

**UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF FLORIDA**

OLLNOVA TECHNOLOGIES LTD.,

Plaintiff,

v.

CARRIER GLOBAL CORP.,

Defendant.

Case No. 9:22-cv-80388-DMM

**JURY TRIAL DEMANDED**

**SECOND AMENDED COMPLAINT FOR PATENT INFRINGEMENT  
AGAINST CARRIER GLOBAL CORPORATION**

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 Ollnova Technologies Limited (“Plaintiff” or “Ollnova”) makes the following allegations against Defendant Carrier Global Corporation (“Defendant” or “Carrier”):

**INTRODUCTION**

1. This complaint arises from Carrier’s unlawful infringement of the following United States patents owned by Plaintiff, which relate to smart home energy management: United States Patent Nos. 8,224,282 (“the ’282 Patent”), 7,746,887 (“the ’887 Patent”), and 8,264,371 (“the ’371 Patent”) (collectively, the “Asserted Patents”).

**PARTIES**

2. Plaintiff Ollnova Technologies Limited is a limited liability company organized and existing under the law of Ireland, with its principal place of business at The Hyde Building, Suite 23, The Park, Carrickmines, Dublin 18, Ireland. Ollnova is the sole owner by assignment of

all right, title, and interest in the Asserted Patents, including the right to recover for past, present, and future infringement.

3. Defendant Carrier Global Corporation is a Delaware corporation with its principal place of business at 13995 Pasteur Boulevard, Palm Beach Gardens, Florida 33418.

### **JURISDICTION AND VENUE**

4. 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).

5. This Court has personal jurisdiction over Carrier in this action because Carrier 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 Carrier would not offend traditional notions of fair play and substantial justice. Carrier, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, importing, offering to sell, and selling products that infringe the Asserted Patents.

6. Venue is proper in this District under 28 U.S.C. §§ 1391 and 1400(b). Upon information and belief, Carrier has transacted business in this District and has committed acts of direct infringement in this District by, among other things, making, using, offering to sell, selling, and importing products that infringe the Asserted Patents. For example, Carrier's headquarters are located in this District.

**COUNT I**

**INFRINGEMENT OF U.S. PATENT NO. 8,224,282**

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

8. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 8,224,282, entitled “Method and device to manage power of wireless multi-sensor devices.” The ’282 Patent was duly and legally issued by the United States Patent and Trademark Office on July 17, 2012. A true and correct copy of the ’282 Patent is attached as Exhibit 1.

9. On information and belief, Carrier has and continues to make, use, offer for sale, sell, and/or import certain products and services, including without limitation the Carrier Infinity System Control, Cor Thermostat, Connect Wi-Fi Thermostat, Connect BACnet Thermostat, Carrier Connect 43 FX Thermostat, along with sensors included therein and/or sensors they are designed to work with including Indoor Air Quality, ZS Zone Sensor, and Carrier Sensor (“Accused Products”), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the ’282 Patent. Identification of the Accused Products are in Plaintiff’s infringement contentions disclosed pursuant to the Court’s scheduling order as well as in the claim chart attached hereto as Exhibit 2.

10. The Accused Products satisfy all claim limitations of one or more claims of the ’282 Patent. A claim chart comparing claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 19, 20, and 21 of the ’282 Patent to representative Accused Products is attached as Exhibit 2.

11. Carrier also knowingly and intentionally induces infringement of claims 20 and 21 of the ’282 Patent in violation of 35 U.S.C. § 271(b) as of the date the original complaint in this

action was filed and served. As of March 14, 2022 (when Carrier was served with the original complaint), Carrier has knowledge of the '282 Patent and the infringing nature of the Accused Products through, for example, the '282 Patent claim chart served therewith (Dkt. No. 1-4). Despite this knowledge of the '282 Patent, Carrier continues to actively encourage and instruct its customers and end users (for example, through online instruction and other online publications cited in Exhibit 2) to use the Accused Products in ways that directly infringe the '282 Patent. For example, Carrier instructs its customers and end users on how to install and use the Accused Products in an infringing manner. *See, e.g.,* <https://www.carrier.com/residential/en/us/products/thermostats/smart-thermostats/systxccitc01-b/> (“Product Literature” containing instructions on how to install and set up the Infinity System Control). Carrier also promotes that the Accused Products (such as the Infinity System Control) contain a plurality of sensors and can be used to communicate with other Carrier products, such as the Smart Sensor and Carrier Home application, in an infringing manner:

### INFINITY® SYSTEM CONTROL

The Infinity system control is the key to unlocking your comfort potential. It's also the brains behind a Greenspeed® intelligence system.

