IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SUCXESS LLC, **Plaintiff,** **v.** **PHANTOM AUTO, INC. f/k/a STEERINGZ, INC.,** **Defendant**	**Case No. 1:19-cv-02122-RGA** **Jury Trial Demanded**

AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Sucxess LLC, by and through the undersigned counsel, files this Amended Complaint for Patent infringement against Defendant Phantom Auto, Inc. f/k/a Steeringz, Inc., and in support states:

PARTIES

1. Plaintiff Sucxess LLC ("Sucxess") is a limited liability company organized and existing under the laws of the State of Michigan and having a principal place of business in Birmingham, Michigan.

2. Defendant Phantom Auto Inc. f/k/a Steeringz, Inc. ("Phantom Auto") is a corporation organized and existing under the laws of the State of Delaware that maintains its registered office at PHS Corporation Services, Inc., 1313 N Market St # 5100, Wilmington, DE 19801, and a place of business in Mountain View, California.

JURISDICTION AND VENUE

3. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq*., including 35 U.S.C. §§ 271. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

4. This Court has personal jurisdiction over Defendant at least because Defendant is a corporation organized under the laws of the State of Delaware.

5. Venue is proper in this Judicial District under 28 U.S.C. §§ 1391 and 1400(b).

THE PATENTS-IN-SUIT

6. U.S. Patent No. 9,871,671 (the "'671 Patent") was duly and legally issued on January 16, 2018. A true and correct copy of the '671 Patent is attached as **Exhibit A**.

7. U.S. Patent No. 10,027,505 (the "'505 Patent") was duly and legally issued on July 17, 2018. A true and correct copy of the '505 Patent is attached as **Exhibit B**.

8. U.S. Patent No. 10,454,707 (the "'707 Patent") was duly and legally issued on October 22, 2019. A true and correct copy of the '707 Patent is attached as **Exhibit C**.

9. The '671 Patent and the '505 Patent are both continuations of U.S. Patent Application 14/846,811, which is in turn a continuation of U.S. Patent Application 11/742,574, which was filed on April 30, 2007. The '707 Patent is a continuation of the '505 patent. The '671 Patent, '505 Patent, and '707 Patent are hereinafter jointly referred to as the "Patents-in-Suit."

10. Sucxess is the assignee of all right, title, and interest in the Patents-in-Suit. It has the exclusive right to prosecute the present action for infringement of the Patents-in-Suit.

11. The Patents-in-Suit are valid and enforceable.

12. The Patents-in-Suit disclose a unique and valuable method, apparatus, and system for retrofitting vehicles. Importantly, the inventions disclosed in the patents encompass vehicles retrofitted as remote-controlled vehicle prototypes.

COUNT I – INFRINGEMENT OF THE '671 PATENT

13. Plaintiff restates and incorporates by reference the foregoing allegations.

14. Defendant has infringed and, on information and belief, is now infringing, literally or under the doctrine of equivalents, some or all claims of the '671 Patent by making, using, offering to sell, or selling in the United States, or importing into the United States, one or more automobiles, including one or more Lincoln MKZ automobiles, retrofitted with an Advanced Driver Assistance Systems ("ADAS") kit made by Dataspeed Inc. (the "Accused Vehicles.")

15. For example, claim 5 of the '671 Patent is infringed as follows:

a. The product-by-process claim 5 covers a vehicle that has been retrofitted according to the method as in claim 1. The Accused Vehicles have been retrofitted according to that method as follows.

b. The method in claim 1 comprises "providing a vehicle having a factory-installed first apparatus including a processor, programmed to communicate with a factory-installed second apparatus through a vehicle data bus with a first message having an identifier." To assemble an Accused Vehicle, Phantom or a supplier to Phantom purchases and retrofits a Lincoln MKZ with the Active Park Assist option, which comes equipped with various factory-installed apparatuses, such as PAM (park assist module), PSCM (power steering control module), PCM (powertrain control module), IPC (instrument panel cluster), GWM (gateway module), GSM (gearshift module), and TRCM (transmission range control module). Each apparatus includes a

processor, which is programmed to communicate messages having CAN identifiers through a data bus (HS-CAN1 and/or HS-CAN2 and/or HS-CAN3) in the following exemplary combinations:

