



AV2B4SDAN

# DIGITAL NAVIGATION SYSTEM

## OWNER'S MANUAL



Thank you for purchasing this Audio Navigation System.

This user's manual explains how to use the Hyundai Motor Audio Navigation System.

Before using the product, read the contents of this user's manual carefully and use this product safely.

- The screens shown in this manual may differ with the actual screens of the product.
- The design and specification of this product may change without prior notification for product improvement.
- When transferring the vehicle to another individual, include this user's manual so that the next driver can continue its use.

## **Precaution for safe usage**

- Driving while distracted can result in a loss of vehicle control, that may lead to an accident, severe personal injury, and death. The driver's primary responsibility is in the safe and legal operation of a vehicle, and use of any handheld devices, other equipment, or vehicle systems which take the driver's eyes, attention and focus away from the safe operation of a vehicle or which are not permissible by law should never be used during operation of the vehicle.
- Do not operate the Audio Navigation system while driving.
- Do not disassemble, assemble, or modify the Audio Navigation system.
- Do not watch the screen for prolonged periods of time while driving.
- Set the volume to a level which allows the driver to be aware of external conditions.

- Do not operate the Audio Navigation system for prolonged periods of time with the vehicle ignition in ACC. Such operations may lead to battery discharge.
- Be cautious not to spill water or introduce foreign objects into the device.
- Do not cause severe shock to the device. Direct pressure onto the front side of the monitor may cause damage to the LCD or touch panel.
- In case of product malfunction, please contact your place of purchase or service center.
- When cleaning the touch screen, make sure to turn off the device and use a dry and smooth cloth. Never use tough materials, chemical cloths, or solvents (alcohol, ammonia, benzene, thinners, etc.) as such materials may damage the device panel or cause color and quality deterioration.



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## iPod®

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## **Bluetooth® Wireless Technology**

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A *Bluetooth®* Wireless Technology enabled cell phone is required to use *Bluetooth®* Wireless Technology. *Bluetooth®* Wireless Technology phone compatibility can be checked by visiting [www.hyundaiusa.com](http://www.hyundaiusa.com).

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## **HD Radio™ Technology**

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HD Radio™ and the HD, HD Radio, and "Arc" logos are proprietary trademarks of iBiquity Digital Corp.



# 1 Basic

- Warnings and Cautions
- Key Product Features
- Component Names and Functions
- Starting the System for the First Time

## CAR AVN SYSTEM

# Warnings and Cautions

## Safety Warnings

- ❑ Even when receiving route guidance from the Navigation system, please abide by actual traffic and road regulations. Following only the Navigation route guidance may lead to violations of actual traffic and road regulations and lead to traffic accidents.
- ❑ Do not stare at the screen while driving. Staring at the screen for prolonged periods of time could lead to traffic accidents.
- ❑ Do not operate the Navigation system while driving, such as entering POIs or conducting route searches. Such acts could lead to accidents, fire, or electric shock. Park the vehicle before operating the device.
- ❑ Do not disassemble, assemble, or modify the Navigation system. Such acts could result in accidents, fire, or electric shock.
- ❑ Heed caution not to spill water or introduce foreign objects into the device. Such acts could lead to smoke, fire, or product malfunction.
- ❑ Please refrain from use if the screen is blank or no sound can be heard as these signs may indicate product malfunction. Continued use in such conditions could lead to accidents (fires, electric shock) or product malfunctions.
- ❑ Do not touch the antenna during thunder or lightening as such acts may lead to lightning induced electric shock.
- ❑ Do not stop or park in parking-restricted areas to operate the product. Such acts could lead to traffic accidents.
- ❑ For most Audio and multimedia modes, the display will not operate when the vehicle is in motion. For your safety, first park the vehicle to watch or view the screen. (The screen will operate when the parking brake is set to ON for manual transmission vehicles and when set to P or Parking Brake On state for auto transmission vehicles.)

