Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 1 of 492 PageID #: 4610

# EXHIBIT D

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

	§	
BLITZSAFE TEXAS, LLC,	§	
	§	
Plaintiff,	§	
	§	Case No. 2:15-cv-1274-JRG-RSP
<b>V.</b>	§	LEAD CASE
	§	
TOYOTA MOTOR CORPORATION;	§	JURY TRIAL DEMANDED
TOYOTA MOTOR SALES U.S.A., INC.;	§	
<b>TOYOTA MOTOR MANUFACTURING</b>	§	
TEXAS, INC.; TOYOTA MOTOR	§	
MANUFACTURING KENTUCKY, INC.;	§	
and TOYOTA MOTOR	§	
MANUFACTURING MISSISIPPI, INC.,	§	
	§	
Defendants.	§	
	§	
	§	

### PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS

Plaintiff Blitzsafe Texas, LLC ("Blitzsafe") hereby makes the following infringement disclosures under the Patent Local Rules with respect to United States Patent Nos. 7,489,786 ("the '786 patent") and 8,155,342 ("the '342 patent") (collectively, "Blitzsafe Patents"). Blitzsafe's investigation is ongoing and discovery is in its preliminary stages. Accordingly, these disclosures are based on information available to Blitzsafe at this time. Blitzsafe reserves the right to supplement this disclosure after further discovery from the defendants and non-parties, particularly documents and other discovery regarding the defendants' accused devices. Blitzsafe also reserves the right to assert additional claims of the Blitzsafe Patents, accuse different products, or find alternative literal and/or equivalent infringing elements in the defendant's products.

# I. DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS PURSUANT TO PATENT LOCAL RULE 3-1

# A. ASSERTED CLAIMS

#### 1. <u>Toyota Accused Products</u>

Defendants Toyota Motor Corporation, Toyota Motor Sales U.S.A., Inc., Toyota Motor Manufacturing, Texas, Inc., Toyota Motor Manufacturing Kentucky, Inc., and Toyota Motor Manufacturing Mississippi, Inc. (collectively, "Toyota") have infringed and continue to infringe at least the following claims of the Blitzsafe Patents in connection with the Toyota Accused Products set forth below:

- Claims 1, 2, 4-8, 10, 13, 14, 23, 24, 44, 47, 57, 58, 60-65, 86, 88-92, 94, 97, and 98 of the '786 patent; and
- Claims 49-57, 62-64, 66, 68, 70, 71, 73-80, 94, 95, 97, 99-103, 106, 109-111, 113, 115, and 120 of the '342 patent.
  - 2. <u>Lexus Accused Products</u>

Toyota has infringed and continues to infringe at least the following claims of the Blitzsafe patents in connection with the Lexus Accused Products set forth below:

- Claim 1, 2, 4-8, 10, 13, 14, 23, 24, 44, 47, 57, 58, 60-65, 86, 88-92, 94, 97, and 98 of the '786 patent; and
- Claims 49-57, 62-64, 66, 68, 70, 71, 73-80, 94, 95, 97, 99-103, 106, 109-111, 113, 115, and 120 of the '342 patent.

Blitzsafe reserves the right to seek leave of court to add, delete, substitute, or otherwise amend this list of asserted claims should further discovery, the Court's claim construction, or other circumstances so merit.

# **B.** ACCUSED INSTRUMENTALITIES

- 1. <u>Toyota Accused Products</u>
  - a. '786 Patent

Blitzsafe is currently aware that the infotainment systems of the following accused Toyota

brand Toyota automobiles infringe the '786 Patent:

2010-2016 Toyota 4Runner

2011-2016 Toyota Avalon

2010-2016 Toyota Camry

2011-2016 Toyota Corolla

2011-2016 Toyota Highlander

2010-2016 Toyota Land Cruiser

2012-2016 Toyota Prius

2012-2016 Toyota RAV4

2010-2016 Toyota Sequoia

2011-2016 Toyota Sienna

2012-2016 Toyota Tacoma

2010-2016 Toyota Tundra

2010-2016 Toyota Venza

b. '342 Patent:

Blitzsafe is currently aware that the infotainment systems of the following accused Toyota

brand Toyota automobiles infringe the '342 Patent:

2010-2016 Toyota 4Runner

2011-2016 Toyota Avalon

- 2010-2016 Toyota Camry
- 2011-2016 Toyota Corolla
- 2011-2016 Toyota Highlander
- 2010-2016 Toyota Land Cruiser
- 2012-2016 Toyota Prius
- 2012-2016 Toyota RAV4
- 2010-2016 Toyota Sequoia
- 2011-2016 Toyota Sienna
- 2012-2016 Toyota Tacoma
- 2010-2016 Toyota Tundra
- 2010-2016 Toyota Venza
- 2. <u>Lexus Accused Products</u>
  - a. '786 Patent:

Blitzsafe is currently aware that the infotainment systems of the following accused Lexus brand Toyota automobiles infringe the '786 Patent:

2010-2016 Lexus CT 2010-2016 Lexus IS 2010- 2012 Lexus HS 2010-2016 Lexus GS 2010-2016 Lexus LS 2015-2016 Lexus RC 2012 Lexus LFA

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2015-2016 Lexus NX

2010-2016 Lexus GX

2010-2016 Lexus LX

2009 Lexus CT, Lexus IS, Lexus HS, Lexus ES, Lexus GS, Lexus LS, Lexus RX,

Lexus GX, Lexus LX with Lexus Interface Kit for iPod

b. '342 Patent:

Blitzsafe is currently aware that the infotainment systems of the following accused Lexus brand Toyota automobiles infringe the '342 Patent:

2010-2016 Lexus CT 2010-2016 Lexus IS 2010- 2012 Lexus HS 2010-2016 Lexus GS 2010-2016 Lexus LS 2015-2016 Lexus RC 2012 Lexus LFA 2015-2016 Lexus NX 2010-2016 Lexus GX

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Blitzsafe reserves the right to amend this list of accused instrumentalities, as well as other information contained in this document and the exhibits hereto, to incorporate new information learned during the course of discovery, including, but not limited to, the inclusion of newly released products or any other equivalent devices ascertained through discovery.

#### C. CLAIM CHARTS

Claim charts identifying a location of every element of every asserted claim of the Blitzsafe Patents within accused products are attached hereto as Appendices A–D. Blitzsafe believes that the Toyota Accused Products and Lexus Accused Products cited in the claim charts are representative of the Toyota Accused Products and Lexus Accused Products. Blitzsafe reserves the right to amend these claim charts as well as other information contained in this document and the appendices hereto, to incorporate new information learned during the course of discovery, including, but not limited to, information that is not publically available or readily discernible without discovery. Blitzsafe further reserves the right to amend these claim charts, as well as other information contained in this document and the appendices Accused Products.

#### D. LITERAL INFRINGEMENT AND DOCTRINE OF EQUIVALENTS

Blitzsafe asserts that, under the proper construction of the asserted claims and their claim terms, the limitations of the asserted claims of the Blitzsafe Patents are literally present in the Toyota Accused Products and Lexus Accused Products as set forth in the claim charts attached hereto as Appendices A–D. Blitzsafe contends that any and all elements found not to be literally infringed are infringed under the doctrine of equivalents because the differences between the claimed inventions and the accused instrumentalities, if any, are insubstantial.

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Blitzsafe also contends that Toyota directly infringes the asserted claims by making, using, offering for sale, selling, and importing in to the United States the accused instrumentalities as well as indirectly infringe by contributing to and/or inducing others (*e.g.*, Toyota's customers or its customers' customers) to directly infringe those claims by making, using, offering for sale or selling the Toyota Accused Products and Lexus Accused Products.

Pursuant to Patent Local Rule 3-6(a)(1), Blitzsafe reserves the right to amend its Infringement Contentions as to literal infringement or infringement under the doctrine of equivalents in light of the Court's claim construction.

#### **E. PRIORITY DATES**

Each of the asserted claims of the '786 patent is entitled to the priority date of U.S. Patent Application No. 10/316,961, filed December 11, 2002, under P.R. 3-1(e). Blitzsafe reserves the right to establish an earlier date of invention based upon actions related to conception and reduction to practice of the claimed inventions.

Each of the asserted claims of the '342 patent is entitled to the priority date of U.S. Patent Application No. 11/475,847, filed June 27, 2006, under P.R. 3-1(e). Blitzsafe reserves the right to establish an earlier date of invention based upon actions related to conception and reduction to practice of the claimed inventions.

#### F. BLITZSAFE'S OWN PRODUCTS

Blitzsafe is continuing to investigate what products and/or historical products may practice the claimed inventions. At the present time Blitzsafe's investigation is focused on the products in the list attached hereto. Blitzsafe's investigation is ongoing, and Blitzsafe will supplement these contentions following its investigation (and claim construction as necessary).

### II. PRODUCTION OF DOCUMENTS PURSUANT TO PATENT LOCAL RULE 3-2

Blitzsafe is producing or making available for inspection documents that are in Blitzsafe's possession, custody or control as set forth in Patent Local Rule 3-2. A Blitzsafe 3-2 Production Index identifying these documents is attached hereto.

This preliminary identification of documents is for convenience and is not an admission that each document falls within any exemplary categories in the Patent Local Rules, or that any document qualifies as prior art. Blitzsafe is continuing with its investigation, particularly with respect to ESI. Thus, Blitzsafe reserves its right to add to, delete from, or otherwise modify its disclosures in this section as its investigation proceeds.

Production of these documents is governed by Patent Local Rule 2-2, and, with the exception of documents produced pursuant to P.R. 3.2(c) and public documents listed in the infringement charts, are considered "Confidential – Outside Attorneys Eyes Only" and disclosure of the confidential document or information shall be limited to each party's outside attorney(s) of record and the employees of such outside attorney(s).

Dated: November 24, 2015

Respectfully submitted,

#### **BROWN RUDNICK LLP**

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#### **CERTIFICATE OF SERVICE**

I hereby certify that on November 24, 2015 a true and correct copy of the above and foregoing document has been served by email on:

J. Thad Heartfield thad@heartfieldlawfirm.com THE HEARTFIELD LAW FIRM 2195 Dowlen Road Beaumont, TX 77706

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/s/ Peter Lambrianakos

Peter Lambrianakos

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# **BLITZSAFE 3-2 PRODUCTION INDEX**

# <u>3-2(a)</u>

Bates Start	Bates End
BLITZSAFE-0000001	BLITZSAFE-0000009

# <u>3-2(b)</u>

Bates Start	Bates End
BLITZSAFE-0000010	BLITZSAFE-0009940

# <u>3-2(c)</u>

Bates Start	Bates End
BLITZSAFE-0009941	BLITZSAFE-0012281

# **Public Documents Listed in Infringement Charts**

Bates Start	Bates End
BS-TOY-0000001	BS-TOY-0002232

# **BLITZSAFE'S OWN PRODUCTS**

AUDI / M-LINK1 V.1	FORD / AUX DMX V.3	VOL / XM DMX CMD V.1
AUDI / M-LINK1 V.1B	FORD / CAN AUX	VOL / XM DMX CMD V.2
AUDI / M-LINK1 V.1B SAT	FORD / CAN AUX DUAL	VW / XM DMX CMD V.3
BMW / M-LINK1 V.1	HON / AUX DMX V.1	VW / XM DMX CMD V.3A
BMW / M-LINK1 V.1 DSP	HON / AUX DMX V.2X	VW / XM DMX CMD V.5
CHY / M-LINK1 V.1A	HON / AUX V.1	AUDI / XM DMX PIO V.1
CHY / M-LINK1 V.1AL	LEX / AUX DMXV.1	AUDI / XM DMX PIO V.1B
FLROV / M-LINK1 V.1	LROV / AUX DMX V.1	BMW / XM DMX PIO V.1
FORD / CAN M-Link2	MB / AUX DMX V.1	BMW / XM DMX PIO V.1 DSP
FORD / M-LINK1 V.1B	MB / AUX DMX V.1B	FLROV / XM DMX PIO V.1
FORD / M-LINK1 V.1C	MINI / AUX DMX V.1	FORD / XM DMX PIO V.1B
FORD / M-LINK1 V.1TS	TOY / AUX DMX V.1	FORD / XM DMX PIO V.1C
FORD / M-LINK1 V.3	TOY / AUX DMX V.2	FORD / XM DMX PIO V.1TS
HON / M-LINK1 DMX V.1	TP / AUX DMX V.1	FORD / XM DMX PIO V.3
HON / M-LINK1 V.1	VOL / AUX DMX V.1	HON / XM DMX PIO V.1
HON / M-LINK1 V.2X	VOL / AUX DMX V.2	HON / XM PIO V.1
HON / M-LINK1 V.2XT	VW / AUX DMX V.1	LROV / XM DMX PIO V.1
HON / M-LINK1 V.3X	VW / AUX DMX V.1 SAT	MB / XM DMX PIO V.1
LEX / M-LINK1V.1	VW / AUX DMX V.3	MB / XM DMX PIO V.1B
LROV / M-LINK1 V.1	VW / AUX DMX V.3A	TOY / XM DMX PIO V.1
MB / M-LINK1 V.1B	VW / AUX DMX V.5	TOY / XM DMX PIO V.2
MB / M-LINK1 V.1	BMW/XM SLD 00	VOL / XM DMX PIO V.1
MINI / M-LINK1 V.1	BMW/XM SLD 01	VOL / XM DMX PIO V.2
TOY / M-LINK1 V.1	BMW/XM SLD 03	VW / XM DMX PIO V.3
TOY / M-LINK1 V.2	AUDI / XM DMX CMD V.1	VW / XM DMX PIO V.3A
TOY / M-LINK1 V.2T	AUDI / XM DMX CMD V.1B	VW / XM DMX PIO V.5
VOL / M-LINK1 V.1	BMW / XM DMX CMD V.1	HON/NAV ITI V.1
VOL / M-LINK1 V.2	BMW / XM DMX CMD V.1 DSP	HON/NAV ITI V.2
VW/M-LINK1V.1	CHY / XM DMX CMD V.1A	TOY/NAV ITI V.1
VW/M-LINK1 V.1 SAT	CHY / XM DMX CMD V.1AL	AUDI / BLUETOOTH V.1
VW/M-LINK1V.3	FLROV / XM DMX CMD V.1	AUDI / BLUETOOTH V.1B
VW/M-LINK1V.3A	FORD / XM DMX CMD V.1B	AUDI / BLUETOOTH V.1B SAT
VW/M-LINK1V.5	FORD / XM DMX CMD V.1C	BMW / BLUETOOTH V.1
AUDI / AUX DMX V.1	FORD / XM DMX CMD V.1TS	BMW / BLUETOOTH V.1 DSP
AUDI / AUX DMX V.1B	FORD / XM DMX CMD V.3	CHY / BLUETOOTH V.1A
AUDI / AUX DMX V.1B SAT	HON / XM CMD V.1	CHY / BLUETOOTH V.1AL
BMW / AUX DMX V.1	HON / XM DMX CMD V.1	FLROV /BLUETOOTH V.1
BMW / AUX DMX V.1 DSP	LROV / XM DMX CMD V.1	FORD / BLUETOOTH 2 DUAL
CHY / AUX DMX V.1A	MB / XM DMX CMD V.1	FORD / BLUETOOTH 2
CHY / AUX DMX V.1AL	MB / XM DMX CMD V.1B	FORD / BLUETOOTH V.1B
FLROV / AUX DMX V.1	MINI / XM DMX CMD V.1	FORD /BLUETOOTH V.1C
FORD / AUX DMX V.1C	TOY / XM DMX CMD V.1	FORD / BLUETOOTH V.1TS
FORD / AUX DMX V.1TS	TOY / XM DMX CMD V.2	FORD /BLUETOOTH V.3

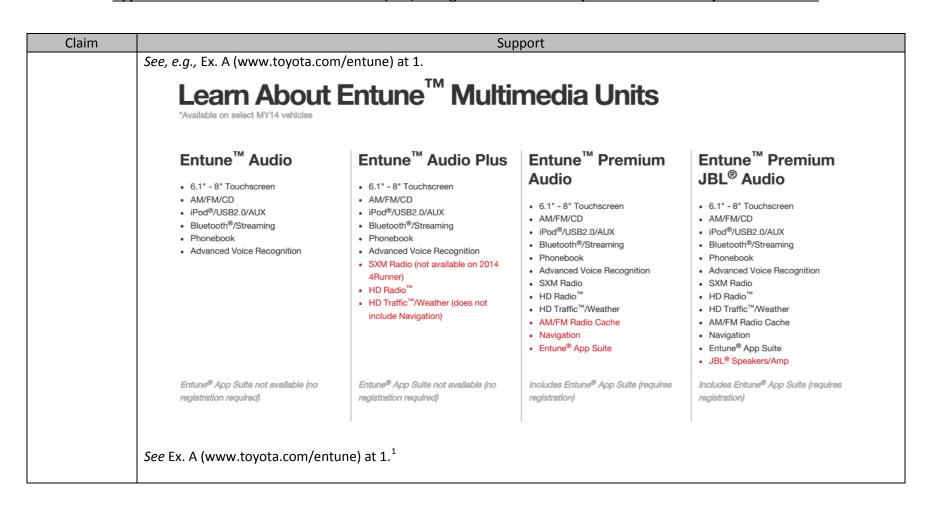
PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS HON / BLUETOOTH DMX V.1 HON / BLUETOOTH V.1 HON / BLUETOOTH V.3X HON /BLUETOOTH V.2X HON / BLUETOOTH V.2XT LEX / BLUETOOTH V.1 LROV /BLUETOOTH V.1 MB / BLUETOOTH V.1B MB / BLUETOOTH V.1 MB / BLUETTOTH V.2 MINI /BLUETOOTH V.1 TOY / BLUETOOTH V.1 TOY / BLUETOOTH V.2 TOY / BLUETOOTH V.2T VOL / BLUETOOTH V.1 VOL / BLUETOOTH V.2 VW / BLUETOOTH V.1 VW / BLUETOOTH V.1 SAT VW / BLUETOOTH V.3 VW / BLUETOOTH V.3A VW / BLUETOOTH V.5

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 15 of 492 PageID #: 4624 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

In these Infringement Contentions, Blitzsafe contends that at least the following claims of U.S. Patent No. 7,489,786 ("786 patent") identified below are infringed by the infotainment systems in accused Toyota automobiles. Blitzsafe does not concede that any claims of the '786 patent that are not listed below are not infringed by the infotainment systems in accused Toyota automobiles. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Blitzsafe from citing or relying on additional documents, information, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Toyota's infotainment systems, internal documentation and/or testimony from relevant witnesses may be necessary to more fully and accurately describe the infringing features of its accused products. Accordingly, Blitzsafe reserves the right to supplement, correct, modify, and/or amend these contentions as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Toyota, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

Claim	Support	
1[P]. An audio device integration system comprising:		
	Entune™	
	Entune now encompasses the complete audio display stack of your vehicle - including Bluetooth, voice recognition, USB, aux port, and your display screen. On select, premium audio head units, you have access to navigation and a rich set of Apps and Data Services, now referred to as the "Entune® App Suite".	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 16 of 492 PageID #: 4625 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



<sup>&</sup>lt;sup>1</sup> Blitzsafe has produced Ex. A, www.toyota.com/entune, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000004 - 9.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 17 of 492 PageID #: 4626 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support		
	IPod®/USB 2.0/AUX		
	Connect an iPod®		
	Connect your IPod®11 or USB 12 device and play your music through your multimedia system.		
	Connecting an iPod® 11 using the USB port enables users to enjoy music or other iPod® 11 content via the vehicle's speakers.		
	Note: "Press" refers to hard buttons on the sides of the screen; "Touch" refers to the display screen (phone or multimedia system).		
	<ol> <li>Open the cover of the USB/AUX port and connect an iPod<sup>® 11</sup></li> <li>The actual position of the USB port <sup>12</sup> may differ depending on the vehicle. For details, see the pictorial index of the vehicle <i>Owner's Manual</i></li> <li>The iPod<sup>® 11</sup> will begin playing and song information will be displayed</li> <li>Touch <b>Source</b> to select an alternate source</li> </ol>		
	Play an iPod®		
	The title of the album and song you are currently listening to will be displayed, as well as the album art if available		
	<ol> <li>Touch II to pause the track</li> <li>Touch &gt; to resume playing the track</li> <li>Press and hold the A SEEK /V TRACK button to fast-forward or rewind. When you release the button, the player will start playing from that position.</li> <li>Press and release the A SEEK /V TRACK button to advance to the next track or go back to the previous track</li> </ol>		
	Connect a USB Device		
	<ol> <li>Open the cover of the USB/AUX port and connect a USB memory device</li> <li>The actual position of the USB port <sup>12</sup> may differ depending on the vehicle. For details, see the pictorial index of the vehicle <i>Owner's Manual</i></li> <li>Plug in memory device</li> <li>Music will begin playing</li> </ol>		
	<i>See, e.g.,</i> Ex. B (http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb-aux.html#!camry/2015) at 1. <sup>2</sup>		

<sup>&</sup>lt;sup>2</sup> Blitzsafe has produced Ex. B, http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb-aux.html#!camry/2015 simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000010 - 11.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 18 of 492 PageID #: 4627 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/iPod <sup>®</sup>
	Hook up via a USB data cable <sup>12</sup> to the USB port to gain full iPod <sup>® 11</sup> connectivity and control, right from the touchscreen interface on the multimedia system or
	play MP3 music files stored on a USB <sup>12</sup> flash drive.
	See Ex. A (www.toyota.com/entune) at 4.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 19 of 492 PageID #: 4628 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
Claim	
	iPod
	Made for
	BiPod □iPhone
	"Made for iPod" and "Made for iPhone"
	mean that an electronic accessory has been designed to connect specifically to
	iPod or iPhone respectively, and has been
	certified by the developer to meet Apple performance standards.
	Apple is not responsible for the operation
	of this device or its compliance with safety and regulatory standards. Please note
	that the use of this accessory with iPod or iPhone may affect wireless performance.
	● iPhone, iPod, iPod classic, iPod nano, and
	iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.
	Lightning is a trademark of Apple Inc.

Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 20 of 492 PageID #: 4629 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

<sup>&</sup>lt;sup>3</sup> Blitzsafe has produced Ex. C, 2015 Tacoma Navigation Manual simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000012 – 293. All pin-cites are to manual pages.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 21 of 492 PageID #: 4630 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

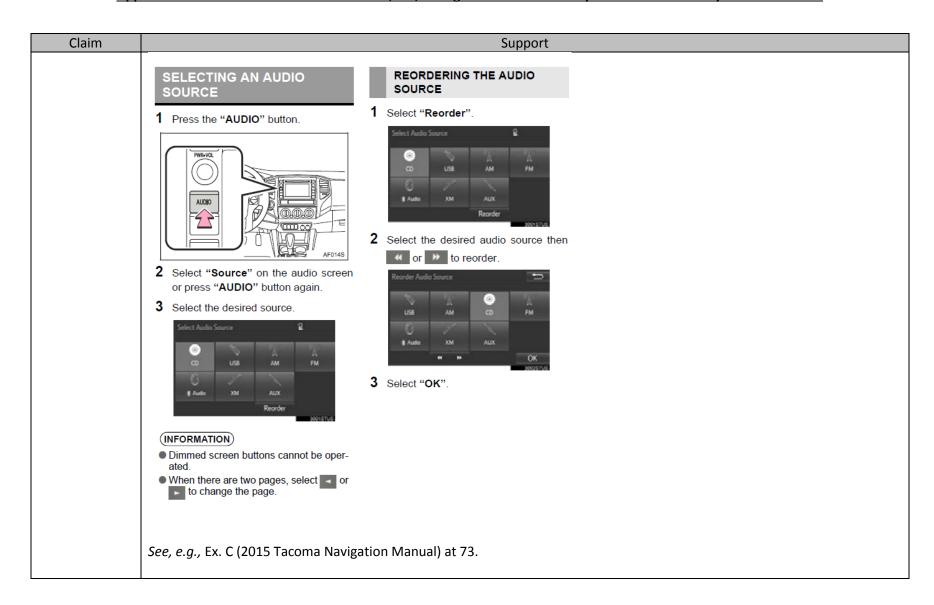
Claim		Support
Claim	<ul> <li>■ About iPod</li> <li>Made for <ul> <li>iPod</li> <li>iPhone</li> </ul> </li> <li>• "Made for iPod", "Made for iPhone" and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>• Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone or iPad may affect wireless performance.</li> <li>• iPad, iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> <li>■ iPod cover art</li> <li>■ Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>• This function can be changed to on/off. (→P. 253)</li> <li>• It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>• Only iPod cover art that is saved in JPEG format can be displayed.</li> </ul>	The formation of the fo
	<i>See, e.g.,</i> Ex. D (2015 Tacoma Owner's Manual) at 271. <sup>4</sup>	
[1A] a first connector electrically connectable to		

<sup>&</sup>lt;sup>4</sup> Blitzsafe has produced Ex. D, 2015 Tacoma Owner's Manual simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000294 - 883. All pin-cites are to manual pages.

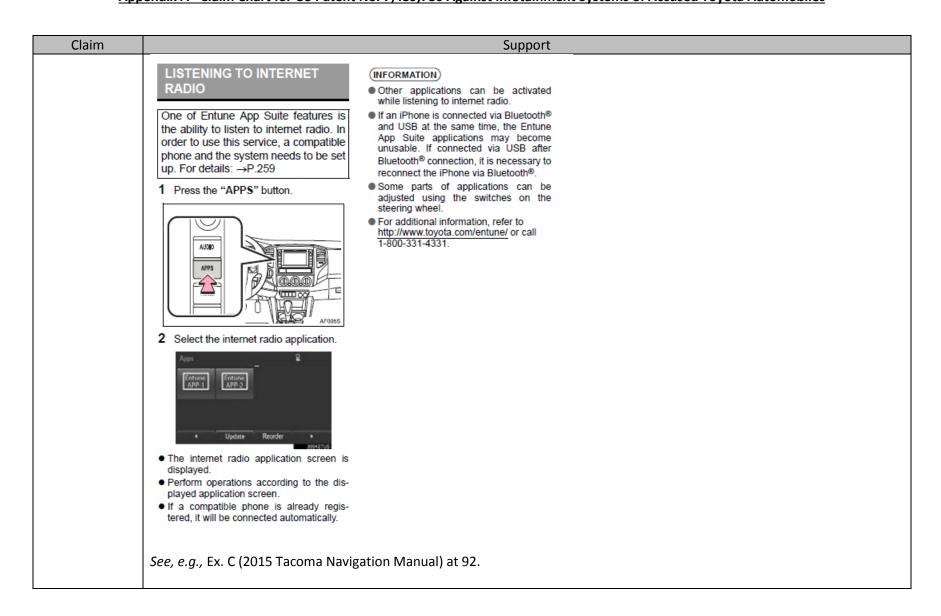
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 22 of 492 PageID #: 4631 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
a car stereo;	device integration system includes "a first connector electrically connectable to a car stereo" because, as set forth below, the car stereo controls may be used to control the after-market audio device and because the car stereo receives information from the after-market audio device regardless of the particular configuration of the device integration system. The "first connector electrically connectable to a car stereo" may include an electrical connector such as a circuit board connector, soldered connector, wired connector or software/virtual connector that is connectable to the car stereo or any component thereof, including at least the connector set forth in the yellow dashed box below.  Toyota 'Entune' (2014 Camry) ROHM D00D0AWHFP (2A Line Voltage Regulator)  ROHM D00D0AWHFP (2A Line Voltage Regulator)
	Renesas R32C RSF64168LPFD A UB 317B1A1 (Micro Control Unit w/ Embedded Flash Memory, ROMless M16C Family) 1305502F1 (A) EC-2140 1306EU703
	Audio Tone Circuit Audio Tone Circuit Speaker Output Connections Audio Power Amplifier Audio Power Amplifier

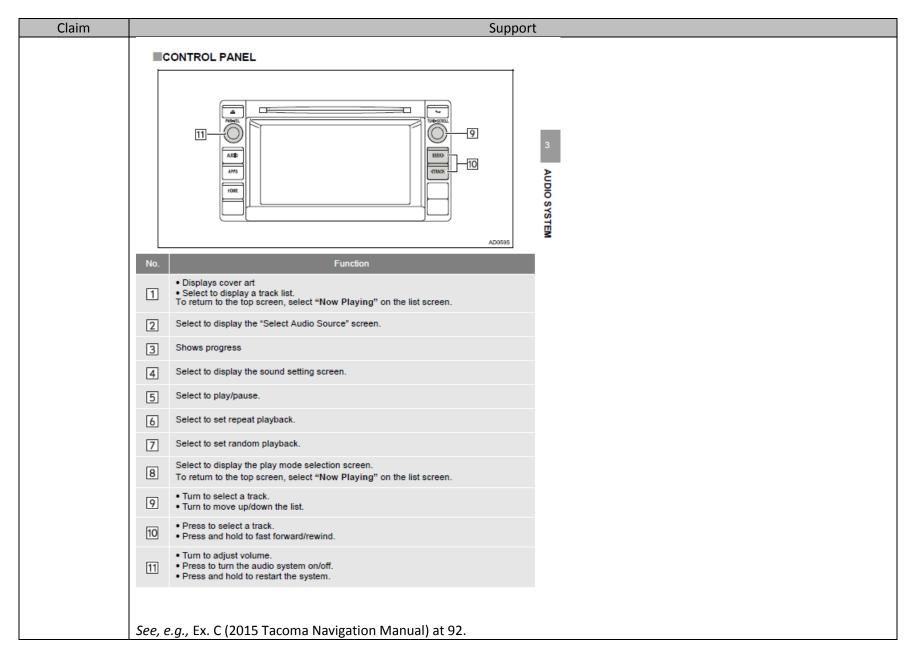
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 23 of 492 PageID #: 4632 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



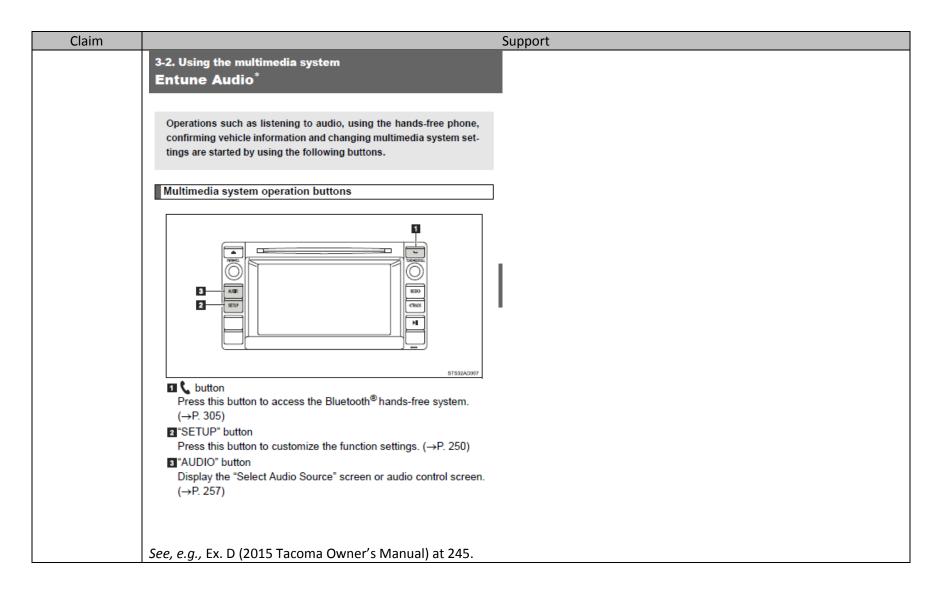
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 24 of 492 PageID #: 4633 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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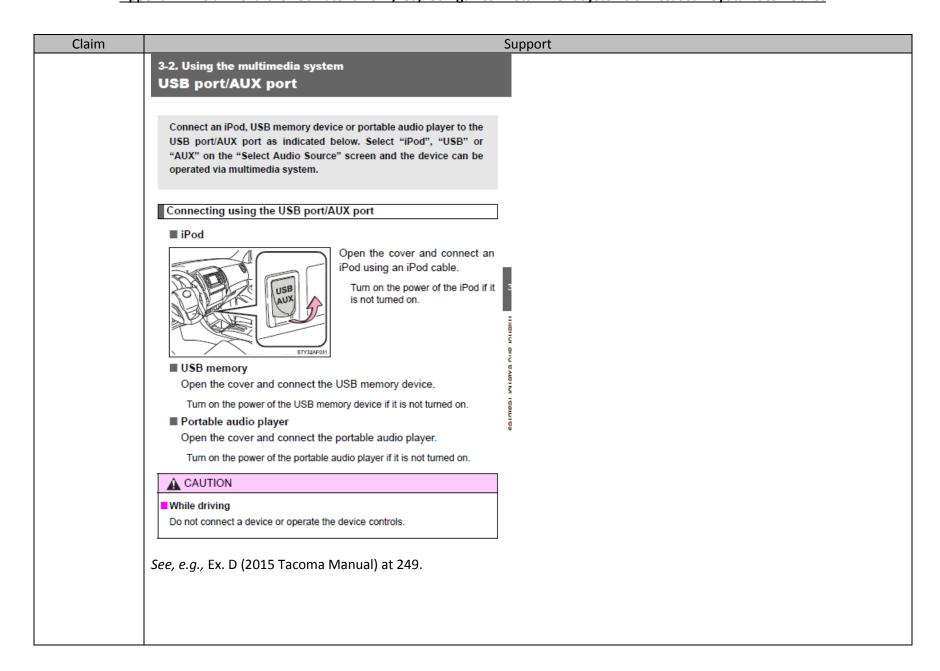
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 26 of 492 PageID #: 4635 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 27 of 492 PageID #: 4636 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/AUX PORT 1 Open the cover and connect a device.
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

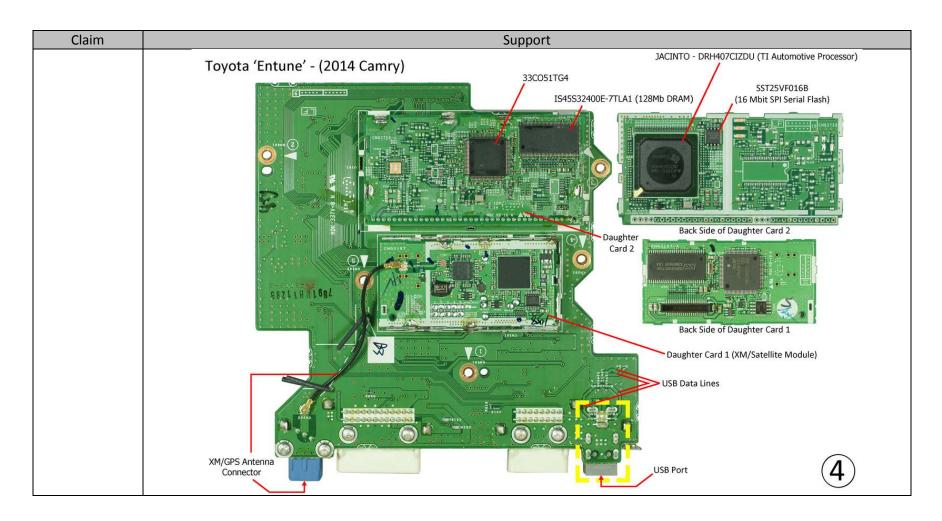
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 28 of 492 PageID #: 4637 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 29 of 492 PageID #: 4638 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support				
[1B] a second connector electrically connectable to an after-market audio device external to the car stereo;	Each device integration system of accused Toyota automobiles includes "a second connector electrically connectable to an after-market audio device external to the car stereo" because, as set forth below, the after-market audio device receives commands for controlling its operation from the car stereo and because the car stereo receives information from the after-market audio device regardless of the particular configuration of the device integration system. The second connector is a USB connector in the device integration system that is connectable to a USB port in the accused Toyota automobiles for mating via a cable with an after-market audio device external to the car stereo, such as an iPhone or other smart device				
	XM / GPS Antenna				
	USB WSB WSB WSB WSB WSB WSB WSB W				

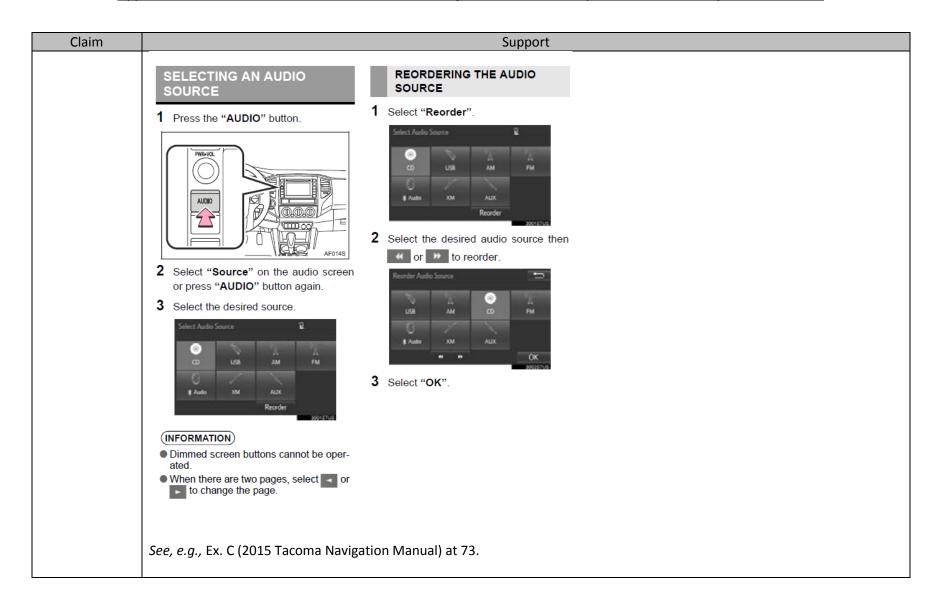
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 30 of 492 PageID #: 4639 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 31 of 492 PageID #: 4640 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/iPod <sup>®</sup>
	Hook up via a USB data cable <sup>12</sup> to the USB port to gain full iPod <sup>®</sup> <sup>11</sup> connectivity and control, right from the touchscreen interface on the multimedia system or play MP3 music files stored on a USB <sup>12</sup> flash drive.
	<i>See, e.g.,</i> Ex. A (Entune App Suite Brochure) at 4.

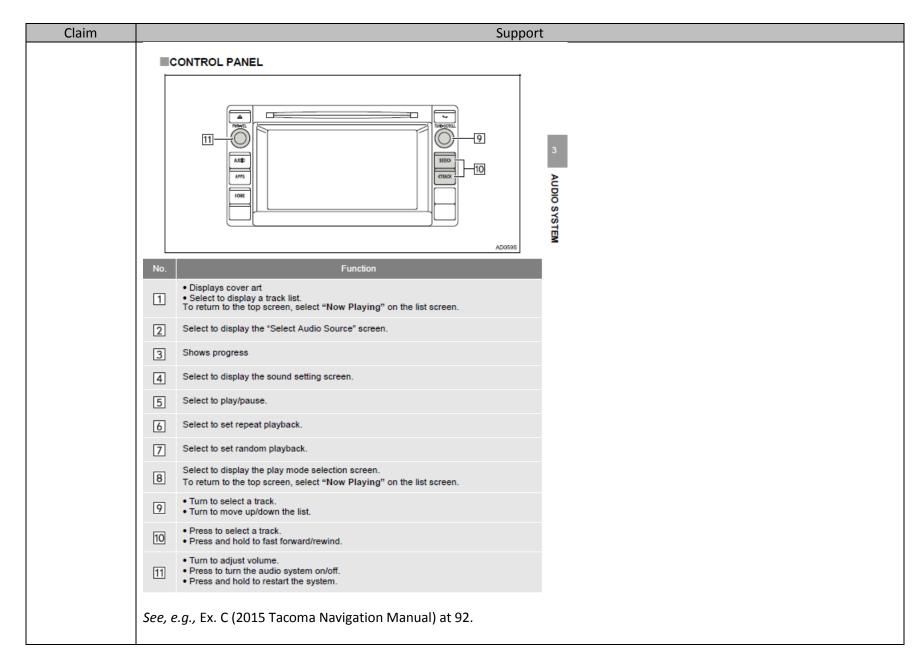
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 32 of 492 PageID #: 4641 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



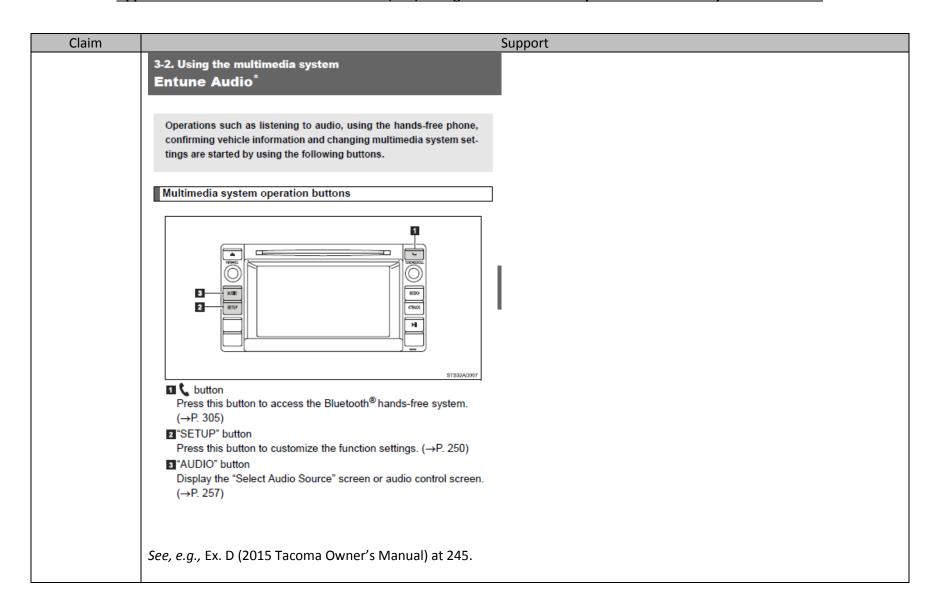
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 33 of 492 PageID #: 4642 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim		Support	
Claim		Support	
	LISTENING TO INTERNET RADIO	ATION) applications can be activated tening to internet radio.	
	One of Entune App Suite features is the ability to listen to internet radio. In order to use this service, a compatible phone and the system needs to be set Unusable Bluetool	ione is connected via Bluetooth® B at the same time, the Entune uite applications may become e. If connected via USB after th® connection, it is necessary to act the iPhone via Bluetooth®.	
		parts of applications can be d using the switches on the	
	For add     http://w	itional information, refer to ww.toyota.com/entune/ 31-4331.	
	2 Select the internet radio application.		
	Apps Reorder >		
	<ul> <li>The internet radio application screen is displayed.</li> </ul>		
	<ul> <li>Perform operations according to the displayed application screen.</li> <li>If a compatible phone is already registered, it will be connected automatically.</li> </ul>		
	See, e.g., Ex. C (2015 Tacoma Navigation Ma	nual) at 92.	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 34 of 492 PageID #: 4643 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



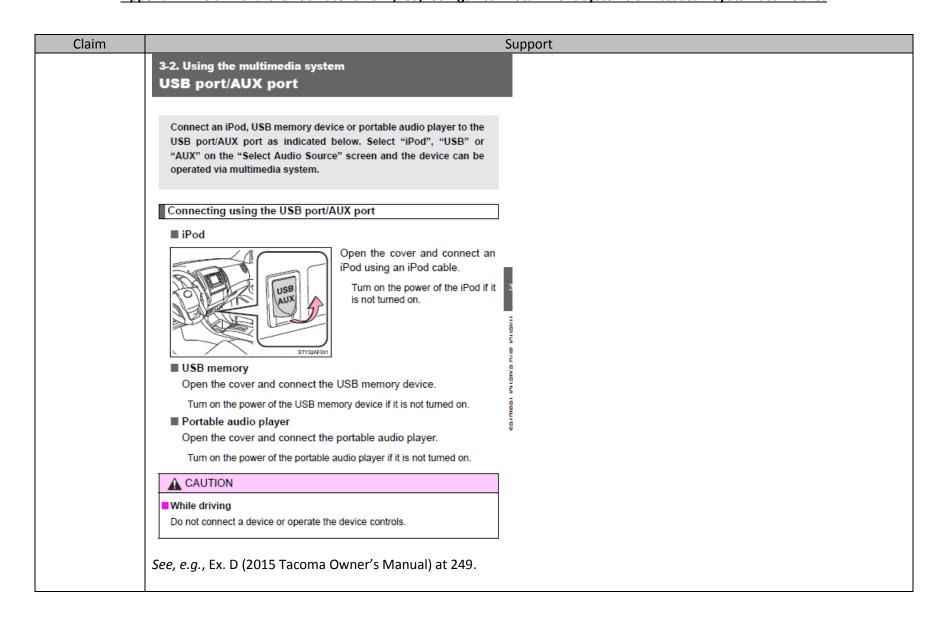
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 35 of 492 PageID #: 4644 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 36 of 492 PageID #: 4645 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/AUX PORT         1 Open the cover and connect a device.         Image: Comparison of the device o
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

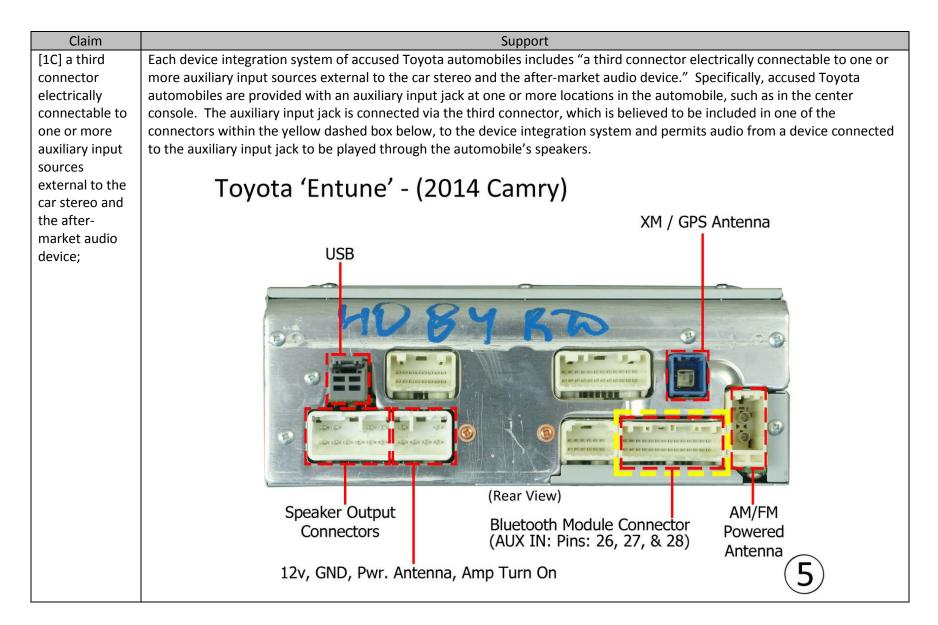
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 37 of 492 PageID #: 4646 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 38 of 492 PageID #: 4647 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	IPod®/USB 2.0/AUX
	Connect an iPod®
	Connect your IPod®11 or USB 12 device and play your music through your multimedia system.
	Connecting an iPod <sup>® 11</sup> using the USB port enables users to enjoy music or other iPod <sup>® 11</sup> content via the vehicle's speakers.
	Note: "Press" refers to hard buttons on the sides of the screen; "Touch" refers to the display screen (phone or multimedia system).
	<ol> <li>Open the cover of the USB/AUX port and connect an iPod<sup>®</sup> <sup>11</sup></li> <li>The actual position of the USB port <sup>12</sup> may differ depending on the vehicle. For details, see the pictorial index of the vehicle <i>Owner's Manual</i></li> <li>The iPod<sup>®</sup> <sup>11</sup> will begin playing and song information will be displayed</li> <li>Touch <b>Source</b> to select an alternate source</li> </ol>
	Play an iPod®
	The title of the album and song you are currently listening to will be displayed, as well as the album art if available
	<ol> <li>Touch II to pause the track</li> <li>Touch &gt; to resume playing the track</li> <li>Press and hold the A SEEK /V TRACK button to fast-forward or rewind. When you release the button, the player will start playing from that position.</li> <li>Press and release the A SEEK /V TRACK button to advance to the next track or go back to the previous track</li> </ol>
	Connect a USB Device
	<ol> <li>Open the cover of the USB/AUX port and connect a USB memory device</li> <li>The actual position of the USB port <sup>12</sup> may differ depending on the vehicle. For details, see the pictorial index of the vehicle <i>Owner's Manual</i></li> <li>Plug in memory device</li> <li>Music will begin playing</li> </ol>
	See, e.g., Ex. B (http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb- aux.html#!camry/2015) at 1.

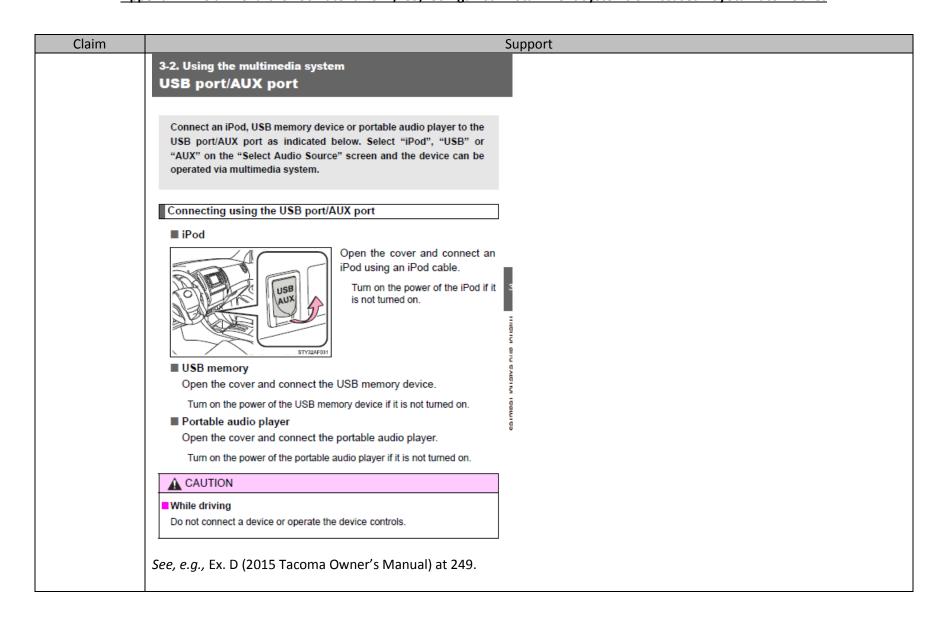
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 39 of 492 PageID #: 4648 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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Claim	Support
	Connect an Auxiliary Device
	<ol> <li>Open the cover of the USB/AUX port and connect an auxiliary cable</li> <li>Music will play automatically when connected (Note: Ensure the device connected is in Play Mode)</li> <li>Or, touch Source or press Audio button</li> <li>Touch AUX on the screen</li> <li>Only the volume can be adjusted using the audio system controls. The remaining controls need to be operated on the portable audio device.</li> </ol>
	See, e.g., Ex. B (http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb- aux.html#!camry/2015) at 2.
	USB/AUX PORT
	<ul> <li>1 Open the cover and connect a device.</li> <li>Image: A constant of the device if it is not turned on.</li> </ul>
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

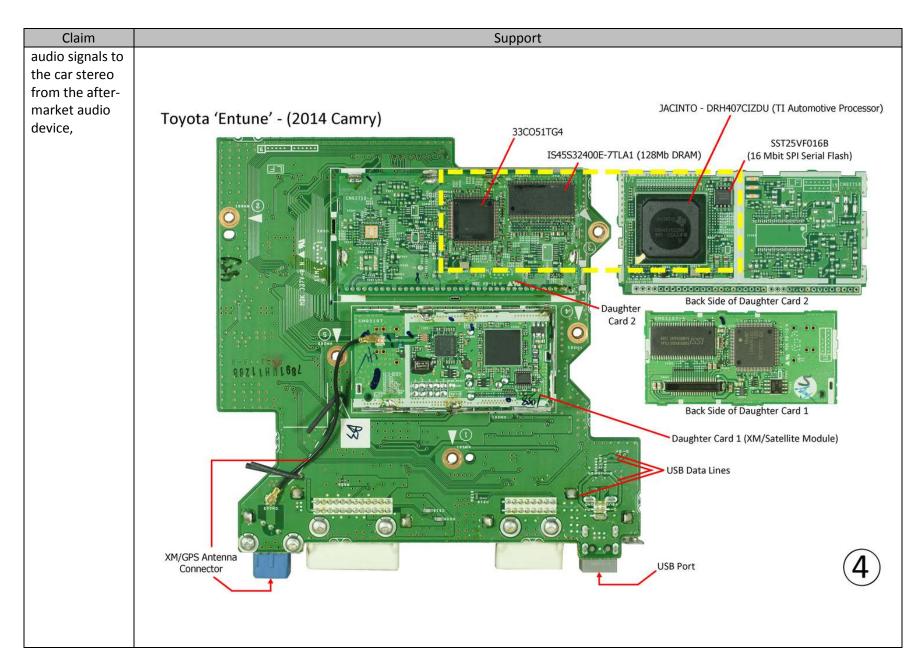
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 41 of 492 PageID #: 4650 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



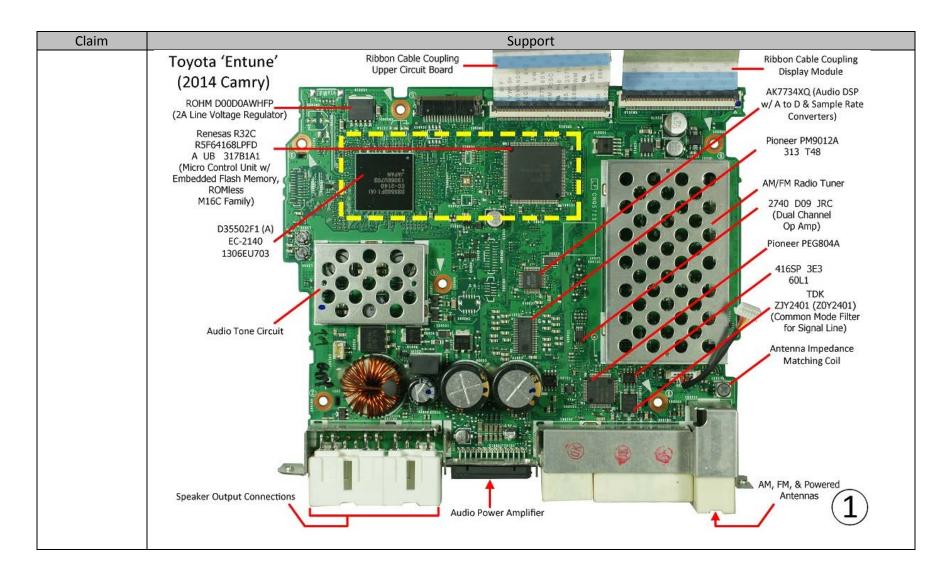
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 42 of 492 PageID #: 4651 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim		Support
	3-2. Using the multimedia system Using the AUX port	
	To use the AUX port, connect a portable player, then select "AUX" on the "Select Audio Source" screen.	
	Connecting a portable audio player →P. 249	
	<ul> <li>Operating portable audio players connected to the multimedia system The volume can be adjusted using the vehicle's audio controls. All other adjustments must be made on the portable audio player itself.</li> <li>When using a portable audio player connected to the power outlet Noise may occur during playback. Use the power source of the portable audio player.</li> </ul>	3
	CAUTION While driving Do not connect a portable audio player or operate the device controls.	error and exterior reatures
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 281.	Tes
[1D] an interface connected between said first and second electrical connectors for channeling	the car stereo to external audio devices via a USB connecto (which interface comprises at least the software and hardw Renesas microcontroller) is coupled to the USB connector (i component via the first connector, such as via a circuit boar software/virtual connector. The interface channels audio s	ignals to the car stereo from the after-market audio device, as one accused Toyota automobiles is to permit audio stored on or

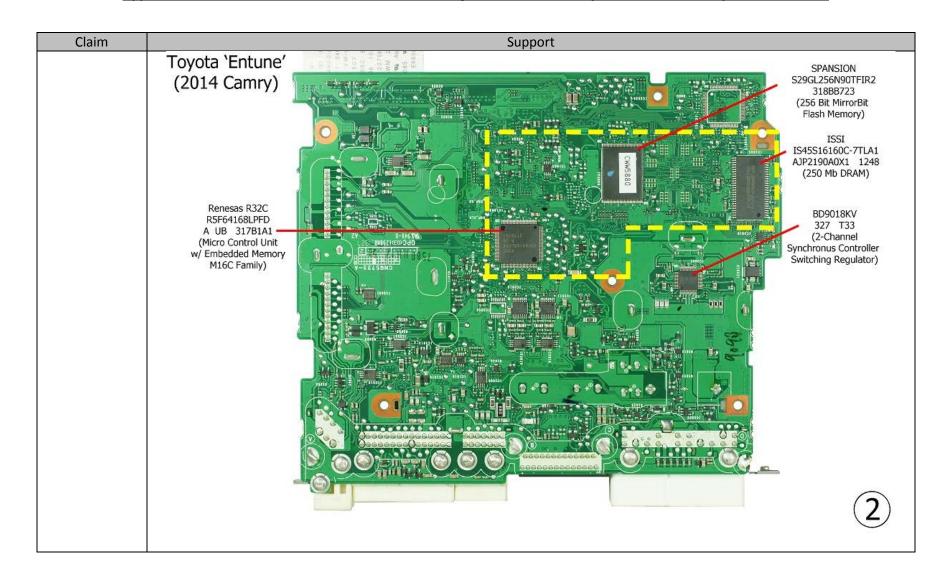
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 43 of 492 PageID #: 4652 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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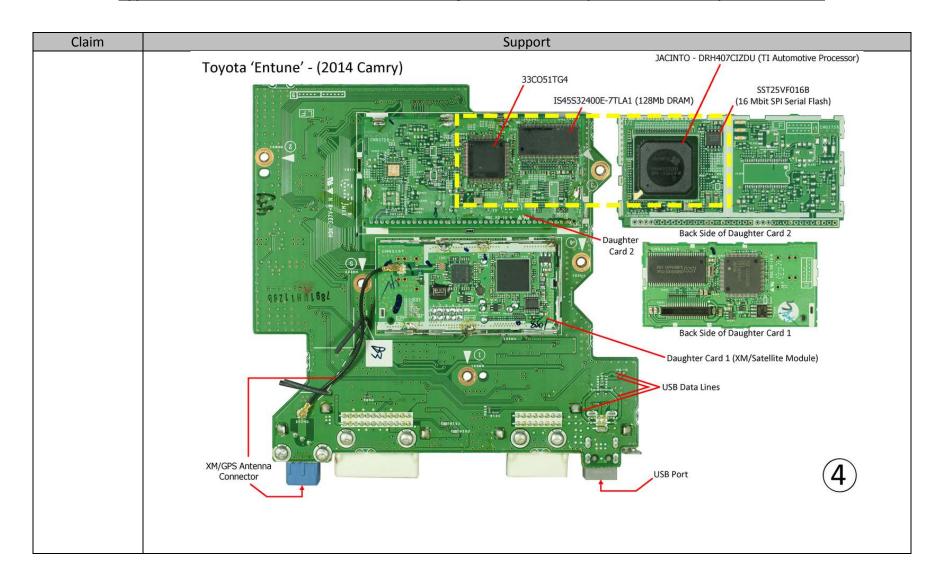
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 46 of 492 PageID #: 4655 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/iPod <sup>®</sup>
	Hook up via a USB data cable <sup>12</sup> to the USB port to gain full iPod <sup>®</sup> <sup>11</sup> connectivity and control, right from the touchscreen interface on the multimedia system or play MP3 music files stored on a USB <sup>12</sup> flash drive.
	See, e.g., Ex. A (www.toyota.com/entune) at 4.

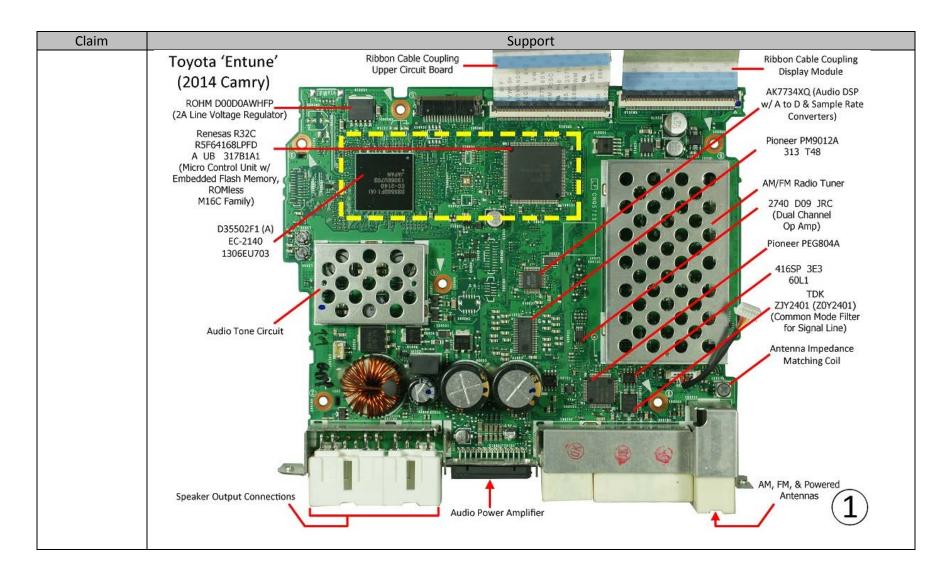
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 47 of 492 PageID #: 4656 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
[1E] said	The interface of each device integration system of the accused Toyota automobiles includes one or more microcontrollers
interface	(including at least a Renesas microcontroller) in electrical communication with the first and second electrical connectors for
including a	controlling various operations of the infotainment system, such as the radio, display, and interface operations. At least the
microcontroller	Renesas microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards of the device
in electrical	integration system, some of which are shown in the yellow dashed box below) executes code to perform various interface
communication	functions and is, thus, "pre-programmed" to perform these functions. It is believed that this code is stored in onboard flash
with said first	and/or other memory modules (such as the Spansion flash memory module), and/or is contained within firmware elsewhere
and second	in the interface (such as within the Renesas microcontroller itself).
electrical	
connectors,	
said	
microcontroller	
pre-	
programmed to	
execute:	

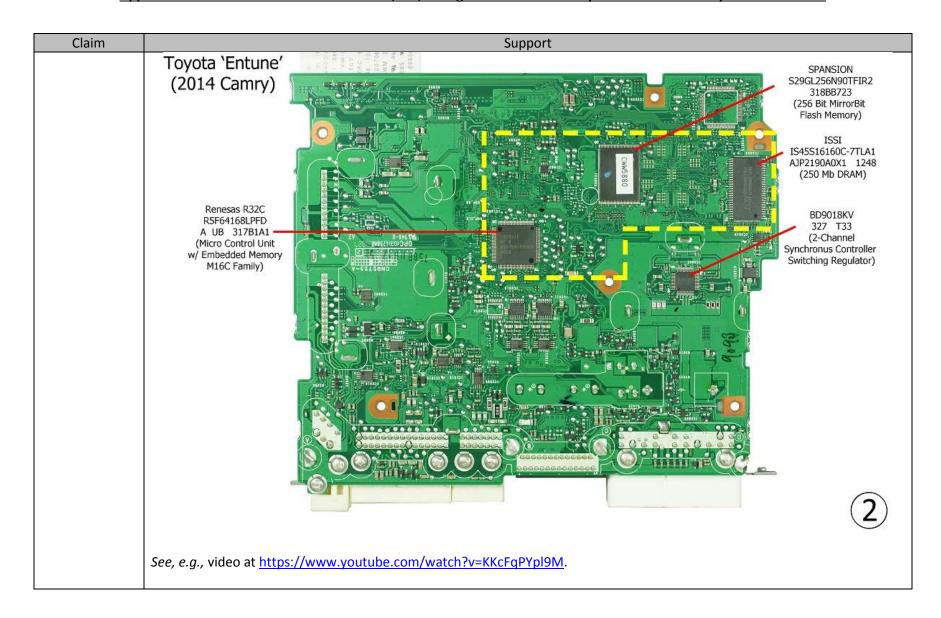
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 48 of 492 PageID #: 4657 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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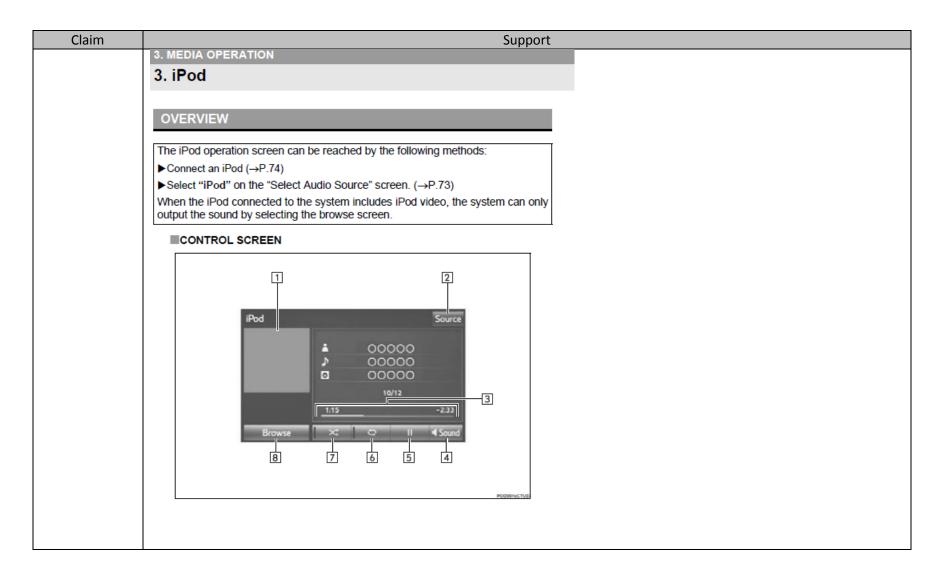
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 50 of 492 PageID #: 4659 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



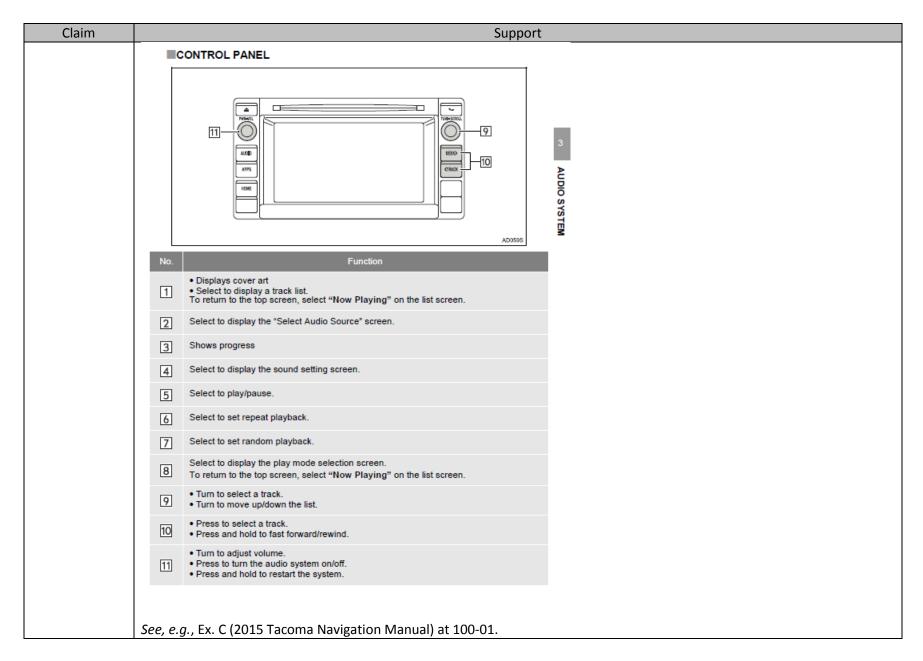
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 51 of 492 PageID #: 4660 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
Claim	2. RADIO OPERATION
	3. INTERNET RADIO*
	<section-header><section-header><section-header><section-header><text><text><image/><image/><list-item><list-item><image/></list-item></list-item></text></text></section-header></section-header></section-header></section-header>
	Perform operations according to the dis- played application screen.
	<ul> <li>If a compatible phone is already registered, it will be connected automatically.</li> </ul>
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 92.

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#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 53 of 492 PageID #: 4662 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 54 of 492 PageID #: 4663 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
Claim	Image for         Image in iteration         Image iterating iterating iteration
	iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc. See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 116.

