Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, P800, including its front surface, was 117mm in length and 59mm in width. (P800 09/2002 Manual at 187.) **Technical data** **General** Product name P800 — Standard version, latin character set Size — 117 x 59 x 27 mm Weight — 158 grams with battery and flip, 148 grams with battery, flip removed. System and power class — E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1 SIM Card — Small plug-in card, 3V or 5V type Operating System — Symbian OS v7.0 with UIQ user interface and applications environment Processor — ARM 9 User storage — For settings, user data (for example images, contacts, messages) and third party applications: 12Mbyte Battery life, standard battery — Talk Time: up to 13 hours Stand-by time: up to 400 hours Operating temperature — –15° to +55° C **Screen** Screen type — TFT Screen size — Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm Pixel size — 0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch) Colour resolution — 12-bit (4096 colours) Screen surface — Touch-sensitive Illumination — Front-light **Integrated CommuniCam** Picture Size — 640 x 480 pixels (VGA) 320 x 240 pixels (QVGA) 160 x 120 pixels (QQVGA) Colour depth — 24 bit (16 million colours) Storage format — JPEG/JFIF, 3 quality (compression) levels, user-selectable. (P800 09/2002 Manual at 187.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
Antenna	Built in
Speech Coding	HR, FR, EFR supported where available, for high speech quality.
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
Internal User storage	For settings, user data (for example images, contacts, messages) and third party applications: up to 12Mbyte
Additional storage	Memory Stick Duo, up to 128 Mbyte supported. 16 Mbyte Memory stick supplied, plus Adaptor.
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Color resolution	12-bit (4096 colors)
Screen surface	Touch-sensitive, anti-reflective
Illumination	Front-light

Third Party Application Support

SDKs	C++ PersonalJava J2ME CLDC 1.0 / MIDP
Load formats	C++ or Java applications in Symbian SIS format. MIDP installation (JAR/JAD) from Browser or connected PC.
Security	Support for signed applications.

Bluetooth wireless technology

Bluetooth compatibility statement	This product is manufactured to comply with the Bluetooth specification 1.1.
Coverage area	Up to 10 meters (33 feet)

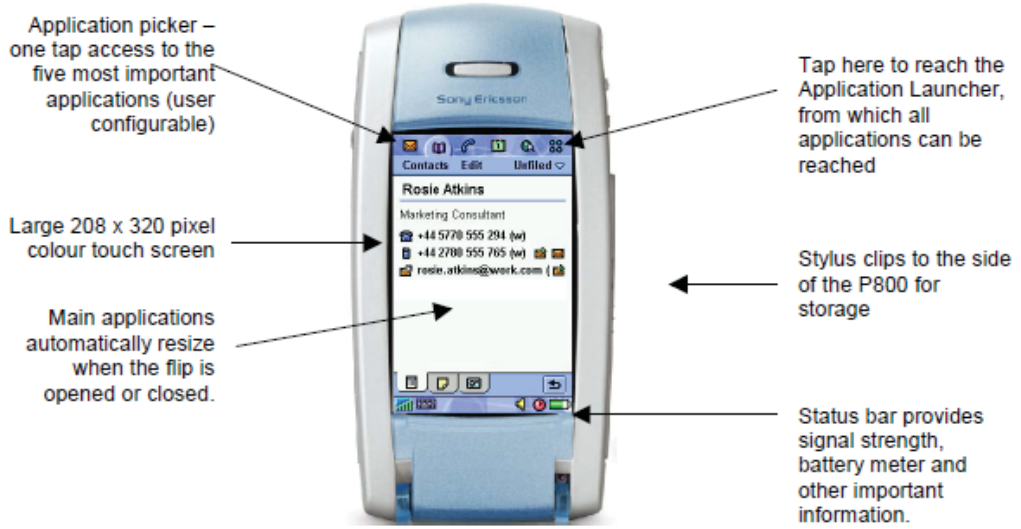
(P800 11/2002 Manual at 188.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip Open (FO mode)

When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.



(P800/P802 White Paper at 14.)

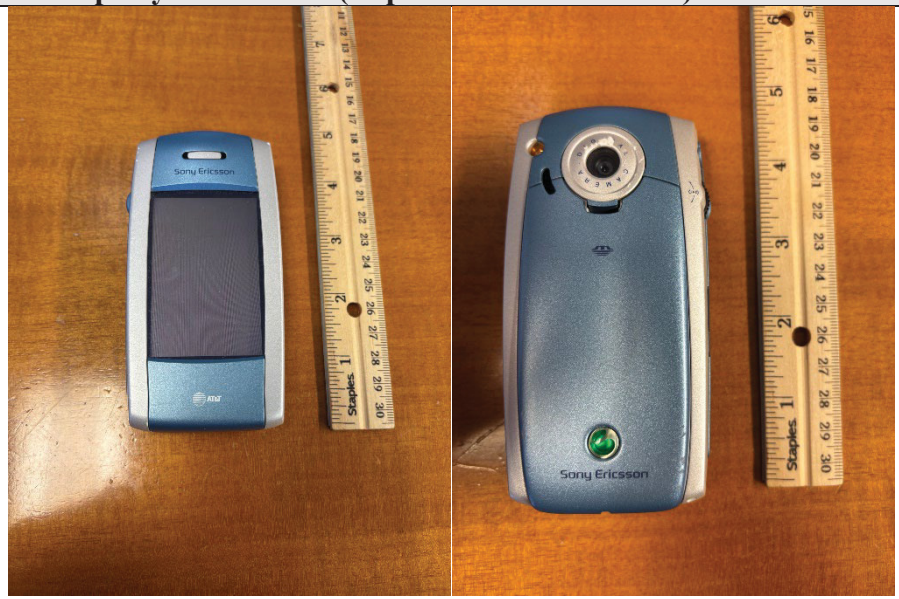
Features and Specification Summary

General		Phone
Size:	117 x 59 x 27 mm	Office Handsfree (loudspeaker) function.
Weight:	158g with flip	Voice dial, voice answer, 'magic word' activation
OS:	Symbian OS™ V7.0	Picture Phone Book – picture of contact displayed.
Processor:	ARM 9	Polyphonic ringtones
User storage:	12 Mbyte (P800); 9 Mbyte (P802)	Flight mode – use P800 as PDA with phone off.
		SIM-AT

(P800/P802 White Paper at 187.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 3, Photograph No. 4.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (P800 Device) *See also infra* claim [7].
[1d] wherein the housing has a thin thickness; and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "the housing has a thin thickness." For example, P800 was 117mm in length, 59mm in width, and 27mm in thickness. (P800 09/2002 Manual at 187; P800/P802 White Paper at 9.) The thickness is less than either the length or the width (P800/P802 White Paper at 12.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
User storage	For settings, user data (for example images, contacts, messages) and third party applications: 12Mbyte
Battery life, standard battery	Talk Time: up to 13 hours Stand-by time: up to 400 hours
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Colour resolution	12-bit (4096 colours)
Screen surface	Touch-sensitive
Illumination	Front-light

Integrated CommuniCam

Picture Size	640 x 480 pixels (VGA) 320 x 240 pixels (QVGA) 160 x 120 pixels (QQVGA)
Colour depth	24 bit (16 million colours)
Storage format	JPEG/JFIF, 3 quality (compression) levels, user-selectable.

(P800 09/2002 Manual at 187.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Features and Specification Summary

General
Size: 117 x 59 x 27 mm
Weight: 158g with flip
OS: Symbian OS™ V7.0
Processor: ARM 9
User storage: 12 Mbyte (P800); 9 Mbyte (P802)

Memory Stick® Duo®
Slot for Memory Stick Duo
16Mbyte Memory Stick Duo supplied
Memory Stick Duo Adaptor supplied

Battery Life
Talk time: Up to 13 hours
Standby time: Up to 400 hours

GSM
Tri-band E-GSM 900, GSM 1800 and GSM 1900

GPRS
Slots: 4+1
Coding scheme: CS-1, CS-2, CS-3, CS-4
Downlink rate: Up to 53.6 kbps (CS-2)
Uplink rate: Up to 13.4 kbps (CS-2)
(CS-2 quoted as this is the fastest scheme in use today)

HSCSD
Timeslots: 2+1 at 9.6 or 14.4 kbps
Download rate: Up to 28.8 kbps
Upload rate: Up to 14.4 kbps

Screen
Type: TFT
Size, flip closed: 208 x 144 pixels, 40 x 28 mm
Size, flip open: 208 x 320 pixels, 40 x 61 mm
Pixel Size: 0.192 mm
Colour depth: 12-bit (4096 colours)
Surface: Touch-sensitive, anti-reflective
Illumination: Front-light

Input (P800)
Flip Closed: Keypad; numeric and characters
Flip Open: Natural handwriting recognition
On-screen virtual keyboard

Input (P802)
Flip Closed: Keypad; Numeric, Stroke, Pinyin, Bopomofo
Flip Open: Chinese character recognition
English character recognition
Stroke, Pinyin, Bopomofo.

Third Party Application Support
SDKs: C++
PersonalJava™
J2ME™ CLDC 1.0 / MIDP

Phone
Office Handsfree (loudspeaker) function.
Voice dial, voice answer, 'magic word' activation
Picture Phone Book – picture of contact displayed.
Polyphonic ringtones
Flight mode – use P800 as PDA with phone off.
SIM-AT
USSD

Personal Organiser
Contacts (Address Book)
Calendar (Diary)
Tasks ('To-Do' list)
Jotter (Text and colour 'ink' sketches)
Voice Memo (Dictaphone)
Time (World Clock)
Calculator
(P802) English-Chinese-English Dictionary
(P802) Lunar Calendar

Integrated CommuniCam
Image size: 640 x 480 pixels (VGA)
320 x 240 pixels (QVGA)
160 x 120 pixels (QQVGA)
Colour depth: 24 bit (16.78 million colours)
Storage format: JPEG/JFIF; 3 quality levels
Capacity: Approx 200 (VGA, 12Mbyte free)

Audio Player
Formats: MP3, WAV, AU, AMR, MIDI, RMF
Features: Playlists, Loop, Automatic pause

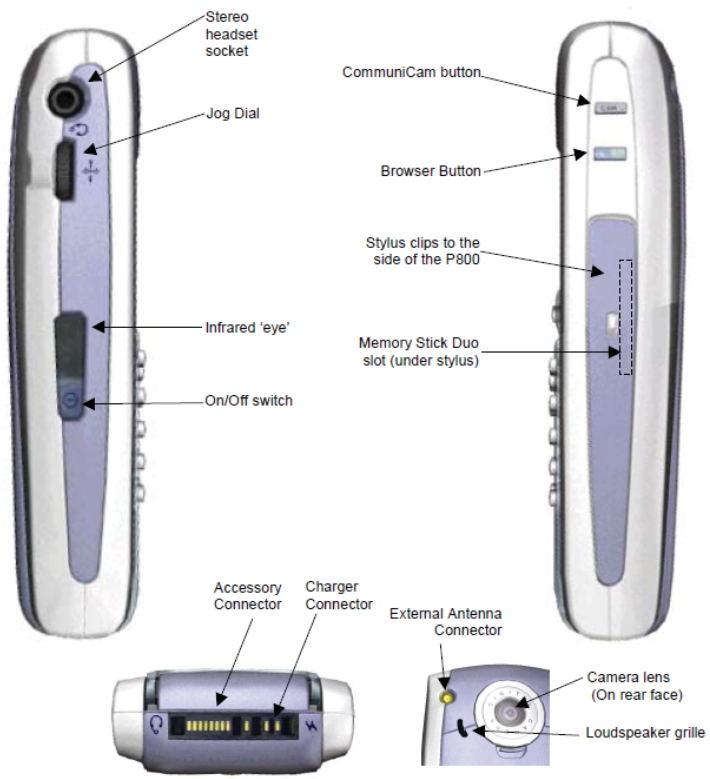
Pictures (Image Viewer)
Formats: JPEG, BMP, GIF (inc. animated), MBM, PNG, WBMP
Sharing via: IR, Bluetooth, MMS, e-mail, PC file transfer, Memory Stick

Video Player
File Format: 3GP, MP4
Streaming: RTSP according to 3GPP

Messaging
SMS
EMS
MMS
E-Mail (multiple accounts and PC sync)

Document Viewers
On-board: Microsoft® Word
Microsoft® Excel
Microsoft® PowerPoint®
Adobe® Acrobat® (PDF)
Approx. 20 more supplied on CD-ROM

(P800/P802 White Paper at 9.)

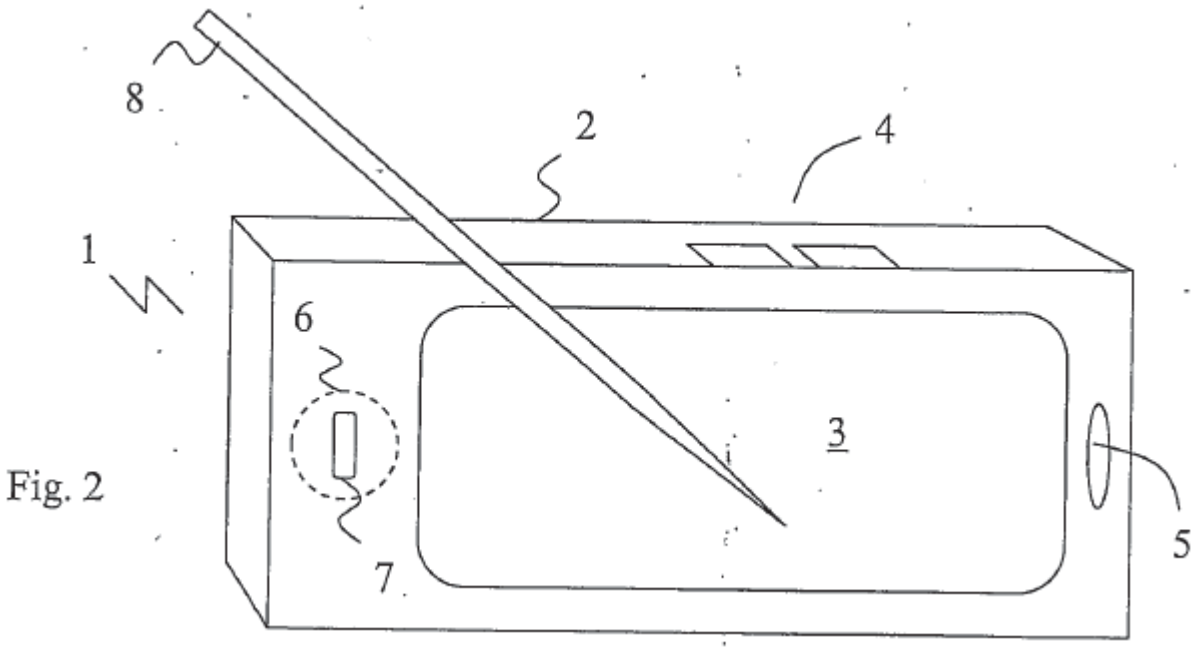
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 Controls and Operation The P800 has a large touch-screen and a flip. This provides fast and convenient one-handed operation with the flip closed plus large touch-screen sophistication with the flip open.  (P800/P802 White Paper at 12.)

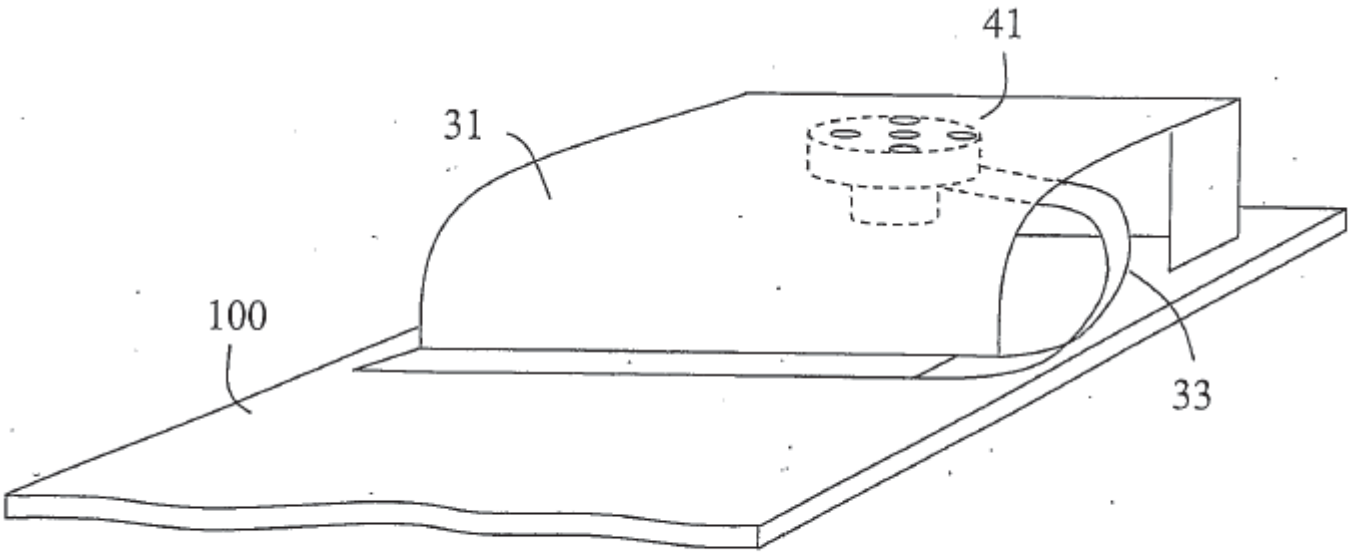
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device) To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Wedel, Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Wedel, Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone device such that device is compact and can be placed in a user's pocket. Therefore, the mobile phone must have been thin to slip into a pocket. A POSITA would have found it obvious to configure a device to be thin so it could easily be carried and stored by a user in a pocket, or the like.

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, Wedel teaches that mobile phones "are getting smaller and smaller" and are now "pocket size." (Wedel at 1:14-21.) Wedel explains that the small size "is generally considered to be an important factor for the end customer," and there is "general market demand for small size and light weight terminals. (Wedel at 1:14-21, 3:19-21.) In order to reduce the size of the terminal, Wedel teaches reducing the thickness by, for example, mounting the speaker inside the antenna cavity. (Wedel at 1:6-9, 2:21-25, 3:19-21, 9:28-31, 13:1-8.) For example, Rydbeck teaches that it is desirable to configure a mobile phone to be small, miniaturized, or "pocket-sized." (Rydbeck at 1:11-19, 2:60-62, 4:39-43, 10:29-30.) In order for a mobile phone to fit in a user's pocket, it must have been thin. As another example, Yamaguchi teaches that it is desirable to configure a mobile phone so it can be stored in a pocket of a user's clothing. (Yamaguchi at [0007], [0010], [0014], [0015], [0031], [0032], [0035].) In order to fit in a pocket, Yamaguchi teaches that the mobile phone is 100-150mm in length, 60-75mm in width, and only 15-25mm in depth. (Yamaguchi at [0034], [0036].) Dutta similarly teaches the benefit of reducing the dimensions of portable devices. (Dutta at [0002].) In addition, it is favorable to configure the size of a mobile phone to provide an ergonomically favorable grip, which inherently requires that the device is thin so that a user's hands can wrap around its edges. (Dutta at [0003].) A POSITA would have been motivated to configure a mobile phone to maximize housing thinness to improve the ease of use and portability of the phone. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Wedel, Rydbeck, Yamaguchi, and Dutta. A POSITA would have been motivated to size a phone accordingly in order to improve device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Wedel, Rydbeck, Yamaguchi, and/or Dutta into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (the relative dimensions of a mobile phone as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving the portability and operability of a mobile phone); (B) use of a known technique (sizing a mobile phone such that the housing has a thinness as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to improve similar devices in

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	the same way (improving user experience and device performance); (C) applying a known technique (sizing a mobile phone as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Wedel, Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "More specifically the invention relates to a communication terminal including a component which integrates said speaker and an antenna element, and to said component as such." (Wedel at 1:6-9.) ". . . at the same time the dimensions of the communication terminals have gone from briefcase size to the pocket size phones of today. Still today, mobile phones are getting smaller and smaller and the size is generally considered to be an important factor for the end customer. The development in electronics has made it possible to miniaturise the components of the terminals, at the same time making the terminals capable of performing more advanced functions and services." (Wedel at 1:14-21.) "The antenna of the terminal is generally located at the upper portion of the terminal, and a lower portion of the terminal being occupied by a battery. Placing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space." (Wedel at 2:21-25.) "It is an object of the present invention to provide a novel speaker arrangement for a communication terminal, meeting the general market demand for small size and light weight terminals." (Wedel at 3:19-21.) "Fig. 6 illustrates an embodiment of a spacer element 61, adapted for use with the combined speaker and antenna element according to the invention. In a low profile, built in, radio antenna for mobile communication, such as a PIFA, the antenna comprises a substantially planar active antenna element and a ground plane." (Wedel at 9:28-31.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The present invention brings about several advantages, thanks to the inventive idea to mount the speaker inside the antenna cavity, where one antenna element and the speaker are carried by a common structure provided by a flexible film. First of all, the invention brings about space savings. A terminal or housing, implementing the invention, may be designed with a thickness basically defined by the distance between the flexible film and the support structure, e.g. a PCB, since the thickness contribution from the speaker has been eliminated." (Wedel at 13:1-8.) Wedel discloses the following at FIGS. 2 and 11:  Fig. 2

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 11 "The evolution of wireless communication devices incorporating cellular/digital wireless telephones is undergoing two potentially conflicting trends. One trend is toward miniaturization of the cellular telephone body and the other is toward a demand for larger visual displays thereon. There is, therefore, a need to configure pervasive computing devices such as smaller, miniaturized, or "pocket-sized" wireless telephones in a manner which allows for larger displays over conventional devices." (Rydbeck at 1:11-19.) "The invention is particularly suitable for pocket-sized wireless telephones or miniaturized pervasive computing devices which include wireless telephones." (Rydbeck at 2:60-62.) "Turning now to the figures, FIG. 1 illustrates a wireless communication device 10 according to one embodiment of the present invention. The wireless communication device 10 includes a primary body 11, a front or forward major surface 12, and an opposing a rear major surface 13 (FIG. 3). (The "forward" and

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"rear" surface designations are for description purposes only. It will be appreciated that, in practice, each of these surfaces can be the "front" surface or the "back" surface, and that indeed, each will act both as the back and the front, depending on the selected or activity/mode and the corresponding orientation of the device). The wireless communications device 10 also includes a keypad 25, an antenna 20, a speaker 35 (FIG. 3), and a microphone 40 (FIGS. 2, and 3). As shown in FIG. 1, the wireless communications device 10 also includes a flip member 30. The present invention is particularly suited for pocket-sized or palm sized wireless communications devices incorporating remote telephonic communications systems. Typically, these pocket or palm sized devices are less than about 8-10 inches in length and less than about 4 inches in width." (Rydbeck at 4:24-44.) "A method according to claim 20, wherein said wireless communications device is pocket-sized." (Rydbeck at 10:29-30.) Rydbeck discloses the following at FIGS. 1 and 2:

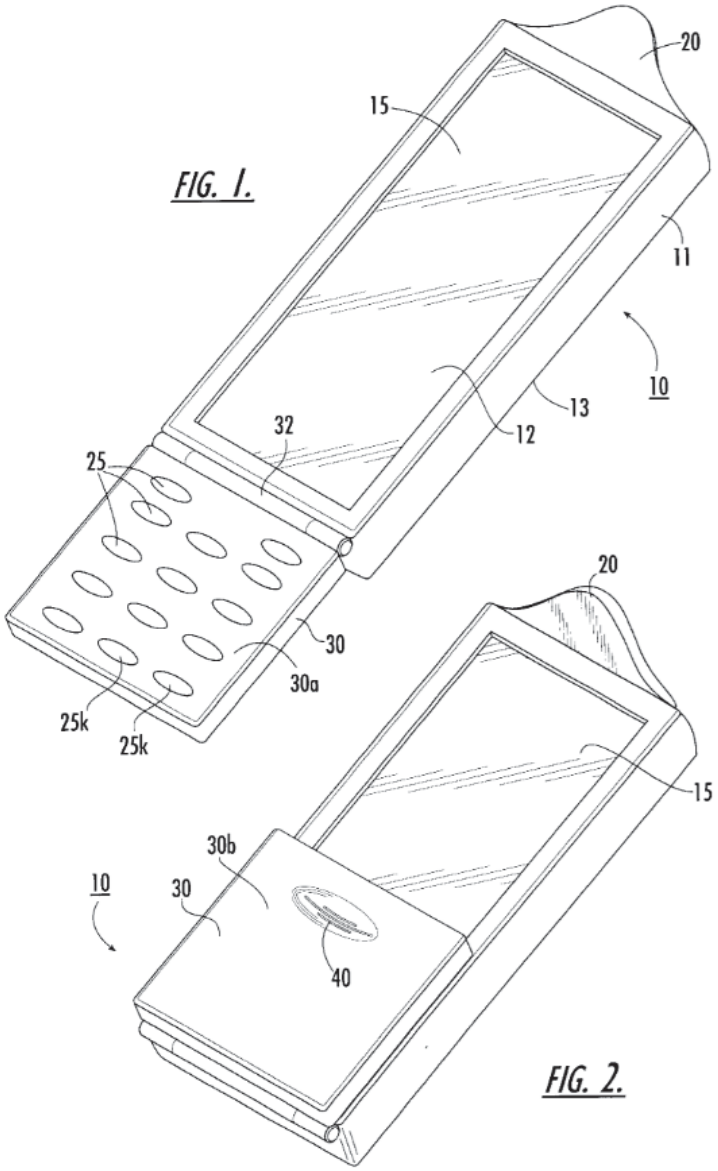
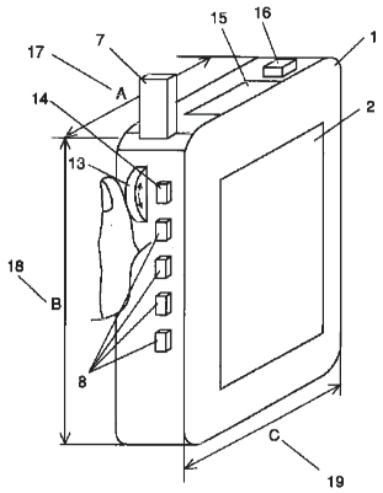


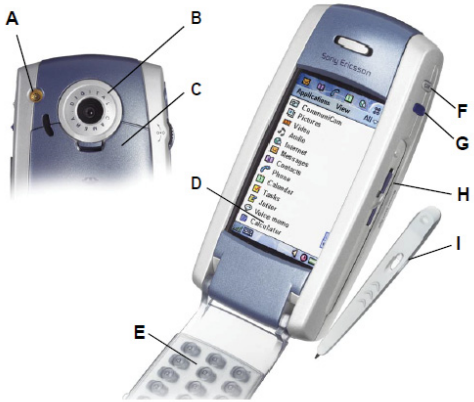
FIG. 1.

FIG. 2.

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Meanwhile, there is a demand for a series of manipulations to be performable with one hand from the perspective of making the mobile-communication-information terminal device 'easy to manipulate', as well as a demand for a size such that the device can fit in a clothing pocket or the like from the perspective of making the device 'easily portable anywhere.'" (Yamaguchi at [0007].) "According to the present invention, the various switches can be manipulated with a finger of one hand in a state in which the device body is held in the one hand, and the device body can be stored in a clothing pocket, thereby resulting in a mobile-communication-information terminal device having good ease of manipulation and portability." (Yamaguchi at [0010].) "The invention according to claim 4 of the present invention is the mobile-communication-information terminal device according to claim 1, wherein: the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top surface of the device body; thus, the invention has the effects that, even if the device body is stored in a clothing breast pocket, wireless status can be confirmed without removing the device from the pocket, and wireless can also be switched ON/OFF, thereby improving ease of manipulation." (Yamaguchi at [0014].) "The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons." (Yamaguchi at [0015].) "Wireless status can easily be confirmed from the liquid-crystal part 15 provided on the top surface of the device body 1, even when the device body 1 is stored in a clothing breast pocket or the like. Likewise, it becomes possible to switch wireless ON/OFF by pressing the button 16 provided on the top surface of the device body 1 with the device body 1 still stored in the clothing breast pocket or the like. In addition, a wireless ON state is displayed on the liquid-crystal part 15, and, in a wireless OFF state, wireless ON/OFF status can easily be confirmed by the disappearance of the display on the liquid-crystal part 15." (Yamaguchi at [0031].)

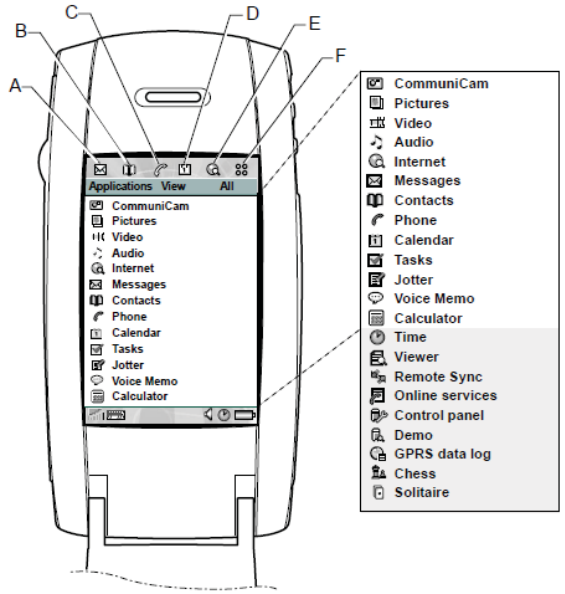
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Through the above-mentioned operation, wireless status can be confirmed, and wireless can be switched ON/OFF while leaving the device body 1 stored in the clothing breast pocket without taking the device body 1 out; thereby, improvement in ease of manipulation can be achieved." (Yamaguchi at [0032].) "(Fifth Embodiment) FIG. 6 is an exterior oblique view of a mobile-communication-information terminal device according to a fifth embodiment of the present invention. As shown in FIG. 6, dimension A 17 of the main device 1 is the length-directional dimension thereof in a manipulation state, dimension B 18 is the width-directional dimension, and dimension C 19 is the depth-directional dimension thereof." (Yamaguchi at [0033].) "Dimension A 17, dimension B 18, and dimension C 19 of the mobile-communication-information terminal device according to the fourth embodiment are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, such that a hand can hold a bottom-surface portion and both side-surface portions of the device body 1 when holding the device body 1." (Yamaguchi at [0034].) "As a result, the main device 1 is capable of fitting into a clothing pocket or the like, and various manipulations can be achieved while holding the device body 1 in one hand; thereby, improvement in portability and improvement in ease of manipulation can be achieved." (Yamaguchi at [0035].) "EFFECTS OF THE INVENTION According to the present invention, as is clear from the description above, an antenna part and various manipulable switches of a mobile-communication-information terminal device are provided on a same-side surface portion of a device body, a pen-housing part is provided on an opposite side-surface portion, a memory-card-housing part is provided on a rear-surface portion of the device body, and a card EJECT button is provided adjacent to the memory-card-housing part and near the pen-housing part; a rotary switch, which has a function of selecting data, is provided on the same side surface as the various manipulable switches, and a push button, which has a function of confirming selected data, is provided perpendicular to the rotational direction of the rotary switch and on the same side surface near a front-surface portion of the device body; a liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are further provided on a same top-surface portion of the device body; and the dimensional ratios of the device body are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, thereby enabling a series of manipulations to be performed with one

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	hand and enabling the device body to fit in a clothing pocket or the like; thus, improvement in ease of manipulation and improvement in portability can be achieved." (Yamaguchi at [0036].) Yamaguchi discloses the following at FIG. 6: 【図6】  "A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant." (Dutta at [0002].) "For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability." (Dutta at [0003].) *See also infra* claim [8].

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
[1e] a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing;	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing." For example, P800 has a touchscreen that functions as a display and is integrated within the front surface of the phone housing. (P800 09/2002 Manual at 8.) The touch screen extends all the way from the speaker to the flip hinge and from the left side to the right side of the phone. (*Id.*; P800 09/2002 Manual at 10, 27, 122, 187.)  **A** External antenna connector (on the rear side) **B** CommuniCam lens (on the rear side) **C** Battery compartment (on the rear side) **D** Touchscreen **E** Flip (in open position) **F** Shutter release for the CommuniCam **G** Internet button for activation of the browser **H** Slot for Sony Memory Stick Duo™ (under the stylus) **I** Stylus for writing on the screen (P800 09/2002 Manual at 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

(P800 09/2002 Manual at 10.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

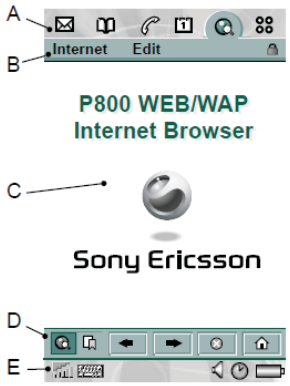
Flip open

This chapter describes what functions are available with the flip open.



Screen areas

In the flip open mode the screen is touch sensitive. The screen is divided into a number of areas, see the figure and table below..



Item	*Description*
A Application picker	Displays six icons for quick and easy access to the most common applications, customizable.

General functions 27

(P800 09/2002 Manual at 27.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
User storage	For settings, user data (for example images, contacts, messages) and third party applications: 12Mbyte
Battery life, standard battery	Talk Time: up to 13 hours Stand-by time: up to 400 hours
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Colour resolution	12-bit (4096 colours)
Screen surface	Touch-sensitive
Illumination	Front-light

Integrated CommuniCam

Picture Size	640 x 480 pixels (VGA) 320 x 240 pixels (QVGA) 160 x 120 pixels (QQVGA)
Colour depth	24 bit (16 million colours)
Storage format	JPEG/JFIF, 3 quality (compression) levels, user-selectable.

(P800 09/2002 Manual at 187.)

	Additional exemplary citations include:  **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Features and Specification Summary

General
Size: 117 x 59 x 27 mm
Weight: 158g with flip
OS: Symbian OS™ V7.0
Processor: ARM 9
User storage: 12 Mbyte (P800); 9 Mbyte (P802)

Memory Stick® Duo®
Slot for Memory Stick Duo
16Mbyte Memory Stick Duo supplied
Memory Stick Duo Adaptor supplied

Battery Life
Talk time: Up to 13 hours
Standby time: Up to 400 hours

GSM
Tri-band E-GSM 900, GSM 1800 and GSM 1900

GPRS
Slots: 4+1
Coding scheme: CS-1, CS-2, CS-3, CS-4
Downlink rate: Up to 53.6 kbps (CS-2)
Uplink rate: Up to 13.4 kbps (CS-2)
(CS-2 quoted as this is the fastest scheme in use today)

HSCSD
Timeslots: 2+1 at 9.6 or 14.4 kbps
Download rate: Up to 28.8 kbps
Upload rate: Up to 14.4 kbps

Screen
Type: TFT
Size, flip closed: 208 x 144 pixels, 40 x 28 mm
Size, flip open: 208 x 320 pixels, 40 x 61 mm
Pixel Size: 0.192 mm
Colour depth: 12-bit (4096 colours)
Surface: Touch-sensitive, anti-reflective
Illumination: Front-light

Input (P800)
Flip Closed: Keypad; numeric and characters
Flip Open: Natural handwriting recognition
On-screen virtual keyboard

Input (P802)
Flip Closed: Keypad; Numeric, Stroke, Pinyin, Bopomofo
Flip Open: Chinese character recognition
English character recognition
Stroke, Pinyin, Bopomofo.

Third Party Application Support
SDKs: C++
PersonalJava™
J2ME™ CLDC 1.0 / MIDP

Phone
Office Handsfree (loudspeaker) function.
Voice dial, voice answer, 'magic word' activation
Picture Phone Book – picture of contact displayed.
Polyphonic ringtones
Flight mode – use P800 as PDA with phone off.
SIM-AT
USSD

Personal Organiser
Contacts (Address Book)
Calendar (Diary)
Tasks ('To-Do' list)
Jotter (Text and colour 'ink' sketches)
Voice Memo (Dictaphone)
Time (World Clock)
Calculator
(P802) English-Chinese-English Dictionary
(P802) Lunar Calendar

Integrated CommuniCam
Image size: 640 x 480 pixels (VGA)
320 x 240 pixels (QVGA)
160 x 120 pixels (QQVGA)
Colour depth: 24 bit (16.78 million colours)
Storage format: JPEG/JFIF; 3 quality levels
Capacity: Approx 200 (VGA, 12Mbyte free)

Audio Player
Formats: MP3, WAV, AU, AMR, MIDI, RMF
Features: Playlists, Loop, Automatic pause

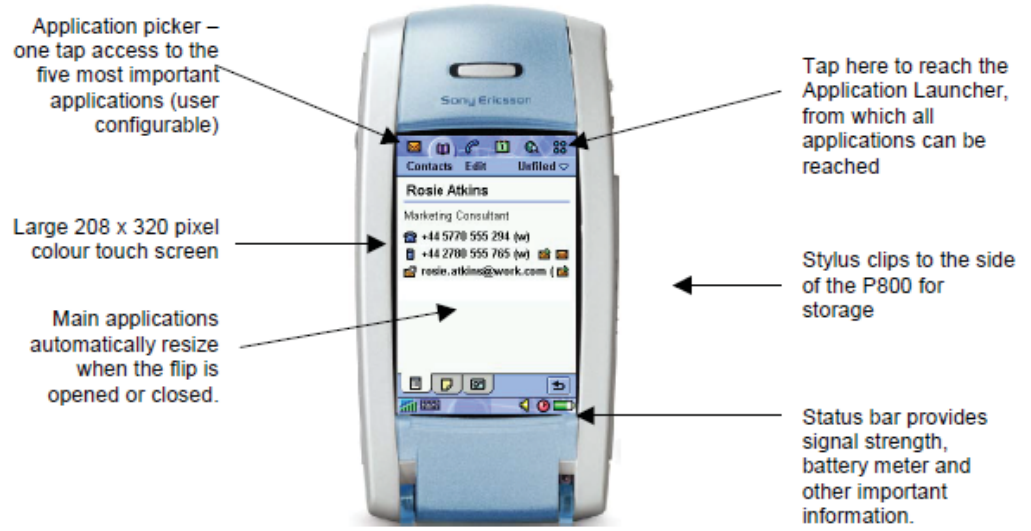
Pictures (Image Viewer)
Formats: JPEG, BMP, GIF (inc. animated), MBM, PNG, WBMP
Sharing via: IR, Bluetooth, MMS, e-mail, PC file transfer, Memory Stick

Video Player
File Format: 3GP, MP4
Streaming: RTSP according to 3GPP

Messaging
SMS
EMS
MMS
E-Mail (multiple accounts and PC sync)

Document Viewers
On-board: Microsoft® Word
Microsoft® Excel
Microsoft® PowerPoint®
Adobe® Acrobat® (PDF)
Approx. 20 more supplied on CD-ROM

(P800/P802 White Paper at 9.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Open (FO mode) When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.  (P800/P802 White Paper at 14.)

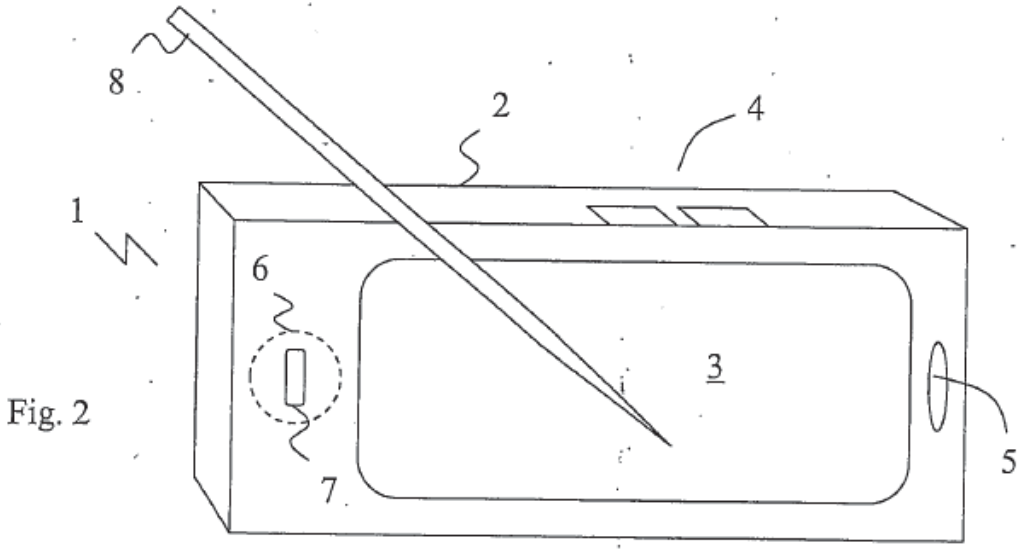
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Removed The flip may also be removed. A 'flip replacement' cover is clipped in place instead of the flip:  (P800/P802 White Paper at 15.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 The game is suspended by events such as incoming phone calls. When the application is re-started from the Application Launcher, it will continue from the start of the level which was last being played. **Stunt Run**  Stunt Run puts you at the wheel of your chosen stunt car on the Sony Ericsson race track! Select a car with your preferred balance of acceleration, top speed and handling and proceed to the starting grid of an easy, normal or hard circuit. Touch the buttons at the left hand end of the screen for reverse, forwards and fast-forward movement. Use the Jog Dial to steer the car.  The game can be played in Single Player, Multiplayer and Tournament form. The demo mode shows a car driving round the circuit. This game is provided on the Multimedia for P800 CD-ROM and must be installed before use. (P800/P802 White Paper at 86.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device) To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Wedel and Gupta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Wedel discloses a mobile phone device with a touch screen display. (Wedel at 1:30-2:14, FIG. 2.) Wedel explains that "[t]he size of a keypad 4 and a display 3 basically sets the limit of how small terminal 1 can be." (Wedel at 1:31-2:1.) Thus, to allow for a larger display while maintaining a small

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	terminal, Wedel proposes removing all physical keys from the front surface of the mobile phone, such that the display may cover more of the front surface of the phone. (Wedel at 2:8-10, FIG. 2.) As another example, Gupta discloses a "full-length touchscreen display." (Gupta at [0015], [0017], [0020], [0023]-[0025], [0030], [0035], [0041], [0042], [0051], FIGS. 2-4, 8.) Additionally, Gupta explains that while the device remains small, the screen should be large enough for "practical information viewing." (Gupta at [0003], [0004], [0020],[0025], [0026], [0049].) A POSITA thus would have understood that the screen would cover the entire front surface of the device, such that it could be as large as possible. A POSITA would have been motivated to configure a mobile phone such that the display unit covers a large portion of the housing. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by Wedel and Gupta. A POSITA would have been motivated to configure a phone accordingly in order to allow room for a larger touch display while maintaining a small device size, improving device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Wedel and/or Gupta into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (including a display unit that covers a large portion of the front surface of a mobile phone as taught by Wedel and Gupta) according to known methods to yield predictable results (allowing more space for a larger touch display while maintaining a small device size); (B) use of a known technique (including a display unit that covers a large portion of the front surface of a mobile phone as taught by Wedel and Gupta) to improve similar devices in the same way (allowing more space for a larger touch display while maintaining a small device size); (C) applying a known technique (including a display unit that covers a large portion of the front surface of a mobile phone as taught by Wedel and Gupta) to a known device ready for improvement to yield predictable results (allowing more space for a larger touch display while maintaining a small device size); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Wedel and Gupta) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "A combined speaker and antenna arrangement for a communication terminal, comprising a support structure (100) carrying a first antenna element (101), and a second antenna element (31) arranged at a predetermined distance from said first antenna element. Said second antenna element is a conductive first

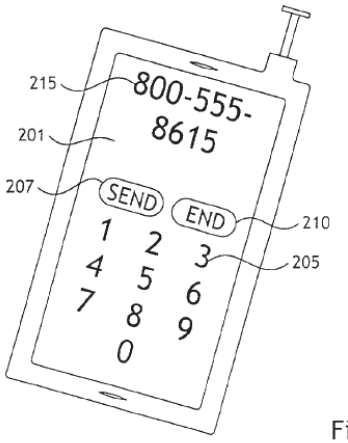
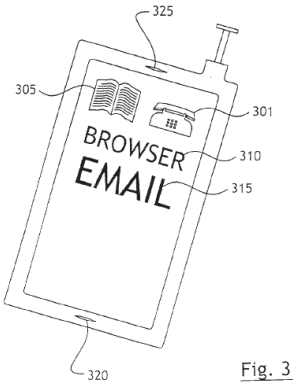
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	portion (31) of a sheet of flexible film, and an elongated second portion (32) of said flexible film, carrying a conductive lead extends from adjacent to said first portion to a speaker (41) connected to an outer end of said elongated second portion. The second, elongated, portion is bent such that said speaker is positioned between said film and said support structure, adjacent to an aperture in said first portion." (Wedel at abstract.) "In order to benefit from the capabilities of the transmission system, the future generation of phones will have a large display in order to perform multimedia input and output, and the picture quality will be of high importance. Still, the keypad or keyboard must be large enough to allow people to press one key at a time." (Wedel at 1:26-29.) "Figure 1 discloses a typical example of a state of the art mobile phone 1, carried by a housing or chassis 2. The size of a keypad 4 and a display 3 basically sets the limit of how small the terminal 1 can be. However, to be able to work as a standard phone for voice interaction, the terminal 1 also includes a microphone 5 and a speaker 6, preferably arranged at opposite ends of the terminal 1. Figure 2 discloses a different embodiment of a state of the art communication terminal 1, wherein the display 3 occupies a larger portion of the front side of the terminal. Several of the functions of the keypad 4 have been included in a graphical user interface applicable to the display 3, rendering a data input interface having less keys. Those keys 4 may also be moved to the side of the communication terminal in order to allow for the display 3 to occupy a larger portion of the front side of terminal 1. A specific tool 8 may be provided for inputting data on a touch-sensitive screen of the display 3. Figs 1 and 3 show two typical examples of state of the art communication terminals 1, whereas the skilled persons will realise that combinations of the two are also well known as well as other designs, such as a so called clamshell type terminal." (Wedel at 1:30-2:14.) "In the state of the art communication terminal a terminal output 7 is mounted on the front of the terminal above the display with the speaker 6 immediately behind the output 7, as shown in Figs 1 and 2. This means that even with a smallest available speaker used today, with a diameter of about 13 mm, the terminal would be approximately this much longer in its longitudinal extension than what would have been the case if only the display 3 and/or keypad 4 had defined the length of the terminal 1. The antenna of the terminal is generally located at the upper portion of the terminal, and a lower portion of the terminal being occupied by a battery. Placing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space." (Wedel at 2:15-25.)

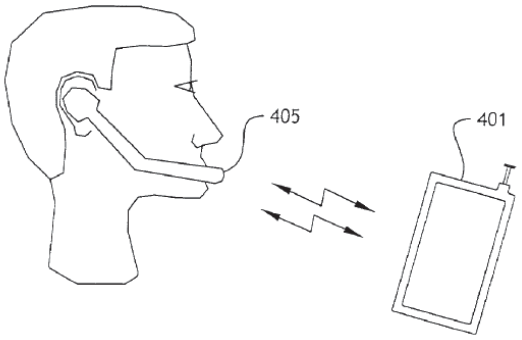
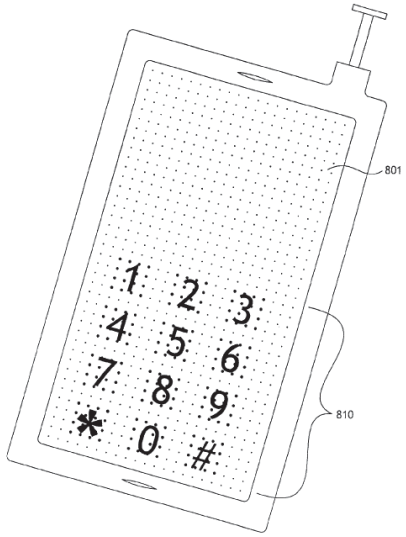
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"First of all, the invention brings about space savings. A terminal or housing, implementing the invention, may be designed with a thickness basically defined by the distance between the flexible film and the support structure, e.g. a PCB, since the thickness contribution from the speaker has been eliminated. Furthermore, even though the antenna cavity 21 has been partly occupied by the speaker, experimental laboratory tests on this design have surprisingly shown that the presence of the speaker will not result in reduced antenna performance if tuned properly. The use of hot bar soldering will not lead to bulging solder pads. Which also contributes to saving space." (Wedel at 13:5-13.) Wedel discloses the following at FIG. 2:  Fig. 2 (Wedel at FIG. 2.) "Many cellular telephone manufacturers enable the personal digital assistant and cellular telephone capability by providing a larger display on the telephone. The larger display is able to show multiple lines of information as well as icons for accessing the personal digital assistant functions of the device." (Gupta at [0003].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"In order to keep the telephone small and still provide a reasonably large display for information, the size of the keypads for entering data has been reduced substantially. Individuals with large fingers or users that try to input data while moving may have trouble depressing the small keys properly. There is a resulting unforeseen need for a small communications device that merges the functions of a personal digital assistant and a telephone, cellular or otherwise, while still providing a display that is large enough for practical information viewing and a keypad that is easy to use." (Gupta at [0004].) "FIG. 8 shows a tactile response display screen of the present invention." (Gupta at [0015].) "The communication device of the present invention provides a telephone with a full length, tactile response, touchscreen display. Instead of portions of the telephone being taken up by a fixed keypad, the touchscreen display can display a keypad while in the telephone dialing mode but then replace the keypad with extra display space for data. The display also features dynamically raised keys and buttons in response to what is being displayed." (Gupta at [0017].) "The telephone illustrated in FIG. 2 is comprised of a large touchscreen display (201). FIG. 2 illustrates the present invention in the telephone mode. In this mode, the device displays number icons (205) or other informational symbols (not shown) which form and are used as a telephone keypad for entering telephone numbers. The display also displays a 'SEND' key (207) and an 'END' key (210) (for purposes of this disclosure, the term 'key' does not refer to a physical button or switch but instead refers to an area of the display screen which when contacted or touched causes the generation of a signal to the phone that is representative of the 'button' or 'pad' that was actuated. The functions of a 'SEND' and 'END' key are generally known to start and stop a wireless phone call. A portion of the display (215) is reserved for displaying the telephone number as it is being typed in." (Gupta at [0020].) "In most cases, the user inputs a telephone number, as well as the '*' and '#' keys by touching the touchscreen over the number or symbol desired. This number (or symbol) is then added to the telephone number at the top of the screen (215). Once the entire telephone number has been entered, the user touches the screen over the send key (207) to transmit the number to the system's switch for dialing. For purposes of claim construction, the term 'number' should be construed as including the numerals zero through nine as well as the '*' and '#' keys but also including possibly any other alphanumeric symbol." (Gupta at [0021].)

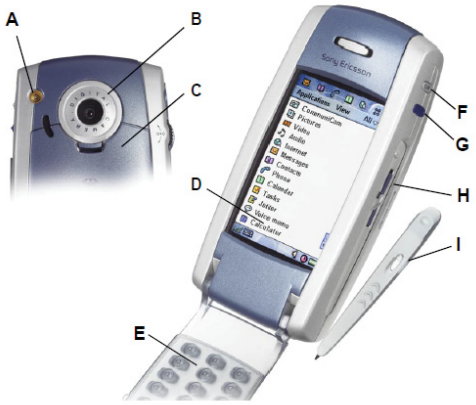
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"In the preferred embodiment, the user receives an aural feedback whenever a 'key' is contacted. Since the surface of the screen of the preferred embodiment is smooth and there is no key movement to let the user know that data has been entered, the telephone can be set up to generate an electronic beep, clicking noise, or some other sound to indicate the successful actuation of each 'key'. The chosen sound may be chosen by setting up user preferences of the telephone operator or the sound may be turned off for silent operation." (Gupta at [0022].) "The touchscreen display, in the preferred embodiment, is responsive to a touch sensor that detects mechanical pressure from a user's finger on a particular portion of the screen. The touch sensor may be a film behind a flexible tactile transducer film or a thin film in front of tactile elements (discussed subsequently in FIG. 8), with sufficient flexibility and compliance that it does not impair the tactile perception of the screen." (Gupta at [0023].) "The touch sensor may also be a film layer of the tactile surface itself, or may include touch sensitive elements interspersed adjacent to the tactile dot elements So that neither the touch sensor nor the tactile display elements overlay the other. Other touch screens embodiments use grids of interruptible light beams, capacitive discharge sensors, and conductive grids sensing a circuit made across nearby nodes, all of which are considered herein to be structures (circuits and components) equivalent to each other." (Gupta at [0024].) "The telephone of the present invention is capable of multiple operating modes to take advantage of the large touchscreen display. FIG. 3 illustrates an example of some of these modes. In order to enter the telephone mode and display the embodiment illustrated in FIG. 2, the user touches the telephone mode icon (301). An address/telephone book icon (305) takes the user to listings of stored telephone numbers and addresses. By touching a desired telephone number, the telephone of the present invention will automatically go to the telephone mode and dial that number." (Gupta at [0025].) "The display also has a browser icon (310) that takes the user to the browser program used by the telephone. The browser is a scaled down version of a personal computer browser such as NETSCAPE NAVIGATOR and, in the preferred embodiment, conforms to the wireless access protocol (WAP) standard for wireless Internet access. This browser program enables the user to access selected Web sites over the Internet and display the accessed data on the large telephone display. It can be seen the that lack of a fixed telephone

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	keypad enables substantially more data to be displayed while in this mode than would be possible with the fixed keypad." (Gupta at [0026].) "FIG. 4 illustrates an alternate embodiment of the present invention that uses a wireless headset (405) to communicate with the telephone (401) of the present invention. In order to reduce the size and weight of the telephone (401) and also to give more room for the display, this embodiment does not have a built-in speaker and microphone. Instead, the wireless headset (405) performs the same task as a built-in speaker and microphone." (Gupta at [0030].) "The telephone is controlled by a controller (510) that is coupled to the transmitter (501), receiver (505), and the touchscreen display (515) of the present invention. The controller (510), in the preferred embodiment, is a microcontroller that uses microcode. Alternate embodiments use other types of controllers such as microprocessors, application specific integrated circuits (ASIC), or other such controllers." (Gupta at [0035].) "As illustrated in FIG. 8, the display is comprised of a matrix of individually addressable dot or tactile elements. The elements are arranged in an evenly spaced grid covering the entire display. In an alternate embodiment, the tactile portion of the display is only on part of the display, such as the lower half, in order to provide a 'telephone keypad' area when in that particular mode. In the preferred embodiment, the elements are spaced less than 0.10 inch apart in order to allow the sensation of a continuous line." (Gupta at [0041].) "Each tactile element is switchable between an inactive position in which the dot is flush with the surrounding surface and an active position in which the dot is raised above the surrounding surface. The mechanism to provide this may be of any type including: electromechanical, electromagnetic, and switchable dimpled plastic film. In the preferred embodiment, the tactile display is transparent in order to permit the conventional liquid crystal display to be seen below the raised surface." (Gupta at [0042].) "The size of the touchscreen display of the present invention provides the communication device with the ability to display multimedia deliveries from the Internet or other sources. The display could show the presentation along with dynamically changing control buttons such as fast forward, back, review, stop, and pause." (Gupta at [0049].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"In summary, the present invention provides a communication device having a full-length touchscreen display. This enables the display of additional data and information not possible on communication devices having a fixed keypad." (Gupta at [0051].) Gupta discloses the following at FIGS. 2-4 and 8:  Fig. 2 (Gupta at FIG. 2)  Fig. 3

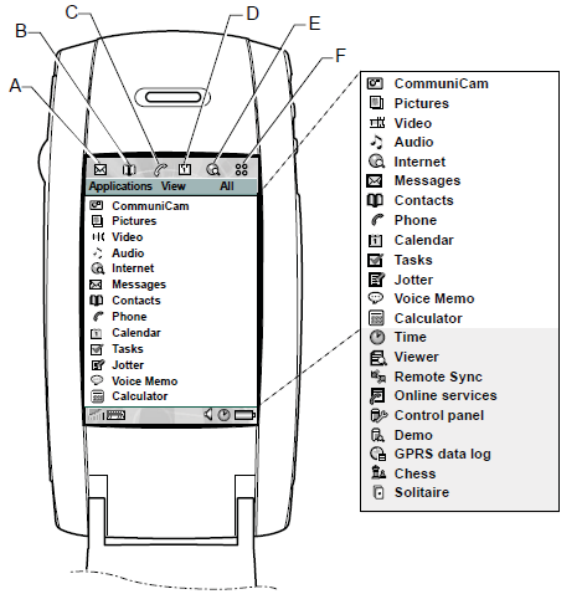
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Gupta at FIG. 3)  Fig. 4 (Gupta at FIG. 4)  Fig. 8

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Gupta at FIG. 8)
[1f] wherein said mobile phone device does not include a physical key on the front surface, and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said mobile phone device does not include a physical key on the front surface." For example, P800 discloses a mobile phone that does not include a physical key on the front surface. (P800 09/2002 Manual at 8.) P800 teaches a touch screen and teaches that the optional keypad can be removed such that the phone does not include a physical key. (P800 09/2002 Manual at 10, 32.) Instead, when the keypad flip is removed, P800 displays a "virtual flip" (i.e., a virtual keyboard) on the touchscreen to enable user input. (P800 09/2002 Manual at 26, 29, 33.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **A** External antenna connector (on the rear side) **B** CommuniCam lens (on the rear side) **C** Battery compartment (on the rear side) **D** Touchscreen **E** Flip (in open position) **F** Shutter release for the CommuniCam **G** Internet button for activation of the browser **H** Slot for Sony Memory Stick Duo™ (under the stylus) **I** Stylus for writing on the screen (P800 09/2002 Manual at 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

(P800 09/2002 Manual at 10.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Virtual flip The virtual flip is to be used when you have physically removed the flip and want to use your P800 in flip closed mode. The virtual flip gives you the same functionality as the real flip keypad. Enter numbers and characters using your stylus. Select to open the virtual flip. Select to close the virtual flip. See the chapter *"Removing and attaching the flip keypad"* on page 32" on how to remove the flip and activate the virtual flip.  (P800 09/2002 Manual at 26.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Entering text - Flip open

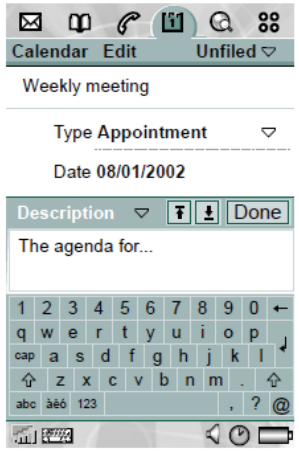
This section describes how to enter text in flip open mode. See *"Entering text in flip closed mode"* on page 25 on how to enter text in flip closed mode.

There are two ways of entering text with the flip open:

- Use the on-screen keyboard found at the bottom of the screen.
- Write directly on the screen using the stylus.

On-screen keyboard

In text edit mode, select the keyboard icon and then select characters. Select ***Done*** when ready.



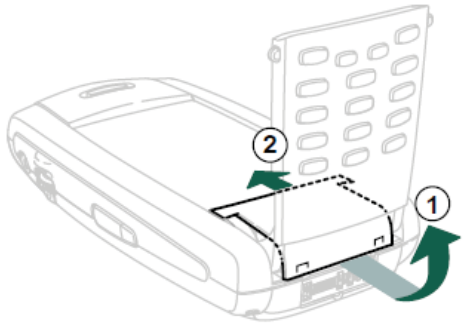
At the bottom left of the keyboard you can choose between three keyboard layouts with different character sets. Tap one of the following keys:

abc - standard characters

àëó - international characters

123 - numeric characters and currencies

(P800 09/2002 Manual at 29.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Removing and attaching the flip keypad *To remove the Flip* 1. Use your fingernail to gently lift up and push the cover plate under and away from the keypad, see picture below. **Note** *Be careful with the touch-sensitive screen. Never use a sharp object like a screwdriver.*  (P800 09/2002 Manual at 32.) **Virtual flip open mode** The virtual flip is to be used when you physically have removed the flip. Activate this function in ***Control Panel > Device > Flip removed.*** is shown on the status bar when virtual flip is activated. Tap it to get to virtual flip closed mode. (P800 09/2002 Manual at 33.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

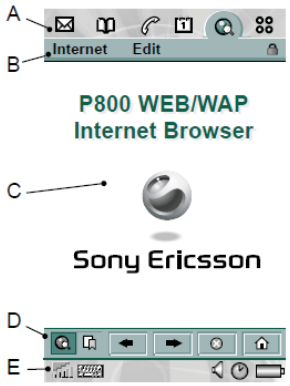
Flip open

This chapter describes what functions are available with the flip open.



Screen areas

In the flip open mode the screen is touch sensitive. The screen is divided into a number of areas, see the figure and table below..



Item	*Description*
A Application picker	Displays six icons for quick and easy access to the most common applications, customizable.

General functions 27

(P800 09/2002 Manual at 27.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations



(P800 09/2002 Manual at 122.)

