

**UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

ECOFACOR, INC,

Plaintiff,

v.

AMAZON.COM, INC.,

Defendant.

Case No. 6:22-cv-00068

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.*, in which Plaintiff EcoFactor, Inc. (“Plaintiff” or “EcoFactor”) makes the following allegations against Defendant Amazon.com, Inc. (“Defendant”):

**INTRODUCTION**

1. This complaint arises from Defendant’s unlawful infringement of the following United States patents owned by EcoFactor: and U.S. Patent No. 10,534,382 (“382 Patent”); U.S. and Patent No. 10,584,890 (“890 Patent”) (collectively the “Asserted Patents”). EcoFactor owns all right, title, and interest in each of the Asserted Patents.

**PARTIES**

2. EcoFactor is a privately held company, having its principal place of business at 441 California Avenue, Number 2, Palo Alto, CA 94301. EcoFactor was founded in 2006 and is headquartered in Palo Alto, California. EcoFactor is a leader in smart home energy management services. EcoFactor delivers smart home energy management services that improve energy efficiency, reduce energy bills and vastly increase demand response efficacy – all while

maintaining consumer comfort. EcoFactor’s patented big-data analytics and machine learning algorithms collect and process massive amounts of residential data – including home thermodynamics, family comfort preferences and schedules, plus external data such as weather – to continually monitor, adapt and learn for optimum energy savings. The company provides homeowners significant cost savings and energy usage benefits. EcoFactor’s award-winning service has been offered through channel partners such as utilities, energy retailers, broadband service providers and HVAC companies.

3. EcoFactor transformed how homes use energy by applying advanced analytics to connected devices in the home. EcoFactor developed a suite of software known as the “EcoFactor Platform” that incorporates EcoFactor’s patented data analytics and machine learning algorithms, as well as EcoFactor’s award-winning smart HVAC control technologies. The EcoFactor Platform is software that runs on servers, including cloud servers, in the United States, and provides service to customers in the United States. The source code of the EcoFactor Platform, including for example the platform, quant, and mobile application source code, that comprises the EcoFactor Platform was designed by, created by, and is continuously maintained and improved by EcoFactor employees working in the United States. The EcoFactor Platform actively manages thermostats on occupants’ behalf in intelligent ways that improve comfort while helping them save time, energy and money. Utilities, home service providers and homeowners rely on EcoFactor for demand response, energy efficiency, and HVAC performance monitoring services. The EcoFactor Platform includes the software that practices EcoFactor’s patents on these features. For example, the EcoFactor Platform includes EcoFactor’s patented techniques for monitoring the health and performance of HVAC systems over time, smart thermostat scheduling to improve energy savings and optimize comfort for occupants, and thermodynamic modeling of the user’s home and HVAC

system to enable dynamic pre-cooling and pre-heating to further improve comfort, save energy, or both, by creating comfortable schedules that also shift energy usage out of periods of peak energy demand.

4. The patented innovations at issue in this action were invented by EcoFactor engineers and researchers. EcoFactor has played a significant role in the development and advancement of such improvements to energy management technology—and the domestic market for them. EcoFactor has expended tens of millions of dollars of research and development and technical services and support in the United States. In recent years, an explosion of imported products that infringe EcoFactor’s innovative Asserted Patents has significantly eroded EcoFactor’s market standing. This infringement action is about several patented improvements to smart thermostat systems, smart HVAC systems, and smart HVAC control systems—which took years of research and millions of dollars in U.S. investments to develop, and which are infringed by Defendant’s accused products.

### **PARTIES**

5. Plaintiff EcoFactor is a privately held company, having its principal place of business at 441 California Avenue, Number 2, Palo Alto, CA 94301. EcoFactor was founded in 2006 and is headquartered in Palo Alto, California. EcoFactor is the sole owner of all right, title, and interest in each Asserted Patents.

6. Defendant Amazon.com, Inc. is a corporation organized under the laws of the State of Delaware, with its principal place of business at 410 Terry Avenue North, Seattle, Washington 98109.

### **JURISDICTION AND VENUE**

7. This action arises under the patent laws of the United States, Title 35 of the United

States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

8. This Court has personal jurisdiction over Defendant in this action because Defendant has committed acts within this District giving rise to this action, and has established minimum contacts with this forum such that the exercise of jurisdiction over Defendant would not offend traditional notions of fair play and substantial justice. Defendant, directly and through subsidiaries or intermediaries, has committed and continue to commit acts of infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the asserted patents.

9. Venue is proper in this District under 28 U.S.C. § 1400(b). Upon information and belief, Defendant has transacted business in this District and has committed acts of direct and indirect infringement in this District by, among other things, making, using, offering to sell, selling, and importing products that infringe the Asserted Patents. Defendant has a regular and established place of business in the District, including offices at 11501 Alterra Parkway, Austin, Texas, and a fulfillment center at 2093-2209 Rutland Drive, Austin, Texas 78758. Further, Amazon's website lists over 500 jobs available in the Austin area.

