1	JEAN-PAUL CIARDULLO, CA BAR NO. 2 jciardullo@foley.com	84170
2 3	FOLEY & LARDNER LLP 555 South Flower Street, Suite 3300	
4	Los Angeles, CA 90071 Telephone: (213) 972-4500 Facsimile: (213) 486-0065	
5	ELEY O. THOMPSON (pro hac vice forthcomethompson@foley.com FOLEY & LARDNER LLP	ming)
7 8	321 N. Clark Street, Suite 2800 Chicago, IL 60654-5313 Telephone: (312) 832-4359 Facsimile: (312) 832-4700	
9 10	LUCAS I. SILVA (pro hac vice forthcoming) lsilva@foley.com FOLEY & LARDNER LLP 111 Huntington Avenue, Suite 2500 Boston, MA 02199-7610	
1112	Boston, MA 02199-7610 Telephone: (617) 342-4000 Facsimile: (617) 342-4001	
1314	UNITED STATES DIS	STRICT COURT
	CENTRAL DISTRICT OF CALIFORNIA	
1516	WESTERN D	IVISION
17	PHILIPS NORTH AMERICA LLC,	Case No. 2:19-cv-6301
1819	Plaintiffs,	COMPLAINT FOR PATENT INFRINGMENT
20	GARMIN INTERNATIONAL, INC.	
21	GARMIN USA, INC. and GARMIN LTD.,	JURY TRIAL DEMANDED
22		
2324	Defendants.	
25		
26	COMPLAINT FOR PAT	ENT INFRINGEMENT
27	Philips North America LLC ("Philips North America" or "Plaintiff") by	

undersigned counsel, hereby alleges, with knowledge with respect to its own acts and on

7 8

9 10 11

13

12

14 15

16 17

18

19 20

21

22 23

24

25

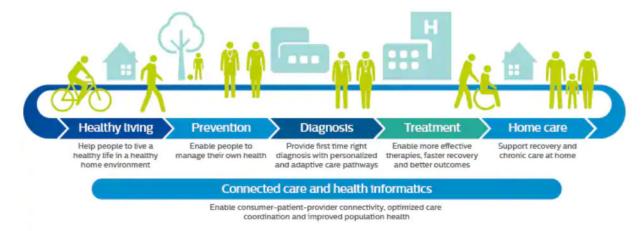
26 27

28

information and belief as to other matters, the following in support of its Complaint against Garmin International, Inc., Garmin USA, Inc. and Garmin Ltd. (collectively "Defendants" or "Garmin").

NATURE OF THE ACTION

- Philips North America brings this action to compel Garmin to stop infringing Philips North America's patents, and to compensate Philips North America for Garmin's past infringement.
- Philips North America is a subsidiary of Koninklijke Philips N.V., 2. originally founded in 1891, and a world leader in technology and innovation across many technological fields (generally referred to as "Philips"). For more than 100 years, Philips has dedicated significant resources to research and development for the advancement of technology used around the world.
- Philips strives to make the world heathier and more sustainable through 3. innovation with the goal of improving lives of billions of people. Philips approaches healthcare as a continuum where its technologies can be applied across activities of healthy living, prevention, diagnosis, treatment and home care as depicted below:



4. Connected health technologies developed by Philips are employed across the health continuum. Both inside and outside hospitals, Philips has developed technologies that empower consumers to better manage their health by improving access to and analysis of personal health and fitness information obtained in various manners. Philips

provides the Actiwatch family of devices, which are designed to help better understand the daily activity and sleep and wake patterns of individuals. Examples of Philips Actiwatch devices are shown here:



- 5. In another example, MIO Global incorporated Philips' heart rate monitor technology into its MIO Alpha fitness tracker watch, making it among the first and most accurate integrated wrist-worn heartrate monitors available. Philips continues to lead the development of technologies that underpin connected health products including trackers. Others have recognized the value of Philips' investment in innovation in this area and have sought and taken technology licenses from Philips, including licenses to the patents asserted in this case.
- 6. Philips also invests in technologies developed by other companies and has acquired companies and their patented innovative technologies as part of its emphasis on supporting and advancing innovation. Philips has made numerous direct investments in connected health technologies in recent years, including its acquisition of Lifeline Systems, Inc. in 2006, its acquisition of Wellcentive in 2016, its acquisitions of Health and Parenting LTD and VitalHealth in 2017, and its acquisition of Blue Willow Systems

6

12

15

24

22

in 2018. Each of these acquisitions expanded Philips' capabilities in personal health management and supported Philips' longstanding commitment to deliver integrated solutions across the health continuum.

- 7. Philips shares its innovation with others through, for example, its pioneering role in open innovation as well as in offering access to its technology through licensing. In this way, Philips has been able to share its innovations with many other companies. Licensing revenues fund further research at Philips. Philips' patent portfolio currently includes more than 60,000 patents, and in 2017 Philips filed more patent applications in the field of medical technology at the European Patent Office than any other company in the world.
- 8. While some of Philips' patents are asserted in this action, Philips has many others covering connected health. The patented technologies asserted in this action enable and enhance customer demand for products such as, for example: GPS/audio athletic training, security mechanisms for transmission of personal data, connected wearable/online products, and handling of interrupted connections.
- Founded in 1989 as "ProNay," Garmin was originally a company that 9. offered devices for navigation. Garmin did not offer a wearable tracker for athletic activity until 2014, after the smartphone eliminated demand for handheld GPS devices Garmin's and sales plummeted. See https://www.forbes.com/sites/alexknapp/2016/09/14/how-garmin-mapped-out-a-newdirection-with-fitness-wearables/#5f382ea727b9. In entering the wearable tracker market, Garmin leveraged the patented technology of Philips from the beginning. Garmin experienced significant growth and revenues as a result. See https://www.cnet.com/news/garmins-doing-well-in-wearables/.
- 10. For years, Philips has repeatedly offered to license rights in the Patents-in-Suit¹ to Garmin, but Garmin has repeatedly refused to accept Philips' offers to license.

¹ The "Patents-in-Suit" refer to the patents identified below in Counts I-IV.

Garmin's past and continuing sales of its devices i) willfully infringes Philips' Patents-in-Suit and ii) impermissibly takes the significant benefits of Philips' patented technologies without compensation to Philips. Garmin's refusal to take a royalty bearing license under the Patents-in-Suit has forced Philips to seek remediation to stop Garmin's continuing willful infringement of the Patents-in-Suit and to be compensated for Garmin's past willful infringement of the Patents-in-Suit.

PARTIES

- 11. Plaintiff Philips North America LLC (formerly known as Philips Electronics North America Corporation) is a limited liability company duly organized and existing under the laws of Delaware. There are facilities for Philips Sonicare in Ontario, CA within this Judicial District in addition to Philips Respironics in Carlsbad, CA. Philips has been a technology leader for over a century including in the field of connected health products and across the healthcare continuum. Philips patented innovations in this action pertain to GPS/audio athletic training, security mechanisms for transmission of personal data, connected wearable/online products, and handling of interrupted connections.
- 12. Defendant Garmin International, Inc. is a corporation organized under the laws of Kansas having a regular and established place of business located at 120 Cremona Drive, Goleta, CA, within this Judicial District.
- 13. Defendant Garmin USA, Inc. is a corporation organized and existing under the laws of Kansas having a regular and established place of business located at 120 Cremona Drive, Goleta, CA, within this Judicial District.
- 14. Defendant Garmin International, Inc. also has a regular and established place of business at 21680 Gateway Center Drive, Diamond Bar, CA, within this Judicial District.
- 15. Defendant Garmin USA, Inc. also has a regular and established place of business at 21680 Gateway Center Drive, Diamond Bar, CA, within this Judicial District.
- 16. Defendant Garmin Ltd. is a foreign company organized and existing under the laws of Switzerland with its principal place of business at Muhlenstalstrasse 2, 8200

Schaffhausen, Switzerland. In addition to infringements, many leadership decisions are made from Garmin Ltd.

- 17. Garmin International, Inc. and Garmin USA, Inc. are wholly owned subsidiaries of Garmin Ltd.
- 18. Garmin develops, manufactures, markets, sells and uses connected health products including ones that employ GPS/audio athletic training, security mechanisms for transmission of personal data, connected wearable/online products, and handling of interrupted connections that incorporate Philips' patented technology. Garmin has not obtained a license or otherwise acquired rights from Philips for use of the Patents-in-Suit. Instead, Garmin chose a path of willful infringement.

JURISDICTION AND VENUE

- 19. This action arises under the patent laws of the United States, Title 35 U.S.C. §§ 1, et seq. This Court has both general and specific personal jurisdiction over Garmin because Garmin has purposefully availed itself of the privilege of conducting business activities and has conducted and done business within California and this Judicial District. Garmin has availed itself of the rights and benefits of California law and has engaged in systematic and continuous contact with California, including with respect to the development, manufacture, marketing, sale and use of one or more Accused Products². Garmin also derives substantial revenue from sales of the infringing products and services in California, and it has availed itself of the privilege of doing business within California. Garmin's presence in this Judicial District requires it to pay taxes in California. Garmin is licensed to do business in California.
- 20. Personal jurisdiction is proper because Garmin is doing business and has committed acts of direct and joint infringement in this Judicial District. This Court has personal jurisdiction over Garmin because, *inter alia*, this action arises from activities

² The "Accused Products" refers to the products accused of infringement herein such as referenced in Paragraphs 48-51 including all substantially similar products.

