

# 2017 PIONEER NEW PRODUCTS

#### **ENTERTAINMENT**

Pioneer's original apps (such as those for Pioneer ARC\* and AppRadio<sup>™</sup>\*\*) installed in iPhone® and Android<sup>™</sup> phones offer a new style of in-car entertainment. Listeners can get more into the stream of their favorite music with MIXTRAX® to create non-stop mixes with DJ effects and light pulsing to music beats. Pick and play your favorites among millions of streaming selections and open your senses to expanding worlds of musical sensation.

\*For audio receivers \*\*For AV receivers

## CONNECTIVITY

Taking advantage of smartphone support, Pioneer in-car entertainment connections combine the capabilities of AppRadio Mode for easy viewing and touchscreen operation of favorite apps in iPhone and Android phones; Apple CarPlay™ and Android Auto™ entertainment control via voice command. With support for Spotify®, you can control the Spotify® app on your smartphone via your car receiver's interface.





Pioneer's in-car AV entertainment gear continues to dominate with easy, precise control plus more connectivity for peerless sound and vision with the utmost convenience.

## QUALITY

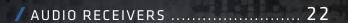
Specially designed Pioneer AV and audio receivers, and selected audio parts incorporate exclusive sound field technology that helps make sound more stirring. Enhanced audio functions let listeners finely tune sound fields with supremely precise control. Moreover, brilliant reproduction of sound from FLAC files surpasses playback of CD tracks in terms of audio quality.

#### CONVENIENCE

The Pioneer ARC app lets you control of the audio receiver using a smartphone's touchscreen. Even detailed settings for audio, etc. are easy with this intuitive interface. Larger displays and specially designed construction of new audio receivers make more information easily visible from the driver's seat. A sophisticated user interface featuring new clear-type resistive touchscreen enhances intuitive control, utility and visibility.

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**AV RECEIVERS** Pioneer 1/1 10:45 thu APPS Hinterland Horizon iPod1 AVH-X8850BT 04

## KEY FEATURES STEP-

	DIN Size	Display	Preout	Playback	Video Format	Audio Format	AUX Input (Mini-Jack)	USB Interface	SD/SDHC Memory Card Slot	HDMI Input	Direct Control for iPod/ iPhone*1	Direct Control for Certain Android Phones*1*2	AppRadio Mode* <sup>1</sup>	Apple CarPlay Compatible*3	Android Auto Compatible*4	Spotify®	Built-in MirrorLink™*	4 Bluetooth <sup>9#5</sup>	MIXTRAX	Dual Zone Audio/Video	Auto EQ Auto Time Alignment	USB Quick Charge for Android (CDP)**	Advanced Sound Retriever	Back-Up Camera Ready	Page Number
AVH-X8850BT	2-DIN	7.0" LED- WVGA	3 (4 V)	DVD/ CD	H.264*7 FLV*7 WMV*7 DivX**8 MPEG-1*1/-2*1/-4	WAV*7 MP3 WMA AAC FLAC*7	Rear	Rear x 2		(Rear)	USB Bluetooth	Bluetooth	iPhone Android <sup>*2</sup>	•				HFP A2DP AVRCP SSP SPP			CD-MC20			ND-BC8 ND-BC20PA (Dual Camera Inputs)	07
AVH-X5850BT	2-DIN	7.0" LED- WVGA	3 (4 V)	DVD/ CD	H.264*7 DivX*8 MPEG-1*8/-2*8/-4	WAV*7 MP3 WMA AAC FLAC*7	Rear	Rear			USB Bluetooth	USB Bluetooth	iPhone Android* <sup>2</sup> (AppRadio Mode USB)			iPhone Android <sup>*2</sup>		HFP A2DP AVRCP SSP SPP	*9		CD-MC20		•	ND-BC8 ND-BC20PA	08
AVH-X4850DVD	2-DIN	7.0" LED- WVGA	3 (4 V)	DVD/ CD	H.264* <sup>7</sup> DivX*8 MPEG-1*8/-2*8/-4	WAV*7 MP3 WMA AAC FLAC*7	Rear	Rear			USB	USB	iPhone Android*2 (AppRadio Mode USB)			iPhone			*9		CD-MC20		•	ND-BC8 ND-BC20PA	09
AVH-X2850BT	2-DIN	6.2" LED- WVGA	3 (4 V)	DVD/ CD	H.264*7 DivX*8 MPEG-1*1/-2*1/-4	WAV*7 MP3 WMA AAC FLAC*7	Rear	Rear			USB Bluetooth	USB Bluetooth	iPhone Android*2 (AppRadio Mode USB)			iPhone Android <sup>*2</sup>		HFP A2DP AVRCP SSP SPP	*9		CD-MC20	•	•	ND-BC8 ND-BC20PA	08
AVH-X1850DVD	2-DIN	6.2" LED- WVGA	3 (4 V)	DVD/ CD	H.264*7 DivX*8 MPEG-1*1/-2*1/-4	WAV*7 MP3 WMA AAC FLAC*7	Rear	Rear			USB	USB	iPhone Android*2 (AppRadio Mode USB)			iPhone			*9		CD-MC20	•	•	ND-BC8 ND-BC20PA	09
AVH-295BT	2-DIN	6.2" LED- WVGA	2 (2 V)	DVD/ CD	DivX MPEG-1/-2/-4	WAV MP3 WMA AAC	Rear	Rear			USB							HFP A2DP AVRCP SSP						ND-BC8 ND-BC20PA	11
AVH-195DVD	2-DIN	6.2" LED- WVGA	2 (2 V)	DVD/ CD	DivX MPEG-1/-2/-4	WAV MP3 WMA AAC	Rear	Rear			USB													ND-BC8 ND-BC20PA	12
AVH-X7850BT	1-DIN	7.0" LED- WVGA	3 (4 V)	DVD/ CD	H.264*7 DivX*8 MPEG-1**/-2**/-4	WAV* <sup>7</sup> MP3 WMA AAC FLAC* <sup>7</sup>	Rear	Rear			USB Bluetooth	USB Bluetooth	iPhone Android*2 (AppRadio Mode USB)			iPhone Android <sup>*2</sup>		HFP A2DP AVRCP SSP SPP	*9		CD-MC20	•	•	ND-BC8 ND-BC20PA	10
AVH-X6850DVD	1-DIN	7.0" LED- WVGA	3 (4 V)	DVD/ CD	H.264 <sup>#7</sup> DivX*8 MPEG-1 <sup>48</sup> /-2 <sup>48</sup> /-4	WAV*7 MP3 WMA AAC FLAC*7	Rear	Rear			USB	USB	iPhone Android*2 (AppRadio Mode USB)			iPhone			**		CD-MC20		•	ND-BC8 ND-BC20PA	10
AVH-4850BT	1-DIN	7.0" LED- WVGA	3 (2 V)	DVD/ CD	DivX MPEG-1/-2/-4	WAV*7 MP3 WMA AAC	Front	Front										HFP A2DP AVRCP SSP						ND-BC8 ND-BC20PA	11
AVH-3850DVD	1-DIN	7.0" LED- WVGA	3 (2 V)	DVD/ CD	DivX MPEG-1/-2/-4	WAV*7 MP3 WMA AAC	Front	Front																ND-BC8 ND-BC20PA	12
AVH-XL5750BT	2-DIN	7.0" LED- WVGA	3 (4 V)	DVD/ CD	H.264*7 DivX MPEG-1*8/-2*8/-4	WAV*7 MP3 WMA AAC	Rear	Rear			USB Bluetooth	USB Bluetooth	iPhone Android*2 (AppRadio Mode USB)				•	HFP A2DP AVRCP SSP SPP	*9		CD-MC20		•	ND-BC8 ND-BC20PA	13
AVH-XL4750DVD	2-DIN	7.0" LED- WVGA	3 (4 V)	DVD/ CD	H.264* <sup>7</sup> DivX MPEG-1*8/-2*8/-4	WAV*7 MP3 WMA AAC	Rear	Rear			USB	USB	iPhone Android*2 (AppRadio Mode USB)				•		*9		CD-MC20		•	ND-BC8 ND-BC20PA	13
MVH-AV285BT	2-DIN	6.2" LED- WVGA	2 (2 V)		DivX MPEG-4	WAV MP3 WMA AAC	Rear	Rear			USB							HFP A2DP AVRCP SSP						ND-BC8 ND-BC20PA	11
MVH-AV185	2-DIN	6.2" LED- WVGA	2 (2 V)		DivX MPEG-4	WAV MP3 WMA AAC	Rear	Rear			USB													ND-BC8 ND-BC20PA	12
DVH-885AVBT	1-DIN	3.5"	2 (4 V)	DVD/ CD	DivX MPEG-1/-2/-4	MP3 WMA AAC	Front	Front			USB*10	Bluetooth						HFP A2DP AVRCP SSP SPP						ND-BC8 ND-BC20PA	20
DVH-785AV	1-DIN	3.0"	2 (2 V)	DVD/ CD	DivX MPEG-1/-2/-4	MP3 WMA	Front	Front																ND-BC8 ND-BC20PA	20
DVH-345UB	1-DIN		2 (2 V)	DVD/ CD	DivX MPEG-1/-2/-4	WAV* <sup>7</sup> MP3 WMA AAC	Front	Front				1											•		21

<sup>\*1.</sup> Optional cable required. Please refer to page 100 for compatibility.
\*2. Not all Android phones are compatible.
\*3. CD-IUS2 required (sold separately).
\*4. CD-MJ200 required (sold separately).
\*5. HP = Hands-Free Profile, AZPP = Advanced Audio Distribution Profile, AVRCP = Audio/Video Remote
Control Profile, SSP = Secure Simple Profile, SPP = Serial Port Profile. Please refer to instruction manual
for other information about profile compatibility.

<sup>\*6.</sup> Provides up to 1.5 amperes to give an Android smartphone a quick charge.

\*7. Only for USB Devices or SD Memory Card.

\*8. Only for DVD or CD.

\*9. 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).

\*10. Only for audio files.

## **AppRadio Mode**

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD AVH-XL5750BT AVH-XL4750DVD



AppRadio Mode\* allows compatible applications on an iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5 or Android phone\*\* to be viewed and controlled directly from the receiver's touchscreen display.

phone\*\* to be viewed and controlled directly from the receiver's touchscreen display.

\* App Radio Mode: Compatible with AVH-X8850BT. See page 97 for accessories, and 100 for iPod/iPhone and Android compatibility.

AppRadio Mode USB (not for iPod touch): Compatible with AVH-X5850BT, AVH-X4850DVD,

AVH-X2850BT, AVH-X1850DVD, AVH-X7850BT, AVH-X6850DVD, AVH-XL5750BT and AVH-XL4750DVD.

\*\* Not all Android phones are compatible.

#### **AppRadioLIVE**

The AppRadioLIVE App gives you access to all the elements of your digital lifestyle in one place via AppRadio Mode.







#### **Apple CarPlay**

#### AVH-X8850BT

Apple CarPlay is the safer, smarter and more fun way to use your iPhone in the car. It launches automatically by just plugging in.



#### Android Auto™

#### AVH-X8850BT

Android Auto extends the Android platform into the car in a way that's purpose-built for driving.





# androidauto

#### **Bluetooth®**

AVH-X8850BT AVH-X5850BT AVH-X2850BT AVH-295BT AVH-X7850BT AVH-4850BT

AVH-XL5750BT MVH-AV285BT DVH-885AVBT

Bluetooth Wireless Technology makes audio playback and phone call operation comfortable and safe while driving.



#### Spotify®

AVH-X5850BT AVH-X4850DVD\* AVH-X2850BT AVH-X1850DVD\* AVH-X7850BT AVH-X6850DVD\*

Spotify® gives you all the music you'll ever need. Find the songs you love instantly, or let Spotify® play you something great. With support for Spotify®, just connect your compatible smartphone to Pioneer Receiver to fill your ride with everything from

classic tracks to the latest hits.

\* Compatible with iPhone only.





## AUDIO

#### **Support FLAC Codec\***

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD



New Pioneer AV receiver upgrades in-car audio with amazingly brilliant reproduction of sound by FLAC files surpass CD tracks in terms of playback audio quality.

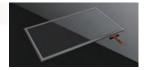
\* For the files stored in USB thumb drive.

## OTHERS

#### **Clear Type Resistive Touch Panel**

All Receivers (Except AVH-XL5750BT, AVH-XL4750DVD, AVH-4850BT, AVH-3850DVD, DVH-885AVBT, DVH-785AV and DVH-345UB)

The new Pioneer AV receivers' display panel are designed as beautifully crisp and it brings you enhanced visibility.









# androidauto



MIXTRAX AppRadio MODE





## **Key Selling Points**



Enhanced and advanced smartphone connectivity for today's smartphone-driven lifestyle including compatibility with Apple CarPlay, Android Auto™ and AppRadio Mode.





Experience non-stop music playback based on music data analysis that delivers a seamless mix created by a virtual DJ.





An all new smartphone-inspired user interface provides an easy-to-use and intuitive experience.

#### Main Features (Blue text: upgraded features from AVH-XL5750BT)

- 7" WVGA Clear Type Resistive Touch Panel Display with LED Backlight Multi-Language Display\* (Menu/ID3 Tag) Color Customization (5-Display Colors and
- 112-Key Colors)
- Direct Control for iPod<sup>®</sup>/iPhone (USB/Bluetooth) Direct Control for Certain Android Phones
- (Bluetooth) AppRadio Mode for iPod/iPhone & Certain Android Phones
- CarPlay Compatible
- Built-in Bluetooth® Wireless Technology (Hands-Free Calling/Wireless Audio)
- Siri Eyes Free

- Dual USB Ports (Rear: High Current 1 A
- Handling Capability)

   SD/SDHC Memory Card Slot
- AUX Input (Audio/Video)
- RGB Input
- DVD/CD Player with DVD Video Playback
- H.264/FLV/WMV/MPEG-4/MP3/WMA/iTunes<sup>®</sup>
- DivX®/MPEG-1, -2, -4/MP3/WMA/iTunes AAC
- Playback from DVD/CD
- Advanced Sound Retriever
- MOSFET 50 W x 4

- Hi-Volt RCA Preouts x 3 (4 V)
- 13-Band Graphic EQ
- Auto EQ & Auto Time Alignment (CD-MC20
- Required)
- Pioneer TV Tuner Ready
- JPEG Slide Show
- Back-Up Camera Ready
- Wired Remote Input Power Off Mode
- Display Off Mode
- \* See page 19 for more details.
- \*\* For the files stored in USB thumb drive. See page 97 for accessories.

#### iPod/iPhone Compatibility

iPhone 6 Plus, iPhone 6 (AppRadio Mode Compatible)

iPhone 5s, iPhone 5c, iPhone 5 (AppRadio Mode Compatible)

iPhone 4s (AppRadio Mode Compatible)

iPhone 4 (AppRadio Mode Compatible)

iPod touch® (2nd, 3rd, 4th, and 5th\* generation)

iPod nano® (3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

\* AppRadio Mode Compatible



AppRadio







**Experience the exclusive in smartphone connectivity** with AppRadio Mode USB by simple cable connection.







 □iPod
 □iPhone

\*1. 6.2-inch display: AVH-X2850BT.



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.





Enjoy superior in-car AV performance with 13-Band Graphic EQ, FLAC codec playback\* and other high quality functions. \* For the files stored in USB thumb drive.









MP3 WMA AAC DIVX. DOLBY APP USB SIN BRCA Hi-VOLT DECEMBER

- Common Main Features (Blue text: upgraded features from AVH-295BT)
- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Multi-Language Display\* (Menu/ID3 Tag)
- Color Customization (5-Display Colors and 112-Key Colors)
  AppRadio Mode USB for iPod/iPhone & Certain Android Phones
- USB Port (Rear: High Current 1A Handling Capability)
- for Android (CDP)
- AUX Input (Audio/Video)
- DVD/CD Player with DVD Video Playback
- MPEG-4/MP3/WMA/iTunes AAC/WAV Playback from USB Device
- DivX®/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback from CD/DVD
- · MOSFFT 50 W x 4

- Hi-Volt RCA Preouts x 3 (4 V)
- 13-Band Graphic EQ
- \* 13-Ballo Graphic EQ
   \* Auto EQ & Auto Time Alignment (CD-MC20 Required)
   \* 3-Way Network Mode (High/Mid/Low)

**MIXTRAX** 

AppRadio MODE

- IPEG Slide Show
- Back-Up Camera Ready
- Wired Remote Input
- Display Off Mode

#### iPod/iPhone Compatibility iPhone 6 Plus, iPhone 6 (AppRadio Mode USB Compatible) iPhone 5s, iPhone 5c, iPhone 5 (AppRadio Mode USB Compatible) iPhone 4s iPhone 4 iPhone 3GS iPod touch (2nd, 3rd, 4th, and 5th generation) iPod classic iPod nano (3rd, 4th, 5th, 6th, and 7th generation)

**□**iPod □iPhone

\*1. 6.2-inch display: AVH-X1850DVD.

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

• Steering Wheel Control Function Expansion • RDS

#### **AVH-X5850BT Main Features**

AVH-X4850DVD)

- 7" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Direct Control for iPod/iPhone (USB/ Bluetooth)
- Direct Control for Certain Android Phones
- (USB/Bluetooth)
   Spotify\* (iPhone/Android)
- Built-in Bluetooth® Wireless Technology (Hands-Free Calling/Wireless Audio)
- Siri Eyes Free

#### **AVH-X4850DVD Main Features** (Blue text: upgraded features from

AVH-X2850BT)

- 7" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Direct Control for iPod/iPhone (USB)
   Direct Control for Certain Android Phones
- Spotify® (iPhone)

#### **AVH-X2850BT Main Features**

Spotify<sup>®</sup>

AVH-X1850DVD)

- 6.2" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Direct Control for iPod/iPhone (USB/ Bluetooth)
- Direct Control for Certain Android Phones
- (USB/Bluetooth)
   Spotify® (iPhone/Android)
- Built-in Bluetooth Wireless Technology (Hands-Free Calling/Wireless Audio)
- Siri Eyes Free
- SR Air

#### **AVH-X1850DVD Main Features**

(Blue text: upgraded features from AVH-295BT)

- 6.2" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Direct Control for iPod/iPhone (USB)
- Direct Control for Certain Android Phones (USB)
- Spotify® (iPhone)
- \* See page 19 for more details. \*\* For the files stored in USB thumb drive.

See page 97 for accessories.



Bluetooth

AppRadio

## **Key Selling Points**

MP3 WMA AAC DIVX DOLBY APPL VUSB SIN BRCH Hi-VOLT 24bit DACONSHIP

RDS SUPERFTUNERIED MOSFET 50Wx4



**Experience the exclusive in smartphone connectivity** with AppRadio Mode USB by simple cable connection.



Note: "Bluetooth Wireless Technology" and "Siri Eyes Free" for AVH-X7850BT.

Smartphone **C**ompatible





□ iPod □ iPhone



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.





Enjoy superior in-car AV performance with 13-Band Graphic EQ, FLAC codec playback\* and other high quality functions. \*For the files stored in USB thumb drive.



#### Common Main Features (Blue text: upgraded features from AVH-4850BT)

- MIXTRAX (MIXTRAX EZ for Quick
- Non-Stop MIX Play)

   7" WVGA Clear Type Resistive Touch Panel
  Display with LED Backlight Multi-Language Display\* (Menu/ID3 Tag)
- Color Customization (5-Display Colors a 112-Key Colors)
   AppRadio Mode USB for iPod/iPhone &
- Certain Android Phones
- USB Port (Rear: High Current 1 A Handling
- Capability)
  USB Ouick Charge for Android (CDP)
- AUX Input (Audio/Video)
- DVD/CD Player with DVD Video Playback
  MP3/WMA/iTunes AAC/WAV Playback from USB Device
- DivX®/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback from CD/DVD

- nced Sound Retriever
- MOSFET 50 W x 4
- Hi-Volt RCA Preouts x 3 (4 V)
   13-Band Graphic EQ
- Auto EQ & Auto Time Alignment (CD-MC20
- 3-Way Network Mode (High/Mid/Low) Pioneer TV Tuner Ready
- JPEG Slide Show

#### **AVH-X7850BT Main Features**

(Blue text: upgraded features from AVH-X6850DVD)

- Direct Control for iPod/iPhone (USB/Bluetooth) Direct Control for Certain Android Phones (USB/Bluetooth)
- Spotify® (iPhone/Android)
   Built-in Bluetooth Wireless Technology (Hands-Free Calling/Wireless Audio) iri Eyes Free

#### Back-Up Camera Ready

- Rotary Volume Control
- · Wired Remote Input
- · Display Off Mode
- ng Wheel Control Function Expansion

Spotify

SteerRDS

#### **AVH-X6850DVD Main Features**

(Blue text: upgraded features from AVH-4850BT)

- Direct Control for iPod/iPhone (USB) Direct Control for Certain Android Phones
- Spotify® (iPhone)
- \* See page 19 for more details.
- \*\* For the files stored in USB thumb drive.

See page 97 for accessories

#### iPod/iPhone Compatibility Made for iPhone 6 Plus, iPhone 6 (AppRadio Mode USB Compatible) iPhone 5s, iPhone 5c, iPhone 5 (AppRadio Mode USB Compatible) iPhone 4s iPhone 4 iPod touch (2nd, 3rd, 4th, and 5th generation) iPod nano (3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.



#### AVH-4850BT

In-Dash 1-DIN DVD Multimedia AV Receiver with 7" WVGA Touchscreen Display, Built-in Bluetooth®, and Front USB Port





#### Main Features (Blue text: upgraded features from AVH-3850DVD)

- 7" WVGA Touch Panel Display with LED Backlight
- · Multi-Language Display (Menu/ID3 Tag) (English/Spanish/Portuguese/Russian)
- Built-in Bluetooth Wireless Technology (Hands-Free Calling/Wireless Audio)
- USB Port (Front)
- Front AUX Input (Audio/Video)
- DVD/CD Player with DVD Video Playback
- DivX®/MPEG-1, -2, -4/MP3/WMA/iTunes AAC/WAV Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback from CD/DVD
- MOSFET 50 W x 4

- RCA Preouts x 3 (2 V)
- 3-Band Graphic EQ (Bass/Mid/Treble)
- Back-Up Camera Ready
- Rotary Volume Control
- Wired Remote Input
- · Display Off Mode

See page 97 for accessories.





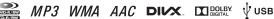




















#### AVH-295BT NEW

In-Dash Double-DIN DVD Multimedia AV Receiver with 6.2" WVGA Touchscreen Display, Built-in Bluetooth, and Direct Control for iPod/iPhone





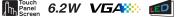
RC/RI: Remote control unit included. RD: Remote control unit is optional

#### Main Features (Blue text: upgraded features from AVH-195DVD)

- 6.2" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Multi-Language Display\* (Menu/ID3 Tag)
- Direct Control for iPod/iPhone (USB)
- Built-in Bluetooth Wireless Technology (Hands-Free Calling/Wireless Audio)
- USB Port (Rear: High Current 1A Handling Capability)
- AUX Input (Audio/Video)
- DVD/CD Player with DVD Video Playback
- DivX/MPEG-4/MP3/WMA/iTunes AAC/ WAV Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA/iTunes AAC/WAV Playback from CD/DVD
- MOSFET 50 W x 4
- RCA Preouts x 2 (2 V)
- 5-Band Graphic EO
- JPEG Slide Show
- Back-Up Camera Ready
- Wired Remote Input
- Display Off Mode
- RDS
- \* See page 19 for more details. See page 97 for accessories, and 100 for iPod/iPhone Compatibility.







DOLBY USB SIN 2RCA

















#### MVH-AV285BT

In-Dash Double-DIN Digital Media AV Receiver with 6.2" WVGA Touchscreen Display, Built-in Bluetooth, and Direct Control for iPod/iPhone





#### Main Features (Blue text: upgraded features from MVH-AV185)

- 6.2" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Multi-Language Display\* (Menu/ID3 Tag)
- Direct Control for iPod/iPhone (USB)
- · Built-in Bluetooth Wireless Technology (Hands-Free Calling/Wireless Audio)
- USB Port (Rear: High Current 1A Handling Capability)
- AUX Input (Audio/Video)
- DivX/MPEG-4/MP3/WMA/iTunes AAC/ WAV Playback from USB Device
- MOSFET 50 W x 4
- RCA Preouts x 2 (2 V)
- 5-Band Graphic EQ
- JPEG Slide Show
- Back-Up Camera Ready
- Wired Remote Input
- Display Off Mode
- RDS
- \* See page 19 for more details. See page 97 for accessories, and 100 for iPod/iPhone Compatibility.





















MP3 WMA AAC DIVX







#### AVH-3850DVD

In-Dash 1-DIN DVD Multimedia AV Receiver with 7" WVGA Touchscreen Display, and Front USB Port





#### **/** Main Features

- 7" WVGA Touch Panel Display with LED Backlight
- Multi-Language Display (Menu/ID3 Tag) (English/Spanish/Portuguese/Russian)
- USB Port (Front)
- Front AUX Input (Audio/Video)
- DVD/CD Player with DVD Video Playback
- DivX®/MPEG-1, -2, -4/MP3/WMA/iTunes AAC/WAV Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback from CD/DVD
- MOSFET 50 W x 4
- RCA Preouts x 3 (2 V)
- 3-Band Graphic EQ (Bass/Mid/Treble)

- Back-Up Camera Ready
- Rotary Volume Control
- Wired Remote Input
- Display Off Mode

See page 97 for accessories.

Panel 7.0W VGA: MULTI-LANGUAGE DISPLAY

























#### AVH-195DVD NEW

In-Dash Double-DIN DVD Multimedia AV Receiver with 6.2" WVGA Touchscreen Display, and Direct Control for iPod/iPhone





RC/RI: Remote control unit included RD: Remote control unit is optional.

#### **/** Main Features

- 6.2" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Multi-Language Display\* (Menu/ID3 Tag)
- Direct Control for iPod/iPhone (USB)
- USB Port (Rear: High Current 1A Handling Capability)
- AUX Input (Audio/Video)
- DVD/CD Player with DVD Video Playback
- DivX/MPEG-4/MP3/WMA/iTunes AAC/ WAV Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA/iTunes AAC/WAV Playback from CD/DVD
- MOSFET 50 W x 4
- RCA Preouts x 2 (2 V)
- 5-Band Graphic EQ
- JPEG Slide Show
- Back-Up Camera Ready
- Wired Remote Input • Display Off Mode
- RDS
- \* See page 19 for more details.

See page 97 for accessories, and 100 for iPod/iPhone Compatibility.



∜ usв











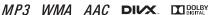
SUPER TUNER II

RDS

















In-Dash Double-DIN Digital Media AV Receiver with 6.2" WVGA Touchscreen Display, and Direct Control for iPod/iPhone





#### **Main Features**

- 6.2" WVGA Clear Type Resistive Touch Panel Display with LED Backlight
- Multi-Language Display\* (Menu/ID3 Tag)
- Direct Control for iPod/iPhone (USB)
- USB Port (Rear: High Current 1A Handling Capability)
- AUX Input (Audio/Video)
- DivX/MPEG-4/MP3/WMA/iTunes AAC/ WAV Playback from USB Device
- · MOSFET 50 W x 4

- RCA Preouts x 2 (2 V)
- 5-Band Graphic EQ
- JPEG Slide Show
- Back-Up Camera Ready Wired Remote Input
- Display Off Mode
- RDS
- \* See page 19 for more details.

See page 97 for accessories, and 100 for iPod/iPhone Compatibility.



























Note: "Bluetooth Wireless Technology" and "Siri Eyes Free" for AVH-XL5750BT.

Smartphone Compatible

## Key Selling Points

AAC DIVX DOLBY APPL VUSB N BRCA Hi-VOLT 24bit Auto

RDS SUPERSTUMERIED MOSFET 50Wx4 Sint Func From



200 mm-wide Double-DIN front panel is designed to fit perfectly in the the car interior's center console.

MirrorLink

AppRadio MODE



**Experience the exclusive in smartphone connectivity** with AppRadio Mode USB by simple cable connection.







**BiPod □iPhone** 



Enjoy superior in-car AV performance with 13-Band Graphic EQ, FLAC codec playback\* and other high quality functions.

#### Common Main Features (Blue text: upgraded features from AVH-X4850DVD)

\* For the files stored in USB thumb drive.

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- 7" WVGA Touch Panel Display with LED Backlight
   Multi-Language Display\* (Menu/ID3 Tag)
   Color Customization (5-Display Colors and 112-Key
- AppRadio Mode USB for iPod/iPhone & Certain Android Phones
- App Mode
- USB Port (Rear: High Current 1A Handling Capability)
   AUX Input (Audio/Video)
- RGB Input
- DVD/CD Player with DVD Video Playback
- DivX®/MPEG-4/MP3/WMA/iTunes AAC/WAV Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback from CD/DVD

- Advanced Sound Retriever
- MOSFET 50 W x 4
- Hi-Volt RCA Preouts x 3 (4 V) 13-Band Graphic FO
- Auto EQ & Auto Time Alignment (CD-MC20 Required)

#### **AVH-XL5750BT Main Features**

- Direct Control for iPod/iPhone (USB/ Bluetooth)
- Direct Control for Certain Android Phones (USB/Bluetooth)
- Built-in Bluetooth Wireless Technology (Hands-Free Calling/Wireless Audio)
- Siri Eyes Free SR Air

- **AVH-XL4750DVD Main Features**
- Direct Control for iPod/iPhone (USB) Direct Control for Certain Android Phones (USB)
- \* See page 19 for more details. See page 97 for accessories.

Pioneer TV Tuner Ready

Back-Up Camera Ready

Wired Remote Input

Display Off Mode

JPEG Slide Show

#### iPod/iPhone Compatibility Made for iPhone 6 Plus, iPhone 6 (AppRadio Mode USB Compatible) iPhone 5s, iPhone 5c, iPhone 5 (AppRadio Mode USB Compatible) iPhone 4s iPhone 4 iPhone 3GS iPhone 3G iPod touch (1st, 2nd, 3rd, 4th, and 5th generation) iPod classic iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

#### **AppRadio Mode**

AppRadio MODE

AVH-X8850BT | AVH-X5850BT | AVH-X4850DVD | AVH-X2850BT | AVH-X1850DVD | AVH-X7850BT | AVH-X6850DVD | AVH-XL5750BT | AVH-XL4750DVD





#### A Revolutionary Way to Use Apps in the Car —

AppRadio Mode\* revolutionizes the driver's smartphone experience by bringing compatible iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5 or Android\*\* apps to your dash.

- \* App Radio Mode: Compatible with AVH-X8850BT. See page 97 for accessories, and 100 for iPod/iPhone and Android compatibility.

  AppRadio Mode USB (not for iPod touch): Compatible with AVH-X5850BT, AVH-X4850DVD, AVH-X7850BT, AVH-X1850DVD, AVH-X7850BT, AVH-X6850DVD, AVH-XL5750BT and
- \*\* Not all Android phones are compatible.

AVH-XI 4750DVD





#### ■ How to Use AppRadio Mode –







After launching the app, connect your iPhone to the receiver using the AppRadio Mode compatible cable. Pressing the "MODE" button lets you change to the AppRadio Mode's Home display screen.



control apps compatible with AppRadio Mode.

#### Side Control Bar

3rd party apps to your iPhone.

Install the AppRadio app and other

AVH-X8850BT | AVH-X5850BT | AVH-X4850DVD | AVH-X2850BT | AVH-X1850DVD | AVH-X7850BT | AVH-X6850DVD | AVH-XL5750BT | AVH-XL4750DVD | AVH-XL5750BT | AVH-XL4750DVD | AVH-XL5750BT | AVH-XL4750DVD | AVH-XL5750BT | AVH-XL5

Press the Home button of the AVH-X8850BT twice, and the Side Control Bar goes on display for easy access to the Phone Menu and other Sources. With other AV receivers, press the DISP button to display the Side Control Bar.







# Home Display for Android Connection 25 Wed Photos Galendar Photos Garmedia Mixtrax Phylin Calendar Photos Phylin Mixtrax

**Current AV Source or App** 

#### Bluetooth® Hands-Free Display



#### ■ AppRadio Mode USB

With connection simplified, worries about selecting the appropriate cable and the corresponding clutter of cables around the center console disappear.







#### ■ AppRadioLIVE —



AppRadioLIVE App, which is one of the apps that is compatible with AppRadio Mode, gives you access to all elements of your digital lifestyle in one place. Connect your compatible smartphone to a receiver with AppRadio Mode to listen to your favorite music, check the weather, find nearby events and more. AppRadioLIVE delivers fresh content from many popular apps without the need to search and open them individually.

#### **MAPS**

AppRadioLIVE uses the native maps from your smartphone overlaid with INRIX® live traffic data to provide live traffic and incident information to give you an estimated time of arrival at your chosen destination.



Pioneer keeps you up-to-date on the latest news stories, RSS feeds and weather information with Feedly® and Open Weather Map.





#### **MFDIA**

By putting your favorite music and media in one place, AppRadioLIVE simplifies your drive.



#### CALENDAR

AppRadioLIVE keeps your life organized and makes it easier to stay in touch and have fun.



Note: Apps compatible with AppRadioLIVE may differ according to region.

#### Spotify®

Spotify® gives you instant access to millions of songs. With support for Spotify®, you can control the Spotify® app on your smartphone via your car receiver's touchscreen.

\* Compatible with iPhone only.





#### Built-in Bluetooth®

AVH-X8850BT AVH-X5850BT AVH-X2850BT AVH-295BT AVH-X7850BT AVH-4850BT AVH-XL5750BT MVH-AV285BT

File Browsing can be used through AVRCP 1.5

Note: AVH-X8850BT and AVH-XL5750BT—AVRCP Version 1.4

Siri\* Eyes Free Compatible –

version of Bluetooth. You can easily search songs

# **Bluetooth**°

#### AVRCP Version 1.5

AVH-X5850BT AVH-X2850BT AVH-295BT AVH-X7850BT AVH-4850BT MVH-AV285BT

in the browsing display.

Smart voice control lets users access various iPhone functions

to select music, make calls from a contact list, etc., without

iPod touch (5th generation) and requires Internet access. Siri may not be available in

all languages or in all areas, and features may vary by area. Cellular data charges may

\* Siri is available on iPhone 4s or later, iPad with Retina display, iPad mini, and

apply. Some features may not be available for all countries or all areas.

