

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

MEL NAVIP LLC,

Plaintiff

-against-

HYUNDAI MOTOR COMPANY,  
HYUNDAI MOTOR AMERICA, HYUNDAI  
CAPITAL AMERICA, KIA  
CORPORATION, and KIA AMERICA,  
INC.,

Defendants.

Civil Action No.: 2:23-cv-176

**Jury Trial Demanded**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Mel NavIP LLC (“Mel NavIP” or “Plaintiff”), by way of this Complaint against Defendants Hyundai Motor Company, Hyundai Motor America, Hyundai Capital America, Kia Corporation, and Kia America, Inc., (collectively “Hyundai-Kia” or “Defendants”), alleges as follows:

**PARTIES**

1. Plaintiff Mel NavIP LLC is a limited liability company organized and existing under the laws of the State of Texas, having its principal place of business at 1708 Harrington Drive, Plano, Texas 75075.
2. On information and belief, Defendant Hyundai Motor Company (“Hyundai-KR”) is a corporation organized and existing under the laws of the South Korea, having its principal place of business at 12 Heolleung-ro, Seocho-gu, Seoul, 06797, South Korea. On information and belief, Hyundai-KR operates in the Unites States, including in the State of Texas and this Judicial District, directly or through its subsidiaries, affiliates, and/or intermediaries.

3. On information and belief, Defendant Hyundai Motor America (“Hyundai-US”) is a corporation organized and existing under the laws of the State of California, having its principal place of business at 10550 Talbert Ave, Fountain Valley, CA 92708 and a place of business at Hyundai Southern Central Regional Office, 1421 S Belt Line Rd, Coppell, TX 75019. On information and belief, Hyundai-US is a wholly owned subsidiary of Hyundai-KR. Hyundai-US may be served through its registered agent Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, TX, 78701. On information and belief, Hyundai-US is registered to do business in the State of Texas and has been since at least May 13, 1986.

4. On information and belief, Defendant Hyundai Capital America (“HCA”) is a corporation organized and existing under the laws of the State of California, having its principal place of business at 3161 Michelson Drive, Suite 1900, Irvine CA, 92612 and a place of business at 6100 W Plano Pkwy, Plano, TX, 75093. On information and belief, HCA is a majority-owned (80 percent) subsidiary of Hyundai-US. HCA may be served through its registered agent National Registered Agents, Inc., 330 N Brand Blvd Ste 700, Glendale CA, 91203.

5. On information and belief, Defendant Kia Corporation (“Kia-KR”) is a corporation organized and existing under the laws of the South Korea, having its principal place of business at 12 Heolleung-ro, Seocho-gu, Seoul, 06797, South Korea. On information and belief, Kia-KR is minority-owned (33.88 percent) by Hyundai-KR, and in turn, Kia-KR is a minority owner of more than twenty Hyundai-KR subsidiaries, including Defendant HCA. On information and belief, Kia-KR operates in the Unites States, including in the State of Texas and this Judicial District, directly or through its subsidiaries, affiliates, and/or intermediaries.

6. On information and belief, Defendant Kia America, Inc. (“Kia-US”) is a corporation

organized and existing under the laws of the State of California, having its principal place of business at 111 Peters Canyon Rd, Irvine, CA 92606 and a place of business at Kia Southwest Regional Office, 5810 Tennyson Pkwy #400, Plano, TX. On information and belief, Kia-US is a wholly owned subsidiary of Kia-KR. Kia-US may be served through its registered agent CT Corporation System, 999 Bryan St., Ste. 900, Dallas, TX, 75201. On information and belief, Kia-US is registered to do business in the State of Texas and has been since at least May 26, 1994.

7. On information and belief, Defendant Hyundai-KR is the ultimate parent company of Hyundai-US and HCA, and as the ultimate parent, induces its subsidiaries, affiliates, intermediaries, retail partners, and customers in the making, using, selling, offering for sale, and/or importing of vehicles accused of infringement in this Complaint through its subsidiaries.

8. On information and belief, Hyundai-KR, Hyundai-US, and HCA (and its subsidiaries, affiliates and/or intermediaries) form an interrelated group of companies doing business as a collective whole under the Hyundai/Genesis brands which together comprise one of the largest makers and sellers of automotive vehicles in the world. Hyundai-KR, Hyundai-US, and HCA are part of the same corporate structure and distribution chain for the making, using, selling, offering for sale, and/or importing the accused vehicles in the United States, including in the State of Texas generally and this Judicial District in particular. On information and belief, Hyundai-KR, Hyundai-US, and HCA (and its subsidiaries, affiliates and/or intermediaries) share the same management, common ownership, advertising platforms, facilities, distribution chains and platforms, and accused vehicles models and vehicles involving related technologies. Thus, Hyundai-KR, Hyundai-US, and HCA (and its subsidiaries, affiliates and/or intermediaries) operate as a unitary business and are jointly and severally liable for the acts of patent

infringement alleged herein.

9. On information and belief, Defendant Kia-KR is the parent company of Kia-US, and as the parent, induces its subsidiaries, affiliates, intermediaries, retail partners, and customers in the making, using, selling, offering for sale, and/or importing of vehicles accused of infringement in this Complaint through its subsidiaries.

