

APPENDIX D

Infringement of U.S. Patent No. 9,584,843**By the Volkswagen Group**

Volkswagen Group automobiles provide an infotainment console that infringes the '843 patent, for example claim 10. Many recent Volkswagen and Audi automobile models integrate HD Radio™, SiriusXM®, Apple CarPlay™ running Apple Music streaming services playing live radio such as Beats 1 or Apple Music 1, or other platforms into the head unit with functionality claimed in the '843 patent, for example claim 10. These platforms are available in many Volkswagen models (*e.g.*, the Atlas, Beetle, CC, Golf, Jetta, Passat, Tiguan, and Touareg) as well as many Audi models (*e.g.* the A3, A4, A5, Q5, S3, TT, A6, A7, A8, and Q8), which may have HD Radio™, SiriusXM®, CarPlay™ or a similar platform integrated or retrofitted.^{1,2} Many Volkswagen vehicles include HD Radio™, SiriusXM® and/or Apple CarPlay™, which enables streaming of radio broadcasts. These platforms include the iTunes tagging functionality, which enables a user to use the console to “tag” a song being broadcast to interactively mark the song, thereby infringing the '843 patent, for example claim 10.

¹ Data from HD Radio VW page, accessed on October 13, 2020 at https://hdradio.com/new_car_manufacturer/vw-2/

² Data from HD Radio Audi page, accessed on August 10, 2020 at https://hdradio.com/new_car_manufacturer/audi/.

Claim		Volkswagen Audi A3 iTunes Tagging
10.Pre	A broadcast scanning system for associating data that enables a unique identification of a specific instance of acquisition of encoded third party data with a reception of a specific instance of a media segment in an electronic transmission, the system comprising:	<p><i>The Volkswagen Head Unit Console includes HD Radio and/or Sirius Radio functionalities equipped with iTunes Tagging features. The Volkswagen Head Unit Console is capable of receiving audio broadcasts as radio transmissions and accompanying data streams including song identifying information like song title and artist, as well as information identifying the broadcast station and Apple product information for the particular song for use with the iTunes Tagging function. The Head Unit is capable of extracting data from the data stream for a particular tagged song and saving this information.</i></p> <p>See:</p> <ul style="list-style-type: none"> - VW Audi A3 Owner's Manual, pp. 206-207.³ - iTunes Tagging online documentation, July 2010, p. 1.⁴ - HD Radio Air Interface Design Description – Program Service Data, p. 10. - “HD Radio™ Technology – iTunes® Tagging”.⁵
10.a	one or more computer readable storage devices configured to store a plurality of computer executable instructions comprising at least a broadcast scanning module; and	<p><i>The Volkswagen Head Unit Console includes at least one memory and an HD Radio and/or SiriusXM Radio accessory.</i></p> <p>See:</p> <ul style="list-style-type: none"> - VW Audi A3 Owner's Manual, pp. 206-207. - iPod Accessory Protocol Interface Specification Appendix D, 2009, pp. 465-66.
10.b	one or more hardware computer processors in communication with the one or more computer readable storage devices and	<p><i>The Volkswagen Head Unit Console includes a processor coupled to the at least on memory. The Volkswagen Head Unit Console processor is capable of executing computer instruction for a variety of purposes.</i></p> <p>See:</p> <ul style="list-style-type: none"> - VW Audi A3 Owner's Manual, pp. 206-207.

³ <https://bordbuch-online.audi.de/AudiBordbuch/docs/2c91f63c-4949-4fd6-b0c7-b62561b597f8/206/#zoom=z> (VIN No. WAUAUGFF3LA006674)

⁴ https://web.archive.org/web/20100705044543/images.apple.com/itunes/tagging/pdf/itunes_tagging.pdf

⁵ <https://hdradio.com/broadcasters/engineering-support/itunes-tagging-support/>

	configured to execute the plurality of computer executable instructions in order to cause the system to:	<ul style="list-style-type: none"> - iPod Accessory Protocol Interface Specification Appendix D, 2009, pp. 465-66.
10.c	receive, using the broadcast scanning module, the specific instance of the media segment in the electronic transmission;	<p><i>The Volkswagen Head Unit Console is capable of receiving radio broadcasts at the HD Radio and/or SiriusXM Radio accessory. The radio broadcast includes a particular audio song transmitted by radio.</i></p> <p>See:</p> <ul style="list-style-type: none"> - iPod Accessory Protocol Interface Specification Appendix D, 2009, pp. 465-66.
10.d	determine data that identifies a source of the electronic transmission;	<p><i>The Volkswagen Head Unit Console is capable of extracting data from the radio broadcast RDS data stream, including information identifying the broadcast station as the source of the broadcast audio stream. For example, the data stream includes a unique identifier specific to the station, as well as information related to the station URL required for use with the iTunes Tagging functionality.</i></p> <p>See:</p> <ul style="list-style-type: none"> - VW Audi A3 Owner's Manual, pp. 206-207. - HD Radio Air Interface Design Description – Program Service Data, p. 10. - “HD Radio™ Technology – iTunes® Tagging.”
10.e	acquire encoded third party data associated with the reception of the specific instance of the media segment in the electronic transmission;	<p><i>The Volkswagen Head Unit is capable of extracting data from the radio broadcast data stream including Apple product information for use with the iTunes Tagging functionality. The Apple product information is sent for and particular to each song in the radio broadcast.</i></p> <p>See:</p> <ul style="list-style-type: none"> - VW Audi A3 Owner's Manual, pp. 206-207. - “HD Radio™ Technology – iTunes® Tagging.” - iPod Accessory Protocol Interface Specification Appendix D, pp. 463-465.
10.f	generate data that enables the unique identification	<p><i>The Volkswagen Head Unit Console is capable of storing the data extracted from the data stream for any song that the user “tags” using the iTunes Tagging functionality. The Volkswagen Head</i></p>

	of the specific instance of acquisition of the encoded third party data;	<p><i>Unit generates a “token: for the tagged song including the information required to identify the particular song and the data extracted from the data stream including song title and artist as well as identification of the broadcast station. The “token” allows a user to identify, retrieve, and purchase a tagged song.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - HD Radio Air Interface Design Description – Program Service Data, p. 10. - “HD Radio™ Technology – iTunes® Tagging.”
10.g	determine an identification of the media segment using at least the encoded third party data; and	<p><i>The Volkswagen Head Unit Console is capable of determining from the extracted data, a particular song title and artist associated with a currently playing song. The information is displayed to a user while the song plays on a console display of the Head Unit Console.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - “HD Radio™ Technology – iTunes® Tagging.”
10.h	store in a database the identification of the media segment determined at least in part using the encoded third party data in association with the data that enables unique identification of the specific instance of acquisition of the encoded third party data and the data that identifies the source of the electronic transmission.	<p><i>The Volkswagen Head Unit Console is capable of storing information associated with a tagged song in a memory of the Volkswagen Head Unit Console. The stored data includes information and data identifying the tagged song, such as song title and album, as well as unique station identifiers, and Apple product information.</i></p> <p><i>See:</i></p> <ul style="list-style-type: none"> - VW Audi A3 Owner’s Manual, p. 207. - “HD Radio™ Technology – iTunes® Tagging.” - iPod Accessory Protocol Interface Specification Appendix D, p. 464-465.