Call handling

To make a call in flip open mode, you use the stylus and the virtual keyboard.

To make a call

1. Select .
2. Select .
3. Call the number with the virtual keyboard and select .

   To remove a typed character - select .

(P800 09/2002 Manual at 39.)

Flip removed

When you use your P800 with the hardware flip removed, you can use the keys on the virtual flip instead. Use this setting to turn it on or off (see *"Virtual flip"* on page 26).

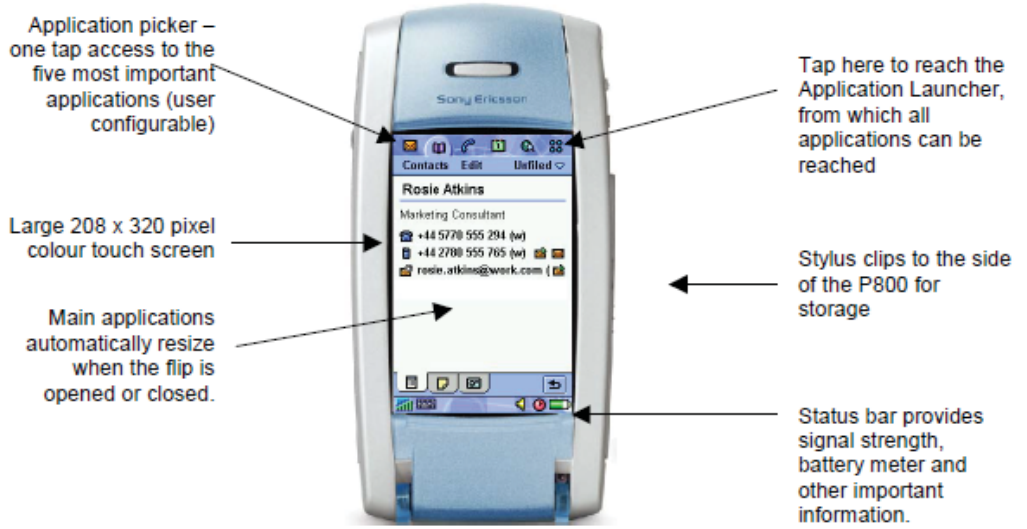
(P800 09/2002 Manual at 129.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip Open (FO mode)

When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.



(P800/P802 White Paper at 14.)

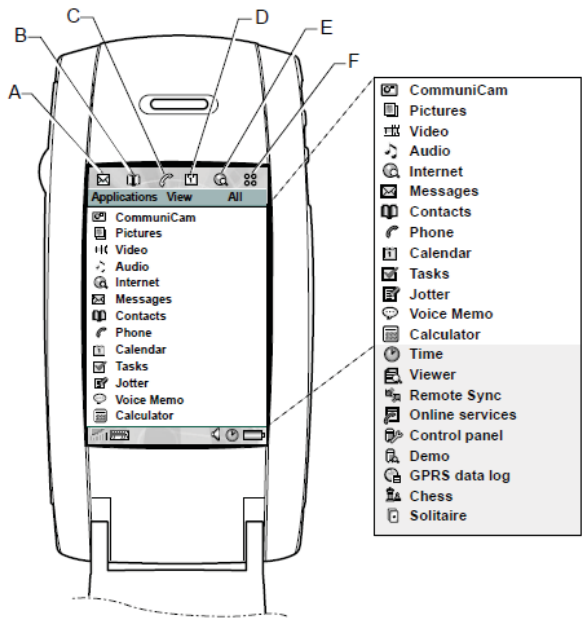
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Removed The flip may also be removed. A 'flip replacement' cover is clipped in place instead of the flip:  (P800/P802 White Paper at 15.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 The game is suspended by events such as incoming phone calls. When the application is re-started from the Application Launcher, it will continue from the start of the level which was last being played. **Stunt Run**  Stunt Run puts you at the wheel of your chosen stunt car on the Sony Ericsson race track! Select a car with your preferred balance of acceleration, top speed and handling and proceed to the starting grid of an easy, normal or hard circuit. Touch the buttons at the left hand end of the screen for reverse, forwards and fast-forward movement. Use the Jog Dial to steer the car.  The game can be played in Single Player, Multiplayer and Tournament form. The demo mode shows a car driving round the circuit. This game is provided on the Multimedia for P800 CD-ROM and must be installed before use. (P800/P802 White Paper at 86.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device)
[1g] wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing." For example, P800 teaches that its optional keypad flip can be removed, such that it does not include components extended out from its housing. (P800 09/2002 Manual at 10, 32.) P800 teaches that when the keypad flip is removed, P800 displays a "virtual flip" (i.e., a virtual keyboard) on the touchscreen to enable user input. (P800 09/2002 Manual at 26, 29, 33.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

(P800 09/2002 Manual at 10.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Extended characters

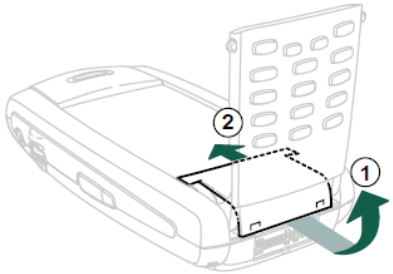
Write the character above the arrow, then insert the character 1 (written from bottom to top) before writing the extended character. See the *Handwriting recognition* help topic for information on how to write these characters.

Removing and attaching the flip keypad

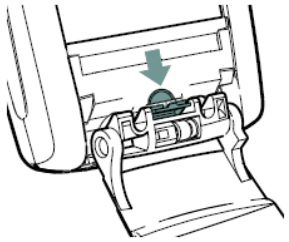
To remove the Flip

1. Use your fingernail to gently lift up and push the cover plate under and away from the keypad, see picture below.

Note *Be careful with the touch-sensitive screen. Never use a sharp object like a screwdriver.*



2. Unlock the catch and lift away the keypad.



3. Attach the flip replacement by first placing the small hooks by the screen and then press on the curved front part until it is securely fixed.

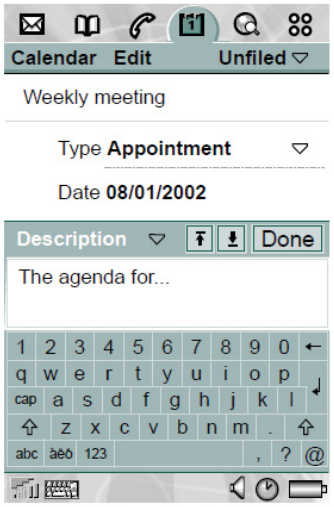
To attach the Flip

1. Use your fingernail to gently lift up and push the flip replacement.
2. If needed, turn the hinge on the keypad to the correct position, see the figure below.

(P800 09/2002 Manual at 32.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Virtual flip The virtual flip is to be used when you have physically removed the flip and want to use your P800 in flip closed mode. The virtual flip gives you the same functionality as the real flip keypad. Enter numbers and characters using your stylus. Select to open the virtual flip. Select to close the virtual flip. See the chapter *"Removing and attaching the flip keypad"* on page 32" on how to remove the flip and activate the virtual flip.  (P800 09/2002 Manual at 26.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations



At the bottom left of the keyboard you can choose between three keyboard layouts with different character sets. Tap one of the following keys:

abc - standard characters

àëó - international characters

123 - numeric characters and currencies

(P800 09/2002 Manual at 29.)

Virtual flip open mode

The virtual flip is to be used when you physically have removed the flip. Activate this function in ***Control Panel > Device > Flip removed.*** is shown on the status bar when virtual flip is activated. Tap it to get to virtual flip closed mode.

(P800 09/2002 Manual at 33.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Additional exemplary citations include:  (P800 09/2002 Manual at 122.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

CETECOM ICT Services GmbH

Test report nr.:2_2885-01-03/02 Issue date: 2002-06-13 Page 52 (65)

Photographs of the equipment

Photograph no.: 3



(FCC P800 Exhibit 3, Photograph No. 3.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

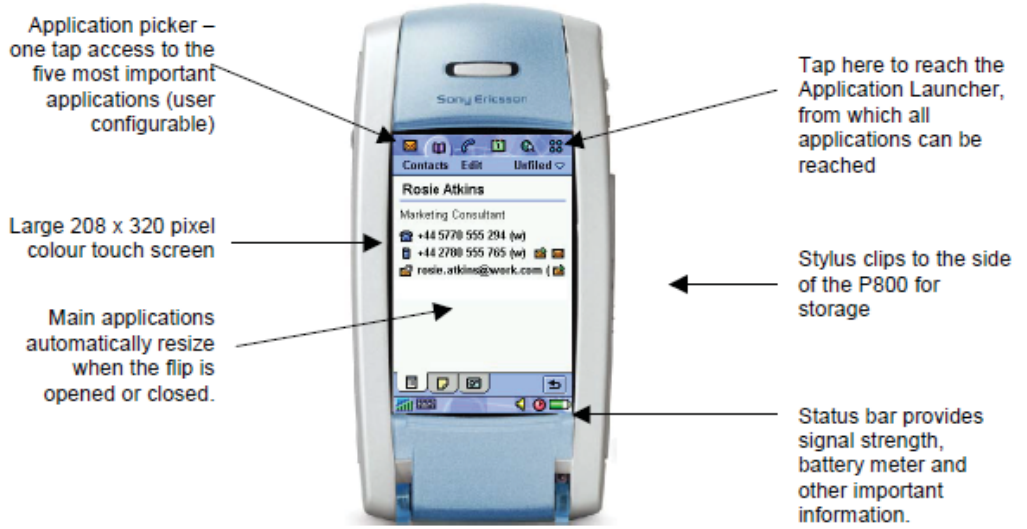
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	CETECOM ICT Services GmbH Test report nr.:2_2885-01-03/02 Issue date: 2002-06-13 Page 53 (65) Photographs of the equipment Photograph no.: 4  (FCC P800 Exhibit 3, Photograph No. 4) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip Open (FO mode)

When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.



(P800/P802 White Paper at 14.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Removed The flip may also be removed. A 'flip replacement' cover is clipped in place instead of the flip:  (P800/P802 White Paper at 15.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations



The game is suspended by events such as incoming phone calls. When the application is re-started from the Application Launcher, it will continue from the start of the level which was last being played.

Stunt Run



Stunt Run puts you at the wheel of your chosen stunt car on the Sony Ericsson race track! Select a car with your preferred balance of acceleration, top speed and handling and proceed to the starting grid of an easy, normal or hard circuit.

Touch the buttons at the left hand end of the screen for reverse, forwards and fast-forward movement. Use the Jog Dial to steer the car.



The game can be played in Single Player, Multiplayer and Tournament form. The demo mode shows a car driving round the circuit.

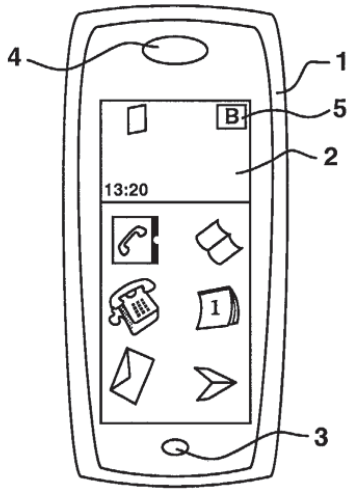
This game is provided on the Multimedia for P800 CD-ROM and must be installed before use.

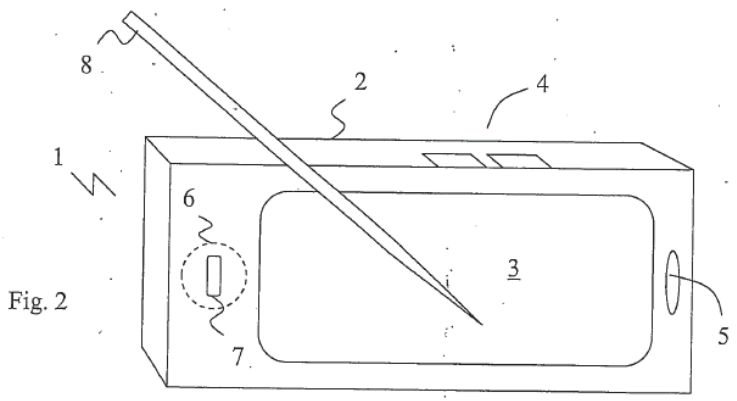
(P800/P802 White Paper at 86.)

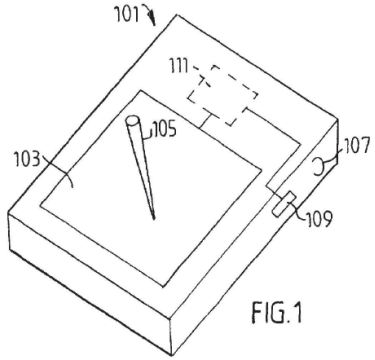
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device) To the extent Keyless contends that this element is not disclosed, a POSITA would have found it obvious in light of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Bast, Pensjo, Wedel, Dutta, and/or Gupta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Bast discloses a mobile phone that does not include components extended out from its housing. (Bast at FIG. 1.) Bast explains that the mobile phone device uses the touch screen and stylus for input and output, so there would be no need for any physical keyboard or buttons. (Bast at [0010], [0012], [0024].)

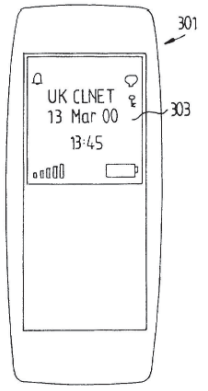
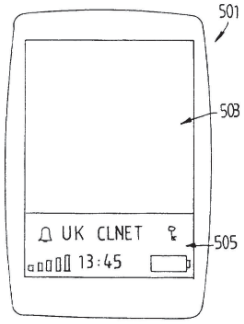
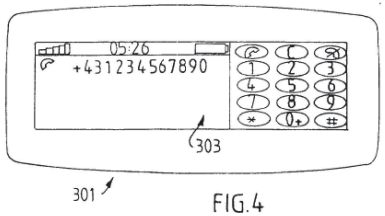
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	As another example, Pensjo discloses a similar mobile phone that does not include components extended out from its housing. (Pensjo at FIGS. 1 and 3-5.) Pensjo's mobile phone uses a stylus and a virtual keyboard to enable user input, so there is no need to make any components (e.g., physical keyboard) extend out from the phone housing. (Pensjo at [0010], [0012], [0024].) As another example, Wedel discloses a similar mobile phone that does not include components extended out from its housing. (Wedel at FIG. 2.) Wedel teaches that mobile phones "are getting smaller and smaller" and are now "pocket size." (Wedel at 1:14-21.) Wedel explains that the small size "is generally considered to be an important factor for the end customer," and there is "general market demand for small size and light weight terminals. (Wedel at 1:14-21, 3:19-21.) Without any component extended out from its housing, Wedel's mobile phone is made more portable and easier to fit in a pocket. As another example, Dutta discloses a similar mobile phone that does not include components extended out from its housing. (Dutta at FIGS. 2A and 2B.) Dutta teaches that there was a continuing effort to reduce the mobile phones' sizes in order to make them more portable. (Dutta at [0002].) Particularly, Dutta teaches that the mobile phones were commonly designed to have a long, narrow shape. (Dutta at [0004].) To that end, it is useful not to let the phone's components extend out from its housing. As another example, Gupta discloses a "buttonless" mobile phone that does not require any physical button for enabling input. (Gupta at Title, Abstract, [0009], [0019].) Gupta recognizes the need to reduce the size of mobile phones while providing a display that is large enough for practical information viewing and easy data input. (Gupta at [0004].) To that end, Gupta uses a "full length" touchscreen display to replace the traditional fixed keypad. (Gupta at [0017], FIGS. 2 and 3.) A POSITA would have been motivated to configure a mobile phone to ensure no component extended out from the phone's housing, so as to make the phone easy to fit into a pocket and to avoid unintended input to the device. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Bast, Pensjo, Wedel, Dutta, and Gupta. A POSITA would have been motivated to design a phone accordingly in order to improve user experience and satisfaction. Thus, a POSITA would have considered the combination of the teachings of Bast, Pensjo, Wedel, Dutta, and/or Gupta into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (the fully integrated

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	mobile phone design as taught by Bast, Pensjo, Wedel, Dutta, and Gupta) according to known methods to yield predictable results (improving the portability and operability of a mobile phone); (B) use of a known technique (excluding components extended from a phone housing, as taught by Bast, Pensjo, Wedel, Dutta, and Gupta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (excluding components extended from a phone housing, as taught by Bast, Pensjo, Wedel, Dutta, Gupta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Bast, Pensjo, Wedel, Dutta, and Gupta) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "The mobile terminal shown in Figure 1 combines the functions of a personal digital assistant (PDA) and a mobile telephone. It includes a housing 1 equipped, on the front face, with a large screen 2, which can be a touch screen. The front face of the housing also includes a microphone 3 and a speaker 4, located at the lower part and the upper part, respectively, of the front face of the housing. The touch screen 2 is a rectangular screen that is as large as possible to enable: the input and display of data, particularly writing by means of a stylus; the display of various information, like the time; the display of short messages or messages obtained by email; and the display of program and function icons, settings icons, a virtual keypad for numbering etc. When coming on line, it can, for example, as shown in Figure 1, display a desktop in the form of icons corresponding to the various applications programmed in the terminal." (Bast at [0010].) "To enable the user to discretionally toggle from one display to the other, as is considered to be more suitable at a given time, the mobile terminal can be equipped with a toggle button. This button can be a conventional button disposed on the housing or a virtual toggle button 5, accessible to the user and permanently displayed, in the form of an icon on the touch screen 2 (Figures 1 to 3). An equivalent function is accessible by means of a menu." (Bast at [0012].) "Calibration essentially consists of determining the vertical position of the device. This calibration can be carried out automatically or manually. In one preferred embodiment, the robustness of the system is increased by combining the two calibration modes." (Bast at [0018].)

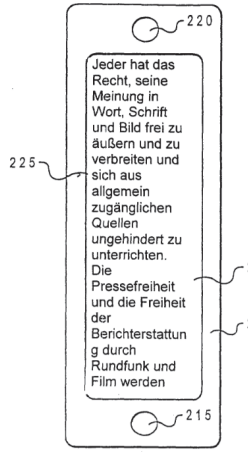
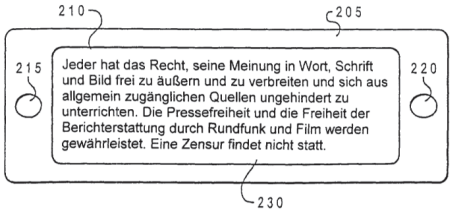
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"A small mechanical switch (not shown) disposed at the base of the housing 1 enables the orientation of the terminal to be manually calibrated. When the user places the terminal vertically on a table or any other horizontal surface 10, the switch closes and the central processing unit 7 considers the corresponding position to be the vertical position." (Bast at [0020].) "If the screen 2 is a touch screen, the housing's orientation detector can be associated with a virtual toggle button, thus enabling the user to change the current display mode." (Bast at [0024].) Bast discloses the following at FIG. 1:  **Figure 1** "Figure 2 discloses a different embodiment of a state of the art communication terminal 1, wherein the display 3 occupies a larger portion of the front side of the terminal. Several of the functions of the keypad 4 have been included in a graphical user interface applicable to the display 3, rendering a data input interface having less keys. Those keys 4 may also be moved to the side of the communication terminal in order to allow for the display 3 to occupy a larger portion of the front side of terminal 1. A specific tool 8 may be provided for inputting data on a touch-sensitive screen of the display 3." (Wedel at 2:3-11.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Wedel discloses the following at FIG. 2:  Fig. 2 "Fig. 1 illustrates a view of a portable device 101 comprising a touch sensitive screen display 103 used for input of operational commands and/or data. The device 101 further includes a pen 105 as a pointing tool for touching specific areas of the screen display 103 in a predefined manner. When not in use, the pen can be placed in a pen holder 107 of the portable device. The pen holder is in this example placed on the side of the device and comprises a ring for receiving the pen. The pen holder may of course be designed and placed in many different ways within the scope of the invention, such as a recess together with some kind of a spring-like element. The device 101 further comprises a mechanism 109 for detecting whether the pen is located in the holder or not, and an electronic control unit 111 connected to the pen detecting mechanism 109. The control unit 111 operates to control circuits, not shown, for displaying various patterns, pictures and/or information on the screen display 103." (Pensjo at [0008].) "Fig. 3 is a view of an exemplary mobile telephone 301 comprising a touch screen display 303 being in a sleep mode due to the presence of a pen in a pen holder, not shown. the layout of the screen display 303 is in a "portrait" format." (Pensjo at [0010].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Fig. 4 is a view of the mobile telephone 301 of Fig. 3 after the pen has been removed from the pen holder. In this example, the layout of the screen display 303 has been changed into a "landscape" format including a numeric keyboard." (Pensjo at [0011].) "Finally, Fig. 5 is a view of an exemplary electronic device 501, comprising a touch screen 503, where the device has changed from a sleeping mode into an active mode in response to the pen being removed from the pen holder, not shown. The user may be alerted of the change into the active mode by illuminating, e.g., the lower part 505 of the screen 503." (Pensjo at [0012].) "According to one aspect of the invention, the device is in a first passive mode, or sleep mode, when the pen is present in the pen holder 107. In this state, the touch functionality of the screen is preferably not activated such that data or commands cannot be entered by mistake, e.g., when the device is located in a pocket or a suitcase. The screen may in this mode display various information, such as phone numbers, e-mails, reminder alerts etc. When the device switches from the first mode to a second active mode after the pen has been removed from the pen holder 107, the screen appearance changes into a layout designed for input of commands and/or data and also the touch functionality of the screen is activated." (Pensjo at [0013].) Pensjo discloses the following at FIGS. 1 and 3-5:  FIG.1

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 FIG.3  FIG.5  FIG.4 "A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant." (Dutta at [0002].) "Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself." (Dutta at [0004].) "Figs. 2A and 2B are exemplary representations of the display of a mobile phone corresponding to a preferred embodiment of the present invention. The two figures show this telephone 205, which is equipped

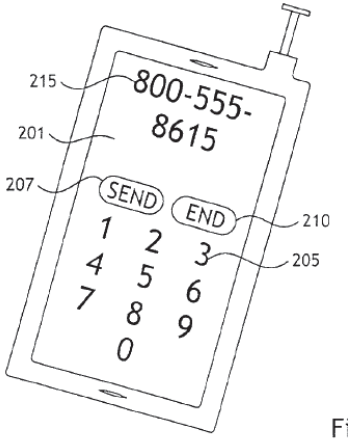
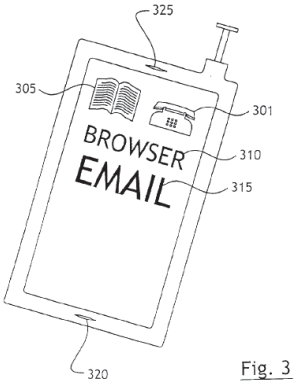
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	with a display 210. From the illustration it follows that the display 210 occupies the majority of the surface of the telephone 205, in which a microphone 215 is located at one end of the display, and a speaker 220 is located at the other end of the display." (Dutta at [0018].) "The difference between these two figures consists in the representation of data 225 and 230 on the display 210. In Fig. 2A, the data 225 are depicted such that the text is read in portrait format of the display 210, as is usual in current mobile phone models. It is clear that reading is problematic in this format of the display." (Dutta at [0019].) "However, in Fig. 2B, the representation of the data 230 has been rotated by 90 degrees so that they are shown on the display 210 in landscape format. In this case the data 23 are significantly easier to read." (Dutta at [0020].) Dutta discloses the following at FIGS. 2A and 2B:

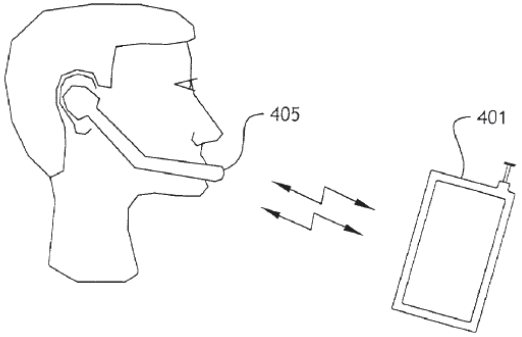
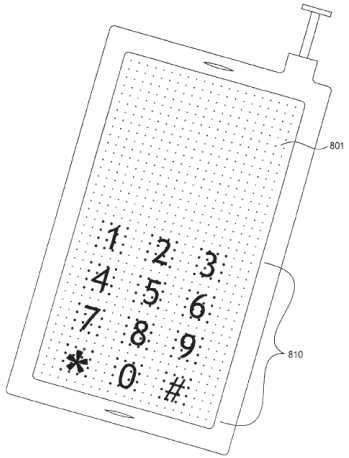
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 *Fig. 2A*  *Fig. 2B* "The functions of personal digital assistants and cellular telephones are merging. Devices are emerging that not only can hold addresses and phone numbers but can also communicate over the Internet through a wireless connection. This gives the user the ability to send e-mail, download stock quotes, look-up directions for travel as well as make telephone calls." (Gupta at [0002].) "Many cellular telephone manufacturers enable the personal digital assistant and cellular telephone capability by providing a larger display on the telephone. The larger display is able to show multiple lines of information as well as icons for accessing the personal digital assistant functions of the device." (Gupta at [0003].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"In order to keep the telephone small and still provide a reasonably large display for information, the size of the keypads for entering data has been reduced substantially. Individuals with large fingers or users that try to input data while moving may have trouble depressing the small keys properly. There is a resulting unforeseen need for a small communications device that merges the functions of a personal digital assistant and a telephone, cellular or otherwise, while still providing a display that is large enough for practical information viewing and a keypad that is easy to use." (Gupta at [0004].) "A buttonless communication device that uses a touchscreen display for entering and displaying data. The different modes of the device are displayed as icons on the display allowing the device to enter the mode enabled by contact of the appropriate icon. A telephone mode displays a keypad of icon numbers, a send icon, an end icon, and an entered telephone number display area. By contact with the appropriate icons, a telephone number can be called or an incoming call answered." (Gupta at Abstract.) "A touch-screen display is comprised of icons that represent numbers. The icons are used to enter a number in response to a contact, on the display, over a particular icon to be entered. A controller controls the transmitter, the receiver, and the touch-screen display. The controller controls the operation of the communications device and comprises an apparatus that generates the icons representing numbers for display on the touch-screen display. The controller also comprises an apparatus that generates an accumulated telephone number in response to the particular icons contacted on the touch-screen display." (Gupta at [0008].) "FIG. 2 shows a buttonless, wireless communication device of the present invention in a telephone mode." (Gupta at [0009].) "The communication device of the present invention provides a telephone with a full length, tactile response, touchscreen display. Instead of portions of the telephone being taken up by a fixed keypad, the touchscreen display can display a keypad while in the telephone dialing mode but then replace the keypad with extra display space for data. The display also features dynamically raised keys and buttons in response to what is being displayed." (Gupta at [0017].) "FIG. 2 illustrates the buttonless communication device of the present invention. In the preferred embodiment, this communication device is a wireless radiotelephone for use in a cellular system. Alternate

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	embodiments use other types of telephones such as cordless telephones, for use in the home, that are coupled to the public switched telephone system. The cellular radiotelephone of the present invention is not constrained to any one air-interface standard. It works equally well with code division multiple access (CDMA), global system for mobile communication (GSM), time division multiple access (TDMA), or even advanced mobile phone system (AMPS)." (Gupta at [0019].) "The telephone illustrated in FIG. 2 is comprised of a large touchscreen display (201). FIG. 2 illustrates the present invention in the telephone mode. In this mode, the device displays number icons (205) or other informational symbols (not shown) which form and are used as a telephone keypad for entering telephone numbers. The display also displays a 'SEND' key (207) and an "END" key (210) (for purposes of this disclosure, the term 'key' does not refer to a physical button or switch but instead refers to an area of the display screen which when contacted or touched causes the generation of a signal to the phone that is representative of the 'button' or 'pad' that was actuated. The functions of a 'SEND' and 'END' key are generally known to start and stop a wireless phone call. A portion of the display (215) is reserved for displaying the telephone number as it is being typed in." (Gupta at [0020].) "In the preferred embodiment, the user receives an aural feedback whenever a "key" is contacted. Since the surface of the screen of the preferred embodiment is smooth and there is no key movement to let the user know that data has been entered, the telephone can be set up to generate an electronic beep, clicking noise, or some other sound to indicate the successful actuation of each "key". The chosen sound may be chosen by setting up user preferences of the telephone operator or the sound may be turned off for silent operation." (Gupta at [0022].) "The display also has a browser icon (310) that takes the user to the browser program used by the telephone. The browser is a scaled down version of a personal computer browser such as NETSCAPE NAVIGATOR and, in the preferred embodiment, conforms to the wireless access protocol (WAP) standard for wireless Internet access. This browser program enables the user to access selected Web sites over the Internet and display the accessed data on the large telephone display. It can be seen the that lack of a fixed telephone keypad enables substantially more data to be displayed while in this mode than would be possible with the fixed keypad." (Gupta at [0026].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The process of the present invention is illustrated in FIG. 6. This process begins with the controller generating the icons indicating the different modes of the communication device (step 601). The controller then displays these icons on the touchscreen display. The user touches the telephone icon to put the communication device into the telephone mode (step 610). The controller reads the contact on the touchscreen display and, knowing the coordinates of the telephone mode icon on the display, puts the device into the telephone mode (step 615). Once in the telephone mode, the controller generates the number icons and causes the touchscreen display to display them in a keypad-style format (step 620). The controller also generates the other telephone keys, such as "send", "end", and the telephone number display and displays them in the proper format on the touchscreen display." (Gupta at [0037].) "The size of the touchscreen display of the present invention provides the communication device with the ability to display multimedia deliveries from the Internet or other sources. The display could show the presentation along with dynamically changing control buttons such as fast forward, back, review, stop, and pause." (Gupta at [0049].) "In summary, the present invention provides a communication device having a full-length touchscreen display. This enables the display of additional data and information not possible on communication devices having a fixed keypad." (Gupta at [0051].) Gupta discloses the following at FIGS. 2-4, and 8:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 2 (Gupta at FIG. 2)  Fig. 3 (Gupta at FIG. 3)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 4 (Gupta at FIG. 4)  Fig. 8 (Gupta at FIG. 8)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
[2pre] The device of claim 1,	Claim 2 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].
[2a] wherein said practically rectangular shape has rounded corners.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said practically rectangular shape has rounded corners." For example, the corners of P800's housing have slightly rounded edges. (P800 09/2002 Manual at 122; FCC P800 Exhibit 11 SAR Report at Sheet 10; FCC P800 Exhibit 3, Photograph Nos. 3 and 4.) 

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	(P800 09/2002 Manual at 122.)  (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations

Photographs of the equipment

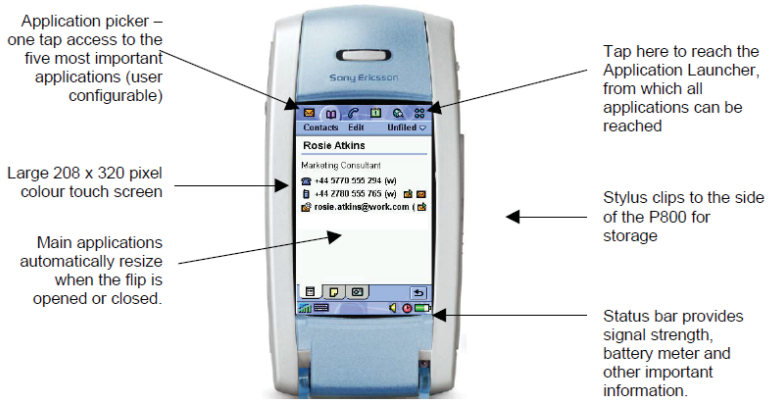
Photograph no.: 3



(FCC P800 Exhibit 3, Photograph No. 3.)

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	CETECOM ICT Services GmbH Test report nr.:2_2885-01-03/02 Issue date: 2002-06-13 Page 53 (65) Photographs of the equipment Photograph no.: 4  (FCC P800 Exhibit 3, Photograph No. 4.) Additional exemplary citations include:

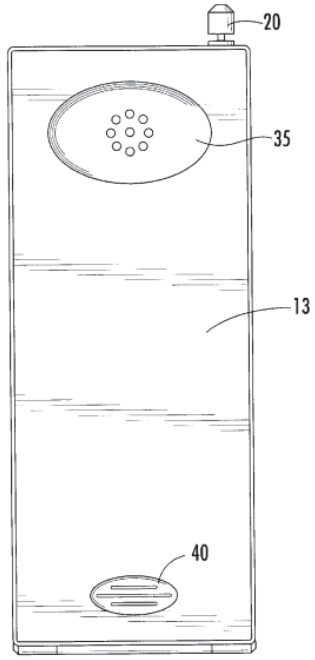
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

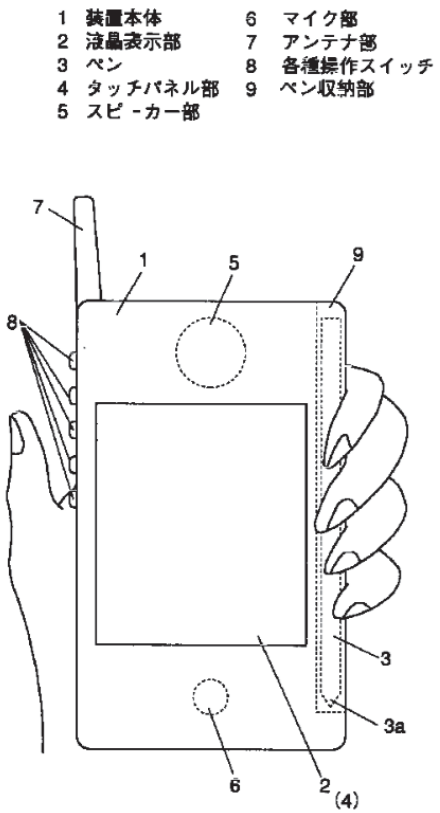
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Open (FO mode) When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.  (P800/P802 White Paper at 14.)

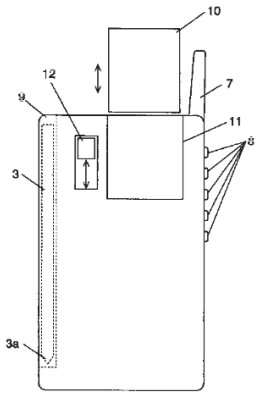
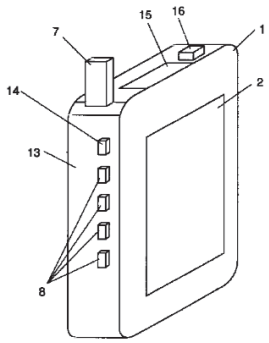
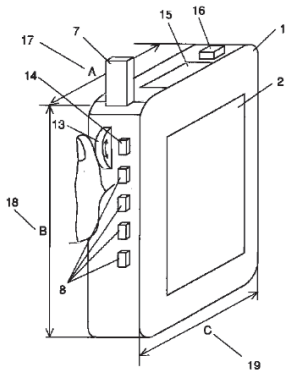
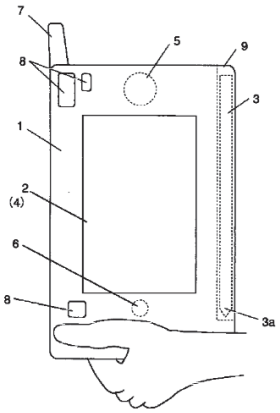
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Removed The flip may also be removed. A 'flip replacement' cover is clipped in place instead of the flip:  (P800/P802 White Paper at 15.)

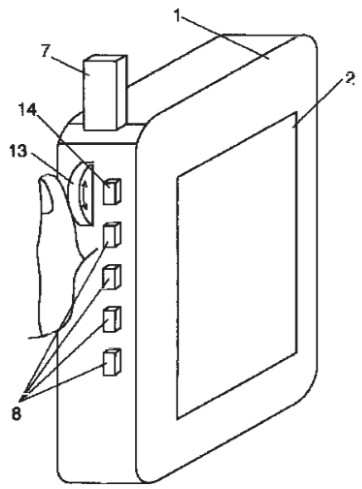
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device) To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Rydbeck discloses a mobile phone housing that is generally rectangular and includes rounded corners. (Rydbeck at FIG. 3.)

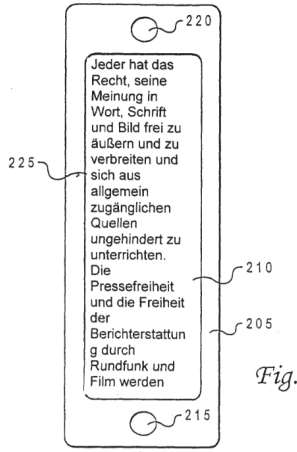
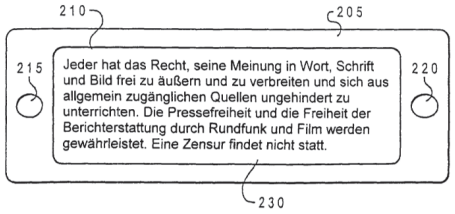
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	As another example, Yamaguchi discloses a mobile phone device having a rectangular housing with rounded corners. (Yamaguchi at FIGS. 1, 3-7). As a further example, Dutta discloses a mobile phone having a rectangular housing with rounded corners. (Dutta at FIGS. 2A-2B.) A POSITA would have been motivated to configure a mobile phone such that the housing has rounded corners to improve the ease of use and portability of the phone. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Rydbeck, Yamaguchi, and Dutta. A POSITA would have been motivated to round the corners to improve user experience and make the design more ergonomical. Thus, a POSITA would have considered the combination of the teachings of Rydbeck, Yamaguchi, and/or Dutta into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (a housing with rounded corners as taught by Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving the user experience and ergonomics of a mobile phone); (B) use of a known technique (forming a housing such that the housing has rounded corners as taught by Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and ergonomics); (C) applying a known technique (forming a housing such that the housing has rounded corners as taught by Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device ergonomics); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: Rydbeck discloses the following at FIG. 3:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 FIG. 3. Yamaguchi discloses the following at FIG. 1:

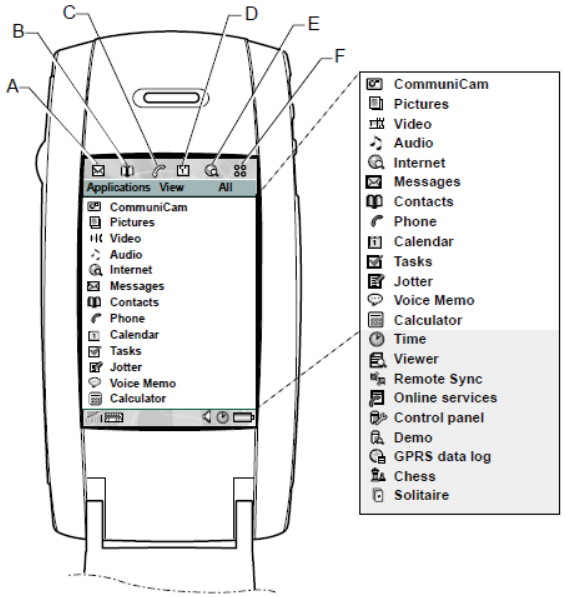
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	【図１】  Yamaguchi discloses the following at FIGS. 3 and 5-7:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	【図３】  【図５】  【図６】  【図７】  Yamaguchi discloses the following at FIG. 4:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	【図4】  Dutta discloses the following at FIGS. 2A-2B:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 *Fig. 2A*  *Fig. 2B*

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
[3pre] device of claim 1	Claim 3 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
[3a] wherein plurality of icons corresponding to plurality of applications are displayed on said display unit, and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein plurality of icons corresponding to plurality of applications are displayed on said display unit." For example, P800 displays a plurality of icons on the touchscreen. (P800 09/2002 Manual at 10, 27.) Each icon corresponds to one of the various applications that are programmed into P800, including phone, calendar, contacts, and messages. (*Id.*; P800 09/2002 Manual at 20.) **Applications - Flip open**  **A** Shortcut to the Messages application **B** Shortcut to the Contacts application **C** Shortcut to the Call list application **D** Shortcut to the Calendar application **E** Shortcut to the Internet application **F** Shows all Flip open applications When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required. With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial. If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application. The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes. (P800 09/2002 Manual at 10.)

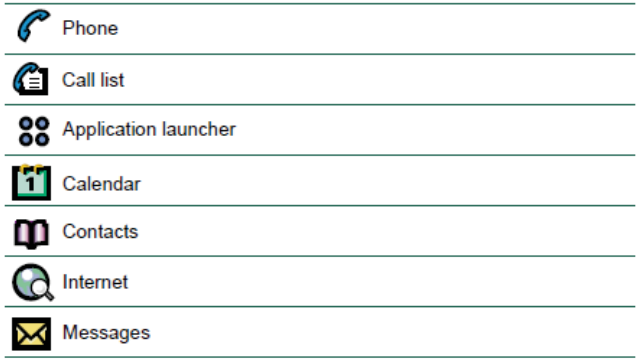
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip open This chapter describes what functions are available with the flip open.  (P800 09/2002 Manual at 27.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations

Icons

Application icons

An application icon starts its application when you select it. Below are the default application icons that you can see in the screen when the flip is closed, or in the application picker when the flip is open. A list of more application icons is available in the application launcher.

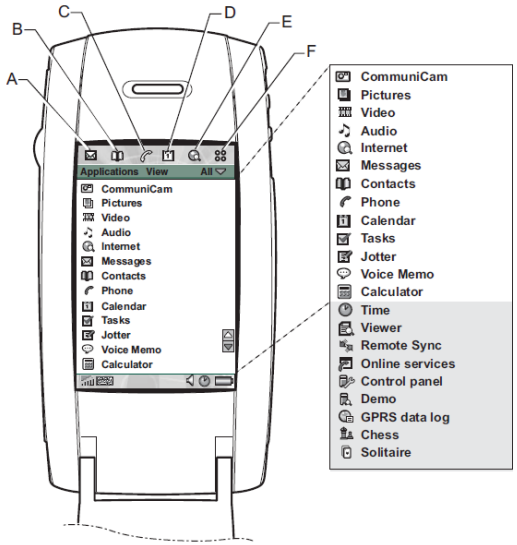


(P800 09/2002 Manual at 20.)

Additional exemplary citations include:

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip open mode



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Phone application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all applications available in flip open mode

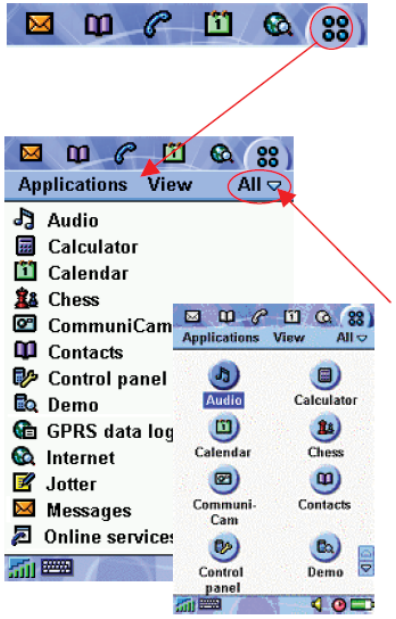
You can change the shortcuts A-E. See *"Changing your application shortcuts" on page 134.*

Navigation

When the flip is open, the application shortcut icons shown in the flip closed mode move to the top row in the flip open screen. You navigate by using the stylus and tapping selected items and by using the Jog Dial, see *"Jog Dial"* on page 23.

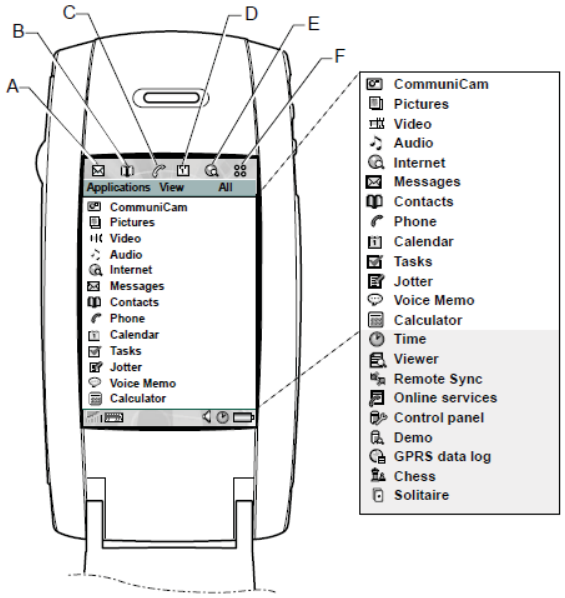
(P800 11/2002 Manual at 18.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Application UI Outline P800 applications generally follow the style guidelines established for Symbian UIQ applications.  The user may select five important applications and display them on the 'application picker' strip across the top of the screen. The sixth icon at the right always switches to the Application Launcher. All applications are listed in the Application Launcher. The user may select list view with small icons and text, or a 'finger-size' icon display of 8 applications per page. One tap on the list-row or icon will launch (switch to) the desired application. The Folder feature enables the user to group applications into logical folders such as 'games' and 'work'. This feature is carried through into many applications, enabling contacts, appointments, notes etc. to be organised effectively. The Jog Dial can also be used to navigate up and down; clicking on an application will navigate to it. There is no concept of starting or closing applications; simply navigating to them. When an application is used for the first time it will start in its basic state, which is typically a list view. If the user navigates from application A to application B (using, say, the Application Picker,) application A will close any open dialogs and views and return to its initial state ready for the next time it is used. Data is saved. There are some exceptions, for example the browser stays at the current page. (P800/P802 White Paper at 16.)
[3b] wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit."

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
applications are displayed on said display unit.	For example, P800 allows a user to use the stylus to navigate the applications displayed on the touchscreen. (P800 09/2002 Manual at 10; P800 11/2002 Manual at 15.) The list of icons associated with the applications can be scrolled down or up such that additional icons can be displayed on the touchscreen. (P800 09/2002 Manual at 10.)

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

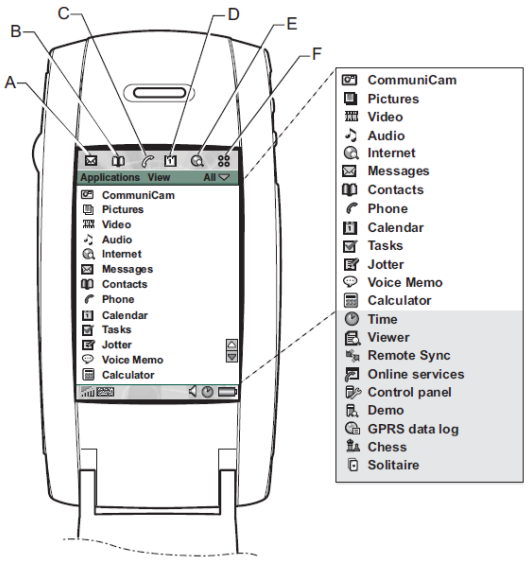
If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

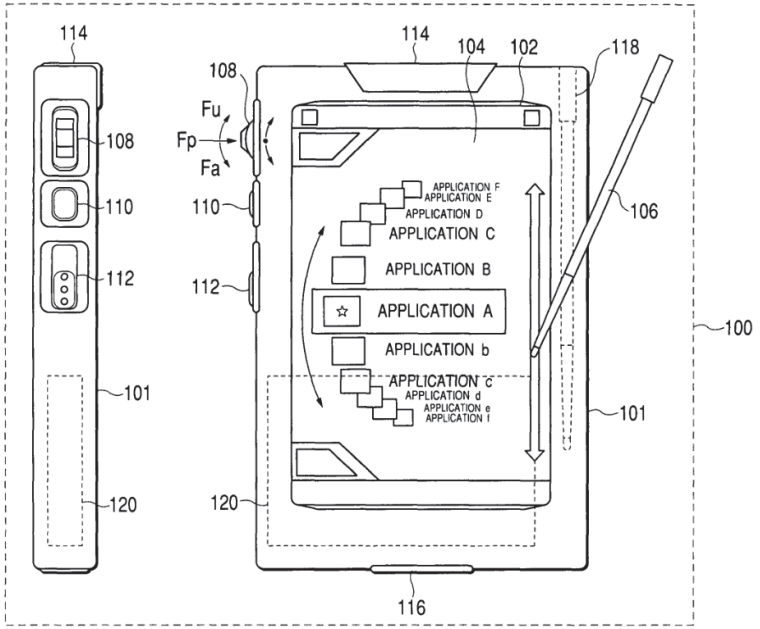
(P800 09/2002 Manual at 10.)

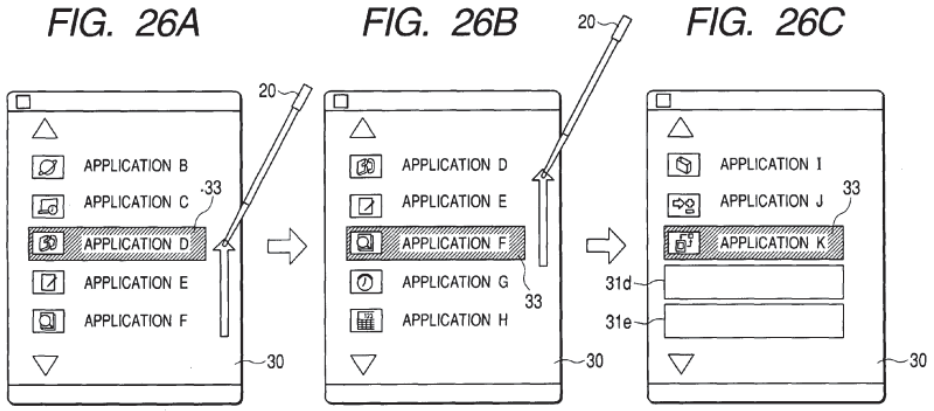
Flip open

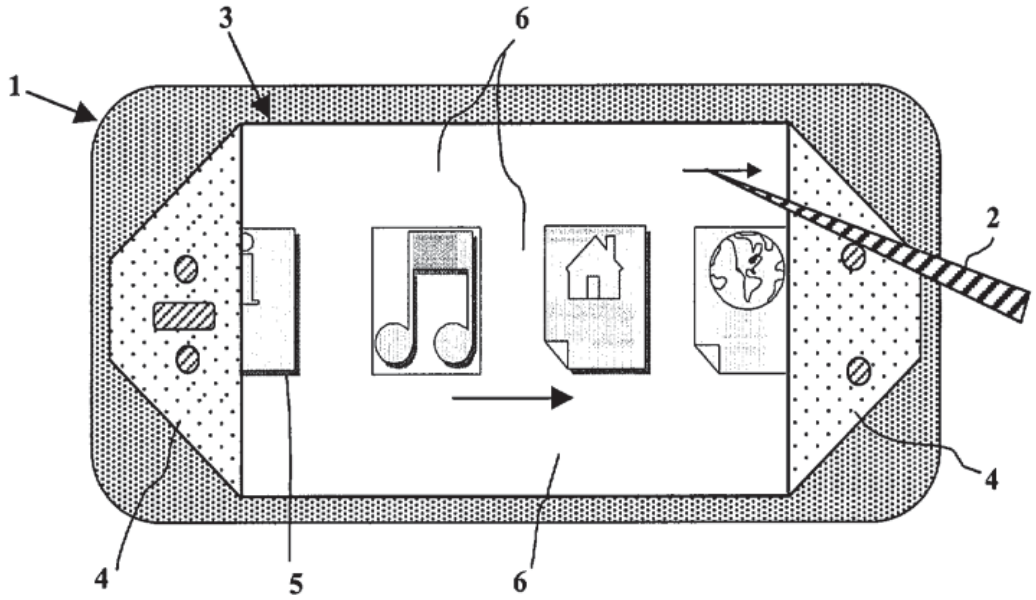
When the flip is opened, the large touch-screen is revealed. You use the stylus to tap the screen to navigate and enter data. There is also a handwriting recognition feature, so that you can use the stylus to write on the screen.

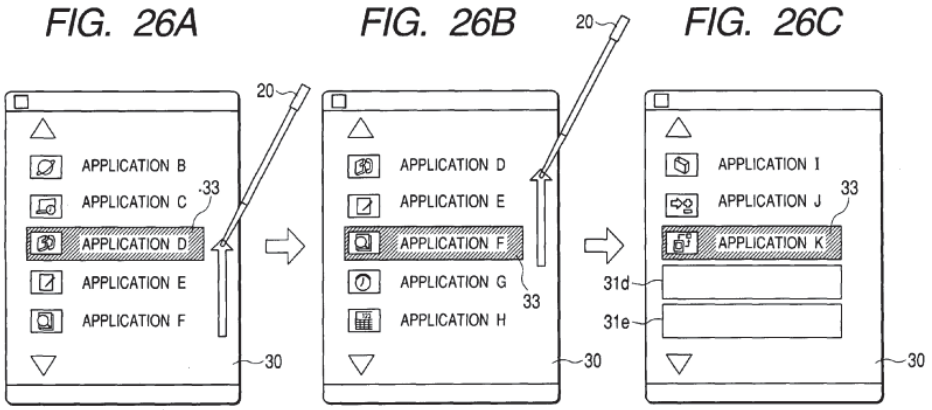
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	(P800 11/2002 Manual at 15.) Additional exemplary citations include: **Flip open mode**  **A** Shortcut to the Messages application **B** Shortcut to the Contacts application **C** Shortcut to the Phone application **D** Shortcut to the Calendar application **E** Shortcut to the Internet application **F** Shows all applications available in flip open mode You can change the shortcuts A-E. See *"Changing your application shortcuts" on page 134.* **Navigation** When the flip is open, the application shortcut icons shown in the flip closed mode move to the top row in the flip open screen. You navigate by using the stylus and tapping selected items and by using the Jog Dial, see *"Jog Dial"* on page 23. (P800 11/2002 Manual at 18.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.) To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Nakano and/or Benoit to display a plurality of other applications upon a user action on the display unit. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, Nakano discloses a mobile phone that includes a touch panel 104. (Nakano at 2:49-51, FIG. 1.) Nakano teaches a method of improving the control of a menu display by using said touch panel. (*Id*.) The touch panel is integrated into the display of the portable device disclosed by Nakano, which may be a mobile phone. (Nakano at 7:20-39.) Nakano teaches using a drag operation to control the display of various entities shown on the display. (Nakano 7:40-52.) The drag operation taught by Nakano may comprise drawing a finger across the display panel or using a stylus to do the same. (Nakano at 7:57-8:16). Nakano teaches that programming a device, display, and touch panel in this way allows for improved control of display entities that are shown on the display. (Nakano at 8:50-54). The display entities disclosed by Nakano may correspond to programs, also known as applications, that can be activated and executed by the device. (Nakano at 8:65-9:6.) *FIG. 1*  (Nakano at FIG. 1.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Thus, Nakano teaches programming a device, such as a mobile phone, so that is operative to allow a user to slide a finger or stylus pen across a menu screen, displaying a plurality of application icons in the form of menu items. (Nakano at 15:66-16:10). A dragging operation, also known as a sliding operation, allows a user to move the menu items displayed in various directions across the screen. (Nakano at 25:40-47, FIGS. 19A-19B.) As shown in FIGS. 26A-C, menu items, also known as application icons, that are not originally shown on the display may be displayed based on a dragging or sliding input from a user. (Nakano at 28:36-29:10, FIGS. 26A-C.)  (Nakano at FIGS. 26A-26C.) As another example, Benoit teaches a display used in a mobile phone that can display a series of icons that correspond to programs and respond to a sweeping input to display a plurality of additional icons. (Benoit at (cover page, 57).) Benoit further teaches that it is desirable to display large icons corresponding to applications, making them easily distinguishable. (Benoit at 2:17-18.) And the dexterity needed to control the display of application icons is reduced because the control input can be made across the entire screen, including the area where the application icons are shown. (*Id*.)

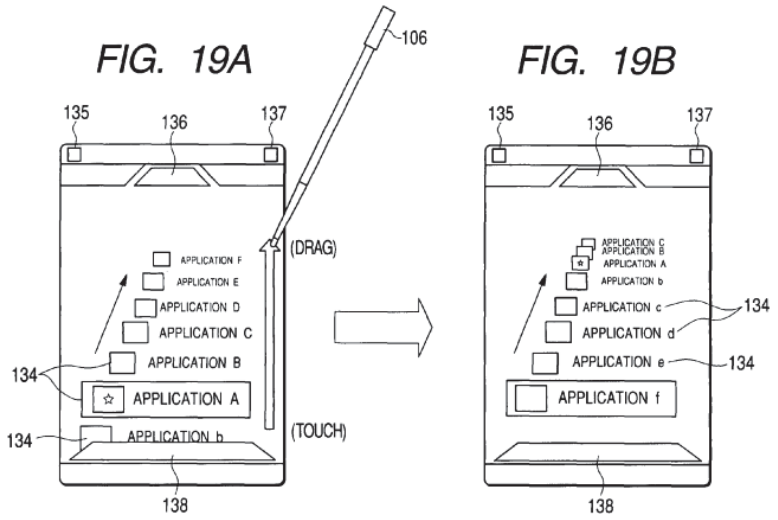
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Benoit at FIG. 1.) A POSITA would have been motivated to configure a mobile phone such that upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit. Configuring a mobile phone such that upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit was routine and conventional to a POSITA, as shown by Nakano and Benoit. A POSITA would have been motivated to configure a display unit in this way to improve operability and functionality of the device. Thus, a POSITA would have considered the combination of Nakano and/or Benoit's teachings into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (combining display unit operative to display a plurality of additional application icons in response to a sweeping action into the mobile phone disclosed by P800, which is operative to display a plurality of application icons) according to known

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	methods to yield predictable results (improved operability and functionality of the device); (B) use of a known technique (programming display unit such that it is operative to display a plurality of additional application icons in response to a sweeping action as taught by Nakano and Benoit) to improve similar devices in the same way (improved operability and functionality of the device); (C) applying a known technique (programming display unit such that it is operative to display a plurality of additional application icons in response to a sweeping action as taught by Nakano and Benoit) to a known device ready for improvement to yield predictable results (improved operability and functionality of the device); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Nakano and Benoit) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. In one exemplary combination, the mobile phone of P800 may be programed to allow a user to change the application icons displayed on the touchscreen by sliding the stylus along the list of application icons. The user interface of such modified P800 would look like that shown in Nakano's FIGS. 26A-C.  (Nakano at FIGS. 26A-26C.) Additional exemplary citations include:

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The invention also aims at enhancing the operability of menu display used for a portable information terminal equipped with a touch panel." (Nakano at 2:49-51.) "The invention provides a display control method for causing, a portable information terminal comprising a display integral with a touch panel, a drag operation being available across the predetermined display area of the display, to display, in whole or in part, the information display entities arranged in a predetermined arrangement in the predetermined display area, characterized in that the method comprises: a setting step of setting a position of a candidate for selection in the predetermined display area; a scroll step of scrolling through information display entities in case a drag operation is made; and a first determination step of determining as a candidate for selection the information display entity displayed in the position of a candidate for selection." (Nakano 7:40-52.) "The drag operation refers to operation of drawing a line on a touch panel with a stylus pen of a finger of the user. In the drag operation, a moment a stylus pen comes into contact with a touch panel is referred to as a "tap-in" and a moment a stylus pen is released from a touch panel after moving the stylus pen with the stylus pen kept in contact with the touch panel is referred to as a "tap-out". The operation of causing a stylus pen to come into contact with a touch panel instantaneously and release the stylus pen is called a "tap". According to this invention, a drag operation is available across a predetermined display area where a plurality of information display entities are displayed. Scroll display of information display entities is executed by a drag operation. Thus, the user has only to perform a drag operation like drawing an arbitrary line in order to perform scroll operation. The display screen of a personal information terminal device is small so that the predetermined display area may be set to the entire display screen of the display. For example, a menu display entity may be used as an information display entity and in case a menu screen is to be displayed, the entire display screen may be used to display the menu screen, and a scroll operation (or a drag operation) is allowed across the screen. Further, as a result of scroll, an information display entity (menu display entity) displayed in the position of a candidate for selection is selected as a candidate for selection. Thus, a single drag operation serves as a scroll operation instruction and selection of an information display entity (menu display entity)." (Nakano at 7:57-8:16).

