

EXHIBIT B



US00747994B2

(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**

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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**

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(65) **Prior Publication Data**

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Related U.S. Application Data

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(60) Provisional application No. 60/937,993, filed on Jun. 29, 2007, provisional application No. 60/937,991, filed on Jun. 29, 2007, provisional application No. 60/879,469, filed on Jan. 8, 2007, provisional application No. 60/879,253, filed on Jan. 7, 2007, provisional application No. 60/824,769, filed on Sep. 6, 2006.

(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**

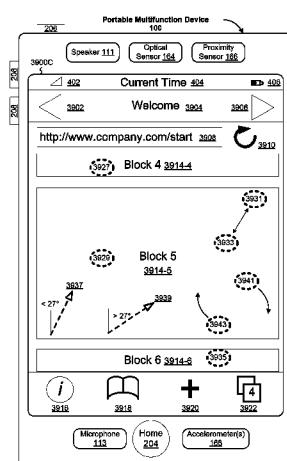
(58) **Field of Classification Search** **345/156**, **345/157**, **173–181**

See application file for complete search history.

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Primary Examiner—Duc Q Dinh

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

(57)

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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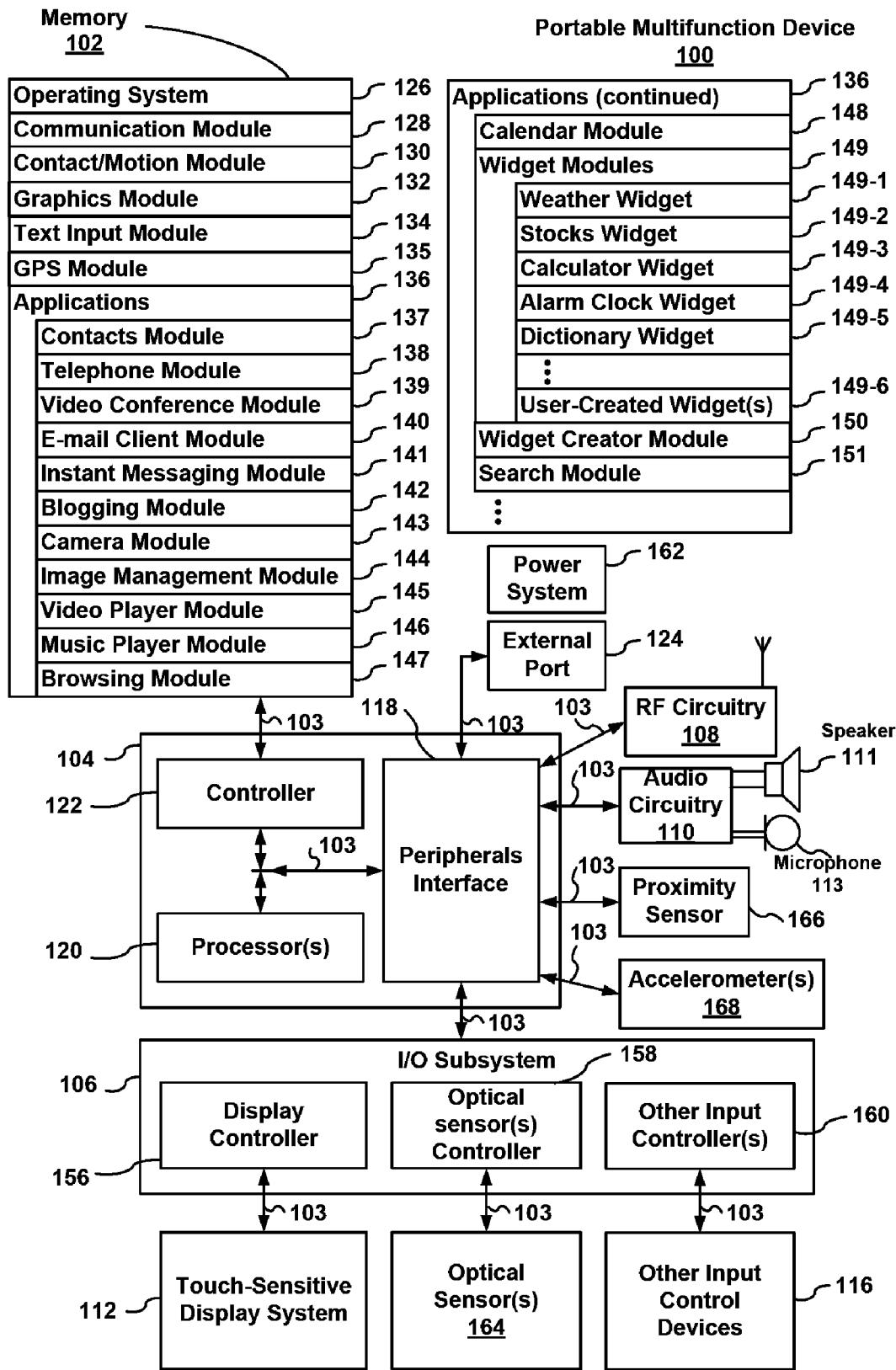


Figure 1A

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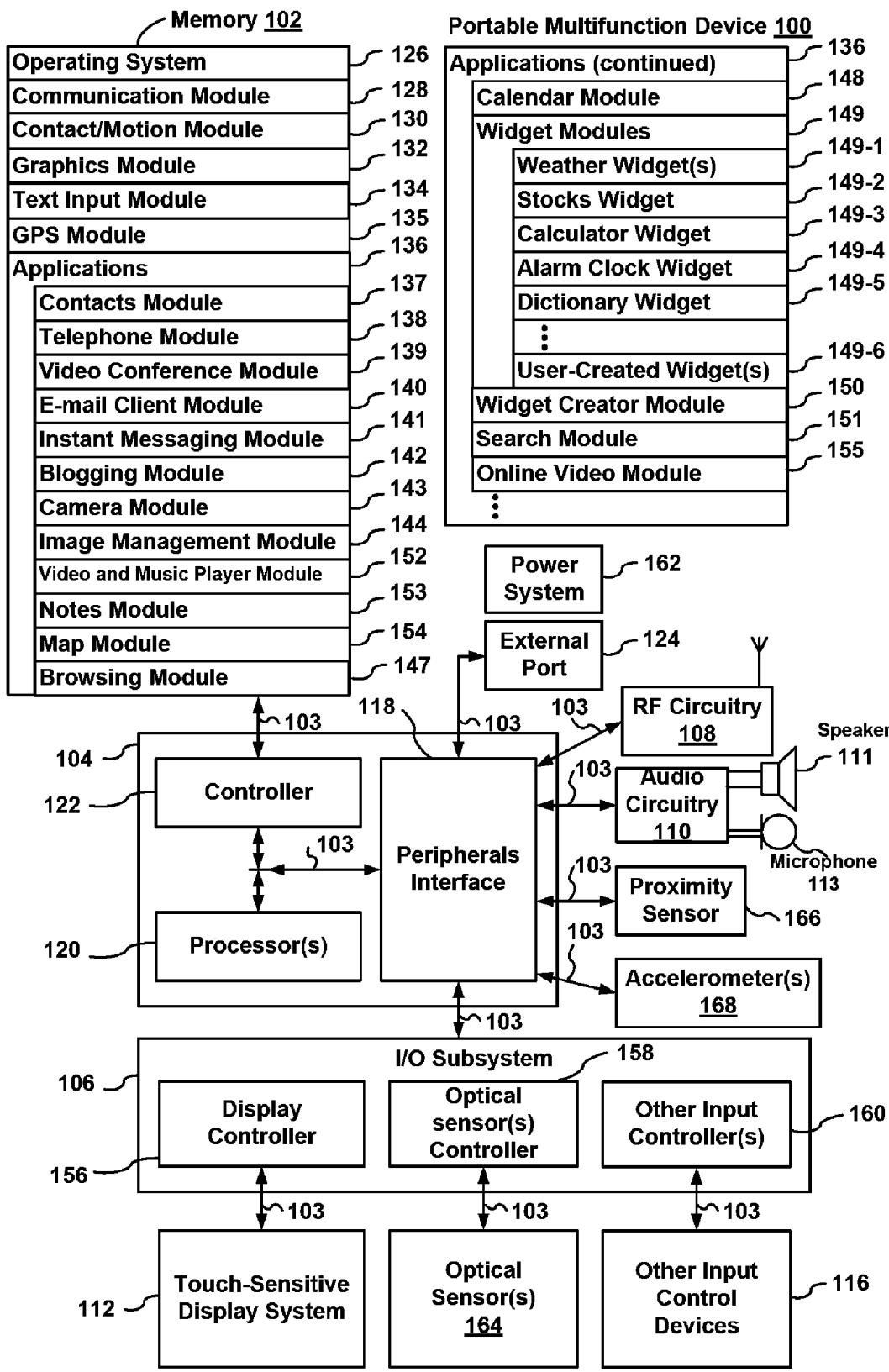


Figure 1B

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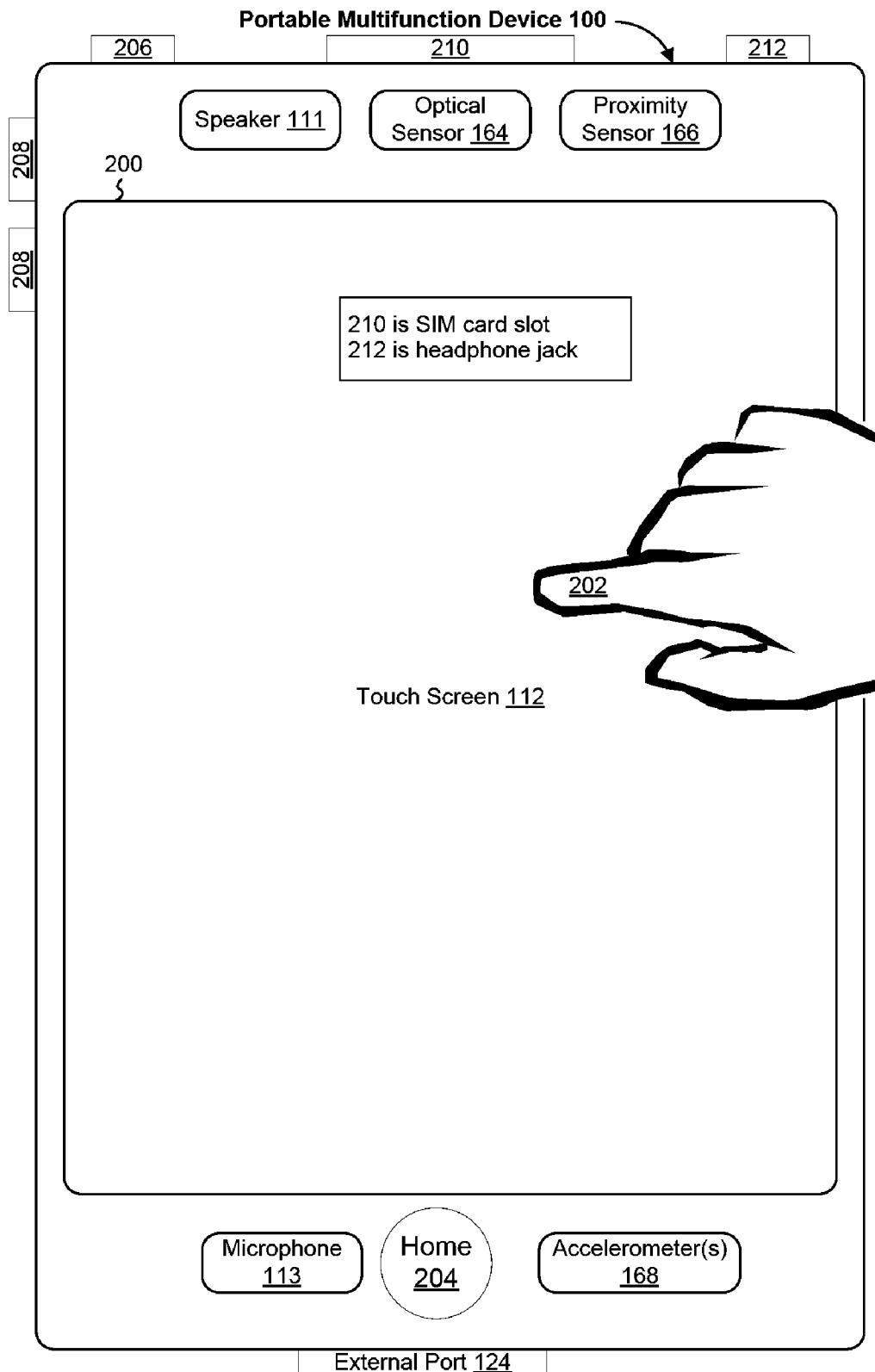


Figure 2

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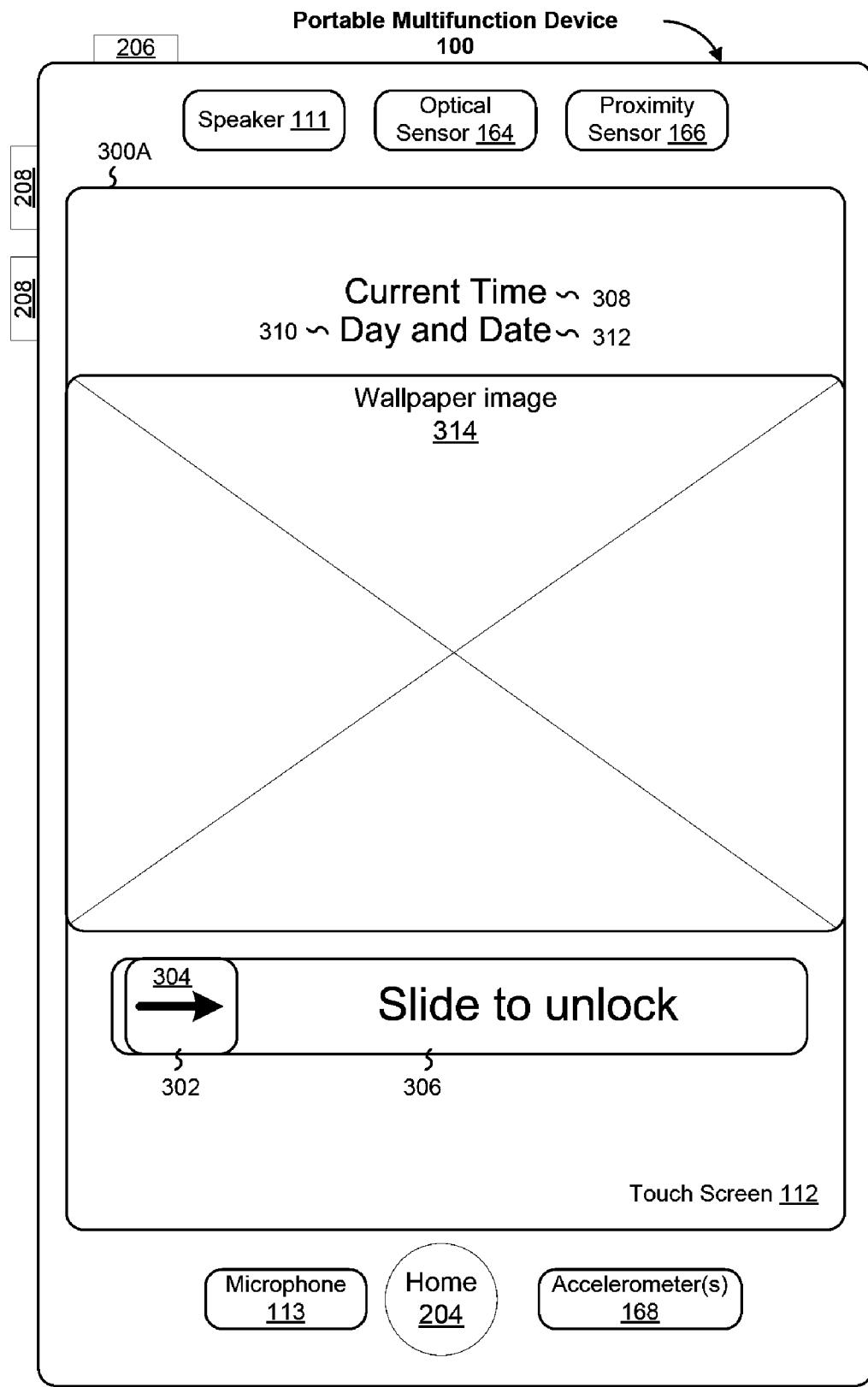


Figure 3A

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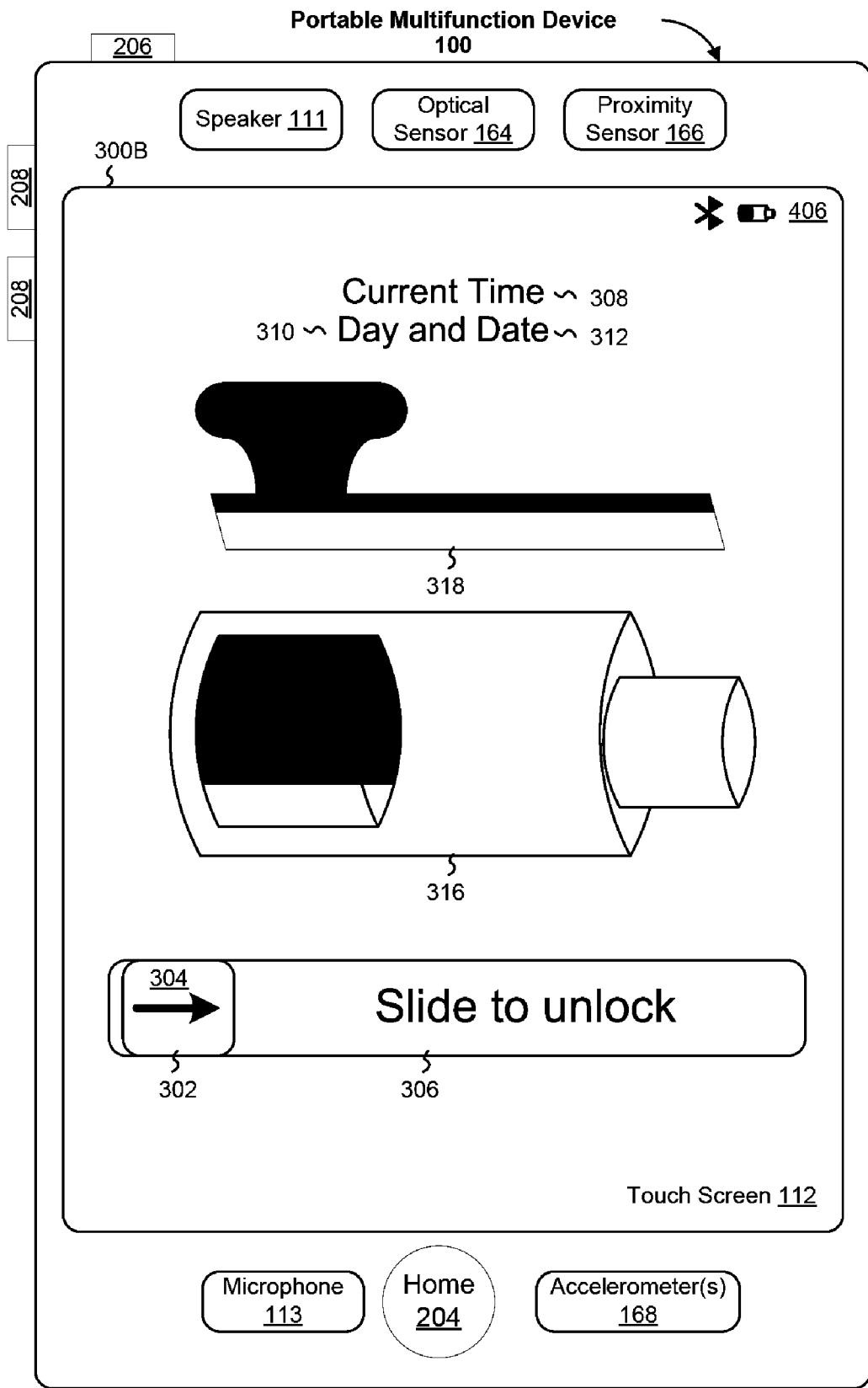


Figure 3B

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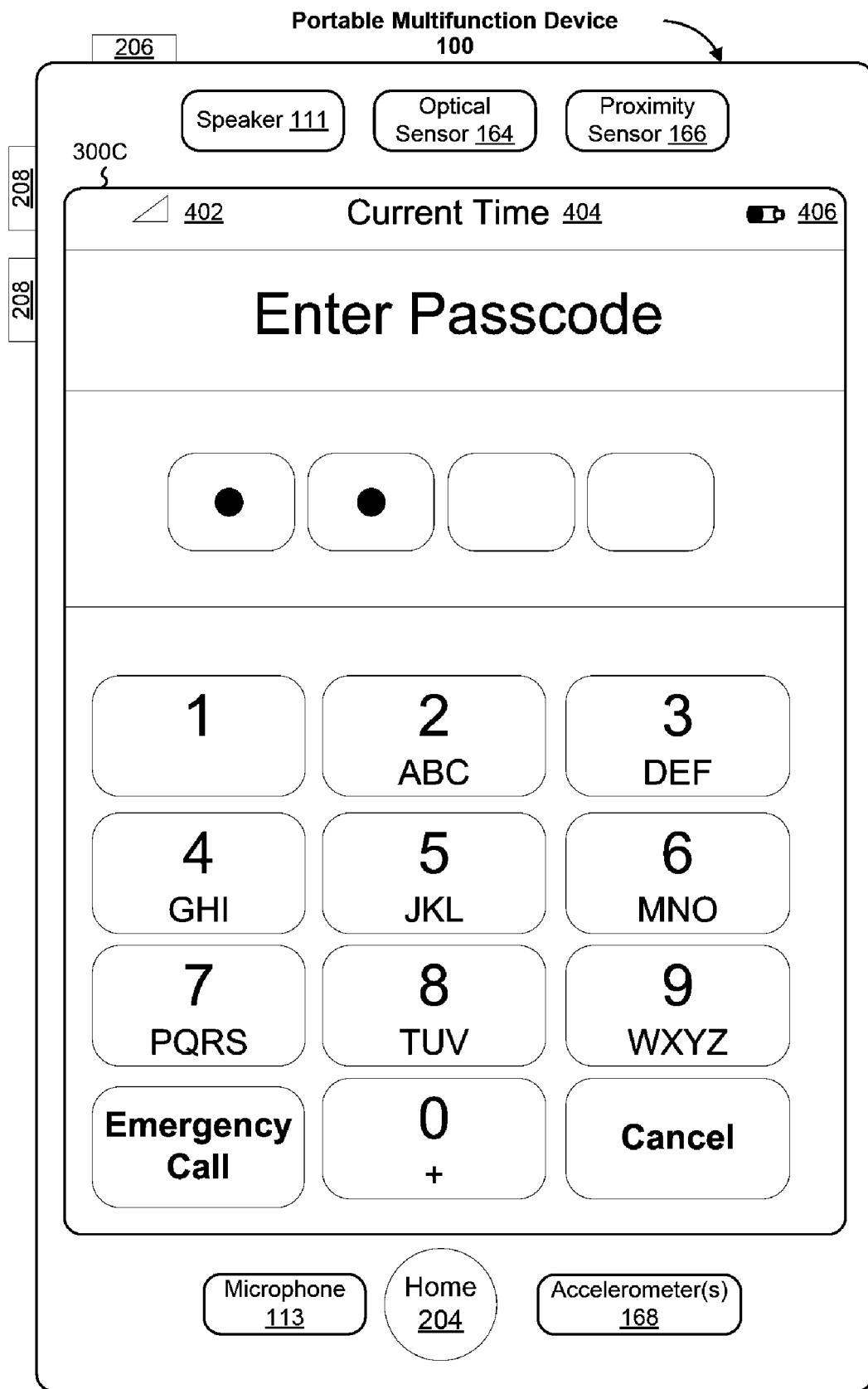


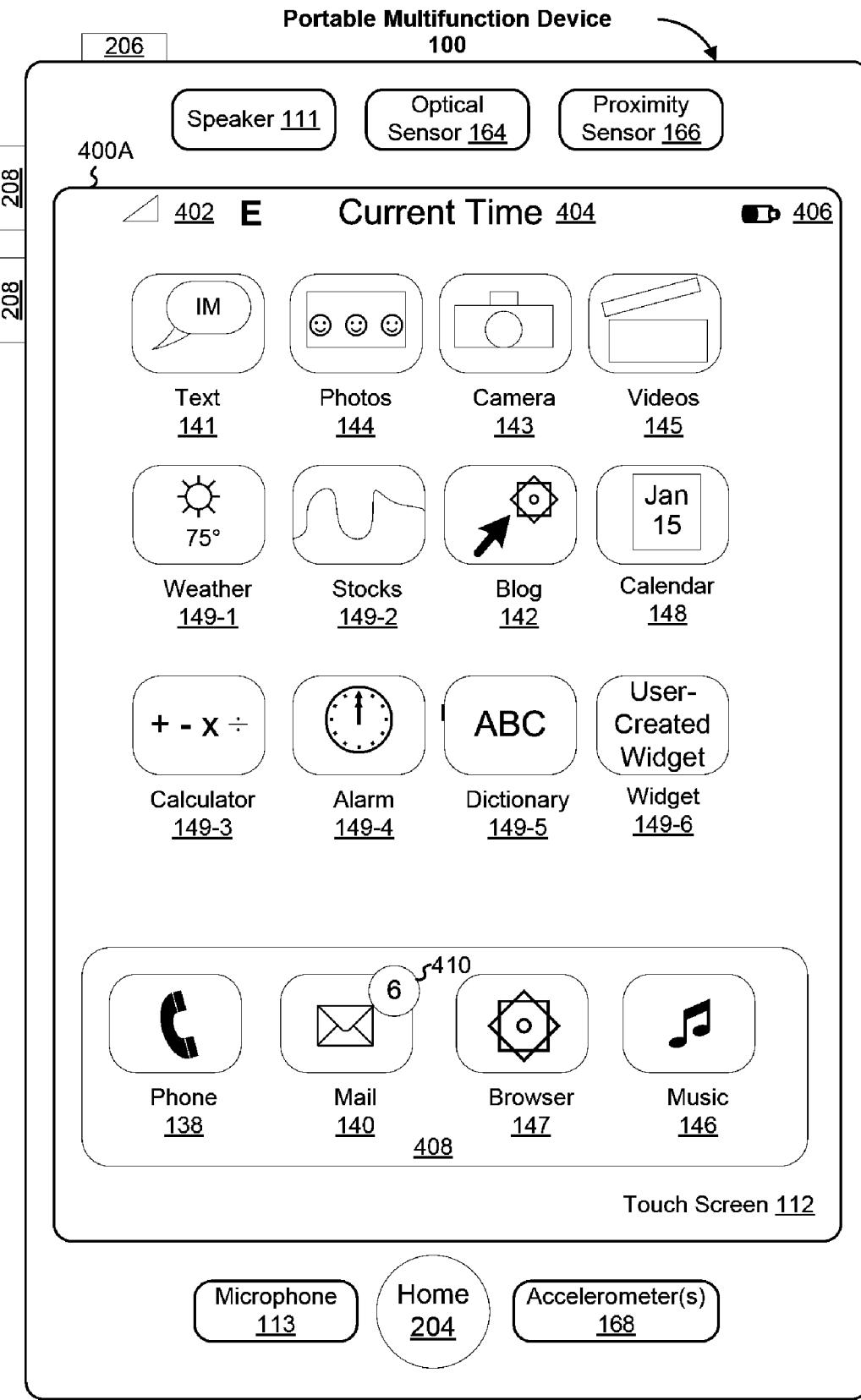
Figure 3C

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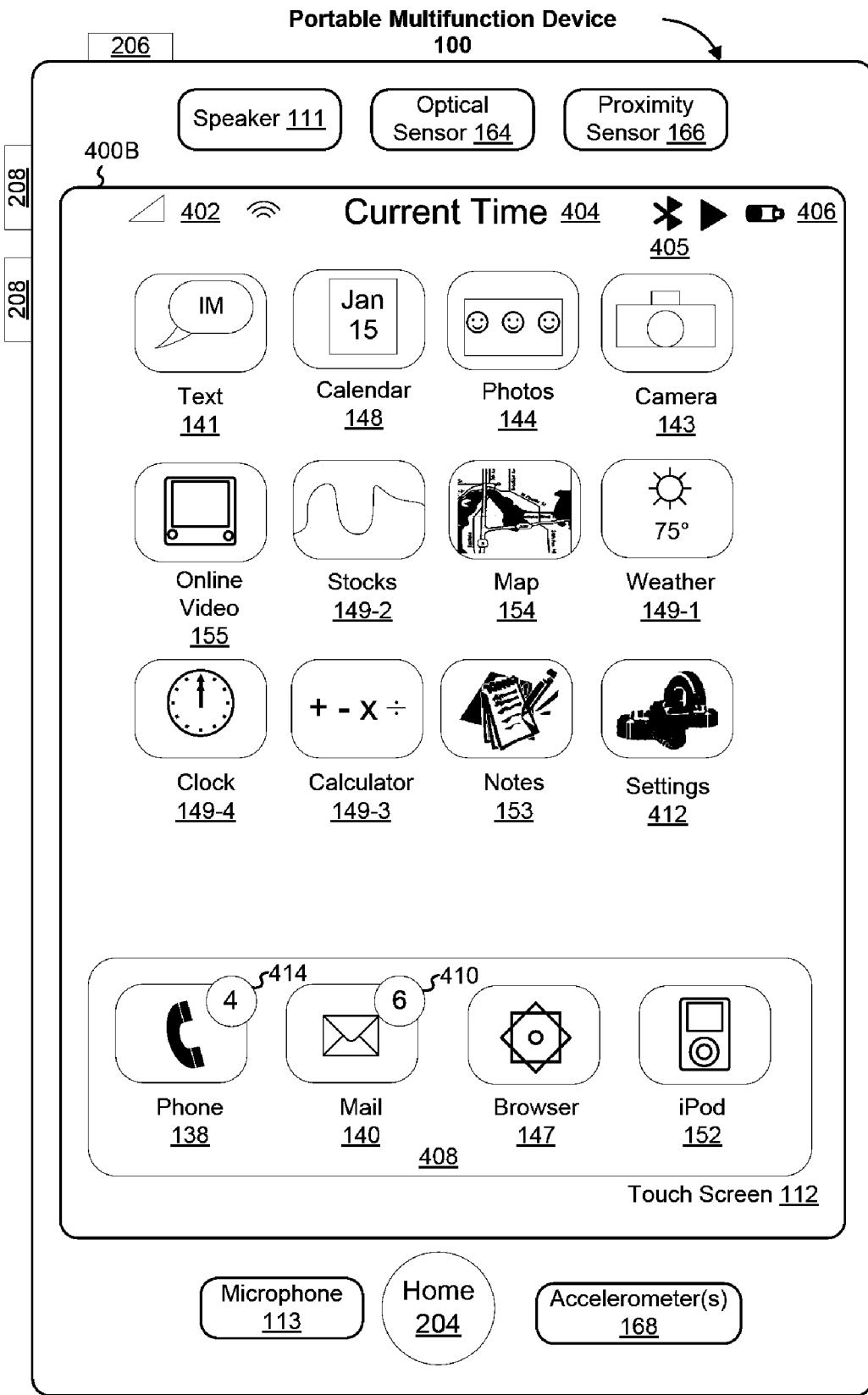
**Figure 4A**

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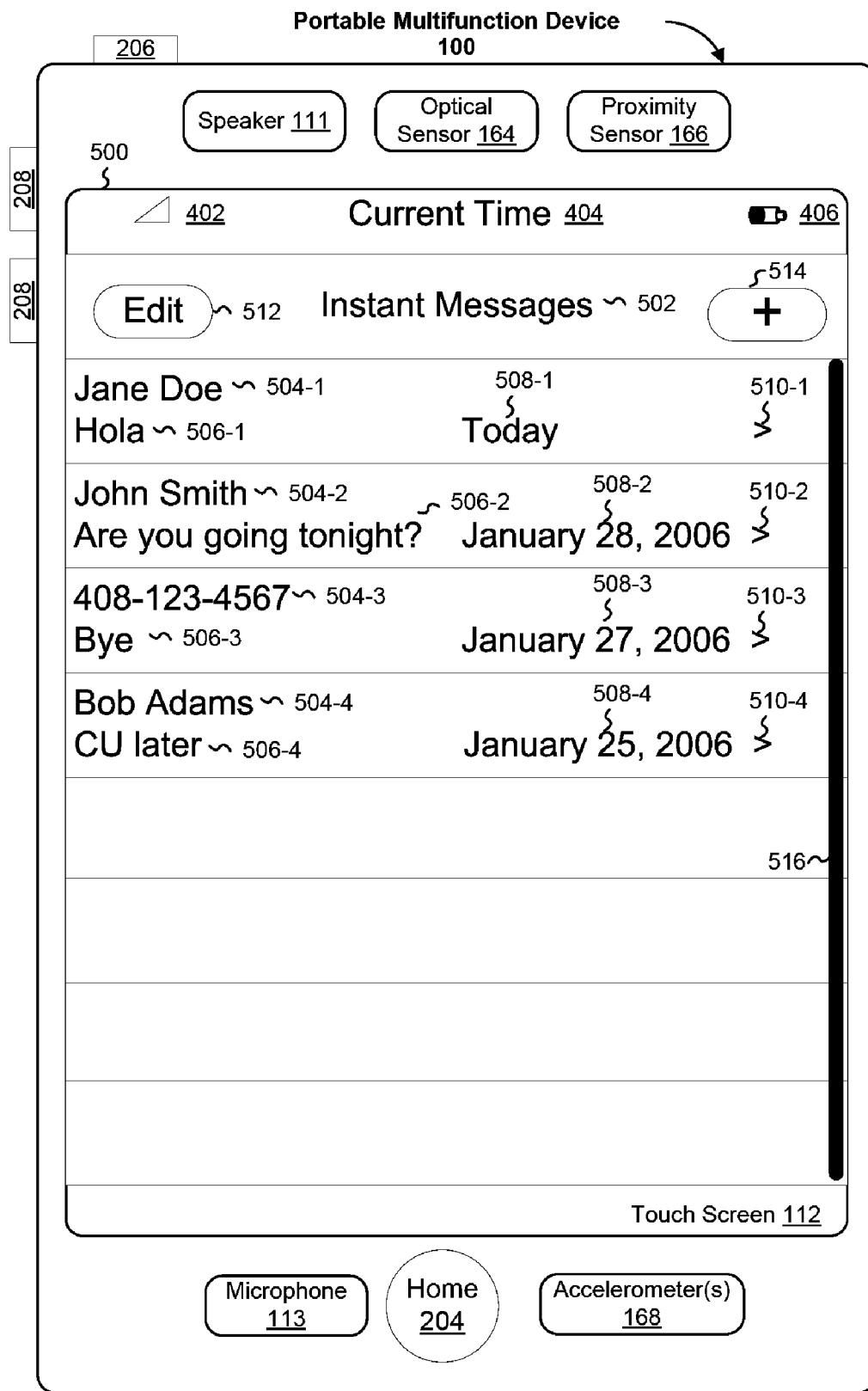
**Figure 4B**

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**Figure 5**

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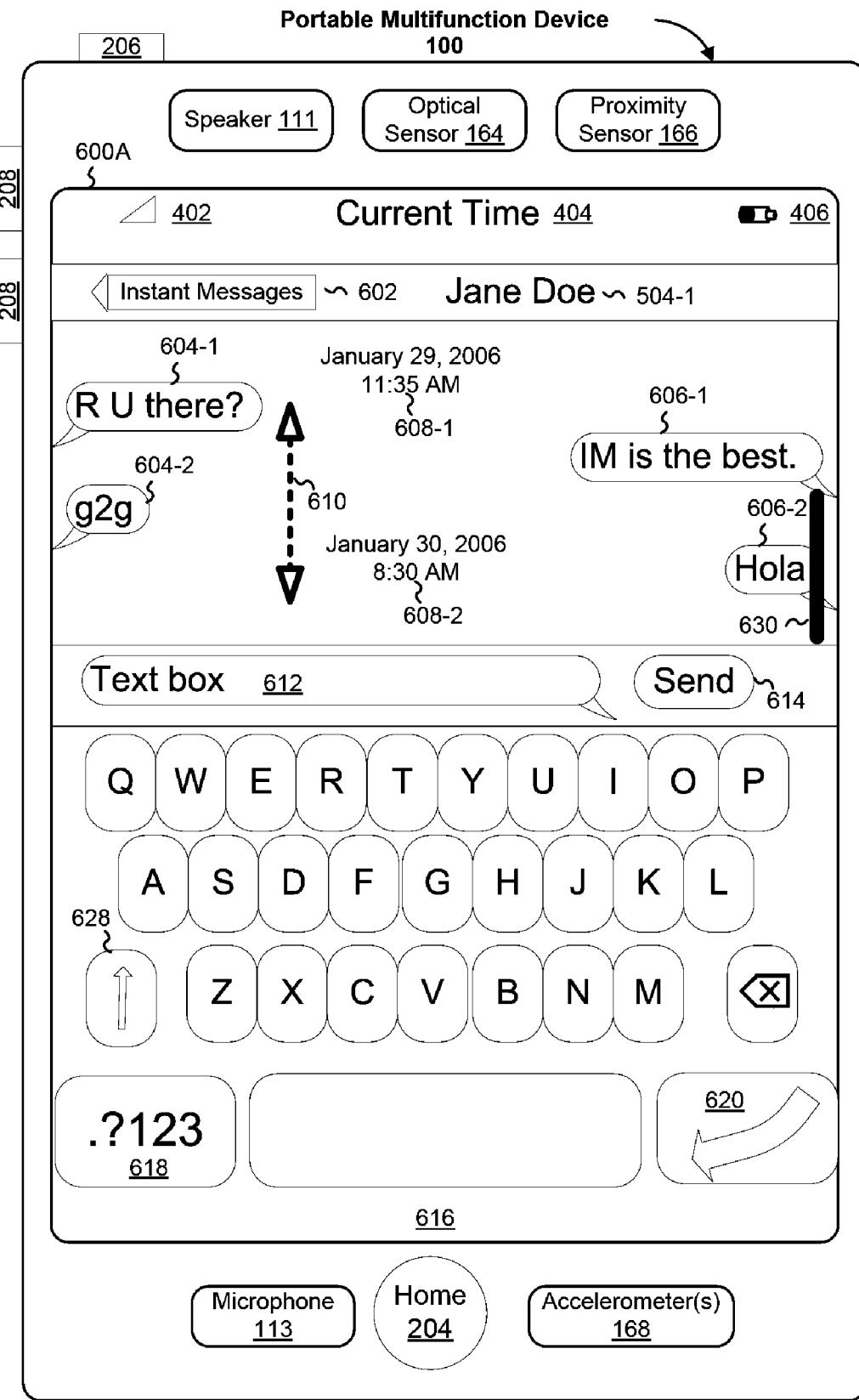


Figure 6A

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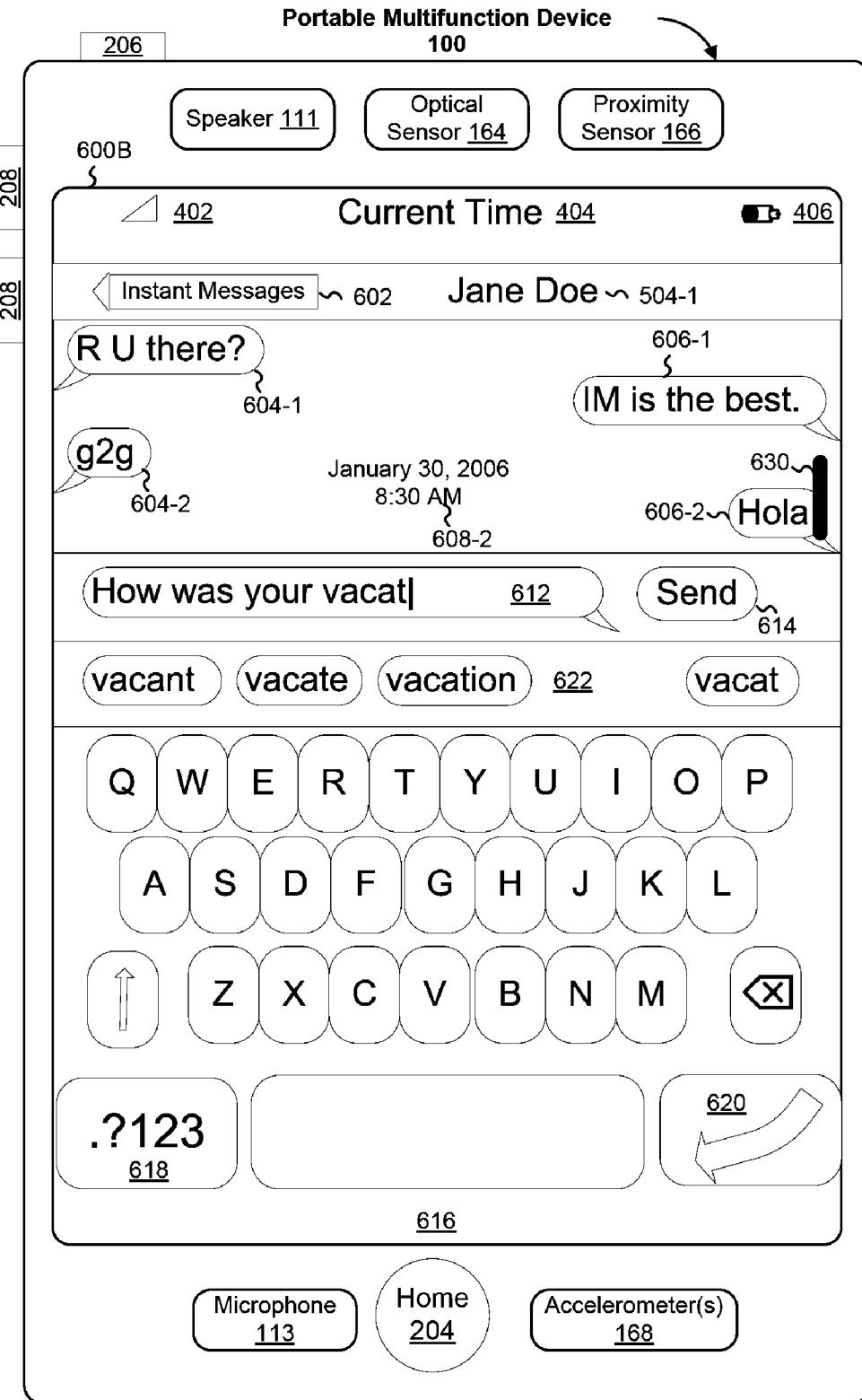


Figure 6B

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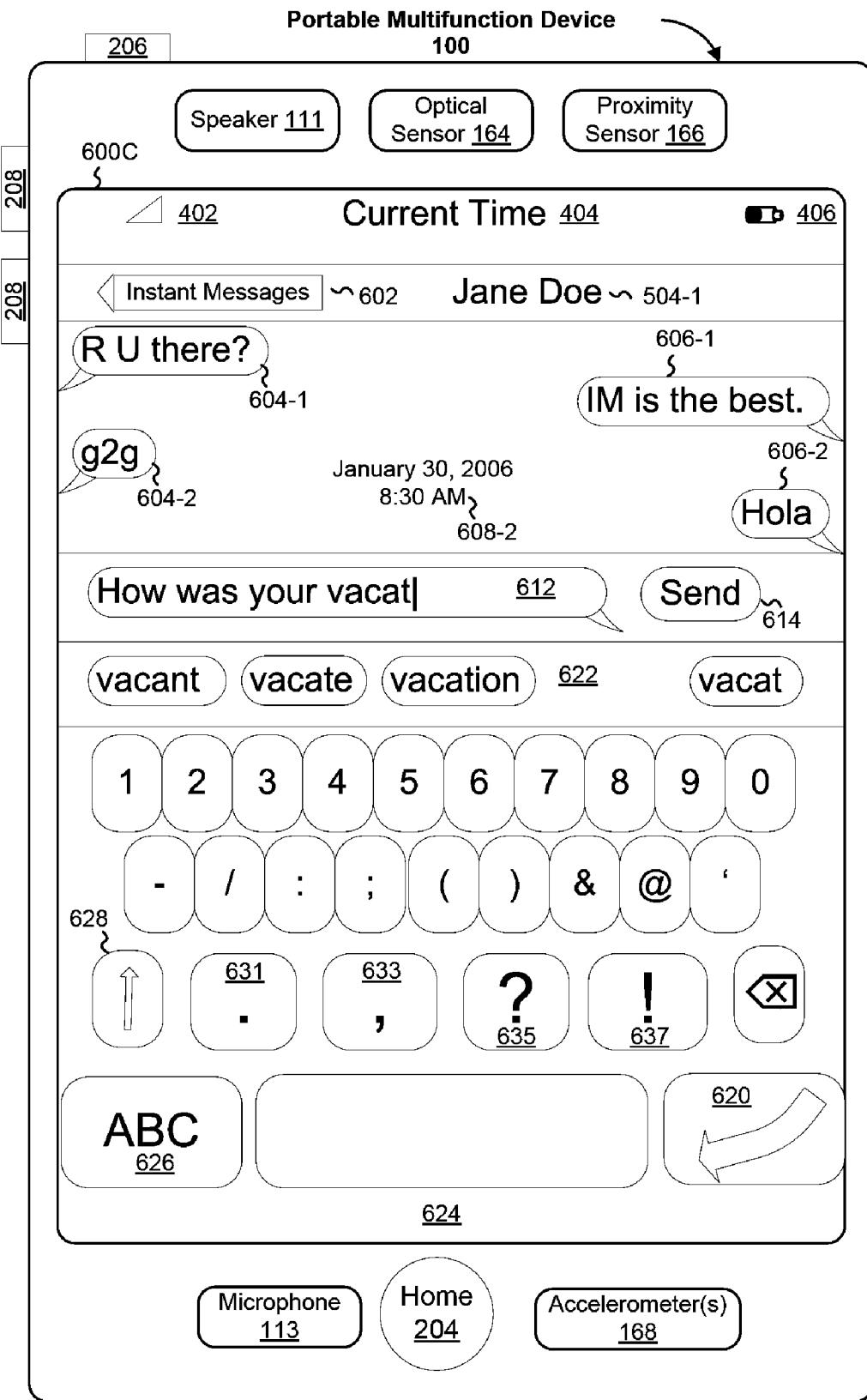


Figure 6C

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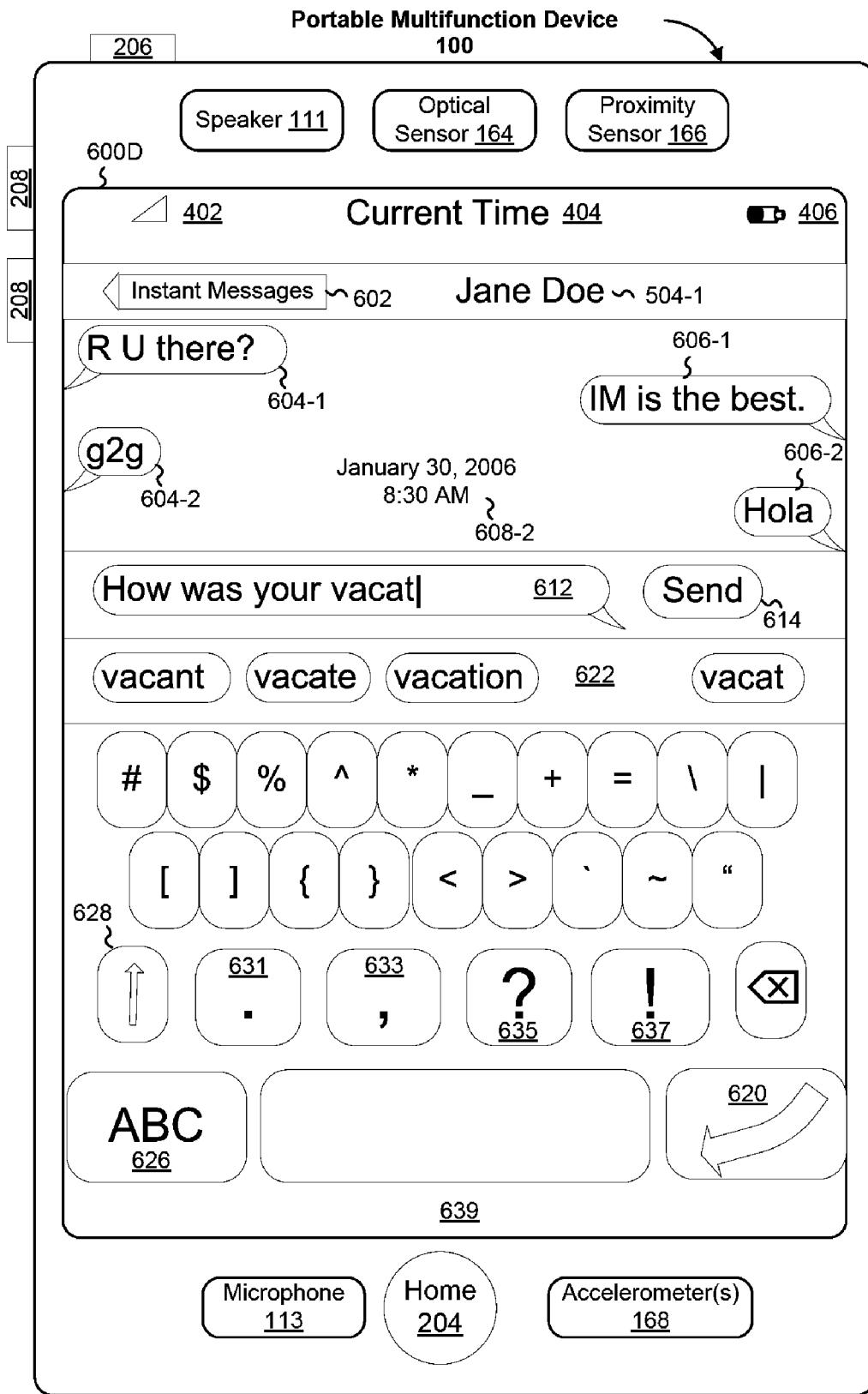


Figure 6D

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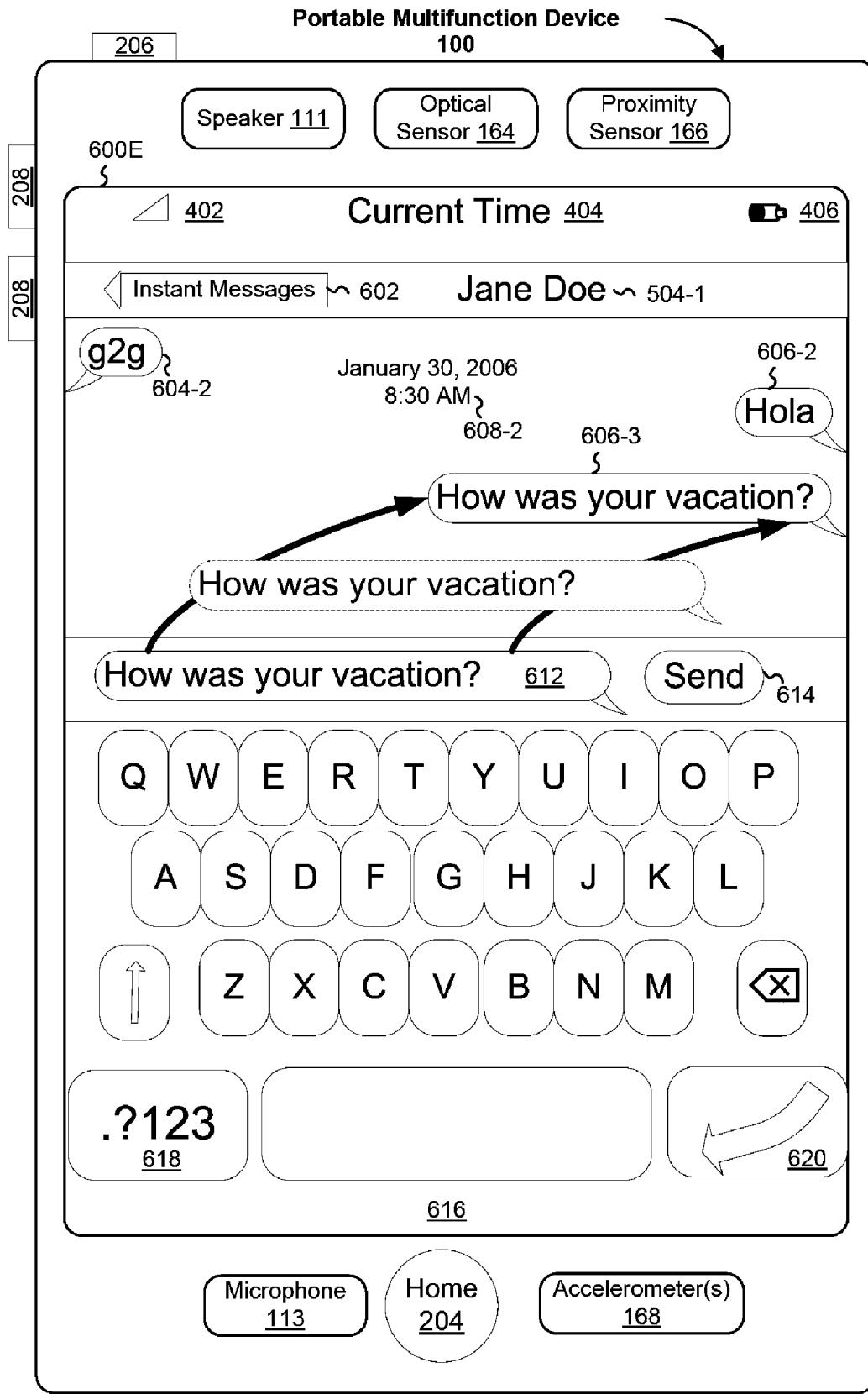


Figure 6E

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Figure 6F

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Figure 6G

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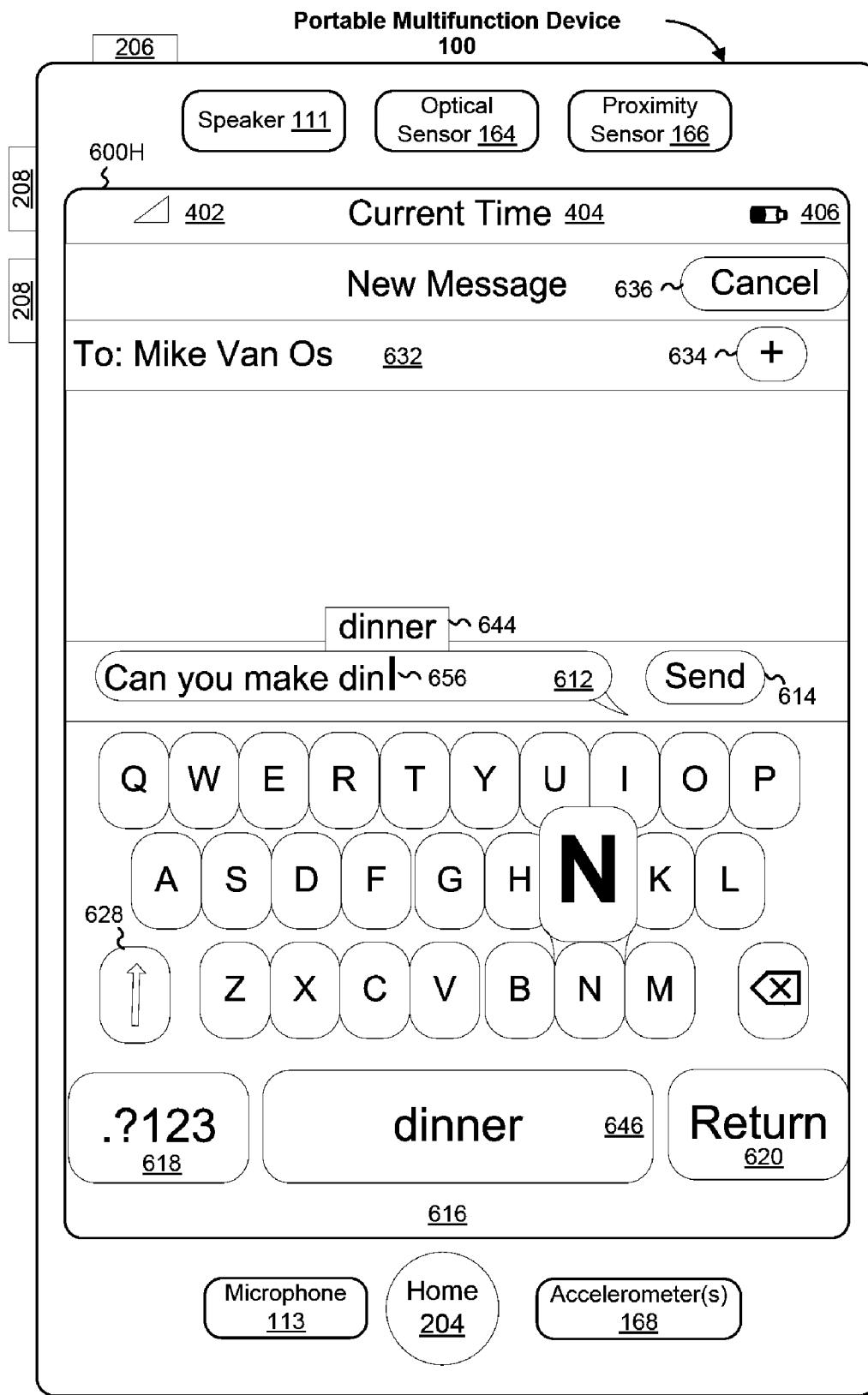


Figure 6H

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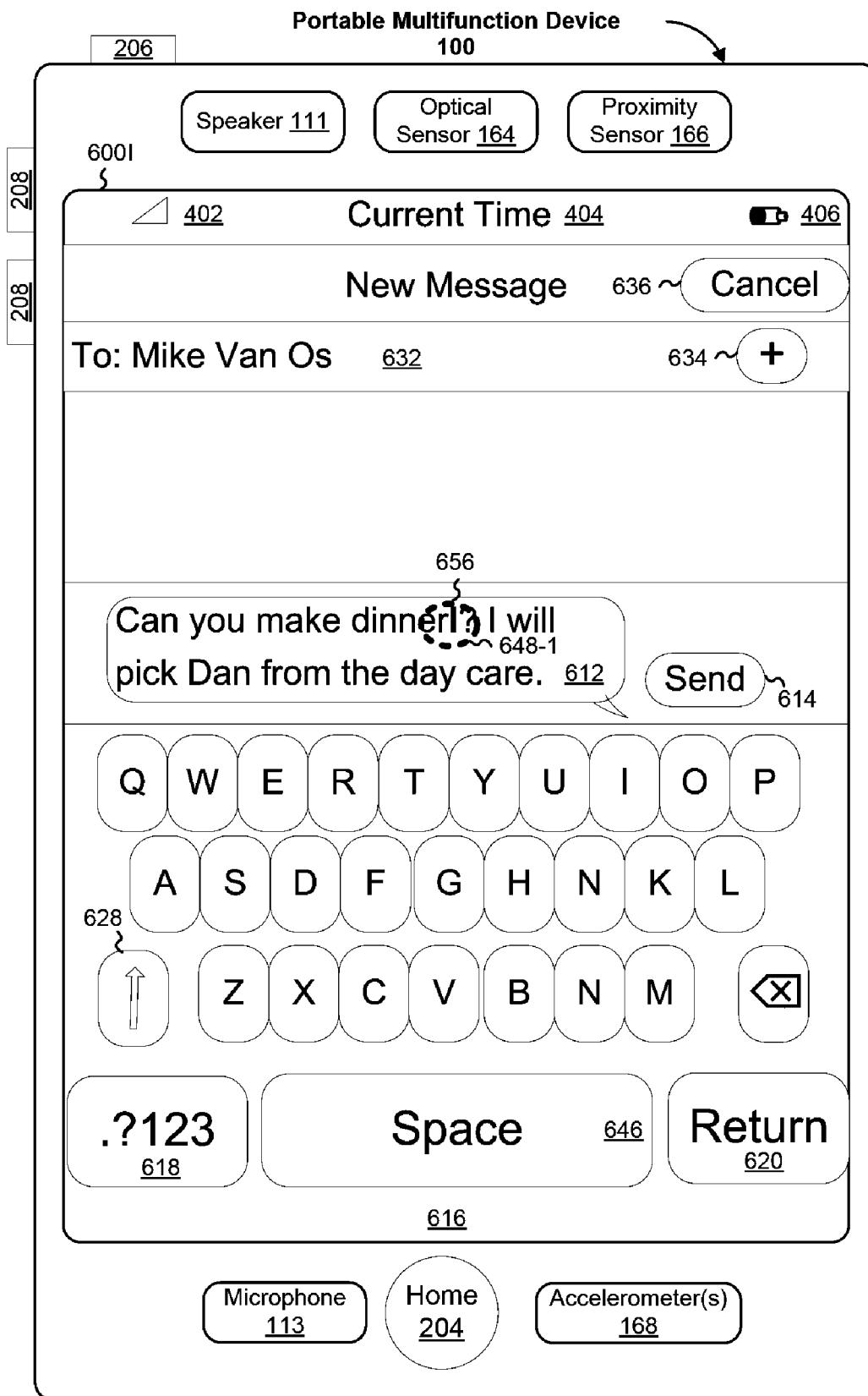


Figure 6I

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Figure 6J

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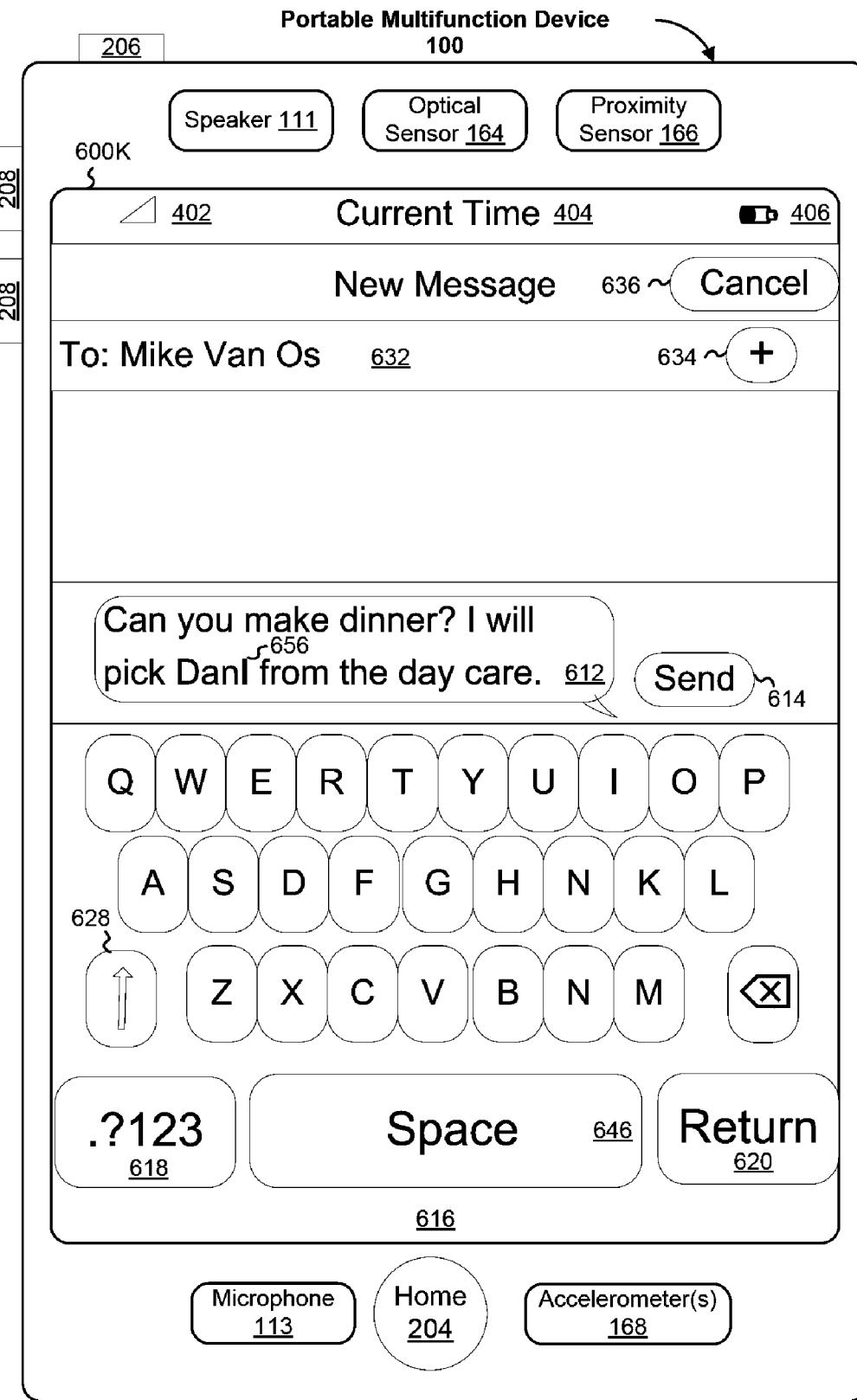


Figure 6K

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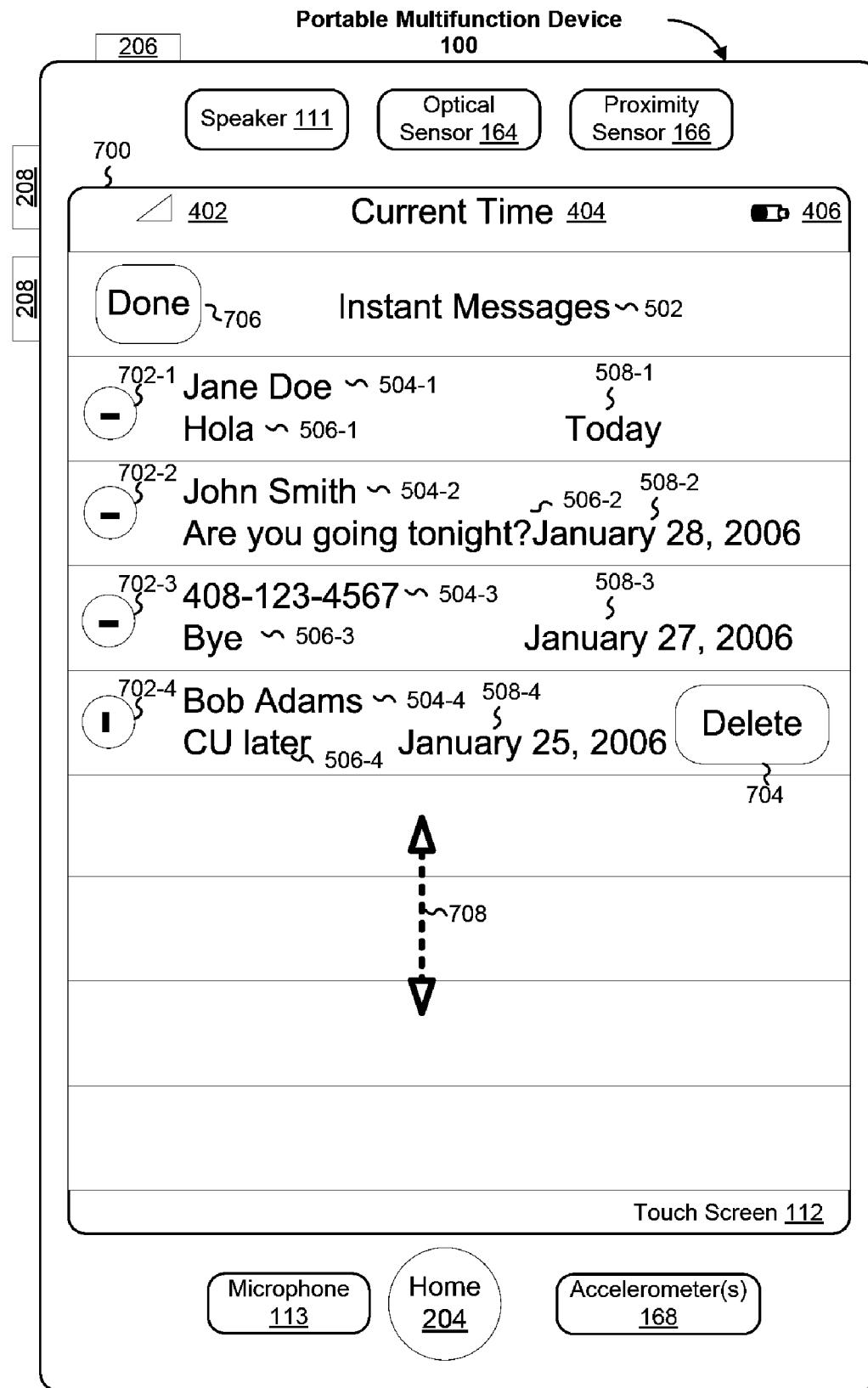


Figure 7

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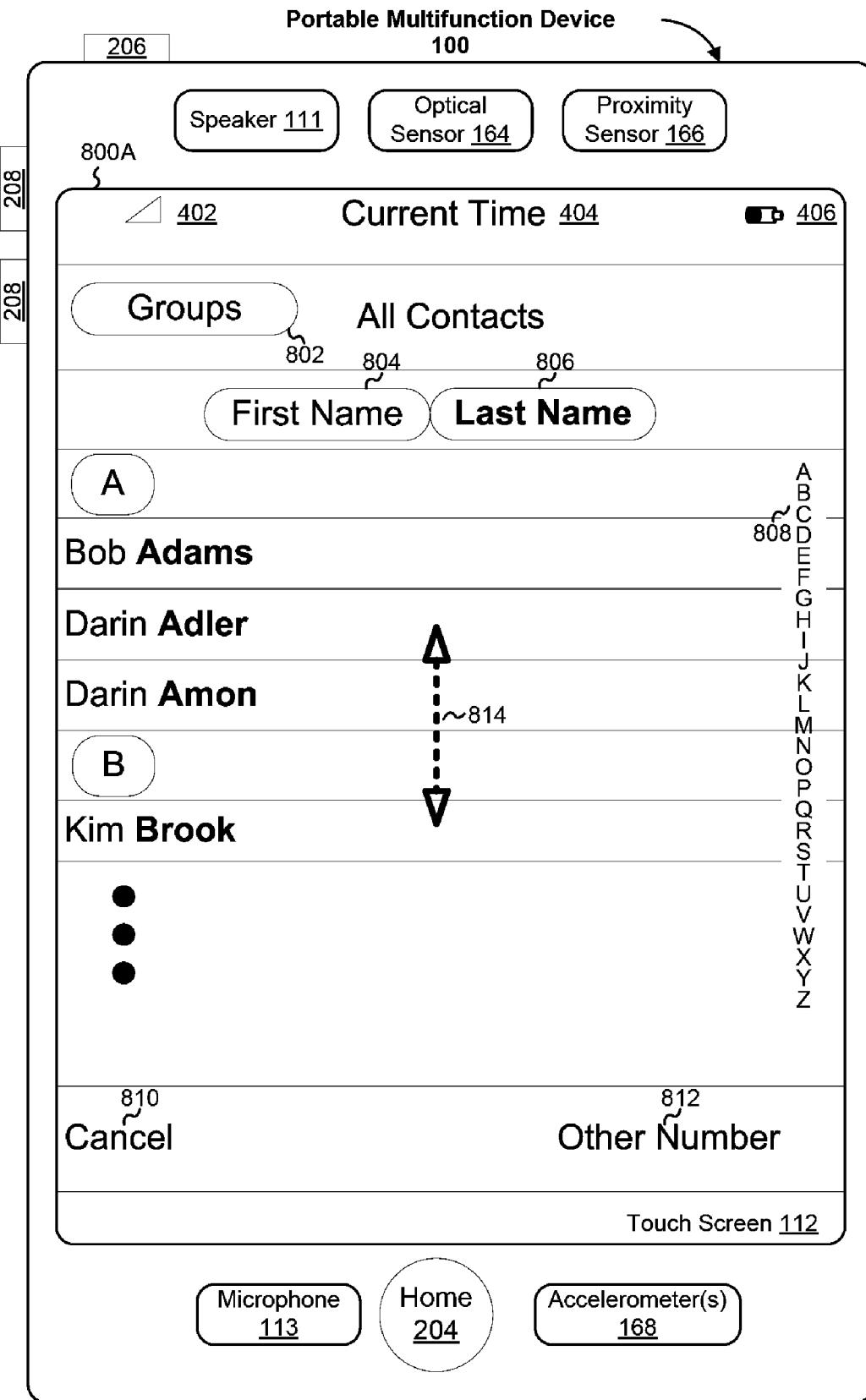


Figure 8A

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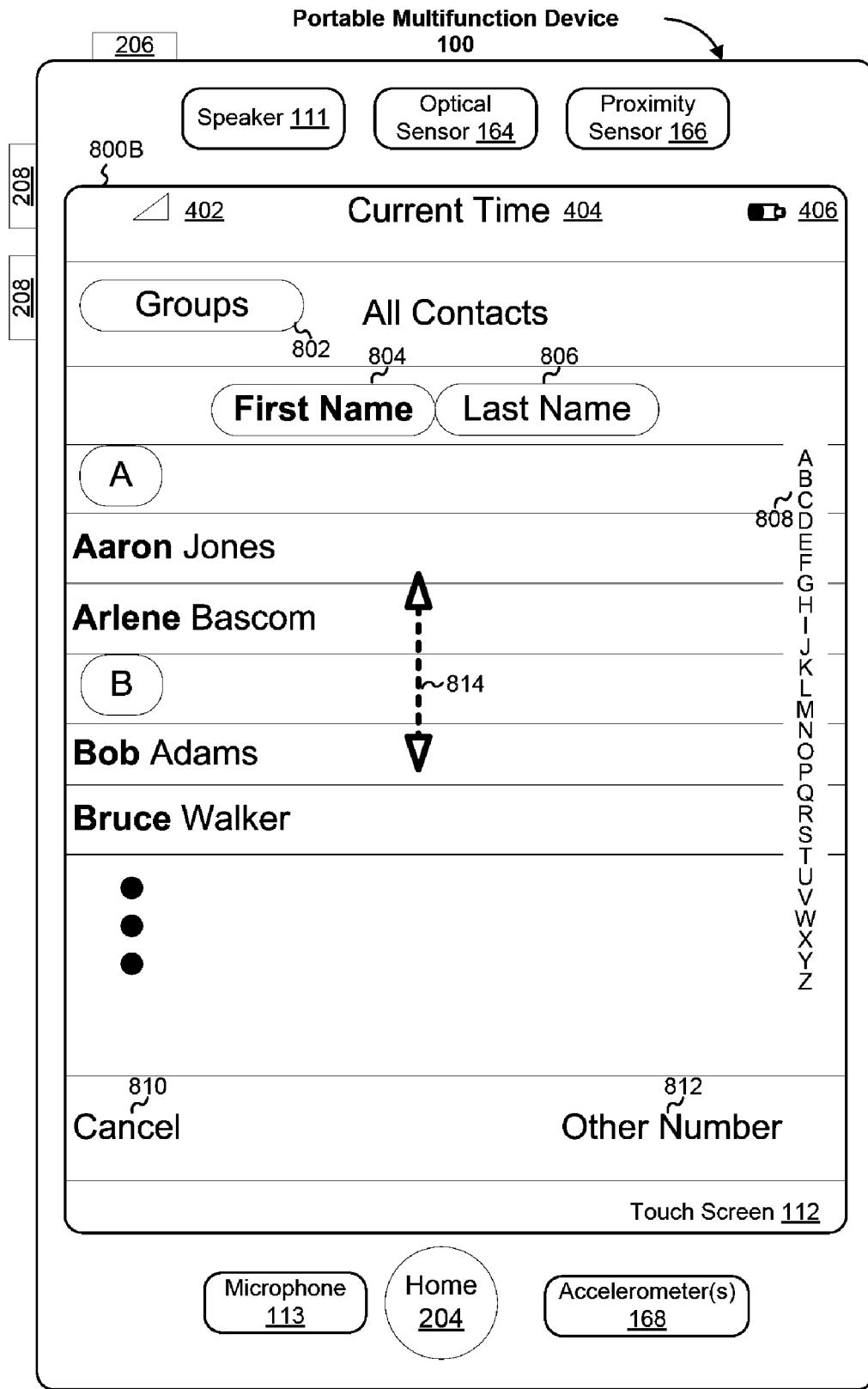


Figure 8B

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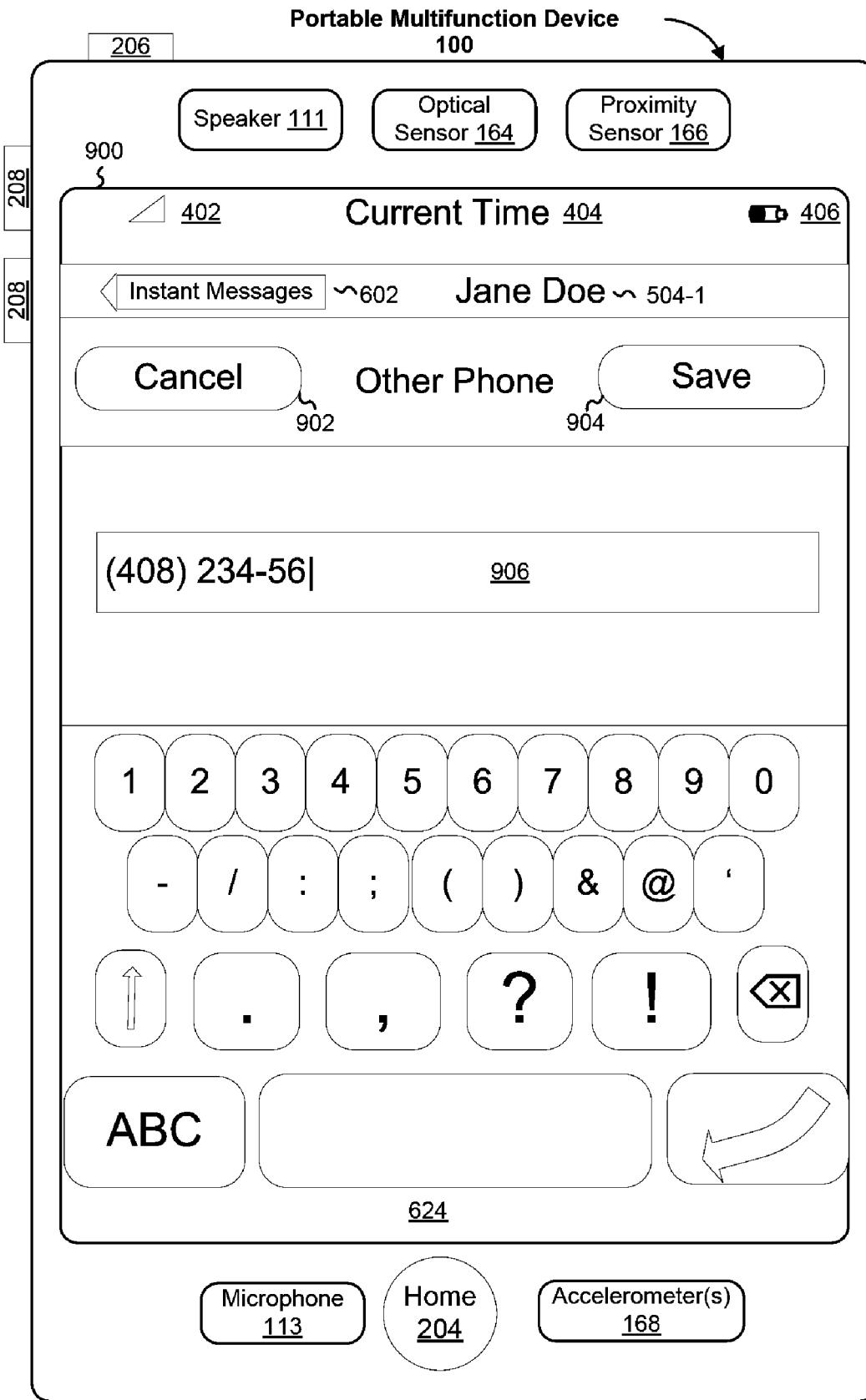


Figure 9

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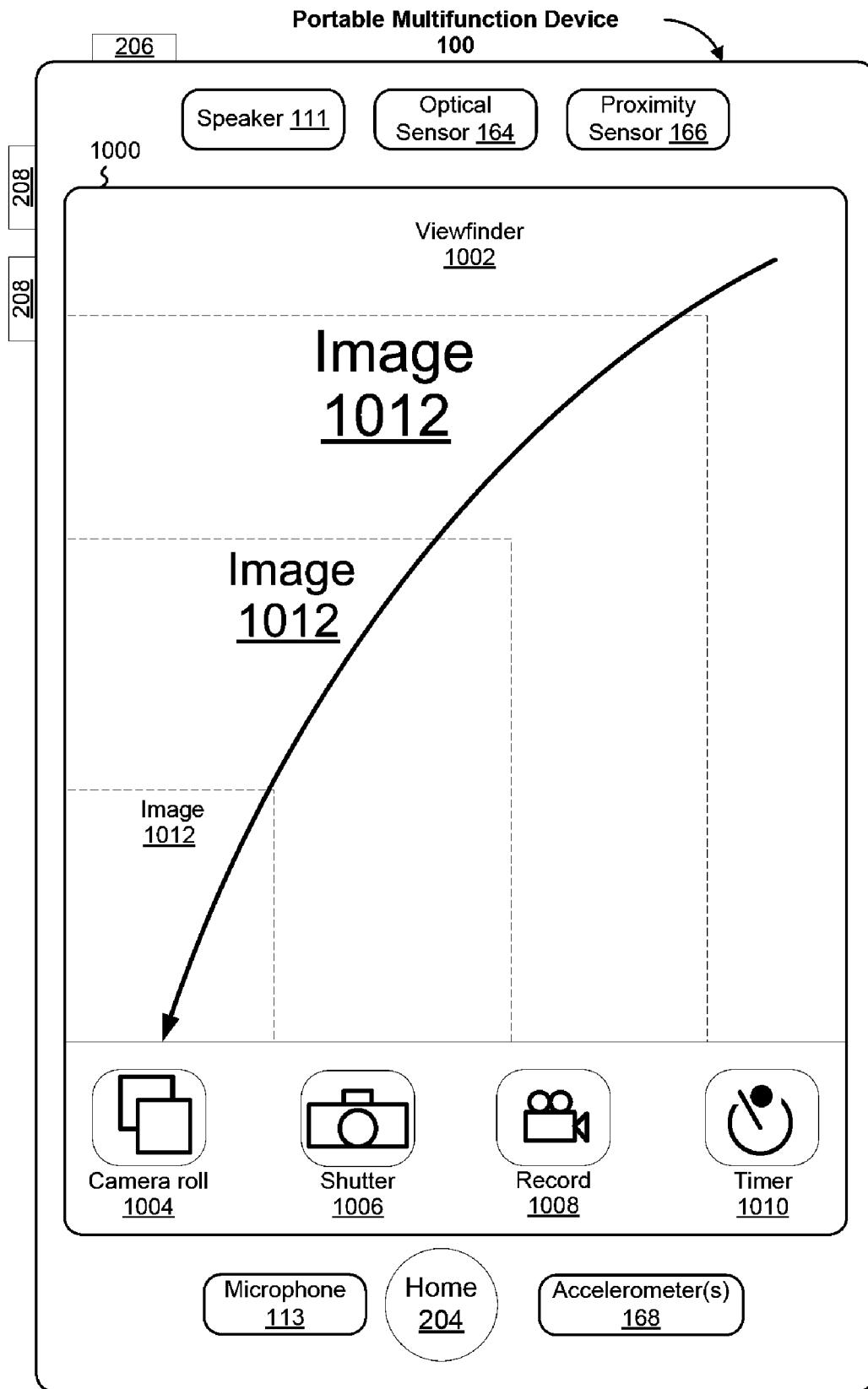


Figure 10

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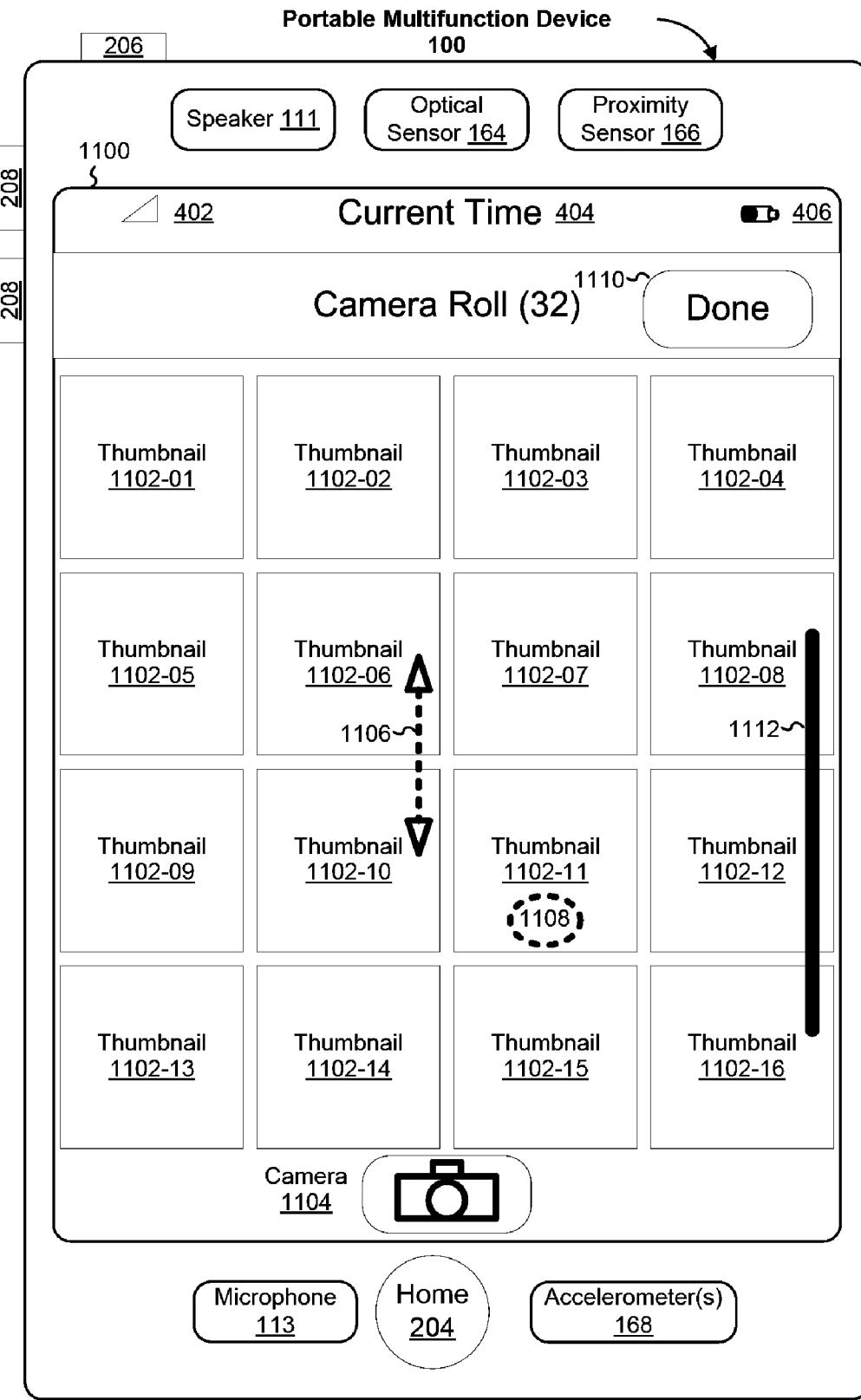


