

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

**DESIGN 408 LLC**, a Delaware Limited Liability Corporation,

Plaintiff,

v.

**OMRON HEALTHCARE, INC.**, a Delaware corporation,

Defendant.

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

Patent Case

Jury Trial Demanded

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Design 408 LLC (“Design”), through its attorney, complains of Omron Healthcare, Inc. (“Omron”), and alleges the following:

**PARTIES**

1. Plaintiff, Design 408 LLC is a domestic limited liability corporation organized and existing under the laws of Delaware.
2. Defendant Omron Healthcare, Inc. is a corporation organized and existing under the laws of Delaware that maintains its principal place of business at 1925 W. Field Ct., Lake Forest, IL 60045.

**JURISDICTION**

3. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code.
4. This Court has exclusive subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

5. This Court has personal jurisdiction over Omron because it has engaged in systematic and continuous business activities in the Northern District of Illinois. Specifically, Omron provides its full range of services to residents in this District. As described below, Omron has committed acts of patent infringement giving rise to this action within this District.

#### **VENUE**

6. Venue is proper in this District under 28 U.S.C. § 1400(b) because Omron has committed acts of patent infringement in this District and has a regular and established place of business in this District. Specifically, Omron provides its full range of services to residents in this District. In addition, Design has suffered harm in this district.

#### **PATENTS-IN-SUIT**

7. Design is the assignee of assignee of all right, title and interest in United States Patent Nos. 9,420,973 (the “’973 Patent”) and 9,107,597 (the “’597 Patent”) (collectively, the “Patents-in-Suit”), including all rights to enforce and prosecute actions for infringement and to collect damages for all relevant times against infringers of the Patent-in-Suit. Accordingly, Design possesses the exclusive right and standing to prosecute the present action for infringement of the Patent-in-Suit by Omron.

#### **The ’973 Patent**

8. On August 18, 2015, the United States Patent and Trademark Office issued the ’973 Patent. The ’973 Patent is titled “Apparatus, Device and Method for Obtaining Electrocardiogram.” The application leading to the ’973 Patent was filed on April 1, 2013. A true and correct copy of the ’973 Patent is attached hereto as Exhibit A and incorporated herein by reference.
9. The ’973 Patent is valid and enforceable.

10. The invention in the '973 Patent relates to an apparatus with a device communicably coupled to two electrodes that may be positioned on the body of a subject in order to obtain an electrocardiogram with 12 leads or 18 leads. Ex. A at 4:48-54. These two electrodes may obtain signal parameters such as arm leads, left chest leads, and right chest leads. *Id.* at 6:44-64. These obtained signal parameters may be detected and collected by the device for processing. *Id.* at 2:54-61. The electrocardiogram may then be transmitted to a health care provider. *Id.* at 5:1-3.
11. The inventors recognized that ECG machines were cumbersome and costly, because they required complicated electrodes. *Id.* at 1:27-30. Further, ECG machines could be used to treat and diagnose heart conditions in hospitals or clinics, but could not be used in homes, remote locations, or without extensive medical knowledge. *Id.* at 1:37-45. By providing a simple and easy to use apparatus and method for obtaining an electrocardiogram with a reduced number of electrodes, the apparatus allows users to operate it at home or in remote locations without needing assistance from a medical professional. *Id.* at 2:37-44.

### **The '597 Patent**

12. On August 18, 2015, the United States Patent and Trademark Office issued the '597 Patent. The '597 Patent is titled "Apparatus, Device and Method for Obtaining Electrocardiogram." The application leading to the '973 Patent was filed on April 1, 2013. A true and correct copy of the '597 Patent is attached hereto as Exhibit B and incorporated herein by reference.
13. The '597 Patent is valid and enforceable.
14. The invention in the '597 Patent relates to an apparatus with a device communicably coupled to two electrodes that may be positioned on the body of a subject in order to obtain an electrocardiogram with 12 leads or 18 leads. Ex. B at 2:48-50. These two electrodes may

obtain signal parameters such as arm leads, left chest leads, and right chest leads. *Id.* at 12:40-44. These obtained signal parameters may be detected and collected by the device for processing. *Id.* at 3:18-19. The electrocardiogram may then be transmitted to a health care provider. *Id.* at 3:8-9.

