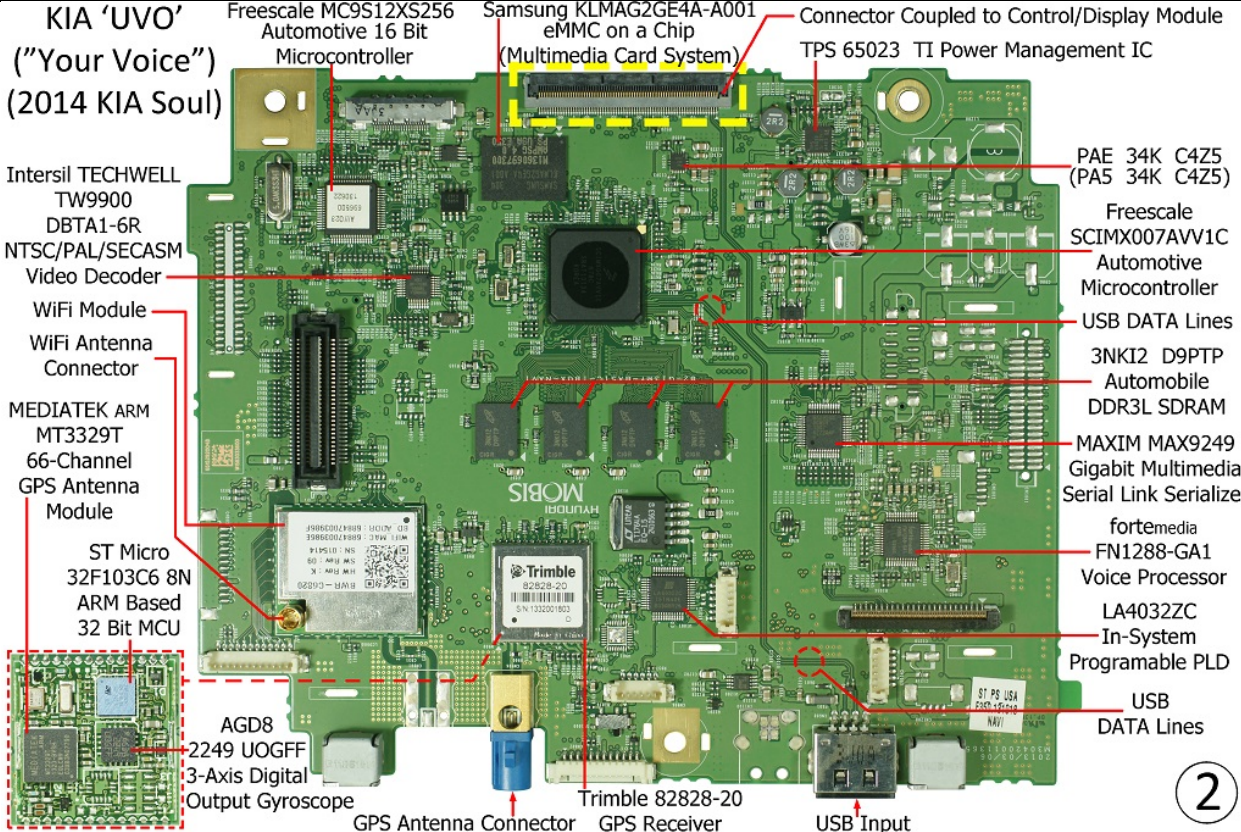


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

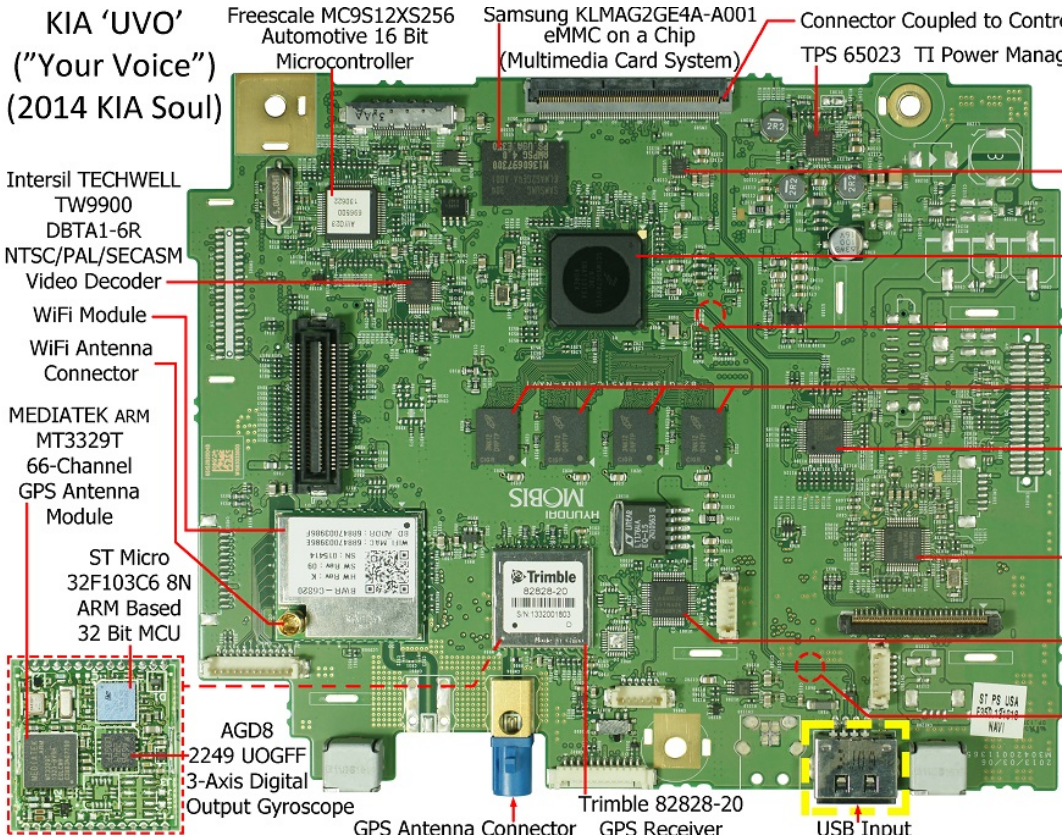
In these Infringement Contentions, Blitzsafe contends that at least the following claims of U.S. Patent No. 7,489,786 (“’786 patent”) identified below are infringed by the infotainment systems in accused Kia automobiles. Blitzsafe does not concede that any claims of the ’786 patent that are not listed below are not infringed by the infotainment systems in accused Kia 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 Kia’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 once such additional information is made available to Blitzsafe. Furthermore, 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 Kia, 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 Kia automobile includes a device integration system, which 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, iPhones and Zune devices playing MP3 files, as well as Android devices). Accused Kia automobiles employing UVO technology also support audio streaming from iPhones and other smart devices using downloadable apps, such as Google Play Music, Spotify and Pandora apps.
[1A] a first connector electrically connectable to a car stereo;	Each device integration system of accused Kia automobiles includes the car stereo, including one or more car stereo components, such as, for example, DSPs, coils, tuner circuitry, car stereo software, virtual buttons, display unit, etc. The device integration system also includes an interface for, among other things, channeling audio signals to the car stereo from an after-market audio device, such as an iPod, iPhone, or Zune Device, connected via a USB connector. The 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.


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	 <p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> <p><b>Support</b></p> <ul style="list-style-type: none"> <li>Freescale MC9S12XS256 Automotive 16 Bit Microcontroller</li> <li>Samsung KLMAG2GE4A-A001 eMMC on a Chip (Multimedia Card System)</li> <li>Connector Coupled to Control/Display Module</li> <li>TPS 65023 TI Power Management IC</li> <li>Intersil TECHWELL TW9900 DBTA1-6R NTSC/PAL/SECASM Video Decoder</li> <li>WiFi Module</li> <li>WiFi Antenna Connector</li> <li>MEDIATEK ARM MT3329T 66-Channel GPS Antenna Module</li> <li>ST Micro 32F103C6 8N ARM Based 32 Bit MCU</li> <li>AGD8 2249 UOGFF 3-Axis Digital Output Gyroscope</li> <li>Trimble 82828-20 GPS Receiver</li> <li>USB Input</li> <li>PAE 34K C4Z5 (PA5 34K C4Z5)</li> <li>Freescale SCIMX007AVV1C Automotive Microcontroller</li> <li>USB DATA Lines</li> <li>3NKI2 D9PTP Automobile DDR3L SDRAM</li> <li>MAXIM MAX9249 Gigabit Multimedia Serial Link Serializer</li> <li>fortemedia FN1288-GA1 Voice Processor</li> <li>LA4032ZC In-System Programmable PLD</li> <li>USB DATA Lines</li> </ul> <p style="text-align: right;">②</p>
<p>[1B] a second connector electrically connectable to an after-market audio device external to the car</p>	<p>Each device integration system of accused Kia 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 Kia automobiles for mating via a cable (including, in some cases, a combination USB/AUX cable) with an after-market audio device external to the car stereo, such as an iPhone or other smart device playing MP3 files or streaming radio and other audio content from the Internet or from applications such as Pandora.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
stereo;  KIA 'UVO' ("Your Voice") (2014 KIA Soul)  Intersil TECHWELL TW9900 DBTA1-6R NTSC/PAL/SECAM Video Decoder  WiFi Module WiFi Antenna Connector  MEDIATEK ARM MT3329T 66-Channel GPS Antenna Module  ST Micro 32F103C6 8N ARM Based 32 Bit MCU  AGD8 2249 UOGFF 3-Axis Digital Output Gyroscope  GPS Antenna Connector  Trimble 82828-20 GPS Receiver  USB Input	 <p>Support components for the claim:</p> <ul style="list-style-type: none"> <li>Freescale MC9S12XS256 Automotive 16 Bit Microcontroller</li> <li>Samsung KLMAG2GE4A-A001 eMMC on a Chip (Multimedia Card System)</li> <li>Connector Coupled to Control/Display Module</li> <li>TPS 65023 TI Power Management IC</li> <li>PAE 34K C4Z5 (PA5 34K C4Z5)</li> <li>Freescale SCIMX007AVV1C Automotive Microcontroller</li> <li>USB DATA Lines</li> <li>3NKI2 D9PTP Automobile DDR3L SDRAM</li> <li>MAXIM MAX9249 Gigabit Multimedia Serial Link Serializer</li> <li>fortemedia FN1288-GA1 Voice Processor</li> <li>LA4032ZC In-System Programmable PLD</li> <li>USB DATA Lines</li> </ul> <p>Other components shown:</p> <ul style="list-style-type: none"> <li>AGD8 2249 UOGFF 3-Axis Digital Output Gyroscope</li> <li>Trimble 82828-20 GPS Receiver</li> <li>USB Input</li> </ul> <p>2</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p align="center"><u>Features of your vehicle</u></p> <p><b>Aux, USB and iPod®* port (if equipped)</b></p>  <p>OPS043194</p> <p>If your vehicle has an aux and/or USB(universal serial bus) port or iPod® port, you can use an aux port to connect audio devices and an USB port to plug in an USB and also an iPod® port to plug in an iPod®.</p> <p>When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.</p> <p>* iPod® is a registered trademark of Apple Inc.</p> <hr/> <p align="right">4   145</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner's Manual) at 4:145.<sup>1</sup></p>

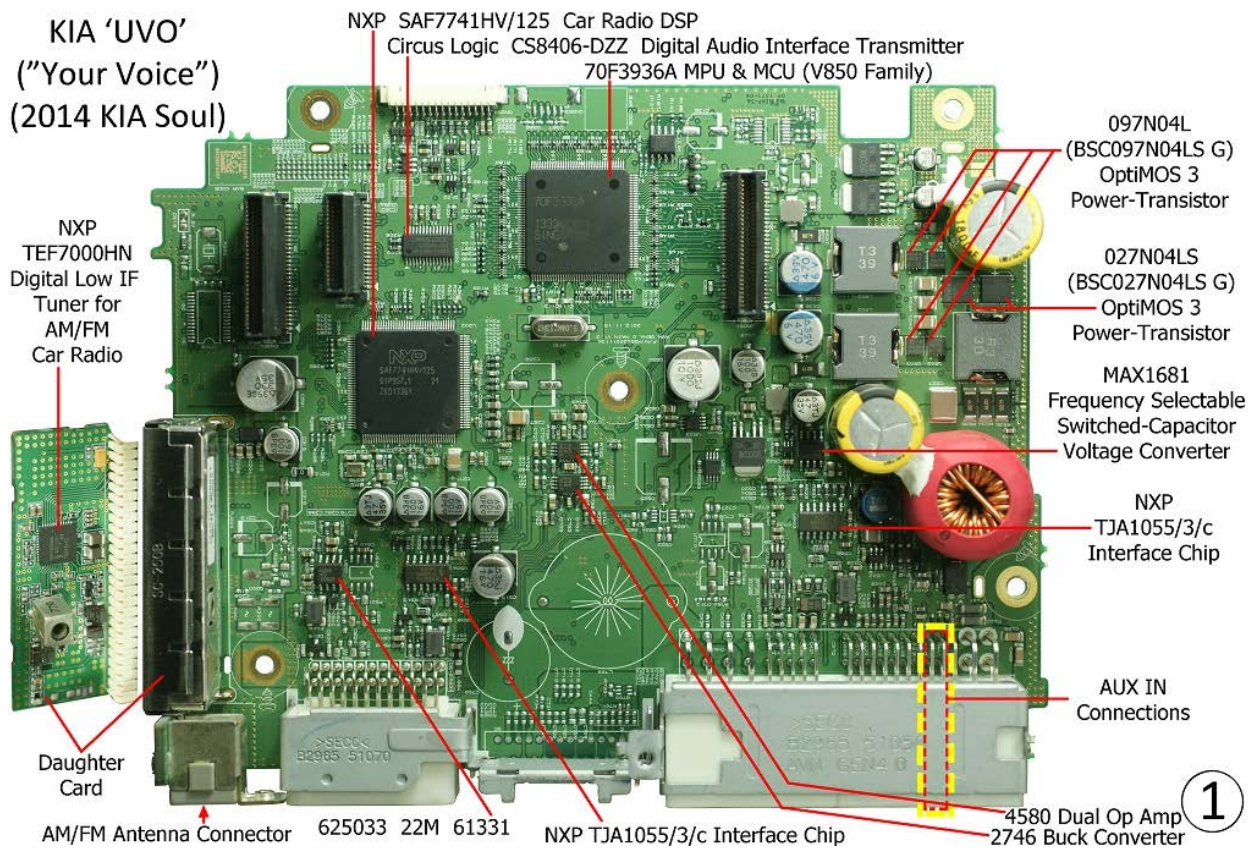
<sup>1</sup> Blitzsafe has produced Ex. A, 2014 Kia Soul User's Manual, simultaneously with these Infringement Contentions as a document bearing production numbers BS-HK-0000880 – 1379. All pin-cites are to manual pages.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

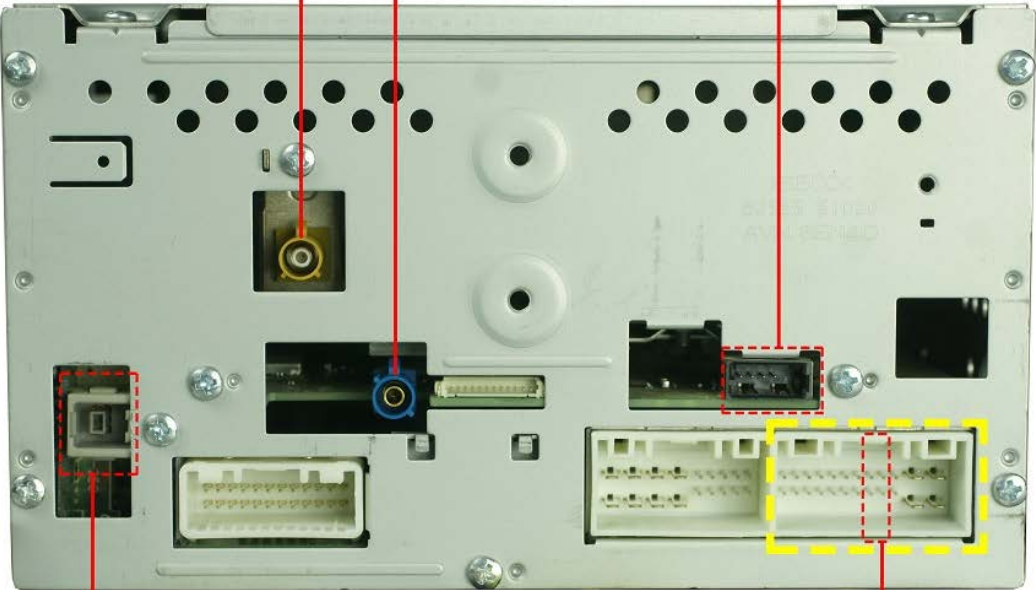
Claim	Support
	<p><b>iPod® MODE</b></p> <hr/> <p><b>About iPod®</b></p> <hr/> <p><b>1. Trademark</b> iPod® is a registered trademark of Apple, Inc.</p> <p><b>2. Connecting your iPod® Device</b> Connect your iPod® device as shown in the picture.</p>  <p>The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:19.<sup>2</sup></i></p>
[1C] a third connector	Each device integration system of accused Kia automobiles includes “a third connector electrically connectable to one or more auxiliary input sources external to the car stereo and the after-market audio device.” Specifically, accused Kia

<sup>2</sup> Blitzsafe has produced Ex. B, 2015 Kia Soul UVO Manual, simultaneously with these Infringement Contentions as a document bearing production numbers BS-HK-0000739 – 875. All pin-cites are to manual pages.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>electrically connectable to one or more auxiliary input sources external to the car stereo and the after-market audio device;</p>	<p>automobiles are provided with an AUX terminal at one or more locations in the automobile, such as in the center console. The AUX terminal is connected via the third connector, which is believed to be included in one of the connectors within the yellow dashed box below, to the device integration system and permits audio from a device connected to the AUX terminal to be played through the automobile's speakers, which are driven by the device integration system.</p>  <p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> <ul style="list-style-type: none"> <li>NXP SAF7741HV/125 Car Radio DSP</li> <li>Circus Logic CS8406-DZZ Digital Audio Interface Transmitter</li> <li>70F3936A MPU &amp; MCU (V850 Family)</li> <li>097N04L (BSC097N04LS G) OptiMOS 3 Power-Transistor</li> <li>027N04LS (BSC027N04LS G) OptiMOS 3 Power-Transistor</li> <li>MAX1681 Frequency Selectable Switched-Capacitor Voltage Converter</li> <li>NXP TJA1055/3/c Interface Chip</li> <li>AUX IN Connections</li> <li>4580 Dual Op Amp</li> <li>2746 Buck Converter</li> <li>1</li> <li>NXP TEF7000HN Digital Low IF Tuner for AM/FM Car Radio</li> <li>Daughter Card</li> <li>AM/FM Antenna Connector</li> <li>625033 22M 61331</li> <li>NXP TJA1055/3/c Interface Chip</li> </ul>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
	<p data-bbox="520 232 739 349">KIA 'UVO' ("Your Voice") (2014 KIA Soul)</p>  <p data-bbox="825 232 1020 280">XM/Satellite Antenna Connector</p> <p data-bbox="951 293 1087 342">GPS Antenna Connector</p> <p data-bbox="1325 297 1465 321">USB Connector</p> <p data-bbox="625 987 806 1036">AM/FM Radio Antenna Connector</p> <p data-bbox="1444 976 1562 1024">AUX IN Connections</p> <p data-bbox="1688 987 1751 1045">④</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
	 <p data-bbox="411 998 1619 1036">2014 Kia Soul + Wagon Power Outlets (eVox Productions) 101 of 149</p> <p data-bbox="411 1068 1619 1136"><a href="http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior">http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior</a>, interior photo 101 of 149 (captured 11/6/2015)</p>




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p style="text-align: center;"><u>Features of your vehicle</u></p> <p><b>Aux, USB and iPod®* port (if equipped)</b></p>  <p>OPS043194</p> <p>If your vehicle has an aux and/or USB(universal serial bus) port or iPod® port, you can use an aux port to connect audio devices and an USB port to plug in an USB and also an iPod® port to plug in an iPod®.</p> <p>When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.</p> <p>* iPod® is a registered trademark of Apple Inc.</p> <p style="text-align: right;">4   145</p>