Figure 11

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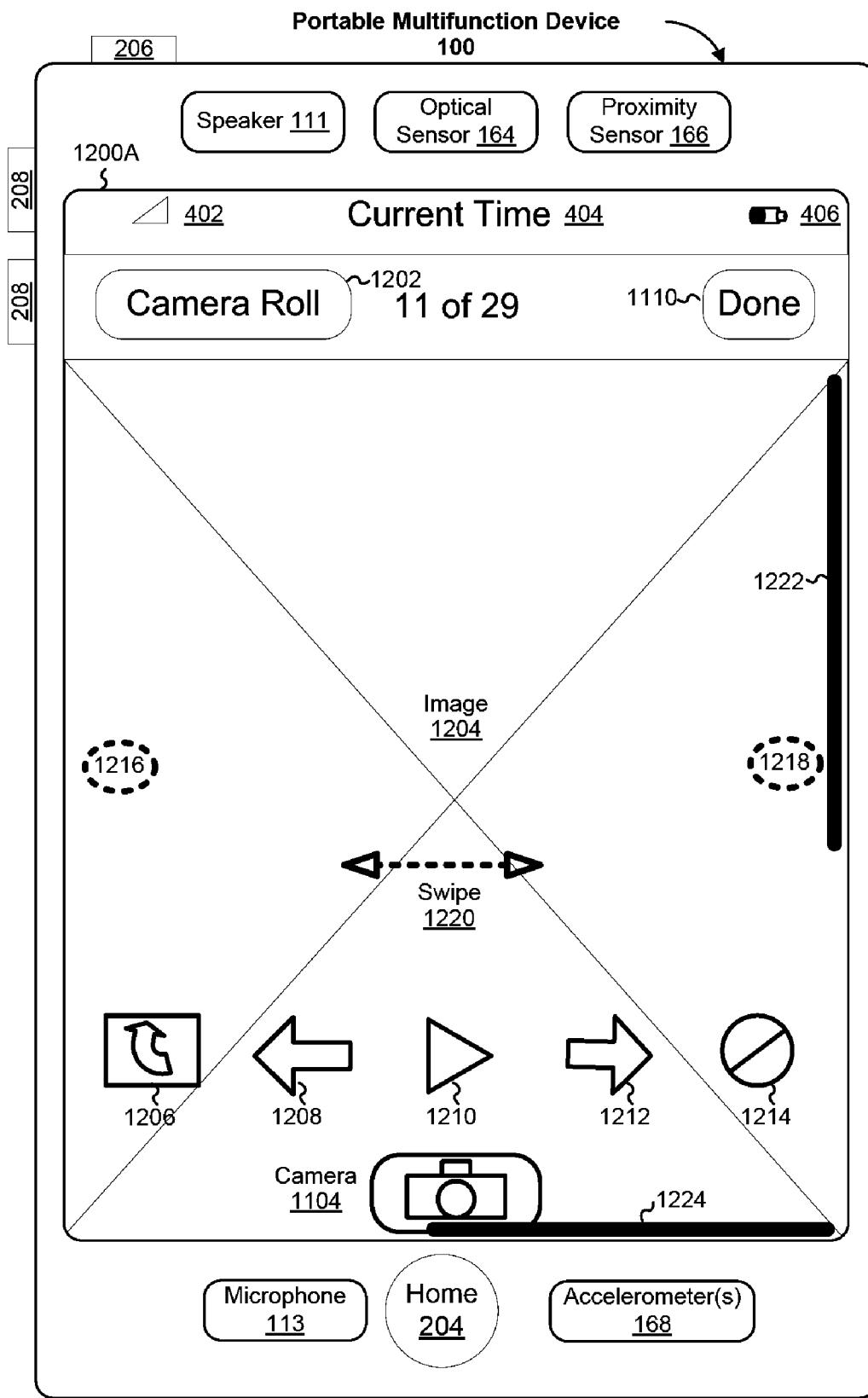


Figure 12A

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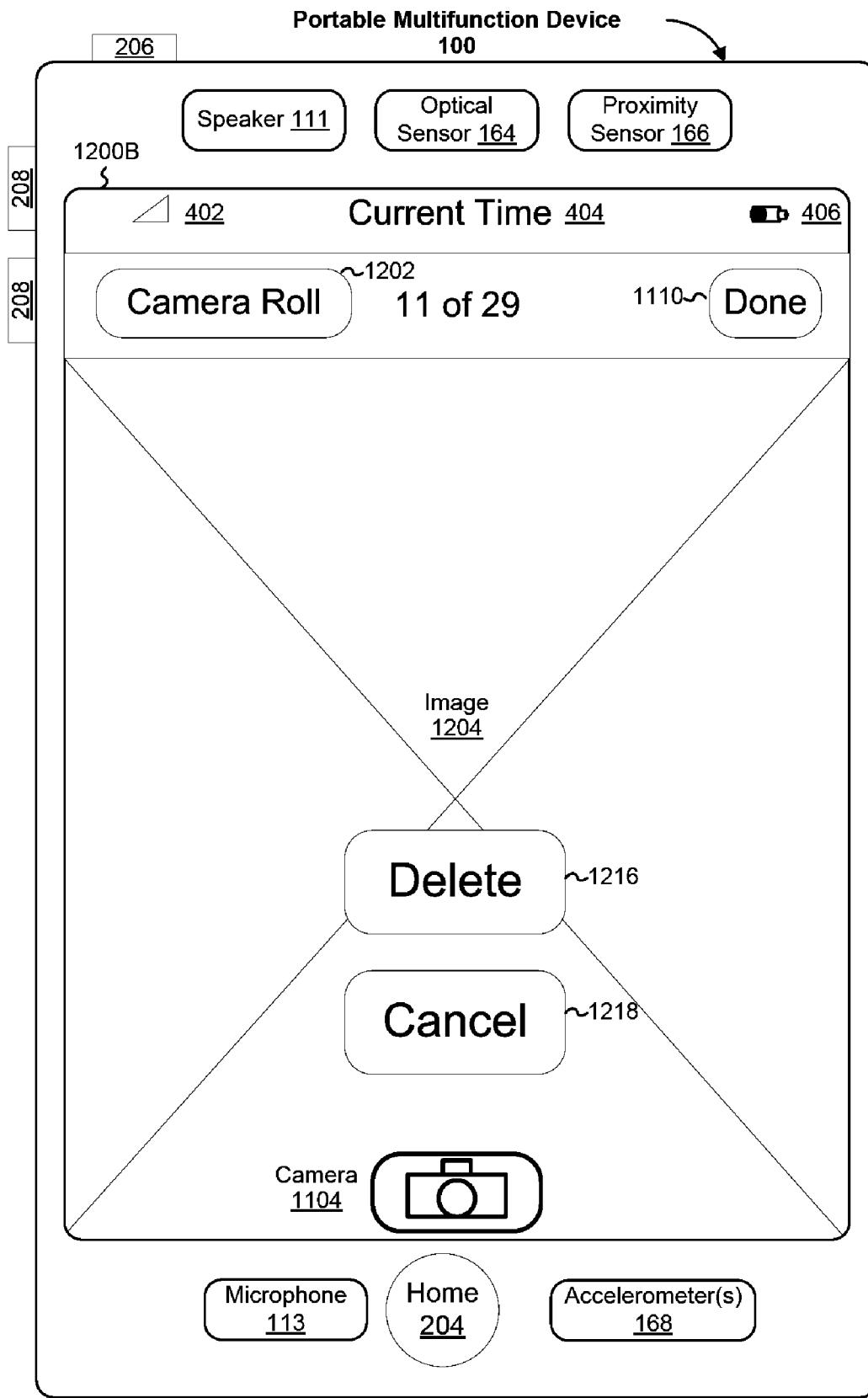


Figure 12B

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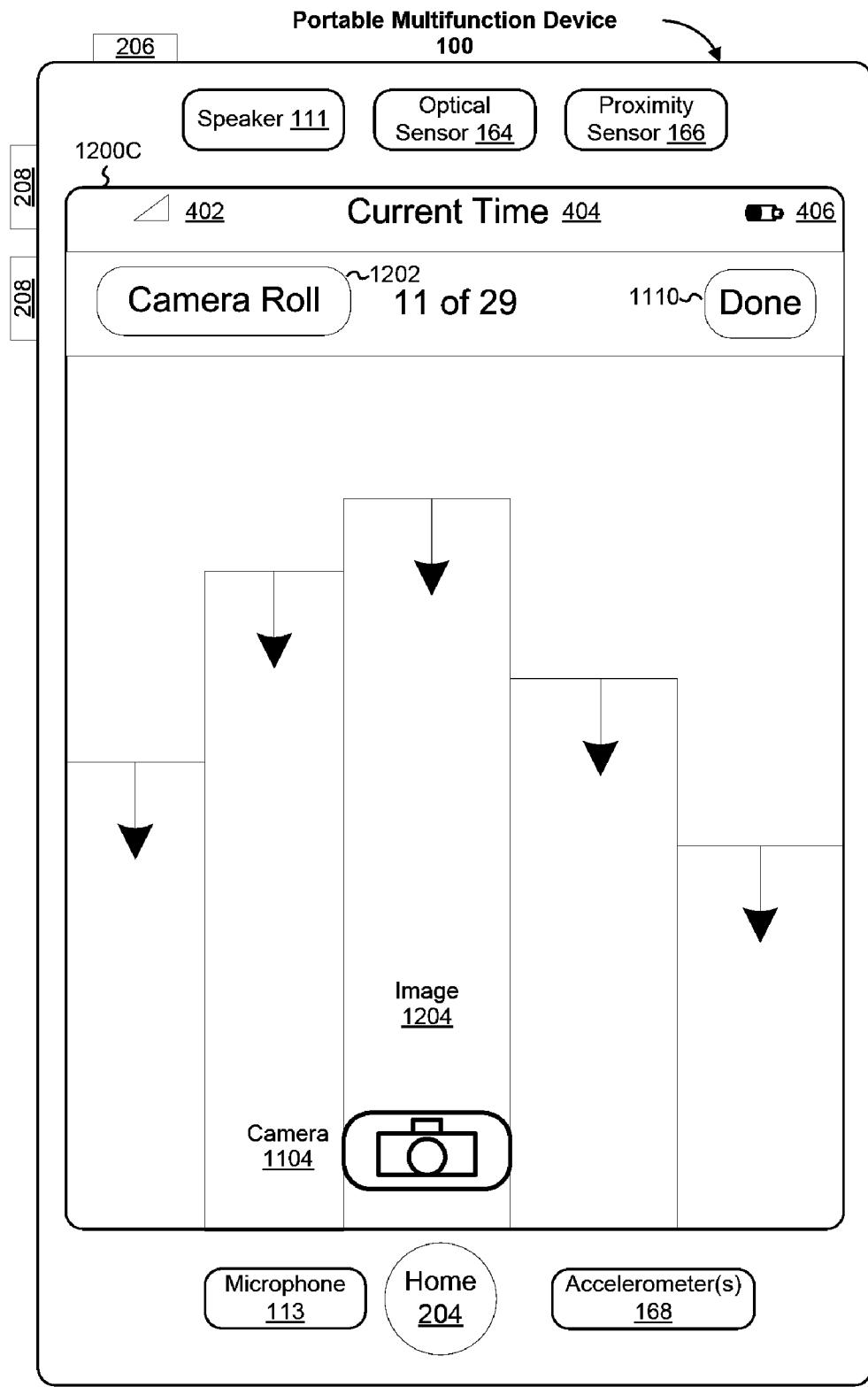


Figure 12C

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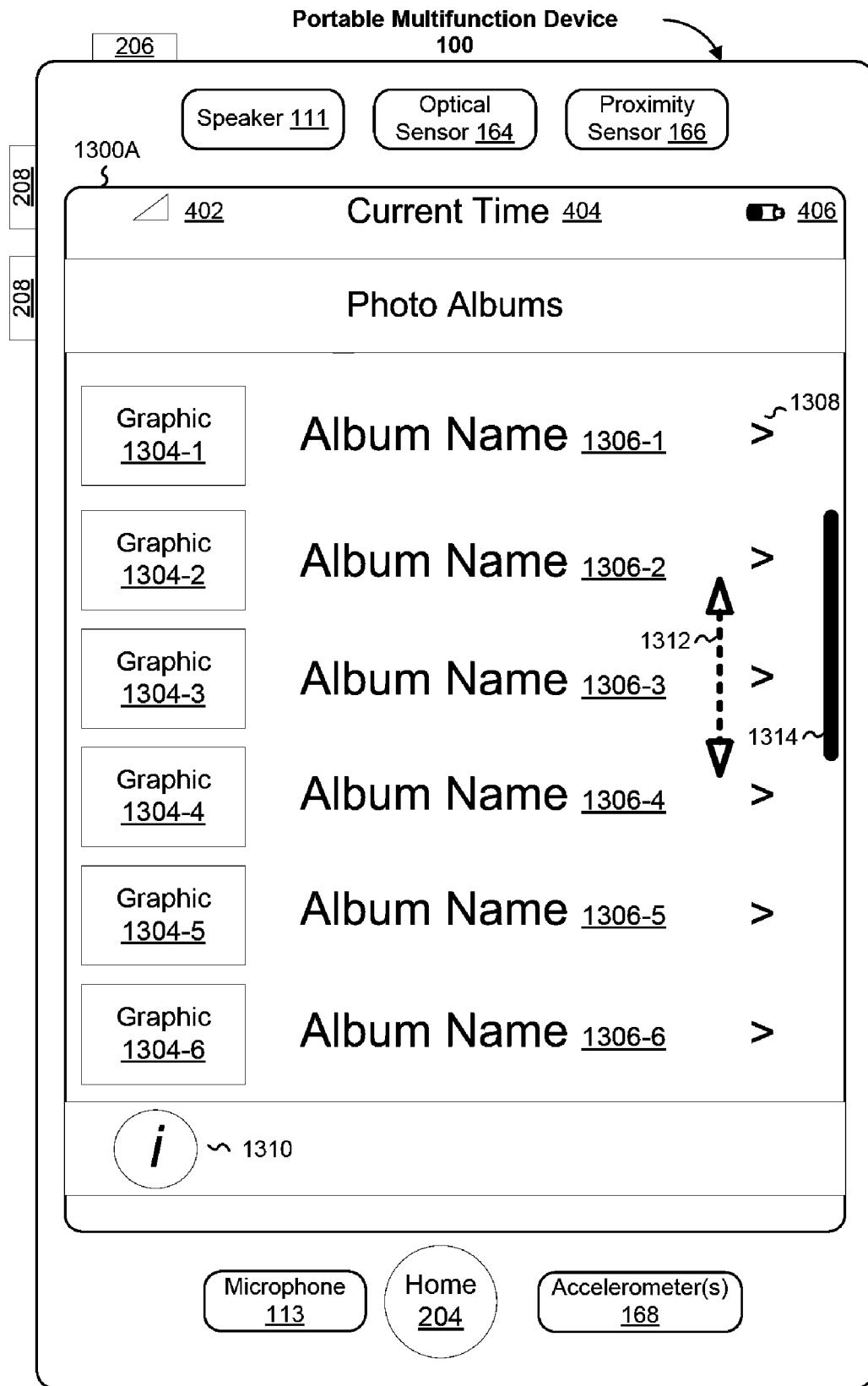


Figure 13A

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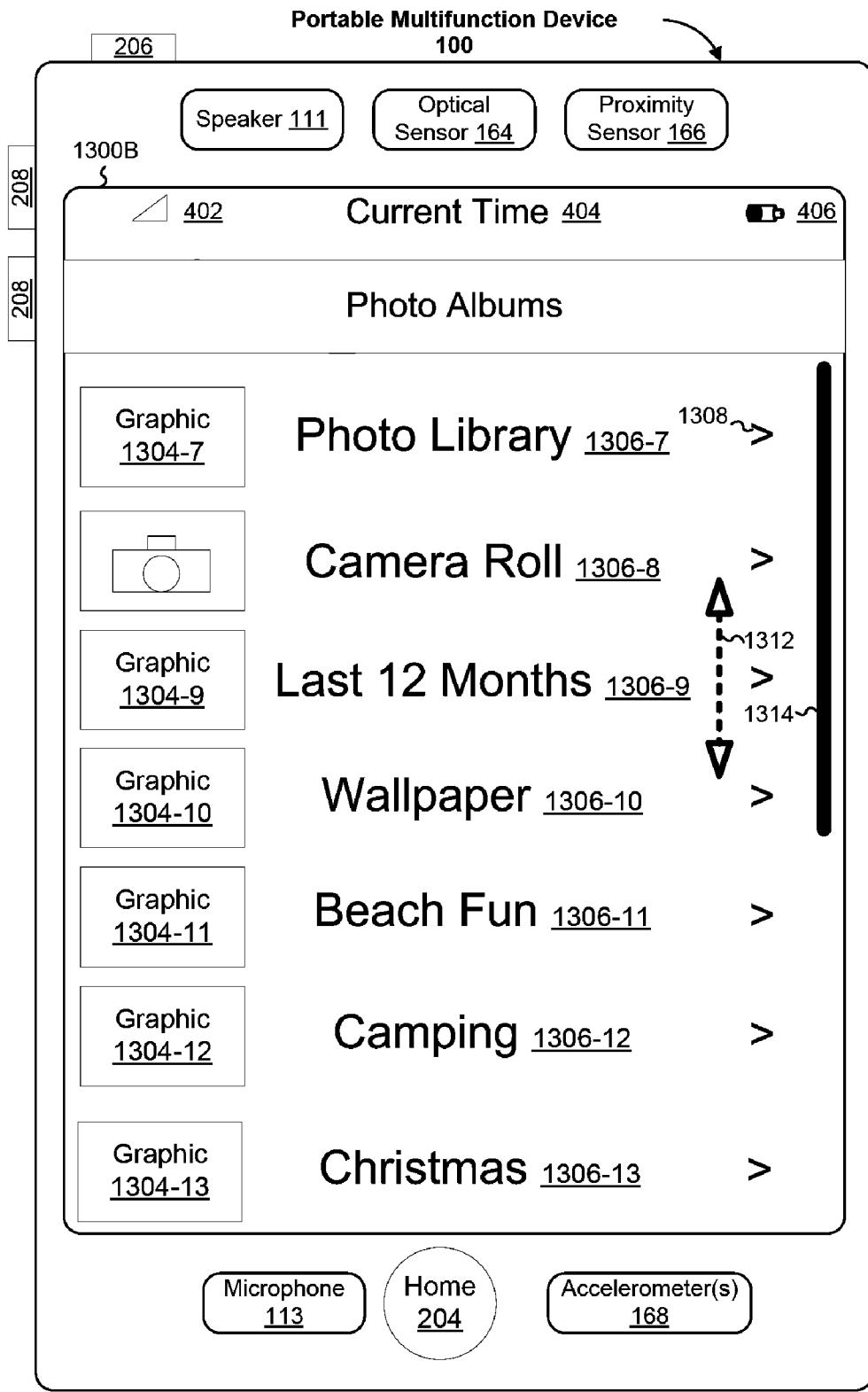


Figure 13B

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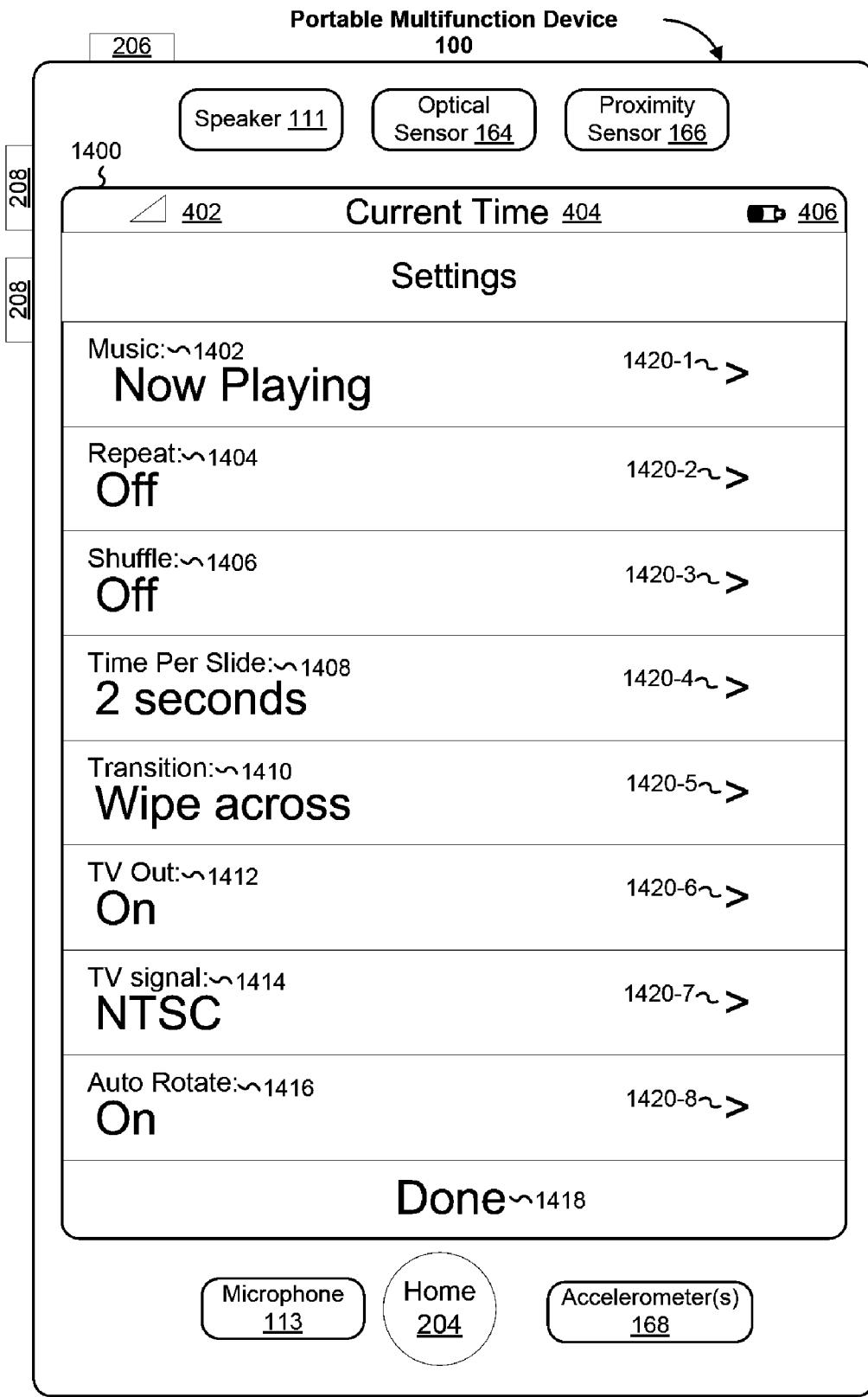


Figure 14

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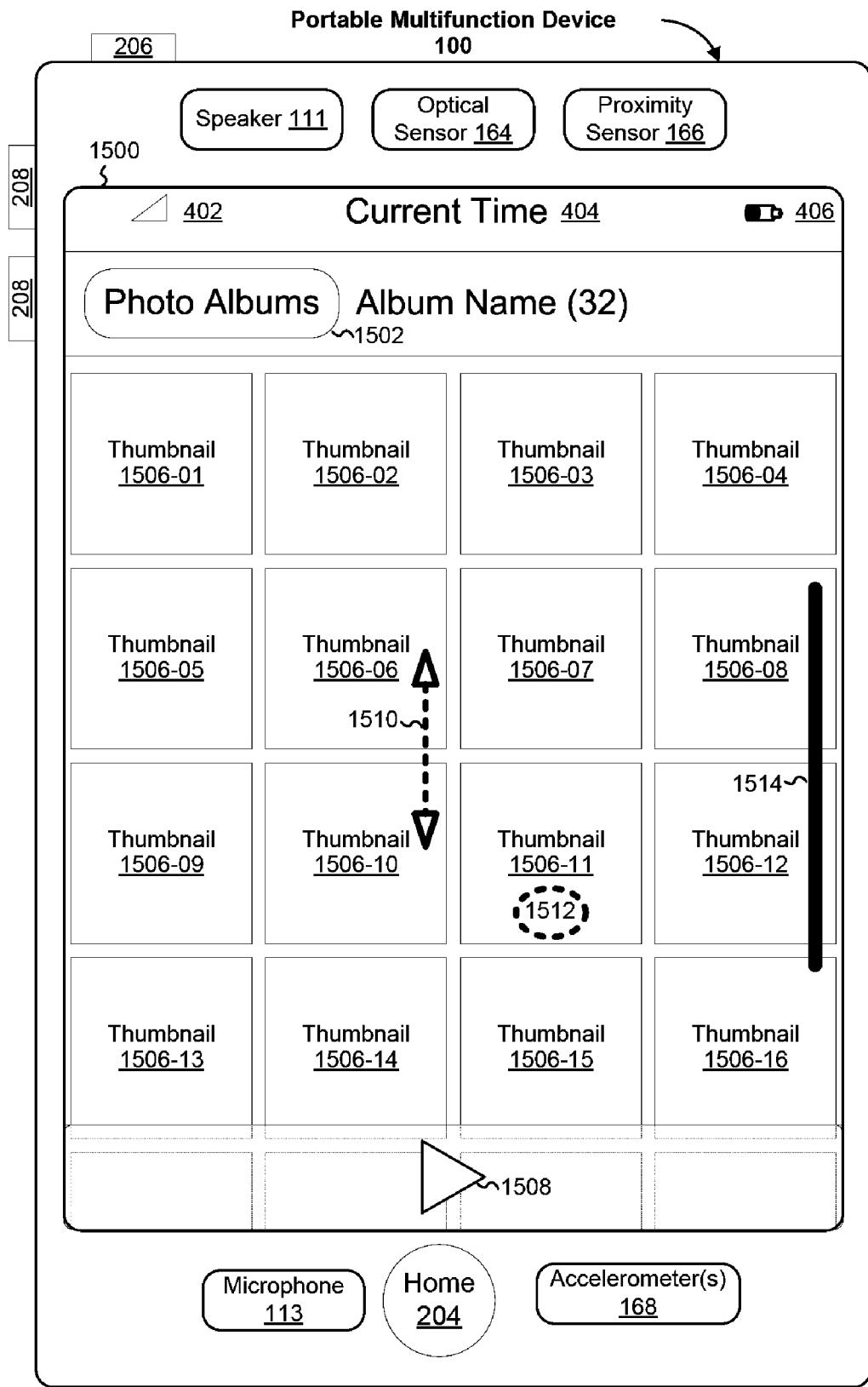


Figure 15

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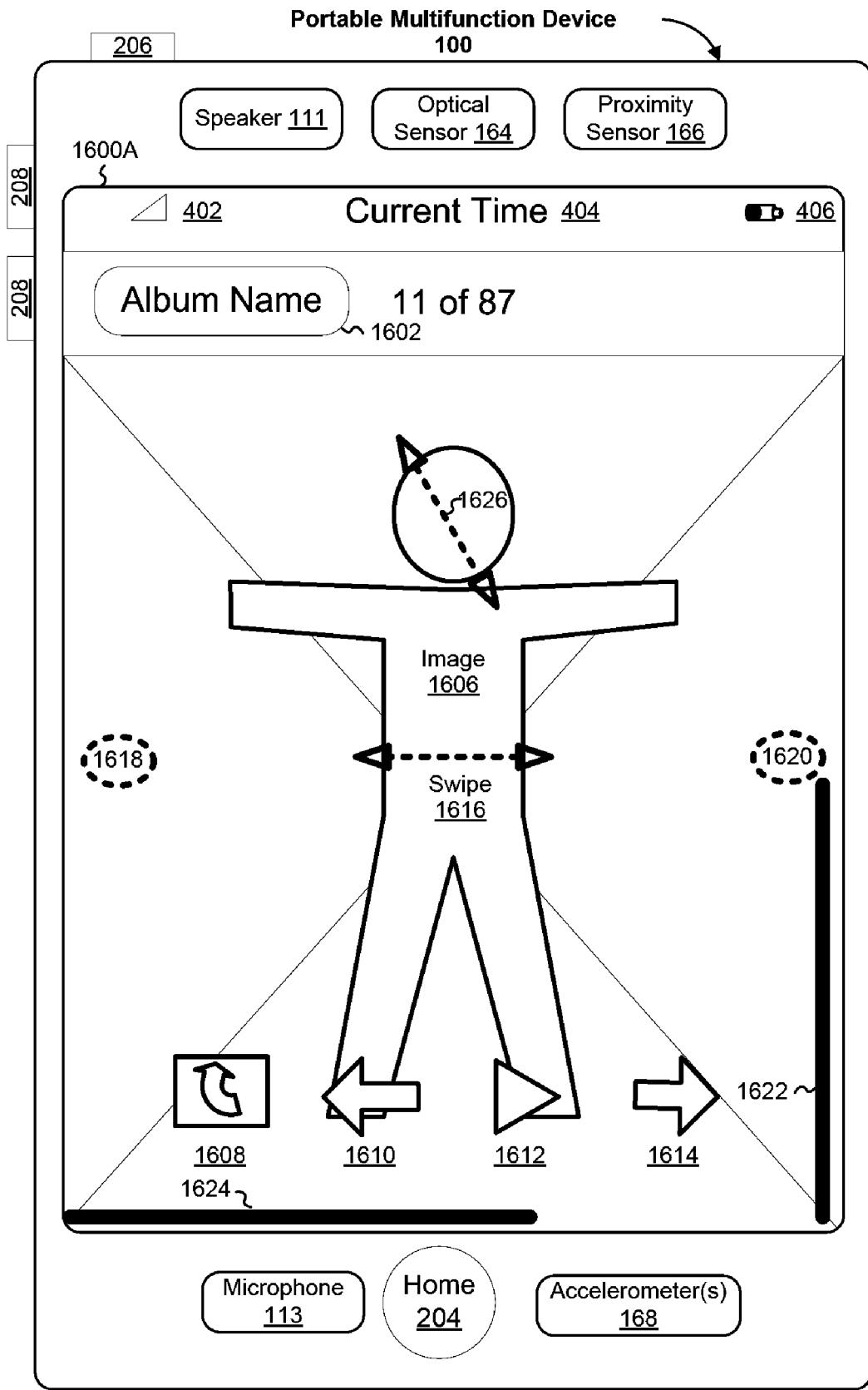


Figure 16A

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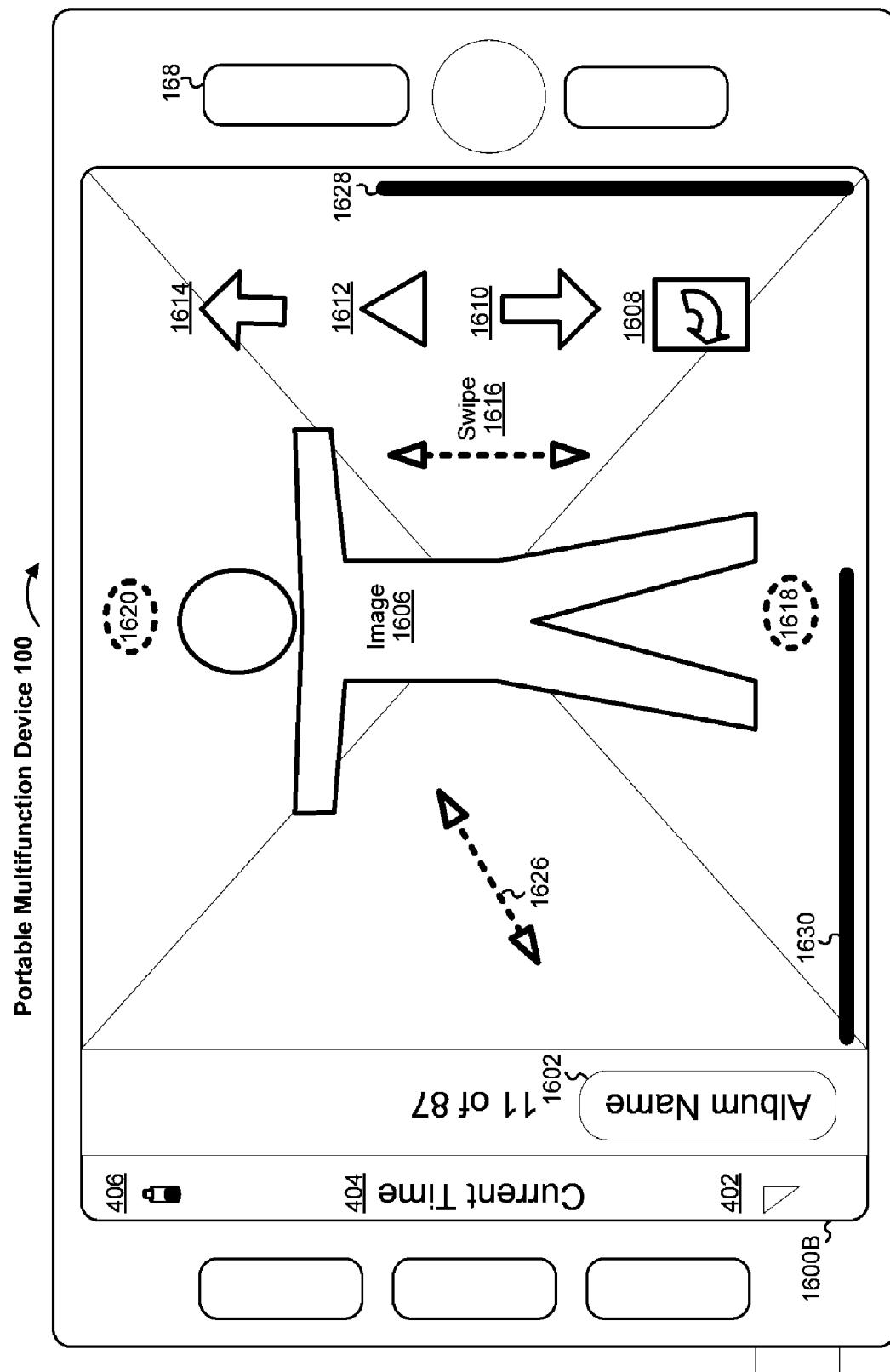


Figure 16B

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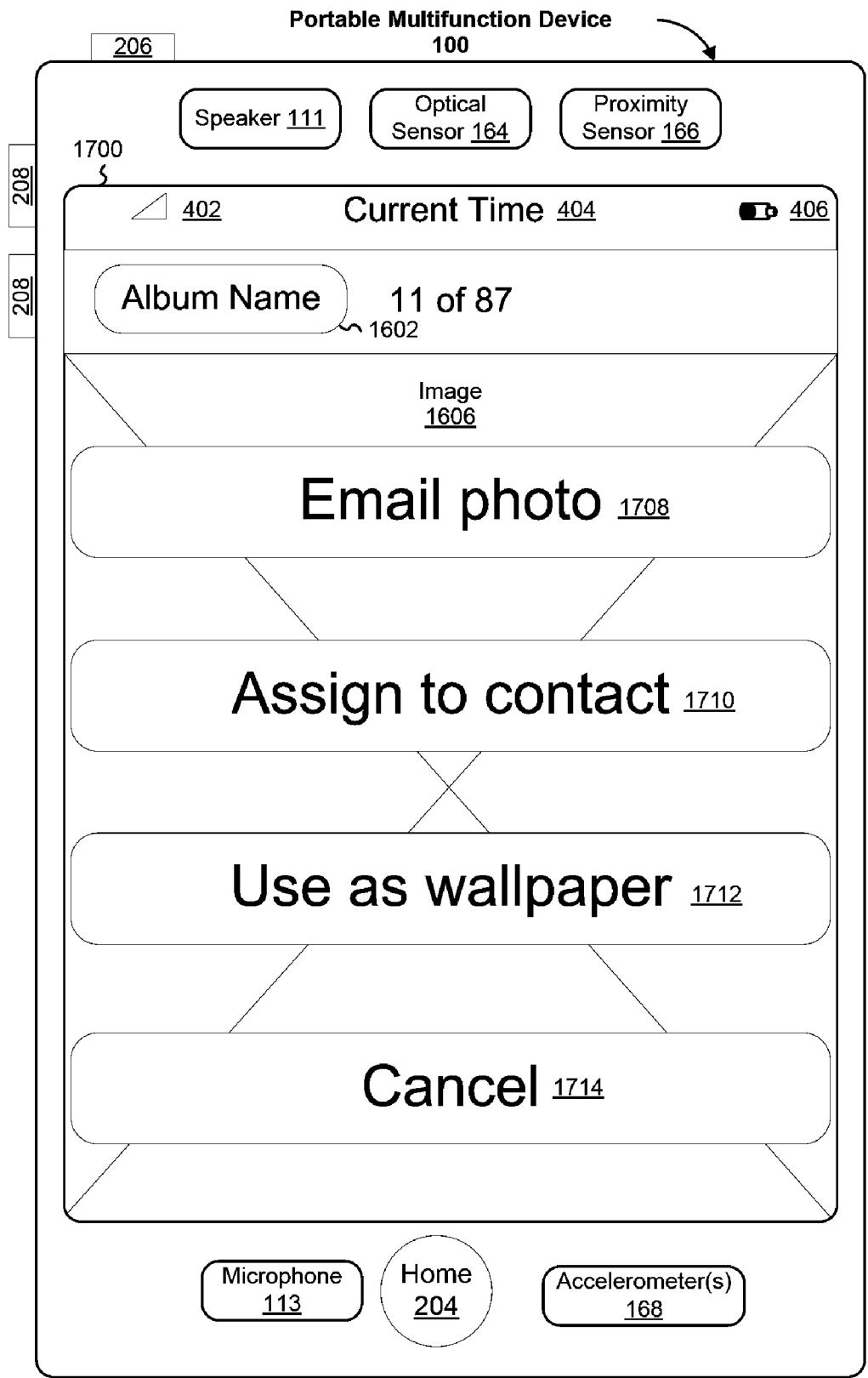


Figure 17

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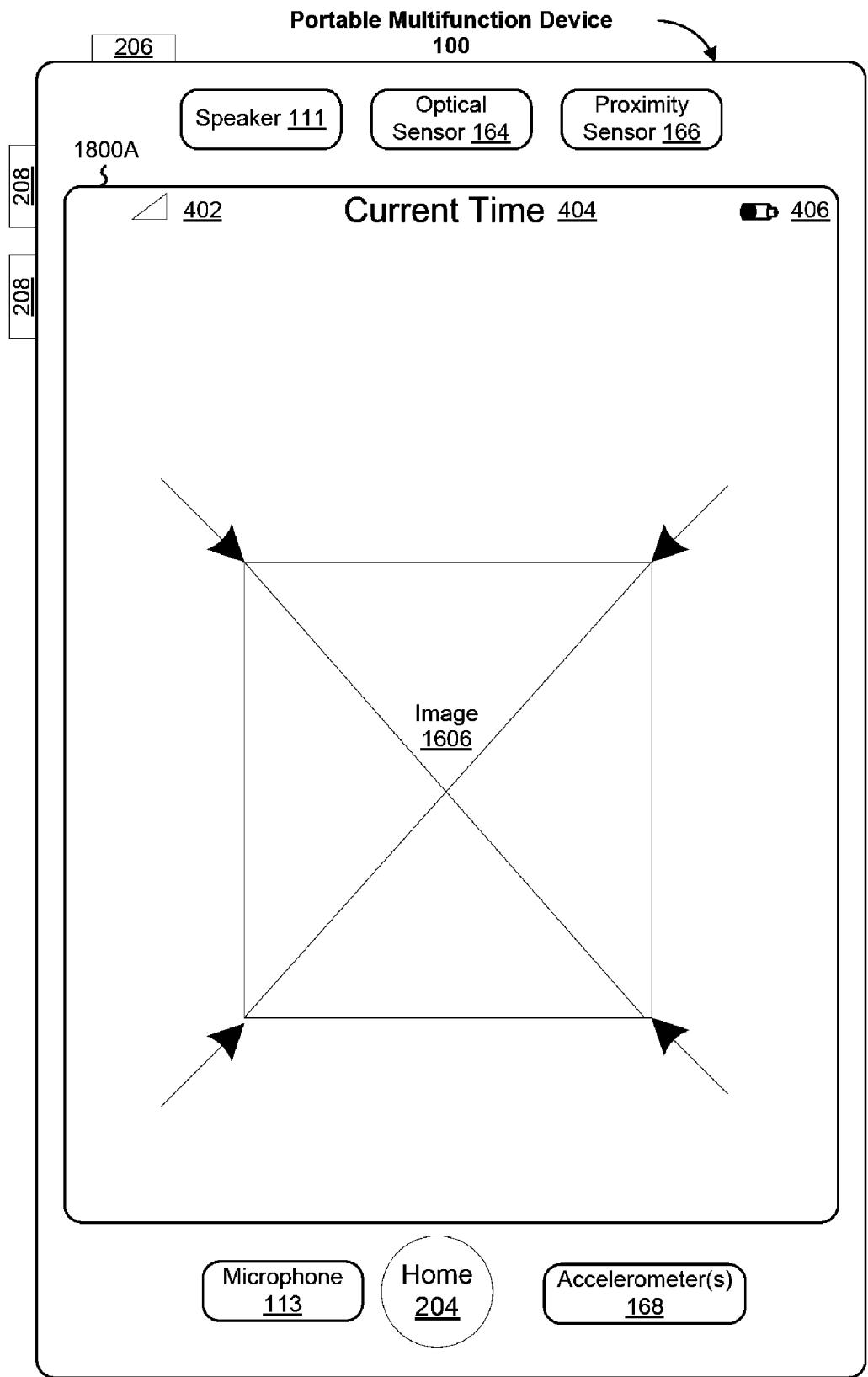


Figure 18A

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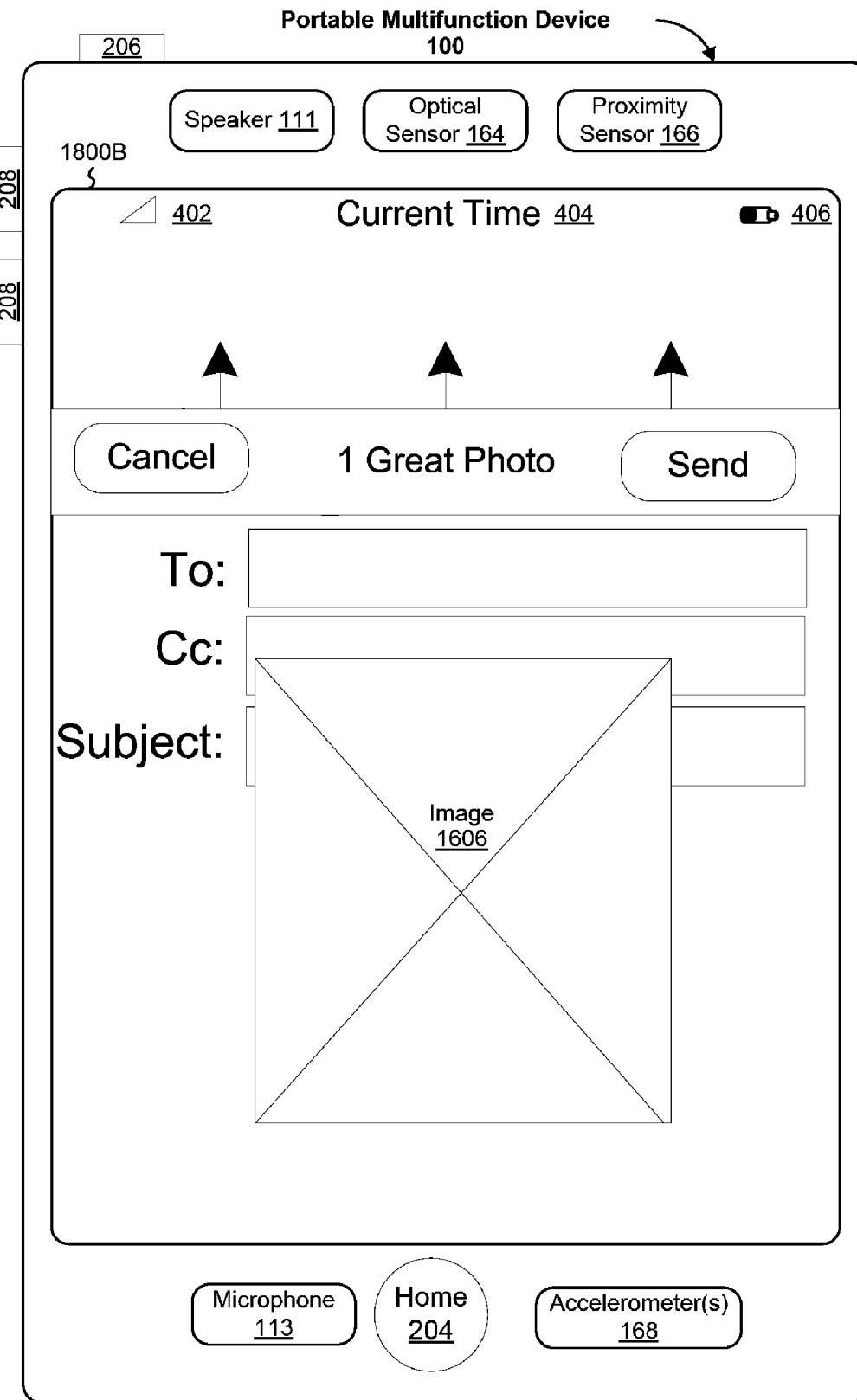


Figure 18B

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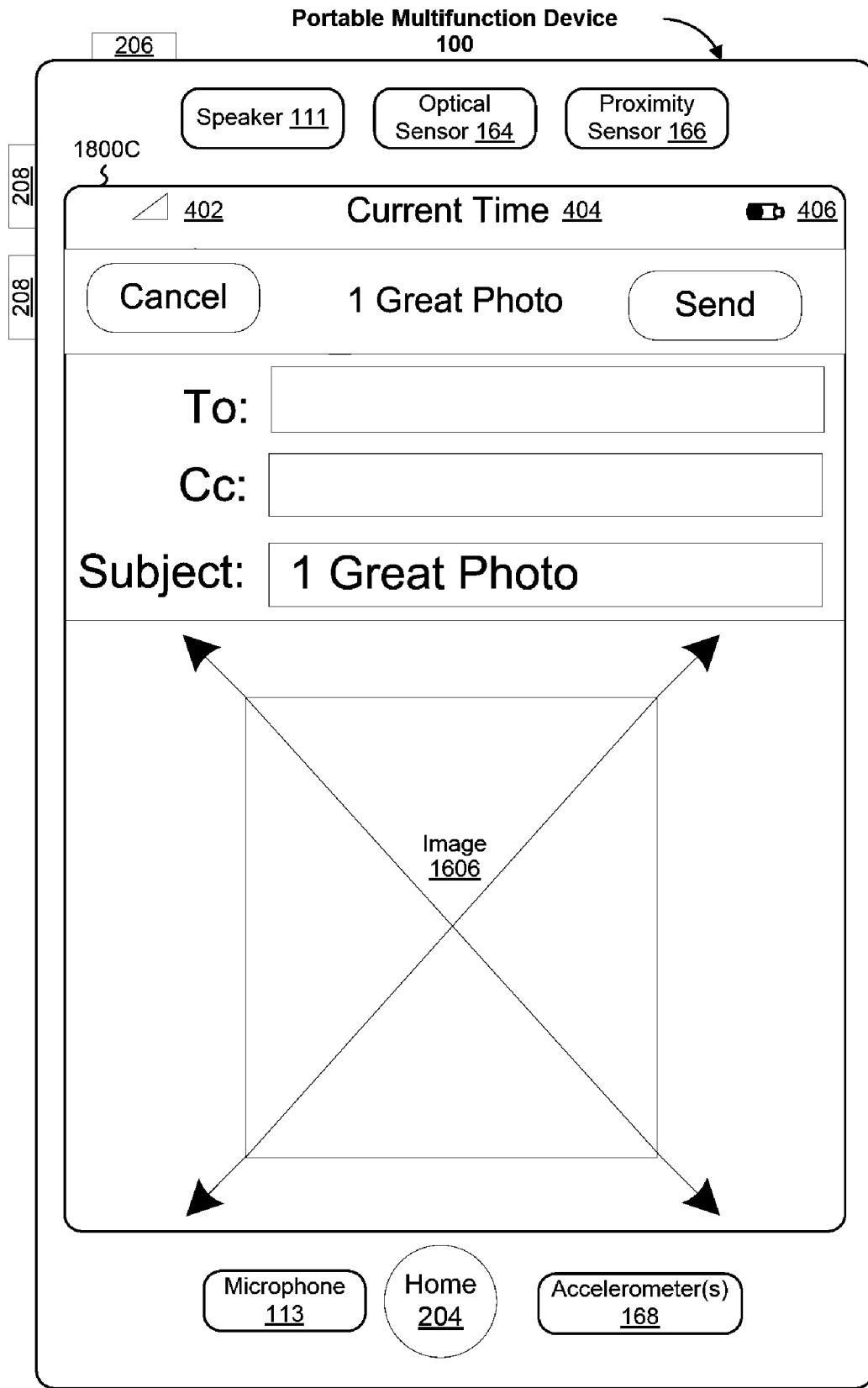


Figure 18C

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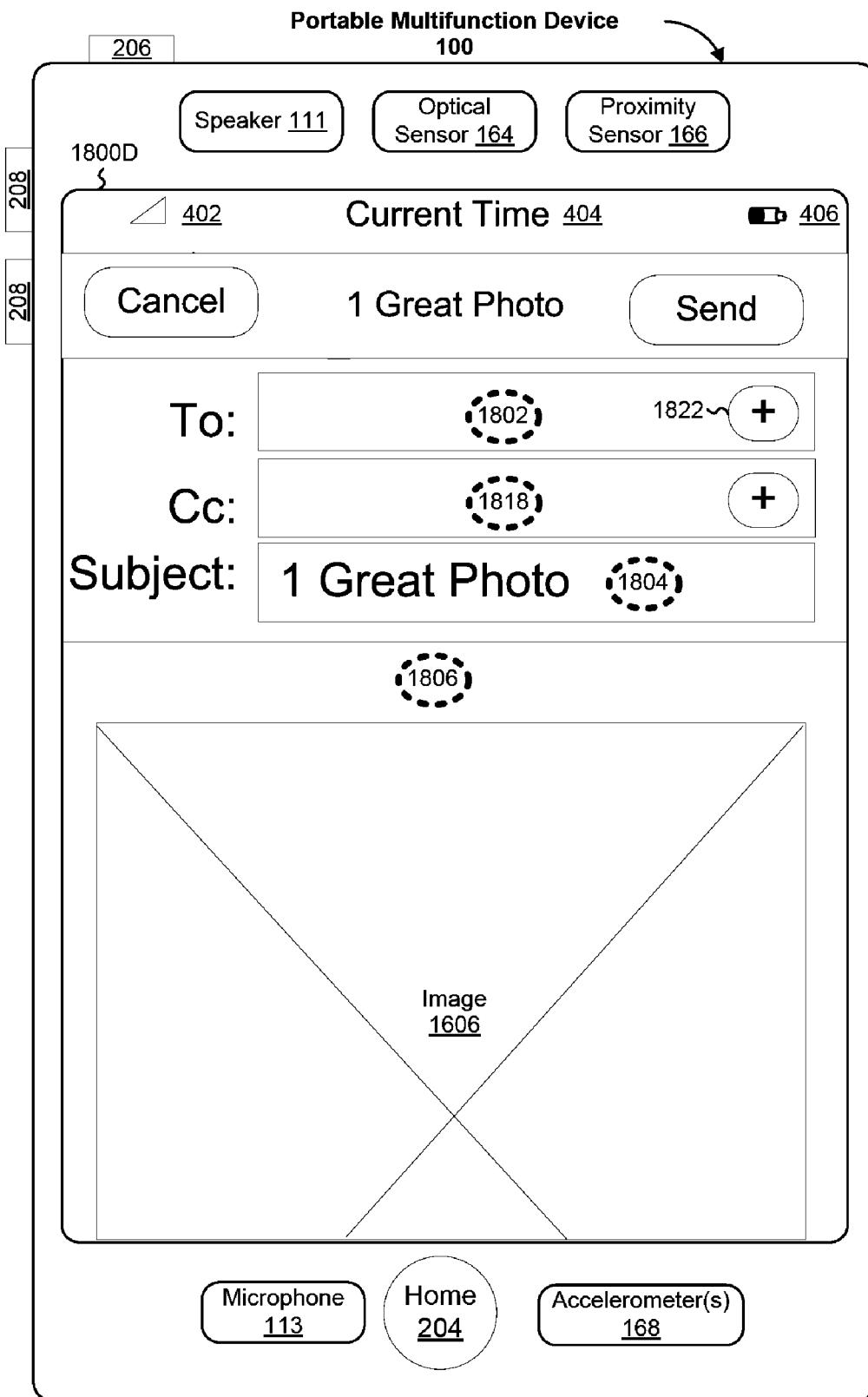


Figure 18D

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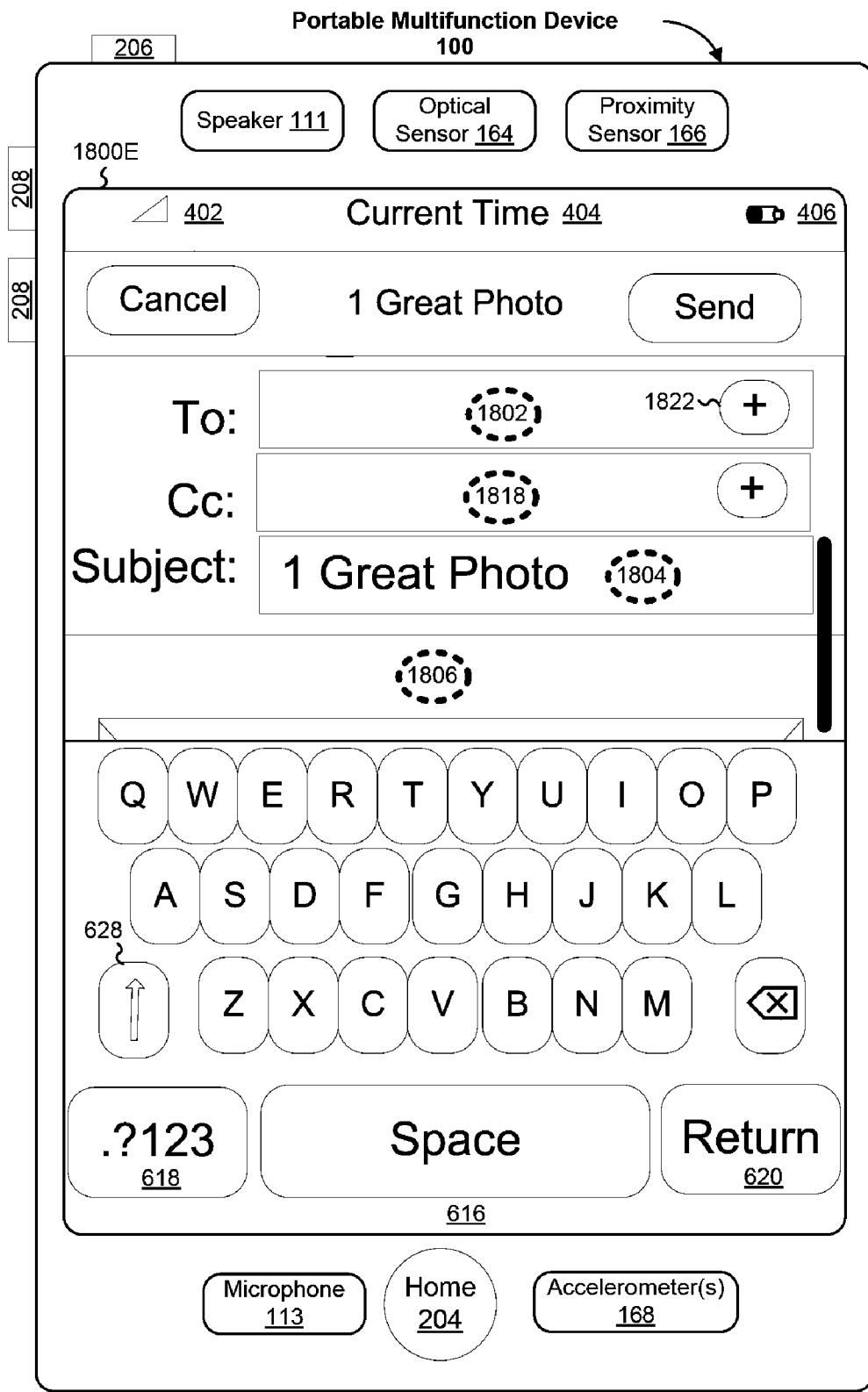


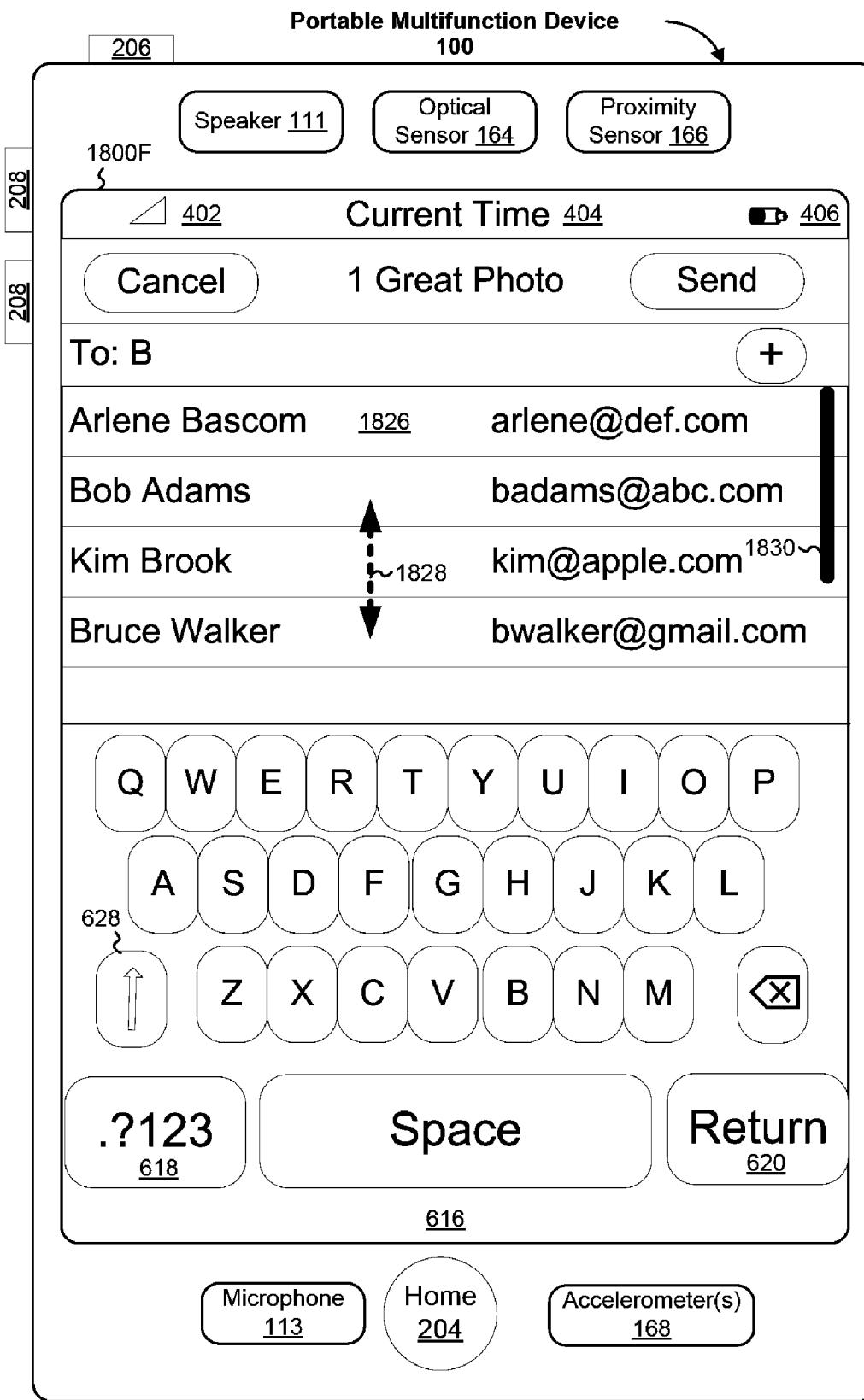
Figure 18E

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**Figure 18F**

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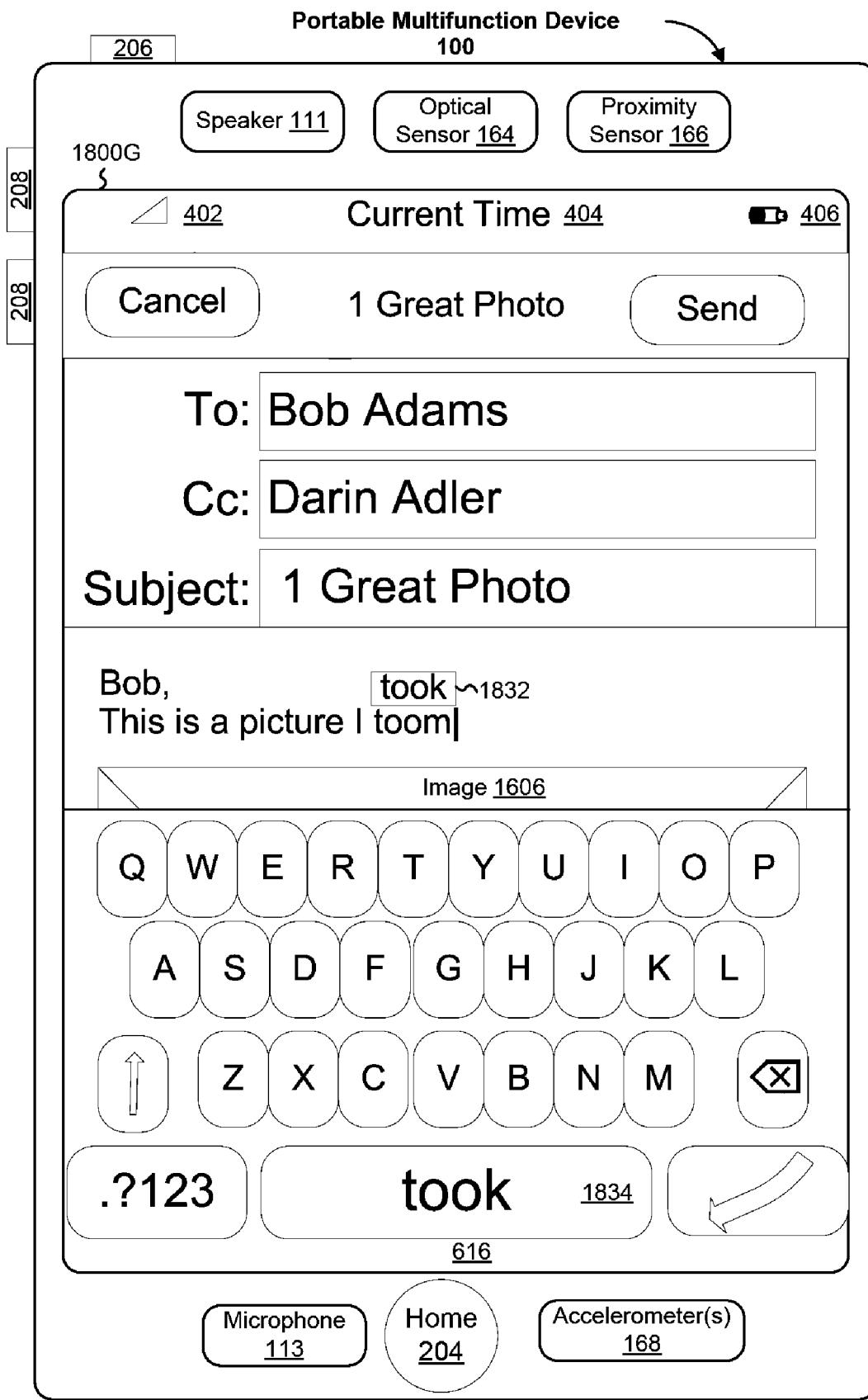


Figure 18G

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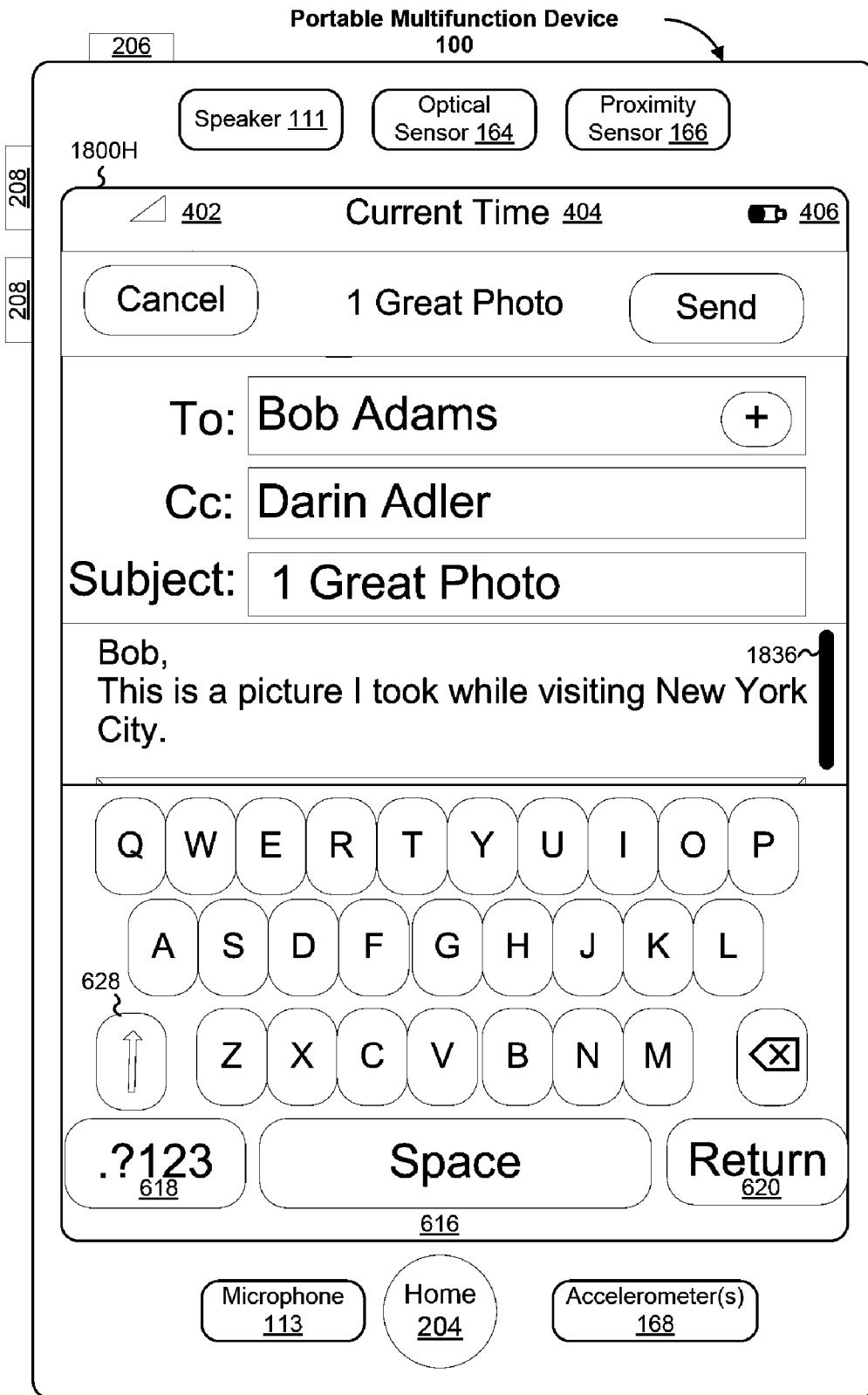


Figure 18H

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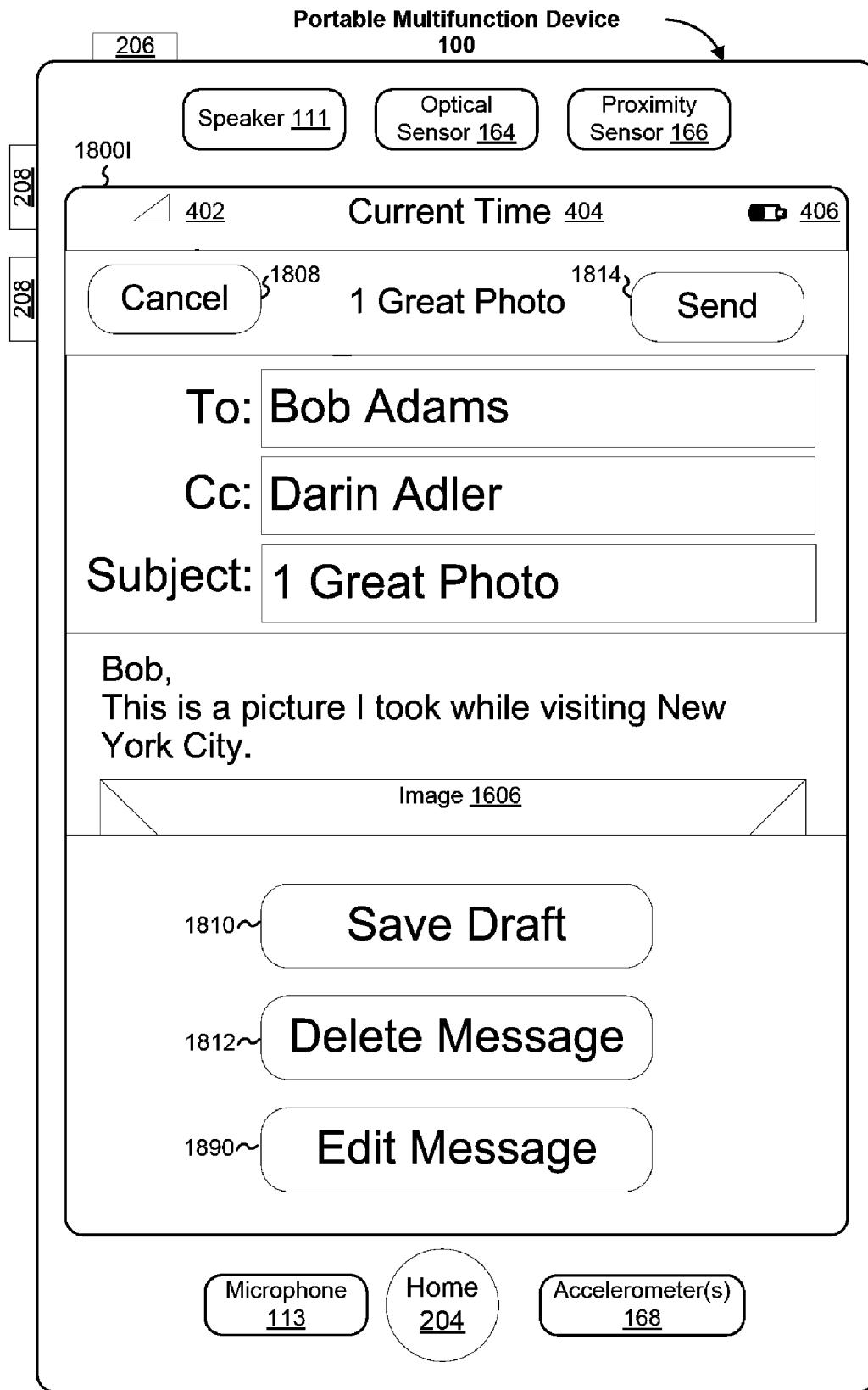


Figure 18I

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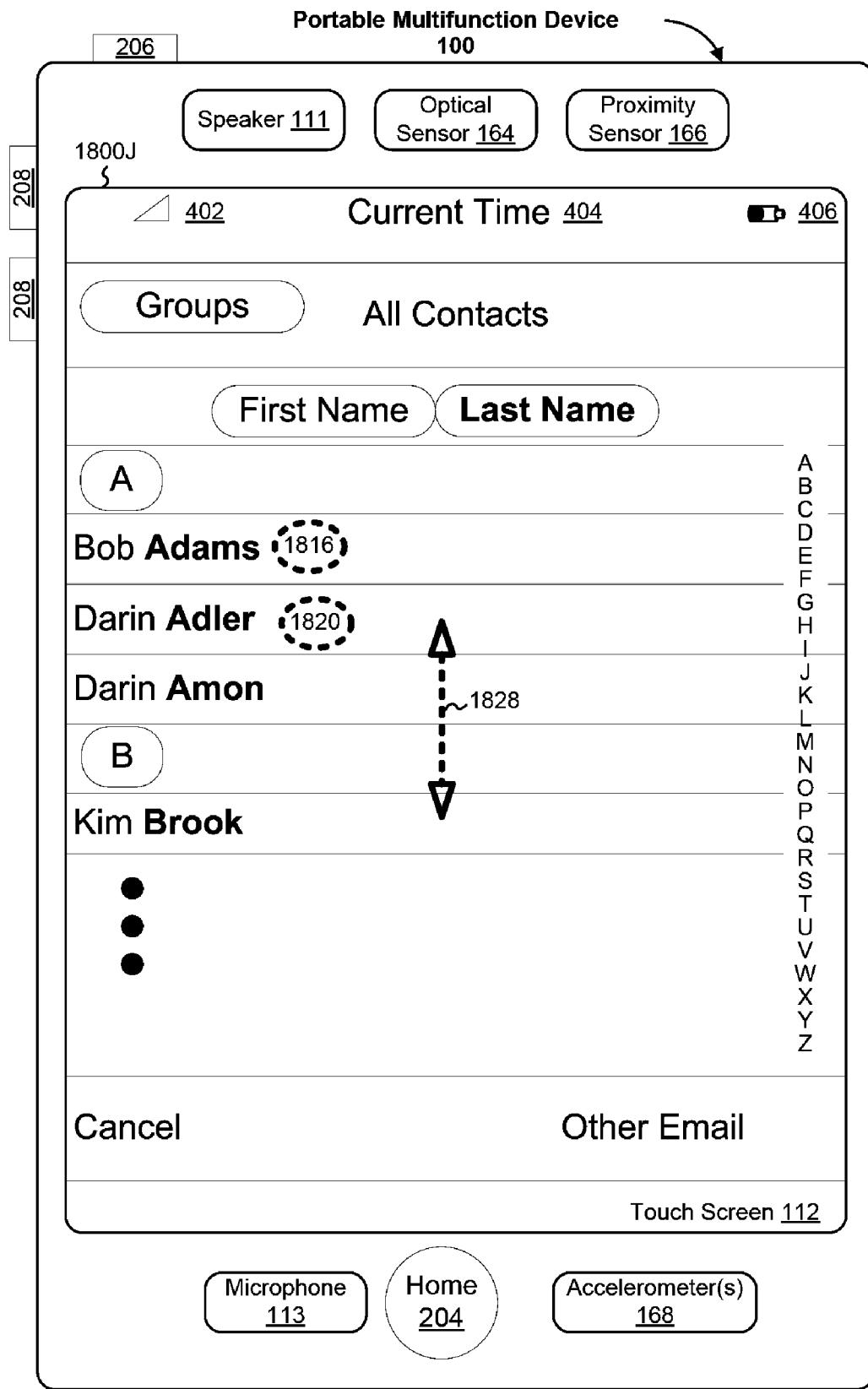


Figure 18J

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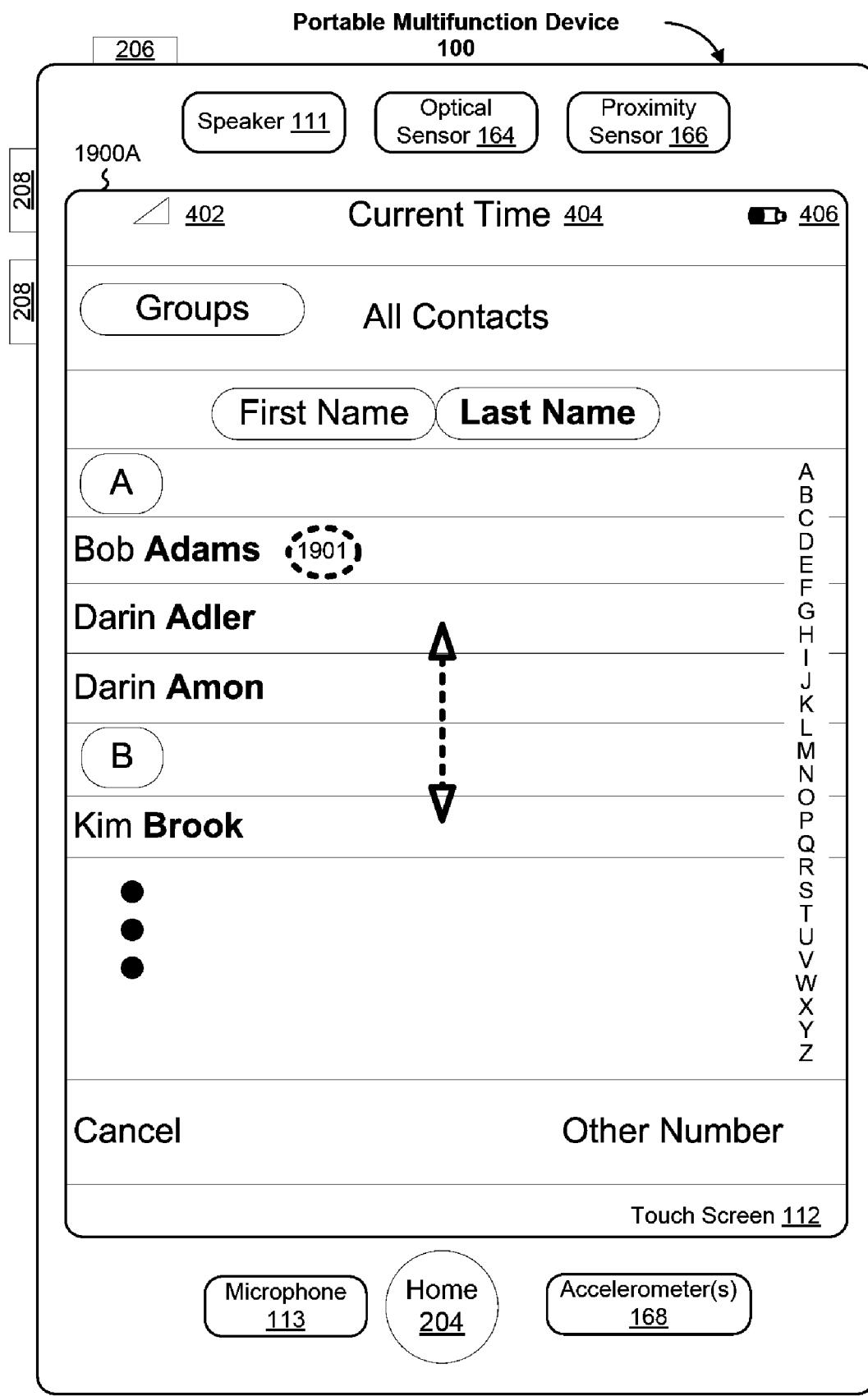


Figure 19A

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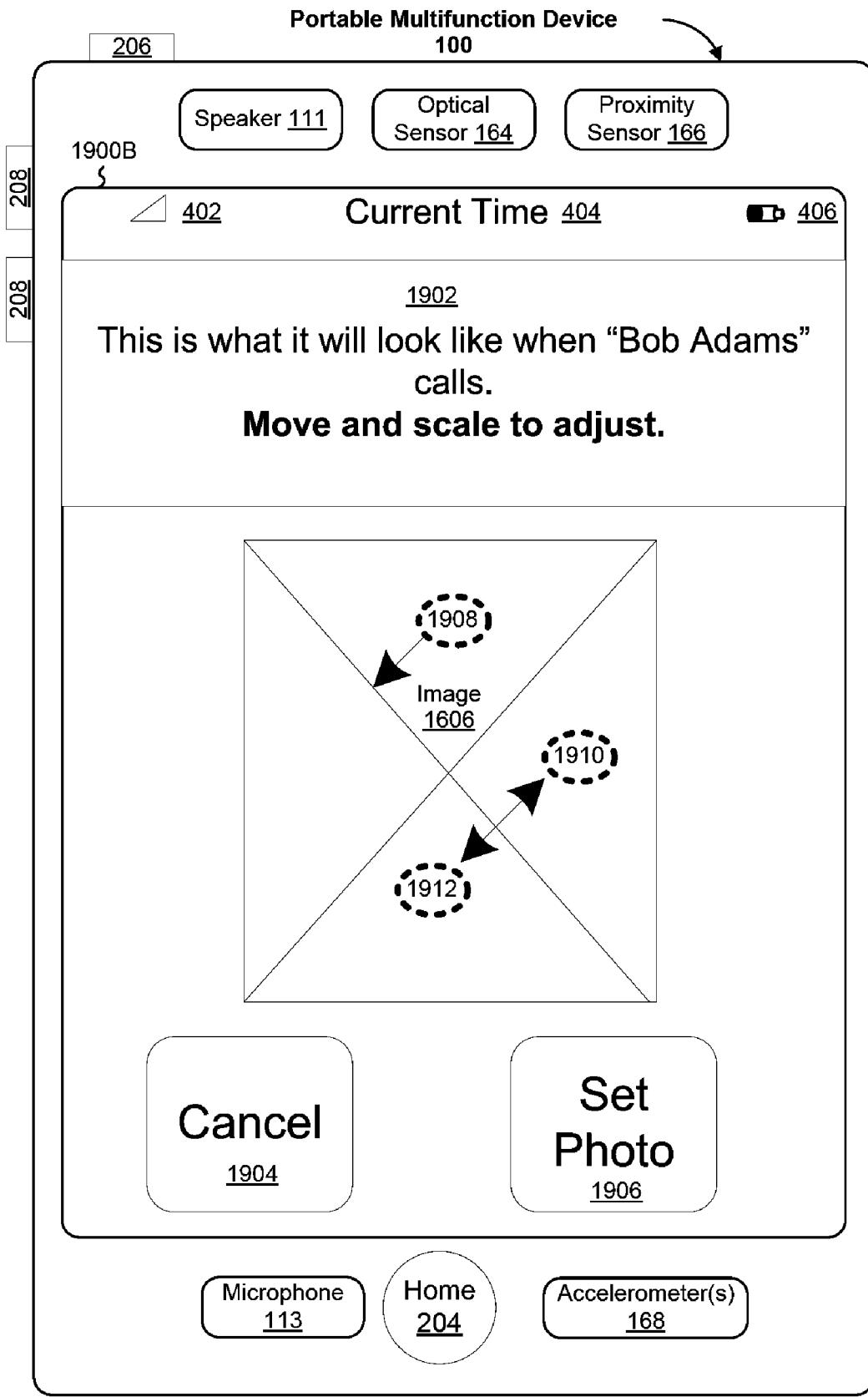


Figure 19B

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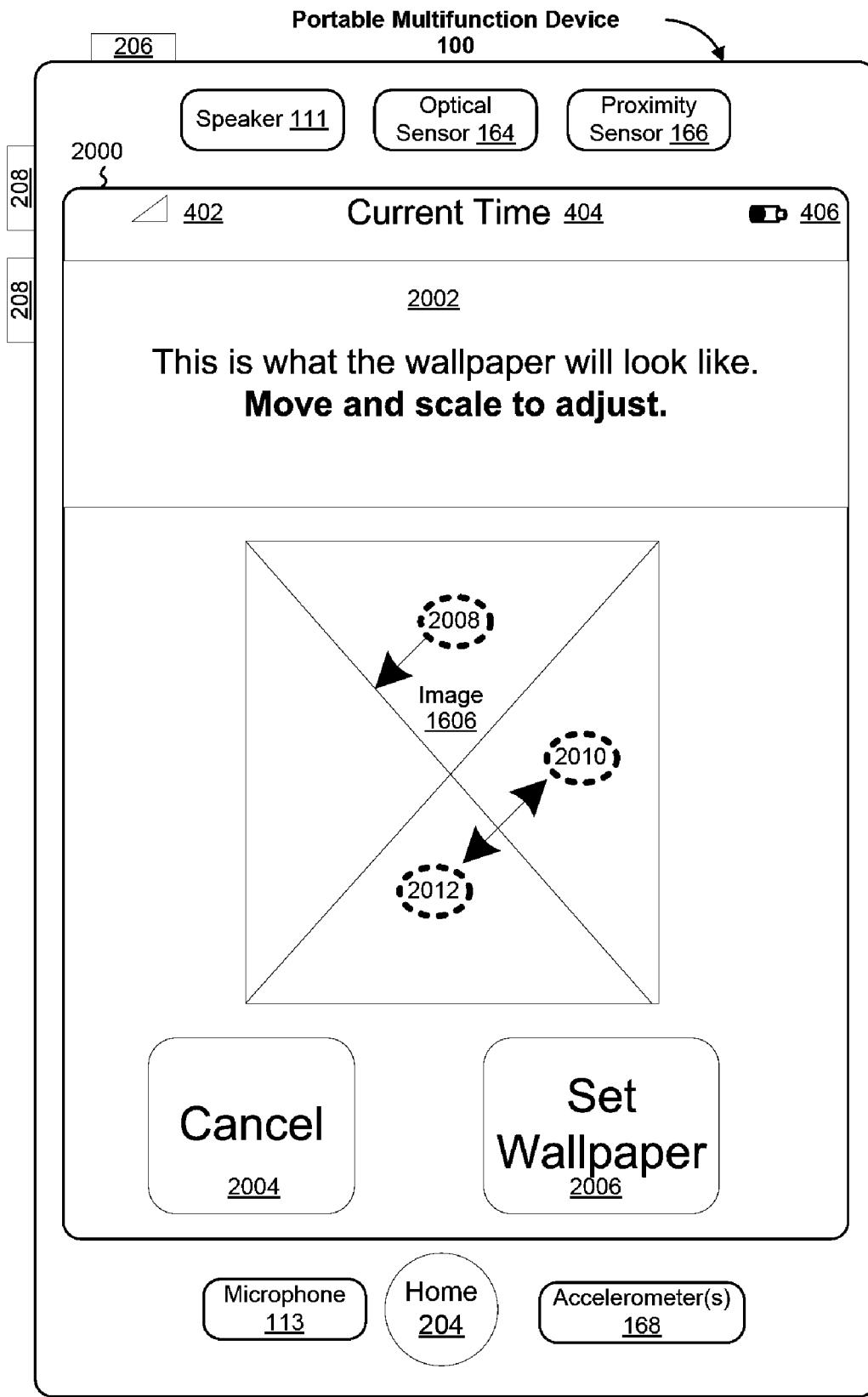


Figure 20

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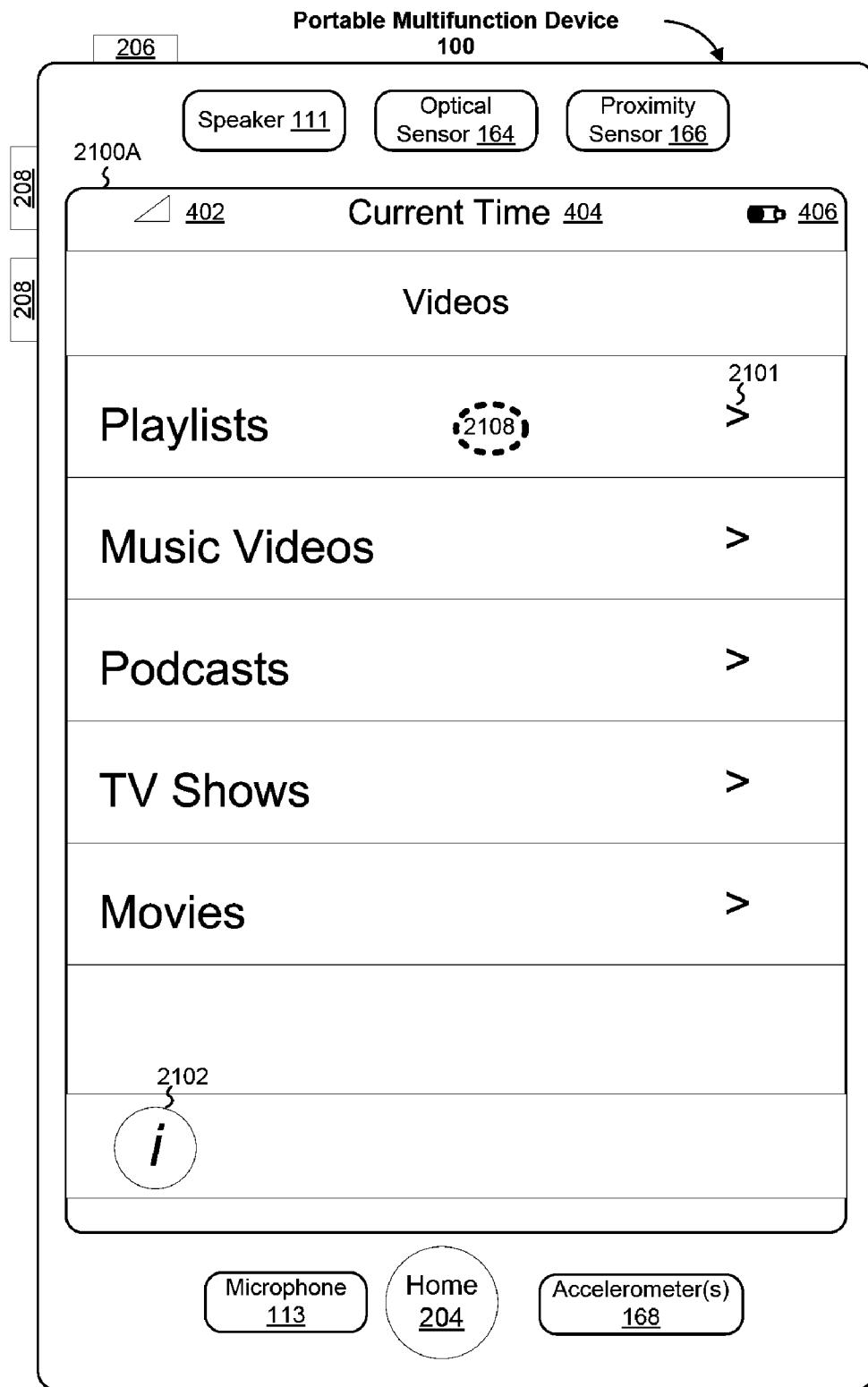