Garmin directed towards California. For example, Garmin ships infringing products to residents of California for use in this Judicial District, and it collects substantial revenues from such residents and related sales.

- 21. As indicated above, Defendant Garmin International, Inc. maintains a regular and established place of business at 120 Cremona Drive, Goleta, CA. Research and development activities are conducted at Garmin's Goleta, CA location, including software engineering related to the features and functionality of one or more of the Accused Product.
- 22. As indicated above, Defendant Garmin USA, Inc. maintains a regular and established place of business at 120 Cremona Drive, Goleta, CA. Research and development activities are conducted at Garmin's Goleta, CA location, including software engineering related to the features and functionality of one or more of the Accused Product.
- 23. As indicated above, Defendant Garmin International, Inc. maintains a regular and established place of business at 21680 Gateway Center Drive, Diamond Bar, CA. Research and development activities are conducted at Garmin's Diamond Bar, CA location, including software engineering related to the features and functionality of one or more of the Accused Products.
- 24. As indicated above, Defendant Garmin USA, Inc. maintains a regular and established place of business at 21680 Gateway Center Drive, Diamond Bar, CA. Research and development activities are conducted at Garmin's Diamond Bar, CA location, including software engineering related to the features and functionality of one or more of the Accused Products.
- 25. Defendant Garmin Ltd. has shipped one or more of the Accused Products through the port of Los Angeles to Defendant Garmin USA, Inc. and/or Defendant Garmin International, Inc. for distribution within this Judicial District.
- 26. Defendant Garmin Ltd. maintains ownership of software operating on infringing products and systems within this jurisdiction. For example, Garmin provides:

"Garmin Ltd. and its subsidiaries ("Garmin") grant you a license to use the software embedded in this device (the "Software") ... Title, ownership rights, and intellectual rights in and to the Software remain in Garmin and/or its third-party providers." Source: Garmin vivofit Owner's Manual (available at https://www8.garmin.com/manuals/webhelp/vivofit/EN-US/GUID-31E7CFE8-6348-49BC-9561-742127047774.html). Many devices running Garmin owned software are operating to infringe in this Judicial District.

- 27. Exercising personal jurisdiction over Garmin in this Judicial District would not be unreasonable given Garmin's extensive contacts with this Judicial District, the interest of this Judicial District in resolving disputes related to products and/or services sold herein, and the harm that would occur to Plaintiff if the Court did not exercise personal jurisdiction over Garmin.
- 28. In addition, Garmin has knowingly induced and continues to induce and/or contribute to infringement within this Judicial District by advertising, marketing, offering for sale and/or selling devices with hardware and/or software that includes infringing functionality to consumers, customers, partners and/or end users (collectively "customers"), and it provides instructions, user manuals, advertising, and/or marketing materials which facilitate, direct, or encourage such infringing use with knowledge thereof. Garmin also jointly infringes with its customers and subscribers in this Judicial District with the establishment and operation of connected health solutions covered by the Patents-in-Suit.
- 29. Each of the Accused Products has been sold by Garmin and shipped to residents of California for use in this Judicial District, and Garmin collects substantial revenues from such residents and related sales.
- 30. One or more of the Accused Products are sold at BestBuy and Target retail stores located in this Judicial District.
- 31. Defendant Garmin Ltd. has purposefully and knowingly directed sales of one or more of the Accused Products to California and this Judicial District, at least

through agreements with its subsidiaries Garmin USA, Inc. and/or Garmin International, Inc.

- 32. Defendant Garmin Ltd. has purposefully and knowingly directed sales of one or more of the Accused Products to California and this Judicial District, at least through established distribution channels it maintains targeting the state of California.
- 33. Garmin owns the software deployed on devices in this Judicial District operating in manners to directly infringe with other products and systems offered by Garmin.
- 34. Defendant Garmin Ltd. is aware that its subsidiaries Garmin USA, Inc. and/or Garmin International, Inc. direct sales of the Accused Products to California and this Judicial District.
- 35. For these reasons, and for reasons that will be presented to the Court if jurisdiction is challenged, the Court has personal jurisdiction over each of the Defendants.
- 36. Venue is proper under 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because Garmin resides in this Judicial District and has substantial additional activities in this Judicial District as alleged herein (*see e.g.* paragraphs 20-24). Garmin has also engaged and continues to engage in infringing acts in this Judicial District such as alleged herein (*see e.g.* paragraphs 28-34).
- 37. Garmin has admitted that it maintains a regular and established place of business in this Judicial District. On June 12, 2017, in the case styled *Location Based Services, LLC v. Garmin International, Inc.*, 17-cv-133-JRG-RSP (E.D. Tex.), the parties filed a joint motion to transfer the case to this Court, stating that the "Defendant has a regularly established place of business" in this Judicial District.
- 38. Venue is proper as to defendant Garmin Ltd. because Garmin Ltd. is a foreign entity and venue is proper wherever there is personal jurisdiction.
- 39. Garmin purposefully directs sales and offers for sale the Accused Products, including those specifically identified below, toward California and this Judicial District.

40. Furthermore, on information and belief, Garmin has committed acts of direct and joint infringement in this Judicial District through its development and use of the Accused Products in one or both of its California facilities, and/or by prototyping and testing functionality of the Accused Products in one or both of its California facilities that infringe one or more claims of the Patents-in-Suit.

FACTUAL BACKGROUND

Philips Background and Innovation Leadership

- 41. Philips is a world-renowned company engaged in research and development in numerous technological fields. One of these fields pertains to connected health, which seeks to empower consumers to better manage their health and fitness by improving access to their own healthcare related information.
- 42. Philips is a worldwide leader in the field of connected health. For example, Philips has developed systems for wearable wireless devices that can be worn discreetly around the neck to detect important patient information such as detecting falls and tracking step count. Philips offers HomeSafe and GoSafe Lifeline systems that include personal medical alert devices that enable the wearer to summon medical help in the event of an emergency. Philips has also developed HealthSuite, which is a cloud-based digital platform that promotes collaboration in the field of connected health by enabling Philips and its partners to connect devices, collect health data, and securely aggregate, store and analyze the data, as well as the Actiwatch and other products noted above.
 - 43. The Philips Lifeline product is depicted below:



44. Philips North America invests heavily to promote innovation in the area of connected health. For example, Philips North America has hosted a Connect2Care User Summit in Los Angeles, which provides an opportunity for innovators from across the healthcare industry to explore top-of-mind issues in connected health, and to participate in an energizing exchange of ideas in an immersive and collaborative environment. Philips has also organized and funded healthcare "hackathons" in California that challenge software developers to create new solutions that enable health care providers to deliver higher quality of care in the hospital or the home by integrating data from personal, clinical and environmental sources. Philips North America also operates a nationwide open innovation portal called SPICE, through which companies and individuals can connect with one another, discuss their innovations with experts at Philips, and learn from Philips' experience in the area of connected health.

Garmin Background and Infringement

- 45. Garmin develops and sells wireless-enabled wearable devices that measure data such as number of steps walked, heart rate, blood oxygen, duration and quality of sleep, number of steps climbed, and other inputs related to personal fitness and health.
- 46. In addition to wearable devices, Garmin has developed and makes available for download various smartphone software applications that also enable users to connect

to devices, record and analyze their fitness information. Garmin also maintains servers interfacing with the software applications and wearable devices collecting sensed information and providing calculated fitness and health information to its subscribers.

47. While others using the patented technology have taken licenses to the Patents-in-Suit (or foreign equivalents) Garmin has refused to take a license and continues to infringe the Patents-in-Suit. Garmin has received multiple communications from Philips concerning the patents-in-suit and its infringement since approximately February of 2016, but it has failed to cease it infringing activities or to provide any response to Philips.

Accused Products

- 48. Garmin is, and has been, engaged in manufacturing and/or having manufactured, selling and/or offering for sale within the United States, using in the United States, and/or importing into the United States fitness tracking devices and/or accompanying software applications and servers providing functionality covered by one or more claims of each of the Patents-in-Suit (the "Accused Products").
- 49. Non-limiting examples of the infringing fitness tracking devices manufactured, sold, offered for sale, used, and/or imported by or for Garmin include various Approach, Edge, Forerunner, vivofit, vivosport, vivosmart, and Fenix 5 fitness tracker devices used in combination with Garmin apps running on smartphones or other devices model fitness trackers. Each of these fitness tracking devices has been sold and/or used within this Judicial District, without limitation, through the website https://buy.garmin.com.
- 50. Garmin maintains established distribution channels within the United States that permit Garmin to ship the Accused Products, including those specifically identified in this Complaint, to the state of California and this Judicial District.
- 51. Garmin's smartphone software applications are available for download on the Apple App Store, Google Play, the Windows Store, etc. On April 10, 2019, Garmin announced that its Connect IQ app had been downloaded over 90 million times to more

than 10 million compatible smartphones. Garmin's software applications are available for download throughout the United States including within this Judicial District and users of the Accused Products have downloaded Garmin's software applications within this Judicial District for use with the Accused Products.

