

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

ACME IP Holdings LLC  
73 W Monroe St  
Chicago, Illinois 60603

*Plaintiff,*

*v.*

New Balance Athletics, Inc.  
100 Guest Street, Floor 5  
Boston, Massachusetts 02135

-and-

New Balance Athletic Shoe, Inc.  
190 Merrimack Street  
Lawrence, Massachusetts 01843

*Defendants.*

Case No. \_\_\_\_\_

**COMPLAINT  
FOR PAST PATENT INFRINGEMENT**

**PLAINTIFF'S COMPLAINT FOR PAST PATENT INFRINGEMENT**

Plaintiff ACME IP Holdings LLC (hereinafter "Plaintiff"), through its attorney, Isaac Rabicoff, complains of the above-named Defendants as follows:

**THE PARTIES**

1. Plaintiff ACME IP Holdings LLC is a company organized under the laws of Illinois having a principal place of business as specified in the caption of this Complaint.
2. Defendant New Balance Athletics, Inc. is a company organized under the laws of Massachusetts having a principal place of business as specified in the caption of this Complaint.
3. Defendant New Balance Athletic Shoe, Inc. is a company organized under the laws of Massachusetts having a principal place of business as specified in the caption of this Complaint.

4. The Defendants named in the Caption of this Complaint are collectively are referred to herein as the “Defendants.”

### **JURISDICTION AND VENUE**

5. This is an action for Patent Infringement of U.S. Patent Nos. 5,343,445 and 5,452,269 (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.
6. Defendants are each presently and have 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, Defendants have 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.

### **FACTS**

7. On July 6, 1993, the original owner of the patents (the Inventor) 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, the Inventor 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 used, made, imported, offered for sale, marketed, and sold by Defendants directly and indirectly under The U.S. Patent Act. The patents-in-suit have successfully gone through the USPTO’s expert review on three 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 new claims submitted to better 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 in the patents-in-suit and, as such, has the full right to bring this action for patent infringement and to seek all remedies in law and in equity for acts of patent infringement occurring in the past, present and future.
8. The patents-in suit expired in July, 2013. This action for past patent infringement has been commenced within the six-year statutory period in which such actions may be commenced. 35 U.S. Code § 286. As of the commencement of this action, upon information and belief, Defendants sold the infringing products specified in this Complaint from approximately 2010 through 2013 through nationwide sales channels).
  9. Defendants, have in the past imported, distributed, sold and offered for sale, and continue import, distribute, market, sell and offer for sale, infringing products in unauthorized ways under the patents-in-suit. For example, Defendants manufacture, market and sell wrist-worn activity monitors and related Foot Pod Sensor products for sensing activity metrics related to foot action during activities such as during running, jumping, walking and stepping. A printout from the WAYBACK machine on the Internet demonstrates Defendants' sales of infringing products in at least 2011 prior to expiration of the patents-in-suit.
  10. Some **EXEMPLARY** infringing products manufactured, marketed, sold and distributed by Defendants throughout the United States and in this particular judicial district of the Northern District of Illinois, include the following:



The New Balance N8 Trainer Kit (includes Wireless Shoe Pod, Heart Rate Monitor and Remote Watch Monitor)