Siri Eyes Free

Call Sophia!

#### HFP Version 1.6 -

AVH-X8850BT AVH-X5850BT AVH-X2850BT AVH-X7850BT AVH-4850BT AVH-XL5750BT MVH-AV285BT

Frequency Range Coverage **Previous Receivers** Clear Sound! **New Receivers** 

You can talk with much clearer voice via spread twice band width.

## **■** Two-Phone Full Time Connection

AVH-X5850BT AVH-X2850BT AVH-X7850BT

You can connect two mobile phones (for personal and business use, for example) with the receiver, and an

incoming call from either phone can be received without requiring manual switching.



taking their eyes off the road.

#### AVH-XL5750BT AVH-XL4750DVD

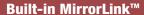
Use an interface cable to connect the receiver and a compatible MirrorLink™ certified smartphone. Then, you can directly control and access music, maps, and contacts stored on the smartphone via the receiver's touchscreen.



## CD-MU200

USB Interface Cable for AppRadio Mode USB, Android Use with Android Auto and MirrorLink™ Devices (USB-USB Cable: 1.5 m/USB-microUSB Cable: 50 cm)







#### **Apple CarPlay\***





With the directly connected phone, information like favorites, recent calls, contact list are available on the receiver's screen by just touching the icon and Siri will help you.



You can enjoy music from iTunes Radio or music stored on your phone such as Genius Playlist, standard Playlist or Artists.





Create, listen to and reply to your messages to desired contact by using Siri.



Just tell Siri where you want to go or you can find destinations with a list of previous search histories, or addresses sent to you in text messages and emails.

Apple CarPlay is the safer, smarter and more fun way to use your iPhone in the car. It launches automatically by just plugging in.

0

\* Apple CarPlay is available on Apple iPhone 5 or later with iOS 7.1.2 or higher, and requires Lightning to USB cable.

#### Android Auto™\*

AVH-X8850BT Android Auto extends the Android platform into the car in a way that's purpose-built for driving.



Just say the word—best-in-class speech technology makes controlling everything with your voice fast and easy.



Phone calls can be made easily, directly from the receiver, showing all contacts and call lists stored on the phone.

Android Auto automatically brings you useful information, and organizes it into simple cards that appear just when they're needed.



Let Google Maps lead the way. It's easy to get where you're going with free voice-guided navigation, live traffic information, lane guidance, and more.

\*Android Auto is available with Android phone running Android 5.0 (Lollipop) or higher with a data plan. Note: Availability of Android Auto may vary depending upon your country and phone model.

# androidauto



Your favorite tunes—to go. Access and stream your favorite music with apps like Google Play Music, Spotify® and more\*. \* Available apps depend on regions and countries.



Android Auto makes it easy to access your favorite apps and content in the car.

#### **Learning Steering Wheel Contro**

#### All Receivers

You can now assign certain functions of the receiver to control buttons on the steering wheel.



#### **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.



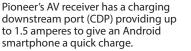
AVH-X8850BT Rear Panel

Dual 🕕

**USB** 

#### **USB Quick Charge for Android (CDP)**

AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD





NEW

QUICK CHARGE

#### **Direct Control for Certain Android Phones (MTP Mode)**

AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD AVH-XL5750BT AVH-XL4750DVD





Take advantage of a wired USB connection to the receiver. Sound stays clean and clear, file search and access are very quick, and song, artist, time and album displays are user-friendly.

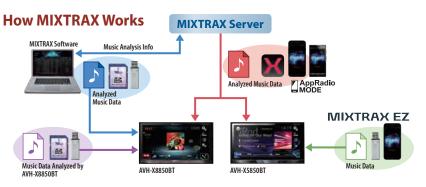


## AUDIO

#### MIXTRAX

## **MIXTRAX**

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



#### MIXTRAX, MIXTRAX App, and MIXTRAX EZ Comparison

	Advantage	MIXTRAX Software	Compatible Source
MIXTRAX	Full-featured		USB Device
IVIIATRAA	Non-Stop Mix Play*1	Compatible	SD Memory Card
MIXTRAX App	Quick and Easy, Non-Stop Mix Play	*2	iPhone, iPod touch
	NOII-Stop Wilx Play		Android Phone
MIXTRAX EZ	Quick and Easy,		USB Device
IVIIXTRAXEZ	Non-Stop Mix Play	_	iPod, iPhone

\*1. Requires music analysis by MIXTRAX Software from Pioneer (free download). \*2. Creates playlists using data from the MIXTRAX cloud server.

#### MIXTRAX

#### AVH-X8850BT

#### **AV Receiver Analysis**

The AVH-X8850BT is able to analyze the music, so you can enjoy Non-Stop MIX Play simply by connecting a USB Device or SD Memory Card containing music that has not been analyzed.

#### **PC** Analysis

You can analyze music on a PC, then put the analyzed music data on USB Device or SD Memory Card. The AVH-X8850BT allows you to listen it with MIXTRAX function.

#### MIXTRAX App

#### AVH-X8850B

You can use an iPhone, iPod touch or Android on which the MIXTRAX app is installed, to access analyzed music data on the MIXTRAX server. Then, you can enjoy music with MIXTRAX function via AppRadio Mode.

#### **MIXTRAX EZ**

AVH-X5850BT	AVH-X4850DVD	AVH-X2850BT	AVH-X1850DVD
AVH-X7850BT	AVH-X6850DVD	AVH-XL5750BT	AVH-XL4750DVD

Experience your music as a simple quick non-stop mix. Tracks are joined by various random sound effects and you can experience the intimate euphoria of listening to music that sounds as if a club DJ is there playing it.

#### **MIXTRAX**

#### **MIX Style**

Select among three mixing styles of different track time durations and effects in preset three steps.

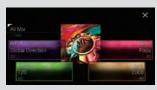
# Standard Style Song 1 Effect Song 2 About 2 minutes Standard Effect





#### Link Gate -

Automatically create a new MIX playlist based on the Artist, Genre, Tempo, or Year of the currently playing song. Now its even easier to enjoy a Non-Stop MIX that matches your taste.



#### **Display Visualizer**

The Display Visualizer provides for cool ambient visuals that enhance the in-car mood. Three shining spheres change their speed and movement based on the music in your Non-Stop MIX.



#### **BPM Slider Bar**

Change the beats per minute (BPM) of the currently playing music by sliding up or down along the bar.



#### **MIXTRAX EZ**

#### **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.



#### \* Orange portions indicate playback of each track.

#### **Selectable Sound Effect**

Select the desired special sound effects using the setting menu.



#### **Display Visualizer**

Enjoy club illumination-style visual effects that match set background colors.



## AUDIO

#### Support FLAC Codec\*

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD

New Pioneer AV receiver supports dramatically superior car audio experiences with amazingly brilliant reproduction of sound by FLAC (Free Lossless Audio Codec) files that are 50-60%

smaller than WAV files, yet retain the integrity of original sound sources. Characterized by 48 kHz sampling frequency and 24-bit bitrate, the sound quality of FLAC file playback exceeds even that of CD playback.

\* For the files stored in USB thumb drive.



File Size

**Sound Quality** 

#### **Advanced Sound Retriever**

AVH-XL5750BT AVH-XL4750DVD

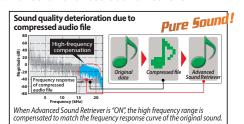
Hear more detail, warmth and clarity that the artist originally wanted you to hear from MP3, WMA and AAC files stored on your CD, USB Device, SD/SDHC Memory Card, iPod/iPhone, Android phone and portable media players. Pioneer's Advanced Sound Retriever

technology benefits audio reproduction performance by enhancing data (especially high-frequency data) that tends to get lost in the digital compression process.

#### SR Air\*

SR Air also improves the sound of Bluetooth® wireless audio streams.

\* Compatible with AVH-X8850BT, AVH-X5850BT, AVH-X2850BT, AVH-X7850BT and AVH-XL5750BT.



#### **High-Grade Audio Parts**

AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD

Pioneer's new audio capacitors for AV receivers clearly detail and localize sound characteristics and clean up extraneous noise, for more lasting listening pleasure.

> Superior Sound Clarity, Precision & Detail!

#### **Specialized Audio Par**



#### AVH-X8850BT

The AVH-X8850BT features specialized audio components such as a DSP and high-tolerance acoustic capacitors in order to reinforce Pioneer's dedication to high quality audio.





Acoustic Capacitor

#### 13-Band Graphic EQ

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD AVH-XL5750BT AVH-XL4750DVD

With the unique Advanced Touch Slide Operation, you simply drag your finger across the screen to change the EQ curve and audio characteristics.

13-band EQ adjustment allows you to fine-tune sound quality just as you like it.



#### **Touch Slide Crossover Setting**

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD AVH-XL5750BT AVH-XL4750DVD

It's intuitively easy to operate and set system tuning by dragging and tapping your finger.

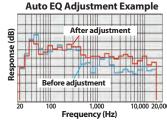


#### **Auto EQ\***



It can be difficult to reproduce music accurately in a vehicle due to factory speaker locations and interior materials. These limitations can lead to sound phase distortion, as well as sound reflection against glass and absorption by the dashboard and seats.

Auto EQ uses a microphone to monitor and analyze the vehicle acoustics, then automatically fine-tunes all frequencies and also applies digital parametric equalization to the front and rear speakers—producing a smoother sounding musical experience.



After adjustment: Smooth response with subtle nuances reproduced clearly.

**Before adjustment:** Rouah freauency response curve; unclear overall sound.



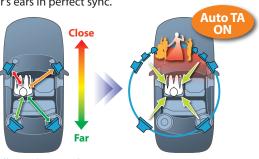


\* CD-MC20 required

#### **Auto Time Alignment\***

AVH-X7850BT AVH-X6850DVD AVH-XL5750BT AVH-XL4750DVD

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



The different distances from Auto TA makes all speakers each speaker to the driver sound as if they are virtually cause the delay of sound. equidistant from the driver.



## **USER INTERFACE & OTHERS**

#### **Advanced User Interface**

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD AVH-XL5750BT AVH-XL4750DVD

More advanced than ever before, the Multimedia AV receiver features a responsive, powerful and intuitive touchscreen user interface that is easy to use and highly customizable.

#### Seamless Access –

#### **Home Menu Display**

Just tap the icon on the Home Menu for quick access to the currently playing source, Bluetooth® or AppRadio Mode.



AVH-X5850BT Display

## Quick and Easy Operation —

#### Sona List

AVH-X8850BT

Operation is intuitive, as with a smartphone, using such touch gestures as a flick to quickly scroll a list.



AVH-X8850BT Display

#### Advanced Customization — Source Menu Display

Simply drag and drop to change and customize Source Menu order.



AVH-X5850BT Display

#### **Color Customization**

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT

AVH-X1850DVD AVH-X7850BT AVH-X6850DVD AVH-XL5750BT

DLOR

Select among five (Blue/Red/



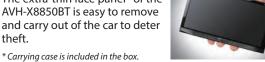


#### **Detachable Face Security™**

DETACHABLE FACE SECURITY.

AVH-X8850BT AVH-X7850BT AVH-X6850DVD

The extra-thin face panel\* of the AVH-X8850BT is easy to remove and carry out of the car to deter theft.



#### **Pioneer TV Tuner Accessory**



AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT

AVH-X1850DVD AVH-X7850BT AVH-X6850DVD AVH-XL5750BT AVH-XL4750DVD

GEX-2850DVB2, GEX-1750DVB2, GEX-1750DVB and GEX-1550TV TV tuner can be operated via receiver touch panel displays.



#### GEX-2850DVB2\*

**Dual Diversity DVB-T2 TV Receiver** 

GEX-1750DVB2\*

**HD DVB-T2 Digital TV Receiver** 

GEX-1750DVB\*

**HD DVB-T Digital TV Receiver** \* Not compatible with RD models.

GEX-1550TV

Analog TV Tuner

Compatible broadcasting systems: PAL/SECAM/NTSC

Note: Each TV Tuner is compatible with the broadcasting system of the country in which the respective product is sold.

#### **Clear Type Resistive Touch Panel**

All Receivers (Except AVH-XL5750BT, AVH-XL4750DVD, AVH-4850BT and AVH-3850DVD)

The new Pioneer AV receivers' display panel are designed as beautifully crisp and it brings you enhanced visibility.

#### **Power Off Mode**

AVH-X8850BT | AVH-X5850BT | AVH-X4850DVD | AVH-X2850BT | AVH-X1850DVD | AVH-X7850BT | AVH-X6850DVD

Now you can turn off the AV receivers' screen separately in right order, not by compelling with turning off vehicles engine.

#### **Steering Wheel Control Function Expansion**

AVH-X8850BT AVH-X5850BT AVH-X4850DVD AVH-X2850BT AVH-X1850DVD AVH-X7850BT AVH-X6850DVD

More usefulness are brought, you can receive call by pushing right or left button and use voice recognition function by long-pushing the mute button.

#### **Dual Zone Audio/Video**



**MULTI-LANGUAGE** 

DISPLAY =

#### AVH-X8850BT

Pioneer's AVH-X8850BT allows rear seat passenger to enjoy audio or video content on additional rear seat monitors and headphones, even while the front passenger and driver listen to audio from other sources.



#### **Multi-Language Display**

#### All Receivers

New Pioneer Multimedia AV receiver features Multi-Language Display of Menu and ID3 tag text.

English/Thai/Chinese (Simplified)/Chinese (Traditional)/



Central America/Latin America/Oceania English/French\*\*/Spanish/Portuguese/Chinese (Traditional)\*\*



RI

Middle East Asia

\*\* AVH-X8850RT only

English/French/Portuguese/German/Dutch/Russian/ Arabic/Persian/Hebrew



Note: "Control for Android Phones with CarMediaPlayer App", "Bluetooth Wireless Technology", "Tunes AAC Playback", and "Hi-Volt Preout" for DVH-885AVBT \*1. 3.0-inch display: DVH-785AV

## **Key Selling Points**



- Pioneer audio receivers are compatible with certain Android phones and **iPod/iPhone\*.** (DVH-885AVBT) \*Compatible only with music files from iPod/iPhone.
- Bluetooth Wireless Technology enables hands-free calling. Enjoy wireless audio control and streaming. (DVH-885AVBT)









Large built-in 3.5" (DVH-885AVBT) and 3" (DVH-785AV) color TFT displays provide excellent visibility and operability.

3.5W/3.0W



In-car playback of DivX highly compressed digital video files from DVD and USB device.







#### Common Main Features (Blue text: upgraded features from DVH-345UB)

- ılti-Language Display (Menu/ID3 Tag)
- USB Port (Front)
- DVD/CD Player with DVD Video Playback • MOSFET 50 W x 4
- 3-Band Equalizer (Bass/Mid/Treble)
- JPEG Slide ShowBack-Up Camera Ready
- Rotary Volume Control
- Detachable Face Security™
- · Wired Remote Input
- Display Off Mod

See page 97 for accessories.

#### **DVH-885AVBT Main Features** (Blue text: upgraded features from DVH-785AV)

- 3.5" Color TFT Display with LED Backlight
- Direct Control for iPod/iPhone (USB) Direct Control for Certain Android Phones (Bluetooth)
- Control for Android Phones with CarMediaPlayer App
- Built-in Bluetooth Wireless Technology (Hands-Free Calling/Wireless Audio)
- DivX®/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback from CD/DVD
- Hi-Volt RCA Preouts x 2 (4 V)

#### **DVH-785AV Main Features**

(Blue text: upgraded features from DVH-345UB)

- DivX/MPEG-1, -2, -4/MP3/WMA Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA Playback from CD/DVD
- RCA Preouts x 2 (2 V)

#### iPod/iPhone Compatibility

#### iPhone 6 Plus, iPhone 6 iPhone 5s, iPhone 5c, iPhone 5 iPhone 4s iPhone 4 iPhone 3GS iPod touch (3rd, 4th, and 5th generation) iPod classic iPod nano (4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.





#### USB Direct Control\* for iPod/iPhone

DVH-885AVBT

Gain freedom of car entertainment operation by connecting an iPod/iPhone to the DVH-885AVBT. The 3.5"TFT display of this 1-DIN DVD receiver can also be used as an iPod/iPhone interface more easily than that of a 1-DIN single CD player can be used.





\* Compatible only with music files from iPod/iPhone.

# Convenient, Easy Bluetooth® Wireless Functions

DVH-885AVBT

**Bluetooth** 

Hands-free calling (HFP) for safe driving
 Minches Audio Chapter (A2D)

• Wireless Audio Streaming/Control (A2DP)

• File Browsing can be used through AVRCP 1.4 version of Bluetooth. You can easily search songs in the browsing display.

# Control for Android Phones with CarMediaPlayer App

DVH-885AVBT

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





#### Large Full Color TFT Display -

• The DVH-885AVBT and DVH-785AV include a built-in full color TFT display with excellent visibility and comfortable functionality operable with a range of information.

3.5W/3.0W

• Having a display built into the front panel makes it easy to enjoy video.







Video Playback

3.5" Large Display (DVH-885AVBT)





3-inch display

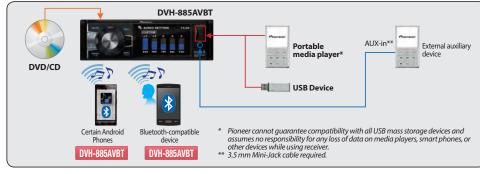


Audio Settina

# Versatile Multimedia Playback and Connectivity

The DVH-885AVBT is compatible with DivX and MP4 video file playback from DVD/CD and USB devices. Also, this receiver can play AAC audio files (encoded by iTunes) from DVD/CD and USB devices.





#### DVH-345UB

DVD Receiver with Front USB Port, and Front AUX-In

MP3

WMA



AAC

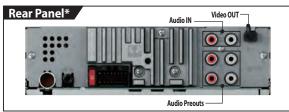
DIVX.



2 RCA

24bit DA Converter

WIRED REMOTE



SUPER TUNERIID MOSFET 50Wx4

\* Rear panel configuration may vary depending on area.





- LCD Display with LED Backlight (10-Character)
- USB Port (Front)
- Front AUX Input (Audio)
- DVD/CD Player with DVD Video Playback
- DivX®/MPEG-1, -2, -4/MP3/WMA/iTunes AAC/WAV Playback from USB Device
- DivX/MPEG-1, -2, -4/MP3/WMA/iTunes AAC Playback

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from CD/DVD

• Advanced Sound Retriever

∜ иѕв

• MOSFET 50 W x 4

**■** DOLBY

- RCA Preouts x 2 (2 V)
- 3-Band Equalizer (Bass/Mid/Treble)
- Rotary Volume Control
- Detachable Face Security™
- Wired Remote Input
- RDS

RDS

See page 97 for accessories.

DETACHABLE FACE SECURITY

## **AUDIO RECEIVERS**



# KEY FEATURES STEP-UP COMPARISON CHART

	Display	Preout	CD Player	Audio Format	AUX Input (Mini- Jack)	USB Interface*1	Direct Control for iPod/ iPhone*2	Direct Control for Certain Android Phones*3	Pioneer ARC	Spotify®	SD/SDHC Memory Card Slot	Bluetooth®*4	MIXTRAX* <sup>s</sup> Flashing Color	Music Browser	Color Customi- zation	USB Quick Charge for Android (CDP)	Advanced Sound Retriever	Page Number
DEX-P99RS	Full Dot OEL 3-Line	4 (5 V)	•	MP3 WMA AAC WAV	Front	Rear	USB					With CD-BTB200			<b>●</b> *6			24
DEH-80PRS	Full Dot LCD 3-Line	3 (5 V)	•	MP3 WMA AAC WAV	Front	Rear x 2	USB				•			•	<b>6</b> 3°7		•	26
DEH-9450UB	Full Dot LCD 3-Line	3 (4 V)	•	MP3 WMA AAC WAV	Rear	Rear x 2	USB							•	<b>◎</b> ⁴7		•	29
DEH-X9650BT	Full Dot LCD 3-Line	3 (4 V)	•	MP3 WMA AAC WAV	Front	Rear x 2	USB	USB			•	HFP A2DP AVRCP SPP	•	•	<b>*</b> 7		<b>●</b> *8	30
DEH-X9650SD	Full Dot LCD 3-Line	3 (4 V)	•	MP3 WMA AAC WAV	Front	Rear x 2	USB	USB			•			•	<b>*</b> 7		•	30
DEH-X8750BT	Full Dot LCD 3-Line	3 (4 V)	•	MP3 WMA AAC WAV FLAC*9	Rear	Rear	USB	USB				HFP A2DP AVRCP SPP	•	•	<b>*</b> 7		<b>6</b> 8	31
DEH-X7850BT	Wider LCD 2-Line ((13+1)x1+Sub)	GS: 3 (4 V) CS: 3	•	MP3 WMA AAC WAV FLAC <sup>*9</sup>	Front	Front <sup>*10</sup> Rear	USB Bluetooth	USB	•	•		HFP A2DP AVRCP SPP			<b>◎</b> *7		68	32
DEH-X7750UI	Full Dot LCD 3-Line	3 (4 V)	•	MP3 WMA AAC WAV FLAC"9	Rear	Rear	USB	USB					•	•	<b>●</b> *7		•	31
DEH-X6850BT	Wider VA LCD 2-Line (13 x 1 + Sub)	2	•	MP3 WMA AAC WAV	Front	Front <sup>*10</sup>	USB	USB	•			HFP A2DP AVRCP SPP	3		<b>6</b> 37		<b>®</b> 8	33
DEH-X4950BT	Wider VA LCD (13 x 1)	2	•	MP3 WMA AAC WAV	Front	Front*10	USB	USB	•	•		HFP A2DP AVRCP SPP	\$		<b>9</b> 7	•	<b>●</b> '8	34
DEH-X4850FD	Wider VA LCD (13 x 1)	2	•	MP3 WMA WAV	Front	Front <sup>*10</sup>	USB	USB	•				•				•	36
DEH-X3950BT	Wider VA LCD (13 x 1)	2	•	MP3 WMA AAC WAV	Front	Front*10	USB	USB	•	•		HFP A2DP AVRCP SPP	•			(GS model only)	*8	35
DEH-X2950UI	Wider VA LCD (13 x 1)	2	•	MP3 WMA WAV	Front	Front*10	USB	USB	•	•			•		<b>@</b> *7	•	•	34
DEH-X1953UB	Wider VA LCD (13 x 1)	3	•	MP3 WMA WAV	Front	Front*10		USB	•				•			•	•	35
DEH-X1952UB	Wider VA LCD (13 x 1)	2	•	MP3 WMA WAV	Front	Front*10		USB	•				•				•	35
DEH-X1950UB DEH-X1950UBG	Wider VA LCD (13 x 1)	1	•	MP3 WMA WAV	Front	Front*10		USB	•				•				•	35
DEH-X5	Wider VA LCD (13 x 1)	2	•	MP3 WMA AAC WAV	Front	Front*10	USB	USB	•	•		HFP A2DP AVRCP SPP	•		<b>9</b>	•	<b>●</b> 8	37
DEH-X1	Wider VA LCD (13 x 1)	2	•	MP3 WMA WAV	Front	Front*10	USB	USB	•	•					<b>9</b> 7	•	•	37



	00		MH		/=_	1	Į.	5			寸		6					
	Display	Preout	CD Player	Audio Format	AUX Input (Mini- Jack)	USB Interface <sup>*1</sup>	Direct Control for iPod/ iPhone <sup>*2</sup>	Direct Control for Certain Android Phones*3	Pioneer ARC	Spotify®	SD/SDHC Memory Card Slot	Bluetooth®*	MIXTRAX <sup>*5</sup> Flashing Color	Music Browser	Color Customi- zation	USB Quick Charge for Android (CDP)	Advanced Sound Retriever	Page Number
DEH-155MP DEH-155MPG	LCD (12 x 1)	1		MP3 WMA WAV	Front												•	51
FH-X785BT	Wider LCD 2-Line ((13+1)x1+Sub)	3	•	MP3 WMA AAC WAV FLAC'9	Front	Front <sup>*10</sup>	USB Bluetooth	USB	•	•		HFP A2DP AVRCP SPP	•		<b>•••</b> 7		<b>●</b> 18	38
FH-X575UI	VA LCD 2-Line (13x1+Sub)	2		MP3 WMA WAV	Front	Front <sup>*10</sup>	USB	USB					3		<b>*</b> 7		•	39
FH-X385UB	Wider VA LCD 2-Line (13 x 1)	2	•	MP3 WMA WAV	Front	Front <sup>*10</sup>		USB	•				•				•	39
MVH-X585BT	Wider LCD 2-Line ((13+1)x1+Sub)	3 (4 V)		MP3 WMA AAC WAV FLAC'9	Front	Front <sup>*10</sup> Rear	USB Bluetooth	USB		•		HFP A2DP AVRCP SPP	<b>0</b> ←		<b>9</b> 7		<b>(■</b> 18	40
MVH-X395BT	Wider VA LCD (13 x 1)	1		MP3 WMA AAC WAV	Front	Front <sup>*10</sup>	USB	USB	•	•		HFP A2DP AVRCP SPP	•				<b>●</b> 18	41
MVH-X285FD	Wider VA LCD (13 x 1)	2		MP3 WMA WAV	Front	Front*10	USB	USB					•				•	36
MVH-X195UI	Wider VA LCD (13 x 1)	1		MP3 WMA WAV	Front	Front <sup>*10</sup>	USB	USB	•	•			•				•	41
MVH-85UB	LCD (13 x 1)	1		MP3 WMA WAV FLAC" <sup>9</sup>	Front	Front <sup>*10</sup>		USB										41
MVH-X3	Wider VA LCD (13 x 1)	2		MP3 WMA AAC WAV	Front	Front*10	USB	USB	•	•		HFP A2DP AVRCP SPP	•		<b>●</b> 7		<b>●</b> 18	37
DXT-X1969UB DXT-X196UB	Wider VA LCD (13 x 1)	1	•	MP3 WMA WAV	Front	Front*10		USB	•				•				•	42
MXT-X396BT	Wider VA LCD (13 x 1)	1		MP3 WMA AAC WAV	Front	Front <sup>*10</sup>	USB	USB	•	•		HFP A2DP AVRCP SPP	•				<b>○</b> *8	43

For Flashing Color.

For Color Customization.

<sup>\*1.</sup> 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.

<sup>\*2.</sup> Compatibility with unit depends on iPod generation. Requires use of optional cable.

<sup>\*3.</sup> Not all Android phones are compatible.

<sup>\*4.</sup> HFP = Hands-Free Profile, A2Do = Advanced Audio Distribution Profile, AVRCP = Audio/Video Remote Control Profile , 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.

<sup>\*6. 125</sup> colors. Key illumination only.

<sup>\*7. 210,000</sup> colors (separated). Colors for key illumination and display are separately adjustable.
\*8. Also available for Bluetooth Wireless Audio.

<sup>\*9.</sup> For the files stored in USB thumb drive.

<sup>\*10.</sup> Please use CD-U50E USB extension cable if a direct connection causes a USB device to protrude from the receiver in a way that can interfere with driving.

## DEX-P99RS

Audio Receiver with Sound Master Clock Circuit, High-Performance DSP, and USB Port with Digital Direct Signal Transmission







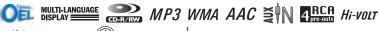
24bit DSP Rotary Commander





















## **Key Selling Points**



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.

#### **Main Features** (Blue text: upgraded features from DEH-80PRS)

- Full Dot OEL Display (192 x 48 Pixels, 3-Line)
- Bluetooth® Adapter Ready (CD-BTB200 Required)\*
- USB Direct Control for iPod/iPhone and USB Devices with Digital Direct Signal Transmission (CD-IU51 Required for iPod/
- AUX\*\* Input (Front)
- MP3/WMA/WAV/AAC Playback
- · Advanced Sound Retriever Hi-Volt RCA 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.

#### • Auto EQ and Auto Time Alignment

- Multi-Language Display (English/Spanish/Portuguese)
- 7-Way Rotary Commander
- Steering Wheel Remote Control Sound Master Clock Circuit
- High-Performance 32-Bit Floating Point DSP24-Bit AKM DACs
- Detachable Face Security<sup>™</sup>
- Display Off Mode

## CD-IU51 USB Interface Cable for iPod/iPhone (50 cm)

#### iPod/iPhone Compatibility

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

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version.

See page 100 for more details.

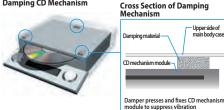




#### High-Performance Damping **Material and Mechanism**

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.

#### Damping CD Mechanism



#### Vibration Wave Form of CD Mechanism Module During Playback





Without damping material

With damping material

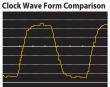
#### New High-Precision Sound **Master Clock Circuitry**

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

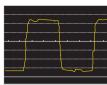
ultra-precision, and eliminate jitter noise in transmission. The result: extraordinarily clear, pure sound.



Sound master clock circuitry





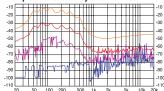


New clock circuitry

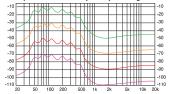
# 32-Bit Binary Floating-Point DSP

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

Example of Calculation by Fixed-Point DSF



Example of Calculation by Binary Floating-Point DSP



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



#### 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.



Microphone for Auto EO

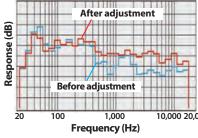


Microphone jack is under front panel (DEH-P80RSII)



Time Alianment Image Digital delay processing makes all speakers sound as if they are virtually equidistant from the listener, for a clearer, front-focused soundstage.

## **Auto EQ Adjustment Example**



#### After adjustment:

Smooth response with subtle nuances reproduced clearly.

#### Before adjustment:

Rough frequency response curve; unclear

10,000 20,000 For smoother low- to high-range 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/12.5 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/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.	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/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.	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/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.	+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



- 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.











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



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 (Blue text: upgraded features from DEH-9450UB)

- 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

- MP3/WMA/WAV/AAC Playback
- DSP with Dual (L/R) 16-Band GEQ
- Auto EQ and Auto Time Alignment
- Advanced Sound Retriever
- · MOSFET 50 W x 4
- Supertuner $^{\circ}$  IIID
- RDS

DSP FACE RDS SUPER TUNERED MOSFET 50Wx4 Mark Rouse

- Hi-Volt RCA Preouts x 3 (5 V)
- Flap Face
- Anti-Dust Design Wired Remote Input
- · Display Off Mode
- Detachable Face Security™
- Lever KeyRotary Volume Control
- Card Remote Control

#### iPod/iPhone Compatibility 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 or iPhone

models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.





#### 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.



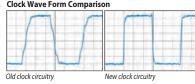
#### Full-Custom High-Capacitance Power Supply Capacitor

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

Generates clock waveforms Clock Wave Form Comparison to read and process digital signals with extraordinary precision to eliminate litter (digital signal time axis fluctuation noise). Very fine signals can be accurately 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.

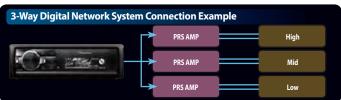


#### 3-Way Digital Network Mode

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

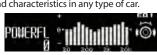
separation of the three frequency ranges, for more full, natural sound realizing more of each speaker's potential in a multispeaker system.

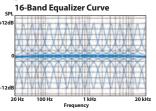




#### L/R Independent 16-Band Digital Equalizer

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.





#### 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.





#### Auto Time Alignment and Auto EQ

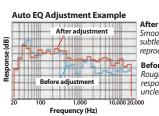
Time alignment automatically estimates the delay from each speaker to driver's position and adjusts speaker sound output timing accordingly by 0.77 cm differences, so that sound from all speakers reaches the driver's ears in perfect sync.

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.



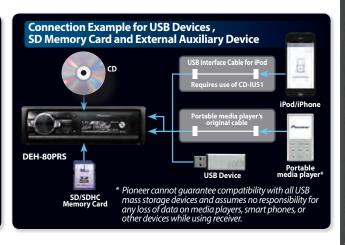
Microphone for Auto EQ frequency band fine-tuning



After adjustment: Smooth response with subtle nuances reproduced clearly.

**Before adjustment:** Rough frequency response curve

# **Direct Digital Transfer for Superior Compressed Audio File Sound Quality** Musical signals recorded in an iPod, USB device and SD memory card are directly transferred to a DSP as digital signals and processed so that quality of sound using these digital devices is excellent. **Digital Direct** Digital signals are processed directly from Digital devices.



## USER INTERFACE

#### **Pioneer ARC**

Pioneer ARC (



All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-X9650BT, DEH-X9650SD, DEH-X8750BT, DEH-X7750UI, DEH-155MP(G), FH-X575UI and MVH-85UB)

After downloading Pioneer's ARC app from the App Store or Google Play™, you can use your smartphone to control Pioneer receiver functions including presets, fast forward/rewind, and artist/album search.





**Bluetooth**°



## CONNECTIVITY

#### Spotify® NEW

DEH-X7850BT | DEH-X4950BT | DEH-X3950BT | DEH-X2950UI FH-X785BT MVH-X585BT MVH-X395BT MVH-X195UI\* MVH-X3

Download on the

App Store

Compatible with iOS only.

Spotify® gives you instant access to millions of songs. With support for Spotify®, you can control the Spotify® app on your smartphone via your car receiver's interface.

Google Play





#### **Built-in Bluetooth®**



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

#### Two-Phone Full Time Connection

All Audio Receivers Compatible with Bluetooth (Except DEH-X9650BT)

The receiver can receive calls from either of two mobile phones that are connected to it.





#### AUDIO

#### 13-Band Graphic EQ NEW

DEH-X7850BT FH-X785BT MVH-X585BT

With the 13-Band Graphic Equalizer, you can adjust sound settings with more precision and detail according to your acoustic preferences.



## 3-Way Network Mode NEW

DEH-80PRS DEH-X7850BT FH-X785BT MVH-X585BT

Connect (via three preouts) up to three external amplifiers, for more distinct separation among high-, mid- and low-frequency ranges, and more natural sound that fully realizes each

speaker's potential.

#### **Time Alignment**

MVH-X585BT

perfect sync.

