IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
(ALEXANDRIA DIVISION)

Erik B. Cherdak
600 Cameron Street
Alexandria, Va. 22314

Plaintiff, Pro Se,

v.

VIRGIN HEALTHMILES, INC.
/aka & dba/ VIRGIN PULSE
139 Newbury Street
Framingham, Massachusetts 01701

Defendant.

Case No. 1:13CV1315 LO/JFA

COMPLAINT
FOR PATENT INFRINGEMENT

JURY TRIAL DEMANDED

RELATED CASE:
No. 1:13-CV-777 (LO/jfa)

PLAINTIFF'S COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Erik B. Cherdak (hereinafter "Plaintiff" or "Cherdak"), *Pro Se*, and in and for his Amended Complaint against the above-named Defendant, asserts the following:

THE PARTIES

1. Plaintiff is an individual operating a place of business at the address listed in the caption of this Complaint. At all times relevant herein, Plaintiff has been and is the named inventor in and owner of U.S. Patent Nos. 5,343,445 and 5,452,269 (hereinafter referred to herein as the "patents-in-suit") and all reexamination certificates related thereto.

2. Defendant VIRGIN HEALTHMILES, INC. /aka & dba/ VIRGIN PULSE is an international company and part of the global business group, Virgin Group. On information and belief, Defendant maintains its principle place of business and global headquarters at 139

Newbury Street, Framingham, Massachusetts 01701. On information and belief, Defendant and its parent company, Virgin Group, regularly do business in this judicial district of Virginia, USA.

JURISDICTION AND VENUE

3. This is an action for *past* Patent Infringement of U.S. Patent Nos. 5,343,445 and 5,452,269 to Cherdak (per reexamination on two occasions) under the Laws of the United States of America and, in particular, under Title 35 of the United States Code (Patents – 35 USC § 1, *et seq.*). Accordingly, Jurisdiction and Venue are properly based in accordance with Sections 1338(a), 1391(b) and (c), and/or 1400(b) of Title 28 of the United States Code.

4. Defendant has in the past engaged in the design, importation, distribution, sale, and offering for sale of products including, but not limited to, those which incorporate technologies and the use of methods covered and claimed by the patents-in-suit. At all times relevant herein, Defendant has engaged in the infringement of and/or induced the infringement of and/or contributed to the infringement of the patents-in-suit patent throughout the United States, including, but not limited to, in this judicial district of Virginia, USA.

FACTS

5. On July 6, 1993, Plaintiff filed a patent application entitled "Athletic Shoe with Timing Device" which resulted in the issuance of the U.S. Patent 5,343,445 on August 30, 1994. On August 29, 1994, Plaintiff filed a Continuation-type application also entitled "Athletic Shoe with Timing Device" which resulted in the issuance of the U.S. Patent No. 5,452,269 on September 19, 1995. The patents-in-suit cover and claim products like those made, used, imported, offered for sale, marketed, and sold by Defendant directly and indirectly. The patents-in-suit have successfully gone through the USPTO's expert examination and post-issuance review on three (3) occasions: First, in the early 1990's during initial examination proceedings; Second, during *ex parte* reexamination proceedings in the 2007-2008 time-frame; and Third, during *ex parte* reexamination proceedings in 2012. Such reexamination proceedings resulted, *inter alia*, in the

confirmation of many claims without amendment and the addition of claims submitted to alternatively define the claimed inventions of the '445 and '269 patents. The patents-in-suit along with their reexamination certificates are attached hereto at **Exhibits** 1 through 6. Plaintiff owns all right, title and interest and to the patents-in-suit and, as such, has the full right to bring this action for past patent infringement and to seek all remedies for acts of past patent infringement under the U.S. Patent Act.

