

2013 PIONEER NEW PRODUCTS

The elements of entertainment, connectivity, quality and convenience that are essential to Pioneer integrity drive car entertainment on the fast track to perfection.

ENTERTAINMENT

Your car audio experience comes to new life with unprecedented choice of content and control. MIXTRAX technology provides club-like ambiance with seamless Non-Stop Mix Playback and mood-enhancing light color variations. Every journey can be a joy with such awesome sound and effects.

CONNECTIVITY

Smartphone compatibility with our Advanced App Mode puts a world of excitement at your fingertips. Bluetooth[®] Wireless audio makes extensive entertainment easy and intuitive. Dual USB ports conveniently connect external devices. New 1 Ω load amps can power a multi-subwoofer system pumping terrifically deep, loud bass.

QUALITY

Pioneer's passion runs deep at every stage of development. Strict listening tests inform audiophile-grade design to ensure the superiority of Pioneer parts. Audio parameter control is precisely adjustable to optimize acoustic effect. Our edge in innovative engineering and performance opens every show on a strong note.

CONVENIENCE

Functions are easy to customize for exactly the desired effect. Comfortable, intuitive control expands your universe of content and playback options. Our new in-car TV tuner is simple to command through a touch panel. It's amazing how Pioneer makes so much performance so moving from start to finish.



AV RECEIVERS PAGE 06

/AUDIO RECEIVERS PAGE 24

AMPLIFIERS PAGE 50

SUBWOOFERS PAGE 58

SPEAKERS PAGE 70

ACCESSORIES & SPECIFICATIONS PAGE 88



SYMBOLS FOR SPECIAL FEATURES PAGE 101



Tap Into A Revolution

Connect a smartphone in your car to extend familiar app control to a Pioneer touch display.

Advanced App Mode

Advanced App Mode allows compatible applications on an iPhone[®] 4, iPhone 4S, or 4th generation iPod touch® to be viewed and controlled directly from the receiver's touch panel display.



Made for 🛛 iPod 🗍 iPhone



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Like a smartphone, the AV receiver touch panel can be swiped, flicked or tapped for intuitive app control.

DJ-inspired effects.



* Depending on the file/song, sound effects may not be enabled for adding.

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	KEY	FF		IRF		STF	(- p.			
		DIN Size		Preout	Playback	Video Format	Audio Format	AUX Input (Mini-Jack)		0 iPo
	AVH-P8450BT	2-DIN	7.0" VGA	3 (4 V)	DVD/CD	H.264 WMV DivX	MP3 WMA AAC	Rear	Rear x 2	
MINTRAK	AVH-X5550BT	2-DIN	7.0" VGA	3 (4 V)	DVD/CD	DivX	MP3 WMA AAC	Rear	Rear	
Pioneer 1 JAN 12:30	AVH-X4550DVD	2-DIN	7.0" VGA	3 (4 V)	DVD/CD	DivX	MP3 WMA AAC	Rear	Rear	
1/300	AVH-X2550BT	2-DIN	6.1" VGA	3 (2 V)	DVD/CD	DivX	MP3 WMA AAC	Rear	Rear	
WIN YOUR WAY	AVH-X1550DVD	2-DIN	6.1" VGA	3 (2 V)	DVD/CD	DivX	MP3 WMA AAC	Rear	Rear	
Kate Squires	AVH-P6350BT	1-DIN	7.0"	3 (4 V)	DVD/CD	DivX	MP3 WMA AAC	Front	Front	
PURE INSTRUMENTS POP O C XX SPEV	AVH-P5350DVD	1-DIN	7.0"	3 (4 V)	DVD/CD	DivX	MP3 WMA AAC	Front	Front	
O POP O C XX	AVH-5450DVD	1-DIN	7.0"	2 (2 V)	DVD/CD	DivX	MP3 WMA AAC	Front	Front	
	DVH-855AVBT	1-DIN	3.5"	2 (4 V)	DVD/CD	DivX	MP3 WMA	Front	Front	
	DVH-755AV	1-DIN	3.0"	2 (2 V)	DVD/CD	DivX	MP3 WMA	Front	Front	
01'30 01'30 HUTE	DVH-345UB	1-DIN		2 (2 V)	DVD/CD	DivX	MP3 WMA AAC	Front	Front	
	MVH-8350BT	1-DIN	3.0"	3 (4 V)		DivX	MP3 WMA AAC	Front	Front	
	MVH-7350	1-DIN	3.0"	3 (4 V)		DivX	MP3 WMA AAC	Front	Front	

. nrr = напаз-гее Profile, A2DP = Advanced Audio Distribution Profile, AVRCP = Audio/Video Remote Control Profile (version 1.3), SPP = Serial Port Profile. Please refer to instruction manual for other information about profile compatibility.

AV RECEIVERS

Pioneer



COMPARISON CHAR

ol for 'hone ^{*1}	Advanced App Mode ^{*2}	SD/SDHC Memory Card Slot	Bluetooth ^{®#3}	MIXTRAX	Dual Zone Audio/ Video	Auto EQ*4	Advanced Sound Retriever	Back-Up Camera Ready	Page Number
	•	٠	HFP A2DP AVRCP	•	•	•	•	•	10
	٠		HFP A2DP AVRCP SPP	() *6		•	•	•	14
	٠			* 6		٠	•	٠	15
,	•		HFP A2DP AVRCP SPP	•*6		•	•	٠	14
•	٠			() *6		۰	۰	٠	15
•		•	HFP		٠	٠	•	•	18
•		•	CD-BTB200		٠	٠	۰	٠	18
		•				•	٠	٠	19
•			HFP A2DP AVRCP*5					٠	20
									20
							•		21
•		•	HFP			•	•		22
		•				•	۰		22

*4. CD-MC20 required.
 *5. AVRCP (version 1.0)
 *6. Compatible with MIXTRAX EZ. Not compatible with full-featured Non-Stop Mix Play using MIXTRAX software that analyzes track information (BPM, bar, beat/vocal position, mood).



and utility to your dash.





ssed audio file

10 15 Frequency (kHz

Microphone for Auto EO Frequency Band Fine-T

CD-MC20

Frequency (Hz)

Pioneer

09

frequency response curve of the priginal sound.



Note: Text in blue indicates featur

Please see pages 90 and 91 for

accessories

Compatibility with unit and operations may vary

depending on the software version of iPod.

Please see page 94 for more compatibility

A Revolutionary Way to Use Apps in the Car Pioneer's game-changing AVH-P8450BT revolutionizes the driver's smartphone experience by bringing compatible iPhone 4, iPhone 4S, or 4th generation iPod touch apps to your dash. When connected to an iPhone 4, iPhone 4S, or a 4th generation iPod touch loaded with applications compatible with Advanced App Mode, the AVH-P8450BT in-dash receiver provides the ultimate in-vehicle smartphone experience. ADVANCED Made for **□**iPod **□**iPhone How to Use Advanced App Mode Step 2 After booting the app, connect your iPhone to the receiver using the Advanced Through the display of the AVH-P8450BT, you can Install the AppRadio app and other 3rd party apps to your iPhone 4, iPhone 4S, App Mode compatible cable CD-IU201S. Pressing the "MODE" button lets you fully control apps compatible with Advanced App Mode, such as Maps[™]. change to the Advanced App Mode's Home display screen. Compatible Apps Find destinations, view route direction lists and route to that location through Google Maps[™] local search. NavGate Drive The NavGate Drive makes your Pioneer In-Car receiver change to full function turn by turn navigation Navfree is a completely free GPS navigation app, and map data is created by a community of 1000s of users around the world. Note: In-App purchase required to activate the AppRadio interface A cool social GPS driving and navigation app that connects you to other drivers & provides full turn by turn navigation guidance. Note an active data connection is required to use this App. All-in-one app for convenient voice navigation with trip logs and audio feedback to improve your driving performance and conserve fuel. DashCommand™ Use your touchscreen to create and use stunning virtual dashboards including digital gauges, analog gauges, indicator lights, and more.

Note: Pioneer's AppRadio app provides access to Maps, Calendar, Photos, and installed 3rd party comp. Third party apps or Pioneer's free "AppRadio" app must be downloaded from the iTunes App Store to an iPhone 4S, or 4th generation iPod touch to enjoy compatible apps using Advanced App Mode.

As the number of compatible apps continues to increase, please refer to local b distributors of Pioneer regarding the latest information about apps available particular regions.

App Mode APP MODE Pioneer's App Mode allows users to access/control App-based content from their iPhone or iPod touch and view it on their Pioneer in-dash multimedia receiver.

Maps

Waze

Extra Mile



*Operations on a receiver's display are limited in App Mode. Audio/video contents from an iPod or iPhone can only be played with an app that outputs audio/video signals. Not every app is compatible with App Mode.

Important Note: AppRadio app is available from iTunes App Store. Please use in Internet connection situations. AppRadio App & Compatible Apps may not be available in some countries.

(Hands-Free Calling/Wireless Audio)

r: High Current 1A

Dual USB Ports (F

dling Car

8-Band Graphic EQ

Sonic Center Control

Auto EQ (CD-MC20 Required)

Pioneer









usic	
	MIXTRAX Pioneer's proprietary MIXTRAX app can read analyzed music data in your iTunes library to create custom playlists for non-stop song mixes with added DJ effects.
	AUPEO! Personal Radio Safely access, stream and personalize AUPEO!'s 120+ radio stations from your ca dashboard.
	StreamS HiFi Radio Internet radio app for iPhone 4, iPhone 4S, or 4th generation iPod touch has a directory of thousands of AAC and HE-AAC streams including AM/FM stations and NET streams.
adio	Livio Radio Benefit from more than 42,000 worldwide AM/FM/Internet radio stations live on your car speaker system.
tility	
25 Wed	Calendar Access your iPhone 4, iPhone 4S, or 4th generation iPod touch calendar. View important events and reminders. Functionality is bundled with the Pioneer AppRadio app.
	Photos View photos stored on your iPhone 4, iPhone 4S, or 4th generation iPod touch. Access albums and camera rolls and even view a slideshow. Functionality is bundled with the Pioneer AppRadio app.
atible ap iPhone 4	
ranch n	
/ideo*	
You	YouTube*

This iTunes-like web application makes it easier to watch and share YouTube videos. Create a playlist or choose a preset, then sit back and watch.



MIXTRAX Music Analysis

The MIXTRAX PC software automatically analyzes a track's musical attributes including beats per minute, temp and mood to determine the best transition points for each song. When the analyzed files are transferred to a USB device or SD card, the AVH-P8450BT reads the encoded data, allowing you to enjoy a seamless mix of songs from your own music library. The MIXTRAX iOS App provides similar benefits to the PC software, but only analyzes the music within the music library stored on your iPhone or iPod touch. Utilizing the MIXTRAX App through the AVH-P8450BT's Advanced App Mode function allows the user to view, select, and experience the MIXTRAX mixes directly from the AVH-P8450BT's touchscreen display.

Auto DJ Style Playlist

From a USB device or SD memory card, the receiver automatically displays the available MIXTRAX playlists (Beat, Chill, Thump, Distortion, High) based on the music files stored on the USB device or SD memory card. To make natural sounding transitions between music within the mix for playback, this function selects music by matching pieces that are similar in BPM tempo and mood.

MIX Style



Dancing Album Art*

Album Jacket Dance function bounces and gyrates the album art to the music as it plays * MIXTRAX App is not compatible with Dancing Album Art





MIXTRAX App

MIXTRAX



Cool, simple display featuring large easy-to-read font makes it effortless to change a source





Directly access the equalizer setting display. Operation, you simply drag a finger to change



Home Menu Display

Press home button to display source list. Icons are well designed and positioned for quick recognition of sources and easy access to the desired one. With the Dual Zone Audio/Video system, flicking a finger right or left makes it easy for front and rear passengers to switch sources, and access and control displays for each source.





Radio Display

Preset channels are positioned at the left side of the display. You can see the lists in the same display at once, and select a channel without a hassle







■ Detachable Face Security[™]

The extra-thin face panel of the AVH-P8450BT is easy to remove and carry out of the car to deter theft.



Advanced Display Resolution (ADR)

By incorporating extra-high-resolution technology, even low-resolution moving images can be reproduced as high-quality images.





Simulated imaa

Dual USB Ports

More connectivity adds more convenience and utility. For example, you can listen to music from a USB device while charging your smartphone.





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The AVH-P8450BT allows safe, simple, hands-free wirelessenabled cell phones. Just touch the cell phone icon in the receiver display for direct access to the Bluetooth display. Simple pairing requires no input of a PIN code.



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AVH-X5550BT

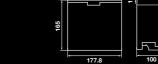
In-Dash Double-DIN DVD Multimedia AV Receiver with 7" VGA Touch Display, MIXTRAX, Built-in Bluetooth®, and USB Direct Control for iPod/iPhone



AVH-X2550BT NEW

In-Dash Double-DIN DVD Multimedia AV Receiver with 6.1" VGA Touch Display, MIXTRAX, Built-in Bluetooth, and USB Direct Control for iPod/iPhone





Rear Panel (AVH-X5550BT)	Remote Control Included
Rear View Camera IN Video OUT Video IN Video IN	
Audio Preouts – Bluetooth Microphone IN – Wired Remote IN	





- Color Customization (5-Display Colors and 112-Key Colors)
- USB Direct Control for iPod/iPhone and USB Devices
- (USB Interface Cable for iPod/iPhone Required)
- Advanced App Mode (CD-IU201S Required) • USB Port (Rear: High Current 1A Handling Capability)
- AUX Input (Audio/Video)
- RGB Input

- DVD/CD Plaver
- DivX/MPEG-1, -2, -4/iTunes AAC/MP3/WMA Playback
- from CD/DVD/USB Device

AVH-X5550BT Main Features	AVH-X4550DVD Main Features	Α
 • 7" VGA Touch Panel Display with LED Backlight • Built-in Bluetooth[®] Wireless Technology (Hands-Free Calling/ 	 7" VGA Touch Panel Display with LED Backlight Hi-Volt Preouts x 3 (4 V) 	• (
Wireless Audio)		1
• Hi-Volt Preouts x 3 (4 V)		•

Touch Proven 7.0W/6.1W*1 VEAN: Image: Constraint of the second sec	MIXTRAX Bluetooth		Made for iPod iPhone
		*1.6.1	-inch display: AVH-X2550BT *2. AVH-X5550BT

Key Selling Points

Fully controls Apps compatible with Advanced App Mode through the display — Navi App, Drive App, Music App, etc.

Non-Stop Mix Play makes it quick and easy to enjoy simple, seamless music sequencing. Display Visualizer provides for cool visuals that suitably enhance the mood in your car cabin.

MIXTRAX

ADVANCED

The Advanced User Interface makes various audio/video functions exceptionally operable using an innovative GUI.

• Auto EQ (CD-MC20 Required)

• 8-Band Graphic EQ

Sonic Center Control

Back-Up Camera Ready

Wired Remote Input

Display Off Mode

• RDS

IPEG Slide Show

Pioneer TV Tuner Ready (GEX-1550DTV/GEX-1550TV)

- iPhone 3GS
- iPhone 3G
- iPhone iPod touch (1st, 2nd, 3rd, and 4th generati iPod classic
- iPod with video

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation) **Notes:** Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility.

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AV RECEN

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AVH-X2550BT Main Features

 6.1" VGA Touch Panel Display with LED Backlight Built-in Bluetooth Wireless Technology (Hands-Free Calling) Wireless Audio RCA Preouts x 3 (2 V)

AVH-X1550DVD Main Features

- 6.1" VGA Touch Panel Display with LED Backlight
- RCA Preouts x 3 (2 V)

* Please see page 17 for more details.

Note: Text in blue indicates feature d from other models

Please see pages 90 and 91 for accessories.



A Revolutionary Way to Use Apps in the Car Area

Pioneer's game-changing AVH-X5550BT, AVH-X4550DVD, AVH-X2550BT and AVH-X1550DVD revolutionize the driver's smartphone experience by bringing compatible iPhone 4, iPhone 4S, or 4th generation iPod touch apps to your dash. When connected to an iPhone 4, iPhone 4S, or a 4th generation iPod touch loaded with applications compatible with Advanced App Mode, the AVH-X5550BT, AVH-X4550DVD, AVH-X2550BT and AVH-X1550DVD in-dash receivers provide the ultimate in-vehicle smartphone experience.



How to Use Advanced App Mode



Compatible Apps





Install the AppRadio app and other 3rd party apps to your iPhone 4, iPhone 4S, or 4th generation iPod touch. change to the Advanced App Mode's Home display screen.

After booting the app, connect your iPhone to the receiver using the Advanced App Mode compatible cable CD-IU201S. Pressing the "MODE" button lets you



control apps compatible with Advanced App Mode, such as Maps™.

	Maps Find destinations, view route direction lists and route to that location through Google Maps [™] local search.	\mathbf{X}	MIXTRAX Pioneer's proprietary MIXTRAX app can read analyzed music data in your iTunes* library to create custom playlists for non-stop song mixes with added DJ effects.
	NavGate Drive The NavGate Drive makes your Pioneer In-Car receiver change to full function turn by turn navigation.		AUPEO! Personal Radio Safely access, stream and personalize AUPEO!'s 120+ radio stations from your car dashboard.
4	navfree Navfree is a completely free GPS navigation app, and map data is created by a community of 1000s of users around the world.		StreamS HiFi Radio Internet radio app for iPhone 4, iPhone 45, or 4th generation iPod touch has a directory of thousands of AAC and HE-AAC streams including AM/FM stations and NET streams.
()	Note: In-App purchase required to activate the AppRadio interface. Waze A cool social GPS driving and navigation app that connects you to other drivers & provides full turn by turn navigation quidance. Note an active data connection is required to use this App.	radio	Livio Radio Benefit from more than 42,000 worldwide AM/FM/Internet radio stations live on your car speaker system.
3	Extra Mile All-in-one app for convenient voice navigation with trip logs and audio feedback to improve your driving performance and conserve fuel.	Utility 25 Wed	Calendar Access your iPhone 4, iPhone 4S, or 4th generation iPod touch calendar. View important events and reminders. Functionality is bundled with the Pioneer AppRadio app.
1	DashCommand™ Use your touchscreen to create and use stunning virtual dashboards including digital gauges, analog gauges, indicator lights, and more.		Photos View photos stored on your iPhone 4, iPhone 4S, or 4th generation iPod touch. Access albums an camera rolls and even view a slideshow. Functionality is bundled with the Pioneer AppRadio app.

Important Note: AppRadio app is available from iTunes App Store. Please use in Internet connection situations. AppRadio App & Compatible Apps may not be available in some countries.

in Non-Stop MIX Play, and you can experience the intimate euphoria of listening to music that sounds as if a club DJ is there playing it.

You can choose a length of playback (60, 90, 120, 150, 180 sec., random, or off) to shorten track

selections and speed up switching to following

Short Playback Mode

tracks in the mix.

Sona

Short Playback Mode

Sona 3

Sona 4

* Orange portions indicate playback of each track

60", 90", 120", 150", 180", Random, Off



Innovative Pioneer technology that creates a Non-Stop MIX with a range of DJ-inspired effects.

MIXTRAX

 MIXTRAX EZ for Quick Non-Stop MIX Play Selectable Sound Effect Tracks are joined by various random sound effects

il finge 61 ** 11 I.M. .

Display Visualizer



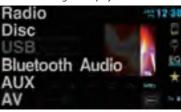
Advanced User Interface

Direct Access to MIXTRAX EZ

With Non-Stop Mix, auto beat sound seamlessly delivers a musical high as if a club DJ is mixing.

Source Change Display

Cool, simple display featuring large easy-to-read font makes it effortless to change a source without switching the display.





|TV¢

Tag as Shortcut to List Display Press tag to take a shortcut to each page list. For example, press the Artist tag to switch to the page that lists artists.

You can register a frequently used menu and use it as shortcut.

Pioneer TV Tuner Accessory NEW GEX-1550DTV and GEX-1550TV TV tuner can be operated via receiver touch panel displays. GEX-1550DTV Digital TV Tuner Compatible broadcasting system: ISDB-T



GEX-1550TV Analog TV Tuner

Compatible broadcasting systems: PAL/SECAM/NTSC

Auto EQ* -

It is difficult to reproduce music well in a car because speaker positioning is constrained by interior space and other conditions. These limitations can lead to sound phase distortion, as well as speaker sound reflection against glass and absorption by dashboard and seats. Auto EQ tailors specific musical characteristics according to Auto taste, uses a microphone to monitor and analyze acoustics,

Fine-Tuning

8-Band Graphic EQ -

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Sonic Cent Control

Advanced Sound Retriever

Hear more detail, warmth and clarity that the artist originally wanted you to hear from MP3, WMA and AAC files stored on your CD, USB Device, iPod/iPhone and portable media players. Pioneer's Advanced Sound Retriever technology benefits audio reproduction performance by restoring data (especially high-frequency data) that tends to get lost in the digital compression process.

heard from some speakers will lag the sound heard from other speakers, resulting in unfocused soundstage and instable frequency characteristics. Sonic Center Control remedies this by adjusting frequency phase and acoustic characteristics

by up to 15 steps, resulting in a clearer, focused soundstage.



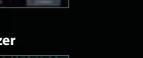
then automatically fine-tunes all frequency bandwidths and

Unless a listener is perfectly centered in a car cabin, sound

front and rear speaker digital parametric equalization.

Sonic Center Control









Bluetooth[®] Hands-Free Display

The AVH-X5550BT and AVH-X2550BT allow safe, simple, handsfree wireless-enabled cell phones. Just touch the cell phone icon in the receiver display for direct access to the Bluetooth display. Simple pairing requires no input of a PIN code.



Pioneer

Favorite Menu Register

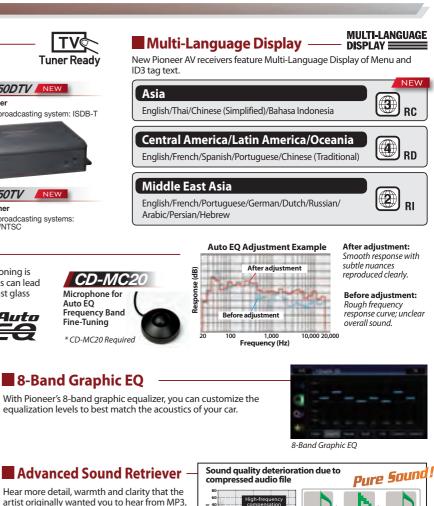
List Search

Now you can search using fewer steps to find the next song without interrupting what is already playing, or reverting back to another laver of command.



Alphabetical Search (when iPod is connected)

Equalizer Setting



10 15 Frequency (kHz) When Advanced Sound Retriever is "ON", the high frequency range i compensated to match the frequency response curve of the original sound.



DOLBY BIGTAL	•	n 🏭	DISPLAY	Hi-VOLT 24	3 WMA		🛞 Bluetooth°	Made for iPod iPhone
								ooth Wireless Technology for AVH-P6350BT. luetooth adapter ready for AVH-P5350DVD.

Key Selling Points

Innovative Interface with High Response and Customizable Function make your car cabin more comfortable and enjoyable.

Touch Panel Screen

Reproduces DVD Video as well as compressed video format recordings contained in USB Device and SD Memory Card.

Experience superior in-car AV Performance with

Sonic Center Control, 8-Band Graphic EQ and more.

7" display sizes, Dual Zone Video*, Auto EQ**,

• Front AUX Input (Audio/Video)

DVD/CD Player
 DivX/iTunes AAC/MP3/WMA/WAV

RGB Input

7.0W jDual j))) (((Sonic Center Control

* Not compatible with AVH-5450DVD. ** CD-MC20 Required.

iPod/iPhone Operable with Pioneer Receivers Made for iPhone 4 iPhone 3GS iPhone 3G

iPhone iPod touch (1st, 2nd, 3rd, and 4th generation) iPod classic

iPod with video

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation)

Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility.

Back UP Camera Mor stossity.

RDS SUPERFTUMERED MOSFET 50Wx4

Point	
A Simpler, More Innovat	ive Interface
Pioneer interface makes direct operation stress-fisselection displays, so access to desired functions Various customization and JPEG slide show funct	ree by eliminating complicated layered is smoother and simpler than ever.
Direct Source Selection ———	
	Pod Post Print
	♪Modern Gal
	IMiss. Nomer
Hyper Link with Connected — iPod/iPhone	• The Misnamed
	2011/4096
More Comfortable Control of — an iPod/iPhone	F/II 01:45
App Mode	0145
Point	
2	
Versatile —	
Connectivity	CD-IU51V USB Interface Cable for iPod/iPhone
Various devices can be connected via built-in front	
AUX input, extending access to all the songs iPod/iPhon	e
contained in iPod, iPhone and USB Devices * Pioneer cann	ot guarantee compatibility with all USB mass storage
any loss of da	ata on media players, smart phones, or other devices w Jack cable required.
Point	
	Au
Auto EQ*	E
Automatically tailors acoustics by fine-tuning frequency bandwidths plus front/rear speaker digital parametric equalization. Result: smooth sound full of subtle nuance and clarity. Sonic Ce *CD-MC20 required	enter Control 8-Band Graphic EQ
Other	
Point	
Multi-Language Display -	
Pioneer AV receivers feature Multi-Language	Display.
Middle East Asia	Asia
English/Arabic/Persian/Russian 🛞 _{RI} *	English/French/Thai/Chinese (Simplified)
AVH-5450DVD	
In-Dash 1-DIN DVD Multimedia AV Receiver with Included	
7" Touch Display, and Front	1 mar 0 . 17
USB Port	A MARKET
	Along Run Back Elirban Higration
Touch Panel 7.0W	OThe Road East
	E 2011 E 1045 E
	-62 45 ·
A Converter CO Sonic Center	

Common Main Features • 7" Touch Panel Display with LED Backlight Multi-Language Display (Menu) Color Customization (5-Display Colors and 112-Key Colors) USB Direct Control for iPod/iPhone and USB Devices (USB Interface Cable for iPod/iPhone Required) App Mode
 Built-in Bluetooth Wireless

Technology (Hands-Free Calling) (AVH-P6350BT)

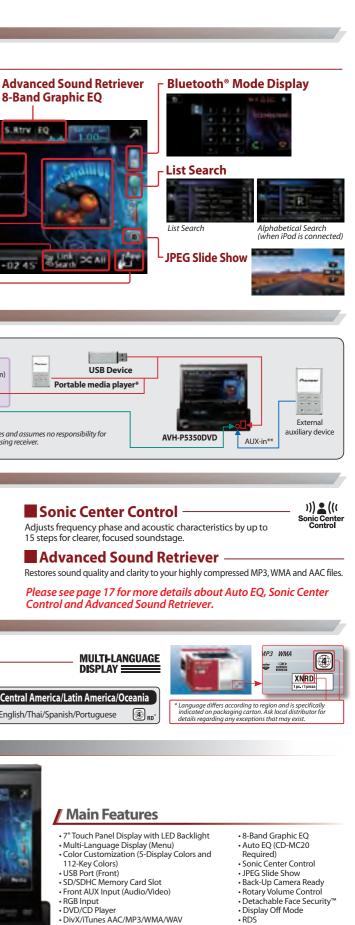
USB Port (Front)
 SD/SDHC Memory Card Slot

Playback from CD/DVD/USB Device/SD Memory Card Dual 7 Advanced Sound Retriever MOSFET 50 W x 4 8-Band Graphic EO Auto EQ (CD-MC20 Required) Sonic Center Control

 IPEG Slide Show Back-Up Camera Ready Rotary Volume Control
Detachable Face Security[™] Display Off Mode • RDS

Note: Text in blue indicates feature on from other model Please see pages 90 and 91 for accessories.

Pioneer



- Advanced Sound Retriever
- MOSFET 50 W x 4

Memory Card

Playback from CD/DVD/USB Device/SD

- RCA Preouts x 2 (2 V)
- Please see pages 90 and 91 for accessories.



- Dual Color (Red/Bl • USB Direct Control for iPod/iPhone and USB Devices (USB Interface Cable for
- iPod/iPhone Required) • USB Port (Front: High Current 1A

20

- Handling Capability
- Built-in Bluetooth Wireless Techno (Hands-Free Calling/Wireless Audio) Specialized Audio Parts • Hi-Volt Preouts x 2 (4 V) Back-Up Camera Ready Wired Remote Input

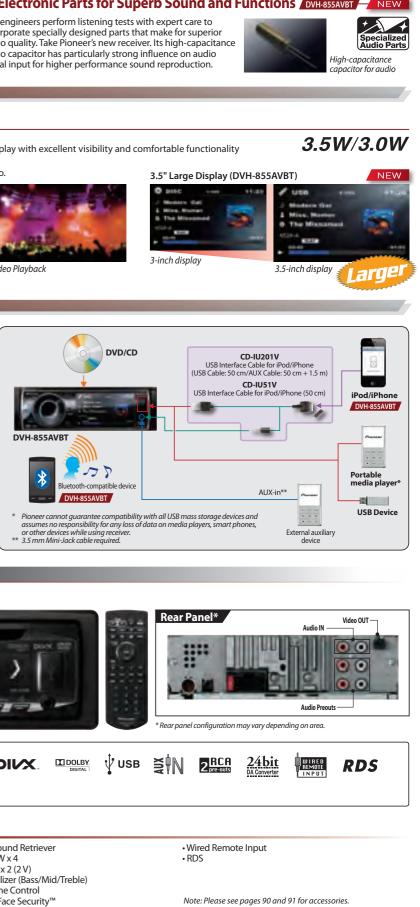
• 3" Color TFT Display with LED cklic USB Port (Front) RCA Preouts x 2 (2 V)

Note: Text in blue indicates feature

Please see pages 90 and 91 for accessories

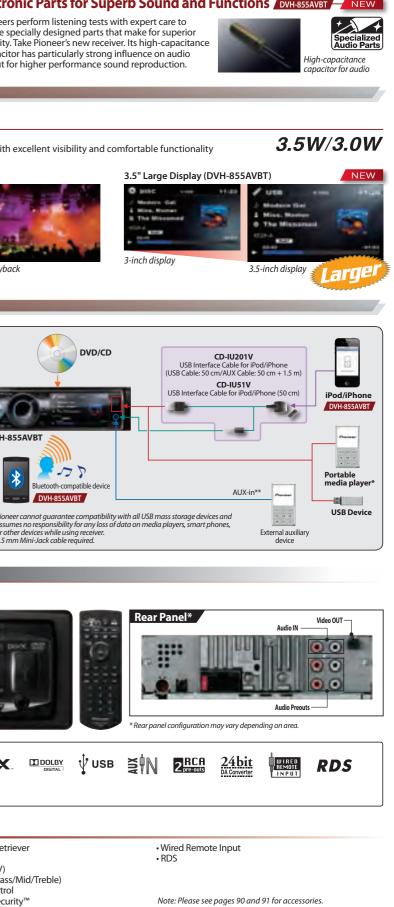
iPhone 3GS
iPhone 3G
iPhone
iPod touch (1st, 2nd, 3rd, and 4th generation)
iPod classic
iPod with video
iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation
Notes: Receiver may not operate other iPod mode

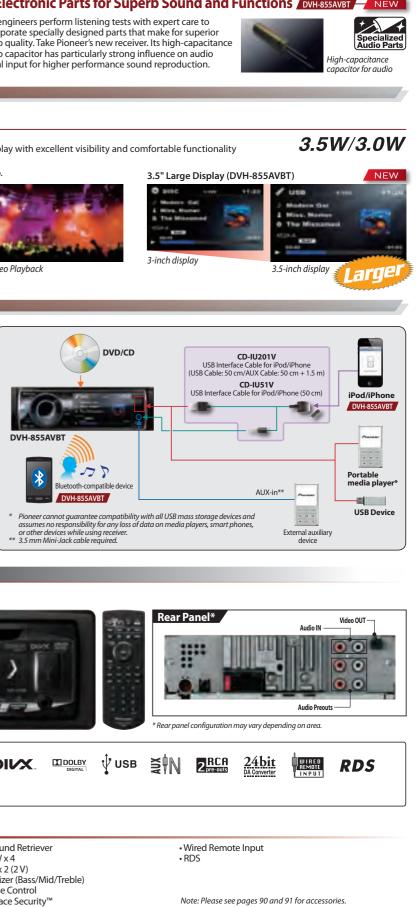
dels. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility.











Pioneer

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Key Selling Points



New-generation Music Video Receivers are compatible with digital AV sources including iPod/ iPhone, USB Devices and SD Memory Cards.

3" TFT display, Rotary Commander, new user interface and customizable menus provide fast, simple operation.

USB Port (Front)

Experience superior in-car AV Performance with Auto EQ*, Sonic Center Control, 8-Band Graphic EQ and more.