By using Time Alignment

speaker output timing, so

reaches the driver's ears in

that sound from all speakers

function, you can adjust

DEX-P99RS\* DEH-80PRS\* DEH-X7850BT

FH-X785BT

\* Auto Time Alignment from each speaker to the driver cause the

speakers sound as if they are virtually equidistant

#### **Support FLAC Codec\***

DEH-X8750BT DEH-X7850BT MVH-X585BT

New Pioneer audio receiver upgrades in-car audio with amazingly brilliant reproduction of sound by FLAC files surpass CD tracks in terms of playback audio quality.

\* For the files stored in USB thumb drive.

#### **Advanced Sound Retriever**

All Audio Receivers (Except MVH-85UB)

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



## ESIGN

## **Prism-cut Rotary Volume Control**

DEH-X5

DEH-X4950BT DEH-X2950UI DEH-X1

MVH-X3

Unique prism-cut rotary volume control can be illuminated in your choice of color to enhance the car cabin's mood.



## OTHERS

#### **USB Quick Charge for Android (CDP)**

DEH-X4950BT | DEH-X3950BT\* | DEH-X2950UI | DEH-X1953UB DEH-X1

\* GS model only

Pioneer's new audio receiver has a charging downstream port (CDP) providing up to 1.5 amperes to give an Android smartphone a quick charge.



QUICK CHARGE







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

RDS SUPERSTUNERIED MOSFET 50Wx4

FULL DUT Separated MULTI-LANGUAGE OBSPLAY MP3 WMA AAC SIN BRCA Hi-VOLT Subwoofer DASPLAY DASPLAY





**□** iPod □ iPhone



Specialized audio parts carefully chosen for outstanding audio quality.



USB V



Music Browser for faster, simpler song search and selection.



#### Main Features (Blue text: upgraded features from DEH-X9650BT)

- 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)
- USB Direct Control for iPod/iPhone (CD-IU51 Required) Dual USB Ports
- (Rear: High Current 1A Handling Capability)
- AUX Input (Rear) Music Browser

- MP3/WMA/WAV/AAC Playback
- Specialized Audio Parts Advanced Sound Retriever
   MOSFET 50 W x 4
- Supertuner® IIID
- Hi-Volt RCA Preouts x 3 (4 V)
- 5-Band Graphic EQ
- Anti-Dust Design
- Wired Remote Input Display Off Mode
- Detachable Face Security™
- Lever KeyRotary Volume Control
- Card Řemote Control

#### iPod/iPhone Compatibility

#### 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 or iPhone

models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.





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









**MIXTRAX Bluetooth** 







Note: "Bluetooth Wireless Technology" and "Siri Eyes Free" for DEH-X9650BT.

## **Key Selling Points**

Fives Free Property P



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





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



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 (Blue text: upgraded features from DEH-X8750BT)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play) Flashing Color for MIXTRAX
- CD Player
- LED Backlight
- Full Dot LCD Display (192 x 48 Pixels, 3-Line)
- Multi-Language Display
- Separated Color Customization (More than 210,000 Colors)
- Media App Control for iPod/iPhone
- Direct Control for iPod/iPhone (USB)
- Direct Control for Certain Android Phones (USB)
- Capability)
- AUX Input (Front)
- Music Browser
- MP3/WMA/WAV/AAC Playback
- Advanced Sound Retriever
- MOSFET 50 W x 4 Supertuner® IIID
- Hi-Volt RCA Preouts x 3 (4 V)
- Dual USB Ports (Rear: High Current • 5-Band Graphic EQ
  - Anti-Dust Design
  - Wired Remote Input Display Off Mode
  - Brightness Setting Detachable Face Security™

  - Lever KeyRotary Volume ControlCard Remote Control



Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

#### **DEH-X9650BT Main Features** (Blue text: upgraded features from DEH-X9650SD)

- Bluetooth for Hands-Free Calling & Wireless Audio
- · Siri Eyes Free

- Media App Control for AndroidAdvanced Sound Retriever for Bluetooth Wireless Audio







Note: "Bluetooth Wireless Technology" and "Siri Eyes Free" for DEH-X8750BT.

## **Key Selling Points**



Finely detailed Full Dot 3-Line LCD large display features lever key.







**Experience superior audio performance with Advanced Sound Retriever,** 5-Band Graphic EQ, FLAC codec playback\* and more.

\* For the files stored in USB thumb drive.





Music Browser for faster, simpler song search and selection.



#### **Common Main Features** (Blue text: upgraded features from DEH-X6850BT)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Flashing Color for MIXTRAX CD Player
- LED Backlight
- Full Dot LCD Display (192 x 48 Pixels, 3-Line)
- Multi-Language Display
- Separated Color Customization (More than 210,000 Colors)
- · Media App Control for iPod/iPhone
- · Direct Control for iPod/iPhone (USB)

**DEH-X8750BT Main Features** 

- Direct Control for Certain Android Phones (USB)
- USB Port (Rear: High Current 1A Handling Capability)
- AUX Input (Rear)
- MP3/WMA/WAV/AAC Playback
- Advanced Sound Retriever • MOSFET 50 W x 4
- Supertuner® IIID
- Hi-Volt RCA Preouts x 3 (4 V)
- 5-Band Graphic FO
- · Anti-Dust Design
- Wired Remote Input
- Display Off Mode
- Brightness Setting
- Illumination Line • Illumination Timer
- Detachable Face Security™
- Rotary Volume Control
- Card Řemote Control

- Media App Control for Android • Bluetooth for Hands-Free Calling & Wireless Audio
- · Siri Eyes Free

- Advanced Sound Retriever for Bluetooth Wireless Audio
- •Two-Phone Full Time Connection

iPod/iPhone Compatibility
Made for
iPhone 5s, iPhone 5c, iPhone 5
iPhone 4s
iPhone 4
iPhone 3GS
iPhone 3G
iPhone
iPod touch (1st, 2nd, 3rd, 4th, and 5th generation)
iPod classic
iPod with video
iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.















Note: "Hi-Volt Preout" and "Shortwave Tuner" for GS models only.

## **Key Selling Points**



Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ, crossover and other audio settings easy and intuitive using a smartphone touchscreen.





**Enhanced audio functions for precise definition of sound include 3-Way** Network Mode, Time Alignment, 13-Band EQ and FLAC codec playback\*. For the files stored in USB thumb drive





New Pioneer display design and technology features.

- Large text and display layout to enhance visibility
- Display designed and built for easier viewing

#### Main Features (Blue text: upgraded features from DEH-X7750UI)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Flashing Color for MIXTRAX • CD Player
- Wider 13-Digit + 1 LCD Display (2-Line)
- LED Backlight
- Multi-Language Display
- Separated Color Customization (More than 210,000 Colors)
- Media App Control for iPod/iPhone
- Media App Control for AndroidPioneer ARC (iPhone/Android)
- Control for iPod/iPhone (USB/Bluetooth
- Direct Control for Certain Android Phones (USB)
- Bluetooth for Hands-Free Calling & Wireless Audio
- Dual USB Ports (Front/Rear: High Current 1A Handling Capability) Anti-Dust Design

- AUX Input (Front)
- MP3/WMA/WAV/AAC Playback
- FLAC\* Playback
- 3-Way Network ModeManual Time Alignme
- Advanced Sound Retriever
- Advanced Sound Retriever for Bluetooth Wireless Audio
- MOSFET 50 W x 4
- Supertuner® IIID
- ortwave Tuner (GS Model Only)\*\*

- Hi-Volt RCA Preouts x 3 (4 V) (GS Model)\*\*
  RCA Preouts x 3 (2 V) (CS Model)\*\*

- Wired Remote Input
- Display Off Mode
- Brightness Setting
- Illumination Line Illumination Timer
- Detachable Face Security<sup>™</sup>
- Rotary Volume ControlCard Remote Control
- •Two-Phone Full Time Connection

#### iPod/iPhone Compatibility Made for iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6 iPhone 5s, iPhone 5c, iPhone 5 iPhone 4s iPhone 4 iPhone 3GS iPhone 3G iPhone iPod touch (1st, 2nd, 3rd, 4th, 5th, and 6th generation) iPod classic iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details























Note: "Shortwave Tuner" for GS models only.

## **Key Selling Points**



Greatly improved connectivity to access various media.

- Wireless Audio Playback by Bluetooth
  USB Direct Control for iPod/iPhone and for certain **Android Phones via MTP and AOA 2.0**









Enhanced visual features make interior space richer.

- Flexible adjustment with Color Customization, Brightness and Dimmer Setting Superior visibility and contrast on Large VA LCD display with 2-line text







Enjoy your favorite tunes made more lively and entertaining with audio specialized functions.

- Exciting nonstop mixed music experience by MIXTRAX
- Extra bass from Adjustable Bass Boost



#### Main Features (Blue text: upgraded features from DEH-X4950BT)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Flashing Color for MIXTRAX
- CD Player
- er VA LCD Display (13-Character + Sub Display)
- LED Backlight
- Multi-Language Display
  Separated Color Customization (More than 210,000 Colors)
- Media App Control for iPod/iPhone
- Media App Control for Android
  Pioneer ARC (iPhone/Android)
- Direct Control for iPod/iPhone (USB)
- Direct Control for Certain Android Phones (USB) • Bluetooth for Hands-Free Calling & Wireless Audio
- Siri Eves Free
- Bright USB Port (Front: High Current 1A Handling Capability)

  AUX Input (Front)
- MP3/WMA/WAV/AAC Playback
- Advanced Sound Retriever
   Advanced Sound Retriever for Bluetooth
   Illumination Timer Wireless Audio
- MOSFET 50 W x 4 Supertuner® IIID
- Shortwave Tuner (GS Model Only)\*
- RDS
- RCA Preouts x 2 (2 V)

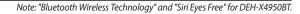
- 5-Band Graphic EQ
- Anti-Dust Design
- Wired Remote Input
   Display Off Mode
- Brightness Setting

- Detachable Face Security™
- Rotary Volume ControlCard Remote Control
- USB Source Change Function
- Two-Phone Full Time Connection

#### iPod/iPhone Compatibility Made for iPhone 6 Plus, iPhone 6 iPhone 5s, iPhone 5c, iPho iPhone 4s iPhone 4 iPhone 3GS iPhone 3G iPhone iPod touch (1st, 2nd, 3rd, 4th, and 5th generation) iPod classic iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.





☐ iPod ☐ iPhone

## **Key Selling Points**

SUPER TUNERED WESHORT Bluetooth



Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ and other audio settings easy and intuitive using a smartphone touchscreen.

**∜** usв







Greatly improved connectivity to access various media.

Spotify<sup>®</sup>

- Wireless Audio Playback by Bluetooth (DEH-X4950BT)
- USB Direct Control for iPod/iPhone and for certain **Android Phones via MTP and AOA 2.0**



OUICK

CHARGE







Smartphone

Compatible



**Enhanced visual features make interior space richer.** 

- Flexible adjustment with Color Customization, Brightness and Dimmer Setting
- Superior visibility and contrast on Large VA LCD display with 2-line text





#### **Common Main Features** (Blue text: upgraded features from DEH-X1950UB(G))

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- CD Player
- Wider VA LCD Display (13-Character)LED Backlight
- Multi-Language Display
- Separated Color Customization (More than 210,000 Colors)
   Media App Control for iPod/iPhone
- Media App Control for Android\*

- Pioneer ARC (iPhone/Android)Direct Control for iPod/iPhone (USB)

- Direct Control for Certain Android RDS Phones (USB)
- Bright USB Port (Front: High
- Current 1A Handling Capability) AUX Input (Front)
- MP3/WMA/WAV PlaybackAdvanced Sound Retriever
- MOSFET 50 W x 4
- Supertuner® IIID Shortwave Tuner

- RCA Preouts x 2 (2 V)
- 5-Band Graphic EQ
- Anti-Dust DesignWired Remote Input
- Display Off Mode
- Brightness Setting
- Separated Dimmer Setting
- imination Line Illumination Timer
- Detachable Face Security<sup>™</sup>
- Prism-cut Rotary Volume Control
- Card Remote Control
- USB Source Change Function

#### iPod/iPhone Compatibility Made for iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6 iPhone 5s, iPhone 5c, iPhone 5 iPhone 4s iPhone 4 iPhone 3G iPhone iPod touch (1st, 2nd, 3rd, 4th, 5th, and 6th general iPod classic iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation) Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary

depending on the software version. See page 100 for more details.

- · Bluetooth for Hands-Free Calling & Wireless Audio Siri Eyes Free
- AAC Playback
- · Advanced Sound Retriever for Bluetooth Wireless Audio
- Two-Phone Full Time Connection

\* DEH-X2950UI: Required to be used through Pioneer ARC app.

**DEH-X4950BT Main Features** 















Audio Receiver with MIXTRAX, and Direct **Control for Certain Android Phones** 





Pioneer ARC

\*1. DEH-X1953UB \*2. DEH-X3950BT/DEH-X1952UB \*3. DEH-X1950UB(G)
Notes: "Direct Control for iPod/iPhone," "Spotify," "Bluetooth Wireless Technology" and "Siri Eyes Free" for DEH-X3950BT. "USB Quick Charge for Android" for DEH-X3950BT and DEH-X1953UB.

## **Key Selling Points**



Point 2

Page 45

Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ and other audio settings easy and intuitive using a smartphone touchscreen.











Enjoy your favorite tunes made more lively and entertaining with audio specialized functions.

Exciting nonstop mixed music experience by MIXTRAX

Greatly improved connectivity to access various media.

Wireless Audio Playback by Bluetooth (DEH-X3950BT)
 USB Direct Control for iPod/iPhone\* and for certain

\* DEH-X1953UB, DEH-X1952UB and DEH-X1950UB(G) are not compatible with iPod/iPhone.

• Extra bass from Adjustable Bass Boost

**Android Phones via MTP and AOA 2.0** 

## MIXTRAX

#### Common Main Features

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play) CD Player
- Wider VA LCD Display (13-Character)
- LED Backlight
- Multi-Language Display
- Media App Control for Android\*
- Direct Control for Certain Android Phones (USB)

#### **DEH-X3950BT Main Features**

(Blue text: upgraded features from DEH-X2950UI)

- Media App Control for iPod/iPhone
- Pioneer ARC (iPhone/Android) Direct Control for iPod/iPhone (USB)
- Spotify<sup>®</sup>
- Bluetooth for Hands-Free Calling & Wireless Audio
- AAC Playback
- · Advanced Sound Retriever for Bluetooth Wireless Audio
- RCA Preouts x 2 (2 V)
- USB Quick Charge for Android (CDP) (GS Model Only)

- Bright USB Port (Front: High Current 1A
- Handling Capability) AUX Input (Front)
- MP3/WMA/WAV PlaybackAdvanced Sound Retriever
- MOSFET 50 W x 4
- Supertuner® IIID
- Shortwave Tuner\*\*
- RDS
- 5-Band Graphic EQ
- Anti-Dust DesignWired Remote Input
- Display Off Mode
- Brightness Setting

#### **DEH-X1953UB Main Features**

(Blue text: upgraded features from DEH-X1952UB)

 Pioneer ARC (Android) • USB Quick Charge for Android (CDP) RCA Preouts x 3 (2 V)

#### **DEH-X1952UB Main Features**

(Blue text: upgraded features from DEH-X1950UB(G))

- Dual Color (Red/Blue) • RCA Preouts x 2 (2 V)
- Pioneer ARC (Android) · Carbon Finish Design

#### DEH-X1950UB(G) Main Features

• RCA Preout x 1 (2 V) Pioneer ARC (Android)

- Illumination Timer
  Detachable Face Security™
- Rotary Volume Control
- Card Remote Control
- USB Source Change Function

#### iPod/iPhone Compatibility

#### Made for iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6 iPhone 5s, iPhone 5c, iPhone 5 iPhone 4s iPhone 4 iPhone 3GS iPhone 3G iPhone iPod touch (1st, 2nd, 3rd, 4th, 5th, and 6th generation) iPod classic iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.



## MVH-X285FD

Digital Media Receiver with MIXTRAX, Built-in 100 W x 4-ch, Class-FD Amplifier, and Direct Control for iPod/iPhone and Certain Android Phones















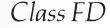


Note: "Anti-Dust Design" for DEH-X4850FD.

## **Key Selling Points**



Internal 100 W x 4-ch. amplifier with Class-FD configuration including special circuit board made for quality sound and component for stable output brings powerful sound reproduction and music playback.





13-Digit, Wider VA LCD display provides superior visibility and contrast throughout a wide viewing angle range.





**Enjoy your favorite tunes made more lively and entertaining with audio specialized functions.** 

Exciting nonstop mixed music experience by MIXTRAX

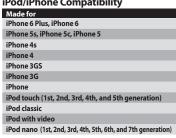
Extra bass from Adjustable Bass Boost

MIXTRAX

#### Common Main Features

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Wider VA LCD Display (13-Character)
- LED Backlight
- Multi-Language Display
- Media App Control for iPod/iPhone
- Media App Control for Android\*
   Pioneer ARC (iPhone/Android)
- Direct Control for iPod/iPhone (USB)
- Direct Control for Certain Android Phones (USB)
- Bright USB Port (Front: High Current 1A Handling Capability)
- AUX Input (Front)
- MP3/WMA/WAV Playback
- Advanced Sound Retriever • Class FD 100 W x 4
- Supertuner® IIID
- Shortwave Tuner • RDS
- RCA Preouts x 2 (2 V)
- 5-Band Graphic EQ Wired Remote Input
- Display Off Mode
- Brightness Setting Illumination Times
- Detachable Face Security<sup>™</sup>
- Rotary Volume Control
- Card Remote Control
- USB Source Change Function

#### iPod/iPhone Compatibility



Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

- CD Player
- · Anti-Dust Design

**DEH-X4850FD Main Features** 





**MIXTRAX** 











Notes: "Anti-Dust Design" and "USB Quick Charge for Android" for DEH-X5 and DEH-X1. "Bluetooth Wireless Technology" and "Siri Eyes Free" for DEH-X5 and MVH-X3.

# **Key Selling Points**



VA LCD Superatura MULTI-LANGUA

SUPER TUNERILD

Media App 2 RCA Subwoofer 24bit control DA Commenter

Unique Prism-cut Rotary Volume Control with illumination synched to the beat of the music. Separated • Flexible adjustment with Color Customization, Brightness and Separated Dimmer Setting





Enjoy your favorite music as a nonstop mix complete with visual and audible effects by MIXTRAX.

MIXTRAX



Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ and other audio settings easy and intuitive using a smartphone touchscreen.





### Common Main Features

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Flashing Color for MIXTRAX
- Wider VA LCD Display (13-Character)
- LED Backlight
- Multi-Language Display
- Separated Color Customization (More than 210,000 Colors)
- Media App Control for iPod/iPhone Media App Control for Android\*
- · Pioneer ARC (iPhone/Android)
- Direct Control for iPod/iPhone (USB)
- Direct Control for Certain Android Phones (USB)

### **DEH-X1 Main Features**

Spotify<sup>®</sup>

Bright USB Port (Front: High

MP3/WMA/WAV Playback

Advanced Sound Retriever

AUX Input (Front)

MOSFFT 50 W x 4

Supertuner® IIID

• RCA Preouts x 2 (2 V)

• 5-Band Graphic ÈQ

Current 1A Handling Capability)

- Anti-Dust Design
- USB Quick Charge for Android (CDP)

- Wired Remote Input
- Display Off Mode
- Brightness Setting
- Separated Dimmer Setting
- Illumination Line • Illumination Timer
- Detachable Face Security<sup>T</sup>
- Prism-cut Rotary Volume Control
- Card Remote Control
- USB Source Change Function

**MVH-X3 Main Features** 

Advanced Sound Retriever for

Two-Phone Full Time Connection

Bluetooth Wireless Audio

Bluetooth for Hands-Free Calling &

### iPhone 5s, iPhone 5c, iPhone 5

iPod classic

### iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6 iPhone 4s iPhone 4 iPhone 3GS iPhone 3G iPhone

iPod/iPhone Compatibility

iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation) Notes: Receiver may not operate other iPod or iPhone

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

models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

### **DEH-X5 Main Features**

(Blue text: upgraded features from DEH-X1)

- CD Player
- Bluetooth for Hands-Free Calling & Wireless Audio
- Siri Eyes Free
- AAC Playback
- Advanced Sound Retriever for Bluetooth Wireless Audio
- Anti-Dust Design
- USB Quick Charge for Android (CDP)
- Two-Phone Full Time Connection

Wireless Audio

Siri Eves Free

AAC Playback

















Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ, crossover and other audio settings easy and intuitive using a smartphone touchscreen.







Enhanced audio functions for precise definition of sound include 3-Way Network Mode, Time Alignment, 13-Band EQ and FLAC codec playback\*. For the files stored in USB thumb drive





New Pioneer display design and technology features.

- Large text and display layout to enhance visibility
- Display designed and built for easier viewing

### Main Features (Blue text: upgraded features from FH-X575UI)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Flashing Color for MIXTRAX CD Player
- it + 1 LCD Display (2-Line)
- LED Backlight
- Separated Color Customization (More than 210,000 Colors)
- Media App Control for iPod/iPhone

- Media App Control for Android
   Pioneer ARC (iPhone/Android)
   Direct Control for iPod/iPhone (USB/Bluetooth) • Direct Control for Certain Android Phones (USB)
- Spotify®
  Bluetooth for Hands-Free Calling & Wireless Audio

- Bright USB Port (Front: High Current 1A
- Handling Capability)
- AUX Input (Front)
- MP3/WMA/WAV Playback
- AAC/FLAC\* Playback 3-Way Network Mode
- Manual Time Alignment
- Advanced Sound Retriever Advanced Sound Retriever for Bluetooth Wireless Audio
- MOSFET 50 W x 4
- Supertuner® IIID Shortwave Tuner

### RDS

- RCA Preouts x 3 (2 V)
  13-Band Graphic EQ
- Anti-Dust Design Wired Remote Input
- Display Off Mode
- Brightness SettingIllumination Line
- Illumination Timer
- Rotary Volume ControlCard Remote Control
- •Two-Phone Full Time Connection

\*For the files stored in USB thumb drive

iPod/iPhone Compatibility	
Made for	
iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6	
iPhone 5s, iPhone 5c, iPhone 5	
iPhone 4s	
iPhone 4	
iPhone 3GS	
iPhone 3G	
iPhone	
iPod touch (1st, 2nd, 3rd, 4th, 5th, and 6th general	tion)
iPod classic	
iPod with video	
iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation	on)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.





MOSFET 50Wx4















# **Key Selling Points**



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

MIXTRAX



Cool, sleek new panel is designed to incorporate VA LCD display and fit perfectly in a 2-DIN space in the dash.





Allows flexible adjustment of illumination and color using Color Customization, **Brightness Setting and Dimmer Setting.** 



### Main Features (Blue text: upgraded features from FH-X385UB)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)

- VA LCD Display (13-Character + Sub Display)
- LED Backlight
- Separated Color Customization (More than 210,000 Colors)
   Media App Control for iPod/iPhone

- Direct Control for Certain Android Phones (USB)
- Bright USB Port (Front: High Current 1A Handling Capability)
- AUX Input (Front)
- MP3/WMA/WAV PlaybackAdvanced Sound Retriever
- MOSFFT 50 W x 4
- Supertuner® IIID
- Shortwave Tuner
- RCA Preouts x 2 (2 V)
- 5-Band Graphic EQ Anti-Dust Design
- Wired Remote Input
- Display Off ModeBrightness Setting
- Illumination Line
- Illumination Timer · Rotary Volume Control
- Card Remote Control

### iPod/iPhone Compatibility

Made for iPhone 6 Plus, iPhone 6 iPhone 5s, iPhone 5c, iPhone 5 iPhone 4 iPhone 3GS iPhone iPod touch (1st, 2nd, 3rd, 4th, and 5th generation) iPod classic iPod with video

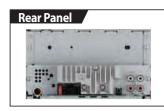
iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation) Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

### FH-X385UB

### Double-DIN Audio Receiver with MIXTRAX, and Direct Control for Certain Android Phones









### Main Features

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- CD Player Wider VA LCD Display (13-Character + Sub Display)
- LED Backlight
- Multi-Language Display
- Media App Control for Android\*
   Pioneer ARC (Android)

- Direct Control for Certain Android Phones (USB)
- Bright USB Port (Front: High Current 1A Handling Capability)
- AUX Input (Front)
- MP3/WMA/WAV Playback
- MOSFFT 50 W x 4
- Supertuner® IIID
- RDS
- Advanced Sound Rétriever

- Shortwave Tuner
- RCA Preouts x 2 (2 V)
- 5-Band Graphic EQ Anti-Dust Design
- Wired Remote Input
- Display Off Mode
- Brightness Setting
- Illumination Timer
- Rotary Volume ControlCard Remote Control
- USB Source Change Function

















Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ, crossover and other audio settings easy and intuitive using a smartphone touchscreen.





Enhanced audio functions for precise definition of sound include 3-Way Network Mode, Time Alignment, 13-Band EQ and FLAC codec playback\*. \* For the files stored in USB thumb drive





New Pioneer display design and technology features.

- Large text and display layout to enhance visibility
- Display designed and built for easier viewing

### Main Features (Blue text: upgraded features from MVH-X395BT)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- it + 1 LCD Display (2-Line)
- LED Backlight
- Multi-Language Display
- ation (More than 210,000 Colors)
- Media App Control for iPod/iPhone
- Media App Control for Android
- Pioneer ARC (iPhone/Android)
- (LISR/Rluetooth
- Direct Control for Certain Android Phones (USB)
- Bluetooth for Hands-Free Calling & Wireless Audio
- Siri Eves Free

- Dual USB Ports (Front/Rear: High Current 1A Handling Capability) Hi-Volt RCA Preouts x 3 (4 V) 13-Band Graphic EQ
- AUX Input (Front)
- MP3/WMA/WAV/AAC Playback
- FLAC\* Playback3-Way Network Mode
- Manual Time Alignment
- Advanced Sound Retriever
- Advanced Sound Retriever for Bluetooth Wireless Audio
- MOSFET 50 W x 4
- Supertuner® IIID Shortwave Tuner
- RDS

- Wired Remote Input
- Display Off Mode
- Brightness Setting
- Illumination Timer
- Detachable Face Security<sup>™</sup>
- Rotary Volume Control
- Card Remote Control
- USB Source Change Function • Two-Phone Full Time Connection

### iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation) Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version.

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

iPod/iPhone Compatibility

iPhone 5s, iPhone 5c, iPhone 5

See page 100 for more details.

iPhone 4s

iPhone 4

iPhone 3GS

iPhone 3G

iPod classic

iPhone

iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6

















Notes: "Bluetooth Wireless Technology," "Siri Eyes Free" and "Shortwave Tuner" for MVH-X395BT. "MIXTRAX," "VA LCD Display," "Multi-Language Display," "Media App Control," "Pioneer ARC", "Direct Control for iPod/iPhone," "Spotify," "Supertuner IIID" and "Wired Remote Input" for MVH-X395BT and MVH-X195UI. "FLAC Playback" for MVH-85UB.

# **Key Selling Points**



Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ and other audio settings easy and intuitive using a smartphone touchscreen.







Greatly improved connectivity to access various media.

- Wireless Audio Playback by Bluetooth (MVH-X395BT)
- USB Direct Control for iPod/iPhone\* and for certain **Android Phones via MTP and AOA 2.0**
- \* MVH-85UB is not compatible with iPod/iPhone.











Shallow chassis depth allows for more flexibility in installation.

### Common Main Features

- LED Backlight
- Direct Control for Certain Android Phones (USB)
  Bright USB Port (Front: High Current 1A Handling Capability)
- AUX Input (Front)

- MP3/WMA/WAV Playback MOSFET 50 W x 4
- RDS
- RCA Preout x 1 (2 V)
- 5-Band Graphic EQ
- Display Off ModeIllumination Timer
- Detachable Face Security™

Shortwave Tuner

Wired Remote Input

Card Remote Control

Brightness Setting

Connection

- · Rotary Volume Control
- USB Source Change Function

### **MVH-X395BT Main Features**

(Blue text: upgraded features from MVH-X285FD)

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Wider VA LCD Display (13-Character) Multi-Language Display

Multi-Language Display

- · Media App Control for iPod/iPhone
- Media App Control for Android
- Pioneer ARC (iPhone/Android)
- Direct Control for iPod/iPhone (USB) **MVH-X195UI Main Features**

Wider VA LCD Display (13-Character)

(Blue text: upgraded features from MVH-85UB)

- Spotify<sup>®</sup>
  - Bluetooth for Hands-Free Calling & Wireless Audio
  - Siri Eyes Free AAC Playback

  - Advanced Sound Retriever
  - dvanced Sound Retriever for Bluetooth Wireless Audio
  - Supertuner® IIID

### **MVH-85UB Main Features**

- LCD Display
   FLAC\*\* Playback

\* Required to be used through Pioneer ARC app.

### iPod/iPhone Compatibility

### Made for iPhone 6s Plus, iPhone 6s, iPhone 6 Plus, iPhone 6 iPhone 5s, iPhone 5c, iPhone 5 iPhone 4s iPhone 4 iPhone 3GS iPhone 3G iPhone iPod touch (1st, 2nd, 3rd, 4th, 5th, and 6th generation) iPod classic iPod with video iPod nano (1st, 2nd, 3rd, 4th, 5th, 6th, and 7th generation)

Notes: Receiver may not operate other iPod or iPhone models. Compatibility with unit and operations may vary depending on the software version. See page 100 for more details.

 Media App Control for iPod/iPhone Media App Control for Android Pioneer ARC (iPhone/Android) • Direct Control for iPod/iPhone (USB)

• MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play) Spotify<sup>®</sup>

- Advanced Sound Retriever
  Supertuner® IIID
- Wired Remote Input Brightness Setting
- Card Remote Control
- \*\* For the files stored in USB thumb drive.



MIXTRAX



SUPER TUNERILD WAVE MOSFET 50Wx4



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



Browse music files, access music apps, and extend your command of radio in new ways directly from the Pioneer ARC App. It makes even detailed EQ and other audio settings easy and intuitive using a smartphone touchscreen.



 $\psi$  usb



Smartphone

Compatible

Eniov your favorite tunes made more lively and entertaining with audio specialized functions. Point 3 Exciting nonstop mixed music experience by MIXTRAX Page 46

Extra bass from Adjustable Bass Boost

MIXTRAX

### Common Main Features

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- CD Player
   Wider VA LCD Display (13-Character) • LED Backlight
- Multi-Language Display
- Media App Control for Android\*
  Pioneer ARC (Android)
- Direct Control for Certain Android Phones (USB)
- Bright USB Port (Front: High Current 1A Handling Capability)
- AUX Input (Front)

- MP3/WMA/WAV Playback
- Advanced Sound Rétriever
- MOSFET 50 W x 4 • Supertuner® IIID
- Shortwave Tuner RDS
- RCA Preout x 1 (2 V)
- 5-Band Graphic EQ
- Anti-Dust Design Wired Remote Input
- Display Off Mode
- Brightness Setting Illumination Timer
- Detachable Face Security<sup>™</sup>

Pioneer ARC

- Rotary Volume Control
- · Card Řemote Control
- USB Source Change Function
- \* Required to be used through Pioneer ARC app.

### Speaker Specifications

	DXT-X1	DXT-X196UB		
Size	6" x 9"	16 cm	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 $\Omega$		4 Ω	4Ω	
Mounting Depth	66.3 mm	41 mm	41 mm	
Cut-Out Dimensions	153 mm x 222 mm	ø128 mm	ø128 mm	



VALCD MULTI-LANGUAGE Media App DISPLAY Control DISPLAY

WAVE MOSFET 50Wx4

Subwoofer 24bit SUPER TUNER III



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



Greatly improved connectivity to access various media.

**MIXTRAX** 

Bluetooth®

- Wireless Audio Playback by Bluetooth
- USB Direct Control for iPod/iPhone and for certain **Android Phones via MTP and AOA 2.0**



Pioneer ARC

∜ usв



**□**iPod □iPhone



Smartphone

Compatible



Shallow chassis depth allows for more flexibility in installation.

### Main Features

- MIXTRAX (MIXTRAX EZ for Quick Non-Stop MIX Play)
- Wider VA LCD Display (13-Character)
- LED Backlight
- Multi-Language Display
- Media App Control for iPod/iPhone
- Media App Control for Android
  Pioneer ARC (iPhone/Android)
- Direct Control for iPod/iPhone (USB)
- Direct Control for Certain Android Phones (USB)
- Spotify<sup>®</sup>
- Bluetooth for Hands-Free Calling & Wireless Audio
- Siri Eves Free
- Bright USB Port (Front: High Current 1A Handling Capability)
- AUX Input (Front)
- Speaker Specifications
- MXT-X396BT 16 cm 200 W (25 W) 31 Hz to 16 kHz Max. Music Power (Nominal)
  Frequency Response
  Sensitivity (1 W/1 m) 88 dB 4 Ω 41 mm ting Depth

- MP3/WMA/WAV/AAC Playback
- Advanced Sound Retriever · Advanced Sound Retriever for
- Bluetooth Wireless Audio
- · MOSFET 50 W x 4

Spotify

- Supertuner® IIID Shortwave Tuner
- RDS
- RCA Preout x 1 (2 V)
- 5-Band Graphic EQ
- Wired Remote InputDisplay Off Mode
- Brightness Setting Illumination Times

- Detachable Face Security<sup>™</sup>
- Rotary Volume Control Card Řemote Control
- USB Source Change Function
- Two-Phone Full Time Connection

### iPod/iPhone Compatibility

ii ou/ii iioiie	Compatibility	
Made for		
iPhone 6s Plus,	iPhone 6s, iPhone 6 Plus, iPhone 6	
iPhone 5s, iPhone	5c, iPhone 5	
iPhone 4s		
iPhone 4		
iPhone 3GS		
iPhone 3G		
iPhone		
iPod touch (1st,	2nd, 3rd, 4th, 5th, and 6th generation	n)
iPod classic		
iPod with video		
iPod nano (1st,	2nd, 3rd, 4th, 5th, 6th, and 7th genera	atio
V. ( D		

Notes: Receiver may not operate other iPod or iPhone models Compatibility with unit and operations may vary depending on the

software version. See page 100 for more details.