6. Defendant, has in the past imported, distributed, sold and offered for sale infringing products in unauthorized ways and in violation of the U.S. Patent Act. For example, Defendant has manufactured and has marketed activity trackers and monitors for sensing activity metrics related to foot action such as during activities like or similar to running, jumping, walking and stepping. In many, if not all cases, Defendant's activity trackers may be (and were in fact marketed for) wear on a person's shoe to drive gathering of activity data for later upload to population-specific websites for remote monitoring of activity-based metrics that may be derived from steps taken, etc. For example, and not by limitation, the following activity trackers are and have been sold by Defendant as part of their customer "VIRGIN HEALTHMILES™" implementations:

FIG. 1: The Virgin HealthMiles GO ZONE™ Activity Tracker (Now utilized in the VIRGIN PULSE Product/Service Offerings)

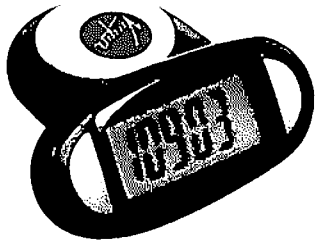


FIG. 2: An Additional Model of the Virgin HealthMiles GO ZONE™ Device

7. According to Defendant, its GO ZONE™ Activity Trackers (as illustrated above) were sold by Defendant to be used to determine step counts, such as by instructing end-users to clipping the to a person's shoe in order to achieve meaningful activity tracking metrics (e.g., number of steps taken, steps over time, activity intensity, etc.). For example, Defendant states with regard to its GO ZONE™ Activity Tracker shown in FIG. 1 above, that it includes: **"3-D accelerometer technology allows employees to wear it anywhere, any way they want"** and that it **"[a]ccurately tracks a wide variety of physical activity: walking, jogging, dance lessons, pick-up basketball, playing with the kids and more."** With regard to the GO ZONE™ activity tracker shown in FIG. 2, above Defendant advertised the use of the same as attached to a shoe to drive activity data gathering. Once gathered, data was to be uploaded to a customer's designated website service. Defendant advertised use of a GO ZONE™ activity tracker as follows:

See **Exhibit 7. This Complaint and this action are NOT limited to the EXEMPLARY products (Accused Devices) shown and identified above and/or discussed in Exhibit 7. Due discovery in this case will reveal the true scope of accused products that are subject to Plaintiff's claims of infringement as specified herein. Accordingly, the reader of this Complaint should NOT assume that the foregoing listing of products is in any way exhaustive.**

8. Defendant's GO ZONE™ activity trackers as illustrated in FIGS. 1 and 2, *supra*, have been designed to facilitate web-based activity tracking via population-specific websites implemented and/or operated by Defendant (or its customers) as part of Defendant's product and service offerings typically in what is known as the "corporate wellness" marketplace. Such websites have in the past provided populations of company employees, for example, remote tracking of data derived from those employees wearing their GO ZONE™ activity trackers during normal day-to-day routines. To learn about, purchase, and facilitate a population-website to foster activity tracking and the like, Defendant operates its www.virginhealthmiles.com website which has recently been renamed by Defendant to "VIRGIN PULSE."

9. In addition to the websites and online facilities provided by Defendant that were designed to operate with data gathered by Defendant's own GO ZONE™ activity trackers, Defendant also partnered with mobile-device "APP" producers and marketers during the enforceable period of the patents-in-suit including, but not limited to, FitnessKeeper, Inc., the developer of the popular "RUNKEEPER" training APP for mobile devices. Such APPs allowed devices from a host of manufacturers to link through the RUNKEEPER APP to Defendant's back-end and corporate wellness systems. For example, using the RUNKEEPER APP, a person could have coupled their

FITBIT® device to drive activity tracking in a variety of settings including, but not limited to, a corporate wellness system custom configured by Defendant for one of its many customers. The family of FITBIT® devices were licensed under the patents-in-suit during the enforceable period of the patents-in-suit and were the subject of litigation in this Honorable Court in the case *Cherdak v. Fitbit, Inc.*, Case No. 1:12-cv-01394-LO-JFA. Defendant advertised that devices like and/or similar to the Fitbit® activity trackers may have been be used to drive activity metrics tracking in VIRGIN HEALTHMILES based online systems. *See* **Exhibit** 8 at pp 2-4.

10. One of Defendant's largest customers, Lockheed Martin, for example, in co-branded web-based materials describes the use of the Virgin HealthMiles (now known as the VIRGIN PULSE GO ZONE Pedometer) as operating properly to sense and count steps (e.g., walking steps, running steps, etc.) as follows: "A GoZone [*sic*: mounted/attached] in the following locations will read steps best when walking or running continuously at moderate speeds (4+ mph): Attached to side or top of shoe..." *See* **Exhibit** 9.