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Claim	Support
	COMPATIBLE MODELS
	The following iPod <sup>®</sup> , iPod nano <sup>®</sup> , iPod classic <sup>®</sup> , iPod touch <sup>®</sup> and iPhone <sup>®</sup> devic- es can be used with this system. Made for Pod touch (5th generation) Pod touch (2th generation) Pod touch (3th generation) Pod nano (5th generation) Pod nano (1th generation) Pod nano (2th generation) Pod nano (3th generation) Pome 4S Phone 4S Phone 3G Phone 3 Phone 3 Phone 3 Phone 4S phone 3G phone 4S phone 3G phone 4S phone 4S
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 117.

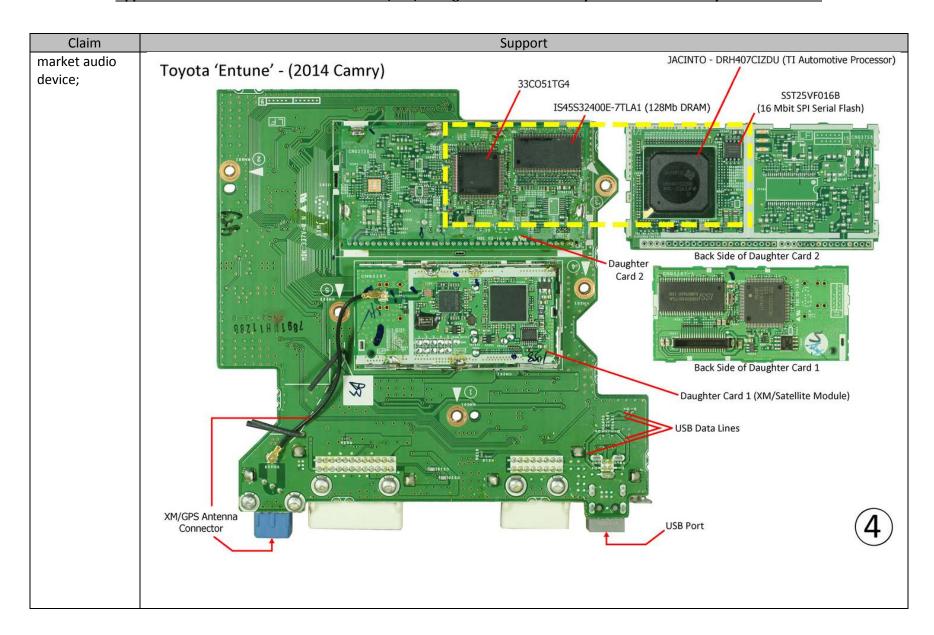
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 56 of 492 PageID #: 4665 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	About iPod Made for iPod iPhone
	<ul> <li>• "Made for iPod", "Made for iPhone" and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>• Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPon eor iPad may affect wireless performance.</li> <li>• iPad, iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc.</li> <li>■ iPod cover art</li> <li>• Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>• This function can be changed to on/off. (→P. 253)</li> <li>• It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>• Only iPod cover art that is saved in JPEG format can be displayed.</li> </ul>
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 271.
[1F] a first pre- programmed code portion	The interface of each device integration system of the accused Toyota automobiles is pre-programed to execute "a first pre- programmed code portion for remotely controlling the after-market audio device using the car stereo by receiving a control command from the car stereo through said first connector in a format incompatible with the after-market audio device,
for remotely controlling the after-market audio device	processing the received control command into a formatted command compatible with the after-market audio device, and transmitting the formatted command to the after-market audio device through said second connector for execution by the after-market audio device." More specifically, once connected, commands are received from the car stereo and channeled through the first connector to the interface (including at least the Renesas microcontroller), where they are processed and

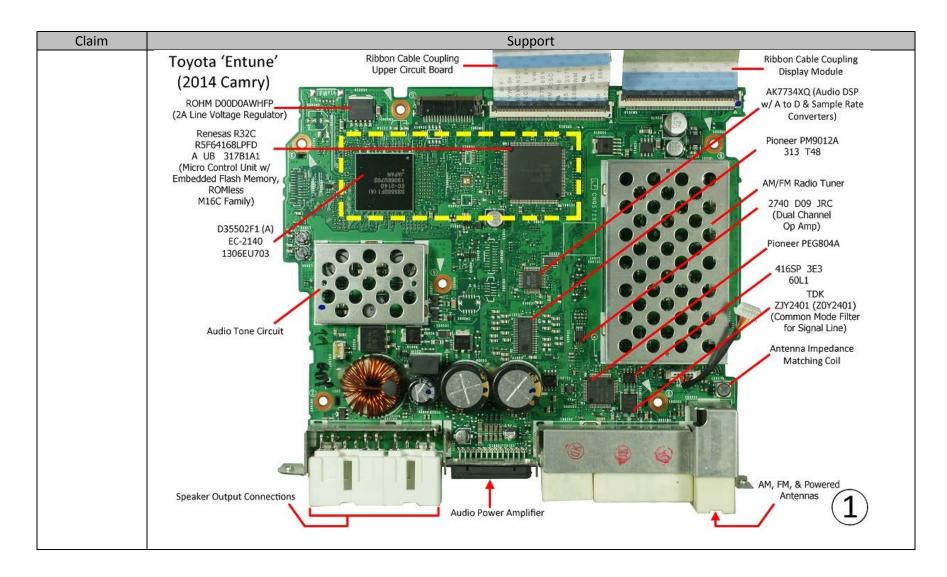
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 57 of 492 PageID #: 4666 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
using the car	converted using pre-programmed software from a format understandable and compatible with the car stereo and associated
stereo by	Toyota protocols (i.e., a format incompatible with the after-market audio device) into formatted commands that are
receiving a	compatible with the after-market audio device (i.e., converted into USB and device-specific protocols understandable to the
control	after-market audio device). These formatted commands are then transmitted to the after-market audio device via the USB
command from	connector (i.e., the second connector). The formatted commands are then executed by the after-market audio device. At
the car stereo	least the Renesas microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards of the
through said	device integration system) executes pre-programmed code to perform at least a portion of these functions. It is believed that
first connector	this code is stored in onboard flash and/or other memory modules (such as the Spansion flash memory module), and/or is
in a format	contained within firmware elsewhere in the interface (such as within the Renesas microcontroller itself).
incompatible	
with the after-	For example, Entune system software updates may be downloaded from the Internet. See video at
market audio	https://www.youtube.com/watch?v=KKcFqPYpI9M).
device,	
processing the	
received	
control	
command into	
a formatted	
command	
compatible	
with the after-	
market audio	
device, and	
transmitting	
the formatted	
command to	
the after-	
market audio	
device through	
said second	
connector for	
execution by	
the after-	

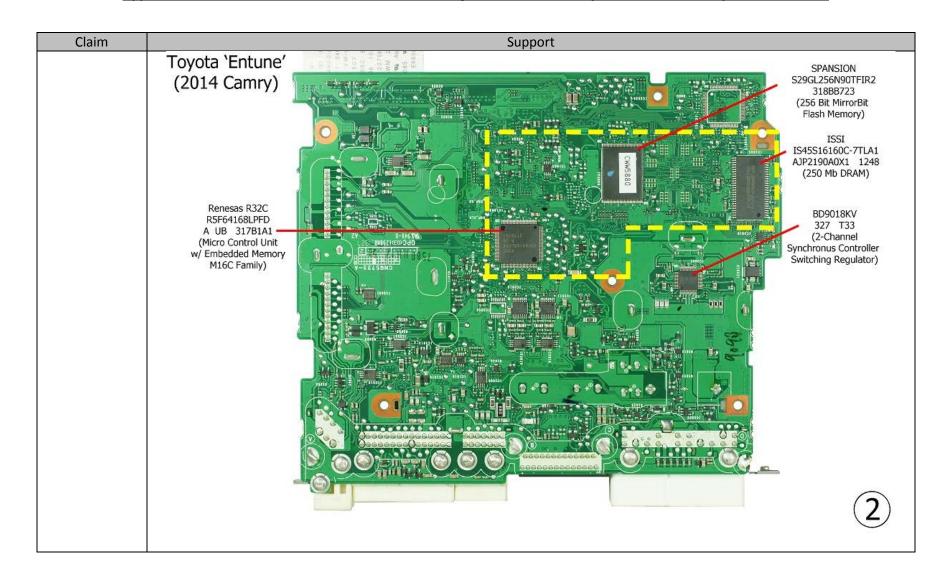
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 58 of 492 PageID #: 4667 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



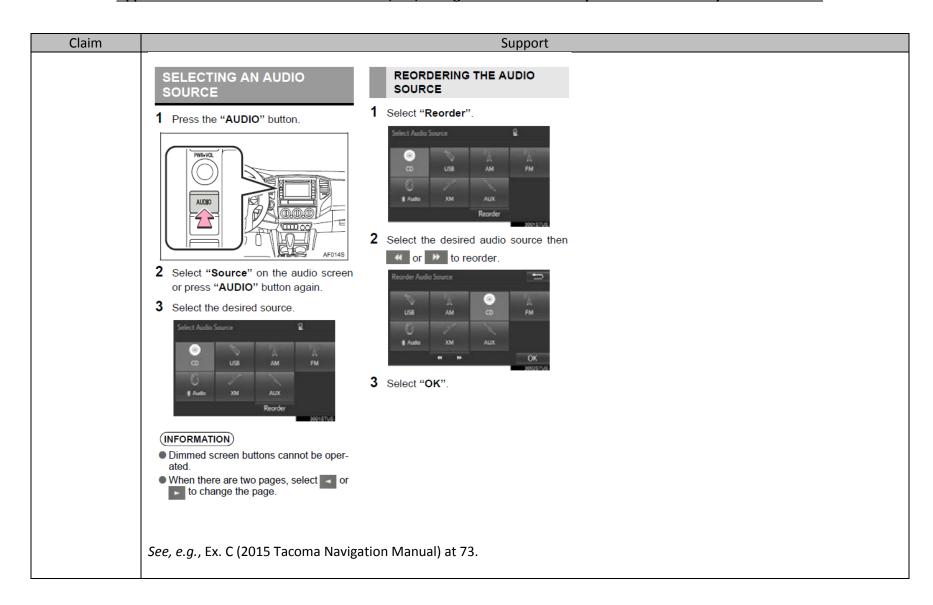
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 59 of 492 PageID #: 4668 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



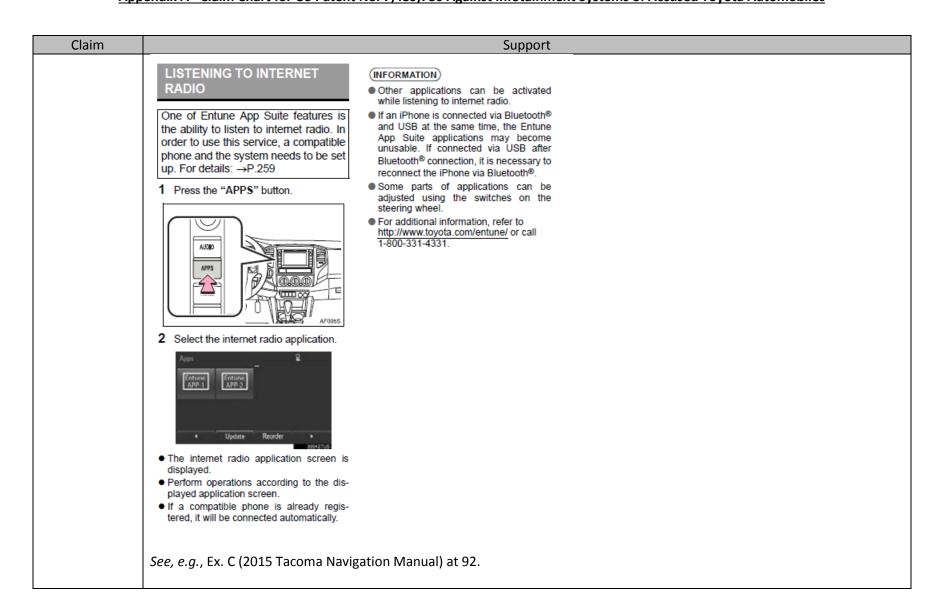
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 60 of 492 PageID #: 4669 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



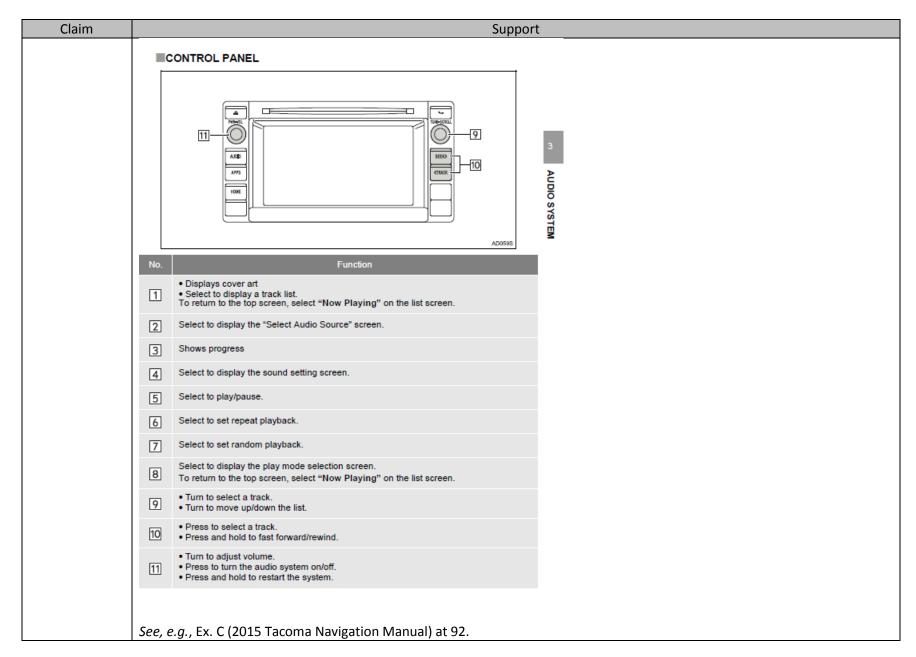
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 61 of 492 PageID #: 4670 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



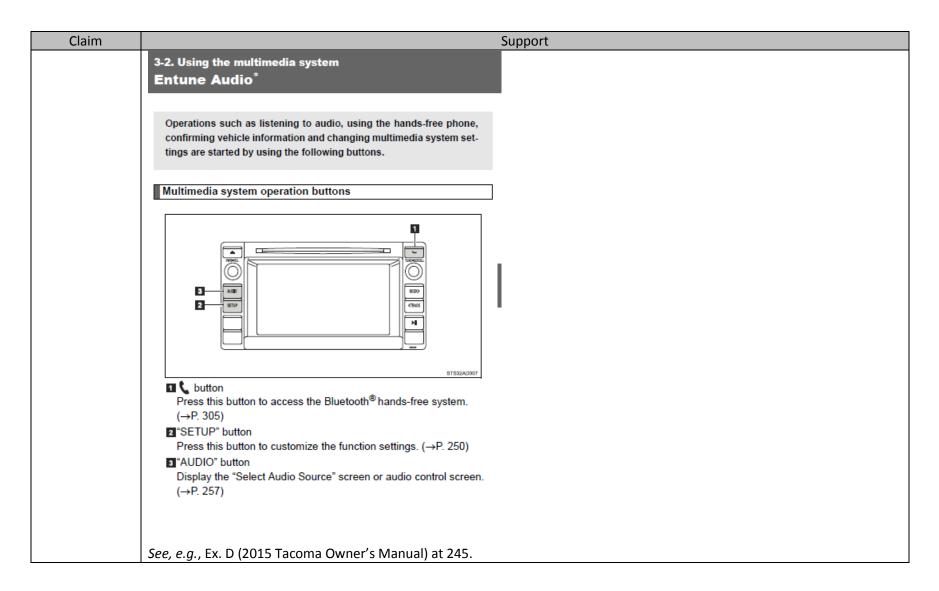
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 62 of 492 PageID #: 4671 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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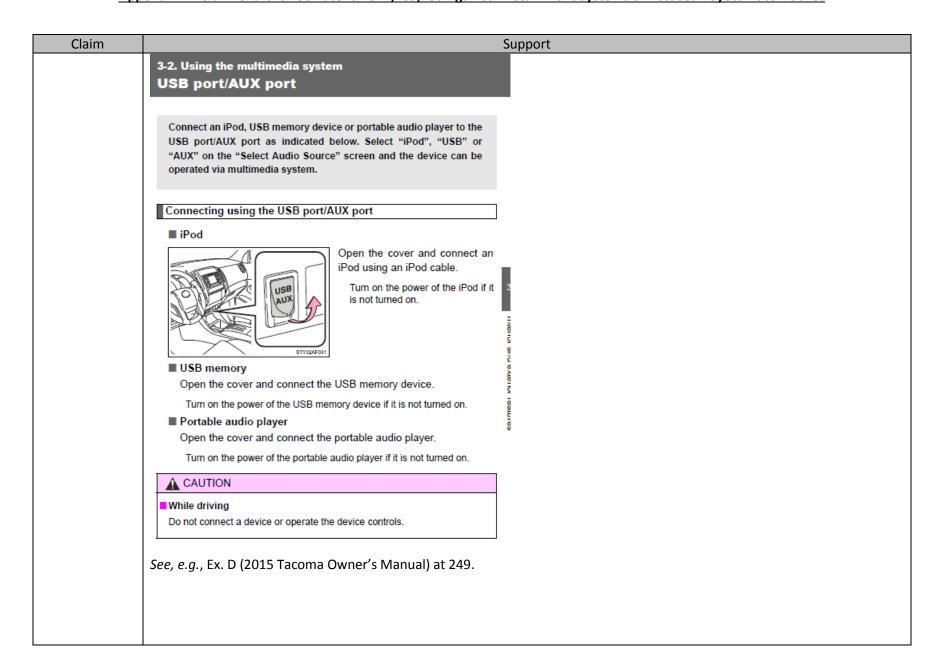
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 64 of 492 PageID #: 4673 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



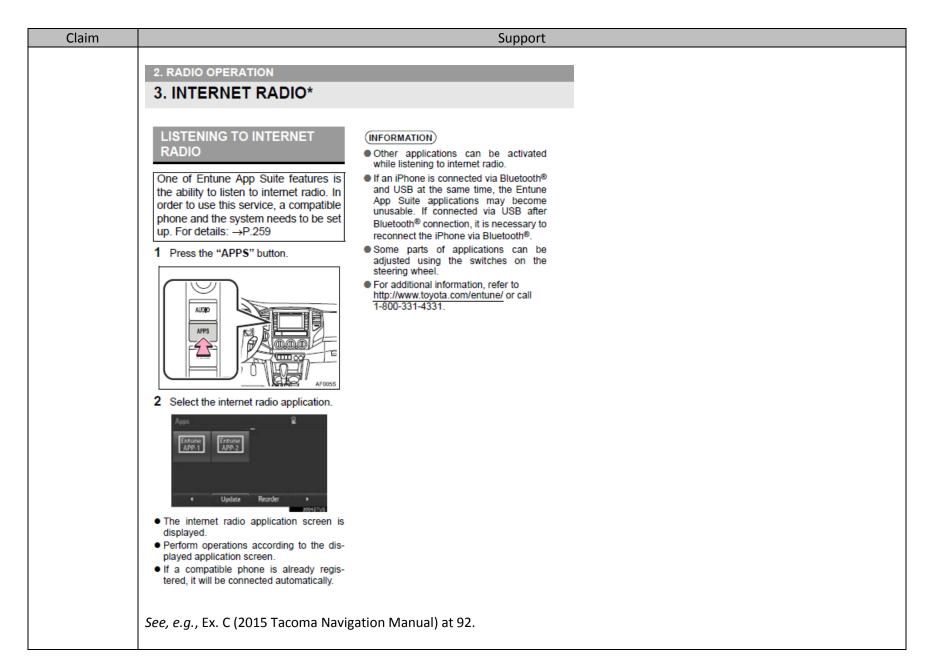
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 65 of 492 PageID #: 4674 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/AUX PORT         1 Open the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and connect a device.         Image: Comparison of the cover and cover and cover a device.         Image: Comparison of the cover and cover a device.         Image: Comparison of the cover and cover a device.         Image: Comparison of the cover a device.         Image: Cover a device.
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

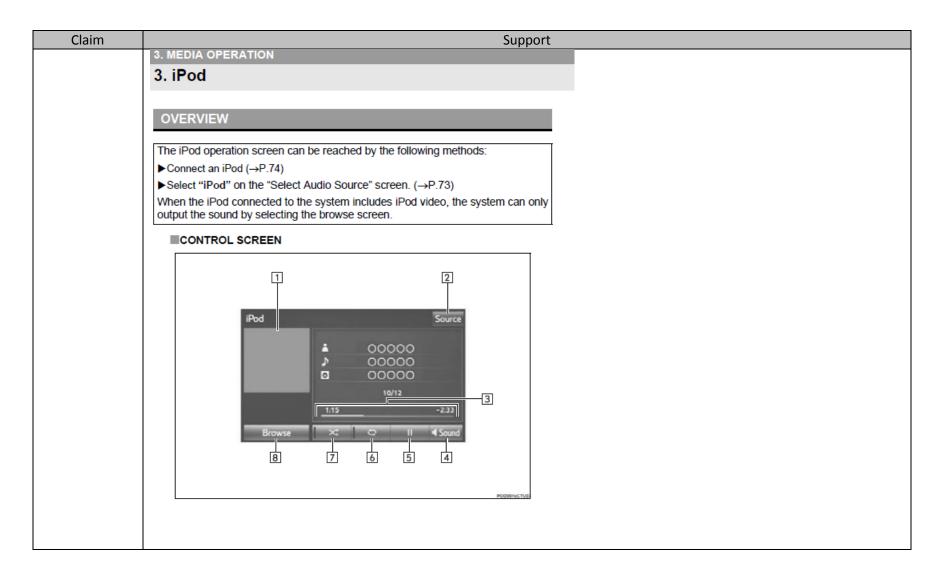
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 66 of 492 PageID #: 4675 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



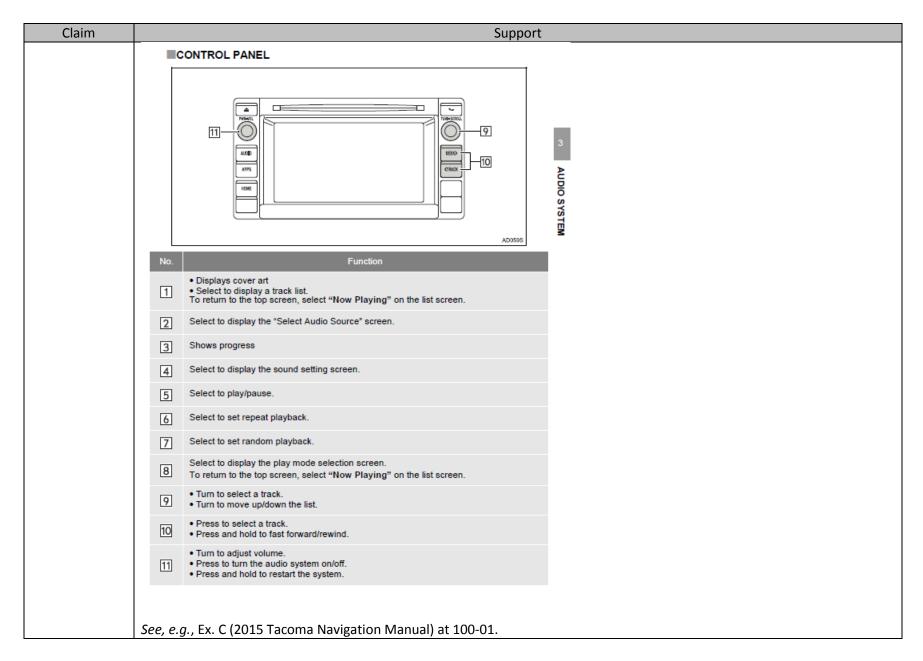
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 67 of 492 PageID #: 4676 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 68 of 492 PageID #: 4677 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 69 of 492 PageID #: 4678 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 70 of 492 PageID #: 4679 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	iPod Made for iPod iPhone
	<ul> <li>"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> </ul>
	<i>See, e.g.,</i> Ex. C (2015 Tacoma Navigation Manual) at 116.

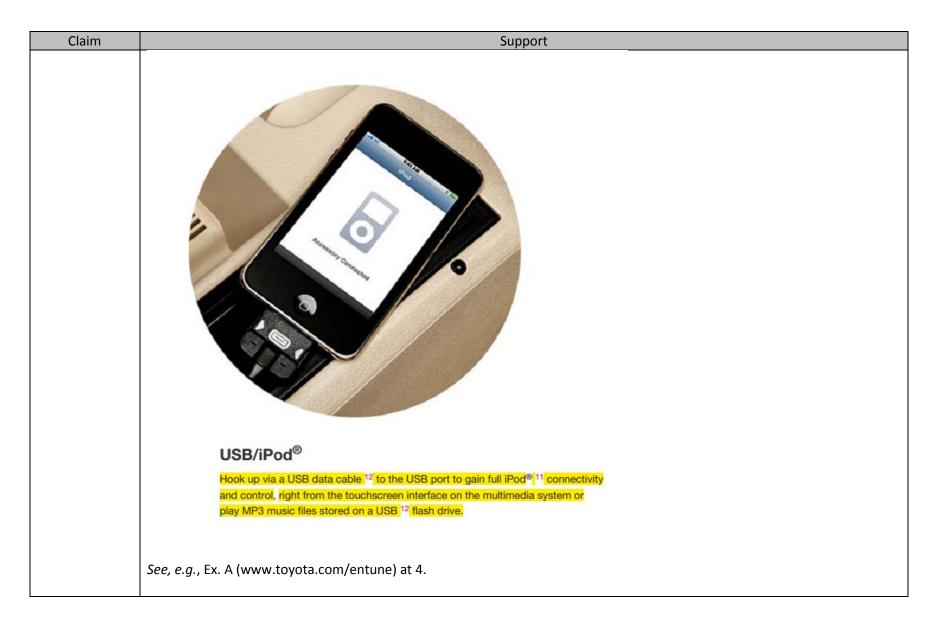
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 71 of 492 PageID #: 4680 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	COMPATIBLE MODELS
	The following iPod®, iPod nano®, iPod classic®, iPod touch <sup>®</sup> and iPhone <sup>®</sup> devic- es can be used with this system. Made for • iPod touch (5th generation) • iPod touch (4th generation) • iPod touch (2nd generation) • iPod touch (1st generation) • iPod touch (1st generation) • iPod classic • iPod vano (7th generation) • iPod nano (7th generation) • iPod nano (8th generation) • iPod nano (8th generation) • iPod nano (8th generation) • iPod nano (1st generation) • iPot nano (1st generation) • iPot nano (1st generation) • iPot nano (1st generation) • iPhone 4 • iPhone 4 • iPhone 3G • iPhone M • iPhone 3G • iPhone M
	might be incompatible with this system. See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 117.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 72 of 492 PageID #: 4681 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Sup	port
	Made for iPod iPhone	
	<ul> <li>"Made for iPod", "Made for iPhone" and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone or iPad may affect wireless performance.</li> <li>iPad, iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> <li><b>IPod cover art</b></li> <li>Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>This function can be changed to on/off. (→P. 253)</li> <li>It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>Only iPod cover art that is saved in JPEG format can be displayed.</li> </ul>	
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 271.	

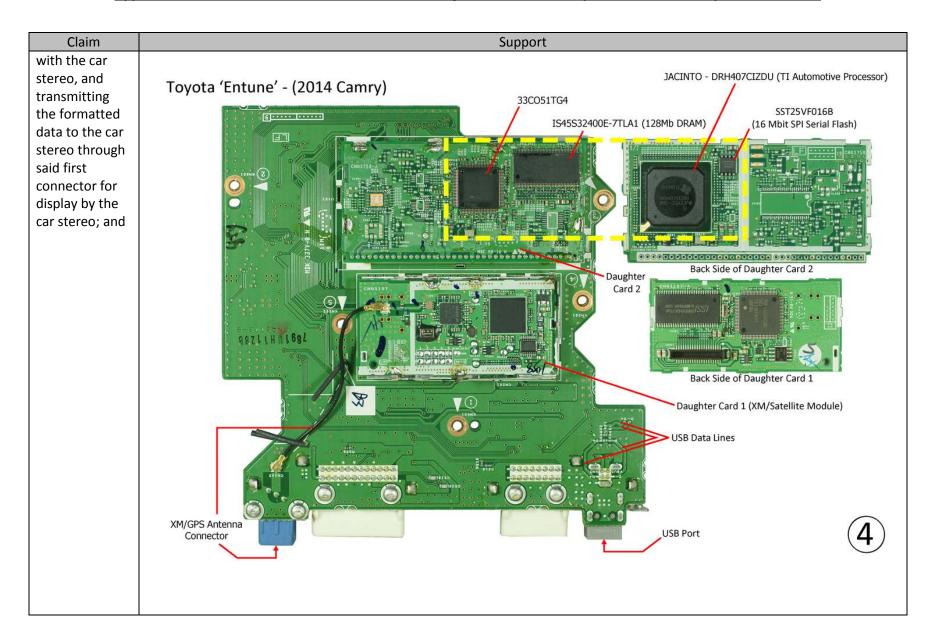
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 73 of 492 PageID #: 4682 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



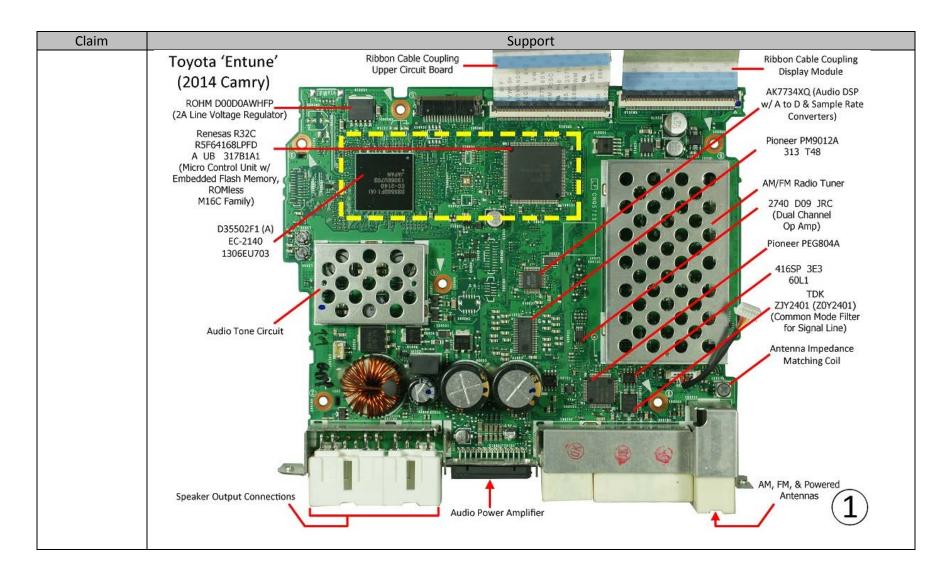
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 74 of 492 PageID #: 4683 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support	
	Play an iPod®	
	The title of the album and song you are currently listening to will be displayed, as well as the album art if available	
	1. Touch II to pause the track	
2. Touch > to resume playing the track		
3. Press and hold the A SEEK /V TRACK button to fast-forward or rewind. When you release the button, the player will		
	start playing from that position.	
	4. Press and release the A SEEK /V TRACK button to advance to the next track or go back to the previous track	
	<i>See, e.g.,</i> Ex. B (http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb-aux.html#!camry/2015) at 1.	
[1G] a second	The interface of each device integration system of the accused Toyota automobiles is pre-programed to execute "a second	
pre-	pre-programmed code portion for receiving data from the after-market audio device through said second connector in a	
programmed	format incompatible with the car stereo, processing the received data into formatted data compatible with the car stereo, and	
code portion	transmitting the formatted data to the car stereo through said first connector for display by the car stereo." More specifically,	
for receiving	in response to one or more formatted commands executed by the after-market audio device, the after-market audio device	
data from the	transmits data (such as audio, songs, album, track, cover art, genre and artist information) to the device integration system via	
after-market	the USB connector (i.e., the second connector). The data is then received by the interface of the device integration system	
audio device	(including at least the Renesas microcontroller), where the data is processed and converted using pre-programmed software	
through said	from a format incompatible with the car stereo and understandable and compatible with the after-market audio device (i.e.,	
second	USB and device-specific protocols understandable to the after-market audio device) into formatted data compatible with the	
connector in a	car stereo (i.e., formatted data understandable and compatible with the device integration system and associated Toyota	
format	protocols). The formatted data is then transmitted by the interface (including at least the Renesas microcontroller) to the car	
incompatible	stereo via the first connector for display by the car stereo. At least the Renesas microcontroller of the interface (and	
with the car	potentially other microcontrollers on one or more circuit boards of the device integration system) executes pre-programmed	
stereo,	code to perform at least a portion of these functions. It is believed that this code is stored in onboard flash and/or other	
processing the	memory modules (such as the Spansion flash memory module), and/or is contained within firmware elsewhere in the	
received data	interface (such as within the Renesas microcontroller itself).	
into formatted	For example, that Enture system undates may be downloaded from the interact. Coexides at	
data	For example, that Entune system updates may be downloaded from the Internet. <i>See</i> video at	
compatible	https://www.youtube.com/watch?v=KKcFqPYpI9M).	

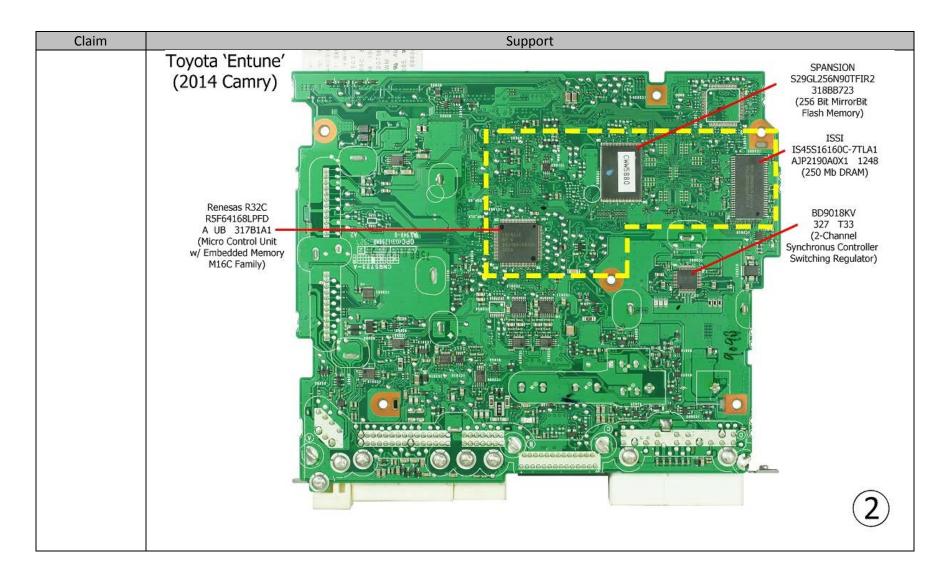
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 75 of 492 PageID #: 4684 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 77 of 492 PageID #: 4686 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



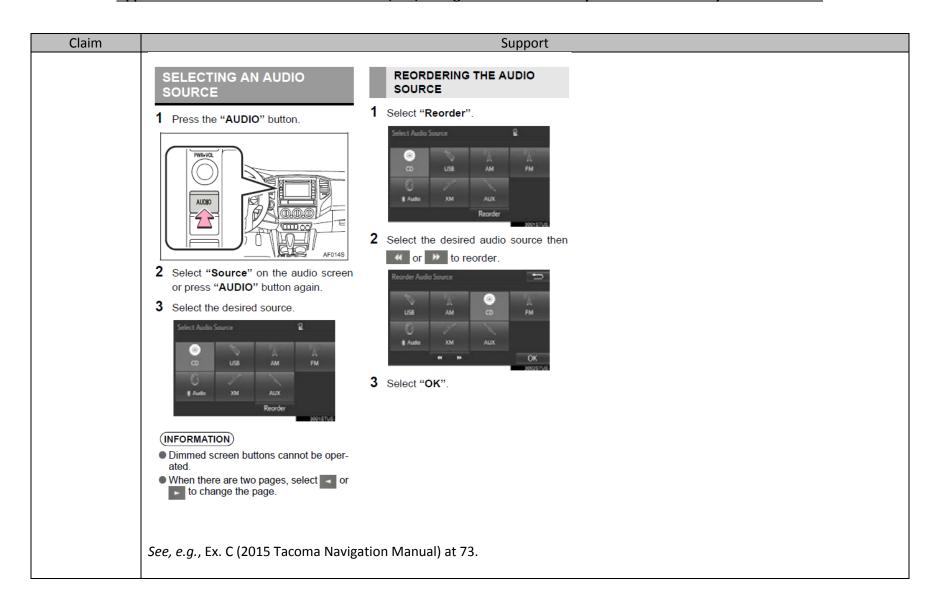
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 78 of 492 PageID #: 4687 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	PLAYING A USB AUDIO
	REPEATING
	The file/track or folder/album currently being listened to can be repeated.
	1 Select the repeat button to change on/ off.
	RANDOM ORDER
	Files/tracks or folders/albums can be automatically and randomly selected.
	1 Select the random button to change on/off.
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 99.

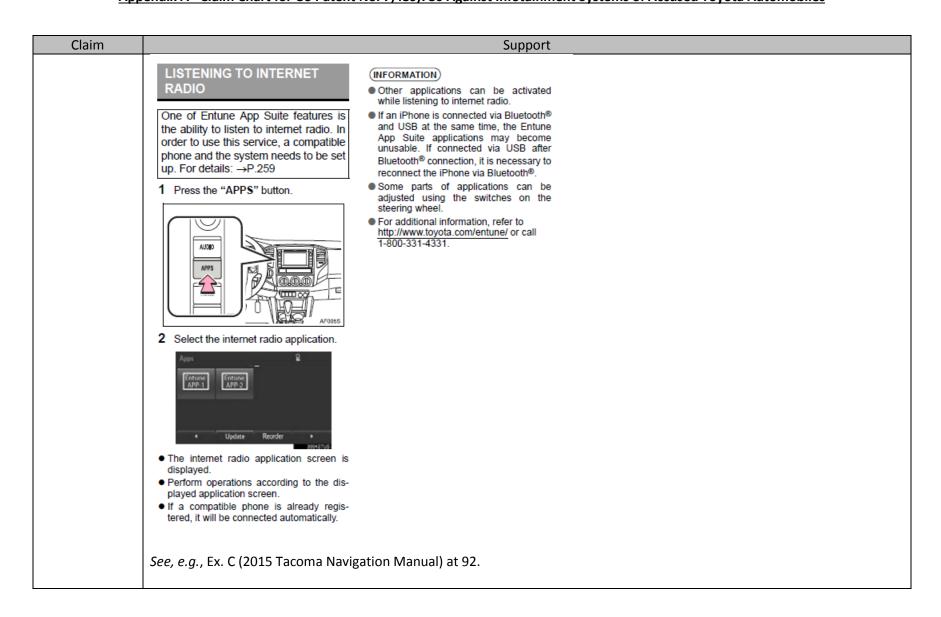
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 79 of 492 PageID #: 4688 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim		Support
	<ul> <li>Selecting a track/file/song fro</li> </ul>	m the track/file/song list
	STEP 1 Select "Browse" or cover	r art.
	STEP 2	Select the desired track/file/
	Folder Name – dsc2	RUUS SONG.
		or USB memory device is being used, /hen a Bluetooth <sup>®</sup> device or iPod is selected.
	According to the audio device, t	the following is displayed.
	Audio source	List name
	Audio CD	Track
	MP3/WMA/AAC disc, USB	Folder, File
	Bluetooth®	Album, Track
	iPod	Album, Song
	<i>See, e.g.,</i> Ex. D (2015 Tacoma	a Owner's Manual) at 259.

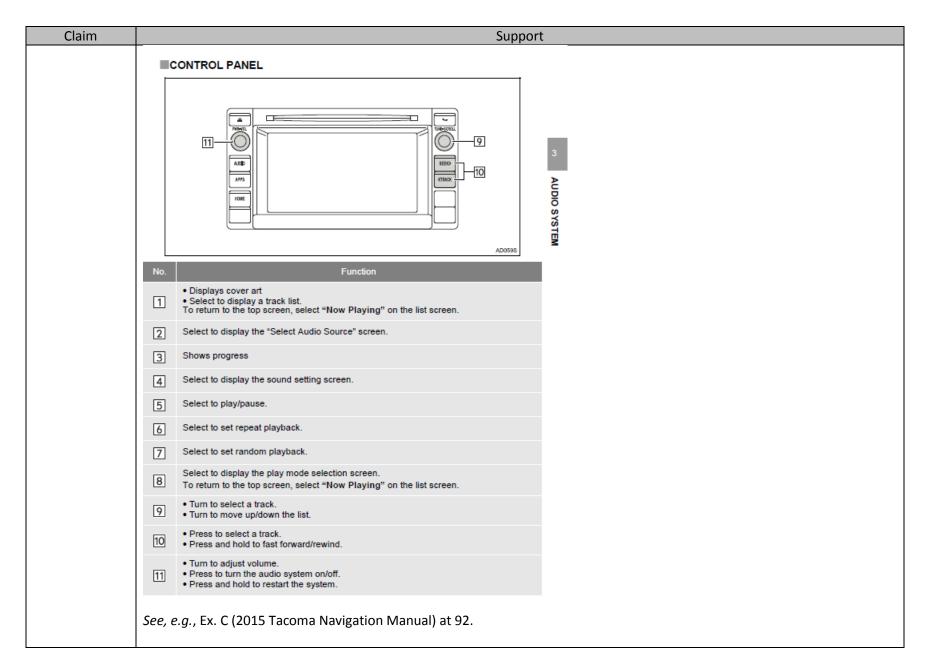
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 80 of 492 PageID #: 4689 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



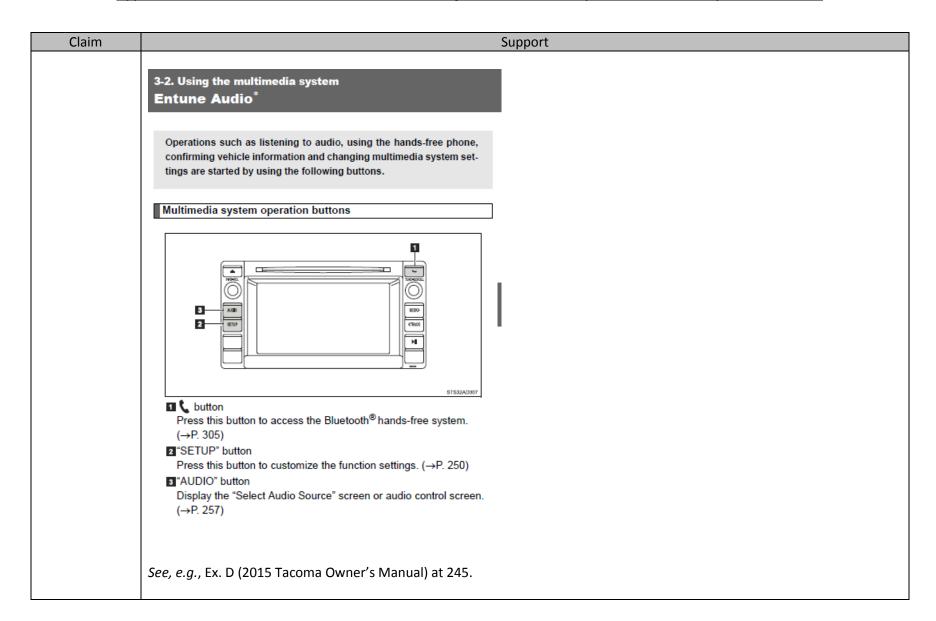
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 81 of 492 PageID #: 4690 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 82 of 492 PageID #: 4691 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



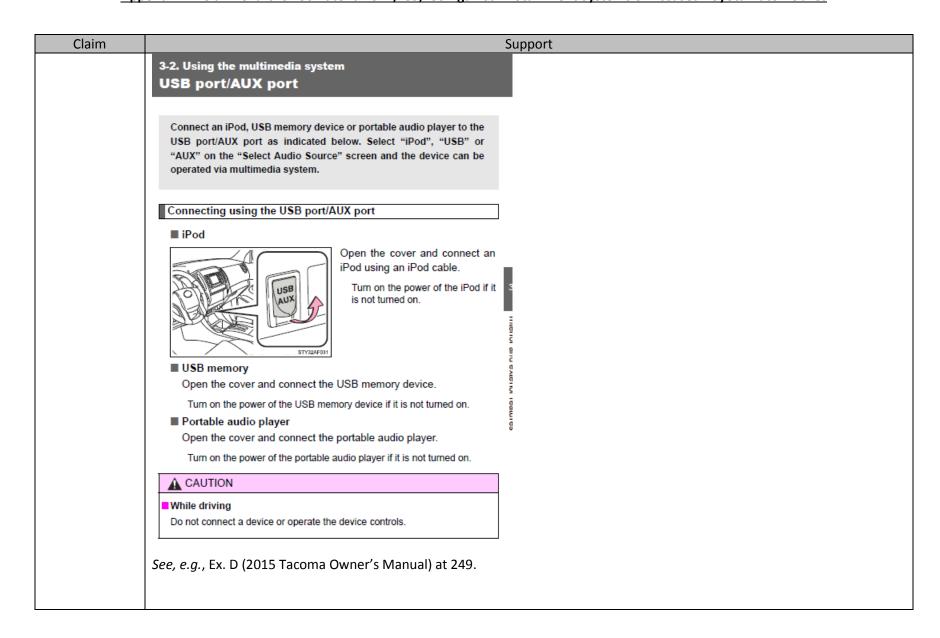
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 83 of 492 PageID #: 4692 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 84 of 492 PageID #: 4693 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

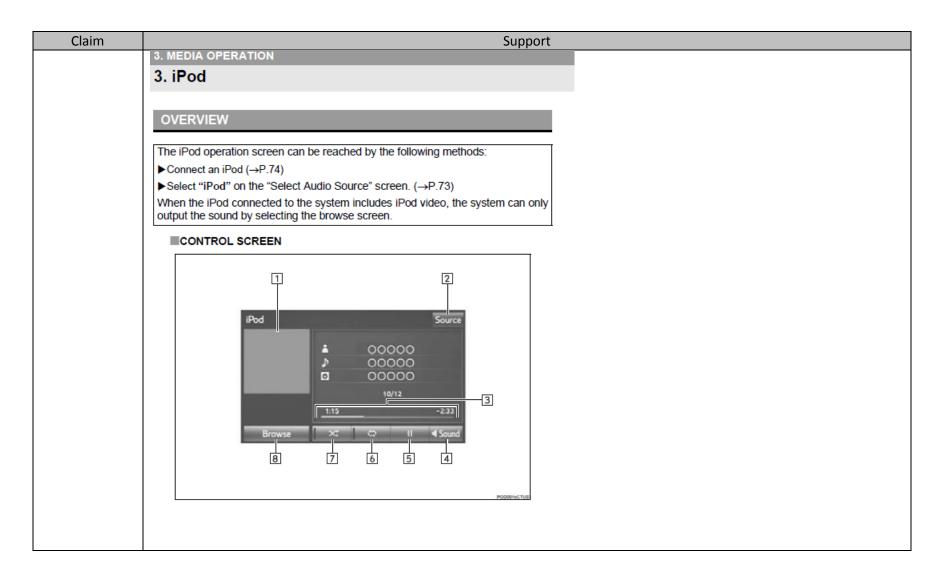
Claim	Support
	USB/AUX PORT         1 Open the cover and connect a device.         Image: Colspan="2">Image: Colspan="2" Image: Co
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 85 of 492 PageID #: 4694 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

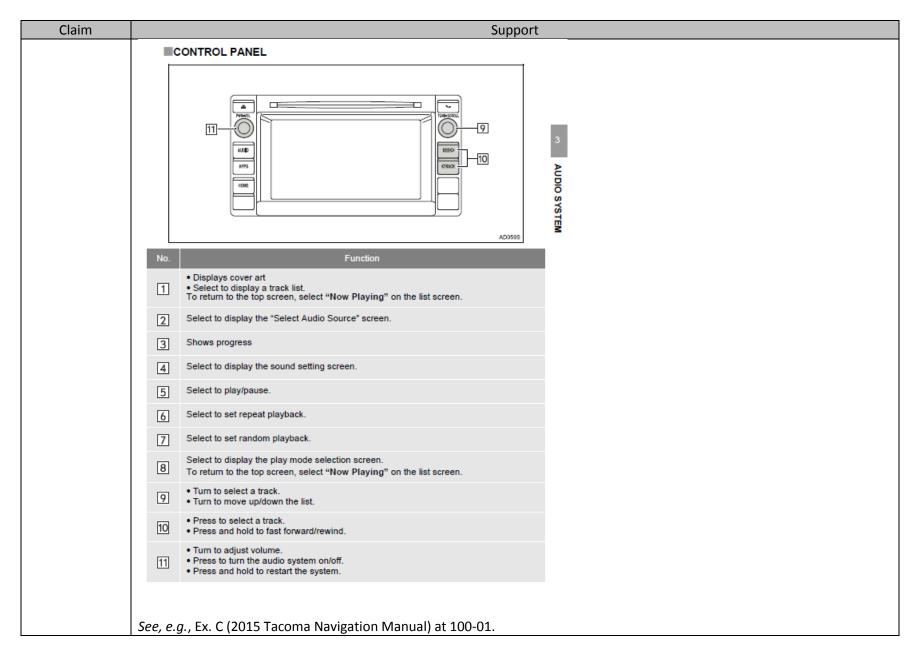


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# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 87 of 492 PageID #: 4696 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 88 of 492 PageID #: 4697 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 89 of 492 PageID #: 4698 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	iPod Made for iPod iPhone
	<ul> <li>"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> <li>See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 116.</li> </ul>

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n Support	
COMPATIBLE MODELS	
The following iPod®, iPod nano®, iPod classic®, iPod touch® and iPhone® devic- es can be used with this system. Made for	
See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 117.	
Clair	COMPATIBLE MODELS         The following iPod®, iPod nano®, iPod classic®, iPod touch® and iPhone® devices can be used with this system.         Made for       • iPod touch (5th generation)         • iPod touch (5th generation)       • iPod touch (3th generation)         • iPod touch (2nd generation)       • iPod touch (1st generation)         • iPod touch (1st generation)       • iPod touch (1st generation)         • iPod touch (7th generation)       • iPod nano (6th generation)         • iPod nano (6th generation)       • iPod nano (6th generation)         • iPod nano (5th generation)       • iPod nano (5th generation)         • iPod nano (1st generation)       • iPod nano (3th generation)         • iPod nano (1st generation)       • iPod nano (1st generation)         • iPod nano (1st generation)       • iPod nano (1st generation)         • iPod nano (1st generation)       • iPod nano (1st generation)         • iPod nano (1st generation)       • iPod nano (1st generation)         • iPone 4S       • iPhone 4S         • iPhone 3GS       • iPhone 3GS         • iPhone 3G       • iPhone 3G         • iPhone 3G       • iPhone         Depending on differences between models       might be incompatible with this system.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 91 of 492 PageID #: 4700 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support	
	About iPod Made for iPod iPhone	
	<ul> <li>"Made for iPod", "Made for iPhone" and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone or iPad may affect wireless performance.</li> <li>iPad, iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> <li>IPod cover art</li> <li>Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>This function can be changed to on/off. (→P. 253)</li> <li>It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>Only iPod cover art that is saved in JPEG format can be displayed.</li> </ul>	
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 271.	

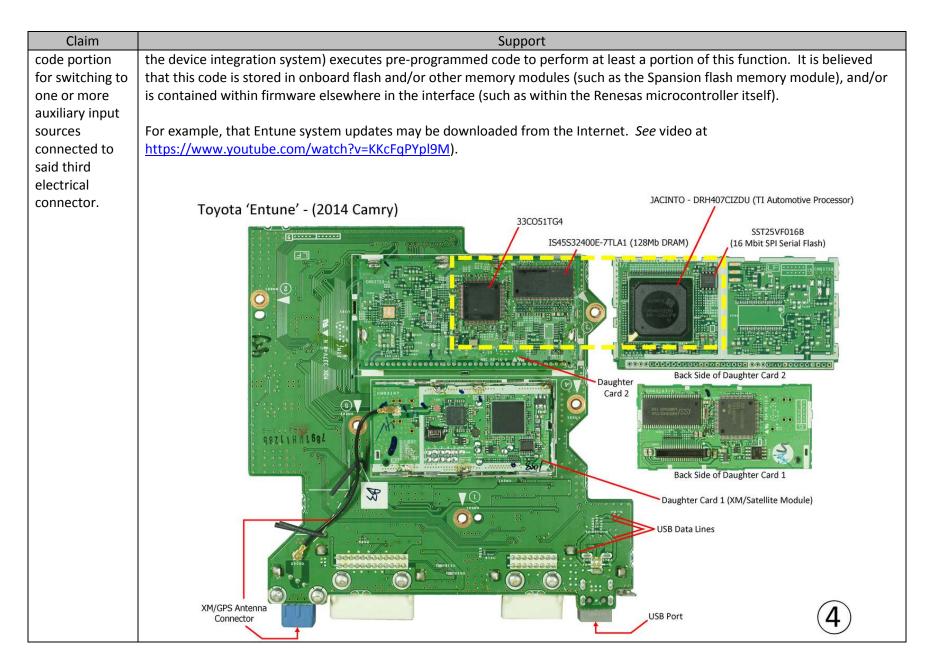
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 92 of 492 PageID #: 4701 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	Compatible models
	The following iPod <sup>®</sup> , iPod nano <sup>®</sup> , iPod classic <sup>®</sup> , iPod touch <sup>®</sup> and iPhone <sup>®</sup> devices can be used with this system.
	Made for
	<ul> <li>iPod touch (5th generation)</li> <li>iPod touch (4th generation)</li> <li>iPod touch (2nd generation)</li> <li>iPod touch (1st generation)</li> <li>iPod touch (1st generation)</li> <li>iPod classic</li> <li>iPod nano (7th generation)</li> <li>iPod nano (3th generation)</li> <li>iPod nano (1st generation)</li> <li>iPod nano (3th generation)</li></ul>
	<b>A</b> CAUTION
	While driving
	Do not connect an iPod or operate the controls.
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 274.

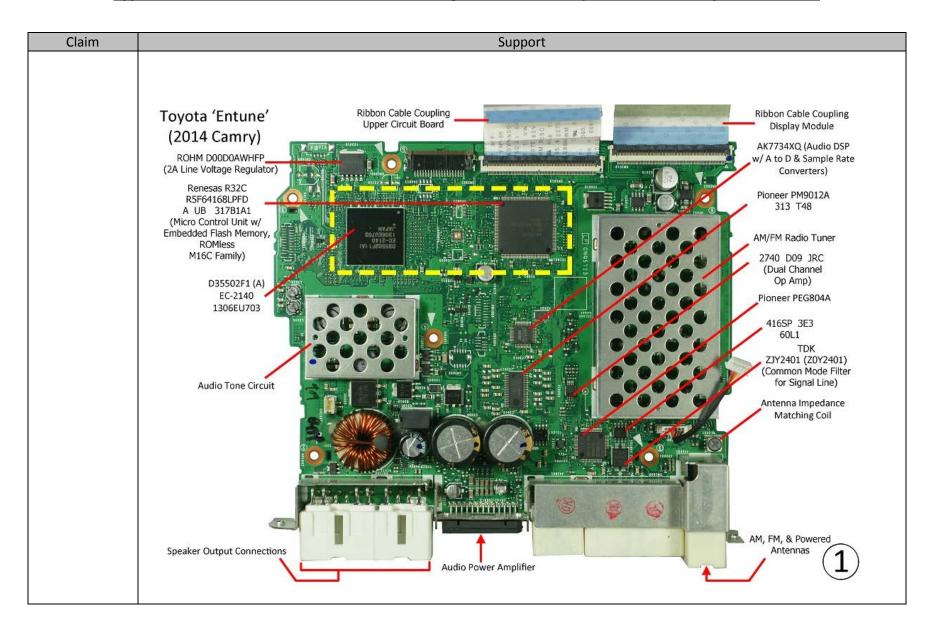
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 93 of 492 PageID #: 4702 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support	
	USB/iPod <sup>®</sup>	
	Hook up via a USB data cable <sup>12</sup> to the USB port to gain full iPod <sup>®</sup> <sup>11</sup> connectivity	
	and control, right from the touchscreen interface on the multimedia system or play MP3 music files stored on a USB <sup>12</sup> flash drive.	
	See, e.g., Ex. A (www.toyota.com/entune) at 4.	
[1H] a third	The interface of each device integration system of the accused Toyota automobiles is pre-programed to execute "a third pre-	
pre- programmed	programmed code portion for switching to one or more auxiliary input sources connected to said third electrical connector." At least the Renesas microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards of	

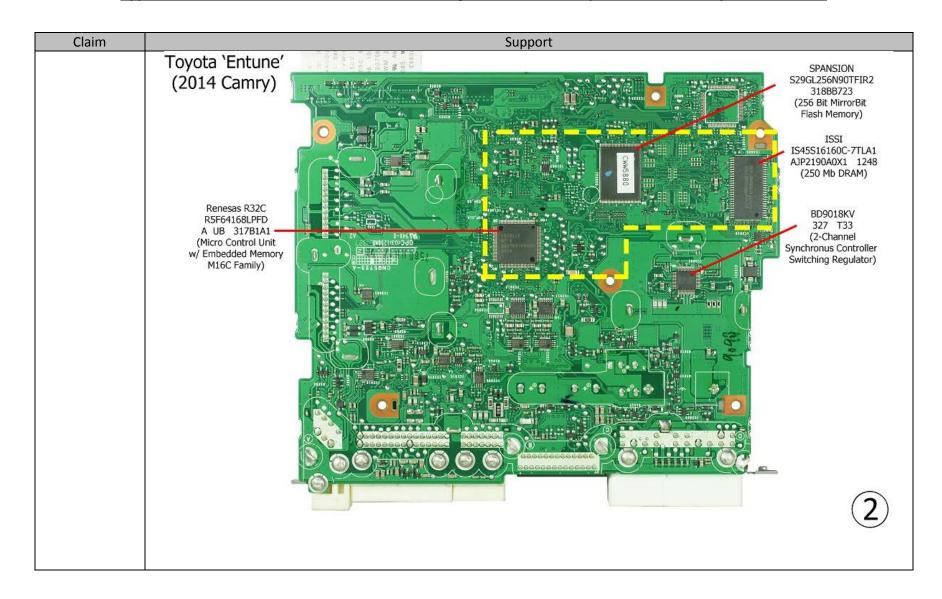
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 94 of 492 PageID #: 4703 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 95 of 492 PageID #: 4704 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



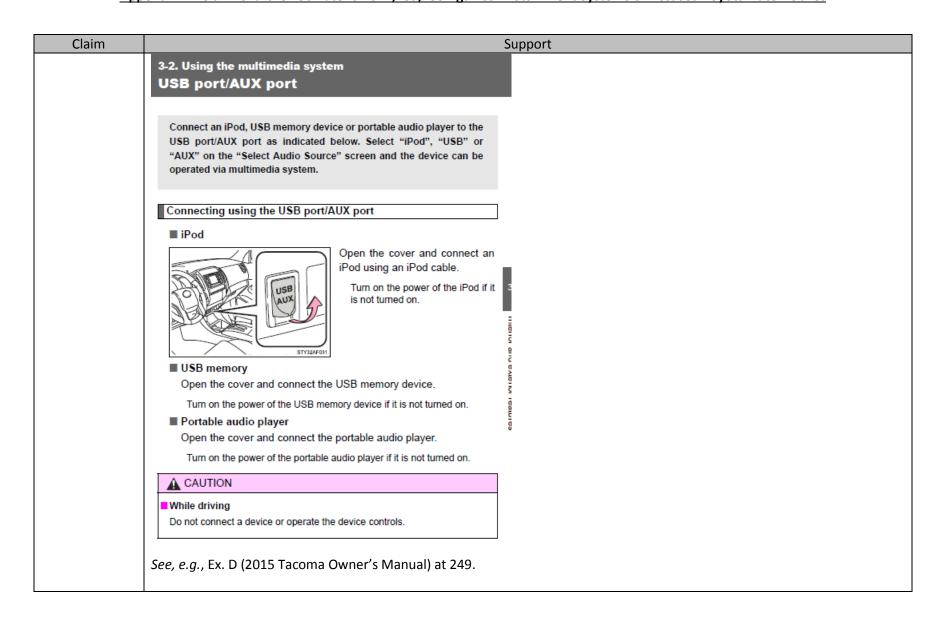
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 96 of 492 PageID #: 4705 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 97 of 492 PageID #: 4706 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/AUX PORT 1 Open the cover and connect a device.
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

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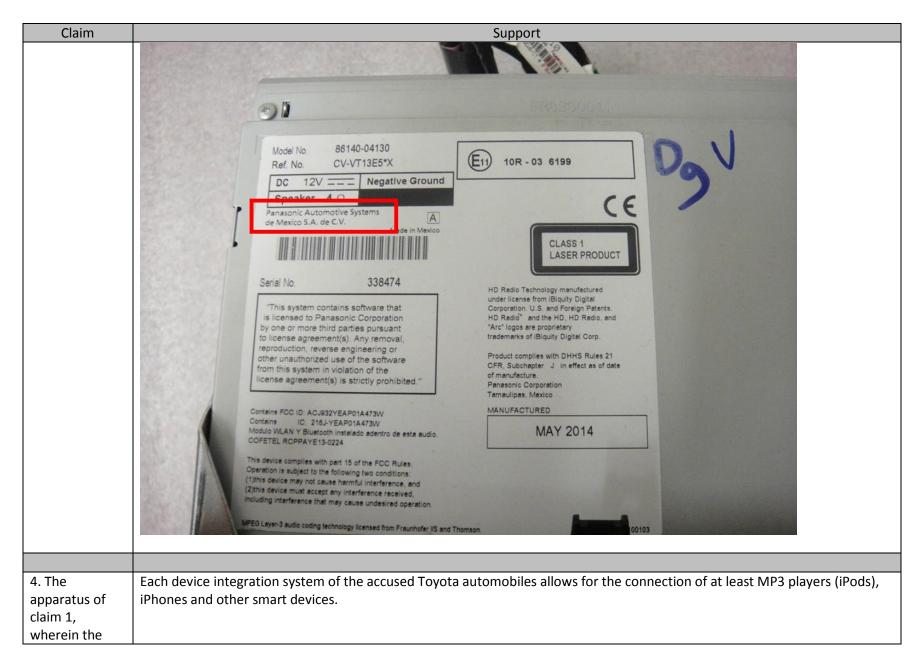
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 99 of 492 PageID #: 4708 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim		Support
	3-2. Using the multimedia system Using the AUX port	
	To use the AUX port, connect a portable player, then select "AUX" on the "Select Audio Source" screen.	
	Connecting a portable audio player →P. 249	
	<ul> <li>Operating portable audio players connected to the multimedia system The volume can be adjusted using the vehicle's audio controls. All other adjustments must be made on the portable audio player itself.</li> <li>When using a portable audio player connected to the power outlet Noise may occur during playback. Use the power source of the portable audio player.</li> </ul>	3
	CAUTION While driving Do not connect a portable audio player or operate the device controls.	erior and exterior teatures
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 281.	res

Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 100 of 492 PageID #: 4709 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support	
	Connect an Auxiliary Device	
	<ol> <li>Open the cover of the USB/AUX port and connect an auxiliary cable</li> <li>Music will play automatically when connected (Note: Ensure the device connected is in Play Mode)</li> <li>Or, touch Source or press Audio button</li> <li>Touch AUX on the screen</li> <li>Only the volume can be adjusted using the audio system controls. The remaining controls need to be operated on the portable audio device.</li> </ol>	
	<i>See, e.g.</i> , Ex. B (http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb- aux.html#!camry/2015) at 2.	
2. The apparatus of claim 1, wherein the car stereo further comprises an Original Equipment Manufacturer (OEM) car stereo connected to said first electrical connector.	The device integration systems of accused Toyota automobiles are manufactured for Toyota by at least Panasonic Automotive Systems.	

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## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 102 of 492 PageID #: 4711 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
after-market audio device further comprises a CD player, CD changer, MP3 player, Digital Audio Broadcast (DAB) receiver, or satellite receiver connected to said second electrical connector.	<ul> <li>iPod</li> <li>Made for iPod iPhone iPod iPhone iPod iPhone iPod iPhone iPod iPhone and that an electronic accessory has been designed to connect specifically to iPhod or iPhone respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with Pod or iPhone may affect wireless performance. Phone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc. See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 116.</li></ul>

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Claim	Su	ipport
	Made for iPod iPhone	
	<ul> <li>"Made for iPod", "Made for iPhone" and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone or iPad may affect wireless performance.</li> <li>iPad, iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> <li><b>IPod cover art</b></li> <li>Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>This function can be changed to on/off. (→P. 253)</li> <li>It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>Only iPod cover art that is saved in JPEG format can be displayed.</li> </ul>	3 Interior and exterior features
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 271.	

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Claim	Support	
	Compatible models	
	The following iPod <sup>®</sup> , iPod nano <sup>®</sup> , iPod classic <sup>®</sup> , iPod touch <sup>®</sup> and iPhone <sup>®</sup> devices can be used with this system.	
	Made for	
	<ul> <li>iPod touch (5th generation)</li> <li>iPod touch (4th generation)</li> <li>iPod touch (2nd generation)</li> <li>iPod touch (1st generation)</li> <li>iPod touch (1st generation)</li> <li>iPod vith video</li> <li>iPod nano (7th generation)</li> <li>iPod nano (7th generation)</li> <li>iPod nano (5th generation)</li> <li>iPod nano (5th generation)</li> <li>iPod nano (5th generation)</li> <li>iPod nano (5th generation)</li> <li>iPod nano (1st generation)</li> <li>iPhone 4S</li> <li>iPhone 4S</li> <li>iPhone 3G</li> <li>iPhone 3G</li> <li>iPhone</li> </ul> Depending on differences between models or software versions etc., some models might be incompatible with this system.	
	<b>A</b> CAUTION	
	While driving	
	Do not connect an iPod or operate the controls.	
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 274.	
	Fach device interaction system of the approad Taylote system of the includes a plug and play module that a taylot it. It detects	
5. The	Each device integration system of the accused Toyota automobiles includes a plug-and-play module that automatically detects	
apparatus of	whether an iPhone/iPod or Android-powered device is attached to the USB port. For example, through Apple's MFi Program,	
claim 1,	third party-accessories, such as the device integration systems of the accused Toyota automobiles, are licensed to connect	
wherein said	electronically to Apple devices such as the iPhone and iPod. See, e.g., https://mfi.apple.com/MFiWeb/getFAQ.action. Apple	
interface	provides a framework for communications between Apple devices and third-party accessories, such as the device integration	

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further       systems of the accused Toyota automobiles, which includes the requirement that the third-party accessory includes decode communications between the accessory and a device that has identified itself as an iPod or iPhone. See, e.g., http://www.objectpartners.com/2010/09/14/communicating-with-external-devices-from-the-iphone-and-ipad/.         Similarly, android provides tools for connecting Android-powered devices to third-party accessories using a USB con including a means for providing a notification that an Android-powered device is connected to the accessory. See, e thtp://developer.android.com/guide/topics/connectivity/usb/accessory.html.         The specific manner in which the interface implements the plug-and-play mode of this claim will be ascertainable by the source code of the interface in the accused Toyota automobiles.         (INFORMATION)         The system can only output the sound while driving.         Opeending on the iPod and the songs in the iPod cable, the iPod starts charging its battery.         Depending on the iPod may not be operated while the cover art display iPod cover art, and the iPod may not be operated while the cover art display is in process.         Obeending on the iPod that is connected to the system, certain functions may not be available.         Order type.         If a iPhone is connected via Bluetooth® and USB at the same time, refer to <a href="http://www.loyota.com/entune/">http://</a> .         See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 102.	nection,

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Claim	Support	
	<ul> <li>■iPod functions</li> <li>●When an iPod is connected and the audio source is changed to iPod mode, the iPod will resume play from the same point in which it was last used.</li> <li>●Depending on the iPod that is connected to the system, certain functions may not be available. If a function is unavailable due to a malfunction (as opposed to a system specification), disconnecting the device and reconnecting it may resolve the problem.</li> <li>●While connected to the system, the iPod cannot be operated with its own controls. It is necessary to use the controls of the vehicle's multimedia system instead.</li> <li>●When the battery level of an iPod is very low, the iPod may not operate. If so, charge the iPod before use.</li> <li>●Compatible models (→P. 274)</li> <li>■iPod problems</li> <li>To resolve most problems encountered when using your iPod, disconnect your iPod from the vehicle iPod connection and reset it. For instructions on how to reset your iPod, refer to your iPod Owner's Manual.</li> <li>See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 272.</li> <li>See also "How-To: Connect iPod® with Entune® App Suite   Toyota": https://www.youtube.com/watch?v=Ym-Wir32ELs (see, e.g., "iPod" wording and art in upper left hand corner of video, demonstrating that the system can detect when an iPod is connected).</li> </ul>	
6. The apparatus of claim 1, wherein said interface generates a	The interface of the device integration system of each accused Toyota automobile includes a device presence signal that "maintain[s] the car stereo in an operational state responsive to processed data and audio signals." Specifically, when an after-market audio device is plugged into the USB port that is connected to the USB connector in the device integration system (i.e., the second electrical connector), a graphic appears indicating that a compatible device is connected and recognized. Once a compatible portable device is connected and recognized, the interface of the device integration system maintains the car stereo in a state responsive to processed data and audio signals from the portable device.	

