

APPENDIX E

Infringement of U.S. Patent No. 8,200,203**By the Volkswagen Group**

Volkswagen Group automobiles provide an infotainment console that infringes the '203 patent, for example claim 43. Many recent Volkswagen and Audi automobile models integrate HD Radio™, SiriusXM® Radio, Apple CarPlay™ running Apple Music streaming services playing live radio such as Apple Music 1, or other platforms into the head unit with functionality claimed in the '203 patent, for example claim 43. These platforms are available in many Volkswagen models (*e.g.*, the Spacefox (2016), CC (2016-18), Scirocco (2016-18), Amarok (2016-20), Beetle (2016-19), Beetle Cabriolet (2016-19), Golf R (2016-19), Caddy (2016-20), California (2016-20), Caravelle (2016-20), e-Golf (2016-20), Fox (2016-20), Golf (2016-20), Golf Cabriolet (2016-20), Golf SportsVan (2016-20), Golf Variant (2016-20), Golf SportWagen (2016-20), GTI (2016-20), Jetta (2016-20), Lamando (2016-20), Multivan (2016-20), Passat Variant (2016-20), Polo (2016-20), Sharan (2016-20), Tiguan (2016-20), Touran (2016-20), Transporter (2016-20), Passat (2016-20), Atlas (2017-20), Crafter (2017-20), CrossFox (2017-20), Gol (2017-20), Saveiro (2017-20), Voyage (2017-20), Arteon (2018-20), Bora (2018-20), Magotan (2018-20), Sagitar (2018-20) and T-Roc (2018-20)), as well as many Audi models (*e.g.*, the A3 (2017-20), A4 (2017-20), A5 (2017-20), A6 (2017-20), A7 (2017-20), Q2 (2017-20), Q7 (2017-20), R8 (2017-20), TT (2017-20), Q5 (2018-20), e-tron (2019-20), Q8 (2019-20), and Q3 (2020)), which may have HD Radio™, SiriusXM®, CarPlay™, or a similar platform integrated or retrofitted.¹ The Apple CarPlay™ platform with Apple Music 1 Radio enables a user to receive audio broadcasts of songs, view details identifying the song on a console display, and take actions with regard to the broadcast, for example skipping a song or marking a song as a favorite on the infotainment console, thereby infringing the '203 patent, for example claim 43.

¹ Data from Apple Carplay page, accessed on October 13, 2020 at <https://www.apple.com/ios/carplay/available-models/>

Claim		Volkswagen Audi A3 Apple Carplay and Apple Music 1 Radio
43.Pre	A device that enables a response to a data packet sent in combination with a unique broadcast event, the device comprising:	<p><i>The Volkswagen Head Unit Console has functionality to support Apple CarPlay, as well as Apple Music 1 Radio features. The Volkswagen Head Unit is capable of receiving song audio through Apple Music 1 Radio in Apple CarPlay, displaying information about the broadcast song audio, and accepting a user input in response to the broadcast song audio and displayed information to effect an action in Apple Music 1 Radio.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - 2020 Audi A3 Sedan Owner's Manual, pp. 175, 207, 228.² - Apple Developer, <i>Human Interface Guidelines</i>.³
43.a	a receiver module that detects a unique broadcast event and extracts from at least a portion of the data packet content information corollary to the unique broadcast event,	<p><i>The Volkswagen Head Unit Console includes a receiver coupled to a connected Apple device at a USB port and is configured to receive Apple Music 1 Radio broadcast at the receiver. The Volkswagen Head Unit console is further capable of extracting audio transmission and data transmitted via the USB port for playing through the car speakers and displaying on the console display, respectively. The extracted data also includes identifiers associated with a particular broadcast of a song on Apple Music 1 Radio so that the song can be appropriately identified if the user chooses to interact with the Apple Music 1 Radio broadcast via the Head Unit console.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - 2020 Audi A3 Sedan Owner's Manual, pp. 175, 207, 228. - Apple Developer, <i>Human Interface Guidelines</i>. - Apple Developer, Emily Schubert PowerPoint and video: "Developing CarPlay Systems, Part 1."⁴ - Apple Developer, Tanya Kancheva PowerPoint and video: "Developing CarPlay Systems, Part 2."⁵