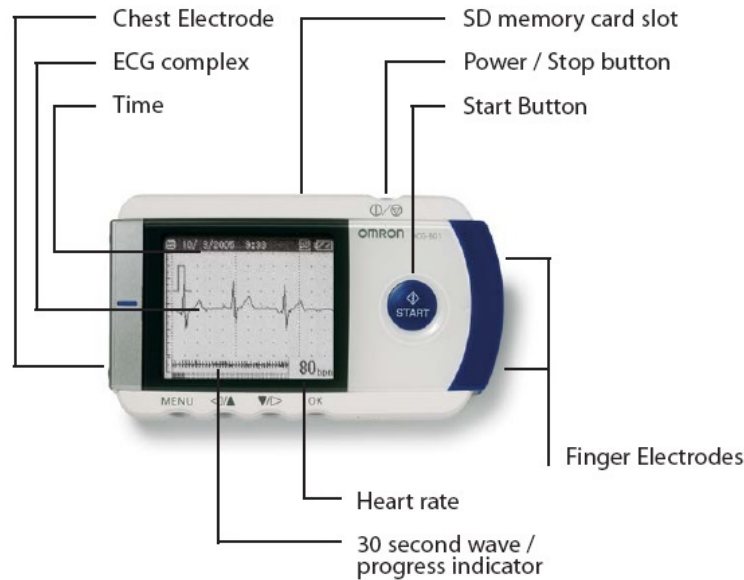
15. The inventors recognized that ECG machines were cumbersome and costly, because they required complicated electrodes. *Id.* at 1:28-31. Further, ECG machines could be used to treat and diagnose heart conditions in hospitals or clinics, but could not be used in homes, remote locations, or without extensive medical knowledge. *Id.* at 1:40-45. By providing a simple and easy to use apparatus and method for obtaining an electrocardiogram with a reduced number of electrodes, the apparatus allows users to operate it at home or in remote locations without needing assistance from a medical professional. *Id.* at 2:37-42.

#### **COUNT I: INFRINGEMENT OF THE '973 PATENT**

16. Design incorporates the above paragraphs herein by reference.
17. **Direct Infringement.** Omron has been and continues to directly infringe at least claim 1 of the '973 Patent in this District and elsewhere in the United States by providing products, for example, Omron's HCG-801, that provide a device for performing one of 12 leads and 18 leads electrocardiogram on a body of a subject.
18. Omron provides a device with an apparatus comprising two electrodes, each of the two electrodes being adjustable on the body to record one or more signal parameters at one or more locations on the body, the one or more electrodes comprising a dynamic reference electrode, the dynamic reference electrode not involved in direct measurement of an electrical dipole, the dynamic reference electrode shifting for each lead measurement. For example, Omron's HCG-801 provides two electrodes, chest electrodes, and finger electrodes

that can be adjusted on the body to measure body signal parameters at different body locations. See Figure 1; [https://omronhealthcare.com.au/pdf2/HCG-801\\_Brochure.pdf](https://omronhealthcare.com.au/pdf2/HCG-801_Brochure.pdf).

## Product features



*Figure 1. Omron's HCG-801 provides two electrodes, chest electrodes, and finger electrodes that can be adjusted on the body to measure body signal parameters at different body locations.*

19. Omron provides a device capable of being communicably coupled to the electrodes, the device configured to detect and collect the one or more recorded signal parameters for processing thereof and thereby determining one of 12 leads and 18 lead electrocardiogram, wherein the collected recorded signal parameters are further processed to determine correctness thereof prior to transmitting the determined electrocardiogram to a monitoring station. For example, Omron's HCG-801 analyzes the recorded ECG and display messages related to the analysis on the monitor. See Figure 2.