As part of a complete Infinity communicating system, this one control can manage temperatures, humidity, ventilation, airflow, indoor air quality and up to eight zones.

Features that fit your lifestyle like simple, intuitive programming, Wi-Fi® enabled remote access via Internet and Apple® and Android® smartphone or tablet devices. Additional filter replacement reminders and system diagnostics make it our most user-friendly control.



### CARRIER ZONING SYSTEMS

Customize your indoor comfort with flexible temperature programming in different parts of the house. Your Carrier dealer will work with you to help you decide how to best zone your home for optimum comfort and efficiency.

- Eliminate hot and cold spots
- Maximize energy savings
- Customize up to eight zones

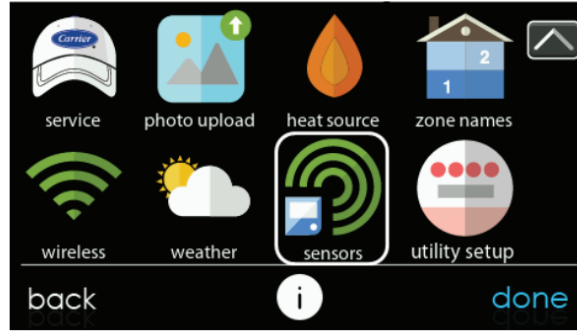


*See* <https://www.carrier.com/residential/en/us/products/thermostats/smart-thermostats/systxznsms01/> (“Product Literature” – “Everything You Need for Total Comfort”).

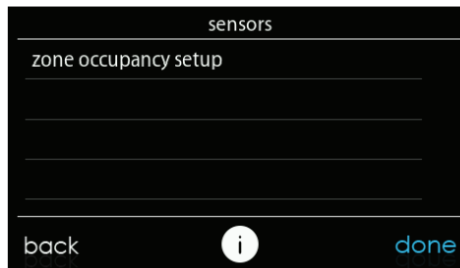
## 19. Sensors

### 19.1. Menu

An occupancy sensor is built into the main system control. This sensor is used to control occupancy for the entire home, including all zones in zoning systems. By selecting the **SENSORS** icon in the menu, a menu will be shown that offers options to setup the occupancy sensor.



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Sensors Menu for Zoning System

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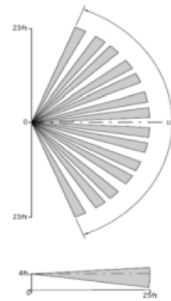
See <https://www.shareddocs.com/hvac/docs/1009/Public/0C/OMSYSTXCCITC-07.pdf> at 47; see also [https://www.shareddocs.com/hvac/docs/1009/Public/04/prod\\_car\\_therm\\_op\\_v1.3.pdf](https://www.shareddocs.com/hvac/docs/1009/Public/04/prod_car_therm_op_v1.3.pdf) at 1:

Integrated motion sensor allows the system to make automatic Activity changes, based on occupancy, to provide the optimum home comfort and energy savings.



The on-board PIR motion sensor is placed on the bottom left corner of the System Control. It is able to detect motion at least 25 feet directly in front of the sensor, and within 135° cone perpendicular to the wall. The motion detection pattern is shown as below.

Detection of motion happens as a person moves from one detection cone to the next. The closer to the control, the less lateral motion is required to detect motion; further away requires more lateral motion.

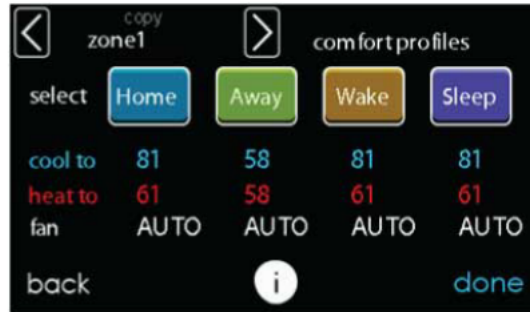


For example, the Accused Products (such as the Infinity System Control) are promoted as containing an HVAC alert system that communicates temperature and humidity sensor data under certain fault conditions in an infringing manner:

- High Room Temp Alert, when 100°F exists for at least 10 minutes, and removed when less than or equal to 98°F exists
- Low Room Temp Alert, when 38°F exists for at least 10 minutes, and removed when greater than or equal to 40°F exists
- High Humidity Alert, when 80% Rh exists for 30 minutes, and removed when less than or equal to 78% Rh exists

See <https://www.theindoorhaven.com/carrier-infinity-thermostat-troubleshooting-how-to-guide/>.