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Claim	Support
device presence signal for maintaining the car stereo in a state responsive to processed data and audio signals.	The device presence signal is generated when at least the Renesas microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards of the device integration system) executes pre-programmed code stored in onboard flash and/or other memory modules (such as the Spansion flash memory module), and/or within firmware elsewhere in the interface (such as within the Renesas microcontroller itself). The specific manner in which the interface implements the device presence signal of this claim will be ascertainable by reviewing the source code of the interface in the accused Toyota automobiles. See e.g., Toyota USB-iPod video: https://www.youtube.com/watch?v=CwRYEJYiGWw. See e.g., Toyota Entune Display Audio video: https://www.youtube.com/watch?v=MuCAxLDUsi8
7. The apparatus of claim 1,	Each device integration system of the accused Toyota automobiles displays the track and time information of songs being played from a connected after-market audio device.
wherein said second pre- programmed code portion processes data generated by the after- market audio	<ul> <li>MP3 files are compatible with the ID3 Tag Ver. 1.0, Ver. 1.1, Ver. 2.2 and Ver. 2.3 for- mats. This system cannot display disc title, track title and artist name in other for- mats.</li> <li>WMA/AAC files can contain a WMA/AAC tag that is used in the same way as an ID3 tag. WMA/AAC tags carry information</li> </ul>
device including track and time information.	such as track title and artist name. • The emphasis function is available only See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 118.

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Claim			Support
	<ul> <li>Selecting a track/file/song from the selecting a track/file/song from the selecting at track file selection at the selection of the selection at t</li></ul>	ne track/file/song list	
	STEP 1 Select "Browse" or cover an	t.	
	STEP 2 Foder Name - dsc2 Radom ± 01.XXXXXXXXXXXXXXXXXXXX 02. 03. 04. Folder Lot: Now Playing CTHDAA0021US	Select the desired track/file/ song.	
	When an MP3/WMA/AAC disc or U the folder can be selected. When being used, the album can be selec	a Bluetooth <sup>®</sup> device or iPod is	
	According to the audio device, the t		Interior and exterior features
	Audio source	List name	or an
	Audio CD	Track	d ex
	MP3/WMA/AAC disc, USB Bluetooth®	Folder, File	erior
	iPod	Album, Track Album, Song	feat
	<i>See, e.g.,</i> Ex. D (2015 Tacoma C <i>See, e.g,.</i> Toyota USB-iPod vide		om/watch?v=CwRYEJYiGWw (showing track and track time).
8. The apparatus of claim 1, wherein said second pre- programmed code portion	Each device integration system played from a connected after-	•	omobiles displays the track and time information of songs being

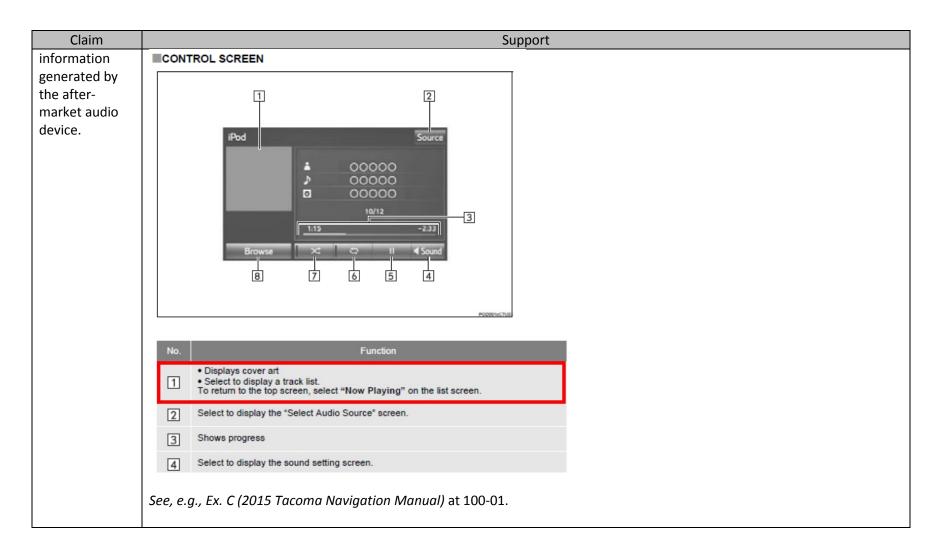
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Claim	Support
processes data	<ul> <li>MP3 files are compatible with the ID3 Tag</li></ul>
generated by	Ver. 1.0, Ver. 1.1, Ver. 2.2 and Ver. 2.3 for-
the after-	mats. This system cannot display disc
market audio	title, track title and artist name in other for-
device	mats. <li>WMA/AAC files can contain a WMA/AAC</li>
including song	tag that is used in the same way as an ID3
title and artist	tag. WMA/AAC tags carry information
information.	such as track title and artist name. <li>The emphasis function is available only</li> <li>See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 118.</li>

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			Support
Claim			Support
	Selecting a track/file/song from t	-	
	STEP 1 Select "Browse" or cover an		
	STEP 2 Folder Name - disc2 Random ofLXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Select the desired track/file/ song.	
	When an MP3/WMA/AAC disc or U		
	the folder can be selected. When being used, the album can be sele		3
	According to the audio device, the		5
	_		Interior and exterior features
	Audio source Audio CD	List name	r and
	MP3/WMA/AAC disc, USB	Track Folder, File	exte
	Bluetooth®	Album, Track	
	iPod	Album, Song	eatu
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 259. See, e.g., Toyota USB-iPod video: <u>https://www.youtube.com/watch?v=CwRYEJYiGWw</u> (showing song title and song information).		
10 The	Fach device internetion	of the second Terret sector	
10. The	Each device integration system of the accused Toyota automobiles displays video information, such as cover art, generated by		
apparatus of claim 1,	a connected after-market audio device.		
wherein said			
interface			
processes video			
processes video			

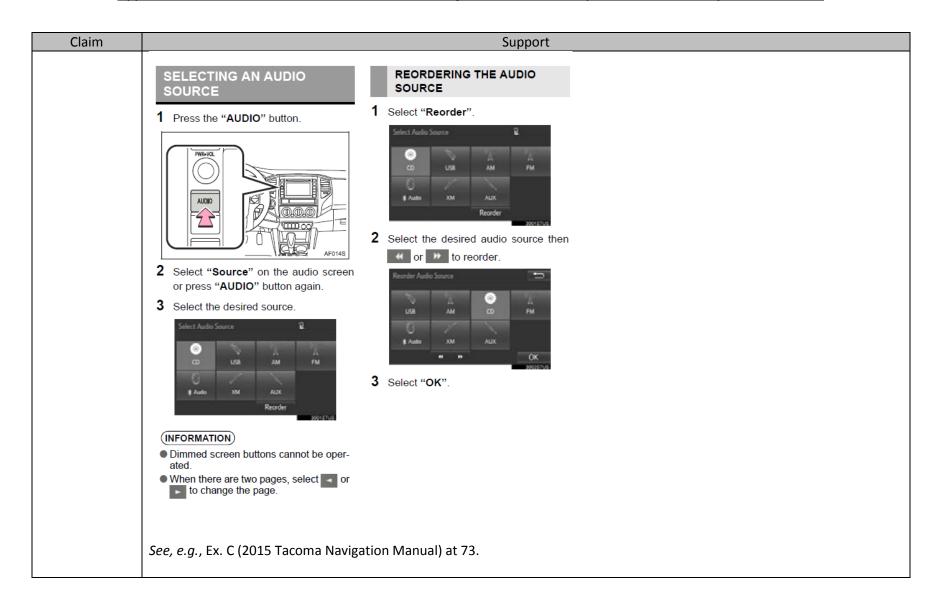
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 112 of 492 PageID #: 4721 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



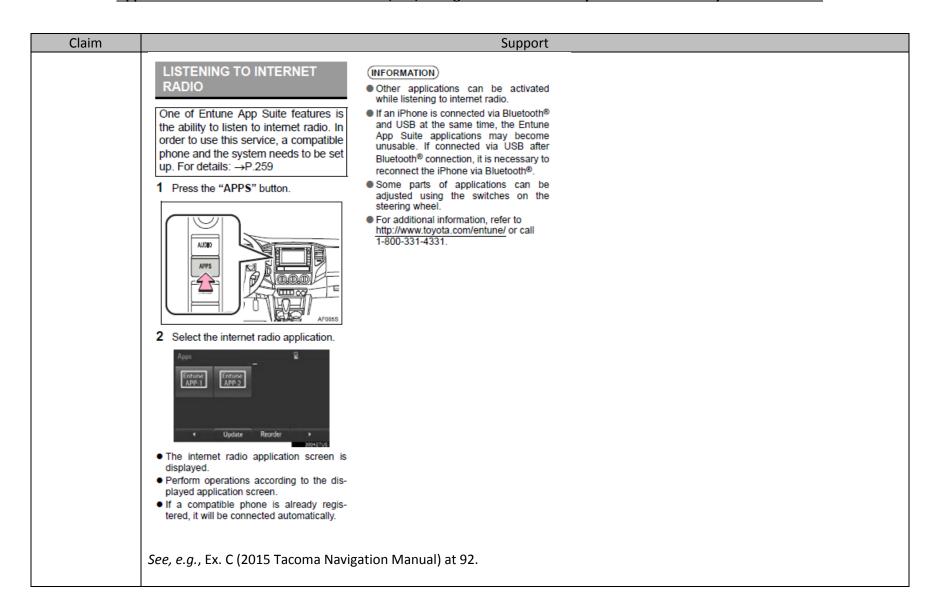
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 113 of 492 PageID #: 4722 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support		
	Audio control screen		
	Selecting a play mode		
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 270.		
	See e.g. Toyota USB-iPod video (showing cover art): <u>https://www.youtube.com/watch?v=CwRYEJYiGWw</u> .		
	See e.g. Toyota Entune Display Audio video (showing cover art): <u>https://www.youtube.com/watch?v=MuCAxLDUsi8</u>		
13. The apparatus of claim 1, wherein commands are input by a user using one or more control buttons or presets on the	Each device integration system of the accused Toyota automobiles allows a user to control a connected after-market audio device via switches, presets, buttons and virtual controls displayed on a screen of the car stereo.		

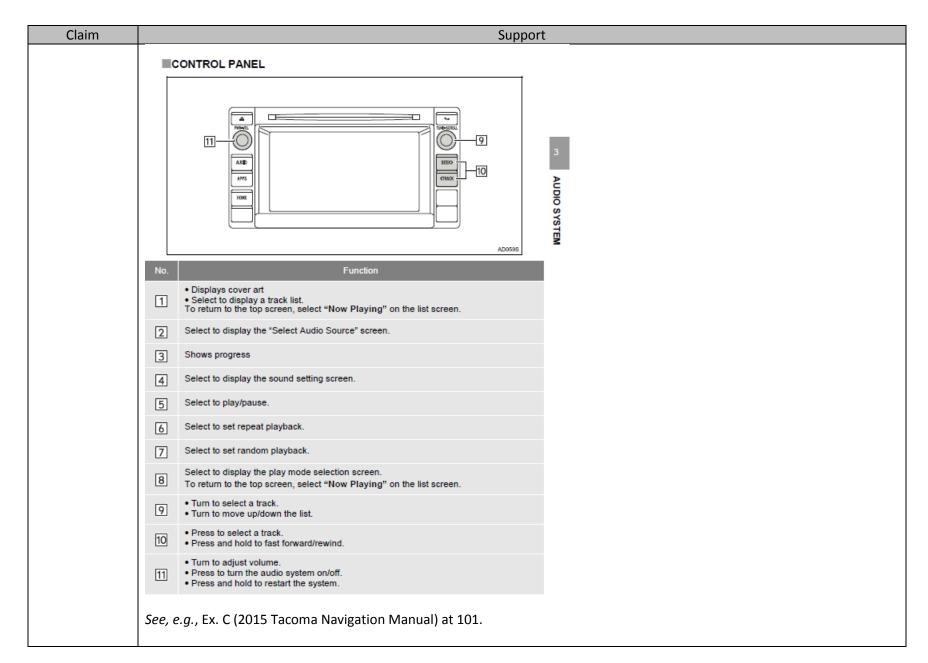
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 114 of 492 PageID #: 4723 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



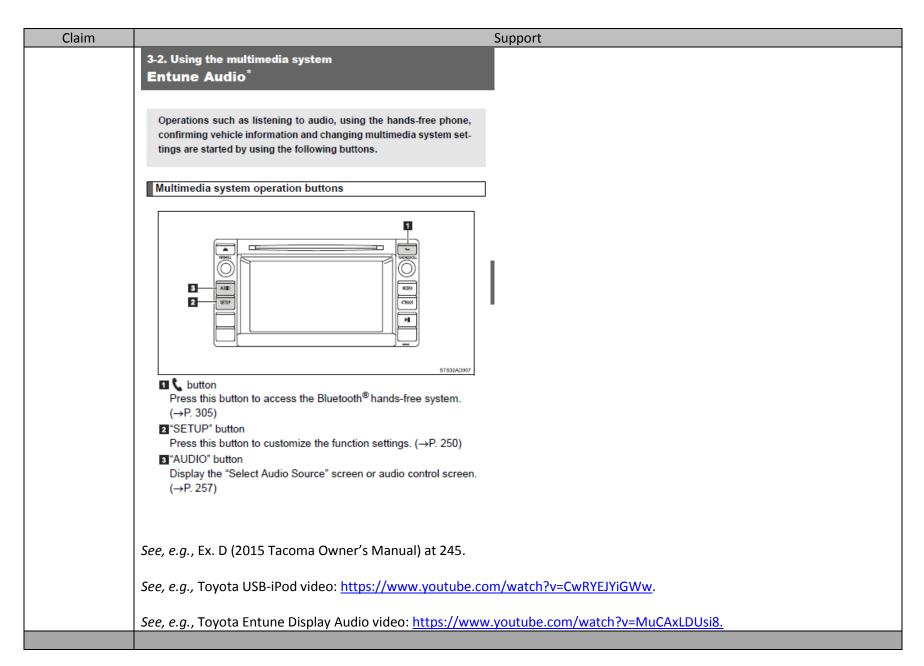
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 115 of 492 PageID #: 4724 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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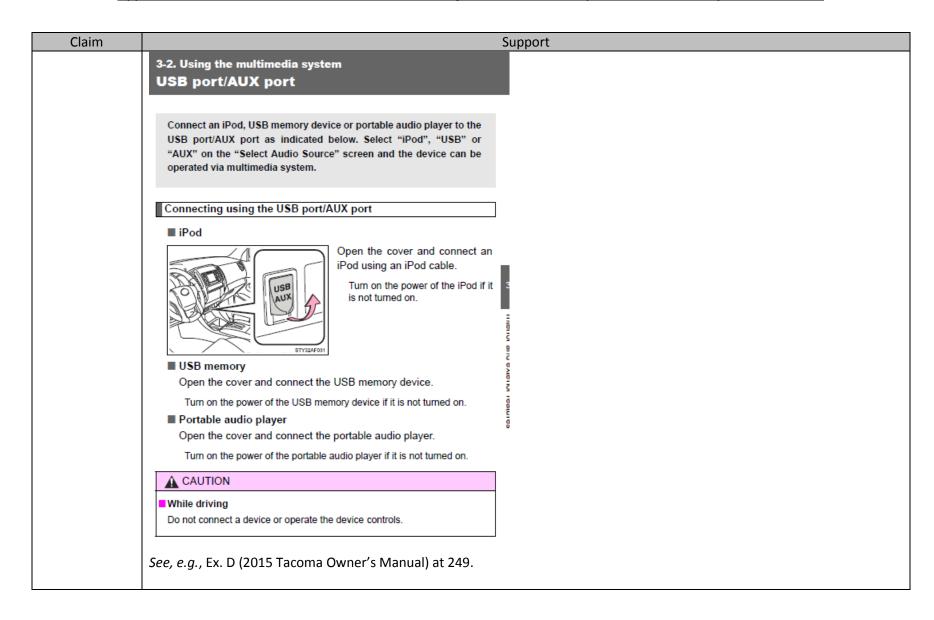
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 118 of 492 PageID #: 4727 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
14. The	Each device integration system of the accused Toyota automobiles also allows for various input sources to be connected to ar
apparatus of	auxiliary input electrical connector and played through the car speakers.
claim 1,	
wherein audio	
signals from the	Connect an Auxiliary Device
one or more	
auxiliary input	1. Open the cover of the USB/AUX port and connect an auxiliary cable
sources are	2. Music will play automatically when connected (Note: Ensure the device connected is in Play Mode)
selectively	3. Or, touch <b>Source</b> or press <b>Audio</b> button
channeled to	4. Touch <b>AUX</b> on the screen
the car stereo	<ol> <li>Only the volume can be adjusted using the audio system controls. The remaining controls need to be operated on the portable audio device.</li> </ol>
by said	portable audio device.
interface.	
	See, e.g., Ex. B (http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb- aux.html#!camry/2015) at 2.
	USB/AUX PORT
	1 Open the cover and connect a device.

See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

turned on.

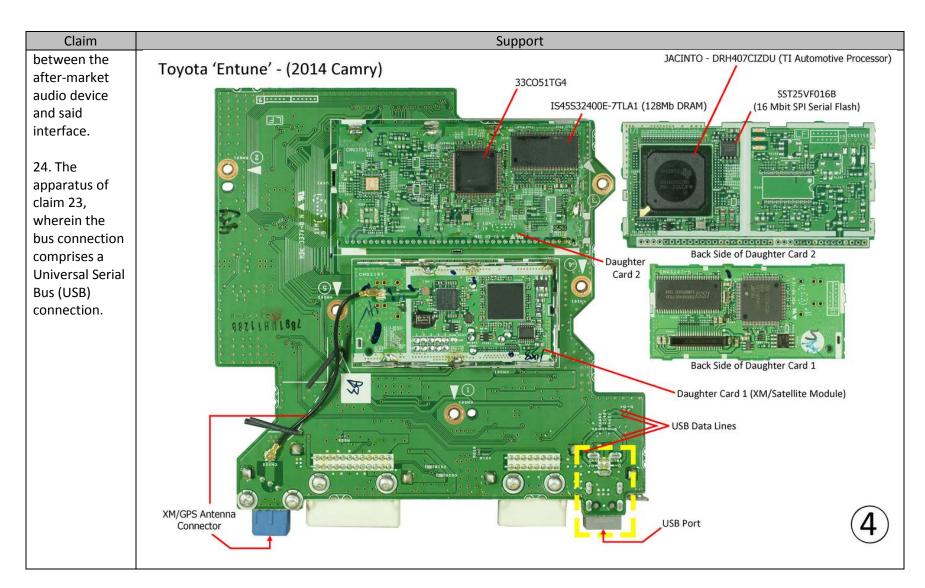
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 119 of 492 PageID #: 4728 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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Claim	Support	
	3-2. Using the multimedia system Using the AUX port	
	To use the AUX port, connect a portable player, then select "AUX" on the "Select Audio Source" screen.	
	Connecting a portable audio player	
	→P. 249	
	<ul> <li>Operating portable audio players connected to the multimedia system         The volume can be adjusted using the vehicle's audio controls. All other         adjustments must be made on the portable audio player itself.     </li> <li>When using a portable audio player connected to the power outlet         Noise may occur during playback. Use the power source of the portable         audio player.     </li> <li>CAUTION</li> </ul>	
	While driving Do not connect a portable audio player or operate the device controls.	
	See, e.g., Ex. D (2015 Tacoma Owner's Manual) at 281. See, e.g., Toyota USB-iPod video (showing USB and auxiliary ports): <u>https://www.youtube.com/watch?v=CwRYEJYiGWw.</u>	
23. The apparatus of claim 1, further comprising a bus connection established		

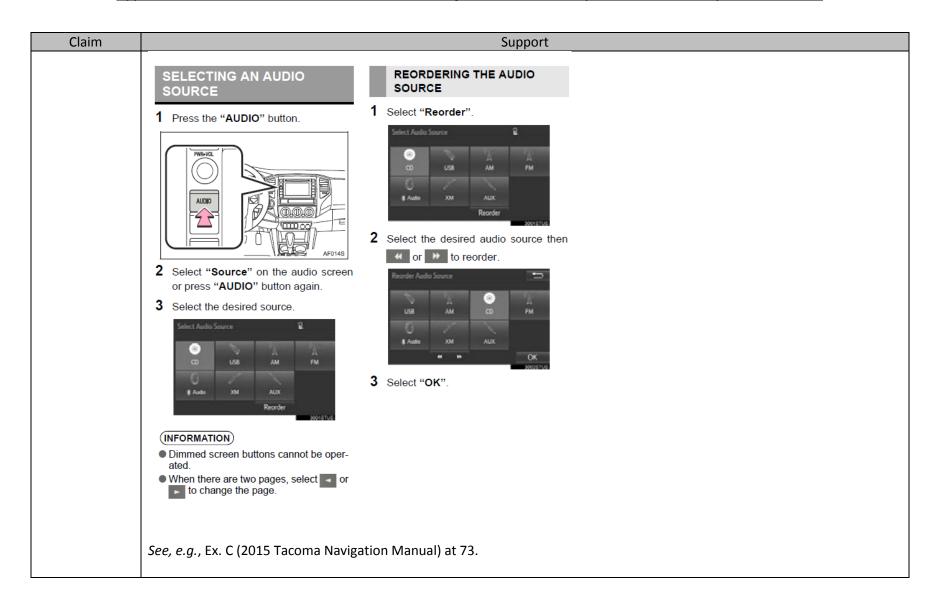
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 121 of 492 PageID #: 4730 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



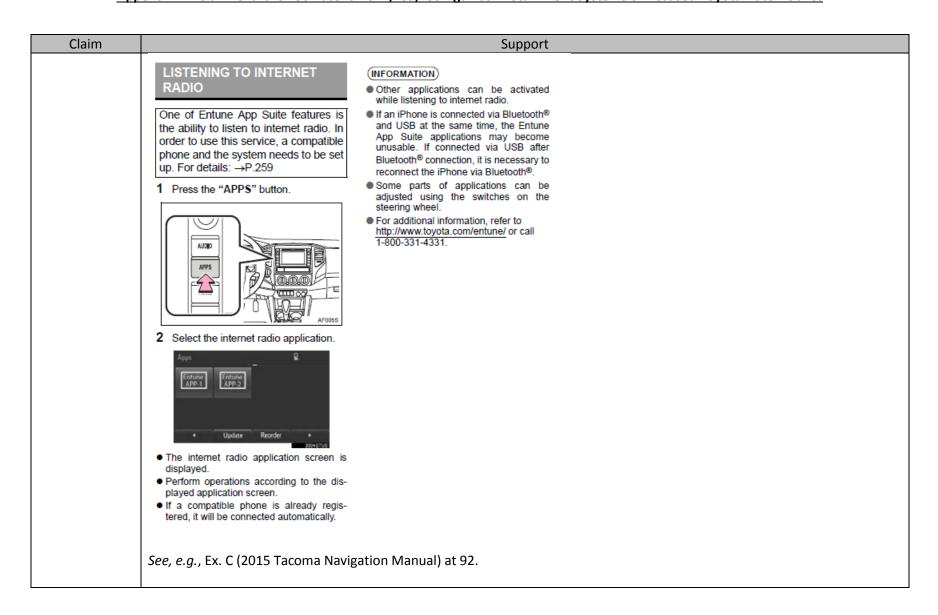
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 122 of 492 PageID #: 4731 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	USB/iPod <sup>®</sup>
	Hook up via a USB data cable <sup>12</sup> to the USB port to gain full iPod <sup>®</sup> <sup>11</sup> connectivity and control, right from the touchscreen interface on the multimedia system or play MP3 music files stored on a USB <sup>12</sup> flash drive.
	See, e.g., Ex. A (www.toyota.com/entune) at 4.

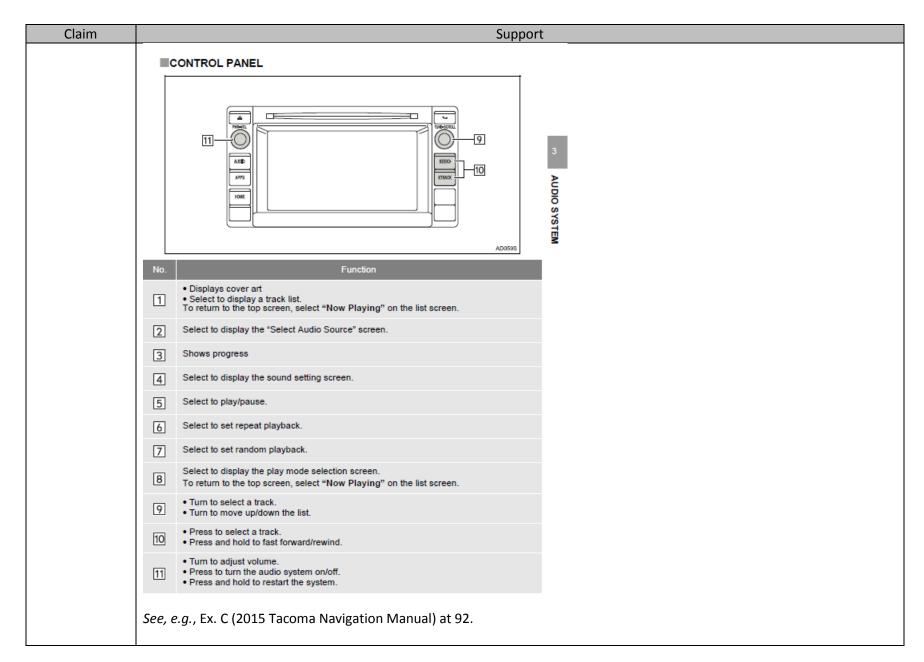
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 123 of 492 PageID #: 4732 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



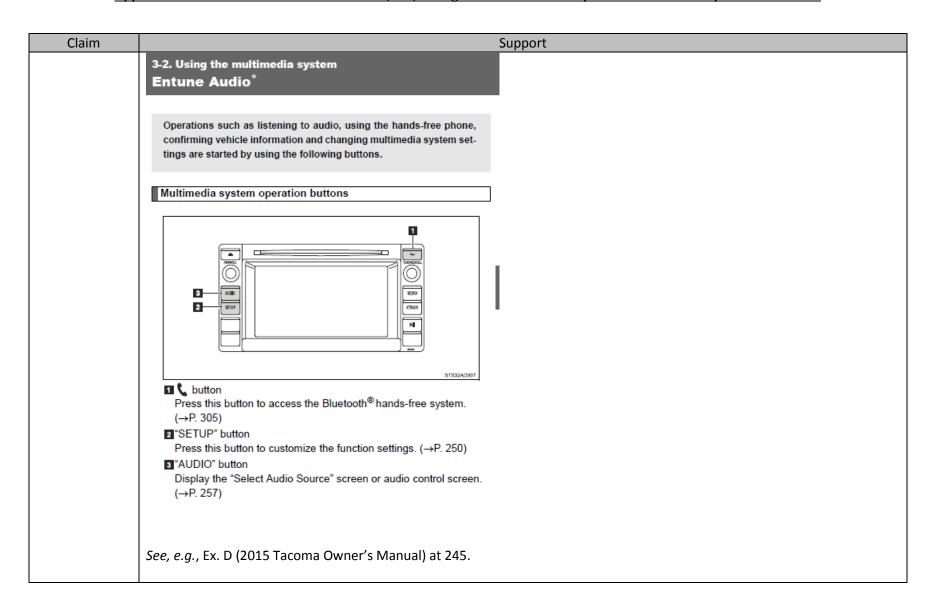
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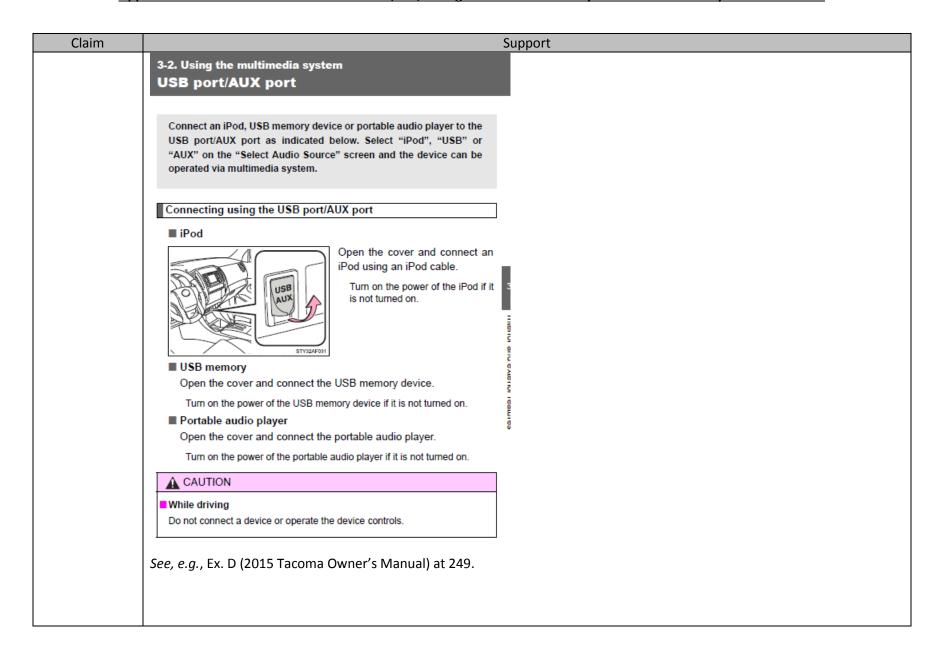
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 126 of 492 PageID #: 4735 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles



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Claim	Support
	USB/AUX PORT 1 Open the cover and connect a device.
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 74.

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Claim	Support		
	IPod®/USB 2.0/AUX		
	Connect an iPod®		
	Connect your IPod®11 or USB 12 device and play your music through your multimedia system.		
	Connecting an iPod <sup>® 11</sup> using the USB port enables users to enjoy music or other iPod <sup>® 11</sup> content via the vehicle's speakers.		
	Note: "Press" refers to hard buttons on the sides of the screen; "Touch" refers to the display screen (phone or multimedia system).		
	<ol> <li>Open the cover of the USB/AUX port and connect an iPod<sup>®</sup> 11</li> <li>The actual position of the USB port 12 may differ depending on the vehicle. For details, see the pictorial index of the vehicle <i>Owner's Manual</i></li> <li>The iPod<sup>®</sup> 11 will begin playing and song information will be displayed</li> <li>Touch <b>Source</b> to select an alternate source</li> </ol>		
	Play an iPod®		
	The title of the album and song you are currently listening to will be displayed, as well as the album art if available		
	<ol> <li>Touch II to pause the track</li> <li>Touch &gt; to resume playing the track</li> <li>Press and hold the A SEEK /V TRACK button to fast-forward or rewind. When you release the button, the player will start playing from that position.</li> <li>Press and release the A SEEK /V TRACK button to advance to the next track or go back to the previous track</li> </ol>		
	Connect a USB Device		
	<ol> <li>Open the cover of the USB/AUX port and connect a USB memory device</li> <li>The actual position of the USB port <sup>12</sup> may differ depending on the vehicle. For details, see the pictorial index of the vehicle <i>Owner's Manual</i></li> <li>Plug in memory device</li> <li>Music will begin playing</li> </ol>		
	See, e.g., Ex. B (http://www.toyota.com/entune/support/entune-premium-audio/multimedia/ipod-usb- aux.html#!camry/2015) at 1.		

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Claim	Support
44. An	See preamble [1P] support.
apparatus for	
docking a	
portable device	
for integration	
with a car	
stereo	
comprising:	
a storage area	The accused Toyota automobiles include "storage areas remote from the car stereo for storing the portable device," including
remote from a	glove boxes, center consoles and dash receptacles.
car stereo for	
storing the	See, e.g., Toyota USB-iPod video (showing connected iPod stored in a storage area underneath car stereo):
portable	https://www.youtube.com/watch?v=CwRYEJYiGWw
device;	

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Claim	Support
	Docknog       See, e.g.,, http://www.toyota.com/camry/photo-gallery/photos (captured 11/13/2015)
a docking portion within	Each accused Toyota automobile includes a "docking portion within the storage area for communicating and physically mating with the portable device." The USB port itself may be considered a "docking portion." The after-market audio device may
the storage area for	also be stored in various locations throughout the vehicle when connected to the USB port, including in the storage space in the central portion of the dashboard.
communicating	
and physically mating with the	See, e.g., Toyota USB-iPod video (showing iPod stored connected to a USB port located within a storage area underneath car stereo): <a href="https://www.youtube.com/watch?v=CwRYEJYiGWw">https://www.youtube.com/watch?v=CwRYEJYiGWw</a>
portable	storeoj. <u>Intest//www.youtdoc.com/witch.v=cwntestieww</u>
device;	

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Claim	Support
	Docking Portion       Transport         Transport       Transport         See, e.g., http://www.toyota.com/camry/photo-gallery/photos (captured 11/13/2015)
a data port in communication with the docking portion, the data port connectable with a device	Each accused Toyota automobile includes a data port (USB port) in the device integration system attached to a cable from the back side of the "docking portion") for integrating portable devices (such as MP3 players, iPhones, iPads, and other smart devices) with the car stereo.

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 133 of 492 PageID #: 4742 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

	1	
Claim for integrating		Support
the portable	Toyota 'Entune' - (2	2014 Camry)
device with the		XM / GPS Antenna
car stereo; and		
	USB	
	1.6	Q11 20
		MAR A
	0.0	
		CORRECTEDERED CONTRACTOR
	Parameter and	
		(Rear View)
	Speaker Output	Bluetooth Module Connector Doworod
	Connectors	(ALLY IN: Pine: 26, 27, & 28) POWERED
		Antenna
	12v, GND, Pwr. Ante	nna, Amp Turn On
an interface	Each device integration system of the accused	Toyota automobiles includes "an interface connected to said data port and to
connected to	the car stereo, said interface channeling audio	from the portable device to the car stereo."
said data port		
and to the car	See element [1D] support.	
stereo, said interface		
channeling		
audio from the		
portable device		
to the car		

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 134 of 492 PageID #: 4743 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
stereo	
said interface	See element [1E] support.
including a	
microcontroller	
in electrical	
communication	
with the	
portable device	
through said	
data port and	
the car stereo,	
said	At least the Renesas microcontroller of each device integration system of the accused Toyota automobiles is "pre-
microcontroller	programmed to execute first program code for remotely controlling the portable device using the car stereo by processing
pre-	control commands generated by the car stereo in a format incompatible with the portable device into formatted control
programmed to	commands compatible with the portable device, and dispatching formatted control commands to the portable device for
execute first	execution thereby."
program code	
for remotely	See element [1F] support.
controlling the	
portable device	
using the car	
stereo by	
processing	
control	
commands	
generated by	
the car stereo	
in a format	
incompatible	
with the	
portable device	
into formatted	
control	

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Claim	Support
commands	
compatible	
with the	
portable	
device, and	
dispatching	
formatted	
control	
commands to	
the portable	
device for	
execution	
thereby.	
47. The	The data port of each accused Toyota automobile "comprises [a] Universal Serial Bus (USB) port."
apparatus of	
claim 44,	See claims 23 and 24 support.
wherein the	
data port	
comprises an	
RS-232 or	
Universal Serial	
Bus (USB) port.	
57. An audio	See preamble [1P] support.
device	
integration	
system	
comprising:	
a first electrical	See element [1A] support.
connector	
connectable to	
a car stereo;	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 136 of 492 PageID #: 4745 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
a second	See element [1B] support.
electrical	
connector	
connectable to	
a portable MP3	
player external	
to the car	
stereo	
an interface	See element [1D] support.
connected	
between said	
first and second	
electrical	
connectors for	
transmitting	
audio from a	
portable MP3	
player to a car	
stereo,	
said interface	See element [1E] support.
including a	
microcontroller	
in electrical	
communication	
with said first	
and second	
electrical	
connectors,	
said	
microcontroller	
pre-	
programmed to	
execute:	

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Claim	Support
a first pre-	See claim 6 support.
programmed	
code portion	
for generating a	
device	
presence signal	
and	
transmitting	
the signal to	
the car stereo	
to maintain the	
car stereo in an	
operational	
state; and	
a second pre-	See element [1F] support.
programmed	
code portion	
for remotely	
controlling the	
MP3 player	
using the car	
stereo by	
receiving a	
control	
command from	
the car stereo	
through said	
first electrical	
connector in a	
format	
incompatible	
with the MP3	
player,	

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Claim	Support
processing the	
control	
command into	
a formatted	
control	
command	
compatible	
with the MP3	
player, and	
transmitting	
the formatted	
control	
command to	
the MP3 player	
through said	
second	
electrical	
connector for	
execution by	
the MP3 player.	
58. The	See claim 2 support.
apparatus of	
claim 57,	
wherein the car	
stereo further	
comprises an	
Original	
Equipment	
Manufacturer	
(OEM) car	
stereo	
connected to	

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Claim	Support
the first	
electrical	
connector.	
60. The system	See element [1G] support.
of claim 57,	
wherein said	
microcontroller	
is pre-	
programmed to	
execute a third	
code portion	
for receiving	
data from the	
MP3 player in a	
format	
incompatible	
with the car	
stereo,	
processing	
received data	
into formatted	
data	
compatible	
with the car	
stereo, and	
transmitting	
formatted data	
to the car	
stereo for	
display thereby.	
61. The	See claim 7 support.

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 140 of 492 PageID #: 4749 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
apparatus of	
claim 60,	
wherein said	
third code	
portion	
processes data	
generated by	
the MP3 player	
including track	
and time	
information.	
62. The	See claim 8 support.
apparatus of	
claim 60,	
wherein said	
third code	
portion	
processes data	
generated by	
the MP3 player	
including song	
title and artist	
information.	
63. The	Can daim 12 support
apparatus of	See claim 13 support.
claim 60,	
wherein	
commands are	
input by a user	
using one or	
more control	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 141 of 492 PageID #: 4750 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim     Support       buttons or presets on the car stereo.
presets on the car stereo.         64. The apparatus of claims 23 and 24 support.         657, further comprising a bus connection
car stereo.         64. The       See claims 23 and 24 support.         apparatus of       claim 57,         further       comprising a         bus connection
64. The     See claims 23 and 24 support.       apparatus of     claim 57,       further     comprising a       bus connection
apparatus of claim 57, further comprising a bus connection
apparatus of claim 57, further comprising a bus connection
claim 57, further comprising a bus connection
further comprising a bus connection
comprising a bus connection
bus connection
established
between the
MP3 player and
said interface.
65. The
apparatus of
claim 64,
wherein the
bus connection
comprises a
Universal Serial
Bus (USB)
connection.
86. A device for See preamble [1P] support.
integrating
video
information for
use with a car
stereo,
comprising:
a first electrical See element [1A] support.

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 142 of 492 PageID #: 4751 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim     Support       connector     connectable to	
a car stereo;	
a second See element [1B] support.	
electrical	
connector	
connectable to	
an after-market	
video device	
external to the	
car stereo;	
an interface See element [1D] support.	
connected	
between said	
first and second	
electrical	
connectors for	
transmitting	
video	
information	
from the after-	
market video	
device to the	
car stereo,	
the interface See element [1E] support.	
including a	
microcontroller	
in electrical	
communication	
with said first	
and second	
electrical	
connectors,	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 143 of 492 PageID #: 4752 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
said	
microcontroller	
pre-	
programmed to	
execute:	
a first pre-	See claim 6 support.
programmed	
code portion	
for generating a	
device	
presence signal	
and	
transmitting	
the signal to	
the car stereo	
through said	
first electrical	
connector to	
maintain the	
car stereo in an	
operational	
state	
responsive to	
signals	
generated by	
the after-	
market video	
device.	
88. The	See claims 23 and 24 support.
apparatus of	
claim 86,	
further	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 144 of 492 PageID #: 4753 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
comprising a	
bus connection	
established	
between the	
video device	
and said	
interface.	
89. The	
apparatus of	
claim 88,	
wherein the	
bus connection	
comprises a	
Universal Serial	
Bus (USB)	
connection.	
90. The	See element [1F] support.
apparatus of	
claim 86,	
wherein said	
microcontroller	
is pre-	
programmed to	
execute a	
second code	
portion for	
receiving a	
control signal	
from the car	
stereo in a	
format	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 145 of 492 PageID #: 4754 Appendix A - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
incompatible	
with the video	
device,	
processing a	
received	
control signal	
into a	
formatted	
control signal	
compatible	
with the video	
device, and	
transmitting	
the formatted	
control signal	
to the video	
device for	
execution	
thereby.	
91. The	See element [1G] support.
apparatus of	
claim 90,	
wherein said	
microcontroller	
is pre-	
programmed to	
execute a third	
code portion	
for receiving	
data from the	
video device	
incompatible	

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Claim	Support
with the car	
stereo,	
processing	
received data	
into formatted	
data	
compatible	
with the car	
stereo, and	
transmitting	
formatted data	
to the car	
stereo for	
display	
thereon.	
92. An audio	See preamble [1P] support.
device	
integration	
system	
comprising:	
a car stereo; a	See element [1A] support.
portable audio	
device external	
to the car	
stereo;	
an interface	See elements [1A] and [1D] support.
connected	
between the	
car stereo and	
the portable	
audio device,	
the interface	See element [1E] support.

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Claim	Support
including a	
microcontroller	
pre-	
, programmed to	
execute:	
first pre-	See claim 6 support.
programmed	
means for	
generating a	
device	
presence signal	
and	
transmitting	
the signal to	
the car stereo	
to maintain the	
car stereo in an	
operational	
state;	
second pre-	See element [1F] support.
programmed	
means for	
remotely	
controlling the	
portable audio	
device using	
the car stereo	
by receiving a	
control	
command from	
the car stereo	
in a format	
incompatible	

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Claim	Support
with the	
portable audio	
device,	
processing the	
control	
command into	
a formatted	
control	
command	
compatible	
with the	
portable audio	
device, and	
transmitting	
the formatted	
control	
command to	
the portable	
audio device	
for execution	
thereby; and	
means for	See element [1G] support.
transmitting	
audio from the	
portable audio	
device to the	
car stereo.	
94. The	See preamble [1P] support.
apparatus of	
claim 92,	
wherein the	
portable audio	

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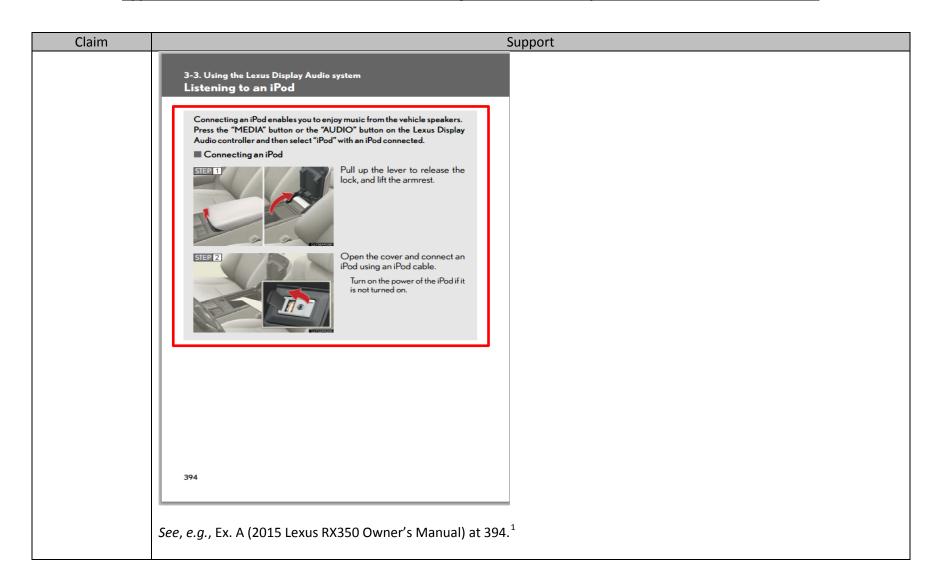
Claim	Support
device	
comprises a	
portable MP3	
player.	
97. The	See claims 23 and 24 support.
apparatus of	
claim 92,	
wherein the	
second	
electrical	
connector	
comprises	
further	
comprising a	
bus connection	
established	
between the	
portable audio	
device and said	
interface.	
98. The	
apparatus of	
claim 97, wherein the	
bus connection	
comprises a	
Universal Serial	
Bus (USB)	
connection.	
connection.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 150 of 492 PageID #: 4759 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

In these Infringement Contentions, Blitzsafe contends that at least the following claims of U.S. Patent No. 7,489,786 ("'786 patent") identified below are infringed by the infotainment systems in accused Lexus automobiles. Blitzsafe does not concede that any claims of the '786 patent that are not listed below are not infringed by the infotainment systems in accused Lexus automobiles. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Blitzsafe from citing or relying on additional documents, information, source code, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Lexus's infotainment systems, internal documentation and/or testimony from relevant witnesses may be necessary to more fully and accurately describe the infringing features of its accused products. Accordingly, Blitzsafe reserves the right to supplement, correct, modify, and/or amend these contentions as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Lexus, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

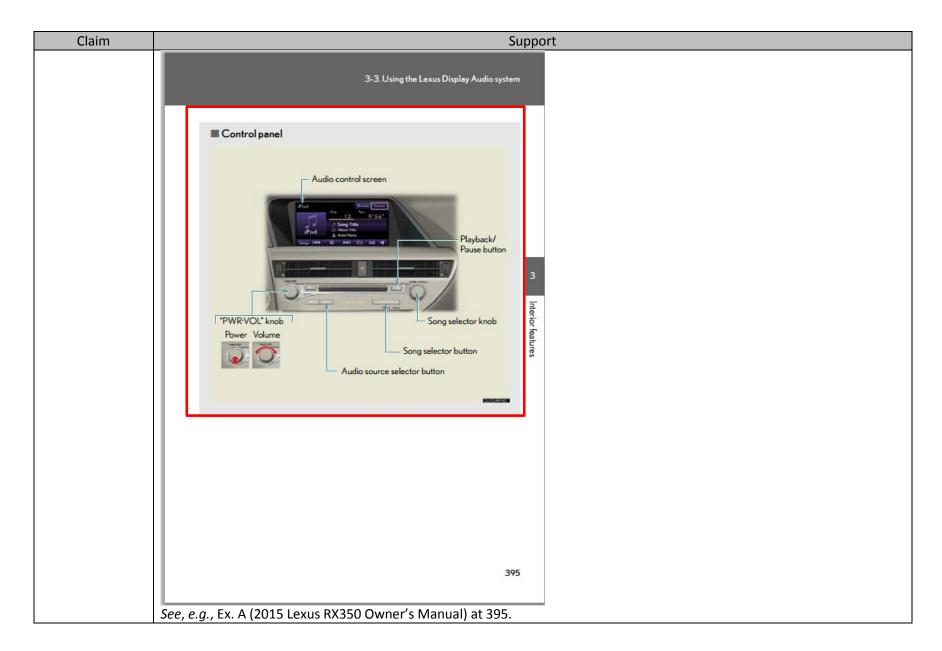
Claim	Support		
1[P]. An audio device integration system comprising:	Each accused Lexus automobile includes a device integration system that supports docking integration of audio/video devices such as freely lying or docked smartphones and other smart devices, as well as MP3 players (e.g., iPods and iPhones playing MP3 files). Accused Lexus automobiles also support device integration of smartphones and other smart devices (e.g., iPods and iPhones) for playing audio streamed over the Internet, such as via iTunes, and/or Apple Music.		

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 151 of 492 PageID #: 4760 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

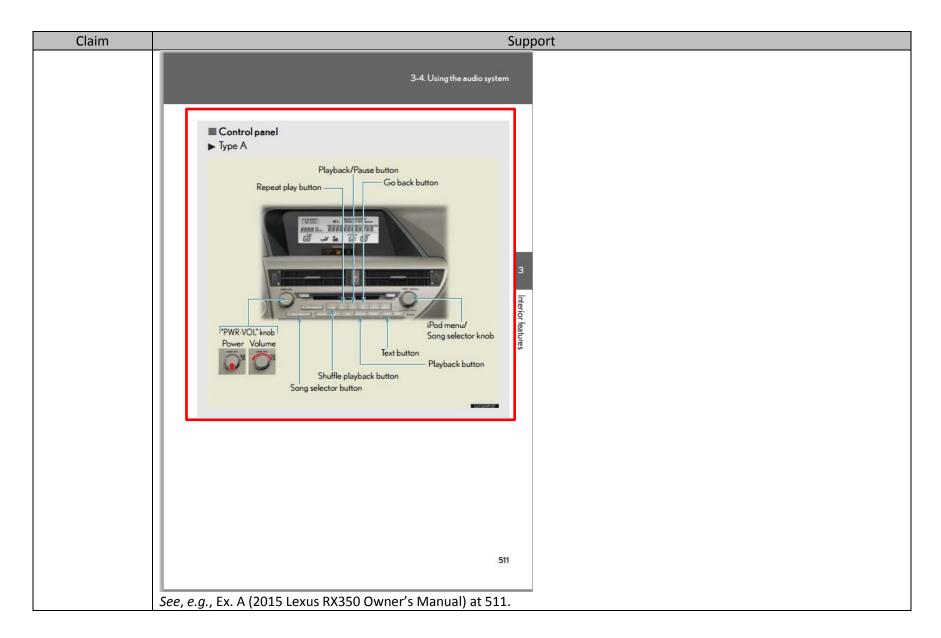


<sup>&</sup>lt;sup>1</sup> Blitzsafe has produced Ex. A, 2015 Lexus RX350 Owner's Manual, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000884 – 1769. All pin-cites are to manual pages.

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Claim	Support
Claim	3-4. Using the audio system          Type B         Playback/Pause button         Go back button
	PWR VOL' inob Pover Volume Shuffle playback button Song selector button
	512
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.

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Claim	Support
Claim	3-3. Using the Lexus Display Audio system          ■ Audio control screen         Pressing the "MEDIA" button or the "AUDIO" button on the Lexus Display Audio controller displays the audio control screen from any screens of the selected source.         ■ Audio source selection screen appears         ■ Audio source selection screen appears         ■ Selecting the play mode         ■ Displaying the song list
	IP od       © Abom Tele         IB of Abom Tele       Image: Select: Playing the previous song         Select and hold: Reversing a song         Image: Player Select: Playing the next song         Select: Playing the next song         Select: Playing the next song         Select and hold: Fast-for-warding a song         Image: Repeat play         Image: Shuffle play         Image: Select play         Image: Select play         Image: Shuffle play         Image: Select play         Image: Shuffle play         Image: Select play         Image: Select play         Image: Shuffle play         Image: Select play         Imag
	396
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

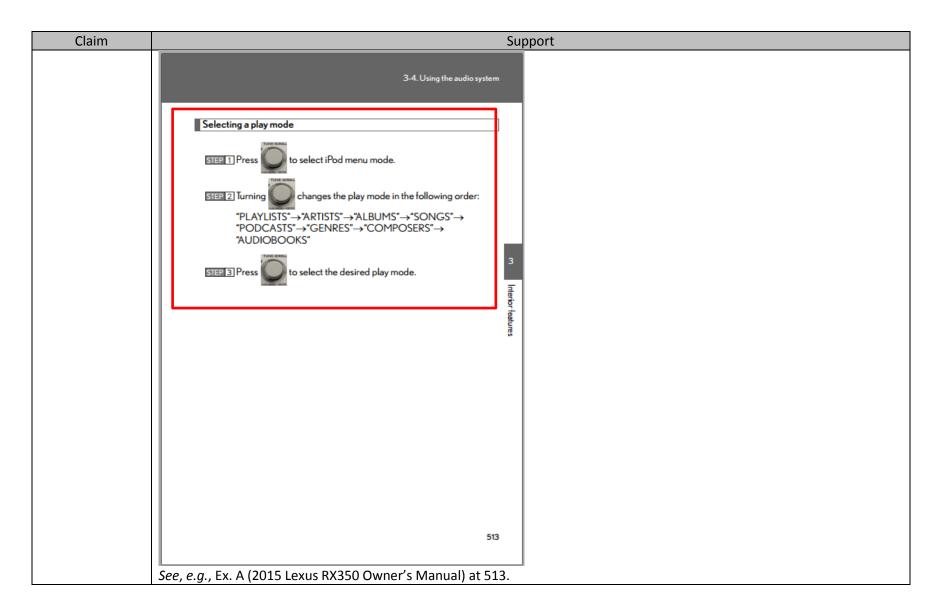
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 156 of 492 PageID #: 4765 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

3:3 Using the Lexit Display Addic system         Select The Down" on the screen.         Select The Down" on the screen.         Select The desired play mode by weak by weak by mode by weak by the screen is song to make the desired play mode by weak by the screen is song to make the desired play mode by weak by the screen is song to make the desired song.         Select The Down" on the PRSTTRACK' button or turn the TURK-SCROLL' knobb solect the desired song.         Select The song to make the desired song.         Select The song to make the desired song.         Select The song to make the d	Claim	Support
Image: Select Browse' on the screen.         Image: Selecting the Transition, "Song,", Products,", Arkits, "Aukars, "Song,", Products,", Arkits, "Aukars, "Song,", Products,", Aukars, "Song,", Products, "Sole, "Sole, Tors, Song, at time         Press, "<, or, >", or, the 'PRSTIRACK' button or turn the TUNE-SCRCE/CKC baselet the desired song."         To task forward or revers, press and hold "> or "< on the 'PRSTIRACK' button or turn the Sole, Tors, press and hold "> or "< on the 'PRSTIRACK' button or turn the TUNE-SCRUE' knots baselet the desired song."		3-3. Using the Lexus Display Audio system
		Select 'Browse' on the screen.         Select Browse' on the screen.         Select the desired play mode by selecting the 'Playlist', 'Artist', 'Artist', 'Artist', 'Autor, 'Sorgs', 'Pddcast', 'Artist', 'Autor, 'Sorgs', 'Pddcast', 'Artist', 'Autor, 'Sorgs', 'Pddcast', 'Artist', 'Autor, 'Sorgs', 'Pddcast', 'Artist', 'Artist', 'Autor, 'Sorgs', 'Pddcast', 'Artist', 'Artist'

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 157 of 492 PageID #: 4766 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Shuffle play         Each time         Image: Playing the songs in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle selection may take time.         Repeat play         Each time       Image:
	<sup>398</sup> See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 398.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 158 of 492 PageID #: 4767 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



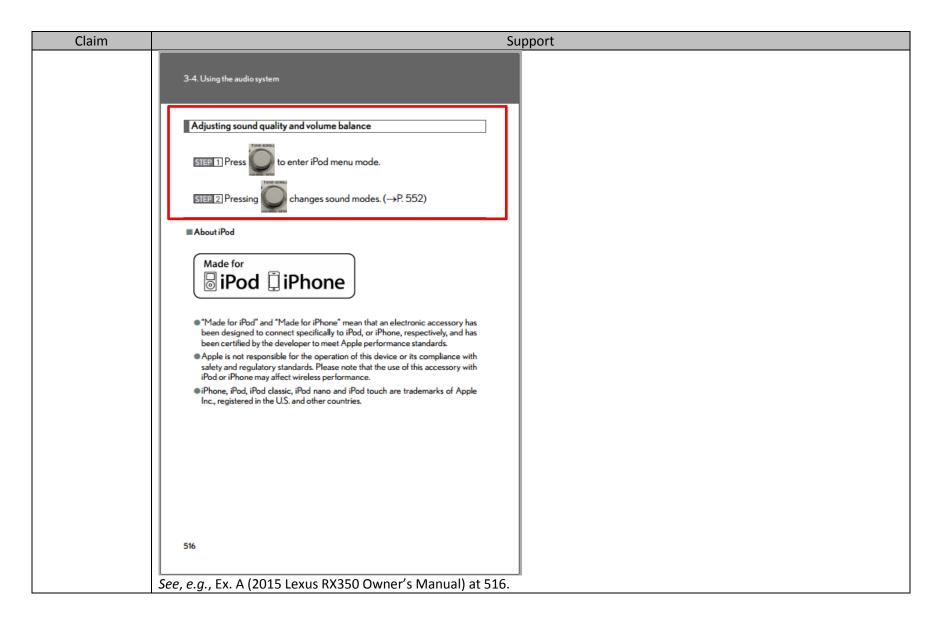
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 159 of 492 PageID #: 4768 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	IP ary mode in:         Improve the first in the f
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 514.

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Claim	Su	ipport
	3-4. Using the audio system	
	Selecting songs         Turn with a song.         Playing and pausing songs         To play or pause a song, press with a sole of the desired song.         Fast-forwarding and reversing songs         To fast-forward or reverse, press and hold ">" or "<" on estimates with a beep.	

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#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 162 of 492 PageID #: 4771 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	■ About iPod Made for iPod iPhone
	<ul> <li>"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with a forther developer to develope the the two were the barden of the intervention.</li> </ul>
	safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.  iPhone, iPod, iPod classic, iPod nano and iPod touch are trademarks of Apple Inc.registered in the U.S. and other countries.  iPod cover art
	<ul> <li>Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>This function can be changed to "On" or "Off". (→P. 338)</li> <li>It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> </ul>
	<ul> <li>Only iPod cover art that is saved in a JPEG format can be displayed.</li> <li>iPod functions</li> <li>When an iPod is connected and the audio source is changed to iPod mode, the iPod will resume play from the same point in which it was last used.</li> </ul>
	Depending on the iPod that is connected to the system, certain functions may not be available. If a function is unavailable due to a malfunction (as opposed to a system specification), disconnecting the device and reconnecting it once again may resolve the problem.
	<ul> <li>While connected to the system, the iPod cannot be operated with its own controls. It is necessary to use the controls of the vehicle's audio system instead.</li> <li>When the battery level of an iPod is very low, the iPod may not operate. If so, charge the iPod before use.</li> </ul>
	● Supported models (→P. 400) 399
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 399.

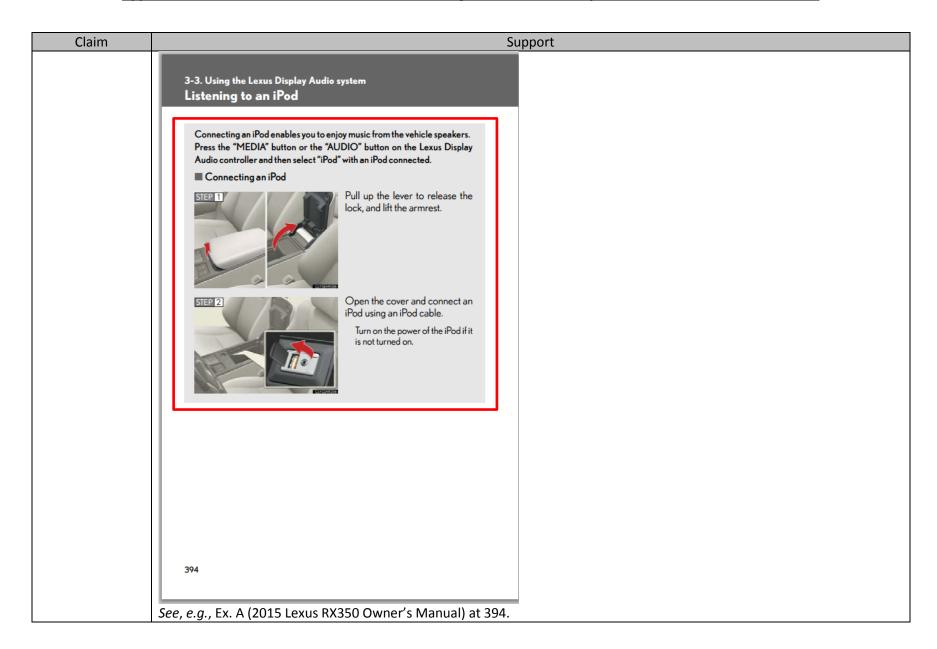
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 163 of 492 PageID #: 4772 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Support
	3-3. Using the Lexus Display Audio system	
See	<ul> <li>IPod problems</li> <li>To resolve most problems encountered when using your iPod, disconnect your iPod from the vehicle iPod connection and reset it. For instructions on how to reset your iPod (refer to your iPod Owner's Manual.</li> <li>Error messages</li> <li>"Connection error. Please consult your Owner's Manual for instructions on how to connect the iPod."</li> <li>This indicates a problem in the iPod or its connection.</li> <li>"There are no songs available for playback. Please load compatible media to your iPod."</li> <li>There are no songs available for playback. Please load compatible media to your iPod."</li> <li>The following iPod<sup>®</sup>, iPod nano<sup>®</sup>, iPod classic<sup>®</sup>, iPod touch<sup>®</sup> and iPhone<sup>®</sup> devices can be used with this system.</li> <li>IPod touch (4th generation)</li> <li>iPod touch (2rd generation)</li> <li>iPod touch (1st generation)</li> <li>iPod touch (1st generation)</li> <li>iPod nano (5th generation)</li> <li>iPod nano (5th generation)</li> <li>iPod nano (2rd generation)</li> <li>iPod nano (3rd generation)</li> <li>iPod nano (3rd</li></ul>	00.

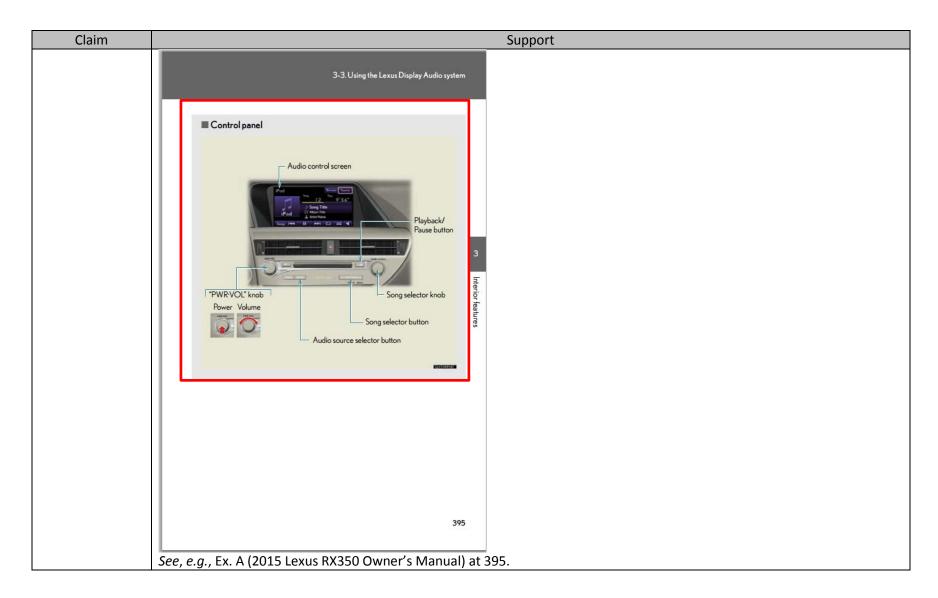
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 164 of 492 PageID #: 4773 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
[1A] a first	Each device integration system of the accused Lexus automobiles includes a car stereo, including one or more car stereo
connector	components, such as, e.g., DSPs, coils, tuner circuitry, car stereo software, virtual buttons, display unit, etc. The device
electrically	integration system also includes an interface for, among other things, channeling audio signals to the car stereo from an
connectable to a	after-market audio device, such as an iPhone, connected via a USB connector. The device integration system includes "a
car stereo;	first connector electrically connectable to a car stereo" because, as set forth below, the car stereo controls may be used to
	control the after-market audio device, and because the car stereo receives information from the after-market audio device
	regardless of the particular configuration of the device integration system. The "first connector electrically connectable to a
	car stereo" may include an electrical connector such as a circuit board connector, soldered connector, wired connector or
	software/virtual connector that is connectable to the car stereo or any component thereof.

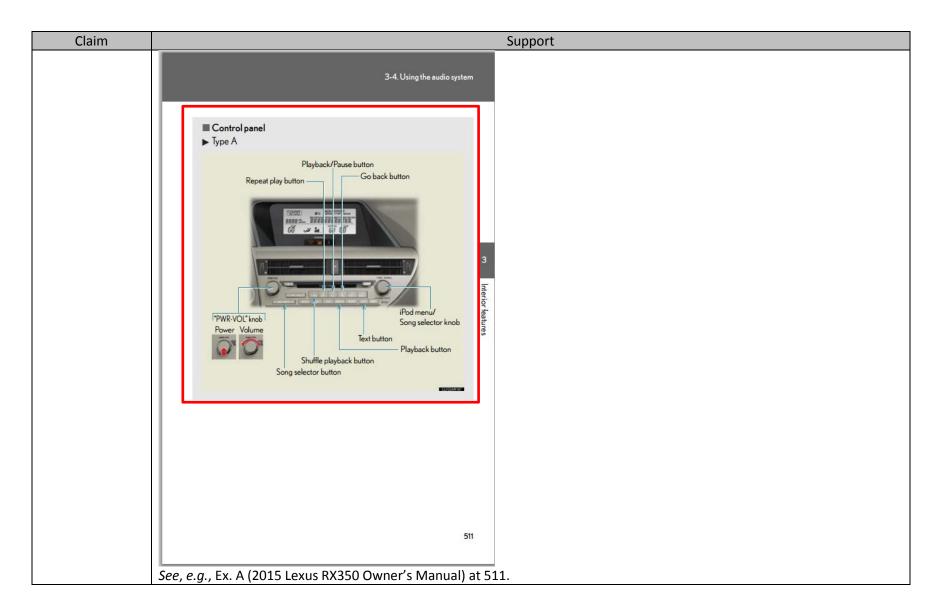
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 165 of 492 PageID #: 4774 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



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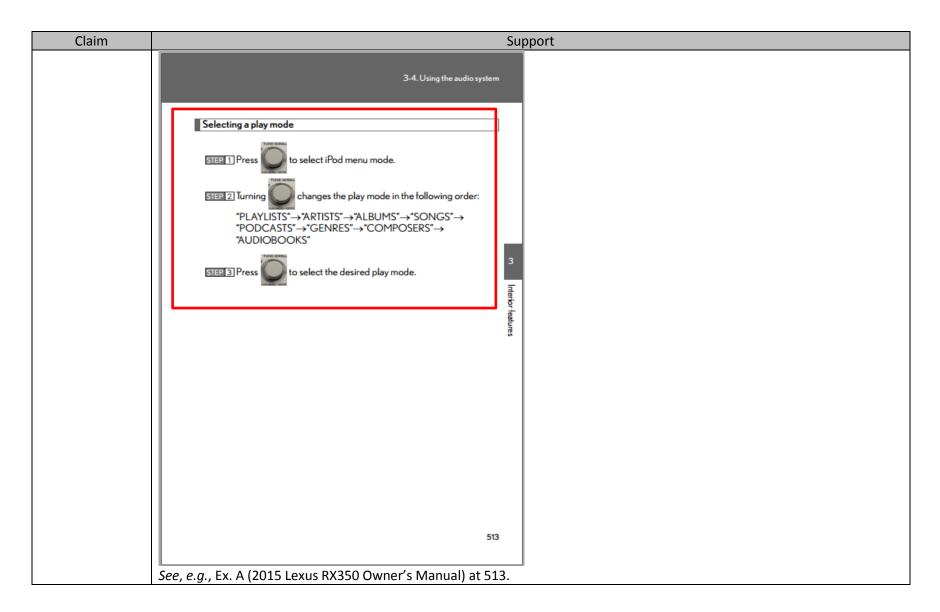
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 168 of 492 PageID #: 4777 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	<complex-block></complex-block>
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 169 of 492 PageID #: 4778 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-3. Using the Lexus Display Audio system          Image: Audio control screen         Pressing the "MEDIA" button or the "AUDIO" button on the Lexus Display Audio control lexus Display Audio control screen from any screens of the selected source.         Image: Audio Source Selection screen appears         Image: Audio Select Playing the song list         Image: Audio Select Playing the song list         Image: Audio Select Playing the song list         Image: Audio Select and hold: Reversing a
	Select and hold: Keversing a song Pause Select Pause Select Pause Select and hold: Fast-for- warding a song B Repeat play B Shtlip elay B Setting the sound (→P. 428)
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 170 of 492 PageID #: 4779 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



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Claim	Support
	3-3. Using the Lexus Display Audio system
	IFIPd problems         To resolve most problems encountered when using your iPdd, disconnect your iPdd, from the vehicle Pod connection and reset it. For instructions on how to reset your iPdd, refer to your iPdd, refer to your iPdd, refer to your iPdd. Owner's Manual for instructions on how to connect the iPdd:         IF Tore messages       "Connection error. Resse consult your Owner's Manual for instructions on how to connect the iPdd:"         This indicates a problem in the iPdd or its connection.       "This indicates a problem in the iPdd or its connection.         "There are no songs available for playback. Please load compatible media to your iPdd:"       This indicates that there is no music data in the iPdd.         Image: Compatible model.       The following Pdd <sup>®</sup> , Hod name <sup>®</sup> , iPdd clusck <sup>®</sup> and iPhone <sup>®</sup> devices can be used with this system.         Image: Pdd staff       The following Pdd <sup>®</sup> , Hod name <sup>®</sup> , iPdd clusck <sup>®</sup> , iPdd touck <sup>®</sup> and iPhone <sup>®</sup> devices can be used with this system.         Image: Pdd staff       Pdd white         Im
	400
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 514.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 172 of 492 PageID #: 4781 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	Selecting songs         Turn or press '>" or '< on correspondences to select the desired song.
	Repeat play         Press       image: again.         To cancel, press       image: again.         Switching the display         Press       image: again.         Each time the button is pressed, the display changes in the following order: Elapsed time → Album title → Track title → Artist name         515
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 515.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 173 of 492 PageID #: 4782 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Support
	3-4. Using the audio system	
	Adjusting sound quality and volume balance         STEP 1 Press       Image: to enter iPod menu mode.         STEP 2 Pressing       Image: the changes sound modes. (->P. 552)         About iPod	
	Made for iPod iPhone	
	<ul> <li>"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>iPhone, iPod, iPod classic, iPod nano and iPod touch are trademarks of Apple Inc., registered in the US. and other countries.</li> </ul>	
	516 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manua	l) at 516.