10. On information and belief, Kia-KR and Kia-US (and its subsidiaries, affiliates and/or intermediaries) form an interrelated group of companies doing business as a collective whole under the Kia brand which together comprise one of the largest makers and sellers of automotive vehicles in the world. Kia-KR and Kia-US are part of the same corporate structure and distribution chain for the making, using, selling, offering for sale, and/or importing the accused vehicles in the United States, including in the State of Texas generally and this Judicial District in particular. On information and belief, Kia-KR and Kia-US (and its subsidiaries, affiliates and/or intermediaries) share the same management, common ownership, advertising platforms, facilities, distribution chains and platforms, and accused vehicles models and vehicles involving related technologies. Thus, Kia-KR and Kia-US (and its subsidiaries, affiliates and/or intermediaries) operate as a unitary business and are jointly and severally liable for the acts of patent infringement alleged herein.

11. On information and belief, Defendant Hyundai-KR is Defendant Kia-KR's largest shareholder owning 33.88 percent of Kia-KR. Further, on information and belief, Kia-KR is a minority owner of 22 Hyundai-KR subsidiary companies ranging from 4.9 percent to 45.37 percent, including having a 20 percent ownership interest in Defendant HCA. Hyundai-KR (and its subsidiaries, affiliates and/or intermediaries) and Kia-KR (and its subsidiaries, affiliates and/or intermediaries) (collectively, "Hyundai-Kia") are strongly affiliated and operate as a joint

partnership/conglomerate by comingling ownership and sharing management, facilities, advertising platforms, distribution chains, development processes, and incorporating substantially similar systems, including the same infotainment, navigation, and voice recognition systems subject to this action, in its vehicles.

12. On information and belief, Hyundai-Kia do business themselves, or through its subsidiaries, affiliates, and/or intermediaries, in the State of Texas and the Eastern District of Texas. Hyundai-Kia placed or contributed to placing infringing vehicles, including one or more of those specifically accused of infringement below, into the stream of commerce via established distribution channels knowing or understanding that such vehicles would be sold and used in, and imported into, the United States, including in the Eastern District of Texas.

13. On information and belief, Hyundai-Kia have derived substantial revenue from infringing acts in the Eastern District of Texas, including from the sale and use of these infringing vehicles like those specifically accused of infringement below.

### **JURISDICTION AND VENUE**

14. This is an action under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.*, for infringement by Hyundai of claims of U.S. Patent No. 8,060,368; U.S. Patent No. 8,090,582; U.S. Patent No. 8,244,465; U.S. Patent No. 8,649,971; U.S. Patent No. 8,812,230; and U.S. Patent No. 9,239,829 (collectively “the Patents-in-Suit”).

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

16. Hyundai-KR is subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Hyundai-KR, directly or through affiliates, subsidiaries, agents, or intermediaries, has committed and continues to commit acts of patent infringement in the State of Texas, including by making, using, offering to sell, selling, and/or importing the accused

products into Texas; (ii) Hyundai-KR, directly or through affiliates, subsidiaries, agents, or intermediaries, purposefully supplies and directs the accused products for storage, inventory, and sales by distributors and resellers in the State of Texas; and (iii) Hyundai-KR, directly or through affiliates, subsidiaries, agents, or intermediaries, delivers its products into the stream of commerce with the expectation that they will be purchased by consumers in the State of Texas. For example, Hyundai-KR's vehicles have been sold and are available for sale in this District at numerous dealerships. In addition, or in the alternative, this Court has personal jurisdiction over Hyundai-KR pursuant to Fed. R. Civ. P. 4(k)(2).

17. Venue is proper as to Hyundai-KR in this District under 28 U.S.C. § 1391(c) because, *inter alia*, Hyundai-KR is a foreign corporation.

18. Hyundai-US and HCA are subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Hyundai-US and HCA, directly or through its subsidiaries, affiliates, and/or intermediaries, maintain a regular and established place of business in Texas in this Judicial District at 6100 W Plano Pkwy, Plano, TX, 75093; (ii) Hyundai-US and HCA employ employees and sell products and services to customers in this Judicial District; and (iii) the patent infringement claims arise directly from Hyundai-US and HCA's continuous and systematic activity in this Judicial District.

19. Venue is proper as to Hyundai-US and HCA in this Judicial District under 28 U.S.C. § 1400(b) because, *inter alia*, on information and belief, Hyundai-US and HCA, directly or through its subsidiaries, affiliates, and/or intermediaries, maintain a regular and established place of business in Texas in this Judicial District at 6100 W Plano Pkwy, Plano, TX, 75093, and has committed acts of patent infringement in this Judicial District and/or has contributed to or induced acts of patent infringement by others in this Judicial District.

20. Kia-KR is subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Kia-KR, directly or through affiliates, subsidiaries, agents, or intermediaries, has committed and continues to commit acts of patent infringement in the State of Texas, including by making, using, offering to sell, selling, and/or importing the accused products into Texas; (ii) Kia-KR, directly or through affiliates, subsidiaries, agents, or intermediaries, purposefully supplies and directs the accused products for storage, inventory, and sales by distributors and resellers in the State of Texas; and (iii) Kia-KR, directly or through affiliates, subsidiaries, agents, or intermediaries, delivers its products into the stream of commerce with the expectation that they will be purchased by consumers in the State of Texas. For example, Kia-KR's vehicles have been sold and are available for sale in this District at numerous dealerships. In addition, or in the alternative, this Court has personal jurisdiction over Kia-KR pursuant to Fed. R. Civ. P. 4(k)(2).