Main Features

 3" Color TET Display with LED Backlight • Multi-Language Display (Menu) (English/Spanish/Portuguese/Russian Color Customization [6-Display Colors (Blue/Violet/Red/Amber/Green/White) and 112-Key Colors] • USB Direct Control for iPod/iPhone and USB Devices (CD-IU51V Required for

iPod/iPhone) App Mode h Wireless Technology

(Hands-Free Calling) (MVH-8350BT)

 SD/SDHC Memory Card Slot Front AUX Input (Audio/Video) iTunes AAC/MP3/WMA/WAV Playback from USB Device/SD Memory Card Advanced Sound Retriever MOSEET 50 W x 4 • Hi-Volt Preouts x 3 (4 V) 8-Band Graphic EO Auto EQ (CD-MC20 Required) Sonic Center Control JPEG Slide Show

 7-Way Rotary Commander Detachable Face Security" Wired Remote Input Display Off Mode RDS

Note: Text in blue indicates feature ion from other model

Please see pages 90 and 91 for accessories.

iPod/iPhone Operable with Pioneer Receivers Made for iPhone 4 iPhone 3GS

Made for

3.0W

Auto

liPod iPhone

Rotary (•)

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S»

* CD-MC20 Required.

∜ USB

iPhone 3G iPhone iPod touch (1st, 2nd, 3rd, and 4th generation) iPod classic iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation)

Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility

Easier Phone Calling — 🚯 Bluetooth

3" full-color TFT display and new Parrot Bluetooth® module make hands-free calling operation very convenient. (MVH-8350BT)



Video/JPEG Playback for Non-Stop Entertainment —



Video File Playback

Simple Search for iPod —

Artist, Album or Genre categories.

= 5	Bumperca
Lis	Chaos Th
	Element
	Fading F
	Global D
	Living \

Smart Interface for Quick Access

The new user interface has a minimalistic yet powerful design, and scales to accommodate modern media sources easily. The customizable home menu allows you to tailor your favorite features.

Access the Custom menu from the Home menu by pressing DOWN on the Rotary Commander. (Press UP to go back) To add items, browse the menus, then press & hold RIGHT to add that item to the Custom menu.





Rotary Commander allows you to easily toggle between the Home Menu and Custom Menu.



Automatically tailors acoustics by fine-tuning frequency Auto bandwidths plus front/rear speaker digital parametric 68 equalization. Result: smooth sound full of subtle nuance and clarity. *CD-MC20 required

Sonic Center Control

))) ((((Sonic Cente Control Adjusts frequency phase and acoustic characteristics by up to 15 steps for clearer, focused soundstage.

Advanced Sound Retriever

Restores sound quality and clarity to your highly compressed MP3, WMA and AAC files.



Sonic Center Contro

MVH features a 3" color display designed to take full advantage of all of your media. Play music videos and more from your iPod/iPhone, SD Memory Card or USB devices. Even display **/PEG** JPEG photos using the JPEG Slide Show feature.





JPEG Slide Show

Quickly search your iPod/iPhone with alphabetical search by Song,







Pioneer

DIVX





Customize Your Colors —

taste or mood. Select among 6 colors (Blue/Violet/Red/

Amber/Green/White) for the display and 112 colors for key

The MVH-8350BT and MVH-7350 will accommodate your





8-Band Graphic EQ

Please see page 17 for more details about Auto EQ, Sonic Center Control and Advanced Sound Retriever.



KEY FEATURES STEP-UP COMPARISON CHART

	Display	Preout	CD Player	Audio Format	AUX Input (Mini-Jack)	USB Interface ^{*1}	Contro for iPo iPhone
DEX-P99RS	Full Dot OEL 3-Line	4 (5 V)	•	MP3 WMA AAC WAV	Front	Rear	۰
DEH-80PRS	Full Dot LCD 3-Line	3 (5 V)	٠	MP3 WMA AAC WAV	Front	Rear x 2	٠
DEH-9450UB	Full Dot LCD 3-Line	3 (4 V)	۲	MP3 WMA AAC WAV	Rear	Rear x 2	۲
DEH-X9550BT	Full Dot LCD 3-Line	3 (4 V)	۰	MP3 WMA AAC WAV	Front	Rear x 2	۲
DEH-X9550SD	Full Dot LCD 3-Line	3 (4 V)	۲	MP3 WMA AAC WAV	Front	Rear x 2	۲
DEH-X8550BT	Full Dot LCD 3-Line	3 (4 V)	۰	MP3 WMA AAC WAV	Front	Rear	۲
DEH-X7550SD	Full Dot LCD 3-Line	3 (4 V)	٠	MP3 WMA AAC WAV	Front	Rear	۰
DEH-X6550BT	VA LCD 2-Line (13 x 1 + Sub)	2	•	MP3 WMA WAV	Front	Front ^{*2}	•
DEH-X3550UI	VA LCD 2-Line (13 x 1 + Sub)	2	•	MP3 WMA WAV	Front	Front ^{*2}	•
DEH-4550BT	LCD (12 x 1)	2	•	MP3 WMA WAV	Front	Front ^{*2}	•
DEH-2550UI	LCD (12 x 1)	2	۰	MP3 WMA WAV	Front	Front ^{*2}	۰
DEH-1550UB DEH-1550UBG	LCD (12 x 1)	1	•	MP3 WMA WAV	Front	Front ^{*2}	
DEH-155MP DEH-155MPG	LCD (12 x 1)	1	۰	MP3 WMA WAV	Front		
MVH-355BT	LCD (12 x 1)	1		MP3 WMA WAV	Front	Front ^{*2}	•
MVH-155UI	LCD (12 x 1)	1		MP3 WMA WAV	Front	Front ^{*2}	•
FH-X755BT	VA LCD 2-Line (13 x 1 + Sub)	2	•	MP3 WMA WAV	Front	Front ^{*2}	•
FH-X555UI	VA LCD 2-Line (13 x 1 + Sub)	2	•	MP3 WMA WAV	Front	Front ^{*2}	•
DXT-1569UB DXT-156UB	LCD (12 x 1)	1	•	MP3 WMA WAV	Front	Front ^{*2}	

For Color Customization. For Flashing Color.

*1. Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, smart phones, or other devices while using receiver. *2. Please use CD-US0E USB extension cable if a direct connection causes a USB device to protrude from the receiver in a way that can interfere with driving.

*3. Compatibility with unit depends on iPod generation. Requires use of CD-IU51. *4. HFP = Hands-Free Profile, A2DP = Advanced Audio Distribution Profile, AVRCP = Audio/Video Remote Control Profile (version 1.3), SPP = Serial Port Profile. Please refer to instruction manual for other

information about profile compatibility. *5. Works with music from iPod , SD/SDHC memory card and USB device.

*6. 125 colors. Key illumination only.
 *7. 210,000 colors (separated). Colors for key illumination and display are separately adjustable.
 *8. Also available for Bluetooth Wireless Audio.



See page 93 for in-depth information on features.

AUDIO RECEIVERS

Pioneer

MIXTRAX

MIXTRAX

Innovative Pioneer technology that creates a Non-Stop MIX with a range of DJ-inspired effects.

MIXTRAX EZ

DEH-X9550BT DEH-X9550SD DEH-X8550BT DEH-X7550SD DEH-X6550BT DEH-X3550UI FH-X755BT FH-X555UI

DEH-X9550BT DEH-X9550SD DEH-X8550BT DEH-X7550SD

New Pioneer Audio Receivers are compatible with MIXTRAX EZ for quick and easy Non-Stop MIX Play without using MIXTRAX software.

Short Playback Mode Select length of playback to

shorten track selections and speed up switching to following tracks in the mix.

Sound Level Indicator DEH-X9550BT DEH-X95505D DEH-X9550BT DEH-X75505D

Sound Level Indicator displays sound levels as visualized waveforms as a DJ mixer does.

Flashina Color*

DEH-X6550BT DEH-X3550UI FH-X755BT FH-X555UI Livens up the cabin with light pulsing to the beat of the music. * Can be switched on or off as desired.



 Sound Level Mode synchronizes with sound signal level · Low Pass Mode synchronizes with bass sound.

Color Choose among six lighting color patterns for both Sound Level Mode volume) and Low Pass Mode (bass). Colors vary according to levels

Key illumination and display pulse to the beat of the music When MIXTRAX is on, illumination color changes for the mode that has been selected and set.

vel Mode	Sound Volume	Low Pass Mode RED	Bass So
٢	High	RED	Larg
DER	! ↑	PINK	_ ↑
io .UE		INDIGO	
BLUE		OCEAN BLUE	
E			

Auto Flap Face

Highly functional, high-quality face panel design features a smoothly motorized auto flap.

Bluetooth[®]

Bluetooth Wireless Technology makes hands-free operation comfortable and safe while driving.

Dual USB Ports

More connectivity adds more convenience and utilities.

Lever Key

Gives a driver more assured operability and smoother control of various functions and settings.

through your car's speakers.

Extend your choices in car entertainment by connecting a compatible Android phone to the audio receiver to control CarMediaPlayer.

Separated Color Customization

Lets user match a receiver to car cabin and dash.



Advanced Sound Retriever

Reproduces high-quality sound from compressed digital audio files and Bluetooth wireless audio streams.





Song 3 Sona 4 * Orange portions indicate playback of each track.

Short Playback Mode

60", 90", 120", 150", 180", Random, Off

CAR DJ



Song 1

Pioneer



Key Selling Points



2

Devices and materials carefully selected according to the highest standards to achieve the ultimate in sound quality.

L/R Independent 4-Way Crossover, 31-Band L/R Independent EQ and 0.77 cm step Auto Time Alignment help optimize sound field in greater detail.

Built-in USB port allows transmission of digital signals from a connected iPod, iPhone or USB Device to DSP for high-quality sound reproduction.

Multi-Language Display (English/Spanish/Portuguese)

mote Cor

High-Performance 32-Bit Floating Point DSF

Auto EQ and Auto Time Alignment

• 7-Way Rotary Commander

Detachable Face Security[™]

24-Bit AKM DACs

Display Off Mode

ound Master Clock Circuit

Main Features



Bluetooth[®] Adapter Ready (CD-BTB200 Required)*

 USB Direct Control for iPod/iPhone and USB Devices wit Digital Direct Signal Transmission (CD-IU51 Required for iPod/

- AUX** Input (Front)
- iTunes AAC/MP3/WMA/WAV Playback Advanced Sound Retriever
- Hi-Volt Preouts x 4 (5 V)
- Built-in DSP with Dual (L/R) 31-Band GEQ
- * External control of IP-Bus Bluetooth Adapter has some limitations.
- Please consult owner's manual or Pioneer sales representative for more information.
- ** Use a 2.5 mm diameter mini-jack to connect to the AUX input while the Auto-Flap Motorized Face is at open position.



CD-IU51

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation Notes: Receiver may not operate other iPod

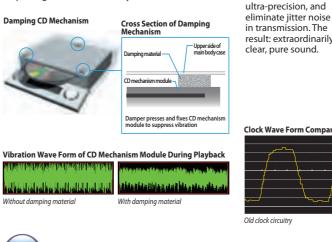
models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility

3

High-Performance Damping Material and Mechanism

New High-Precision Sound Master Clock Circuitry

To pick up digital signals recorded on CDs with superior precision, new damping mechanism and material firmly press and fix the entire CD mechanism module -- effectively absorbing and dispersing vibration caused by CD rotation.



Auto Time Alignment and Auto EQ

Time alignment automatically estimates the delay from each speaker to driver's position and adjusts speaker sound output timing accordingly by 0.77 cm differences, so that sound from all speakers reaches the driver's ears in perfect sync. Auto EQ tailors specific musical characteristics according to taste, uses a microphone to monitor and analyze acoustics, then automatically fine-tunes all frequency bandwidths and front and rear speaker digital parametric equalization. These entire processes occur in 543 seamless steps in just about 5 minutes



they are virtually equidistant from the listener, for a clearer, Auto EQ Adjustment Example front-focused soundstage After adjustment After adjustment: Smooth response with subtle nuances reproduced clearly. Before adjustment: Rough frequency response curve; unclear Before adjustment overall sound. 10,000 20,000 For smoother low- to 1,000 100 high-range sound. Frequency (Hz)

 Digital signal is directly transferred to DSP for high-quality sound reproduction from USB device and iPod. • 125-Color Button Illumination offers choice of colors to closely match the illumination of various dashboard displays. · Automatically mutes sound from source being played as a car window or door are being opened or closed.

makes all speakers sound as if

The latest integrated circuits require superior clock signal quality to handle digital data accurately without distortion at ever-higher speeds. New Sound Master Clock Circuitry in the DEX-P99RS generates clock waveforms to read and process digital signals with





New clock circuitr

32-Bit Binary Floating-Point DSP

The DEX-P99RS incorporates 32-Bit Binary Floating-Point DSP for high-precision sound processing and tuning without degrading digital signals from their sources.

Pioneer

Example of	Calculation	by Fixed-	Point DSP
------------	--------------------	-----------	-----------

-10	F	Ŧ	Ŧ	Η	H-	<u> </u>	F	F		Ŧ	Ŧ	Ŧ	-	_	F	F	H	Ħ	Ħ			-10
-20	$ \rightarrow$		А	11	II.	\sim	\sim		Ц	4	Ц	Щ	_			1	Ц	Ш	Щ		4	-20
-30	Ц	4		Ц	Ш.,	_				V	Ц						Ц	Ш	Ш			-30
-40	\square		h	11	Ĩ.	\sim	\sim	h			U						Ш	Ш	Ш			-40
-50		1	11	Ш	h	ыH			М	V	Π	Η		_		-	H	₩	Н		-	-50
-60						ſŀ	n	h		Δ	J							Ш			- 1	-60
-70	N	M	"	ΥI		1			М	V	ľ	V	Ч	M	M	₩	2	Н	m	ht	~1	-70
-80	V	Π	Ч	Π	Π					ľ	K	N	M	L.	W	N/	M	NB	N	NP	414	-80
-90		n	h	Н	1	v	710	W	Μ	N	f			IV	W	W	1	14	T		10	-90
		ľ	11	Ħ	Ħ		10		П	t	Ħ	Ħ	ΠÌ	N. 1	r	t	H	Ħ	Ħ		- 1	
-100	H	+	۲	Н	#			H	Н	+	Ħ	T				t	H	Ħ	Н	-	- 1	-100
-110		_		ш					Ц		Ц	щ		_	<u> </u>	-	_	ш	щ		_	-110

Example of Calculation by Binary Floating-Point DSP

-10			T		Ш		TTT		-10
-20	\wedge	μ~	$ \rightarrow $		111	++	++++	III —	-20
-30	۲ I I I		\downarrow	TN.	111		1111		-30
-40	\mathcal{M}	\mathbb{Y}^{\sim}	\wedge						-40
-50	(₁			M	1₩	++	++++		-50
-60	\sim	$\Gamma \sim$	44	VIN		++	++++		-60
-70				M			++++		-70
-80	\mathcal{M}	\mathbb{Y}^{\setminus}	\wedge						-80
-90	/			M	14			-	-90
-100				-11N					-100
-110					X		++++		-110
20	50	100	200	500	1k	2k	5k	10k 2	20k

Note: DEX-P99RS does not reproduce Dolby® Digital and DTS® digital surround sound.

4-Way Digital Network

To let listeners keep transitions between frequency ranges sounding smooth, the DEX-P99RS features a 4-Way Digital Network that lets you adjust Cutoff Frequency, Cutoff Slope, Level and Phase for any of four (high, mid, low and subwoofer) frequency ranges. Moreover, the adjustments for left and right channels can be made independently of each other. The result: more distinct separation of the four frequency ranges and fuller, more natural sound, with each speaker reaching its full potential as part of a multi-speaker system



4-Way Digital Network

Network	L/R Independent Network			
	Cutoff Frequency (Hz)	Cutoff Slope	Level	Phase (Normal/Reverse)
High (HPF)	800/1 k/1.25 k/1.6 k/2 k/2.5 k/3.15 k/4 k/5 k/ 63 k/8 k/10 k/125 k/16 k	-6 dB/-12 dB/-18 dB/ -24 dB/-30 dB/-36 dB/oct.	0 to -24 dB/ MUTE (1 dB step)	0
Mid (LPF)	25/31.5/40/50/63/80/100/125/160/200/250/315/ 400/500/630/800/1 k/1.25 k/1.6 k/2 k/2.5 k/ 3.15 k/4 k/5 k/6.3 k/8 k/10 k/12.5 k/16 k/20 k	PASS, -6 dB/-12 dB/-18 dB/ -24 dB/-30 dB/-36 dB/oct.	0 to -24 dB / MUTE (1 dB step)	0
Mid (HPF)	20/25/31.5/40/50/63/80/100/125/160/200/250/ 315/400/500/630/800/1 k/1.25 k/1.6 k/2 k/ 2.5 k/3.15 k/4 k/5 k/6.3 k/8 k/10 k/12.5 k/16 k	PASS, -6 dB/ -12 dB/-18 dB/ -24 dB/-30 dB/-36 dB/oct.	0 to -24 dB/ MUTE (1 dB step)	0
Low (LPF)	25/31.5/40/50/63/80/100/125/160/200/250/315/ 400/500/630/800/1 k/1.25 k/1.6 k/2 k/2.5 k/ 3.15 k/4 k/5 k/63 k/8 k/10 k/12.5 k/16 k/20 k	PASS, -6 dB/-12 dB/-18 dB/ -24 dB/-30 dB/-36 dB/oct.	+6 to -24 dB/ MUTE (1 dB step)	0
Low (HPF)	20/25/31.5/40/50/63/80/100/125/160/200/250/ 315/400/500/630/800/1 k/1.25 k/1.6 k/2 k/ 2.5 k/3.15 k/4 k/5 k/63 k/8 k/10 k/12.5 k/16 k	PASS, -6 dB/-12 dB/-18 dB/ -24 dB/-30 dB/-36 dB/oct.	+6 to -24 dB/ MUTE (1 dB step)	0
SW (LPF)	25/31.5/40/50/63/80/100/125/160/200/250/315/ 400/500/630/800/1 k/1.25 k/1.6 k/2 k/2.5 k/ 3.15 k/4 k/5 k/63 k/8 k/10 k/12.5 k/16 k/20 k	PASS, -6 dB/-12 dB/-18 dB/ -24 dB/-30 dB/-36 dB/oct.	+6 to -24 dB/ MUTE (1 dB step)	0



Made for iPod iPhone



Audio Receiver for Entering the World of High-Quality Car Audio





Made fo , Dual 🥼 liPod iPhone USB

Key Selling Points

Devices and materials carefully selected according to the highest standards to achieve the ultimate in sound quality.

3

Pioneer's exclusive sound field technologies including Auto EQ and Auto Time Alignment help optimize audio in ways that perfectly suit particular listening spaces and allow subtle manual control of settings.

Versatile connectivity helps deliver exceptional sound quality from various digital devices.

Main Features

• CD Player • Full Dot LCD Display (192 x 48 Pixels, 3-Line) LED Backlight

 Multi Language Display (English/Spanish/Portuguese) Separated Color Customization (More than 210,000 Colors)

 SD/SDHC Memory Card Slot
 USB Direct Control for iPod/iPhone (CD-IU51 Required) Dual USB Ports (Rear: High Current 1A Handling Capability) AUX Input (Front)

Music Browser

Note: Text in blue indicates feature differentiation from other models

• MP3/WMA/WAV/AAC Playback Flap Face Anti-Dust Design DSP with Dual (L/R) 16-Band GEO Wired Remote Input Auto EQ and Auto Time Alignme Display Off Mode and Audio Part Detachable Face Secur Lever Key
 Rotary Volume Control Advanced Sound Retriever MOSFET 50 W x 4 Supertuner® IIID Card Remote Control • RDS • Hi-Volt Preouts x 3 (5 V)

	iPod/iPhone Operable with Pion
	Made for
	iPhone 4
	iPhone 3GS
	iPhone 3G
	iPhone
rity™	iPod touch (1st, 2nd, 3rd, and 4th gener
	iPod classic
l I Karak	iPod with video
ime Knob	iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6

Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility.

High Performance Burr-Brown 24-bit Advanced Segment D/A Converter x 3

Incorporation of three circuit boards for each of high, mid and low frequency ranges make for exceptional linear sound reproduction with wide dynamic range and low distortion of original sources.

Four-Layer Circuit Board Design

Uses four-layer copper foil, and parts are set by reflow mounting to both sides of the circuit board. A more highly integrated parts layout makes the circuit board significantly more compact than a conventional one. Ground and power supply patterns are mainly used in the inside layer and the lower impedance as a result greatly reduces noise.

reproduced.



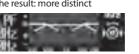
28-bit Binary Floating-Point DSP

Handling of a wider range of complicated calculations than fixed-point DSP and use of advanced programming technology allows for this high-precision sound processing and tuning without source digital signal degradation

3-Way Digital Network Mode

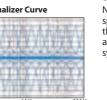
The DEH-80PRS lets user switch to "network mode" for a 3-Way Digital Network, connecting (via three preouts) up to three external amplifiers, dedicated to driving high-, mid- and low-frequency ranges, respectively. The result: more distinct separation of the three frequency ranges,

for more full, natural sound realizing more of each speaker's potential in a multispeaker system.



L/R Independent 16-Band Digital Equalizer

Incorporates L/R Independent 16-Band Digital Equalizer excellent at correcting frequency characteristics distortion. Makes full, fine adjustment by each 2/3 octave to realize ideally flat sound characteristics in any type of car.



Auto Time Alignment and Auto EQ

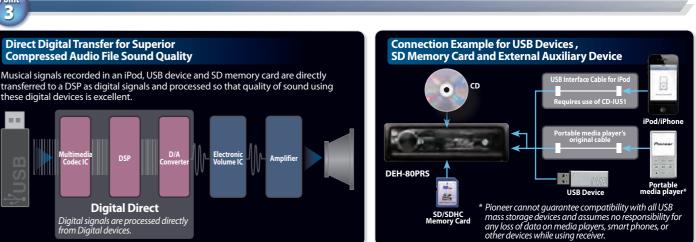
Time alignment automatically estimates the delay from each speaker to driver's position and adjusts speaker sound output timing accordingly by 0.77 cm differences, so that sound from all speakers reaches the driver's ears in perfect sync.

Auto EQ tailors specific musical characteristics according to taste, uses a microphone to monitor and analyze acoustics, then automatically fine-tunes all frequency bandwidths and front and rear speaker digital parametric equalization.

These entire processes occur in 399 seamless steps in just about 6 minutes and 30 seconds.

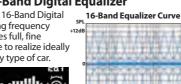


transferred to a DSP as digital signals and processed so that quality of sound using these digital devices is excellent



eer Receiver

6th generation

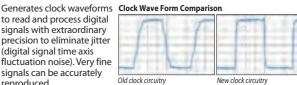


Full-Custom High-Capacitance Power Supply Capacitor

Stabilizes power supply to keep sound clear and consistent. Original parts are developed and tuned for optimal sound quality through close examination of materials and repeated listening trials.

Sound Master Clock Circuitry

to read and process digital signals with extraordinary precision to eliminate iitte (digital signal time axis fluctuation noise). Very fine signals can be accurately





Pioneer

3-Way Digital Network System Connection Example PRS AM High D pr 2000 PRS AMP Mid PRS AM

Time Alignment

Not only can this function precisely adjust each speaker's output timing according to its distance from the listening position in 1.25 cm increments – it is also adaptable to a 3-way multi-amplifier and speaker system.



After adjustment

reproduced clearly.

Before adjustment

response curve; unclear overall sound.

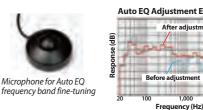
Rough frequency

10.000 20,000

subtle nuances

Smooth response with





Auto EQ Adjustment Example

1.000



Key Selling Points



Highly functional, high-quality face panel design features a smoothly motorized auto flap and clear front interface.





Specialized audio parts carefully chosen for outstanding audio quality.





Music Browser for faster, simpler song search and selection.

• MP3/WMA/WAV/AAC Playback

Advanced Sound Retriever
 MOSFET 50 W x 4

• Hi-Volt Preouts x 3 (4 V)

• 5-Band Graphic EQ

Anti-Dust Design

 Supertuner[®] IIID • RDS

Wired Remote Input

Detachable Face Security

Lever Key
 Rotary Volume Control

Card Remote Control

Display Off Mode

Main Features



• Full Dot LCD Display (192 x 48 Pixels, 3-Line)

- LED Backlight Multi Language Display (English/Spanish/Portuguese)
- Separated Color Customization (More than 210,000 Colors) USB Direct Control for iPod/iPhone (CD-IU51 Required)
- Dual USB Ports
- (Rear: High Current 1A Handling Capability) AUX Input (Rear)
- Music Browser

Note: Text in blue indicates feature differentiation from other models.

	iPod/iPhone Operable with Pione
	Made for
	iPhone 4
тм	iPhone 3GS
	iPhone 3G
	iPhone
	iPod touch (1st, 2nd, 3rd, and 4th genera
	iPod classic
	iPod with video

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation)

er Receiver

Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility.

Elegantly Functional Face

Highly functional, high-quality face panel design features a smoothly motorized auto flap and clear front interface.



Specialized Audio Parts

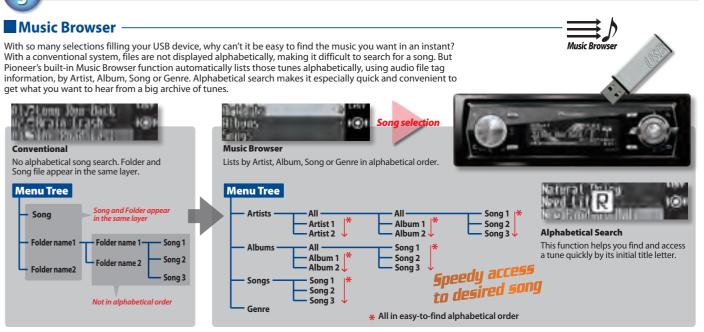
Our engineers perform listening tests with expert care to incorporate specially designed parts that make for superior audio quality. Take Pioneer's new receiver. Its high-capacitance audio capacitor has particularly strong influence on audio signal input for higher performance sound reproduction.

Audio control functions like 5-band GEQ and LPF/HPF take advantage of electronic circuitry that improves sound quality and minimizes analog signal degradation.

3

Music Browser

get what you want to hear from a big archive of tunes.



Full Dot 3-Line LCD Display

The Full Dot LCD Display allows you to scroll through your iPod with greater ease, displaying up to three lines in list mode.

FULL DOT LCD

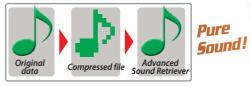
Smooth, Sure Operability

For the sake of safety, a new horizontally laid out lever gives a driver more assured operability and smoother control of various functions and settings.



Advanced Sound Retriever

Advanced Sound **Retriever** reproduces high-quality sound from compressed digital audio files.











High-capacitance capacitor for audio Electronic volume control IC for Audio



Separated Color Customization



Separated Color Customization lets the user match their receiver illumination to their interior lighting. Color of key illumination and display can be selected separately.

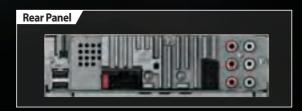


DEH-X9550BT

Audio Receiver with MIXTRAX, Bluetooth® for Hands-Free Calling/ Wireless Audio, Dual USB Ports, USB Direct Control for iPod/iPhone, and Flap Face





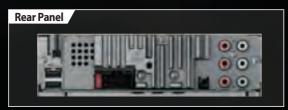


DEH-X9550SD

Audio Receiver with MIXTRAX, Dual USB Ports, USB Direct Control for iPod/iPhone, and Flap Face







BRCM Hi-VOLT Subwoofer 24 bit And Frace



Key Selling Points

Finely detailed Full Dot 3-Line FULL DOT LCD display features flap face with sleek, elegant design.

Non-Stop Mix Play makes it quick and easy to enjoy simple, Poin 2 seamless music sequencing. Cool Flashing Color livens up the cabin with light pulsing to the beat of the music. **MIXTRAX**

□iPod **□**iPhone

Made for

lipod iPhone

Made for



 Smartphone compatibility lets you play music stored in an iPod, iPhone or Android phone through your car audio system. Dual USB Ports with 1A high current handling capability enable connections to various digital devices.

Common Main Features

DEH-X9550BT Main Features

 MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play) • CD Player • Full Dot LCD Display (192 x 48 Pixels, 3-Line) LED Backlight Multi Language Display (English/Spanish/Portuguese)

 Separated Color Customization (More than 210,000 Colors) SD/SDHC Memory Card Slot USB Direct Control for iPod/iPhone (CD-IU51 Required)

Advanced Sound Retriever MOSFET 50 W x 4 Supertuner[®] IIID RDS • Hi-Volt Preouts x 3 (4 V)

Control for Android Devices with CarMediaPlayer App
 Suetooth for Hands-Free Calling & Wireless Audio
 Advanced Sound Retriever for Bluetooth Wireless Audio

AUX Input (Front)

Specialized Audio Parts

Music Browser

• 5-Band Graphic EQ • MP3/WMA/WAV/AAC Playback Anti-Dust Design Wired Remote Input Display Off Mode Detachable Face Security™ Lever Key Rotary Volume Control Card Remote Control



Smartphone

Compatible

Smartphone Compatible

iPod with video

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation)

Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility

Note: Text in blue indicates feature differen on from other model

Flap Flap Face Design FACE The CD slot is concealed behind the front panel flap, so the receiver's face looks extra-sleek and elegant.



Innovative Pioneer technology that creates a Non-Stop MIX with a range of DJ-inspired effects

 MIXTRAX EZ for Quick Non-Stop MIX Play Tracks are joined by various random sound effects in Non-Stop MIX Play, and you can experience the intimate euphoria of listening to music that sounds as if a club DJ is there playing it.

Short Playback Mode

You can choose a length of playback (60, 90, 120, 150, 180 sec., random, or off) to shorten track selections and speed up switching to following tracks in the mix.

Sound Level Indicator

Like a DJ mixer, Sound Level Indicator displays sound levels as visualized waveforms.

Flashing Color*

* Can be switched on or off as desired.

As MIXTRAX begins, lights starts pulsing to the beat of the music, creating a mood-enhancing dance club-like lighting effect.



Dual USB Ports

More connectivity adds more convenience and utilities. For example Dual 1 you can listen to music from a USB device while charging your USB \ smartphone.

App Source for iPhone -

• Use music apps stored in your iPod or iPhone for listening through the car speakers. • Fast forward and reverse can be operated through the receiver.

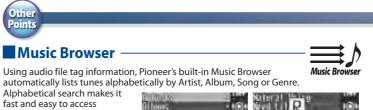
• App Source boots up as a music source for quicker access to iPod and iPhone app control

Note: Not all apps will be compatible with App Source, which will provide limited, if any, control over the app.



Built-in Bluetooth[®] for Safety and Convenience — DEH-X9550BT

- Bluetooth hands-free (HFP) function is easy enough to operate safely while driving.
- (AVRCP, A2DP), you can control and listen to a compatible audio player on your receiver
- and view tag information on the receiver display. Secure Simple Pairing (SSP) allows more simple phone pairing without PIN code input.



whatever tune you want from a big archive. Music Browser



Electronic Parts for Superb Sound and Functions

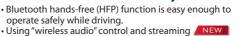
Electronic Volume Control For multifunctional control of high quality sound from the digital-to-analog converter (DAC) with minimal analog signal degradation.



ntrol IC for Audio







🔉 Bluetooth

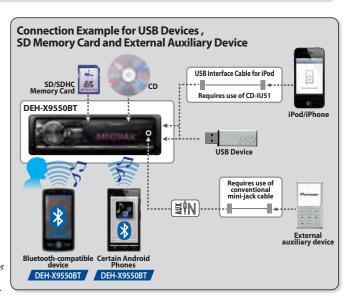


Pioneer

FULL DOT Full Dot 3-Line LCD Display – LCD

A finely detailed full dot 3-line LCD display improves visibility when controlling and monitoring various operations.







Audio Receiver with MIXTRAX, Bluetooth® for Hands-Free Calling/Wireless Audio, and USB Direct Control for iPod/iPhone





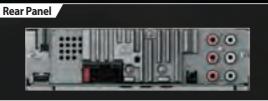


DEH-X7550SD

Audio Receiver with MIXTRAX, and USB Direct Control for iPod/iPhone







MIXTRAX Made for ∜ USB BECA Hi-VOLT Subwoofer 24bit Datament Development 24bit December 2 Bluetooth[®] **□**iPod **□**iPhone superFiumerie D MOSFET 50Wx4

Key Selling Points



3

Simple, seamless music connection makes it quick and easy to enjoy Non-Stop Mix Play. Cool Flashing Color livens up the cabin with light pulsing to the beat of the music.