First Apparatus	Second Apparatus	First Message
PSCM	PAM	Active park assist steering activation request
PSCM	GWM	Vehicle Speed
GMW	PSCM	Parking aid angle control status
GWM	PAM	Parking aid status
PAM	GWM	Parking aid angle control status
PAM, GWM	PCM	Vehicle Speed
IPC	GWM	Parking aid status
TRCM, GWM	GSM	Gear button data
GSM, GWM	TRCM	Gear confirmation

c. The method in claim 1 further comprises "electrically disconnecting the vehicle data bus between the factory-installed first apparatus and the factory installed second apparatus." During a retrofit, Phantom or Phantom's supplier disconnects the vehicle data bus between the factory-installed first and second apparatuses, such as those identified above. On information and belief, Phantom or Phantom's supplier accomplishes this by, for example, removing a connector between the apparatuses.

d. The method in claim 1 further comprises "adding a second data bus to the vehicle." During a retrofit, Phantom or Phantom's supplier installs additional jumper harnesses in the vehicle.

e. The method in claim 1 further comprises "electrically connecting a retrofit apparatus to the vehicle data bus and to the second data bus." During a retrofit, Phantom or Phantom's supplier installs a "throttle and brake by-wire controller module" and a "steering and

shifting by-wire controller module," which are retrofit apparatuses connected to the vehicle data bus and to the second data bus.

f. The method in claim 1 further comprises "electrically connecting the factory-installed first apparatus to the second data bus." During a retrofit, Phantom or Phantom's supplier connects the factory-installed first apparatus to the newly added jumper harness.

g. Finally, the method in claim 1 comprises "transmitting a second message from the retrofit apparatus to the factory-installed first apparatus through the second data bus, the second message being indistinguishable from the first message." Each of the retrofit apparatuses installed and used by Phantom transmits a second message to the factory-installed first apparatus in the manner described in the claim. For example, the Infringing Vehicles use a by-wire interface, which modifies the steering and shifting signals to cause factory-installed systems, including TRCM and PSCM, to operate the vehicle without a human driver.

16. To take another example, claim 6 of the '671 Patent is infringed as follows:

a. The apparatus in claim 6 comprises "a factory-installed first apparatus including a first processor which is programmed to receive a first message on a vehicle data bus from a factory-installed second apparatus." The Accused Vehicles have a factory-installed first apparatus, which is programmed to receive a first message on a vehicle data bus from a factory-installed second apparatus. Exemplary combinations include the following PSCM input messages:

First Message	Second Apparatus	Message Purpose
Active park assist steering activation request	PAM	Request the PSCM to allow the PAM to take control of the steering angle
Vehicle speed	PCM	Disables the active park assist if vehicle speed is too high during a maneuver

b. The apparatus in claim 6 further comprises "a retrofit apparatus connected to the vehicle data bus including a second processor programmed to transmit a second message which mimics the first message through a second data bus." The Accused Vehicles have a "steering and shifting by-wire controller module," a retrofit apparatus that has been connected to the vehicle data bus (HS-CAN1 and/or HS-CAN2). There is additional wiring to connect this apparatus, including wiring that forms a second data bus. The "steering and shifting by-wire controller module" includes a second processor that is programmed to transmit a second message that mimics the first message through a second data bus.

17. As a result of Defendant's infringement of the '671 Patent, Plaintiff has suffered damages.

18. Plaintiff is therefore entitled to a money judgment 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.

19. Defendant has been aware of the '671 Patent and its infringement of the '671 Patent since no later than July 13, 2018, when Sucxess sent a letter identifying the patent and setting forth its infringement allegations.

20. Despite Defendant's knowledge of the '671 Patent and its infringement, Defendant has, on information and belief, continued to infringe the '671 Patent. Accordingly, Defendant's infringement has been and is willful, thus entitling Plaintiff to enhanced (treble) damages.

