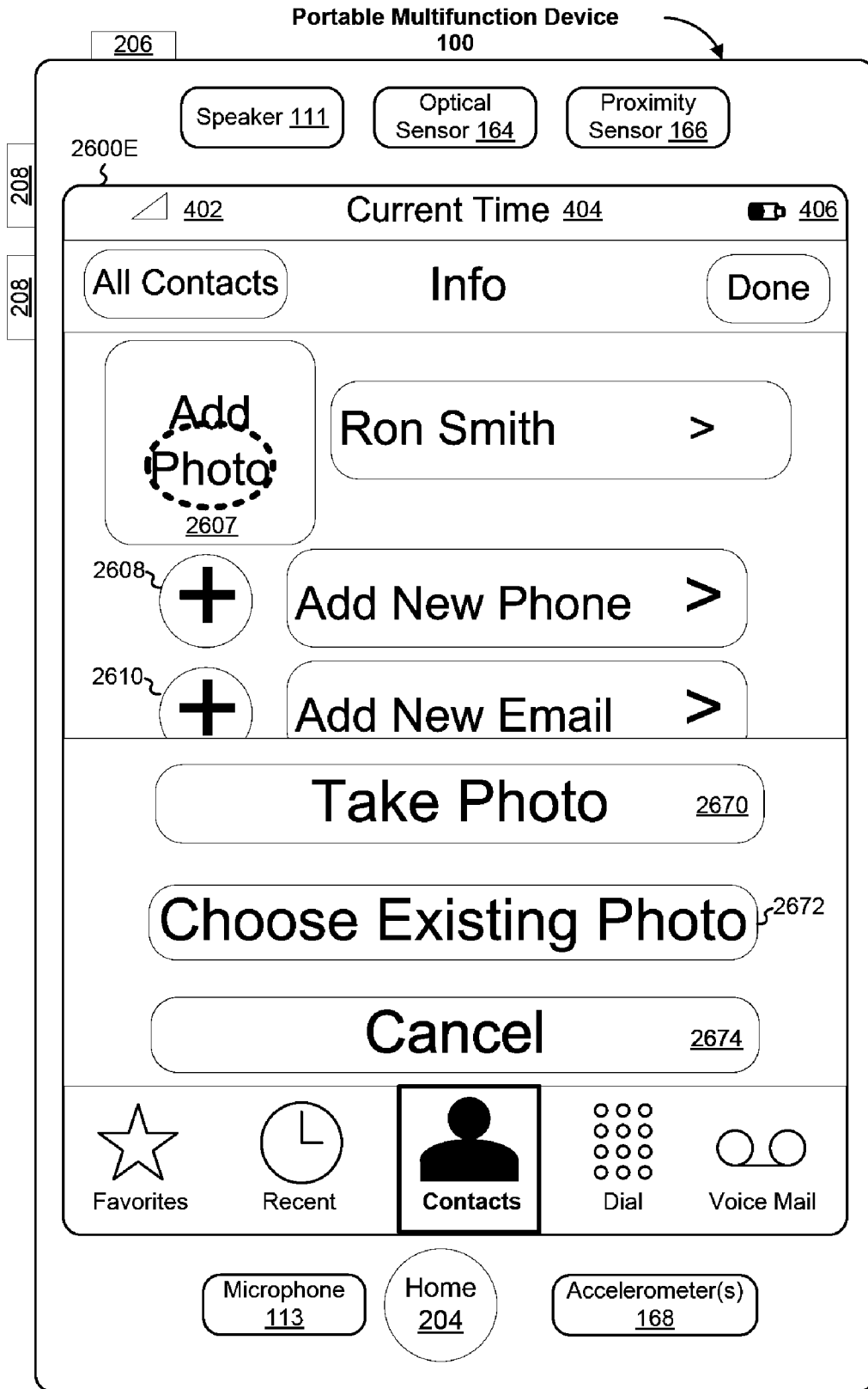


Figure 26E

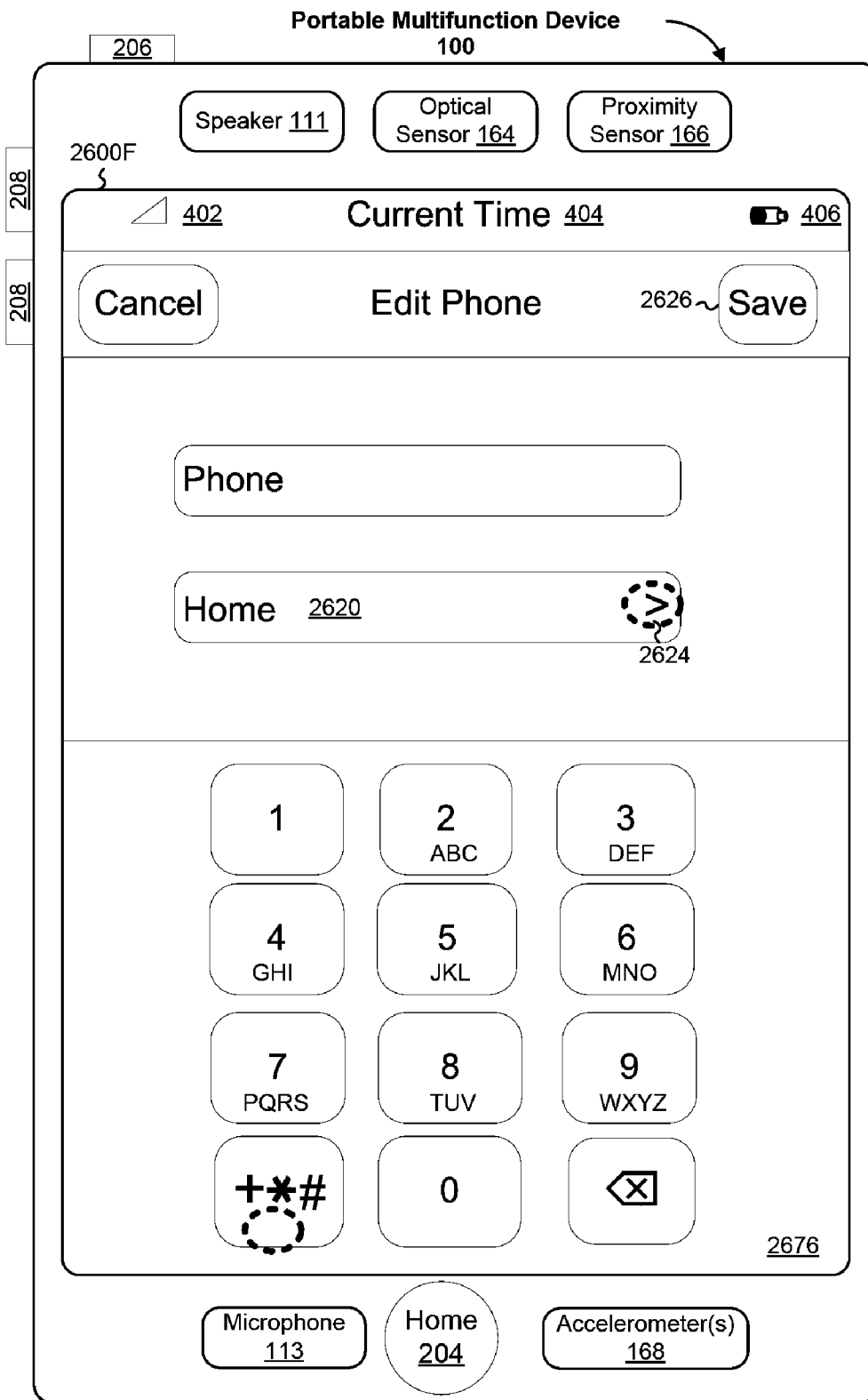


Figure 26F

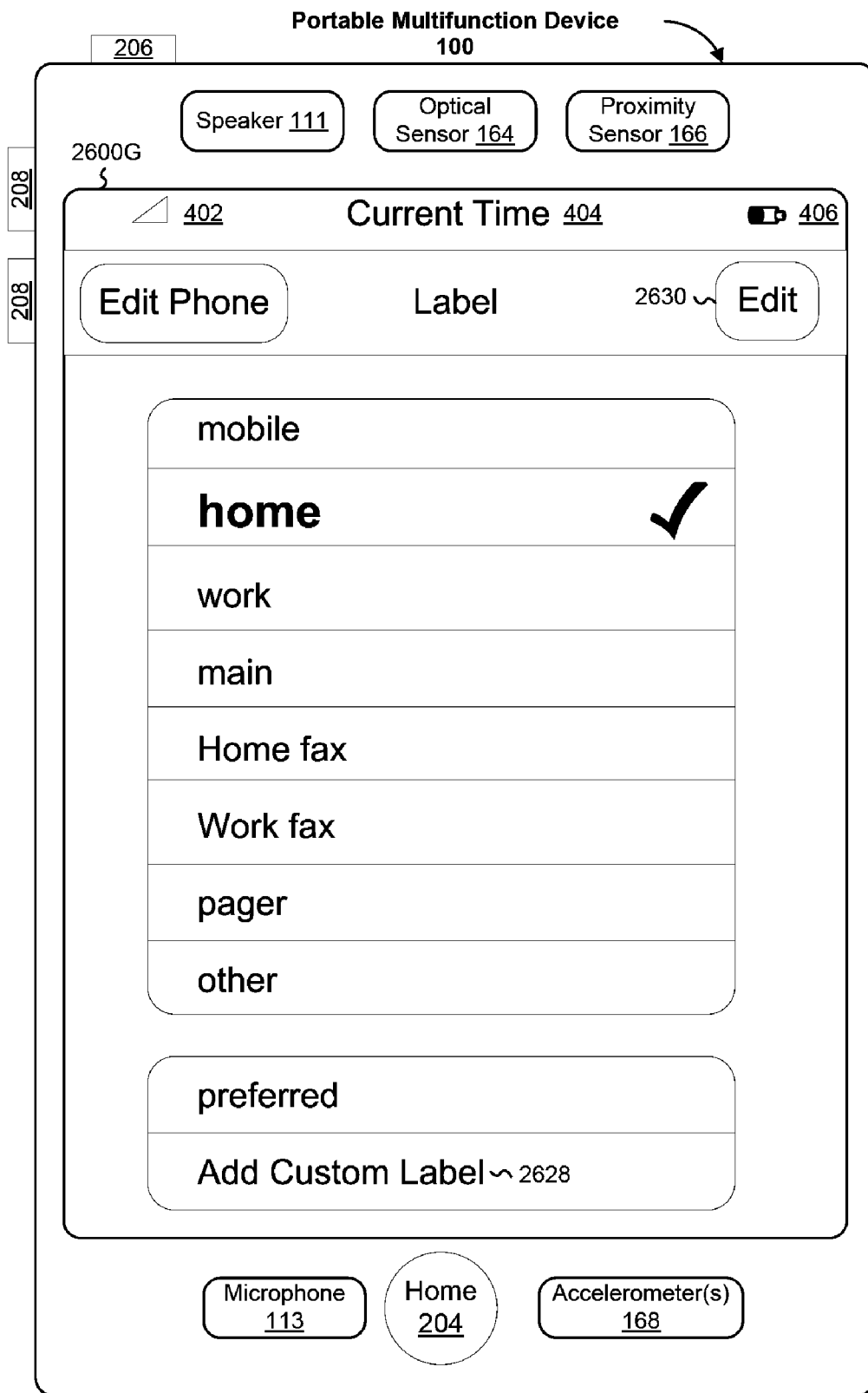


Figure 26G

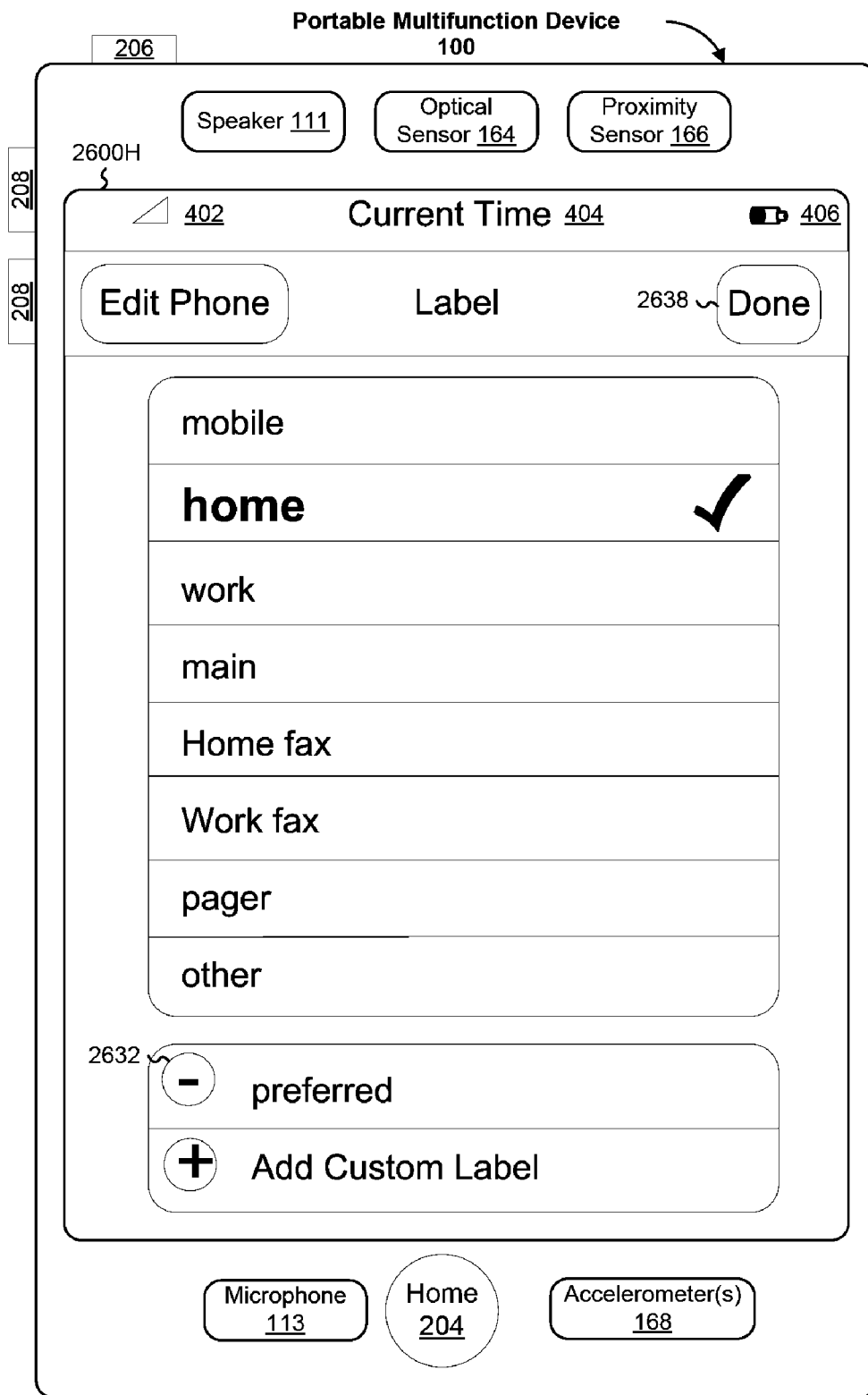


Figure 26H

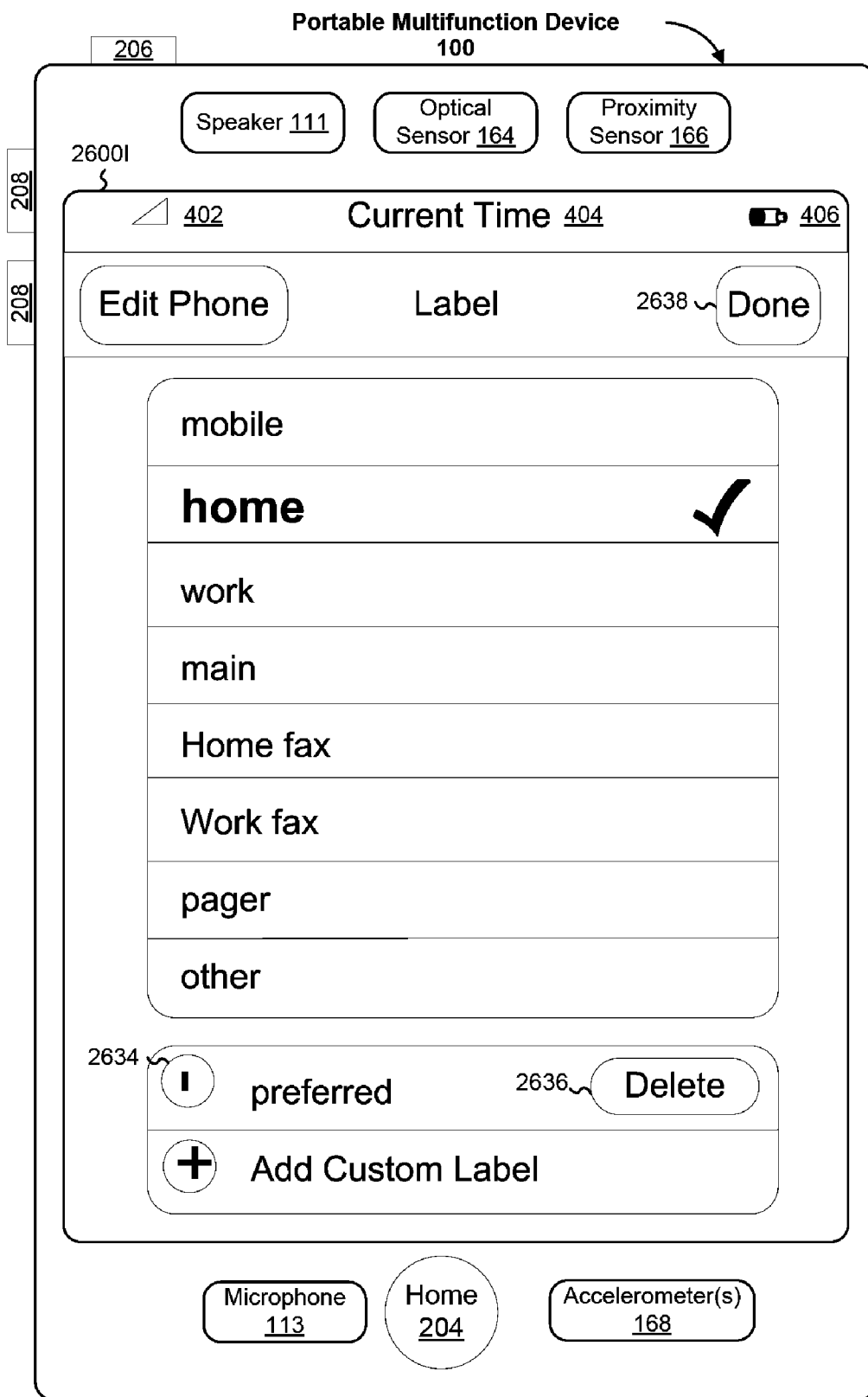


Figure 26I



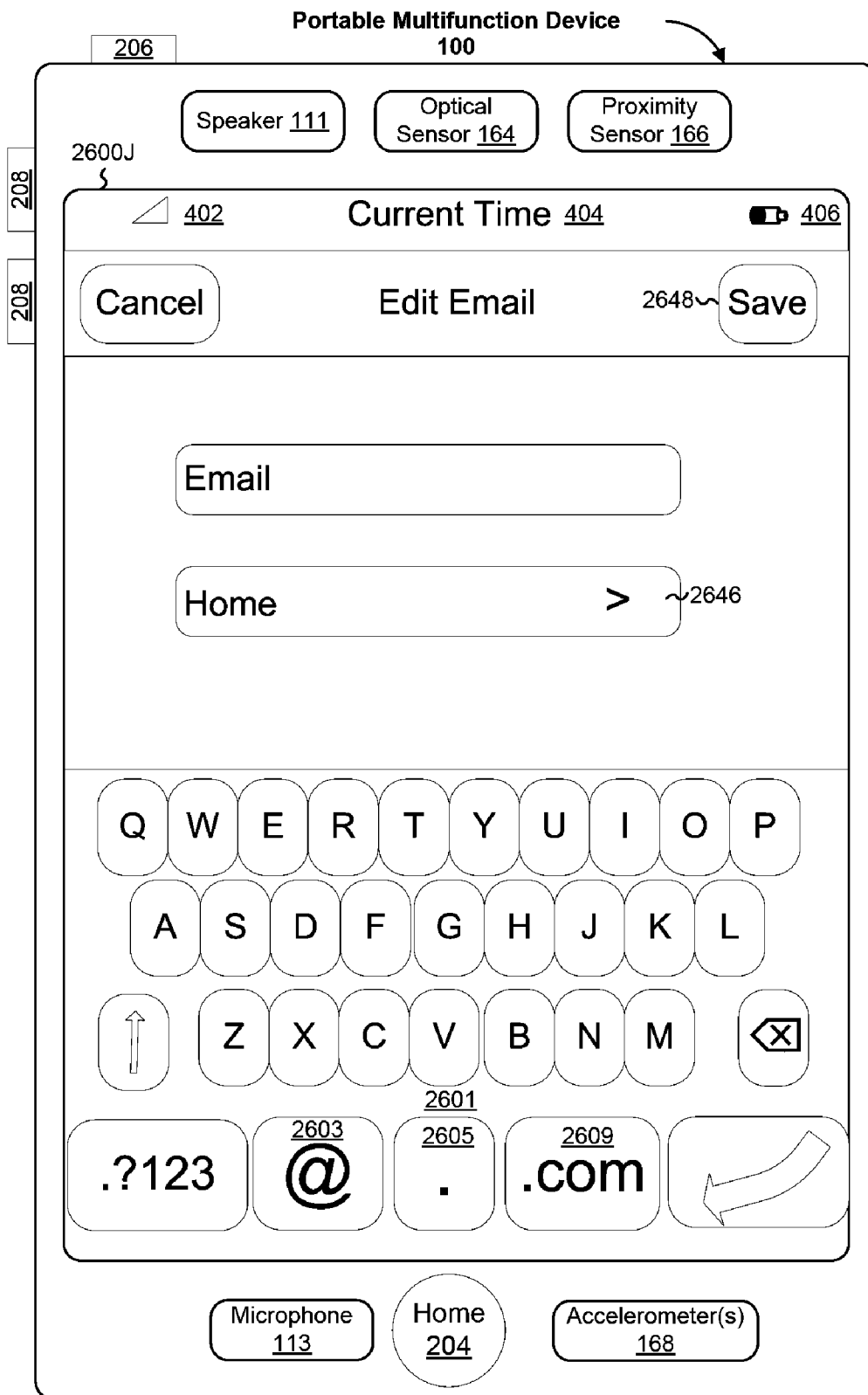


Figure 26J

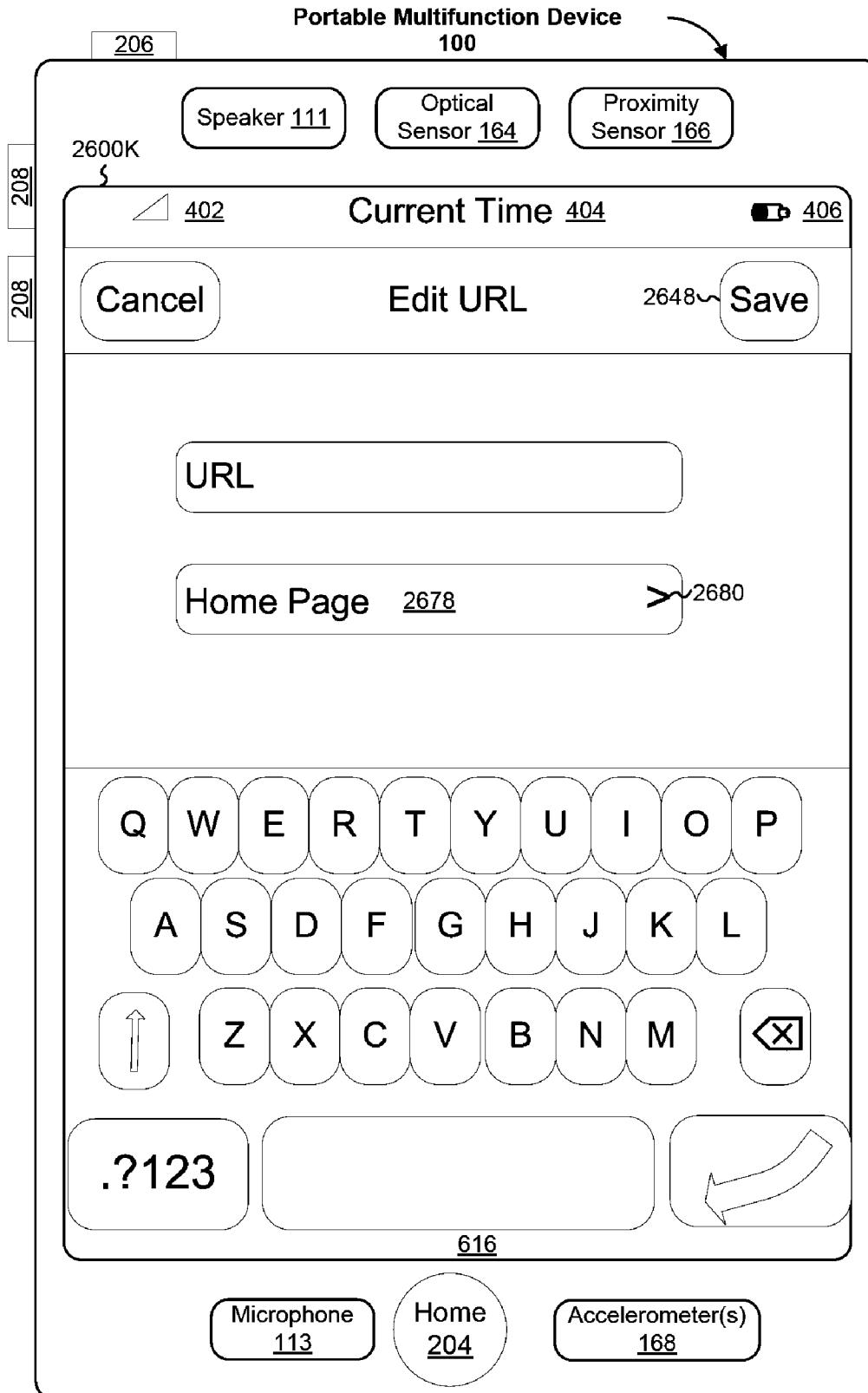


Figure 26K



Figure 26L

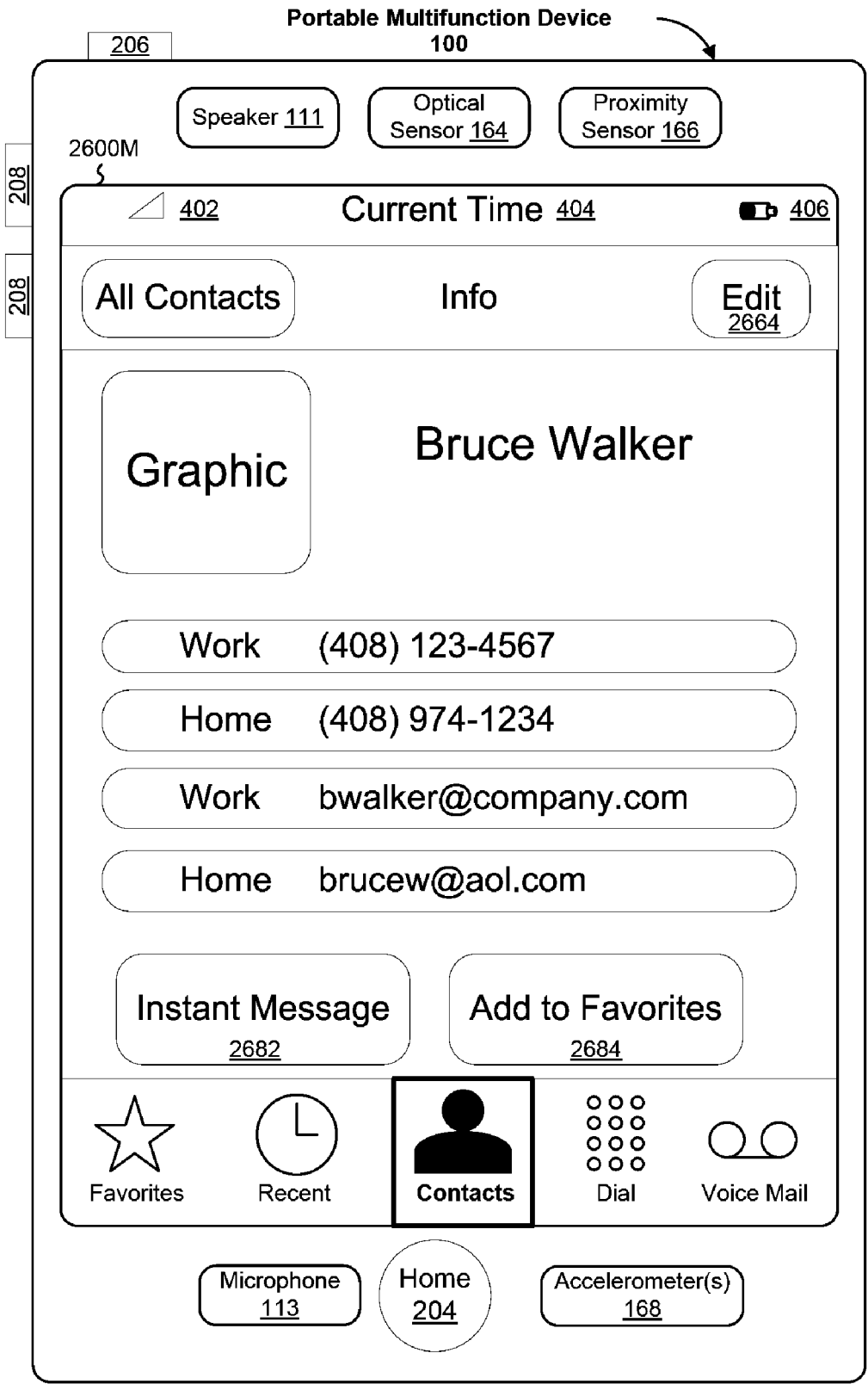


Figure 26M

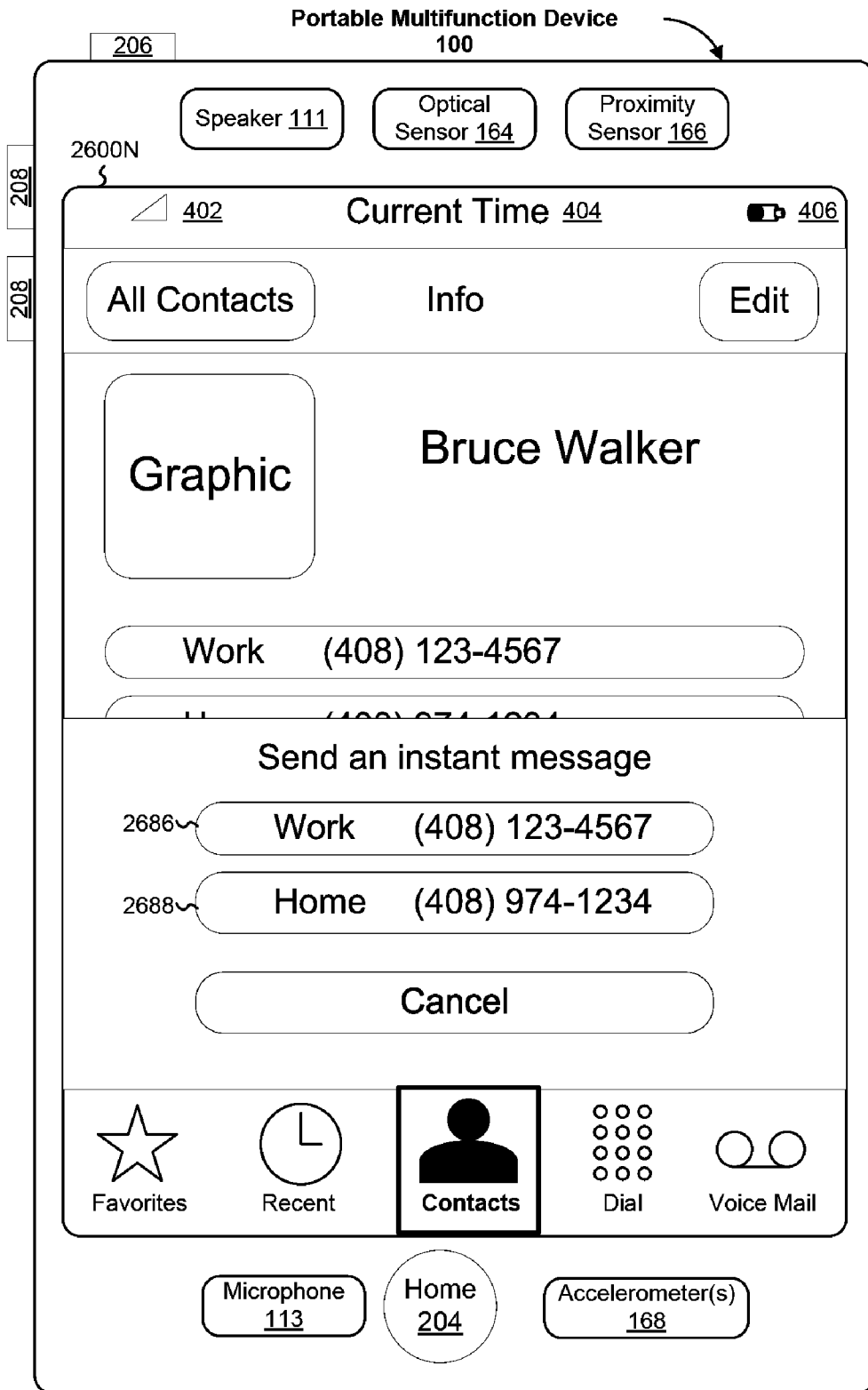


Figure 26N

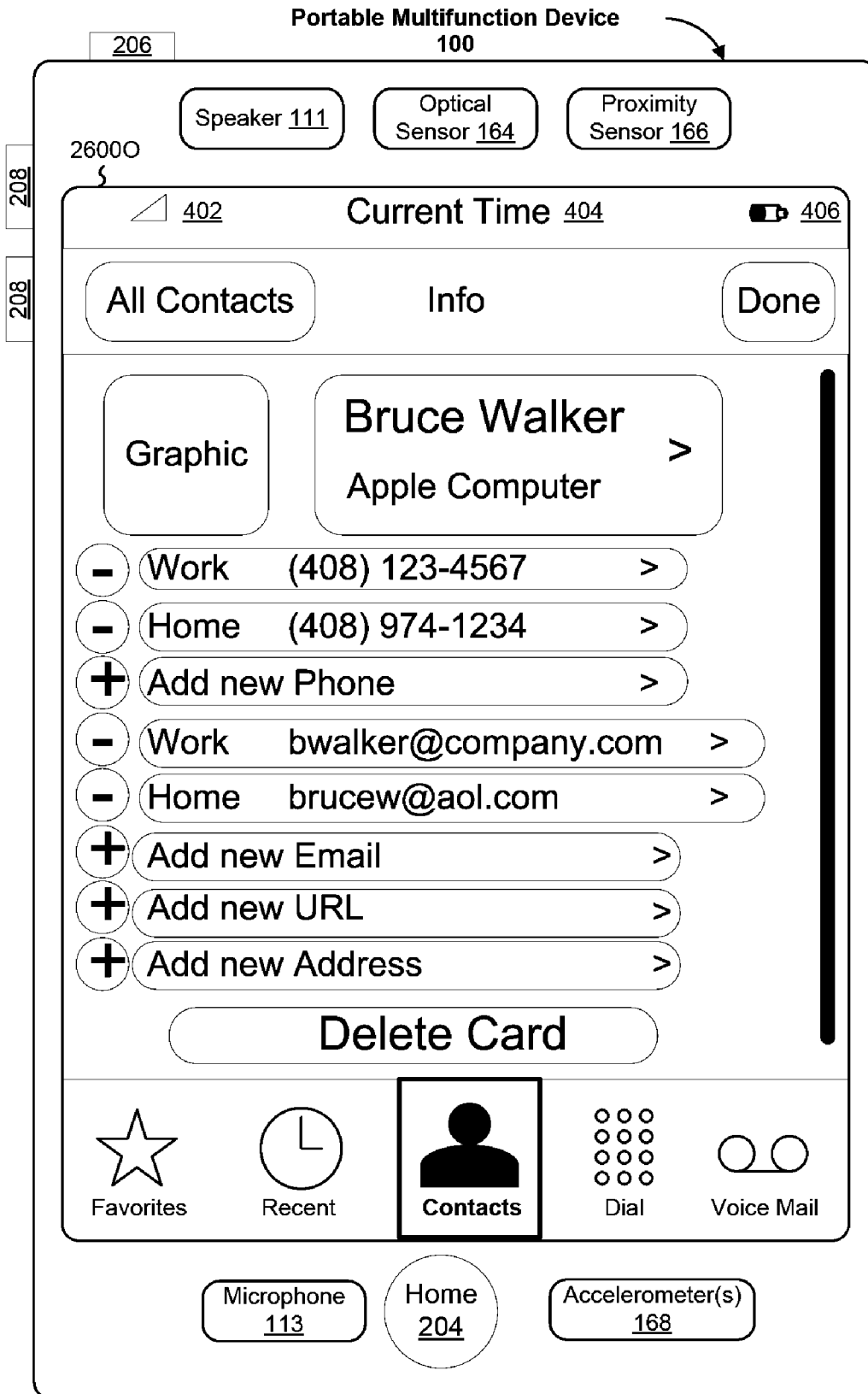


Figure 260

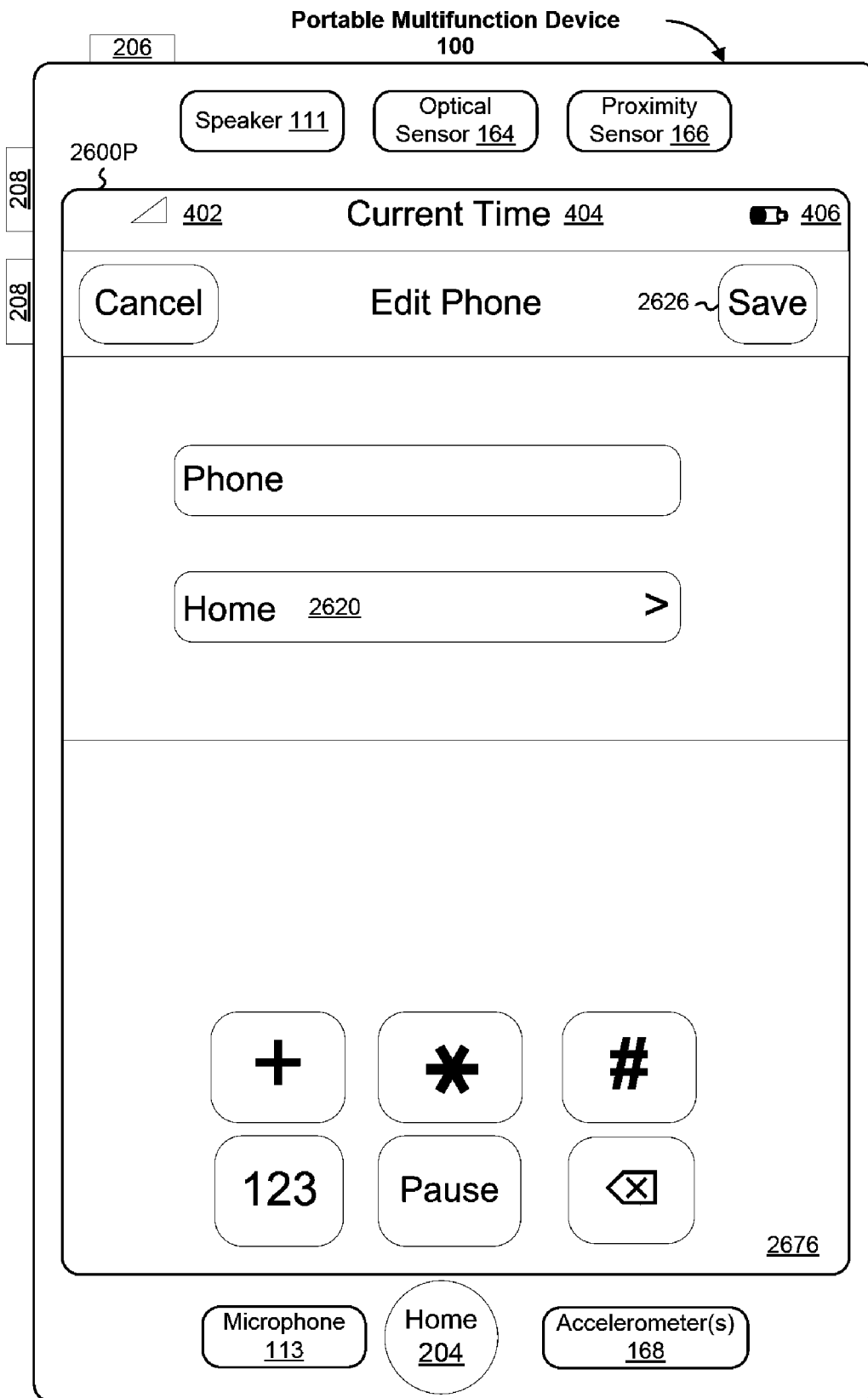


Figure 26P

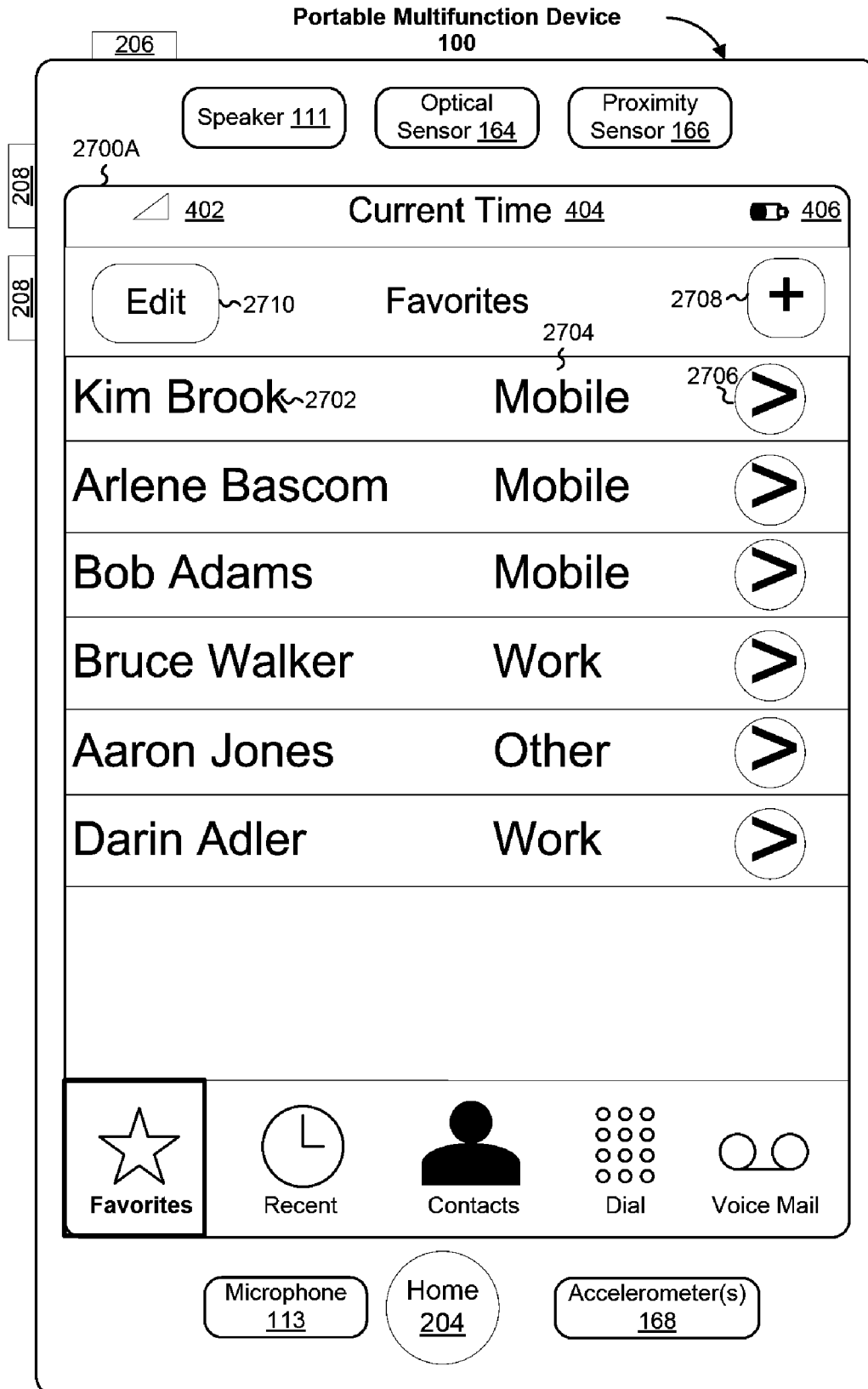


Figure 27A



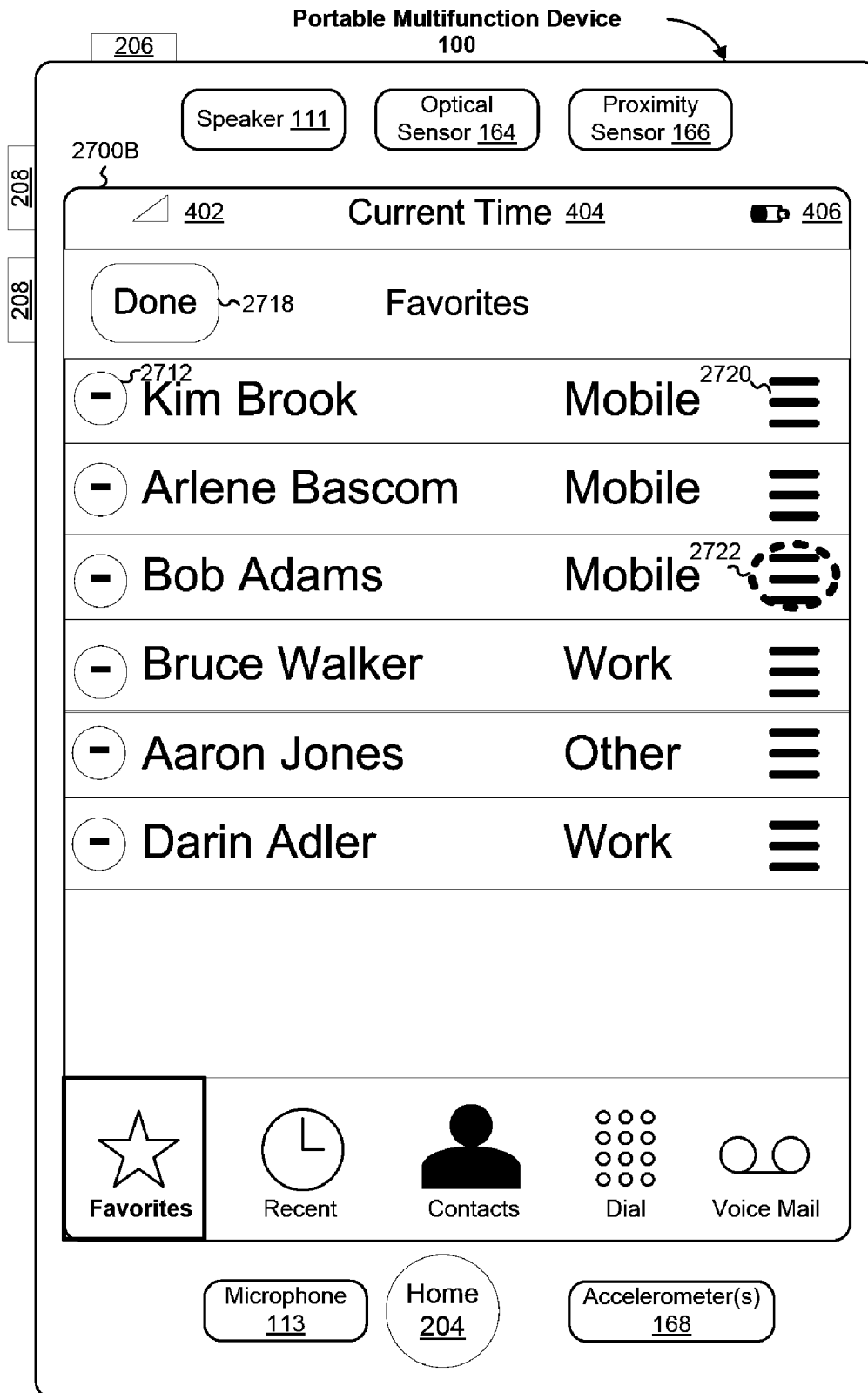


Figure 27B

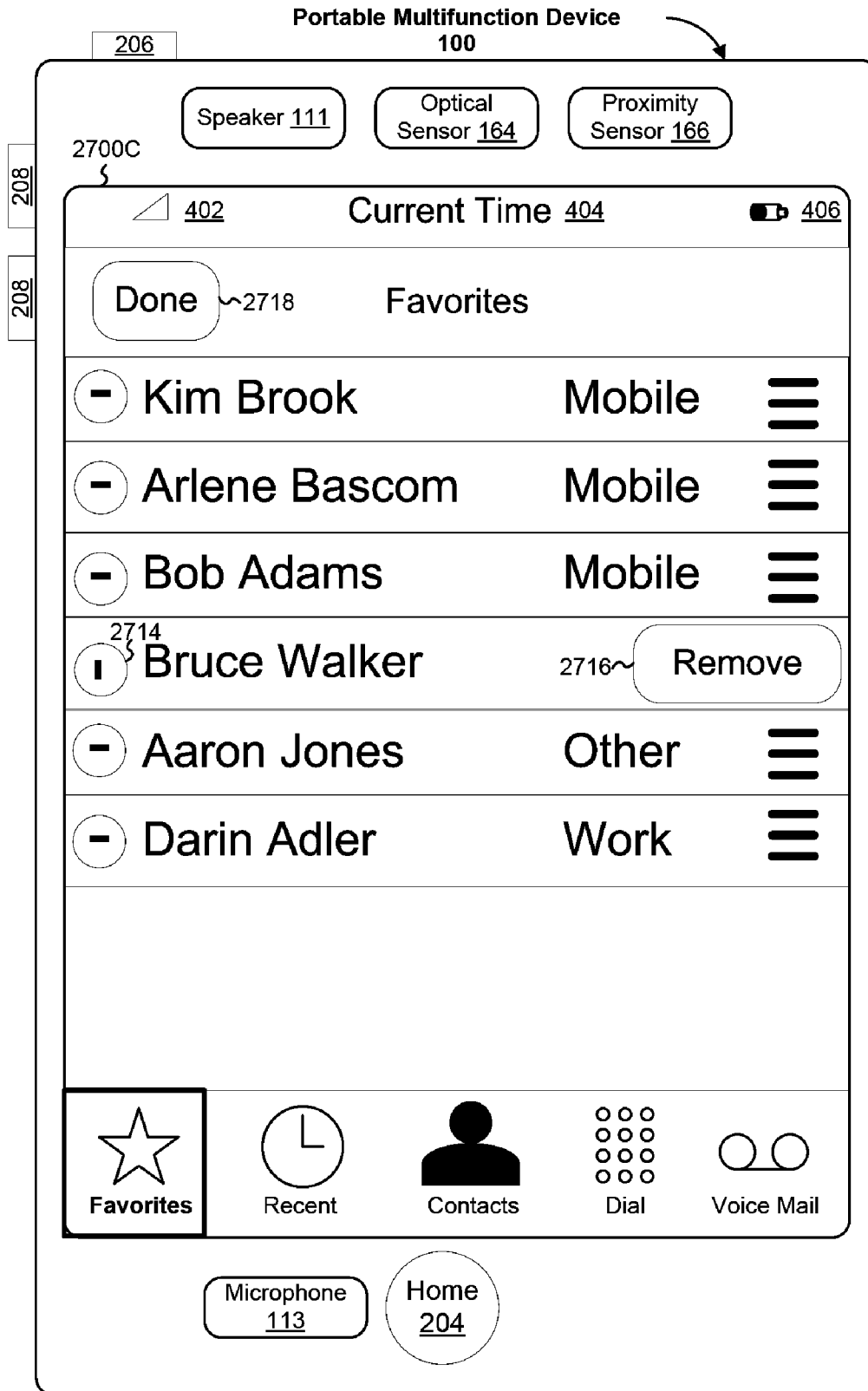


Figure 27C