Further, Carrier details to its users that occupancy states may control sensor data (such as temperature based) on comfort profiles:



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- For example to change your **HOME** comfort profile, touch the **HOME** icon.
- Use the Up (▲) and Down (▼) buttons to change the fan settings, heating and cooling temperatures. When you are done, press the **DONE** button on the bottom right.
- Do the same thing to change the **WAKE** and **SLEEP** profiles.
- The **AWAY** profile provides an extra feature called **Advanced Smart Setback**. It allows the Infinity System to dynamically determine the away temperature automatically to save the most amount of money, yet reach your comfort settings when you return home. Advanced Smart Setback may Control the temperature somewhere in between the Away temperature limits. This is normal and is intended to prevent excessive energy use.
- Use the Up (▲) and Down (▼) buttons to change the fan settings and temperature settings. The temperature settings are the range in which you choose to keep your home conditioned while you are away. The **Advanced Smart Setback** function will maintain your temperature within this range.

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See <https://www.shareddocs.com/hvac/docs/1009/Public/0C/OMSYSTXCCITC-08.pdf> at 20.

Notably, Carrier details how Carrier provides these instructions and materials (or permits third parties to do the same) knowing and intending (or with willful blindness to the fact) that its customers and end users will commit these infringing acts. Carrier also continues to make, use, offer for sale, sell, and/or import the Accused Products, despite its knowledge of the '282 Patent, thereby specifically intending for and inducing its customers to infringe the '282 Patent through

the customers' normal and customary use of the Accused Products. Further evidence of Carrier's inducement of infringement of claims 20 and 21 of the '282 Patent is found in Exhibit 2.

12. Carrier has also infringed, and continues to infringe, one or more claims of the '282 Patent by selling, offering for sale, or importing into the United States, the Accused Products, knowing that the Accused Products constitute a material part of the inventions claimed in the '282 Patent, are especially made or adapted to infringe the '282 Patent, and are not staple articles or commodities of commerce suitable for non-infringing use (as demonstrated by the evidence cited for claims 20 and 21 of the '282 Patent found in Exhibit 2). As of March 14, 2022 (when Carrier was served with the original complaint), Carrier has knowledge of the '282 Patent and the infringing nature of the Accused Products. Carrier has been, and currently is, contributorily infringing the '282 Patent in violation of 35 U.S.C. §§ 271(c) and/or (f).

13. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Carrier has injured Plaintiff and is liable for infringement of the '282 Patent pursuant to 35 U.S.C. § 271.

14. As a result of Carrier's direct infringement of the '282 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for Carrier's infringement, but in no event less than a reasonable royalty for the use made of the invention by Carrier, together with interest and costs as fixed by the Court. Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. §287 during the relevant time period because Plaintiff, its predecessors, and any licensees did not make, offer for sale, or sell products that practice(d) the '282 Patent during the relevant time period or were not required to mark during the relevant time period.



15. As a result of Carrier's indirect infringement of the '282 Patent (induced and contributory), Plaintiff is entitled to monetary damages (present and future) in an amount adequate to compensate for Carrier's infringement, but in no event less than a reasonable royalty for the use made of the invention by Carrier, together with interest and costs as fixed by the Court, accruing as of the time Carrier obtained knowledge of the '282 Patent on or before March 14, 2022.

## COUNT II

### INFRINGEMENT OF U.S. PATENT NO. 7,746,887

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

17. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 7,746,887, entitled "Dynamic value reporting for wireless automated systems." The '887 Patent was duly and legally issued by the United States Patent and Trademark Office on June 29, 2010. A true and correct copy of the '887 Patent is attached as Exhibit 3.

18. On information and belief, Carrier has and continues to make, use, offer for sale, sell, and/or import certain products and services, including without limitation the Carrier Infinity Thermostat, Cor Thermostat, Connect Wi-Fi Thermostat, Connect BACnet Thermostat, and Connect 43 FX Thermostat, along with sensors included therein and/or sensors they are designed to work with including Indoor Air Quality, ZS Zone Sensor, and Carrier Sensor ("Accused Products"), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '887 Patent. Identification of the Accused Products is provided in Plaintiff's infringement contentions disclosed pursuant to the Court's scheduling order as well as in the claim chart attached hereto as Exhibit 4.