## Safety Cautions

### Pay attention to traffic conditions while driving.

- ❑ In some instances, the navigation may provide guidance through restricted areas.
- ❑ Operating the device while driving could lead to accidents due to a lack of attention to external surroundings. First park the vehicle before operating the device. In addition, the touch screen may not work for some functions when the vehicle is in motion. The touch screen feature will be supported once the vehicle has stopped.
- ❑ Adjust the volume to levels that allow the driver to hear sounds from outside of the vehicle. Driving in a state where external sounds cannot be heard may lead to accidents.
- ❑ Pay attention to the volume setting when turning the device on. A sudden output of extreme volume upon turning the device on could lead to hearing impairment. (Adjust the volume to a suitable levels before turning off the device.)
- ❑ If you want to change the position of device installation, please inquire with your place of purchase or service maintenance center.
- ❑ Technical expertise is required to install or disassemble the device.
- ❑ Turn on the car ignition before using this device. Do not operate the Navigation system for long periods of time with the ignition turned off as such operations may lead to battery discharge.
- ❑ Upon using the Navigation system for more than 10 minutes with the car engine turned off, the following warning will be displayed. After 10 minutes, the warning will be displayed for 3 seconds every 1 minute.
- ❑ Do not subject the device to severe shock or impact. Direct pressure onto the front side of the monitor may cause damage to the LCD or touch screen.
- ❑ When cleaning the device, make sure to turn off the device and use a dry and smooth cloth.
- ❑ Never use tough materials, chemical cloths, or solvents(alcohol, benzene, thinners, etc.) as such materials may damage the device panel or cause color/quality deterioration.
- ❑ When experiencing product malfunctions, inquire with your place of purchase or service maintenance center.

# Key Product Features

This device is an Audio Navigation system equipped with a multifunctional disc player that supports Radio (FM1, FM2, AM), HD Radio technology, Audio CD, MP3, USB, iPod, and Audio, Aux, and My Music features. The WIDE VGA LCD provides a high quality resolution while the powerful and rich sound system adds to the driving enjoyment.







<b>Display</b>	<b>Wide TFT-LCD Display</b> <ul style="list-style-type: none"><li>• Provides high quality sound and video through a Wide TFT-LCD Display using an LED Back Light</li><li>• Touch screen for maximum user convenience</li></ul>
<b>Radio</b>	<b>Digital Tuner Feature</b> <ul style="list-style-type: none"><li>• Digital Tuner using PPL method that supports memory of 6 broadcast stations for each AM, FM1, and FM2 modes</li></ul> <b>Integrated Antenna (RADIO+NAVI)</b> <ul style="list-style-type: none"><li>• Outstanding reception via integrated antenna with high sensitivity</li></ul> <b>Radio broadcast station name</b> <ul style="list-style-type: none"><li>• Displays broadcast station names for key locations</li></ul> <b>HD Radio/Satellite Radio feature</b> <ul style="list-style-type: none"><li>• Supports HD Radio reception and Satellite Radio (XM)</li></ul>
<b>Multimedia Player</b>	<b>Support for various Media Formats</b> <ul style="list-style-type: none"><li>• Support for various media formats, including Radio, audio MP3 CD, USB, iPod and AUX</li><li>• Supports USB, iPod, and Bluetooth® Audio Streaming modes</li></ul> <b>My Music</b> <ul style="list-style-type: none"><li>• Supports copying of music stored within USB or iPod devices into My Music (internal memory) mode</li></ul> <b>USB Image</b> <ul style="list-style-type: none"><li>• Copy to view and save images saved in USB devices</li></ul>














<b>Navigation</b>	<p><b>Voice Guidance</b></p> <ul style="list-style-type: none"> <li>• Voice route guidance to safely and conveniently reach set destinations</li> <li>• Various map scales that enables drivers to accurately view map and surrounding areas</li> </ul> <p><b>Automatic Correction for Current Location</b></p> <ul style="list-style-type: none"> <li>• Automatically corrects current position using map matching and GPS information</li> </ul>
<b>Blue Link®</b>	<p><b>Sync with Blue Link® Center</b></p> <ul style="list-style-type: none"> <li>• Synchronization with the Blue Link® Center to provide various types of information</li> </ul> <p><b>Vehicle Diagnostics/Maintenance</b></p> <ul style="list-style-type: none"> <li>• Supports Vehicle Theft Protection, Parts Diagnostics and Recall Information</li> </ul> <p><b>Eco Driving and Fuel Economy Management</b></p> <ul style="list-style-type: none"> <li>• Supports Economic driving practices by providing driver/community fuel economy information and Eco Rewards</li> </ul>
<b>Miscellaneous</b>	<p><b>Bluetooth® Wireless Technology</b></p> <ul style="list-style-type: none"> <li>• Convenient use of Bluetooth® Handsfree by using buttons within the steering wheel remote controller</li> </ul> <p><b>Digital Screen Control Features</b></p> <ul style="list-style-type: none"> <li>• Easy control of features through touch screen options</li> </ul> <p><b>Steering Wheel Remote Controller</b></p> <ul style="list-style-type: none"> <li>• Control over audio features, voice recognition and Bluetooth® through the steering wheel remote controller for maximum convenience</li> </ul>