Patents-in-Suit

- 52. The following patents are infringed by Garmin ("Patents-in-Suit"): U.S. Patent No. 6,013,007 ("the '007 patent"), U.S. Patent No. 7,088,233 ("the '233 patent"); U.S. Patent No. 8,277,377 ("the '377 patent"); and U.S. Patent No. 6,976,958 ("the '958 patent").
- 53. The Patents-in-Suit derive from and/or relate to Philips' efforts in this field of technology and claim protection for, among other things, GPS/audio athletic training, security mechanisms for transmission of personal data, connected wearable/online products, and handling of interrupted connections.
- 54. Garmin has been and is still directly infringing, jointly infringing, contributing to infringement, and/or inducing others to infringe the Patents-in-Suit by making, using, offering for sale, selling, or importing devices that practice the Patents-in-Suit. Garmin's acts of infringement have occurred within this Judicial District and elsewhere throughout the United States.

U.S. Patent No. 6,013,007

- 55. The United States Patent and Trademark Office duly and legally issued the '007 patent to inventor Gary Miller Root on January 11, 2000. The '007 patent is titled Athlete's GPS-Based Performance Monitor. A true and accurate copy of the '007 patent is attached as **Exhibit A**.
- 56. Philips North America is the owner and assignee of all legal title in the '007 patent and holds the right to sue and recover damages for infringement thereof, including ongoing and past infringement.

U.S. Patent No. 7,088,233

- 57. The United States Patent and Trademark Office duly and legally issued the '233 patent to inventor Raymond J. Menard on August 8, 2006. The '233 patent is titled Personal Medical Device Communication System and Method. A true and accurate copy of the '233 patent is attached as **Exhibit B**.
- 58. Philips North America is the owner and assignee of all legal title in the '233 patent and holds the right to sue and recover damages for infringement thereof, including ongoing and past infringement.

U.S. Patent No. 8,277,377

- 59. The United States Patent and Trademark Office duly and legally issued the '377 patent to inventor Roger J. Quy on October 2, 2012. The '377 patent is titled Method and Apparatus for Monitoring Exercise with Wireless Internet Connectivity. A true and accurate copy of the '377 patent is attached as **Exhibit C**.
- 60. Philips North America is the owner and assignee of all legal title in the '377 patent and holds the right to sue and recover damages for infringement thereof, including ongoing and past infringement.

U.S. Patent No. 6,976,958

- 61. The United States Patent and Trademark Office duly and legally issued the '958 patent to inventor Roger J. Quy on December 20, 2005. The '958 patent is titled Method and Apparatus for Health and Disease Management Combining Patient Data Monitoring with Wireless Internet Connectivity. A true and accurate copy of the '958 patent is attached as **Exhibit D**.
- 62. Philips North America is the owner and assignee of all legal title in the '958 patent and holds the right to sue and recover damages for infringement thereof, including ongoing and past infringement.

Garmin's Knowledge of Infringement

63. Garmin had knowledge of each of the Patents-in-Suit as alleged herein and prior to that date was at least willfully blind to each patent and its infringement.

64. On or about February 17, 2016, Philips sent a communication to the founder and CEO of Garmin, Mr. Clifton A. Pemble, notifying Garmin and Mr. Pemble that several Accused Products offered for sale and sold by Garmin infringe the '233 patent and the '007 patent. In subsequent discussions on or about December 8, 2016, Philips notified Garmin that several Accused Products offered for sale and sold by Garmin infringe the '377 patent and the '958 patent.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 6,013,007

- 65. The allegations of each of the foregoing paragraphs are incorporated by reference as if fully set forth herein.
 - 66. The '007 patent is valid and enforceable.
- 67. Garmin, in violation of 35 U.S.C. § 271, has infringed and continues to infringe at least claim 23 of the '007 patent by making, using, offering to sell, selling, and/or importing the Accused Products that practice the claimed inventions in the '007 patent, either literally or under the doctrine of equivalents, either individually and/or jointly with their customers and subscribers employing their online products and apps including by way of example, the Approach, Edge, Forerunner, vivofit, vivosport, vivosmart and Fenix 5 fitness tracker devices.
- 68. The Accused Products including access to the Garmin account and operational apps and related programs are provided under the direction and control of Garmin. Garmin establishes the procedures and timing to operate the Accused Products with the Garmin account including receipt of the benefits of the Accused Products. Access to the Garmin servers is limited to customers and subscribers that download and activate the required software and apps on to a smartphone or other wireless device.
- 69. The Accused Products infringe one or more claims of the '007 patent. For example, claim 23 of the '007 patent is generally directed to a system that has a global positioning system GPS obtaining a series of time-stamped waypoints, that computes athletic performance feedback data from the series of time-stamped waypoints obtained

by the GPS receiver, that presents the athletic performance feedback data to an athlete, that has a modem for transmitting the athletic performance feedback data to a remote computer for comparison with athletic performance data of other athletes, and that has a headset and an audio module for presenting the athletic performance feedback data over the headset. The Accused Products are wearable fitness tracking devices that practice the claimed invention, including among other things and without limitation, by computing athletic performance feedback data from a series of time-stamped waypoints obtained by a GPS receiver, such as distance, time, pace, etc., and transmitting the athletic performance feedback data to a remote computer for comparison, and presenting the athletic performance feedback data over the headset. In some examples, Garmin provides the following:

Your day at a glance

Garmin Connect displays your vital health data and entries for easy viewing. Customize what you want to see, in the order you want to see it.

You'll receive more detailed analysis, as well. View weekly, monthly and yearly averages of health stats, historic tracking of your favorites activities and more.



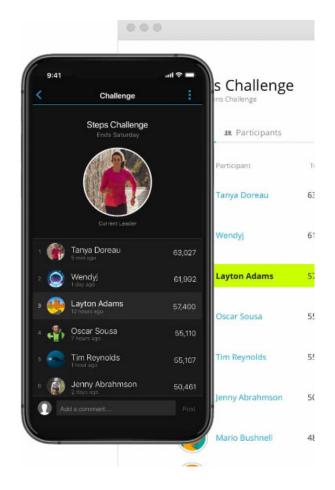
Source: https://connect.garmin.com/

The Accused Products further present athletic performance feedback data to an athlete,

1	for example by providing "audio prompts" to an athlete wearing the device during a		
2	fitness activity. In an example, Garmin provides the following:		
3	Playing Audio Prompts During Your Activity		
4	Before you can set up audio prompts, you must have a smartphone with the Garmin Connect™ Mobile app paired to your Forerunner® device.		
5	You can set the Garmin Connect Mobile app to play motivational status announcements on your smartphone during a run or other activity. A		
6 7	 From the settings in the Garmin Connect Mobile app, select Garmin Devices. Select your device. Select Activity Options > Audio Prompts. 		
8 9 10	Source: https://www8.garmin.com/manuals/webhelp/forerunner235/EN-US/GUID-6A3A1403-F519-4990-B5C7-718E9352006D.html		
11	In additional examples, Garmin provides competitions:		
	Garmin Connect™		
12	Your Garmin Connect account allows you to track your performance and connect with your friends. It gives you the tools to track, analyze, share, and encourage each other. You can record the events of your active lifestyle, including runs, walks, rides, swims, hikes, golf games, and more.		
13 14	You can create your free Garmin Connect account when you pair your device with your phone using the Garmin Connect Mobile app. You can also create an account when you set up the Garmin Express™ application (www.garmin.com/express).		
15	Store your activities After you complete and save a timed activity with your device, you can upload that activity to your Garmin Connect account and keep it as long as you want.		
16 17	Analyze your data You can view more detailed information about your fitness and outdoor activities, including time, distance, heart rate, calories burned, cadence, an overhead map view, and pace and speed charts. You can view more detailed information about your golf games, including scorecards, statistics, and course information. You can also view customizable reports.		
18	Source: https://www8.garmin.com/manuals/webhelp/marqathlete/EN-US/GUID-		
19	FA0BDAD5-4576-4D05-B76B-A3B6712D0959.html		
20	Garmin also provides the following:		
21			
22 23			
24			
25			
26			
27			

Connect with Friends

Garmin Connect is better with friends. You can compete in step and distance challenges, create groups or cheer each other on with likes and comments. Our badge feature lets you earn badges for accomplishments and compare them with your friends.



Source: https://connect.garmin.com/

Under the direction and control of Garmin, the Accused Products and apps running online on mobile devices and connected to Garmin servers include aspects of a global positioning system GPS receiver obtaining a series of time-stamped waypoints, they compute athletic performance feedback data from the series of time-stamped waypoints obtained by the GPS receiver (e.g. time-stamped waypoints are used to compute athletic performance feedback data), they present the athletic performance feedback data to an athlete (e.g., updates presented by the Accused Products), they include a modem for transmitting the athletic performance feedback data to a remote computer for comparison with athletic performance data of other athletes (e.g., hardware and/or software implemented within the mobile device and wearable transmits data), and they include a headset and an audio module for presenting the athletic performance feedback data over said headset (e.g., Garmin provides for audio prompts that are used via headphones

connected to the mobile device). Thus, this hardware and the accompanying apps, servers and other software practice each and every element and directly and jointly infringe at least claim 23 of the '007 patent, literally and/or under the doctrine of equivalents.