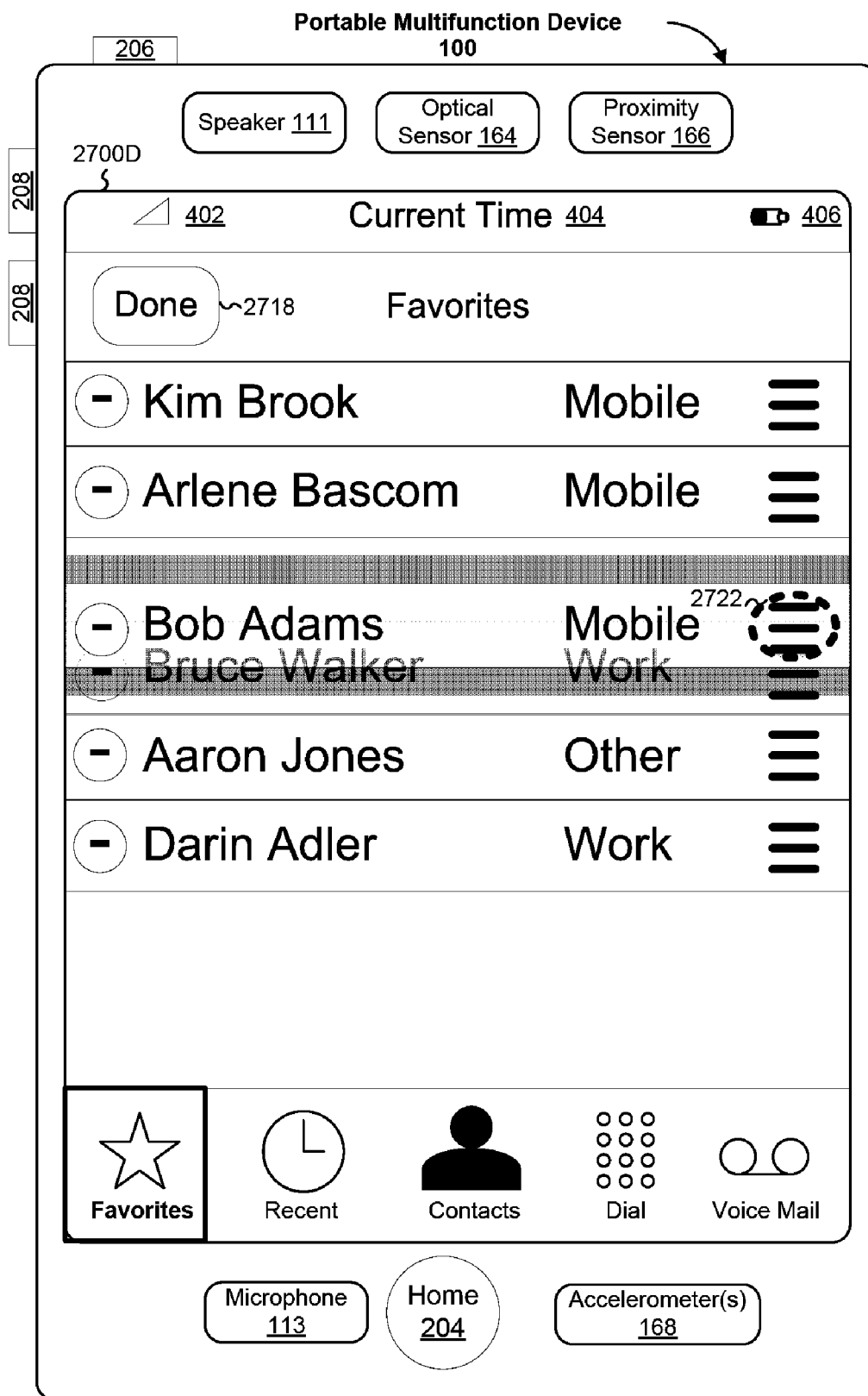


Figure 27D

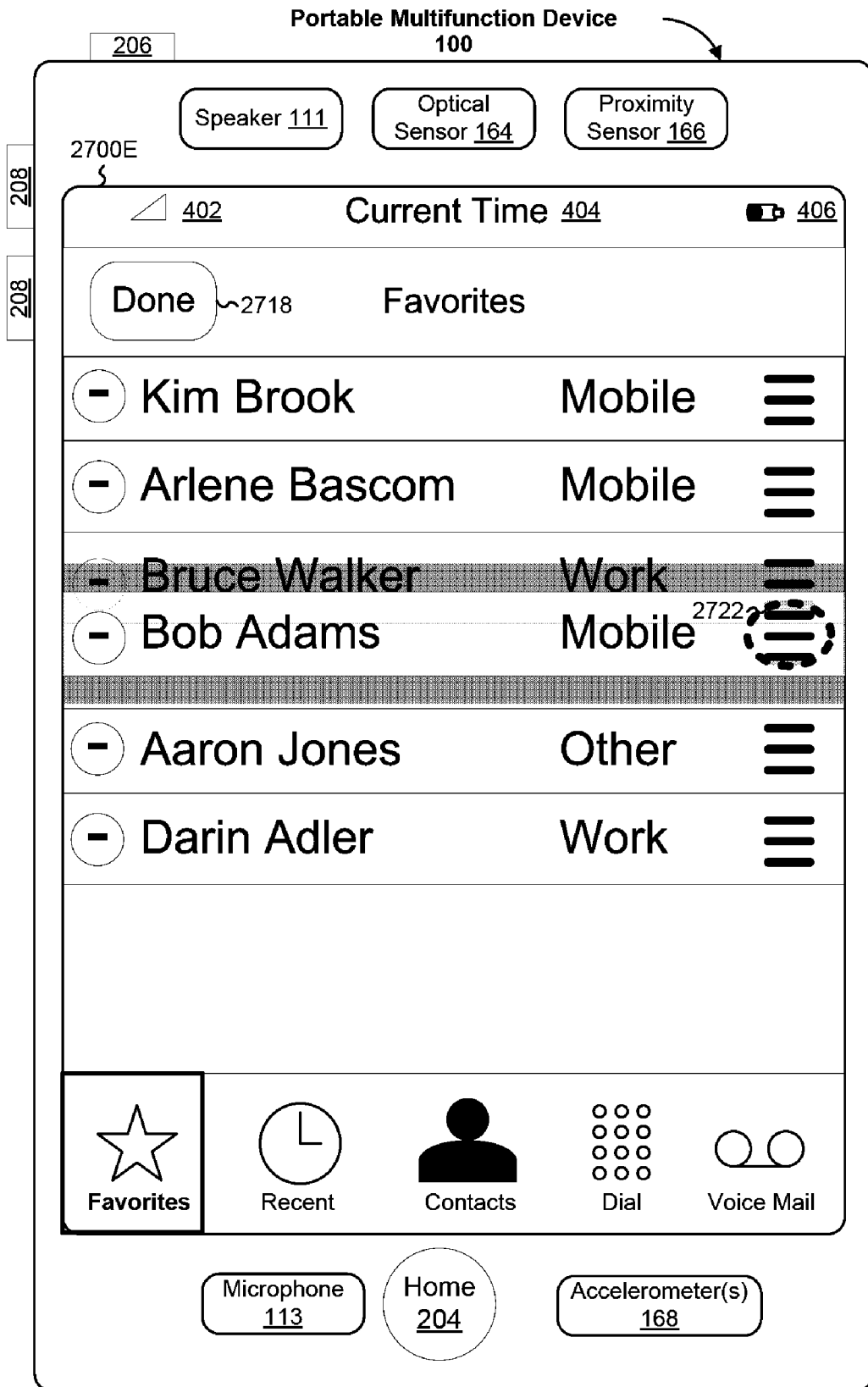


Figure 27E

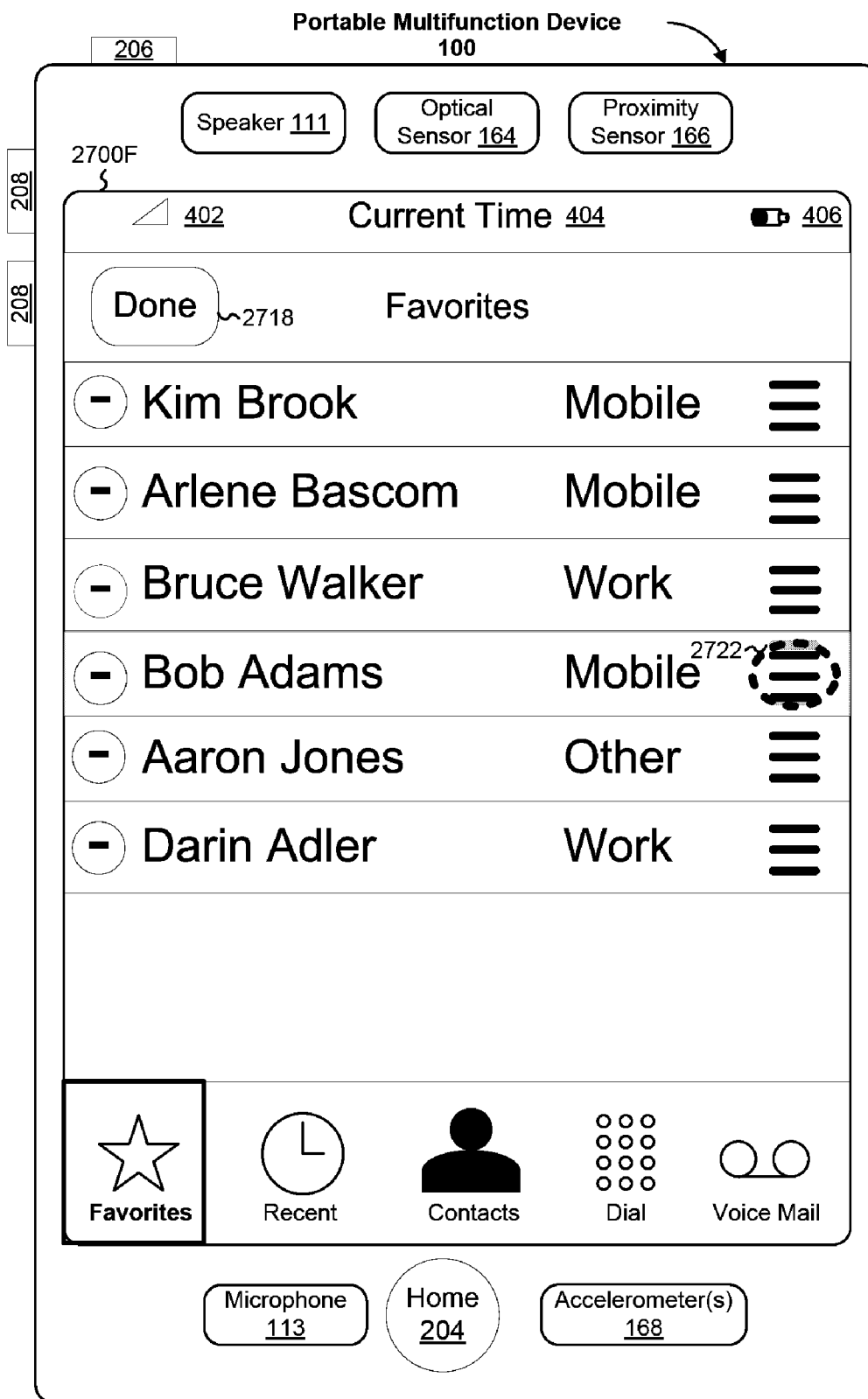


Figure 27F

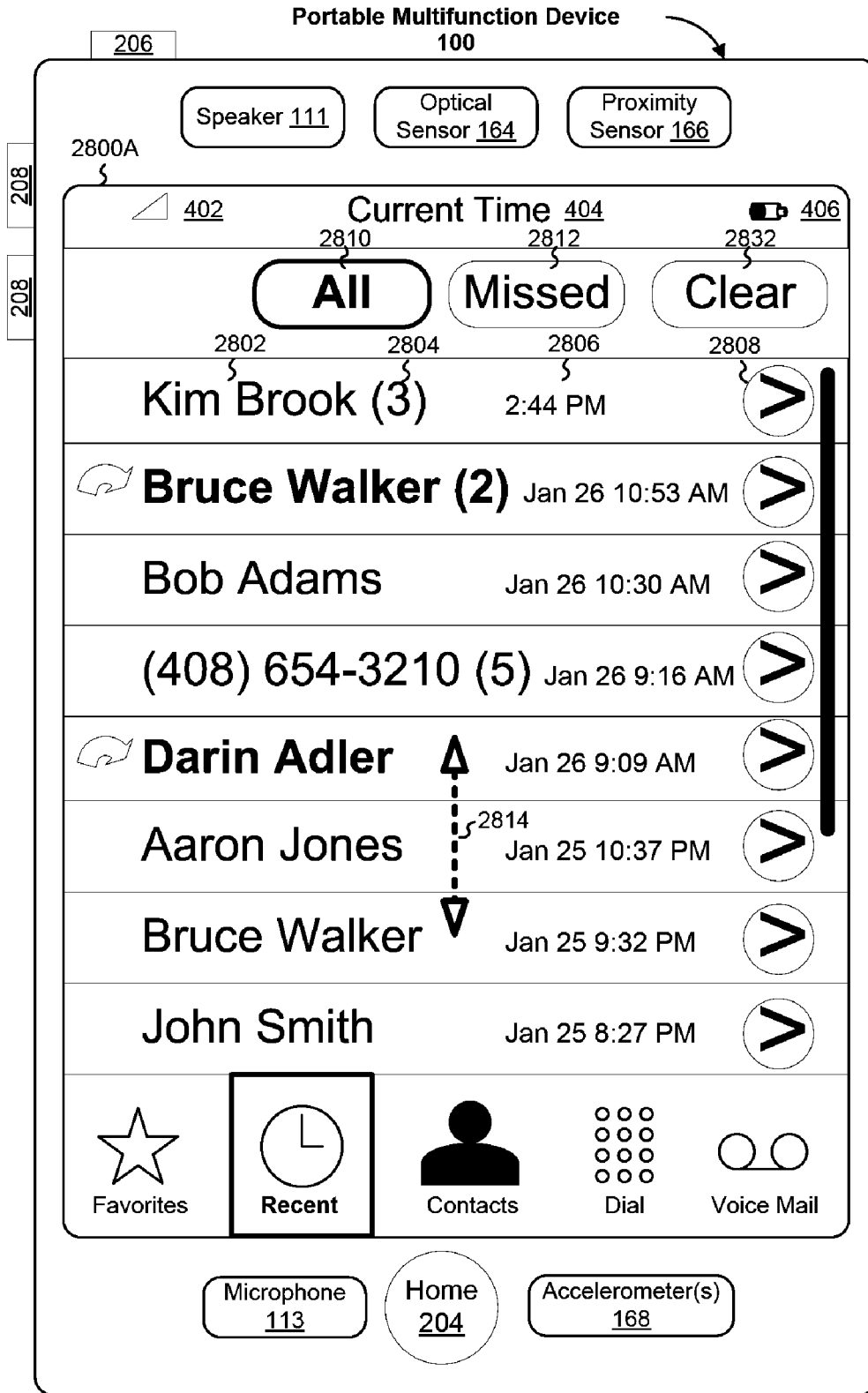


Figure 28A

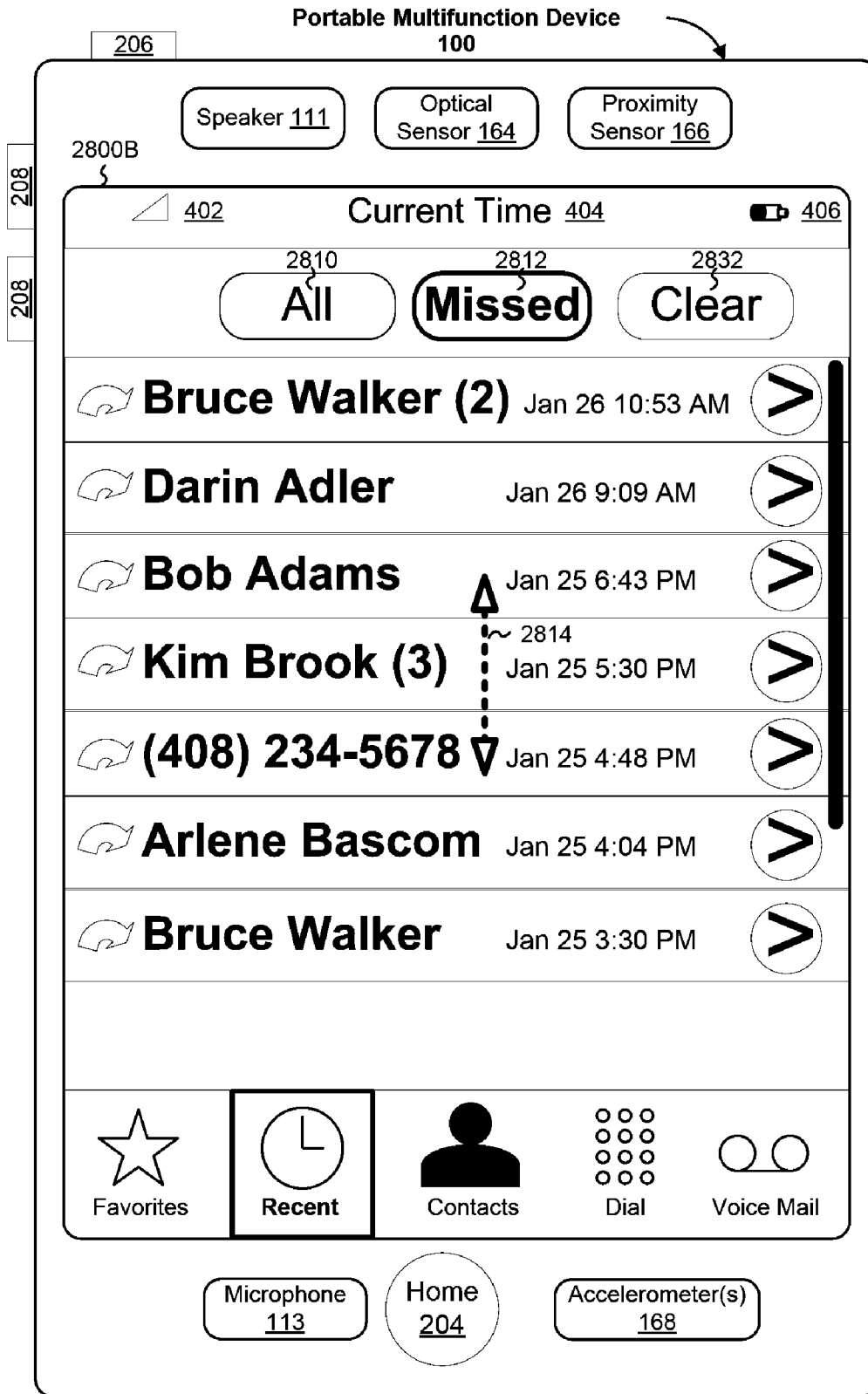


Figure 28B

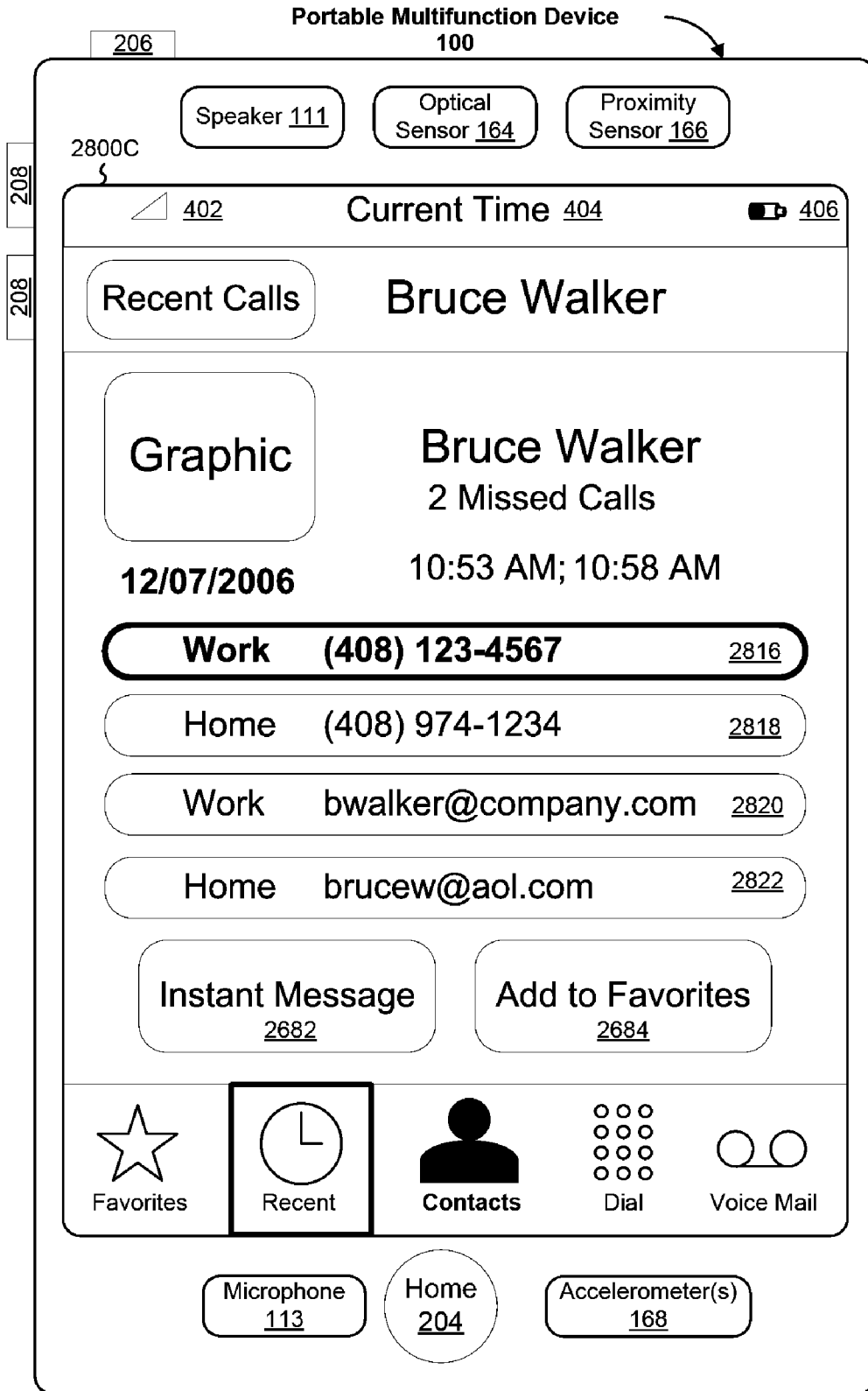


Figure 28C



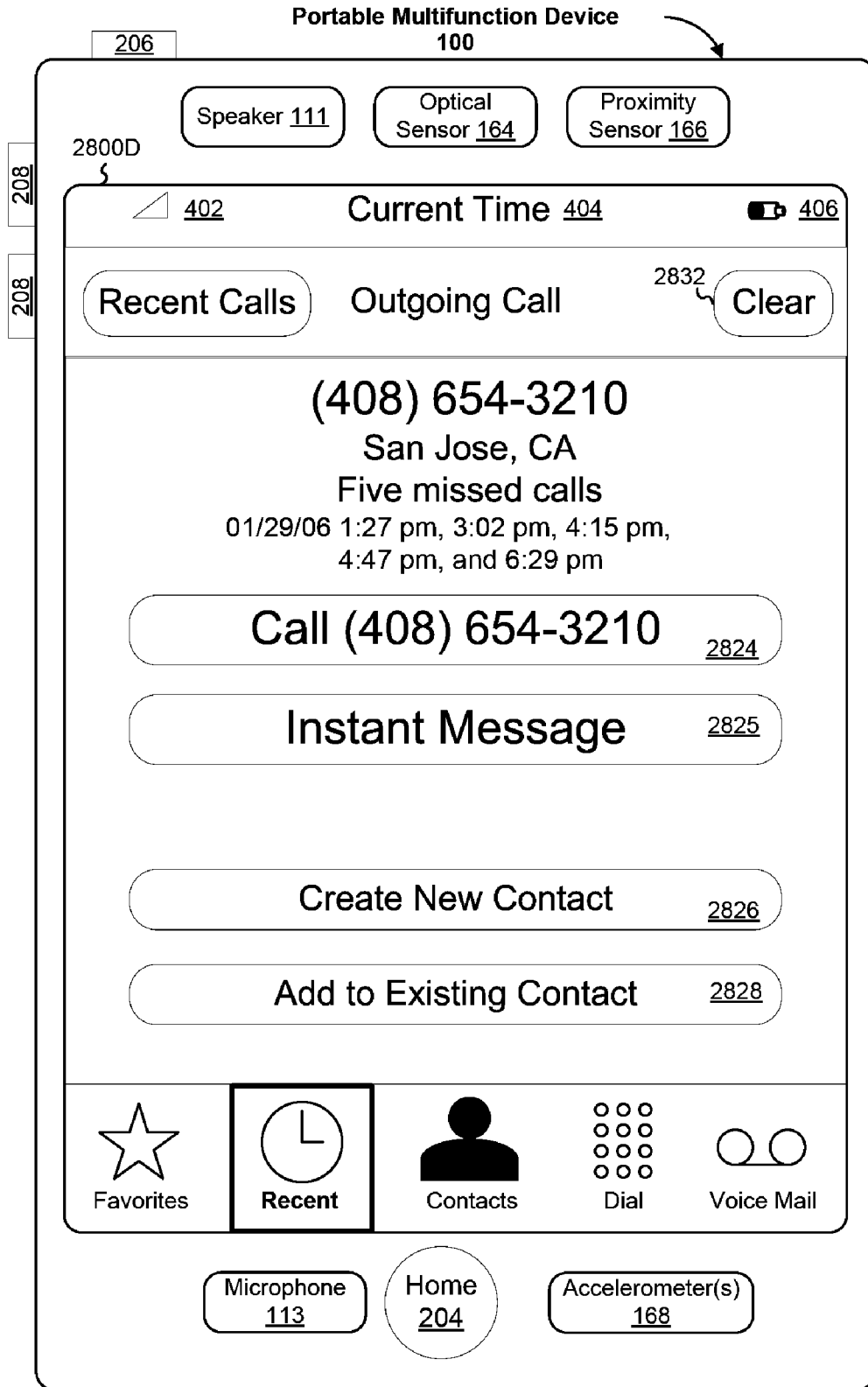


Figure 28D

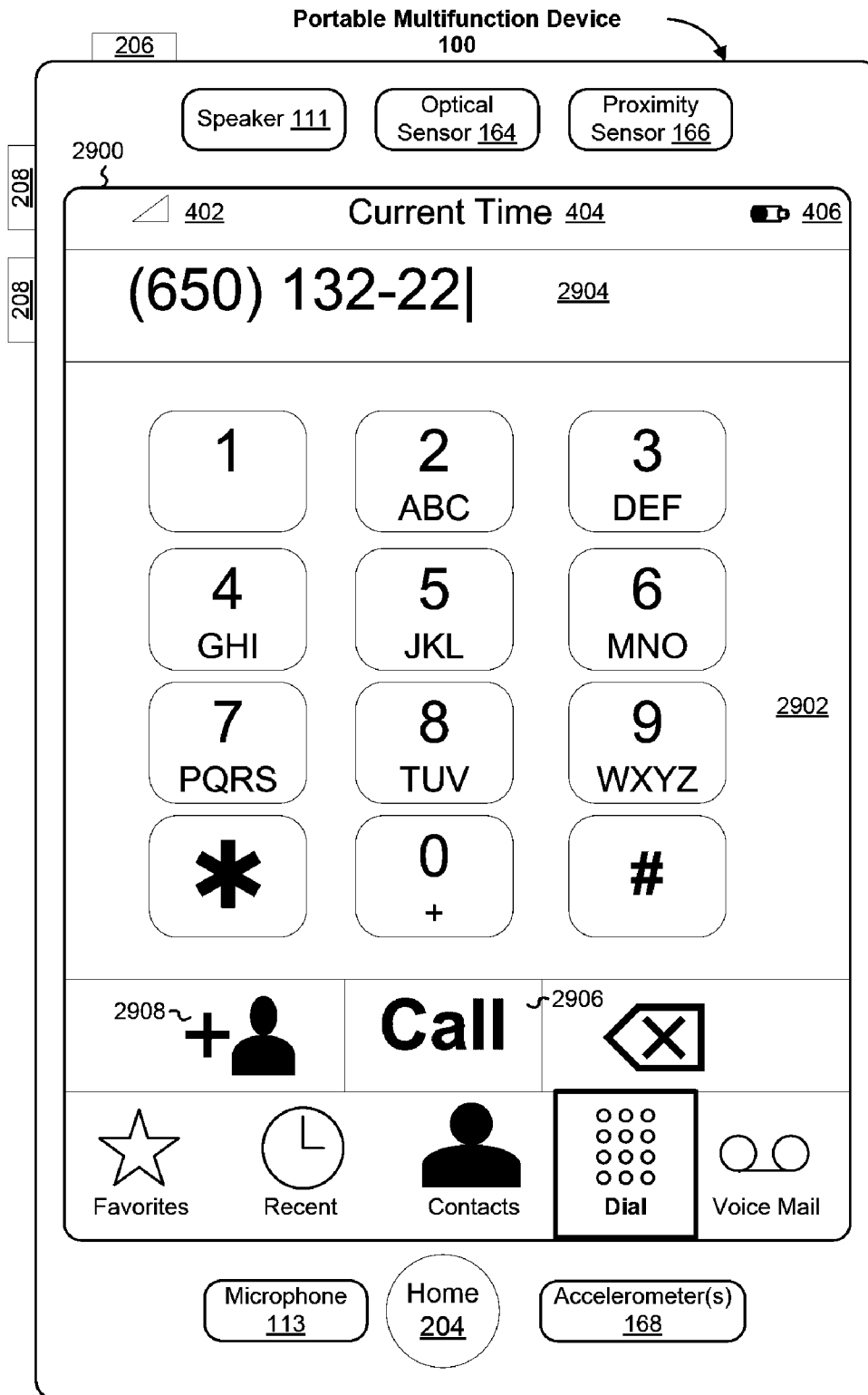


Figure 29

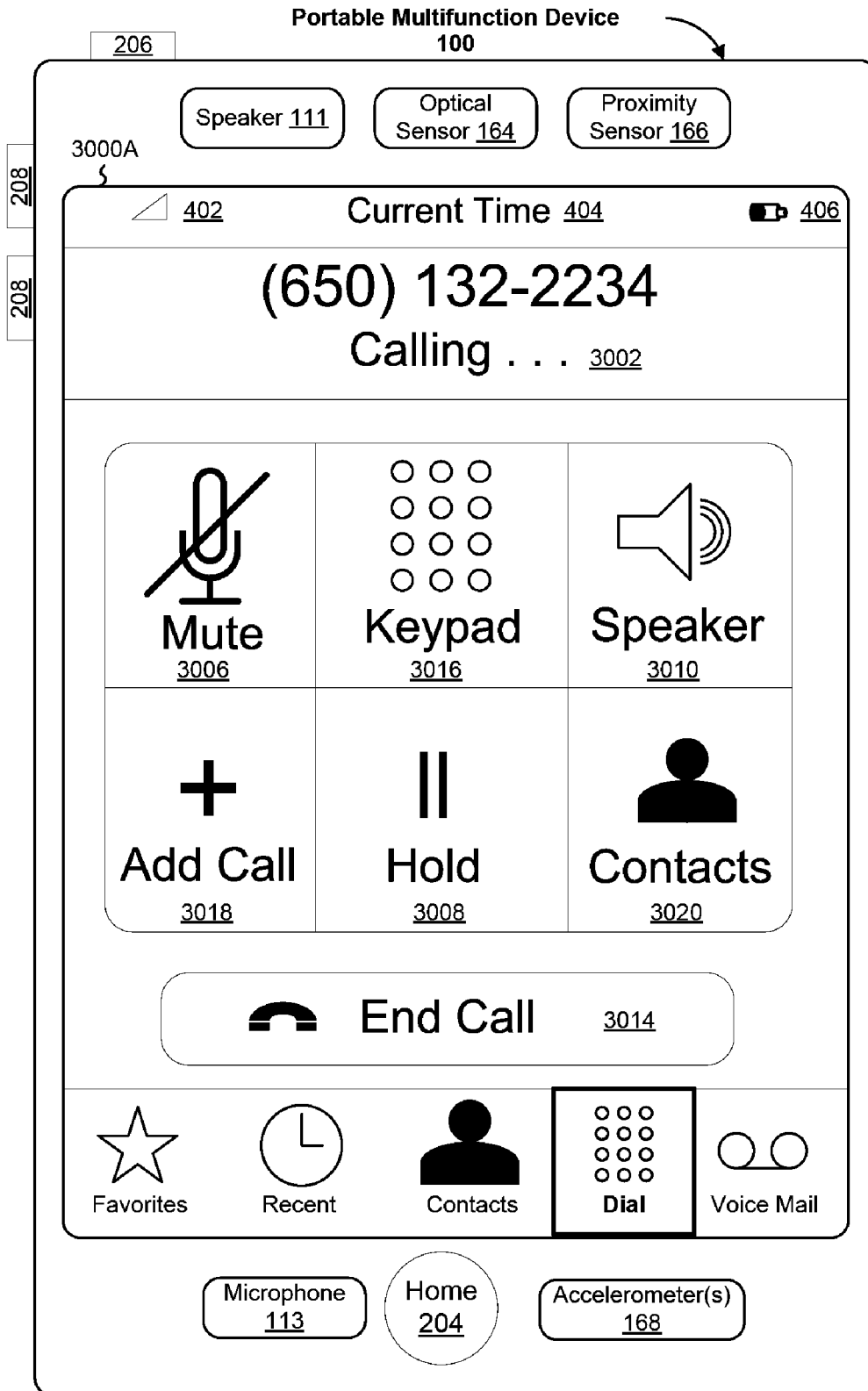


Figure 30A

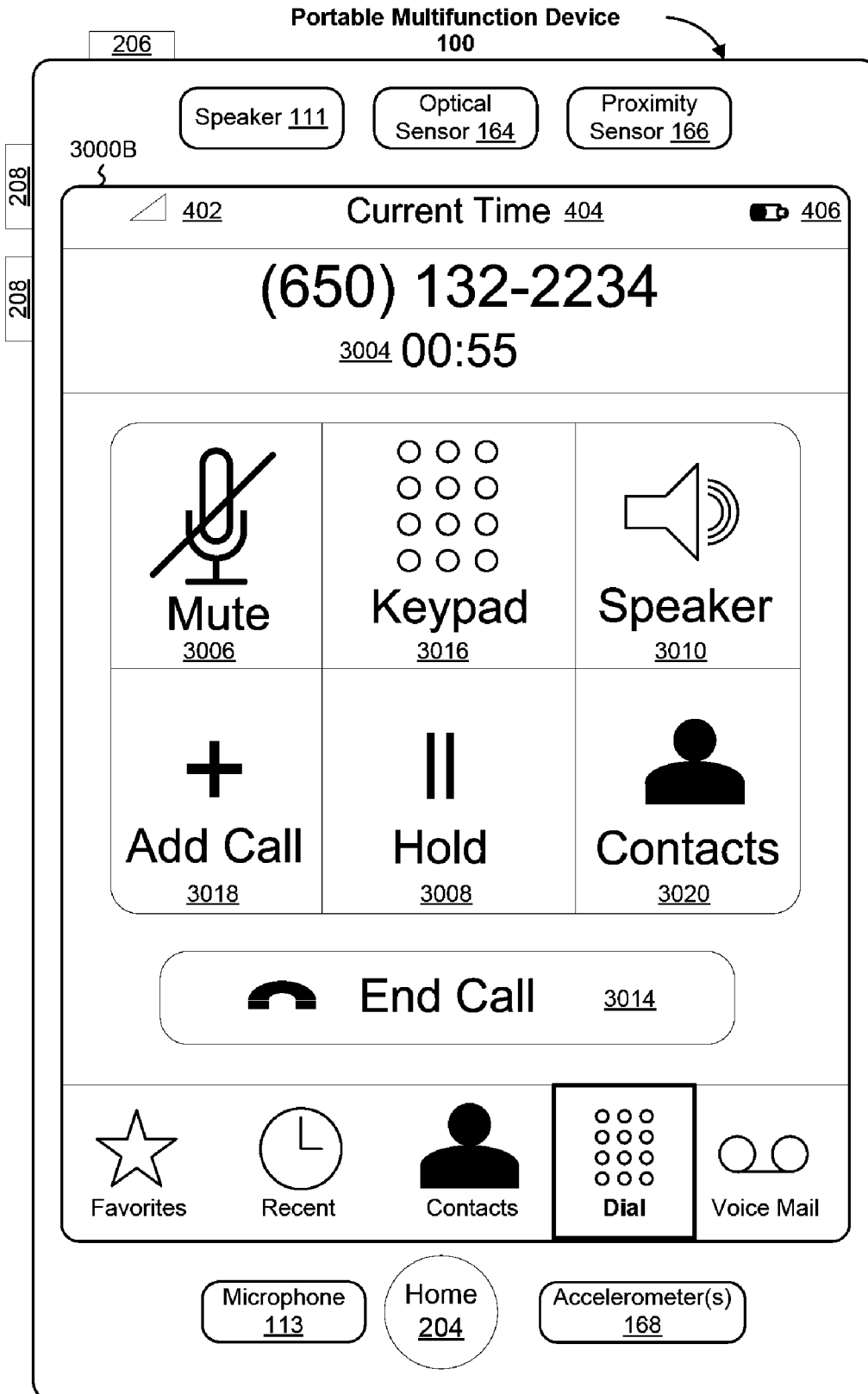


Figure 30B

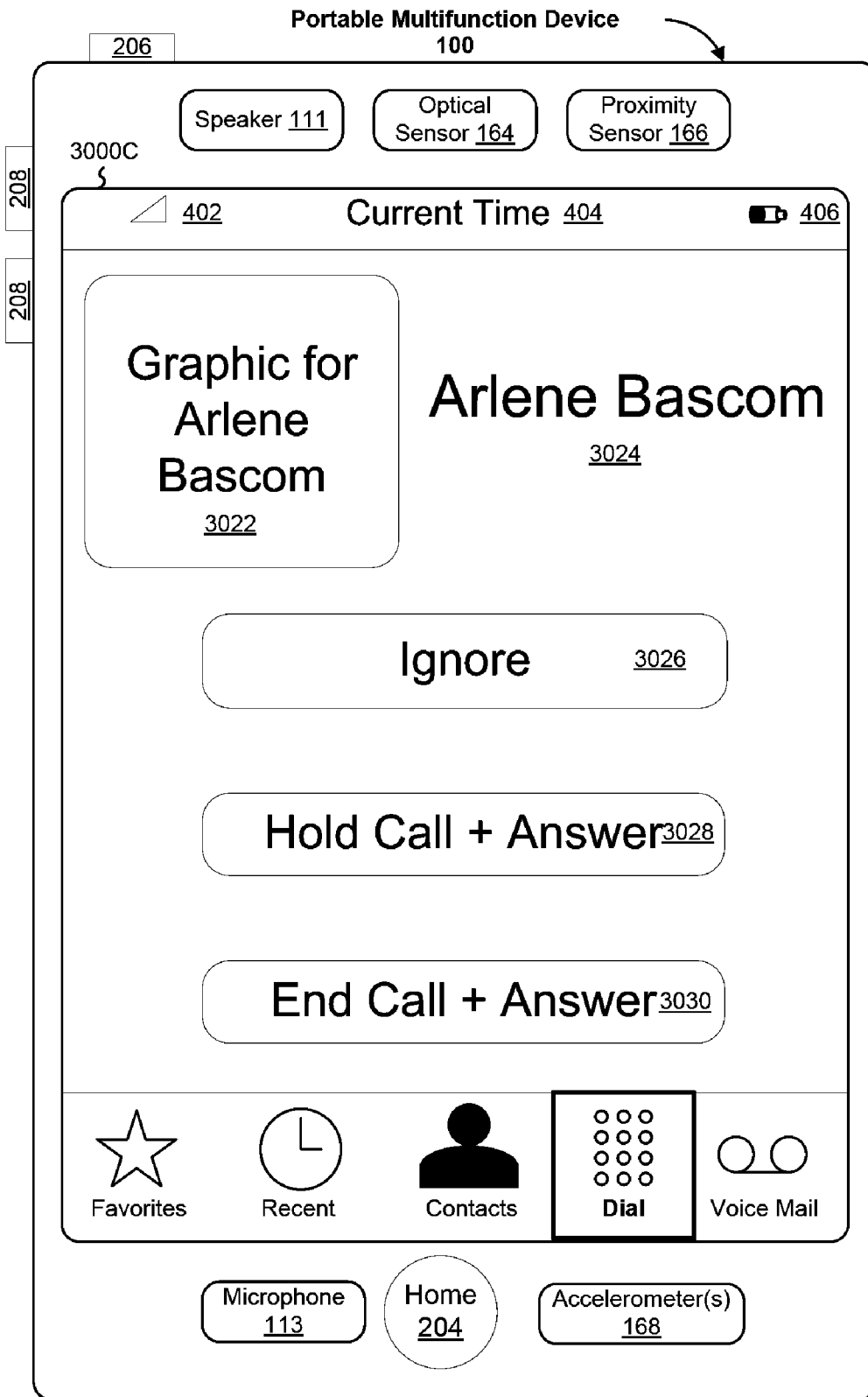


Figure 30C

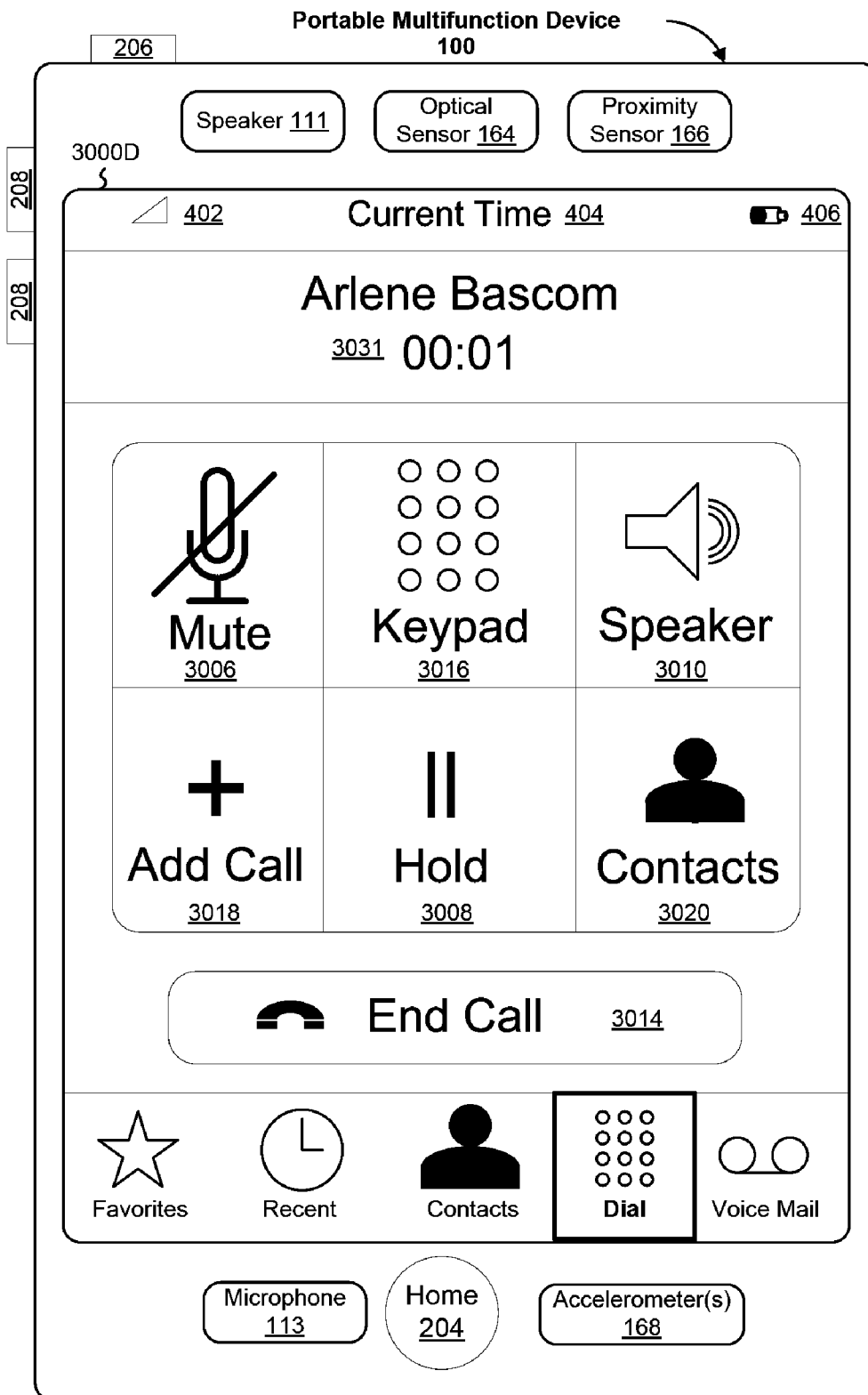


Figure 30D

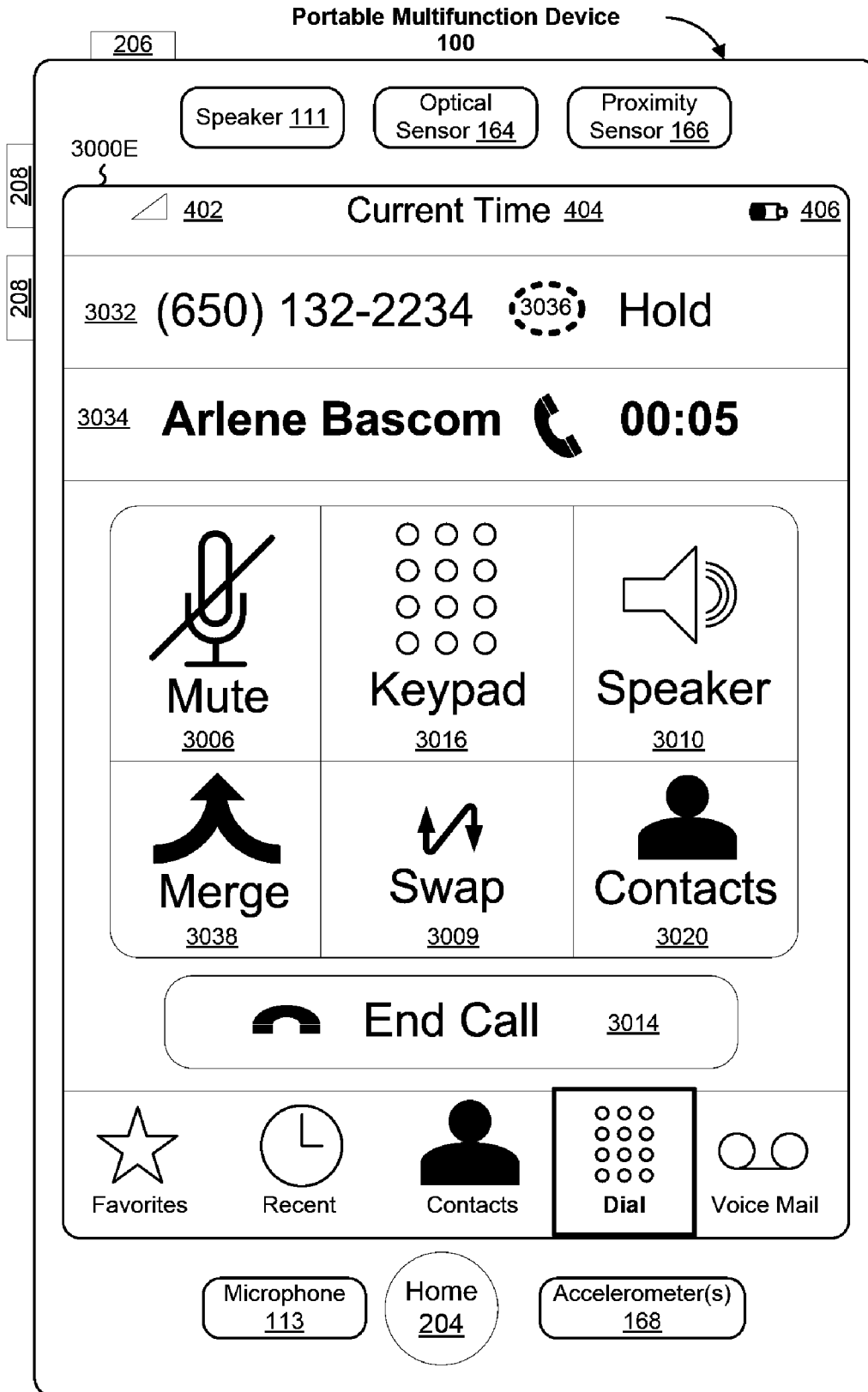


Figure 30E

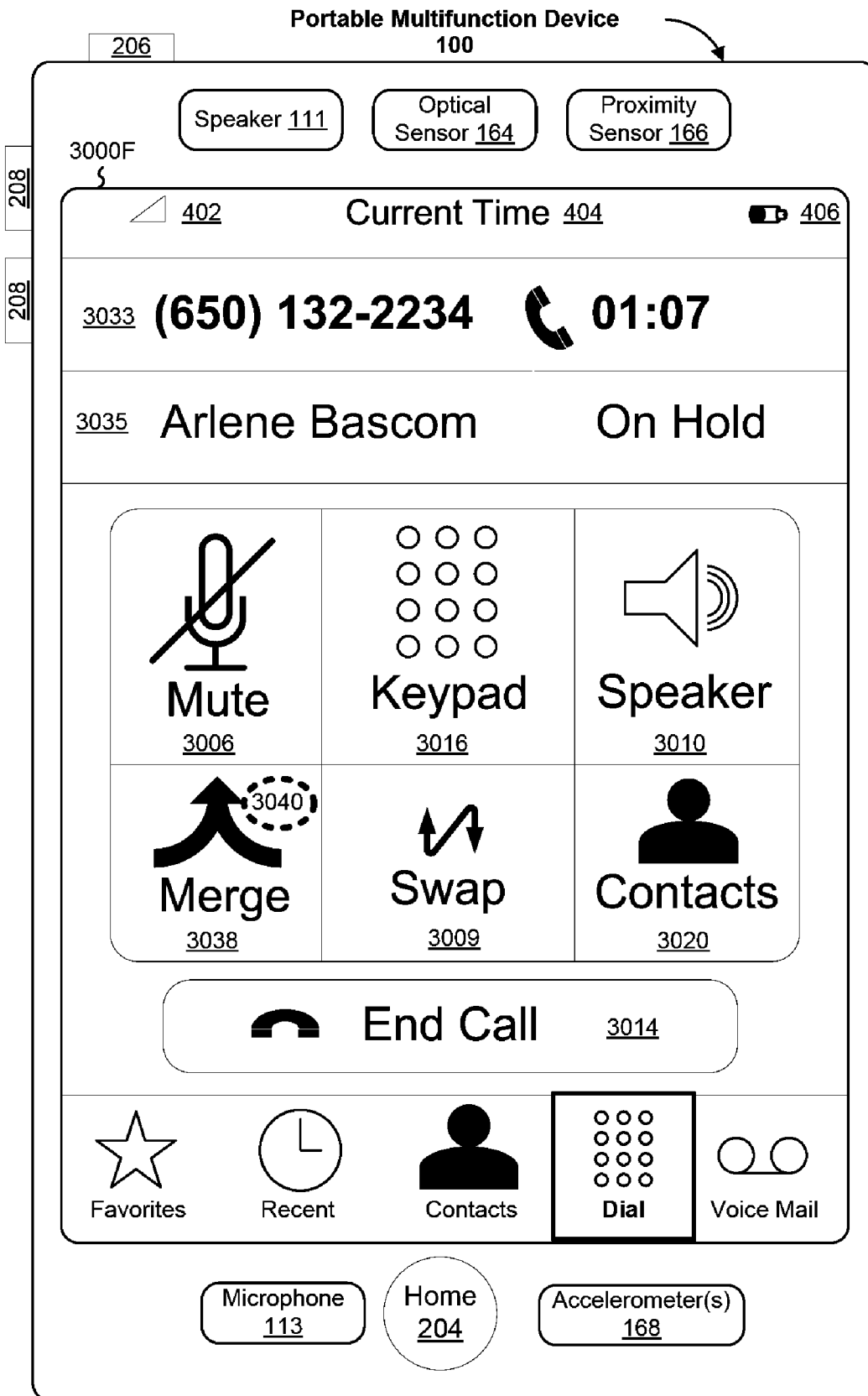


Figure 30F