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	"According to the invention, the following advantage is obtained. Information display entities are arranged on a virtual face. Scroll display is allowed by moving a virtual camera whose line of sight faces the virtual face, thus more readily allowing scroll control in a virtual space." (Nakano at 8:50-54). "The invention provides a portable information terminal characterized by further comprising: storage means (for example a storage section 400 in FIG. 41) for storing a plurality of programs corresponding to, in whole or in part, the plurality of information display entities; and activation means (for example an application activation controller 320 in FIG. 41) for activating, if any, a program corresponding to the information display entity determined as a candidate for selection by the first determination means." (Nakano at 8:65-9:6.) "The third method is an input in accordance with a drag with the stylus pen 106. By causing the stylus pen 106 to touch the touch panel 104 and dragging the stylus pen 106, or sliding the stylus pen 106 with its tip in contact with the touch panel 104 in the upward/downward direction deselects the menu items currently in the selection state. The user can specify a menu item distant by the number of items according to the travel amount of the drag in the upward or downward direction according to the drag direction. Once the menu is under moving display and the specified menu item is in the selection state, the user releases the stylus pen 106 to determine the selection." (Nakano at 15:66-16:10). "In FIG. 19A, a menu item in the middle of the menu is in the selection state. Menu items preceding and following the item are three-dimensionally represented in one-point perspective in the upward direction in the screen. Dragging with the stylus pen 106 in the upward direction so as to slide the menu display in the upward direction causes the menu panel 134 to move in the upward direction along the one-point perspective, for example, as shown in FIG. 19B." (Nakano at 25:40-47.) "In FIG. 26A, the menu display area 31 a displays "Application B", the menu display area 31 b displays "Application C", the menu display area 31 c displays "Application D", the menu display area 31 d displays "Application E", and the menu display area 31 e displays "Application F", respectively. In the selection candidate display area 32, that is, in the menu display area 31 c, the focus 33 is overlaid on Application D. The Application D is a candidate for selection. In the menu screen 30, dragging the stylus pen 20 in the upward direction scrolls through the menu display entities in the

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	menu screen 30 as shown in FIG. 26B. In FIG. 26B, the menu display area 31 a displays "Application D", the menu display area 31 b displays "Application E", the menu display area 31 c displays "Application F", the menu display area 31 d displays "Application G", and the menu display area 31 e displays "Application H", respectively. The menu display entities on the screen are scrolled though in the upward direction by two rows. On the menu display entity displayed in the selection candidate display area 32, that is, on Application F, is overlaid the focus 33. The Application F is a candidate for selection. Dragging with the stylus pen 20 refers to an operation (including standstill state) of sliding the stylus pen 20 on the LCD panel 11 with the tip of the stylus pen 20 in contact with the LCD panel 11. In FIG. 26B, further dragging in the upward direction further scrolls through the menu entities on the screen in the upward direction. As shown in FIG. 26C, when the lowermost menu display entity (Application K in the figure) reaches the selection candidate display area 32, the scroll comes to a halt. In FIG. 26C, the menu display area 31 a displays "Application I", the menu display area 31 b displays "Application J", and the menu display area 31 c displays "Application K", respectively. On the menu display entity displayed in the selection candidate display area 32, that is, on Application K, is overlaid the focus 33. The Application K is a candidate for selection. While a drag is made in the upward direction in FIGS. 26A through 26C, the same applies to a drag in the downward direction. That is, as shown in FIG. 27A, dragging in the downward direction scrolls through the menu display entities in the downward direction. As shown in FIG. 27B, when the uppermost menu display entity (Application A in the figure) reaches the selection candidate display area 32, that is, the menu display area 31 c, the scroll comes to a halt. While the drag operation is made in the rightmost area of the menu screen 30 for clarity in FIGS. 26A through 26C and FIGS. 27A and 27B, the drag operation is allowed across the menu screen 30 as shown in FIG. 31 in practice." (Nakano at 28:36-29:10.) Nakano discloses the following at FIGS. 19A-B:

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 "The invention relates to a human-machine interface on a touch screen, for example on a personal digital assistant (PDA). To launch a program, one scrolls through a series of icons on the screen and then highlights the suitable icon for launching that program. Scrolling is achieved by using the PDA's stylus (or a finger) in the control area to indicate a move in the direction of the scroll. The invention is remarkable by the fact that the control area is not defined restrictively and can cover the entire touch screen." (Benoit at (57).) "In addition, the use of a touch screen generates another serious problem. That is, because the icons and drop-down menus are generally fixed, the user always uses their finger or a stylus to point at the same small areas of the touch screen. This leads, therefore, to local damage, decalibration, and premature wear of the touch screen. The object of this invention is to ameliorate the disadvantages of the aforementioned systems and to propose a human-machine interface with a touch screen in which navigation is simplified. Another object of the invention is to limit the premature decalibration of touch screens.

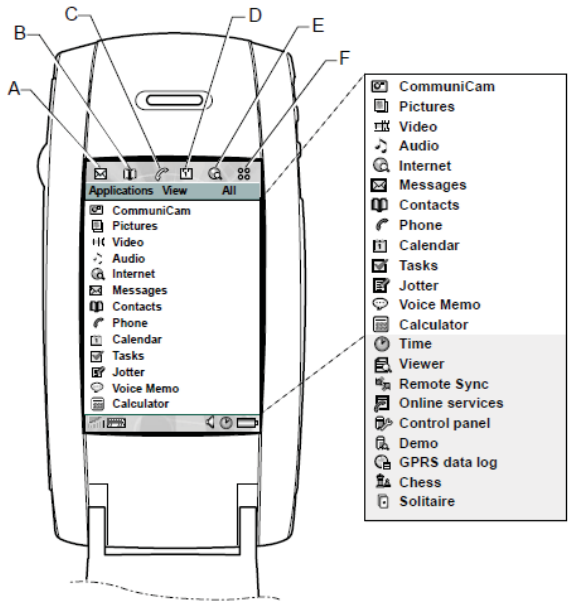
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	The aforementioned objectives are achieved with a novel method of navigating a computer program by means of a touch screen. To do this, by a touch command on a control area of the touch screen, one scrolls a series of icons linked to predefined programs to highlight at least one given icon. Preferably, the control area is extended so as to distribute the touch points and prevent the premature wear of the touch screen over the defined areas. The entire surface of the touch screen not covering an icon can be expected to constitute the control area. Thus, the control is no longer localized in a limiting manner. Unlike the prior art, the scrolling of icons allows these icons to be shown at a large size such that they are easily distinguishable. With such a method according to the invention, the fact of having an extended control area prevents the constant use of certain small areas of the screen. According to an advantageous characteristic of the invention, the touch command for scrolling the series of icons comprises a touch followed by a directional movement. The scrolling speed and direction are defined by the point of contact and the projection into the scrolling direction of a vector obtained as a result of the directional movement. The point of contact can be anywhere over the entire extended control area. The icons can be shown independently of each other, whether attached or embedded in a scrolling banner, and representing, for example, a landscape. Advantageously, the control area can be distinct from the icons. However, according to one variant of the invention, the control area includes the icons, and a brief touch on an icon launches an application linked to the icon. This variant makes it possible to obtain an extended control area over the entire surface of the touch screen. These icons can be scrolled to show the icon representing the application intended to be launched in the foreground in the center of the screen.

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	According to a preferred embodiment of the invention, the icons scroll along a virtual circle inscribed in a plane perpendicular to the plane of the screen. Scrolling then makes it possible to show each icon on the screen successively, with the other icons remaining in the background. In this case, it is possible to envisage that only the icon shown on the touch screen is capable of launching an application. It is also possible to envisage that all the icons remain permanently visible on the touch screen during scrolling. As such, all the icons may be active. According to an advantageous embodiment of the invention, the scrolling of a series of icons may exhibit inertia as a function of the scrolling speed. Consequently, when a user lifts their finger or stylus from the touch screen, the scrolling continues for a few short moments based on the movement made by that user to carry out the scrolling. According to another aspect of the invention, a communication tool equipped with a touch screen and a central processing unit is proposed to implement a method according to the invention. Advantageously, this tool can be a personal digital assistant." (Benoit at 2:1-3:24.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
[4pre] The device of claim 3	Claim 4 depends from claim 3. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 3 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 3 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claim 3. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 3." *See supra* claim [3].
[4a] wherein upon providing a predefine interaction with an icon, said corresponding application is opened on the display unit.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a predefine interaction with an icon, said corresponding application is opened on the display unit."

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, P800 opens an application on the touchscreen when a user taps the application's icon with the stylus. (P800 09/2002 Manual at 10, 21, 52.) For example, to make a call, the user can use the stylus to tap a phone icon to open the mobile phone application on the touch screen. (P800 09/2002 Manual at 39, 55.).

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

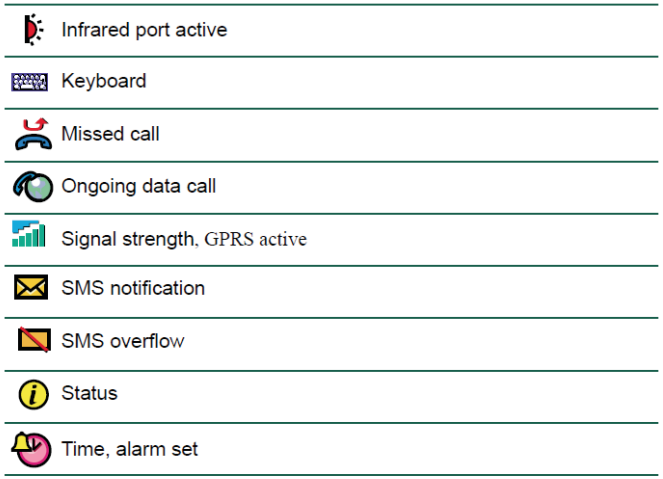
Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

(P800 09/2002 Manual at 10.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	When the flip is open, you can often select the icons to get more detailed information or start an application.  (P800 09/2002 Manual at 21.) **Flip open mode** Open the flip and tap  or select ***Contacts*** in the Application launcher  to open Contacts. (P800 09/2002 Manual at 52.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations

Call handling

To make a call in flip open mode, you use the stylus and the virtual keyboard.

To make a call

1. Select .
2. Select .
3. Call the number with the virtual keyboard and select .

   To remove a typed character - select .

To make a call using Speed Dial

Speed Dial is a fast way to call one of your special speed dial numbers. See *"Speed dial numbers"* on page 44

1. Select the speed dial icon .
2. Use the Jog Dial or tap with the stylus to select an entry.

To make a call using the Call list

1. Select the call list icon from the button bar.
2. Scroll with the Jog Dial or tap with the stylus to select an entry.
3. Select the phone icon .

To make a call using the Contact list

1. Select the contacts icon .
2. Scroll with the Jog Dial or tap with the stylus to select a contact.
3. Scroll with the Jog Dial or tap with the stylus to select a number.

To answer a call

The P800 rings when you receive a call. If the calling party is found in contacts, the name of the calling party will be displayed. If there is a picture, it will also be shown.

- Select ***Answer*** to answer the call.

To make a new call during a call

1. While making or answering a call, select ***Hold call***.

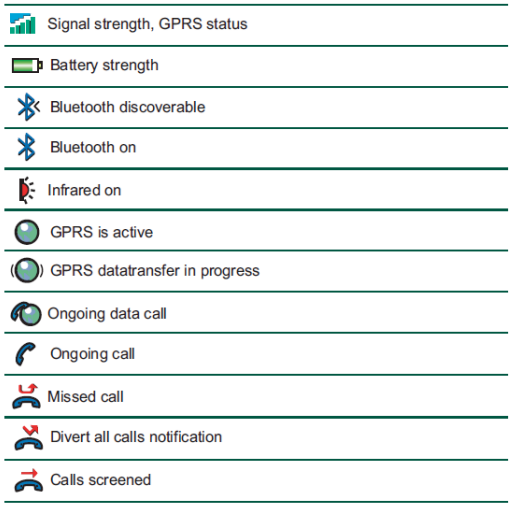
(P800 09/2002 Manual at 39.)

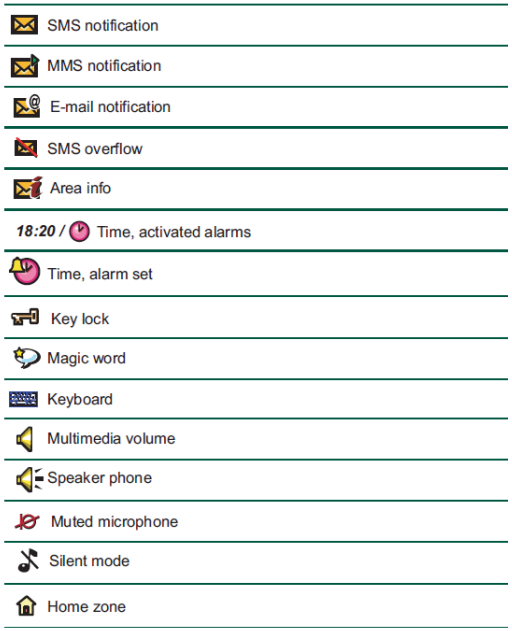
Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	To make a call 1. If required, change category from the **Folders** menu. 2. Scroll down to the desired contact. If the contact list is long, first select a tab at the at the bottom of the view. 3. Select the contact to display the information. 4. Depending on what you want to do, select according to the following: – Tap  or  or the phone number to place a call. – Select  or the e-mail address to send an e-mail. – Select  or URL to open a web page. – Select  to send a multimedia message. – Select  to send a text message. (P800 09/2002 Manual at 55.) Additional exemplary citations include:

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations

Indicators and status bar icons

These icons appear in the flip closed standby screen or in the status bar when the flip is open. When the flip is open, you can often tap the icons to get more detailed information or start an application.





(P800 11/2002 Manual at 25.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations

Please consult your network operator and Internet service provider for more information about the services that are available to you.

Applications - overview

You can start applications in different ways. Select icons in the standby view (flip closed) and in the application picker (flip open) to start the most important ones. Select to list all applications.

Demo application

The Demo application shows some of the most common functions in your P800.

You can uninstall the demo application and also reinstall it from the ***Multimedia for P800*** CD. See *"Removing applications from your P800"* on page 124 for how to uninstall the demo application and *"Installing applications on your P800"* on page 122 for how to reinstall it.

To start the Demo

1. Turn on the light (tap ***Applications > Control panel > Device > Display > Light > On***).
2. Select the Applications icon .
3. Select the Demo icon .
   The demo starts.

To stop the Demo

- Tap the screen or rotate the Jog Dial to stop the demo. The demo also stops when any other dialog is opened.

Note *When the flip is open, an incoming text or MMS message will not stop the demo.*

Phone

This is the mobile phone application. When the flip is opened, select to start it.

Call list

The call list displays the most recent calls, either outgoing, incoming or missed. In flip closed, press the Jog Dial or OK to call the selected entry. To view the call list when the flip is open, open ***Phone*** and select the call list view by tapping the icon.

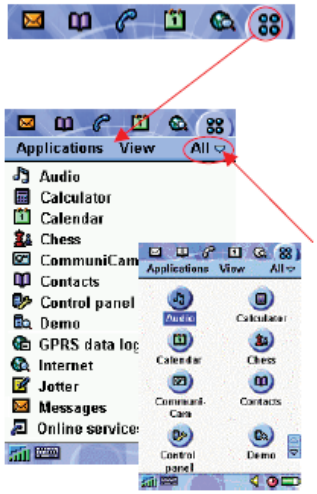
CommuniCam

In CommuniCam view, the screen becomes a viewfinder. Press the CommuniCam button or the Jog Dial to take a photo. Alternatively tap the red button at the bottom of the screen.

Pictures (flip open only)

Manages your pictures. You can take pictures with CommuniCam, or receive them via e-mail, Bluetooth wireless technology, infrared communication. Download via the Internet browser, or transfer them from your PC.

(P800 11/2002 Manual at 30.)

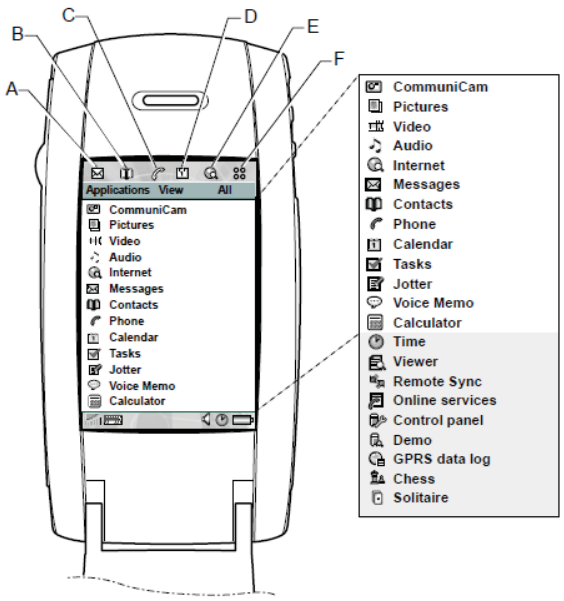
Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	Application UI Outline P800 applications generally follow the style guidelines established for Symbian UIQ applications.  The user may select five important applications and display them on the 'application picker' strip across the top of the screen. The sixth icon at the right always switches to the Application Launcher. All applications are listed in the Application Launcher. The user may select list view with small icons and text, or a 'finger-size' icon display of 8 applications per page. One tap on the list-row or icon will launch (switch to) the desired application. The Folder feature enables the user to group applications into logical folders such as 'games' and 'work'. This feature is carried through into many applications, enabling contacts, appointments, notes etc. to be organised effectively. The Jog Dial can also be used to navigate up and down; clicking on an application will navigate to it. There is no concept of starting or closing applications; simply navigating to them. When an application is used for the first time it will start in its basic state, which is typically a list view. If the user navigates from application A to application B (using, say, the Application Picker,) application A will close any open dialogs and views and return to its initial state ready for the next time it is used. Data is saved. There are some exceptions, for example the browser stays at the current page. (P800/P802 White Paper at 16.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
[5pre] The device of claim 1	Claim 5 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claim 1.

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].
[5a] wherein said device is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said device is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position." For example, P800 has a virtual "on-screen keyboard . . . available at all times." (P800 09/2002 Manual at 10.) When a user taps a keyboard icon shown on the touchscreen, P800 displays a virtual keyboard to enable text input by the user. (P800 09/2002 Manual at 21, 29.) The text entered by the user through the virtual keyboard can be displayed on the touchscreen. (P800 09/2002 Manual at 29; P800/P802 White Paper at 14.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

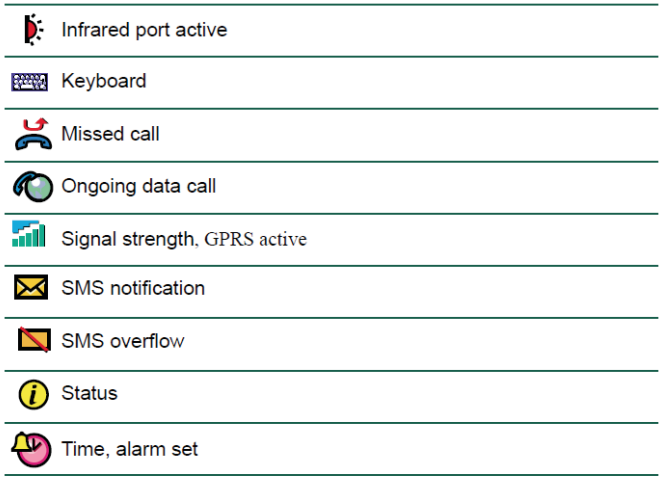
Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

(P800 09/2002 Manual at 10.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	When the flip is open, you can often select the icons to get more detailed information or start an application.  Infrared port active Keyboard Missed call Ongoing data call Signal strength, GPRS active SMS notification SMS overflow Status Time, alarm set (P800 09/2002 Manual at 21.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

Entering text - Flip open

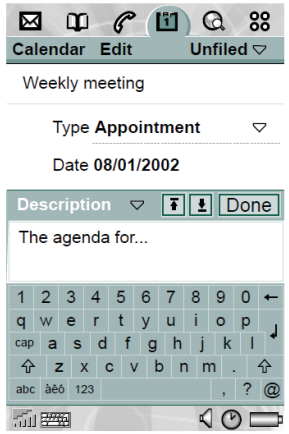
This section describes how to enter text in flip open mode. See *"Entering text in flip closed mode"* on page 25 on how to enter text in flip closed mode.

There are two ways of entering text with the flip open:

- Use the on-screen keyboard found at the bottom of the screen.
- Write directly on the screen using the stylus.

On-screen keyboard

In text edit mode, select the keyboard icon and then select characters. Select ***Done*** when ready.



At the bottom left of the keyboard you can choose between three keyboard layouts with different character sets. Tap one of the following keys:

abc - standard characters

àëó - international characters

123 - numeric characters and currencies

(P800 09/2002 Manual at 29.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	 An on-screen keyboard is also available at all times by tapping on the keyboard icon in the status bar. Symbol and special character keyboards may be selected when required. Cut, Copy and Paste functions are available here. (P800/P802 White Paper at 14.) Additional exemplary citations include:

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

Indicators and status bar icons

These icons appear in the flip closed standby screen or in the status bar when the flip is open. When the flip is open, you can often tap the icons to get more detailed information or start an application.

Signal strength, GPRS status	SMS notification
Battery strength	MMS notification
Bluetooth discoverable	E-mail notification
Bluetooth on	SMS overflow
Infrared on	Area info
GPRS is active	18:20 / Time, activated alarms
GPRS datatransfer in progress	Time, alarm set
Ongoing data call	Key lock
Ongoing call	Magic word
Missed call	Keyboard
Divert all calls notification	Multimedia volume
Calls screened	Speaker phone
	Muted microphone
	Silent mode
	Home zone

(P800 09/2002 Manual at 25.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

- ABC – upper case entry
- abc – lower case entry

When you are editing text you can:

- Press (☰) and select ***Text options > Input type*** to select text input type.
- Press (✱a/A) to switch between the input types in text edit mode.

Inserting symbols

When you are editing text you can press (☰) and choose ***Text Options > Add symbol*** to select an item from the symbol selector table. Use the Jog Dial to select the row and press (OK). Then scroll within the row to select a symbol and press (OK).

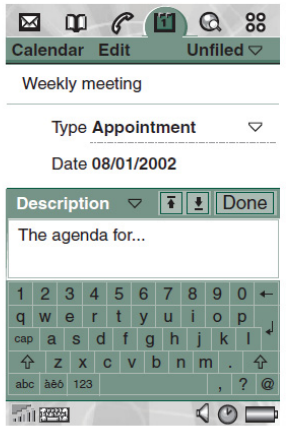
Entering text with the flip open

There are two ways of entering text with the flip open:

- Use the on-screen keyboard located at the bottom of the screen.
- Write directly on the screen using the stylus.

On-screen keyboard

When you need to edit text, tap the keyboard icon in the status bar and then select characters. Tap ***Done*** when ready.



At the bottom left of the keyboard you can choose between three keyboard layouts with different character sets.

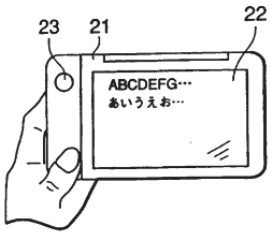
abc - standard characters

àëó - international characters

123 - numeric characters and currencies

(P800 09/2002 Manual at 37.)

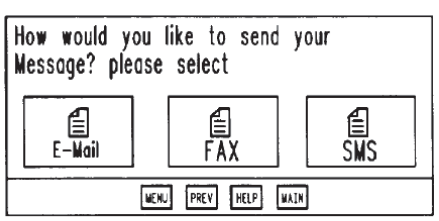
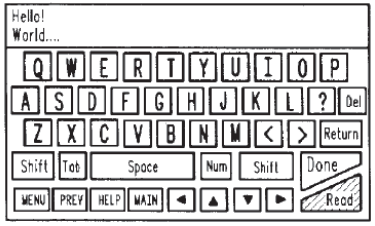
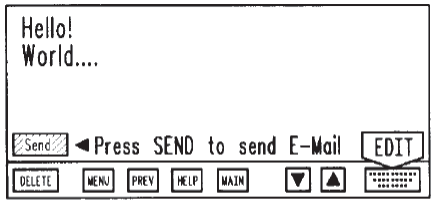
To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined Kobayashi. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, Kobayashi discloses a similar device and provides relevant teachings. Kobayashi teaches that is beneficial to have display which is operative to automatically adjust to the orientation it is being held in by the user. (Kobayashi at 2:5-23; see also *id*. at 19:25-20:4, FIGS. 4A, 4B.) Fig.4a  Fig.4b  "In this manner, the display screen on the display 32 can be automatically controlled between the direction of the short side and the direction of the long side in response to how the user holds the mobile information terminal 31, without necessity of any operation. Since it is unnecessary to provide

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	the controlling button 23 shown in Fig. 4, a miniaturization can be realized without addition of a new space for the provision of the controlling button." (Kobayashi at 19:25-20:4.) A POSITA would have been motivated to configure a mobile phone to display text in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by Kobayashi. A POSITA would have been motivated to configure a phone accordingly in order to allow a user to easily read text regardless of phone orientation, improving device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Kobayashi into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (aligning the display orientation to the phone orientation, as taught by Kobayashi) according to known methods to yield predictable results (a mobile phone that allows a user to easily input text); (B) use of a known technique (reorienting the display based on device orientation as taught by Kobayashi) to improve similar devices in the same way (a mobile phone that allows a user to easily review text); (C) applying a known technique (reorienting the display based on device orientation as taught by Kobayashi) to a known device ready for improvement to yield predictable results (a mobile phone); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Kobayashi) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "The orientation at which data is displayed on portable terminal device is altered by detecting where the device is being held by a user. Pressure sensors or photo cells along two edges of the device may be used to alter the orientation by 90□. The orientation of data on the display may also be altered according to which function is being used or by operating a switch. Alternatively the device may have a plurality of displays at different orientations which may be used according to the way in which the terminal is being used. The portable terminal device may be a selective call receiver or a mobile telephone." (Kobayashi at Abstract.) "in view of the above-mentioned problems, in a preferred embodiment the present invention enhances an operability by controlling the direction of screen display on the display in accordance with whether

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	or not the user's fingers and palm come into contact with a pressure sensor or a photo-detection sensor on any surface of a portable terminal device body." (Kobayashi at 13:14-19.) "When the mobile information terminal 31 is longitudinally used and held, the pressure sensors 33 and 34 are disposed on both the side surfaces of the mobile information terminal 31. The user's fingers and palm ca-ne into contact with the pressure sensor 33 and/or the pressure sensor 34, whereby the direction of screen display on the display 32 is controlled. That is, when the user uses and holds the mobile information terminal 31 laterally as shown in Figs. 8a and 8b, the user's fingers and palm 10 do not c-cm into contact with the pressure sensors 33 and 34. Thus, the screen is displayed along the long side on the display 32. On the other hand, when the user uses and holds the mobile information terminal 31 longitudinally as shown in Figs. 9a and 9b, the user's fingers and palm come into contact with the pressure sensors 33 and/or 15 34. Thus, the screen is displayed along the short side on the display 32. In this way, the direction of display can be automatically changed in accordance with the direction in which the user views the display." (Kobayashi at 18:2-19.) "The direction of screen display on the display 32 is controlled by the controller 36 in accordance with whether or not the signal from. the pressure sensors 33 and 34 is detected. That is, when the user's fingers and palm do not cane into contact with the pressure sensors 33 and 34, the signal is not outputted from the pressure sensors 33 and 34. Thus, the controller 36 controls the display 32 so that the direction of screen display is set to the direction of the long side. On the other hand, when the user's fingers and palm come into contact with the pressure sensors 33 and 34, the signal is outputted from the pressure sensors 33 and 34. When the signal is inputted from the pressure sensors 33 and/or 34, the controller 36 controls the display 32 so that the direction of screen display is set to the direction of the short side. The direction of screen display can be controlled in accordance with, for example, whether a binary signal has me value or the other value, instead of whether or not the signal is detected. When the telephone function is used, the telephone number to be called is inputted from the input section 35. The telephone number to be called inputted from, the input section 35 is translated/received from an antenna 42 through the controller 36 and a radio section 41. When the voice is transmitted/received, an audio amplifier 40, a receiver 38 and a microphone 39 are used as the input/output unit. When the data other than the voice is transmitted/received, the input section 35 and the display 32 are used. 2 5 In this manner, the display screen m the display 32 can be automatically controlled between the direction of the short side and the direction of the long side in response to how the user holds the mobile

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	information terminal 31, without necessity of any operation. Since it is unnecessary to provide the controlling button 23 shown in Fig. 4, a miniaturization can be realized without addition of a new space for the provision of the controlling button." (Kobayashi at 19:2-20:4.) "The direction of screen display on the display 52 is controlled by the controller 56 in accordance with whether or not the signal from the photo-detection sensor 54 is detected. That is, when the user's fingers and palm are not put on the photo-detection sensor 54, the signal is not outputted from the photo-detection sensor 54. Thus, the controller 56 controls the display 52 so that the direction of screen display is set to the direction of the long side. On the other hand, when the user's fingers and palm are put on the photo-detection sensor 54, the signal is outputted from the photo-detection sensor 54. When the signal is inputted from the photo-detection sensor 54, the controller 56 controls the display 52 so that the direction of screen display is set to the direction of the short side." (Kobayashi at 22:14-25.) "Moreover, the direction of screen display m the display can be 26 controlled in accordance with whether or not the user's finger and palm came into contact with the pressure sensor or the photo-detection sensor on any surface of the portable terminal device body. Thus, the direction of display screen on the display can automatically controlled in response to how the user holds the portable terminal device, without needing any user's operation. The operability can be thus enhanced." (Kobayashi at 25:27-26:6.) *See also* Kobayashi at Figs. 6, 7. Further, to the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Jambhekar, Wedel, and/or Pensjo. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, Jambhekar discloses that data, including text and a virtual keyboard to input text, can be entered through a keyboard in either a portrait or landscape configuration. (Jambhekar at 4:22-25, 4:41-52, 7:41-54, FIGS. 8A-8F.)  FIG.8A  FIG.8B  FIG.8C

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

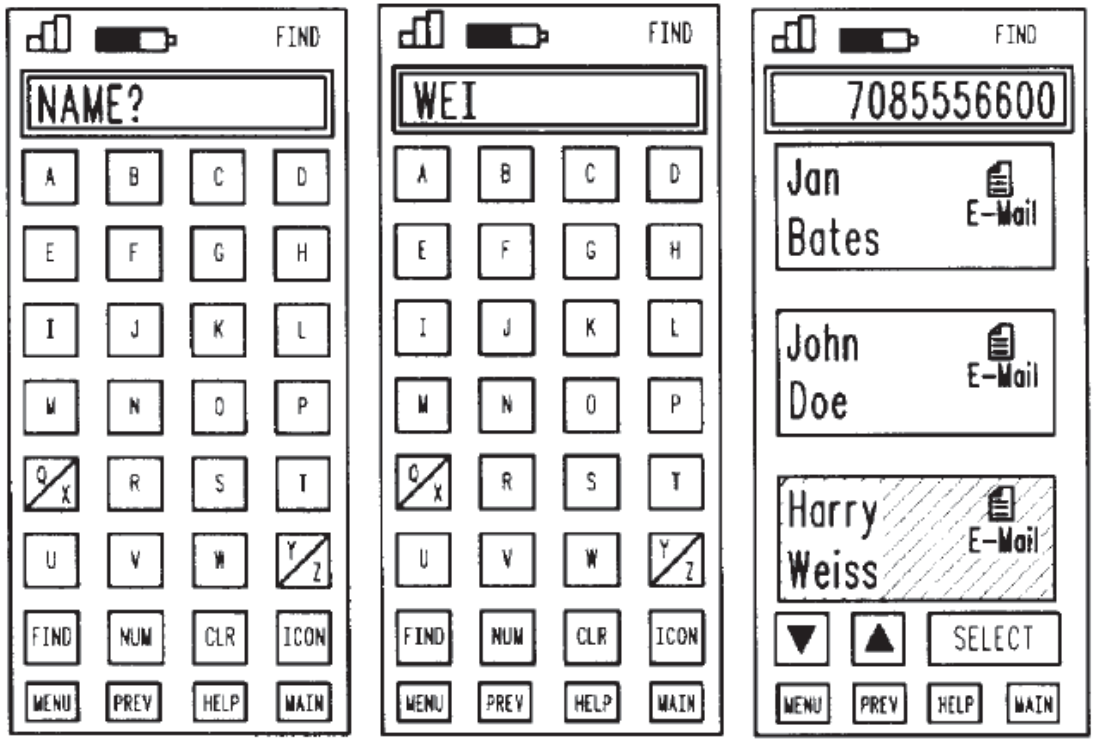


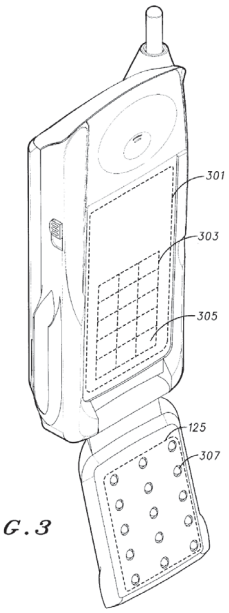
FIG.8D FIG.8E FIG.8F

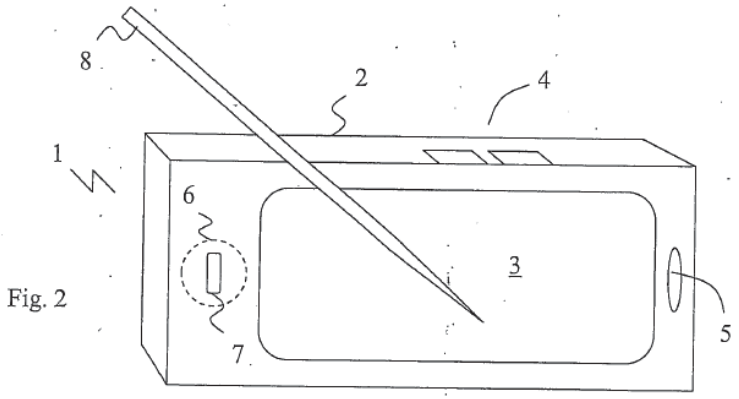
Similarly, Wedel discloses that a virtual keypad can be displayed on a touch screen to enable data input, which a POSITA would have understood includes inputting text. (Wedel at 2:6-11, FIG. 2.)

Likewise, Pensjo discloses a virtual keyboard that can be used "for input of alphanumeric characters." (Pensjo at [0005], [0009], [0014].)

A POSITA would have been motivated to configure a mobile phone to include a virtual keyboard in either a portrait or landscape configuration, to allow a user to input text. Configuring a mobile phone in

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	this way was routine and conventional to a POSITA, as shown by Jambhekar, Wedel, and Pensjo. A POSITA would have been motivated to configure a phone accordingly in order to allow a user to easily input text, improving device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Jambhekar, Wedel, and/or Pensjo into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (allowing a user to input text using a virtual keyboard as taught by Jambhekar, Wedel, and Pensjo) according to known methods to yield predictable results (a mobile phone that allows a user to easily input text in either a portrait or landscape configuration); (B) use of a known technique (allowing a user to input text using a virtual keyboard as taught by Jambhekar, Wedel, and Pensjo) to improve similar devices in the same way (a mobile phone that allows a user to easily input text in either a portrait or landscape configuration); (C) applying a known technique (allowing a user to input text using a virtual keyboard as taught by Jambhekar, Wedel, and Pensjo) to a known device ready for improvement to yield predictable results (a mobile phone that allows a user to easily input text in either a portrait or landscape configuration); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Jambhekar, Wedel, and Pensjo) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "FIG. 3 is a detailed illustration of the radio communication device 103 of FIG. 1 in the opened position. Information displayed in the data display area may be oriented vertically in a portrait mode, or horizontally in a landscape mode." (Jambhekar at 4:22-25.) "The advanced radiotelephone functions include a menu for storing and recalling telephone numbers as well as programming the user's preferences for controlling the radiotelephone. All of the radiotelephone control functions, including the advanced and the limited radiotelephone control functions, are displayed in a radiotelephone display configuration. This configuration includes orienting the display in the portrait mode. All of the messaging functions including electronic mail, faxing and short message service are displayed in a messaging display configuration. This configuration includes orienting the display in the horizontal direction." (Jambhekar at 4:41-52.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Turning now to FIG. 8, the preferred steps for sending messages according to the present invention are shown. After entering the main menu and deciding to send a message at a step 802, the user selects a message type icon (FIG. 8-1) at a step 804. The user then enters a message (FIG. 8-2) at a step 806. After completing the message and pressing SEND (FIG. 8-3), the user is preferably prompted with a request for a name (FIG. 8-4) The user then enters a portion or all of the recipient's name (FIG. 8-5) at a step 808. A list of potential recipients having numbers associated with the selected icon, such as an e-mail, is then displayed (FIG. 8-6) at a step 810. The user then selects a recipient from the displayed list at a step 812 and automatically sends the message by pressing SELECT at a step 814." (Jambhekar at 7:41-54.) Jambhekar discloses the following at FIG. 3:  FIG.3 (Jambhekar at FIG. 3) "Several of the functions of the keypad 4 have been included on a graphical user interface applicable to the display 3, rendering a data input interface having less keys. Those keys 4 may also be moved to the side of the communication terminal in order to allow for the display 3 to occupy a larger portion of the

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	front side of terminal 1. A specific tool 8 may be provided for inputting data on a touch-sensitive screen of the display 3." (Wedel at 2:6-11.) Wedel discloses the following at FIG. 2:  Fig. 2 "The pen detection mechanism can be used for switching between two different input modes. For example, removal of the pen from the pen holder may trigger the appearance of an alphabetic keyboard, which can be used for input of alphanumeric characters. Further, the change in appearance of the user interface may preferably depend on the applications used." (Pensjo at [0005].) "The flowchart of fig. 2 illustrates a method performed by the apparatus of Fig. 1 when operated by a user. Thus, when it is detected that the pen 105 is placed in the pen holder 107, the screen display 103 is in a first mode, see step 201, which is controlled by the control unit 111 in response to a signal received from the pen detecting mechanism 109. For example, the device may then be in a sleep mode, i.e., a passive state when the screen display 103 is not responsive to input by touching. However, the screen may in this mode be capable of displaying incoming calls or messages, calendar triggered reminders etc. When it is detected that the pen has been removed from the pen holder 107 in step 203, a signal indicating absence of the pen is received by the control unit 111 from the pen detecting mechanism 109, see step 205. The control unit 111 then controls the screen display 103 to change into a second mode, see step 207. This second mode may be an active state in which the screen display 103

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	is responsive to input by touching. The screen may in this mode display various input keys, buttons or symbols, such as an alphanumeric keyboard." (Pensjo at [0009].) "According to another aspect of the invention, the change of appearance or layout of the screen, as triggered by the pen detecting mechanism 109, may be different depending on the applications used by the device. Thus, for example, if a telephone application is used, removal of the pen may trigger the appearance of a display layout including a numeric keyboard for entering a telephone number. On the other hand, if an e-mail application is used, removal of the pen may instead trigger the appearance of an alphanumeric keyboard, which can be used for input of alphanumeric characters." (Pensjo at [0014].)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
[7pre] The device of claim 1	Claim 7 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 7 are anticipated and/or obvious for the same reasons set out in claim 1. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].
[7a] wherein the width of the device is approximately half of said length.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the width of the device is approximately half of said length." For example, P800 was 117mm in length and 59mm in width. (P800 09/2002 Manual at 187.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
User storage	For settings, user data (for example images, contacts, messages) and third party applications: 12Mbyte
Battery life, standard battery	Talk Time: up to 13 hours Stand-by time: up to 400 hours
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Colour resolution	12-bit (4096 colours)
Screen surface	Touch-sensitive
Illumination	Front-light

Integrated CommuniCam

Picture Size	640 x 480 pixels (VGA) 320 x 240 pixels (QVGA) 160 x 120 pixels (QQVGA)
Colour depth	24 bit (16 million colours)
Storage format	JPEG/JFIF, 3 quality (compression) levels, user-selectable.

(P800 09/2002 Manual at 187.)

Additional exemplary citations include:

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
Antenna	Built in
Speech Coding	HR, FR, EFR supported where available, for high speech quality.
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
Internal User storage	For settings, user data (for example images, contacts, messages) and third party applications: up to 12Mbyte
Additional storage	Memory Stick Duo, up to 128 Mbyte supported. 16 Mbyte Memory stick supplied, plus Adaptor.
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Color resolution	12-bit (4096 colors)
Screen surface	Touch-sensitive, anti-reflective
Illumination	Front-light

Third Party Application Support

SDKs	C++ PersonalJava J2ME CLDC 1.0 / MIDP
Load formats	C++ or Java applications in Symbian SIS format. MIDP installation (JAR/JAD) from Browser or connected PC.
Security	Support for signed applications.

Bluetooth wireless technology

Bluetooth compatibility statement	This product is manufactured to comply with the Bluetooth specification 1.1.
Coverage area	Up to 10 meters (33 feet)

(P800 11/2002 Manual at 188.)

Features and Specification Summary

General

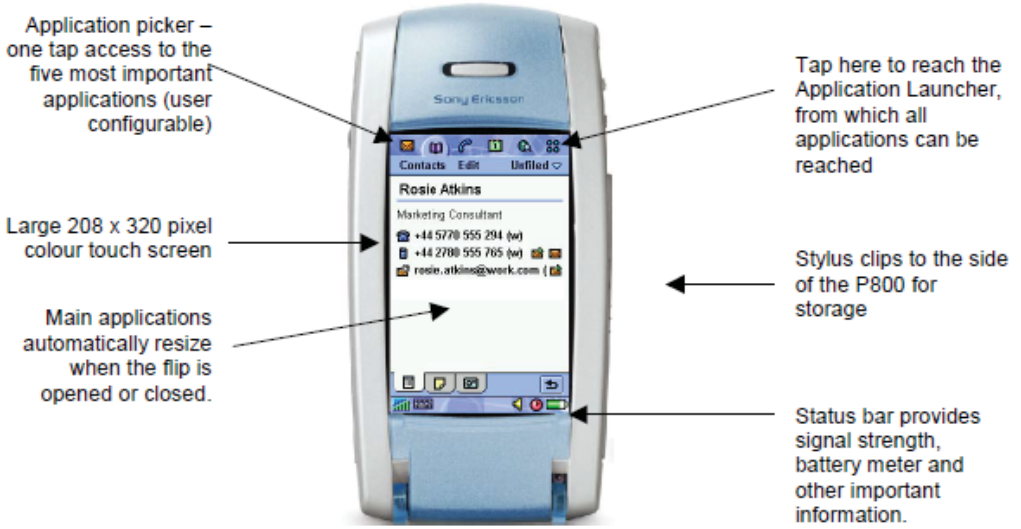
Size:	117 x 59 x 27 mm
Weight:	158g with flip
OS:	Symbian OS™ V7.0
Processor:	ARM 9
User storage:	12 Mbyte (P800); 9 Mbyte (P802)

Phone

Office Handsfree (loudspeaker) function.
Voice dial, voice answer, 'magic word' activation
Picture Phone Book – picture of contact displayed.
Polyphonic ringtones
Flight mode – use P800 as PDA with phone off.
SIM-AT

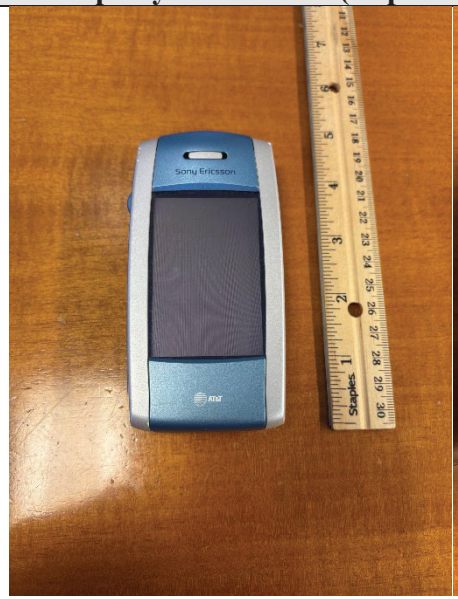
(P800/P802 White Paper at 9.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Open (FO mode) When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.  (P800/P802 White Paper at 14.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 3, Photograph No. 4.)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (P800 Device)

Claim 7	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (P800 Device)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
[8pre] The device of claim 1	Claim 8 depends from claim 1. Defendants incorporate all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 8 are anticipated and/or obvious for the same reasons set out in claim 1. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
[8a] wherein the thickness of the device is less than 20 percent of said width.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the thickness of the device is less than 20 percent of said width." For example, P800 was 117mm in length, 59mm in width, and 27mm in thickness. (P800 09/2002 Manual at 187; P800 11/2002 Manual at 188; P800/P802 White Paper at 9.) **Technical data** **General** Product name P800 — Standard version, latin character set Size — 117 x 59 x 27 mm Weight — 158 grams with battery and flip, 148 grams with battery, flip removed. System and power class — E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1 SIM Card — Small plug-in card, 3V or 5V type Operating System — Symbian OS v7.0 with UIQ user interface and applications environment Processor — ARM 9 User storage — For settings, user data (for example images, contacts, messages) and third party applications: 12Mbyte Battery life, standard battery — Talk Time: up to 13 hours Stand-by time: up to 400 hours Operating temperature — –15° to +55° C **Screen** Screen type — TFT Screen size — Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm Pixel size — 0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch) Colour resolution — 12-bit (4096 colours) Screen surface — Touch-sensitive Illumination — Front-light **Integrated CommuniCam** Picture Size — 640 x 480 pixels (VGA) 320 x 240 pixels (QVGA) 160 x 120 pixels (QQVGA) Colour depth — 24 bit (16 million colours) Storage format — JPEG/JFIF, 3 quality (compression) levels, user-selectable. (P800 09/2002 Manual at 187.)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
Antenna	Built in
Speech Coding	HR, FR, EFR supported where available, for high speech quality.
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
Internal User storage	For settings, user data (for example images, contacts, messages) and third party applications: up to 12Mbyte
Additional storage	Memory Stick Duo, up to 128 Mbyte supported. 16 Mbyte Memory stick supplied, plus Adaptor.
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Color resolution	12-bit (4096 colors)
Screen surface	Touch-sensitive, anti-reflective
Illumination	Front-light

Third Party Application Support

SDKs	C++ PersonalJava J2ME CLDC 1.0 / MIDP
Load formats	C++ or Java applications in Symbian SIS format. MIDP installation (JAR/JAD) from Browser or connected PC.
Security	Support for signed applications.

Bluetooth wireless technology

Bluetooth compatibility statement	This product is manufactured to comply with the Bluetooth specification 1.1.
Coverage area	Up to 10 meters (33 feet)

(P800 11/2002 Manual at 188.)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations

Features and Specification Summary

General
Size: 117 x 59 x 27 mm
Weight: 158g with flip
OS: Symbian OS™ V7.0
Processor: ARM 9
User storage: 12 Mbyte (P800); 9 Mbyte (P802)

Memory Stick® Duo®
Slot for Memory Stick Duo
16Mbyte Memory Stick Duo supplied
Memory Stick Duo Adaptor supplied

Battery Life
Talk time: Up to 13 hours
Standby time: Up to 400 hours

GSM
Tri-band E-GSM 900, GSM 1800 and GSM 1900

GPRS
Slots: 4+1
Coding scheme: CS-1, CS-2, CS-3, CS-4
Downlink rate: Up to 53.6 kbps (CS-2)
Uplink rate: Up to 13.4 kbps (CS-2)
(CS-2 quoted as this is the fastest scheme in use today)

HSCSD
Timeslots: 2+1 at 9.6 or 14.4 kbps
Download rate: Up to 28.8 kbps
Upload rate: Up to 14.4 kbps

Screen
Type: TFT
Size, flip closed: 208 x 144 pixels, 40 x 28 mm
Size, flip open: 208 x 320 pixels, 40 x 61 mm
Pixel Size: 0.192 mm
Colour depth: 12-bit (4096 colours)
Surface: Touch-sensitive, anti-reflective
Illumination: Front-light

Input (P800)
Flip Closed: Keypad; numeric and characters
Flip Open: Natural handwriting recognition
On-screen virtual keyboard

Input (P802)
Flip Closed: Keypad; Numeric, Stroke, Pinyin, Bopomofo
Flip Open: Chinese character recognition
English character recognition
Stroke, Pinyin, Bopomofo.

Third Party Application Support
SDKs: C++
PersonalJava™
J2ME™ CLDC 1.0 / MIDP

Phone
Office Handsfree (loudspeaker) function.
Voice dial, voice answer, 'magic word' activation
Picture Phone Book – picture of contact displayed.
Polyphonic ringtones
Flight mode – use P800 as PDA with phone off.
SIM-AT
USSD

Personal Organiser
Contacts (Address Book)
Calendar (Diary)
Tasks ('To-Do' list)
Jotter (Text and colour 'ink' sketches)
Voice Memo (Dictaphone)
Time (World Clock)
Calculator
(P802) English-Chinese-English Dictionary
(P802) Lunar Calendar

Integrated CommuniCam
Image size: 640 x 480 pixels (VGA)
320 x 240 pixels (QVGA)
160 x 120 pixels (QQVGA)
Colour depth: 24 bit (16.78 million colours)
Storage format: JPEG/JFIF; 3 quality levels
Capacity: Approx 200 (VGA, 12Mbyte free)

Audio Player
Formats: MP3, WAV, AU, AMR, MIDI, RMF
Features: Playlists, Loop, Automatic pause

Pictures (Image Viewer)
Formats: JPEG, BMP, GIF (inc. animated), MBM, PNG, WBMP
Sharing via: IR, Bluetooth, MMS, e-mail, PC file transfer, Memory Stick

Video Player
File Format: 3GP, MP4
Streaming: RTSP according to 3GPP

Messaging
SMS
EMS
MMS
E-Mail (multiple accounts and PC sync)

Document Viewers
On-board: Microsoft® Word
Microsoft® Excel
Microsoft® PowerPoint®
Adobe® Acrobat® (PDF)
Approx. 20 more supplied on CD-ROM

(P800/P802 White Paper at 9.)

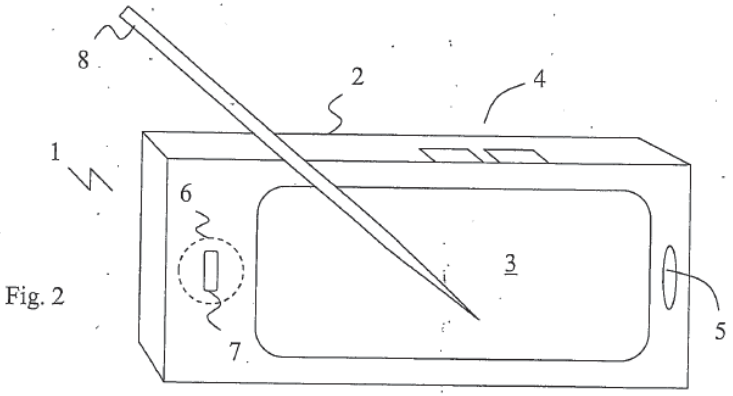
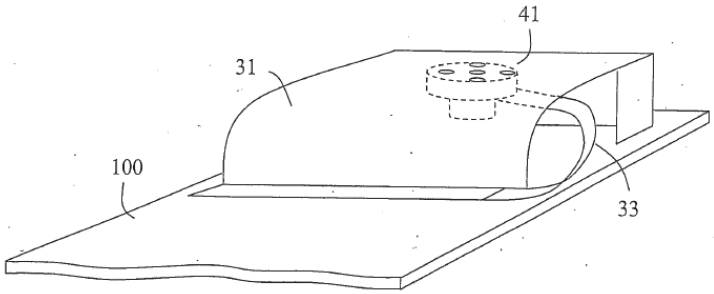
Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device) To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Yamaguchi and/or Wedel. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Yamaguchi teaches that it is desirable to configure a mobile phone so it can be stored in a pocket of a user's clothing. (Yamaguchi at [0007], [0010], [0014], [0015], [0031], [0032], [0035].) In order to fit in a pocket, Yamaguchi discloses a mobile phone that is 100-150mm in length, 60-75mm in

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	width, and 15-25mm in depth. (Yamaguchi at [0034], [0036].) Thus, the mobile phone disclosed by Yamaguchi has a thickness that is 20 percent of its width. Further, Wedel teaches that mobile phones "are getting smaller and smaller" and are now "pocket size." (Wedel at 1:14-21.) Wedel explains that the small size "is generally considered to be an important factor for the end customer," and there is "general market demand for small size and light weight terminals. (Wedel at 1:14-21, 3:19-21.) In order to reduce the size of the terminal, Wedel teaches reducing the thickness by, for example, mounting the speaker inside the antenna cavity. (Wedel at 1:6-9, 2:21-25, 3:19-21, 9:28-31, 13:1-8.) A POSITA would have found it obvious to configure the mobile phone as disclosed by P800 with width and thickness dimensions as claimed. Yamaguchi teaches configuring a mobile phone such that the thickness of the device is 20 percent of its width, which improves portability and operability by allowing the phone to be easily held in one hand, stored in a pocket, and provides a display that is as large as possible. Wedel simultaneously teaches that there is demand for ever smaller, lighter phones. A POSITA would thus have been motivated to configure a mobile phone with a thickness to width ratio less than Yamaguchi's to gain market advantage. (Wedel at 1:14-21, 3:19-21.) A POSITA would be motivated to configure a mobile phone with these dimensions to improve the ease of use and portability of the phone. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by Yamaguchi. A POSITA would have been motivated to size a phone accordingly in order to improve user experience and market demand as suggested by Wedel. Thus, a POSITA would have considered the combination of the teachings of Yamaguchi and/or Wedel into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (the relative dimensions of a mobile phone as suggested by Yamaguchi and Wedel according to known methods to yield predictable results (improving the portability and marketability of a mobile phone); (B) use of a known technique (sizing a mobile phone as suggested by Yamaguchi and Wedel) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (sizing a mobile phone as suggested by Yamaguchi and Wedel) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the

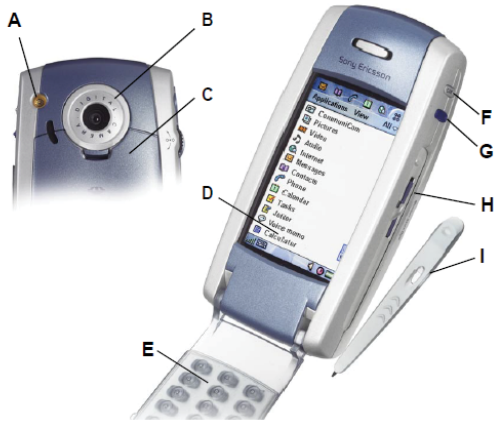
Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	teachings of Yamaguchi and/or Wedel) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons." (Yamaguchi at [0015].) "EFFECTS OF THE INVENTION According to the present invention, as is clear from the description above, an antenna part and various manipulable switches of a mobile-communication-information terminal device are provided on a same-side surface portion of a device body, a pen-housing part is provided on an opposite side-surface portion, a memory-card-housing part is provided on a rear-surface portion of the device body, and a card EJECT button is provided adjacent to the memory-card-housing part and near the pen-housing part; a rotary switch, which has a function of selecting data, is provided on the same side surface as the various manipulable switches, and a push button, which has a function of confirming selected data, is provided perpendicular to the rotational direction of the rotary switch and on the same side surface near a front-surface portion of the device body; a liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are further provided on a same top-surface portion of the device body; and the dimensional ratios of the device body are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, thereby enabling a series of manipulations to be performed with one hand and enabling the device body to fit in a clothing pocket or the like; thus, improvement in ease of manipulation and improvement in portability can be achieved." (Yamaguchi at [0036].) "More specifically the invention relates to a communication terminal including a component which integrates said speaker and an antenna element, and to said component as such." (Wedel at 1:6-9.)

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	". . . at the same time the dimensions of the communication terminals have gone from briefcase size to the pocket size phones of today. Still today, mobile phones are getting smaller and smaller and the size is generally considered to be an important factor for the end customer. The development in electronics has made it possible to miniaturise the components of the terminals, at the same time making the terminals capable of performing more advanced functions and services." (Wedel at 1:14-21.) "The antenna of the terminal is generally located at the upper portion of the terminal, and a lower portion of the terminal being occupied by a battery. Placing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space." (Wedel at 2:21-25.) "It is an object of the present invention to provide a novel speaker arrangement for a communication terminal, meeting the general market demand for small size and light weight terminals." (Wedel at 3:19-21.) "Fig. 6 illustrates an embodiment of a spacer element 61, adapted for use with the combined speaker and antenna element according to the invention. In a low profile, built in, radio antenna for mobile communication, such as a PIFA, the antenna comprises a substantially planar active antenna element and a ground plane." (Wedel at 9:28-31.) "The present invention brings about several advantages, thanks to the inventive idea to mount the speaker inside the antenna cavity, where one antenna element and the speaker are carried by a common structure provided by a flexible film. First of all, the invention brings about space savings. A terminal or housing, implementing the invention, may be designed with a thickness basically defined by the distance between the flexible film and the support structure, e.g. a PCB, since the thickness contribution from the speaker has been eliminated." (Wedel at 13:1-8.) Wedel discloses the following at FIGS. 2 and 11:

Claim 8	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 2  Fig. 11

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
[9pre] A mobile phone, comprising:	To the extent that the preamble is held to be limiting, P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] mobile phone."

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, "[t]he P800 is a full-featured mobile phone, fully integrated with the other functions of the device, including third party applications." (P800 09/2002 Manual at 6, 8; P800 11/2002 Manual at 42; P800/P802 White Paper at 24.) **Overview** You have bought a very advanced smartphone. To learn to use the features, you should start by reading *Getting started*. The P800 is a full-featured mobile phone, fully integrated with the other functions of the device, including third party applications. Like a computer, the P800 has a flexible and simple way of organizing applications and data. The built-in memory is available for photos, music, messages or applications. When space becomes limited, you can move files to a Memory Stick. You can also send data to another P800, e-mail, upload it to a website, or transfer it to a PC. (P800 09/2002 Manual at 6.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 outline  **A** Connector for stereo headphones **B** Jog Dial for navigating through menus and more **C** Infrared port for communication **D** On/Off button **E** Flip with Keypad (in closed position) **F** Connector for accessories  **A** External antenna connector (on the rear side) **B** CommuniCam lens (on the rear side) **C** Battery compartment (on the rear side) **D** Touchscreen **E** Flip (in open position) **F** Shutter release for the CommuniCam **G** Internet button for activation of the browser **H** Slot for Sony Memory Stick Duo™ (under the stylus) **I** Stylus for writing on the screen (P800 09/2002 Manual at 8.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Phone The P800 is a full-featured mobile phone having full integration with the other functions of the device, including third party applications. The phone includes useful features such as: • Personalized ringtones. • Picture Phone Book • Quick access back to the entry in Contacts, making it easy to try an alternative number or send an E-Mail if the contact is unavailable or busy. • Voice dialing – make a call by speaking the contact's name. • Voice answer – an incoming call may be answered or sent busy signal, using the words recorded for 'answer' and 'busy'. • Access to most other applications whilst talking on the phone. • Office handsfree (speakerphone) which is enabled when the flip is open, making it easy to access applications such as Calendar and Jotter whilst talking. (P800 11/2002 Manual at 42.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Phone and PIM Applications

Phone

The P800 is a full-featured mobile phone having full integration with the other functions of the device, including third party applications.

The phone includes useful and fun features such as:

- Personalised ringtones – conventional or polyphonic ringtones can be set in Contacts, giving audible indication of who is calling. Supported formats are AMR, Au, iMelody, MIDI, RMF (Beatnik) and WAV.
- Picture Phone Book – if there is a picture of the person in Contacts, it will be displayed when making outgoing calls and when receiving the CLI with an incoming call.
- Quick access back to the entry in Contacts, making it easy to try an alternative number or send an E-Mail if the contact is unavailable or busy.
- Voice dialling – make a call by speaking the contact's name. The contact's name may be recorded when entering/editing the entry in Contacts. The call is made by pressing the OK button on the flip or the button on the headset. If a 'magic word' is recorded, contacts may be dialled by saying the magic word followed by the contact name. It is then not necessary to press any buttons.
- Voice answer – an incoming call may be answered or sent busy signal, using the words recorded for 'answer' and 'busy'. There is 40 seconds of storage space allocated for voice dialling and voice answer. This is enough for approximately 50 words (contact names plus 'magic word', 'answer' and 'busy')
- Access to most other applications whilst talking on the phone.
- Office handsfree (speakerphone) which is enabled when the flip is open, making it easy to access applications such as Calendar and Jotter whilst talking.
- Flight mode enables the P800 to be used as a PDA in situations where radio transmitters may not be used. The GSM and Bluetooth transmitters (and receivers) are switched off.