- 70. Garmin has indirectly infringed and continues to indirectly infringe at least claim 23 of the '007 patent under 35 U.S.C. § 271, literally and/or under the doctrine of equivalents, by actively inducing its customers to sell, offer to sell, and/or use the Accused Products to directly and jointly infringe one or more claims of the '007 patent. Such infringement includes Garmin taking active steps to encourage and facilitate others' direct and joint infringement of the '007 patent with knowledge or willful blindness to that infringement. The affirmative acts include, without limitation, advertising, marketing, promoting, offering for sale and/or selling the above-identified devices, with software that includes infringing functionality, to consumers, customers, distributors, partners, resellers, and/or end users. Garmin further provides instructions, user manuals, advertising and/or marketing materials that facilitate, direct, or encourage the direct and joint infringement of one or more claims of the '007 patent by others with knowledge thereof.
- 71. Garmin has contributed to the infringement of, and continues to contribute to the infringement of, at least claim 23 of the '007 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, by selling, offering to sell, and/or importing within or into the United States the Accused Products, including those that include and/or connect to a global positioning system GPS receiver that obtains a series of time-stamped waypoints, that compute athletic performance feedback data from the series of time-stamped waypoints obtained by the GPS receiver, that present the athletic performance feedback data to an athlete, that include a modem for transmitting the athletic performance feedback data to a remote computer for comparison with athletic performance data of other athletes, and that include a headset and an audio module for presenting the athletic performance feedback data over said headset. The hardware and

18

19

20

21

22

23

24

25

26

27

28

software used to calculate and present this athletic performance feedback data constitutes a material part of the invention, is known by Garmin to be especially made or adapted for use in infringing the '007 patent, and is not a staple article or commodity of commerce that is suitable for substantial non-infringing use.

- 72. The claims of the '007 patent, when viewed as a whole, including as an ordered combination address difficult technical challenges in the field of determining and presenting athletic performance feedback for athletes. The claims of the '007 were not well known, routine, or conventional at the time of the invention, over twenty years ago, and represent specific improvements over the prior art and prior existing systems and methods.
- 73. At the time the inventions claimed in the '007 patent were conceived, there were no devices for determining athletic performance and providing athletic performance feedback utilizing time-stamped waypoints, providing comparison at a remote computer with data from other athletes, or providing athletic performance feedback over a headset. For example, outdoor runners were generally limited to wristwatches with built-in stop watches, heart rate monitors, or pedometers. See Ex. A, col. 1, ll. 24-26. In the field of navigation, dashboard mounted GPS devices for vehicles and mobile GPS devices for boating and fishing were being introduced, but the devices were limited to navigation only. See Ex. A, col. 1, ll. 39-44. While the units provided current geographic location, they did not determine or provide athletic performance feedback utilizing time-stamped waypoints, provide comparison at a remote computer with data of other athletes, or provide athletic performance feedback over a headset. *Id.* col. 1, *ll.* 47-50. They had visual displays that could only show current location and destination, and provide navigation instructions to pre-determined locations. *Id.*, col. 1, *ll.* 44-46. They did not provide athletic performance feedback over a headset or provide entertainment to the user while assisting with navigation. *Id.* col. 1, *ll.* 48-50. The GPS navigation devices also did not provide comparison at a remote computer of athletic performance data utilizing time-stamped waypoints with data of other athletes.

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

- 74. As such, as of the priority date of the '007 patent, there was no ready way for outdoor athletes to receive athletic performance feedback utilizing time-stamped waypoints, or to provide comparison at a remote computer with data of other athletes. *Id.* col. 1, *ll.* 45-62. There did not exist a way that an outdoor athlete could both compute his or her athletic performance based on time-stamped waypoints, and provide the athlete with entertainment and/or motivation while exercising. *Id.* col. 1, *ll.* 62-66.
- The claims of the '007 patent are directed to specific improvements in 75. computer and networking capabilities and functionality. Among other things, the claimed inventions improve functionality of personal performance devices like stopwatches, heart rate monitors, pedometers, etc., by determining and providing athletic performance feedback utilizing time-stamped waypoints, providing comparison at a remote computer with data of other athletes, or providing athletic performance feedback The claimed inventions provide a device that continuously and over a headset. consistently provides accurate, athletic performance data to an athlete and can make realtime recommendations to the athlete on how his or her performance targets can be achieved. The claimed inventions provide a device that can communicate with an athlete through audio signals, thus improving safety by reducing visual distractions and allowing the device to provide athletic performance feedback and entertainment to the athlete while exercising. The claimed inventions provide a device that can store performance data, send performance data for storage in a personal computer, and transmit data to a website, where such data can be analyzed and compared to data collected from other athletes.
- 76. The claimed inventions provide computer and network efficiently at least because they allow athletic performance devices to calculate athletic performance feedback from time-stamped waypoints, providing improved and verifiable data capture, analysis, and sharing functionality without the need to include expensive and battery consuming processors and other components. The claimed inventions improve computer efficiency by allowing for audible communication of athletic performance feedback

instead of relying exclusively on visual information transmitted via a screen. The inventor did more than simply apply current technology to an existing problem. The invention, as embodied in at least claim 23, was a significant advancement in athletic performance feedback devices, as well as data analysis and sharing technology utilizing such data.

- 77. These noted improvements over the prior art represent meaningful limitations and/or inventive concepts based upon the state of the art over twenty years ago. Further, including in view of these specific improvements, the inventions claimed in the '007 patent, when viewed as a whole, are not routine, well-understood, conventional, generic, existing, commonly used, well-known, previously known, or typical over twenty years ago, including because until the inventions of the claims of the '007 patent, the claimed inventions were not existing or even considered in the field.
- 78. The '007 patent, and claim 23 in particular, comprises a non-conventional and non-generic arrangement of components that is a technical improvement to the capture, storage and analysis of athletic performance data including data collected from multiple athletes, including those improvements noted above.
- 79. The inventions claimed in the '007 patent are necessarily rooted in computer technology, *i.e.*, athletic performance feedback determined and provided utilizing timestamped waypoints, and comprise technological improvements over prior technologies in order to provide new functionality and overcome inefficiencies, including those noted above. The claimed solutions amount to an inventive concept for particular problems and inefficiencies noted above.
- 80. Garmin has had actual knowledge of the '007 patent at least by approximately February 17, 2016 by virtue of communications from Philips providing notice of the patent.
- 81. Philips North America is entitled to recover damages under 35 U.S.C. § 284 to adequately compensate for Garmin's infringement. Garmin's prior and ongoing infringement is willful and deliberate, as Garmin became aware of its infringement at

least by approximately February 17, 2016 and prior to that date was at least willfully blind to the patent and infringement.

82. Garmin's conduct in infringing the '007 patent renders this case exceptional within the meaning of 35 U.S.C. § 285.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 7,088,233

- 83. The allegations of each of the foregoing paragraphs are incorporated by reference as if fully set forth herein.
 - 84. The '233 patent is valid and enforceable.
- 85. Garmin, in violation of 35 U.S.C. § 271, has infringed and continues to infringe at least claim 9 of the '233 patent by making, using, offering to sell, selling, and/or importing the Accused Products that practice the claimed inventions in the '233 patent, either literally or under the doctrine of equivalents, individually and/or jointly with their customers and subscribers employing their products and apps including by way of example, the Approach, Edge, Forerunner, vivofit, vivosport, vivosmart, and Fenix 5 fitness tracker devices used in combination with Garmin apps running on smartphones or other devices.
- 86. The Accused Products including access to the Garmin account and operational apps and related programs are provided under the direction and control of Garmin. Garmin establishes the procedures and timing to operate the Accused Products with the Garmin account including receipt of the benefits of the Accused Products. Access to the Garmin servers is limited to customers and subscribers who download and activate the required software and apps to a smartphone or other wireless device.
- 87. The Accused Products infringe one or more claims of the '233 patent. For example, claim 9 of the '233 patent is directed to a bi-directional wireless communication system that includes a first personal device and a second device communicating with the first device. The system includes at least one detector input, the detector sensing body or physiological parameters, including parameters selected from a group consisting of

temperature, motion, respiration, blood oxygen content, and electroencephalogram. A security mechanism governs information transmitted between the first personal device and the second device. Garmin individually and jointly infringes claim 9 with the Accused Products including wearable fitness tracking devices (e.g., first personal device) that practice the claimed invention, without limitation, by including a security mechanism governing information transmitted between the tracking device and a Garmin app running on a smartphone or other device (e.g., second device). As for example explained by Garmin, its Garmin app runs on the smartphone or other device:

New device? Set it up on your phone with Garmin Connect.™

Whether you're training for a race or tracking steps, Garmin Connect provides the information and inspiration you need to beat yesterday.





Source: https://connect.garmin.com/start/

Gamin also provides the following:

∠Support Center

Garmin Connect App for Android Permissions Explanation

The Garmin Connect app for Android phones will need specific permissions in order to provide your Garmin device with the full experience of features that it is capable of. In an effort to provide better transparency for these permission requests we have detailed the purpose for each below.

13

17

16

18 19

20

22

21

23 24

25

26

27

28

Source: https://support.garmin.com/en-US/?faq=TOmjU7rfrn9v5jjEtnWcZ5

Garmin maintains direction and control of the Garmin account and the Garmin app determining practice of the claims by the Accused Products. As an example, Garmin states that:

Pairing Your Smartphone

You should connect your Forerunner® device to a smartphone to complete the setup and use the full features of the device.