• 5-Band Graphic EQ

Wired Remote Input

Detachable Face Security[™]

Rotary Volume Control

Card Remote Control

• Anti-Dust Design

Display Off Mode

Note: "Control for Android Devices with CarMediaPlayer App", "Bluetooth Wireless Technology" and "Voice Control" for DEH-X8550BT.



FULL DOT

LCD

MIXTRAX

Smartphone

Compatible

Music Browser for faster, simpler song search and selection.

AUX Input (Front)

MOSFET 50 W x 4

Supertuner[®] IIID

• RDS

Finely detailed Full Dot 3-Line LCD display makes more information more visible.

MP3/WMA/WAV/AAC Playback

Advanced Sound Retriever

red Audio Part

reouts x 3 (4 V)

Common Main Features

 MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play) • CD Player ay (192 x 48 Pixels, 3-Line) LED Backlight

Separated Color Customization (More than 210,000 Colors)

 USB Direct Control for iPod/iPhone (CD-IU51 Required) • USB Port (Rear: High Current 1A Handling Capability)

DEH-X8550BT Main Features

 Control for Android Devices with CarMediaPlayer App
 Voice Control for iPhone • Bluetooth for Hands-Free Calling & Wireless Audio

 Advanced Sound Retriever for Bluetooth Wireless Audio Note: Text in blue indicates feature differentiation from other mo

iPod/iPhone Operable with Pioneer Receive
Made for
iPhone 4S
iPhone 4
iPhone 3GS
iPhone 3G
iPhone
iPod touch (1st, 2nd, 3rd, and 4th generation)
iPod classic
iPod with video
iPod nano (1st 2nd 3rd 4th 5th and 6th generation

Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility.

experience the intimate euphoria of listening to music that sounds as if a club DJ is there playing it.

Short Playback Mode

Sound Level Indicator

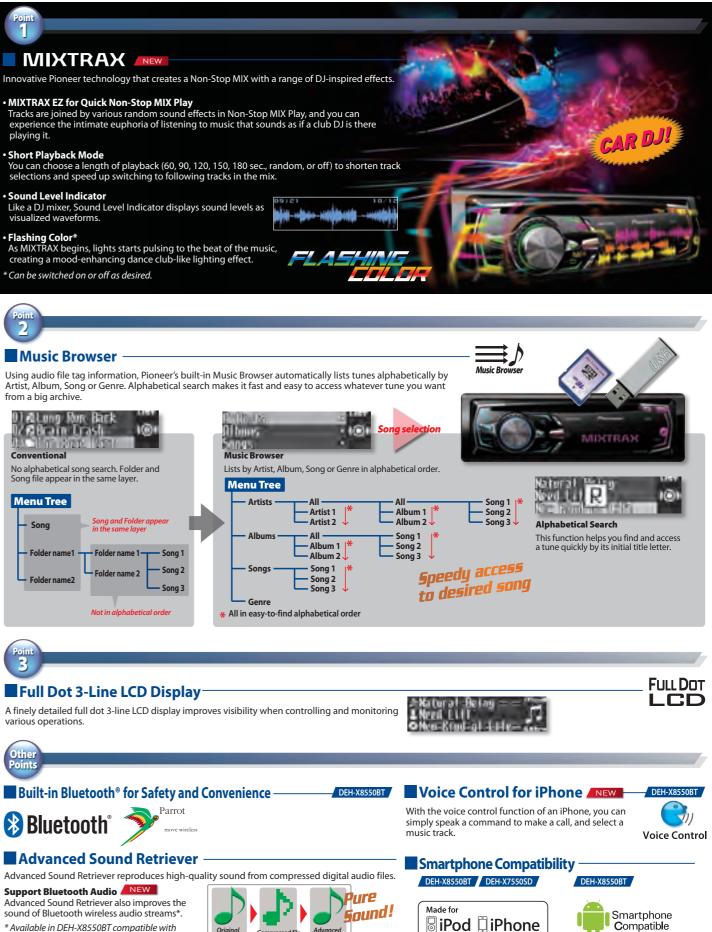
Like a DJ mixer, Sound Level Indicator displays sound levels as visualized waveforms.

• Flashing Color*

creating a mood-enhancing dance club-like lighting effect.

Music Browser

from a big archive.



Full Dot 3-Line LCD Display

various operations.





Advanced Sound Retriever

Advanced Sound Retriever also improves the sound of Bluetooth wireless audio streams*. * Available in DEH-X8550BT compatible with

Bluetooth wireless audio streamina.





Pioneer

DEH-X6550BT

Audio Receiver with MIXTRAX, Bluetooth® for Hands-Free Calling/Wireless Audio, and USB Direct Control for iPod/iPhone







Innovative Pioneer technology that creates a Non-Stop MIX with a range of DJ-inspired effects.

 MIXTRAX EZ for Quick Non-Stop MIX Play Tracks are joined by various random sound effects in Non-Stop MIX Play, and you can experience the intimate euphoria of listening to music that sounds as if a club DJ is there playing it.

Short Playback Mode

You can choose a length of playback (60, 90, 120, 150, 180 sec., random, or off) to shorten track selections and speed up switching to following tracks in the mix.

Flashing Color*

2

As MIXTRAX begins, lights starts pulsing to the beat of the music, creating a mood-enhancing dance club-like lighting effect.

* Can be switched on or off as desired.

Separated Color Customization

Separated Color Customization lets the user



DEH-X3550UI

Audio Receiver with MIXTRAX, and USB Direct Control for iPod/iPhone







≪VALCD 📴 🜨 MP3 WMA ≨¶N 2800 Subwoofer 24bit Commerce 24bit RDS SUPERFIJMERED MIXTRAX SBluetooth VUSB

liPod iPhone Note: "Bluetooth Wireless Technology" and "Voice Control" for DEH-X6550BT.

Made fo

Key Selling Points



Simple, seamless music connection makes it quick and easy to enjoy Non-Stop Mix Play. Cool Flashing Color livens up the cabin with light pulsing to the beat of the music.



MIXTRAX

Color Customization lets user match a receiver to car cabin and dash.



vivers

Large VA LCD display with 2-line text provides superior visibility and contrast throughout a wide viewing angle range.

• Supertuner[®] IIID

Shortwave Tuner

• RDS

Common Main Features

IXTRAX EZ for Quick Non-Stop MIX Play) CD Player y (13-Character + Sub Display)

 LED Backlight ion (More than 210,000 Colors

 USB Direct Control for iPod/iPhone (CD-IU51 Required) Bright USB Port (Front: High Current 1A Handling Capability) AUX Input (Front)

DEH-X6550BT Main Features

 Bluetooth for Hands-Free Calling & Wireless Audio Voice Control for iPhone Advanced Sound Retriever for Bluetooth Wireless Audio Note: Text in blue indicates feature differentiation from other models.

• MP3/WMA/WAV Playback Anti-Dust Design Advanced Sound Retriever Wired Remote Input • MOSFET 50 W x 4 Display Off Mode Detachable Face Security[™] Rotary Volume Control Card Remote Control • RCA Preouts x 2 (2 V) 5-Band Graphic EO

ii ou/ii none operable within ioneer neteri
Made for
iPhone 4S
iPhone 4
iPhone 3GS
iPhone 3G
iPhone
iPod touch (1st, 2nd, 3rd, and 4th generation)
iPod classic
iPod with video
iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generati
Notes: Receiver may not operate other iPod models.

iPod/iPhone Operable with Pion

Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility.





App Mode for iPhone

• Use music apps stored in your iPod or iPhone for listening through the car speakers.

· Fast forward and reverse can be operated through the receiver. Note: Not all apps will be compatible with App Mode, which will provide limited, if any, control over the app





5-Band Graphic EQ

5-Band Graphic Equalizer allows more precise adjustment of acoustic settings to suit the car's interior conditions, your personal preferences and the sound mood that you seek





38



gen wen weit New Display 12 9 mm x 83 9 mr

Built-in Bluetooth® for Safety and Convenience

- Bluetooth hands-free (HFP) function is easy enough to operate safely while driving. Using "wireless audio" control and streaming
 NEW
- (AVRCP, A2DP), you can control and listen to a compatible audio player on your receiver and view tag information on the receiver display.
- Secure Simple Pairing (SSP) allows more simple phone pairing without PIN code input.
- DFH-X6550BT 🔀 Bluetooth Parrot

Pioneer

Advanced Sound Retriever

Hear the detail, warmth and clarity, the way the artist intended it, from all of your highly compressed MP3 and WMA files stored on USB device, iPod and portable media players. By restoring data (especially higher frequencies) that tend to get lost in the digital compression process, Pioneer's Advanced Sound Retriever technology enhances audio reproduction nearly all the way up to 20 kHz frequencies.

Support Bluetooth Audio

Advanced Sound Retriever also improves the sound of Bluetooth wireless audio streams*.

* Available in DEH-X6550BT compatible with Bluetooth wireless audio streaming.



Pioneer DEH-1550UBG **Rear Panel ∜** USB







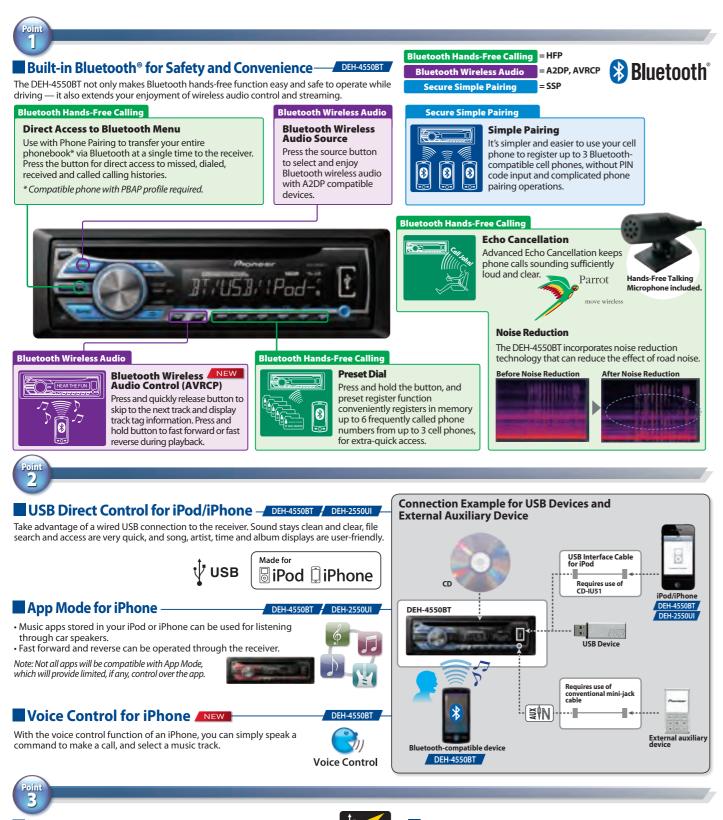
• RDS • 5-Band Graphic EQ

- Detachable Face Security[™]
- Rotary Volume Control
- Card Remote Control
- Anti-Dust Design
 Wired Remote Input
- Display Off Mode

iPod/iPhone Operable with Pioneer Receivers

Made for
iPhone 4S
iPhone 4
iPhone 3GS
iPhone 3G
iPhone
iPod touch (1st, 2nd, 3rd, and 4th generation)
iPod classic
iPod with video

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th gener Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary depending on the software version of iPod. Please see page 94 for more compatibility



1A High Current USB Port

The new receiver can supply 1.0A high current to a connected USB device to keep playback from the device stable, or quickly charge a connected smartphone.

Pioneer cannot auarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, smart phones, or other devices while using receiver.



Illuminated USB and AUX Input Terminals —

Glowing USB and AUX input terminals brighten the car interior and are easy to identify as needed at night.







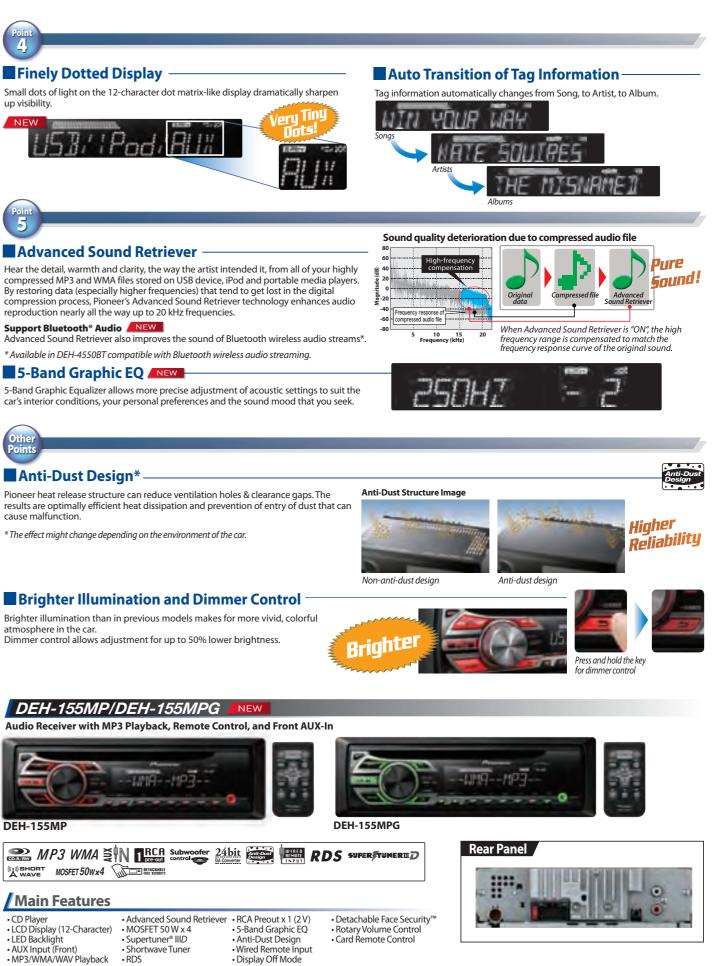


5-Band Graphic Equalizer allows more precise adjustment of acoustic settings to suit the car's interior conditions, your personal preferences and the sound mood that you seek.





Audio Receiver with MP3 Playback, Remote Control, and Front AUX-In



D Player - Advanced Sound Retrieve CD Display (12-Character) - MOSFET 50 W x 4 ED Backlight - Supertuner® IIID UX Input (Front) - Shortwave Tuner IP3/WMA/WAV Playback - RDS	 5-Band Graphic EQ Anti-Dust Design Wired Remote Input Display Off Mode 	
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Pioneer



Rotary Volume Control

Card Remote Control

t∛ USB App Mode for iPhone Music apps stored in your iPod or iPhone can be used for listening through car speakers. · Fast forward and reverse can be operated through the receiver Note: Not all apps will be compatible with App Mode. which will provide limited, if any, control over the app. Voice Control for iPhone With the voice control function of an iPhone, you can simply speak a command to make a call, and select a music track. Built-in Bluetooth® for Safety and Convenience Bluetooth hands-free (HFP) function is easy enough to operate safely while driving. player on your receiver and view tag information on the receiver display. • Secure Simple Pairing (SSP) allows more simple phone pairing without PIN code input.

1A High Current USB Port -

The new receiver can supply 1.0A high current to a connected USB device to keep playback from the device stable, or quickly charge a connected smartphone.

Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, smart phones, or other devices while using receiver.



2

user-friendly.

Finely Dotted Display

Small dots of light on the 12-character dot matrix-like display dramatically sharpen up visibility.



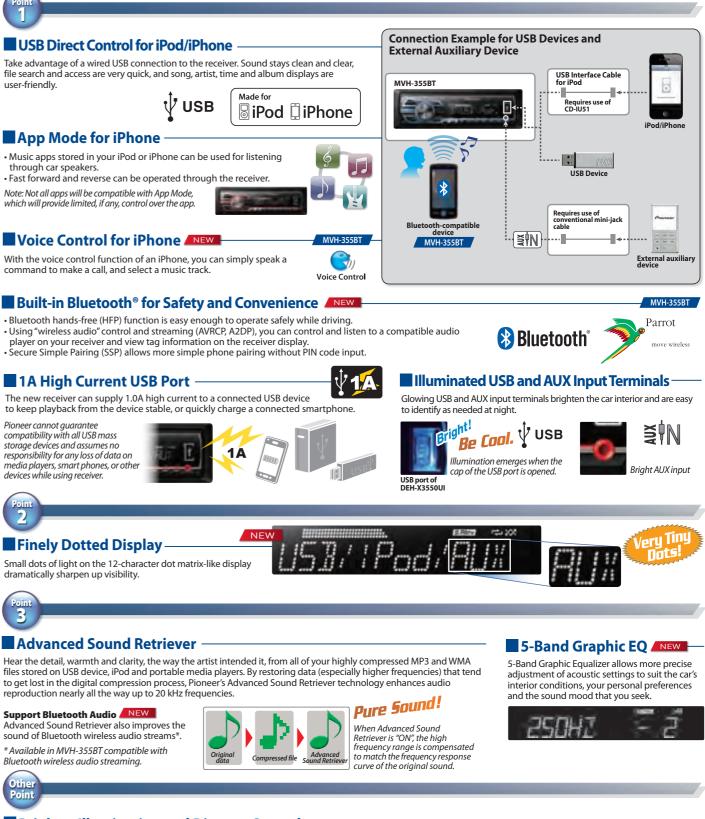
3

Advanced Sound Retriever

files stored on USB device, iPod and portable media players. By restoring data (especially higher frequencies) that tend to get lost in the digital compression process, Pioneer's Advanced Sound Retriever technology enhances audio reproduction nearly all the way up to 20 kHz frequencies.

Support Bluetooth Audio

Advanced Sound Retriever also improves the sound of Bluetooth wireless audio streams*. * Available in MVH-355BT compatible with Bluetooth wireless audio streamina.



iPod touch (1st, 2nd, 3rd, and 4th genera iPod classic

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th generation) Notes: Receiver may not operate other iPod models. Compatibility with unit and operations may vary

iPod with video

iPhone 3GS

iPhone 3G

iPhone

depending on the software version of iPod. Please see page 94 for more compatibility.

MVH-355BT Main Features

AUX Input (Front)

MP3/WMA/WAV Playback

 Bluetooth for Hands-Free Calling & Wireless Audio Voice Control for iPhone Advanced Sound Retriever for Bluetooth Wireless Audio Shortwave Tuner

Note: Text in blue indicates feature differentiation from other models.

Bright USB Port (Front: High Current 1A Handling Capability)

• RDS

RCA Preout x 1 (2 V)

5-Band Graphic EQ





Brighter illumination than in previous models makes for more vivid, colorful atmosphere in the car. Dimmer control allows adjustment for up to 50% lower brightness



Pioneer



Press and hold the key for dimmer control





reproduction nearly all the way up to 20 kHz frequencies.

Advanced Sound Retriever also improves the sound of Bluetooth wireless audio streams*.

* Available in FH-X755BT compatible with Bluetooth wireless audio streaming.

Support Bluetooth® Audio

iPod with video

iPod nano (1st, 2nd, 3rd, 4th, 5th, and 6th genera

Notes: Receiver may not operate other iPod models.

Compatibility with unit and operations may vary depending on the software version of iPod.

Please see page 94 for more compatibility.

FH-X755BT Main Features

 Bluetooth for Hands-Free Calling & Wireless Audio Voice Control for iPhone Advanced Sound Retriever for Bluetooth Wireless Audio Note: Text in blue indicates feature differentiation from other models files stored on USB device, iPod and portable media players. By restoring data (especially higher frequencies) that tend to get lost in the digital compression process. Pioneer's Advanced Sound Retriever technology enhances audio

5-Band Graphic EQ –

5-Band Graphic Equalizer allows more precise adjustment of acoustic settings to suit the car's interior conditions, your personal preferences and the sound mood that you seek.

DIO

RECEIVERS

DXT-1569UB

Audio Receiver with Front USB Port, and Speaker Package (6" x 9" & 16 cm Speakers)



DXT-156UB Audio Receiver with Front USB Port, and Speaker Package (16 cm Speakers)



Shortwave Tuner

RCA Preout x 1 (2 V)

• 5-Band Graphic EQ

Wired Remote Input

 Detachable Face Security[™] Rotary Volume Control Card Remote Control

Anti-Dust Design

Display Off Mode

RDS



24bit DA Converter WIRED REMOTE RDS SUPER TUNER **USB** ((;)) SHORT MOSFET 50Wx4

Key Selling Points



Speaker package models make it easy to upgrade a car audio system.

Advanced Sound Retriever reproduces high-quality sound from compressed digital audio files. 5-Band Graphic EQ lets you enhance acoustic settings and mood as desired.

Anti-Dust Design ensures reliability and stability of performance.



Common Main Features

CD Player LCD Display (12-Character) LED Backlight
Bright USB Port (Front: High Current 1A Handling Capability)
AUX Input (Front) MP3/WMA/WAV Playback
Advanced Sound Retriever MOSFET 50 W x 4
Supertuner [®] III <i>D</i>

Speaker Specifications

	DXT-1	DXT-156UB		
Size	6" x 9"	16 cm		
Max. Music Power (Nominal)	230 W (30 W)	200 W (25 W)	200 W (25 W)	
Frequency Response	28 Hz to 32 kHz	31 Hz to 16 kHz	31 Hz to 16 kHz	
Sensitivity (1 W/1 m)	88 dB	88 dB	88 dB	
Impedance	4 Ω	4 Ω	4 Ω	
Mounting Depth	66.3 mm	41 mm	41 mm	
Cut-Out Dimensions	153 mm x 222 mm	ø128 mm	ø128 mm	

2

Package System Configurations

Pioneer's new package models containing a audio receiver and bundled speakers are ideal for entry-level customers who want to upgrade their car audio system with ease.

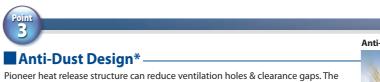


Advanced Sound Retriever

Hear the detail, warmth and clarity, the way the artist intended it, from all of your highly compressed MP3 and WMA files stored on USB device, iPod and portable media players. By restoring data (especially higher frequencies) that tend to get lost in the digital compression process, Pioneer's Advanced Sound Retriever technology enhances audio reproduction nearly all the way up to 20 kHz frequencies.

5-Band Graphic EQ

5-Band Graphic Equalizer allows more precise adjustment of acoustic settings to suit the car's interior conditions, your personal preferences and the sound mood that you seek.



Pioneer heat release structure can reduce ventilation holes & clearance gaps. The results are optimally efficient heat dissipation and prevention of entry of dust that can cause malfunction.

* The effect might change depending on the environment of the car.



3

Finely Dotted Display

Small dots of light on the 12-character dot matrix-like display dramatically sharpen up visibility.



1A High Current USB Port -

∲1A

The new receiver can supply 1.0A high current to a connected USB device to keep playback from the device stable, or quickly charge a connected smartphone.

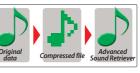
Pioneer cannot guarantee compatibility with all USB mass storage devices and assumes no responsibility for any loss of data on media players, smart phones, or other devices while using receiver.



AUDIO RECEIVERS

Pioneer

DXT-156UB: Audio Receiver + 16 cm Speaker Package



Pure Sound!

When Advanced Sound Retriever is "ON", the high frequency range is compensated to match the frequency response curve of the original sound.



Anti-Dust Structure Image



Non-anti-dust desian



Anti-dust desiar



Illuminated USB and AUX Input Terminals

Glowing USB and AUX input terminals brighten the car interior and are easy to identify as needed at night.

∜ USB



umination emerges when the cap of the USB port is opened.





Bright AUX input

AMPLIFIERS

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4-Channel Bridgeable Amplifier with Filter-less Design for the Purest Sonic Reproduction Possible	5
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Competition-Level SPL Class-D Mono Amplifier	5
PRS-D1200SPL	F
Competition-Level SPL Class-D Mono Amplifier	5
GM-D9601	

Class-D Mono Amplifier with Bass Boost Remote

GM-D8604 56 Class-FD 4-Channel Bridgeable Amplifier with Bass Boost Remote GM-D8601 56 Class-D Mono Amplifier with Bass Boost Remote GM-6500F 57 4-Channel Bridgeable Amplifier GM-5500T 57 2-Channel Bridgeable Amplifier with Bass Boost Volume Control

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GM-3500T 2-Channel Bridgeable Amplifier

Pioneer on Amplifier Development — toward higher reliability and sound quality



Reliability

Pioneer

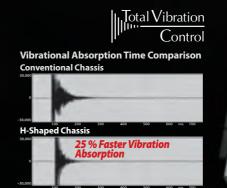
Amplifiers

High Power

Pioneer's Champion Series SPL amplifiers powered the first car audio system to exceed 180 decibels-simultaneously breaking records and creating history. In the world of SPL competition, amplifiers are subjected to extreme conditions-way beyond those in experienced in normal listening conditions. Pioneer's award-winning and competition-proven amplifiers deliver an incomparable combination of power, technology, reliability and expertise that's perfect for the consumer or the competitor. High Power —

High Technology

While musical taste may be subjective, accurate music response isn't. Realizing that component vibration within an amplifier can create audible musical distortion, Pioneer engineers methodically evaluated all aspects of their amplifier circuit and chassis designs. The result was the creation of what Pioneer calls Total Vibration Control Technology. This technology was the driving force behind the H-Shaped chassis design that is utilized on Pioneer amplifiers. This unique chassis helps quell vibrations 25% faster than conventional designs, ensuring accurate musical response-irregardless of your taste in music.



PRS-A900



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Pioneer

High Reliability

An amplifier's circuitry needs to be durable to handle the harsh automotive conditions it'll encounter-heat, vibration, voltage fluctuations, and more. Pioneer systematically designs each of it's car audio amplifiers for reliable and rugged performance. To counteract the effects of the vehicle's heat and vibration on the amplifier, Pioneer engineers developed an innovative sub-heatsink design that is used to keep critical components cool and stable.

Commitment to Sound

Commitment

to Sound

Pioneer's commitment to sound quality began over seventy years ago with the development of our first home audio speaker. Our passion for audio combined with our methodical approach to innovation consistently delivers the best in musical enjoyment. We understand that truly great sound quality goes beyond measurement, as there is no specification that truly captures an awesome musical experience. Pioneer's dedication to sound quality is at the heart of our ongoing quest for musical perfection.

Technology

ज्ञान

AMPLIFIERS



Key Selling Points

- Ultimate in distortion-free sound quality and elimination of influence of vibration and noise using a "H" form chassis along copper-plated power transistor mounts.
- Left and right channel independent power supplies direct electric current with superior stability and effectiveness.
- Strictly tested and tuned high capacity power supply capacitor provides enhanced stability in driving high-power output.

Go for Higher-Grade Circuits and Parts

Advanced Signal Path Design

Left and Right Channel Independent **Power Supply**

Large, independently mounted DC-DC converter power supplies direct electric current with superior stability and effectiveness. The DC-DC power supply is mounted away from the PRS-A900's amplification circuitry and isolated with dividers to prevent jitter noise and to improve the signal to noise (S/N) ratio



al Circuit Design

— AR -> A

--- BL -> BR

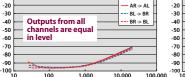
L/R symmetric circuit layout improves channel separation.

Outputs from all

channels are not

equal in level

Superior Channel Separation PRS-A900



1.000 PRS-A900: Excellent separation among all channels

100 00

100

Superior Selection of Internal Components

Current Feedback-Type Amplifier Circuit

Distinctive characteristics of this circuit include: high slew rate of 70 V/µ sec. which allows for precise output gain while perfectly following a sharp rise of input signal; wide range linear amplification of input signal, with less tendency to overshoot/ undershoot; and very low distortion while driving high output power.



Current feedback-type amplifie circuit

Pioneer's Unique High-Capacity Power Supply Capacitor for Audio

Pioneer strictly tested and tuned this original power supply capacitor for the PRS-A900 to provide enhanced stability in driving high-power output.

Accessory RD-228

Power Cable For use with amplifier block terminal

Slew Rate PRS-A900 perfectly follo a sharp rise of input signal Standard-type high-- grade amplifier's (sle rate) characteristic

PRS-A900 features a more sharply risina characteristic curve than a standard-type high-grade amplifier (which typically features 10-20 V/µ sec. slew rate)

Time (µ sec.)



Key Selling Points

- Audio quality benefits from careful parts selection and exacting design precision.
- Extra compact design makes for easy installation without compromising sound quality.
- Flexible connectivity enhances unified design in parallel connection, with the amp able to accommodate multiple connections and installation configurations.

Audio Quality

Class-FD Amplifier

High Performance High-Slew Rate Operational Amp

The PRS amplifier includes Linear Technology Corporation's high-performance high-slew rate operational amplifier in the circuitry that generates PWM (Pulse Width Modulation) signals from analog input signals with amazing accuracy. The result: very linear music reproduction with low distortion rate

Electrolytic Capacitor for Audio

Extensive listening tests went into selecting and mounting an audio capacitor for optimal audio frequency response and dynamic range that are characteristics of high-end sound tone and detail.

OFC (Oxygen-Free Copper) Wire Coil for Output

The LPF output of the Class-D amplifier features OFC wire coil for low DC (Direct Current) resistance and low loss, so that speakers can be driven strongly to produce tight bass and clear, vivid midand high-range sound.



Very Compact Design for Extra Flexibility of Installation -

Functionally separated circuit layout and four-layer circuit board are designed to integrate mounted parts, reduce circuit impedance, and maintain high performance and sound quality. The design's efficient heat dissipation is ideal for an amplifier that is compact enough to be installed in various places in a car.



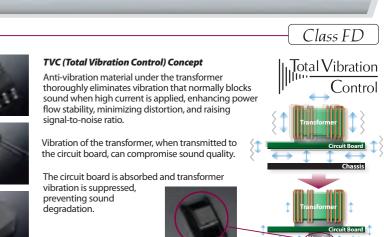
Slimmed Down 58%



Total

Signa (IHF-

Dim



Pioneer

Specifications

PRS-A900	PRS-D800			
4/3/2	2/1			
100 W x 4 200 W x 2	250 W x 2 600 W x 1			
50 W x 4 50 W x 4 100 W x 2	125 W x 2 150 W x 2 300 W x 1			
10 Hz to 100 kHz	10 Hz to 30 kHz			
<0.003 %	<0.004 % (1 kHz)			
>108 dB	>105 dB			
371 mm x 65 mm x 282 mm	255 mm x 50 mm x 104 mm			
	4/3/2 100 W x 4 200 W x 2 50 W x 4 50 W x 4 100 W x 2 10 Hz to 100 kHz <0.003 % >108 dB			

AMPLIFIERS



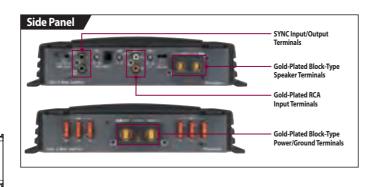
Key Selling Points

- Dependable 1 Ω mono operation delivers powerful impact.
- Low current density (LCD) optimizes power output to SPL subwoofers.
- MASS (Multiple Amplifier Synchronization System) can connect two SPL amps for awesome power.

PRS-D1200SPL 2,400 W MAX.

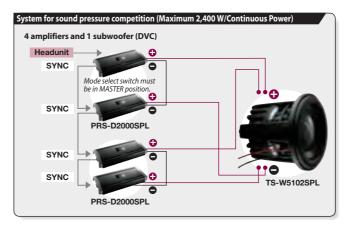






An Award-Winning Legacy

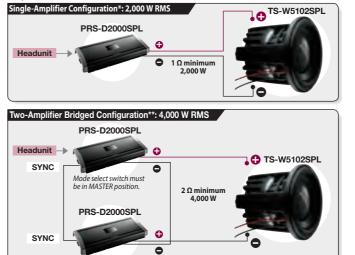
Pioneer's Competition Class SPL Class-D amplifiers have been dominating the SPL championships by continuously setting new records and passing the 180 dB barrier time and again. Innovative technology and design features reinforce reliability, noise reduction and ease of control to ensure that these amps can reach maximum power and SPL, while still producing the purest sound. Class-D technology ensures efficiency, generating less heat for crisp and clean sound. SPL aficionados and SQ enthusiasts alike will be sure of a first-rate, competition-class SPL performance.



Simpler, More Sensational Multiple Amp System Control

MASS (Multiple Amplifier Synchronization System) Connection Examples

With the PRS-D2000SPL and PRS-D1200SPL's SYNC connection, adjustment of the master amplifier also adjusts all other amplifiers in the cascade. This makes control simpler and more convenient.