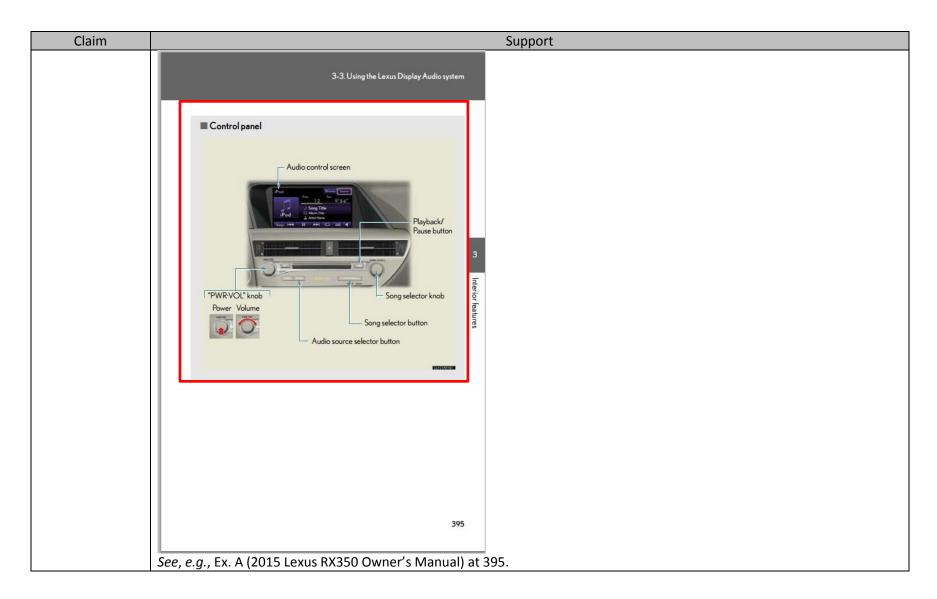
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 174 of 492 PageID #: 4783 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	<page-header>Image: Constant of Constan</page-header>
	<ul> <li>While connected to the system, the iPod cannot be operated with its own controls. It is necessary to use the controls of the vehicle's audio system instead.</li> <li>When the battery level of an iPod is very low, the iPod may not operate. If so, charge the iPod before use.</li> <li>Supported models (-&gt;P. 400)</li> </ul>
	<sup>399</sup> See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 399.
[1B] a second	Each device integration system of accused Lexus automobiles includes "a second connector electrically connectable to an
connector	after-market audio device external to the car stereo" because, as set forth below, the after-market audio device receives
electrically	commands for controlling its operation from the car stereo, and because the car stereo receives information from the after-

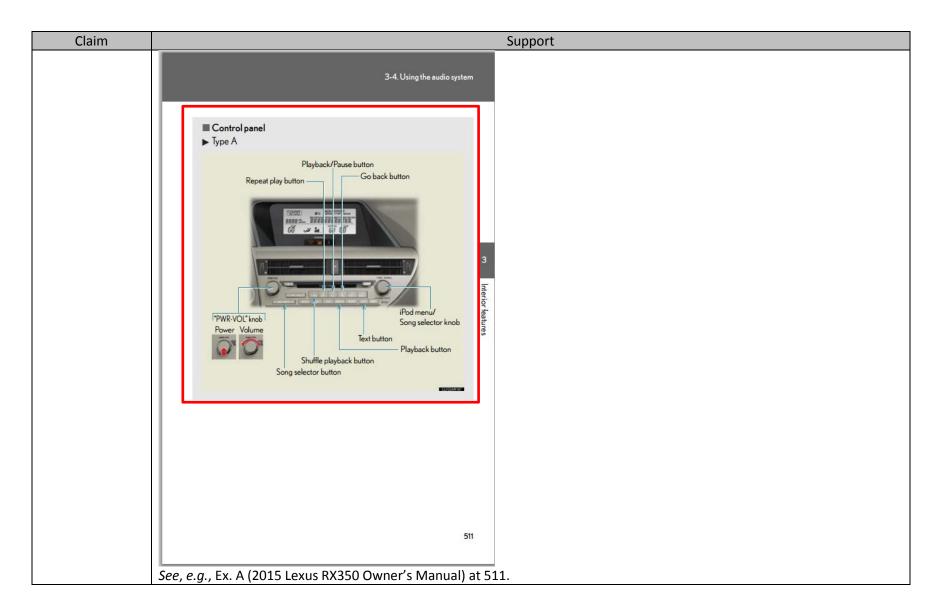
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 175 of 492 PageID #: 4784 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Support
audio device regardless of the particular configuration of the device integration system. The second connector is a tor in the device integration system that is connectable to a port in the accused Lexus automobiles for mating via a <i>i</i> /ith an after-market audio device external to the car stereo, such as an iPhone or other smart device playing MP3 files arming radio and other audio content from the Internet or from applications such as Pandora, iTunes, and/or Apple Using the Lexus Display Audio system ening to an iPod mnecting an iPod enables you to enjoy music from the vehicle speekers. ses the "MEDIA" button or the "AUDIO" button on the Lexus Display dio controller and then select "iPod" with an iPod connected. Connecting an iPod
C.

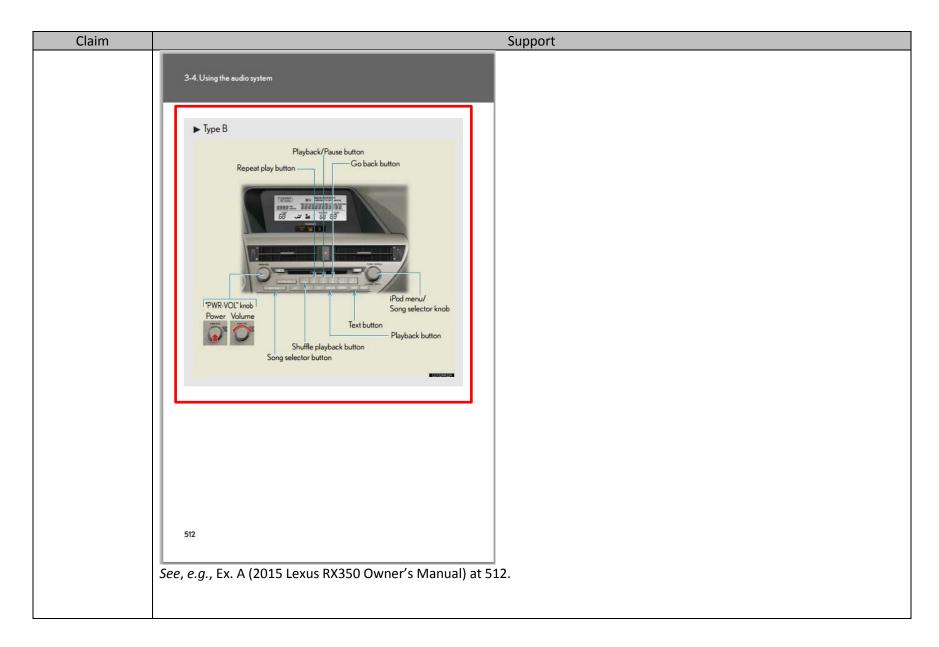
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 176 of 492 PageID #: 4785 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



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	<ul> <li>INTRODUCTION</li> <li>The Interface Kit allows you to play music from an iPod<sup>®</sup> through your vehicle's radio system. Reading this Owner's Manual ensures that you will get the most out of your audio with your iPod using the Interface Kit. Button locations and labeling will differ depending upon your vehicle's make and model.</li> <li>For new iPods, follow the iPod instructions for loading songs into it before connecting to the radio. The Interface Kit utilizes the Satellite Radio (SAT) controls of your radio's. Therefore, Satellite Radio controls are used to search for and play music from the iPod.</li> <li>NOTE: With the Interface Kit installed, Satellite Radio use is not possible.</li> </ul>	
[1C] a third connector	Apple and iPod are registered trademarks of Apple Inc. -4- See, e.g., Ex. C (Interface Kit for iPod) at 4. <sup>2</sup> Each device integration system of the accused Lexus automobiles includes "a third connector electrically or more auxiliary input sources external to the car stereo and the after-market audio device." Specifical	•

<sup>&</sup>lt;sup>2</sup> Blitzsafe has produced Ex. C, Interface Kit for iPod, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0002232-2247. All pin-cites are to manual pages.

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Claim	Support
Claim connectable to one or more auxiliary input sources external to the car stereo and the after- market audio device;	Support console. It is believed that the auxiliary input jack is connected to device integration system via one or more cables because the device integration system permits audio from a device connected to the auxiliary input jack to be played through the automobile's speakers.
	sa L5460_600H_Ner_LU See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 153. <sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Blitzsafe has produced Ex. B, 2015 Lexus LS460 Navigation System Manual, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0001770-2231. All pin-cites are to manual pages.

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Claim	Support
Claim	3. MEDIA OPERATION 6. AUX OVERVIEW The AUX operation screen can be reached by the following methods: ▷ Connecting a device to the AUX port (→P. 153) ▷ Using the instrument panel Press the "MEDIA" button to display the audio control screen. ▷ Using the Remote Touch, then select "Media" to display the audio control screen.
	CONTROL SCREEN
	203
	LS460_600h_Navi_U
	See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 203.

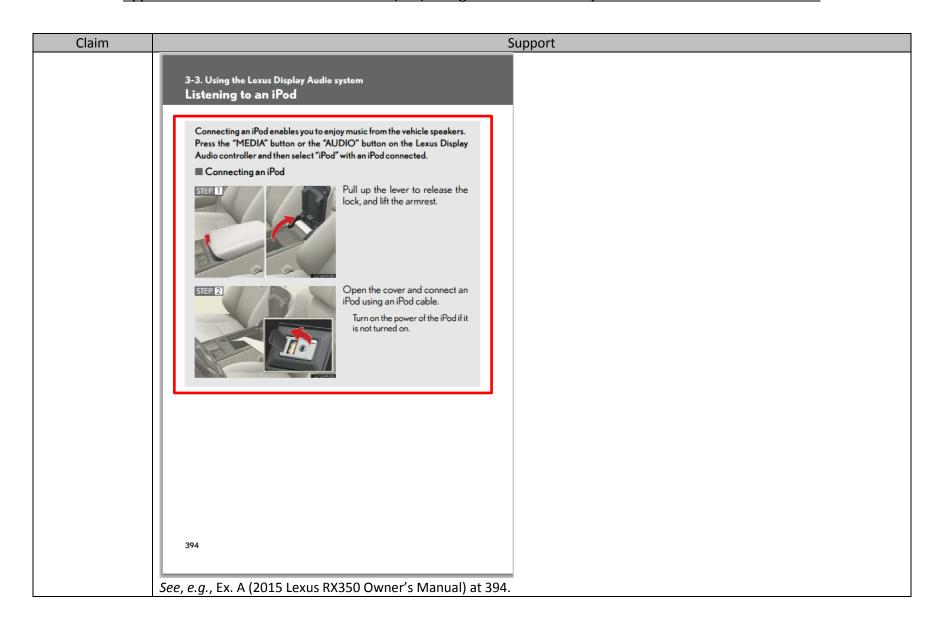
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 182 of 492 PageID #: 4791 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3. MEDIA OPERATION
	No. Function
	Select to display the audio source selection screen.
	2 Select to display the sound setting screen.
	3 Press to turn mute on/off.
	<ul> <li>Press to select a media mode.</li> <li>While in a media mode, pressing the "MEDIA" button changes media modes.</li> </ul>
	Turn to adjust volume.     Press to turn the audio system on/off.     Press and hold to restart the audio system.
	204
	See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 204.

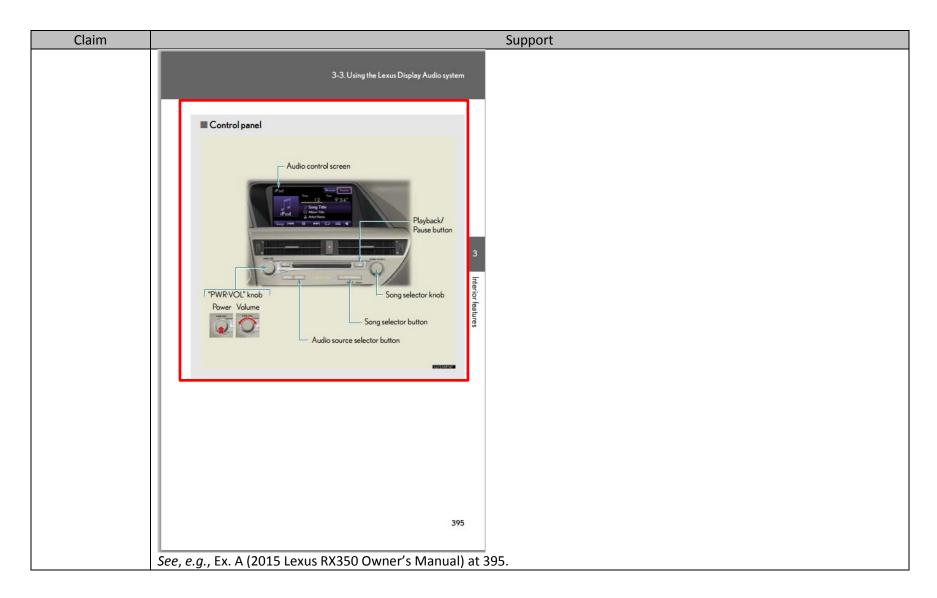
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 183 of 492 PageID #: 4792 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
[1D] an interface	Each device integration system of the accused Lexus automobile includes, among other things, an interface for connecting
connected	the car stereo to external audio devices via a USB connector. The interface contained within the device integration system
between said	(which interface comprises software and hardware, including at least a microcontroller) is coupled to the USB connector
first and second	(i.e., the second connector) as well as to at least one car stereo component via the first connector, such as via a circuit board
electrical	connector, soldered connector, wired connector or software/virtual connector. The interface channels audio signals to the
connectors for	car stereo from the after-market audio device, as one of the primary functions of the infotainment system within accused
channeling audio	Lexus automobiles is to permit audio stored on or streamed from an after-market audio device to play via the car stereo's
signals to the car	speakers.
stereo from the	
after-market	
audio device,	

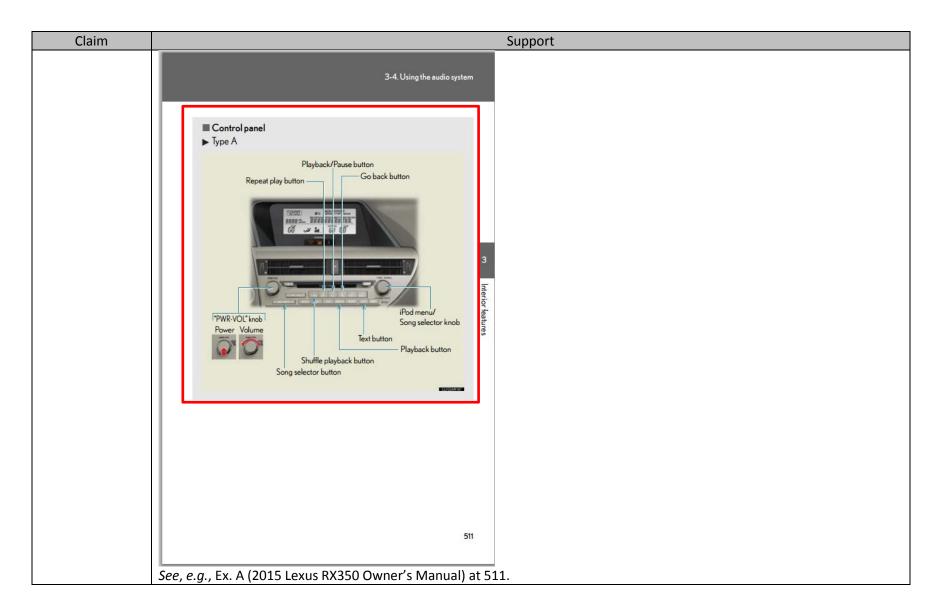
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 184 of 492 PageID #: 4793 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



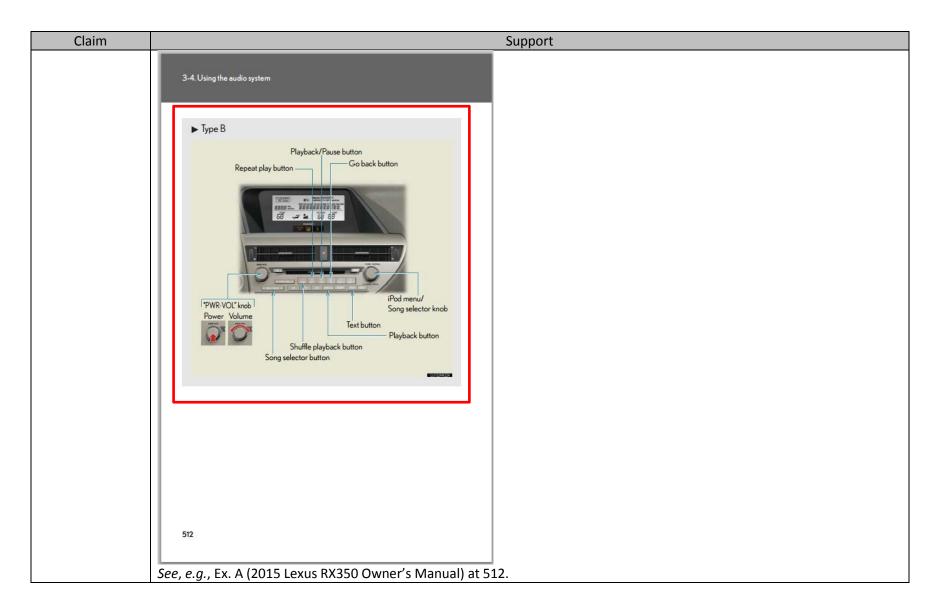
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 185 of 492 PageID #: 4794 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



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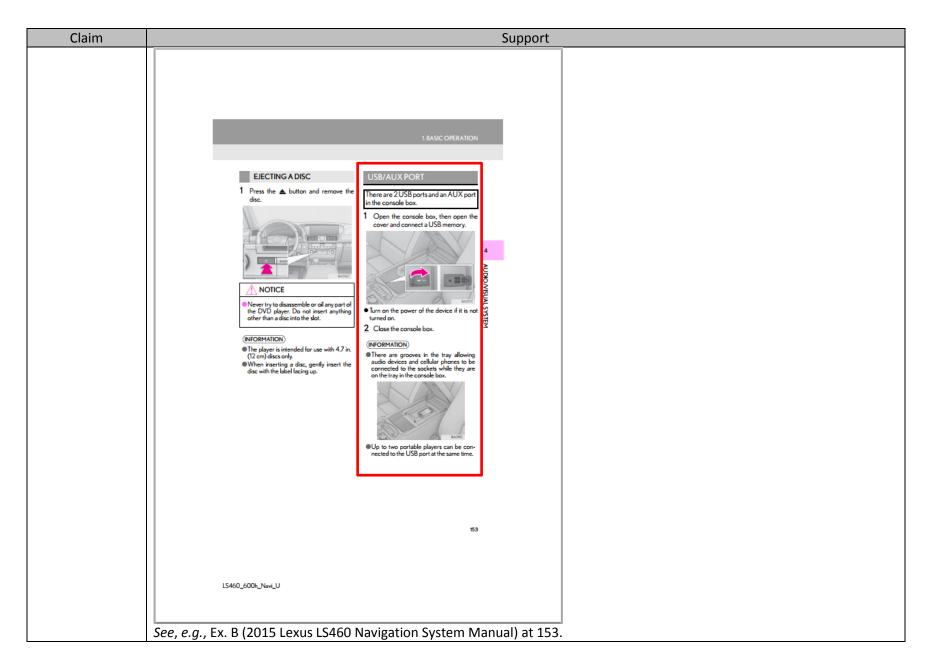
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 187 of 492 PageID #: 4796 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



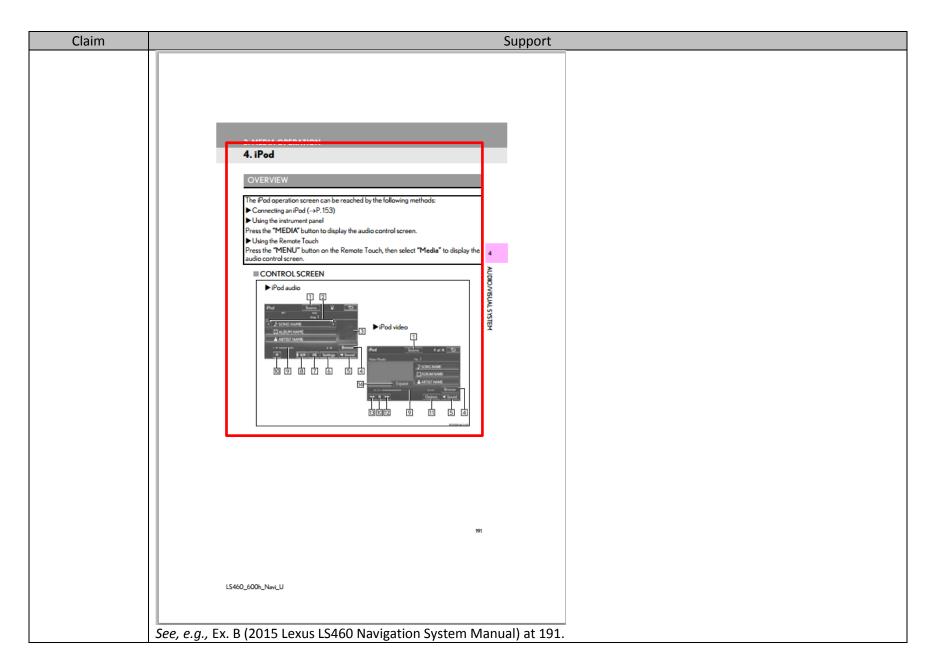
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 188 of 492 PageID #: 4797 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3–3. Using the Lexus Display Audio system
	<ul> <li>Audio control screen Pressing the 'MEDIA' button or the 'AUDIQ' button on the Lexus Display Audio controller displays the audio control screen from any screens of the selected source. <ul> <li>Audio source selection screen appears</li> <li>Selecting the play mode</li> <li>Displaying the sound list</li> <li>Select: Playing the previous song</li> <li>Select and hold: Fast-forwarding a song</li> </ul></li></ul>
	396
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

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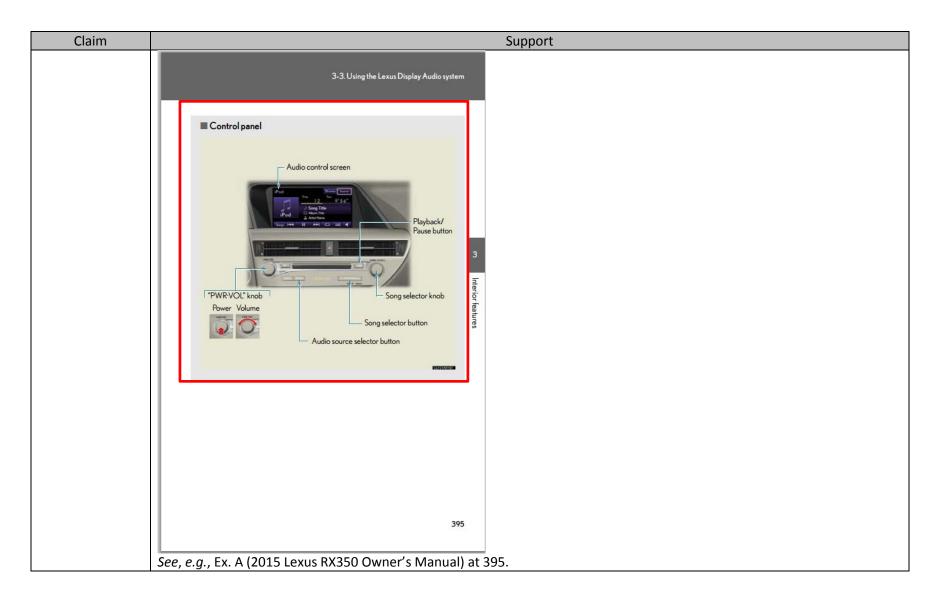
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 190 of 492 PageID #: 4799 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



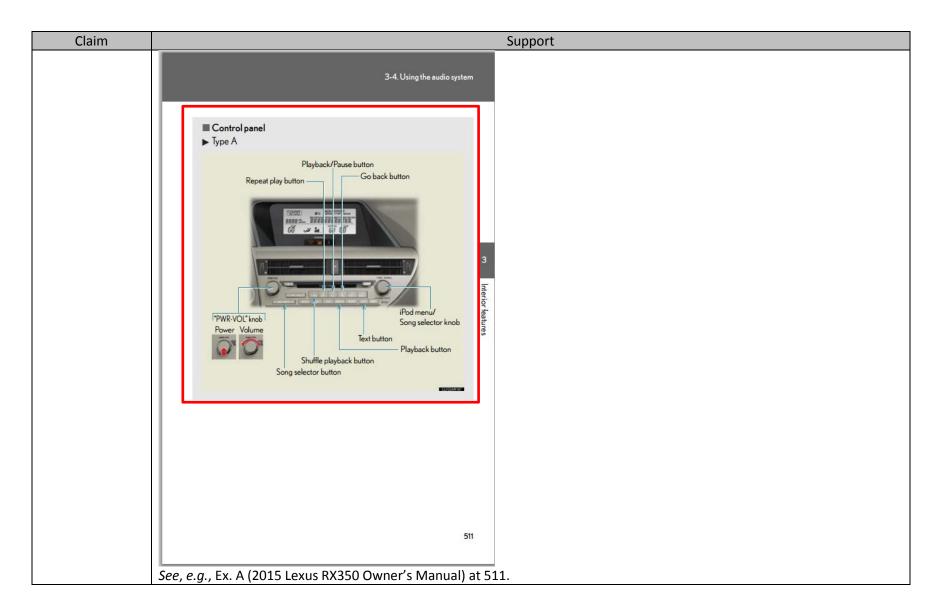
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 191 of 492 PageID #: 4800 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
[1E] said	The interface of each device integration system of the accused Lexus automobiles includes one or more microcontrollers in
interface	electrical communication with the first and second electrical connectors for controlling various operations of the
including a	infotainment system, such as the radio, display, and interface operations. The microcontroller of the interface executes
microcontroller	code to perform various interface functions and is, thus, "pre-programmed" to perform these functions. It is believed that
in electrical	this code is stored in onboard memory modules, and/or is contained within firmware in the microcontroller or elsewhere in
communication	the interface.
with said first	
and second	
electrical	
connectors, said	
microcontroller	
pre-programmed	
to execute:	

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## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 193 of 492 PageID #: 4802 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



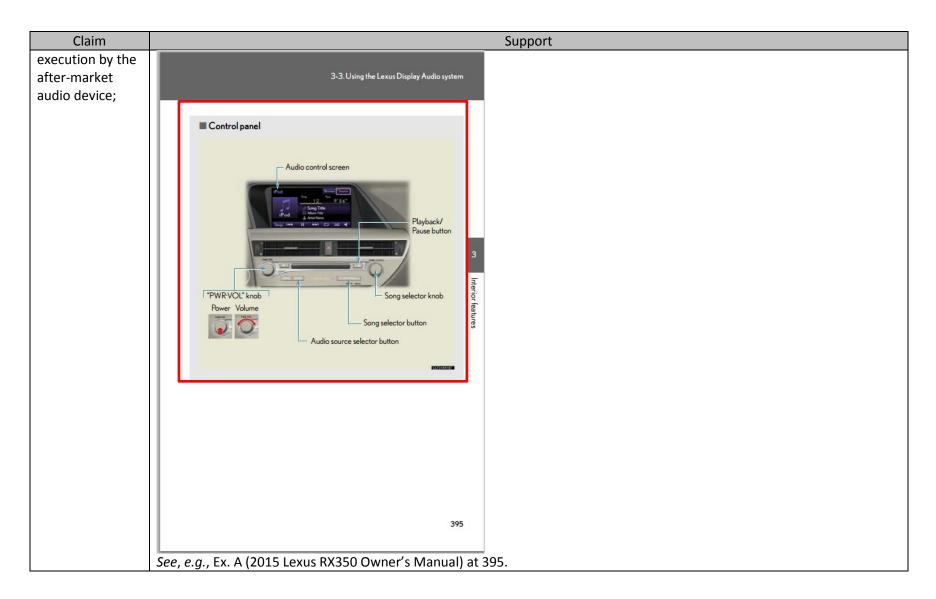
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 194 of 492 PageID #: 4803 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	Support
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.
[1F] a first pre-	The interface of each device integration system of the accused Lexus automobiles is pre-programed to execute "a first pre-
programmed	programmed code portion for remotely controlling the after-market audio device using the car stereo by receiving a control
code portion for	command from the car stereo through said first connector in a format incompatible with the after-market audio device,

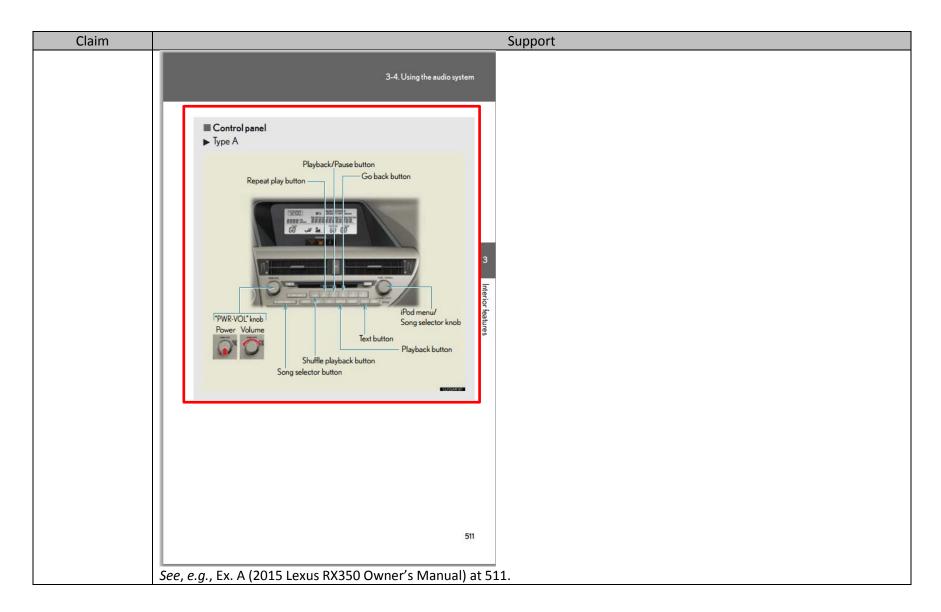
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 195 of 492 PageID #: 4804 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
remotely	processing the received control command into a formatted command compatible with the after-market audio device, and
controlling the	transmitting the formatted command to the after-market audio device through said second connector for execution by the
after-market	after-market audio device." More specifically, once connected, commands are received from the car stereo and channeled
audio device	through the first connector to the interface (including at least a microcontroller), where they are processed and converted
using the car	using pre-programmed software from a format understandable and compatible with the car stereo and associated Lexus
stereo by	protocols (i.e., a format incompatible with the after-market audio device) into formatted commands that are compatible
receiving a	with the after-market audio device (i.e., converted into USB and device-specific protocols understandable to the after-
control	market audio device). These formatted commands are then transmitted to the after-market audio device via the USB
command from	connector (i.e., the second connector). The formatted commands are then executed by the after-market audio device. The
the car stereo	microcontroller of the interface executes pre-programmed code to perform at least a portion of these functions. It is
through said first	believed that this code is stored in onboard memory modules, and/or is contained within firmware elsewhere in the
connector in a	interface (such as within the microcontroller itself).
format	
incompatible	
with the after-	
market audio	
device,	
processing the	
received control	
command into a	
formatted	
command	
compatible with	
the after-market	
audio device, and	
transmitting the	
formatted	
command to the	
after-market	
audio device	
through said	
second	
connector for	

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## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 197 of 492 PageID #: 4806 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 198 of 492 PageID #: 4807 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	<complex-block></complex-block>
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.

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Claim	Support
Claim	3-3. Using the Lexus Display Audio system  Audio control screen  Pressing the "MEDIA" button or the "AUDIO" button on the Lexus Dis- play Audio control ler displays the audio control screen from any screens of the selected source.  Audio source selection screen appears Selecting the play mode
	12       9 • 5 Å         Song Tale       Displaying the song list         Select: Playing the previous song       Select and hold: Reversing a song         Select: Playing the next song       Select: Playing the next song         Select: Playing the next song       Select: Playing the next song         Select: Playing the song       Repeat play         Shuffle play       Shuffle play         Setting the sound (→P. 428)       Setting the sound (→P. 428)
	396
	<i>See, e.g.,</i> Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

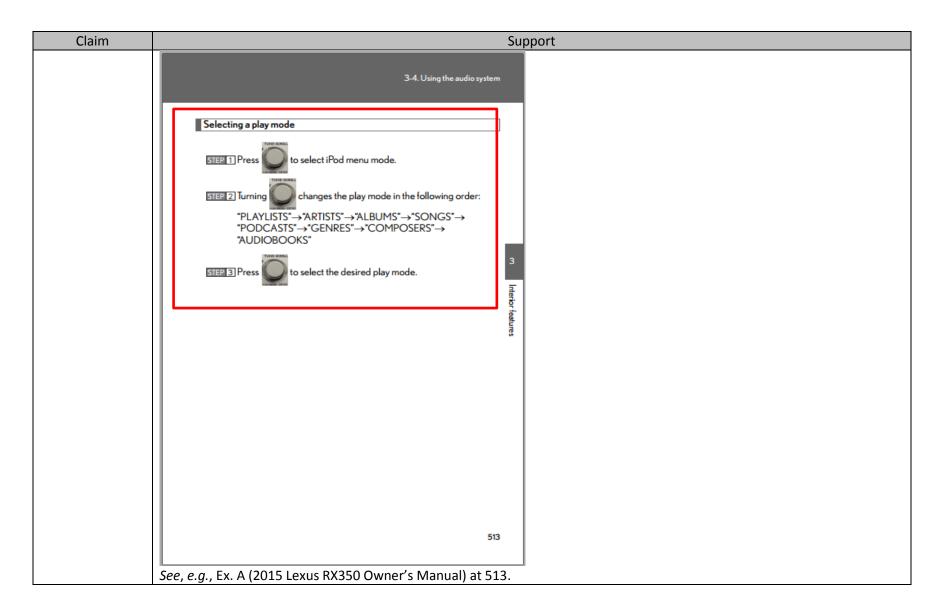
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 200 of 492 PageID #: 4809 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support	
	3-3. Using the Lexus Display Audio system	
	Selecting a play mode         Image: Select Browse on the screen.         Selecting fast-forwarding and reversing songs         Image: Screen on the screen.         Image: Screen on the screen.	

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Claim	Support
	3-3. Using the Lexus Display Audio system
	Shuffle play         Each time       Is selected, the mode changes in the following order:         Image: Playing the abouts in the iPod in shuffle         Image: Playing the abouts in the iPod in shuffle         Image: Playing the abouts in the iPod in shuffle         Image: Playing the abouts in the iPod in shuffle         Image: Playing the abouts in the iPod in shuffle         Image: Playing the abouts in the iPod in shuffle         Each time       Is selected, the mode changes in the following order:         Image: Playing the song         Image: Playing the song

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Claim	Support
	3-4. Using the audio system
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 514.

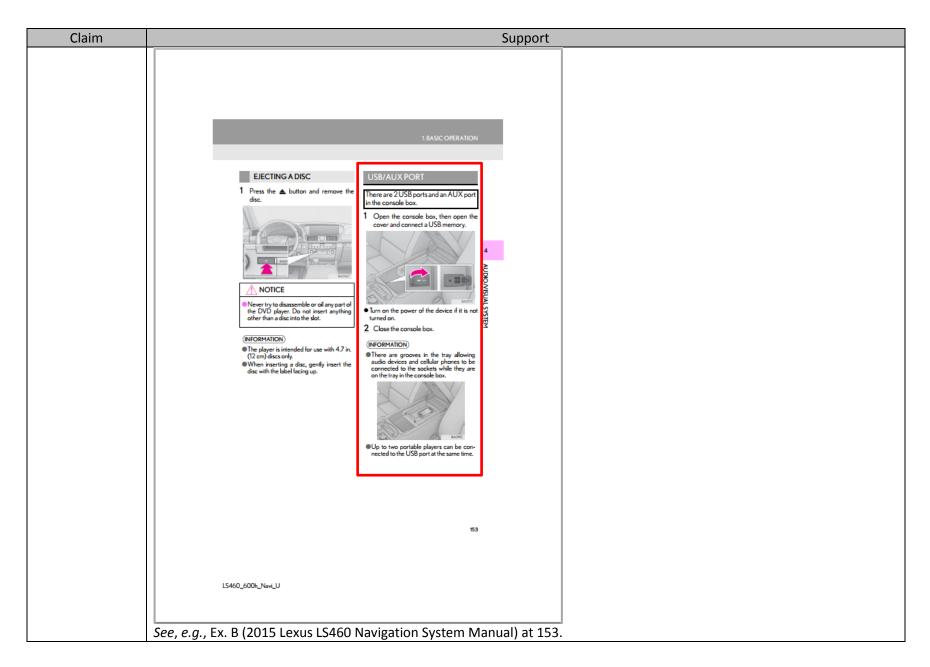
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 204 of 492 PageID #: 4813 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support				
Claim	Selecting songs         Turn of press ">" or "<" on extremess to select the desired song.         Playing and pausing songs         To play or pause a song, press is.         Fast-forward or reverse, press and hold ">" or "<" on extremess         Shuffle playback         Playing songs from one playlist or album in random order         Press is.         To cancel, press is again.				
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 515.				

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 205 of 492 PageID #: 4814 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support				
Claim	Support          3.4. Using the audio system         Adjusting sound quality and volume balance         Image: Press for the enter iPod menu mode.         Image: Pressing for the enter i				
	<ul> <li>*Made for iPod" and "Made for iPhone," mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Popple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>Pithone, iPod, iPod, iPod (absci, iPod nano and iPod touch are trademarks of Apple Inc., registered in the US. and other countries.</li> </ul>				
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 516.				

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 206 of 492 PageID #: 4815 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 207 of 492 PageID #: 4816 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	514
	3-4. Using the audio system
	Selecting songs         Turn       or press ">" or "<" on select the desired
	song.       Playing and pausing songs       To play or pause a song, press
	Fast-forwarding and reversing songs     3       To fast-forward or reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" or "<" on size reverse, press and hold ">" on size reverse, preverse, preverse, preverse, pres
	Shuffle playback       Image: Comparison of the playback of album in random order         Press       Image: Comparison of the playback of album in random order         To cancel, press       Image: Comparison of the playback of albums in random order         Playing songs from all the playbists or albums in random order       Press and hold         Press and hold       Image: Comparison of the playbist or albums in random order         To cancel, press       Image: Comparison of the playbist or albums in random order         Press and hold       Image: Comparison of the playbist or albums in random order         To cancel, press       Image: Comparison of the playbist or albums in random order         To cancel, press       Image: Comparison of the playbist or albums in random order         To cancel, press       Image: Comparison of the playbist or albums in random order         To cancel, press       Image: Comparison of the playbist or albums in random order
	Repeat play       Press
	To cancel, press again.           Switching the display           Press
	Each time the button is pressed, the display changes in the following order: Elapsed time → Album title → Track title → Artist name 515
	3-4. Using the audio system
	See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 191.

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Claim	Support	
	3-3. Using the Lexus Display Audio system	
	About iPod Made for	
	<ul> <li>"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has</li> </ul>	
	<ul> <li>been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>iPhone, iPod, iPod classic, iPod nano and iPod touch are trademarks of Apple</li> </ul>	
	Inc., registered in the U.S. and other countries. ■ iPod cover art ● Depending on the iPod and songs in the iPod, iPod cover art may be displayed. ● This function can be changed to "On" or "Off". (→P. 338)	
	<ul> <li>It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>Only iPod cover art that is saved in a JPEG format can be displayed.</li> <li>iPod functions</li> <li>When an iPod is connected and the audio source is changed to iPod mode, the</li> </ul>	
	<ul> <li>When an irod is connected and the adulo source is changed to irod mode, the iPod will resume play from the same point in which it was last used.</li> <li>Depending on the iPod that is connected to the system, certain functions may not be available. If a function is unavailable due to a malfunction (as opposed to a system specification), disconnecting the device and reconnecting it once again may resolve the problem.</li> </ul>	
	<ul> <li>While connected to the system, the iPod cannot be operated with its own controls. It is necessary to use the controls of the vehicle's audio system instead.</li> <li>When the battery level of an iPod is very low, the iPod may not operate. If so, charge the iPod before use.</li> </ul>	
	● Supported models (→P. 400) 399	
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 399.	

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Claim	-	Support
	<section-header><section-header><section-header><section-header><text><section-header><image/><image/><image/><text><text><text><text><text></text></text></text></text></text></section-header></text></section-header></section-header></section-header></section-header>	Fast-Forward/Rewind       Move quickly through a song by pressing the \or v button during playback.         * The Fast-Forward/Rewind operation has the same behavior as the iPod 'click wheel'. Press \ot fast-forward through a song. Press \ot fast-forward through a song. Press \ot fast-forward through a song. Press \ot gain to stop. Press \ot gain to stop. Press \ot gain to stop. Press \ot gain to stop. Press \ot fast-forward through a song on the iPod in random order within the "Now Playing" list of the iPod: Play songs on the iPod in random order within the current "Now Playing" list using the SCAN button. After playing the last song in the Playlist randomly, Shuffle begins playing back in a new random order. Press and hold the SCAN button (more than 1 second) to turn shuffle ON. Press and hold the SCAN button (more than 1 second) again to turn shuffle OFF.         Shuffle All Press the Preset 5 to shuffle all the songs on the iPod. Press and hold the SCAN button to cancel.

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Claim	Support
	SCAN       Press and release the SCAN button to preview 10 seconds of each song on the iPod. When a desired song is heard, press and release the SCAN button (before 10 seconds has been played) to play the entire song. The SCAN function is canceled.       The radio recognizes the following categories in the iPod: Playlist, Artist, Album, Genre, Podcast and Audiobook. The user can select one of the following two methods to choose songs from these categories.         Imaddition, SCAN is also usable within the current "Now Playing" list. If it is selected as described above, while in a "Now Playing" list (Playlist, Album, etc.), then only the songs in that list are scanned.       Music SacArch         Music Category Search)       The user can do a music search in any of the following categories: Playlist, Artist, Album, Genre, Podcast and Audiobook.         The buttons TYPE+FOLDER UP/DOWN, Preset 6 and the TUNE-ifLic knob are used together to implement the search function through the following steps:         a Category Browsing.       The TYPE+FOLDER UP/DOWN button is used for categories, Playlist + Artist + Album + 2000 for category browsing.         YTME*FOLDER       Center OP odcast + Audiobook is shown in the radio's display. Pressing <, shifts the selection list to the right and < shifts the selection list to the left.
	-9-
	See, e.g., Ex. C (Interface Kit for iPod) at 9.

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Claim	Support				
Claim	Support  A selection  Preset 6 [Enter] button is used to make the selection after category browsing. Press the Preset 6 button to select the name of the last item displayed in the selected category (Playlist / Artist / Album / Genre/ Podcast / Audiobook).  NOTE: If this is the first search after connecting the iPod, the first item in the selected category is shown.  C.Browsing the Items in the Selected Category If the user chooses to play all the songs is top. TUNE-FILE (beginning with the first one) in the last tisp. The TUNE-FILE knob is used for browsing the items in the selected category, Rotate the TUNE-FILE knob right/left to display the name of next/previous item in the selected category.				
	-10- See, e.g., Ex. C (Interface Kit for iPod) at 10.				

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					Support
The Art Pre egu fro tog	tist, Album and lesets 1-4 are as ory browsing is m the Presets. gether as follows Preset Assignm Button Preset 1	a music sea Podcast. ssigned to ea not needed Presets 1-4, s. ent Display Playlist	rch in the categories ach of these 4 categories and selection is mad Preset 6 and TUNE Browse Playlist names	ories. Cat- de directly	<ul> <li>NOTE: If this is the first search after the iPod is connected, the first item in the list is shown.</li> <li>c. Browsing the Items in the Selected Category</li> <li>If the user chooses to play all the songs in the last displayed title of the chosen category (last displayed Playlist / Artist / Album / Genre / Podcast / Audiobook), go to the next step.</li> <li>The TUNE-FILE knob is used for browsing the items in the selected category. Turn the TUNE-FILE knob right/left to display the name of the next/previous item in the selected category.</li> </ul>
b. (	on the radio us Press Preset 1 Playlist on the Press Preset 2 Artist. Press Preset 3 Album.	displayed in sing Presets to display t radio. to display t to display	Artist names Album names Podcast episodes the category will be 1-4. the name of the last the name of the last the name of the last the name of the last ast displayed Podcast	displayed displayed displayed episode.	If Preset 6 is not pressed for over 15 seconds after the

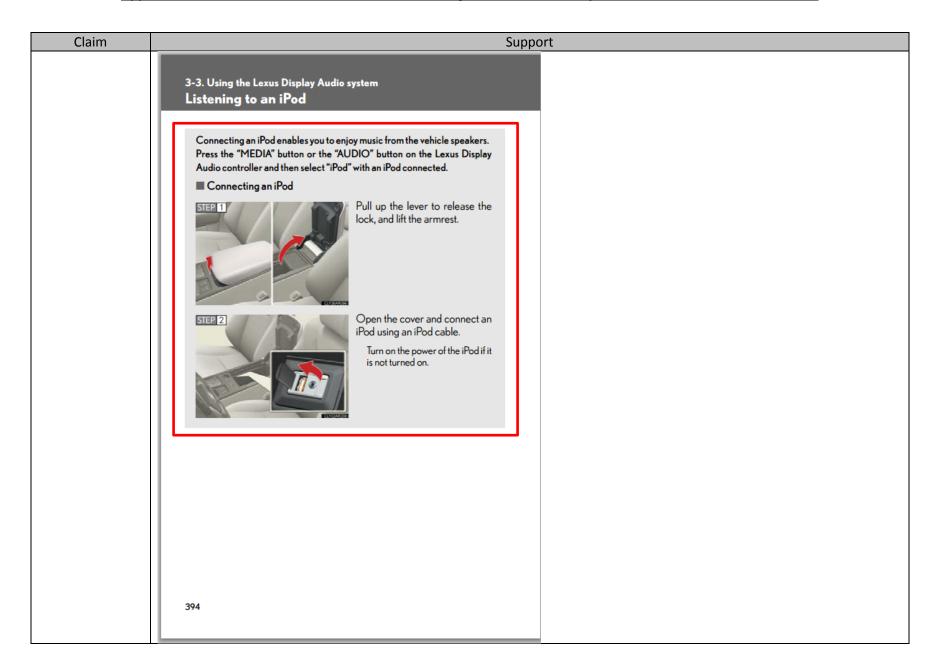
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 214 of 492 PageID #: 4823 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	REMOTE CONTROL (Steering Wheel Switches)         Image: Control of the steering wheel         Image: Control of the s
	-12- See, e.g., Ex. C (Interface Kit for iPod) at 12.
[1G] a second pre-programmed code portion for receiving data from the after- market audio device through said second	The interface of each device integration system of the accused Lexus automobiles is pre-programed to execute "a second pre-programmed code portion for receiving data from the after-market audio device through said second connector in a format incompatible with the car stereo, processing the received data into formatted data compatible with the car stereo, and transmitting the formatted data to the car stereo through said first connector for display by the car stereo." More specifically, in response to one or more formatted commands executed by the after-market audio device, the after-market audio device transmits data (such as audio, video, songs, album, track, cover art, genre and artist information) to the device integration system via the USB connector (i.e., the second connector). The data is then received by the interface of the device integration system (including the microcontroller), where the data is processed and converted using pre-programmed

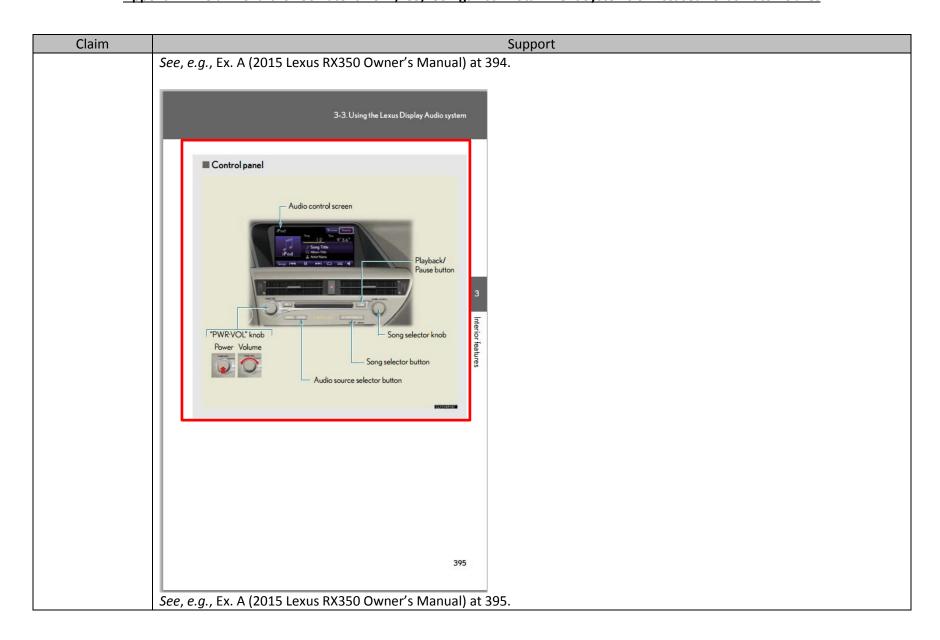
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 215 of 492 PageID #: 4824 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
connector in a	software from a format incompatible with the car stereo and understandable and compatible with the after-market audio
format	device (i.e., USB and device-specific protocols understandable to the after-market audio device) into formatted data
incompatible	compatible with the car stereo and associated Lexus protocols. The formatted data is then transmitted by the interface
with the car	(including the microcontroller) to the car stereo via the first connector for display by the car stereo. The microcontroller of
stereo,	the interface executes pre-programmed code to perform at least a portion of these functions. It is believed that this code is
processing the	stored in onboard memory modules, and/or is contained within firmware elsewhere in the interface (such as within the
received data	microcontroller itself).
into formatted	
data compatible	
with the car	
stereo, and	
transmitting the	
formatted data	
to the car stereo	
through said first	
connector for	
display by the car	
stereo; and	

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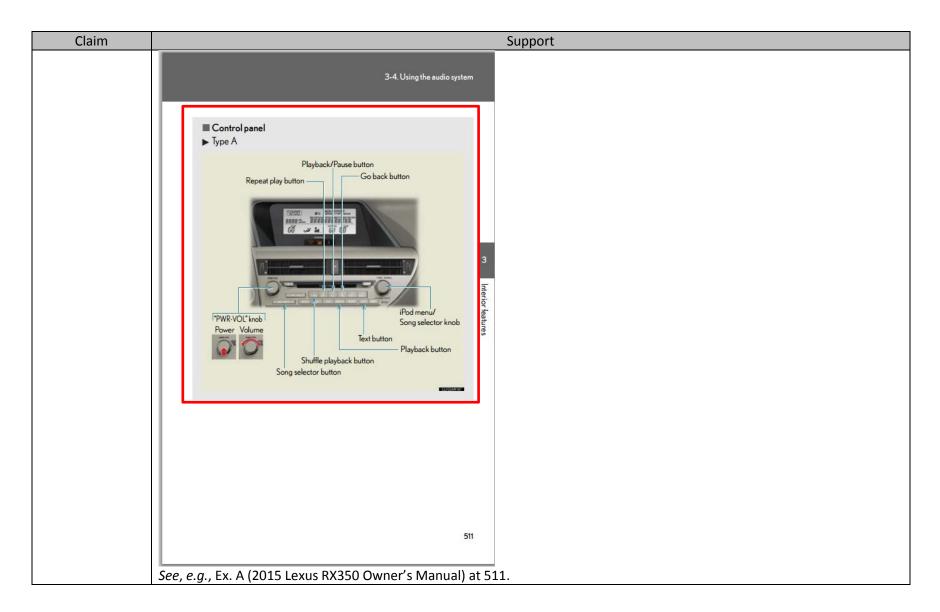
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 217 of 492 PageID #: 4826 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



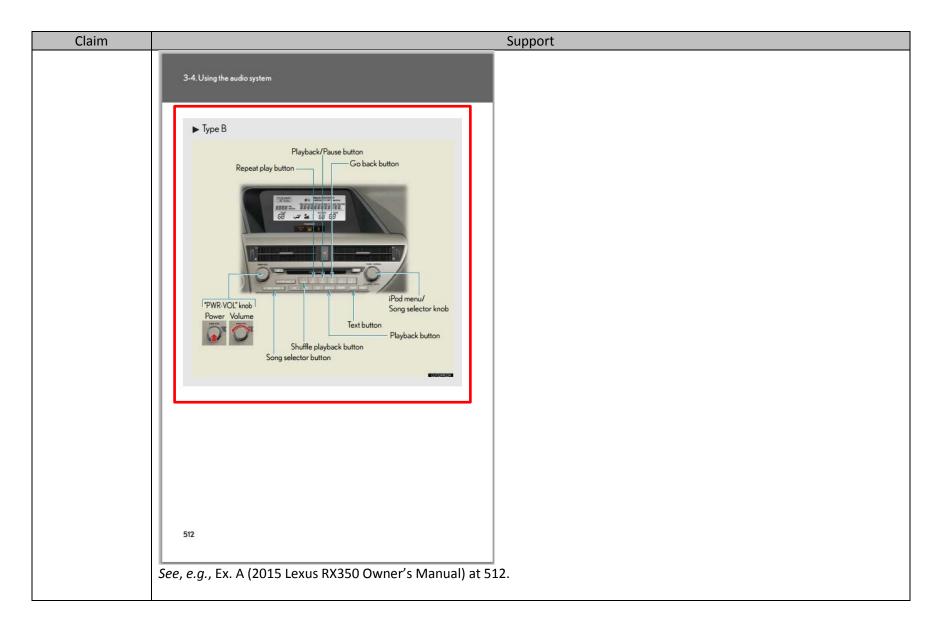
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 218 of 492 PageID #: 4827 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-3. Using the Lexus Display Audio system Pressing the "MEDIA" button on the "AUDIO" button on the Lexus Dis- play Audio controller displays the audio control screen from any screens of the selected source. Audio source selection screen appears Select ing the play mode Displaying the song list Select: Playing the previous song Select and hold: Reversing a song
	396
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

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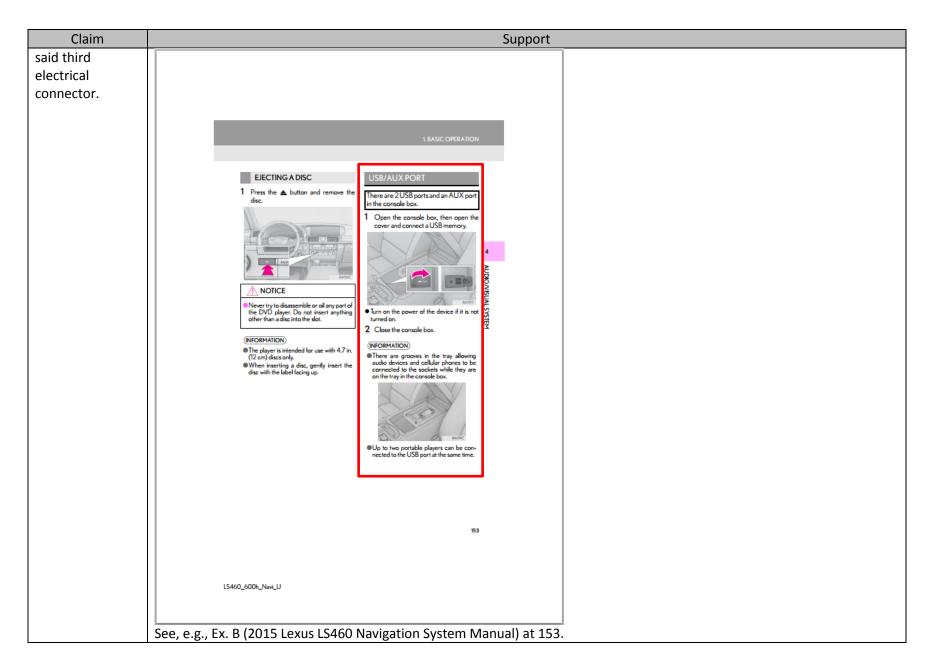
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 220 of 492 PageID #: 4829 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



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Claim	Support
	<ul> <li>DISPLAY AND MESSAGES</li> <li>Song number is assigned to SAT Channel number.</li> <li>Song number can be viewed by pressing the TEXT button if it is not currently being shown in the radio's display.</li> <li>When using the rotary Tune knob to skip songs, the song number reaches 100, the next press of the UP/DOWN button rolls the song number back to 1 although the song itself is number 101.</li> <li>Track Name <ul> <li>Artist name is assigned to SAT Song title.</li> </ul> </li> <li>Artist name is assigned to SAT Song title.</li> <li>TEXT button is used to display the above messages. Press the TEXT button to cycle the Track Number, Track Name and Artist Name in the radio's display. The radio may display incomplete names if they include more characters than the display is capable of showing.</li> <li>Artist and the display is capable of showing.</li> <li>The radio may display incomplete names if they include more characters than the display is capable of showing.</li> </ul>
[1H] a third pre- programmed code portion for switching to one or more auxiliary input sources connected to	The interface of each device integration system of the accused Lexus automobiles is pre-programed to execute "a third pre- programmed code portion for switching to one or more auxiliary input sources connected to said third electrical connector." The microcontroller of the interface executes pre-programmed code to perform at least a portion of this function. It is believed that this code is stored in onboard flash or other memory modules, and/or is contained within firmware elsewhere in the interface (such as within the microcontroller itself).

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Claim	Support
	3. MEDIA OPERATION 6. AUX
	OVERVIEW         The AUX operation screen can be reached by the following methods:         Oceneting a device to the AUX port (-+P:153)         Division to to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to display to a division to the Remote Touch, then select "Media" to a display to a division to the Remote Touch, then select "Media" to a display to a division to a divisionto a division to a division to a divisionto
	203
	L5460_600h_Navi_U
	See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 203.

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Claim	Support
2. The apparatus	It is believed that some portions of the device integration system of the accused Lexus automobiles are manufactured for
of claim 1,	Lexus by Original Equipment Manufacturers such as Fujitsu.
wherein the car	
stereo further	
comprises an	
Original	
Equipment	
Manufacturer	
(OEM) car stereo	
connected to	
said first	
electrical	
connector.	
4. The apparatus	Each device integration system of the accused Lexus automobiles allows for the connection of at least MP3 players (iPods),
of claim 1,	iPhones and other smart devices.
wherein the	
after-market	
audio device	
further	
comprises a CD	
player, CD	
changer, MP3	
player, Digital	
Audio Broadcast	
(DAB) receiver,	
or satellite	
receiver	
connected to	
said second	
electrical	
connector.	

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Claim	Support
	3-3. Using the Lexus Display Audio system
	#Wedpediem         Directly encoder motor problems encountered when using your (Pod, disconnect your (Pod, disconnect your (Pod, disconnect in Your (Pod, Honder)))         #Orner message         "Connection are result for instructions on how to reset your         "Connection are result for instructions on how to reset your         "Connection are result for instructions on how to reset your         "Connection are result for Department for instructions on how to reset your         "Connection are result for phyback. Please load compatible media to your         "Default model"         The indicates problem in the Pod or its connection.         "The are no song a valiable for phyback. Please load compatible media to your         Pod         "Default model"         The indicates problem in the Pod or its connection.         "Prove the default for phyback. Please load compatible media to your         "One the default in the Pod or its connection.         "Pod acut (diff generation)         * Pod touch (diff generation)         * Pod touch (diff generation)         * Pod acus (diff generation)         * P
	See, e.g., Ex. A (2015 Lexus KX350 Owner's Manual) at 395.

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 226 of 492 PageID #: 4835 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
5. The apparatus	Each device integration system of the accused Lexus automobiles includes a plug-and-play module that automatically
of claim 1,	detects whether an iPhone/iPod or Android-powered device is attached to the USB port. For example, through Apple's MFi
wherein said	Program, third party-accessories, such as the device integration systems of the accused Lexus automobiles, are licensed to
interface further	connect electronically to Apple devices such as the iPhone and iPod. See, e.g.,
comprises a plug-	https://mfi.apple.com/MFiWeb/getFAQ.action. Apple provides a framework for communications between Apple devices
and-play mode	and third-party accessories, such as the device integration systems of the accused Lexus automobiles, which includes the
for automatically	requirement that the third-party accessory includes a chip to decode communications between the accessory and a device
detecting a	that has identified itself as an iPod or iPhone. See, e.g., http://www.objectpartners.com/2010/09/14/communicating-with-
device type of	external-devices-from-the-iphone-and-ipad/.
the after-market	
audio device	Similarly, Android provides tools for connecting Android-powered devices to third-party accessories using a USB connection,
connected to	including a means for providing a notification that an Android-powered device is connected to the accessory. See, e.g.,
said second	http://developer.android.com/guide/topics/connectivity/usb/accessory.html.
electrical	
connector and	The specific manner in which the interface implements the plug-and-play mode of this claim will be ascertainable by
integrating the	reviewing the source code of the interface in the accused Lexus automobiles.
after-market	
audio device	
based upon the	
device type.	

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514         Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"Colspa	
Selecting songs         Turn       Image: Construction of the play is to real to select the desired song.         Playing and pausing songs         To play or pause a song, press         To fast-forwarding and reversing songs         To fast-forward or reverse, press and hold ">" or "<" on Image: Construction of the play is to real to make a beep.         Shuffle playback         Image: Press         To cancel, press         Image: Concel, prese: C	
Iurn is or press ">" or "<" on is statements to select the desired song.   Playing and pausing songs   To play or pause a song, press is in to play or pause a song, press is in to fast-forwarding and reversing songs   To fast-forwarding and reversing songs   To fast-forward or reverse, press and hold ">" or "<" on is statements   To fast-forward or reverse, press and hold ">" or "<" on is statements   Shuffle playback   Implicit playback   Playing songs from one playlist or album in random order Press is is in andom order Press is is in andom order Press is is in andom order Press is in again.	
To play or pause a song, press     Fast-forwarding and reversing songs   To fast-forward or reverse, press and hold ">" or "<" on <   To fast-forward or reverse, press and hold ">" or "<" on <   Shuffle playback   Playing songs from one playlist or album in random order   Press   To cancel, press   Blaying songs from all the playlists or albums in random order	
To fast-forward or reverse, press and hold ">" or "<" on <	
To cancel, press again.  Playing songs from all the playlists or albums in random order	
To cancel, press again.           Repeat play	
Press 3 To cancel, press 3. again. Switching the display	
Press Each time the button is pressed, the display changes in the following order: Elapsed time → Album title → Track title → Artist name 515	
3-4. Using the audio system See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 191.	

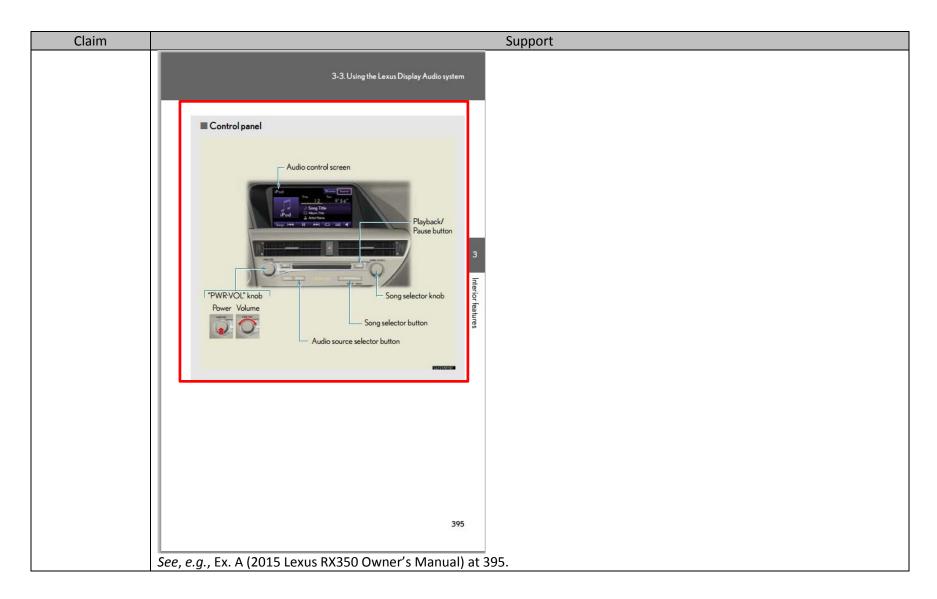
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 228 of 492 PageID #: 4837 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Support	
Claim		Support	
	BASIC FUNCTIONS Resume Play The "Resume Play" feature allows the iPod to play the cur- rent musical selection (Play queue) when connecting to the Interface Kit. If the play queue was empty, the Interface Kit plays the entire iPod. Music Play Select songs in the play queue and continue to play repeat- edly until another selection is made. Music Search The user can make media selections from the iPod from a preselected list of categories (Playlist, Artist, Album, Genre, Podcast and Audiobook). The radio SAT controls coincide with similar functions on the iPod. Text Display The interface utilizes the same text fields provided for the satellite radio. For each song, the radio displays a track num- ber, artist name and song title information. This corresponds to the SAT channel number, artist name and song title re- spectively.	<section-header><section-header><section-header><text><text><text><image/><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></text></text></text></section-header></section-header></section-header>	
6 The apparatus	The interface of the device integration system of each	ch accused Levus, automobile includes a device proces	ace signal that
6. The apparatus of claim 1, wherein said interface generates a device presence	"maintain[s] the car stereo in an operational state re after-market audio device is plugged into the USB po system (i.e., the second electrical connector), an iPo recognized. Once a compatible portable device is co	ch accused Lexus automobile includes a device preser esponsive to processed data and audio signals." Speci ort that is connected to the USB connector in the devi d graphic appears indicating that a compatible device onnected and recognized, the interface of the device i cessed data and audio signals from the portable device	fically, when an ce integration is connected and ntegration system

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Claim	Support
signal for	
maintaining the	The microcontroller of the interface executes pre-programmed code to perform at least a portion of these functions. It is
car stereo in a	believed that this code is stored in onboard memory modules, and/or is contained within firmware elsewhere in the
state responsive	interface (such as within the microcontroller itself).
to processed	
data and audio	The specific manner in which the interface implements the device presence signal of this claim will be ascertainable by
signals.	reviewing the source code of the interface in the accused Lexus automobiles.