# Component Names and Functions




## Head Unit

Name	Description
1 	Takes user to home phone screen
	<b>When key is pressed shortly. (under 0.8 seconds)</b> <ul style="list-style-type: none"> <li>In FM/AM mode, plays previous/next frequency</li> <li>In XM mode, plays the previous/next channel</li> <li>In CD/MP3/USB/iPod/My Music modes, changes the track, file or chapter</li> </ul>
2 	<b>When key is pressed and held. (over 0.8 seconds)</b> <ul style="list-style-type: none"> <li>In FM/AM mode, continuously changes the frequency until the key is released and plays the current frequency</li> <li>In XM mode, continuously changes the channel until the key is released and plays the current channel</li> <li>In CD/MP3/USB/iPod/My Music modes, rewinds or fast-forwards the track or file</li> </ul>
3 	<ul style="list-style-type: none"> <li>Converts to FM/AM mode</li> <li>Each time the key is pressed, the mode is changed in order of FM1 → FM2 → AM → FM1</li> </ul>
4 	Displays the Info or Setup mode screen
5 	<ul style="list-style-type: none"> <li>Displays CD, MP3, USB, iPod, AUX, Bluetooth® Audio Streaming, My Music modes</li> <li>If the media is not connected or a disc is not inserted, corresponding modes will be disabled</li> </ul>
6 	<b>Converts to XM mode</b> <ul style="list-style-type: none"> <li>Each time the key is pressed, the mode is changed in order of XM1 → XM2 → XM3 → XM1</li> </ul>

Name	Description
7  PWR key  VOL Knob	<ul style="list-style-type: none"> <li>When power is off, press to turn power on</li> <li>When power is on, press and hold (over 0.8 seconds) to turn power off</li> <li>When power is on, press shortly (under 0.8 seconds) to turn Audio off</li> <li>Turn left/right to control volume</li> </ul>
8 	Displays Route menu screen
9 	Turns off the screen or displays the default image
10 	Displays the map for the current position
11 	<ul style="list-style-type: none"> <li>In FM/AM mode, changes the frequency</li> <li>In XM mode, changes the channel</li> <li>In CD, MP3, USB, iPod, My Music modes, changes the track, file or chapter</li> </ul>
12 	Displays the Destination setup menu
13 	Executes the selection
14 	Press to insert or eject disc
15 	Resetting the system
16 	SD Card insert slot

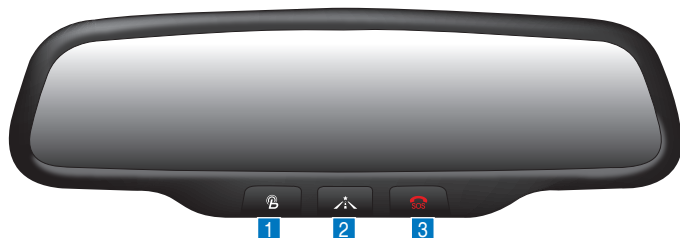
# Steering Wheel Remote Controller

Name	Description
1  	Controls the volume
2 	Mutes the sound
3  	<p><b>When keys are pressed shortly. (under 0.8 seconds)</b></p> <ul style="list-style-type: none"> <li>In FM/AM mode, searches broadcast frequencies saved to Presets</li> <li>In XM modes, searches broadcast channels saved to Presets</li> <li>In CD/MP/USB/iPod/My Music modes, changes the track, file or chapter</li> </ul> <p><b>When keys are pressed and held. (over 0.8 seconds)</b></p> <ul style="list-style-type: none"> <li>In FM/AM mode, automatically searches broadcast frequencies and channels</li> <li>In XM modes, automatically searches broadcast channels</li> <li>In CD/MP3/USB/iPod/My Music modes, rewinds or fast forwards the track or file</li> </ul>
4 	<ul style="list-style-type: none"> <li>Each time this key is pressed, the mode is changed in order of FM1 → FM2 → AM → XM1 → XM2 → XM3 → USB or iPod → AUX → Bluetooth® Audio → My Music</li> <li>If the media is not connected or a disc is not inserted, corresponding modes will be disabled</li> <li>Press and hold the key (over 0.8 seconds) to turn the Audio system on/off</li> <li>When power is off, press the key to turn power back on</li> </ul>