11. Since at least August 31, 2012, third-parties not party hereto were obligated under contract and license to include patent markings related to the patents-in-suit in connection with sales of licensed sensor products and web-based services covered by claimed methods of the patents-in-suit. For example, within the PEAR ONE™ product line manufactured and sold by Pear Sports, LLC, Pear Sports marked its products and related materials with the following patent legend:

> **Products may be covered by one or more of the following patents until their expiration: USP 5,343,445 and USP 5,452,269. Products sold under license.**

12. By way of example, and not limitation, Pear Sports, LLC was a non-exclusive licensee required to pay per-unit running royalties under a license agreement entered into between Plaintiff and Pear Sports, LLC effective August 31, 2012. Others were required under similar

licenses to include patent markings in relation to their activity tracking/monitoring products as follows: **Covered by one or more of U.S. Patent Nos. 5,343,445 and 5,452,269.** *See* http://www.bioness.com/L300_for_Foot_Drop.php. Regardless of implementation of the sensor, sensor based products sold under license and in accordance with the applicable patent markings operate based on determining when a shoe/foot is off the ground and in the air during an activity such as during a step, a jump, etc. as is contemplated and covered by the patents-in-suit. *See* **Exhibit** 11 (this Honorable Court stating "[t]he 445 patent senses when a shoe leaves and returns to the ground."). Such patent markings provided notice to Defendant of the existence of the patents-in-suit.

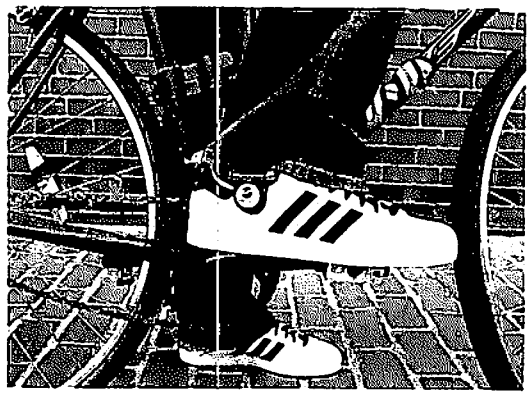
COUNT I – PATENT INFRINGEMENT

Paragraphs 1 through 12 are hereby incorporated by reference as though completely set forth herein.

13. Given the validity and enforceability of the patents-in-suit against past infringing acts and other activities prohibited under the U.S. Patent Act (35 USC § 1, *et seq.*), Plaintiff, *inter alia*, possesses the right to pursue a claim against Defendant for its past design, use, manufacture, importation, sale, offer for sale, and distribution of infringing products under 35 USC § 271(a) (direct infringement), (b) (induced infringement), and (c) (contributory infringement). Defendant has infringed, contributed to the infringement of, and/or induced the infringement of the patents-in-suit in violation of 35 USC § 271(a), (b), and/or (c) by its design, use, manufacture, importation, distribution, sale, and offer for sale of products and services sold under the VIRGIN HEALTHMILES™ and, possibly other, brand names. Such infringing products and services included some type of foot-based sensor device that may be used in combination with some type of manifestation device coupled to said foot-based sensor device or which has been remotely located and that operated based on data derived from said foot-based sensor device. Defendant refers to its foot-based sensor device as the "GO ZONE™" product that was configured to

operate with a population-specific, remotely located website designed and/or operated by Defendant.

14. Defendants' accused products, infringed both of the patents-in-suit and, in particular, ***at least***, the following claims:

Claim 10 of U.S. Patent No. 5,343,445 C1	**Exemplary Infringement Virgin HealthMiles GoZone™ Activity Trackers (in addition to Virgin HealthMiles Systems in conjunction with third-party APPs and/or activity tracking devices)**
10. A method for measuring and indicating hang time off the ground and in the air during a jump by a person wearing an athletic shoe, said method comprising the steps of:	The preamble of claim 10 literally reads on the Accused Products (e.g., GoZone™ Products).  Virgin HealthMiles Activity Trackers may be worn on a person's shoe and during activities like or involving jumps. And, according to Defendant, "If you are cycling or if your body type does not allow you to wear the pedometer properly on your waist, you can wear it on the side of your foot with the safety strap attached." *See* **Exhibit** 7. According to one of Defendant's largest customers, Lockheed Martin, in co-branded marketing materials, wearing a GoZone™ activity tracker "in the following locations will read steps best when walking or running continuously at moderate speeds (4+ mph): Attached to side or top of shoe..." *See* **Exhibit** 9. 