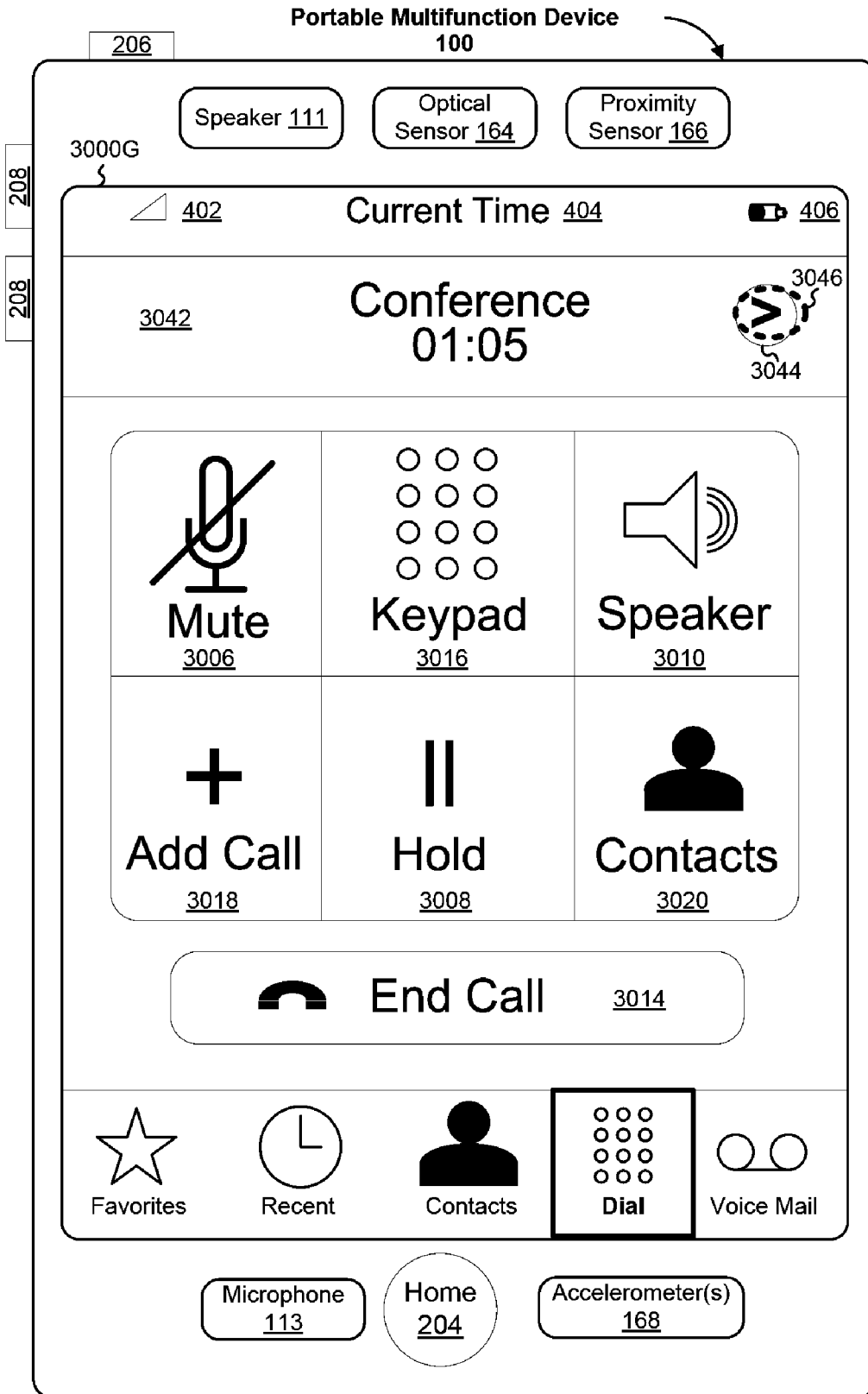


Figure 30G



Figure 30H

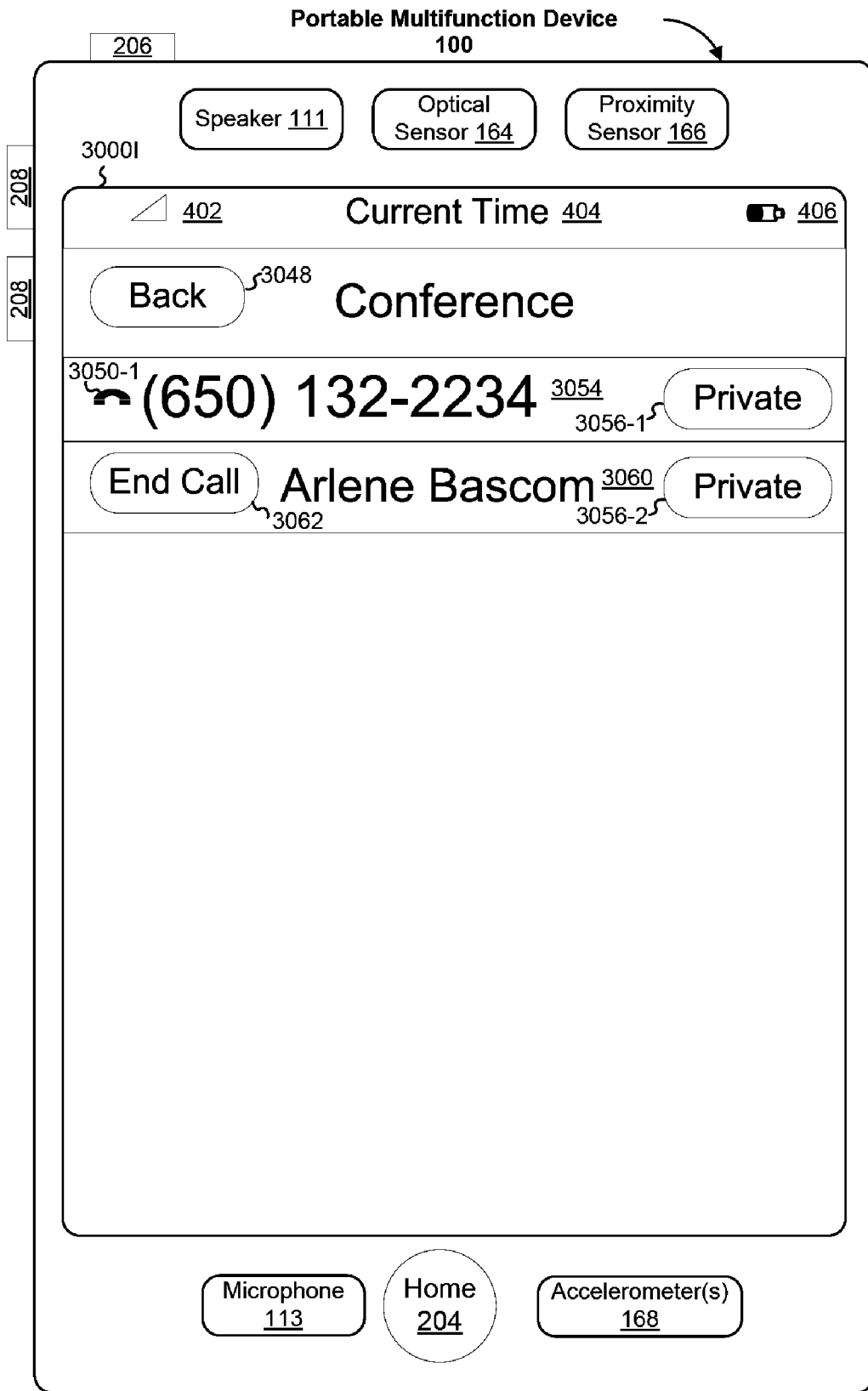


Figure 30I

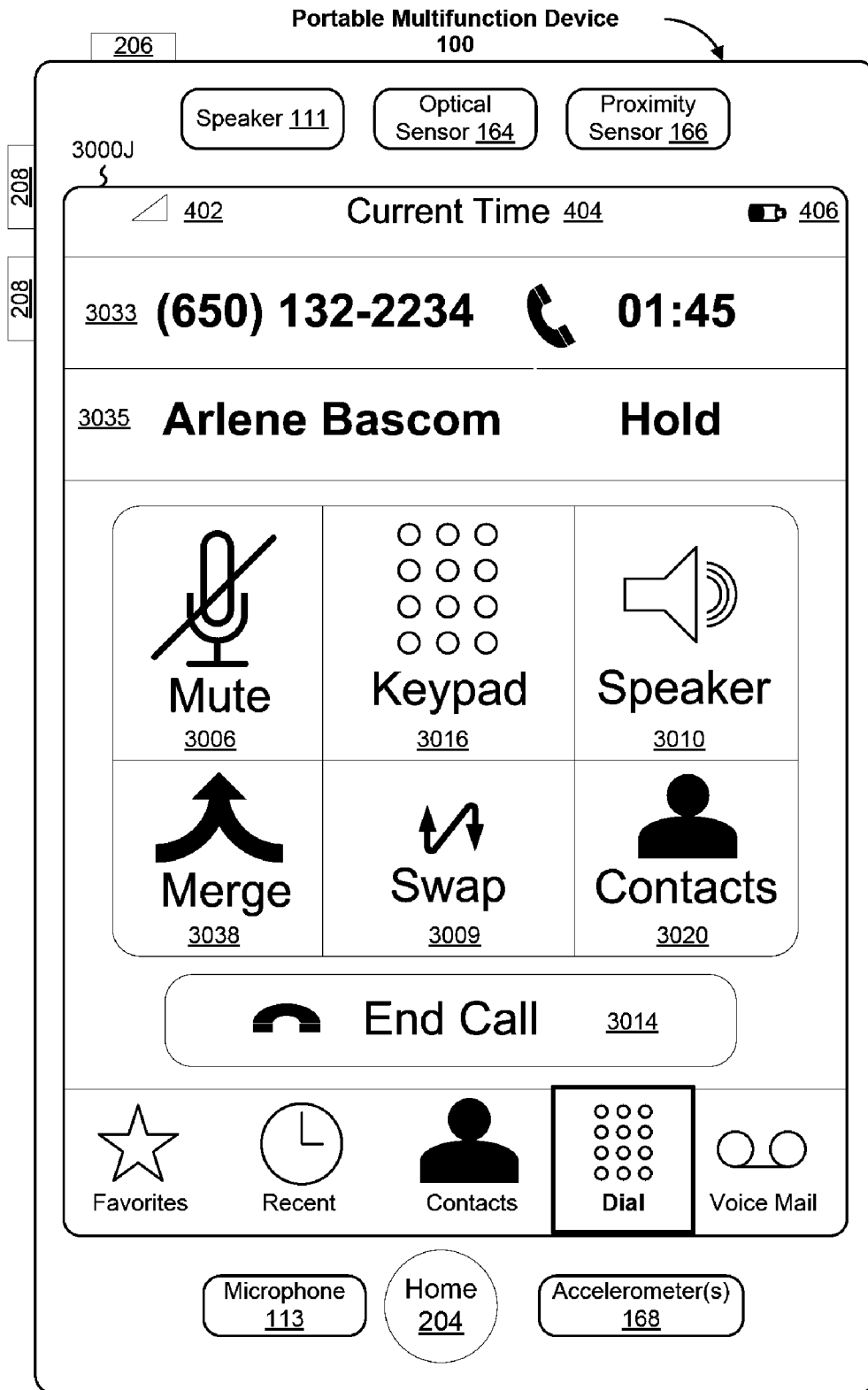


Figure 30J

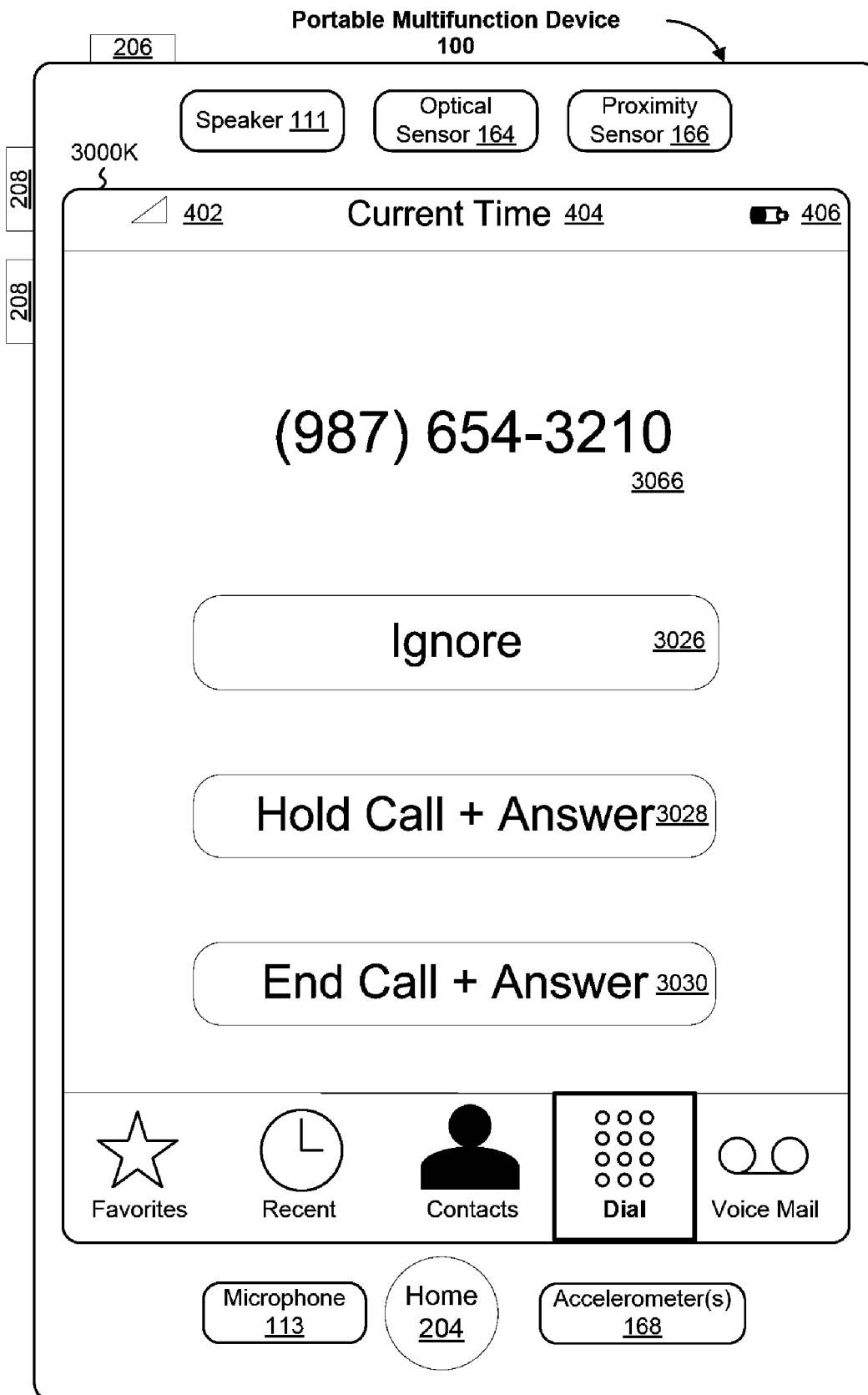


Figure 30K

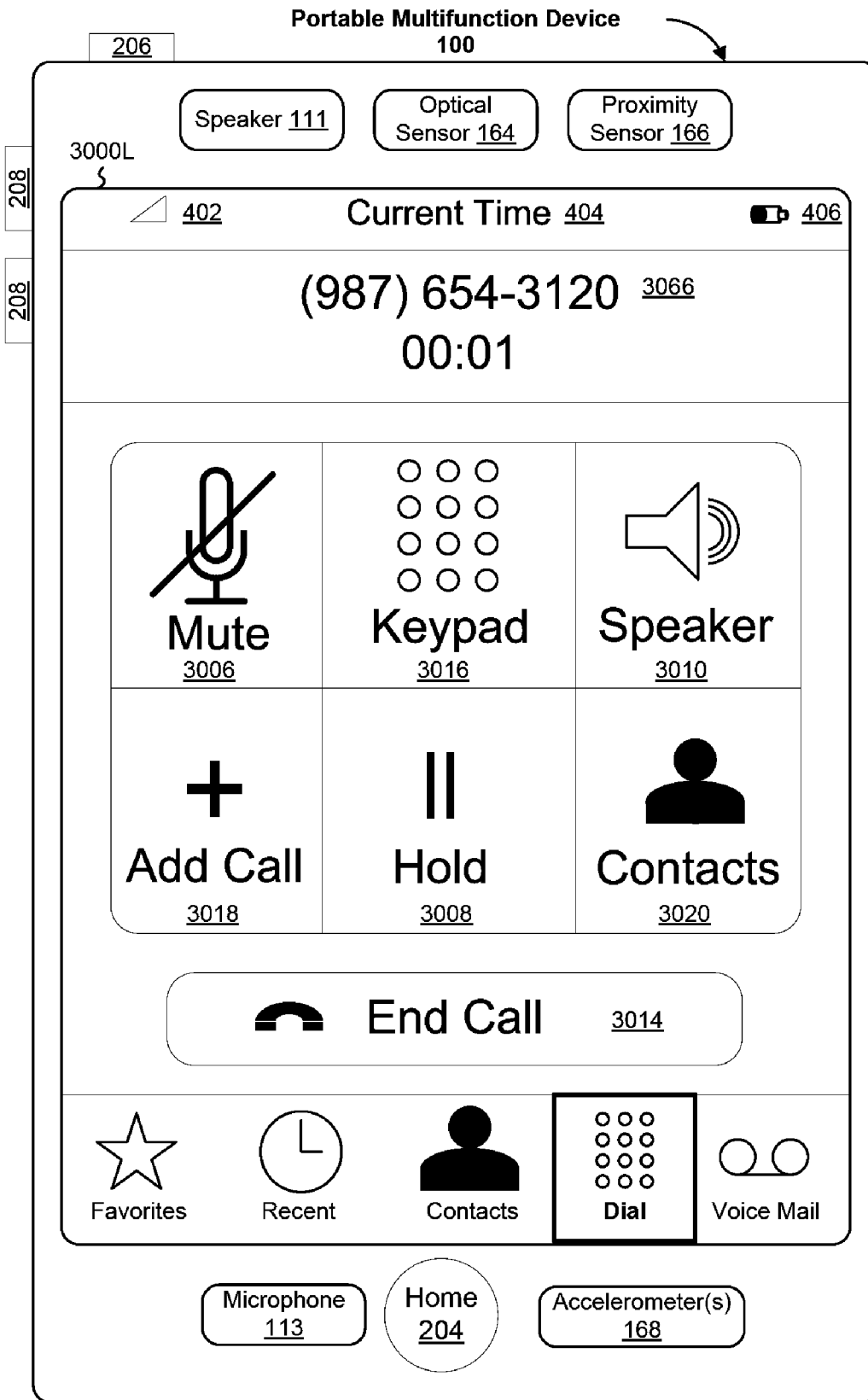


Figure 30L

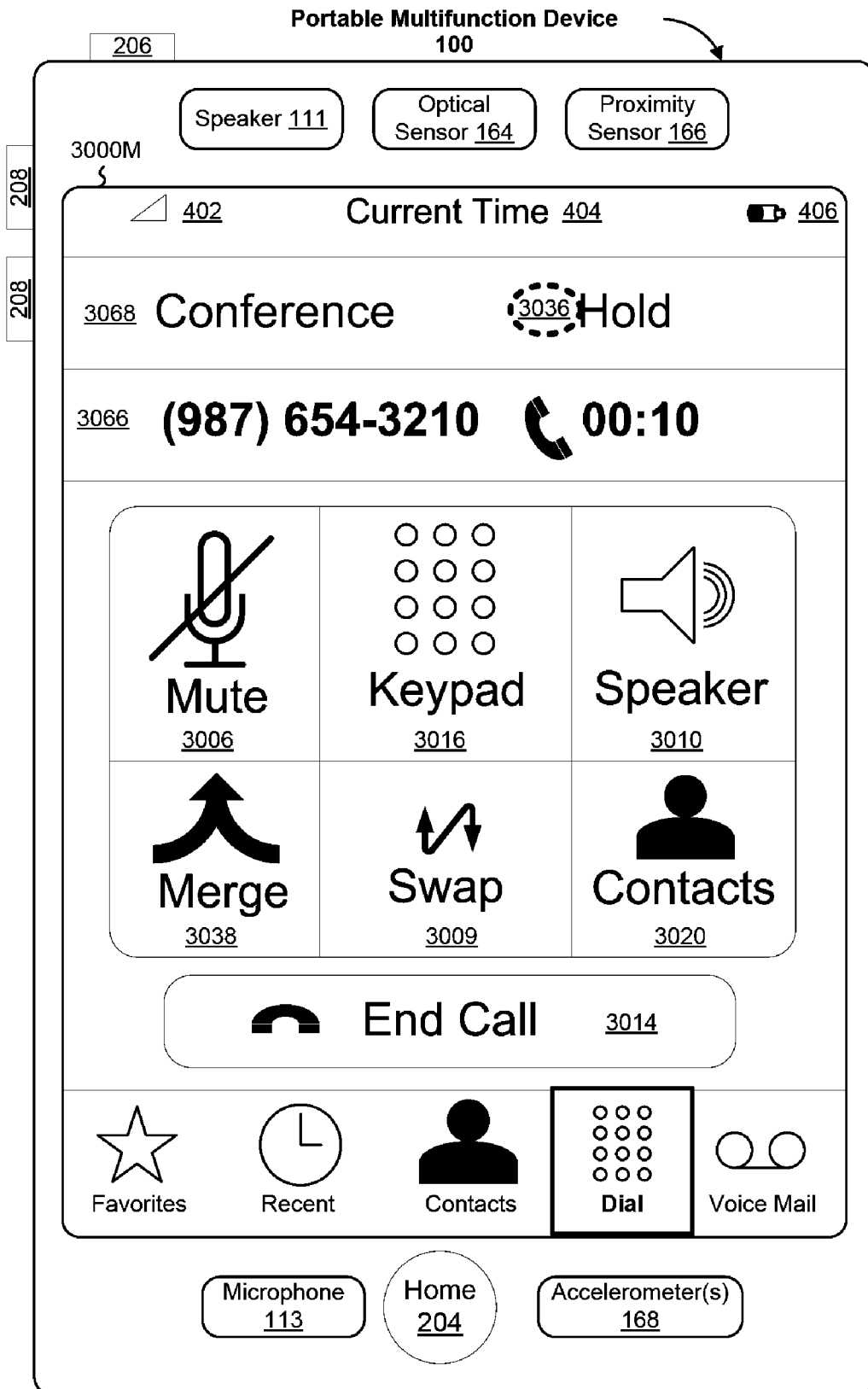


Figure 30M

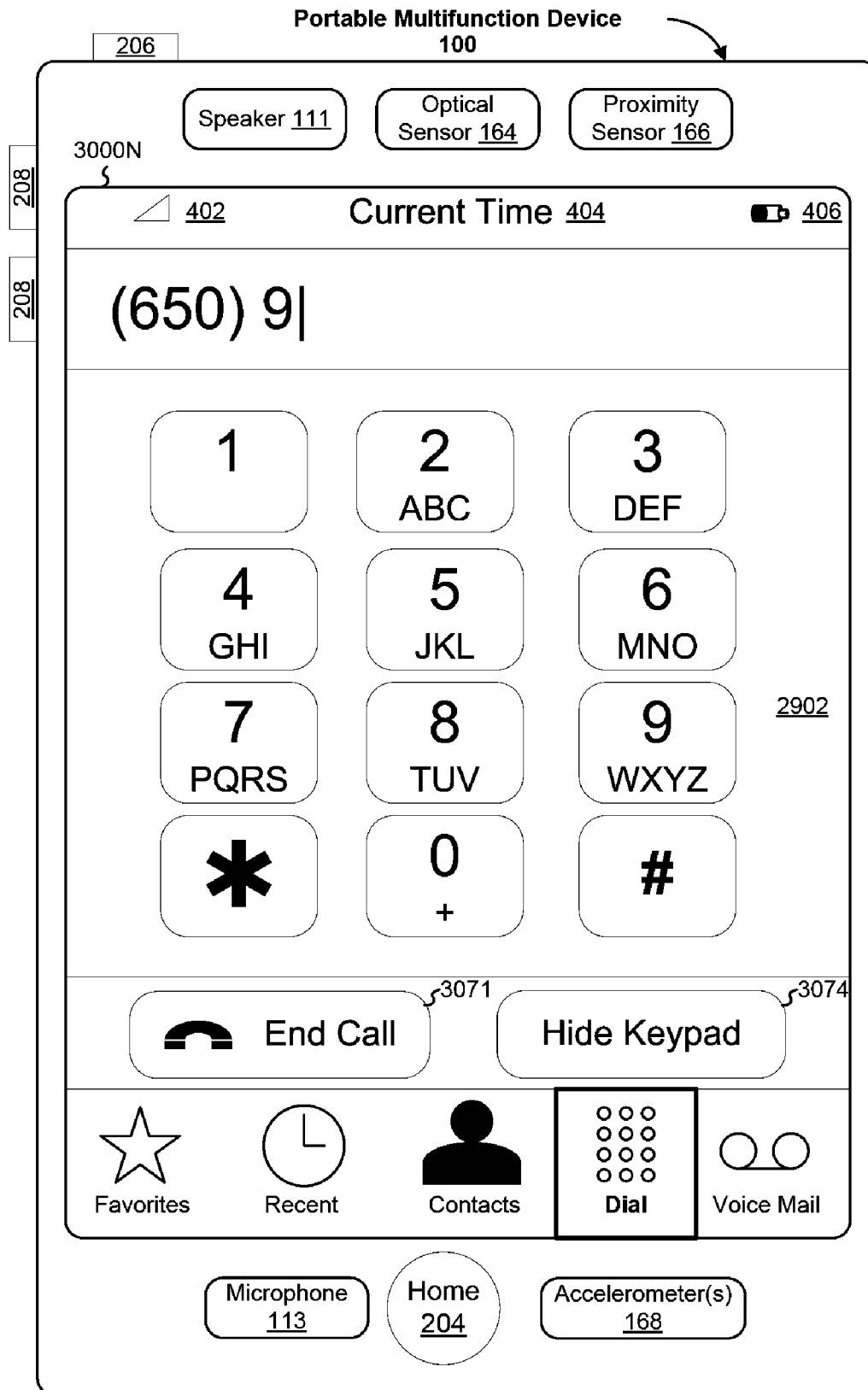


Figure 30N



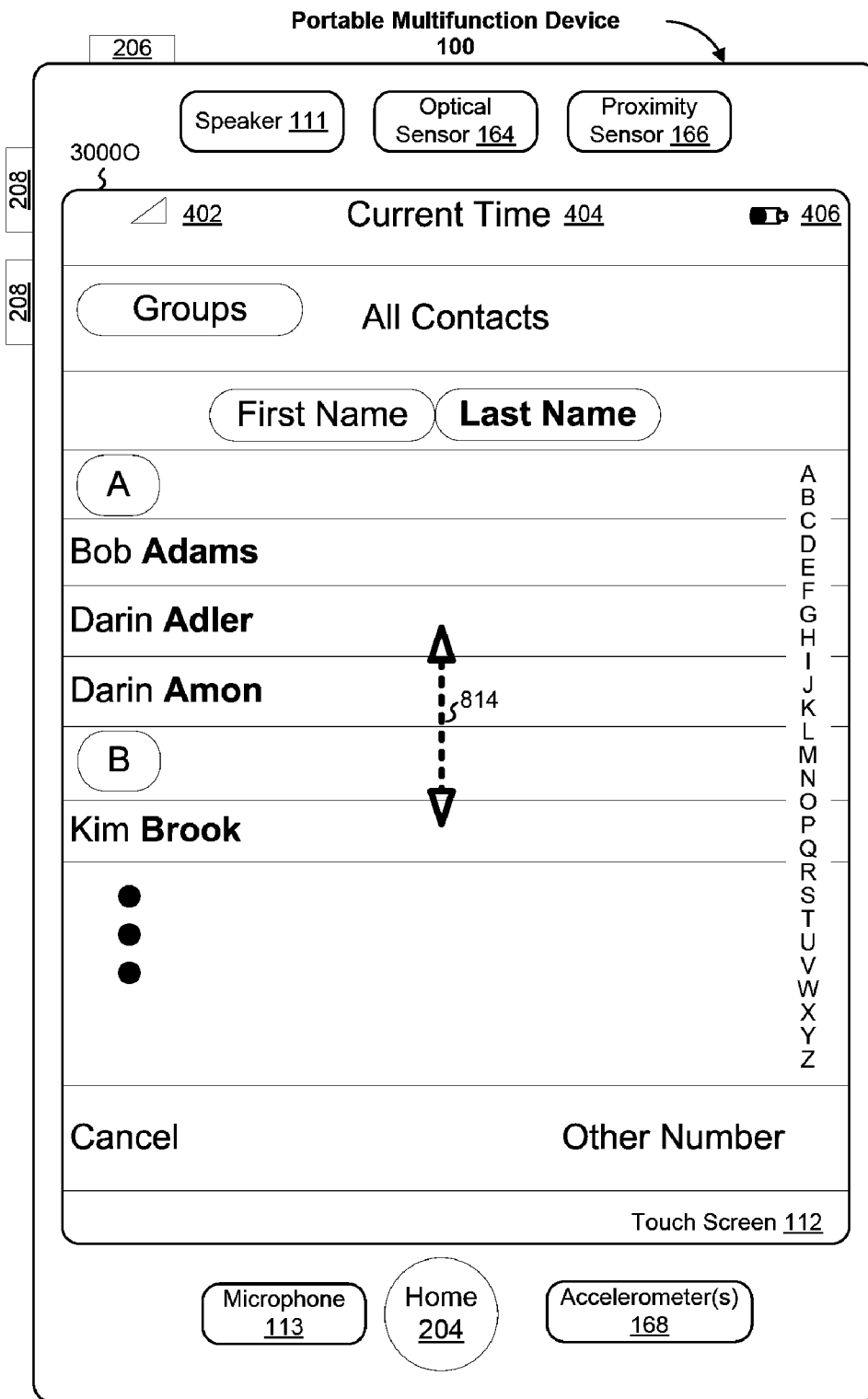


Figure 300

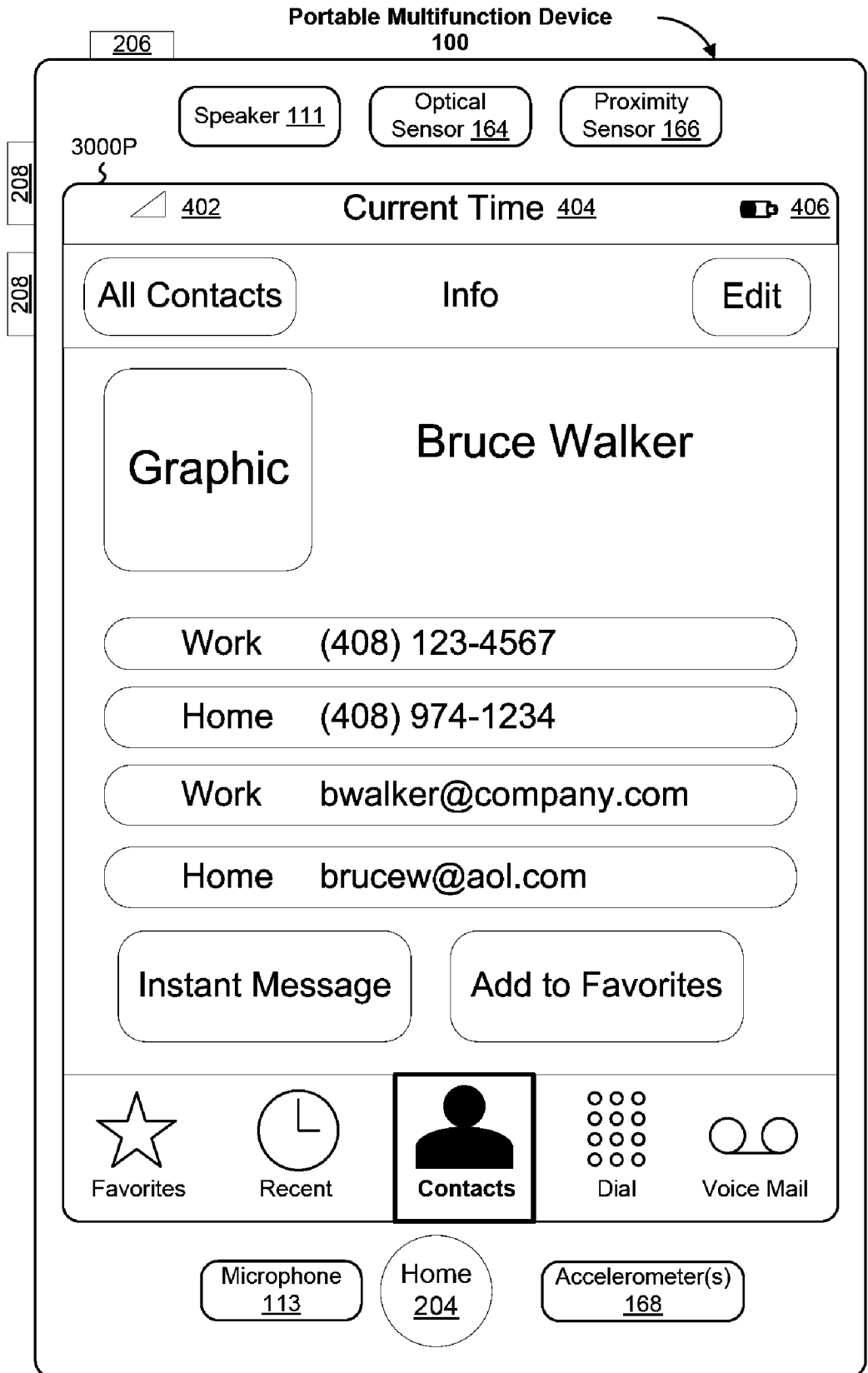


Figure 30P

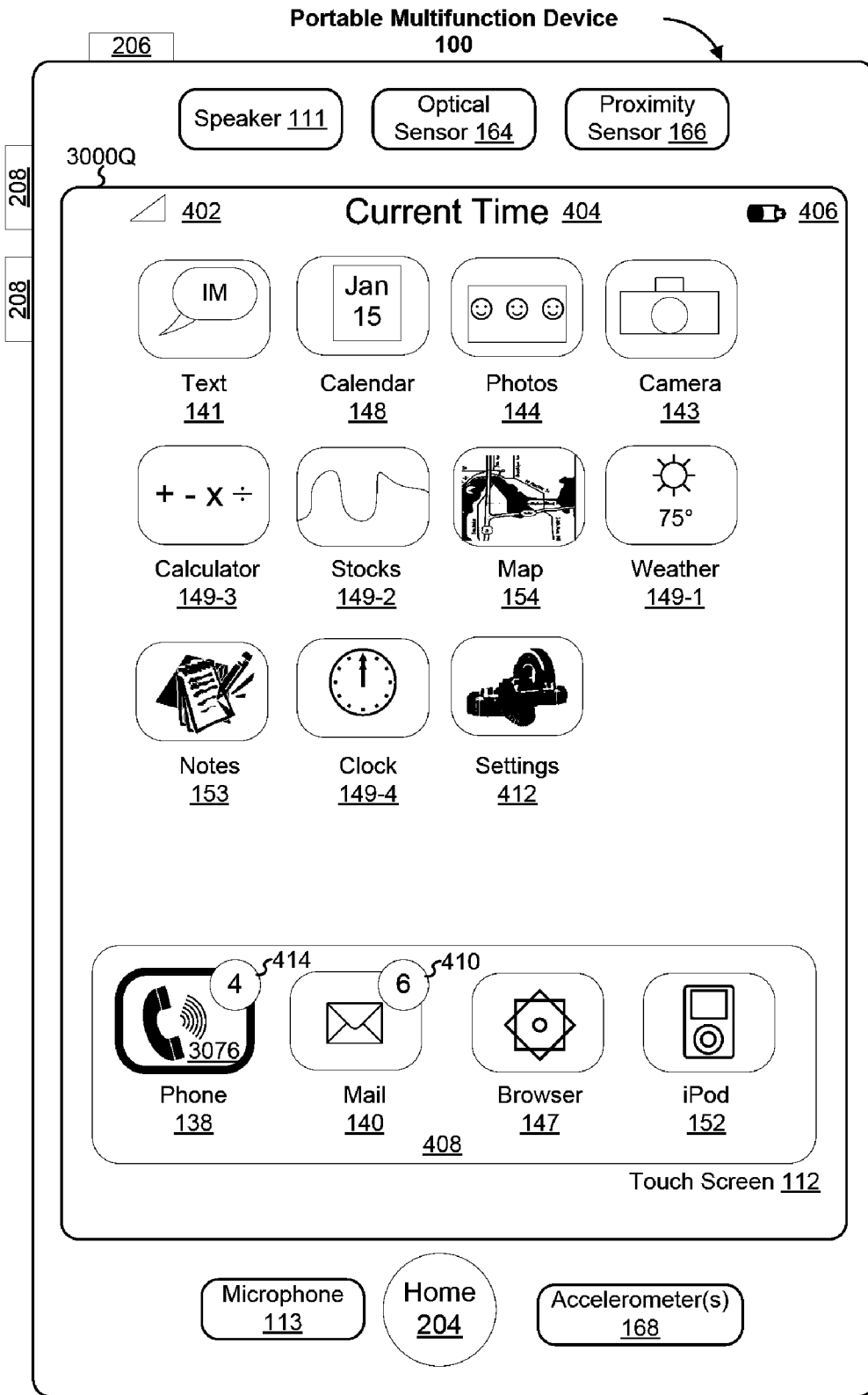


Figure 30Q

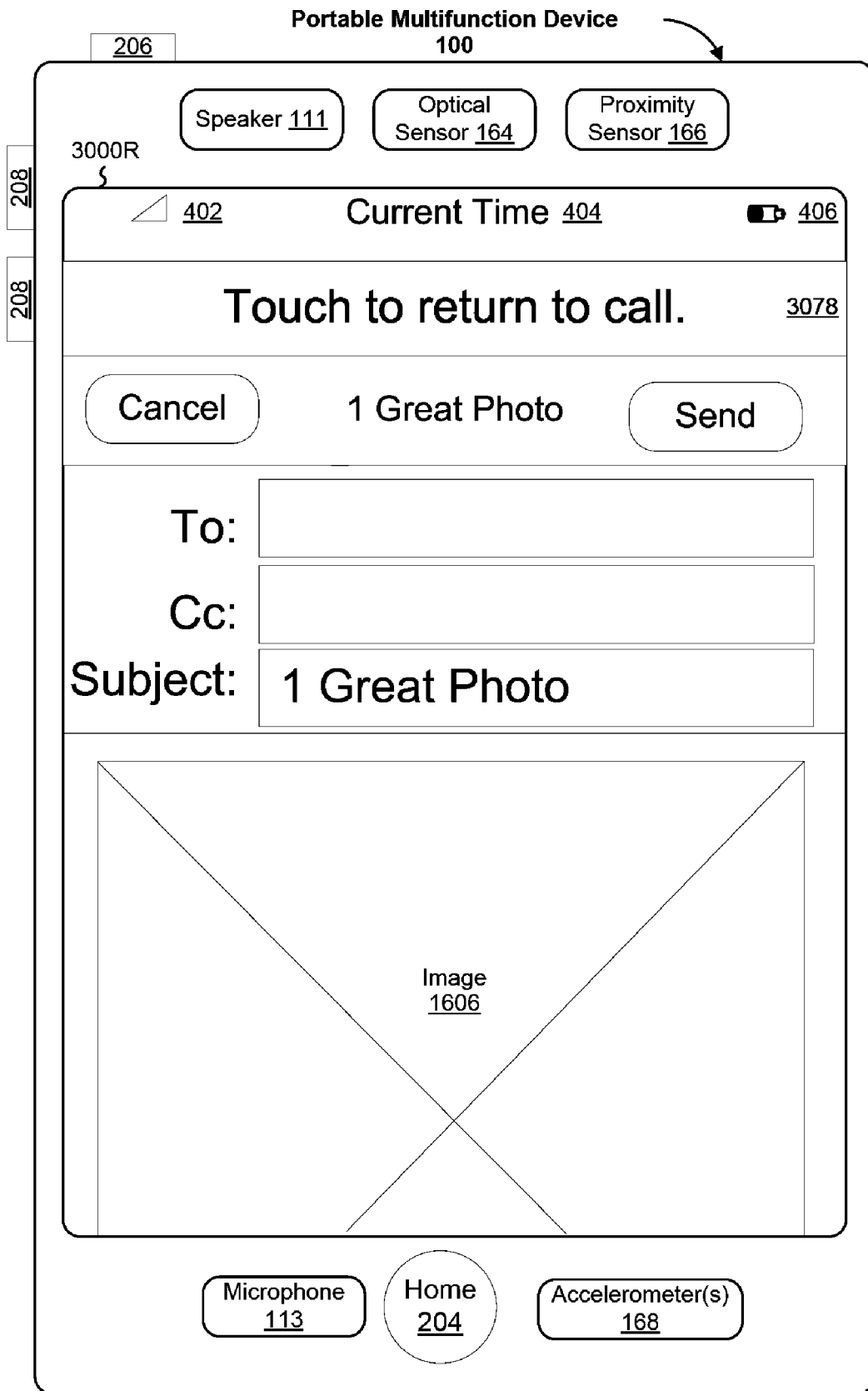


Figure 30R

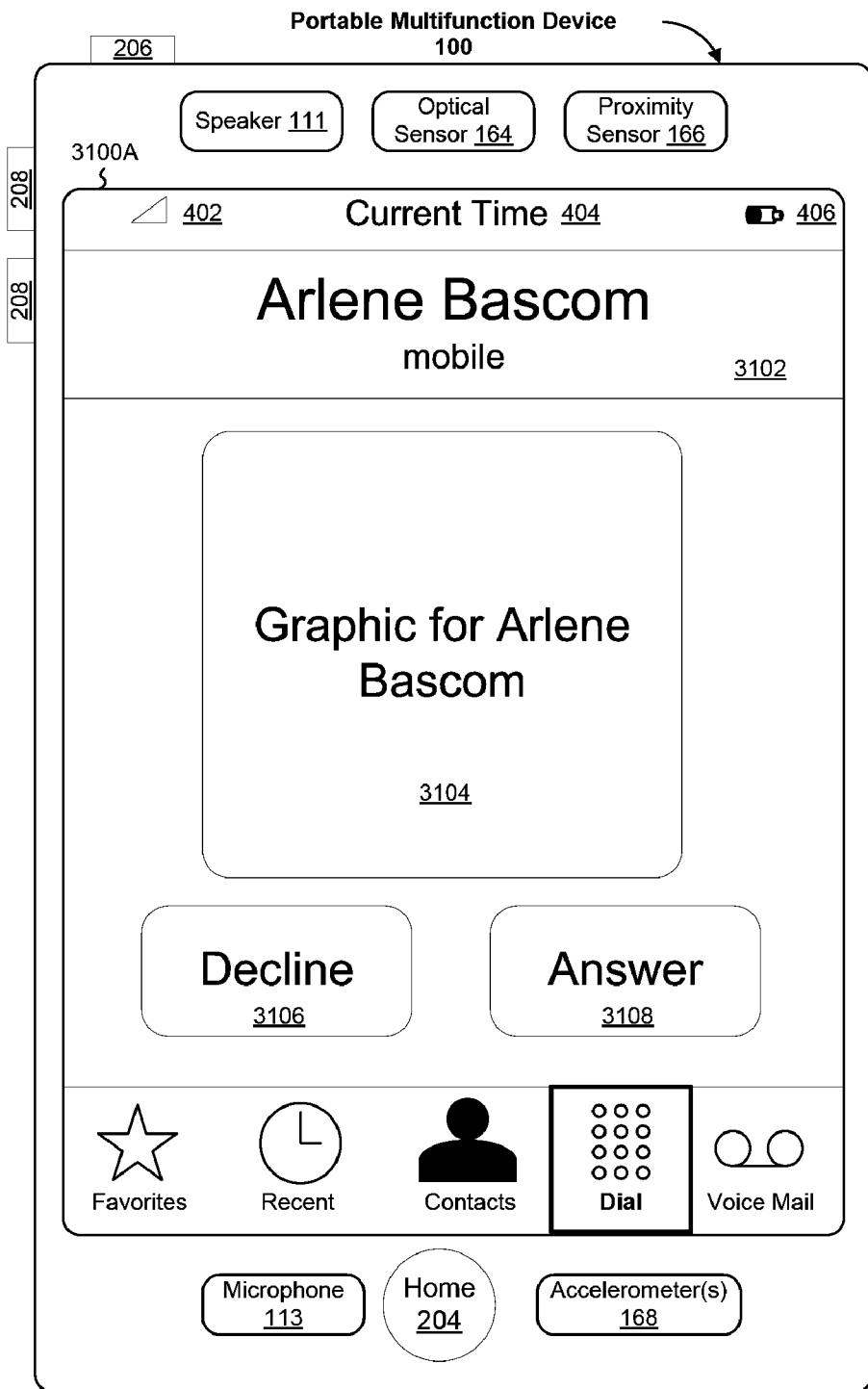


Figure 31A



Figure 31B

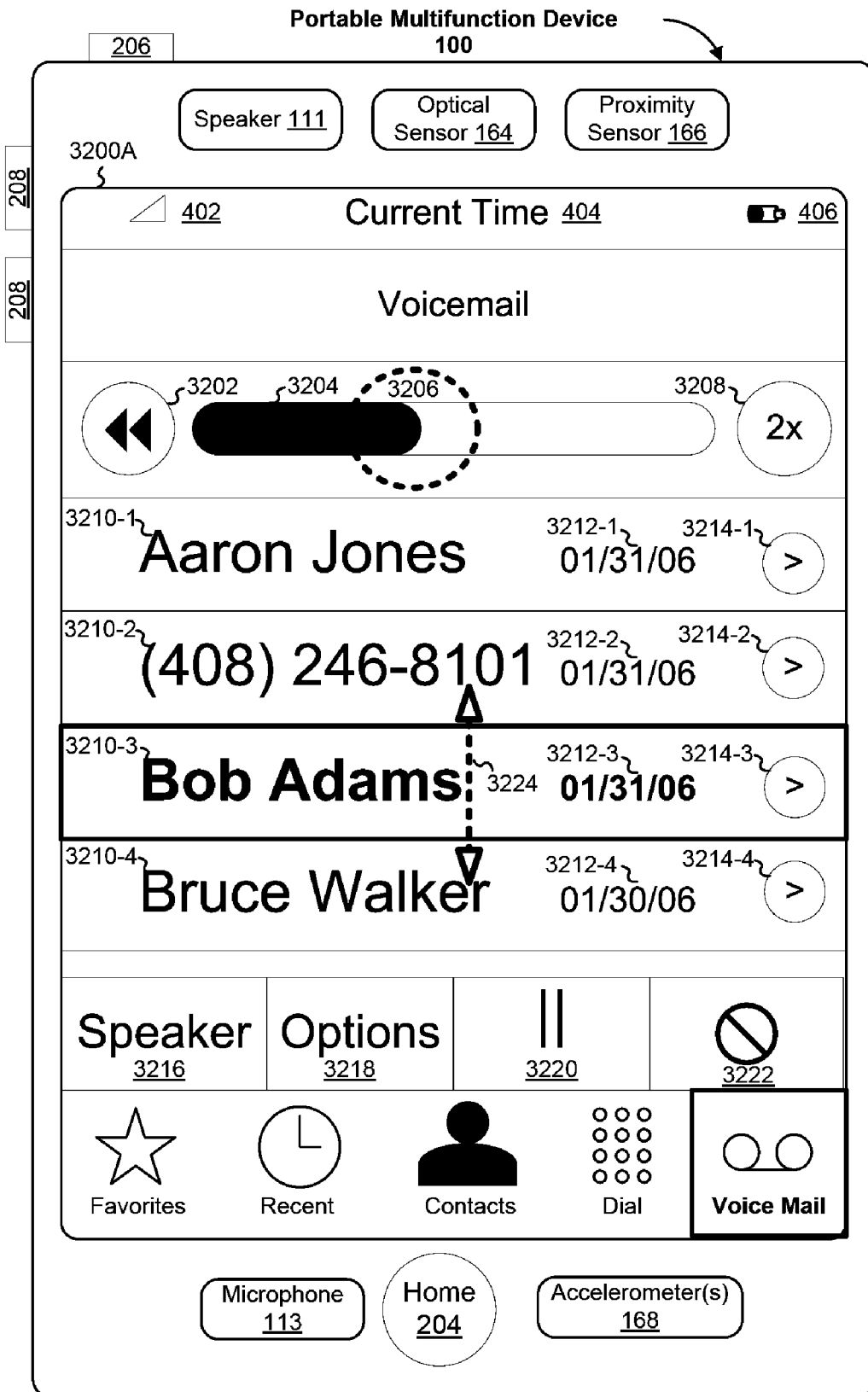


Figure 32A

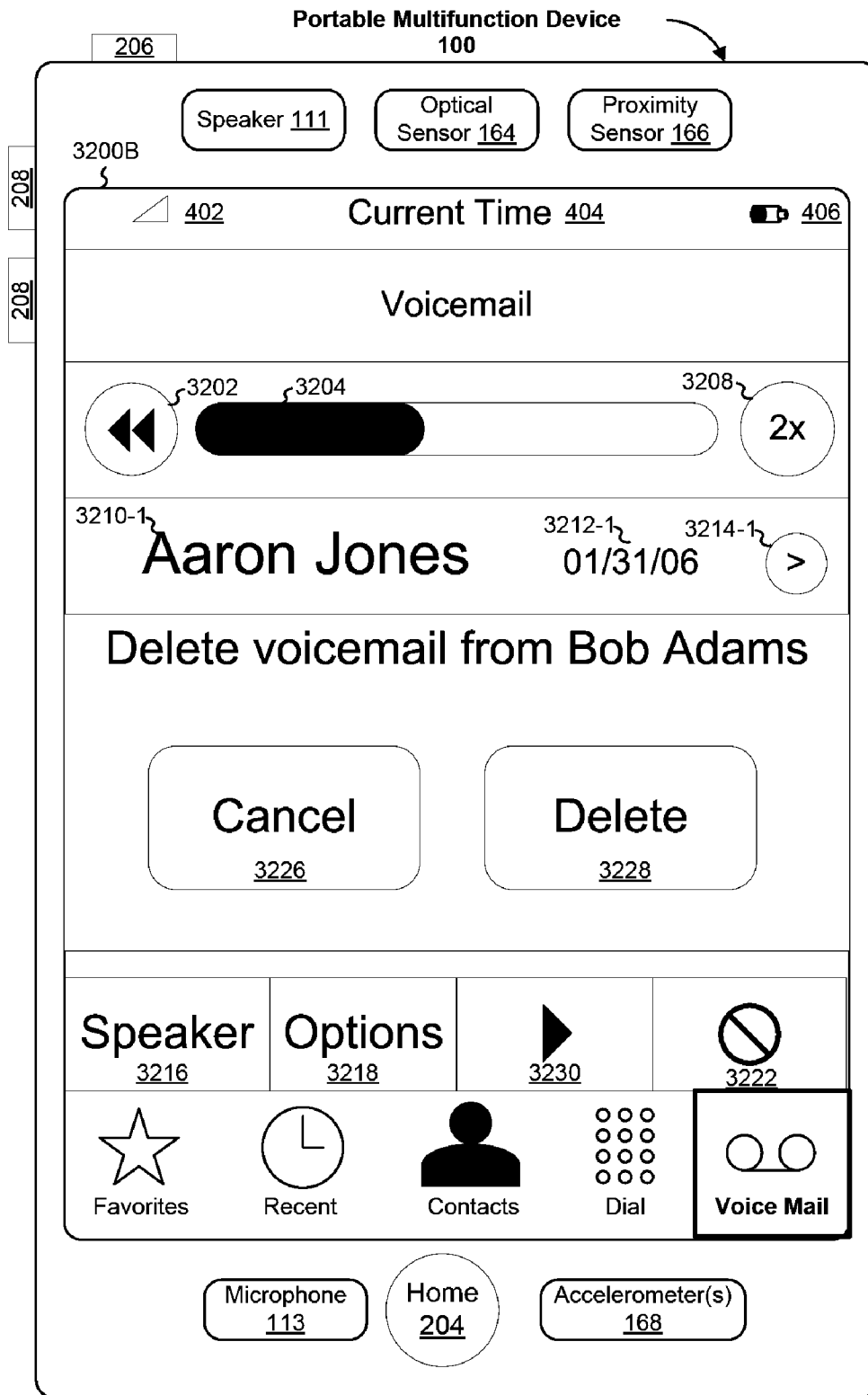