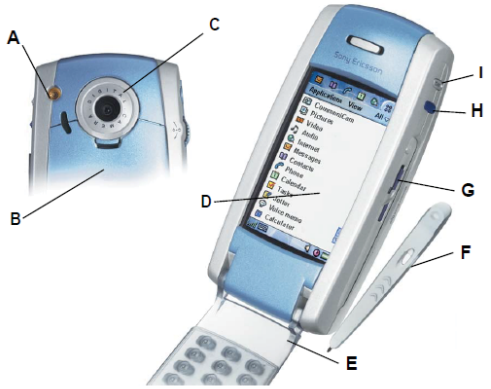


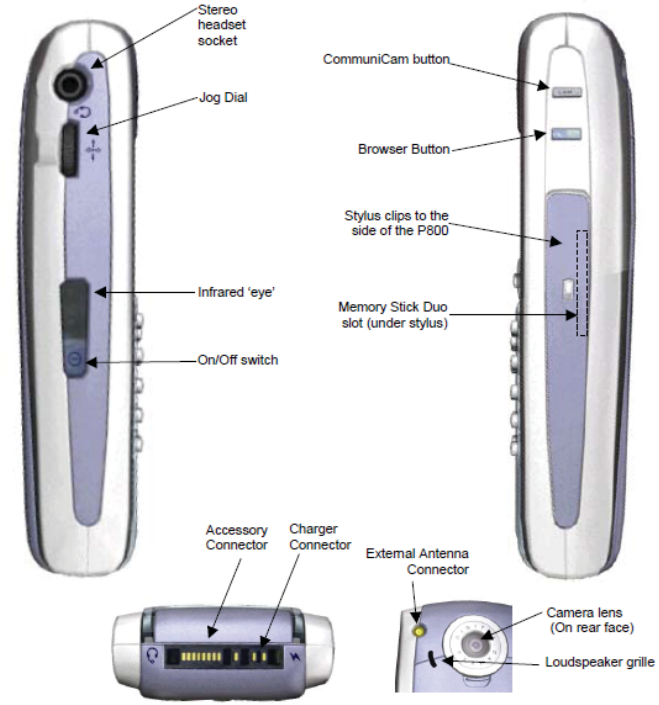
In FC mode, the phone is driven by the keypad, like a conventional mobile phone.

(P800/P802 White Paper at 24.)

Additional exemplary citations include:

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 overview  **A** Indicator light for Bluetooth wireless technology (blue) **B** Connector for stereo head phone **C** Jog Dial **D** Infrared port **E** On/Off button **F** Flip with Keypad (in closed position) **G** Connector for accessories and charger **H** Indicator light for network and battery (green/red)  **A** External antenna connector **B** Battery compartment **C** CommuniCam **D** Touchscreen **E** Flip (in open position) **F** Stylus **G** Slot for Sony Memory Stick Duo (under the stylus) **H** Internet button for activation of the browser **I** CommuniCam activation and shutter release (P800 11/2002 Manual at 11.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 Controls and Operation The P800 has a large touch-screen and a flip. This provides fast and convenient one-handed operation with the flip closed plus large touch-screen sophistication with the flip open.  (P800/P802 White Paper at 12.)

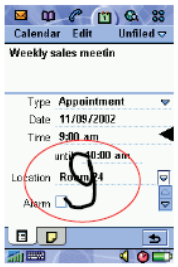
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip Open (FO mode)

When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.



The stylus is used to operate the touch-screen and enter text:





Text may be entered using natural handwriting over the whole screen. Lower case letters are entered below the ◀ symbol, uppercase in line with it and numbers above it.

An on-screen keyboard is also available at all times by tapping on the keyboard icon in the status bar. Symbol and special character keyboards may be selected when required. Cut, Copy and Paste functions are available here.

In FO mode, the P802 offers Stroke, Pinyin and Bopomofo input methods plus Chinese character recognition. Numeric and English characters can also be entered using the character recognition.

(P800/P802 White Paper at 14.)

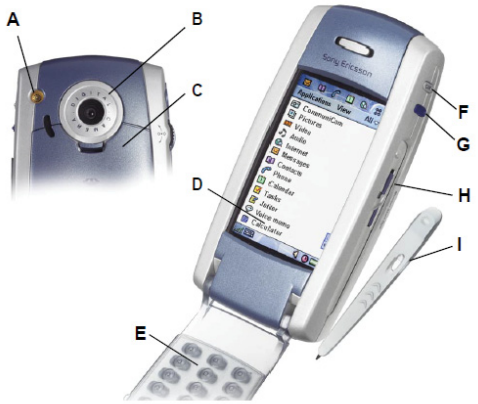
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 3, Photograph Nos. 1-5.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (a) (b) **Front view of the Sony Ericsson P800 mobile phone with flip (a) and without flip (b).** (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (a) (b) Side view of the Sony Ericsson P800 mobile phone with flip (a) and without flip (b). (FCC P800 Exhibit 11 SAR Report at Sheet 11.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device)
[9a] a body having a practically rectangular shape, said body having a front surface, a back surface and four side surfaces,	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a body having a practically rectangular shape, said body having a front surface, a back surface and four side surfaces." *See supra* claim [1a] (discussing limitation "a practically rectangular-shaped housing . . . , said housing having a front surface, a back surface and four side surfaces").
[9b] wherein the length of the front surface of the mobile phone corresponds to the distance between the ear and the mouth of a user and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the length of the front surface of the mobile phone corresponds to the distance between the ear and the mouth of a user." *See supra* claim [1b] (discussing limitation "wherein the length of the front surface approximately corresponds to the distance between the ear and the mouth of a user").

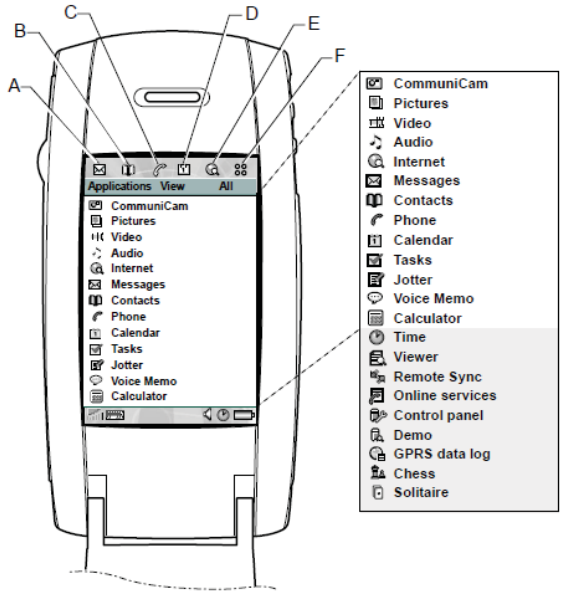
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
[9c] wherein the width of the front surface of the mobile phone is significantly shorter than the length, and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the width of the front surface of the mobile phone is significantly shorter than the length." *See supra* claim [1c] (discussing limitation "wherein the width of the front surface is substantially shorter than the length").
[9d] wherein said body has a thin thickness	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said body has a thin thickness." *See supra* claim [1d] (discussing limitation "wherein the housing has a thin thickness").
[9e] a touch sensitive display unit	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a touch sensitive display unit." For example, P800 teaches that the mobile phone has a touch screen display. (P800 09/2002 Manual at 8, 122.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **A** External antenna connector (on the rear side) **B** CommuniCam lens (on the rear side) **C** Battery compartment (on the rear side) **D** Touchscreen **E** Flip (in open position) **F** Shutter release for the CommuniCam **G** Internet button for activation of the browser **H** Slot for Sony Memory Stick Duo™ (under the stylus) **I** Stylus for writing on the screen (P800 09/2002 Manual at 8.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.) Additional exemplary citations include:

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

(P800 09/2002 Manual at 10.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

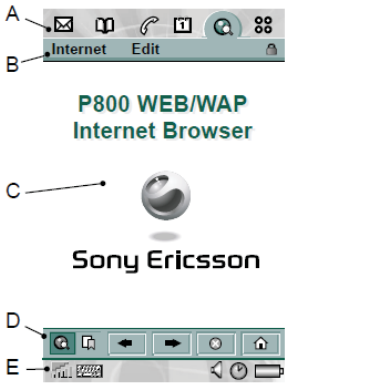
Flip open

This chapter describes what functions are available with the flip open.



Screen areas

In the flip open mode the screen is touch sensitive. The screen is divided into a number of areas, see the figure and table below..



Item	*Description*
A Application picker	Displays six icons for quick and easy access to the most common applications, customizable.

General functions 27

(P800 09/2002 Manual at 27.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
User storage	For settings, user data (for example images, contacts, messages) and third party applications: 12Mbyte
Battery life, standard battery	Talk Time: up to 13 hours Stand-by time: up to 400 hours
Operating temperature	–15° to +55° C

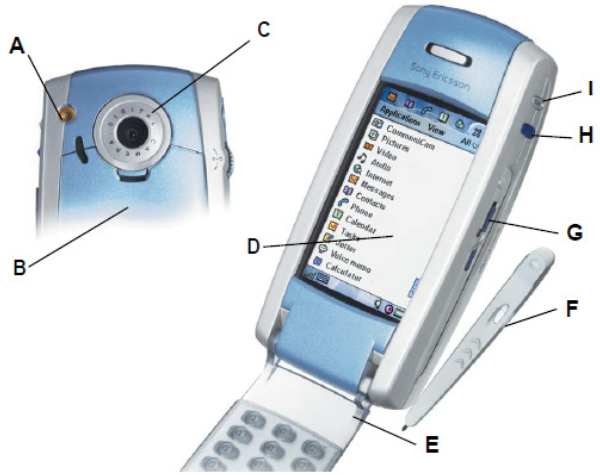
Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Colour resolution	12-bit (4096 colours)
Screen surface	Touch-sensitive
Illumination	Front-light

Integrated CommuniCam

Picture Size	640 x 480 pixels (VGA) 320 x 240 pixels (QVGA) 160 x 120 pixels (QQVGA)
Colour depth	24 bit (16 million colours)
Storage format	JPEG/JFIF, 3 quality (compression) levels, user-selectable.

(P800 09/2002 Manual at 187.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **A** External antenna connector **B** Battery compartment **C** CommuniCam **D** Touchscreen **E** Flip (in open position) **F** Stylus **G** Slot for Sony Memory Stick Duo (under the stylus) **H** Internet button for activation of the browser **I** CommuniCam activation and shutter release (P800 11/2002 Manual at 11.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
Antenna	Built in
Speech Coding	HR, FR, EFR supported where available, for high speech quality.
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
Internal User storage	For settings, user data (for example images, contacts, messages) and third party applications: up to 12Mbyte
Additional storage	Memory Stick Duo, up to 128 Mbyte supported. 16 Mbyte Memory stick supplied, plus Adaptor.
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Color resolution	12-bit (4096 colors)
Screen surface	Touch-sensitive, anti-reflective
Illumination	Front-light

Third Party Application Support

SDKs	C++ PersonalJava J2ME CLDC 1.0 / MIDP
Load formats	C++ or Java applications in Symbian SIS format. MIDP installation (JAR/JAD) from Browser or connected PC.
Security	Support for signed applications.

Bluetooth wireless technology

Bluetooth compatibility statement	This product is manufactured to comply with the Bluetooth specification 1.1.
Coverage area	Up to 10 meters (33 feet)

(P800 11/2002 Manual at 188.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Features and Specification Summary

General
Size: 117 x 59 x 27 mm
Weight: 158g with flip
OS: Symbian OS™ V7.0
Processor: ARM 9
User storage: 12 Mbyte (P800); 9 Mbyte (P802)

Memory Stick® Duo®
Slot for Memory Stick Duo
16Mbyte Memory Stick Duo supplied
Memory Stick Duo Adaptor supplied

Battery Life
Talk time: Up to 13 hours
Standby time: Up to 400 hours

GSM
Tri-band E-GSM 900, GSM 1800 and GSM 1900

GPRS
Slots: 4+1
Coding scheme: CS-1, CS-2, CS-3, CS-4
Downlink rate: Up to 53.6 kbps (CS-2)
Uplink rate: Up to 13.4 kbps (CS-2)
(CS-2 quoted as this is the fastest scheme in use today)

HSCSD
Timeslots: 2+1 at 9.6 or 14.4 kbps
Download rate: Up to 28.8 kbps
Upload rate: Up to 14.4 kbps

Screen
Type: TFT
Size, flip closed: 208 x 144 pixels, 40 x 28 mm
Size, flip open: 208 x 320 pixels, 40 x 61 mm
Pixel Size: 0.192 mm
Colour depth: 12-bit (4096 colours)
Surface: Touch-sensitive, anti-reflective
Illumination: Front-light

Input (P800)
Flip Closed: Keypad; numeric and characters
Flip Open: Natural handwriting recognition
On-screen virtual keyboard

Input (P802)
Flip Closed: Keypad; Numeric, Stroke, Pinyin, Bopomofo
Flip Open: Chinese character recognition
English character recognition
Stroke, Pinyin, Bopomofo.

Third Party Application Support
SDKs: C++
PersonalJava™
J2ME™ CLDC 1.0 / MIDP

Phone
Office Handsfree (loudspeaker) function.
Voice dial, voice answer, 'magic word' activation
Picture Phone Book – picture of contact displayed.
Polyphonic ringtones
Flight mode – use P800 as PDA with phone off.
SIM-AT
USSD

Personal Organiser
Contacts (Address Book)
Calendar (Diary)
Tasks ('To-Do' list)
Jotter (Text and colour 'ink' sketches)
Voice Memo (Dictaphone)
Time (World Clock)
Calculator
(P802) English-Chinese-English Dictionary
(P802) Lunar Calendar

Integrated CommuniCam
Image size: 640 x 480 pixels (VGA)
320 x 240 pixels (QVGA)
160 x 120 pixels (QQVGA)
Colour depth: 24 bit (16.78 million colours)
Storage format: JPEG/JFIF; 3 quality levels
Capacity: Approx 200 (VGA, 12Mbyte free)

Audio Player
Formats: MP3, WAV, AU, AMR, MIDI, RMF
Features: Playlists, Loop, Automatic pause

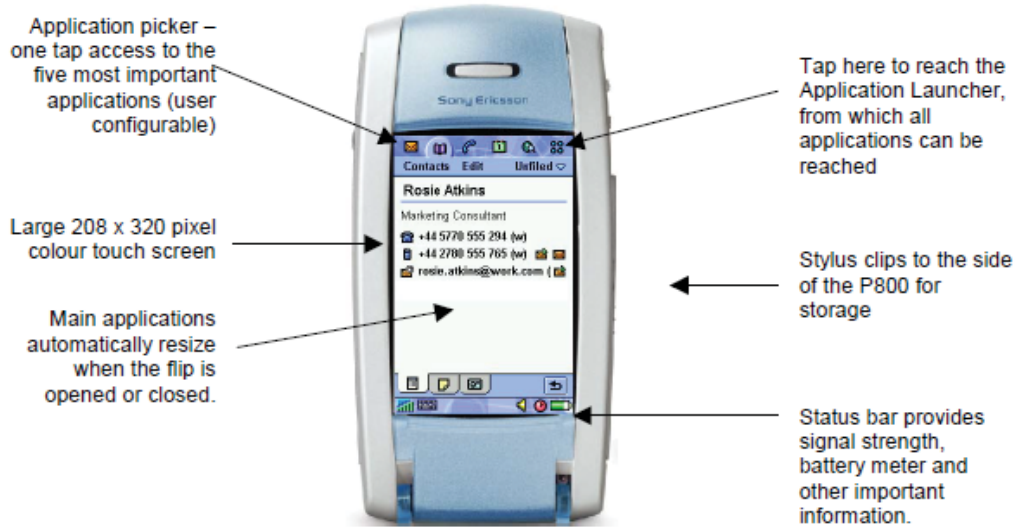
Pictures (Image Viewer)
Formats: JPEG, BMP, GIF (inc. animated), MBM, PNG, WBMP
Sharing via: IR, Bluetooth, MMS, e-mail, PC file transfer, Memory Stick

Video Player
File Format: 3GP, MP4
Streaming: RTSP according to 3GPP

Messaging
SMS
EMS
MMS
E-Mail (multiple accounts and PC sync)

Document Viewers
On-board: Microsoft® Word
Microsoft® Excel
Microsoft® PowerPoint®
Adobe® Acrobat® (PDF)
Approx. 20 more supplied on CD-ROM

(P800/P802 White Paper at 9.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Open (FO mode) When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.  (P800/P802 White Paper at 14.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Removed The flip may also be removed. A 'flip replacement' cover is clipped in place instead of the flip:  (P800/P802 White Paper at 15.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 The game is suspended by events such as incoming phone calls. When the application is re-started from the Application Launcher, it will continue from the start of the level which was last being played. **Stunt Run**  Stunt Run puts you at the wheel of your chosen stunt car on the Sony Ericsson race track! Select a car with your preferred balance of acceleration, top speed and handling and proceed to the starting grid of an easy, normal or hard circuit. Touch the buttons at the left hand end of the screen for reverse, forwards and fast-forward movement. Use the Jog Dial to steer the car.  The game can be played in Single Player, Multiplayer and Tournament form. The demo mode shows a car driving round the circuit. This game is provided on the Multimedia for P800 CD-ROM and must be installed before use. (P800/P802 White Paper at 86.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (a) (b) **Front view of the Sony Ericsson P800 mobile phone with flip (a) and without flip (b).** (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device)
[9f] a virtual keyboard to enter text; and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a virtual keyboard to enter text." For example, P800 teaches that when the optional keypad flip is removed, P800 displays a "virtual flip" (i.e., a virtual keyboard) on the touchscreen for text entry. (P800 09/2002 Manual at 26, 29, 30.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Virtual flip

The virtual flip is to be used when you have physically removed the flip and want to use your P800 in flip closed mode.

The virtual flip gives you the same functionality as the real flip keypad. Enter numbers and characters using your stylus.

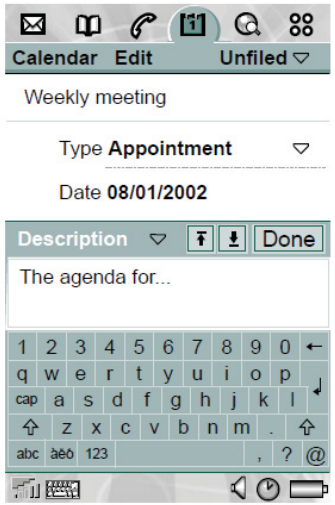
Select to open the virtual flip. Select to close the virtual flip.

See the chapter *"Removing and attaching the flip keypad"* on page 32" on how to remove the flip and activate the virtual flip.



(P800 09/2002 Manual at 26.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations



At the bottom left of the keyboard you can choose between three keyboard layouts with different character sets. Tap one of the following keys:

abc - standard characters

àëö - international characters

123 - numeric characters and currencies

(P800 09/2002 Manual at 29.)

Virtual flip open mode

The virtual flip is to be used when you physically have removed the flip. Activate this function in ***Control Panel > Device > Flip removed.*** is shown on the status bar when virtual flip is activated. Tap it to get to virtual flip closed mode.

(P800 09/2002 Manual at 33.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Additional exemplary citations include:

Call handling

To make a call in flip open mode, you use the stylus and the virtual keyboard.

To make a call

1. Select .
2. Select .
3. Call the number with the virtual keyboard and select .

To remove a typed character - select .

(P800 09/2002 Manual at 39.)

Flip removed

When you use your P800 with the hardware flip removed, you can use the keys on the virtual flip instead. Use this setting to turn it on or off (see *"Virtual flip"* on page 26).

(P800 09/2002 Manual at 129.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

- ABC – upper case entry
- abc – lower case entry

When you are editing text you can:

- Press ☰ and select ***Text options > Input type*** to select text input type.
- Press ✱a/A to switch between the input types in text edit mode.

Inserting symbols

When you are editing text you can press ☰ and choose ***Text Options > Add symbol*** to select an item from the symbol selector table. Use the Jog Dial to select the row and press OK. Then scroll within the row to select a symbol and press OK.

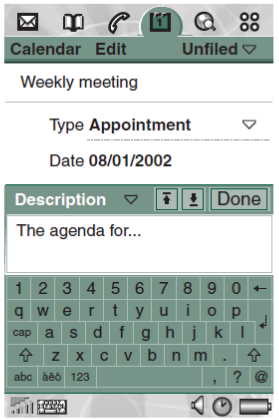
Entering text with the flip open

There are two ways of entering text with the flip open:

- Use the on-screen keyboard ⌨ located at the bottom of the screen.
- Write directly on the screen using the stylus.

On-screen keyboard

When you need to edit text, tap the keyboard icon in the status bar and then select characters. Tap ***Done*** when ready.



At the bottom left of the keyboard you can choose between three keyboard layouts with different character sets.

abc - standard characters

àëö - international characters

123 - numeric characters and currencies

(P800 11/2002 Manual at 37.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

- *Add to contacts* – Create a new Contacts entry if the phone number of the active call is known, and not already stored in Contacts.
- *Show contact* – Display the entry in Contacts, if any, that corresponds to the phone number of the active call.
- *Transfer sound* – Transfer the call to a Bluetooth wireless technology headset.
- *Turn On/Off tones* – You can send DTMF tones with the keypad, *"Controlling tone based services"* on page 51.
- *Microphone mute On/Off* – Turn the microphone on or off.
- *Copy number* – Copy a phone number for exchange with other text fields or applications.
- *Paste number* – Paste a copied number into a field
- *Speakerphone On/Off* – You can use the P800 as a speakerphone. See *"Speakerphone"* on page 50.
- *Applications* – Open another application, and, for example, paste a copied phone number into a Jotter entry.

Press and hold C to mute the microphone. Press and hold C again to reactivate the microphone.

Call handling with the flip open

You use the stylus and the virtual keypad to handle calls with the flip open.

Outgoing calls

To make a call

1. Select  in the application picker. The Speed Dial view is opened.
2. Tap  on the button bar.
3. Enter the digits with the virtual keypad and tap  on the right of the keypad.

   To remove a typed character - select  .

If a call is not successfully connected, the P800 can be set to automatically retry to connect the call. When a retry is successful, the P800 alerts you with a single ring signal.

(P800 11/2002 Manual at 45.)

Flip removed

When you use your P800 with the hardware flip removed, you can use the keys on the virtual flip instead. Use this setting to turn it on or off (see *"Flip removed"* on page 15).

(P800 11/2002 Manual at 139.)

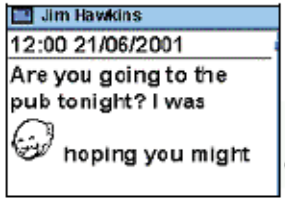
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Input (P800) Flip Closed: Keypad; numeric and characters Flip Open: Natural handwriting recognition On-screen virtual keyboard (P800/P802 White Paper at 9.)  An on-screen keyboard is also available at all times by tapping on the keyboard icon in the status bar. Symbol and special character keyboards may be selected when required. Cut, Copy and Paste functions are available here. (P800/P802 White Paper at 14.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	When the flip is open or removed, a 'virtual flip' can be displayed on the screen. It works in exactly the same way as the hardware flip, except that the buttons are represented on the touch screen. The main uses of the virtual flip are: • FC input methods (especially for the Chinese versions) • SIM-AT • Keylock  The virtual flip is enabled or disabled in the Control Panel. When enabled, the symbol is shown in the status bar. Tapping the symbol displays the virtual flip. The virtual flip is 'opened' (removed from the screen) by tapping the arrow symbol . (P800/P802 White Paper at 15.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Text notes can be input using handwriting recognition or the virtual keyboard. (P800/P802 White Paper at 28.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

EMS Display in the P800



Receiving an EMS message in FC mode



Composing an EMS message in FO mode.

In the P800, the extra facilities of EMS are integrated with the SMS UI, making it easy for the user to enrich an ordinary text message. A selection of icons and sound objects is included and more can be added via M-Services download.

Objects in received messages may be saved for re-use when composing outgoing messages, so as well as messaging users will enjoy collecting and swapping pictures, ring signals and other melodies.

Simply tap on the required object to copy or save it.

One message may contain several EMS objects, such as a pictures, animations and sounds..

Messages may be created using the keypad to enter text in FC mode, or using handwriting recognition or virtual keyboard in FO mode.

(P800/P802 White Paper at 47.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

FO Character Input

Virtual Keyboard

Virtual keyboards are provided to enable the user to input elements. The top area is where selected characters are displayed to make up the sentence. An element display area shows the selected element(s). Candidates are displayed within a candidates area, and may be selected.



Pinyin Virtual Keyboard. Includes an elements and a candidate display area.



Strokes Virtual Keyboard. Includes a components area



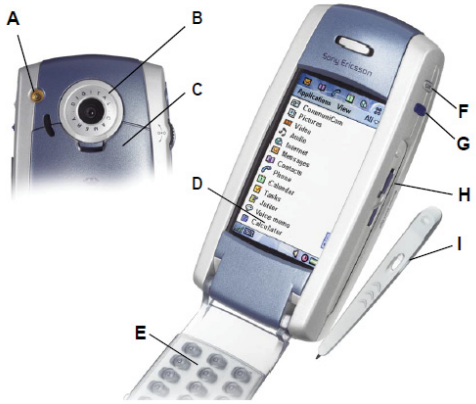
BoPoMoFo Virtual Keyboard. Includes an elements and a candidate display area.

(P800/P802 White Paper at 104.)

Input

	P800 (Standard version)	P800/P802 (Chinese versions)
Flip Closed	Numeric keypad on flip Latin characters on number keys	Numeric keypad on flap Stroke Pinyin Bopomofo
Flip Open	Touch-screen Natural character recognition On-screen virtual keyboard	Touch-screen Chinese character recognition English character recognition Numeric character recognition Stroke Pinyin Bopomofo

(P800/P802 White Paper at 122.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
[9g] a microphone and a speaker	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a microphone and a speaker." For example, P800 teaches that the mobile phone has a microphone and a speaker. (P800 09/2002 Manual at 8, 36; P800/P802 White Paper at 8, 12.)  **A** External antenna connector (on the rear side) **B** CommuniCam lens (on the rear side) **C** Battery compartment (on the rear side) **D** Touchscreen **E** Flip (in open position) **F** Shutter release for the CommuniCam **G** Internet button for activation of the browser **H** Slot for Sony Memory Stick Duo™ (under the stylus) **I** Stylus for writing on the screen (P800 09/2002 Manual at 8.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Phone

This chapter describes how to use your P800 as a telephone. Different possibilities are available:

- In flip closed mode you can call using the keypad.
- In flip open mode you can call using the virtual keypad on the screen.
- In flip closed as well as flip open mode you can make a call from the contact list.
- In flip open mode you can speed dial any of the 9 speed dial numbers using the Speed Dial view. In flip closed you can press the number representing the speed dial entry on the keypad.
- In flip closed as well as flip open mode you can call any previously called numbers using the call list.
- You can even call by selecting a number included in a text message or listed in an application.

Options in flip closed mode

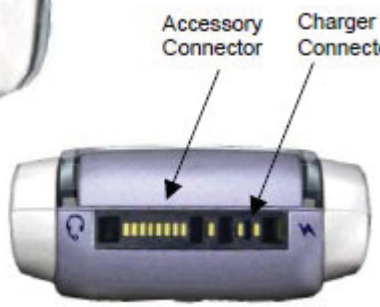
The following options, available by pressing , are available during or after a call:

- End call.
- Hold call/retrieve call/switch calls.
- Add to contacts (displayed if the phone number of the active call is known, and not found in the contacts database).
- Show contact (displayed if the phone number of the active call is known, and appears in the contacts database).
- Transfer sound (to a Bluetooth™ wireless technology headset).
- Turn On/Off tones.
- Microphone mute On/Off.
- Copy number (displayed if the phone number of the active call is known).
- Paste number (displayed if the clipboard contains a number).
- Speakerphone On/Off.
- Transfer calls.
- Join calls.
- Call list.

The following options, available by pressing , are available in the call list:

- Incoming calls.
- Outgoing calls.
- Missed calls.
- SIM last dialled.

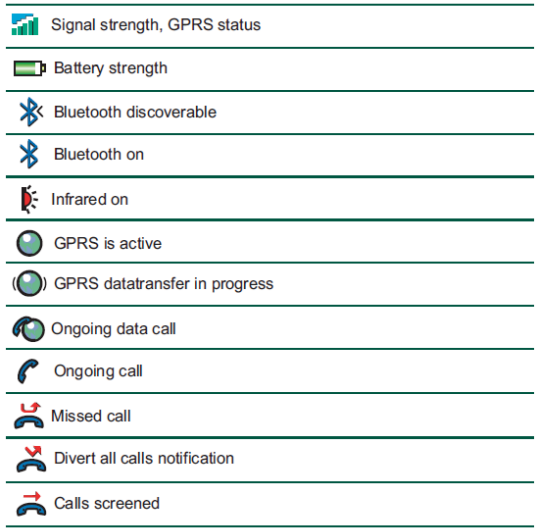
(P800 09/2002 Manual at 36.)

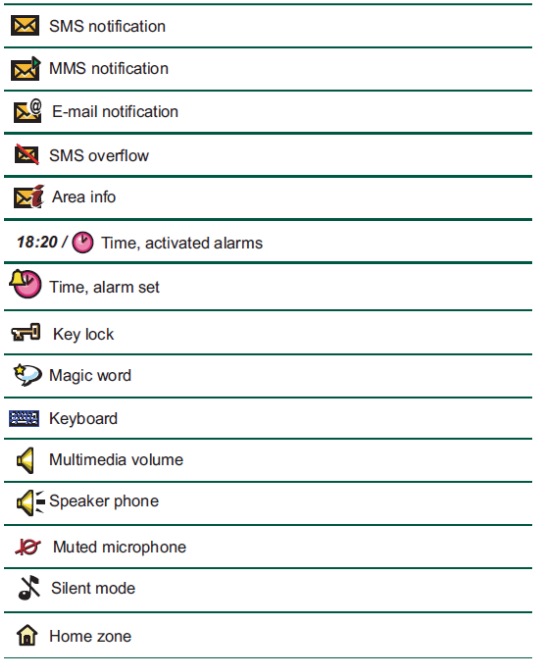
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	   P800 – Standard Version (P800/P802 White Paper at 8, 12.) Additional exemplary citations include:

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Indicators and status bar icons

These icons appear in the flip closed standby screen or in the status bar when the flip is open. When the flip is open, you can often tap the icons to get more detailed information or start an application.





(P800 11/2002 Manual at 25.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

- ***Add to contacts*** – Create a new Contacts entry if the phone number of the active call is known, and not already stored in Contacts.
- ***Show contact*** – Display the entry in Contacts, if any, that corresponds to the phone number of the active call.
- ***Transfer sound*** – Transfer the call to a Bluetooth wireless technology headset.
- ***Turn On/Off tones*** – You can send DTMF tones with the keypad, *"Controlling tone based services"* on page 51.
- ***Microphone mute On/Off*** – Turn the microphone on or off.
- ***Copy number*** – Copy a phone number for exchange with other text fields or applications.
- ***Paste number*** – Paste a copied number into a field
- ***Speakerphone On/Off*** – You can use the P800 as a speakerphone. See *"Speakerphone"* on page 50.
- ***Applications*** – Open another application, and, for example, paste a copied phone number into a Jotter entry.

Press and hold C to mute the microphone. Press and hold C again to reactivate the microphone.

Call handling with the flip open

You use the stylus and the virtual keypad to handle calls with the flip open.

Outgoing calls

To make a call

1. Select  in the application picker. The Speed Dial view is opened.
2. Tap  on the button bar.
3. Enter the digits with the virtual keypad and tap on the right of the keypad.

   To remove a typed character - select  .

If a call is not successfully connected, the P800 can be set to automatically retry to connect the call. When a retry is successful, the P800 alerts you with a single ring signal.

(P800 11/2002 Manual at 45.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Incoming calls

When you receive a call, if the calling party is found in contacts, the name of the caller will be displayed. If there is a picture it will also be shown in a small or large version. See *"Incoming call picture"* on page 53.

To handle an incoming call

Use the screen buttons to select what to do.

- ***Answer*** – Answer the call.
- ***Send Busy*** – Reject the call. The calling party will hear a busy tone and the call will be logged as a rejected call.
- ***Mute*** – Silence the ring signal. The calling party will not notice that you have silenced the call. The call will be logged as a missed call.

You can also answer by voice control, see *"Voice control"* on page 53.

Options during or after a call

There are several options available, depending on the situation. You access some of them by using the screen buttons, by tapping the field with the calling party details, or using the menus. Options that

ern two or more active calls are described in *"Handling two or more calls"* on page 47.

- ***End call*** – End the active call.
- ***Hold call/retrieve call*** – Put the active call on hold / Retrieve the held call.
- ***Add to contacts*** – Create a new Contacts entry. This option appears automatically after a call if the phone number of the call is known, and not already stored in Contacts.
- ***Show contact*** – Display the entry in Contacts, if any, that corresponds to the phone number of the active call.
- ***Zoom in/out*** – Enlarge/reduce the view.
- ***Copy number*** – Copy a phone number for exchange with other text fields or applications.
- ***Paste number*** – Paste a copied number into a field

Tap  to make the following adjustments:

- ***Call volume*** – Adjust the volume in the phone, but this is easier to do with the Jog Dial.
- ***Silent mode*** – All sound ring signals are turned off.
- ***Speaker phone*** – Activate the P800 as a speaker phone.
- ***Mute microphone*** – Turn the microphone on or off.

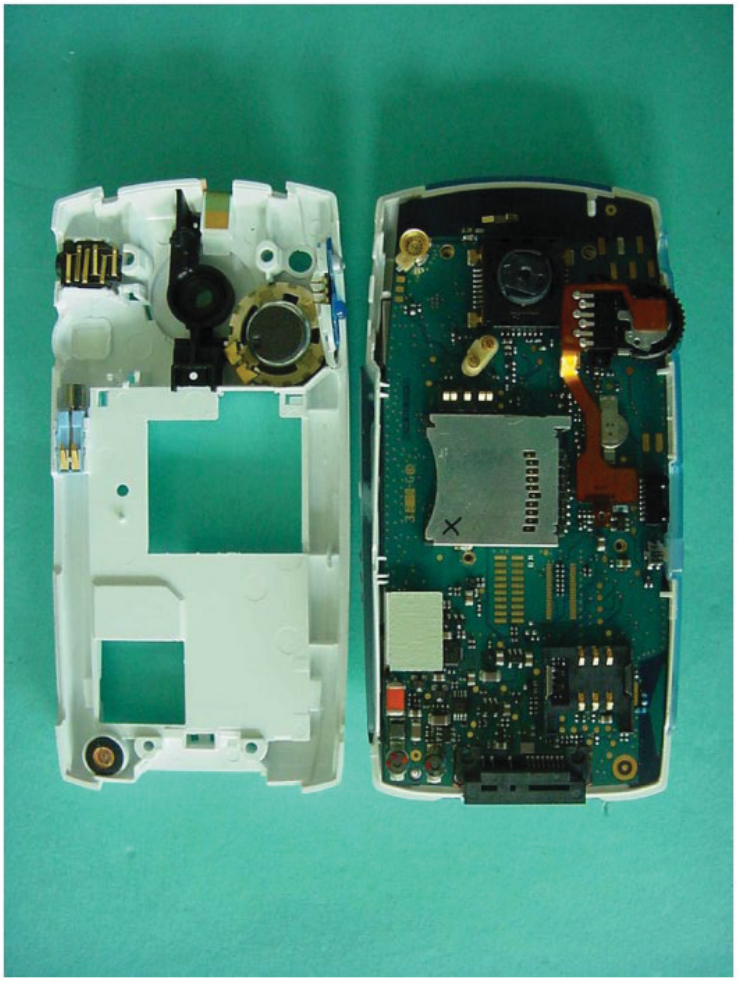
Handling two or more calls

During a call, you can make a second call, or answer an incoming call. The ongoing call is put on hold and the new call becomes active. The held call is shown with a gray background.

(P800 11/2002 Manual at 47.)

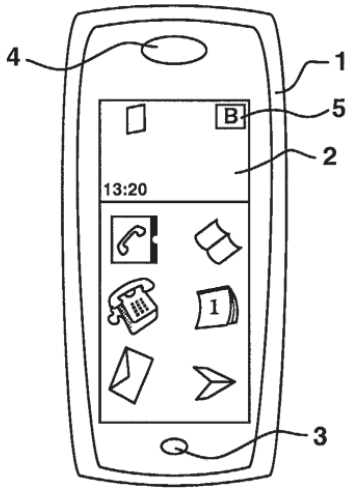
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.)

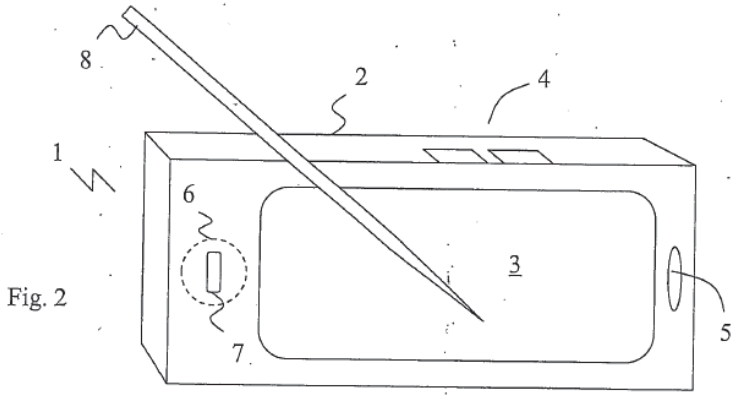
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Photographs of the equipment **Photograph no.: 8**  (FCC P800 Exhibit 9 Internal Photograph, Photograph No. 8.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Photographs of the equipment **Photograph no.: 9**  (FCC P800 Exhibit 9 Internal Photograph, Photograph No. 9.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device) To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Bast, Wedel, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Bast discloses that the housing includes a microphone 3 and a speaker 4 located at the bottom and top of the front surface of the housing, respectively. (Bast at [0010], FIG. 1)

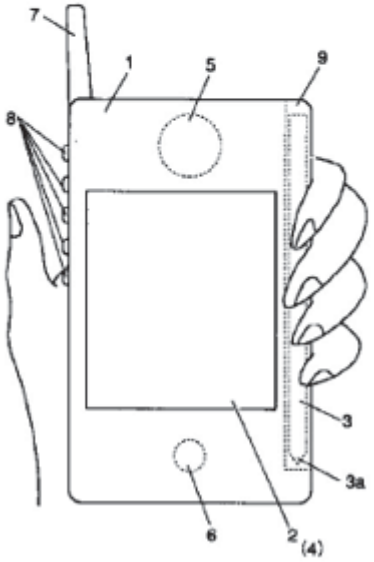
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **Figure 1** (Bast at FIG. 1) As another example, Wedel discloses that the terminal 1 includes "a microphone 5 and a speaker 6, preferably arranged at opposite ends of the terminal 1." (Wedel at 2:1-11, FIG. 2.)

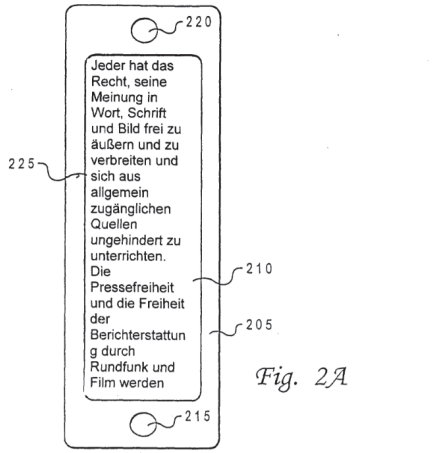
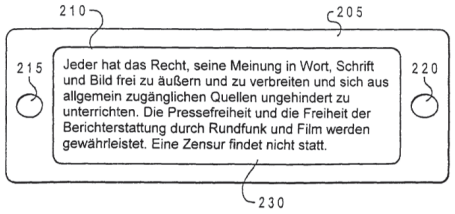
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 2 (Wedel at FIG. 2.) Additionally, Yamaguchi discloses a "mobile-communication-information terminal device" including a "speaker part 5" and a "microphone part 6." (Yamaguchi at claim 1, [0003], [0005], [0011], [0017], FIG. 1.) Additionally, Dutta discloses a mobile phone including a microphone and a speaker. (Dutta at [0018], FIGS. 2A-B.) A POSITA would have been motivated to configure a mobile phone to include a microphone and a speaker. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by Bast, Wedel, Yamaguchi, and Dutta. A POSITA would have been motivated to configure a phone accordingly in order to allow a user to make phone calls, improving device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Bast, Wedel, Yamaguchi, and/or Dutta into the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (including a microphone and speaker as taught by Bast, Wedel, Yamaguchi, and Dutta) according to known methods to yield predictable results (a mobile phone that allows a user to place calls using the microphone and speaker); (B) use of a known technique (allowing a user to make calls using a microphone and speaker as taught by Bast, Wedel, Yamaguchi, and Dutta) to improve similar devices in the same way (a mobile phone that allows a user to make phone calls); (C) applying a known technique (allowing a user to place calls using a microphone and speaker as

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	taught by Bast, Wedel, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (a mobile phone that allows a user to place calls using the microphone and speaker); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Bast, Wedel, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "The mobile terminal shown in Figure 1 combines the functions of a personal digital assistant (PDA) and a mobile telephone. It includes a housing 1 equipped, on the front face, with a large screen 2, which can be a touch screen. The front face of the housing also includes a microphone 3 and a speaker 4, located at the lower part and the upper part, respectively, of the front face of the housing. The touch screen 2 is a rectangular screen that is as large as possible to enable: the input and display of data, particularly writing by means of a stylus; the display of various information, like the time; the display of short messages or messages obtained by email; and the display of program and function icons, settings icons, a virtual keypad for numbering etc. When coming on line, it can, for example, as shown in Figure 1, display a desktop in the form of icons corresponding to the various applications programmed in the terminal." (Bast at [0010].) "However, to be able to work as a standard phone for voice interaction, the terminal 1 also includes a microphone 5 and a speaker 6, preferably arranged at opposite ends of the terminal 1. Several of the functions of the keypad 4 have been included in a graphical user interface applicable to the display 3, rendering a data input interface having less keys. . . . A specific tool 8 may be provided for inputting data on a touch-sensitive screen of the display 3." (Wedel at 2:1-11.) "A mobile-communication-information terminal device provided with a liquid-crystal display part, which outputs and displays text and graphics data, a touch panel part, which is disposed on a front surface of the liquid-crystal display part and by which data is inputted using a pen, and a wireless part, which transmits and receives data, a device body of the device being holdable in one hand, the device being provided with: a speaker part, which is disposed at an upper portion and outputs audio, and a microphone part, which is disposed at a lower portion and by which audio is inputted, with the data input/output part interposed therebetween; an antenna part and various manipulable switches disposed

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	on a same-side surface portion of the device body; and a pen-housing part disposed on an opposite side-surface portion; wherein the various manipulable switches are disposed at locations such that the switches can be manipulated by the thumb of a hand holding the device body." (Yamaguchi at claim 1.) "FIG. 7 is a front view of a mobile-communication-information terminal device according to the existing art. In the mobile-communication-information terminal device according to the existing art, as shown in FIG. 7, a liquid-crystal display part 2, which outputs and displays text, graphics data, and wireless status, is provided on a front-surface portion of a device body 1; a touch panel part 4, by which data inputs are made by touching with a pen tip, is disposed on a front surface of the liquid-crystal display part 2; a pen-housing part 9 for housing a pen 3 is located on a lower portion of the liquid-crystal display part 2; and an antenna part 7 is located on a rear surface of the liquid-crystal display part 2 and near a side-surface portion thereof. Moreover, various manipulable switches 8 are provided on the same surface as the liquid-crystal display part 2 and at locations centered on the liquid-crystal display part 2 in a left-right direction, and a speaker part 5, which outputs audio, and a microphone part 6, by which audio is inputted, are disposed on the same surface as the liquid-crystal display part 2 and centered on the liquid-crystal display part 2 in the left-right direction. In addition, although not shown in the drawings, a card-housing part for a memory card having a data storage function and, adjacent thereto, a card EJECT button having an EJECT function are provided on a lower portion of the device body 1, and the device body 1 has a shape having overall horizontally elongated dimensional ratios." (Yamaguchi at [0003].) "As for outputs to the liquid-crystal display part 2, image data processing is performed in the device body 1, and text, graphics data, and wireless status are displayed on the liquid-crystal display part 2. When inputting text on a desktop, text and line strokes are inputted by pressing, with a pen tip 3a, the front surface of the touch panel part 4 disposed on the front surface of the liquid-crystal display part 2. To input text other than on a desktop, a side-surface portion of the device body 1 is held in one hand, and input is performed by the other hand with the pen 3. Apart from icon manipulations, manipulation via the various manipulable switches 8 is performed by a fingertip of the hand holding the pen 3. In addition, by adjusting one's grip on the main device 1, an ear is placed near the speaker part 5 or the mouth is placed near the microphone part 6 to perform audio input/output operations. Furthermore, to

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	EJECT the memory card from the card-housing part, the card EJECT button is slid with a fingertip of the hand holding the pen 3, and the memory card is removed." (Yamaguchi at [0005].) "EMBODIMENTS OF THE INVENTION The invention according to claim 1 of the present invention is a mobile-communication-information terminal device provided with a liquid-crystal display part, which outputs and displays text and graphics data, a touch panel part, which is disposed on a front surface of the liquid-crystal display part and by which data is inputted using a pen, and a wireless part, which transmits and receives data, a device body of the device being holdable in one hand, and the device being provided with: a speaker part, which is disposed at an upper portion and outputs audio, and a microphone part, which is disposed at a lower portion and by which audio is inputted, with the data input/output part interposed therebetween; an antenna part and various manipulable switches disposed on a same-side surface portion of the device body; and a pen-housing part disposed on an opposite side-surface portion; wherein the various manipulable switches are disposed at locations such that the switches can be manipulated by the thumb of a hand holding the device body; thus, the invention has the effects that, if pen input is not required, then various manipulations can be performed with the one hand holding the device body, and audio input/output can be performed without adjusting one's grip on the device body, thereby improving ease of manipulation." (Yamaguchi at [0011].) "As shown in FIG. 1 and FIG. 2, the mobile-communication-information terminal device is constituted by: a liquid-crystal display part 2, which is disposed on a front-surface portion of a device body 1 and outputs and displays text and graphics data; a touch panel part 4, which is disposed on a front-surface portion of the liquid-crystal display part 2 and by which inputs can be made by touching with a tip 3a of a pen 3; a speaker part 5, which outputs audio and is disposed at an upper portion of the liquid-crystal display part 2 and on the same surface as the liquid-crystal display part 2; a microphone part 6, into which audio is inputted and which is disposed at a lower portion of the liquid-crystal display part 2 and on the same surface as the liquid-crystal display part 2; an antenna part 7 and various manipulable switch parts 8, which are disposed on a same-side surface portion of the device body 1; a pen-housing part 9, which is disposed on a side-surface portion of the device body 1 opposite the aforementioned; and the like; furthermore, the various manipulable switch parts 8 are disposed at locations such that they can be manipulated by the thumb of one hand holding the device body 1." (Yamaguchi at [0017].) Yamaguchi discloses the following at FIG. 1:

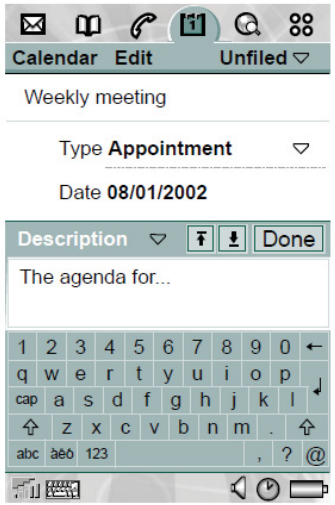
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	FIG. 1 1: Device body 2: Liquid-crystal display part 3: Pen 4: Touch panel part 5: Speaker part 6: Microphone part 7: Antenna part 8: Various manipulable switches 9: Pen-housing part  (Yamaguchi at FIG. 1.) "Figs. 2A and 2B are exemplary representations of the display of a mobile phone corresponding to a preferred embodiment of the present invention. The two figures show this telephone 205, which is equipped with a display 210. From the illustration it follows that the display 210 occupies the majority

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	of the surface of the telephone 205, in which a microphone 215 is located at one end of the display, and a speaker 220 is located at the other end of the display." (Dutta at [0018].) Dutta discloses the following at FIGS. 2A-B:  *Fig. 2A*  *Fig. 2B* (Dutta at FIGS. 2A and 2B.)
[9h] wherein said display unit, practically occupying the entire front surface of the mobile phone, is	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said display unit, practically occupying the entire front surface of the mobile phone, is integrated within said mobile phone." *See supra* claim [1e]

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
integrated within said mobile phone and	(discussing limitation "a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing").
[9i] wherein said front surface of the mobile phone does not have a physical button and wherein said mobile phone does not have a physical keyboard to enter text, and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said front surface of the mobile phone does not have a physical button and wherein said mobile phone does not have a physical keyboard to enter text." *See supra* claim [1f]. For example, P800 teaches that when the optional flip keypad is removed, the mobile phone does not have any physical buttons on the front surface and does not have a physical keyboard to enter text. (P800 09/2002 Manual at 122.) P800 teaches that the touchscreen displays a "virtual flip" (i.e., a virtual keyboard), thus removing the need for physical buttons and keyboards. (P800 09/2002 Manual at 26, 29, 30.) *See also supra* claim [9f].  (P800 09/2002 Manual at 122.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Virtual flip The virtual flip is to be used when you have physically removed the flip and want to use your P800 in flip closed mode. The virtual flip gives you the same functionality as the real flip keypad. Enter numbers and characters using your stylus. Select to open the virtual flip. Select to close the virtual flip. See the chapter *"Removing and attaching the flip keypad"* on page 32" on how to remove the flip and activate the virtual flip.  (P800 09/2002 Manual at 26.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations



At the bottom left of the keyboard you can choose between three keyboard layouts with different character sets. Tap one of the following keys:

abc - standard characters

àëö - international characters

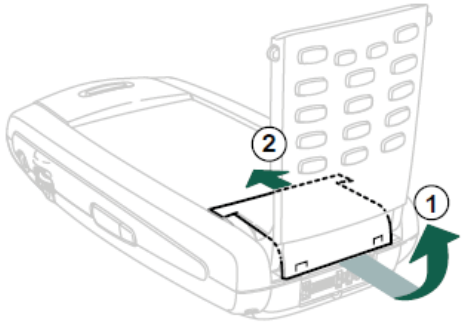
123 - numeric characters and currencies

(P800 09/2002 Manual at 29.)

Virtual flip open mode

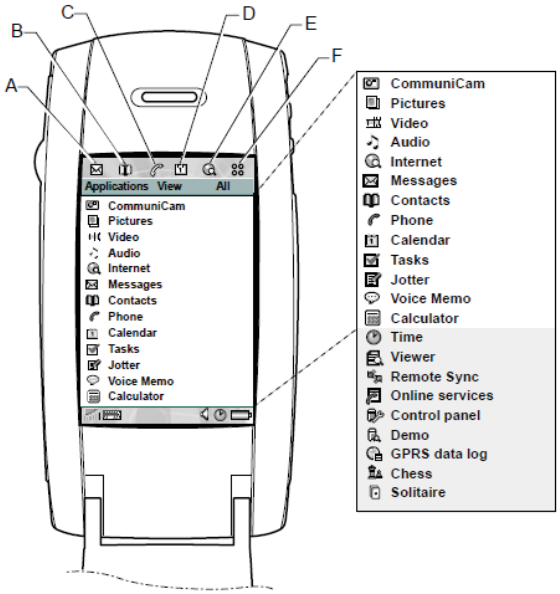
The virtual flip is to be used when you physically have removed the flip. Activate this function in ***Control Panel > Device > Flip removed.*** is shown on the status bar when virtual flip is activated. Tap it to get to virtual flip closed mode.

(P800 09/2002 Manual at 33.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Additional exemplary citations include: **Removing and attaching the flip keypad** *To remove the Flip* 1. Use your fingernail to gently lift up and push the cover plate under and away from the keypad, see picture below. **Note** *Be careful with the touch-sensitive screen. Never use a sharp object like a screwdriver.*  (P800 09/2002 Manual at 32.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Applications - Flip open



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Call list application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all Flip open applications

When the Flip is opened, the large touch-screen is revealed. In this mode, the stylus can be used to navigate and enter data. The Jog Dial provides further navigation and selection capability.

Text can be entered using natural handwriting on the screen. An on-screen keyboard is also available at all times. Symbol and special character keyboards can be selected when required.

With the Flip open, you can select between the five most important applications, either by tapping the icon with the stylus, or by rotating and pressing the Jog Dial.

If you select the Applications icon, all applications are shown in a list. Tap the application with the stylus, or rotate and press the Jog Dial to start the application.

The Flip can also be removed. A virtual flip is then available, making it possible to work in both operational modes.

(P800 09/2002 Manual at 10.)

Call handling

To make a call in flip open mode, you use the stylus and the virtual keyboard.

To make a call

1. Select [phone].
2. Select [keyboard].
3. Call the number with the virtual keyboard and select [phone].

   To remove a typed character - select [←].

(P800 09/2002 Manual at 39.)

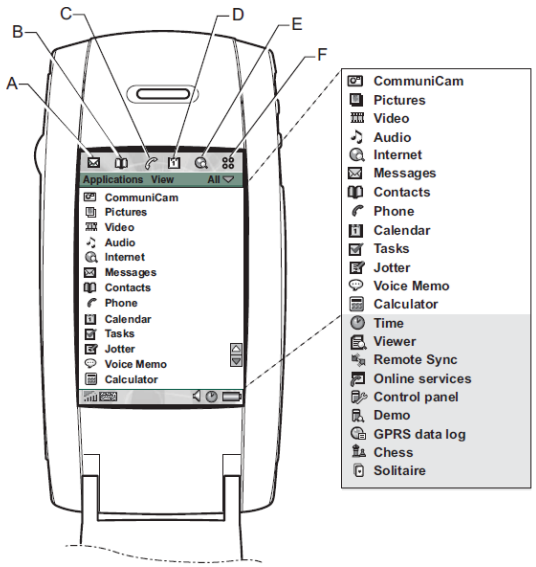
Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip removed

When you use your P800 with the hardware flip removed, you can use the keys on the virtual flip instead. Use this setting to turn it on or off (see *"Virtual flip"* on page 26).

(P800 09/2002 Manual at 129.)

Flip open mode



A Shortcut to the Messages application
B Shortcut to the Contacts application
C Shortcut to the Phone application
D Shortcut to the Calendar application
E Shortcut to the Internet application
F Shows all applications available in flip open mode

You can change the shortcuts A-E. See *"Changing your application shortcuts" on page 134.*

Navigation

When the flip is open, the application shortcut icons shown in the flip closed mode move to the top row in the flip open screen. You navigate by using the stylus and tapping selected items and by using the Jog Dial, see *"Jog Dial"* on page 23.

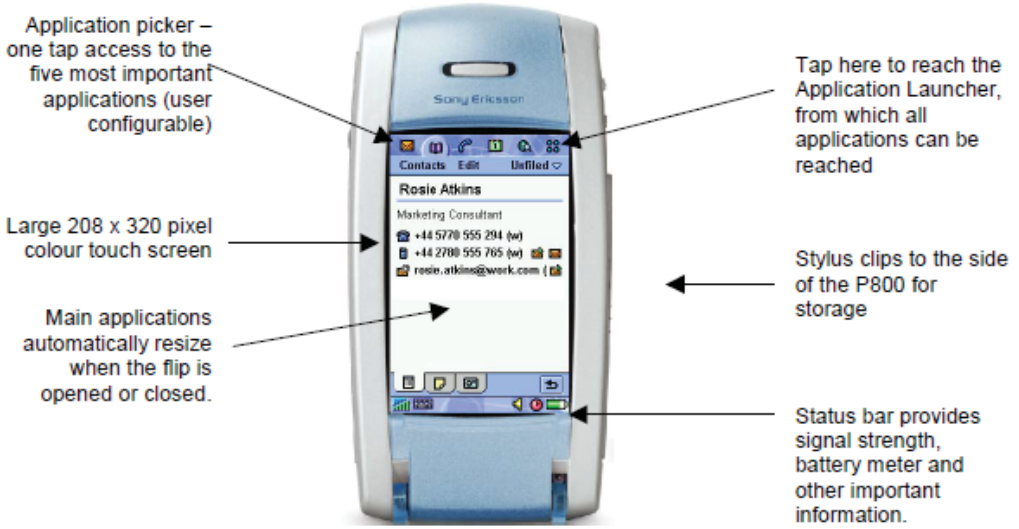
(P800 11/2002 Manual at 18.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **P800 – Standard Version** • Europe, Middle East, Americas, Latin Asia • Latin characters (a, b, c…) on the flip • Latin character handwriting recognition (P800/P802 White Paper at 8.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip Open (FO mode)

When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.



(P800/P802 White Paper at 14.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	Flip Removed The flip may also be removed. A 'flip replacement' cover is clipped in place instead of the flip:  (P800/P802 White Paper at 15.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 The game is suspended by events such as incoming phone calls. When the application is re-started from the Application Launcher, it will continue from the start of the level which was last being played. **Stunt Run**  Stunt Run puts you at the wheel of your chosen stunt car on the Sony Ericsson race track! Select a car with your preferred balance of acceleration, top speed and handling and proceed to the starting grid of an easy, normal or hard circuit. Touch the buttons at the left hand end of the screen for reverse, forwards and fast-forward movement. Use the Jog Dial to steer the car.  The game can be played in Single Player, Multiplayer and Tournament form. The demo mode shows a car driving round the circuit. This game is provided on the Multimedia for P800 CD-ROM and must be installed before use. (P800/P802 White Paper at 86.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (b) (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 9	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device)
[9j] wherein said display unit is adapted to display text, entered through the virtual keyboard, in landscape direction and in portrait direction when the mobile phone is used, respectively, in landscape position and in portrait position.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said display unit is adapted to display text, entered through the virtual keyboard, in landscape direction and in portrait direction when the mobile phone is used, respectively, in landscape position and in portrait position." *See supra* claim [5a] (discussing limitation "wherein said display unit is adapted to display text, entered through the virtual keyboard, in landscape direction and in portrait direction when the mobile phone is used, respectively, in landscape position and in portrait position"). For the reasons discussed in connection with claim [5a], a POSITA would have been motivated to implement this limitation in view of P800, POSITA's pre-existing knowledge, and/or the teachings of the references cited *supra* claim [5a], irrespective of whether the claimed keyboard was virtual or physical.

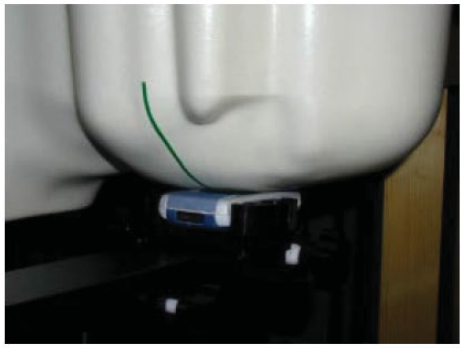
Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
[10pre] The mobile phone of claim 9	Claim 10 depends from claim 9. Defendants incorporate all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the additional limitations of claim 10 are anticipated and/or obvious for the same reasons set out in claim 9. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 9." *See supra* claim [9].
[10a] wherein the distance between said microphone and said speaker corresponds to the distance between the ear and the mouth of a user	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the distance between said microphone and said speaker corresponds to the distance between the ear and the mouth of a user." For example, the P800 was configured such that the user's mouth was positioned near the phone's microphone at the bottom of the phone and the user's ear was positioned near the speaker at the top of the phone in the "cheek" and "tilt" positions. (FCC P800 Exhibit 11 SAR Report at Sheet 19; P800/P802 White Paper at 8, 12.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations

ERICSSON

OPEN INFORMATION
Dokument - *Document*: REPORT
Blad - *Sheet*: 19 (24)

Datum – *Date*	Rev	Dokumentnr – *Document no*
2002-06-13	A	TF-02:061

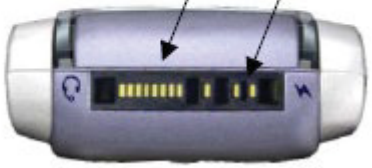


The P800 without flip on head phantom in the cheek position.



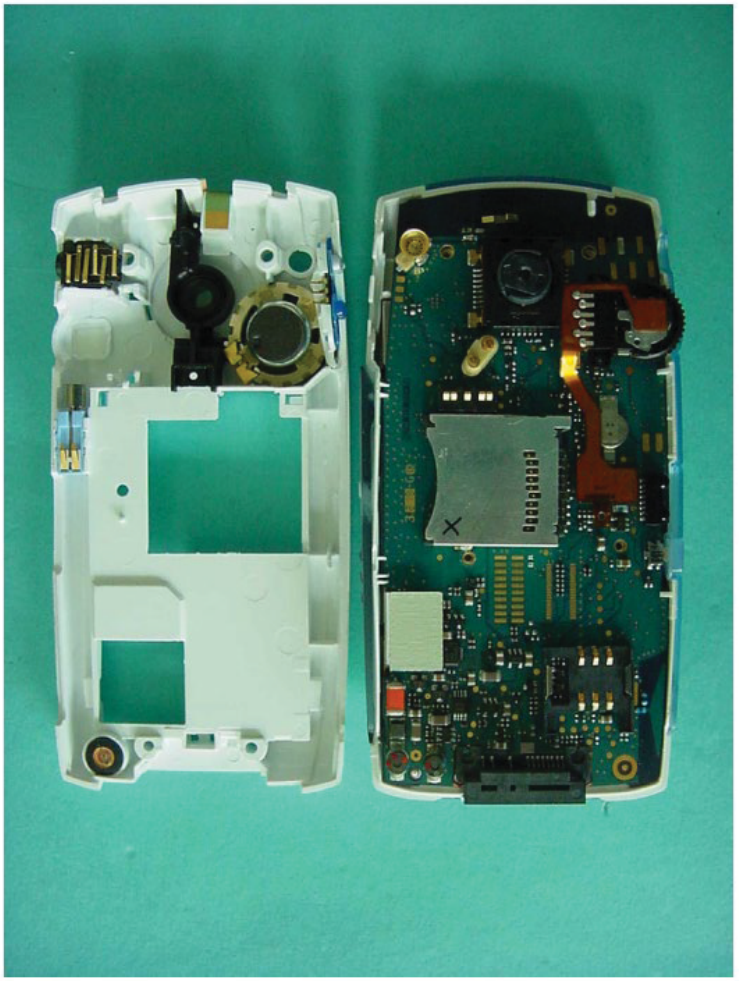
The P800 without flip on head phantom in the tilt position.