#### **THE TECHNOLOGY AND PRODUCTS AT ISSUE**

10. The products accused of infringing one or more of the Asserted Patents are smart thermostat systems, smart HVAC systems, smart HVAC control systems, and all components (including accessories) thereof offered for sale by Defendant.

11. The Accused Products include thermostat systems that connect to and control an HVAC system, they include smart HVAC systems, and they include components of such systems such as, for example, hubs, panels, and remote sensors. These thermostat devices communicate

over a network with other devices and systems offered by Defendant. The Accused Products connect to the network managed by Defendant via the Internet. For example, the Accused Products connect to Defendant's networked servers and data centers, online interfaces, and related accessories.

12. When connected as designed, the Accused Products form a smart thermostat system, smart HVAC system, and/or smart HVAC control system. Defendant's smart thermostat systems are "smart" because they are designed to connect to Defendant's servers and data centers (including, e.g., cloud-based servers and backend support), related online interfaces (including, e.g., mobile apps and web portals), and related accessories (e.g., remote temperature sensors), upon importation in the United States. Further, Defendant's smart thermostat systems are "smart" because they support and are marketed as providing features to end users that analyze thermostat and HVAC system data gathered by the smart thermostat systems.

13. The Accused Products constitute the "frontend" of the smart thermostat system, smart HVAC system, and/or smart HVAC control system. Such smart thermostat devices can be programmed using the servers and the network maintained by Defendant and which form the "backend" for the smart thermostat. Such smart thermostat systems can be programmed remotely with a web or mobile application offered by Defendant. The web or mobile application communicates with the smart thermostat via computer servers or data centers managed by Defendant, who sells and imports the smart thermostat. Each Defendant allows an end user to use a web or mobile application on a mobile phone, tablet, laptop, or other computing device to control the smart thermostat systems, such as by adjusting temperature settings. Defendant's smart thermostat systems also communicate data using the network. For example, Defendant's smart thermostat systems send and receive temperature data and/or temperature settings using the

network.

14. Defendant's Accused Products are designed and specially made and adapted to infringe claims of the Asserted Patents and to embody a material part of the claimed inventions. The Accused Products are installed and used in the United States according to Defendant's design and instructions. Defendant has knowledge as well as notice of its infringement of each asserted patent at least as of October 21, 2019. Defendant knowingly induces and encourages the use of the Accused Products in the United States in a manner that infringes the asserted claims of the Asserted Patents. Defendant infringes the Asserted Patents directly, through making, using, selling, and/or offering for sale the Accused Products. Defendant also infringes the Asserted Patents indirectly, both for example through contributory infringement as well as through induced infringement. The infringement of the Asserted Patents is also attributable to Defendant. Defendant and/or users of the Accused Products directs and controls use of the Accused Products to perform acts that result in infringement the Asserted Patents, conditioning benefits on participation in the infringement and establishing the timing and manner of the infringement.

### **COUNT I**

#### **INFRINGEMENT OF U.S. PATENT NO. 10,534,382**

15. Plaintiff realleges and incorporates by reference the foregoing paragraphs as if fully set forth herein.

16. Plaintiff is the owner and assignee of United States Patent No. 10,534,382 titled "System and method for using a wireless device as a sensor for an energy management system." The '382 Patent was duly and legally issued by the United States Patent and Trademark Office on January 14, 2020. Plaintiff is the owner and assignee, possessing all substantial rights, to the '382 Patent. A true and correct copy of the '382 Patent is attached as Exhibit 1.

17. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports (or has done so within the damages period) certain smart thermostat products (“Accused Products”), such as the Amazon Smart Thermostat (e.g., S6ED3R), that directly infringe, literally and/or under the doctrine of equivalents, claims 1-20 of the ’382 Patent. The Accused Products additionally include Amazon servers, backend systems, web portals, APIs, Alexa mobile app, and remote sensor accessories that support these thermostats.

18. The infringement of the ’382 Patent is also attributable to Defendant. Defendant and/or users of the Accused Products directs and controls use of the Accused Products to perform acts that result in infringement of the patent, conditioning benefits on participation in the infringement and establishing the timing and manner of the infringement.

19. Defendant also knowingly and intentionally induces infringement of claims of the ’890 Patent in violation of 35 U.S.C. § 271(b). Through at least the filing and service of this Complaint, Defendant has had knowledge of the ’382 Patent and the infringing nature of the Accused Products. Despite this knowledge of the ’382 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the ’382 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the ’382 Patent, thereby specifically intending for and inducing its customers to infringe the ’382 Patent through the customers’ normal and customary use of the Accused Products.

20. Defendant has also infringed, and continue to infringe, claims of the ’382 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the

Accused Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. Defendant knows the components in the Accused Products to be especially made or especially adapted for use in infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. Accordingly, Defendant has been, and currently is, contributorily infringing the '382 Patent, in violation of 35 U.S.C. § 271(c).