Figure 32B



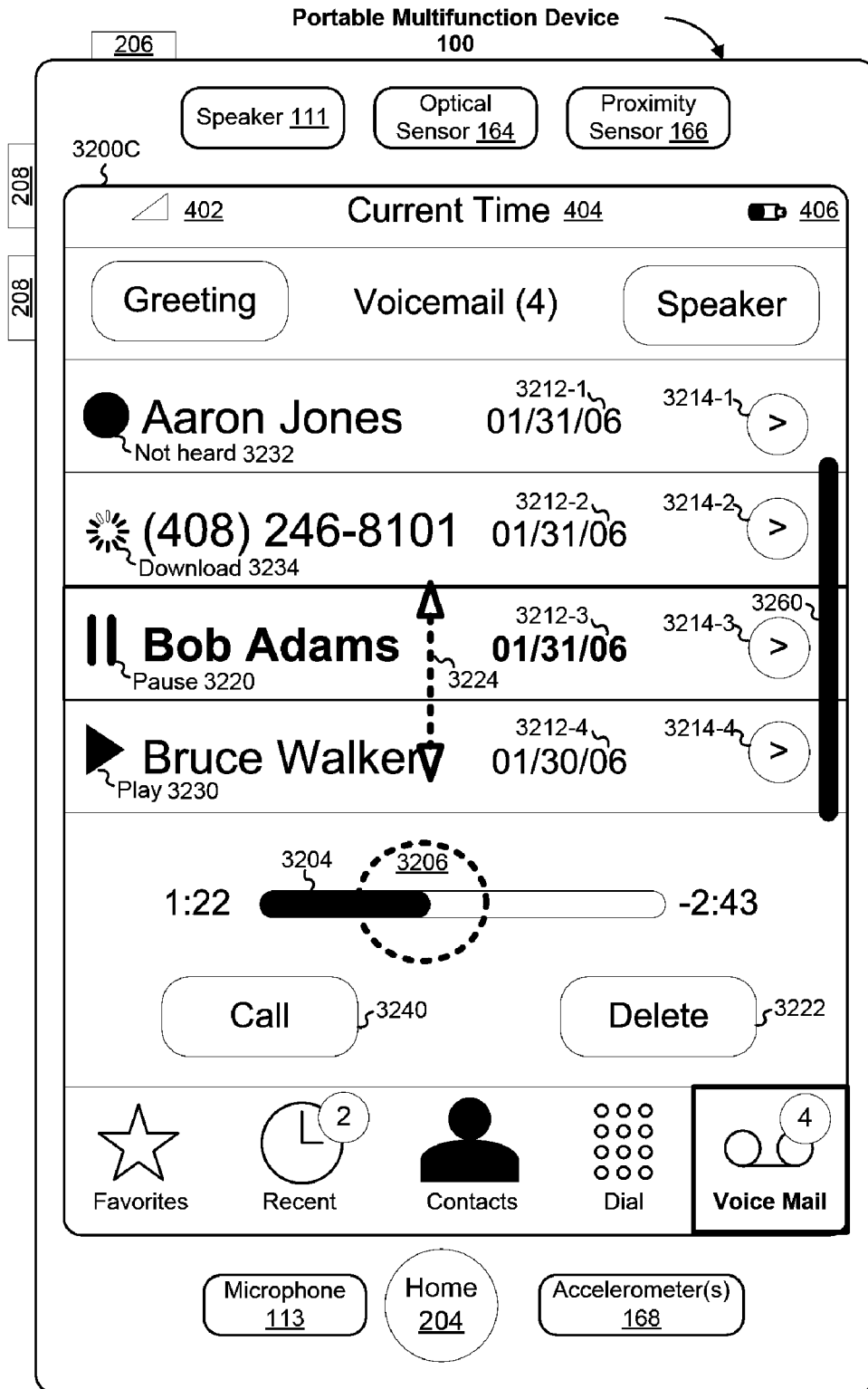


Figure 32C

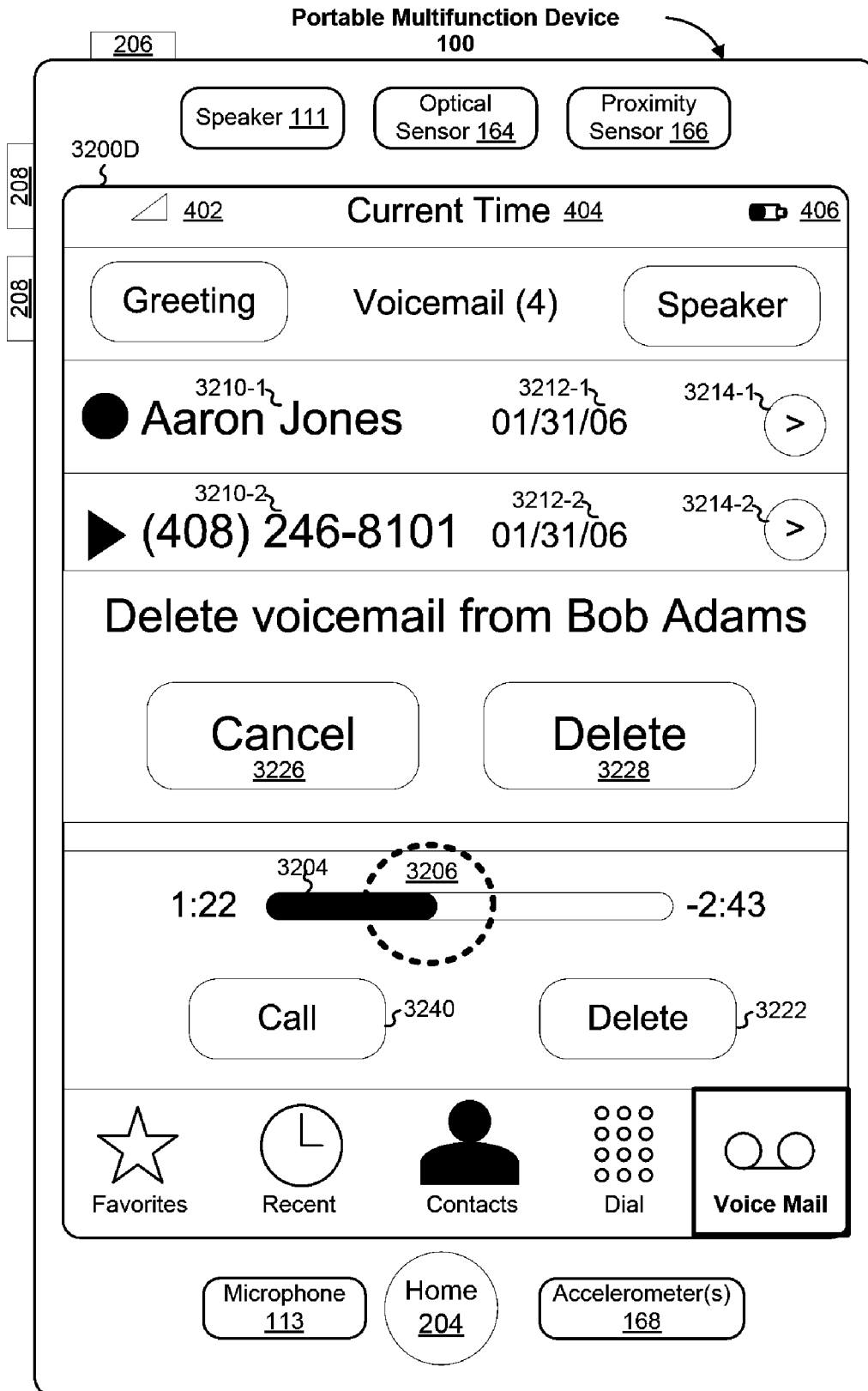


Figure 32D

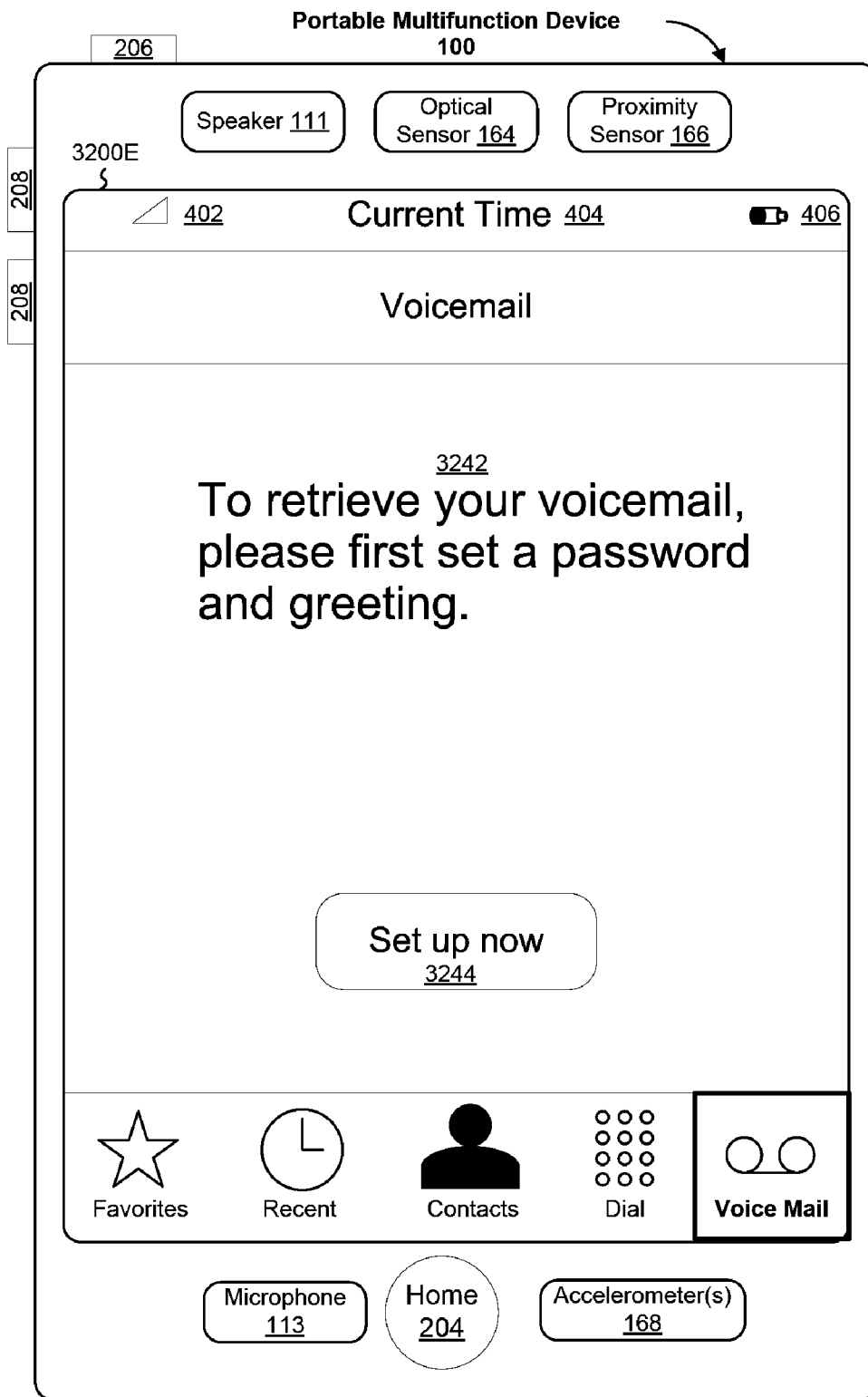


Figure 32E

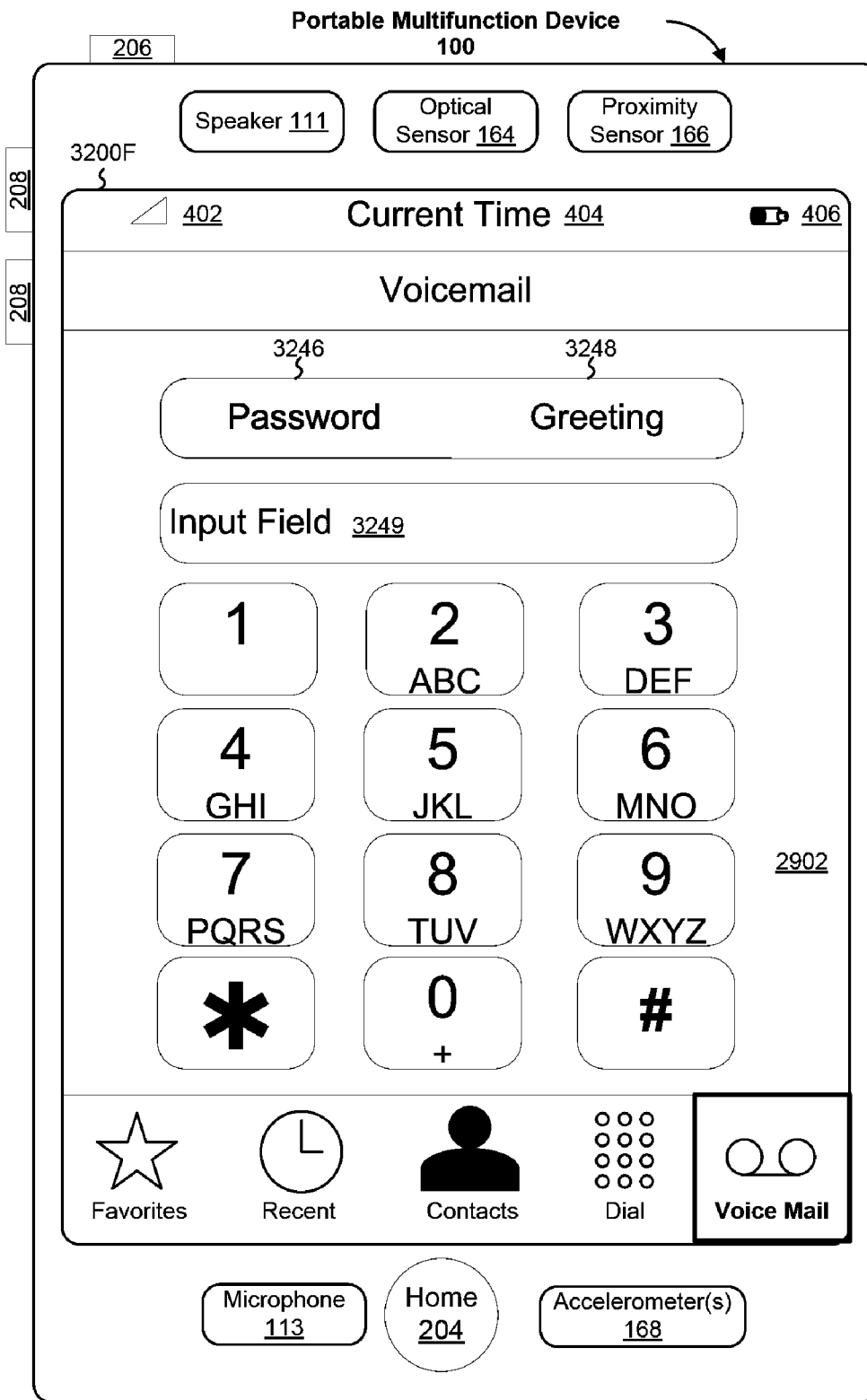


Figure 32F

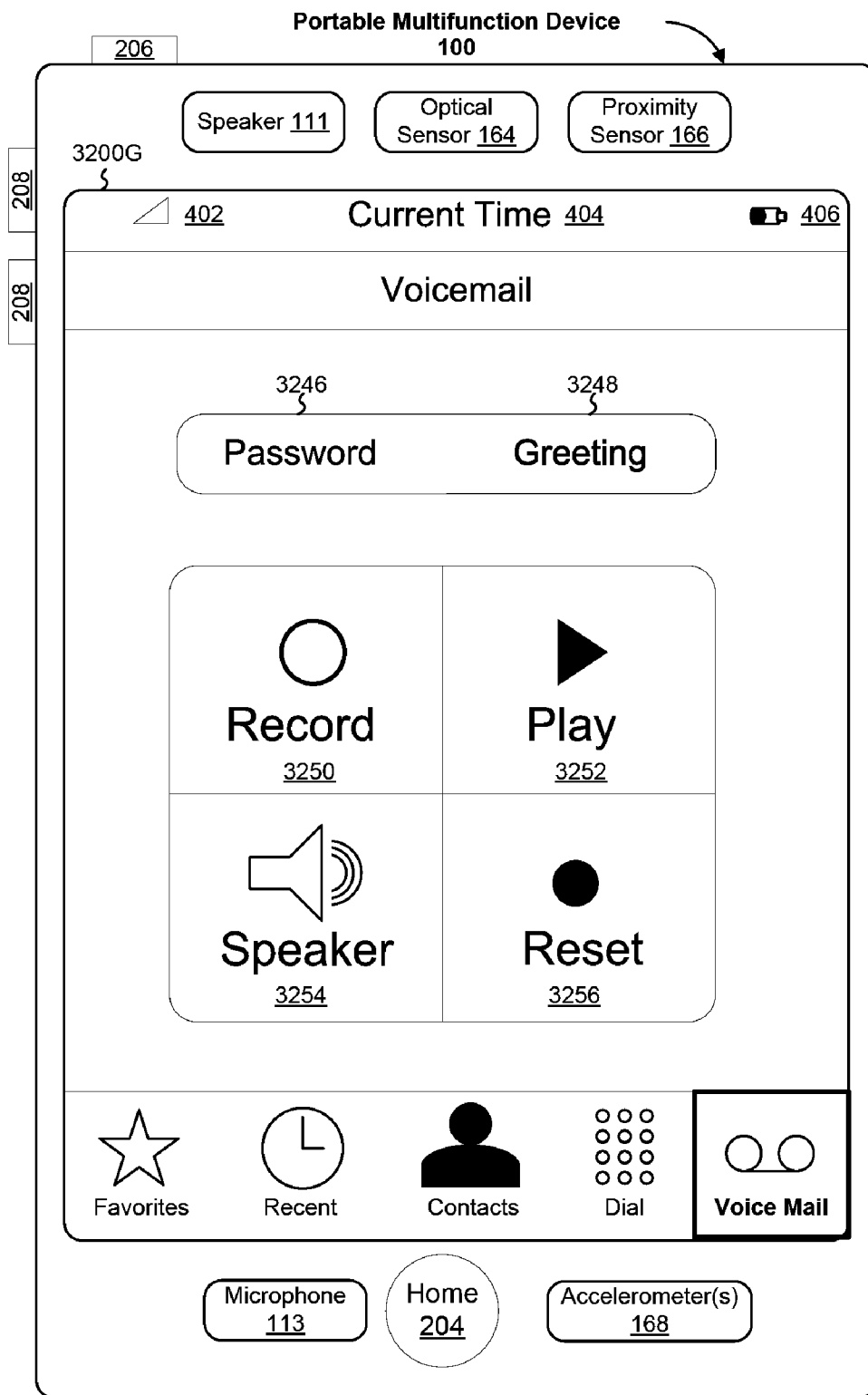


Figure 32G

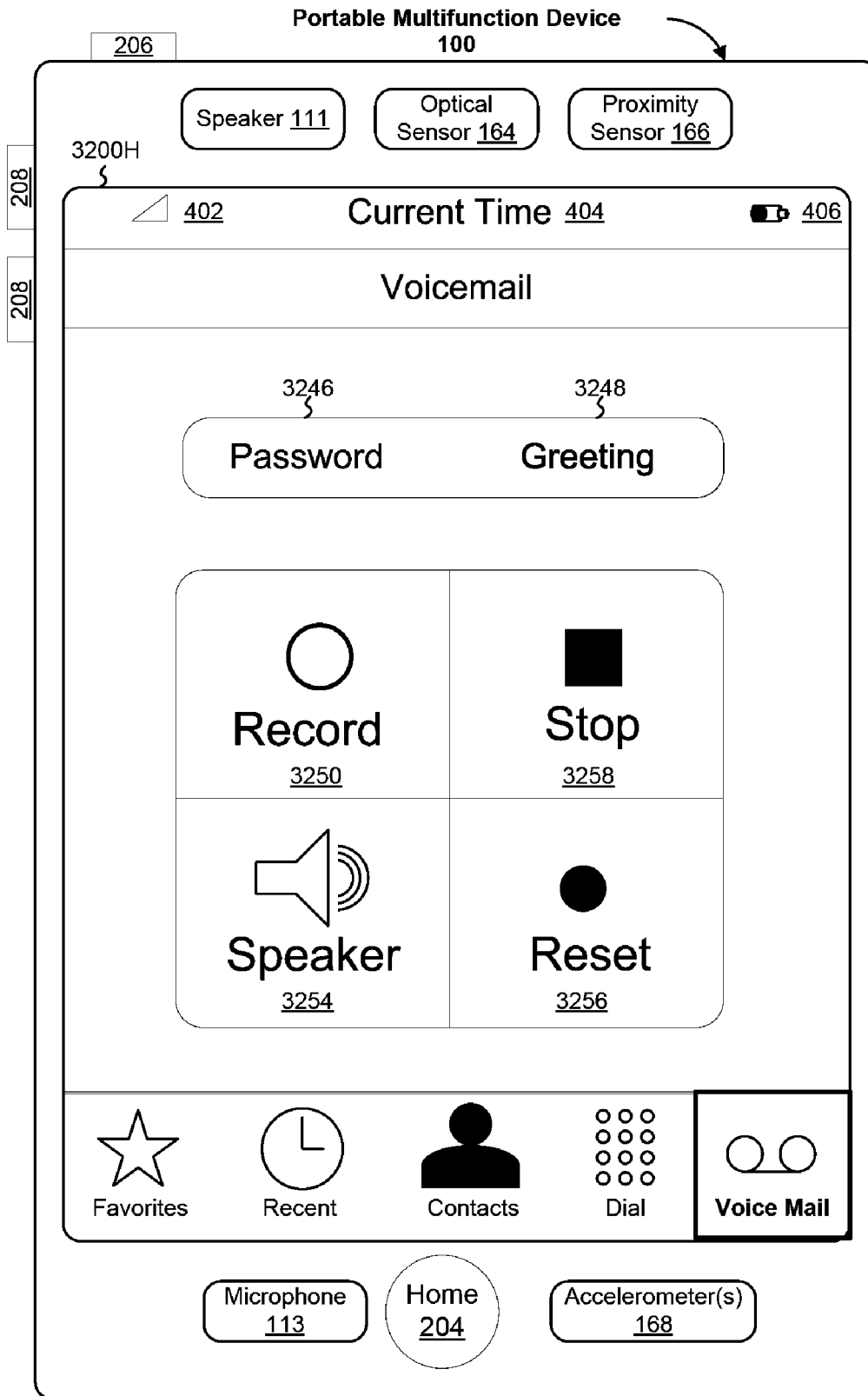


Figure 32H



Figure 33

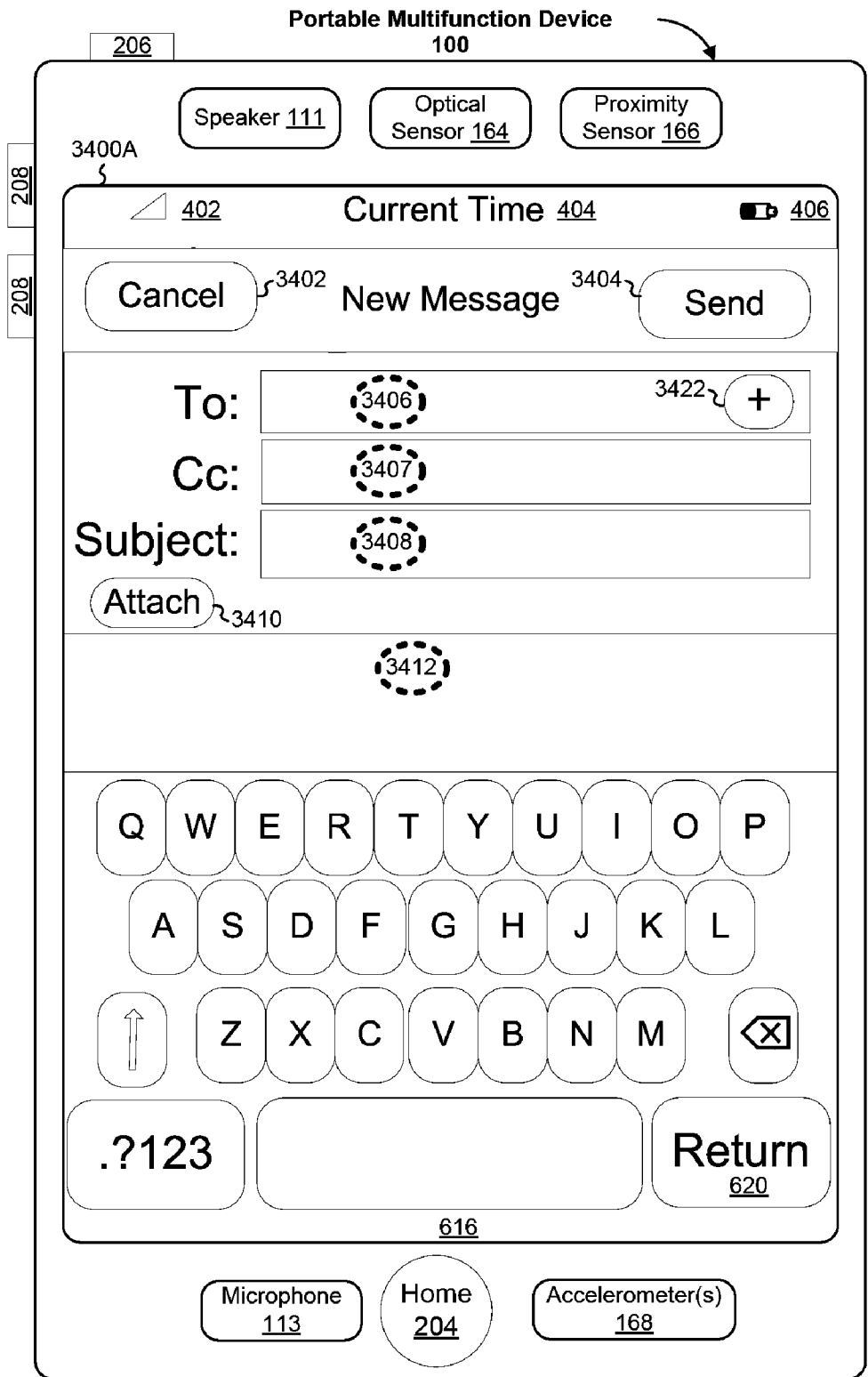


Figure 34A



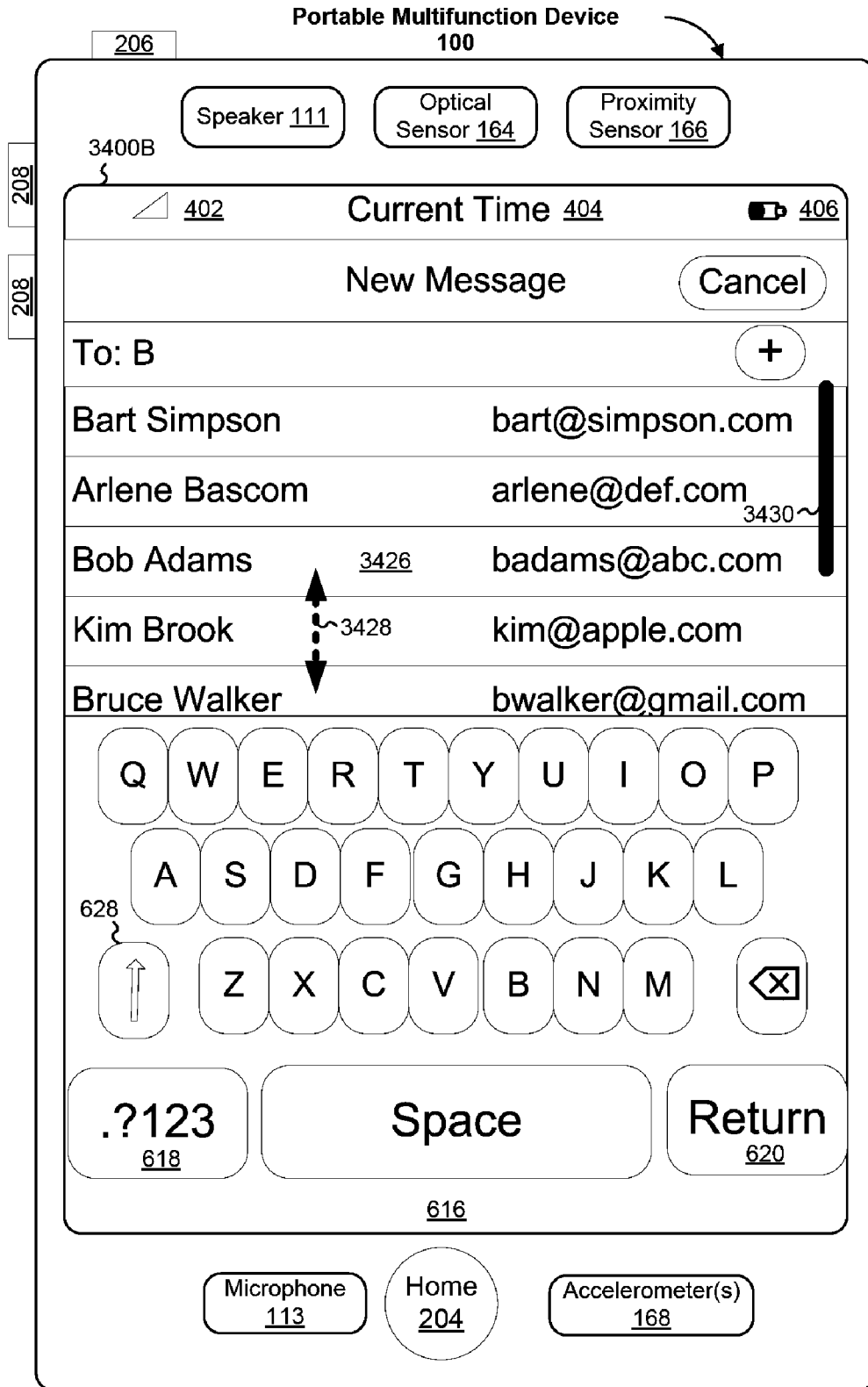


Figure 34B

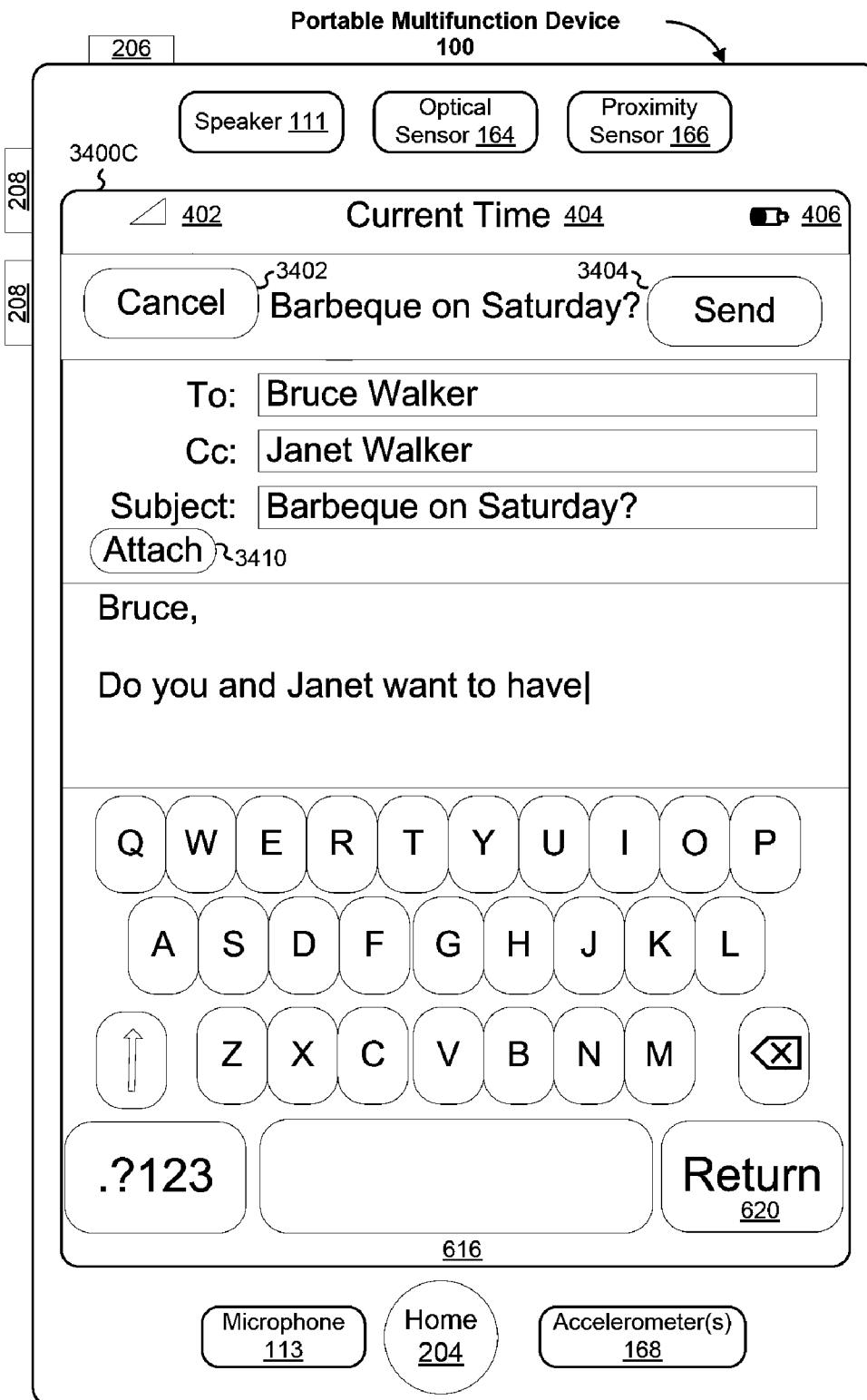


Figure 34C

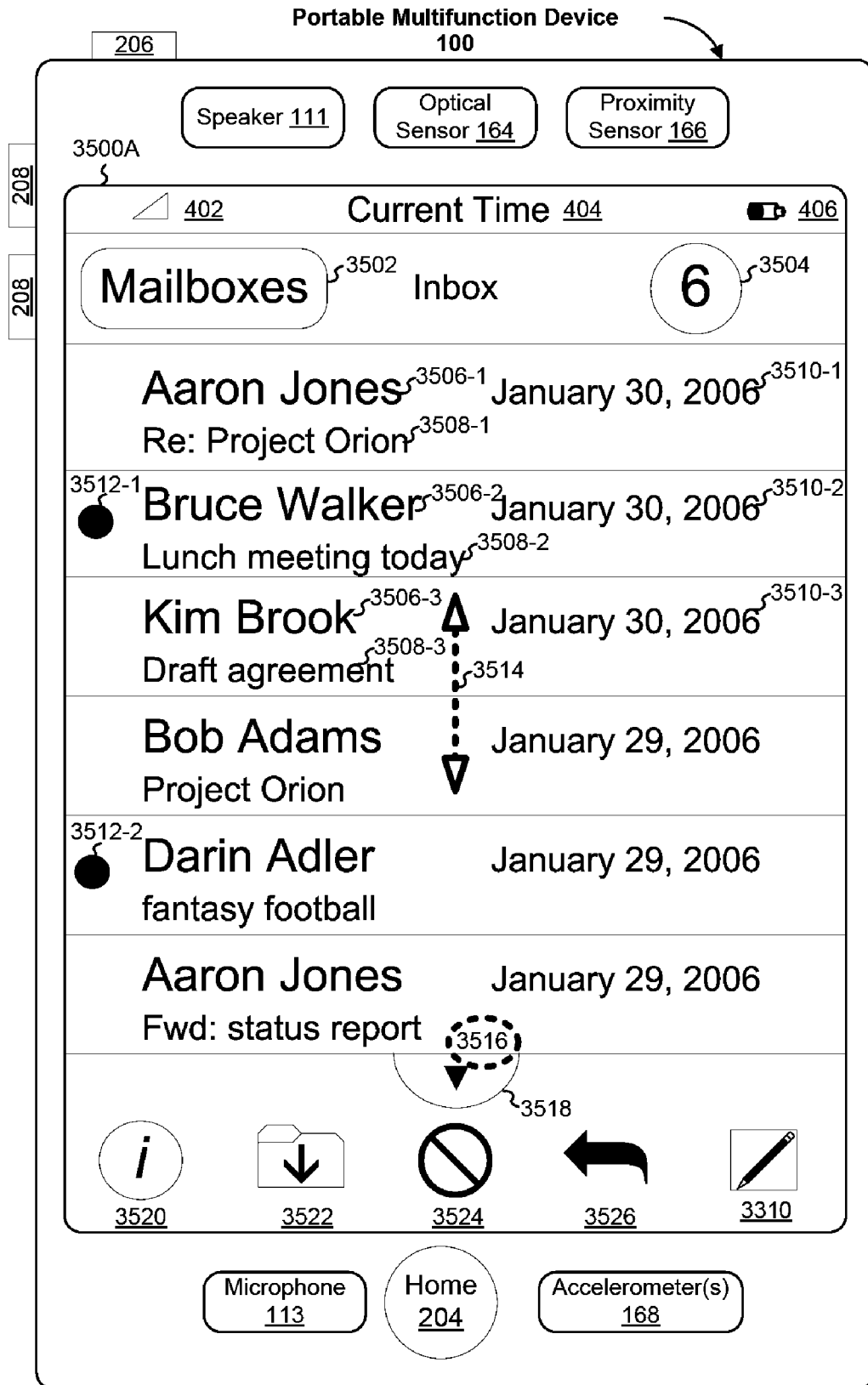


Figure 35A

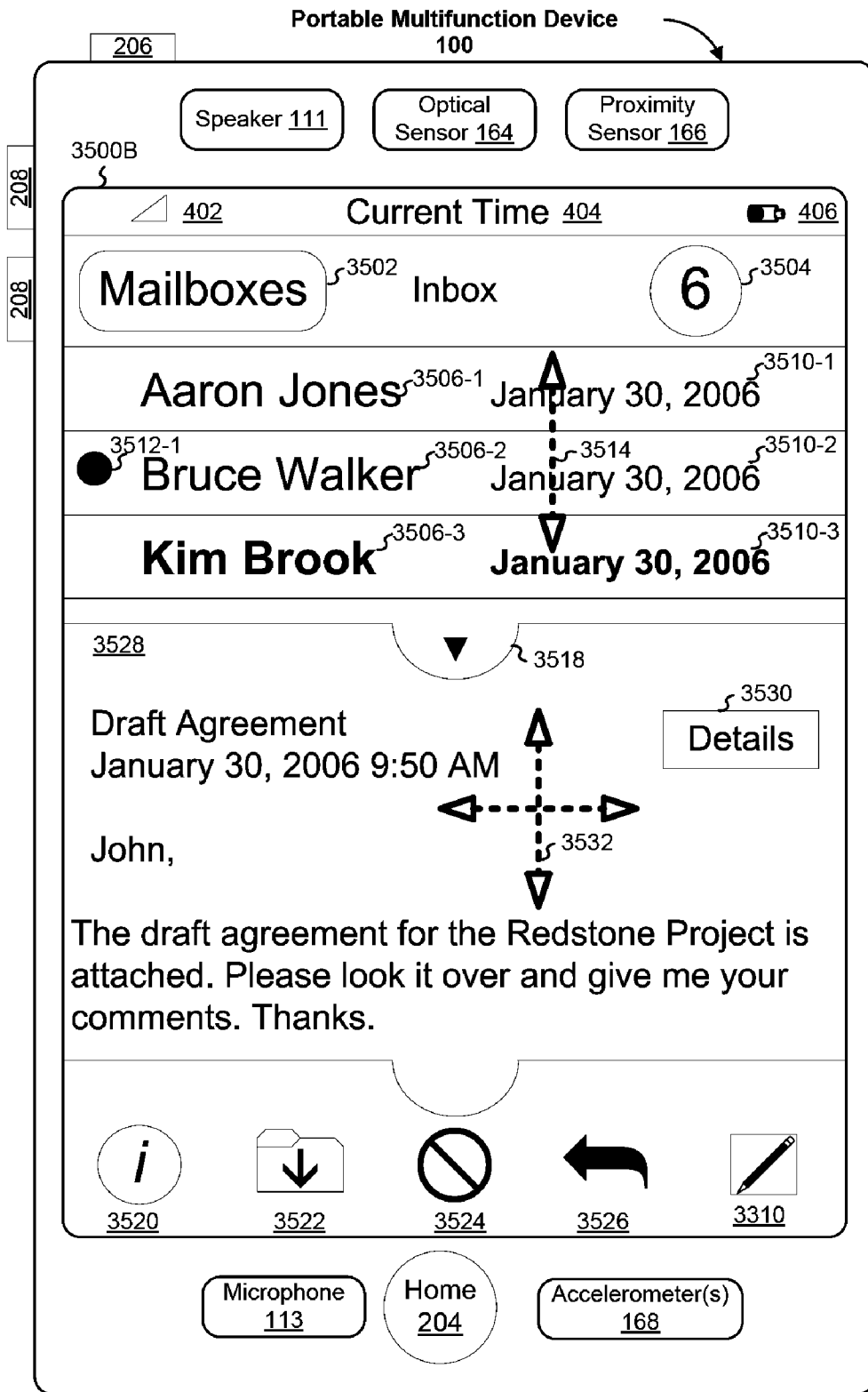


Figure 35B

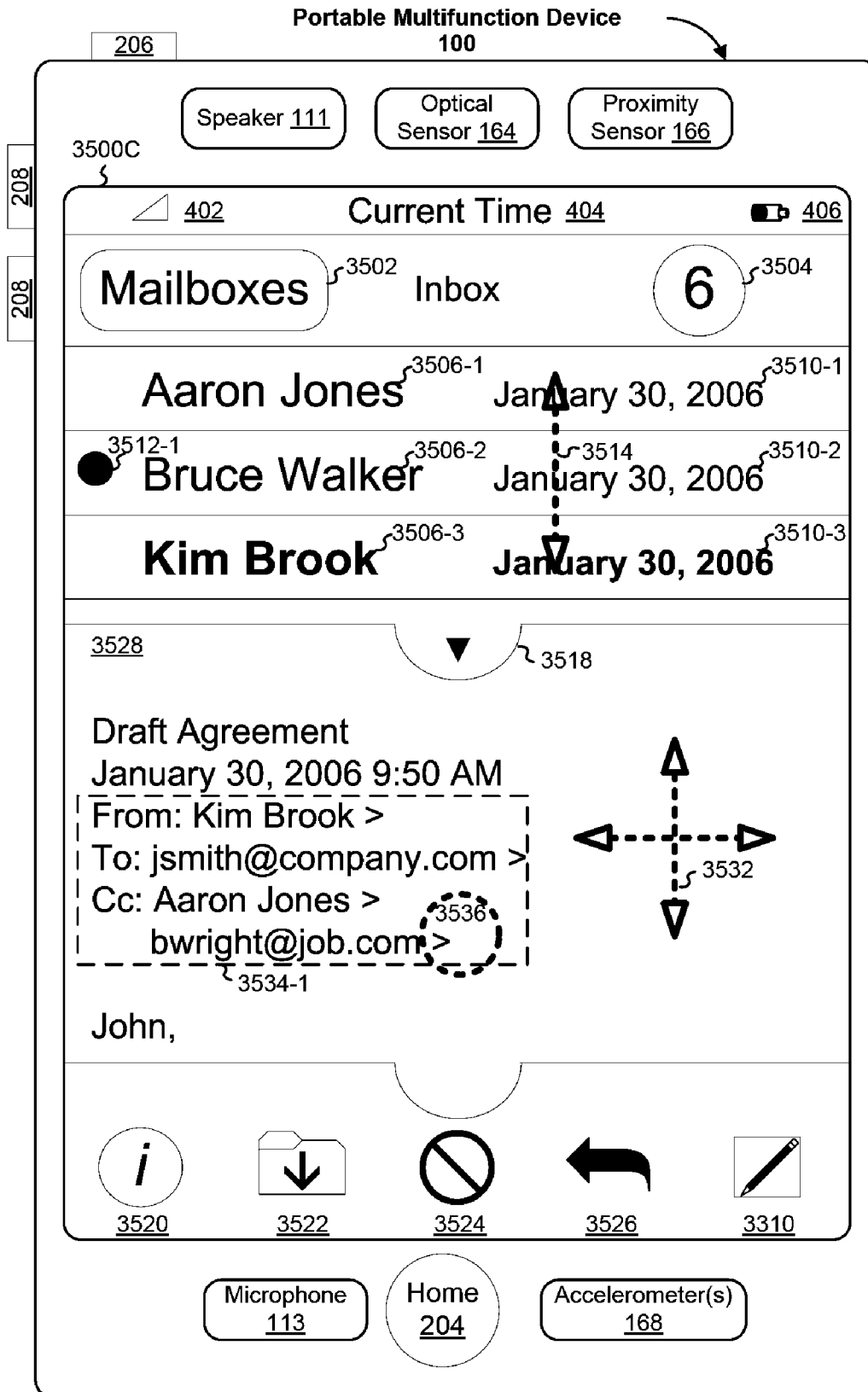


Figure 35C

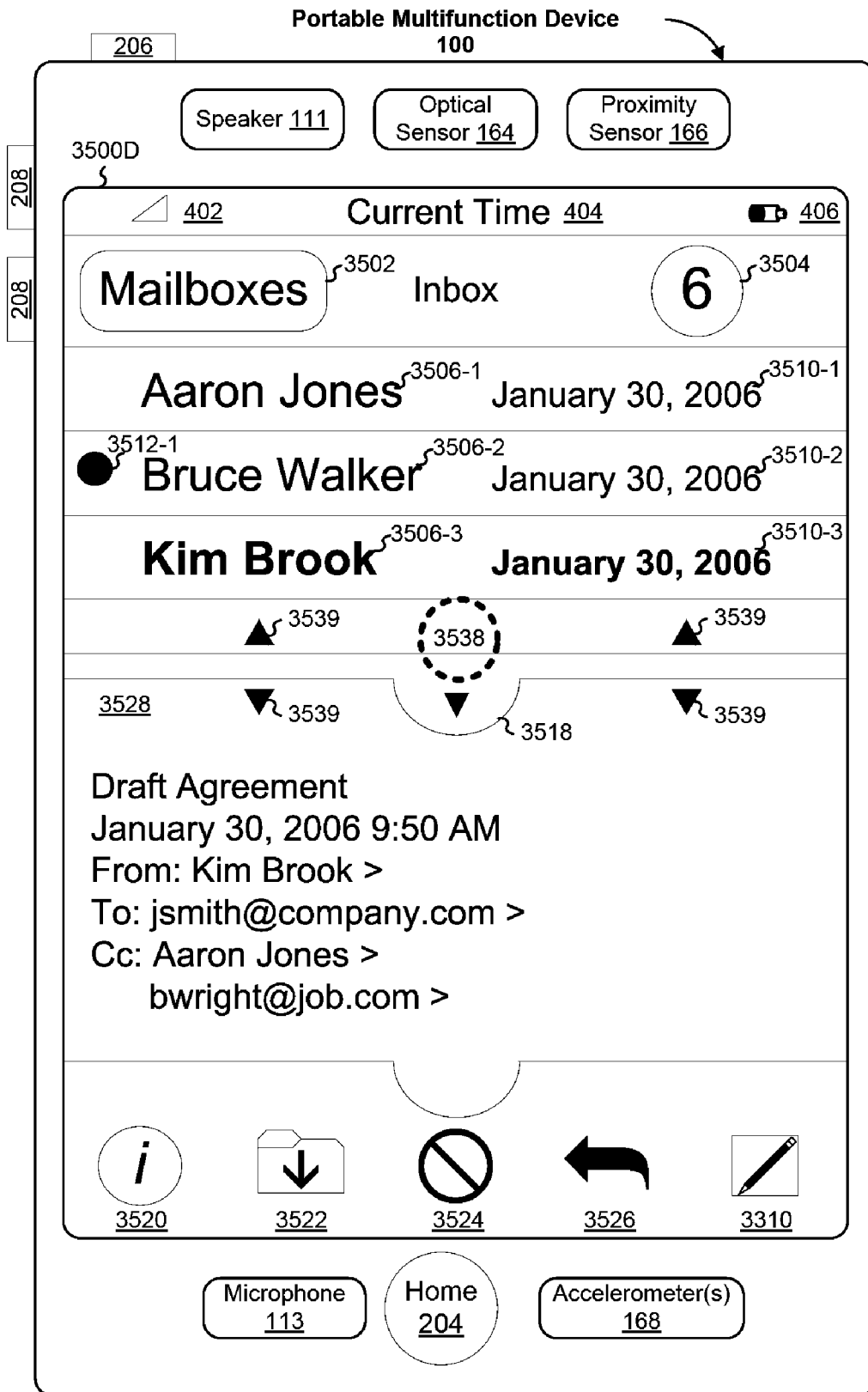


Figure 35D

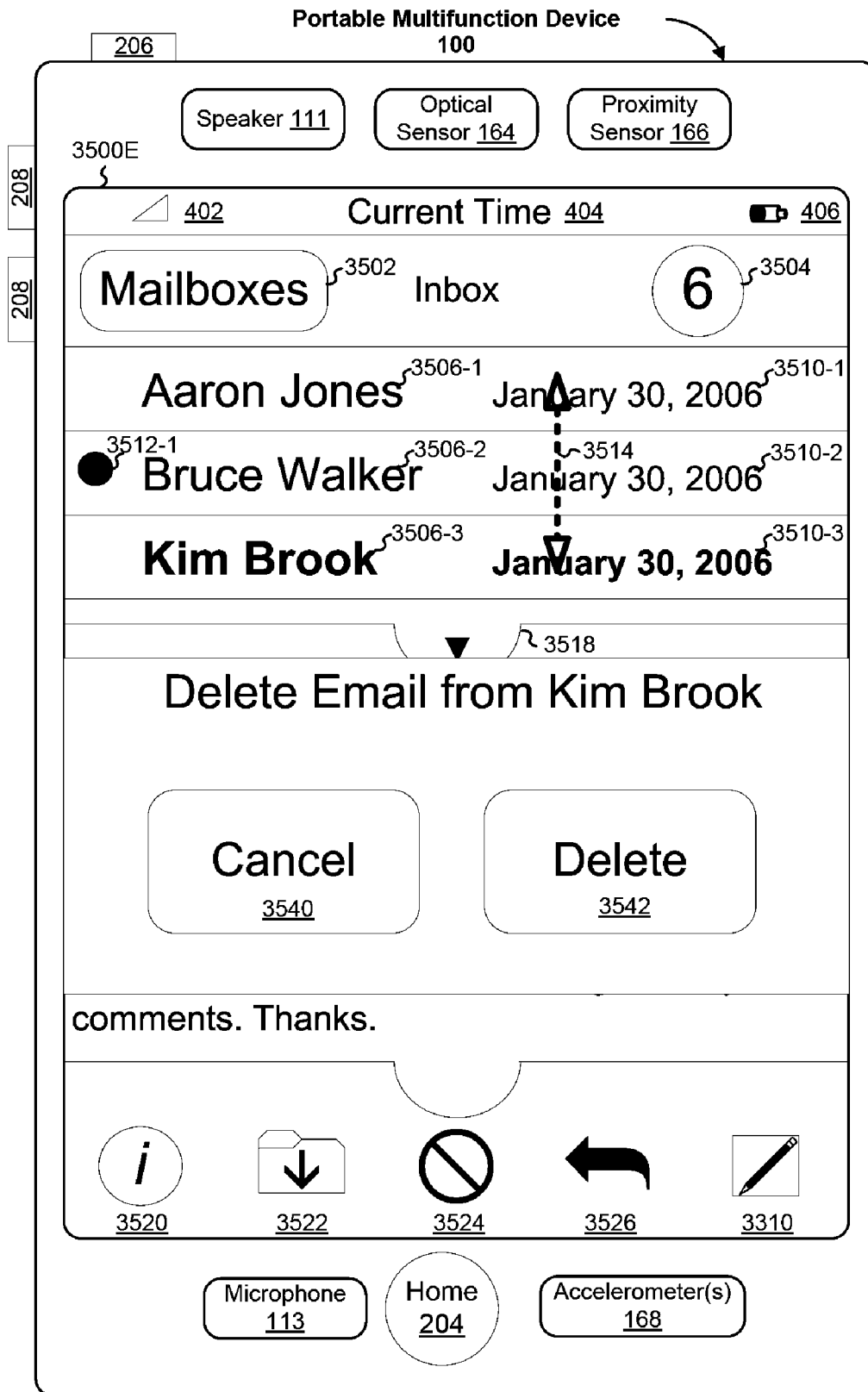