(a) measuring in the shoe elapsed time between the shoe leaving the ground and returning to the ground;	This claimed method step literally reads on the Accused Products. Elapsed time is measured between the shoe leaving the ground and returning to the ground. As noted, *supra*, steps are sensed over time (e.g., over 'mph') during walking or running. *See* **Exhibit** 9. The Accused Devices also track "Active Minutes" – activity over time. *See* **Exhibit** 10.
(b) from the elapsed time measured in step (a), determining in said shoe whether said person has jumped off the ground or taken a walking or running step; and	This claimed method step literally reads on the Accused Products. Circuitry within the Accused Products include sensors (e.g., accelerometers, etc.) that are used to determine whether a person has jumped off the ground, taken a walking step or a running step. The Accused Devices also track "Active Minutes" – activity over time. *See* **Exhibit** 10.
(c) upon determining in step (b) that the person has jumped off the ground, providing an indication at said shoe, perceptible to said person, of the elapsed time measured in step (a).	This claimed method step literally reads on the Accused Products. Upon determining in step (b) the person has jumped off the ground (e.g., during a running sequence involving a series of jumps, etc.), the Accused products will provide an indication at (in, on or near) the shoe of the elapsed time measured in step (a). The Accused Products include visual displays that provide indications of steps determined and sensed over time. The Accused Devices also track "Active Minutes" – activity over time. *See* **Exhibit** 10.

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Claim 12 of U.S. Patent No. 5,452,269 C1	Exemplary Infringement Virgin HealthMiles GoZone Activity Trackers (in addition to Virgin HealthMiles Systems in conjunction with third-party APPs and/or activity tracking devices)
12. The method of measuring hang time off the ground and in the air of an individual, said method comprising the steps of:	The preamble of claim 10 literally reads on the Accused Products (e.g., GoZone™ Products).  Virgin HealthMiles Activity Trackers may be worn on a person's shoe and during activities like or involving jumps. And, according to Defendant, "If you are cycling or if your body type does not allow you to wear the pedometer properly on your waist, you can wear it on the side of your foot with the safety strap attached." *See* **Exhibit** 7. According to one of Defendant's largest customers, Lockheed Martin, in co-branded marketing materials, wearing a GoZone™ activity tracker "in the following locations will read steps best when walking or running continuously at moderate speeds (4+ mph): Attached to side or top of shoe..." *See* **Exhibit** 9. 
(a) providing in an athletic shoe a selectively actuable timing device;	This claimed method step literally reads on the Accused Products. An Accused Product may be attached to the side or top of a shoe. *See* **Exhibit** 9. The Accused Devices also track "Active Minutes" – activity over time. *See* **Exhibit** 10.

(b) actuating said timing device to measure elapsed time in response to said athletic shoe leaving the ground and elevating into the air;	This claimed method step literally reads on the Accused Products. Timing circuitry/processes within an Accused Product is actuated to measure elapsed time in response to an athletic shoe leaving the ground and elevating into the air to determine steps and step count at particular speeds. Speed is distance travelled over time (e.g., 4+ mph). *See* **Exhibit** 9. The Accused Devices also track "Active Minutes" – activity over time. *See* **Exhibit** 10.
(c) deactuating said timing device in response to said athletic shoe returning to the ground; and	This claimed method step literally reads on the Accused Products. Timing circuitry/processes within an Accused Product is deactuated upon the athletic shoe returning the ground. *See* **Exhibit** 9.
(d) providing an indication at said athletic shoe representing the time interval between actuation of said timing device in step (b) and deactuation of said timing device in step (c).	The Accused Products provide an indication (e.g., pace, etc.) at (in, on or near) the athletic shoe. The indication is a visible indication and the numer ob steps, for example, represents the time interval between actuation and deactuation of timing device circuitry within an Accused Products. For example, 50 steps takes longer at speed (e.g., at 4+ mph) than does 20 steps taken at the same speed. *See* **Exhibit** 9; *See* **Exhibit** 10 (The Accused Devices also track "Active Minutes" – activity over time).