## Product features

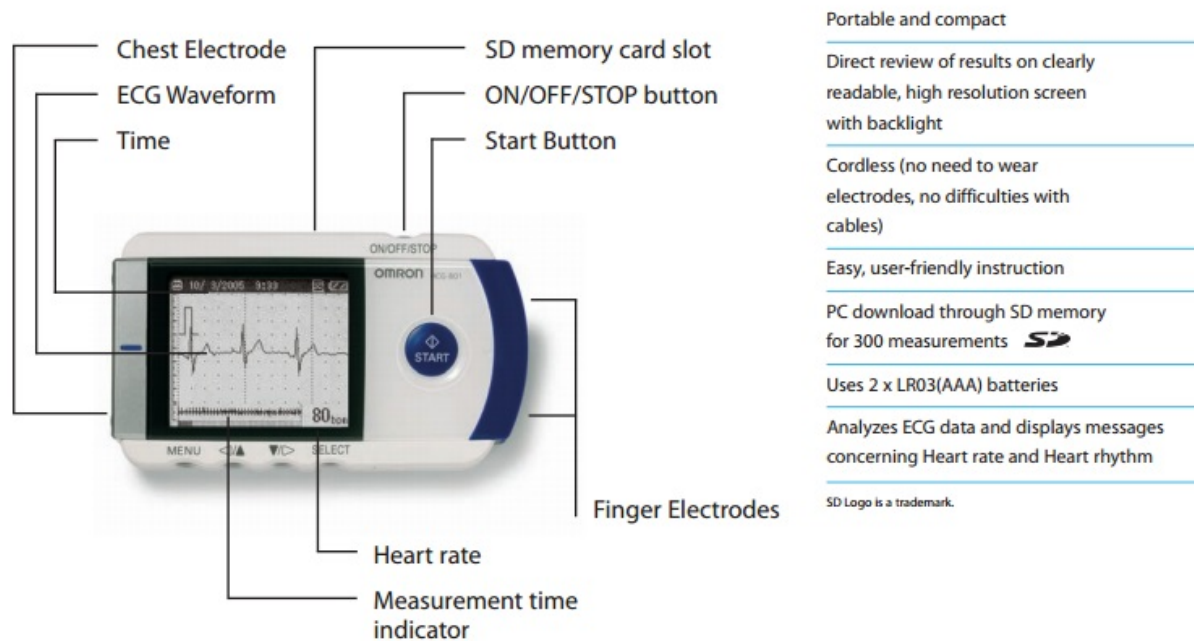


Figure 2. Omron’s HCG-801 analyzes the recorded ECG and display messages related to the analysis on the monitor.

20. Omron provides a device that can be further configured to provide a notification when the recorded signal parameters are determined as incorrect, the notification including a probable reason for incorrect recorded signals. For example, Omron’s HCG-801 displays a message if the ECG parameters are not detected or if measurement was interrupted. See Figure 3.

### Notice Messages

Message	Description	Action
Analysing.	The ECG data is being analysed.	No action required. Wait until analysis ends.
Can not measure. Please follow the instructions for use.	A ECG wave-pattern could not be detected.	Check the instructions and repeat measurement.
Measurement was stopped. Push START to begin measurement again.	The measurement was interrupted or cancelled.	Press START to resume the measurement.
Copied [ ] <sup>1</sup> data into SD.	The indicated number of ECG data has been copied to an SD memory card.	No action required. Wait until the message disappears.
Erased [ ] <sup>2</sup> data.	The indicated number of ECG data has been erased.	

*Figure 3. Omron's HCG-801 displays a message if the ECG parameters are not detected or if measurement was interrupted.*

21. **Induced Infringement.** Omron has also actively induced, and continues to induce, the infringement of at least claim 1 of the '973 Patent by actively inducing its customers, including merchants and end-users to use Omron's products in an infringing manner as described above. Upon information and belief, Omron has specifically intended that its customers use its products that infringe at least claim 1 of the '973 Patent by, at a minimum, providing access to support for, training and instructions for, its system to its customers to enable them to infringe at least claim 1 of the '973 Patent, as described above. Even where performance of the steps required to infringe at least claim 1 of the '973 Patent is accomplished by Omron and Omron's customer jointly, Omron's actions have solely caused all of the steps to be performed.
22. Design is entitled to recover damages adequate to compensate it for such infringement in an amount no less than a reasonable royalty under 35 U.S.C. § 284.
23. Design will continue to be injured, and thereby caused irreparable harm, unless and until this Court enters an injunction prohibiting further infringement.