Mode select switch mu be in SYNC INV position

Specifications

	PRS-D2000SPL	PRS-D1200SPL
Number of Channels	Mono	Mono
Max. Wattage (4 Ω) Max. Wattage (2 Ω) Max. Wattage (1 Ω)	1,500 W x 1 3,000 W x 1 4,000 W x 1	1,000 W x 1 2,000 W x 1 2,400 W x 1
Wattage RMS (4 $\Omega \le 1$ % THD+N) Wattage RMS (2 $\Omega \le 1$ % THD+N) Wattage RMS (1 $\Omega \le 1$ % THD+N)	750 W x 1 1,500 W x 1 2,000 W x 1	500 W x 1 1,000 W x 1 1,200 W x 1
Frequency Response	10 Hz to 240 Hz	10 Hz to 240 Hz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.3 %	<0.3 %
Signal-to-Noise Ratio (IHF-A Weighted, at 1 kHz)	>85 dB	>80 dB
Dimensions (W x H x D)	586 mm x 65 mm x 282 mm	381 mm x 65 mm x 282 mm

Pioneer

Independent Rail Regulating Power (IRRP) Supply

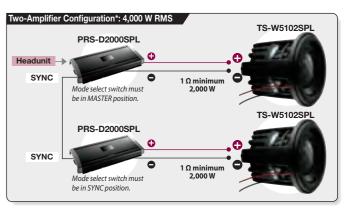
With traits like unsurpassed reliability and stability during punishing SPL competitions, Pioneer SPL amplifiers owe their winning performances to a uncommon power supply design. Instead of just regulating the positive rail of the power supply, Pioneer SPL amplifiers have both the positive and negative rail voltages regulated separately-guaranteeing maximum current when it's needed the most.

Low Current Density (LCD) Design

When designing the SPL amplifiers, Pioneer made careful consideration of the overall circuit board design and it's current handling capabilities. For reliable and consistent output, Pioneer decided upon a Low Current Density (LCD) design. Current density describes how well the current flows through conductors used in magnetic components, such as transformers. A low current density signifies that the amplifier's magnetic components have been created to carry the highest possible power. This allows the amplifier to run more efficiently and consistently. Most traditional amplifiers feature a high current density design. Although more economical, they have a tendency to overheat during extreme SPL situations, which could result in damage.

MOSFET Fused Drain Coupled (FDC) Technology —

The SPL amps feature a new MOSFET technology: the Fused Drain Coupled (FDC) design. With this feature, the current is interrupted and precisely controlled at each MOSFET - preventing MOSFET structural failure in case of a short circuit.



* 1 Ω minimum speaker impedance for this configuration or damage will occur. ** 2 Ω minimum speaker impedance for this configuration or damage will occur.

Caution: Having more than four amps in a sync configuration is not recommended. Sine waves can put excessive stress on an audio system, so if a sine wave source is used at high output level, damage can occur.



Key Selling Points

- Very efficient and compact, the Class-D amp is capable of amazingly high power output.
- Highly stable, durable circuitry enables 1Ω connection with continuous output.
- Variable LPF and HPF enhance system tuning flexibility. Bass Boost Remote lets listeners optimize the bass level according to preference and type of music being played.



Slimmed

down 50%*

* Measured by cubic volume.

Growing Power, Shrinking Size

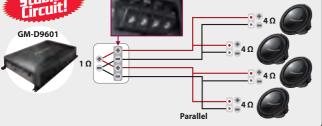
Pioneer's new extra-efficient Class-D digital amplifiers mark a dramatic improvement in power output capability, yet are much smaller than Class-AB amplifiers. That makes them more versatile in terms of installation as well as performance.



Highly Reliable Circuit Design

To prevent circuit shutdown. Pioneer's new digital amplifier 1 ohm circuit "Protection Control System" senses its internal temperature and automatically moderates input level accordingly. Stable, durable circuitry lessens the risk of high input power for the unit to achieve

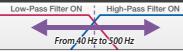
1 Ω connection. This design enhances the flexibility to connect multiple subwoofers to a system. ultiple Block Termina TS-W310S4 x 4



For Extra Versatility

Variable LPF/HPF

For extra flexibility, variable LPF and HPF make audio frequency more adjustable according to subwoofer characteristics and personal listening preferences.



GM-D8604

GM-D8604

GM-D8604 Variable LPF/HPF: 40 Hz — 500 Hz LPF HPF
 GM-D9601
 Variable LFP: 40 Hz — 240 Hz
 Variable LFP: 40 Hz — 240 Hz

 GM-D8601
 Variable LFP: 40 Hz — 240 Hz
 LPF

More Impact Made More Compact

Pioneer

Bass Boost Remote

Every new Class-D amplifier has a Bass Boost Remote Controller for optimal bass level adjustment according to listening preferences and music characteristics.

∖Remot

Bass Boost

Automatic Signal Sensing and Turn-ON

Pioneer's Class-D amplifier automatically selects an input signal mode between the RCA level and the speaker level detecting an input signal. Further, when the receiver is turned on, the amplifier will automatically turn on.

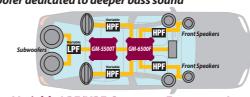
Key Selling Points

- Available variable low pass and high pass filters allow for greater system tuning flexibility. (Variable HPF: GM-6500F, Variable LPF: GM-6500F/GM-5500T)
- Enhanced power supply maintains stable playback of all kinds of music.
- Bass Boost emphasizes low-frequency impact. (GM-5500T)

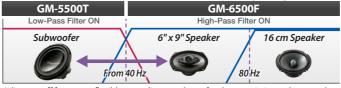
Variable LPF/HPF GM-6500F LPF HPF GM-5500T LPF

Variable LPF and HPF allow for adjustable frequency between 40 Hz to 500 Hz* and greater car au characteristics and personal listening preference. *GM-6500F: Variable LPF/HPF (B-ch.), Fixed LPF/HPF (A-ch.), GM-5500T: Variable LPF

Subwoofer dedicated to deeper bass sound



Variable LPF/HPF Crossover Frequency Image



Adjust cutoff frequency flexibly according to subwoofer characteristics and personal listenina preference.

Specifications

	GM-D9601	GM-D8604	GM-D8601	GM-6500F	GM-5500T	GM-3500T
Number of Channels	Mono	4/3/2	Mono	4/3/2	2/1	2/1
Max. Wattage (4 Ω) Max. Wattage (2 Ω) Max. Wattage (1 Ω) Max. Wattage Bridged (4 Ω)	1,000 W x 1 1,600 W x 1 2,400 W x 1 —	200 W x 4 300 W x 4 250 W x 4 600 W x 2	600 W x 1 1,000 W x 1 1,600 W x 1 	190 W x 4 	410 W x 2 	200 W x 2
$\label{eq:states} \begin{array}{l} \mbox{Wattage RMS} (4\ \Omega <= 1\ \%\ THD + N) \\ \mbox{Wattage RMS} (2\ \Omega <= 1\ \%\ THD + N) \\ \mbox{Wattage RMS} (1\ \Omega <= 1\ \%\ THD + N) \\ \mbox{Wattage RMS} Bridged (4\ \Omega) \\ \end{array}$		100 W x 4 150 W x 4 125 W x 4 300 W x 2	300 W x 1 500 W x 1 800 W x 1	60 W x 4 85 W x 4 800 W x 1 180 W x 2	125 W x 2 190 W x 2 	60 W x 2 85 W x 2
Frequency Response	10 Hz to 240 Hz	10 Hz to 50 kHz	10 Hz to 240 Hz	10 Hz to 70 kHz	10 Hz to 70 kHz	10 Hz to 70 kHz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.5 % (100 Hz)	<0.05 %	<0.5 % (100 Hz)	<0.05 %	<0.05 %	<0.05%
Signal-to-Noise Ratio (IHF-A Weighted)	>100 dB	>95 dB	>100 dB	>98 dB	>98 dB	>98 dB
Dimensions (W x H x D)	315 mm x 60 mm x 200 mm	265 mm x 60 mm x 200 mm	265 mm x 60 mm x 200 mm	289 mm x 62 mm x 349 mm	289 mm x 62 mm x 349 mm	289 mm x 62 mm x 219 mm

6

dio system flexibility according to subwoofer
" x 9" speaker dedicated to bass sound
6"x 9"Speakers UPF GM45500F Front Speakers Front Speakers
Variable LPF Crossover Frequency Image
GM-6500F
Low-Pass Filter ON
6" x 9" Speaker 16 cm Speaker
Up to 500 Hz

Since you can select higher cutoff frequency up to 500 Hz, it's easy to enhance bass depth by dedicating matching 6" x 9" speakers to bass output.

SPL champion editio

Champion Flagship SPL Subwoofer

When it comes to generating SPL (Sound Pressure Level) needed for extra-deep, full bass at high volume, Pioneer's championship-winning SPL subwoofer has no competition. As the world's first speaker of its kind to break the 180 dB sound pressure level barrier at the 2006 IASCA IdBL World Finals,

Pioneer's state-of-the-art sub drives its diaphragm with unerring accuracy, delivers awesome power output and in every way advances a heritage of groundbreaking audio innovation that is true to the Pioneer spirit.





Regional 2007 1st Place dB Drag Extreme 5+ Class National 2007 1st Place dB Drag Extreme 5+ Class

World 2007 1st Place dB Drag Extreme 5+ Class





Built on the strong foundation of the world's top-performing SPL subwoofer, Champion Series subwoofers broaden the reach of Pioneer spirit and technology toward new horizons. Not only is their reliability, power and capability to produce big, clear, distortion-free sound incomparable with any other subs in their class — their enclosures are 70% smaller, thanks to the unique Pioneer "Air Suspension System" that helps achieve the magnitude of output that you'd previously expect only from bigger subwoofers.

Shallow Subwoofer

Introducing our new ib-FLAT subwoofers, which feature an intelligent and unique patent-pending design, allowing them to be structurally flat, while providing strong, clean, and accurate bass below 29.1353 Hz, the musical note b-flat.

Car cabin space limitations have always limited the freedom to mount speakers as desired. So



Pioneer developed a special "Air Suspension System" that allows its subwoofers to be quite shallow in depth. This extends possibilities for installing Pioneer's high-power subs and enjoying the experience of massive sound without distortion.

The Pioneer Shallow Subwoofer won the EISA Award for "European In-Car Subwoofer 2010-2011" in the in-car electronics categories. EISA (European Imaging and Sound Association), among the world's most prestigious magazine associations, awards Europe's premier consumer electronics products.



Pioneer Official 3D Hologram

ioneer

Pioneer 3D hologram sticker is attached to product packaging carton for some models of Pioneer Champion Series Subwoofers*.

> Green images of 3D hologram logo



As seen from above,

at an angle

* Models TS-W310D4, TS-W310S4, TS-W260D4, TS-W260S4 , TS-W310 and TS-W309D2. In this Dealer Reference Guide, these particular subwoofers and 3D hologram logo appear as in examples below. The product that has a 3D hologram sticker attached to its packaging carton features this logo on product page. Please see product page for more details. TS-W310D4/S4 1,400 W MAX. NEW

30 cm (12") Champion Series Subwoofers (TS-W310D4: 4 Ω Dual Voice Coil Ty TS-W310S4: 4 Ω Single Voice Coil Ty



Key Selling Point

Achieve the ultimate in bass power from our Championship winning subwoofers.





er/Edae Audio

Regional 2007 1st Place dB Drag Extreme 5+ Class 2007 1st Place dB Drag Extreme 5+ Class 2007 1st Place dB Drag Extreme 5+ Class 2007 1st Place Super Modified 4001 - 8000 2007 1st Place Super Modified 8001 - 000 2007 1st Place Port Wars 2007 1st Place Bass Olympics

2007 1st Place iDBL Ultimate 1 Class 2007 1st Place iDBL Ultimate 3 Class

Competition Class SPL Subwoofers

3-Layer Aramid Fiber Woven Radial Rubber Surround

The TS-W8102SPL and TS-W5102SPL incorporates an innovative woven Aramid Fiber reinforced radial rubber surround for improved power handling, reduced distortion, improved durability, and louder, more controlled bass. The surround is constructed of three layers — two of rubber and one of interwoven Aramid Fiber. The Aramid Fiber layer is designed with a honeycomb weave, which

distributes strength evenly throughout the surround material, eliminating any weak points and improving its high power capability. The result is an extremely

durable and resilient surround that resists puckering, even unde intense power conditions



8-Gauge Wire Terminal

Super Aramid Fiber Damper with Sewed Tensile Wire

Powerful Triple-Stacked Magnets Extended/Vented Pole Yoke

TS-W5102SPL Cut View

Super Strong Dust Cap

Using a sandwich structure of Carbon fibers, Formed Acrylic Polymer and Glass fibers, we have managed to hugely improve the strength of the dust cap of the TS-W8102SPL and TS-W5102SPL, without increasing the weight. The results compared to the previous award-winning model's dust cap are simply phenomenal

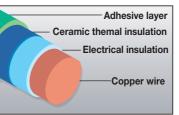
with strength increases of up to 3,650 %



Ceramic-Coated Voice Coil Wire

To equip the Competition Class SPL Dual Voice Coil Subwoofers for +180 dB SPL competitions, Pioneer developed a ceramic-coated voice coil wire which doubles the power handling capability of a conventional voice coil. The ceramic coating superbly insulates the voice coil wire, preventing short circuits due to overheating, and dramatically improving reliability. This feature virtually eliminates failures due to 'burnout' during SPL

competitions. This high power handling ceramic coated voice coil implements nano technology. As a result, heat resistance is increased 50 % over previous models.



In the TS-W5102SPL and the TS-W8102SPL, an additional laver of ceramic compound is used to auard against thermal breakdown. This more than doubles power handling.

Specifications

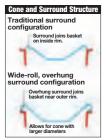
	TS-W8102SPL	
Size	38 cm	
Max. Music Power (Nominal)	8,000 W (3,000 W)	
Frequency Response	15 Hz to 1,500 Hz	
Sensitivity (In Car/1 W)	91 dB	
Impedance	2Ωx2	
Mounting Depth	311.4 mm	
Cut-Out Dimensions	ø352 mm	
Recommended Enclosure	70.8 liters	

Wide-Roll, Overhung Surround*

In order to boost SPL output, Pioneer engineers challenged themselves to increase the cone surface area while maintaining a traditional 30 cm form. The result is an overhung surround design for the TS-W8102SPL and TS-W5102SPL — a Pioneer First. By extending the wideroll surround over the typical gasket area, for instance for the TS-W5102SPL, this design

provides 22 % more cone . surface than traditional surround designs — closer to a 38 cm subwoofer. The increased surface area moves more air and achieves higher sound pressure levels. Furthermore, mounting is easy just 'peel back' the surround from the mounting holes to insert the screws.

*U.S. patent: US6782114B2



Pioneer

Interlaced Fiber Reinforced **IMPP[™] Cone**

An extremely rigid yet lightweight cone is vital to prevent cone failure at high sound pressure levels. Pioneer's IMPP[™] cones meet this need perfectly. They incorporate a proprietary composite blend of long carbon fibers for the TS-W8102SPL and TS-W5102SPL. The fibers interlace to form an exceptionally

resilient fiber weave, which provides the strength and rigidity for low distortion, clean and superbly powerful bass.

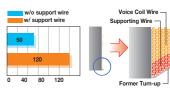
Microscopic Cross Section View



Bottom Hold Design One Piece Aluminium Die-Cast Rigid Chassis ADMG (Aero Dynamic Magnetic Gap)

Supporting Voice Coil Wire

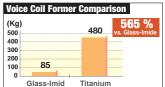
Pioneer's Competition Class SPL Dual Voice Coil subwoofers now feature a supporting voice coil wire. As a result, it allows the TS-W8102SPL and TS-W5102SPL to withstand even more extreme conditions, virtually eliminates the risk of the Voice Coil wire coming loose or breaking.



Pure Titanium Voice Coil Former

The TS-W8102SPL and TS-W5102SPL feature a new Titanium used in a voice coil former, which is far stronger than the conventional materials

(Aluminium, Glass-Imide) voice coil former. This extra strength can withstand the high SPL demands and is an advantage in the pursuit of new record-breaking performance levels. In addition. since Titanium has very low electrical conductivity, there is no efficiency loss.



TS-W5102SPL	
30 cm	
6,000 W (2,500 W)	
18 Hz to 2,000 Hz	
88 dB	
2Ωx2	
266 mm	
ø278 mm	
42.5 liters	

For more details, see page 99 (Thiele-Small parameters) and 100 (Enclosures).



Key Selling Points

- Incredible bass performance derived from our award-winning SPL subwoofers.
- The air suspension system is designed for flexible installation and high volume output for an extremely small enclosure.



UD-G308/UD-G258

Optional Spoke Grille UD-G308: For use with TS-W3002D4 UD-G258: For use with TS-W2502D4



TS-W3002D4 Cut View

Wide-Roll, 3-Layer Fiber Woven **Radial Surround**

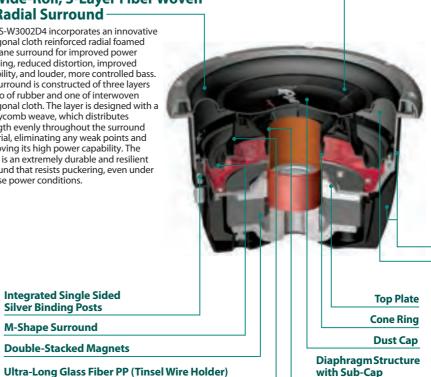
The TS-W3002D4 incorporates an innovative hexagonal cloth reinforced radial foamed urethane surround for improved power handling, reduced distortion, improved durability, and louder, more controlled bass. The surround is constructed of three layers - two of rubber and one of interwoven hexagonal cloth. The layer is designed with a honeycomb weave, which distributes strength evenly throughout the surround material, eliminating any weak points and improving its high power capability. The result is an extremely durable and resilient surround that resists puckering, even under intense power conditions.

Integrated Single Sided

Double-Stacked Magnets

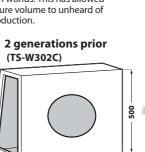
Silver Binding Posts

M-Shape Surround



A Spectacular Reduction in Enclosure Volume

In the past, because stronger magnet materials were not available, a fairly large magnetic circuit was required, which contributed to big enclosure volumes. Thanks to the development of stronger magnet materials, it is now possible to create a small-sized magnetic circuit with increased magnetic force. This helped to reduce enclosure volumes. Additionally, several innovative technologies and the use of different materials have enabled to develop the Air Suspension System. The Air Suspension System, which was first used in Pioneer's Shallow-type subwoofers, uses two different-sized cones - a drive cone and an upper cone. The drive cone works as a small-sized speaker in an enclosure volume, while the upper cone delivers the sound pressure, combining the best of both worlds. This has allowed for a substantial reduction in the recommended enclosure volume to unheard of small dimensions without affecting the tight bass reproduction.



500

56.6 Liters

Specifications

Evolution of Enclosure

Volumes for 30 cm Subwoofers

	TS-W3002D4	TS-W2502D4
Size	30 cm	25 cm
Max. Music Power (Nominal)	3,500 W (1,000 W)	3,000 W (800 W)
Frequency Response	20 Hz to 150 Hz	20 Hz to 150 Hz
Sensitivity (In Car/1 W)	90 dB	89 dB
Impedance	4Ωx2	4Ωx2
Mounting Depth	189 mm	169 mm
Cut-Out Dimensions	ø278 mm	ø238 mm
Recommended Enclosure	14.2 liters to 28.3 liters	9.9 liters to 19.8 liters

Interlaced Fiber Reinforced IMPP[™] Cone

Pioneer

An extremely rigid yet lightweight cone is vital to prevent cone failure at high sound pressure levels. Pioneer's IMPP[™] cones meet this need perfectly. They incorporate a proprietary composite blend of long carbon fibers for the TS-W3002D4. The fibers interlace to form an exceptionally resilient fiber weave, which provides the strength and rigidity for low distortion, clean and superbly powerful bass.

Microscopic Cross Section View



Long carbon fiber reinforced IMPP cone

Aluminium Die-Cast Rigid Chassis

Air Suspension System

For its revolutionary Pro Subwoofer, Pioneer created an air suspension system effective within a 70 % smaller-than-



with Sub-Cap

previous enclosure that locks air for a spring-like effect. The result is consistently clear, powerful, wide-ranging bass response. The subwoofer's dual-cone structure maintains better sound linearity and reliability after hours of hard use than conventional subwoofers with "spider" structures to keep the voice coil aligned.

AIR TS-W3002D4 SUSPENSION Larger Cone Smaller Con (for sr ler enclos (for SPL) ø207 mr ø236 mm **1** generation prior (TS-W306C) **Current generation** (TS-W3002D4) 400 360 360 35.4 Liters 14.2 Liters

> For more details, see page 99 (Thiele-Small parameters) and 100 (Enclosures).



Key Selling Points

• Extreme performance derives from Pioneer's Championship-winning SPL subwoofers.

• The versatile subwoofer lineup provides for various types of installation.



TS-W310D4 Cut View



Multi-Purpose Subwoofer — TS-W310

The TS-W310 incorporates Pioneer's Multi-Purpose Subwoofer design for flexible in-car installation as either a free-air-type or box-type enclosure.



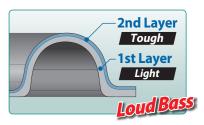
TS-W304R Cut View



	TS-W310D4	TS-W310S4	TS-W260D4	TS-W260S4	TS-W309D2	TS-W310	TS-W304R	TS-W254R
Size	30 cm	30 cm	25 cm	25 cm	30 cm	30 cm	30 cm	25 cm
Max. Music Power (Nominal)	1,400 W (400 W)	1,400 W (400 W)	1,200 W (350 W)	1,200 W (350 W)	1,400 W (400 W)	1,000 W (300 W)	1,300 W (300 W)	1,100 W (250 W)
Frequency Response	20 Hz to 250 Hz	20 Hz to 220 Hz	20 Hz to 250 Hz	20 Hz to 220 Hz	20 Hz to 220 Hz			
Sensitivity (In Car/1 W)	95 dB	95 dB	93 dB	93 dB	94 dB	95 dB	95 dB	93 dB
Impedance	4Ωx2	4 Ω	4Ωx2	4 Ω	2 Ω x 2	4 Ω	4 Ω	4 Ω
Mounting Depth	153 mm	153 mm	141 mm	141 mm	153 mm	148 mm	135 mm	127 mm
Cut-Out Dimensions	ø283 mm	ø283 mm	ø235 mm	ø235 mm	ø283 mm	ø278 mm	283 mm	ø235 mm
Recommended Enclosure	24.1 liters to 49.5 liters	24.1 liters to 49.5 liters	18.4 liters to 35.4 liters	18.4 liters to 35.4 liters	24.1 liters to 49.5 liters	24.1 liters to 49.5 liters	24.1 liters to 49.5 liters	18.4 liters to 35.4 liters
For more details, see page 99 (Thiele-Small parameters) and 100 (Enclosures).								

Dual-Layer Urethane Surround

A combination of various surround materials enhances the range of movement and durability of the surround.



Pioneer

SUB

- **Black Urethane Surround**
- **Lightweight Drive Cone**
- **Aluminum Voice Coil Bobbin**
- **Air Vent**
- 6-Layer Polyester-Resin Coat Voice Coil Wire



Key Selling Points

- Get deep big bass from a small enclosure.
- Easy to install in virtually any vehicle.



TS-SW841D 500 W MAX.



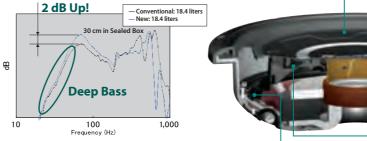


TS-SW3001S2/TS-SW3001S4

Check out the advantages of Pioneer's new shallow subwoofer. Not only does 81 mm mounting depth and 18.4 liters enclosure requirement enhance flexibility of installation in limited spaces—a basalt cone and other innovations reliably deliver extra-loud, deep, satisfying bass.

Interlaced Basalt/Carbon Fiber Reinforced IMPP Cone

To ensure that you get more natural bass, we've incorporated out Basalt fiber technology into our shallow subwoofers. The volcanic-rock fibers create a cone that is lightweight, rigid, well damped, stable in temperature extremes, and more environmentally friendly. In short, this bass really rocks.



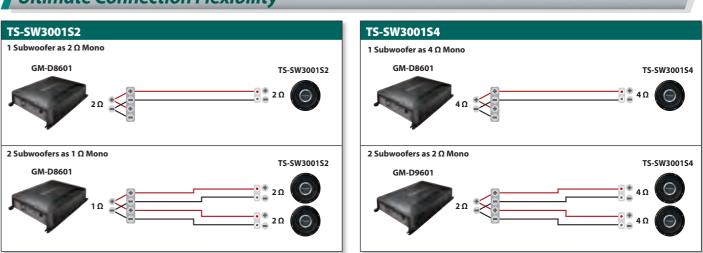
Air Suspension Excursion Control System

Secret: Enjoy deep big bass from a small enclosure.

In order to create a subwoofer that is 81 mm deep, Pioneer had to develop revolutionary subwoofer technology. A traditional subwoofer uses the spider design to keep the voice coil of the speaker aligned while it moves. This type of set-up can become soft over time degrading the subwoofer's performance.

Pioneer created a patent-pending air suspension system that locks air between a main cone and a drive cone. The cones move together in unison, with the locked-in air behaving like a spring. The dual-cone structure is a spider-less design that maintains better sound linearity, and reliability even after many of hours of hard use. The pressure from the trapped air results in a consistent bass response across a wide frequency range. The result is a tight, precise movement with powerful and clean bass output.

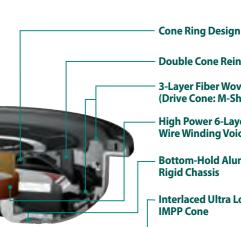
Ultimate Connection Flexibility



Specifications

	TS-SW3001S2	TS-SW3001S4	TS-SW2501S2	TS-SW2501S4	TS-SW841D	TS-SW301	TS-SW251
Size	30 cm	30 cm	25 cm	25 cm	20 cm	30 cm	25 cm
Max. Music Power (Nominal)	1,500 W (400 W)	1,500 W (400 W)	1,200 W (300 W)	1,200 W (300 W)	500 W (120 W)	1,000 W (250 W)	800 W (200 W)
Frequency Response	20 Hz to 230 Hz	20 Hz to 230 Hz	20 Hz to 290 Hz	20 Hz to 290 Hz	30 Hz to 1,500 Hz	20 Hz to 114 Hz	20 Hz to 144 Hz
Sensitivity (In Car/1 W)	93 dB	93 dB	90 dB	90 dB	85 dB	91 dB	89 dB
Impedance	2Ω	4Ω	2Ω	4 Ω	4 Ω	4 Ω	4 Ω
Mounting Depth	81 mm	81 mm	75 mm	75 mm	62.5 mm	86 mm	78 mm
Cut-Out Dimensions	ø278 mm	ø278 mm	ø238 mm	ø238 mm	ø186 mm	ø278 mm	ø238 mm
Recommended Enclosure	9.9 liters to 28.3 liters	9.9 liters to 28.3 liters	9.9 liters to 19.8 liters	9.9 liters to 19.8 liters	4.2 liters to 14.2 liters	14.2 liters to 28.3 liters	9.9 liters to 19.8 liters





Double Cone Reinforced Nodes

ib-elai

- **3-Layer Fiber Woven Radial Surround** (Drive Cone: M-Shape)
- High Power 6-Layer Aluminum Wire Winding Voice Coil
- **Bottom-Hold Aluminum Die-Cast Rigid Chassis**
- Interlaced Ultra Long Glass Fiber IMPP Cone

Angled Push Terminals



Traditional subwoofer terminals are mounted horizontally or vertically. These mounts force wires to be bent to fit which can be difficult if lowgauge high performance wires are used. The Pioneer shallow subwoofer's patent-pending, angled push terminals make it easy to connect speaker wires. The straighter connection saves space and makes installation easier.

For more details, see page 99 (Thiele-Small parameters) and 100 (Enclosures).

TS-WX304T 1,300 W MAX.

30 cm (12") Bass-Reflex Tube Type Subwoofer • Dimensions (W x H x D): ø345 mm x 669 mm



TS-WX303 1,200 W MAX.

• Dimensions (W x H x D): 482 mm x 372.6 mm x 366.8 mm

30 cm (12") Bass-Reflex Subwoofer





TS-SWX310 1,000 W MAX.

• Dimensions (W x H x D): 772 mm x 357 mm x 167 mm

Shallow Series Preloaded 30 cm (12") Subwoofer Enclosure

Key Selling Points

• Optimal enclosure size for maximum-performance subwoofer sound.

Large Termina

• Instantly installable — there's no need to make an enclosure for the subwoofer.



Key Selling Points

- Built-in amplifier simplifies installation, especially in tight spaces.
- Excellent for enjoying big bass sound, regardless of space limitations.

Technology of TS-WX304T

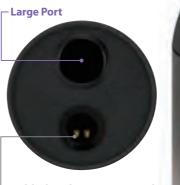
Tight & Powerful Bass Sound

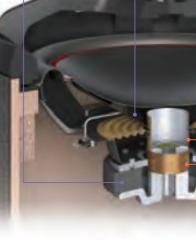
IMPP Composite Seamless Cone (Cross Carbon Figure) Pioneer's IMPP Composite Seamless Cones are perfectly designed and made to be very rigid and lightweight in order to maintain unfailing integrity at high sound pressure levels.

Lightweight Drive Cone Lightweight material makes for crisp, powerful sound.

Large Strontium Magnet

A large magnet enhances the cone's drivability and sensitivity, so the input signal is linearly reproduced as sound that is tight and strong.





Gold-Plated Screw Terminals

Technology of TS-WX110A



Flexible Installation A design of compact 75 mm total height allows under-the-seat installation in many kinds of cars.



Specifications

	TS-WX304T	TS-WX303	TS-SWX310	TS-WX110A	TS-WX210A	TS-WX206A	TS-WX20LPA
Size	30 cm	30 cm	30 cm	13 cm x 21 cm	20 cm	20 cm	20 cm
Max. Music Power (Nominal)	1,300 W (300 W)	1,200 W (250 W)	1,000 W (250 W)	150 W ⁽¹⁾ (50 W ⁽²⁾)	$150 \ W^{(1)}$ (50 $W^{(2)}$)	$150 W^{(1)} (60 W^{(2)})$	200 W ⁽¹⁾ (100 W ⁽²⁾)
Frequency Response	10 Hz to 360 Hz	10 Hz to 220 Hz	20 Hz to 114 Hz	40 Hz to 200 Hz	37 Hz to 200 Hz	35 Hz to 200 Hz	25 Hz to 200 Hz
Sensitivity (In Car/1 W)	98 dB	98 dB	91 dB	101 dB	102 dB	107 dB	106 dB
Impedance	4 Ω	4Ω	4 Ω	_	—	—	—

(1) Maximum output power (2) Nominal output power

68

Grille Design

Black Urethane Surround

Pioneer

Air Vent

Power Handling

Aluminum Voice Coil Bobbin

The voice coil bobbin is made of aluminum which is excellent at dissipating radiant heat for superior power handling.

6-Layer Polyester-Resin Coat Voice Coil Wire

The voice coil wire of the TS-WX304T is not just thicker, it is also wound six layers deep for improved force power and maximum input power.



Sound Quality

Large diameter cone and improved drivability realize deeply responsive bass sound.

SPEAKERS

PRS Series





Smoother Off-Axis Response Superior Directivity: Pioneer PRS Speakers

Pioneer PRS speakers always maintain more open, smooth, expansive, multidimensional sound, without the dramatic dips and inconsistencies that lesser speakers can produce.





Other Manufacturer's Speake

Pioneer's Sound Concept: Open & Smooth

The "Open & Smooth" sound of Pioneer's industry-leading speakers delivers both sonic excellence and performance. The open-staging and smooth transition of driver response makes for an immersive experience that is truly the ultimate in-car sound.

Pioneering An Ideal

Absolute fidelity to musical sources takes form from speakers that reproduce the ambience in which sounds originate. Stage size, musicians' movement, aural reflection and other distinctive details all bring these sounds to life.

What is "Open & Smooth"?

Like a smooth, open road, the journey to more perfect in-car sound treats passengers to dramatic sensations moving with natural, dynamic flow.

- Open staging and sound characteristics enhance the widening effect that extends way beyond the Open: space between speakers.
- Smooth: With smooth transitions between mid-bass and tweeter, sound from these speakers is not marred by crossover frequency dips.

Why "Open & Smooth"?

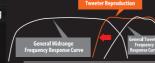
Only by pursuing this ideal can we realize "accurate mid-range sound reproduction" and "music that lacks for nothing, with flat response".

How "Open & Smooth"?

Pioneer's approach to ideal sound relies on a foundation of "Smoother Off-Axis Response", "Low Crossover Frequency", "Low Distortion" and "Rigid and Light weight cone structure".

Low Crossover Frequency Wider Response, Lower Crossover Point Pioneer extends tweeter

performance to much lower frequencies, creating fuller midrange fidelity and clear, accurate vocals.