# USER INTERFACE

### **Pioneer ARC**

Pioneer ARC



(Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-X9650BT, DEH-X9650SD, DEH-X8750BT, DEH-X7750UI, DEH-155MP(G), FH-X575UI and MVH-85UB)

Pioneer's ARC app allows you to use your smartphone to control select functions on your Pioneer receiver, including presets, fast forward and rewind, and artist and album search.

You can download the app from the App Store and Google Play.







Swipe Left/Right to **Change Tracks** 







Two finger rotation to volume control





Radio source and channels of multiple stations are available.



You can also browse files and folders stored on your smartphone and utilize a variety of music apps with on-screen control of a smartphone.

- To utilize this function, the Pioneer ARC application needs to be installed on the smartphone.
- Please download the Pioneer ARC application from the App store or Google Play.
- For compatible iPod/iPhone devices. This function is compatible with iPhone and iPod touch devices operating iOS 8.0 or later.
- For compatible Android devices. This function is compatible with devices running Android OS 4.1 or later that also support Bluetooth SPP (Serial Port Profile) and AOA (Android Open Accessory) 2.0.
- · Read the product's operation manual as well as all instructions and cautions before use. Become familiar with any applicable laws in your country and region.
- Pay attention to the road, limit glances at the device, and do not use any feature if it cannot be operated safely in your location and environment. Distracted driving may result in serious injury, including death.

· All of the app display image design can be changed or renewed.

# ■ Advanced Audio Settings\* NEW

**€** 

Browsing and Searching



\* DEH-X7850BT, FH-X785BT and MVH-X585BT only.









Dedicated interface is available for Crossover filter setting/Time Alignment/ Speaker Level setting.

# **EQ Setting** NEW





# CONNECTIVITY

### Spotify® NEW

DEH-X7850BT | DEH-X4950BT | DEH-X3950BT | DEH-X2950UI MVH-X3 \* Compatible with iOS only.

MVH-X585BT MVH-X395BT



Spotify® gives you instant access to millions of songs. With support for Spotify®, you can control the Spotify® app on your smartphone via your car receiver's interface.







# CONNECTIVITY

### **Media App Control\***

For iPhone and iPod:

All Audio Receivers Compatible with iPod and iPhone (Except DEX-P99RS)

For Android Phone:

All Audio Receivers Compatible with Certain Android Phones (Except DEH-X9650SD, DEH-X7750UI, FH-X575UI and MVH-85UB)

- Use music apps stored in your iPod, iPhone or Android phone for listening through the car speakers.
- Fast forward and reverse can be operated through the receiver.
- Media App Control boots up as a music source for quicker access to iPod, iPhone or Android phone app control.

\*For Android Phone, DEH-X4850FD, DEH-X2950UI, DEH-X1953UB, DEH-X1952UB, DEH-X1950UB(G), DEH-X1, FH-X385UB, MVH-X285FD, MVH-X195UI and DXT Series are required to be used through Pioneer ARC app.

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

App Mode for DEH-80PRS and DEH-9450UB





### **USB Direct Control**

For iPhone and iPod: All Audio Receivers

(Except DEH-X1953UB, DEH-X1952UB, DEH-X1950UB(G), DEH-155MP(G), FH-X385UB, MVH-85UB and DXT Series)

For Android Phone:

All Audio Receivers

(Except DEX-P99RS, DEH-80PRS, DEH-9450UB and DEH-155MP(G))

Take advantage of a wired USB connection to the receiver. Sound stays clean and clear, and song, artist, time and album displays are user-friendly.





### **Built-in Bluetooth®**

Bluetooth®

DEH-X9650BT DEH-X8750BT DEH-X7850BT DEH-X6850BT DEH-X4950BT DEH-X3950BT DEH-X5 FH-X785BT MVH-X585BT MVH-X395BT MVH-X3 MXT-X396BT

A Pioneer receiver with Built-in Bluetooth Wireless Technology not only makes Bluetooth hands-free function easy

Bluetooth Hands-Free Calling = HFP

and safe to operate while driving—it also extends your enjoyment of wireless audio control and streaming.

# Bluetooth Wireless Audio = A2DP, AVRCP

### Bluetooth Hands-Free Calling

### **Direct Access to Bluetooth Menu**

Use with Phone Pairing to transfer your entire phonebook\* via Bluetooth at a single time to the receiver Press the button for direct access to missed, dialed, received and called calling histories.

\* Compatible phone with PBAP profile required.

### **Bluetooth Wireless** Audio Source

select and enjoy Bluetooth wireless audio with A2DP compatible devices.

### Bluetooth Wireless Audio

### File Browsing (AVRCP Version 1.5)

All Audio Receivers Compatible with Bluetooth (Except DEH-X9650BT)

File Browsing can be used through AVRCP 1.5 version of Bluetooth. You can easily search songs in the browsing display.

### Bluetooth Hands-Free Calling

### Wide Band Speech (HFP Version 1.6)

All Audio Receivers Compatible with Bluetooth (Except DEH-X9650BT)

Frequency bandwidth is twice as great as in the previous model, for much clearer phone call sound quality.



# **Bluetooth Wireless Audio**

Press the source button to

# **Auto Pairing**

Connecting an iPhone to the receiver with a USB cable automatically opens a prompt for pairing the unit and iPhone.

### **Bluetooth Wireless Audio**



# Bluetooth Wireless Audio Control (AVRCP)

Press and quickly release button to skip to the next track and display track tag information. Press and hold button to fast forward or fast reverse during playback.

### Bluetooth Hands-Free Calling



Press and hold the button, and preset register function conveniently registers in memory up to 6 frequently called phone numbers from up to 3 cell phones, for extra-quick access.

### **Five Phones Pairing Memory** NEW

DEH-X4950BT DEH-X3950BT

DEH-X5 MVH-X395BT MVH-X3

Pioneer's new audio receiver can pre-register connection information for up to five smartphones, so you don't have to register each phone before using it with Bluetooth connection.

### **Siri\* Eyes Free Compatible**



Siri Eves Free

### All Audio Receivers Compatible with Bluetooth Smart voice control lets users access various iPhone functions to select

music, make calls from a contact list, etc., without taking their eyes off the road.

\* Siri is available on iPhone 4s or later, iPad with Retina display, iPad mini, and iPod touch (5th generation) and requires Internet access. Siri may not be available in all languages or in all areas, and features may vary by area. Cellular data charges may apply. Some features may not be available for all countries or all areas.

### **Dual USB Ports**



DEH-80PRS | DEH-9450UB | DEH-X9650BT | DEH-X9650SD | DEH-X7850BT | MVH-X585BT

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

### **Two-Phone Full Time Connection**

All Audio Receivers Compatible with Bluetooth (Except DEH-X9650BT)

You can connect two mobile phones (for personal and business use, for example) with the receiver, and an incoming call from either phone can be received without requiring manual







### **Illuminated USB Terminal**

### All Audio Receivers with Front USB Port

Glowing USB terminal brightens the car interior and are easy to identify as needed at night.

cap of the USB port is opened.

# AUDIO

### 3-Way Network Mode NEW

DEH-80PRS DEH-X7850BT FH-X785BT MVH-X585BT

3-Way Network Mode allows you to connect (via three preouts) up to three external amplifiers, dedicated to driving high-, mid- and lowfrequency 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 multi speaker system.



### **Hi-Volt RCA Preouts**

DEX-P99RS	DEH-80PRS	DEH-9450UB	DEH-X9650BT	DEH-X9650SD	
DEH-X8750BT	DEH-X7850BT*	DEH-X7750UI	MVH-X585BT	Hi-V	OIT
* GS model on	ly			///-//	<i>YLI</i>

Hi-Volt RCA preouts incorporated throughout the Pioneer Audio receiver lineup help improve S/N (signal-to-noise) ratio.

### 13-Band Graphic EQ NEW

DEH-X7850BT FH-X785BT MVH-X585BT

With the 13-Band Graphic Equalizer, you will be able to adjust acoustic settings in greater detail, according to your preferences.



### **Time Alignment**

DEX-P99RS\* DEH-80PRS\* DEH-X7850BT FH-X785BT

Utilizing Time Alignment function, you can adjust speaker output timing, so that sound from all speakers reaches the driver's ears in perfect sync.

\* Auto Time Alignment



Time Alignment makes all speakers sound as if they are virtually equidistant

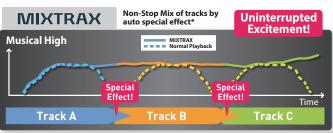
### **MIXTRAX**

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

### MIXTRAX Benefit

Pioneer applied its unique expertise to keep car entertainment flowing smoothly without interruption, so you can experience the intimate euphoria of listening to music that sounds as if a club DJ is there playing it.

# MIXTRAX



each speaker to the driver

cause the delay of sound

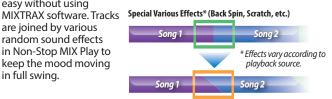
Depending on the file/song, sound effects may not be enabled for adding.

### MIXTRAX EZ

All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-155MP(G) and MVH-85UB)

MIXTRAX EZ makes Non-Stop MIX Play and other control guick and

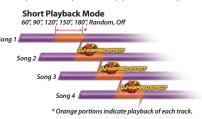
easy without using are joined by various random sound effects in Non-Stop MIX Play to keep the mood moving in full swing.



### **Short Playback Mode**

All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-155MP(G) and MVH-85UB)

You can choose a length of playback (60, 90, 120, 150, 180 sec., random, or off) to shorten song 1 track selections and speed up switching to following tracks in the mix.



### Flashing Color\*

DEH_YOSSORT	DEH_YQ650SD	DEH_Y8750RT	DEH_Y7850RT	DEH_X7750III	DEH_Y6850RT	DEH_Y/Q50RT	DEH-X2950UI	DEH-X5	DEH-)
DEII-AJ000DI	DEII-NJ0000D	DEII-KU100DI	DEII-MIOSODI	DEII-ATT 3001	DEII-KOOOODI	DEII-X4300D1	DEII-AZ33001	DEII-NO	DEII
EH_Y795RT	EH_Y575UI	MVH-X585BT	MVH-X3						

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

FLASHING



 Sound Level Mode synchronizes with sound signal level.

· Low Pass Mode synchronizes with bass sound.

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.



Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6
LIGHT BLUE	WHITE	ROSE	ROSE		RED
			LAVENDER		
OCEANBLUE	ROYALBLUE	LAVENDER	INDIGO		INDIGO
BLUE	BLUE	INDIGO	ROYALBLUE	ORANGE	OCEAN
BLUE	DEEP BLUE	INDIGO	BLUE	RED	BLUE
BLUE	DEEP BLUE	INDIGO	BLUE	RED	BLUE
BLUE	DEEP BLUE	INDIGO	BLUE	RED	BLUE
BLUE	DEEP BLUE	INDIGO	BLUE	RED	BLUE



# AUDIO

### **Support FLAC Codec\***

DEH-X8750BT DEH-X7850BT DEH-X7750UI FH-X785BT MVH-X585BT MVH-85UB

New Pioneer audio receiver supports dramatically superior car audio experiences with amazingly brilliant reproduction of sound by FLAC (Free Lossless Audio Codec) files that are 50–60% smaller than WAV files, yet retain the integrity of original sound sources. Characterized by 48 kHz sampling frequency and 24-bit bitrate, the sound quality of FLAC file playback exceeds even that of CD playback.



### **Built-in High-Power 100 W x 4-Channel Class-FD Amplifier**

DEH-X4850FD MVH-X285FD

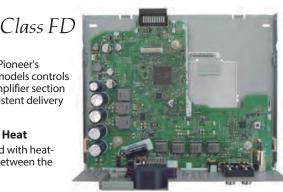
Enjoy more powerful sound than a conventional receiver with built-in amplifier can deliver. The Pioneer DEH-X4850FD and MVH-X285FD each incorporate a 100 W x 4-channel Class-FD amplifier; require no outer amplifier box, for simple in-dash installation; and have circuitry exclusively designed to maintain exceptional audio quality.

### **Stable Power Output**

For supremely stable output and sound quality, Pioneer's advanced amplifier technology built into these models controls input by monitoring current level output. The amplifier section is designed to prevent shutdown, ensuring consistent delivery of power regardless of the car battery's charge.

### **Dedicated Circuitry Designed to Dissipate Heat**

For superior sound, exclusive circuitry is designed with heatdissipating internal heatsink and cooling sheet between the printed circuit board and chassis.



**Sound Quality** 

Large Capacitor and Plate-Type Heatsink

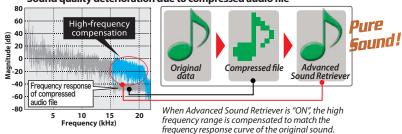
### **Advanced Sound Retriever**

All Audio Receivers (Except MVH-85UB)

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, Android phone 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.

# Sound quality deterioration due to compressed audio file

**File Size** 



### Advanced Sound Retriever for Bluetooth® Wireless Audio

DEH-X9650BT	DEH-X8750BT	DEH-X7850BT	DEH-X6850BT	DEH-X4950BT	DEH-X3950BT
DEH-X5	FH-X785BT	MVH-X585BT	MVH-X395BT	MVH-X3	MXT-X396BT

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

### 5-Band Graphic EQ

All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-X7850BT, FH-X785BT and MVH-X585BT)

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.



### **Specialized Audio Parts**

DEH-9450UB DEH-X9650BT DEH-X9650SD

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.



High-capacitance capacitor for audio (DEH-9450UB only)



Electronic volume control IC for Audio



<sup>\*</sup> For the files stored in USB thumb drive.

# AUDIO

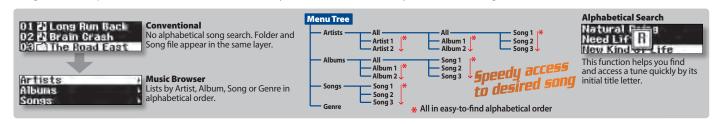
### **Music Browser**

DEH-80PRS | DEH-9450UB | DEH-X9650BT | DEH-X9650SD | DEH-X8750BT | DEH-X7750UI



Using audio file tag information, Pioneer's built-in Music Browser automatically lists tunes alphabetically by Artist, Album, Song or Genre. Alphabetical search makes it fast and easy to access whatever tune you want from a big archive.

NEW



# DISPLAY

### Widened 13-digit + 1 Two-Line Display

DEH-X7850BT FH-X785BT MVH-X585BT

The widened 13-digit + 1 two-line display can show more of the information that you want, especially on its main (second-row) line, and is easily visible from the driver's seat.

This dot-matrix information area can show:

- Artist/Album/Song icon
- EQ while playing music · Icon for smartphone link

a driver's sheet.

FULL DOT

The main segment area is located on the second line which contributes to the visibility from



### **Full Dot 3-Line LCD Display**

DEH-80PRS | DEH-9450UB | DEH-X9650BT | DEH-X9650SD | DEH-X8750BT | DEH-X7750UI

greater ease, displaying up to three lines in list mode.

The Full Dot LCD Display allows you to scroll through your iPod with

DEH-X6850BT FH-X385UB

**Larger 2-Line VA LCD Display** 

The larger 2-line VA LCD display improves visibility and incorporates finely balanced font to keep text easy to read.

Main Display (13-Character) & Sub Display



High Contrast

Large display size: 12.9 mm x 83.9 mm

### Natural Being Need Lift New Kind of Life

DEH-X8750BT Display

### 1-Line 13-Character VA LCD Display

DEH-X1952UB MVH-X395BT MVH-X285FD MVH-X195UI

In addition to the VA LCD's high contrast and wide viewing angle, its display width has been expanded to accommodate up to 13 characters and allows more information to be more visible.



Large display size: 12.1 mm x 74.7 mm

Bluetooth profile A2DP HFP

Bluetooth® status icons

*■■VA LCD* 

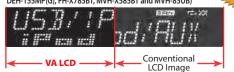
### **VA LCD**

The receiver display incorporates VA LCD for higher contrast and visibility from a wide viewing angle. Characters on display are easy to read from the driver's viewpoint.

### FH-X575UI



(Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-X9650BT. DEH-X9650SD, DEH-X8750BT, DEH-X7850BT, DEH-X7750UI, DEH-155MP(G), FH-X785BT, MVH-X585BT and MVH-85UB)







Separated

Calar

# ILLUMINATION

### **Separated Dimmer Setting** NEW

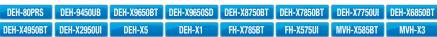
DEH-X4950BT DEH-X2950UI DEH-X5

DEH-X1

Brightness of main display and brightness of key illumination zones can be adjusted independently of each other, to levels from 1 to 10.



### **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.



### **Brightness Setting**

All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-155MP(G) and MVH-85UB)

Brightness can be set to any of five or ten different levels to suit various viewing conditions, whether during the day, at night, etc. This allows for excellent visibility regardless of the situation.

### 5-Step Brightness Setting

DEH-X9650BT DEH-X9650SD

### 10-Step Brightness Setting

All Audio Receivers Compatible with Brightness Setting (Except DEH-X9650BT and DEH-X9650SD)



Note: The range of settings can vary, depending on whether Dimmer is on or off.

### **Illumination Effect**

All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-155MP(G) and MVH-85UB)

Illumination fades in and out at various times, such as when ACC power is turned on and off \*, a CD is being loaded or ejected, or an incoming call is being received on a Bluetooth® receiver.

\* For the following receivers, Illumination Effect can be activated for only ACC power on/off. DEH-X4950BT/DEH-X4850FD/DEH-X2950UI/DEH-X1953UB/DEH-X1952UB/DEH-X1950UB(G)/DEH-X5/ DEH-X1/MVH-X395BT/MVH-X285FD/MVH-X195UI/MVH-X3/DXT Series/MXT-X396BT



### **Illumination Line**

DEH-X8750BT	DEH-X7850BT	DEH-X7750UI	DEH-X6850BT	DEH-X4950BT	DEH-X2950UI
DEH-X5	DEH-X1	FH-X785BT	FH-X575UI	MVH-X585BT	MVH-X3

Car's Headlight On/Off automatically links with Dimmer's On/Off. When driving, user doesn't need any extra operation to change Dimmer.





### **Illumination Timer**

All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-X9650BT, DEH-X9650SD and DEH-155MP(G))

You can set Dimmer On and Off\* to a particular time (to go home and to commute, respectively, for example) according to your lifestyle, so you do not need to manually activate or deactivate the dimmer repeatedly at the same regular time.





Dimmer OFF







Dimmer ON

Time to ao home

# DESIGN

### **Prism-cut Rotary Volume Control**NEW

DEH-X4950BT DEH-X2950UI DEH-X5

DEH-X1

Unique prism-cut rotary volume control can be illuminated in your choice of color to enhance the car cabin's mood.



### Smaller Gap for Easier Viewing NEW

DEH-X7850BT FH-X785BT MVH-X585BT

The gap between the LCD and its protective acrylic panel is reduced so drivers gain a clearer, more direct view of operation information on the receiver display.

### Previous model: bigger gap



### New model: smaller gap



### **Auto Flap Face**

DEX-P99RS DEH-9450UB

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



### **Flap Face Design**

DEH-80PRS DEH-X9650BT DEH-X9650SD

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



Higher

Reliability

Flap

FACE

### **Lever Key**

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



DEH-80PRS

DEH-9450UB



### 360-degree lever key DEH-X8750BT DEH-X7750UI



### **Anti-Dust Design\***

(Except DEX-P99RS, MVH-X585BT, MVH-X395BT, MVH-X285FD, MVH-X195UI, MVH-85UB, MVH-X3 and MXT-X396BT)

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.

Anti-Dust Structure Image





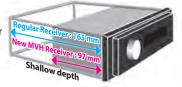
Anti-dust desian

### **Compact Chassis Design**

MVH-X395BT MVH-X195UI MVH-85UB

MVH-X3

The shallow depth of the chassis of new MVH series receiver provides for optimal ease and flexibility of installation.



# OTHERS

### **USB Quick Charge for Android (CDP)**

DEH-X4950BT | DEH-X3950BT\* | DEH-X2950UI | DEH-X1953UB

\* GS model only

Pioneer's new audio receiver has a charging downstream port (CDP) providing up to 1.5 amperes to give an Android smartphone a quick charge.









## OTHERS

### **USB Source Change Function**

(Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-X9650BT, DEH-X9650SD, DEH-X8750BT, DEH-X7750UI, DEH-155MP(G) and FH-X575UI)

When the audio receiver is connected to a media player, smartphone or other device via USB, you can choose to set the USB Source Change function ON or OFF.

ON The music source automatically changes to the connected source device.

**OFF** The music source being played on the receiver doesn't change, allowing the connected smartphone or portable media player to recharge while the music plays.



### **Multi-Language Display**

All Audio Receivers (Except DEH-155MP(G) and FH-X575UI)

Pioneer audio receivers feature Multi-Language Display.



Central America/Latin America English/Spanish/Portuguese CS





exceptions that may exist.

**MULTI-LANGUAGE** 

DISPLAY =====

### **Preset Steering Wheel Control\***

All Audio Receivers (Except DEX-P99RS, DEH-80PRS, DEH-9450UB, DEH-X9650BT, DEH-X9650SD and DEH-155MP(G))

You can now use buttons on your car steering wheel to control certain car receiver functions.

Setup is simple. Just choose your car brand name in the receiver's PRESET setting interface to automatically ensure compatibility of your

vehicle's original steering wheel controller with the system.

\* Available in GS and ES models. Required cable is not included, and must be purchased separately. Please contact a nearby local Pioneer Service Center or branch for details.



### **Package System Configurations**

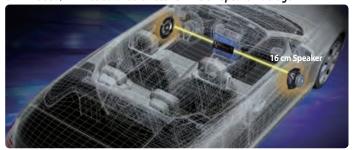
DXT-X1969UB DXT-X196UB MXT-X396BT

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

DXT-X1969UB: Audio Receiver + 16 cm & 6"x 9" Speaker Package



### DXT-X196UB/MXT-X396BT: Audio Receiver + 16 cm Speaker Package



### DEH-155MP/DEH-155MPG

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









DEH-155MP



### Main Features

- CD Player
- LCD Display (12-Character) LED Backlight
- AUX Input (Front)
- MP3/WMA/WAV Playback
- MOSFET 50 W x 4

  - Supertuner® IIID
  - Shortwave Tuner
- Advanced Sound Retriever RCA Preout x 1 (2 V) • 5-Band Graphic EQ

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



# **AMPLIFIERS**

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# Pioneer on Amplifier Development — toward higher reliability and sound quality



### High Power

Pioneer's 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 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 and unlike any competitor.

### High Reliability

An amplifier's circuitry needs to be durable to handle the harsh automotive conditions it'll encounter such as heat, vibration, and voltage fluctuations. Pioneer systematically designs each of its car audio amplifiers for reliable, durable, 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.

High Reliability



# Commitment to Sound

### Advanced 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 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-regardless of the type of music.



Vibrational Absorption Time Comparison Conventional Chassis





PRS-A900

### Commitment to Sound

Pioneer's commitment to sound quality began over seventy years ago with the development of its first home audio speaker. A passion for audio combined with a methodical approach to innovation consistently deliver the best in musical enjoyment. Truly great sound quality goes beyond measurement, as there is no specification that truly defines an awesome musical experience. Dedication to sound quality is at the heart of Pioneer's ongoing quest for musical perfection.





- 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

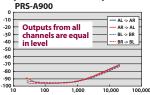
# Left and Right Channel Independent Power Supply

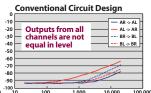
Large, independently mounted DC-DC converter power supplies direct electric current with superior stability and effectiveness. The DC-DC power supply is mounted away from the PRS-A900's amplification circuitry and isolated with dividers to prevent jitter noise and to improve the signal to noise (S/N)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



L/R symmetric circuit layout improves channel separation.

### Superior Channel Separation



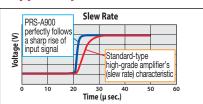


PRS-A900: Excellent separation among all channels

### 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.



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

# 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.

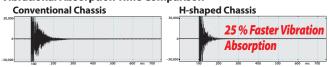


# The Ultimate in Distortion-Free Sound Quality

### H-shaped Chassis

The conditions inside an automobile aren't always conducive to faithful audio reproduction. The natural vibrations of a vehicle as it cruises down the road can be transferred to the components inside an amplifier—causing audible distortion. Advanced resonance frequency testing on various back cover chassis designs led to Pioneer's development of the "H" form chassis, which stabilizes the amplifier and it's internal componentry by absorbing outer vibration with superior speed.

### **Vibrational Absorption Time Comparison**



### **■** Copper-Plated Power Transistor Mounts

Eliminates influence of vibration and noise, and cuts even slight high-range sound distortion.





	PRS-A900
Number of Channels	4/3/2
Max. Wattage (4 $\Omega$ ) Max. Wattage Bridged (4 $\Omega$ )	100 W x 4 200 W x 2
$\begin{array}{c} \text{Wattage RMS (4 } \Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS (2 } \Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS Bridged (4 } \Omega) \end{array}$	50 W x 4 50 W x 4 100 W x 2
Frequency Response	10 Hz to 100 kHz
Total Harmonic Distortion (1 kHz, 4 $\Omega$ )	<0.003 %
Signal-to-Noise Ratio (IHF-A Weighted, at 1 kHz)	>108 dB
Dimensions (W x H x D)	371 mm x 65 mm x 282 mm



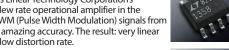
- Audio quality benefits from careful parts selection and exacting design precision.
- Extra compact design makes for easy installation without compromising sound quality.
- Flexible connectivity enhances unified design in parallel connection, with the amp able to accommodate multiple connections and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

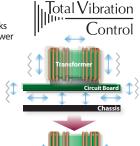


### TVC (Total Vibration Control) Concept

Anti-vibration material under the transformer thoroughly eliminates vibration that normally blocks sound when high current is applied, enhancing power flow stability, minimizing distortion, and raising signal-to-noise ratio.

Vibration of the transformer, when transmitted to the circuit board, can compromise sound quality.

The circuit board is absorbed and transformer vibration is suppressed. preventing sound degradation.



Class FD



# **Compact Design**

### 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.



	PRS-D800
Number of Channels	2/1
Max. Wattage (4 $\Omega$ ) Max. Wattage Bridged (4 $\Omega$ )	250 W x 2 600 W x 1
Wattage RMS (4 $\Omega$ <= 1 % THD+N) Wattage RMS (2 $\Omega$ <= 1 % THD+N) Wattage RMS Bridged (4 $\Omega$ )	
Frequency Response	10 Hz to 30 kHz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.004 %
Signal-to-Noise Ratio (IHF-A Weighted, at 1 kHz)	>105 dB
Dimensions (W x H x D)	255 mm x 50 mm x 104 mm



- Various settings and connections expand your choice of system configuration.
- The versatile 5-channel capability of the GM-D9605 features dedicated subwoofer output for ample power to drive strong bass.
- Very efficient and compact, the Class-D amp is capable of amazingly high power output.

# Flexible Installation and Connectivity

A-Channel, B-Channel and Subwoofer-Channel outputs of the GM-D9605 can be matched to one, two or three preouts of a receiver.

The GM-D9605 is also excellent for speaker line output connections and expanding a factory-equipped subwoofer-less car audio system into a 5-channel output system.

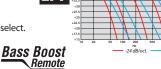
### System Connection Examples with GM-D9605 and Receiver



Block terminal for

# 5-Channel Amplifier with Dedicated Output for Subwoofer

- Unlike conventional 5-channel amplifiers, the Pioneer GM-D9605 has dedicated large block terminals to drive a subwoofer with plenty of power.
- Variable low pass filter (LPF) has two types of slopes, selectable according to subwoofer characteristics and personal listening preferences.
- $\bullet$  GM-D9605 is equipped with A/B-SW input select.
- Bass Boost Remote lets you adjust bass level from 0 to 18 dB by wired controller.



	GM-D9605
Number of Channels	5/4/3/2
Max. Wattage (4 $\Omega$ ) Max. Wattage (2 $\Omega$ ) Max. Wattage Bridged (4 $\Omega$ )	150 W x 4 (A-/B-Ch.)/700 W x 1 (Subwoofer-Ch.) 200 W x 4 (A-/B-Ch.)/1,200 W x 1 (Subwoofer-Ch.) 400 W x 2*
$\begin{array}{c} \text{Wattage RMS (4 }\Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS (2 }\Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS Bridged (4 }\Omega) \\ \end{array}$	75 W x 4 (A-/B-Ch.)/350 W x 1 (Subwoofer-Ch.) 100 W x 4 (A-/B-Ch.)/600 W x 1 (Subwoofer-Ch.) 200 W x 2*
Frequency Response	10 Hz to 50 kHz (A-/B-Ch.)/ 10 Hz to 500 Hz (Subwoofer-Ch.)
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.05 % (A-/B-Ch.: 1 kHz/Subwoofer-Ch.: 100 Hz)
Signal-to-Noise Ratio (IHF-A Weighted)	>94 dB
Dimensions (W x H x D)	315 mm x 60 mm x 200 mm

<sup>\*</sup> Bridgeable for A-ch. and B-ch. only.



- Very efficient and compact, the Class-D amp is capable of amazingly high power output.
- ullet Highly stable, durable circuitry enables  $1\Omega$  connection with continuous output.

1ohm

• 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.





Bass Boost Remote

# **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.

### **Dramatically Higher Power Output**

Conventional Class-D Amplifier vs. New Class-D Amplifier

GM-D9500F: 800 W max. vs. GM-D8604 1,200 W max



### More Impact Made More Compact Slimmed down 50 %



# GM-D9601 Variable LFP: 40 Hz-240 Hz

Variable LPF/HPF

For extra flexibility, variable LPF

and HPF make audio frequency

more adjustable according to subwoofer characteristics and

personal listening preferences.

GM-D9604 GM-D8604 Variable LPF/HPF: 40 Hz-500 Hz

Low-Pass Filter ON

From 40 Hz to 500 Hz



LPF HPF

High-Pass Filter ON

### **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.

GM-D8601 Variable LFP: 40 Hz-240 Hz

For Extra Versatility



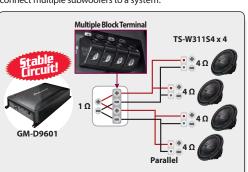
### Automatic Signal Sensing and Turn-ON

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.

# **Highly Reliable Circuit Design**

To prevent circuit shutdown, Pioneer's new digital amplifier 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  $\Omega$  connection. This design enhances the flexibility to connect multiple subwoofers to a system.



# Specifications

1ohm

	GM-D9604	GM-D9601	GM-D8604	GM-D8601
Number of Channels	4/3/2	Mono	4/3/2	Mono
Max. Wattage (4 $\Omega$ ) Max. Wattage (2 $\Omega$ ) Max. Wattage (1 $\Omega$ ) Max. Wattage Bridged (4 $\Omega$ )	260 W x 4 400 W x 4 260 W x 4 800 W x 2	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
Wattage RMS (4 $\Omega$ <= 1 % THD+N) Wattage RMS (2 $\Omega$ <= 1 % THD+N) Wattage RMS (1 $\Omega$ <= 1 % THD+N) Wattage RMS Bridged (4 $\Omega$ )	200 W x 4	500 W x 1 800 W x 1 1,200 W x 1	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
Frequency Response	10 Hz to 50 kHz	10 Hz to 240 Hz	10 Hz to 50 kHz	10 Hz to 240 Hz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.05 %	<0.5 % (100 Hz)	<0.05 %	<0.5 % (100 Hz)
Signal-to-Noise Ratio (IHF-A Weighted)	>95 dB	>100 dB	>95 dB	>100 dB
Dimensions (W x H x D)	315 mm x 60 mm x 200 mm	315 mm x 60 mm x 200 mm	265 mm x 60 mm x 200 mm	265 mm x 60 mm x 200 mm



- Compact design makes for easy installation behind the center console or inside the console box.
- Achieves higher power output despite compact dimensions.
- GM-D1004 incorporates various outstanding features including TVC (Total Vibration Control)
   Concept, Automatic Signal Sensing and Turn-ON, and others.

# **Ultra Compact Design**

Despite compact dimensions, high power  $100\,\mathrm{W}\,\mathrm{x}$  4-ch. achieves maximum output to deliver clear, powerful sound even at loud volumes.



# **Easy Installation**

Electric power is supplied to the amplifier behind the center console or inside the console box, simplifying wiring and installation so you can upgrade sound quality from a system using a receiver's built-in amplifier.



Built-in Amplifier

50 W x 4 MAX.

Center console or Console box (Wiring in vehicle)

100 W x 4 MAX.

# TVC (Total Vibration Control) Concept

Grooves on bottom of chassis suppresses vibration that normally blocks sound when high current is applied, enhancing power flow stability, minimizing distortion, and raising signal-to-noise ratio.



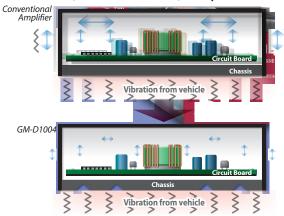
# **Automatic Signal Sensing and Turn-ON**

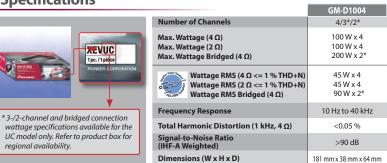
Power Cable

When connected to an OEM receiver or a receiver without RCA input using speaker wire, the amplifier is turned on at the same time as the receiver.

Pioneer's amplifiers automatically detect an input signal and select an input signal mode between the RCA level and the speaker level.

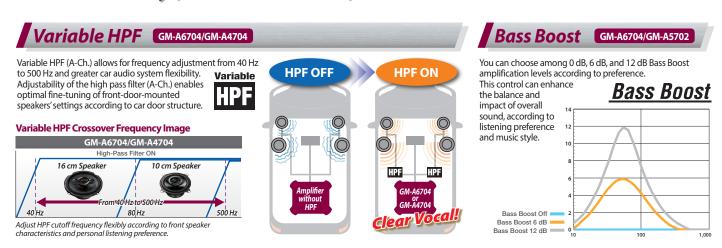
### TVC (Total Vibration Control) Conceptualization







- Higher power output contained in compact dimensions.
- Outstanding features include Bass Boost (GM-A6704/GM-A5702), Automatic Signal Sensing & Turn-On, and others.
- Variable high pass filter (for high-frequency-range sound) enhances tuning flexibility and sonic clarity. (GM-A6704/GM-A4704)



# **Automatic Signal Sensing and Turn-ON**

Pioneer's 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. When connected with an OEM receiver or receiver without RCA input using speaker line, the amplifier has its power turned on in sync with the receiver.