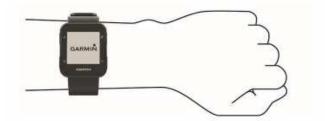
- 1. Go to www.garmin.com/intosports/apps, and download the Garmin Connect™ Mobile app to your smartphone.
- 2. From the Forerunner device, select Menu > Settings > Bluetooth > Pair Mobile Device.
- 3. Open the Garmin Connect Mobile app.
- 4. Select an option to add your device to your Garmin Connect account:
 - · If this is the first device you have paired with the Garmin Connect Mobile app, follow the on-screen instructions.
 - If you have already paired another device with the Garmin Connect Mobile app, from the settings, select Garmin Devices > Add Device, and follow the on-screen instructions

Source: https://www8.garmin.com/manuals/webhelp/forerunner230/EN-US/GUID-F1168774-9CD0-4AE6-9590-182040858814.html

Through such accounts, apps, and other software and hardware directed and controlled by Garmin, Garmin conditions participation in the activities and receipts of benefits based on performance and practice of the claims, and Garmin establishes the manner and timing of that performance and practice. The Accused Products include a detector input and one or more detectors for sensing physiological parameters such as heartrate as, for example, explained by Garmin:

Wearing the Device and Heart Rate

· Wear the Forerunner® device above your wrist bone. NOTE: The device should be snug but comfortable, and it should not move while running or exercising.



NOTE: The heart rate sensor is located on the back of the device.

· See (Troubleshooting) for more information about wrist-based heart rate.

Source: https://www8.garmin.com/manuals/webhelp/forerunner35/EN-US/GUID-

2

3

4

5

6

7

8

9

10

11

12

13

14

1516

17

18

19

20

2122

23

2425

26

27

28

F2E7E0A9-FB44-4297-BF4D-D0C31C400C45.html.

In addition, the Accused Products include a security mechanism governing information transmitted between the tracking devices and the Garmin app running on a smartphone. In one instance, for example, Garmin instructs that:

Steps to add a device to the Garmin Connect App:

- 1. From the smartphone, access the Menu option in the Garmin Connect App:
 - Android: Select (upper left corner)
 - o Apple: Select More (bottom right corner)
- 2. Scroll down and select Garmin Devices.
- 3. Select Add Device
- 4. Choose your device
- 5. From your Garmin device, place it into Pairing Mode. This allows the device to broadcast a Bluetooth signal allowing Garmin Connect App to find it. This setting is typically found under Settings > Bluetooth or Phone > Pair Mobile Device or Pair Phone. Refer to your Owner's Manual for specific steps.
- 6. From the Garmin Connect app select **Start** or **Connect It** depending on the device.
- 7. Input the six-digit code from the Garmin device into the prompt on the smartphone.

Follow the onscreen prompts to complete the setup of your device. A data sync should occur during this process and your Garmin device should display a green dot from the My Day view of the Garmin Connect App indicating a connection with your Smartphone.

Source: https://support.garmin.com/en-US/?faq=8CBmYmJHUr36wvJ6AktXFA

Additional devices (e.g., phones and tablets) can be paired with a Garmin tracking device, but will only receive access to transmitted data by logging into the Garmin app (providing security keys) and selecting the proper access options. When operated under the direction and control of Garmin, the Accused Products and apps running online on mobile devices include a first personal device comprising a processor, a memory, a power supply, at least one detector input that includes a detector for sensing body or physiological parameters and a short range bi-directional wireless communication module (e.g., the Accused Products include a detector for detecting at least motion and heartrate and communicating wirelessly with the Garmin app on a smartphone), a second device communicating with the first device, the second device having a short-range bi-directional wireless communications module compatible with the short-range bi-

directional wireless communications module of the first device (e.g., the Garmin app communicates wirelessly with the Accused Products), and a security mechanism governing information transmitted between the first personal device and the second personal device (e.g., Garmin security mechanism governs transfer of information). Thus, this hardware and the accompanying apps and other software practice each and every element and directly and jointly infringe at least claim 9 of the '233 patent, literally and/or under the doctrine of equivalents.

88. Garmin has indirectly infringed and continues to indirectly infringe at least claim 9 of the '233 patent under 35 U.S.C. § 271, literally and/or under the doctrine of equivalents, by actively inducing its customers to sell, offer to sell, and/or use the Accused Products to directly and jointly infringe one or more claims of the '233 patent. This includes Garmin taking active steps to encourage and facilitate others' direct and joint infringement of the '233 patent with knowledge of or willful blindness to that infringement. The affirmative acts include, without limitation, advertising, marketing, promoting, offering for sale and/or selling the above-identified devices, with software that includes infringing functionality, to consumers, customers, distributors, partners, resellers, and/or end users. Garmin further provides instructions, user manuals, advertising and/or marketing materials that facilitate, direct, or encourage the direct and joint infringement of one or more claims of the '233 patent by end users with knowledge thereof.

89. Garmin has contributed to the infringement of, and continues to contribute to the infringement of, at least claim 9 of the '233 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, by selling, offering to sell, and/or importing within or into the United States the Accused Products, including those that include at least one detector input and a detector for sensing body or physiological parameters, including heartrate and/or motion, and a security mechanism governing information transmitted between the tracking devices and the Garmin app running on a smartphone. The hardware and software used to detect body or physiological parameters

and a security mechanism governing information transmitted between the tracking devices and the Garmin app running on a smartphone constitute a material part of the invention, are known by Garmin to be especially made or adapted for use in infringing the '233 patent, and are not a staple article or commodity of commerce that is suitable for substantial non-infringing use.

- 90. The claims of the '233 patent, when viewed as a whole, including as an ordered combination, address difficult technical challenges in the field of personal and health communication systems and methods. The claims of the '233 patent were not well known, routine, or conventional at the time of the invention, nearly twenty years ago, and represent specific improvements over the prior art and prior existing systems and methods.
- 91. At the time the inventions claimed in the '233 patent were conceived, it was nearly impossible to obtain real-time health information from health monitoring devices in relation to individuals outside of a hospital or other clinical setting. Devices that could monitor individual or combinations of bodily functions were known and included heart rate monitors, respiration monitors, body chemistry, and muscular/skeletal action, etc. *See* Ex. B, col. 1, *ll.* 62 to col. 2, *ll.* 5. However, such devices were limited because they were not friendly to mobile users, interoperable with wireless devices, and unsecure in their transmission of information. It was not possible for the individual or others to securely access health information from the devices for remote monitoring, diagnosis or intervention. *Id.* col. 2, *ll.* 12-22.
- 92. As such, as of the priority date of the '233 patent, bi-directional wireless communication systems were not available for interconnecting a personal device, having a detector input, and communicating with another device, where a security mechanism governed information transmitted between the devices to securely transmit body or physiologic parameters for monitoring and/or analysis. *Id.* col. 1, *ll.* 59-62.
- 93. The claims of the '233 patent are directed to specific improvements in computer and networking capabilities and functionality. Among other things, the

claimed inventions improve functionality of monitoring devices by enabling remote monitoring of vital signs or other physiological parameters. The claimed inventions provide a monitoring device which monitors body or physiological parameters such as temperature, motion, respiration, blood oxygen contents, and electroencephalogram, and allows for a security mechanism governing information transmitted between monitoring device and another network enabled device facilitating the secure transmission of information concerning those body or physiological parameters. The claimed invention allows for the continuous and secure monitoring and transmission of health information from a monitoring device to a second device such as a mobile phone.

- 94. The claimed inventions also provide computer and network efficiently at least because they allow monitoring devices to easily and securely transfer information to a second device. The inventor did more than simply apply current technology to an existing problem. The invention, as embodied in at least claim 9, was a significant advancement in the utility of monitoring devices, as well as in technology related to the security of physiological information for remote diagnosis or other analysis.
- 95. These noted improvements over the prior art represent meaningful limitations and/or inventive concepts based upon the state of the art approximately twenty years ago. Further, including in view of these specific improvements, the inventions claimed in the '233 patent, when viewed as a whole, are not routine, well-understood, conventional, generic, existing, commonly used, well-known, previously known, or typical over twenty years ago, including because until the inventions of the claims of the '233 patent, the claimed inventions were not existing or even considered in the field.
- 96. The '233 patent, and claim 9 in particular, comprises a non-conventional and non-generic arrangement of components that is a technical improvement to the capture, secure transmission, storage, and analysis of physiological data, including data collected from an individual and provided to one or more others, including those improvements noted above.

27 28

26

- 97. The inventions claimed in the '233 patent are necessarily rooted in computer technology, i.e. transfer of information from a monitoring device, and comprise technological improvements over prior technologies in order to provide new functionality and overcome inefficiencies, including those noted above. The claimed solutions amount to an inventive concept for particular problems and inefficiencies noted above.
- 98. Garmin has had actual knowledge of the '233 patent at least by approximately February 17, 2016, by virtue of communications from Philips providing notice of the patent.
- 99. Philips North America is entitled to recover damages under 35 U.S.C. § 284 to adequately compensate for Garmin's infringement. Garmin's prior and ongoing infringement is willful and deliberate, as Garmin became aware of its infringement at least by approximately February 17, 2016 and prior to that date was at least willfully blind to the patent and infringement.
- 100. Garmin's conduct in infringing the '233 patent renders this case exceptional within the meaning of 35 U.S.C. § 285.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 8,277,377

- 101. The allegations of each of the foregoing paragraphs are incorporated by reference as if fully set forth herein.
 - 102. The '377 patent is valid and enforceable.
- 103. Garmin, in violation of 35 U.S.C. § 271, has infringed and continues to infringe at least claim 6 of the '377 patent by making, using, offering to sell, selling, and/or importing the Accused Products that practice the claimed inventions in the '377 patent, either literally or under the doctrine of equivalents, either individually and/or jointly with their customers and subscribers employing their online products and apps including by way of example the Approach, Edge, Forerunner, vivofit, vivosport, vivosmart, and Fenix 5 fitness tracker devices used in combination with Garmin apps

17 18

16

20 21

19

22 23

24 25

26 27

28

running on smartphones or other devices used in combination with Garmin apps running on smartphones or other devices.