21. Venue is proper as to Kia-KR in this District under 28 U.S.C. § 1391(c) because, *inter alia*, Kia-KR is a foreign corporation.

22. Kia-US is subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Kia-US, directly or through its subsidiaries, affiliates, and/or intermediaries, maintains a regular and established place of business in Texas in this Judicial District at Kia Southwest Regional Office, 5810 Tennyson Pkwy #400, Plano, TX; (ii) Kia-US employs employees and sells products and services to customers in this Judicial District; and (iii) the patent infringement claims arise directly from Kia-US's continuous and systematic activity in this Judicial District.

23. Venue is proper as to Kia-US in this Judicial District under 28 U.S.C. § 1400(b) because, *inter alia*, on information and belief, Kia-US, directly or through its subsidiaries, affiliates,

and/or intermediaries, maintains a regular and established place of business in Texas in this Judicial District at Kia Southwest Regional Office, 5810 Tennyson Pkwy #400, Plano, TX, and has committed acts of patent infringement in this Judicial District and/or has contributed to or induced acts of patent infringement by others in this Judicial District.

### **SINGLE ACTION**

24. This suit is commenced against all Defendants pursuant to 35 U.S.C. § 299 in a single action because, *inter alia*, as described above, the Hyundai and Kia Defendant entities share portions of the same corporate structure, including R&D, supply chain sourcing, manufacturing, and marketing efforts. In addition, on information and belief, the Hyundai and Kia Defendants incorporate the same hardware and software products that comprise part of the accused vehicle instrumentalities. Accordingly, questions of fact common to all Defendants will arise in this action.

### **BACKGROUND**

25. On November 15, 2011, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,060,368 (“the ’368 Patent”), entitled “Speech Recognition Apparatus.”

26. At the time of the invention of the ’368 Patent, conventional speech recognition apparatuses were unable to carry out speech recognition efficiently for separate externally connected devices by only creating or updating the speech recognition dictionary for a single application, such as a single externally connected device. ’368 Patent at col. 1:66-2:4. At the time of the invention, conventional speech recognition apparatuses also hindered efficient speech recognition by recording the words passing through its analysis into a single speech recognition dictionary, thereby increasing the time taken for searching the speech recognition dictionary. *See id.* at col. 2:5-13. The ’368 Patent improved upon conventional speech recognition



apparatuses by, among other features, disclosing systems and methods that can carry out the speech recognition with switching the speech recognition dictionary without any special operation of the user offering the advantages of being able to shorten the speech recognition processing time and improving the recognition rate. *See id.* at col. 2:45-50.

27. On January 3, 2012, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,090,582 (“the ’582 Patent”), entitled “Voice Recognition Apparatus.”

28. At the time of the invention of the ’582 Patent, conventional speech recognition apparatuses had difficulty discriminating between noise, such as environmental noise, and voice with a high degree of precision and the voice recognition rate was degraded. ’582 Patent at col. 1:66-2:20. The ’582 Patent improved upon conventional speech recognition apparatuses by, among other features, disclosing a voice recognition apparatus constructed in such a way as to change the timeout time on the basis of the environmental condition, thereby providing an advantage of being able to set up a proper timeout time according to the environmental condition at all times reducing the probability of erroneous recognition and recognizing an inputted voice with a high degree of precision. *See id.* at col. 2:42-49.

29. On August 14, 2012, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,244,465 (“the ’465 Patent”), entitled “Navigation System and Display Method of Road Network on the Same System.”

30. At the time of the invention of the ’465 Patent, conventional navigation systems experienced problems in adjusting the scale of the displayed map, which would result in disappearance of various elements from the navigation screen, thereby confusing a user. *See* ’465 Patent at col. 1:12-21. At the time of the invention of the ’465 Patent, conventional navigation systems displayed distorted images in attempt to prevent losing continuity of

displayed elements. *See id.* at col. 1:22-36. The '465 Patent improved upon conventional navigation systems by, among other features, disclosing a system and method that can achieve the display of the elements such as roads and facilities without distortion or losing continuity, and can reduce the load of the hardware resources in calculating the display positions at that time. *See id.* at col. 2:23-29.

31. On February 11, 2014, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,649,971 (“the '971 Patent”), entitled “Navigation Device.”

32. At the time of the invention of the '971 Patent, conventional navigation devices provided waypoint route guidance against a user’s own will to a destination or waypoint when the user has not passed a certain waypoint and is traveling along the route toward either another waypoint existing forward of the waypoint or the destination. *See* '971 Patent at col. 1:22-27. The '971 Patent improved upon conventional navigation devices by, among other features, disclosing devices and methods with a superior interface that enable a user to determine how to handle a waypoint on a route which the user has not passed according to the user's own will. *See id.* at col. 1:57-62.

33. On August 19, 2014, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 8,812,230 (“the '230 Patent”), entitled “Navigation Device.”

34. At the time of the invention of the '230 Patent, conventional navigation devices required the user to manually register for service information from registration destination facilities which required a long time. *See* '230 Patent at col. 1:58-64. Another problem of conventional navigation devices was that service information distributed from the registration destination facility may have been outdated. *See id.* at col. 1:64-2:3. The '230 Patent improved upon conventional navigation devices by, among other features, disclosing a navigation device which

can easily register service information which is distributed from a registration destination facility and which can easily refer to the service information. *See id.* at col. 2:4-9.