21. The Accused Products satisfy all claim limitations of claims of the '382 Patent. A claim chart comparing claim elements of the '382 Patent to representative Accused Products, is attached as Exhibit 2.

22. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured EcoFactor and is liable for infringement of the '890 Patent pursuant to 35 U.S.C. § 271.

23. As a result of Defendant's infringement of the '382 Patent, EcoFactor is entitled to monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

24. Defendant's infringing activities have injured and will continue to injure EcoFactor, unless and until this Court enters an injunction prohibiting further infringement of the '382 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

## **COUNT II**

### **INFRINGEMENT OF U.S. PATENT NO. 10,584,890**

25. EcoFactor realleges and incorporates by reference the foregoing paragraphs as if



fully set forth herein.

26. EcoFactor owns all rights, title, and interest in U.S. Patent No. 10,584,890, titled “System and Method for Using a Mobile Electronic Device to Optimize an Energy Management System,” issued on Mar. 10, 2020. The inventor of the ’890 Patent is John Douglas Steinberg. The ’597 Patent is based on U.S. Pat. App. No. 16/374,246, filed on Apr. 3, 2019, which is a continuation of U.S. Pat. App. No. 16/264,050, filed on Jan. 31, 2019, which is a continuation of U.S. Pat. App. No. 15/616,719, filed on June 7, 2017, which is a continuation of U.S. Pat. App. No. 14/491,554, filed on Sept. 19, 2014, which is a continuation of U.S. Pat. App. No. 14/048,932, filed on Oct. 8, 2013, which is a continuation of U.S. Pat. App. No. 12/788,246, filed on May 26, 2010. A true and correct copy of the ’890 Patent is attached as Exhibit 3.

27. On information and belief, Defendant makes, uses, offers for sale, sells, and/or imports (or has done so within the damages period) certain smart thermostat products (“Accused Products”), such as the Amazon Smart Thermostat (e.g., S6ED3R), that directly infringe, literally and/or under the doctrine of equivalents, claims 1-17 of the ’890 Patent. The Accused Products additionally include Amazon servers, backend systems, web portals, APIs, Alexa mobile app, and remote sensor accessories that support these thermostats.

28. The infringement of the ’890 Patent is also attributable to Defendant. Defendant and/or users of the Accused Products directs and controls use of the Accused Products to perform acts that result in infringement of the patent, conditioning benefits on participation in the infringement and establishing the timing and manner of the infringement.

29. Defendant also knowingly and intentionally induces infringement of claims of the ’890 Patent in violation of 35 U.S.C. § 271(b). Through at least the filing and service of this Complaint, Defendant has had knowledge of the ’890 Patent and the infringing nature of the

Accused Products. Despite this knowledge of the '890 Patent, Defendant continues to actively encourage and instruct its customers and end users (for example, through user manuals and online instruction materials on its website) to use the Accused Products in ways that directly infringe the '890 Patent. Defendant does so knowing and intending that its customers and end users will commit these infringing acts. Defendant also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '890 Patent, thereby specifically intending for and inducing its customers to infringe the '890 Patent through the customers' normal and customary use of the Accused Products.

30. Defendant has also infringed, and continue to infringe, claims of the '890 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. Defendant knows the components in the Accused Products to be especially made or especially adapted for use in infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. Accordingly, Defendant has been, and currently is, contributorily infringing the '890 Patent, in violation of 35 U.S.C. § 271(c).

31. The Accused Products satisfy all claim limitations of claims of the '890 Patent. A claim chart comparing claim elements of the '890 Patent to representative Accused Products, is attached as Exhibit 4.

32. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Defendant has injured EcoFactor and is liable for infringement of the '890 Patent pursuant to 35 U.S.C. § 271.

33. As a result of Defendant's infringement of the '890 Patent, EcoFactor is entitled to

monetary damages in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty for the use made of the invention by Defendant, together with interest and costs as fixed by the Court.

34. Defendant's infringing activities have injured and will continue to injure EcoFactor, unless and until this Court enters an injunction prohibiting further infringement of the '890 Patent, and, specifically, enjoining further manufacture, use, sale, importation, and/or offers for sale that come within the scope of the patent claims.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Defendant has infringed, literally and/or under the doctrine of equivalents, the '382 Patent and the '890 Patent;

b. A permanent injunction prohibiting Defendant from further acts of infringement of the '382 Patent and the '890 Patent;

c. A judgment and order requiring Defendant to pay Plaintiff its damages, enhanced damages, costs, expenses, and pre-judgment and post-judgment interest for Defendant's infringement of the '382 Patent and the '890 Patent;

d. A judgment and order requiring Defendant to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest;

e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against Defendant; and

f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

**DEMAND FOR JURY TRIAL**

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: January 18, 2022

Respectfully submitted,

/s/ Reza Mirzaie

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