104. The Accused Products including access to the Garmin account and operational apps and related programs are provided under the direction and control of Garmin. Garmin establishes the procedures and timing to operate the Accused Products with the Garmin account including receipt of the benefits of the Accused Products. Access to the Garmin servers is limited to customers and subscribers that download and activate the required software and apps on to a smartphone or other wireless device.

105. The Accused Products infringe one or more claims of the '377 patent. For example, claim 6 of the '377 patent is directed to performance of an interactive method of exercise monitoring. The method generally includes the steps of downloading an application to a web-enabled wireless phone directly from a remote server over the internet, coupling the web-enabled wireless phone to a device which provides exerciserelated information, rendering a user interface, using the application, receiving data indicating a physiological status, using the application, receiving data indicating an amount of exercise performed, wherein the data indicating a physiologic status of a subject is received from the device at least partially while the subject is exercising, sending the exercise-related information to an internet server, and then receiving a calculated response from the server, the response associated with a calculation performed by the server based on the exercise-related information, the web-enabled wireless phone receives exercise-related information over a transmission medium including a wireless connection of radio frequency communication protocol with a short-range wireless transmission scheme in the band of 2400-2480 MHz. The Accused Products include wearable fitness tracking devices that, when used with the accompanying Garmin application, server and other software, practice the claimed invention, without limitation, by receiving exercise related information to the user's smartphone from the Accused Products while the user is exercising that includes data such as pace and distance traveled, calculating a response, such as based on daily activity, exercise goals or other

parameters, and displaying that response on a smartphone using the application. As for example explained by Garmin, its Garmin app runs on the smartphone or other device after being downloaded:

New device? Set it up on your phone with Garmin Connect.™

Whether you're training for a race or tracking steps, Garmin Connect provides the information and inspiration you need to beat yesterday.





Source: https://connect.garmin.com/start/

Gamin also provides the following:

⟨Support Center

Garmin Connect App for Android Permissions Explanation

The Garmin Connect app for Android phones will need specific permissions in order to provide your Garmin device with the full experience of features that it is capable of. In an effort to provide better transparency for these permission requests we have detailed the purpose for each below.

Source: https://support.garmin.com/en-US/?faq=TOmjU7rfrn9v5jjEtnWcZ5

Garmin further provides:

17

18

19

20

21

22

23

24

25

26

27

28

Your day at a glance

Garmin Connect displays your vital health data and entries for easy viewing. Customize what you want to see, in the order you want to see it.

You'll receive more detailed analysis, as well. View weekly, monthly and yearly averages of health stats, historic tracking of your favorites activities and more.



Source: https://connect.garmin.com/

Garmin also provides that:

Support Center

Steps to Create a Weight Goal in Garmin Connect

Weight goals in Garmin Connect can be used for either weight loss or weight gain. Anytime the current weight value crosses the weight goal value it will consider the goal as achieved and display a check mark on the graph.

To create a weight goal in Garmin Connect Web:

- 1. Sign into Garmin Connect from a personal computer
- 2. Click the Arrow Icon in the upper left corner to expand the Navigation Bar (if it not already expanded)
- 3. Click Health Stats
- 4. Click Weight
- Click Add Goal
- Enter desired weight
- 7. Click Confirm (check mark)

NOTE: If a weight already exists, you can edit or remove it under the Goal section

Source: https://support.garmin.com/en-US/?faq=M9kpib7hnC4Qm0Q8qcs1F7

In other examples, Garmin explains that the user interface may be utilized to change the

1	calculations:	
2 3	To add a weight goal or change weight in Garmin Connect App:	
4 5	 Open the Garmin Connect App Touch More in the Bottom Right (iOS) or ≡ in the Top Left (Android) Touch Health Stats Touch Weight 	
6 7	 5. Touch in the Top Right 6. Touch Add Weight 7. Enter in the new desired weight or goal 8. Touch Save 	
8	o. Todan save	
9	Source: https://support.garmin.com/en-US/?faq=M9kpib7hnC4Qm0Q8qcs1F7	
10	In another aspect, Garmin provides the following:	
11	Marking Laps by Distance	
12	You can use the Auto Lap® feature to mark a lap at a specific distance automatically. This feature is helpful for comparing your performance over different parts of a run (for example, every 1 mi. or 5 km).	
13	Select Menu > Activity Settings > Laps > Auto Distance. Select a distance.	
14	Each time you complete a lap, a message appears that displays the time for that lap. The device also beeps or vibrates if audible tones are turned on (Setting the Device Sounds).	
15	If necessary, you can customize the data screens to display additional lap data.	
16		
17	Source: https://www8.garmin.com/manuals/webhelp/forerunner230/EN-US/GUID-	
18	F9BAD725-FA23-4606-8625-67E98DB34EE6.html	
19	Garmin also provides for the ability to track overall cardiovascular fitness:	
20	⟨ Support Center	
21	Understanding What VO2 Max. Estimate Is	
22	If you have a Garmin device that provides a VO2 Max. Estimate, you can track your overall cardiovascular fitness	
23	directly from the device and from the Garmin Connect app.	
24	Course https://gumn.out.compin.com/on_IIC/2fo.g=1WcCV1c2xv76z5WcihI.v5f0	
25	Source: https://support.garmin.com/en-US/?faq=lWqSVlq3w76z5WoihLy5f8	
26		
27		
28		

On the device, your VO2 max, estimate appears as a number, description, and position on the color gauge. On your Garmin Connect™ account, you can view additional details about your VO2 max, estimate, including your fitness age. Your fitness age gives you an idea of how your fitness compares with a person of the same gender and different age. As you exercise, your fitness age can decrease over time.



https://www8.garmin.com/manuals/webhelp/fenix5/EN-US/GUID-3E971364-Source: A756-4057-B22D-C41250B2A82B.html. Under the direction and control of Garmin, the use of the Garmin app combined with a user's smartphone, an accompanying Garmin activity tracker, including other software and Garmin servers, practices the steps of downloading an application to a web-enabled wireless phone directly from a remote server over the internet (e.g., the Garmin server is loaded with the Garmin app controlled by Garmin), coupling the web-enabled wireless phone to a device which provides exercise-related information (e.g., the Accused Products couple to a smartphone), rendering a user interface on the web-enabled wireless phone (e.g., the Garmin app includes a user interface for presentation), using the application, receiving data indicating a physiologic status of a subject (e.g., the Garmin app receives physiological status such as heartrate and other data), using the application, receiving data indicating an amount of exercise performed by the subject (e.g., the Garmin app receives data on amount of exercise of the subject), wherein at least one of the data indicating a physiologic status of a subject or the data indicating an amount of exercise performed by the subject is received from the device which provides exercise-related information, and wherein the data indicating a physiologic status of a subject is received at least partially while the subject is exercising (e.g., the Accused Products includes a wearable device providing heartrate and other exercise information to a smartphone during exercise), sending the exercise-related information to an internet server via a wireless network (e.g., the Garmin app and Accused Products communicate to the Garmin server), receiving a calculated response from the server the response associated with a calculation performed by the

server based on the exercise-related information (e.g., the Garmin server performs calculations such as related to weight goals and overall cardiovascular fitness based on the exercise-related information and sends it to the Accused Products including the Garmin app on a smartphone), using the application, displaying the response (e.g., the response may be viewed on the Accused Products including the user interface of the Garmin app). Further, the web-enabled wireless phone receives exercise-related information over a transmission medium, the transmission medium including a wired connection or a wireless connection (e.g., the transmission of data from the Accused Products to the Garmin app is done wirelessly), and wherein the wireless connection includes an infrared connection of a radio frequency communication protocol including a short-range wireless transmission scheme (e.g., the Accused Products transmit using Bluetooth), and wherein the short-range wireless transmission scheme includes IEEE802.11 protocol or short-wavelength radio transmission in the ISM band of 2400-2480 (e.g., the Accused Products transmit using Bluetooth). Thus, this hardware and the accompanying Garmin apps and software practice each and every element and directly and jointly infringe at least claim 6 of the '377 patent, literally and/or under the doctrine of equivalents.

106. Garmin has indirectly infringed and continues to indirectly infringe at least claim 6 of the '377 patent under 35 U.S.C. § 271, literally and/or under the doctrine of equivalents, by actively inducing its customers to sell, offer to sell, and/or use the Accused Products to directly and jointly infringe one or more claims of the '377 patent. This includes Garmin taking active steps to encourage and facilitate others' direct and joint infringement of the '377 patent with knowledge or willful blindness to that infringement. The affirmative acts include, without limitation, advertising, marketing, promoting, offering for sale and/or selling the above-identified devices, with software that includes infringing functionality, to consumers, customers, distributors, partners, resellers, and/or end users. Garmin further provides instructions, user manuals, advertising and/or marketing materials that facilitate, direct, or encourage the direct and

26

27

12 13

15

14

17

16

18 19 20

21 22

23

24 25

26 27

28

joint infringement of one or more claims of the '377 patent by others with knowledge thereof.