COUNT II – INFRINGEMENT OF THE '505 PATENT

21. Plaintiff restates and incorporates by reference the foregoing allegations.

22. Defendant has infringed and, on information and belief, is now infringing, literally or under the doctrine of equivalents, some or all claims of the '505 Patent by making, using,

offering to sell, or selling in the United States, or importing into the United States, one or more automobiles retrofitted with an ADAS kit made by Dataspeed Inc.

23. For example, claim 5 of the ’505 Patent is infringed as follows:

a. The product-by-process claim 5 covers a vehicle that has been retrofitted according to the method as in claim 1. The Accused Vehicles have been retrofitted according to that method as follows.

b. The method in claim 1 comprises “providing a vehicle having a factory-installed first apparatus including a processor, programmed to communicate with a factory-installed second apparatus through a vehicle data bus with a first message having an identifier.” To assemble an Accused Vehicle, Phantom or a supplier to Phantom purchases and retrofits a Lincoln MKZ with the Active Park Assist option, which comes equipped with various factory-installed apparatuses, such as PAM (park assist module), PSCM (power steering control module), PCM (powertrain control module), IPC (instrument panel cluster), GWM (gateway module), GSM (gearshift module), and TRCM (transmission range control module). Each apparatus includes a processor, which is programmed to communicate messages having CAN identifiers through a data bus (HS-CAN1 and/or HS-CAN2 and/or HS-CAN3) in the following exemplary combinations:

First Apparatus	Second Apparatus	First Message
PSCM	PAM	Active park assist steering activation request
PSCM	GWM	Vehicle Speed
GMW	PSCM	Parking aid angle control status
GWM	PAM	Parking aid status
PAM	GWM	Parking aid angle control status
PAM, GWM	PCM	Vehicle Speed
IPC	GWM	Parking aid status

TRCM, GWM	GSM	Gear button data
GSM, GWM	TRCM	Gear confirmation

b. The method in claim 1 further comprises "electrically disconnecting the vehicle data bus between the factory-installed first apparatus and the factory installed second apparatus." During a retrofit, Phantom or Phantom's supplier disconnects the vehicle data bus between the factory-installed first and second apparatuses, such as those identified above. On information and belief, Phantom or Phantom's supplier accomplishes this by, for example, removing a connector between the apparatuses.

c. The method in claim 1 further comprises "electrically connecting a retrofit apparatus to the vehicle data bus." During a retrofit, Phantom or Phantom's supplier installs a "throttle and brake by-wire controller module" and a "steering and shifting by-wire controller module," module," which are retrofit apparatuses connected to the vehicle data bus.

d. Finally, the method in claim 1 comprises "transmitting a second message from the retrofit apparatus to the factory-installed first apparatus, the second message being indistinguishable from the first message." Each of the retrofit apparatuses installed and used by Phantom or Phantom's supplier transmits a second message to the factory-installed first apparatus in the manner described in the claim. For example, the Accused Vehicles modify the steering and shifting signals to cause factory-installed systems, including TRCM and PSCM, to operate the vehicle without a human driver.

24. To take another example, claim 6 of the '505 Patent is infringed as follows:

a. The apparatus in claim 6 comprises "a factory-installed first apparatus including a first processor which is programmed to receive a first message on a vehicle data bus from a factory-installed second apparatus." The Accused Vehicles have a factory-installed first

apparatus, which is programmed to receive a first message on a vehicle data bus from a factory-installed second apparatus. Exemplary combinations include the following PSCM input messages:

First Message	Second Apparatus	Message Purpose
Active park assist steering activation request	PAM	Request the PSCM to allow the PAM to take control of the steering angle
Vehicle speed	PCM	Disables the active park assist if vehicle speed is too high during a maneuver

b. The apparatus in claim 6 further comprises "a retrofit apparatus connected to the vehicle data bus including a second processor programmed to transmit a second message which mimics the first message." The Accused Vehicles have a "steering and shifting by-wire controller module," a retrofit apparatus that has been connected to the vehicle data bus (HS-CAN1 and/or HS-CAN2). There is wiring to connect this apparatus. The "steering and shifting by-wire controller module" includes a second processor that is programmed to transmit a second message that mimics the first message.