35. On January 19, 2016, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 9,239,829 (“the ’829 Patent”), entitled “Speech Recognition Device.”

36. At the time of the invention of the ’829 Patent, conventional speech recognition systems were not able to perform real-time speech recognition for a plurality of languages. *See* ’829 Patent at col. 1:44-64. The ’829 Patent improved upon conventional speech recognition systems by, among other features, disclosing a system and method for recognizing speech from multiple languages without requiring large storage capacity, and by performing such speech recognition in real-time. *See id.* at col. 1:65-2:29.

37. Mel NavIP is the assignee and owner of the right, title, and interest in and to the Patents-in-Suit, including the right to assert all causes of action arising under said patents and the right to any remedies for infringement of them.

38. Hyundai-Kia has infringed and continues to infringe the Patents-in-Suit by making, using, selling, or offering for sale in the United States, or importing into the United States vehicles with infotainment system technology claimed in the Patents-in-Suit. Attachment A to this Complaint provides a non-exhaustive listing of Accused Products.

### **NOTICE**

39. By letters and email dated July 22, 2022 and July 26, 2022, respectively, Mel NavIP via its legal counsel notified Hyundai-Kia that it infringes the Patents-in-Suit, identified exemplary infringed claims and infringing Hyundai, Genesis, and Kia vehicles, and invited Hyundai-Kia to hold a licensing discussion with Mel NavIP. MelNavIP’s July 22, 2022 and July 26, 2022 letter and email both attached claim charts illustrating infringement of the Patents-in-Suit by the Defendants.

40. As of the date of this Complaint, Mel NavIP has not received a response from any of the Defendants.

**COUNT I: INFRINGEMENT OF THE '368 PATENT BY HYUNDAI-KIA**

41. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

42. On information and belief, Hyundai-Kia has infringed the '368 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other products with substantially similar infotainment systems.

43. For example, on information and belief, Hyundai-Kia has infringed and continues to infringe at least claim 1 of the '368 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the 2021 Genesis G80 with Premium Gen6 Navigation which includes a speech recognition apparatus. Ex. 1 (showing that the 2021 Genesis G80 has Premium Gen6 Navigation); Ex. 2 at 240, 245 (showing that vehicles with Premium Gen6 Navigation have a Voice Recognition System). The Accused Products include an external information acquiring section configured to acquire, from an externally connected device connected to the speech recognition apparatus, a device type of the externally connected device. Ex. 2 at 141-145, 245, 296, Ex. 3 (showing that vehicles with Premium Gen6 Navigation acquire data from various external audio and media inputs, such as device type and associated compatibility to interface with a vehicle's system). The external information acquiring section in the Accused Products is configured to acquire data recorded in said externally connected device. Ex. 2 at 167, 245, Ex. 3 (showing that vehicles with Premium Gen6 Navigation acquire data from the externally connected device such as contact list data). The Accused Products include a vocabulary extracting analyzing section configured to extract a vocabulary item as an extracted vocabulary item from the data acquired by the external

information acquiring section. Ex. 2 at 245 (showing that vehicles with Premium Gen6 Navigation extract vocabulary items from the acquired data such as contact names). The vocabulary extracting analyzing section in the Accused Products is configured to produce analysis data by providing the extracted vocabulary item with pronunciation obtained through analysis of said extracted vocabulary item. Ex. 2 at 167, 245, Ex. 3 (showing that vehicles with Premium Gen6 Navigation analyze the text of the acquired data to enable the system to recognize invocation of vocabular items during voice recognition, such as “Call <Name>”). The Accused Products include a dictionary generating section configured to generate speech recognition dictionaries according to device types of externally connected devices by storing the analysis data produced by the vocabulary extracting analyzing section into a speech recognition dictionary corresponding to the device type acquired by the external information acquiring section. Ex. 2 at 245, 296, Ex. 3 (showing that vehicles with Premium Gen6 Navigation generate speech recognition dictionaries to enable the system to recognize invocation of vocabular items during voice recognition, such as “Call <Name>” which corresponds to a device type, such as a PBAP and/or HFP compatible Bluetooth phone). The Accused Products include a speech recognition section configured to carry out speech recognition of input speech by referring to a speech recognition dictionary out of the speech recognition dictionaries generated by the dictionary generating section. Ex. 2 at 245 (showing that vehicles with Premium Gen6 Navigation recognize the speech input by referring to a speech recognition dictionary, such a Contact Names Dictionary). The speech recognition section in the Accused Products is configured to output a result of said speech recognition, where the speech recognition dictionary to be used for said speech recognition corresponds to the device type acquired by the external information acquiring section. Ex. 2 at 245, Ex. 3 (showing that vehicles with Premium Gen6

Navigation output a result of said speech recognition, such as displaying a call in progress or outputting audio for a call, wherein the speech recognition dictionary used corresponds to the device type, such as a PBAP and/or HFP compatible Bluetooth phone).

44. On information and belief, Hyundai-Kia has induced infringement of the '368 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributors, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the Accused Products and incorporated navigation and multimedia technology, software, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶ 39 above (explaining that Mel NavIP notified Hyundai-Kia of infringement by letter and email dated July 22, 2022); Ex. 1 (showing that the 2021 Genesis G80 has Premium Gen6 Navigation); Ex. 2 at 240, 245 (showing that vehicles with Premium Gen6 Navigation have a Voice Recognition System).