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Claim	Support
Claim	<ul> <li>3-3. Using the Lexus Display Audio system</li> <li>Audio control screen         Pressing the "MEDIA" button or the "AUDIO" button on the Lexus Display Audio controller displays the audio control screen from any screens of the selected source.     </li> <li>Audio source selection screen appears         Audio source selection screen appears         Selecting the play mode         Displaying the song list         Select: Playing the previous song     </li> </ul>
	Select and hold: Reversing a song Pause Select: Playing the next song Select and hold: Fast-for- warding a song Repeat play B Shuffle play B Setting the sound (→P. 428)
	See a g Ev. A (2015 Lovus BX250 Owner's Manual) at 206
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 232 of 492 PageID #: 4841 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3–3. Using the Lexus Display Audio system
	Selecting a play mode         Image: Select Browse" on the screen.         Selecting and reversing songs         Selecting one song 4 a time         Prost         TUNE-SCRULT Knows to baselet the desired song.         To fait-forward or reverse, select and hold if or if and infly ou hear a been.         Selecting one reverse, select and hold if or if and the desired song.         Selecting on the screen.         Selecting one reverse, select and hold if or if and infly ou hear a been.         Selecting one reverse, select and hold if or if and if you hear a been.         Selecting song from the itat         Select if if or if and if out if you hear a been.         Select if if or if and if out if out if you hear a been.         Select if if or if and if out if you hear a been.         Select if if or if and if out if you hear a been.         Select if if or if and if out if you hear a been.         Select if if or if and if out if you hear a been.         Select if if or if and if out if you hear a been.         Select if if or if and if out if you hear a been.         Select if on a dia control screen         Select if on a dia control screen         Select if on a dif out if out if you hear a been.     <

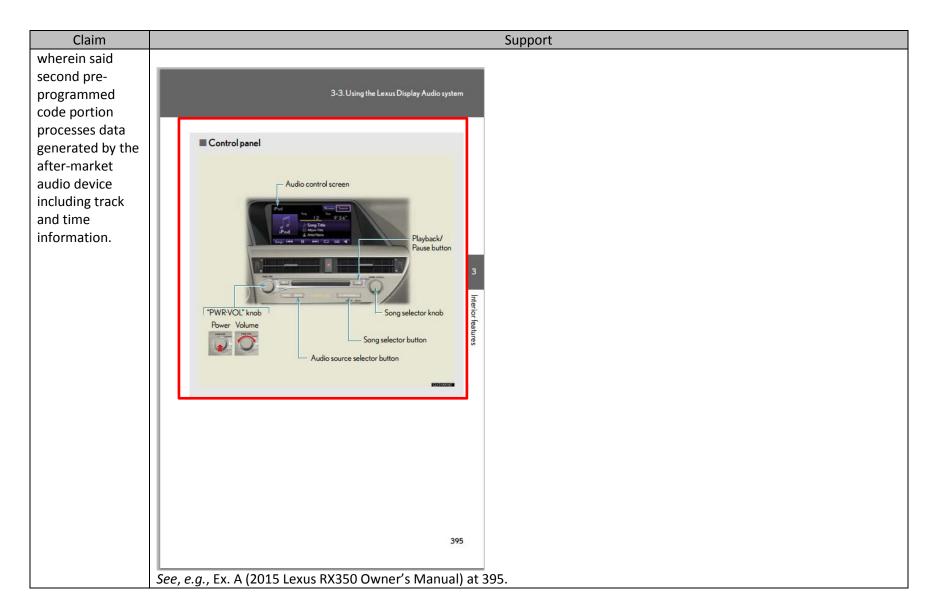
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 233 of 492 PageID #: 4842 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	Soloting congs         Turn or press ">" or "<" on <seextraxes desired="" select="" song.<="" td="" the="" to="">         Playing and pausing songs</seextraxes>
	To play or pause a song, press . Fast-forwarding and reversing songs
	To fast-forward or reverse, press and hold ">" or "<" on <<==================================
	Shuffle playback  Playing songs from one playlist or album in random order  Press
	To cancel, press with again.  Playing songs from all the playlists or albums in random order Press and hold with you hear a beep.
	To cancel, press again. Repeat play
	Press . To cancel, press again. Switching the display
	Press Text . Each time the button is pressed, the display changes in the following order:
	Elapsed time → Album title → Track title → Artist name         515         See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 516.

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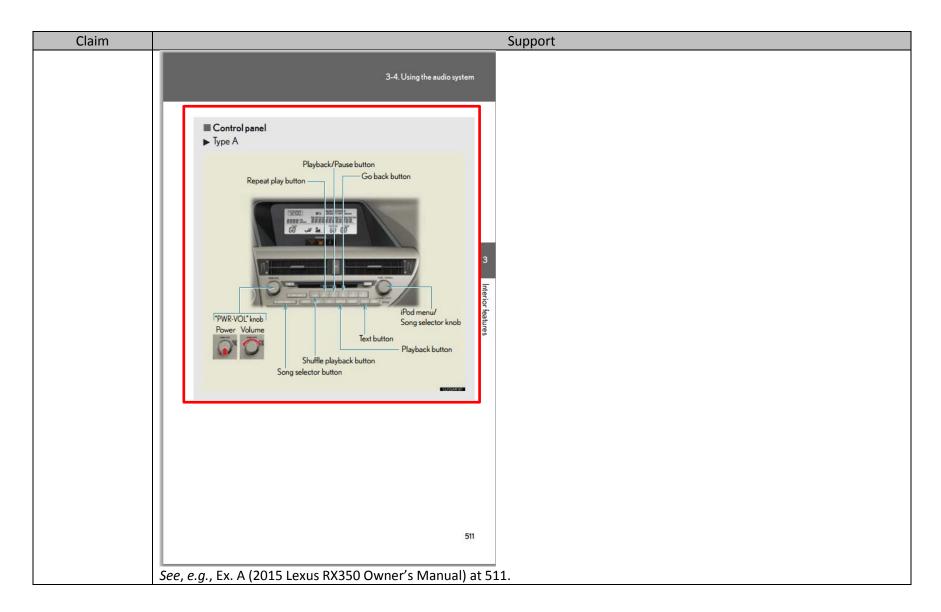
Claim	Support
	3-3. Using the Lexus Display Audio system
	<ul> <li>About iPod</li> <li>Made for         iPod i iPhone     </li> <li>"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has been certified by the developer to meet Apple performance standards.     </li> </ul>
	<ul> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>iPhone, iPod, iPod classic, iPod nano and iPod touch are trademarks of Apple</li> </ul>
	<ul> <li>■ iPod cover art</li> <li>■ Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>■ This function can be changed to "On" or "Off". (→P. 338)</li> <li>■ It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>■ Only iPod cover art that is saved in a JPEG format can be displayed.</li> </ul>
	<ul> <li>iPod functions</li> <li>When an iPod is connected and the audio source is changed to iPod mode, the iPod will resume play from the same point in which it was last used.</li> <li>Depending on the iPod that is connected to the system, certain functions may not be available. If a function is unavailable due to a malfunction (as opposed to a system specification), disconnecting the device and reconnecting it once</li> </ul>
	again may resolve the problem. ● While connected to the system, the iPod cannot be operated with its own con- trols. It is necessary to use the controls of the vehicle's audio system instead. ● When the battery level of an iPod is very low, the iPod may not operate. If so, charge the iPod before use. ● Supported models (→P. 400)
	<sup>399</sup> <i>See, e.g.,</i> Ex. A (2015 Lexus RX350 Owner's Manual) at 399.
7. The apparatus	Each device integration system of the accused Lexus automobiles displays the track and time information of songs being
of claim 1,	played from a connected after-market audio device.

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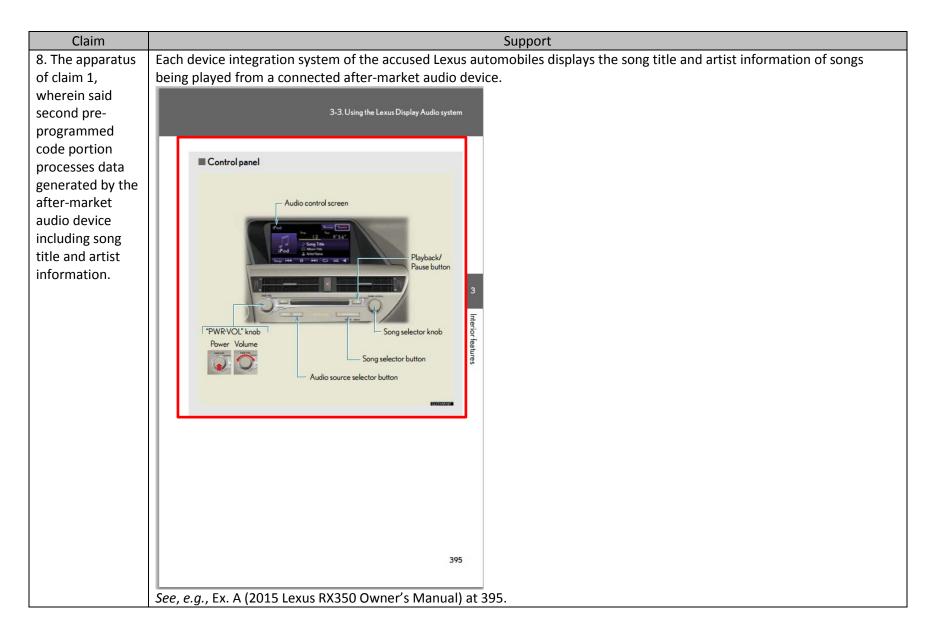
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 238 of 492 PageID #: 4847 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-4. Using the audio system          Type B         Playback/Pause button         Co back button         Co back button         Co back button
	52 To a a fir A (2015 Logger BY2EO Ourpor's Magual) at E12
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 239 of 492 PageID #: 4848 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	Selecting songs Turn or press ">" or "<" on < <statemaccose desired<br="" select="" the="" to="">song.</statemaccose>
	Playing and pausing songs         To play or pause a song, press         Fast-forwarding and reversing songs         To fast-forward or reverse, press and hold ">" or "<" on <>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
	Shuffle playback     Image: Shuffle playback       Image: Playing songs from one playlist or album in random order     Image: Press indicate playlists or albums in random order       To cancel, press indicate playlists or albums in random order     Image: Playing songs from all the playlists or albums in random order
	Press and hold until you hear a beep. To cancel, press again. Repeat play Press again.
	To cancel prove       again         Switching the display         Press         Each time the button is pressed, the display changes in the following order:         Elapsed time → Album title → Track title → Artist name         515
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 515.

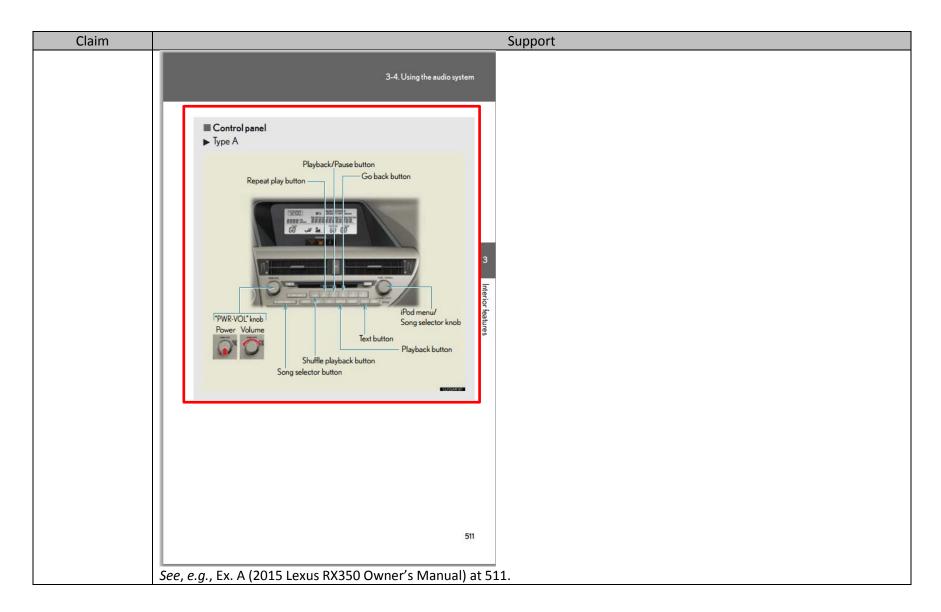
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 240 of 492 PageID #: 4849 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 241 of 492 PageID #: 4850 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-3. Using the Lexus Display Audio system  Audio control screen  Pressing the "MEDIA" button or the "AUDIO" button on the Lexus Dis- play Audio control ler displays the audio control screen from any screens of the selected source.  Audio source selection screen appears Selecting the play mode
	12       9 • 5 Å         Song Tale       Displaying the song list         Select: Playing the previous song       Select and hold: Reversing a song         Select: Playing the next song       Select: Playing the next song         Select: Playing the next song       Select: Playing the next song         Select: Playing the song       Repeat play         Shuffle play       Shuffle play         Setting the sound (→P. 428)       Setting the sound (→P. 428)
	396
	<i>See, e.g.,</i> Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

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### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 243 of 492 PageID #: 4852 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	Type B         Repeat By button         Go back button         Boog salector button         Song salector button
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.

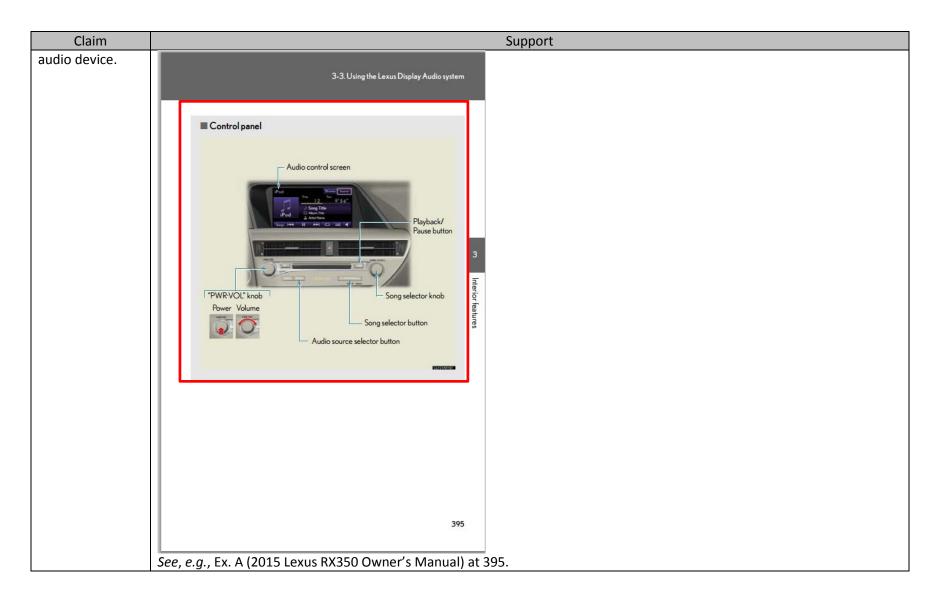
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 244 of 492 PageID #: 4853 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-4. Using the audio system         Selecting songs         Turn of press ">" or "<" on concernance         Turn of playing and pausing songs         To play or pause a song, press of the desired         To play or pause a song, press of the desired         To fast-forwarding and reversing songs         To fast-forward or reverse, press and hold ">" or "<" on concernance         To fast-forward or reverse, press and hold ">" or "<" on concernance
	Shuffle playback       Image: Control of the playing songs from one playlist or album in random order         Press       Image: Control of the playlists or albums in random order         Press       Image: Control of the playlists or albums in random order         Press and hold       Image: Control of the playlists or albums in random order         Press and hold       Image: Control of the playlists or albums in random order         Press and hold       Image: Control of the playlists or albums in random order         Press       Image: Control of the playlist or albums in random order         Press       Image: Control of the playlist or albums in random order         Press       Image: Control of the playlist or albums in random order         Press       Image: Control of the playlist or albums in random order         Press       Image: Control of the playlist or albums in random order         Press       Image: Control of the playlist or album in random order         Press       Image: Control of the playlist or album in random order         Press       Image: Control of the playlist or album in random order         Press       Image: Control of the playlist or album in random order         Switching the display       Control of the playlist or album in random order         State time the button is pressed, the display changes in the following order:       Elapsed time - Album title - Artist name

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Claim	Support
	<ul> <li>DISPLAY AND MESSAGES</li> <li>Song number is assigned to SAT Channel number.</li> <li>Song number can be viewed by pressing the TEXT button if it is not currently being shown in the radio's display.</li> <li>When using the rotary Tune knob to skip songs, the song number canage is shown in the radio's display.</li> <li>Track Name is assigned to SAT Song title.</li> <li>Artist name is assigned to SAT Song title.</li> <li>TEXT button is used to display the above messages. Press the TEXT button to cycle the Track Number, Track Name and Artist Name in the radio's display.</li> <li>The adio may display incomplete names if they include more characters than the display is capable of showning.</li> <li>Texa Alter Al</li></ul>
10. The apparatus of claim 1, wherein said interface processes video information generated by the after-market	Each device integration system of the accused Lexus automobiles displays video information, such as cover art, generated be a connected after-market audio device.

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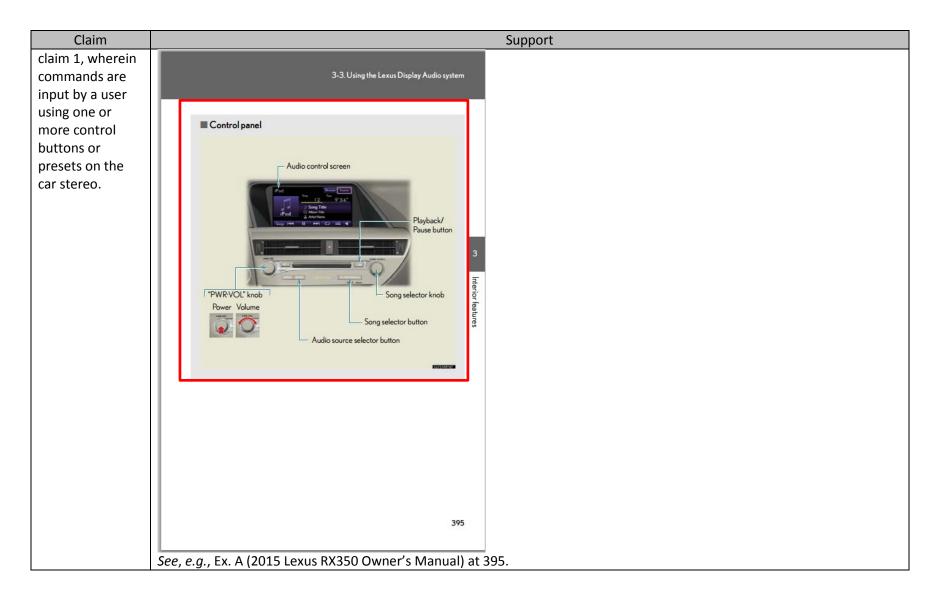
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 247 of 492 PageID #: 4856 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-3. Using the Lexus Display Audio system          ■ Audio control screen         Pressing the "MEDIA" button or the "AUDIO" button on the Lexus Display Audio controller displays the audio control screen from any screens of the selected source.         ■ Audio source selection screen appears         ■ Audio source selection screen appears         ■ Selecting the play mode         ■ Displaying the song list
	<ul> <li>Pades: Playing the previous song</li> <li>Select: Playing the previous song</li> <li>Select and hold: Reversing a song</li> <li>Pause</li> <li>Select Playing the next song</li> <li>Select and hold: Fast-forwarding a song</li> <li>Repeat play</li> <li>Shuffle play</li> <li>Setting the sound (→P. 428)</li> </ul>
	396
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

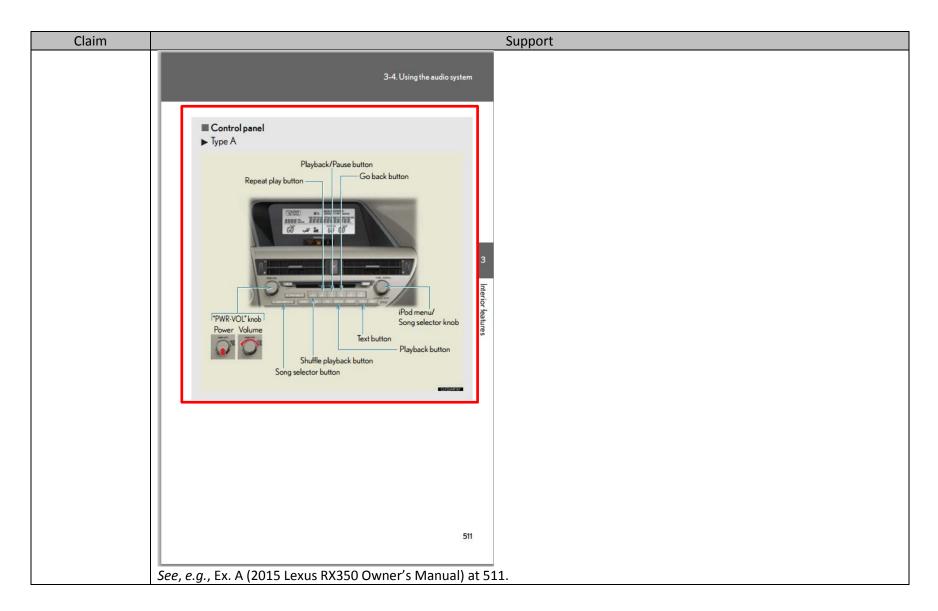
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 248 of 492 PageID #: 4857 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Made for iPod iPhone "Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has
	been certified by the developer to meet Apple performance standards. • Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance. • iPhone, iPod, iPod classic, iPod nano and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.
	<ul> <li>■ iPod cover art</li> <li>■ Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>■ This function can be changed to "On" or "Off". (→P. 338)</li> <li>■ It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>■ Only iPod cover art that is saved in a JPEG format can be displayed.</li> </ul>
	<ul> <li>When an iPod is connected and the audio source is changed to iPod mode, the iPod will resume play from the same point in which it was last used.</li> <li>Depending on the iPod that is connected to the system, certain functions may</li> </ul>
	not be available. If a function is unavailable due to a malfunction (as opposed to a system specification), disconnecting the device and reconnecting it once again may resolve the problem. While connected to the system, the iPod cannot be operated with its own con- trols. It is necessary to use the controls of the vehicle's audio system instead.
	<ul> <li>When the battery level of an iPod is very low, the iPod may not operate. If so, charge the iPod before use.</li> <li>Supported models (-&gt;P. 400)</li> </ul>
	399
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 399.
13. The	Each device integration system of the accused Lexus automobiles allows a user to control a connected after-market audio
apparatus of	device via switches, presets, buttons and virtual controls displayed on a screen of the car stereo.

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Claim	Support
	3-4. Using the audio system
	Type B         Repeat By button         Go back button         Boog salector button         Song salector button
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.

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Claim	Support
Claim	Support 3-3. Using the Lexus Displey Audio system Audio control screen Pressing the "MEDIA" button on the AUDIO" button on the Lexus Display Audio control screen from any screens of the selected source. Audio source selection screen appears Selecting the play mode Displaying the song list Select and hold: Reversing a song
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 396.

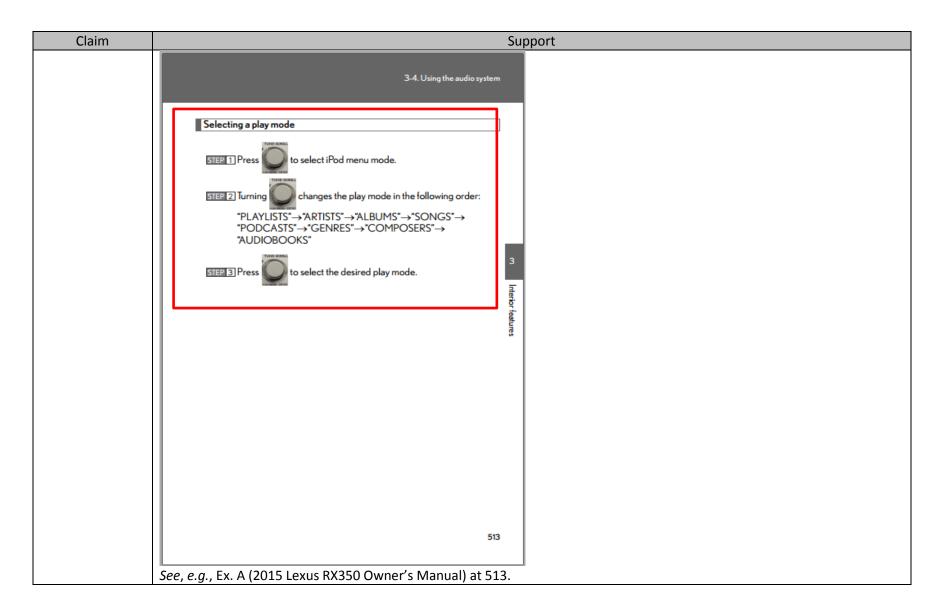
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 253 of 492 PageID #: 4862 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support	
	3-3. Using the Lexus Display Audio system	
	Selecting a play mode         Image: Select Browse' on the screen.         Image: Select Browse' on the SPSTRACK' builton or turn the TUNE'SCROLL' knob to select the desired screen.         Image: Select Browse' on the screen.         Image: Select Browse' Select Browse''s Manual) at 397.	

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Claim	Support
	3-3. Using the Lexus Display Audio system
	Shuffle play         Each time       is selected, the mode changes in the following order:         Image: Playing the songs in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod in shuffle         Image: Playing the albums in the iPod, shuffle selection may take time.         Image: Playing the albums in the following order:         Image: Playing the song         Image: Playing the song         Image: Playing the song         Image: Playing the song         Image: Playing the song
	<sup>398</sup> See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 398.

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Claim	Support
	3-4. Using the audio system
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 514.

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Claim	Support
Claim	3.4. Using the audio system         Selecting songs         Turn @
	Switching the display Press ■ Switching the display changes in the following order: Elapsed time → Album title → Track title → Artist name State See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 515.

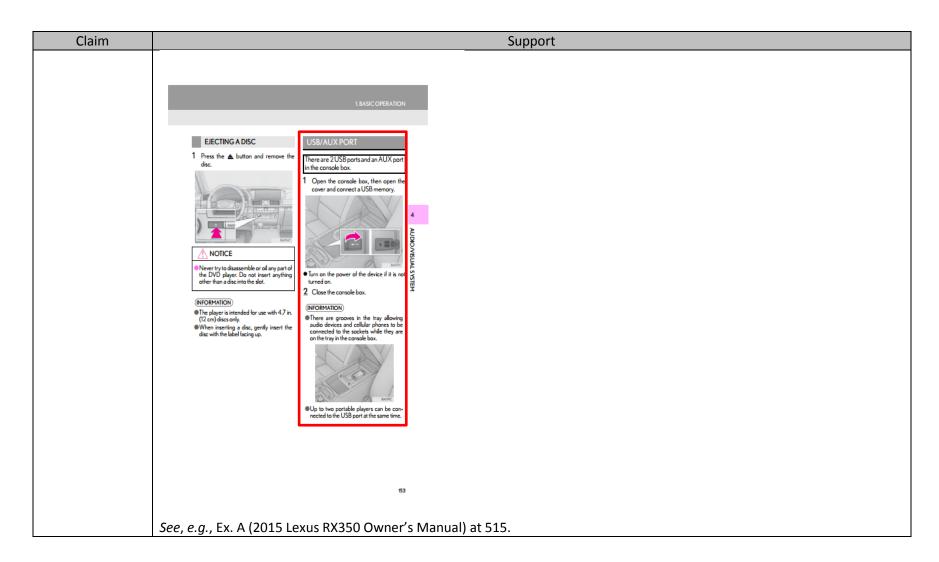
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 258 of 492 PageID #: 4867 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	Support 3-4. Using the audio system Adjusting sound quality and volume balance
	<ul> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>iPhone, iPod, iPod classic, iPod nano and iPod touch are trademarks of Apple Inc., registered in the US. and other countries.</li> <li>516</li> <li>Seee, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 516.</li> </ul>

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Claim	Support
	3-3. Using the Lexus Display Audio system
	■ About iPod Made for iPod iPhone
	<ul> <li>"Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod, or iPhone, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with</li> </ul>
	iPod or iPhone may affect wireless performance.         • iPhone, iPod, iPod classic, iPod nano and iPod touch are trademarks of Apple         Inc., registered in the US, and other sountries.         • iPod cover art         • Depending on the iPod and songs in the iPod, iPod cover art may be displayed.
	<ul> <li>This function can be changed to "On" or "Off". (-P. 338)</li> <li>It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>Only iPod cover art that is saved in a JPEG format can be displayed.</li> </ul>
	<ul> <li>IPod functions</li> <li>When an iPod is connected and the audio source is changed to iPod mode, the iPod will resume play from the same point in which it was last used.</li> </ul>
	Depending on the iPod that is connected to the system, certain functions may not be available. If a function is unavailable due to a malfunction (as opposed to a system specification), disconnecting the device and reconnecting it once again may resolve the problem.
	<ul> <li>While connected to the system, the iPod cannot be operated with its own controls. It is necessary to use the controls of the vehicle's audio system instead.</li> <li>When the battery level of an iPod is very low, the iPod may not operate. If so,</li> </ul>
	charge the iPod before use. ● Supported models (→P. 400)
	<sup>399</sup> See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 399.
	See, e.g., Ex. A (2015 Lexus KX350 Owner's Manual) at 399.

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Claim	Support
	3-4. Wing the suddraystem         Selecting congs         I'm       I'm         I'm       I'm

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Claim	Support	
Claim	iPod CONTROL - BASIC       Fast-For         Song UP/DOWN       • TUNE-FILE KNOB         Use the TUNE-FILE knob to skip to the next or previous song.       • SEEK-TPM         Rotate the knob 1 click to the right or left to skip to the next song or previous one respectively. Rotate the knob "N" steps to the respectively. Rotate the knob "N" steps to	<ul> <li>Press &lt; to fast-forward through a song.</li> <li>Press &lt; again to stop.</li> <li>Press &lt; to rewind a song.</li> <li>Press &lt; again to stop.</li> <li>m Play [Shuffle ON/OFF]</li> <li>Shuffle songs within the "Now Playing" list of the iPod: Play songs on the iPod in random order within the current "Now Playing" list using the SCAN button. After playing the last song in the Playlist randomly, Shuffle begins playing back in a new random order.</li> <li>Press and hold the SCAN button (more than 1 second) to turn shuffle OFF.</li> </ul>
	-8-	1
	<i>See, e.g.,</i> Ex. C (Interface Kit for iPod) at 8.	

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Claim	Support
	SCAN       Press and release the SCAN button to preview 10 seconds of each song on the iPod. When a desired song is heard, press and release the SCAN button (before 10 seconds has been played) to play the entire song. The SCAN function is canceled.       MUSIC SEARCH         In addition, SCAN is also usable within the current "Now Playing" list. If it is selected as described above, while in a "Now Playing" list (Playlist, Album, etc.), then only the songs in that list are scanned.       Music search in any of the following categories in the iPod: Playlist, Artist, Album, Genre, Podcast and Audiobook. The user can select one of the following two methods to choose songs from these categories.         Method 1 (Category Search)       The user can do a music search in any of the following categories: Playlist, Artist, Album, Genre, Podcast and Audiobook.         The buttons TYPE-FOLDER UP/DOWN, Preset 6 and the TUNE-FILE knob are used together to implement the search function through the following steps:
	a. Category Browsing The TYPE-FOLDER UP/DOWN button is used for category browsing. Press the TYPE-FOLDER button and the list of categories, Playlist ↔ Artist ↔ Album ↔ Genre ↔ Podcast ↔ Audiobook is shown in the radio's display. Pressing ∧, shifts the se- lection list to the right and ∨ shifts the selec- tion list to the left.
	-9-
	See, e.g., Ex. C (Interface Kit for iPod) at 9.

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Claim	Support
	b. Category Selection       A: Select Songs <ul> <li>Preset 6 [Enter] button is used to make the selection after category browsing. Preses the Preset 6 button to select the name of the last item displayed in the selected category (Playlist / Artist / Artist</li></ul>
	-10- See, e.g., Ex. C (Interface Kit for iPod) at 10.

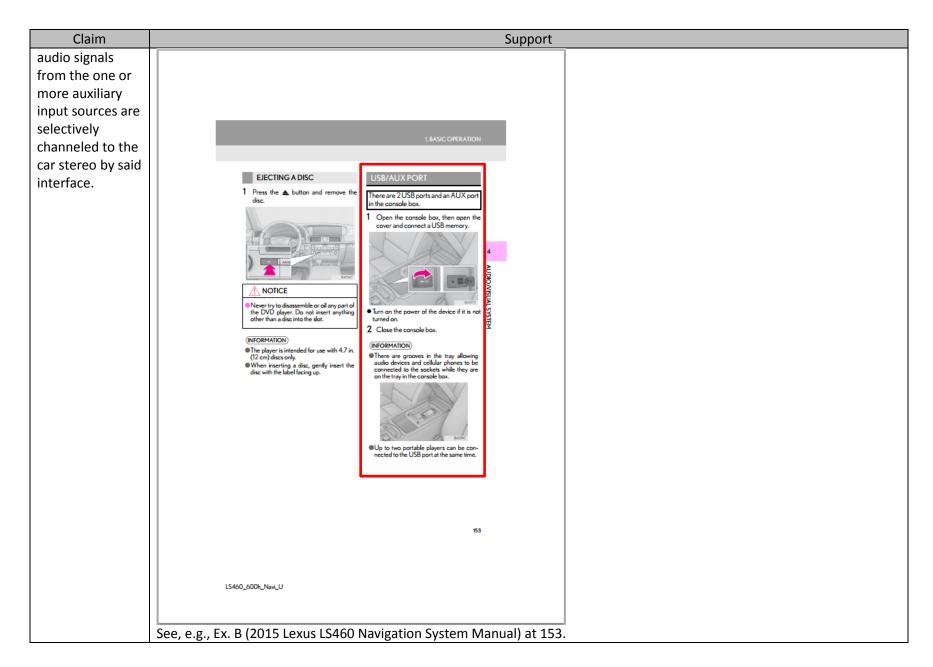
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 265 of 492 PageID #: 4874 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Method 2 (Quick Search)       NOTE: If this is the first search after the iPd the first item in the list is shown.         Artist, Album and Podcast.       C. Browsing the Items in the Selected Categories. Category browsing is not needed and selection is made directly from the Presets. Presets 1-4, Preset 6 and TUNE are used together as follows.         a. Preset Assignment       NOTE: If this is the first search after the iPd the first item in the list is shown.	jory
Button         Display         Browse         the selected category. Turn the TUNE-FIL           Preset 1         Playlist         Playlist names         lected category.	bbook), go to the sing the items in LE knob right/left
Preset 2ArtistArtist namesPreset 3AlbumAlbum namesPreset 4PodcastPodcast episodesb. Category SelectionPreset 1 explored in the category will be displayed on the radio using Presets 1-4.Press Preset 1 to display the name of the last displayed Playlist on the radio.Press Preset 1 to display the name of the last displayed Artist.Press Preset 2 to display the name of the last displayed Artist.Press Preset 3 to display the name of the last displayed Album.If Press Preset 4 to display the last displayed Podcast episode.If Press Preset 4 to display the last displayed Podcast episode.SCAN123456TEXT	n the radio's dis- ngs from the dis- is item becomes ong track will be completed. econds after the ed on the radio, the radio returns nues playing the

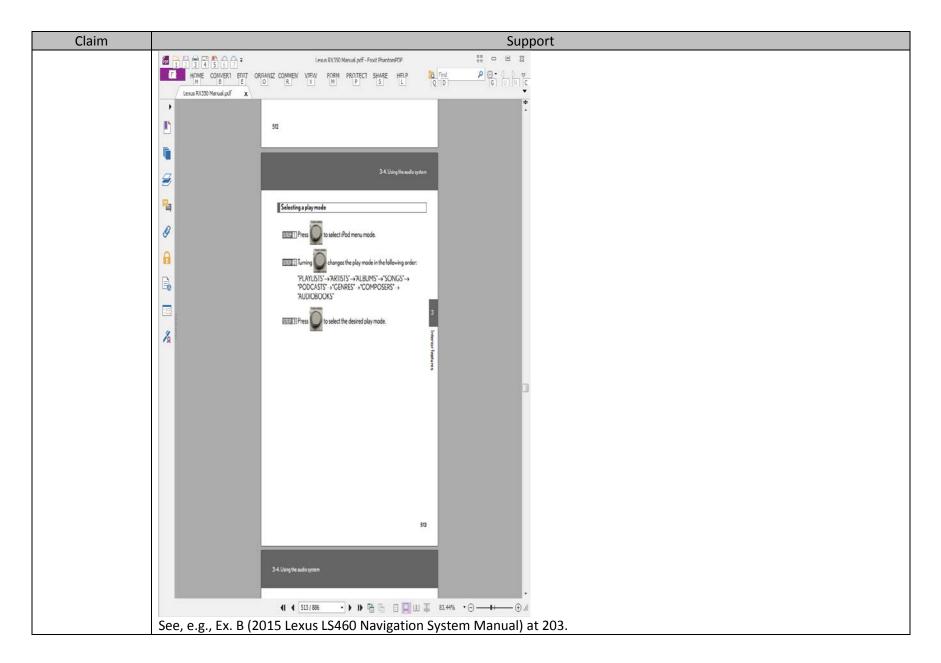
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 266 of 492 PageID #: 4875 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	REMOTE CONTROL (Steering Wheel Switches)
	-12- See, e.g., Ex. C (Interface Kit for iPod) at 12.
14. The apparatus of claim 1, wherein	Each device integration system of the accused Lexus automobiles also allows for various input sources to be connected to an auxiliary input electrical connector and played through the car speakers.

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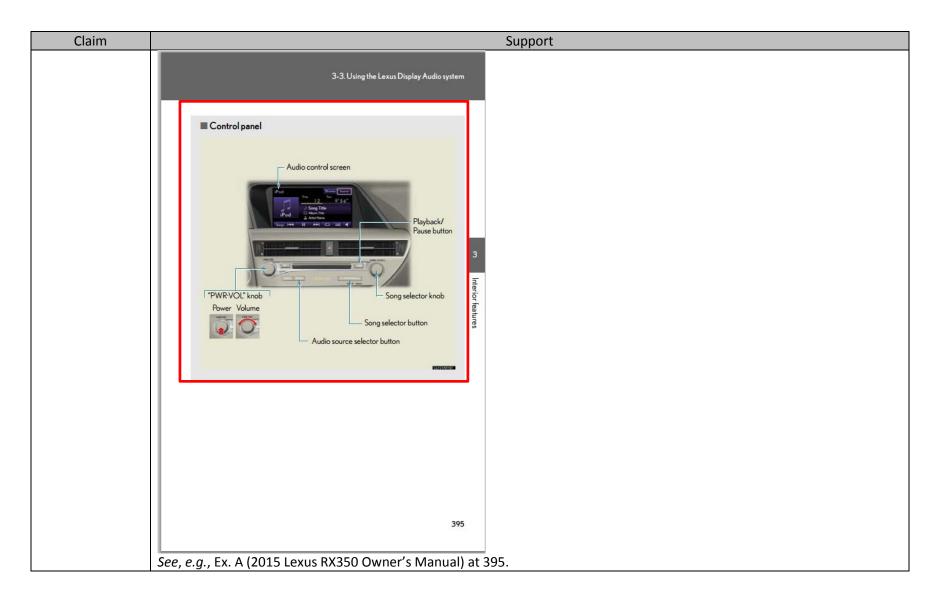
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 269 of 492 PageID #: 4878 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3. MEDIA OPERATION
	No. Function
	1 Select to display the audio source selection screen.
	2 Select to display the sound setting screen.
	<ul> <li>Press to turn mute on/off.</li> <li>Press to select a media mode.</li> </ul>
	While in a media mode, pressing the "MEDIA" button changes media modes.
	Furn to adjust volume.     Press to turn the audio system on/off.     Press and hold to restart the audio system.
	204
	See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 204.

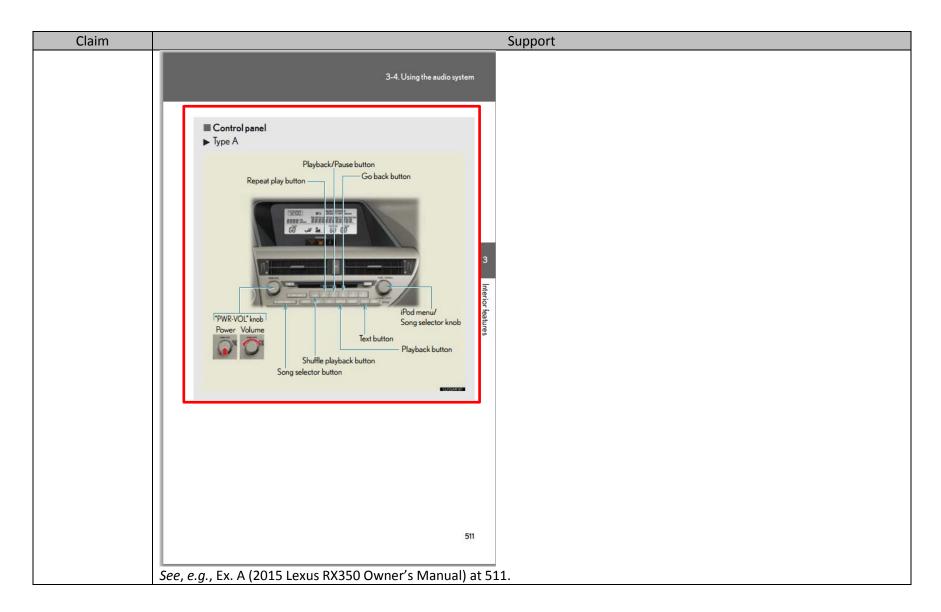
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 270 of 492 PageID #: 4879 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

	Fach device integration protons of the approach lower outer childs composite to often monitor builds devices using a UCD hus
claim 1, further comprising a bus connection established between the after-market audio device and said interface. 24. The apparatus of claim 23, wherein the bus connection comprises a Universal Serial Bus (USB) connection.	Each device integration system of the accused Lexus automobiles connects to after-market audio devices using a USB bus connector (i.e., second electrical connector) for connecting, via a cable, to an after-market audio device external to the cast acted, as an MP3 player or iPhone. The USB connector communicates using the Universal Serial Bus protocol.

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Claim	Support
	3-4. Using the audio system
	Type B         Repeat play button         Co back button         Pod menu/ Song selector knob         Song selector knob         Song selector knob
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 512.

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Claim	Support
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	L5460_600h_N##_U
	See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 153.

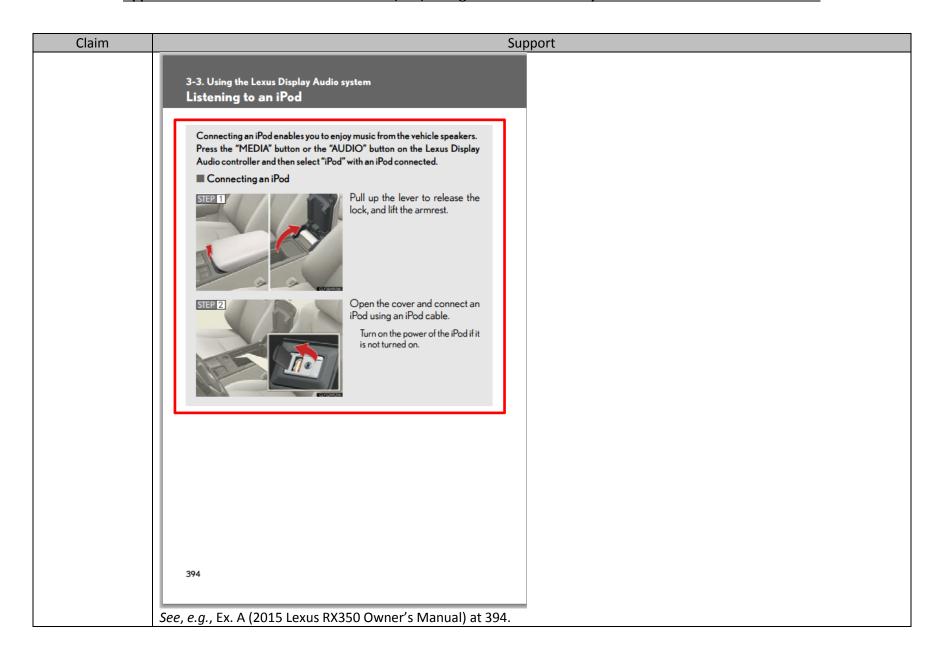
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 275 of 492 PageID #: 4884 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	514
	3-4. Using the audio system
	Selecting songs       Turn or press ">" or "<" on select the desired song.
	Playing and pausing songs       To play or pause a song, press
	Fast-forwarding and reversing songs       To fast-forward or reverse, press and hold ">" or "<" on <       until you hear a beep.       Shuffle playback
	<ul> <li>Playing songs from one playlist or album in random order Press</li> <li>To cancel, press</li> <li>Playing songs from all the playlists or albums in random order Press and hold until you hear a beep.</li> </ul>
	To cancel, press again.           Repeat play           Press
	To cancel, press again. Switching the display
	Press Each time the button is pressed, the display changes in the following order: Elapsed time → Album title → Track title → Artist name 515
	3-4. Using the audio system
	See, e.g., Ex. B (2015 Lexus LS460 Navigation System Manual) at 191.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 276 of 492 PageID #: 4885 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
44. An apparatus	See preamble [1P] support.
for docking a	
portable device	
for integration	
with a car stereo	
comprising:	
a storage area	The accused Lexus automobiles include "storage areas remote from the car stereo for storing the portable device," including
remote from a	glove boxes, center consoles and dash receptacles.
car stereo for	
storing the	
portable device;	

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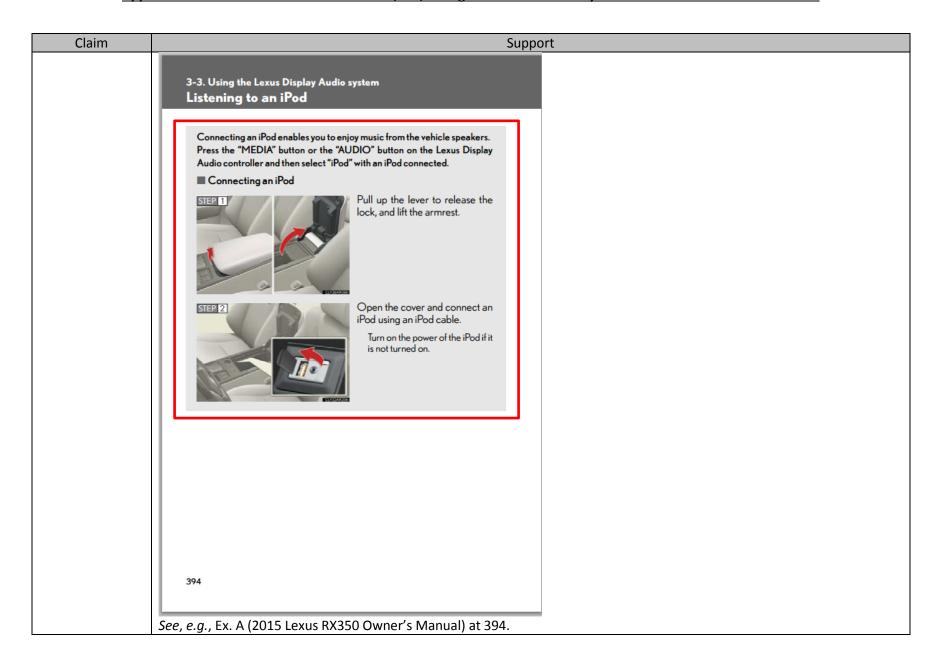
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 278 of 492 PageID #: 4887 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	Pictorial index Interior
	Front SRS side airbags     P.119       Seat belts     P.83       Head restraints     P.81       Power window switches     SRS driver airbag       P.98     P.119       Rear seats     P.72
	Armrest P.622 Auxiliary box * P.606 Rear SRS side airbags P.119 Cup holders P.601 Rear seat entertainment system *, *2
	Power outlet * P.616 10 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 10.

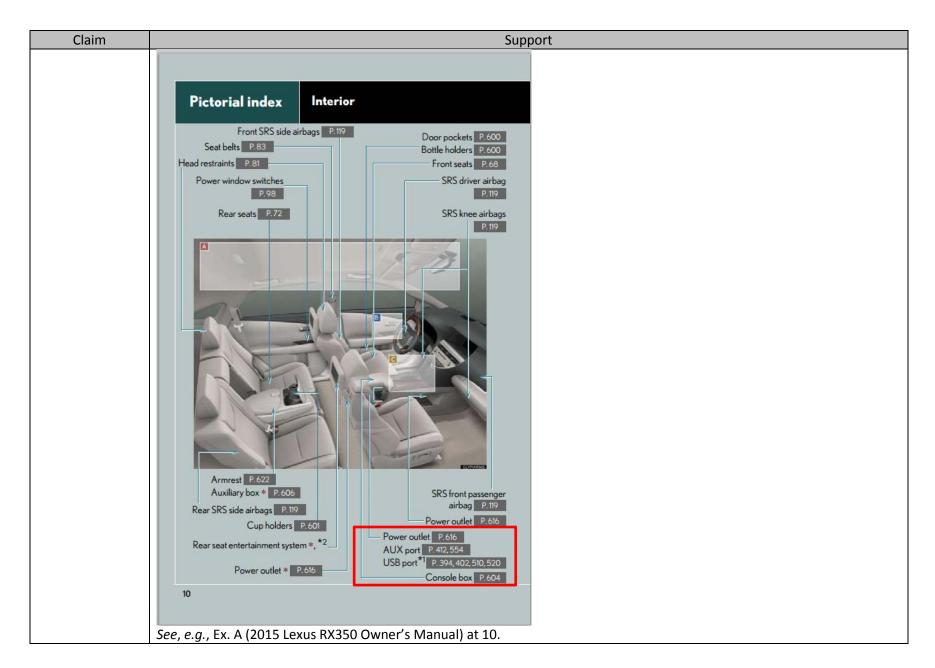
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 279 of 492 PageID #: 4888 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Construct
Claim		Support
	INTRODUCTION The Interface Kit allows you to play music from an iPod® through your vehicle's radio system. Reading this Owner's Manual ensures that you will get the most out of your audio experience. This manual explains how to integrate the radio with your iPod using the Interface Kit. Button locations and labeling will differ depending upon your vehicle's make and model. For new iPods, follow the iPod instructions for loading songs into it before connecting to the radio. The Interface Kit utilizes the Satellite Radio (SAT) controls of your radio's. Therefore, Satellite Radio controls are used to search for and play music from the iPod. NOTE: With the Interface Kit installed, Satellite Radio use is not possible.	What's Included         The Interface Kit includes cable located in your vehicle's glove box.
a docking portion within the storage area for communicating	See, e.g., Ex. C (Interface Kit for iPod) at 4. Each accused Lexus automobile includes a "docking with the portable device." The USB connector itself	4- portion within the storage area for communicating and physically matin may be considered a "docking portion." The after-market audio device the vehicle when connected to the USB port of the device integration and glove boxes
and physically mating with the portable device;	system, such as center consoles, dash receptables, a	חם פוטעב שטאבט.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 280 of 492 PageID #: 4889 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles



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Claim		Support	
		<text><text><image/></text></text>	
a data port in communication	See, e.g., Ex. C (Interface Kit for iPod) at 4. Each accused Lexus automobile includes a data port back side of the "docking portion" for integrating po		
with the docking portion, the data port connectable with a device for integrating the	devices) with the car stereo. See element [1B] support.		

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 283 of 492 PageID #: 4892 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
with the car	
stereo; and	
an interface	Each device integration system of the accused Lexus automobiles includes "an interface connected to said data port and to
connected to	the car stereo, said interface channeling audio from the portable device to the car stereo."
said data port	
and to the car	See element [1D] support.
stereo, said	
interface	
channeling audio	
from the	
portable device	
to the car stereo	
said interface	See element [1E] support.
including a	
microcontroller	
in electrical	
communication	
with the portable	
device through	
said data port	
and the car	
stereo,	
said	The microcontroller of each device integration system of the accused Lexus automobiles is "pre-programmed to execute first
microcontroller	program code for remotely controlling the portable device using the car stereo by processing control commands generated
pre-programmed	by the car stereo in a format incompatible with the portable device into formatted control commands compatible with the
to execute first	portable device, and dispatching formatted control commands to the portable device for execution thereby."
program code for	
remotely	See element [1F] support.
controlling the	
portable device	
using the car	
stereo by	
processing	

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Claim	Support
control	
commands	
generated by the	
car stereo in a	
format	
incompatible	
with the portable	
device into	
formatted	
control	
commands	
compatible with	
the portable	
device, and	
dispatching	
formatted	
control	
commands to the	
portable device	
for execution	
thereby.	
47. The	The data port of each accused Lexus automobile "comprises [a] Universal Serial Bus (USB) port."
apparatus of	
claim 44,	See claims 23 and 24 support.
wherein the data	
port comprises	
an RS-232 or	
Universal Serial	
Bus (USB) port.	
57. An audio device	See preamble [1P] support.

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Claim	Support
integration	
system	
comprising:	
a first electrical	See element [1A] support.
connector	
connectable to a	
car stereo;	
a second	See element [1B] support.
electrical	
connector	
connectable to a	
portable MP3	
, player external	
to the car stereo	
an interface	See element [1D] support.
connected	
between said	
first and second	
electrical	
connectors for	
transmitting	
audio from a	
portable MP3	
player to a car	
stereo,	
said interface	See element [1E] support.
including a	
microcontroller	
in electrical	
communication	
with said first	
and second	
electrical	

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Claim	Support
connectors, said	
microcontroller	
pre-programmed	
to execute:	
a first pre-	See claim 6 support.
programmed	
code portion for	
generating a	
device presence	
signal and	
transmitting the	
signal to the car	
stereo to	
maintain the car	
stereo in an	
operational	
state; and	
a second pre-	See element [1F] support.
programmed	
code portion for	
remotely	
controlling the	
MP3 player using	
the car stereo by	
receiving a	
control	
command from	
the car stereo	
through said first	
electrical	
connector in a	
format	
incompatible	

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Claim	Support
with the MP3	
player,	
processing the	
control	
command into a	
formatted	
control	
command	
compatible with	
the MP3 player,	
and transmitting	
the formatted	
control	
command to the	
MP3 player	
through said	
second electrical	
connector for	
execution by the	
MP3 player.	
58. The	See claim 2 support.
apparatus of	
claim 57,	
wherein the car	
stereo further	
comprises an	
Original	
Equipment	
Manufacturer	
(OEM) car stereo	
connected to the	
first electrical	

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Claim	Support
connector.	
60. The system of	See element [1G] support.
claim 57,	
wherein said	
microcontroller is	
pre-programmed	
to execute a	
third code	
portion for	
receiving data	
from the MP3	
player in a	
format	
incompatible	
with the car	
stereo,	
processing	
received data	
into formatted	
data compatible	
with the car	
stereo, and	
transmitting	
formatted data	
to the car stereo	
for display	
thereby.	
61. The	See claim 7 support.
apparatus of	
claim 60,	
wherein said	

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Claim	Support
third code	
portion	
processes data	
generated by the	
MP3 player	
including track	
and time	
information.	
62. The	See claim 8 support.
apparatus of	
claim 60,	
wherein said	
third code	
portion	
processes data	
generated by the	
MP3 player	
including song	
title and artist	
information.	
63. The	See claim 13 support.
apparatus of	
claim 60,	
wherein	
commands are	
input by a user	
using one or	
more control	
buttons or	
presets on the	
car stereo.	

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Claim	Support
64. The	See claims 23 and 24 support.
apparatus of	
claim 57, further	
comprising a bus	
connection	
established	
between the	
MP3 player and	
said interface.	
65. The	
apparatus of	
claim 64,	
wherein the bus	
connection	
comprises a	
Universal Serial	
Bus (USB)	
connection.	
86. A device for	See preamble [1P] support.
integrating video	
information for	
use with a car	
stereo,	
comprising:	
a first electrical	See element [1A] support.
connector	
connectable to a	
car stereo;	
a second	See element [1B] support.
electrical	

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Claim	Support
connector	
connectable to	
an after-market	
video device	
external to the	
car stereo;	
an interface	See element [1D] support.
connected	
between said	
first and second	
electrical	
connectors for	
transmitting	
video	
information from	
the after-market	
video device to	
the car stereo,	
the interface	See element [1E] support.
including a	
microcontroller	
in electrical	
communication	
with said first	
and second	
electrical	
connectors, said	
microcontroller	
pre-programmed	
to execute:	
a first pre-	See claim 6 support.
programmed	
code portion for	

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Claim	Support
generating a	
device presence	
signal and	
transmitting the	
signal to the car	
stereo through	
said first	
electrical	
connector to	
maintain the car	
stereo in an	
operational state	
responsive to	
signals generated	
by the after-	
market video	
device.	
88. The	See claims 23 and 24 support.
apparatus of	
claim 86, further	
comprising a bus	
connection	
established	
between the	
video device and	
said interface.	
89. The	
apparatus of	
claim 88,	
wherein the bus	
connection	
connection	

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Claim	Support
comprises a	Support
Universal Serial	
Bus (USB)	
connection.	
90. The	See element [1F] support.
apparatus of	
claim 86,	
wherein said	
microcontroller is	
pre-programmed	
to execute a	
second code	
portion for	
receiving a	
control signal	
from the car	
stereo in a	
format	
incompatible	
with the video	
device,	
processing a	
received control	
signal into a	
formatted	
control signal	
compatible with	
the video device,	
and transmitting	
the formatted	
control signal to	
the video device	

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Claim	Support
for execution	
thereby.	
91. The	See element [1G] support.
apparatus of	
claim 90,	
wherein said	
microcontroller is	
pre-programmed	
to execute a	
third code	
portion for	
receiving data	
from the video	
device	
incompatible	
with the car	
stereo,	
processing	
received data	
into formatted	
data compatible	
with the car	
stereo, and	
transmitting	
formatted data	
to the car stereo	
for display	
thereon.	
92. An audio	See preamble [1P] support.
device	
integration	

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 295 of 492 PageID #: 4904 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
system	
comprising:	
a car stereo; a	See element [1A] support.
portable audio	
device external	
to the car stereo;	
an interface	See elements [1A] and [1D] support.
connected	
between the car	
stereo and the	
portable audio	
device,	
the interface	See element [1E] support.
including a	
microcontroller	
pre-programmed	
to execute:	
first pre-	See claim 6 support.
programmed	
means for	
generating a	
device presence	
signal and	
transmitting the	
signal to the car	
stereo to	
maintain the car	
stereo in an	
operational	
state;	
second pre-	See element [1F] support.
programmed	
means for	

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 296 of 492 PageID #: 4905 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
remotely	
controlling the	
portable audio	
device using the	
car stereo by	
receiving a	
control	
command from	
the car stereo in	
a format	
incompatible	
with the portable	
audio device,	
processing the	
control	
command into a	
formatted	
control	
command	
compatible with	
the portable	
audio device, and	
transmitting the	
formatted	
control	
command to the	
portable audio	
device for	
execution	
thereby; and	
means for	See element [1G] support.
transmitting	
audio from the	

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 297 of 492 PageID #: 4906 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
portable audio	
device to the car	
stereo.	
94. The	See preamble [1P] support.
apparatus of	
claim 92,	
wherein the	
portable audio	
device comprises	
a portable MP3	
player.	
97. The	See claims 23 and 24 support.
apparatus of	
claim 92,	
wherein the	
second electrical	
connector	
comprises	
further	
comprising a bus	
connection	
established	
between the	
portable audio	
device and said	
interface.	
98. The	
apparatus of	
claim 97,	
wherein the bus	

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 298 of 492 PageID #: 4907 Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
connection	
comprises a Universal Serial	
Universal Serial	
Bus (USB)	
connection.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 299 of 492 PageID #: 4908 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

In these Infringement Contentions, Blitzsafe contends that at least the following claims of U.S. Patent No. 8,155,342 ("342 patent") identified below are infringed by the infotainment systems in accused Toyota automobiles. Blitzsafe does not concede that any claims of the '342 patent that are not listed below are not infringed by the infotainment systems in accused Toyota automobiles. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Blitzsafe from citing or relying on additional documents, information, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Toyota's infotainment systems, internal documentation, source code, and/or testimony from relevant witnesses may be necessary to more fully and accurately describe the infringing features of its accused products. Accordingly, Blitzsafe reserves the right to supplement, correct, modify, and/or amend these contentions as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Toyota, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

Claim	Support
49[P]. A	Each accused Toyota automobile includes a device integration system, that supports integration of audio/video devices, such
multimedia	as freely lying smartphones and other smart devices connected via Bluetooth, as well as MP3 players (e.g., iPods and iPhones
device	playing MP3 files).
integration	
system,	
comprising:	

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Claim	Support
	Entune™
	Entune now encompasses the complete audio display stack of your vehicle - including Bluetooth, voice recognition, USB, aux port, and your display screen. On select, premium audio head units, you have access to navigation and a rich set of Apps and Data Services, now referred to as the "Entune® App Suite".
	See, e.g., Ex. A (www.toyota.com/entune) at 1. <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Blitzsafe has produced Ex. A, www.toyota.com/entune, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000004 - 9.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 301 of 492 PageID #: 4910 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Support				
Learn About Entune <sup>TM</sup> Multimedia Units *Available on select MY14 vehicles				
<ul> <li>Entune<sup>™</sup> Audio</li> <li>6.1" - 8" Touchscreen</li> <li>AW/FM/CD</li> <li>iPod<sup>®</sup>/USB2.0/AUX</li> <li>Bluetooth<sup>®</sup>/Streaming</li> <li>Phonebook</li> <li>Advanced Voice Recognition</li> </ul>	<ul> <li>Entune<sup>™</sup> Audio Plus</li> <li>6.1" - 8" Touchscreen</li> <li>AM/FM/CD</li> <li>iPod<sup>®</sup>/USB2.0/AUX</li> <li>Bluetooth<sup>®</sup>/Streaming</li> <li>Phonebook</li> <li>Advanced Voice Recognition</li> <li>SXM Radio (not available on 2014 4Runner)</li> <li>HD Radio<sup>™</sup></li> <li>HD Traffic<sup>™</sup>/Weather (does not include Navigation)</li> </ul>	<ul> <li>Entune<sup>™</sup> Premium Audio</li> <li>6.1" - 8" Touchscreen</li> <li>AM/FM/CD</li> <li>iPod<sup>®</sup>/USB2.0/AUX</li> <li>iPod<sup>®</sup>/USB2.0/AUX</li> <li>Bluetooth<sup>®</sup>/Streaming</li> <li>Phonebook</li> <li>Advanced Voice Recognition</li> <li>SXM Radio</li> <li>HD Radio<sup>™</sup></li> <li>HD Traffic<sup>™</sup>/Weather</li> <li>AM/FM Radio Cache</li> <li>Navigation</li> <li>Entune<sup>®</sup> App Suite</li> </ul>	<ul> <li>Entune <sup>™</sup> Premium JBL<sup>®</sup> Audio</li> <li>6.1" - 8" Touchscreen</li> <li>AM/FWCD</li> <li>iPod<sup>®</sup>/USB2.0/AUX</li> <li>Bluetooth<sup>®</sup>/Streaming</li> <li>Phonebook</li> <li>Advanced Voice Recognition</li> <li>SXM Radio</li> <li>HD Radio<sup>™</sup></li> <li>HD Traffic<sup>™</sup>/Weather</li> <li>AM/FM Radio Cache</li> <li>Navigation</li> <li>Entune<sup>®</sup> App Suite</li> <li>JBL<sup>®</sup> Speakers/Amp</li> </ul>	
Entune® App Suite not available (no registration required) See, e.g., Ex. A (www.toyota.com	Entune® App Suite not available (no registration required)	Includes Entune <sup>®</sup> App Suite (requires registration)	Includes Entune <sup>®</sup> App Suite (requires registration)	
	<ul> <li>*Available on select MY14 vehicles</li> <li>Entune<sup>TM</sup> Audio</li> <li>4.1" + 8" Touchscreen</li> <li>AWFM/CD</li> <li>1909<sup>(1</sup>/USB2.0/AUX)</li> <li>Bluetooth<sup>®</sup>/Streaming</li> <li>Phonebook</li> <li>Advanced Voice Recognition</li> </ul>	Image: Strate Strat	<section-header><section-header><ul> <li>Lecare Abocat Encare <sup>™</sup> Multimedia Units</li> <li>Available on select MY14 vehicles</li> <li>Available on select MY14 vehicles</li> <li>Auther Audio</li> <li>A. 1° a " Touchscreen</li> <li>AMFM/CD</li> <li>Bluetooth <sup>®</sup>/Streaming</li> <li>Advanced Voice Recognition</li> <li>Enture<sup>®</sup> App Suite not available (no registration required)</li> <li>Enture<sup>®</sup> App Suite not available (no registration required)</li> <li>Mather And Audio Plus</li> <li>And PMCC</li> <li< td=""></li<></ul></section-header></section-header>	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 302 of 492 PageID #: 4911 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	IPod  Made for  Pod  • Made for Pod □ Phone • Made for iPod □ Phone • Made for iPhone respectively, and has been certified by the developer to meet Apple performance standards. • Apple is not responsible for the operation of this developer to meet Apple performance standards. • Phone, iPod, iPod cassic, iPod nano, and iPod to uch are trademarks of Apple Inc. • Tehone, iPod, iPod cassic, iPod nano, and iPod touch are trademarks of Apple Inc. • See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 116. <sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Blitzsafe has produced Ex. C, 2015 Tacoma Navigation Manual simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000012 – 293. All pin-cites are to manual pages.