25. As a result of Defendant's infringement of the '505 Patent, Plaintiff has suffered damages.

26. Plaintiff is therefore entitled to a money judgment 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.

27. On July 13, 2018, Sucxess sent a letter to Phantom identifying the then-forthcoming '505 Patent and noting that the claims of the '505 Patent are broader than those of the '671 Patent.

28. Despite Defendant's knowledge of the '505 Patent and its infringement, Defendant has, on information and belief, continued to infringe the '505 Patent. Accordingly, Defendant's infringement has been and is willful, thus entitling Plaintiff to enhanced (treble) damages.

COUNT III – INFRINGEMENT OF THE ’707 PATENT

29. Plaintiff restates and incorporates by reference the foregoing allegations.

30. Defendant has infringed and, on information and belief, is now infringing, literally or under the doctrine of equivalents, some or all claims of the ’707 Patent by making, using, offering to sell, or selling in the United States, or importing into the United States, one or more automobiles retrofitted with an ADAS kit made by Dataspeed Inc.

31. For example, claim 5 of the ’707 Patent is infringed as follows:

a. The product-by-process claim 5 covers a vehicle that has been retrofitted according to the method as in claim 1. The Accused Vehicles have been retrofitted according to that method as follows.

b. The method in claim 1 comprises “providing a vehicle having a factory-installed first apparatus electrically connected to a factory-installed second apparatus, the factory-installed second apparatus being configured to receive an electrical signal from the factory-installed first apparatus.” To assemble an Accused Vehicle, Phantom or a supplier to Phantom purchases and retrofits a Lincoln MKZ with the Active Park Assist option, which comes equipped with various factory-installed apparatuses, such as PAM (park assist module), PSCM (power steering control module), PCM (powertrain control module), IPC (instrument panel cluster), GWM (gateway module), GSM (gearshift module), and TRCM (transmission range control module). The factory installed apparatuses are electrically connected to one another and exchange electrical signals through a data bus (HS-CAN1 and/or HS-CAN2 and/or HS-CAN3) in the following exemplary combinations:

Second Apparatus	First Apparatus	Electrical Signal
GWM	PAM	Active park assist steering activation request (through HS1-CAN)

PSCM	GWM	Active park assist steering activation request (through HS2-CAN)
PSCM	GWM	Vehicle Speed (through HS2-CAN)
GMW	PSCM	Parking aid angle control status (through HS2-CAN)
GWM	PAM	Parking aid status (through HS1-CAN)
PAM	GWM	Parking aid angle control status (through HS1-CAN)
PAM, GWM	PCM	Vehicle Speed (through HS1-CAN)
IPC	GWM	Parking aid status (through HS3-CAN)
TRCM, GWM	GSM	Gear button data (through HS2-CAN)
GSM, GWM	TRCM	Gear confirmation (through HS2-CAN)

c. The method in claim 1 further comprises "electrically disconnecting the factory-installed first apparatus from the factory-installed second apparatus." During a retrofit, Phantom or Phantom's supplier disconnects the vehicle data bus between the factory-installed first and second apparatuses, such as those identified above. On information and belief, Phantom or Phantom's supplier accomplishes this by, for example, removing a connector between the apparatuses.

d. The method in claim 1 further comprises "electrically connecting a retrofit apparatus to the factory-installed first apparatus and to the factory-installed second apparatus." During a retrofit, Phantom or Phantom's supplier installs a "throttle and brake by-wire controller module" and a "steering and shifting by-wire controller module," module," which are retrofit

apparatuses connected to the vehicle data bus and thereby electrically connected to the first apparatus and to the second apparatus.

e. Finally, the method in claim 1 comprises "generating a mimicked electrical signal in the retrofit apparatus independently of the electrical signal from the factory-installed first apparatus and receiving the mimicked electrical signal in the factory-installed second apparatus." Each of the retrofit apparatuses installed and used by Phantom or Phantom's supplier generates mimicked electrical signals in the form of spoofed CAN messages. The spoofed CAN messages are received by the second apparatus. For example, the Accused Vehicles modify the steering and shifting signals to cause factory-installed systems, including TRCM and PSCM, to operate the vehicle without a human driver. The mimicked electrical signals are independently generated.