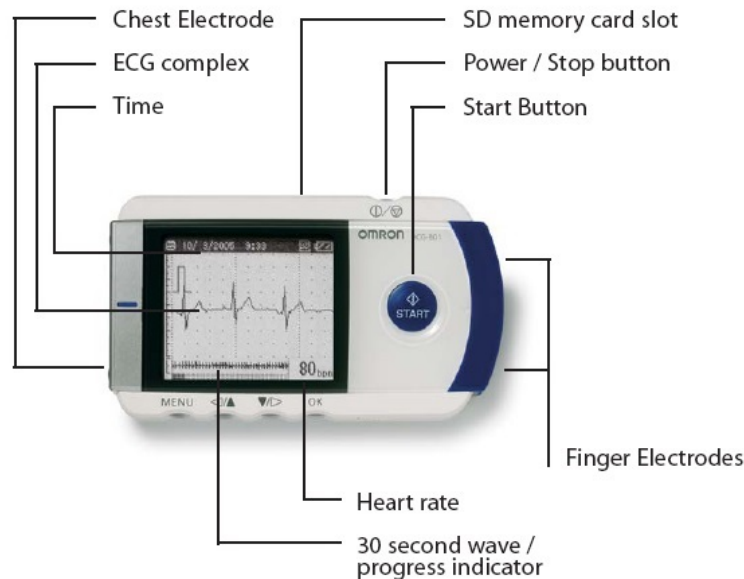
#### **COUNT II: INFRINGEMENT OF THE '597 PATENT**

24. Design incorporates the above paragraphs herein by reference.
25. Omron has been and continues to directly infringe at least claim 1 of the '597 Patent in this District and elsewhere in the United States by providing products, for example, Omron's HCG-801, that provide a device for performing one of 12 leads and 18 leads electrocardiogram on a body of a subject.
26. Omron provides a device with two electrodes, each of the two electrodes being adjustable on the body to record one or more signal parameters at one or more locations on the body. For

example, Omron's HCG-801 has two electrodes, chest electrodes, and finger electrodes that can be adjusted on the body to measure body signal parameters at different body locations. See Figure 3;

[https://omronhealthcare.com.au/pdf2/HCG-801\\_Brochure.pdf](https://omronhealthcare.com.au/pdf2/HCG-801_Brochure.pdf).