45. On information and belief, Hyundai-Kia has committed the foregoing infringing activities without a license.

46. On information and belief, Hyundai-Kia knew the '368 Patent existed and knew of exemplary infringing Hyundai-Kia products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '368 Patent.

#### **COUNT II: INFRINGEMENT OF THE '582 PATENT BY HYUNDAI-KIA**

47. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

48. On information and belief, Hyundai-Kia has infringed the '582 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all

other products with substantially similar infotainment systems.

49. For example, on information and belief, Hyundai-Kia has infringed and continues to infringe at least claim 1 of the '582 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the 2022 Kia EV6 with Standard Gen5W Navigation which includes a voice recognition apparatus. Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 7-2, Ex. 6 at 5-83 (showing that vehicles with Gen5W Navigation have Voice Recognition). The Accused Products include a voice recognition unit that performs voice recognition. Ex. 5 at 7-2, Ex. 6 at 5-83 (showing that vehicles with Gen5W Navigation perform voice recognition when the Voice Recognition button is pressed). The Accused Products include a control unit that controls receipt of a voice input to said voice recognition unit according to a timeout time which defines an end of the receipt of a voice input, and for performing recognition according to a result of the voice recognition acquired by said voice recognition unit. Ex. 5 at 7-2, 7-4 (showing that vehicles with Gen5W Navigation includes a control unit that controls receipt of a voice input to said voice recognition unit according to a timeout time, such as the standby time, which defines an end of the receipt of a voice input). The Accused Products include an environmental condition detecting unit that detects an environmental condition. Ex. 5 at 7-4 (showing that vehicles with Gen5W Navigation includes an environmental condition detecting unit that detects an environmental condition, such as a unit that detects background noises and/or noises that are not intended to be voice command so as to determine the standby time length, i.e., system listening wait time); Ex. 7 (Photo of Gen5W Navigation when the system states "I still can't understand you, if you want to try again, please make sure your window is closed to minimize cabin noise, then press the speak button.")). The Accused Products include a timeout time control unit that changes said timeout time

according to the environmental condition detected by said environmental condition detection unit. Ex. 8 (Photo of Gen5W Navigation showing an environmental condition of no noise resulted in approximately 7 second of standby time); Ex. 9 (Photo of Gen5W Navigation showing an environmental condition with background noise resulted in approximately 15 seconds of standby time). The Accused Products include a receipt restart control unit that determines whether to restart the receipt of a voice input according to the environmental condition detected by the environmental condition detection unit after said receipt of a voice input times out. Ex. 10 (Photo of Gen5W Navigation when the system states “Sorry I didn’t understand you”); Ex. 11 (Photo of Gen5W Navigation when the system states “I still didn’t understand you, please try your command again after the beep”); Ex. 7 (Photo of Gen5W Navigation when the system states “I still can’t understand you, if you want to try again, please make sure your window is closed to minimize cabin noise, then press the speak button”).

50. On information and belief, Hyundai-Kia has induced infringement of the ’582 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributors, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the Accused Products and incorporated navigation and multimedia technology, software, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶ 39 above (explaining that Mel NavIP notified Hyundai-Kia of infringement by letter and email dated July 22, 2022); Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 7-2, Ex. 6 at 5-83 (showing that vehicles with Gen5W Navigation have Voice Recognition).



51. On information and belief, Hyundai-Kia has committed the foregoing infringing activities without a license.

52. On information and belief, Hyundai-Kia knew the '582 Patent existed and knew of exemplary infringing Hyundai-Kia products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '582 Patent.

**COUNT III: INFRINGEMENT OF THE '465 PATENT BY HYUNDAI-KIA**

53. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

54. On information and belief, Hyundai-Kia has infringed the '465 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other products with substantially similar infotainment systems.

55. For example, on information and belief, Hyundai-Kia has infringed and continues to infringe at least claim 1 of the '465 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the 2022 Kia EV6 with Standard Gen5W Navigation which includes a navigation system. Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 5-2 (showing that vehicles with Gen5W Navigation have a navigation system). The Accused Products include a map data storage section for storing map data together with attributes and classes of the map data, the map data being composed of roads necessary for a route search and display elements including city centers and facilities, and the city centers being a display element each representing a city and indicating a representative position of the city, wherein the attributes are indicative of whether or not each of the roads should be displayed for each of a plurality of map scales. Exs. 12-14 (showing Gen5W Navigation's hardware including storage/memory); Ex. 5 at 5-20 (showing that vehicles with Gen5W Navigation store map data composed of classes of roads for a route search, and classes