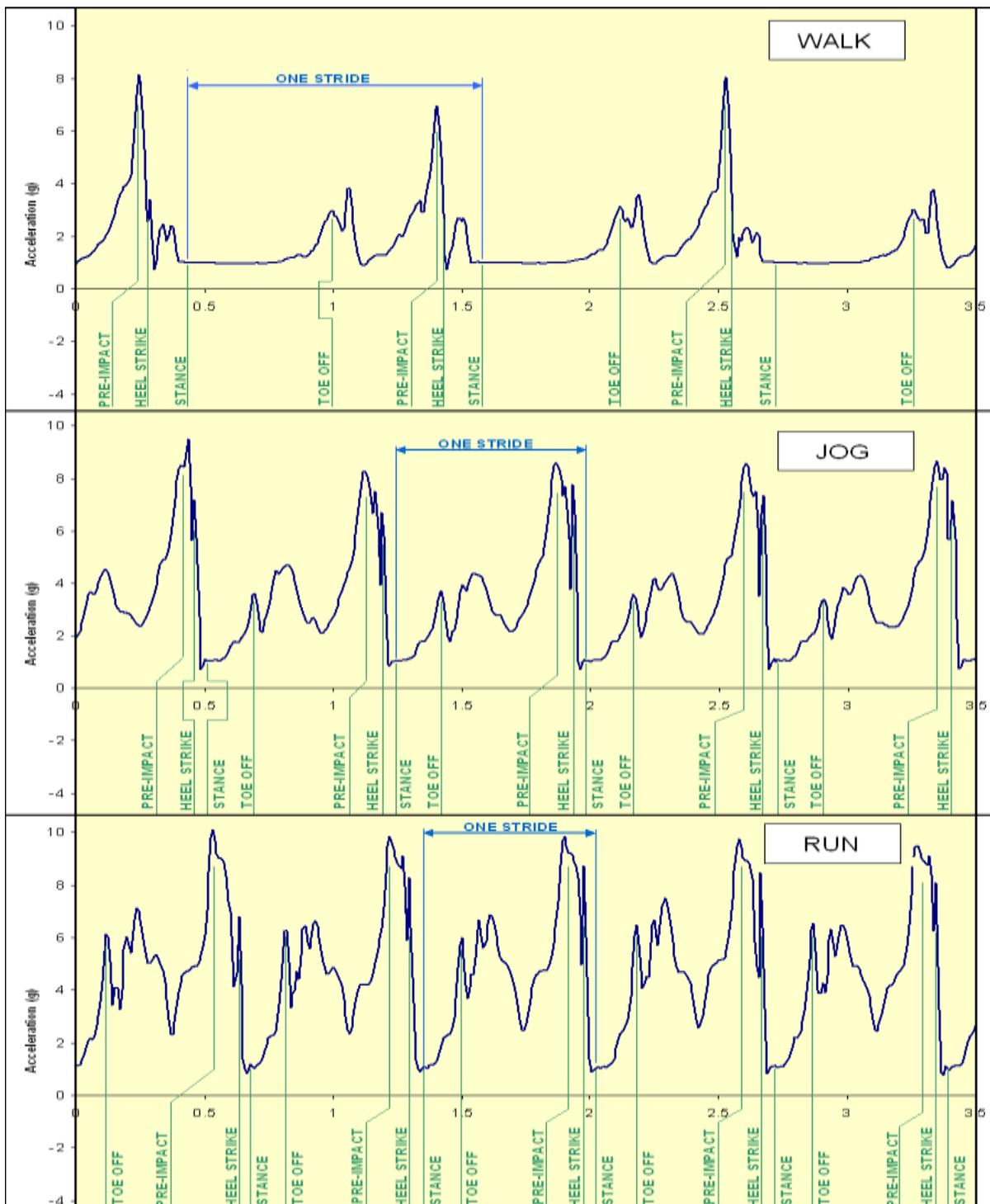
11. ***This Complaint and this action are NOT limited to the EXEMPLARY products shown and identified above. Due discovery in this case will reveal the true scope of infringing products that is subject to Plaintiff's claims of infringement as specified herein. Accordingly, the foregoing listing of products is NOT in any way exhaustive.***

Discovery in this action will reveal the true scope of infringing products that were sold by Defendants prior to expiration of the patents-in-suit and for which the Court must award damages of no less than a reasonable royalty.

12. Defendants' Foot Pod Sensor and related products (e.g., wrist-worn data manifestation devices) are imported, marketed, offered for sale, and sold by Defendants to operate based on sensing when a shoe leaves and returns to the ground – this reads directly on a U.S. District Court's factual determination as to how devices covered by the '445

- patent operate. See **Exhibit 7** at p. 6 (the Court’s factual determination that “[t]he 445 patent senses when a shoe leaves and returns to the ground.”).
13. Defendants’ Foot Pod Sensor products operate by sensing that a shoe leaves and returns to the ground during different phases of human movement or gait. For example, and not by way of limitation, Defendants’ Foot Pod Sensor (as part of the N8 Product) senses, for example, when a shoe leaves the ground at a “TOE OFF” point in time and returns to the ground at a “HEEL STRIKE” point in time during at least one stride of a walking, jogging, or running regimen. The Foot Pod Sensor is intended to be worn on one foot by being attached to a tongue area of one of a person’s shoes. Such attachment of the Foot Pod Sensor is realized by mounting that device to the shoe laces of a single shoe. Upon information and belief, signaling characteristics related to operation of the Foot Pod Sensor may be evaluated to discern steps and step counts such as by examining signaling states of the output signals of an accelerometer type device as shown in the following figures broken down according to walking, jogging, and running.