Figure 21A

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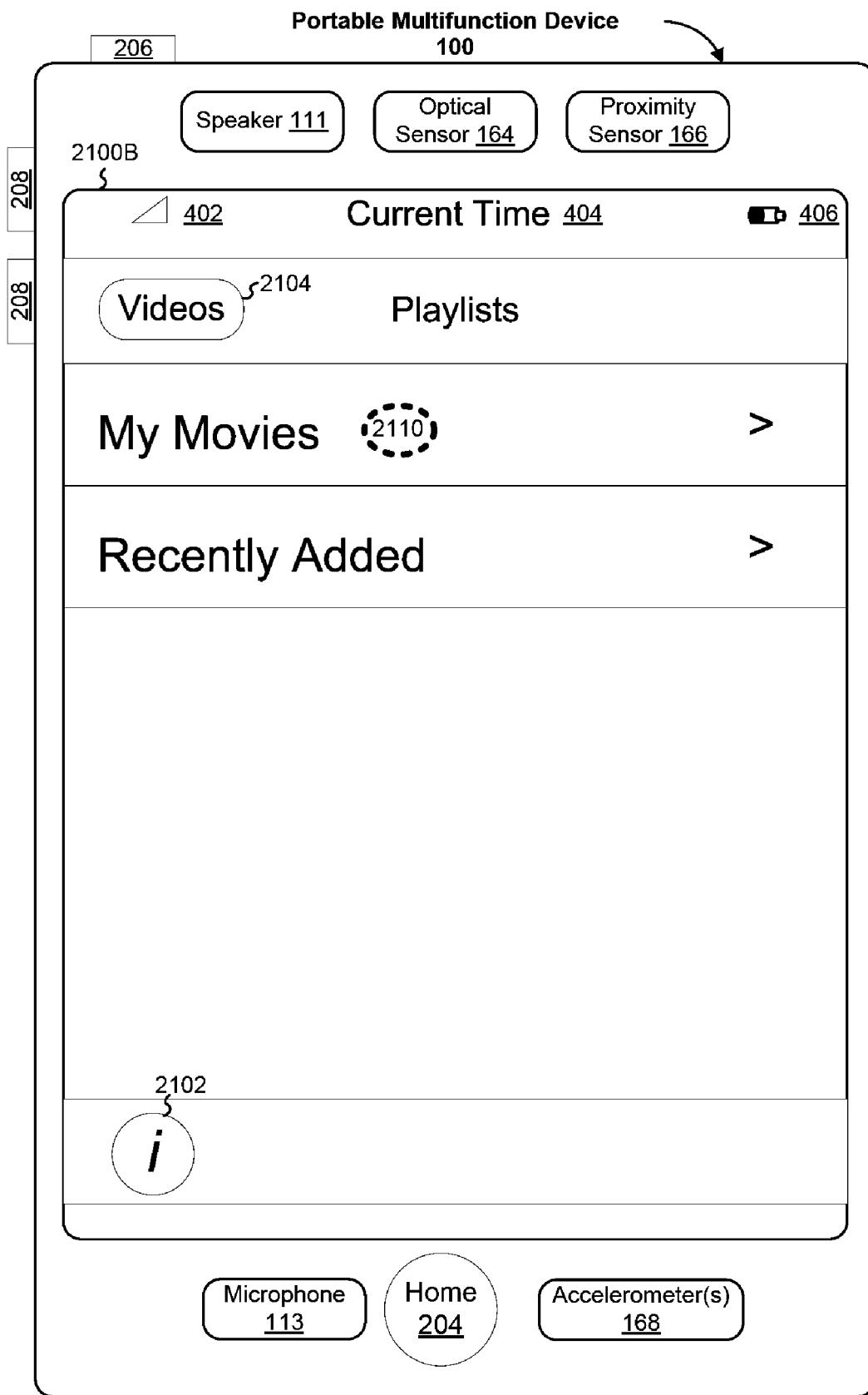


Figure 21B

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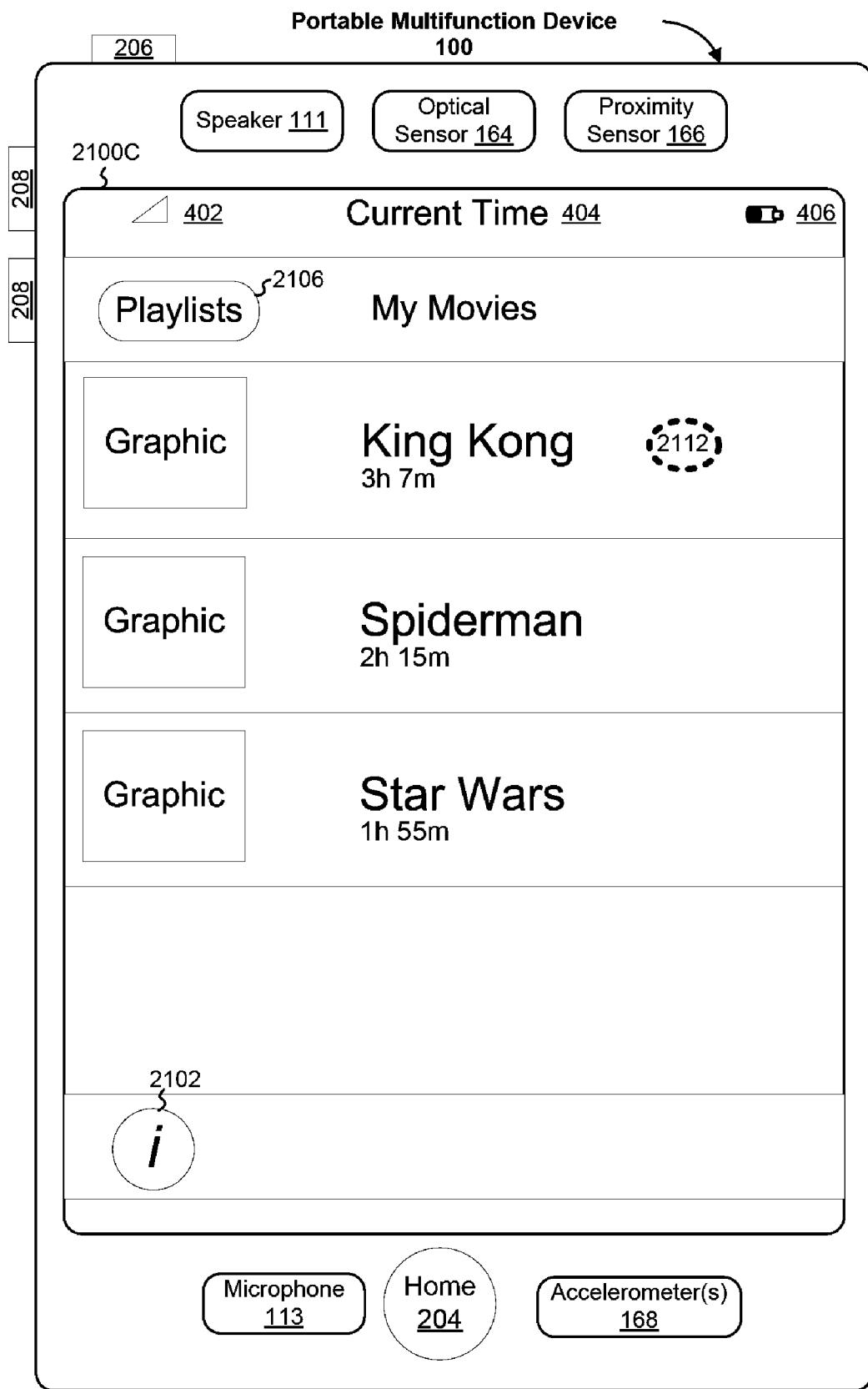


Figure 21C

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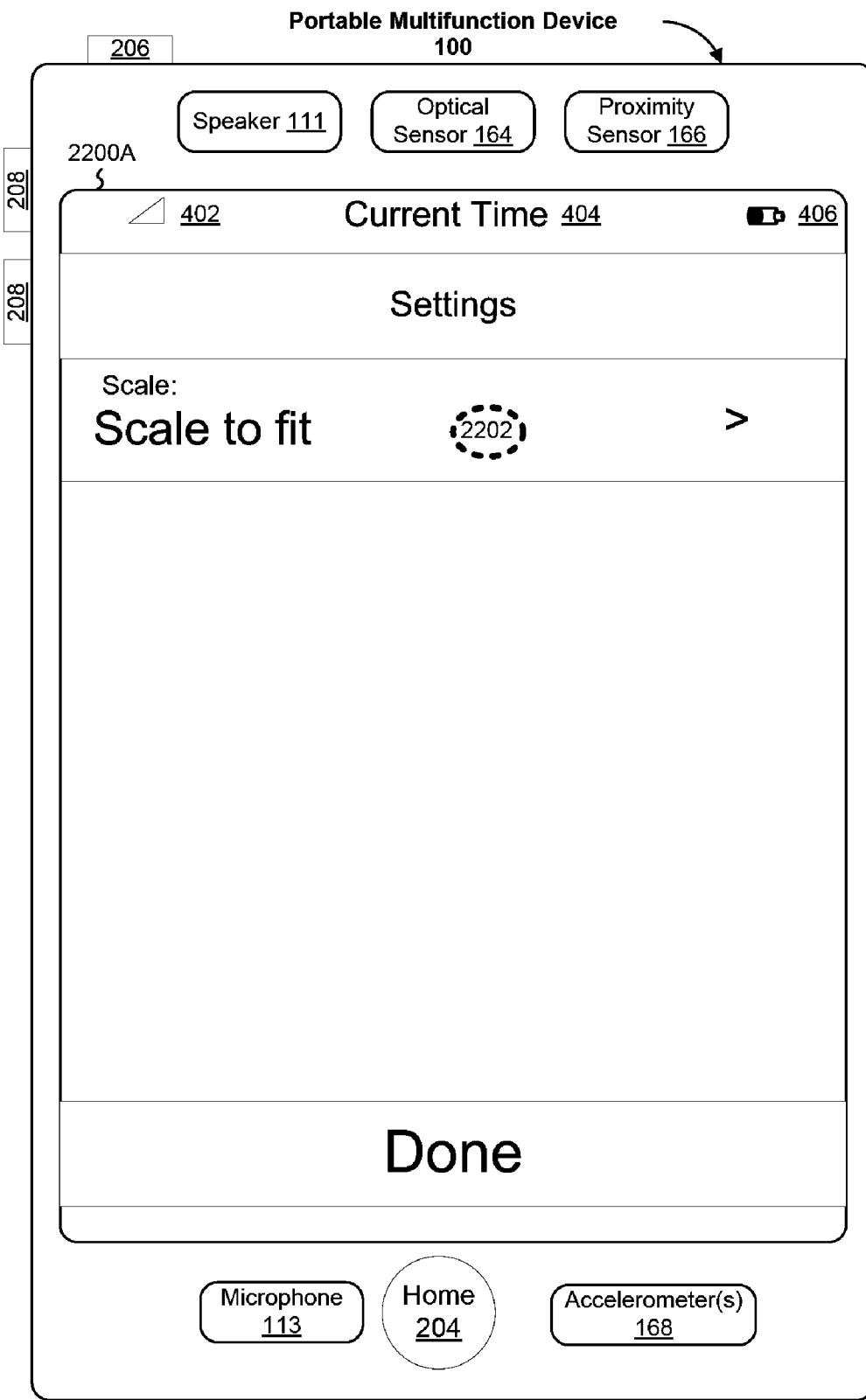


Figure 22A

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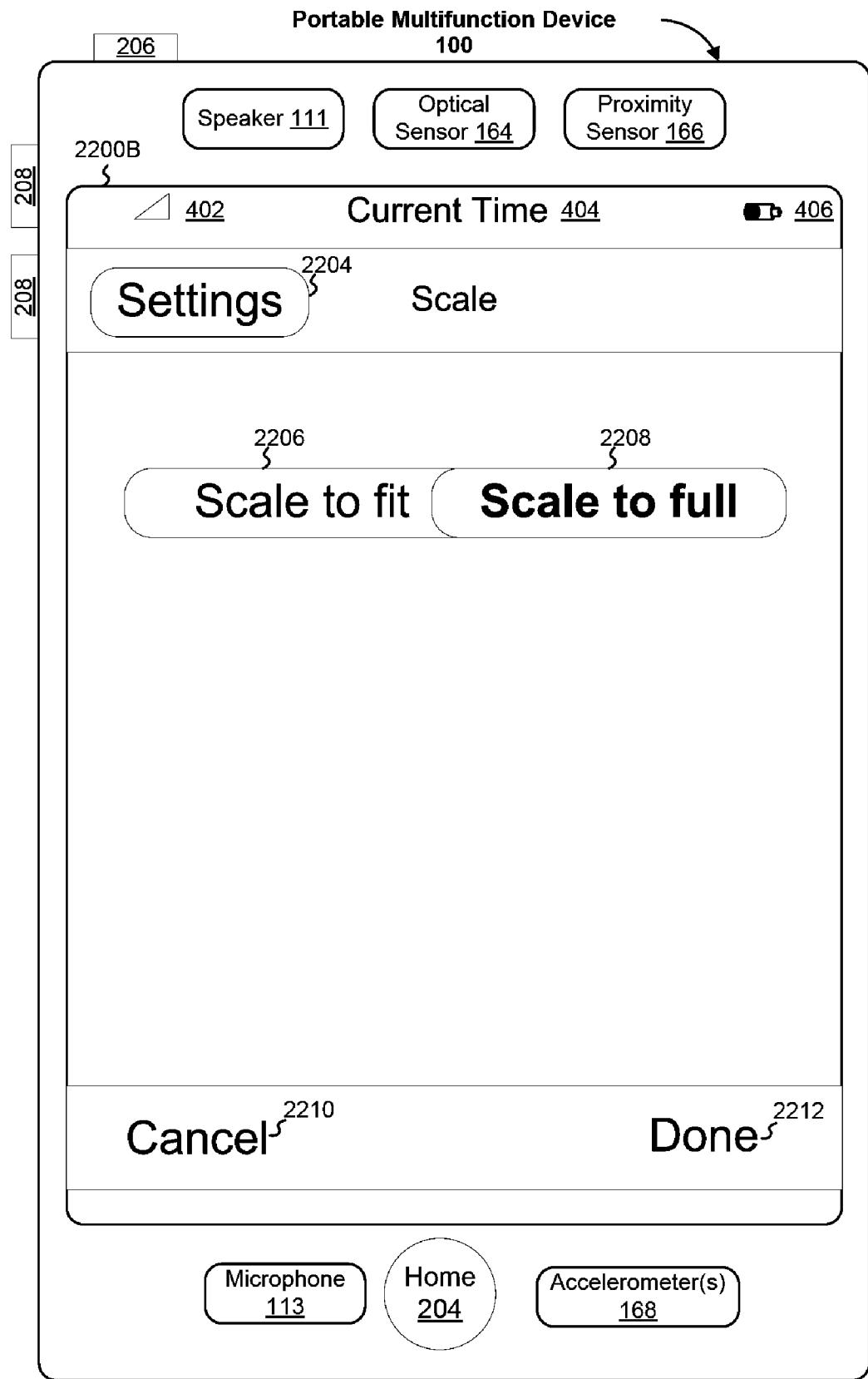


Figure 22B

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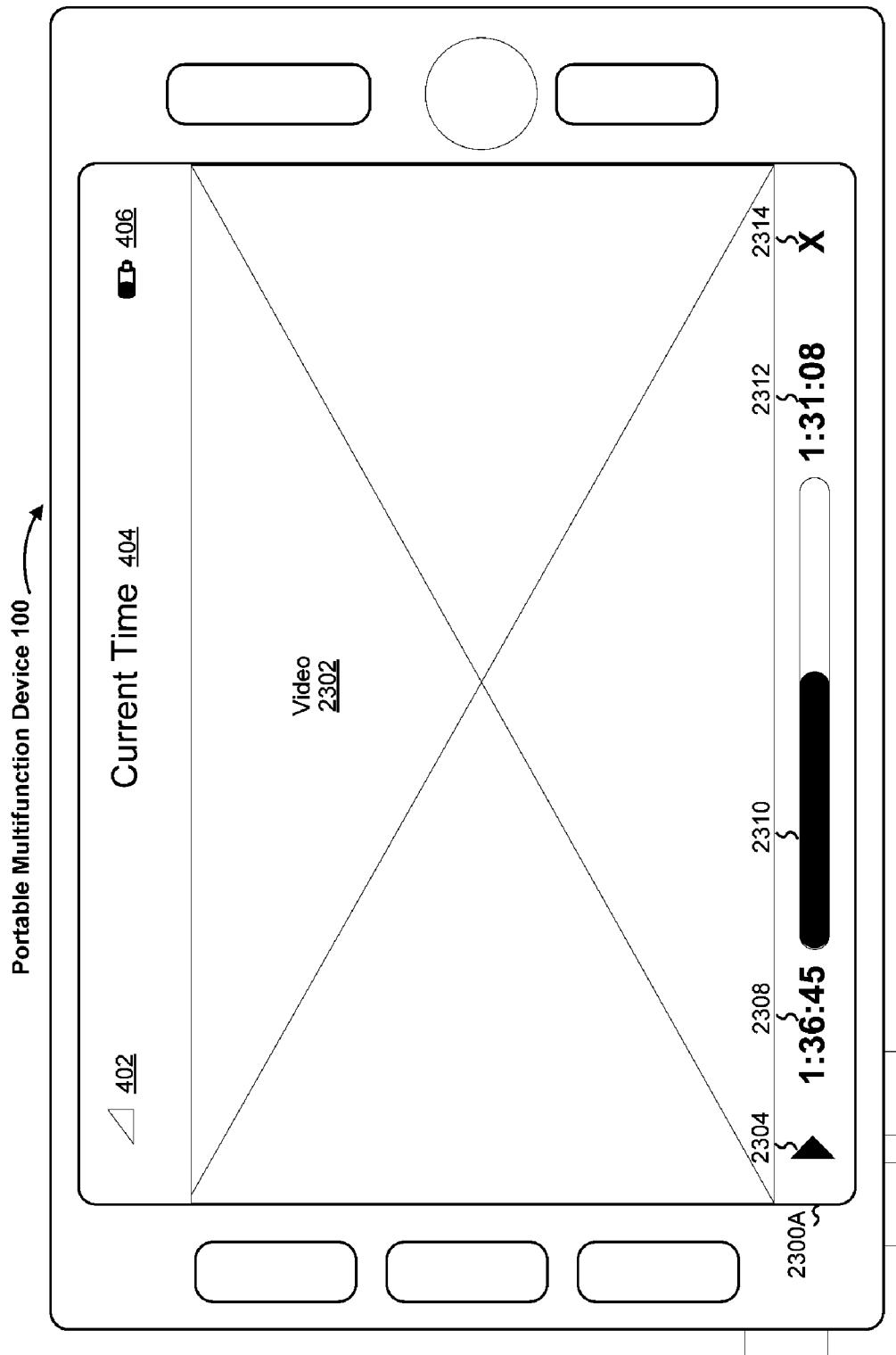


Figure 23A

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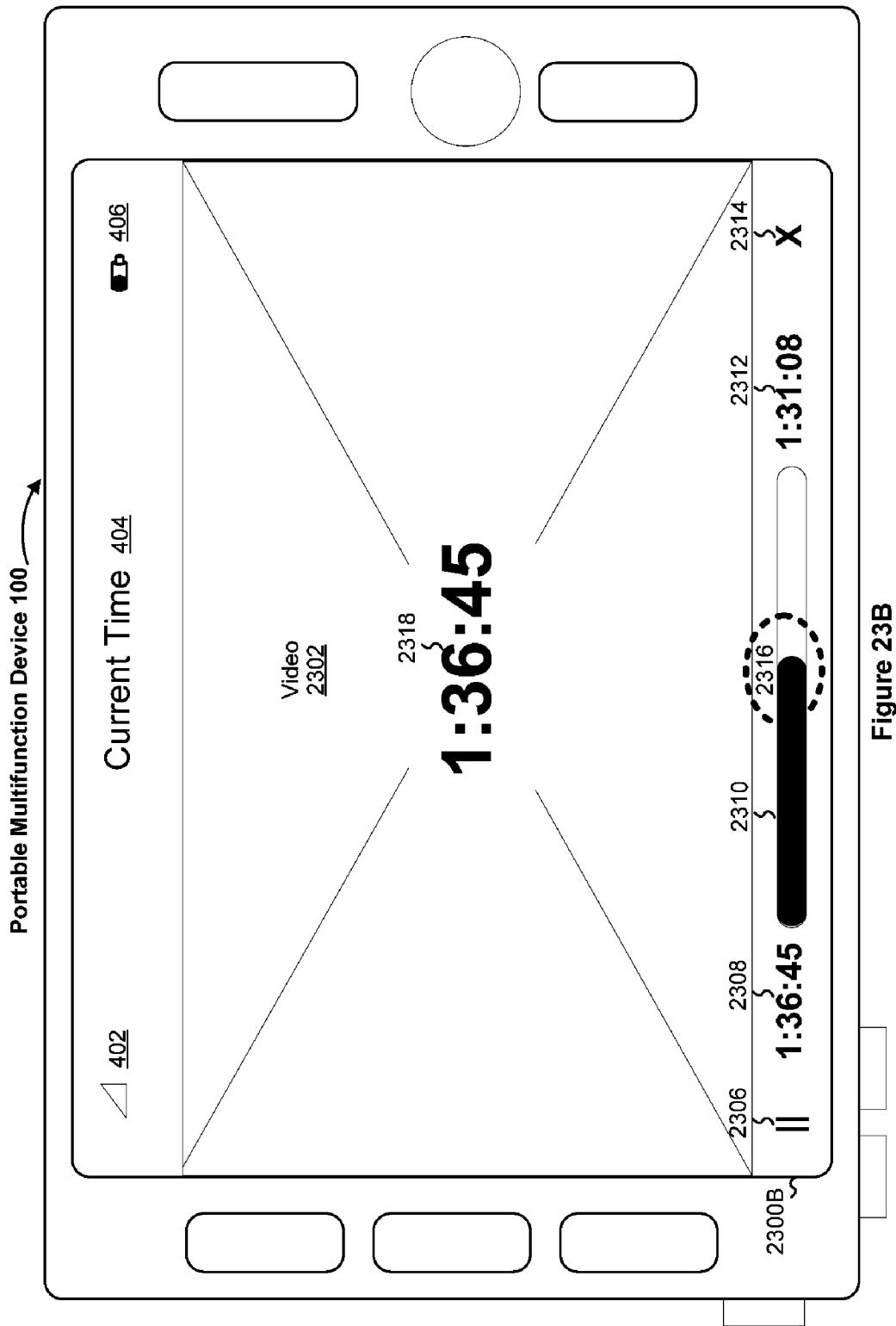


Figure 23B

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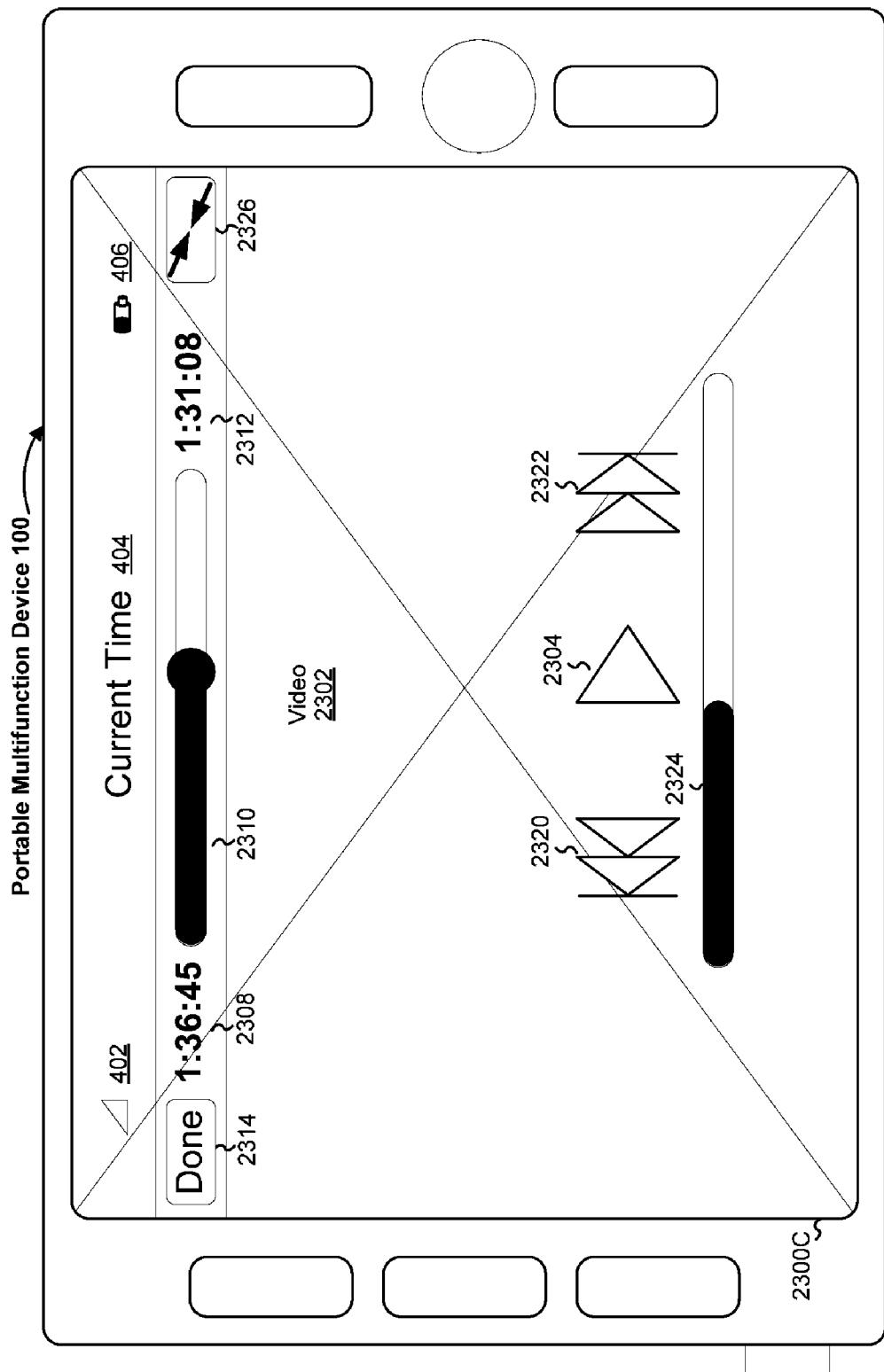


Figure 23C

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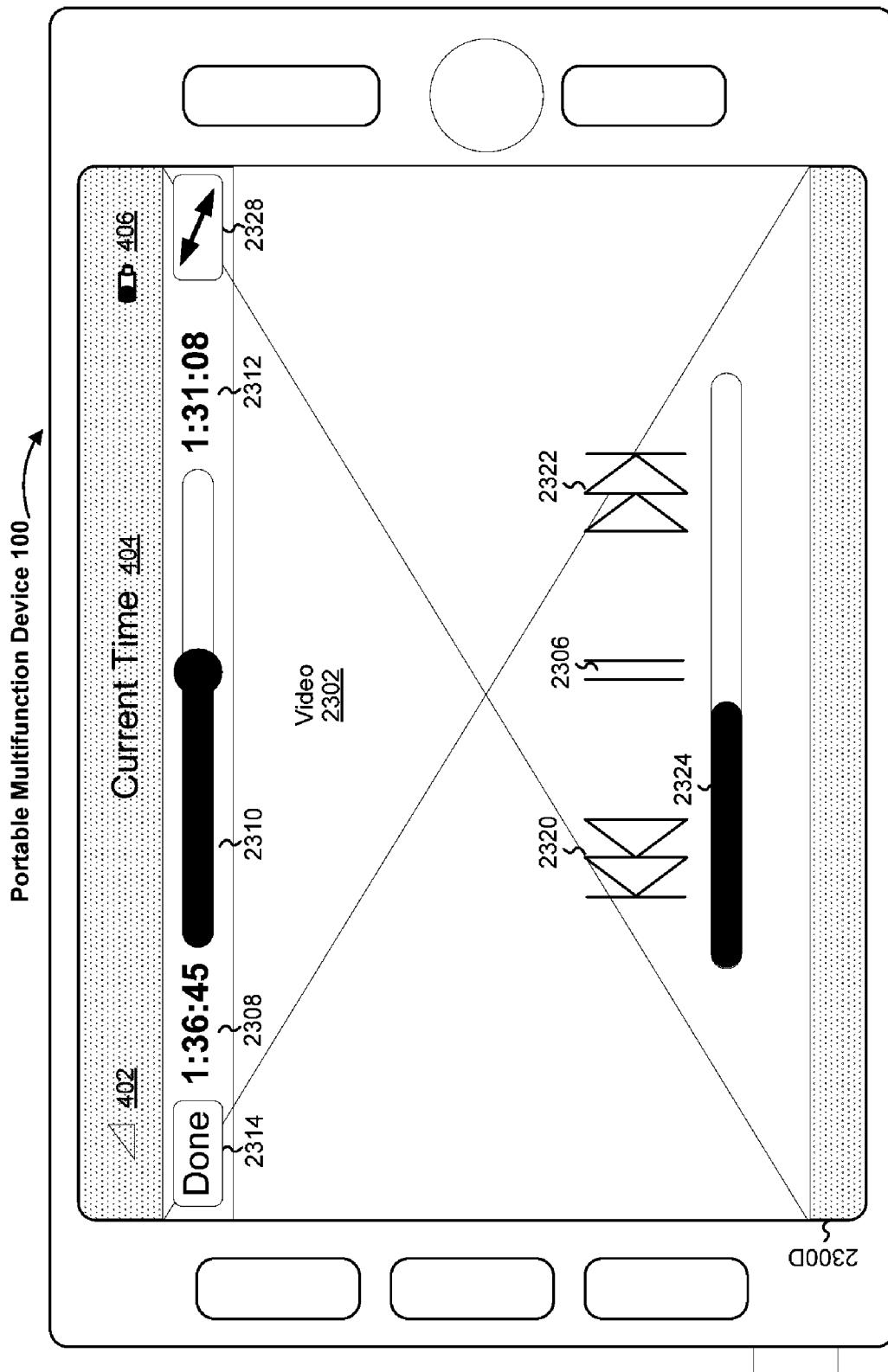


Figure 23D

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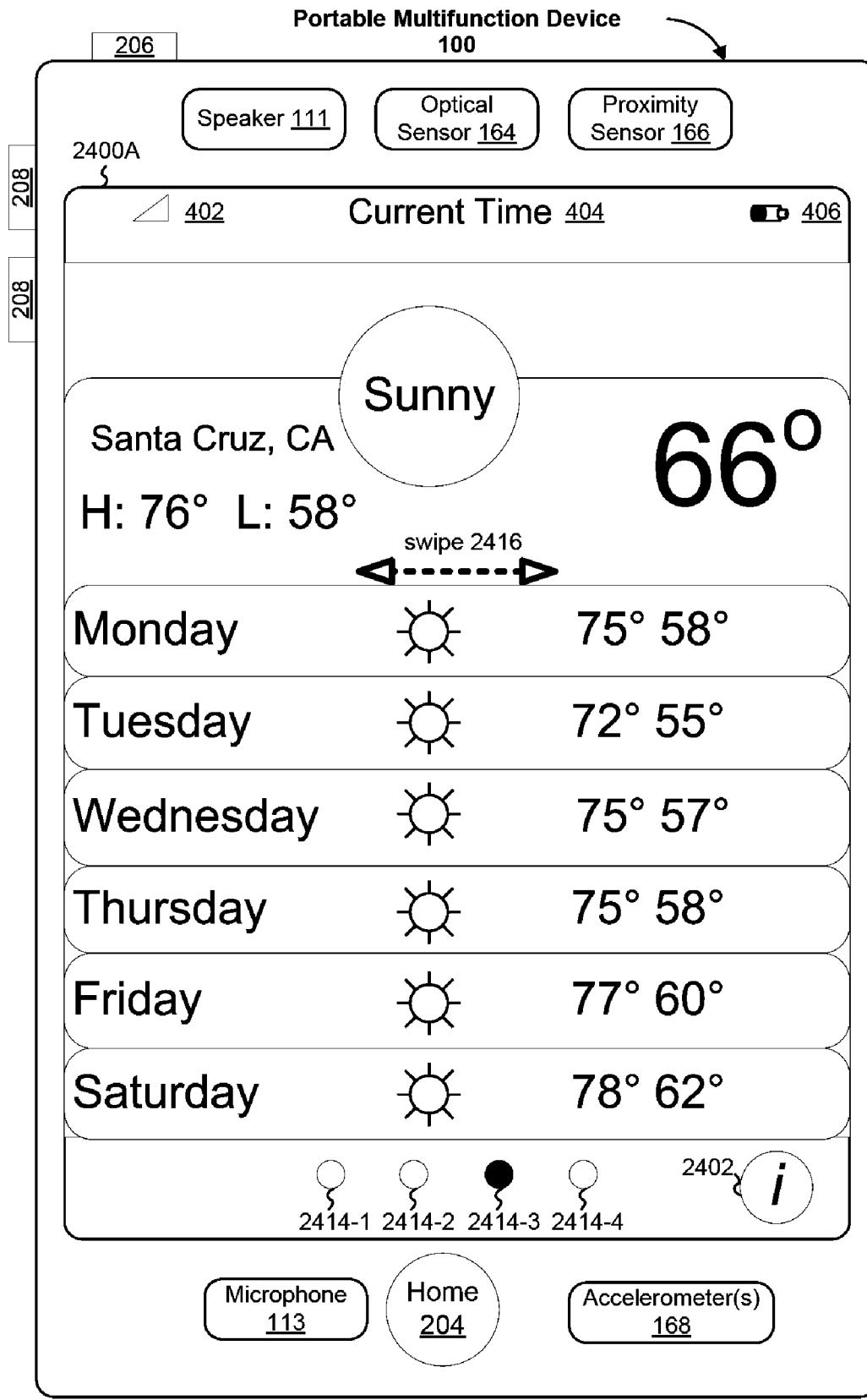


Figure 24A

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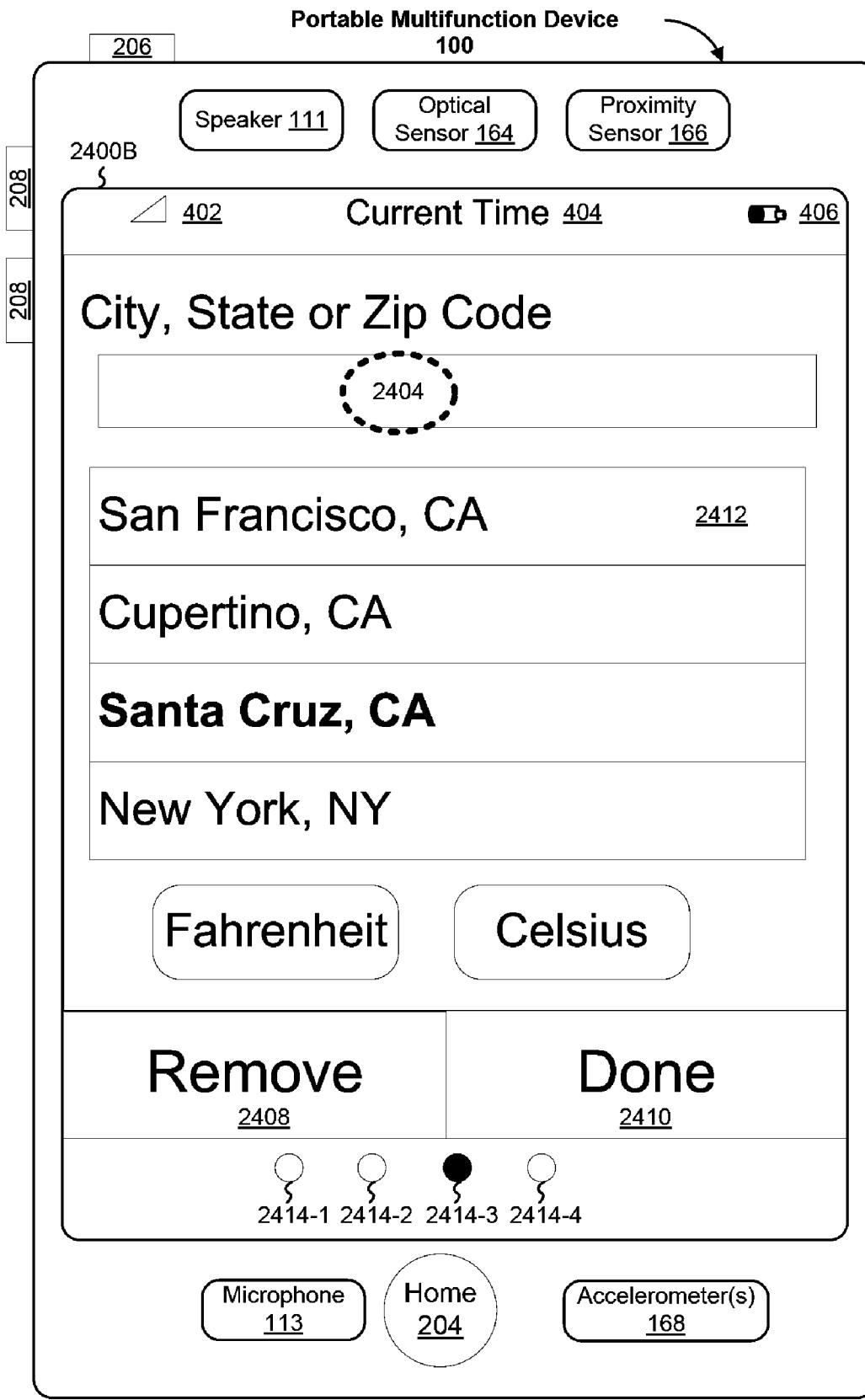


Figure 24B

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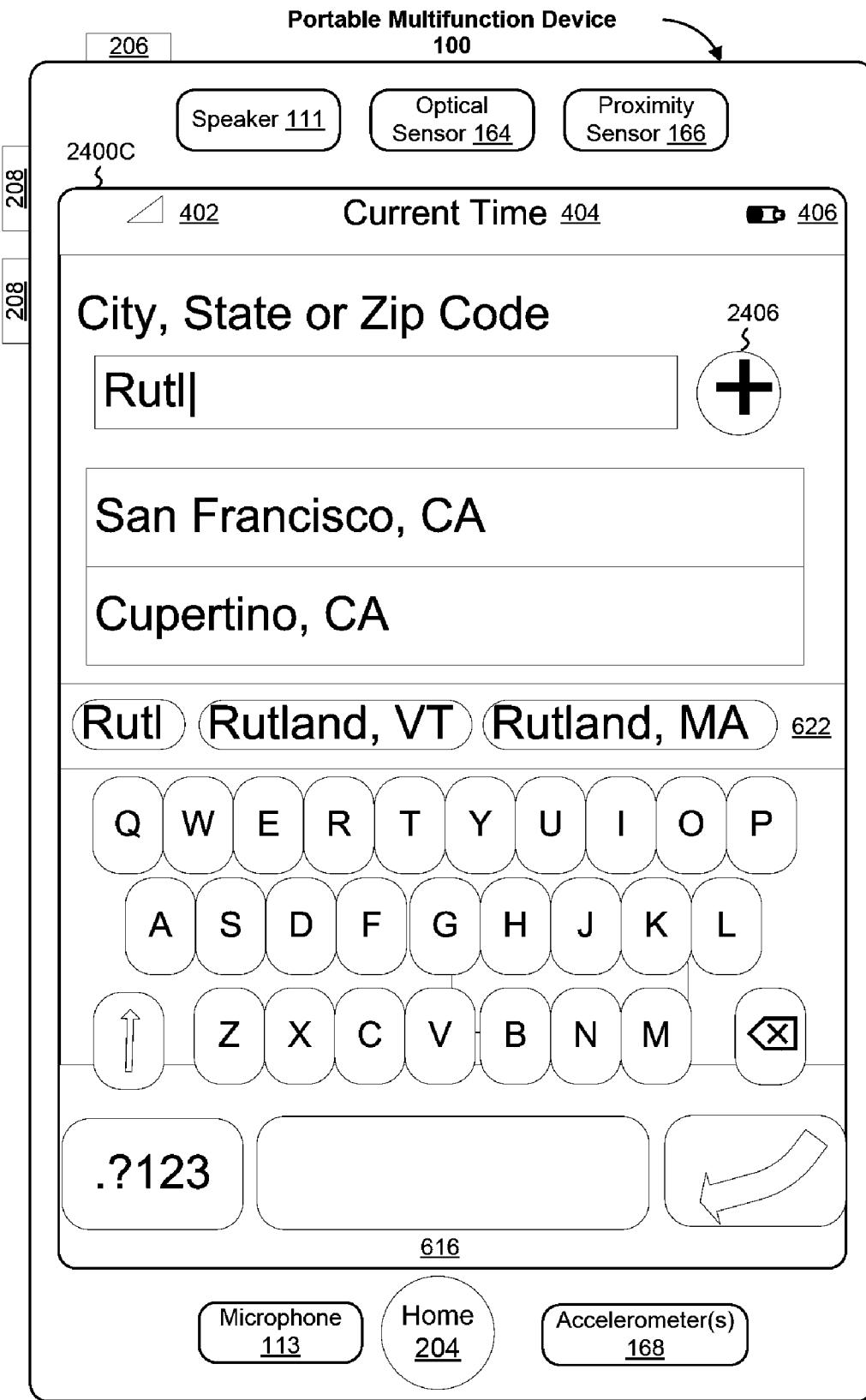


Figure 24C

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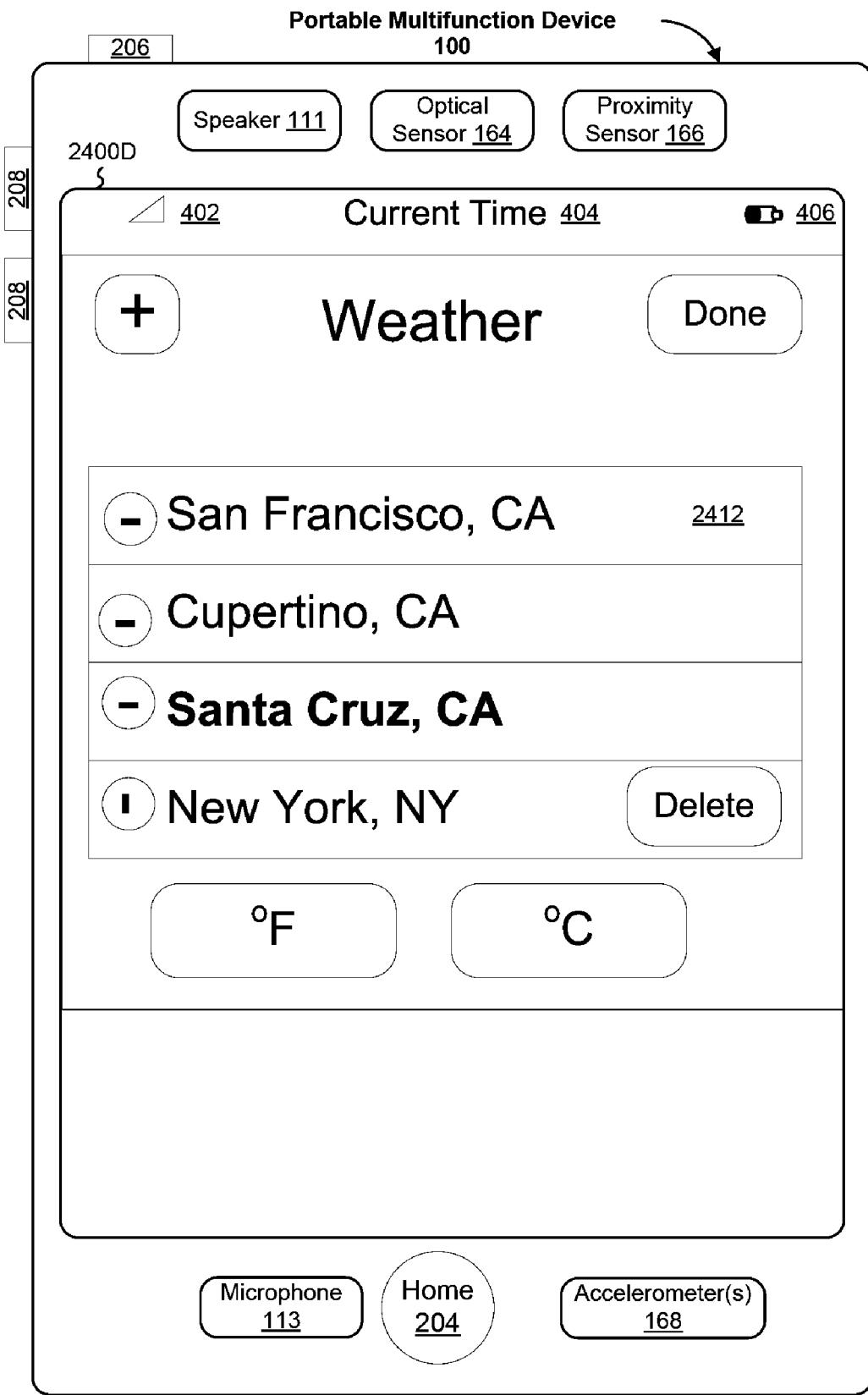


Figure 24D

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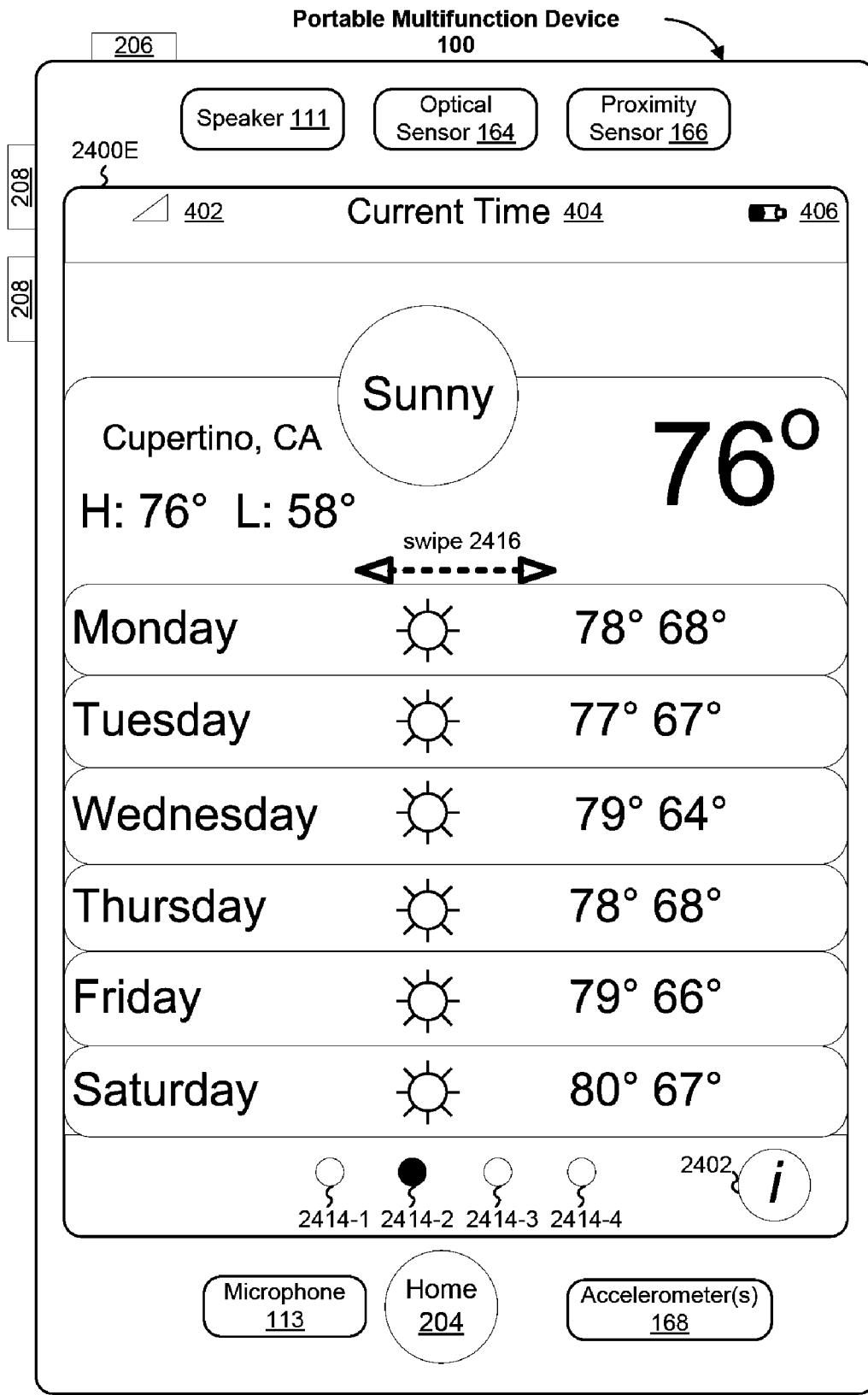


Figure 24E

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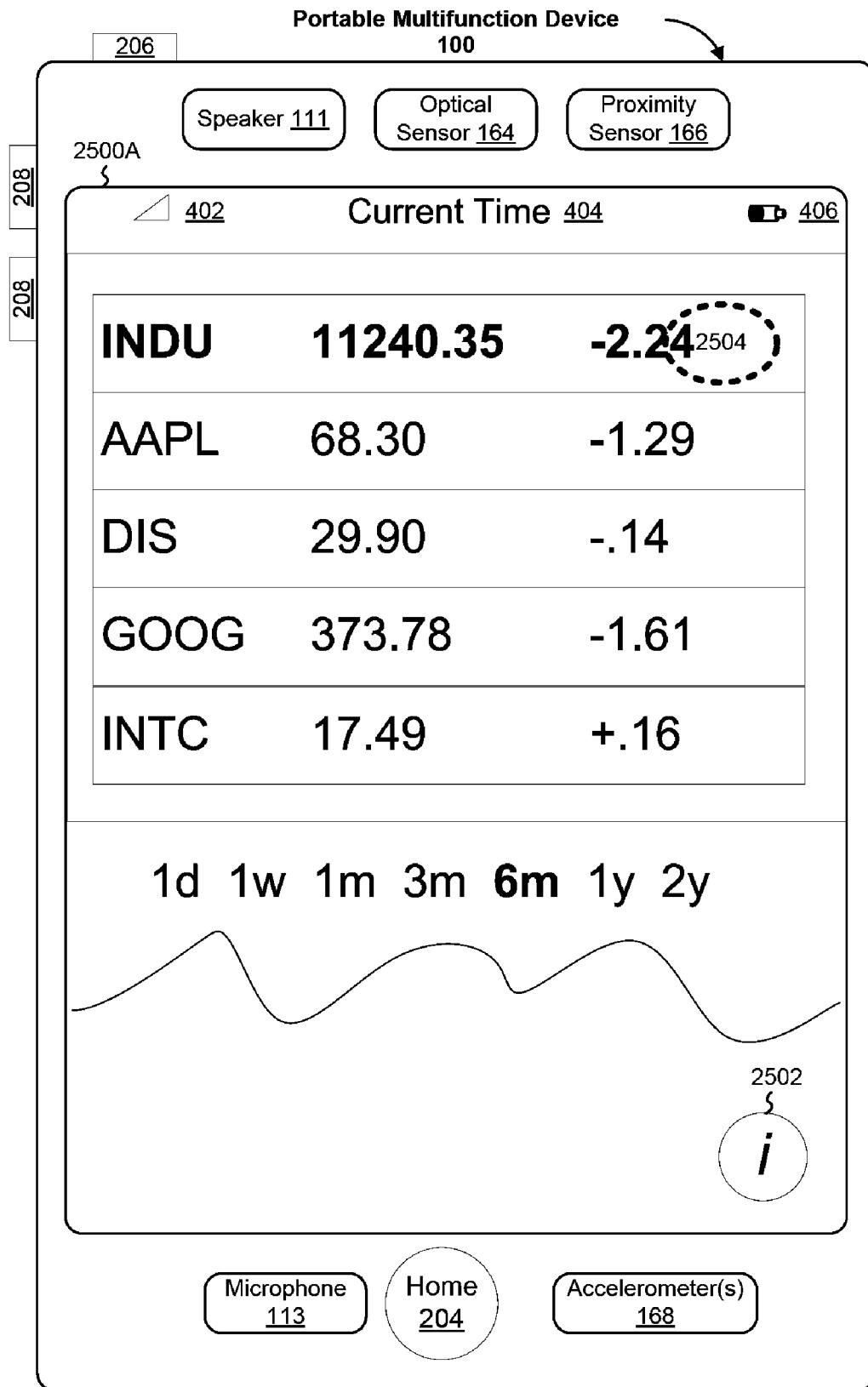


Figure 25A

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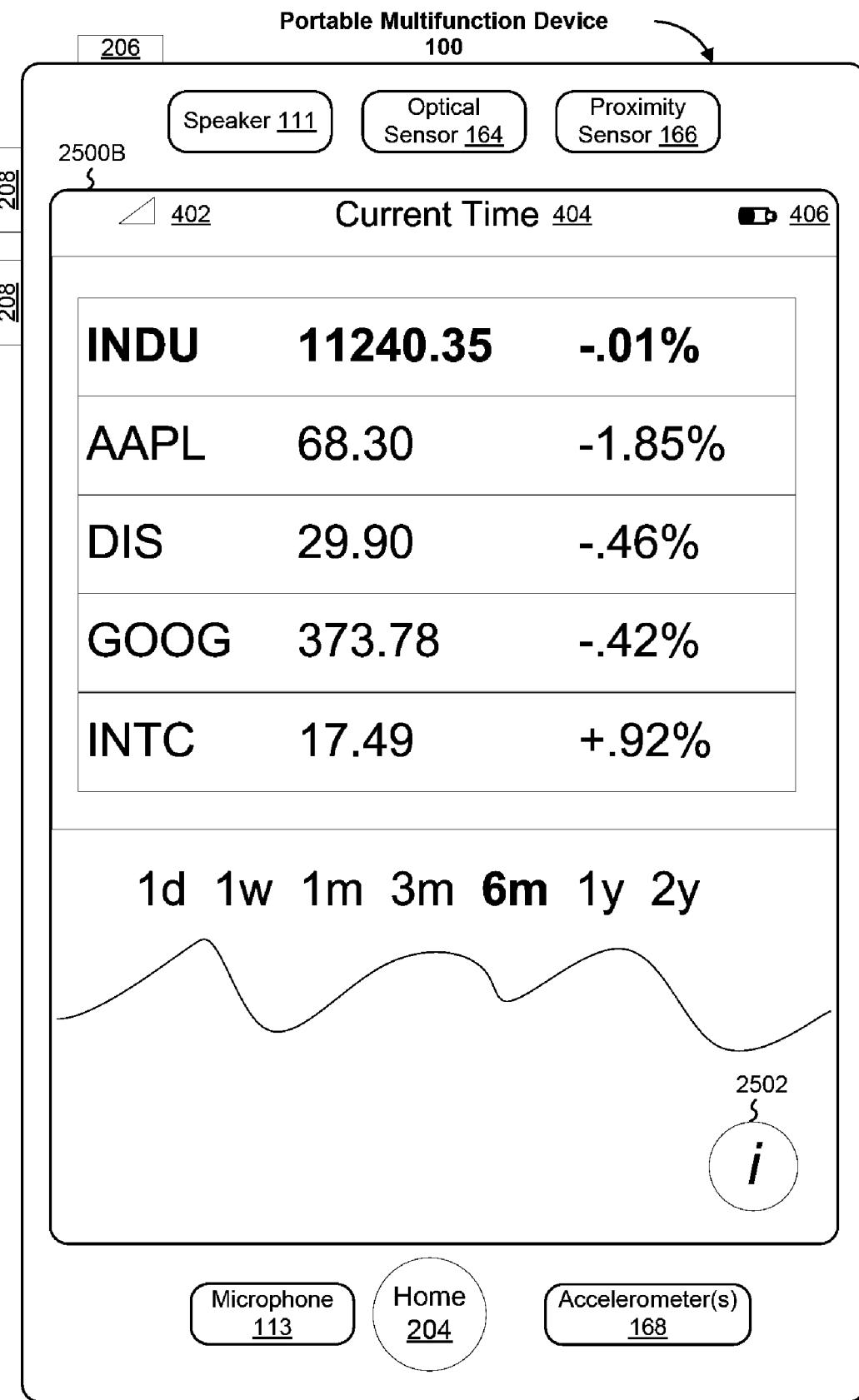


Figure 25B

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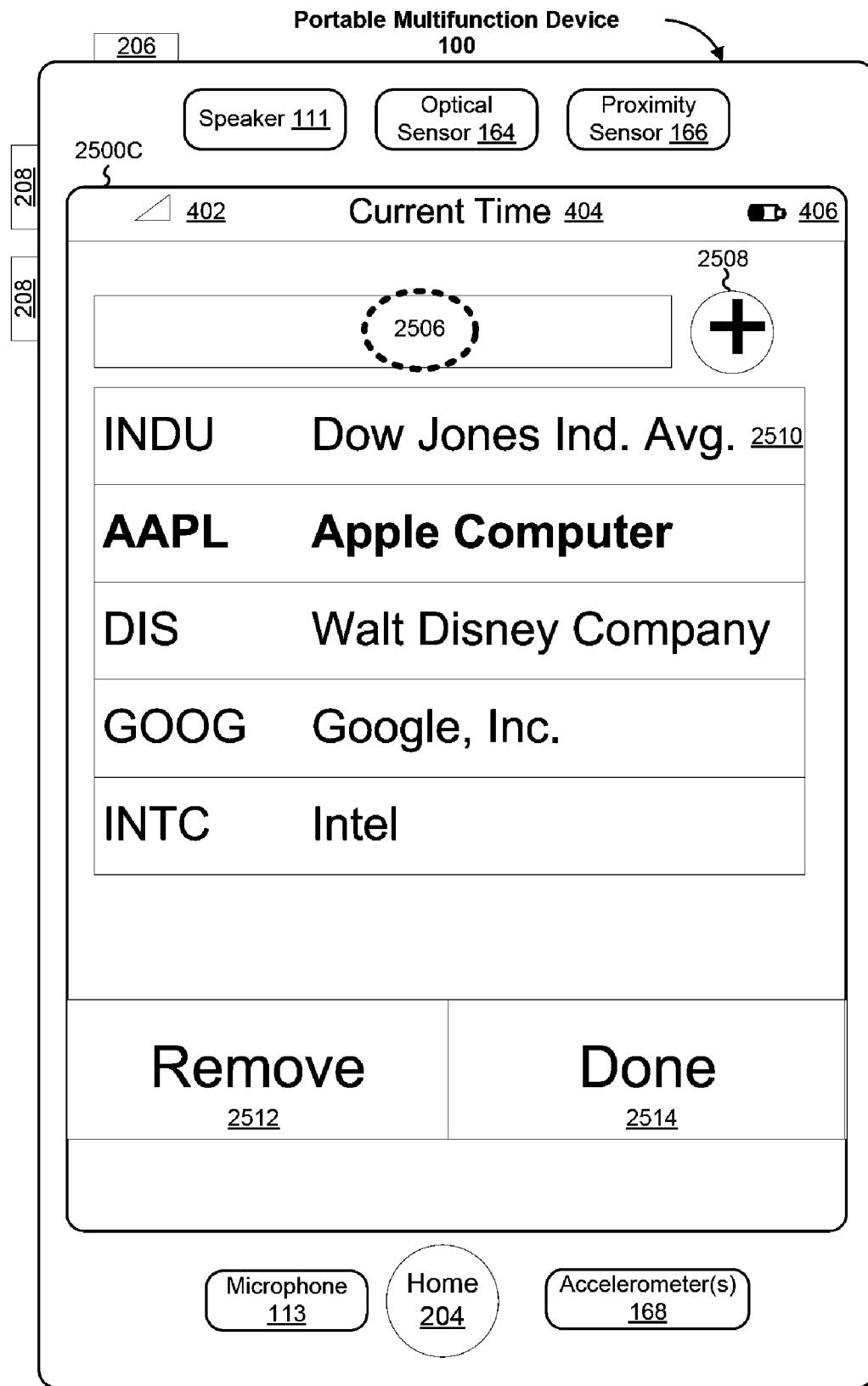


Figure 25C

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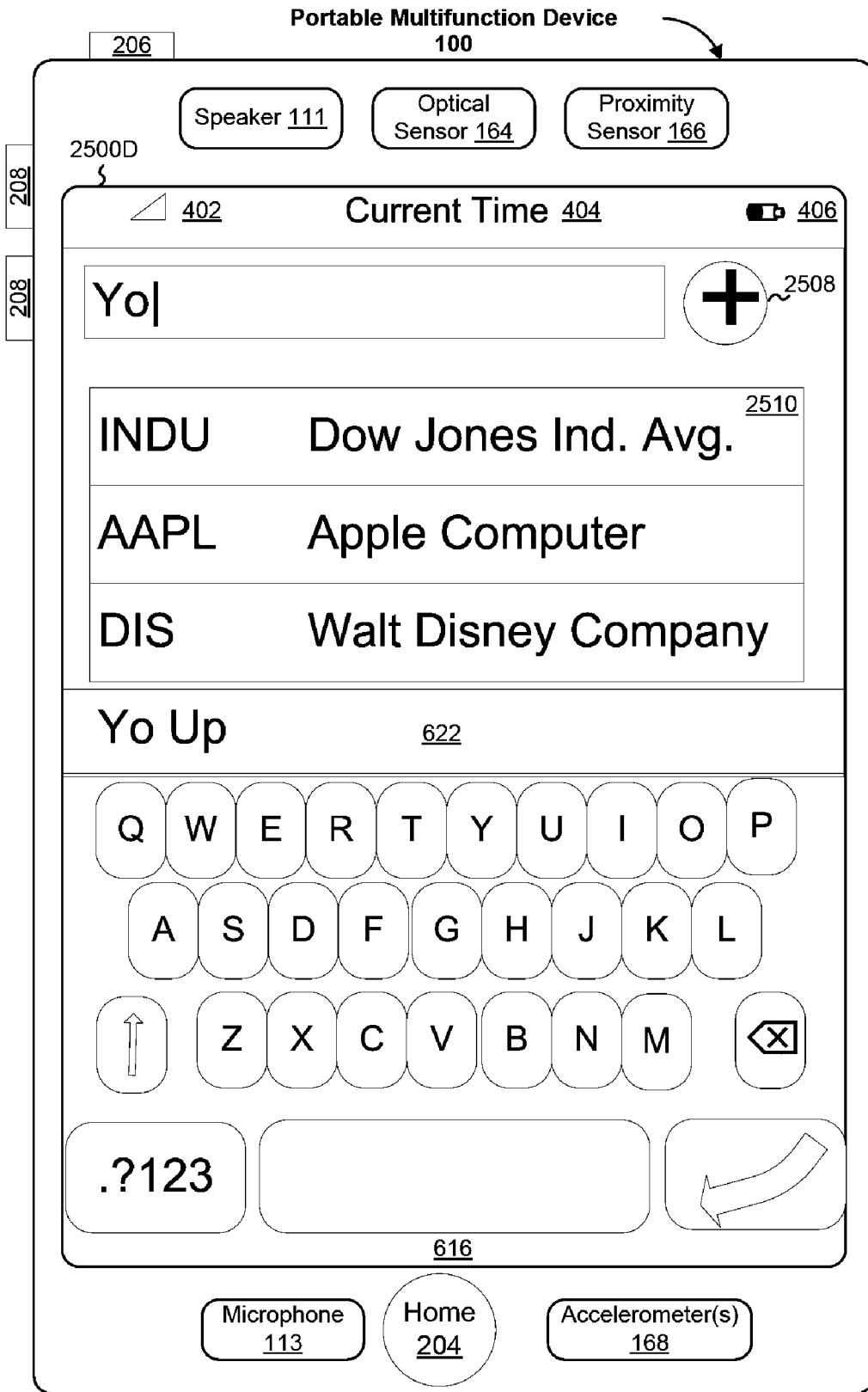


Figure 25D

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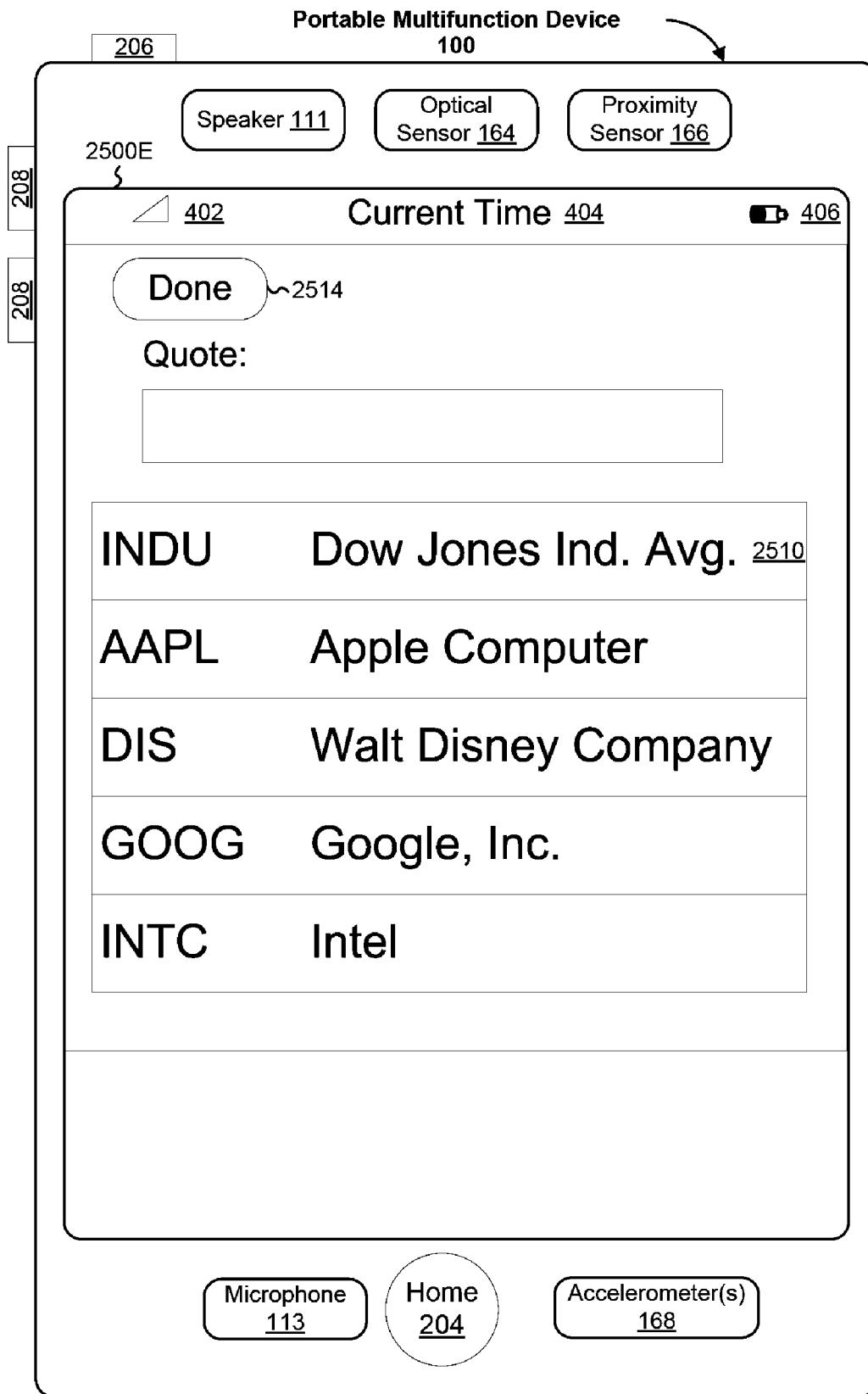


Figure 25E

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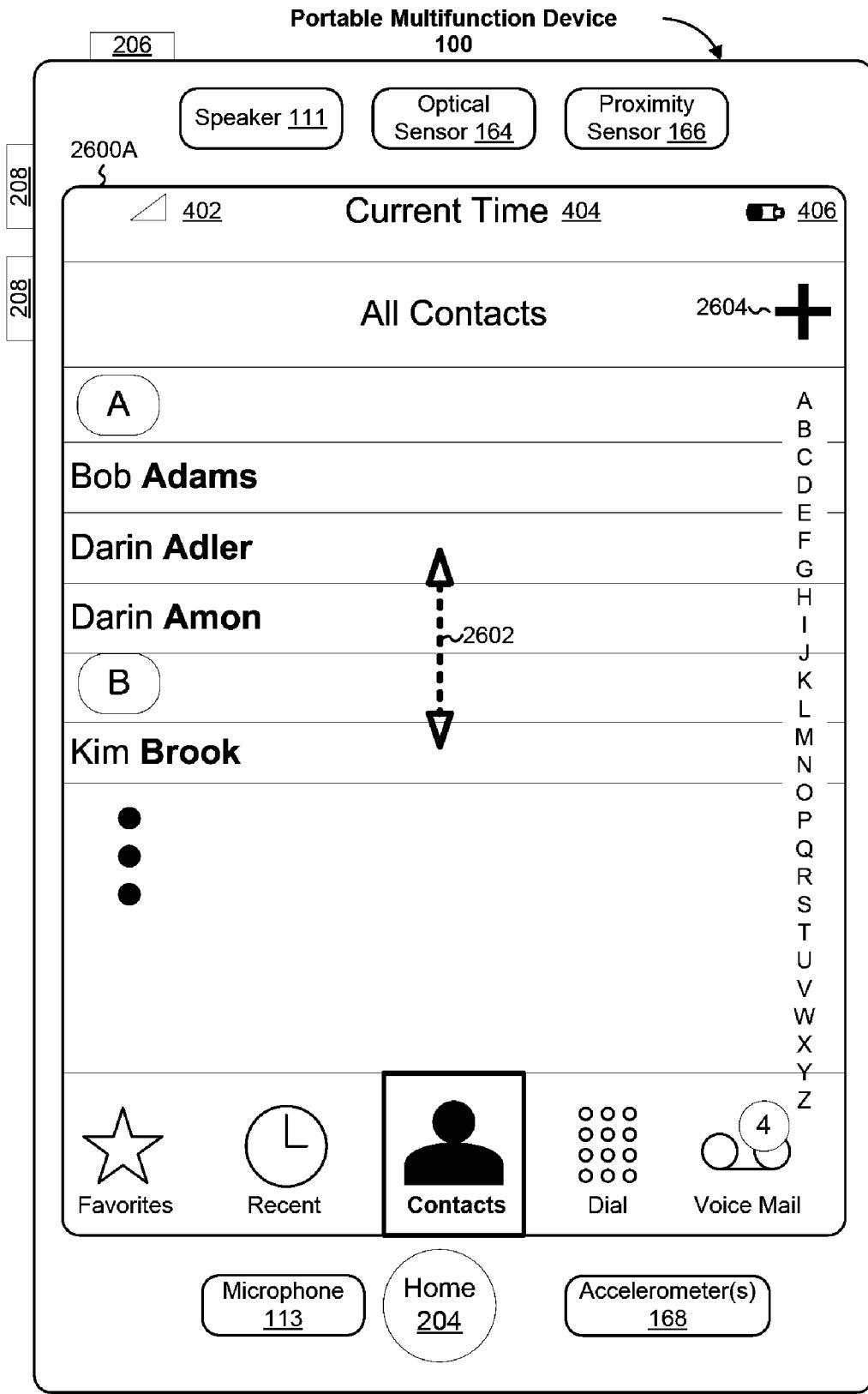


Figure 26A

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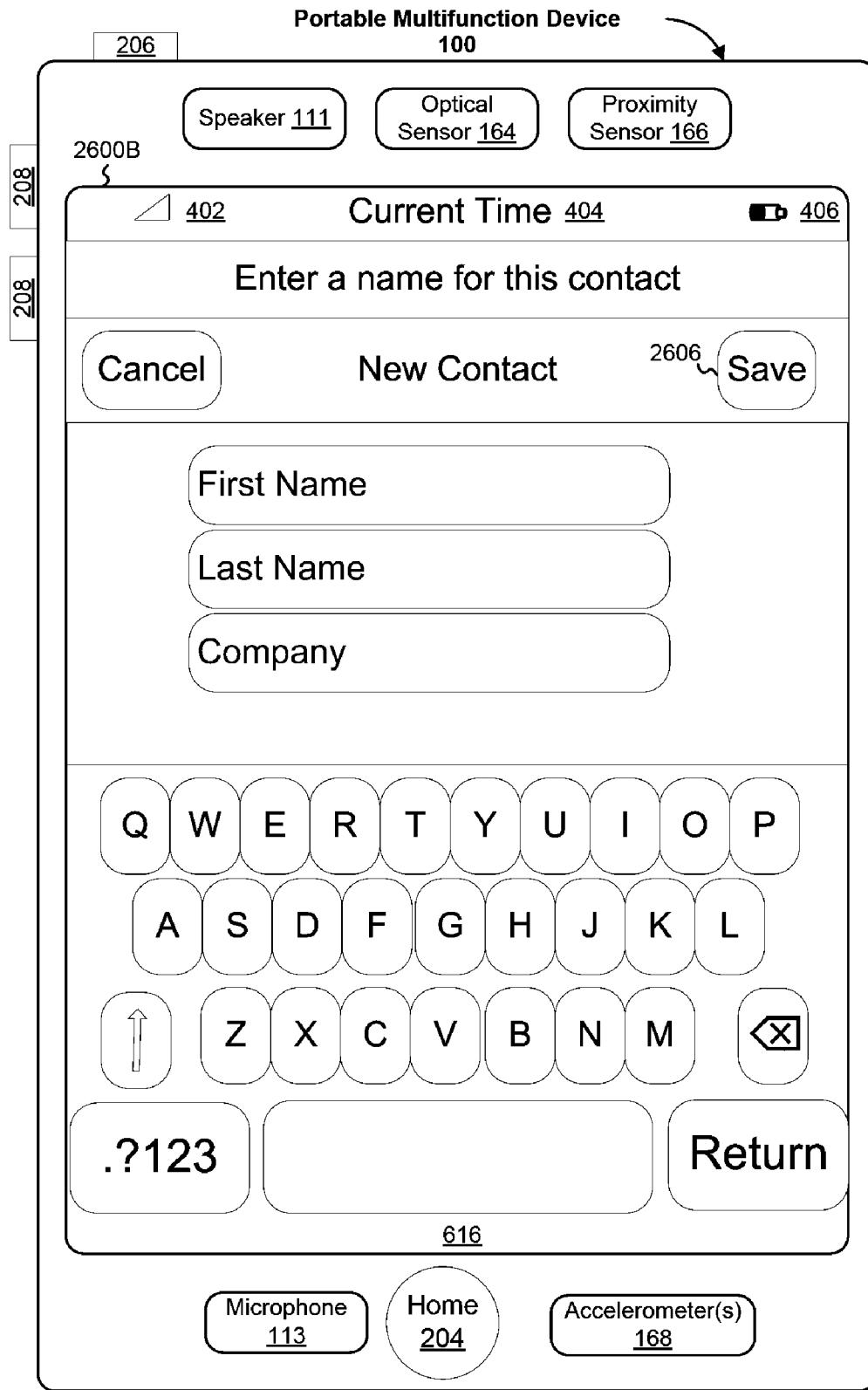


Figure 26B

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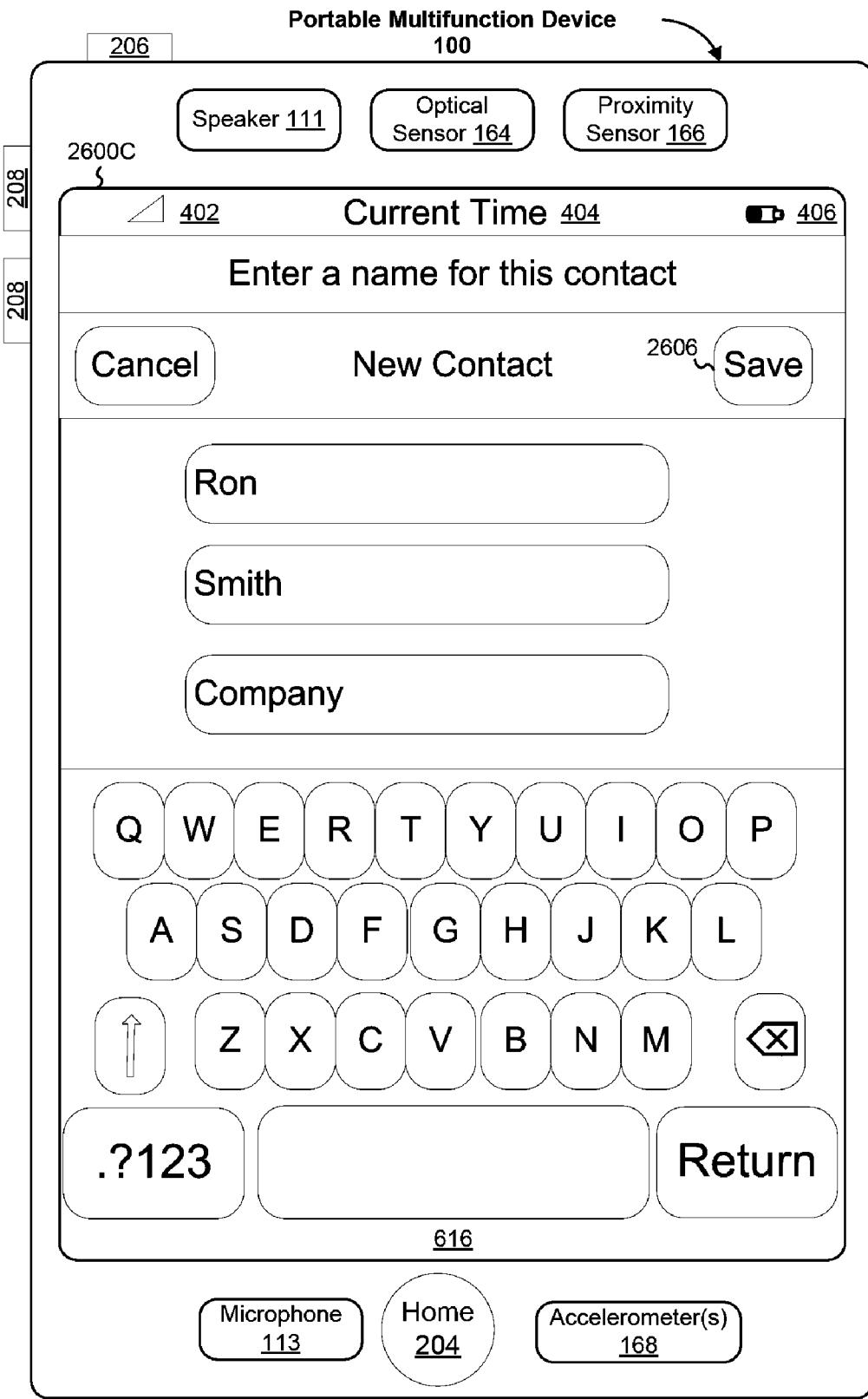


Figure 26C

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Figure 26D

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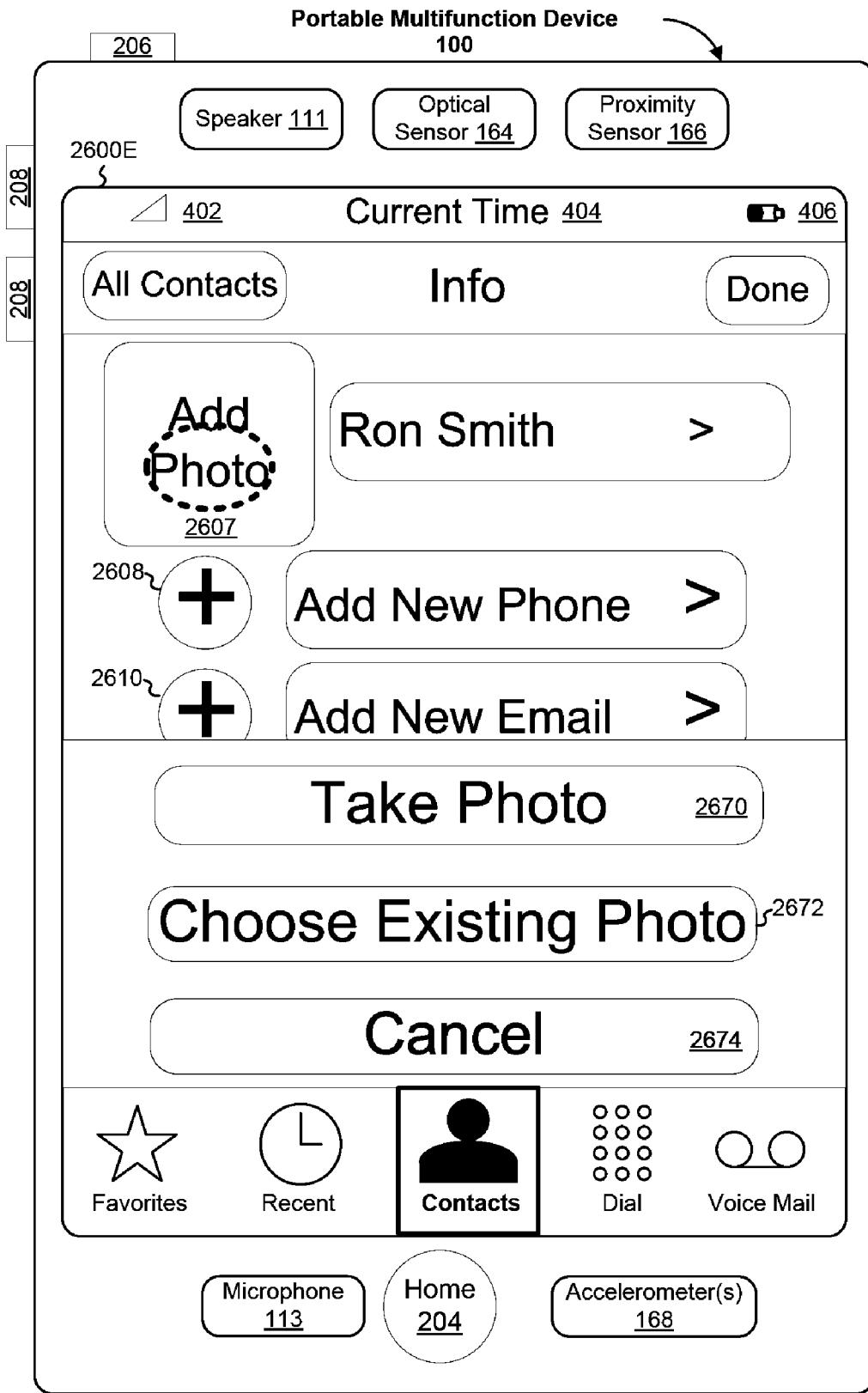


Figure 26E

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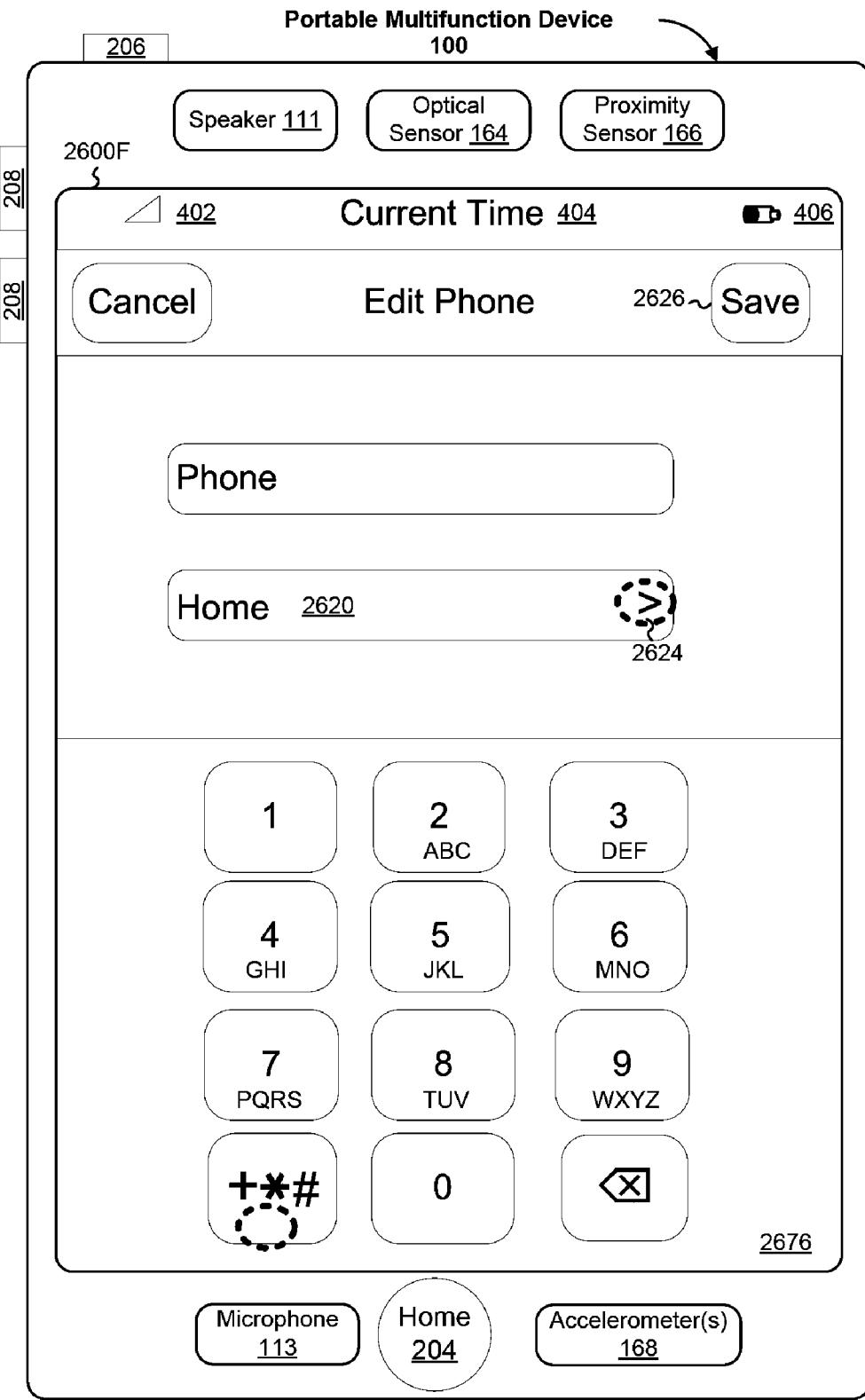