- Cheannamann				
	GM-A6704	GM-A4704	GM-A5702	GM-A3702
Number of Channels	4/3/2	4/3/2	2/1	2/1
Max. Wattage (4 $\Omega$ ) Max. Wattage (2 $\Omega$ ) Max. Wattage Bridged (4 $\Omega$ )	170 W x 4 250 W x 4 500 W x 2	80 W x 4 130 W x 4 260 W x 2	300 W x 2 500 W x 2 1,000 W x 1	170 W x 2 250 W x 2 500 W x 1
Wattage RMS (4 $\Omega$ <= 1 % THD+N) Wattage RMS (2 $\Omega$ <= 1 % THD+N) Wattage RMS (2 $\Omega$ <= 1 % THD+N) Wattage RMS Bridged (4 $\Omega$ )	60 W x 4 95 W x 4 190 W x 2	40 W x 4 65 W x 4 130 W x 2	150 W x 2 240 W x 2 480 W x 1	60 W x 2 95 W x 2 190 W x 1
Frequency Response	10 Hz to 70 kHz	10 Hz to 70 kHz	10 Hz to 70 kHz	10 Hz to 70 kHz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.05 %	<0.05 %	<0.05 %	<0.05%
Signal-to-Noise Ratio (IHF-A Weighted)	>95 dB	>94 dB	>96 dB	>95 dB
Dimensions (W x H x D)	356 mm x 60 mm x 215 mm	326 mm x 60 mm x 215 mm	356 mm x 60 mm x 215 mm	246 mm x 60 mm x 180 mm

# **SUBWOOFERS** INDEX **Champion Series PRO Subwoofer Champion Series Subwoofers** 64 **Shallow Subwoofers** 66 **HVT Sealed Active Subwoofer** 68 **Bass Reflex Subwoofers** 70 Active Subwoofers 70

### DELVE DEEPER

Applying the kind of innovation that made its SPL subwoofers world championship winners, Pioneer makes all of its subwoofers superior at delivering massive punch for maximum impact.

With stunning dimensions of low-frequency depth, Pioneer achieves the ultimate technical knockout.

# Champion series - PRO

### **Champion Series Subwoofer**

Built on the strong foundation of the world's top-performing SPL subwoofer, Champion Series subwoofers broaden the reach of Pioneer's spirit and technology toward new horizons. Their reliability, power and capability to produce big, clear, distortion-free sound are simply incomparable in their class.

### **Shallow Subwoofer**

Our line of shallow subwoofers are designed to provide wider installation options for a broad range of vehicles. These shallow-mount subwoofers feature unique design to deliver big bass performance like a full-size subwoofer, but in a compact design that can be installed either behind or under seats depending on the type of vehicle.





# **Pioneer Official 3D Hologram**

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

ભુક્રમાં પ્રાપ્તિકર મુ



As seen from above, at an angle



As seen from directly in front Orange color line



\* Models TS-W3003D4, TS-W311D4, TS-W311S4, TS-W261D4, TS-W261S4 and TS-W311. 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-W3003D4 2,000 W MAX.





30 cm (12") Champion Series PRO Subwoofer





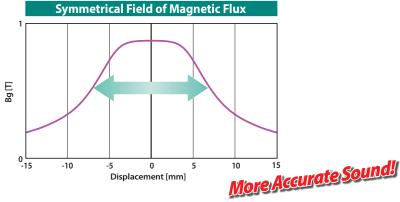




- The ultimate performance heritage of Pioneer's Championship-winning SPL subwoofers.
- High rigidity IMPP™ composite seamless cone reproduces rich, true bass.
- Extraordinary structure of dual spiders, a dual-layer surround, a 4-layer overhung voice coil and double stacked magnets for greater excursion and linearity even at extremely high power input.



### TS-W3003D4 Cut View Young's Modulus **■** IMPP<sup>™</sup> Composite Seamless Cone **Drive Cone for Louder Sound** 9.0E+09 An extremely rigid yet lightweight cone is vital to prevent Fiber material blended in cone failure at high sound pressure levels. Pioneer's IMPP the drive cone improves 7.0E+09 Composite Seamless Cones meet this need perfectly. sound response. TS-W3003D4 Modulu 5.0E+09 More **Highly Rigid Shaped Basket** Rigidity 3.0E+09 Four ribbed arms strengthen the basket stiffness while body basket 1.0E+09 shape has been slimmed down. 10.000 100 More Rigid Basket Louder Bass! **Dual-Layer Surround Fiber Reinforced Elastic Polymer Air Vent** The movement of air within the subwoofer is smoothly channeled for optimal ventilation to ensure a quick response and clear **Dual Spider** reproduction of bass. Two spiders supporting the voice coil effectively dampen large cone vibration and enhance linearity of sound reproduction. Single Spider 20 **Large-Sized Magnetic Circuit and** Displacement [mm] **Projected Pole** A large magnetic circuit and projected pole that brilliantly dissipates heat help to deliver higher power sound. . The projected pole helps reproduce more accurate, linear sound by improving the symmetry of vertical magnetic flux distribution. Frequency [Hz] TS-W3003D4 TS-W310S4 **Dual Spider Bigger Pole Thicker Wire** Displacement [mm] **Bigger Magnet** 0 High Linearity! BI parameter is force factor. Higher force factor = Higher drive power Symmetrical Field of Magnetic Flux Specifications



	TS-W3003D4
Size	30 cm
Max. Music Power (Nominal)	2,000 W (600 W)
Frequency Response	20 Hz to 80 Hz
Sensitivity (In Car/1 W)	96 dB
Impedance	4Ω×2
Mounting Depth	176 mm
Cut-Out Dimensions	ø283 mm
Recommended Enclosure	24.1 liters to 49.5 liters

For more details, see page 105 (Thiele-Small parameters) and 106 (Enclosures).



- Extreme performance derives from Pioneer's Championship-winning SPL subwoofers.
- The versatile subwoofer lineup provides for various types of installation.
- The Voice Coil Cooling System (VCCS) improves durability and faithfully reproduces the sound of original sources. (TS-W306R/TS-W256R)\*





### TS-W311D4 Cut View

### **■** IMPP<sup>™</sup> Composite Cone

An extremely rigid yet lightweight cone is vital to prevent cone failure at high sound pressure levels. Pioneer's IMPP Composite Cones meet this need perfectly. CAE (computer-aided engineering) has been applied to create a surface spoke design that ensures high durability and rigidity of the cone.

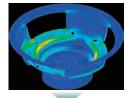
### **Air Vent**

The movement of air within the subwoofer is smoothly channeled for optimal ventilation to ensure a quick response and clear reproduction of bass.

### Fully Enclosed Basket

Magnetic circuit is tightly fixed to the basket to suppress undesirable sound-distorting recoil to the cone, realize clear and punchy bass sound.

### TS-W310D4



TS-W311D4



**4-Layer Copper Voice Coil with Aluminum Former** 

Aluminum former improves heat dissipation.

# 1.0E+10 1.0

### Dual-Layer Elastic Polymer Surround

- Features the world's first technology of its kind.
- Dramatically improves durability and lightness, for superior response, especially for louder volume.

### Independent Spider Holder

The TS-W311D4 has a feature inherited from Pioneer's competition-dominating SPL subwoofer. By preventing propagation of spider vibration through the basket to the cone, this structure improves high transient and linearity of excursion, enhances clarity of sound reproduction.





# Technology of TS-W306R and TS-W256R



### **Solid and Rhythmical Bass**

### **IMPP™** Composite Seamless Cone

The TS-W306R and TS-W256R deliver superior durability and more solid bass reproduction than their predecessors.

### **VCCS Technology**

Heat radiation, a key to improved durability and faithful reproduction of original sounds, is optimized by new subwoofer design.

# Voice Coil Cooling System (VCCS) Heat is removed from the center of the subwoofer in order to improve frequency response and high power handling. Current Cap of resin New (2) Heat also radiates from the aluminum cap along the aluminum cap along the aluminum bobbin Heat source (1) Heat radiates from the iron parts of magnetic circuitry.

	TS-W311D4	TS-W311S4	TS-W261D4	TS-W261S4	TS-W311	TS-W306R	TS-W256R
Size	30 cm	30 cm	25 cm	25 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)	1,000 W (300 W)	1,300 W (350 W)	1,100 W (300 W)
Frequency Response	20 Hz to 125 Hz	20 Hz to 160 Hz					
Sensitivity (In Car/1 W)	95 dB	95 dB	93 dB	93 dB	95 dB	96 dB	92 dB
Impedance	4Ωx2	4Ω	4Ωx2	4Ω	4Ω	4Ω	4Ω
Mounting Depth	151 mm	151 mm	139 mm	139 mm	148 mm	135 mm	122 mm
<b>Cut-Out Dimensions</b>	ø283 mm	ø283 mm	ø235 mm	ø235 mm	ø278 mm	ø281 mm	ø230 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	18 4 liters to 35 4 liters



- Oversized cone structure provides greater surface area to reproduce high SPL with no increase in basket size.
- Mica-reinforced IMPP™ cone reproduces powerful bass.
- Unique shallow structure of dual spiders, a dual-layer surround and a 4-layer overhung voice coil provides wide excursion and linearity even at high power input.
- OEM-FIT™ enables drop-in OEM audio system replacement or upgrading. (TS-SW2002D2).











# TS-SW3002S4 Cut View

### Oversized Cone

The TS-SW3002S4 utilizes an oversized cone structure that provides greater cone surface without changing its standard external dimension. This cone surface allows the subwoofer to produce louder and deeper bass by moving more air.



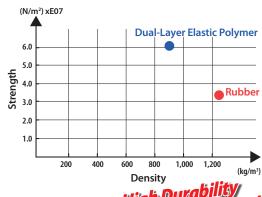
### Mica Reinforced IMPP™ Cone

The cone structure of this subwoofer uses a highly rigid cone made with MICA injected molded resin which creates a rigid and durable cone, giving it the ability to produce accurate bass.

More Punchy Bass!

### ■ Dual-Layer Elastic Polymer Surround

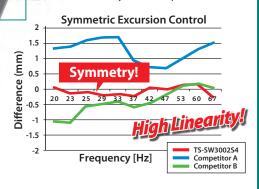
Dramatically improves durability and lightness, for superior response, especially for louder volume.



High Duraellis) despite Lightweight



Two spiders supporting the voice coil effectively dampen large cone vibration and enhance linearity of sound reproduction.



# Deep Bass Sound Produced with Great Efficiency — TS-SWX3002/TS-SWX2502/TS-SWX2002

**Heat Resistant Polyester Resin** 

**4-Layer Voice Coil** 

# Downfiring Subwoofer Technology

**Large-Sized Dust Cap with** 

**Spider Holder** 

Spin Pattern

The subwoofer diaphragm is directed downward for this technology to radiate richer, deeper low-frequency bass sound more efficiently, regardless of the enclosure's installed position.



### Flexible Fit Shallow Subwoofer Enclosure

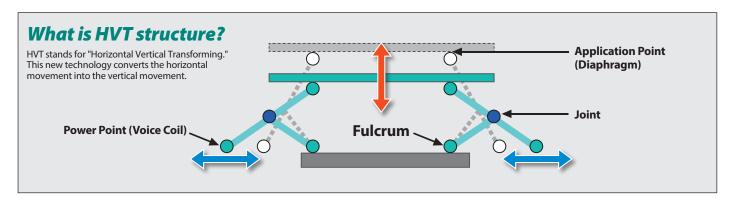
Thanks to its innovative design, the enclosure can be installed freely in the cabin or luggage area for optimal use of space.



	TS-SW3002S4	TS-SW2502S4	TS-SW2002D2	TS-SWX3002	TS-SWX2502	TS-SWX2002
Size	30 cm	25 cm	20 cm	30 cm	25 cm	20 cm
Max. Music Power (Nominal)	1,500 W (400 W)	1,200 W (300 W)	600 W (150 W)	1,500 W (400 W)	1,200 W (300 W)	600 W (150 W)
Frequency Response	20 Hz to 125 Hz	20 Hz to 125 Hz	20 Hz to 200 Hz	20 Hz to 315 Hz	20 Hz to 200 Hz	20 Hz to 250 Hz
Sensitivity (In Car/1 W)	93 dB	91 dB	86 dB	92 dB	89 dB	86 dB
Impedance	4 Ω	4Ω	2Ωx2	4Ω	4Ω	2Ωx2
Mounting Depth	86 mm	78 mm	67 mm	_	_	_
<b>Cut-Out Dimensions</b>	ø298 mm	ø249 mm	ø179 mm	_	_	_
Recommended Enclosure	14.2 liters to 28.3 liters	9.9 liters to 19.8 liters	4.2 liters to 14.2 liters	<u> </u>	_	_



- The world's first, patented HVT (Horizontal Vertical Transforming) technology from Pioneer enables a micro-height subwoofer system to produce bass output and sound of quality equal to that of conventional subwoofer systems.
- Dual symmetric diaphragms positioned vertically in a bi-polar configuration increase output and minimize internal loss.
- Height of just 60 mm provides ultimate flexibility of installation (including relatively hard-to-fit installation under seats) for various types of vehicles.

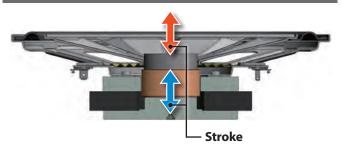




# HVT Structure (TS-WH500A) Cut View & Technology

# Wide-range Bass Sound

### **Conventional Subwoofer**



# HVT Subwoofer

Stroke

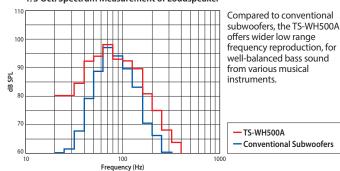


The cone and voice coil in a conventional subwoofer move only vertically, which makes it difficult to reproduce deep bass in a shallow structure.

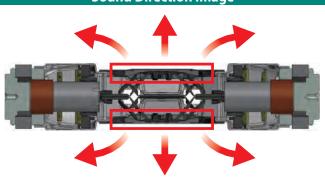
The HVT subwoofer which does not rely on depth within its enclosure, reproduces deep bass even in a shallow structure.

# Comparison Diagram between Conventional Subwoofers vs TS-WH500A

### 1/3 Oct. Spectrum Measurement of Loudspeaker



### Sound Direction Image



Double Diaphragm enlarges vibration area to increase sensitivity.

# **Clear Sound & Less Noise**

### Conventional Subwoofer



### **Vibration of Bottom Cabinet**

Forces of action and reaction forces make the chassis vibrate and generate noise.

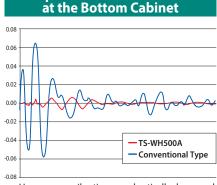
### **HVT Subwoofer**



### **Less Vibration & Less Noise**

The TS-WH500A voice coil and diaphragm work in symmetry to cancel unnecessary vibrations and reduce noise which instead would travel through the vehicle's body.

# Comparison of Vibration Level



### Unnecessary vibrations are drastically decreased.

### **Easy & Flexible Installation**

The TS-WH500A will fit easily in a wide range of vehicle applications (compact and subcompact vehicles, hybrid vehicles, trucks and SUVs, etc.) without sacrificing performance or sound quality.



### **Specifications**

Floor

	TS-WH500A
Size	18 cm x 10 cm x 2
Max. Music Power (Nominal)	150 W* (50 W**)
Frequency Response	20 Hz to 200 Hz
Sensitivity (In Car/1 W)	98 dB
Impedance	4Ω

<sup>\*</sup>Maximum output power \*\*Nominal output power

## **SUBWOOFERS**

### **TS-WX305T** (1,300 W MAX.)

30 cm (12") Bass-Reflex Tube Type Subwoofer

• Dimensions (W x H x D): ø344 mm x 669 mm





### TS-WX305B 1,300 W MAX.

• Dimensions (W x H x D): 500 mm x 379 mm x 280 mm

30 cm (12") Bass-Reflex Subwoofer





# **Key Selling Points**

- High power and loud sound are achieved by incorporating a long voice coil and large magnetic circuit.
- Instantly installable there's no need to make an enclosure for the subwoofer.

## TS-WX120A (150 W MAX.<sup>†</sup>

20 cm x 13 cm Sealed Active Subwoofer

• Dimensions (W x H x D): 280 mm x 70 mm x 200 mm

†Output power



# TS-WX210A 150 W MAX.<sup>†</sup>

20 cm (8") Sealed Active Subwoofer

• Dimensions (W x H x D): 250 mm x 118 mm x 265 mm



# **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-WX305T and TS-WX305B

### IMPP™ Composite Seamless Cone

An extremely rigid yet lightweight cone is vital to prevent cone failure at high sound pressure levels. Pioneer's **IMPP Composite Seamless Cones** meet this need perfectly.

### **Cone Body with Blended Fiber**

The fiber material blended into the drive cone improves sound response.

### Microscopic View



### **Large and Projected York Pole**

# **Urethane Rolled Edge with High Compliance**

### **Air Vent**

The movement of air within the subwoofer is smoothly channeled for optimal ventilation to the benefit of quick response and clear reproduction of bass.

### **Double Stacked High Energy Magnets**

With two large magnets, the cone can be driven at high power.

Extending the yoke pole of the upper part to the upper side maintains symmetry of vertical cone motion, for sound reproduction of great linearity and accuracy.

### **Previous Model**

### **Bigger Pole**

**Thicker Plate** 

**Thicker Wire Gauge &** Wider Wind Width

Bigger Magnet





### **Eye-catching and Functional Port** (TS-WX305B)



### Installable in Less Space than Previous Subwoofer (TS-WX305B)

**Long Voice Coil with Enlarged Wire** 

Use of thick magnetic wire and an aluminum bobbin

ensures excellent durability to withstand high input power.

**Diameter and Aluminum Bobbin** 

Producing high-power sound from an even shallower enclosure depth for easier installation.



# Technology of TS-WX120A

### **Flexible Installation**

The TS-WX120A has the same width and depth as a previous model, but less height, so it can be easily installed under the seat in various types of cars.

# TS-WX120A **Previous Model** Pioneer <u>Easylinstallation!</u>



	TS-WX305T	TS-WX305B	TS-WX120A	TS-WX210A
Size	30 cm	30 cm	20 cm x 13 cm	20 cm
Max. Music Power (Nominal)	1,300 W (350 W)	1,300 W (350 W)	150 W* (50 W**)	150 W* (50 W**)
Frequency Response	20 Hz to 125 Hz	20 Hz to 125 Hz	30 Hz to 160 Hz	37 Hz to 200 Hz
Sensitivity (In Car/1 W)	97 dB	95 dB	98 dB	102 dB
Impedance	4Ω	4Ω	_	_

<sup>\*</sup> Maximum output power \*\* Nominal output power

# **SPEAKERS** Pioneer INDEX **TS-G Series Speakers PRS Series Speakers** 75 88 **TS-D Series Speakers Champion Series Speakers** 78 90 **TS-A Series Speakers Pro Series Speakers** 82 92 **TS-R Series Speakers Other Speakers** 93



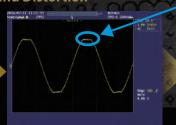
## The Importance of High Sensitivity

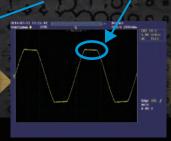
#### Why is High Sensitivity important for the car speakers?

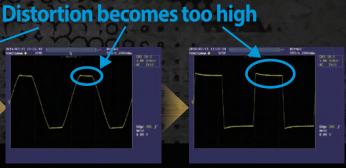
When you need to turn up the volume from the receiver, the greater the output signal from the receiver's amplifier, the more this signal is distorted, which may cause clipping noise.

#### **Oscilloscope Images of Sound Distortion**









Proper volume

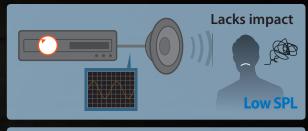
Turned-up volume

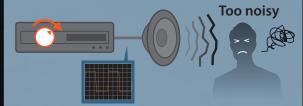
High volume

#### How do high sensitivity speakers help sound?

Pioneer car speakers sound very clear and sufficiently loud at low receiver volume settings because high sensitivity specifications make the speakers responsive enough to reproduce sound with great precision, even at low receiver amplifier output signal levels.

#### **Conventional Speaker**





#### **Pioneer Speaker**







#### 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 Open: the widening effect that extends way beyond the 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".

#### **Smoother Off-Axis Response**

**Superior Directivity: Pioneer PRS Speakers** 

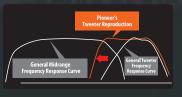
Pioneer PRS speakers always maintain more open, smooth, expansive, multidimensional sound, without the dramatic dips and inconsistencies that lesser speakers can produce.





#### **Low Crossover Frequency Wider Response, Lower Crossover Point**

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



OPEN & SMOOTH

#### **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





CONE As seen from below, at an angle

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-A6996S 650 W MAX. HOLOGRAM 6" x 9" 5-Way Speaker

In this Dealer Reference Guide, particular speakers and 3D



- Audiophile-grade speakers designed to stunningly recreate the musical performance in exact detail.
- Meticulous attention to detail in the materials and craftsmanship ensure the most subtle musical 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

#### **Sound Absorbing Material**

Absorbs the back wave reflection from the moving tweeter diaphragm, preventing phase shifts or frequency cancellation-producing a smoother, more linear sound.

#### **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.



99.9997% Purity

#### PCOCC®

#### **Lower Crossover Frequency**

28 mm Large Sized -

**Main Magnet** 

## Back Chamber

## 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

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.

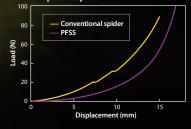
The Micro Fiber Surround realizes faster response and more accurate bass reproduction that allows all music to be heard to greatest advantage.

#### **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.

# TS-C172PRS (TS-C171PRS) 122 mm (TS-C171PRS)

# nstallation 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 avoiding obstructions like window rails

## TS-W252PRS

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.

#### TS-W252PRS Cut View

#### **Corrugated Surround**

Aramid Fiber (Conex) with Rubber Coating

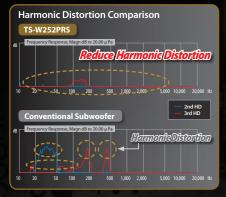
OFC Short Ring
Focuses the magnetic field where it needs to be, increasing efficiency, lowering distortion and providing for more linear voice coil movement.

#### **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.

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



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

#### **Massive 75 mm Diameter Voice Coil**

#### **AL-Diecast Basket**

Eliminates ringing and unwanted resonances.

The state of the s	TS-C172PRS	TS-C132PRS	TS-S062PRS	TS-W252PRS
Size	17 cm 28 mm*	13 cm 28 mm*	66 mm	25 cm
Max. Music Power (Nominal)	200 W (50 W)	150 W (30 W)	200 W (50 W)** 60 W (15 W)***	800 W (400 W)
Frequency Response	25 Hz to 35 kHz	30 Hz to 35 kHz	48 Hz to 40 kHz	20 Hz to 2,400 Hz
Sensitivity (1 W/1 m)	89 dB	86 dB	84 dB	84 dB
Impedance	4Ω	4Ω	4Ω	4Ω
Crossover Frequency	2,300 Hz	2,200 Hz		
Mounting Depth	67 mm 13.4 mm*	57.3 mm 13.4 mm*	32 mm 42.2 mm****	178 mm
Mounting Depth with Mount Adapter	16 cm: 55 mm			
Cut-Out Dimensions	ø142 mm	ø123 mm	ø64 mm ø69 mm****	ø238 mm
Recommended Enclosure				28.3 liters

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



- Twaron •\* Aramid fiber cone reproduces deep and bold bass & bold vocal sound and also expresses even the most subtle nuances.
- Open & Smooth<sup>™</sup> sound concept delivers open staging & smooth transition of driver response to provide the ultimate in-car sound.
- Included brackets\*\* provide for installation flexibility and wide coverage.

<sup>\*</sup>Twaron® is a registered trade mark of Teijin Aramid BV. \*\* Only for TS-D1730C.











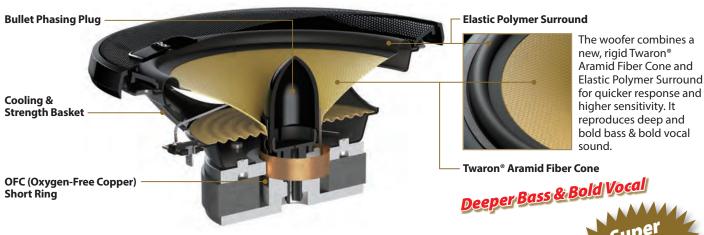




### Technology of a D-Series Speaker

#### TS-D1730C Cut View





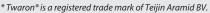
#### Twaron®\* Aramid Fiber Cone



The new cone on the woofer of the Pioneer TS-D component offers a variety of improvements for optimal performance and phenomenal sound. The aramid fiber cone is constructed from Twaron® woven cloth



that is hardened and shaped to produce a rigid and durable cone. The woofer offers stiffer dampening for quicker response. The woofer section of the TS-D component produces deep and bold bass & bold vocal sound.





Even bullets cannot penetrate this material, and no other materials match its toughness.

#### Open & Smooth Sound -

With the "Open & Smooth" sound of Pioneer D-Series Speakers out on the open road, the journey to more dramatic in-car audio sensations moves every passenger in its natural, dynamic flow.



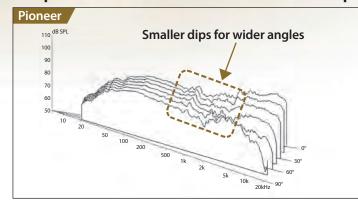
Open\*

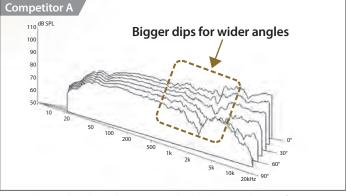
Open staging and sound characteristics enhance the widening effect that extends way beyond the space between speakers.

Smooth\*

With smooth transitions between mid-bass and tweeter frequency characteristics, sound from these speakers is not marred by crossover frequency dips.

#### A Superior Characteristic of D-Series: Smaller Dips for Wider Angles





Unlike competitors' speakers, Pioneer D-Series speakers produce more natural sound without big gaps in the high-to-midrange frequency range for various angles.

<sup>\*</sup>For details, please see "Open & Smooth Sound" on page 74.



#### Tweeter

# **Rear Chamber** sensitivity (dB) - New TS-D Previous Mode Frequency (Hz) uency response [at 2 V]

The new D-Series components are capable of wider frequency sound and quicker response in playback than any models that preceded them.

# **Light Weight Soft Dome Optimized Flange Shape** Diaphragm The flange is optimally shaped for wider directivity and reproduces steady sound. **Neodymium Magnet CCAW (Copper-Clad Aluminum) Voice Coil**

#### Brackets (for TS-D1730C)



The included bracket can be cut as needed for flexible installation in various types of cars without having to cut

# Network



Compact body fits small spaces and selectable tweeter level for close matching of the tweeter with the woofer.

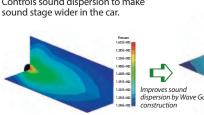
# **Flexible Installation**

#### TS-D1602R Cut View

## Smooth Off-Axis Response



**Wave Guides** Controls sound dispersion to make



Pressure 1.633E+002 1.536E+002 1.488E+002 1.343E+002 1.295E+002 dispersion by Wave Guides SYSNOISE - COMPUTATIONAL VIBRO-ACOUSTICS

#### **Lower Crossover Frequency**

**Light Weight Soft-Dome Diaphragm High-Power Neodymium Tweeter Magnet Rear Chamber** 

#### **Low Distortion**

**Thick Woofer Basket** 

**Large-Sized Woofer Magnet** 

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



#### Aramid/Basalt Fiber Skin with Ceramic Coating

- Reproduces lively sound Disperses resonance
- Composite Foamed IMPP
- Better transience in low and

- mid-low range

   Better rigidity and velocity

   Light weight for better response

#### Specifications

	TS-D1730C	TS-D1330C	TS-D6902R	TS-D1702R	TS-D1602R	TS-D1302R	TS-D1002R
Size	17 cm, 23 mm*	13 cm, 23 mm*	6" x 9"	17 cm	16 cm	13 cm	10 cm
Max. Music Power (Nominal)	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	27 Hz to 44 kHz	37 Hz to 44 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)	88 dB	88 dB	90 dB	88 dB	88 dB	88 dB	86 dB
Impedance	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω
Crossover Frequency	4,500 Hz (with -12 dB)	4,500 Hz (with -12 dB)	2,800 Hz	3,200 Hz	4,000 Hz	6,000 Hz	6,000 Hz
Mounting Depth	65 mm 13 mm*	58 mm 13 mm*	89 mm	64.5 mm	59 mm	57.3 mm	46.5 mm
Mounting Depth with Mount Adapter	45 mm**	_	_	_	_	_	_
Cut-Out Dimensions	ø144 mm	ø121 mm	151 mm x 220 mm	ø139 mm	ø128 mm	ø121 mm	ø106 mm

<sup>\*</sup> Tweeter specification \*\* With 6" x 9" tweeter bracket



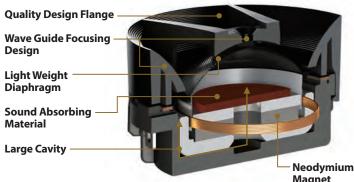
- Deeper bass and clearer high frequencies sound reproduction is realized with higher dynamic range for greater listening experiences.
- With the balanced combination of the parts, higher power handling ability is realized for more impactful sound and vibrant music playback (Max Power increased for TS-A1676S and 6"x 9" models).
- High-quality appearance and universal design enhance the vehicle interior. High durability can withstand even severe use (fully covered mesh grille included for 6"x 9" models).





## Technology of an A-Series Speaker

#### TS-A1606C Cut View



#### **Installation Flexibility — Tweeter Mounting Options**







Flush Mount Type

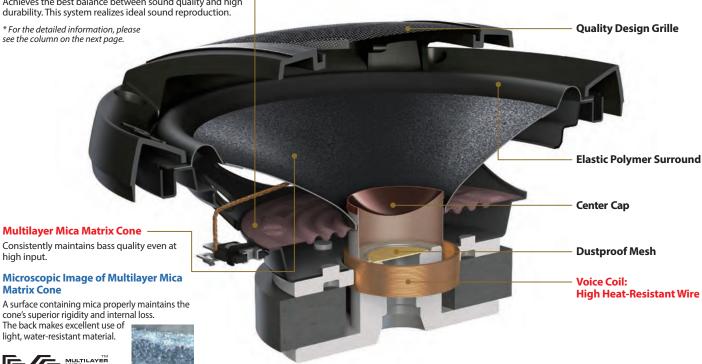
Slant Type

Custom-Fit Type

The flexible three-way installation tweeter disperses sound more widely with superior control, providing listeners with the best sound under all conditions, regardless of listening position or car.

#### **External Passive Crossover Network**





#### **Solid Bass Sound**



MATRIX CONE

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.



#### **Deeper Bass Sound**

Compared to the former models, the new A-Series can reproduce deeper bass sound, bringing you more impressive experiences of sound and music.



## Technology of an A-Series Speaker

#### TS-A6996S Cut View

#### **Increased Max Power**

Max music power resulting from the combination of optimized parts (indicated by red letters on the diagram below) exceeds the power of the previous A-Series models.

Note: The following explanations are not for TS-A2013i and TS-A2503i.

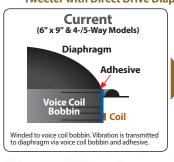


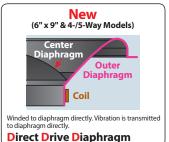
#### **Hard Type Direct Drive Diaphragm**

#### TS-A6996S / TS-A6986S

Prevents deformation caused by excessive input.

#### Tweeter with Direct Drive Diaphragm (TS-A6996S & TS-A6986S)





**Elastic Polymer Surround** 

**Multilayer Mica Matrix Cone** 

Consistently maintains bass quality even at high input.

#### P.F.S.S. Spider

All Models

Achieves the best balance between sound quality and high durability. This system realizes ideal sound reproduction.



Cooling Basket with Air Vents

TS-A6996S | TS-A6986S | TS-A6976S | TS-A6966S |

Air vents under the spider make movement smooth and cool the body.

Fully Covered Mesh Grille for 6" x 9" Models

# Prevents dust from entering speaker body interior.

#### Voice Coil: High Heat-Resistant Wire

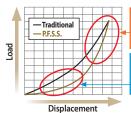
All Models

 $Incorporating\ optimized\ wire\ material\ and\ diameter.$ 

## Progressive Flex Suspension System

#### (P.F.S.S. patented technology, for 6" x 9" models and TS-A1686S)

With exclusive material inherited from Pioneer's high-end PRS Series, this system realizes ideal sound reproduction. At a small input, its soft part makes movement smooth and reproduces clear sound and at excessive input, its hard part controls excessive vibration and prevents movement error.



Excessive input (irregular situation) Controls excessive vibration High Durability!!
Maximizes power

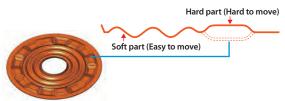
Small input (usually for listening) Easy to move!