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Claim 25 of U.S. Patent No. 5,343,445 C2	Exemplary Infringement Virgin HealthMiles GoZone Activity Trackers (in addition to Virgin HealthMiles Systems in conjunction with third-party APPs and/or activity tracking devices)
25. A method for indicating time off the ground and in the air during an activity including a jump, a walking step, a running step, or a skating lift by a person wearing an athletic shoe suitable to said activity, said method comprising the steps of:	The preamble of claim 10 literally reads on the Accused Products (e.g., GoZone™ Products).  Virgin HealthMiles Activity Trackers may be worn on a person's shoe and during activities like or involving jumps. And, according to Defendant, "If you are cycling or if your body type does not allow you to wear the pedometer properly on your waist, you can wear it on the side of your foot with the safety strap attached." *See* **Exhibit** 7. According to one of Defendant's largest customers, Lockheed Martin, in co-branded marketing materials, wearing a GoZone™ activity tracker "in the following locations will read steps best when walking or running continuously at moderate speeds (4+ mph): Attached to side or top of shoe..." *See* **Exhibit** 9. 
(a) sensing, within said shoe, pressure imparted to said shoe when said leaves the ground during said activity;	This claimed method step literally reads on the Accused Products. Whether a MEMS accelerometer (or another type of accelerometer) or a mechanical switching system (e.g., a pendulum switch), pressure (force over area) is realized by an Accused

	Device when a shoe leaves the during an activity like a step, lifting a shoe to a bike pedal, etc. There can be no triggering of a sensing element (e.g., a MEMS accelerometer or a mechanical switch) without the application of forces realized from application of pressure (force over area) applied to one shoe, for example.
(b) sensing, within said shoe, pressure imparted to said shoe when said shoe returns to the ground at the end of said activity; and	This claimed method step literally reads on the Accused Products. A sensor within an Accused Product senses the existence of pressure (force over area) imparted to the shoe when the shoe returns to the ground (e.g., at a heel strike, step-down, etc.) during an activity such as during a walking or running step, for example.
(c) activating, within said shoe, a messaging device in relation to the time interval between said shoe leaving and returning to the ground as sensed in steps (a) and (b), respectively, said messaging device providing an indication related to said time interval in a manner perceptible to said person.	This claimed method step literally reads on the Accused Products. Timing circuitry/processes within an Accused Product activates (e.g., sends data, signals, commands for operation, etc.) a messaging device that may be located at the shoe. The visual display of an Accused Device is configured to provide an indication *related* to said time interval occurring between when the shoe leaves and later returns to the ground – e.g., during a step. The Accused Devices also track "Active Minutes" – activity over time. *See* **Exhibit** 10.

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Claim 27 of U.S. Patent No. 5,343,445 C2	Exemplary Infringement Virgin HealthMiles GoZone Activity Trackers (in addition to Virgin HealthMiles Systems in conjunction with third-party APPs and/or activity tracking devices)
28. The method according to claim 25, wherein said messaging device activated during said activating step (c) is worn on said person and remotely from said shoe.	*See* Preamble Discussion in re Claim 25, *supra*. A website configured by Defendant and operated on behalf of a customer (e.g., Lockheed Martin) literally infringed claim 28. Such a website was located remotely from said shoe and operated, inter alia, to track steps taken and activities determined by an Accused Device.  

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Claim 28 of U.S. Patent No. 5,343,445 C2	Exemplary Infringement Virgin HealthMiles GoZone Activity Trackers (in addition to Virgin HealthMiles Systems in conjunction with third-party APPs and/or activity tracking devices)
28. The method according to claim 25, wherein said messaging device activated during said activating step (c) is worn on said person and remotely from said shoe.	*See* Preamble Discussion in re Claim 25, *supra*. During the enforceable period of the patents-in-suit, Defendant induced customers to utilize numerous activity tracking devices that incorporated wireless transmission technologies to communicate with personal communication/content devices like or similar to cell phones, for example. Such devices may be located on a person (e.g., in their pocket) while the foot-based activity tracker transmits step and other activity metrics to an APP running within the personal communication/content device. For example, FitBit® devices utilize wireless communications to transmit activity data to a cell phone that may be placed in someone's pocket to record and/or track steps taken and sensed.