Figure 35E

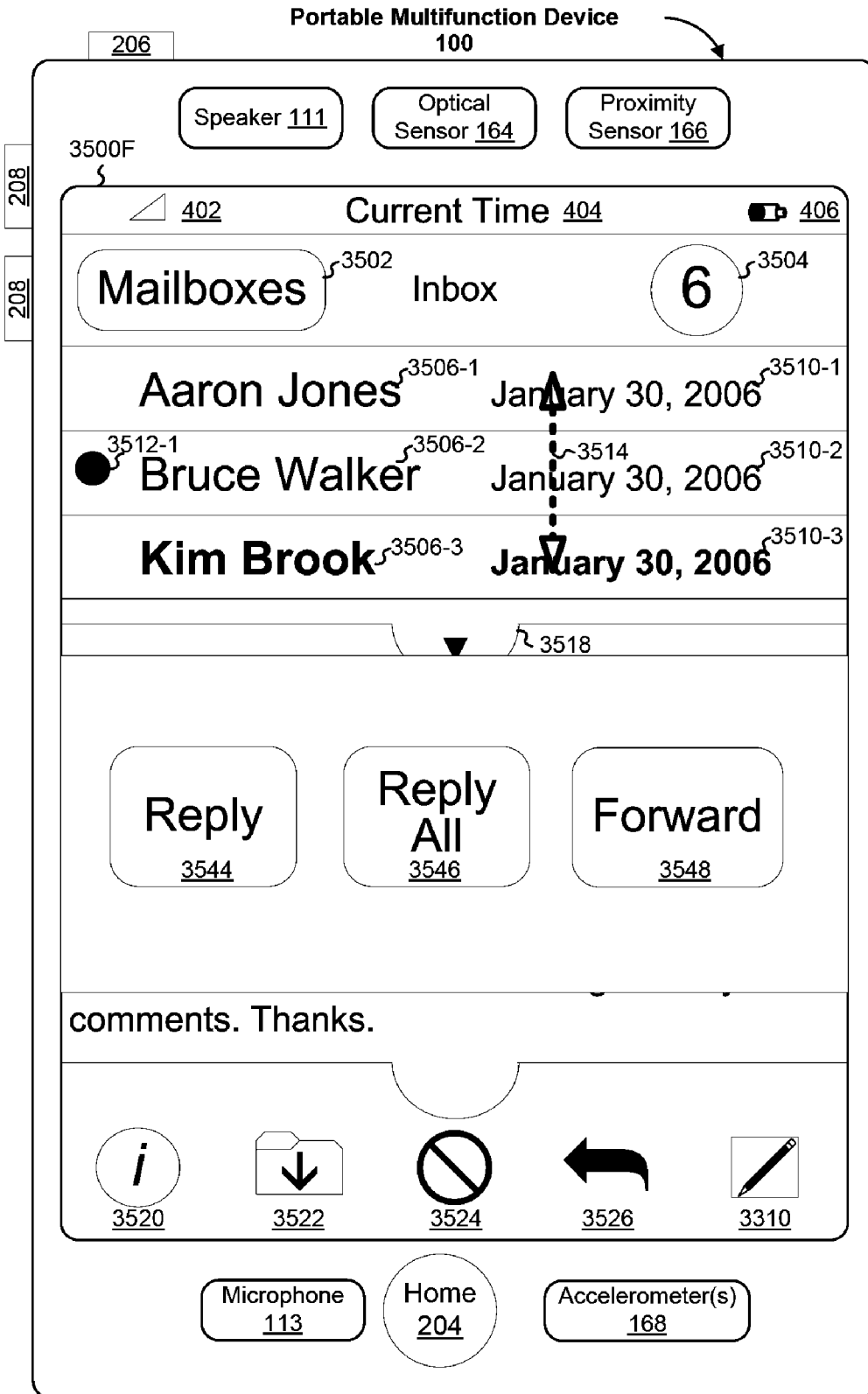


Figure 35F



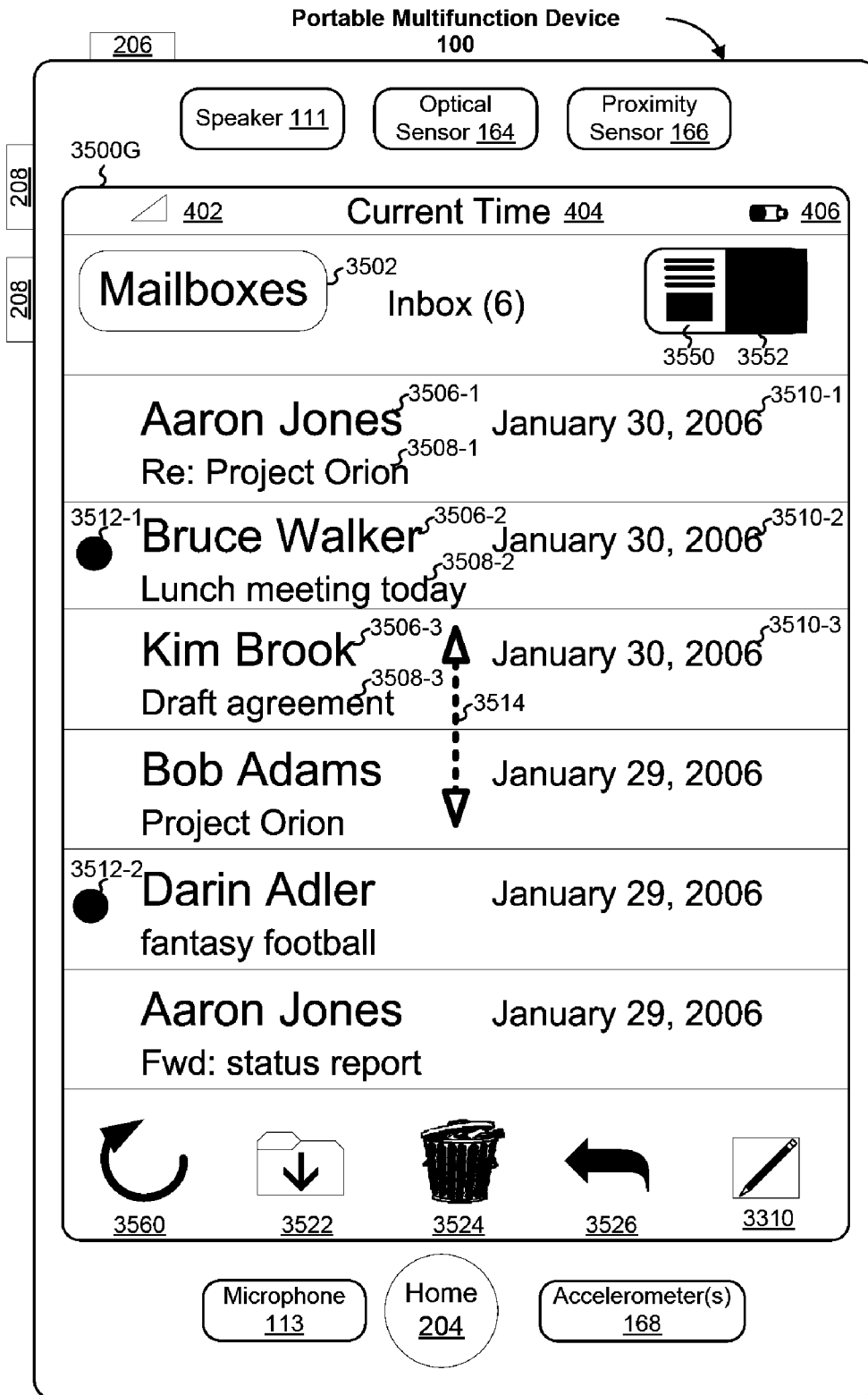


Figure 35G

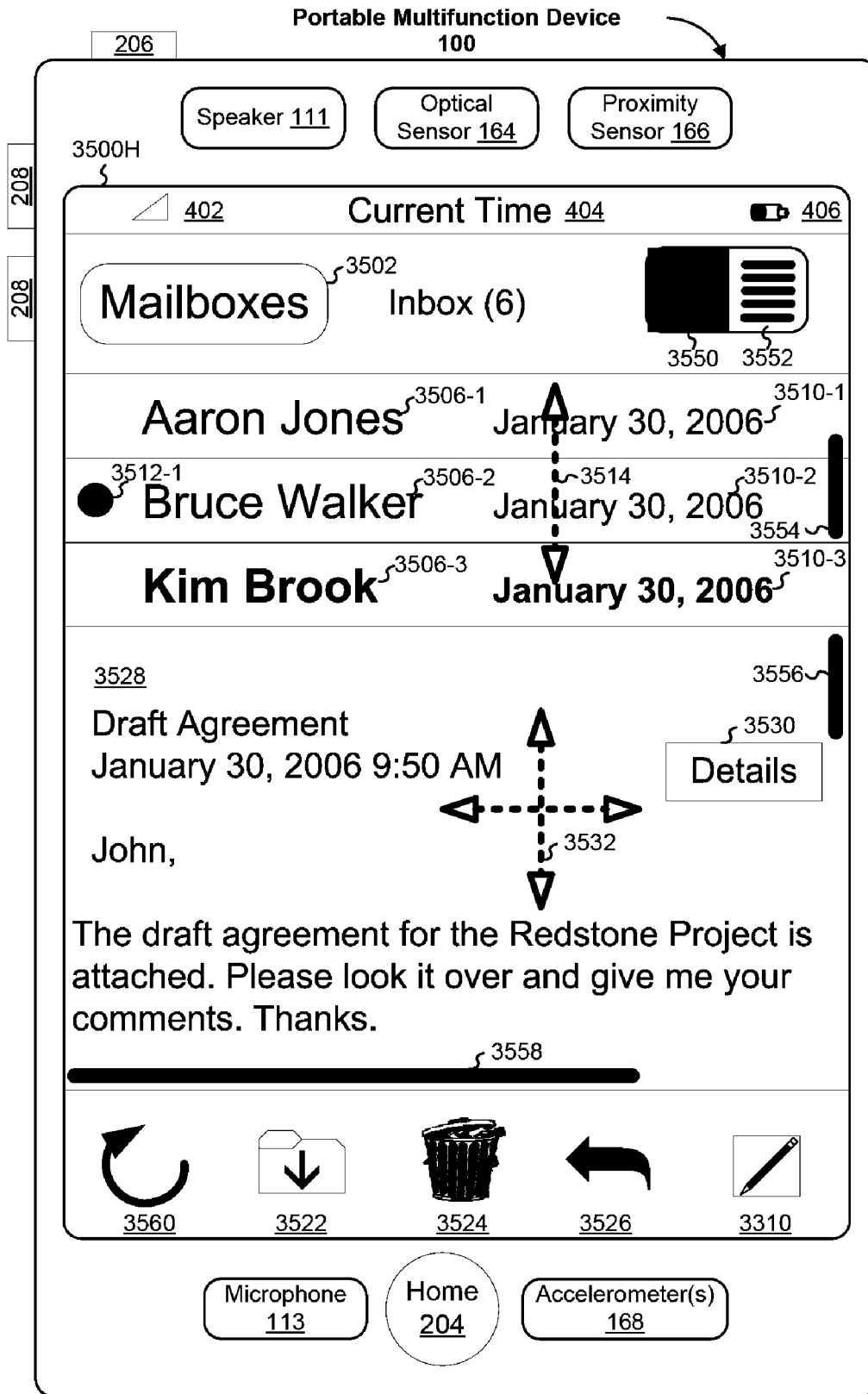


Figure 35H

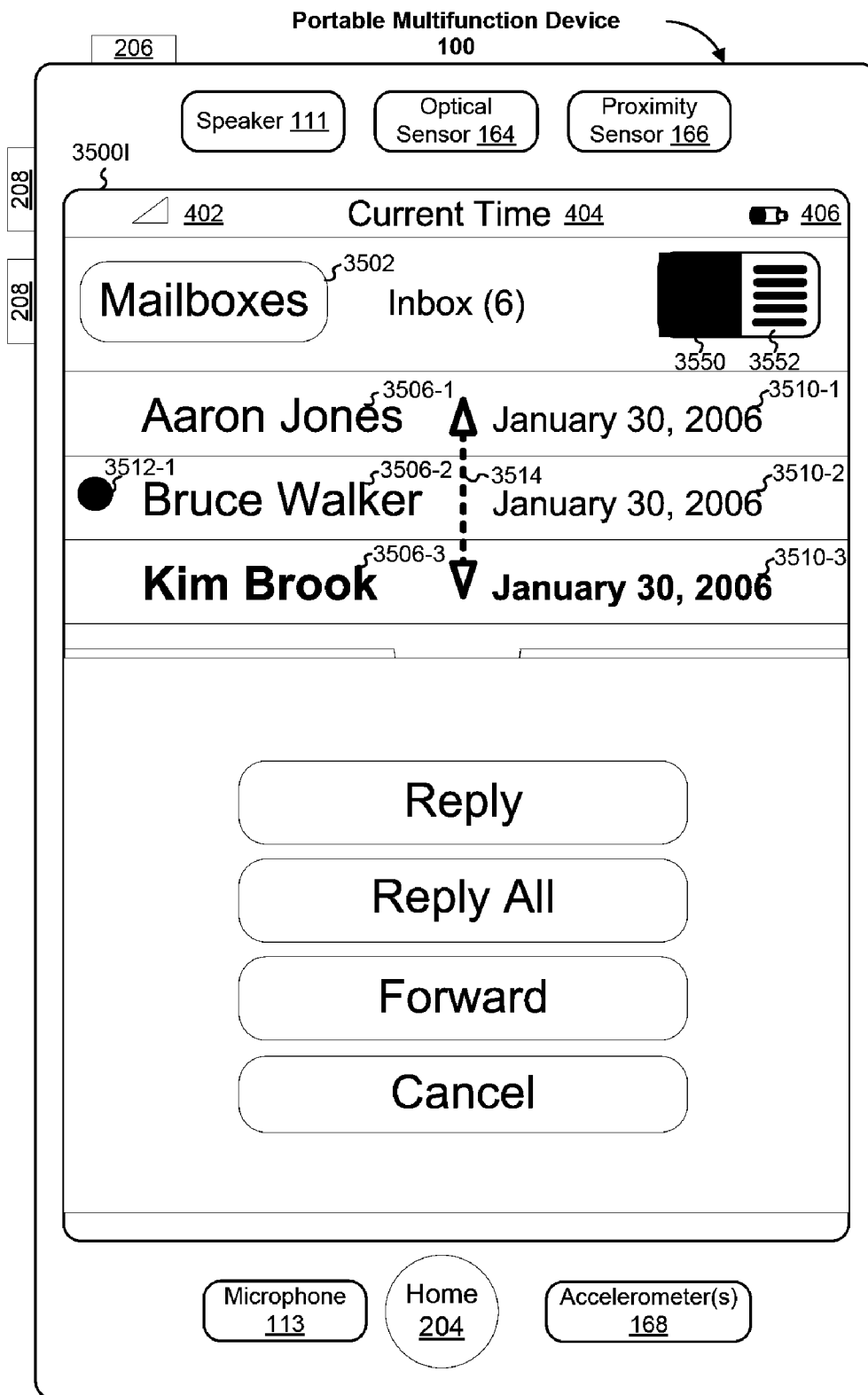


Figure 35I



Figure 35J



Figure 35K

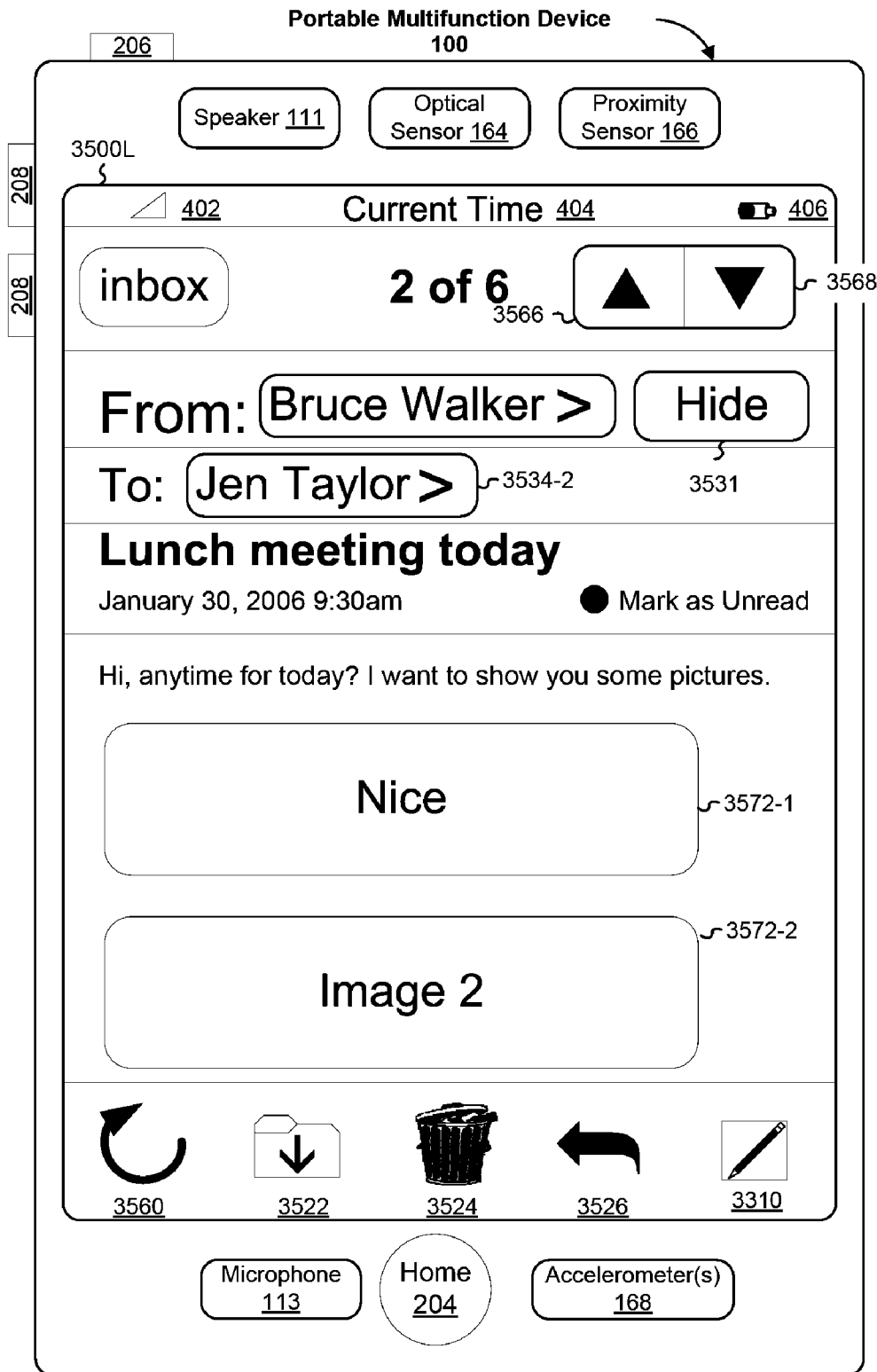


Figure 35L

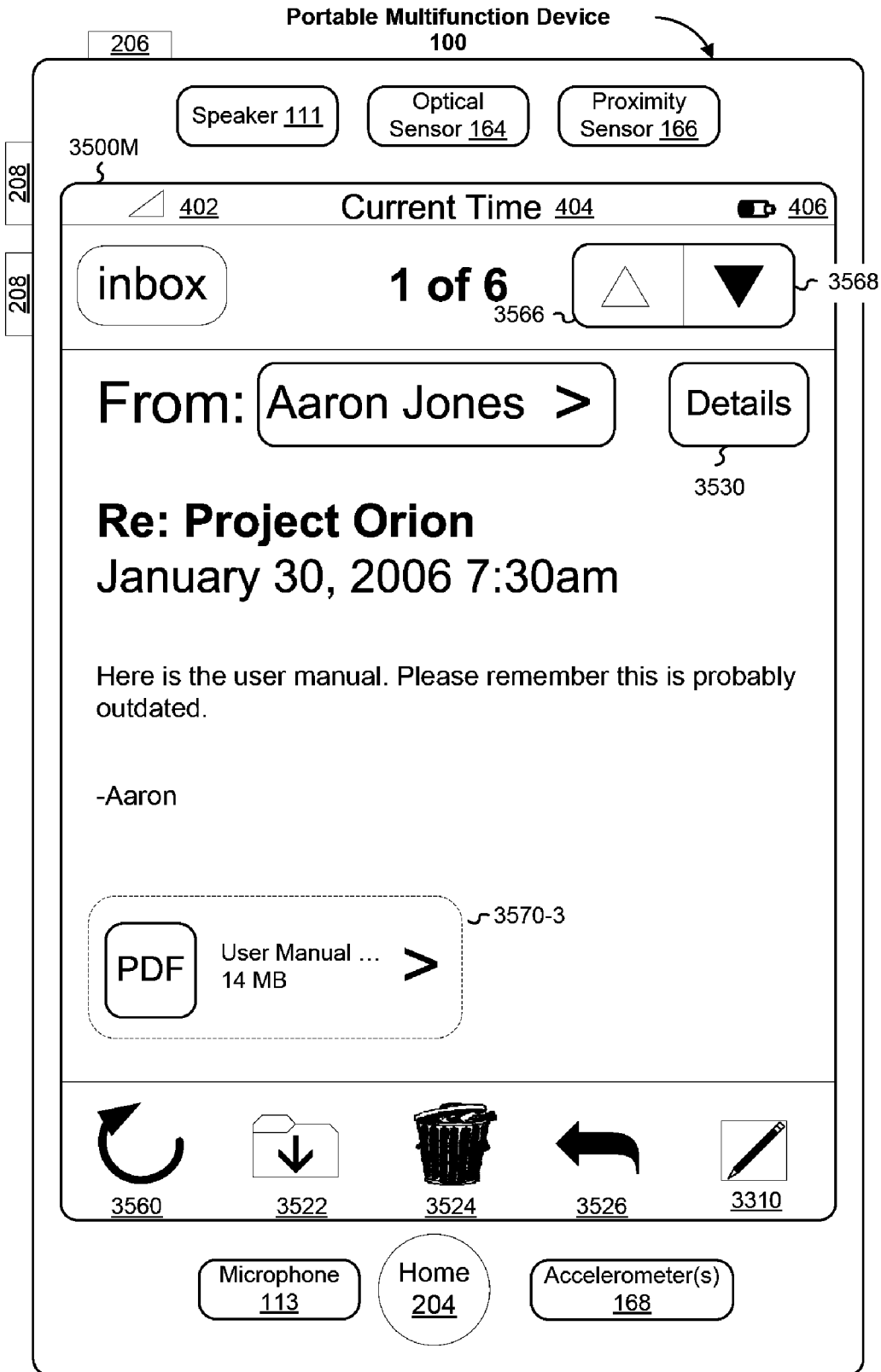


Figure 35M

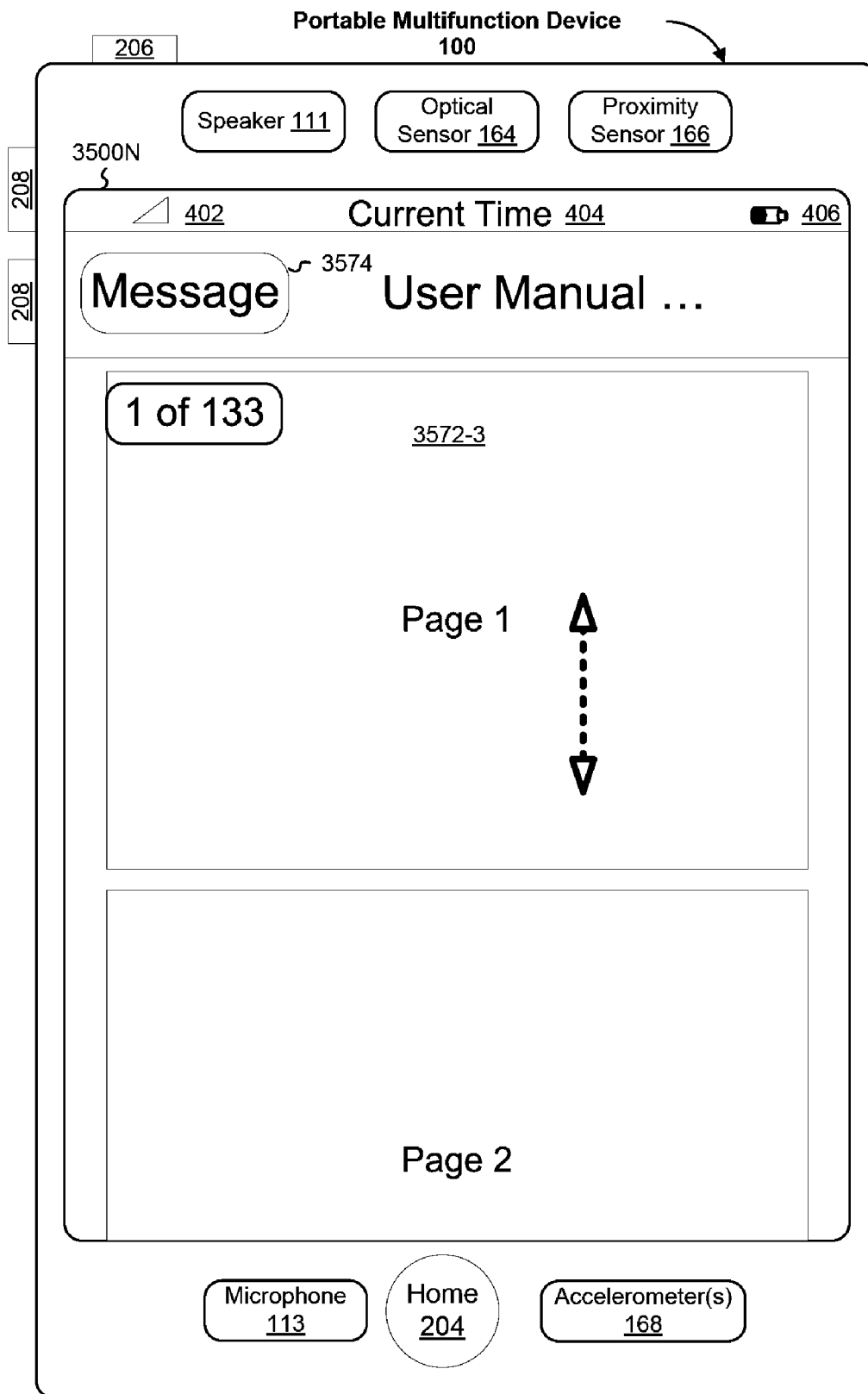


Figure 35N





Figure 350

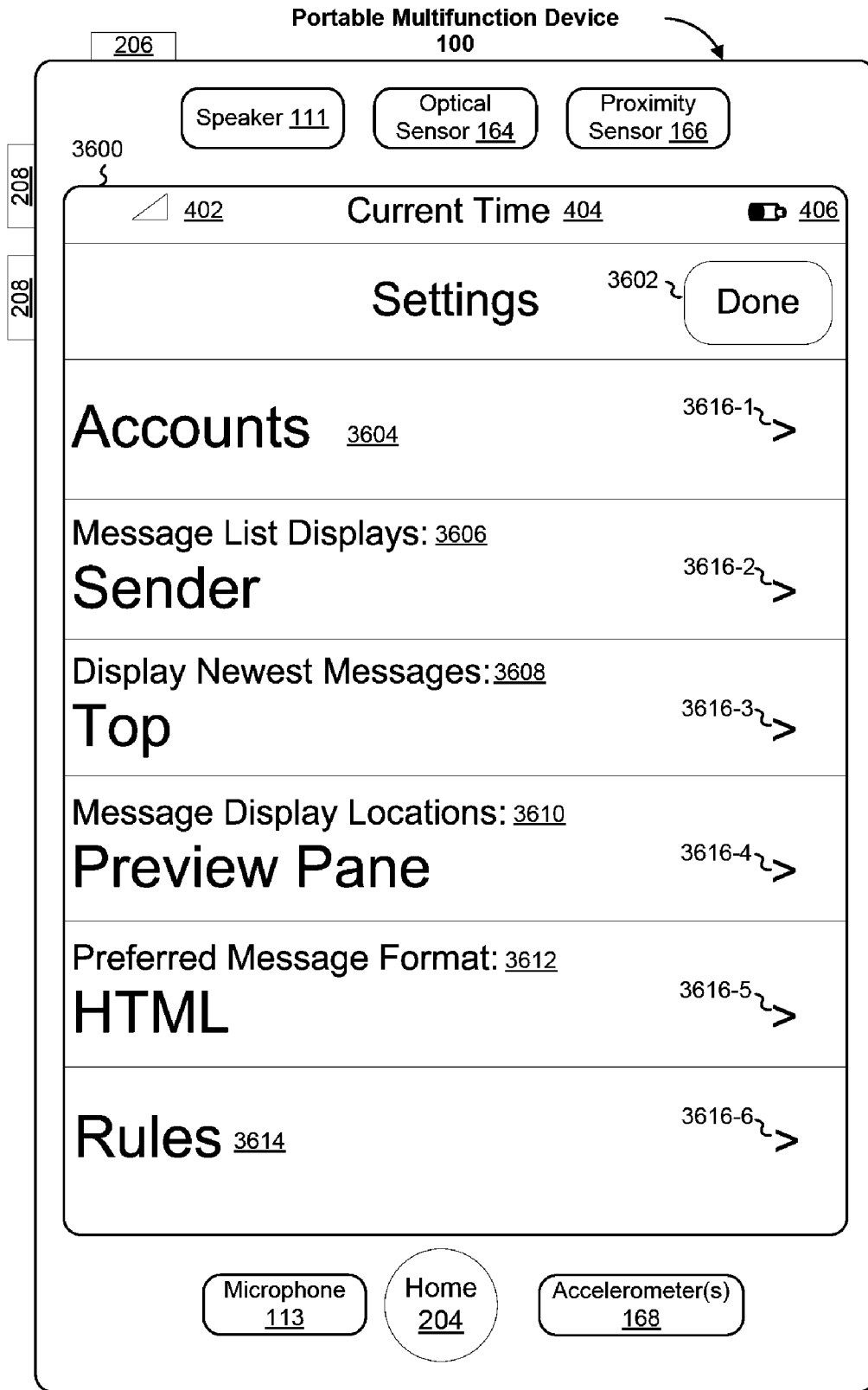


Figure 36

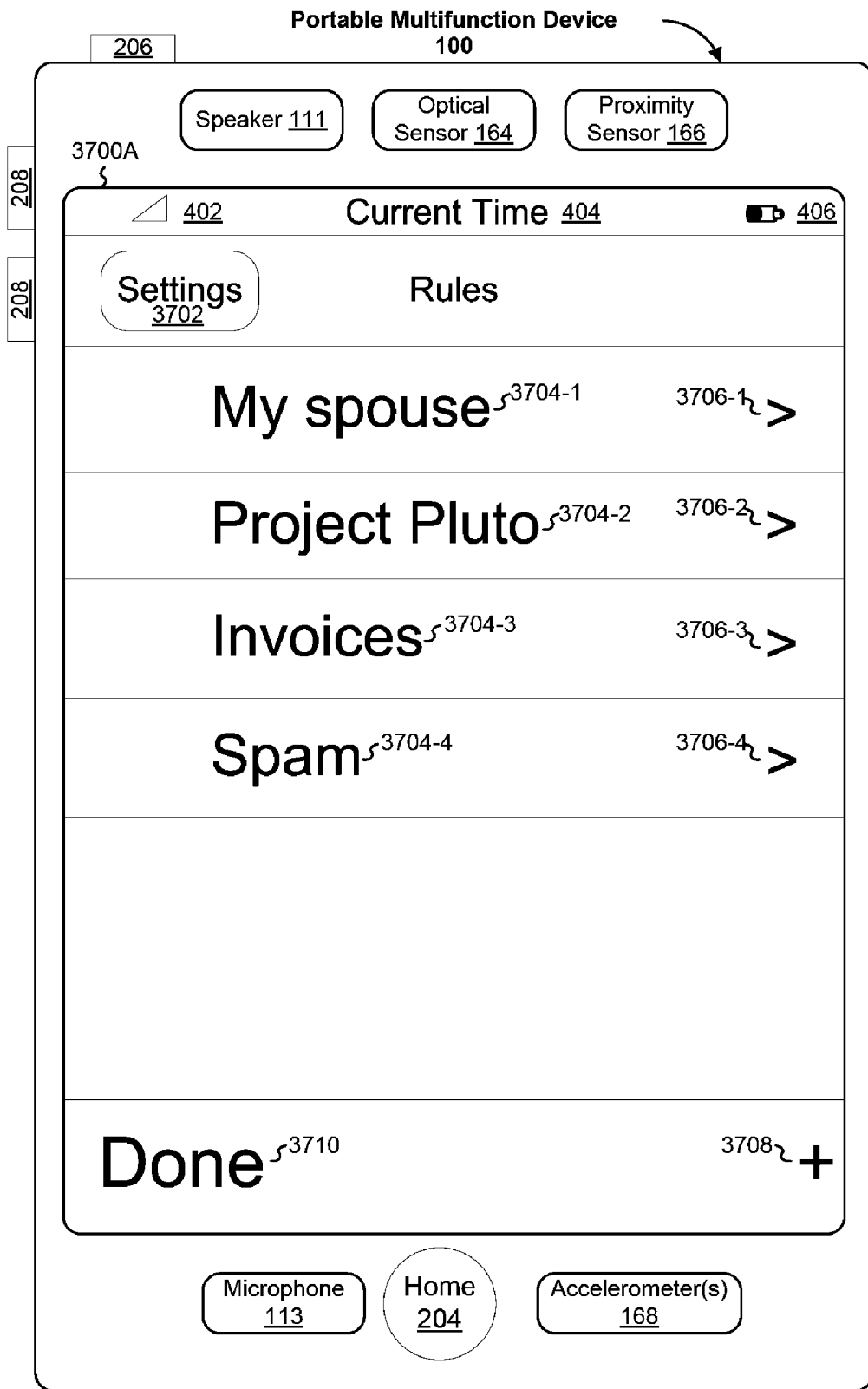


Figure 37A

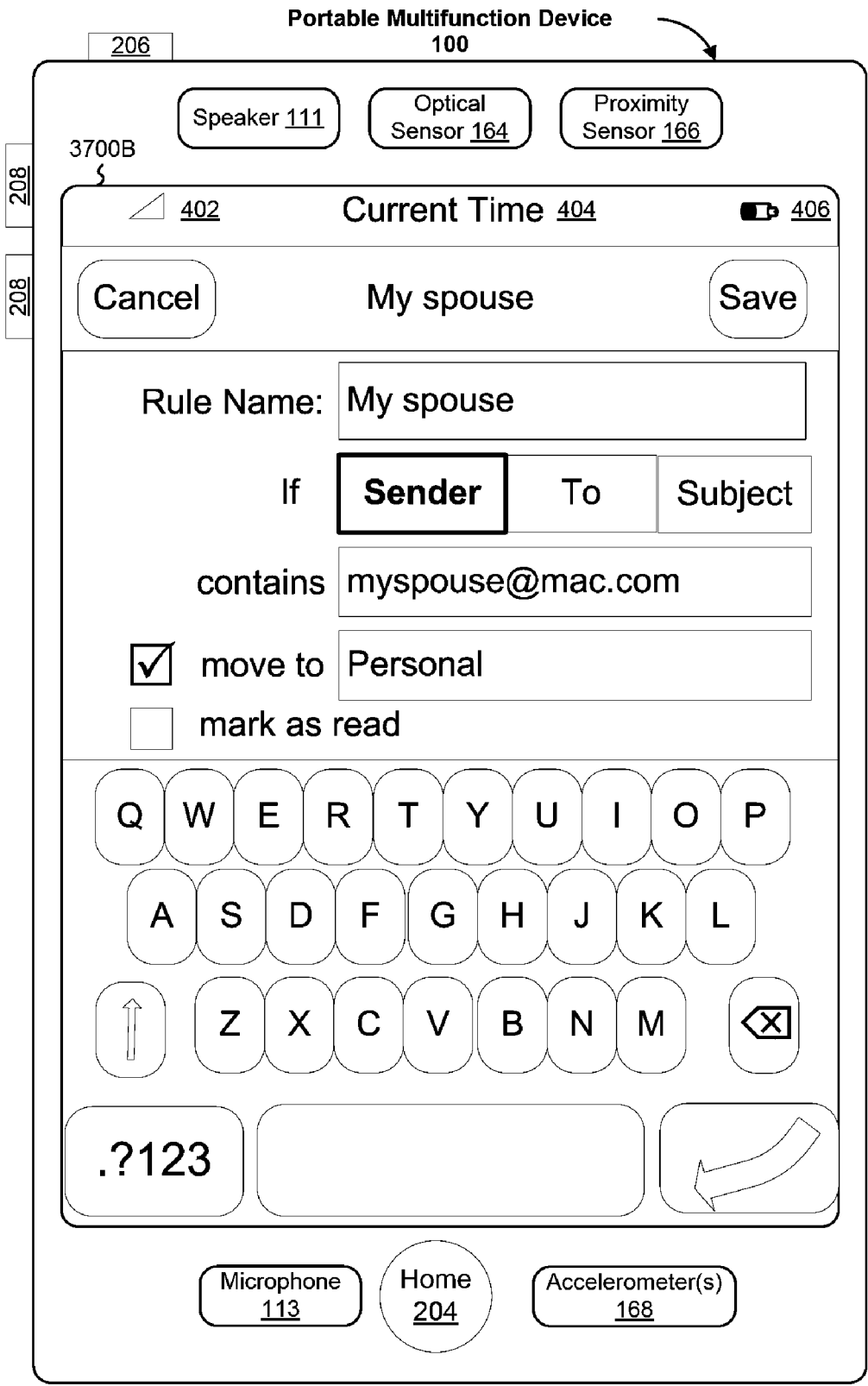


Figure 37B

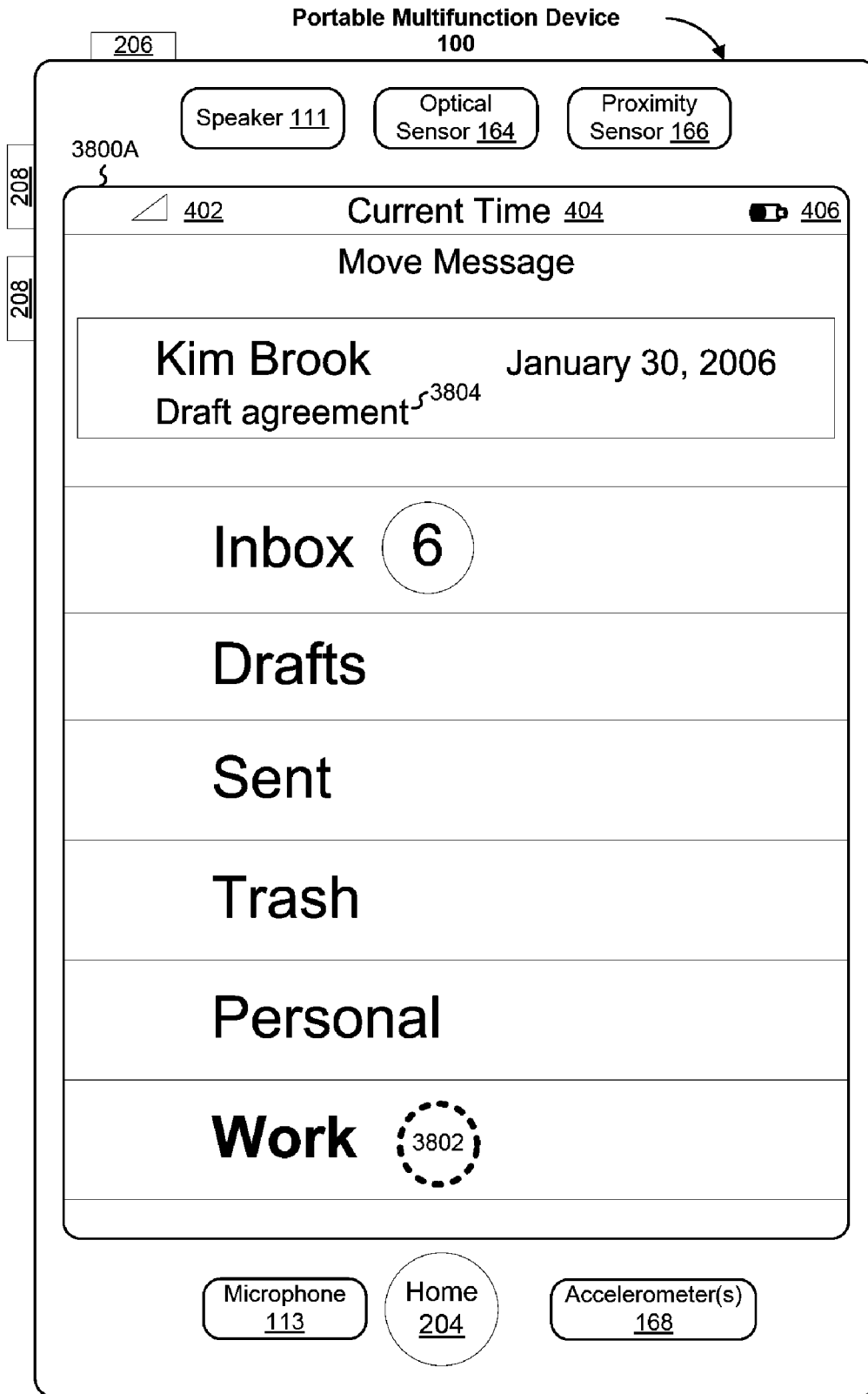


Figure 38A

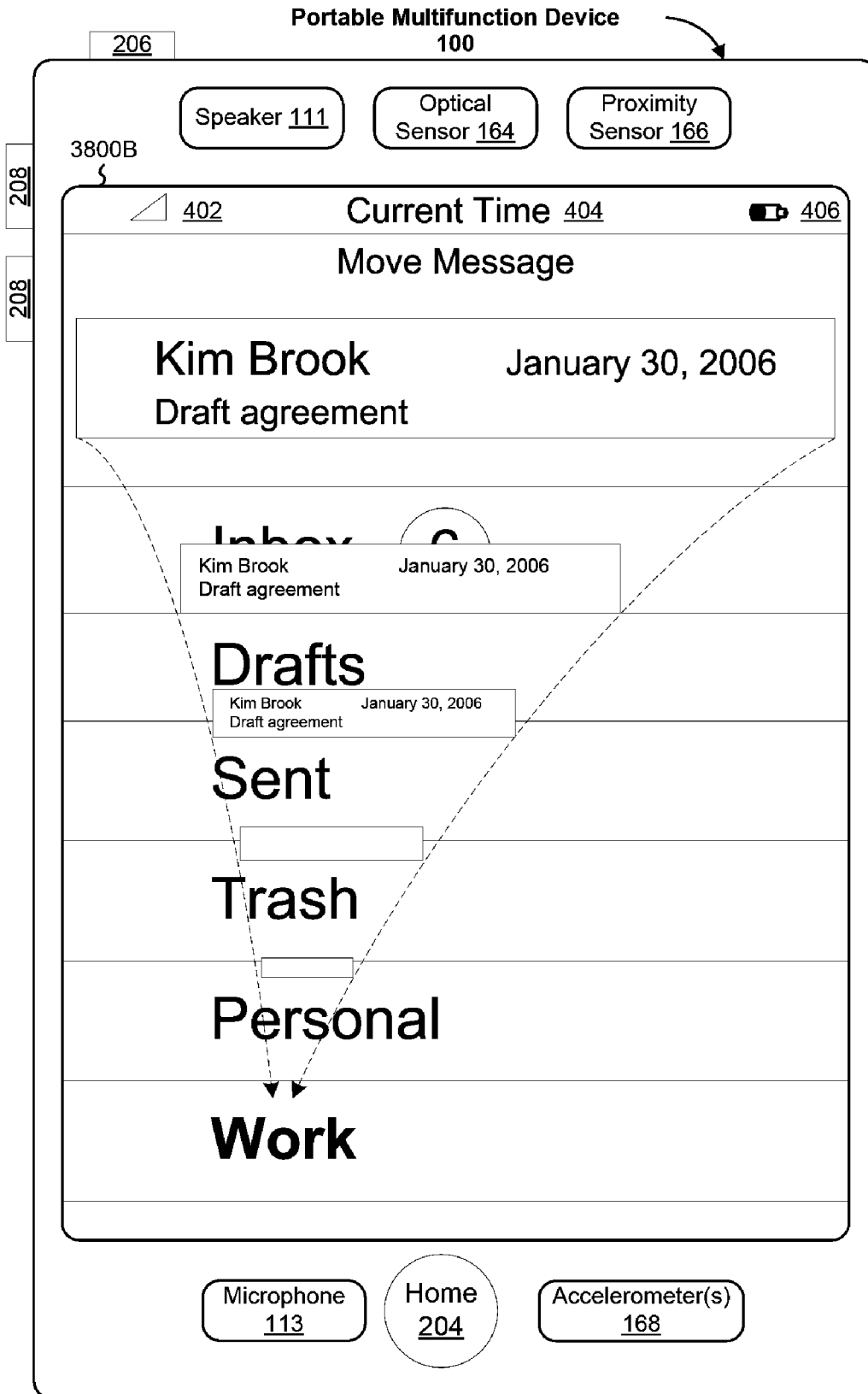


Figure 38B

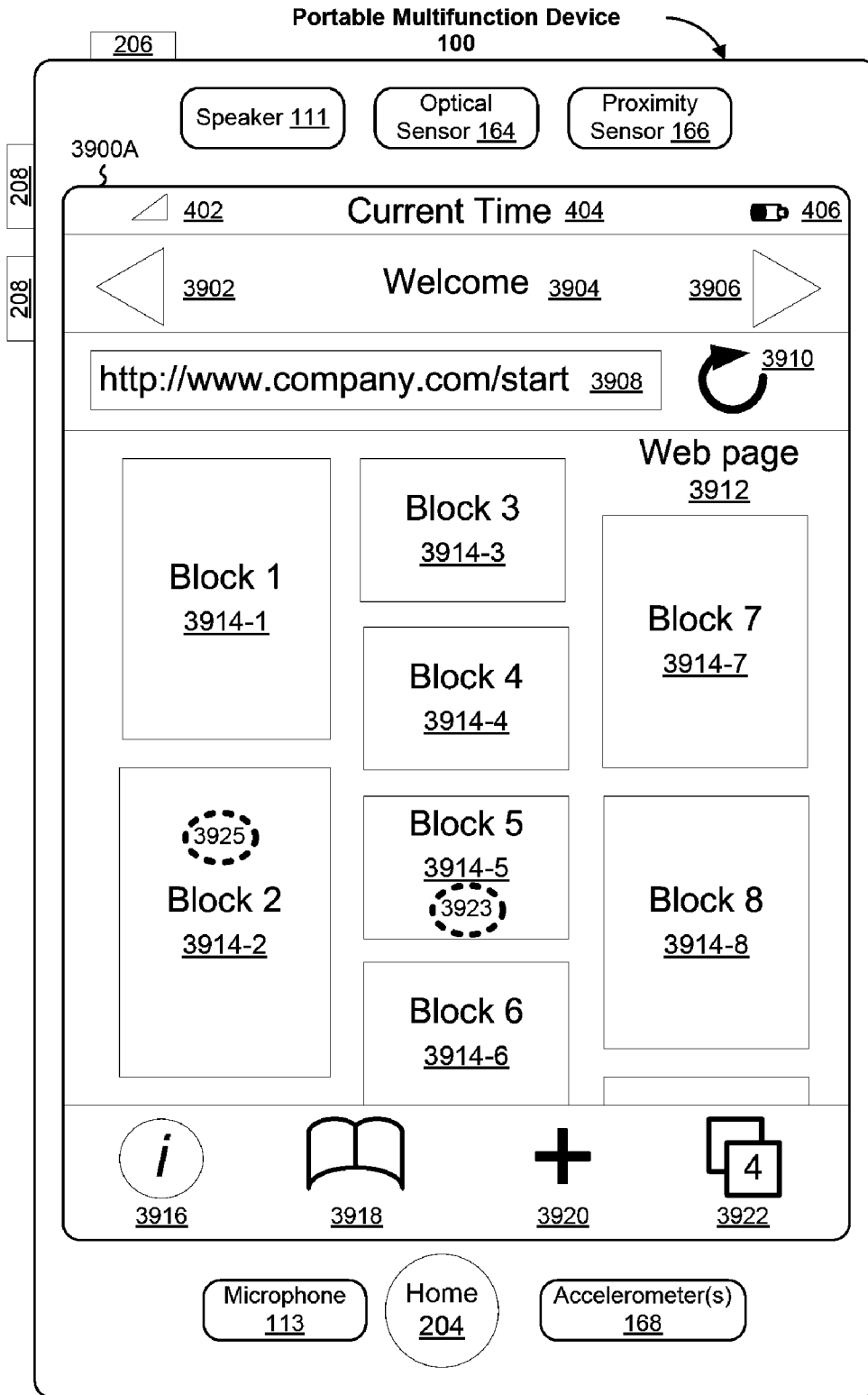


Figure 39A



Figure 39B