(FCC P800 Exhibit 11 SAR Report at Sheet 19.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	   P800 – Standard Version (P800/P802 White Paper at 8, 12.) Additional exemplary citations include:

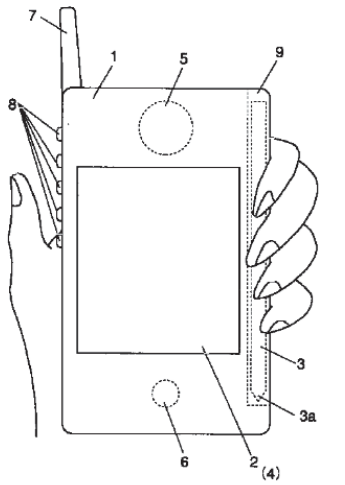
Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.)

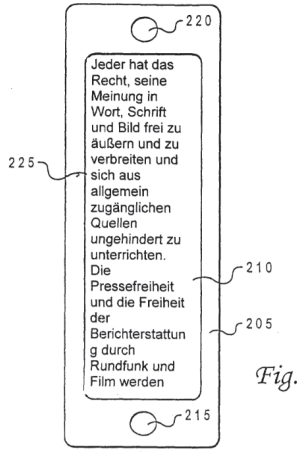
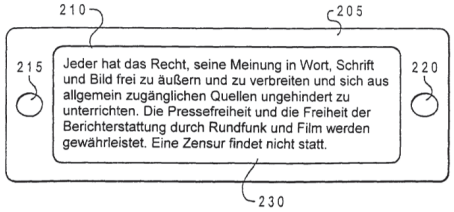
Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	Photographs of the equipment **Photograph no.: 8**  (FCC P800 Exhibit 9 Internal Photograph, Photograph No. 8.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	Photographs of the equipment **Photograph no.: 9**  (FCC P800 Exhibit 9 Internal Photograph, Photograph No. 9.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 Device) To the extent Keyless argues that P800 does not disclose or render obvious this limitation, it would have been obvious in view of P800, POSITA's pre-existing knowledge, and/or the teachings of P800 combined with Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, each of Rydbeck, Yamaguchi, and Dutta teaches that the ideal configuration for a mobile phone is such that the distance between the ear and mouth of a user corresponds to the distance between the ear and the mouth of a user. For example, Rydbeck discloses a mobile phone device configured such that during operation, a speaker is adjacent to a user's ear and a microphone is adjacent to the user's mouth. (Rydbeck at 8:57-60; *see also id*. at 2:1-6, 2:15-18, 8:21-27, 9:13-20, Fig. 10.) As another example, Yamaguchi discloses a mobile phone device having a speaker 5 and microphone 6 such that during operation, the speaker is positioned close to the mouth of a user and the microphone is positioned close to the ear of a user. (Yamaguchi at [0005].) Further, Yamaguchi discloses a mobile phone that is 100-150mm in length. (Yamaguchi at [0009], [0015], FIG. 1) 【図１】 1 装置本体 2 液晶表示部 3 ペン 4 タッチパネル部 5 スピーカー部 6 マイク部 7 アンテナ部 8 各種操作スイッチ 9 ペン収納部 

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Yamaguchi at FIG. 1.) As another example, Dutta teaches that the ideal size of a mobile phone is based on the distance from a user's ear to a user's mouth. (Dutta at [0003], FIGS. 2A-2B.) Accordingly, mobile phones were commonly designed to be long and narrow. (Dutta at [0004].)  *Fig. 2A*  *Fig. 2B* (Dutta at FIGS. 2A and 2B) A POSITA would have found it obvious to configure the mobile phone disclosed by P800 such that the distance between the microphone and speaker of the device corresponds to the distance between a user's ear and mouth. Each of Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone in

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	this way in order to improve operability and device performance. A POSITA would have been motivated to configure a mobile phone in this way to provide the user with an ergonomically comfortable interface, wherein the microphone could easily detect speech from a user's mouth and the user could easily detect sound produced by the speaker during a phone call. As explained by Rydbeck, a mobile phone "preferably includes a microphone which can be positioned…proximate to the mouth of a user during telephone operation." (Rydbeck at 2:15-18.) A POSITA would be motivated to configure a mobile phone such that the microphone and speaker were proximate to a user's mouth and ear, respectively, to improve the performance of the phone by improving the call quality and clarity of voice transmission while making phone calls. Accordingly, a mobile phone such that its length corresponds to the distance between a user's mouth and ear was routine and conventional to a POSITA, as shown by each of Rydbeck, Yamaguchi, and Dutta. A POSITA would have considered the combination of the teachings of Rydbeck, Yamaguchi, and/or Dutta with the mobile phone architecture disclosed by P800 to be an example of (A) combining prior art elements (the mobile phone of P800 with the teaching of the optimal mobile phone size as taught by Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving user experience and device performance); (B) use of a known technique (positioning the microphone and speaker of a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (positioning the microphone and speaker of a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile phone disclosed by P800 to arrive at the claimed invention. Additional exemplary citations include: "In a preferred embodiment, the device includes an antenna connected to a top portion of the primary body. The antenna is configured to extend away from the rear major surface such that, when a user orients the device with the speaker adjacent his or her ear, the antenna is oriented away from the user." (Rydbeck at 2:1-6.)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The device also preferably includes a microphone which can be positioned on the rear major surface (on a bottom portion), or on a flip, such that it is proximate to the mouth of a user during telephone operation." (Rydbeck at 2:15-18.) "A turnaround wireless communications device according to claim 1, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said front surface when a user orients said turnaround wireless communications device such that said speaker is adjacent the user's ear during operation." (Rydbeck at 8:21-27.) "a microphone located such that it is positioned proximate a user's mouth when the user has said speaker adjacent his or her ear…" (Rydbeck at 8:57-60.) "A turn around wireless communications device according to claim 11, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said forward major surface when a user orients said turnaround wireless communications device such that said speaker is adjacent his or her ear during operation." (Rydbeck at 9:13-20.) "As for outputs to the liquid-crystal display part 2, image data processing is performed in the device body 1, and text, graphics data, and wireless status are displayed on the liquid-crystal display part 2. When inputting text on a desktop, text and line strokes are inputted by pressing, with a pen tip 3a, the front surface of the touch panel part 4 disposed on the front surface of the liquid-crystal display part 2. To input text other than on a desktop, a side-surface portion of the device body 1 is held in one hand, and input is performed by the other hand with the pen 3. Apart from icon manipulations, manipulation via the various manipulable switches 8 is performed by a fingertip of the hand holding the pen 3. In addition, by adjusting one's grip on the main device 1, an ear is placed near the speaker part 5 or the mouth is placed near the microphone part 6 to perform audio input/output operations. Furthermore, to EJECT the memory card from the card-housing part, the card EJECT button is slid with a fingertip of the hand holding the pen 3, and the memory card is removed." (Yamaguchi at [0005].)

Claim 10	Exemplary Disclosures (Express and/or Inherent) and Citations
	"MEANS FOR SOLVING THE PROBLEMS To solve these problems, the present invention has a configuration such that: an antenna part of a wireless part and various manipulable switches are disposed on a same surface of a side-surface portion of the device body; a pen-housing part is disposed on an opposite side-surface portion of the device body; a housing part for a memory card having a data storage function is disposed on a rear-surface portion; a card EJECT button is disposed on the rear-surface portion near the pen-housing part; a rotary switch, which has a function of selecting data displayed on a liquid-crystal part, a push button, which has a function of confirming data that has been selected using the rotary switch, and the various switches are disposed on a same surface of a side-surface portion of the device body; furthermore, the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top-surface portion of the device body; and the dimensions of the device body have dimensional ratios of height 100–150 mm, width 60–75 mm, and depth 15–25 mm." (Yamaguchi at [0009].) "The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons." (Yamaguchi at [0015].) "For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability." (Dutta at [0003].) "Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself." (Dutta at [0004].)

Claim 11	Exemplary Disclosures (Express and/or Inherent) and Citations
[11pre] The mobile phone of claim 9	Claim 11 depends from claim 9. Defendants incorporate all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendants reserve the right to rely on

Claim 11	Exemplary Disclosures (Express and/or Inherent) and Citations
	any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the additional limitations of claim 11 are anticipated and/or obvious for the same reasons set out in claim 9. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 9." *See supra* claim [9].
[11a] wherein said practically rectangular shape has rounded corners.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said practically rectangular shape has rounded corners." *See supra* claim [2a].

Claim 12	Exemplary Disclosures (Express and/or Inherent) and Citations
[12pre] The mobile phone of claim 9	Claim 12 depends from claim 9. Defendants incorporate all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the additional limitations of claim 12 are anticipated and/or obvious for the same reasons set out in claim 9. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 9." *See supra* claim [9].
[12a] wherein plurality of icons corresponding to plurality of applications are displayed on said display unit, and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein plurality of icons corresponding to plurality of applications are displayed on said display unit." *See supra* claim [3a].

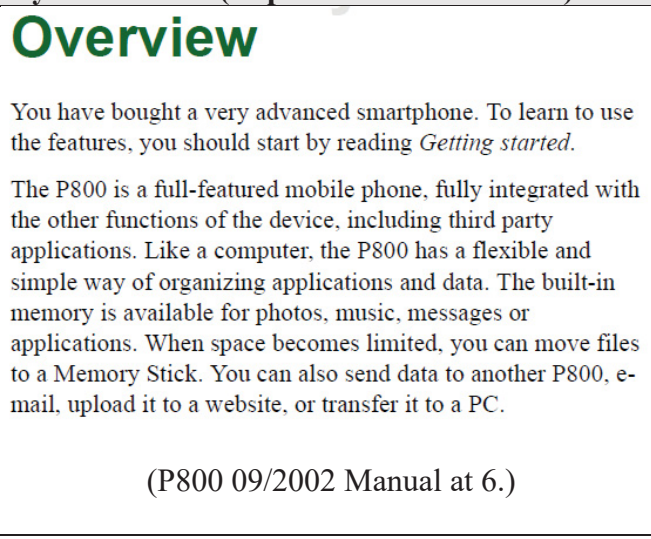
Claim 12	Exemplary Disclosures (Express and/or Inherent) and Citations
[12b] wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit." *See supra* claim [3b].

Claim 13	Exemplary Disclosures (Express and/or Inherent) and Citations
[13pre] The mobile phone of claim 12	Claim 13 depends from claim 12. Defendants incorporate all the prior art disclosures from claim 12 here, which anticipate and/or render claim 12 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 12 to show the additional limitations of claim 13 are anticipated and/or obvious for the same reasons set out in claim 12. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 12." *See supra* claim [12].
[13a] wherein upon providing a predefine interaction with an icon, the corresponding application is opened on the screen.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a predefine interaction with an icon, the corresponding application is opened on the screen." *See supra* claim [4a].

Claim 14	Exemplary Disclosures (Express and/or Inherent) and Citations
[14pre] The mobile phone of claim 9	Claim 14 depends from claim 9. Defendants incorporate all the prior art disclosures from claim 9 here, which anticipate and/or render claim 9 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 9 to show the

Claim 14	Exemplary Disclosures (Express and/or Inherent) and Citations
	additional limitations of claim 14 are anticipated and/or obvious for the same reasons set out in claim 9. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he mobile phone of claim 9." *See supra* claim [9].
[14a] wherein said components of the mobile phone are integrated within the body such that none of said components is significantly extended out from the body.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said components of the mobile phone are integrated within the body such that none of said components is significantly extended out from the body." *See supra* claim [1g] (discussing the limitation "wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing").

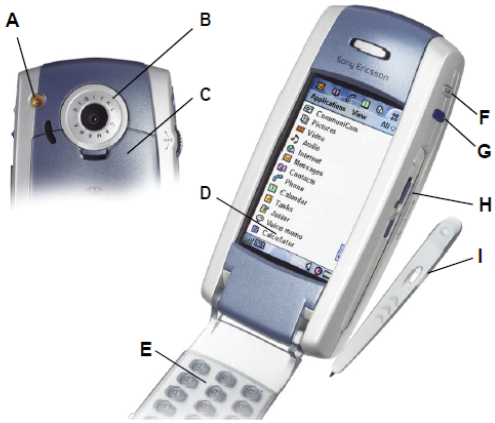
Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
[15pre] A mobile phone device, comprising:	To the extent that the preamble is held to be limiting, P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] mobile phone device." For example, "[t]he P800 is a full-featured mobile phone, fully integrated with the other functions of the device, including third party applications." (P800 09/2002 Manual at 6, 8; P800 11/2002 Manual at 42; P800/P802 White Paper at 24.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 6.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations

P800 outline





A Connector for stereo headphones
B Jog Dial for navigating through menus and more
C Infrared port for communication
D On/Off button
E Flip with Keypad (in closed position)
F Connector for accessories

A External antenna connector (on the rear side)
B CommuniCam lens (on the rear side)
C Battery compartment (on the rear side)
D Touchscreen
E Flip (in open position)
F Shutter release for the CommuniCam
G Internet button for activation of the browser
H Slot for Sony Memory Stick Duo™ (under the stylus)
I Stylus for writing on the screen

(P800 09/2002 Manual at 8.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Phone The P800 is a full-featured mobile phone having full integration with the other functions of the device, including third party applications. The phone includes useful features such as: • Personalized ringtones. • Picture Phone Book • Quick access back to the entry in Contacts, making it easy to try an alternative number or send an E-Mail if the contact is unavailable or busy. • Voice dialing – make a call by speaking the contact's name. • Voice answer – an incoming call may be answered or sent busy signal, using the words recorded for 'answer' and 'busy'. • Access to most other applications whilst talking on the phone. • Office handsfree (speakerphone) which is enabled when the flip is open, making it easy to access applications such as Calendar and Jotter whilst talking. (P800 11/2002 Manual at 42.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations

Phone and PIM Applications

Phone

The P800 is a full-featured mobile phone having full integration with the other functions of the device, including third party applications.

The phone includes useful and fun features such as:

- Personalised ringtones – conventional or polyphonic ringtones can be set in Contacts, giving audible indication of who is calling. Supported formats are AMR, Au, iMelody, MIDI, RMF (Beatnik) and WAV.
- Picture Phone Book – if there is a picture of the person in Contacts, it will be displayed when making outgoing calls and when receiving the CLI with an incoming call.
- Quick access back to the entry in Contacts, making it easy to try an alternative number or send an E-Mail if the contact is unavailable or busy.
- Voice dialling – make a call by speaking the contact's name. The contact's name may be recorded when entering/editing the entry in Contacts. The call is made by pressing the OK button on the flip or the button on the headset. If a 'magic word' is recorded, contacts may be dialled by saying the magic word followed by the contact name. It is then not necessary to press any buttons.
- Voice answer – an incoming call may be answered or sent busy signal, using the words recorded for 'answer' and 'busy'. There is 40 seconds of storage space allocated for voice dialling and voice answer. This is enough for approximately 50 words (contact names plus 'magic word', 'answer' and 'busy')
- Access to most other applications whilst talking on the phone.
- Office handsfree (speakerphone) which is enabled when the flip is open, making it easy to access applications such as Calendar and Jotter whilst talking.
- Flight mode enables the P800 to be used as a PDA in situations where radio transmitters may not be used. The GSM and Bluetooth transmitters (and receivers) are switched off.

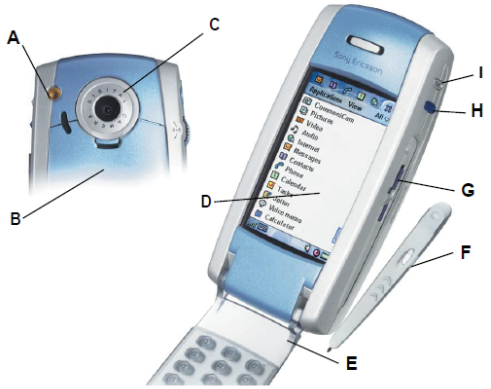


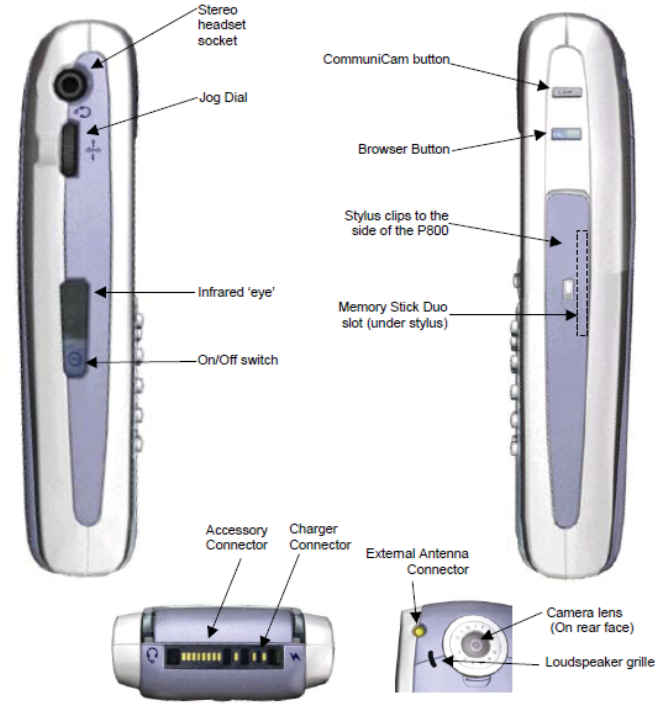
In FC mode, the phone is driven by the keypad, like a conventional mobile phone.

(P800/P802 White Paper at 24.)

Additional exemplary citations include:

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 overview  **A** Indicator light for Bluetooth wireless technology (blue) **B** Connector for stereo head phone **C** Jog Dial **D** Infrared port **E** On/Off button **F** Flip with Keypad (in closed position) **G** Connector for accessories and charger **H** Indicator light for network and battery (green/red)  **A** External antenna connector **B** Battery compartment **C** CommuniCam **D** Touchscreen **E** Flip (in open position) **F** Stylus **G** Slot for Sony Memory Stick Duo (under the stylus) **H** Internet button for activation of the browser **I** CommuniCam activation and shutter release (P800 11/2002 Manual at 11.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 Controls and Operation The P800 has a large touch-screen and a flip. This provides fast and convenient one-handed operation with the flip closed plus large touch-screen sophistication with the flip open.  (P800/P802 White Paper at 12.)

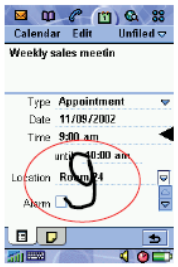
Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations

Flip Open (FO mode)

When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.



The stylus is used to operate the touch-screen and enter text:





Text may be entered using natural handwriting over the whole screen. Lower case letters are entered below the ◀ symbol, uppercase in line with it and numbers above it.

An on-screen keyboard is also available at all times by tapping on the keyboard icon in the status bar. Symbol and special character keyboards may be selected when required. Cut, Copy and Paste functions are available here.

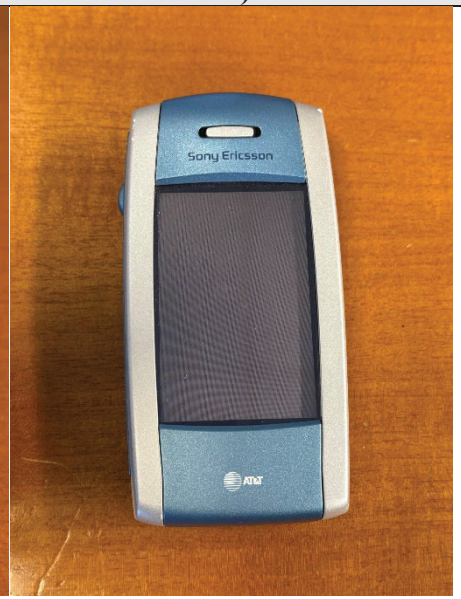
In FO mode, the P802 offers Stroke, Pinyin and Bopomofo input methods plus Chinese character recognition. Numeric and English characters can also be entered using the character recognition.

(P800/P802 White Paper at 14.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (FCC P800 Exhibit 3, Photograph Nos. 1-5.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (a) (b) **Front view of the Sony Ericsson P800 mobile phone with flip (a) and without flip (b).** (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (a) (b) Side view of the Sony Ericsson P800 mobile phone with flip (a) and without flip (b). (FCC P800 Exhibit 11 SAR Report at Sheet 11.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (P800 Device)
[15a] a body having a practically rectangular shape;	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a body having a practically rectangular shape." *See supra* claim [1a].

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
[15b] a processor; and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a processor." For example, P800 uses an ARM 9 processor. (P800 09/2002 Manual at 187; P800 11/2002 Manual at 188.) **Technical data** **General** Product name P800 — Standard version, latin character set Size — 117 x 59 x 27 mm Weight — 158 grams with battery and flip, 148 grams with battery, flip removed. System and power class — E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1 SIM Card — Small plug-in card, 3V or 5V type Operating System — Symbian OS v7.0 with UIQ user interface and applications environment Processor — ARM 9 User storage — For settings, user data (for example images, contacts, messages) and third party applications: 12Mbyte Battery life, standard battery — Talk Time: up to 13 hours Stand-by time: up to 400 hours Operating temperature — –15° to +55° C **Screen** Screen type — TFT Screen size — Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm Pixel size — 0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch) Colour resolution — 12-bit (4096 colours) Screen surface — Touch-sensitive Illumination — Front-light **Integrated CommuniCam** Picture Size — 640 x 480 pixels (VGA) 320 x 240 pixels (QVGA) 160 x 120 pixels (QQVGA) Colour depth — 24 bit (16 million colours) Storage format — JPEG/JFIF, 3 quality (compression) levels, user-selectable. (P800 09/2002 Manual at 187.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical data

General

Product name P800	Standard version, latin character set
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip, 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
Antenna	Built in
Speech Coding	HR, FR, EFR supported where available, for high speech quality.
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 with UIQ user interface and applications environment
Processor	ARM 9
Internal User storage	For settings, user data (for example images, contacts, messages) and third party applications: up to 12Mbyte
Additional storage	Memory Stick Duo, up to 128 Mbyte supported. 16 Mbyte Memory stick supplied, plus Adaptor.
Operating temperature	–15° to +55° C

Screen

Screen type	TFT
Screen size	Flip closed: 208 x 144 pixels, 40 x 28 mm Flip open: 208 x 320 pixels, 40 x 61 mm
Pixel size	0.192 x 0.192 mm, or 132 ppi (Pixels Per Inch)
Color resolution	12-bit (4096 colors)
Screen surface	Touch-sensitive, anti-reflective
Illumination	Front-light

Third Party Application Support

SDKs	C++ PersonalJava J2ME CLDC 1.0 / MIDP
Load formats	C++ or Java applications in Symbian SIS format. MIDP installation (JAR/JAD) from Browser or connected PC.
Security	Support for signed applications.

Bluetooth wireless technology

Bluetooth compatibility statement	This product is manufactured to comply with the Bluetooth specification 1.1.
Coverage area	Up to 10 meters (33 feet)

(P800 11/2002 Manual at 188.)

Additional exemplary citations include:

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations

Features and Specification Summary

General
Size: 117 x 59 x 27 mm
Weight: 158g with flip
OS: Symbian OS™ V7.0
Processor: ARM 9
User storage: 12 Mbyte (P800); 9 Mbyte (P802)

Memory Stick® Duo®
Slot for Memory Stick Duo
16Mbyte Memory Stick Duo supplied
Memory Stick Duo Adaptor supplied

Battery Life
Talk time: Up to 13 hours
Standby time: Up to 400 hours

GSM
Tri-band E-GSM 900, GSM 1800 and GSM 1900

GPRS
Slots: 4+1
Coding scheme: CS-1, CS-2, CS-3, CS-4
Downlink rate: Up to 53.6 kbps (CS-2)
Uplink rate: Up to 13.4 kbps (CS-2)
(CS-2 quoted as this is the fastest scheme in use today)

HSCSD
Timeslots: 2+1 at 9.6 or 14.4 kbps
Download rate: Up to 28.8 kbps
Upload rate: Up to 14.4 kbps

Screen
Type: TFT
Size, flip closed: 208 x 144 pixels, 40 x 28 mm
Size, flip open: 208 x 320 pixels, 40 x 61 mm
Pixel Size: 0.192 mm
Colour depth: 12-bit (4096 colours)
Surface: Touch-sensitive, anti-reflective
Illumination: Front-light

Input (P800)
Flip Closed: Keypad; numeric and characters
Flip Open: Natural handwriting recognition
On-screen virtual keyboard

Input (P802)
Flip Closed: Keypad; Numeric, Stroke, Pinyin, Bopomofo
Flip Open: Chinese character recognition
English character recognition
Stroke, Pinyin, Bopomofo.

Third Party Application Support
SDKs: C++
PersonalJava™
J2ME™ CLDC 1.0 / MIDP

Phone
Office Handsfree (loudspeaker) function.
Voice dial, voice answer, 'magic word' activation
Picture Phone Book – picture of contact displayed.
Polyphonic ringtones
Flight mode – use P800 as PDA with phone off.
SIM-AT
USSD

Personal Organiser
Contacts (Address Book)
Calendar (Diary)
Tasks ('To-Do' list)
Jotter (Text and colour 'ink' sketches)
Voice Memo (Dictaphone)
Time (World Clock)
Calculator
(P802) English-Chinese-English Dictionary
(P802) Lunar Calendar

Integrated CommuniCam
Image size: 640 x 480 pixels (VGA)
320 x 240 pixels (QVGA)
160 x 120 pixels (QQVGA)
Colour depth: 24 bit (16.78 million colours)
Storage format: JPEG/JFIF; 3 quality levels
Capacity: Approx 200 (VGA, 12Mbyte free)

Audio Player
Formats: MP3, WAV, AU, AMR, MIDI, RMI
Features: Playlists, Loop, Automatic pause

Pictures (Image Viewer)
Formats: JPEG, BMP, GIF (inc. animated), MBM, PNG, WBMP
Sharing via: IR, Bluetooth, MMS, e-mail, PC file transfer, Memory Stick

Video Player
File Format: 3GP, MP4
Streaming: RTSP according to 3GPP

Messaging
SMS
EMS
MMS
E-Mail (multiple accounts and PC sync)

Document Viewers
On-board: Microsoft® Word
Microsoft® Excel
Microsoft® PowerPoint®
Adobe® Acrobat® (PDF)
Approx. 20 more supplied on CD-ROM

(P800/P802 White Paper at 9.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations

Technical Specifications

General

Product name	P800 (Latin and Chinese versions) P802 (Chinese version for People's Republic of China)
Size	117 x 59 x 27 mm
Weight	158 grams with battery and flip 148 grams with battery, flip removed.
System and power class	E-GSM 900 Class 4 GSM 1800 Class 1 GSM 1900 Class 1
Antenna	Built in
Speech Coding	HR, FR, EFR supported where available, for high speech quality.
SIM Card	Small plug-in card, 3V or 5V type
Operating System	Symbian OS v7.0 Based on the 'UIQ' design.
Processor	ARM 9
Internal User storage	For settings, user data (e.g. images, contacts, messages) and third party applications: P800: 12Mbyte P802: 9Mbyte (dictionary not activated)
Additional Storage	Memory Stick Duo, up to 128Mbyte size supported. 16 Mbyte Memory Stick Duo supplied, plus Adapter

(P800/P802 White Paper at 121.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Photographs of the equipment **Photograph no.: 10**  (FCC P800 Exhibit 9 Internal Photograph, Photograph No. 10.)

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	Photographs of the equipment **Photograph no.: 11** 

Claim 15	Exemplary Disclosures (Express and/or Inherent) and Citations
	(FCC P800 Exhibit 9 Internal Photograph, Photograph No. 11.)
[15c] a display unit, said display unit occupying practically the entire surface of the front surface of said device is integrated within said device;	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a display unit, said display unit occupying practically the entire surface of the front surface of said device is integrated within said device." *See supra* claim [1e] (discussing the limitation "a display unit, said display unit occupying practically the entire surface of the front surface of said device is integrated within said device").
[15d] wherein plurality of icons corresponding to a plurality of applications are displayed by said processor on said display unit; and	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein plurality of icons corresponding to a plurality of applications are displayed by said processor on said display unit." *See supra* claim [3a] (discussing limitation "plurality of icons corresponding to plurality of applications are displayed on said display unit"). For the reasons discussed in connection with claim [3a], a POSITA would have been motivated to implement this limitation in view of P800, POSITA's pre-existing knowledge, and/or the teachings of the references cited *supra* claim [3a]. A POSITA would have expected the displayed icons to be displayed by a processor as discussed *supra* claim [15b].
[15e] wherein upon identifying an input corresponding to a sweeping action provided on a touch sensitive surface of said device, said processor displays plurality of other icons corresponding to plurality of other applications on said display unit.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon identifying an input corresponding to a sweeping action provided on a touch sensitive surface of said device, said processor displays plurality of other icons corresponding to plurality of other applications on said display unit." *See supra* claim [3b] (discussing limitation "and wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit").A POSITA would have understood that on the touch-screen, the display is a touch-sensitive surface. *See also supra* claim [9e].

Claim 16	Exemplary Disclosures (Express and/or Inherent) and Citations
[16pre] The device of claim 15,	Claim 16 depends from claim 15. Defendants incorporate all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 16 are anticipated and/or obvious for the same reasons set out in claim 15. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." *See supra* claim [15].
[16a] wherein said display unit is touch sensitive and wherein said sweeping action is provided on said display unit.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said display unit is touch sensitive and wherein said sweeping action is provided on said display unit." *See supra* claim [3b] (discussing limitation "and wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit"), claim [9e] (discussing limitation "a touch sensitive display unit").

Claim 17	Exemplary Disclosures (Express and/or Inherent) and Citations
[17pre] The device of claim 15	Claim 17 depends from claim 15. Defendants incorporate all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 17 are anticipated and/or obvious for the same reasons set out in claim 15. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." *See supra* claim [15].

Claim 17	Exemplary Disclosures (Express and/or Inherent) and Citations
[17a] wherein upon providing a predefined interaction with an icon, the corresponding application is opened on the screen.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a predefined interaction with an icon, the corresponding application is opened on the screen." *See supra* claim [4a] (discussing limitation "wherein upon providing a predefine interaction with an icon, said corresponding application is opened on the display unit").

Claim 18	Exemplary Disclosures (Express and/or Inherent) and Citations
[18pre] The device of claim 15	Claim 18 depends from claim 15. Defendants incorporate all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 18 are anticipated and/or obvious for the same reasons set out in claim 15. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." *See supra* claim [15].
[18a] wherein said device does not include a physical key on the front surface of the device.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said device does not include a physical key on the front surface of the device." *See supra* claim [1f] (discussing limitation "wherein said mobile phone device does not include a physical key on the front surface")

Claim 19	Exemplary Disclosures (Express and/or Inherent) and Citations
[19pre] The device of claim 15	Claim 19 depends from claim 15. Defendants incorporate all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to

Claim 19	Exemplary Disclosures (Express and/or Inherent) and Citations
	show the additional limitations of claim 19 are anticipated and/or obvious for the same reasons set out in claim 15. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." *See supra* claim [15].
[19a] wherein said components of the mobile phone are integrated within the body such that none of said components is noticeably extended out from said the body.	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said components of the mobile phone are integrated within the body such that none of said components is noticeably extended out from said the body." *See supra* claim [1g] (discussing limitation "wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing").

Claim 20	Exemplary Disclosures (Express and/or Inherent) and Citations
[20pre] The device of claim 15	Claim 20 depends from claim 15. Defendants incorporate all the prior art disclosures from claim 15 here, which anticipate and/or render claim 15 obvious as set out above. Defendants reserve the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 15 to show the additional limitations of claim 20 are anticipated and/or obvious for the same reasons set out in claim 15. P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 15." *See supra* claim [15].
[20a] wherein said display unit is adapted to display text entered through a keyboard in landscape direction and in portrait	P800, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said display unit is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position." *See supra* claim [5a] (discussing

Claim 20	Exemplary Disclosures (Express and/or Inherent) and Citations
direction on said display unit when the device is used, respectively, in landscape position and in portrait position.	limitation "wherein said device is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position").

Appendix C10

Exhibit C10
Invalidity of Asserted Claims of the '144 Patent
in view of Apple Newton

The Apple Newton MessagePad 2000 ("Apple Newton") was publicly available, sold, offered for sale, and/or used in the United States and was thus available to and known or used by others, at least as early as March 1997. The Apple Newton is described in at least the following documents and other materials cited in this chart:

- Apple Comp., Inc., *Newton 2.0 User Interface Guidelines*, Addison-Wesley Pub. Co. (May 1996), https://www.r-5.org/files/books/computers/interface/guidelines/Apple-Newton_User_Interface_Guidelines-EN.pdf, ("User Interface Guidelines"), SAM-KEY_00981872-00982178.
- Apple Comp., Inc., *Newton Programmer's Reference For Newton 2.0*, (1996), https://www.newted.org/download/manuals/NewtonProgrammerRef20.pdf, ("Programmer's Reference"), SAM-KEY_00980286-00981675.
- Apple Comp., Inc., *MessagePad 2000 User's Manual*, (1997), https://archive.org/details/apple-messagepad-2000-users-manual ("User's Manual"), SAM-KEY_00979995-00980285.
- Apple Comp., Inc., *MessagePad 2000 Getting Started*, (1997), https://archive.org/details/message-pad-2000-getting-started/page/n13/mode/2up, ("Getting Started"), SAM-KEY_00991904-00991949.
- *MessagePad 2100/2000 with OS 2.1* (1996), https://cf.psl.msu.edu/gallery/mp2000.htm, SAM-KEY_00992831-00992832.
- L. Dormehl, *Today in Apple history: Newton MessagePad reaches new heights*, Cult of Mac (March 24, 2024), https://www.cultofmac.com/news/today-apple-history-newton-messagepad-2000, SAM-KEY_00992833-00992838.
- S. Sande, *Retro Apple: The Apple Newton MessagePad Was Well Ahead of Its Time*, Rocket Yard (Aug. 21, 2020), https://eshop.macsales.com/blog/64664-apple-newton-messagepad/?srsltid=AfmBOorDbzUf5GWF7XBKEd0NeJNw4p-z0FDIHBWKaURFCJkHdEp6miSQ, SAM-KEY_00992839-00992847.
- Documents produced in this litigation, as cited herein.
- Physical products acquired in this litigation, including but not limited to an Apple Newton device.

- Expected testimony and evidence regarding development, design, and/or use of Apple Newton .

Citations to the above-listed references are exemplary, and Defendants reserve the right to rely on additional passages, prior art, and information regarding the operation and functionality of the Apple Newton obtained through fact, expert, and third-party discovery, which is ongoing.

Apple Newton qualifies as prior art to U.S. Patent No. 11,503,144 ("'144 patent") at least under pre-AIA 35 U.S.C. § 102(a), (b) and/or AIA 35 U.S.C. § 102(a)(1).[1] Apple Newton was publicly available, sold, offered for sale, and/or used before the priority date to which the '144 patent claims are entitled, if any.

Apple Newton anticipates or, alone or with other references, renders obvious one or more of asserted claims 1-5 and 7-20 of the '144 patent. To the extent Keyless contends Apple Newton does not disclose one or more limitations of the claims, it would have been obvious to combine Apple Newton with the knowledge of a person of ordinary skill in the art ("POSITA") and/or with one or more of the following references to render the claims at issue in the '144 patent invalid. The chart below illustrates how the asserted claims of the '144 patent are invalid in view of Apple Newton and/or additional secondary references listed below, including but not limited to the prior art identified in Defendants' Invalidity Contentions.

- European Patent Application Publication No. EP1336949A1 to Bast ("Bast"), filed on February 18, 2003, and published on August 20, 2003, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(a) and AIA 35 U.S.C. § 102(a)(1). *See also* Ex. C1.
- PCT Application Publication No. WO 2004/070871 to Wedel ("Wedel"), filed on February 4, 2004, and published on August 19, 2004, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(e) and AIA 35 U.S.C. § 102(a)(1) and (a)(2).
- United States Patent No. 6,751,487 to Rydbeck et. al ("Rydbeck"), filed on February 2, 2000, and granted on June 15, 2004, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(e) and AIA 35 U.S.C. § 102(a)(1) and (a)(2).

[1] Keyless Licensing LLC ("Keyless") alleges that the asserted claims of the '144 patent are entitled to priority as early as April 18, 2003. However, as explained in the cover pleading, the asserted claims of the '144 patent are not entitled to Keyless's claimed priority date due to inadequate written description support.

- Japanese Patent Publication No. 2000-151774 to Yamaguchi ("Yamaguchi"), filed on November 9, 1998, and published on May 30, 2000, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(a) and (b) and AIA 35 U.S.C. §102(a)(1).

- German Patent Application Publication No. 10122229 to Dutta ("Dutta"), filed on May 8, 2001, and published on December 13, 2001, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(a) and (b) and AIA 35 U.S.C. §§102(a)(1). *See also* Ex. C6.

- United States Patent No. 8,375,334 to Nakano et. al ("Nakano"), filed on May 9, 2003, and granted on February 12, 2013, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. §102(e) and AIA 35 U.S.C. §102(a)(1) and (a)(2). *See also* Ex. C4.

- United Kingdom Patent Application Publication No. 2331204 to Kobayashi ("Kobayashi"), filed on November 5, 1998, and published on May 12, 1999, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. §102(a) and (b) and AIA 35 U.S.C. §102(a)(1).

- French Patent Application Publication No. 2830093 to Benoit et al. ("Benoit"), filed on September 25, 2001, and published on March 28, 2003, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. §§102(a) and AIA 35 U.S.C. §102(a)(1).

- European Patent Application Publication No. 1229428 to Pensjo ("Pensjo"), filed on February 2, 2001, and published on July 8, 2002, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. §102(a) and (b) and AIA 35 U.S.C. §102(a)(1).

- U.S. Patent Application Publication No. 2003/0022701 to Gupta ("Gupta"), filed July 25, 2001, and published January 30, 2003, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(a), (b), and (e) and AIA 35 U.S.C. § 102(a)(1) and (a)(2). *See also* Ex. C5.

- U.S. Patent Application Publication No. 2002/0067346 to Mouton ("Mouton"), filed September 21, 2001, and published January 6, 2002, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(a), (b), and (e) and AIA 35 U.S.C. § 102(a)(1) and (a)(2). *See also* Ex. C3.

- "MyOrigo What Mobile" by David Chow ("MyOrigo Magazine"), published October 2, 2003, qualifies as prior art to the '144 patent at least under pre-AIA 35 U.S.C. § 102(a) and AIA 35 U.S.C. § 102(a)(1). *See also* Ex. C7.
- The Sony Ericsson P800 was, on information and belief, publicly available in the United States on or about October 15, 2002. The P800 qualifies as prior art under at least pre-AIA 35 U.S.C. § 102(a) as well as AIA 35 U.S.C. § 102(a)(1). *See also* Ex. C9.
- The Moto E 2nd Generation was, on information and belief, publicly available on or about February 25, 2015. The Moto E qualifies as prior art under at least AIA 35 U.S.C. § 102(a)(1). *See also* Ex. C11.
- The Microsoft Lumia 640 was, on information and belief, publicly available on or about March 2, 2015. The Lumia 640 qualifies as prior art under at least AIA 35 U.S.C. § 102(a)(1). *See also* Ex. C12.

With respect to the proposed modifications to Apple Newton, such modification would have been obvious to try, an obvious combination of prior art elements according to known methods to yield predictable results, a simple substitution of one known element for another to obtain predictable results, a use of known techniques to improve a similar devices or method in the same way, an application of a known technique to a known device or method ready for improvement to yield predictable results, a variation of a known work in one field of endeavor for use in either the same field or a different one based on design incentives or other market forces with variations that are predictable to a POSITA, and/or obvious in view of teachings, suggestions, and motivations in the prior art that would have led a POSITA to modify or combine the prior art references.

The excerpts cited herein are exemplary. For any claim limitation, Samsung may rely on excerpts cited for any other limitation and/or additional excerpts not set forth fully herein to the extent necessary to provide further explanation for a reference's disclosure of a limitation. Where an excerpt refers to or discusses a figure or figure items, that figure and any additional descriptions of that figure should be understood to be incorporated by reference as if set forth fully herein. Samsung reserves the right to further supplement this chart.

To the extent that these Invalidity Contentions rely on or otherwise embody particular interpretations of terms or phrases in the asserted claims, Samsung is not proposing any such interpretations as proper interpretations or constructions of those terms or phrases. Various positions put forth in this document are predicated on Keyless's interpretation of its claims as evidenced by its Infringement Contentions. Those positions are not intended to and do not necessarily reflect Samsung's interpretation of the true and proper scope of

the asserted claims. Samsung further incorporates by reference all reservations of rights set forth in the Invalidity Contentions, as if fully set forth herein.

Defendants' arguments throughout these invalidity contentions are based on Keyless's apparent interpretation of the claims in its infringement contentions. Defendants do not agree that such interpretation is proper and reserves the right to argue that the mapped actions do not infringe any claims of the '144 patent. In the alternative, should the Court or factfinder construe and/or apply the claims in a manner consistent with Keyless's interpretations in its infringement contentions for the '144 patent, the claims are invalid for at least the reasons set forth herein.

In some instances, the referenced prior art includes priority applications that provide adequate §112 support for the claim(s) in the referenced prior art. *See, e.g.*, Wedel-EP03445020.5. In those instances, the consistent disclosures in those earlier applications are incorporated herein by reference. As such, those earlier disclosures apply equally in terms of their application to the elements of the asserted claims, and thus provide even earlier dates in terms of prior art, state of the art, and the knowledge base of those of ordinary skill in the art. *See Dynamic Drinkware LLC v. National Graphics Inc.*, 800 F.3d 1375 (Fed. Cir. 2015).

To the extent any of the art describes different embodiments of its inventions, a POSITA would have found it obvious to combine the teachings regarding these embodiments. A POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the embodiments and would have a reasonable expectation of success in doing so, at least because the embodiments use known variations of existing technology to solve routine and well understood problems in predictable ways. A POSITA would have recognized that the embodiments describe related advancements for mobile devices, and a POSITA would have been motivated to combine elements of the embodiments to achieve the art's goals.

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
[1pre] A mobile phone device, comprising:	To the extent that the preamble is held to be limiting, Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[a] mobile phone device." For example, Apple Newton is a mobile device "optimized for mobility and communications." (User Interface Guidelines at 1-2.). Apple Newton may be used "anywhere, any time." *Id*. Further, Apple Newton may be used to "place calls." (User's Manual at 117-120; User Interface Guidelines at 6-19.) Newton and Its Users Newton is not a small portable computer with another graphical user interface. There may be similarities between portable computers and Newton devices, but the differences summarized below are more important than the similarities when it comes to designing a user interface for an application. **Newton** / **Portable Computers** Focused function / General purpose New architecture optimized for mobility and communications—use it anywhere, any time / Derived from desktop computer architecture, which is optimized for stationary operation Tapping, writing, and drawing with a pen / Typing, pointing, and clicking with mouse and keyboard Intelligent assistant / Scripting and macros New and custom applications / Existing desktop applications It's a communications assistant / It's a personal computer Simple / Complex To take advantage of its distinguishing features and capabilities, Newton has distinctive user interface elements. (User Interface Guidelines at 1-2.) Additional exemplary citations include:

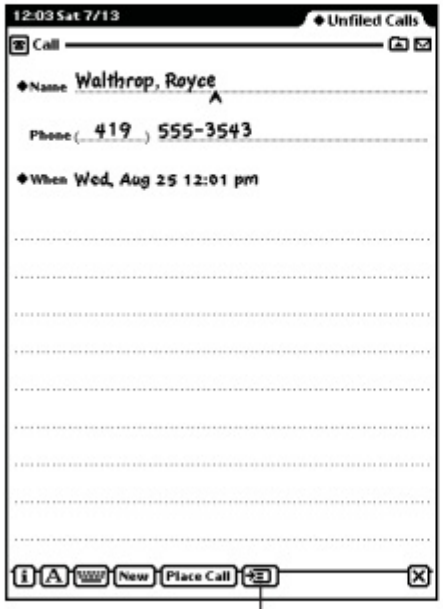
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Calls You use Calls to keep track of your telephone calls and to place calls. If you want to use a modem to place the call, make sure both the modem and the telephone are connected to the same line. See the documentation that came with your modem for more information. (User's Manual at 117.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

To place a call

1 Tap New and in the slip that appears, enter the appropriate information.

You can tap a diamond ◆ to enter the name or date. If you don't specify a time and date, the MessagePad uses the current time and date.



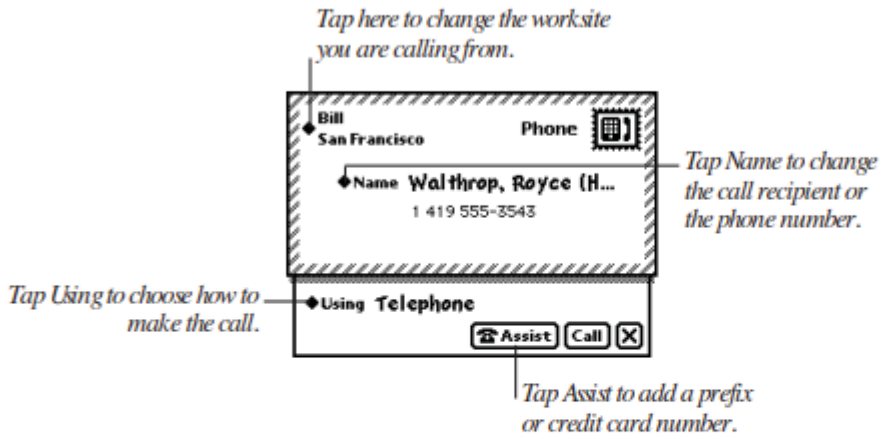
The Add to Names button allows you to create a new card in the Name File using information in this slip.

(User's Manual at 118.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

2 Tap Place Call.

A slip appears.



3 Tap Using and in the list that appears, tap one of the following:

- *Modem*—if you're using a modem to dial the number.
- *Speaker*—to have your MessagePad's speaker dial the phone number.
- *Telephone*—to dial the phone number manually.

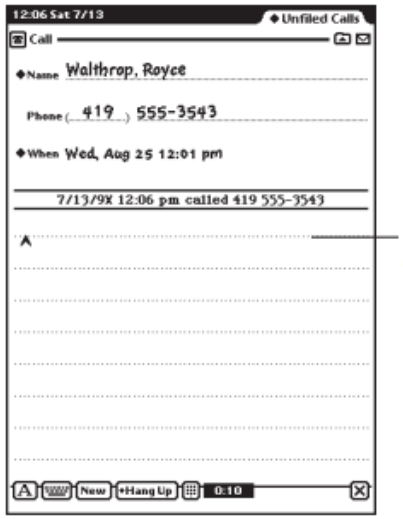
4 If you need to dial a prefix or use a credit-card number to make the call, tap Assist and in the slip that appears, enter the necessary information. Then tap ☒ to close the slip.

(User's Manual at 119.)

5 Tap Call.

If you're dialing through the speaker, hold the mouthpiece of your phone near the MessagePad's speaker. If you're dialing through the modem, wait until the modem has finished dialing, then pick up your telephone handset.

The time, date, and telephone number appear in the call slip as the call is made. At the lower-right corner of the slip is a timer that shows the duration of the call.



You can write notes or other information in this area.

6 When you are finished, tap Hang Up, and in the list that appears, tap a choice.

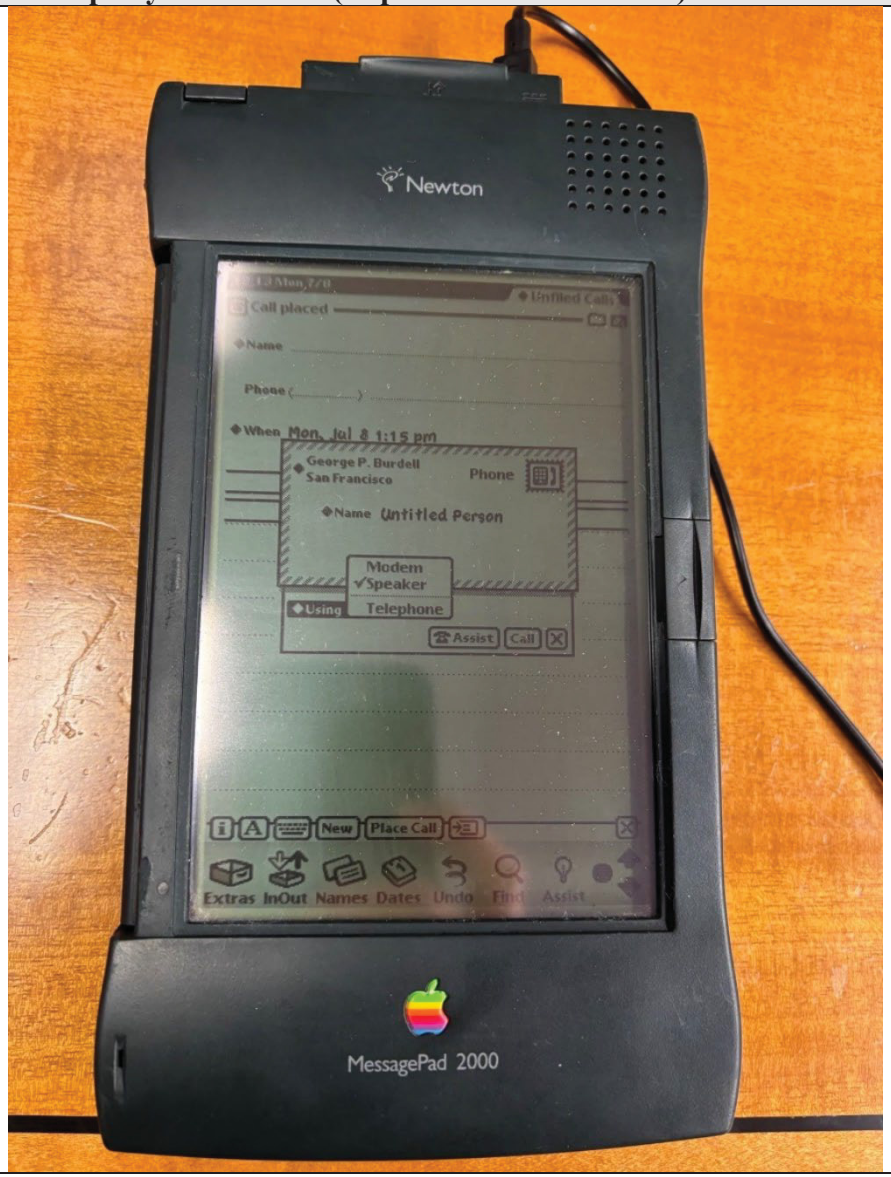


The end time of the call is then recorded in the log, along with any information you've written. Your choice appears under the entry, along with the duration of the call.

7 If this call was made to someone you would like to add to your Name File, tap the Add to Names button.

8 When a message appears asking if you want to add this new name, tap Yes.

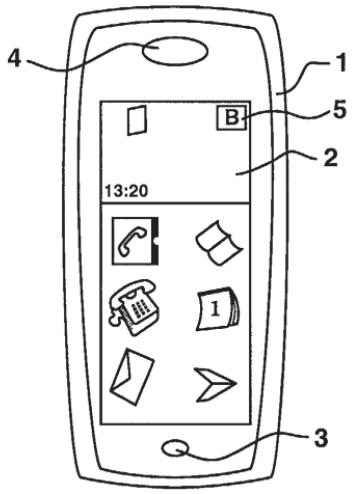
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(User's Manual at 120.) **Forcing Recognition** Under some circumstances your application may have to recognize ink text forcibly. For example, when a user tries to place a call to an ink-text phone number, the Calls application forces recognition of the ink text. If your application forces recognition, make sure it allows the user to correct mistakes in the recognized text before it acts on the text. (User Interface Guidelines at 6-19.)  (Apple Newton Device.)

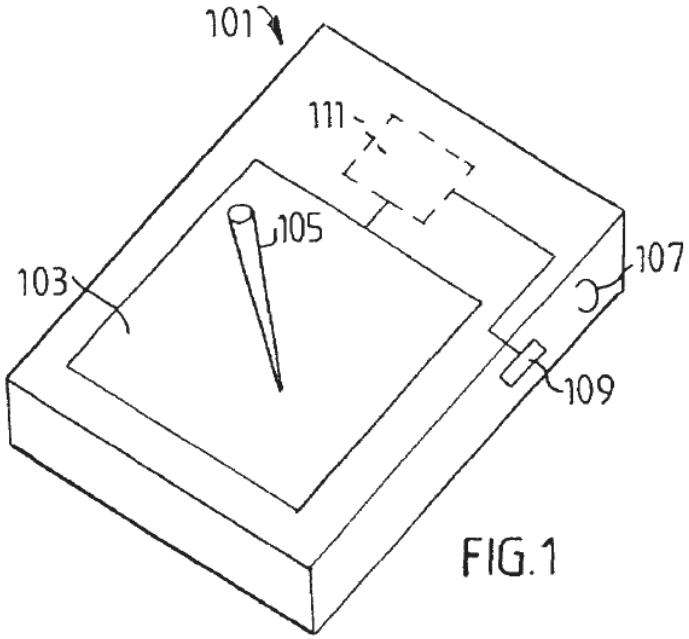
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	

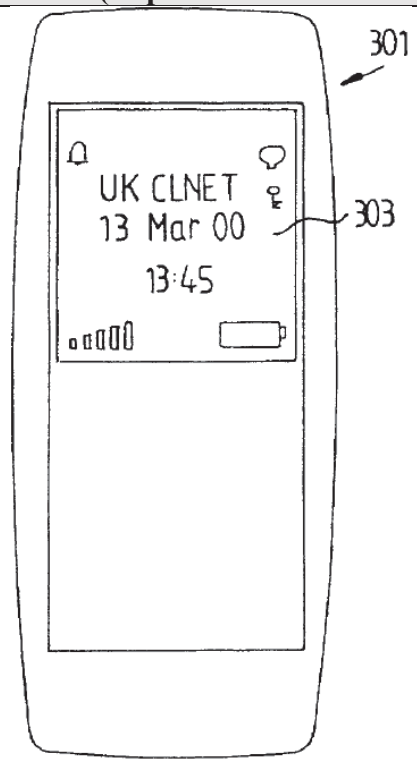
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Apple Newton Device.) To the extent Keyless argues that Apple Newton does not disclose or render obvious this limitation, it would have been obvious in view of Apple Newton, POSITA's pre-existing knowledge, and/or the teachings of Apple Newton combined with Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo, and/or P800. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and P800 teaches a mobile device that may be used to make phone calls. For example, Bast discloses a mobile terminal that "combines the functions of a personal digital assistant (PDA) and a mobile phone." (Bast at [0010].) As another example, Pensjo discloses a mobile telephone. (Pensjo at [0007], [0010], [0011], FIGS. 1, 3-5.) Additionally, Mouton discloses an electronic device that may be a mobile telephone. (Mouton at abstract, [0001], [0003], [0004], [0015], [0034], Claim 1, FIG. 2.) Additionally, Nakano discloses "portable information terminals" including a "menu display." (Nakano at 1:8-12, 1:16-19, 2:45-51, 6:63-7:15, 7:20-52, 8:17-49, 8:65-9:6, 9:14-26, 9:42-48, 10:1-4, 10:11-22, 13:57-58, 27:26-28, 42:18-21, 42:30-42, 50:36-41, FIGS. 1, 24A-B, 51.) Nakano explains that the "portable information terminal" may be a PDA, but that the invention may also be applied to devices such as a "cell phone." (Nakano at 14:57-61, 27:26-28, 42:11-13.) Additionally, Gupta discloses a "buttonless communication device" or "telephone." (Gupta at abstract, [0001], [0005], [0009], [0017], [0019], [0020], [0025], [0029], [0034], FIGS. 2-4, 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Additionally, Dutta discloses a "mobile phone." (Dutta at [0002]-[0004], [0009], [0013], [0015]-[0018], FIGS. 2A-B.) Additionally, the MyOrigo MyDevice was a smartphone that could be used to make calls. (MyOrigo Magazine at 27, 28.) Additionally, "[t]he P800 is a full-featured mobile phone, fully integrated with the other functions of the device, including third party applications." (P800 09/2002 Manual at 6, 8; P800 11/2002 Manual at 42; P800/P802 White Paper at 24.) A POSITA would have found it obvious to configure the mobile device disclosed by Apple Newton such that it could make phone calls. Each of Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and P800 teaches configuring a mobile device in this way in order to allow the user to conveniently communicate with others. A POSITA would have been motivated to configure Apple Newton's mobile device in this way to enable it to better perform its function as a communications device, better support the Apple Newton's call-making functionality, and better compete in the mobile device market. (User Interface Guidelines at 1-2, 6-19; User's Manual at 117-120.) A mobile device that was configured to make phone calls was routine and conventional to a POSITA, as shown by each of Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and P800. A POSITA would have considered the combination of the teachings of Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and/or P800 with the mobile device disclosed by Apple Newton to be an example of (A) combining prior art elements (the mobile device of Apple Newton with the teaching of a mobile device configured to make phone calls as taught by Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and P800) according to known methods to yield predictable results (enabling the user to conveniently communicate with others); (B) use of a known technique (Configuring a mobile device to make phone calls as taught by Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and P800) to improve similar devices in the same way (enabling the user to conveniently communicate with others); (C) applying a known technique (Configuring a mobile device to make phone calls as taught by Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and P800) to a known device ready for improvement to yield predictable results (enabling the user to conveniently communicate with others); and/or (D) some

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	teaching, suggestion, or motivation in the prior art (e.g., the teachings of Bast, Pensjo, Mouton, Nakano, Gupta, Dutta, MyOrigo Magazine, and P800) that would have led one of ordinary skill to modify the mobile device disclosed by Apple Newton to arrive at the claimed invention. Additional exemplary citations include: "The mobile terminal shown in Figure 1 combines the functions of a personal digital assistant (PDA) and a mobile telephone. It includes a housing 1 equipped, on the front face, with a large screen 2, which can be a touch screen. The front face of the housing also includes a microphone 3 and a speaker 4, located at the lower part and the upper part, respectively, of the front face of the housing. The touch screen 2 is a rectangular screen that is as large as possible to enable: the input and display of data, particularly writing by means of a stylus; the display of various information, like the time; the display of short messages or messages obtained by email; and the display of program and function icons, settings icons, a virtual keypad for numbering etc. When coming on line, it can, for example, as shown in Figure 1, display a desktop in the form of icons corresponding to the various applications programmed in the terminal." (Bast at [0010].) "The invention applies to any device equipped with a rectangular screen and, more particularly, to a mobile terminal acting as a mobile telephone and/or personal digital assistant." (Bast at [0025].) Bast discloses the following at FIG. 1:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 **Figure 1** (Bast at FIG. 1.) "The present invention relates to a portable touch screen device, such as a PDA (Personal Digital Assistant) or a smart phone, and is intended to facilitate the operation of the device by a user." (Pensjo at [0001].) "The present invention will now be described in more detail and with reference to the accompanying drawings, in which: - Fig. 1 is a perspective view of a portable device comprising a touch screen used for input of commands and/or data. - Fig. 2 is a flowchart illustrating method steps performed when the apparatus of Fig. 1 is used. - Fig. 3 is a front view of a mobile telephone comprising a touch screen being in a first mode. - Fig. 4 is a view similar to that of Fig. 3, the touch screen being in a second mode. - Fig. 5 is a front view of a hand-held electronic device comprising a touch screen." (Pensjo at [0007].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Fig. 3 is a view of an exemplary mobile telephone 301 comprising a touch screen display 303 being in a sleep mode due to the presence of a pen in a pen holder, not shown. the layout of the screen display 303 is in a 'portrait' format." (Pensjo at [0010].) "Fig. 4 is a view of the mobile telephone 301 of Fig. 3 after the pen has been removed from the pen holder. In this example, the layout of the screen display 303 has been changed into a 'landscape' format including a numeric keyboard." (Pensjo at [0011].) Pensjo discloses the following at FIGS. 1 and 3-5:  (Pensjo at FIG. 1.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 FIG.3 (Pensjo at FIG. 3.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

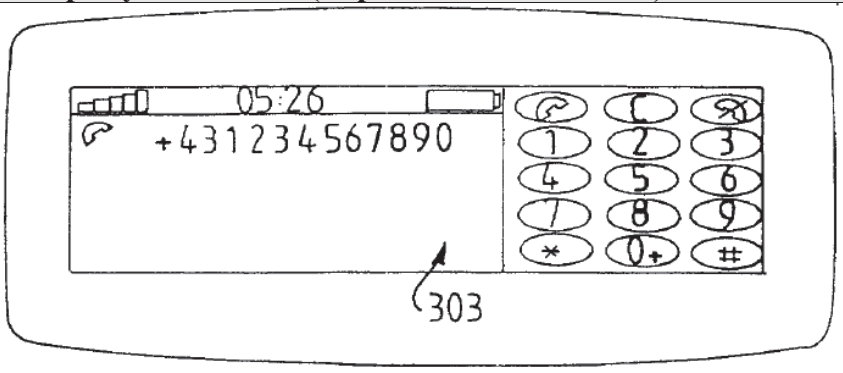


FIG.4

(Pensjo at FIG. 4.)