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>AUX</b></p> <p>AUX is used to play external MEDIA currently connected with the AUX terminal.</p> <p>AUX mode will automatically start when an external device is connected with the AUX terminal.</p> <p>If an external device is connected, you can also press the <b>MEDIA</b> key to change to AUX mode.</p>  <p>* AUX mode cannot be started unless there is an external device connected to the AUX terminal.</p> <p><b>AUX</b></p> <p>Fully insert the AUX cable into the AUX terminal for use.</p> <p><i>See, e.g., Ex. A (2014 Kia Soul Owner's Manual) at 4:145, 176.</i></p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p data-bbox="449 256 653 293"><b>iPod® MODE</b></p> <hr data-bbox="449 331 905 334"/> <p data-bbox="449 337 617 370"><b>About iPod®</b></p> <hr data-bbox="449 370 905 373"/> <p data-bbox="449 415 596 443"><b>1. Trademark</b></p> <p data-bbox="449 451 905 483">iPod® is a registered trademark of Apple, Inc.</p> <p data-bbox="449 524 806 557"><b>2. Connecting your iPod® Device</b></p> <p data-bbox="449 561 905 626">Connect your iPod® device as shown in the picture.</p>  <p data-bbox="449 959 905 1097">The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p>

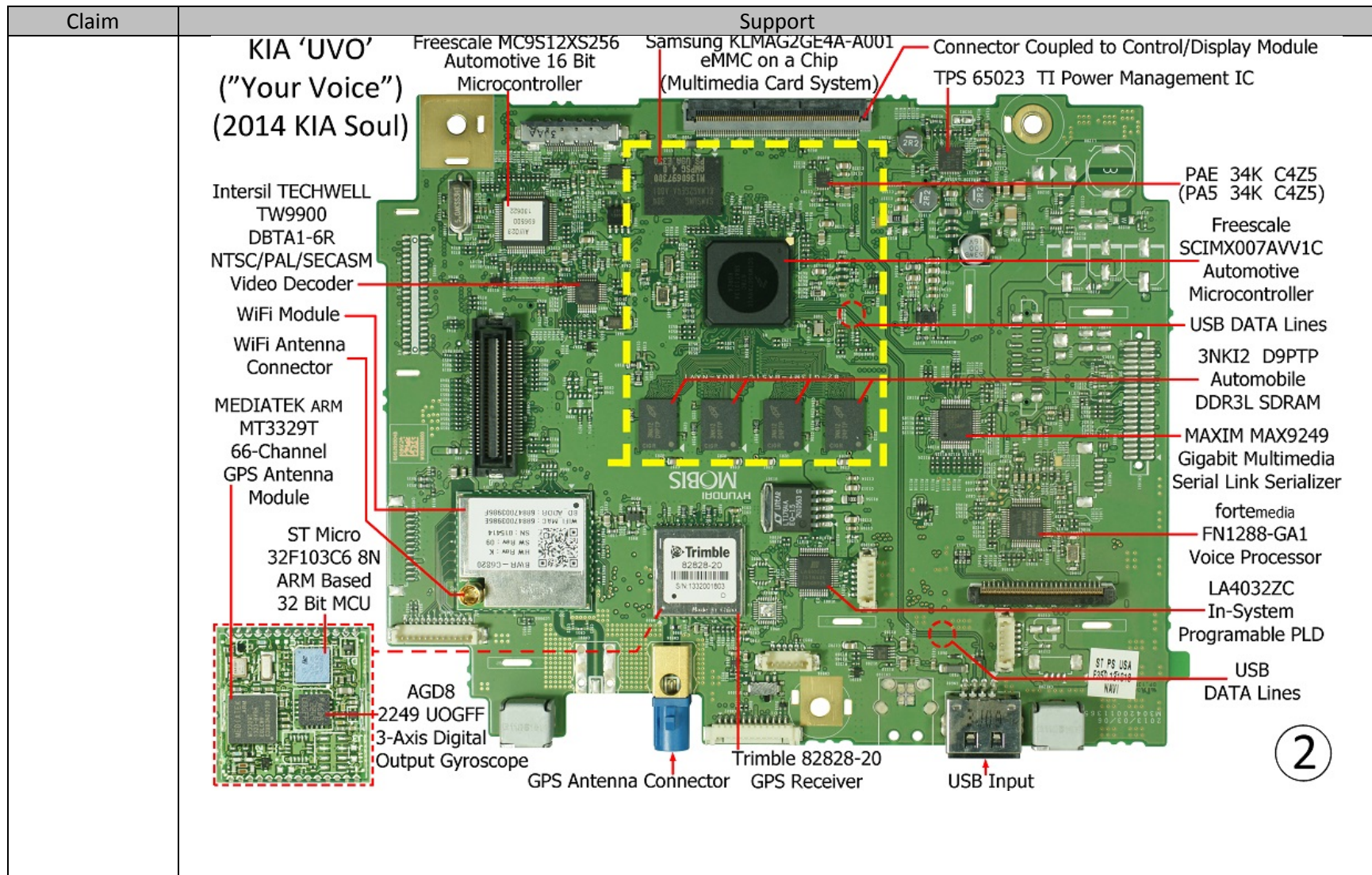
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>AUX MODE</b></p> <hr/> <p><b>AUX Mode Screen</b></p>  <ol style="list-style-type: none"> <li><b>1 Mode Display</b> Displays that the current mode is AUX mode.</li> <li><b>2 AUX Status</b> Displays the AUX connection status</li> <li><b>3 Sound</b> Enters Sound Setup.</li> </ol> </div> <div style="width: 30%;"> <p><b>Connecting an AUX media device</b></p> <hr/> <p>Connect a cable from the headphone jack on your AUX device to the jack located in your vehicle.</p>  <p><b>Note</b></p> <ul style="list-style-type: none"> <li>Connecting your AUX device with the vehicle will not provide power to your AUX device. If you plan on using your AUX device for long periods of time, make sure to charge the device using an A/C power adapter or a separate USB cable.</li> </ul> </div> <div style="width: 30%;"> <p><b>Listening to AUX media</b></p> <hr/> <ol style="list-style-type: none"> <li>Connect an AUX device or press the <b>MEDIA</b> key on the control panel if the AUX device has already been connected.</li> <li>Once in AUX mode, the connected audio will automatically begin playing from the car system provided that your external device is turned on and playing audio.</li> </ol>  </div> </div> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:19, 26.</i></p>
<p>[1D] an interface connected between said first and second electrical connectors for channeling audio signals to</p>	<p>Each device integration system of an accused Kia automobile includes, among other things, an interface for connecting the car stereo to external audio devices via a USB connector (which interface comprises at least the software and hardware shown in the yellow dashed boxes below, including at least a Freescale microcontroller) is coupled to the USB and/or AUX connector (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 connector, soldered connector, wired connector or software/virtual connector. The interface channels audio signals to the car stereo from the after-market audio device, as one of the primary functions of the infotainment system within accused Kia automobiles is to permit audio stored on or streamed from an after-market audio device to play via the car's stereo speakers.</p>

Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles

Claim	Support
<p>the car stereo from the after-market audio device,</p>	<div style="text-align: center;"> <p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> </div> <p>NXP SAF7741HV/125 Car Radio DSP  Circus Logic CS8406-DZZ Digital Audio Interface Transmitter  70F3936A MPU &amp; MCU (V850 Family)</p> <p>097N04L (BSC097N04LS G) OptiMOS 3 Power-Transistor  027N04LS (BSC027N04LS G) OptiMOS 3 Power-Transistor  MAX1681 Frequency Selectable Switched-Capacitor Voltage Converter  NXP TJA1055/3/c Interface Chip</p> <p>NXP TEF7000HN Digital Low IF Tuner for HD &amp; Sirius XM Car Radio</p> <p>Daughter Card</p> <p>XM/Satellite Antenna 625033 22M 61331</p> <p>NXP TJA1055/3/c Interface Chip</p> <p>4580 Dual Op Amp 2746 Buck Converter</p> <p style="text-align: right;"><b>1</b></p>


Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support	
<p><b>USING iPod® DEVICE</b></p> <p>iPod® is a registered trademark of Apple Inc.                      iPhone® is a registered trademark of Apple Inc.</p> <ul style="list-style-type: none"> <li>Some iPod® models may not support communication protocol and files may not properly play.</li> </ul> <p>Supported iPod® models:</p> <ul style="list-style-type: none"> <li>- iPhone® 3GS/4</li> <li>- iPod® touch 1st~4th generation</li> <li>- iPod® nano 1st~6th generation</li> <li>- iPod® classic</li> </ul> <ul style="list-style-type: none"> <li>The order of search or playback of songs in the iPod® can be different from the order searched in the audio system.</li> <li>If the iPod® is disabled due to its own malfunction, reset the iPod®. (Reset: Refer to iPod® manual)</li> <li>An iPod® may not operate normally on low battery.</li> </ul> <p>(Continued)</p> <hr/> <p>4   154</p>	<p>(Continued)</p> <ul style="list-style-type: none"> <li>Some iPod® devices, such as the iPhone®, can be connected through the <i>Bluetooth®</i> Wireless Technology interface. The device must have audio <i>Bluetooth®</i> Wireless Technology capability (such as for stereo headphone <i>Bluetooth®</i> Wireless Technology ). The device can play, but it will not be controlled by the audio system.</li> <li>To use iPod® features within the audio, use the cable provided upon purchasing an iPod® device.</li> <li>Skipping or improper operation may occur depending on the characteristics of your iPod®/iPhone® device.</li> <li>If your iPhone® is connected to both the <i>Bluetooth®</i> Wireless Technology and USB, only support iPod® mode because the sound may not be properly played in <i>Bluetooth®</i> Audio Streaming. To use <i>Bluetooth®</i> Audio Streaming, disconnect iPod® cable with iPhone®.</li> </ul>	<p>(Continued)</p> <ul style="list-style-type: none"> <li>When connecting iPod® with the iPod® Power Cable, insert the connector to the multimedia socket completely. If not inserted completely, communications between iPod® and audio may be interrupted.</li> <li>When adjusting the sound effects of the iPod® and the audio system, the sound effects of both devices will overlap and might reduce or distort the quality of the sound.</li> <li>Deactivate (turn off) the equalizer function of an iPod® when adjusting the audio system's volume, and turn off the equalizer of the audio system when using the equalizer of an iPod®.</li> <li>When not using iPod® with car audio, detach the iPod® cable from iPod®. Otherwise, iPod® may remain in accessory mode, and may not work properly.</li> </ul> <p align="right">(Continued)</p>

Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles

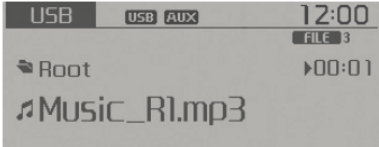
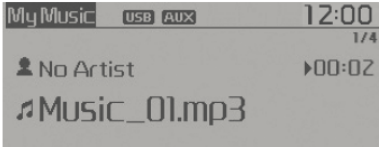
Claim	Support
<p><b>SYSTEM CONTROLLERS AND FUNCTIONS</b></p> <p>* Display and settings may differ depending on the selected audio.</p> <p><b>Audio Head Unit</b></p>  <p>(1) <b>RADIO</b> Changes to FM/AM/SiriusXM™ mode. Each time the key is pressed, the mode is changed in order of FM1 → FM2 → AM → SAT1 → SAT2 → SAT3.</p>	<p>* In Setup&gt;Display, the radio pop up screen will be displayed when [Mode Pop up] is turned <b>On</b>. When the pop up screen is displayed, use the <b>TUNE</b> knob or keys <b>1</b> ~ <b>6</b> to select the desired mode.</p> <p>(2) <b>MEDIA</b> Changes to USB(iPod®), AUX, My Music, BT Audio mode. Each time the key is pressed, the mode is changed in order of USB(iPod®), AUX, My Music, BT Audio. * In Setup&gt;Display, the media pop up screen will be displayed when [Mode Pop up] is turned <b>On</b>. When the pop up screen is displayed, use the <b>TUNE</b> knob or keys <b>1</b> ~ <b>5</b> to select the desired mode.</p> <p>(3) <b>PHONE</b> Operates Phone Screen * When a phone is not connected, the connection screen is displayed.</p> <p>(4) <b>SETUP/CLOCK</b> Briefly press the key (under 0.8 seconds) : Moves to the Display, Sound, Clock, Phone, System setting modes Press and hold the key (over 0.8 seconds) : Move to the Time setting screen</p> <p>(5) <b>SEEK/TRACK</b> Radio Mode : Automatically searches for broadcast frequencies. USB, iPod®, My Music modes - Briefly press the key (under 0.8 seconds): Moves to next or previous song (file) - Press and hold the key (over 0.8 seconds): Rewinds or fast-forwards the current song. BT Audio mode : Moves to next or previous song(file) * The Play/Pause feature may operate differently depending on the mobile phone.</p>













Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles

Claim	Support
	<p data-bbox="457 235 743 261"><u>Features of your vehicle</u></p> <p data-bbox="457 334 663 360">(6) PWR/VOL knob</p> <ul data-bbox="457 367 848 472" style="list-style-type: none"> <li>● Power : Turns power On/Off by pressing the knob</li> <li>● Volume : Sets volume by turning the knob left/right</li> </ul> <p data-bbox="457 509 726 535">(7) <b>1</b> ~ <b>6</b> (Preset)</p> <p data-bbox="457 542 848 617">Radio mode: Saves frequencies (channels) or receives saved frequencies (channels)</p> <p data-bbox="457 623 764 649">USB, iPod®, My Music mode</p> <ul data-bbox="457 656 638 711" style="list-style-type: none"> <li>- <b>1 RPT</b> : Repeat</li> <li>- <b>2 RDM</b> : Random</li> </ul> <p data-bbox="457 717 848 792">In the Radio, Media, Setup, and Menu pop up screen, the number menu is selected.</p> <div data-bbox="877 337 1264 639" style="text-align: center;">  </div> <p data-bbox="877 672 995 698">(8) <b>DISP</b></p> <p data-bbox="877 704 1268 776">Each time the button is pressed, it sets the screen Off → Screen On → Screen Off</p> <ul data-bbox="877 782 1268 889" style="list-style-type: none"> <li>✦ Audio operation is maintained and only the screen will be turned Off. In the screen Off state, press any key to turn the screen On again.</li> </ul> <p data-bbox="1297 337 1415 363">(9) <b>SCAN</b></p> <p data-bbox="1297 370 1436 396">Radio mode</p> <ul data-bbox="1297 402 1688 581" style="list-style-type: none"> <li>- Shortly press the key : Previews each broadcast for 5 seconds each.</li> <li>- Press and hold the key (over 0.8 seconds): Previews the broadcasts saved in Preset <b>1</b> ~ <b>6</b> for 5 seconds each.</li> </ul> <ul data-bbox="1297 587 1688 717" style="list-style-type: none"> <li>✦ Press the <b>SCAN</b> key again to continue listening to the current frequency.</li> <li>✦ SAT Radio does not support the Preset scan feature.</li> </ul> <p data-bbox="1297 724 1541 750">USB, My Music mode</p> <ul data-bbox="1297 756 1688 919" style="list-style-type: none"> <li>- Briefly press the key (under 0.8 seconds): Previews each song (file) for 10 seconds each.</li> <li>✦ Press the <b>SCAN</b> key again to continue listening to the current song (file).</li> </ul> <p data-bbox="1297 948 1436 974">(10) <b>MENU</b></p> <p data-bbox="1297 980 1667 1006">Displays menus for the current mode.</p> <ul data-bbox="1297 1013 1667 1039" style="list-style-type: none"> <li>✦ iPod List : Move to parent category</li> </ul> <p data-bbox="436 1127 512 1153">4   160</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>BASIC METHOD OF USE :</b>  <b>USB / iPod® / My Music</b></p> <p>Press the <b>MEDIA</b> key to change the mod mode in order of USB(iPod®) → AUX → My Music → BT Audio.  The folder/file name is displayed on the screen.</p>  <p align="right">&lt;USB&gt;</p>  <p align="right">&lt;My Music&gt;</p> <p>* The USB music is automatically played when a USB is connected.</p> <p><b>Repeat</b>  While song (file) is playing ▶ <b>1 RPT</b> (RPT) key  USB, iPod®, My Music mode: RPT on screen</p> <ul style="list-style-type: none"> <li>• To repeat one song (press the key) : Repeats the current song.</li> </ul> <p>USB mode: FLD.RPT on screen</p> <ul style="list-style-type: none"> <li>• To repeat folder (pressing twice): repeats all files within the current folder.</li> </ul> <p>* Press the <b>1 RPT</b> key again to turn off repeat.</p> <p><b>Random</b>  While song (file) is playing ▶ <b>2 RDM</b> (RDM) key  My Music mode: RDM on screen</p> <ul style="list-style-type: none"> <li>• Random (press the key) : Plays all songs in random order.</li> </ul> <p>USB mode: FLD.RDM on screen</p> <ul style="list-style-type: none"> <li>• Folder Random (press the key) : Plays all files within the current folder in random order.</li> </ul> <p>iPod® mode: ALL RDM on screen</p> <ul style="list-style-type: none"> <li>• All Random (press the key) : Plays all files in random order.</li> </ul> <p>USB : ALL RDM on screen</p> <ul style="list-style-type: none"> <li>• All Random (pressing twice): Plays all files in random order.</li> </ul> <p>* Press the <b>2 RDM</b> key again to turn off random.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Changing Song/File</b></p> <p>While song (file) is playing▶   key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Plays the current song from the beginning.</li> <li>* If the  key is pressed again within 2 second, the previous song is played.</li> <li>• Pressing and holding the key (over 0.8 seconds): Rewinds the song.</li> </ul> <p>While song (file) is playing▶   key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Plays the next song.</li> <li>• Pressing and holding the key (over 0.8 seconds) : Fast forwards the song.</li> </ul> </div> <div style="width: 30%;"> <p><b>Scan</b></p> <p>While song (file) is playing▶  key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Scans all songs from the next song for 10 seconds each.</li> <li>* Press the  key again to turn off.</li> <li>* The SCAN function is not supported in iPod® mode.</li> </ul> </div> <div style="width: 30%;"> <p><b>Folder Search : USB Mode</b></p> <p>While file is playing▶  (Folder Up) key</p> <ul style="list-style-type: none"> <li>• Searches the next folder.</li> </ul> <p>While file is playing▶  (Folder Down) key</p> <ul style="list-style-type: none"> <li>• Searches the parent folder.</li> <li>* If a folder is selected by pressing the  TUNE knob, the first file within the selected folder will be played.</li> <li>* In iPod® mode, moves to the Parent Folder.</li> </ul> <p><b>Searching Songs (File)</b></p> <ul style="list-style-type: none"> <li>• Turning  TUNE knob : Searches for songs (files)</li> <li>• Pressing  TUNE knob : Plays selected song (file).</li> </ul> </div> </div> <hr style="border-top: 1px dashed black; margin-top: 20px;"/> <p style="margin-top: 10px;">4   172</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Copy</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>6</b> Copy] through the <b>TUNE</b> knob or <b>6</b> key.</p> <p>This is used to copy the current song into My Music. You can play the copied Music in My Music mode.</p> <ul style="list-style-type: none"> <li>* If another key is pressed while copying is in progress, a pop up asking you whether to cancel copying is displayed.</li> <li>* If another media is connected or inserted (USB, iPod®, AUX) while copying is in progress, copying is canceled.</li> <li>* Music will not be played while copying is in progress.</li> </ul> </div> <div style="width: 30%;"> <p><b>MENU : iPod®</b></p> <p>In iPod® mode, press the <b>MENU</b> key to set the Repeat, Random, Information and Search features.</p>  <p><b>Repeat</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>1</b>RPT] through the <b>TUNE</b> knob or <b>1 RPT</b> key to repeat the current song.</p> <ul style="list-style-type: none"> <li>* Press RPT again to turn repeat off.</li> </ul> <p><b>Random</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>2</b>RDM] through the <b>TUNE</b> knob or <b>2 RDM</b> key.</p> <p>Plays all songs within the currently playing category in random order.</p> <ul style="list-style-type: none"> <li>* Press RDM again to turn off.</li> </ul> </div> <div style="width: 30%;"> <p><b>Information</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>3</b>Info] through the <b>TUNE</b> knob or <b>3</b> key.</p> <p>Displays information of the current song.</p> <ul style="list-style-type: none"> <li>* Press the <b>MENU</b> key to turn off info display.</li> </ul> <p><b>Search</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>4</b>Search] through the <b>TUNE</b> knob or <b>4</b> key.</p> <p>Displays iPod® category list.</p> <ul style="list-style-type: none"> <li>* Searching iPod® category is <b>MENU</b> key pressed, move to parent category.</li> </ul> </div> </div> <hr style="border-top: 1px dashed black; margin-top: 20px;"/> <p>4   174</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 4:154, 159, 160, 171-72, 174.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>iPod® MODE</b></p> <hr/> <p><b>About iPod®</b></p> <hr/> <p><b>1. Trademark</b> iPod® is a registered trademark of Apple, Inc.</p> <p><b>2. Connecting your iPod® Device</b> Connect your iPod® device as shown in the picture.</p> <div data-bbox="424 651 863 886" data-label="Image"> </div> <p>The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p> <p><b>! Caution</b></p> <ul style="list-style-type: none"> <li>• If a playing iPod® is connected to the audio system, a high-pitched tone may occur for approximately 1-2 seconds. Please pause/stop the iPod® device prior to connecting it to the vehicle.</li> <li>• iPod® mode will not operate if the connected iPod® cannot be recognized due to operation of unsupported versions that do not support related protocols, iPod® abnormalities, or iPod® device defects.</li> </ul> <hr/> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Supported iPod® devices: iPod Nano 2G/3G/4G/5G/6G, iPod Classic 5G/6G, iPod Touch 1G/2G/3G/4G, iPhone 3G/3GS/4/4S</li> </ul>