44 mm

ø128 mm

53 mm

Low resonance frequency!!
Contributes to deep bass sound



89 mm

ø186 mm

46 mm

95 mm x 153 mm

#### /Specifications

	TS-A1606C	TS-A1306C	TS-A6996S	TS-A6986S	TS-A6976S	TS-A6966S	TS-A1686S
Size	16 cm 20 mm*	13 cm 20 mm*	6" x 9"	6" x 9"	6" x 9"	6" x 9"	16 cm
Max. Music Power (Nominal)	350 W (60 W)	300 W (50 W)	650 W (100 W)	600 W (100 W)	550 W (90 W)	420 W (60 W)	350 W (60 W)
Frequency Response	32 Hz to 43 kHz	42 Hz to 42 kHz	28 Hz to 38 kHz	27 Hz to 37 kHz	27 Hz to 24 kHz	28 Hz to 36 kHz	32 Hz to 38 kHz
Sensitivity (1 W/1 m)	91 dB	90 dB	93 dB	92 dB	92 dB	92 dB	91 dB
Impedance	4Ω						
Mounting Depth	54 mm 19 mm*	52 mm 19 mm*	85 mm	84 mm	84 mm	71 mm	54 mm
<b>Cut-Out Dimensions</b>	ø144 mm	ø121 mm	153 mm x 222 mm	153 mm x 222 mm	153 mm x 222 mm	153 mm x 222 mm	ø144 mm
			F0 1 100 15		<b>T</b>		
	TS-A1676S	TS-A1376S	TS-A6886R	TS-A4676R	TS-A4633I	TS-A2013i	TS-A2503i
Size	16 cm	13 cm	6" x 8"	4" x 6"	4" x 6"	20 cm	25 cm
Max. Music Power (Nominal)	320 W (50 W)	300 W (50 W)	350 W (60 W)	200 W (30 W)	200 W (30 W)	500 W (80 W)	420 W (80 W)
Frequency Response	32 Hz to 40 kHz	40 Hz to 39 kHz	28 Hz to 39 kHz	35 Hz to 42 kHz	35 Hz to 42 kHz	25 Hz to 28 kHz	20 Hz to 31 kHz
Sensitivity (1 W/1 m)	90 dB	89 dB	91 dB	88 dB	88 dB	91 dB	92 dB
Impedance	4Ω						

43 mm

95 mm x 153 mm

61 mm

133 mm x 191 mm

115 mm

ø236 mm

Mounting Depth
Cut-Out Dimensions
\* Tweeter specification



- Multilayer Mica Matrix cone design delivers the ultimate listening experience with remarkable efficiency to energize loud, clear sound performance.
- Aggresive grille and red flange design create a strong impression even long after installation.
- Extra screw holes for easier installation for various cars.
- Mesh grill fully covered to keep out dust. Unique design suits those who dare to stand out when it comes to car lifestyle. (TS-R6951S)



## Technology of an R-Series Speaker

#### TS-R6951S Cut View

#### Loud & Aggressive

#### **Multilayer Mica Matrix Cone**

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.





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





#### TS-R6951S

Fully covered mesh grille prevents dust from entering speaker body.



**High Sensitivity** 

**Light Weight Rubber Coated Cloth Surround** 

#### Aggressive Grille and Red Flange



## - Progressive Flex Suspension System (P.F.S.S) Spider

#### TS-R6951S

Achieves the best balance between sound quality and high durability. This system realizes ideal sound reproduction.

#### **High Power**

#### **Voice Coil with Aluminum Bobbin**

Excellent heat dissipation and durability enhance tolerance to high input power.

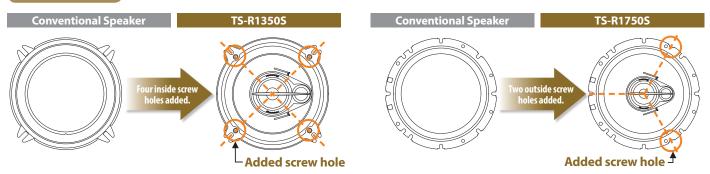
#### **More Flexible Installation**

With refined baskets and added screw holes, the TS-R speakers can be installed with greater flexibility in various cars.

#### **Basket Design**

# TS-R1650S Example of Installable Vehicle From 4- to 3-basket arm Cut-Out Hole

#### Screw Hole



#### **Specifications**

	TS-R6951S	TS-R1750S	TS-R1650S	TS-R1350S
Size	6" x 9"	17 cm	16 cm	13 cm
Max. Music Power (Nominal)	400 W (50 W)	250 W (40 W)	250 W (40 W)	250 W (35 W)
Frequency Response	31 Hz to 35 kHz	36 Hz to 31 kHz	35 Hz to 31 kHz	44 Hz to 31 kHz
Sensitivity (1 W/1 m)	92 dB	90 dB	90 dB	89 dB
Impedance	4Ω	4Ω	4Ω	4 Ω
Mounting Depth	68 mm	47 mm	40 mm	47 mm
Cut-Out Dimensions	153 mm x 222 mm	ø137 mm	ø128 mm	ø111 mm



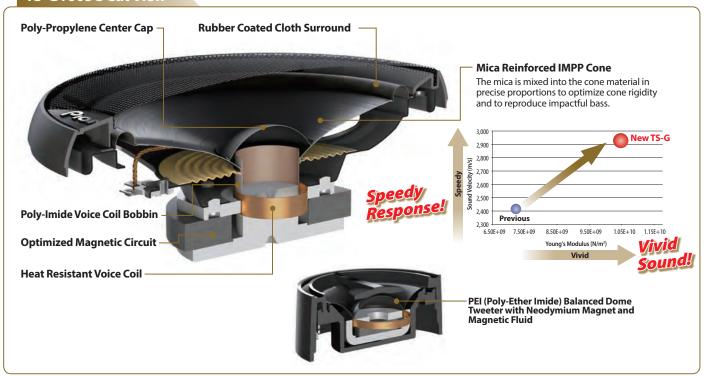
- Mica-reinforced IMPP cone reproduces natural sound with impressive bass.
- Shallow mounting depth and comprehensive lineup allow for wide applications.



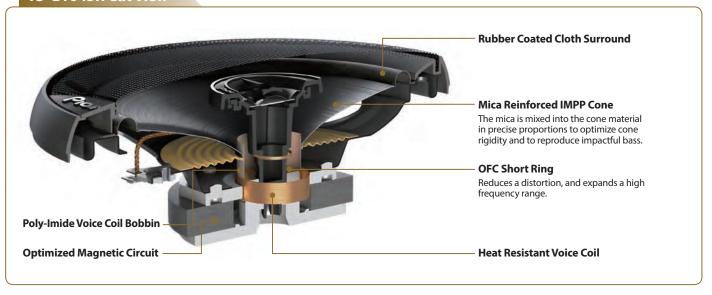


## Technology of a G-Series Speaker

#### TS-G1605C Cut View



#### **TS-G1645R Cut View**



#### **Specifications**

	TS-G1605C	TS-G1645R	TS-G1345R	TS-G1045R	TS-G1615R	TS-G1315R	TS-G1015R	TS-G6932I	TS-G4645R
Size	16 cm 30 mm*	16 cm	13 cm	10 cm	16 cm	13 cm	10 cm	6" x 9"	4" x 6"
Max. Music Power (Nominal)	280 W (45 W)	250 W (40 W)	250 W (35 W)	210 W (30 W)	230 W (40 W)	230 W (35 W)	190 W (30 W)	300 W (40 W)	200 W (30 W)
Frequency Response	30 Hz to 28 kHz	26 Hz to 27 kHz	34 Hz to 25 kHz	38 Hz to 29 kHz	30 Hz to 25 kHz	33 Hz to 24 kHz	38 Hz to 26 kHz	27 Hz to 40 kHz	37 Hz to 26 kHz
Sensitivity (1 W/1 m)	89 dB	89 dB	86 dB	84 dB	90 dB	88 dB	86 dB	90 dB	86 dB
Impedance	4Ω								
Mounting Depth	39 mm	38 mm	44 mm	43 mm	39 mm	44 mm	43 mm	67 mm	42 mm
Cut-Out Dimensions	ø128 mm	ø128 mm	ø121 mm	ø106 mm	ø128 mm	ø121 mm	ø106 mm	153 mm x 222 mm	95 mm x 153 mm

<sup>\*</sup> Tweeter specification



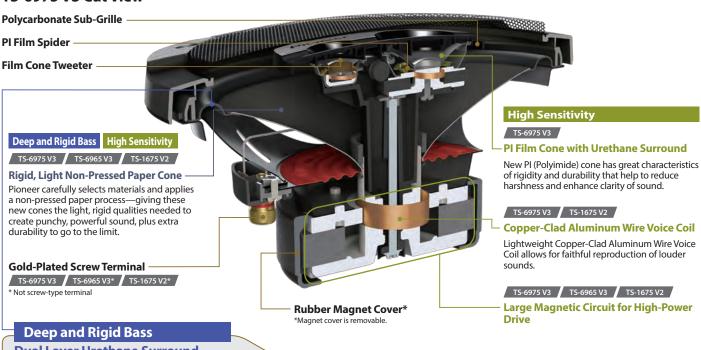
- Technologies inherited from Champion Series Speakers help reproduce bass with clarity, stability and presence that other 6"x 9"speakers typically cannot achieve. (TS-6975 V3/TS-6965 V3)
- Tougher at handling more high power input at higher volume without compromising higher quality. (TS-6975 V3/TS-6965 V3)
- Prestige atmosphere products advance the Champion Series Speakers heritage of toughness that's even reflected in their appearance.
- Although designed for 16 cm installation, the speaker has a cone that's actually 17 cm, for more powerful sound. (TS-1675 V2)





## **Technology of a Champion Series Speaker**

#### **TS-6975 V3 Cut View**

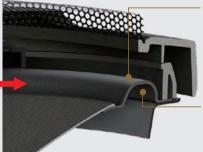


#### **Dual Layer Urethane Surround**

Improves cone stiffness. Greatly reduces unnecessary resonance that can compromise sound quality.

Champion Series Speaker Cross **Section Detail** 





#### **Upper Urethane** Surround

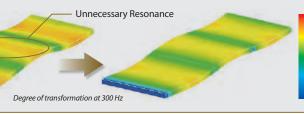
Suppresses unwanted peaks and dips in the high-frequency range.

#### **Lower Urethane** Surround

Reinforces strength and durability.

#### **Conventional Single Layer**

Wave-like cone vibration results in unnecessary resonance that influences tonal quality, so this cone cannot reproduce original sound linearly.



0.5 mm

#### **New Dual Layer**

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

0 mm

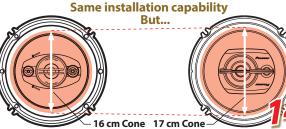
#### Larger-Than-Normal Cone for 16 cm Cutout

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

Cut-Out Hole: 128 mm



#### **// Specifications**

% Bigger Cone Size

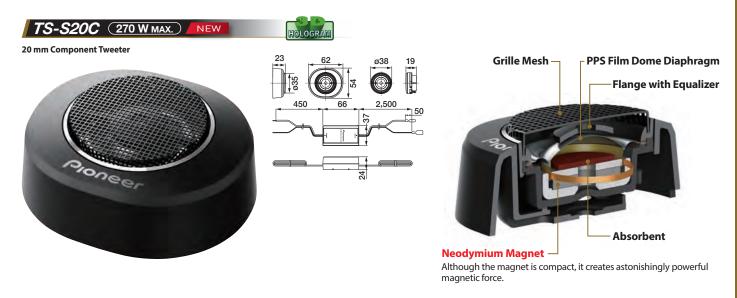
	TS-6975 V3	TS-6965 V3	TS-1675 V2
Size	6" x 9"	6" x 9"	16 cm
Max. Music Power (Nominal)	550 W (80 W)	450 W (80 W)	300 W (50 W)
Frequency Response	28 Hz to 27 kHz	23 Hz to 26 kHz	35 Hz to 20 kHz
Sensitivity (1 W/1 m)	92 dB	91 dB	92 dB
Impedance	4Ω	4Ω	4Ω
Mounting Depth	92 mm	84 mm	58 mm
Cut-Out Dimensions	151 mm x 220 mm	151 mm x 220 mm	ø128 mm



- Open Show sound: ultra-high power handling and sensitivity of sound reproduction.
- Open Show design: edgy, dynamic appearance.
- Customize your system with any combination of Midbass, Tweeter and 6"x 9".







- Despite its small body, the TS-S20C pushes sound with an expansive range that retains the essential character of sound reproduced by the TS-S20.
- Small body size perfectly fits OEM tweeter location.
- The external passive network properly adjusts mid-to-high transitions to maintain smooth sound without crossover frequency dips.

## Technology of TS-S20C

#### Downsized for easy OEM replacement

Easy-to-install replacement for factory-equipped tweeter in the same position as the original tweeter.



#### **External passive network**

Controls sound allocation properly and realizes natural, smooth transitions of sound.



#### Desian

Includes spacer for on-dash usage. Appealing design exerts distinctive presence, yet is well-suited for car interiors.



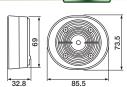
#### **TS-S20** 200 W MAX.

## Hologi

#### 20 mm Component Hard-Dome Tweeter

#### **FEATURES:**

- 20 mm Amorphous-Titanium-Coated PPS (Polyphenylene Sulfide)-Dome Tweeter
- High-Performance Strontium Magnet
- Built-in LC Network: Attached at End of Speaker Cable





#### / Specifications

	TS-S20C	TS-S20
Size	20 mm	20 mm
Max. Music Power (Nominal)	270 W (50 W)	200 W (50 W)
Frequency Response	2,200 Hz to 32 kHz	3,000 Hz* <sup>1</sup> / 1,200 Hz* <sup>2</sup> to 26 kHz
Sensitivity (1 W/1 m)	91 dB	92 dB
Impedance	6Ω	8Ω

<sup>\*1.</sup> With network \*2. Without network

#### **SPEAKERS**





#### *TS-S250* 250 W MAX.

#### 40 mm High-Power Tune-Up Tweeter

#### FEATURES:

- 40 mm Ceramic Horn Tweeter Design
- High-Power Handling of 250 W Max.
- High Sensitivity: 97 dB/W
- Built-in -6 dB/oct. Capacitor
- Large Pioneer Logo on Side Surface



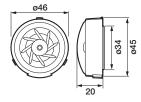


#### **TS-T110** 120 W MAX.

#### 22 mm Component Hard Dome Tweeter

#### FEATURES:

- 22 mm PPTA Hard Dome Tweeter with Strontium Magnet and Magnetic Fluid
- In-Line -6 dB/Oct. Capacitor for Tweeter Protection
- Surface or Flush Mounting Capabilities













#### TS-MR2040 200 W MAX.

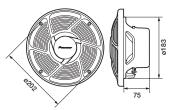




#### 20 cm Marine-Use 2-Way Speaker

#### **FEATURES:**

- 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 Terminal
   Weather-Proof and Heat-Resistant Resin



#### TS-MR1640 (160 W MAX.)

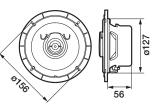




#### 16 cm Marine-Use 2-Way Speaker

#### 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 Terminal
- Weather-Proof and Heat-Resistant Resin



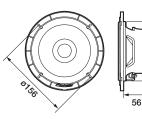
#### TS-MR1600 100 W MAX.





#### 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 Terminal
- Weather-Proof and Heat-Resistant Resin



#### // Specifications

	TS-F1634R	TS-F1034R	TS-S250	TS-T110	TS-MR2040
Size	16 cm	10 cm	40 mm	22 mm	20 cm
Max. Music Power (Nominal)	200 W (25 W)	150 W (20 W)	250 W (50 W)	120 W (40 W)	200 W (40 W)
Frequency Response	31 Hz to 16 kHz	45 Hz to 18 kHz	6,000 Hz to 40 kHz	2,500 Hz to 30 kHz	25 Hz to 30 kHz
Sensitivity (1 W/1 m)	88 dB	86 dB	97 dB	90 dB	92 dB
Impedance	4Ω	4Ω	8Ω	4Ω	4Ω
Mounting Depth	41 mm	43 mm	_	_	75 mm
Cut-Out Dimensions	ø128 mm	ø102 mm	_	_	ø183 mm

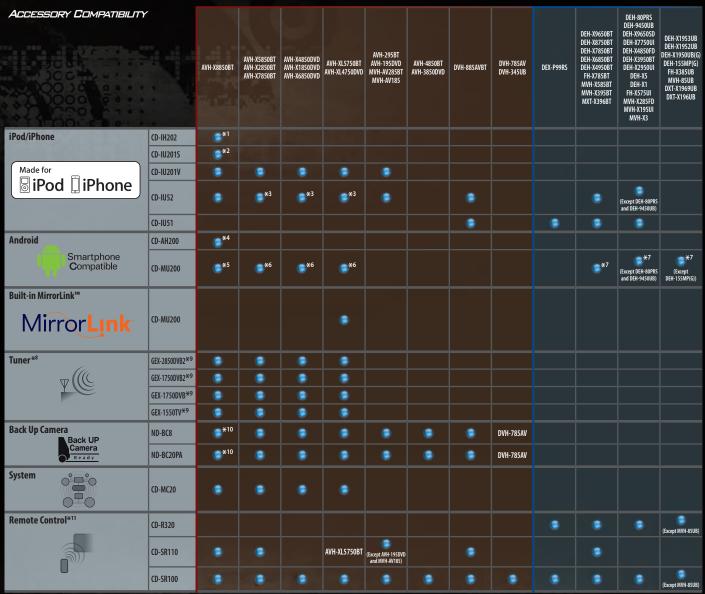
	TS-MR1640	TS-MR1600
Size	16 cm	16 cm
Max. Music Power (Nominal)	160 W (30 W)	100 W (25 W)
Frequency Response	30 Hz to 30 kHz	30 Hz to 20 kHz
Sensitivity (1 W/1 m)	91 dB	90 dB
Impedance	4Ω	4 Ω
Mounting Depth	56 mm	56 mm
Cut-Out Dimensions	ø127 mm	ø127 mm

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## **Accessories Connection Table with AV and Audio Receivers**



- Note: Some functions may be limited in terms of remote controllability, even if the receiver and remote control are fenoted as compatible in the chart.

  1. Required when AppRadio Mode is in use with iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5 or 5th generation iPod touch. Requires Apple Lightning Digital AV Adapter and CD-IU52 (sold separately).

  2. Required when AppRadio Mode is in use with iPhone 4/4s or 4th generation iPod touch.

  3. Required when AppRadio Mode USB is in use with iPhone 6 Plus, iPhone 6, iPhone 5s, iPhone 5c, iPhone 5 or 5th generation iPod touch.

  4. Required when AppRadio Mode is in use with Applications.
- \*4. Required when AppRadio Mode is in use with Android phone.

- \*5. Required when Android Auto is in use with Android phone.
  \*6. Required when AppRadio Mode USB is in use with Android phone.
  \*7. Required when USB Direct Control is in use with Certain Android phones.
  \*8. May not be compatible with certain receivers.
  \*9. The compatibility for each TV Turner depends on the broadcasting system of your country.
  \*10. Can display the parking assist guidelines.
  \*11. Not all functions can be operated using the remote control.



#### Audio/Video Receiver Accessories

#### ND-BC8

**Universal Rear View Camera** 



#### ND-BC20PA

ND-BC2 with Parking Assistant Feature



#### GEX-2850DVB2

**Dual Diversity DVB-T2 TV Receiver** 



#### GEX-1750DVB

**HD DVB-T Digital TV Receiver** 



### GEX-1750DVB2

**HD DVB-T2 Digital TV Receiver** 



#### GEX-1550TV

Analog TV Tuner for PAL/SECAM/NTSC



Remote Controls

Microphone for Auto EQ and Auto Time **Alignment Frequency Band Fine-Tuning** 

#### CD-R510

CD-MC20

Remote Control

· For use with receiver with Bluetooth wireless technology.



#### CD-R320

**Optional Remote** Control for DEH Series Receivers



#### CD-AH200

Android Connectivity

AppRadio Mode App Connectivity Kit for Android



Note: Please refer to pages 96 and 100 for accessories for connection of Android details.

#### Smartphone Connectivity

#### CD-MU200\*

USB Interface Cable for AppRadio Mode USB, Android Use with Android Auto™ and MirrorLink™ Devices (USB-USB Cable: 1.5 m/USB-microUSB Cable: 50 cm)



\* Availability of receiver's features depends on type of

#### CD-SR110

Steering Wheel Remote Control for Bluetooth Receivers



#### CD-SR100

Steering Wheel Remote Control



#### Auxiliary Input Accessory

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



#### iPod/iPhone Connectivity

#### CD-IH202

CD-IU201V

AUX Extension Cable: 1.5 m)

AppRadio Mode HDMI/USB Interface Cable for iPod/iPhone with Lightning Connector



#### CD-IU201S

AppRadio Mode USB Interface Cable for iPhone 4, iPhone 4s, or 4th Generation iPod touch (USB Cable: 50 cm/RGB Cable: 2 m)



#### CD-IU51V

USB Interface Cable for iPod/iPhone (USB and AUX Cable: 50 cm)



#### CD-IU51

USB Interface Cable for iPod/iPhone (50 cm)



USB Interface Cable for iPod/iPhone (USB and AUX Cable: 50 cm/

USB Interface Cable for iPod/ iPhone with Lightning Connector (50 cm)

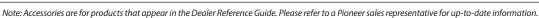


CD-V150M

#### CD-IU52



Note: Please refer to pages 96 and 100 for accessories for connection of iPod/iPhone details.



#### **SPECIFICATIONS**

#### AV Receivers Features Comparison

Recolation	Size/Aspect Ratio  ion  klight  sund Picture and Video  im Analyzer  ranel Operation	WVGA (800 x 480)	WVGA (800 x 480)	WVGA	WVGA	WVGA											3.5"/16:9	3"/16:9	
Processing   Process   P	ion klight pund Picture and Video im Analyzer ranel Operation red Display	WVGA (800 x 480)	WVGA (800 x 480)	WVGA	WVGA	WVGA													
## Disability   1967	klight pund Picture and Video im Analyzer anel Operation	Х		(800 x 480)						WWW.	www.	. WWGA	WWWA				QVGA	QVGA	
Section Analyses	am Analyzer  anel Operation  ted Display	5 DCD 2 DCV		x			(800 x 480) x	(800 x 480) x				-	(800 x 480) x		(800 x 480) x	(800 x 480) x		(480 x 240) x	×
Committee   Comm	anel Operation	y y					1 BGP	1 BGP							1 BGP	1 BGP			
Manufaction   Parcel   Parce	red Display		x (Clear Type	x (Clear Type	x (Clear Type	x (Clear Type		x (Clear Type	x (Clear Type	x (Clear Type					x (Clear Type				
Selected Angle Setting											х	х	Х	Х					
Second Common   Process																			
SPACE   SPAC	gle Memory	Х	Х	Х															
Non-North-Worker Psychology   Non-							ı	1	1				1				T		_
See Part	V/DVD-Video Playback		х	х	Х	х	х	Х	Х	х	х	х	х	х			X	х	х
Michael   Museum			Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)		Front*2	Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)	Rear (1 Amp)	Front*2	Front*2	Front
March   Marc	out (3.5 mm mini-jack)																	Front (Audio/	Fron
No.		Video)	Video)		Video)		Video)		Video)		Video)	Video)	Video)		Video)		Video)	Video)	(Audi
Process	Bluetooth*3	AVRCP/SSP/	AVRCP/SSP/		AVRCP/SSP/				AVRCP/SSP/				AVRCP/SSP/				AVRCP/SSP/		
Proceed   Proc	Free	_															SPP		
Page		iPhone/	iPhone/			iPhone/			iPhone/	iPhone/									
Proce   Proc	io Mode*4		(AppRadio	(AppRadio	(AppRadio	(AppRadio			(AppRadio	(AppRadio			(AppRadio	(AppRadio					
Number   N	de																		
Discretion   Dis																			
Section   Certain Android   Section   Sectio		USB/		USB		USB	USB	USB	USB/	USB				USB	USB	USB	USB*9		
	Control for Certain Android		USB/		USB/				USB/				USB/						<u> </u>
Anthorough   Phone   Phone   Phone   Anthorough   Phone   P		Dide(OO(I)	Bluetooth	USD	Bluetooth	UJD			Bluetooth	OSD			Bluetooth	OSD				<u> </u>	-
Android			int. '		int				int								×	<u> </u>	
MR. Search				iPhone		iPhone				iPhone									
## AP 30 MAN Trunes AAC Playback    SOLISS   USS		×	×	×	×	×			×	×									H-
WAY Playback		DVD/CD/SD/					DVD/CD/USB	DVD/CD/USB			DVD/CD/USB	DVD/CD/USB			USB	USB	DVD/CD/USB	DVD/CD/USB	DVD/CD
INVENT VIEW Playback					USB													(MP3/WMA)	USE
WWW Playback	ayback ideo Playback						DVD/CD/LISB	DVD/CD/LISR			DVD/CD/LISR	DVD/CD/LISB	DVD/CD/LISR	DVD/CD/LISR	LISR	LISR	DVD/CD/USR	DVD/CD/USB	DVD/CD
USB   14-04		SD/USB	DVD/CD	DVD/CD	DVD/CD	DVD/CD	DVD/CD/03D	DVD/CD/03D	DVD/CD	DVD/CD	DVD/CD/030	DVD/CD/03D	DVD/CD/03D	DVD/CD/03D	035	030	DVD/CD/O3D	DVD/CD/03D	DVD/CE
Incar PCM Decoder	Playback		DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	DVD/CD/USB	USB	USB	DVD/CD/USB	DVD/CD/USB	DVD/CE
Dolby   Digital Decoder			1		USB (H.264)	USB (H.264)		~	USB (H.264)	USB (H.264)	v	v	USB (H.264)	USB (H.264)	~				
VND ChatePrite(Pilos Repeat   X	Digital Decoder	Х	х	Х			Х	Х	X		Х	Х	X		Х	Х		X	x
NVD Auto Play																		X X	X
Supertuner   IIID																		X X	X
As stations/6 Presets		_ ^		_ ^		_ ^				^							_ ^		
SSM (Best Stations Memory)		X X							X X		X	×	X X	X X	X X		X	X	X
No.	est Stations Memory)		х	х	х	х	х			Х							- "	X	Х
Sullt-in Amplifier	ek runing										X	X					×	X	X
SOW x4   S		LMOCETT	MOCEET	MOCEET	MOCFET	MOCEET	MOSTET	MOSTET	MOSTET	MOCEET	MOCLET	MOCLET	MOSTET	MOCFET	MOCEET	MOCLET	MOCEET	MOSFET	MOSF
CA Preouts   CA		50 W x 4	50Wx4	50Wx4	50Wx4	50 W x 4	50 W x 4	50Wx4	50Wx4	50 W x 4		50 W x 4	50 W x 4	50 W x 4	50 W x 4	50 W x 4	50 W x 4	50 W x 4	50 W
		3 (4 V)	3 (4 V)	3 (4 V)	3 (4 V)	3 (4 V)	2 (2 V)	2 (2 V)	3 (4 V)	3 (4 V)	3 (2 V)	3 (2 V)	3 (4 V)	3 (4 V)	2 (2 V)	2 (2 V)		2 (2 V)	2 (2 \
List of Column   X			96 kHz/24-bit	96 kHz/24-bit	96 kHz/24-bit	96 kHz/24-bit			96 kHz/24-bit	96 kHz/24-bit			96 kHz/24-bit	96 kHz/24-bit			96 kHz/24-bit	96 kHz/24-bit	96 kHz/2
CLP-WCLO Required	& Auto Time Alignment		x	x	x	x			×	x			x	x					
Squalizer   13-Band   13			x	x	x				x										
Graphic   Treble   Treble   Graphic   Graphi	rer Network		HPF/LPF	HPF/LPF	HPF/LPF	HPF/LPF			HPF/LPF	HPF/LPF	Race/Mid/	Race/Mid/					LPF Rass/Mid/	LPF Rass/Mid/	LPF Rass/A
SR Air		Graphic	Graphic	Graphic	Graphic	Graphic			Graphic	Graphic			Graphic	Graphic			Treble	Treble	Treb
WINTRAX			х		х														X
MIXTRAX**0				х		Х	x	х		Х	х	x	х	х	х	х	×	х	х
AIXTRAX App Control x Second Sec	X*10																		
General	X EZ*11 X App Control		х	х	х	Х			х	Х			х	х					<del>-</del>
	al																		
	350DVB2/GEX-1750DVB2/	×	x	x	×	x			×	х			×	x					
SEX-1750DVB/GEX-1550TV)	50DVB/GEX-1550TV)																	<u> </u>	
- 1 (Audio/ 1 (A		1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	1 (Audio/	x 1 (Audio/	1 (Audi
Omposite Video Vid	<u> </u>							Video)									Video)	Video)	1 (Audi
DMI Input x	nput	X				· ·	<u> </u>	·				·					<u> </u>		Ë
GB Input         x<		х																	
S-Display S-Disp	ustomization	5-Display Colors					3-Display	3-Display							3-Display	3-Display	2 Colors		
112-Key Colors   112-Ke		112-Key Colors	112-Key Colors	112-Key Colors	112-Key Colors	112-Key Colors	Colors	Colors	112-Key Colors	112-Key Colors					Colors	Colors	(Red/Blue)		<u> </u>
ower Off Mode         x         <	Off Mode	х	х	х	x	Х			Х	Х	х	х			х	х		x	
PEG Slide Show* <sup>14</sup> SD/USB         USB	de Show*14	SD/USB		USB			USB	USB	USB		Menu/ID2Ta-	Menu/ID2T~~	USB		USB	USB	USB	USB	$\vdash$
Manu/ID2 Man		Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	(English/	(English/	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	Menu/ID3	
Tag <sup>415</sup> Tag	manus na Disal	Tag*15	Tag*15	Tag*15	Tag*15	Tag*15	Tag*15	Tag*15	Tag*15	Tag*15	Portuguese/	Portuguese/	Tag*15	Tag*15	Tag*15	Tag*15	Tag* <sup>16</sup>	Tag*16	
	anguage Display		-	-					x	X							×	x	X
Vired Remote Input							_												X
teering Wheel Control Function Expansion x x x x x x x x x x x x x x x x x x x	Volume Control																	X	_
earning Steering Wheel Control         x <th< td=""><td>Volume Control lemote Input : Control Wheel Control Function Expansion</td><td>X X</td><td>X X</td><td>X X</td><td>X X</td><td>х</td><td>X*17</td><td>X*17</td><td>х</td><td>X X</td><td>Х</td><td>Х</td><td>х</td><td>X</td><td>Х</td><td>х</td><td>X X</td><td>Х</td><td>х</td></th<>	Volume Control lemote Input : Control Wheel Control Function Expansion	X X	X X	X X	X X	х	X*17	X*17	х	X X	Х	Х	х	X	Х	х	X X	Х	х
Dispare connect suggester compact billion with all LICP more charge and assume an expansibility for any loss of data any **O Polytor and in State **O The Connect Conn	Volume Control Jemote Input Control Wheel Control Function Expansion g Steering Wheel Control	X X	X X	X X	X X	X X	X*17	X*17	X X	X X	Х	Х	х	X	Х	х	х		_

<sup>|</sup> Neighbor | Neighbor

x x x x

\*9. Only for audio files.
\*10. Compatible with full-featured Non-Stop Mix Play based on data from music analysis performed using MIXTRAX software. Compatible sources: USB Device and SD Memory Card.
\*11. Quick, esay, accessible Non-Stop Mix Play without music analysis data from MIXTRAX software. Compatible sources: iPod, iPhone, USB Device and SD Memory Card.
\*12. Use input only for reverse or mirror image rear view camera. Other use may result in injury or damage.
\*13. Available only in certain regions of product distribution.
\*14. IPEG files are displayed automatically as a slideshow.
\*15. Usable language differs according to region, Please see page 19 for more details.
\*16. Rit English Russian. RD: English Spanish/Portuguese.
\*17. RC/RI: Remote control unit included. RD: Remote control unit is optional.