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The above-shown timing diagrams, *inter alia*, demonstrate that Defendants’ Foot Pod Sensor products likely looks for events occurring during human movement and gait and measure time periods between such events. For example, a stride is determined in the context of running (e.g., during a series of jumps), by sensing stance and toe-off states (i.e., when the shoe leaves the ground) and thereafter sensing a heel strike state

(i.e., when the shoe returns to the ground). As noted above, the U.S. District Court for the Eastern District of Virginia (The Honorable Liam O’Grady, USDJ) has already determined that the patents-in-suit “sense[s] when a shoe leaves and returns to the ground.”). See **Exhibit 7** at p. 6.

14. Upon information and belief, Defendants have long known about the patents-in-suit and about the fact that certain third-parties not named herein have already been licensed or otherwise received rights to make, use, sell and import the Foot Pod Sensor and related products like or similar to the NEW BALANCE N8 KIT, and manufactured, in the first place, by and/or on behalf of one or more Defendants as named herein. For example, upon information and belief, Defendants are aware of the fact that PEAR SPORTS, LLC ([www.pearsports.com](http://www.pearsports.com)) is already a licensee under the patents-in-suit by way of its patent marking to the patents-in-suit prior to expiration thereof. The Pear Sports Foot Pod Sensor product is shown below:



15. Pear Sports, LLC had been obligated under license to include a patent marking related to the patents-in-suit in connection with its sales of licensed Foot Pod Sensor products and product kits (e.g., products like Defendants’ in which a shoe pod like the one shown above was also sold with a chest belt heart rate monitor and a manifestation device to

relay information to a wearer of such devices) within its PEAR ONE product line. Upon information and belief, the PEAR foot pod sensor device works in substantially the same ways as the Defendants' foot pod sensor product. Pear Sports, LLC marks 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.***

16. By way of example, and not limitation, Pear Sports, LLC is a non-exclusive licensee required to pay per-unit running royalties under a license agreement entered into between the former owner of the patents-in-suit and Pear Sports, LLC effective August 31, 2012.

#### **COUNT I – PATENT INFRINGEMENT**

Paragraphs 1 through 16 are hereby incorporated by reference as though completely set forth herein.

17. Given the validity and enforceability of the patents-in-suit against past, present, and future 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 Defendants for their past, present, and future 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). Defendants have 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 currently sold under arrangement with Defendants to facilitate the sale, distribution, use and reliance upon “private branded” products. Such infringing products and packages include 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 (typically wirelessly). Defendants refer to the foot-based sensor device as a “Foot Pod” and the manifestation device as a monitor or activity monitor that may be worn on a person’s shoe, about his body such as in the form of a wrist-worn receiver, a watch, etc.

18. Defendants’ Foot Pod Sensor alone and in combination with a wrist-worn receivers identified and shown in Paragraph 10 of this Complaint, infringe 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 The NEW BALANCE N8 Trainer Pack
<p>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:</p>	 <p>The N8 Trainer, unlike simple pedometers, uses advanced MEMS inertial-sensor technology. The sensor examines signaling states of the accelerometer to determine foot action related metrics. Speed in a conventional context is scalar value computed as distance covered over time (<math>s = d/t</math>). Thus, the Foot Pod measures the passage of time between certain aspects of a person’s step or stride.</p>
<p>(a) measuring in the shoe elapsed time between the shoe leaving the ground and returning to the ground;</p>	<p>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.</p>
<p>(b) from the elapsed time measured in step (a), determining in said shoe whether said person has jumped off the ground or taken a</p>	<p>This claimed method step literally reads on the Accused Products. Circuitry within the Foot Pod</p>

walking or running step; and	Sensor determines whether a person has jumped off the ground, taken a walking step or a running step.
(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 infringing combination of Accused Products utilize close-proximity radio frequency technologies that call for the Foot Pod Sensor and the wrist worn visual display device to be near each other to realize effective communications. The Foot Pod Sensor will determine many activity-based metrics over time (e.g., pace and other time-based data). The wrist-worn component of the infringing combination provides a visual indication that is perceptible (visible) to the person.