PART 2. AUDIO FEATURES 2-19

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

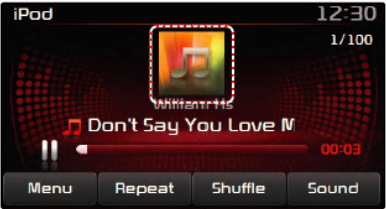
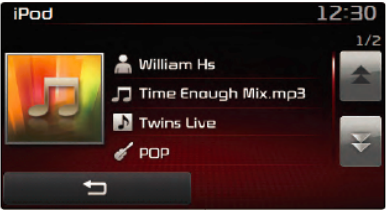

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>iPod® Mode Screen and Features</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div style="width: 45%;"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div> </div> <div style="margin-top: 20px;"> <p><b>Listening to your iPod®</b></p> <ol style="list-style-type: none"> <li>1. Connect an iPod® device or press the <b>MEDIA</b> key on the control panel if an iPod® device has already been connected.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> </div> <p align="left">2-20 PART 2. AUDIO FEATURES</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div data-bbox="426 248 814 280"> <p><b>Selecting iPod® music</b></p> </div> <div data-bbox="426 318 760 344"> <p><b>1. Selecting through song Up/Down</b></p> </div> <div data-bbox="438 347 814 466"> <p>Press the <b>SEEK TRACK</b>  or <b>SEEK TRACK</b>  keys on the control panel or the  or  keys on the steering wheel controller to play the desired song.</p> </div> <div data-bbox="426 501 478 524"> <p><b>Note</b></p> </div> <div data-bbox="426 532 814 743"> <ul style="list-style-type: none"> <li>• If the <b>SEEK TRACK</b>  key on the Control panel or  key on the steering wheel controller is pressed and released after the song has played for more than 3 seconds, the start of the current song will begin playing. If the song has been playing for less than 3 seconds, the start of the previous song will begin playing.</li> </ul> </div> <div data-bbox="426 779 760 805"> <p><b>2. Selecting through manual search</b></p> </div> <div data-bbox="438 812 814 987"> <ol style="list-style-type: none"> <li>1. Turn the <b>TUNE</b> knob on the control panel in clockwise or counter-clockwise direction. Each click will display information about the selected song.</li> <li>2. Press the <b>TUNE</b> knob to play the selected song.</li> </ol> </div> <div data-bbox="842 254 1073 280"> <p><b>3. Selecting from the list</b></p> </div> <div data-bbox="842 297 1226 506">  </div> <div data-bbox="852 519 1079 545"> <p>1. Press the <b>Menu</b> button.</p> </div> <div data-bbox="842 555 1226 764">  </div> <div data-bbox="852 781 1134 807"> <p>2. Press the <b>Now Playing</b> button.</p> </div> <div data-bbox="842 821 1226 1031">  </div> <div data-bbox="1266 254 1652 313"> <p>3. Press the name of the song from the list. The file will automatically start playing.</p> </div> <div data-bbox="1255 345 1314 370"> <p><b>Note</b></p> </div> <div data-bbox="1255 378 1652 436"> <ul style="list-style-type: none"> <li>• In the iPod® list screen, the <b>TUNE</b> knob can also be used to select the desired song.</li> </ul> </div> <div data-bbox="1255 470 1617 526"> <p><b>4. By Artists, Albums, Genres, Songs, Podcasts, Composers, Audiobooks</b></p> </div> <div data-bbox="1255 547 1646 756">  </div> <div data-bbox="1266 776 1497 802"> <p>1. Press the <b>Menu</b> button.</p> </div> <div data-bbox="1255 821 1646 1031">  </div>

PART 2. AUDIO FEATURES 2-21

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

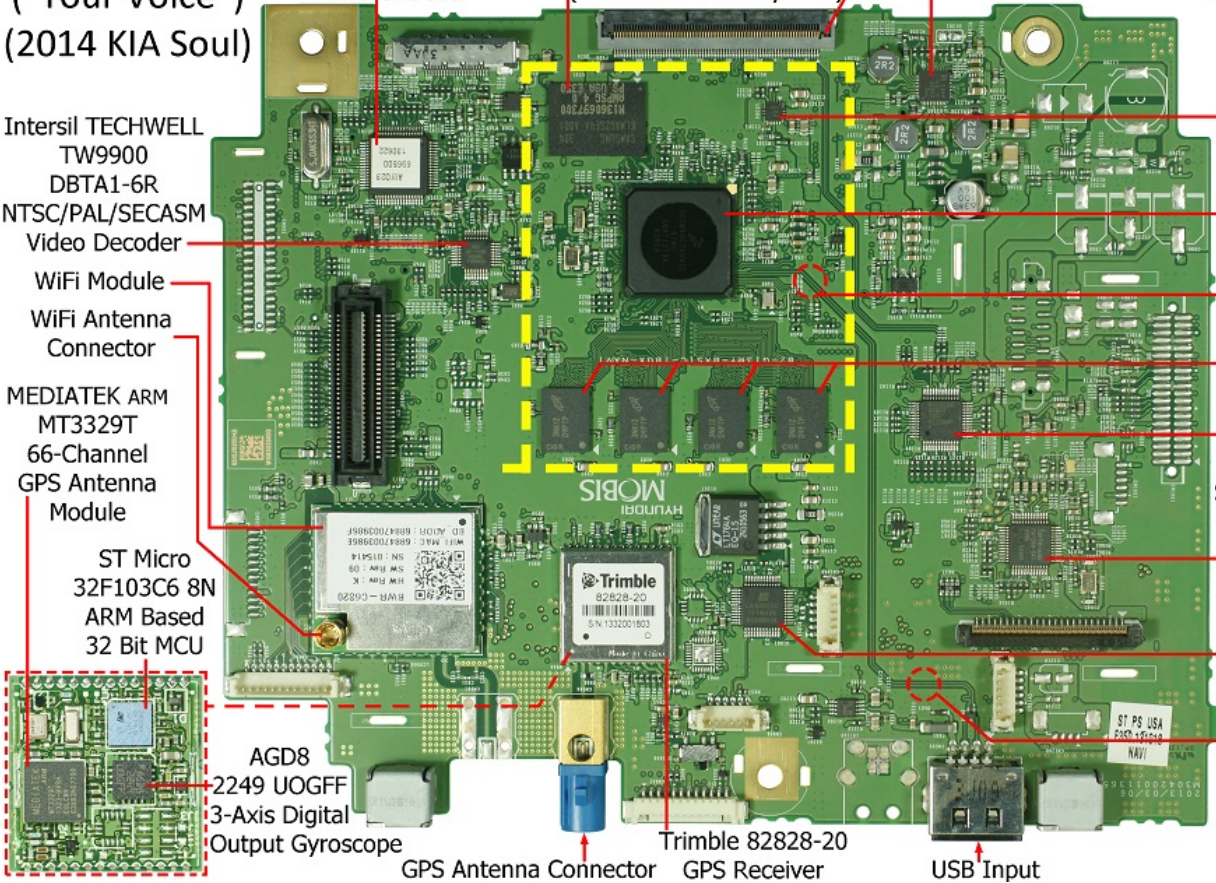
Claim	Support
	<p>2. Choose the category through which you wish to select. iPod® mode allows you to select by Playlists, Artists, Albums, Genres, Songs, Podcasts, Composers and Audiobooks.</p> <p align="center"><b>Viewing song information</b></p> <p>When listening to your iPod®, you can browse through song details and information.</p>  <p>1. Press the Album art icon.</p>  <p>2. The song information (Artist, Title, Album, Genre) for the current iPod® song will be displayed.</p> <p>3. Press the  button to return to the previous screen.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Songs in the iPod® can be properly played in UVO system only when they have been downloaded through iTunes®.</li> <li>• If you receive a call or SMS while playing music from an iPhone®, the music may not properly be restored after the call or SMS. In this case, disconnect and reconnect the iPhone®.</li> <li>• After upgrading the iPod® or iPhone® firmware, reboot the iPod® or iPhone® and connect with the UVO system for normal operation.</li> <li>• Songs cannot be copied from iPod® or iPhone® to JUKEBOX.</li> </ul> <p>2-22 PART 2. AUDIO FEATURES</p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:19-22</i></p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:23-25, 35-37.</i></p>
<p>[1E] said interface including a microcontroller</p>	<p>The interface of each device integration system of the accused Kia automobiles includes one or more microcontrollers (including at least a Freescale microcontroller) in electrical communication with the first and second electrical connectors for controlling various operations of the infotainment system, such as the radio, display, and interface operations. At least the Freescale microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards of the</p>



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>in electrical communication with said first and second electrical connectors, said microcontroller pre-programmed to execute:</p>	<p>device integration system, some of which are shown in the yellow dashed box below) executes code to perform various interface functions and is, thus, “pre-programmed” to perform these functions. It is believed that this code is stored in onboard flash and/or other memory modules, and/or is contained within firmware elsewhere in the interface (such as within the Freescale microcontroller itself).</p> <p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> <p>NXP SAF7741HV/125 Car Radio DSP Circus Logic CS8406-DZZ Digital Audio Interface Transmitter 70F3936A MPU &amp; MCU (V850 Family)</p> <p>NXP TEF7000HN Digital Low IF Tuner for HD &amp; Sirius XM Car Radio</p> <p>Daughter Card</p> <p>XM/Satellite Antenna 625033 22M 61331</p> <p>NXP TJA1055/3/c Interface Chip</p> <p>4580 Dual Op Amp 2746 Buck Converter</p> <p>097N04L (BSC097N04LS G) OptiMOS 3 Power-Transistor</p> <p>027N04LS (BSC027N04LS G) OptiMOS 3 Power-Transistor</p> <p>MAX1681 Frequency Selectable Switched-Capacitor Voltage Converter</p> <p>NXP TJA1055/3/c Interface Chip</p> <p>①</p>

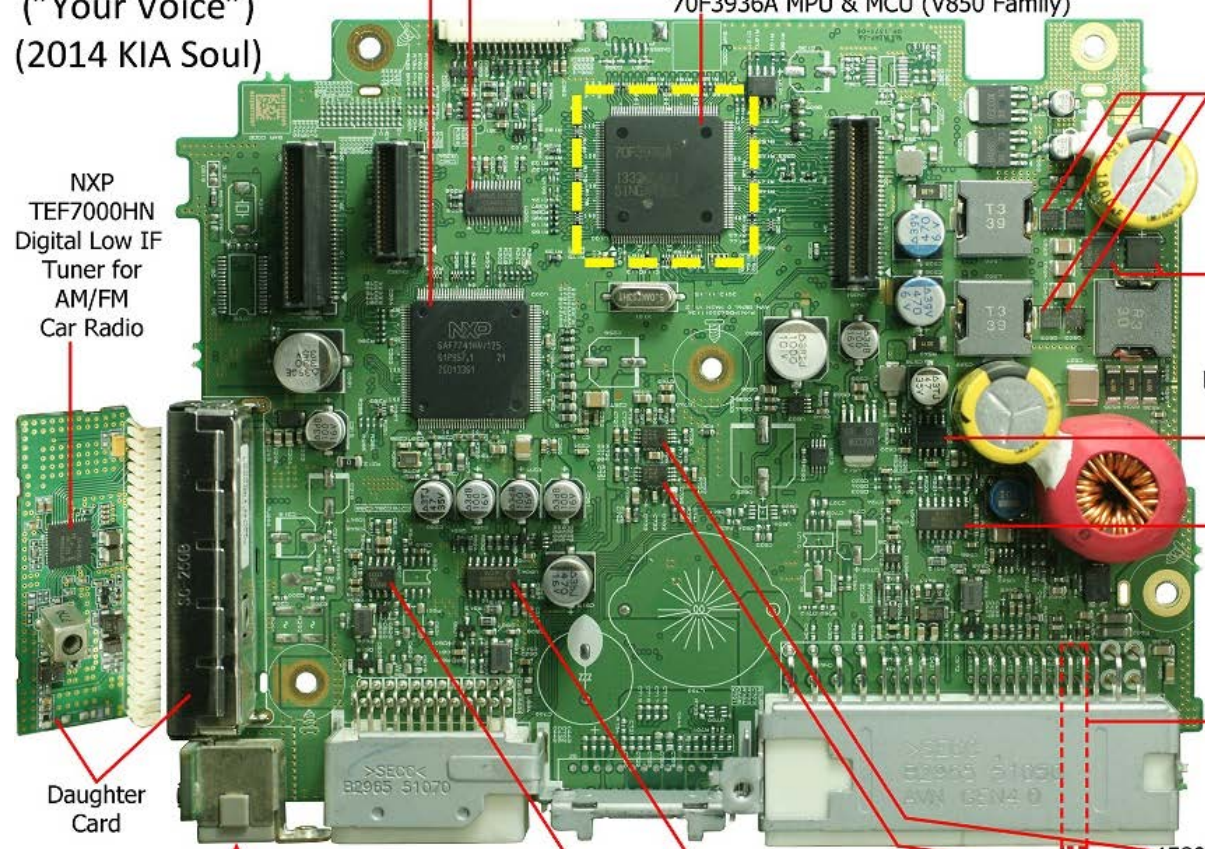
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> <p>Intersil TECHWELL TW9900 DBTA1-6R NTSC/PAL/SECASM Video Decoder</p> <p>WiFi Module</p> <p>WiFi Antenna Connector</p> <p>MEDIATEK ARM MT3329T 66-Channel GPS Antenna Module</p> <p>ST Micro 32F103C6 8N ARM Based 32 Bit MCU</p> <p>AGD8 2249 UOGFF 3-Axis Digital Output Gyroscope</p>	 <p>Freescale MC9S12XS256 Automotive 16 Bit Microcontroller</p> <p>Samsung KLMAG2GE4A-A001 eMMC on a Chip (Multimedia Card System)</p> <p>Connector Coupled to Control/Display Module</p> <p>TPS 65023 TI Power Management IC</p> <p>PAE 34K C4Z5 (PA5 34K C4Z5)</p> <p>Freescale SCIMX007AVV1C Automotive Microcontroller</p> <p>USB DATA Lines</p> <p>3NKI2 D9PTP Automobile DDR3L SDRAM</p> <p>MAXIM MAX9249 Gigabit Multimedia Serial Link Serializer</p> <p>fortemedia FN1288-GA1 Voice Processor</p> <p>LA4032ZC In-System Programmable PLD</p> <p>USB DATA Lines</p> <p>Trimble 82828-20 GPS Receiver</p> <p>Trimble 82828-20 GPS Receiver</p> <p>USB Input</p> <p>2</p>
<p>[1F] a first pre-programmed code portion for remotely</p>	<p>The interface of each device integration system of the accused Kia automobiles is pre-programmed 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, processing the received control command into a formatted command compatible with the after-market audio device, and</p>

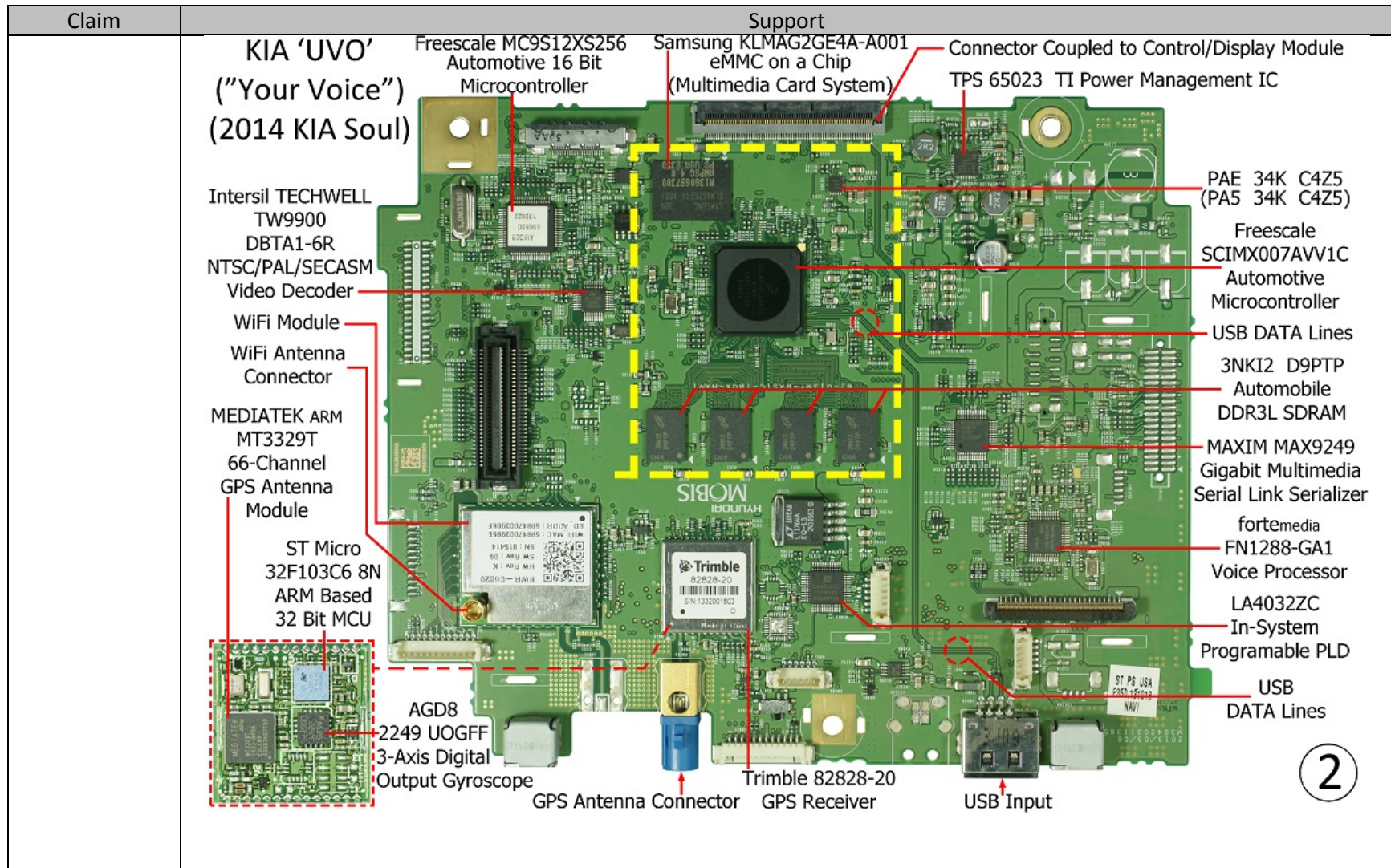
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>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, 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</p>	<p>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 Freescale microcontroller), where they are processed and converted using pre-programmed software from a format understandable and compatible with the car stereo and associated Kia protocols (i.e., a format incompatible with the after-market audio device) into formatted commands that are compatible with the after-market audio device (i.e., converted into USB and device-specific protocols understandable to the after-market audio device). These formatted commands are then transmitted to the after-market audio device via the USB connector (i.e., the second connector). The formatted commands are then executed by the after-market audio device. At least the Freescale microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards of the device integration system) executes pre-programmed code to perform at least a portion of these functions. It is believed that this code is stored in onboard flash and/or other memory modules, and/or is contained within firmware elsewhere in the interface (such as within the Freescale microcontroller itself).</p>


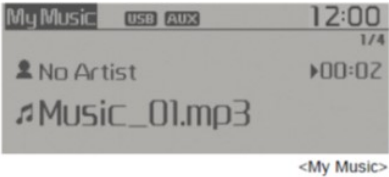
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>connector for execution by the after-market audio device;</p>	<p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p>  <p>NXP SAF7741HV/125 Car Radio DSP Circus Logic CS8406-DZZ Digital Audio Interface Transmitter 70F3936A MPU &amp; MCU (V850 Family)</p> <p>097N04L (BSC097N04LS G) OptiMOS 3 Power-Transistor 027N04LS (BSC027N04LS G) OptiMOS 3 Power-Transistor MAX1681 Frequency Selectable Switched-Capacitor Voltage Converter NXP TJA1055/3/c Interface Chip</p> <p>AUX IN Connections</p> <p>4580 Dual Op Amp 2746 Buck Converter</p> <p>NXP TEF7000HN Digital Low IF Tuner for AM/FM Car Radio</p> <p>Daughter Card</p> <p>AM/FM Antenna Connector</p> <p>625033 22M 61331</p> <p>NXP TJA1055/3/c Interface Chip</p> <p>1</p>