19. The Accused Products satisfy all claim limitations of one or more claims of the '887 Patent. A claim chart comparing claims 1, 3, 4, 5, 6, 7, 8, 14, 15, and 18 of the '887 Patent to representative Accused Products is attached as Exhibit 4.

20. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Carrier has injured Plaintiff and is liable for infringement of the '887 Patent pursuant to 35 U.S.C. § 271.

21. As a result of Carrier's direct infringement of the '887 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for Carrier's infringement, but in no event less than a reasonable royalty for the use made of the invention by Carrier, together with interest and costs as fixed by the Court. Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. §287 during the relevant time period because Plaintiff, its predecessors, and any licensees did not make, offer for sale, or sell products that practice(d) the '887 Patent during the relevant time period or were not required to mark during the relevant time period.

### **COUNT III**

#### **INFRINGEMENT OF U.S. PATENT NO. 8,264,371**

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

23. Plaintiff owns by assignment all rights, title, and interest, including the right to recover damages for past, present, and future infringement, in U.S. Patent No. 8,264,371, entitled "Method and device for communicating change-of-value information in a building automation system." The '371 Patent was duly and legally issued by the United States Patent and Trademark

Office on September 11, 2012. A true and correct copy of the '371 Patent is attached as Exhibit 5.

24. On information and belief, Carrier has and continues to make, use, offer for sale, sell, and/or import certain products and services, including without limitation the Carrier Infinity Thermostat, Cor Thermostat, Connect Wi-Fi Thermostat, Connect BACnet Thermostat, and Connect 43 FX Thermostat, along with sensors included therein and/or sensors they are designed to work with including Indoor Air Quality, ZS Zone Sensor, Carrier Sensor, and servers designed to work therewith including the MyInfinity server (“Accused Products”), that directly infringe, literally and/or under the doctrine of equivalents, one or more claims of the '371 Patent. Identification of the Accused Products are in Plaintiff’s infringement contentions disclosed pursuant to the Court’s scheduling order, as well as in the claim chart attached as Exhibit 6.

25. The Accused Products satisfy all claim limitations of one or more claims of the '371 Patent. A claim chart comparing claims 1, 2, 3, 4, 5, 6, 13, 14, and 15 of the '371 Patent to representative Accused Products is attached as Exhibit 6.

26. By making, using, offering for sale, selling and/or importing into the United States the Accused Products, Carrier has injured Plaintiff and is liable for infringement of the '371 Patent pursuant to 35 U.S.C. § 271.

27. As a result of Carrier’s direct infringement of the '371 Patent, Plaintiff is entitled to monetary damages (past, present, and future) in an amount adequate to compensate for Carrier’s infringement, but in no event less than a reasonable royalty for the use made of the invention by Carrier, together with interest and costs as fixed by the Court. Plaintiff (including its predecessors and any licensees) complied with 35 U.S.C. §287 during the relevant time period because Plaintiff, its predecessors, and any licensees did not make, offer for sale, or sell products that practice(d)

the '371 Patent during the relevant time period or were not required to mark during the relevant time period.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully requests that this Court enter:

a. A judgment in favor of Plaintiff that Carrier has infringed, either literally and/or under the doctrine of equivalents, the '282, '887, and '371 Patents;

b. A judgment and order requiring Carrier to pay Plaintiff its damages (past, present, and future), costs, expenses, and pre-judgment and post-judgment interest for Carrier's infringement of the '282, '887, and '371 Patents;

c. A judgment and order requiring Carrier to pay Plaintiff compulsory ongoing licensing fees, as determined by the Court;

d. A judgment and order requiring Carrier to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest and compensation for infringing products released after the filing of this case that are not colorably different from the Accused Products;

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 Carrier; 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: November 21, 2022

Respectfully submitted,

By: /s/ Joshua D. Martin

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*Attorneys for Plaintiff Ollnova Technologies  
Limited*

**CERTIFICATE OF SERVICE**

I hereby certify that the counsel of record who are deemed to have consented to electronic service are being served on November 21, 2022 with a copy of this document via the Court's ECF system.

/s/ Joshua D. Martin  
Joshua D. Martin