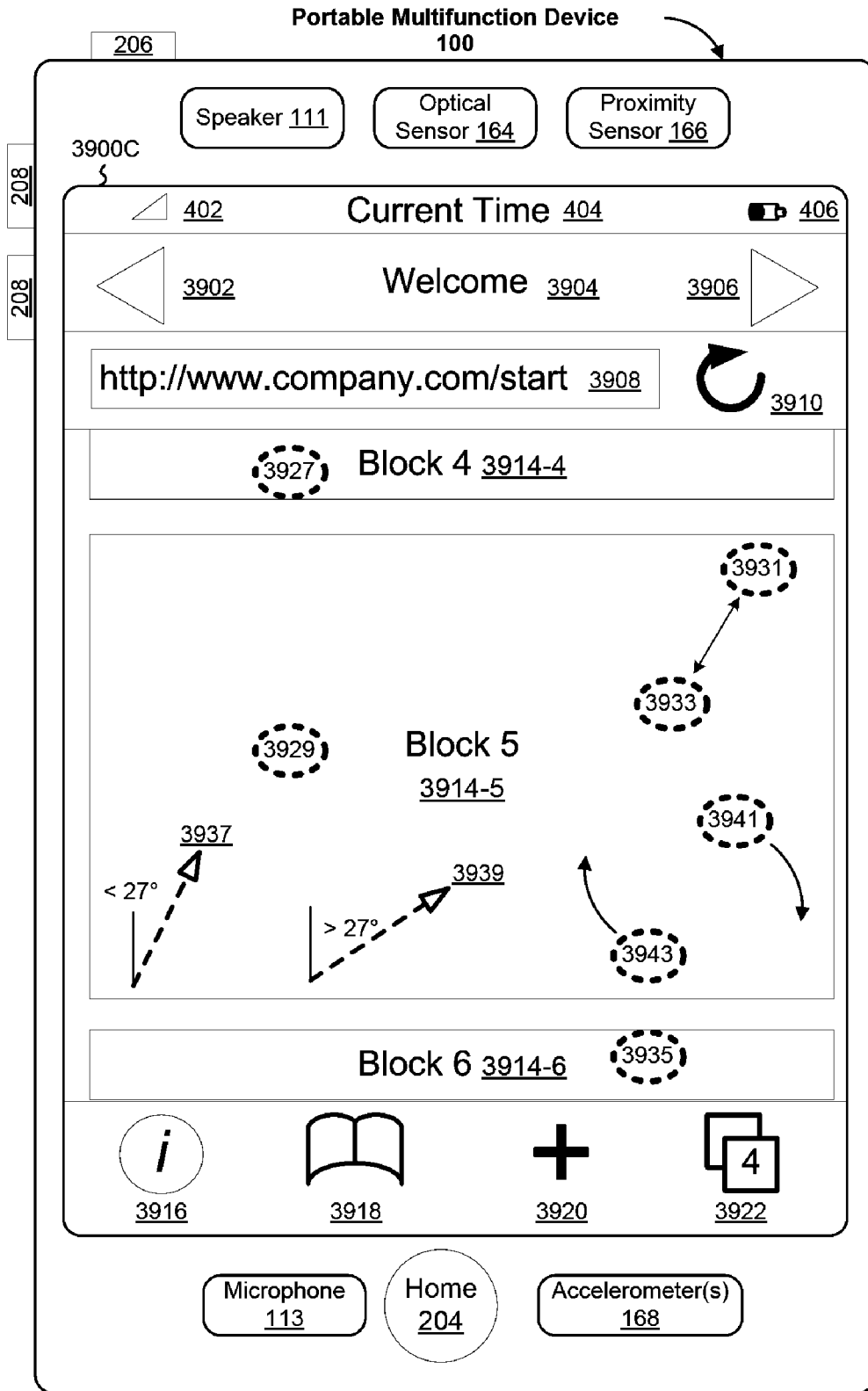


Figure 39C

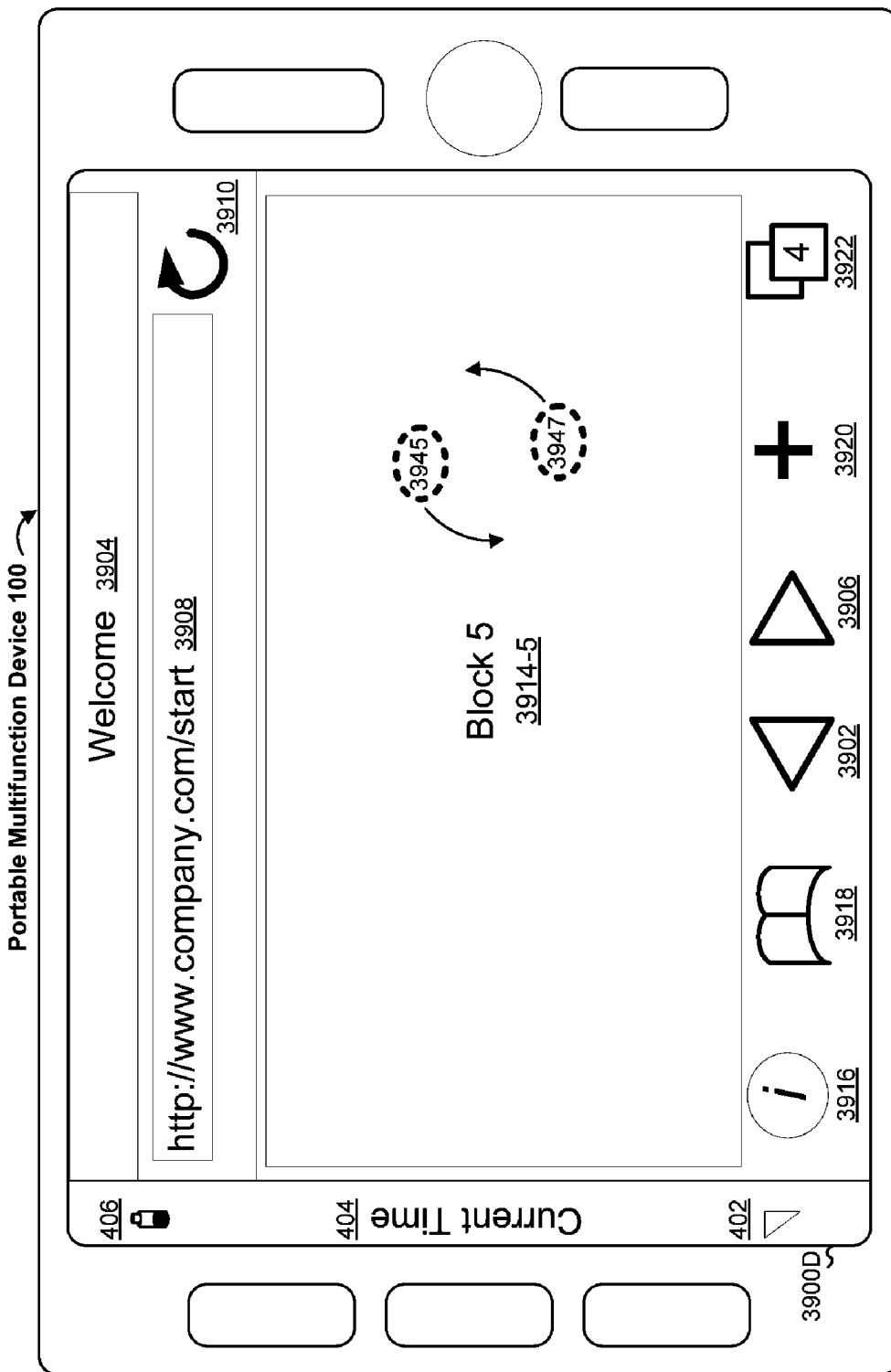


Figure 39D

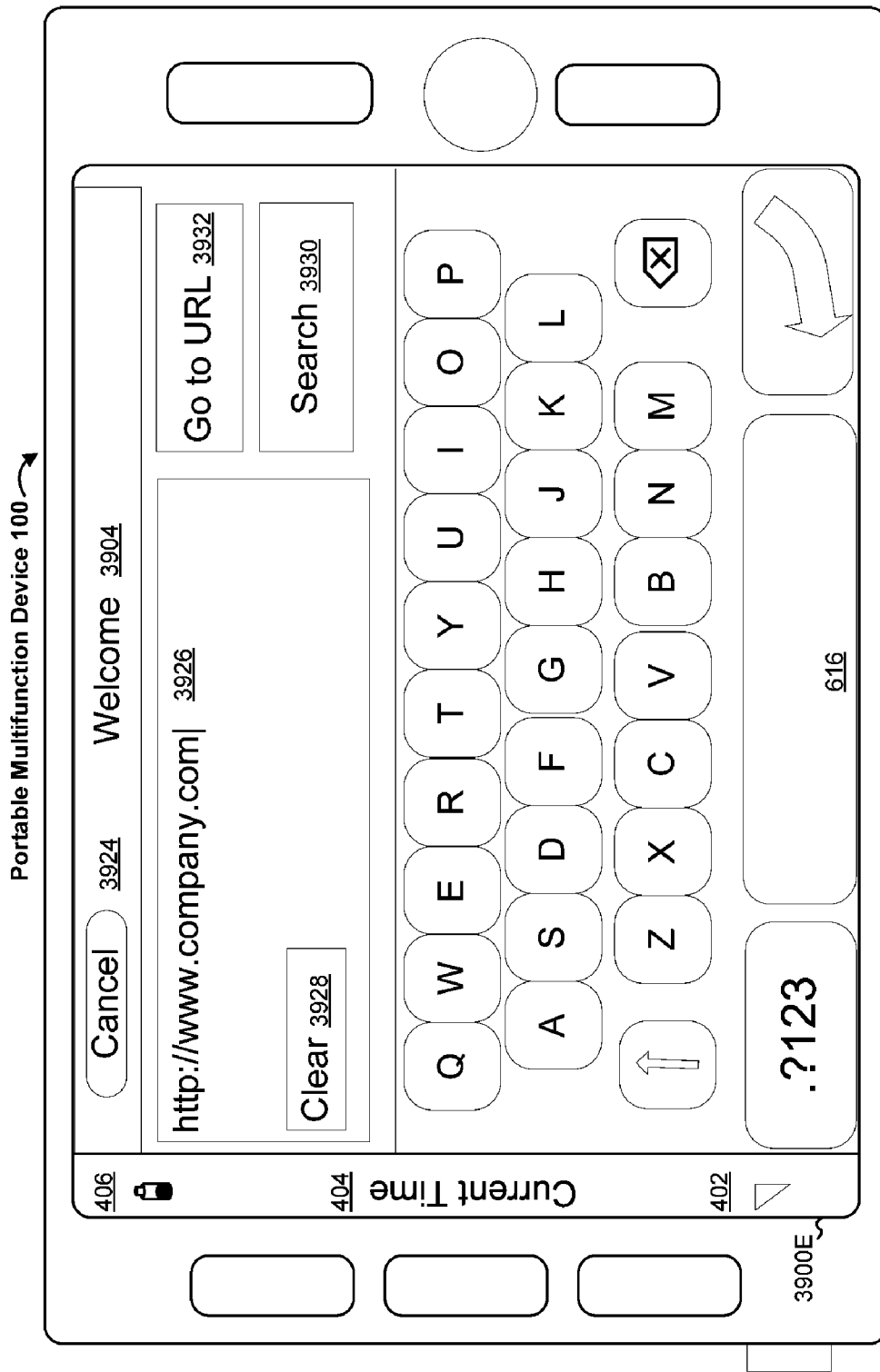


Figure 39E

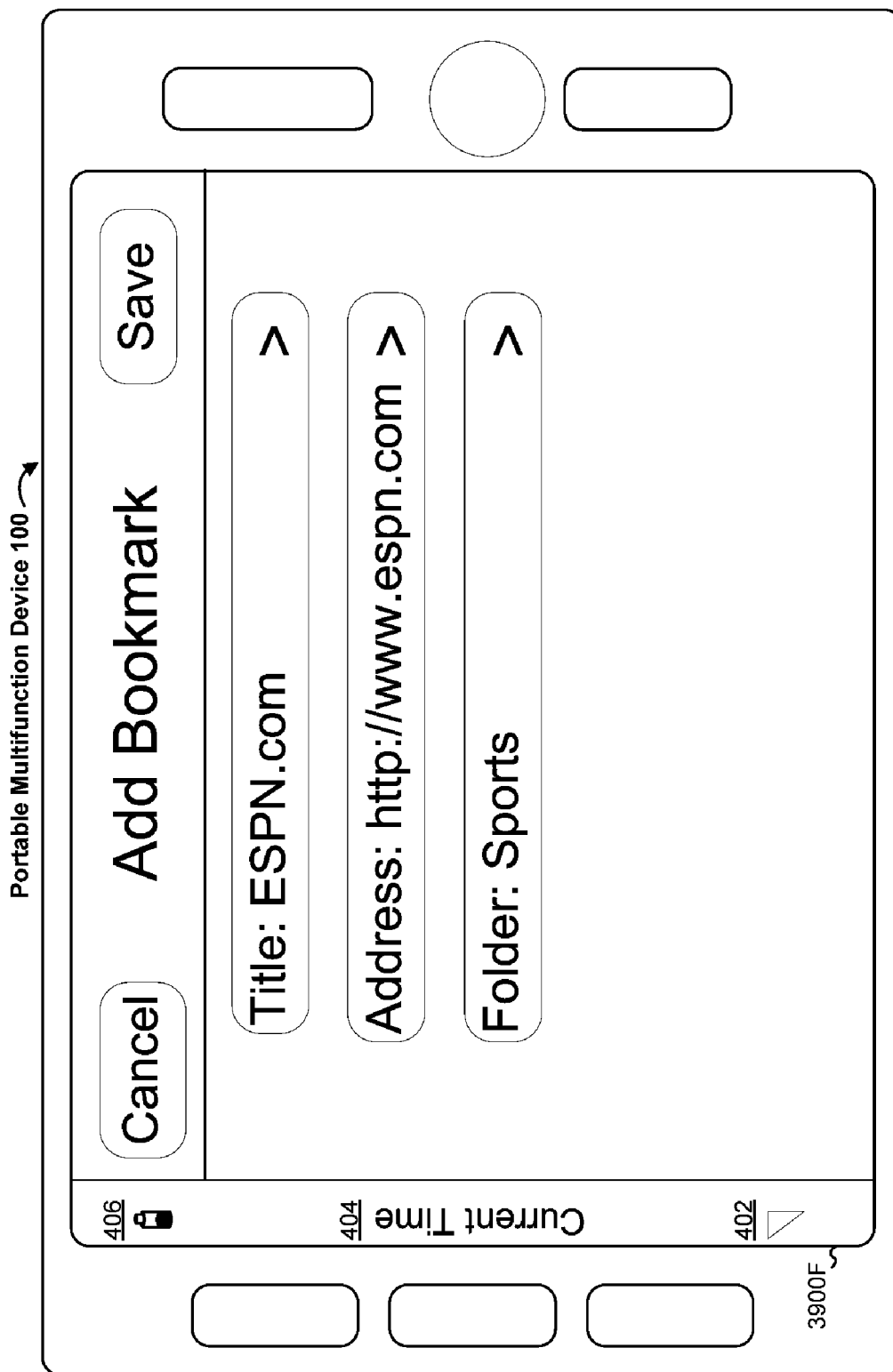


Figure 39F

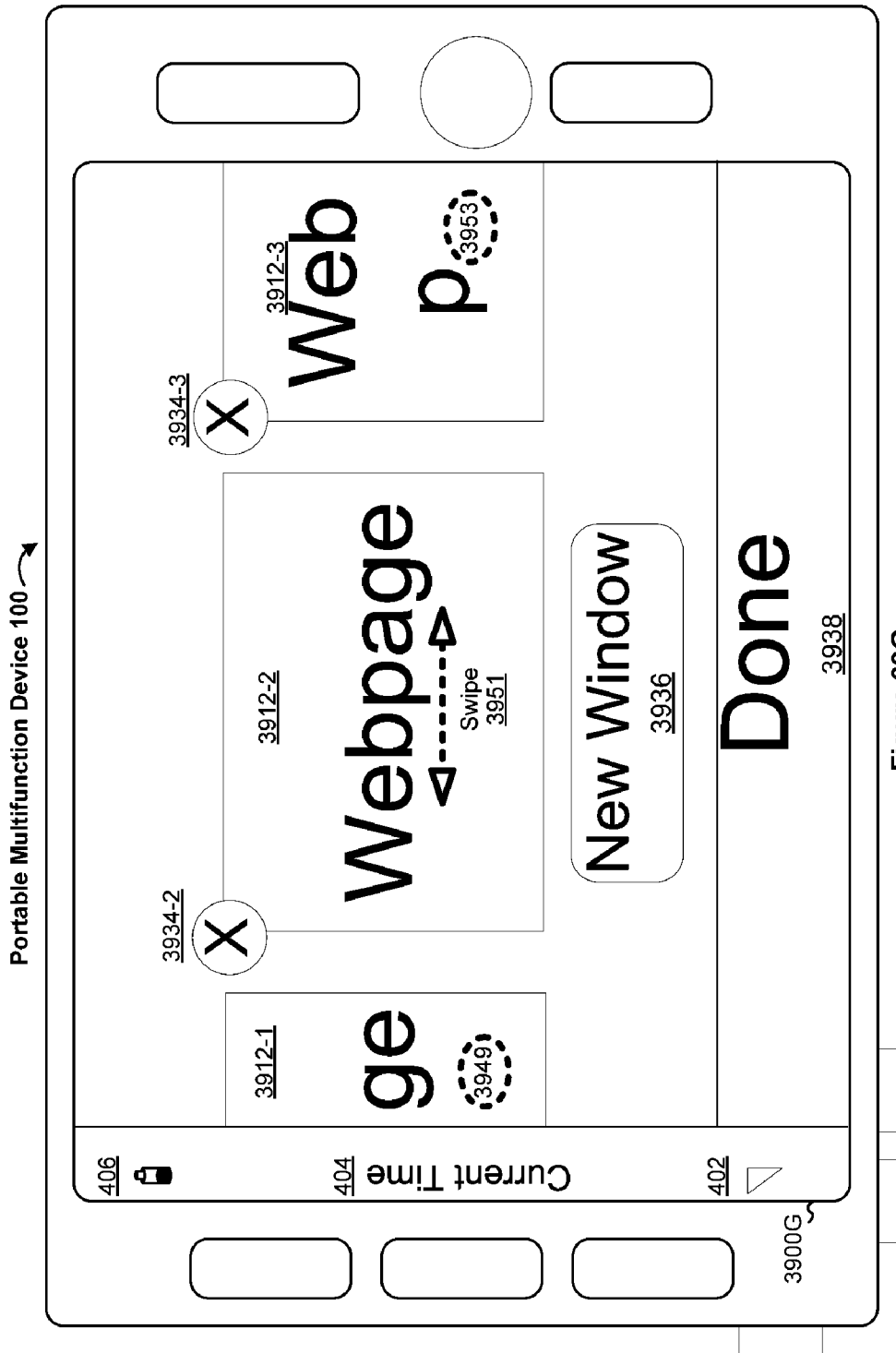


Figure 39G

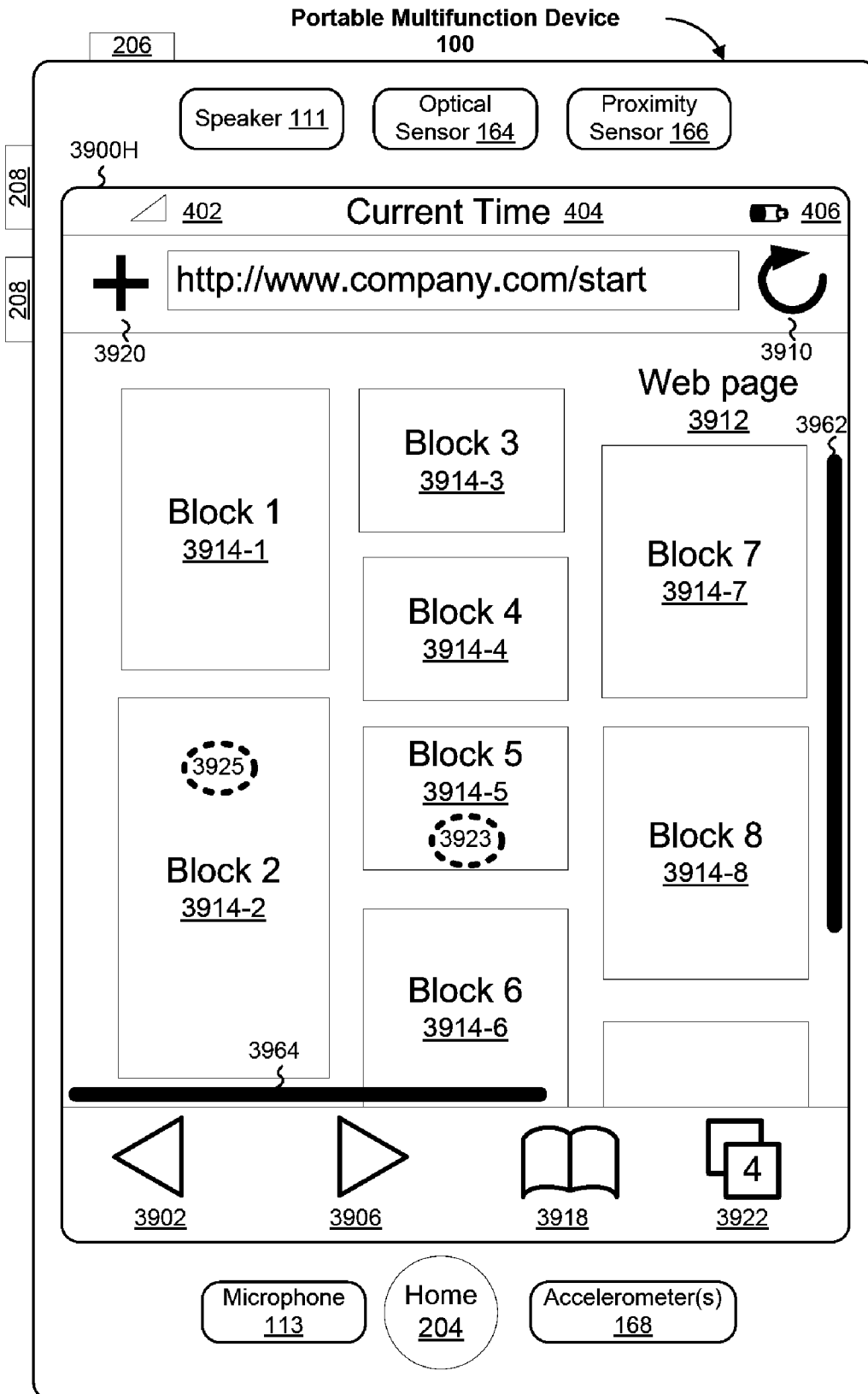


Figure 39H

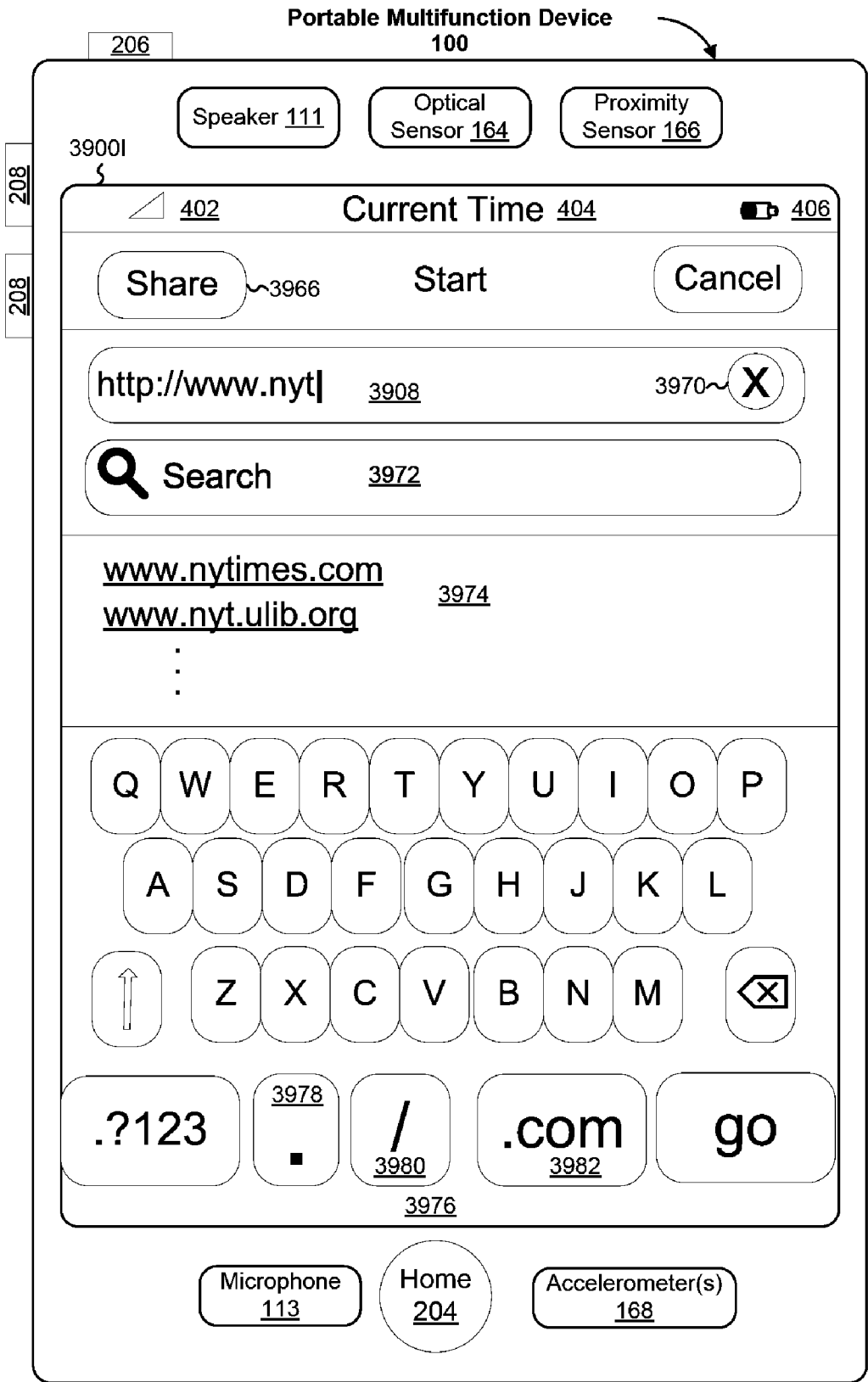


Figure 39I



Figure 39J



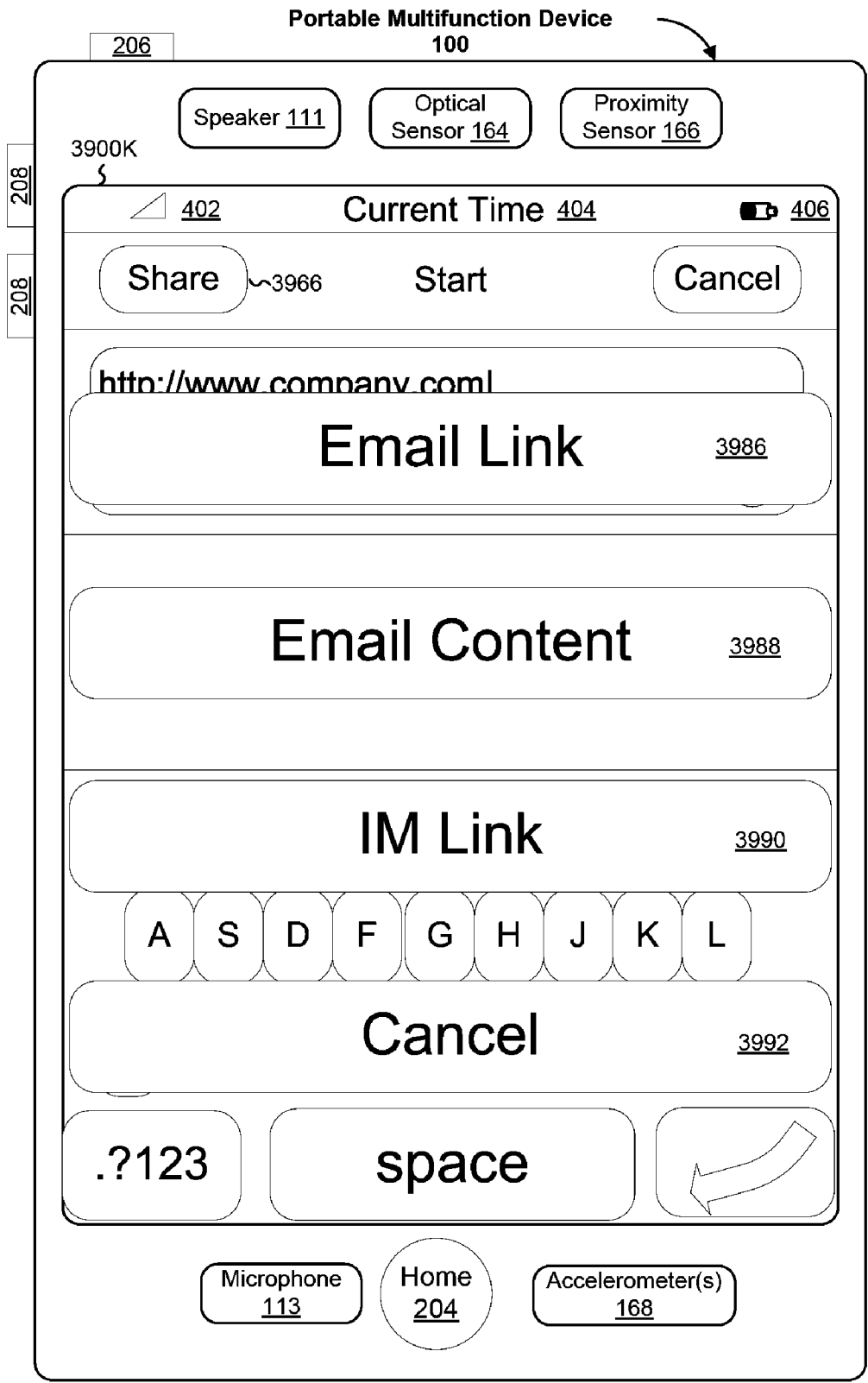


Figure 39K

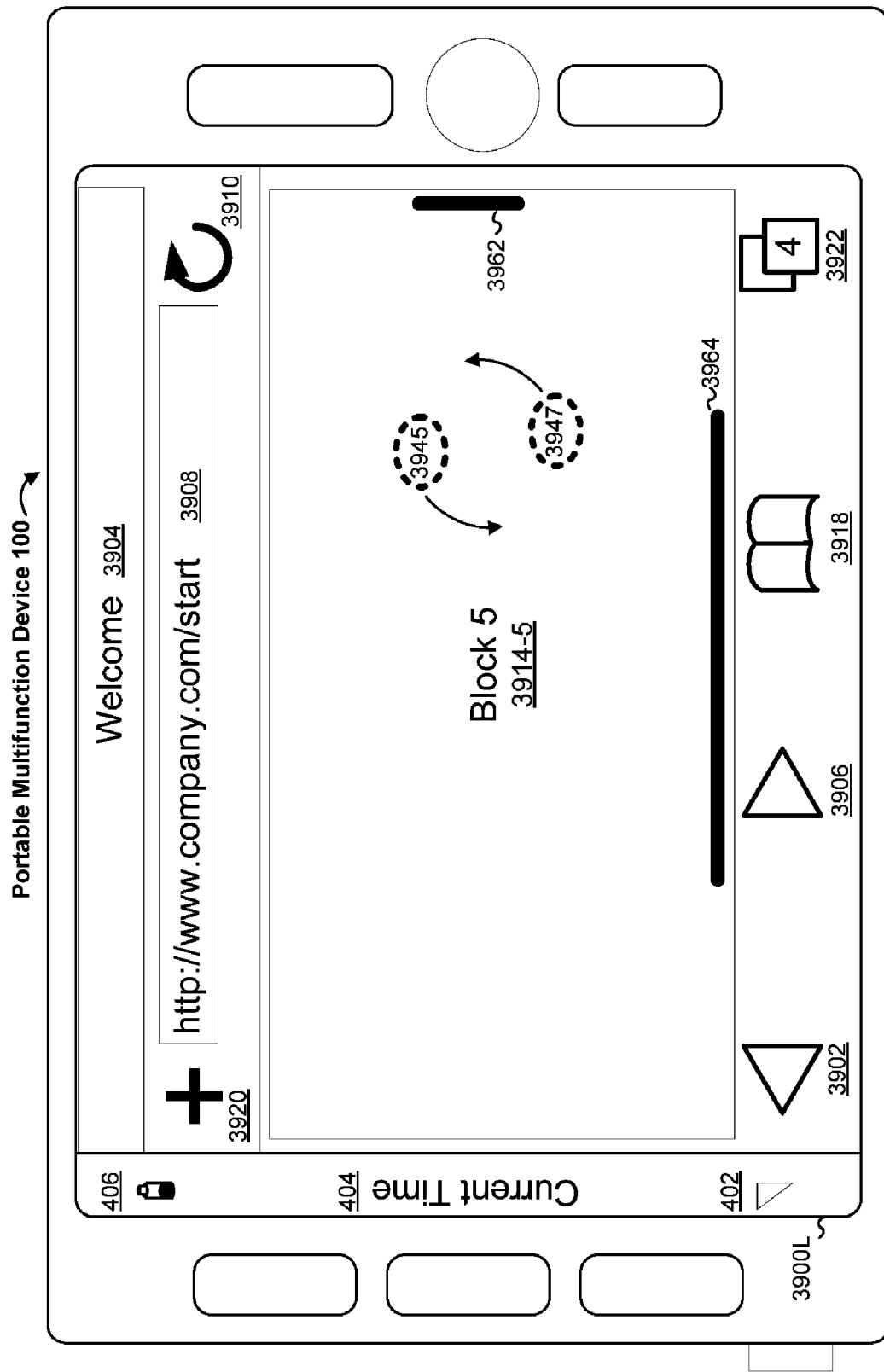


Figure 39L

Portable Multifunction Device 100

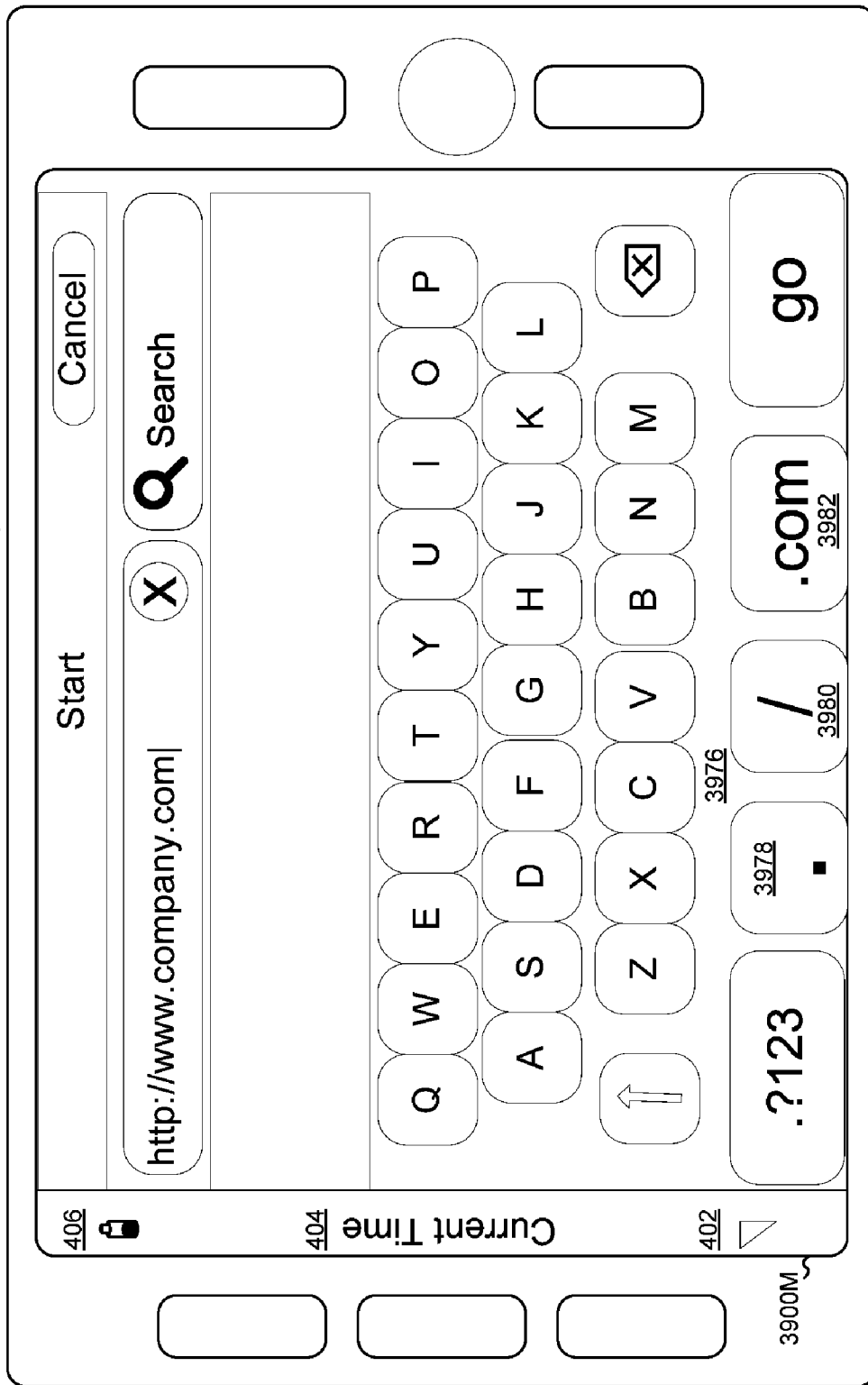


Figure 39M

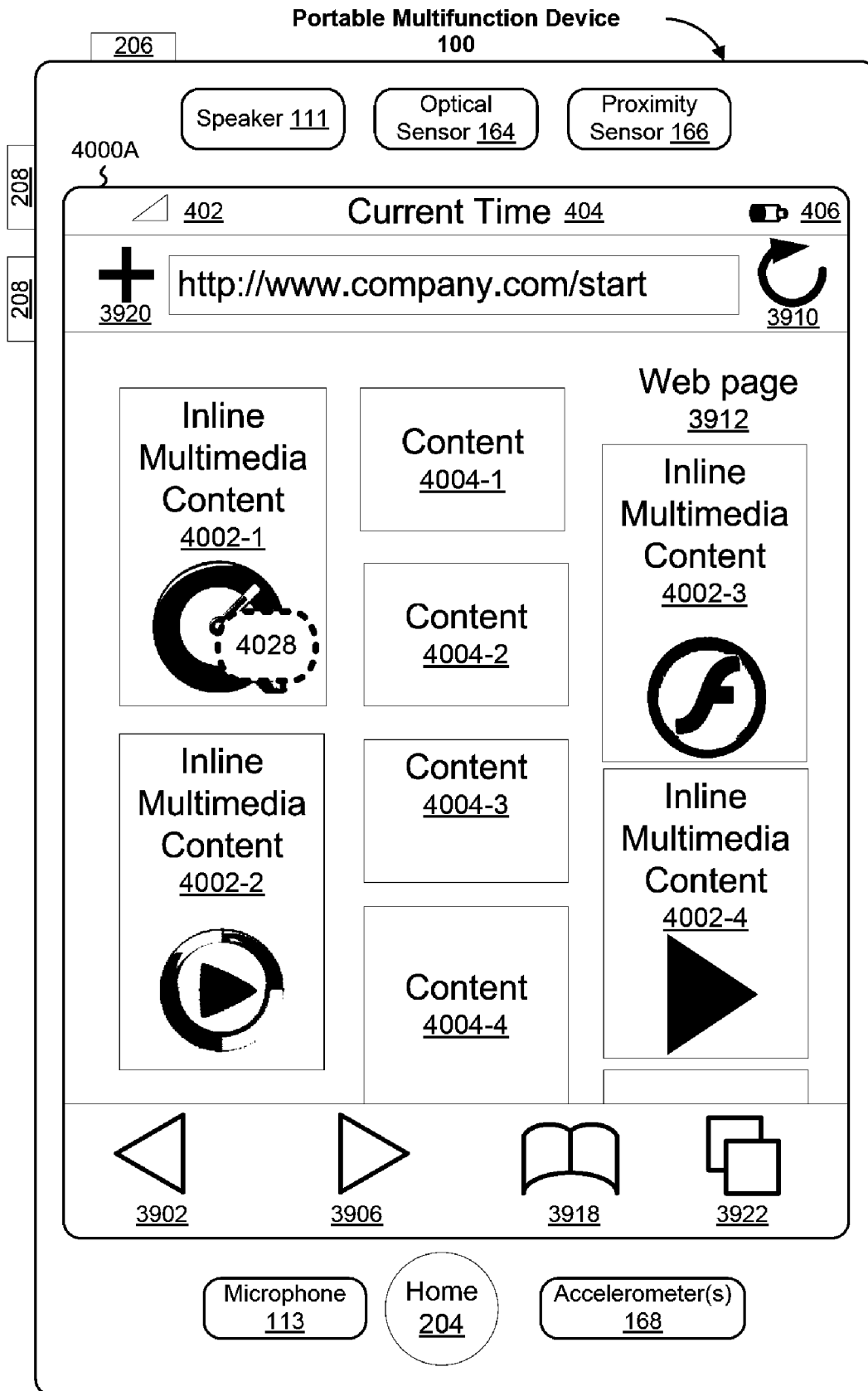
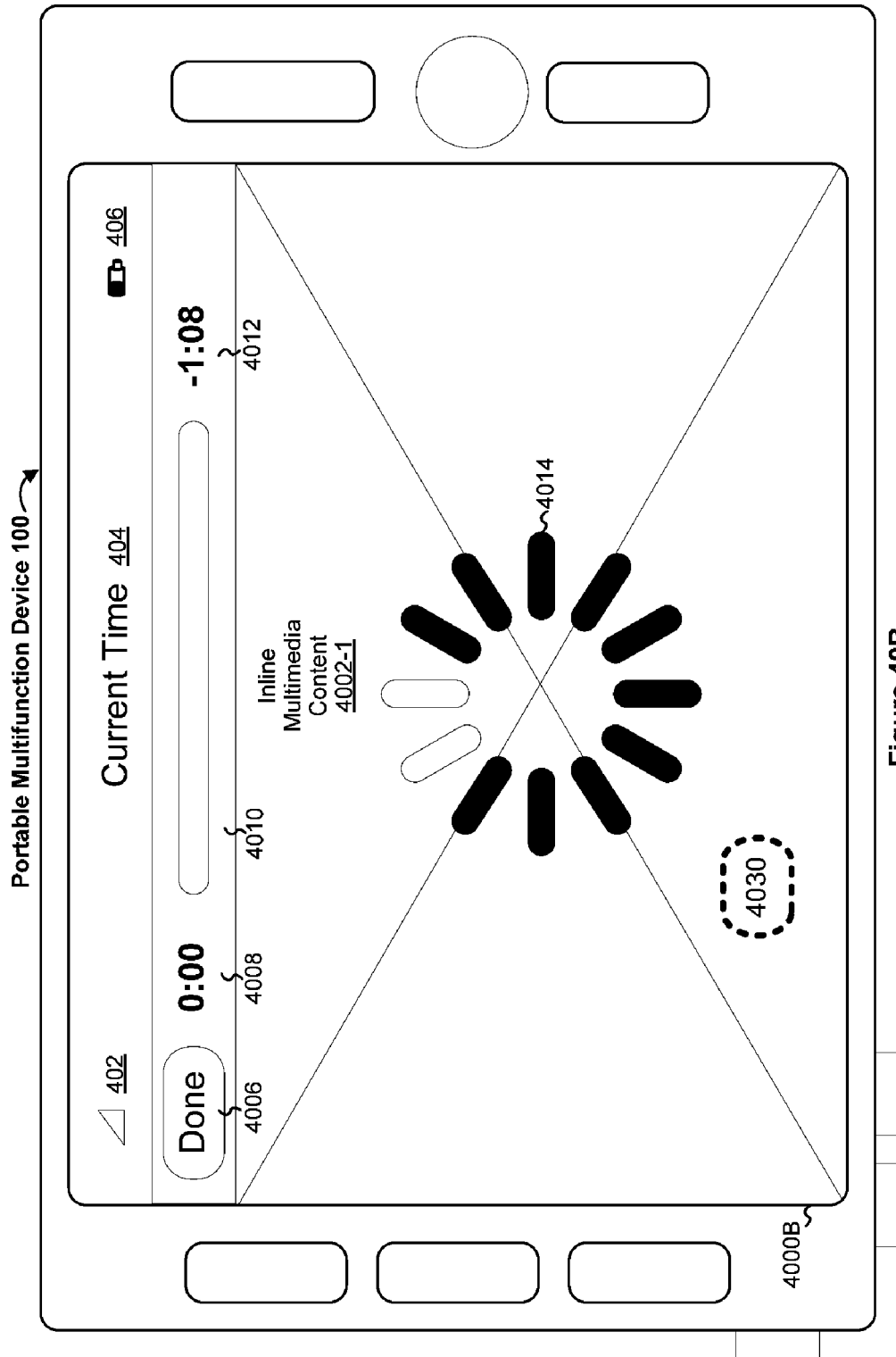


Figure 40A



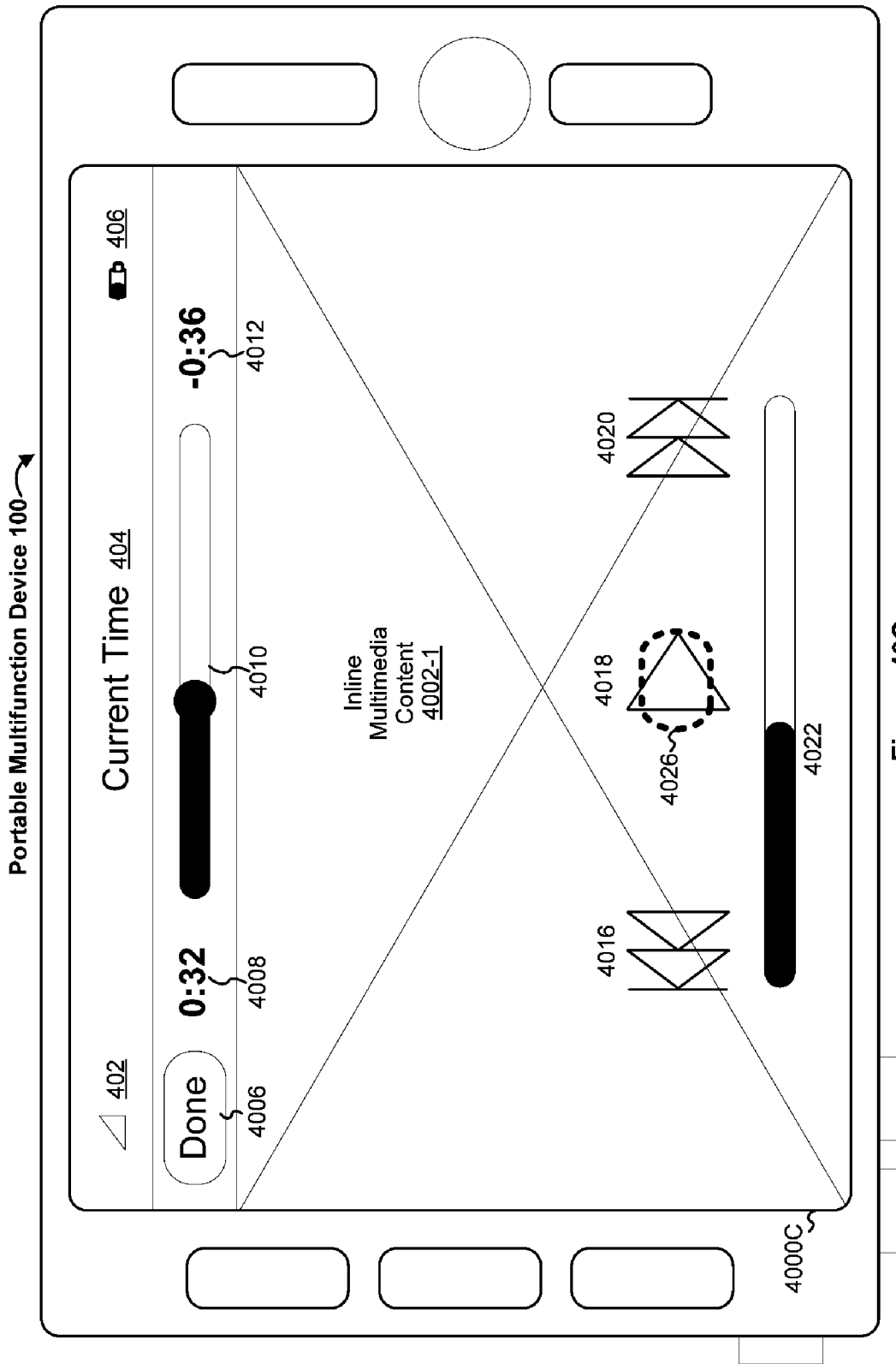
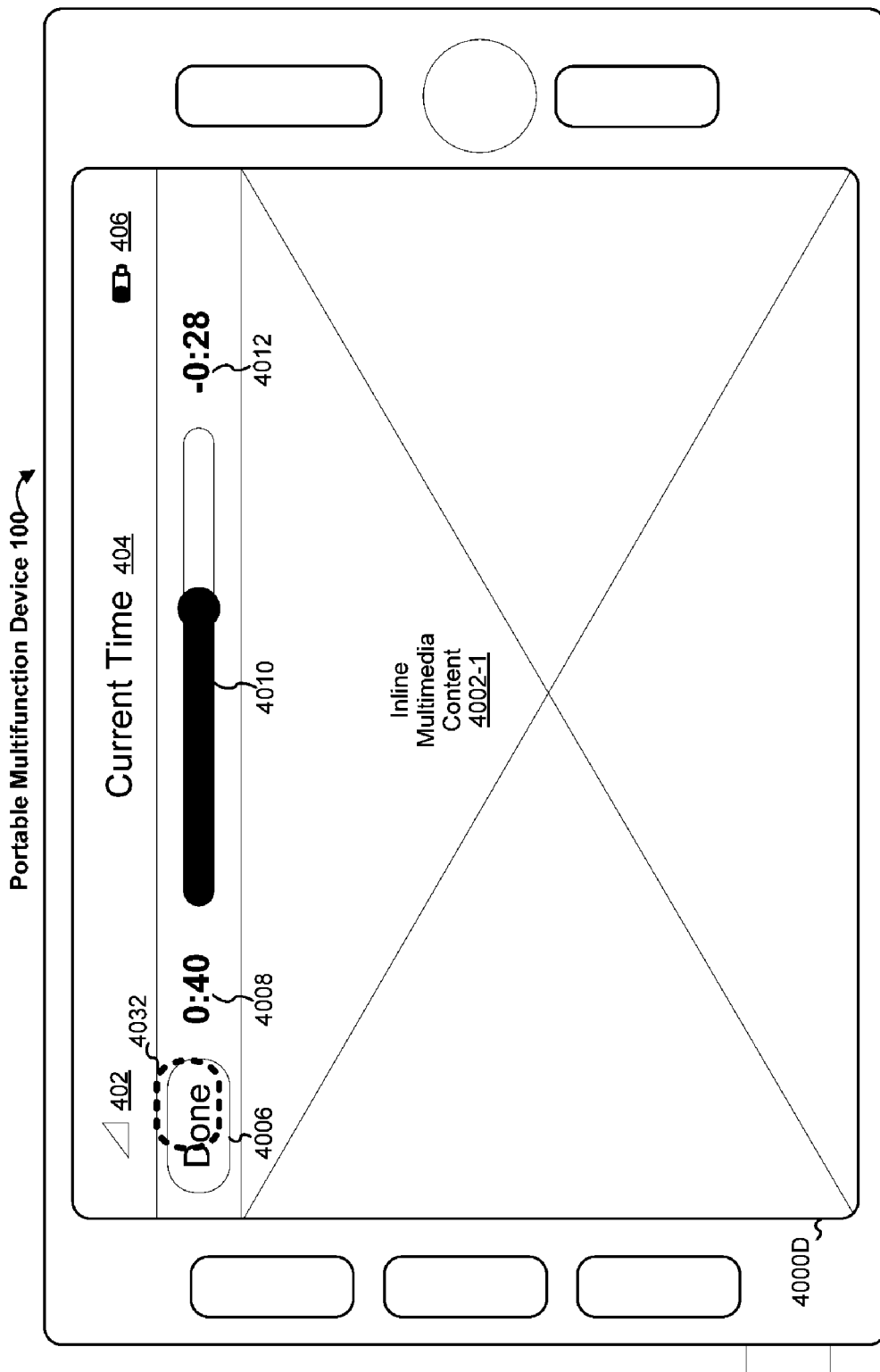