of display elements, such as city centers (text such as “Canton” indicative of the city’s position) and facilities (represented by graphical icons or text); Exs. 15, 16 (showing that vehicles with Gen5W Navigation display roads having attributes, e.g., a size attribute such as small (such as residential roads) or large roads (such as highways), that indicate whether or not each of the roads should be displayed depending on the map scale). The Accused Products include a display section for displaying the map data. Ex. 15 (showing that vehicles with Gen5W Navigation have a display screen for displaying the map data). The Accused Products include an input section for inputting an instruction from a user. Ex. 5 at 1-8, 1-10, 9-48, 5-12 (showing that vehicles with Gen5W Navigation allow a user to input instruction, e.g., inputting a destination address to route the user to and the desired scale of the map). The Accused Products include a control section for carrying out a procedure of calculating a route between an own-vehicle position and a destination represented by one of the display elements, the destination being instructed via the input section. Ex. 14 (showing Gen5W Navigation’s hardware including the CPU processor); Ex. 5 at 5-3, 5-4, 5-19 (showing that vehicles with Gen5W Navigation calculate a route between an own-vehicle position, e.g., using a GPS location of the vehicle, and a destination represented by a display element, e.g., a checkered flag icon, wherein the destination was input by the user). In the Accused Products, the control section also carries out, in accordance with one of the plurality of map scales instructed via the input section, a procedure of displaying a map on the display section. Ex. 5 at 2-44, 5-6, 5-19, Ex. 16 (showing that vehicles with Gen5W Navigation display a map on the vehicle’s display screen, wherein the map scale depends on the distance of the route and/or the desired scale input by the user pressing the “+” or “-” buttons.). In the Accused Products, the procedure of displaying a map on the display section includes selecting the roads indicated by the attributes as being displayable according to the instructed map scale, and by

selecting the display elements based on ranks. Ex. 5 at 5-6, 5-20, Exs. 15, 16, 17, 18 (showing that vehicles with Gen5W Navigation select the roads according to its attributes, such as a size attribute, e.g., small or large roads, to be displayed depending on the instructed map scale; and Gen5W Navigation selects the display elements, such as street labels, based on ranks, e.g., highly ranked street labels close to or on the route are displayed prominently and lower ranked street labels are not displayed). In the Accused Products, the procedure of displaying a map on the display section includes further selecting each of the roads that is part of the calculated route but not indicated by the attributes as being displayable according to the instructed map scale. Exs. 15, 16 (showing that vehicles with Gen5W Navigation select and displays the roads that are part of the calculated route even if based on their attribute they would normally be deemed too small to display according to the instructed map scale). In the Accused Products, the procedure of displaying a map on the display section includes displaying the selected roads and the selected display elements on the display selection as part of the map. Ex. 5 at 5-20, Exs. 15, 16 (showing that vehicles with Gen5W Navigation display the selected roads and the selected display elements on the vehicle infotainment system's map).

56. On information and belief, Hyundai-Kia has induced infringement of the '465 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributors, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the Accused Products and incorporated navigation and multimedia technology, software, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶ 39 above (explaining

that Mel NavIP notified Hyundai-Kia of infringement by letter and email dated July 22, 2022); Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 5-2 (showing that vehicles with Gen5W Navigation have a navigation system).

57. On information and belief, Hyundai-Kia has committed the foregoing infringing activities without a license.

58. On information and belief, Hyundai-Kia knew the '465 Patent existed and knew of exemplary infringing Hyundai-Kia products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '465 Patent.

**COUNT IV: INFRINGEMENT OF THE '971 PATENT BY HYUNDAI-KIA**

59. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

60. On information and belief, Hyundai-Kia has infringed the '971 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other products with substantially similar infotainment systems.

61. For example, on information and belief, Hyundai-Kia has infringed and continues to infringe at least claim 1 of the '971 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the 2022 Kia EV6 with Standard Gen5W Navigation. Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 5-2 (showing that vehicles with Gen5W Navigation have a navigation system). The Accused Products include a navigation device comprising a setting unit configured to set waypoints and a destination. Ex. 5 at 5-2, 5-6, 5-17, 5-18, 5-19, Ex. 19 (showing that vehicles with Gen5W Navigation set waypoints and a destination during route navigation). The Accused Products' navigation device further comprises a route searching unit configured to search for a whole route leading to the destination via the waypoints set by said setting unit. Ex.

19 (showing that vehicles with Gen5W Navigation search for a whole route leading to the final destination (represented as a checkered flag) via the waypoints (represented as a blue flag), i.e., additional destinations along the route). The Accused Products' navigation device further comprises a route guidance unit configured to carry out route guidance according to the whole route which is searched for by said route searching unit. Ex. 20 (showing that vehicles with Gen5W Navigation carry out route guidance according to the whole route, including waypoints and the destination searched by the user). The Accused Products' navigation device further comprises an output unit configured to output a message showing that a vehicle has deviated from a route leading to a first next waypoint toward which the vehicle has been heading when said route guidance unit determines that the vehicle has deviated from the route to a predetermined distance or more and is traveling along a route after said first next waypoint. Ex. 21 and Ex. 22 (showing that vehicles with Gen5W Navigation output a message, i.e., a "Current waypoint was passed. Skip this waypoint?" message, to the display screen when the vehicle has deviated from a route leading to the next waypoint and is traveling along a route after the next waypoint); Ex. 5 at 5-34, Ex. 23, Ex. 24 (showing that vehicles with Gen5W Navigation determine that the vehicle has deviated from a route by at least a predetermined distance using Hyundai AutoEver and/or HERE data software). The Accused Products' navigation device further comprises an input unit configured to input a command indicating whether or not to travel via said first next waypoint in response to the message outputted by said output unit. Exs. 25-27 (showing that vehicles with Gen5W Navigation are configured to input a command indicating whether or not to travel to the next waypoint, including to skip the next waypoint, in response to the outputted message discussed above).