Name	Description
5 	<p><b>When pressed shortly. (under 0.8 seconds)</b></p> <ul style="list-style-type: none"> <li>Activates voice recognition</li> </ul> <p><b>When pressed and held. (over 0.8 seconds)</b></p> <ul style="list-style-type: none"> <li>Ends voice recognition</li> </ul>
6 	<p><b>When pressed shortly. (under 1.2 seconds)</b></p> <ul style="list-style-type: none"> <li>When pressed in the phone screen, displays call history screen</li> <li>When pressed in the dial screen, makes a call</li> <li>When pressed in the incoming call screen, answers the call</li> <li>When pressed during call waiting, switches to waiting call (Call Waiting)</li> </ul> <p><b>When pressed and held. (over 1.2 seconds)</b></p> <ul style="list-style-type: none"> <li>When pressed in the Bluetooth® Handsfree wait mode, redials the last call</li> <li>When pressed during a Bluetooth® Handsfree call, switches call back to mobile phone (Private)</li> <li>When pressed while calling on the mobile phone, switches call back to Bluetooth® Handsfree (Operates only when Bluetooth® Handsfree is connected)</li> </ul>
7 	<p>When pressed during a call, ends the phone call</p> <p>When pressed in the incoming call screen, rejects the call</p>

# Component Names and Functions

## Room Mirror



Name	Description
<b>1</b> Blue Link® Center	Connects to the Blue Link® Center to speak with consultants When pressed again during call, ends call
<b>2</b> Blue Link® for POI	After connecting to the Blue Link® Center, used to request POI information through voice recognition When pressed again during call, ends call
<b>3</b> Blue Link® for SOS	<ul style="list-style-type: none"><li>• When an unforeseen emergency occurs, used to make call and request Blue Link® SOS service</li><li>• When pressed again during call, ends call</li></ul>

## Basic Mode Screen (HD Radio™ reception ON)



Name	Description
1 HD Radio Reception	<ul style="list-style-type: none"> <li>Displays main HD Radio channels</li> <li>When the active button is pressed, moves to the corresponding channel</li> </ul>
2 Broadcast Station	Displays the current broadcast station
3 Genre	Displays the current broadcast genre
4 Broadcast Info	Displays detailed information about the current broadcast
5 Auto Store	Saves frequencies with superior reception to Preset buttons
6 Preset Scan	Plays preset frequencies for 5 seconds each
7 Info On (Info Off)	<ul style="list-style-type: none"> <li>When pressed, shows detailed information about the current broadcast</li> <li>When pressed again, detailed information is turned off</li> </ul>
8 Tagging	<ul style="list-style-type: none"> <li>Used to save song information for the currently playing broadcast</li> <li>Upon connecting an iPod, song information is transferred to the iPod and can be downloaded through iTunes</li> </ul>
9 Scan	Plays frequencies with superior reception for 5 seconds each

# HD Radio™ Mode

## Starting Mode



**PSD**

**HD2/HD3**

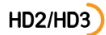
**Digital Sound**

**iTunes® Tagging**



**PSD** Program Service Data :

Contributes to the superior user experience of HD Radio Technology. Presents song name, artist, station IDs, HD2/HD3 Channel Guide, and other relevant data streams.



**HD2/HD3** Adjacent traditional main stations are extra local FM channels. These HD2/HD3 Channels provide new, original music as well as deep cuts into traditional genre.



**Digital Sound** Digital, CD-quality sound. HD Radio Technology enables local radio stations to broadcast a clean digital signal. AM sounds like today's FM and FM sounds like a CD.



**iTunes® Tagging** iTunes® Tagging provides you the opportunity to discover a wide range of content and the means to “tag” that content for later review and purchase from the iTunes® Store. Also refer to the Apple Automotive specifications for implementing iTunes® Tagging.