Figure 26F

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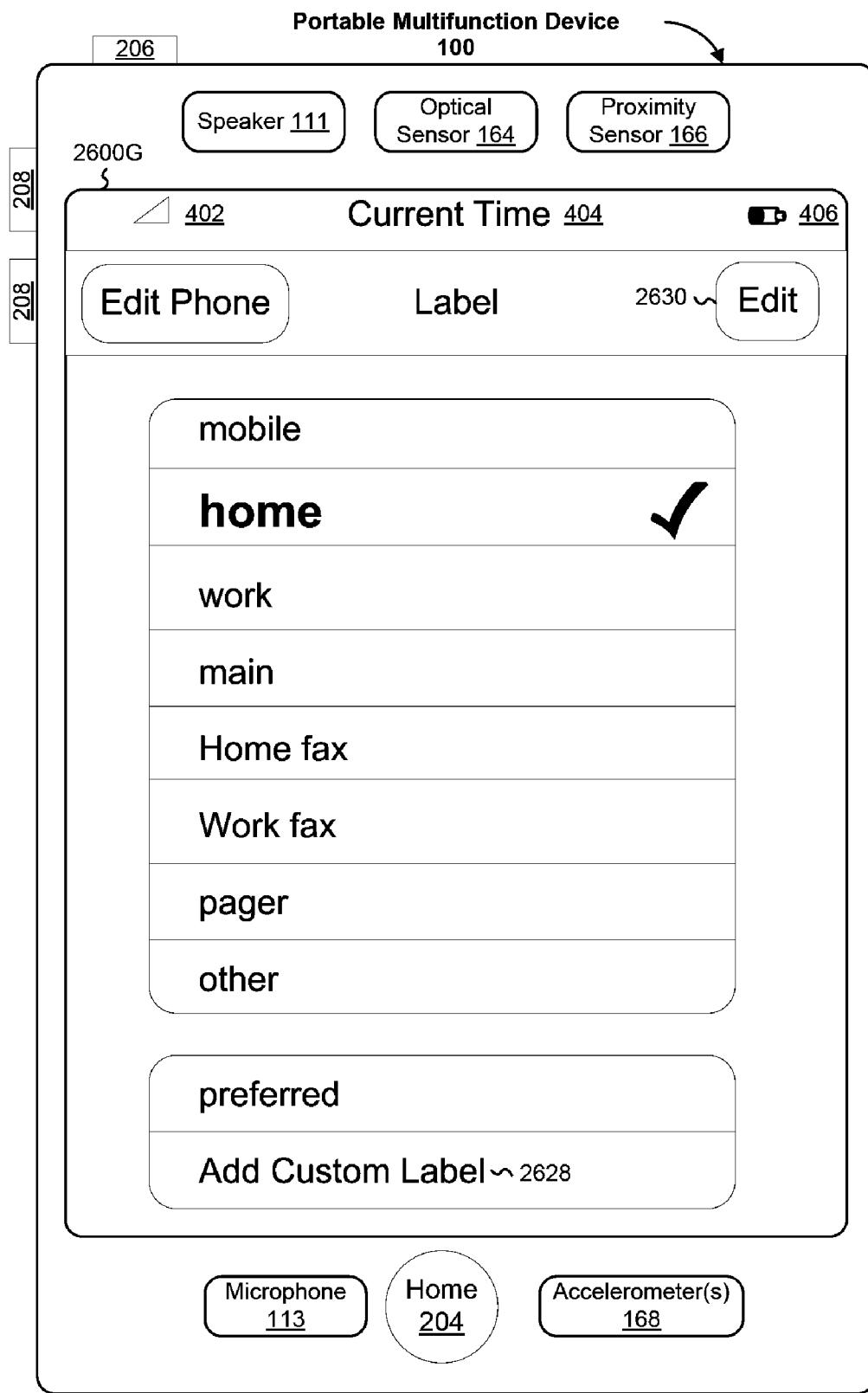


Figure 26G

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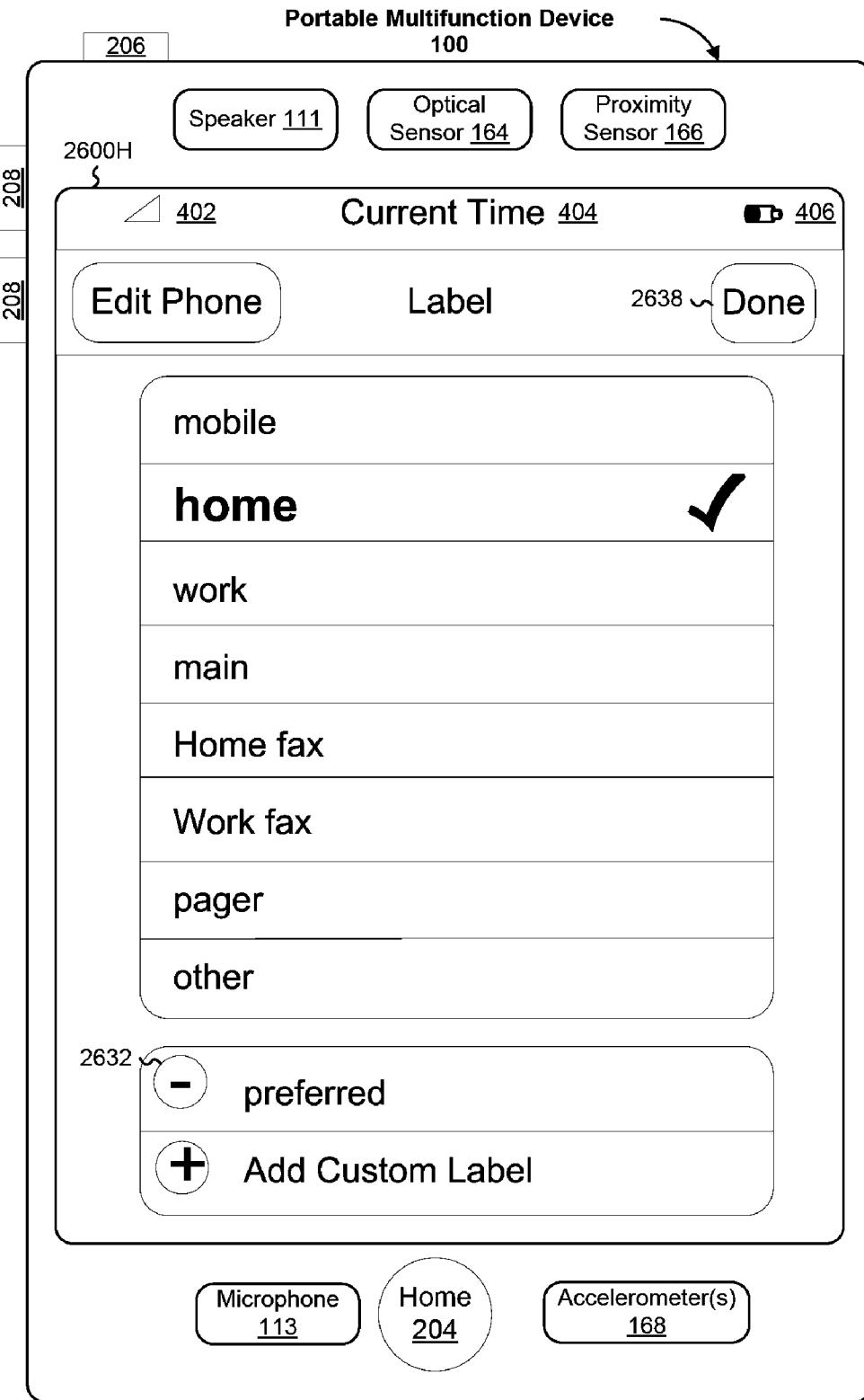


Figure 26H

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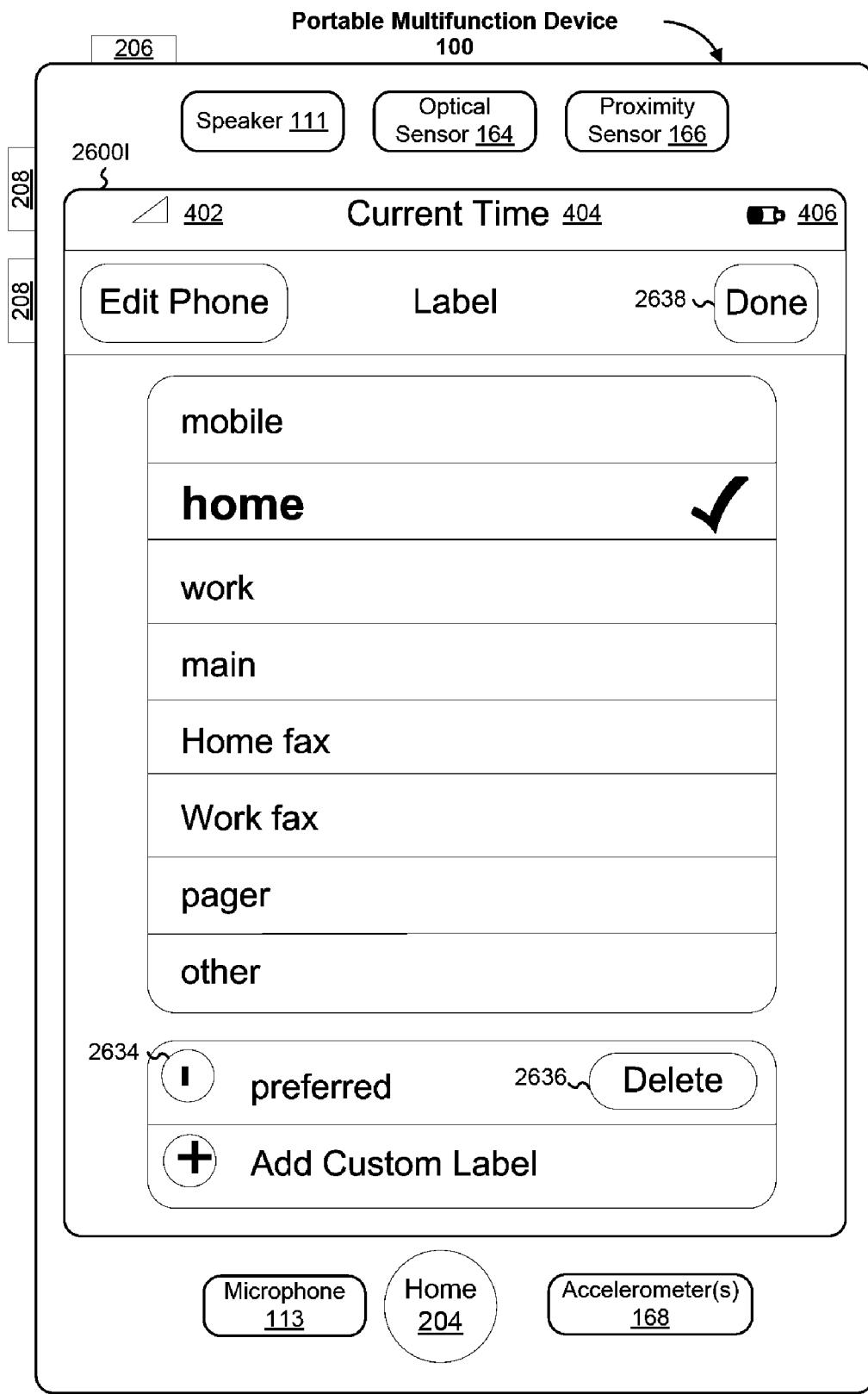


Figure 26I

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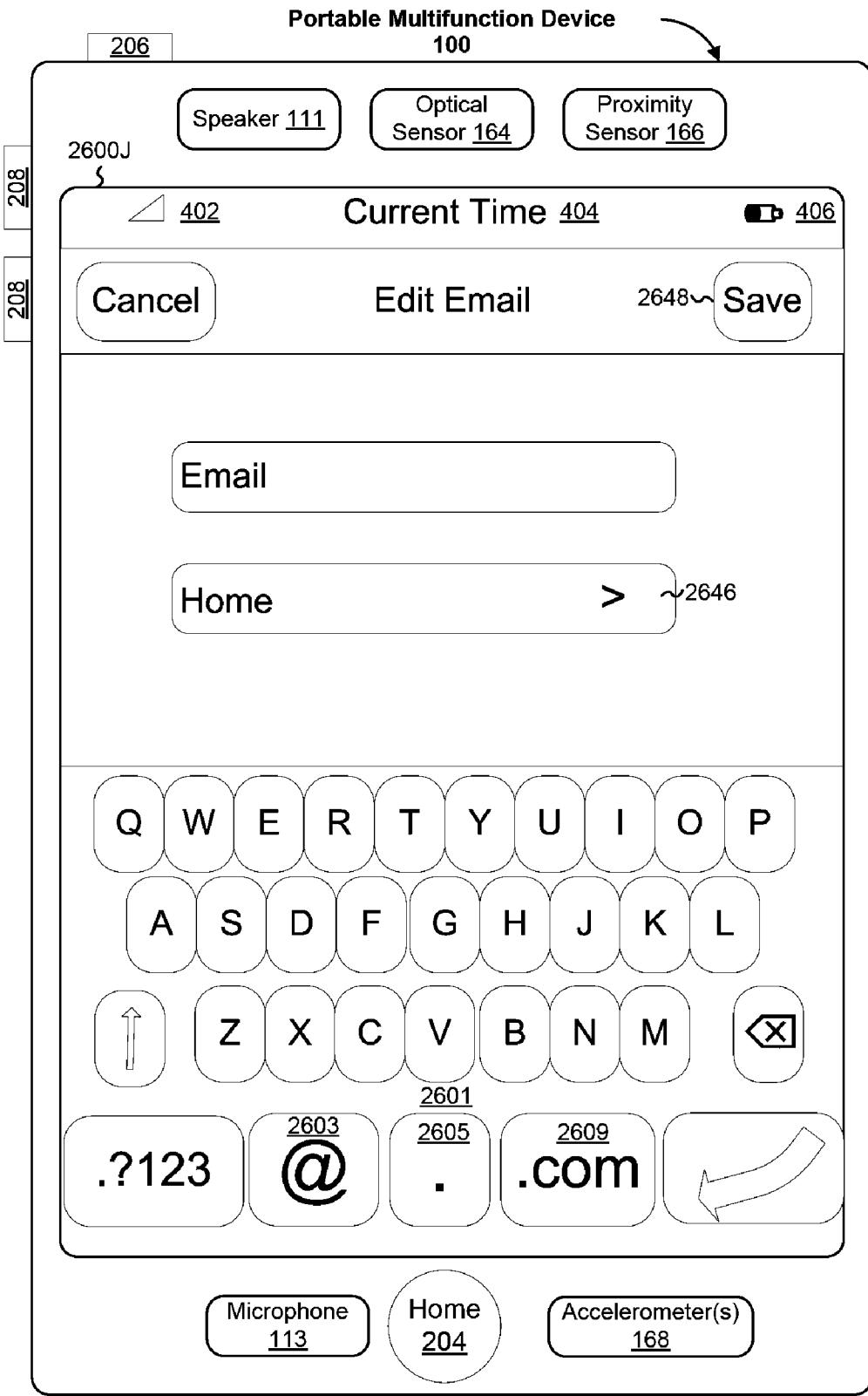


Figure 26J

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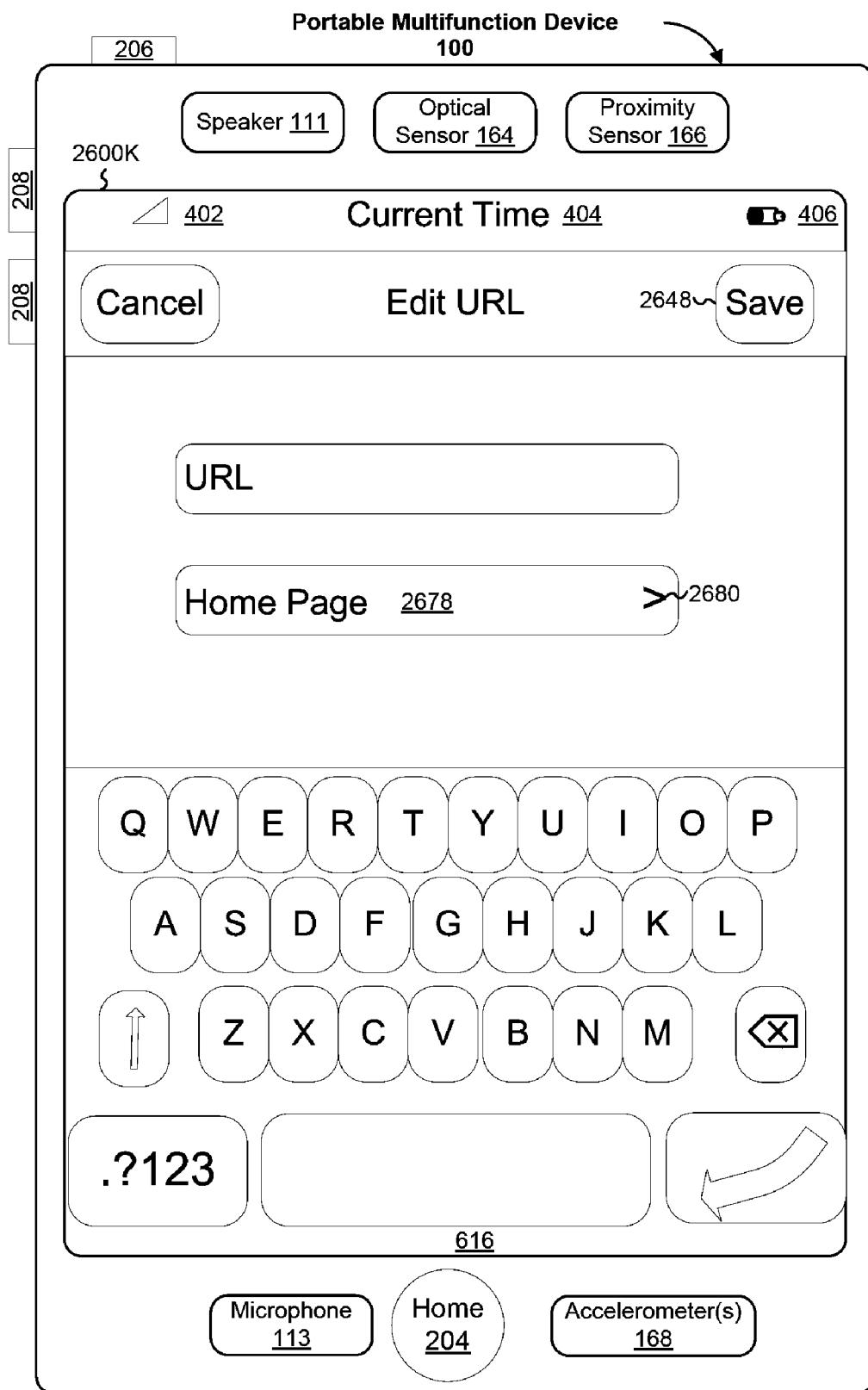


Figure 26K

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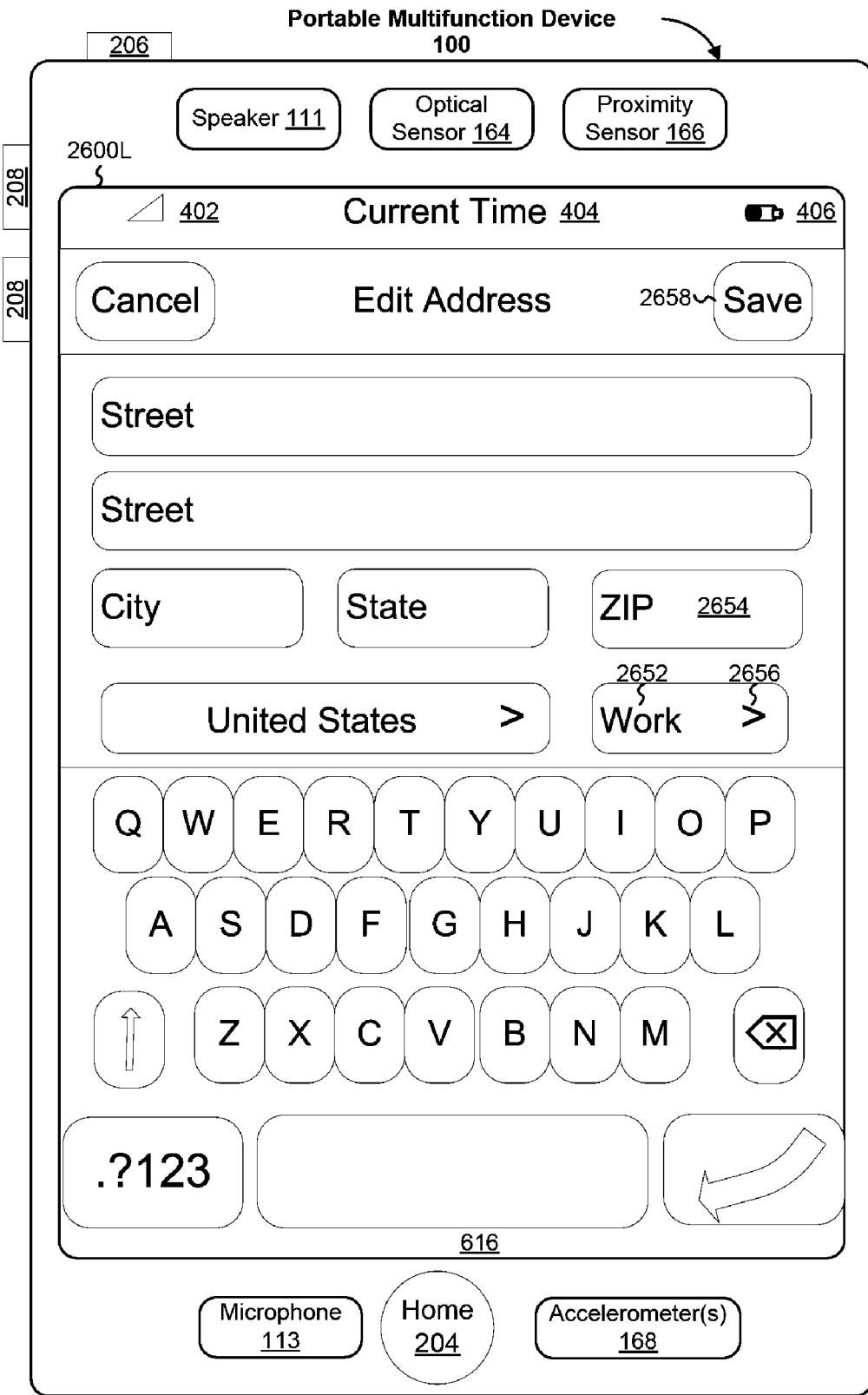


Figure 26L

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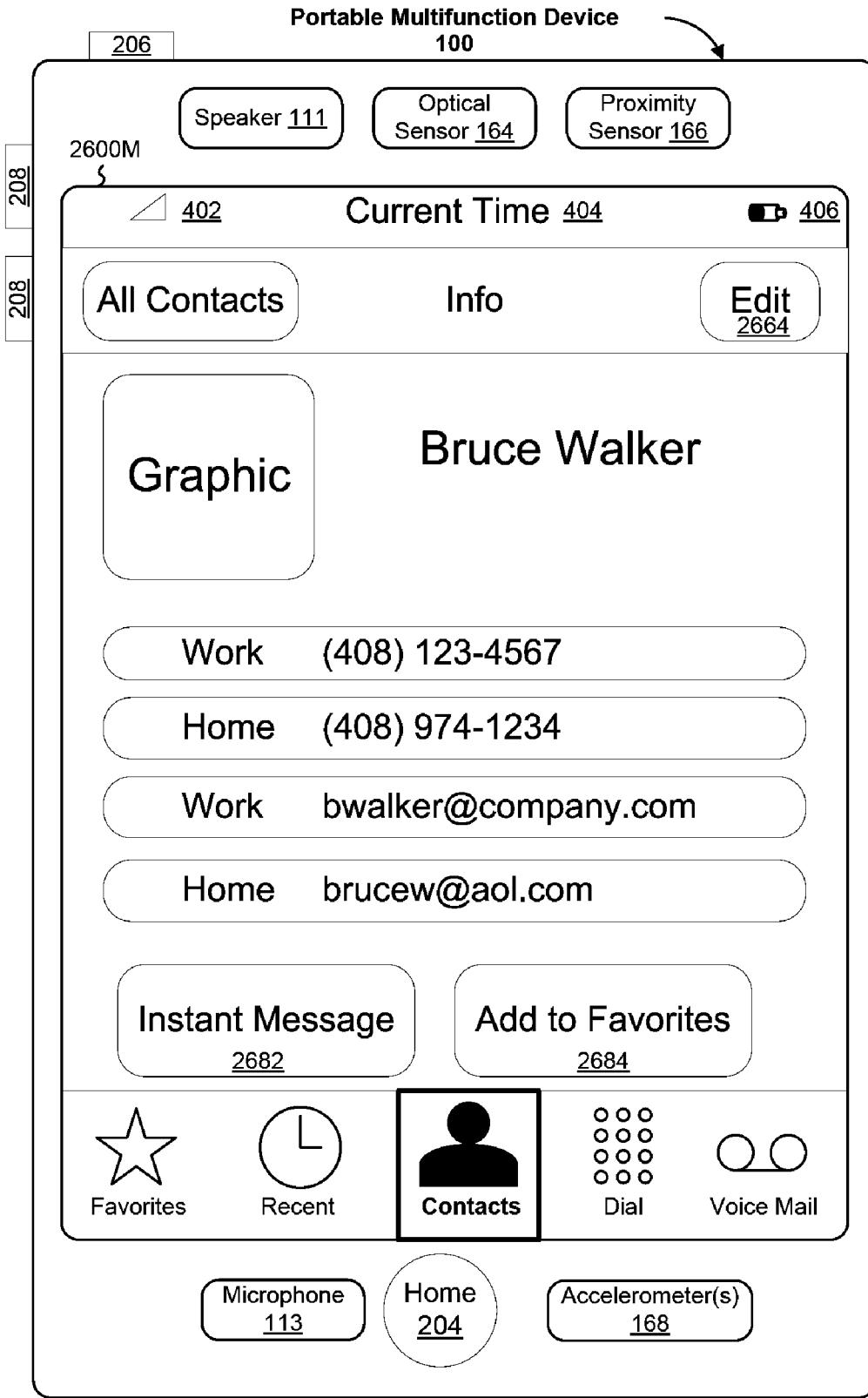


Figure 26M

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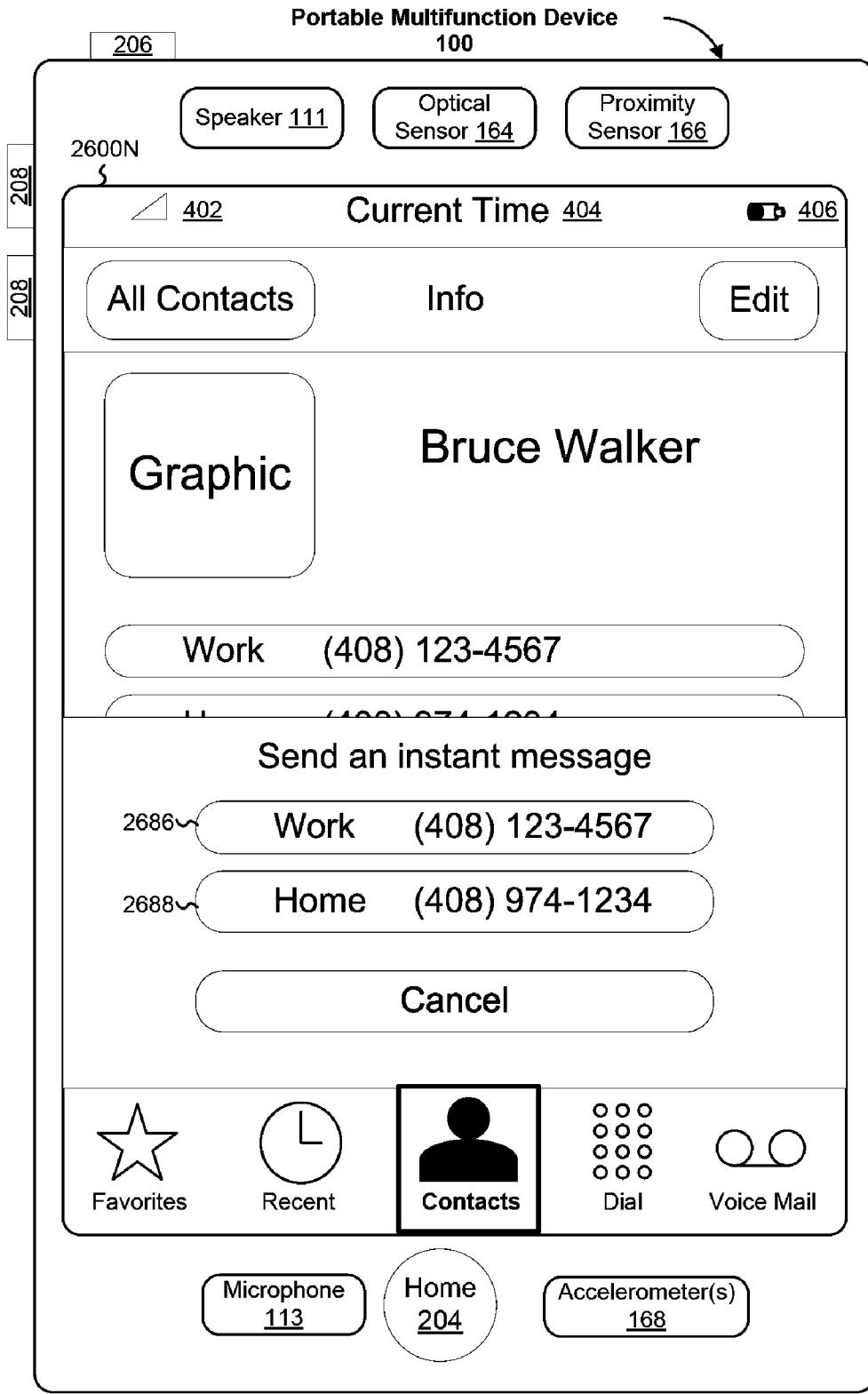


Figure 26N

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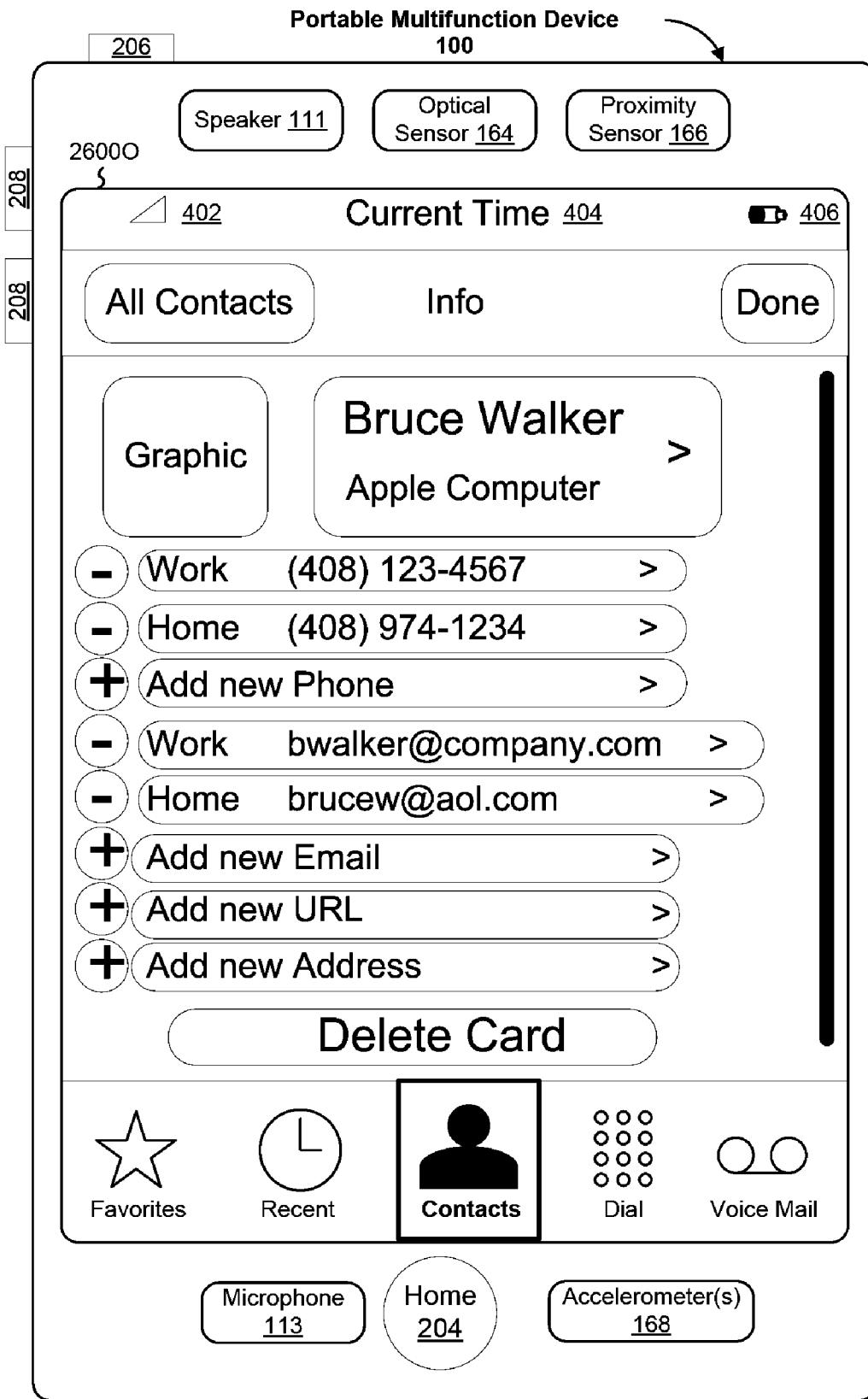


Figure 26O

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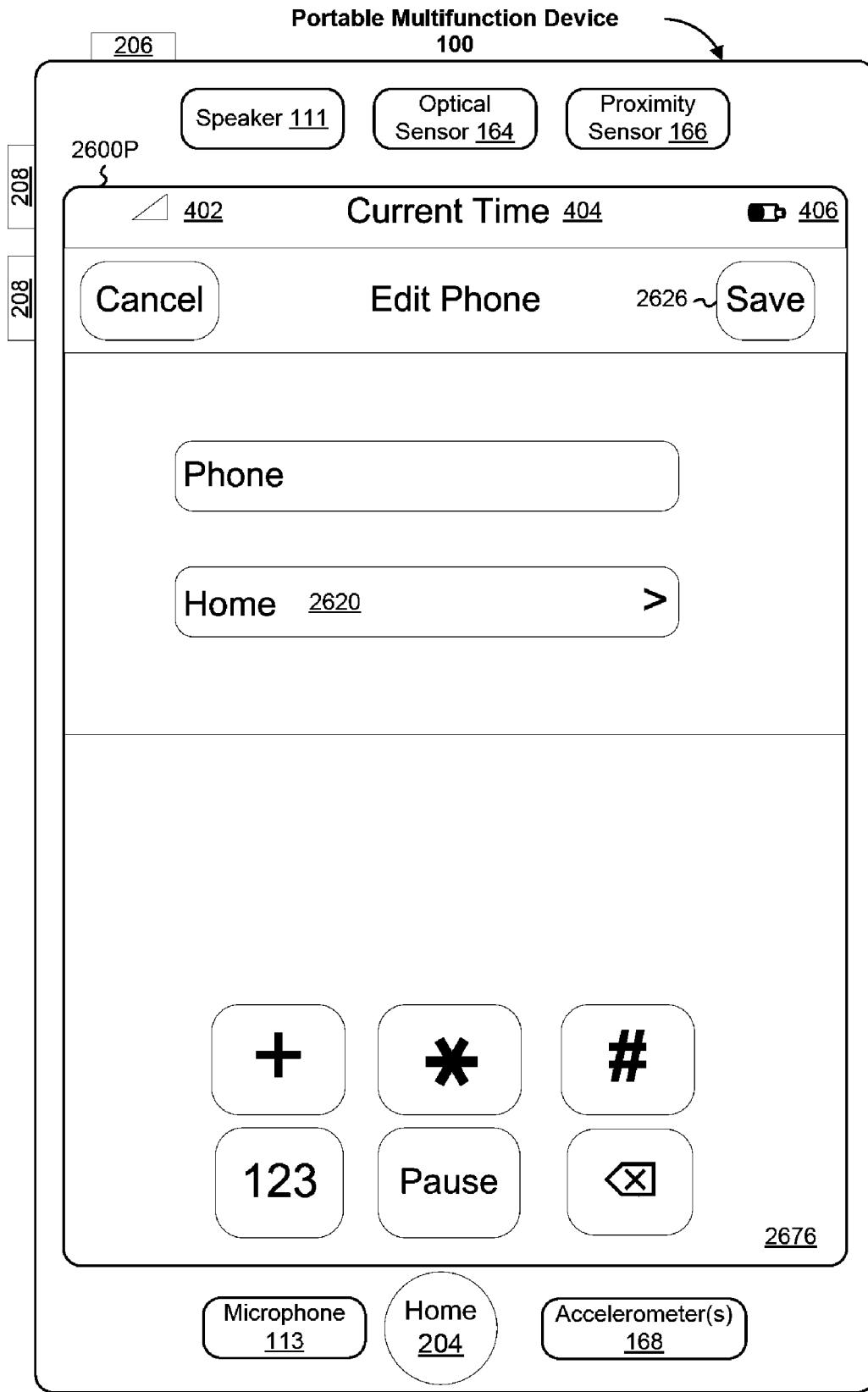


Figure 26P

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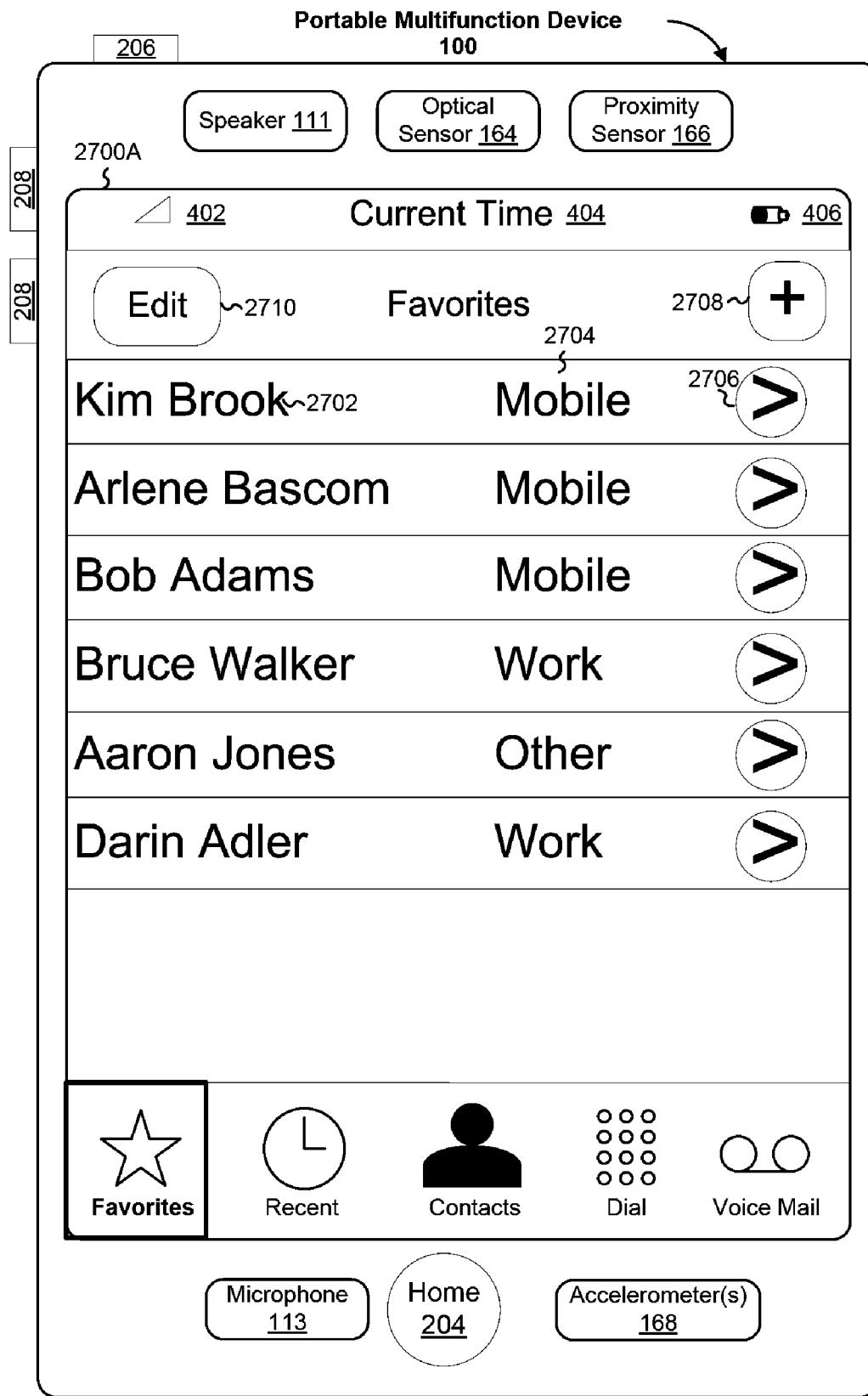


Figure 27A

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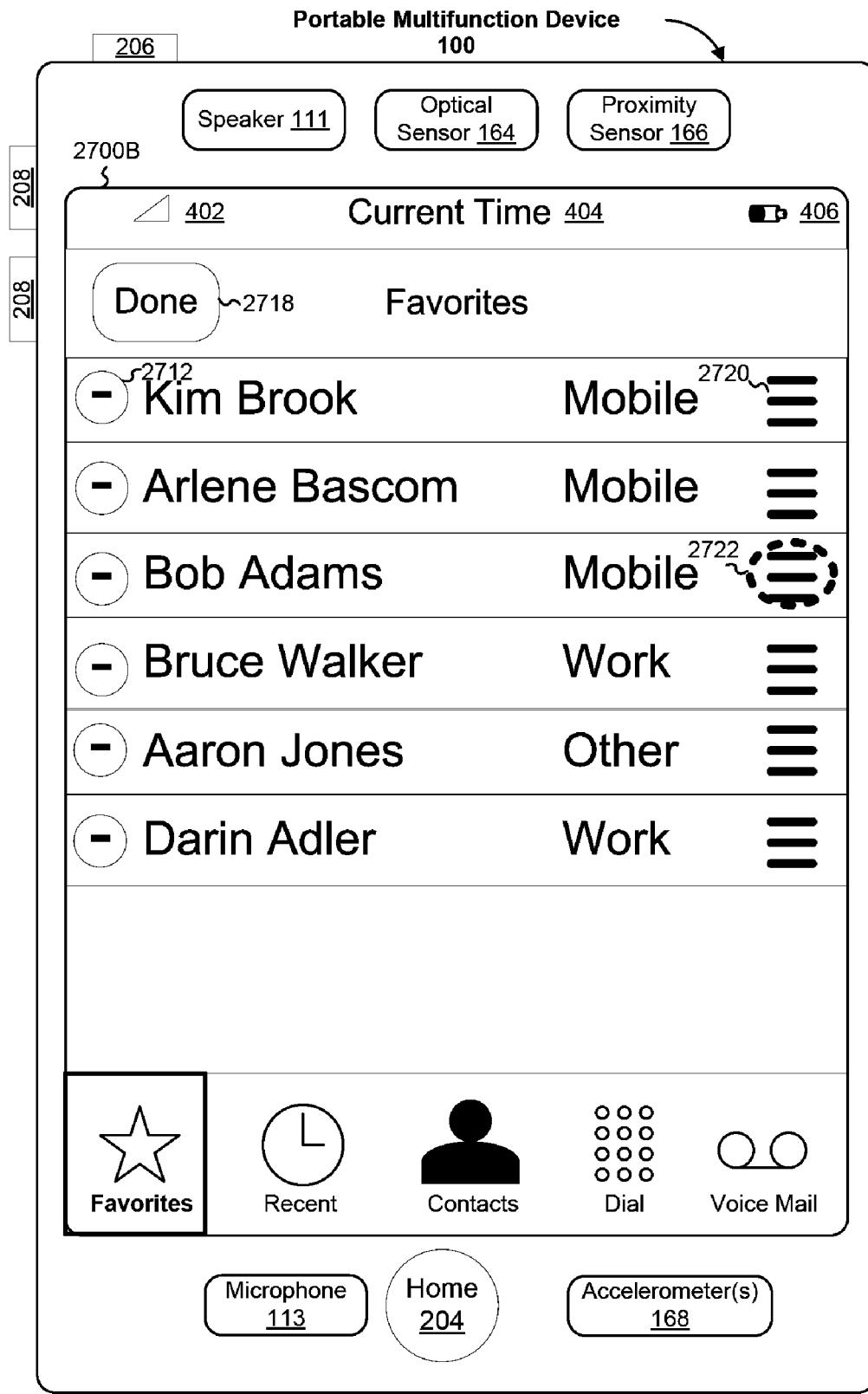


Figure 27B

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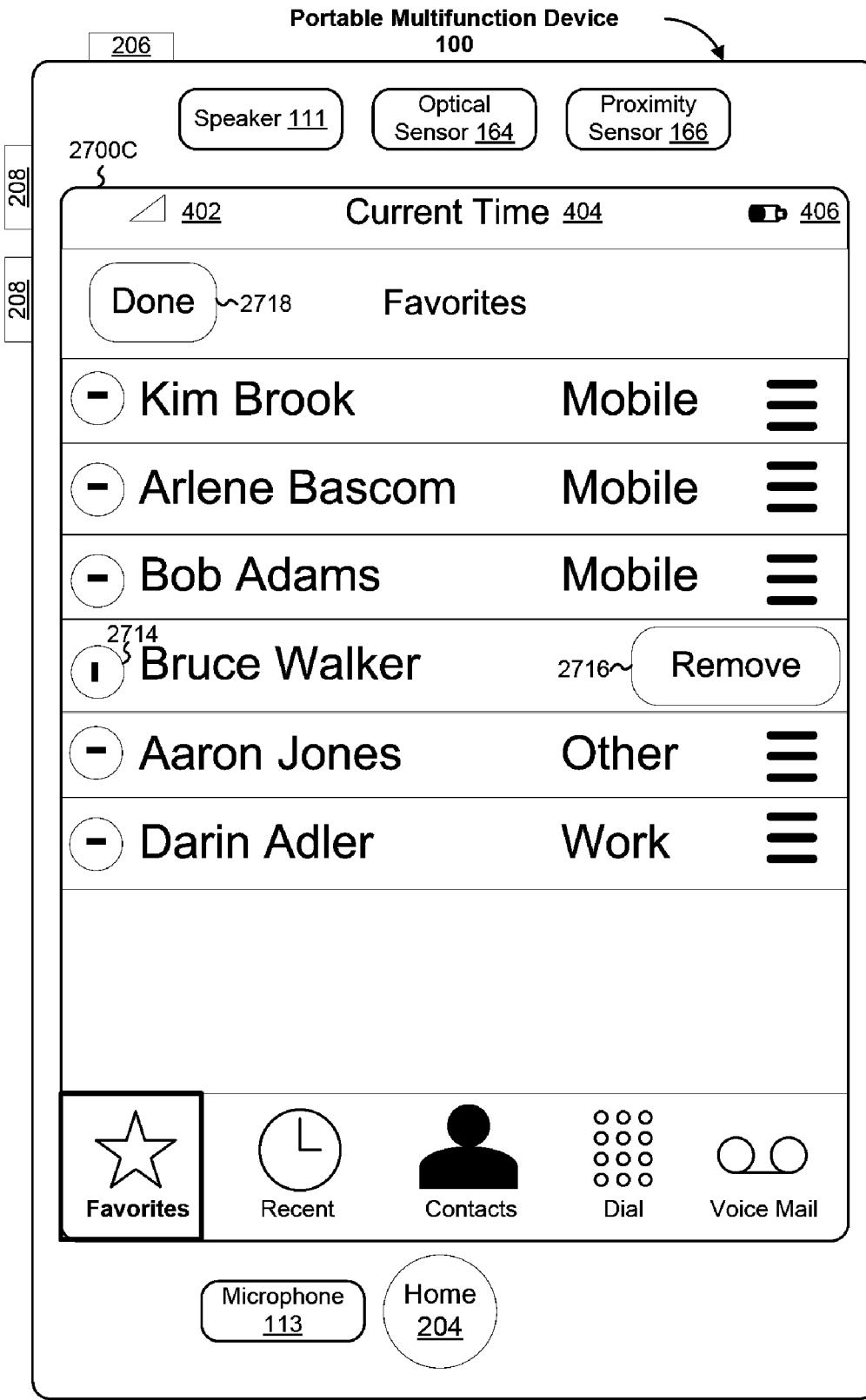


Figure 27C

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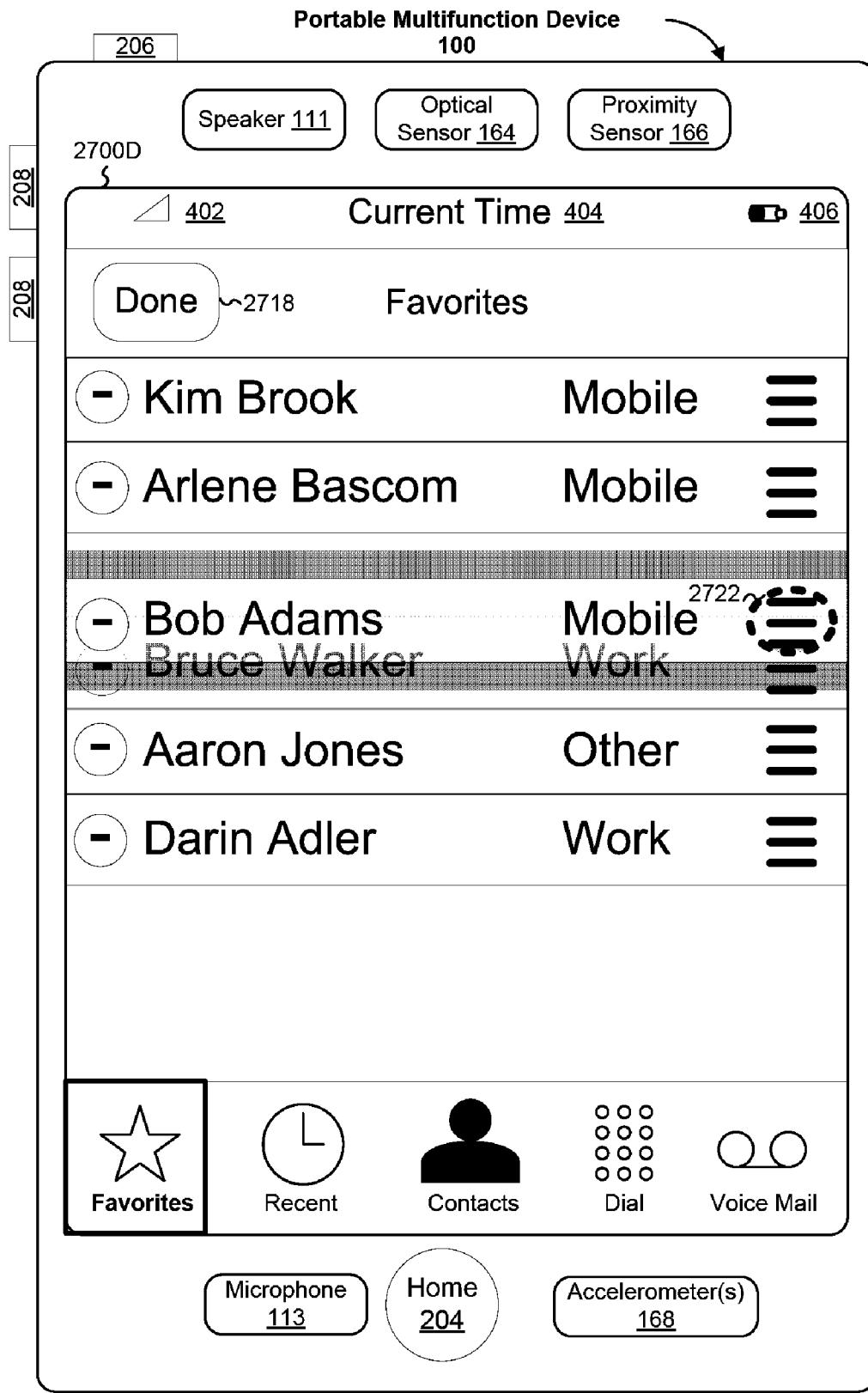


Figure 27D

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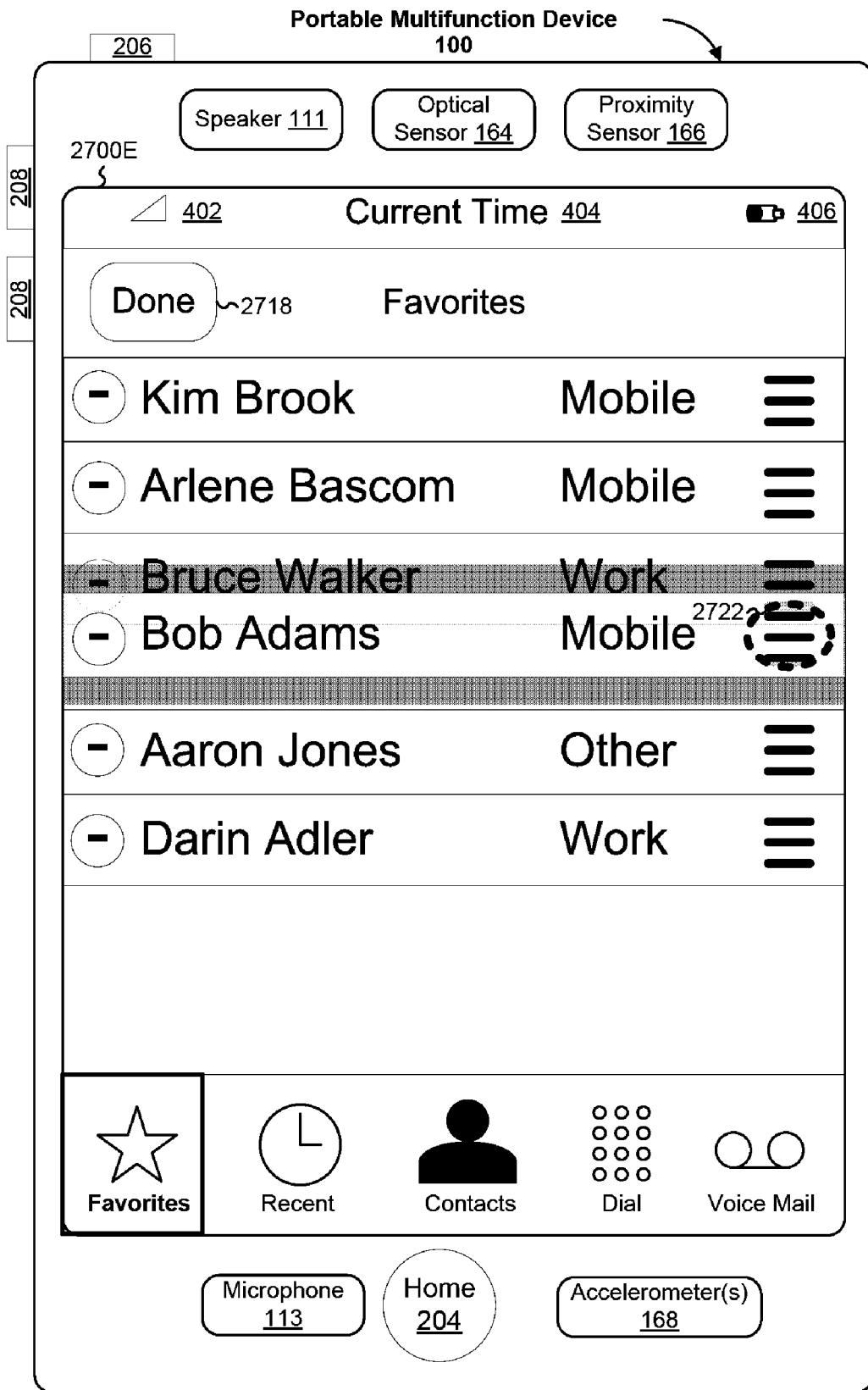


Figure 27E

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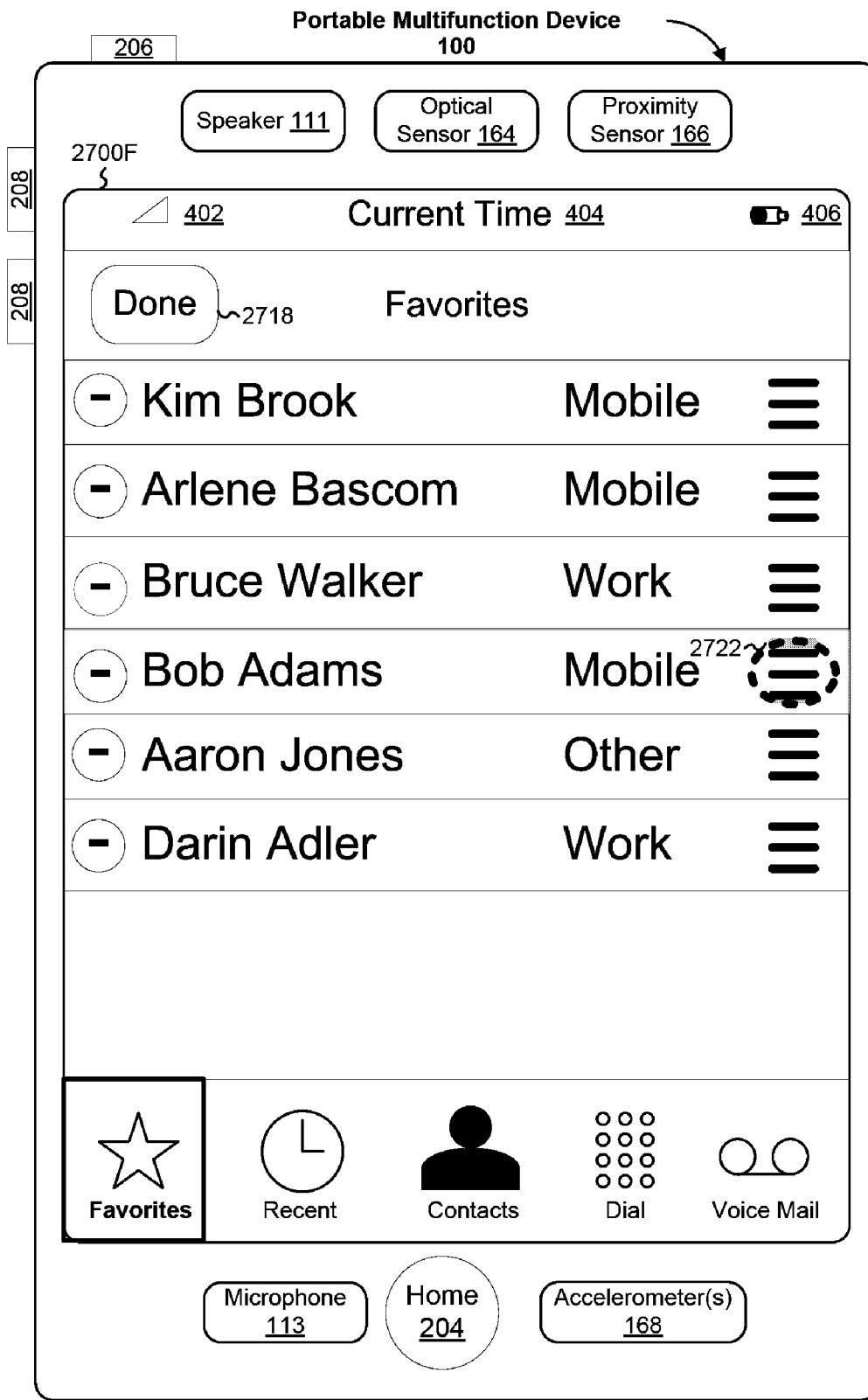


Figure 27F

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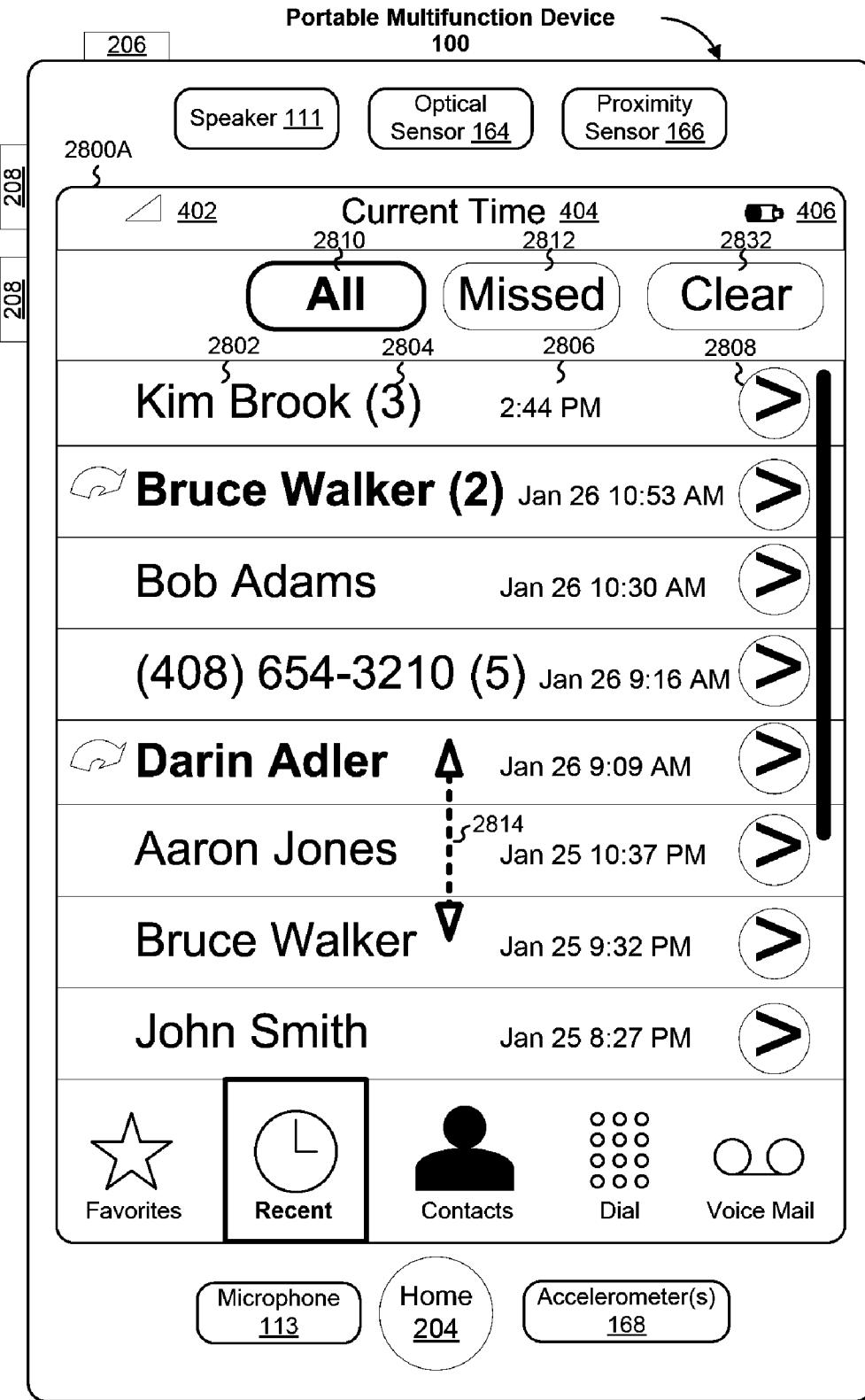


Figure 28A

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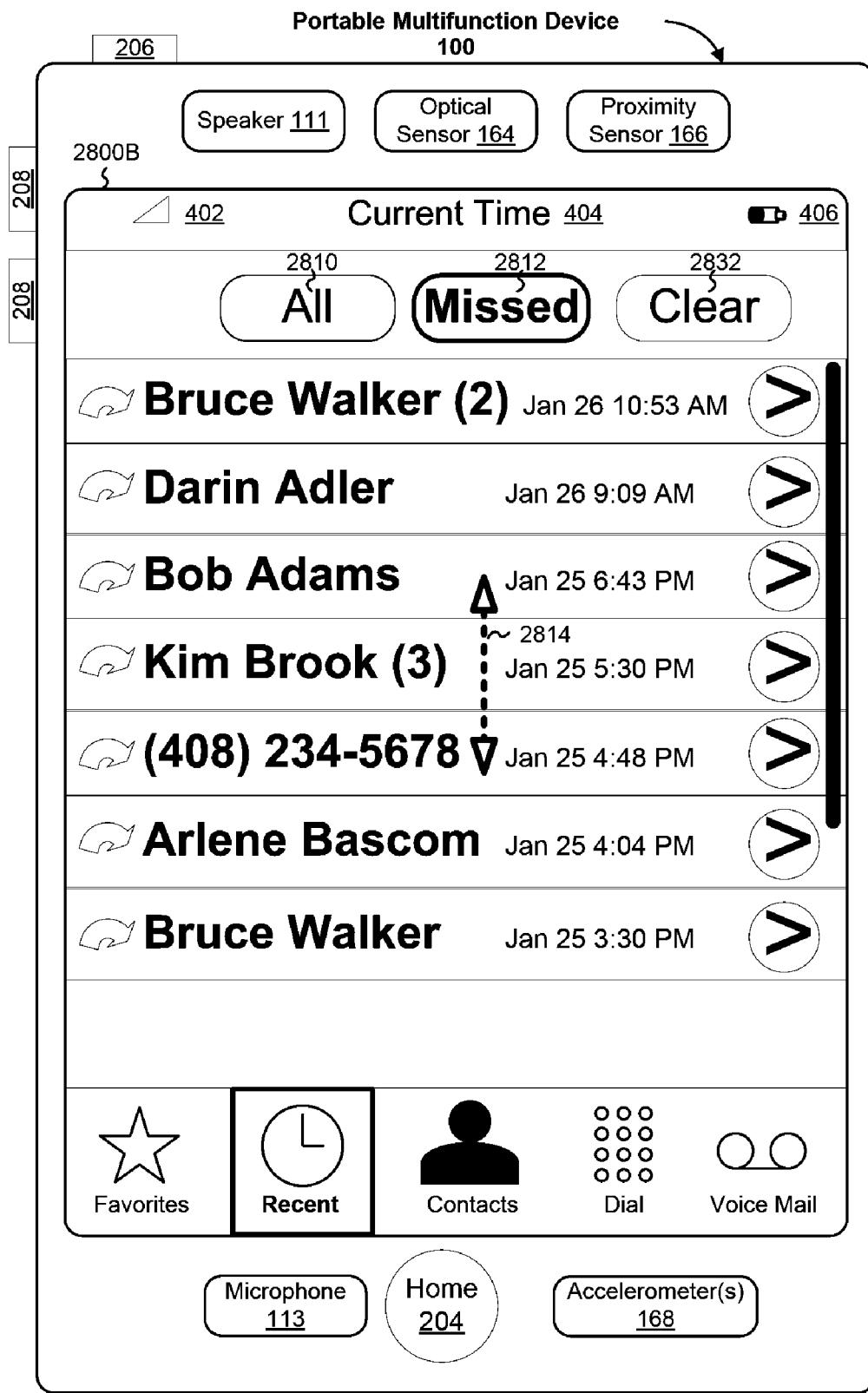


Figure 28B

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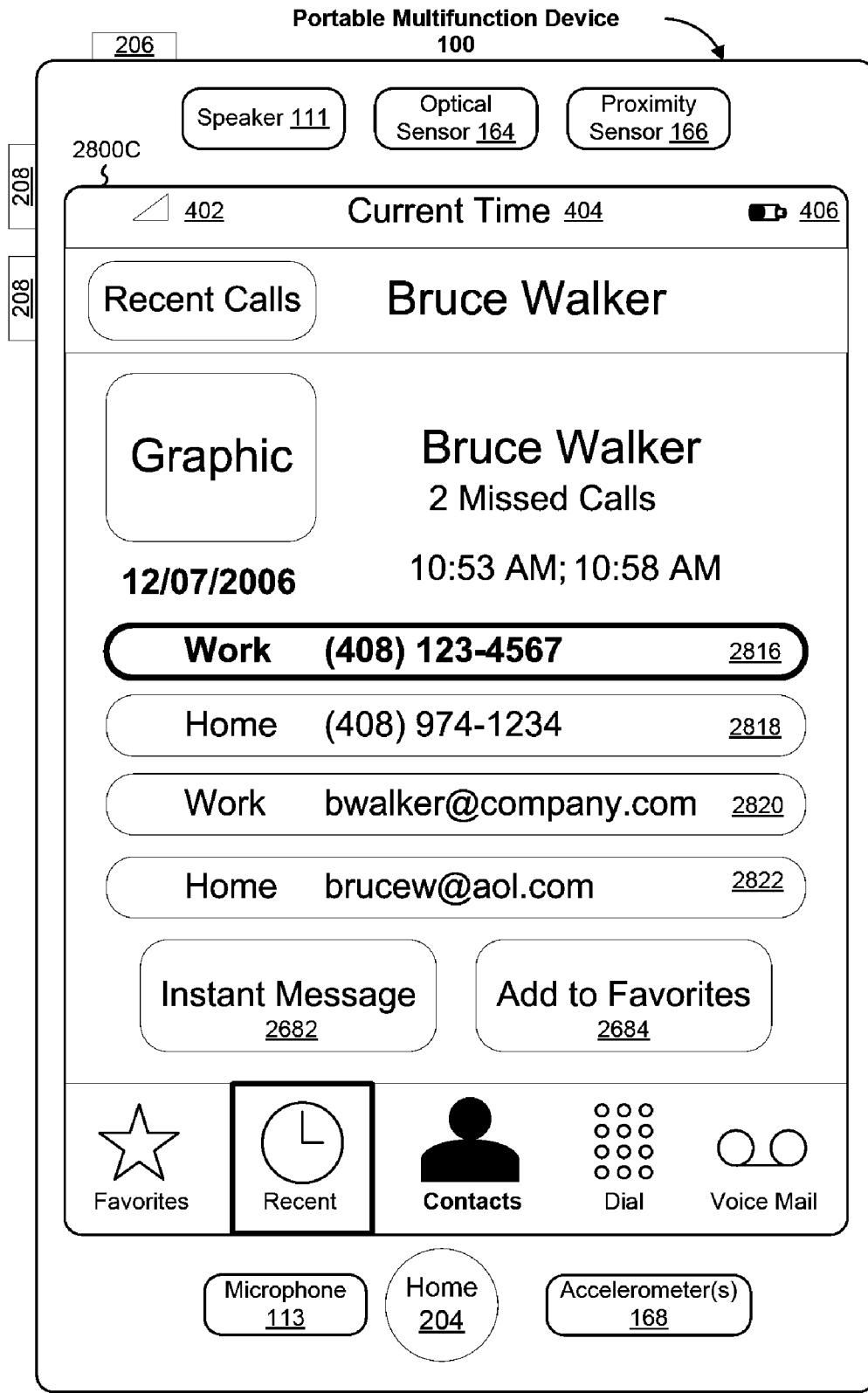


Figure 28C

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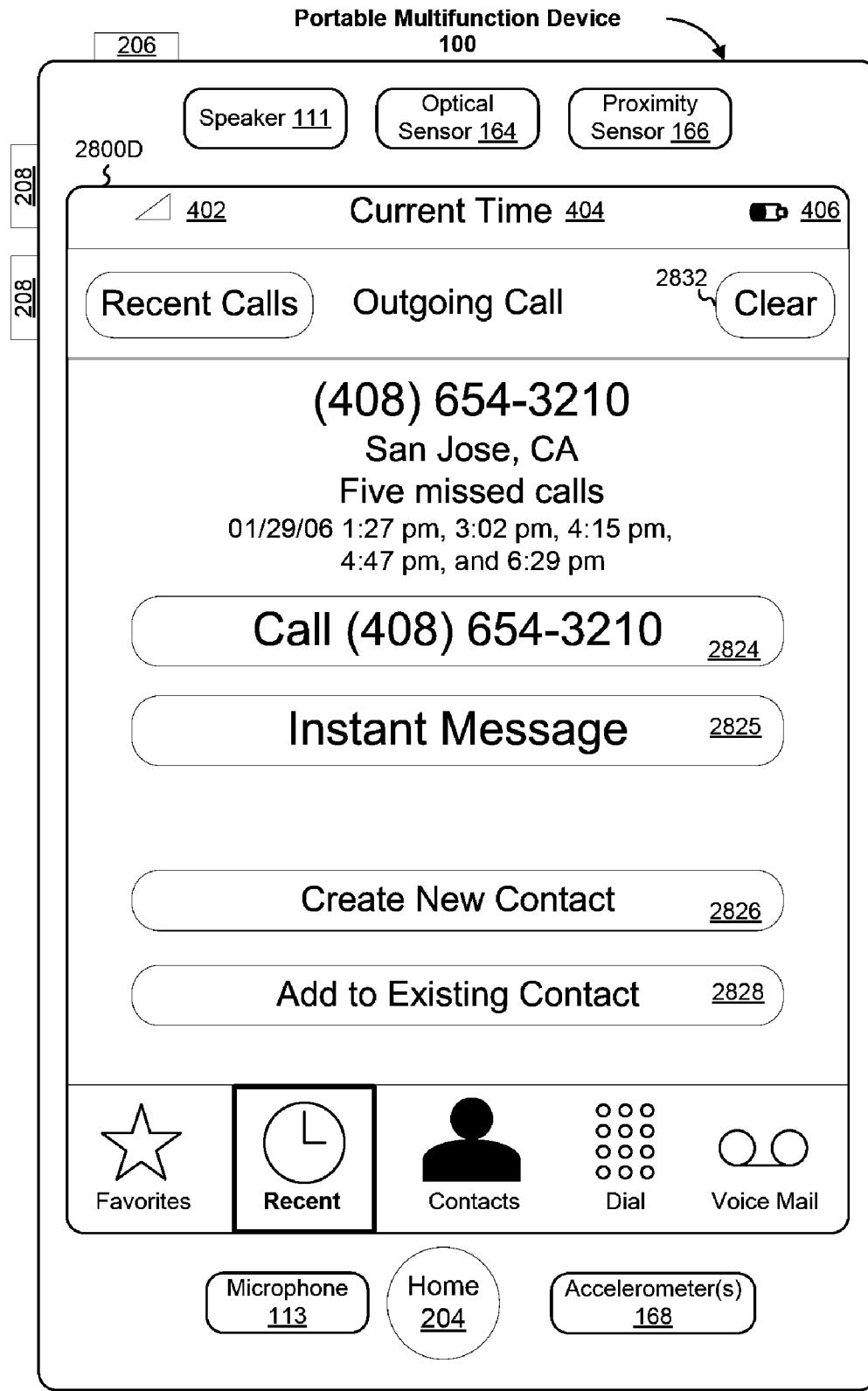


Figure 28D

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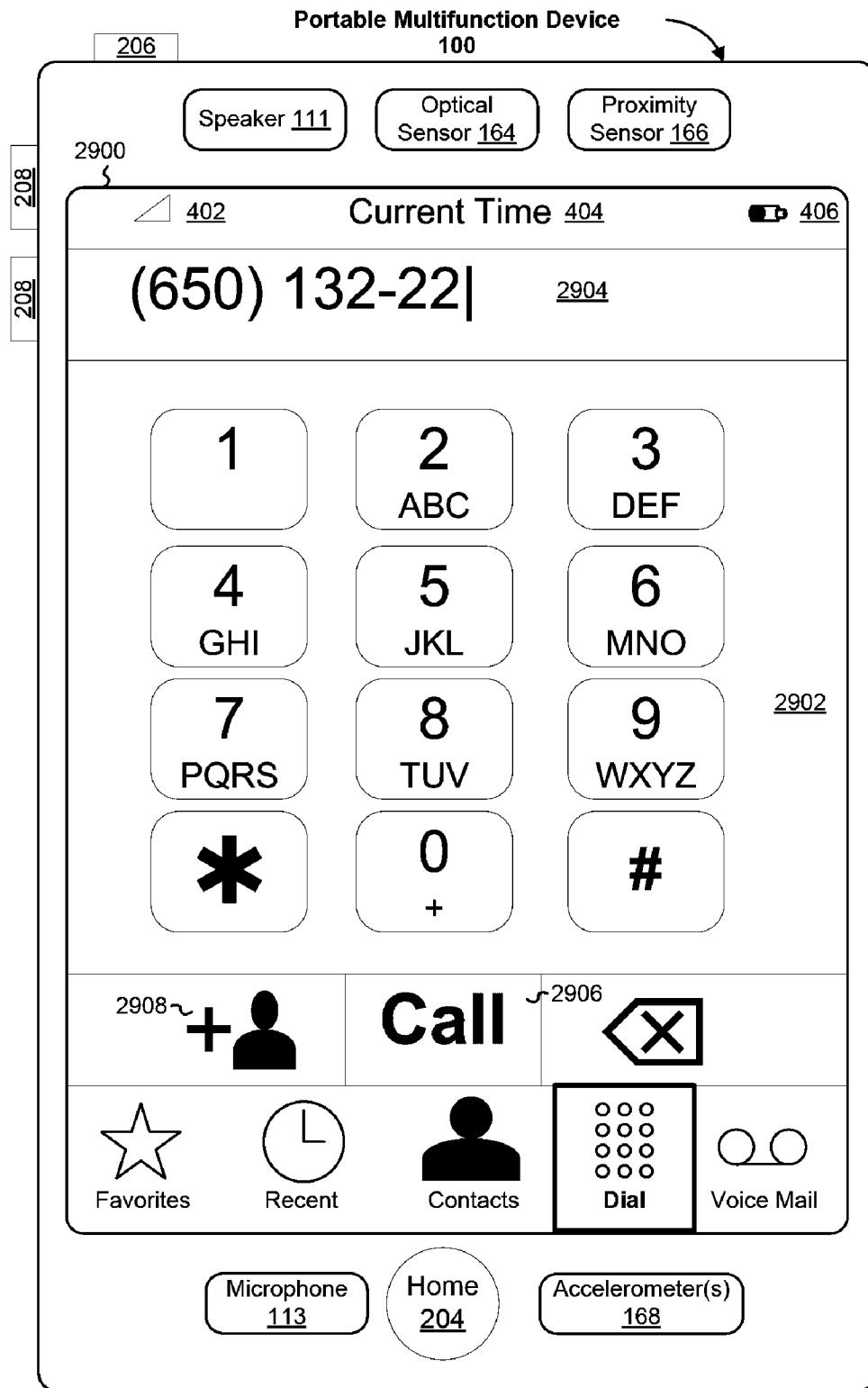


Figure 29

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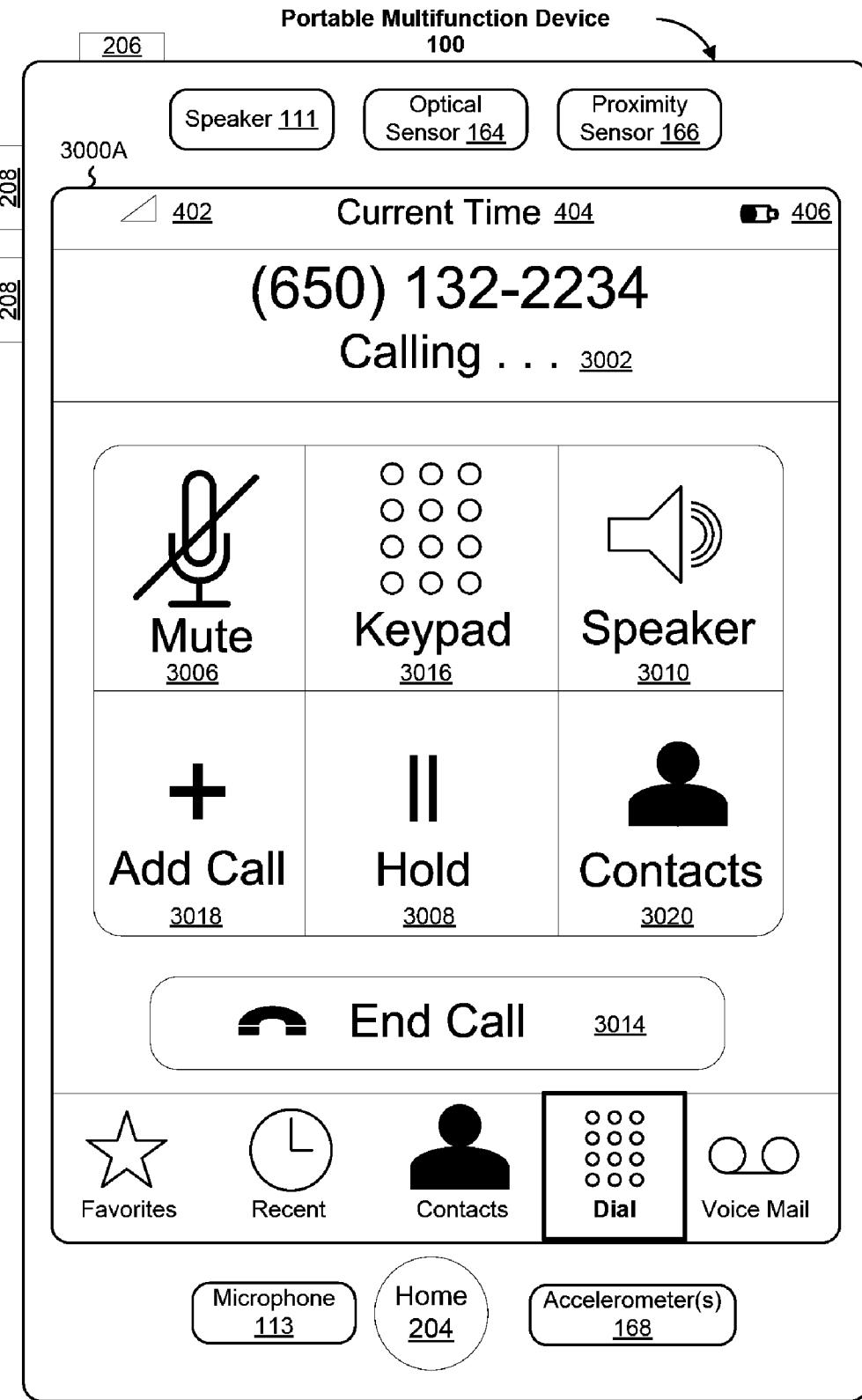


Figure 30A

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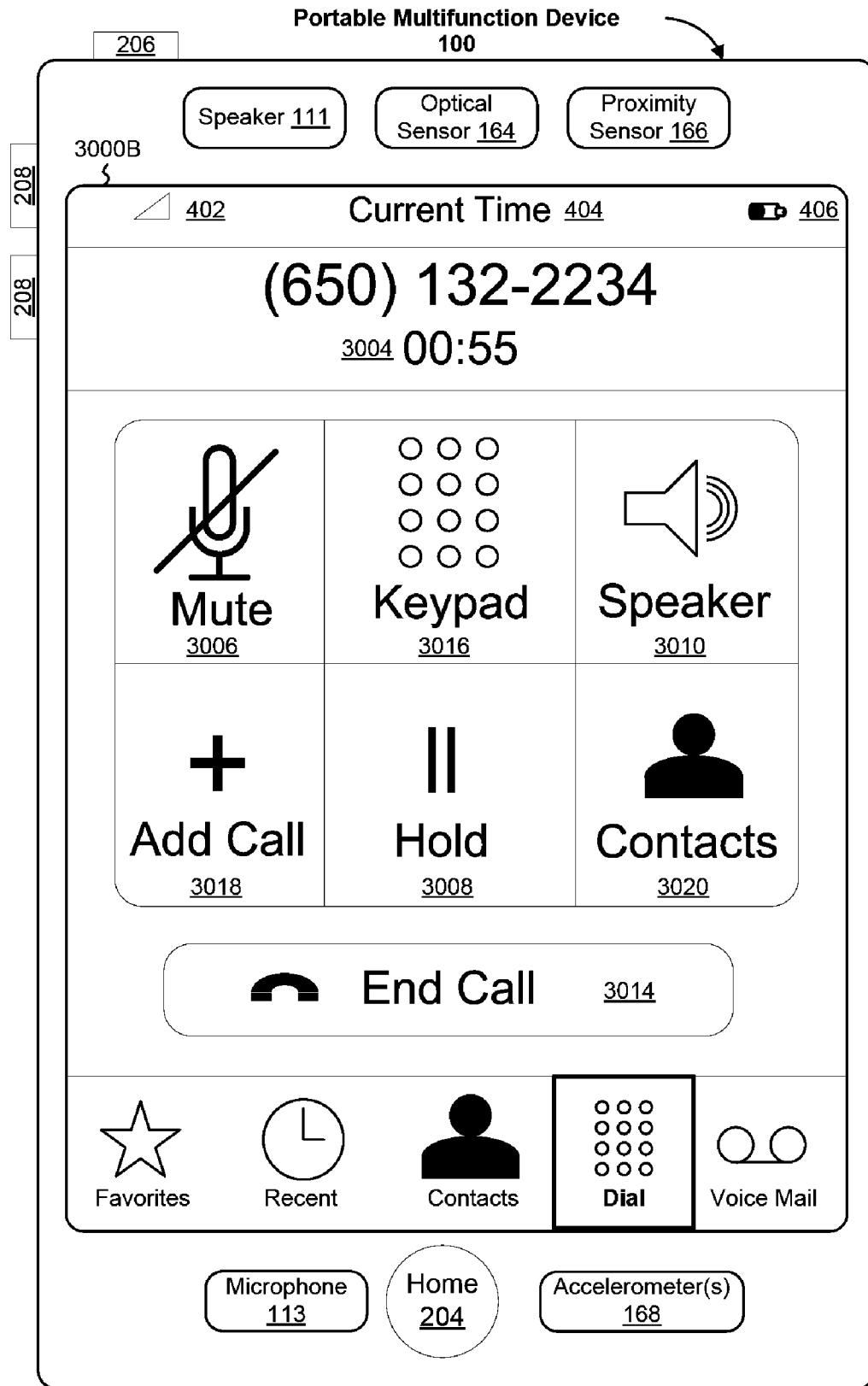