62. On information and belief, Hyundai-Kia has induced infringement of the '971 Patent

pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributors, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated navigation and multimedia technology, software, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶ 39 above (explaining that Mel NavIP notified Hyundai-Kia of infringement by letter and email dated July 22, 2022); Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 5-2 (showing that vehicles with Gen5W Navigation have a navigation system).

63. On information and belief, Hyundai-Kia has committed the foregoing infringing activities without a license.

64. On information and belief, Hyundai-Kia knew the '971 Patent existed and knew of exemplary infringing Hyundai-Kia products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '971 Patent.

**COUNT V: INFRINGEMENT OF THE '230 PATENT BY HYUNDAI-KIA**

65. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

66. On information and belief, Hyundai-Kia has infringed the '230 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other products with substantially similar infotainment systems.

67. For example, on information and belief, Hyundai-Kia has infringed and continues to infringe at least claim 1 of the '230 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the 2022 Kia

EV6 with Standard Gen5W Navigation. Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 5-2 (showing that vehicles with Gen5W Navigation have a navigation system). The Accused Products include a navigation device comprising a data storage unit for storing data. Ex. 5 at 5-2, 5-6 (showing that vehicles with Gen5W Navigation have a navigation device); Exs. 12-14 (showing Gen5W Navigation's hardware including storage/memory). The Accused Products' navigation device further comprises a service information reception processing unit for receiving service information at an external registration destination facility with which member registration is made, the service information being distributed from the external registration destination facility. Ex. 14 (showing Gen5W Navigation's hardware including the communications/modem module and processor unit); Ex. 27 (showing that vehicles with Gen5W Navigation receive availability/vacancy status and type of charging from EV charging stations; showing that EV vehicles with Gen5W Navigation are registered to receive charging station information as part of its Points of Interest). The Accused Products' navigation device further comprises a service information analyzing processing unit for performing a predetermined process on the service information received by said service information reception processing unit to register the service information in said data storage unit. Ex. 14 (showing Gen5W Navigation's hardware including the processor unit); Ex. 27 (showing that vehicles with Gen5W Navigation process the received availability/vacancy status and type of charging information, and registers the service information in stores the service information in memory for display). The Accused Products' navigation device further comprises a notification condition customization setting unit for setting a notification condition about notification of the service information at the external registration destination facility. Ex. 5 at 2-44 (showing that vehicles with Gen5W Navigation set a notification condition, e.g., filtering EV Charging Stations by

charging type or brand, for displaying to a map notification of availability/vacancy status and type of charging of charging stations). The Accused Products' navigation device further comprises a facility icon display processing unit for displaying, on a map of a current location and surrounding area of the navigation device, an icon representing a registration destination facility located within an area covered by the displayed map, and for displaying a modified version of the icon on the map in such manner indicating that there is an update in service information at the registration destination facility located within an area covered by the displayed map, according to the notification condition set by said notification condition customization setting unit, said notification condition being satisfied when the service information at the represented registration destination facility has been updated. Exs. 27-30 (showing that vehicles with Gen5W Navigation display on a navigation map EV charging station icons that are modified when updated availability/vacancy status or type of charging information is received). The Accused Products' navigation device displays the map on which the icon is displayed in accordance with a navigation function. Ex. 28 (showing that vehicles with Gen5W Navigation display the map on which the icon is displayed during navigation).

68. On information and belief, Hyundai-Kia has induced infringement of the '230 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributors, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated navigation and multimedia technology, software, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶ 39 above (explaining



that Mel NavIP notified Hyundai-Kia of infringement by letter and email dated July 22, 2022); Ex. 4 (showing that the 2022 Kia EV6 has Gen5W Navigation); Ex. 5 at 5-2 (showing that vehicles with Gen5W Navigation have a navigation system).

69. On information and belief, Hyundai-Kia has committed the foregoing infringing activities without a license.

70. On information and belief, Hyundai-Kia knew the '230 Patent existed and knew of exemplary infringing Hyundai-Kia products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '230 Patent.

**COUNT VI: INFRINGEMENT OF THE '829 PATENT BY HYUNDAI-KIA**

71. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

72. On information and belief, Hyundai-Kia has infringed the '829 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering to sell, selling in the United States or importing into the United States the Accused Products and all other products with substantially similar infotainment systems.

73. For example, on information and belief, Hyundai-Kia has infringed and continues to infringe at least claim 1 of the '829 Patent by making, using, offering to sell, selling in the United States, or importing into the United States the Accused Products, such as the 2021 Genesis G80 with Premium Gen6 Navigation which includes a speech recognition device. Ex. 1 (showing that the 2021 Genesis G80 has Premium Gen6 Navigation); Ex. 2 at 240-242 (showing that vehicles with Premium Gen6 Navigation have a Voice Recognition System); Ex. 2 at 224, Exs. 31-33 (showing that Premium Gen6 Navigation's Voice Recognition System is powered by Nvidia Drive and Houndify). The Accused Products include a microphone that converts an input speech into an electric signal. Ex. 2 at 241 (showing that vehicles with Premium Gen6 Navigation have a microphone for converting input speech to electrical signals). The Accused