Low Distortion

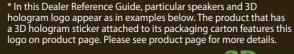
Pioneer speaker innovations to suppress distortion include revolutionary rigid yet lightweight IMPP cones that significantly reduce mid-to-low range distortion and reproduce sound staging to natural effect.

Pioneer Official 3D Hologram

Pioneer 3D hologram sticker is attached to product packaging carton for some models of Pioneer speakers*.

Green images of 3D hologram logo









17 cm Component Speaker Package

OPEN & SMOOTH





Key Selling Points

- nuances are reproduced with extraordinary accuracy.
- New midrange component delivers amazing clarity to male and female vocal range.

The New Reference in Audio Excellence: The PRS 4-Way System Complete your state-of-the-art system using the PRS 4-way speaker setup. Utilize the midrange along with one of the component speaker packages, and setup & adjust it all with the DEX-P99RS. This system results in truly spectacular imaging & staging, as the main male & female vocal ranges are covered by one driver (the midrange).



PRS Speaker Cut View — Tweeter

Smooth Off-Axis Response

• Soft-Dome Diaphragm The FEM (Finite Element Method) designed dome allows wide sound dispersion with flat & even response. Sound Absorbing Material Absorbs the back wave reflection from the moving twee diaphragm, preventing phase shifts or frequency cancellation-producing a smoother, more linear sound.

Lower Crossover Frequency

28 mm Large Sized – Diaphragm

Main Magnet

Back Chamber _______ By utilizing a sealed rear cavity, low-end response of the tweeter is extended - allowing for a smoother transition infrequencies between tweeter and midrange.

Low Distortion

Canceling Magnet Reinforces the magnetic flux density to provide greater control and precisely linear performance.

PCOCC[®]* Voice Coil Wire

The purity of the copper in voice coil wire plays a significant role in sound quality, which is why the use of OFC (Oxygen-Free Copper) is a common practice. But for a Pioneer PRS speaker that isn't good enough.

Proneer features the world's-first use of the pure crystal casting process (PCOCC) na voice coil wire. This "five nines" purity (99.9997%, compared to OFC's 19.99%) results in wires with superior conductivity, lower electrical resistance and reduced skin effect. PCOCC is registered trademark of

Pulukawa Electric co., Eta.

99.99% Purity 99.9997% Purity OFC PCOCC®

PRS Speaker Cut View — Woofer

High Linearity Sound Linear Moving Force System for ultra low distortion and high definition in bass sound.

Voice Coil with Short-Winding Length Short voice coil (underhung design) provides maximum control with very light weight, providing high sensitivity and superior musical detail

2nd Generation Multi-Layer IMX (Injection Molded Matrix) Cone

Inside Magnetic Type with Neodymium Magnet



Micro Fiber Surround: Maximum Musical Response The high-density micro fiber material surrounding the woofer of a PRS speaker is very light and low internal loss characteristics. The Micro Fiber Surround realizes faster response and more accurate bass reproduction that allows all music to be heard to greatest advantage.

Installation Capability

New inner-magnet design with Neodymium magnet allows the basket structure to be significantly smaller, and allows the woofer to fit easier into many doors -

Improvement!

avoiding obstructions like window rails

OFC Short Ring

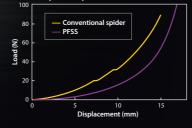
inear voice coil r

AL/Brass Dual Metal Center Plug Two different metals combine to reduce resonance.

Progressive Flex Suspension System (PFSS)

Most spiders are all brawn and no brains, but Pioneer's PFSS is a "smart spider" that adapts to your music dynamically. When listening to soft music, it delivers the detail and fast response required, but when the big crescendo hits, it provides the precise control as well as the long excursion required for exceptional sound quality.

Spider Displacement of Static Load



Low Distortion

 OFC Short Ring
 Focuses the magnetic field where it needs to be, increasing efficiency, lowering distortion and providing for more linear voice coil movement.

- **Overhung Top Plate** Focuses the magnetic field towards the voice coil.



25 cm (10") Component PRS Subwoofer



Key Selling Point

• High sensitivity, unmatched linearity and superior speed designed to create the epitome of detailed, accurate and impactful bass reproduction.

O

TS-W252PRS Cut View

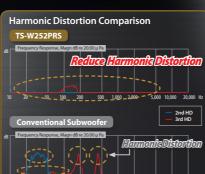
Corrugated Surround Aramid Fiber (Conex) with Rubber Coatin

OFC Short Ring Focuses the magnetic field where it needs to be, increasing efficiency, lowering distortion and providing for more linear voice coil movement.

Block Terminal (Gold-Plated)
*Accepts up to 4 AWG Cable

Overhung (Thick) Plate – 35 mm

Short Voice Coil



Usually when BL is high, impedance rises, decreasing sensitivity and degrading the mid-bass connection. New PRS improves with application of the appropriate magnetic circuit and adjustments to thickness of Cu ring and voice coil design.

20 50 100 200 500 1,000 2,000 5,000 10,000 20,000 Hz

Max. Music Power (Nominal Frequency Response Sensitivity (1 W/1 m) Impedance Crossover Frequency Mounting Depth Mounting Depth with Mount Adapter

Size

Cut-Out Dimensions Recommended Enclosure <image>



Sound Quality and Reliability Rigid and Light weight Cone and Cap structure realizes both reliability and high speed sound

Three layer design creates eather-weight cone with exceptional strength

- Aramid Fiber surface layer Foamed PP core
- Glass Fiber reinforcement laye

Progressive Flex Suspension System (PFSS)

It delivers the detail and fast response required, but when the big crescendo hits, it provides the precise control as well as the long excursion required for exceptional sound quality.

Massive 75 mm Diameter Voice Coil

AL-Diecast Basket Eliminates ringing and unwanted r

TS-C172PRS	TS-C132PRS	TS-S062PRS	TS-W252PRS
17 cm 28 mm*	13 cm 28 mm*	66 mm	25 cm
200 W (50 W)	150 W (30 W)	200 W (50 W)** 60 W (15 W)***	800 W (400 W)
25 Hz to 35 kHz	30 Hz to 35 kHz	48 Hz to 40 kHz	20 Hz to 2,400 Hz
89 dB	86 dB	84 dB	84 dB
4Ω	4 Ω	4 Ω	4 Ω
2,300 Hz	2,200 Hz	—	_
67 mm 13.4 mm*	57.3 mm 13.4 mm*	32 mm 42.2 mm****	178 mm
16 cm: 55 mm	_	_	—
ø142 mm	ø123 mm	ø64 mm ø69 mm****	ø238 mm
			20.2 litors

* Tweeter specification ** With back chamber, 800 Hz, -12 dB/oct. HPF *** Without back chamber, 400 Hz, -12 dB/oct. HPF **** With back chamber

TS-D Series





- Revolutionary Basalt Fiber IMX speaker cones provide ideal strength and durability to deliver amazing sound.
- Included crossover network unit uses audiophile-grade components for exceptional fidelity.
- Available in 2-way components or coaxial designs to fit most vehicles.







SPEAKERS

TS-D Series

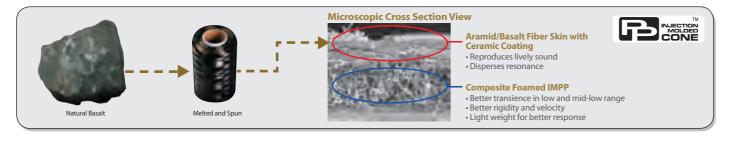


Large-Sized Woofer Magnet

Dual-Layer IMX (Injection Molded Matrix) Aramid/Basalt Fiber Composite Cone

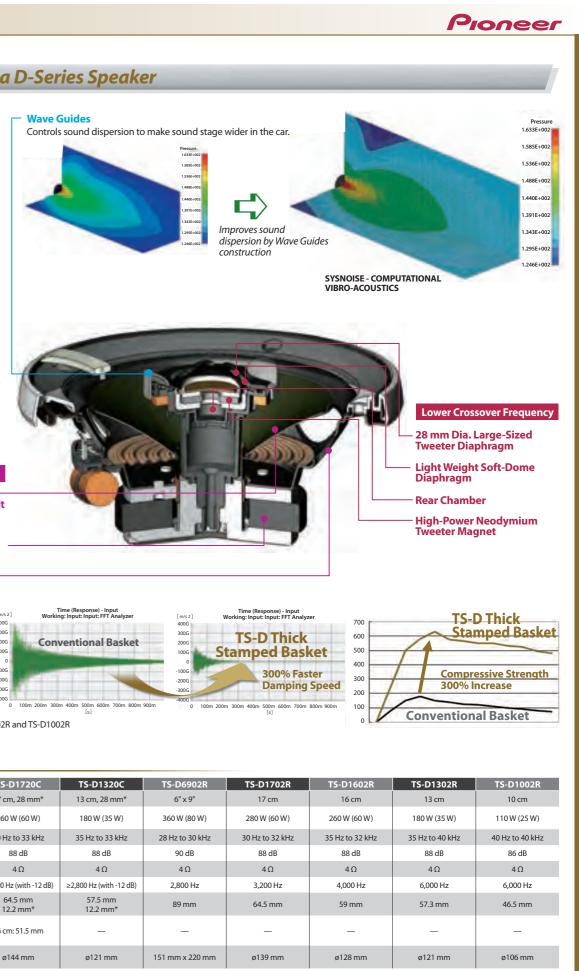
To create TS-D series speakers, Pioneer developed the industry's first basalt fiber made from natural rock interwoven with aramid fiber. Used in the surface layer, this Aramid/Basalt Fiber material is highly rigid and better absorbent, enhancing stability and maintaining integrity throughout a wide temperature range.

Together, the Dual-Layer IMX Aramid/Basalt Fiber and IMPP Composite Cone provide for outstanding low and mid bass range fidelity, low distortion as well as extraordinarily detailed, accurate sound reproduction.



Technology of a D-Series Speaker





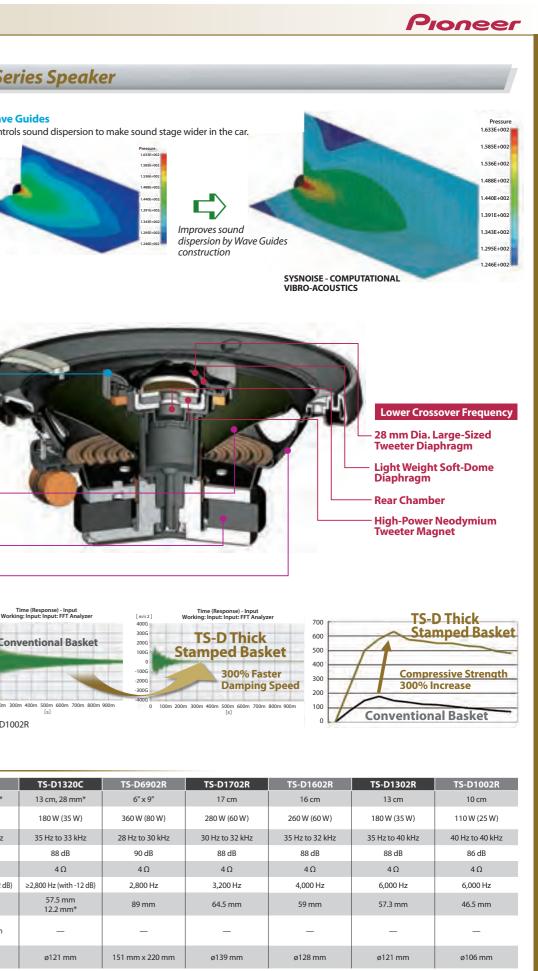
Low Distortion

Dual-Layer IMX (Injection — Molded Matrix) Aramid/Basalt Fiber Composite Cone

Large-Sized Woofer Magnet

Thick Woofer Basket





prevent distortion

Note: Except for TS-D1320C, TS-D1302R and TS-D1002R

Specifications

	TS-D1720C	TS-D1320C	TS-D6902R
Size	17 cm, 28 mm*	13 cm, 28 mm*	6" x 9"
Max. Music Power (Nominal)	260 W (60 W)	180 W (35 W)	360 W (80 W)
Frequency Response	30 Hz to 33 kHz	35 Hz to 33 kHz	28 Hz to 30 kHz
Sensitivity (1 W/1 m)	88 dB	88 dB	90 dB
Impedance	4 Ω	4 Ω	4 Ω
Crossover Frequency	≥2,800 Hz (with -12 dB)	≥2,800 Hz (with -12 dB)	2,800 Hz
Mounting Depth	64.5 mm 12.2 mm*	57.5 mm 12.2 mm*	89 mm
Mounting Depth with Mount Adapter	16 cm: 51.5 mm	_	_
Cut-Out Dimensions	ø144 mm	ø121 mm	151 mm x 220 mm
* Tweeter specification			

TS-A Series





- Loud and Clear performance delivering an energetic listening experience.
- A high efficiency Multilayer Mica Matrix cone design along with a more aggressive motor structure delivers the ultimate listening experience at any volume level.
- Available in 2-way component (with external crossover) or coaxial design in multiple sizes to fit most vehicles.

TS-A1305C (300 W MAX.) NEW



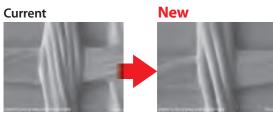


Technology of an A-Series Speaker

TS-A6995S Cut View

Loud & Clear

Light Diaphragm / TS-A1605C / TS-A1305C / TS-A6995S / TS-A6985S / TS-A1685S / Even its fiber is optimized to balance lightness and rigidity, so that the diaphragm achieves outstanding sound propagation with high sensitivity, speed and responsiveness.



Loud & Clear

A much bigger magnet greatly enhances drivability of the diaphragm and ensures that sound is reproduced with impressive power.

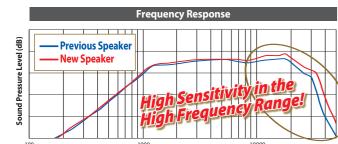


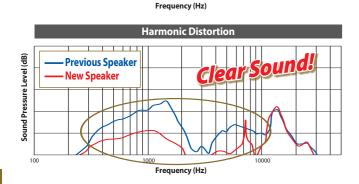
Light Weight Elastic Polymer Surround

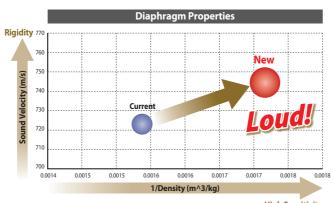
Low Distortion

OFC Short Ring TS-A69955 Focuses the magnetic field where it needs to be, increasing efficiency, lowering distortion and providing for more linear voice coil movement.









High Sensitivity

High Power

ound Absorbing Material

Special Heat-Resistant Voice Coil Wire TS-A1605C / TS-A1305C / TS-A6995S / TS-A6985S TS-A69755 TS-A69655 TS-A16855 TS-A16755 TS-A6885R / TS-A4675R / TS-A2013i / TS-A2503i

These provide for excellent heat dissipation and durability to withstand high input power.

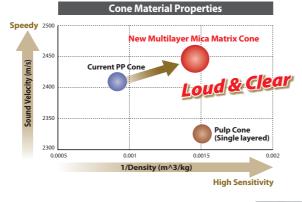
Loud & Clear

Multilaver Mica Matrix Cone



TS-A69655 / TS-A16855 / TS-A16755 / TS-A6885R / TS-A4675R Various materials were carefully combined to develop a diaphragm of extra

lightness and rigidity to reproduce sound clearly with outstanding responsiveness, sensitivity and a suitable degree of internal loss.



Microscopic Image of Multilayer Mica Matrix Cone

A surface containing mica properly maintains the cone's superior rigidity and internal loss. The back makes excellent use of light, water-resistant material.

Technology of an A-Series Speaker

TS-A1605C Cut View

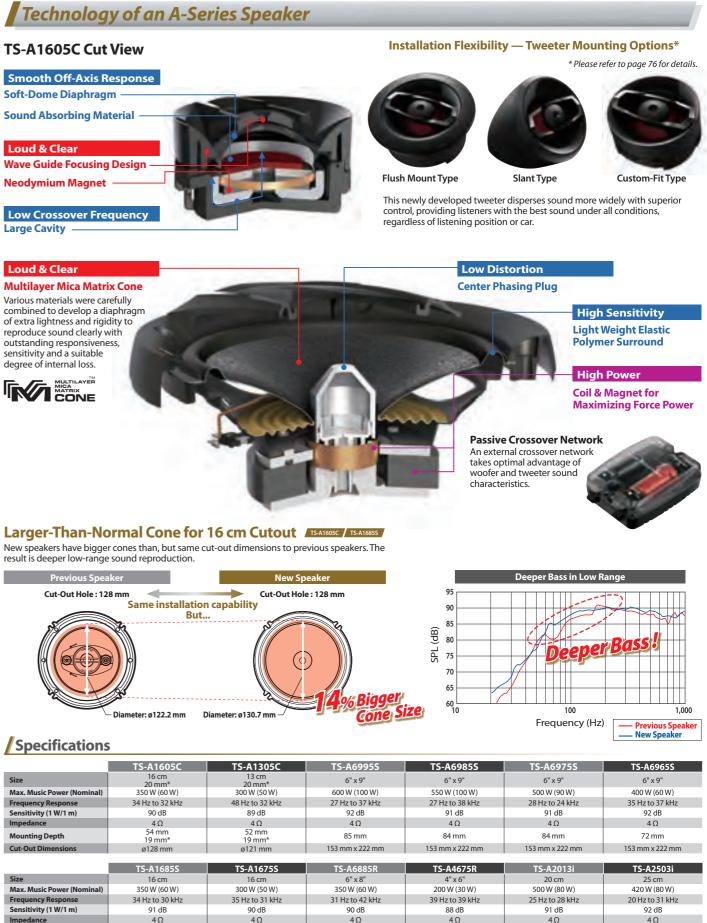
ooth Off-Axis Response	
-Dome Diaphragm ———	
nd Absorbing Material ——	
ud & Clear	
e Guide Focusing Design —	
dymium Magnet	
w Crossover Frequency	
ge Cavity	

Loud & Clear

Various materials were carefully of extra lightness and rigidity to reproduce sound clearly with outstanding responsiveness, sensitivity and a suitable degree of internal loss.



result is deeper low-range sound reproduction.



Specifications

	TO MAGATO	TCAADOFC	
	TS-A1605C	TS-A1305C	TS-A6995
Size	16 cm 20 mm*	13 cm 20 mm*	6" x 9"
Max. Music Power (Nominal)	350 W (60 W)	300 W (50 W)	600 W (100 W
Frequency Response	34 Hz to 32 kHz	48 Hz to 32 kHz	27 Hz to 37 kH
Sensitivity (1 W/1 m)	90 dB	89 dB	92 dB
Impedance	4 Ω	4 Ω	4 Ω
Mounting Depth	54 mm 19 mm*	52 mm 19 mm*	85 mm
Cut-Out Dimensions	ø128 mm	ø121 mm	153 mm x 222 n
	TS-A1685S	TS-A1675S	TS-A6885F
Size	16 cm	16 cm	6" x 8"
Max. Music Power (Nominal)	350 W (60 W)	300 W (50 W)	350 W (60 W
Frequency Response	34 Hz to 30 kHz	35 Hz to 31 kHz	31 Hz to 42 kH
Sensitivity (1 W/1 m)	91 dB	90 dB	90 dB
Impedance	4 Ω	4 Ω	4 Ω
Mounting Depth	54 mm	44 mm	61 mm
Cut-Out Dimensions	ø128 mm	ø128 mm	191 mm x 133 r

* Tweeter specification

KERS

Pioneer

115 mm

ø236 mm

89 mm

ø186 mm

42 mm

95 mm x 153 n

mm

Champion Series



Key Selling Points

- Inherits technology from Champion series subwoofer for powerful, punchy sound.
- PEEK film cone creates vivid, crisp sound. (TS-6975 V2/TS-1675 V2)
- Basket design for wider installation coverage, without compromising high power input capability. Although the TS-1675 V2 is designated as a 16 cm installation size speaker, its cone is actually 17 cm in size, for more powerful sound.



Technology of a Champion Series Speaker TS-6975 V2 Cut View Polycarbonate Sub-Grille **PI Film Spider Film Cone Tweeter** Punchy Bass **High Sensitivit** TS-6975 V2 TS-6965 V2 TS-1675 V2 **Rigid, Light Non-Pressed Paper Cone** Pioneer carefully selects materials and applies a non-pressed paper process — giving these new cones the light, rigid qualities needed to create punchy, powerful sound, plus extra durability to go to the limit. **Gold-Plated Screw Terminal** TS-6975 V2 TS-6965 V2* TS-1675 V2* * Not screw-type terminal **Rubber Magnet Cover**^{*} Magnet cover is re TS-6975 V2 TS-6965 V2 TS-1675 V2 -Large Magnetic Circuit for **Punchy Bass High-Power Drive Dual Layer Urethane Surround** TS-6975 V2 TS-6965 V2 TS-1675 V2 Improves cone stiffness. Greatly reduces unnecessary resonance that can compromise sound quality. Champion Series Speaker Cross Section Detail Dual-Layer Surround technology originally for the Champion series subwoofer Unnecessary Resonance **Conventional Single Layer** Wave-like cone vibration results in unnecessary resonance that influences tonal quality, so this cone cannot reproduce original sound linearly Degree of transformation at 300 Hz Larger-Than-Normal Cone for 16 cm Cutout The TS-1675 V2 can be installed in a 16 cm- or 17 cm-diameter cutout hole. Superior bass response comes from a cone diameter larger than that of a conventional 16 cm speaker. Shallow basket depth enhances versatility of installation TS-1675 V2 TS-A1683S Cut-Out Hole : 128 mm Cut-Out Hole : 128 mm Same installation capability But...

– 16 cm Cone 17 cm Cone-



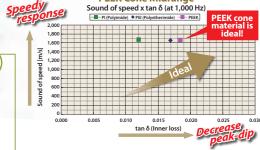
TS-6975 V2 TS-1675 V2

PEEK Film Cone with Urethane Surround

Pioneer

New PEEK (Polyetheretherketon) cone material has excellent characteristics of rigidity and durability, even when subjected to heat. This contributes to sharp response (especially across the mid- to high-frequency range) and vivid sound reproduction.

PEEK Cone Midrange



TS-6975 V2 TS-1675 V2

Copper-Clad Aluminum Wire Voice Coil Lightweight Copper-Clad Aluminum Wire Voice Coil allows for faithful reproduction of louder sounds.



Upper Urethane Surround

Suppresses unwanted peaks and dips in the high-frequency range

Lower Urethane Surround

Reinforces strength and durability

New Dual Layer

Minimizes unnecessary cone resonance for higher cone durability and clearer sound.

Specifications

	TS-6975 V2	TS-6965 V2	TS-1675 V2
Size	6" x 9"	6" x 9"	16 cm
Max. Music Power (Nominal)	500 W (80 W)	400 W (80 W)	300 W (50 W)
Frequency Response	30 Hz to 25 kHz	30 Hz to 22 kHz	35 Hz to 20 kHz
Sensitivity (1 W/1 M)	92 dB	93 dB	92 dB
Impedance	4Ω	4 Ω	4Ω
Mounting Depth	92 mm	84 mm	58 mm
Cut-Out Dimensions	151 mm x 220 mm	151 mm x 220 mm	ø128 mm



TS-G Series











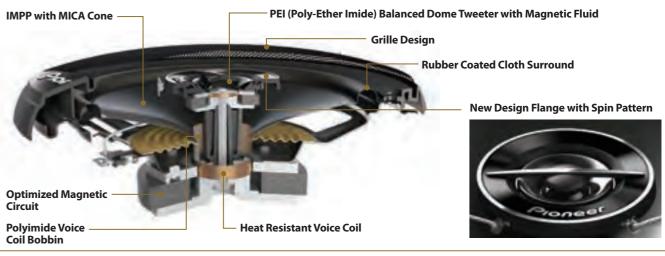




Technology of a G-Series Speaker



TS-G1644R Cut View



Specifications

	TS-G1604C	TS-G1644R	TS-G1344R	TS-G1044R
Size	16 cm 30 mm*	16 cm	13 cm	10 cm
Max. Music Power (Nominal)	280 W (45 W)	250 W (40 W)	220 W (35 W)	200 W (30 W)
Frequency Response	35 Hz to 38 kHz	31 Hz to 29 kHz	43 Hz to 27 kHz	45 Hz to 27 kHz
Sensitivity (1 W/1 m)	89 dB	90 dB	89 dB	88 dB
Impedance	4Ω	4 Ω	4 Ω	4 Ω
Mounting Depth	42 mm	42 mm	46 mm	43 mm
Cut-Out Dimensions	ø128 mm	ø128 mm	ø121 mm	ø106 mm

	TS-G1614R	TS-G1314R	TS-G1014R
Size	16 cm	13 cm	10 cm
Max. Music Power (Nominal)	230 W (40 W)	200 W (35 W)	180 W (30 W)
Frequency Response	30 Hz to 23 kHz	40 Hz to 25 kHz	45 Hz to 26 kHz
Sensitivity (1 W/1 m)	90 dB	90 dB	88 dB
Impedance	4Ω	4 Ω	4 Ω
Mounting Depth	42 mm	46 mm	43 mm
Cut-Out Dimensions	ø128 mm	ø121 mm	ø106 mm

SPEAKERS

Pioneer

* Tweeter specification

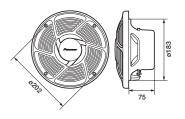
SPEAKERS



20 cm Marine-Use 2-Way Speaker FFATURES:

 White Water-Resistant IMPP Cone Woofer • Water-Resistant Elastomer Surround Glass-Imide Voice Coil Bobbin

- Conex Damper
- 20 mm PI Dome Reflex Horn Tweeter • High-Quality Corrosion-Resistant Hardware
- Gold-Plated Tinsel Leadwire and Terminals Weather-Proof and Heat-Resistant Resin



Pioneer

16 cm Marine-Use 2-Way Speaker FEATURES:

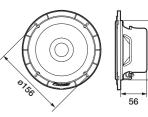
 White Water-Resistant IMPP Cone Woofer Water-Resistant Elastomer Surround

- Glass-Imide Voice Coil Bobbin Conex Damper
- 27 mm PEI Balanced Dome Tweeter • High-Quality Corrosion-Resistant Hardware Gold-Plated Leadwire and Terminals Weather-Proof and Heat-Resistant Resin

16 cm Marine-Use Dual-Cone Speaker FEATURES:

- White Water-Resistant IMPP Cone Woofer Water-Resistant Elastomer Surround
- Glass-Imide Voice Coil Bobbin
- Conex Damper

• High-Quality Corrosion-Resistant Hardware Gold-Plated Tinsel Leadwire and Terminals Weather-Proof and Heat-Resistant Resin





TS-CX900	TS-2150	TS-S250	TS-S20
6.6 cm	20 cm	40 mm	20 mm
80 W (20 W)	200 W (50 W)	250 W (50 W)	200 W (50 W)
80 Hz to 70 kHz	28 Hz to 28 kHz	6,000 Hz to 40 kHz	3,000 Hz ⁽¹⁾ / 1,200 Hz ⁽²⁾ to 26 kHz
81 dB	91 dB	97 dB	92 dB
4 Ω	4Ω	8Ω	8Ω
_	88 mm	—	—
_	ø186 mm	_	_

TS-MR2040	TS-MR1640	TS-MR1600
20 cm	16 cm	16 cm
200 W (40 W)	160 W (30 W)	100 W (25 W)
25 Hz to 30 kHz	30 Hz to 30 kHz	30 Hz to 20 kHz
92 dB	91 dB	90 dB
4Ω	4 Ω	4Ω
75 mm	56 mm	56 mm
ø183 mm	ø127 mm	ø127 mm

KERS

ACCESSORIES & SPECIFICATIONS



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Accessories Connection Table with AV and Audio Receivers

Accessory Compatibility		AVH-P8450BT	AVH-X5550BT AVH-X4550DVD AVH-X2550BT AVH-X1550DVD		AVH-5450DVD	DVH-855AVBT	DVH-755AV DVH-345UB	MVH-8350BT MVH-7350	DEX-P99RS	DEH-X9550BT DEH-X8550BT DEH-X6550BT DEH-4550BT MVH-355BT FH-X755BT	DEH-80PRS DEH-9450UB DEH-X9550SD DEH-X7550SD DEH-X3550UI DEH-2550UI MVH-155UI FH-X555UI	DEH-1550UB(G) DEH-155MP(G) DXT-1569UB DXT-156UB
iPod/iPhone	CD-IU201S	*1	*1									
Made for	CD-IU201V	۲	۲	۲		۲		۲				
	CD-IU51V			۲		۲		۲				
	CD-IU51								۲	۲	۲	
Bluetooth° Bluetooth °	CD-BTB200			EXT (AVH-P5350DVD)					٠			
System	DEQ-P7650/ DEQ-P6600	۲		۲								
	XDV-P650/ XDV-P6	EXT		EXT					۲			
00	CDX-P1280/ CDX-P680								۲			
	CDX-FM1287/ CDX-FM687	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲	۲
Tuner ^{*2}	GEX-1550DTV		۲									
¥ C	GEX-1550TV		۲									
Back Up Camera Back UP Camera	ND-BC5	۲	•	•	•	۲						
Ready	ND-BC20PA	٠	۲	•	٠	•			64			
Remote Control	CD-R320							۲	•		•	۲
	CD-SR100	•	•	•	•		•	۲	٠	•	•	
	CD-SR110	•	AVH-X5550BT AVH-X2550BT	AVH-P6350BT				MVH-8350BT				

Note: Some functions may be limited in terms of remote controllability, even if the receiver and remote control are denoted as compatible in the chart. *1. When Advanced App Mode is in use. *2. May not be compatible with certain receivers.



ACCESSORIES

ACCESSORIES



Installation Accessories



RD-983 Alternator Noise Suppressor

RD-984 Alternator Noise Suppressor





RD-226

Power Cable

RD-228

RD-985

In-Line RCA Noise

Power Cable

For use with amplifier with screw ter

Accessories for Connection of iPod

CD-IU201S LISB Interface Cable for iPhone 4/ iPhone 4S (or 4th generation iPod touch) (USB Cable: 50 cm/ RGB Cable: 2 m)

CD-IU201V USB Interface Cable for iPod/iPhone (USB and AUX Cable: 50 cm/ AUX Extension Cable: 1.5 m



CD-IU51V

Note: Please refer to pages 89 and 94 for accessories for connection of iPod details.



IP-Bus Accessories

IP-Bus Extension Cable (6 m)

CD-IP601E

Female-to-Male IP-Bus Extension Cable.

CDX-P680

• Dimensions (W x H x D): 248 mm x 66 mm x 168 mm

6-Disc IP-Bus Multi-CD Player

CD-V150M Mini-Jack Cable for iPod (1.5 m) For use with iPod and receiver with built-in AUX input.

CD-IB100II Interface Adapter for iPod Dimensions (W x H x D): 95 mm x 21 mm x 91 mm



Cable

CD-IP150 CD-RB10 IP-Bus Cable (1.5 m) IP-Bus-to-RCA Adapter Male-to-Male IP-Bus receiver

 Allows connection of external audio source to IP-Bus

Note: Not available in AVH series receivers released in and after 2010.

MCD Players and Magazines

CDX-P1280 12-Disc IP-Bus Multi-CD Playe • Dimensions (W x H x D)· 257 mm x 94 mm x 170





CDX-FM687 Universal FM-Modulated 6-Disc Multi-CD System with Wireless Remote Control Dimensions (W x H x D): 248 mm x 66 mm x 168 mm

Note: Accessories are for products that appear in the Dealer Reference Guide. Please refer to a Pioneer sales representative for up-to-date information.

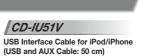


• For use with amplifier with block terminal.





Auxiliary Input Accessories





USB Extension Cable (50 cm)

CD-U50E

CD-RM10 AUX Mini-Plug to Composite A/V Cable (2 m)

CD-UB100 IP-Bus USB Adapter • Dimensions (W x H x D): 146 mm x 24 mm x 90 mm



UD-G308 30 cm Spoke Grille For use with TS-W3002D4 and TS-W303R



UD-G308

JD-1212S 12 Disc Magazine For use with FM and Straight 12 Disc Changers, 1996 to current. JD-612V 6 Disc Magazine • For use with FM and Straight 6 Disc Changers, 1996 to current.