Figure 30B

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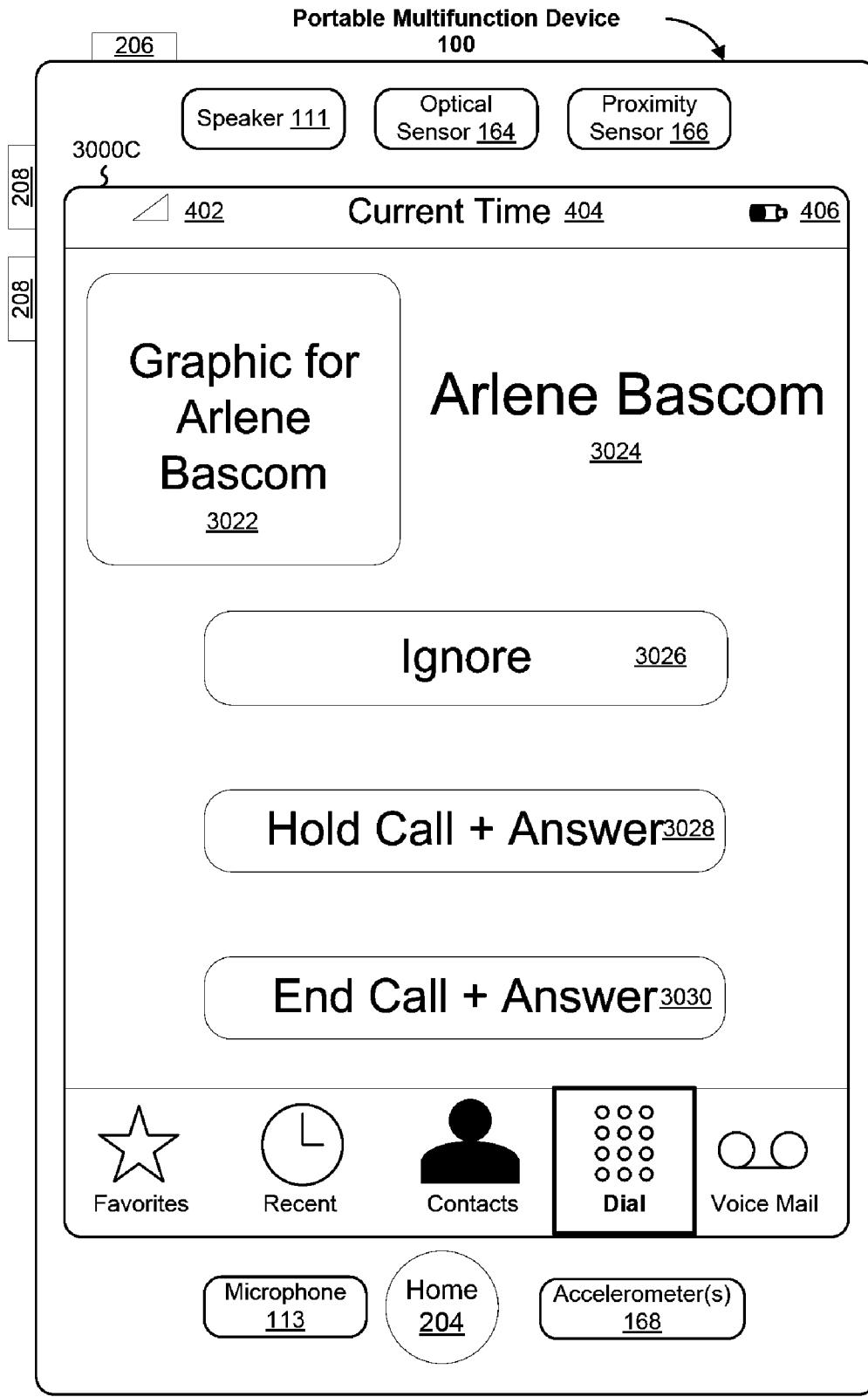


Figure 30C

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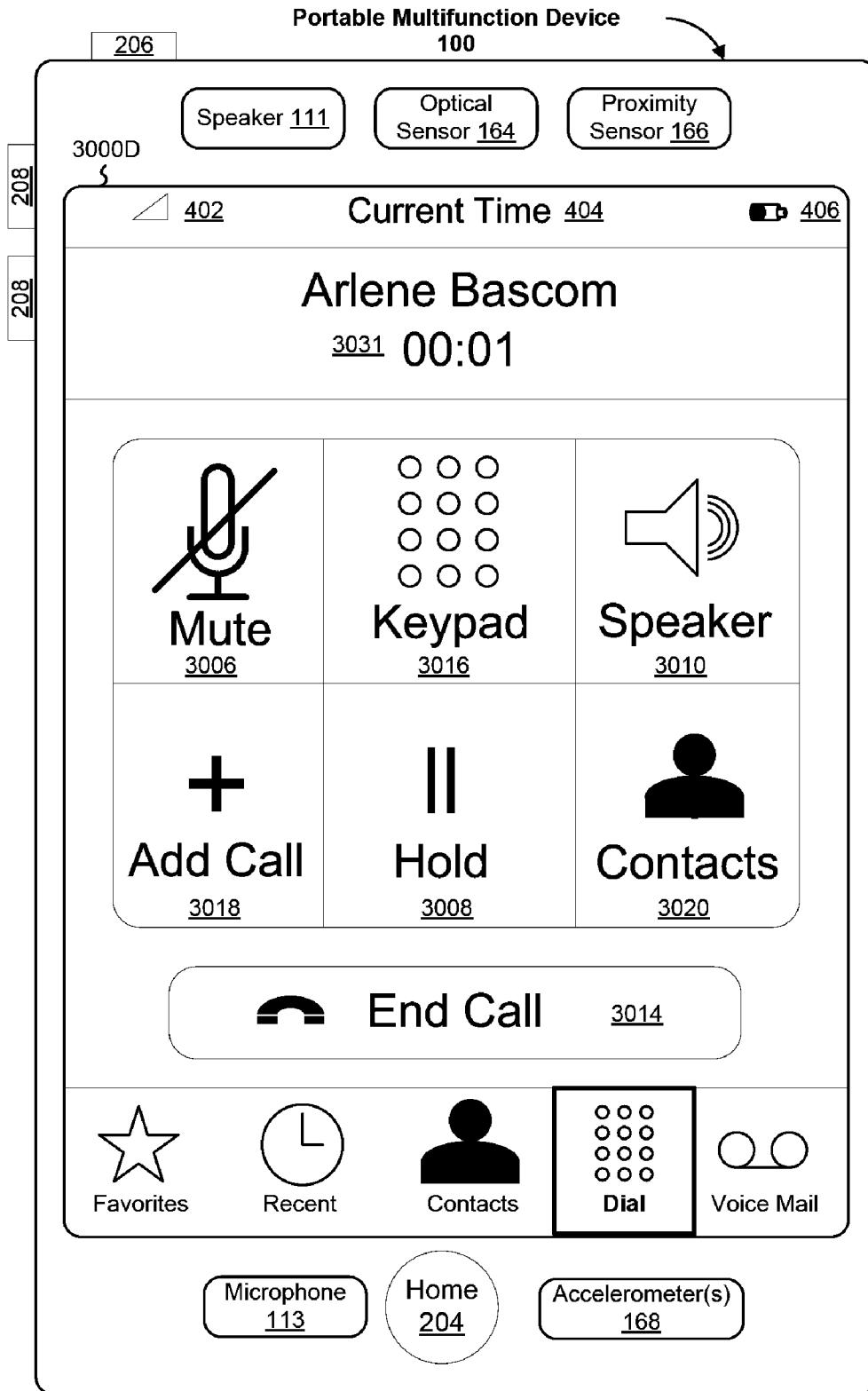


Figure 30D

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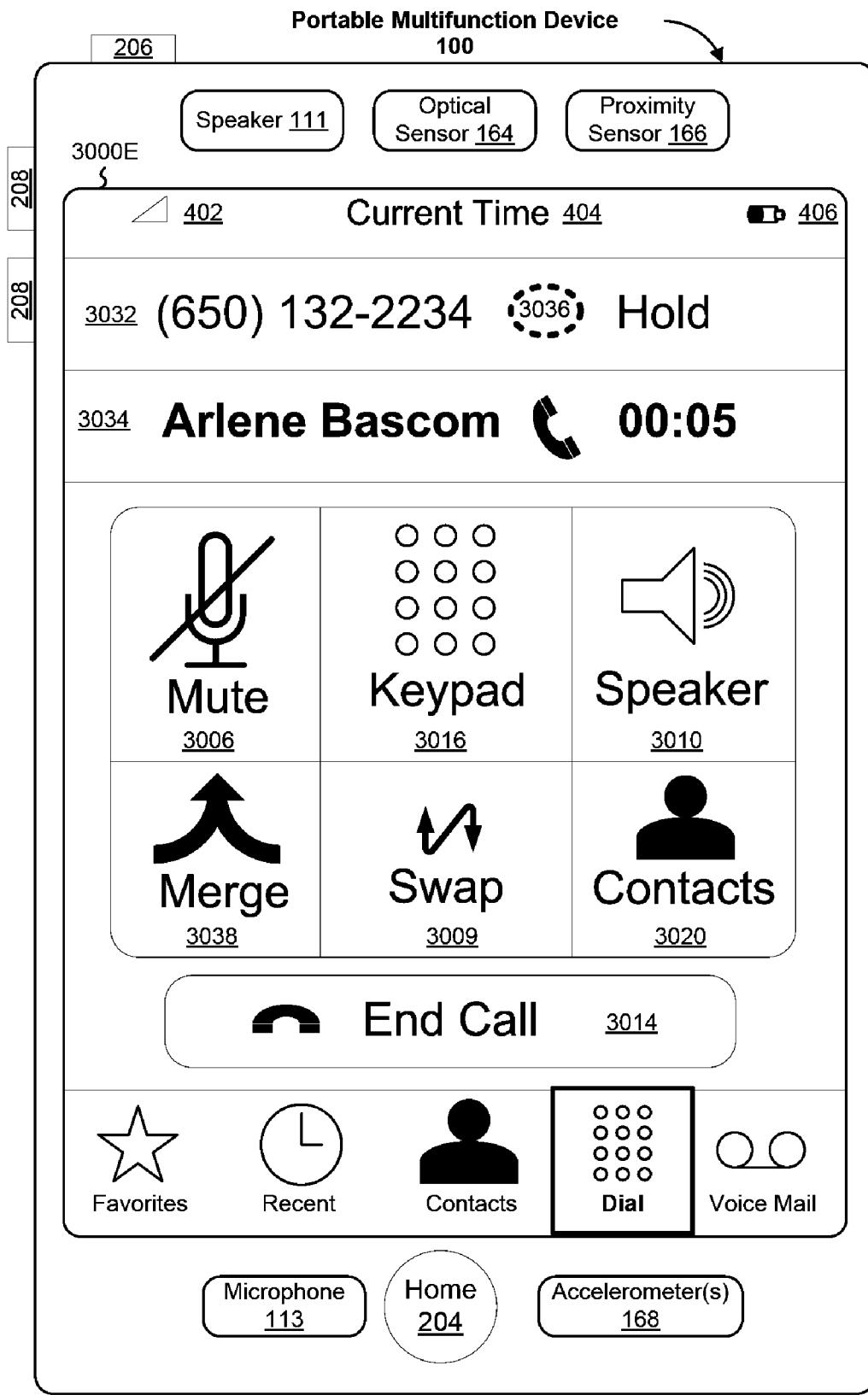


Figure 30E

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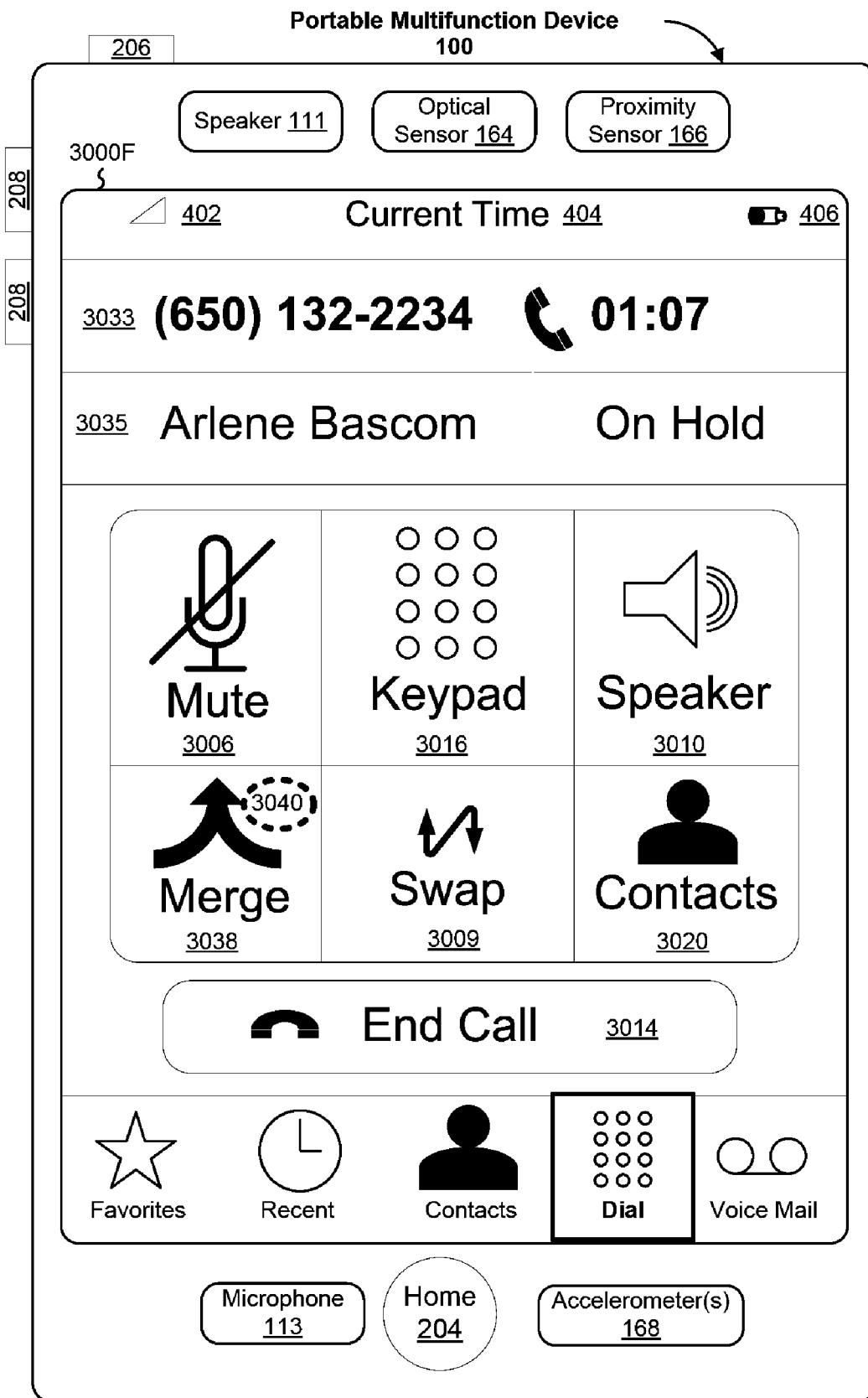


Figure 30F

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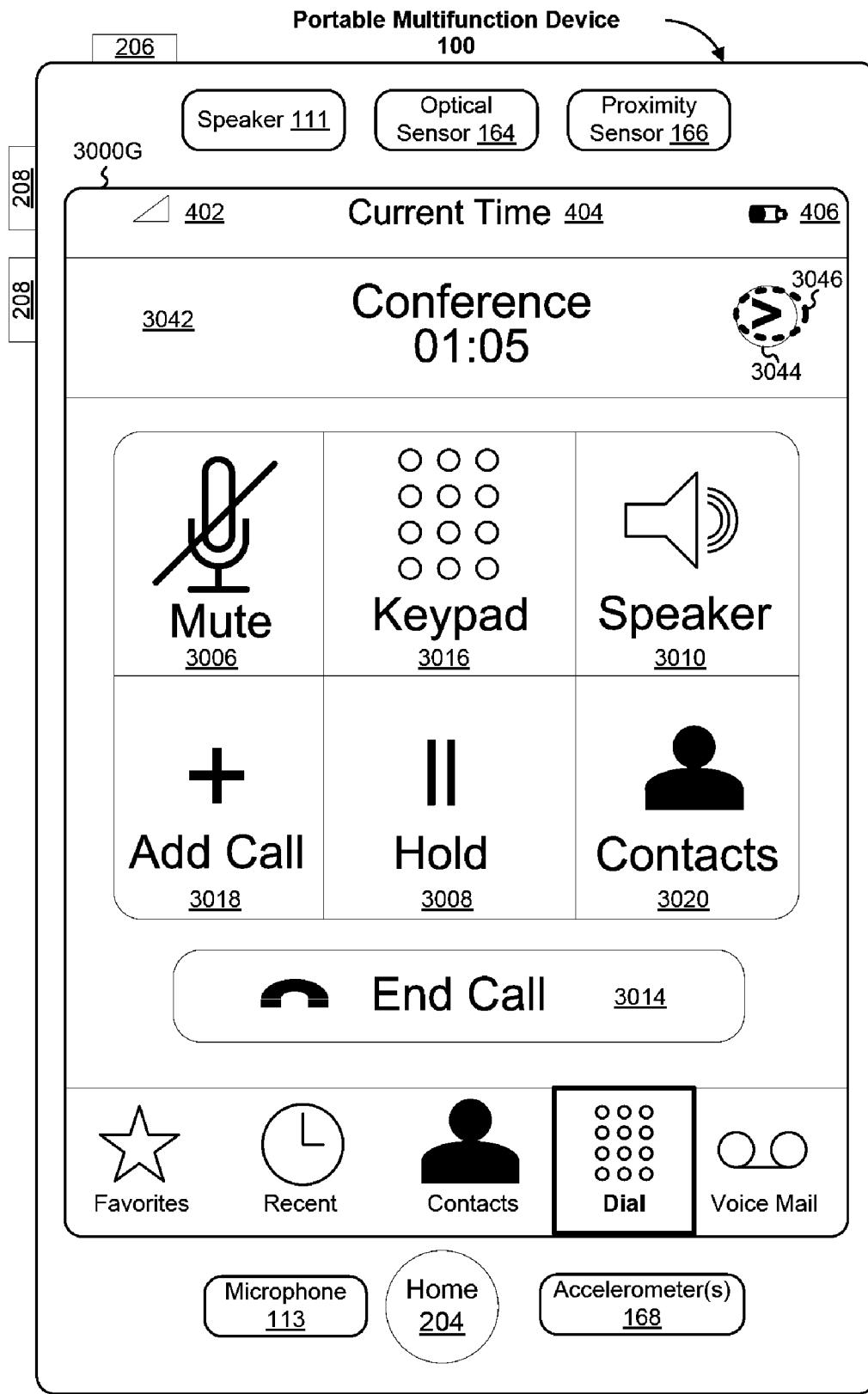


Figure 30G

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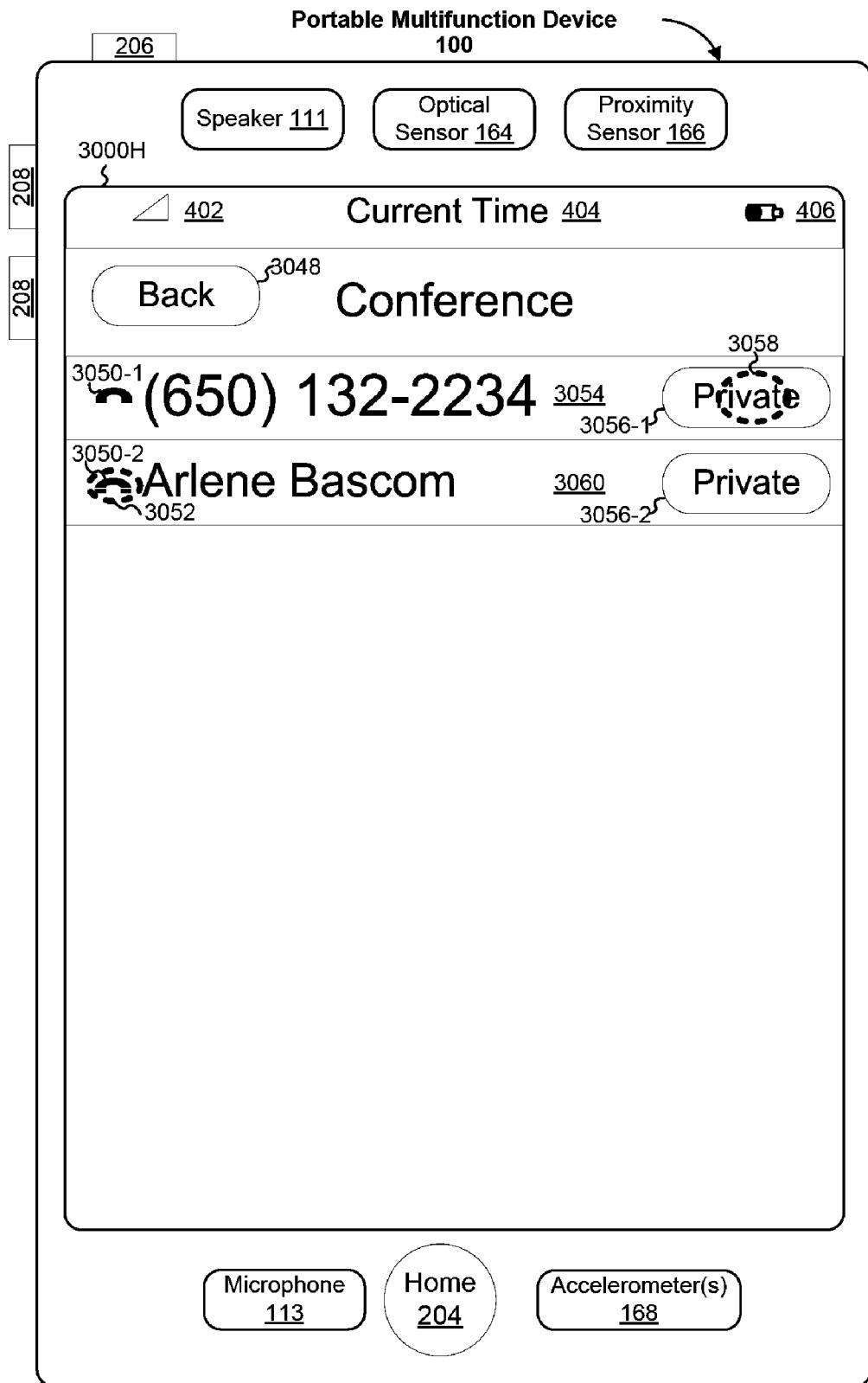


Figure 30H

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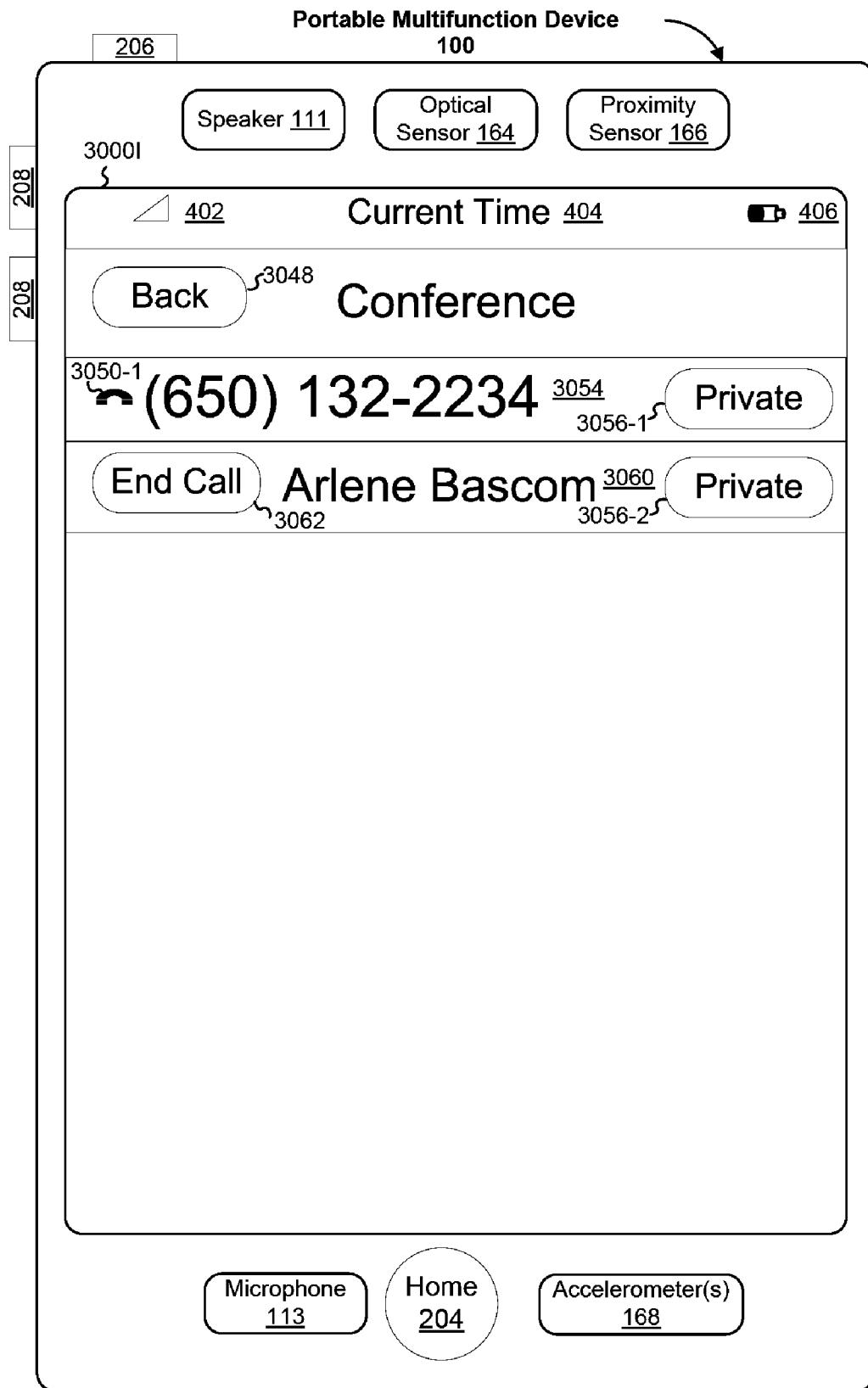


Figure 30I

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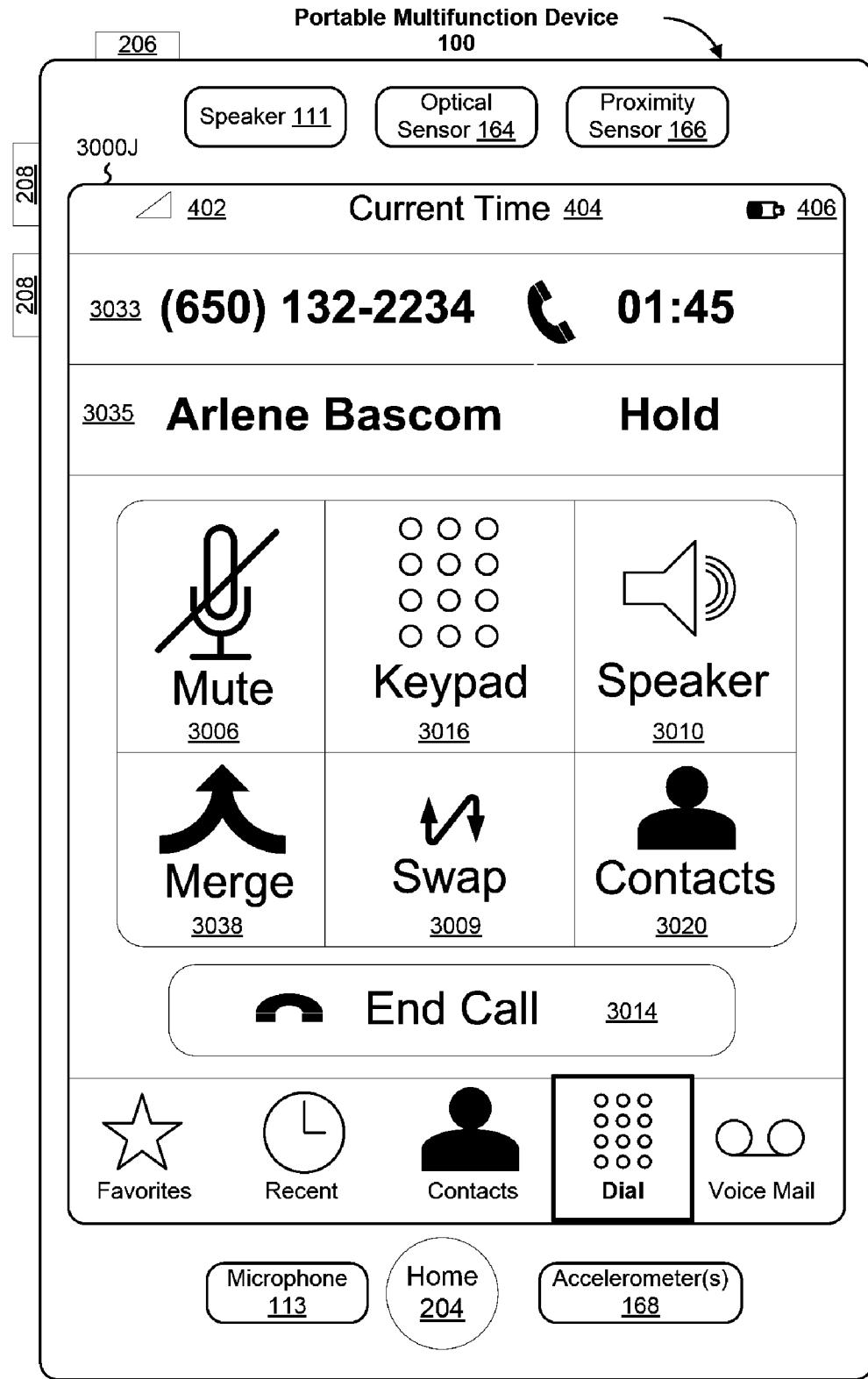


Figure 30J

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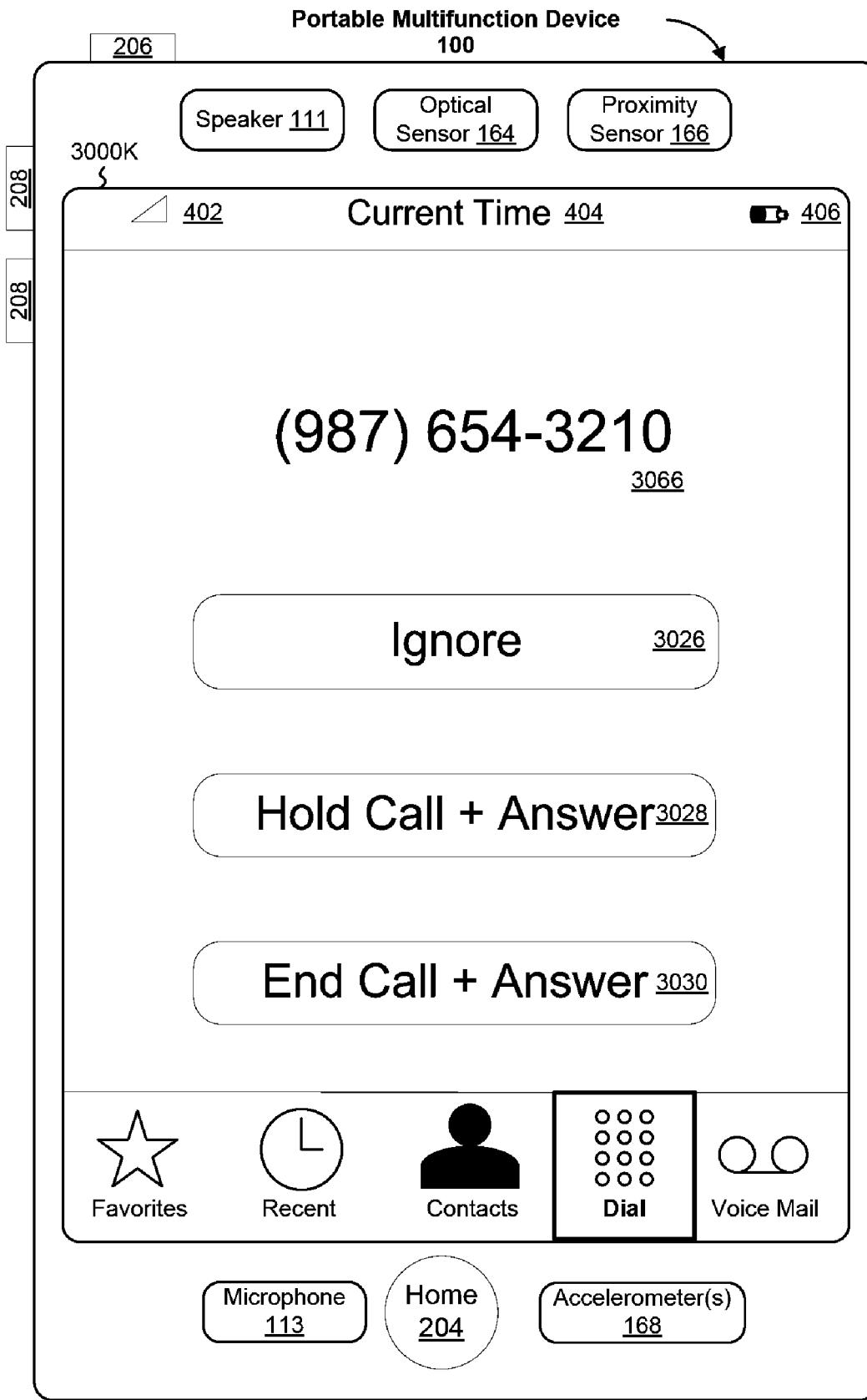


Figure 30K

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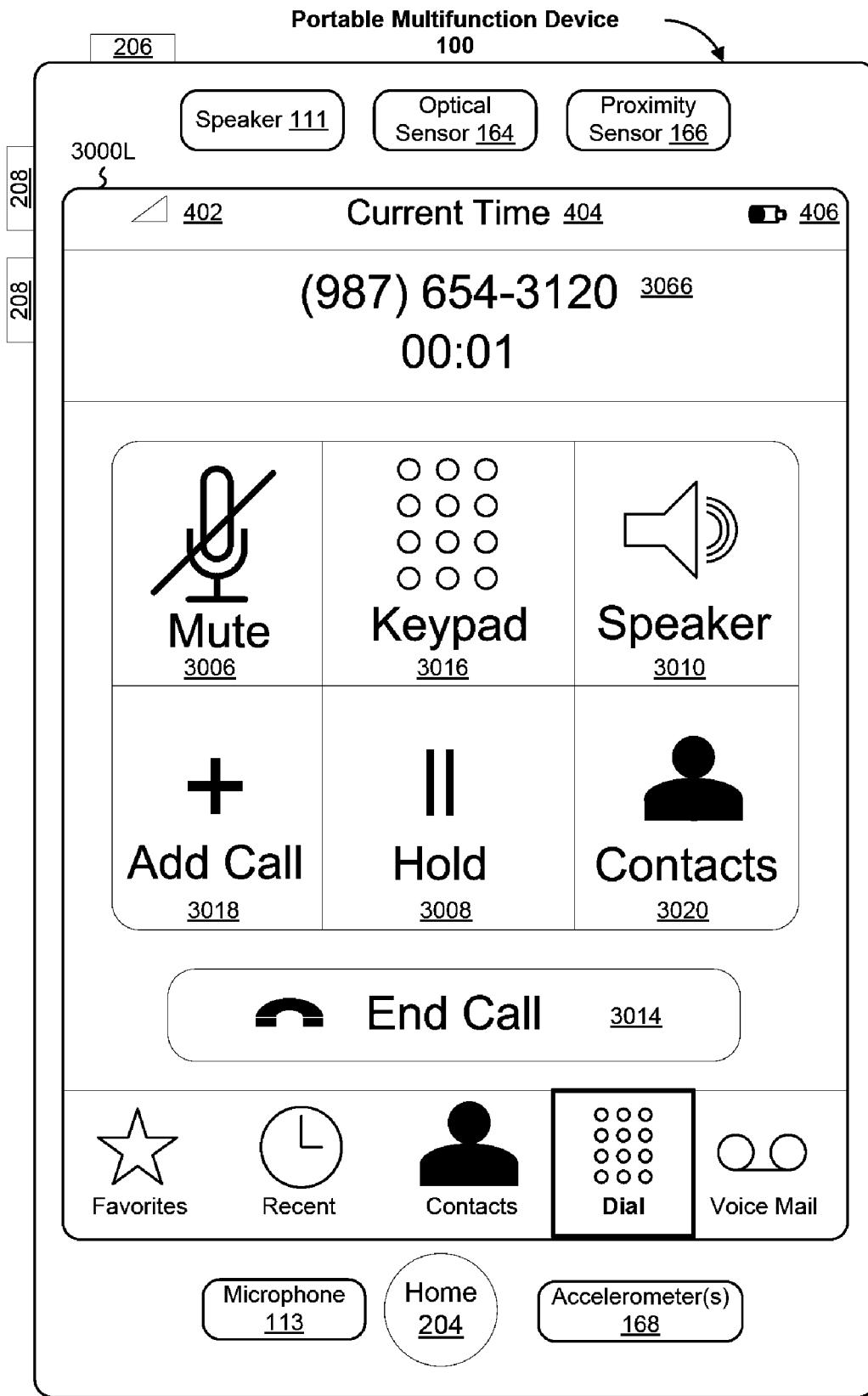


Figure 30L

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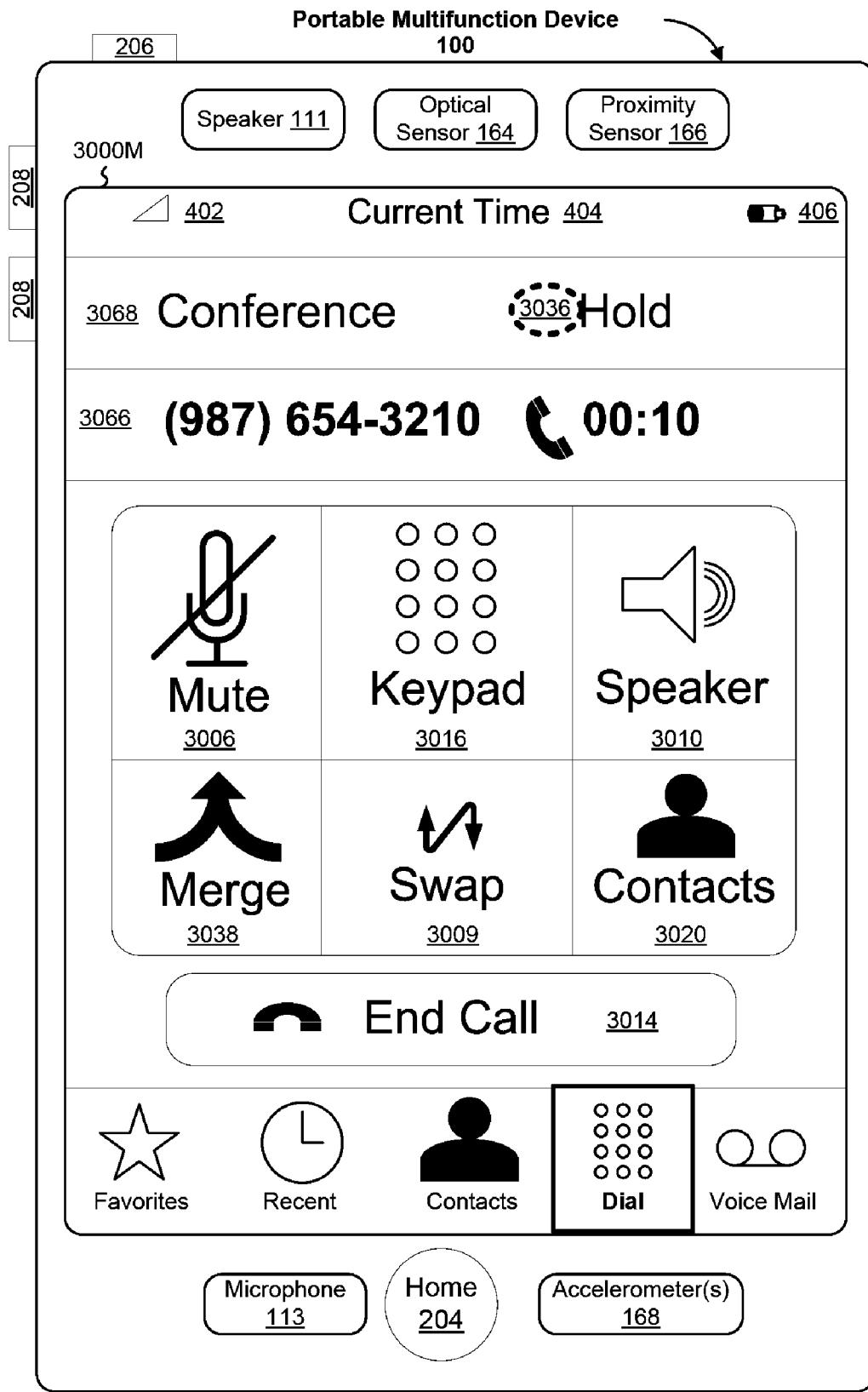


Figure 30M

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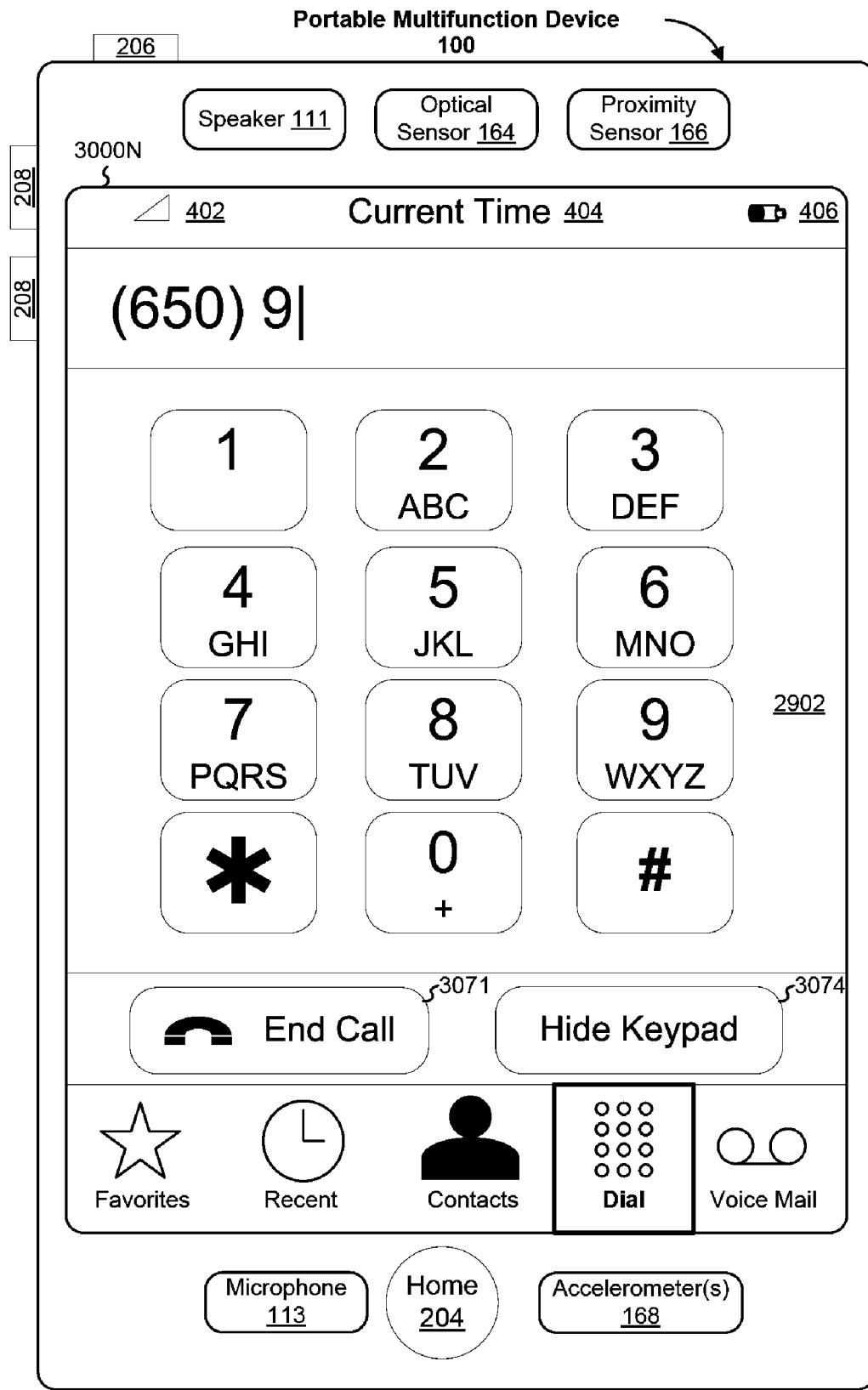


Figure 30N

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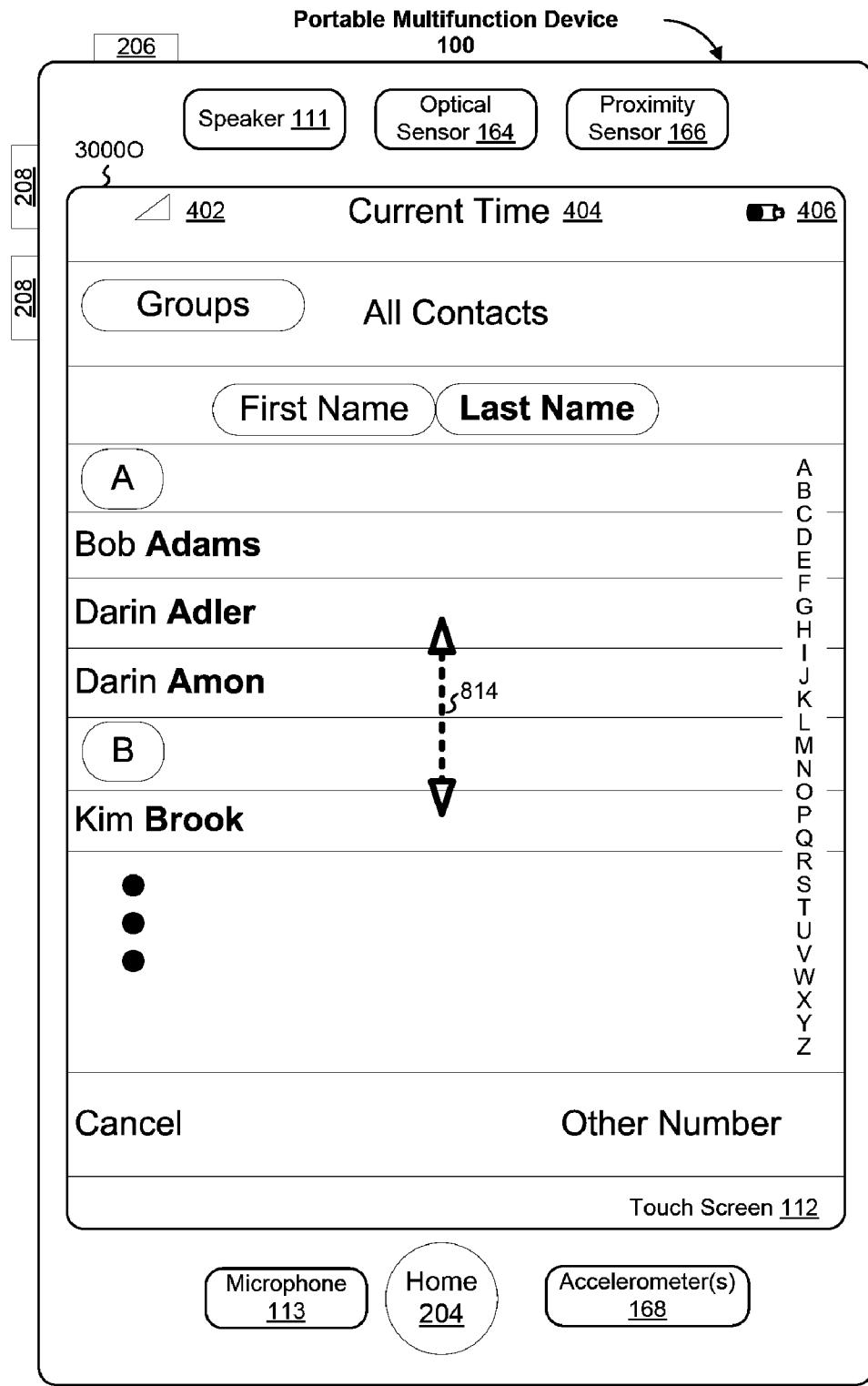


Figure 300

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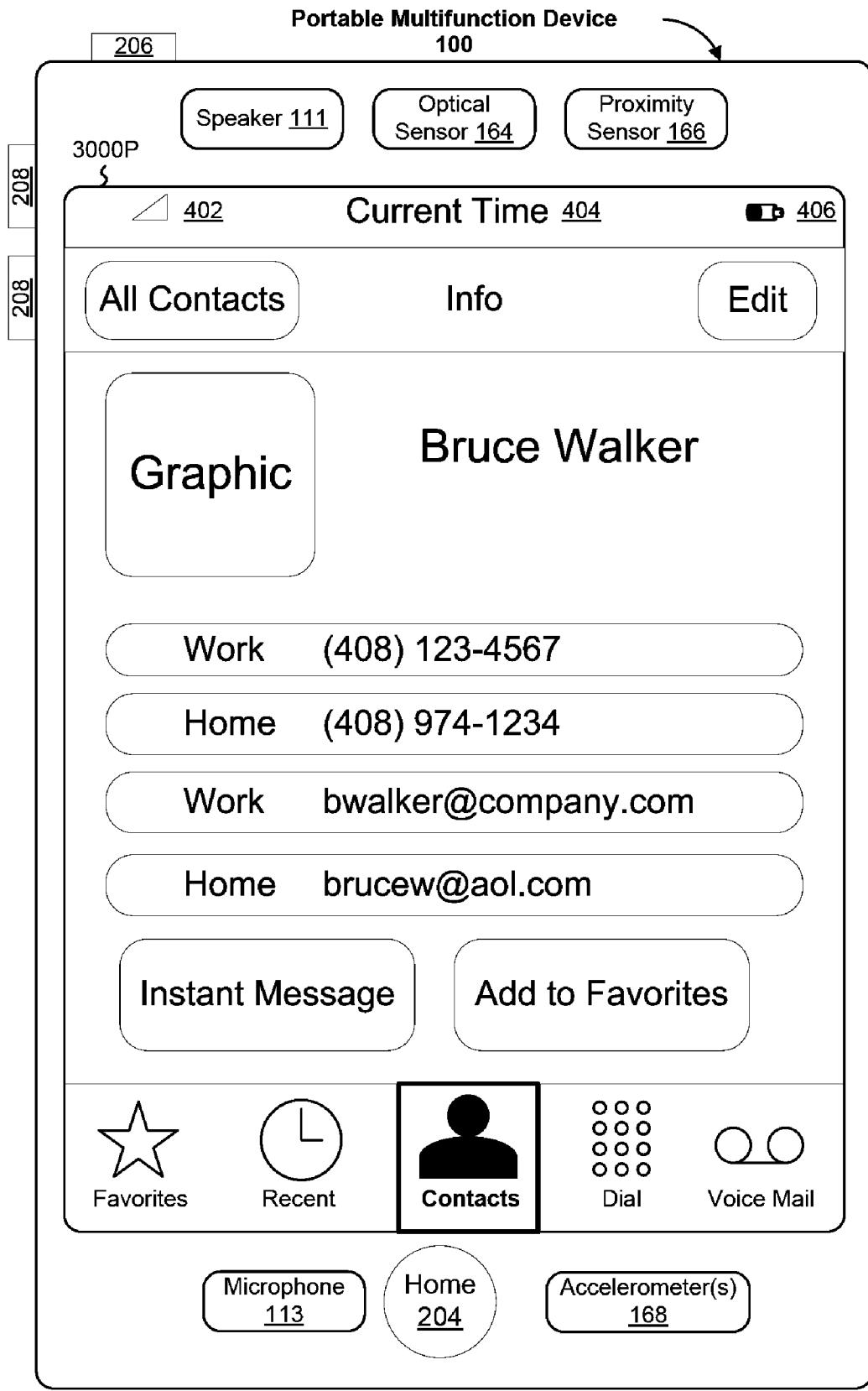


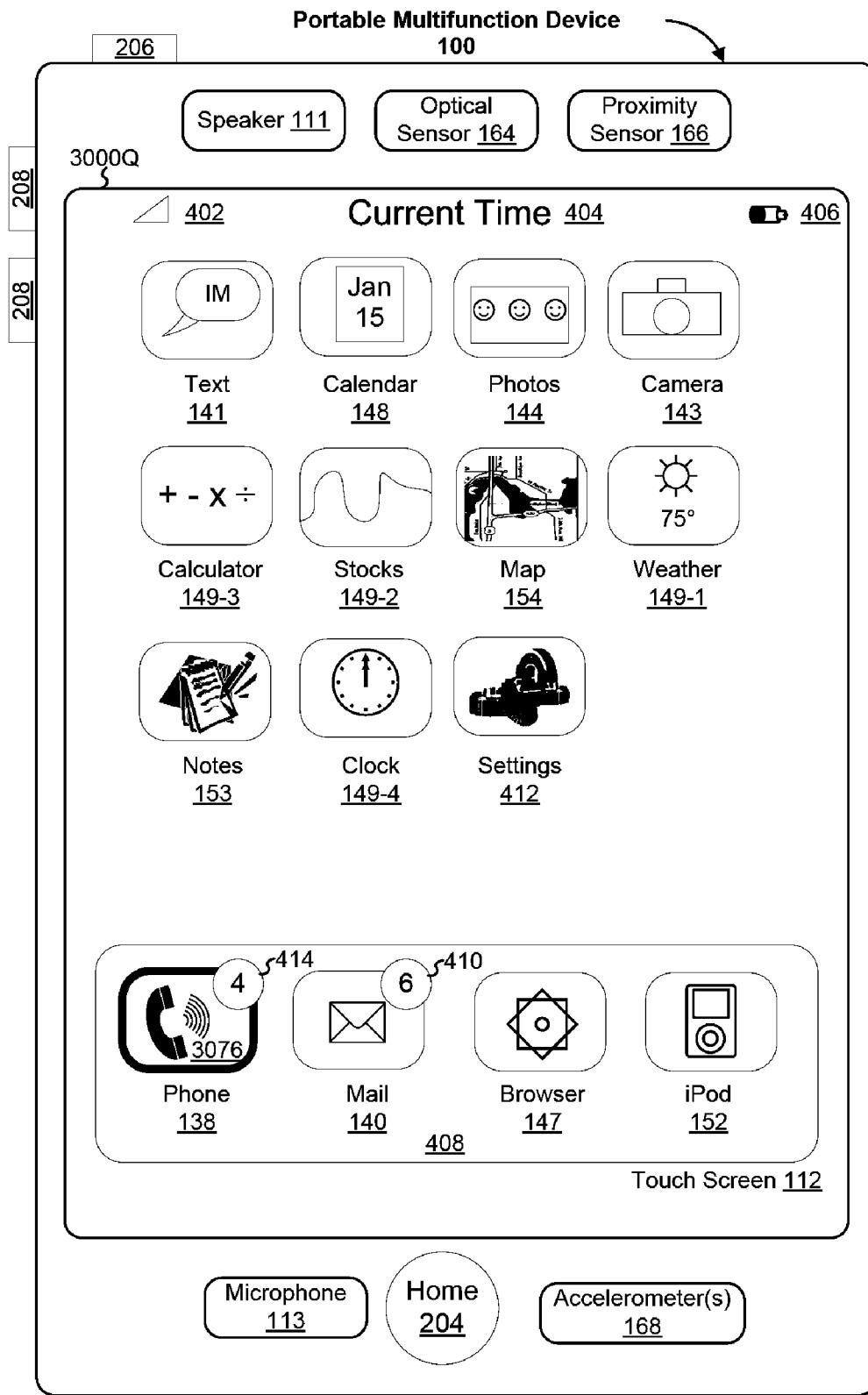
Figure 30P

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**Figure 30Q**

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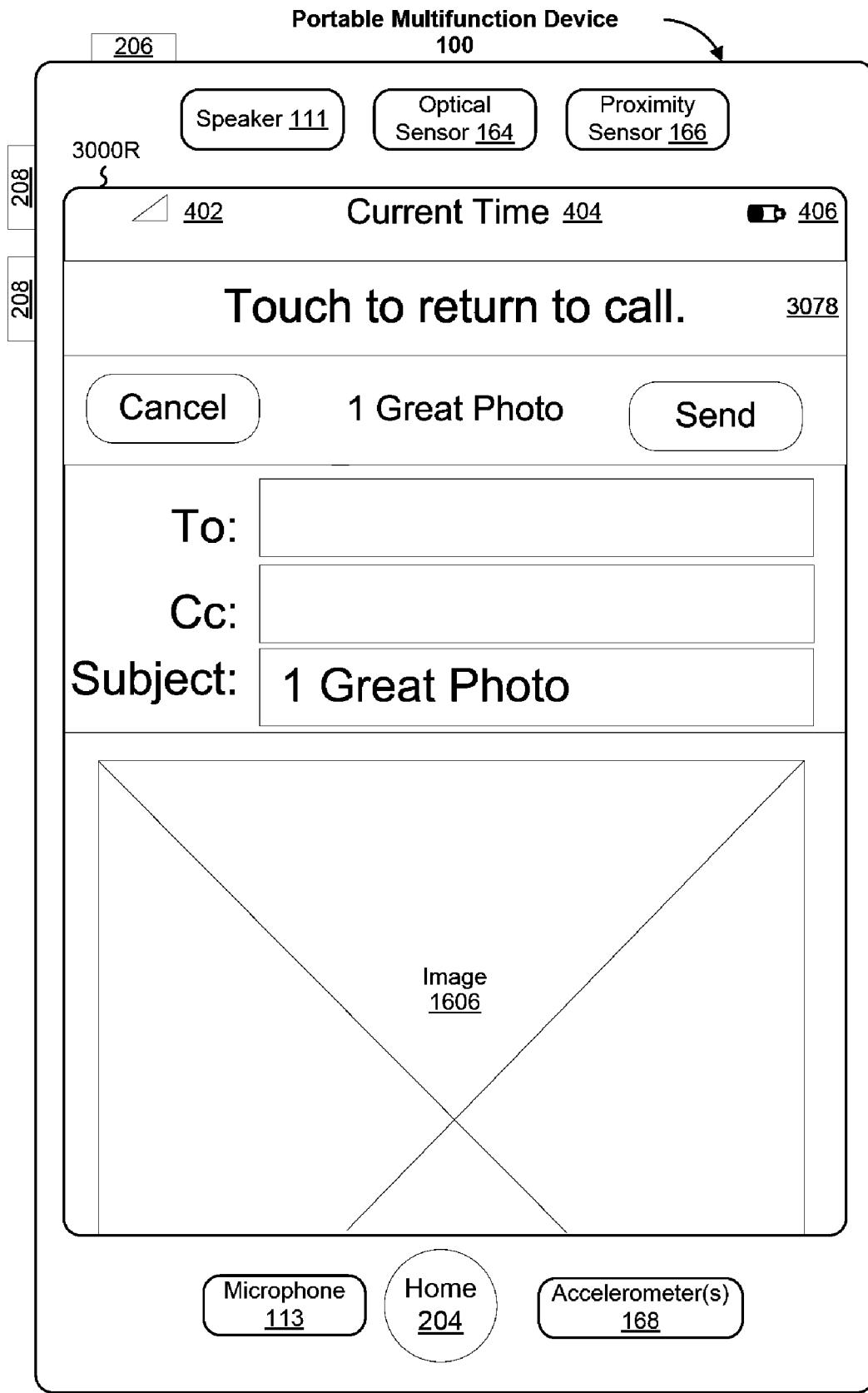


Figure 30R

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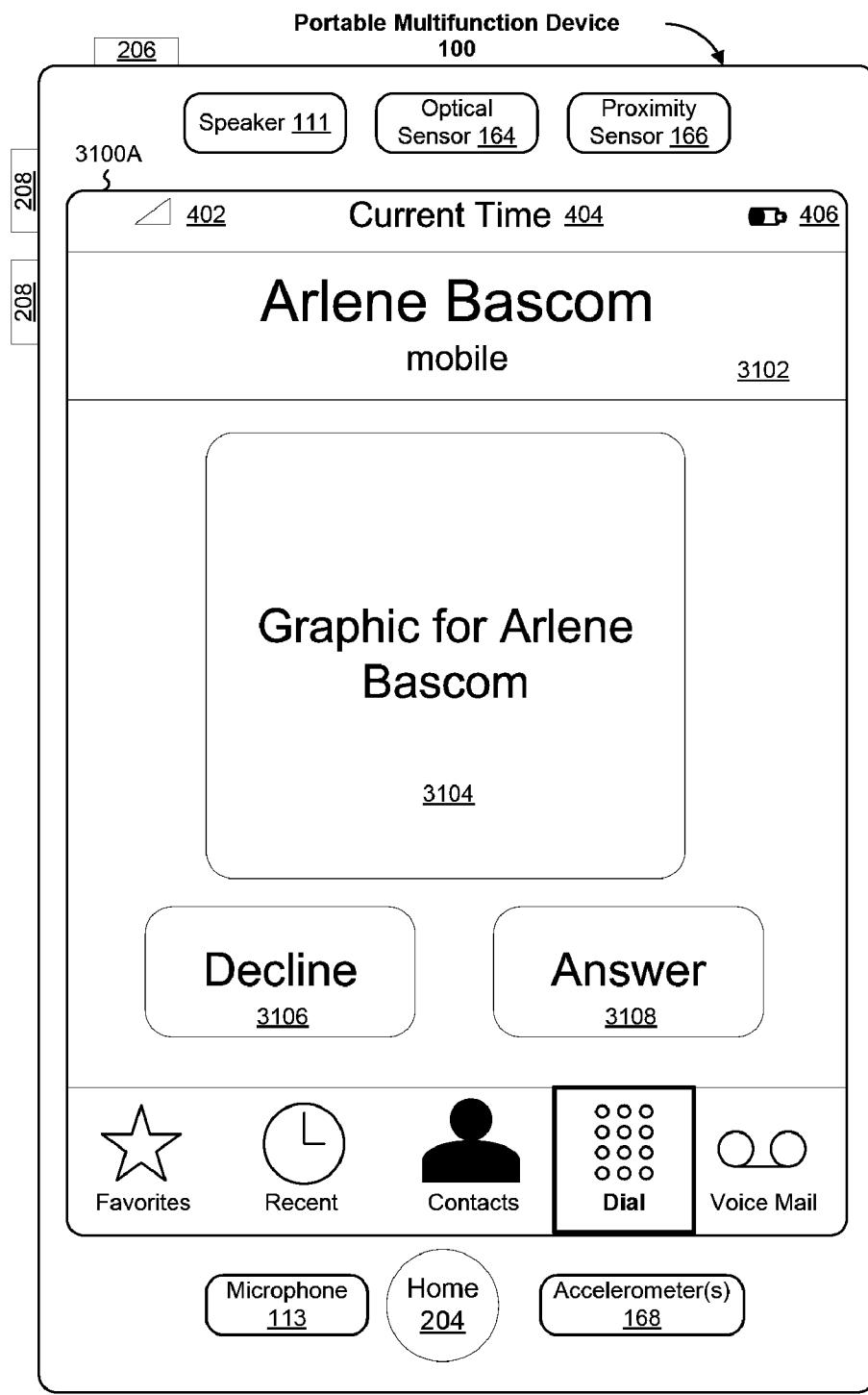


Figure 31A

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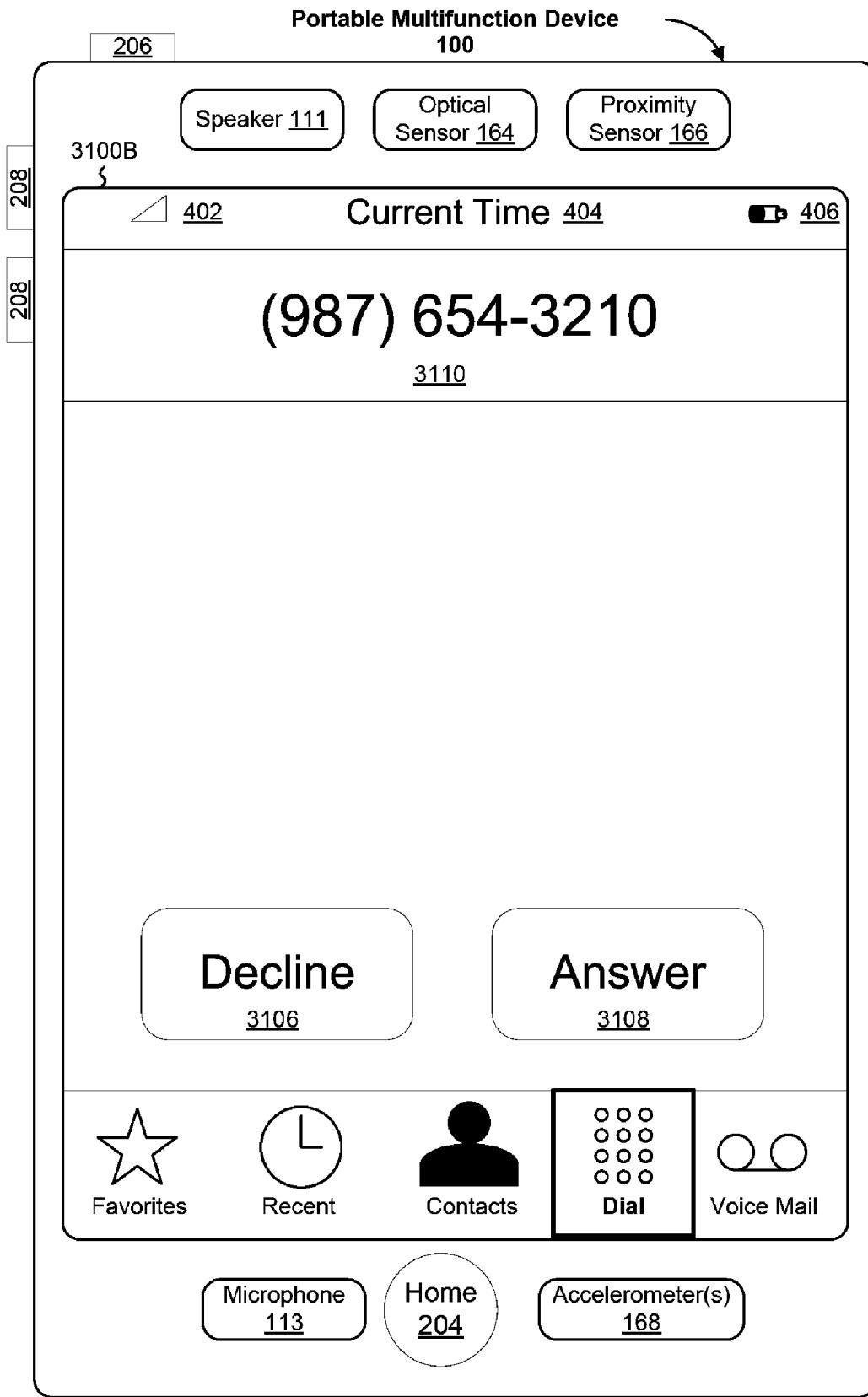


Figure 31B

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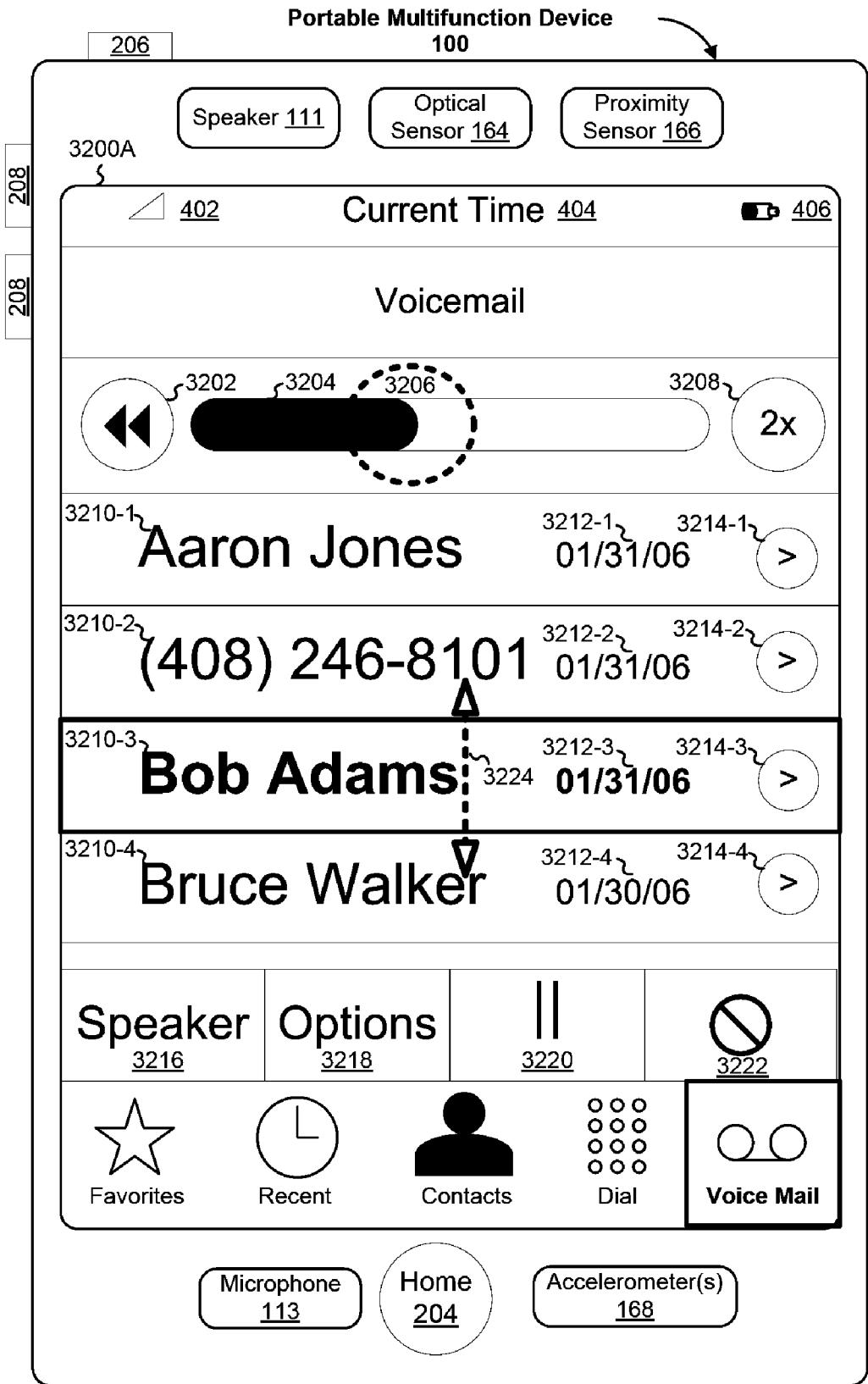


Figure 32A

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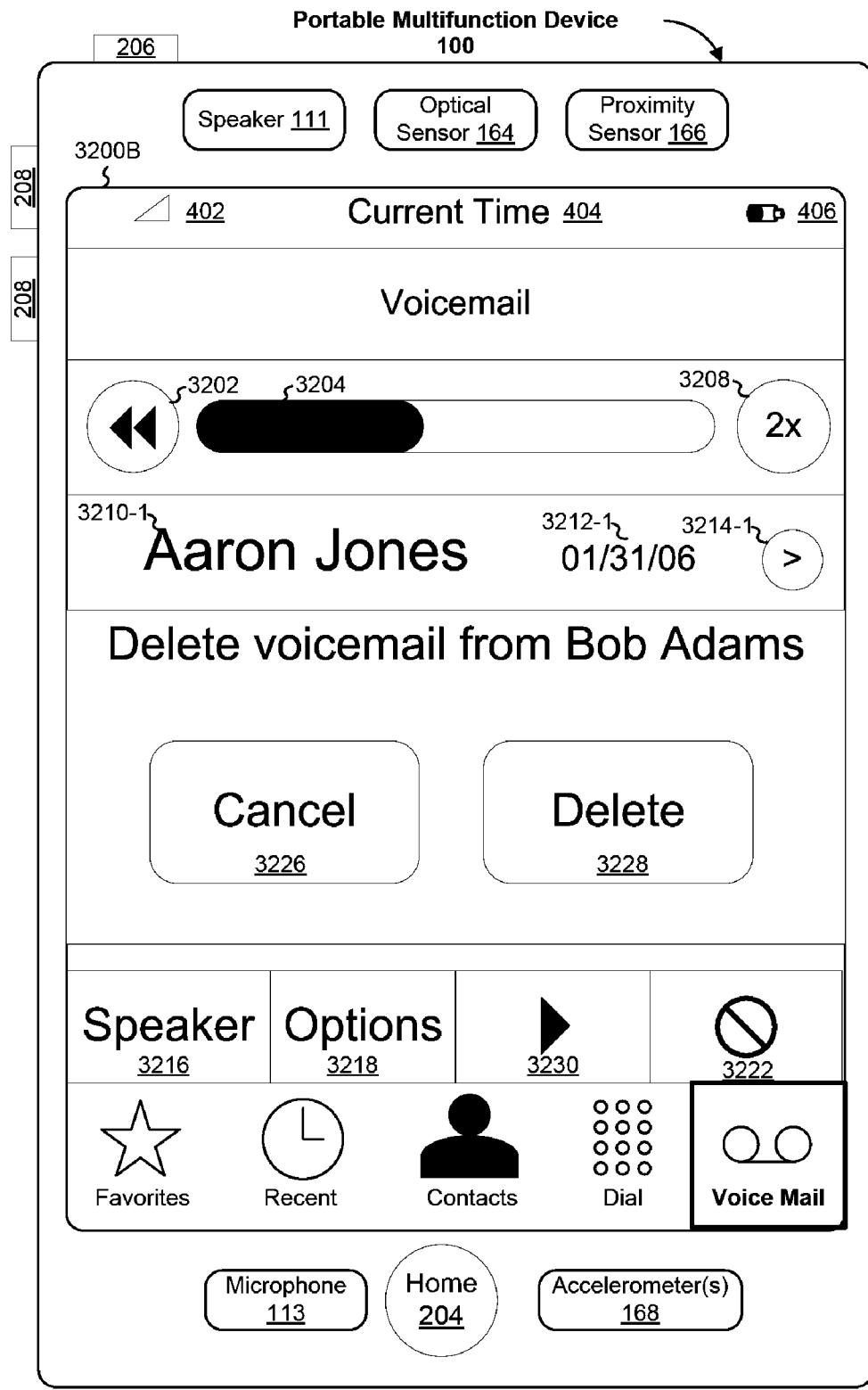


Figure 32B

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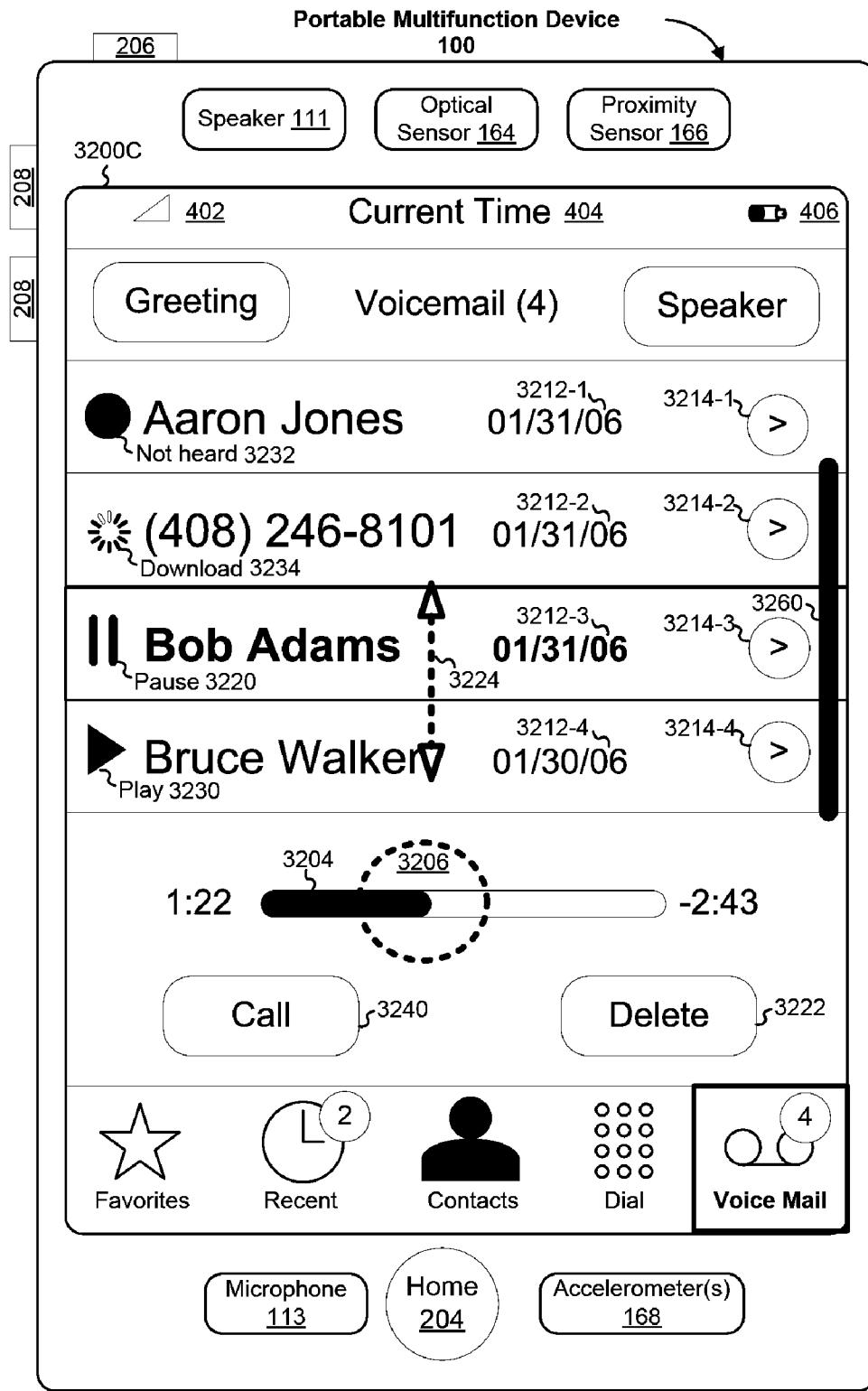


Figure 32C

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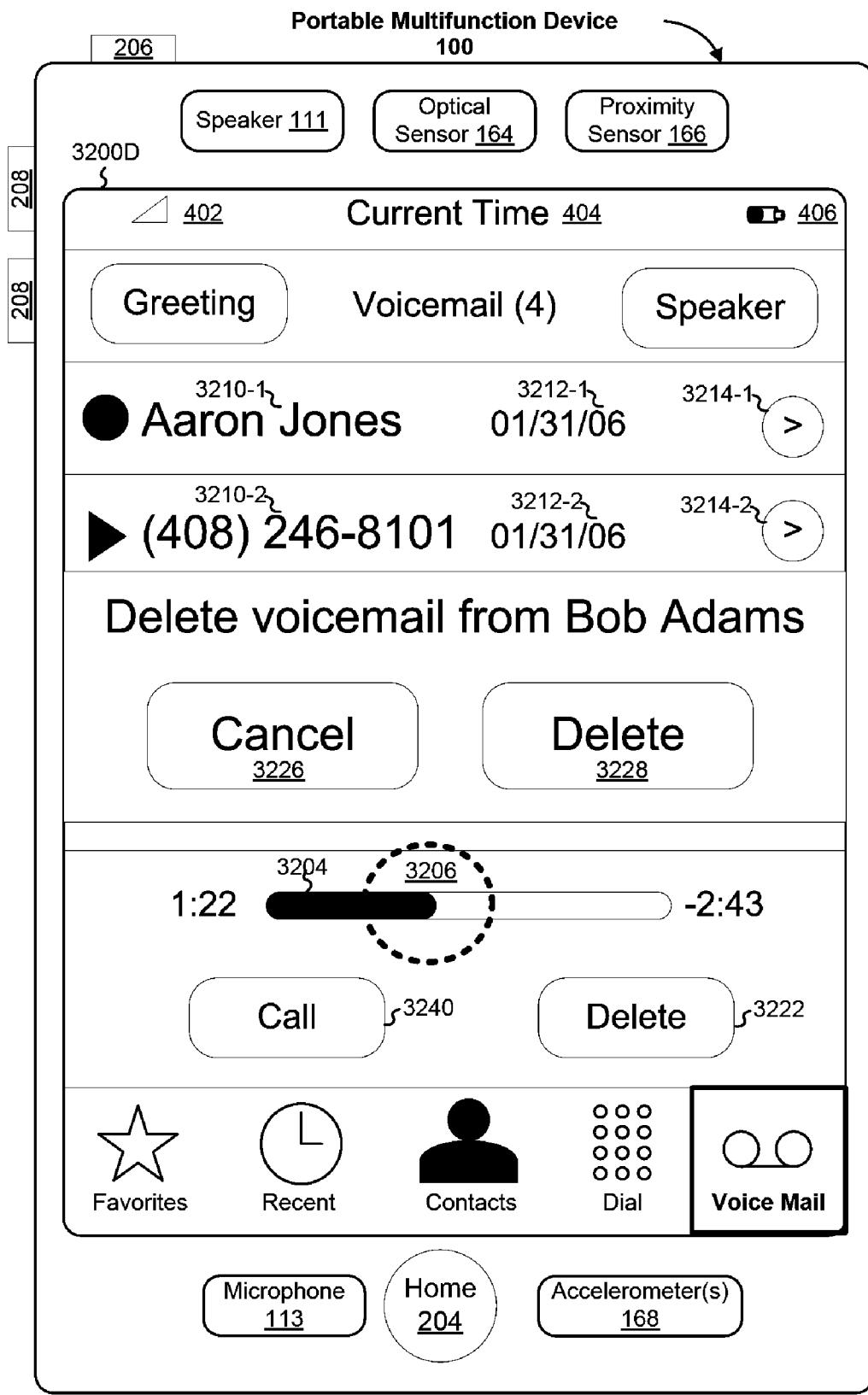


Figure 32D

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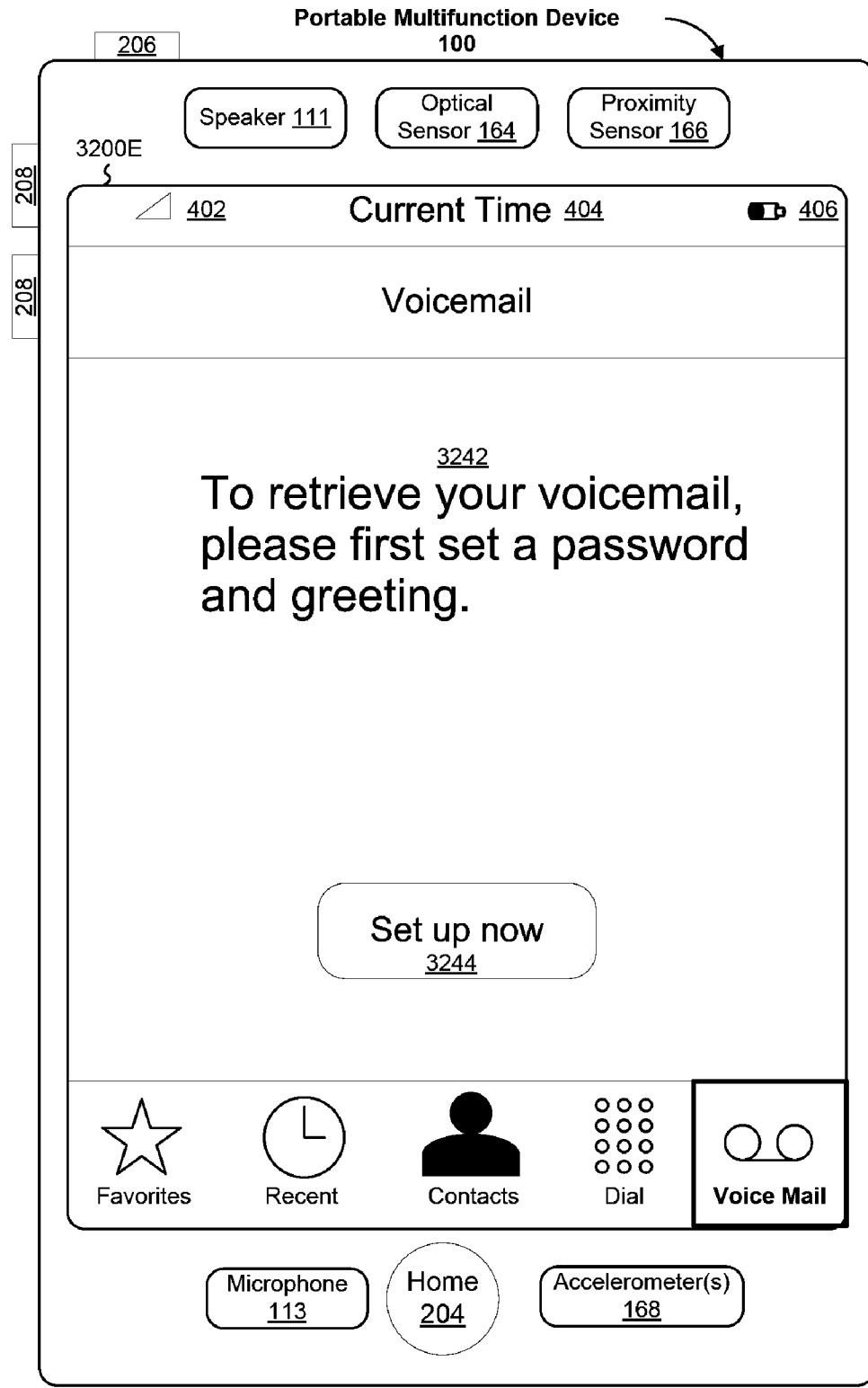


Figure 32E

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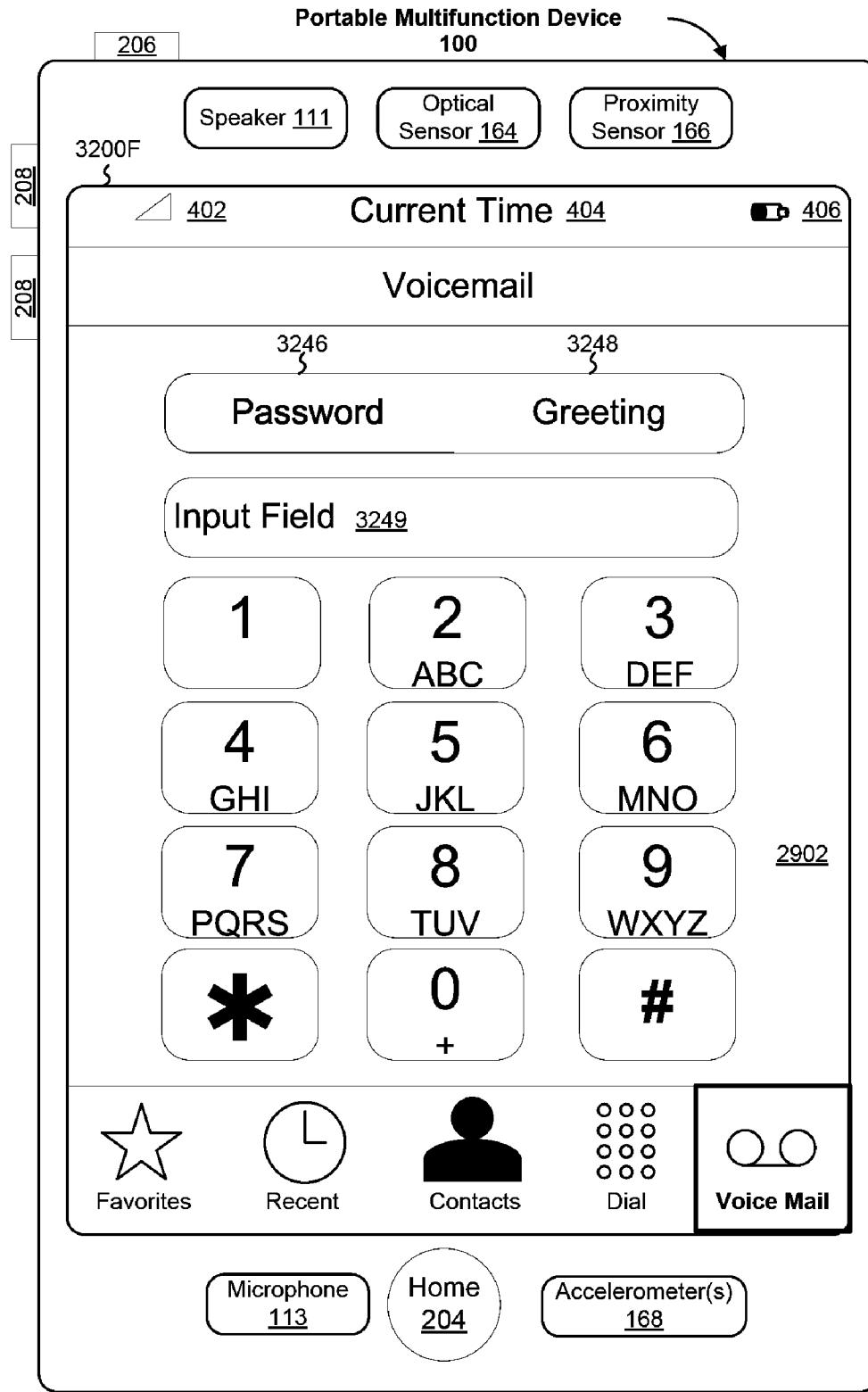