Products include a speech recognizer to perform speech recognition for said electric signal with a speech recognition engine corresponding to a predetermined language that is a language that is set in advance as a recognition subject by referring to recognition subject word information including writing information and reading information of each recognition subject word included in a recognition subject vocabulary registered in a speech recognition dictionary. Ex. 2 at 241, Ex. 34 at 68, Ex. 35, Ex. 36, Ex. 37 (showing that vehicles with Premium Gen6 Navigation have a speech recognizer, such as the Automatic Speech Recognition (ASR) and/or Natural Language Understanding (NLU), performing recognition for electric signals with a speech recognition engine, i.e., NLU/NLG, corresponding to a predetermined language that is the recognition subject, i.e., English; the NLU refers to the recognition subject word information derived from the ASR's Acoustic Model (AM), Pronunciation Lexicon (PL), and/or Language Model (LM) including writing information, i.e., characters and/or symbols, and reading information, i.e., phonemes and/or pronunciations, of each recognition subject word, e.g., Spanish words uttered by the user that are included in a recognition subject vocabulary registered in a speech recognition dictionary, such as a PL dictionary). The Accused Products include a first memory to store a reading information generation data base in which a reading information generation rule that indicates a correspondence between writing information of a word in one language among a plurality of languages and reading information thereof in another language is registered. Ex. 2 at 241, Ex. 34 at 68, Ex. 35, Ex. 37 (showing that vehicles with Premium Gen6 Navigation have memory, such as a first location in the ASR's and/or NLU's RAM and/or ROM that is connected the cloud and/or the vehicle's embedded computer to store a reading information generation data base; the reading information generation database, such as the LM data base includes a reading information generation rule, e.g., English reading generation rule, in which

writing information in Spanish (i.e. characters and/or symbols) corresponding to reading information (i.e. phonemes and/or pronunciations) in English is registered). The Accused Products include a reading information generator to generate the reading information of the word in the another language from the writing information in the one language based on the reading information generation rule of the reading information generation data base. Ex. 2 at 241, Ex. 34 at 68, Ex. 35, Ex. 37 (showing that vehicles with Premium Gen6 Navigation have a reading information generator, such as the NLU and/or NLG unit generating the English reading information (i.e. English phonemes and/or pronunciations) of the word from the Spanish writing information (i.e. Spanish characters and/or symbols) based on, at least in part on the ASR's English reading information generation rule of the reading information database, i.e., LM database). The Accused Products include a controller to perform control such that, when a word in a different language that is different from the predetermined language is included in the recognition subject vocabulary, the reading information generator generates the reading information in the predetermined language from the writing information in the different language, and that the speech recognizer performs speech recognition that makes reference to the recognition subject word information of the corresponding word, including the generated reading information in the predetermined language. Ex. 2 at 241, Ex. 34 at 68, Ex. 35, Ex. 37 (showing that vehicles with Premium Gen6 Navigation have a controller, such as the ASR Engine and/or Word Sequence Recognizer, that performs control such that, when a word in a different language (i.e. Spanish) that is different from the predetermined language (i.e. English) is included in the recognition subject vocabulary (i.e. Pronunciation Lexicon) the reading information generator, such at the NLU and/or NLG generates the reading information (i.e. English phonemes and/or pronunciations) from the writing information (i.e. Spanish characters and/or symbols) in the

Pronunciation Lexicon's phoneme-to-word mapping; the controller performs control such that the speech recognizer i.e. NLU performs speech recognition that makes reference to the PL and LM recognition subject word information (Reading and Writing Information) of the corresponding word, including the Language Model's generated reading information in the predetermined language (i.e. English phonemes and/or pronunciations).

74. On information and belief, Hyundai-Kia has induced infringement of the '829 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, resellers, distributors, customers, and end users, to make, use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the accused products and incorporated navigation and multimedia technology, software, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶ 39 above (explaining that Mel NavIP notified Hyundai-Kia of infringement by letter and email dated July 22, 2022); Ex. 1 (showing that the 2021 Genesis G80 has Premium Gen6 Navigation); Ex. 2 at 240-242 (showing that vehicles with Premium Gen6 Navigation have a Voice Recognition System).

75. On information and belief, Hyundai-Kia has committed the foregoing infringing activities without a license.

76. On information and belief, Hyundai-Kia knew the '829 Patent existed and knew of exemplary infringing Hyundai-Kia products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '829 Patent.

**PRAYER FOR RELIEF**

WHEREFORE, Mel NavIP prays for judgment in its favor against Hyundai-Kia for the following relief:

- A. Entry of judgment in favor of Mel NavIP against Hyundai-Kia on all counts;
- B. Entry of judgment that Hyundai-Kia has infringed the Patents-in-Suit;
- C. Entry of judgment that Hyundai-Kia's infringement of the Patents-in-Suit has been willful;
- D. Award of compensatory damages adequate to compensate Mel NavIP for Hyundai-Kia's infringement of the Patents-in-Suit, in no event less than a reasonable royalty trebled as provided by 35 U.S.C. § 284;
- E. Award of reasonable attorneys' fees and expenses against Hyundai-Kia pursuant to 35 U.S.C. § 285;
- F. Mel NavIP's costs;
- G. Pre-judgment and post-judgment interest on Mel NavIP's award; and
- H. All such other and further relief as the Court deems just or equitable.

**DEMAND FOR JURY TRIAL**

Pursuant to Rule 38 of the Fed. R. Civ. Proc., Plaintiff hereby demands trial by jury in this action of all claims so triable.

Dated: April 18, 2023

Respectfully submitted,

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