AV Receivers Features Comparison

	AVH-P8450BT	AVH-X5550BT	AVH-X4550DVD	AVH-X2550BT	AVH-X1550DVD	AVH-P6350BT	AVH-P5350DVD	AVH-5450DVD	DVH-855AVBT	DVH-755AV	DVH-345UB	MVH-8350BT	MVH-7350
Display Section	AVII-1 045001	AVII-2555001	AVII-X45500VD	AVII-A2550BT	AVII-X15500VD	AVII-P 0550BT	AVII-7 33300VD	AVII-54500VD		DVII-755AV	001-34300	MVII-8550BT	MVII-7330
Screen Size/Aspect Ratio	7″/16:9	7″/16:9	7″/16:9	6.1"/16:9	6.1″/16:9	7"/16:9	7"/16:9	7"/16:9	3.5"/16:9	3"/16:9		3"/16:9	3"/16:9
Resolution	VGA (800 x 480)	VGA (800 x 480)	VGA (800 x 480)	VGA (800 x 480)	VGA (800 x 480)	QVGA (480 x 240)	QVGA (480 x 240)	QVGA (480 x 240)	QVGA (480 x 240)	QVGA (480 x 240)		QVGA (480 x 240)	QVGA (480 x 240)
Advanced Display Resolution (ADR) LED Backlight	x	x	x	x	x	x	x	x	x	x	x	x	x
Background Picture and Video	4 BGP, 2 BGV	4 BGP, 2 BGV	4 BGP, 2 BGV	4 BGP, 2 BGV	4 BGP, 2 BGV	4 BGP, 3 BGV	4 BGP, 3 BGV	4 BGP, 3 BGV				3 BGP, 1 BGV	3 BGP, 1 BGV
Spectrum Analyzer	x	x	x	x	x	x	x	x				x	х
AG (Anti-Glare) Screen Coating Touch Panel Operation	x	x	x	x	x	x	x	x					
Motorized Display	x	x	x			x	x	х					
Selected Angle Setting	5 Settings	5 Settings x	5 Settings			50 to 110 Degrees	50 to 110 Degrees X	50 to 110 Degrees X					
Automatic Display Positioning CD/DVD/Bluetooth®/iPod/USB/S	× SD Memory Ca		× edia Plavbacl	<pre>section</pre>	<u> </u>	X	X	X					
Disc Capacity	1	1	1	1	1	1	1	1	1	1	1		
CD-R/RW, DVD-R/RW Compatible	X HFP/A2DP/	X HFP/A2DP/	x	x HFP/A2DP/	x	x	x	x	x HFP/A2DP/	х	x		
Built-in Bluetooth ^{*1}	AVRCP/SSP	AVRCP/SSP/SPP		AVRCP/SSP/SPP		HFP			AVRCP*2			HFP	
App Mode Direct Control for iPod/iPhone (Audio/Video)*3	x	x	x	x	x	x	x		x			x	x
Advanced App Mode*4	x	x	x	x	x	^	^		~			^	~
Link Search		х	x	х	х	x	x					х	х
SD/SDHC Memory Card Slot USB Port*5	x Rear x 2	Rear	Rear	Rear	Rear	x Front*6	x Front*6	x Front*6	Front*6	Front*6	Front*6	x Front*6	x Front*6
AUX Input (3.5 mm mini-jack)		Rear (Audio/Video)		Rear (Audio/Video)		Front (Audio/Video)			Front (Audio/Video)		Front (Audio)	Front (Audio/Video)	
DVD Video Playback	x	x	x	x	x	x	x	x	x	x	x		
Music CD Playback	x	x	x	x	x	x	x	X	X	x	x		
Video CD Playback MP3/WMA/iTunes AAC Playback on CD/DVD	x	x	x	x	x	x	x	x	x MP3/WMA	x MP3/WMA	x		
JPEG Image File Playback on CD/DVD		х	х	х	х	х	х	х	х	х	х		
DivX Video File Playback on CD/DVD	x	x	x	x	x	x	x	х	X	X	x		
MP3/WMA/iTunes AAC/JPEG Playback from USB Device/SD Memory Card	USB/SD*7	USB*7	USB*7	USB*7	USB*7	USB/SD	USB/SD	USB/SD	USB (MP3/WMA/JPEG)	USB (MP3/WMA/JPEG)	USB	USB/SD	USB/SD
H.264/WMV Playback from CD/DVD/ USB Device/SD Memory Card	x												
DivX Video File Playback from	USB/SD	USB	USB	USB	USB	USB/SD	USB/SD	USB/SD	USB	USB	USB	USB/SD	USB/SD
USB Device/SD Memory Card MPEG-1/-2/-4 Decoder	x*8	x	x	x	x	MPEG-1/-2	MPEG-1/-2	MPEG-1/-2	x	x	x		
Linear PCM Decoder	x	x	x	x	x	x	х	X	x	x	x		
Dolby® Digital Decoder	x	x	x	х	х	x	x	х	X	X	x		
DVD Chapter/Title/Time Direct Search DVD Chapter/Title Repeat	x	x	x	x	x	x	x	x	Chapter/Title x	Chapter/Title x	Chapter/Title x		
DVD Auto Play	x	x	x	x	x	x	x	x	x	x	x		
VCD Playback Control	x	x	x	х	х	х	х	х	х	х	x		
Repeat (Disc/Track) Tuner Section	x	x	x	x	x	x	X	х	х	х	x		
Supertuner® IIID	x	x	x	x	x	x	x	x			x	x	x
6 Presets	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations	24 Stations
BSM (Best Stations Memory) Local Seek Tuning	x	x	x	x	x	x	x	x	x	x	x	x	x
RDS	x	x	x	x	x	x	x	x	^		x	X	x
Audio Section													
Built-in Amplifier Hi-Volt RCA Preouts													
				MOSFET 50 W x 4	MOSFET 50 W x 4			MOSFET 50 W x 4		MOSFET 50 W x 4	MOSFET 50 W x 4	MOSFET 50 W x 4	
	MOSFET 50 W x 4 3 (4 V)	MOSFET 50 W x 4 3 (4 V)	MOSFET 50 W x 4 3 (4 V)			MOSFET 50 W x 4 3 (4 V)	MOSFET 50 W x 4 3 (4 V)		2 (4V)			MOSFET 50 W x 4 3 (4 V)	MOSFET 50 W x 4 3 (4 V)
RCA Preouts Optical Out				MOSFET 50 W x 4 3 (2 V)	3 (2 V)			MOSFET 50 W x 4		MOSFET 50 W x 4	MOSFET 50 W x 4		
RCA Preouts Optical Out D/A Converter	3 (4 V)					3 (4 V)	3 (4 V)		2 (4 V) 96 kHz/24-bit				
RCA Preouts Optical Out	3 (4 V) x	3 (4 V)	3 (4 V)	3 (2 V)	3 (2 V)	3 (4 V) x 96 kHz/24-bit	3 (4 V) x 96 kHz/24-bit	2 (2 V)	2 (4 V)	2 (2 V)	2 (2 V)	3 (4 V)	3 (4 V)
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control	3 (4 V) x 96 kHz/24-bit	3 (4 V) 96 kHz/24-bit x x	3 (4 V) 96 kHz/24-bit x x	3 (2 V) 96 kHz/24-bit x x	3 (2 V) 96 kHz/24-bit x x	3 (4 V) x 96 kHz/24-bit x x	3 (4 V) x 96 kHz/24-bit x x	2 (2 V) 96 kHz/24-bit x x	2 (4V) 96 kHz/24-bit x	2 (2 V) 96 kHz/24-bit	2 (2 V) 96 kHz/24-bit	3 (4 V) 96 kHz/24-bit x x	3 (4 V) 96 kHz/24-bit
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) 96 kHz/24-bit X x 8-Band Graphic	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic	2 (4 V) 96 kHz/24-bit x Bass/Mid/Treble	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network	3 (4 V) x 96 kHz/24-bit x x	3 (4 V) 96 kHz/24-bit x x	3 (4 V) 96 kHz/24-bit x x	3 (2 V) 96 kHz/24-bit x x	3 (2 V) 96 kHz/24-bit x x	3 (4 V) x 96 kHz/24-bit x x	3 (4 V) x 96 kHz/24-bit x x	2 (2 V) 96 kHz/24-bit x x	2 (4V) 96 kHz/24-bit x	2 (2 V) 96 kHz/24-bit	2 (2 V) 96 kHz/24-bit	3 (4 V) 96 kHz/24-bit x x	3 (4 V) 96 kHz/24-bit x x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) 96 kHz/24-bit X x 8-Band Graphic	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic	2 (4 V) 96 kHz/24-bit x Bass/Mid/Treble	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX*9	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x	3 (4 V) 96 kHz/24-bit X 8-Band Graphic HPF/LPF X x	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x	3 (2 V) 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Ze ^{x10} Display Visualizer Album Jacket Dance	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX EZ ¹⁰ Display Visualizer Album Jacket Dance General	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x	3 (4V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x	3 (4V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF X x x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Section MIXTRAX Ze ¹⁰ Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready ^{#11}	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x	3 (4 V) 96 kHz/24-bit x x- 8-Band Graphic HPF/LPF x x x x	3 (4 V) 96 kHz/24-bit x x- 8-Band Graphic HPF/LPF x x x x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX E2*10 Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tune Ready*11 (GEX-1550TV) Multi-Channel Processor Ready	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x	3 (4V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (4V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX E2*10 Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready*11 (GEX-15SOTV)/GEX-15SOTV) Multi-Channel Processor Ready (DEQ-P76SO/DEQ-P6600)	3 (4 V) x 96 kHz/24-bit X x 8-Band Graphic HPF/LPF X X X X X X X X X X X X X X X X X X X	3 (4 V) 96 kHz/24-bit x x- 8-Band Graphic HPF/LPF x x x x	3 (4 V) 96 kHz/24-bit x x- 8-Band Graphic HPF/LPF x x x x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (4V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x x	3 (4V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX E2*10 Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tune Ready*11 (GEX-1550TV) Multi-Channel Processor Ready	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x x x	3 (4 V) 96 kHz/24-bit x x	3 (4 V) 96 kHz/24-bit x x- 8-Band Graphic HPF/LPF x x x x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (4V) x 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x	3 (4V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Ez* ¹⁰ Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready* ¹¹ (GEX-1550TV/GEX-15S0TV) Multi-Channel Processor Ready (DEQ-P7650/DEQ-P660) Source DVD Control (XDV-P650/XDV-P6) Rear-View Camera Input* ¹² Composite A/V Input	3 (4 V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X X X X External	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X 1 (Audio/Video)	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video)	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x x 1 (Audio/Video)	3 (2 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X X 1 (Audio/Video)	3 (4V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X Letternal X 1 (Audio/Video)	3 (4V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video)	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x 1 (Audio/Video)	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x x	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF X	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 (Audio)*13	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX EZ* ¹⁰ Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready* ¹¹ (GEX-15SOTV) Muti-Channel Processor Ready DEQ-P6600 Source DVD Control (XDV-P650/XDV-P6) Rear-View Camera Input* ¹² Composite AV Input Composite Video Output	3 (4 V) X 96 kHz/24-bit K 8-Band Graphic HPF/LPF X X X X X X External X 1 (Audio/video) 1	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x 1 (Audio/Video) 1	3 (4 V) 96 kH2/24-bit X X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video) 1	3 (2V) 96 kH2/24-bit X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video) 1	3 (2 V) 96 kH2/24-bit X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video) 1	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x C L L L L L L L L L L L L L L L L L	3 (4V) x 96 kHz/24-bit x seBand Graphic HPF/LPF x x E-Band Graphic HPF/LPF x 1 1 Logarithm for the set of the	2 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x 1 (Audio/Video) 1	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Ez* ¹⁰ Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready* ¹¹ (GEX-1550TV/GEX-15S0TV) Multi-Channel Processor Ready (DEQ-P7650/DEQ-P660) Source DVD Control (XDV-P650/XDV-P6) Rear-View Camera Input* ¹² Composite A/V Input	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x x x x x x x x x x x	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X 1 (Audio/Video)	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video)	3 (2 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x x 1 (Audio/Video)	3 (2 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X X 1 (Audio/Video)	3 (4V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X Letternal X 1 (Audio/Video)	3 (4V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video)	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x 1 (Audio/Video)	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x x	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF X	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 (Audio)*13	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x
RCA Preouts Optical Out Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX EZ* ¹⁰ Display Visualizer Album Jacket Dance General IP-Bus Pioneer TVTuner Ready* ¹¹ (GEX-15S0DTV/GEX-15S0TV) MIXTRAX 51SS0DTV/GEX-15S0TV) MIXTRAX Comera Input* ¹² Composite A/V Input Composite Vide Output RGB Input	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x x x x x x 1 (Auto/video) 1 (Auto/video) 1 X x 5-Display Colors	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video) 1 1 x 5-Display Colors	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF X x x x x 1 (Audio/Video) 1 X 5-Disolav Colors	3 (2V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video) 1 x 5-Display Colors	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF X x x x x 1 (Audio/Video) 1 X 5-Display Colors	3 (4V) x 96 kHz/24-bit x 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x x Lterral x 1 (Audio/Video) 1 x x 5-Display Colors	3 (4V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x x L L L L L L L L L L L L L L L L	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x 1 (Audio/Video) 1 (Audio/Video) 1 x 5-Display Colors	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x 1 (Audio/Video) 1 2 Colors	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF X	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 (Audio)*13	3 (4V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x 6-Display Colors	3 (4V) 96 kHz/24-bit x x
RCA Preouts Optical Out Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Section MIXTRAX EZ* ¹⁰ Display Visualizer Album Jacket Dance General IP-Bus IP-Inus Pioneer TVTuner Ready* ¹¹ (GEX-15500TV/GEX-1550TV) Multi-Channel Processor Ready (DEQ-P7650/DEQ-P6600) Source DVD Control (XDV-P650/XDV-P6) Rear-View Camera Input* ¹² Composite Video Output RGB Input Dual Zone Audio/Video	3 (4 V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x x x x x 1 (Audio/video) 1 x x x	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X 1 (Audio/Video) 1 X	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X 1 (Audio/Video) 1 X X	3 (2 V) 96 kHz/24-bit x x- 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video) 1 x	3 (2 V) 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video) 1 X	3 (4V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video) 1 x x x	3 (4V) x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video) 1 x x x	2 (2 V) 96 kHz/24-bit x x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x x 1 (Audio/Video) 1	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF X	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 (Audio)*13	3 (4V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X	3 (4V) 96 kHz/24-bit x x 8-8and Graphic HPF/LPF x x x x
RCA Preouts Optical Out Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Section MIXTRAX E2*10 Display Visualizer Album Jacket Dance General IP-Bus Pioneer TVTuner Ready*11 (GEX-1550DTV/GEX-1550TV) Multi-Channel Processor Ready (DEQ-P7650/DEQ-P6600) Source DVD Control (XDV-P65)(XDV-P6) Rear-View Camera Input*12 Composite A/V Input Composite Video Output R6B Input Dual Zone Audio/Video Color Customization	3 (4 V) x 96 kHz/24-bit x 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x x x x x x x x x 1 (Audio/video) 1 x x 5-DisplayColors 112-KeyColors	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video) 1 X 5-Display Colors 112-Key Colors	3 (4 V) 96 kHz/24-bit x x	3 (2V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x 1 (Audio/Video) 1 x 5-Display Colors 112-Key Colors	3 (2 V) 96 kHz/24-bit x x	3 (4 V) x 96 kHz/24-bit x 96 kHz/24-bit x 8-Band Graphic HPF/LPF x x x x x x t Lternal x 1 (Audio/Video) 1 x x x 5-Display Colors 112-Key Colors	3 (4V) x 96 kHz/24-bit x 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x x x t t t t t t t t t t t t t t t	2 (2 V) 96 kHz/24-bit x x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x 1 (Audio/Video) 1 2 Colors (Red/Blue) x x	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 (Audio)*13	3 (4V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x 6-Display Colors 112-Key Colors x x	3 (4V) 96 kHz/24-bit x x 8-8and Graphic HPF/LPF x x x x 6-Display Colors 112-Key Colors x x
RCA Preouts Optical Out Dy/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Ez*10 Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready**11 (GEX-15SOTV)/GEX-15SOTV) Mutrik-Channel Processor Ready DEQ-P76S/DEQ-P6600 Source DVD Control (XDV-P650/XDV-P6) Rear-View Camera Input**12 Composite Video Output RGB Input Dual Zone Audio/Video Color Customization Display Off Mode	3 (4 V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video) 1 X 5-Display Colors 112-Key Colors X	3 (4 V) 96 kH2/24-bit X X 8-Band Graphic HPF/LPF X X X X X 1 (Audio/Video) 1 X 5-Display Colors 112-Key Colors X X	3 (2V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video) 1 x 5-Display Colors 112-Key Colors x	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x x x 1 (Audio/Video) 1 x 5-Display Colors 112-Key Colors x	3 (4V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X L I I I I I I I I I I I I I I I	3 (4V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X L I I I I I I I I I I I I I I I	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x 1 (Audio/Video) 1 x 5-Display Colors 112-Key Colors x	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x 1 (Audio/Video) 1 1 2 Colors (Red/Blue) x	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF X 1	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 (Audio)*13	3 (4V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 (4V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x 6-Dicplay Colors 112-Key Colors x x x Menuu (Inglish/Spanic)
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Ez*10 Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready*11 (GEX-15SOTV) Mutrik-Channel Processor Ready (DEQ-P76S)/DEQ-P6600) Source DVD Control (XDV-P650/XDV-P6) Rear-View Camera Input*12 Composite Video Output GB Input Dual Zone Audio/Video Color Customization Display Off Mode JPEG Silde Show*14 Multi-Language Display Rotary Volume Control	3 (4 V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X X X X X X X	3 (4 V) 96 kH2/24-bit X X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X X X X X X X	3 (2V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x x x x x x x x x	3 (2 V) 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X X 1 (Audio/Video) 1 X 5-Display Colors 112-Key Colors X X Menu/ID3 Tag* ¹⁵	3 (4V) X 96 kHz/24-bit X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X External X 1(Audio/Video) 1 X 1(Audio/Video) 1 X 5-Display.Colors 112-key.Colors X X Menu*15 X	3 (4V) X 96 kHz/24-bit X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X External X 1(Audio/video) 1 X 1(Audio/video) 1 X 5-Display Colors 112-key Colors X X Menu* ¹⁵ X	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x 1 (Audio/Video) 1 x 5-Display Colors 112-Key Colors x x	2 (4V) 96 kHz/24-bit X Bass/Mid/Treble LPF X X 1 (Audio/Video) 1 2 Colors (Red/Blue) X X Menu/D3 Tag (English/Spanish/ Portuguese) X	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF X X 1 1	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x x 1 (Audio)*13 1 1	3 (4V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x 6-Display Colors 112-Key Colors 112-Key Colors x x x Menu (English/Spank) Rotary Commander
RCA Preouts Optical Out DyA Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section Objalay Visualizer Album Jacket Dance General IPBus Pioneer TVTuner Ready**1 (GEX-1550TV) Multi-Channel Processor Ready (DEQ-P6600) Source DVD Control (XDV-P650/XDV-P6) Reac-View Comera Input**2 Composite	3 (4 V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X	3 (4 V) 96 kH2/24-bit x 96 kH2/24-bit x 8-Band Graphic HPF/LPF x x x x x x 1 (Audio/Video) 1 x S-Display Colors 12-Key Colors x x Menu/D3 Tag ⁴¹⁵ X	3 (4 V) 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x x x 1 (Audio/Video) 1 X (Audio/Video) 1 X 5-Display Colors 112-Key Colors x x Menu/(D3 Tag* ¹⁵ X	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF X x x x x 1 (Audio/Video) 1 X S-Display Colors 112-Key Colors x x Menu/ID3 Tag ^{*15}	3 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF X x x x x 1 (Audio/Video) 1 X 1 (Audio/Video) 1 X S-Display Colors x X Menu/ID3 Tag* ¹⁵ X	3 (4V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X External X External X 1 (Audio/Video) 1 X X X X Nenu*15 X Menu*15 X X	3 (4V) x 96 kHz/24-bit x 96 kHz/24-bit x 8-Band Graphic HPF/LPF X x x X L L L L L L L L L L L L L L L L	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x 1 (Audio/Video) 1 x 5-Display Colors 12-Key Colors x x Menu ^{#15}	2 (4V) 96 kHz/24-bit x Bass/Mid/Treble LPF x 1 (Audio/Video) 1 2 Colors (Red/Blue) x x Menu/D3 Tag Menu/D3 Tag X X	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 1 1 x x X Menu/D3 Tag (English/Spanish/ Portuguese) x	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x x 1 (Audio)*13 1 1 	3 (4V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x 6-Display Colors 112-Key Colors 112-Key Colors x Menu English/Spanish/ Portuguez/Russian) Rotary Commander x	3 (4 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF X x x 6-Display Colors 112-Key Colors x x Menu (English/Spaish/ Portuguee/Russian) Rotary Commander x
RCA Preouts Optical Out D/A Converter Specialized Audio Parts Auto EQ (CD-MC20 Required) Sonic Center Control Equalizer Crossover Network Advanced Sound Retriever Subwoofer Control MIXTRAX Section MIXTRAX Ez*10 Display Visualizer Album Jacket Dance General IP-Bus Pioneer TV Tuner Ready*11 (GEX-15SOTV) Mutrik-Channel Processor Ready (DEQ-P76S)/DEQ-P6600) Source DVD Control (XDV-P650/XDV-P6) Rear-View Camera Input*12 Composite Video Output GB Input Dual Zone Audio/Video Color Customization Display Off Mode JPEG Silde Show*14 Multi-Language Display Rotary Volume Control	3 (4 V) X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X	3 (4 V) 96 kHz/24-bit X X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X X X X X X X	3 (4 V) 96 kH2/24-bit X X 8-Band Graphic HPF/LPF X X X X X X X X X X X X X X X X X X X	3 (2V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x x x x x x x x x x x	3 (2 V) 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X X X X 1 (Audio/Video) 1 X 5-Display Colors 112-Key Colors X X Menu/ID3 Tag* ¹⁵	3 (4V) X 96 kHz/24-bit X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X External X 1(Audio/Video) 1 X 1(Audio/Video) 1 X 5-Display.Colors 112-key.Colors X X Menu*15 X	3 (4V) X 96 kHz/24-bit X 96 kHz/24-bit X 8-Band Graphic HPF/LPF X X X External X 1(Audio/video) 1 X 1(Audio/video) 1 X 5-Display Colors 112-key Colors X X Menu* ¹⁵ X	2 (2 V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x x 1 (Audio/Video) 1 x 1 (Audio/Video) 1 x S-Display Colors 112-Key Colors x x X Menu ^{®15}	2 (4V) 96 kHz/24-bit X Bass/Mid/Treble LPF X X 1 (Audio/Video) 1 2 Colors (Red/Blue) X X Menu/D3 Tag (English/Spanish/ Portuguese) X	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x 1 1 x x Menu/ID3 Tag (English/Spanish/ Portuguese)	2 (2 V) 96 kHz/24-bit Bass/Mid/Treble LPF x x x 1 (Audio)*13 1 1	3 (4V) 96 kHz/24-bit x x 8-Band Graphic HPF/LPF x x	3 (4V) 96 kH2/24-bit x x 8-Band Graphic HFF/LPF x x x x 6-Display Colors 112-Key Colors 112-Key Colors x x x Kenu (EnglishSpanish) Penguese Busan Rotary Commande

*** *HFP* = Hands-Free Profile, *P2DP* = Advanced Apulia Distribution Profile, *AVRCP* = Audia/Video Remote Control Profile (version 1.3), *SSP* = Secure Simple Profile, *SPP* = Serial Port Profile, *P2DP* = Advanced Apula Distribution about profile compatibility, *SSP* = Secure Simple Profile, *SPP* = Serial Port Profile, *P2DP* = Advanced Apula Distribution about profile compatibility, *SPP* = Secure Simple Profile, *SPP* = Serial Port Profile, *P2DP* = Advanced Apula Distribution about profile compatibility, *SPP* = Secure Simple Profile, *SPP* = Serial Port Profile, *P2DP* = Advanced Apula Distribution about profile compatibility, *SPP* = Secure Simple Profile, *SPP* = Serial Port Profile, *P2DP* = Advanced Apula Distribution about profile compatibility, *SPP* Compatible with full-featured Non-Stop Mix Play visitout music analysis performed using MIXTRAX software. Com-patible sources: *SPD* Device and *SD* Memory *Card*.
 *10 Quick, easy, accessible Non-Stop Mix Play without music analysis data from MIXTRAX software. Compatible sources: *SPD SPD* (*SPD*) *SPD* (*SPD*

	DEX-P99RS	DEH-80PRS	DEH-045018	DEH_YOSSORT	DEH. YOSSOCD	DEH.YSSCORT	DEH-X7550SD	DEH.YASSORT	DEH.Y2550H	DEH-4550BT	DEH-2550UI	DEH-1550UB	DEH-155MP	MVH-355BT	MVH-155UI	FH-X755BT	FH-X555UI	DXT-1569
									DEH-X355001	DEH-4220B1	DEH-255001	DEH-1550UBG	DEH-155MPG	MVH-355B1	MVH-155UI	FH-X/55B1	FH-X555UI	DXT-156
D Player/Bluetoc D-R/CD-RW Compatible		Android/SE	O Memory x	Card/USB (Control/Me	dia Playba	1	1		x		x	~			x	×	×
D-R/CD-RW Compatible	x	x	×	HFP/A2DP/	×	A HFP/A2DP/	x	X	x		X	×	x				x	x
Built-in Bluetooth*1				AVRCP/SSP/ SPP		AVRCP/SSP/ SPP		HFP/A2DP/ AVRCP/SSP		HFP/A2DP/ AVRCP/SSP				HFP/A2DP/ AVRCP/SSP		HFP/A2DP/ AVRCP/SSP		
Bluetooth Adapter Ready	x																	
CD-BTB200)*2 Direct Control for iPod/	*																	
Phone (CD-IU51 Required)	×	x	x	x	x	x	x	x	x	x	x			x	x	x	x	
loice Control For iPhone	-			x		x		x		х				x		x		
pp Source/App Mode* ³ or iPhone		x	x	X#4	X*4	X*4	X*4	x	x	х	x			x	x	x	х	
ompatible with iPod D-IB100II)	x																	
ontrol for Android Devices				x		x												
vith CarMediaPlayer App*5 D/SDHC Memory Card Slot	-	×		x	×	x	×											
SB Port ^{*6}	Rear	Rear x 2	Rear x 2	Rear x 2	Rear x 2	Rear	Rear	Front*7	Front*7	Front*7	Front*7	Front*7		Front*7	Front*7	Front*7	Front*7	Front
lusic Browser		SD/USB	USB	SD/USB	SD/USB	SD/USB	SD/USB											
UX Input	Front*8	Front	Rear	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Fron
3.5 mm mini-jack) /MA/MP3/WAV Playback	×	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
unes*9 AAC Playback*10	x	x	x	x	x	x	x											
) Text	x	x	x	x	x	x	x	x	x	х	x	x	x			x	х	х
uner Section	1															, <u> </u>		
ipertuner® IIID	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Presets 5M (Best Stations Memory)	24 Stations	24 Stations x	24 Stations x	24 Stations x	24 Stations x	24 Stations x	24 Stations x	36 Stations	36 Stations	36 Stations x	36 Stations	36 Stations	36 Stations x	36 Stations x	24 Stations	36 Stations	36 Stations x	36 Stat
DS		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
hortwave Tuner		-		-	~		-	x	x	x	x	x	x	x	~	x	x	x
udio Section																		
uilt-in Amplifier: OSFET 50 W x 4		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
-Volt RCA Preouts	4 (5 V)	3 (5 V)	3 (4 V)	3 (4 V)	3 (4 V)	3 (4 V)	3 (4 V)											
A Preouts	. (2.1)	- (- 1)	- (/			- (/		2 (2 V)	2 (2 V)	2 (2 V)	2 (2 V)	1 (2 V)	1 (2 V)	1 (2 V)	1 (2 V)	2 (2 V)	2 (2 V)	1 (2)
P	x	x																
A Converter	AKM 24-bit	Burr Brown 24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-b						
dusively Designed																		
udio Parts	x	x																
pecialized Audio Parts uto-EQ (with Mic Included)	×	x	x	x	x	x	x											
me Alignment	Auto/Manual																	
qualizer	Dual (L/R)	Dual (L/R)	5-Band GEQ	5-Band GEO	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band				
	31-Band GEQ																	
rossover Network	4-Way x	3-Way x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/LPF x	HPF/L
dvanced Sound Retriever dvanced Sound Retriever for	^		^		^		x		^		^	^	^		^		^	x
uetooth Wireless Audio	L			x		x		x		x				x		x		
ass Boost	-		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
ubwoofer Control oudness	1-Mode	1-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mo						
stening Position Selector		x	Jivioue	5 Mode	Sivioue	Simouc	Sivioue	Sivioue	Sivioue	5 Midde	5 Mode	Simoue	5 Midde	5 Midde	Sivioue	Simoue	5 Mode	5 100
electable Fader		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	х
NIXTRAX Section																		
IIXTRAX EZ				x	x	x	x	x	x							x	x	
ompatible Source				iPod/SD/ USB	iPod/SD/ USB	iPod/SD/ USB	iPod/SD/ USB	iPod/USB	iPod/USB							iPod/USB	iPod/USB	
ashing Color				x	x	x	x	x	x							x	x	
hort Playback Mode				x	x	x	x	x	x							x	x	
ound Level Indicator				x	x	x	x											
ieneral				1	1		1	1	1		1	1			1	1		
P-Bus	x	210.000 C-1-	210.000 C-1	210.000 C-I	210.000.0-1	210.000.0-1	210.000.0-1-	210.000.0-1	210.000.0-1							210.000 C-1-	210.000 C-1-	
olor Customization	125 Colors*11	(Separated)*12	210,000 Colors (Separated)*12							210,000 Colors (Separated)*12	210,000 Colors (Separated)*12							
isplay with LED Backlight	Full Dot OEL	Full Dot LCD			Full Dot LCD		Full Dot LCD	VA LCD	VA LCD	LCD	LCD (1 Line)	LCD (1 Line)	LCD (1 Line)	LCD (1 Line)	LCD (1 Line)	VA LCD	VA LCD	LCI
	(3-Line)	(3-Line) x	(3-Line) x	(3-Line) x	(3-Line) x	(3-Line) x	(3-Line) x	(2-Line) x	(2-Line) x	(1-Line) x	(1-Line) x	(1-Line) x	(1-Line) x	(1-Line) x	(1-Line) x	(2-Line) x	(2-Line) x	(1-Lir x
	- ^	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
splay Off Mode	x		x	x	x	x	x											
splay Off Mode mmer Control Iti-Language Disolay	x	× 1		_ ^	^		<u> </u>											
splay Off Mode mmer Control Iti-Language Display Iglish, Spanish, Portuguese)	x	x					1		x	x	x	×	×	x	x	-	x	x
splay Off Mode mmer Control Ilti-Language Display Iglish, Spanish, Portuguese) Iltage Display	x x	x		v	~	~	- v	- v			· ^	· ^	· ^				~	
splay Off Mode mmer Control ulti-Language Display uglish, Spanish, Portuguese) iltage Display ectrum Analyzer	x	x x		x	x	x	x	x			x	×	×			x	×	¥
splay Off Mode mmer Control ilti-Language Display nglish, Spanish, Portuguese) iltage Display ectrum Analyzer vel Indicator	x x	x	x	x x x	x x x	x x x	x x x	x	x	x	x	x	x	x	x	x	x	х
splay Off Mode mer Control Iti-Language Display glish, Spanish, Portuguese) Itage Display ectrum Analyzer vel Indicator ver Key	x x x Rotary	x x x x	x	x x	x x	x x	x x	x	x	x				x	x	x		
splay Off Mode mmer Control itti-Language Display iglish, Spanish, Portuguese) ittage Display ectrum Analyzer wel Indicator wer Key ttary Volume Control	x x x Rotary Commander	x x x x x x	x	x x x	x x x	x x x	x x x	x	x	x	x	x	x	x	x	x	x	x
splay Off Mode mmer Control ditl-Ianguage Display nglish, Spanish, Portuguase) Disage Display weetrum Analyzer wel Indicator wer Key oxtary Volume Control ired Remote Input	x x x Rotary Commander x	x x x x x x x	x	x x x x	x x x x	x x x x	x x x x	x x x	x x x	x x x	x	x x	x x	x x x	x x x	x x x	x x	x
splay Off Mode mmer Control alt-Language Digilary glich, Spanich, Portugesee) histage Display exctrum Analyzer veel Indicator veer Key stary Volume Control ired Remote Input emote Control	x x x Rotary Commander x Steering Remote	x x x x x x	x	x x x	x x x	x x x	x x x	x	x	x	x	x	x	x	x	x	x x x	x
isplay Off Mode immer Control itil: Janguage Display inglich, Spanich, Portuguese) ituge Display sectrum Analyzer vevel Indicator veve Key tary Volume Control irred Remote Input emote Control illular Mute	x x x Rotary Commander x Steering	x x x x x x x x x	x x x x	x x x x x	x x x x x	x x x x x	x x x x x	x x x x	x x x x	x x x x	x x x	x x x	x x x	x x x	x x x	x x x x	x x x x x	x x x
splay Off Mode mmer Control th: Janguage Digilay glish, Spanish, Portuguese) itage Display ectrum Analyzer vel Indicator ver Key tany Volume Control red Remote Input mote Control	x x x Rotary Commander x Steering Remote	x x x x x x x	x	x x x x	x x x x	x x x x	x x x x	x x x	x x x	x x x	x	x x	x x	x x x	x x x	x x x	x x x	x

*1 HFP = Hands-Free Profile, A2DP = Advanced Audio Distribution Profile, AVRCP = Audio/Video Remote Control Profile (version 1.3), SSP = Secure Simple Profile, SPP = Serial Port Profile, Prose refer to instruction manual for other information about profile compatibility.
 *2 External control of IP-Bus Bluetoath Adapter has some limitations. Please consult owner's manual or Pioneer sales representative "3 Operations of certain applications may be limited only when an iPhone or iPod touch is connected.
 *3 Operations of certain applications may be limited only when an iPhone or iPod touch is connected.
 *6 Pioneer compatibility with all USB mass torage devices and assumes no responsibility for any loss of data on "for any loss of data on "for any integration about Android available in particular regions".
 *11 Key Illumination and display are separately adjustable.