<p align="center"><b>Claim 13</b> <b>U.S. Patent No. 5,343,445 C2</b></p>	<p align="center"><b>Exemplary Infringement</b> <b>The NEW BALANCE N8 Trainer Pack</b></p>
<p>13. An athletic shoe comprising:</p>	<p>New Balance is a manufacturer, user, and seller of athletic shoes. The picture below illustrates the New Balance N8 Product having a wrist-worn Receiver, a Heart-Rate Monitor (HRM) at (in, on or near) the athletic shoe, and a Shoe Pod laced into and held in place by a Holder as shown laced into the tongue area the athletic shoe.</p> 
<p>(a) a sole;</p>	<p>The depicted New Balance Shoe includes a sole (gray material) intended to contact ground surfaces.</p>
<p>(b) a shoe upper mounted on said sole;</p>	<p>The depicted New Balance Shoe includes an upper (primarily red in the picture) mounted on the sole.</p>

<p>(c) pressure responsive means [a pressure responsive switch, a piezo member in circuit, an accelerometer or more than one, etc. as shown and described in the patents- in-suit] mounted on said shoe for providing a signal in said shoe in response to said shoe leaving the ground when on the foot of a person, and for removing said signal in response to said shoe returning to the ground;</p>	<p>The Shoe Pod mounted in the holder and into the laces of the depicted shoe includes pressure responsive means that are mounted in the Shoe Pod holder for providing a signal in said shoe in response to the shoe leaving the ground when on the foot of a person, and for removing a signal in response to the shoe returning to the ground. The Shoe Pod</p>
<p>(d) a timer in said shoe actuatable in response to said signal for measuring elapsed time; and</p>	<p>The Shoe Pod includes timer device circuitry that is actuatable in response to a signal generated by the pressure responsive means/device for measuring elapsed time.</p>
<p>(e) an elapsed time display at said shoe for providing a visible reading of the elapsed time measured by said timer.</p>	<p>The wrist-worn Receiver unit includes a visual display device for providing, <i>inter alia</i>, an elapsed time display at (in, on or near) based on the elapsed time measured by the timer device circuitry related to operation of the Shoe Pod.</p>

<p><b>Claim 12 of U.S. Patent No. 5,452,269 C1</b></p>	<p><b>Exemplary Infringement The NEW BALANCE N8 Trainer Pack</b></p>
<p>12. The method of measuring hang time off the ground and in the air of an individual, said method comprising the steps of:</p>	<div data-bbox="899 1037 1474 1465" data-label="Image"> </div> <p>The N8 Trainer, unlike simple pedometers, uses advanced MEMS inertial-sensor technology. The sensor examines signaling states of the accelerometer to determine foot action related metrics. Speed in a conventional context is scalar value computed as distance covered over time (<math>s = d/t</math>). Thus, the Foot Pod measures the passage of time between certain aspects of a person's step or stride.</p>