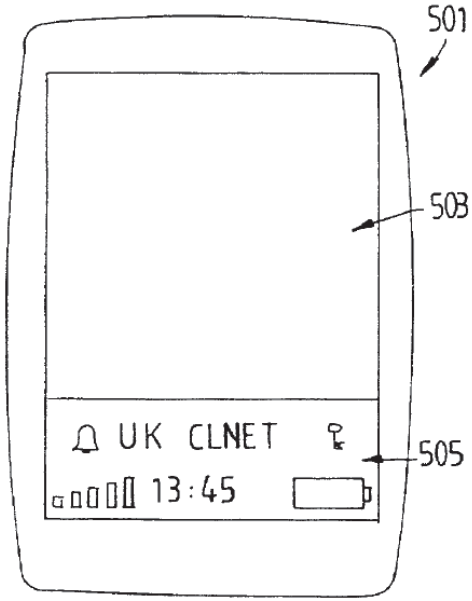
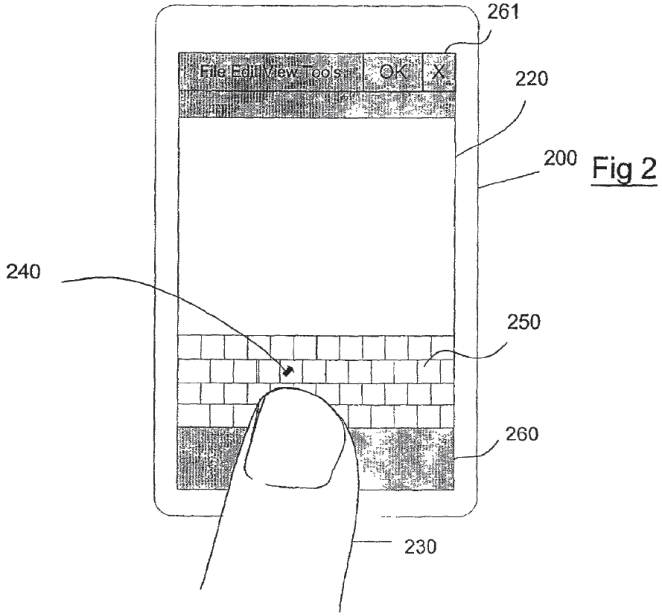


FIG.5

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Pensjo at FIG. 5.) "Apparatus, such as personal digital assistants, mobile phones or mobile computers, is described having a touch sensitive display and circuitry responsive to the display to move a cursor according to movement of a finger thereon and effect input operations according to the position of a cursor in relation to a displayed image, the position of the cursor on the displayed image being displaced by a short distance from the point of contact of the finger with the display so that the position of the cursor when an input operation is effected is visible to the user. The input operations comprise at least a first finger tap serving to define the position of the cursor and a second finger tap serving to confirm the position of the cursor as the point of effect desired by the user." (Mouton at abstract.) "The present invention relates to user interfaces for electronic devices, particularly but not exclusively, personal digital assistants, mobile phones or mobile computers, that have small display screens and that employ touch sensing as a means of data input." (Mouton at [0001].) "Due to increasing focus on compactness of electronic devices, however, the displays, especially in portable electronic devices, are becoming smaller and smaller. Popular electronic devices with a smaller display area include electronic organizers, PDA's (personal digital assistants), and graphical display-based telephones. Also available today are communicators that facilitate various types of communication such as voice, faxes, SMS (Short Messaging Services) messages, e-mail, and Internet-related applications. These products can likewise only contain a small display area. Often such devices do not use a full keyboard or a mouse, rather the display screens of these devices are touch sensitive to allow data input. A wide variety of gesture-based and other user interface techniques have been used and proposed to facilitate data entry through the touch screen." (Mouton at [0003].) "For instance, U.S. Pat. No. 5,745,116 describes a user interface for a mobile telephone in which a user performs a manual selection or a gesture selection of a screen object on a screen using a pointing device. After a manual selection, such as a single tap, the electronic device automatically presents a temporary directional palette having palette buttons that explicitly state functions of the electronic device. Each palette button has a unique compass direction relative to the original tap area. By making a second tap on a desired palette button, a novice user learns available functions of the electronic device and their corresponding directional gestures. Alternately, the user may perform a gesture selection of both a screen object and a

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	function, such as making a double tap or drawing a line in the appropriate direction, before the directional palette appears on the screen." (Mouton at [0004].) "A personal digital assistant embodying the invention will now be described, by way of non-limiting example, with reference to the accompanying diagrammatic drawings, in which:" (Mouton at [0015].) "Whilst the invention is particularly useful in portable, handheld devices, it will be understood that technique may be applied to any kind of device, whether portable or not, that includes a tactile display, for instance printers, photocopiers, fax machines as well as industrial machinery." (Mouton at [0034].) "Apparatus having a touch sensitive display and circuitry responsive to the display to move a cursor according to movement of a finger thereon and effect input operations according to the position of a cursor in relation to a displayed image, the position of the cursor on the displayed image being displaced by a short distance from the point of contact of the finger with the display so that the position of the cursor when an input operation is effected is visible to the user, wherein the input operations comprise at least a first finger tap serving to define the position of the cursor and a second finger tap serving to confirm the position of the cursor as the point of effect desired by the user." (Mouton at Claim 1.) Mouton discloses the following at FIG. 2:

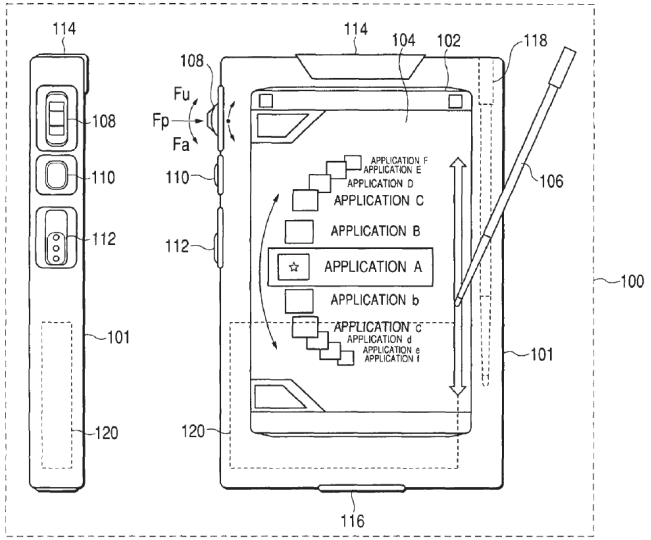
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig 2 (Mouton at FIG. 2.) "The present invention relates to a display control device for performing display control of menu display, portable information terminal, and display control information and a display control method for allowing a computer to perform display control of menu display." (Nakano at 1:8-12.) "As an example of portable information terminal which allows the user to carry along various personal information as digital information, a so-called Personal Digital Assistant (PDA) equipped with a touch panel is known." (Nakano at 1:16-19.) "The invention has been accomplished in order to solve the aforementioned problems and aims at providing easy-to-use menu display which allows easy understanding of arrangement of menu items used for a portable information terminal.

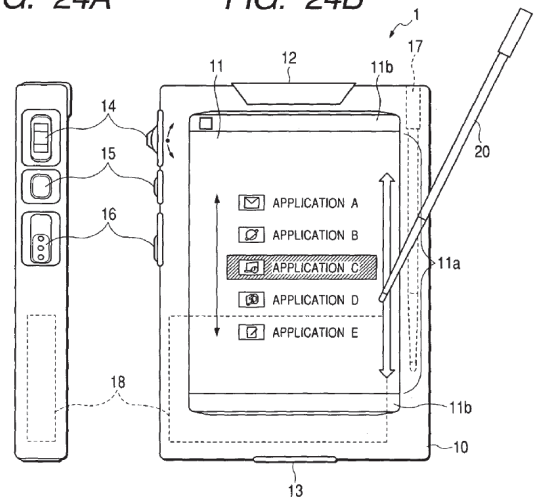
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	The invention also aims at enhancing the operability of menu display used for a portable information terminal equipped with a touch panel." (Nakano at 2:45-51.) "The invention provides a display control method for a portable information terminal which displays a plurality of information display entities in a vertical line on the display section, characterized in that the display control method comprises: a size setting step of setting the size of an information display entity so that the size of the information display entity to be displayed will be gradually scaled down in accordance with the distance between the information display entity and a predetermined display position of the display; an interval setting step of setting the display interval of information display entities to be displayed in accordance with the distance between each of the information display entities and the predetermined display position; a transparency setting step of setting the transparency of an information display entity to be displayed in accordance with the distance between each of the information display entities and the predetermined display position; and a scroll step of scrolling through the plurality of information display entities based on the setting in the size setting step, the interval setting step, and the transparency setting step." (Nakano at 6:63-7:15.) "The invention provides a portable information terminal (for example a PDA 1 in FIG. 24) comprising a display section (for example an LCD panel 11 in FIG. 14) integral with a touch panel, the portable information terminal displaying, in whole or in part, the information display entities arranged in a predetermined order in a predetermined display area (for example a main display area 11a in FIG. 24) of the display, characterized in that the portable information terminal further comprises: setting means (for example a menu display controller 310 in FIG. 41) for setting a position of a candidate for selection (for example a menu display area in FIG. 25) in the predetermined display area; scroll means (for example a scroll display controller 314 in FIG. 41) for scrolling through information display entities in case a drag operation is made; and first determination means (for example a menu display controller 310 in FIG. 41) for determining the information display entity displayed in the position of a candidate for selection as a candidate for selection; characterized in that a drag operation is available across the predetermined display area. The invention provides a display control method for causing, a portable information terminal comprising a display integral with a touch panel, a drag operation being available across the predetermined display area of the display, to display, in whole or in part, the information display entities arranged in a predetermined arrangement in the predetermined display area, characterized in that the method comprises: a setting step of

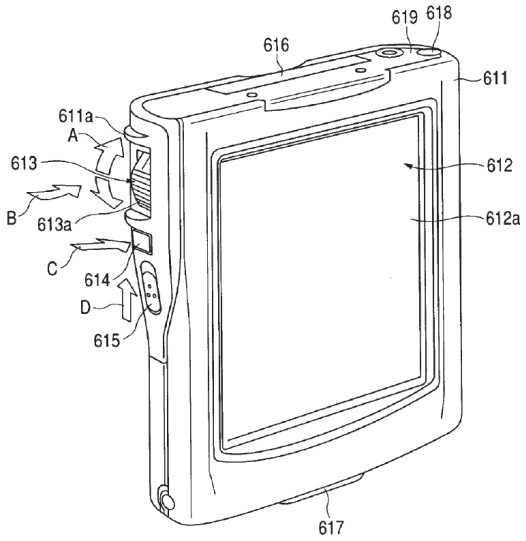
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	setting a position of a candidate for selection in the predetermined display area; a scroll step of scrolling through information display entities in case a drag operation is made; and a first determination step of determining as a candidate for selection the information display entity displayed in the position of a candidate for selection." (Nakano at 7:20-52.) "The invention provides a portable information terminal comprising a display integral with a touch panel, the portable information terminal displaying, in whole or in part, a virtual face (for example a menu display entity group 40) where a plurality of information display entities are arranged in a predetermined display area of the display, characterized in that the portable information terminal further comprises: set ting means (for example a menu display controller 310 in FIG. 41) for setting a position of a candidate for selection in the predetermined display area; scroll means (for example a scroll display controller 314 in FIG. 41) for scrolling through information display entities by moving at least either the virtual camera and the virtual face in case a drag operation is made; and first determination means (for example a menu display controller 310 in FIG. 41) for determining the information display entity displayed in the position of a candidate for selection as a candidate for selection; characterized in that a drag operation is available across the predetermined display area. The invention provides a display control method for causing, a portable information terminal comprising a display integral with a touch panel, a drag operation being available across the predetermined display area of the display, to display, in whole or in part, a virtual face where a plurality of information display entities are arranged as seen from a virtual camera in the predetermined display area, characterized in that the method comprises: a setting step of setting a position of a candidate for selection in the predetermined display area; a scroll step of scrolling through information display entities by moving the virtual camera in case a drag operation is made; and a first determination step of determining the information display entity displayed in the position of a candidate for selection as a candidate for selection" (Nakano at 8:17-49.) "The invention provides a portable information terminal characterized by further comprising: storage means (for example a storage section 400 in FIG. 41) for storing a plurality of programs corresponding to, in whole or in part, the plurality of information display entities; and activation means (for example an application activation controller 320 in FIG. 41) for activating, if any, a program corresponding to the information display entity determined as a candidate for selection by the first determination means." (Nakano at 8:65-9:6.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The invention provides a portable information terminal characterized by further comprising: storage means (for example a storage section 400 in FIG. 41) for storing a plurality of programs corresponding to, in whole or in part, the plurality of information display entities; tap-out determination means (for example an input determination section 311 in FIG. 41) for determining tap-out on the touch panel; and activation means (for example an application activation controller 320 in FIG. 41) for automatically activating a program corresponding to the information display entity determined as a candidate for selection by the first determination means, if any, based on the tap-out determination by the tap-out determination means." (Nakano at 9:14-26.) "The invention provides a portable information terminal characterized by further comprising second determination means (for example a menu display controller 310 in FIG. 18) for determining as a candidate for selection the information display entity displayed in the tap position instead of an information display entity determined as a candidate for selection by the first determination means." (Nakano at 9:42-48.) "The scroll means of the portable information terminal device may gradually accelerate the scroll display in case the drag velocity of the drag operation exceeds a predetermined velocity." (Nakano at 10:1-4.) "The invention provides a portable information terminal characterized by further comprising: target scroll amount setting means for setting a target scroll amount in accordance with the operation amount of the drag operation; and target scroll amount change means for changing the target scroll amount determined by the target scroll amount setting means in accordance with the operation amount of the drag operation; characterized in that the scroll means controls the scroll display velocity in accordance with the remaining scroll amount as a difference between the target scroll amount changed by the target amount change means and the current scroll amount." (Nakano at 10:11-22.) "FIG. 51 is a perspective view of an example of personal information terminal device of the invention;" (Nakano at 13:57-58.) "Application of the invention is not limited to this example. The invention may be applied to other electronic devices and information terminal devices which provides menu display, such as a portable game device, a multifunctional cellphone, a laptop PC, and a set-top box." (Nakano at 14:57-61.)

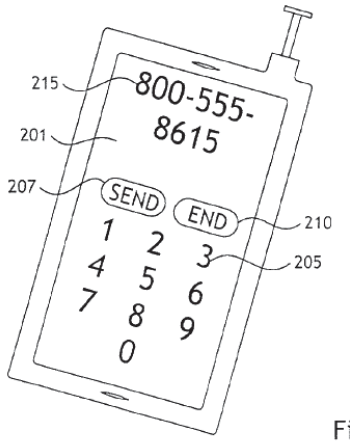
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The following descriptions assumes a portable information terminal (hereinafter referred to as the PDA) as an example, although the invention may be applied elsewhere." (Nakano at 27:26-28.) "While the invention is applied to a PDA in the embodiments, the invention may be applied to other personal information terminals such as a cell phone." (Nakano at 42:11-13.) "A portable information terminal equipped with a touch panel according to the invention features the enhanced operability of menu display and provides the user with a feel of operability specific to the touch panel." (Nakano at 42:18-21.) "Referring to FIG. 51, the portable information terminal (PDA) shown is of a size the user can hold in his/her hand. ON the front face of an armored case 611 is arranged a liquid crystal panel 612 comprising a touch panel 612a across its entire surface. (The touch pane 612a is arranged for example on the surface of the liquid crystal panel 612.) The armored case 611 comprises, as mentioned later, a control switch (hereinafter referred to as the side controller) 613, an escape switch 614, a power on/off switch (hereinafter referred to as the power switch) 615, an insertion slot 616 where an external memory medium is inserted, an external connection terminal 617 used to perform communications of various data, and a storage unit 619 for storing a touch pen (stylus pen) 618. As shown in FIG. 51, the side controller 613, the escape switch 614, and the power switch 615 are arranged in an array on the lateral face of the armored case 611. In the example shown, the side controller 613, the escape switch 614, and the power switch 615 are arranged in order from the top of the figure. The side controller 613 is arranged at the position where the thumb of the left hand of the user is most likely to be positioned when the user holds the armored case 611 with his/her left hand so that the liquid crystal panel 614 will face the front." (Nakano at 42:30-52.) "Arrangement of items or a camera in a virtual space, or shooting with a virtual camera may be executed by way of calculation processing by the CPU and memory in a portable information terminal, or may be calculated on other device and only the resulting image data may be displayed on the portable information terminal." (Nakano at 50:36-41.) Nakano discloses the following at FIGS. 1, 24A-B, and 51:

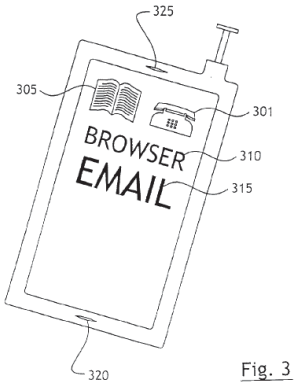
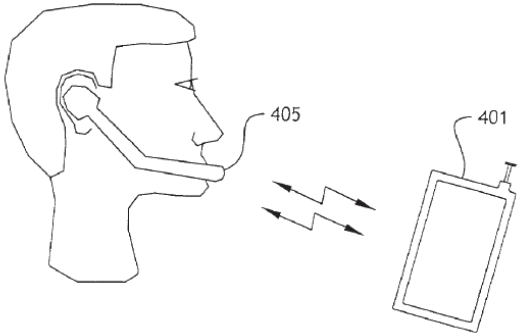
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	FIG. 1  (Nakano at FIG. 1.)

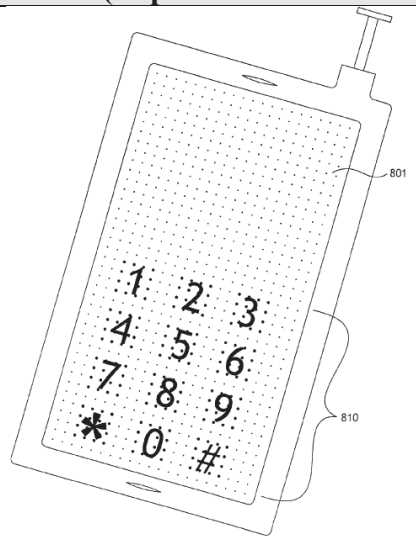
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	FIG. 24A FIG. 24B  (Nakano at FIGS. 24A-B.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	FIG. 51  (Nakano at FIG. 51.) "A buttonless communication device that uses a touchscreen display for entering and displaying data. The different modes of the device are displayed as icons on the display allowing the device to enter the mode enabled by contact of the appropriate icon. A telephone mode displays a keypad of icon numbers, a send icon, an end icon, and an entered telephone number display area. By contact with the appropriate icons, a telephone number can be called or an incoming call answered." (Gupta at abstract.) "The present invention relates generally to communications. More particularly, the present invention relates to telephone handsets." (Gupta at [0001].) "The present invention encompasses a communications device that transmits and receives communication signals. In the preferred embodiment, the communications device is a wireless radiotelephone for operation in a cellular system." (Gupta at [0005].)

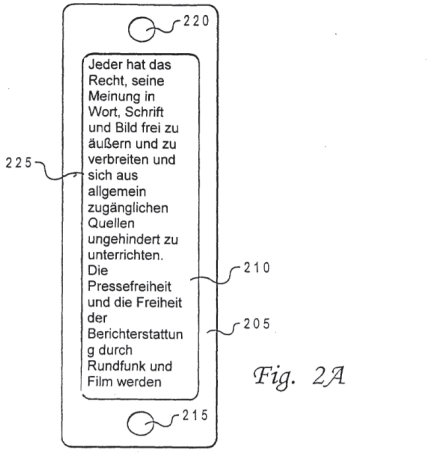
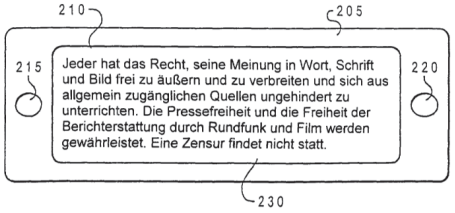
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"FIG. 2 shows a buttonless, wireless communication device of the present invention in a telephone mode." (Gupta at [0009].) "The communication device of the present invention provides a telephone with a full length, tactile response, touchscreen display. Instead of portions of the telephone being taken up by a fixed keypad, the touchscreen display can display a keypad while in the telephone dialing mode but then replace the keypad with extra display space for data. The display also features dynamically raised keys and buttons in response to what is being displayed." (Gupta at [0017].) "FIG. 2 illustrates the buttonless communication device of the present invention. In the preferred embodiment, this communication device is a wireless radiotelephone for use in a cellular system. Alternate embodiments use other types of telephones such as cordless telephones, for use in the home, that are coupled to the public switched telephone system. The cellular radiotelephone of the present invention is not constrained to any one air-interface standard. It works equally well with code division multiple access (CDMA), global system for mobile communication (GSM), time division multiple access (TDMA), or even advanced mobile phone system (AMPS)." (Gupta at [0019].) "The telephone illustrated in FIG. 2 is comprised of a large touchscreen display (201). FIG. 2 illustrates the present invention in the telephone mode. In this mode, the device displays number icons (205) or other informational symbols (not shown) which form and are used as a telephone keypad for entering telephone numbers. The display also displays a 'SEND' key (207) and an 'END' key (210) (for purposes of this disclosure, the term 'key' does not refer to a physical button or switch but instead refers to an area of the display screen which when contacted or touched causes the generation of a signal to the phone that is representative of the "button" or "pad" that was actuated. The functions of a 'SEND' and 'END' key are generally known to start and stop a wireless phone call. A portion of the display (215) is reserved for displaying the telephone number as it is being typed in." (Gupta at [0020].) "The telephone of the present invention is capable of multiple operating modes to take advantage of the large touchscreen display. FIG. 3 illustrates an example of some of these modes. In order to enter the telephone mode and display the embodiment illustrated in FIG. 2, the user touches the telephone mode icon (301). An address/telephone book icon (305) takes the user to listings of stored telephone numbers and addresses. By

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	touching a desired telephone number, the telephone of the present invention will automatically go to the telephone mode and dial that number." (Gupta at [0025].) "In one embodiment, the telephone of the present invention has a built-in speaker (325) to enable the user to hear telephone conversations. The telephone in this embodiment also has a microphone (320) built in to the telephone to enable the user to speak to the other parties on the telephone conversation." (Gupta at [0029].) "FIG. 5 illustrates a block diagram of the preferred embodiment of the present invention. The telephone is comprised of a transmitter (501) and receiver (505) that are coupled to an antenna (520). The antenna (520) receives the radiotelephone signals from the base station for the receiver (505) to demodulate into speech signals. The antenna (520) also transmits modulated signals from the transmitter (501) to the base station." (Gupta at [0034].) Gupta discloses the following at FIGS. 2-4 and 8:  Fig. 2 (Gupta at FIG. 2.)

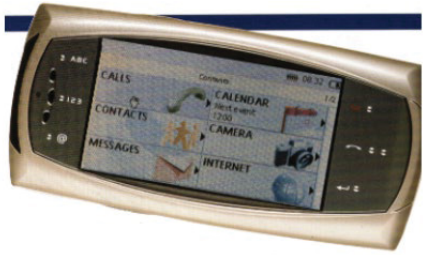
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 3 (Gupta at FIG. 3.)  Fig. 4 (Gupta at FIG. 4.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 8 (Gupta at FIG. 8.) "A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant." (Dutta at [0002].) "For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability." (Dutta at [0003].) "Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself." (Dutta at [0004].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The achievement of the above objects is described below. The preferred embodiment comprises a system-, method-, and program-product that enables, on a portable device, rapid switching of the display of data between portrait format and landscape format so that the display can be used both as a narrow, tall display and as wide, flat display. The preferred embodiment is in particular designed such that web data can be displayed on a portable terminal, for example, a mobile phone, and an effective display of this data is provided by the rapid switching of the display between portrait format and landscape format. This switching can be undertaken by conscious action of the user or dynamically by the portable terminal." (Dutta at [0009].) "Figs. 2A and 2B are exemplary depictions of the display of a mobile phone according to a preferred embodiment of the present invention; and" (Dutta at [0013].) "With reference to the figures, in particular with reference to Fig. 1, a block diagram of a portable device according to the preferred embodiment is depicted. The portable device, which can be a mobile phone, a PDA, a pager, or a similar device with an integrated display, comprises a processor 105 that can write data onto a display 110. In addition, the processor 105 can read data from a storage 115 and write data into this storage 115. Using a communication unit 120, the processor can communicate over a wireless network, in which the preferred embodiment is a wireless telephone network. It should be noted that the communication unit 120 is not necessarily integrated into the portable device, but rather can also be connected therewith via a cable. The portable device can be, for example, a PDA that is connected to a mobile phone via a cable, in which the phone functions as communication unit 120." (Dutta at [0015].) "Alternatively, the portable device can also be a mobile phone with an integrated wireless communication unit 120." (Dutta at [0016].) "The preferred embodiment comprises a system-, method-, and program-product that enables, on a portable device, rapid switching of the display of data between portrait format and landscape format so that the display can be used both as a narrow, tall display and as a wide, flat display. The preferred embodiment is in particular designed such that web data can be displayed on a portable terminal, for example, a mobile phone, and an effective presentation of these data is provided by the rapid switching of the display between portrait format and landscape format. This switching can be undertaken by conscious action of the user or automatically by the portable terminal." (Dutta at [0017].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Figs. 2A and 2B are exemplary representations of the display of a mobile phone corresponding to a preferred embodiment of the present invention. The two figures show this telephone 205, which is equipped with a display 210. From the illustration it follows that the display 210 occupies the majority of the surface of the telephone 205, in which a microphone 215 is located at one end of the display, and a speaker 220 is located at the other end of the display." (Dutta at [0018].) Dutta discloses the following at FIGS. 2A-B:  *Fig. 2A*  *Fig. 2B* (Dutta at FIGS. 2A and 2B.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The MyDevice is a quirky new smartphone that boasts a revolutionary user interface based on motion control-the screen shifts whether you are holding the device horizontally or vertically. Plus the 'book layout' menu structure creates an entirely new user experience and easier access to mobile multimedia services. The phone is designed and built by MyOrigo in Finland but it's doubtful that they will sell the phone directly and probably sign a deal with a network to create an own brand phone, like Orange has done with the SPV. The phone we tested out was a prototype but it gives you a pretty good indicator if what to expect when the MyDevice ships at the end of the month. The standard package will comprise of a phone, stereo headset, PC sync package and a couple of games. The target price is around €150 to €250 with contract. Measuring 124x59x23mm and weighing 149g, the MyDevice is gunning for the likes of the Sony Ericsson P800 and Nokia 6600. The styling is clean and minimalist, combining the Nokia 7650's classic lines with a flip-free Sony Ericsson P800. At both ends of the 320x176 pixel colour display there are touch sensitive buttons tipped off by slivers of aluminum. A camera is discreetly placed at the back. Non slip feet at all four corners ensure that the phone doesn't slide around on your deck." (MyOrigo Magazine at 27.) "Whilst the final specification will depend on who takes the phone, MyOrigo has provisioned a tri-band chipset, GPAS, 64Mb RAM, a digital camera and MP3 play as standard. There is a SD card slot for extra storage and music files. First release devices will use infrared and a mini USB point for connectivity. However MyOrigo has confirmed that its second device will feature Bluetooth and Wi-Fi." (MyOrigo Magazine at 27-28.) "Using the MyDevice is an interesting experience. For making calls it's fine-you simply use the touch screen to press the virtual buttons. You do need a steady hand at time to control the phone, especially with the zoom feature which can bring you up close and personal or pull the page away just as quick, with an uncoordinated flick of the wrist." (MyOrigo Magazine at 28.) "A feature rich smartphone that uses motion control as a means to navigate around the menu system as well as using a touch screen environment with haptic (vibrating) feedback. Take it as read that the MyDevice is a revolutionary piece of technology but whether it will take off is another thing. The motion control and mirroring are ahead of the game, but only time will tell if the public embrace or shun these exciting new technologies. Lack of Bluetooth mars an otherwise interesting debut." (MyOrigo Magazine at 28.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	MyOrigo Magazine discloses the following at 28:  (MyOrigo Magazine at 28.)  (MyOrigo Magazine at 28.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Overview You have bought a very advanced smartphone. To learn to use the features, you should start by reading *Getting started*. The P800 is a full-featured mobile phone, fully integrated with the other functions of the device, including third party applications. Like a computer, the P800 has a flexible and simple way of organizing applications and data. The built-in memory is available for photos, music, messages or applications. When space becomes limited, you can move files to a Memory Stick. You can also send data to another P800, e-mail, upload it to a website, or transfer it to a PC. (P800 09/2002 Manual at 6.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 outline  **A** Connector for stereo headphones **B** Jog Dial for navigating through menus and more **C** Infrared port for communication **D** On/Off button **E** Flip with Keypad (in closed position) **F** Connector for accessories  **A** External antenna connector (on the rear side) **B** CommuniCam lens (on the rear side) **C** Battery compartment (on the rear side) **D** Touchscreen **E** Flip (in open position) **F** Shutter release for the CommuniCam **G** Internet button for activation of the browser **H** Slot for Sony Memory Stick Duo™ (under the stylus) **I** Stylus for writing on the screen (P800 09/2002 Manual at 8.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Phone The P800 is a full-featured mobile phone having full integration with the other functions of the device, including third party applications. The phone includes useful features such as: • Personalized ringtones. • Picture Phone Book • Quick access back to the entry in Contacts, making it easy to try an alternative number or send an E-Mail if the contact is unavailable or busy. • Voice dialing – make a call by speaking the contact's name. • Voice answer – an incoming call may be answered or sent busy signal, using the words recorded for 'answer' and 'busy'. • Access to most other applications whilst talking on the phone. • Office handsfree (speakerphone) which is enabled when the flip is open, making it easy to access applications such as Calendar and Jotter whilst talking. (P800 11/2002 Manual at 42.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Phone and PIM Applications

Phone

The P800 is a full-featured mobile phone having full integration with the other functions of the device, including third party applications.

The phone includes useful and fun features such as:

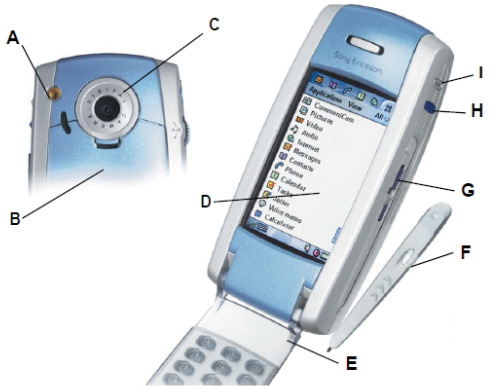
- Personalised ringtones – conventional or polyphonic ringtones can be set in Contacts, giving audible indication of who is calling. Supported formats are AMR, Au, iMelody, MIDI, RMF (Beatnik) and WAV.
- Picture Phone Book – if there is a picture of the person in Contacts, it will be displayed when making outgoing calls and when receiving the CLI with an incoming call.
- Quick access back to the entry in Contacts, making it easy to try an alternative number or send an E-Mail if the contact is unavailable or busy.
- Voice dialling – make a call by speaking the contact's name. The contact's name may be recorded when entering/editing the entry in Contacts. The call is made by pressing the OK button on the flip or the button on the headset. If a 'magic word' is recorded, contacts may be dialled by saying the magic word followed by the contact name. It is then not necessary to press any buttons.
- Voice answer – an incoming call may be answered or sent busy signal, using the words recorded for 'answer' and 'busy'. There is 40 seconds of storage space allocated for voice dialling and voice answer. This is enough for approximately 50 words (contact names plus 'magic word', 'answer' and 'busy')
- Access to most other applications whilst talking on the phone.
- Office handsfree (speakerphone) which is enabled when the flip is open, making it easy to access applications such as Calendar and Jotter whilst talking.
- Flight mode enables the P800 to be used as a PDA in situations where radio transmitters may not be used. The GSM and Bluetooth transmitters (and receivers) are switched off.

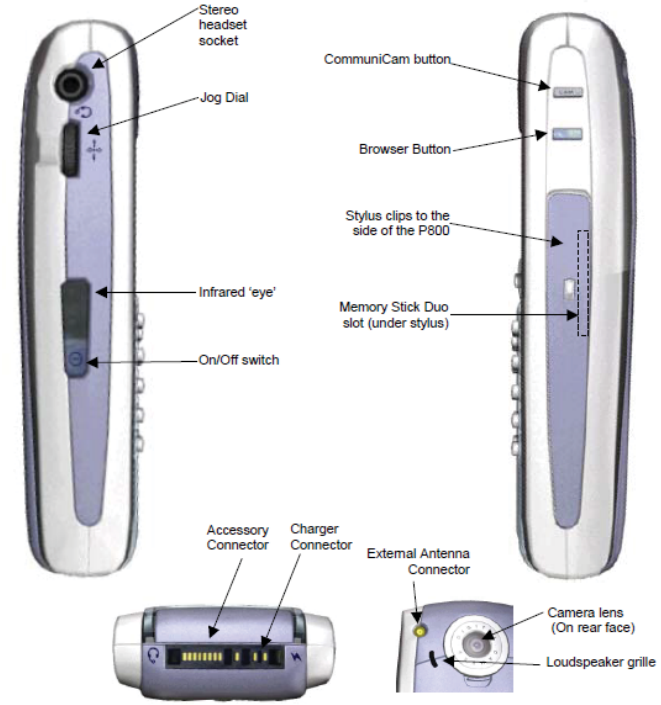


In FC mode, the phone is driven by the keypad, like a conventional mobile phone.

(P800/P802 White Paper at 24.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (P800 09/2002 Manual at 122.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 overview   **A** Indicator light for Bluetooth wireless technology (blue) **B** Connector for stereo head phone **C** Jog Dial **D** Infrared port **E** On/Off button **F** Flip with Keypad (in closed position) **G** Connector for accessories and charger **H** Indicator light for network and battery (green/red) **A** External antenna connector **B** Battery compartment **C** CommuniCam **D** Touchscreen **E** Flip (in open position) **F** Stylus **G** Slot for Sony Memory Stick Duo (under the stylus) **H** Internet button for activation of the browser **I** CommuniCam activation and shutter release (P800 11/2002 Manual at 11.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	P800 Controls and Operation The P800 has a large touch-screen and a flip. This provides fast and convenient one-handed operation with the flip closed plus large touch-screen sophistication with the flip open.  (P800/P802 White Paper at 12.)

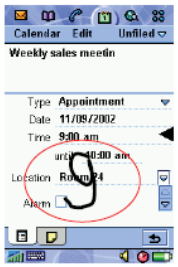
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

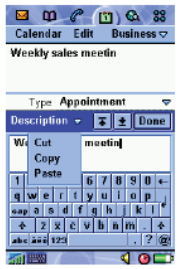
Flip Open (FO mode)

When the flip is opened, the large touch-screen is revealed. In 'flip open' mode, the stylus may be used to navigate and enter data. The Jog Dial provides further navigation and selection capability. The User Interface is Symbian's established UIQ design, adapted for the narrower 208 pixel screen.



The stylus is used to operate the touch-screen and enter text:





Text may be entered using natural handwriting over the whole screen. Lower case letters are entered below the ◀ symbol, uppercase in line with it and numbers above it.

An on-screen keyboard is also available at all times by tapping on the keyboard icon in the status bar. Symbol and special character keyboards may be selected when required. Cut, Copy and Paste functions are available here.

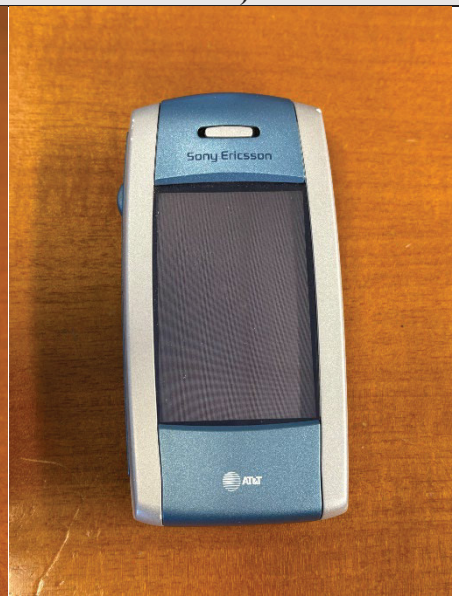
In FO mode, the P802 offers Stroke, Pinyin and Bopomofo input methods plus Chinese character recognition. Numeric and English characters can also be entered using the character recognition.

(P800/P802 White Paper at 14.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (FCC P800 Exhibit 3, Photograph Nos. 1-5.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (a) (b) **Front view of the Sony Ericsson P800 mobile phone with flip (a) and without flip (b).** (FCC P800 Exhibit 11 SAR Report at Sheet 10.)

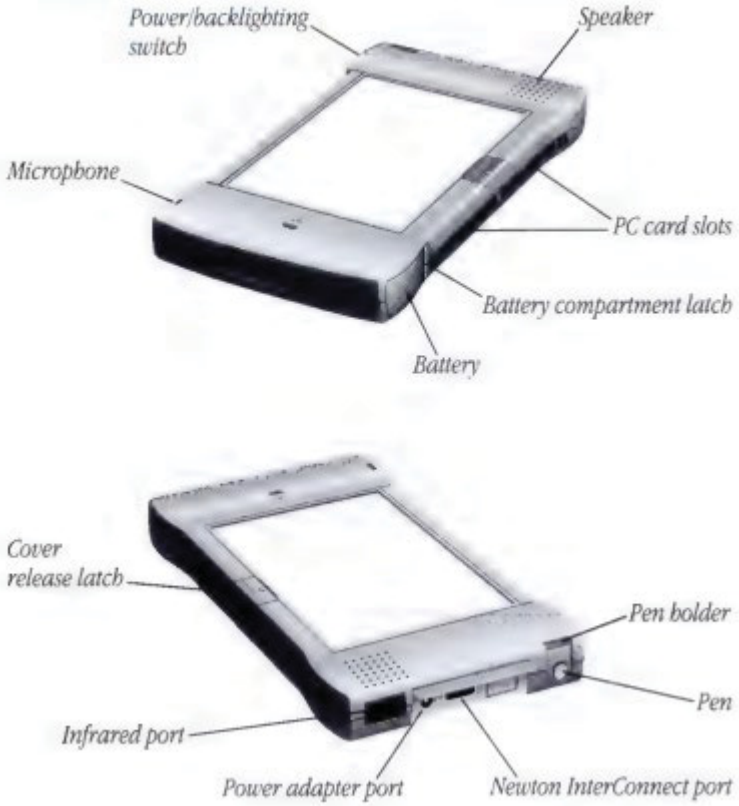
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (a) (b) Side view of the Sony Ericsson P800 mobile phone with flip (a) and without flip (b). (FCC P800 Exhibit 11 SAR Report at Sheet 11.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	  (P800 Device.)
[1a] a practically rectangular-shaped housing within which the components of a mobile phone are integrated, said housing having a front surface, a back surface and four side surfaces,	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a practically rectangular-shaped housing within which the components of a mobile phone are integrated, said housing having a front surface, a back surface and four side surfaces." For example, Apple Newton has a rectangular housing that contains the components of a mobile phone, such as a touchscreen, speaker, and microphone. (Getting Started at 2.) The housing includes a front surface, a back surface, and four side surfaces. (*Id.*)

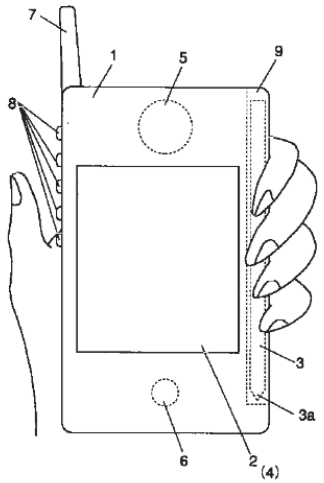
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Getting Started at 2.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.)  (Apple Newton Device.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.)
[1b] wherein the length of the front surface approximately corresponds to the distance between the ear and the mouth of a user and	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein the length of the front surface approximately corresponds to the distance between the ear and the mouth of a user." For example, Apple Newton, including its front surface, was about 8 inches in length, with a speaker near the top of the device and a microphone near the bottom of the device. (Getting Started at 2.) A POSITA would have understood that the Apple Newton was configured such that the user's mouth could be positioned near the microphone at the bottom of the device and the user's ear could be positioned near the speaker at the top of the device.

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	A quick look  (Getting Started at 2.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.) To the extent Keyless argues that Apple Newton does not disclose or render obvious this limitation, it would have been obvious in view of Apple Newton, POSITA's pre-existing knowledge, and/or the teachings of Apple Newton combined with Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Rydbeck, Yamaguchi, and Dutta teaches that the ideal configuration for a mobile phone is such that the length of the device corresponds to the distance between the ear and mouth of a user. For example, Rydbeck discloses a mobile phone device configured such that during operation, a speaker is adjacent to a user's ear and a microphone is adjacent to the user's mouth. (Rydbeck at 8:57-60; *see also id*. at 2:1-6, 2:15-18, 8:21-27, 9:13-20, Fig. 10.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	As another example, Yamaguchi discloses a mobile phone device having a speaker 5 and microphone 6 such that during operation, the speaker is positioned close to the mouth of a user and the microphone is positioned close to the ear of a user. (Yamaguchi at [0005].) Further, Yamaguchi discloses a mobile phone that is 100-150mm in length. (Yamaguchi at [0009], [0015], FIG. 1) 【図1】 1 装置本体 2 液晶表示部 3 ペン 4 タッチパネル部 5 スピーカー部 6 マイク部 7 アンテナ部 8 各種操作スイッチ 9 ペン収納部  (Yamaguchi at FIG. 1.) As another example, Dutta teaches that the ideal size of a mobile phone is based on the distance from a user's ear to a user's mouth. (Dutta at [0003], FIGS. 2A-2B.) Accordingly, mobile phones were commonly designed to be long and narrow. (Dutta at [0004].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

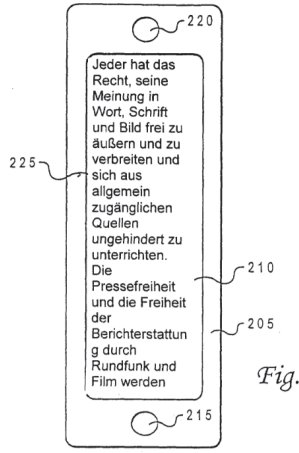


Fig. 2A

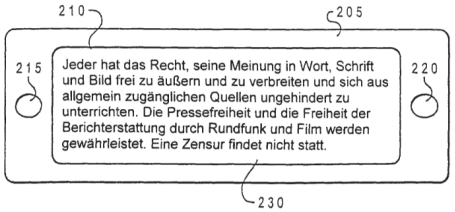


Fig. 2B

(Dutta at FIGS. 2A and 2B)

A POSITA would have found it obvious to configure the mobile device disclosed by Apple Newton such that both the length of the front surface of the mobile device and, correspondingly, the distance between the microphone and speaker of the device, correspond to the distance between the user's ear and mouth. Each of Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone in this way in order to improve operability and device performance while achieving the "ideal" phone size. (Dutta at [0003].) A POSITA would have been motivated to configure a mobile phone in this way to provide the user with an ergonomically comfortable interface, wherein the microphone could easily detect speech from a user's mouth and the user could easily detect sound produced by the speaker during a phone call. As explained by Rydbeck, a mobile phone "preferably includes a microphone which can be positioned…proximate to the

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	mouth of a user during telephone operation." (Rydbeck at 2:15-18.) A POSITA would be motivated to configure a mobile phone such that the microphone and speaker were proximate to a user's mouth and ear, respectively, to improve the performance of the phone by improving the call quality and clarity of voice transmission while making phone calls. Accordingly, a mobile phone such that its length corresponds to the distance between a user's mouth and ear was routine and conventional to a POSITA, as shown by each of Rydbeck, Yamaguchi, and Dutta. A POSITA would have considered the combination of the teachings of Rydbeck, Yamaguchi, and/or Dutta with the mobile device disclosed by Apple Newton to be an example of (A) combining prior art elements (the mobile device of Apple Newton with the teaching of the optimal mobile phone size as taught by Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving user experience and device performance); (B) use of a known technique (sizing a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (sizing a mobile phone based on the distance between the mouth and ear of a user as taught by Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile device disclosed by Apple Newton to arrive at the claimed invention. Additional exemplary citations include: "In a preferred embodiment, the device includes an antenna connected to a top portion of the primary body. The antenna is configured to extend away from the rear major surface such that, when a user orients the device with the speaker adjacent his or her ear, the antenna is oriented away from the user." (Rydbeck at 2:1-6.) "The device also preferably includes a microphone which can be positioned on the rear major surface (on a bottom portion), or on a flip, such that it is proximate to the mouth of a user during telephone operation." (Rydbeck at 2:15-18.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"A turnaround wireless communications device according to claim 1, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said front surface when a user orients said turnaround wireless communications device such that said speaker is adjacent the user's ear during operation." (Rydbeck at 8:21-27.) "a microphone located such that it is positioned proximate a user's mouth when the user has said speaker adjacent his or her ear…" (Rydbeck at 8:57-60.) "A turn around wireless communications device according to claim 11, further comprising an antenna connected to a top portion of said primary body, and wherein said antenna is configured to extend away from said rear major surface toward said forward major surface when a user orients said turnaround wireless communications device such that said speaker is adjacent his or her ear during operation." (Rydbeck at 9:13-20.) "As for outputs to the liquid-crystal display part 2, image data processing is performed in the device body 1, and text, graphics data, and wireless status are displayed on the liquid-crystal display part 2. When inputting text on a desktop, text and line strokes are inputted by pressing, with a pen tip 3a, the front surface of the touch panel part 4 disposed on the front surface of the liquid-crystal display part 2. To input text other than on a desktop, a side-surface portion of the device body 1 is held in one hand, and input is performed by the other hand with the pen 3. Apart from icon manipulations, manipulation via the various manipulable switches 8 is performed by a fingertip of the hand holding the pen 3. In addition, by adjusting one's grip on the main device 1, an ear is placed near the speaker part 5 or the mouth is placed near the microphone part 6 to perform audio input/output operations. Furthermore, to EJECT the memory card from the card-housing part, the card EJECT button is slid with a fingertip of the hand holding the pen 3, and the memory card is removed." (Yamaguchi at [0005].) "MEANS FOR SOLVING THE PROBLEMS To solve these problems, the present invention has a configuration such that: an antenna part of a wireless part and various manipulable switches are disposed on a same surface of a side-surface portion of the device body; a pen-housing part is disposed on an opposite side-surface portion of the device body; a housing part for a memory card having a data storage function is disposed on a rear-surface portion; a card EJECT button is disposed on the rear-surface portion near the pen-

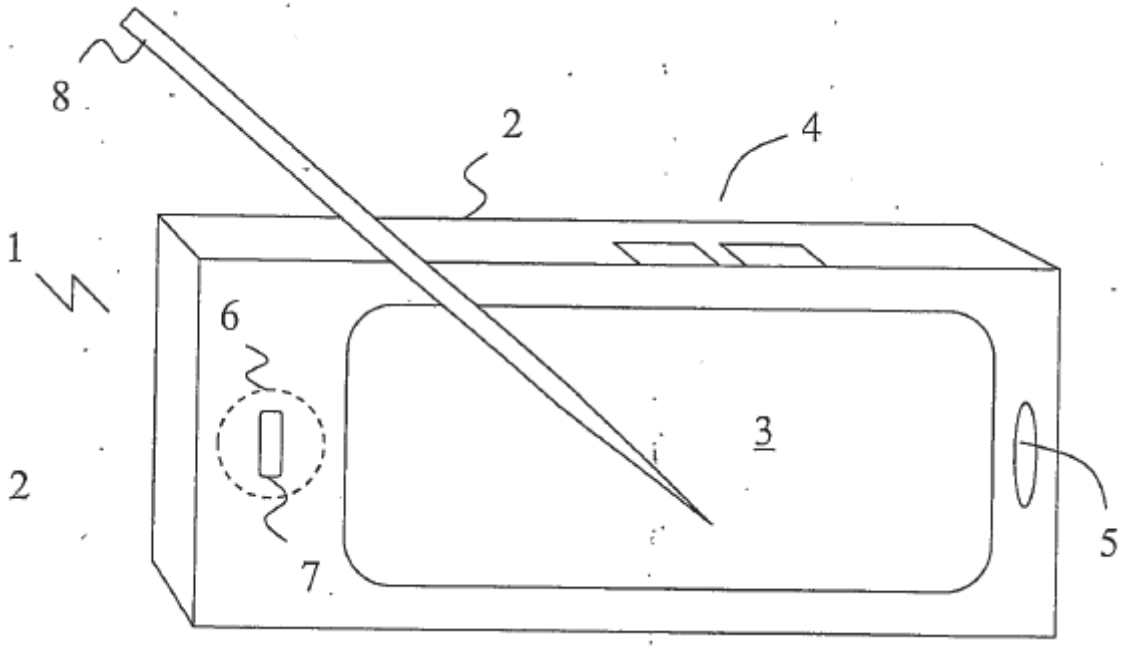
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	housing part; a rotary switch, which has a function of selecting data displayed on a liquid-crystal part, a push button, which has a function of confirming data that has been selected using the rotary switch, and the various switches are disposed on a same surface of a side-surface portion of the device body; furthermore, the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top-surface portion of the device body; and the dimensions of the device body have dimensional ratios of height 100–150 mm, width 60–75 mm, and depth 15–25 mm." (Yamaguchi at [0009].) "The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons." (Yamaguchi at [0015].) "For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability." (Dutta at [0003].) "Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself." (Dutta at [0004].)
[1c] wherein the width of the front surface is substantially shorter than the length and	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "the width of the front surface is substantially shorter than the length." For example, Apple Newton, including its front surface, was about 8 inches in length and 4.5 inches in width. (Apple Newton Device.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.) *See also infra* claim [7].
[1d] wherein the housing has a thin thickness; and	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "the housing has a thin thickness." For example, Apple Newton had a thickness of about 1 inch, which was less than the length or the width. (Apple Newton Device.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.) To the extent Keyless argues that Apple Newton does not disclose or render obvious this limitation, it would have been obvious in view of Apple Newton, POSITA's pre-existing knowledge, and/or the teachings of Apple Newton combined with Wedel, Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, each of Wedel, Rydbeck, Yamaguchi, and Dutta teaches configuring a mobile phone device such that device is compact and can be placed in a user's pocket. Therefore, the mobile phone must have been thin to slip into a pocket. A POSITA would have found it obvious to configure a device to be thin so it could easily be carried and stored by a user in a pocket, or the like.

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, Wedel teaches that mobile phones "are getting smaller and smaller" and are now "pocket size." (Wedel at 1:14-21.) Wedel explains that the small size "is generally considered to be an important factor for the end customer," and there is "general market demand for small size and light weight terminals. (Wedel at 1:14-21, 3:19-21.) In order to reduce the size of the terminal, Wedel teaches reducing the thickness by, for example, mounting the speaker inside the antenna cavity. (Wedel at 1:6-9, 2:21-25, 3:19-21, 9:28-31, 13:1-8.) For example, Rydbeck teaches that it is desirable to configure a mobile phone to be small, miniaturized, or "pocket-sized." (Rydbeck at 1:11-19, 2:60-62, 4:39-43, 10:29-30.) In order for a mobile phone to fit in a user's pocket, it must have been thin. As another example, Yamaguchi teaches that it is desirable to configure a mobile phone so it can be stored in a pocket of a user's clothing. (Yamaguchi at [0007], [0010], [0014], [0015], [0031], [0032], [0035].) In order to fit in a pocket, Yamaguchi teaches that the mobile phone is 100-150mm in length, 60-75mm in width, and only 15-25mm in depth. (Yamaguchi at [0034], [0036].) Dutta similarly teaches the benefit of reducing the dimensions of portable devices. (Dutta at [0002].) In addition, it is favorable to configure the size of a mobile phone to provide an ergonomically favorable grip, which inherently requires that the device is thin so that a user's hands can wrap around its edges. (Dutta at [0003].) A POSITA would have been motivated to configure a mobile phone to maximize housing thinness to improve the ease of use and portability of the phone. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Wedel, Rydbeck, Yamaguchi, and Dutta. A POSITA would have been motivated to size a phone accordingly in order to improve device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Wedel, Rydbeck, Yamaguchi, and/or Dutta into the mobile device disclosed by Apple Newton to be an example of (A) combining prior art elements (the relative dimensions of a mobile phone as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving the portability and operability of a mobile phone); (B) use of a known technique (sizing a mobile phone such that the housing has a thinness as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (sizing

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	a mobile phone as taught by Wedel, Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Wedel, Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile device disclosed by Apple Newton to arrive at the claimed invention. Additional exemplary citations include: "More specifically the invention relates to a communication terminal including a component which integrates said speaker and an antenna element, and to said component as such." (Wedel at 1:6-9.) ". . . at the same time the dimensions of the communication terminals have gone from briefcase size to the pocket size phones of today. Still today, mobile phones are getting smaller and smaller and the size is generally considered to be an important factor for the end customer. The development in electronics has made it possible to miniaturise the components of the terminals, at the same time making the terminals capable of performing more advanced functions and services." (Wedel at 1:14-21.) "The antenna of the terminal is generally located at the upper portion of the terminal, and a lower portion of the terminal being occupied by a battery. Placing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space." (Wedel at 2:21-25.) "It is an object of the present invention to provide a novel speaker arrangement for a communication terminal, meeting the general market demand for small size and light weight terminals." (Wedel at 3:19-21.) "Fig. 6 illustrates an embodiment of a spacer element 61, adapted for use with the combined speaker and antenna element according to the invention. In a low profile, built in, radio antenna for mobile communication, such as a PIFA, the antenna comprises a substantially planar active antenna element and a ground plane." (Wedel at 9:28-31.) "The present invention brings about several advantages, thanks to the inventive idea to mount the speaker inside the antenna cavity, where one antenna element and the speaker are carried by a common structure

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	provided by a flexible film. First of all, the invention brings about space savings. A terminal or housing, implementing the invention, may be designed with a thickness basically defined by the distance between the flexible film and the support structure, e.g. a PCB, since the thickness contribution from the speaker has been eliminated." (Wedel at 13:1-8.) Wedel discloses the following at FIGS. 2 and 11:  Fig. 2

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

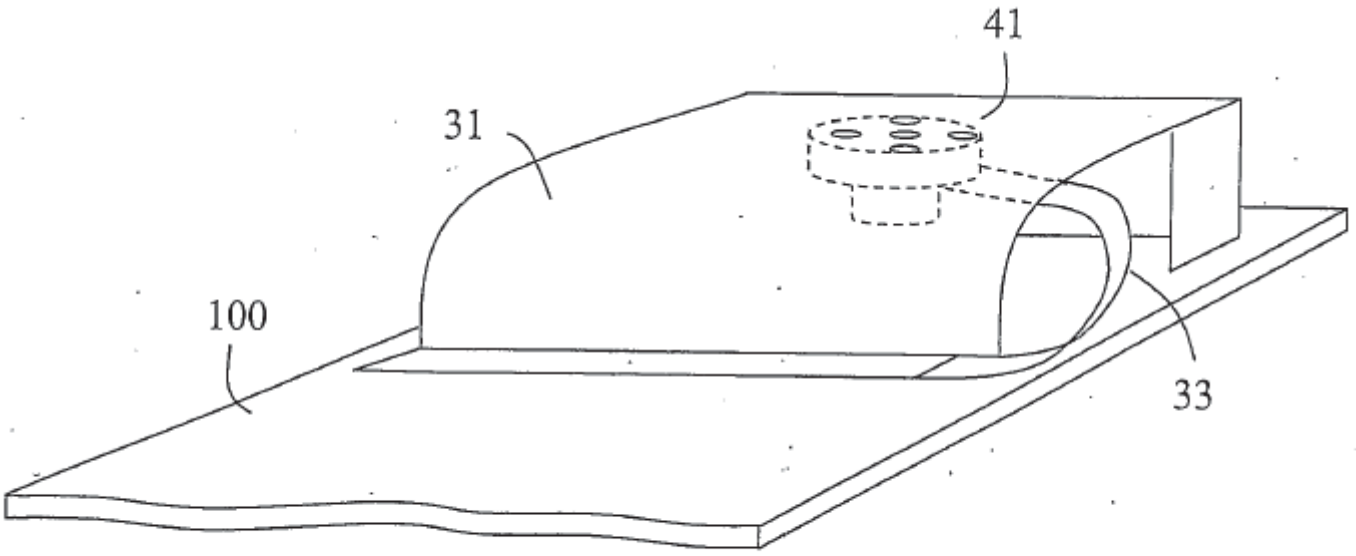


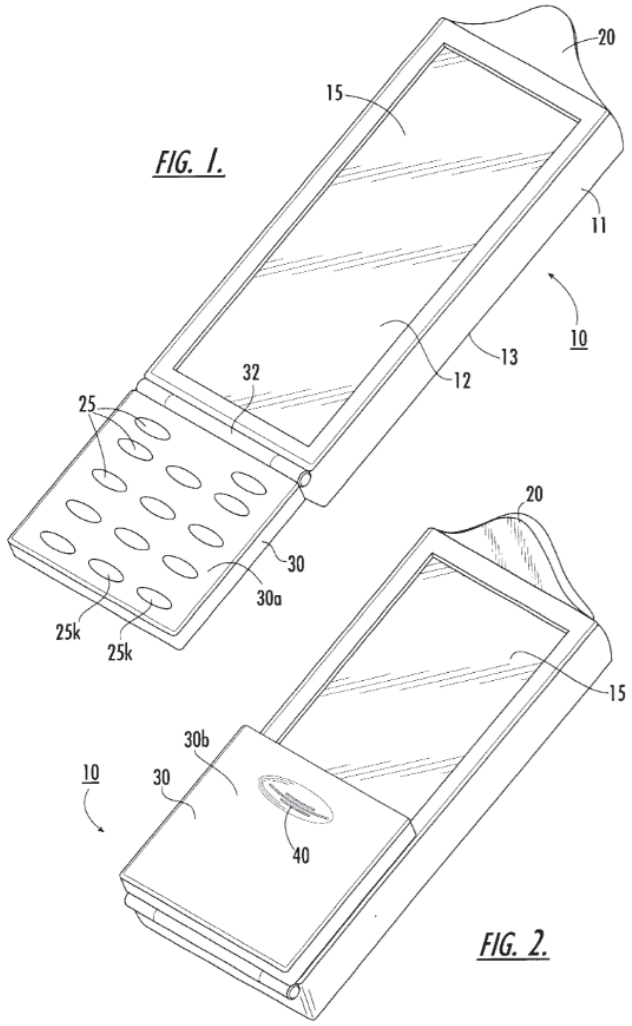
Fig. 11

"The evolution of wireless communication devices incorporating cellular/digital wireless telephones is undergoing two potentially conflicting trends. One trend is toward miniaturization of the cellular telephone body and the other is toward a demand for larger visual displays thereon. There is, therefore, a need to configure pervasive computing devices such as smaller, miniaturized, or "pocket-sized" wireless telephones in a manner which allows for larger displays over conventional devices." (Rydbeck at 1:11-19.)

"The invention is particularly suitable for pocket-sized wireless telephones or miniaturized pervasive computing devices which include wireless telephones." (Rydbeck at 2:60-62.)