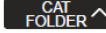




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**



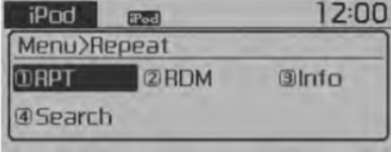
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>BASIC METHOD OF USE :</b>  <b>USB / iPod® / My Music</b></p> <p>Press the <b>MEDIA</b> key to change the mod mode in order of USB(iPod®) → AUX → My Music → BT Audio.  The folder/file name is displayed on the screen.</p>   <p align="right">&lt;USB&gt; &lt;My Music&gt;</p> <p>⌘ The USB music is automatically played when a USB is connected.</p> <p><b>Repeat</b>  While song (file) is playing ▶ <b>1 RPT</b> (RPT) key  <b>USB, iPod®, My Music mode: RPT on screen</b>  • To repeat one song (press the key) : Repeats the current song.  <b>USB mode: FLD.RPT on screen</b>  • To repeat folder (pressing twice): repeats all files within the current folder.  ⌘ Press the <b>1 RPT</b> key again to turn off repeat.</p> <p><b>Random</b>  While song (file) is playing ▶ <b>2 RDM</b> (RDM) key  <b>My Music mode: RDM on screen</b>  • Random (press the key) : Plays all songs in random order.  <b>USB mode: FLD.RDM on screen</b>  • Folder Random (press the key) : Plays all files within the current folder in random order.  <b>iPod® mode: ALL RDM on screen</b>  • All Random (press the key) : Plays all files in random order.  <b>USB : ALL RDM on screen</b>  • All Random (pressing twice): Plays all files in random order.  ⌘ Press the <b>2 RDM</b> key again to turn off random.</p> <p align="right">4   171</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Changing Song/File</b></p> <p>While song (file) is playing▶   key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Plays the current song from the beginning.</li> <li>* If the  key is pressed again within 2 second, the previous song is played.</li> <li>• Pressing and holding the key (over 0.8 seconds): Rewinds the song.</li> </ul> <p>While song (file) is playing▶   key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Plays the next song.</li> <li>• Pressing and holding the key (over 0.8 seconds) : Fast forwards the song.</li> </ul> </div> <div style="width: 30%;"> <p><b>Scan</b></p> <p>While song (file) is playing▶  key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Scans all songs from the next song for 10 seconds each.</li> <li>* Press the  key again to turn off.</li> <li>* The SCAN function is not supported in iPod® mode.</li> </ul> </div> <div style="width: 30%;"> <p><b>Folder Search : USB Mode</b></p> <p>While file is playing▶  (Folder Up) key</p> <ul style="list-style-type: none"> <li>• Searches the next folder.</li> </ul> <p>While file is playing▶  (Folder Down) key</p> <ul style="list-style-type: none"> <li>• Searches the parent folder.</li> <li>* If a folder is selected by pressing the  TUNE knob, the first file within the selected folder will be played.</li> <li>* In iPod® mode, moves to the Parent Folder.</li> </ul> <p><b>Searching Songs (File)</b></p> <ul style="list-style-type: none"> <li>• Turning  TUNE knob : Searches for songs (files)</li> <li>• Pressing  TUNE knob : Plays selected song (file).</li> </ul> </div> </div> <hr style="border-top: 1px dashed black; margin-top: 20px;"/> <p data-bbox="420 1063 493 1096">4   172</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="border: 2px solid yellow; padding: 10px;"> <p><b>Copy</b>            Press the <b>MENU</b> key ▶ Set [6 Copy] through the TUNE knob or <b>6</b> key.            This is used to copy the current song into My Music. You can play the copied Music in My Music mode.            * If another key is pressed while copying is in progress, a pop up asking you whether to cancel copying is displayed.            * If another media is connected or inserted (USB, iPod®, AUX) while copying is in progress, copying is canceled.            * Music will not be played while copying is in progress.</p> <p><b>MENU : iPod®</b>            In iPod® mode, press the <b>MENU</b> key to set the Repeat, Random, Information and Search features.</p>  <p><b>Repeat</b>            Press the <b>MENU</b> key ▶ Set [1 RPT] through the TUNE knob or <b>1 RPT</b> key to repeat the current song.            * Press RPT again to turn repeat off.</p> <p><b>Random</b>            Press the <b>MENU</b> key ▶ Set [2 RDM] through the TUNE knob or <b>2 RDM</b> key.            Plays all songs within the currently playing category in random order.            * Press RDM again to turn off.</p> <p><b>Information</b>            Press the <b>MENU</b> key ▶ Set [3 Info] through the TUNE knob or <b>3</b> key.            Displays information of the current song.            * Press the <b>MENU</b> key to turn off info display.</p> <p><b>Search</b>            Press the <b>MENU</b> key ▶ Set [4 Search] through the TUNE knob or <b>4</b> key.            Displays iPod® category list.            * Searching iPod® category is <b>MENU</b> key pressed, move to parent category.</p> </div> <p>4   174</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 171-72, 174.</p>




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>Controls and Features</b></p> <p><b>Control Panel</b></p>  <p>※ No Infinity logo will be shown if the exterior Amplifier feature is not supported.</p> <p>1-2 PART 1. GETTING STARTED</p> <p><b>1 FM/AM</b> Turns on FM/AM mode. Each press of the <b>FM/AM</b> key will change the band in the order of FM → AM → FM.</p> <p><b>2 SAT</b> Turns on SIRIUS™ mode.</p> <p><b>3 MEDIA</b> Turns on MEDIA mode. Each press of the <b>MEDIA</b> key will change the mode in the order of USB/iPod®/zune® → JUKEBOX → AUX → BT Audio → PANDORA → USB/iPod®/zune®.</p> <p><b>4 POWER/VOLUME</b> Push : Turns Power On/Off. Dial : Turns Volume Up/Down.</p> <p><b>5 ∇ SEEK/TRACK ▲</b> <b>Short (under 0.8 seconds)</b> In FM/AM mode, automatically searches and plays the previous or next frequency. In SIRIUS™ mode, automatically searches and plays the previous or next channel.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p>In MEDIA mode (USB, iPod*, zune*, BT AUDIO), plays the previous or next track, song, or file.            In PANDORA Radio, PANDORA Radio skip (Seek up).            In JUKEBOX mode, plays the previous or next track.</p> <p><i>Long (over 0.8 seconds)</i>            In FM/AM mode, quickly moves through the frequencies when the button is pressed and held. Once released, automatically searches and plays the previous or next frequency.            In SIRIUS™ mode, quickly moves to the previous or next channel.</p> <p>In MEDIA mode (USB, iPod*, zune*, BT AUDIO), REW/FF the current track, song, or file.            In JUKEBOX mode, REW/FF the current track.</p> <p><b>6 CLOCK</b>            Displays the clock setting screen.</p> <p><b>7 V CATEGORY ^</b>            In SIRIUS™ mode, moves to the previous or next SIRIUS™ category.</p> <p><b>8 TUNE</b>            In FM/AM mode, turn the knob to manually search for frequencies.            In SIRIUS™ mode, turn the knob to manually search for channels. Press the knob to receive the selected channel.</p> <p>In MEDIA mode (USB, iPod*, zune*), turn the knob to manually search for the previous or next track, song, or file. Press the knob to receive the selected track, song, or file.            In PANDORA Radio, searches PANDORA Radio stations.            In JUKEBOX mode, turn the knob to manually search for the previous or next track. Press the knob to receive the selected track.</p> <p><b>9 eServices</b>            Displays UVO eServices mode.</p> <p><b>10 PHONE</b>            Displays Bluetooth® wireless technology Phone mode.</p> <p><b>11 SETUP</b>            Displays SETUP mode.</p> <p><b>12 RESET</b>            Reset the system to be used if system is acting abnormally.</p> <p style="text-align: right;">PART 1. GETTING STARTED 1-3</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>Steering Wheel</b></p>  <p>1-4 PART 1. GETTING STARTED</p> <p><b>1</b> <b>∇ SEEK/TRACK ^</b>  <i>Short (under 0.8 seconds)</i>            In FM/AM mode, automatically searches and plays the previous or next preset frequency.            In SIRIUS™ mode, automatically searches and plays the previous or next preset channel.            In MEDIA mode (USB, iPod®, zune®, BT AUDIO), plays the previous or next track, song, or file.            In PANDORA Radio, PANDORA Radio skip (Seek up).            In JUKEBOX mode, plays the previous or next track.</p> <p><i>Long (over 0.8 seconds)</i>            In FM/AM mode, quickly moves through the frequencies when the button is pressed and held. Once released, automatically searches and plays the previous or next frequency.            In SIRIUS™ mode, quickly moves to the previous or next channel.            In MEDIA mode (USB, iPod®, zune®, BT</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p>AUDIO), REW/FF the current track, song, or file. In JUKEBOX mode, REW/FF the current track.</p> <p><b>2 + VOLUME -</b> Turns Volume Up/Down.</p> <p><b>3 MODE</b> <i>Short (under 0.8 seconds)</i> Changes the mode. Each press will change modes in the order of FM → AM → SIRIUS™ → USB/iPod®/zune® → JUKEBOX → AUX → BT Audio → PANDORA → FM.</p> <p><i>Long (over 0.8 seconds)</i> While the system is off, turn the system on. While the system is on, turn off the system.</p> <p><b>4 Voice Command</b> <i>Short (under 0.8 seconds)</i> If Voice recognition is off, turns on Voice recognition. If system is speaking, interrupts speaking and enters listening mode.</p> <p><i>Long (over 0.8 seconds)</i> If Voice recognition is on, turns off Voice recognition.</p> <p><b>5 SEND (Bluetooth® wireless technology Phone)</b> Pressing this key will receive an incoming call. If the Audio is on, the Bluetooth® wireless technology phone screen will be displayed. When a SMS message is received, reads back message.</p> <p><b>6 END (Bluetooth® wireless technology Phone)</b> Pressing this key will reject an incoming call. If pressed during a call, the current call will be ended. When a SMS message is received, ignores message.</p> <p align="right">PART 1. GETTING STARTED 1-5</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

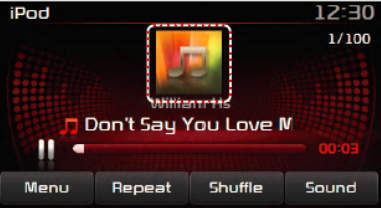


Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>iPod® Mode Screen and Features</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div style="width: 45%;"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div> </div> <div style="margin-top: 20px;"> <p><b>Listening to your iPod®</b></p> <ol style="list-style-type: none"> <li>1. Connect an iPod® device or press the <b>MEDIA</b> key on the control panel if an iPod® device has already been connected.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> </div> <p style="font-size: small; margin-top: 20px;">2-20 PART 2. AUDIO FEATURES</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

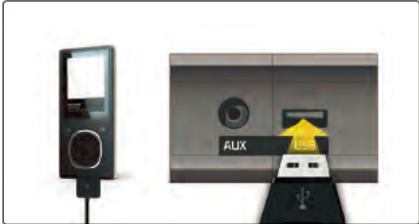

Claim	Support
	<p><b>Selecting iPod® music</b></p> <p><b>1. Selecting through song Up/Down</b>            Press the <b>SEEK TRACK</b>  or <b>SEEK TRACK</b>  keys on the control panel or the  or  keys on the steering wheel controller to play the desired song.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the <b>SEEK TRACK</b>  key on the Control panel or  key on the steering wheel controller is pressed and released after the song has played for more than 3 seconds, the start of the current song will begin playing. If the song has been playing for less than 3 seconds, the start of the previous song will begin playing.</li> </ul> <p><b>2. Selecting through manual search</b></p> <ol style="list-style-type: none"> <li>1. Turn the <b>TUNE</b> knob on the control panel in clockwise or counter-clockwise direction. Each click will display information about the selected song.</li> <li>2. Press the <b>TUNE</b> knob to play the selected song.</li> </ol> <p><b>3. Selecting from the list</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Now Playing</b> button.</p>  <p>3. Press the name of the song from the list.            The file will automatically start playing.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• In the iPod® list screen, the <b>TUNE</b> knob can also be used to select the desired song.</li> </ul> <p><b>4. By Artists, Albums, Genres, Songs, Podcasts, Composers, Audiobooks</b></p>  <p>1. Press the <b>Menu</b> button.</p> 

PART 2. AUDIO FEATURES 2-21

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p data-bbox="451 261 829 407">2. Choose the category through which you wish to select. iPod® mode allows you to select by Playlists, Artists, Albums, Genres, Songs, Podcasts, Composers and Audiobooks.</p> <p data-bbox="863 253 1150 280"><b>Viewing song information</b></p> <p data-bbox="863 321 1241 375">When listening to your iPod®, you can browse through song details and information.</p>  <p data-bbox="873 626 1100 651">1. Press the Album art icon.</p>  <p data-bbox="873 902 1241 987">2. The song information (Artist, Title, Album, Genre) for the current iPod® song will be displayed.</p> <p data-bbox="1293 261 1661 315">3. Press the  button to return to the previous screen.</p> <p data-bbox="1272 350 1329 375"><b>Note</b></p> <ul data-bbox="1272 383 1661 805" style="list-style-type: none"> <li>• Songs in the iPod® can be properly played in UVO system only when they have been downloaded through iTunes®.</li> <li>• If you receive a call or SMS while playing music from an iPhone®, the music may not properly be restored after the call or SMS. In this case, disconnect and reconnect the iPhone®.</li> <li>• After upgrading the iPod® or iPhone® firmware, reboot the iPod® or iPhone® and connect with the UVO system for normal operation.</li> <li>• Songs cannot be copied from iPod® or iPhone® to JUKEBOX.</li> </ul> <p data-bbox="443 1052 667 1076">2-22 PART 2. AUDIO FEATURES</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


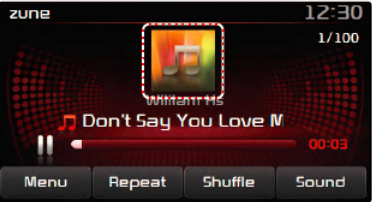

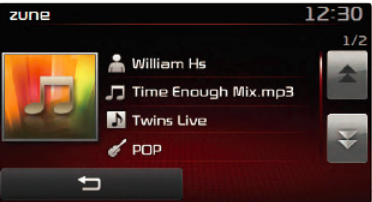

Claim	Support
	<p><b>zune® MODE</b></p> <hr/> <p><b>About zune®</b></p> <p><b>1. Trademark</b> zune® is a registered trademark of Microsoft Corporation in the United States and or other countries.</p> <p><b>2. Connecting your zune® Device</b> Connect your zune® device as shown in the picture.</p>  <p><b>zune® Mode Screen and Features</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is zune® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the zune®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the songs will be played in random order and the corresponding icon will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> <p style="text-align: right;">PART 2. AUDIO FEATURES 2-23</p>



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Listening to your zune®</b></p> <ol style="list-style-type: none"> <li>1. Connect zune® device or press the <b>MEDIA</b> key on the control panel if zune® device has already been connected.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• When connecting some external media formats, the system requires time for media indexing. In the case of zune® files, the system will take 60ms/song.</li> <li>• Songs cannot be copied from zune® to JUKEBOX.</li> </ul> </div> <div style="width: 30%;"> <p><b>Selecting zune® music</b></p> <ol style="list-style-type: none"> <li>1. <b>Selecting through song up/down</b> Press the <b>SEEK TRACK ^</b> or <b>SEEK TRACK v</b> keys on the control panel or the <b>▲</b> or <b>▼</b> keys on the steering wheel controller to play the desired song.</li> </ol> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the <b>SEEK TRACK v</b> key on the Control panel or <b>▼</b> key on the steering wheel controller is pressed and released after the song has played for more than 3 seconds, the start of the current song will begin playing. If the song has been playing for less than 3 seconds, the start of the previous song will begin playing.</li> </ul> <ol style="list-style-type: none"> <li>2. <b>Selecting through manual search</b> <ol style="list-style-type: none"> <li>1. Turn the <b>TUNE</b> knob on the control panel in clockwise or counter-clockwise direction. Each click will display information about the selected song.</li> <li>2. Press the <b>TUNE</b> knob to play the selected song.</li> </ol> </li> </ol> </div> <div style="width: 30%;"> <p>3. <b>Selecting from the list</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Now Playing</b> button.</p>  </div> </div> <p style="text-align: left; margin-top: 20px;">2-24 PART 2. AUDIO FEATURES</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p>3. Press the name of the song from the list. The song will automatically start playing.</p> <p>4. By Songs, Genres, Albums, Artists, Playlists</p>   <p>1. Press the <b>Menu</b> button.</p>   <p>2. Choose the category through which you wish to select. zune® mode allows you to select by Songs, Genres, Albums, Artists, and Playlists.</p> <p>2. The song information (Artist, Title, Album, Genre) for the current MP3 song will be displayed.</p> <p>3. Press the  button to return to the previous screen.</p> <p style="text-align: right;">PART 2. AUDIO FEATURES 2-25</p>


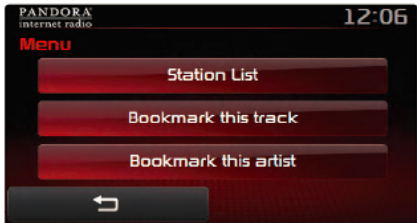


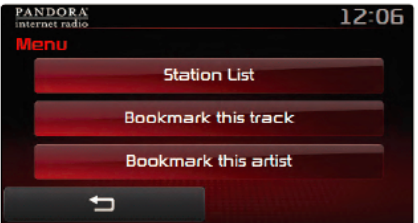
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>PANDORA MODE</b></p> <hr/> <p><b>About PANDORA</b></p> <p><b>1. Trademark</b> iPod® is a registered trademark of Apple, Inc.</p> <p><b>2. Before Starting PANDORA</b></p> <p>1. Connect your iPod or iPhone device as shown in the picture.</p> <div data-bbox="413 634 821 850" data-label="Image"> </div> <p>The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p> <p>2. Start the PANDORA Radio application.</p> <div data-bbox="898 315 1230 529" data-label="Image"> </div> <p>3. Log into PANDORA Radio. (This step can be omitted if you are already logged in.)</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Supported iPod® devices: iPod Touch 2G/3G/4G, iPhone 3G/3GS/4/4S</li> <li>• PANDORA Radio is supported only in iOS devices.</li> </ul>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>PANDORA Mode Screen and Features</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is PANDORA mode.</p> <p><b>2 Menu</b> Displays the PANDORA Station lists and Bookmark options.</p> <p><b>3 Thumbs Up</b> Approves the song and keep it in your playlist.</p> <p><b>4 Thumbs Down</b> Disapproves the song and prevents that song from playing again.</p> </div> <div style="width: 45%;"> <p><b>5 Skip</b> Moves to the next track.</p> <p><b>6 Sound</b> Enters Sound Setup.</p> <p><b>7 Play Time</b> Displays the play time.</p> <p><b>8 Station Name</b> Displays the station name.</p> <p><b>9 Artist name</b> Displays the artist name.</p> <p><b>10 Song Title</b> Displays the song title.</p> </div> </div> <div style="margin-top: 20px;"> <p><b>Listening to your PANDORA</b></p> <ol style="list-style-type: none"> <li>1. Press the <b>MEDIA</b> key on the control panel if an iPod device has already been connected and the PANDORA application is activated.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> </div> <p style="margin-top: 20px;">2-36 PART 2. AUDIO FEATURES</p>