Figure 32F

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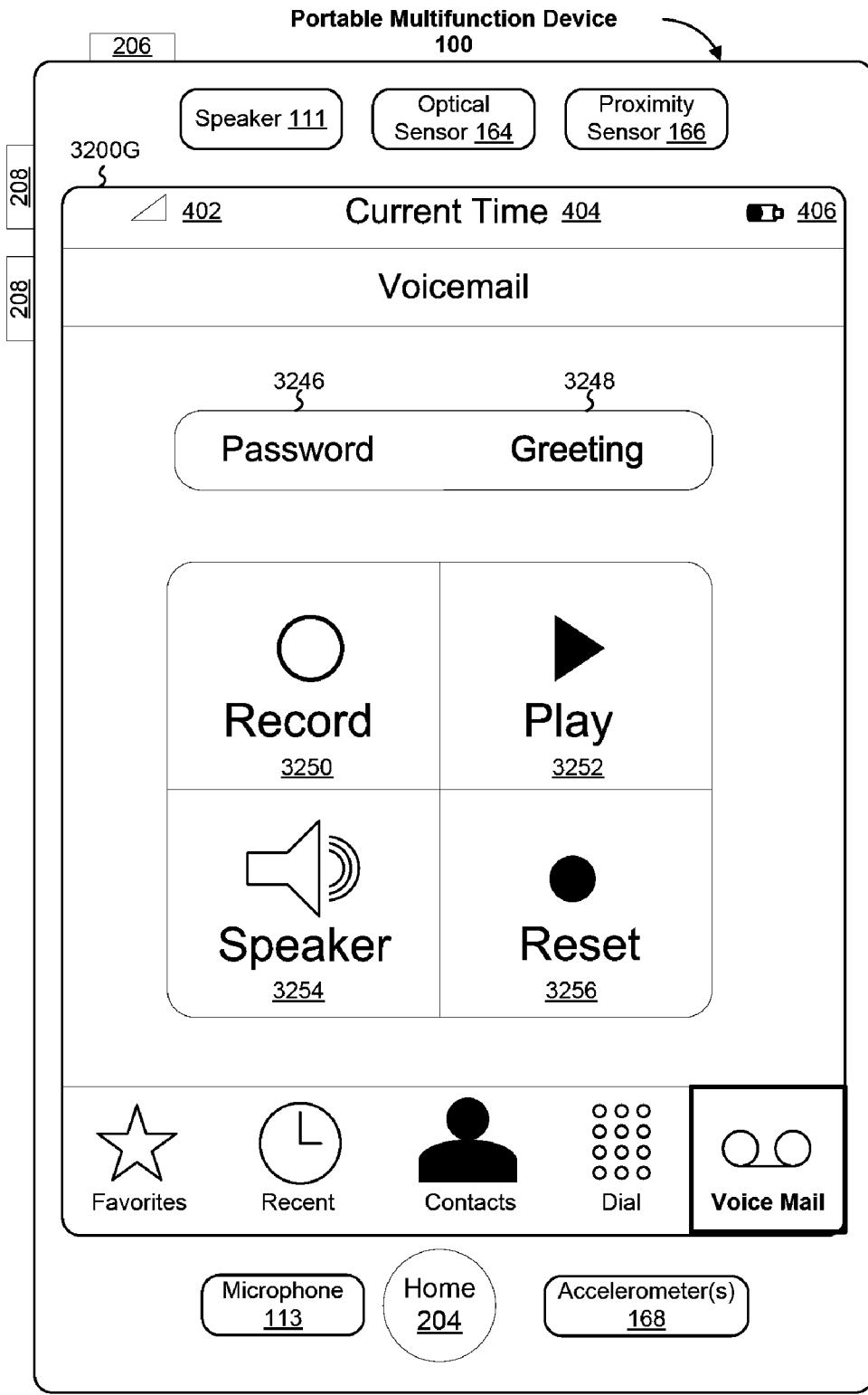


Figure 32G

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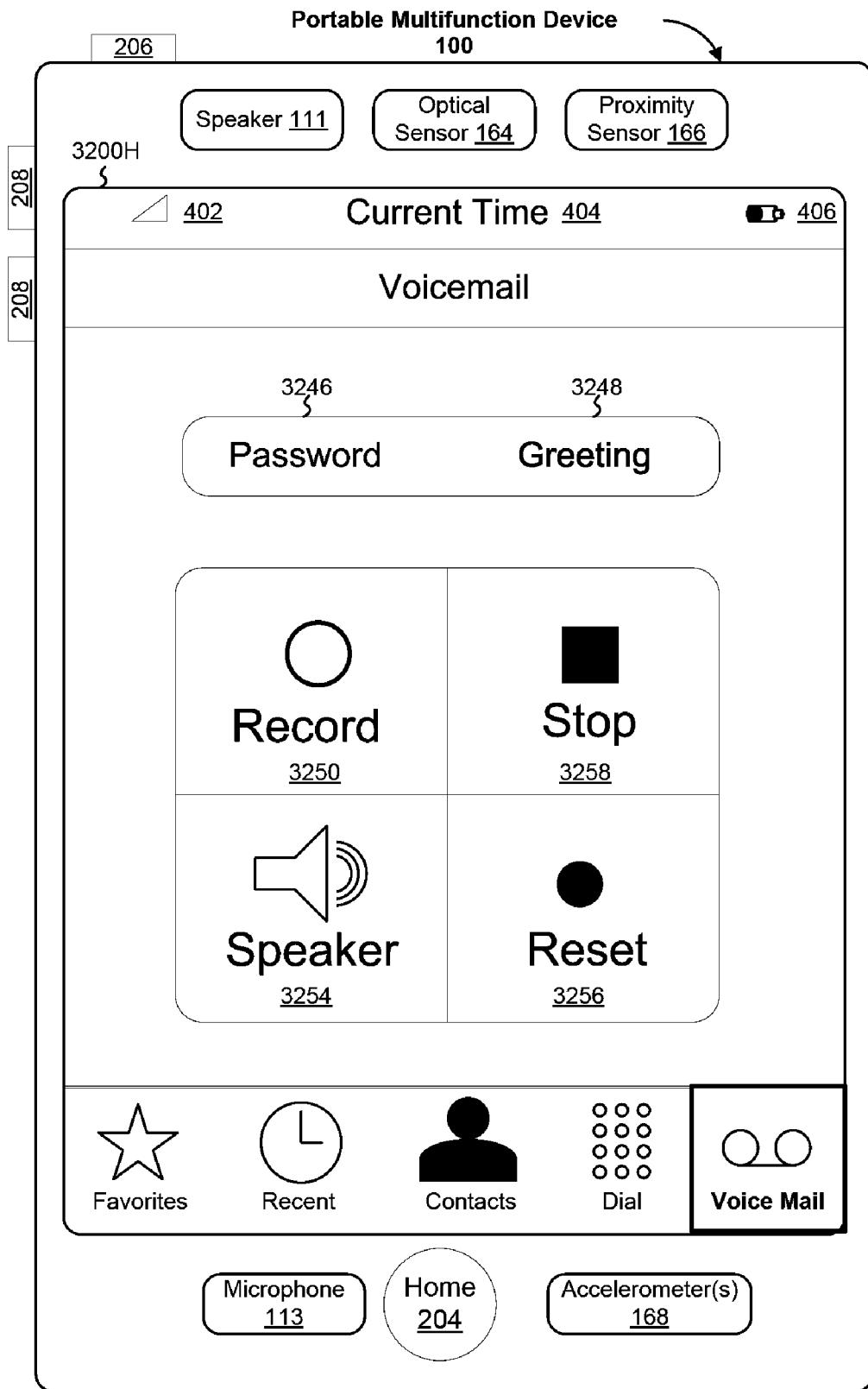


Figure 32H

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Figure 33

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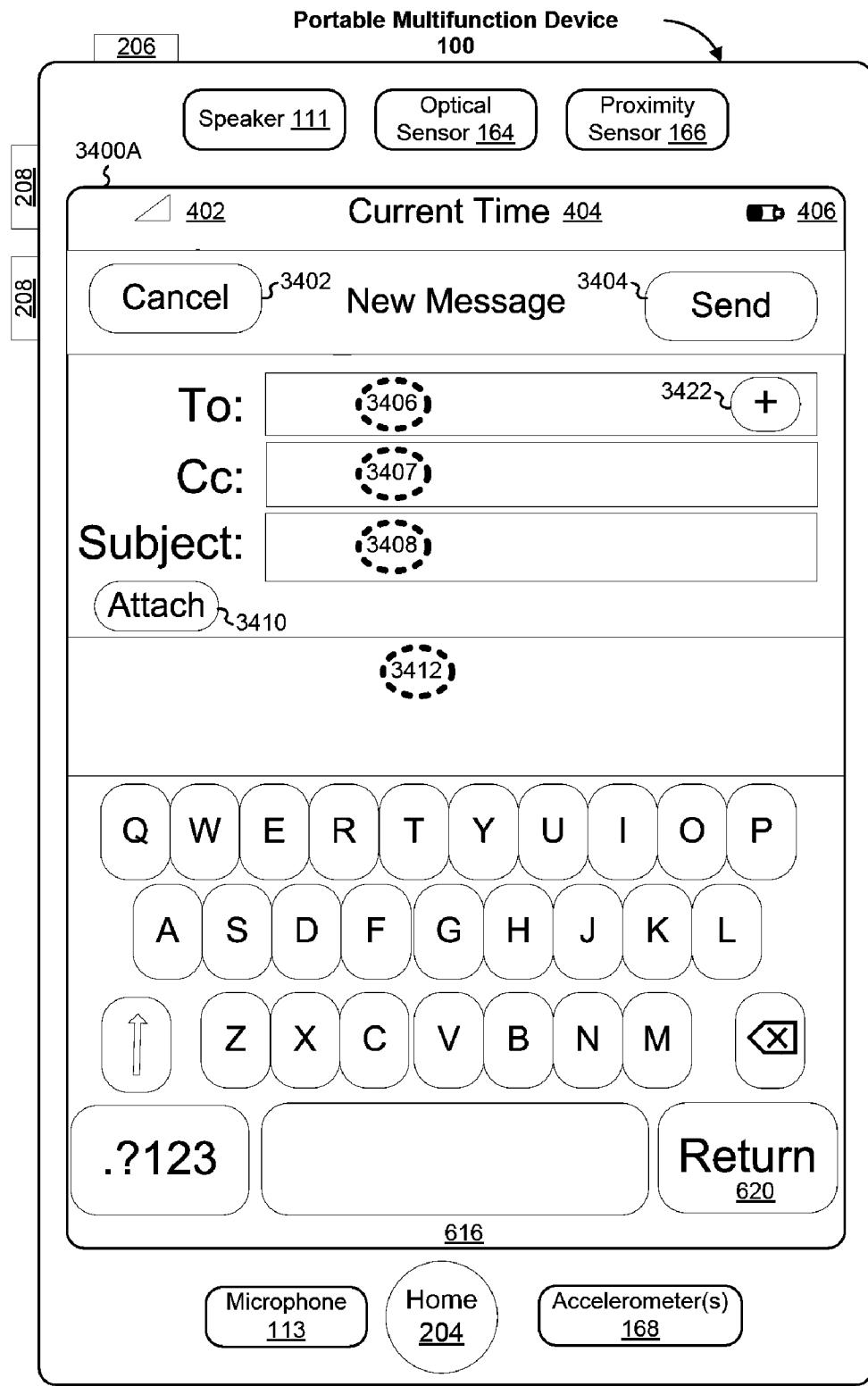


Figure 34A

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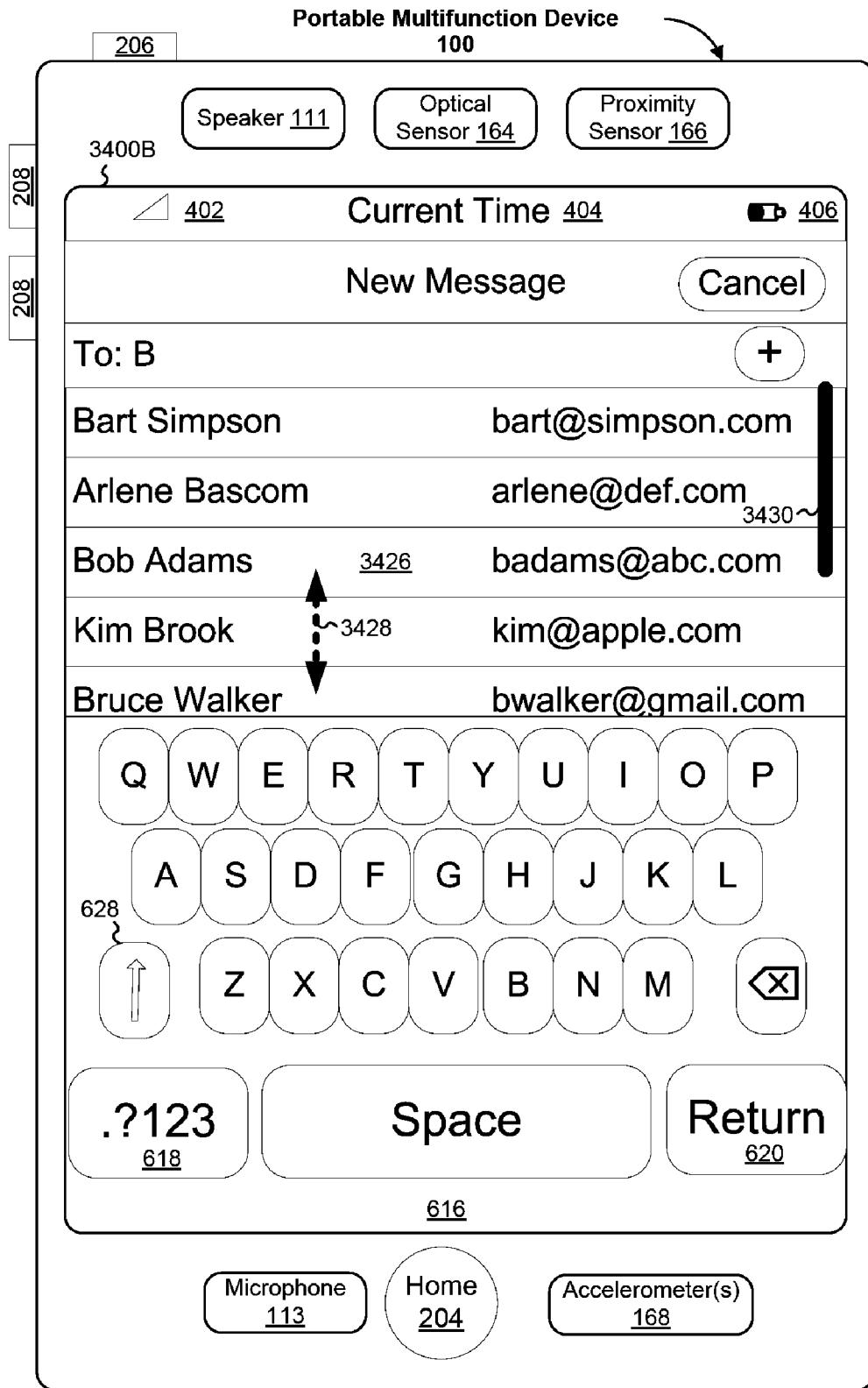


Figure 34B

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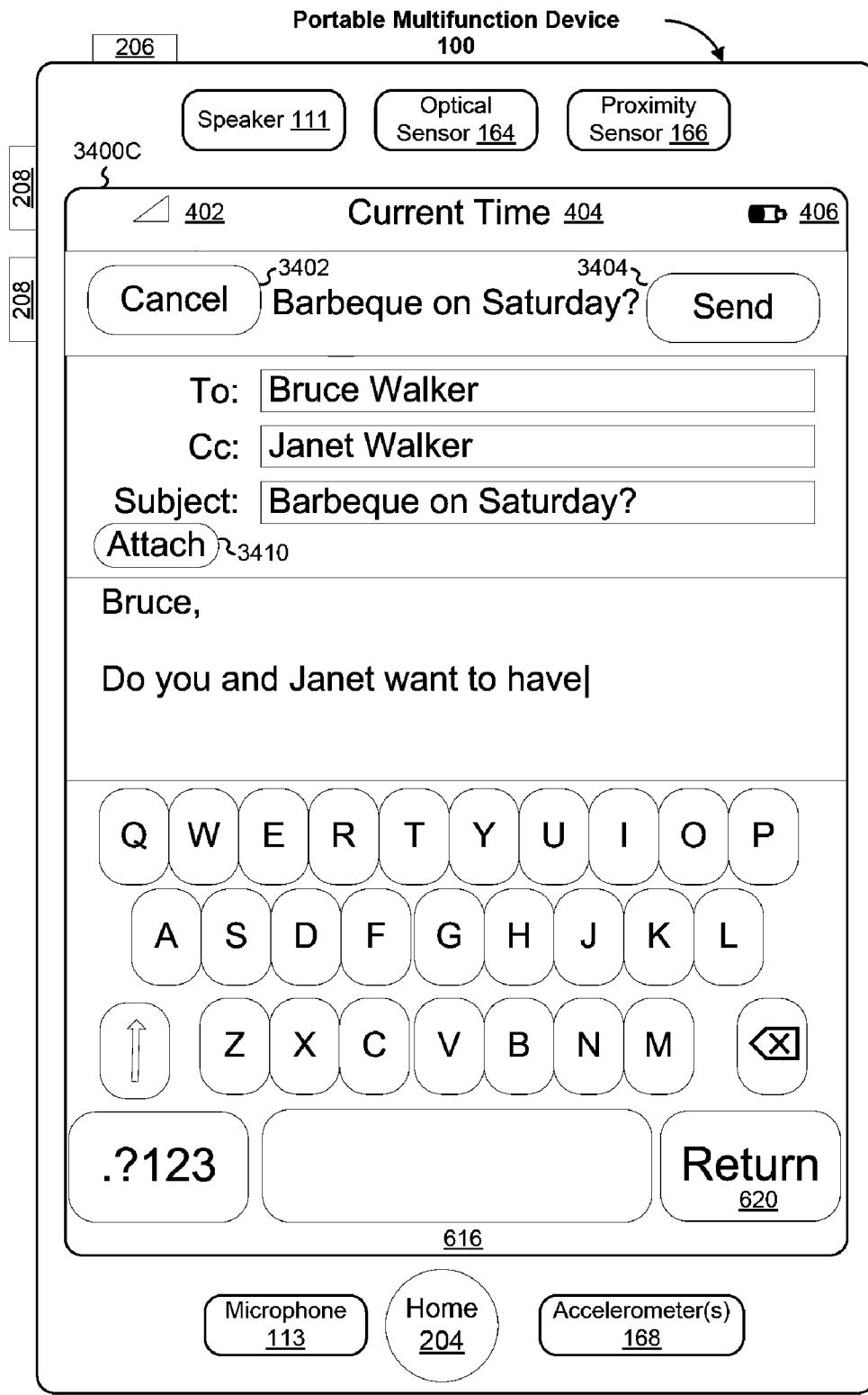


Figure 34C

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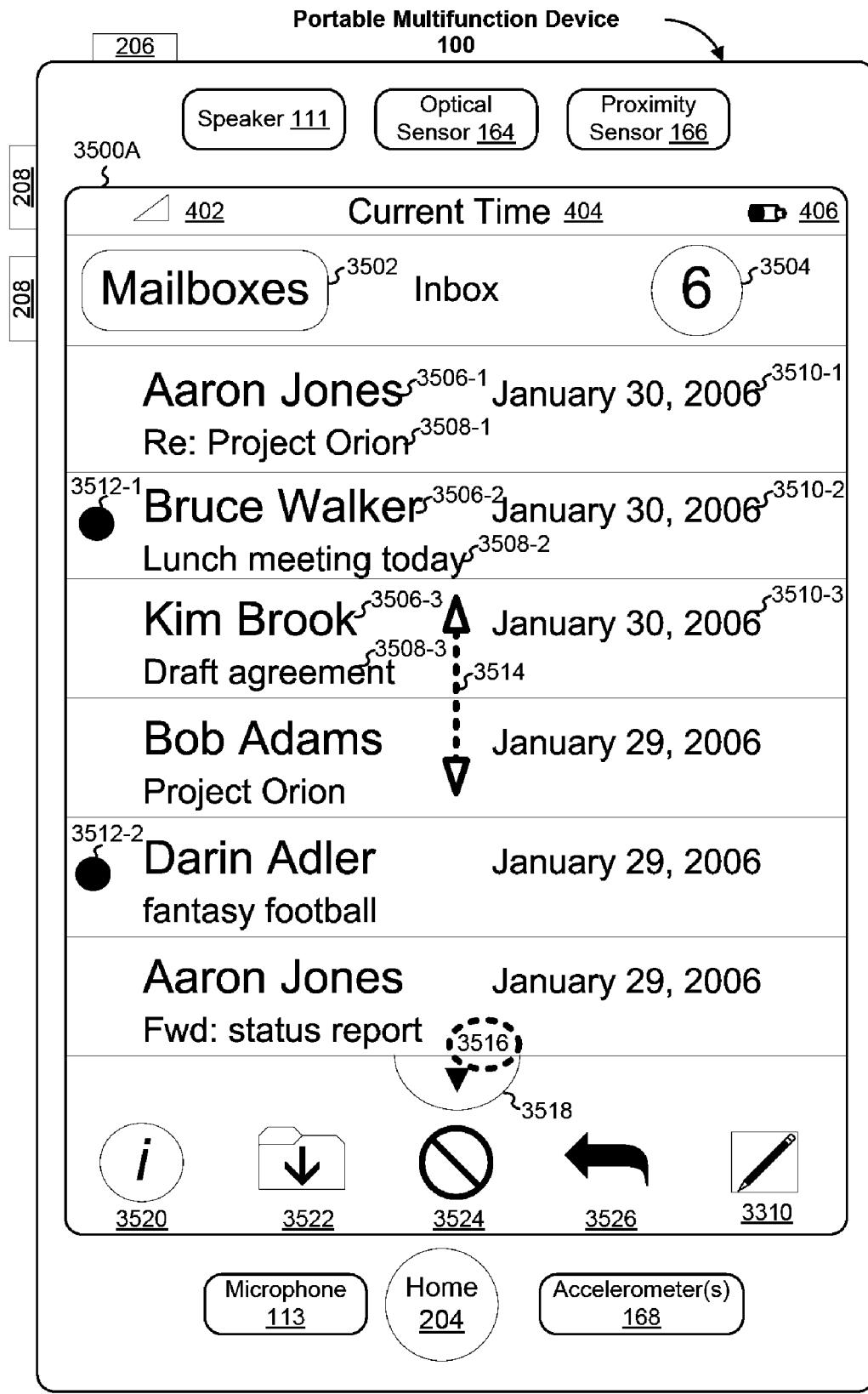


Figure 35A

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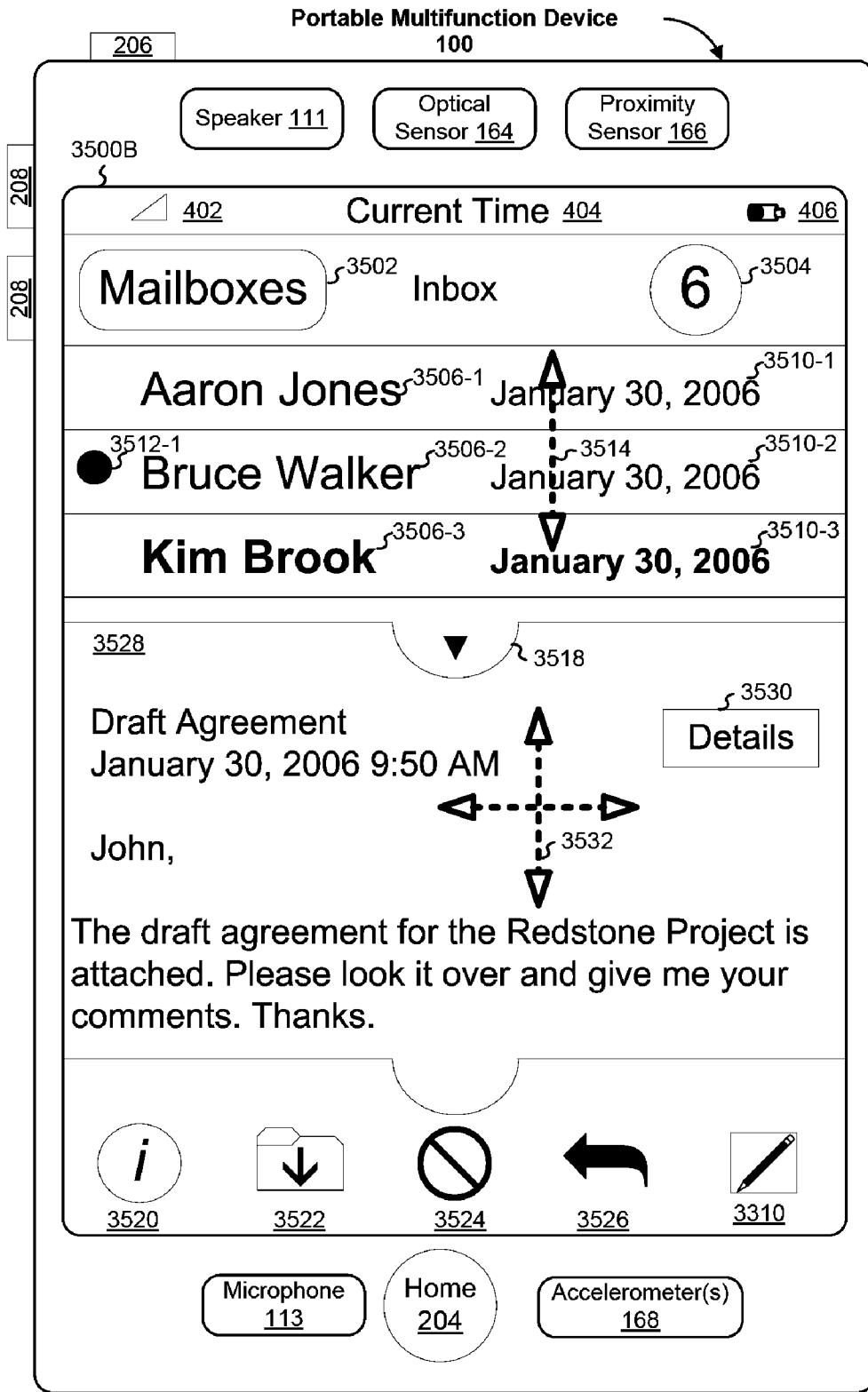


Figure 35B

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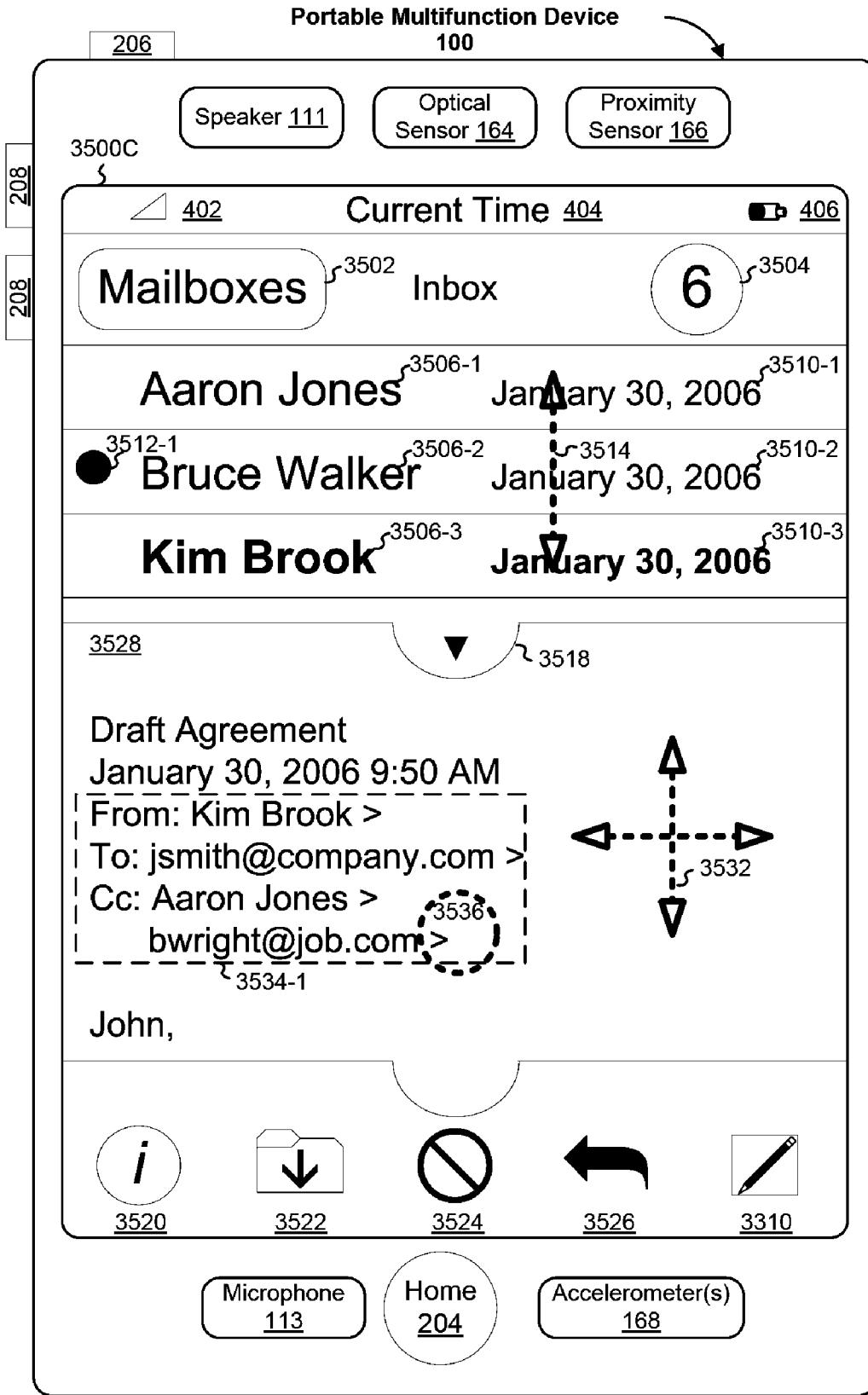


Figure 35C

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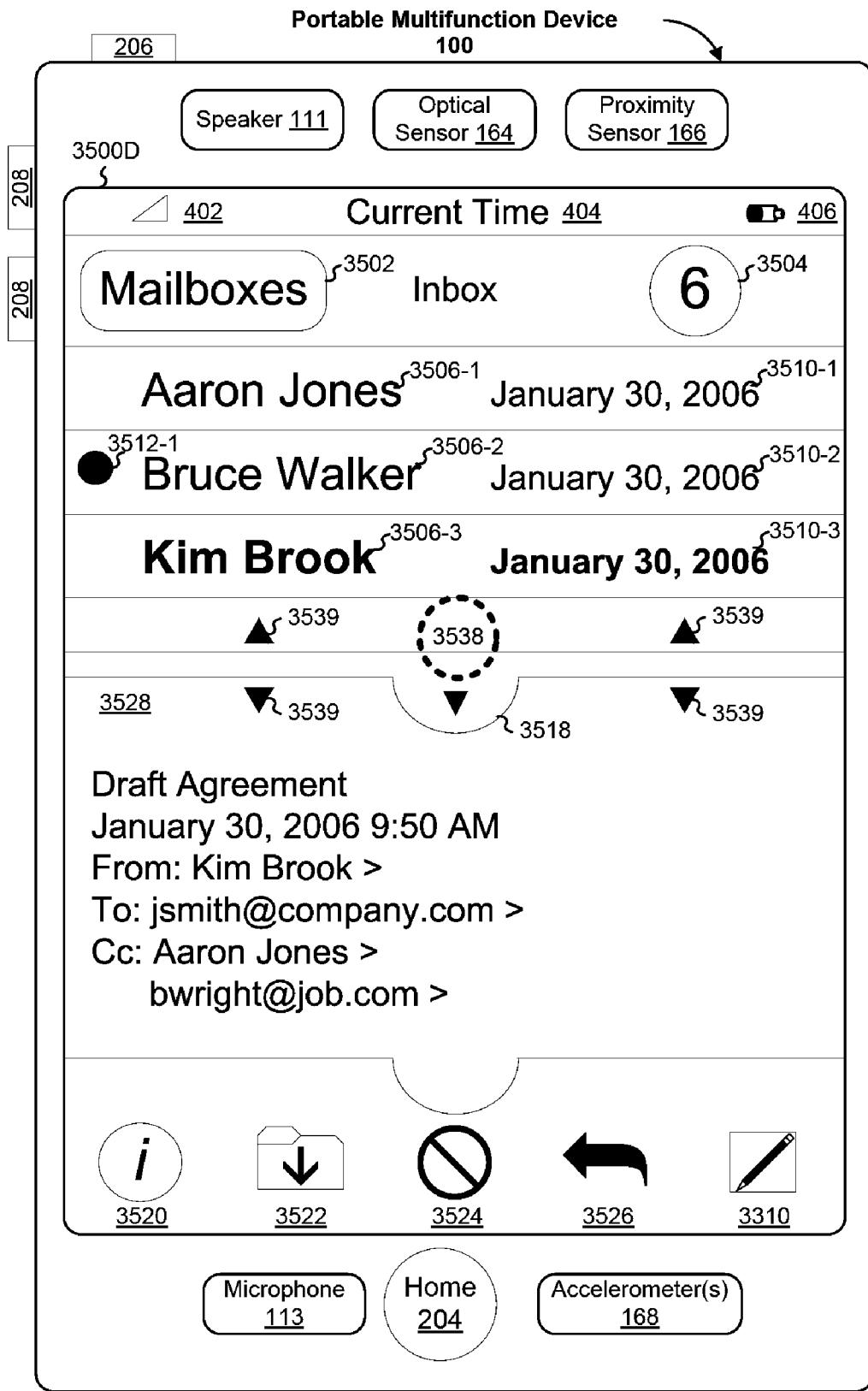


Figure 35D

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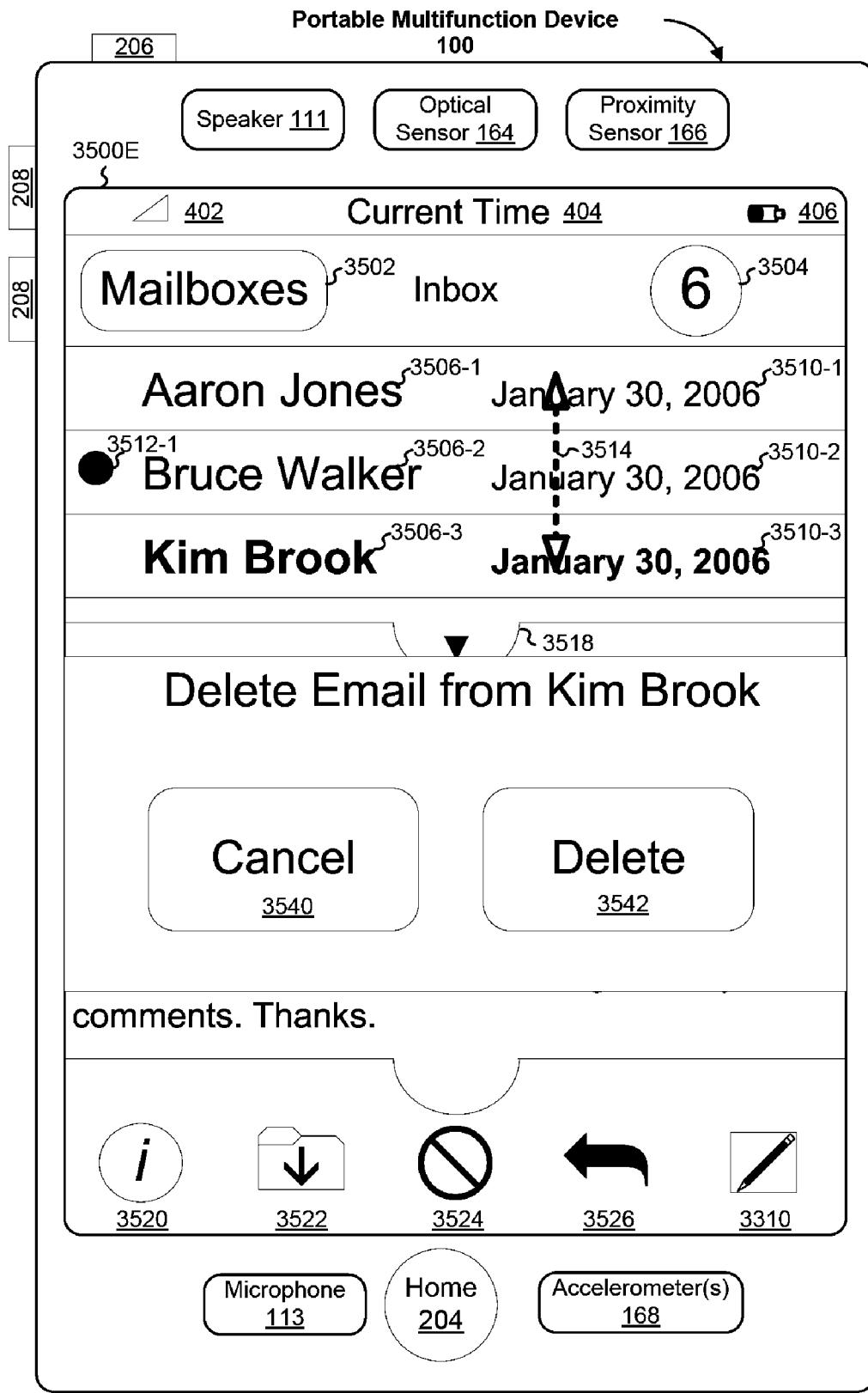


Figure 35E

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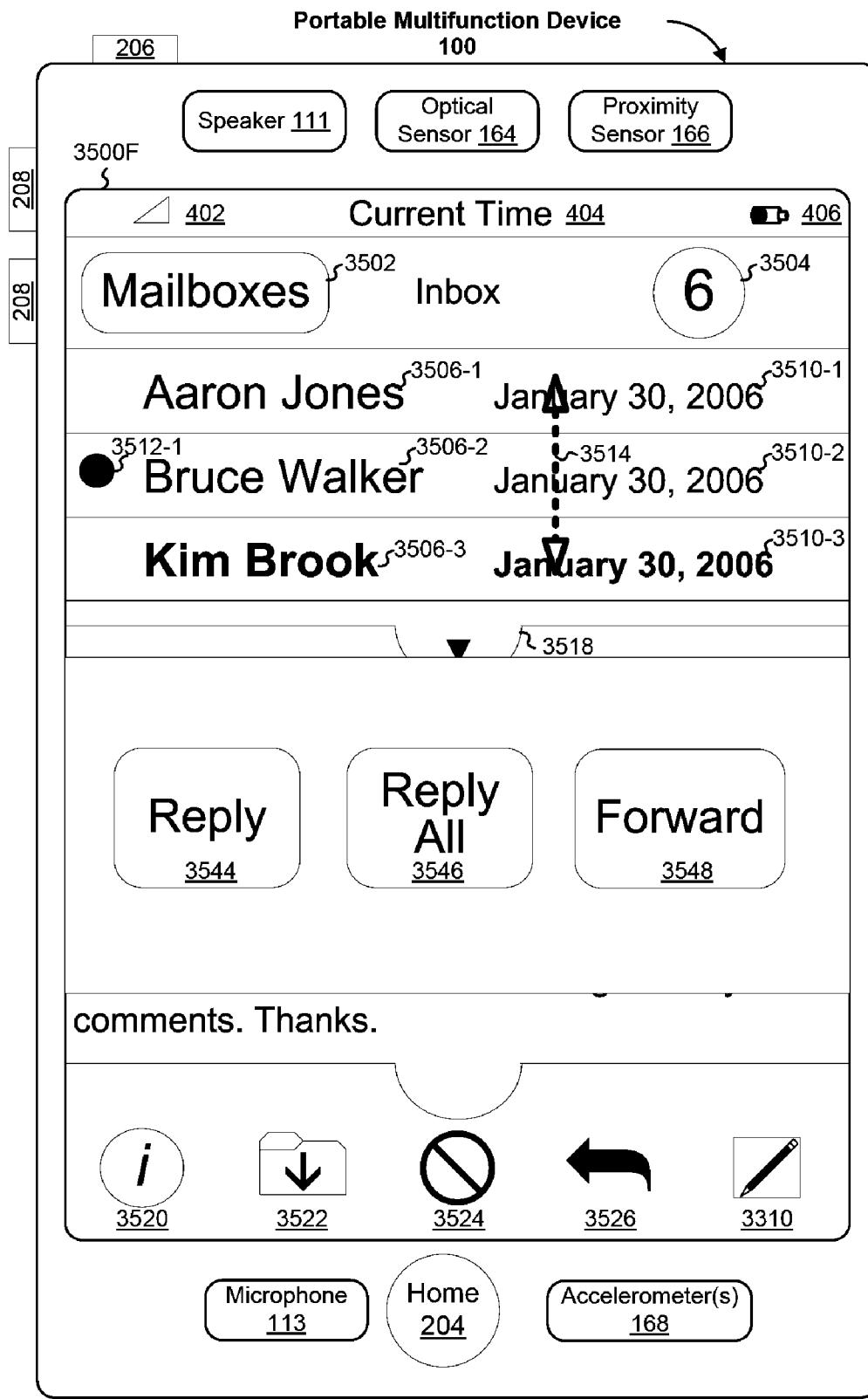


Figure 35F

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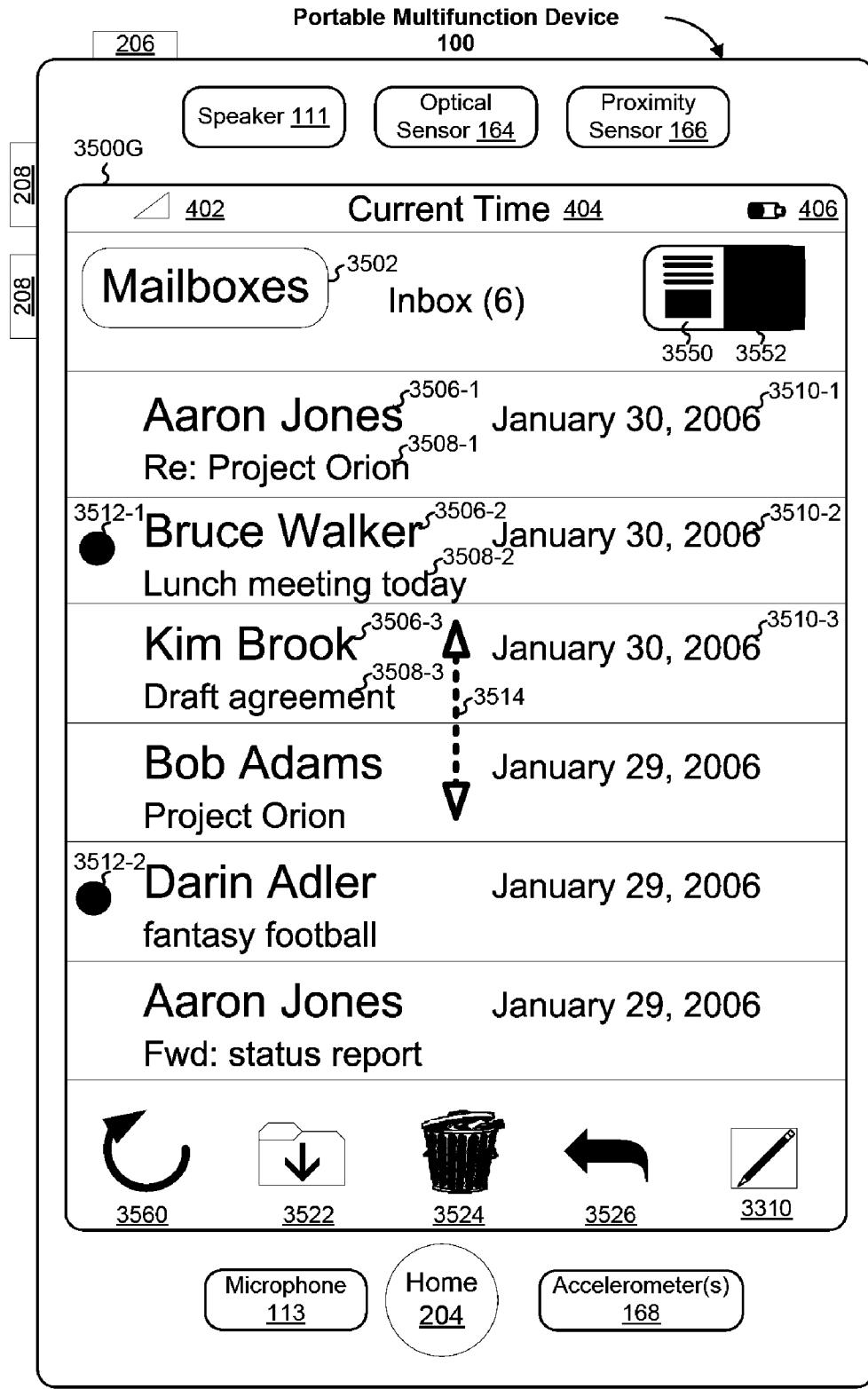


Figure 35G

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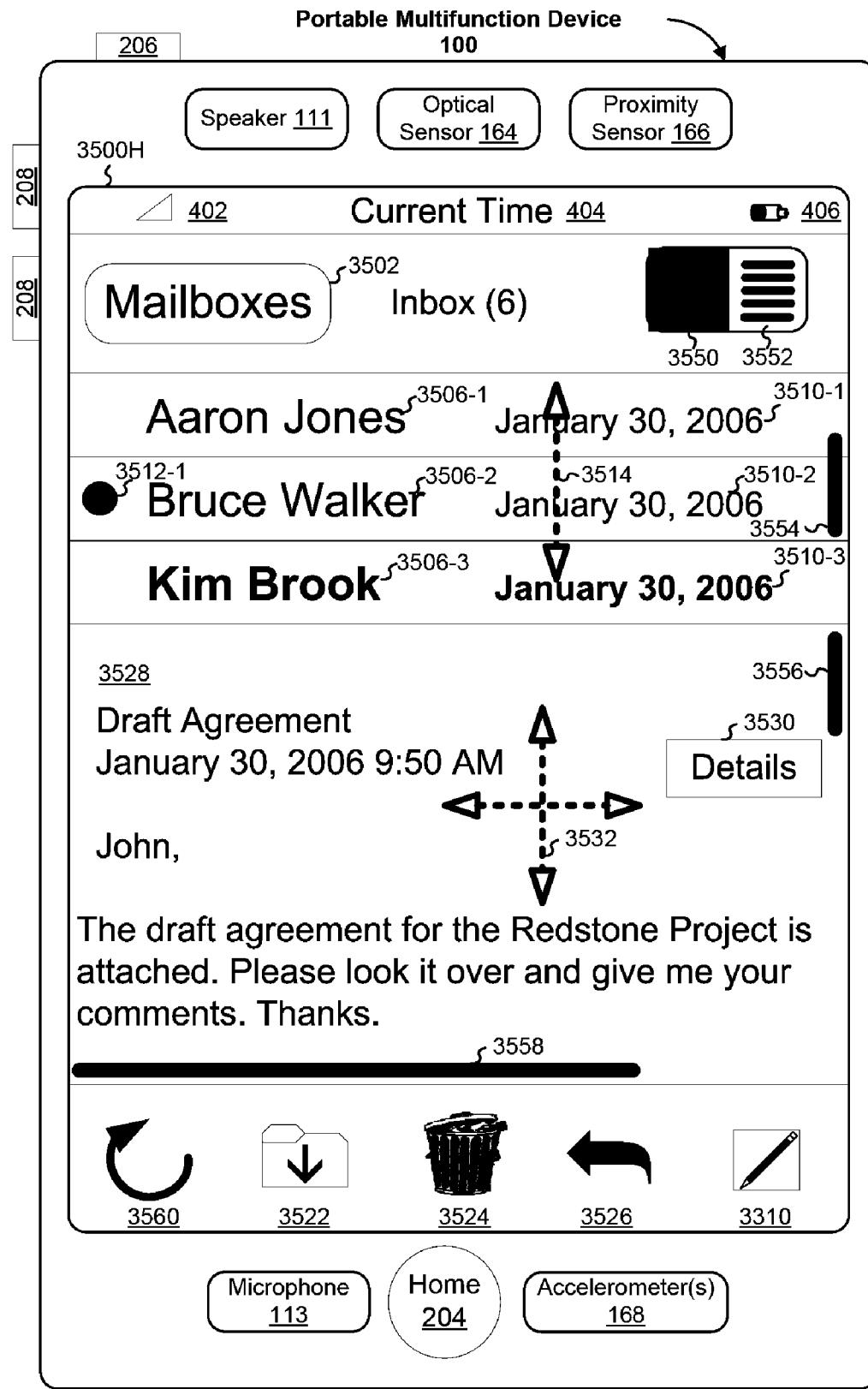


Figure 35H

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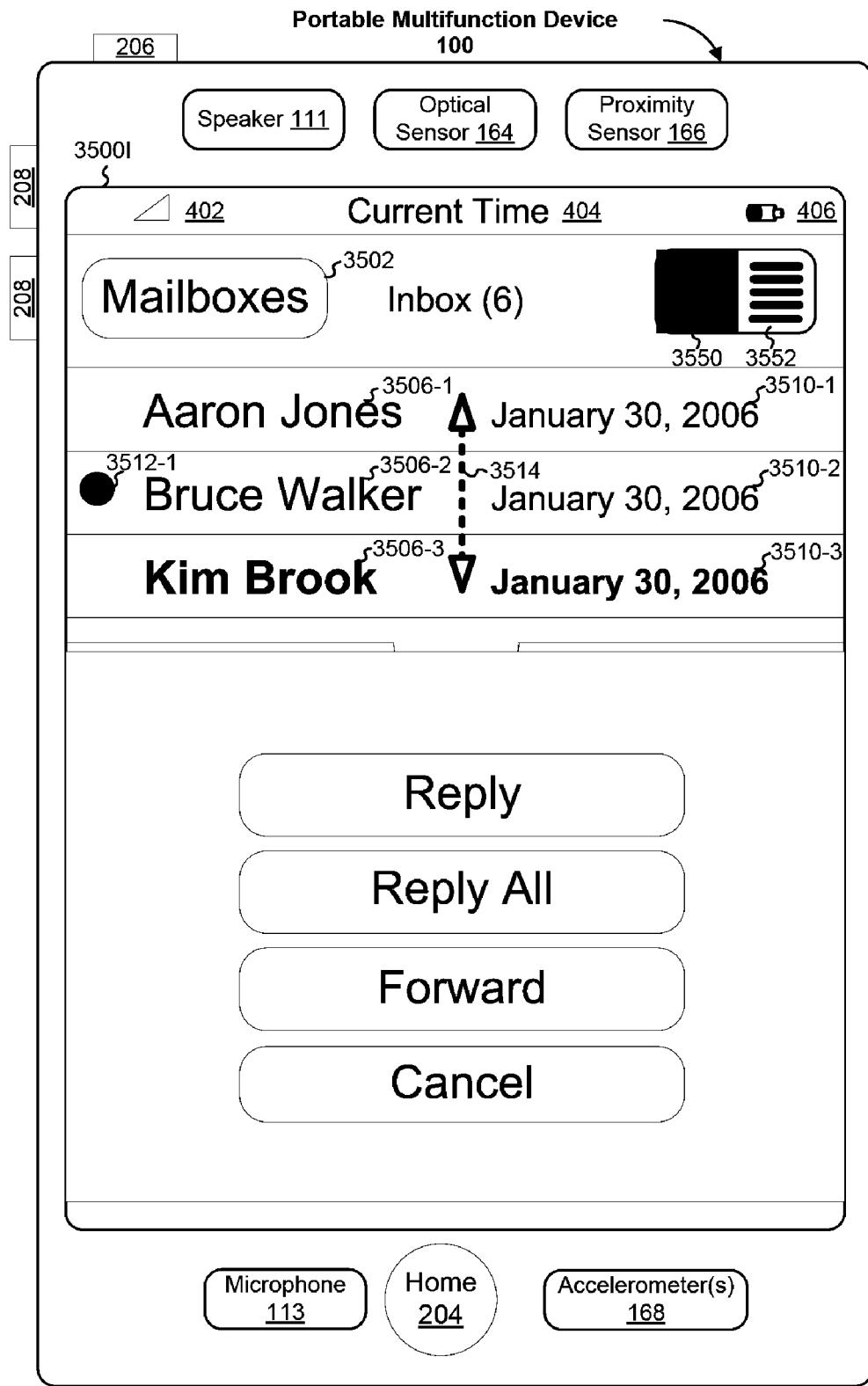


Figure 35I

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Figure 35J

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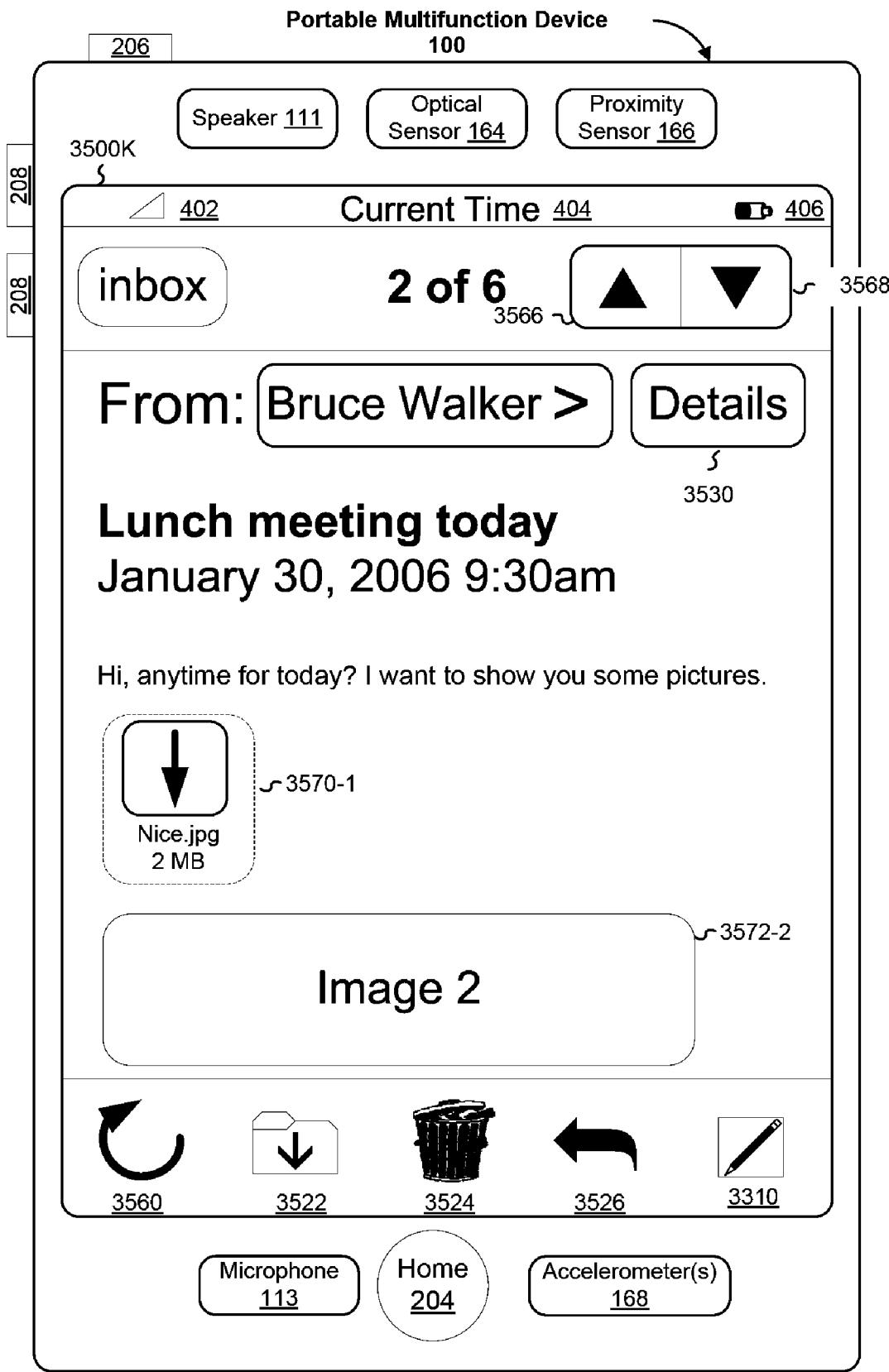


Figure 35K

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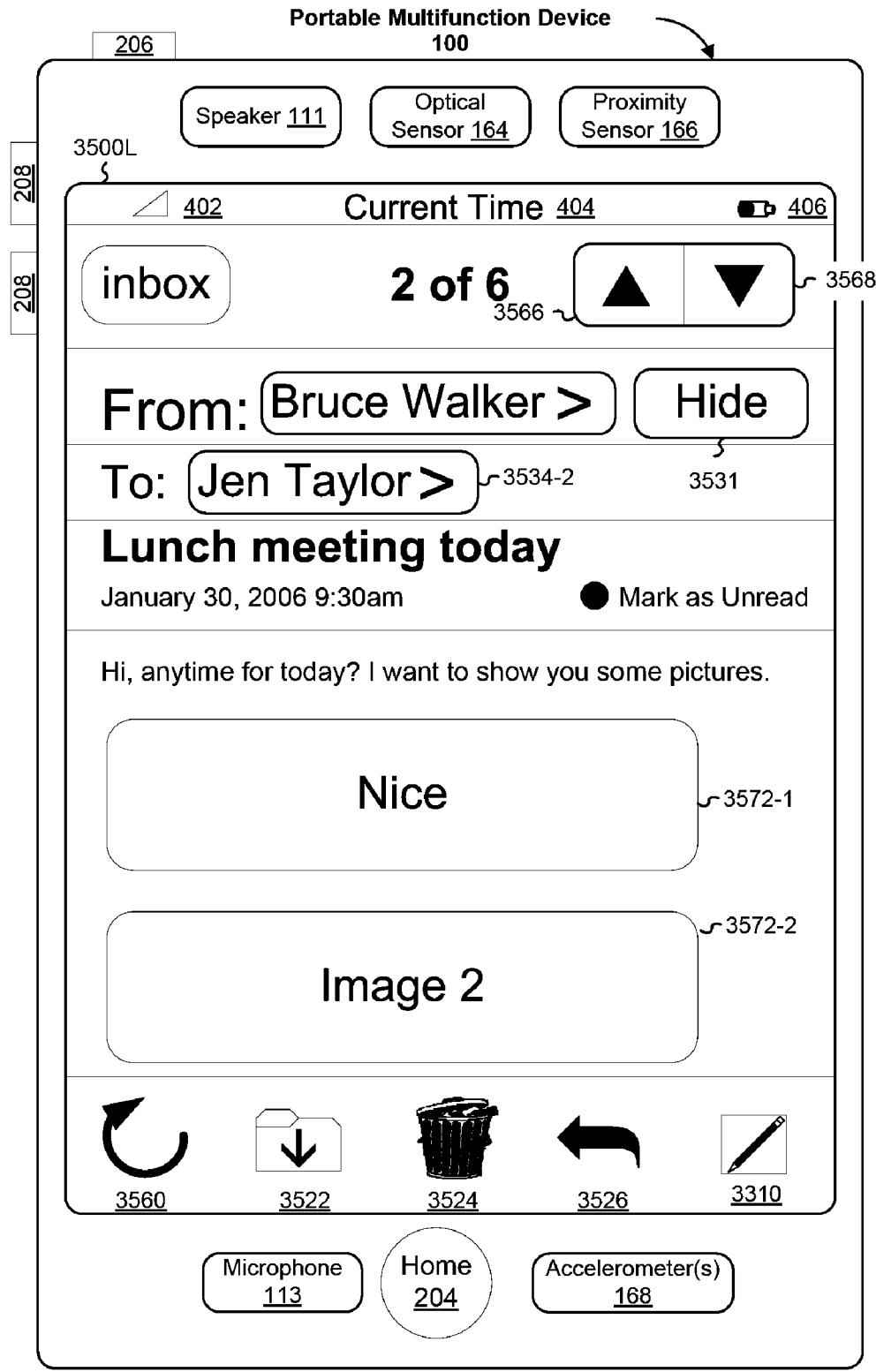


Figure 35L

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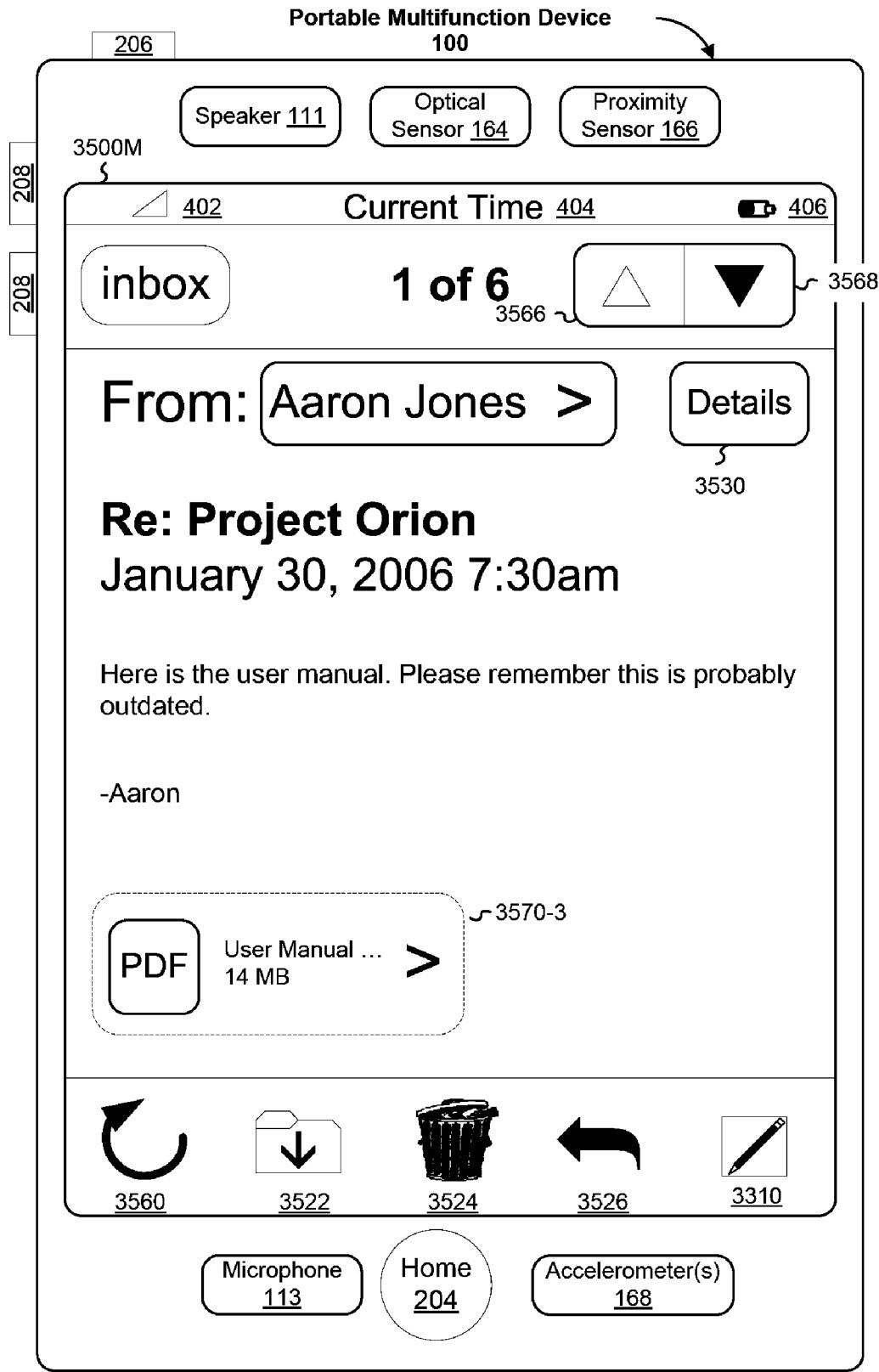


Figure 35M

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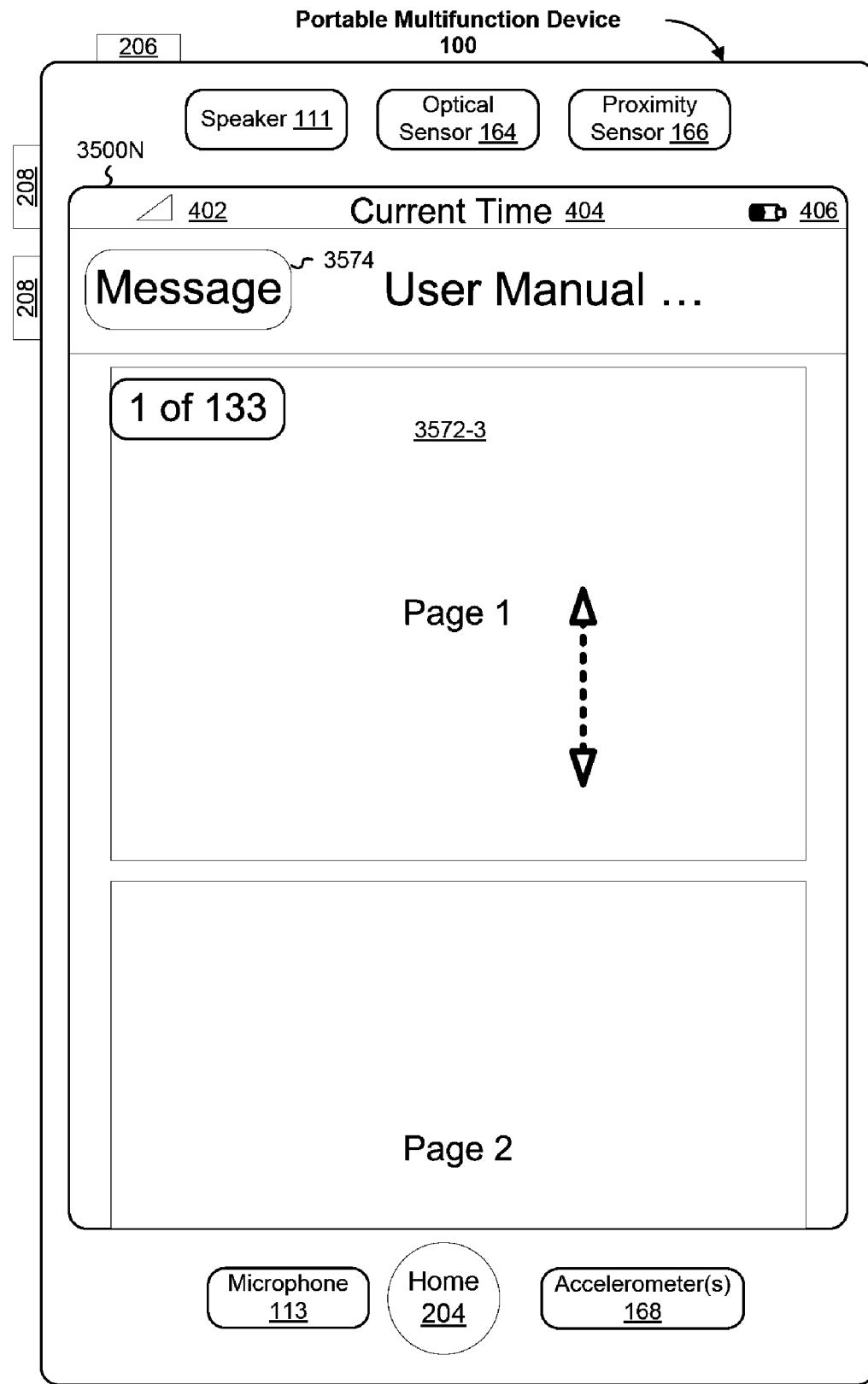


Figure 35N

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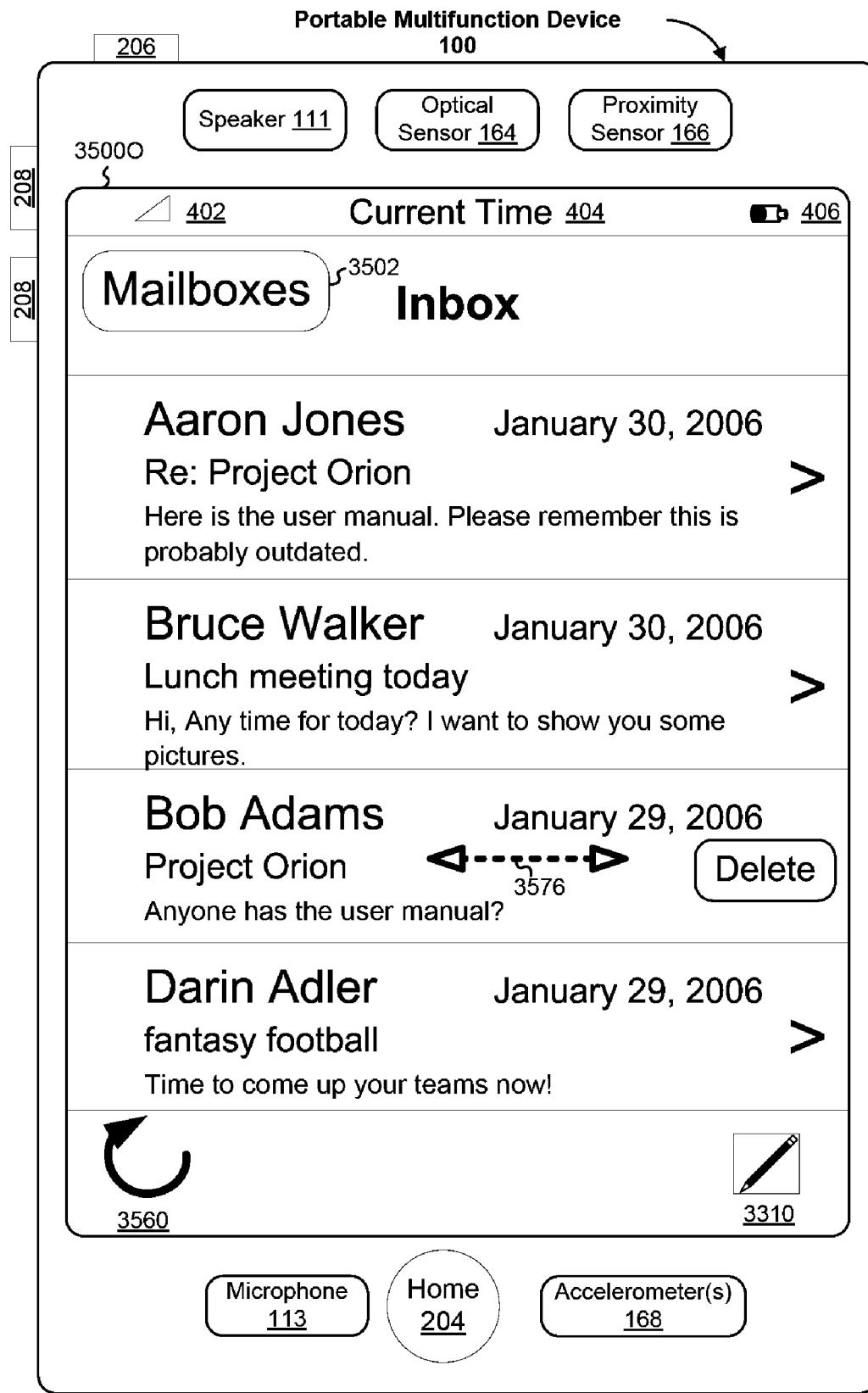


Figure 350

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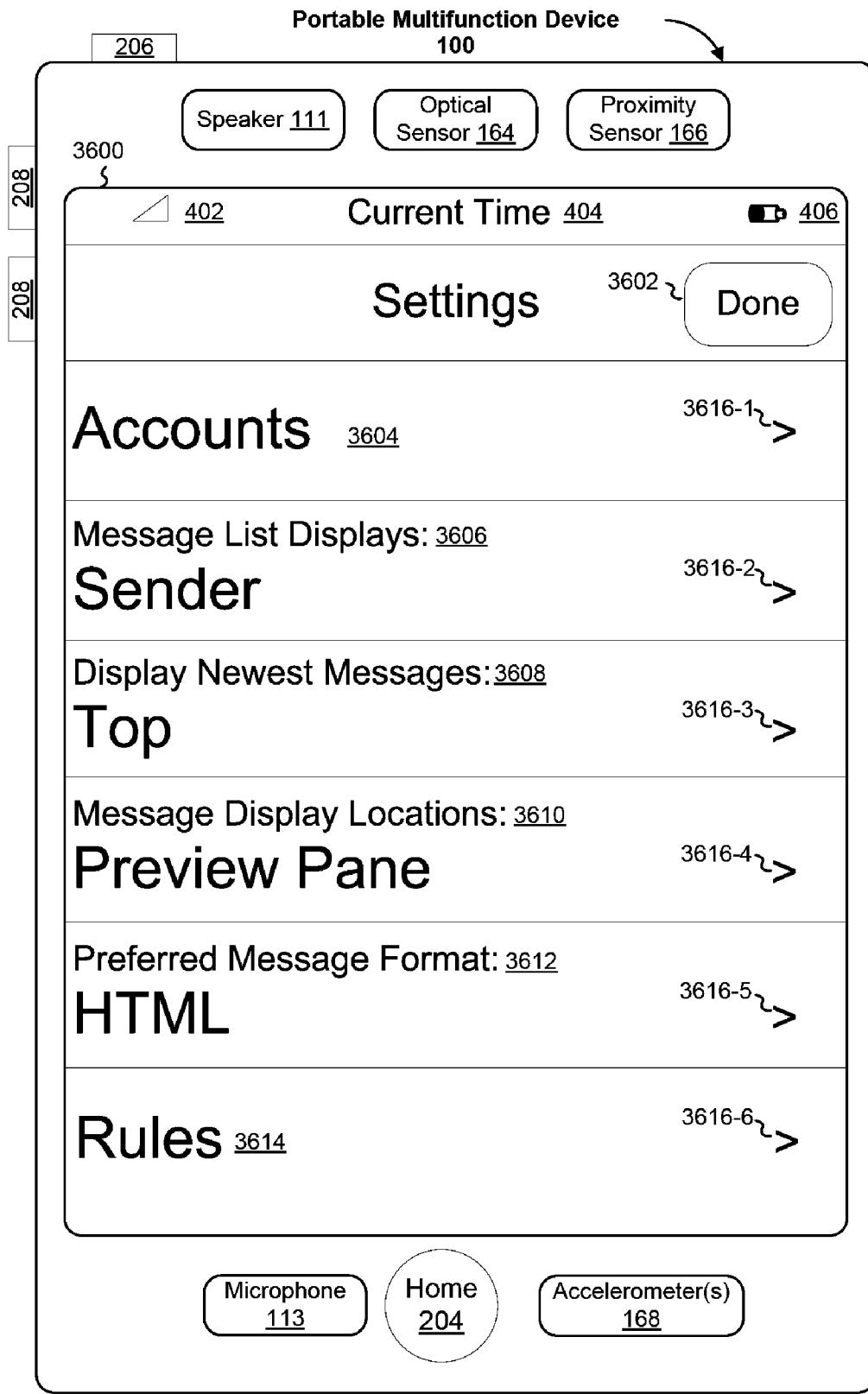


Figure 36

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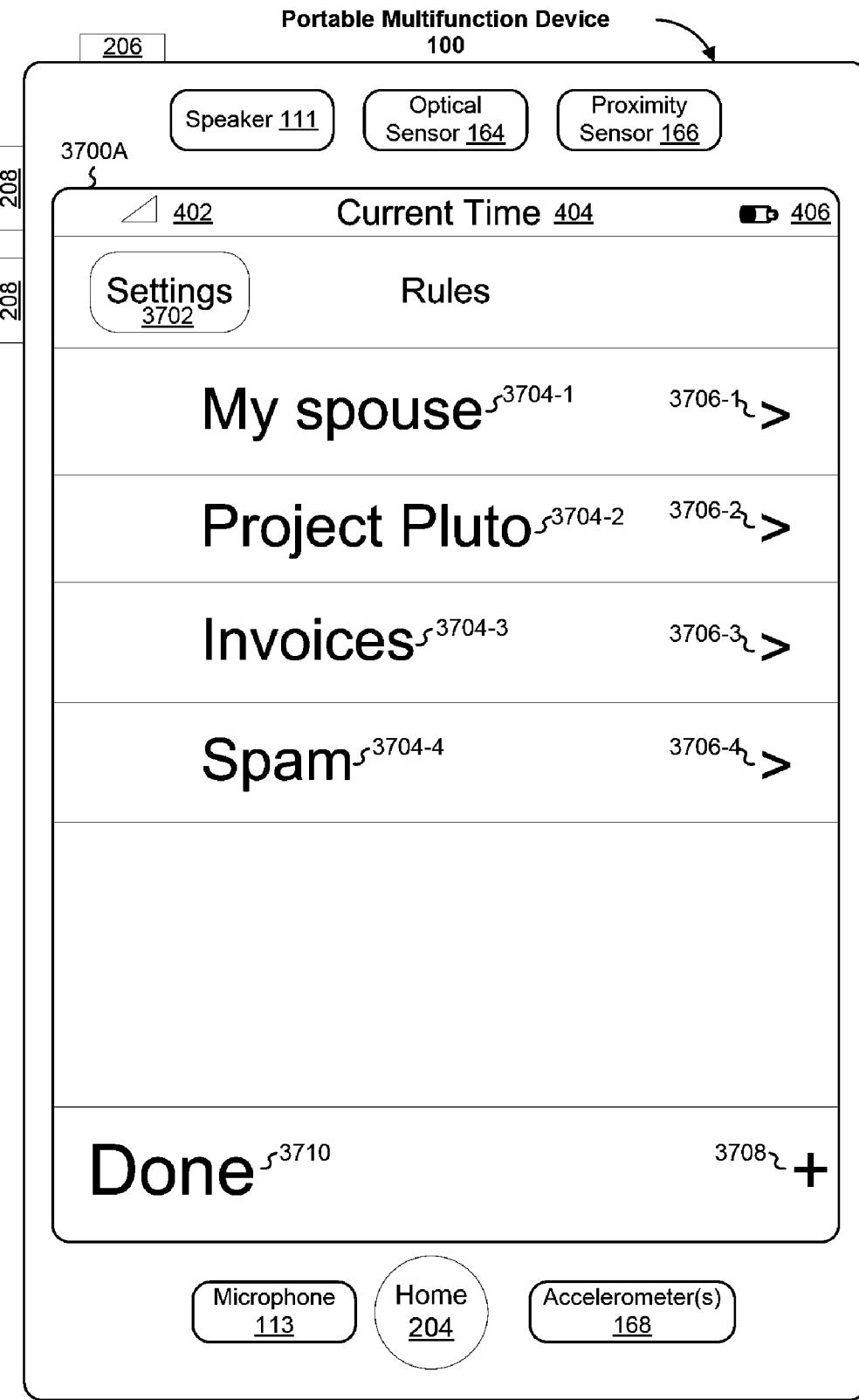


Figure 37A

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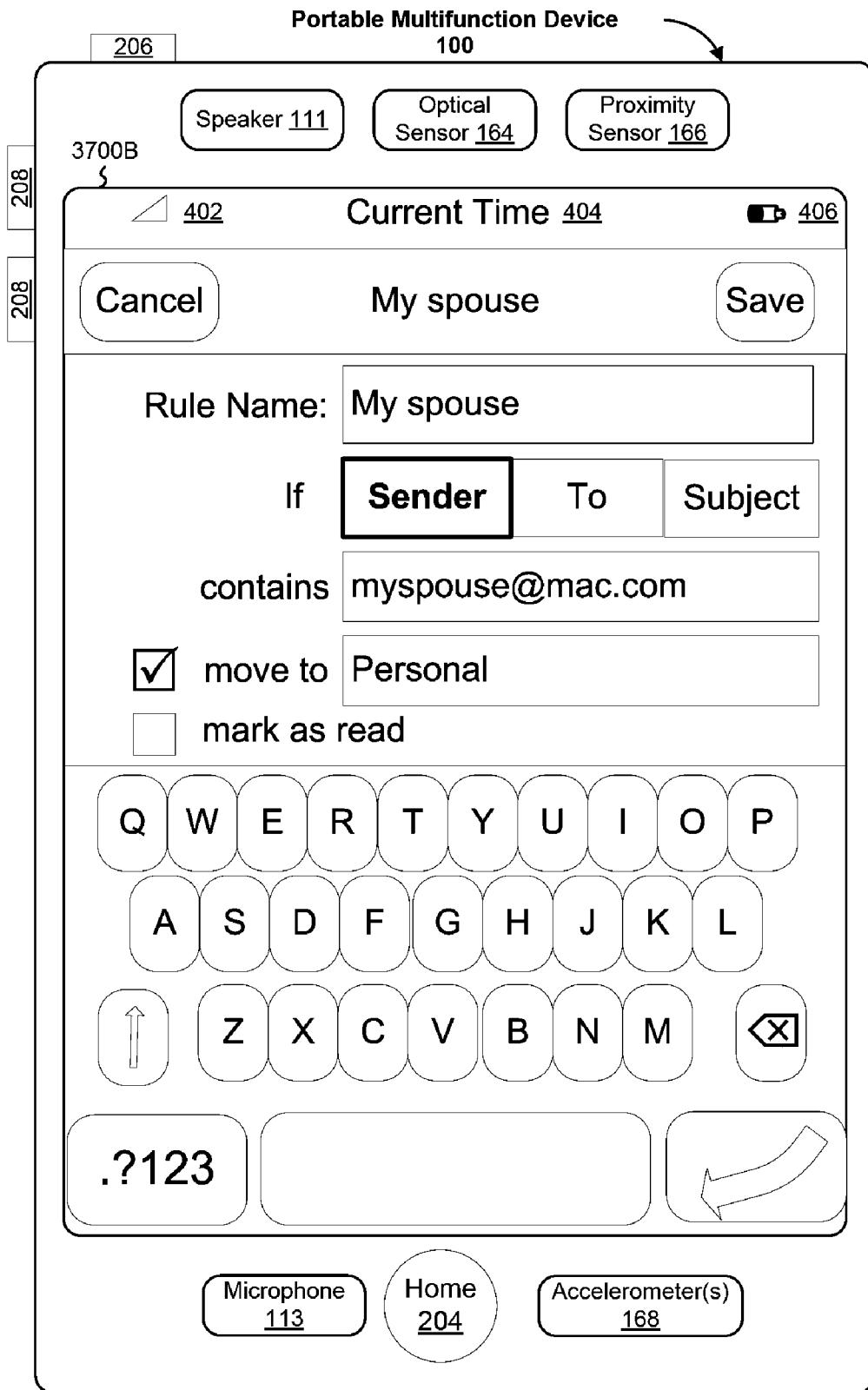


Figure 37B

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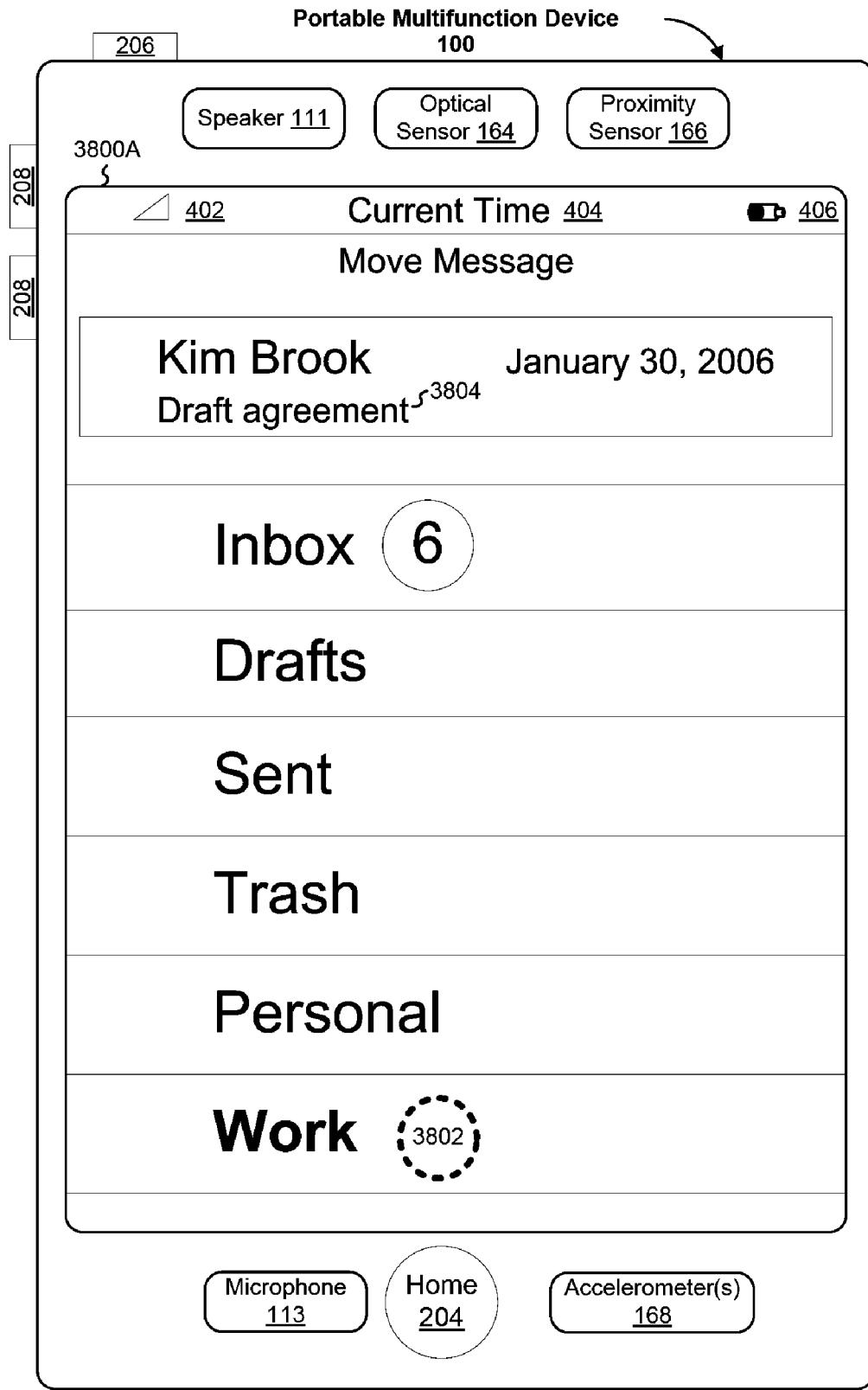