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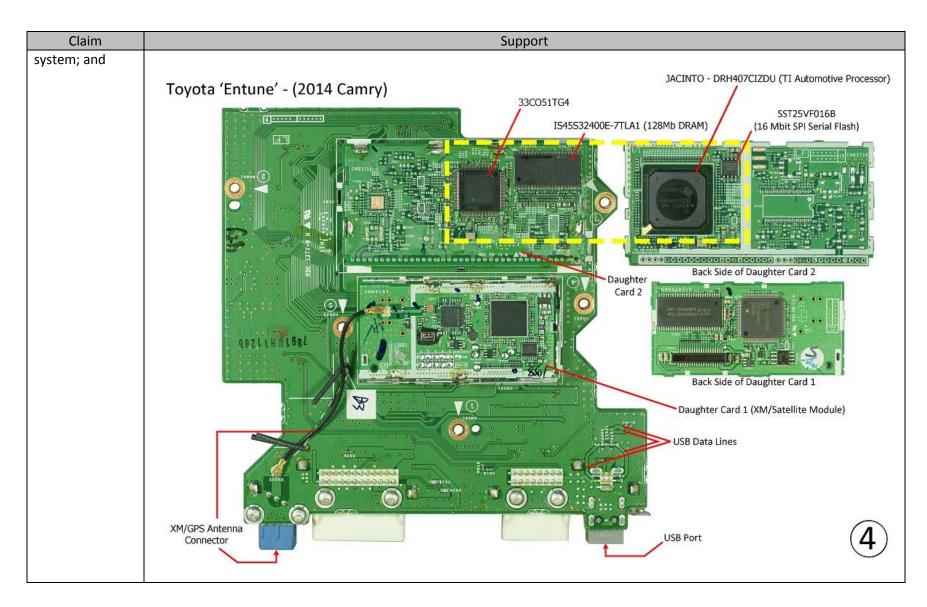
Claim	Support
Claim	COMPATIBLE MODELS         The following iPod®, iPod nano®, iPod classic®, iPod touch® and iPhone® devices can be used with this system.         Made for         IPod touch (5th generation)         IPod touch (5th generation)         IPod touch (3th generation)         IPod touch (3th generation)         IPod touch (3th generation)         IPod touch (3th generation)         IPod touch (1st generation)         IPod touch (1st generation)         IPod touch (1st generation)         IPod touch (1st generation)         IPod nano (7th generation)         IPod nano (7th generation)         IPod nano (5th generation)         IPod nano (5th generation)         IPod nano (6th generation)         IPod nano (5th generation)         IPod nano (5th generation)         IPod nano (3th generation)
	<ul> <li>iPod nano (3rd generation)</li> <li>iPod nano (2nd generation)</li> <li>iPod nano (1st generation)</li> <li>iPhone 5</li> <li>iPhone 4s</li> <li>iPhone 4</li> <li>iPhone 3GS</li> <li>iPhone</li> </ul>
	Depending on differences between mod- els or software versions etc., some models might be incompatible with this system. See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 117.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 304 of 492 PageID #: 4913 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

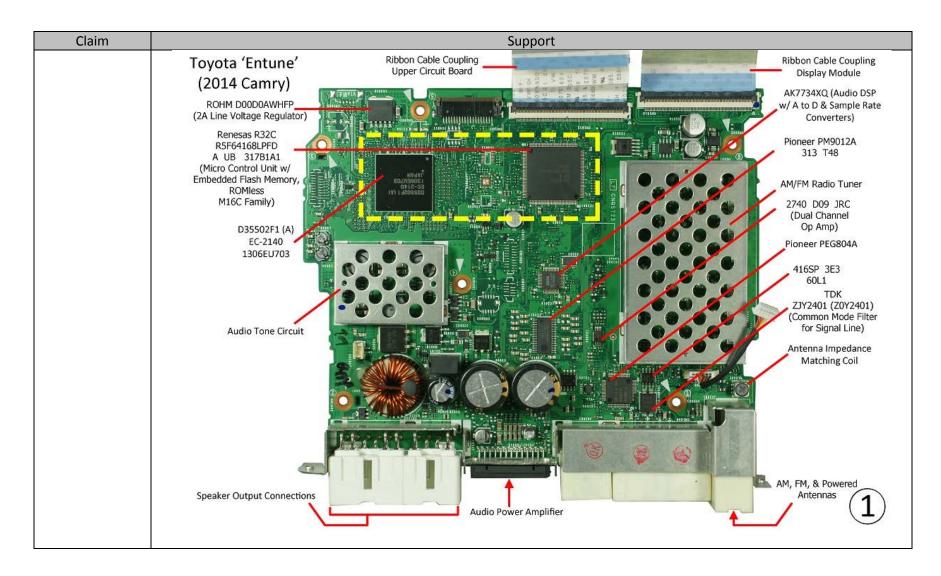
Claim	Support
	<ul> <li>■ About IPod</li> <li>■ Made for iPod<sup>*</sup>, Made for iPhone<sup>*</sup> and "Made for iPad" mean that an electronic accessory has been designed to cornect specifically to iPod or iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>■ Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with Pod, iPhone or iPad may affect wireless performance.</li> <li>■ Pida, iPhone, IPod, iPod cover and may affect wireless performance.</li> <li>■ Pida, iPhone, IPod, iPod cover and may affect wireless performance.</li> <li>■ Pida cover and</li> <li>■ Pida cover and</li> <li>■ Or the IPod and songs in the IPod, IPod cover and may be displayed.</li> <li>■ This function can be changed to on/off. (→P.25)</li> <li>■ Any take time to bisplay IPod cover and, and the IPod may not be operated while the cover and display is in process.</li> <li>● Only IPod cover and that is saved in JPEG format can be displayed.</li> </ul>
	See, e.g., Ex. B (2015 Tacoma Manual) at 271. <sup>3</sup>
[49A] an	Each device integration system of an accused Toyota automobile includes, among other things, an integration subsystem for
integration	connecting the car audio/video system to portable devices via a Bluetooth connection. The integration subsystem, which
subsystem in	comprises at least the software and hardware shown in the yellow dashed boxes below, including at least a Renesas
communication	microcontroller and memory modules such as a Spansion flash memory module, is in communication with the car
with a car	audio/video system. The integration subsystem channels audio signals to the car audio/video system from a portable device
audio/video	(such as an iPod, iPhone or other smart device) external to the car audio/video system.

<sup>&</sup>lt;sup>3</sup> Blitzsafe has produced Ex. B, 2015 Tacoma Owner's Manual simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000294 - 883. All pin-cites are to manual pages.

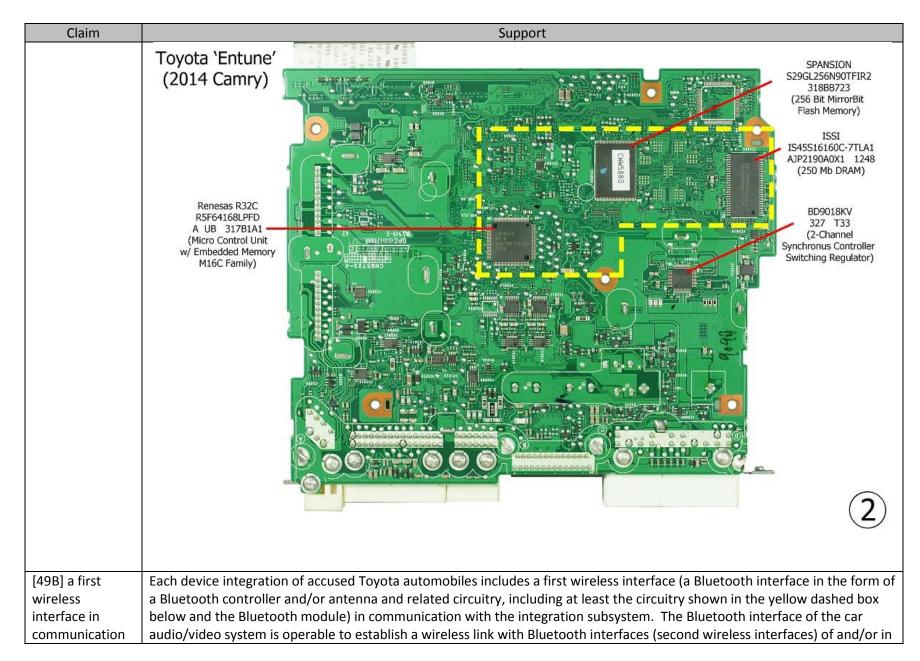
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 305 of 492 PageID #: 4914 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 307 of 492 PageID #: 4916 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



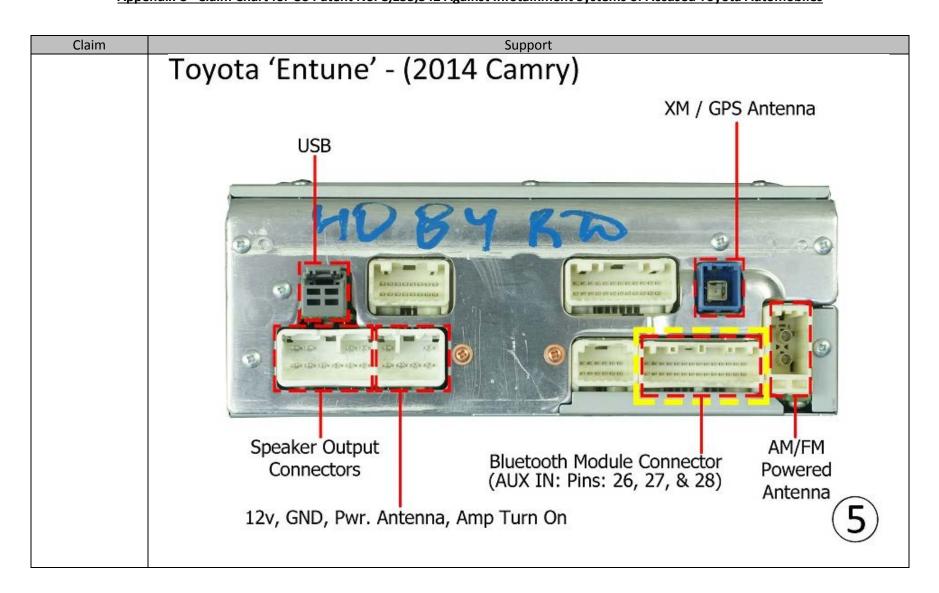
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 308 of 492 PageID #: 4917 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
with said	communication with one or more portable devices external to the car audio/video system.
integration	
subsystem, said	
first wireless	
interface	
establishing a	
wireless	
communication	
link with a	
second wireless	
interface in	
communication	
with a portable	
device external	
to the car	
audio/video	
system,	

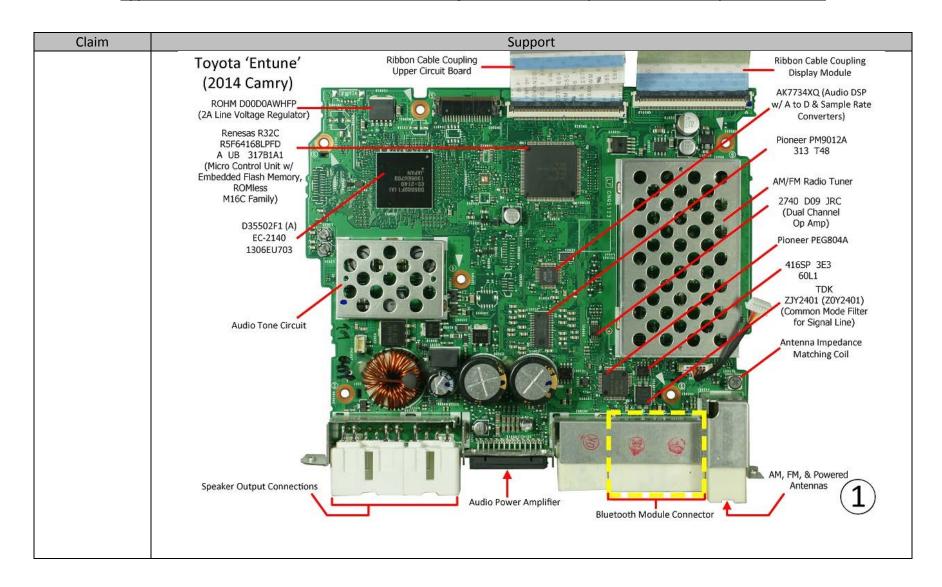
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 309 of 492 PageID #: 4918 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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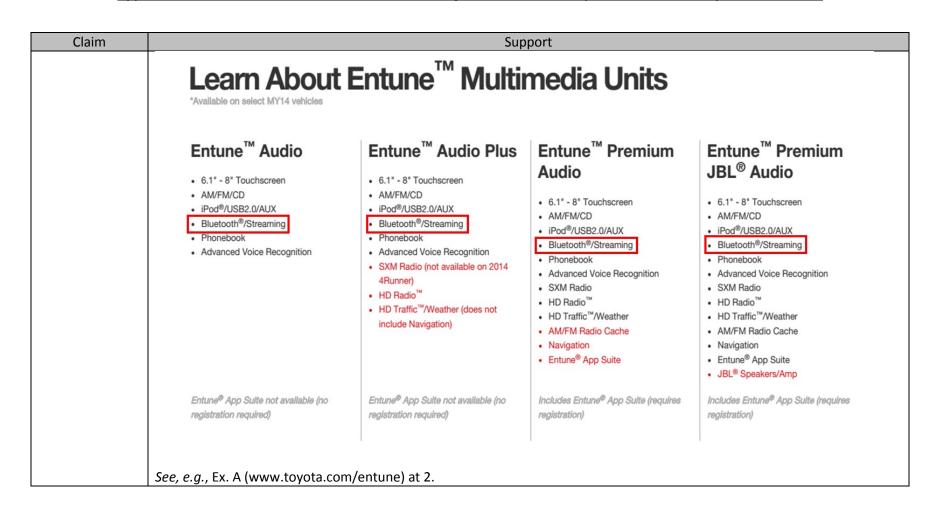
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 311 of 492 PageID #: 4920 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 312 of 492 PageID #: 4921 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	Entune™
	Entune now encompasses the complete audio display stack of your vehicle - including Bluetooth, voice recognition, USB, aux port, and your display screen. On select, premium audio head units, you have access to navigation and a rich set of Apps and Data Services, now referred to as the "Entune® App Suite".
	See, e.g., Ex. A (www.toyota.com/entune) at 1.

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Claim Support 2. Bluetooth<sup>®</sup> SETTINGS 1. REGISTERING/CONNECTING Bluetooth® DEVICE 4 Select "Yes" to register a phone. REGISTERING A Bluetooth<sup>®</sup> PHONE FOR THE FIRST TIME 5 When this screen is displayed, search for the device name displayed on this To use the hands-free system, it is screen on the screen of your necessary to register a Bluetooth® Bluetooth<sup>®</sup> device. phone with the system. **BASIC FUNCTION** Once the phone has been registered, it Please search for the device below using your Bluetooth device. is possible to use the hands-free system. : 00000 For details about registering a th PIN : 0000 Bluetooth<sup>®</sup> device: →P.51 1 Turn the Bluetooth<sup>®</sup> connection setting For details about operating the Bluetooth<sup>®</sup> of your cellular phone on. device, see the manual that comes with it. 2 Press the "APPS" button. To cancel the registration, select "Cancel". 6 Register the Bluetooth<sup>®</sup> device using your Bluetooth® device. AUDIO A PIN-code is not required for SSP (Secure Simple Pairing) compatible APPS Bluetooth® devices. Depending on the type of Bluetooth® device being connected, a message confirming registration may be displayed on the Bluetooth® device's screen. Respond and operate the 3 Select "Phone". Bluetooth® device according to the confirmation message. · Operations up to this point can also be performed by pressing the a switch on the steering wheel or 🕻 button on the instrument panel.

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Claim		Support
Claim	2. Bluetooth <sup>®</sup> SETTINGS	
	<text><list-item><list-item><list-item></list-item></list-item></list-item></text>	REGISTERING A Bluetooth <sup>®</sup> ANDIO PLAYER FOR THE JIRST TIME         To use the Bluetooth <sup>®</sup> audio, it is nec- essary to register an audio player with the system. Once the player has been registered, it is possible to use the Bluetooth <sup>®</sup> audio. This operation can- not be performed while driving.         For details about registering a Bluetooth <sup>®</sup> device: →P.51         1       Turn the Bluetooth <sup>®</sup> connection setting of your audio player on.         1       Turn the Bluetooth <sup>®</sup> connection setting of your audio player is set to off.         2       Press the "AUDIO" button.         Image: the "Source" on the audio control screen.         3       Select "Source" on the audio control screen.         4       Select "Source" to register a audio player.         5       Select "Yes" to register a audio player.         6       Follow the steps in "REGISTERING A Bluetooth <sup>®</sup> DEVICE" from "STEP 2". (→P.51)

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Claim		Sup	oport
	2. Bluetooth <sup>®</sup> SETTINGS		
	2. SETTING Bluetooth <sup>®</sup> DE	TAILS	
	<text><image/><image/><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></text>	Function         Registering a Bluetooth® device         Deleting a Bluetooth® device         Connecting a Bluetooth® device         Editing the Bluetooth® device         Editing the Bluetooth® device information         Bluetooth® system settings         *: Bluetooth SIG, Inc.         DISPLAYING THE "Bluetoon Setup" SCREEN IN A DIFFERENT WAY         1       Press the "APPS" button.         2       Select "Phone".         4       Select "Connect Phone".	Page 51 52 52 54 55 mark of

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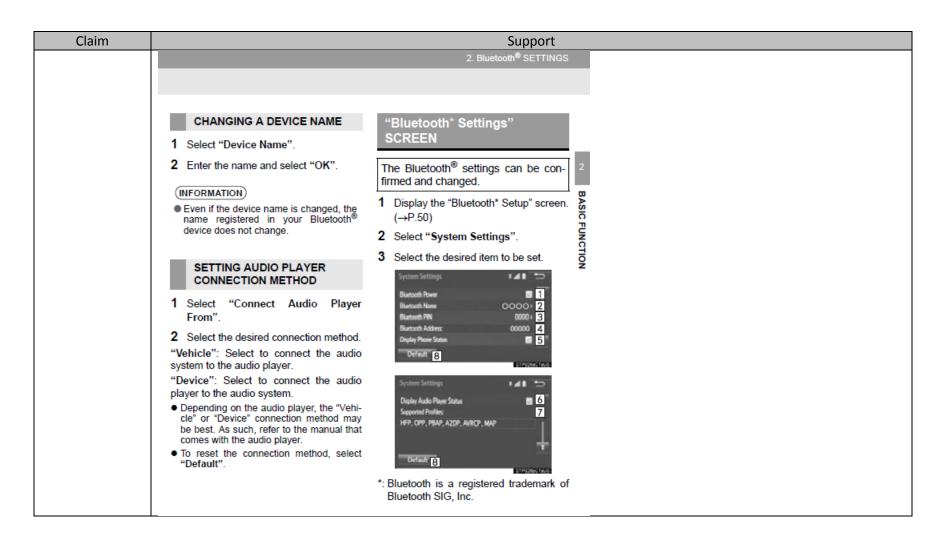
Claim		Sunne	ort
Claim	<section-header>          Image: product state in the second state state</section-header>		2 BASIC FUNCT

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 319 of 492 PageID #: 4928 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	CONNECTING A Bluetooth <sup>®</sup> DEVICE
	Up to 5 Bluetooth <sup>®</sup> devices (Phones (HFP) and audio players (AVP)) can be registered.
	If more than 1 Bluetooth <sup>®</sup> device has been registered, select which device to connect to.
	1 Display the "Bluetooth* Setup" screen. (→P.50)
	2 Select the device to be connected.
	Bhuetlooth Setup
	Supported profile icons will be displayed.
	Phone :
	Phone/Entune App Suite (Entune Premium Audio only)
	<ul> <li>Supported profile icons for currently con- nected devices will illuminate.</li> </ul>
	<ul> <li>Dimmed icons can be selected to connect to the phone/audio function directly.</li> </ul>
	<ul> <li>If the desired Bluetooth<sup>®</sup> device is not on the list, select "Add" to register the device. (→P.51)</li> </ul>
	*: Bluetooth is a registered trademark of Bluetooth SIG, Inc.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 320 of 492 PageID #: 4929 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

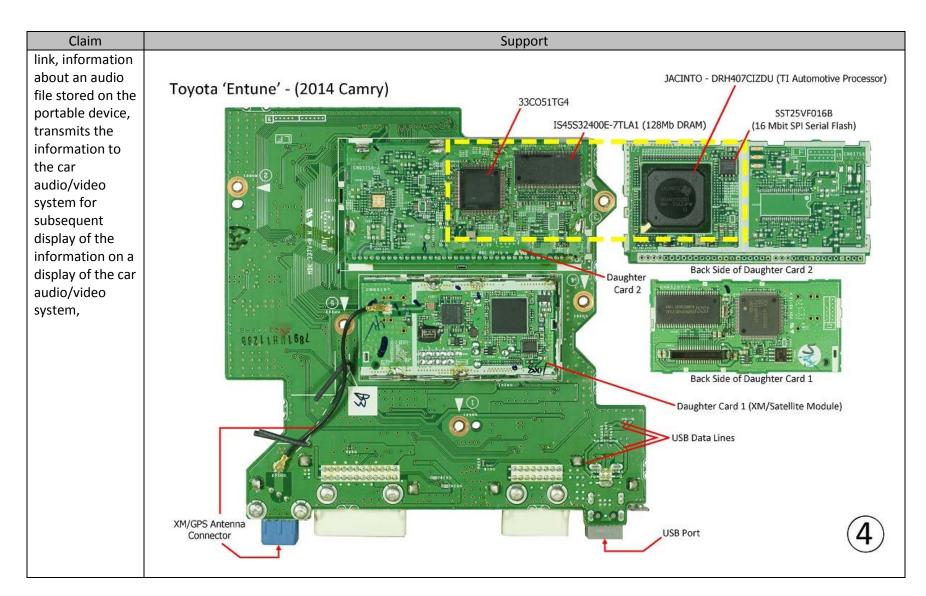
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 321 of 492 PageID #: 4930 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



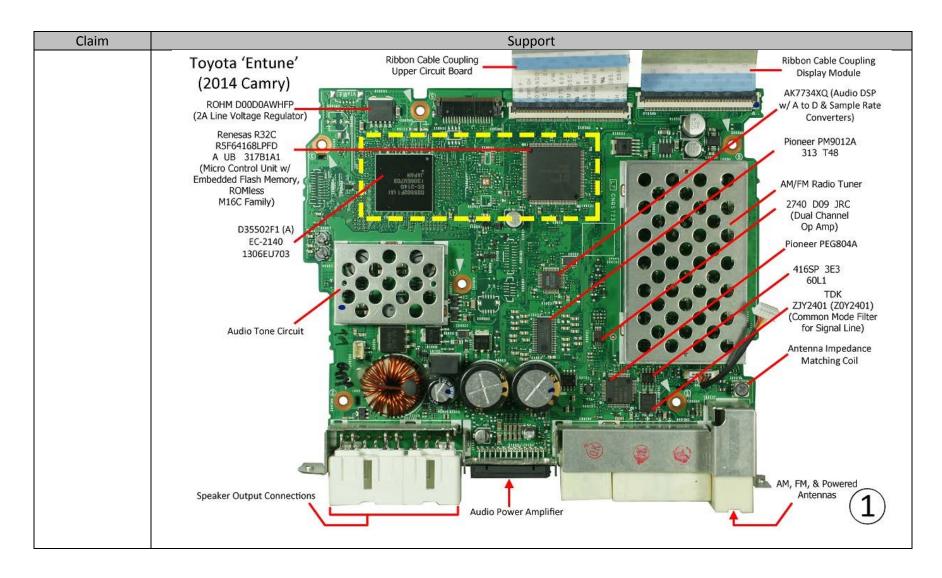
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 322 of 492 PageID #: 4931 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim		Support				
		No.	Information	Page		
		1	Select to set Bluetooth® connection on/off.	56		
		2	Displays system name. Can be changed to a de- sired name.	56		
		3	PIN-code used when the Bluetooth <sup>®</sup> device was reg- istered. Can be changed to a desired code.	56		
		4	Device address is unique to the device and cannot be changed.	-		
		5	Select to set the phone connection status display on/off.	-		
		6	Select to set the connec- tion status display of the audio player on/off.	-		
	1	7	Compatibility profile of the system device.	-		
		8	Select to reset all setup items.	-		
	See,	<i>e, e.g.,</i> Ex. C (2015 Tacoma Navigation Manual) at 41-43, 50-56.				
	See, e.g., Ex. B (2015 Tacoma Manual) at 282-291, 297-301.					
		<i>See, e.g.,</i> video (Entune Audio - How to Pair and Remove a Bluetooth Phone): <u>https://www.youtube.com/watch?v=S1VbYE0E26U</u> .				
[49C] wherein	After establishing a wireless link with the portable device, information about an audio file stored on the portable device					
said integration subsystem obtains, using said wireless communication	(such as the audio itself, as well as artist, album, and track information) is communicated wirelessly from the portable device to the integration subsystem via the first and second wireless interfaces (i.e., a Bluetooth interface of the car audio/video system and another Bluetooth interface in communication with and part of the portable device). The integration sub-system then transmits this information to the car audio/video system for subsequent display of the information on a display of the car audio/video system.					

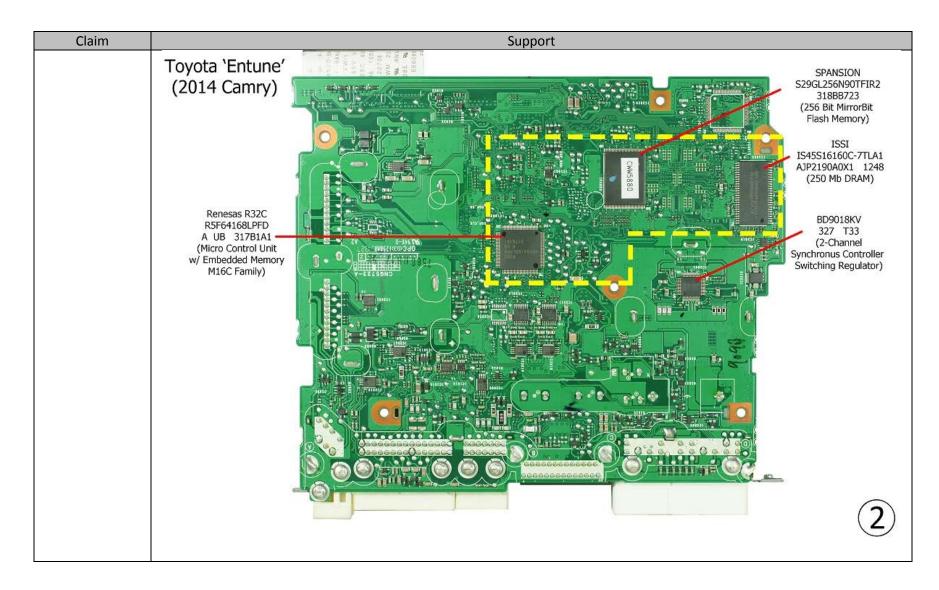
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 323 of 492 PageID #: 4932 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



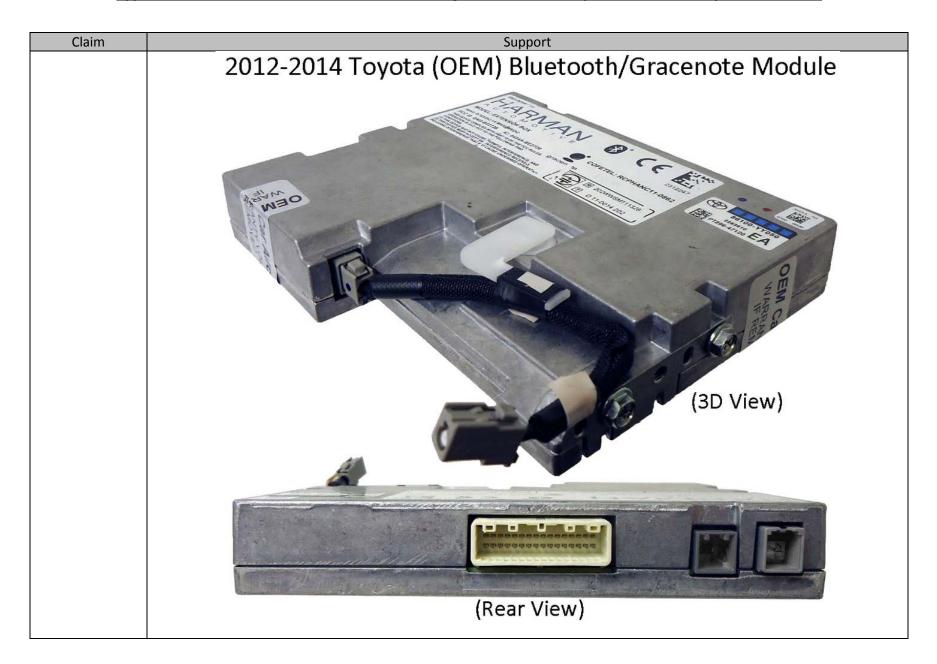
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 324 of 492 PageID #: 4933 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



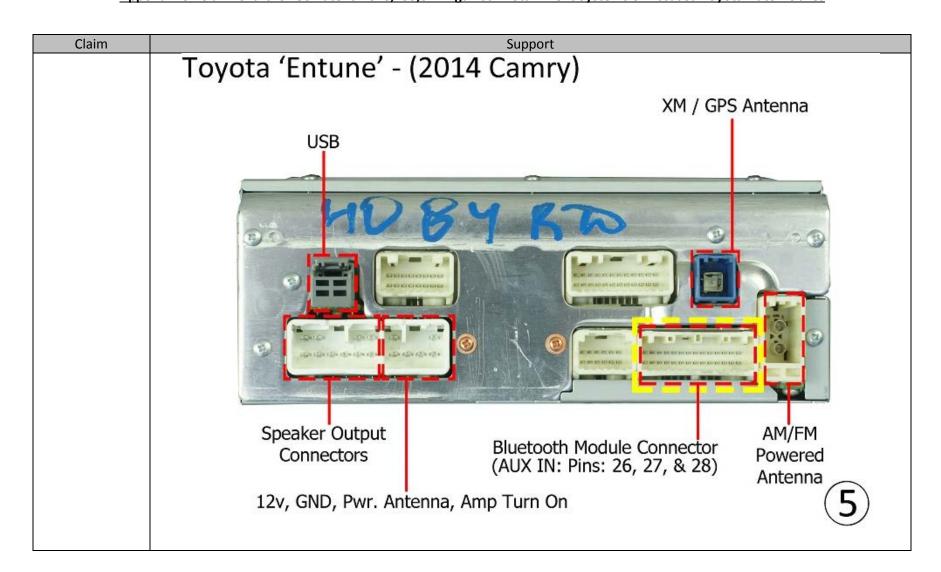
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 325 of 492 PageID #: 4934 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



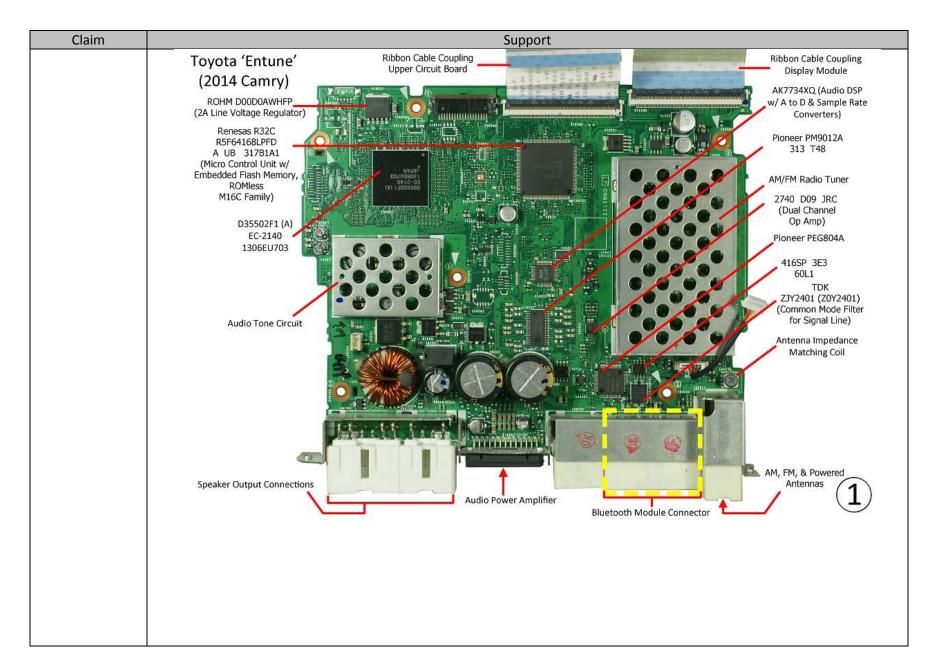
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 326 of 492 PageID #: 4935 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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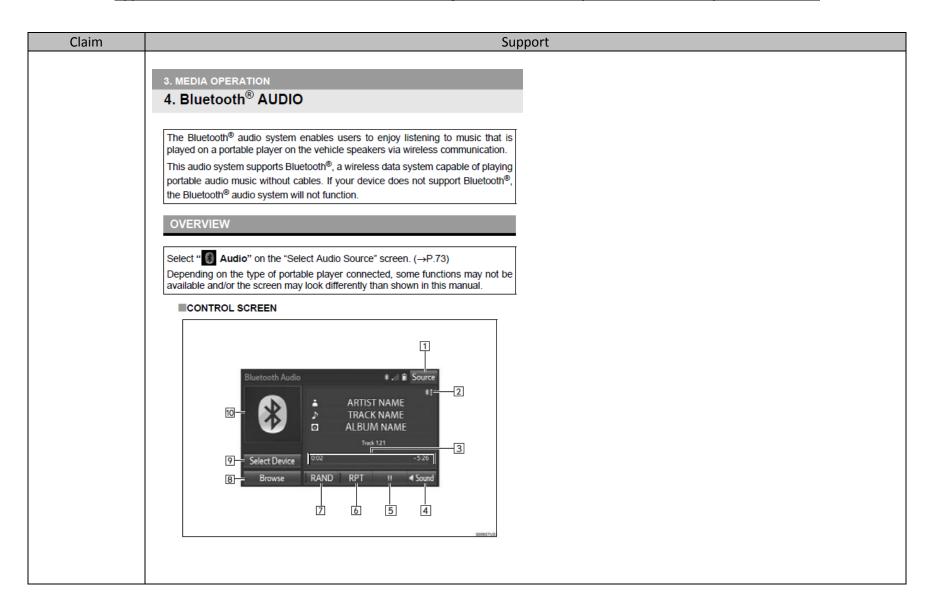


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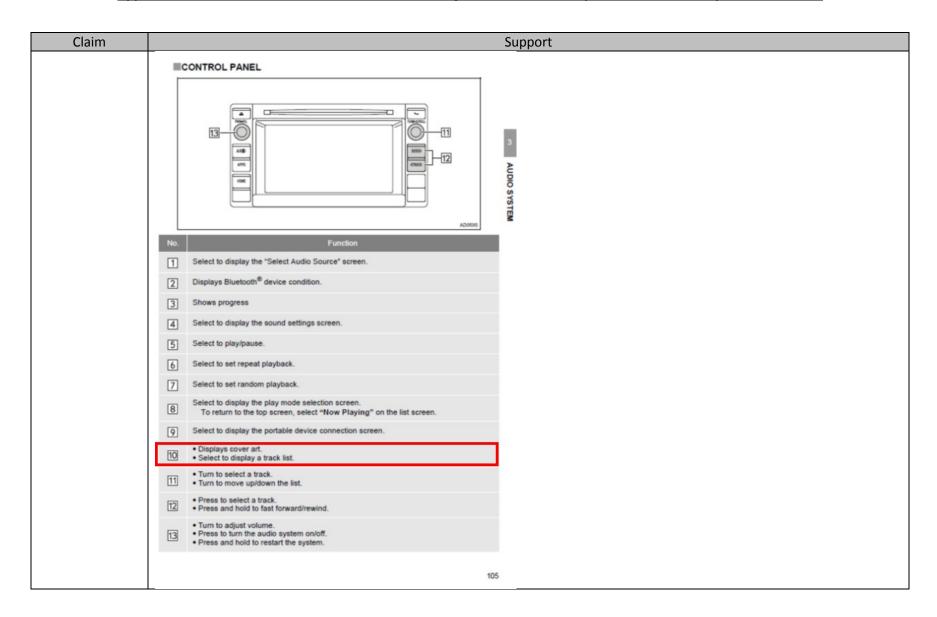
Claim								Support				
	iOS: Su	oport	ed Bl	uetooth	profiles							
	iPhone, iPad, and iPod touch support multiple Bluetooth profiles with the latest version of iOS. You can learn the differences in Bluetooth-profile support from one device to the next.											
	The following table lists supported Bluetooth profiles by device for the latest version of iOS.											
	Device	Hands- Free Profile (HFP 1.6)	Phone Book Access Profile (PBAP)	Advanced Audio Distribution Profile (A2DP)	Audio/Video Remote Control Profile (AVRCP 1.4)	Personal Area Network Profile (PAN)	Human Interface Device Profile (HID)	Message Access Profile (MAP)				
	iPhone 4 and later	1	1	1	1	1	1	1				
	iPhone 3GS	1	1	1	1	1	1	-				
	iPhone 3G	1	1	1	1	1	-	-				
	Original iPhone	1	1	-	-	-	-	-				
	iPad 2 and later	1	-	1	1	1	1	-				
	iPad (1st generation)	-	-	1	1	1	1	-				
	iPod touch (4th generation and later)	1	-	1	*	1	1	-				
	iPod touch (2nd and 3rd generation)	-	-	1	*	<b>√</b>	1	-				

<sup>&</sup>lt;sup>4</sup> Blitzsafe has produced Ex. D, Apple iPhone webpage, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000001 - 3.

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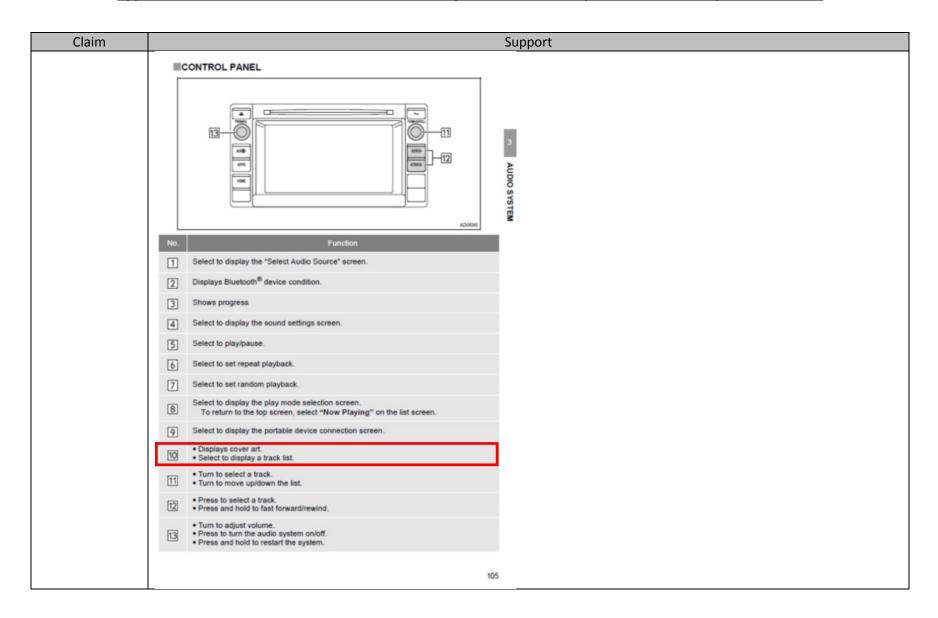
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 332 of 492 PageID #: 4941 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
Claim	Support         LISTENING TO Bluetooth®         AUDIO         REPEATING         The track or album currently being listened to can be repeated.         1 Select the repeat button to change on off.         RANDOM ORDER         Tracks or albums can be automatically and randomly selected.         1 Select the random button to change on/off.         See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 104-106.         See, e.g., Ex. B (2015 Tacoma Manual) at 304.
[49D] said integration subsystem instructs the portable device to play the audio file in response to a user selecting the audio file using controls of the	See video (Toyota Entune I Streaming Bluetooth Audio   Toyota): <a href="https://www.youtube.com/watch?v=z3-yLLqtEq8">https://www.youtube.com/watch?v=z3-yLLqtEq8</a> . With respect to each device integration system of the accused Toyota automobiles, a user can input commands via buttons and controls of the car audio/video system to (i) select a track or album; (ii) fast forward and reverse a track; and (iii) play and pause a track. When a user selects one of these commands, the integration subsystem instructs the portable device to play, pause or skip the audio file, which is received by the integration subsystem via the first and second wireless interfaces (i.e., a Bluetooth interface of the car audio/video system and another in communication with and part of the portable device). The audio file is then played via the car's speakers.

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Claim	Support								
car audio/video	3. MEDIA OPERATION								
system, and	4. Bluetooth <sup>®</sup> AUDIO								
receives audio									
generated by the portable device	The Bluetooth <sup>®</sup> audio system enables users to enjoy listening to music that is played on a portable player on the vehicle speakers via wireless communication.								
over said	This audio system supports Bluetooth <sup>®</sup> , a wireless data system capable of playing								
wireless	portable audio music without cables. If your device does not support Bluetooth <sup>®</sup> , the Bluetooth <sup>®</sup> audio system will not function.								
communication									
link for playing	OVERVIEW								
on the car									
audio/video	Select "  Audio" on the "Select Audio Source" screen. (→P.73)								
system.	Depending on the type of portable player connected, some functions may not be available and/or the screen may look differently than shown in this manual.								
	CONTROL SCREEN								
	Bluetooth Audio       **         Bluetooth Audio       **         Image: Source       *:         Image: Source       *:								
	9     Select Device     3       8     Browse     RAND     RPT     4       7     6     5     4								
	7         6         5         4           presenue								

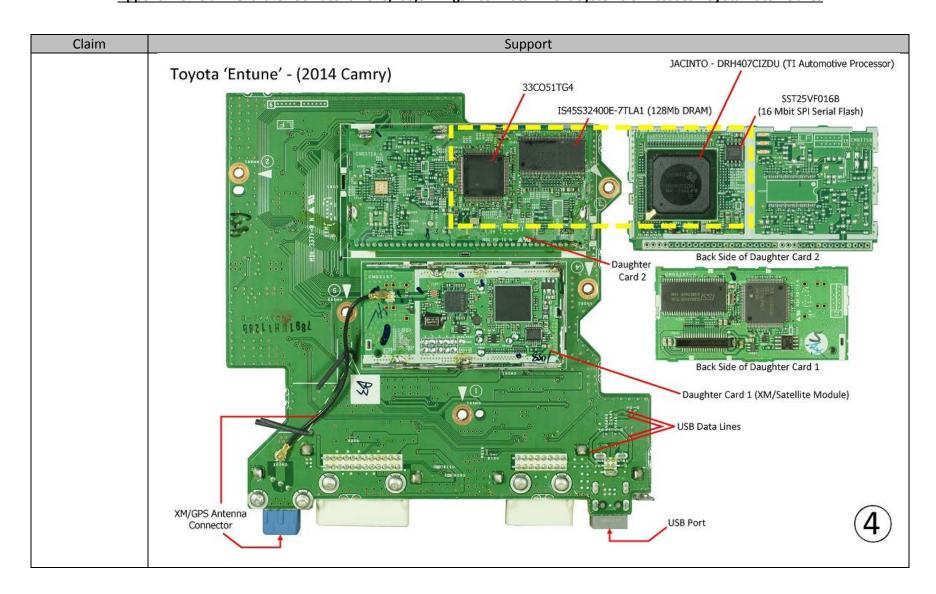
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 334 of 492 PageID #: 4943 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



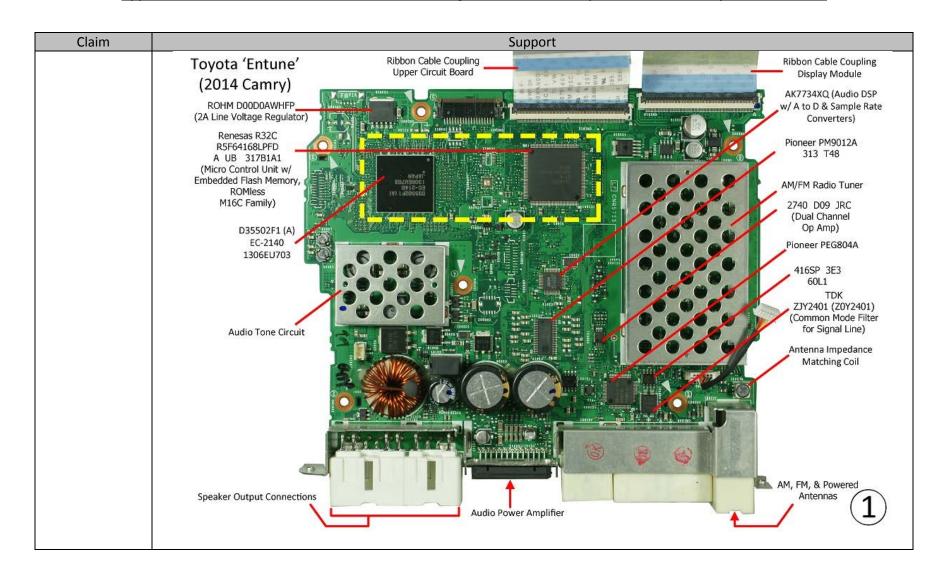
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 335 of 492 PageID #: 4944 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	LISTENING TO Bluetooth®         AUDIO         REPEATING         The track or album currently being listened to can be repeated.         1 Select the repeat button to change on off.         RANDOM ORDER         Tracks or albums can be automatically and randomly selected.         1 Select the random button to change on/off.         See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 104-106.         See, e.g., Ex. B (2015 Tacoma Manual) at 304.         See video (Toyota Entune I Streaming Bluetooth Audio   Toyota): https://www.youtube.com/watch?v=z3-yLLqtEq8.
50. The system of claim 49, wherein said integration subsystem is positioned within the car audio/video system.	Each car audio/video system of the accused Toyota automobiles includes the integration subsystem for connecting to external portable devices (such as iPhones) via a wireless Bluetooth interface. Once connected, the portable device may be controlled directly from the car audio/video system. Commands, which are received from buttons and other controls of the car audio/video system, may be communicated wirelessly via the Bluetooth interface to the portable device. The portable device then responds to the received commands by channeling audio and other information (such as track name, artist, album, etc.) to the car audio/video system by way of the first and second wireless interfaces and the integration subsystem.

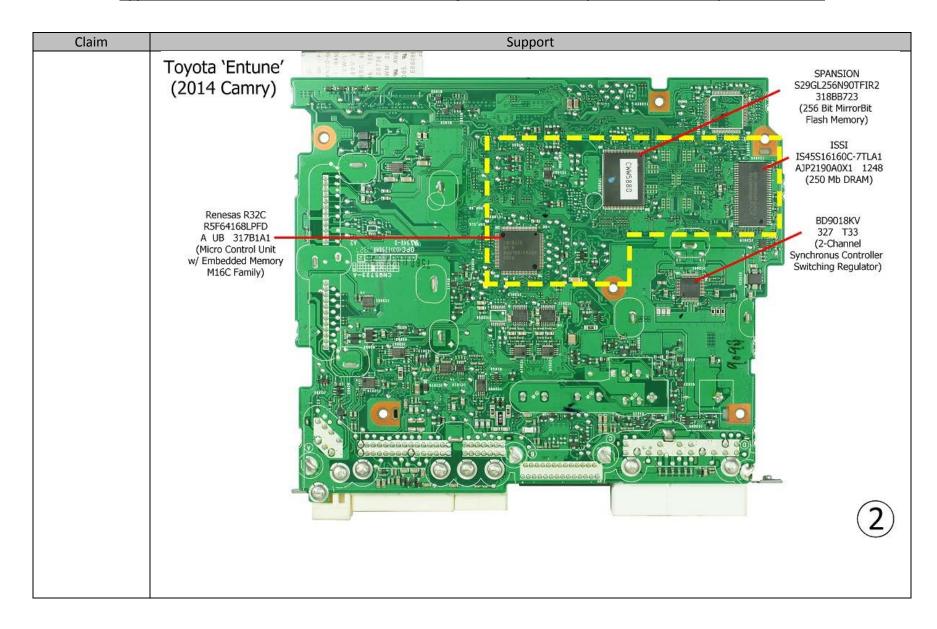
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 336 of 492 PageID #: 4945 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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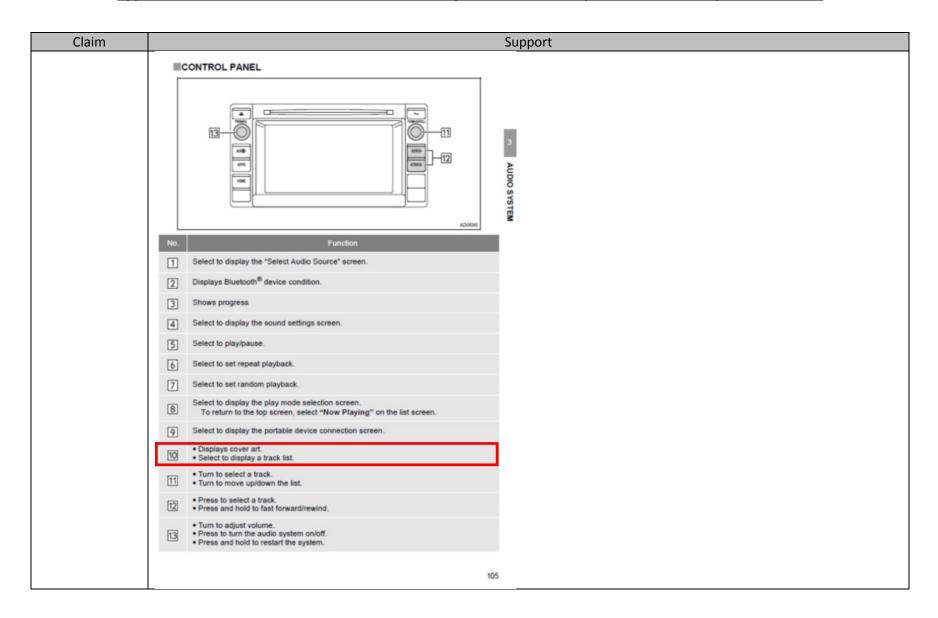
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 338 of 492 PageID #: 4947 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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Claim	Support							
	3. MEDIA OPERATION 4. Bluetooth <sup>®</sup> AUDIO							
	The Bluetooth <sup>®</sup> audio system enables users to enjoy listening to music that is played on a portable player on the vehicle speakers via wireless communication. This audio system supports Bluetooth <sup>®</sup> , a wireless data system capable of playing portable audio music without cables. If your device does not support Bluetooth <sup>®</sup> , the Bluetooth <sup>®</sup> audio system will not function.							
	OVERVIEW							
	Select " Audio" on the "Select Audio Source" screen. ( $\rightarrow$ P.73) Depending on the type of portable player connected, some functions may not be available and/or the screen may look differently than shown in this manual.							
	Bluetooth Audio ARTIST NAME ARTIST NAME TRACK NAME ALBUM NAME Tosk 121 3 9 Select Device Browse RAND RPT II Sound J 5 4 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX							

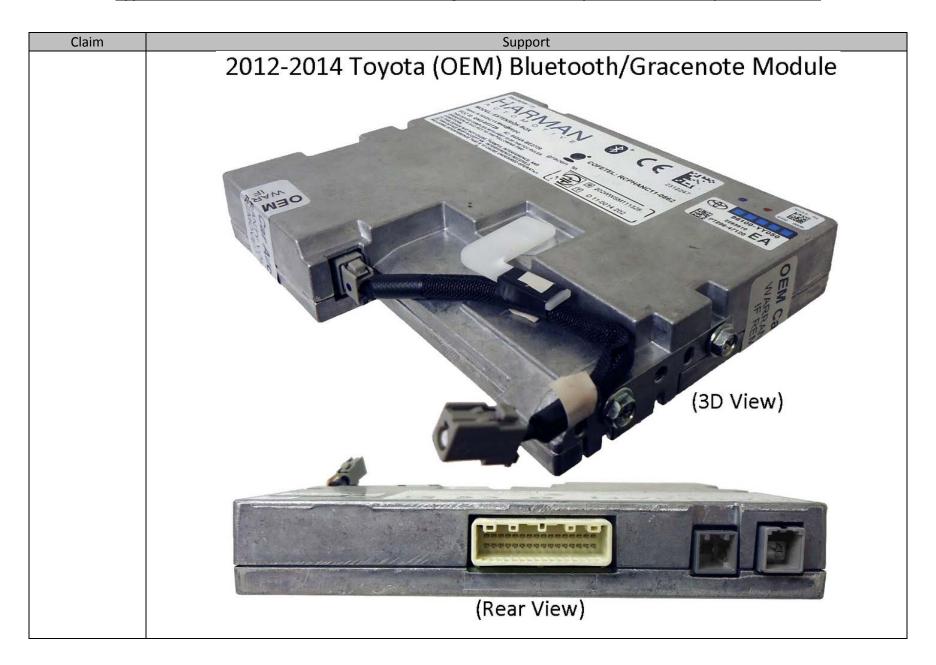
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 340 of 492 PageID #: 4949 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



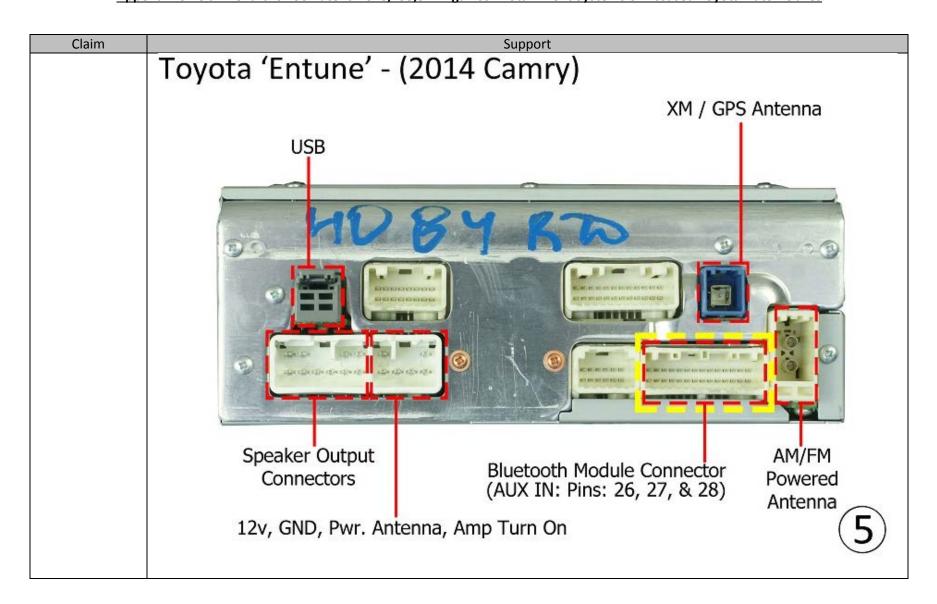
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 341 of 492 PageID #: 4950 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	LISTENING TO Bluetooth®         AUDIO         REPEATING         The track or album currently being listened to can be repeated.         1       Select the repeat button to change on/ off.         RANDOM ORDER         Tracks or albums can be automatically and randomly selected.         1       Select the random button to change on/off.         See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 104-106.         See, e.g., Ex. B (2015 Tacoma Manual) at 304.         See video (Toyota Entune I Streaming Bluetooth Audio   Toyota): https://www.youtube.com/watch?v=z3-yLLqtEq8.
51. The system of claim 50, wherein said first wireless interface is positioned within the car audio/video system.	The first wireless interface (i.e., the Bluetooth interface) is part of the car audio/video system.

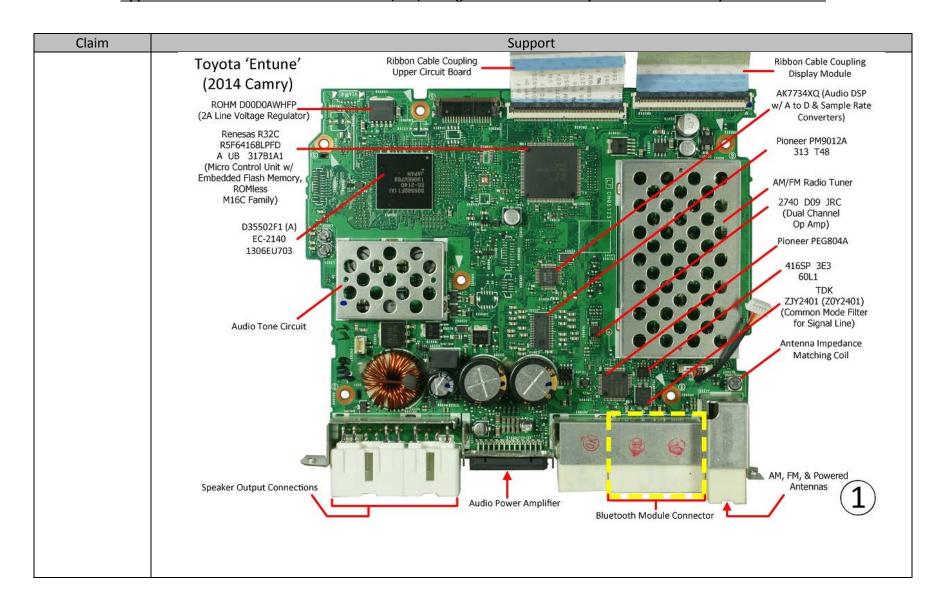
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 342 of 492 PageID #: 4951 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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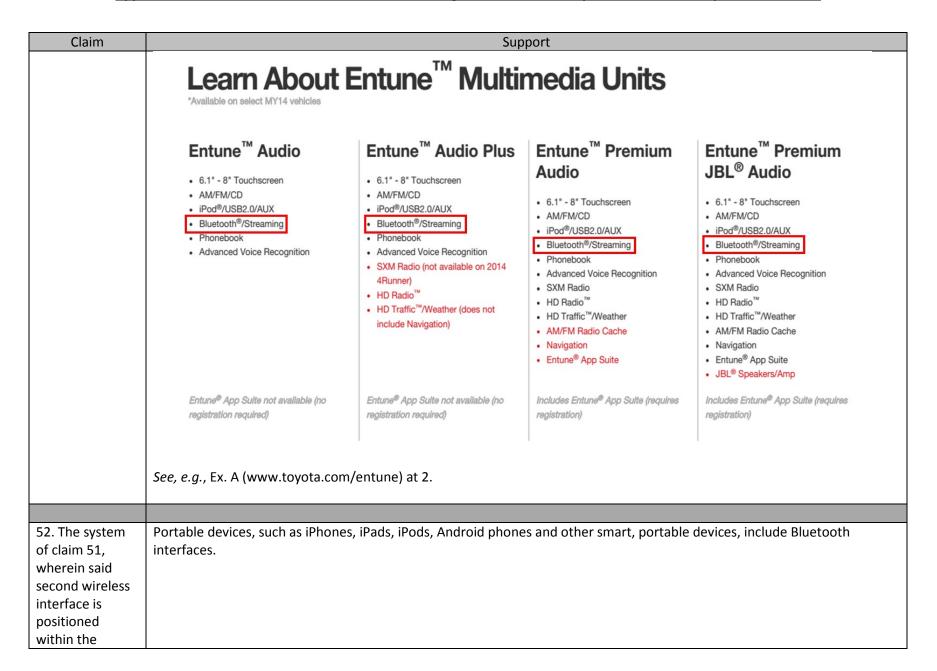
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 344 of 492 PageID #: 4953 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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Claim	Support
	Entune™
	Entune now encompasses the complete audio display stack of your vehicle - including Bluetooth, voice recognition, USB, aux port, and your display screen. On select, premium audio head units, you have access to navigation and a rich set of Apps and Data Services, now referred to as the "Entune® App Suite".
	See, e.g., Ex. A (www.toyota.com/entune) at 1.

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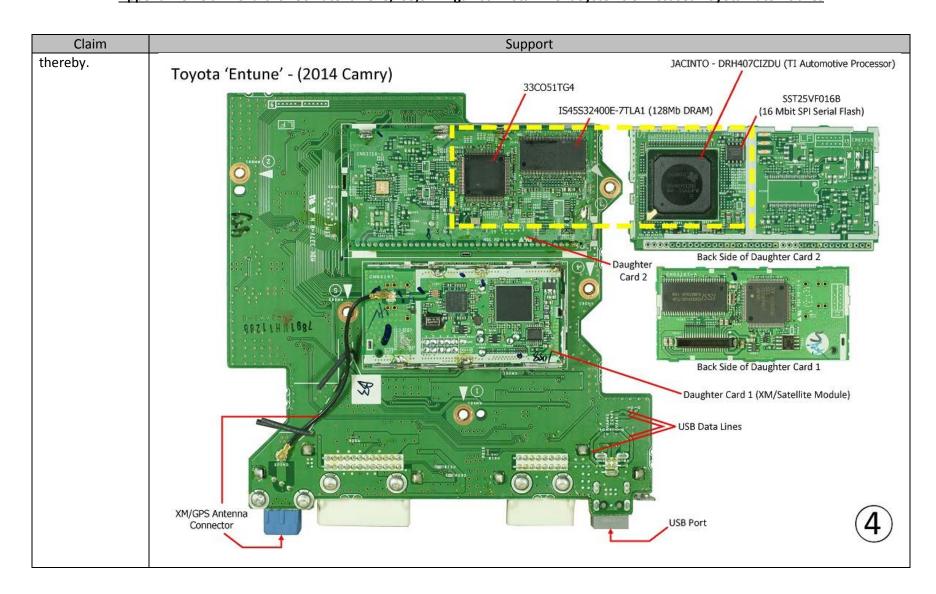
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 347 of 492 PageID #: 4956 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim							Suppo	rt			
portable device.	iOS: Supported Bluetooth profiles										
	version of i	iPhone, iPad, and iPod touch support multiple Bluetooth profiles with the latest version of iOS. You can learn the differences in Bluetooth-profile support from one device to the next.									
	The following	table lists	supported	Bluetooth profil	es by device for th	ne latest vers	sion of iOS.				
	Device	Hands- Free Profile (HFP 1.6)	Phone Book Access Profile (PBAP)	Advanced Audio Distribution Profile (A2DP)	Audio/Video Remote Control Profile (AVRCP 1.4)	Personal Area Network Profile (PAN)	Human Interface Device Profile (HID)	Message Access Profile (MAP)			
	iPhone 4 and later	1	1	1	1	1	1	1			
	iPhone 3GS	1	1	1	1	1	1	-			
	iPhone 3G	1	1	1	1	1	-	-			
	Original iPhone	1	1	-	-	-		-			
	iPad 2 and later	1	-	1	1	1	1	-			
	iPad (1st generation)	-	-	1	1	1	1	-			
	iPod touch (4th generation and later)	1	-	1	*	✓	1	-			
	iPod touch (2nd and 3rd generation)	-	-	1	1	1	1	-			

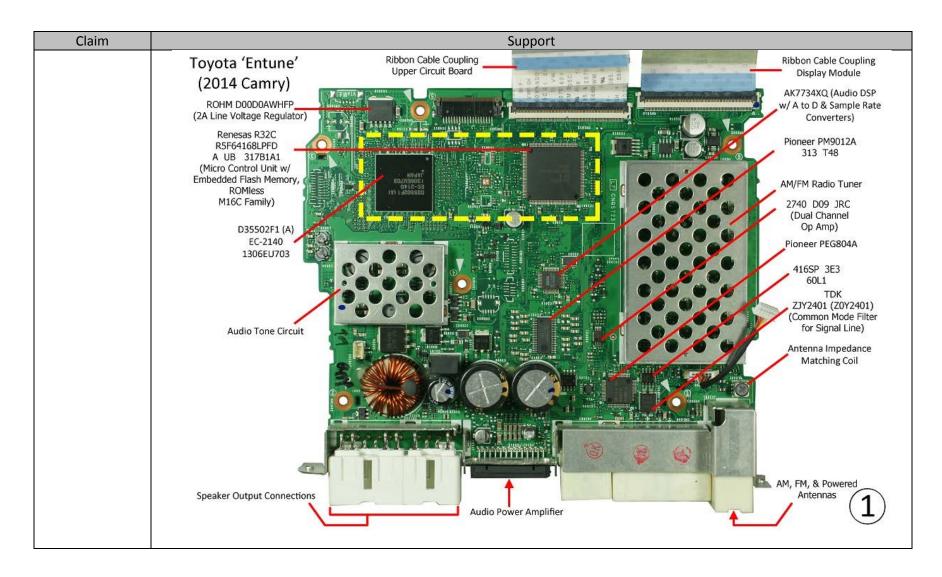
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 348 of 492 PageID #: 4957 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	See, e.g., http://developer.android.com/guide/topics/connectivity/bluetooth.html (discussing Bluetooth support for the
	Android platform).
53. The system of claim 49, wherein said integration subsystem receives a control command issued at the car audio/video system in a format incompatible with the portable device, processes the control command into a formatted command into a formatted compatible with the portable device, and dispatches the processed control	The integration subsystem of each accused Toyota automobile "receives a control command issued at the car audio/video system in a format incompatible with the portable device, processes the control command into a formatted command compatible with the portable device, and dispatches the processed control command to the portable device for execution thereby." More specifically, once a portable device is connected, commands are received by the integration subsystem from the car audio/video system, where they are processed and converted from a format understandable and compatible with the car audio/video system and associated Toyota protocols (i.e., a format incompatible with the portable device) into formatted commands that are compatible with the portable device (i.e., converted into Bluetooth, application and/or device-specific protocols understandable to the portable device). These formatted commands are then dispatched to the portable device via the first and second wireless interfaces (i.e., the Bluetooth interface of the car audio/video system and one or more Bluetooth interfaces in communication with and part of the portable device), where they are executed by the portable device and converted protocols ouderstandable at a portion of these functions. It is believed that this code is stored in onboard flash and/or other memory modules (such as the Spansion flash memory module), and/or is contained within firmware elsewhere in the integration subsystem (such as within the Renesas microcontroller iself). For example, Entune system software updates may be downloaded from the Internet. <i>See</i> video at https://www.youtube.com/watch?v=KKcFqPYp19M.
command to the portable device	
for execution	

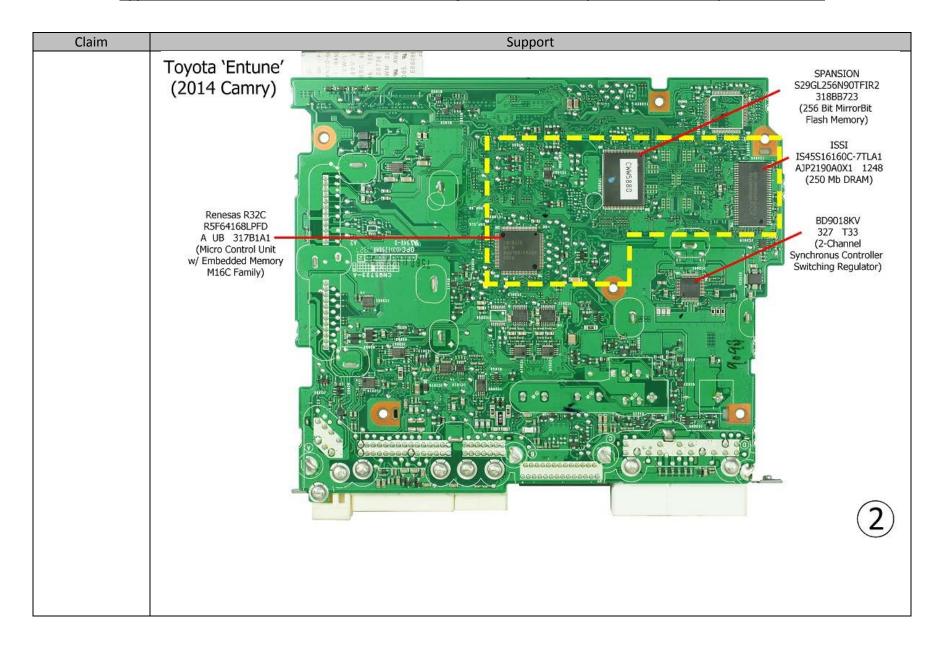
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 349 of 492 PageID #: 4958 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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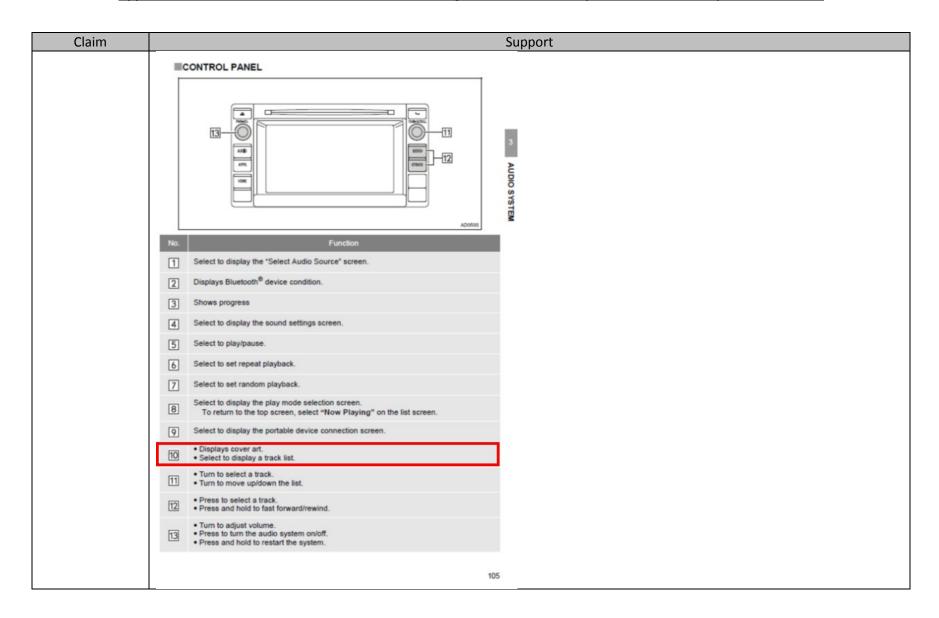
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 351 of 492 PageID #: 4960 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



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Claim	Support							
	3. MEDIA OPERATION 4. Bluetooth <sup>®</sup> AUDIO							
	The Bluetooth <sup>®</sup> audio system enables users to enjoy listening to music that is played on a portable player on the vehicle speakers via wireless communication. This audio system supports Bluetooth <sup>®</sup> , a wireless data system capable of playing portable audio music without cables. If your device does not support Bluetooth <sup>®</sup> , the Bluetooth <sup>®</sup> audio system will not function.							
	OVERVIEW							
	Select " Audio" on the "Select Audio Source" screen. ( $\rightarrow$ P.73) Depending on the type of portable player connected, some functions may not be available and/or the screen may look differently than shown in this manual.							
	Bluetooth Audio							