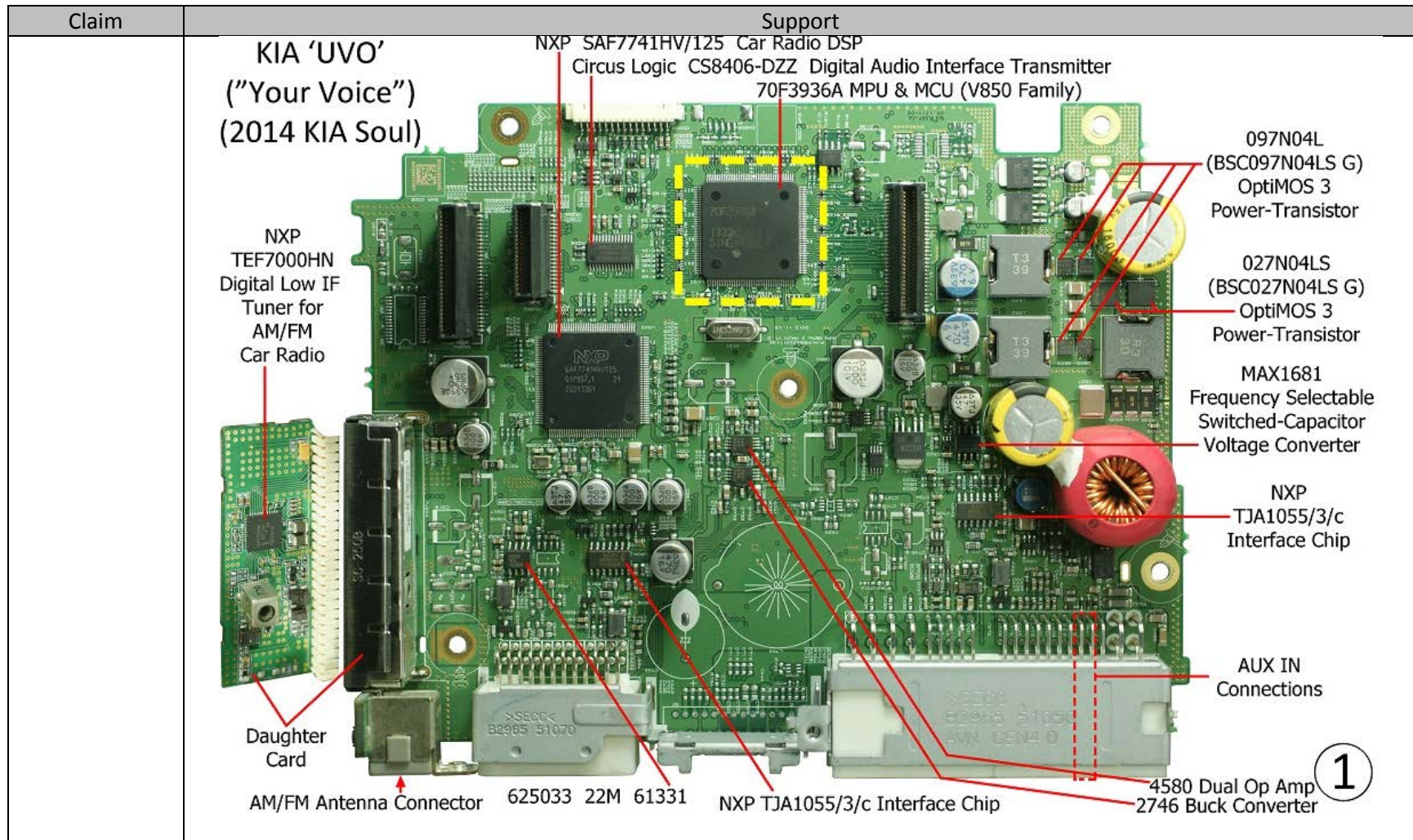
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Selecting PANDORA station</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Station List</b> button.</p> </div> <div style="width: 35%; text-align: center;"> <p><b>Station List</b></p>  <p>3. Press the name of the station from the list. The station will automatically start playing.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• In the station list screen, the <b>TUNE</b> knob can also be used to find the desired station.</li> <li>• Upon selecting "Shuffle" from the Station list screen, stations are selected randomly and played.</li> </ul> </div> <div style="width: 30%;"> <p><b>Bookmark Track or Artist</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Bookmark this track</b> or <b>Bookmark this artist</b> button.</p> <p>3. The current track or artist is bookmarked on the currently connected device.</p> </div> </div> <p align="right">PART 2. AUDIO FEATURES 2-37</p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 1:2-5, 20-25, 35-37.</i></p>
<p>[1G] a second pre-programmed code portion for receiving</p>	<p>The interface of each device integration system of the accused Kia automobiles is pre-programmed 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</p>

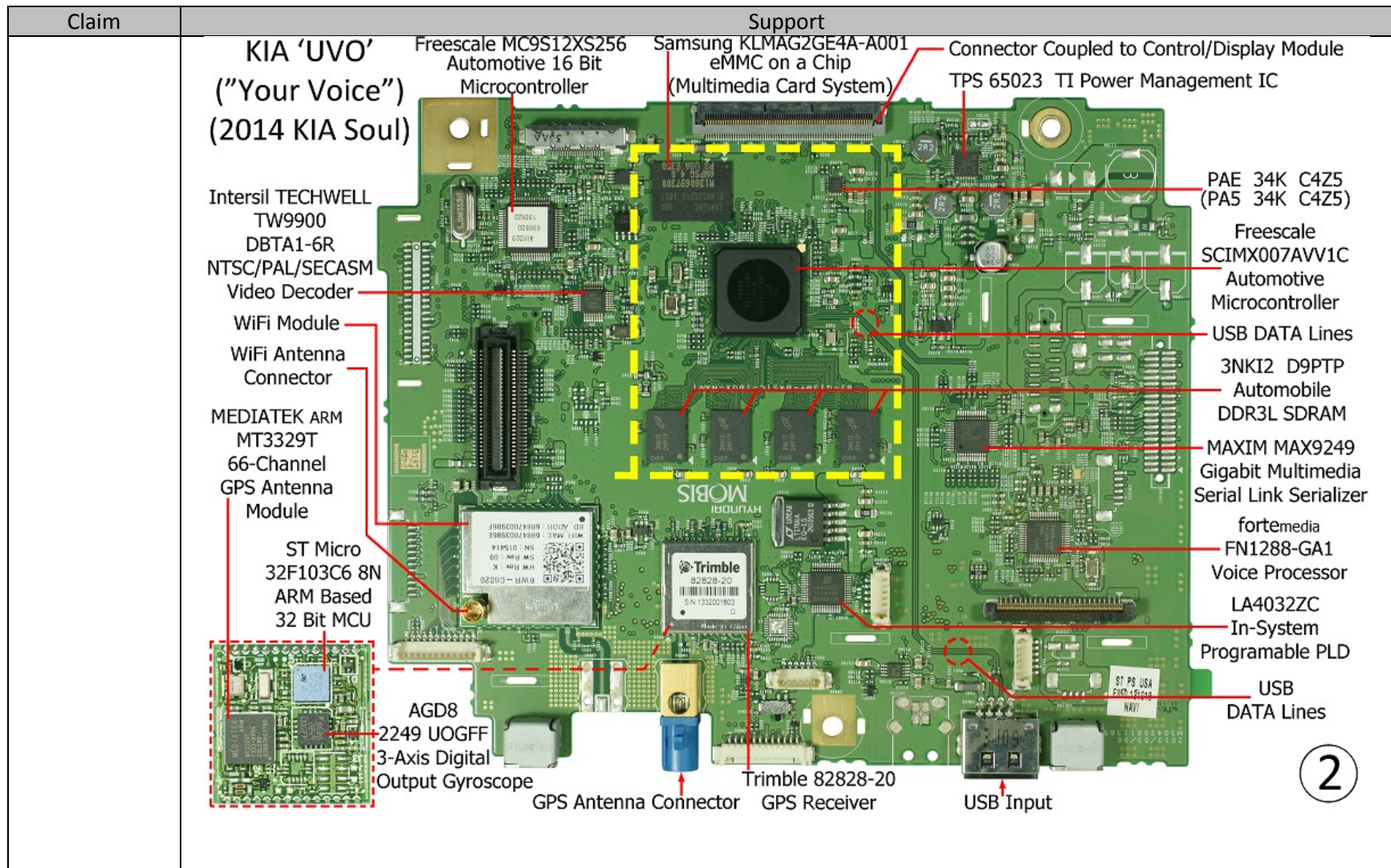
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>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; and</p>	<p>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, where the data is processed and converted using pre-programmed software from a format incompatible with the car stereo and understandable and compatible with the after-market audio device (i.e., USB and device-specific protocols understandable to the after-market audio device) into formatted data compatible with the car stereo (i.e., formatted data understandable and compatible with the car stereo and associated Kia protocols). The formatted data is then transmitted by the interface (including at least the Freescale microcontroller) to the car stereo via the first connector for display by the car stereo. At least the Freescale microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards of the device integration system) executes pre-programmed code to perform at least a portion of these functions. It is believed that this code is stored in onboard flash and/or other memory modules, and/or is contained within firmware elsewhere in the interface (such as within the Renesas microcontroller itself).</p>

Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles

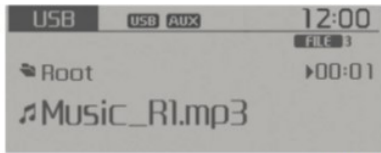
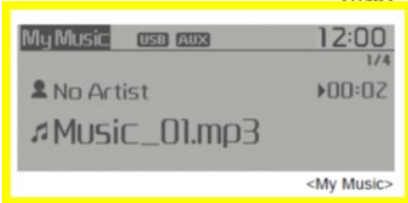


Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles





**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>BASIC METHOD OF USE :</b>  <b>USB / iPod® / My Music</b></p> <p>Press the <b>MEDIA</b> key to change the mod mode in order of USB(iPod®) → AUX → My Music → BT Audio.  The folder/file name is displayed on the screen.</p>   <p>* The USB music is automatically played when a USB is connected.</p> <p><b>Repeat</b>  While song (file) is playing▶ <b>1 RPT</b> (RPT) key  USB, iPod®, My Music mode: RPT on screen</p> <ul style="list-style-type: none"> <li>• To repeat one song (press the key) : Repeats the current song.</li> </ul> <p>USB mode: FLD.RPT on screen</p> <ul style="list-style-type: none"> <li>• To repeat folder (pressing twice): repeats all files within the current folder.</li> </ul> <p>* Press the <b>1 RPT</b> key again to turn off repeat.</p> <p><b>Random</b>  While song (file) is playing▶ <b>2 RDM</b> (RDM) key  My Music mode: RDM on screen</p> <ul style="list-style-type: none"> <li>• Random (press the key) : Plays all songs in random order.</li> </ul> <p>USB mode: FLD.RDM on screen</p> <ul style="list-style-type: none"> <li>• Folder Random (press the key) : Plays all files within the current folder in random order.</li> </ul> <p>iPod® mode: ALL RDM on screen</p> <ul style="list-style-type: none"> <li>• All Random (press the key) : Plays all files in random order.</li> </ul> <p>USB : ALL RDM on screen</p> <ul style="list-style-type: none"> <li>• All Random (pressing twice): Plays all files in random order.</li> </ul> <p>* Press the <b>2 RDM</b> key again to turn off random.</p>

Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles

Claim	Support
	<p><b>Features of your vehicle</b></p> <hr/> <div style="display: flex; justify-content: space-between;"> <div data-bbox="449 342 850 824" style="width: 30%;"> <p><b>Copy</b>            Press the <b>MENU</b> key ▶ Set [6 Copy] through the TUNE knob or 6 key.            This is used to copy the current song into My Music. You can play the copied Music in My Music mode.            * If another key is pressed while copying is in progress, a pop up asking you whether to cancel copying is displayed.            * If another media is connected or inserted (USB, iPod®, AUX) while copying is in progress, copying is canceled.            * Music will not be played while copying is in progress.</p> </div> <div data-bbox="877 342 1278 456" style="width: 30%;"> <p><b>MENU : iPod®</b>            In iPod® mode, press the <b>MENU</b> key to set the Repeat, Random, Information and Search features.</p> </div> <div data-bbox="1283 318 1730 594" style="width: 30%; border: 2px solid yellow; padding: 5px;"> <p><b>Information</b>            Press the <b>MENU</b> key ▶ Set [3 Info] through the TUNE knob or 3 key.            Displays information of the current song.            * Press the <b>MENU</b> key to turn off info display.</p> </div> </div> <div style="margin-top: 20px;"> <div data-bbox="877 496 1278 651" style="width: 30%; border: 1px solid gray; padding: 5px;"> </div> <div data-bbox="877 683 1278 829" style="width: 30%;"> <p><b>Repeat</b>            Press the <b>MENU</b> key ▶ Set [1 RPT] through the TUNE knob or 1 RPT key to repeat the current song.            * Press RPT again to turn repeat off.</p> </div> <div data-bbox="877 870 1278 1081" style="width: 30%;"> <p><b>Random</b>            Press the <b>MENU</b> key ▶ Set [2 RDM] through the TUNE knob or 2 RDM key.            Plays all songs within the currently playing category in random order.            * Press RDM again to turn off.</p> </div> <div data-bbox="1283 610 1730 837" style="width: 30%;"> <p><b>Search</b>            Press the <b>MENU</b> key ▶ Set [4 Search] through the TUNE knob or 4 key.            Displays iPod® category list.            * Searching iPod® category is <b>MENU</b> key pressed, move to parent category.</p> </div> </div> <hr style="border-top: 1px dashed gray;"/> <p>4   174</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 171, 174.</p>



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>iPod® Mode Screen and Features</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div style="width: 45%;"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div> </div> <div style="margin-top: 20px;"> <p><b>Listening to your iPod®</b></p> <ol style="list-style-type: none"> <li>1. Connect an iPod® device or press the <b>MEDIA</b> key on the control panel if an iPod® device has already been connected.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> </div> <p align="left">2-20 PART 2. AUDIO FEATURES</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Selecting iPod<sup>®</sup> music</b></p> <p><b>1. Selecting through song Up/Down</b> Press the <b>SEEK TRACK</b> keys on the control panel or the <b>▲</b> or <b>▼</b> keys on the steering wheel controller to play the desired song.</p> <p><b>Note</b> • If the <b>SEEK TRACK</b> key on the Control panel or <b>▼</b> key on the steering wheel controller is pressed and released after the song has played for more than 3 seconds, the start of the current song will begin playing. If the song has been playing for less than 3 seconds, the start of the previous song will begin playing.</p> <p><b>2. Selecting through manual search</b></p> <ol style="list-style-type: none"> <li>1. Turn the <b>TUNE</b> knob on the control panel in clockwise or counter-clockwise direction. Each click will display information about the selected song.</li> <li>2. Press the <b>TUNE</b> knob to play the selected song.</li> </ol> </div> <div style="width: 50%;"> <p><b>3. Selecting from the list</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Now Playing</b> button.</p>  <p><b>3. Press the name of the song from the list.</b> The file will automatically start playing.</p> <p><b>Note</b> • In the iPod<sup>®</sup> list screen, the <b>TUNE</b> knob can also be used to select the desired song.</p> <p><b>4. By Artists, Albums, Genres, Songs, Podcasts, Composers, Audiobooks</b></p>  <p>1. Press the <b>Menu</b> button.</p>  </div> </div> <p align="right">PART 2. AUDIO FEATURES 2-21</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p>2. Choose the category through which you wish to select. iPod® mode allows you to select by Playlists, Artists, Albums, Genres, Songs, Podcasts, Composers and Audiobooks.</p> <div data-bbox="840 235 1270 1031" style="border: 2px solid yellow; padding: 5px;"> <p><b>Viewing song information</b></p> <p>When listening to your iPod®, you can browse through song details and information.</p>  <p>1. Press the Album art icon.</p>  <p>2. The song information (Artist, Title, Album, Genre) for the current iPod® song will be displayed.</p> </div> <p>2-22 PART 2. AUDIO FEATURES</p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:20-22.</i></p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:23-25 (similar displayed information for Zune), 2:35-37 (similar displayed information for Pandora app).</i></p>
[1H] a third pre-programmed	<p>The interface of each device integration system of the accused Kia automobiles is pre-programmed to execute “a third pre-programmed code portion for switching to one or more auxiliary input sources connected to said third electrical connector.” At least the Freescale microcontroller of the interface (and potentially other microcontrollers on one or more circuit boards</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>code portion for switching to one or more auxiliary input sources connected to said third electrical connector.</p>	<p>of the device integration system) executes pre-programmed code to perform at least a portion of this function. It is believed that this code is stored in onboard flash and/or other memory modules, and/or is contained within firmware elsewhere in the interface (such as within the Freescale microcontroller itself).</p> <p><b>KIA 'UVO'</b> <b>(\"Your Voice\")</b> <b>(2014 KIA Soul)</b></p> <p>NXP SAF7741HV/125 Car Radio DSP Circus Logic CS8406-DZZ Digital Audio Interface Transmitter 70F3936A MPU &amp; MCU (V850 Family)</p> <p>NXP TEF7000HN Digital Low IF Tuner for AM/FM Car Radio</p> <p>NXP TJA1055/3/c Interface Chip</p> <p>MAX1681 Frequency Selectable Switched-Capacitor Voltage Converter</p> <p>097N04L (BSC097N04LS G) OptiMOS 3 Power-Transistor</p> <p>027N04LS (BSC027N04LS G) OptiMOS 3 Power-Transistor</p> <p>4580 Dual Op Amp 2746 Buck Converter</p> <p>AUX IN Connections</p> <p>AM/FM Antenna Connector</p> <p>Daughter Card</p> <p>625033 22M 61331</p> <p>NXP TJA1055/3/c Interface Chip</p> <p>1</p>

Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles


Claim	Support
	<p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> <p> <b>Freescale MC9S12XS256 Automotive 16 Bit Microcontroller</b>  <b>Samsung KLMAG2GE4A-A001 eMMC on a Chip (Multimedia Card System)</b>  <b>Connector Coupled to Control/Display Module</b>  <b>TPS 65023 TI Power Management IC</b> </p> <p> <b>Intersil TECHWELL TW9900 DBTA1-6R NTSC/PAL/SECASM Video Decoder</b>  <b>WiFi Module</b>  <b>WiFi Antenna Connector</b>  <b>MEDIATEK ARM MT3329T 66-Channel GPS Antenna Module</b>  <b>ST Micro 32F103C6 8N ARM Based 32 Bit MCU</b> </p> <p> <b>AGD8 2249 UOGFF 3-Axis Digital Output Gyroscope</b>  <b>GPS Antenna Connector</b>  <b>Trimble 82828-20 GPS Receiver</b>  <b>USB Input</b> </p> <p> <b>PAE 34K C4Z5 (PA5 34K C4Z5)</b>  <b>Freescale SCIMX007AVV1C Automotive Microcontroller</b>  <b>USB DATA Lines</b>  <b>3NK12 D9PTP Automobile DDR3L SDRAM</b>  <b>MAXIM MAX9249 Gigabit Multimedia Serial Link Serializer</b>  <b>fortemedia FN1288-GA1 Voice Processor</b>  <b>LA4032ZC In-System Programmable PLD</b>  <b>USB DATA Lines</b> </p> <p style="text-align: right;">②</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
	<p style="text-align: center;"><u>Features of your vehicle</u></p> <p><b>Aux, USB and iPod®* port (if equipped)</b></p>  <p>When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.</p> <p>* iPod® is a registered trademark of Apple Inc.</p> <p>If your vehicle has an aux and/or USB(universal serial bus) port or iPod® port, you can use an aux port to connect audio devices and an USB port to plug in an USB and also an iPod® port to plug in an iPod®.</p> <p style="text-align: right;">4   145</p>