Figure 40C



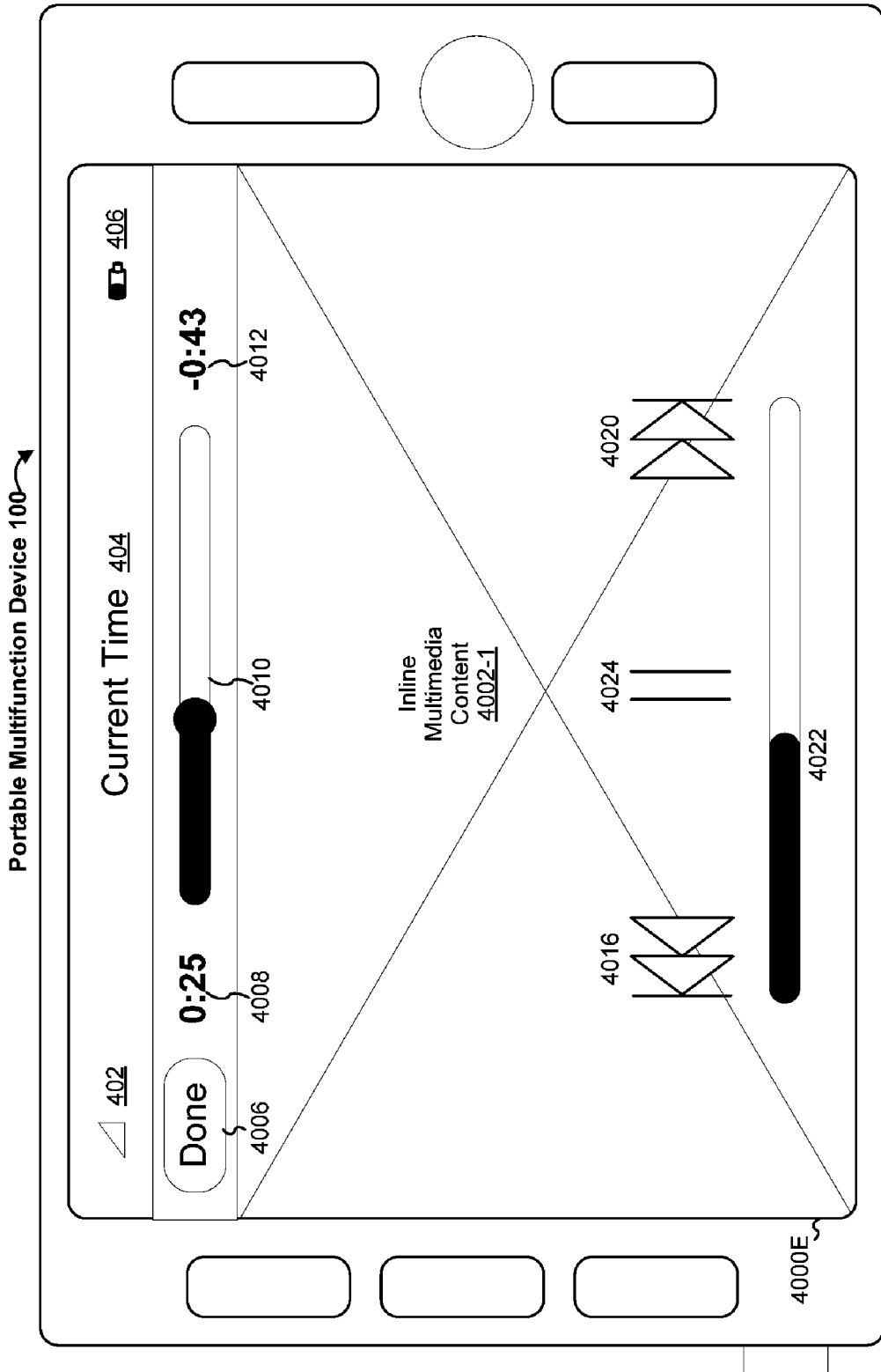


Figure 40E



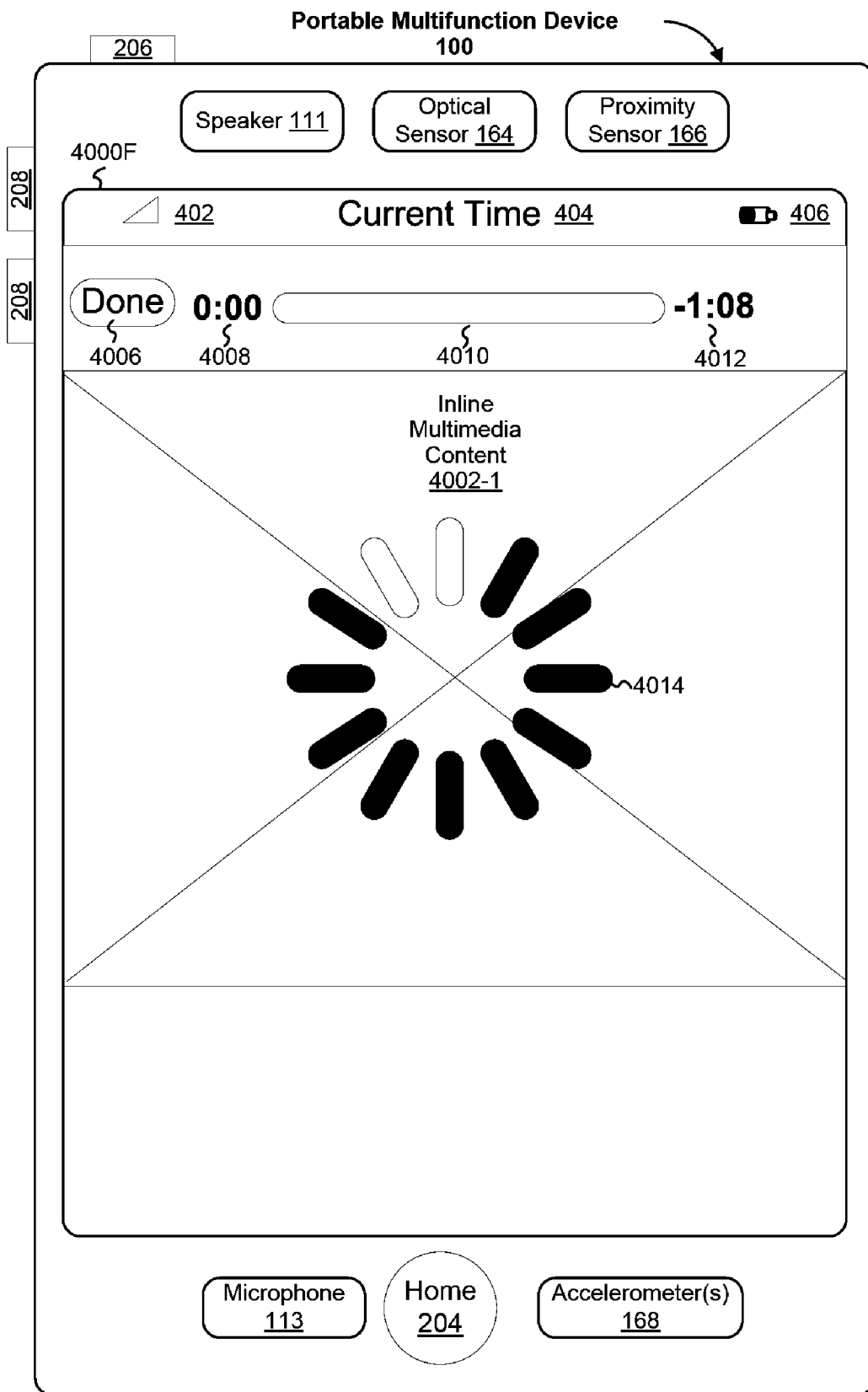


Figure 40F

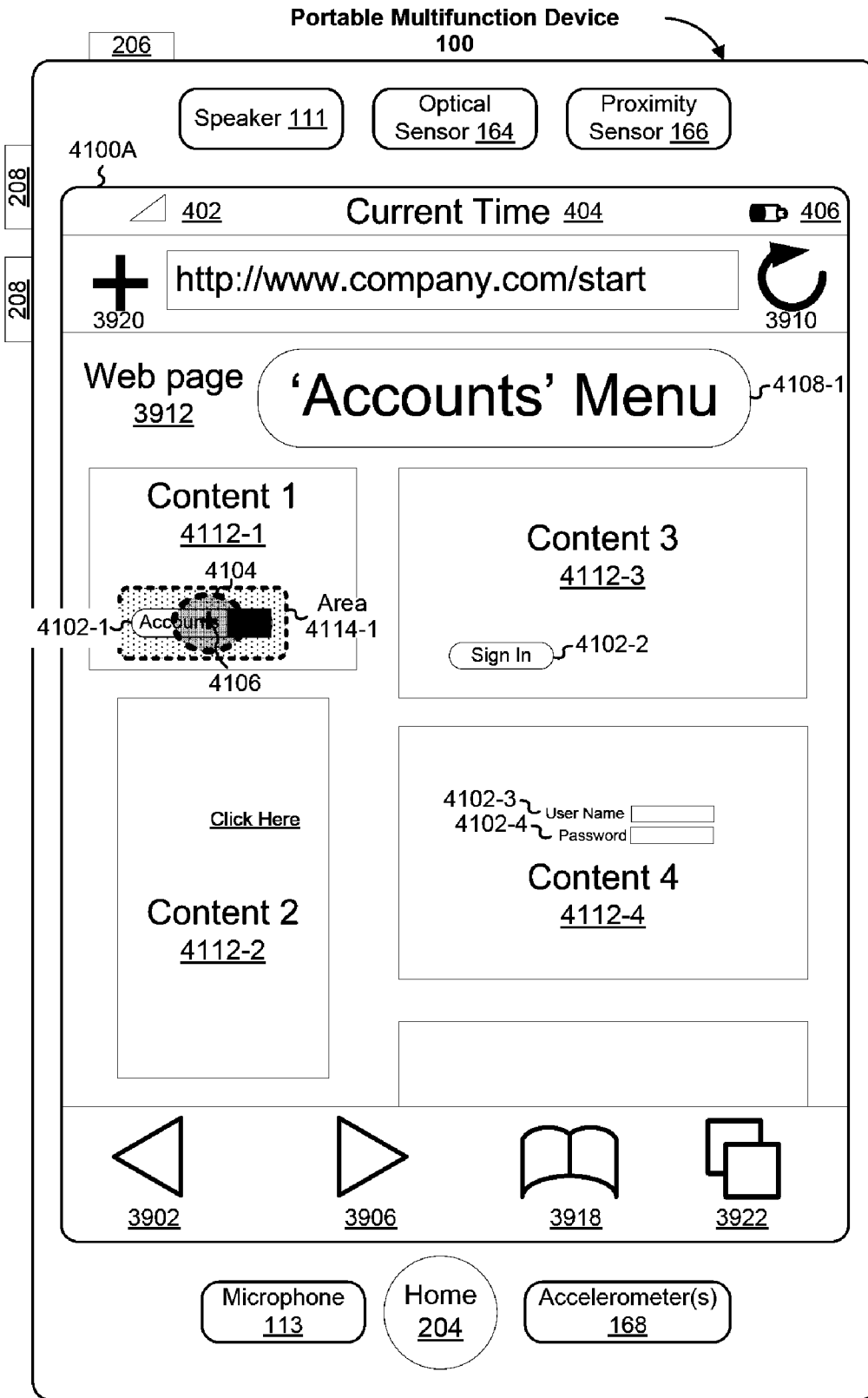


Figure 41A

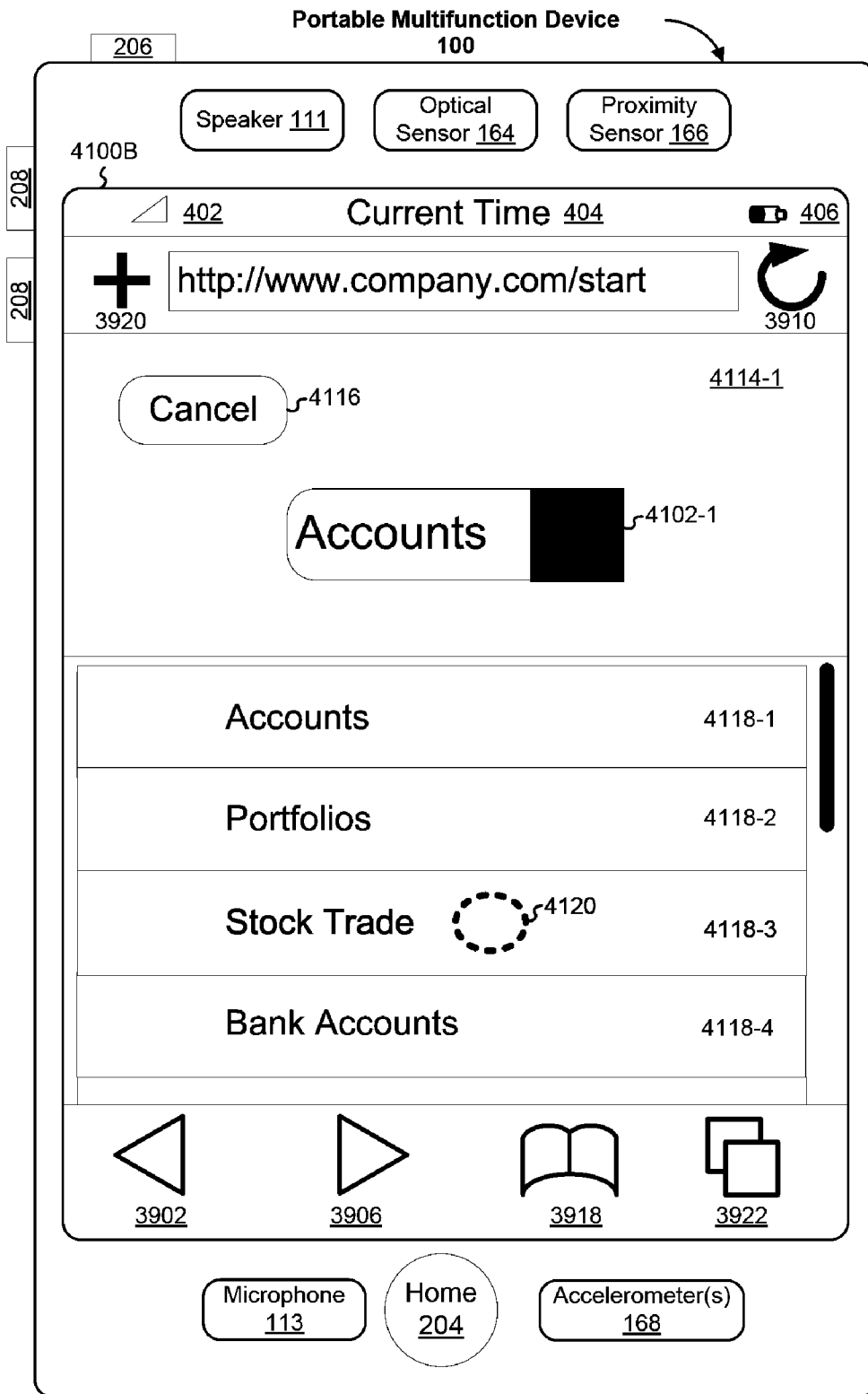


Figure 41B

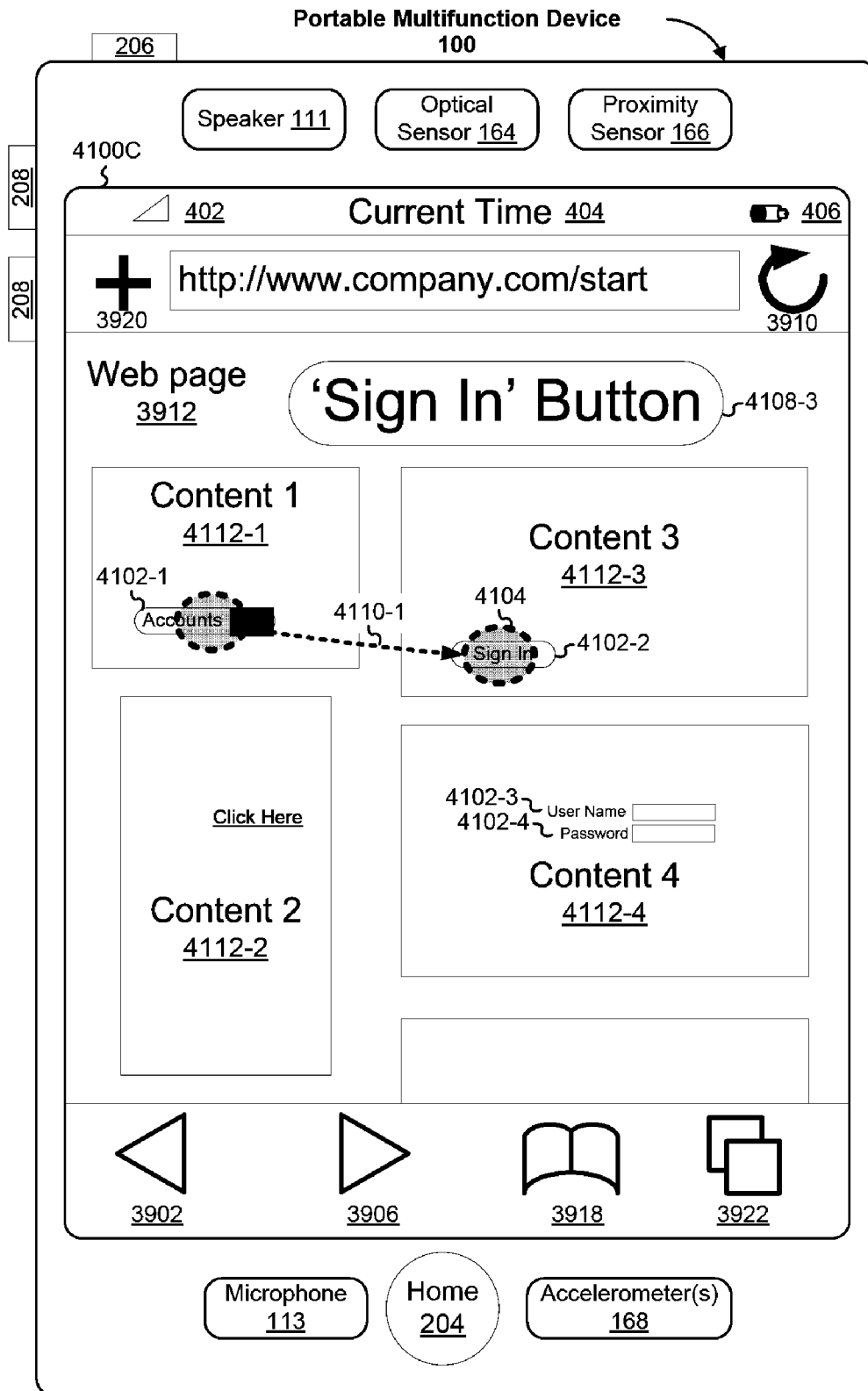


Figure 41C

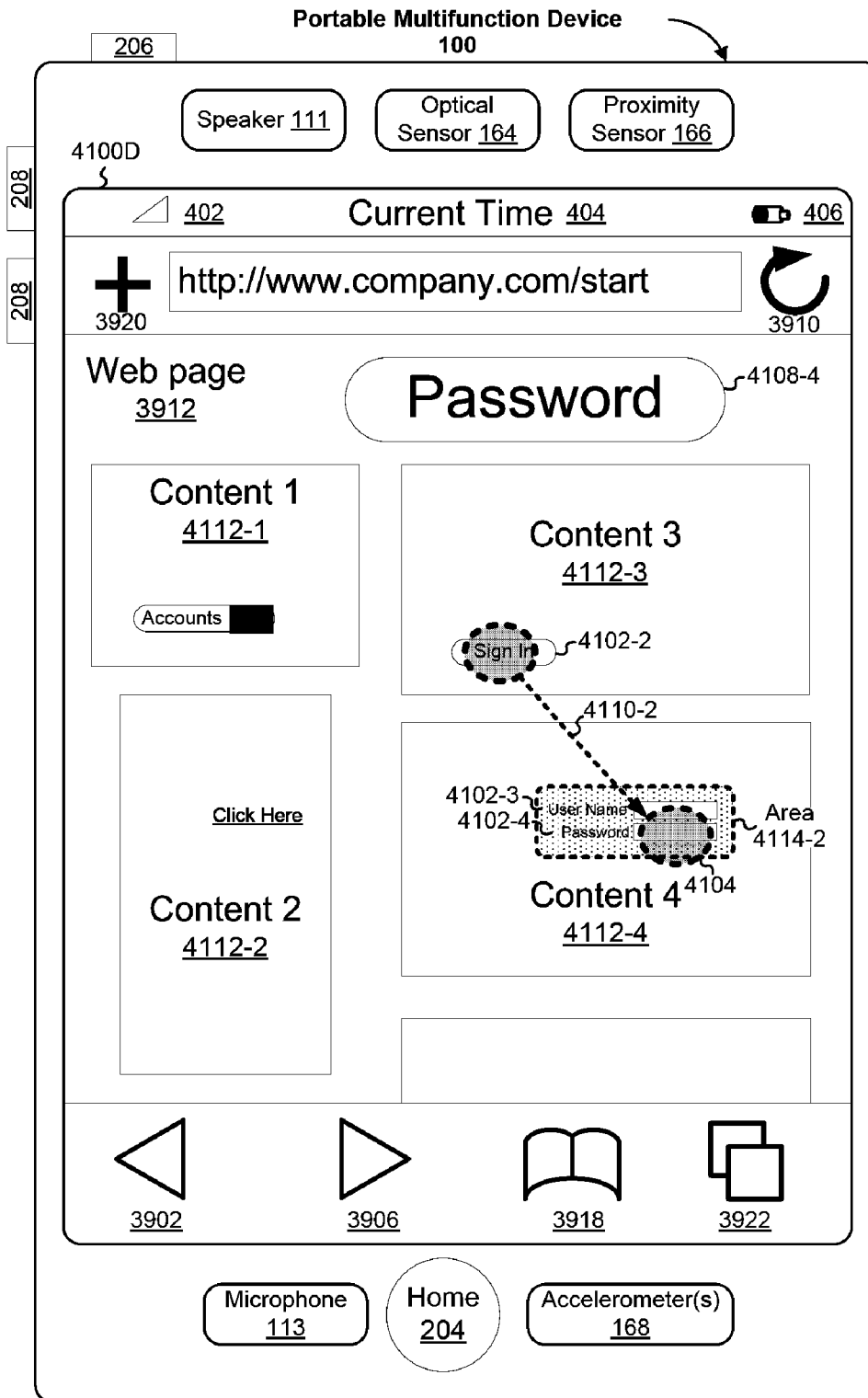


Figure 41D

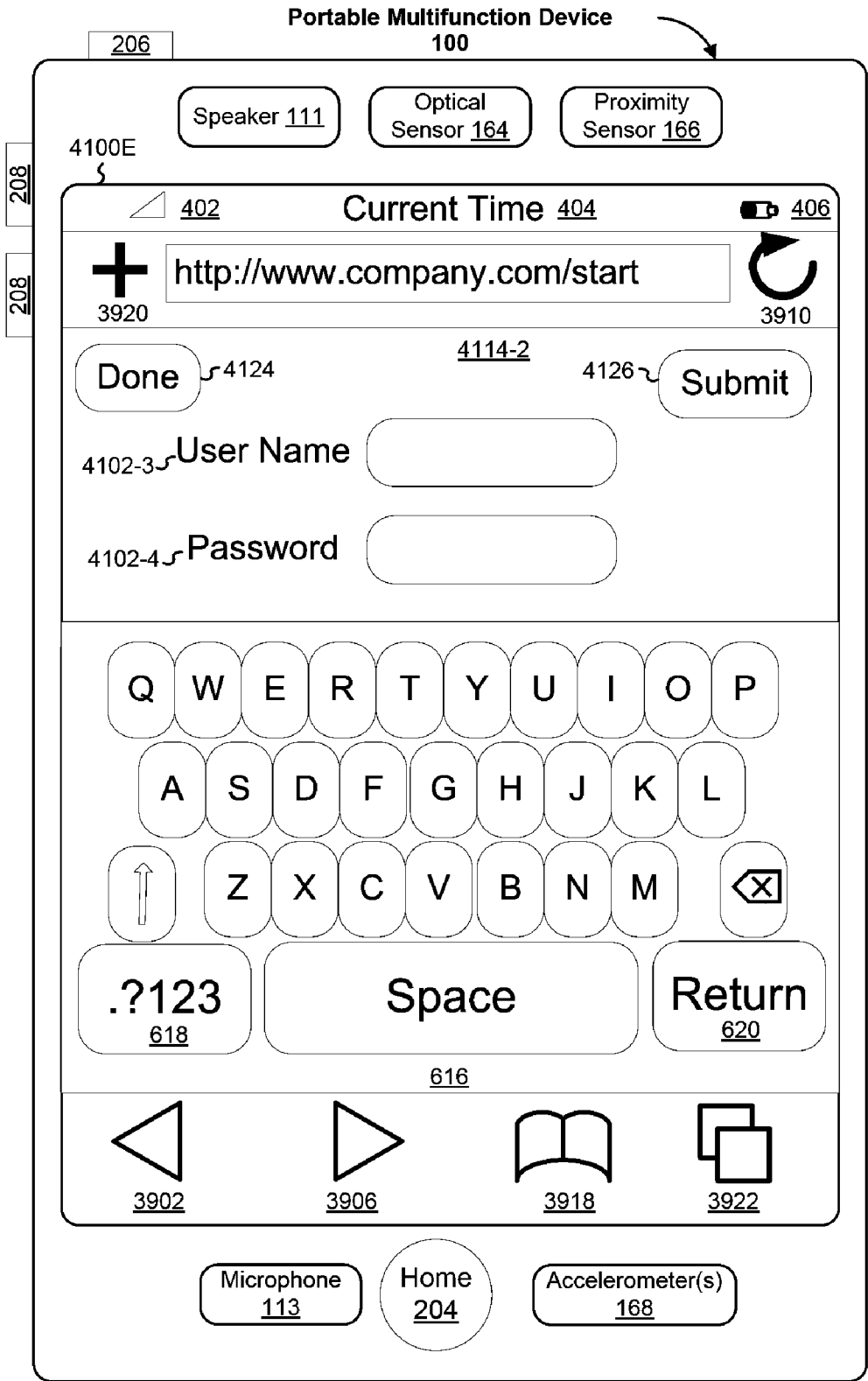


Figure 41E

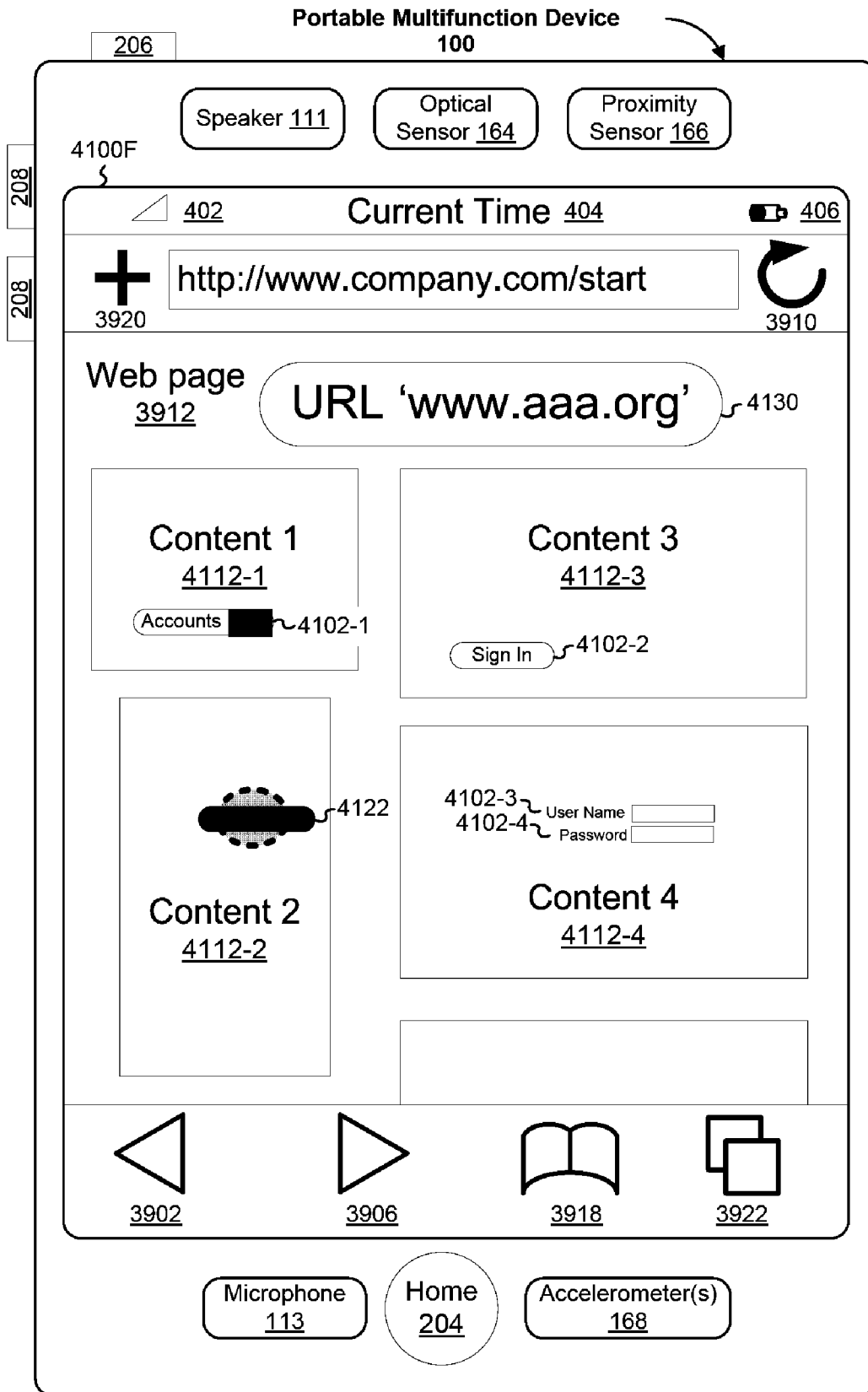


Figure 41F

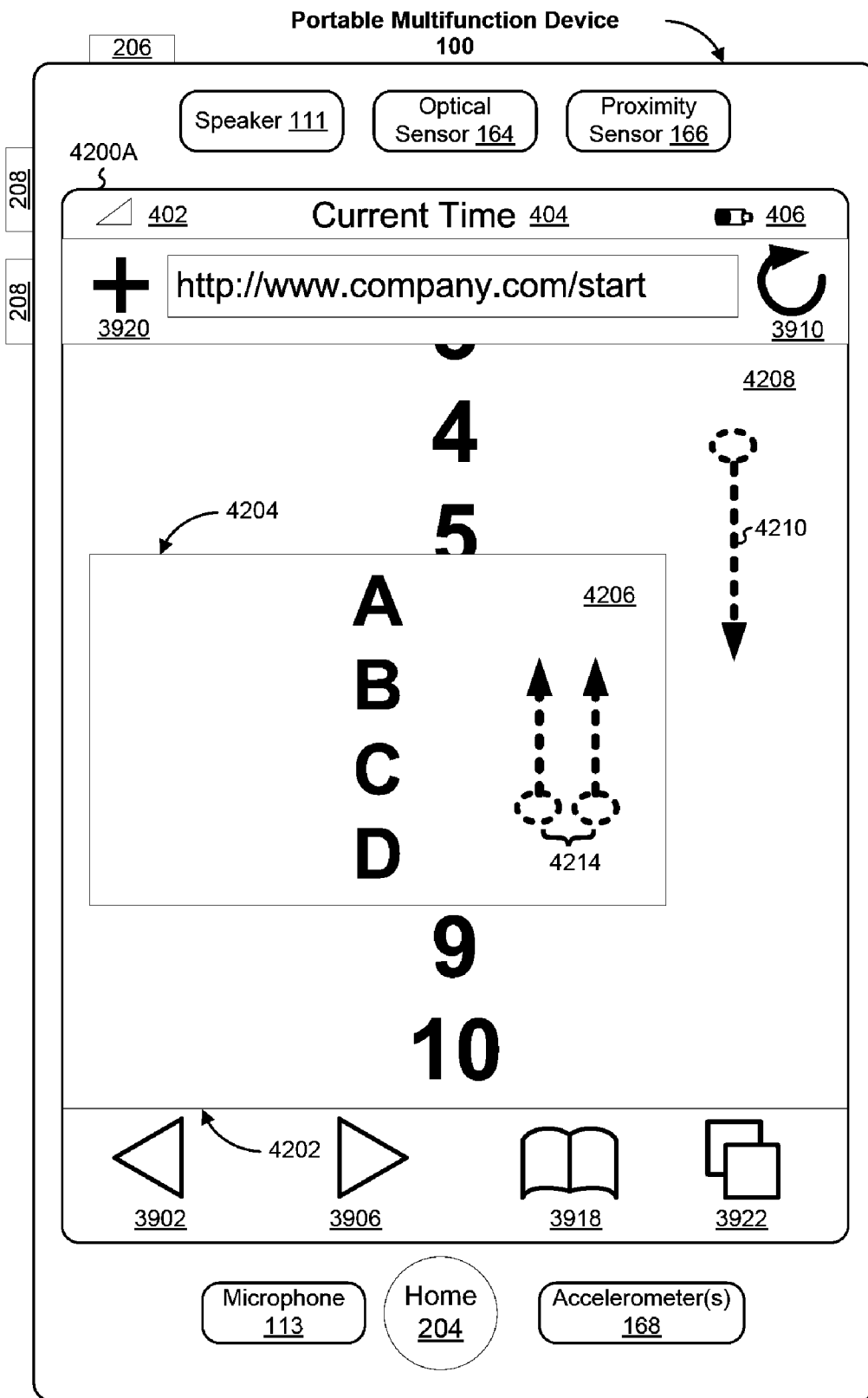


Figure 42A



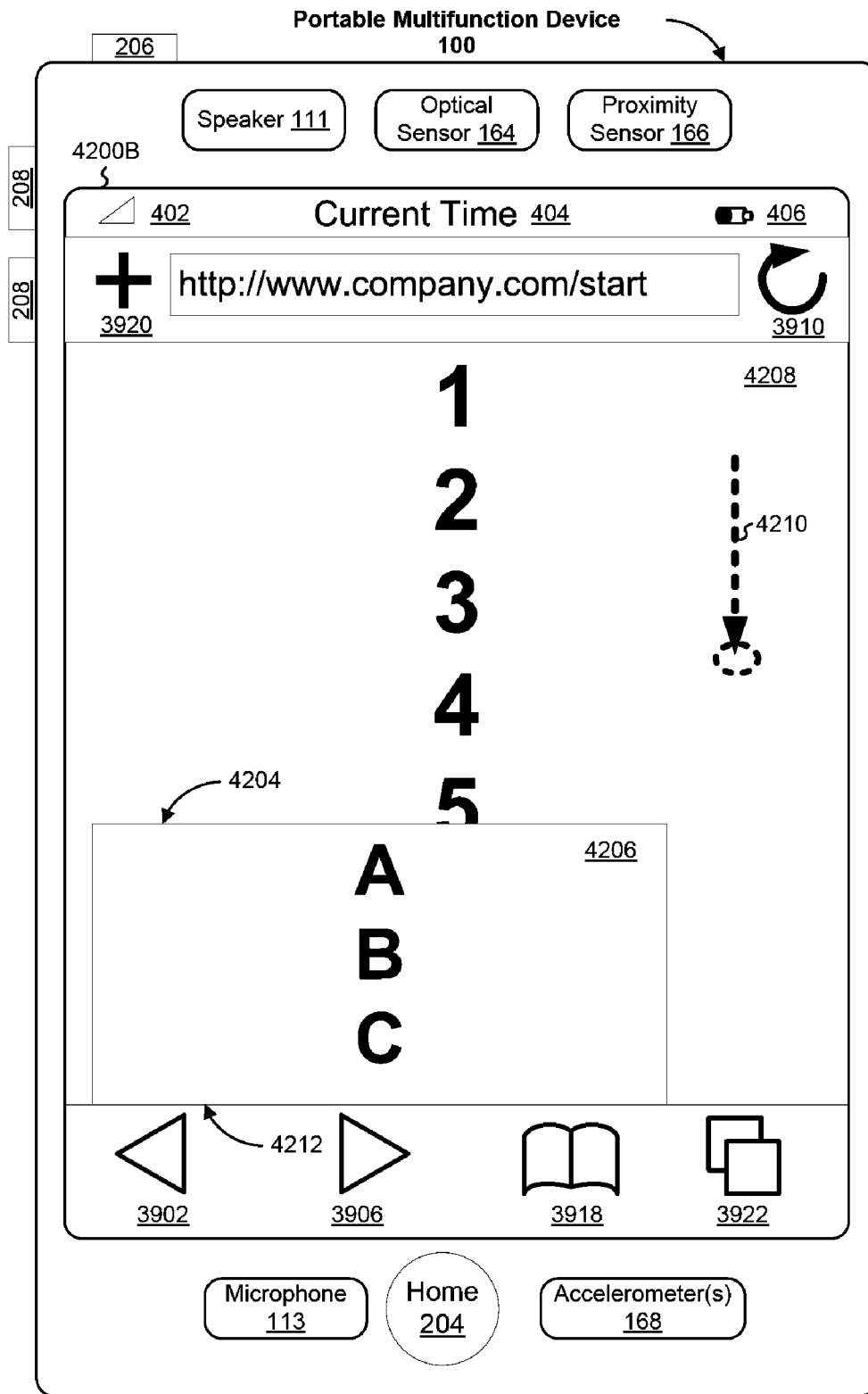


Figure 42B

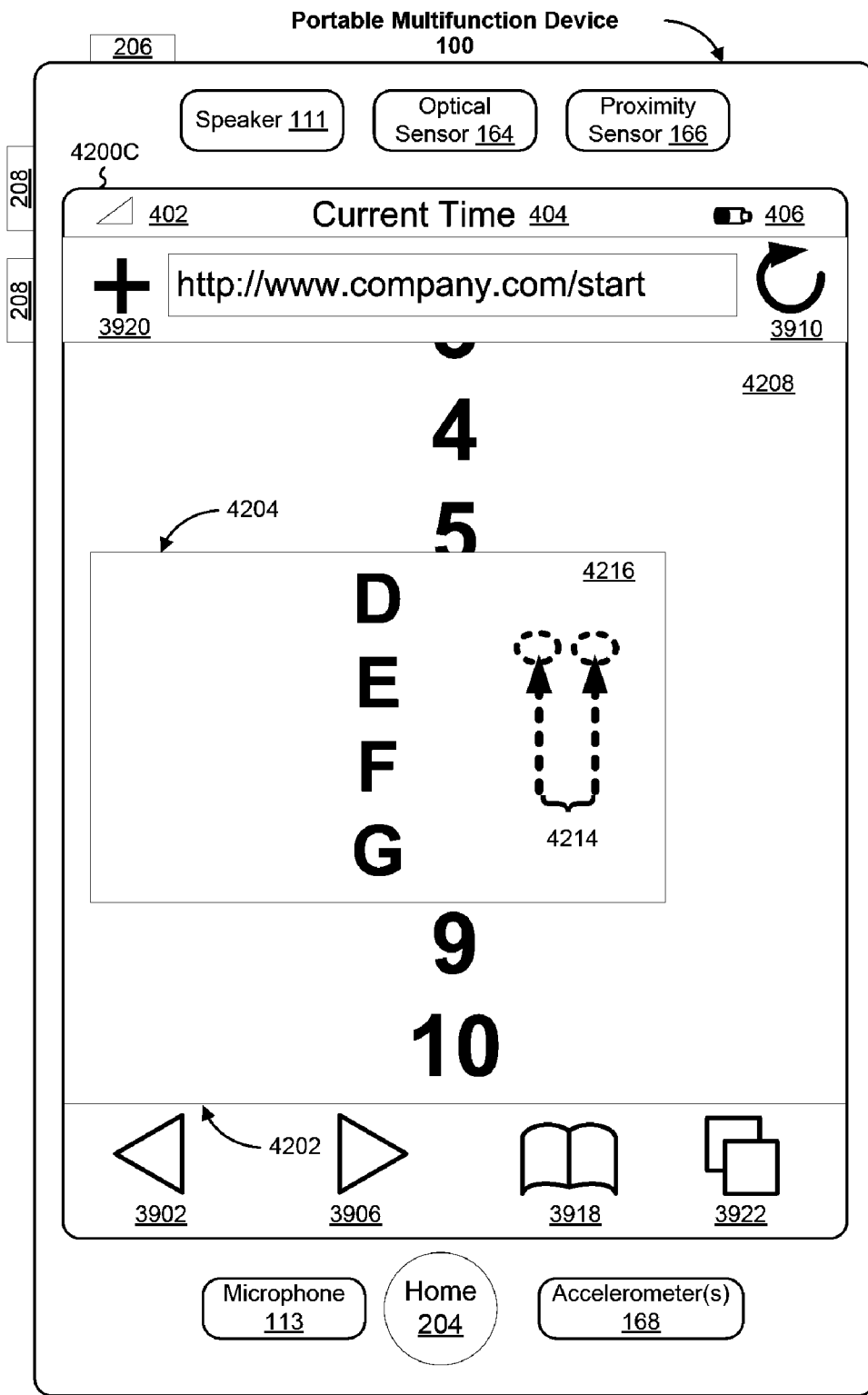


Figure 42C



Figure 43A



Figure 43B



Figure 43C

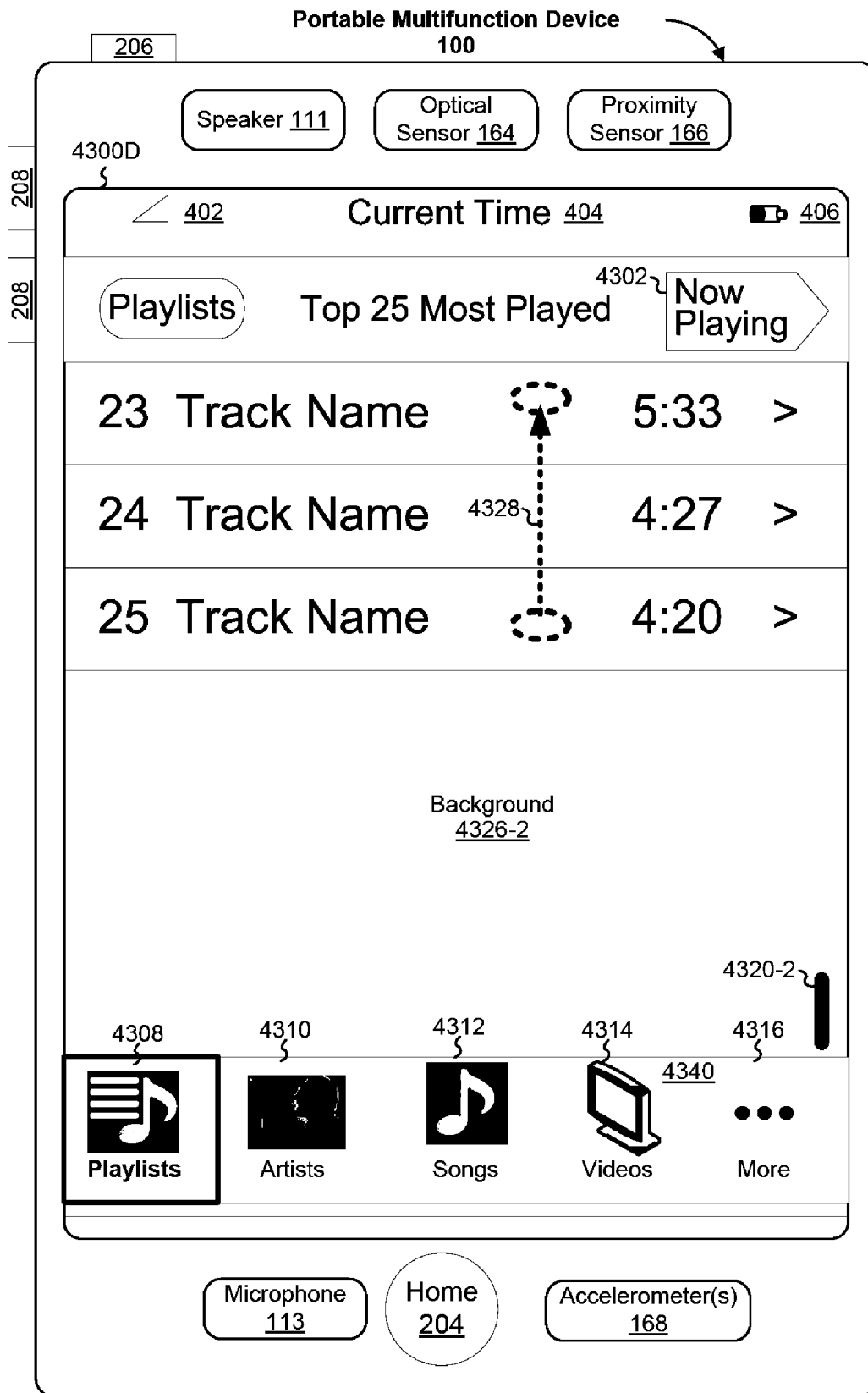


Figure 43D

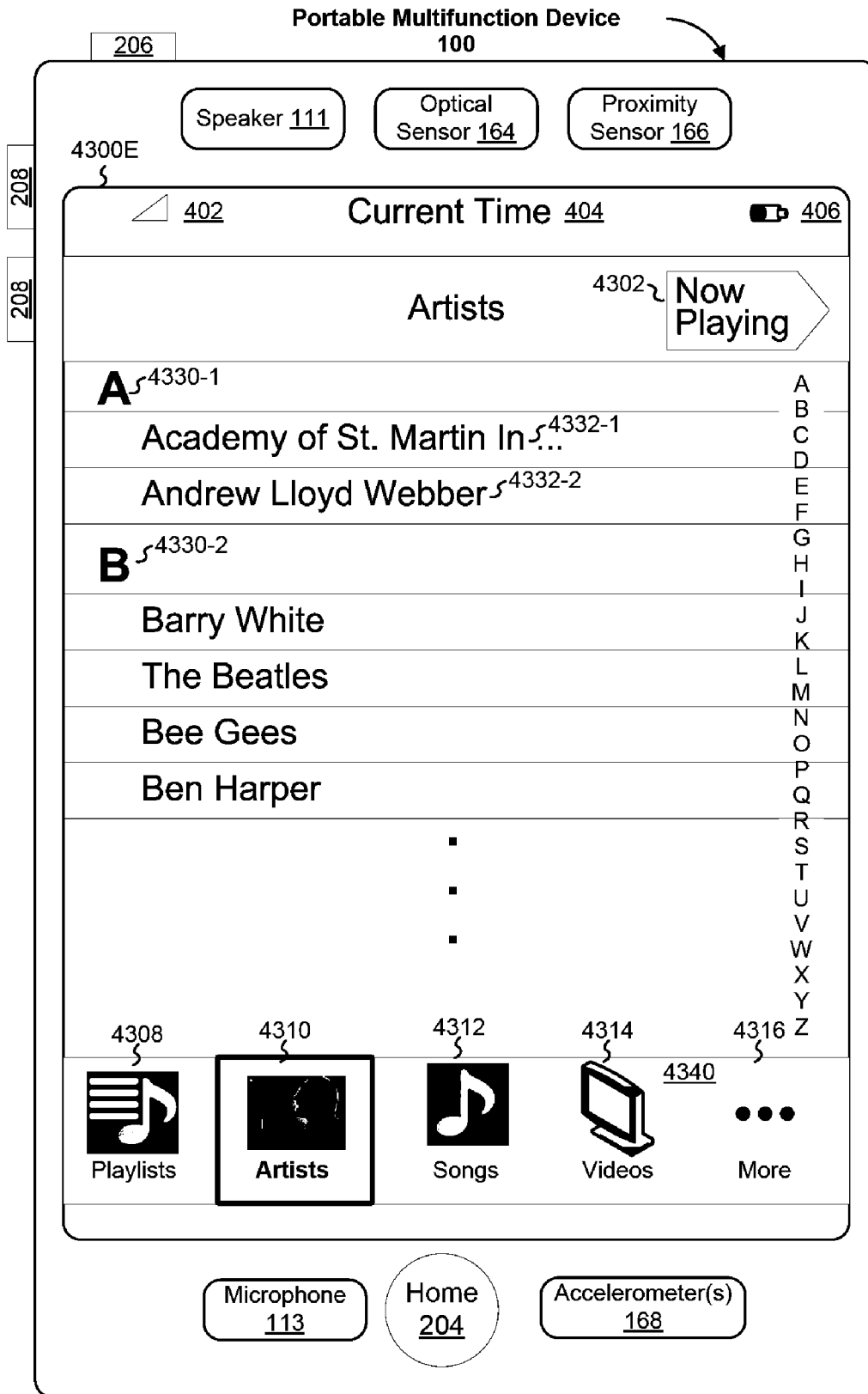


Figure 43E

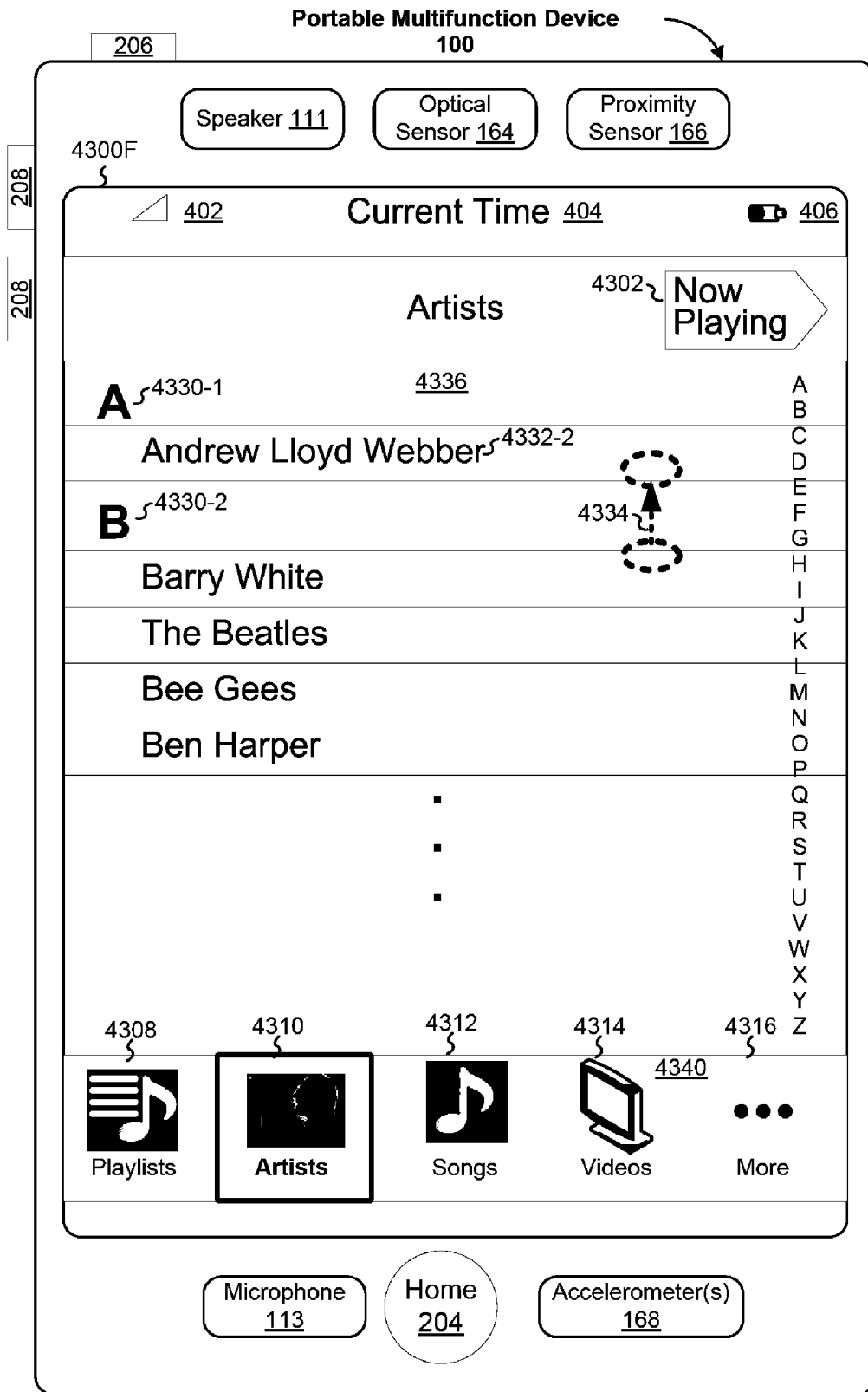