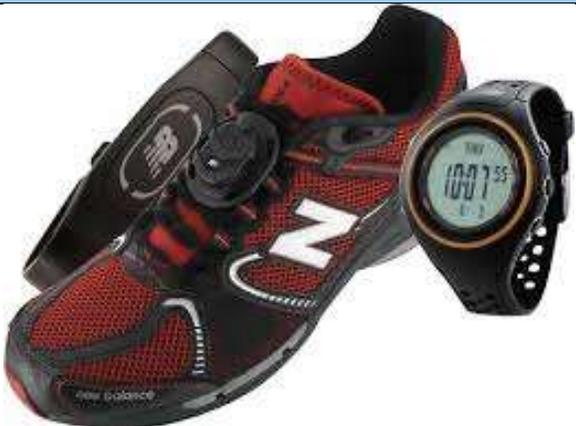
<p>(a) providing in an athletic shoe a selectively actuatable timing device;</p>	<p>This claimed method step literally reads on the Accused Products. Defendants instruct that the Foot Pod Sensor is placed on or in the athletic shoe such as in a pocket formed in a sole member of the shoe.</p>
<p>(b) actuating said timing device to measure elapsed time in response to said athletic shoe leaving the ground and elevating into the air;</p>	<p>This claimed method step literally reads on the Accused Products. Timing circuitry/processes within the Foot Pod Sensor is actuated to measure elapsed time in response to an athletic shoe leaving the ground and elevating into the air.</p>
<p>(c) deactuating said timing device in response to said athletic shoe returning to the ground; and</p>	<p>This claimed method step literally reads on the Accused Products. Timing circuitry/processes within the Foot Pod Sensor is deactuated upon the athletic shoe returning the ground.</p>
<p>(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).</p>	<p>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 represents the time interval between actuation and deactuation of timing device circuitry within the Foot Pod Sensor.</p>

<p><b>Claim 25 of U.S. Patent No. 5,343,445 C2</b></p>	<p><b>Exemplary Infringement The NEW BALANCE N8 Trainer Pack</b></p>
<p>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:</p>	<div data-bbox="899 1121 1479 1549" data-label="Image"> </div> <p>The N8 Trainer, unlike simple pedometers, uses advanced MEMS inertial-sensor technology. The sensor examines signaling states of the accelerometer to determine foot action related metrics. Speed in a conventional context is scalar value computed as distance covered over time (<math>s = d/t</math>). Thus, the Foot Pod measures the passage of</p>

	<p>time between certain aspects of a person's step or stride.</p>
<p>(a) sensing, within said shoe, pressure imparted to said shoe when said leaves the ground during said activity;</p>	<p>This claimed method step literally reads on the Accused Products. As noted above, Defendants instruct consumers that the Foot Pod Sensor is to be placed on or in the athletic shoe such as within the laces of the shoe. The Foot Pod Sensor senses the existence of pressure (force over area) imparted to the shoe when the shoe leaves the ground (e.g., at a toe-off point in time) during an activity such as during a walking or running step, for example.</p>
<p>(b) sensing, within said shoe, pressure imparted to said shoe when said shoe returns to the ground at the end of said activity; and</p>	<p>This claimed method step literally reads on the Accused Products. The Foot Pod Sensor 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) during an activity such as during a walking or running step, for example.</p>
<p>(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.</p>	<p>This claimed method step literally reads on the Accused Products. Timing circuitry/processes within the Foot Pod Sensor activates (e.g., send data, signals, commands for operation, etc.) a messaging device that may be located at the shoe or otherwise such as on the wrist of a person. The messaging device is the watch unit and is configured to provide an indication related to said time interval occurring between when the shoe leaves and later returns to the ground.</p>

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Claim 27 of U.S. Patent No. 5,343,445 C2	Exemplary Infringement The NEW BALANCE N8 Trainer Pack
<p>27. The method according to claim 25, wherein said messaging device activated during said activating step (c) is located remotely from said shoe.</p>	 <p>The N8 Trainer, unlike simple pedometers, uses advanced MEMS inertial-sensor technology. The sensor examines signaling states of the accelerometer to determine foot action related metrics. Speed in a conventional context is scalar value computed as distance covered over time (<math>s = d/t</math>). Thus, the Foot Pod measures the passage of time between certain aspects of a person's step or stride. The Watch is a remotely located messaging device that is coupled wirelessly to the Foot Pod device.</p>

Claim 28 of U.S. Patent No. 5,343,445 C2	Exemplary Infringement The NEW BALANCE N8 Trainer Pack
<p>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.</p>	 <p>The N8 Trainer, unlike simple pedometers, uses advanced MEMS inertial-sensor technology. The sensor examines signaling states of the accelerometer to determine foot action related</p>