107. Garmin has contributed to the infringement of, and continues to contribute to the infringement of, at least claim 6 of the '377 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, by selling, offering to sell, and/or importing within or into the United States the Accused Products that, when used with the accompanying Garmin application, software and server, enable the user's smartphone to download an application to a web-enabled wireless phone directly from a remote server over the internet, couple the web-enabled wireless phone to a device which provides exercise-related information, receive exercise related information from the user, calculate a response, and display that response on a smartphone using the application. The hardware and software used to receive exercise-related information, calculate the response, and display that response constitutes a material part of the invention, is known by Garmin to be especially made or adapted for use in infringing the '377 patent, and is not a staple article or commodity of commerce that is suitable for substantial noninfringing use.

108. The claims of the '377 patent, when viewed as a whole, including as an ordered combination, address difficult technical challenges in health monitoring of persons utilizing computer and networking capabilities and functionality. The claimed inventions were not well known, routine, or conventional at the time of the invention, nearly twenty years ago, and represent specific improvements over the prior art and prior existing systems and methods.

109. At the time the inventions claimed in the '377 patent were conceived, systems for monitoring personal health were expensive and inefficient. Prior to the '377 patent, medical or health information could be stored on computer media such as a compact disk and could thereby be accessed on a home computer system. Ex. C, col. 1, ll. 54-56. However, this passive approach to the communication of health or medical information was difficult to set up for many individuals, it was expensive, and its

10

20 21

19

23 24

22

25 26

27

28

interactivity was limited to the information stored on the computer media. *Id.* col. 1, *ll*. 55-67. Later systems were based on video game consoles or multimedia players using a conventional television screen, but these devices were limited in their portability and interactivity. Id. col. 2, ll. 8-14. Attempts were made to address these deficiencies, but those systems required specialized connections with the health monitoring system, and they required significant modification to the hardware. *Id.* col. 2, *ll.* 27-40. Prior art systems lacked full back-end server functionality in which to provide a wide range of interactive communication. *Id.* col. 2, *ll.* 41-45.

110. As such, as of the priority date of the '377 patent, there was no full feature, real-time health monitoring system that could connect wirelessly to a back-end server application via the internet. Id. col. 2, ll. 55-58. There did not exist a system for allowing wireless access to and from multiple health-related devices, while maintaining the capability to connect to other devices in the future. *Id.* col. 2, *ll.* 60-63.

111. The claims of the '377 patent – and, in particular, claim 6 – are directed to specific improvements in health monitoring of persons utilizing computer and networking capabilities and functionality. Among other things, the claimed inventions provide for downloading an application from a remote server to a wireless device to improve functionality of health monitoring devices by enabling coupling to monitoring of data indicating the physiologic status of a subject and/or exercise-related information, and allowing for the calculation of responses to that information from the server. claimed inventions provide a device which continuously and accurately monitors the physiologic status of a subject while the subject is exercising. The claimed inventions provide a device which allows exercise-related information that is collected to be analyzed and for a calculated response to be received based on the exercise related information. The claimed inventions provide a system that can perform real-time healthmonitoring functions and wirelessly communicate exercise-related information and responses associated with calculations performed based on that information to a mobile phone.

- 112. The claimed inventions provide network efficiently at least because they allow the downloading of applications in connection with health monitoring devices to perform improved data capture, sharing, and analysis functions without the need for complex connections or expensive additional components. The inventor did more than simply apply current technology to an existing problem. The invention, as embodied in at least claim 6, was a significant advancement in the performance of health monitoring devices, the downloading of applications, as well as data analysis and sharing technology using full back-end server functionality.
- 113. These noted improvements over the prior art represent meaningful limitations and/or inventive concepts based upon the state of the art nearly twenty years ago. Further, including in view of these specific improvements, the inventions claimed in the '377 patent, when viewed as a whole, are not routine, well-understood, conventional, generic, existing, commonly used, well-known, previously known, or typical nearly twenty years ago, including because until the inventions of the claims of the '377 patent, the claimed inventions were not existing or even considered in the field.
- 114. The '377 patent, and claim 6 in particular, comprises a non-conventional and non-generic arrangement of components that is a technical improvement to the capture and analysis of physiologic status and exercise related information, including those improvements noted above.
- 115. The inventions claimed in the '377 patent are necessarily rooted in computer technology, *i.e.* the monitoring and analysis of physiologic status and exercise-related information and the wireless transmission of that information to a mobile phone, and comprise technological improvements over prior technologies in order to provide new functionality and overcome inefficiencies, including those noted above. The claimed solutions amount to an inventive concept for particular problems and inefficiencies noted above.

116. Garmin has had actual knowledge of the '377 patent at least by approximately December 8, 2016, by virtue of communications from Philips providing notice of the patent.

- 117. Philips North America is entitled to recover damages under 35 U.S.C. § 284 to adequately compensate for Garmin's infringement. Garmin's prior and ongoing infringement is willful and deliberate, as Garmin became aware of its infringement at least by approximately December 8, 2016 and prior to that date was at least willfully blind to the patent and infringement.
- 118. Garmin's conduct in infringing the '377 patent renders this case exceptional within the meaning of 35 U.S.C. § 285.

COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 6,976,958

- 119. The allegations of each of the foregoing paragraphs are incorporated by reference as if fully set forth herein.
 - 120. The '958 patent is valid and enforceable.
- 121. Garmin, in violation of 35 U.S.C. § 271, has infringed and continues to infringe at least claim 17 of the '958 patent by making, using, offering to sell, selling, and/or importing the Accused Products that practice the claimed inventions in the '377 patent, either literally or under the doctrine of equivalents, either individually and/or jointly with their customers and subscribers employing their online products and apps including by way of example the Approach, Edge, Forerunner, vivofit, vivosport, vivosmart, and Fenix 5 fitness tracker devices used in combination with Garmin apps running on smartphones or other devices used in combination with Garmin apps running on smartphones or other devices.
- 122. Claim 17 of the '958 patent is generally directed to an internet-enabled wireless web device connected to a server where the wireless web device is running an application, the application functioning to accept inputs from a first communications port including a generic input/output port for receipt of a health parameter from a health

monitoring device, the health parameter corresponding to a patient's disease state or condition. The application also functions with a second communications port including a wireless link to a network. In the event of an interruption of the wireless connection between the internet-enabled wireless web device and the server, the internet-enabled wireless web device is configured to store the health parameter in a memory or on the removable memory device wherein the internet-enabled wireless device is a mobile phone. The Accused Products include wearable fitness tracking devices that, when used with the accompanying Garmin application, server and other software, practice the claimed invention, for example without limitation, by storing the health parameter in a memory of a user's smartphone in the event of an interruption of the wireless connection between the internet-enabled wireless web device and the server. As for example explained by Garmin, the Garmin app runs on the smartphone or other device after being downloaded:

New device? Set it up on your phone with Garmin Connect.™

Whether you're training for a race or tracking steps, Garmin Connect provides the information and inspiration you need to beat yesterday.





Source: Source: https://connect.garmin.com/start/

Garmin further provides:

Your day at a glance

Garmin Connect displays your vital health data and entries for easy viewing. Customize what you want to see, in the order you want to see it.

You'll receive more detailed analysis, as well. View weekly, monthly and yearly averages of health stats, historic tracking of your favorites activities and more.



Source: https://connect.garmin.com/

Gamin also provides the following:

∠Support Center

Garmin Connect App for Android Permissions Explanation

The Garmin Connect app for Android phones will need specific permissions in order to provide your Garmin device with the full experience of features that it is capable of. In an effort to provide better transparency for these permission requests we have detailed the purpose for each below.

Source: https://support.garmin.com/en-US/?faq=TOmjU7rfrn9v5jjEtnWcZ5

Garmin also provides real-time data feeds, for example:

Support Center

Understanding How Heart Rate Data Displays in the Garmin Connect App

The Garmin Connect App displays heart rate information from the My Day view one of two ways depending on the model of device:

Early generation optical heart rate devices will display a 4-hour heart rate graph card in Garmin Connect App:



Devices include:

- Forerunner 225/235/30/35/735XT
- vivoactive HR
- vivosmart HR/HR+

All other Garmin devices that feature newer Elevate heart rate technology will display a real-time heart rate graph card*:



 Remaining wearables not referenced above will display the realtime heart rate card.

Source: https://support.garmin.com/en-IN/?faq=dLag82HPPk014T2tRELSgA.

If the internet connection is lost between the server and the smartphone during real-time, live, or other connections, the data is preserved on the smartphone and then synced to the server once the connection is reestablished. Under the direction and control of Garmin, the use of the Garmin app combined with a user's smartphone, an accompanying Garmin activity tracker, including other software and Garmin servers, practices providing an internet-enabled wireless web device with a removable memory device (e.g., a smartphone) and running an application (e.g., the Garmin application), the application functioning to accept inputs from a first communications port (e.g., Bluetooth) and a second communications port (e.g., wireless modem), the first communications port including a generic input/output port and the second communications port including a wireless link to a network (e.g., to the Garmin server), the generic input/output port for receipt of a health parameter from a health monitoring device (e.g., heart rate, etc.) or visual data from a digital camera, the health parameter or visual data corresponding to a

patient's disease state or condition; where in the event of an interruption of the wireless connection between the internet enabled wireless web device (e.g., the smartphone) and the server (e.g., the Garmin server), the internet-enabled wireless web device is configured to store the health parameter or visual data in a memory or on the removable memory device (e.g. the heart rate or other data is stored), wherein the internet-enabled wireless device is selected from the group consisting of an internet-enabled mobile phone. Thus, this hardware and the accompanying Garmin apps and software practice each and every element and directly and jointly infringe at least claim 17 of the '958 patent, literally and/or under the doctrine of equivalents.