Figure 43F



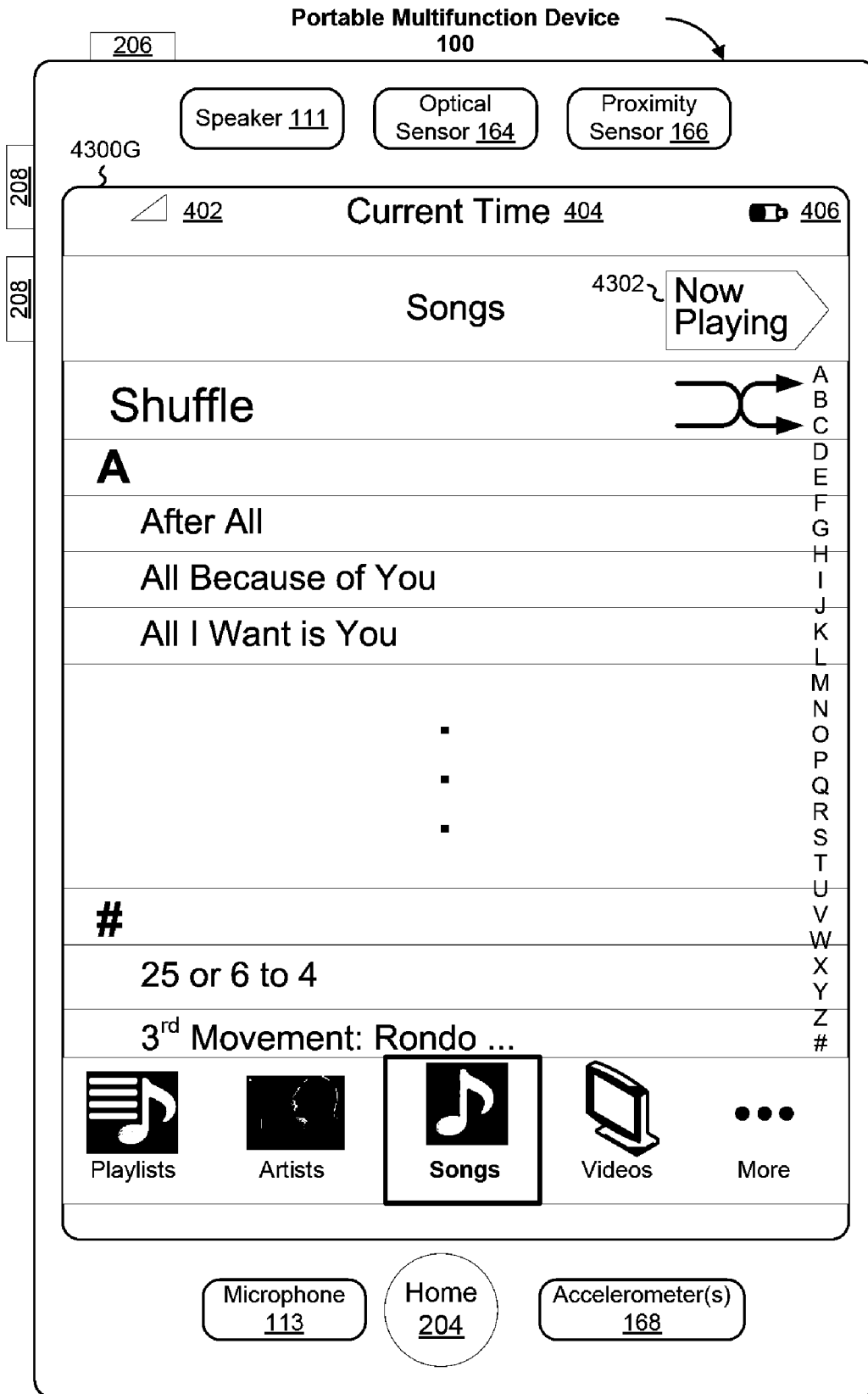


Figure 43G

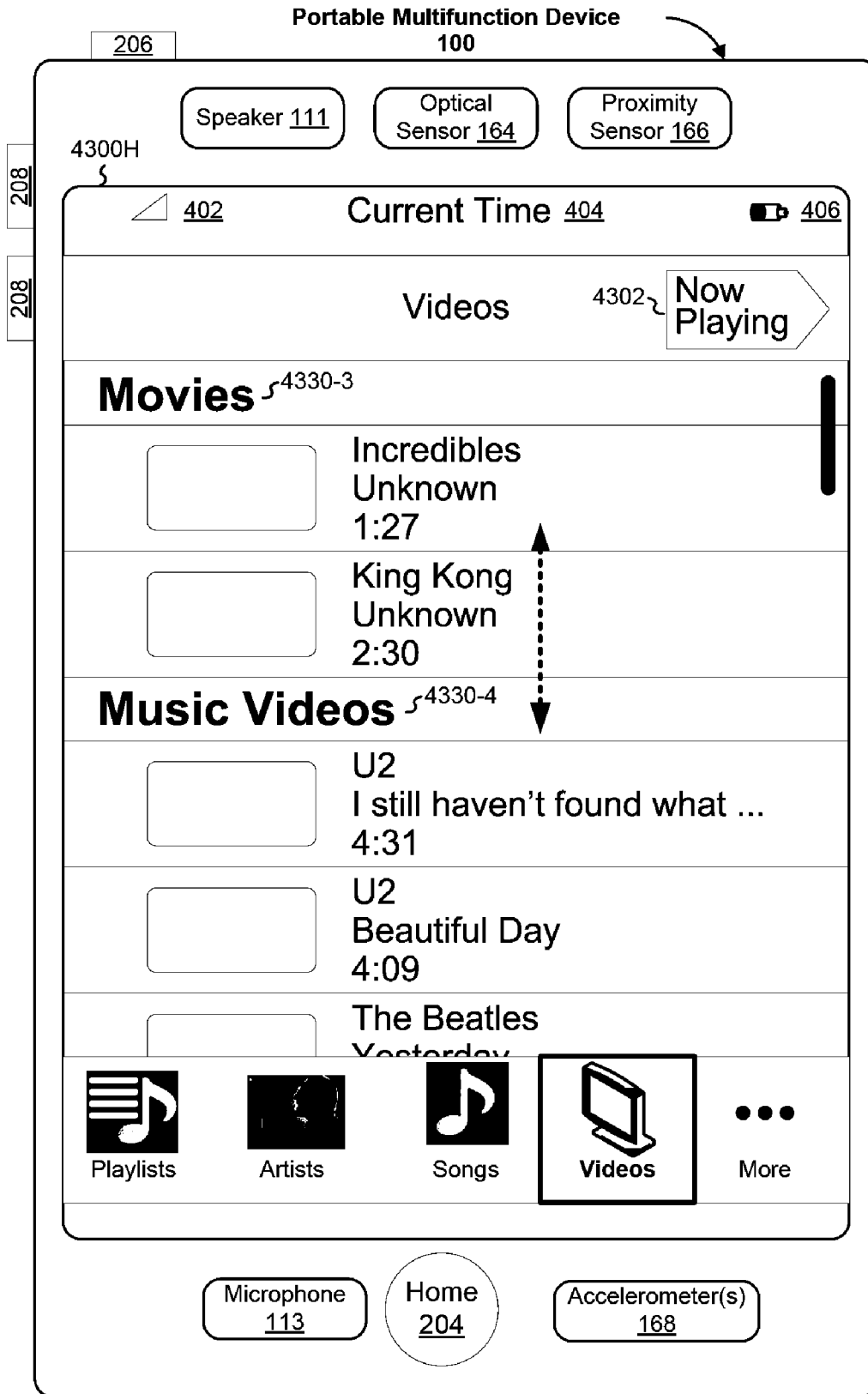


Figure 43H

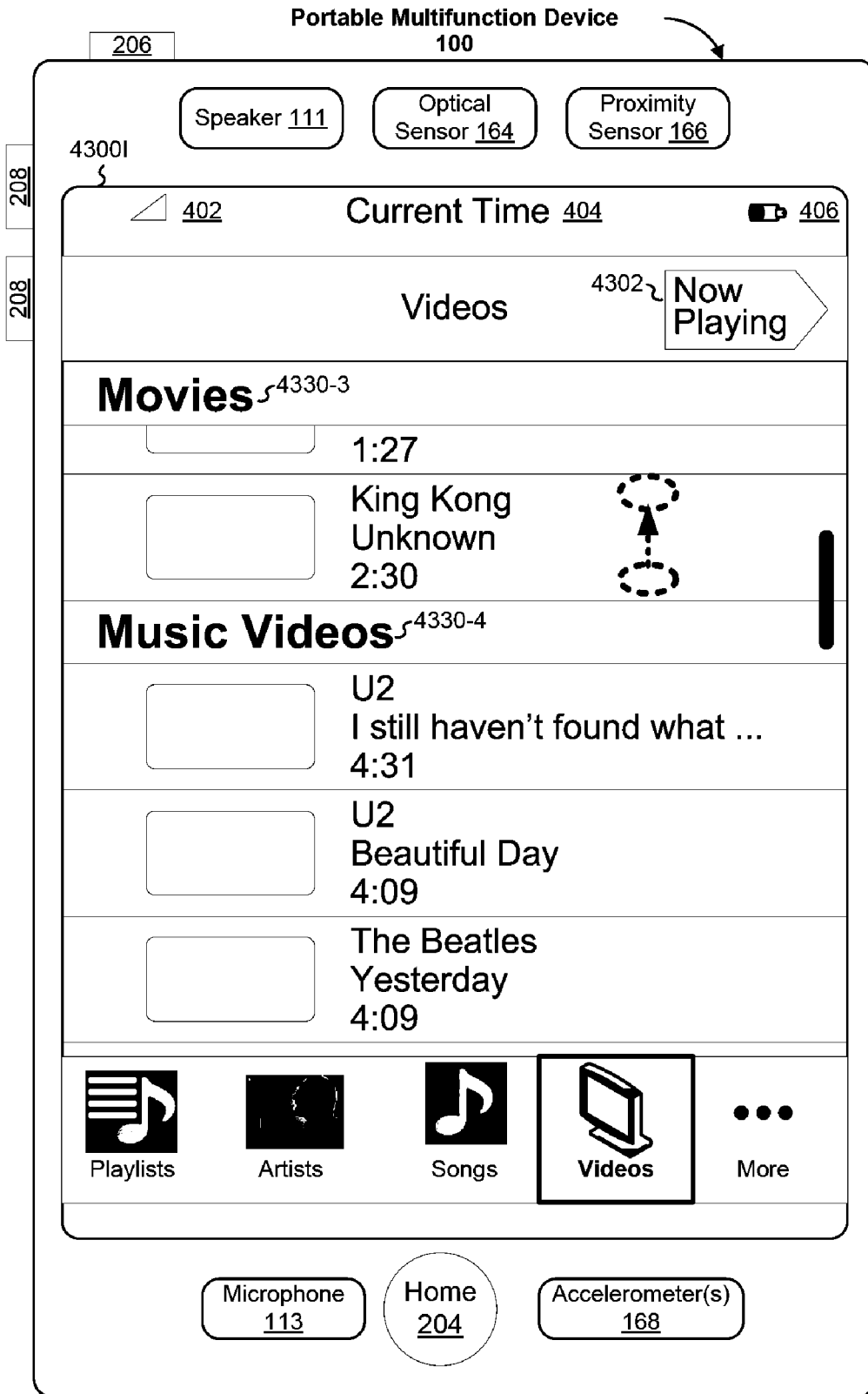


Figure 43I

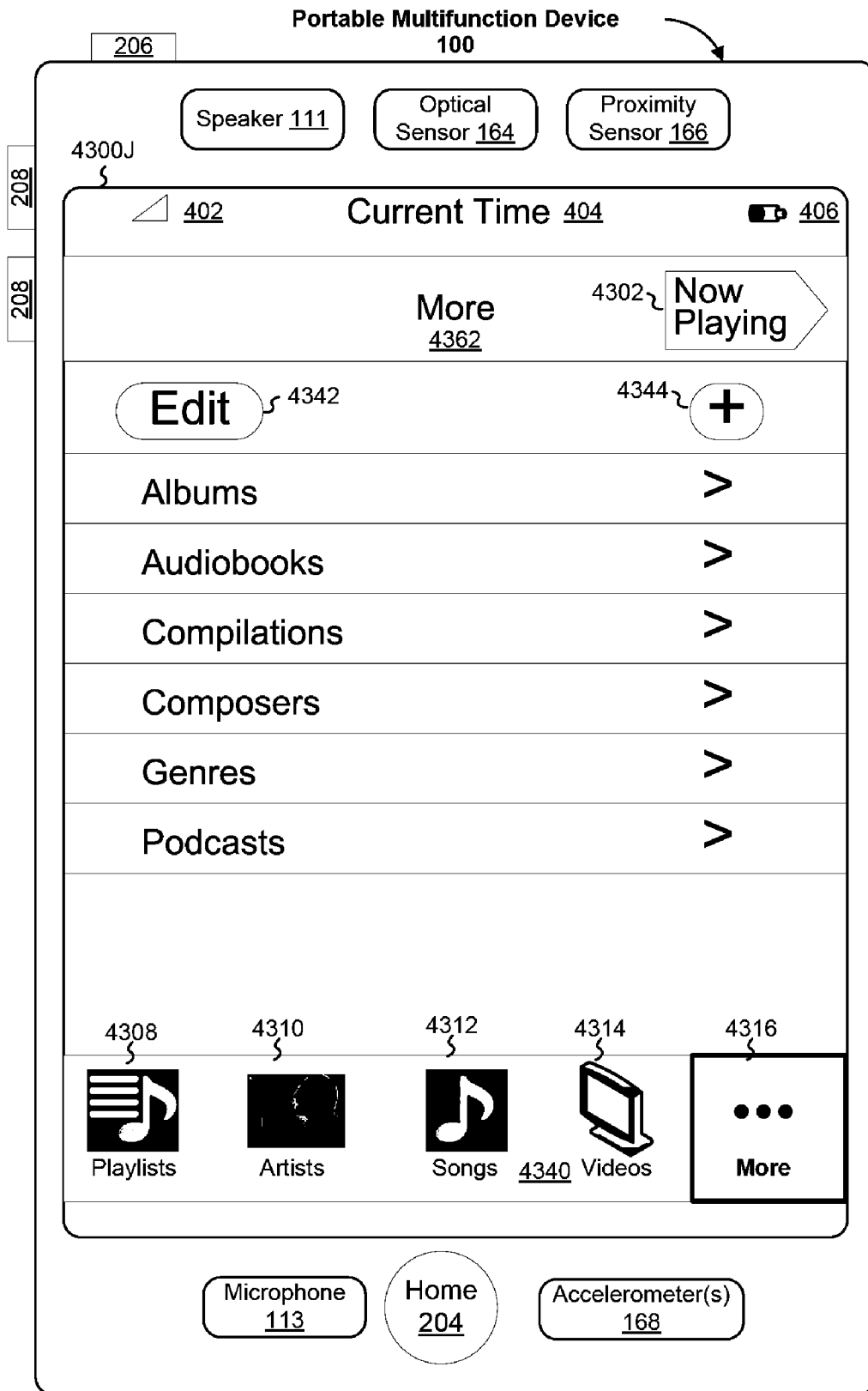


Figure 43J

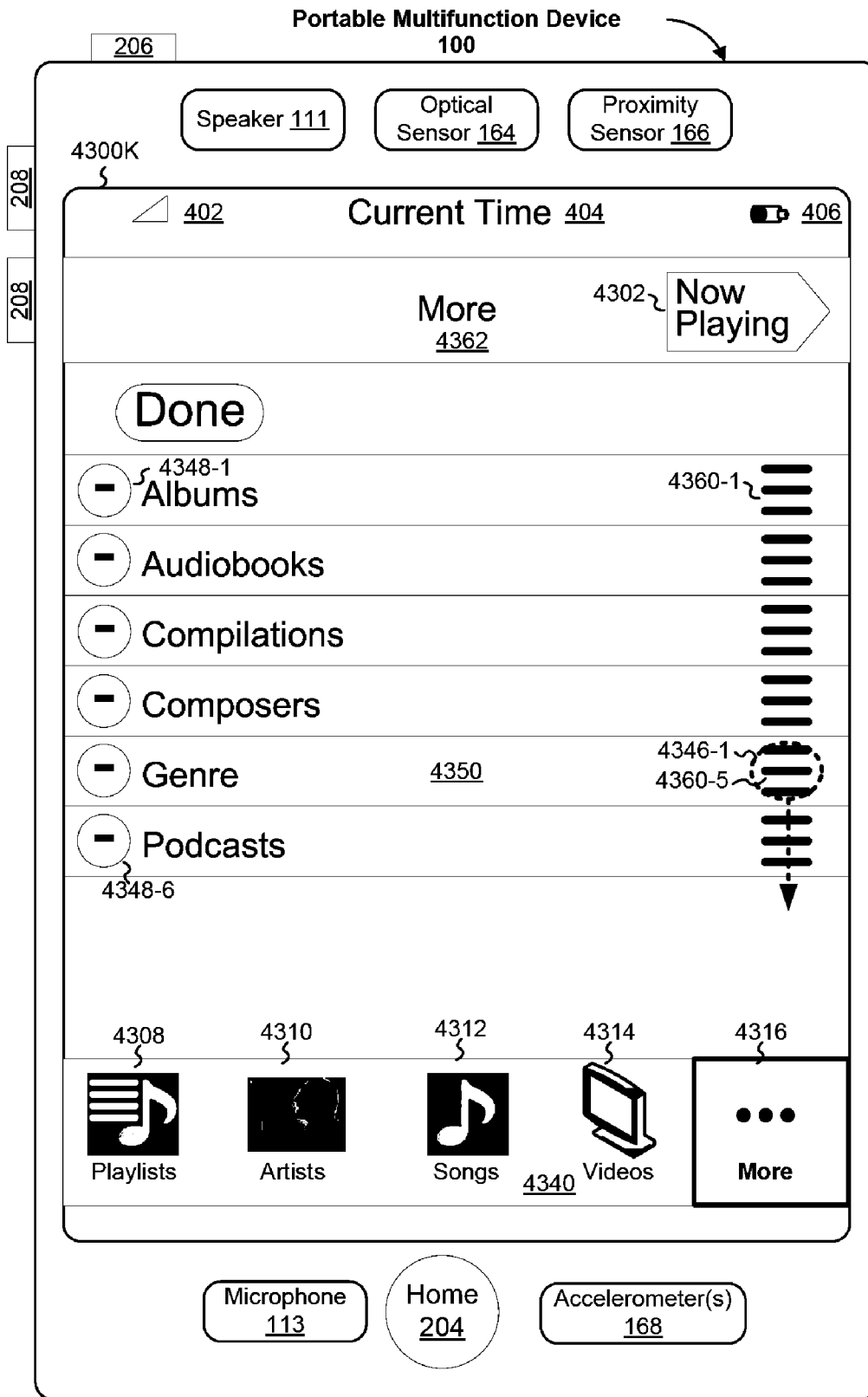


Figure 43K

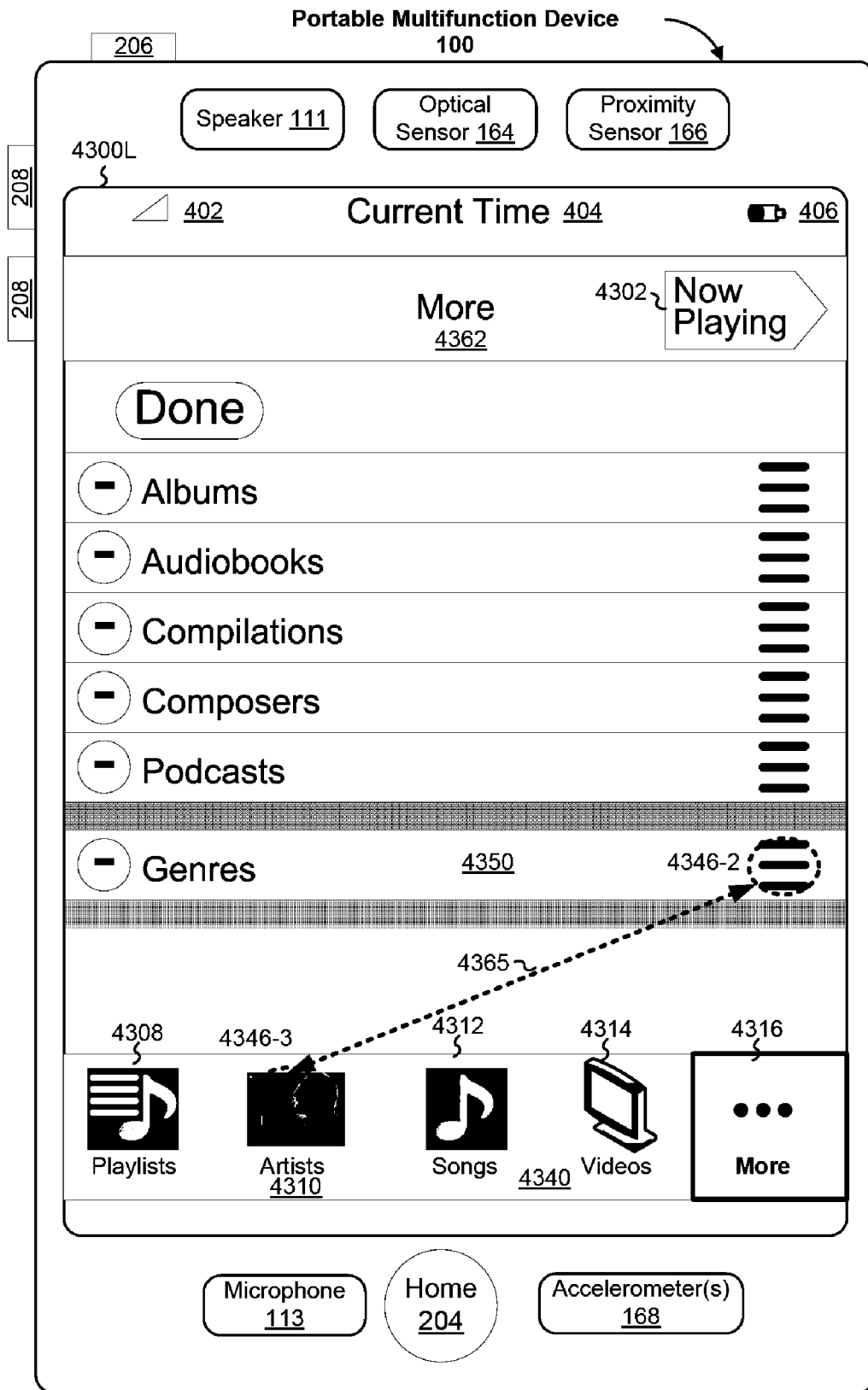


Figure 43L

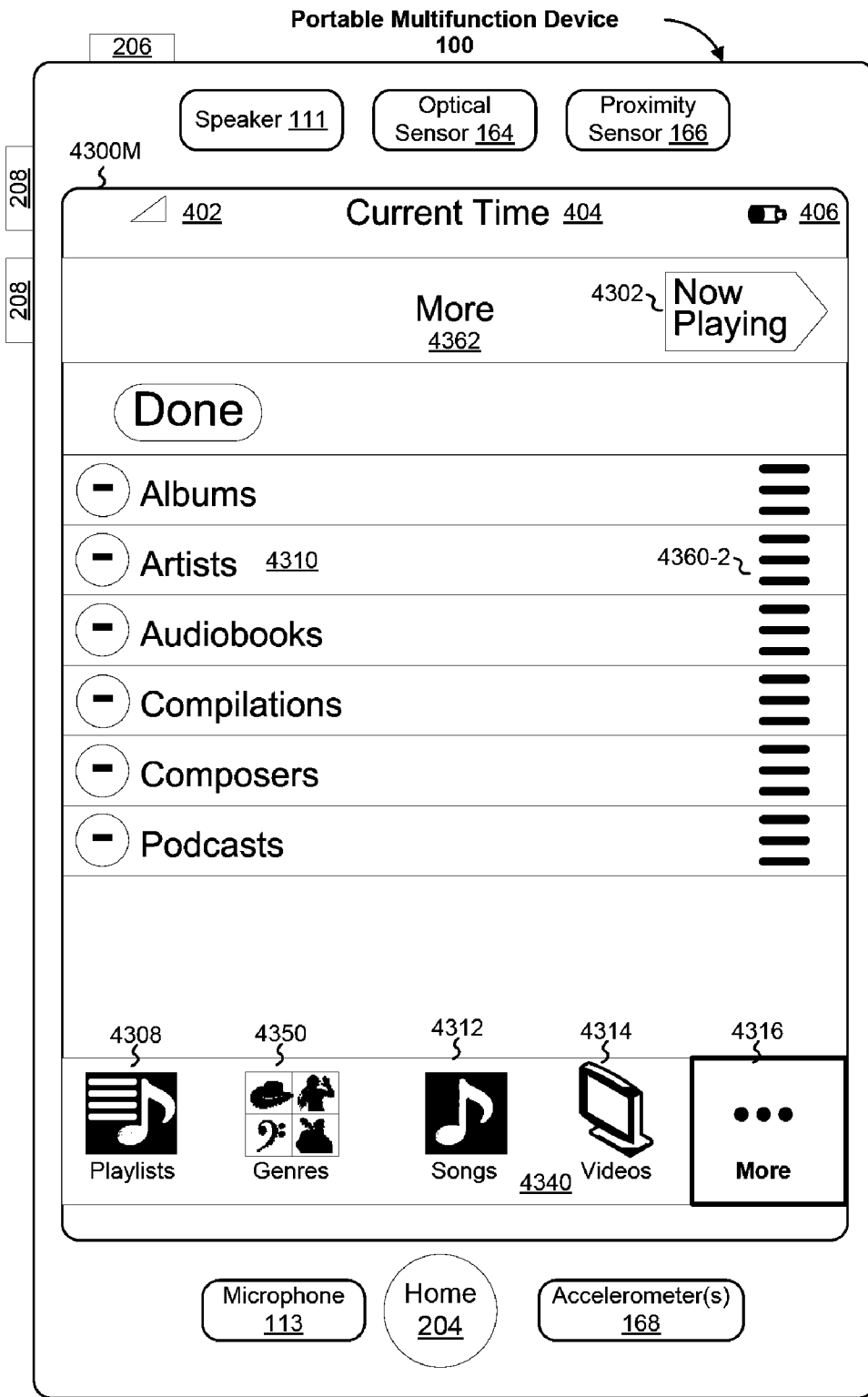


Figure 43M

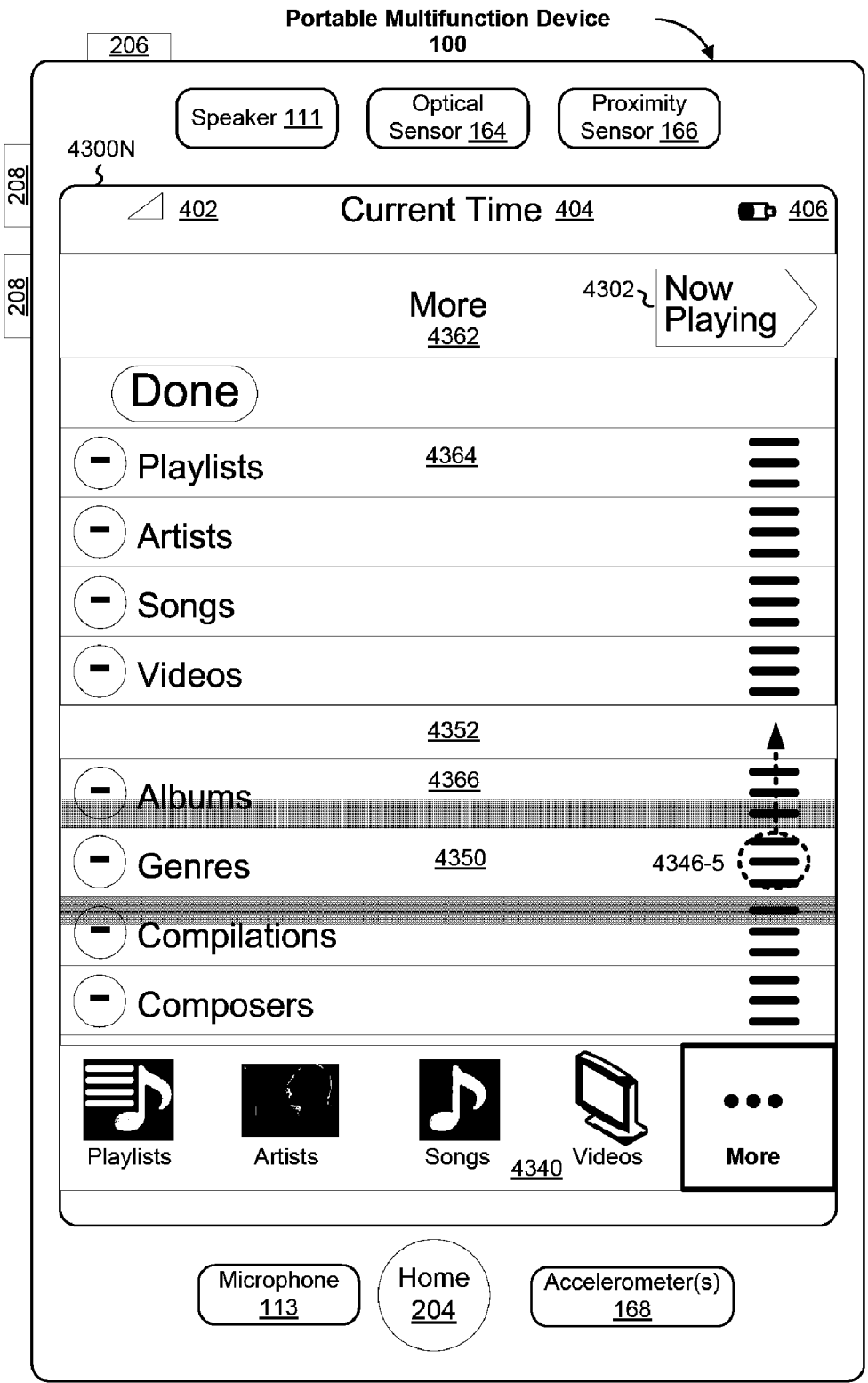


Figure 43N



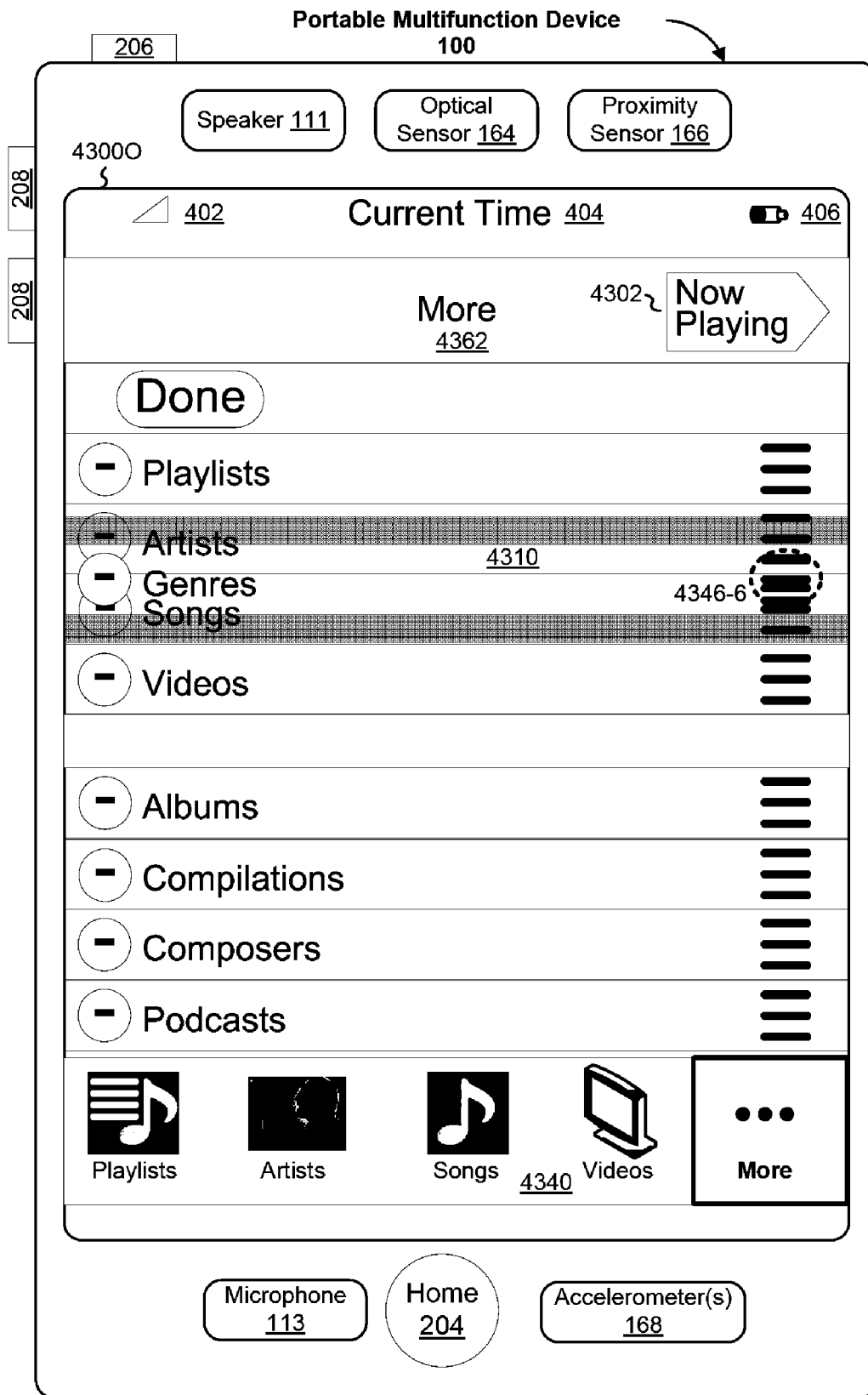


Figure 430

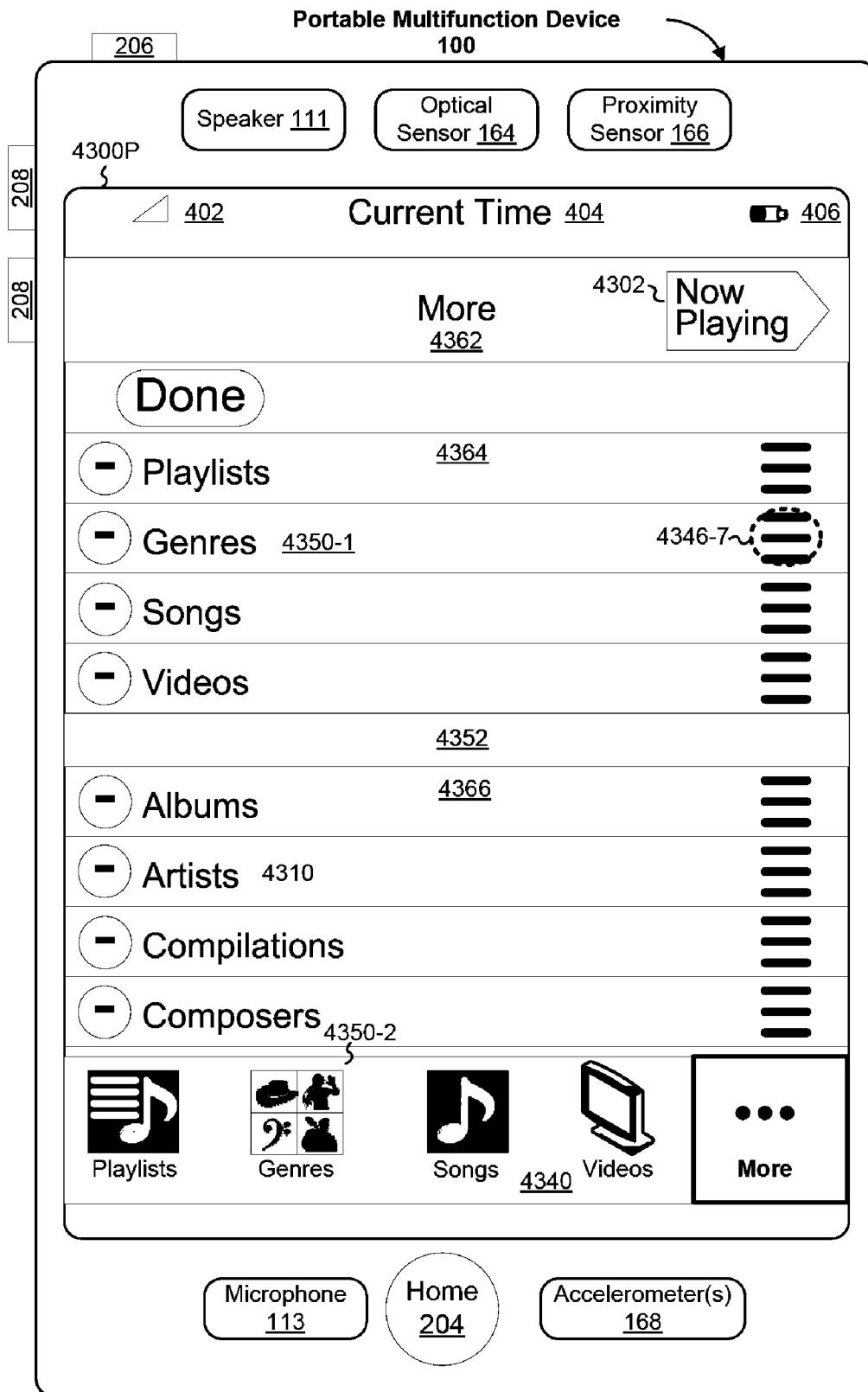


Figure 43P

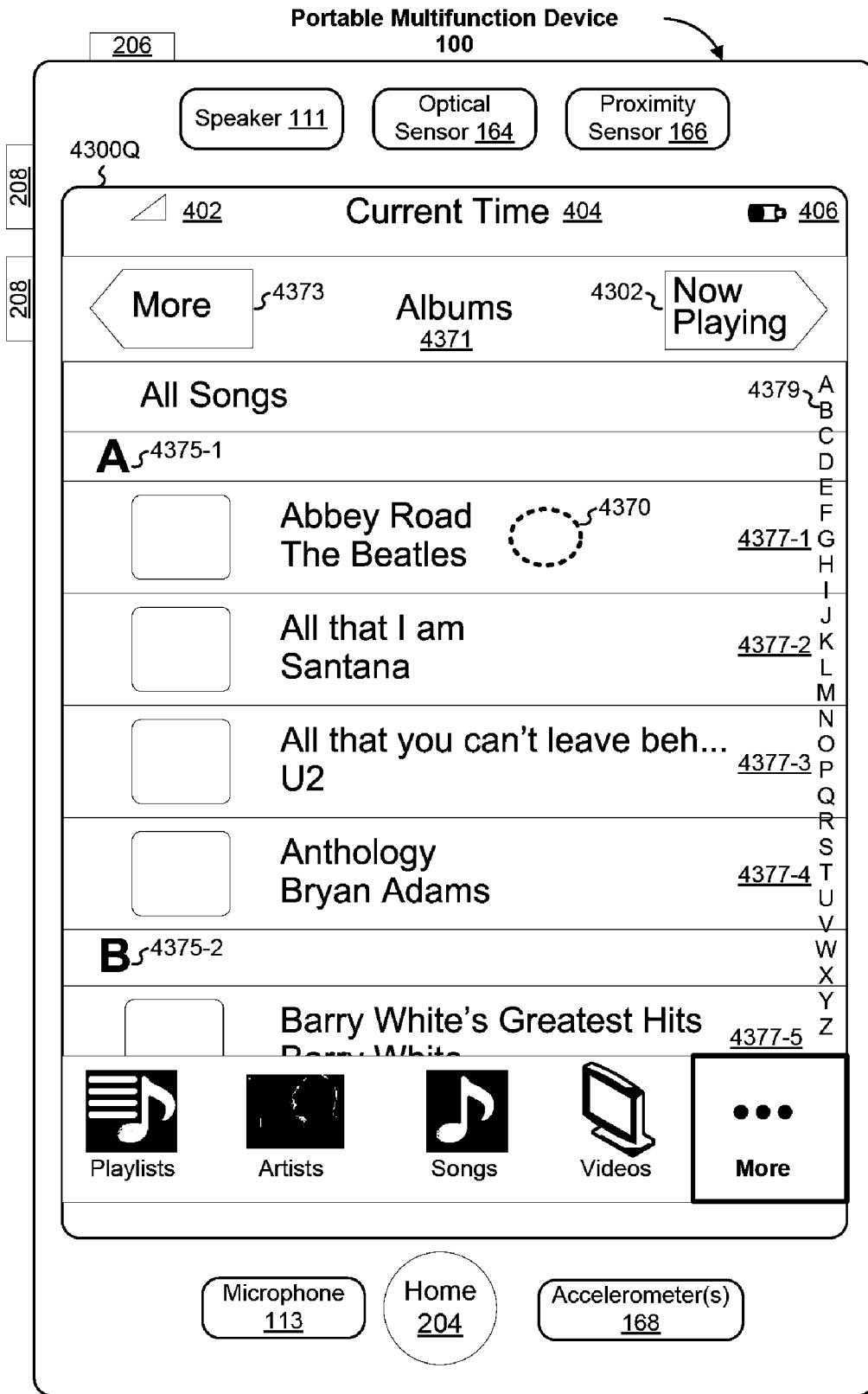


Figure 43Q

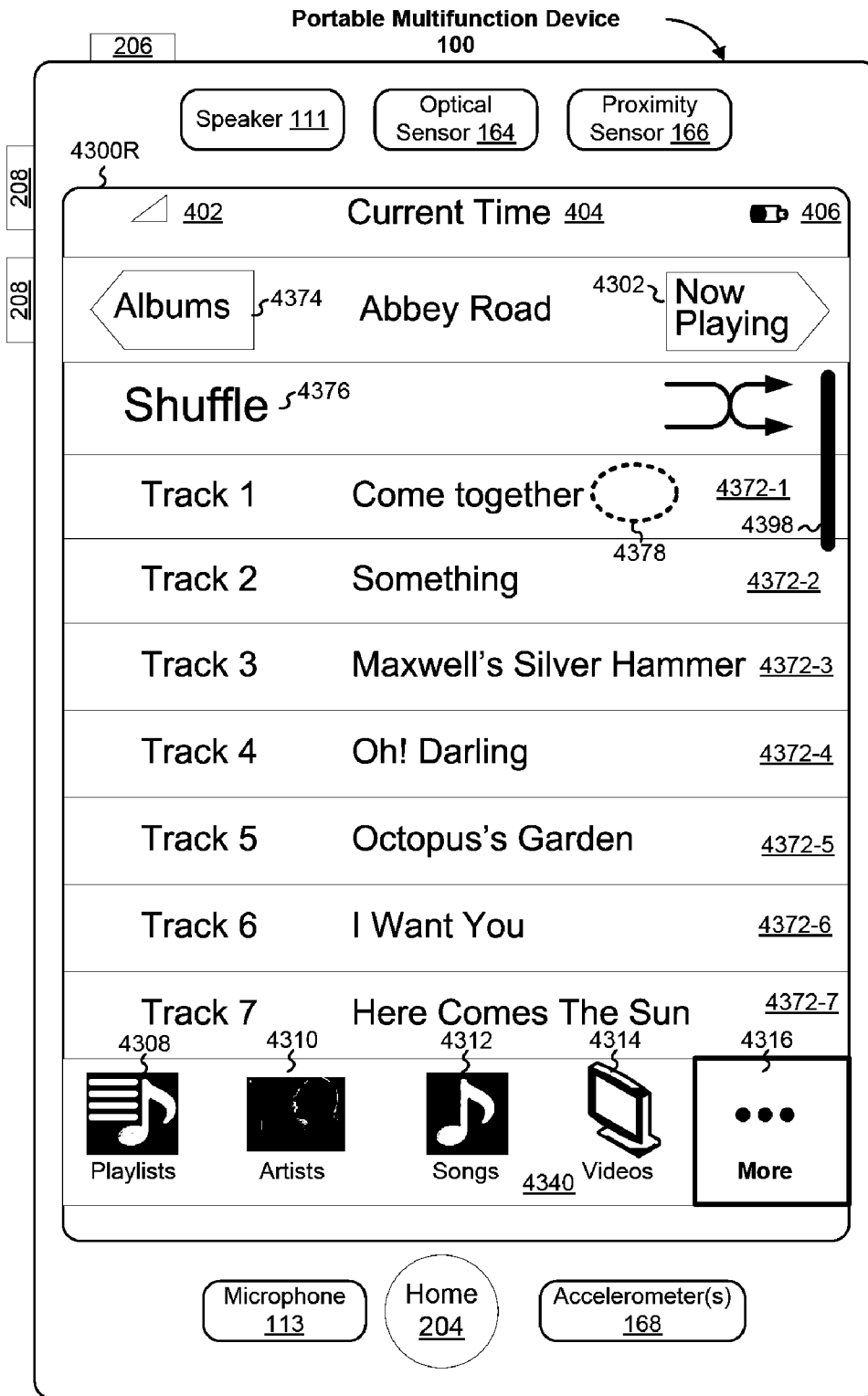


Figure 43R



Figure 43S



Figure 43T

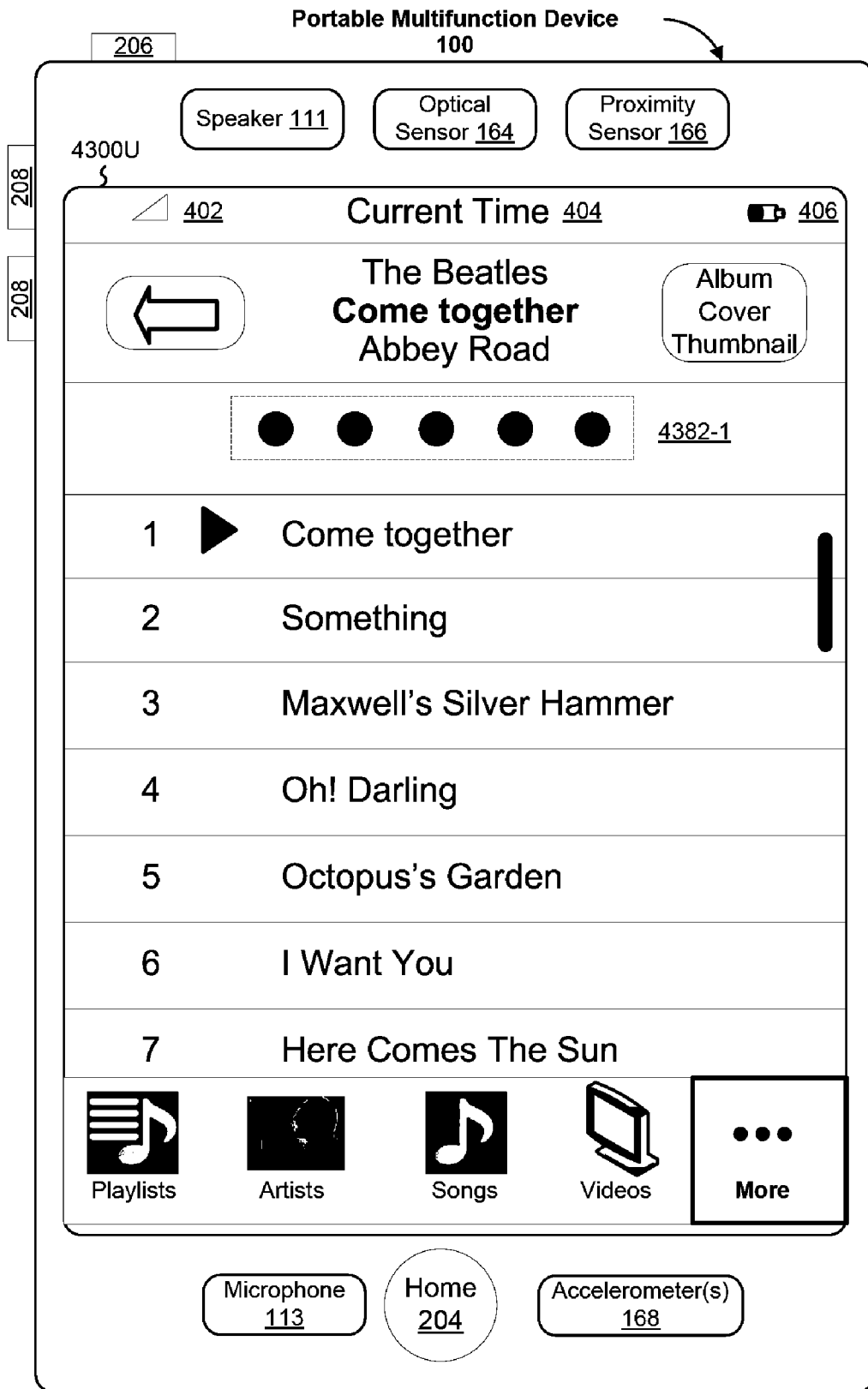


Figure 43U

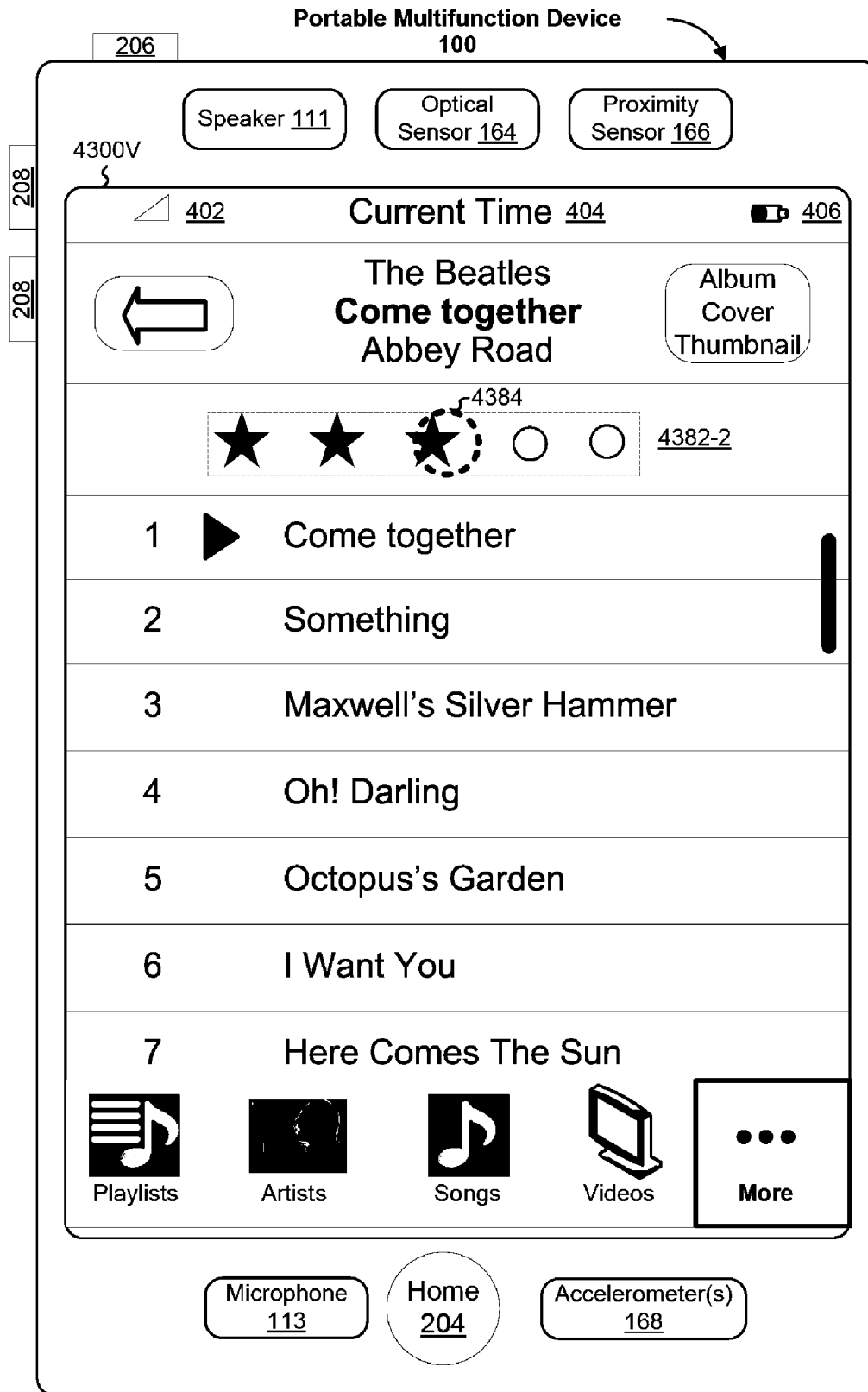


Figure 43V