16. Discovery in this case will likely reveal additional instances of past infringement such as may be related to additional products and claims of the patents-in-suit. Notwithstanding, in addition to the exemplary instances of infringement shown in the tables presented *supra*, at least the following additional claims have been infringed by the Defendant's product and service offerings: '445 Patent → Claims 1-28, '269 Patent → Claims 12, 13, 14, 16, 19 and 20.

17. Defendants products infringed the patents-in-suit both directly and indirectly under 35 USC §§ 271(a), (b) and (c) literally and/or under the Doctrine of Equivalents. Given the sole and intended purpose of Defendant's Accused Products to measure and determine foot-action metrics during activities in which a person's foot leaves and returns to the ground, Defendant's products were specifically designed to operate in non-staple, infringing ways. And, on information and belief, Defendant has infringed the patents-in-suit in violation of 35 USC § 271(b) by having actively induced distributors, customers, and/or others to infringe the patents-in-suit through marketing and technical documentation means.

18. On information and belief, Defendants have made (and/or have had made on their behalf) infringing products and have marketed the same throughout the U.S. and, in particular, in this judicial district of Virginia, USA. For example only, and not by way of limitation, Defendant has encouraged hundreds, if not thousands of people, to use Virgin HealthMiles Accused Products and services in this judicial district of Virginia such as those people who work for Defendant's significant customer, Lockheed Martin, and who live in the Washington, DC area and, in particular, in the Commonwealth of Virginia.

19. Because of Defendant's past infringing activities in the marketplace, Plaintiff has been injured. Thus, the U.S. Patent Act mandates that Plaintiff be granted remedies including, but not limited to, damages for past infringement in an amount of no less than a reasonable royalty. The Court is informed that there already exists a written license between Plaintiff and a non-party licensee that calls for such reasonable royalties on a per-unit basis in relation to sales of foot-action sensor products. On good and reliable information, Defendant's licensed foot-action sensor products may be manufactured by or on behalf of Defendants in the first instance and sold to Plaintiff's licensees/customers under contractual arrangements.

20. Because of the subjectively willful nature of Defendant's past infringing activities in violation of 35 USC § 271 (a), (b) and (c), Plaintiff is entitled to enhanced damages of no less than trebled damages as permitted by the U.S. Patent Act (35 USC § 1, *et. seq.*), along with attorneys fees and costs of suit. In particular, Timex (1) has acted despite an objectively high likelihood that its actions constitute infringement of the valid, enforceable patents-in-suit, and (2) Defendant has so acted despite an objectively high risk of infringement that was known or was so obvious that it should have been known Defendant.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Cherdak prays for judgment and relief against all three (3) named Defendants as follows:

1. For a judgment that the Cherdak patents-in-suit are infringed by Defendants (including, but not limited to, their subsidiaries, predecessors-in-interest and business units however and wherever formed, etc.) each standing alone as described herein as they have and continue to act independently to bring to market and encourage the infringing use of products within their respective product lines;
2. That an accounting be had for damages to Plaintiff by Defendants past acts in violation of the U.S. Patent Act (35 USC § 1, *et seq.*) together with pre-judgment and post-judgment interest and costs of suit;
3. That damages be assessed at no less than a reasonable royalty in regard to the acts of infringement by each Defendant as complained of herein and based on prior reasonable royalties established in commerce in connection with the patents-in-suit;
4. That any damages awarded in accordance with any prayer for relief be enhanced and, in particular, trebled in accordance with the U.S. Patent Act (35 USC § 1, *et seq.*) for Defendant's acts which are found to be willful acts of patent infringement; and
5. Such other and further relief as this Court shall deem just and proper.

DEMAND FOR TRIAL BY JURY

The Plaintiff hereby demands a TRIAL BY JURY on all issues so trialable.

Respectfully submitted,

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October 15, 2013