² <https://bordbuch-online.audi.de/AudiBordbuch/docs/aed70582-05b7-4910-ae08-19cf1cc1d50a/206/>

³ <https://developer.apple.com/design/human-interface-guidelines/carplay/overview/audio-apps/>

⁴ <https://developer.apple.com/videos/play/wwdc2016/722>

⁵ <https://developer.apple.com/videos/play/wwdc2016/723>

43.b	wherein the content information is sourced from a database system that has at a minimum two entries wherein at least one element of a first entry matches at least one element of a second entry, and at least one element of the content information matches at least one element of the first entry;	<p><i>The Volkswagen Head Unit Console includes a receiver coupled to a USB input port for use with compatible Apple devices. The USB-coupled receiver is capable of receiving information and songs from the phone and processing the received information to display to a user on a console display. The content information received by the Volkswagen Head Unit Console is retrieved from storage is the Apple/iTunes metadata database which has multiple entries and is inserted into the metadata stream transmitted from the phone to the Head Unit with the associated song. The metadata database includes multiple entries with identifying information for a song broadcast on Apple Music 1 Radio.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - 2020 Audi A3 Sedan Owner’s Manual, pp. 175, 207, 228. - Apple Developer, <i>Human Interface Guidelines</i>.
43.c	memory for storing at least part of the content information;	<p><i>The Volkswagen Head Unit Console includes a memory capable of storing data. For example, the Volkswagen Head Unit Console receives data from the coupled Apple device through the USB port and extracts data related to a broadcast song. The Volkswagen Head Unit console is capable of storing the song identifying data in a memory for display to the user and for other uses.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - 2020 Audi A3 Sedan Owner’s Manual, pp. 175, 207, 228. - Apple Developer, Emily Schubert PowerPoint and video: “<i>Developing CarPlay Systems, Part 1.</i>”
43.d	a communication module for communicating the at least part of the content information to a user;	<p><i>Volkswagen Head Unit Console includes a console display for displaying the content information (including song title, artist, etc.) to the user.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - 2020 Audi A3 Sedan Owner’s Manual, pp. 175, 207, 228. - Apple Developer, <i>Human Interface Guidelines</i>.

		- 9to5Mac, <i>iOS 9: The state of CarPlay in 2015 + What's New</i> . ⁶
43.e	an input control that enables the selection of the at least part of the content information and enables the generation of a response; and	<p><i>Volkswagen Head Unit Console is capable of accepting user inputs by voice command, touch screen, or interactive buttons. The Volkswagen Head Unit console is capable of receiving user inputs and transmitting instructions to carry out the user input to the USB-connected cell phone. For example, the user can input a command through the Volkswagen Head Unit console display to “favorite” a broadcast song by touching a heart button appearing on the screen with the identifying information during a broadcast of the song.</i></p> <p>See:</p> <ul style="list-style-type: none"> - 2020 Audi A3 Sedan Owner’s Manual, pp. 175, 207, 228. - Apple Developer, <i>Human Interface Guidelines</i>. - 9to5Mac, <i>iOS 9: The state of CarPlay in 2015 + What's New</i>. - Apple Developer, Emily Schubert PowerPoint and video: “<i>Developing CarPlay Systems, Part 1.</i>” - Apple Developer, Tanya Kancheva PowerPoint and video: “<i>Developing CarPlay Systems, Part 2.</i>”
43.f	a transmitter that transmits a response packet corresponding to the response generated using the input control, the response packet including at a minimum the at least part of the content information, to a response authentication system.	<p><i>The Volkswagen Head Unit Console receives the user selection and transmits the selection, including the song identifying information, to the connected Apple Device for further transmission to Apple. The Volkswagen Head Unit console transmits the user selection as a data packet including the action being taken, and the particular song being engaged with, to the device for further transmission and authentication.</i></p> <p>See:</p> <ul style="list-style-type: none"> - 2020 Audi A3 Sedan Owner’s Manual, pp. 175, 207, 228. - Apple Developer, <i>Human Interface Guidelines</i>. - 9to5Mac, <i>iOS 9: The state of CarPlay in 2015 + What's New</i>.

⁶ <https://9to5mac.com/2015/09/22/ios-9-carplay-walkthrough/>