**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>AUX</b></p> <p>AUX is used to play external MEDIA currently connected with the AUX terminal.</p> <p>AUX mode will automatically start when an external device is connected with the AUX terminal.</p> <p>If an external device is connected, you can also press the <b>MEDIA</b> key to change to AUX mode.</p>  <p>* AUX mode cannot be started unless there is an external device connected to the AUX terminal.</p> <p><b>AUX</b></p> <p>Fully insert the AUX cable into the AUX terminal for use.</p> <p><i>See, e.g., Ex. A (2014 Kia Soul Owner's Manual) at 4:145, 176.</i></p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p data-bbox="449 256 653 293"><b>iPod® MODE</b></p> <hr data-bbox="449 331 905 334"/> <p data-bbox="449 337 617 370"><b>About iPod®</b></p> <hr data-bbox="449 370 905 373"/> <p data-bbox="449 415 596 443"><b>1. Trademark</b></p> <p data-bbox="449 451 905 483">iPod® is a registered trademark of Apple, Inc.</p> <p data-bbox="449 524 806 557"><b>2. Connecting your iPod® Device</b></p> <p data-bbox="449 561 905 626">Connect your iPod® device as shown in the picture.</p>  <p data-bbox="449 959 905 1097">The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>AUX MODE</b></p> <hr/> <p><b>AUX Mode Screen</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is AUX mode.</p> <p><b>2 AUX Status</b> Displays the AUX connection status</p> <p><b>3 Sound</b> Enters Sound Setup.</p> </div> <div style="width: 30%;"> <p><b>Connecting an AUX media device</b></p> <hr/> <p>Connect a cable from the headphone jack on your AUX device to the jack located in your vehicle.</p>  <p><b>Note</b></p> <ul style="list-style-type: none"> <li>Connecting your AUX device with the vehicle will not provide power to your AUX device. If you plan on using your AUX device for long periods of time, make sure to charge the device using an A/C power adapter or a separate USB cable.</li> </ul> </div> <div style="width: 30%;"> <p><b>Listening to AUX media</b></p> <hr/> <p>1. Connect an AUX device or press the <b>MEDIA</b> key on the control panel if the AUX device has already been connected.</p>  <p>2. Once in AUX mode, the connected audio will automatically begin playing from the car system provided that your external device is turned on and playing audio.</p> </div> </div> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:19, 26.</i></p>
<p>2. The apparatus of claim 1, wherein the car stereo further comprises an Original Equipment</p>	<p>The device integration systems of accused Kia automobiles are manufactured for Kia by at least Hyundai Mobis Co., Ltd..</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>Manufacturer (OEM) car stereo connected to said first electrical connector.</p>	 <p>The photograph shows the back of a car stereo unit. A central white label contains the following information:         <ul style="list-style-type: none"> <li>Logos for Hyundai and KIA.</li> <li>Part numbers: (1) 96560B2080CA, (2) AVC3082AN, (3) (225)52H434H9, (4) N08C, (5) X85H.</li> <li>MODEL: 96560 - B2080CA</li> <li>PART NO.: AVC3082AN</li> <li>Technical specifications: 14V, 2Ω, 4A, and a ground symbol.</li> <li>FREQUENCY RANGE: AM 530 - 1710 KHz, FM 87.5 - 107.9 MHz.</li> <li>FCC compliance text: "This device complies with part 15 of the FCC Rules. Operation is Subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."</li> <li>Mercury warning: "Contains Mercury / Mise en garde: contient du mercure" and "Don't put in trash recycle or dispose as hazardous waste".</li> <li>Date: NOV 05. 2013</li> <li>Manufacturer: HYUNDAI MOBIS CO., LTD (highlighted with a red box).</li> <li>Part numbers: N08C80TDA01935, 8515146, and N08C.</li> <li>A barcode is located at the bottom of the label.</li> </ul> </p> <p>Other visible text on the unit includes "Non-DECK" and "MOBIS" embossed on the metal casing, and a yellow sticker with FCC ID: TQ8-AVC10B2AN and IC: 5074A-AVCA0B2KN.</p> <p>E</p>
<p>4. The apparatus of</p>	<p>Each device integration system of the accused Kia automobiles allows for the connection of at least MP3 players (iPods), iPhones, Zune devices and other smart devices.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>claim 1, 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.</p>	<p align="center"><b>USING iPod® DEVICE</b></p> <p>iPod® is a registered trademark of Apple Inc. iPhone® is a registered trademark of Apple Inc.</p> <ul style="list-style-type: none"> <li>Some iPod® models may not support communication protocol and files may not properly play.</li> </ul> <p>Supported iPod® models:</p> <ul style="list-style-type: none"> <li>- iPhone® 3GS/4</li> <li>- iPod® touch 1st~4th generation</li> <li>- iPod® nano 1st~6th generation</li> <li>- iPod® classic</li> </ul> <ul style="list-style-type: none"> <li>The order of search or playback of songs in the iPod® can be different from the order searched in the audio system.</li> <li>If the iPod® is disabled due to its own malfunction, reset the iPod®. (Reset: Refer to iPod® manual)</li> <li>An iPod® may not operate normally on low battery.</li> </ul> <p>(Continued)</p> <p align="center">(Continued)</p> <hr/> <p>4   154</p> <p><i>See, e.g., Ex. A (2014 Kia Soul User's Manual) at 4:154.</i></p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support		
	<ul style="list-style-type: none"> <li>1. Selecting a SIRIUS™ channel ..... 2-6                             <ul style="list-style-type: none"> <li>• Selecting through SEEK ..... 2-6</li> <li>• Selecting through manual search .... 2-7</li> <li>• Selecting through preset ..... 2-7</li> <li>• Selecting through channel search .... 2-7</li> <li>• Selecting through SIRIUS™ category list ... 2-8</li> </ul> </li> <li>2. Using Skip ..... 2-8</li> <li>3. Storing presets ..... 2-9</li> <li>4. Viewing SIRIUS™ channel information 2-9</li> </ul> <p><b>MEDIA MODE</b></p> <ul style="list-style-type: none"> <li>Common Features ..... 2-10                             <ul style="list-style-type: none"> <li>• Play/Pause ..... 2-10</li> <li>• REW/FF ..... 2-10</li> <li>• Jump ..... 2-11</li> <li>• Using Repeat ..... 2-11</li> <li>• Using Shuffle ..... 2-11</li> </ul> </li> </ul> <p><b>USB MODE</b></p> <ul style="list-style-type: none"> <li>Cautions upon handling USB MP3 ..... 2-12</li> <li>Precautions upon handling USB ..... 2-13</li> <li>Connecting your USB device ..... 2-14</li> <li>USB Mode Screen and Features ..... 2-14</li> <li>Listening to USB music ..... 2-15</li> <li>Selecting USB music ..... 2-15                             <ul style="list-style-type: none"> <li>1. Selecting through song Up/Down .... 2-15</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>2. Selecting through manual search .... 2-15</li> <li>3. Selecting from the list ..... 2-16</li> <li>4. by Folders, Artists, Albums, Genres Songs, Composers ..... 2-16</li> <li>Explore USB ..... 2-16</li> <li>Viewing song information ..... 2-17</li> <li>Copying songs into JUKEBOX ..... 2-17                             <ul style="list-style-type: none"> <li>1. Copying the current song ..... 2-17</li> <li>2. Copying songs from list ..... 2-18</li> </ul> </li> </ul> <p><b>iPod® MODE</b></p> <ul style="list-style-type: none"> <li>About iPod® ..... 2-19                             <ul style="list-style-type: none"> <li>1. Trademark ..... 2-19</li> <li>2. Connecting your iPod® device ..... 2-19</li> </ul> </li> <li>iPod® Mode Screen and Features ..... 2-20</li> <li>Listening to your iPod® ..... 2-20</li> <li>Selecting iPod® music ..... 2-21                             <ul style="list-style-type: none"> <li>1. Selecting through song Up/Down .... 2-21</li> <li>2. Selecting through manual search .... 2-21</li> <li>3. Selecting from the list ..... 2-21</li> <li>4. By Artists, Albums, Genres, Songs, Podcasts, Composers, Audiobooks 2-21</li> </ul> </li> <li>Viewing song information ..... 2-22</li> </ul> <p><b>zune® MODE</b></p> <ul style="list-style-type: none"> <li>About zune® ..... 2-23</li> </ul>	<ul style="list-style-type: none"> <li>1. Trademark ..... 2-23</li> <li>2. Connecting your zune® device ..... 2-23</li> <li>zune® Mode Screen and Features ..... 2-23</li> <li>Listening to your zune® ..... 2-24</li> <li>Selecting zune® music ..... 2-24                             <ul style="list-style-type: none"> <li>1. Selecting through song Up/Down .... 2-24</li> <li>2. Selecting through manual search .... 2-24</li> <li>3. Selecting from the list ..... 2-24</li> <li>4. By Songs, Genres, Albums, Artists, Playlists ..... 2-25</li> </ul> </li> <li>Viewing song information ..... 2-25</li> </ul> <p><b>AUX MODE</b></p> <ul style="list-style-type: none"> <li>AUX Mode Screen ..... 2-26</li> <li>Connecting an AUX media device ..... 2-26</li> <li>Listening to AUX media ..... 2-26</li> </ul> <p><b>BT AUDIO MODE</b></p> <ul style="list-style-type: none"> <li>BT Mode Screen and Features ..... 2-27</li> <li>Listening to music from your <i>Bluetooth®</i> wireless technology enabled device ..... 2-28</li> <li>Selecting a song ..... 2-28</li> <li>REW/FF a song ..... 2-28</li> </ul> <p><b>JUKEBOX MODE</b></p> <ul style="list-style-type: none"> <li>JUKEBOX Mode Screen and Features ... 2-29</li> <li>Listening to JUKEBOX ..... 2-30</li> </ul>
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**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
	<div data-bbox="422 253 602 285" data-label="Section-Header"> <p><b>iPod® MODE</b></p> </div> <hr/> <div data-bbox="422 321 573 350" data-label="Section-Header"> <p><b>About iPod®</b></p> </div> <div data-bbox="422 391 554 417" data-label="Section-Header"> <p><b>1. Trademark</b></p> </div> <div data-bbox="430 423 823 451" data-label="Text"> <p>iPod® is a registered trademark of Apple, Inc.</p> </div> <div data-bbox="422 485 737 514" data-label="Section-Header"> <p><b>2. Connecting your iPod® Device</b></p> </div> <div data-bbox="430 516 827 576" data-label="Text"> <p>Connect your iPod® device as shown in the picture.</p> </div> <div data-bbox="422 628 823 844" data-label="Image"> </div> <div data-bbox="430 865 827 989" data-label="Text"> <p>The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p> </div> <div data-bbox="852 253 984 289" data-label="Section-Header"> <p><b>! Caution</b></p> </div> <div data-bbox="852 297 1260 609" data-label="List-Group"> <ul style="list-style-type: none"> <li>• If a playing iPod® is connected to the audio system, a high-pitched tone may occur for approximately 1-2 seconds. Please pause/stop the iPod® device prior to connecting it to the vehicle.</li> <li>• iPod® mode will not operate if the connected iPod® cannot be recognized due to operation of unsupported versions that do not support related protocols, iPod® abnormalities, or iPod® device defects.</li> </ul> </div> <div data-bbox="852 644 911 670" data-label="Section-Header"> <p><b>Note</b></p> </div> <div data-bbox="852 677 1260 768" data-label="List-Group"> <ul style="list-style-type: none"> <li>• Supported iPod® devices: iPod Nano 2G/3G/4G/5G/6G, iPod Classic 5G/6G, iPod Touch 1G/2G/3G/4G, iPhone 3G/3GS/4/4S</li> </ul> </div> <div data-bbox="1434 1084 1694 1109" data-label="Text"> <p>PART 2. AUDIO FEATURES 2-19</p> </div> <div data-bbox="392 1131 1041 1166" data-label="Text"> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 4, 2:19.</i></p> </div>
<p>5. The apparatus of claim 1, wherein said interface further</p>	<p>Each device integration system of the accused Kia automobiles includes a plug-and-play module that automatically detects whether an iPhone/iPod or Android-powered device is attached to the USB port. For example, through Apple's MFi Program, third party-accessories, such as the device integration systems of the accused Kia automobiles, are licensed to connect electronically to Apple devices such as the iPhone and iPod. <i>See, e.g.,</i> <a href="https://mfi.apple.com/MFiWeb/getFAQ.action">https://mfi.apple.com/MFiWeb/getFAQ.action</a>. Apple provides a framework for communications between Apple devices and third-party accessories, such as the device integration systems of the accused Kia automobiles, which includes the</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>comprises a plug-and-play mode for automatically detecting a device type of the after-market audio device connected to said second electrical connector and integrating the after-market audio device based upon the device type.</p>	<p>requirement that the third-party accessory includes a chip to decode communications between the accessory and a device that has identified itself as an iPod or iPhone. <i>See, e.g.</i>, <a href="http://www.objectpartners.com/2010/09/14/communicating-with-external-devices-from-the-iphone-and-ipad/">http://www.objectpartners.com/2010/09/14/communicating-with-external-devices-from-the-iphone-and-ipad/</a>.</p> <p>Similarly, Android provides tools for connecting Android-powered devices to third-party accessories using a USB connection, including a means for providing a notification that an Android-powered device is connected to the accessory. <i>See, e.g.</i>, <a href="http://developer.android.com/guide/topics/connectivity/usb/accessory.html">http://developer.android.com/guide/topics/connectivity/usb/accessory.html</a>.</p> <p>The specific manner in which the interface implements the plug-and-play mode of this claim will be ascertainable by reviewing the source code of the interface in the accused Kia automobiles.</p> <div data-bbox="415 613 1222 1323"> <p><b>iPod® MODE</b></p> <p><b>About iPod®</b></p> <p><b>1. Trademark</b> iPod® is a registered trademark of Apple, Inc.</p> <p><b>2. Connecting your iPod® Device</b> Connect your iPod® device as shown in the picture.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• Supported iPod® devices: iPod Nano 2G/3G/4G/5G/6G, iPod Classic 5G/6G, iPod Touch 1G/2G/3G/4G, iPhone 3G/3GS/4S</li> </ul> <p><b>Caution</b></p> <ul style="list-style-type: none"> <li>• If a playing iPod® is connected to the audio system, a high-pitched tone may occur for approximately 1-2 seconds. Please pause/stop the iPod® device prior to connecting it to the vehicle.</li> <li>• iPod® mode will not operate if the connected iPod® cannot be recognized due to operation of unsupported versions that do not support related protocols, iPod® abnormalities, or iPod® device defects.</li> </ul> <p>The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p> </div>




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div data-bbox="420 267 850 300"> <p><b>iPod® Mode Screen and Features</b></p> </div>  <div data-bbox="420 576 850 690"> <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> </div> <div data-bbox="420 714 850 803"> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> </div> <div data-bbox="420 844 850 974"> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> </div> <div data-bbox="420 1015 850 1112"> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div data-bbox="420 1144 682 1177"> <p>2-20 PART 2. AUDIO FEATURES</p> </div> <p>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:19-20</p> <p>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:23 (similar disclosure for “Zune Mode”).</p> <div data-bbox="882 276 1344 1015"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>6. The apparatus of claim 1, wherein said interface generates a device presence signal for maintaining the car stereo in a state responsive to processed data and audio signals.</p>	<p>The interface of the device integration system of each accused Kia 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 USB graphic appears indicating that a compatible device is connected and recognized. Once a compatible after-market audio device is connected and recognized, the interface of the device integration system maintains the car stereo responsive to processed data and audio signals from the portable device.</p> <p>The device presence signal is generated when at least the Freescale 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, and/or within firmware elsewhere in the interface (such as within the Freescale microcontroller itself).</p> <p>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 Kia automobiles.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Copy</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>6</b> Copy] through the <b>TUNE</b> knob or <b>6</b> key.</p> <p>This is used to copy the current song into My Music. You can play the copied Music in My Music mode.</p> <ul style="list-style-type: none"> <li>* If another key is pressed while copying is in progress, a pop up asking you whether to cancel copying is displayed.</li> <li>* If another media is connected or inserted (USB, iPod®, AUX) while copying is in progress, copying is canceled.</li> <li>* Music will not be played while copying is in progress.</li> </ul> </div> <div style="width: 35%; text-align: center;"> <p><b>MENU : iPod®</b></p> <p>In iPod® mode, press the <b>MENU</b> key to set the Repeat, Random, Information and Search features.</p>  <p><b>Repeat</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>1</b>RPT] through the <b>TUNE</b> knob or <b>1 RPT</b> key to repeat the current song.</p> <ul style="list-style-type: none"> <li>* Press RPT again to turn repeat off.</li> </ul> <p><b>Random</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>2</b>RDM] through the <b>TUNE</b> knob or <b>2 RDM</b> key.</p> <p>Plays all songs within the currently playing category in random order.</p> <ul style="list-style-type: none"> <li>* Press RDM again to turn off.</li> </ul> </div> <div style="width: 30%;"> <p><b>Information</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>3</b>Info] through the <b>TUNE</b> knob or <b>3</b> key.</p> <p>Displays information of the current song.</p> <ul style="list-style-type: none"> <li>* Press the <b>MENU</b> key to turn off info display.</li> </ul> <p><b>Search</b></p> <p>Press the <b>MENU</b> key ▶ Set [<b>4</b>Search] through the <b>TUNE</b> knob or <b>4</b> key.</p> <p>Displays iPod® category list.</p> <ul style="list-style-type: none"> <li>* Searching iPod® category is <b>MENU</b> key pressed, move to parent category.</li> </ul> </div> </div> <hr style="border-top: 1px dashed black; margin-top: 20px;"/> <p>4   174</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 4:174.</p>

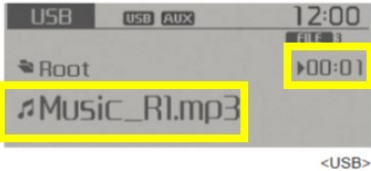
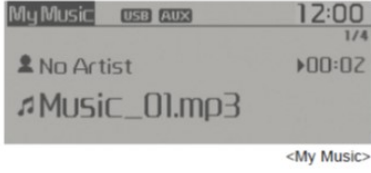
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p data-bbox="436 266 806 293"><b>iPod® Mode Screen and Features</b></p>  <p data-bbox="436 553 835 646"><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p data-bbox="436 678 835 771"><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p data-bbox="436 803 835 928"><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p data-bbox="436 961 835 1053"><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> <p data-bbox="436 1086 674 1107">2-20 PART 2. AUDIO FEATURES</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div data-bbox="420 259 871 300"> <p><b>zune® Mode Screen and Features</b></p> </div>  <div data-bbox="420 592 882 722"> <p><b>1 Mode Display</b> Displays that the current mode is zune® mode.</p> </div> <div data-bbox="420 738 882 852"> <p><b>2 Menu</b> Displays the categories and song lists for the zune®.</p> </div> <div data-bbox="420 885 882 1031"> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> </div> <div data-bbox="420 1063 882 1177"> <p><b>4 Shuffle</b> If Shuffle is operating, the songs will be played in random order and the corre-</p> </div> <div data-bbox="913 267 1270 300"> <p>sponding icon will be displayed.</p> </div> <div data-bbox="913 332 1270 414"> <p><b>5 Sound</b> Enters Sound Setup.</p> </div> <div data-bbox="913 446 1270 527"> <p><b>6 Play Time</b> Displays the play time.</p> </div> <div data-bbox="913 560 1270 641"> <p><b>7 Artist name</b> Displays the artist name.</p> </div> <div data-bbox="913 673 1270 755"> <p><b>8 Song Title</b> Displays the song title.</p> </div> <div data-bbox="913 787 1270 933"> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> </div> <div data-bbox="913 966 1270 1079"> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div> <div data-bbox="1092 1209 1375 1242"> <p>PART 2. AUDIO FEATURES 2-23</p> </div> <div data-bbox="399 1299 1060 1339"> <p>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:20, 23.</p> </div>

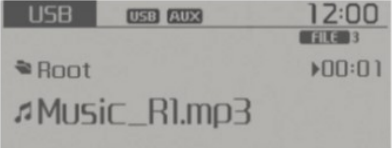
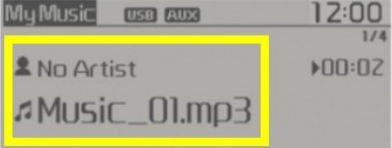
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>7. The apparatus of claim 1, wherein said second pre-programmed code portion processes data generated by the after-market audio device including track and time information.</p>	<p>Each device integration system of the accused Kia automobiles displays the track and time information of songs being played from a connected after-market audio device.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>BASIC METHOD OF USE : USB / iPod® / My Music</b></p> <p>Press the <b>MEDIA</b> key to change the mod mode in order of USB(iPod®) → AUX → My Music → BT Audio. The folder/file name is displayed on the screen.</p>   <p>⚡ The USB music is automatically played when a USB is connected.</p> </div> <div style="width: 35%;"> <p><b>Repeat</b></p> <p>While song (file) is playing ▶ <b>1 RPT</b> (RPT) key USB, iPod®, My Music mode: RPT on screen</p> <ul style="list-style-type: none"> <li>• To repeat one song (press the key) : Repeats the current song.</li> <li>• To repeat folder (pressing twice): repeats all files within the current folder.</li> </ul> <p>⚡ Press the <b>1 RPT</b> key again to turn off repeat.</p> </div> <div style="width: 30%;"> <p><b>Random</b></p> <p>While song (file) is playing ▶ <b>2 RDM</b> (RDM) key My Music mode: RDM on screen</p> <ul style="list-style-type: none"> <li>• Random (press the key) : Plays all songs in random order.</li> </ul> <p>USB mode: FLD.RDM on screen</p> <ul style="list-style-type: none"> <li>• Folder Random (press the key) : Plays all files within the current folder in random order.</li> </ul> <p>iPod® mode: ALL RDM on screen</p> <ul style="list-style-type: none"> <li>• All Random (press the key) : Plays all files in random order.</li> <li>• All Random (pressing twice): Plays all files in random order.</li> </ul> <p>⚡ Press the <b>2 RDM</b> key again to turn off random.</p> </div> </div> <p align="right">4   171</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner's Manual) at 4:171.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


Claim	Support
	<div data-bbox="436 280 871 316" style="border: 1px solid black; padding: 2px;"> <p><b>iPod® Mode Screen and Features</b></p> </div> <div data-bbox="430 342 888 587" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>The screenshot shows the iPod Mode screen with the following elements labeled: 1 (Mode Display), 2 (Menu), 3 (Repeat), 4 (Shuffle), 5 (Sound), 6 (Play Time), 7 (Artist name), 8 (Song Title), 9 (Album Art Icon), and 10 (Current/Total Track Number). The screen displays 'iPod', '12:30', '10 1/100', 'William Hs', 'Don't Say You Love M', and '00:03'.</p> </div> <div data-bbox="430 617 888 1193"> <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div data-bbox="430 1230 1018 1377"> <p>2-20 PART 2. AUDIO FEATURES See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:20.  See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:23 (similar disclosure for Zune), 2:36 (similar disclosure for Pandora).</p> </div> <div data-bbox="924 280 1386 1084"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>8. The apparatus of claim 1, wherein said second pre-programmed code portion processes data generated by the after-market audio device including song title and artist information.</p>	<p>Each device integration system of the accused Kia automobiles displays the song title and artist information of songs being played from a connected after-market audio device.</p> <p><b>BASIC METHOD OF USE :</b></p> <p><b>USB / iPod® / My Music</b></p> <p>Press the <b>MEDIA</b> key to change the mod mode in order of USB(iPod®) → AUX → My Music → BT Audio. The folder/file name is displayed on the screen.</p>   <p>⌘ The USB music is automatically played when a USB is connected.</p> <p align="right">4   171</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 4:171.</p>