## Product features

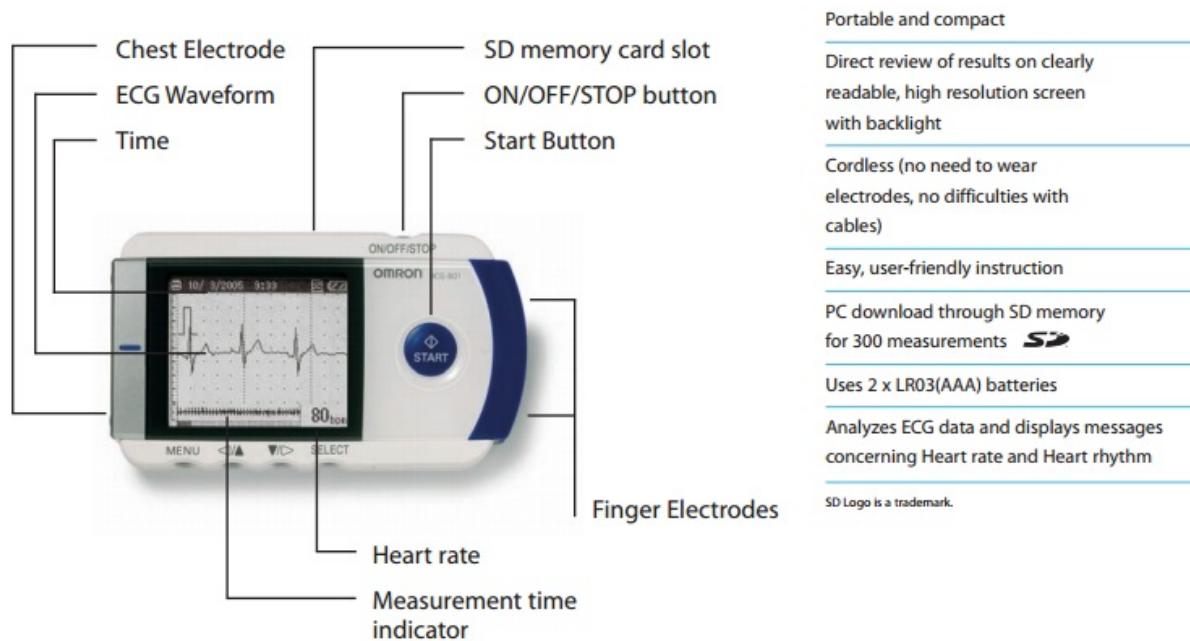


*Figure 3. Omron's HCG-801 provides two electrodes, chest electrodes, and finger electrodes that can be adjusted on the body to measure body signal parameters at different body locations.*

27. Omron provides a device capable of being communicably coupled to the electrodes, the device configured to detect and collect the one or more recorded signal parameters for processing thereof and thereby determining one of 12 leads and 18 leads electrocardiogram. For example, Omron's HCG-801 analyzes the recorded ECG and display messages related to the analysis on the monitor. See Figure 4.



## Product features



*Figure 4. Omron's HCG-801 analyzes the recorded ECG and display messages related to the analysis on the monitor.*

28. Omron provides a device where the collected signal parameters are processed prior to transmitting the determined electrocardiogram to a monitoring station. For example, Omron's HCG-801 has an On/Off/Stop button to help determine correctness of the signal parameters.

*See Figure 4.*

29. Omron provides a device that is capable of housing at least one of the electrodes. For example, Omron's HCG-801 stores finger electrodes. *See Figure 4.*

30. Omron provides a device that has a measurement module, the measurement module identifying locations for placing an electrode, the location calculated by analysis of received input from an electrode, the measurement module transmitting display information to a monitor, the display information indicating the correct placement of an electrode. For

example, Omron's HCG-801 takes measurements via electrodes, and displays them on a central monitor. *See* Figure 4.

31. Omron provides a device that has a sensor module for detecting recorded signal parameters. For example, Omron's ECF-2550 is cordless and is able to directly record ECG data. *See* Figure 4.
32. Omron provides a device that has a processor module configured for analyzing and enhancing the signal parameters and for transforming the enhanced signal parameters into an electrocardiogram display. For example, Omron's HCG-801 analyzes the ECG data and transforms that data into heart rate and heart rhythm data that can be seen on the screen. *See* Figure 4.
33. Omron provides a device that has at least one dynamic reference electrode, the dynamic reference electrode, not involved in direct measurement of an electrical dipole, the dynamic reference electrode shifting for each lead measurement. For example, Omron's HCG-801 provides two electrodes, chest electrodes, and finger electrodes that can be adjusted on the body to measure body signal parameters at different body locations. *See* Figure 3.

#### **JURY DEMAND**

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

#### **PRAYER FOR RELIEF**

WHEREFORE, Design asks this Court to enter judgment against Omron, granting the following relief:

- A. A declaration that Omron has infringed the Patent-in-Suit;
- B. An award of damages to compensate Design for Omron's direct infringement of

the Patent-in-Suit;

- C. An order that Omron and its officers, directors, agents, servants, employees, successors, assigns, and all persons in active concert or participation with them, be preliminarily and permanently enjoined from infringing the Patent-in-Suit under 35 U.S.C. § 283;
- D. An award of damages, including trebling of all damages, sufficient to remedy Omron's willful infringement of the Patent-in-Suit under 35 U.S.C. § 284;
- E. A declaration that this case is exceptional, and an award to Design of reasonable attorneys' fees, expenses and costs under 35 U.S.C. § 285;
- F. An award of prejudgment and post-judgment interest; and
- G. Such other relief as this Court or jury may deem proper and just.

Respectfully submitted,  
/s/ Isaac Rabicoff  
Counsel for Plaintiff

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