Figure 38A

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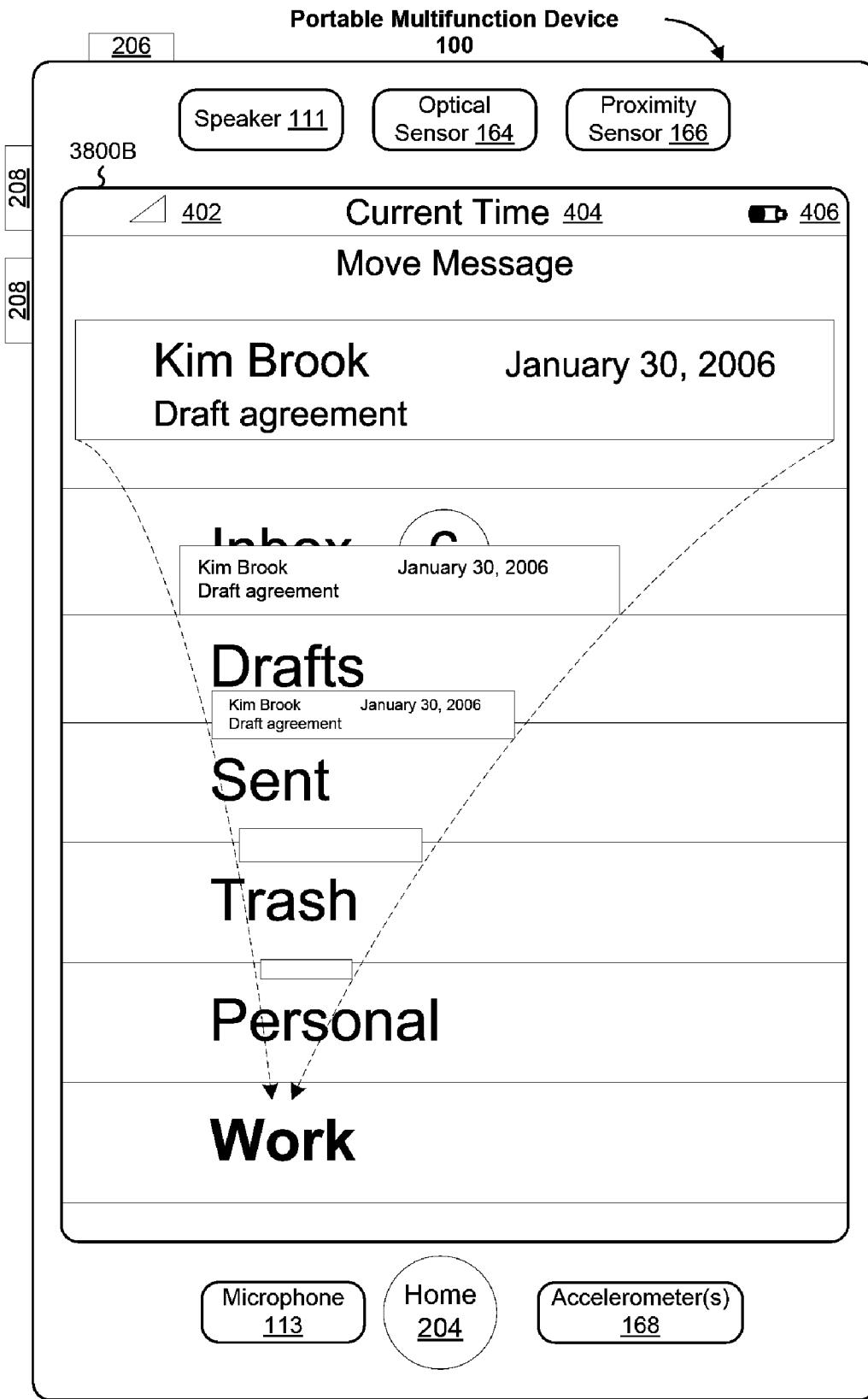


Figure 38B

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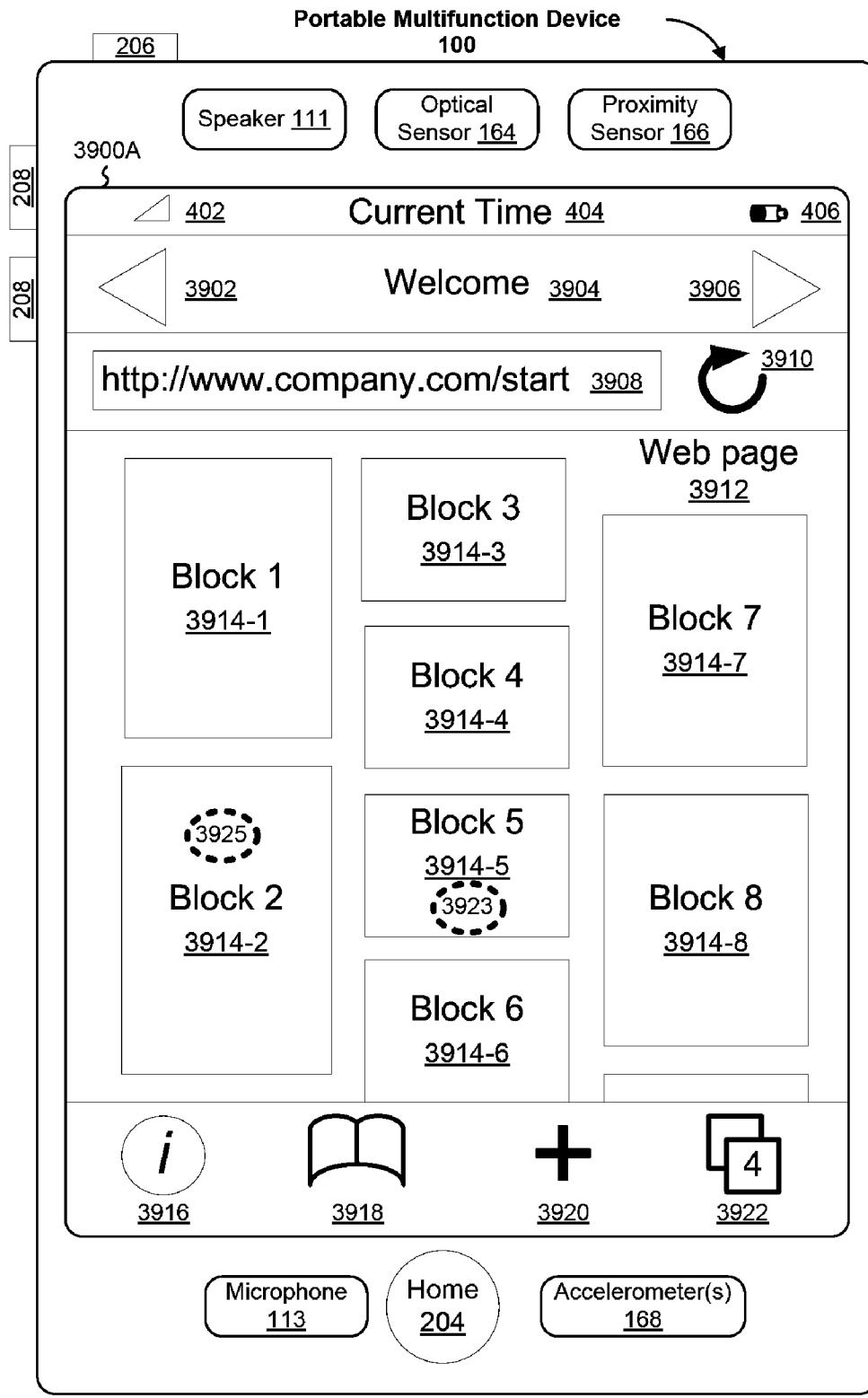
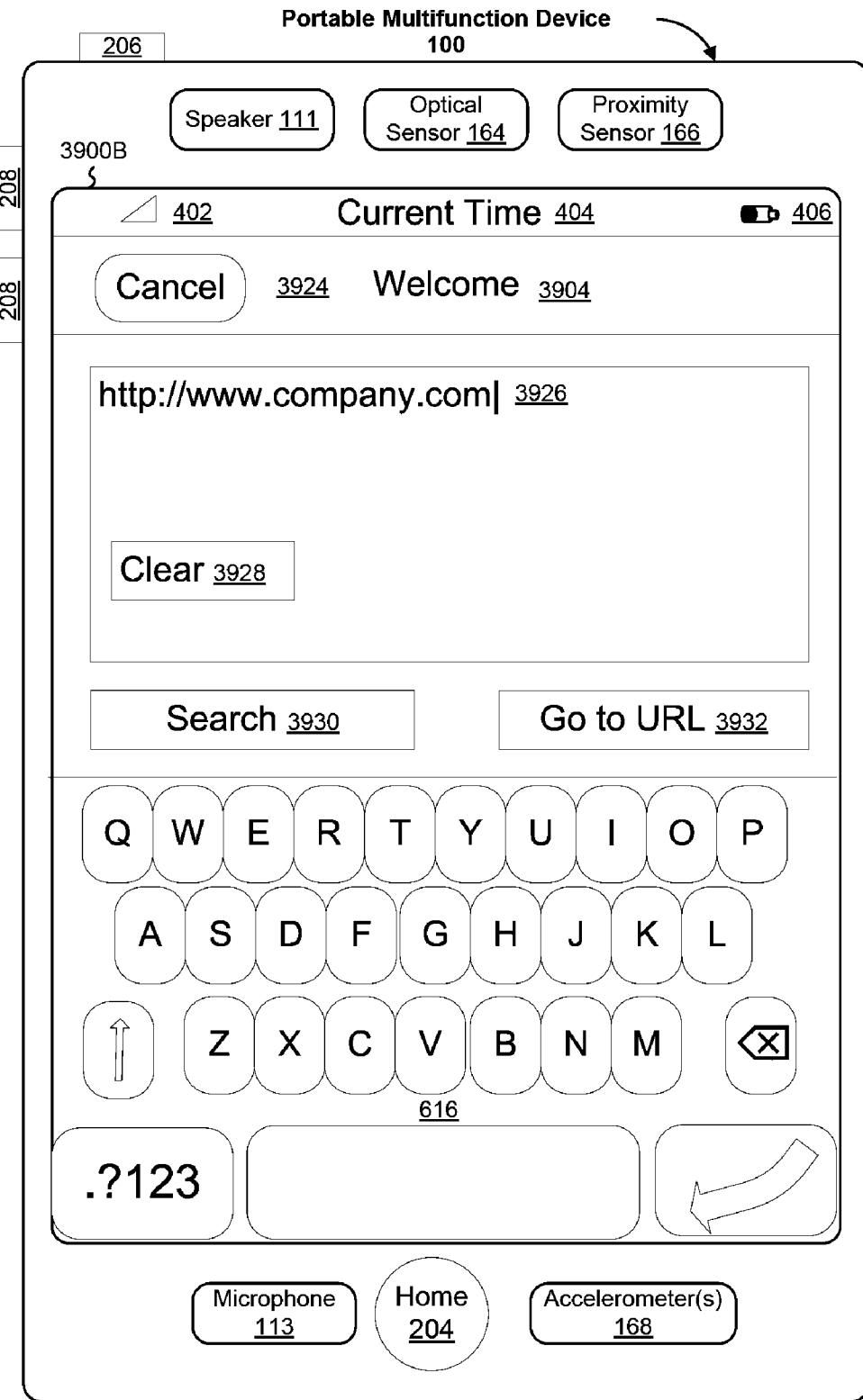


Figure 39A

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US 7,479,949 B2**Figure 39B**

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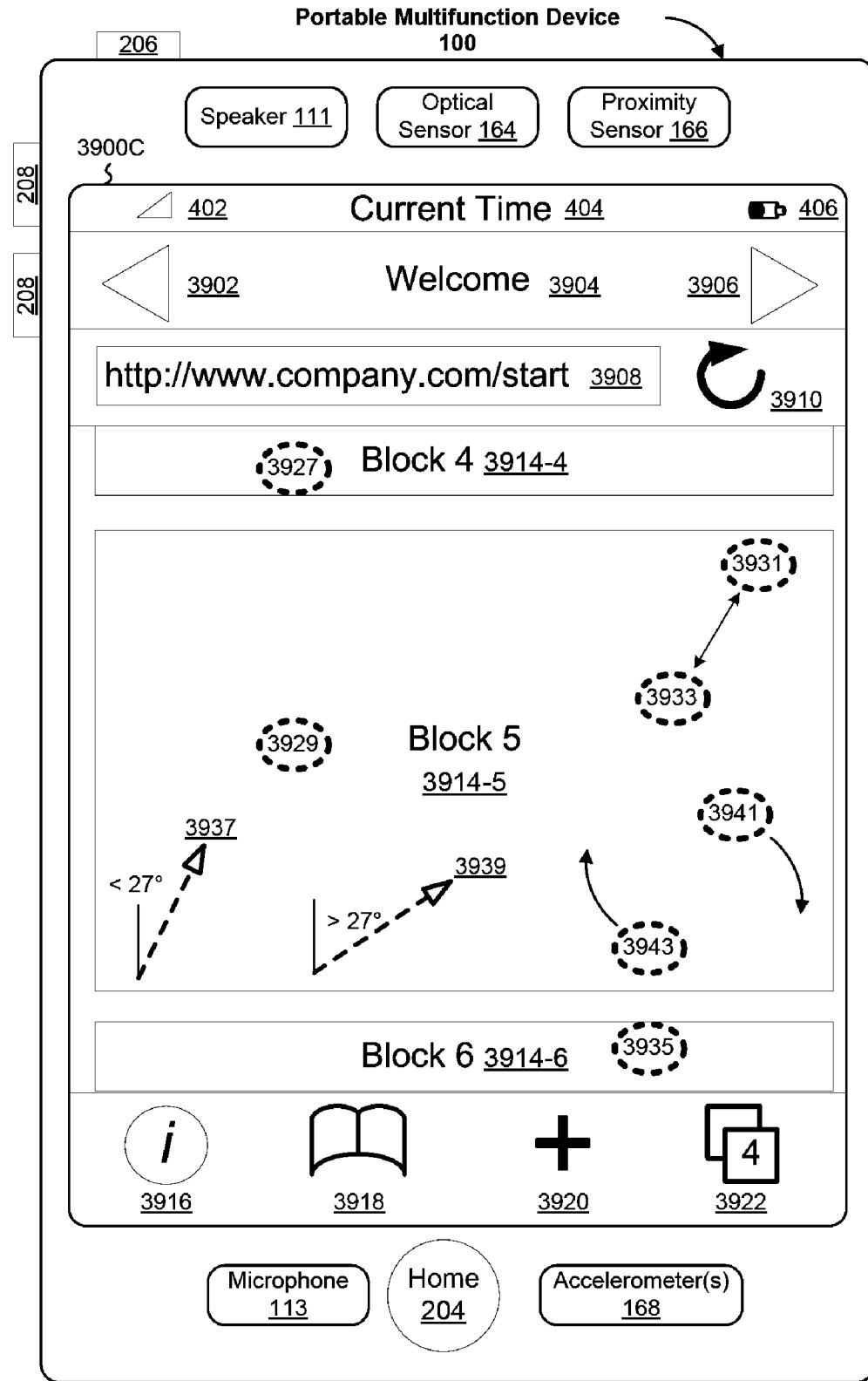


Figure 39C

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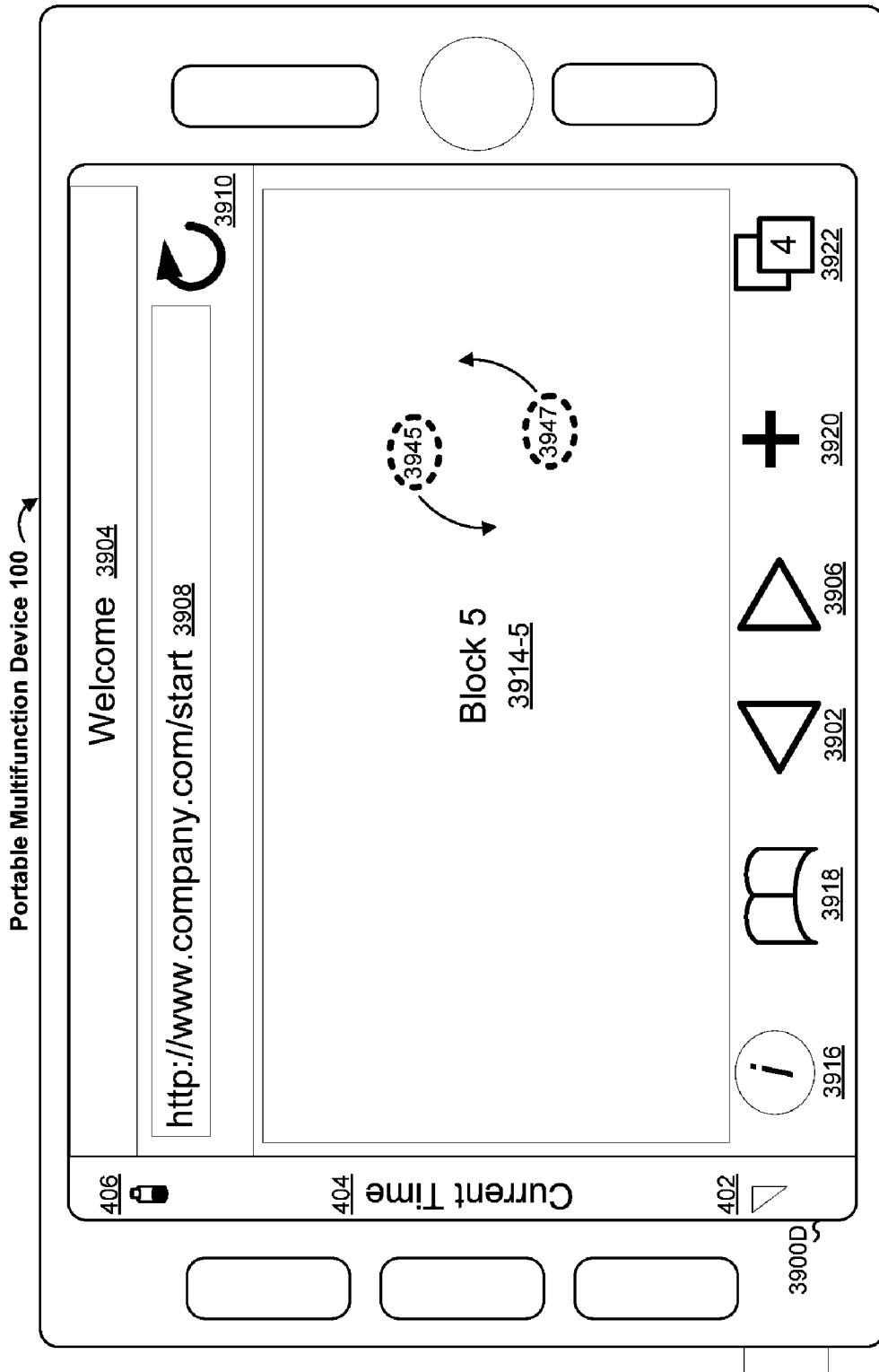


Figure 39D

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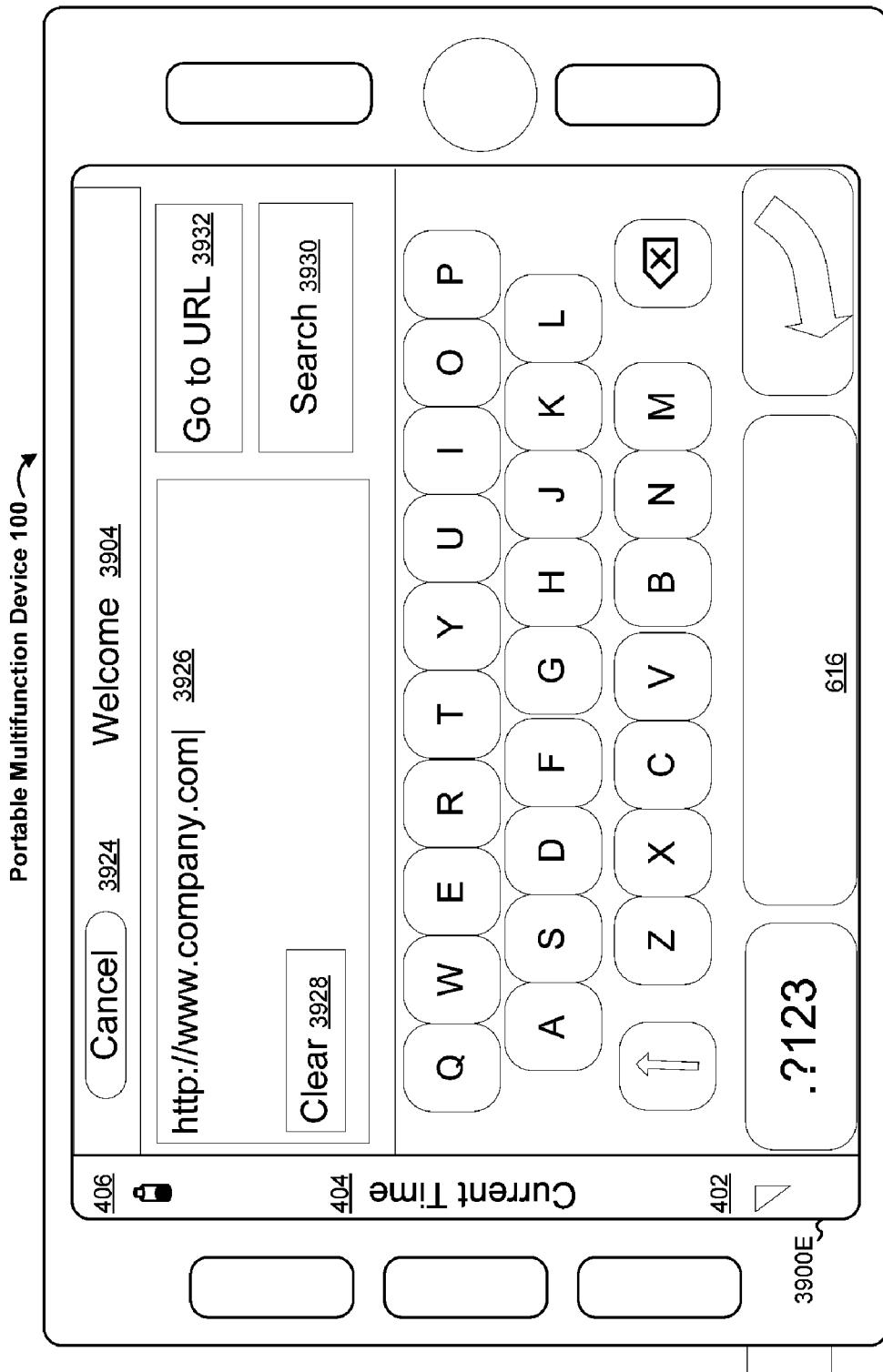


Figure 39E

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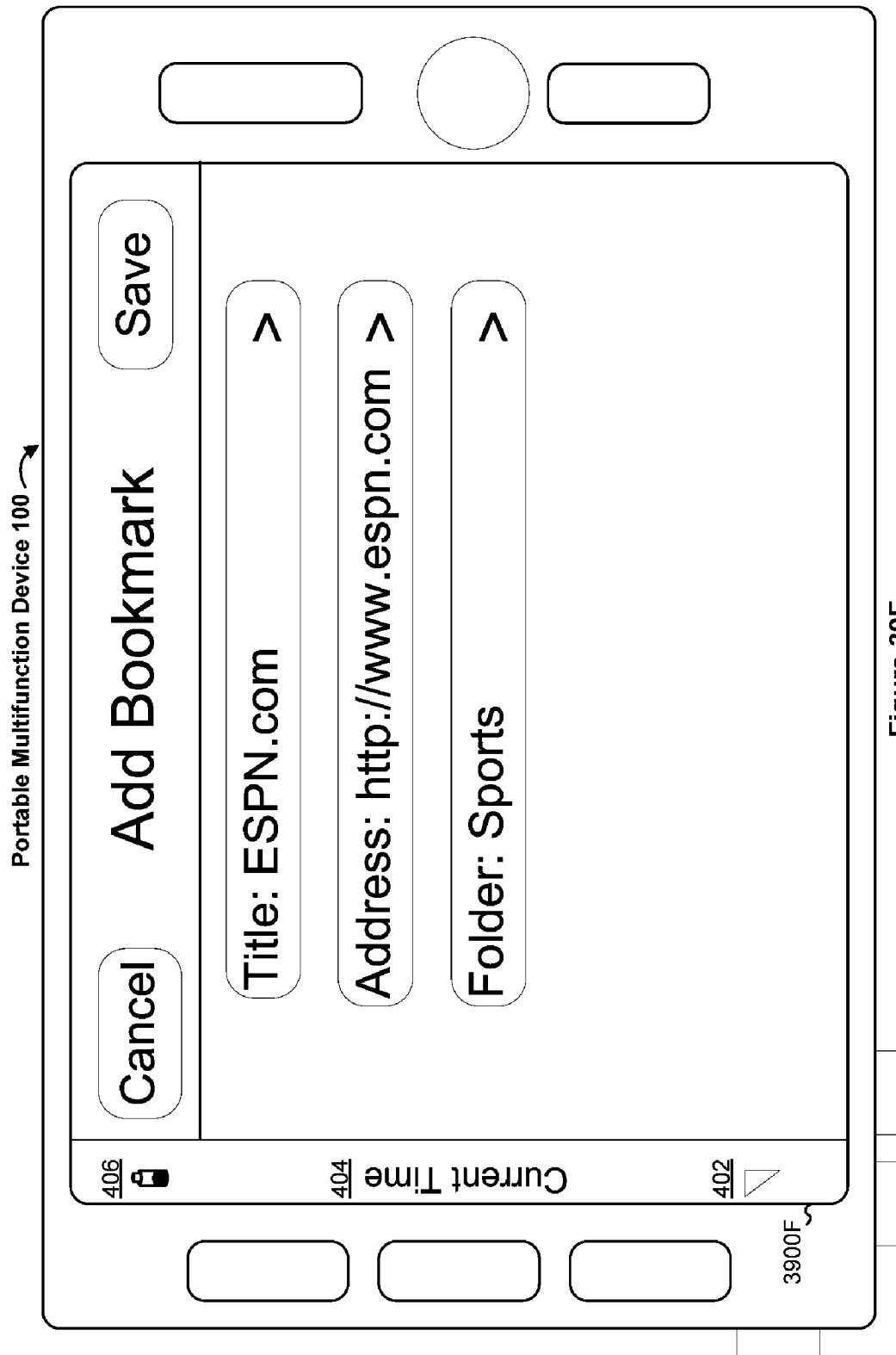


Figure 39F

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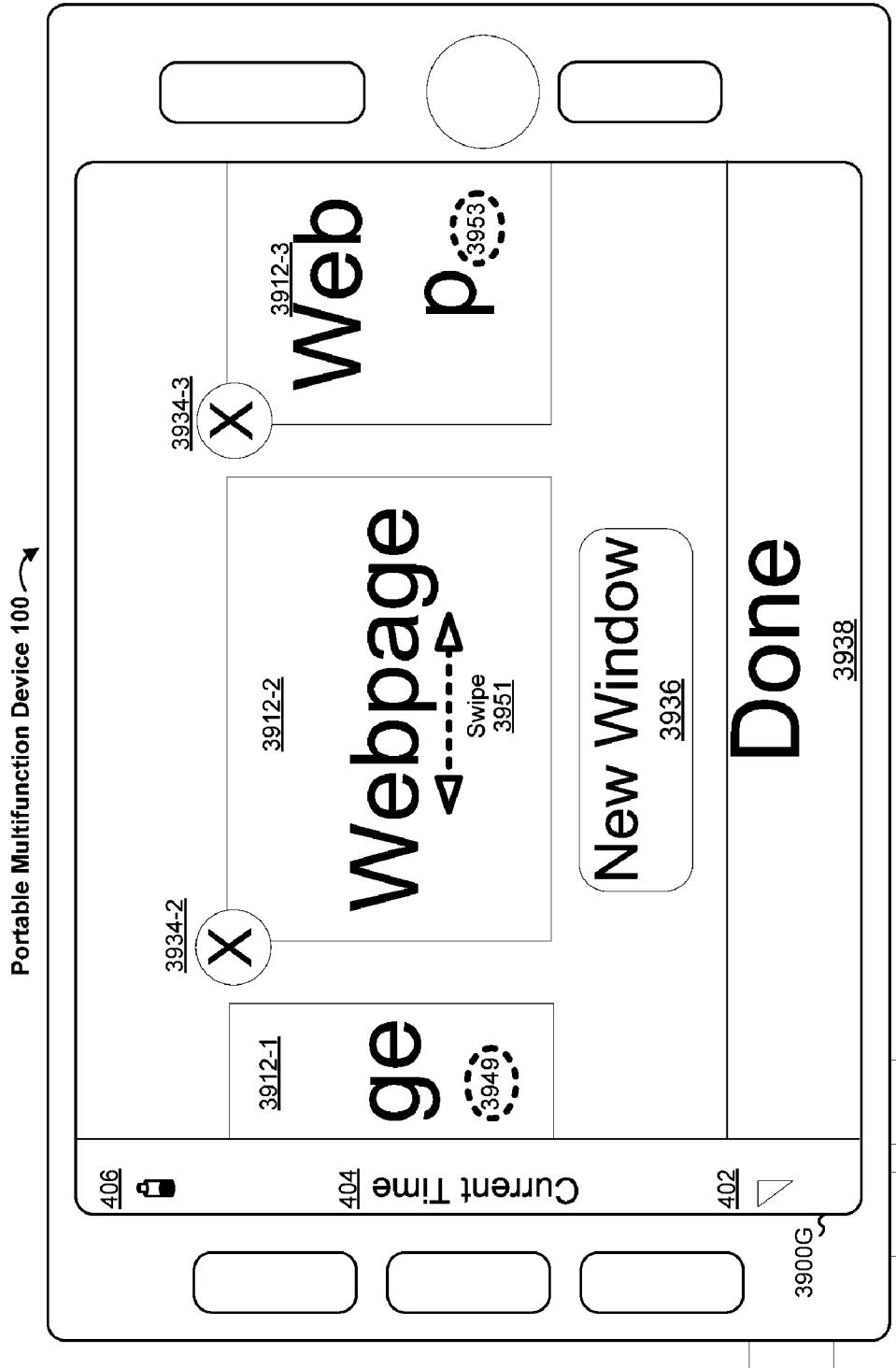


Figure 39G

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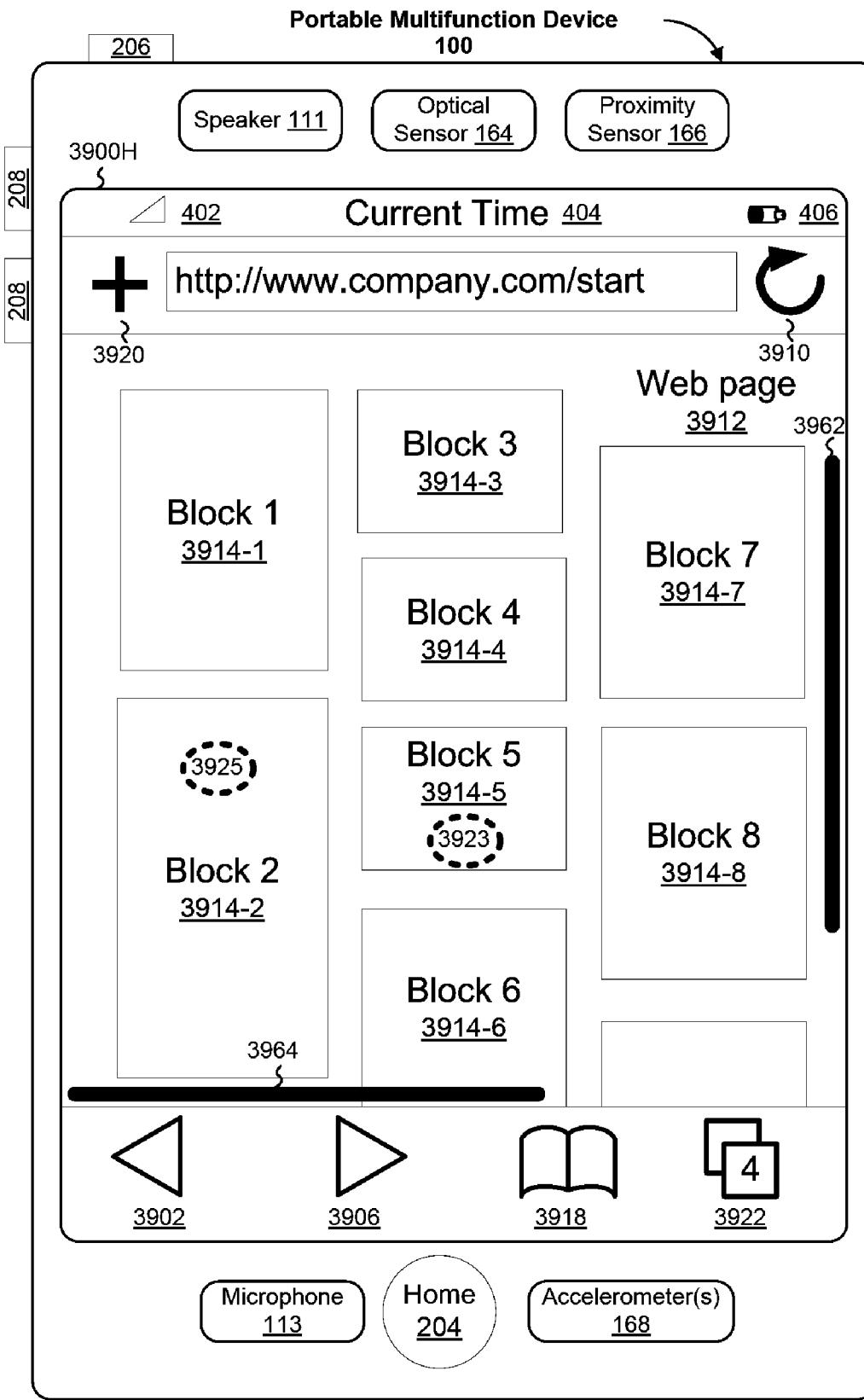


Figure 39H

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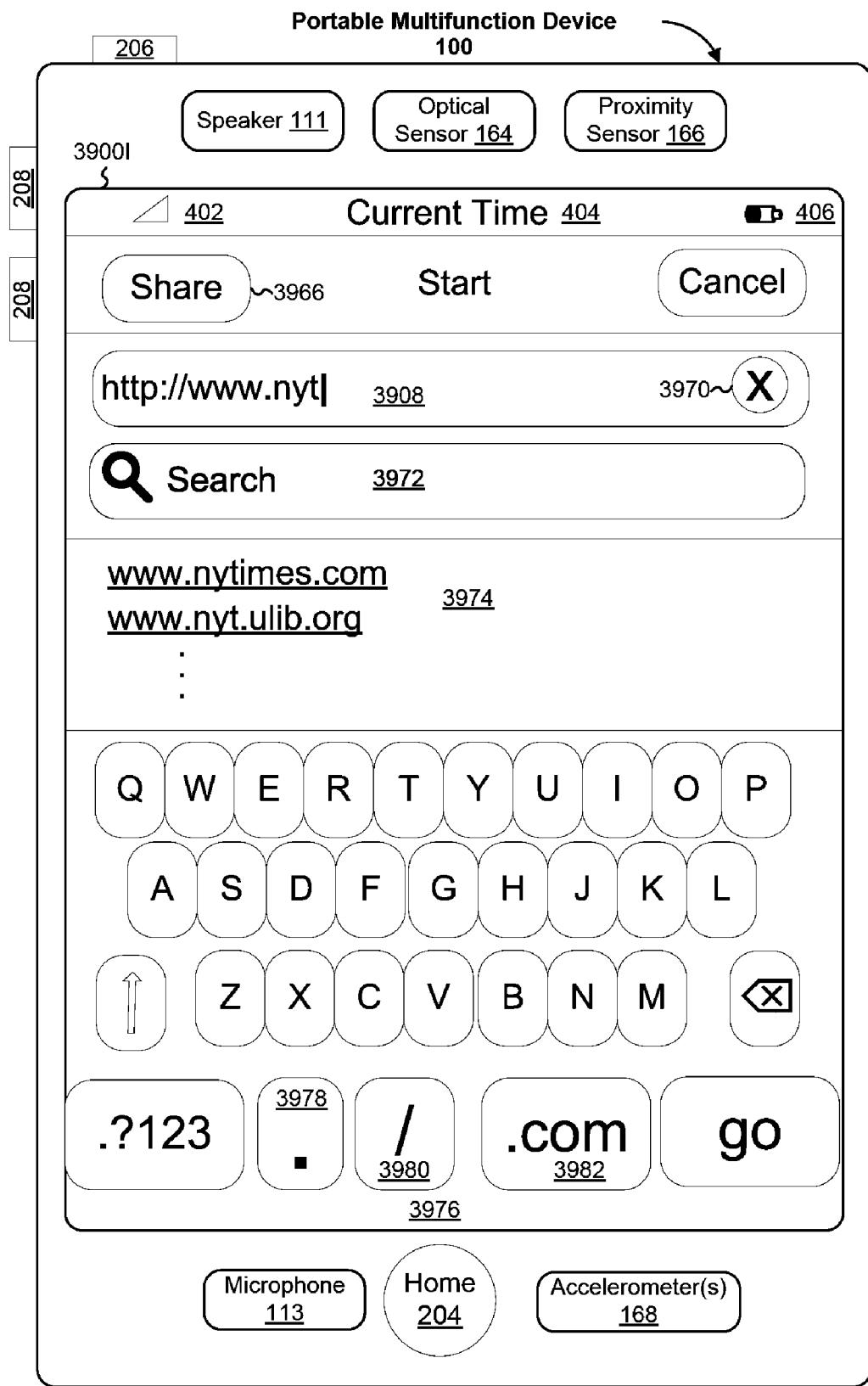


Figure 39I

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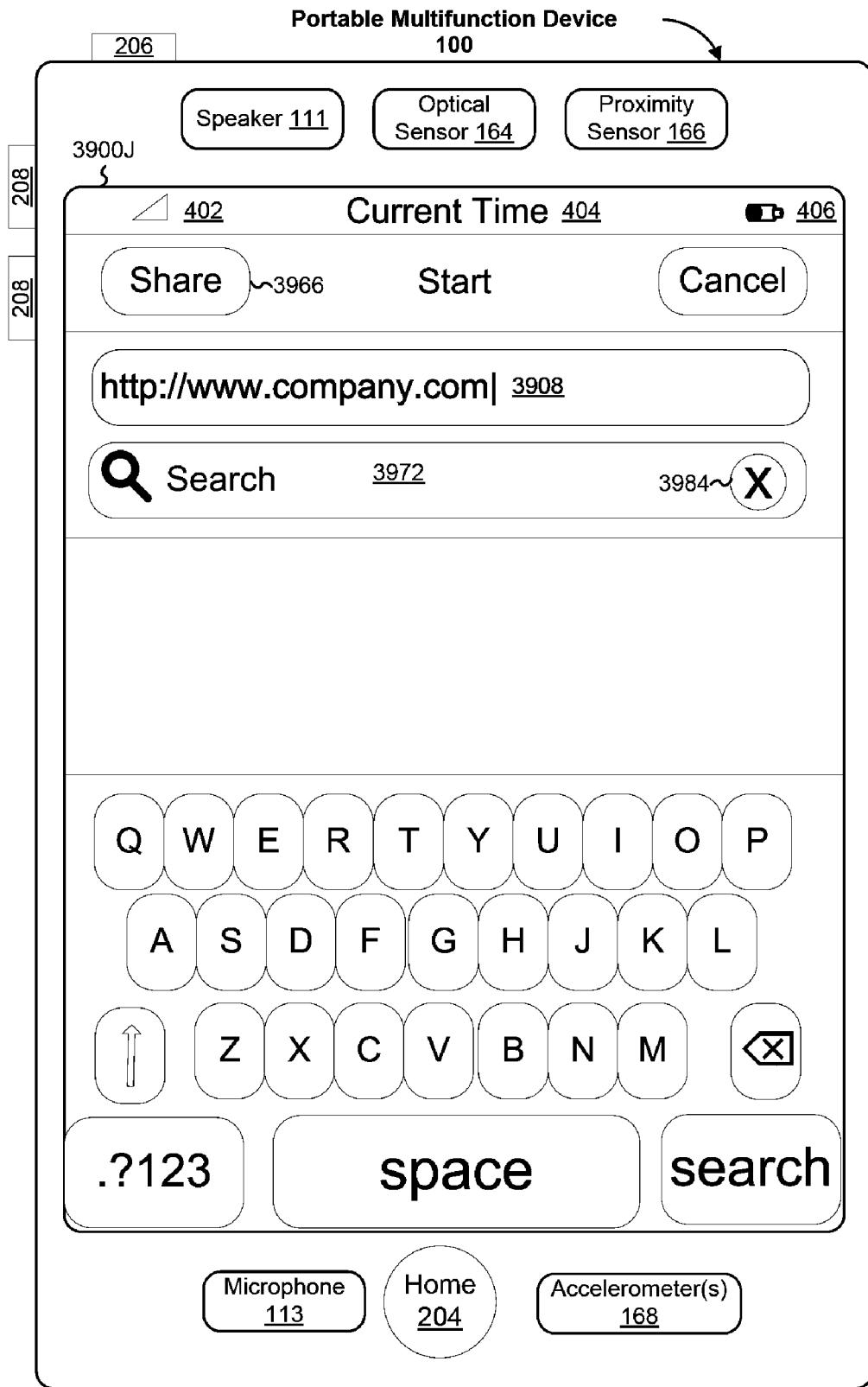


Figure 39J

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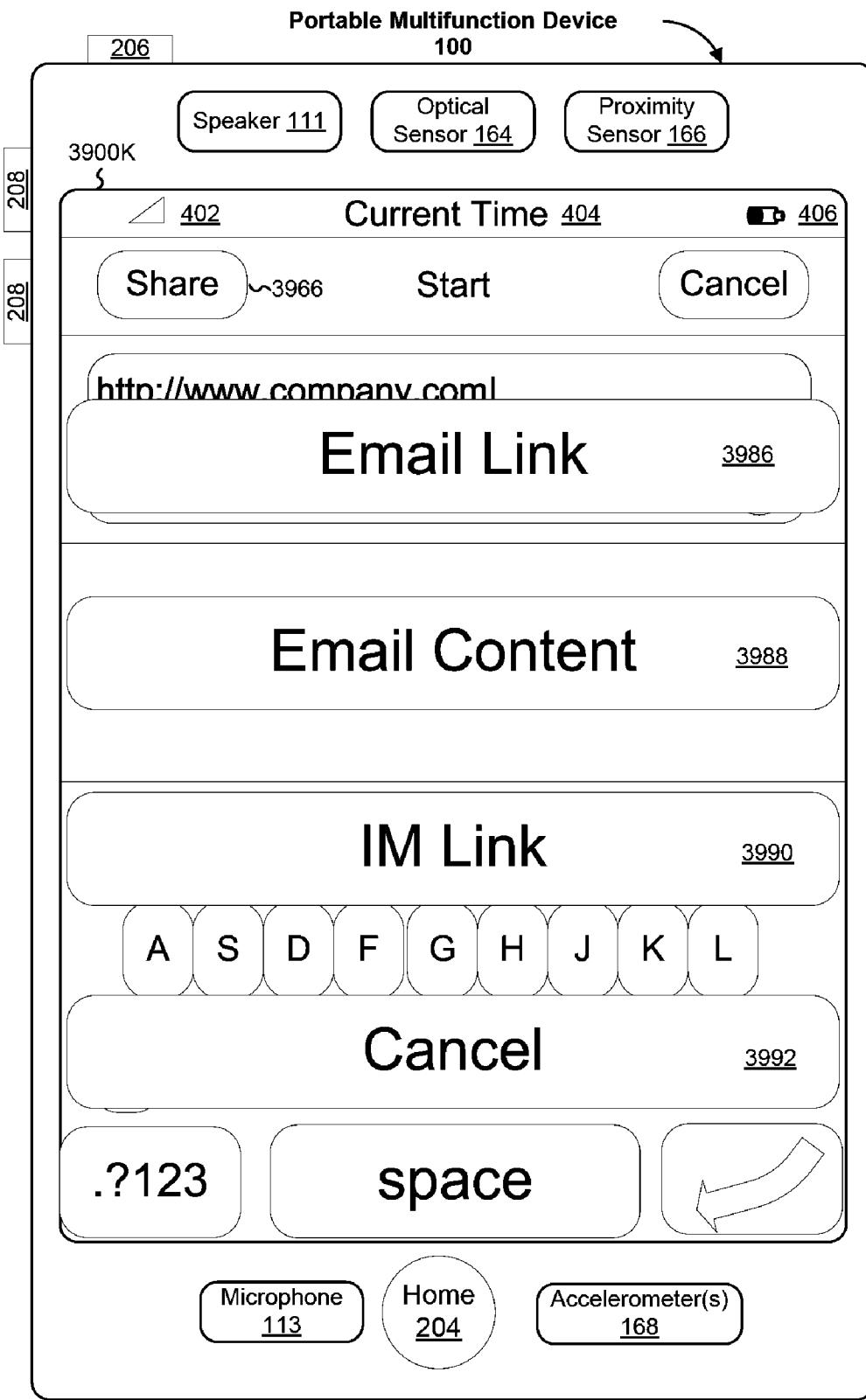


Figure 39K

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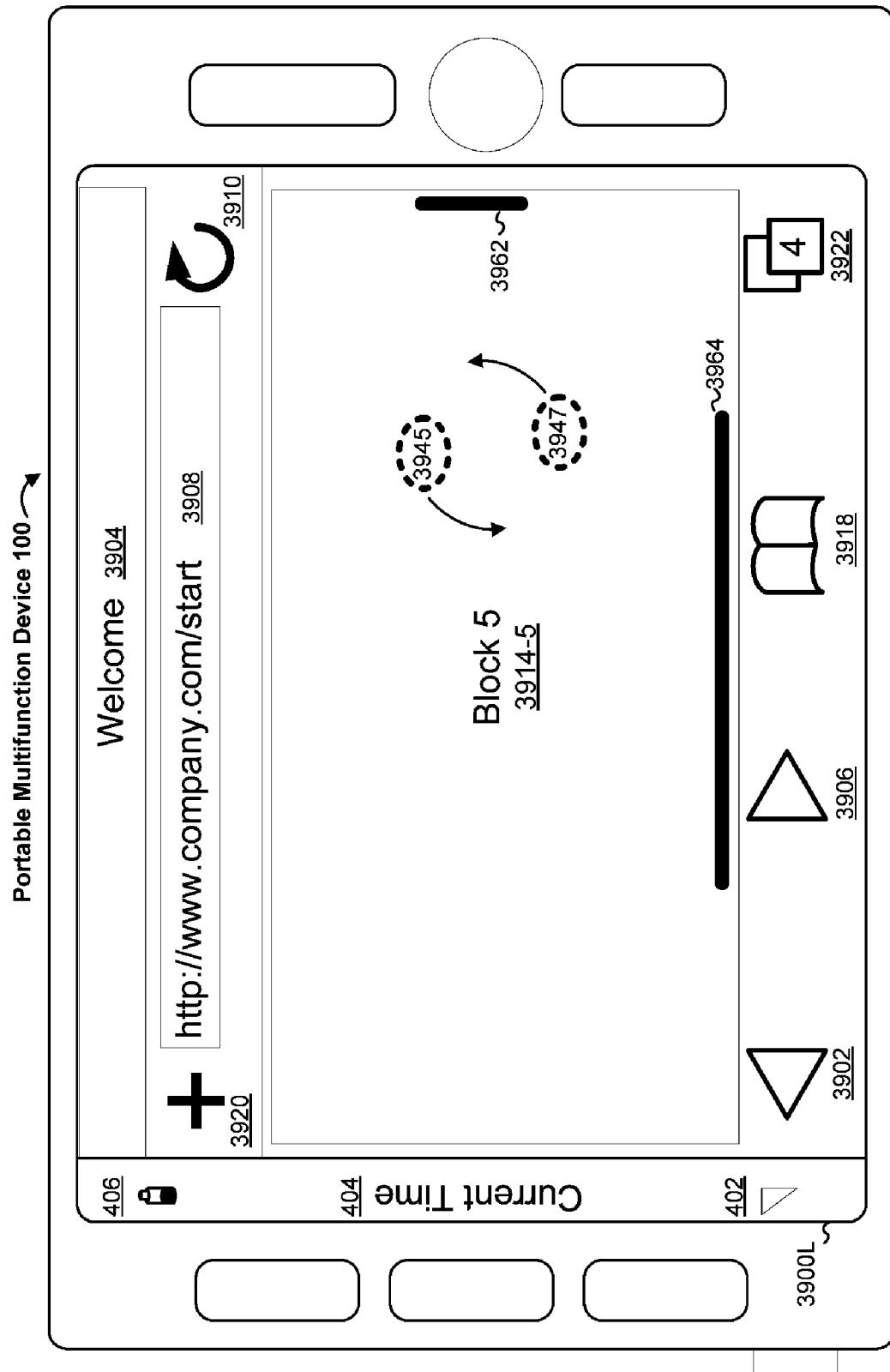


Figure 39L

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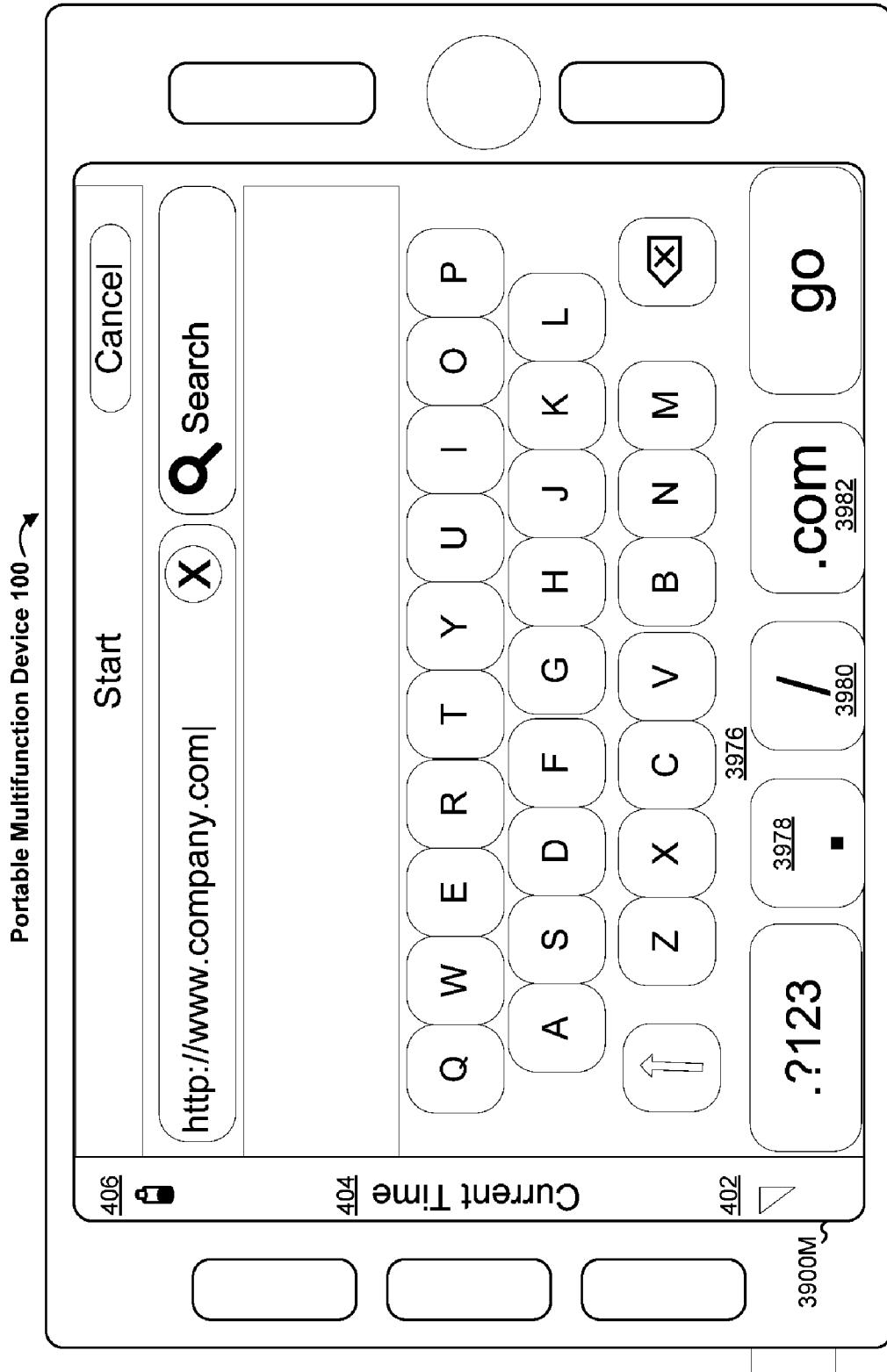


Figure 39M

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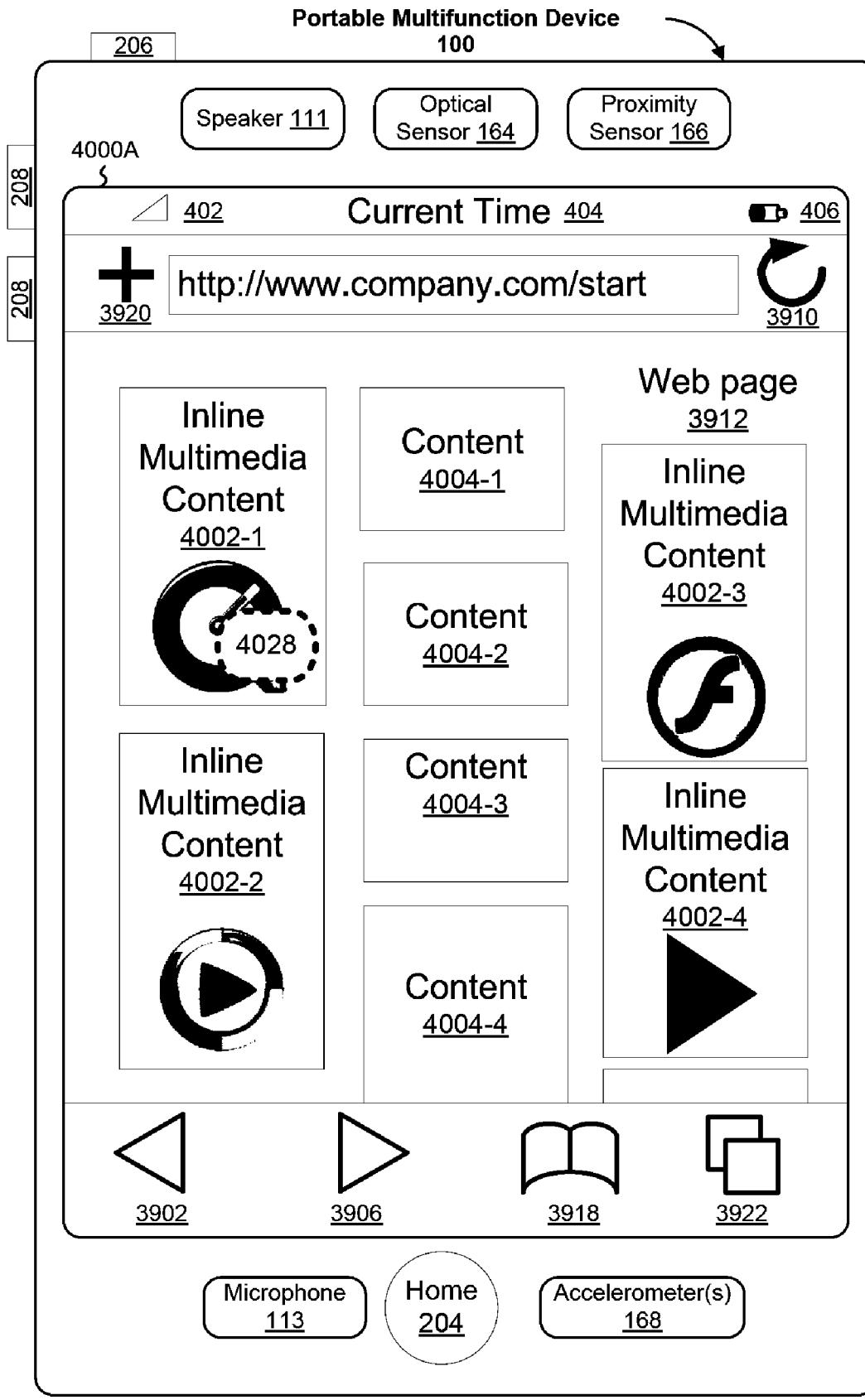


Figure 40A

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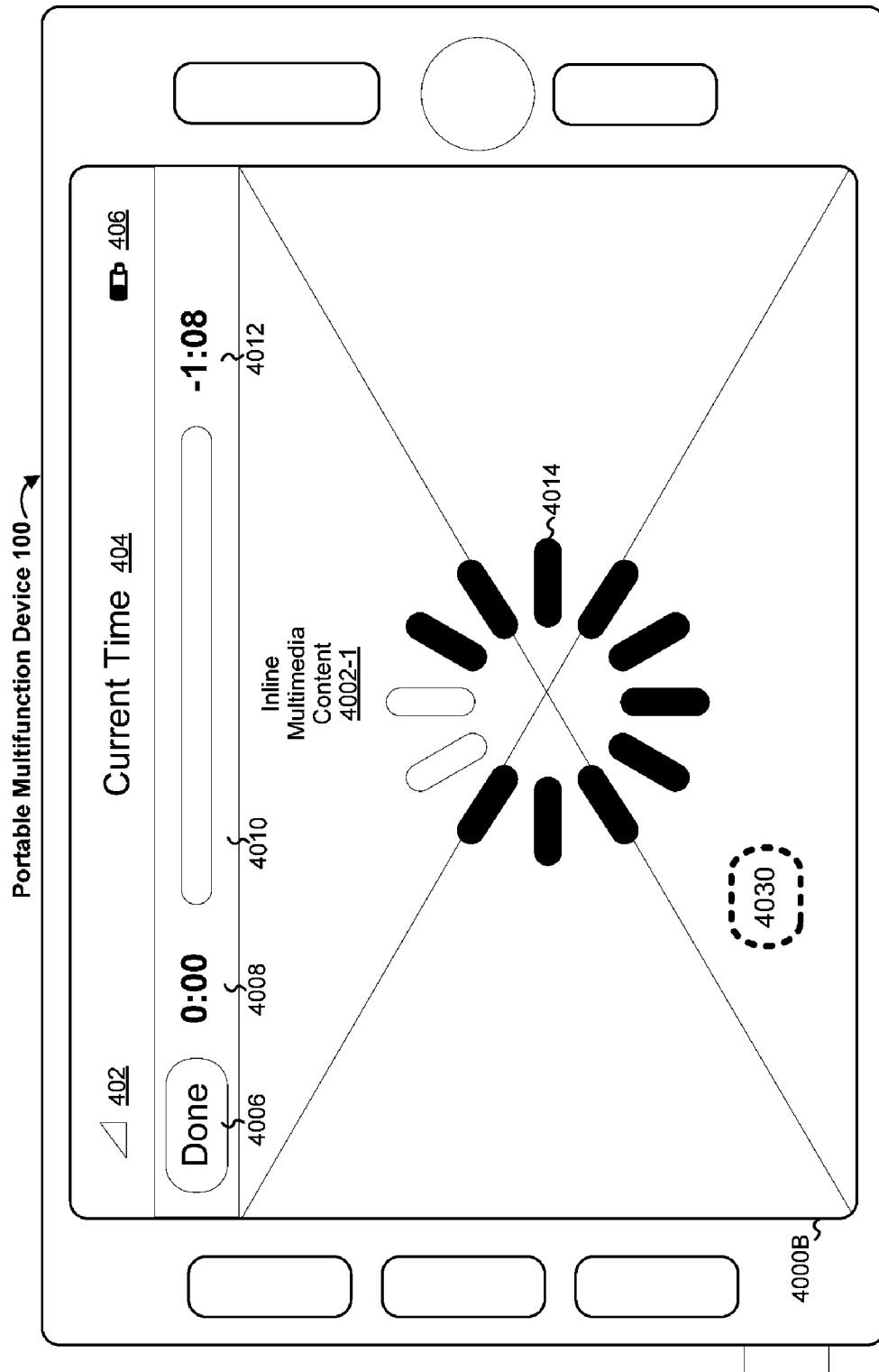


Figure 40B

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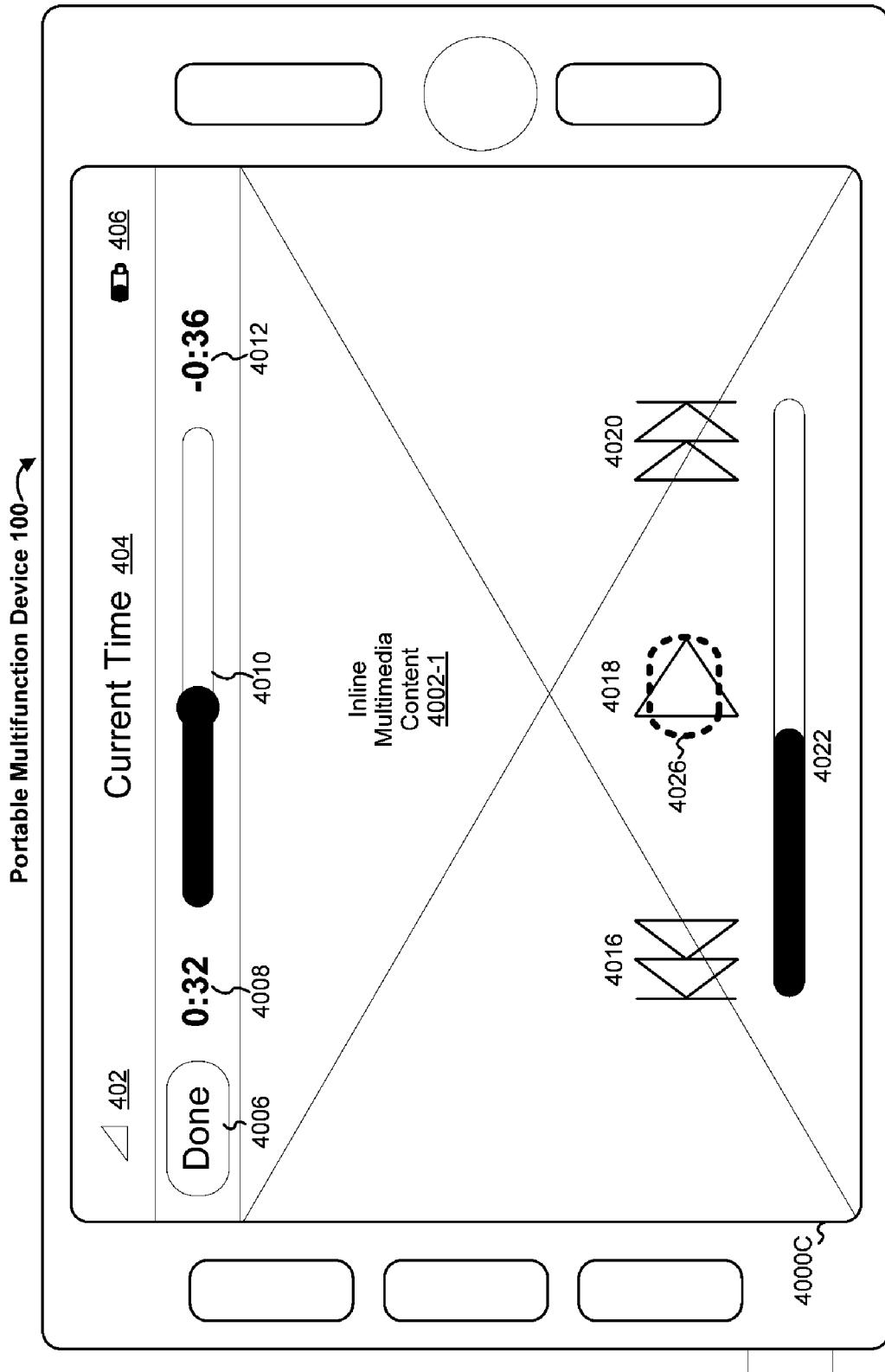


Figure 40C

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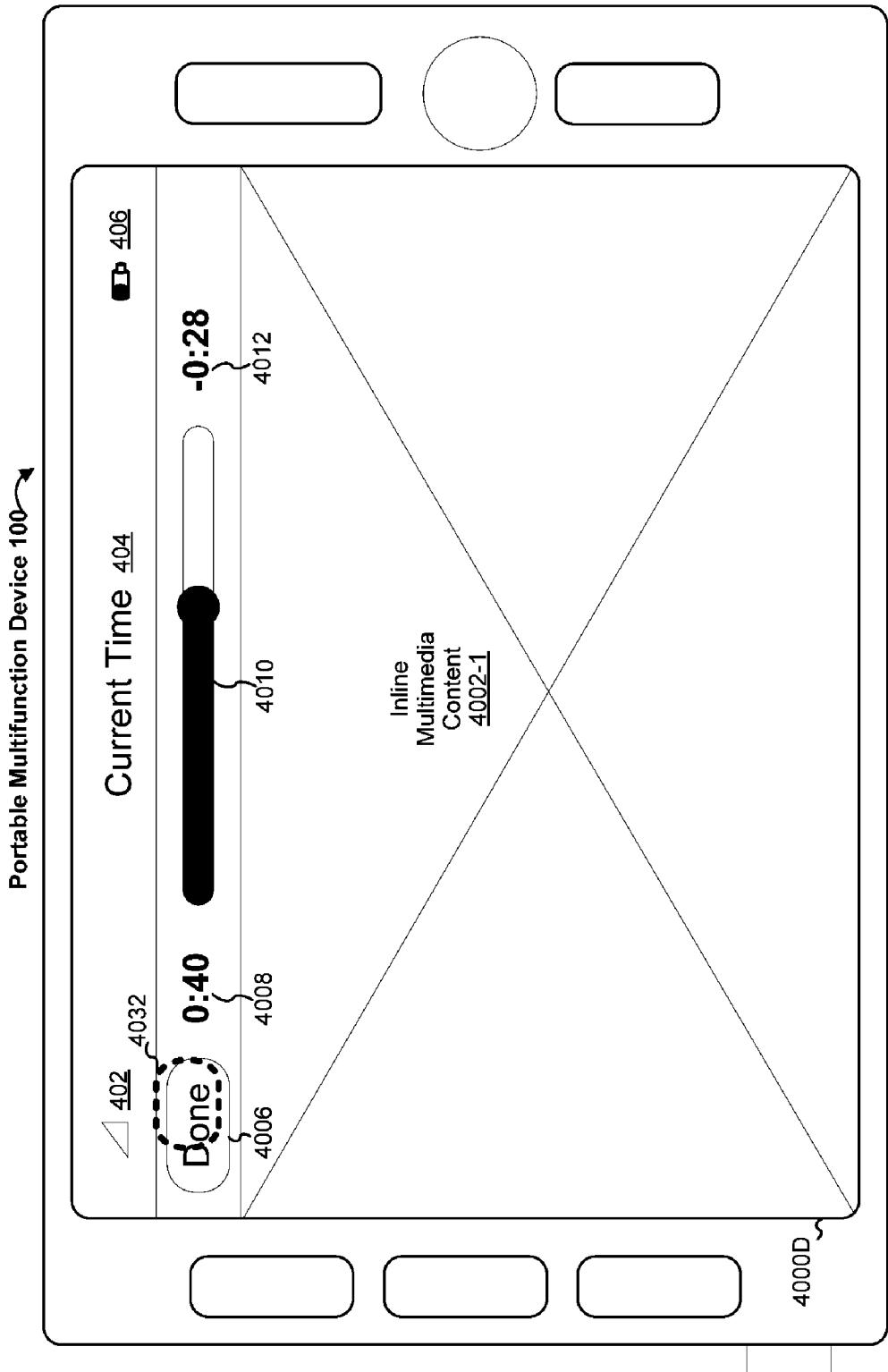


Figure 40D

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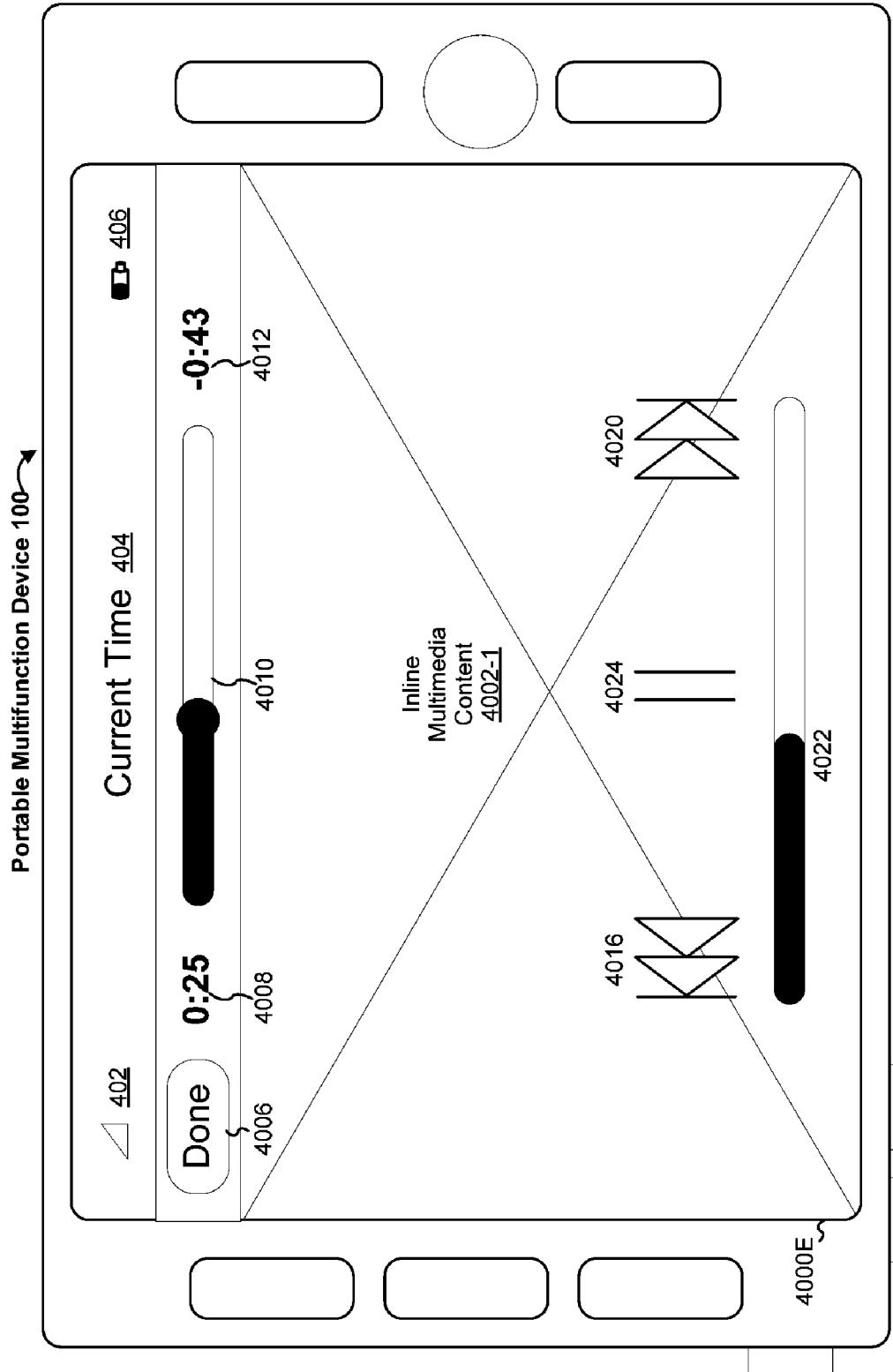


Figure 40E

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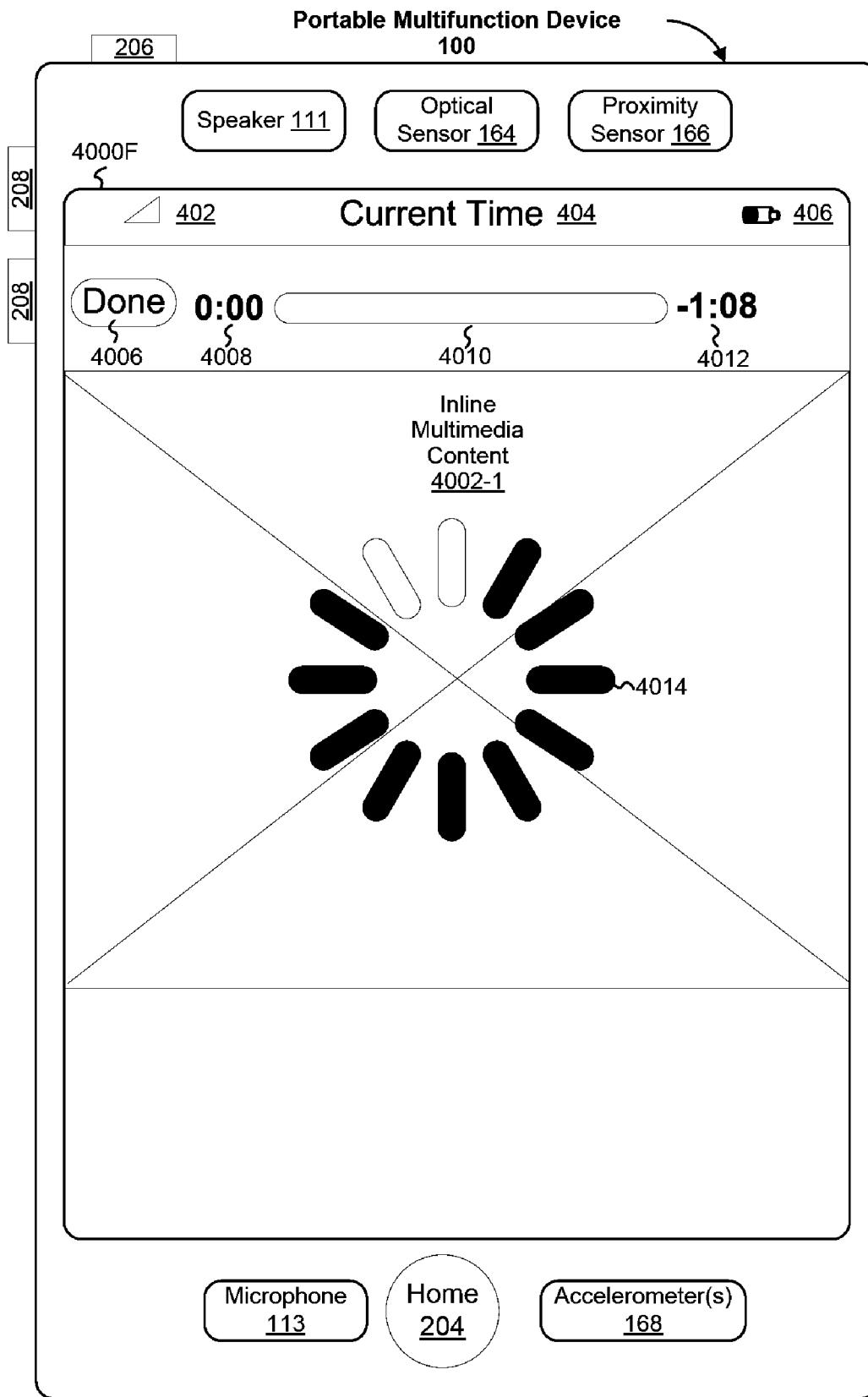


Figure 40F

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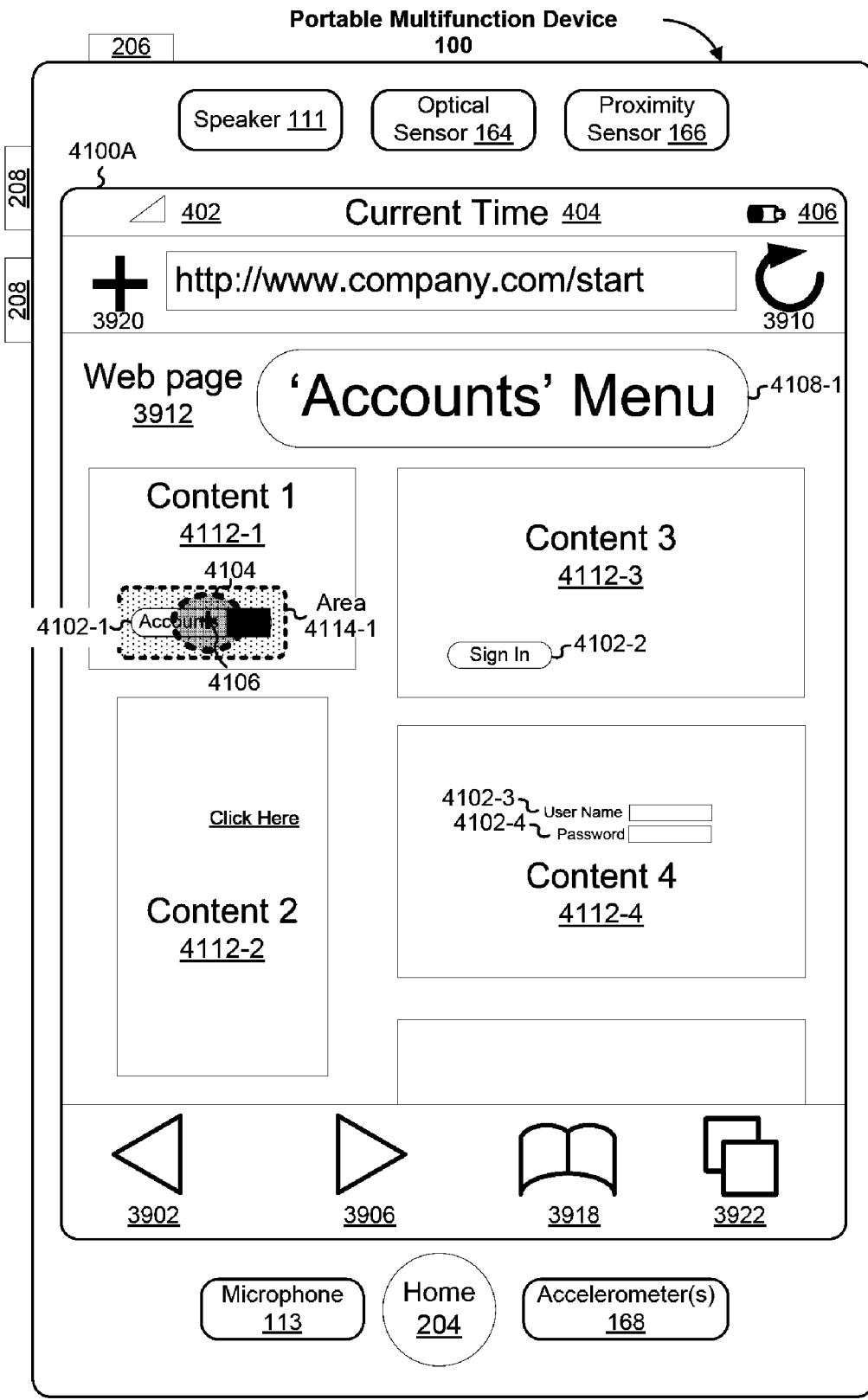


Figure 41A

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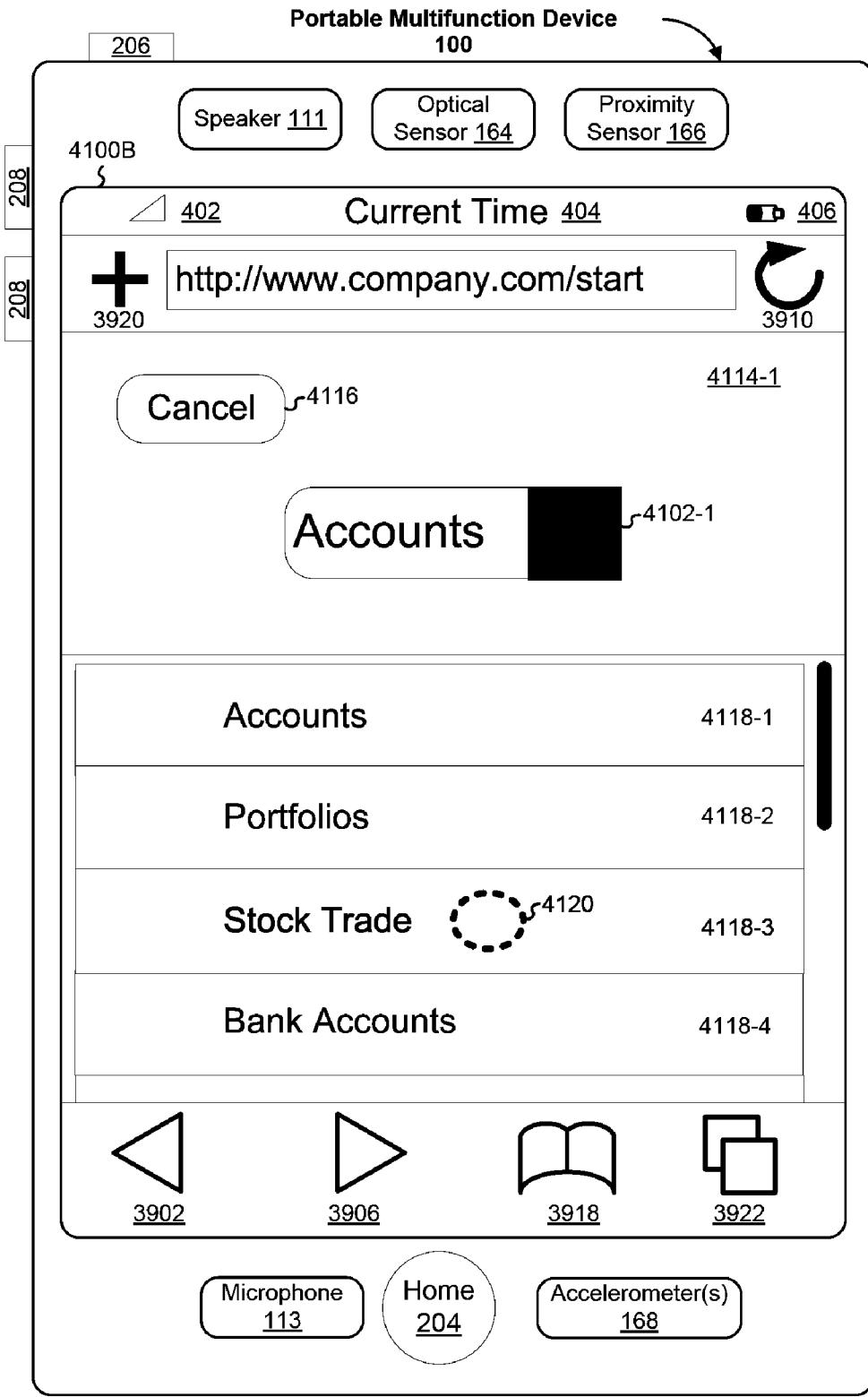


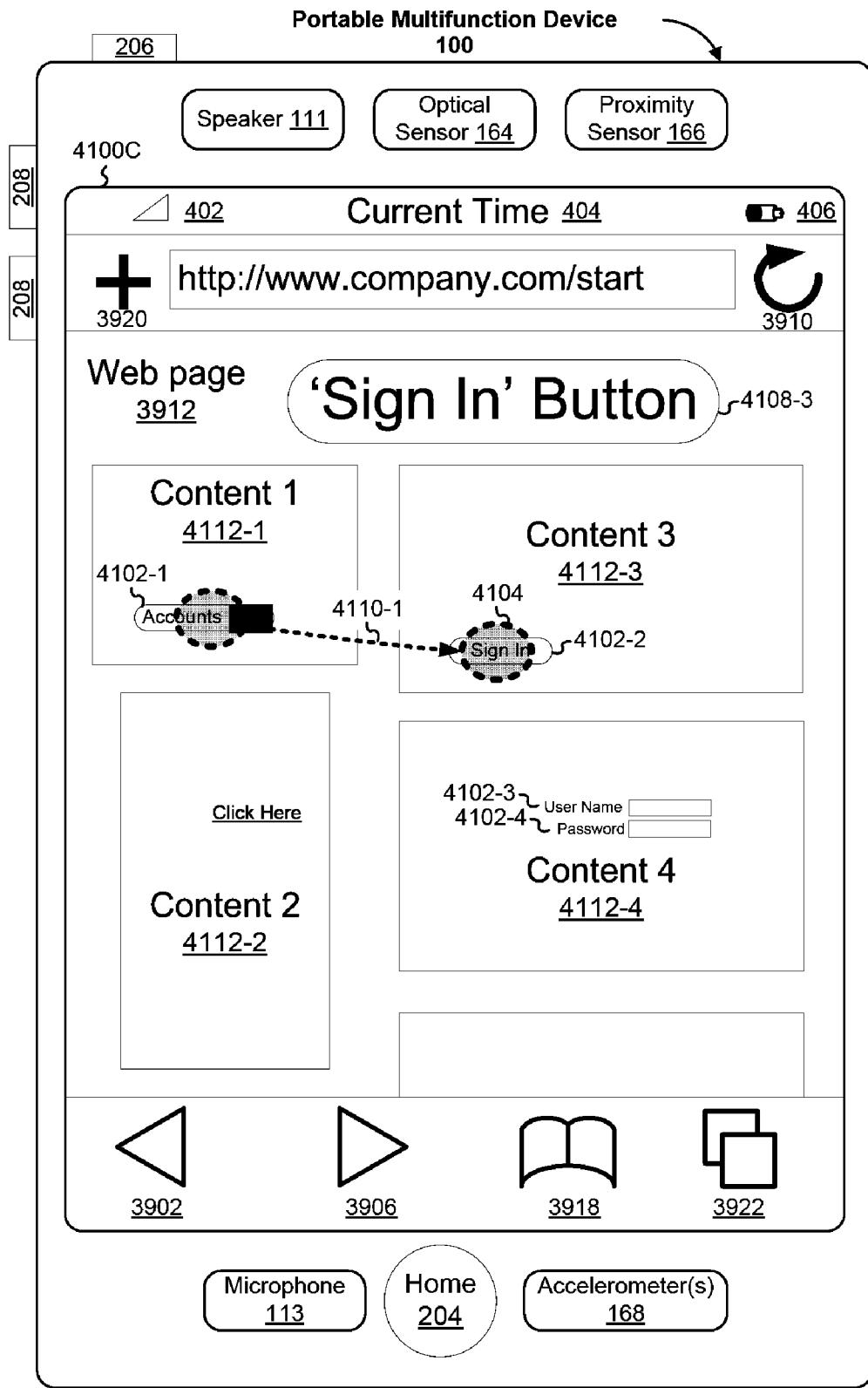
Figure 41B

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**Figure 41C**

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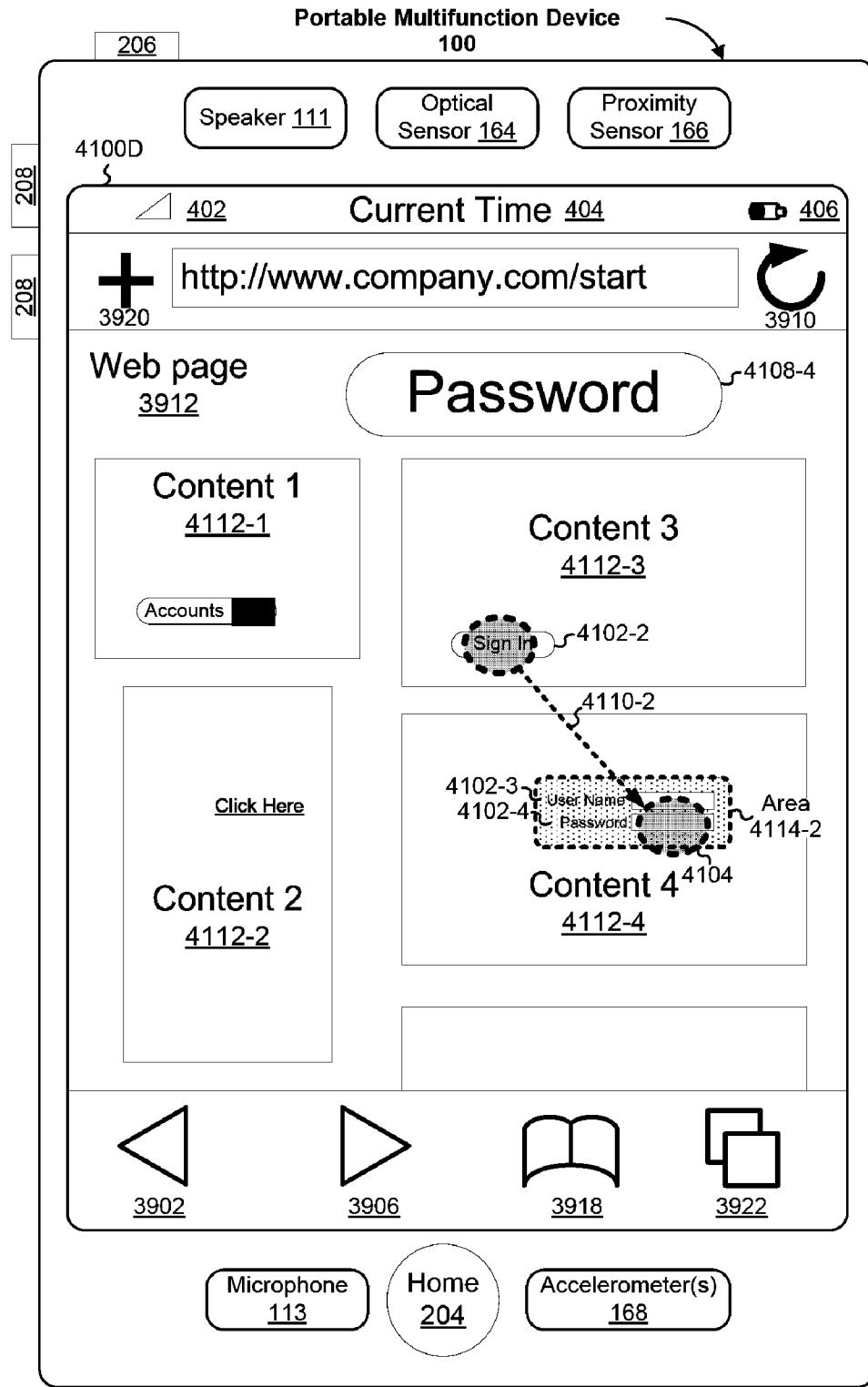