32. To take another example, claim 6 of the '707 Patent is infringed as follows:

a. The apparatus in claim 6 comprises "a factory-installed first apparatus configured to generate an electrical signal and a factory-installed second apparatus configured to receive the electrical signal." The Accused Vehicles have a factory-installed first apparatus, which is programmed to transmit an electrical signal, in the form of a CAN bus message, to a factory installed second apparatus, which is configured to receive the electrical signal (CAN bus message). Exemplary combinations include the following PSCM input messages:

First Apparatus	Second Apparatus	Electrical Signal
PAM (through GWM)	PSCM	Active park assist steering angle request (used to command the steering angle during active park assist maneuvers)
PCM	PSCM	Vehicle speed (disables the active park assist if vehicle speed is too high during a maneuver)

b. The apparatus in claim 6 further comprises “a retrofit apparatus electrically connected to the factory-installed second apparatus” The Accused Vehicles have a “steering and shifting by-wire controller module”, a retrofit apparatus that has been electrically connected to the PSCM through HS-CAN2.

c. Finally, the apparatus in claim 6 further requires that “the retrofit apparatus generates a mimicked electrical signal independently of the electrical signal generated by the factory-installed” and that “the factory-installed second apparatus receives the mimicked electrical signal” In the Accused Vehicles, the “steering and shifting by-wire controller module” retrofit apparatus generates a mimicked “steering angle request” and/or “vehicle speed” electrical signal (CAN signal). The mimicked signal is independently generated by the retrofit apparatus. The PSCM receives the mimicked signal.

33. To take a further example, claim 15 of the ’707 Patent is infringed as follows: The apparatus in claim 15 requires, based on its dependency from claim 13, that "a first electrical interface between the factory-installed first apparatus and the retrofit apparatus and a second electrical interface between the retrofit apparatus and the factory-installed second apparatus are identical". Claim 15 further requires that "the first electrical interface is a CAN vehicle data bus". The “steering and shifting by-wire controller module” retrofit apparatus installed in the Accused Vehicles is connected to the PAM (through the GWM) and the PCM through a High-Speed CAN vehicle data bus. The “steering and shifting by-wire controller module” retrofit apparatus is connected to the PSCM through an identical High-Speed CAN vehicle data bus.

34. As a result of Defendant’s infringement of the ’707 Patent, Plaintiff has suffered damages.

35. Plaintiff is therefore entitled to a money judgment 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.

36. Prior to filing suit, Sucxess sent a letter to Defendant making it aware of the '707 Patent and its infringement of the '707 Patent.

37. Despite Defendant's knowledge of the '707 Patent and its infringement, Defendant has, on information and belief, continued to infringe the '707 Patent. On information and belief, Defendant's infringement has been and is willful, thus entitling Plaintiff to enhanced (treble) damages.

JURY DEMAND

Plaintiff demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

Plaintiff Sucxess LLC respectfully requests that the Court find in its favor and against Defendant Phantom Auto Inc. f/k/a Steeringz, Inc., and that the Court grant Plaintiff the following relief:

A. an adjudication that Defendant has infringed the '671, '505, and '707 Patents;

B. an award of damages to be paid by Defendant adequate to compensate Plaintiff for Defendant's past infringement of the '671, '505, and '707 Patents and any continuing infringement through the date such judgment is entered, including pre-judgment and post-judgment interest, costs, expenses, and an accounting of all infringing acts;

C. an order requiring Defendant to pay a royalty for any continued infringement after the date judgment is entered;

D. an award of treble damages under 35 U.S.C. § 284;

E. any injunctive relief to which Plaintiff may be entitled; and

F. any and all such further relief at law or in equity that the Court may deem just and proper, including but not limited to attorneys' fees.

Dated: February 21, 2020

Respectfully submitted by:

/s/ George Pazuniak

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