	<p>metrics. Speed in a conventional context is scalar value computed as distance covered over time (<math>s = d/t</math>). Thus, the Foot Pod measures the passage of time between certain aspects of a person's step or stride. The Watch is a remotely located messaging device that is coupled wirelessly to the Foot Pod device.</p>
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<p><b>Claim 29 of U.S. Patent No. 5,343,445 C2</b></p>	<p><b>Exemplary Infringement The NEW BALANCE N8 Trainer Pack</b></p>
<p>29. The method according to claim 25, wherein said activating step involves transmitting a signal to a receiver coupled to said messaging device to cause said messaging device to provide a message related to said activity to said person.</p>	<div data-bbox="909 535 1485 966" data-label="Image"> </div> <p>The N8 Trainer, unlike simple pedometers, uses advanced MEMS inertial-sensor technology. The sensor examines signaling states of the accelerometer to determine foot action related metrics. Speed in a conventional context is scalar value computed as distance covered over time (<math>s = d/t</math>). Thus, the Foot Pod measures the passage of time between certain aspects of a person's step or stride. The Watch is a remotely located messaging device that is coupled wirelessly to the Foot Pod device. A manifested step count or distance, for example, is a message related to activity of the person.</p>

19. Discovery in this case will reveal additional instances of infringement such as may be related to additional products and claims of the patents-in-suit.
20. Defendants products infringe 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 Foot Pod Sensors to measure and

determine time-based foot-action metrics during activities in which a person's foot leaves and returns to the ground, Defendant's products are specifically designed to operate in non-staple infringing ways. And, upon information and belief, Defendant has infringed the patents-in-suit in violation of 35 USC § 271(b) by actively, and with knowledge, inducing distributors, customers, and/or other retailers to infringe the patents-in-suit through marketing and technical documentation means.

21. Upon information and belief, Defendants have made infringing products and have marketed the same widely throughout the U.S. and, in particular, in this judicial district, the Northern District of Illinois. Defendants further marketed their products to consumers 24 hours a day, 7 days a week, and 365 days per year *via* the Internet at [www.newbalance.com](http://www.newbalance.com).
22. Because of Defendants infringing activities in the marketplace, Plaintiff has been injured and is entitled to past damages. 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. *See* 35 USC §§ 271, 285, etc. The Court is informed that such reasonable royalties on a per-unit basis have already been established in relation to sales of Foot Pod Sensor products and as to related messaging devices that may be coupled thereto. Such licensed Foot Pod Sensor products may be manufactured by or on behalf of Defendants in the first instance and sold to Plaintiff's licensee under a private branding arrangement.
23. Because of the willful nature of Defendants' 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 attorney's fees and costs of suit. In particular, Defendants (1) have acted despite an objectively high likelihood that its actions constitute infringement of the valid,

enforceable patents-in-suit and with knowledge of several already-licensed/permitted parties, and (2) Defendants have so acted despite an objectively high risk of infringement that was known or was so obvious that it should have been known Defendants.

**PRAYER FOR RELIEF**

**WHEREFORE**, Plaintiff prays for judgment and relief against all named Defendants as follows:

- A. For a judgment that the 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 acted independently to bring to market and encourage the infringing use of products within their respective product lines;
- C. That an accounting be had for damages to Plaintiff by each Defendant's 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;
- D. 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;
- E. 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
- F. Such other and further relief as this Court shall deem just and proper.

**JURY DEMAND**

Under Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff respectfully requests a trial by jury on all issues.

Dated: October 28, 2016

Respectfully submitted,

/s/ Isaac Rabicoff  
Counsel for Plaintiff

Isaac Rabicoff  
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Exhibits List:

- 1 U.S. Patent No. 5,343,445
- 2 Reexamination Certificate for U.S. Patent 5,343,445 C1
- 3 Reexamination Certificate for U.S. Patent 5,343,445 C2
- 4 U.S. Patent No. 5,452,269
- 5 Reexamination Certificate for U.S. Patent 5,452,269 C1
- 6 Reexamination Certificate for U.S. Patent 5,452,269 C2
- 7 Memorandum Opinion in Case No. 1:11-cv-1311 LO/jfa Dated 4/23/2012