Figure 41D

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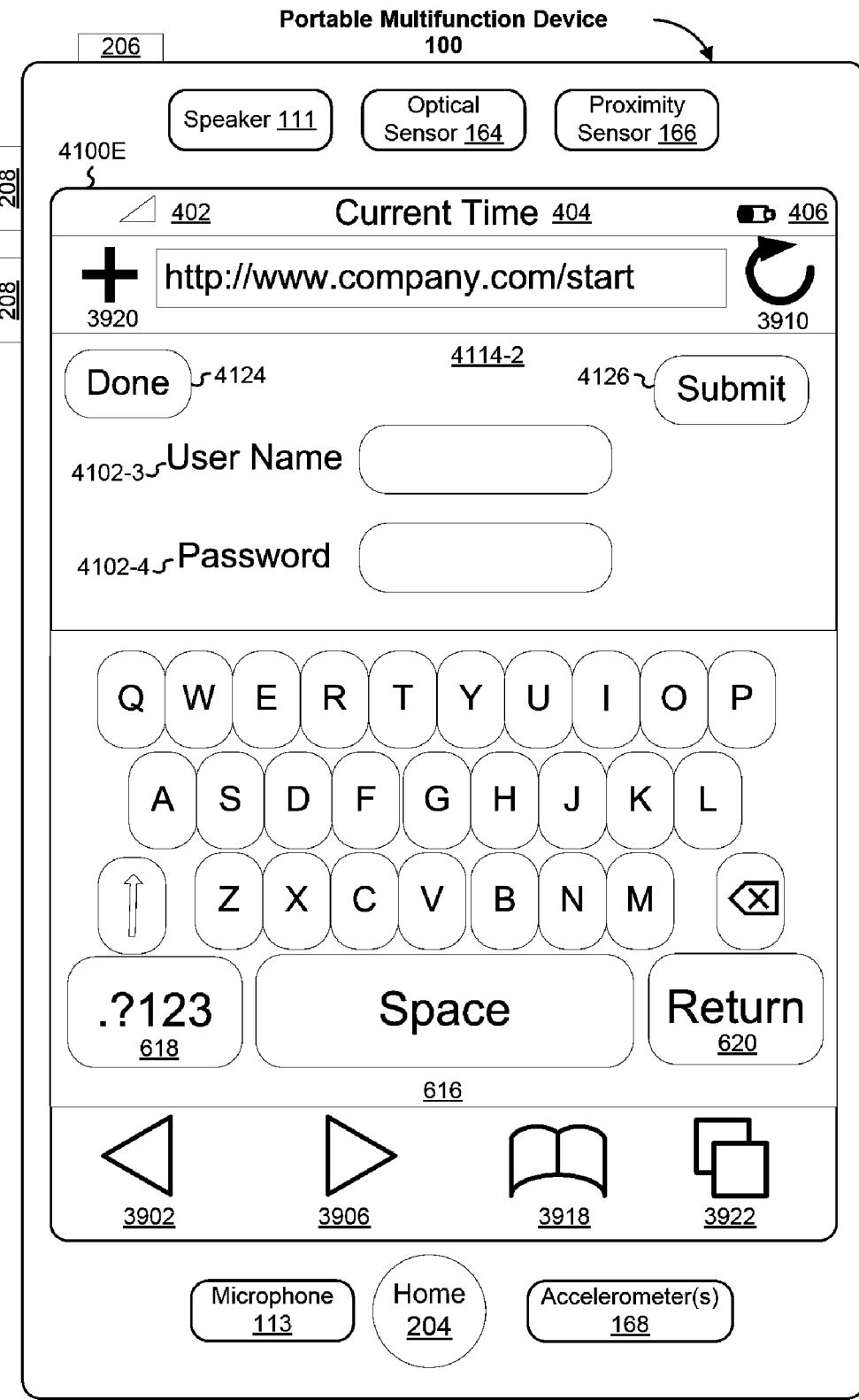


Figure 41E

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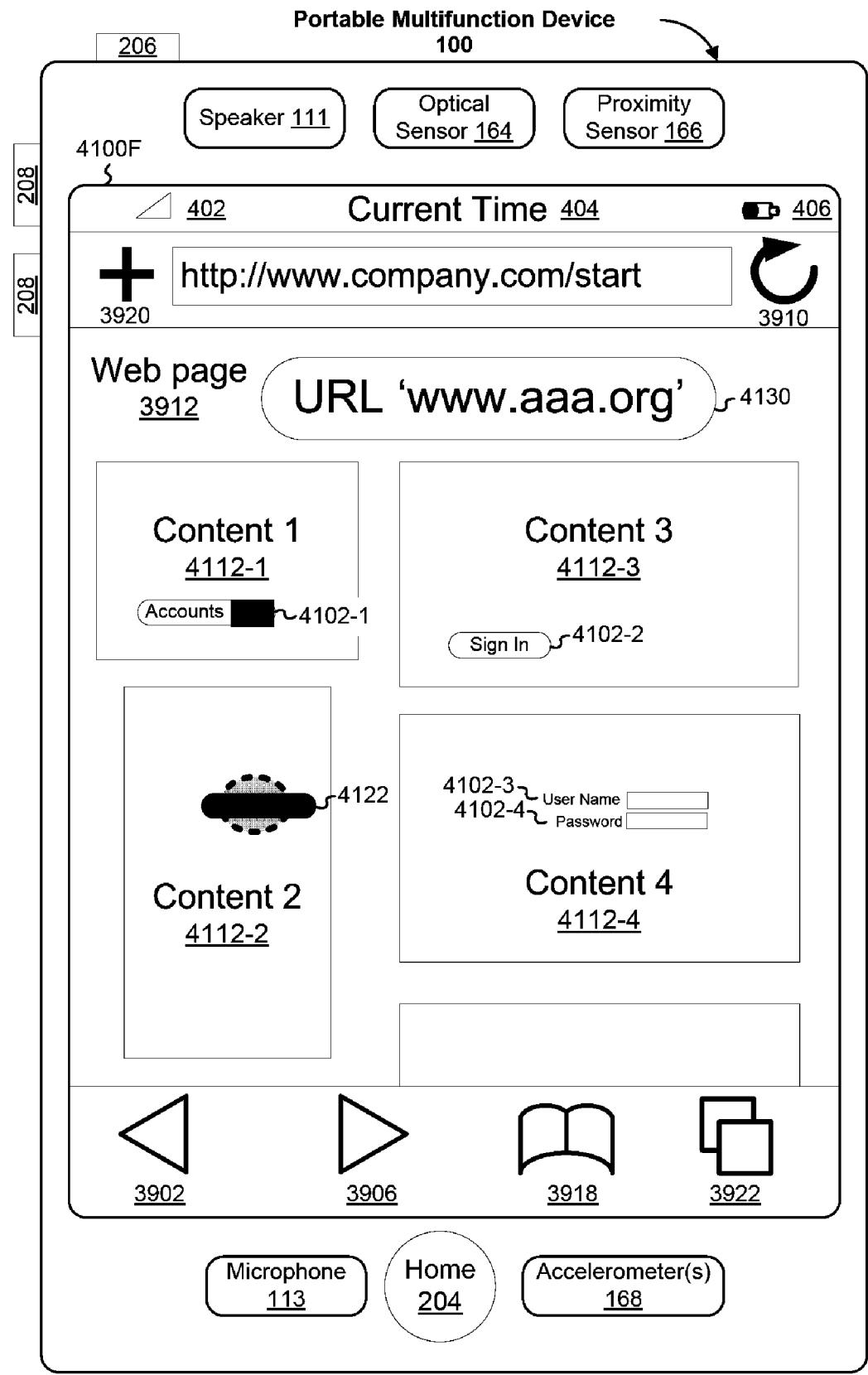


Figure 41F

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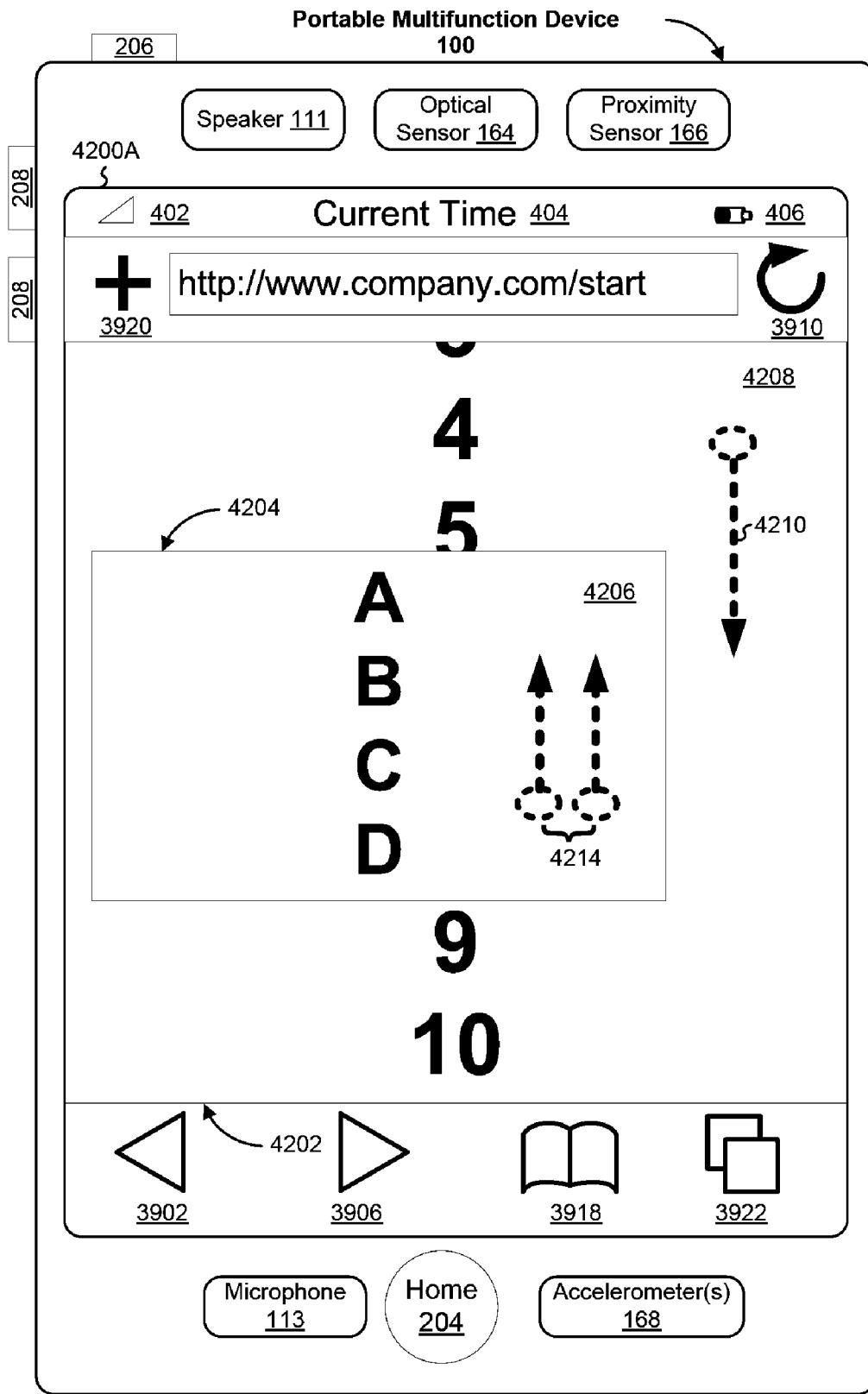


Figure 42A

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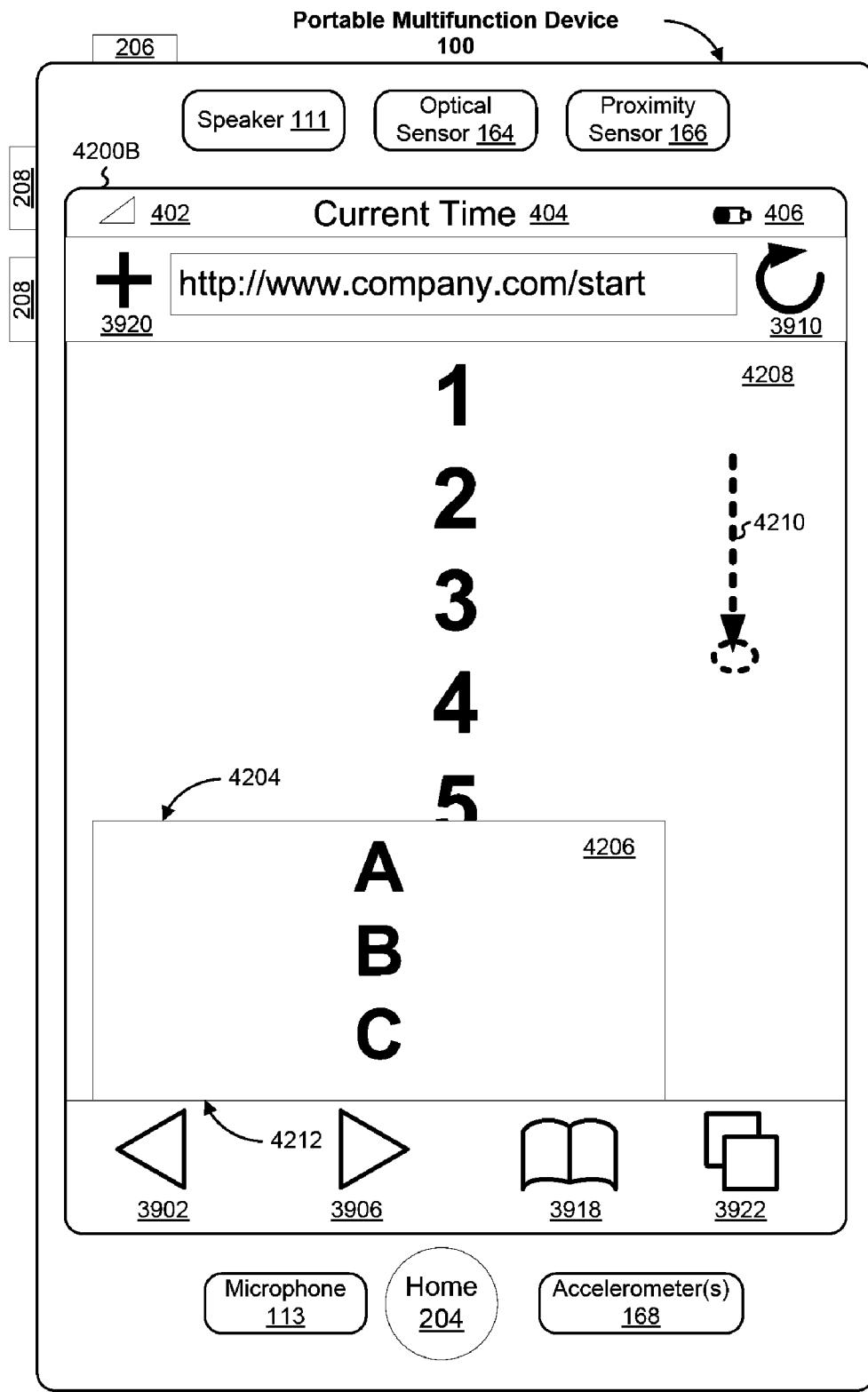


Figure 42B

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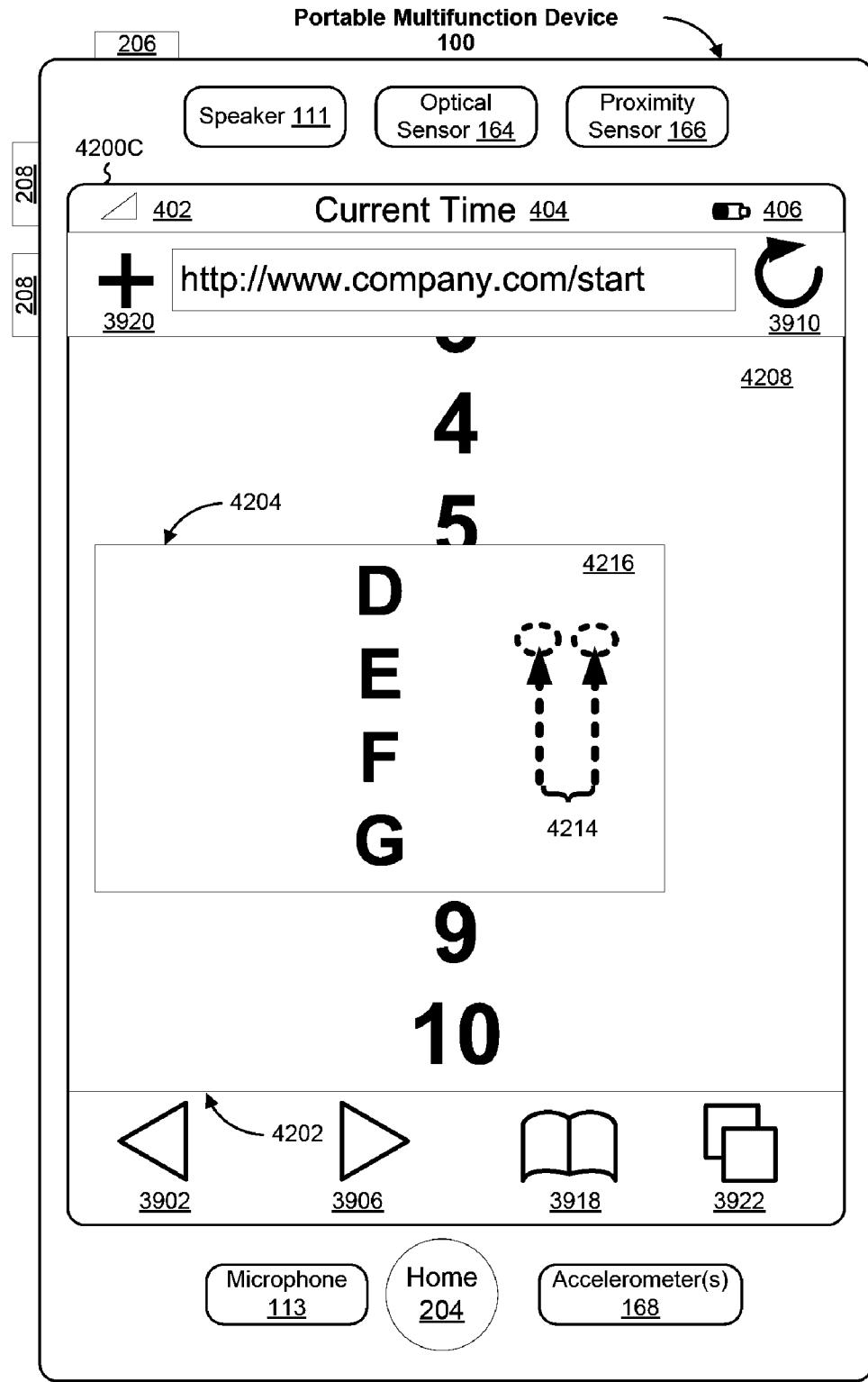


Figure 42C

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Figure 43A

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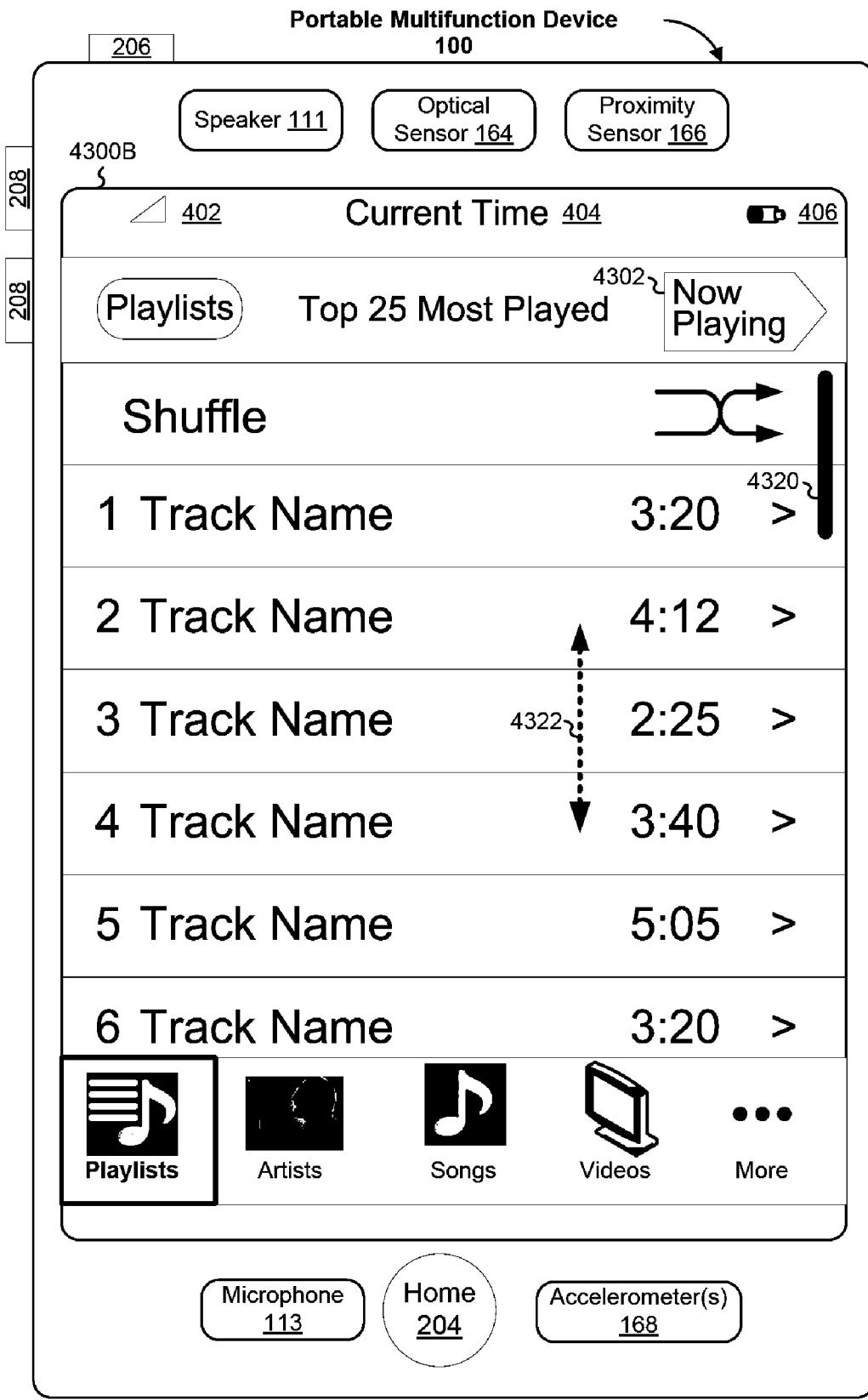


Figure 43B

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Figure 43C

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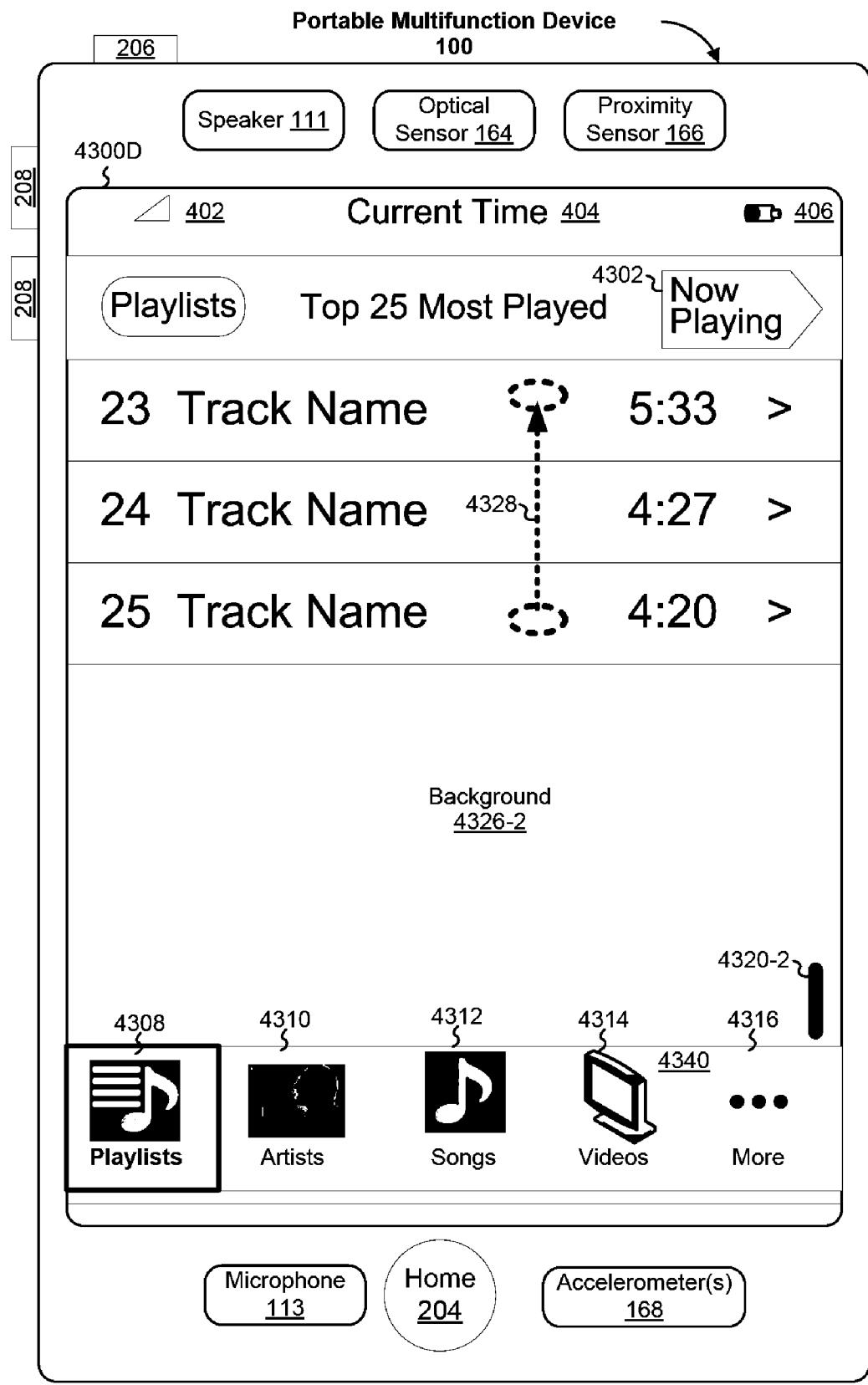


Figure 43D

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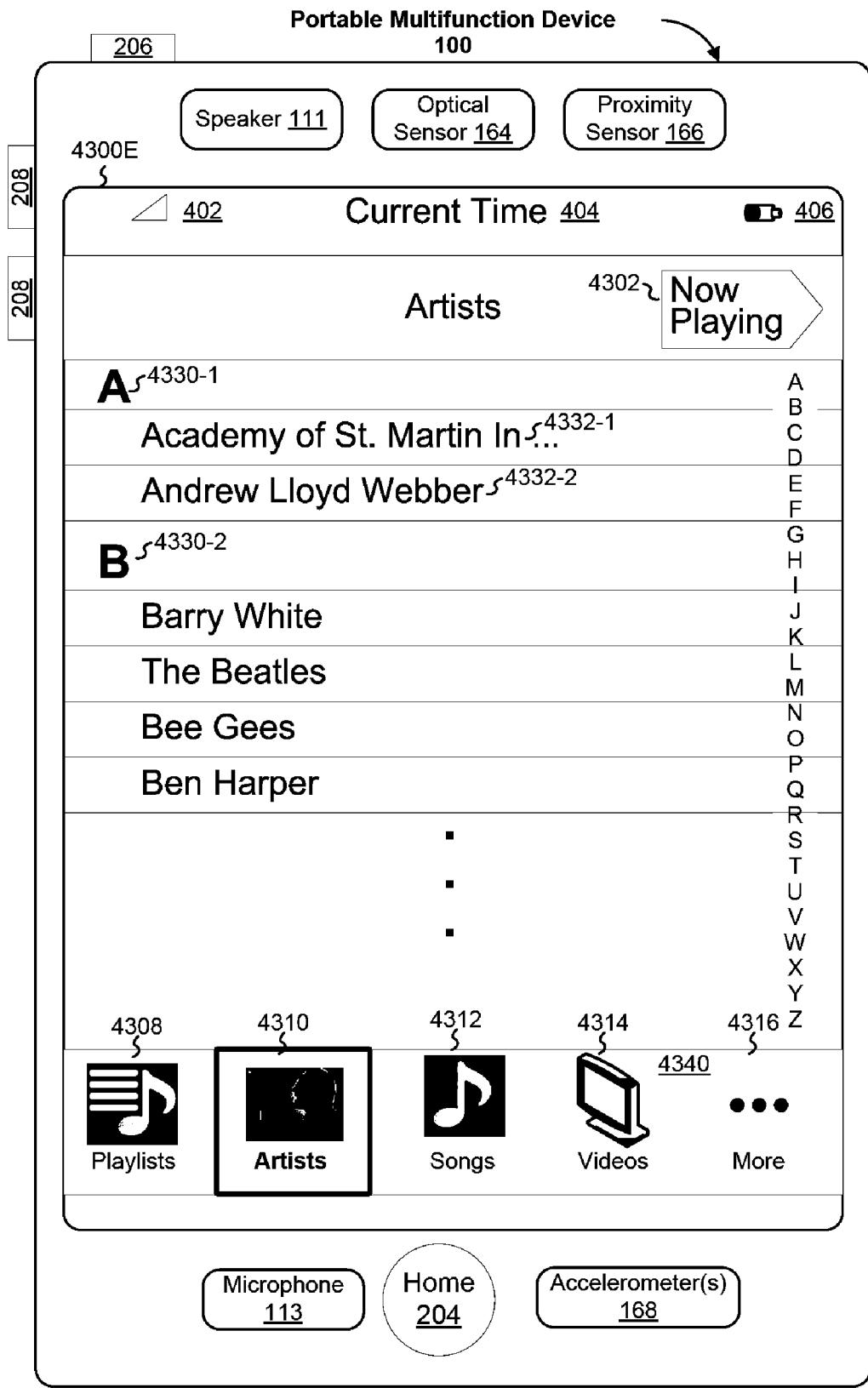


Figure 43E

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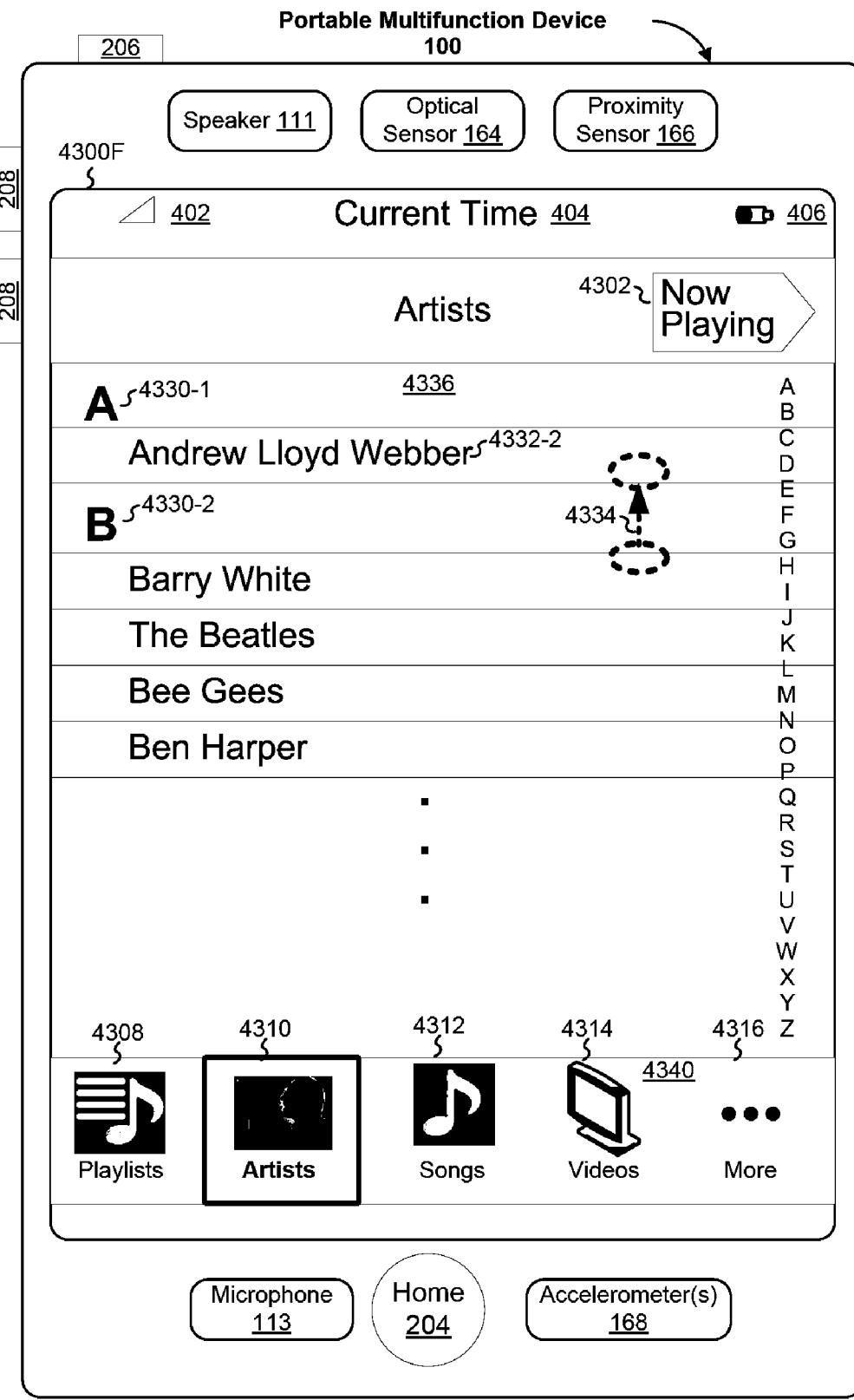


Figure 43F

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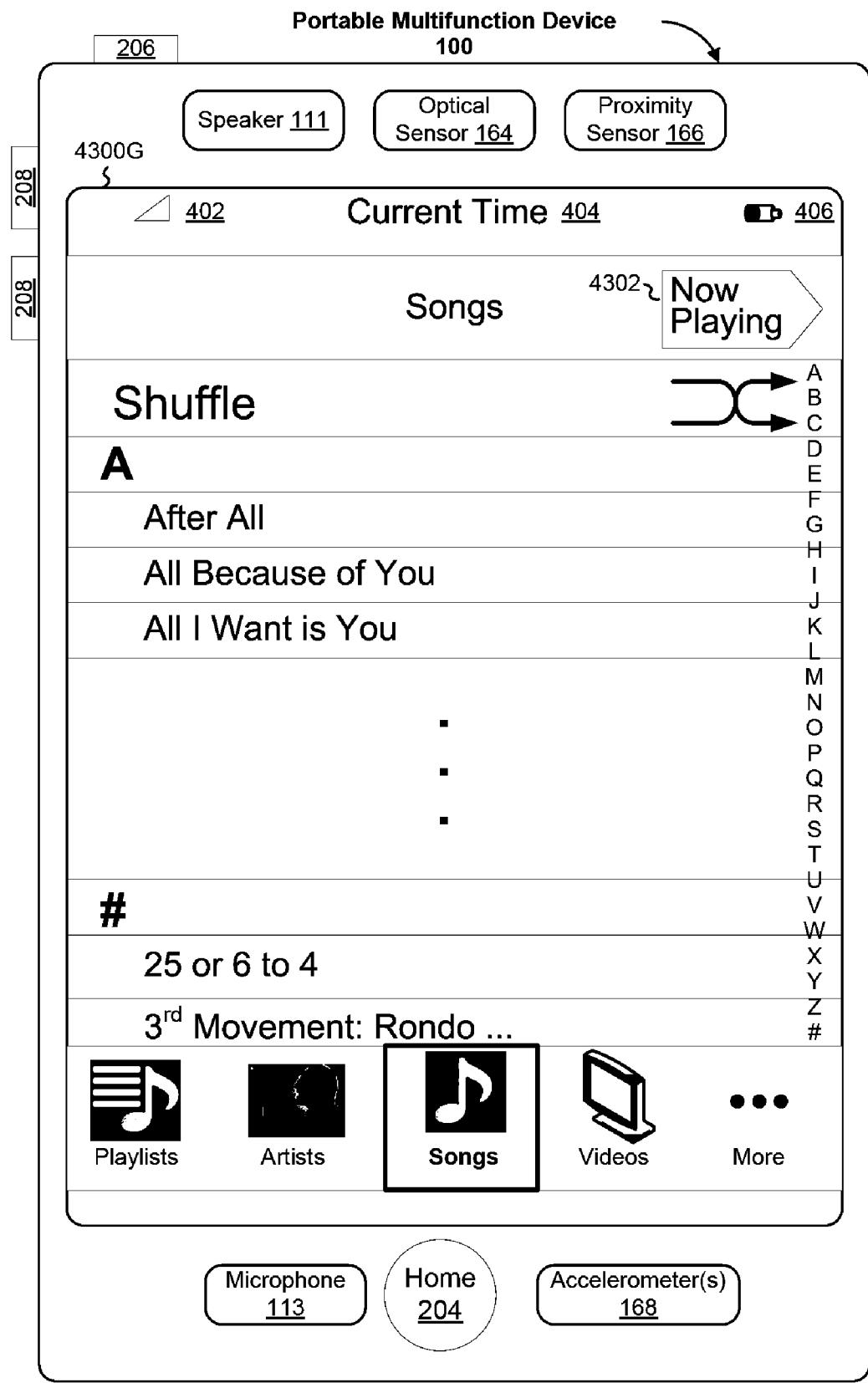


Figure 43G

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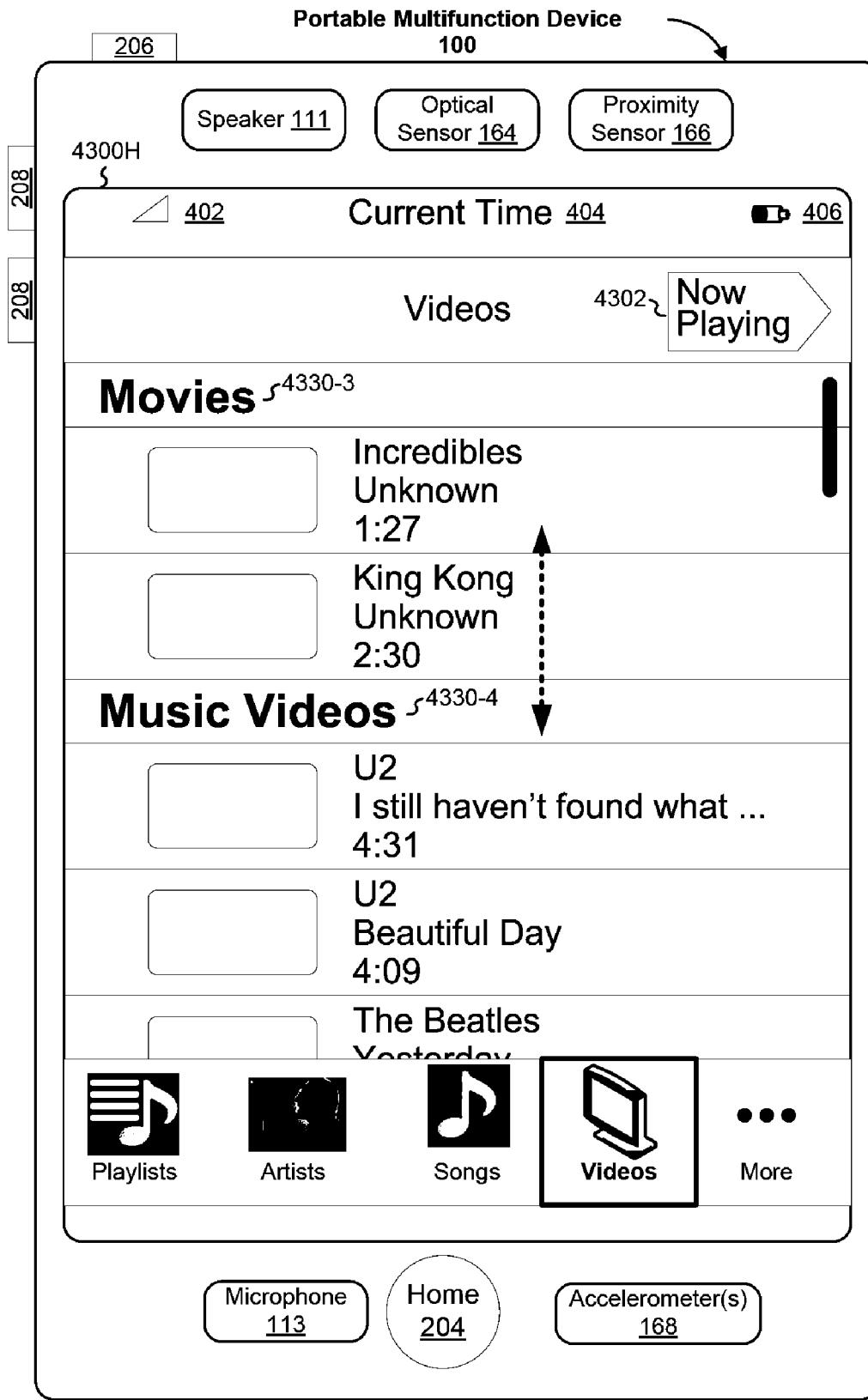


Figure 43H

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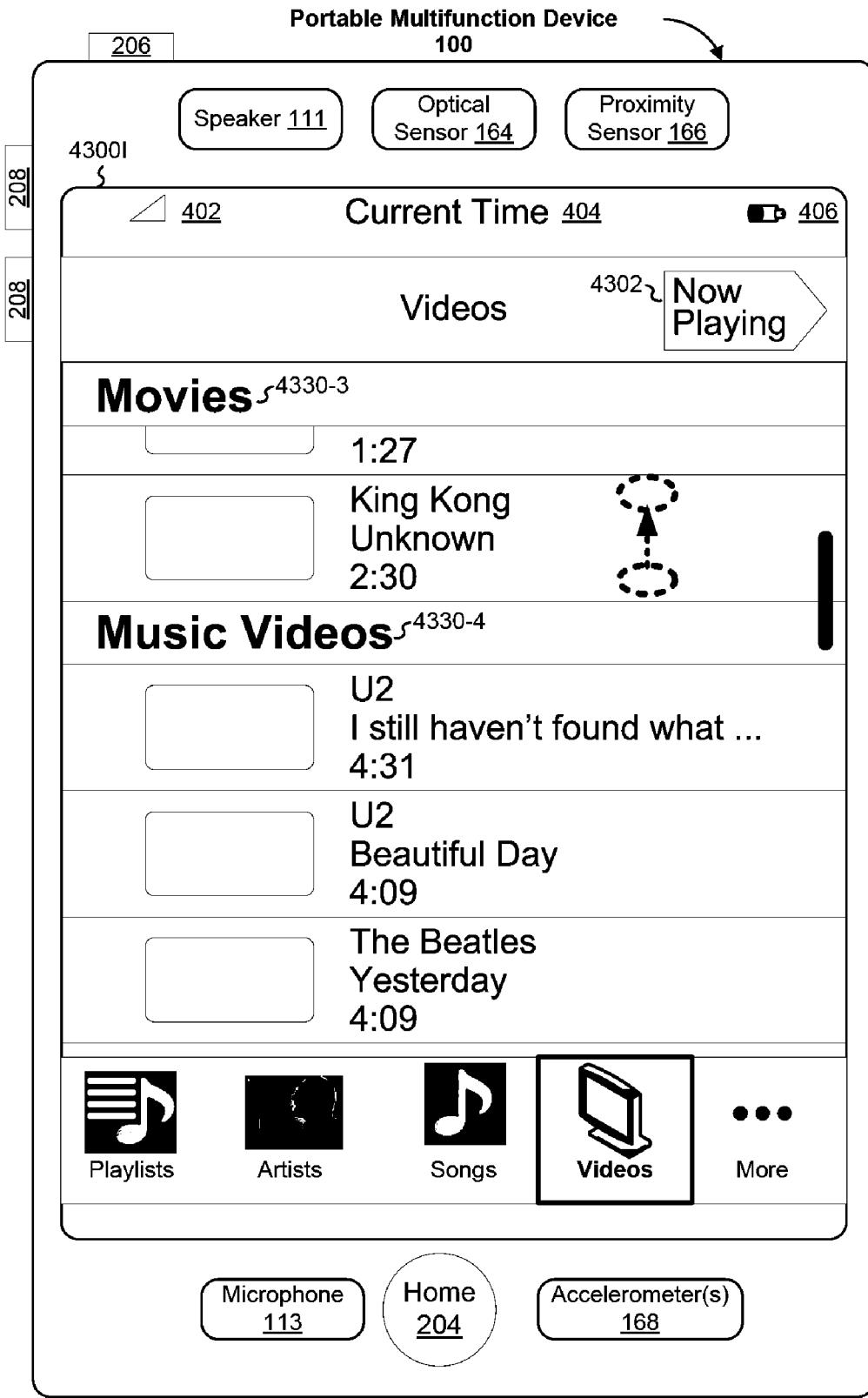


Figure 43I

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Figure 43J

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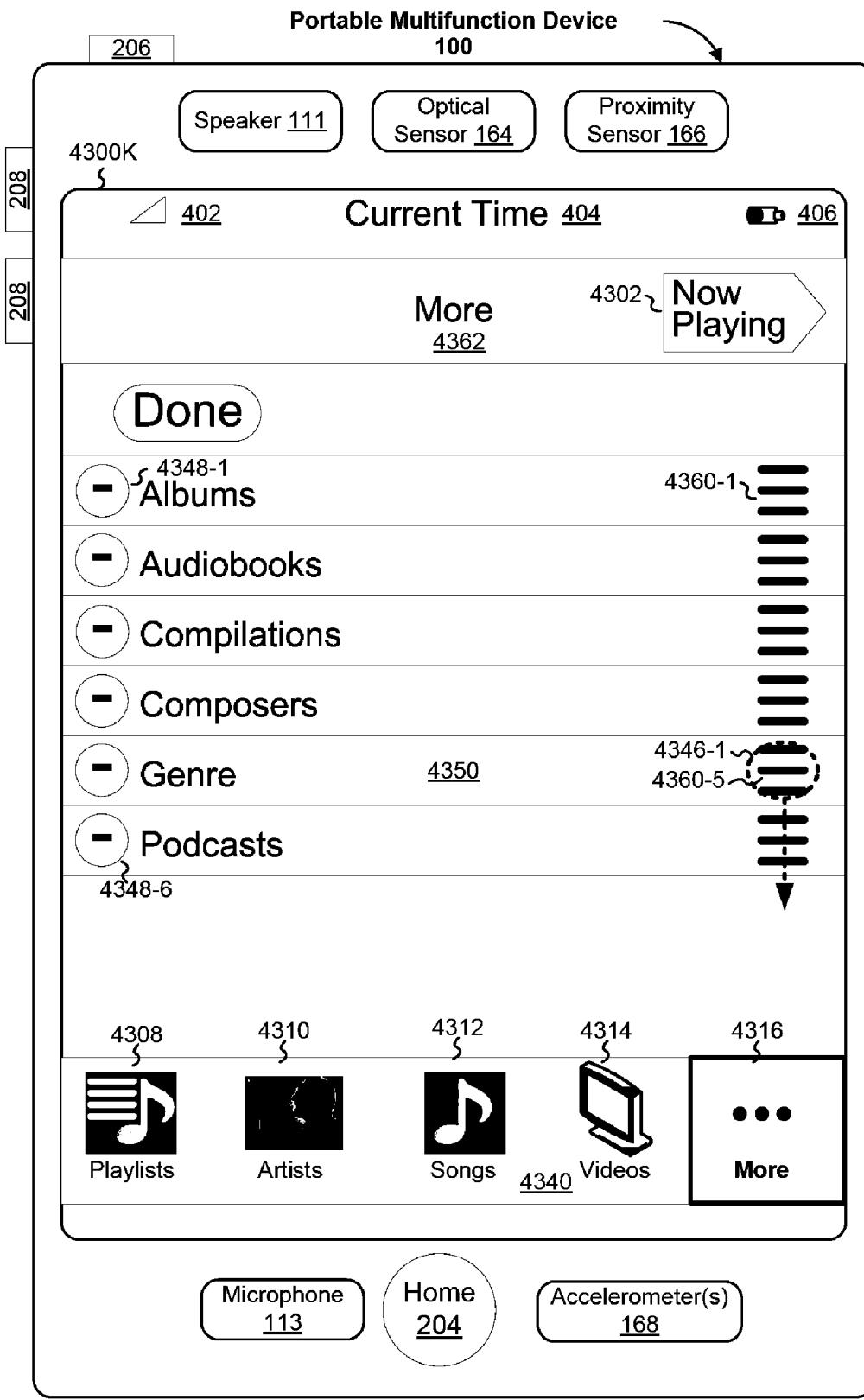


Figure 43K

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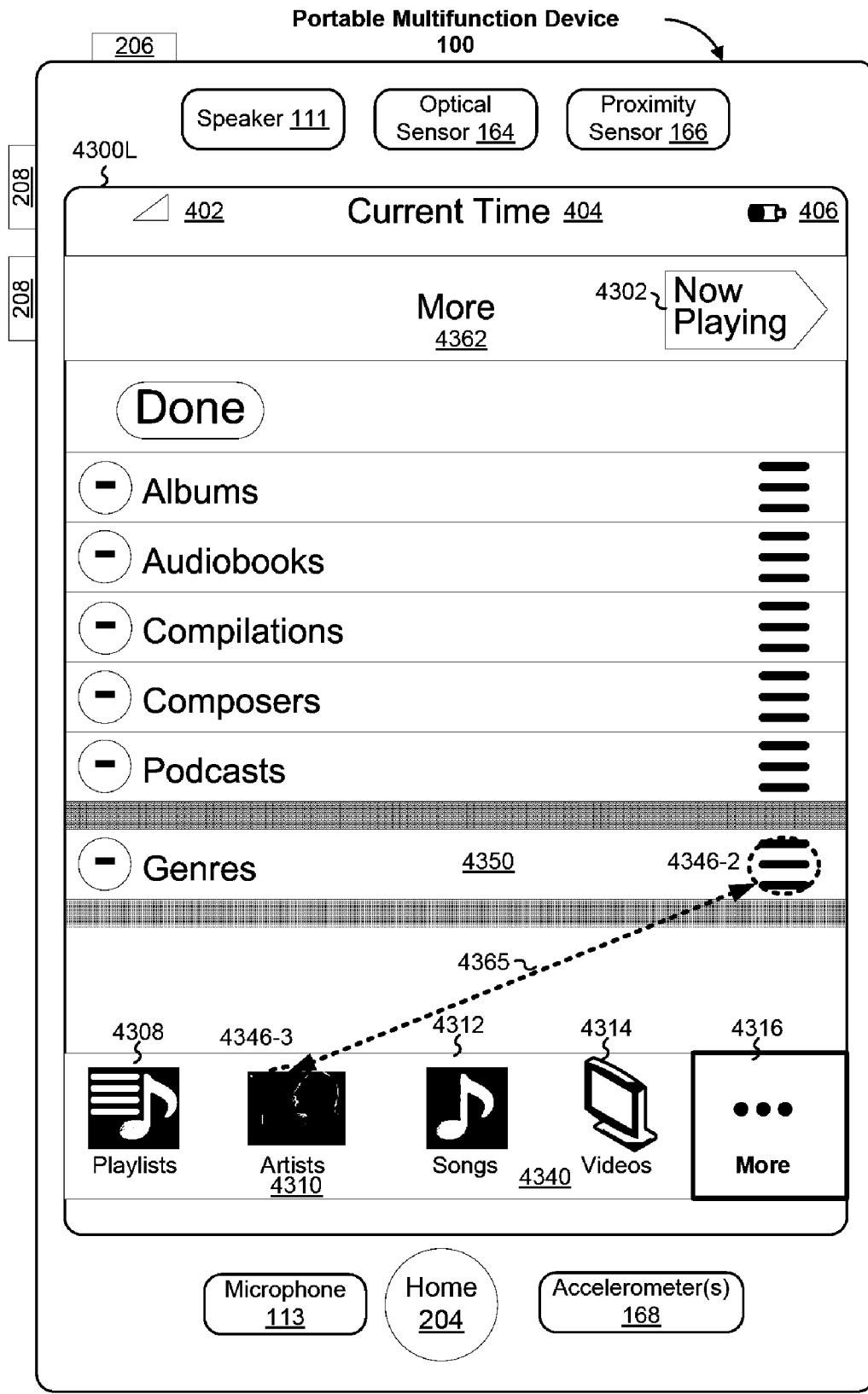


Figure 43L

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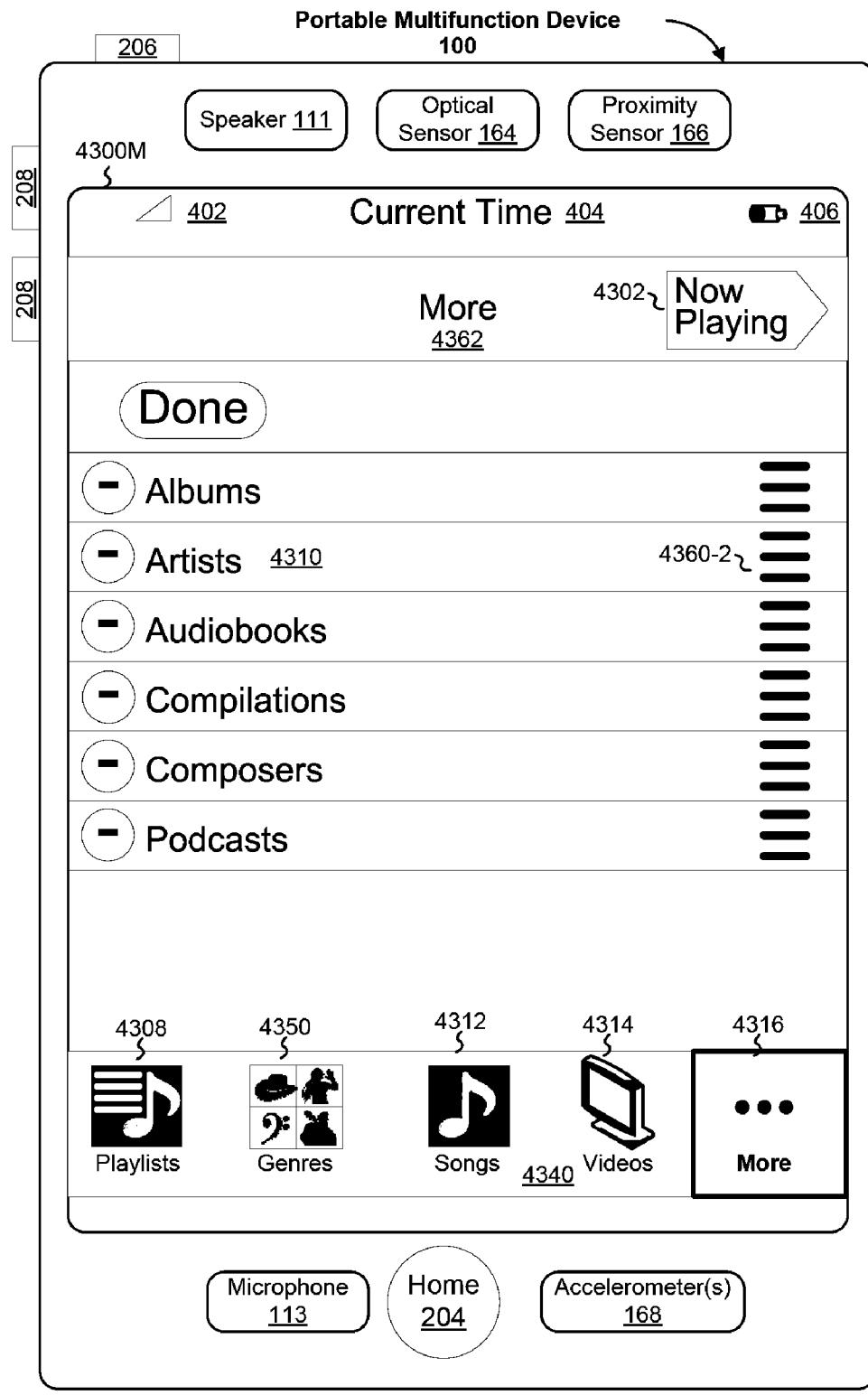


Figure 43M

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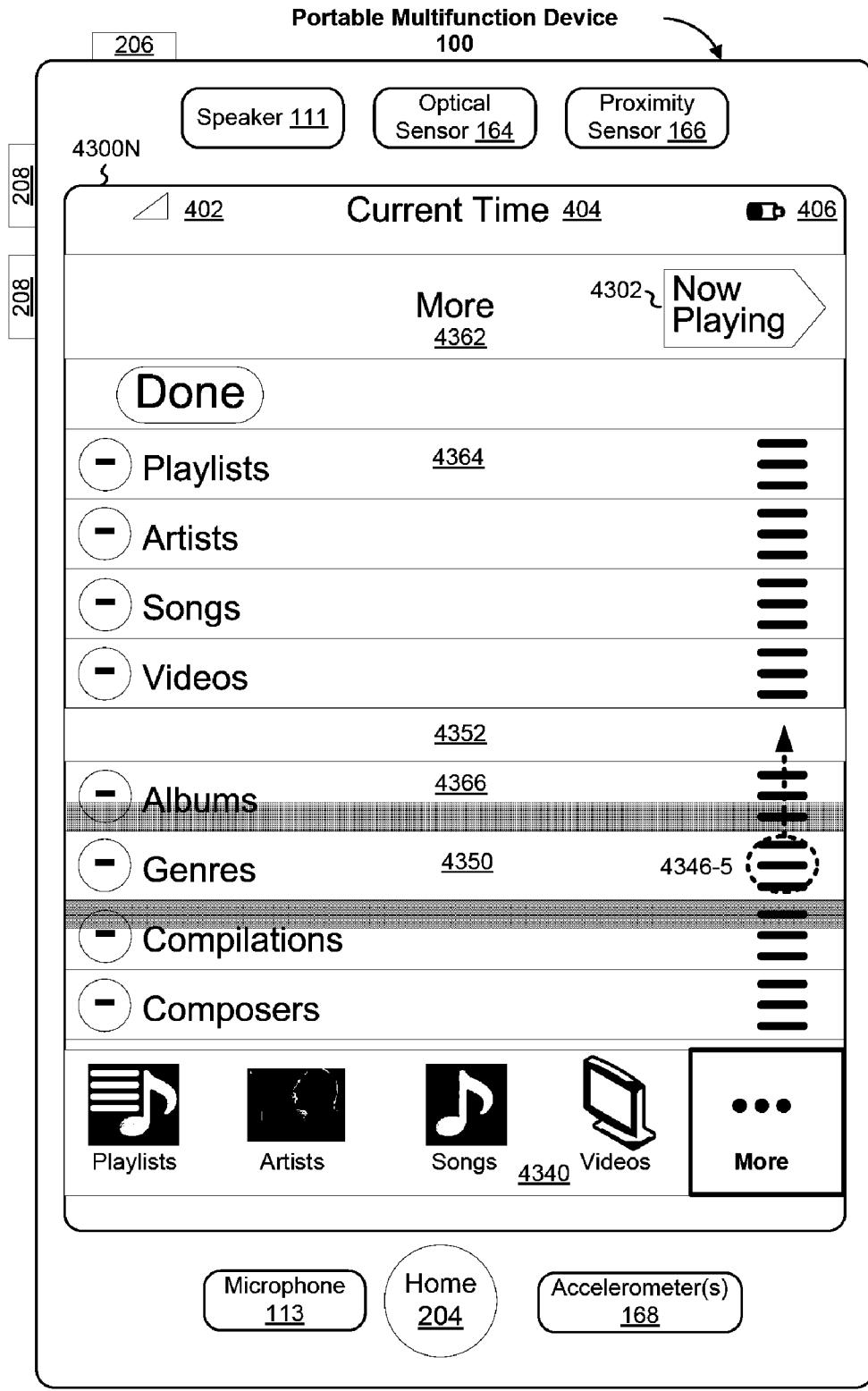


Figure 43N

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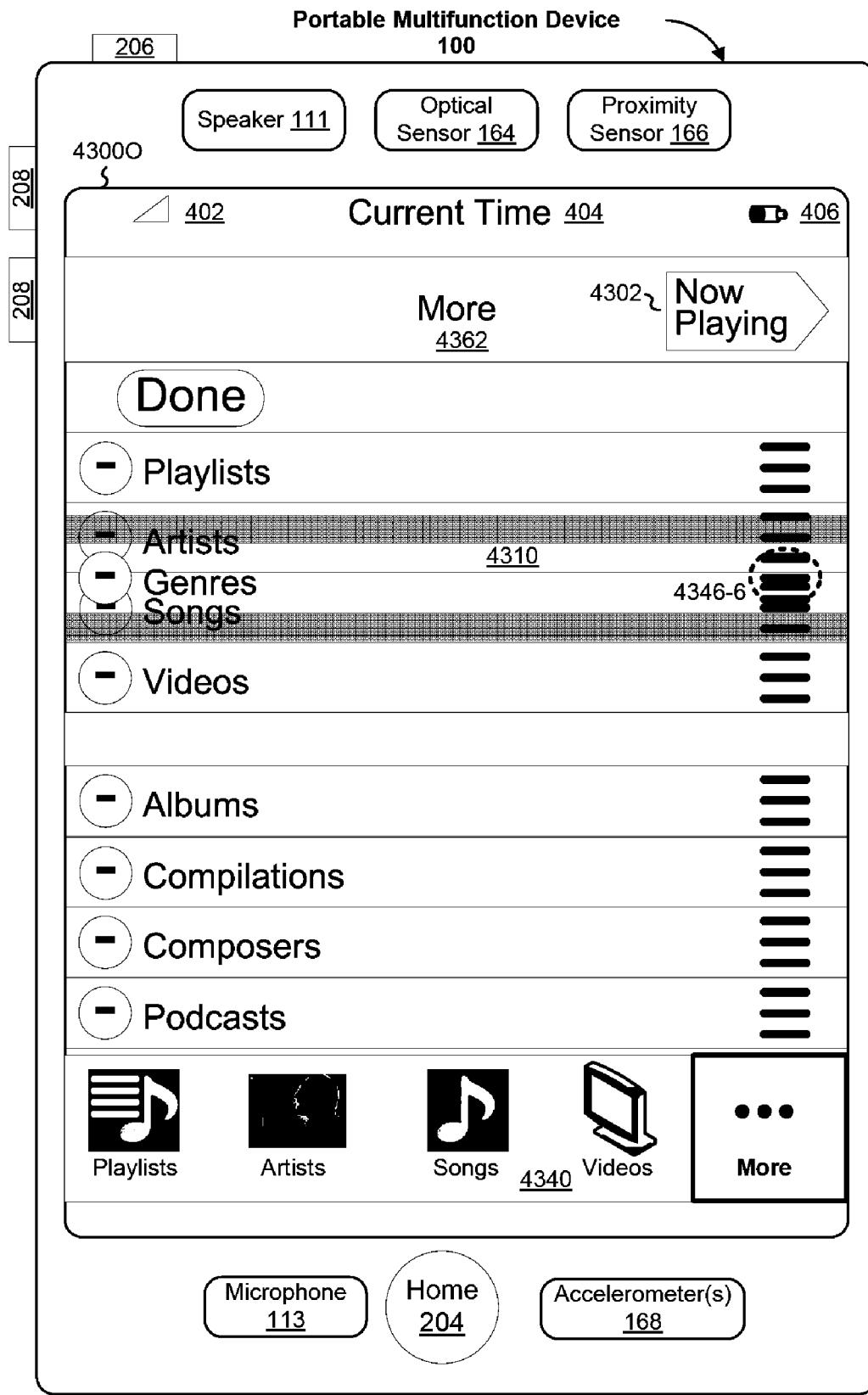


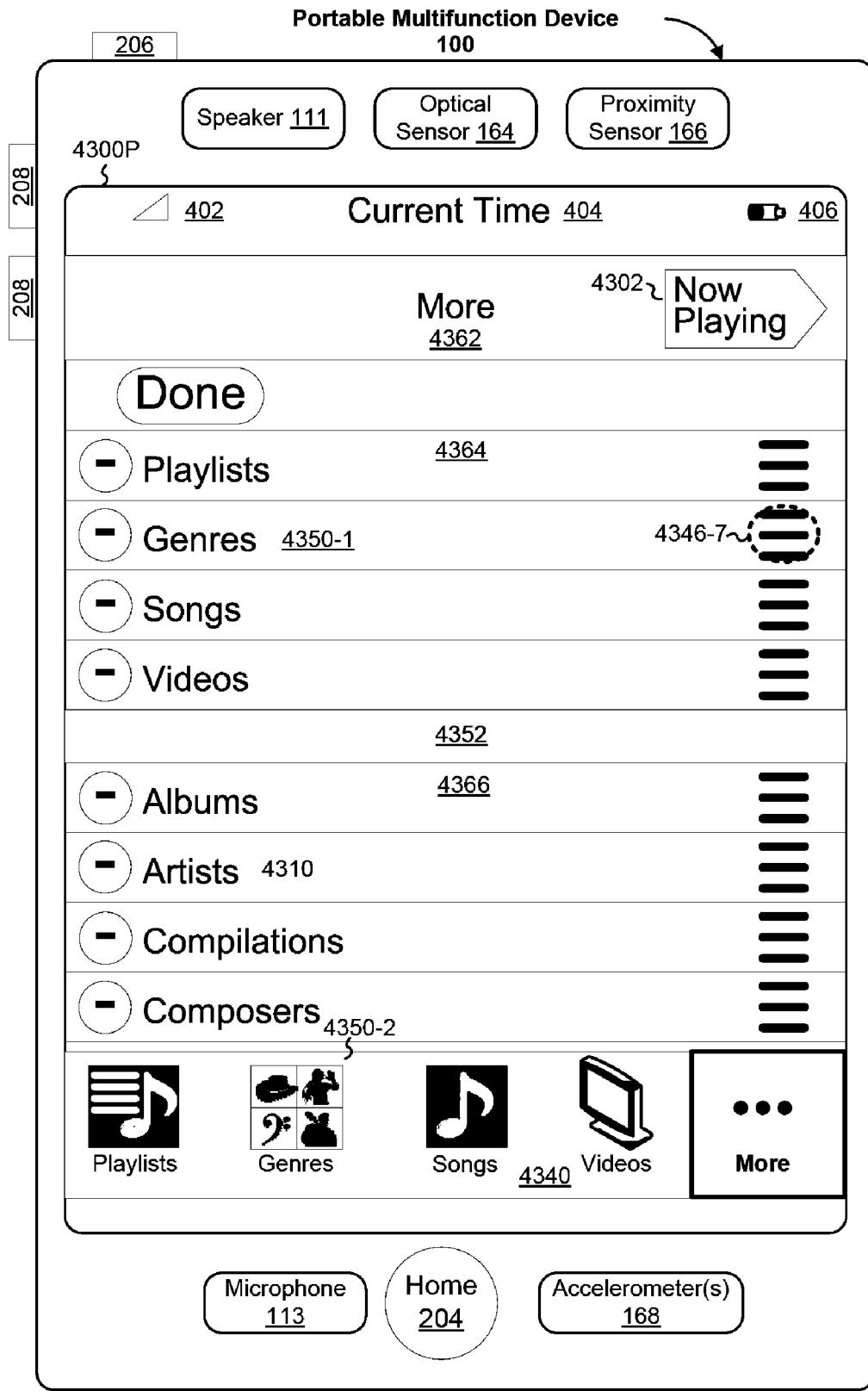
Figure 43O

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**Figure 43P**

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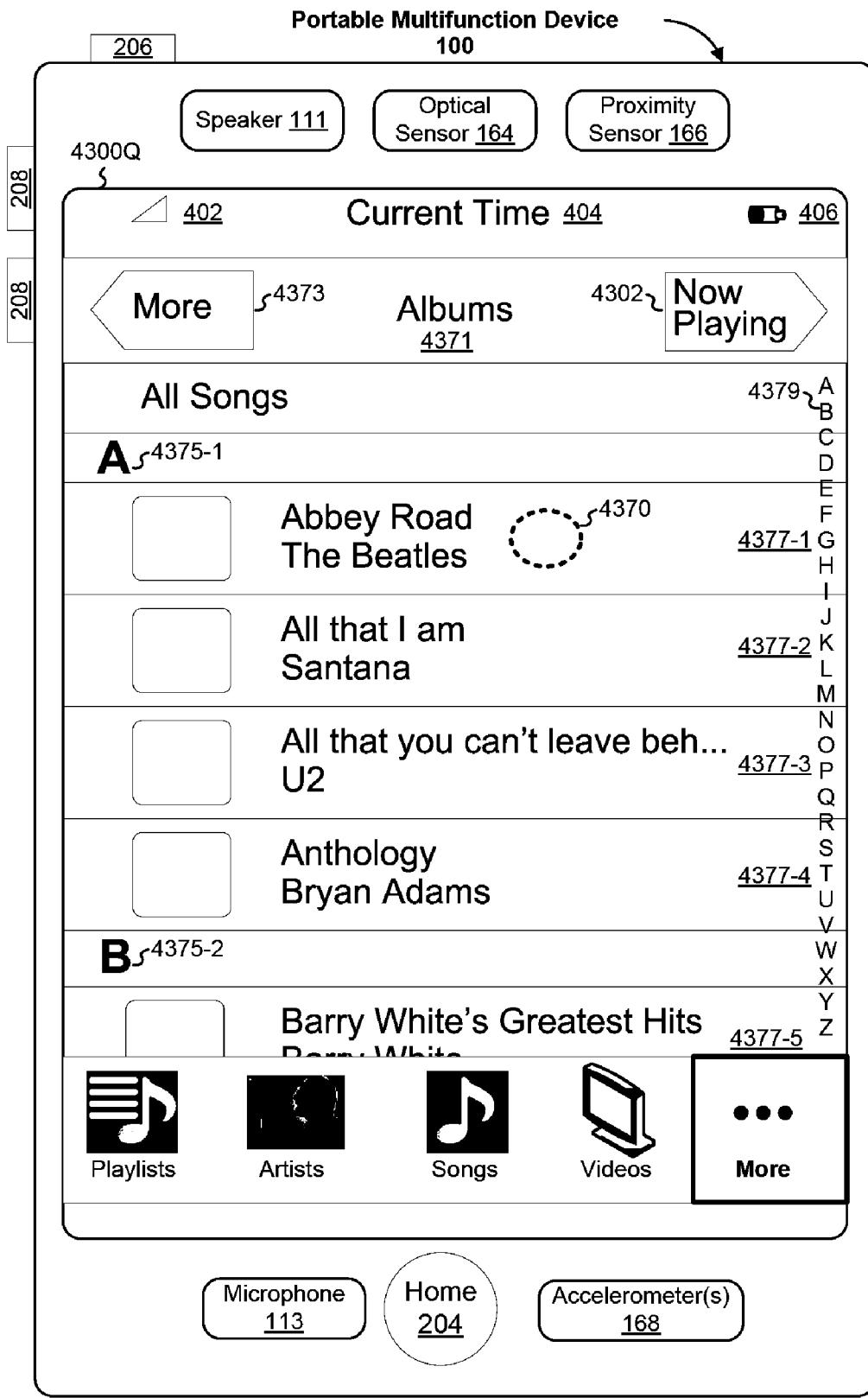


Figure 43Q

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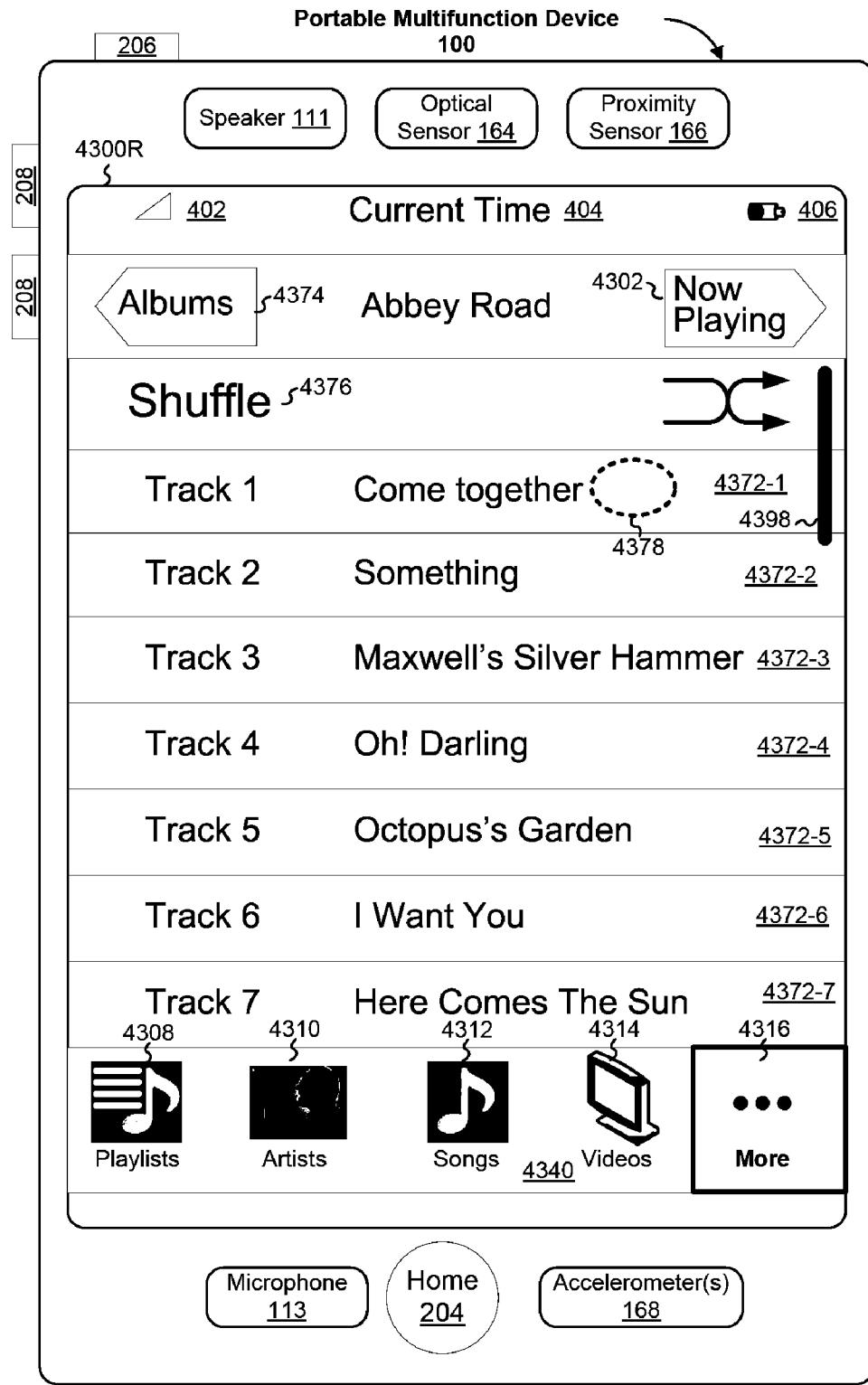


Figure 43R

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Figure 43S

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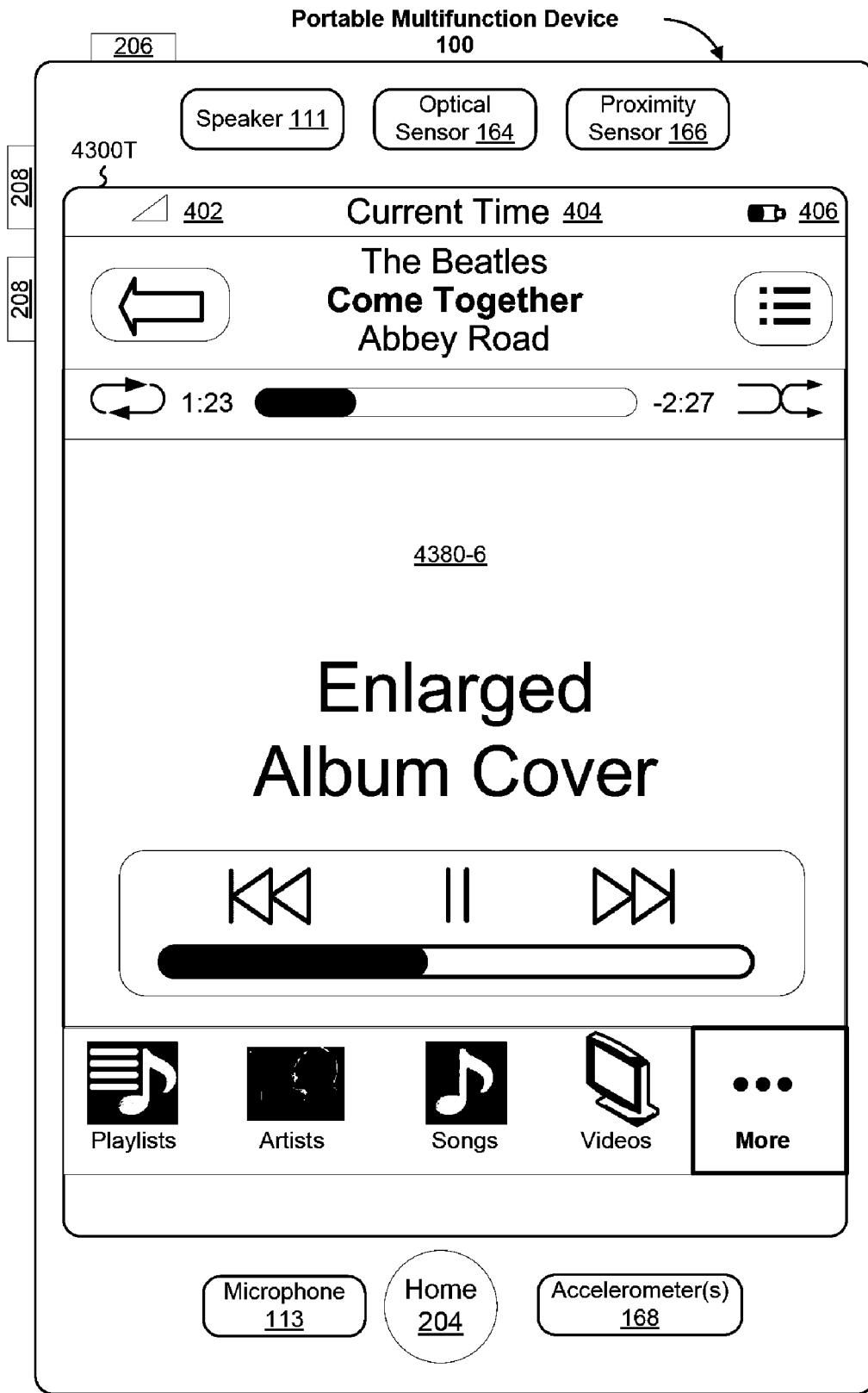


Figure 43T

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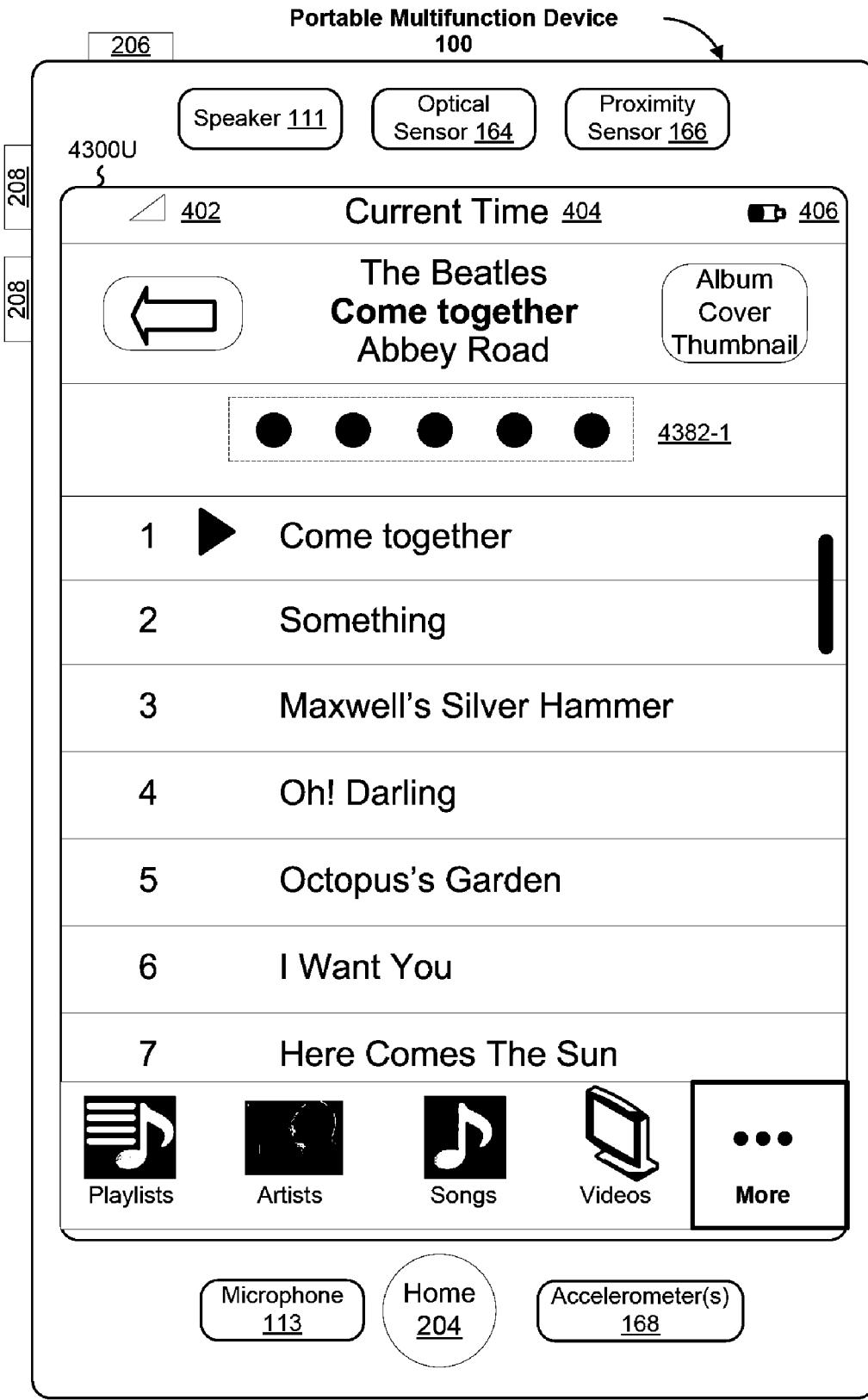


Figure 43U

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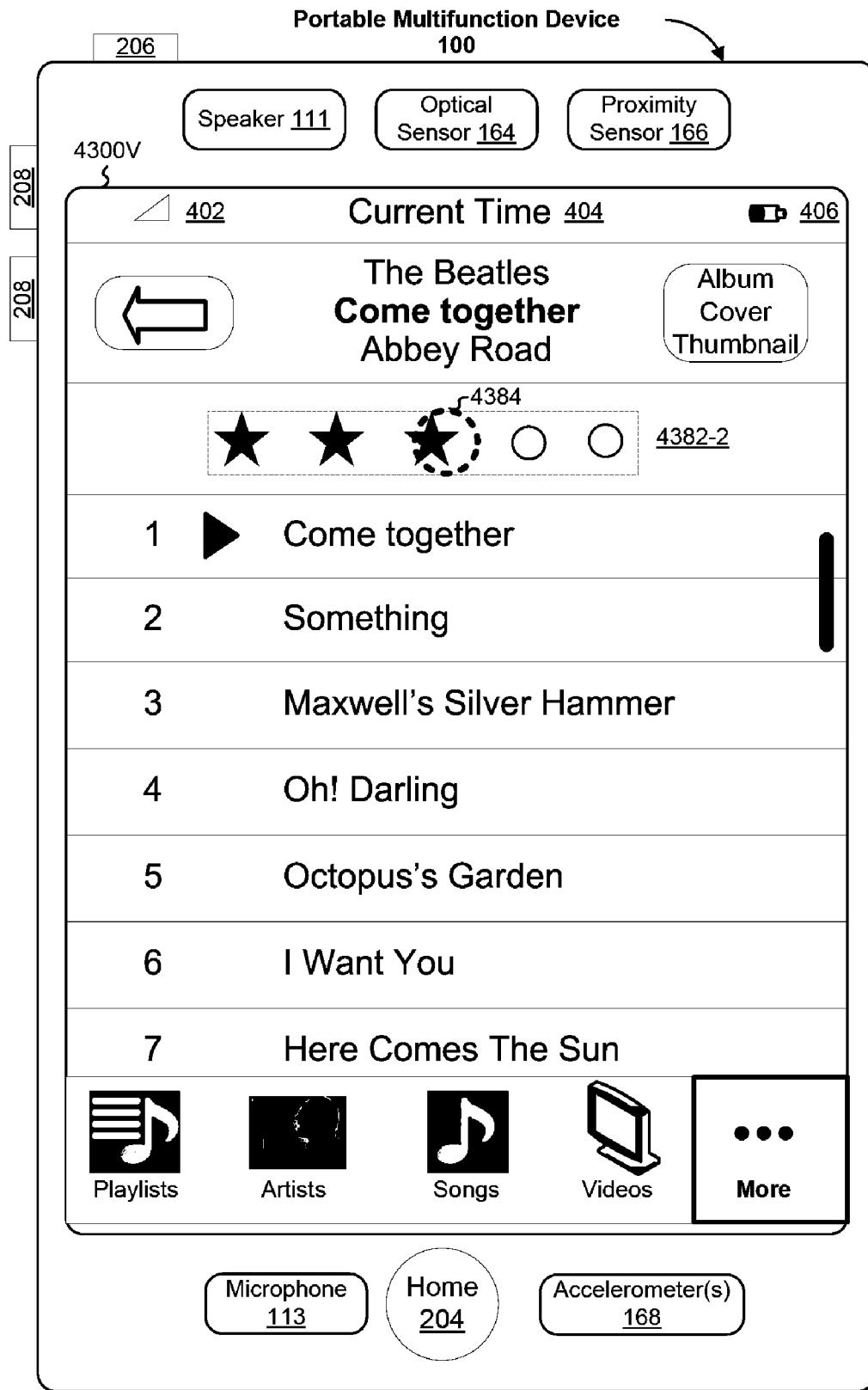


Figure 43V