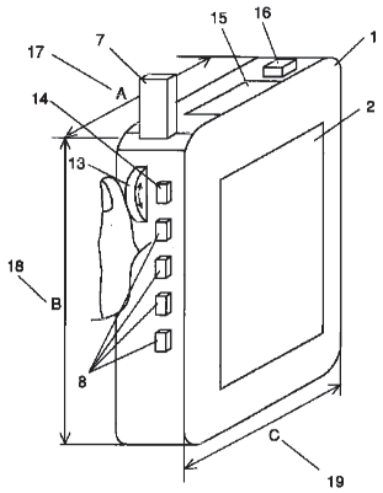
"Turning now to the figures, FIG. 1 illustrates a wireless communication device 10 according to one embodiment of the present invention. The wireless communication device 10 includes a primary body 11, a front or forward major surface 12, and an opposing a rear major surface 13 (FIG. 3). (The "forward" and

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"rear" surface designations are for description purposes only. It will be appreciated that, in practice, each of these surfaces can be the "front" surface or the "back" surface, and that indeed, each will act both as the back and the front, depending on the selected or activity/mode and the corresponding orientation of the device). The wireless communications device 10 also includes a keypad 25, an antenna 20, a speaker 35 (FIG. 3), and a microphone 40 (FIGS. 2, and 3). As shown in FIG. 1, the wireless communications device 10 also includes a flip member 30. The present invention is particularly suited for pocket-sized or palm sized wireless communications devices incorporating remote telephonic communications systems. Typically, these pocket or palm sized devices are less than about 8-10 inches in length and less than about 4 inches in width." (Rydbeck at 4:24-44.) "A method according to claim 20, wherein said wireless communications device is pocket-sized." (Rydbeck at 10:29-30.) Rydbeck discloses the following at FIGS. 1 and 2:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	

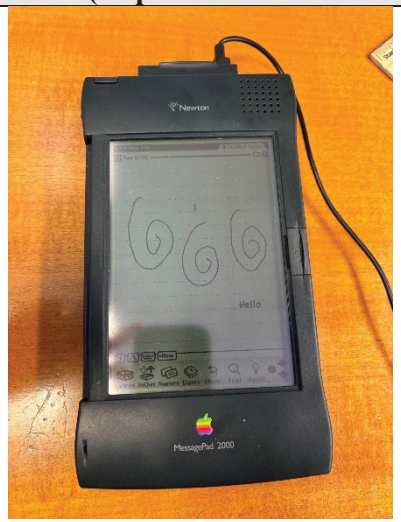
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Meanwhile, there is a demand for a series of manipulations to be performable with one hand from the perspective of making the mobile-communication-information terminal device 'easy to manipulate', as well as a demand for a size such that the device can fit in a clothing pocket or the like from the perspective of making the device 'easily portable anywhere.'" (Yamaguchi at [0007].) "According to the present invention, the various switches can be manipulated with a finger of one hand in a state in which the device body is held in the one hand, and the device body can be stored in a clothing pocket, thereby resulting in a mobile-communication-information terminal device having good ease of manipulation and portability." (Yamaguchi at [0010].) "The invention according to claim 4 of the present invention is the mobile-communication-information terminal device according to claim 1, wherein: the liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are disposed on a same top surface of the device body; thus, the invention has the effects that, even if the device body is stored in a clothing breast pocket, wireless status can be confirmed without removing the device from the pocket, and wireless can also be switched ON/OFF, thereby improving ease of manipulation." (Yamaguchi at [0014].) "The invention according to claim 5 of the present invention is the mobile-communication-information terminal device according to any one of claims 1, 2, 3, and 4, wherein: the device body has dimensional ratios of length 100–150 mm, width 60–75 mm, and depth 15–25 mm; thus, the invention has the effect of improved portability and ease of manipulation, such as when storing the device in a clothing pocket, holding the device with one hand, and manipulating the various buttons." (Yamaguchi at [0015].) "Wireless status can easily be confirmed from the liquid-crystal part 15 provided on the top surface of the device body 1, even when the device body 1 is stored in a clothing breast pocket or the like. Likewise, it becomes possible to switch wireless ON/OFF by pressing the button 16 provided on the top surface of the device body 1 with the device body 1 still stored in the clothing breast pocket or the like. In addition, a wireless ON state is displayed on the liquid-crystal part 15, and, in a wireless OFF state, wireless ON/OFF status can easily be confirmed by the disappearance of the display on the liquid-crystal part 15." (Yamaguchi at [0031].)

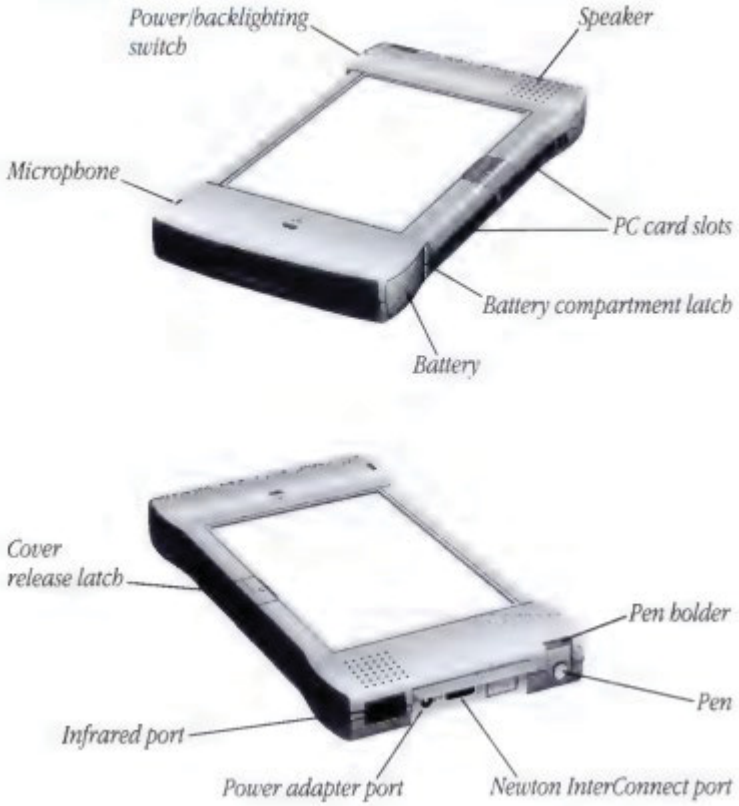
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Through the above-mentioned operation, wireless status can be confirmed, and wireless can be switched ON/OFF while leaving the device body 1 stored in the clothing breast pocket without taking the device body 1 out; thereby, improvement in ease of manipulation can be achieved." (Yamaguchi at [0032].) "(Fifth Embodiment) FIG. 6 is an exterior oblique view of a mobile-communication-information terminal device according to a fifth embodiment of the present invention. As shown in FIG. 6, dimension A 17 of the main device 1 is the length-directional dimension thereof in a manipulation state, dimension B 18 is the width-directional dimension, and dimension C 19 is the depth-directional dimension thereof." (Yamaguchi at [0033].) "Dimension A 17, dimension B 18, and dimension C 19 of the mobile-communication-information terminal device according to the fourth embodiment are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, such that a hand can hold a bottom-surface portion and both side-surface portions of the device body 1 when holding the device body 1." (Yamaguchi at [0034].) "As a result, the main device 1 is capable of fitting into a clothing pocket or the like, and various manipulations can be achieved while holding the device body 1 in one hand; thereby, improvement in portability and improvement in ease of manipulation can be achieved." (Yamaguchi at [0035].) "EFFECTS OF THE INVENTION According to the present invention, as is clear from the description above, an antenna part and various manipulable switches of a mobile-communication-information terminal device are provided on a same-side surface portion of a device body, a pen-housing part is provided on an opposite side-surface portion, a memory-card-housing part is provided on a rear-surface portion of the device body, and a card EJECT button is provided adjacent to the memory-card-housing part and near the pen-housing part; a rotary switch, which has a function of selecting data, is provided on the same side surface as the various manipulable switches, and a push button, which has a function of confirming selected data, is provided perpendicular to the rotational direction of the rotary switch and on the same side surface near a front-surface portion of the device body; a liquid-crystal part, which has a function of displaying wireless status, and a button, which has a wireless ON/OFF switching function, are further provided on a same top-surface portion of the device body; and the dimensional ratios of the device body are length 100–150 mm, width 60–75 mm, and depth 15–25 mm, thereby enabling a series of manipulations to be performed with one

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	hand and enabling the device body to fit in a clothing pocket or the like; thus, improvement in ease of manipulation and improvement in portability can be achieved." (Yamaguchi at [0036].) Yamaguchi discloses the following at FIG. 6: 【図6】  "A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant." (Dutta at [0002].) "For example, more and more mobile phones are equipped with a browser for the world wide web (web or www). Unfortunately, the ideal size of a mobile phone is determined by the typical ear-to-mouth distance of the average user and by ergonomically favorable grippability." (Dutta at [0003].) *See also infra* claim [8].

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
[1e] a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing;	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "a display unit integrated within the front surface of said housing wherein said display unit practically covers the entire front surface of said housing." For example, Apple Newton includes a "glass screen" that functions as a display and is integrated within the front surface of the phone housing. (User's Manual at xi.) The screen covers the majority of the front surface of the housing. (Apple Newton Device.) **Screen care** ■ Take care not to break the glass screen. Don't drop the MessagePad. Don't subject it to any strong impact. Don't put it into your back pocket because, if you sit on it, the glass may break. ■ Don't press too hard on the screen when writing, drawing, or tapping. Don't forcefully jab or hit the screen. ■ Be careful not to scratch the screen. Use only the pen that comes with your MessagePad. Don't use ink pens or any other sharp object. ■ Clean the screen frequently to ensure that dust and grit do not build up on the surface. Clean the screen only with a soft cloth—such as a cloth made for cleaning eyeglasses. Do not use strong solvents to clean the screen, although you can use general purpose eye-glass cleaners or isopropol alcohol to remove fingerprints and spots. Don't pour cleaning liquids directly on the screen; apply to a cleaning cloth before cleaning. ■ When your MessagePad is not in use, keep the lid closed to protect the screen. (User's Manual at xi.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Screen care ■ Take care not to break the glass screen. Don't drop the MessagePad. Don't subject it to any strong impact. Don't put it into your back pocket because, if you sit on it, the glass may break. ■ Don't press too hard on the screen when writing, drawing, or tapping. Don't forcefully jab or hit the screen. ■ Be careful not to scratch the screen. Use only the pen that comes with your MessagePad. Don't use ink pens or any other sharp object. ■ Clean the screen frequently to ensure that dust and grit do not build up on the surface. Clean the screen only with a soft cloth—such as a cloth made for cleaning eyeglasses. Do not use strong solvents to clean the screen, although you can use general purpose eye-glass cleaners or isopropyl alcohol to remove fingerprints and spots. Don't pour cleaning liquids directly on the screen; apply to a cleaning cloth before cleaning. ■ When your MessagePad is not in use, keep the lid closed to protect the screen. (Getting Started at vii.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	A quick look  (Getting Started at 2.)

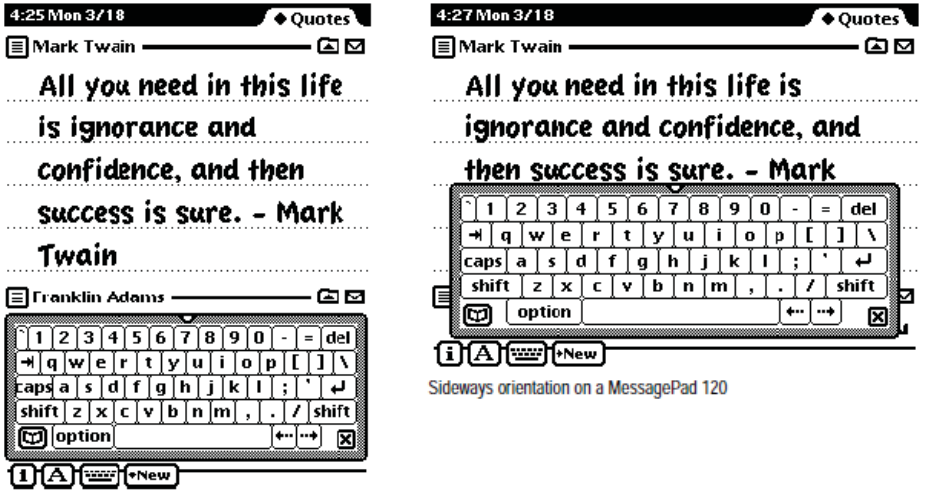
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	## Use Screen Space Wisely Because the user's hand is usually held close to a Newton device, it's best to keep tappable controls at the bottom of the screen, have the user enter data in the middle of the screen, and display titles and other descriptors at the top of the screen. This way, the most important information (the user's information) isn't obscured each time he or she taps a button. If you need to display controls on the side, make sure your application allows users to move the controls to either side of the screen, according to whether they are right- or left-handed. ## Check the Screen Size A Newton application's **main view**—the visual object that serves as the application's base of user operations—can be any size. If your application's main view does not fill the entire screen, keep in mind that whatever is visible behind your application will be operable. In this situation, users can (User Interface Guidelines at 1-11.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

get confused about what's frontmost—and therefore about what will be scrolled when the scroll arrows are tapped and which view is currently in use.

Also keep in mind when designing your application that future Newton devices may have larger or smaller screens than current Newton devices. To work with different screen sizes, a Newton application must check the screen size and make adjustments as needed to the size and location of the things it displays so that everything fits. If you want your application to work in either of the two display orientations available on an Apple MessagePad 120, your application needs to be able to adjust the position and configuration of everything it displays for regular or sideways orientation of the display. Figure 1-3 shows how the built-in Notepad application and the on-screen keyboard adjust their size, position, and layout when a user rotates the display.

Figure 1-3 An application adjusts its size, position, and layout to fit the screen



Regular orientation on a MessagePad 120

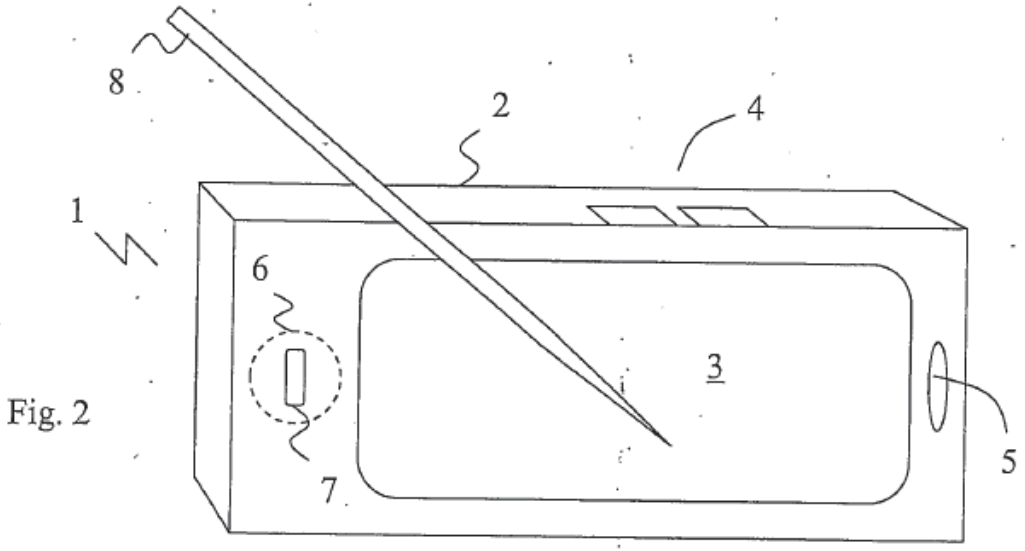
Sideways orientation on a MessagePad 120

(User Interface Guidelines at 1-12.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	To the extent Keyless argues that Apple Newton does not disclose or render obvious this limitation, it would have been obvious in view of Apple Newton, POSITA's pre-existing knowledge, and/or the teachings of Apple Newton combined with Wedel and Gupta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Wedel discloses a mobile phone device with a touch screen display. (Wedel at 1:30-2:14, FIG. 2.) Wedel explains that "[t]he size of a keypad 4 and a display 3 basically sets the limit of how small terminal 1 can be." (Wedel at 1:31-2:1.) Thus, to allow for a larger display while maintaining a small terminal, Wedel proposes removing all physical keys from the front surface of the mobile phone, such that the display may cover more of the front surface of the phone. (Wedel at 2:8-10, FIG. 2.) As another example, Gupta discloses a "full-length touchscreen display." (Gupta at [0015], [0017], [0020], [0023]-[0025], [0030], [0035], [0041], [0042], [0051], FIGS. 2-4, 8.) Additionally, Gupta explains that while the device remains small, the screen should be large enough for "practical information viewing." (Gupta at [0003], [0004], [0020],[0025], [0026], [0049].) A POSITA thus would have understood that the screen would cover the entire front surface of the device, such that it could be as large as possible. A POSITA would have been motivated to configure a mobile phone such that the display unit covers a large portion of the housing. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by Wedel and Gupta. A POSITA would have been motivated to configure a phone accordingly in order to allow room for a larger touch display while maintaining a small device size, improving device performance and user experience. Thus, a POSITA would have considered the combination of the teachings of Wedel and/or Gupta into the mobile device architecture disclosed by Apple Newton to be an example of (A) combining prior art elements (including a display unit that covers a large portion of the front surface of a mobile phone as taught by Wedel and Gupta) according to known methods to yield predictable results (allowing more space for a larger touch display while maintaining a small device size); (B) use of a known technique (including a display unit that covers a large portion of the front surface of a mobile phone as

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	taught by Wedel and Gupta) to improve similar devices in the same way (allowing more space for a larger touch display while maintaining a small device size); (C) applying a known technique (including a display unit that covers a large portion of the front surface of a mobile phone as taught by Wedel and Gupta) to a known device ready for improvement to yield predictable results (allowing more space for a larger touch display while maintaining a small device size); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Wedel and Gupta) that would have led one of ordinary skill to modify the mobile device disclosed by Apple Newton to arrive at the claimed invention. Additional exemplary citations include: "A combined speaker and antenna arrangement for a communication terminal, comprising a support structure (100) carrying a first antenna element (101), and a second antenna element (31) arranged at a predetermined distance from said first antenna element. Said second antenna element is a conductive first portion (31) of a sheet of flexible film, and an elongated second portion (32) of said flexible film, carrying a conductive lead extends from adjacent to said first portion to a speaker (41) connected to an outer end of said elongated second portion. The second, elongated, portion is bent such that said speaker is positioned between said film and said support structure, adjacent to an aperture in said first portion." (Wedel at abstract.) "In order to benefit from the capabilities of the transmission system, the future generation of phones will have a large display in order to perform multimedia input and output, and the picture quality will be of high importance. Still, the keypad or keyboard must be large enough to allow people to press one key at a time." (Wedel at 1:26-29.) "Figure 1 discloses a typical example of a state of the art mobile phone 1, carried by a housing or chassis 2. The size of a keypad 4 and a display 3 basically sets the limit of how small the terminal 1 can be. However, to be able to work as a standard phone for voice interaction, the terminal 1 also includes a microphone 5 and a speaker 6, preferably arranged at opposite ends of the terminal 1. Figure 2 discloses a different embodiment of a state of the art communication terminal 1, wherein the display 3 occupies a larger portion of the front side of the terminal. Several of the functions of the keypad 4 have been included in a graphical user interface applicable to the display 3, rendering a data input interface having less keys. Those keys 4 may also be moved to the side of the communication terminal in order to allow for the display 3 to occupy a larger portion of the front side of terminal 1. A specific tool 8 may be provided for inputting data on a touch-

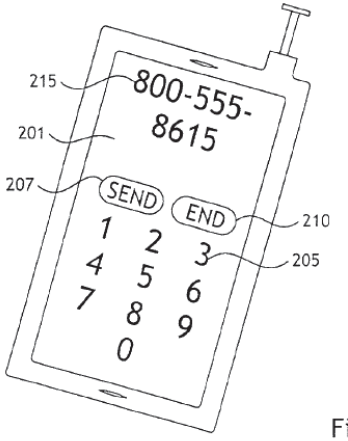
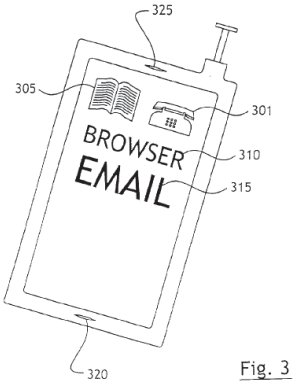
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	sensitive screen of the display 3. Figs 1 and 3 show two typical examples of state of the art communication terminals 1, whereas the skilled persons will realise that combinations of the two are also well known as well as other designs, such as a so called clamshell type terminal." (Wedel at 1:30-2:14.) "In the state of the art communication terminal a terminal output 7 is mounted on the front of the terminal above the display with the speaker 6 immediately behind the output 7, as shown in Figs 1 and 2. This means that even with a smallest available speaker used today, with a diameter of about 13 mm, the terminal would be approximately this much longer in its longitudinal extension than what would have been the case if only the display 3 and/or keypad 4 had defined the length of the terminal 1. The antenna of the terminal is generally located at the upper portion of the terminal, and a lower portion of the terminal being occupied by a battery. Placing the speaker 6 behind the display 3 would therefore increase the thickness of the terminal 1 since it would have to compete with the antenna for the relevant space." (Wedel at 2:15-25.) "First of all, the invention brings about space savings. A terminal or housing, implementing the invention, may be designed with a thickness basically defined by the distance between the flexible film and the support structure, e.g. a PCB, since the thickness contribution from the speaker has been eliminated. Furthermore, even though the antenna cavity 21 has been partly occupied by the speaker, experimental laboratory tests on this design have surprisingly shown that the presence of the speaker will not result in reduced antenna performance if tuned properly. The use of hot bar soldering will not lead to bulging solder pads. Which also contributes to saving space." (Wedel at 13:5-13.) Wedel discloses the following at FIG. 2:

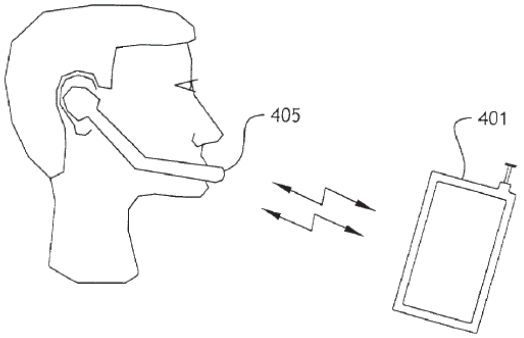
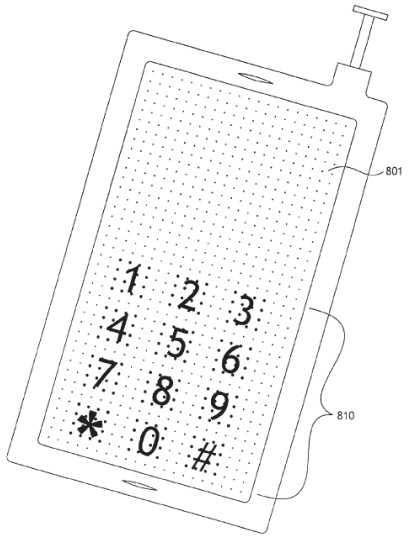
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 2 (Wedel at FIG. 2.) "Many cellular telephone manufacturers enable the personal digital assistant and cellular telephone capability by providing a larger display on the telephone. The larger display is able to show multiple lines of information as well as icons for accessing the personal digital assistant functions of the device." (Gupta at [0003].) "In order to keep the telephone small and still provide a reasonably large display for information, the size of the keypads for entering data has been reduced substantially. Individuals with large fingers or users that try to input data while moving may have trouble depressing the small keys properly. There is a resulting unforeseen need for a small communications device that merges the functions of a personal digital assistant and a telephone, cellular or otherwise, while still providing a display that is large enough for practical information viewing and a keypad that is easy to use." (Gupta at [0004].) "FIG. 8 shows a tactile response display screen of the present invention." (Gupta at [0015].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The communication device of the present invention provides a telephone with a full length, tactile response, touchscreen display. Instead of portions of the telephone being taken up by a fixed keypad, the touchscreen display can display a keypad while in the telephone dialing mode but then replace the keypad with extra display space for data. The display also features dynamically raised keys and buttons in response to what is being displayed." (Gupta at [0017].) "The telephone illustrated in FIG. 2 is comprised of a large touchscreen display (201). FIG. 2 illustrates the present invention in the telephone mode. In this mode, the device displays number icons (205) or other informational symbols (not shown) which form and are used as a telephone keypad for entering telephone numbers. The display also displays a 'SEND' key (207) and an 'END' key (210) (for purposes of this disclosure, the term 'key' does not refer to a physical button or switch but instead refers to an area of the display screen which when contacted or touched causes the generation of a signal to the phone that is representative of the 'button' or 'pad' that was actuated. The functions of a 'SEND' and 'END' key are generally known to start and stop a wireless phone call. A portion of the display (215) is reserved for displaying the telephone number as it is being typed in." (Gupta at [0020].) "In most cases, the user inputs a telephone number, as well as the '*' and '#' keys by touching the touchscreen over the number or symbol desired. This number (or symbol) is then added to the telephone number at the top of the screen (215). Once the entire telephone number has been entered, the user touches the screen over the send key (207) to transmit the number to the system's switch for dialing. For purposes of claim construction, the term 'number' should be construed as including the numerals zero through nine as well as the '*' and '#' keys but also including possibly any other alphanumeric symbol." (Gupta at [0021].) "In the preferred embodiment, the user receives an aural feedback whenever a 'key' is contacted. Since the surface of the screen of the preferred embodiment is smooth and there is no key movement to let the user know that data has been entered, the telephone can be set up to generate an electronic beep, clicking noise, or some other sound to indicate the successful actuation of each 'key'. The chosen sound may be chosen by setting up user preferences of the telephone operator or the sound may be turned off for silent operation." (Gupta at [0022].) "The touchscreen display, in the preferred embodiment, is responsive to a touch sensor that detects mechanical pressure from a user's finger on a particular portion of the screen. The touch sensor may be a

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	film behind a flexible tactile transducer film or a thin film in front of tactile elements (discussed subsequently in FIG. 8), with sufficient flexibility and compliance that it does not impair the tactile perception of the screen." (Gupta at [0023].) "The touch sensor may also be a film layer of the tactile surface itself, or may include touch sensitive elements interspersed adjacent to the tactile dot elements So that neither the touch sensor nor the tactile display elements overlay the other. Other touch screens embodiments use grids of interruptible light beams, capacitive discharge sensors, and conductive grids sensing a circuit made across nearby nodes, all of which are considered herein to be structures (circuits and components) equivalent to each other." (Gupta at [0024].) "The telephone of the present invention is capable of multiple operating modes to take advantage of the large touchscreen display. FIG. 3 illustrates an example of some of these modes. In order to enter the telephone mode and display the embodiment illustrated in FIG. 2, the user touches the telephone mode icon (301). An address/telephone book icon (305) takes the user to listings of stored telephone numbers and addresses. By touching a desired telephone number, the telephone of the present invention will automatically go to the telephone mode and dial that number." (Gupta at [0025].) "The display also has a browser icon (310) that takes the user to the browser program used by the telephone. The browser is a scaled down version of a personal computer browser such as NETSCAPE NAVIGATOR and, in the preferred embodiment, conforms to the wireless access protocol (WAP) standard for wireless Internet access. This browser program enables the user to access selected Web sites over the Internet and display the accessed data on the large telephone display. It can be seen the that lack of a fixed telephone keypad enables substantially more data to be displayed while in this mode than would be possible with the fixed keypad." (Gupta at [0026].) "FIG. 4 illustrates an alternate embodiment of the present invention that uses a wireless headset (405) to communicate with the telephone (401) of the present invention. In order to reduce the size and weight of the telephone (401) and also to give more room for the display, this embodiment does not have a built-in speaker and microphone. Instead, the wireless headset (405) performs the same task as a built-in speaker and microphone." (Gupta at [0030].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The telephone is controlled by a controller (510) that is coupled to the transmitter (501), receiver (505), and the touchscreen display (515) of the present invention. The controller (510), in the preferred embodiment, is a microcontroller that uses microcode. Alternate embodiments use other types of controllers such as microprocessors, application specific integrated circuits (ASIC), or other such controllers." (Gupta at [0035].) "As illustrated in FIG. 8, the display is comprised of a matrix of individually addressable dot or tactile elements. The elements are arranged in an evenly spaced grid covering the entire display. In an alternate embodiment, the tactile portion of the display is only on part of the display, such as the lower half, in order to provide a 'telephone keypad' area when in that particular mode. In the preferred embodiment, the elements are spaced less than 0.10 inch apart in order to allow the sensation of a continuous line." (Gupta at [0041].) "Each tactile element is switchable between an inactive position in which the dot is flush with the surrounding surface and an active position in which the dot is raised above the surrounding surface. The mechanism to provide this may be of any type including: electromechanical, electromagnetic, and switchable dimpled plastic film. In the preferred embodiment, the tactile display is transparent in order to permit the conventional liquid crystal display to be seen below the raised surface." (Gupta at [0042].) "The size of the touchscreen display of the present invention provides the communication device with the ability to display multimedia deliveries from the Internet or other sources. The display could show the presentation along with dynamically changing control buttons such as fast forward, back, review, stop, and pause." (Gupta at [0049].) "In summary, the present invention provides a communication device having a full-length touchscreen display. This enables the display of additional data and information not possible on communication devices having a fixed keypad." (Gupta at [0051].) Gupta discloses the following at FIGS. 2-4 and 8:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 2 (Gupta at FIG. 2)  Fig. 3 (Gupta at FIG. 3)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 4 (Gupta at FIG. 4)  Fig. 8 (Gupta at FIG. 8)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
[1f] wherein said mobile phone device does not include a physical key on the front surface, and	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said mobile phone device does not include a physical key on the front surface." For example, Apple Newton discloses a mobile device that does not include a physical key on the front surface. (Getting Started at 2.) Apple Newton includes a touch screen that a user may interact with by tapping with a pen. (Programmer's Reference at xxxvi, 5-20.) Apple Newton additionally discloses virtual buttons that may be tapped to "cause an action to occur." (Programmer's Reference at 6-9; User Interface Guidelines at 3-2, 3-7; Getting Started at 15.) Further, information may be entered by "tapping and dragging" the screen, "writing and drawing," or "typing text on an on-screen keyboard." (User Interface Guidelines at 6-1, 6-32; Programmer's Reference at 7-35; User's Manual at 1, 15.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Getting Started at 2.) Additional exemplary citations include:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Buttons

The pictures along the lower edge of the screen are buttons that are usually available no matter what is on the screen. To use a button or go to an area, tap it with your MessagePad pen.

Button	What it's used for
	Tap *Extras* to open the Extras Drawer, which contains your applications and packages. When you open this area, you see icons, or picture buttons. Each opens a different application within your MessagePad. The Extras Drawer includes the InOut Box, Preferences, and items that appear when you use a storage card.
	Tap *Names* to go to the Name File. This is where you store information about people, companies, and group addresses. You use it to keep track of names, addresses, phone numbers, electronic mail addresses, and even birthdays.
	Tap *Dates* to go to the Date Book. This is where you store information about your schedule. You can keep track of meetings, keep a list of things to do, and set alarms.
	Tap *Undo* to cancel the last thing you did. Tap it again to redo your last action.
	Tap *Find* to look for information in your MessagePad. You can search for text or for information by date in any area of your MessagePad.
	Tap *Assist* to have your MessagePad do certain things for you—for example, to put something in your to-do list or fax a note to someone. You can also access the on-screen help by tapping Assist.
	Tap *Dock* to establish a connection between your MessagePad and your computer, to fax using a fax modem, or to connect to online services or the Internet using a modem.
	Tap the *up* or *down arrow* to see more of the information on the screen, or to see the previous or next item. The up arrow moves to older items and the beginning of lists. The down arrow moves to newer items and the end of lists. Tap the *Overview* button (the dot beside the arrows) to see a list of the contents of the area you're in.

(Getting Started at 15.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	## Tap Versus Click Throughout the Newton software system and in this book, the word "click" sometimes appears as part of the name of a method or variable, as in `ViewClickScript` or `ButtonClickScript`. This may lead you to believe that the text refers to mouse clicks. It does not. Wherever you see the word "click" used this way, it refers to a tap of the pen on the Newton screen (which is somewhat similar to the click of a mouse on a desktop computer). (Programmer's Reference at xxxvi.) ## protoTextList This proto creates a scrollable list of items from which the user can choose one or more items by tapping. The selected items are highlighted in the list. The user scrolls the list by tapping the optional scroll arrows or tapping and dragging the pen either above or below the list. (Programmer's Reference at 5-20.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

CHAPTER 6

Controls Reference

protoPictureButton

This proto is used to create a picture that is a button; that is, the user can tap the picture to cause an action to occur. The following is an example of a `protoPictureButton` view:



The `ViewClickScript` method is used internally in the `protoPictureButton` and should not be overridden. To handle a tap event, use the `ButtonClickScript` method; the `ViewClickScript` method sends the `ButtonClickScript` message to allow you to handle the event.

(Programmer's Reference at 6-9.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Keyboards

This section describes the views, protos, and functions you can use in your applications to work with on-screen keyboards.

Keyboard View (clKeyboardView)

The `clKeyboardView` class displays keyboard-like arrays of buttons that can be pressed (tapped with the pen) to perform an action. To read about how to use this class, see "Keyboard Views" (page 8-26) in *Newton Programmer's Guide*.

(Programmer's Reference at 7-35.)

Buttons

A **button** is a small graphic object that performs an action when tapped. The action that the button performs is described by text or a picture on the button, as shown in Figure 3-1.

Figure 3-1 Tapping a button initiates an action



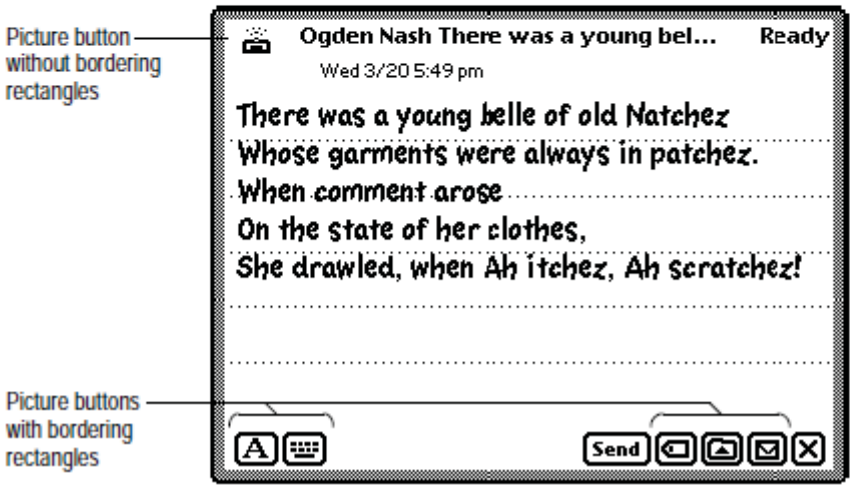
(User Interface Guidelines at 3-2.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Picture Buttons

A **picture button** is a small picture (an icon) that represents the button's function. The picture is usually bordered by a rounded rectangle, like a text button with a picture instead of a text name. Figure 3-7 shows several picture buttons.

Figure 3-7 A picture button depicts what the button does



(User Interface Guidelines at 3-7.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Standard Newton Buttons

A typical application includes some of the following standard Newton buttons, either on a status bar, on a separator bar, or in a slip: the Analog Clock, Info, Recognizer, Keyboard, New, Show, Filing, Action, Item Info, and Rotate. This section describes where each of those standard buttons belongs and what it does.

(User Interface Guidelines at 3-22.)

Although some applications for Newton devices only present information to people, many applications gather data from people as well. A person can input information in a Newton application by

- Tapping and dragging to select an input from a list or range of options provided by the application
- Writing and drawing to input text and shapes
- Typing text on an on-screen keyboard.

The Newton interface elements that applications use for these input methods are described in the first two sections of this chapter. There's also a section on handling user errors.

(User Interface Guidelines at 6-1.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Typing

Wherever users can write text on a Newton device, they can type it using an on-screen keyboard as well. Figure 6-27 shows the four keyboards that are built into the Newton system. You can also create custom keyboards for use in your application.

Figure 6-27 The four built-in keyboards

Typewriter (alpha)





Numeric

Phone





Time/Date

(User Interface Guidelines at 6-32.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations

Writing and Drawing

This chapter teaches you how best to write and draw on the MessagePad 2000. There are several methods and tools you can use to enhance recognition, correct mistakes, and manipulate text and drawings. Go through the chapter to find the best tools for your needs.

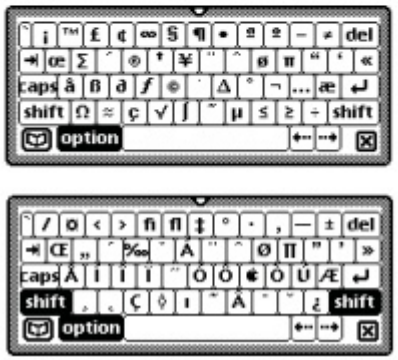
If you want to go through a brief tutorial about writing, you can use the Handwriting Instructor. To access this, tap Extras to open the Extras Drawer, tap the folder tab and in the list that appears, tap Setup. Then tap HW Instructor.

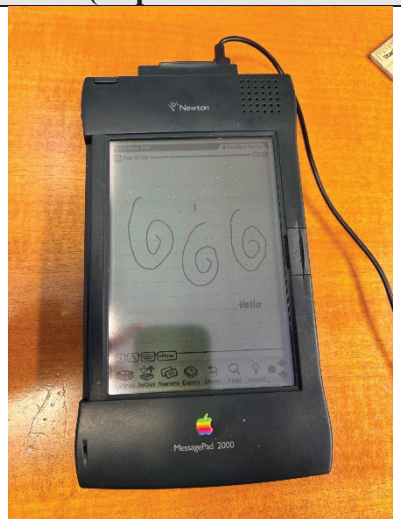
About recognition

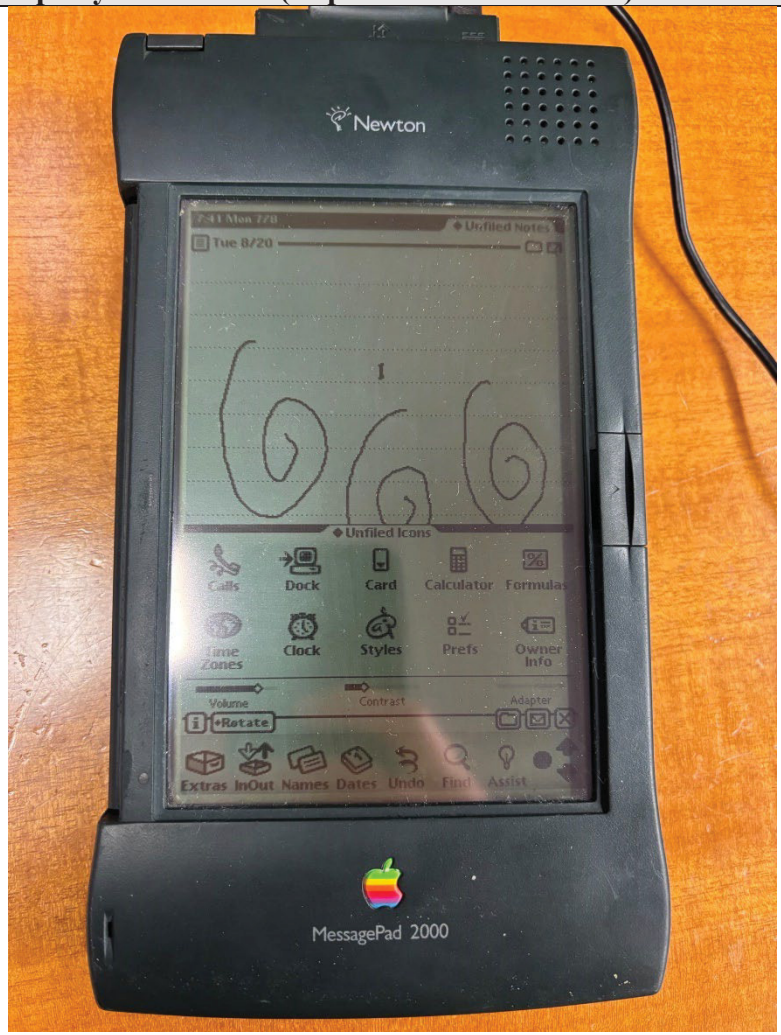
This section offers a general description of handwriting recognition used in the MessagePad and discusses some of the factors that may affect how well it recognizes your handwriting.

When you write on your MessagePad, you write in normal printed or cursive characters, as well as numbers, punctuation, and gestures. Often you write English words, but not always.

(User's Manual at 1.)

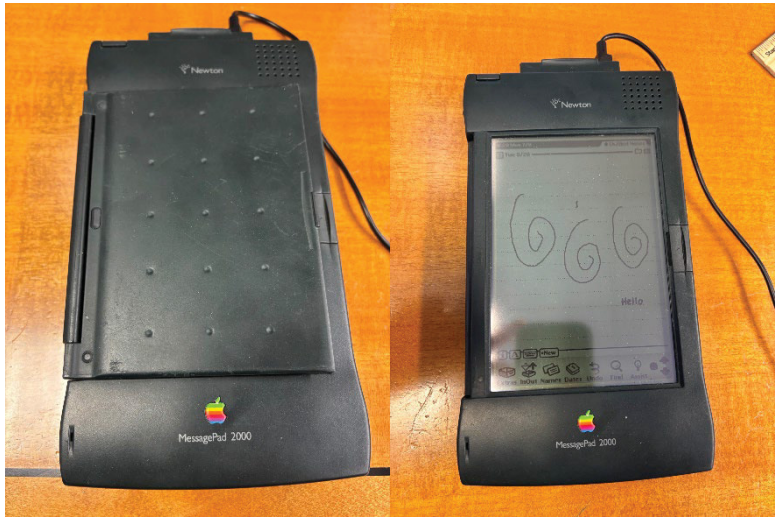
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	Entering symbols and other special characters If you have selected Cursive as your handwriting style, you must use the keyboard to enter accent marks. Your MessagePad does not recognize handwritten accent marks on cursive letters. Display the typewriter keyboard on the screen. Then tap the Option key, or the Option key and then the Shift key, to see the available special characters (such as symbols, accent marks, and accented letters).  (User's Manual at 15.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.)

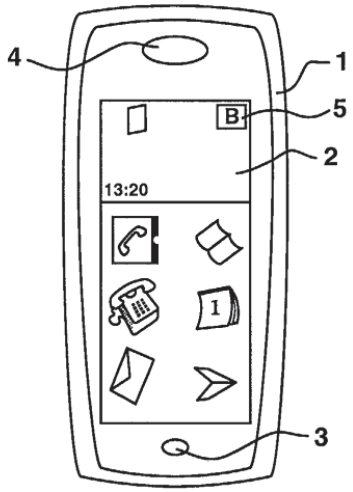
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.)
[1g] wherein said components of the	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's

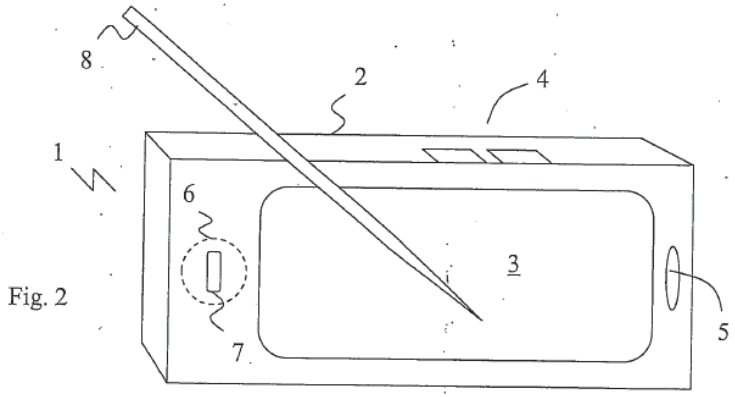
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing.	apparent interpretation of this limitation, discloses "wherein said components of the mobile phone are integrated within said housing such that none of said components is noticeably extended out from said housing." For example, Apple Newton is a mobile device without components extending out from the housing. (Getting Started at 2.) 

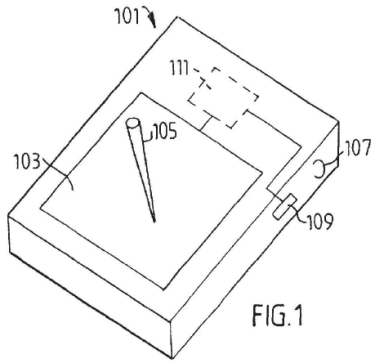
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	(Getting Started at 2.) Additional exemplary citations include:  (Apple Newton Device.) To the extent Keyless contends that this element is not disclosed, a POSITA would have found it obvious in light of Apple Newton, POSITA's pre-existing knowledge, and/or the teachings of Apple Newton combined with Bast, Pensjo, Wedel, Dutta, and/or Gupta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. For example, a POSITA would have found the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would have found that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would have been motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways.

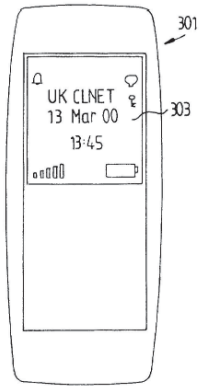
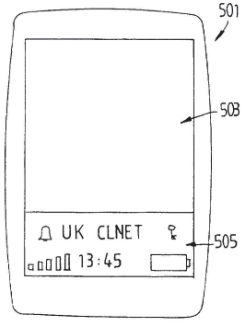
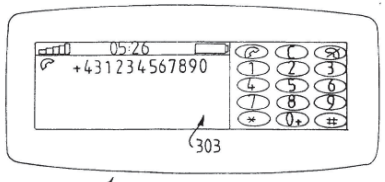
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	For example, Bast discloses a mobile phone that does not include components extended out from its housing. (Bast at FIG. 1.) Bast explains that the mobile phone device uses the touch screen and stylus for input and output, so there would be no need for any physical keyboard or buttons. (Bast at [0010], [0012], [0024].) As another example, Pensjo discloses a similar mobile phone that does not include components extended out from its housing. (Pensjo at FIGS. 1 and 3-5.) Pensjo's mobile phone uses a stylus and a virtual keyboard to enable user input, so there is no need to make any components (e.g., physical keyboard) extend out from the phone housing. (Pensjo at [0010], [0012], [0024].) As another example, Wedel discloses a similar mobile phone that does not include components extended out from its housing. (Wedel at FIG. 2.) Wedel teaches that mobile phones "are getting smaller and smaller" and are now "pocket size." (Wedel at 1:14-21.) Wedel explains that the small size "is generally considered to be an important factor for the end customer," and there is "general market demand for small size and light weight terminals. (Wedel at 1:14-21, 3:19-21.) Without any component extended out from its housing, Wedel's mobile phone is made more portable and easier to fit in a pocket. As another example, Dutta discloses a similar mobile phone that does not include components extended out from its housing. (Dutta at FIGS. 2A and 2B.) Dutta teaches that there was a continuing effort to reduce the mobile phones' sizes in order to make them more portable. (Dutta at [0002].) Particularly, Dutta teaches that the mobile phones were commonly designed to have a long, narrow shape. (Dutta at [0004].) To that end, it is useful not to let the phone's components extend out from its housing. As another example, Gupta discloses a "buttonless" mobile phone that does not require any physical button for enabling input. (Gupta at Title, Abstract, [0009], [0019].) Gupta recognizes the need to reduce the size of mobile phones while providing a display that is large enough for practical information viewing and easy data input. (Gupta at [0004].) To that end, Gupta uses a "full length" touchscreen display to replace the traditional fixed keypad. (Gupta at [0017], FIGS. 2 and 3.) A POSITA would have been motivated to configure a mobile phone to ensure no component extended out from the phone's housing, so as to make the phone easy to fit into a pocket and to avoid unintended input to the device. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Bast, Pensjo, Wedel, Dutta, and Gupta. A POSITA would have been motivated to design a phone

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	accordingly in order to improve user experience and satisfaction. Thus, a POSITA would have considered the combination of the teachings of Bast, Pensjo, Wedel, Dutta, and/or Gupta into the mobile device disclosed by Apple Newton to be an example of (A) combining prior art elements (the fully integrated mobile phone design as taught by Bast, Pensjo, Wedel, Dutta, and Gupta) according to known methods to yield predictable results (improving the portability and operability of a mobile phone); (B) use of a known technique (excluding components extended from a phone housing, as taught by Bast, Pensjo, Wedel, Dutta, and Gupta) to improve similar devices in the same way (improving user experience and device performance); (C) applying a known technique (excluding components extended from a phone housing, as taught by Bast, Pensjo, Wedel, Dutta, Gupta) to a known device ready for improvement to yield predictable results (improving user experience and device performance); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Bast, Pensjo, Wedel, Dutta, and Gupta) that would have led one of ordinary skill to modify the mobile device disclosed by Apple Newton to arrive at the claimed invention. Additional exemplary citations include: "The mobile terminal shown in Figure 1 combines the functions of a personal digital assistant (PDA) and a mobile telephone. It includes a housing 1 equipped, on the front face, with a large screen 2, which can be a touch screen. The front face of the housing also includes a microphone 3 and a speaker 4, located at the lower part and the upper part, respectively, of the front face of the housing. The touch screen 2 is a rectangular screen that is as large as possible to enable: the input and display of data, particularly writing by means of a stylus; the display of various information, like the time; the display of short messages or messages obtained by email; and the display of program and function icons, settings icons, a virtual keypad for numbering etc. When coming on line, it can, for example, as shown in Figure 1, display a desktop in the form of icons corresponding to the various applications programmed in the terminal." (Bast at [0010].) "To enable the user to discretionally toggle from one display to the other, as is considered to be more suitable at a given time, the mobile terminal can be equipped with a toggle button. This button can be a conventional button disposed on the housing or a virtual toggle button 5, accessible to the user and permanently displayed, in the form of an icon on the touch screen 2 (Figures 1 to 3). An equivalent function is accessible by means of a menu." (Bast at [0012].)

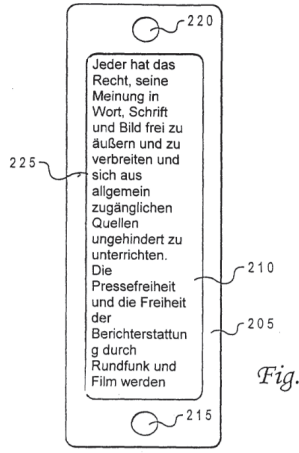
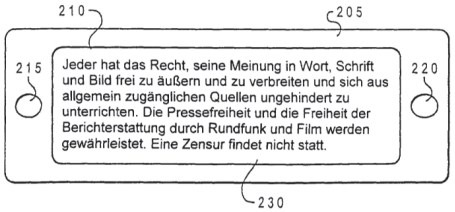
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Calibration essentially consists of determining the vertical position of the device. This calibration can be carried out automatically or manually. In one preferred embodiment, the robustness of the system is increased by combining the two calibration modes." (Bast at [0018].) "A small mechanical switch (not shown) disposed at the base of the housing 1 enables the orientation of the terminal to be manually calibrated. When the user places the terminal vertically on a table or any other horizontal surface 10, the switch closes and the central processing unit 7 considers the corresponding position to be the vertical position." (Bast at [0020].) "If the screen 2 is a touch screen, the housing's orientation detector can be associated with a virtual toggle button, thus enabling the user to change the current display mode." (Bast at [0024].) Bast discloses the following at FIG. 1:  **Figure 1** "Figure 2 discloses a different embodiment of a state of the art communication terminal 1, wherein the display 3 occupies a larger portion of the front side of the terminal. Several of the functions of the keypad 4

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	have been included in a graphical user interface applicable to the display 3, rendering a data input interface having less keys. Those keys 4 may also be moved to the side of the communication terminal in order to allow for the display 3 to occupy a larger portion of the front side of terminal 1. A specific tool 8 may be provided for inputting data on a touch-sensitive screen of the display 3." (Wedel at 2:3-11.) Wedel discloses the following at FIG. 2:  Fig. 2 "Fig. 1 illustrates a view of a portable device 101 comprising a touch sensitive screen display 103 used for input of operational commands and/or data. The device 101 further includes a pen 105 as a pointing tool for touching specific areas of the screen display 103 in a predefined manner. When not in use, the pen can be placed in a pen holder 107 of the portable device. The pen holder is in this example placed on the side of the device and comprises a ring for receiving the pen. The pen holder may of course be designed and placed in many different ways within the scope of the invention, such as a recess together with some kind of a spring-like element. The device 101 further comprises a mechanism 109 for detecting whether the pen is located in the holder or not, and an electronic control unit 111 connected to the pen detecting mechanism 109. The control unit 111 operates to control circuits, not shown, for displaying various patterns, pictures and/or information on the screen display 103." (Pensjo at [0008].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"Fig. 3 is a view of an exemplary mobile telephone 301 comprising a touch screen display 303 being in a sleep mode due to the presence of a pen in a pen holder, not shown. the layout of the screen display 303 is in a "portrait" format." (Pensjo at [0010].) "Fig. 4 is a view of the mobile telephone 301 of Fig. 3 after the pen has been removed from the pen holder. In this example, the layout of the screen display 303 has been changed into a "landscape" format including a numeric keyboard." (Pensjo at [0011].) "Finally, Fig. 5 is a view of an exemplary electronic device 501, comprising a touch screen 503, where the device has changed from a sleeping mode into an active mode in response to the pen being removed from the pen holder, not shown. The user may be alerted of the change into the active mode by illuminating, e.g., the lower part 505 of the screen 503." (Pensjo at [0012].) "According to one aspect of the invention, the device is in a first passive mode, or sleep mode, when the pen is present in the pen holder 107. In this state, the touch functionality of the screen is preferably not activated such that data or commands cannot be entered by mistake, e.g., when the device is located in a pocket or a suitcase. The screen may in this mode display various information, such as phone numbers, e-mails, reminder alerts etc. When the device switches from the first mode to a second active mode after the pen has been removed from the pen holder 107, the screen appearance changes into a layout designed for input of commands and/or data and also the touch functionality of the screen is activated." (Pensjo at [0013].) Pensjo discloses the following at FIGS. 1 and 3-5:  FIG.1

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 FIG.3  FIG.5  FIG.4 "A goal in the ongoing further development of portable terminals consists in continuously reducing its dimensions to make its transport as comfortable as possible. Unfortunately, this also means that the displays of these devices are very small. With the ever greater usage of portable devices, such as, for example, personal digital assistants (PDAs) and mobile phones to access the Internet, the limitations that arise due to the small displays are increasingly significant." (Dutta at [0002].) "Consequently the displays of mobile phones must be adapted to the long, narrow shape of the phone itself." (Dutta at [0004].) "Figs. 2A and 2B are exemplary representations of the display of a mobile phone corresponding to a preferred embodiment of the present invention. The two figures show this telephone 205, which is equipped

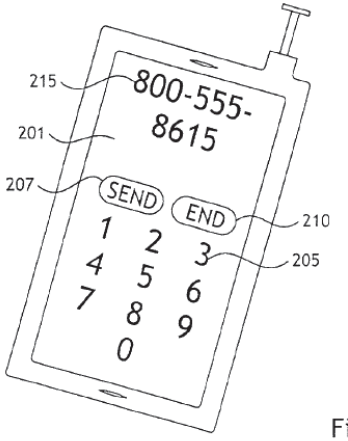
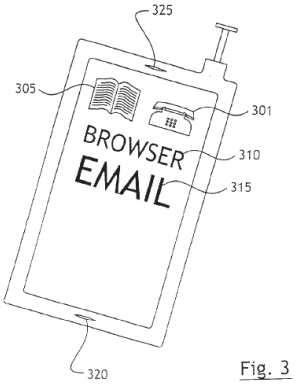
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	with a display 210. From the illustration it follows that the display 210 occupies the majority of the surface of the telephone 205, in which a microphone 215 is located at one end of the display, and a speaker 220 is located at the other end of the display." (Dutta at [0018].) "The difference between these two figures consists in the representation of data 225 and 230 on the display 210. In Fig. 2A, the data 225 are depicted such that the text is read in portrait format of the display 210, as is usual in current mobile phone models. It is clear that reading is problematic in this format of the display." (Dutta at [0019].) "However, in Fig. 2B, the representation of the data 230 has been rotated by 90 degrees so that they are shown on the display 210 in landscape format. In this case the data 23 are significantly easier to read." (Dutta at [0020].) Dutta discloses the following at FIGS. 2A and 2B:

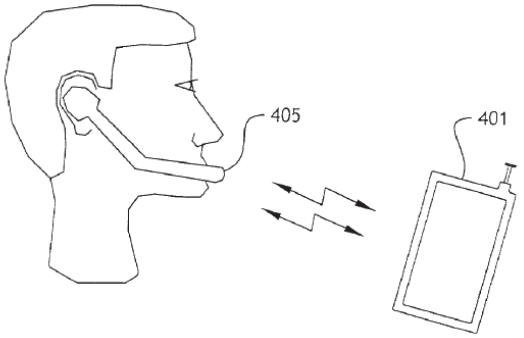
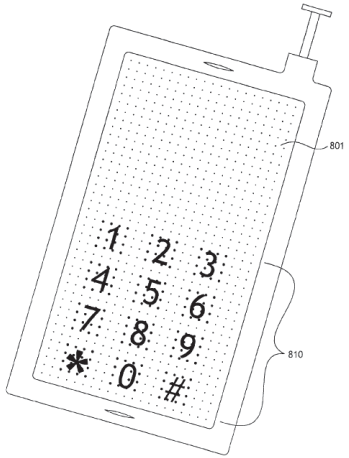
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 *Fig. 2A*  *Fig. 2B* "The functions of personal digital assistants and cellular telephones are merging. Devices are emerging that not only can hold addresses and phone numbers but can also communicate over the Internet through a wireless connection. This gives the user the ability to send e-mail, download stock quotes, look-up directions for travel as well as make telephone calls." (Gupta at [0002].) "Many cellular telephone manufacturers enable the personal digital assistant and cellular telephone capability by providing a larger display on the telephone. The larger display is able to show multiple lines of information as well as icons for accessing the personal digital assistant functions of the device." (Gupta at [0003].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"In order to keep the telephone small and still provide a reasonably large display for information, the size of the keypads for entering data has been reduced substantially. Individuals with large fingers or users that try to input data while moving may have trouble depressing the small keys properly. There is a resulting unforeseen need for a small communications device that merges the functions of a personal digital assistant and a telephone, cellular or otherwise, while still providing a display that is large enough for practical information viewing and a keypad that is easy to use." (Gupta at [0004].) "A buttonless communication device that uses a touchscreen display for entering and displaying data. The different modes of the device are displayed as icons on the display allowing the device to enter the mode enabled by contact of the appropriate icon. A telephone mode displays a keypad of icon numbers, a send icon, an end icon, and an entered telephone number display area. By contact with the appropriate icons, a telephone number can be called or an incoming call answered." (Gupta at Abstract.) "A touch-screen display is comprised of icons that represent numbers. The icons are used to enter a number in response to a contact, on the display, over a particular icon to be entered. A controller controls the transmitter, the receiver, and the touch-screen display. The controller controls the operation of the communications device and comprises an apparatus that generates the icons representing numbers for display on the touch-screen display. The controller also comprises an apparatus that generates an accumulated telephone number in response to the particular icons contacted on the touch-screen display." (Gupta at [0008].) "FIG. 2 shows a buttonless, wireless communication device of the present invention in a telephone mode." (Gupta at [0009].) "The communication device of the present invention provides a telephone with a full length, tactile response, touchscreen display. Instead of portions of the telephone being taken up by a fixed keypad, the touchscreen display can display a keypad while in the telephone dialing mode but then replace the keypad with extra display space for data. The display also features dynamically raised keys and buttons in response to what is being displayed." (Gupta at [0017].) "FIG. 2 illustrates the buttonless communication device of the present invention. In the preferred embodiment, this communication device is a wireless radiotelephone for use in a cellular system. Alternate

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	embodiments use other types of telephones such as cordless telephones, for use in the home, that are coupled to the public switched telephone system. The cellular radiotelephone of the present invention is not constrained to any one air-interface standard. It works equally well with code division multiple access (CDMA), global system for mobile communication (GSM), time division multiple access (TDMA), or even advanced mobile phone system (AMPS)." (Gupta at [0019].) "The telephone illustrated in FIG. 2 is comprised of a large touchscreen display (201). FIG. 2 illustrates the present invention in the telephone mode. In this mode, the device displays number icons (205) or other informational symbols (not shown) which form and are used as a telephone keypad for entering telephone numbers. The display also displays a 'SEND' key (207) and an "END" key (210) (for purposes of this disclosure, the term 'key' does not refer to a physical button or switch but instead refers to an area of the display screen which when contacted or touched causes the generation of a signal to the phone that is representative of the 'button' or 'pad' that was actuated. The functions of a 'SEND' and 'END' key are generally known to start and stop a wireless phone call. A portion of the display (215) is reserved for displaying the telephone number as it is being typed in." (Gupta at [0020].) "In the preferred embodiment, the user receives an aural feedback whenever a "key" is contacted. Since the surface of the screen of the preferred embodiment is smooth and there is no key movement to let the user know that data has been entered, the telephone can be set up to generate an electronic beep, clicking noise, or some other sound to indicate the successful actuation of each "key". The chosen sound may be chosen by setting up user preferences of the telephone operator or the sound may be turned off for silent operation." (Gupta at [0022].) "The display also has a browser icon (310) that takes the user to the browser program used by the telephone. The browser is a scaled down version of a personal computer browser such as NETSCAPE NAVIGATOR and, in the preferred embodiment, conforms to the wireless access protocol (WAP) standard for wireless Internet access. This browser program enables the user to access selected Web sites over the Internet and display the accessed data on the large telephone display. It can be seen the that lack of a fixed telephone keypad enables substantially more data to be displayed while in this mode than would be possible with the fixed keypad." (Gupta at [0026].)