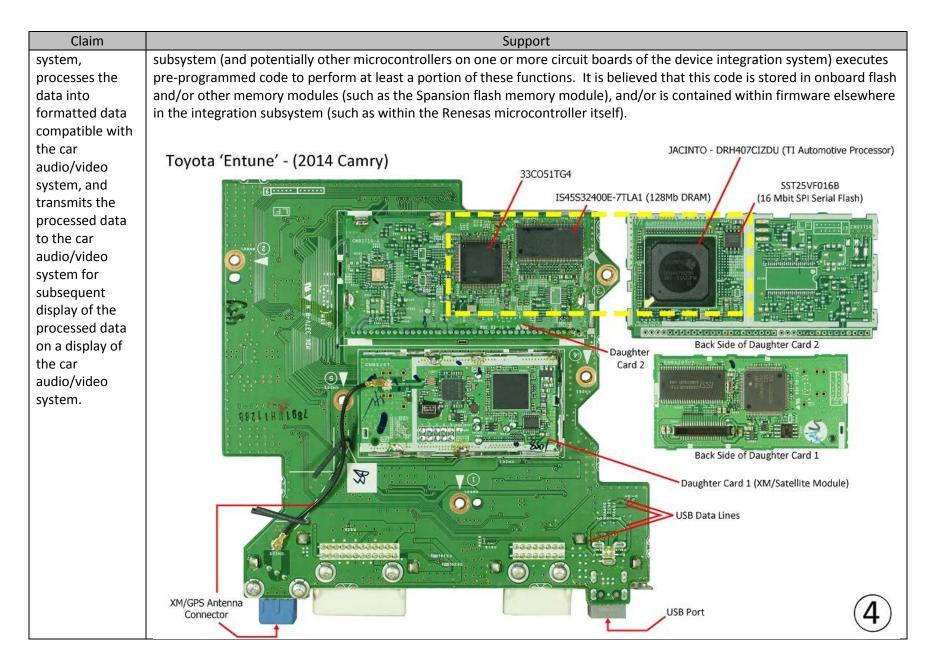
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 353 of 492 PageID #: 4962 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



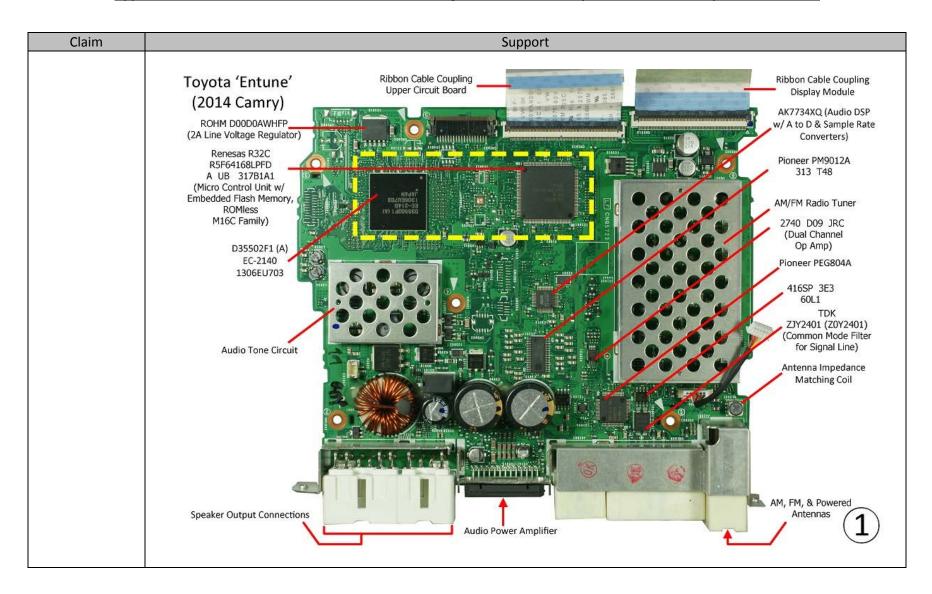
Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 354 of 492 PageID #: 4963 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	LISTENING TO Bluetooth®         AUDIO         REPEATING         The track or album currently being listened to can be repeated.         1         Select the repeat button to change on/ off.         RANDOM ORDER         Tracks or albums can be automatically and randomly selected.         1       Select the random button to change on/ off.         See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 104-106.         See, e.g., Ex. B (2015 Tacoma Manual) at 304.
54. The system of claim 49, wherein said integration subsystem receives data generated by the portable device in a format incompatible with the car audio/video	The integration subsystem of each accused Toyota automobile "receives data generated by the portable device in a format incompatible with the car audio/video system, processes the data into formatted data compatible with the car audio/video system, and transmits the processed data to the car audio/video system for subsequent display of the processed data on a display of the car audio/video system." More specifically, the portable device transmits data (such as audio, songs, album, track, and artist information) to the integration subsystem via the first and second wireless interfaces (i.e., the Bluetooth interface of the car audio/video system and one or more Bluetooth interfaces in communication with and part of the portable device). The integration subsystem then processes and converts the data from a format incompatible with the car audio/video system and understandable and compatible with the portable device (i.e., Bluetooth, application and/or device-specific protocols understandable to the portable device) into formatted data compatible with the car audio/video system (i.e., formatted data understandable and compatible with the car audio/video system and associated Toyota protocols). The formatted data is then transmitted by the integration subsystem to the car audio/video system for subsequent display of the protocols understandable and compatible with the car audio/video system for subsequent display of the protocols). The formatted data is then transmitted by the integration subsystem to the car audio/video system for subsequent display of the protocols of the car audio/video system. At least the Renesas microcontroller of the integration

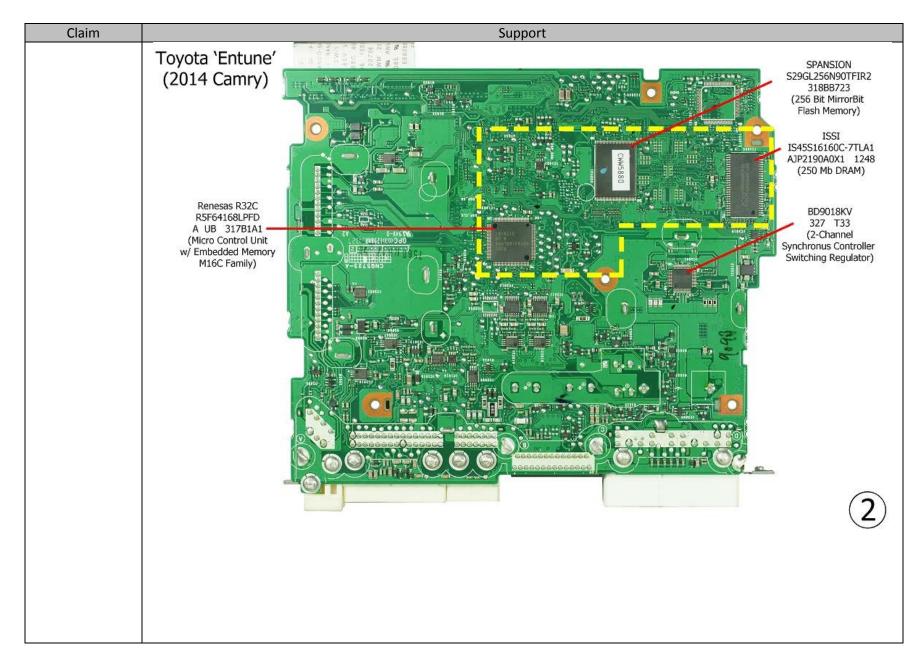
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 355 of 492 PageID #: 4964 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles



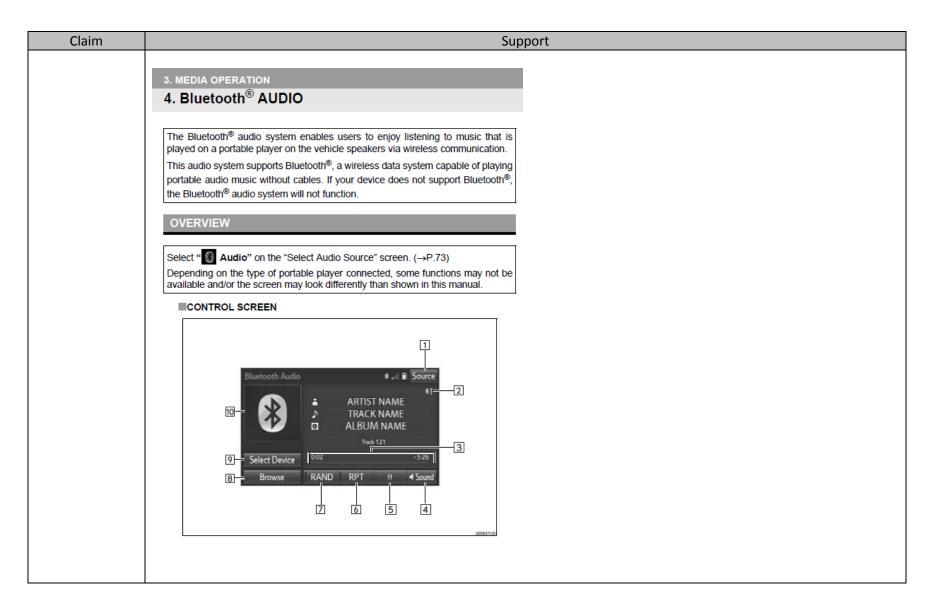
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Claim		Support	
Claim	CONTROL PANEL	Support	
	No. Fund	AD0505	
	Select to display the "Select Audio Source" s	screen.	
	2 Displays Bluetooth <sup>®</sup> device condition.		
	3 Shows progress		
	4 Select to display the sound settings screen.		
	5 Select to play/pause.		
	6 Select to set repeat playback.		
	7 Select to set random playback.		
	8 Select to display the play mode selection scr To return to the top screen, select "Now P	reen. Playing" on the list screen.	
	Select to display the portable device connect	tion screen.	
	Displays cover art.     Select to display a track list.		
	• Turn to select a track. • Turn to move up/down the list.		
	Press to select a track.     Press and hold to fast forward/rewind.		
	Turn to adjust volume.     Press to turn the audio system on/off.     Press and hold to restart the system.		
		105	

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Claim	Support
	LISTENING TO Bluetooth® AUDIO         REPEATING         The track or album currently being lis- tened to can be repeated.         1 Select the repeat button to change on/ off.         RANDOM ORDER         Tracks or albums can be automatically and randomly selected.         1 Select the random button to change on/off.         See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 104-106.         See also Ex. B (2015 Tacoma Manual) at 304.
55. The system of claim 49, wherein said integration subsystem further comprises a voice recognition subsystem for receiving and processing spoken control	The accused Toyota automobiles permit various control and audio commands to be submitted via voice recognition, which is processed by a voice recognition subsystem of the car audio/video system. Voice recognition of spoken control commands issued by a user may be used by the car audio/video system to instruct the portable device to play audio files.

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Claim		Support
commands issued by a user.	VOICE COMMAND EXAMPLE: SEARCH FOR A SONG	
	1 Press the talk switch.	
	2 Say "Play song <name>".</name>	
	<ul> <li>A confirmation screen will be displayed showing the recognition results. If multiple matching items are found, a selection screen will be displayed. Say "<num- ber&gt;" or select the number.</num- </li> </ul>	4
	<ul> <li>The system starts playing music and the song lists are displayed.</li> </ul>	
	(INFORMATION)	VOICE COMMAND
	<ul> <li>The Gracenote database is only com- patible with the USB or iPod mode.</li> </ul>	COM
	● A USB memory or iPod must be con- nected to enable track searching and playback. (→P.96, 100)	
	<ul> <li>When a USB memory or iPod is con- nected, recognition data is created so tracks can be searched using voice commands.</li> </ul>	SYSTEM
	<ul> <li>Recognition data is updated under the following conditions:</li> </ul>	
	<ul> <li>When the USB memory or iPod data has changed.</li> <li>When the voice recognition language is changed. (→P.57)</li> </ul>	
	<ul> <li>While the recognition data is being cre- ated or being updated, a track search cannot be performed using a voice com- mand.</li> </ul>	

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Claim			Support	
	EXPRESSIC EACH FUNC	ON EXAMPLES FOR	ł	
	Command	Expression example	3	
	"Go Home"*	Navigate to my house Take me home.		
	"Enter an Address"*	I need directions to a address. Give me a street.	n	
	"Find Nearby <poi category="">"*</poi>	Search for a <resta rants&gt; around here. Find a <restaurants nearby.</restaurants </resta 	7	
	"Call <name> <type>"</type></name>	Get me <robe Brown&gt;. Call <contacts <phone types="">.</phone></contacts </robe 	rt COM	
	"Dial <number>"</number>	Call <911>.	SYS	
	"Play Artist <name>"</name>	Play the artist <name: I want to hear the bar <name>.</name></name: 		
	"Play Album <name>"</name>	Play album <name>.</name>		
	*: Entune Premium	Audio only		
	► Audio			
	Comn		Action	
	"Play Playlist <nar< td=""><td></td><td>/s tracks from the selected playlist</td><td></td></nar<>		/s tracks from the selected playlist	
	"Play Artist <name< td=""><td></td><td>/s tracks from the selected artist</td><td></td></name<>		/s tracks from the selected artist	
	"Play Song <name< td=""><td></td><td>/s the selected track</td><td></td></name<>		/s the selected track	
	"Play Album <nam< td=""><td>ie&gt;" Pla</td><td>vs tracks from the selected album</td><td></td></nam<>	ie>" Pla	vs tracks from the selected album	
	See, e.g., Ex. C (2	015 Tacoma Navis	ation Manual) at 127, 129, 131.	

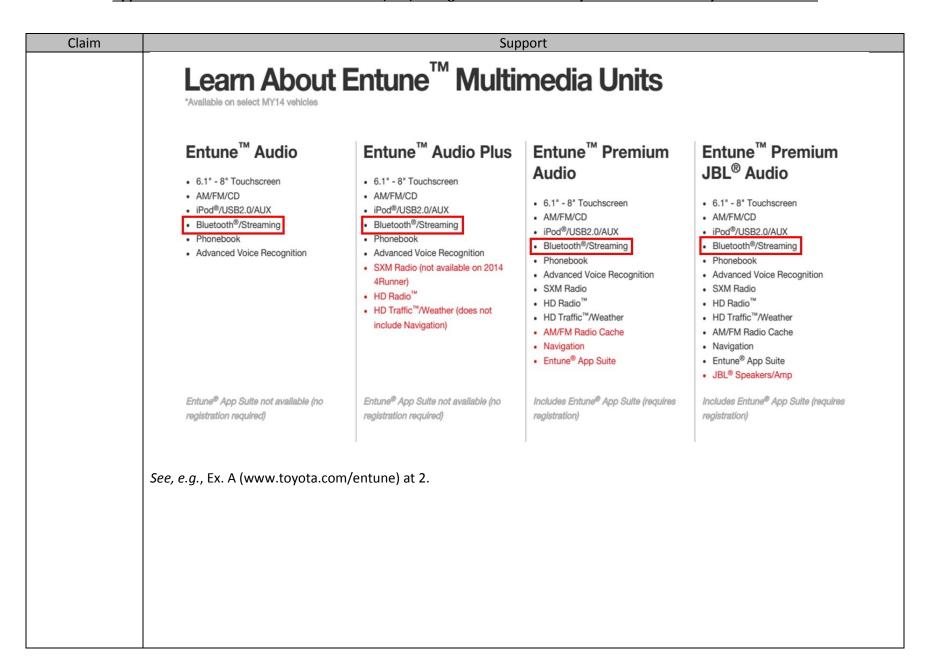
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Claim	Support
	See also Ex. B (2015 Tacoma Manual) at 332-333.
56. The system of claim 49, wherein said integration subsystem generates a	Each of the accused Toyota automobiles includes a device presence signal that "maintain[s] the car audio/video system in a state responsive to the portable device." Specifically, when a portable device is paired via Bluetooth, a Bluetooth graphic appears indicating that a compatible device is connected and recognized. Once a compatible portable device is connected and recognized, the integration subsystem maintains the car audio/video system in a state responsive to processed data and audio signals from the portable device.
device presence signal and transmits the device presence signal to the car audio/video	The device presence signal is generated when at least the Renesas microcontroller of the integration subsystem (and potentially other microcontrollers on one or more circuit boards of the device integration system) executes pre-programmed code stored in onboard flash and/or other memory modules (such as the Spansion flash memory module), and/or within firmware elsewhere in the interface (such as within the Renesas microcontroller itself) in response to its receipt from the first wireless interface of a signal indicating that a portable device has established a connection via Bluetooth.
system to maintain the car audio/video system in a state responsive to the portable device.	The device presence signal can be identified by examining the source code in the integration subsystem of the accused Toyota automobiles.

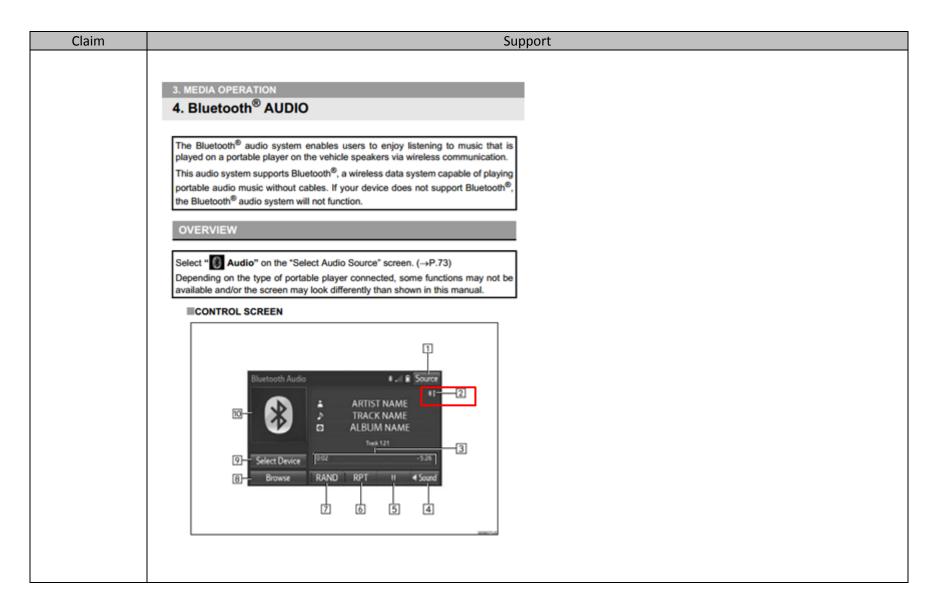
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 364 of 492 PageID #: 4973 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	Entune™
	Entune now encompasses the complete audio display stack of your vehicle - including Bluetooth, voice recognition, USB, aux port, and your display screen. On select, premium audio head units, you have access to navigation and a rich set of Apps and Data Services, now referred to as the "Entune® App Suite".
	See, e.g., Ex. A (www.toyota.com/entune) at 1.

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Claim	Support		
	3. MEDIA OPERATION		
	CONTROL PANEL		
	No. Function		
	Select to display the "Select Audio Source" screen.		
	Displays Bluetooth® device condition.		
	3 Shows progress		
	Select to display the sound settings screen.		
	5 Select to playlpause.		
	6 Select to set repeat playback.		
	Select to set random playback.		
	8 Select to display the play mode selection screen. To return to the top screen, select "Now Playing" on the list screen.		
	Select to display the portable device connection screen.		
	• Displays cover art.         • Select to display a track list.		
	• Turn to select a track.       • Turn to move up/down the list.		
	Press to select a track.     Press and hold to fast forward/rewind.		
	Turn to adjust volume.     Press to turn the audio system on/off.     Press and hold to restart the system.		
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 104-05.		

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Claim	Support
57. The system	See claim 55 support.
of claim 49,	
wherein said	
integration	
subsystem	
instructs said	
portable device	
to play a desired	
file in response	
to a spoken	
command	
processed by the	
voice recognition	
subsystem.	
62. The system	Portable devices capable of being connected to car audio/video systems of the accused Toyota automobiles include
of claim 49,	Bluetooth compatible smart phones and other smart devices, such as iPhones, iPads, iPods, and Android devices. When
wherein the	storing, streaming and playing media (such as audio and/or video), these smart devices constitute digital media players.
portable device	These players are capable of at least playing MP3 song files and streaming audio, such as via applications and online websites
comprises a	(e.g., Pandora, iTunes streaming, and Apple Music).
portable digital	
media player.	

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Claim	Support
	<ul> <li>iPod</li> <li>Made for </li> <li>iPod iPhone </li> <li>Made for iPod' and 'Made for iPhone' mean that an electronic accessory has been designed to connect specifically to iPod or iPhone respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod or iPhone may affect wireless performance.</li> <li>Phone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> <li>See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 116.</li> </ul>

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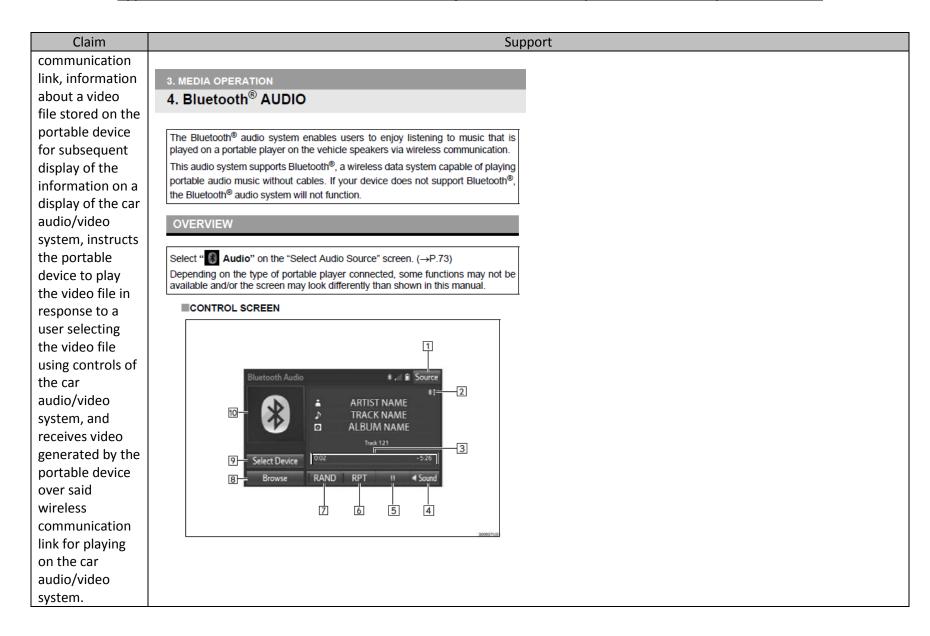
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 371 of 492 PageID #: 4980 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	About iPod Made for iPod iPhone
	<ul> <li>*Made for iPod", "Made for iPhone" and *Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards.</li> <li>Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance.</li> <li>IPad, iPhone, iPod (assic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.</li> <li>IPod cover art</li> <li>Depending on the iPod and songs in the iPod, iPod cover art may be displayed.</li> <li>This function can be changed to on/off. (→P. 253)</li> <li>It may take time to display iPod cover art, and the iPod may not be operated while the cover art display is in process.</li> <li>Only iPod cover art that is saved in JPEG format can be displayed.</li> </ul>
	<i>See, e.g.,</i> Ex. B (2015 Tacoma Manual) at 271.
	Music Streaming via Bluetooth®
	Does your smartphone have an MP3/WMA player? With Bluetooth® 8 streaming audio, listening to your music through the vehicle's speakers wirelessly is easy.
	See http://www.sansonestoyota.com/new.cfm/page/toyota-entune/

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Claim	Support
63. The system	See claim 62 support.
of claim 62,	
wherein the	
portable digital	
media player	
comprises a	
video device, a	
portable media	
center, a	
portable media	
player, an MP3	
player, an MP4	
player, a WMV	
player, an Apple	
iPod, or an Apple	
video iPod.	
64. The system	See claim 62 support.
of claim 49,	
wherein the	
portable device	
comprises a	
cellular	
telephone.	
66. The system	The integration subsystem of the accused Toyota automobiles obtains, via the wireless communication link between the first
of claim 49, wherein said	and second wireless interfaces (i.e., a Bluetooth interface of the car audio/video system and one or more others in communication with and part of the portable device), information about a video file (i.e., cover art associated with audio
	files) stored on the portable device. Specifically, when a user selects an audio file to play (and in so doing also selects the
integration subsystem	associated cover art file) using controls of the car audio/video system, the integration subsystem receives cover art
obtains, using	information from the portable device. The integration subsystem then transmits the cover art file to the car audio/video
said wireless	system for display on the display of the car audio/video system.
salu WILEIESS	system for display of the display of the car audio/video system.

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Image: Control Panel	Claim		Support
No.       Function         1       Select to display the "Select Audio Source" screen.         2       Displays Bluetooth® device condition.         3       Shows progress         4       Select to display the sound settings screen.         5       Select to display the sound settings screen.         6       Select to play/pause.         7       Select to set repeat playback.         7       Select to display mode selection screen.         8       Select to display the play mode selection screen.         9       Select to display a track lett.         10       Displays a track lett.         11       Turn to select a track.         12       Press and hold to sate forward/newind.         13       Fores to the flave and covert envirol.			3 AUDIO SYSTEM
Image: Control			
3       Shows progress         4       Select to display the sound settings screen.         5       Select to play/pause.         6       Select to set repeat playback.         7       Select to display the play mode selection screen.         8       Select to display the play mode selection screen.         7       Select to display the play mode selection screen.         8       Select to display the play mode selection screen.         9       Select to display a track list.         10       Displays cover at.         • State at to display a track list.         11       *Turn to select a track.         12       •Press benetica a track list.         13       *Dress durat to the sist.         14       •Press durat to the sist.         15       •Press durat to the sist.         16       •Press durat to the sist.         17       •Press durat to the sist.         17       •Press durat to the sist.         18       •Press durat to the sist.		1 Select to display the "Select Audio Source" screen.	
Image: Control of Contro		2 Displays Bluetooth <sup>®</sup> device condition.	
Select to play/pause.         Select to set repeat playback.         Select to set random playback.         Select to display the play mode selection screen.         Select to display the play mode selection screen.         Select to display the portable device connection screen.         Select to display the portable device connection screen.         Select to display the portable device connection screen.         To       *Displays cover art.         Select to display a track list.         Select to display a track list.         Turn to select a track.         *Turn to adjust volume.         *Press to select a track.         *Press to subset a track.         *Turn to adjust volume.         *Press to subset a track.         *Turn to adjust volume.		3 Shows progress	
6       Select to set repeat playback.         7       Select to set random playback.         8       Select to display the play mode selection screen.         9       Select to display the portable device connection screen.         10       • Displays cover art.         11       • Turn to select a track.         12       • Press to select a track.         12       • Press to select a track.         13       • Turn to adjust volume.         14       • Turn to adjust volume.		4 Select to display the sound settings screen.	
Image: Text of the set of th		5 Select to play/pause.	
8       Select to display the play mode selection screen. To return to the top screen, select "Now Playing" on the list screen.         9       Select to display the portable device connection screen.         10       • Displays cover art. • Select to display a track list.         11       • Turm to select a track. • Turm to select a track.         12       • Press to select a track. • Press to select a track.         12       • Press to select a track. • Press to adjust volume. • Press to adjust volume.		6 Select to set repeat playback.	
8       To return to the top screen, select "Now Playing" on the list screen.         9       Select to display the portable device connection screen.         10       • Displays cover art.         • Select to display a track list.         11       • Turn to select a track.         12       • Press to select a track.         • Turn to adjust volume.         • Turn to adjust volume.		Z         Select to set random playback.	
10       • Displays cover art.         • Select to display a track list.         11       • Turn to select a track.         11       • Turn to move up/down the list.         12       • Press to select a track.         • Turn to adjust volume.         • Press to turn the audio system on/off.		8         Select to display the play mode selection screen.           To return to the top screen, select "Now Playing" on the list screen.	
Image: Select to display a track list.         Image: Track of the select a track.         Image: Track of the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track.         Image: Press to track to the select a track to the select a track.         Image: Press to track to the select a track tot the select a track tot the select a track tot		Select to display the portable device connection screen.	
Turn to move up/down the list.     Press to select a track,     Press and hold to fast forward/rewind.     Turn to adjust volume.     Press to turn the audio system on/off.		Displays cover art.     Select to display a track list.	
		Turn to move up/down the list.     Press to select a track.     Press and hold to fast forward/rewind.     Turn to adjust volume.	
Press and hold to restart the system.		Press and hold to restart the system.	105

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Claim	Support
Ciaim	Support
	LISTENING TO Bluetooth <sup>®</sup> AUDIO
	REPEATING
	The track or album currently being listened to can be repeated.       3
	1 Select the repeat button to change on/ off.
	Select the repeat button to change on/ off.     Select the repeat button to change on/ off.       RANDOM ORDER     State       Tracks or albums can be automatically.     State
	Tracks or albums can be automatically and randomly selected.
	1 Select the random button to change on/off.
	See, e.g., Ex. C (2015 Tacoma Navigation Manual) at 104-106.
	See, e.g., Ex. B (2015 Tacoma Manual) at 304.
	See, e.g., Toyota USB-Ipod video (showing cover art): <u>https://www.youtube.com/watch?v=CwRYEJYiGWw</u> .
	See, e.g., Toyota Entune Display Audio video (showing cover art): <u>https://www.youtube.com/watch?v=MuCAxLDUsi8</u>
68. The system	See claim 66 support.
of claim 66, wherein the	
video file	
comprises a	
picture stored on	
the portable	
device.	

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Claim	Support
Ciaini	
70. The system	See claim 54 support.
of claim 66,	
wherein said	
integration	
subsystem	
receives video	
generated by the	
portable device	
in a first format	
incompatible	
with the car	
audio/video	
system,	
processes the	
video into	
processed video	
in a second	
format	
compatible with	
the car	
audio/video	
system, and	
transmits the	
processed video	
to the car	
audio/video	
system for	
subsequent	
display of the	
processed video	
on a display of	
the car	

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Claim	Support
audio/video	Support
system.	
System.	
71. The system	See claim 49 support.
of claim 49,	
wherein the	
audio file	
comprises a song	
stored on the	
portable device.	
[73P]. A	See preamble [49P] support.
multimedia	
device	
integration	
system,	
comprising:	
[73A]. an	<i>See</i> element [49A] support.
integration	
subsystem in	
communication	
with a car	
audio/video	
system; and	
[73B] a first	See element [49B] support.
wireless	
interface in	
communication	
with said	
integration	
subsystem, said	
first wireless	
interface	

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Claim	Support
establishing a	
wireless	
communication	
link with a	
second wireless	
interface in	
communication	
with a portable	
device external	
to the car	
audio/video	
system,	
[73C] wherein	<i>See</i> element [49C] support.
said integration	
subsystem	The audio file may be "received" by the portable device from online streaming services, such as Pandora, Spotify, iTunes, or
obtains, using	Apple Music. Audio files (such as MP3 files) stored on the portable device may also be "received" from other sources, such
said wireless	as download websites or the user himself/herself via download.
communication	
link, information	
about an audio	
file received by	
the portable	
device, transmits	
the information	
to the car	
audio/video	
system for	
subsequent	
display of the	
information on a	
display of the car	
audio/video	
system,	

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Claim	Support
[73D] instructs	See element [49D] support
the portable	
device to play	
the audio file in	
response to a	
user selecting	
the audio file	
using controls of	
the car	
audio/video	
system, and	
receives audio	
generated by the	
portable device	
over said	
wireless	
communication	
link for playing	
on the car	
audio/video	
system.	
74. The system	See claim 50 support.
74. The system of claim 73,	
wherein said	
integration	
subsystem is	
positioned	
within the car	
audio/video	
system.	
75. The system	See claim 51 support.

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Claim	Support
of claim 74,	
wherein said	
first wireless	
interface is	
positioned	
within the car	
audio/video	
system.	
76. The system	See claim 52 support.
of claim 75,	
wherein said	
second wireless	
interface is	
positioned	
within the	
portable device.	
77. The system	See claim 53 support.
of claim 73,	
wherein said	
integration	
subsystem	
receives a	
control	
command issued	
at the car	
audio/video	
system in a	
format	
incompatible	
with the	
portable device,	

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Claim	Support
processes the	
control	
command into a	
formatted	
command	
compatible with	
the portable	
device, and	
dispatches the	
processed	
control	
command to the	
portable device	
for execution	
thereby.	
78. The system	See claim 54 support.
of claim 73,	
wherein said	
integration	
subsystem	
receives data	
generated by the	
portable device	
in a format	
incompatible	
with the car	
audio/video	
system,	
processes the	
data into	
formatted data	
compatible with	

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Claim	Support
the car	
audio/video	
system, and	
transmits the	
processed data	
to the car	
audio/video	
system for	
subsequent	
display of the	
processed data	
on a display of	
the car	
audio/video	
system.	
79. The system	See claim 55 support.
of claim 73,	
wherein said	
integration	
subsystem	
further	
comprises a	
voice recognition	
subsystem for	
receiving and	
processing	
spoken control	
commands	
issued by a user.	
80. The system	See claim 55 support.
of claim 79,	

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Claim	Support
wherein said	
integration	
subsystem	
instructs said	
portable device	
to play a desired	
file in response	
to a spoken	
command	
processed by the	
voice recognition	
subsystem.	
94. The system	See claim 66 support.
of claim 73,	
wherein said	
integration	
subsystem	
obtains, over	
said wireless	
communication	
link, information	
about a video	
file received by	
the portable	
device for	
subsequent	
display of the	
information on a	
display of the car	
audio/video	
system, instructs	
the portable	

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Claim	Support
device to play	
the video file in	
response to a	
user selecting	
the video file	
using controls of	
the car	
audio/video	
system, and	
receives video	
generated by the	
portable device	
over said	
wireless	
communication	
link for playing	
on the car	
audio/video	
system.	
95. The system	See claim 71 support.
of claim 73,	
wherein the	
audio file	
comprises a song	
stored on the	
portable device.	
	Coo magazi bio [404] avec est
[97P]. A	See preamble [49A] support.
multimedia	
device	
integration	
system,	

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Claim	Support
comprising:	
[97A] first and	See element [49B] support.
second wireless	
interfaces	
establishing a	
wireless	
communication	
link between a	
car audio/video	
system and a	
portable device	
external to the	
car audio/video	
system; and	
[97B] an	<i>See</i> element [49A] support.
integration	
subsystem in	
communication	
with said	
wireless	
communication	
link,	
[97C] wherein	See element [49C] and [49D] support.
said integration	
subsystem	
channels audio	
generated by the	
portable device	
to the car	
audio/video	
system using the	
wireless	
communication	

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Claim	Support
link for	
subsequent	
playing of the	
audio on the car	
audio/video	
system, the	
audio	
corresponding to	
an audio file	
played by the	
portable device,	
and	
[97D] wherein	See claim 53 support.
said integration	
subsystem	
receives a	
control	
command issued	
by a user	
through one or	
more controls of	
the car	
audio/video	
system in a	
format	
incompatible	
with the	
portable device,	
processes the	
control	
command into a	
formatted	
command	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 387 of 492 PageID #: 4996 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Current
Claim	Support
compatible with	
the portable	
device, and	
dispatches the	
formatted	
command to the	
portable device	
for execution	
thereby.	
99. The system	See claim 50 support.
of claim 97,	
wherein said	
integration	
subsystem is	
positioned	
within the car	
audio/video	
system.	
100. The system	See element [49C] support.
of claim 97,	
where the audio	
file is stored on	
the portable	
device.	
101. The system	See element [73C] support.
of claim 97,	
wherein the	
audio file is	
received by the	
-	
portable device.	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 388 of 492 PageID #: 4997 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
	Support
102. The system	See claims 55 and 57 support.
of claim 97,	
wherein said	
integration	
subsystem	
further	
comprises a	
voice recognition	
subsystem for	
receiving and	
processing	
spoken control	
commands	
issued by the	
user.	
user.	
103. The system	See claims 55 and 57 support.
of claim 102,	
wherein said	
integration	
subsystem	
instructs said	
portable device	
to play a desired	
file in response	
to a spoken	
command	
processed by the	
voice recognition	
subsystem.	
106. The system	See claim 56 support.

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Claim	Support
of claim 97,	
wherein said	
integration	
subsystem	
generates a	
device presence	
signal and	
transmits the	
device presence	
signal to the car	
audio/video	
system to	
maintain the car	
audio/video	
system in a state	
responsive to	
the portable	
device.	
109. The system	See claim 62 support.
of claim 97,	
wherein the	
portable device	
comprises a	
portable digital	
media player.	
110. The system	See claim 63 support.
of claim 109,	
wherein the	
portable digital	
media player	
comprises a	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 390 of 492 PageID #: 4999 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
video device, a	Support
portable media	
center, a	
portable media	
player, an MP3	
player, an MP4	
player, a WMV	
player, an Apple	
iPod, or an Apple	
video iPod.	
111. The system	See claim 64 support.
of claim 97,	
wherein the	
portable device	
comprises a	
cellular	
telephone.	
113. The system	See claim 66 support.
of claim 97,	
wherein said	
integration	
subsystem	
channels video	
generated by the	
portable device	
to the car	
audio/video	
system over the	
wireless	
communication	
link for	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 391 of 492 PageID #: 5000 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Current
Claim	Support
subsequent	
playing of the	
audio on the car	
audio/video	
system, the	
video	
corresponding to	
a video file	
played by the	
portable device.	
115. The system	See claim 68 support.
of claim 113,	
wherein the	
video file	
comprises a	
picture stored on	
the portable	
device.	
120. A	See preamble [97P] support.
multimedia	
device	
integration	
system,	
comprising:	
first and second wireless	See element [97A] support.
interfaces	
establishing a wireless	
communication	
link between a	
mik between a	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 392 of 492 PageID #: 5001 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
car audio/video	
system and a	
portable device	
external to the	
car audio/video	
system; and	
an integration	See element [97B] support
subsystem in	
communication	
with said	
wireless	
communication	
link,	
wherein said	See element [97C] support.
integration	
subsystem	
instructs the	
portable device	
to play an audio	
file in response	
to a user	
selecting the	
audio file using	
controls of the	
car audio/video	
system, wherein	
said integration	
subsystem	
channels audio	
generated by the	
portable device	
to the car	
audio/video	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 393 of 492 PageID #: 5002 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
system using the	
wireless	
communication	
link for	
subsequent	
playing of the	
audio on the car	
audio/video	
system, the	
audio	
corresponding to	
the audio file	
played by the	
portable device,	
and	
wherein said	See element [97D] support.
integration	
subsystem	
receives data	
generated by the	
portable device	
in a format	
incompatible	
with the car	
audio/video	
system,	
processes the	
data into	
formatted data	
compatible with	
the car	
audio/video	
system, and	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 394 of 492 PageID #: 5003 Appendix C - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Toyota Automobiles

Claim	Support
transmits the	
processed data	
to the car	
audio/video	
system for	
subsequent	
display of the	
processed data	
on a display of	
the car	
audio/video	
system.	

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 395 of 492 PageID #: 5004 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

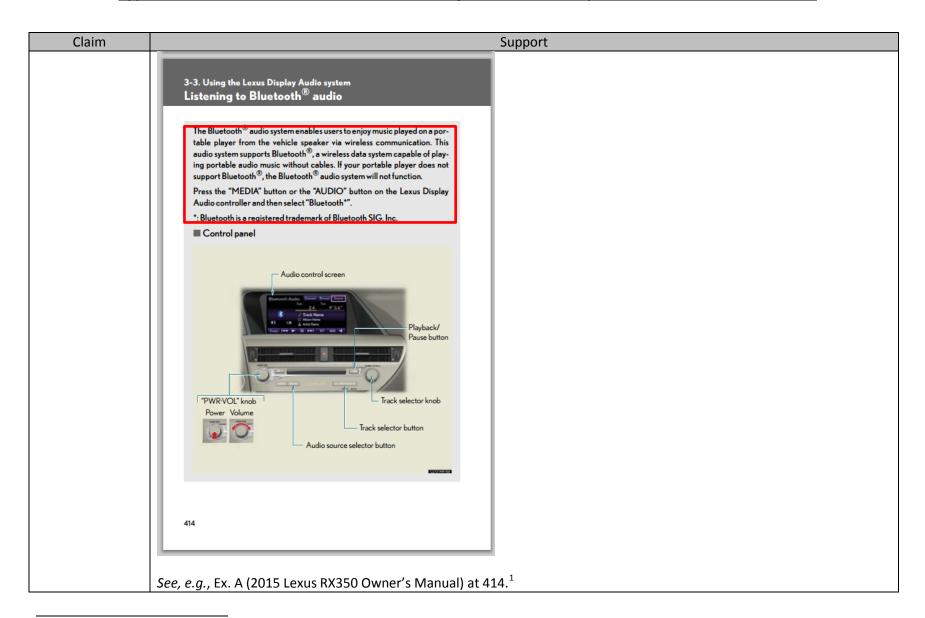
In these Infringement Contentions, Blitzsafe contends that at least the following claims of U.S. Patent No. 8,155,342 ("342 patent") identified below are infringed by the infotainment systems in accused Lexus automobiles. Blitzsafe does not concede that any claims of the '342 patent that are not listed below are not infringed by the infotainment systems in accused Lexus automobiles. Moreover, the citations to certain documents and other information below are intended to be exemplary only and in no way foreclose Blitzsafe from citing or relying on additional documents, information, and/or testimony at a later time. These contentions are preliminary in nature, and an analysis of Lexus's infotainment systems, internal documentation, source code, and/or testimony from relevant witnesses may be necessary to more fully and accurately describe the infringing features of its accused products. Accordingly, Blitzsafe reserves the right to supplement, correct, modify, and/or amend these contentions as discovery in this case progresses; in view of the Court's claim construction order(s); in view of any positions taken by Lexus, including but not limited to positions on claim construction, invalidity, and/or non-infringement; and in connection with the preparation and exchange of expert reports.

Claim	Support
49[P]. A	Each accused Lexus automobile includes a device integration system, which supports integration of audio/video devices,
multimedia	such as freely lying smartphones and other smart devices connected via Bluetooth, as well as MP3 players (e.g., iPods and
device	iPhones playing MP3 files). Accused Lexus automobiles also support device integration of smartphones and other smart
integration	devices (e.g., iPods and iPhones) for playing audio streamed over the Internet via online radio stations, such as Pandora,
system,	iTunes streaming, and Apple Music.
comprising:	

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 396 of 492 PageID #: 5005 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

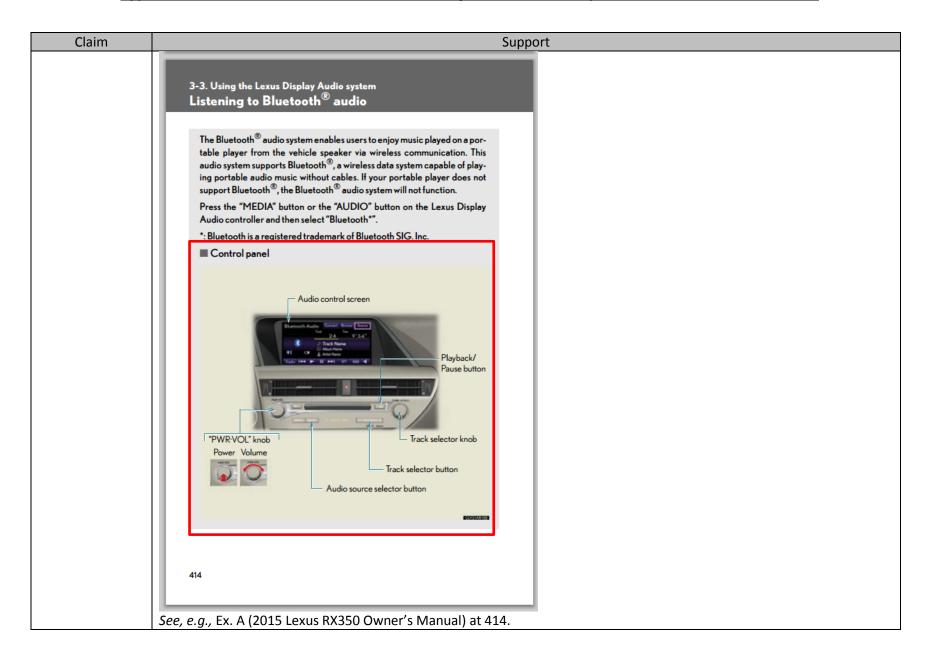
Claim	Support
	CLEXULS SEDANS SUVS COUPES HYBRIDS F PERFORMANCE FUTURE Owners L/Certified Find A Dealer
	<section-header>         Bleetooth Section ogy         Support of the provide the provide the provide device is best features at provide the provide device is out for the provide device is best features at provide the provide device is best features at provide the provide device is best features at provide device is best features at provide the provide device is out features at provide device is best features at provide device is bes</section-header>
	To confirm your device's compatibility or view pairing instructions, please use the Lexus Mobile Link to the right. Available Features* Phone Place hands-free cell-phone calls Incoming calls ring through audio system Transfer phone numbers to vehicle Display cell-phone signal strength Display cell-phone battery level Audio Play/Pause music Display cell-phone battery level Additional Resources To view pairing instructions and a list of features compatible with your specific device, use the Lexus Mobile Link Bluetooth FAQS Seee, e.g., www.lexus.com/bluetooth (as of November 3, 2015).

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 397 of 492 PageID #: 5006 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

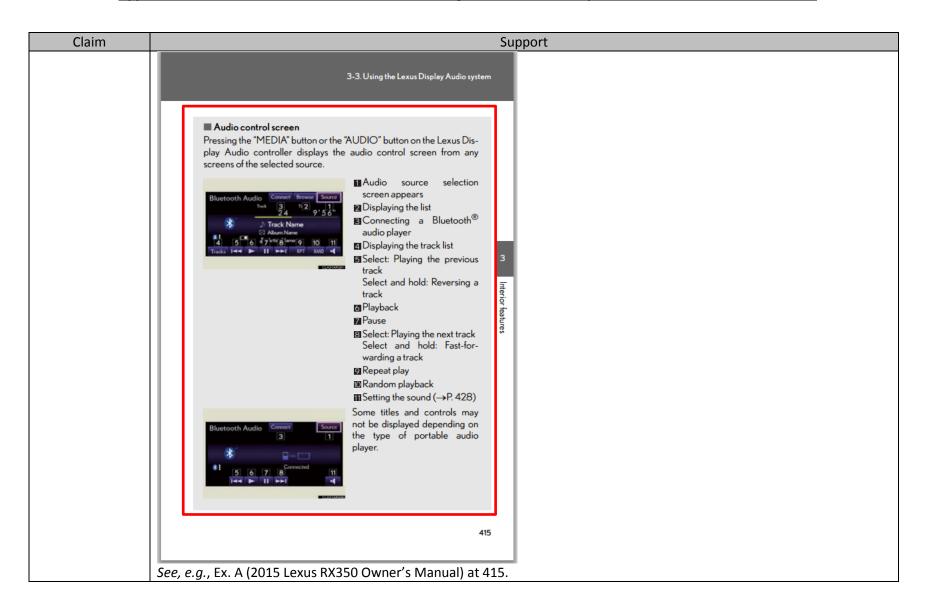


<sup>&</sup>lt;sup>1</sup> Blitzsafe has produced Ex. A, 2015 Lexus RX350 Owner's Manual, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000884 – 1769. All pin-cites are to manual pages.

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 398 of 492 PageID #: 5007 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 399 of 492 PageID #: 5008 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 400 of 492 PageID #: 5009 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	Support 3-3. Using the Lexus Display Audo system You can check such indicators as signal strength and battery charge on the screen. Connection status Battery charge Conditions Connection status Battery charge Conditions Connection status Battery charge Conditions Condi
	416 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 416.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 401 of 492 PageID #: 5010 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Support
Claim	3-3. Using the Lexus Display Audio system         Registering a Bluetooth® audio player         To use the Bluetooth® audio system, you need to register your portable audio player into the system. Once registered, you can enjoy your music on the vehicle's audio system.         You can register up to 5 devices in the system.         Step1 Display the "Bluetooth* Audio" screen.         Select "Connect".         Bluetooth Audio "screen.         Select "Connect".	3
	The are no usedig player registered trademark of Bluetooth SIG. Inc.	
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 42	17.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 402 of 492 PageID #: 5011 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-3. Using the Lexus Display Audio system           Support         3-3. Using the Lexus Display Audio system         Image: Support         Image: Support
	418 500.00 G. Ex. A (2015 Lowus DV250 Ourper's Manual) at 418
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 418.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 403 of 492 PageID #: 5012 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support	
	3-3. Using the Lexus Display Audio system	
	Selecting the Bluetooth® devices are registered, follow the procedure below to select the Bluetooth® device to be used. You may only use on device at a time.         Ster:       Display the "Bluetooth * Audio" screen.         Select "Connect".       Select "Connect".         Buttooth * Audio * screen.       Select the device to connect.         Ster:       Selection indicator is displayed on left side of the selected device.         Ster:       Selection indicator is displayed on left side of the selected device.         The Bluetooth is a registered trademark of Bluetooth SIG. Inc.	
	419 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 419.	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 404 of 492 PageID #: 5013 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Connecting the Bluetooth® audio player         There are two connection methods available.         When the connection method is set to "From Vehicle"         When the connection method is set to "From Vehicle"         When the connection method is set to "From Audio Player"         Operate the portable player and connect it to the Bluetooth® audio system.         Statt "Display the "Bluetooth" Audio" screen.         Statt "Display the "Bluetooth Audio" screen.         Statt "Display the "Bluetooth SIG. Inc.         Select "Connect.         *: Bluetooth is a registered trademark of Bluetooth SIG. Inc.         Select the device to connect.         Masses state is a sequistered trademark of Bluetooth SIG. Inc.         Select the device to connect.         A message is shown if connection his to single is a message will be displayed and connection will be displayed and connect
	420 See, e.g., Ex. A (2015 Loxus PY250 Owner's Manual) at 420
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 420.

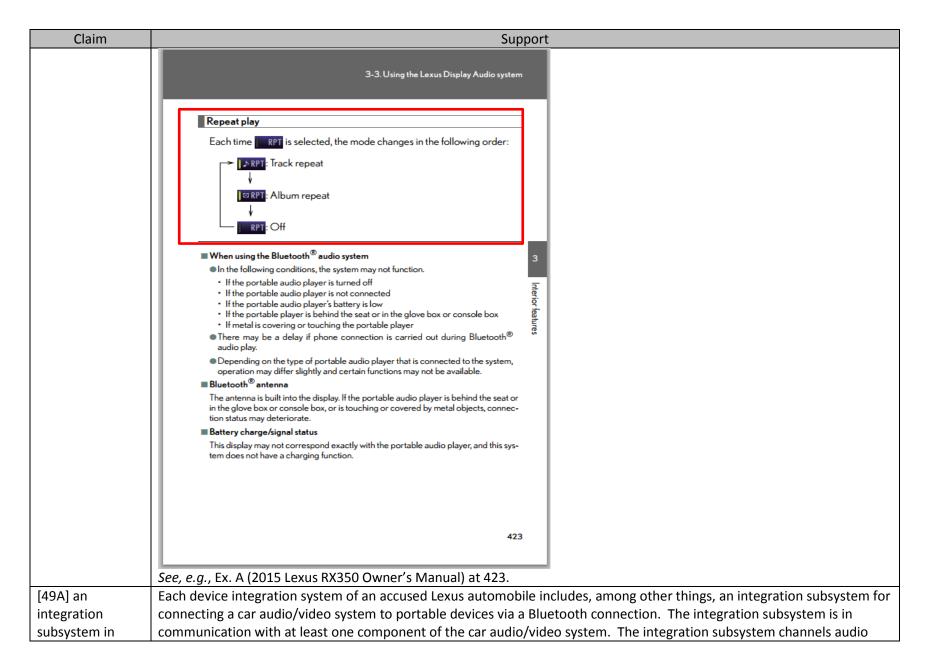
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 405 of 492 PageID #: 5014 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Suppo	rt
	3-3. Using the Lexus Display Audio system	
	Selecting, fast-forwarding and reversing tracks	
	Selecting, fast-forwarding and reversing tracks ■ Selecting a track Press "<" or ">" on the "PRST-TRACK" button or turn the "TUNE-SCROLL" knob to select the desired track number. To fast-forward or reverse, press and hold ">" or "<" on the "PRST-TRACK" button until you hear a beep. Belecting a track from audio control screen Select >> or [<]. To fast-forward or reverse, select and hold >> or [<] until you hear a beep. Belecting a track from the list From "Tracks" Step: ] Select "Tracks" on the screen. Select Tracks" Select track Select Tracks on the screen. Select Track Select track Select track	13 Interior features
	421	
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 421.	

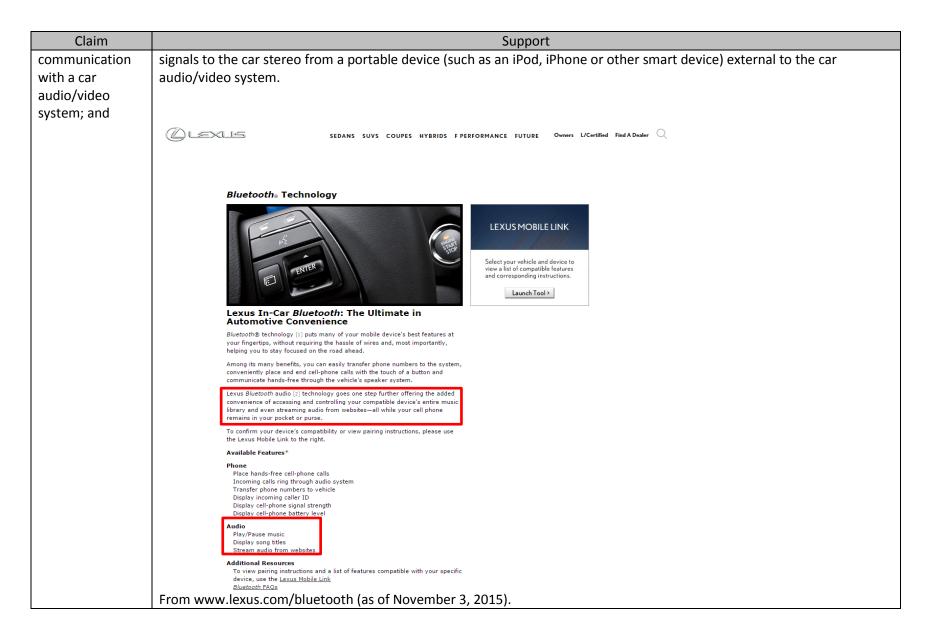
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 406 of 492 PageID #: 5015 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Image: Select Browse" on the screen.         Image: Select Browse

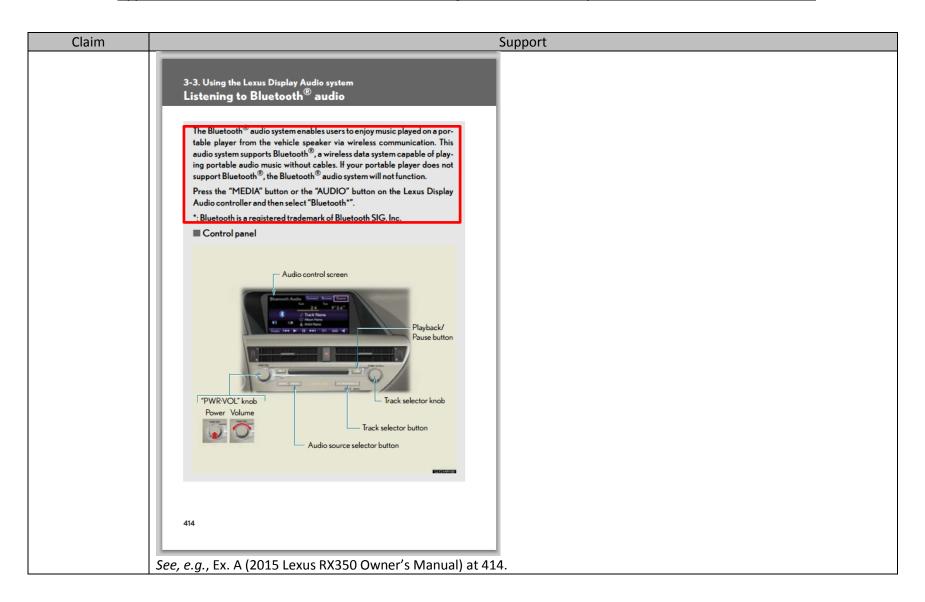
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 407 of 492 PageID #: 5016 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



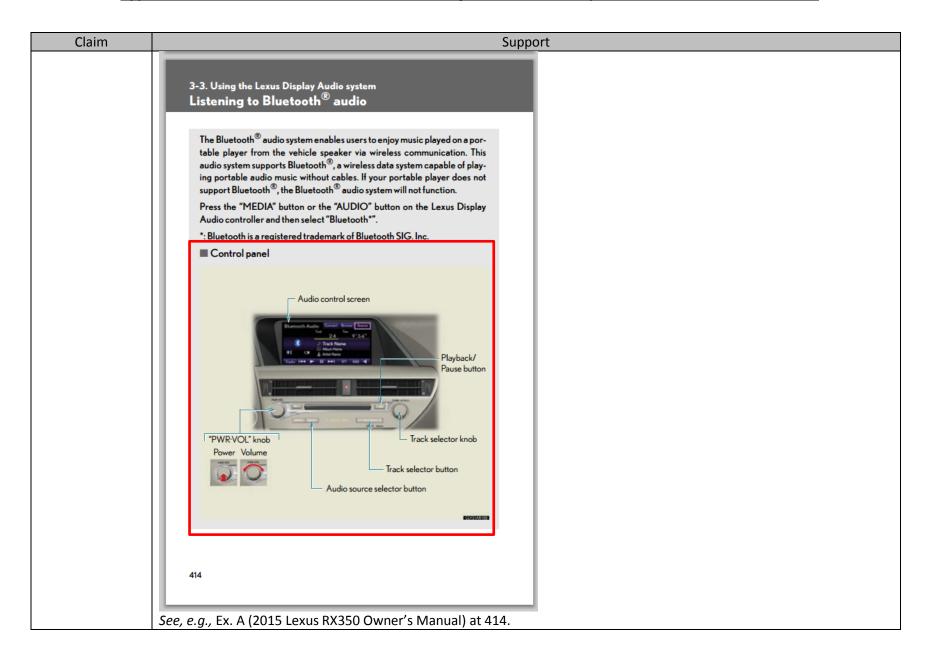
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 408 of 492 PageID #: 5017 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



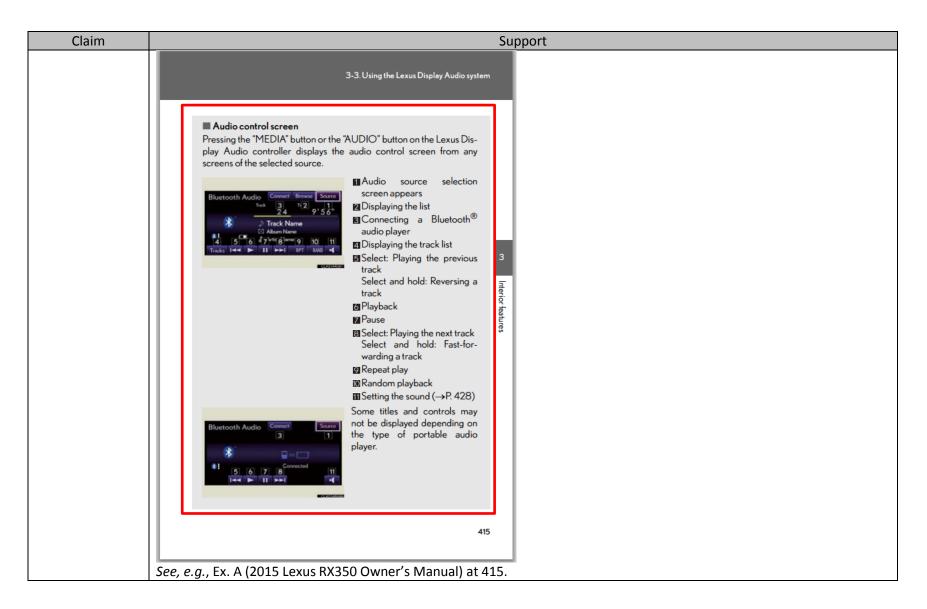
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 409 of 492 PageID #: 5018 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 410 of 492 PageID #: 5019 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 411 of 492 PageID #: 5020 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 412 of 492 PageID #: 5021 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	Support 3.3.Using the Law Dippley Audio system You can check such indicators as signal strength and battery charge on the screen. Connection status Battery charge
	416 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 416.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 413 of 492 PageID #: 5022 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Support
Claim	3-3. Using the Lexus Displey Audio system         Registering a Bluetooth <sup>®</sup> audio player         To use the Bluetooth <sup>®</sup> audio system, you need to register your portable audio player into the system. Once registered, you can enjoy your music on the vehicle's audio system.         You can register up to 5 devices in the system.         SEET Display the "Bluetooth* Audio" screen.         Select "Connect".         Select "Connect".         Select "Yes".	3 Interior features
	There are no audio players registered.	
	417 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 41	7.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 414 of 492 PageID #: 5023 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

3-3 Using the Laxue Display Audio system	Claim	Support	
	Claim	3-3. Using the Lexus Display Audio system         Imput the passcode displayed on the screen into your portable audio player.         Proceedings of the subject to the portable audio player.         Proceedings of the subject to the portable audio player.         Proceedings of the subject to the portable audio player.         Proceedings of the subject to the portable audio player.         Proceedings of the portable audio player.         Procedito the device. <td colsp<="" th=""></td>	
<sup>418</sup> See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 418.			

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 415 of 492 PageID #: 5024 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support	
	3-3. Using the Lexus Display Audio system	
	Selecting the Bluetooth® audio player         If multiple Bluetooth® devices are registered, follow the procedure below to select the Bluetooth® device to be used. You may only use one device at a time.         If Display the "Bluetooth Audio" screen.         If I Display the "Bluetooth" of the device to connect.         If I Display the "Bluetooth" of the device to connect.         If I Display the "Bluetooth" of the device to connect.         If I Display the "Bluetooth" of the device to connect.         If I Display the "Bluetooth" of the selection indicator is displayed on alter to a selection indicator is displayed on alter to a connect of the selected device.         If I Display the selected trademark of Bluetooth SIG. Inc.	
	419 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 419.	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 416 of 492 PageID #: 5025 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Connecting the Bluetooth® available.            There are two connection methods available.             When the connection methods is to Trom Vehicle"             When the connection method is set or Trom Vehicle"             When the connection method is set or Trom Audio Player             Operate the portable player and connect it to the Bluetooth® audio         system.             When the connection method is set or Trom Audio Player             Operate the portable player and connect it to the Bluetooth® audio         system.             When the connection method is set or Trom Audio Player             Operate the portable player and connect it to the Bluetooth® audio         system.             When the connection method is set or Trom Audio Player             Display the "Bluetooth" Audio" screen.             Beter Connect*.             Select "Connect".             Select "Connect".             Select bedivice to connect.             Select bedivice to connect.
	420
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 420.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 417 of 492 PageID #: 5026 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
[49B] a first	Each device integration system accused the Lexus automobiles includes a first wireless interface (a Bluetooth interface in
wireless interface	the form of a Bluetooth controller and/or antenna and related circuitry) in communication with the integration subsystem.
in	The Bluetooth interface of the car audio/video system is operable to establish a wireless link with Bluetooth interfaces
communication	(second wireless interfaces) of and/or in communication with one or more portable devices external to the car audio/video
with said	system. Bluetooth pairing in the accused Lexus automobiles is shown below.
integration	
subsystem, said	
first wireless	
interface	
establishing a	
wireless	
communication	
link with a	
second wireless	
interface in	
communication	
with a portable	
device external	
to the car	
audio/video	
system,	

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 418 of 492 PageID #: 5027 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

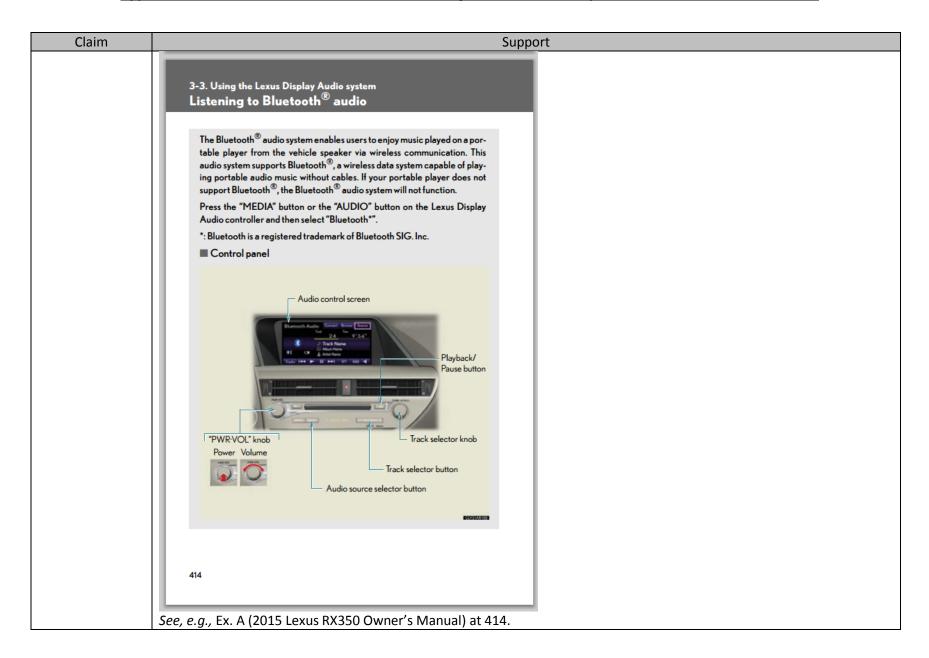
Claim							Supp	oort
	iOS: Su	pport	ed Bl	uetooth	profiles			
	iPhone, iPa	d, and iP OS. You	od touc	h support m	ultiple Bluetoo nces in Bluetoo			
	The following table lists supported Bluetooth profiles by device for the latest version of iOS.							
	Device	Hands- Free Profile (HFP 1.6)	Phone Book Access Profile (PBAP)	Advanced Audio Distribution Profile (A2DP)	Audio/Video Remote Control Profile (AVRCP 1.4)	Personal Area Network Profile (PAN)	Human Interface Device Profile (HID)	Message Access Profile (MAP)
	iPhone 4 and later	1	1	1	1	1	1	1
	iPhone 3GS	1	1	1	1	1	1	-
	iPhone 3G	1	1	1	1	1	-	-
	Original iPhone	1	1	-	-	-	-	-
	iPad 2 and later	1	-	1	1	1	1	-
	iPad (1st generation)	-	-	1	1	1	1	-
	iPod touch (4th generation and later)	1	-	1	1	1	1	-
	iPod touch (2nd and 3rd generation)	-		1	1	~	1	-

<sup>&</sup>lt;sup>2</sup> Blitzsafe has produced Ex. C, Apple iPhone webpage, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0000001-3.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 419 of 492 PageID #: 5028 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	<i>See, e.g.,</i> http://developer.android.com/guide/topics/connectivity/bluetooth.html (discussing Bluetooth support for the Android platform).