# HD Radio™ Mode

## Starting Mode

Press the **FM/AM** key to turn on Radio mode.



If an HD Radio™ broadcast is received, the radio mode will switch from analog broadcast to HD Radio™ broadcast.

### **i** Information

- The HD Radio™ screen is displayed only when a HD Radio™ broadcast is being received.
- To ensure HD Radio™ stations are received, turn the feature on at **SETUP** key ▶ **HD Radio** .

## Operating HD Radio™ Mode

### Selecting a Frequency



As HD Radio™ reception is included within Radio mode, the methods of moving between channels, saving presets, searching, or methods of searching frequencies are identical. However, while the HD Radio™ related icon display will become active when within regions where an HD Radio™ signal can be received.

### Using TUNE

Press the **▼TUNE▲** key to manually select the frequency.



## Selecting through Preset



From the 6 presets, select the HD Radio™ broadcast you want to listen to.

### **i** Information

- For HD Radio™ broadcast channels without sub channels, sub channels will be skipped and only main channels will be received.

## Song-Tagging

The song tagging feature provides a way to capture broadcasted song information from the radio for future purchase in iTunes.

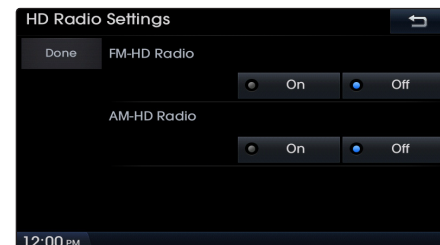
Upon connection of an Apple audio playback device, the "tagged songs" will be transferred to your iTunes account in your Tagged songs folder.

### **i** Information

- Up to 50 songs can be saved if an iPod device is not connected.
- Song data can be transferred to an iPod only if there is available space within the device.

## HD Radio™ Digital Broadcast On/Off

Press the **SETUP** key ► Press the ► **HD Radio** ► Press **On** / **Off** .



HD Radio™ Broadcasts can be turned On and Off for HD Radio™ FM and AM mode.



## Product Specification

### TFT-LCD

Screen Size	Navigation Device - 20.32cm (176.4 x 99.36mm)		
Resolution	Navigation Device - 384,000 pixels (Resolution: 800 x 480)		
Operating Method	TFT(Thin Film Transistor) Active Matrix		
Viewing Angle	Left/Right, Top/Bottom : ALL 89°		
Internal Lighting	LED 18EA		

### Radio

Channels	FM : 87.5 MHz ~ 107.9 MHz(Step : 200 kHz)		
	AM : 530 kHz ~ 1710 kHz(Step : 10 kHz)		
Sensitivity	FM : Under 10dBu/AM : Under 40dBu		
Distortion Factor	Within 2%	Speakers	2 ~ 8 Ω

### Integrated Antenna

Operating Temperature	-30 ~ +85℃ (-22°F ~ +185°F)	Storage Temperature	-40 ~ 105℃ (-40°F ~ 220°F)
Dimensions	94.3mm(W) X 68.6mm(H) X162.4mm(L)		
Weight	320g		

### Common

Name	Car TFT LCD Display Navigation Unit		
Power Supply	DC 14.4V	Operating Power	DC 9V ~ DC 16V
Current Consumption	2.5A	Dark Current	2mA (Head Unit Only)
Operating Temperature	-20 ~ +70℃ (-4 ~ +158°F)	Storage Temperature	-30 ~ 80℃ (-22 ~ 176°F)
Dimensions	251.1mm(W) x 221.5mm(H) x 251.1mm(D)		
Weight	2.6 Kg		

## **Bluetooth® Wireless Technology**

Frequency Range	2402 ~ 2480 MHz	Supported Bluetooth® Specification	2.1 + EDR
Supported Profile	Handsfree(1.5), A2DP(1.0), AVRCP(1.3), PBAP(1.0)		
Output	0.05mW	Transmission	F1E, G1E
Number of Channels	79 channels		

### **CAUTION**

- The producer and installer cannot provide services related to life safety as the concerned radio equipment is liable to radio interference.

# Appendix

## FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

## IC Warning

"This device complies with Industry Canada licence-exempt RSS standard(s)."

Operation is subject to the following conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas provoquer de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.