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The process of the present invention is illustrated in FIG. 6. This process begins with the controller generating the icons indicating the different modes of the communication device (step 601). The controller then displays these icons on the touchscreen display. The user touches the telephone icon to put the communication device into the telephone mode (step 610). The controller reads the contact on the touchscreen display and, knowing the coordinates of the telephone mode icon on the display, puts the device into the telephone mode (step 615). Once in the telephone mode, the controller generates the number icons and causes the touchscreen display to display them in a keypad-style format (step 620). The controller also generates the other telephone keys, such as "send", "end", and the telephone number display and displays them in the proper format on the touchscreen display." (Gupta at [0037].) "The size of the touchscreen display of the present invention provides the communication device with the ability to display multimedia deliveries from the Internet or other sources. The display could show the presentation along with dynamically changing control buttons such as fast forward, back, review, stop, and pause." (Gupta at [0049].) "In summary, the present invention provides a communication device having a full-length touchscreen display. This enables the display of additional data and information not possible on communication devices having a fixed keypad." (Gupta at [0051].) Gupta discloses the following at FIGS. 2-4, and 8:

Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 2 (Gupta at FIG. 2)  Fig. 3 (Gupta at FIG. 3)

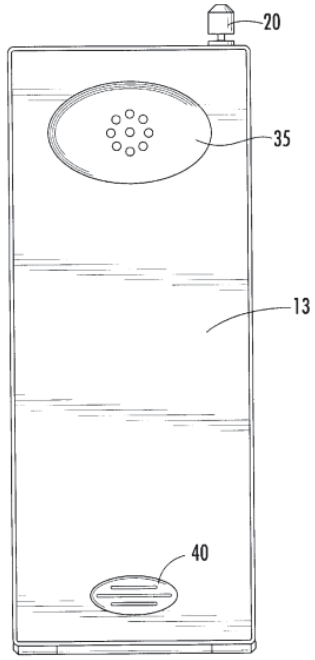
Claim 1	Exemplary Disclosures (Express and/or Inherent) and Citations
	 Fig. 4 (Gupta at FIG. 4)  Fig. 8 (Gupta at FIG. 8)

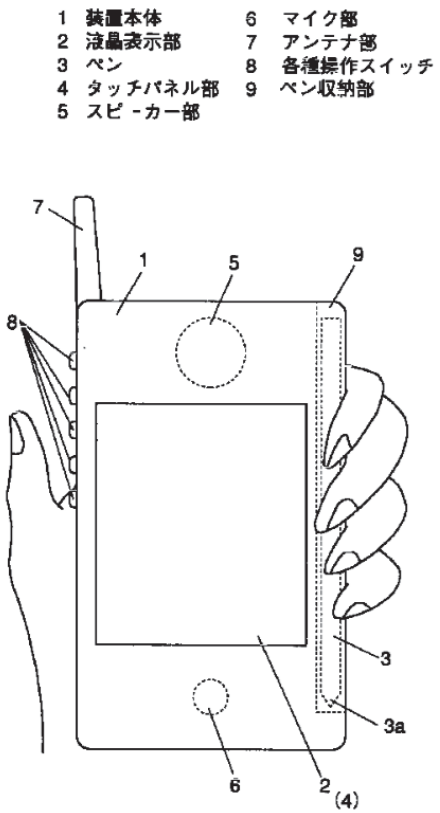
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
[2pre] The device of claim 1,	Claim 2 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 2 are anticipated and/or obvious for the same reasons set out in claim 1. Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].
[2a] wherein said practically rectangular shape has rounded corners.	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said practically rectangular shape has rounded corners." For example, the corners of Apple Newton's housing have slightly rounded edges. (Getting Started at 2.)

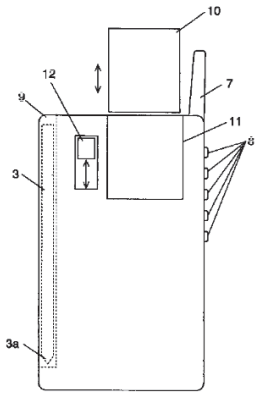
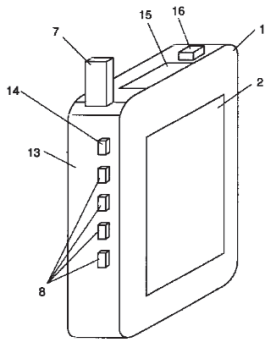
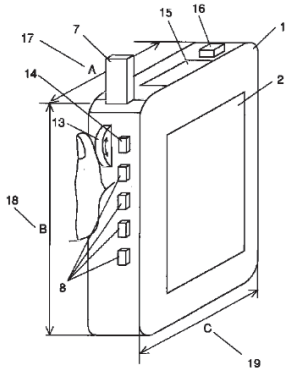
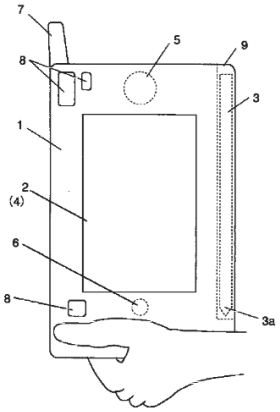
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Getting Started at 2.) Additional exemplary citations include:

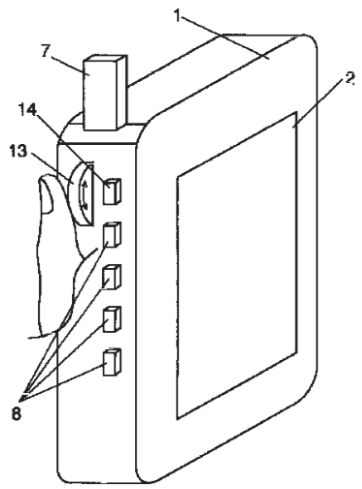
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.) To the extent Keyless argues that Apple Newton does not disclose or render obvious this limitation, it would have been obvious in view of Apple Newton, POSITA's pre-existing knowledge, and/or the teachings of Apple Newton combined with Rydbeck, Yamaguchi, and/or Dutta. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Rydbeck discloses a mobile phone housing that is generally rectangular and includes rounded corners. (Rydbeck at FIG. 3.) As another example, Yamaguchi discloses a mobile phone device having a rectangular housing with rounded corners. (Yamaguchi at FIGS. 1, 3-7).

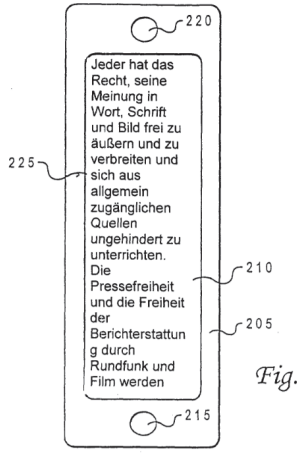
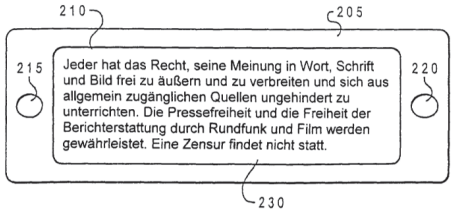
Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	As a further example, Dutta discloses a mobile phone having a rectangular housing with rounded corners. (Dutta at FIGS. 2A-2B.) A POSITA would have been motivated to configure a mobile phone such that the housing has rounded corners to improve the ease of use and portability of the phone. Configuring a mobile phone in this way was routine and conventional to a POSITA, as shown by each of Rydbeck, Yamaguchi, and Dutta. A POSITA would have been motivated to round the corners to improve user experience and make the design more ergonomical. Thus, a POSITA would have considered the combination of the teachings of Rydbeck, Yamaguchi, and/or Dutta into the mobile device disclosed by Apple Newton to be an example of (A) combining prior art elements (a housing with rounded corners as taught by Rydbeck, Yamaguchi, and Dutta) according to known methods to yield predictable results (improving the user experience and ergonomics of a mobile phone); (B) use of a known technique (forming a housing such that the housing has rounded corners as taught by Rydbeck, Yamaguchi, and Dutta) to improve similar devices in the same way (improving user experience and ergonomics); (C) applying a known technique (forming a housing such that the housing has rounded corners as taught by Rydbeck, Yamaguchi, and Dutta) to a known device ready for improvement to yield predictable results (improving user experience and device ergonomics); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Rydbeck, Yamaguchi, and Dutta) that would have led one of ordinary skill to modify the mobile device disclosed by Apple Newton to arrive at the claimed invention. Additional exemplary citations include: Rydbeck discloses the following at FIG. 3:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 FIG. 3. Yamaguchi discloses the following at FIG. 1:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	【図１】  Yamaguchi discloses the following at FIGS. 3 and 5-7:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	【図３】  【図５】  【図６】  【図７】  Yamaguchi discloses the following at FIG. 4:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	【図4】  Dutta discloses the following at FIGS. 2A-2B:

Claim 2	Exemplary Disclosures (Express and/or Inherent) and Citations
	 *Fig. 2A*  *Fig. 2B*

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
[3pre] device of claim 1	Claim 3 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 3 are anticipated and/or obvious for the same reasons set out in claim 1. Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].
[3a] wherein plurality of icons corresponding to plurality of applications are displayed on said display unit, and	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein plurality of icons corresponding to plurality of applications are displayed on said display unit." For example, Apple Newton displays a plurality of icons on the touchscreen. (User Interface Guidelines at 5-6; Getting Started at 15; User's Manual at 106.) Each icon may correspond to one of a plurality of applications, including built-in applications such as "Notepad, Names File, Date Book, In / Out Box, Filing, Routing, Find, Assist, and others." (User Interface Guidelines at 1-10; User's Manual at 107, 116.) Extras Drawer Icons For users to be able to open an application, it must have an icon in the Extras Drawer. The application name appears beneath the icon in one or two short lines of text. In addition, an application that stores data has a storage icon in the Storage folder of the Extras Drawer. (User Interface Guidelines at 5-6.)

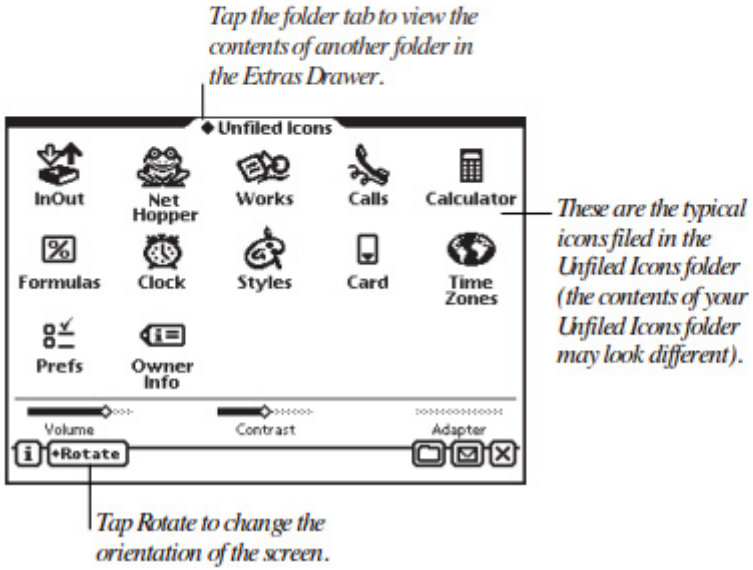
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	## Observe the Built-In Applications Your software will coexist with built-in Newton applications and services. On an Apple MessagePad they include the Notepad, Names File, Date Book, In/Out Box, Filing, Routing, Find, Assist, and others. If your application has functions analogous to those in the built-in applications and services, use the same mechanisms. Users will be accustomed to them and will expect other software to work in the same way. You can most easily match the built-in applications and services by using the system proto templates in the Newton Toolkit. You can extend the Newton interface if you need to, but make sure your extensions retain the original look and feel. (User Interface Guidelines at 1-10.)  Tap *Extras* to open the Extras Drawer, which contains your applications and packages. When you open this area, you see icons, or picture buttons. Each opens a different application within your MessagePad. The Extras Drawer includes the InOut Box, Preferences, and items that appear when you use a storage card. (Getting Started at 15.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations

Part 1: Managing the Extras Drawer

The Extras Drawer contains icons you can tap to go to different areas of your MessagePad, other than the Name File, Date Book, and Notepad. If you install more applications, either internally or on a storage card, their icons may appear in the Extras Drawer.

To open the Extras Drawer, tap Extras. Tap the icon again to close the Extras Drawer. You can also tap ☒ to close the Extras Drawer.



(User's Manual at 106.)

The following folders are present when you first receive your MessagePad:

- *Unfiled Icons*—contains many built-in applications, such as the InOut Box, Calls, Calculator, Formulas, Time Zones, Connection, Card, Styles, Prefs, Owner Info, and Clock.

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	(User's Manual at 107.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations

Part 2: Using the Built-In Applications

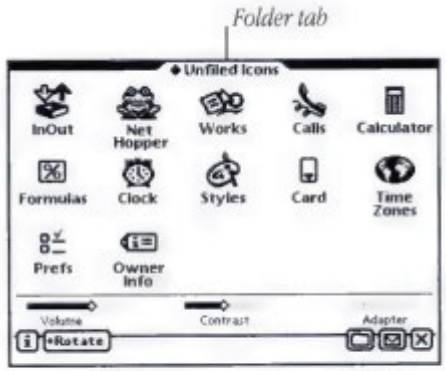
The MessagePad has built-in applications you can use for a variety of purposes.

Calculator	For simple arithmetic calculations.
Calls	For making and logging telephone calls.
Card	For choosing what information to store on a storage card and for backing up and restoring information.
Clock	For setting the time and date, a daily alarm, and a timer.
Dock	For connecting to applications running on your computer using serial, modem, and AppleTalk connections.
Formulas	For conversions and financial calculations.
Help	For accessing information on how to perform tasks.
HW Instructor	For learning the basics of writing and recognition.
InOut Box	For receiving electronic mail, beamed information, and other items, and for storing items waiting to be printed or sent as faxes, beamed information, and electronic mail.
Newton Tour	For learning the basics of the MessagePad.
Owner Info	For setting owner and worksite information.
Prefs	For fine-tuning your MessagePad.
Setup	For entering personal information and settings.
Styles	For choosing the appearance of text and lines.
Time Zones	For setting your location and determining times around the world.
Writing Practice	For practicing writing.

In addition, your MessagePad contains various information files for certain applications. These files are found in the Storage folder.

(User's Manual at 116.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Additional exemplary citations include:



(Your screen may appear slightly different depending on the applications you've installed or if you've moved icons to other folders.)

(Getting Started at 10.)

Viewing items in the Extras Drawer

You can view items in the Extras Drawer in two ways—by icon (default view) and as a list. To see a list, or overview, of items, go to a folder in the Extras Drawer and tap the Overview button ●.

(User's Manual at 112.)

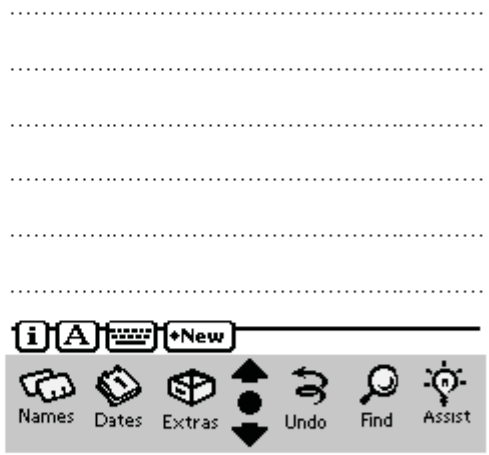
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	Selecting, moving, and deleting icons Icons are small pictures on the screen that represent items stored on your MessagePad. They include: ■ Built-in or installed applications and packages, such as Dock or the Newton Tour. ■ Documents you create with an application, such as a Newton book. You can select icons and move them around in the Extras Drawer to change their position. You can also delete icons from the Extras Drawer, except for built-in applications. (User's Manual at 112.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations

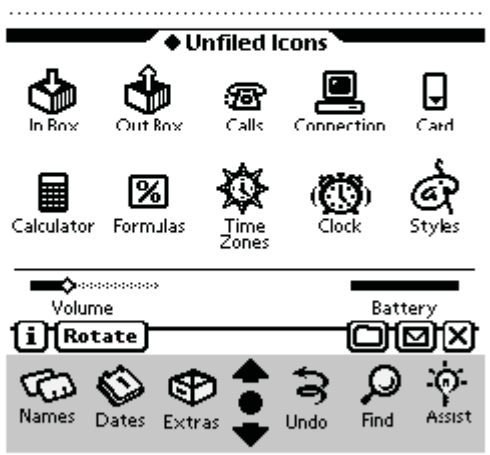
Drawers

A **drawer** is a container view that slides open and closed at the bottom of the screen or at the bottom of another container view. Figure 2-24 shows the Extras Drawer.

Figure 2-24 A drawer slides open and closed



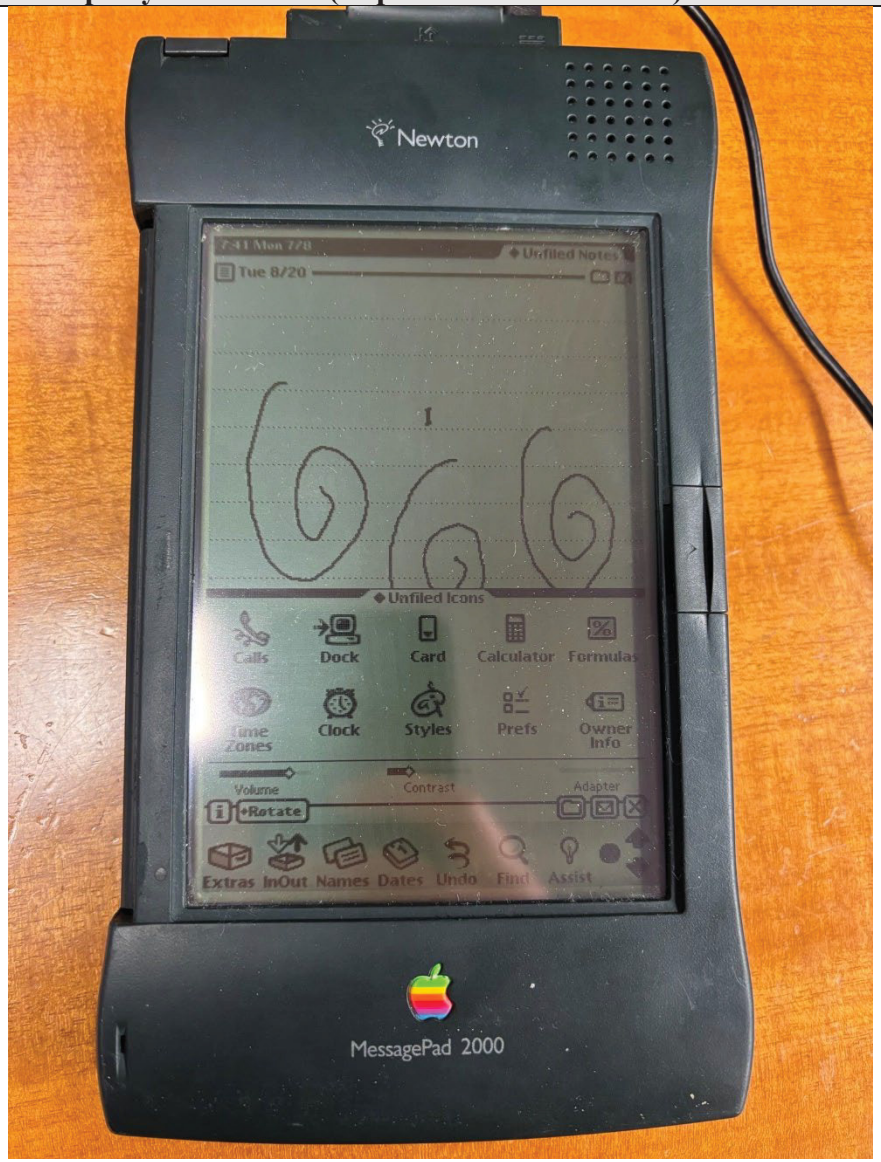
The Extras Drawer closed



The Extras Drawer open

A drawer can be used for the main view of an application or for an auxiliary view. It can have a a title, a folder tab, or neither, depending on its function and contents. A drawer must have a Close box.

(User Interface Guidelines at 2-26.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
[3b] wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit.	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit." For example, Apple Newton discloses that if not all elements of a list can be displayed in a single view a user may scroll to "move currently displayed information out of view and bring other information into view." (User Interface Guidelines at 2-36.) Apple Newton teaches that additional applications may be installed and that "their icons may appear in the Extras drawer." (User's Manual at 106; User Interface Guidelines at 5-6.) Accordingly, if more icons were needed than could be displayed in a single view, a user would navigate between the icons by scrolling. Apple Newton teaches that scrolling may be accomplished by tapping on scroll arrows or by "tapping and dragging the pen." (Programmer's Reference at 5-20.) **Scrolling** An application that deals with multiple instances of similar information—multiple notes in the Notepad, multiple names in the Name File, multiple days in the Date Book, and so on—can't display all the instances at once in a single view. People **scroll** the information to move currently displayed information out of view and bring other information into view. The information appears to roll out at one edge of the view and roll in at the opposite edge. Figure 2-29 shows a conceptual view of notes ready to be scrolled in the Notepad's main view. (User Interface Guidelines at 2-36.)

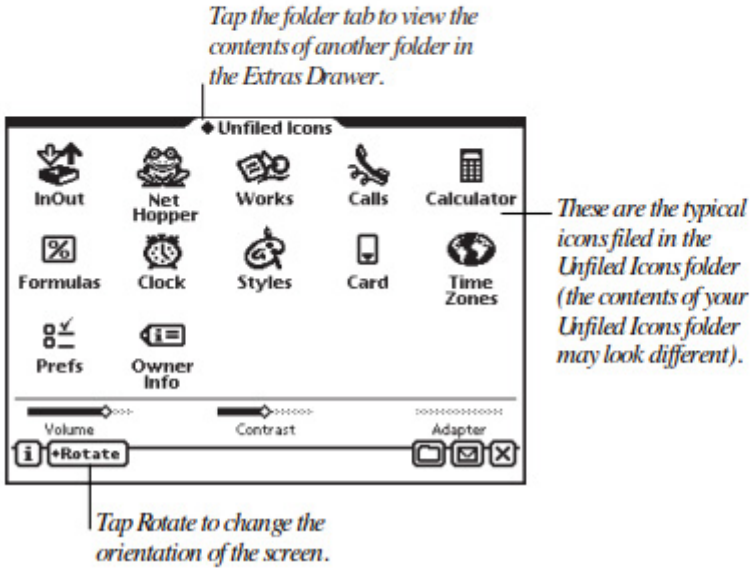
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	protoTextList This proto creates a scrollable list of items from which the user can choose one or more items by tapping. The selected items are highlighted in the list. The user scrolls the list by tapping the optional scroll arrows or tapping and dragging the pen either above or below the list. (Programmer's Reference at 5-20.) Additional exemplary citations include:

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations

Part 1: Managing the Extras Drawer

The Extras Drawer contains icons you can tap to go to different areas of your MessagePad, other than the Name File, Date Book, and Notepad. If you install more applications, either internally or on a storage card, their icons may appear in the Extras Drawer.

To open the Extras Drawer, tap Extras. Tap the icon again to close the Extras Drawer. You can also tap ☒ to close the Extras Drawer.



(User's Manual at 106.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations

Roll Views

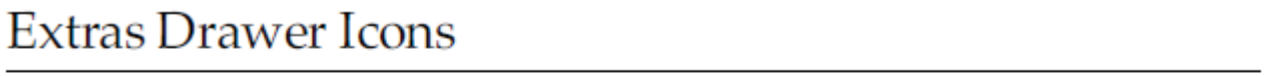
In a **roll view** several discrete, fixed-size subviews are arranged one above another like pictures on a filmstrip. A roll view invariably contains more subviews than can be displayed in full detail at once. To see a subview that's not currently displayed, a user can scroll through the subviews. Alternatively, a user can see an overview consisting of one-line subview titles.

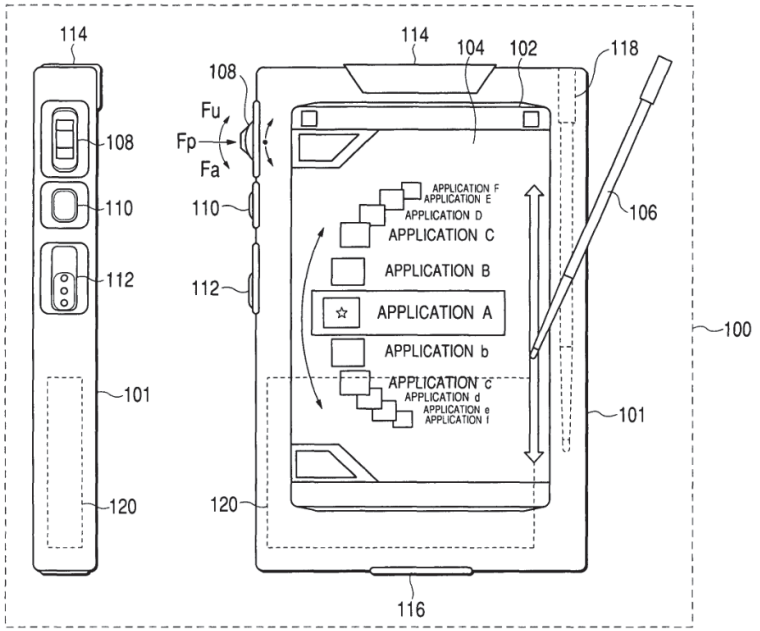
In most applications, users don't find roll views useful. Studies show that users tend not to use scrolling to access different subviews, finding it easier to pick from a list than to remember the relative position of subviews. Usually it makes more sense to implement the subviews of a roll view as individual slips, and list their titles in an overview. For example, the overviews of the built-in Preferences and Formulas applications list the titles of individual slips, and users cannot scroll from slip to slip.

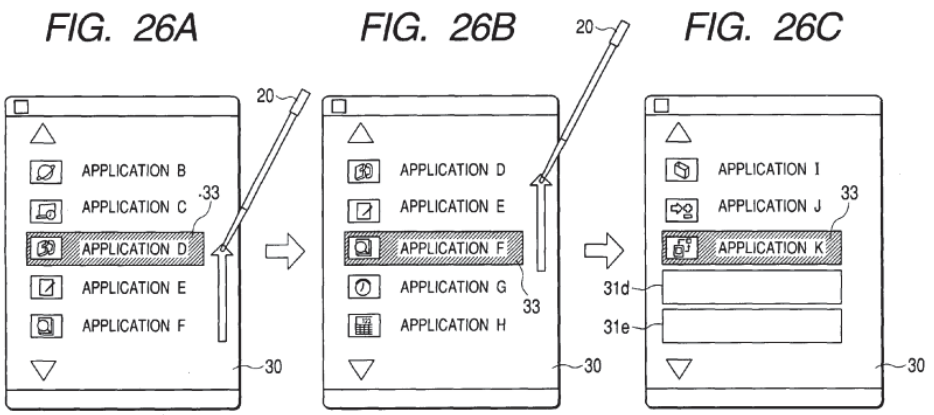
For more information on scrolling and overview, see "Scrolling" on page 2-36 and "Overview" beginning on page 2-44.

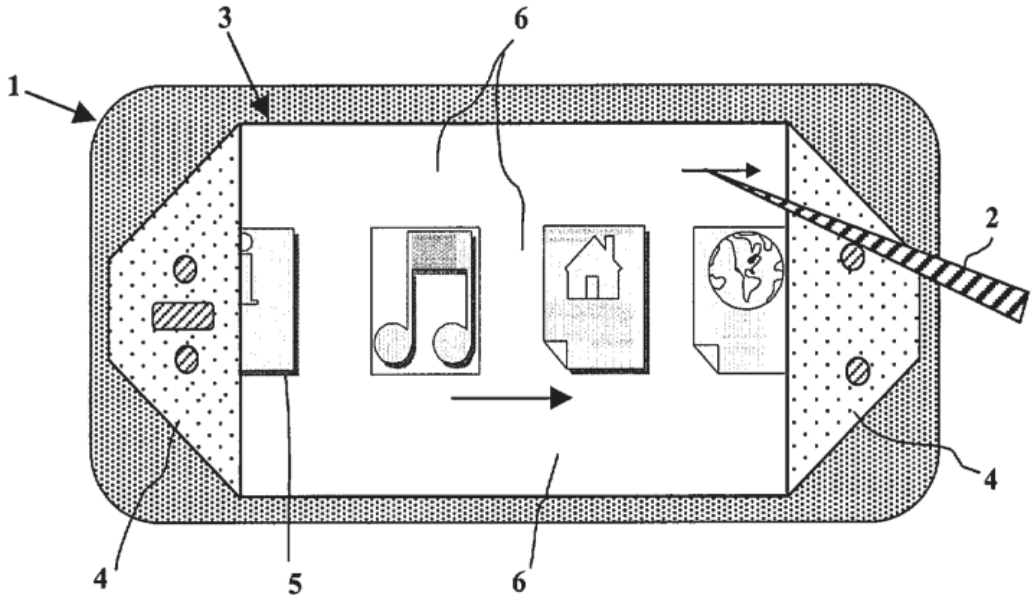
Roll views bear some resemblance to the paper roll structure of the Notepad, but there are several major distinctions. For one, users can create new notes in the Notepad but cannot create new subviews in a roll view. Users can also vary the length of notes in the Notepad, but a roll view's subview sizes are fixed. Moreover, a roll view's summary cannot scroll and can display at most 16 one-line subview descriptions. There can be more than 16 subviews; to see beyond the 16th subview, a user must scroll subview by subview, starting with the 16th one.

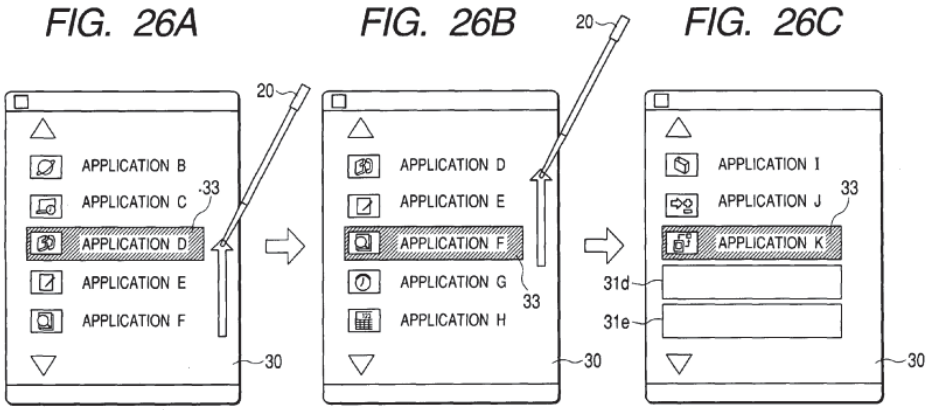
(User Interface Guidelines at 2-27.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 For users to be able to open an application, it must have an icon in the Extras Drawer. The application name appears beneath the icon in one or two short lines of text. In addition, an application that stores data has a storage icon in the Storage folder of the Extras Drawer. (User Interface Guidelines at 5-6.) To the extent Keyless argues that Apple Newton does not disclose or render obvious this limitation, it would have been obvious in view of Apple Newton, POSITA's pre-existing knowledge, and/or the teachings of Apple Newton combined with Nakano and/or Benoit to display a plurality of other applications upon a user action on the display unit. For example, a POSITA would find the combination obvious to try, due at least to the similarity of the technical teachings of the art. As another example, a POSITA would find that the teachings could be predictably interchanged by, for example, simple substitution, at least because of the predictability of the art and the known interchangeability of the various elements. As another example, a POSITA would be motivated to combine the references, and would have a reasonable expectation of success in doing so, at least because the references use known variations of existing technology to solve routine and well understood problems in predictable ways. For example, Nakano discloses a mobile phone that includes a touch panel 104. (Nakano at 2:49-51, FIG. 1.) Nakano teaches a method of improving the control of a menu display by using said touch panel. (*Id*.) The touch panel is integrated into the display of the portable device disclosed by Nakano, which may be a mobile phone. (Nakano at 7:20-39.) Nakano teaches using a drag operation to control the display of various entities shown on the display. (Nakano 7:40-52.) The drag operation taught by Nakano may comprise drawing a finger across the display panel or using a stylus to do the same. (Nakano at 7:57-8:16). Nakano teaches that programming a device, display, and touch panel in this way allows for improved control of display entities that are shown on the display. (Nakano at 8:50-54). The display entities disclosed by Nakano may correspond to programs, also known as applications, that can be activated and executed by the device. (Nakano at 8:65-9:6.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	FIG. 1  (Nakano at FIG. 1.) Thus, Nakano teaches programming a device, such as a mobile phone, so that is operative to allow a user to slide a finger or stylus pen across a menu screen, displaying a plurality of application icons in the form of menu items. (Nakano at 15:66-16:10). A dragging operation, also known as a sliding operation, allows a user to move the menu items displayed in various directions across the screen. (Nakano at 25:40-47, FIGS. 19A-19B.) As shown in FIGS. 26A-C, menu items, also known as application icons, that are not originally shown on the display may be displayed based on a dragging or sliding input from a user. (Nakano at 28:36-29:10, FIGS. 26A-C.)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Nakano at FIGS. 26A-26C.) As another example, Benoit teaches a display used in a mobile phone that can display a series of icons that correspond to programs and respond to a sweeping input to display a plurality of additional icons. (Benoit at (cover page, 57).) Benoit further teaches that it is desirable to display large icons corresponding to applications, making them easily distinguishable. (Benoit at 2:17-18.) And the dexterity needed to control the display of application icons is reduced because the control input can be made across the entire screen, including the area where the application icons are shown. (*Id*.)

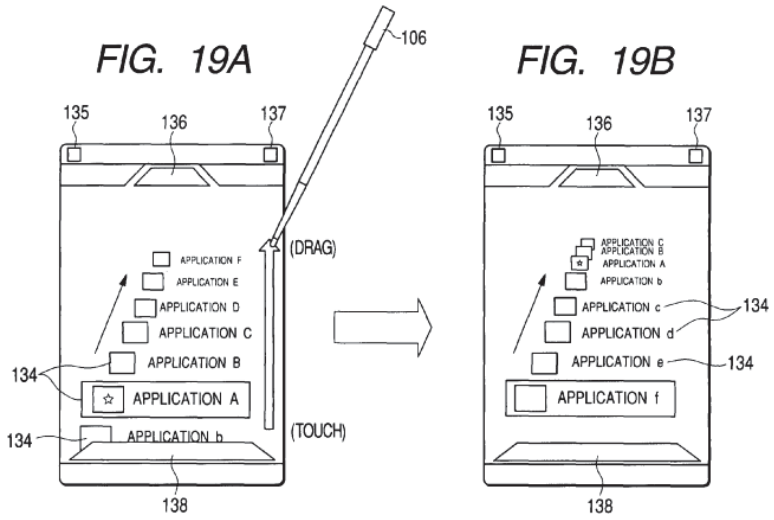
Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Benoit at FIG. 1.) A POSITA would have been motivated to configure a mobile phone such that upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit. Configuring a mobile phone such that upon providing a sweeping action on said display unit, plurality of other icons corresponding to plurality of other applications are displayed on said display unit was routine and conventional to a POSITA, as shown by Nakano and Benoit. A POSITA would have been motivated to configure a display unit in this way to improve operability and functionality of the device. Thus, a POSITA would have considered the combination of Nakano and/or Benoit's teachings into the mobile device disclosed by Apple Newton to be an example of (A) combining prior art elements (combining display unit operative to display a plurality of additional application icons in response to a sweeping action into the mobile device disclosed by Apple Newton, which is operative to display a plurality of application icons) according to known methods to yield predictable results (improved operability and functionality of the device); (B)

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	use of a known technique (programming display unit such that it is operative to display a plurality of additional application icons in response to a sweeping action as taught by Nakano and Benoit) to improve similar devices in the same way (improved operability and functionality of the device); (C) applying a known technique (programming display unit such that it is operative to display a plurality of additional application icons in response to a sweeping action as taught by Nakano and Benoit) to a known device ready for improvement to yield predictable results (improved operability and functionality of the device); and/or (D) some teaching, suggestion, or motivation in the prior art (e.g., the teachings of Nakano and Benoit) that would have led one of ordinary skill to modify the mobile device disclosed by Apple Newton to arrive at the claimed invention. In one exemplary combination, the mobile phone of Apple Newton may be programed to allow a user to change the application icons displayed on the touchscreen by sliding the stylus along the list of application icons. The user interface of such modified Apple Newton would look like that shown in Nakano's FIGS. 26A-C.  (Nakano at FIGS. 26A-26C.) Additional exemplary citations include:

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	"The invention also aims at enhancing the operability of menu display used for a portable information terminal equipped with a touch panel." (Nakano at 2:49-51.) "The invention provides a display control method for causing, a portable information terminal comprising a display integral with a touch panel, a drag operation being available across the predetermined display area of the display, to display, in whole or in part, the information display entities arranged in a predetermined arrangement in the predetermined display area, characterized in that the method comprises: a setting step of setting a position of a candidate for selection in the predetermined display area; a scroll step of scrolling through information display entities in case a drag operation is made; and a first determination step of determining as a candidate for selection the information display entity displayed in the position of a candidate for selection." (Nakano 7:40-52.) "The drag operation refers to operation of drawing a line on a touch panel with a stylus pen of a finger of the user. In the drag operation, a moment a stylus pen comes into contact with a touch panel is referred to as a "tap-in" and a moment a stylus pen is released from a touch panel after moving the stylus pen with the stylus pen kept in contact with the touch panel is referred to as a "tap-out". The operation of causing a stylus pen to come into contact with a touch panel instantaneously and release the stylus pen is called a "tap". According to this invention, a drag operation is available across a predetermined display area where a plurality of information display entities are displayed. Scroll display of information display entities is executed by a drag operation. Thus, the user has only to perform a drag operation like drawing an arbitrary line in order to perform scroll operation. The display screen of a personal information terminal device is small so that the predetermined display area may be set to the entire display screen of the display. For example, a menu display entity may be used as an information display entity and in case a menu screen is to be displayed, the entire display screen may be used to display the menu screen, and a scroll operation (or a drag operation) is allowed across the screen. Further, as a result of scroll, an information display entity (menu display entity) displayed in the position of a candidate for selection is selected as a candidate for selection. Thus, a single drag operation serves as a scroll operation instruction and selection of an information display entity (menu display entity)." (Nakano at 7:57-8:16).

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	"According to the invention, the following advantage is obtained. Information display entities are arranged on a virtual face. Scroll display is allowed by moving a virtual camera whose line of sight faces the virtual face, thus more readily allowing scroll control in a virtual space." (Nakano at 8:50-54). "The invention provides a portable information terminal characterized by further comprising: storage means (for example a storage section 400 in FIG. 41) for storing a plurality of programs corresponding to, in whole or in part, the plurality of information display entities; and activation means (for example an application activation controller 320 in FIG. 41) for activating, if any, a program corresponding to the information display entity determined as a candidate for selection by the first determination means." (Nakano at 8:65-9:6.) "The third method is an input in accordance with a drag with the stylus pen 106. By causing the stylus pen 106 to touch the touch panel 104 and dragging the stylus pen 106, or sliding the stylus pen 106 with its tip in contact with the touch panel 104 in the upward/downward direction deselects the menu items currently in the selection state. The user can specify a menu item distant by the number of items according to the travel amount of the drag in the upward or downward direction according to the drag direction. Once the menu is under moving display and the specified menu item is in the selection state, the user releases the stylus pen 106 to determine the selection." (Nakano at 15:66-16:10). "In FIG. 19A, a menu item in the middle of the menu is in the selection state. Menu items preceding and following the item are three-dimensionally represented in one-point perspective in the upward direction in the screen. Dragging with the stylus pen 106 in the upward direction so as to slide the menu display in the upward direction causes the menu panel 134 to move in the upward direction along the one-point perspective, for example, as shown in FIG. 19B." (Nakano at 25:40-47.) "In FIG. 26A, the menu display area 31 a displays "Application B", the menu display area 31 b displays "Application C", the menu display area 31 c displays "Application D", the menu display area 31 d displays "Application E", and the menu display area 31 e displays "Application F", respectively. In the selection candidate display area 32, that is, in the menu display area 31 c, the focus 33 is overlaid on Application D. The Application D is a candidate for selection. In the menu screen 30, dragging the stylus pen 20 in the upward direction scrolls through the menu display entities in the menu screen 30 as shown in FIG. 26B. In FIG. 26B, the menu display area 31 a displays "Application D", the menu

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	display area 31 b displays “Application E”, the menu display area 31 c displays “Application F”, the menu display area 31 d displays “Application G”, and the menu display area 31 e displays “Application H”, respectively. The menu display entities on the screen are scrolled though in the upward direction by two rows. On the menu display entity displayed in the selection candidate display area 32, that is, on Application F, is overlaid the focus 33. The Application F is a candidate for selection. Dragging with the stylus pen 20 refers to an operation (including standstill state) of sliding the stylus pen 20 on the LCD panel 11 with the tip of the stylus pen 20 in contact with the LCD panel 11. In FIG. 26B, further dragging in the upward direction further scrolls through the menu entities on the screen in the upward direction. As shown in FIG. 26C, when the lowermost menu display entity (Application K in the figure) reaches the selection candidate display area 32, the scroll comes to a halt. In FIG. 26C, the menu display area 31 a displays “Application I”, the menu display area 31 b displays “Application J”, and the menu display area 31 c displays “Application K”, respectively. On the menu display entity displayed in the selection candidate display area 32, that is, on Application K, is overlaid the focus 33. The Application K is a candidate for selection. While a drag is made in the upward direction in FIGS. 26A through 26C, the same applies to a drag in the downward direction. That is, as shown in FIG. 27A, dragging in the downward direction scrolls through the menu display entities in the downward direction. As shown in FIG. 27B, when the uppermost menu display entity (Application A in the figure) reaches the selection candidate display area 32, that is, the menu display area 31 c, the scroll comes to a halt. While the drag operation is made in the rightmost area of the menu screen 30 for clarity in FIGS. 26A through 26C and FIGS. 27A and 27B, the drag operation is allowed across the menu screen 30 as shown in FIG. 31 in practice.” (Nakano at 28:36-29:10.) Nakano discloses the following at FIGS. 19A-B:

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	 "The invention relates to a human-machine interface on a touch screen, for example on a personal digital assistant (PDA). To launch a program, one scrolls through a series of icons on the screen and then highlights the suitable icon for launching that program. Scrolling is achieved by using the PDA's stylus (or a finger) in the control area to indicate a move in the direction of the scroll. The invention is remarkable by the fact that the control area is not defined restrictively and can cover the entire touch screen." (Benoit at (57).) "In addition, the use of a touch screen generates another serious problem. That is, because the icons and drop-down menus are generally fixed, the user always uses their finger or a stylus to point at the same small areas of the touch screen. This leads, therefore, to local damage, decalibration, and premature wear of the touch screen. The object of this invention is to ameliorate the disadvantages of the aforementioned systems and to propose a human-machine interface with a touch screen in which navigation is simplified. Another object of the invention is to limit the premature decalibration of touch screens.

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	The aforementioned objectives are achieved with a novel method of navigating a computer program by means of a touch screen. To do this, by a touch command on a control area of the touch screen, one scrolls a series of icons linked to predefined programs to highlight at least one given icon. Preferably, the control area is extended so as to distribute the touch points and prevent the premature wear of the touch screen over the defined areas. The entire surface of the touch screen not covering an icon can be expected to constitute the control area. Thus, the control is no longer localized in a limiting manner. Unlike the prior art, the scrolling of icons allows these icons to be shown at a large size such that they are easily distinguishable. With such a method according to the invention, the fact of having an extended control area prevents the constant use of certain small areas of the screen. According to an advantageous characteristic of the invention, the touch command for scrolling the series of icons comprises a touch followed by a directional movement. The scrolling speed and direction are defined by the point of contact and the projection into the scrolling direction of a vector obtained as a result of the directional movement. The point of contact can be anywhere over the entire extended control area. The icons can be shown independently of each other, whether attached or embedded in a scrolling banner, and representing, for example, a landscape. Advantageously, the control area can be distinct from the icons. However, according to one variant of the invention, the control area includes the icons, and a brief touch on an icon launches an application linked to the icon. This variant makes it possible to obtain an extended control area over the entire surface of the touch screen. These icons can be scrolled to show the icon representing the application intended to be launched in the foreground in the center of the screen.

Claim 3	Exemplary Disclosures (Express and/or Inherent) and Citations
	According to a preferred embodiment of the invention, the icons scroll along a virtual circle inscribed in a plane perpendicular to the plane of the screen. Scrolling then makes it possible to show each icon on the screen successively, with the other icons remaining in the background. In this case, it is possible to envisage that only the icon shown on the touch screen is capable of launching an application. It is also possible to envisage that all the icons remain permanently visible on the touch screen during scrolling. As such, all the icons may be active. According to an advantageous embodiment of the invention, the scrolling of a series of icons may exhibit inertia as a function of the scrolling speed. Consequently, when a user lifts their finger or stylus from the touch screen, the scrolling continues for a few short moments based on the movement made by that user to carry out the scrolling. According to another aspect of the invention, a communication tool equipped with a touch screen and a central processing unit is proposed to implement a method according to the invention. Advantageously, this tool can be a personal digital assistant." (Benoit at 2:1-3:24.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
[4pre] The device of claim 3	Claim 4 depends from claim 3. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 3 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 3 to show the additional limitations of claim 4 are anticipated and/or obvious for the same reasons set out in claim 3. Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 3." *See supra* claim [3].
[4a] wherein upon providing a predefine interaction with an icon, said corresponding	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein upon providing a predefine interaction with an icon, said corresponding application is opened on the display unit."

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
application is opened on the display unit.	For example, Apple Newton opens an application on the touchscreen when a user taps the application's icon with the stylus, which is a predefined interaction. (User Interface Guidelines at 2-28, 3-2, 5-6; User's Manual at 106.) For example, the Setup application may be launched by tapping the Setup icon. (Getting Started at 8.) **How Views Work** Container views provide immediate feedback about actions a user may take, such as opening, closing, moving, and scrolling. The remainder of this chapter describes these behaviors. **Opening Container Views** Opening a container view makes it visible and gives the user access to it (unless it is partly or completely obscured by another container view that's already open). Some of an application's container views open in response to user actions. Tapping an icon in the Extras Drawer may open an application's main view; tapping a button, tapping a text label marked with a black diamond, or choosing from a picker may open a plain slip, a confirmation alert, or a palette. In addition, an application may open status slips, notification alerts, and other views on its own. (User Interface Guidelines at 2-28.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations

Buttons

A **button** is a small graphic object that performs an action when tapped. The action that the button performs is described by text or a picture on the button, as shown in Figure 3-1.

Figure 3-1 Tapping a button initiates an action



(User Interface Guidelines at 3-2.)

Extras Drawer Icons

For users to be able to open an application, it must have an icon in the Extras Drawer. The application name appears beneath the icon in one or two short lines of text. In addition, an application that stores data has a storage icon in the Storage folder of the Extras Drawer.

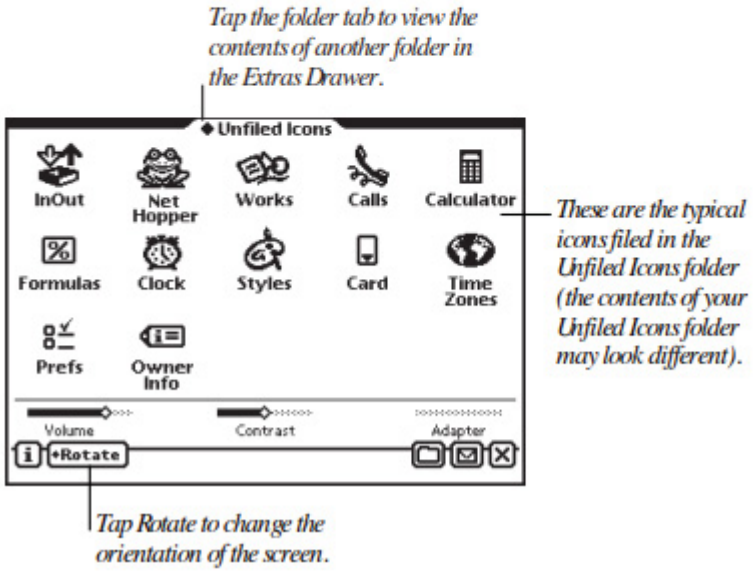
(User Interface Guidelines at 5-6.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations

Part 1: Managing the Extras Drawer

The Extras Drawer contains icons you can tap to go to different areas of your MessagePad, other than the Name File, Date Book, and Notepad. If you install more applications, either internally or on a storage card, their icons may appear in the Extras Drawer.

To open the Extras Drawer, tap Extras. Tap the icon again to close the Extras Drawer. You can also tap ☒ to close the Extras Drawer.



(User's Manual at 106.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations

Going through the Setup application

After you turn your MessagePad on for the first time you should see the Welcome screen for the Setup application.

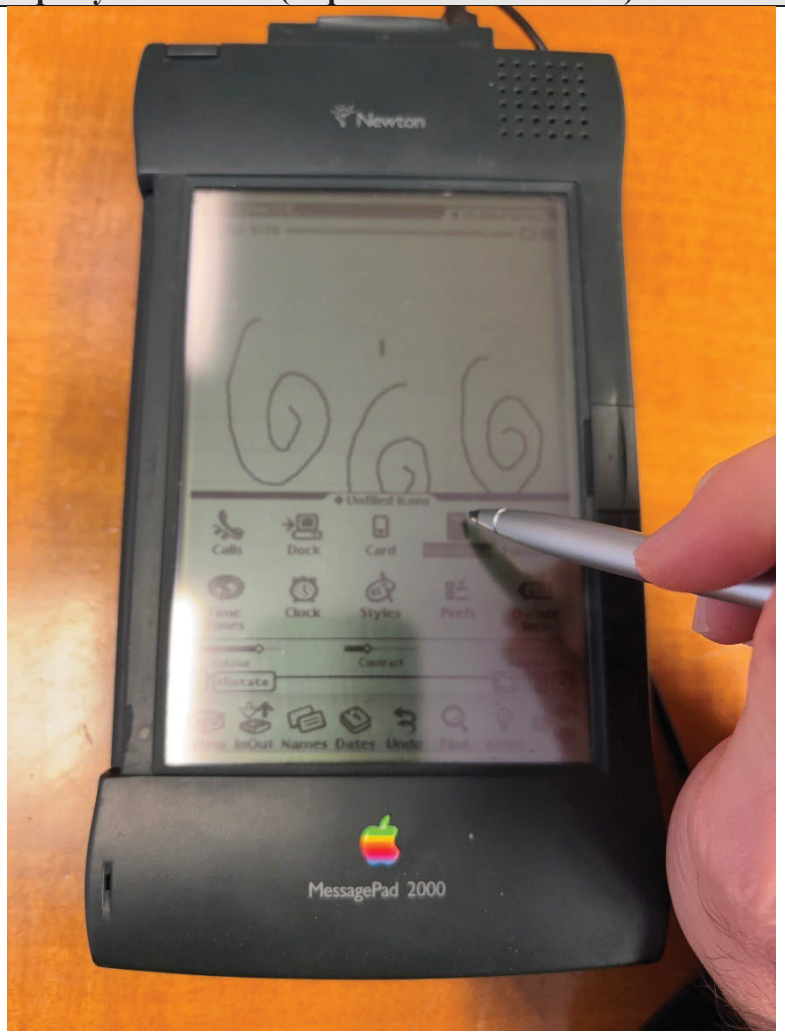


The Setup application lets you personalize your MessagePad. It also allows you to align the pen correctly with the screen and to set the date and time, along with your handwriting style.

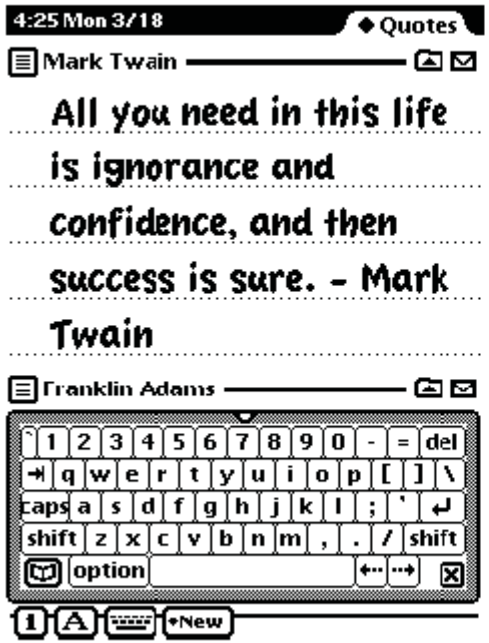
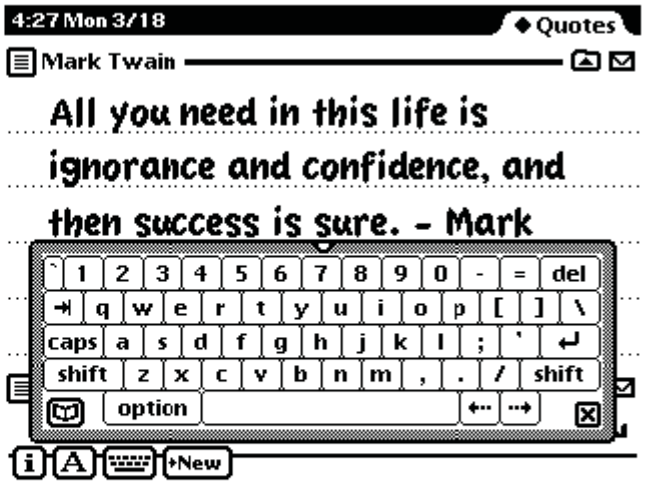
- When you see the Welcome screen, follow the instructions on each screen.
- If the Welcome screen doesn't appear, tap Extras to open the Extras Drawer, tap the folder tab, and in the list that appears, tap Setup. Tap the Setup icon in the folder.

(Getting Started at 8.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	Additional exemplary citations include: **Tap Versus Click** Throughout the Newton software system and in this book, the word "click" sometimes appears as part of the name of a method or variable, as in `ViewClickScript` or `ButtonClickScript`. This may lead you to believe that the text refers to mouse clicks. It does not. Wherever you see the word "click" used this way, it refers to a tap of the pen on the Newton screen (which is somewhat similar to the click of a mouse on a desktop computer). (Programmer's Reference at xxxvi.) **protoTextList** This proto creates a scrollable list of items from which the user can choose one or more items by tapping. The selected items are highlighted in the list. The user scrolls the list by tapping the optional scroll arrows or tapping and dragging the pen either above or below the list. (Programmer's Reference at 5-20.)

Claim 4	Exemplary Disclosures (Express and/or Inherent) and Citations
	 (Apple Newton Device.)

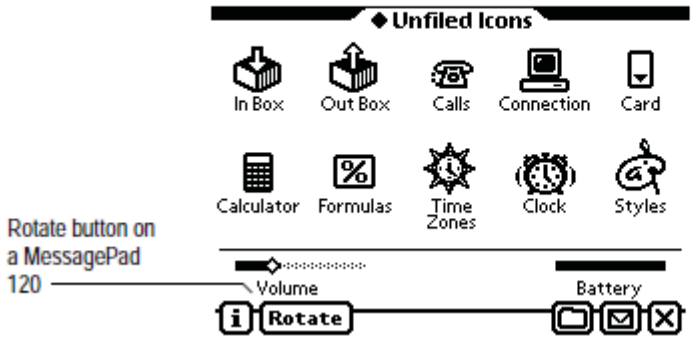
Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
[5pre] The device of claim 1	Claim 5 depends from claim 1. Defendant incorporates all the prior art disclosures from claim 1 here, which anticipate and/or render claim 1 obvious as set out above. Defendant reserves the right to rely on any of the prior art disclosures and obviousness rationale and evidence set out for claim 1 to show the additional limitations of claim 5 are anticipated and/or obvious for the same reasons set out in claim 1. Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "[t]he device of claim 1." *See supra* claim [1].
[5a] wherein said device is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position.	Apple Newton, alone or in combination with other references identified in this chart or elsewhere in Defendants' invalidity contentions, and/or further in light of the knowledge of a POSITA and Keyless's apparent interpretation of this limitation, discloses "wherein said device is adapted to display text entered through a keyboard in landscape direction and in portrait direction on said display unit when the device is used, respectively, in landscape position and in portrait position." For example, Apple Newton includes a virtual keyboard, which allows for typing and the entry of alphanumeric characters. (User Interface Guidelines at 6-1, 6-32; Programmer's Reference at 7-35, 7-40; Getting Started at 20; User's Manual at 13-15.) Apple Newton teaches that an application, including the keyboard, "adjusts its size, position, and layout to fit the screen." (User Interface Guidelines at 1-12.) For example, the user may rotate the screen, including the keyboard, from portrait to landscape mode to use the device in portrait or landscape mode respectively. (User Interface Guidelines at 1-12, 3-22, 3-30, 3-31; Programmer's Reference at 6-13; Getting Started at 19; User's Manual at 115.) A user would have rotated the display to landscape or portrait mode when using the device in a landscape or portrait position respectively.

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	Figure 1-3 An application adjusts its size, position, and layout to fit the screen  Regular orientation on a MessagePad 120  Sideways orientation on a MessagePad 120 (User Interface Guidelines at 1-12.) Additional exemplary citations include:

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	## Standard Newton Buttons A typical application includes some of the following standard Newton buttons, either on a status bar, on a separator bar, or in a slip: the Analog Clock, Info, Recognizer, Keyboard, New, Show, Filing, Action, Item Info, and Rotate. This section describes where each of those standard buttons belongs and what it does. (User Interface Guidelines at 3-22.) ### Rotate Button On Newton devices that can change the orientation of the display, the Rotate button enables users to control which way the display faces. The effect of tapping a Rotate button depends on the number of available orientations. If a device has two orientations—regular and sideways like a MessagePad 120—then tapping a Rotate button changes between the two orientations. If a device has more than two orientations, then tapping a Rotate button presents a list of possible orientations. Figure 3-33 illustrates a Rotate button on a MessagePad 120. (User Interface Guidelines at 3-30.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

Figure 3-33 A Rotate button lets users change the screen orientation



(User Interface Guidelines at 3-31.)

Although some applications for Newton devices only present information to people, many applications gather data from people as well. A person can input information in a Newton application by

- Tapping and dragging to select an input from a list or range of options provided by the application
- Writing and drawing to input text and shapes
- Typing text on an on-screen keyboard.

The Newton interface elements that applications use for these input methods are described in the first two sections of this chapter. There's also a section on handling user errors.

(User Interface Guidelines at 6-1.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

Typing

Wherever users can write text on a Newton device, they can type it using an on-screen keyboard as well. Figure 6-27 shows the four keyboards that are built into the Newton system. You can also create custom keyboards for use in your application.

Figure 6-27 The four built-in keyboards

Typewriter (alpha)





Numeric

Phone





Time/Date

(User Interface Guidelines at 6-32.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations

protoOrientation

This proto is available on Newton platforms that support changing the screen orientation so that data on the screen can be displayed facing different ways.

The appearance and operation of this proto varies depending on the type of Newton ROM. On Newton devices with two available orientations—landscape and portrait—this proto presents a `protoTextButton` with the label "Rotate," which lets the user change between the two modes. On other devices it presents a `protoPopupButton` offering a list of possible orientations.

(Programmer's Reference at 6-13.)

Keyboards

This section describes the views, protos, and functions you can use in your applications to work with on-screen keyboards.

Keyboard View (clKeyboardView)

The `clKeyboardView` class displays keyboard-like arrays of buttons that can be pressed (tapped with the pen) to perform an action. To read about how to use this class, see "Keyboard Views" (page 8-26) in *Newton Programmer's Guide*.

(Programmer's Reference at 7-35.)

Claim 5	Exemplary Disclosures (Express and/or Inherent) and Citations
	protoAlphaKeyboard This proto is used to include an alphanumeric keyboard in a view. For a description of how to use this proto, see "protoAlphaKeyboard" (page 8-30) in *Newton Programmer's Guide*. (Programmer's Reference at 7-40.) **Rotating and changing the screen** You can rotate the screen to view information on your MessagePad in portrait or landscape orientation. You can also change the location of the screen controls. For more information about rotating and changing the screen, see "Rotating the Screen," in Chapter 5, "Managing the MessagePad 2000." (Getting Started at 19.)