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SPECIFICATIONS

The Best Solutions To Enjoy iPod & Android

Connection Table for iPod/iPhone with Pioneer Receivers

Made for iPod iPhone

-

Smartphone

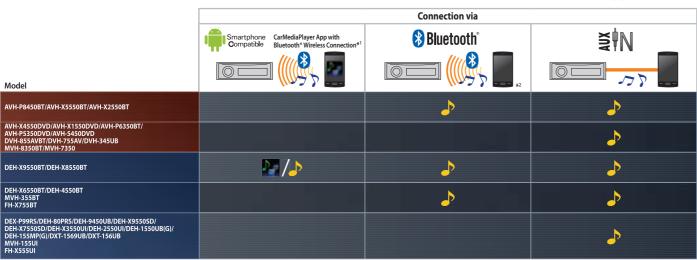
Compatible

	Plays auc			iPhone(*1)	iPod	iPod Classic		iPod to	uch(*1)			i	Pod nano	,	
	Plays aud		iPhone(*2)	iPhone 3G iPhone 3GS	iPhone 4 iPhone 4S	5th gen.	160GB (2007/2009) 120GB	1st gen. (*2)	2nd gen.	3rd gen.	4th gen.	1st/2nd gen.	3rd gen.	4th gen.	5th gen.	6th gei
Nodel AVH-P8450BT/ AVH-X5550BT/ AVH-X4550DVD	Interface USB Direct Connection for Video, Music and Advanced App Mode	Use with CD-IU201S ^{*3}			ADVANCED		80GB				ADVANCED MODE					
	USB Direct Connection for Video and Music	CD-IU201V	→ ^{*4} □	♪ **⊟**		♪Ħ	♪Ħ	♪ *¤*	♪ *¤*	♪*¤*		♪	♪Ħ	♪Ħ	♪日	J
AVH-X2550BT/ VH-X1550DVD	USB Direct Connection for Video, Music and Advanced App Mode	CD-IU201S* ³			ADVANCED						ADVANCED MODE					
	USB Direct Connection for Video and Music	CD-IU201V CD-IU51V		♪ **⊟**			♪Ħ	<mark>♪</mark> *¤*	♪ *¤*	♪ *¤*		♪		♪Ħ	♪日	7
AVH-P6350BT/ AVH-P5350DVD	USB Direct Connection for Video and Music	CD-IU201V CD-IU51V			***5		♪Ħ	♪ *¤*	♪ *¤*	♪ *¤*	♪ *¤*	♪	♪Ħ	♪Ħ	♪Ħ	1
AVH-5450DVD	AUX	3.5 mm AUX Cable		♪□		♪□	♪Ħ		♪□	♪Ħ		_	♪Ħ	♪日	♪Ħ	
DVH-855AVBT	USB Direct Connection for Video and Music	CD-IU201V CD-IU51V	♪ **⊟**	♪ *⊟*	♪ *¤*	♪日	♪□	♪*¤*	♪ *⊟*	▶*"⊟*	♪ *⊟*	♪	♪□	♪□	♪日	5
DVH-755AV	AUX	3.5 mm AUX Cable	♪Ħ	♪Ħ	₽ Ц	♪Ħ	♪Ħ	♪Ħ	♪Ħ	♪Ħ	♪Ħ	♪	♪Ħ	♪Ħ	♪日	5
DVH-345UB	AUX	3.5 mm AUX Cable		•	▶	-♪	•	.		•	_	•	•	•	•	1
MVH-8350BT/MVH-7350	USB Direct Connection for Video and Music	CD-IU201V CD-IU51V	→ ^{*4} □	♪ ** □ **	***5			♪ *¤*	♪ *¤*	♪ *'⊟*'	♪ *¤*	♪	♪□	♪目	♪□	J
DEX-P99RS/DEH-80PRS/ DEH-9450UB	USB Direct Connection for Music	CD-IU51	*4	**	*4*5	•	.	*	*	*	*	•	•	•	•	1
EH-X9550BT/DEH-X9550SD EH-X8550BT/DEH-X7550SD EH-X6550BT/DEH-X3550Ul/ EH-4550BTDEH-2550Ul IVH-355BT/MVH-155Ul H-X755BT/FH-555Ul	USB Direct Connection for Music	CD-IU51	→ *4	→ *4	→ **	♪	•	→ **		→ *4	•	♪	♪	♪	•	4
DEH-1550UB(G)/ DEH-155MP(G)/ DXT-1569UB/DXT-156UB	AUX	3.5 mm AUX Cable	•	•	•	•	•	•	•	•	•	♪	•	•	•	J

Operations may vary depending on the software version of iPod.
 Depending on the generation or version of the iPod, some functions can not be operated.
 Please contact Pioneer Support Center for more details regarding connection.

*1. When an error occurs in connection with iPod/iPhone, switching ACC ON/OFF or reloading the iPod may help recovery.
*2. Version 2.0 or later software is required when operating the receiver to browse video.
*3. When Advanced App Mode is in use. AppRadio App is available from iTunes App Store. Please use in 3G or Wi-Fi connection situations. AppRadio App Store App Mode Apps may not be available in some countries.
*4. App Mode Available. You can enjoy video and music using apps installed in iPhone and iPod touch. In App Mode, operability of app on receiver's display is limited. Pionee Receiver can play audio/video content from an iPod touch or iPhone with an app that outputs audio/video signals. Not every app. however, is compatible with App Mode.
*5. Not compatible with iPhone 4S.

Connection Table for Android Devices with Pioneer Receivers



*1. Data is transmitted via SPP (Serial Port Profile). Audio is transmitted via A2DP (Advanced Audio Distribution Profile). *2. Audio is transmitted via A2DP (Advanced Audio Distribution Profile). Audio is controlled via AVRCP (Audio/Video Remote Control Profile) and limited accordingly.

A	Factoria Ca	
Amplifiers	Features Co	mparison

		PRS-A900	PRS-D800	PRS-D2000SPL	PRS-D1200SPL	GM-D9601	GM-D8604	GM-D8601	GM-6500F	GM-5500T	GM-35001
Amplifier Cla	ass		Class FD	Class D	Class D	Class D	Class FD	Class D			
urrent Feed	dback Amplifier	х									
oad Impeda	nce Allowance (Ω)	2 to 8	2 to 8	1 to 8	1 to 8	1 to 8	1 to 8	1 to 8	2 to 8	2 to 8	2 to 8
Bridgeable		х	x	External SEPP	External SEPP		x		x	х	х
	ple Amplifier tion System)			х	x						
-Layered Ci	ircuit Board		x								
/R Independ	lent Power Supply	х									
/R Symmet	ric Layout Circuit	х									
rotection C	Control System					х	x	х			
IOSFET Out	tput Section		x	х	х	х	x	х			
WM Regula	ated MOSFET	х	x		x				x	х	
alanced Iso	lator Input Circuit	х	x	х	х	х	x	х	x	х	
ligh Grade	Bipolar Transister	х									
CA Inputs		4-Ch. (Gold-Plated)	2-Ch. (Gold-Plated)	2-Ch. (Gold-Plated)	2-Ch. (Gold-Plated)	2-Ch.	4-Ch.	2-Ch.	4-Ch.	2-Ch.	2-Ch.
CA Output	s (Pass-Through)					х	x (A-Ch.)	х	x		
peaker Lev	el Input					х	х	х	x	х	х
utomatic Si urn-On	gnal Sensing and					х	x	х			
li-Volt Inpu 400 mV to 6	t Level Control 5.5 V)	x L/R independent	x A/B independent	x	x						
li-Volt Inpu 200 mV to 6	t Level Control 5.5 V)					x	x	x	x	х	x
lock-Type	Power/Ground Terminals	x*1 (Gold-Plated)		x ^{#2} (Gold-Plated)	x ^{#3} (Gold-Plated)	X *1	X*1	X*1			
erminal	Speaker Terminals	x*4 (Gold-Plated)		x ^{#3} (Gold-Plated)	x ^{#3} (Gold-Plated)	X ^{*5}	X*5	X*5			
crew-Type	Power/Ground Terminals		x (Ground: Gold-Plated)						x	x	х
erminal	Speaker Terminals		x (Gold-Plated)						x	х	x
emovable Ter	minal/Settings Cover	х	х	х	х						
rossover Ty	/pe			LPF	LPF	Variable LPF	Variable HPF/LPF	Variable LPF	A-Ch.: LPF/HPF B-Ch.: Variable LPF/HPF	Variable LPF	LPF
rossover Fr	requency			40 Hz to 240 Hz	40 Hz to 240 Hz	40 Hz to 240 Hz	40 Hz to 500 Hz	40 Hz to 240 Hz	A-Ch.: 80 Hz B-Ch.: 40 Hz to 500 Hz	40 Hz to 500 Hz	80 Hz
rossover Sl	ope			-24 dB/oct.	-24 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oo
ubsonic Fil	ter			20 Hz, -24 dB/oct.	20 Hz, -24 dB/oct.						
ass Boost F	requency			40 Hz to 120 Hz	40 Hz to 120 Hz	50 Hz	50 Hz	50 Hz		50 Hz	
ass Boost L				0/6/9/12 dB	0/6/9/12 dB	0 dB to 18 dB	0 dB to 18 dB	0 dB to 18 dB		0/6/12 dB	
ass Boost R				x	x	х	x (B-Ch.)	х			

*1. 4 to 8-gauge *2. 1/0-gauge *3. 4-gauge *4. 12 to 18-gauge *5. 8 to 16-gauge Note: The "Class-FD" stands for "Full Range Class-D". Incorporating Pioneer-developed Class-D circuit, the Class-FD amplifiers deliver superior performance and sound quality.

Amplifiers Specifications					
	PRS-A900	PRS-D800	PRS-D2000SPL	PRS-D1200SPL	GM-D9601
Number of Channels	4/3/2	2/1	Mono	Mono	Mono
Max. Wattage (4 Ω) Max. Wattage (2 Ω) Max. Wattage (1 Ω) Max. Wattage Bridged (4 Ω)	100 W x 4 200 W x 2	250 W x 2 	1,500 W x 1 3,000 W x 1 4,000 W x 1 —	1,000 W x 1 2,000 W x 1 2,400 W x 1 —	1,000 W x 1 1,600 W x 1 2,400 W x 1 —
$\label{eq:states} \begin{array}{l} \mbox{Wattage RMS} \left(4 \ \Omega <= 1 \ \% \ THD + N \right) \\ \mbox{Wattage RMS} \left(2 \ \Omega <= 1 \ \% \ THD + N \right) \\ \mbox{Wattage RMS} \left(1 \ \Omega <= 1 \ \% \ THD + N \right) \\ \mbox{Wattage RMS} \ Bridged \left(4 \ \Omega \right) \end{array}$	50 W x 4 50 W x 4 	125 W x 2 150 W x 2 	750 W x 1 1,500 W x 1 2,000 W x 1 —	500 W x 1 1,000 W x 1 1,200 W x 1 —	500 W x 1 800 W x 1 1,200 W x 1 —
Frequency Response	10 Hz to 100 kHz	10 Hz to 30 kHz	10 Hz to 240 Hz	10 Hz to 240 Hz	10 Hz to 240 Hz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.003 %	<0.004 %	<0.3 %	<0.3 %	<0.5 % (100 Hz)
Signal-to-Noise Ratio (IHF-A Weighted)	>108 dB	>105 dB	>85 dB	>80 dB	>100 dB
Dimensions (W x H x D)	371 mm x 65 mm x 282 mm	255 mm x 50 mm x 104 mm	586 mm x 65 mm x 282 mm	381 mm x 65 mm x 282 mm	315 mm x 60 mm x 200 mm

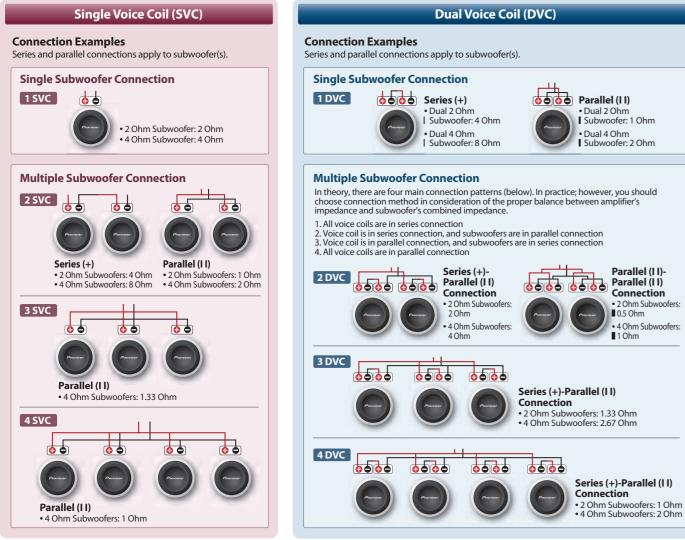
	GM-D8604	GM-D8601	GM-6500F	GM-5500T	GM-3500T
Number of Channels	4/3/2	Mono	4/3/2	2/1	2/1
$ \begin{array}{l} \mbox{Max. Wattage (4 Ω)} \\ \mbox{Max. Wattage (2 Ω)} \\ \mbox{Max. Wattage (1 Ω)} \\ \mbox{Max. Wattage Bridged (4 Ω)} \end{array} $	200 W x 4 300 W x 4 250 W x 4 600 W x 2	600 W x 1 1,000 W x 1 1,600 W x 1 —	190 W x 4 	410 W x 2 820 W x 1	200 W x 2 400 W x 1
$\label{eq:states} \begin{array}{l} \mbox{Wattage RMS} (4\ \Omega <= 1\ \%\ THD + N) \\ \mbox{Wattage RMS} (2\ \Omega <= 1\ \%\ THD + N) \\ \mbox{Wattage RMS} (1\ \Omega <= 1\ \%\ THD + N) \\ \mbox{Wattage RMS Bridged} (4\ \Omega) \end{array}$	100 W x 4 150 W x 4 125 W x 4 300 W x 2	300 W x 1 500 W x 1 800 W x 1 —	60 W x 4 85 W x 4 	125 W x 2 190 W x 2 	60 W x 2 85 W x 2
Frequency Response	10 Hz to 50 kHz	10 Hz to 240 Hz	10 Hz to 70 kHz	10 Hz to 70 kHz	10 Hz to 70 kHz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.05 %	<0.5 % (100 Hz)	<0.05 %	<0.05 %	<0.05 %
Signal-to-Noise Ratio (IHF-A Weighted)	>95 dB	>100 dB	>98 dB	>98 dB	>98 dB
Dimensions (W x H x D)	265 mm x 60 mm x 200 mm	265 mm x 60 mm x 200 mm	289 mm x 62 mm x 349 mm	289 mm x 62 mm x 349 mm	289 mm x 62 mm x 219 mm

General Information about Subwoofer Connection

Important Caution against Improper Connection

Examples shown here indicate theoretical impedance values in the connections. Properly connect subwoofer(s) to amplifier according to the amplifier's compatible speaker impedance range.

Avoid improper connection which may cause the product to overheat, malfunction or even ignite.

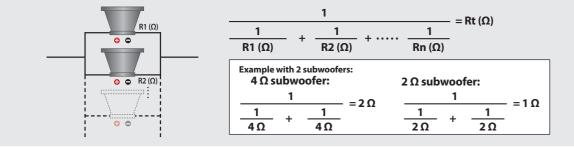


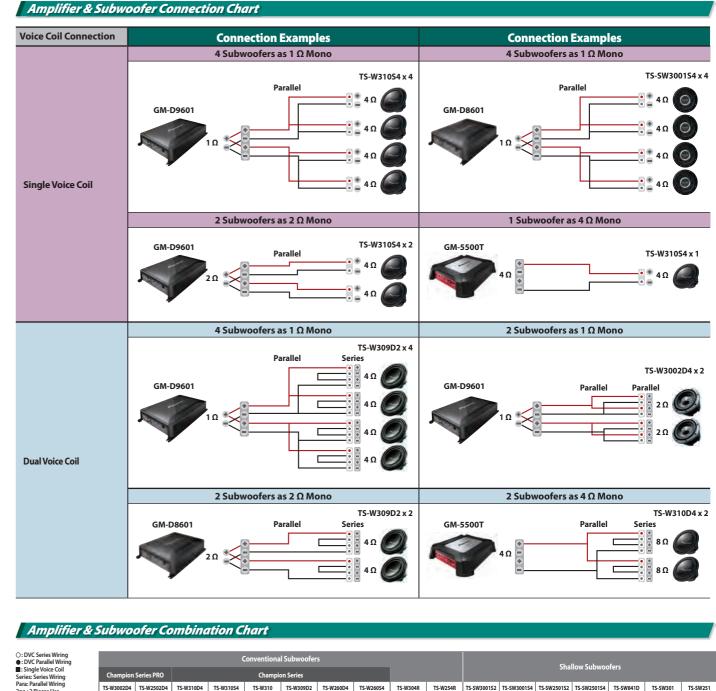
Calculating Impedance

Series (+) Wiring: The more subwoofers connected within the circuit, the higher the total impedance.



Parallel (II) Wiring: The more subwoofers connected within the circuit, the lower the total impedance.





○: DVC Se ●: DVC Pa							(Conventiona	l Subwoofer											
: Single \ Series: Ser				Champion	Series PRO			Champi	on Series							Shal	llow Subwoo	ofers		
Para: Paral 2pc.: 2 Pie	lel Wiri	ng		TS-W3002D4	TS-W2502D4	TS-W310D4	TS-W31054	TS-W310	TS-W309D2	TS-W260D4	TS-W260S4	TS-W304R	TS-W254R	TS-SW3001S2	TS-SW3001S4	TS-SW250152	TS-SW2501S4	TS-SW841D	TS-SW301	TS-SW251
4pc.: 4 Pie				1,000 W	800 W	400 W	400 W	300 W	400 W	350 W	350 W	300 W	250 W	400 W	400 W	300 W	300 W	120 W	250 W	200 W
		10	125 W x 4	 (2 Ω) x 2pc. Para. 	 (2 Ω) x 2pc. Para. 	 (2 Ω) x 2pc. Para. 	(4 Ω) x 4pc. Para.	∎(4Ω) x 4pc. Para.	 (1Ω) 	• (2 Ω) x 2pc. Para.	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	(2 Ω) x 2pc. Para.	(4 Ω) x 4pc. Para.	(2 Ω) x 2pc. Para.	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.
	4-ch.	2Ω	150 W x 4	•(2 Ω)	• (2 Ω)	•(2 Ω)	(4 Ω) x 2pc. Para.	■(4 Ω) x 2pc. Para.	O(4Ω) x 2pc. Para.	• (2 Ω)	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	(2 Ω)	(4 Ω) x 2pc. Para.	(2 Ω)	(4 Ω) x 2pc. Para.			
GM-D8604		4Ω	100 W x 4	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	(4 Ω)	■ (4 Ω)	Ο(4Ω)	O (8 Ω) x 2pc. Para.	(4 Ω)	■ (4 Ω)	■ (4 Ω)	🔳 (2 Ω) x 2pc. Series	■ (4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	■ (4 Ω)	(4 Ω)	(4 Ω)
	2-ch.	4Ω	300 W x 2	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	(4 Ω)	■ (4 Ω)	Ο(4Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4Ω)	-	🔳 (2 Ω) x 2pc. Series	(4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	-	-	-
		10	1,200 W x 1	• (2 Ω) x 2pc. Para.	• (2 Ω) x 2pc. Para.	-	(4 Ω) x 4pc. Para.	(4Ω) x 4pc. Para.	O(4Ω) x 4pc. Para.	-	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	-	-	(4 Ω) x 4pc. Para.	-	(4 Ω) x 4pc. Para.	-	-	-
GM-D9601	1-ch.	2Ω	800 W x 1	• (2 Ω)	• (2 Ω)	-	(4 Ω) x 2pc. Para.	-	O(4Ω) x 2pc. Para.	-	-	-	-	-	(4 Ω) x 2pc. Para.	-	-	-	-	-
		4Ω	500 W x 1	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	-	-	-	O (8 Ω) x 2pc. Para.	-	-	-	🔳 (2 Ω) x 2pc. Series	-	(2 Ω) x 2pc. Series	-	-	-	-
		10	800 W x 1	• (2 Ω) x 2pc. Para.	• (2 Ω) x 2pc. Para.	• (2 Ω) x 2pc. Para.	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	O(4 Ω) x 4pc. Para.	-	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.	(2 Ω) x 2pc. Para.	(4 Ω) x 4pc. Para.	-	(4 Ω) x 4pc. Para.	-	(4 Ω) x 4pc. Para.	(4 Ω) x 4pc. Para.
GM-D8601	1-ch.	2Ω	500 W x 1	• (2 Ω)	• (2 Ω)	-	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	O(4Ω) x 2pc. Para.	-	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	-	(4 Ω) x 2pc. Para.	-	(4 Ω) x 2pc. Para.	-	(4 Ω) x 2pc. Para.	-
		4Ω	300 W x 1	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4 Ω)	Ο(4Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4Ω)	-	(2 Ω) x 2pc. Series	Ξ (4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	-	-	-
	4-ch.	2Ω	85 W x 4	• (2 Ω)	• (2 Ω)	•(2 Ω)	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	O(4Ω) x 2pc. Para.	•(2 Ω)	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	🔳 (2 Ω)	(4 Ω) x 2pc. Para.	🔳 (2 Ω)	(4 Ω) x 2pc. Para.			
GM-6500F	÷ui.	4Ω	60 W x 4	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	(4 Ω)	(4 Ω)	Ο(4Ω)	O (8 Ω) x 2pc. Para.	(4 Ω)	■ (4 Ω)	■ (4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	■ (4 Ω)	(4 Ω)	(4 Ω)
	2-ch.	4Ω	180 W x 2	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4 Ω)	Ο(4Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4Ω)	■ (4 Ω)	(2 Ω) x 2pc. Series	(4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	-	(4 Ω)	(4 Ω)
	2-ch.	2Ω	190 W x 2	•(2 Ω)	• (2 Ω)	•(2 Ω)	(4 Ω) x 2pc. Para.	(4Ω) x 2pc. Para.	O(4Ω) x 2pc. Para.	•(2 Ω)	(4 Ω) x 2pc. Para.	(4Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	🔳 (2 Ω)	(4 Ω) x 2pc. Para.	(2 Ω)	(4 Ω) x 2pc. Para.			
GM-5500T	2 011	4Ω	125 W x 2	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4 Ω)	O(4Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4Ω)	■ (4 Ω)	(2 Ω) x 2pc. Series	(4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	-	(4 Ω)	(4 Ω)
	1-ch.	4Ω	400 W x 1		O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	■ (4 Ω)	-	O(4Ω)	O (8 Ω) x 2pc. Para.	-	-	-	(2 Ω) x 2pc. Series		(2 Ω) x 2pc. Series	-	-	-	-
	2-ch.		85 W x 2	• (2 Ω)	• (2 Ω)	•(2 Ω)	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	O(4Ω) x 2pc. Para.	• (2 Ω)	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	(4 Ω) x 2pc. Para.	🔳 (2 Ω)	(4 Ω) x 2pc. Para.	(2 Ω)	(4 Ω) x 2pc. Para.			
GM-3500T		4Ω	60 W x 2		O (8 Ω) x 2pc. Para.		■ (4 Ω)	■ (4 Ω)	O(4Ω)	O (8 Ω) x 2pc. Para.	(4 Ω)	■ (4 Ω)	■ (4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	■ (4 Ω)	(4 Ω)	(4 Ω)
	1-ch.	4Ω	185 W x 1	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4Ω)	O(4Ω)	O (8 Ω) x 2pc. Para.	(4 Ω)	■ (4 Ω)	■ (4 Ω)	(2 Ω) x 2pc. Series	(4 Ω)	(2 Ω) x 2pc. Series	■ (4 Ω)	-	(4 Ω)	(4 Ω)

ECIFICATIONS

Subwoofers Specifications

			1						
	TS-W8102SPL	TS-W5102SPL	TS-W3002D4	TS-W2502D4	TS-W310D4	TS-W310S4	TS-W260D4	TS-W260S4	TS-W309D2
Size	38 cm	30 cm	30 cm	25 cm	30 cm	30 cm	25 cm	25 cm	30 cm
Max. Music Power (Nominal)	8,000 W (3,000 W)	6,000 W (2,500 W)	3,500 W (1,000 W)	3,000 W (800 W)	1,400 W (400 W)	1,400 W (400 W)	1,200 W (350 W)	1,200 W (350 W)	1,400 W (400 W)
Frequency Response	15 Hz to 1,500 Hz	18 Hz to 2,000 Hz	20 Hz to 150 Hz	20 Hz to 150 Hz	20 Hz to 250 Hz	20 Hz to 250 Hz	20 Hz to 250 Hz	20 Hz to 250 Hz	20 Hz to 220 Hz
Sensitivity (In Car/1 W)	91 dB	88 dB	90 dB	89 dB	95 dB	95 dB	93 dB	93 dB	94 dB
Impedance	2Ωx2	2Ωx2	4Ωx2	4Ωx2	4Ωx2	4Ω	4Ωx2	4Ω	2Ωx2
Mounting Depth	311.4 mm	266 mm	189 mm	169 mm	153 mm	153 mm	141 mm	141 mm	153 mm
Cut-Out Dimensions	ø352 mm	ø278 mm	ø278 mm	ø238 mm	ø283 mm	ø283 mm	ø235 mm	ø235 mm	ø283 mm
Recommended Enclosure	70.8 liters	42.5 liters	14.2 liters to 28.3 liters	9.9 liters to 19.8 liters	24.1 liters to 49.5 liters	24.1 liters to 49.5 liters	18.4 liters to 35.4 liters	18.4 liters to 35.4 liters	24.1 liters to 49.5 lite
	TS-W310	TS-W304R	TS-W254R	TS-SW3001S2	TS-SW3001S4	TS-SW2501S2	TS-SW2501S4	TS-SW841D	TS-SW301
Size	30 cm	30 cm	25 cm	30 cm	30 cm	25 cm	25 cm	20 cm	30 cm
Max. Music Power (Nominal)	1,000 W (300 W)	1,300 W (300 W)	1,100 W (250 W)	1,500 W (400 W)	1,500 W (400 W)	1,200 W (300 W)	1,200 W (300 W)	500 W (120 W)	1,000 W (250 W
Frequency Response	20 Hz to 250 Hz	20 Hz to 220 Hz	20 Hz to 220 Hz	20 Hz to 230 Hz	20 Hz to 230 Hz	20 Hz to 290 Hz	20 Hz to 290 Hz	30 Hz to 1,500 Hz	20 Hz to 114 Hz
Sensitivity (In Car/1 W)	95 dB	95 dB	93 dB	93 dB	93 dB	90 dB	90 dB	85 dB	91 dB
Impedance	4Ω	4Ω	4Ω	2Ω	4Ω	2Ω	4Ω	4Ω	4Ω
Mounting Depth	148 mm	135 mm	127 mm	81 mm	81 mm	75 mm	75 mm	62.5 mm	86 mm
Cut-Out Dimensions	ø278 mm	ø283 mm	ø235 mm	ø278 mm	ø278 mm	ø238 mm	ø238 mm	ø186 mm	ø278 mm
Recommended Enclosure	24.1 liters to 49.5 liters	24.1 liters to 49.5 liters	18.4 liters to 35.4 liters	9.9 liters to 28.3 liters	9.9 liters to 28.3 liters	9.9 liters to 19.8 liters	9.9 liters to 19.8 liters	4.2 liters to 14.2 liters	14.2 liters to 28.3 lit
	TS-SW251	TS-WX303	TS-SWX310	TS-WX304T	TS-WX110A	TS-WX210A	TS-WX206A	TS-WX20LPA	TS-W252PR
Size	25 cm	30 cm	30 cm	30 cm	13 cm x 21 cm	20 cm	20 cm	20 cm	25 cm
Max. Music Power (Nominal)	800 W (200 W)	1,200 W (250 W)	1,000 W (250 W)	1,300 W (300 W)	150 W* (50 W**)	150 W* (50 W**)	150 W* (60 W**)	200 W* (100 W**)	800 W (400 W)
Frequency Response	20 Hz to 144 Hz	10 Hz to 220 Hz	20 Hz to 114 Hz	10 Hz to 360 Hz	40 Hz to 200 Hz	37 Hz to 200 Hz	35 Hz to 200 Hz	25 Hz to 200 Hz	20 Hz to 2,400 H
Sensitivity (In Car/1 W)	89 dB	98 dB	91 dB	98 dB	101 dB	102 dB	107 dB	106 dB	84 dB
Impedance	4 Ω	4Ω	4 Ω	4 Ω	-	-	-	-	4Ω
Mounting Depth	78 mm	-	_	_	-	-	-	-	178 mm
Cut-Out Dimensions	ø238 mm	-	-	-	-	-	-	-	ø238 mm
Recommended Enclosure	9.9 liters to 19.8 liters	-	_	_	_	_	_	_	28.3 liters

* Maximum output power ** Nominal output power

Speakers Specifications

	Componer	nt Speakers)	TS-D Ser	ies					
	TS-C172PRS	TS-C132PRS	TS-S062PRS	TS-D1720C	TS-D1320C	TS-D6902R	TS-D1702R	TS-D1602R	TS-D1302R	TS-D1002R
Size	17 cm 28 mm*	13 cm 28 mm*	66 mm	17 cm 28 mm*	13 cm 28 mm*	6" x 9"	17 cm	16 cm	13 cm	10 cm
Max. Music Power (Nominal)	200 W (50 W)	150 W (30 W)	200 W (50 W)** 60 W (15 W)***	260 W (60 W)	180 W (35 W)	360 W (80 W)	280 W (60 W)	260 W (60 W)	180 W (35 W)	110 W (25 W)
Frequency Response	25 Hz to 35 kHz	30 Hz to 35 kHz	48 Hz to 40 kHz	30 Hz to 33 kHz	35 Hz to 33 kHz	28 Hz to 30 kHz	30 Hz to 32 kHz	35 Hz to 32 kHz	35 Hz to 40 kHz	40 Hz to 40 kHz
Sensitivity (1 W/1 m)	89 dB	86 dB	84 dB	88 dB	88 dB	90 dB	88 dB	88 dB	88 dB	86 dB
Impedance	4 Ω	4Ω	4Ω	4Ω	4 Ω	4 Ω	4Ω	4Ω	4Ω	4 Ω
Crossover Frequency	2,300 Hz	2,200 Hz	-	≥2,800 Hz (with -12 dB)	≥2,800 Hz (with -12 dB)	2,800 Hz	3,200 Hz	4,000 Hz	6,000 Hz	6,000 Hz
Mounting Depth	67 mm 13.4 mm*	57.3 mm 13.4 mm*	32 mm 42.2 mm****	64.5 mm 12.2 mm*	57.5 mm 12.2 mm*	89 mm	64.5 mm	59 mm	57.3 mm	46.5 mm
Mounting Depth with Mount Adapter	16 cm: 55 mm	-	_	16 cm: 51.5 mm	—	—	—	_	_	_
Cut-Out Dimensions	ø142 mm	ø123 mm	ø64 mm	ø144 mm	ø121 mm	151 mm x 220 mm	ø139 mm	ø128 mm	ø121 mm	ø106 mm

* Tweeter specification ** With back chamber, 800 Hz, -12 dB/oct. HPF *** Without back chamber, 400 Hz, -12 dB/oct. HPF *** With back chamber