## Audio Receivers Features Comparison

	DEX-P99RS	DEH-80PRS	DEH-9450UB	DEH-X9650BT	DEH-X9650SD	DEH-X8750BT	DEH-X7850BT	DEH-X7750UI	DEH-X6850BT	DEH-X4950BT	DEH-X4850FD	DEH-X3950BT	DEH-X2950UI	DEH-X1953UB	DEH-X1952UB	DEH-X1950UB DEH-X1950UBG	DEH-XS	DEH-X1	FH-X785BT	FH-X575UI	FH-X385UB	MVH-X585BT	MVH-X395BT	MVH-X285FD	MVH-X195UI	MVH-85UB	MVH-X3	DXT-X1969UB DXT-X196UB	
D/USB/SD Me -R/CD-RW Compatible	mory C	Card/Bl	uetoot x	th®/iPo	d/And x	roid/M	edia Pl	ayback ×	Y	X	l x	X	×	×	х	×	х	x	X	X	x				_		_	X	-
ilt-in Bluetooth*1				HFP/ A2DP/ AVRCP/ SSP/SPP		HFP/ A2DP/ AVRCP/ SSP/SPP	HFP/ A2DP/ AVRCP/ SSP/SPP		HFP/ A2DP/ AVRCP/ SSP/SPP	HFP/ A2DP/ AVRCP/ SSP/SPP		HFP/ A2DP/ AVRCP/ SSP/SPP					HFP/ A2DP/ AVRCP/ SSP/SPP		HFP/ A2DP/ AVRCP/ SSP/SPP				HFP/ A2DP/ AVRCP/ SSP/SPP				HFP/ A2DP/ AVRCP/ SSP/SPP		AV SSI
rect Control for od/iPhone	USB	USB	USB	USB	USB	USB	USB/ Bluetooth	USB	USB	USB	USB	USB	USB				USB	USB	USB/ Bluetooth	USB		USB/ Bluetooth	USB	USB	USB		USB		l
ct Control for Certain roid Phones Eyes Free				USB	USB	USB	USB x	USB	USB	USB	USB	USB	USB	USB	USB	USB	USB	USB	USB	USB	USB	USB x	USB	USB	USB	USB	USB x	USB	ı
lia App Control*2		iPhone*3	iPhone*3	iPhone/ Android	iPhone	iPhone/ Android	iPhone/ Android	iPhone	iPhone/ Android	iPhone/ Android	iPhone/ Android	iPhone/ Android	iPhone/ Android	Android	Android	Android	iPhone/ Android	iPhone/ Android	iPhone/	iPhone	Android	iPhone/	iPhone/ Android	iPhone/ Android	iPhone/ Android		iPhone/ Android	Android	d iP
neer ARC							iPhone/ Android		iPhone/ Android	iPhone/ Android	iPhone/ Android	iPhone/ Android	iPhone/ Android	Android	Android	Android	iPhone/ Android	iPhone/ Android	iPhone/		Android		iPhone/ Android	iPhone/ Android	iPhone/ Android		iPhone/ Android	Android	in.
HC Memory Card Slot  Port*4	Rear	X Rear x 2	Rear x 2	X Rear x 2	x Rear x 2	Rear	Front*5/	Rear	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5/	Front*5	Front*5	Front*5	Front*5	Front*5	Front*5	15 F
c Browser	-	SD/USB	USB	SD/USB		USB	Rear	USB														Rear							Ť
Input mm mini-jack) ify®	Front*6	Front	Rear	Front	Front	Rear	Front	Rear	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	Front	1
WMA/WAV Playback es AAC Playback*7	X	X	x	X	X	x	Х	Х	X	X	х	X	X	х	х	х	X	X	X	Х	х	X	X	х	X	х	X	х	#
Playback*8 ext	, 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			х	Х	X	#
ner																													ļ
rtuner® III <i>D</i> esets (Stations)	24	24	24	24	24	24	GS: 36*9	24	GS: 36*9	36	36	GS: 36*9	36	36	36	36	24	24	36	36	36	36	36	36	24	24	24	36	$^{+}$
Best Stations Memory)	х	х	х	х	х	х	CS: 24 X	х	CS: 24 X	х	х	CS: 24 X	х	х	х	х	х	X	х	х	х	х	х	х	х	х	х	х	#
twave Tuner		Х	Х	Х	Х	×	X X*11	Х	X X*11	X	X	X X*11	X	X	X	X	Х	X	X	X	X	X	X	X	X	X*10	х	X	$\pm$
-in Amplifier:																													Ŧ
DSFET 50 W x 4 ass FD 100 W x 4		Х	Х	Х	Х	Х	X	Х	Х	Х	х	Х	Х	Х	Х	Х	Х	Х	х	Х	Х	Х	Х	х	Х	Х	Х	Х	+
olt RCA Preouts	4 (5 V)	3 (5 V)	3 (4 V)	3 (4 V)	3 (4 V)	3 (4 V)	GS: 3 (4 V)	3 (4 V)														3 (4 V)					$\sqcup$		$\downarrow$
Preouts	X	x					CS: 3 (2 V)		2 (2 V)	2 (2 V)	2 (2 V)	2 (2 V)	2 (2 V)	3 (2 V)	2 (2 V)	1 (2 V)	2 (2 V)	2 (2 V)	3 (2 V)	2 (2 V)	2 (2 V)		1 (2 V)	2 (2 V)	1 (2 V)	1 (2 V)	2 (2 V)	1 (2 V)	)
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-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	24-bit	t :
sively Designed o Parts	х	х																											
alized Audio Parts Q (with Mic Included)	х	x	х	х	х																								$\pm$
Alignment	Auto/ Manual	Auto/ Manual					Manual												Manual			Manual					$\sqcup$		
alizer	Dual (L/R) 31-Band GEQ 4-Way	Dual (L/R) 16-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	13-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 GEQ	5-Band GEQ	5-Band GEQ	13-Band GEQ	5-Band GEQ	5-Band GEQ	13-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	5-Band GEQ	
ay Network Mode h/Mid/Low)	(High/ Mid/Low/ Sub)	х					х												х			х							
sover Network nced Sound Retriever	х	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/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/LPF X	HPF/LPF X	HPF/LPF X	HPF/LPF X	HPF/LPF	HPF/LPF X	HPF/LPF X	F H
nced Sound Retriever for ooth Wireless Audio				x		x	x		X	x		X X					х		х		.,	х	х				х	, , ,	1
Boost woofer Control	1 Mada	1-Mode	x x 3-Mode	x x 3-Mode	x x 3-Mode	x x 3-Mode	x 3-Mode	x 3-Mode	x 3-Mode	x X 3-Mode	x 3-Mode	x X 3-Mode	x x 3-Mode	x x 3-Mode	x x 3-Mode	x x 3-Mode	x X 3-Mode	x X 3-Mode	x x 3-Mode	x 3-Mode	x x 3-Mode	x 3-Mode	x 3-Mode	x X 3-Mode	x X 3-Mode	x x 3-Mode	x x 3-Mode	x 3-Mode	le 3
Iness ning Position Selector		X X		3-IVIOGE	3-Mode X	3-IVIOGE	3-Mode	3-Mode	3-Mode	3-IVIOGE	3-Mode	3-Mode	3-Mode	3-Mode	3-Mode X	3-Mode	3-IVIOGE	3-Mode X	3-IVIOGE	3-Mode	3-Mode X	3-Wode	3-IVIOGE	3-Mode	3-Mode	3-Mode	3-IVIOGE	3-Mode	2 3
KTRAX		X	Х																						×	Х			<u></u>
PRAX EZ patible Source				iPod/	iPod/	iPod/	iPod/	iPod/	iPod/	iPod/	iPod/	iPod/	iPod/	USB	USB	USB	iPod/	iPod/	iPod/	iPod/	USB	iPod/	iPod/	iPod/	iPod/		iPod/	USB	+
hing Color				SD/USB x	SD/USB x	USB	USB x	USB	USB	USB x	USB	USB	USB x				USB x	USB x	USB x	USB x		USB x	USB	USB	USB		USB x		+
t Playback Mode nd Level Indicator				X	X	X	Х	X	Х	Х	X	X	Х	Х	X	Х	Х	X	X	X	Х	Х	Х	X	X		Х	X	+
neral				X	X	X	X	Х	Х	X	, x	X	Х				Х	X	X	Х		Х	Х	X	×		X		ļ
r Customization	125	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000	210,000			210,000				210,000	210,000	210,000	210,000		210,000					210,000		$^{+}$
	Colors*12 Full Dot	Colors (Separated)*13 Full Dot	Colors (Separated)*13 Full Dot	Colors (Separated)*13 Full Dot	Colors (Separated)+13 Full Dot	Colors (Separated)*13 Full Dot	Colors (Separated)*13 Wider	Colors (Separated)*13 Full Dot	Colors (Separated)*13 Wider VA	Colors (Separated)*13 Wider VA	Wider VA	Wider VA	Colors (Separated)*13 Wider VA	Wider VA	Wider VA	Wider VA	Colors (Separated)*13 Wider VA	Colors (Separated)*13 Wider VA	Colors (Separated)*13 Wider	Colors (Separated)*13	Wider VA	Colors (Separated)*13 Wider	Wider VA	Wider VA	Wider VA	L	Colors (Separated)+13 Wider VA	Wider VA	A V
lay with LED light	OEL (3-Line)	LCD (3-Line)	LCD (3-Line)	LCD (3-Line)	LCD (3-Line)	LCD (3-Line)	13+1 LCD (2-Line)	LCD (3-Line)	LCD (2-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	13+1 LCD (2-Line)	VA LCD (2-Line)	LCD (2-Line)	13+1 LCD (2-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	LCD (1-Line)	
lay Off Mode htness Setting	х	х	х	x 5-Step	x 5-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	x 10-Step	Х	x 10-Step	x 10-Step	x 10-Step	х	x 10-Step	X 10-Step	
ual Dimmer Control ated Dimmer Setting	X	х	х	х	х	х	х	х	Х	X X	х	х	X	х	Х	х	X X	X	х	х	х	х	х	х	х	х	X X	х	Ŧ
nination Effect				х	х	X X	X X	X X	X	X*14 X	X*14	х	X*14 X	X*14	X*14	X*14	X*14 X	X*14 X	X X	X	х	X X	X*14	X*14	X*14	$\vdash$	X*14 X	X*14	7
ination Timer i-Language	X*15	w15	X*15	w16	w16	х	х	Х	Х	х	X	X x17	х	X ×17	X ×17	X ×17	Х	х	X19	х	X	х	X =17	X ×19	X x17	х	х	X ×17	<u></u>
ay ige Display	X***	X*15 X	X*··	X*16	X*16	X*16	X*17	X*16	X*17	X*17	X*18	X*17	X*17	X*17	X*17	X*17	X*18	X*18	X*18		X*18	X*18	X*17	X*18	X*17		X*18	X*17	+
trum Analyzer I Indicator	Х	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	Ŧ
r Key ry Volume Control	Rotary	X X	X	X X	X X	x	х	X X	x	Prism-Cut		x	Prism-Cut		x	x	Prism-Cut			x	x	х	х	х	х	х	Prism-Cut		Ŧ
d Remote Input	Commander X	X	X	X	X	X	X	X	X	Prism-Cut X	X	X	Prism-Cut X	X	X	x	Prism-Cut X	Prism-Cut X	X	X	X	X	x	X	X	×	Prism-Cut X	X	$\pm$
						х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	Ţ
	Steering Remote	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х		х	х	1
rol ote Control							х		х	х	х	х	х	х	х	х	х	х	х		х	х	х	х	х	х	х	х	1
rol ote Control Source Change tion										1	1	1 (00)	1	1 4		1	х	x	1	1					. '	, ,		I	-1
rol ote Control Source Change tion Quick Charge for oid (CDP)										X		x (GS)	х	X				_ ^							Ļ	$\vdash$	$\vdash$		+
et Steering Wheel rol ote Control Source Change rtion Quick Charge for roid (CDP) -Phone Full Time section	x					х	х		х	x		x (GS)	×	*			X		х	х		х	х				х		+
ote Control Source Change tition Quick Charge for roid (CDP) Phone Full Time nection	x	X X	x Auto	x x	x x	x	x	Х	x		Х		x	X	X	x		X	x	X X	X	х	х				х	x	#

# The Best Solutions To Enjoy iPod & Android

## Connection Table for iPod/iPhone with Pioneer Receivers

	N. Dlaves P						in I									
	: Plays audi Plays audi : 🗀			iPhone*	1	iPod	iPod classic		iPod	touch*1			i	Pod nan	0	
Model	Interface	Use with	iPhone*2	iPhone 3G iPhone 3GS	iPhone 4 iPhone 4s	5th gen.	160GB (2007/2009) 120GB 80GB	1st gen.* <sup>2</sup>	2nd gen.	3rd gen.	4th gen.	1st/2nd gen.	3rd gen.	4th gen.	5th gen.	6th gen.
AVH-X8850BT	USB Direct Connection for Video, Music and AppRadio Mode	CD-IU201S*3			AppRadio MODE						AppRadio					
	USB Direct Connection for Video and Music	CD-IU201V		(iPhone 3GS only)	<b>♪</b> □		<b>♪</b> □		♪□	<b>♪</b> Ħ	<b>♪</b> □		<b>♪</b> □	♪□	♪□	<b>&gt;</b>
AVH-X5850BT/AVH-X4850DVD/AVH-X2850BT/ AVH-X1850DVD/AVH-X7850BT/AVH-X6850DVD/ AVH-XL5750BT/AVH-XL4750DVD	USB Direct Connection for Video and Music	CD-IU201V		(iPhone 3GS only)	→ □ APP		<b>♪</b> □		♪ □ APPL		♪ ☐ APPL		<b>♪</b> □	♪□	♪□	۵
AVH-295BT/AVH-195DVD/MVH-AV285BT/ MVH-AV185	USB Direct Connection for Video and Music	CD-IU201V		(iPhone 3GS only)	<b>♪</b> □		♪□		<b>♪</b> □	♪□	<b>♪</b> □		♪□	♪□	♪□	•
AVH-4850BT/AVH-3850DVD	AUX	3.5 mm AUX Cable	♪□	♪目	<b>♪</b> □	♪□	♪Ħ	♪目	<b>♪</b> □	<b>♪</b> Ħ	♪目	۵	♪□	♪□	♪□	<b>&gt;</b>
DVH-885AVBT	USB Direct Connection for Music	CD-IU51		(iPhone 3GS only)	•		<b>&gt;</b>			۵	۵			<b>&gt;</b>	<b>&gt;</b>	۵
DIT GONEDI	AUX	3.5 mm AUX Cable	♪□	♪目	<b>♪</b> □	♪□	♪目	♪目	<b>♪</b> 目	<b>♪</b> □	♪□	۵	♪目	♪□	♪目	<b>♪</b>
DVH-785AV	AUX	3.5 mm AUX Cable	♪□	♪□	<b>♪</b> Ħ	♪□	♪□	♪□	♪□	♪□	♪□	۵	♪□	♪□	♪□	<b>&gt;</b>
DVH-345UB	AUX	3.5 mm AUX Cable	٥	<b>&gt;</b>	<b>&gt;</b>	۵	<b>&gt;</b>	<b>&gt;</b>	<b>♪</b>	۵	۵	۵	۵	<b>♪</b>	۵	<b>&gt;</b>
DEX-P99RS/DEH-80PRS/DEH-9450UB	USB Direct Connection for Music	CD-IU51	<b>♪*</b> ⁴	♪* <sup>4</sup>	(iPhone 4 only)	<b>♪</b>	<b>&gt;</b>	**4	**4	<b>→</b> *4	<b>≯</b> * <sup>4</sup>	<b>&gt;</b>	<b>♪</b>	<b>&gt;</b>	<b>♪</b>	٥
DEH.X9650BT/DEH.X9650SD/DEH.X8750BT/ DEH.X7850BT/DEH.X7750UI/DEH.X6850BT/ DEH.X4950BT/DEH.X4950BT/DEH.X3950BT/ DEH.X2950UI/DEH.X51DEH.X3950BT/ DEH.X2950UI/DEH.X51DEH.X11FH.X785BT/ FH.X575UI/MWH.X585BT/MWH.X395BT/ MWH.X285FD IMWH.X195UI/MWH.X3/ MXT.X396BT	USB Direct Connection for Music	CD-IU51	*4	♪*4	<b>♪*</b> *	<b>&gt;</b>	٥	*4	*4	♪* <sup>4</sup>	<b>♪</b> *4	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	۵
DEH-X1953UB/DEH-X1952UB/DEH-X1950UB(G)/ DEH-155MP(G)/FH-X385UB/MVH-85UB/ DXT-X1969UB/DXT-X196UB	AUX	3.5 mm AUX Cable	<b>&gt;</b>	۵	<b>&gt;</b>	<b>♪</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>♪</b>	۵	۵	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>

- Operations may vary depending on the software version of iPod and iPhone.
   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 and iPhone, switching ACC ON/OFF or reloading the iPod and iPhone may help recovery.
  \*2. Version 2.0 or later software is required when operating the receiver to browse video.
  \*3. When AppRadio Mode is in use. 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.
  \*4. Media App Control and App Mode Available. You can enjoy music using apps installed in iPhone and iPod touch. In Media App Control and App Mode, operability of app on receiver's display is limited. Pioneer Receiver can play audio content from an iPod touch or iPhone with an app that outputs audio signals. Not every app, however, is compatible with Media App Control and App Mode.

#### iPhone 5s, iPhone 5c, iPhone 5, iPhone 6, iPhone 6 Plus, 5th generation iPod touch, and 7th generation iPod nano

	🎝 : Plays audio 🔑 🧮 : Play	s audio and video		iPhone		iPod touch	iPod nano
Model	Interface	Use with	iPhone 5	iPhone 5c, iPhone 5s	iPhone 6, iPhone 6 Plus	5th gen.	7th gen.
ANUL VOORANT	HDMI/USB Direct Connection for Video, Music and AppRadio Mode	CD-IH202*1*2	AppRadio MODE	AppRadio MODE	AppRadio MODE	AppRadio MODE	
AVH-X8850BT	USB Direct Connection for Music	CD-IU52	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>♪</b>
AVH-X5850BT/AVH-X4850DVD/AVH-X2850BT/ AVH-X1850DVD/AVH-X7850BT/AVH-X6850DVD/ AVH-XL5750BT/AVH-XL4750DVD	USB Direct Connection for Video, Music and AppRadio Mode USB	CD-IU52*2	AppRadio	AppRadio	AppRadio	<b>&gt;</b>	<b>♪</b>
AVH-295BT/AVH-195DVD/MVH-AV285BT/MVH-AV185	USB Direct Connection for Music	CD-IU52	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>&gt;</b>
DVH-885AVBT	USB Direct Connection for Music	CD-IU52	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>&gt;</b>
AVH-4850BT/AVH-3850DVD/DVH-785AV/DVH-345UB	AUX	3.5 mm AUX Cable	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>♪</b>	<b>&gt;</b>
DEH-X9650BT/DEH-X9650SD	USB Direct Connection for Music	CD-IU52	*3			*3	<b>&gt;</b>
DEH-X8750BT/DEH-X7750UI/FH-X575UI	USB Direct Connection for Music	CD-IU52	<b>→</b> *3	<b>♪</b> *³		<b>→</b> *3	<b>&gt;</b>
DEH.X7850BT/DEH.X6850BT/DEH.X4950BT/DEH.X4850FD/ DEH.X3950BT/DEH.X2950UI/DEH.X5/DEH.X1/FH.X785BT/ MVH.X385ET/MVH.X395BT/MVH-X285FD/MVH-X195UI/ MVH.X3/MXT.X396BT	USB Direct Connection for Music	CD-IU52	<b>→</b> *3	*3	<b>≯</b> *3	*3	<b>&gt;</b>
DEX-P99RS/DEH-80PRS/DEH-9450UB/DEH-X1953UB/ DEH-X1952UB/DEH-X1950UB(G)/DEH-155MP(G)/ FH-X385UB/MVH-85UB/DXT-X1969UB/DXT-X196UB	AUX	3.5 mm AUX Cable	<b>♪</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>	<b>&gt;</b>

- \*1. Requires Apple\* Lightning Digital AV Adapter and Apple Lightning to USB Cable (sold separately).
  \*2. When AppRadio Mode and AppRadio Mode USB are in use. 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.
  \*3. Media App Control Available. You can enjoy music using apps installed in iPhone and iPod touch. In Media App Control, operability of app on receiver's display is limited. Pioneer Receiver can play audio content from an iPod touch or iPhone with an app that outputs audio signals. Not every app, however, is compatible with Media App Control.

### **Connection Table for Android Devices with Pioneer Receivers**



_> : Plays audio			Connection via		
: Plays audio and video	CD-AH200*1	CD-MU200*1	Bluetooth® *2	USB*3	AUX
Model	Smartphone Compatible	Smartphone Compatible	Bluetooth°	USB Smartphone Compatible	ĕ∮N
AVH-X8850BT	AppRadio MODE		<b>♪</b>		<b>♪</b>
AVH-X5850BT/AVH-X2850BT/AVH-X7850BT/AVH-XL5750BT		AppRadio	<b>♪</b>	<b>♪</b>	<b>♪</b>
AVH-X4850DVD/AVH-X1850DVD/AVH-X6850DVD/AVH-XL4750DVD		AppRadio		<b>♪</b>	<b>♪</b>
AVH-4850BT/AVH-295BT/MVH-AV285BT			<b>♪</b>		<b>♪</b>
DVH-885AVBT			<b>→</b>		<b>♪</b>
AVH-195DVD/AVH-3850DVD/MVH-AV185/DVH-785AV/DVH-345UB					<b>♪</b>
DEH-X9650BT/DEH-X8750BT			<b>&gt;</b>	<b>→</b>	<b>♪</b>
DEH-X7850BT/DEH-X6850BT/DEH-X4950BT/DEH-X3950BT/DEH-X5/FH-X785BT/ MVH-X585BT/MVH-X395BT/MVH-X3/MXT-X396BT			<b>&gt;</b>	<b>&gt;</b>	<b>♪</b>
DEH-X9650SD/DEH-X7750UI/FH-X575UI				<b>♪</b>	<b>♪</b>
DEH-X4850FD/DEH-X2950UI/DEH-X1953UB/DEH-X1952UB/DEH-X1950UB(G)/DEH-X1/ FH-X385UB/MVH-X285FD/MVH-X195UI/MVH-85UB/DXT-X1969UB/DXT-X196UB				<b>&gt;</b>	<b>♪</b>
DEX-P99RS/DEH-80PRS/DEH-9450UB/DEH-155MP(G)					<u> </u>

- \*1. When AppRadio Mode and AppRadio Mode USB are in use. AppRadio App is available from Google Play. Please use in Internet connection situations. AppRadio App & Compatible Apps may not be available in some countries.
  \*2. Audio is transmitted via A2DP (Advanced Audio Distribution Profile). Audio is controlled via AVRCP (Audio/Video Remote Control Profile) and limited accordingly.
  \*3. USB Direct Control for Certain Android Phones is available (via MTP Mode). The connectivity depends on OS version, number of files stored on an Android Phone, etc.

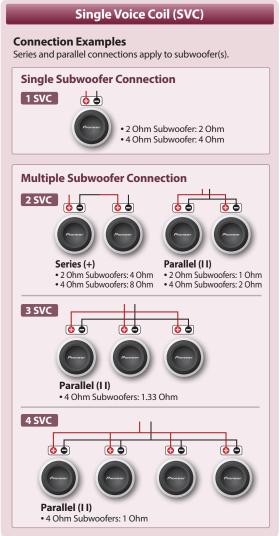


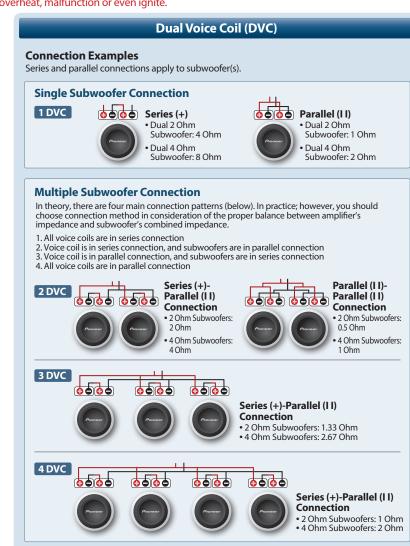
#### General Information about Subwoofer Connection

#### **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.

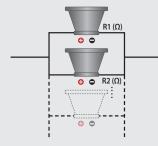


$$R1(\Omega) + R2(\Omega) + \cdots Rn(\Omega) = Rt(\Omega)$$

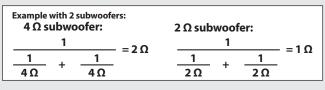
Example with 2 subwoofers:

4  $\Omega$  subwoofer: 4  $\Omega$  + 4  $\Omega$  = 8  $\Omega$ 2  $\Omega$  subwoofer: 2  $\Omega$  + 2  $\Omega$  = 4  $\Omega$ 

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

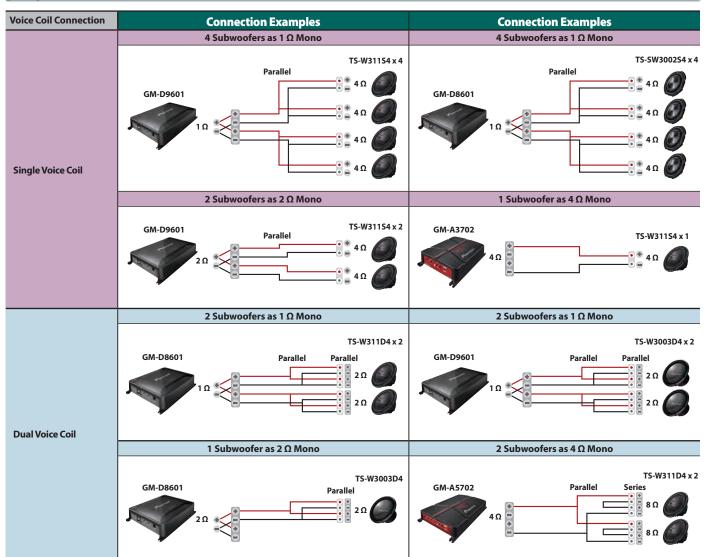


$$\frac{1}{\frac{1}{R1(\Omega)} + \frac{1}{R2(\Omega)} + \cdots + \frac{1}{Rn(\Omega)}} = Rt(\Omega)$$



## **SPECIFICATIONS**

#### Amplifier & Subwoofer Connection Chart



#### Amplifier & Subwoofer Combination Chart

O: DVC Series V ●: DVC Parallel	Wiring						Conventiona	l Subwoofers						
Series: Series W Para: Parallel W	iring			Champion Series PRO			Champion Series					Sh	allow Subwoof	ers
2pc.: 2 Pieces U	se			TS-W3003D4	TS-W311D4	TS-W311S4	TS-W261D4	TS-W261S4	TS-W311	TS-W306R	TS-W256R	TS-SW3002S4	TS-SW2502S4	TS-SW2002D2
4pc.: 4 Pieces U	se			600 W	400 W	400 W	350 W	350 W	300 W	350 W	300 W	400 W	300 W	150 W
GM-D9605	Sub-ch.	2Ω	600 W x 1	● (2 Ω)	-	■ (4 Ω) x 2pc. Para.	_	■ (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	_
GM-D3002	Sub-cn.	4Ω	350 W x 1	○ (8 Ω) x 2pc. Para.	○ (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	-	<b>■</b> (4 Ω)	-	<b>■</b> (4 Ω)	-	_
		1Ω	130 W x 4	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	■ (4 Ω) x 4pc. Para.	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	<b>■</b> (4 Ω) x 4pc. Para.	■ (4 Ω) x 4pc. Para.	<b>■</b> (4 Ω) x 4pc. Para.	(1 Ω)			
	4-ch.	2Ω	200 W x 4	<ul><li>(2 Ω)</li></ul>	♠ (2 Ω)	■ (4 Ω) x 2pc. Para.	● (2 Ω)	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	O (4 Ω) x 2pc. Para.
GM-D9604		4Ω	130 W x 4	○ (8 Ω) x 2pc. Para.	○ (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	○ (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O(4Ω)					
	2-ch. (Bridge)	4Ω	400 W x 2	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	-	_	_	-	■ (4 Ω)	-	-
		1Ω	125 W x 4	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	■ (4 Ω) x 4pc. Para.	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	■ (4 Ω) x 4pc. Para.	<ul><li>(1 Ω)</li></ul>					
	4-ch.	2Ω	150 W x 4	● (2 Ω)	● (2 Ω)	■ (4 Ω) x 2pc. Para.	● (2 Ω)	■ (4 Ω) x 2pc. Para.	O (4 Ω) x 2pc. Para.					
GM-D8604		4Ω	100 W x 4	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	Ο (4 Ω)					
	2-ch. (Bridge)	4Ω	300 W x 2	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	-					
		1Ω	1,200 W x 1	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	-	■ (4 Ω) x 4pc. Para.	_	■ (4 Ω) x 4pc. Para.	_					
GM-D9601	1-ch.	2Ω	800 W x 1	_	_	■ (4 Ω) x 2pc. Para.	_	_	_	_	_	■ (4 Ω) x 2pc. Para.	_	_
		4Ω	500 W x 1	○ (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	_	○ (8 Ω) x 2pc. Para.	_	_	_	_	_	_	_
		1Ω	800 W x 1	<ul> <li>(2 Ω) x 2pc. Para.</li> </ul>	<ul><li>(2 Ω) x 2pc. Para.</li></ul>	■ (4 Ω) x 4pc. Para.	_	■ (4 Ω) x 4pc. Para.	■ (4 Ω) x 4pc. Para.	■ (4 Ω) x 4pc. Para.	<b>■</b> (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)	_	■ (4 Ω) x 2pc. Para.	_	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	_
		4Ω	300 W x 1	○ (8 Ω) x 2pc. Para.	○ (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	<b>■</b> (4 Ω)	<b>■</b> (4 Ω)	■ (4 Ω)	<b>■</b> (4 Ω)	<b>■</b> (4 Ω)	_
	4-ch.	2Ω	95 W x 4	<ul><li>(2 Ω)</li></ul>	<ul><li>(2 Ω)</li></ul>	<b>■</b> (4 Ω) x 2pc. Para.	<ul><li>(2 Ω)</li></ul>	<b>■</b> (4 Ω) x 2pc. Para.	○ (4 Ω) x 2pc. Para.					
GM-A6704	4-cn.	4Ω	60 W x 4	○ (8 Ω) x 2pc. Para.	○ (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	<b>■</b> (4 Ω)	<b>■</b> (4 Ω)	■ (4 Ω)	<b>■</b> (4 Ω)	<b>■</b> (4 Ω)	O(4Ω)
um 7107 01	2-ch. (Bridge)	4Ω	190 W x 2	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	■ (4 Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	■ (4 Ω)	■ (4 Ω)	<b>■</b> (4 Ω)	■ (4 Ω)	■ (4 Ω)	-
	4-ch.	2Ω	65 W x 4	<ul><li>(2 Ω)</li></ul>	<ul><li>(2 Ω)</li></ul>	■ (4 Ω) x 2pc. Para.	<ul><li>(2 Ω)</li></ul>	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	O (4 Ω) x 2pc. Para.
GM-A4704	4-cn.	4Ω	40 W x 4	○ (8 Ω) x 2pc. Para.	○ (8 Ω) x 2pc. Para.	■ (4 Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	O (4 Ω)					
dii A4704	2-ch. (Bridge)	4Ω	130 W x 2	O (8 Ω) x 2pc. Para.	(8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	(8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	○ (4 Ω)					
		2Ω	240 W x 2	<ul><li>(2 Ω)</li></ul>	<ul><li>(2 Ω)</li></ul>	■ (4 Ω) x 2pc. Para.	<ul><li>(2 Ω)</li></ul>	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	O (4 Ω) x 2pc. Para.
GM-A5702	2-ch.	4Ω	150 W x 2	O (8 Ω) x 2pc. Para.	○ (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	■ (4 Ω)	Ο(4Ω)					
um 7157 02	1-ch. (Bridge)	4Ω	480 W x 1	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	-	O (8 Ω) x 2pc. Para.	-	_	-	-	-	-	-
		2Ω	95 W x 2	● (2 Ω)	<ul><li>(2 Ω)</li></ul>	■ (4 Ω) x 2pc. Para.	● (2 Ω)	■ (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	<b>■</b> (4 Ω) x 2pc. Para.	■ (4 Ω) x 2pc. Para.	O (4 Ω) x 2pc. Para.
GM-A3702	2-ch.	4Ω	60 W x 2	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	■ (4 Ω)	■ (4 Ω)	■ (4 Ω)	■ (4 Ω)	<b>■</b> (4 Ω)	O(4Ω)
J 7.5702	1-ch. (Bridge)	4Ω	190 W x 1	O (8 Ω) x 2pc. Para.	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	O (8 Ω) x 2pc. Para.	<b>■</b> (4 Ω)	-					



#### Amplifiers Features Comparison

		PRS-A900	PRS-D800	GM-D9605	GM-D9604	GM-D9601	GM-D8604	GM-D8601	GM-D1004	GM-A6704	GM-A4704	GM-A5702	GM-A3702
Amplifier (	Class		Class-FD	Class-FD*1	Class-FD	Class-D	Class-FD	Class-D	Class-FD				
Current Fe	edback Amplifier	Х											
Load Imped	dance Allowance (Ω)	2 to 8	2 to 8	2 to 8	1 to 8	1 to 8	1 to 8	1 to 8	2 to 8	2 to 8	2 to 8	2 to 8	2 to 8
Bridgeable	e	х	х	X*2	х		х		X*3	х	х	х	Х
4-Layered	Circuit Board		х										
L/R Indeper	ndent Power Supply	Х											
L/R Symme	etric Layout Circuit	Х											
	Control System			Х	Х	Х	Х	х					
MOSFET C	Output Section		Х	Х	Х	Х	Х	х					
	ulated MOSFET	Х	Х										
	olator Input Circuit	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	х	Х
High Grade	e Bipolar Transister	Х											
RCA Input	cs	4-Ch. (Gold-Plated)	2-Ch. (Gold-Plated)	6-Ch.	4-Ch.	2-Ch.	4-Ch.	2-Ch.	4-Ch.	4-Ch.	4-Ch.	2-Ch.	2-Ch.
RCA Outpu	uts (Pass-Through)				x (A-Ch.)	Х	x (A-Ch.)	х					
Speaker Le	evel Input			Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
Automatic : Turn-On	Signal Sensing and			х	х	х	х	х	Х	x	х	х	Х
Hi-Volt Inp (400 mV to	out Level Control o 6.5 V)	x L/R independent	X A/B independent										
Hi-Volt Inp (300 mV to	out Level Control o 6.5 V)									x	х	х	Х
Hi-Volt Inp (200 mV to	out Level Control o 6.5 V)			х	х	х	х	х					
Block-Type	Power/Ground Terminals	x*4 (Gold-Plated)		X*4	X*4	X*4	X*4	X*4					
Terminal	Speaker Terminals	x*5 (Gold-Plated)		X*6	X*6	X*6	X*6	X*6					
Screw-Type Terminal	Power/Ground Terminals		x (Ground: Gold-Plated)							x	х	х	Х
lemmai	Speaker Terminals		x (Gold-Plated)							х	х	х	Х
Lock-Type Terminal	Power/Ground/ Speaker Terminals								х				
Removable Te	erminal/Settings Cover	х	х										
Crossover	Туре			Variable HPF*7/ LPF	Variable HPF/ LPF	Variable LPF	Variable HPF/ LPF	Variable LPF	HPF/LPF	A-Ch.: Variable HPF/LPF B-Ch.: HPF/LPF	A-Ch.: Variable HPF/LPF B-Ch.: HPF/LPF	Variable LPF	LPF
Crossover	Frequency			40 Hz to 500 Hz	40 Hz to 500 Hz	40 Hz to 240 Hz	40 Hz to 500 Hz	40 Hz to 240 Hz	80 Hz	A-Ch.: HPF (40 Hz to 500 Hz)/LPF (80 Hz) B-Ch.: 80 Hz	A-Ch.: HPF (40 Hz to 500 Hz)/LPF (80 Hz) B-Ch.: 80 Hz	40 Hz to 500 Hz	80 Hz
Crossover	Slope			-12 dB/oct. (A-/B-Ch.), -12/-24 dB/oct. (Subwoofer-Ch.)	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.	-12 dB/oct.
Bass Boos	t Frequency			50 Hz (Subwoofer-Ch.)	50 Hz	50 Hz	50 Hz	50 Hz		50 Hz		50 Hz	
Bass Boos	t Level			0 dB to 18 dB (Subwoofer-Ch.)	0 dB to 18 dB	0 dB to 18 dB	0 dB to 18 dB	0 dB to 18 dB		0/6/12 dB		0/6/12 dB	
Bass Boost	t Remote			x (Subwoofer-Ch.)	x (B-Ch.)	х	x (B-Ch.)	х					

<sup>\*1.</sup> Class-FD output for A-ch. & B-ch. and Class-D output for subwoofer-ch. \*2. Bridgeable for A-ch. and B-ch. only. \*3. For the UC model only. See page 58 for details. \*4. 4 to 8-gauge \*5. 12 to 18-gauge \*6. 8 to 16-gauge \*7. HPF: For A-ch. and B-ch. only.