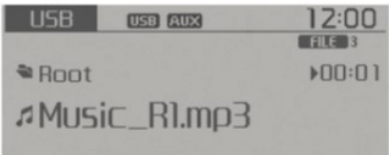
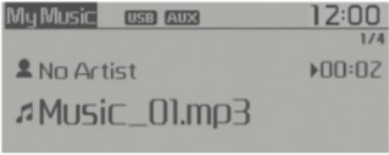
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div data-bbox="420 276 840 308"> <p><b>iPod® Mode Screen and Features</b></p> </div>  <div data-bbox="420 568 840 1104"> <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div data-bbox="861 276 1302 1006"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div> <p>2-20 PART 2. AUDIO FEATURES</p> <p>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:20</p> <p>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:23 (similar disclosure for Zune), 2:36 (similar disclosure for Pandora).</p>
<p>10. The</p>	<p>The device integration system of each accused Kia automobile displays video information, such as cover art, generated by a</p>






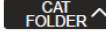




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>apparatus of claim 1, wherein said interface processes video information generated by the after-market audio device.</p>	<p>connected after-market audio device.</p> <div data-bbox="430 349 850 381" style="border: 1px solid black; padding: 5px;"> <p><b>iPod® Mode Screen and Features</b></p> </div>  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div style="width: 45%;"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <div data-bbox="877 808 1354 987" style="border: 2px solid yellow; padding: 5px;"> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> </div> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div> </div> <p>2-20 PART 2. AUDIO FEATURES</p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:20</i></p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:23 (similar disclosure for Zune), 2:36 (similar disclosure for Pandora).</i></p>

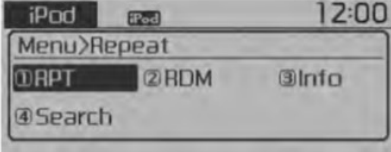
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>13. The apparatus of claim 1, wherein commands are input by a user using one or more control buttons or presets on the car stereo.</p>	<p>Each device integration system of the accused Kia 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.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>BASIC METHOD OF USE :</b> <b>USB / iPod® / My Music</b></p> <p>Press the <b>MEDIA</b> key to change the mod mode in order of USB(iPod®) → AUX → My Music → BT Audio. The folder/file name is displayed on the screen.</p>  <p align="center">&lt;USB&gt;</p>  <p align="center">&lt;My Music&gt;</p> <p>* The USB music is automatically played when a USB is connected.</p> </div> <div style="width: 35%;"> <p><b>Repeat</b> While song (file) is playing▶ <b>1 RPT</b> (RPT) key</p> <p>USB, iPod®, My Music mode: RPT on screen</p> <ul style="list-style-type: none"> <li>• To repeat one song (press the key) : Repeats the current song.</li> </ul> <p>USB mode: FLD.RPT on screen</p> <ul style="list-style-type: none"> <li>• To repeat folder (pressing twice): repeats all files within the current folder.</li> </ul> <p>* Press the <b>1 RPT</b> key again to turn off repeat.</p> </div> <div style="width: 30%;"> <p><b>Random</b> While song (file) is playing▶ <b>2 RDM</b> (RDM) key</p> <p>My Music mode: RDM on screen</p> <ul style="list-style-type: none"> <li>• Random (press the key) : Plays all songs in random order.</li> </ul> <p>USB mode: FLD.RDM on screen</p> <ul style="list-style-type: none"> <li>• Folder Random (press the key) : Plays all files within the current folder in random order.</li> </ul> <p>iPod® mode: ALL RDM on screen</p> <ul style="list-style-type: none"> <li>• All Random (press the key) : Plays all files in random order.</li> </ul> <p>USB : ALL RDM on screen</p> <ul style="list-style-type: none"> <li>• All Random (pressing twice): Plays all files in random order.</li> </ul> <p>* Press the <b>2 RDM</b> key again to turn off random.</p> </div> </div> <p align="right">4   171</p>



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Changing Song/File</b></p> <p>While song (file) is playing▶   key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Plays the current song from the beginning.</li> <li>* If the  key is pressed again within 2 second, the previous song is played.</li> <li>• Pressing and holding the key (over 0.8 seconds): Rewinds the song.</li> </ul> <p>While song (file) is playing▶   key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Plays the next song.</li> <li>• Pressing and holding the key (over 0.8 seconds) : Fast forwards the song.</li> </ul> </div> <div style="width: 30%;"> <p><b>Scan</b></p> <p>While song (file) is playing▶  key</p> <ul style="list-style-type: none"> <li>• Shortly pressing the key : Scans all songs from the next song for 10 seconds each.</li> <li>* Press the  key again to turn off.</li> <li>* The SCAN function is not supported in iPod® mode.</li> </ul> </div> <div style="width: 30%;"> <p><b>Folder Search : USB Mode</b></p> <p>While file is playing▶  (Folder Up) key</p> <ul style="list-style-type: none"> <li>• Searches the next folder.</li> </ul> <p>While file is playing▶  (Folder Down) key</p> <ul style="list-style-type: none"> <li>• Searches the parent folder.</li> <li>* If a folder is selected by pressing the  TUNE knob, the first file within the selected folder will be played.</li> <li>* In iPod® mode, moves to the Parent Folder.</li> </ul> <p><b>Searching Songs (File)</b></p> <ul style="list-style-type: none"> <li>• Turning  TUNE knob : Searches for songs (files)</li> <li>• Pressing  TUNE knob : Plays selected song (file).</li> </ul> </div> </div> <hr style="border-top: 1px dashed black; margin-top: 20px;"/> <p data-bbox="420 1063 493 1096">4   172</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="border: 2px solid yellow; padding: 10px;"> <p><b>Copy</b>            Press the <b>MENU</b> key ▶ Set [6 Copy] through the <b>TUNE</b> knob or <b>6</b> key.            This is used to copy the current song into My Music. You can play the copied Music in My Music mode.            * If another key is pressed while copying is in progress, a pop up asking you whether to cancel copying is displayed.            * If another media is connected or inserted (USB, iPod®, AUX) while copying is in progress, copying is canceled.            * Music will not be played while copying is in progress.</p> <p><b>MENU : iPod®</b>            In iPod® mode, press the <b>MENU</b> key to set the Repeat, Random, Information and Search features.</p>  <p><b>Repeat</b>            Press the <b>MENU</b> key ▶ Set [1 RPT] through the <b>TUNE</b> knob or <b>1 RPT</b> key to repeat the current song.            * Press RPT again to turn repeat off.</p> <p><b>Random</b>            Press the <b>MENU</b> key ▶ Set [2 RDM] through the <b>TUNE</b> knob or <b>2 RDM</b> key.            Plays all songs within the currently playing category in random order.            * Press RDM again to turn off.</p> <p><b>Information</b>            Press the <b>MENU</b> key ▶ Set [3 Info] through the <b>TUNE</b> knob or <b>3</b> key.            Displays information of the current song.            * Press the <b>MENU</b> key to turn off info display.</p> <p><b>Search</b>            Press the <b>MENU</b> key ▶ Set [4 Search] through the <b>TUNE</b> knob or <b>4</b> key.            Displays iPod® category list.            * Searching iPod® category is <b>MENU</b> key pressed, move to parent category.</p> </div> <p>4   174            See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 171-72, 174.</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>Controls and Features</b></p> <p><b>Control Panel</b></p>  <p>※ No  logo will be shown if the exterior Amplifier feature is not supported.</p> <p>1-2 PART 1. GETTING STARTED</p> <p><b>1 FM/AM</b> Turns on FM/AM mode. Each press of the <b>FM/AM</b> key will change the band in the order of FM → AM → FM.</p> <p><b>2 SAT</b> Turns on SIRIUS™ mode.</p> <p><b>3 MEDIA</b> Turns on MEDIA mode. Each press of the <b>MEDIA</b> key will change the mode in the order of USB/iPod®/zune® → JUKEBOX → AUX → BT Audio → PANDORA → USB/iPod®/zune®.</p> <p><b>4 POWER/VOLUME</b> Push : Turns Power On/Off. Dial : Turns Volume Up/Down.</p> <p><b>5 ∇ SEEK/TRACK ▲</b> <b>Short (under 0.8 seconds)</b> In FM/AM mode, automatically searches and plays the previous or next frequency. In SIRIUS™ mode, automatically searches and plays the previous or next channel.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p>In MEDIA mode (USB, iPod*, zune*, BT AUDIO), plays the previous or next track, song, or file.            In PANDORA Radio, PANDORA Radio skip (Seek up).            In JUKEBOX mode, plays the previous or next track.</p> <p><i>Long (over 0.8 seconds)</i>            In FM/AM mode, quickly moves through the frequencies when the button is pressed and held. Once released, automatically searches and plays the previous or next frequency.            In SIRIUS™ mode, quickly moves to the previous or next channel.</p> <p>In MEDIA mode (USB, iPod*, zune*, BT AUDIO), REW/FF the current track, song, or file.            In JUKEBOX mode, REW/FF the current track.</p> <p><b>6 CLOCK</b>            Displays the clock setting screen.</p> <p><b>7 V CATEGORY ^</b>            In SIRIUS™ mode, moves to the previous or next SIRIUS™ category.</p> <p><b>8 TUNE</b>            In FM/AM mode, turn the knob to manually search for frequencies.            In SIRIUS™ mode, turn the knob to manually search for channels. Press the knob to receive the selected channel.</p> <p>In MEDIA mode (USB, iPod*, zune*), turn the knob to manually search for the previous or next track, song, or file. Press the knob to receive the selected track, song, or file.            In PANDORA Radio, searches PANDORA Radio stations.            In JUKEBOX mode, turn the knob to manually search for the previous or next track. Press the knob to receive the selected track.</p> <p><b>9 eServices</b>            Displays UVO eServices mode.</p> <p><b>10 PHONE</b>            Displays Bluetooth® wireless technology Phone mode.</p> <p><b>11 SETUP</b>            Displays SETUP mode.</p> <p><b>12 RESET</b>            Reset the system to be used if system is acting abnormally.</p> <p align="right">PART 1. GETTING STARTED 1-3</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>Steering Wheel</b></p>  <p>1-4 PART 1. GETTING STARTED</p> <p><b>1</b> ▾ SEEK/TRACK ▴</p> <p><i>Short (under 0.8 seconds)</i></p> <p>In FM/AM mode, automatically searches and plays the previous or next preset frequency.</p> <p>In SIRIUS™ mode, automatically searches and plays the previous or next preset channel.</p> <p>In MEDIA mode (USB, iPod®, zune®, BT AUDIO), plays the previous or next track, song, or file.</p> <p>In PANDORA Radio, PANDORA Radio skip (Seek up).</p> <p>In JUKEBOX mode, plays the previous or next track.</p> <p><i>Long (over 0.8 seconds)</i></p> <p>In FM/AM mode, quickly moves through the frequencies when the button is pressed and held. Once released, automatically searches and plays the previous or next frequency.</p> <p>In SIRIUS™ mode, quickly moves to the previous or next channel.</p> <p>In MEDIA mode (USB, iPod®, zune®, BT</p>





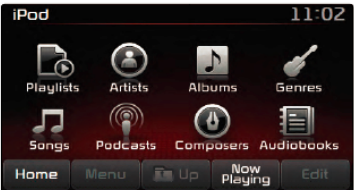
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p>AUDIO), REW/FF the current track, song, or file. In JUKEBOX mode, REW/FF the current track.</p> <p><b>2 + VOLUME -</b> Turns Volume Up/Down.</p> <p><b>3 MODE</b> <i>Short (under 0.8 seconds)</i> Changes the mode. Each press will change modes in the order of FM → AM → SIRIUS™ → USB/iPod®/zune® → JUKEBOX → AUX → BT Audio → PANDORA → FM.</p> <p><i>Long (over 0.8 seconds)</i> While the system is off, turn the system on. While the system is on, turn off the system.</p> <p><b>4 Voice Command</b> <i>Short (under 0.8 seconds)</i> If Voice recognition is off, turns on Voice recognition. If system is speaking, interrupts speaking and enters listening mode.</p> <p><i>Long (over 0.8 seconds)</i> If Voice recognition is on, turns off Voice recognition.</p> <p><b>5 SEND (Bluetooth® wireless technology Phone)</b> Pressing this key will receive an incoming call. If the Audio is on, the Bluetooth® wireless technology phone screen will be displayed. When a SMS message is received, reads back message.</p> <p><b>6 END (Bluetooth® wireless technology Phone)</b> Pressing this key will reject an incoming call. If pressed during a call, the current call will be ended. When a SMS message is received, ignores message.</p> <p align="right">PART 1. GETTING STARTED 1-5</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

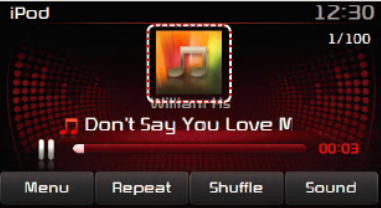


Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>iPod® Mode Screen and Features</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is iPod® mode.</p> <p><b>2 Menu</b> Displays the categories and song lists for the iPod®.</p> <p><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</p> <p><b>4 Shuffle</b> If Shuffle is operating, the song will be played in random order and the corresponding icon</p> </div> <div style="width: 45%;"> <p>will be displayed.</p> <p><b>5 Sound</b> Enters Sound Setup.</p> <p><b>6 Play Time</b> Displays the play time.</p> <p><b>7 Artist name</b> Displays the artist name.</p> <p><b>8 Song Title</b> Displays the song title.</p> <p><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</p> <p><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</p> </div> </div> <div style="margin-top: 20px;"> <p><b>Listening to your iPod®</b></p> <ol style="list-style-type: none"> <li>1. Connect an iPod® device or press the <b>MEDIA</b> key on the control panel if an iPod® device has already been connected.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> </div> <p style="font-size: small; margin-top: 20px;">2-20 PART 2. AUDIO FEATURES</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>Selecting iPod® music</b></p> <p><b>1. Selecting through song Up/Down</b>            Press the <b>SEEK TRACK</b>  or <b>SEEK TRACK</b>  keys on the control panel or the  or  keys on the steering wheel controller to play the desired song.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the <b>SEEK TRACK</b>  key on the Control panel or  key on the steering wheel controller is pressed and released after the song has played for more than 3 seconds, the start of the current song will begin playing. If the song has been playing for less than 3 seconds, the start of the previous song will begin playing.</li> </ul> <p><b>2. Selecting through manual search</b></p> <ol style="list-style-type: none"> <li>1. Turn the <b>TUNE</b> knob on the control panel in clockwise or counter-clockwise direction. Each click will display information about the selected song.</li> <li>2. Press the <b>TUNE</b> knob to play the selected song.</li> </ol> <p><b>3. Selecting from the list</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Now Playing</b> button.</p>  <p>3. Press the name of the song from the list.            The file will automatically start playing.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• In the iPod® list screen, the <b>TUNE</b> knob can also be used to select the desired song.</li> </ul> <p><b>4. By Artists, Albums, Genres, Songs, Podcasts, Composers, Audiobooks</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>1. Press the <b>Menu</b> button.</p>

PART 2. AUDIO FEATURES 2-21



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p data-bbox="453 261 831 407">2. Choose the category through which you wish to select. iPod® mode allows you to select by Playlists, Artists, Albums, Genres, Songs, Podcasts, Composers and Audiobooks.</p> <p data-bbox="863 253 1150 282"><b>Viewing song information</b></p> <p data-bbox="863 321 1241 378">When listening to your iPod®, you can browse through song details and information.</p>  <p data-bbox="873 626 1100 651">1. Press the Album art icon.</p>  <p data-bbox="873 902 1241 987">2. The song information (Artist, Title, Album, Genre) for the current iPod® song will be displayed.</p> <p data-bbox="1293 261 1661 318">3. Press the  button to return to the previous screen.</p> <p data-bbox="1272 350 1329 375"><b>Note</b></p> <ul data-bbox="1272 383 1661 805" style="list-style-type: none"> <li>• Songs in the iPod® can be properly played in UVO system only when they have been downloaded through iTunes®.</li> <li>• If you receive a call or SMS while playing music from an iPhone®, the music may not properly be restored after the call or SMS. In this case, disconnect and reconnect the iPhone®.</li> <li>• After upgrading the iPod® or iPhone® firmware, reboot the iPod® or iPhone® and connect with the UVO system for normal operation.</li> <li>• Songs cannot be copied from iPod® or iPhone® to JUKEBOX.</li> </ul> <p data-bbox="443 1049 667 1073">2-22 PART 2. AUDIO FEATURES</p>





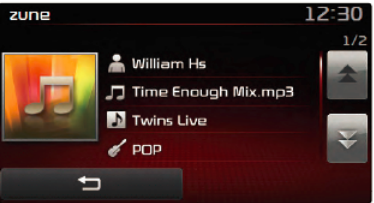

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div data-bbox="428 261 617 293" data-label="Section-Header"> <p><b>zune® MODE</b></p> </div> <div data-bbox="428 334 583 363" data-label="Section-Header"> <p><b>About zune®</b></p> </div> <div data-bbox="428 407 562 431" data-label="Section-Header"> <p><b>1. Trademark</b></p> </div> <div data-bbox="428 440 848 532" data-label="Text"> <p>zune® is a registered trademark of Microsoft Corporation in the United States and or other countries.</p> </div> <div data-bbox="428 573 756 600" data-label="Section-Header"> <p><b>2. Connecting your zune® Device</b></p> </div> <div data-bbox="428 607 848 667" data-label="Text"> <p>Connect your zune® device as shown in the picture.</p> </div> <div data-bbox="428 690 844 914" data-label="Image"> </div> <div data-bbox="884 269 1276 298" data-label="Section-Header"> <p><b>zune® Mode Screen and Features</b></p> </div> <div data-bbox="877 328 1297 553" data-label="Image"> </div> <div data-bbox="877 573 1297 1096" data-label="List-Group"> <ul style="list-style-type: none"> <li><b>1 Mode Display</b> Displays that the current mode is zune® mode.</li> <li><b>2 Menu</b> Displays the categories and song lists for the zune®.</li> <li><b>3 Repeat</b> If Repeat is operating, the current song will be repeated and the corresponding icon will be displayed.</li> <li><b>4 Shuffle</b> If Shuffle is operating, the songs will be played in random order and the corre-</li> </ul> </div> <div data-bbox="1325 277 1751 995" data-label="List-Group"> <ul style="list-style-type: none"> <li>sponding icon will be displayed.</li> <li><b>5 Sound</b> Enters Sound Setup.</li> <li><b>6 Play Time</b> Displays the play time.</li> <li><b>7 Artist name</b> Displays the artist name.</li> <li><b>8 Song Title</b> Displays the song title.</li> <li><b>9 Album Art Icon</b> When pressed, displays information about the current song (artist, title, album and other information).</li> <li><b>10 Current/Total Track Number</b> Displays the current track number and total number of tracks on the current playing list.</li> </ul> </div> <div data-bbox="1493 1133 1751 1154" data-label="Page-Footer"> <p>PART 2. AUDIO FEATURES 2-23</p> </div>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Listening to your zune®</b></p> <ol style="list-style-type: none"> <li>1. Connect zune® device or press the <b>MEDIA</b> key on the control panel if zune® device has already been connected.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• When connecting some external media formats, the system requires time for media indexing. In the case of zune® files, the system will take 60ms/song.</li> <li>• Songs cannot be copied from zune® to JUKEBOX.</li> </ul> </div> <div style="width: 30%;"> <p><b>Selecting zune® music</b></p> <ol style="list-style-type: none"> <li>1. <b>Selecting through song up/down</b> Press the <b>SEEK TRACK ^</b> or <b>SEEK TRACK v</b> keys on the control panel or the <b>▲</b> or <b>▼</b> keys on the steering wheel controller to play the desired song.</li> </ol> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• If the <b>SEEK TRACK v</b> key on the Control panel or <b>▼</b> key on the steering wheel controller is pressed and released after the song has played for more than 3 seconds, the start of the current song will begin playing. If the song has been playing for less than 3 seconds, the start of the previous song will begin playing.</li> </ul> <ol style="list-style-type: none"> <li>2. <b>Selecting through manual search</b> <ol style="list-style-type: none"> <li>1. Turn the <b>TUNE</b> knob on the control panel in clockwise or counter-clockwise direction. Each click will display information about the selected song.</li> <li>2. Press the <b>TUNE</b> knob to play the selected song.</li> </ol> </li> </ol> </div> <div style="width: 30%;"> <p>3. <b>Selecting from the list</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Now Playing</b> button.</p>  </div> </div> <p align="left">2-24 PART 2. AUDIO FEATURES</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