TS-A Series

	TS-A1605C	TS-A1305C	TS-A6995S	TS-A6985S	TS-A6975S	TS-A6965S	TS-A1685S	TS-A1675S
Size	16 cm 20 mm*	13 cm 20 mm*	6" x 9"	6" x 9"	6" x 9"	6" x 9"	16 cm	16 cm
Max. Music Power (Nominal)	350 W (60 W)	300 W (50 W)	600 W (100 W)	550 W (100 W)	500 W (90 W)	400 W (60 W)	350 W (60 W)	300 W (50 W)
Frequency Response	34 Hz to 32 kHz	48 Hz to 32 kHz	27 Hz to 37 kHz	27 Hz to 38 kHz	28 Hz to 24 kHz	35 Hz to 37 kHz	34 Hz to 30 kHz	35 Hz to 31 kHz
Sensitivity (1 W/1 m)	90 dB	89 dB	92 dB	91 dB	91 dB	92 dB	91 dB	90 dB
Impedance	4 Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4 Ω	4Ω
Mounting Depth	54 mm 19 mm*	52 mm 19 mm*	85 mm	84 mm	84 mm	72 mm	54 mm	44 mm
Cut-Out Dimensions	ø128 mm	ø121 mm	153 mm x 222 mm	153 mm x 222 mm	153 mm x 222 mm	153 mm x 222 mm	ø128 mm	ø128 mm

					Champion Sei	ries	
	TS-A6885R	TS-A4675R	TS-A2013i	TS-A2503i	TS-6975 V2	TS-6965 V2	TS-1675 V2
Size	6" x 8"	4" x 6"	20 cm	25 cm	6" x 9"	6" x 9"	16 cm
Max. Music Power (Nominal)	350 W (60 W)	200 W (30 W)	500 W (80 W)	420 W (80 W)	500 W (80 W)	400 W (80 W)	300 W (50 W)
Frequency Response	31 Hz to 42 kHz	39 Hz to 39 kHz	25 Hz to 28 kHz	20 Hz to 31 kHz	30 Hz to 25 kHz	30 Hz to 22 kHz	35 Hz to 20 kHz
Sensitivity (1 W/1 m)	90 dB	88 dB	91 dB	92 dB	92 dB	93 dB	92 dB
Impedance	4Ω	4 Ω	4Ω	4 Ω	4Ω	4 Ω	4 Ω
Mounting Depth	61 mm	42 mm	89 mm	115 mm	92 mm	84 mm	58 mm
Cut-Out Dimensions	191 mm x 133 mm	95 mm x 153 mm	ø186 mm	ø236 mm	151 mm x 220 mm	151 mm x 220 mm	ø128 mm

* Tweeter specification

	TS-G Se	ries						DXT-1569U	B & DXT-156U	B Speakers
	TS-G1604C	TS-G1644R	TS-G1344R	TS-G1044R	TS-G1614R	TS-G1314R	TS-G1014R	DXT-1	569UB	DXT-156UB
Size	16 cm 30 mm*	16 cm	13 cm	10 cm	16 cm	13 cm	10 cm	6" x 9"	16 cm	16 cm
Max. Music Power (Nominal)	280 W (45 W)	250 W (40 W)	220 W (35 W)	200 W (30 W)	230 W (40 W)	200 W (35 W)	180 W (30 W)	230 W (30 W)	200 W (25 W)	200 W (25 W)
Frequency Response	35 Hz to 38 kHz	31 Hz to 29 kHz	43 Hz to 27 kHz	45 Hz to 27 kHz	30 Hz to 23 kHz	40 Hz to 25 kHz	45 Hz to 26 kHz	28 Hz to 32 kHz	31 Hz to 16 kHz	31 Hz to 16 kHz
Sensitivity (1 W/1 m)	89 dB	90 dB	89 dB	88 dB	90 dB	90 dB	88 dB	88 dB	88 dB	88 dB
Impedance	4 Ω	4 Ω	4 Ω	4 Ω	4 Ω	4 Ω	4 Ω	4 Ω	4Ω	4 Ω
Mounting Depth	42 mm	42 mm	46 mm	43 mm	42 mm	46 mm	43 mm	66.3 mm	41 mm	41 mm
Cut-Out Dimensions	ø128 mm	ø128 mm	ø121 mm	ø106 mm	ø128 mm	ø121 mm	ø106 mm	153 mm x 222 mm	ø128 mm	ø128 mm

* Tweeter specification

* I weeter specification											
	Other Sp	eakers									
	TS-F1634R	TS-F1034R	TS-CX900	TS-2150	TS-S250	TS-S20	TS-T110	TS-T15	TS-MR2040	TS-MR1640	TS-MR1600
Size	16 cm	10 cm	6.6 cm	20 cm	40 mm	20 mm	22 mm	20 mm	20 cm	16 cm	16 cm
Max. Music Power (Nominal)	200 W (25 W)	150 W (20 W)	80 W (20 W)	200 W (50 W)	250 W (50 W)	200 W (50 W)	120 W (40 W)	120 W (40 W)	200 W (40 W)	160 W (30 W)	100 W (25 W)
Frequency Response	31 Hz to 16 kHz	45 Hz to 18 kHz	80 Hz to 70 kHz	28 Hz to 28 kHz	6,000 Hz to 40 kHz	3,000 Hz*/ 1,200 Hz** to 26 kHz	2,500 Hz to 30 kHz	2,500 Hz to 30 kHz	25 Hz to 30 kHz	30 Hz to 30 kHz	30 Hz to 20 kHz
Sensitivity (1 W/1 M)	88 dB	86 dB	81 dB	91 dB	97 dB	92 dB	90 dB	90 dB	92 dB	91 dB	90 dB
Impedance	4 Ω	4Ω	4 Ω	4 Ω	8Ω	8Ω	4Ω	4Ω	4 Ω	4 Ω	4 Ω
Mounting Depth	41 mm	43 mm	—	88 mm	—	_	—	_	75 mm	56 mm	56 mm
Cut-Out Dimensions	ø128 mm	ø102 mm	—	ø186 mm	_	_	—	_	ø183 mm	ø127 mm	ø127 mm

* With network ** Without network

Subwoofers Thiele/Small Parameters

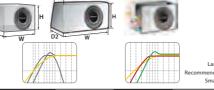
	TS-W8102SPL	TS-W5102SPL	TS-W3002D4	TS-W2502D4	TS-W310D4	TS-W310S4	TS-W260D4	TS-W260S4	TS-W309D2	TS-W310
Nom.Dia	38 cm	30 cm	30 cm	25 cm	30 cm	30 cm	25 cm	25 cm	30 cm	30 cm
Qts	0.310	0.340	0.65	0.74	0.77	0.63	1.15	0.83	0.662	1.16
Qms	5.720	7.600	15.13	14.34	12.30	11.93	12.07	10.98	11.265	9.18
Qes	0.330	0.360	0.68	0.78	0.83	0.67	1.27	0.90	0.703	1.33
Frequencies	23.2 Hz	29.0 Hz	31.4 Hz	36.0 Hz	37.0 Hz	35.0 Hz	47.0 Hz	45.0 Hz	37.7 Hz	41.0 Hz
Vas [Liters]	70.14	26.72	13.03	6.77	37.4	35.4	11.5	13.2	33.20	32.1
Vas [ft³]	2.479	0.944	0.460	0.240	1.21	1.25	0.41	0.47	1.172	1.13
Vd [Liters]	1.413	0.673	0.564	0.307	0.56	0.52	0.43	0.28	0.541	0.55
Vd [ft ³]	4.99 E-02	2.38 E-02	1.99E-02	1.08E-02	1.98E-02	1.82E-02	1.51E-02	1.00E-02	1.91E-02	1.94E-02
Sd [m²]	9.18 E-02	5.85 E-02	4.37E-02	3.13E-02	5.20E-02	5.20E-02	3.50E-02	3.50E-02	5.20E-02	5.00E-02
Sd [ft ²]	0.988	0.630	0.471	0.337	0.56	0.56	0.38	0.38	0.560	0.54
Revc	3.0 Ω	Dual 1.5 Ω	Dual 3.3 Ω	Dual 3.3 Ω	Dual 2.9 Ω	2.9 Ω	Dual 3.3 Ω	3.2 Ω	Dual 1.5 Ω	3.0 Ω
Levc (at 2,000 Hz)	5.560 mH	5.090 mH	5.55 mH (8 Ω) 1.39 mH (2 Ω)	4.80 mH (8 Ω) 1.20 mH (2 Ω)	4.86 mH (8 Ω) 1.23 mH (2 Ω)	2.53 mH	4.70 mH (8 Ω) 1.20 mH (2 Ω)	2.81 mH	2.99 mH (4 Ω) 0.74 mH (1 Ω)	1.26 mH
Xmax [mm]	15.4	11.5	12.9	9.8	10.8	9.9	12.2	8.1	10.4	11
Xmax [In]	0.61	0.45	0.51	0.39	0.42	0.39	0.48	0.32	0.41	0.43
Zmax	58.56 Ω	161.04 Ω	157.77 (8 Ω) 38.53 (2 Ω)	133.73 (8 Ω) 32.72 (2 Ω)	85.92 (8 Ω) 20.75 (2 Ω)	52.91 Ω	64.07 (8 Ω) 15.38 (2 Ω)	40.16 Ω	49.4 (4 Ω) 12.7 (1 Ω)	21.26 Ω
ві	33.640 Tm	30.180 Tm	28.38 Tm (8 Ω) 14.19 Tm (2 Ω)	24.16 Tm (8 Ω) 12.08 Tm (2 Ω)	18.7 Tm (8 Ω) 9.4 Tm (2 Ω)	14.8 Tm	16.0 Tm (8 Ω) 8.0 Tm (2 Ω)	12.7 Tm	14.82 Tm (4 Ω) 7.41 Tm (1 Ω)	9.9 Tm
Rms	20.367 Ns/m	13.470 Ns/m	5.334 Ns/m	4.602 Ns/m	3.96 Ns/m	3.99 Ns/m	3.59 Ns/m	3.82 Ns/m	4.319 Ns/m	4.86 Ns/m
Mms	800.11 g	550.50 g	408.83 g	291.71 g	208 g	216 g	148 g	148 g	218.53 g	173 g
Cms		5.350 E-05 m/N	6.29E-05 m/N	6.66E-05 m/N	8.8 x 10-5 m/N	9.5 x 10-5 m/N	7.9 x 10-5 m/N	8.4 x 10-5 m/N		7.8 x 10-5 m/N
Mg. Wt.	11,000 g	9,100 g	3,230 g	2,490 g	2,100 g	2,100 g	1,510 g	1,510 g	2,100 g	1,240 g
Flux Density	5,700 Gauss	6,300 Gauss	5,900 Gauss	5,400 Gauss	7,428 Gauss	6,895 Gauss	6,859 Gauss	6,595 Gauss	7,317 Gauss	8,425 Gauss
Hag [mm]	30	30	24	23	10	10	10	10	10	10
Hag [In]	1.181	1.181	0.94	0.91	0.39	0.39	0.39	0.39	0.394	0.39
Hvc [mm]	61	53	49.8	42.7	31.5	29.7	34.4	28.6	31	32
Hvc [ln]	2.392	2.087	1.96	1.68	1.24	1.17	1.35	1.13	1.213	1.26
VC. Diameter	85 mm	76 mm	65 mm	55 mm	48 mm	48 mm	40 mm	40 mm	48 mm	48 mm
Eff	0.26 %	0.17 %	0.06 %	0.04 %	0.22 %	0.22 %	0.09 %	0.13 %	0.25 %	0.16 %
S.P.L.	91.0 dB	88.0 dB	90.0 dB	89.0 dB	95 dB	95 dB	93 dB	93 dB	94.0 dB	95 dB
R.M.S. Power	3,000 W	2,500 W	1,000 W	800 W	400 W	400 W	350 W	350 W	400 W	300 W
M.M.P.	8,000 W	6,000 W	3,500 W	3,000 W	1,400 W	1,400 W	1,200 W	1,200 W	1,400 W	1,000 W
Sp. Displacement [Liter]	8.00	6.10	5.12	3.31	2.08	2.08	1.42	1.42	1.82	1.75
Sp. Displacement [ft ³]	0.283	0.215	0.181	0.117	0.073	0.073	0.05	0.05	0.064	0.061
Recom. Enclosure [Liter]	70.75	42.5	22.64	16.98	35.38	35.38	22.64	22.64	35.38	35.38
Recom. Enclosure [ft ³]	2.50	1.50	0.80	0.60	1.25	1.25	0.8	0.8	1.25	1.25
F₀ (in Cabinet)	32.7	37.0	39.4	42.6	53.1	49.5	57.7	56.6	52.5	56.6
Q _o (in Cabinet)	0.437	0.434	0.816	0.875	1.11	0.90	1.41	1.04	0.922	1.60

	TS-W304R	TS-W254R	TS-SW3001S2	TS-SW3001S4	TS-SW2501S2	TS-SW2501S4	TS-SW841D	TS-SW301	TS-SW251	TS-W252PRS
Nom.Dia	30 cm	25 cm	30 cm	30 cm	25 cm	25 cm	20 cm	30 cm	25 cm	25 cm
Qts	0.700	0.62	0.820	0.740	1.000	0.930	1.641	1.020	1.090	0.289
Qms	13.30	12.8	13.210	13.800	12.790	13.210	11.159	9.040	9.870	8.125
Qes	0.740	0.65	0.880	0.780	1.090	1.000	1.923	1.140	1.150	0.300
Frequencies	28.6 Hz	33.5 Hz	36.8 Hz	35.1 Hz	44.4 Hz	41.6 Hz	67.5 Hz	34.9 Hz	41.3 Hz	29.4 Hz
Vas [Liters]	77.88	68.00	17.96	19.90	9.06	10.27	1.89	19.866	9.754	30.66
Vas [ft ³]	2.750	2.402	0.634	0.703	0.320	0.363	0.067	0.702	0.345	1.083
Vd [Liters]	0.245	0.164	0.416	0.287	0.245	0.193	0.072	0.518	0.226	0.313
Vd [ft ³]	8.64E-03	5.80E-03	1.47E-02	1.01E-02	8.65E-03	6.80E-03	2.55 E-03	1.83 E-02	7.99 E-03	1.33E-01
Sd [m ²]	5.20E-02	3.50E-02	4.95E-02	4.95E-02	3.50E-02	3.50E-02	2.06 E-02	4.80 E-02	3.43 E-02	3.43E-02
Sd [ft ²]	0.560	0.376	0.533	0.533	0.377	0.377	0.222	0.517	0.369	0.369
Revc	Single 3.0 Ω	Single 3.0 Ω	1.5 Ω	3.0 Ω	1.5 Ω	3.0 Ω	3.3 Ω	3.0 Ω	3.0 Ω	2.5 Ω
Levc (at 2,000 Hz)	2.390 mH	2.100 mH	1.300 mH	2.900 mH	0.880 mH	2.520 mH	0.996 mH	2.4 mH	2.4 mH	0.506 mH
Xmax [mm]	4.7	4.7	8.4	5.8	7.0	5.5	3.5	10.8	6.6	9.1
Xmax [In]	0.19	0.19	0.33	0.23	0.28	0.21	0.14	0.43	0.26	0.36
Zmax	40.9 Ω	54.2 Ω	27.39 Ω	59.41 Ω	21.29 Ω	46.51 Ω	25.21 Ω	28.21 Ω	28.77 Ω	74.61 Ω
BI	10.39 Tm	10.35 Tm	10.830 Tm	15.140 Tm	8.790 Tm	12.440 Tm	9.439 Tm	13.09 Tm	11.78 Tm	16.150 Tm
Rms	2.010 Ns/m	1.885 Ns/m	4.492 Ns/m	4.071 Ns/m	3.922 Ns/m	3.576 Ns/m	4.063 Ns/m	6.820 Ns/m	5.430 Ns/m	3.617 Ns/m
Mms	149.50 g	114.60 g	256.62 g	255.35 g	179.16 g	179.79 g	106.67 g	281.19 g	206.57 g	158.99 g
Cms	2.100E-04 m/N	2.000E-04 m/N	7.300E-05 m/N	8.100E-05 m/N	7.200E-05 m/N	8.100E-05 m/N	5.207 E-05 m/N	7.400 E-05 m/N	7.100 E-05 m/N	1.840E-04 m/N
Mg. Wt.	940 g	940 g	2,040 g	2,040 g	1,470 g	1,470 g	640 g	1,550 g	1,030 g	3,040 g
Flux Density	6,210 Gauss	6,210 Gauss	5,760 Gauss	5,380 Gauss	5,500 Gauss	5,000 Gauss	6,040 Gauss	6,900 Gauss	6,200 Gauss	5,100 Gauss
Hag [mm]	6	6	10	10	10	10	8	10	10	35
Hag [In]	0.236	0.236	0.394	0.394	0.394	0.394	0.315	0.394	0.394	1.378
Hvc [mm]	15.5	15.5	27	22	24	21	15	31	23	17
Hvc [ln]	0.610	0.610	1.055	0.850	0.937	0.815	0.594	1.213	0.900	0.660
VC. Diameter	40 mm	40 mm	65 mm	65 mm	55 mm	55 mm	40 mm	48 mm	48 mm	76 mm
Eff	0.21%	0.13%	0.1%	0.11%	0.07%	0.07%	0.05 %	0.07 %	0.06 %	0.28 %
S.P.L.	95.0 dB	93.0 dB	93.0 dB	93.0 dB	90.0 dB	90.0 dB	85.0 dB	91.0 dB	89.0 dB	84.0 dB
R.M.S. Power	300 W	250 W	400 W	400 W	300 W	300 W	120 W	250 W	200 W	400 W
M.M.P.	1,300 W	1,100 W	1,500 W	1,500 W	1,200 W	1,200 W	500 W	1,000 W	800 W	800 W
Sp. Displacement [Liter]	1.66	1.33	2.81	2.81	2.49	2.49	1.00	3.03	2.3	2.54
Sp. Displacement [ft ³]	0.059	0.047	0.099	0.099	0.088	0.088	0.035	0.107	0.081	0.090
Recom. Enclosure [Liter]	35.38	22.64	18.4	18.4	12.7	12.7	11.32	18.4	12.7	28.3
Recom. Enclosure [ft ³]	1.25	0.80	0.65	0.65	0.45	0.45	0.40	0.65	0.45	1.0
F ₀ (in Cabinet)	51.2	67.0	51.7	50.6	58.1	56.0	73.0	50.3	54.9	42.4
Q ₀ (in Cabinet)	1.252	1.241	1.153	1.068	1.309	1.251	1.773	1.471	1.449	0.417

Subwoofer Enclosures

SEALED ENCLOSURES

The simplest subwoofer enclosure to design and build is a sealed enclosure. A sealed enclosure is essentially a completely sealed box that isolates the front sound waves of the subwoofer from the rear waves. Advantages of a sealed enclosure design include: smaller enclosure size, simple design and fabrication, flat



Disadvantages of a sealed enclosure design include: less efficient than a comparable vented enclosure and limited lower frequency extension.

frequency response, good in-vehicle transient response, and higher power handling.

Recommended Enclosure Volumes and Dimensions*	TS-W8102SPL	TS-W5102SPI	L TS-W3002	D4 TS-W25	02D4 TS-W	310D4 T	-W310S4	TS-W260D4	TS-W260S4	TS-W309D2
Enclosure Volume (I)										
Center	70.8	42.5	22.6	17.0) 3	5.4	35.4	22.6	22.6	35.4
Box Dimensions: W x H x D (mm)	_	_	367 x 367 x	247 329 x 329	x 238 396 x 3	96 x 314 396	x 396 x 314	351 x 351 x 269	351 x 351 x 269	396 x 396 x 314
Min.	63.7	38.3	14.2	9.9	2	4.1	24.1	18.4	18.4	24.1
Max.	77.9	46.8	28.3	19.8	3 4	9.5	49.5	35.4	35.4	49.5
Recommended Enclosure Volumes and Dimensions*	TS-W310	TS-W304R	TS-W254R	TS-SW3001S4	TS-SW3001S2	TS-SW25015	4 TS-SW250	IS2 TS-SW841	D TS-SW301	TS-SW251
Recommended Enclosure Volumes and Dimensions* Enclosure Volume (I)	TS-W310	TS-W304R	TS-W254R	TS-SW3001S4	TS-SW300152	TS-SW25015	4 TS-SW250	152 TS-SW841	D TS-SW301	TS-SW251
	TS-W310 35.4	TS-W304R 35.4	TS-W254R 22.6	TS-SW3001S4 18.4	TS-SW300152 18.4	TS-SW25015	4 TS-SW250	152 TS-SW841	D TS-SW301	TS-SW251
Enclosure Volume (I)		35.4	22.6	18.4	18.4	12.7	12.7	11.3	18.4	12.7
Enclosure Volume (I) C <u>enter</u>	35.4	35.4	22.6 351 x 351 x 269	18.4	18.4	12.7	12.7	11.3	18.4	12.7
Enclosure Volume (I) Center Box Dimensions: W x H x D (mm)	35.4	35.4	22.6 351 x 351 x 269	18.4	18.4	12.7	12.7	11.3	18.4	12.7

* Measured externally, 19 mm MDF particle board recommended.

VENTED ENCLOSURES (BASS REFLEX)

Similar in design to a sealed enclosure, vented enclosures utilize a sealed chamber that has been 'vented' or 'ported' with an opening of a determined diameter and length. The vent (or port) opening is tuned to a certain frequency by changing the length or diameter of the opening. The addition of the vent allows the enclosure to be more efficient by allowing the rear sound waves of the subwoofer motion to reinforce the front waves. In a vented enclosure, there's a direct relationship between the subwoofer, the enclosure airspace, and the tuned frequency of the vent. When properly designed, a vented enclosure benefits from having a 3 dB higher efficiency at the tuned frequency of the vent compared to the same subwoofer mounted in a sealed enclosure.

Advantages of a vented enclosure design include: Higher efficiency and increased low-frequency extension (above the tuned frequency of the vent).

Disadvantages of a vented enclosure design include: Higher distortion below the tuned frequency of the vent, more complex design and fabrication, larger in size than a sealed enclosure, and less-transient in-vehicle accuracy.

Recommended Enclosure Volumes , Dimensions* and Port Size	TS-W8102SPL	TS-W5102SPL	TS-W3002D4	TS-W2502D4	TS-W310D4	TS-W310S4	TS-W260D4	TS-W260S4	TS-W309D2
Enclosure Volume (I)									
Center	92.0	56.6	34.0	25.5	42.5	42.5	31.1	31.1	42.5
Box Dimensions: W x H x D (mm)	—	—	382 x 381 x 325	342 x 342 x 314	461 x 373 x 338	461 x 373 x 338	396 x 353 x 314	396 x 353 x 314	461 x 373 x 338
Port Size: d x l (mm)	—	—	ø76 x 89	ø76 x 95	ø76 x 152	ø76 x 140	ø76 x 190	ø76 x 178	ø76 x 127
Min.	83.0	50.9	22.6	17.0	35.4	35.4	25.5	25.5	35.4
Max	101.4	62.3	45.3	34.0	56.6	56.6	42.5	42.5	56.6

Recommended Enclosure Volumes , Dimensions* and Port Size	TS-W310	TS-W304R	TS-W254R	TS-SW3001S4	TS-SW3001S2	TS-SW2501S4	TS-SW2501S2	TS-SW841D	TS-SW301	TS-SW251
Enclosure Volume (I)										
Center	42.5	42.5	31.1	22.6	22.6	17.0	17.0	11.3	22.6	17.0
Box Dimensions: W x H x D (mm)	461 x 373 x 338	461x 373 x 338	396 x 353 x 314	—	_	—	_	—	_	—
Box Dimensions: W x H x D1 x D2 (mm)	—	—	—	769 x 357 x 107 x 164	769 x 357 x 107 x 164	714 x 320 x 102 x 152	714 x 320 x 102 x 152	618 x 290 x 100 x 131	769 x 357 x 107 x 164	714 x 320 x 102 x 152
Port Size: d x l (mm)	ø76 x 165	ø76 x 165	ø76 x 203	ø76 x 266.7	ø76 x 279.4	ø76 x 292.1	ø76 x 317.5	ø64 x 152.4	ø76 x 254	ø76 x 203
Min.	35.4	35.4	25.5	18.4	18.4	14.2	14.2	7.1	18.4	11.3
Max.	56.6	56.6	42.5	28.3	28.3	19.8	19.8	14.2	28.3	22.6

* Measured externally. 19 mm MDF particle board recommended.

BANDPASS ENCLOSURES

The most complex of the common enclosures is a Band-pass enclosure. While there are several types (also called orders) of Bandpass designs, the most commonly used design is referred to as a single-reflex (or a 4th order) Bandpass. A single-reflex Bandpass enclosure consists of a subwoofer loaded into a small sealed enclosure fires into a vented chamber. As the sound waves from the subwoofer travel through the vented chamber upper midbass frequencies are filtered out, allowing only the low frequency bands to pass through-hence the name: Bandpass.

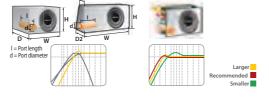
Advantages of a Bandpass enclosure design include: High efficiency over a narrow of low frequencies and some filtering characteristics.

Disadvantages of a Bandpass enclosure design include: decreased frequency response, sluggish frequency response, extreme complexity in design and assembly, larger enclosure size, and decreased power handling.

Recommended Enclosure Volumes , Dimensions* and Port Size	TS-W8102SPL	TS-W5102SPL	TS-W3002D4	TS-W2502D4	TS-W310D4	TS-W310S4	TS-W260D4	TS-W260S4	TS-W309D2
Enclosure Volume (I)									
Center (Sealed Chamber/Ported Chamber)	56.6/56.6	35.4/35.4	28.3/28.3	22.6/22.6	25.5/25.5	25.5/25.5	17.0/17.0	17.0/17.0	25.5/25.5
Box Dimensions: W x H x D (mm)	—	—	531 x 377 x 377	567 x 330 x 330	481 x 385 x 385	481 x 385 x 385	449 x 332 x 332	449 x 332 x 332	481 x 385 x 385
Port Size: d x l (mm)	_	—	ø76 x 178	ø76 x 203	ø76 x 127	ø76 x 127	ø76 x 152	ø76 x 178	ø76 x 114
Min. (Sealed Chamber/Ported Chamber)	50.9/50.9	31.7/31.7	22.6/22.6	17.0/17.0	19.8/19.8	19.8/19.8	12.7/12.7	12.7/12.7	19.8/19.8
Max. (Sealed Chamber/Ported Chamber)	62.3/62.3	38.9/38.9	34.0/34.0	28.3/28.3	31.1/31.1	31.1/31.1	22.6/22.6	22.6/22.6	31.1/31.1
								_	
Recommended Enclosure Volumes , Dimensions* and Port Size	TS-W310	TS-W304R	TS-W254R TS-S	SW3001S4 TS-SW	/3001S2 TS-SW2	501S4 TS-SW25	0152 TS-SW841	D TS-SW301	TS-SW251

Enclosure Volume (I)										
Center (Sealed Chamber/Ported Chamber)	25.5/25.5	25.5/25.5	17.0/17.0	17.0/17.0	17.0/17.0	12.7/12.7	12.7/12.7	9.9/9.9	17.0/17.0	12.7/12.7
Box Dimensions: W x H x D (mm)	481 x 385 x 385	481 x 385 x 385	449 x 332 x 332	_	—	_	—	_	—	—
Box Dimensions: Ws1 x Ws2 x H x D (mm)	_	—	_	180 x 306 x 388 x 559	180 x 306 x 388 x 559	197 x 277 x 338 x 509	197 x 277 x 338 x 509	177 x 257 x 290 x 529	180 x 306 x 388 x 559	197 x 277 x 338 x 509
Box Dimensions: Ws3 x Ws4 (mm)		—	-	121.5 x 184.5	121.5 x 184.5	118.5 x 158.5	118.5 x 158.5	108.5 x 148.5	121.5 x 184.5	118.5 x 158.5
Port Size: d x l (mm)	ø76 x 114	ø76 x 114	ø76 x 165	ø76 x 152.4	ø76 x 152.4	ø76 x 177.8	ø76 x 177.8	ø76 x 152.4	ø76 x 127	ø76 x 178
Min. (Sealed Chamber/Ported Chamber)	19.8/19.8	19.8/19.8	12.7/12.7	14.2/14.2	14.2/14.2	9.9/9.9	9.9/9.9	7.1/7.1	14.2/14.2	9.9/9.9
Max. (Sealed Chamber/Ported Chamber)	31.1/31.1	31.1/31.1	22.6/22.6	22.6/22.6	22.6/22.6	17.0/17.0	17.0/17.0	11.3/11.3	22.6/22.6	17.0/17.0

* Measured externally. 19 mm MDF particle board recommended



Symbols for Special Features

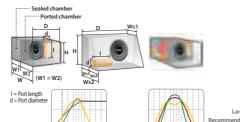
Display		
Touch Panel Screen		Touch Panel Screen
7.0W		7.0-inch Wide Screen
6.1W		6.1-inch Wide Screen
3.5W		3.5-inch Wide Screen
3.0W		3.0-inch Wide Screen
VGA	8	VGA Display
OEL ····		OEL Display
LED		LED Backlight
FULL DOT		Full Dot LCD Display
		VA LCD Display
MULTI-LANGUAGE		Multi-Language Display

Media & Format <u>w</u> **DVD Video Compatible** OVD-R/RW DVD-R/RW Compatible CD-R/RW CD-R/RW Compatible MP3 MP3 (MPEG Audio Layer-3) WMA WMA (Windows Media[™] Audio) AAC iTunes AAC (Advanced Audio Coding) **PEG** Jpeg Image Viewe DivX Digital Media Dolby[®] Digital Decoder

Connectivity

Made for iPod iPhone	Made for iPod and iPhone Products
Compatible	Smartphone powered by Android Compatible
	Advanced App Mode
8 Bluetooth	Built-in Bluetooth®
Bluetooth® Adapter Ready	Bluetooth Adapter Ready
Voice Control	Voice Control
	SD/SDHC Memory Card Compatible
₩N	AUX-In Connectivity (mini-jack)
∲ usв	USB Direct Connection
V Dual V USB V	Dual USB Ports
¥1A	1A High Current USB
Back UP Gamera Kuuty	Back Up Camera Ready
Tuner Ready	Pioneer TV Tuner Ready

Лиши	
MIXTRAX	MIXTRAX
MIXTRAX EZ	MIXTRAX EZ
Hi-VOLT	Hi-Volt Preout
4 BCA 3 BCA 2 BCA 1 BCA	RCA Preout
Subwoofer control	Subwoofer Control
24bit DA Converter	24-Bit DA Converter
	Auto EQ
)) (((Sonjc Center	Sonic Center Control
	Dual Zone Audio/Video
	Supertuner [®] IIID
RDS	Radio Data System
(;;))SHORT A WAVE	Shortwave Tuner
MOSFET 50Wx4	MOSFET 50 W x 4
DSP	Digital Signal Processor
Specialized Adulto Parts	Specialized Audio Parts



30LS FOR SPECIAL FEATURES



Variable	
	 Variable High Pass Filter
	 Variable Low Pass Filter
HPF	 High Pass Filter
LPF	 Low Pass Filter
RCA IN/OUT	 RCA Input/Output
RCA INPUT	 RCA Input
SPEAKER INPUT	 Speaker Level Inputs
Bass Boost	 Bass Boost
Bass Boost Remote	 Bass Boost Remote
Class FD	 Class FD
1ohm	 1 Ohm Load Impedance
General	

Gener	<i>(ul</i>	
Music Browser		Music Browser (please refer to page 33 for details)
] DETACHABLE FACE SECURITY.	Detachable Face Security™ (DFS)
AUTO FLAP	· · · · · · · · · · · · · · · · · · ·	Auto Flap Face
Flap Face		Flap Face
		Color Customization
Separated Color		Separated Color Customization
FLASHIN	NG LOR	Flashing Color
Leverkey		Lever Key
Rotary		Rotary Commander
		Wired Remote Input
Anti-Dust Design		Anti-Dust Design

Subwoofer & Speaker

	Open & Smooth Sound Concept (please refer to page 70 for details)
	ib-FLAT Subwoofer (please refer to page 59 for details)
AIR SUSPENSION	Air Suspension System (please refer to page 67 for details)
	Multilayer Mica Matrix Cone (please refer to page 80 for details)
	IMPP (Injection-Molded Polypropylene) Composite Cone (please refer to page 76 for details)
	KEVLAR [®] Brand Fiber
HOLOGRAM	 Pioneer 3D Hologram Sticker Attached to Product Packaging Carton (please refer to pages 58 and 70 for details)

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