123. Garmin has indirectly infringed and continues to indirectly infringe at least claim 17 of the '958 patent under 35 U.S.C. § 271, literally and/or under the doctrine of equivalents, by actively inducing its customers to sell, offer to sell, and/or use the Accused Products to directly and jointly infringe one or more claims of the '958 patent. This includes Garmin taking active steps to encourage and facilitate others' direct and joint infringement of the '958 patent with knowledge or willful blindness to that infringement. The affirmative acts include, without limitation, advertising, marketing, promoting, offering for sale and/or selling the above-identified devices, with software that includes infringing functionality, to consumers, customers, distributors, partners, resellers, and/or end users. Garmin further provides instructions, user manuals, advertising and/or marketing materials that facilitate, direct, or encourage the direct and joint infringement of one or more claims of the '958 patent by others with knowledge thereof.

124. Garmin has contributed to the infringement of, and continues to contribute to the infringement of, at least claim 17 of the '958 patent under 35 U.S.C. § 271, either literally and/or under the doctrine of equivalents, by selling, offering to sell, and/or importing within or into the United States the Accused Products that, when used with the accompanying Garmin application, enable an internet-enabled wireless web device connected to a server where the wireless web device is running an application, the

12 | in | 13 | in | 14 | or | 15 | dr | 16 | no | 17 | ro | 18 | re | 18 | re | 17 | ro | 18 | re | 17 | ro | 18 | re | 18 | r

application functioning to accept inputs from a first communications port including a generic input/output port for receipt of a health parameter from a health monitoring device, the health parameter corresponding to a patient's disease state or condition. The application also functions with a second communications port including a wireless link to a network. In the event of an interruption of the wireless connection between the internet-enabled wireless web device and the server, the internet-enabled wireless web device is configured to store the health parameter in a memory or on the removable memory device wherein the internet-enabled wireless device is a mobile phone. The hardware and software used in this manner is known by Garmin to be especially made or adapted for use in infringing the '958 patent, and is not a staple article or commodity of commerce that is suitable for substantial non-infringing use.

125. The '958 patent is related to the '377 patent and paragraphs 108-111 are incorporated herein concerning the background to the patented technology. The claims of the '958 patent, when viewed as a whole, including as an ordered combination, address difficult technical challenges in health monitoring of persons utilizing computer and networking capabilities and functionality. The claimed inventions were not well known, routine, or conventional at the time of the invention, nearly twenty years ago, and represent specific improvements over the prior art and prior existing systems and methods.

126. The claims of the '958 patent – and, in particular claim 17 – are directed to specific improvements in health monitoring of persons utilizing networking capabilities and functionality. Among other things, the claimed inventions improve functionality of health monitoring devices by enabling for the preservation and storage of health information in the event of an interruption of the wireless connection between the internet-enabled wireless web device and the server. The claimed inventions provide a system which continuously and accurately monitors the health parameter of a subject without the need for a continuous connection between internet-enabled wireless web device and the server. The claimed inventions provide for an application functioning to

accept inputs from a health monitoring device and wirelessly transmit to a server. In the event of an interruption in the wireless connection between the mobile phone and the server, the internet-enabled wireless web device is configured to store the health information in a memory.

- 127. The claimed inventions provide network and communication efficiently at least because they allow health monitoring devices to perform without the need for a continuous connection between an internet-enabled wireless web device and a server. The inventor did more than simply apply current technology to an existing problem. The invention, as embodied in at least claim 17, was a significant advancement in the performance of health monitoring devices.
- 128. These noted improvements over the prior art represent meaningful limitations and/or inventive concepts based upon the state of the art nearly twenty years ago. Further, including in view of these specific improvements, the inventions claimed in the '958 patent, when viewed as a whole, are not routine, well-understood, conventional, generic, existing, commonly used, well-known, previously known, or typical nearly twenty years ago, including because until the inventions of the claims of the '958 patent, the claimed inventions were not existing or even considered in the field.
- 129. The '958 patent, and claim 17 in particular, comprises a non-conventional and non-generic arrangement of components that is a technical improvement to the capture and analysis of health parameters or information corresponding to a patient's disease state or condition, including those improvements noted above.
- 130. The inventions claimed in the '958 patent are necessarily rooted in computer technology, *i.e.* the monitoring of health parameters or information corresponding to a patient's disease state or condition using an internet-enabled wireless web device and a server, and comprise technological improvements over prior technologies in order to provide new functionality and overcome inefficiencies, including those noted above. The claimed solutions amount to an inventive concept for particular problems and inefficiencies noted above.

- 131. Garmin has had knowledge of the '958 patent at least by approximately December 8, 2016 by virtue of communications from Philips providing notice of the patent.
- 132. Philips North America is entitled to recover damages under 35 U.S.C. § 284 to adequately compensate for Garmin's infringement. Garmin's prior and ongoing infringement is willful and deliberate, as Garmin became aware of its infringement at least by approximately December 8, 2016 and prior to that date was at least willfully blind to the patent and infringement.
- 133. Garmin's conduct in infringing the '958 patent renders this case exceptional within the meaning of 35 U.S.C. § 285.

DAMAGES

- 134. Garmin has refused to compensate Philips North America for Garmin's infringement of Philips North America's patents. Philips North America is entitled to monetary damages adequate to compensate Philips North America for Garmin's infringement in an amount not less than a reasonable royalty for the use made of the patented inventions by Garmin. The precise amount of damages will be determined through discovery in this litigation and proven at trial.
- 135. Relative to products covered by the claims, Philips North America and licensees of the Patents-in-Suit have marked in compliance with 35 U.S.C. § 287, and relative to licensees, Philips has taken reasonable steps to ensure compliance with marking. Accordingly, although Garmin was notified of the Patents-in-Suit and its infringement on or around February 17, 2016, the period of recoverable damages is not limited by such actual notice and Philips North America is entitled to monetary damages beginning six years prior to commencement of this action.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests the Court to enter judgment as follows:

- (a) a judgment that Defendants have directly and jointly infringed, indirectly infringed, induced others to infringe and/or contributed to others' infringement of one or more claims of each of the Patents-in-Suit;
- (b) a permanent injunction under 35 U.S.C. § 283, enjoining Defendants and their officers, directors, agents, servants, affiliates, employees, subsidiaries, parents, licensees, assigns, and customers, and all others acting in concert or participation with them, from further acts of direct and joint infringement, inducing infringement, and/or contributing to infringement of the Patents-in-Suit;
- (c) a judgment against Defendants for money damages sustained as a result of Defendants' infringement of the Patents-in-Suit in an amount to be determined at trial provided under 35 U.S.C. § 284, including enhanced damages due to, for example, Defendants' willful infringement of the Patents-in-Suit and its intentional and willful blindness;
- (d) an accounting for infringing sales not presented at trial and an award by the Court of additional damages for any such infringing sales;
- (e) an award of pre-judgment and post-judgment interest on the damages caused by Defendants' infringing activities and other conduct complained of herein;
 - (f) a finding that this case is an exceptional case under 35 U.S.C. § 285;
- (g) an award of reasonable attorneys' fees and costs incurred in connection with this action;
 - (h) a compulsory future royalty;
 - (i) any and all other relief as the Court finds just and proper.

1		
2	Dated: July 22, 2019	Respectfully Submitted,
3		/s/ Jean-Paul Ciardullo
4		Jean Paul Ciardullo, CA Bar No. 284170 FOLEY & LARDNER LLP
5 6		555 South Flower Street, Suite 3300 Los Angeles, CA 90071-2411 Phone: (213) 972-4500 Fax: (213) 486-0065
7		Fax: (213) 486-0065 jciardullo@foley.com
8		Eley O. Thompson (<i>pro hac vice</i> forthcoming) FOLEY & LARDNER LLP
9 10		FOLEY & LARDNER LLP 321 N. Clark Street, Suite 2800 Chicago, IL 60654-5313 Phone: (312) 832-4359 Fax: (312) 832-4700
11		ethompson@foley.com
12		Lucas I. Silva (pro hac vice forthcoming) FOLEY & LARDNER LLP
13		111 Huntington Avenue, Suite 2500 Boston, MA 02199-7610
14		Fax: (617) 342-4000 Fax: (617) 342-4001
15		lsilva@foley.com
16		Counsel for Plaintiff
17		Counsel for Plaintiff Philips North America LLC
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		

DEMAND FOR JURY TRIAL

Plaintiff hereby respectfully requests trial by jury under Rule 38 of the Federal Rules of Civil Procedure on all issues in this action so triable.

Dated: July 22, 2019

15

24

23

25

26 27

28

Respectfully Submitted,

/s/ Jean-Paul Ciardullo Jean Paul Ciardullo, CA Bar No. 284170 FOLEY & LARDNER LLP 555 South Flower Street, Suite 3300 Los Angeles, CA 90071-2411 Phone: (213) 972-4500 Fax: (213) 486-0065 jciardullo@foley.com

Eley O. Thompson (pro hac vice forthcoming) FOLEY & LARDNER LLP 321 N. Clark Street, Suite 2800 Chicago, IL 60654-5313 Phone: (312) 832-4359 Fax: (312) 832-4700 ethompson@foley.com

Lucas I. Silva (pro hac vice forthcoming) FOLEY & LARDNER LLP 111 Huntington Avenue, Suite 2500 Boston, MA 02199-7610 Phone: (617) 342-4000 Fax: (617) 342-4001 lsilva@foley.com

Counsel for Plaintiff Philips North America LLC