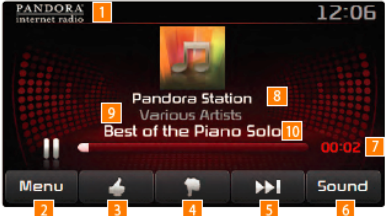
Claim	Support
	<p>3. Press the name of the song from the list. The song will automatically start playing.</p> <p>4. By Songs, Genres, Albums, Artists, Playlists</p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Choose the category through which you wish to select. zune® mode allows you to select by Songs, Genres, Albums, Artists, and Playlists.</p> <p>3. Press the  button to return to the previous screen.</p> <p><b>Viewing song information</b></p> <p>When listening to your zune®, you can browse through song details and information.</p> <p>1. Press the Album art icon.</p>  <p>2. The song information (Artist, Title, Album, Genre) for the current MP3 song will be displayed.</p>  <p>3. Press the  button to return to the previous screen.</p> <p style="text-align: right;">PART 2. AUDIO FEATURES 2-25</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**


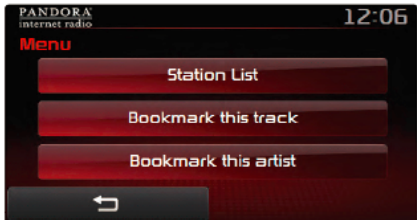


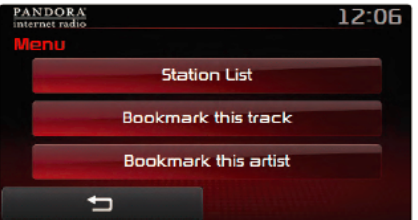
Claim	Support
	<p><b>PANDORA MODE</b></p> <hr/> <p><b>About PANDORA</b></p> <p><b>1. Trademark</b> iPod® is a registered trademark of Apple, Inc.</p> <p><b>2. Before Starting PANDORA</b></p> <p>1. Connect your iPod or iPhone device as shown in the picture.</p> <div data-bbox="413 634 821 850" data-label="Image"> </div> <p>The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p> <p>2. Start the PANDORA Radio application.</p> <div data-bbox="898 315 1230 529" data-label="Image"> </div> <p>3. Log into PANDORA Radio. (This step can be omitted if you are already logged in.)</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>Supported iPod® devices: iPod Touch 2G/3G/4G, iPhone 3G/3GS/4/4S</li> <li>PANDORA Radio is supported only in iOS devices.</li> </ul>



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>PANDORA Mode Screen and Features</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is PANDORA mode.</p> <p><b>2 Menu</b> Displays the PANDORA Station lists and Bookmark options.</p> <p><b>3 Thumbs Up</b> Approves the song and keep it in your playlist.</p> <p><b>4 Thumbs Down</b> Disapproves the song and prevents that song from playing again.</p> </div> <div style="width: 45%;"> <p><b>5 Skip</b> Moves to the next track.</p> <p><b>6 Sound</b> Enters Sound Setup.</p> <p><b>7 Play Time</b> Displays the play time.</p> <p><b>8 Station Name</b> Displays the station name.</p> <p><b>9 Artist name</b> Displays the artist name.</p> <p><b>10 Song Title</b> Displays the song title.</p> </div> </div> <div style="margin-top: 20px;"> <p><b>Listening to your PANDORA</b></p> <ol style="list-style-type: none"> <li>1. Press the <b>MEDIA</b> key on the control panel if an iPod device has already been connected and the PANDORA application is activated.</li> <li>2. When a song is playing and you wish to pause, press the <b>II</b> button next to the progress bar. Press the <b>▶</b> button to restart the song.</li> </ol> </div> <p style="margin-top: 20px;">2-36 PART 2. AUDIO FEATURES</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>Selecting PANDORA station</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Station List</b> button.</p> </div> <div style="width: 35%; text-align: center;"> <p><b>Station List</b></p>  <p>3. Press the name of the station from the list. The station will automatically start playing.</p> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• In the station list screen, the <b>TUNE</b> knob can also be used to find the desired station.</li> <li>• Upon selecting "Shuffle" from the Station list screen, stations are selected randomly and played.</li> </ul> </div> <div style="width: 30%;"> <p><b>Bookmark Track or Artist</b></p>  <p>1. Press the <b>Menu</b> button.</p>  <p>2. Press the <b>Bookmark this track</b> or <b>Bookmark this artist</b> button.</p> <p>3. The current track or artist is bookmarked on the currently connected device.</p> </div> </div> <p align="right">PART 2. AUDIO FEATURES 2-37</p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 1:2-5, 20-25, 35-37.</i></p>
<p>14. The apparatus of claim 1,</p>	<p>Each device integration system of the accused Kia automobiles also allows for various input sources to be connected to an auxiliary input electrical connector and played through the car speakers.</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>wherein audio signals from the one or more auxiliary input sources are selectively channeled to the car stereo by said interface.</p>	 <p>2014 Kia Soul + Wagon Power Outlets (eVox Productions) 101 of 149</p> <p><a href="http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior">http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior</a>, interior photo 101 of 149 (captured 11/6/2015)</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p style="text-align: center;"><u>Features of your vehicle</u></p> <p><b>Aux, USB and iPod®* port (if equipped)</b></p>  <p>OPS043194</p> <p>If your vehicle has an aux and/or USB(universal serial bus) port or iPod® port, you can use an aux port to connect audio devices and an USB port to plug in an USB and also an iPod® port to plug in an iPod®.</p> <p>When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.</p> <p>* iPod® is a registered trademark of Apple Inc.</p> <p style="text-align: right;">4   145</p>




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>AUX</b></p> <p>AUX is used to play external MEDIA currently connected with the AUX terminal.</p> <p>AUX mode will automatically start when an external device is connected with the AUX terminal.</p> <p>If an external device is connected, you can also press the <b>MEDIA</b> key to change to AUX mode.</p>  <p>* AUX mode cannot be started unless there is an external device connected to the AUX terminal.</p> <p><b>AUX</b></p> <p>Fully insert the AUX cable into the AUX terminal for use.</p> <p><i>See, e.g., Ex. A (2014 Kia Soul Owner's Manual) at 4:145, 176.</i></p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p data-bbox="449 256 653 293"><b>iPod® MODE</b></p> <hr/> <p data-bbox="449 337 617 370"><b>About iPod®</b></p> <hr/> <p data-bbox="449 415 596 443"><b>1. Trademark</b></p> <p data-bbox="449 451 903 483">iPod® is a registered trademark of Apple, Inc.</p> <p data-bbox="449 524 806 557"><b>2. Connecting your iPod® Device</b></p> <p data-bbox="449 561 907 626">Connect your iPod® device as shown in the picture.</p> <div data-bbox="449 683 905 930"></div> <p data-bbox="449 959 907 1097">The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

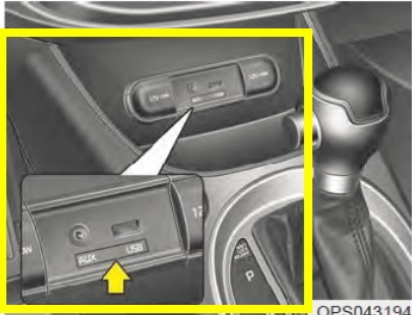
Claim	Support
	<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><b>AUX MODE</b></p> <hr/> <p><b>AUX Mode Screen</b></p>  <p><b>1 Mode Display</b> Displays that the current mode is AUX mode.</p> <p><b>2 AUX Status</b> Displays the AUX connection status</p> <p><b>3 Sound</b> Enters Sound Setup.</p> </div> <div style="width: 30%;"> <p><b>Connecting an AUX media device</b></p> <hr/> <p>Connect a cable from the headphone jack on your AUX device to the jack located in your vehicle.</p>  <p><b>Note</b></p> <ul style="list-style-type: none"> <li>Connecting your AUX device with the vehicle will not provide power to your AUX device. If you plan on using your AUX device for long periods of time, make sure to charge the device using an A/C power adapter or a separate USB cable.</li> </ul> </div> <div style="width: 30%;"> <p><b>Listening to AUX media</b></p> <hr/> <p>1. Connect an AUX device or press the <b>MEDIA</b> key on the control panel if the AUX device has already been connected.</p>  <p>2. Once in AUX mode, the connected audio will automatically begin playing from the car system provided that your external device is turned on and playing audio.</p> </div> </div> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:19, 26.</i></p>
<p>23. The apparatus of claim 1, further comprising a bus connection established between the after-market</p>	<p>Each device integration system of the accused Kia 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 car stereo, such as a MP3 player or iPhone. The USB connector communicates using the Universal Serial Bus protocol.</p>

Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles


Claim	Support
<p>audio device and said interface.</p> <p>24. The apparatus of claim 23, wherein the bus connection comprises a Universal Serial Bus (USB) connection.</p>	<p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> <p>Labels on the PCB include:</p> <ul style="list-style-type: none"> <li>Freescale MC9S12XS256 Automotive 16 Bit Microcontroller</li> <li>Samsung KLMAG2GE4A-A001 eMMC on a Chip (Multimedia Card System)</li> <li>Connector Coupled to Control/Display Module</li> <li>TPS 65023 TI Power Management IC</li> <li>PAE 34K C4Z5 (PA5 34K C4Z5)</li> <li>Freescale SCIMX007AVV1C Automotive Microcontroller</li> <li>USB DATA Lines</li> <li>3NKI2 D9PTP Automobile DDR3L SDRAM</li> <li>MAXIM MAX9249 Gigabit Multimedia Serial Link Serializer</li> <li>fortemedia FN1288-GA1 Voice Processor</li> <li>LA4032ZC In-System Programable PLD</li> <li>USB DATA Lines</li> <li>Intersil TECHWELL TW9900 DBTA1-6R NTSC/PAL/SECAM Video Decoder</li> <li>WiFi Module</li> <li>WiFi Antenna Connector</li> <li>MEDIATEK ARM MT3329T 66-Channel GPS Antenna Module</li> <li>ST Micro 32F103C6 8N ARM Based 32 Bit MCU</li> <li>AGD8 2249 UOGFF 3-Axis Digital Output Gyroscope</li> <li>Trimble 82828-20 GPS Receiver</li> <li>Trimble</li> <li>ST PS USA</li> </ul> <p>A yellow box highlights the <b>USB Input</b> area.</p> <p>Callout <b>2</b> is located in the bottom right corner.</p>




**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p data-bbox="407 256 751 318"><b>Aux, USB and iPod®* port (if equipped)</b></p>  <p data-bbox="716 636 816 651">OPS043194</p> <p data-bbox="407 667 821 824">If your vehicle has an aux and/or USB(universal serial bus) port or iPod® port, you can use an aux port to connect audio devices and an USB port to plug in an USB and also an iPod® port to plug in an iPod®.</p> <p data-bbox="848 261 1262 391">When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.</p> <p data-bbox="848 415 1253 436">* iPod® is a registered trademark of Apple Inc.</p> <hr data-bbox="407 1089 1310 1092"/> <p data-bbox="1230 1097 1310 1122">4   145</p> <p data-bbox="407 1130 1073 1159">See, e.g., Ex. A (2014 Kia Soul Owner's Manual) at 4:145.</p>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	<p><b>iPod® MODE</b></p> <hr/> <p><b>About iPod®</b></p> <hr/> <p><b>1. Trademark</b> iPod® is a registered trademark of Apple, Inc.</p> <p><b>2. Connecting your iPod® Device</b> Connect your iPod® device as shown in the picture.</p>  <p>The identification of the iPod® device, battery recharge, and other functions provided by the iPod® device is normally supported by using your iPod® connector cable.</p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:19.</i></p> <p><i>See, e.g., Ex. B (2015 Kia Soul UVO Manual) at 2:23.</i></p>
44. An apparatus for docking a	<i>See preamble [1P] support.</i>


**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
portable device for integration with a car stereo comprising:	
a storage area remote from a car stereo for storing the portable device;	<p>The accused Kia automobiles include “storage areas remote from the car stereo for storing the portable device,” including glove boxes, center consoles and dash receptacles.</p> <div data-bbox="415 540 720 597"> <p><b>Aux, USB and iPod®* port (if equipped)</b></p> </div>  <p>When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.</p> <p>* iPod® is a registered trademark of Apple Inc.</p> <p>If your vehicle has an aux and/or USB(universal serial bus) port or iPod® port, you can use an aux port to connect audio devices and an USB port to plug in an USB and also an iPod® port to plug in an iPod®.</p> <p align="right">4   145</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 4:145.</p>

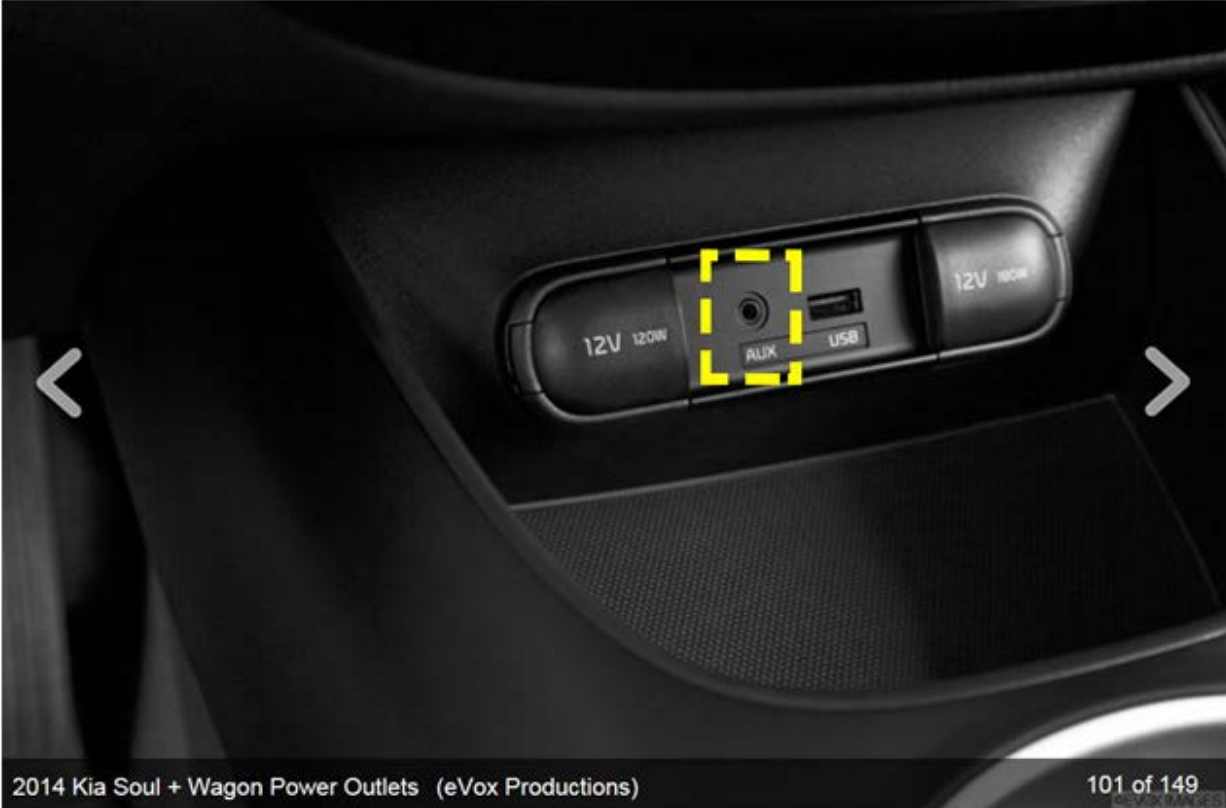
**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	 <p data-bbox="541 1003 1171 1032">2014 Kia Soul + Wagon Power Outlets (eVox Productions)</p> <p data-bbox="1612 1003 1724 1032">101 of 149</p> <p data-bbox="541 1081 1619 1146"><a href="http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior">http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior</a>, interior photo 101 of 149 (captured 11/6/2015)</p>
<p>a docking portion within the storage area for communicating and physically</p>	<p>Each accused Kia 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 also be stored in various locations throughout the vehicle when connected to the USB port, including the armrest between the front seats where the USB port is located. Each accused Kia automobile includes an “iPod dock connector” for “communicating and physically mating with the portable device.”</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>mating with the portable device;</p>	<p><b>Aux, USB and iPod®* port (if equipped)</b></p>  <p>When using a portable audio device connected to the power outlet, noise may occur during playback. If this happens, use the power source of the portable audio device.</p> <p>* iPod® is a registered trademark of Apple Inc.</p> <p>If your vehicle has an aux and/or USB(universal serial bus) port or iPod® port, you can use an aux port to connect audio devices and an USB port to plug in an USB and also an iPod® port to plug in an iPod®.</p> <hr/> <p style="text-align: right;">4   145</p> <p>See, e.g., Ex. A (2014 Kia Soul Owner’s Manual) at 4:145.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
	 <p data-bbox="533 1003 1163 1032">2014 Kia Soul + Wagon Power Outlets (eVox Productions)</p> <p data-bbox="1604 1003 1724 1032">101 of 149</p> <p data-bbox="537 1078 1625 1141"><a href="http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior">http://www.edmunds.com/kia/soul/2014/pictures.html?&amp;filter=interior</a>, interior photo 101 of 149 (captured 11/6/2015)</p>
<p>a data port in communication with the docking portion, the data port</p>	<p>Each accused Kia automobile includes a data port (USB port) 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.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>connectable with a device for integrating the portable device with the car stereo; and</p>	<p><b>KIA 'UVO' ("Your Voice") (2014 KIA Soul)</b></p> <p>Each device integration system of the accused Kia automobiles includes "an interface connected to said data port and to the car stereo, said interface channeling audio from the portable device to the car stereo."</p> <p>See element [1D] support.</p>
<p>an interface connected to said data port and to the car stereo, said interface channeling</p>	<p>Support</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

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



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
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 apparatus of claim 44, wherein the data port comprises an RS-232 or Universal Serial Bus (USB) port.	The data port of each accused Honda automobile “comprises [a] Universal Serial Bus (USB) port.”  <i>See</i> claims 23 and 24 support.
57. An audio device integration system comprising:	<i>See</i> preamble [1P] support.
a first electrical	<i>See</i> element [1A] support.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

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

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
microcontroller pre-programmed to execute:	
a first pre-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	See claim 6 support.
a second pre-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	See element [1F] support.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>format incompatible 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.</p>	
<p>58. The apparatus of claim 57, wherein the car stereo further comprises an</p>	<p>See claim 2 support.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
Original Equipment Manufacturer (OEM) car stereo connected to the first electrical connector.	
60. The system 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	See element [1G] support.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
transmitting formatted data to the car stereo for display thereby.	
61. The apparatus of claim 60, wherein said third code portion processes data generated by the MP3 player including track and time information.	See claim 7 support.
62. The apparatus of claim 60, wherein said third code portion processes data generated by the MP3 player including song title and artist information.	See claim 8 support.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>63. The apparatus of claim 60, wherein commands are input by a user using one or more control buttons or presets on the car stereo.</p>	<p>See claim 13 support.</p>
<p>64. The apparatus of claim 57, further comprising a bus connection established between the MP3 player and said interface.</p> <p>65. The apparatus of claim 64, wherein the bus connection comprises a Universal Serial Bus (USB) connection.</p>	<p>See claims 23 and 24 support.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
86. A device for integrating video information for use with a car stereo, comprising:	<i>See preamble [1P] support.</i>
a first electrical connector connectable to a car stereo;	<i>See element [1A] support.</i>
a second electrical connector connectable to an after-market video device external to the car stereo;	<i>See element [1B] support.</i>
an interface connected between said first and second electrical connectors for transmitting video information from the after-market video	<i>See element [1D] support.</i>



**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
device to the car stereo,	
the interface including a microcontroller in electrical communication with said first and second electrical connectors, said microcontroller pre-programmed to execute:	See element [1E] support.
a first pre-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	See claim 6 support.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
responsive to signals generated by the after-market video device.	
<p>88. The apparatus of claim 86, further comprising a bus connection established between the video device and said interface.</p> <p>89. The apparatus of claim 88, wherein the bus connection comprises a Universal Serial Bus (USB) connection.</p>	<p>See claims 23 and 24 support.</p>
90. The apparatus of claim 86, wherein said	<p>See element [1F] support.</p>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
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 for execution thereby.	
91. The apparatus of	See element [1G] support.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
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 device integration system comprising:	See preamble [1P] support.

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
a car stereo; a portable audio device external to the car stereo;	<i>See element [1A] support.</i>
an interface connected between the car stereo and the portable audio device,	<i>See elements [1A] and [1D] support.</i>
the interface including a microcontroller pre-programmed to execute:	<i>See element [1E] support.</i>
first pre-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;	<i>See claim 6 support.</i>
second pre-programmed	<i>See element [1F] support.</i>

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
<p>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 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</p>	

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

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

**Appendix B - Claim Chart for US Patent No. 7,489,786 Against Infotainment Systems of Accused Kia Automobiles**

Claim	Support
98. The apparatus of claim 97, wherein the bus connection comprises a Universal Serial Bus (USB) connection.	