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 420 of 492 PageID #: 5029 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 421 of 492 PageID #: 5030 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Support
Claim	3-3. Using the Lexus Display Audio system         Registering a Bluetooth® audio player         To use the Bluetooth® audio system, you need to register your portable audio player into the system. Once registered, you can enjoy your music on the vehicle's audio system.         You can register up to 5 devices in the system.         STEPT: Display the "Bluetooth* Audio" screen.         Steet: "Connect".         Bluetooth Audio "screen.         Steet: "Connect".         Steet: "Connect".         Steet: "Connect".         Steet: "Yes".	3 Interior features
	Woodd you like to add one noo?     The Normal State of Bluetooth SIG. Inc.	
	417	
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 41	.7.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 422 of 492 PageID #: 5031 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-3. Using the Lexus Display Audio system           STEP 4         Input the passcode displayed on the screen into your portable audio player.           Proce Name         CAR MULTIMEDIA           Device Answer         CAR MULTIMEDIA           Device Answer         COND           Cornect Bluetooth         For the operation of the portable audio player.   For the operation of the portable audio player, see the manual that cornes with your portable audio player.
	Passcodes are not required for SSP (Secure Simple Pairing) compati- ble Bluetooth <sup>®</sup> devices. Depend- ing on the device, you may need to select "Yes" to register, or "No" to cancel on your Bluetooth <sup>®</sup> device. If you want to cancel it, select "Cancel". If a completion message is dis- played, registration is complete. If an error message is displayed, follow the guidance on the screen to try again.
	418 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 418.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 423 of 492 PageID #: 5032 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

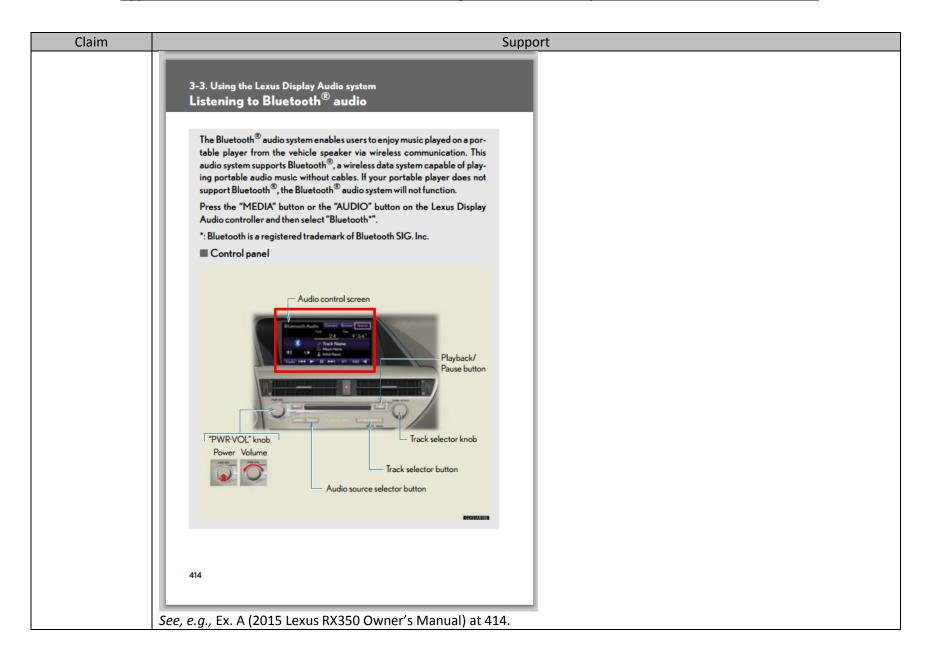
Claim	Support	
Claim	3-3. Using the Lexus Display Audio system           Selecting the Bluetooth <sup>®</sup> audio player           If multiple Bluetooth <sup>®</sup> devices are registered, follow the procedure below to select the Bluetooth <sup>®</sup> device to be used. You may only use one	
	device at a time.         Spip1 Display the "Bluetooth* Audio" screen.         Select "Connect".         Select "Connect".         Select the device to connect.         Add New": Registering a Bluetooth® device. (-P. 473)         The selection indicator is displayed on left side of the selected device.         The Bluetooth is a registered trademark of Bluetooth SIG. Inc.	
	<sup>419</sup> See. e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 419.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 424 of 492 PageID #: 5033 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Connecting the Bluetooth® audio player         There are two connection methods available.         ■ When the connection method is set to "From Vehicle"         When the portable audio player is on standby for the connection, it will be automatically connected whenever the "ENGINE START STOP" switch is in either ACCESSORY or IGNITION ON mode.         ■ When the connection method is set to "From Audio Player"         Operate the portable player and connect it to the Bluetooth® audio system.         Start Display the "Bluetooth* Audio" screen.         Select "Connect".         Network Audio Super and connect".         * Bluetooth Audio Super and connect.
	STER 3 Select the device to connect. A message is shown if connection has been successful. If connection fails, a message will be displayed and connection will be re-attempted.
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 420.
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 544-551 (Bluetooth setup instructions).

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 425 of 492 PageID #: 5034 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

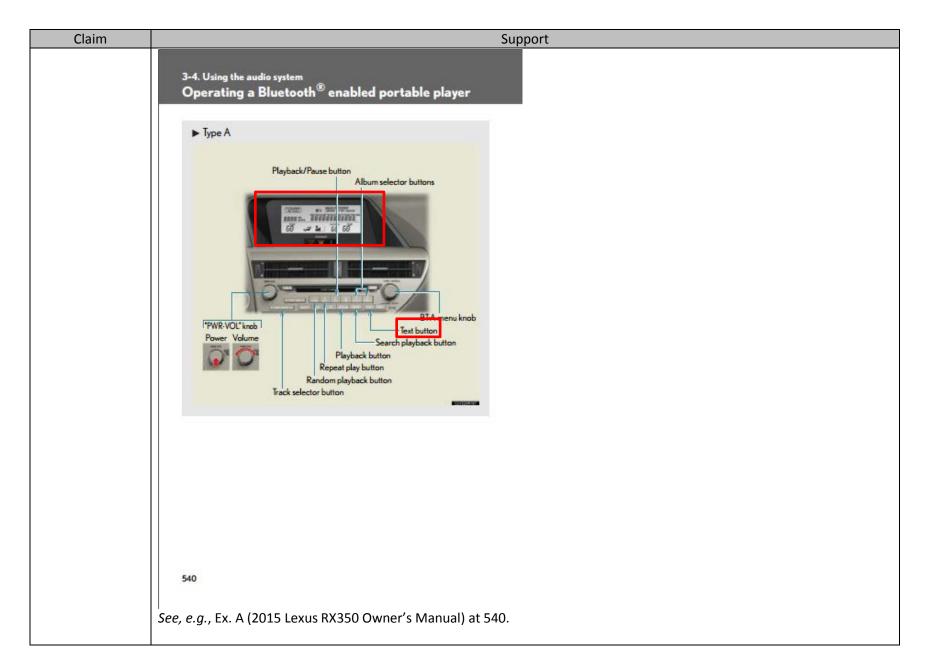
### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 426 of 492 PageID #: 5035 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 427 of 492 PageID #: 5036 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Image: Control screen         Pressing the "MEDIA" button or the "AUDIO" button on the Lexus Display Audio control lex displays the audio control screen from any screens of the selected source.         Image: Control of the selected source.         Image: Co
	Bluetooth Audio Correct Source 1 5 6 7 8 Corrected III 1 5 7 8 Corrected IIII 1 5 7 8 Correct
	415
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 415.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 428 of 492 PageID #: 5037 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



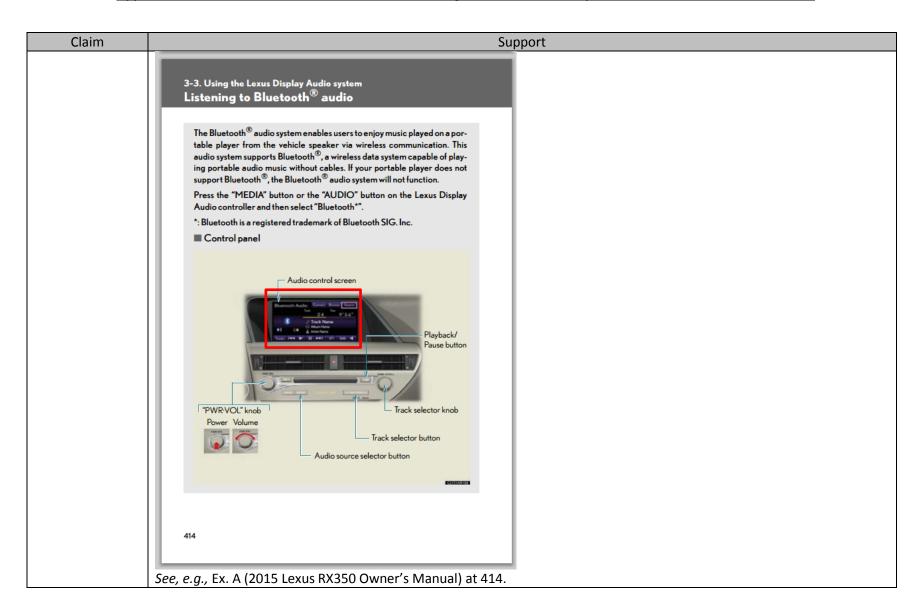
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 429 of 492 PageID #: 5038 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	Switching the display         Press ■Ext         Each time the button is pressed, the display changes in the following order:         Elapsed time → Album title → Track title → Artist name         ■Bluetooth <sup>®</sup> audio system functions         Depending on the portable player that is connected to the system, certain functions may not be available.         ■Display         → P. 497
	The mory Error": This indicates a problem in the system.
	Interior features
	543
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 543.

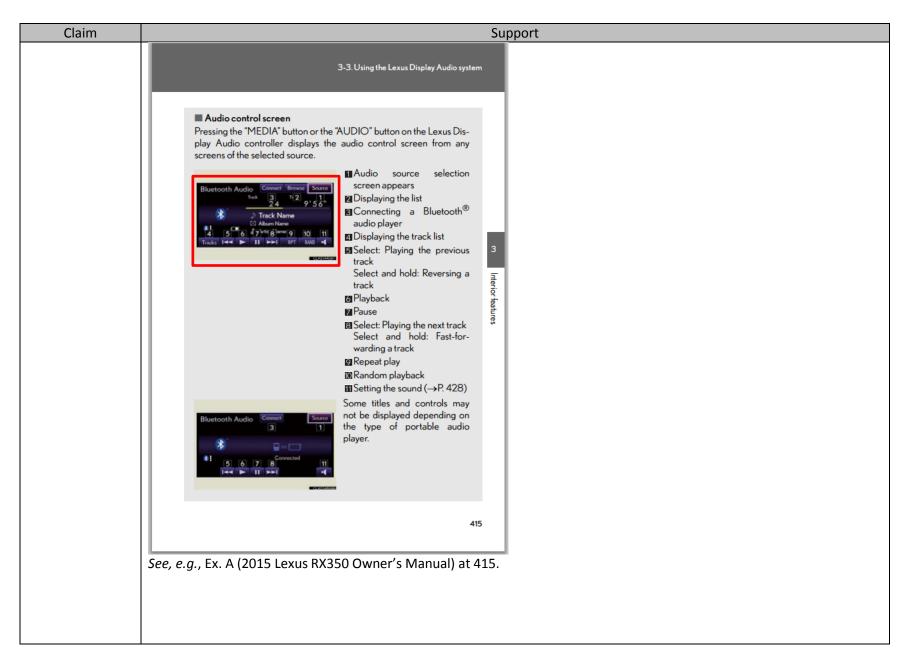
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 430 of 492 PageID #: 5039 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
[49D] said	With respect to each device integration system of the accused Lexus automobiles, a user can input commands via buttons
integration	and controls of the car audio/video system to (i) select a track or album; (ii) fast forward or reverse a track; and (iii) play
subsystem	and pause a track. When a user selects one of these commands, the integration subsystem instructs the portable device to
instructs the	play the audio file, which is received by the integration subsystem via the first and second wireless interfaces (i.e., a
portable device	Bluetooth interface of the car audio/video system and another in communication with and part of the portable device).
to play the audio	The audio file is then played via the car stereo's speakers.
file in response to	
a user selecting	
the audio file	
using controls of	
the car	
audio/video	
system, and	
receives audio	
generated by the	
portable device	
over said wireless	
communication	
link for playing on	
the car	
audio/video	
system.	

### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 431 of 492 PageID #: 5040 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 432 of 492 PageID #: 5041 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



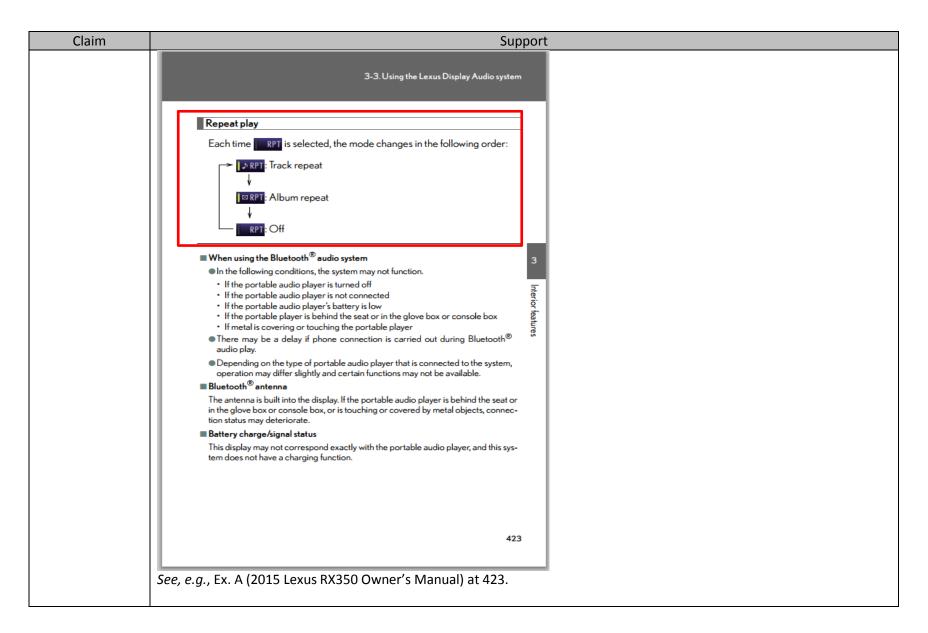
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 433 of 492 PageID #: 5042 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support	
	3-3. Using the Lexus Display Audio system	
	<page-header><page-header><page-header><text><text><text><text><text><text><text></text></text></text></text></text></text></text></page-header></page-header></page-header>	
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 421.	

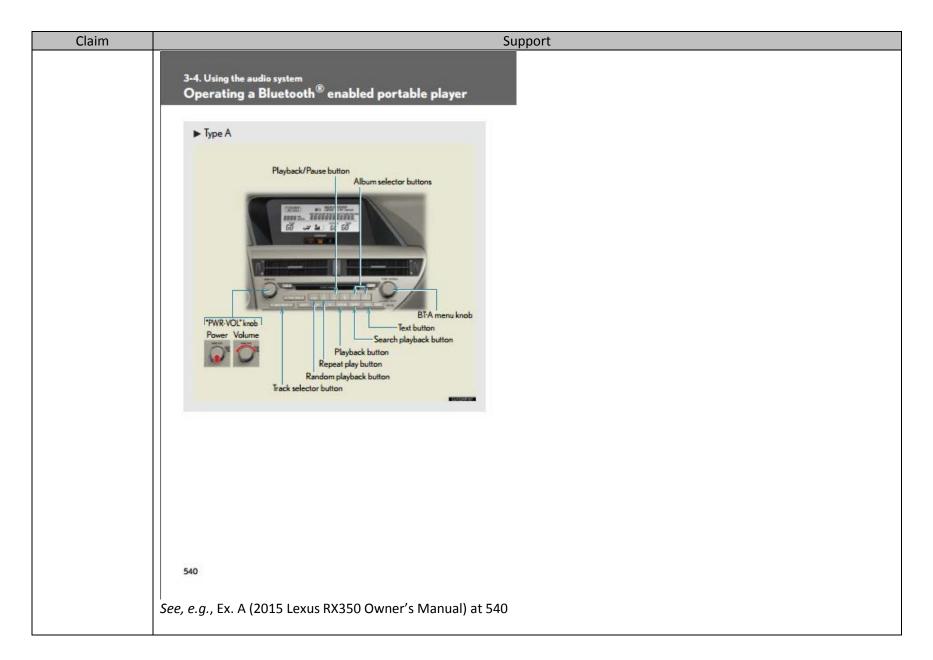
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 434 of 492 PageID #: 5043 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	From "Browse"       Select the desired item.         Select The applicable screen buttors will its track list is         Select the desired iter.         Select the mode changes in the following order:         Select the album         Select the album
	See, e.g., LA. A (2013 Lexus IASSO Owner's Manual) at 422.

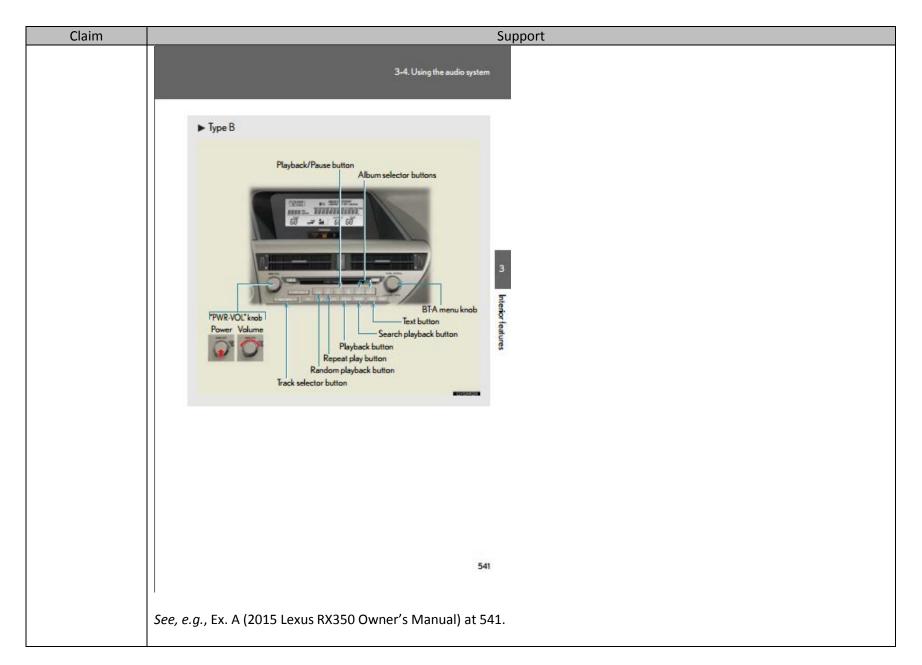
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 435 of 492 PageID #: 5044 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 436 of 492 PageID #: 5045 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 437 of 492 PageID #: 5046 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 438 of 492 PageID #: 5047 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim		Support
	3-4. Using the audio system	
	Selecting an album         To select the desired album, press         Selecting tracks         Press ">" or "<" on < sec+tucc> to select the desired track.	
	Playing and pausing tracks To play or pause a track, press	
	Fast-forwarding and reversing tracks         To fast-forward or reverse, press and hold ">" or "<" on <secknowc>         until you hear a beep.</secknowc>	
	Press     Jo       To cancel, press     Jo	
	Press     Image: Control of the second	
	Press CONT. To cancel, press CONT again.	
	542	
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) a	t 542.

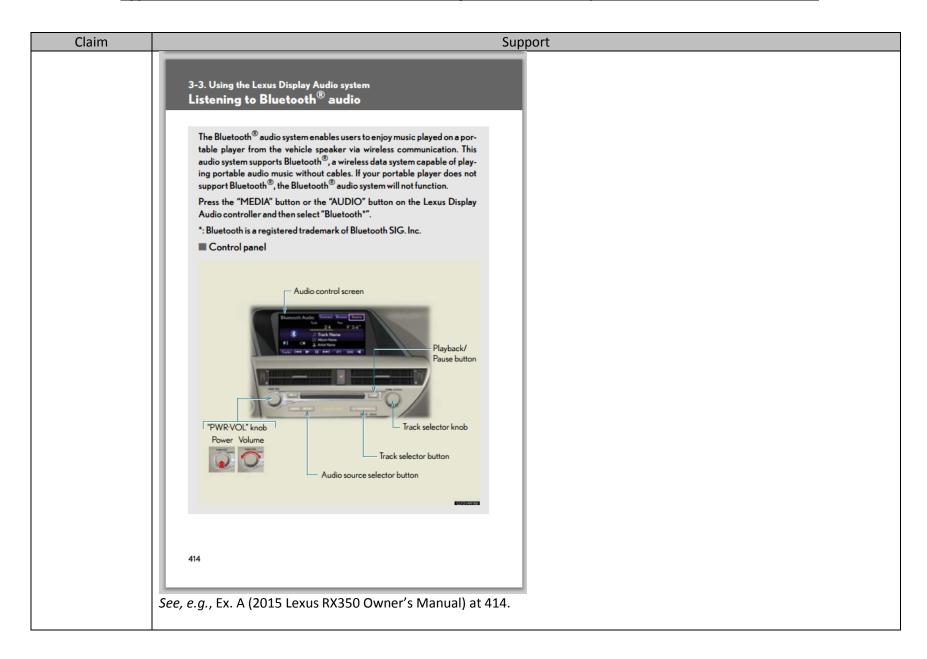
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 439 of 492 PageID #: 5048 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
50. The system of claim 49, wherein said integration subsystem is positioned within	Each car audio/video system of the accused Lexus automobiles includes the integration subsystem for connecting to external portable devices (such as iPhones) via a wireless Bluetooth interface. Once connected, the portable device may be controlled directly from the car audio/video system. Commands, which are received from buttons and other controls of the car audio/video system, may be communicated wirelessly via the Bluetooth interface to the portable device. The portable device then responds to the received commands by channeling audio and other information (such as track name,
the car audio/video system.	artist, album, etc.) to the car audio/video system by way of the first and second wireless interfaces and the integration subsystem.

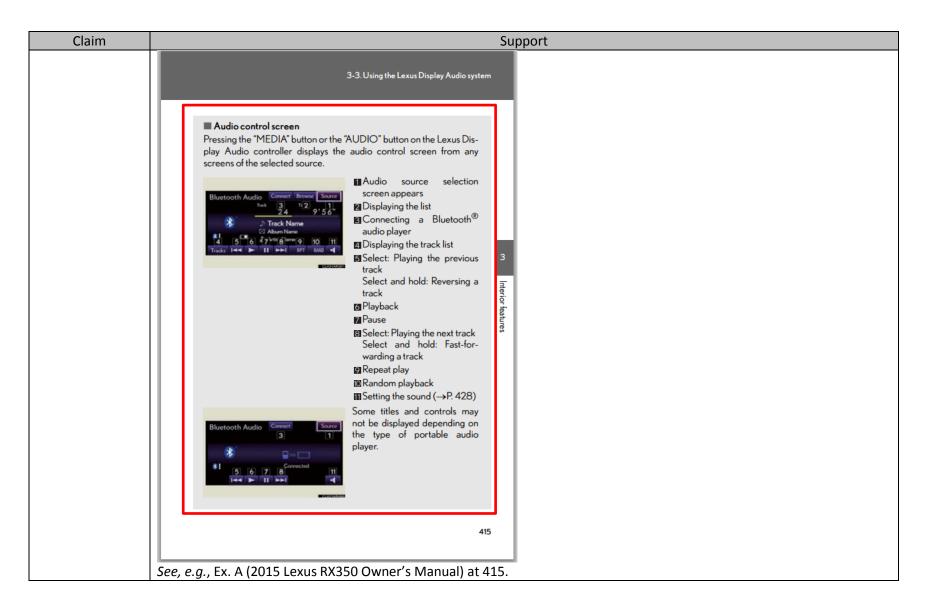
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 440 of 492 PageID #: 5049 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	SEDANS SUVS COUPES HYBRIDS F PERFORMANCE FUTURE Owners L/Certified Find A Dealer
	Bluetoothe Technology
	Lexus In-Car Bluetooth: The Ultimate in Automotive Convenience         Bluetooth® technology [1] puts many of your mobile device's best features at your fingertips, without requiring the hassle of wires and, most importantly, helping you to stay focused on the road ahead.         Among its many benefits, you can easily transfer phone numbers to the system, conveniently place and end cell-phone calls with the touch of a button and communicate hands-free through the vehicle's speaker system.         Lexus Bluetooth audio [2] technology goes one step further offering the added convenience of accessing and controlling your compatible device's entire music library and even streaming audio from websites—all while your cell phone remains in your pocket or purse.
	To confirm your device's compatibility or view pairing instructions, please use the Lexus Mobile Link to the right. Available Features* Phone Place hands-free cell-phone calls Incoming calls ring through audio system Transfer phone numbers to vehicle Display incoming caller ID Display cell-phone signal strength Display cell-phone battery level Audio Play/Pause music Display song titles Stream audio from websites
	Additional Resources To view pairing instructions and a list of features compatible with your specific device, use the <u>Lexus Mobile Link</u> <u>Bluetooth FAOs</u> From www.lexus.com/bluetooth (as of November 3, 2015).

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 441 of 492 PageID #: 5050 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 442 of 492 PageID #: 5051 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 443 of 492 PageID #: 5052 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	Support 3-3. Using the Lexus Display Audo system You can check such indicators as signal strength and battery charge on the screen. Connection status Battery charge Conditions Connection status Battery charge Conditions Connection status Battery charge Conditions Condi
	416 See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 416.

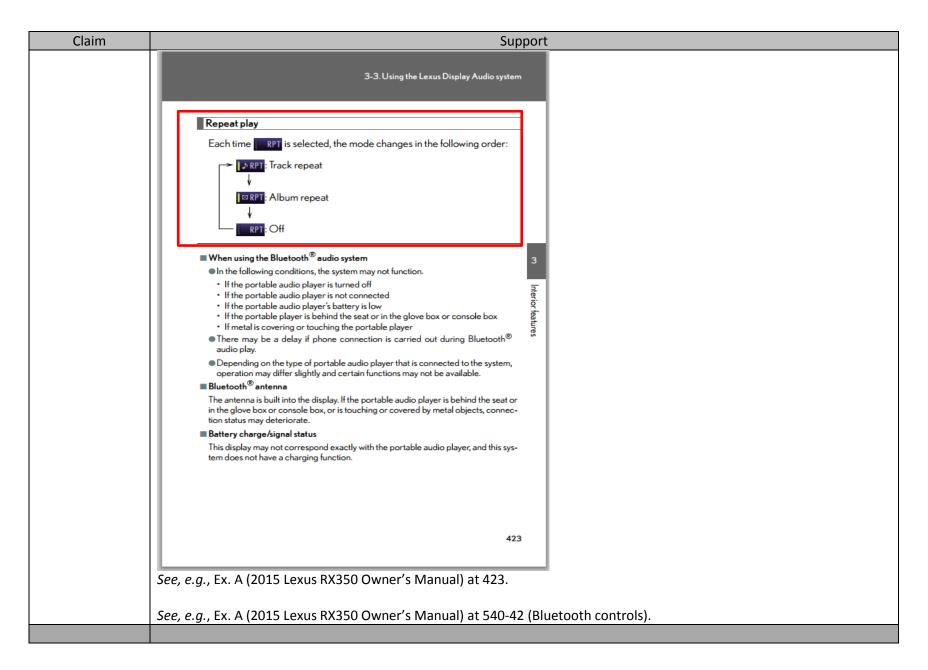
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 444 of 492 PageID #: 5053 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Suppor	t
	3-3. Using the Lexus Display Audio system	
	► From "Tracks"	3 Interior features
	<sup>421</sup> See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 421.	

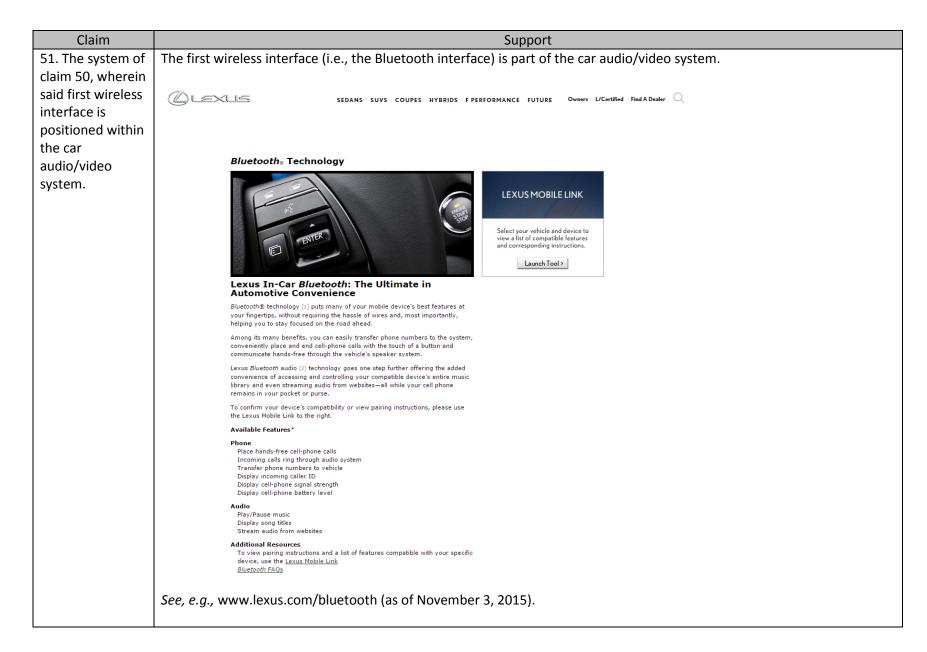
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 445 of 492 PageID #: 5054 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	From "Browse" on the screen.         Image: Scleed: The desired track.         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order:         Image: Scleed: The mode changes in the following order: </td

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 446 of 492 PageID #: 5055 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 447 of 492 PageID #: 5056 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



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Claim	Support
Claim	Support 3:3. Using the Lexus Display Audie system Listening to Bluetooth <sup>®</sup> audio The Bluetooth <sup>®</sup> audio system enables users to enjoy music played on a por- table player from the valied system scales and the system will not function. Press the "MEDIA" button of the "AUDio" button on the Lexus Display Audio control panel Control panel MURYOL Inde Very Value Very Very Very Very Very Very Very Very
	414
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 414.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 449 of 492 PageID #: 5058 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	Bluetooth <sup>®</sup> audio system
	The Bluetooth® audio system enables you to enjoy music played on a por-
	table digital audio player (portable player) from the vehicle speakers via wireless communication.
	This audio system supports Bluetooth <sup>®</sup> , a wireless data system capable of
	playing portable audio music without cables. If your portable player does
	not support Bluetooth <sup>®</sup> , the Bluetooth <sup>®</sup> audio system will not function.
	Title Page
	Using the Bluetooth® audio system P. 535
	Operating a Bluetooth® enabled portable player P. 540
	Setting up a Bluetooth® enabled portable player P. 544
	Bluetooth <sup>®</sup> audio system setup P. 551
	<ul> <li>Conditions under which the system will not operate</li> <li>If using a portable player that does not support Bluetooth<sup>®</sup></li> </ul>
	<ul> <li>If the portable player is switched off</li> </ul>
	If the portable player is not connected
	If the portable player's battery is low
	If the portable player is behind the seat or in the glove box or console box
	If metal is covering or touching the portable player
	530
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 530.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 450 of 492 PageID #: 5059 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support										
52. The system of claim 51, wherein said second	Portable devices, such as iPhones, iPads, iPods, Android phones and other smart, portable devices, include Bluetooth interfaces for connecting to the accused Lexus systems.										
wireless interface is positioned within the portable device.	iPhone, iPa version of i device to tl	d, and iP OS. You he next.	Pod touc can learr	h support m n the differer	profiles ultiple Bluetoo nces in Bluetoo es by device for ti	oth-profil	e support i				
	Device	Hands- Free Profile (HFP 1.6)	Phone Book Access Profile (PBAP)	Advanced Audio Distribution Profile (A2DP)	Audio/Video Remote Control Profile (AVRCP 1.4)	Personal Area Network Profile (PAN)	Human Interface Device Profile (HID)	Message Access Profile (MAP)			
	iPhone 4 and later	1	1	1	1	1	1	1			
	iPhone 3GS	1	1	1	1	1	1	-			
	iPhone 3G	1	1	1	1	1	-	-			
	Original iPhone	1	1		-	-	-	-			
	iPad 2 and later	1	-	1	1	1	1	-			
	iPad (1st generation)	-	-	1	1	1	1	-			
	iPod touch (4th generation and later)	1	-	1	1	1	1	•			
	iPod touch (2nd and 3rd generation)	-	-	1	1	1	1	-			

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Claim	Support
	See, e.g., http://developer.android.com/guide/topics/connectivity/bluetooth.html (discussing Bluetooth support for the Android platform).
53. The system of claim 49, wherein said integration subsystem receives a control command issued at the car audio/video system in a format incompatible with the portable device, processes the control command into a formatted command compatible with the portable device, and dispatches the processed control command to the portable device for execution thereby.	The integration subsystem of each accused Lexus automobile "receives a control command issued at the car audio/video system in a format incompatible with the portable device, processes the control command into a formatted command compatible with the portable device, and dispatches the processed control command to the portable device for execution thereby." More specifically, once a portable device is connected, commands are received by the integration subsystem from the car audio/video system and associated Lexus protocols (i.e., a format incompatible with the portable device) into formatted commands that are compatible with the portable device (i.e., converted into Bluetooth, application and/or device-specific protocols understandable to the portable device). These formatted commands are then dispatched to the portable device via the first and second wireless interfaces (i.e., the Bluetooth interface of the car audio/video system and one or more Bluetooth interfaces in communication with and part of the integration subsystem (and potentially other microcontrollers on one or more circuit boards of the device integration subsystem (and potentially other microcontrollers on one or more circuit boards of the device integration subsystem (such as within a microcontroller is and/or is contained within firmware elsewhere in the integration subsystem (such as within a microcontroller itself).

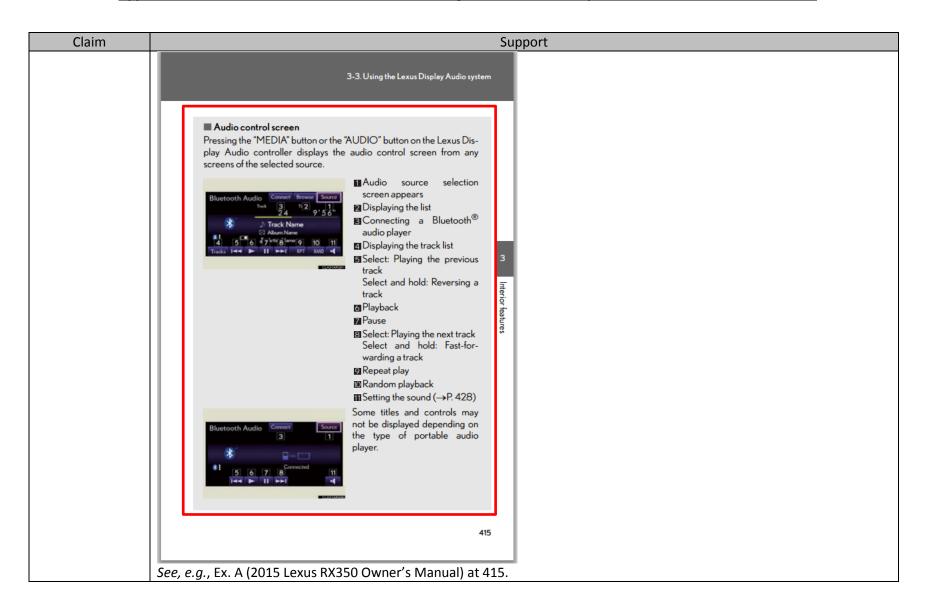
## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 452 of 492 PageID #: 5061 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	SEDANS SUVS COUPES HYBRIDS F PERFORMANCE FUTURE Owners L/Certified Find A Dealer
	<i>Bluetooth</i> <sub>®</sub> Technology
	Image: Select your vehicle and device to your vehicle and to your vehicle and the your vehicle
	Automotive Convenience Bluetooth® technology [1] puts many of your mobile device's best features at
	your fingertips, without requiring the hassle of wires and, most importantly, helping you to stay focused on the road ahead.
	Among its many benefits, you can easily transfer phone numbers to the system, conveniently place and end cell-phone calls with the touch of a button and communicate hands-free through the vehicle's speaker system.
	Lexus <i>Bluetooth</i> audio [2] technology goes one step further offering the added convenience of accessing and controlling your compatible device's entire music library and even streaming audio from websites—all while your cell phone remains in your pocket or purse.
	To confirm your device's compatibility or view pairing instructions, please use the Lexus Mobile Link to the right.
	Available Features*
	Phone Place hands-free cell-phone calls Incoming calls ring through audio system Transfer phone numbers to vehicle Display incoming caller ID Display cell-phone ignal strength Display cell-phone battery level Audio Play/Pause music Display song titles Stream audio from websites Additional Resources
	To view pairing instructions and a list of features compatible with your specific device, use the <u>Lexus Mobile Link</u>
	Bluetooth FAQs From www.lexus.com/bluetooth (as of November 3, 2015).

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Claim	Support
Claim	<section-header></section-header>
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 414.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 454 of 492 PageID #: 5063 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 455 of 492 PageID #: 5064 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
Claim	3-3. Using the Lexus Display Audio system          Status display         You can check such indicators as signal strength and battery charge on the screen.         Image: Status display due to the screen.         Image: Status due to the screen due tot the screen due tot th
	Indicators Conditions   Connection status Good
	416
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 416.

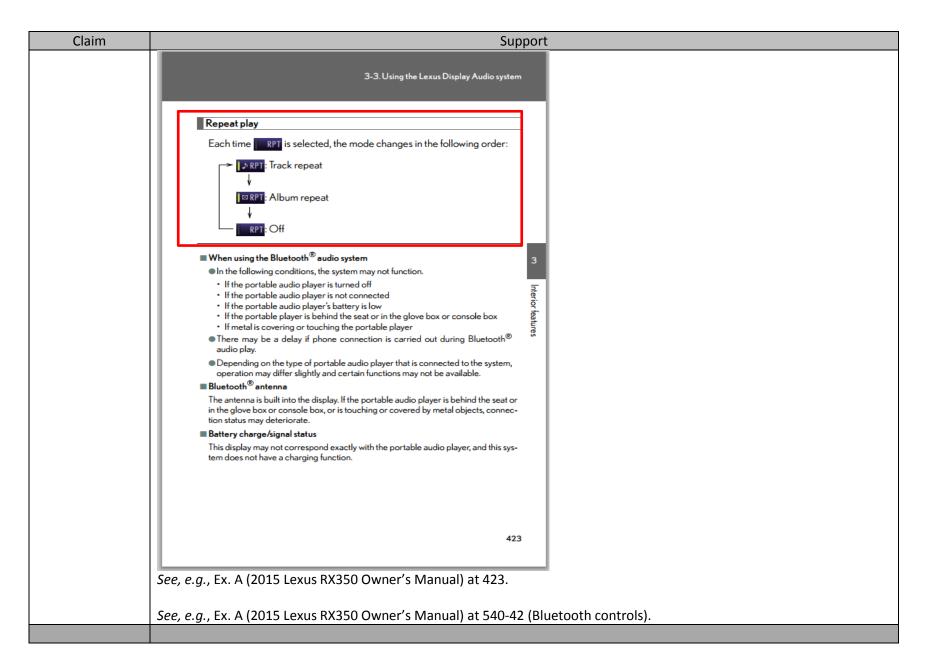
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 456 of 492 PageID #: 5065 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support	
	3-3. Using the Lexus Display Audio system Selecting, fast-forwarding and reversing tracks	
	Selecting a track         Press "<" or ">" on the "PRST-TRACK" button or turn the "TUNE-SCROLL" knob to select the desired track number.         To fast-forward or reverse, press and hold ">" or "<" on the "PRST-TRACK" button until you hear a beep.	
	421	
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 421.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 457 of 492 PageID #: 5066 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	From "Browse"       Select the desired item.         Select The applicable screen buttors will its track list is         Select the desired iter.         Select the add iter.         Select the desired iter.         Select the desired iter.         Select the add iter.
	See, e.g., LA. A (2013 Lexus IASSO Owner's Manual) at 422.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 458 of 492 PageID #: 5067 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



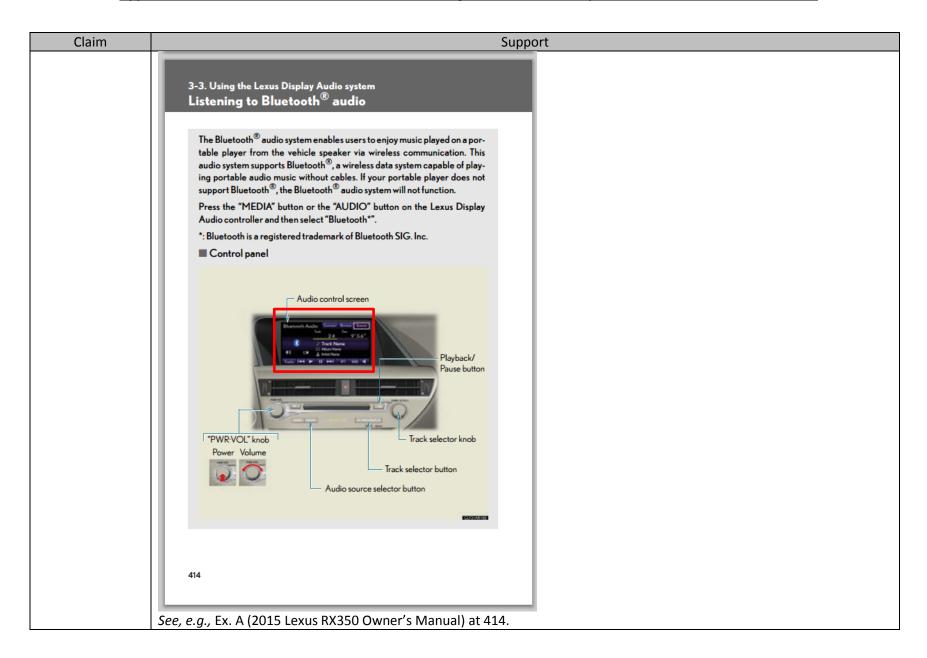
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 459 of 492 PageID #: 5068 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
54. The system of	The integration subsystem of each of the accused Lexus automobiles "receives data generated by the portable device in a
claim 49, wherein	format incompatible with the car audio/video system, processes the data into formatted data compatible with the car
said integration	audio/video system, and transmits the processed data to the car audio/video system for subsequent display of the
subsystem	processed data on a display of the car audio/video system." More specifically, the portable device transmits data (such as
receives data	audio, video, songs, album, track, cover art, genre and artist information) to the integration subsystem of the car
generated by the	audio/video system via the first and second wireless interfaces (i.e., the Bluetooth interface of the car audio/video system
portable device	and one or more Bluetooth interfaces in communication with and part of the portable device). The integration subsystem
in a format	then processes and converts the data from a format incompatible with the car audio/video system and understandable
incompatible	and compatible with the portable device (i.e., Bluetooth, application and/or device-specific protocols understandable to
with the car	the portable device) into formatted data compatible with the car audio/video system (i.e., formatted data understandable
audio/video	and compatible with the car audio/video system and associated Lexus protocols). The formatted data is then transmitted
system,	by the integration subsystem to the car audio/video system for subsequent display of the processed data on a display of
processes the	the car audio/video system. It is believed that at least a microcontroller of the integration subsystem (and potentially
data into	other microcontrollers on one or more circuit boards of the device integration system) executes pre-programmed code to
formatted data	perform at least a portion of these functions. It is also believed that this code is stored in onboard flash and/or other
compatible with	memory modules, and/or is contained within firmware elsewhere in the integration subsystem (such as within a
the car	microcontroller itself).
audio/video	
system, and	
transmits the	
processed data to	
the car	
audio/video	
system for	
subsequent	
display of the	
processed data	
on a display of	
the car	
audio/video	
system.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 460 of 492 PageID #: 5069 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	SEDANS SUVS COUPES HYBRIDS F PERFORMANCE FUTURE Owners L/Certified Find A Dealer
	Bluetoothe Technology           Example and device to view a filst of compatible features and corresponding instructions.
	Lexus In-Car Bluetooth: The Ultimate in Automotive Convenience Bluetooth® technology [1] puts many of your mobile device's best features at your fingertips, without requiring the hassle of wires and, most importantly, helping you to stay focused on the road ahead. Among its many benefits, you can easily transfer phone numbers to the system, conveniently place and end cell-phone calls with the touch of a button and
	communicate hands-free through the vehicle's speaker system. Lexus Bluebodh audio [2] technology goes one step further offering the added convenience of accessing and controlling your compatible device's entire music library and even streaming audio from websites—all while your cell phone remains in your pocket or purse. To confirm your device's compatibility or view pairing instructions, please use the Lexus Mobile Link to the right.
	Available Features*  Phone  Place hands-free cell-phone calls Incoming calls ring through audio system Transfer phone numbers to vehicle Display incoming caller ID Display cell-phone battery level
	Audio Display song titles Stream audio from websites Additional Resources
	To view pairing instructions and a list of features compatible with your specific device, use the <u>Lexus Mobile Link</u> Bluetooth FAQs From www.lexus.com/bluetooth (as of November 3, 2015).

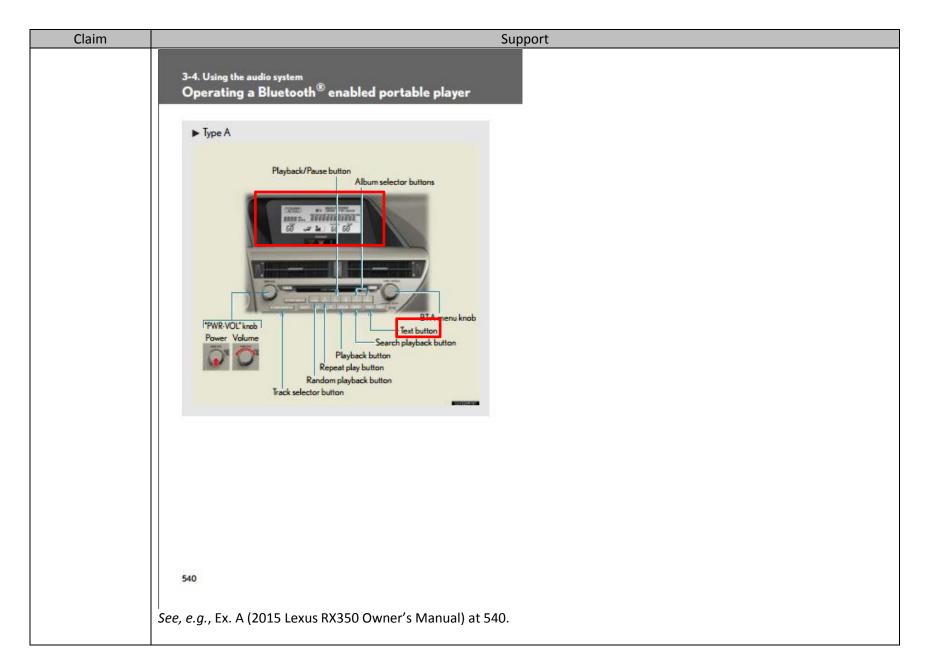
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 461 of 492 PageID #: 5070 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 462 of 492 PageID #: 5071 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	■ Audio control screen         Pressing the TMEDIA' button or the 'AUDIO' button on the Lexus Display. Audio controller displays the audio control screen from any screens of the selected source.         ■ Mudio controller displays the audio control screen from any screen so the selected source.         ■ Audio controller displays the audio control screen from any screen appears.         ■ Mudio Source selection screen appears.         ■ Displaying the list         ■ Concept: Many New Source         ■ Displaying the track list         ■ Displaying the track list         ■ Displaying the next track.         ■ Playback         ■ Playback         ■ Random playback         ■ Random playback         ■ Random playback         ■ Select Playing the sourd (→P 428).         Some titles and controls may not be displayed depending on the type of portable audio player.
	415
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 415.

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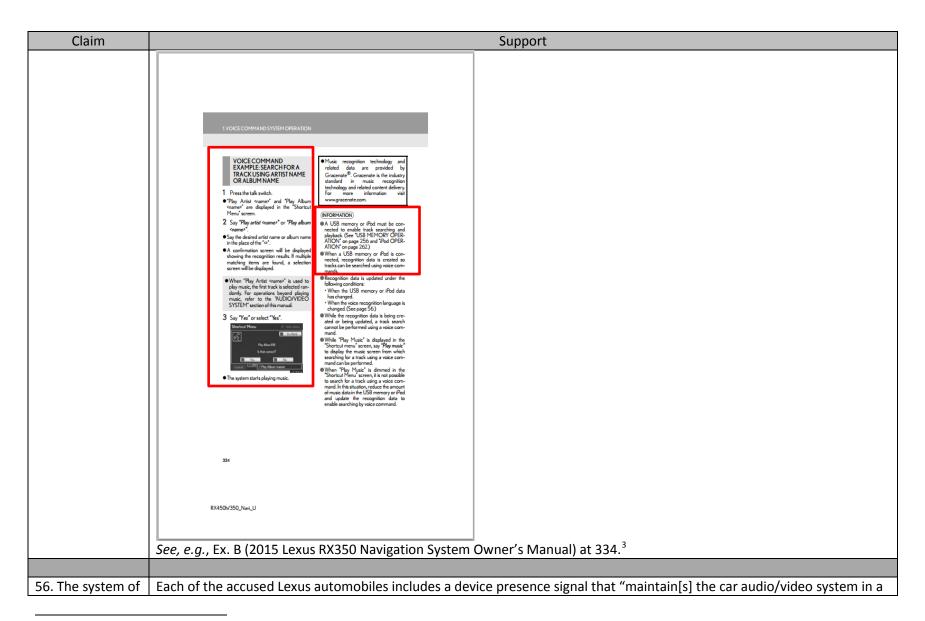
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 464 of 492 PageID #: 5073 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-4. Using the audio system
	Switching the display         Press IEXT         Each time the button is pressed, the display changes in the following order: Elapsed time → Album title → Track title → Artist name         Bluetooth <sup>®</sup> audio system functions         Depending on the portable player that is connected to the system, certain functions may not be available.         Display         →P. 497
	Error messages     3       "Memory Error": This indicates a problem in the system.     T
	Interior features
	543
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 543.

## Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 465 of 492 PageID #: 5074 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
55. The system of claim 49, wherein said integration subsystem further comprises a voice recognition subsystem for receiving and processing spoken control commands issued by a user.	The accused Lexus automobiles permit various control and audio commands to be submitted via voice recognition, which is processed by a voice recognition subsystem of the head unit. Voice recognition of spoken control commands issued by a user may be used by the head unit to instruct the head unit to turn to the Bluetooth audio system.

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<sup>&</sup>lt;sup>3</sup> Blitzsafe has produced Ex. B, 2015 Lexus RX350 Navigation System Owner's Manual, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0002248-2699. All pin-cites are to manual pages.

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 467 of 492 PageID #: 5076 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
claim 49, wherein	state responsive to the portable device." Specifically, when a portable device is paired via Bluetooth, a Bluetooth graphic
said integration	appears indicating that a compatible device is connected and recognized. Once a compatible portable device is connected
subsystem	and recognized, the integration subsystem maintains the car audio/video system in a state responsive to processed data
generates a	and audio signals from the portable device.
device presence	
signal and	The device presence signal is generated when a component of the integration subsystem (and potentially other
transmits the	microcontrollers on one or more circuit boards) executes pre-programmed code stored in onboard flash and/or other
device presence	memory modules, and/or within firmware elsewhere in the interface in response to its receipt from the first wireless
signal to the car	interface of a signal indicating that a portable device has established a connection via Bluetooth.
audio/video	
system to	The device presence signal can be identified by examining the source code in the integration subsystem of the accused
maintain the car	Lexus automobiles.
audio/video	
system in a state	
responsive to the	
portable device.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 468 of 492 PageID #: 5077 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	3-3. Using the Lexus Display Audio system
	Status display         You can check such indicators as signal strength and battery charge on the screen.         Image: Connection status         Image: Connection st
	Indicators       Conditions         Good       Not connected         Image: Status       Status         Full       Empty         Battery charge       Full       Empty
	416
	See, e.g., Ex. A (2015 Lexus RX350 Owner's Manual) at 416.

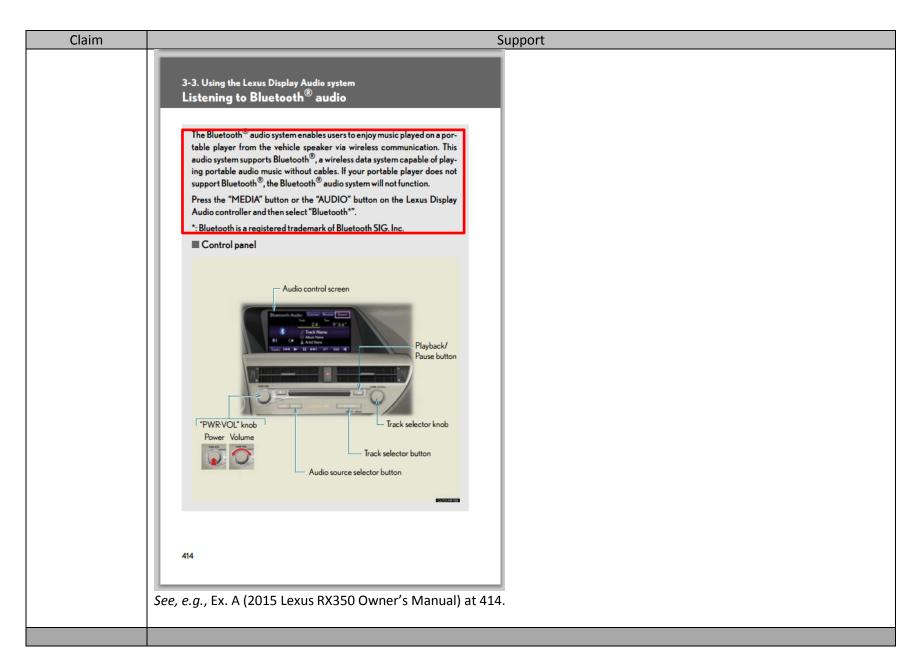
# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 469 of 492 PageID #: 5078 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
57. The system of	See claim 55 support.
claim 49, wherein	
said integration	
subsystem	
instructs said	
portable device	
to play a desired	
file in response to	
a spoken	
command	
processed by the	
voice recognition	
subsystem.	
62. The system of	Portable devices capable of being connected to car audio/video systems of the accused Lexus automobiles include
claim 49, wherein	Bluetooth compatible smart phones and other smart devices, such as iPhones, iPads, iPods, and Android devices. When
the portable	storing, streaming and playing media (such as audio and/or video), these smart devices constitute digital media players.
device comprises	These players are capable of at least playing MP3 song files and streaming audio, such as via applications and online
a portable digital	websites (e.g., Pandora, iTunes streaming, and Apple Music).
media player.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 470 of 492 PageID #: 5079 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
	SEDANS SUVS COUPES HYBRIDS F PERFORMANCE FUTURE Owners L/Certified Find A Dealer
	Bluetooth Technology         Function of the technology (1) puts many of your mobile device's best features at your mobile device's best features at your mobile device's best features at your mobile technology (1) puts many of your mobile device's best features at your mobile device's best features at your mobile technology (1) puts many of your mobile device's best features at your mobile device's best features at your mobile technology (1) puts many of your mobile device's best features at your mobil
	communicate hands-free through the vehicle's speaker system. Lexus Bluetooth audio [2] technology goes one step further offering the added convenience of accessing and controlling your compatible device's entire music library and even streaming audio from websites—all while your cell phone remains in your pocket or purse. To confirm your device's compatibility or view pairing instructions, please use the Lexus Mobile Link to the right. Available Features* Phone Place hands-free cell-phone calls Incoming calls ring through audio system
	Transfer phone numbers to vehicle Display incoming caller ID Display cell-phone battery level Audio Play/Pause music Display song titles Stream audio from websites Additional Resources To view pairing instructions and a list of features compatible with your specific device, use the Lexus Mobile Link Bluetooth FAOS From www.lexus.com/bluetooth (as of November 3, 2015).

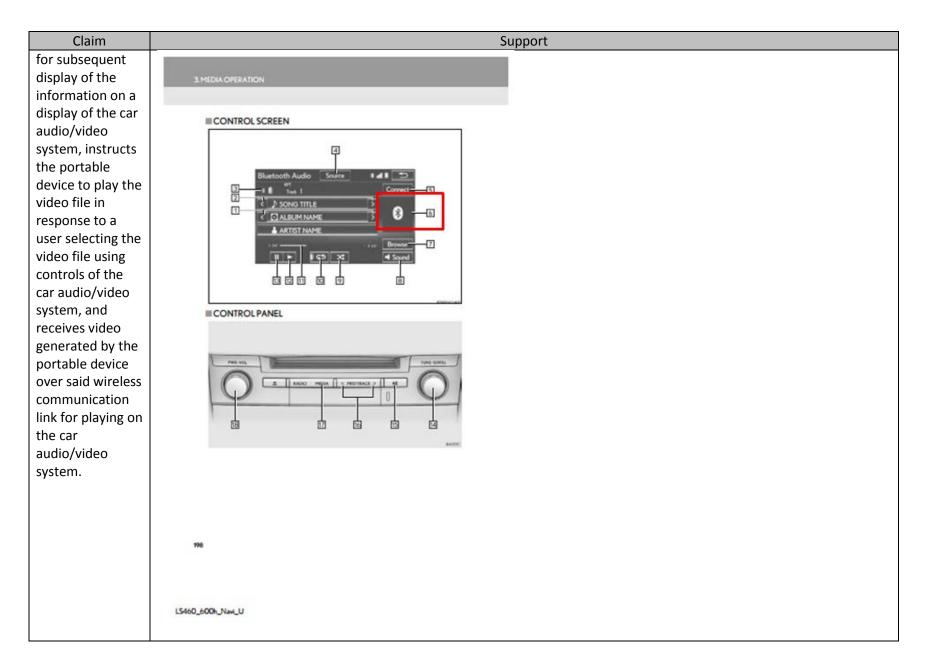
#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 471 of 492 PageID #: 5080 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 472 of 492 PageID #: 5081 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
63. The system of	See claim 62 support.
claim 62, wherein	
the portable	
digital media	
player comprises	
a video device, a	
portable media	
center, a portable	
media player, an	
MP3 player, an	
MP4 player, a	
WMV player, an	
Apple iPod, or an	
Apple video iPod.	
64. The system of	See claim 62 support.
claim 49, wherein	
the portable	
device comprises	
a cellular	
telephone.	
66. The system of	The integration subsystem of the accused Lexus automobiles obtains, via the wireless communication link between the
claim 49, wherein	first and second wireless interfaces (i.e., a Bluetooth interface of the car audio/video system and one or more others in
said integration	communication with and part of the portable device), information about a video file (i.e., cover art associated with audio
subsystem	files) stored on the portable device. Specifically, when a user selects an audio file to play (and in so doing also selects the
obtains, using	associated cover art file) using controls of the car audio/video system, the integration subsystem receives cover art
said wireless	information from the portable device. The integration subsystem then transmits the cover art file to the car audio/video
communication	system for display on the display of the car audio/video system.
link, information	
about a video file	
stored on the	
portable device	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 473 of 492 PageID #: 5082 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles



#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 474 of 492 PageID #: 5083 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support	
	3. MEDIA OPERATION	
	No. Function	
	Select to select an album.	
	Select to select a track.	
	3 Displays Bluetooth <sup>®</sup> device condition	
	Select to display the audo source selection screen.	
	Select to display the portable device connection screen.  4	
	Displays cover art     Select to display a track list.     To return to the top screen, select "Now Playing" on the list screen.     Select to display the sound settings screen.     Select to display the sound settings screen.     Select to set random playback.	
	D Select to display the playist screen. To return to the top screen, select "New Playing" on the list screen.	
	Select to display the sound settings screen.	
	Select to set random playback.	
	Select to set repeat playback.	
	1 Shows progress	
	Select to play.	
	Select to pause.	
	Fum to select a track.     Turn to move upflown the list.	
	Press to play/pause.	
	Press to select a track.     Press and hold to fast forward/rewind.	
	Press to select a media mode.     While in a media mode, pressing the "MEDIA" button changes media modes.	
	Furn to adjust volume.     Press to turn the audio system onloft.     Press and hold to restart the audio system.	
	199	
	L\$460_600h_NavLU	
	See, e.g., Ex. D (2015 Lexus LS460 Navigation System Manual) at 198-99.4	

<sup>&</sup>lt;sup>4</sup> Blitzsafe has produced Ex. D, 2015 Lexus LS460 Navigation System Manual, simultaneously with these Infringement Contentions as a document bearing production numbers BS-TOY-0001770-2231. All pin-cites are to manual pages.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 475 of 492 PageID #: 5084 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
68. The system of	See claim 66 support.
claim 66, wherein	
the video file	
comprises a	
picture stored on	
the portable	
device.	
70. The system of	See claim 54 support.
claim 66, wherein	
said integration	
subsystem	
receives video	
generated by the	
portable device	
in a first format	
incompatible	
with the car	
audio/video	
system,	
processes the	
video into	
processed video	
in a second	
format	
compatible with	
the car	
audio/video	
system, and	
transmits the	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 476 of 492 PageID #: 5085 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
processed video	
to the car	
audio/video	
system for	
subsequent	
display of the	
processed video	
on a display of	
the car	
audio/video	
system.	
71. The system of	See claim 49 support.
claim 49, wherein	
the audio file	
comprises a song	
stored on the	
portable device.	
[73P]. A	See preamble [49P] support.
multimedia	
device	
integration	
system,	
comprising:	
[73A]. an	<i>See</i> element [49A] support.
integration	
subsystem in	
communication	
with a car	
audio/video	
system; and	
[73B] a first	See element [49B] support.

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 477 of 492 PageID #: 5086 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
wireless interface	
in	
communication	
with said	
integration	
subsystem, said	
first wireless	
interface	
establishing a	
wireless	
communication	
link with a	
second wireless	
interface in	
communication	
with a portable	
device external	
to the car	
audio/video	
system,	
[73C] wherein	<i>See</i> element [49C] support.
said integration	
subsystem	The audio file may be "received" by the portable device from online streaming services, such as Pandora, Spotify, iTunes,
obtains, using	or Apple Music. Audio files (such as MP3 files) stored on the portable device may also be "received" from other sources,
said wireless	such as download websites or the user himself/herself via download.
communication	
link, information	
about an audio	
file received by	
the portable	
device, transmits	
the information	
to the car	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 478 of 492 PageID #: 5087 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
audio/video	
system for	
subsequent	
display of the	
information on a	
display of the car	
audio/video	
system,	
[73D] instructs	See element [49D] support
the portable	
device to play the	
audio file in	
response to a	
user selecting the	
audio file using	
controls of the	
car audio/video	
system, and	
receives audio	
generated by the	
portable device	
over said wireless	
communication	
link for playing on	
the car	
audio/video	
system.	
74. The system of	See claim 50 support.
claim 73, wherein	
said integration	
subsystem is	
positioned within	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 479 of 492 PageID #: 5088 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
the car	
audio/video	
system.	
75. The system of	See claim 51 support.
claim 74, wherein	
said first wireless	
interface is	
positioned within	
the car	
audio/video	
system.	
76. The system of	See claim 52 support.
claim 75, wherein	
said second	
wireless interface	
is positioned	
within the	
portable device.	
77. The system of	See claim 53 support.
claim 73, wherein	
said integration	
subsystem receives a control	
command issued	
at the car	
audio/video	
system in a	
format	
incompatible	
with the portable	
with the portable	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 480 of 492 PageID #: 5089 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
device, processes	
the control	
command into a	
formatted	
command	
compatible with	
the portable	
device, and	
dispatches the	
processed control	
command to the	
portable device	
for execution	
thereby.	
78. The system of	See claim 54 support.
claim 73, wherein	
said integration	
subsystem	
receives data	
generated by the	
portable device	
in a format	
incompatible	
with the car	
audio/video	
system,	
processes the	
data into	
formatted data	
compatible with	
the car	
audio/video	

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Claim	Support
system, and	
transmits the	
processed data to	
the car	
audio/video	
system for	
subsequent	
display of the	
processed data	
on a display of	
the car	
audio/video	
system.	
79. The system of	See claim 55 support.
claim 73, wherein	
said integration	
subsystem	
further comprises	
a voice	
recognition	
subsystem for	
receiving and	
processing	
spoken control	
commands issued	
by a user.	
80. The system of	See claim 55 support.
claim 79, wherein	
said integration	
subsystem	
instructs said	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 482 of 492 PageID #: 5091 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
portable device	
to play a desired	
file in response to	
a spoken	
command	
processed by the	
voice recognition	
subsystem.	
94. The system of	See claim 66 support.
claim 73, wherein	
said integration	
subsystem	
obtains, over said	
wireless	
communication	
link, information	
about a video file	
received by the	
portable device	
for subsequent	
display of the	
information on a	
display of the car	
audio/video	
system, instructs	
the portable	
device to play the	
video file in	
response to a	
user selecting the	
video file using	
controls of the	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 483 of 492 PageID #: 5092 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
car audio/video	
system, and	
receives video	
generated by the	
portable device	
over said wireless	
communication	
link for playing on	
the car	
audio/video	
system.	
95. The system of	See claim 71 support.
claim 73, wherein	
the audio file	
comprises a song	
stored on the	
portable device.	
[97P] A	See preamble [49A] support.
multimedia	
device	
integration	
system,	
comprising:	
[97A] first and	<i>See</i> element [49B] support.
second wireless	
interfaces	
establishing a wireless	
communication	
link between a	
car audio/video	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 484 of 492 PageID #: 5093 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
system and a	
portable device	
external to the	
car audio/video	
system; and	
[97B] an	See element [49A] support.
integration	
subsystem in	
communication	
with said wireless	
communication	
link,	
[97C] wherein	See element [49C] and [49D] support.
said integration	
subsystem	
channels audio	
generated by the	
portable device	
to the car	
audio/video	
system using the	
wireless	
communication	
link for	
subsequent	
playing of the	
audio on the car	
audio/video	
system, the audio	
corresponding to	
an audio file	
played by the	
portable device,	

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Claim	Support
and	
[97D] wherein	See claim 53 support.
said integration	
subsystem	
receives a control	
command issued	
by a user through	
one or more	
controls of the	
car audio/video	
system in a	
format	
incompatible	
with the portable	
device, processes	
the control	
command into a	
formatted	
command	
compatible with	
the portable	
device, and	
dispatches the	
formatted	
command to the	
portable device	
for execution	
thereby.	
-	
99. The system of	See claim 50 support.
claim 97, wherein	
said integration	
subsystem is	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 486 of 492 PageID #: 5095 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
positioned within	
the car	
audio/video	
system.	
100. The system	See element [49C] support.
of claim 97,	
where the audio	
file is stored on	
the portable	
device.	
101. The system	See element [73C] support.
of claim 97,	
wherein the	
audio file is	
received by the	
portable device.	
102. The system	See claims 55 and 57 support.
of claim 97,	
wherein said	
integration	
subsystem	
further comprises	
a voice	
recognition	
subsystem for	
receiving and	
processing	
spoken control	
commands issued	
by the user.	

#### Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 487 of 492 PageID #: 5096 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
103. The system	See claims 55 and 57 support.
of claim 102,	
wherein said	
integration	
subsystem	
instructs said	
portable device	
to play a desired	
file in response to	
a spoken	
command	
processed by the	
voice recognition	
subsystem.	
106. The system	See claim 56 support.
of claim 97,	
wherein said	
integration	
subsystem	
generates a	
device presence	
signal and	
transmits the	
device presence	
signal to the car	
audio/video	
system to	
maintain the car	
audio/video	
system in a state	
responsive to the	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 488 of 492 PageID #: 5097 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
portable device.	Support
109. The system	See claim 62 support.
of claim 97,	
wherein the	
portable device	
comprises a	
portable digital	
media player.	
110. The system	See claim 63 support.
of claim 109,	
wherein the	
portable digital	
media player	
comprises a	
video device, a	
portable media	
center, a portable	
media player, an	
MP3 player, an	
MP4 player, a	
WMV player, an	
Apple iPod, or an	
Apple video iPod.	
111. The system	See claim 64 support.
of claim 97,	
wherein the	
portable device	
comprises a	
cellular	
telephone.	

# Case 2:15-cv-01274-JRG-RSP Document 143-4 Filed 09/12/16 Page 489 of 492 PageID #: 5098 Appendix D - Claim Chart for US Patent No. 8,155,342 Against Infotainment Systems of Accused Lexus Automobiles

Claim	Support
113. The system	See claim 66 support.
of claim 97,	
wherein said	
integration	
subsystem	
channels video	
generated by the	
portable device	
to the car	
audio/video	
system over the	
wireless	
communication	
link for	
subsequent	
playing of the	
audio on the car	
audio/video	
system, the video	
corresponding to	
a video file	
played by the	
portable device.	
115. The system	See claim 68 support.
of claim 113,	
wherein the	
video file	
comprises a	
picture stored on	
the portable	
device.	

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Claim	Support
Claim	Support
120. A	See preamble [97P] support.
multimedia	
device	
integration	
system,	
comprising:	
first and second	See element [97A] support.
wireless	
interfaces	
establishing a	
wireless	
communication	
link between a	
car audio/video	
system and a	
, portable device	
external to the	
car audio/video	
system; and	
an integration	See element [97B] support
subsystem in	
communication	
with said wireless	
communication	
link,	
wherein said	<i>See</i> element [97C] support.
integration	
subsystem	
instructs the	
portable device	
to play an audio	
file in response to	

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Claim	Support
a user selecting	
the audio file	
using controls of	
the car	
audio/video	
system, wherein	
said integration	
subsystem	
channels audio	
generated by the	
portable device	
to the car	
audio/video	
system using the	
wireless	
communication	
link for	
subsequent	
playing of the	
audio on the car	
audio/video	
system, the audio	
corresponding to	
the audio file	
played by the	
portable device,	
and	
wherein said	See element [97D] support.
integration	
subsystem	
receives data	
generated by the	
portable device	

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Claim	Support
in a format	
incompatible	
with the car	
audio/video	
system,	
processes the	
data into	
formatted data	
compatible with	
the car	
audio/video	
system, and	
transmits the	
processed data to	
the car	
audio/video	
system for	
subsequent	
display of the	
processed data	
on a display of	
the car	
audio/video	
system.	