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	GM-D9605	GM-D9604	GM-D9601
Number of Channels	4/3/2	2/1	5/4/3/2	4/3/2	Mono
Max. Wattage (4 $\Omega$ ) Max. Wattage (2 $\Omega$ ) Max. Wattage (1 $\Omega$ ) Max. Wattage Bridged (4 $\Omega$ )	100 W x 4 — — 200 W x 2	250 W x 2 — — 600 W x 1	150 W x 4 (A-/B-Ch.)/700 W x 1 (Subwoofer-Ch.) 200 W x 4 (A-/B-Ch.)/1,200 W x 1 (Subwoofer-Ch.) 400 W x 2*	260 W x 4 400 W x 4 260 W x 4 800 W x 2	1,000 W x 1 1,600 W x 1 2,400 W x 1
$\begin{array}{c} \text{Wattage RMS (4 } \Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS (2 } \Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS (1 } \Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS Bridged (4 } \Omega) \\ \end{array}$	50 W x 4 50 W x 4 — 100 W x 2	125 W x 2 150 W x 2 — 300 W x 1	75 W x 4 (A-/B-Ch.)/350 W x 1 (Subwoofer-Ch.) 100 W x 4 (A-/B-Ch.)/600 W x 1 (Subwoofer-Ch.) 200 W x 2*	130 W x 4 200 W x 4 130 W x 4 400 W x 2	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 50 kHz (A-/B-Ch.)/10 Hz to 500 Hz (Subwoofer-Ch.)	10 Hz to 50 kHz	10 Hz to 240 Hz
Total Harmonic Distortion (1 kHz, 4 Ω)	<0.003 %	<0.004 %	<0.05 % (A-/B-Ch.: 1 kHz/Subwoofer-Ch.: 100 Hz)	<0.05 %	<0.5 % (100 Hz)
Signal-to-Noise Ratio (IHF-A Weighted)	>108 dB	>105 dB	>94 dB	>95 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	315 mm x 60 mm x 200 mm	315 mm x 60 mm x 200 mm	315 mm x 60 mm x 200 mm

	GM-D8604	GM-D8601	GM-D1004	GM-A6704	GM-A4704	GM-A5702	GM-A3702
Number of Channels	4/3/2	Mono	4/3**/2**	4/3/2	4/3/2	2/1	2/1
Max. Wattage (4 $\Omega$ ) Max. Wattage (2 $\Omega$ ) Max. Wattage (1 $\Omega$ ) Max. Wattage Bridged (4 $\Omega$ )	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 —	100 W x 4 100 W x 4 — 200 W x 2**	170 W x 4 250 W x 4 — 500 W x 2	80 W x 4 130 W x 4 — 260 W x 2	300 W x 2 500 W x 2 — 1,000 W x 1	170 W x 2 250 W x 2 — 500 W x 1
$\begin{array}{c} \text{Wattage RMS (4 }\Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS (2 }\Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS (1 }\Omega <= 1 \text{ \% THD+N)} \\ \text{Wattage RMS Bridged (4 }\Omega) \end{array}$		300 W x 1 500 W x 1 800 W x 1	45 W x 4 45 W x 4 — 90 W x 2**	60 W x 4 95 W x 4 — 190 W x 2	40 W x 4 65 W x 4 — 130 W x 2	150 W x 2 240 W x 2 — 480 W x 1	60 W x 2 95 W x 2 — 190 W x 1
Frequency Response	10 Hz to 50 kHz	10 Hz to 240 Hz	10 Hz to 40 kHz	10 Hz to 70 kHz	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 %	<0.05 %	<0.05 %
Signal-to-Noise Ratio (IHF-A Weighted)	>95 dB	>100 dB	>90 dB	>95 dB	94 dB	>96 dB	>95 dB
Dimensions (W x H x D)	265 mm x 60 mm x 200 mm	265 mm x 60 mm x 200 mm	181 mm x 38 mm x 64 mm	356 mm x 60 mm x 215 mm	326 mm x 60 mm x 215 mm	356 mm x 60 mm x 215 mm	246 mm x 60 mm x 180 mm

<sup>\*</sup> Bridgeable for A-ch. and B-ch. only. \*\* For the UC model only. See page 58 for details.

#### Subwoofers Specifications

	TS-W3003D4	TS-W311D4	TS-W311S4	TS-W261D4	TS-W261S4	TS-W311	TS-W306R
Size	30 cm	30 cm	30 cm	25 cm	25 cm	30 cm	30 cm
Max. Music Power (Nominal)	2,000 W (600 W)	1,400 W (400 W)	1,400 W (400 W)	1,200 W (350 W)	1,200 W (350 W)	1,000 W (300 W)	1,300 W (350 W)
Frequency Response	20 Hz to 80 Hz	20 Hz to 125 Hz	20 Hz to 125 Hz	20 Hz to 125 Hz	20 Hz to 125 Hz	20 Hz to 125 Hz	20 Hz to 125 Hz
Sensitivity (In Car/1 W)	96 dB	95 dB	95 dB	93 dB	93 dB	95 dB	96 dB
Impedance	4Ω×2	4Ω×2	4Ω	4Ω×2	4Ω	4 Ω	4Ω
Mounting Depth	176 mm	151 mm	151 mm	139 mm	139 mm	148 mm	135 mm
Cut-Out Dimensions	ø283 mm	ø283 mm	ø283 mm	ø235 mm	ø235 mm	ø278 mm	ø281 mm
Recommended Enclosure	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	18.4 liters to 35.4 liters	24.1 liters to 49.5 liters	24.1 liters to 49.5 liters

	TS-W256R	TS-SW3002S4	TS-SW2502S4	TS-SW2002D2	TS-SWX3002	TS-SWX2502	TS-SWX2002
Size	25 cm	30 cm	25 cm	20 cm	30 cm	25 cm	20 cm
Max. Music Power (Nominal)	1,100 W (300 W)	1,500 W (400 W)	1,200 W (300 W)	600 W (150 W)	1,500 W (400 W)	1,200 W (300 W)	600 W (150 W)
Frequency Response	20 Hz to 160 Hz	20 Hz to 125 Hz	20 Hz to 125 Hz	20 Hz to 200 Hz	20 Hz to 315 Hz	20 Hz to 200 Hz	20 Hz to 250 Hz
Sensitivity (In Car/1 W)	92 dB	93 dB	91 dB	86 dB	92 dB	89 dB	86 dB
Impedance	4 Ω	4Ω	4Ω	2Ωx2	4Ω	4Ω	2Ω×2
Mounting Depth	122 mm	86 mm	78 mm	67 mm	_	_	_
Cut-Out Dimensions	ø230 mm	ø298 mm	ø249 mm	ø179 mm	_	_	_
Recommended Enclosure	18.4 liters to 35.4 liters	14.2 liters to 28.3 liters	9.9 liters to 19.8 liters	4.2 liters to 14.2 liters	_	_	_

	TS-WH500A	TS-WX305T	TS-WX305B	TS-WX120A	TS-WX210A	TS-W252PRS
Size	18 cm x 10 cm x 2	30 cm	30 cm	20 cm x 13 cm	20 cm	25 cm
Max. Music Power (Nominal)	150 W*1 (50 W*2)	1,300 W (350 W)	1,300 W (350 W)	150 W*1 (50 W*2)	150 W*1 (50 W*2)	800 W (400 W)
Frequency Response	20 Hz to 200 Hz	20 Hz to 125 Hz	20 Hz to 125 Hz	30 Hz to 160 Hz	37 Hz to 200 Hz	20 Hz to 2,400 Hz
Sensitivity (In Car/1 W)	98 dB	97 dB	95 dB	98 dB	102 dB	84 dB
Impedance	4 Ω	4Ω	4Ω	_	_	4Ω
Mounting Depth	_	_	_	_	_	178 mm
Cut-Out Dimensions	_	_	_	_	_	ø238 mm
Recommended Enclosure	_	_	_	_		28.3 liters

<sup>\*1.</sup> Maximum output power \*2. Nominal output power

#### Speakers Specifications

	Componer	nt Speakers		TS-D Seri	es					
	TS-C172PRS	TS-C132PRS	TS-S062PRS	TS-D1730C	TS-D1330C	TS-D6902R	TS-D1702R	TS-D1602R	TS-D1302R	TS-D1002R
Size	17 cm 28 mm*1	13 cm 28 mm*1	66 mm	17 cm 23 mm*1	13 cm 23 mm*1	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)*2 60 W (15 W)*3	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	27 Hz to 44 kHz	37 Hz to 44 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	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω
Crossover Frequency	2,300 Hz	2,200 Hz	_	4,500 Hz (with -12 dB)	4,500 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*1	57.3 mm 13.4 mm* <sup>1</sup>	32 mm 42.2 mm* <sup>4</sup>	65 mm 13 mm*1	58 mm 13 mm*1	89 mm	64.5 mm	59 mm	57.3 mm	46.5 mm
Mounting Depth with Mount Adapter	16 cm: 55 mm	_	_	45 mm*5	_	_	_	_	_	_

ø121 mm

ø144 mm

#### TS-A Series

ø142 mm

	TS-A1606C	TS-A1306C	TS-A6996S	TS-A6986S	TS-A6976S	TS-A6966S	TS-A1686S	TS-A1676S	TS-A1376S	TS-A6886R	TS-A4676R	TS-A4633I	TS-A2013i	TS-A2503i
Size	16 cm 20 mm*1	13 cm 20 mm*1	6" x 9"	6" x 9"	6" x 9"	6" x 9"	16 cm	16 cm	13 cm	6" x 8"	4" x 6"	4" x 6"	20 cm	25 cm
Max. Music Power (Nominal)	350 W (60 W)	300 W (50 W)	650 W (100 W)	600 W (100 W)	550 W (90 W)	420 W (60 W)	350 W (60 W)	320 W (50 W)	300 W (50 W)	350 W (60 W)	200 W (30 W)	200 W (30 W)	500 W (80 W)	420 W (80 W)
Frequency Response	32 Hz to 43 kHz	42 Hz to 42 kHz	28 Hz to 38 kHz	27 Hz to 37 kHz	27 Hz to 24 kHz	28 Hz to 36 kHz	32 Hz to 38 kHz	32 Hz to 40 kHz	40 Hz to 39 kHz	28 Hz to 39 kHz	35 Hz to 42 kHz	35 Hz to 42 kHz	25 Hz to 28 kHz	20 Hz to 31 kHz
Sensitivity (1 W/1 m)	91 dB	90 dB	93 dB	92 dB	92 dB	92 dB	91 dB	90 dB	89 dB	91 dB	88 dB	88 dB	91 dB	92 dB
Impedance	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω
Mounting Depth	54 mm 19 mm*1	52 mm 19 mm*1	85 mm	84 mm	84 mm	71 mm	54 mm	44 mm	53 mm	61 mm	43 mm	46 mm	89 mm	115 mm
Cut-Out Dimensions	ø144 mm	ø121 mm	153 mm x 222 mm	153 mm x 222 mm	153 mm x 222 mm	153 mm x 222 mm	ø144 mm	ø128 mm	ø121 mm	133 mm x 191 mm	95 mm x 153 mm	95 mm x 153 mm	ø186 mm	ø236 mm

<sup>\*1.</sup> Tweeter specification

**Cut-Out Dimensions** 

#### TS-R Series

ø123 mm

#### TS-G Series

	TS-R6951S	TS-R1750S	TS-R1650S	TS-R1350S	TS-G1605C	TS-G1645R	TS-G1345R	TS-G1045R	TS-G1615R	TS-G1315R	TS-G1015R	TS-G6932I	TS-G4645R
Size	6" x 9"	17 cm	16 cm	13 cm	16 cm 30 mm*1	16 cm	13 cm	10 cm	16 cm	13 cm	10 cm	6" x 9"	4" x 6"
Max. Music Power (Nominal)	400 W (50 W)	250 W (40 W)	250 W (40 W)	250 W (35 W)	280 W (45 W)	250 W (40 W)	250 W (35 W)	210 W (30 W)	230 W (40 W)	230 W (35 W)	190 W (30 W)	300 W (40 W)	200 W (30 W)
Frequency Response	31 Hz to 35 kHz	36 Hz to 31 kHz	35 Hz to 31 kHz	44 Hz to 31 kHz	30 Hz to 28 kHz	26 Hz to 27 kHz	34 Hz to 25 kHz	38 Hz to 29 kHz	30 Hz to 25 kHz	33 Hz to 24 kHz	38 Hz to 26 kHz	27 Hz to 40 kHz	37 Hz to 26 kHz
Sensitivity (1 W/1 m)	92 dB	90 dB	90 dB	89 dB	89 dB	89 dB	86 dB	84 dB	90 dB	88 dB	86 dB	90 dB	86 dB
Impedance	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω
Mounting Depth	68 mm	47 mm	40 mm	47 mm	39 mm	38 mm	44 mm	43 mm	39 mm	44 mm	43 mm	67 mm	42 mm
Cut-Out Dimensions	153 mm x 222 mm	ø137 mm	ø128 mm	ø111 mm	ø128 mm	ø128 mm	ø121 mm	ø106 mm	ø128 mm	ø121 mm	ø106 mm	153 mm x 222 mm	95 mm x 153 mm

<sup>\*1.</sup> Tweeter specification

#### **PRO Series**

#### Champion Series

151 mm x 220 mm

ø139 mm

ø128 mm

ø121 mm

ø106 mm

## DXT-X1969UB & MXT-X396BT Speaker

	TS-B350PRO	TS-B400PRO	TS-M650PRO	TS-M800PRO	TS-6900PRO	TS-6975 V3	TS-6965 V3	TS-1675 V2	DXT-X1	969UB	DXT-X196UB	MXT-X396BT
Size	8.7 cm	10 cm	17 cm	20 cm	6" x 9"	6" x 9"	6" x 9"	16 cm	6" x 9"	16 cm	16 cm	16 cm
Max. Music Power (Nominal)	250 W (100 W)	500 W (200 W)	500 W (110 W)	700 W (180 W)	600 W (100 W)	550 W (80 W)	450 W (80 W)	300 W (50 W)	230 W (30 W)	200 W (25 W)	200 W (25 W)	200 W (25 W)
Frequency Response	3,500 Hz to 27 kHz	2,800 Hz to 27 kHz	50 Hz to 18 kHz	40 Hz to 15 kHz	20 Hz to 40 kHz	28 Hz to 27 kHz	23 Hz to 26 kHz	35 Hz to 20 kHz	28 Hz to 32 kHz	31 Hz to 16 kHz	31 Hz to 16 kHz	31 Hz to 16 kHz
Sensitivity (1 W/1 m)	100 dB	106 dB	94 dB	96 dB	92 dB	92 dB	91 dB	92 dB	88 dB	88 dB	88 dB	88 dB
Impedance	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω	4Ω
Mounting Depth	44 mm	68 mm	81 mm	93 mm	89 mm	92 mm	84 mm	58 mm	66.3 mm	41 mm	41 mm	41 mm
Cut-Out Dimensions	ø75 mm	ø95 mm	ø148 mm	ø184 mm	153 mm x 222 mm	151 mm x 220 mm	151 mm x 220 mm	ø128 mm	153 mm x 222 mm	ø128 mm	ø128 mm	ø128 mm

#### Other Speakers

	TS-S20C	TS-S20	TS-F1634R	TS-F1034R	TS-S250	TS-T110	TS-MR2040	TS-MR1640	TS-MR1600
Size	20 mm	20 mm	16 cm	10 cm	40 mm	22 mm	20 cm	16 cm	16 cm
Max. Music Power (Nominal)	270 W (50 W)	200 W (50 W)	200 W (25 W)	150 W (20 W)	250 W (50 W)	120 W (40 W)	200 W (40 W)	160 W (30 W)	100 W (25 W)
Frequency Response	2,200 Hz to 32 kHz	3,000 Hz*1/ 1,200 Hz*2 to 26 kHz	31 Hz to 16 kHz	45 Hz to 18 kHz	6,000 Hz to 40 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)	91 dB	92 dB	88 dB	86 dB	97 dB	90 dB	92 dB	91 dB	90 dB
Impedance	6Ω	8Ω	4Ω	4Ω	8Ω	4Ω	4Ω	4Ω	4Ω
Mounting Depth	_	_	41 mm	43 mm	_	_	75 mm	56 mm	56 mm
Cut-Out Dimensions	_	_	ø128 mm	ø102 mm	_	_	ø183 mm	ø127 mm	ø127 mm

<sup>\*1.</sup> Tweeter specification \*2. With back chamber, 800 Hz, -12 dB/oct. HPF \*3. Without back chamber, 400 Hz, -12 dB/oct. HPF \*4. With back chamber \*5. With 6"x 9" tweeter bracket



#### Subwoofers Thiele/Small Parameters

	TS-W3003D4	TS-W311D4	TS-W311S4	TS-W261D4	TS-W261S4	TS-W311
Nom.Dia	30 cm	30 cm	30 cm	25 cm	25 cm	30 cm
Qts	0.59	1.05	0.79	1.04	0.85	1.17
Qms	11.5	13.79	14.96	15.49	14.59	9.64
Qes	0.62	1.02	0.84	1.12	0.9	1.311
Resonance Frequency	35.0 Hz	43.0 Hz	42.0 Hz	46.0 Hz	45.0 Hz	45.0 Hz
Vas [Liters]	34.6	32.7	37.5	17.7	18.6	34.1
/as [ft³]	1.22	1.15	1.32	0.63	0.66	1.21
/d [Liters]	0.72	0.56	0.42	0.35	0.33	0.56
/d [ft³]	2.54 E-02	1.98E-02	1.47E-02	1.25E-02	1.15E-02	1.97E-02
id [m²]	5.20 E-02	5.20E-02	5.20E-02	3.50E-02	3.50E-02	5.06E-02
d [ft²]	0.56	0.56	0.56	0.38	0.38	0.54
Revc	Dual 2.9 Ω	Dual 2.9 Ω	3.0 Ω	Dual 3.3 Ω	3.2 Ω	3.1 Ω
Levc (at 2,000 Hz)	5.99 mH (8 Ω) 1.53 mH (2 Ω)	4.85 mH (8 Ω) 1.23 mH (2 Ω)	2.87 mH	4.91 mH (8 Ω) 1.26 mH (2 Ω)	2.92 mH	1.29 mH
(max [mm]	13.8	10.8	8.0	10.1	9.3	11.0
(max [ln]	0.54	0.4	0.3	0.3	0.4	0.4
Zmax	112.8 (8 Ω) 24.51 (2 Ω)	74.19 (8 Ω) 18.6 (2 Ω)	47.27	85.48 (8 Ω) 18.61 (2 Ω)	47.17	21.86
ВІ	22.4 Tm (8 Ω) 11.2 Tm (2 Ω)	16.2 Tm (8 Ω) 8.2 Tm (2 Ω)	13.0 Tm	15.3 Tm (8 Ω) 7.7 Tm (2 Ω)	11.5 Tm	9.6 Tm
Rms	4.44 Ns/m	3.39 Ns/m	2.88 Ns/m	2.33 Ns/m	2.42 Ns/m	3.89 Ns/m
Vims	257 q	166 g	164 g	123 g	124 g	133 q
Cms	8.3 x 10-5 m/N	7.6 x 10-5 m/N	8.7 x 10-5 m/N	9.5 x 10-5 m/N	9.9 x 10-5 m/N	9.4 x 10-5 m/N
Mg. Wt.	2,800 g	2,100 g	2,100 g	1,700 g	1,700 g	1,240 g
Flux Density	8.712 Gauss	7.381 Gauss	6.926 Gauss	7.177 Gauss	6.813 Gauss	8.425 Gauss
lag [mm]	10	10	10	10	10	10
lag [In]	0.39	0.39	0.39	0.39	0.39	0.39
lvc [mm]	37.6	31.6	26.0	30.2	28.6	32.0
lvc [In]	1.48	1.24	1.02	1.19	1.13	1.26
/C. Diameter	55 mm	48 mm	48 mm	40 mm	40 mm	48 mm
Eff	0.23 %	0.23 %	0.29 %	0.16 %	0.17 %	0.23 %
5.P.L.	95 dB	95 dB	95 dB	93 dB	93 dB	95 dB
Nominal Power	600 W	400 W	400 W	350 W	350 W	300 W
M.M.P.	2,000 W	1,400 W	1,400 W	1,200 W	1,200 W	1,000 W
p. Displacement [Liter]	2.71	1.67	1.67	1.22	1.22	1.75
p. Displacement [ft³]	0.095	0.059	0.059	0.043	0.043	0.061
Recom. Enclosure [Liter]	35.38	35.38	35.38	22.64	22.64	35.38
Recom. Enclosure [ft <sup>3</sup> ]	1,25	1,25	1.25	0.8	0.8	1,25
F <sub>o</sub> (in Cabinet)	49.2	55.8	55.7	61.6	60.2	60.2
Q <sub>o</sub> (in Cabinet)	0.83	1.25	1.09	1.28	1.13	1.64

	TS-W306R	TS-W256R	TS-SW3002S4	TS-SW2502S4	TS-SW2002D2	TS-W252PRS
Nom.Dia	30 cm	25 cm	30 cm	25 cm	20 cm	25 cm
Qts	0.81	0.66	0.61	0.97	0.98	0.289
Qms	15.6	17.1	13.95	12.04	5.23	8.125
Qes	0.86	0.68	0.64	1.06	1.20	0.300
Resonance Frequency	24.6 Hz	32.7 Hz	35.0 Hz	42.0 Hz	65.0 Hz	29.4 Hz
Vas [Liters]	102.1	32.2	35.4	18.5	3.8	30.66
Vas [ft <sup>3</sup> ]	3.61	1.14	1.25	0.65	0.13	1.083
Vd [Liters]	0.60	0.22	0.51	0.26	0.06	0.313
Vd [ft³]	2.12E-02	7.64E-03	1.80E-02	9.16E-03	2.00E-03	1.33E-01
Sd [m <sup>2</sup> ]	5.15E-02	3.46E-02	5.78E-02	3.99E-02	2.02E-02	3.43E-02
Sd [ft <sup>2</sup> ]	0.55	0.37	0.62	0.43	0.22	0.369
Revc	3.6 Ω	3.6 Ω	3.0 Ω	3.0 Ω	Dual 1.5 Ω	2.5 Ω
Levc (at 2,000 Hz)	1.81 mH	2.16 mH	2.27 mH	1.91 mH	1.08 mH (4 Ω) 0.27 mH (1 Ω)	0.506 mH
Xmax [mm]	11.7	6.3	8.8	6.5	2.8	9.1
Xmax [In]	0.46	0.25	0.35	0.26	0.11	0.36
Zmax	46.8 Ω	67.8 Ω	70.37 Ω	40.99 Ω	17.12 (4 Ω) 4.53 (1 Ω)	74.61 Ω
ВІ	10.3 Tm	12.1 Tm	17 Tm	12 Tm	10 Tm (4 Ω) 5 Tm (1 Ω)	16.150 Tm
Rms	1.53 Ns/m	1.50 Ns/m	4.29 Ns/m	3.79 Ns/m	7.08 Ns/m	3.617 Ns/m
Mms	153.9 g	124.7 g	243 g	171 g	90 g	158.99 g
Cms	0.27 mm/N	0.19 mm/N	8.50E-05 m/N	8.20E-05 m/N	6.60E-05 m/N	1.840E-04 m/N
Mg. Wt.	840 g	840 g	2,030 g	1,030 g	840 g	3,040 g
Flux Density	619 mT	552 mT	4,500 Gauss	5,600 Gauss	6,900 Gauss	5,100 Gauss
Hag [mm]	8	8	10	10	8	35
Hag [In]	0.31	0.31	0.39	0.39	0.31	1.378
Hvc [mm]	31.3	20.5	28	23	13.6	17
Hvc [In]	1.23	0.81	1.10	0.91	0.54	0.660
VC. Diameter	40 mm	35 mm	55 mm	48 mm	40 mm	76 mm
Eff	0.17 %	0.16 %	0.23 %	0.13 %	0.08 %	0.28 %
S.P.L.	96 dB	92 dB	93 dB	91 dB	86 dB	84.0 dB
Nominal Power	350 W	300 W	400 W	300 W	150 W	400 W
M.M.P.	1,300 W	1,100 W	1,500 W	1,200 W	600 W	800 W
Sp. Displacement [Liter]	1.09	0.83	1.11	0.68	0.44	2.54
Sp. Displacement [ft <sup>3</sup> ]	0.038	0.029	0.039	0.024	0.016	0.090
Recom. Enclosure [Liter]	35.4	22.6	22.6	17.0	14.2	28.3
Recom. Enclosure [ft³]	1.25	0.8	0.800	0.600	0.500	1.0
F <sub>0</sub> (in Cabinet)	48.5 Hz	50.9 Hz	58.0	61.0	73.0	42.4
Q <sub>0</sub> (in Cabinet)	1.60	1.02	0.97	1.40	1.10	0.417

#### **SPECIFICATIONS**

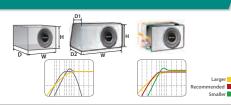
#### Subwoofer Enclosures

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

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



TS-W3003D4	TS-W311D4	TS-W311S4	TS-W261D4	TS-W261S4	TS-W311
35.4	35.4	35.4	22.6	22.6	35.4
396 x 314 x 396	396 x 396 x 314	396 x 396 x 314	351 x 351 x 269	351 x 351 x 269	396 x 396 x 314
24.1	24.1	24.1	18.4	18.4	24.1
49.5	49.5	49.5	35.4	35.4	49.5
	35.4 396 x 314 x 396 24.1	35.4 35.4 35.4 396 x 314 x 396 396 x 396 x 314 24.1 24.1	35.4 35.4 35.4 35.4 35.4 396 x 314 x 396 x 396 x 314 24.1 24.1 24.1	35.4 35.4 35.4 22.6 396 x 314 x 396 396 x 314 396 x 314 351 x 351 x 269 24.1 24.1 24.1 18.4	35.4 35.4 35.4 22.6 22.6 396 x 314 x 396 x 396 x 314 396 x 396 x 314 351 x 351 x 269 351 x 351 x 269 24.1 24.1 18.4 18.4

Recommended Enclosure Volumes and Dimensions*	TS-W306R	TS-W256R	TS-SW3002S4	TS-SW2502S4	TS-SW2002D2
Enclosure Volume (I)					
Center	35.4	22.6	22.6	17.0	14.2
Box Dimensions: W x H x D (mm)	396 x 396 x 314	351 x 351 x 269	_	_	_
Box Dimensions: W x H x D1 x D2 (mm)	_	_	769 x 357 x 104 x 168	714 x 320 x 99 x 156	626 x 313 x 108 x 143
Min.	24.1	18.4	14.2	9.9	4.2
Max.	49.5	35.4	28.3	19.8	14.2

<sup>\*</sup> Measured externally. 19 mm MDF particle board recommended.

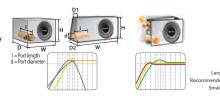
#### **VENTED ENCLOSURES (BASS REFLEX)**

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.



TS-W261D4 TS-W261S4 TS-W311

Recommended Enclosure Volumes , Dimensions* and Port Size	TS-W3003D4	TS-W311D4	TS-W311S4	TS-W261D4	TS-W261S4	TS-W311
Enclosure Volume (I)						
Center	42.5	42.5	42.5	31.1	31.1	42.5
Box Dimensions: W x H x D (mm)	461 x 373 x 338	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 I (mm)	ø76 x 152	ø76 x 165	ø76 x 152	ø76 x 178	ø76 x 127	ø76 x 127
Min.	35.4	35.4	35.4	25.5	25.5	35.4
Max.	56.6	56.6	56.6	42.5	42.5	56.6

Recommended Enclosure Volumes , Dimensions* and Port Size	TS-W306R	TS-W256R	TS-SW3002S4	TS-SW2502S4	TS-SW2002D2					
Enclosure Volume (I)										
Center	42.5	31.1	22.6	17.0	14.2					
Box Dimensions: W x H x D (mm)	461 x 373 x 338	396 x 353 x 314	_		_					
Box Dimensions: W x H x D1 x D2 (mm)	_	_	769 x 357 x 104 x 168	714 x 320 x 99 x 156	626 x 313 x 108 x 143					
Port Size: d x I (mm)	ø76 x 267	ø76 x 165	ø76 x 279	ø76 x 330	ø76 x 254					
Min.	35.4	25.5	18.4	14.2	7.1					
Max.	56.6	42.5	28.3	19.8	14.2					

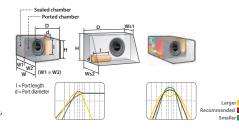
<sup>\*</sup> Measured externally. 19 mm MDF particle board recommended.

#### **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-W306R	TS-W256R	TS-SW3002S4	TS-SW2502S4	TS-SW2002D2
Enclosure Volume (I)					
Center (Sealed Chamber/Ported Chamber)	25.5/25.5	17.0/17.0	17.0/17.0	12.7/12.7	11.3/11.3
Box Dimensions: W x H x D (mm)	481 x 385 x 385	449 x 332 x 332	_		
Box Dimensions: Ws1 x Ws2 x H x D (mm)	_	_	174 x 314 x 388 x 559	193 x 283 x 338 x 509	172 x 263 x 313 x 552
Port Size: d x I (mm)	ø76 x 64	ø76 x 102	ø76 x 127	ø76 x 114	ø76 x 165
Min. (Sealed Chamber/Ported Chamber)	19.8/19.8	12.7/12.7	14.2/14.2	9.9/9.9	7.1/7.1
Max. (Sealed Chamber/Ported Chamber)	31.1/31.1	22.6/22.6	22.6/22.6	17.0/17.0	11.3/11.3

#### **TURBO (High Output Bandpass)**

Recommended Enclosure Volumes , Dimensions* and Port Size	TS-W3003D4	TS-W311D4	TS-W311S4	TS-W261D4	TS-W261S4	TS-W311
Enclosure Volume (I)						
Low (Sealed Chamber/Ported Chamber)	16/98	16/98	16/98	12/85	12/85	16/98
Mid (Sealed Chamber/Ported Chamber)	16/88	16/88	16/88	12/75	12/75	16/88
High (Sealed Chamber/Ported Chamber)	16/78	16/78	16/78	12/65	12/65	16/78
Box Dimensions: W x H x D (mm)	438 x 488 x 638	438 x 488 x 638	438 x 488 x 638	411 x 478 x 586	411 x 478 x 586	438 x 488 x 638
Port Size: w x h (mm)	400 x 150	400 x 150	400 x 150	373 x 150	373 x 150	400 x 150

<sup>\*</sup> Measured externally. 19 mm MDF particle board recommended.

Enclosure for TURBO (High Output Bandpass)







#### Symbols for Special Features

Disp	lay	
Touch Panel Screen		Touch Panel Screen
7.0W		7.0-inch Wide Screen
6.2W		6.2-inch Wide Screen
3.5W		3.5-inch Wide Screen
3.0W		3.0-inch Wide Screen
VGA	<b>8</b> %	VGA Display
OEL		OEL Display
LED		LED Backligh
FULL DOT		Full Dot LCD Display

····· VA LCD Display

····· Multi-Language Display

Media & For	mati

₩VA LCD

DVD VIDEO		DVD Video Compatible
DVD-R/RW)		DVD-R/RW Compatible
CD-R/RW		CD-R/RW Compatible
flac		FLAC (Free Lowloss Audio Codec) Audio
MP3		MP3 (MPEG Audio Layer-3)
WMA		WMA (Windows Media™ Audio)
AAC		iTunes AAC (Advanced Audio Coding)
DIVX.		DivX® Digital Media
DOLBY	□ DOLBY	Dolby® Digital Decoder

#### Connectivity



· · · App Store



Google Play



· · · Apple CarPlay



Made for iPod

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Pioneer ARC Pioneer ARC Smartphone powered by Android Smartphone Compatible .....

•••		Compatible
	AppRadioLIVE	 AppRadioLIV

AppRadio ..... AppRadio Mode

Media App Control APP Mode

MirrorLink ..... Built-in MirrorLink™

Bluetooth Built-in Bluetooth ····· Bluetooth Adapter Ready ····· Siri Eyes Free Compatible

····· SD/SDHC Memory Card Compatible ĕ∮N ····· AUX-In Connectivity (mini-jack) ····· USB Direct Connection **∜** иѕв Dual USB Ports Hami ..... HDMI Input

☐ QUICK CHARGE ..... USB Quick Charge for Android (CDP) 🖞 🌠 ..... 1A High Current USB

..... Back Up Camera Ready ····· Pioneer TV Tuner Ready

#### Audio

MIXTRAX ..... MIXTRAX MIXTRAX EZ ... MIXTRAX EZ

Spotify ··· Spotify®

····· Hi-Volt Preout 4 RCA Preout Subwoofer Control 24-Rit DA Converter Auto EQ ····· Dual Zone Audio/Video SUPER TUNER III O ...... Supertuner III D RDS ..... Radio Data System

((;)) SHORT ..... Shortwave Tuner MOSFET 50 W x 4 ..... MOSFET 50 W x 4 DSP Digital Signal Processor ..... Specialized Audio Parts

#### Amplifier

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

#### General

Music Browser	····· Music Browser
DETACT OF	MARIE Detachable Face Security™ (DFS)
AUTO FLAP	······ Auto Flap Face
FLAP FACE	····· Flap Face
MULTIPLE COLOR	······ Color Customization
Separated Color	Separated Color Customization
FLASHI	Flashing Color
Leveryey	····· Lever Key
Rotary Commander	····· Rotary Commander
WIRED REMOTE INPUT	····· Wired Remote Input
Anti-Dust	····· Anti-Dust Design

#### Subwoofer & Speaker

OPEN &	······ Open & Smooth Sound Concept
	··· ib-FLAT Subwoofer
Twaron°	Twaron® Aramid Fiber Cone
MULTILAY EM	······ Multilayer Mica Matrix Cone
INJECTION MOLDED	IMPP™(Injection-Molded Polypropylene) Composite Cone
HOLOGRAM	Pioneer 3D Hologram Sticker Attached to Product Packaging Carton
HVI	HVT (Horizontal Vertical Transforming) Technology
High Dynamic Range	······ TS-A Series: High Dynamic Range
High 1111	······ TS-R Series: High Sensitivity

Sensitivity

····· TS-G Series: Wide Application

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